



# Royal Oak

Master Plan, 2050; Adopted 5/19/2025



At a Regular Meeting of the Royal Oak City Commission held on Monday May 19, 2025 in City Hall, 203 South Troy Street, the following Resolution was adopted:

Whereas, the Michigan Planning Enabling Act (Public Act 33 of 2008, as amended), provides for a local unit of government to prepare, adopt, amend, and implement a Master Plan to guide and accomplish development that satisfies identified criteria; and

Whereas, in 2021 the Royal Oak Planning Commission adopted resolutions identifying the need to create a new Master Plan and commenced the process to retain a consultant to assist in the development of a new Master Plan; and

Whereas, in 2022 the Royal Oak City Commission concurred with the Royal Oak Planning Commission's recommendation and entered into contract with DPZ CoDesign; and

Whereas, the City and DPZ CoDesign have provided a wide range of public engagement and receipted valuable and diverse feedback throughout the process of creating a new Master Plan; and

Whereas, the City has consulted with representatives of contiguous communities in respect to their planning so that conflicts may be avoided; and

Whereas, the City has also consulted with county, regional, state and federal agencies, public airport and transportation agencies, utility companies, railroad companies, etc. to identify conflicts or inconsistencies with their objectives and directives; and

Whereas, the Royal Oak Planning Commission has prepared a new Master Plan, which includes a future land use map, as a guide for physical development within the City of Royal Oak, Michigan; and

Whereas, the Royal Oak Planning Commission's new Master Plan considered all subjects identified in the Michigan Planning Enabling Act that were pertinent to the future development of the City; and

Whereas, the Royal Oak Planning Commission's new Master Plan is also based on the culmination of analyzing data, assessing present conditions, identifying areas of preservation, predicting growth, identifying areas of growth, assessing capacity, garnering opinion, soliciting input, and considering professional recommendations; and

Whereas, the Royal Oak Planning Commission, at its April 8, 2025, regular meeting adopted and approved in its entirety the Royal Oak Master Plan 2050, inclusive of all maps, plats, charts, and other related matter, figures and the future land use map and forwarded it to the Royal Oak City Commission for concurrence and final adoption; and

Whereas, in 2021 the Royal Oak City Commission adopted a resolution asserting its right, under the Michigan Planning Enabling Act (Public Act 33 of 2008, as amended), to approve or reject the new Royal Oak Planning Commission's Master Plan.

Now, therefore, be it resolved, the Royal Oak City Commission, at its May 20, 2025, regular meeting hereby adopts and approves in its entirety the Royal Oak Master Plan 2050, inclusive of all maps, plats, charts, and other related matter, figures and the future land use map.

I hereby certify that the foregoing is a true and correct copy of a Resolution adopted by the Royal Oak City Commission at a meeting held on May 19, 2025.

  
Melanie Halas, City Clerk

The City of Royal Oak Planning Commission, at its regular meeting of April 8, 2025, took the following action regarding the City of Royal Oak Master Plan 2050:

Whereas per Chapter 134 of the City of Royal Oak Code of Ordinances the Royal Oak Planning Commission was organized under the Michigan Planning Enabling Act (Public Act 33 of 2008, as amended) with specific powers and duties; and

Whereas the Michigan Planning Enabling Act (Public Act 33 of 2008, as amended), provides for a local unit of government to prepare, adopt, amend, and implement a Master Plan to guide and accomplish development that satisfies identified criteria; and

Whereas in 2021 the Royal Oak Planning Commission adopted resolutions identifying the need to create a new Master Plan and commenced the process to retain a consultant to assist in the development of a new Master Plan; and

Whereas in 2022 the Royal Oak City Commission concurred with the Royal Oak Planning Commission's recommendation and entered into contract with DPZ CoDesign; and

Whereas the City and DPZ CoDesign have provided a wide range of public engagement and receipted valuable and diverse feedback throughout the process of creating a new Master Plan; and

Whereas the City has consulted with representatives of contiguous communities in respect to their planning so that conflicts may be avoided; and

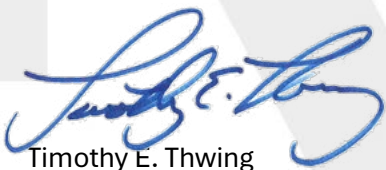
Whereas the City has also consulted with county, regional, state and federal agencies, public airport and transportation agencies, utility companies, railroad companies, etc. to identify conflicts or inconsistencies with their objectives and directives; and

Whereas the Royal Oak Planning Commission has prepared a new Master Plan, which includes a future land use map, as a guide for physical development within the City of Royal Oak, Michigan; and

Whereas the Royal Oak Planning Commission's new Master Plan considered all subjects identified in the Michigan Planning Enabling Act that were pertinent to the future development of the City; and

Whereas the Royal Oak Planning Commission's new Master Plan is also based on the culmination of analyzing data, assessing present conditions, identifying areas of preservation, predicting growth, identifying areas of growth, assessing capacity, garnering opinion, soliciting input, and considering professional recommendations.

Now, therefore, be it resolved the Royal Oak Planning Commission, at its April 8, 2025, regular meeting hereby adopts and approves in its entirety the Royal Oak Master Plan 2050, inclusive of all maps, plats, charts, and other related matter, figures and the future land use map and forwards it to the Royal Oak City Commission for concurrence and final adoption.



Timothy E. Thwing  
Director of Community Development

This page is intentionally blank.



# Acknowledgements

## The People of Royal Oak

### City Commission

Michael Fournier, Mayor

Monica Hunt, Mayor Pro-Tem

Rebecca Cheezum

Sharlan Douglas

Amanda Herzog

Brandon Kolo

Melanie Macey

Kyle DuBuc (emeritus)

Patricia Paruch (former)

### Planning Commission

Gary Quesada, Chair

Woody Gontina, Vice Chair

Brian Cooper

Jim Ellison

Clyde Esbri

Ann Bueche (emeritus)

Paul Curtis (emeritus)

Eric Klooster (emeritus)

### Prepared by

DPZ CoDesign

McKenna

Jacobs

LandUseUSA

### City Staff

Timothy Thwing, Director of Community Development

Joseph Murphy, Director of Planning

Alexander Bahorski, Planner

Douglas Hedges, Planner

**Master Plan Adopted by the Royal Oak Planning Commission: April 8, 2025**

**Master Plan Adopted by the Royal Oak City Commission: May 19, 2025**





## Introduction

1.1. Background.....	6
1.2. Goals.....	7
1.3. Summary of Actions.....	8

## 1. Reinforce The City's Structure

1.1. Future Land Use Structure.....	12
1.2. Future Land Use Categories.....	12
1.3. Land Use and Growth Pressure.....	18
1.4. Zoning Plan.....	21

## 2. Advance Sustainability and Climate Action

2.1. Continue Current Efforts.....	26
2.2. Reduce Energy Use in Buildings.....	26
2.3. Reduce Mobility-related Impacts.....	27
2.4. Use Natural Means of Water Management.....	30
2.5. Support Recycling and Composting.....	32
2.6. Increase Native and Climate Tolerant Trees and Plantings.....	33
2.7. Participate in Regional Sustainability.....	34

## 3. Provide More Housing Options

3.1. Identify Where and How to Grow.....	36
3.2. Provide Housing For All Stages of Life.....	38
3.3. Provide Lower Cost Housing.....	44
3.4. Align Policies.....	46

## 4. Preserve and Enhance Neighborhood Character

4.1. Preserve Neighborhood Character.....	50
4.2. Reinvigorate Neighborhood Main Streets and Nodes.....	51

## 5. Reinforce Activity Centers

5.1. Distribute Mixed-use Places.....	58
5.2. Downtown.....	59
5.3. 13 Mile and Woodward.....	66
5.4. Delemere Industrial Area.....	67
5.5. Bellaire.....	70

## 6. Increase Mobility Across the City

6.1. Increase Access to Destinations.....	72
6.2. Support Walking and Biking.....	73
6.3. Implement Active Speed Management.....	73
6.4. Balance Street Priority.....	74
6.5. Right-Size Streets.....	76
6.6. Improve Sidewalks.....	81
6.7. Increase Crossing Safety.....	82
6.8. Add and Diversify Street Trees.....	85
6.9. Provide Street Furniture.....	85
6.10. Build Neighborhood Greenways and Optimize Bicycle Accommodations.....	86
6.11. Improve Woodward.....	89
6.12. Accommodate Growth in Delemere.....	90
6.13. Invest in Public Transportation.....	93
6.14. Improve the Southwest Gateway.....	94
6.15. Detailed Mobility Maps.....	95

This page is intentionally blank.



# Introduction

# Introduction

## Background

### 1.1. Background

Royal Oak is a vibrant and highly livable community, celebrated for its incredible park system, active downtown, thriving employment base, and charming shops and restaurants. The city has also taken meaningful steps toward progressive policies, including sustainability, climate action, and initiatives supporting aging in place. As one of the most walkable and bikeable cities in Metro Detroit, Royal Oak is a model for the region.

While Royal Oak doesn't require sweeping changes, it does benefit from thoughtful, incremental improvements. Like many cities, late 20th-century urban planning focused heavily on cars, high traffic volumes, and zoning that prioritized use separation. These approaches have undermined some of Royal Oak's historic charm, especially outside its residential neighborhoods. They have also stifled growth, leading to the decline of commercial properties along major roads and a housing shortage in the face of rising demand. Additionally, the city is bordered by large regional thoroughfares and highways that limit mobility, and the increased traffic and speed along Woodward Avenue and accessing the interstate and mile roads has negatively impacted the community despite their regional convenience.

Fortunately, Royal Oak's historic framework and forward-thinking leadership provide a strong foundation for addressing these challenges. The city has already taken important steps through a series of policies, programs, plans, and infrastructure improvements. These efforts should be celebrated and further unified under a comprehensive master plan that articulates a cohesive vision for the future.

For many residents, the future of Royal Oak will feel familiar: great neighborhoods, parks, and schools; vibrant spaces to gather with friends and neighbors; excellent dining and shopping; and dynamic community events. Through strategic changes to land use, streetscapes, policies, programs, and development regulations, these cherished qualities can be enhanced.

This master plan envisions a Royal Oak that is safer and easier to navigate, with a more dynamic downtown whose vibrancy extends to additional, walkable main street districts more easily accessible from the city's neighborhoods. It aims to elevate the quality of smaller, existing neighborhood commercial areas, provide housing that aligns with current demand in a thoughtful and predictable way, and achieve these goals while preserving the unique character of existing neighborhoods.



### 1.2. Goals

This master plan establishes a vision that is solidly based in Royal Oak's historic, physical structure, directing the city's growth to contribute towards an increased quality of life for all residents and a more sustainable future in the face of a changing climate. Goals are simple and achievable, the implementation of which are enumerated in details in subsequent chapters.

#### A. Reinforce the City's Structure

---

To retain and refine the historic structure of Royal Oak by more clearly defining the character of places throughout the city, reversing the problems caused by use separation and car-centric design in the late 20th Century, and coordinating the city, developers, and business owners in a shared future vision for Royal Oak.

#### B. Advance Sustainability and Climate Action

---

To implement the Sustainability and Climate Action Plan, advance Royal Oak as a regional and statewide leader in sustainability, and utilize land use and transportation policy to reduce transportation-related emissions, furthering the city's sustainability goals.

#### C. Provide More Housing Options

---

To accelerate market-based solutions that provide greater housing type diversity and housing supply, to provide housing options for every stage of life, and to provide for attainably-priced housing to the extent feasible under Michigan law.

#### D. Preserve and Enhance Neighborhood Character

---

To enhance Royal Oak's high quality neighborhoods by preserving their existing character, adding to existing qualities in places they are lacking, and improving access to parks and existing neighborhood-scaled retail areas.

#### E. Reinforce Activity Centers

---

To provide residents and visitors with significant destinations for shopping, dining, services, and entertainment that are diverse in character and distributed throughout the city.

#### F. Increase Mobility Across the City

---

To ensure people who walk, roll, bicycle, drive, or use public transit are well accommodated throughout Royal Oak by optimizing and expanding shared and dedicated facilities, making streets safe for everybody, and connecting the city's many destinations.

#### G. Align Policies

---

To align Royal Oak's future land use policy, zoning regulations, and other ordinances in order to produce the future city that residents and city leadership desire, directing the development and business community, and expediting development and zoning processes, recognizing that the city, developers, and business owners are partners in building Royal Oak's future.

# Introduction

## Summary of Actions

### 1.3. Summary of Actions

The following list summarizes the actions recommended throughout the Master Plan, grouped by the primary means in which they will be accomplished. A number of actions are related to goals and strategies in the Sustainability and Climate Action Plan (S-CAP) or Aging in Place Plan (AIP-P), indicated with reference to those plans. Reference is also provided to the overarching goals of this Master Plan, whether addressing a single goal or multiple.

#### 1. Adopt the Future Land Use Map

Adopt the Future Land Use Map with a focus on preserving the scale and character of existing neighborhoods while identifying appropriate areas for “Missing Middle” and medium-to-high density housing. Promote diverse housing options, including multi-family units, along major corridors and neighborhood hubs, supporting schools and neighborhood businesses.

Goals: A, B, D, E, G

Actions: 3.1.0, 3.2.0.1, 3.2.0.2, 3.3.0, 3.4.1, 4.3.5

S-CAP: 6.4.1

AIP-P: 4.3

#### 2. Increase Public Education and Outreach Associated with Master Plan Goals and Sustainability Actions

Promote public education and outreach to support community and master plan goals. Focus on topics such as energy efficiency, sustainable landscaping, water conservation, and small-scale development aligned with updated regulations. Use these efforts to engage residents and encourage actions that enhance sustainability and community well-being.

Goals: B

Actions: 2.2.1, 2.2.3, 2.2.6, 2.4.7, 2.6.4, 2.7.2, 3.1.4

S-CAP: 1.1.4, 1.2.2, 1.2.7, 5.1.2, 5.2.3

AIP-P: 3.2, 3.3

#### 3. Adopt a Unified Development Ordinance to Streamline and Improve Zoning

Adopt a Unified Development Ordinance to streamline zoning and align policies with the Future Land Use Map. Promote sustainability, housing diversity, and community development by enabling townhomes, duplexes, multi-family units, and accessory dwelling units (ADUs). Encourage mixed-use, pedestrian-friendly developments that respect neighborhood character, and integrate stormwater, energy efficiency, and climate-adaptive practices. Simplify permits for aligned projects, incentivize affordable housing, and support infill and redevelopment in key areas. Ensure zoning supports infrastructure improvements and advances master plan goals for growth and preservation.

Goals: A, B, C, D, E, F, G

Actions: 2.2.2, 2.2.5, 2.3.1, 2.3.2, 2.3.3, 2.4.10, 2.4.12, 2.5.8, 2.6.1, 2.6.5, 3.1.1, 3.1.2, 3.1.3, 3.2.1, 3.2.2, 3.3.1, 3.3.2, 3.3.4, 3.4.2, 4.1.1, 4.2.1, 4.2.2, 5.2.3, 5.3.2, 5.3.3, 5.3.4, 5.4.1, 5.5.3, 6.5.5, 6.6.1, 6.6.2, 6.6.6.0, 6.6.6.1, 6.6.6.2, 6.6.6.3

S-CAP: 3.2.3, 4.4.5, 4.4.6, 5.2.1, 5.1.3

AIP-P: 1.2, 4.3

#### 4. Create a Downtown Plan

Develop a Downtown Master Plan to enhance vibrancy and support new housing and business growth. Create active ground-floor spaces between Main and Washington, forming a continuous loop, and establish distinct district identities through branding and streetscape improvements. Focus on infrastructure upgrades, including crosswalks, seating, bicycle parking, trees, and lighting. Encourage the redevelopment of public parking lots to include new housing and retail, such as a downtown market, to foster community and economic success. Explore reconfiguring Main Street to better support pedestrians, replacing aging parking structures, and adding a new transit center and public plazas.

Goals: A, B, C, D, E, F, G

Actions: 5.2.1, 5.2.1.1, 5.2.1.2, 5.2.1.3, 5.2.1.4, 5.2.1.5, 5.2.1.6, 5.2.1.7, 5.2.2, 5.2.4

AIP-P: 1.2, 2.2

# Introduction

## Summary of Actions

### 5. Update the Recreation Plan

Update the Recreation Plan to improve equitable access to park amenities across all city districts and explore dual-use stormwater storage with features like play areas and sledding spots. Create wellness circuits linking parks, neighborhood centers, markets, and schools as part of a greenway system. Add seating, walking paths, recycling bins, bike racks, repair stations, and lighting to parks.

Goals: A, B, D, E, F, G

Actions: 2.4.2, 2.4.3, 2.7.3, 4.3.1, 4.3.2, 6.9.4

S-CAP: 2.1.6

AIP-P: 1.1, 1.2, 5.1, 5.2

### 6. Develop a Tree Canopy Plan

Create a Tree Canopy Plan to identify and improve areas needing more tree coverage, with a focus on neighborhood greenways and safe routes to schools. Diversify tree species to protect against disease and climate risks while filling gaps in street and public property plantings. Enhance the city's tree canopy by prioritizing strategic planting and long-term resilience.

Goals: B, D

Actions: 2.6.2, 2.6.3, 4.1.3, 6.8.1.0, 6.8.2

S-CAP: 5.1.1

### 7. Implement Stormwater Solutions

Explore district-wide stormwater management, including uncovering buried sections of the Red Run waterway and integrating stormwater solutions into parks and open spaces like Wagner Park and Red Run Golf Club. Identify problem areas for ponding during major storms and align improvements with Master Plan mobility goals to create a more resilient infrastructure. Implement Low Impact Development (LID) and green infrastructure (GI) in the city's north and northwest to manage water flow from higher elevations. Conduct green infrastructure feasibility checks for all city projects and incorporate LID elements into municipal construction and road diet projects where applicable.

Goals: B

Actions: 2.4.1, 2.4.4, 2.4.5, 2.4.6, 2.4.9, 2.4.11

S-CAP 2.4.4, 4.4.1

### 8. Update the Non-Motorized Transportation Plan

Revise the Non-Motorized Transportation Plan to enhance pedestrian and bicycle access, and create safer crossings on major streets. Focus on traffic calming, narrowing streets, widening sidewalks, adding street trees and adding streetscape elements in key areas like Activity Centers and Neighborhood Main Streets. Establish the Neighborhood Greenway network, add seating, lighting, bike parking and repair stations in key locations. Upgrade sidewalks, shared-use paths, and bus stops with shelters, lighting, and amenities while continuing Safe Routes to Schools projects. Coordinate street standards for sidewalk width, street tree planting, seating, furnishings, and lighting with the needs of each future land use category.

Goals: B, D, E, F, G

Actions: 4.1.2, 4.1.4, 4.1.5, 4.1.6, 4.2.3, 4.2.4, 4.2.5, 5.3.1, 5.5.5, 6.3.1, 6.3.2, 6.3.3, 6.6.3, 6.6.4, 6.6.5, 6.7.1, 6.7.2, 6.7.3, 6.7.4, 6.7.5, 6.8.3, 6.9.1, 6.9.2, 6.9.3, 6.10.1, 6.10.2, 6.10.3, 6.10.5, 6.10.6, 6.13.2, 6.13.3

S-CAP: 2.1.6, 2.1.7, 2.4.1, 2.4.2

AIP-P: 1.1, 1.2, 2.2

### 9. Study Mobility Solutions for Major Roads

Address mobility needs specifically along major roads where improvements to balance different modes may be restricted by traffic volume and physical limitations. Collaborate with MDOT on the Woodward Corridor vision update, enhancing safety and providing greater mobility while reducing neighborhood impacts. Explore traffic calming opportunities for Coolidge Highway, 13 Mile Road, and 14 Mile Road to improve safety for pedestrians and cyclists. Pursue right-sizing for Crooks, Campbell, 12 Mile, and 14 Mile Roads. Study alternatives for the jog at Coolidge and 14 Mile Road.

Goals: D, E, F

Actions: 4.1.7, 5.4.6, 5.5.4, 6.4.1, 6.5.1, 6.5.2, 6.5.3, 6.5.4, 6.5.5, 6.5.6, 6.5.7, 6.5.8, 6.11.1, 6.11.2, 6.11.3, 6.12.1

AIP-P: 2.1, 2.2

# Introduction

## Summary of Actions

### 10. Develop a Plan for the Delemere District

Develop a plan to transform Delemere Boulevard into a main street with enhanced streetscapes, wider sidewalks, street trees, and improved lighting. Establish a Tax Increment Financing (TIF) district to support public space and parking improvements. Redevelop the area with attainable and senior housing, leveraging available properties. Expand Normandy Oaks Park by acquiring adjacent commercial properties along Delemere.

Goals: A, C, E, F, G

Actions: 5.4.2, 5.4.4, 5.4.5, 6.12.2, 6.12.3

### 11. Encourage Senior and Affordable Housing

Promote senior and affordable housing by leveraging publicly owned land, development incentives, and collaboration with businesses and institutions to increase funding and the availability of development sites. Partner with major employers to support affordable housing through construction or financial assistance, reducing commuting and increasing availability. Provide relocation assistance for seniors, especially during severe weather, to help them secure suitable housing and free up larger homes for families.

Goals: C, E, G

Actions: 3.2.4, 3.2.5, 3.3.3, 3.3.5

AIP-P: 4.1, 4.2

### 12. Improve Public Transportation Access

Collaborate with SMART and Oakland County to enhance transit services by adding key stops, improving routing, and reducing wait times, supported by new transit funding. Advocate for expanded, reliable multi-modal transit at regional and state levels in partnership with neighboring communities and aligned cities. Improve the quality of bus stops and the surrounding streetscape in coordination with the non-motorized transportation plan.

Goals: A, B, E, F, G

Actions: 6.13.1, 6.13.4

S-CAP: 2.2.7

### 13. Advance Sustainability Goals

Pursue regional and local partnerships to advance sustainability goals and climate actions, align with regional objectives, and secure funding for related initiatives. Collaborate with neighboring communities on sustainability-focused projects. Identify and coordinate locations for EV charging stations in Activity Centers, Mixed-Use Corridors, Neighborhood Main Streets, and Neighborhood Nodes to maximize accessibility and utility. Develop systems to track and report waste, recycling, and composting data, improve waste handling, and encourage recycling and composting and compostable packaging for residents and businesses.

Goals: A, B, E, F, G

Actions: 2.2.5, 2.3.4, 2.5.1, 2.5.2, 2.5.3, 2.5.4, 2.5.5, 2.5.6, 2.5.7, 2.7.1, 2.7.4, 2.8.1

S-CAP: 1.1.3, 1.2.4, 1.4.2, 2.3.1, 2.3.3, 3.1.3, 3.3.1

### 14. Provide Public Parking Outside of Downtown

Develop structured public parking at key locations outside of Downtown, along with zoning changes in these districts, to encourage business and housing growth in Activity Centers and Neighborhood Main Streets, including: Main and Catalpa, Memorial Park, the Delemere district, and 12 Mile and Campbell.

Goals: C, E, F, G

Actions: 4.2.6, 5.2.4, 5.3.5, 5.4.3, 5.5.1, 5.5.2

AIP-P: 2.1

### 15. Develop a Southwest Gateway Plan

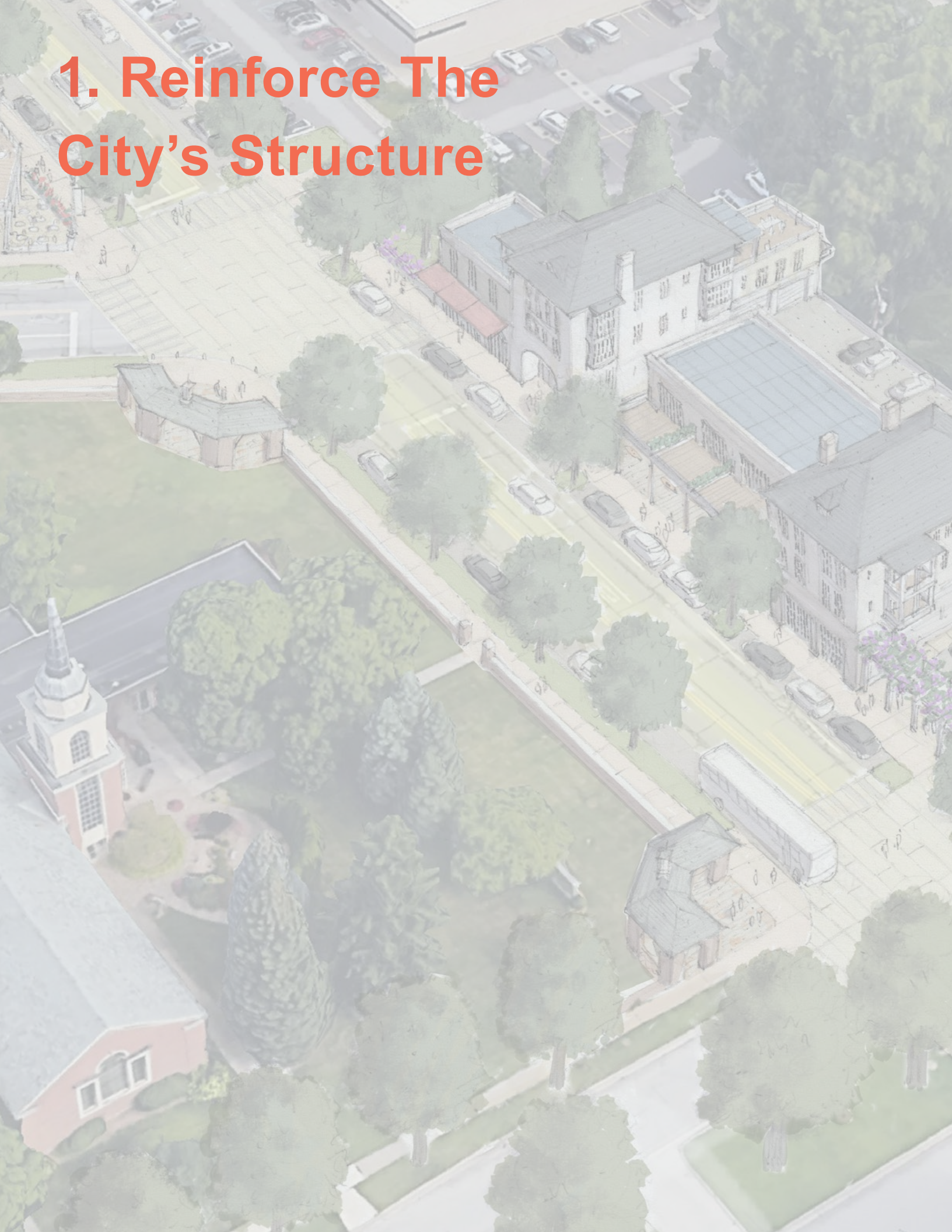
Develop a Southwest Gateway plan, along with MDOT and the Detroit Zoo, celebrating this monumental entrance to the city and improving safety and connectivity for pedestrians and cyclists.

Goals: A, F

Actions: 6.14.1



# 1. Reinforce The City's Structure





# Introduction

## Future Land Use Structure

### 1.1. Future Land Use Structure

A master plan's primary requirement is to identify the desired and anticipated future land uses throughout the City. Future land use is the basis for decision making about future changes to zoning districts, including evaluating rezoning requests, but does not directly change zoning. Previous iterations of Royal Oak's future land use map and categories were very similar to the zoning map, however future land use is intended to be more broad and aspirational in nature. Because future land use is not zoning, multiple zoning districts should be applicable for each land use category. Even neighborhood residential reflects the fact that today there are single-family zones with larger and smaller lot sizes, often in close proximity. Corridors reflect a wider range of zones and land uses. Rather than duplicate zoning, future land use describes a broader condition.

Future land use categories in this master plan describe and reinforce the city's historic structure. (See Figure 1) The most active place is downtown, which is surrounded by low-scale, mostly single-family residential neighborhoods. Important regional roads run between these neighborhoods and have small scale commercial areas at regular intervals as well as a mixture of uses along their trajectories. Parks and schools are well distributed throughout the city. Differences arise in the conversion of industrial areas to areas of retail business and housing. This process began with the city's south industrial area, as is beginning to happen to the north. To respond to growth pressure while keeping that growth out of stable neighborhoods, the city's larger non-residential areas are intended to become more mixed-use, combining housing and businesses in formats similar to downtown.

The future land use map describes a significant tapestry of neighborhood residential areas not intended for growth, areas of higher intensity intended for growth, downtown and activity centers, and areas for lower intensity growth along major roadway corridors. Additionally, Woodward is identified for its unique characteristics and local and regional aspiration for change. By focusing growth in activity centers, neighborhood nodes, and corridors, the City is best situated to meet its overarching goals of increasing sustainability, aging in community, and attainable housing while limiting impacts to lower-scale neighborhoods.

### 1.2. Future Land Use Categories

Future land use categories describe the general character that different portions of Royal Oak should exhibit in the future. These are not zoning, rather they describe the broader characteristics of a collection of properties as well as public spaces such as streets, parks, and schools, that collectively create places of different types, or place types.

#### Neighborhood Residential

This place type is characterized by single-family housing lots of various sizes with detached buildings set back from the sidewalk, and infrequent, historic duplex and small multi-family buildings, with significant tree canopy on public and private properties. Neighborhood residential is intended to preserve the existing scale and principally single-family use of the city's residential neighborhoods.

#### Neighborhood Edge

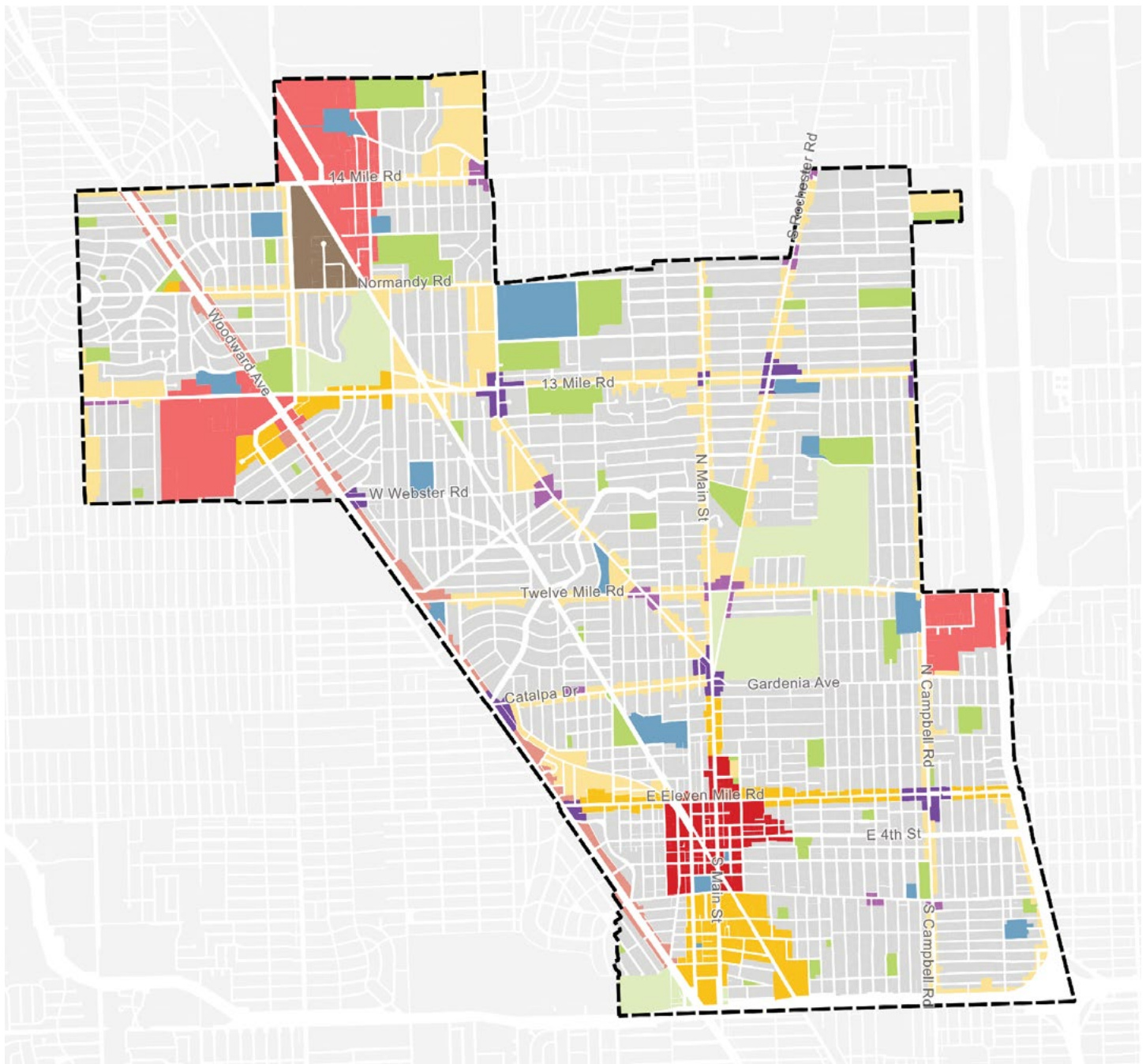
This place type is characterized by a medium scale of buildings, up to 3 stories, with some on-site open space. Uses are principally residential with a limited mix of housing types: small-to-medium residential lots, some attached buildings including duplexes, townhomes, and small multi-family buildings, along with occasional, small-scale commercial uses. Buildings are located near to the sidewalk with most tree canopy provided by street trees, occasional trees in front setbacks, and additional trees at the rear transition to neighborhood residential land uses. Where neighborhood edge is mapped on existing commercial corridors, it is intended to encourage a transition to residential uses over time.

#### Mixed-use Corridor

This place type is characterized by a medium scale of buildings, up to 4 stories, occupying most of their site. Uses are principally residential with a varied mix of housing types: frequently attached buildings including duplexes and townhomes, but more typically small and medium multi-family buildings, along with occasional ground floor commercial and other small-scale commercial uses. Buildings are located very near to the sidewalk and rely on street trees for most tree canopy. Where a mixed-use corridor designation is mapped on existing commercial corridors, it is intended to encourage a transition to mostly residential uses over time.

# Introduction

## Future Land Use Structure



### Areas of Growth

#### Centers

- Neighborhood Node
- Neighborhood Main Street
- Activity Center
- Downtown

#### Corridors

- Mixed-Use Corridor
- Woodward Corridor

### Areas of Preservation

#### Residential

- Neighborhood Residential
- Neighborhood Edge

#### Industrial

- Industrial

#### Parks and Schools

- Parks and Schools
- Other Open Space

Figure 1. Future Land Use Map

# Introduction

## Future Land Use Structure

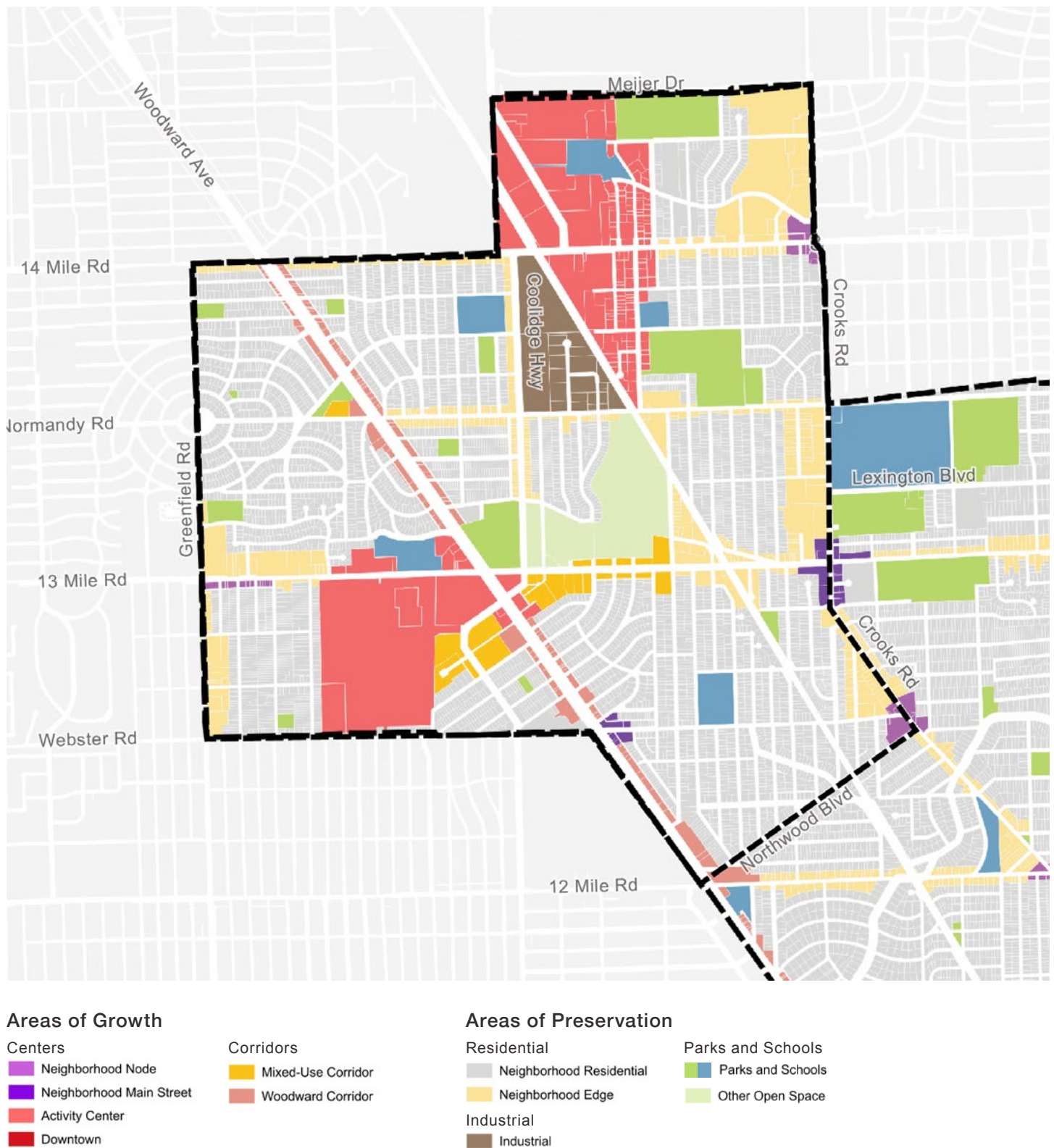


Figure 2. Future Land Use Map: Northwest



# Introduction

## Future Land Use Structure

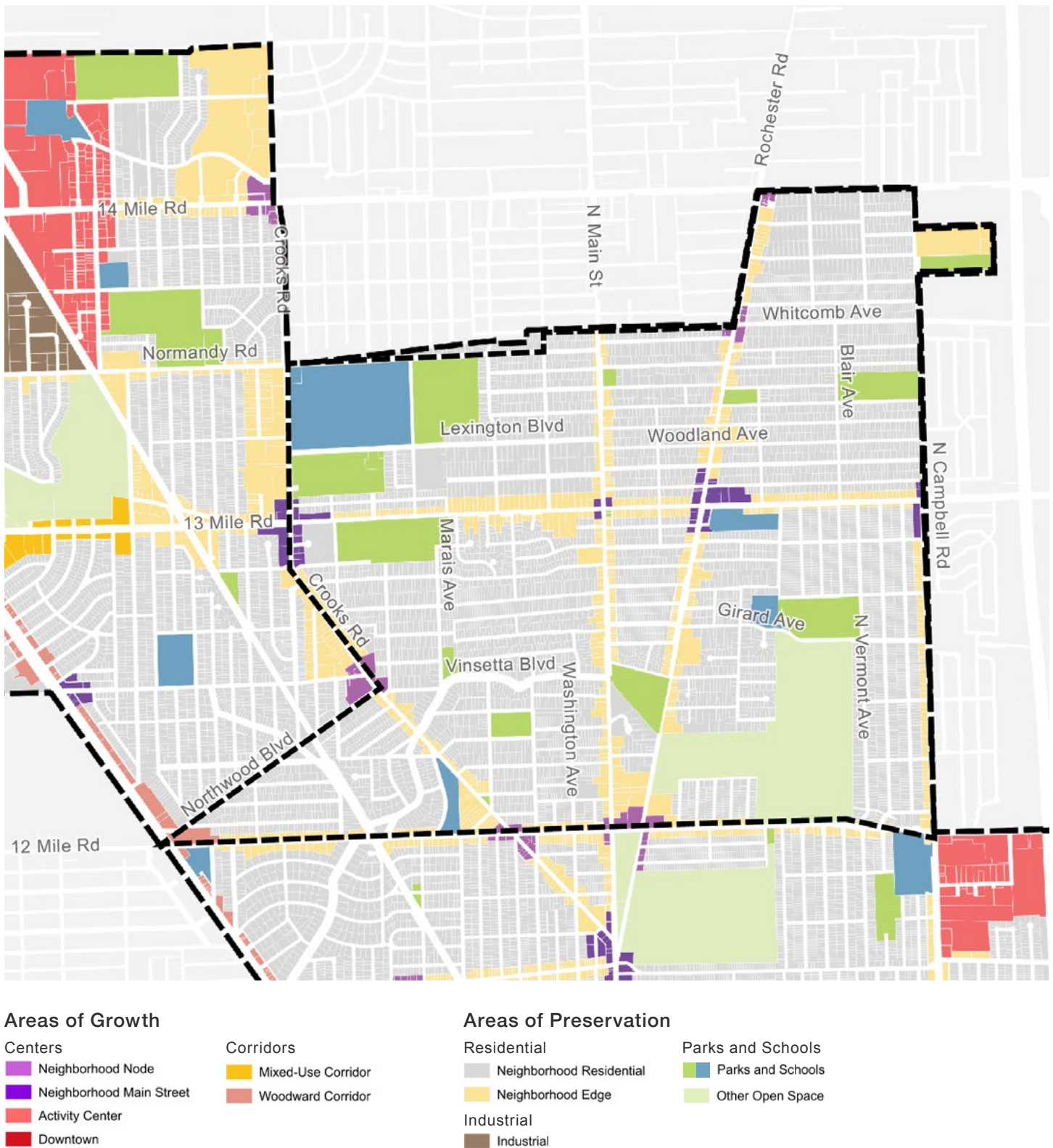


Figure 3. Future Land Use Map: Northeast

# Introduction

## Future Land Use Structure

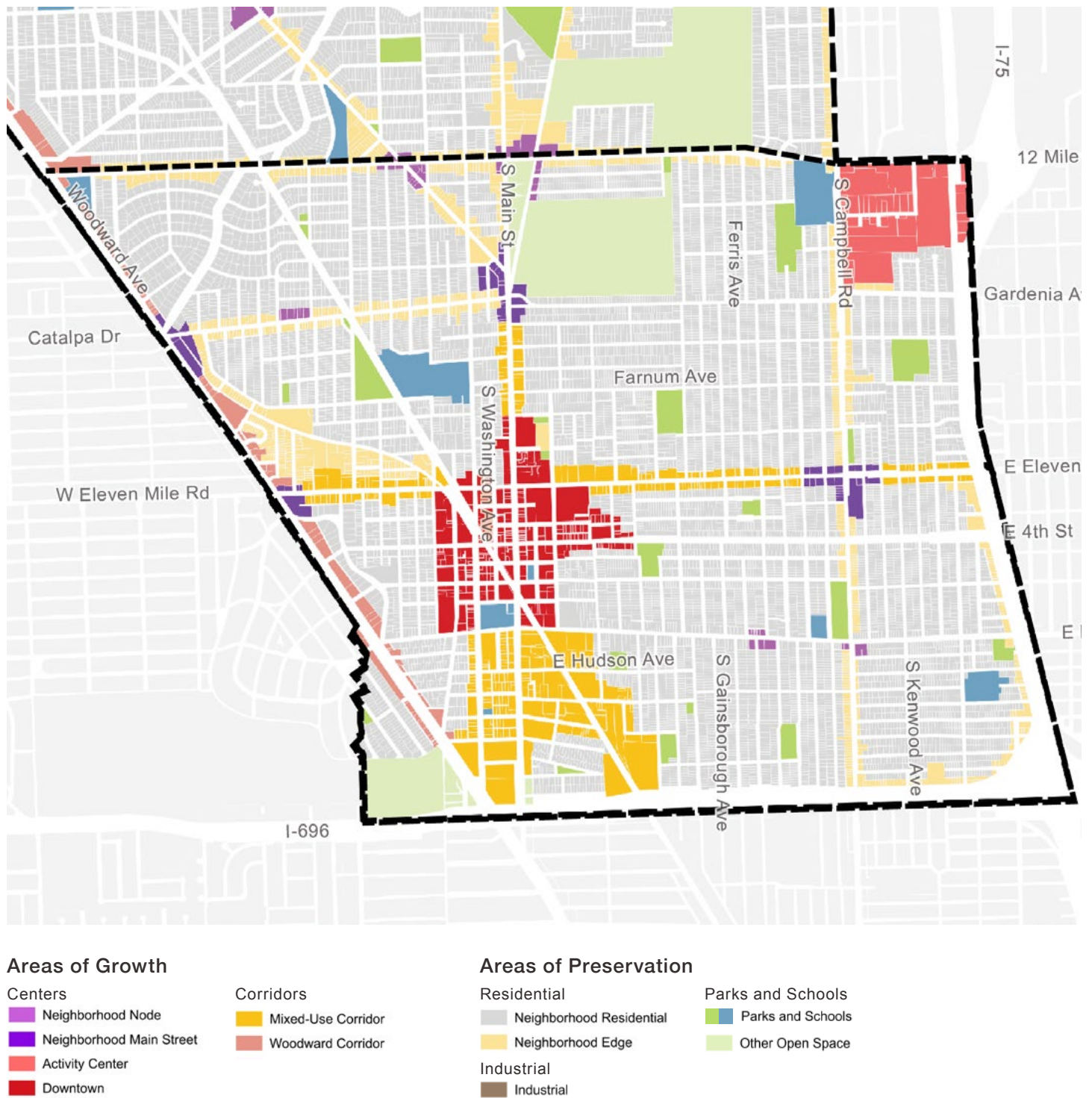


Figure 4. Future Land Use Map: South



### **Neighborhood Node**

This place type is limited in scale, typically up to one block on both sides of a street, characterized by a mix of uses focused on serving nearby residential neighborhoods with retail and services. Generally, it consists of non-residential and mixed use buildings, and attached and multi-family housing. Parking is typically handled on-street and in surface lots behind buildings.

### **Neighborhood Main Street**

This place type is a neighborhood-scaled main street, characterized by a mix of uses with ground floor commercial uses along one or more blocks, typically not longer than ¼ mile in length, serving nearby residential neighborhoods with retail and services. The scale is larger than a neighborhood node, and supports a wider variety of businesses. Buildings are generally attached and located very close to the sidewalk, with active businesses and heavily glazed storefronts lining the street. Many buildings are multi-story, with upper floor apartments or offices. Parking is typically handled on-street and in surface lots behind buildings.

### **Woodward Corridor**

This place type includes most properties along the Woodward Corridor, which include mostly commercial uses with occasional office buildings and multi-family housing. Over time, the Woodward Corridor is intended to include more residential uses and smaller scale non-residential uses to balance requirements for parking and curb cuts with the safety of roadway users along Woodward and compatibility with Neighborhood Residential areas behind. This is part of a larger regional effort to improve the beauty, safety, success, and function of Woodward and the land uses along it.

### **Activity Center**

This place type is a destination for residents throughout the City, characterized by a very active multi-block main street or other significant commercial spaces, supported by multi-family housing within the activity center and surrounding corridors. Uses include a full range of commercial, retail, food & beverage, institutions, and offices, serving larger segments of the city and surrounding communities. This place type consists of medium-scale, multi-story attached buildings and occasional large, special purpose

buildings. Parking is typically handled on-street, in structured garages, and surface parking lots behind buildings.

### **Downtown Core**

This place type is a regional destination, providing businesses and activities for residents of Royal Oak as well as nearby cities. Downtown is intensive and complex, and provides more substantial entertainment and dining options than Activity Centers, as well as a focused concentration of offices in addition to tall, multi-family buildings. Parking is typically handled in municipal structured garages and on-street, supplemented by privately owned garages.

### **Parks and Schools**

Parks and schools are elements of other place types, like neighborhoods and activity centers, identified as parks or schools in the future land use to ensure they remain active recreational spaces and to recognize the role of parks and schools in the structure of the city.

### **Other Open Space**

Other open space includes publicly or privately owned cemeteries, golf courses, and the zoo. These are substantial places that complement the surrounding land uses but are clearly distinct. They are labeled as open space because they are mostly pervious with few buildings compared to neighborhoods or downtown. The mix of buildings, parking, and landscape vary distinctly by the unique characteristics of each specific use.

### **Industrial**

This place type is characterized by a concentration of manufacturing and industrial uses. Generally, this place type consists of medium and large lots, with large-format detached buildings and surface parking.

# Introduction

## Land Use and Growth Pressure

### 1.3. Land Use and Growth Pressure

Existing land uses in Royal Oak are predominantly separated physically and by category. By far, most of the city is residential, 60% of the land area being single-family detached properties and 7% multifamily or townhomes. Another 11% of the city is dedicated to parks and open space and 7% civic institutions. The remaining 15% of the city contains all of the commercial and industrial uses, vacant properties, and other places with the most growth potential, a relatively small portion of the city despite their appearance, lining most of the city's major roads. (See Figure 7 and Figure 8)

A market demand analysis was performed as part of the master plan, updating and expanding a 2016 study, which provides insight into the pressures for change in the city. The study demonstrates that most housing demand is for rental housing, roughly split between multi-family housing

and single family homes, including accessory dwellings. For those looking to move to Royal Oak, most are looking for multi-family housing in a downtown-like setting, followed closely by those looking to rent houses or accessory dwellings. Only about 10% are looking to buy single family homes, and few are looking to buy condos or townhomes. For those already living in Royal Oak, there is an even split between those looking to buy a house (they may be in an apartment today or renting a house), those looking to rent a house, and those looking to rent an apartment. Between both groups, 37% are looking for multi-family housing and 52% for single family homes. (See Figure 6)

Considering supply (the housing that exists today) and demand (what people are looking for), the existing supply of multi-family housing is significantly below the demand. The demand for multi-family housing is apparent in recent development and rezoning applications, which appear out of character to many residents, but are a clear indication of market preferences and pressures.

In comparison with the 2016 housing market demand analysis, today the demand for houses has increased and the demand for multi-family has decreased, however the multi-family demand continues to far exceed the availability in Royal Oak.

Market demand represents both those households looking to move into Royal Oak as well as those who would like to move elsewhere in the city. While all of the single-family properties have been developed, residents also move from Royal Oak elsewhere, for a variety of reasons. Much of the single-family housing demand is accommodated by the move-out / move-in dynamic, however because new areas of single-family homes cannot be accommodated, the cost of single-family homes will continue to rise because the demand for Royal Oak homes is more than can be

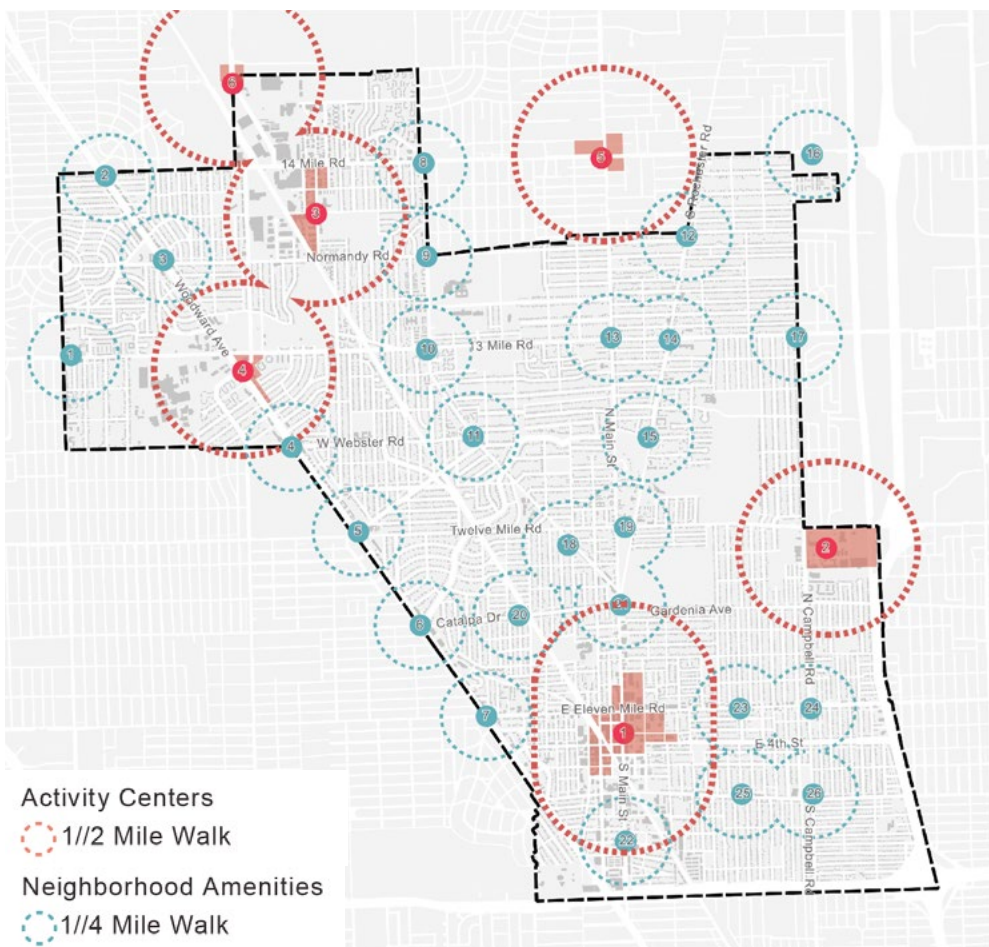


Figure 5. Structure of Activity Centers, Neighborhood Main Streets, and Nodes

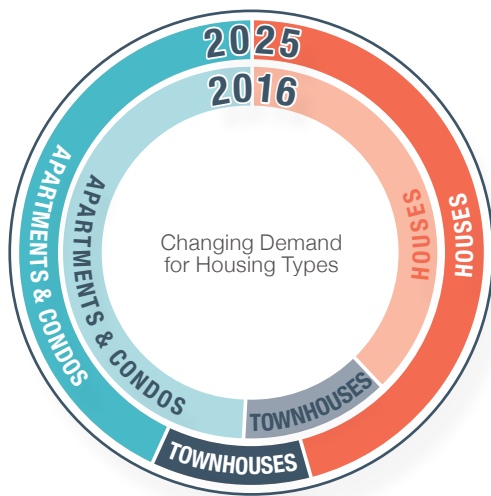


Figure 6. Housing Demand by Housing Type

provided. (See Ch. 3) Areas that are able to grow, mainly along major roadways, in formerly industrial areas, and in the downtown, more readily accommodate multi-family housing due to both the cost of land (especially downtown) and a less preferable context (major roadways). Demand for multi-family housing is significant in Royal Oak, as demonstrated above. Presently, over 69% of housing in Royal Oak is single family (91% of residential land area but 69%+ of housing by unit), whereas demand for single-family is much lower. While there are opportunities to add multi-family housing, the speed it is being provided is far less than ideal. A combination of factors limit growth, most of which can be solved by aligning policies and regulations - deciding where growth is acceptable, at what intensity it is acceptable, and aligning both future land use policy and zoning regulation to encourage and accelerate growth that aligns with city goals. (See Ch. 3.4 and Figure 1)

A retail market demand analysis was also performed as part of the master plan, identifying the potential for retail growth in the city. Retail demand was evaluated through the combination of a retail trade-area analysis and a gap analysis. Retail trade-area considers the distance that most people will go for a particular type of retail or service

offering, which is the trade-area. Retail gaps are locations within the city in which certain high-demand categories of retail and services are not presently available. This analysis identified a total of 165,000 square feet of space that could be supported and fulfill demand. That equates to between 50 and 80 new retailers. Additionally, the analysis suggests that the smaller scale retailers that would fill these gaps, and which make up most of Royal Oak's businesses today, would benefit from clustering together in convenient groupings. Royal Oak's retail is spread out throughout the city, with concentrations in Downtown, at 12 Mile and Campbell, at 13 Mile and Woodward, at North Coolidge, and along major roads. (See Figure 8) The master plan addresses the beneficial arrangement of clustering in its focus on Activity Centers and Neighborhood Nodes and Main Streets. (See Ch. 4.2, Ch. 5, and Figure 1)

Because land for development is scarce in Royal Oak, combining residential and non-residential uses on the same property or in the same building maximizes the city's ability to accommodate growth pressure. Encouraging mixed-use is a recent best practice in planning and zoning, which re-establishes the manner in which cities historically grew. Royal Oak's previous future land use includes mixed-use, but the locations are few and small. Future land use in this master plan enables mixed-use in all areas other than neighborhood residential and industrial. (See Figure 1) Supporting mixed-use is not only helpful for accommodating growth, it also helps to support thriving businesses. Separated-use retail along major roads often fails due to lack of sufficient customers. Other than

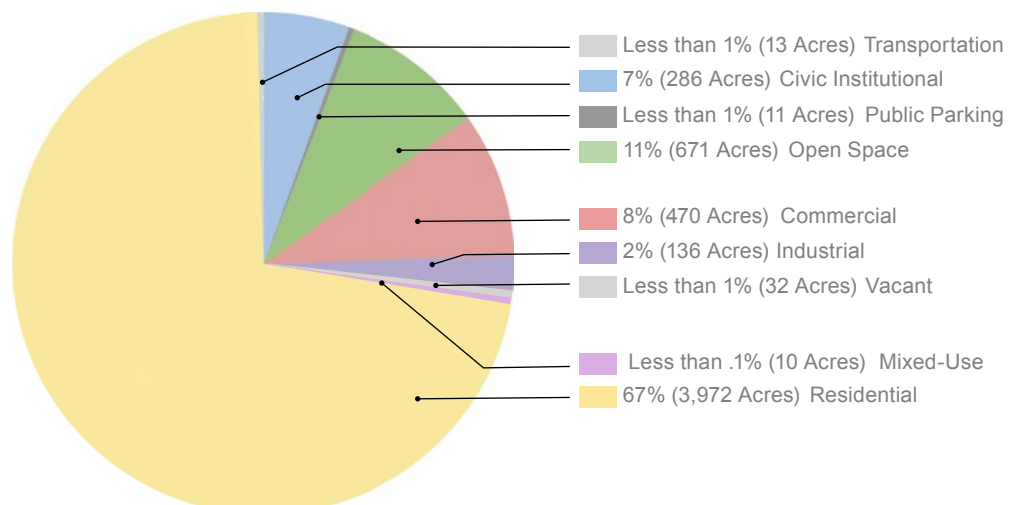
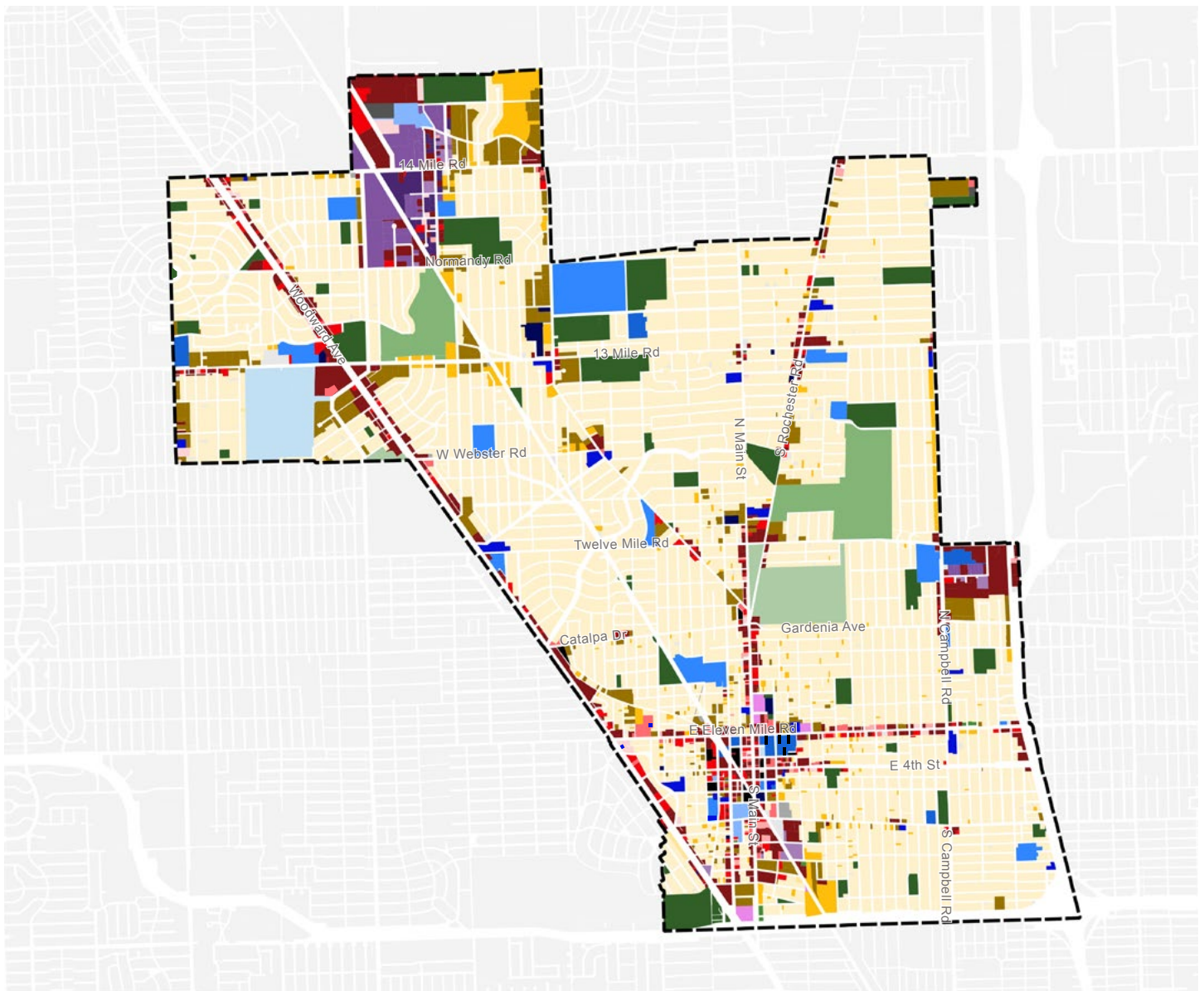


Figure 7. Existing Land Use Percentages



# Introduction

## Land Use and Growth Pressure



### Existing Land Uses (2023/24)

<b>Civic Institutional</b> <div>Assisted Living (17 acres)</div> <div>Religious Institutions (37 acres)</div> <div>Civic Facilities (39 acres)</div> <div>Primary/Secondary Education (172 acres)</div> <div>Higher Education (20 acres)</div> <div>Emergency Services (1 acre)</div>	<b>Commercial</b> <div>Commercial Centers (313 acres)</div> <div>Office (74 acres)</div> <div>Accommodation (27 acres)</div> <div>Commercial Recreation (12 acres)</div> <div>Commercial Other (44 acres)</div>	<b>Open Space</b> <div>Parks Recreation (363 acres)</div> <div>Open Space (3 acres)</div> <div>Golf Courses (200 acres)</div> <div>Cemeteries (105 acres)</div>
<b>Industrial</b> <div>Heavy Industrial (28 acres)</div> <div>Light Industrial (92 acres)</div> <div>Wholesale Warehousing (16 acres)</div>	<b>Mixed-Use</b> <div>Mixed-Use Residential (10 acres)</div>	<b>Public Parking</b> <div>Public Parking (11 acres)</div>
	<b>Residential</b> <div>Multifamily (286 acres)</div> <div>Townhouse and Small Multifamily (146 acres)</div> <div>SF Attached (13 acres)</div> <div>SF Detached (3,527 acres)</div>	<b>Transportation</b> <div>Transportation (8 acres)</div> <div>Utilities Communications (5 acres)</div>
		<b>Vacant</b> <div>Vacant (32 acres)</div>

Figure 8. Existing Land Uses

those few star retailers like National Coney Island, Green Lantern Pizza, and Crispelli's Bakery, maintaining retail success in such locations is difficult. And it is especially difficult for retailers not in food and beverage. Clustering allows for cross-shopping and greater visibility for those more difficult businesses, being seen by the customers of star retailers. Mixed-use provides additional help by the proximity of residents to businesses where it is far more convenient to visit an accountant, dentist, nail salon, or tailor that is within a few blocks than a few miles away. And where possible, mixing office uses with retail and residences is beneficial for midday food and beverage and retail uses, and efficient for parking because office workers vacate parking spaces when residents return from work.

Lastly, the previous future land use categories were very similar to zoning designations. This can cause confusion and also issues related to rezonings. As discussed earlier in this chapter, future land use should allow for multiple zones, focusing on the character of the place, not specific building uses. Where it is duplicative as is the case today, changes that are necessary to meet market pressures are difficult to make. This typically involves rezoning to more intensive or permissive zones. In many cases such a change would require a master plan amendment, and in practice often a disregard for the master plan if it has become insufficient to address the city's current needs. Generalizing land use as is done in this master plan retains the plan's relevance, and a clear separation between land use and zoning.

### 1.4. Zoning Plan

A zoning plan is required by the Michigan Planning Enabling Act (MPEA) and Zoning Enabling Act (MZEA). Section 33(2)(d)[MCLA 125.3833] of the MPEA (PA 33 of 2008), as amended, requires that the comprehensive plan shall serve as the basis for the community's zoning plan and the Michigan Zoning Enabling Act (PA 110 of 2006), as amended, requires a zoning plan to be prepared as the basis for the zoning ordinance.

Royal Oak's Zoning Plan presents a summary of the zoning districts that apply to each of the proposed future land use planning district designations. To implement the zoning plan, recommended future revisions to Royal Oak's zoning ordinance are discussed throughout this plan. The zoning plan is segmented into Areas of Growth (See Figure 9) and Areas of Preservation (See Figure 10) further emphasizing the intent of the master plan to clearly identify places intended for growth and development, and those places not intended for growth. As discussed elsewhere in the master plan, regulations and processes should be adjusted to ensure that development is both easy and predictable in areas of growth.

Parks, schools, and other open space are uses that are allowed in most zoning districts today. The Zoning Plan identifies many applicable zones in these categories, reflecting the current zoning ordinance approach to these uses. Future zoning ordinance changes should consider other approaches, including consideration for any potential redevelopment of those sites, if any.



# Introduction

## Zoning Plan

Current Zoning District	Areas of Growth					
	Woodward Corridor	Mixed-use Corridor	Downtown	Activity Center	Neighborhood Main Street	Neighborhood Node
One-family Residential						
One-family Large Lot Residential						
Two-family Residential						
Multiple-family Residential	P	P	P	P	P	P
Office Service	P	P	P	P	P	P
Neighborhood Business					P	P
Neighborhood Business II	P	P		P	P	
General Business	P	P	P	P		
Central Business		P	P	P		
Regional Business				P		
General Industrial						
Planned Unit Development	S	S	S	S	S	S
Mixed Use 1	P	P		P	P	P
Mixed Use 2	P	P	P	P		
Special Redevelopment	S	S	S	S	S	S

P: Zoning district permitted within the designated future land use

R: Zoning district restricted to properties already zoned with this future land use

S: Zoning district may be permitted within the designated future land use following specific review by the Planning Commission and City Commission concerning compatibility and the city's stated goals. Use of Planned Unit Development should be reduced or eliminated with a zoning ordinance update, as recommended in this master plan.

Figure 9. Zoning Plan: Areas of Growth

Areas of Preservation					
Current Zoning District	Neighborhood Residential	Neighborhood Edge	Industrial	Parks and Schools	Other Open Space
One-family Residential	P	P		P	P
One-family Large Lot Residential	P	P		P	P
Two-family Residential	R	P		P	P
Multiple-family Residential	R	P		P	P
Office Service		P	P	P	P
Neighborhood Business		P		P	P
Neighborhood Business II				P	P
General Business			P	P	P
Central Business				P	P
Regional Business				P	P
General Industrial			P		
Planned Unit Development		S	S	S	S
Mixed Use 1				P	P
Mixed Use 2				P	P
Special Redevelopment		S	S	P	P

P: Zoning district permitted within the designated future land use

R: Zoning district restricted to properties already zoned with this future land use

S: Zoning district may be permitted within the designated future land use following specific review by the Planning Commission and City Commission concerning compatibility and the city's stated goals. Use of Planned Unit Development should be reduced or eliminated with a zoning ordinance update, as recommended in this master plan.

Figure 10. Zoning Plan: Areas of Preservation

This page is intentionally blank.

## 2. Advance Sustainability and Climate Action



# Advance Sustainability and Climate Action

## Continue Current Efforts

### 2.1. Continue Current Efforts

There are a number of efforts in place currently that are guiding Sustainability and Climate Action efforts within Royal Oak. These efforts align with master plan recommendations and have been incorporated where appropriate. These efforts should continue, and will be further supported by the master plan. Key existing programs and policies include:

- The Royal Oak Sustainability and Climate Action Plan identifies a broad range of actionable goals and objectives which, if implemented, would significantly reduce the city's climate impact.
- The MI Healthy Climate Plan outlines goals at the state level and provides a good framework for the Royal Oak Master Plan to reference specific climate goals, such as transportation and water resources.
- Pilot projects identified in the City of Royal Oak "Green Infrastructure Evaluation Report" provide concrete examples of green stormwater management which have been implemented and evaluated within the environs of Royal Oak.

In addition to the materials mentioned above, the proposals herein focus on reducing greenhouse gas emissions (GHGs) from the transportation sector by reducing the distance and frequency of vehicle trips. This is to be achieved by:

- Reactivating neighborhood commercial centers to provide more services and destinations near where people live and a modest amount of housing to support the success of businesses;
- Improving the functionality of downtown to keep more residents in Royal Oak to provide for frequent needs, increase housing opportunities in a place that doesn't require a car, and provide more local employment;
- Providing for a northern anchor in the Delemere industrial area to provide activities and services to those neighborhoods furthest from downtown, and also housing proximate to parks and public transportation;
- Enhancing and improving the safety of walking and cycling throughout the city, including prioritized routes through neighborhoods and improved and more frequent crossings of major roads; and

- Transforming Woodward to make it pleasant for pedestrians and cyclists as well as cars, safer, more compatible with surrounding neighborhoods, and a viable place for housing near public transit and services.

The remainder of this sustainability section reinforces certain aspects of the Sustainability and Climate Action Plan (S-CAP) that are most closely associated with the land use, mobility, and development regulation focus of this master plan. In most instances, the S-CAP already addresses these issues and should be implemented as directed in that plan. A few additions are provided herein, and context given to connect aspects of this master plan with the S-CAP.

### 2.2. Reduce Energy Use in Buildings

Energy efficiency in new construction, preservation strategies for existing buildings, location efficiency for new housing and businesses, and opportunities for multi-family housing can all reduce the climate impacts of development in Royal Oak.

For new buildings, the State of Michigan presently limits the ability of cities to increase energy efficiency requirements beyond that of the state energy code. Efforts to challenge this are underway and should be supported. In addition to requirements, incentives may be provided to encourage greater energy efficiency. Incentives often include increases in development capacity of various types such as density and height, reduction in fees, and fast tracked permitting. Ideally, the recommended changes to zoning discussed later in this master plan would result in more clear development requirements and fast process, both needed to address housing cost, which makes them less useful as incentives. As state regulations change along with changing technology, opportunities to increase energy efficiency in buildings should be re-evaluated.

Since existing buildings have already been constructed, it is important to promote their preservation. This can be accomplished by strengthening and promoting historic preservation, increasing awareness of historic precincts, and applying a form-based code approach that emphasizes adaptive reuse and restoration, respect of cultural heritage, and appropriate infill development. In addition



# Advance Sustainability and Climate Action

## Reduce Mobility-related Impacts

to preservation, energy efficient modifications should be considered for existing buildings, including Royal Oak's many single-family homes. Federal, state, and institutional programs provide funding for these upgrades but can be difficult for building owners to understand and navigate. Assistance can be provided through educational events at community centers and promoted at community events.

Where buildings are built has a significant impact on transportation-based GHG emissions. Growth in areas that are already walkable means that new occupants benefit from nearby access to goods and services, reducing car trips. Similarly, growth that would reduce car trips that occur today is equally important. Later master plan recommendations focus on growth in those areas to increase the number of people living downtown, making other areas more walkable and active, and bringing more services closer to where people live. These are three ways to increase "location efficiency" which means that where people live is inherently more energy and GHG efficient.

Allowing for housing types that are more efficient can also reduce energy use and citywide climate impact. Buildings that share walls between units lose less heat to the environment, whether those are townhomes, duplexes, or multi-family buildings. Heat loss (or gain in the summer) through exterior walls and roofs is the greatest driver of household energy consumption. Energy efficiency regulations often focus on increasing insulation and reducing air loss from interior to exterior in order to keep heat in (and improve air quality). Allowing for more attached building types can reduce energy use associated with growth and development.

### Actions

- 2.2.1** Promote building energy efficiency programs (S-CAP 1.1.4). An increase in townhomes and multi-family housing can contribute to greater per household energy efficiency.
- 2.2.2** Enable townhomes, duplexes, and multi-family housing to improve the energy efficiency of new homes.
- 2.2.3** Promote adoption of solar in residential, industrial, and commercial sectors (S-CAP 1.2.2 and 1.2.7). There is currently legislation at the

state-level to lift the cap on small-scale residential users and reintroduce net metering which would assist in the adoption of roof-mounted solar. Royal Oak should investigate local Michigan efforts to create a locally run, controlled utility, similar to Ann Arbor Public Power.

- 2.2.4** Continually evaluate changing technology and opportunities to require more energy efficient buildings.
- 2.2.5** Strengthen and promote Historic Preservation to retain the embodied energy of existing buildings.
- 2.2.6** Provide educational resources for building owners to assist in navigating federal, state, and institutional funding for energy efficient retrofits of existing buildings.
- 2.2.7** Convert streetlights to LED technology (S-CAP 1.1.3). Ensure that LEDs are diffused as direct LED light contributes significant glare for both pedestrians and drivers.
- 2.2.8** Reduce indoor and outdoor potable water use at city facilities. (S-CAP 4.2.3)

## 2.3. Reduce Mobility-related Impacts

The master plan addresses sustainable mobility by reducing the distance people have to drive (vehicle miles traveled or VMT) and making it easier to walk, bike, and take the bus (shifting transportation mode). Overall this is achieved by the allocation of land uses, including distributing frequent destinations in neighborhood centers, reducing the distance people need to travel. This is paired with improving the safety and comfort of pedestrian and bicycle routes throughout the city to reduce driving. GHG emissions from the transportation sector is a significant contributor to climate change, and an area that the SCAP does not project significant impacts for (See Figure 11), principally because it is a land use and mobility issue that falls within the purview of the master plan.

Reducing the need to drive and the length of trips would result in significantly lower greenhouse gas emissions. Even with the shift to electric vehicles, emissions will continue to be tied to the regional fuel mix; energy produced for

# Advance Sustainability and Climate Action

## Reduce Mobility-related Impacts

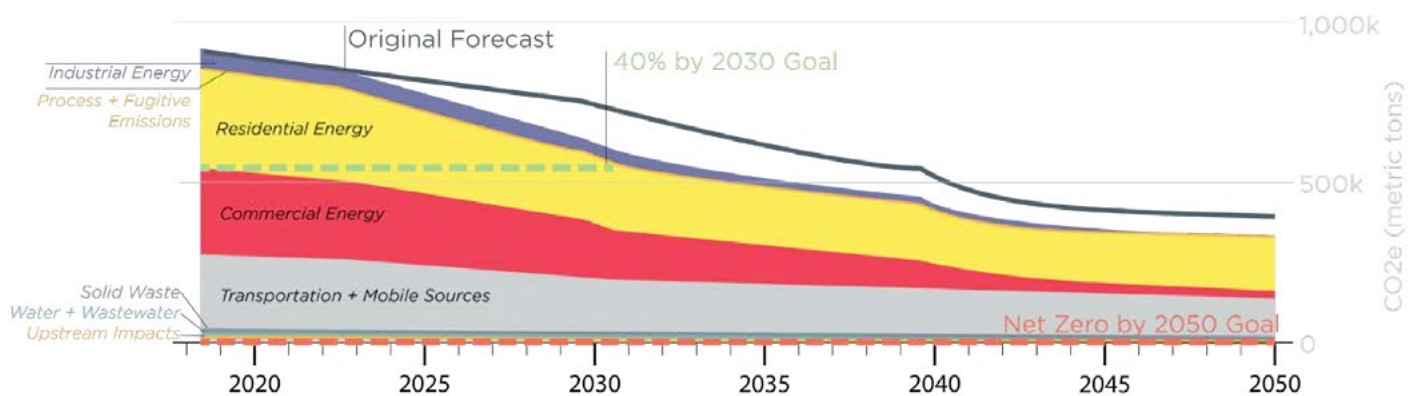


Figure 11. Royal Oak S-CAP Projected Reduction in GHG Emissions

the electrical grid includes fossil fuel sources. EVs emit lower levels of GHGs overall, and their use should be encouraged for those trips that will continue to be taken by car. However, even if the regional fuel mix improves, EV driving should still be reduced as the electric grid is not sufficiently sized to support today's vehicle miles traveled in entirely electric vehicles, especially combined with increased use of air conditioning from higher average temperatures. Overall, reducing driving is critical for climate action.

Reducing vehicle trips also reduces the demand for parking. Parking requirements necessary to meet high anticipated demand often significantly increase development cost along with the overall amount of impervious surface and urban heat island effect. The cost of providing parking is not only a burden on development, it is passed on to the end user in higher business and housing rents. Surface parking has the most significant direct climate impacts due to the large expanses of concrete or asphalt involved. The first issue is stormwater runoff, which increases flooding issues and pollution in the watershed. Reducing land dedicated to parking and building structured parking reduces this issue. Surface parking also increases the urban heat island effect. Urban heat island is the increase in temperature caused by large areas of heat-absorbing material combined with enclosure and insulation by buildings. Heat island is a public health concern and also causes more air conditioning use in buildings and increases the atmospheric absorption of GHGs.

Studies indicate that parking requirements often have very little to do with the actual demand associated with any

particular business. Parking spill-over into surrounding residential areas can be a concern, but is tied to the overall intensity of a commercial district like downtown, or to locations that are highly car-oriented, without safe accommodations for pedestrians or cyclists, like Woodward. In such districts, labeled Activity Centers in this master plan, structured parking is needed to retain land use efficiency and support the need for parking. With future mobility changes, parking accommodated by new garages should be designed to be converted for other future uses as the demand is reduced by shifts in transportation and land use. Conversion is accommodated by providing horizontal levels rather than sloped levels and a tall ground floor.

Overall, parking requirements should be left to the market to decide in terms of the amount privately provided, which is supplemented by public parking, including parking on street. This approach is growing in support across the country as the minimum required parking used in many cities, including Royal Oak, has been identified as having little scientific basis. In fact, the total parking available in Royal Oak's downtown equates to approximately 1.8 spaces per 1,000 square feet of commercial use, which is well below standards for almost any city, yet there are spaces unfilled in many downtown garages. Evidence supporting this approach becomes even stronger in the context of a plan that reduces vehicle trips and recognizes the impact of transportation modes, land use patterns, and other initiatives to reduce the impact of development.

Most actions to address mobility-related climate issues are addressed in later sections of this master plan.

# Advance Sustainability and Climate Action

## Reduce Mobility-related Impacts

### Actions

- 2.3.1** Require a minimum amount of tree canopy coverage for surface parking lots, or other similar requirements for trees and shading.
- 2.3.2** Require new parking structures, public or private, to be built with flat decks and have a minimum ground floor clearance of 16 feet or greater to allow for future conversion.
- 2.3.3** Reduce or eliminate parking requirements, city-wide or area-by-area.
- 2.3.4** Identify locations for additional EV charging stations on or adjacent to major arterials, municipal facilities, in commercial areas and near multi-family developments where charging infrastructure would be most advantageous. (S-CAP 1.2.4, 2.3.1, 2.3.3) Coordinate locations with future land use categories of Activity Center, Mixed-use Corridor, Neighborhood Main Street, and Neighborhood Node, and additionally consider parks and other public spaces.
- 2.3.5** Convert streetlights to LED technology (S-CAP 1.1.3). Ensure that LEDs are diffused as direct LED light contributes significant glare for both pedestrians and drivers.
- 2.3.6** Reduce indoor and outdoor potable water use at city facilities. (S-CAP 4.2.3)

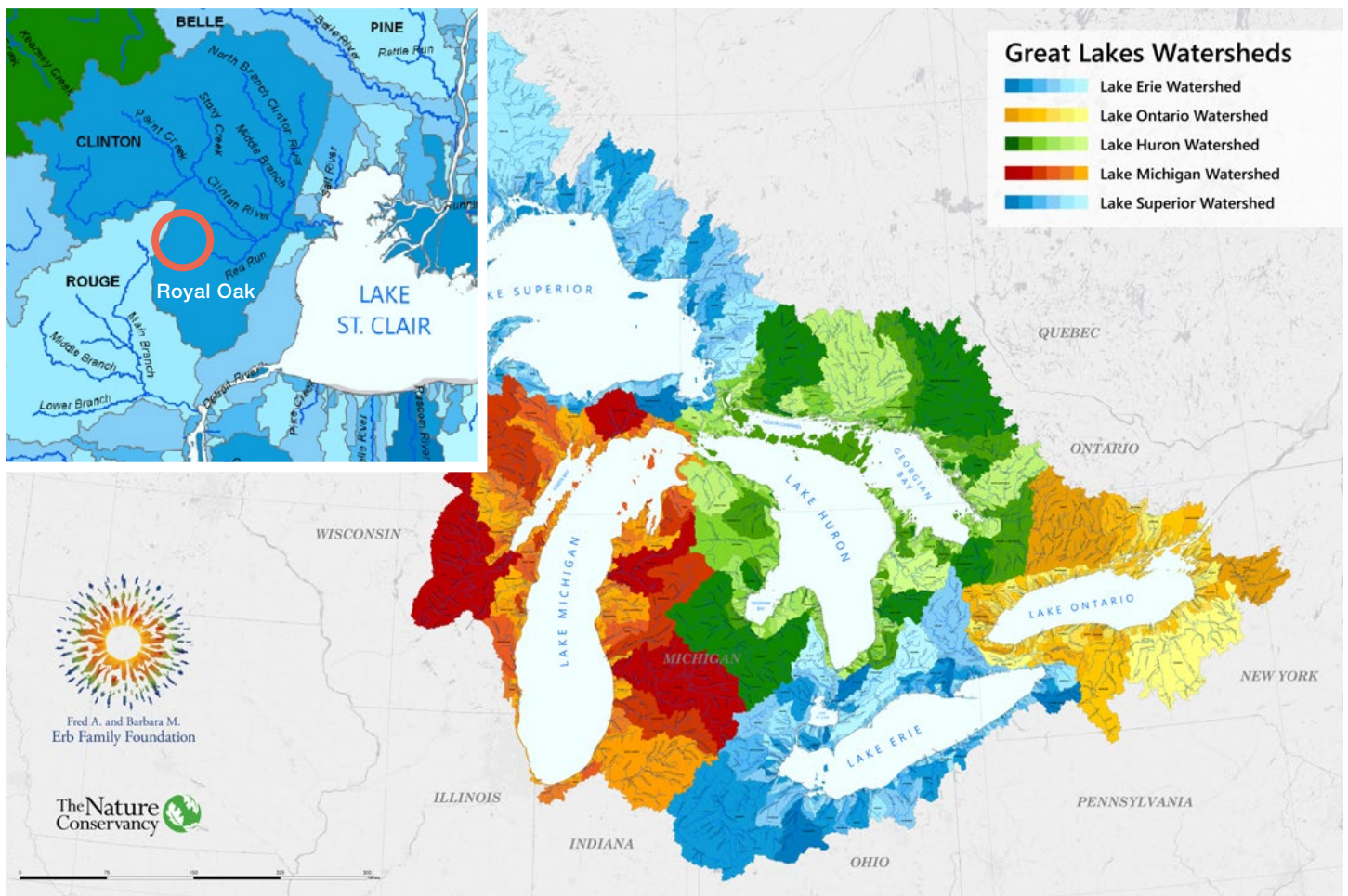


Figure 12. Watersheds Feeding the Great Lakes



# Advance Sustainability and Climate Action

## Use Natural Means of Water Management

### 2.4. Use Natural Means of Water Management

Historically, Royal Oak was largely swamp and marshlands prior to development. It is located at the start (headwaters) of Red Run Creek which flows into the Clinton River and eventually Lake St Clair. This is considered the

Clinton River Watershed, because water in Royal Oak eventually flows into the Clinton River. The Rouge River Watershed is nearby, where much of Birmingham, Beverly Hills, Lathrup Village, and surrounding areas drain to. (See Figure 13) When Woodward was first constructed as a trail between Detroit and Pontiac, it turned slightly at “the Royal Oak” to avoid an area of swamps between the



Figure 13. Historic Waterways within Royal Oak



# Advance Sustainability and Climate Action

## Use Natural Means of Water Management

Clinton River and Rouge River Watersheds. This predevelopment geography underlies flooding and stormwater issues experienced today.

Royal Oak grew significantly in the postwar era, prior to modern environmental regulations. The area swamps, streams, and creeks were filled and piped over decades of development. Today the only remaining clues are the oddly curving streets like Bonnie View and Vinsetta, names like Marywood Drive and Marais Park, some remaining drainage ways like in Wagner Park, and flooding issues. (See Figure 13) Early on this was not a big problem, but continued growth and development in the region, still without environmental regulations, significantly increased the amount of run-off. Today development is required to retain and clean the water that lands on roofs and pavement that would have otherwise been absorbed into the soil. But the Metro-Detroit region was built before those rules and now has to manage those consequences. In addition to these regional issues, Royal Oak has a high water table, making absorption of stormwater less efficient, and the soil composition also limits water absorption.

Water run-off issues are exacerbated by the city's combined sewer system and aging infrastructure. Combined sewer systems do not separate sewage from stormwater, as a result major rain events can cause sewage to flood basements, spill into area rivers, and overwhelm treatment facilities. Replacing combined sewer systems is costly as it involves adding separate stormwater drainage, requiring many streets to be rebuilt. Some communities have successfully added separate stormwater systems with federal assistance. While adding separate stormwater facilities should be pursued, other means of reducing stormwater impact on the existing combined sewer system should be pursued as well.

The historic and regional conditions of watershed degradation mean that any individual property cannot easily address stormwater, which requires regional and community-wide solutions. With an understanding of the city's general hydrological patterns (i.e., the tendency to drain from higher areas in the northwest to lower areas to the southeast), a strategy of strategic intervention should be pursued, emphasizing new low-impact development (LID) and "green infrastructure" (GI) interventions in parks and other locations where it is possible to absorb and slow the

flow of water. These are increasingly common methods of collecting water close to where it falls, cleaning it with plants and soils, and slowing the flow of that water into the watershed to avoid flooding. Where possible, portions of the Red Run that have been piped or otherwise covered should be opened up once again. This sounds unnecessary, but the capacity of a pipe is much less than a stream channel which provides a great deal of water storage capacity as it widens towards ground level. Vinsetta Blvd is one of the only remaining opportunities to "daylight" the historic creek. Other opportunities exist in Royal Oak's parks, like Marais and Wagner, which can provide some dual-use stormwater areas. Dual-use stormwater areas are spaces that are lower than the surrounding land but dry most of the time, designed to fill with water during heavy rain events. They are useful spaces for recreation the majority of the year, but also reduce flooding when there is heavy rain. Additionally, the tree lawn along streets can be converted in strategic locations to provide green stormwater management. These types of solutions are much less expensive than replacing the combined sewer system.

In addition to green infrastructure, public education and alert are important to reduce the amount of sewage entering the combined system during heavy rain events. Public education should focus on reducing showers, baths, dish washing, and laundry when rainfall is heavy. Additionally, technology systems like those piloted by IOBY in New York can be installed in sewers to provide text-message-based alerts of potential sewer overflow to encourage area residents to reduce the amount of water going into their drains.

### Actions

- 2.4.1** Install LID and green infrastructure (GI) in the north and northwestern areas of the city. These areas do not have good infiltration yet would provide an opportunity to absorb water as it moves through the city from higher elevations to lower. LID strategies explored and tested by the city could include permeable pavers, bioretention, and underground storage.
- 2.4.2** Study opportunities for underground stormwater storage within parks, especially in the northern half of the city. Some opportunities are identified in the Recreation Plan, in reaction to flooding

# Advance Sustainability and Climate Action

## Support Recycling and Composting

issues in parks like Isabel and Myron Zucker. The next Recreation Plan should investigate this potential in detail.

- 2.4.3** Study opportunities for dual-use surface stormwater storage within parks. Earth moving associated with such spaces could be used to create kid-friendly play spaces that include elevation changes, and sledding opportunities during winter. The next Recreation Plan should investigate this potential in detail.
- 2.4.4** Study other district-wide stormwater solutions.
- 2.4.5** Study day-lighting buried portions of the Red Run waterway, such as Vinsetta Blvd, and provide intentional stormwater management in open spaces such as Wagner Park and Red Run Golf Club.
- 2.4.6** Perform green infrastructure feasibility check for all city construction projects. (S-CAP 4.4.2) Ensure city-sponsored construction projects (such as municipal parking and buildings) include permeable paving, LID strategies, and underground storage in their design and construction.
- 2.4.7** Develop an education campaign to encourage residents to practice water saving strategies during rain events or other compromised occurrences. These practices include limiting laundry, dishwashing, or other water intensive activities, as to minimize load on the combined storm and sanitary sewer system. Consider the use of technology-based alert systems.
- 2.4.8** Evaluate feasibility of separating the city's combined sewer lines. (S-CAP 4.3.2) Study the incremental development of a separate municipal stormwater system, including subsurface storage that may be added along with future street projects.
- 2.4.9** Include low impact development (LID) strategies, where appropriate, in bump outs or other road diet projects (S-CAP 2.4.4).
- 2.4.10** Encourage permeable paving and pervious surfaces, as appropriate to the land use context, through zoning.
- 2.4.11** Identify critical stormwater ponding areas

caused by larger storms. (S-CAP 4.4.1) Further evaluate opportunities to achieve other Master Plan mobility goals while improving stormwater conditions.

- 2.4.12** Update city municipal codes to integrate stormwater management and water efficiency practices. (S-CAP 4.4.5, 4.4.6)

## 2.5. Support Recycling and Composting

As outlined in Royal Oak's Sustainability and Climate Action Plan, the management of waste is a critical part of planning for sustainability, both as a part of reducing the impact on the environment associated with waste disposal and as part of establishing a "circular economy" where waste in one area becomes a resource elsewhere in the system. Municipal management strategies that reduce solid waste also focus on opportunities for recycling and composting. This master plan proposes exploring opportunities to expand local efforts in coordination with regional initiatives. As many waste management services operate regionally, partnerships with surrounding communities, Oakland County, and other regional agencies will be important to expand services. The city should set a goal to achieve regular and convenient recycling and composting services. Consideration should also be given to changes in fees for waste services that encourage recycling and composting. This may include free recycling and compost combined with adjustments to trash fees. Trash fees may be tied to the bin size as well, encouraging residents to discard less trash. Additionally, frequency changes could be considered, reducing trash pickups while increasing recycling and compost opportunities. To expand services, Royal Oak will need to work with surrounding communities in order to grow support for more robust programs.

### Actions

- 2.5.1** Create systems to track and report data on waste, recycling, and composting.
- 2.5.2** Consider a new law to require separate trucks to haul waste and recycling.
- 2.5.3** Increase the frequency of event-based recycling at the SOCCRA facility (S-CAP 3.).

# Advance Sustainability and Climate Action

## Increase Native and Climate Tolerant Trees and Plantings

- 2.5.4** Expand the current composting facility to support a more robust composting program. Growing demand could be met (S-CAP 3.2) by supplementing this site with an additional composting drop-off locations in convenient settings such as the current pilot at the farmer's market (S-CAP 3.2).
- 2.5.5** Research viability of residential food composting programs (S-CAP 3.3.1) and partner with neighboring communities to expand the availability of recycling and composting services.
- 2.5.6** Consider fee structure adjustments to discourage trash and encourage recycling and composting.
- 2.5.7** Encourage businesses to recycle, compost, and to use compostable take-out packaging.
- 2.5.8** Research feasibility of zoning that requires salvageable materials, from major remodels or demolitions in residential and commercial buildings, be kept out of the waste stream. (S-CAP 3.2.3)

## 2.6. Increase Native and Climate Tolerant Trees and Plantings

One of the key characteristics of Royal Oak's neighborhoods are their tree-lined streets. Trees and the overall tree canopy are important for managing heat, sequestering atmospheric carbon, and slowing and absorbing stormwater. They also play an important role in mental health. The city has most control over street trees, which are found along most streets in Royal Oak. As discussed in a later section on mobility, there are many gaps where street trees are missing or spaced far from each other. Additionally, some street trees are unhealthy, necessitating care or replacement. Residents express concern for tree removal, and an interest in restoring and supplementing the tree canopy. Others express concern with damage caused to sidewalks and pipes from tree roots. The community-wide and climate benefits of street trees far outweigh the occasional damage and efforts should be made to replace unhealthy trees and fill-in missing trees. Because there are many places with gaps, prioritization is

needed, which can start with the neighborhood greenway network (discussed later in the master plan) and additional streets identified for safe routes to school.

To further sustainability, street trees, ground cover, and trees and other plantings on private properties should be selected from species that are native to the region and will tolerate the future climate. Native plants are important to support regional fauna and require less watering and pesticides. In addition to future climate tolerance, tree species should be intentionally diversified to reduce the risk of pests and disease. The city can be proactive with these measures for street trees and public properties, and make changes to the zoning code to require appropriate plantings on private property.

### Actions

- 2.6.1** Evaluate viability of an ordinance that protects existing residential trees. (S-CAP 5.1.3) Prioritize tree preservation, especially large, old growth trees.
- 2.6.2** Evaluate areas of the city that are lacking in tree canopy and target for tree improvements. (S-CAP 5.1.1) This should be prioritized along neighborhood greenways and safe routes to schools.
- 2.6.3** Diversify tree species and other plantings along streets and in public properties.
- 2.6.4** Educate the public on benefits of native landscapes and encourage the conversion from turf grass to more native plantings. (S-CAP 5.1.2, 5.2.3)
- 2.6.5** Adopt requirements for native and climate adaptive trees and landscape, and an associated tree, shrub, and ground cover list, also identifying street trees that are tied to commonly available park strip widths to ensure sufficient room for healthy root growth. (S-CAP 5.2.1)

# Advance Sustainability and Climate Action

## Participate in Regional Sustainability

### 2.7. Participate in Regional Sustainability

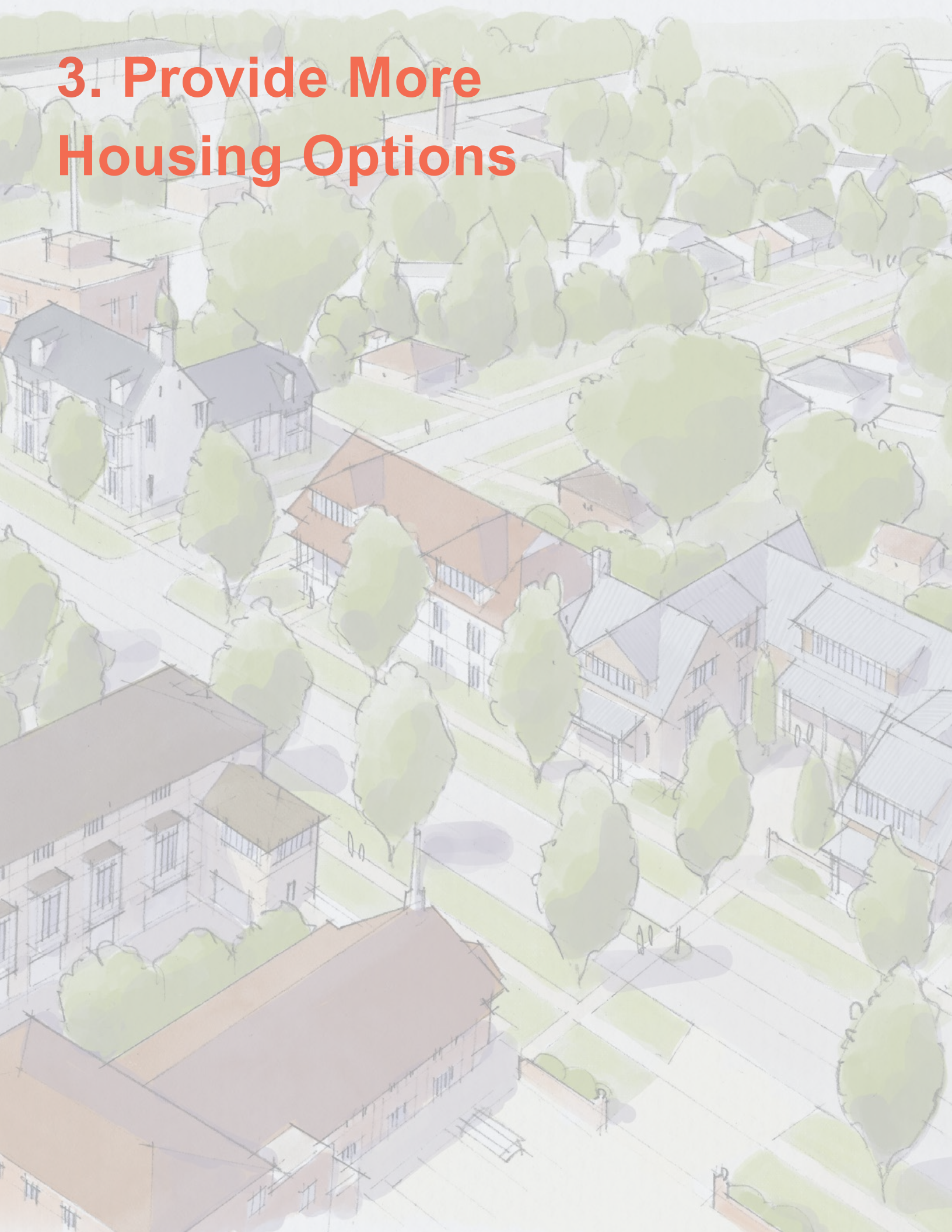
While there are many aspects within Royal Oak where sustainable practices can greatly reduce climate impacts and improve livability, regional strategies will also play a role in determining the degree to which Royal Oak's Sustainability and Climate Action goals can be achieved. The state, regional, and Oakland County all have efforts underway to address sustainability and climate change, including programs Royal Oak can participate in. For instance, the Southeast Michigan Council of Governments (SEMCOG) is in the process of planning the Regional Climate Action Plan and has budgeted nearly \$5B for funding projects to reduce GHG and carbon emissions. These grants will be available in the next two years and focus on buildings, transportation, and nature-based solutions (sequestration); with a special emphasis on strategic projects. Opportunities to fund green stormwater infrastructure are especially important for the region, and Royal Oak's location within the watershed means efforts to manage stormwater within the city will help downstream. Similarly, waste management, energy production, sequestration, and mobility improvements require both local and regional coordination.

#### Actions

- 2.7.1** Explore regional partnership opportunities to maximize sustainability goals and climate actions (S-CAP 1.4.2).
- 2.7.2** Support regional green space preservation. The region has a goal of 30% conservation of natural areas with another 600,000 acres needed to achieve the goal.
- 2.7.3** Use regional partnerships (and associated funding) to improve stormwater management in parks while improving them and upgrading amenities. (see Stormwater section)
- 2.7.4** Identify local sustainability projects and initiatives that meet regional goals and may have funding opportunities as a result.
- 2.7.5** Explore sustainability-focused partnership opportunities with neighboring communities.



# 3. Provide More Housing Options





# Provide More Housing Options

## Identify Where and How to Grow

### 3.1. Identify Where and How to Grow

Royal Oak is poised to grow in the coming years due to both unique characteristics of the city that make it a desirable place to live and changing demographics which demand types of housing not currently available. The population of Royal Oak is becoming younger on average while the population in the region has been aging. Royal Oak has an increasing number of seniors as the existing population ages, alongside a significant number of students and young professionals, which is a unique condition. (See Figure 15) This means an increasing number of households at both ends of the age spectrum that results in a decline in the average number of people per household - for both older and younger residents, there are and will be more 1- and 2-person households than the city has seen historically. Simply maintaining the current population will require more housing units, and the city is growing at a moderate rate as well. In order to accommodate these demographic trends, it is also necessary to diversify the range of available housing types to suit smaller household sizes, and to ensure that the right types of housing are financially attainable for households across the range of incomes.

Royal Oak's moderate growth rate results in an increase of about 65 households per year. The city could grow more if there were a greater variety of housing types and price points, as identified by the housing market study supplement completed as part of the master plan, identifying demand for many more homes than are available. This means that there are more people who would like to live in Royal Oak, but there are not enough homes, which results in an increasing cost of housing.

Even with growth beyond what the regional authorities project, which is a distinct possibility, the city's population is likely to remain below its historic peak in the 1970's, due substantially to a shrinking size of households. There are more households, but fewer people in each, which means that the number of homes that existed in 1970 would accommodate a much smaller population in the future. To simply maintain its' population, new housing needs to be accommodated.

Because households are getting smaller, many aspiring residents and existing residents looking for different housing options could be accommodated in smaller homes, including townhomes, condo, and apartments. By providing opportunities to build these types of homes, growth is able to be accommodated on a relatively small amount of land. As a result, change in predominantly single-family areas, a concern of existing residents, can be avoided if new and diverse housing can be provided for. (See Figure 1)

The primary goal of a master plan is to enable the city to manage its growth and response to changing demographics in order to ensure that the outcome improves rather than detracts from the quality of life of the residents. Growth can have desirable benefits for a community, but there are significant problems and concerns associated with it. Many of the concerns of residents regarding housing growth within the city today are related to the extent and the location of growth, and compatibility of the types of new housing in proximity to existing homes. The master plan proposes actions to address these concerns in a way that maintains a balance between growth and quality of life, defining where growth should occur and its scale.



Existing



Proposed

Figure 14. An example of new housing along Rochester and other similar underutilized commercial corridors.

# Provide More Housing Options

## Identify Where and How to Grow

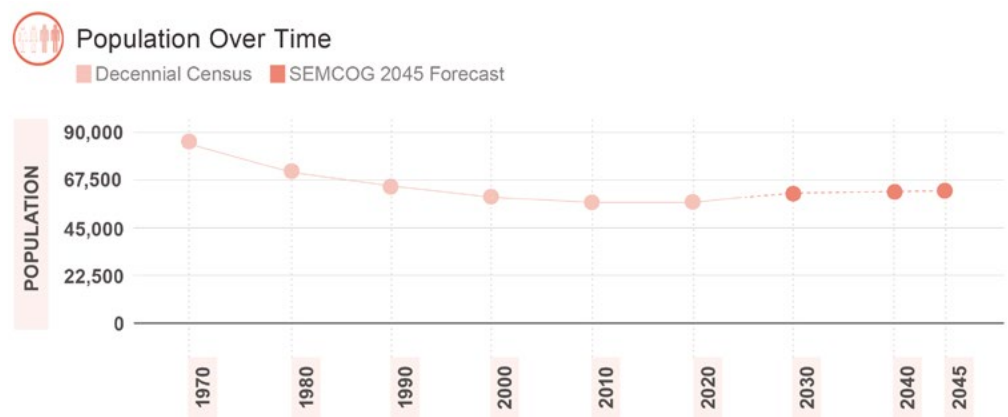
Many of the problems associated with growth have been exacerbated by an outdated zoning and development approvals process that severely hinders the production of new housing and is out of alignment with community goals and aspirations. To address this misalignment, the master plan identifies both where growth should occur and in what form. This clarity of purpose should be paired with strategies to align all documents, processes, and policies, such as the zoning code, to enable growth to occur efficiently.

Today, building the housing that is in demand is restricted throughout most of Royal Oak. Because opportunities to build this housing are not readily available, new development is forced to use an approvals process called Planned Unit Development. This process allows each new development to be individually evaluated, and to develop in a manner that is not consistent with the existing zoning, in order to benefit the community overall. The benefit sought is new housing that meets growth pressures, however the process means that growth occurs almost at random rather than being planned. Overall this process is not good for residents, developers, or the city.

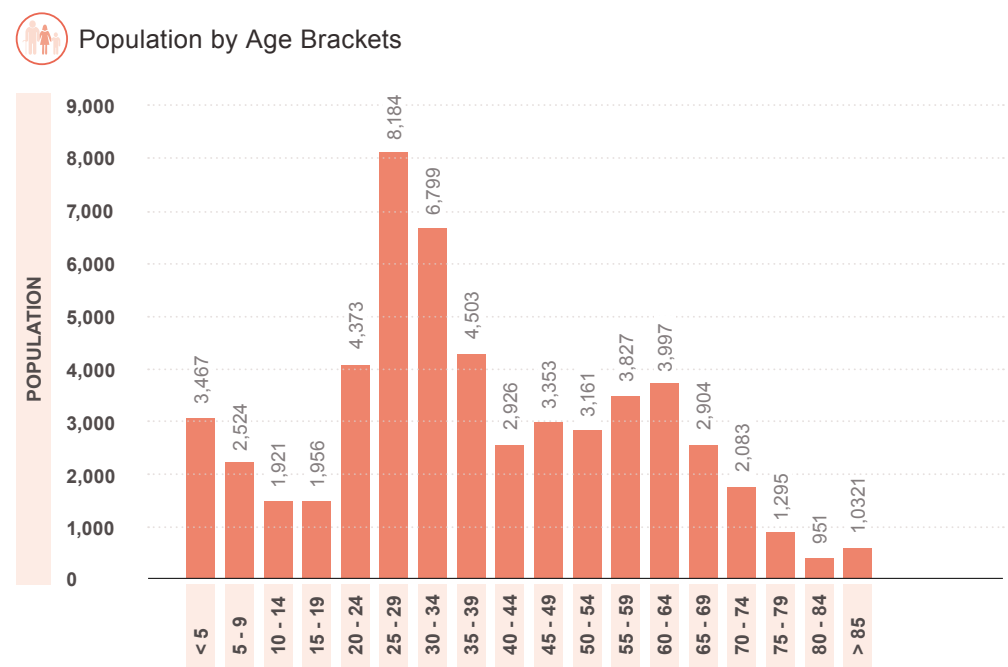
A key piece in updating these regulations will be defining zoning districts where the quality and character of growth can be more effectively managed, in those locations where growth is planned to occur. The most effective way to do this with a zoning code is to use form-based regulations, or a form-based code. Form-based codes place an emphasis on the building scale, position, and its exterior design in order to ensure compatibility with the surrounding neighborhood and manage transitions between areas with taller and larger buildings and

areas with smaller buildings. Form-based codes are especially useful for preserving neighborhood character while introducing a desirable mix of uses or transitioning between lower and higher scales or densities. (See Figure 3) Form-based codes can be used city-wide, but should at least be applied to the downtown, major roadway corridors, mixed-use districts, and any other location where taller and bulkier buildings will be permitted.

Specific issues related to the different types of housing, its integration into neighborhoods, its affordability, and the ability to sustain a healthy pattern of “aging in community” are addressed in subsequent sections.



Source: U.S. Census Bureau Decennial Census + SEMCOG 2045 Forecast - Community Profile



Source: 2020 ACS 5-Year Estimates, U.S. Census Bureau

Figure 15. Royal Oak's resident population

# Provide More Housing Options

## Provide Housing For All Stages of Life



Low scale single family ----- Medium scale multi-family ----- High scale mixed-use

Figure 16. A range of building types arranged from lowest to highest scale and intensity.

### Actions

- 3.1.1** Revise the Future Land Use Map to clearly define areas for growth and areas for preservation.
- 3.1.2** Update the zoning code to provide zones that align with the scales of growth as intended in the Future Land Use map.
- 3.1.3** Updated development review processes to enable streamlined approvals of projects that comply with the Future Land Use Map and the City's goals.
- 3.1.4** For areas of growth, update the zoning code with form-based districts to carefully control the character of higher intensity development. Consider similar zoning code revisions to support the preservation of existing neighborhood character as well.
- 3.1.5** Once code revisions occur, retain a group like the Incremental Development Alliance, to hold training sessions to educate our local entrepreneurs on how to envision, design, finance, bid, and build small scale real estate developments.

### 3.2. Provide Housing For All Stages of Life

Royal Oak's existing housing stock is predominantly characterized by single-family detached homes. (See Figure 17) Prior to the regional growth that all of Metro-Detroit experienced during and after the 1940's, Royal Oak's neighborhoods included duplexes and small multi-family buildings alongside single-family detached homes. (See Figure 18) Growth in the 1940's and after was comprised almost exclusively of single-family detached homes, with some garden-style multi-family added to the mix in the 1960's and 1970's. Townhomes were rare prior to the 2000's. Like many cities, the development of Royal Oak's housing stock has been limited in diversity by the lack of a supply of housing other than single-family detached homes and relatively large apartment complexes. These have been limited directly by zoning limitations as well as indirectly by rules such as minimum square footage requirements for homes. This situation has come to be referred to as the "missing middle", that the medium scale of housing options are missing in most communities. (See Figure 16)

"Missing middle" housing includes cottage courts, garden apartments, duplexes, small apartments and condos, and townhouses. This type of housing meets the needs of households of different sizes and incomes that have not been well served by residential construction post-1940, which are reflected in housing demand that Royal Oak is seeing in its aging population as well as growing



# Provide More Housing Options

## Provide Housing For All Stages of Life

young demographics. Best practice in new housing development is to integrate new “missing middle” housing into neighborhoods in a way that provides new residents access to both jobs and neighborhood amenities (i.e., parks, schools, neighborhood retail). This master plan provides a means of accommodating new “missing middle” housing in neighborhood centers and commercial corridors that fulfills best practice recommendations while addressing resident concerns for protecting existing neighborhood character.

Recently housing growth has consisted of multi-family and townhouse developments, reacting to market demand and providing some of the missing housing type, along with new single-family detached homes replacing existing structures. Because this has occurred in reaction to market demands rather than with a plan, the scatter-shot distribution of new housing is not sufficiently aligned with an overall strategy for the City’s growth which should address housing cost and affordability, aging in community, and the breadth of housing types needed to provide the necessary range of housing options. These must be considered in terms of where new housing is built, what type of housing it is, and supplemental policies and strategies that go beyond simply aligning supply and demand.

**Affordability** can be a confusing topic, especially since the concept of “affordable housing” has come to be associated only with housing for very low-income populations—those who earn less than 30% of the average income of Royal

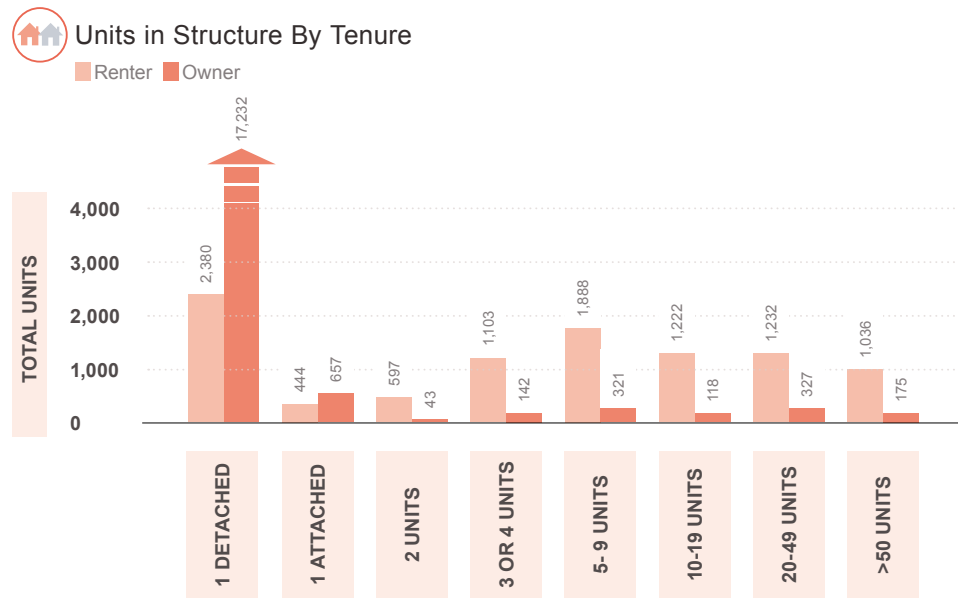


Figure 17. Range of existing housing types in Royal Oak.

Oak households (area median income or AMI). But affordability goes beyond housing the lowest income segment of the population. Households are considered to be “cost burdened” by housing if it costs more than 30% of their income, at which point they are considered to be spending more of their income than is reasonable on housing, which reduces their ability to pay for food, healthcare, education, and other necessities. Many people do choose to be “house poor,” spending more than 30% of their income in order to occupy their housing type and location of choice. The problems come when housing prices compel many households to spend an uncomfortable percentage of their income on housing, and when even people in the middle of the income distribution (including people who are necessary part of the work force in a healthy local economy) are forced out of the local market altogether. To meet social as well as economic needs, cities require housing that is

affordable for their local work force, for teachers and police officers, for young professionals and entrepreneurs, and for seniors on a fixed income who have spent their lives in a community. This topic is very complex, necessitating its own section which follows.

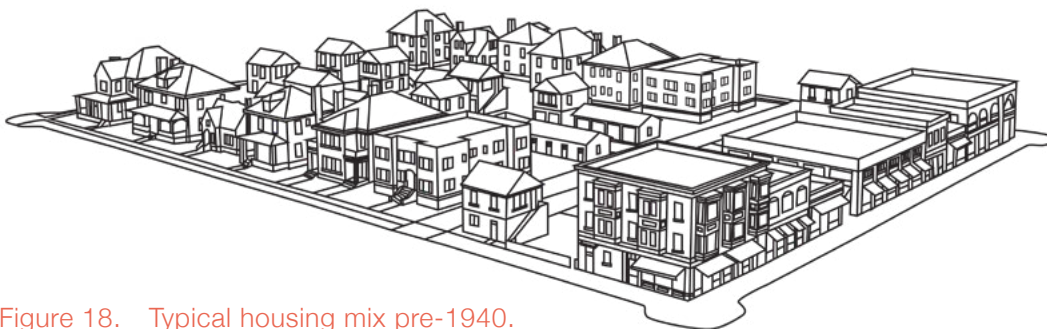


Figure 18. Typical housing mix pre-1940.

# Provide More Housing Options

## Provide Housing For All Stages of Life

**Location** is important for three reasons. First, because it is closely connected to affordability. Housing that is integrated into a neighborhood where it is possible to walk to shops, community facilities, or even jobs, can be more affordable because it reduces household transportation costs such as gas, car maintenance, or even the opportunity to reduce the number of cars in the household. Individuals and households of varying composition often seek housing that seems more affordable on the outskirts of town or in other nearby cities where housing is less expensive. This often results in a greater combined financial burden with higher costs for transportation to jobs, school, and shopping. (This is sometimes described as “location efficiency.”) Second, a crucial component of people’s satisfaction with their living situation is related to the integration of housing into a supportive community setting, with access to necessary goods and services as well as local amenities and the opportunity to create strong social bonds with diverse neighbors and spaces to gather. Third, the location of housing of different types is a key factor in defining the character of a place, as part of creating neighborhoods with an appropriate mix of housing and uses, and layout that connects and integrates neighborhood activity centers or main streets with houses, parks, and schools.

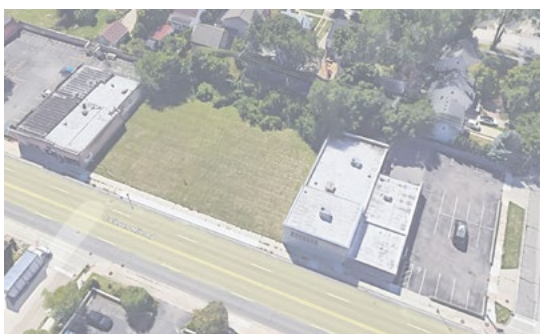
Without a supply of vacant land to allow expansion of the city, future growth is limited to locations that have been previously built upon but at a scale or format that is less than optimal for the site or is out of date with current preferences, commonly described as “infill”. (See Figure 19 and Figure 20) These locations are often the most difficult to develop because they impose complex constraints on

developers and present the possibility of negative impacts on existing residents. More heavily trafficked roadways know as corridors, neighborhood activity centers and main streets, and transitioning industrial areas have proven to be most readily acceptable places for new development to residents, especially for multi-family housing.

**Housing type** diversity is crucial to providing for the needs of households that vary in size, composition (e.g., singles or couples with and without children), income, and desired neighborhood setting. The availability of a variety of housing types and neighborhoods is related to the life cycle of individuals and families, and their social and economic needs at different points between childhood and retirement.

A typical life cycle includes a variety of housing types and locations. Both younger and older residents need access to apartments or condos, ideally close to relevant services. Young families need starter homes and growing families a larger home, near schools and parks. Recent research has demonstrated the value for a community of providing housing that allows residents to “age in place,” to stay connected to their community and social bonds as they move through their life cycle.

Presently younger residents and households of varied demographic composition are not finding a sufficient supply of apartments, townhomes, small homes, or starter homes. The result is the increasing price of the available units and a tendency to push some into larger homes



Existing



Proposed

Figure 19. An example of new multi-family on a 11 Mile Rd and other similarly underutilized Mixed-use Corridors.



# Provide More Housing Options

## Provide Housing For All Stages of Life

than they need or out of the city. Many older residents would like to downsize or live in senior housing, but a sufficient range of options is currently not available and many remain in larger single-family homes which could be available for growing families if a full range of housing types were available.

**Aging in community** refers to the ability for seniors to stay connected to their community, maintaining social bonds and systems of support as they age, rather than having to move to senior housing that can be isolating for some and is in short supply in Royal Oak. The benefits of “aging in community” are enjoyed by people at every point in the life cycle, since younger community members benefit from proximity to their parents and grandparents. Elders are enabled to maintain supportive connections with friends and family that become especially important in later years when connections to community can both contribute to a high quality of life and reduce the need for specialized senior care.

There are three housing options for those with a desire to “age in community”:

First, some residents may choose to age in an existing home, assisted by the large single-story housing stock. In this circumstance, there are needs for modifications (ramps, doorways, bathrooms, kitchens), assistance with maintenance and chores, delivery of personal services (food, medicine, etc.), and transportation assistance to access goods and services which tend to be located further from single-family homes than other housing types. This option is the least costly when the home is paid off, and reverse mortgages can be a possible income source.

The second option is to age in a new home. Residents with a large or multi-story home might choose to downsize to a smaller house or apartment in order to remain within their community. In this scenario, accessibility requirements are integrated into their new home. The buildings may require a few modifications but residents will likely need assistance with maintenance and chores, and delivery of personal services. This option is possibly out-of-reach for many, given the costs of new housing, exacerbated by a lack of supply of such homes, and the financial burdens of the tax structure for seniors on a fixed income.

The third option for aging within the community is to move to senior housing which is centrally managed, with or without assisted living, memory care, and other specialized services, but still located in the community. In this scenario, accessibility, maintenance, and personal services are included. This is the most costly of the scenarios but highly sought after as demonstrated by existing waiting lists at senior housing facilities in the community. Because the city does not operate such housing, it is limited in its ability to provide for additional senior housing, however the city should explore opportunities to create incentives for additional senior housing by taking advantage of public property and under-utilized property associated with surface parking or public institutions such as schools. It is also possible to work with large businesses with similarly under-utilized property to create opportunities for development of senior housing that becomes more



Existing



Proposed

Figure 20. An example of new townhomes along Campbell and other similarly underutilized Neighborhood Edges.

# Provide More Housing Options

## Provide Housing For All Stages of Life

financially feasible for the population because by reducing land costs. This strategy can also have the advantage of making it possible to develop senior housing in locations that enable seniors to have walkable access to neighborhood services and amenities.

The second and third options are also assisted by providing more locations for multi-family housing. Most multi-family buildings include elevators and either accessible or convertible units, which are common barriers to aging in existing homes. By allowing new multi-family housing to be developed, a large portion of those wanting to downsize yet remain independent can be served. But to remain in community, such housing needs to be allowed close to amenities like parks and services like shops and community facilities.

**Accessory Dwelling Units** (ADUs) are typically a small house or apartment located on the same lot and under the same ownership as a detached single-family home. They are commonly referred to as “mother-in-law cottages” (detached ADU) or “granny flats” (coach house) because of their traditional use as housing for extended family. ADUs can also be created by converting part of an existing house (internal ADU) or building an addition (attached ADUs). (See Figure 21) ADUs of all types are frequently found in older cities and neighborhoods, often built before current zoning codes.

Many cities have recently chosen to allow new ADUs as a cost effective way to develop a stock of lower cost housing within existing neighborhoods. In fact, AARP (formerly the American Association for Retired Persons) is one of the leading supporters of legislation permitting ADUs across the country. Royal Oak’s Older Adult Advisory Board similarly supports ADUs as a means of supporting the older adult population in a variety of ways.

- For an aging population, ADUs can be a way to provide housing for caregivers on site, enabling seniors to stay in their homes as they begin to require more assistance. Single story ADUs can also provide an affordable housing option for seniors who can rent the main house for additional income.

- For homeowners and families, an ADU can be a way to offer housing to younger adults and seniors. It can help

to cover the cost of a mortgage, making homeownership more financially feasible in desirable neighborhoods.

- For the city, permitting ADUs can be a way to encourage development of housing that serves diverse needs and incomes, and that can be comfortably integrated into existing neighborhoods.

- From the standpoint of neighborhoods, ADUs can be more easily integrated than other rental types because they are subsidiary to the typically owner-occupied dwelling unit on site, under the management of a homeowner. There are well-established models for policies and zoning regulations for detached, attached and internal ADUs that can be tailored to the specific needs of Royal Oak’s neighborhoods.

**Concluding**, while there are many single-family homes in Royal Oak, there are not enough apartment-style buildings that are suited to changing demographics and addressing the needs of seniors or young residents. Similarly, there are very few townhomes or cottages that serve middle demographics. Overall the housing supply needs greater diversity to support more residents, to align with the changing lifestyles of existing residents, and to serve both older and younger residents. Providing more housing and greater housing diversity can also address issues of increasing housing cost by building up the supply. In order to address resident concerns for their existing single-family neighborhoods, new housing can be accommodated in less controversial places, however those places should be located with access to amenities, services, and transportation options.



# Provide More Housing Options

## Provide Housing For All Stages of Life

### Actions

- 3.2.1** Revise the Future Land Use map in order to enable a wider range of housing types, including multi-family, along major road corridors and within neighborhood nodes and activity centers.
- 3.2.2** Identify sites for residential development, prioritize “Missing Middle” housing types as well as medium and high density residential where appropriate (S-CAP 6.4.1, AIP-P 4.3).
- 3.2.3** Update the zoning code with form-based districts to more carefully control the character of higher-intensity building types, especially for locations accommodating new multi-family and mixed-use buildings, and remove regulations that directly or indirectly limit “Missing Middle” housing in appropriate locations. (Related to S-CAP 6.4.2)
- 3.2.4** Establish an ordinance enabling accessory dwelling units (ADUs) in residential districts, tailored to their configuration as internal, detached, and attached ADUs and the surrounding neighborhood character, along with

appropriate standards concerning setbacks from neighboring properties, and other commonly regulated conditions for ADUs (AIP-P 4.3, Older Adults Advisory Board).

- 3.2.5** Develop a pilot project to familiarize the community with both detached and attached ADUs by providing process or financial incentives for a limited number of new ADUs (Older Adults Advisory Board).
- 3.2.6** Incentivize additional senior housing by leveraging public property such as surface parking lots, providing incentives, and working with large format businesses and institutions to provide space for additional senior housing on underutilized portions of their properties (AIP-P 4.3, Older Adults Advisory Board).
- 3.2.7** Facilitate housing relocation assistance for seniors above a certain age, and assistance in response to challenging events (heavy rain, snowstorm, loss of power, heat, tornadoes) to help provide a better fit for their housing needs and make existing, larger houses available to more families (AIP-P: 4.1, 4.2).

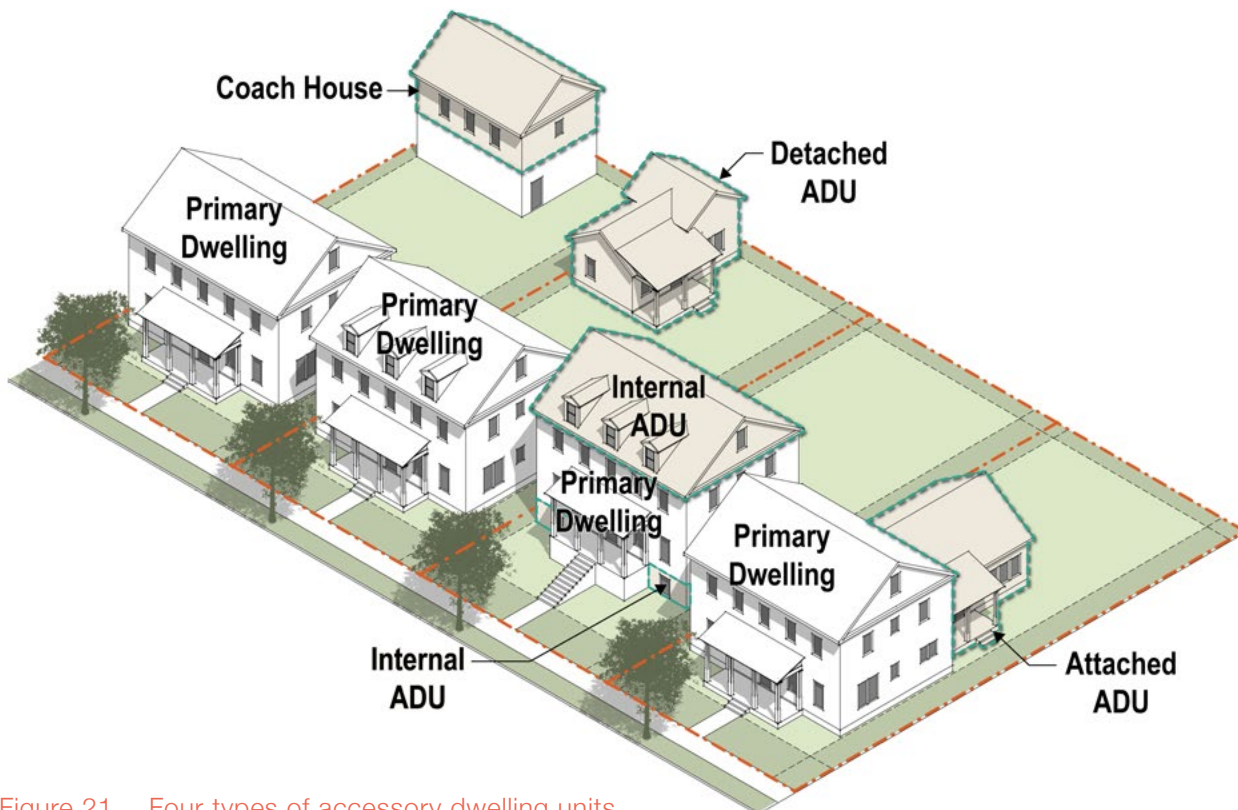


Figure 21. Four types of accessory dwelling units.

# Provide More Housing Options

## Provide Lower Cost Housing

### 3.3. Provide Lower Cost Housing

In order to meet the needs of a growing, more diverse population, Royal Oak will need to address housing costs, a problem many other communities face. There is very specific terminology used in discussing housing costs. Conventionally, “affordable housing” has been defined as housing that people earning only 30% of the area median income (AMI) can get without spending more than a third of their income. The median is the middle point where half of the population earns more and half earns less. In order to broaden the discussion of affordability, a new term has been introduced in recent years, “attainable housing,” which is defined as housing that the population earning up to 120% of the AMI can get without spending more than a third of their income. Additionally, housing for those earning 30-50% of the AMI is considered “very low income housing” and housing for those earning less than 30% of the AMI is considered “extremely low income housing”. This terminology is important to clarify because there are common, negative associations with the term affordable

housing, however there are many levels of housing cost that are affordable to different segments of the population. Having housing available at a variety of price points, including affordable and attainable housing, is important for community stability, aging in community, and climate action. Social diversity in terms of age, gender, income level, race, ethnicity, and household composition benefits those from every income level, yet is not achievable without a broad range of housing price points. Those residents who want to age in community are frequently income limited, unable to afford new or high-priced housing, desire smaller units without the need to maintain landscapes, or need the accommodations provided by larger multi-family buildings. And lastly, a well-located supply of housing for the local workforce and lower income members of the community can reduce transportation GHG emissions by reducing car trips and the length of each car trip for local workers.

According to the U.S. Census, Royal Oak has an area median household income of \$92,799 (2018-2022). (See Figure 22) For comparison, 120% of AMI is \$111,358.80, the attainable housing threshold. At 120% of the median, a household spending more than \$2,783.97 per month on housing would be considered cost burdened. 30% of AMI is \$27,839.70, the affordable housing income threshold. At 30% of the AMI, a household spending more than \$696 per month would be considered cost burdened.

Prices in the housing market are currently elevated and significant demand to live in Royal Oak means that prices will remain high. This is true of both home values and rents, noting that 34% of Royal Oak residents rent. (See Figure 23) Because of the demand to live in Royal Oak, the limited supply of multi-family housing, the need to redevelop properties to accommodate growth, and high cost of producing new housing, “naturally occurring” affordable housing

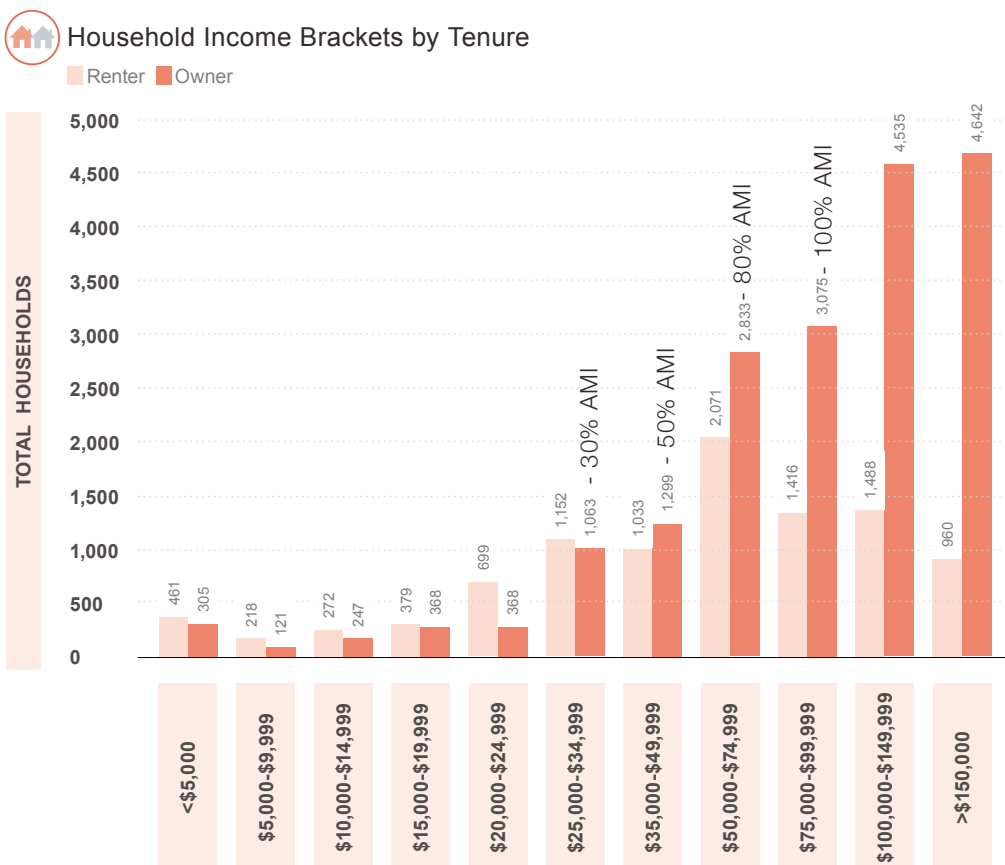


Figure 22. Royal Oak household income distribution

# Provide More Housing Options

## Provide Lower Cost Housing

doesn't exist in the market (i.e., housing that is affordable without subsidies for lower income households). Naturally occurring "attainable housing" can be provided, but only by enabling more housing to be built, in particular multi-family housing in all areas of the city where it is acceptable. But such areas are severely limited today. Adding townhomes and other housing types that are generally more acceptable to neighboring residents is important for housing diversity and stabilizing or increasing the population, but is not likely to deliver housing units at an attainable rate, as the resulting sale or rent associated with smaller single family homes and townhomes remains above the means of most people who need affordable or attainable housing.

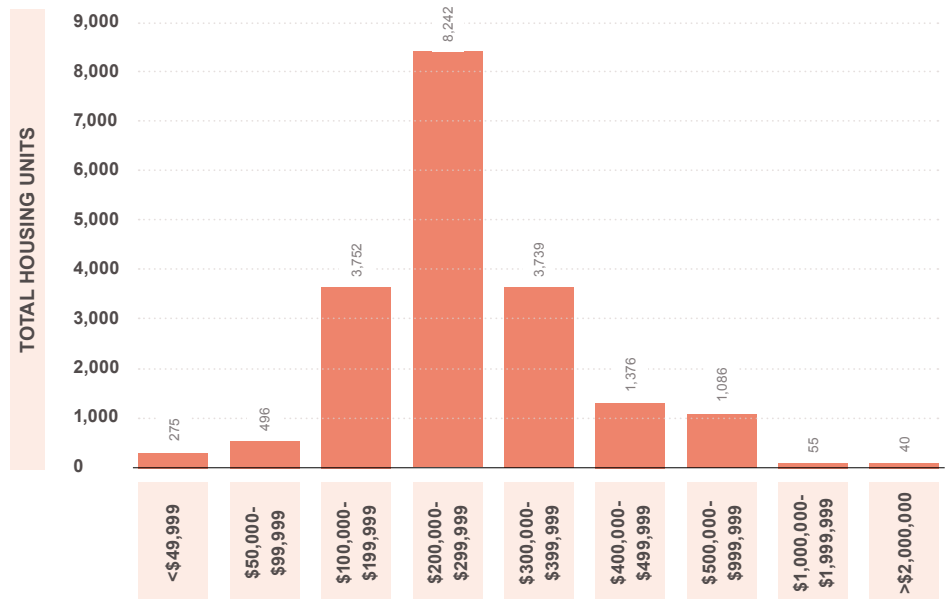
In addition to land and construction costs, the approvals process can take a lot of time and is unpredictable, adding to the cost of producing new housing units. At a minimum, the approvals process needs to be easier and more predictable to reduce barriers to the delivery of housing at a reasonable cost. Housing types needed in the city should be able to be constructed "as of right," meaning that the zoning code allows it to be delivered in appropriate locations without requiring builders and developers to go through unnecessary bureaucratic process in order to be permitted. Currently recourse to the mechanism of "planned unit development" has been used as a way to work around the obstacles presented by the zoning code, but the result has been the right housing often isn't built in the right places and the whole process is costly for developers and unpredictable for residents, contributing to their concerns regarding the impacts of growth. Streamlining the process of approving projects (when aligned with the

City's strategic goals) will help to keep up with demand and push prices to a somewhat more reasonable level.

Housing cost is not just a matter of supply, however. Due to land costs, increasing construction costs, process delays, and costs associated with rebuilding already developed properties, even the price of multi-family housing is often well above attainable rates. Opportunities to provide subsidies and other benefits that reduce the cost of providing housing are necessary to achieve attainable and affordable housing in Royal Oak, as in similar communities.



Home Value Brackets



Source: 2021 ACS 5-Year Estimates, U.S. Census Bureau



Contract Rent Brackets

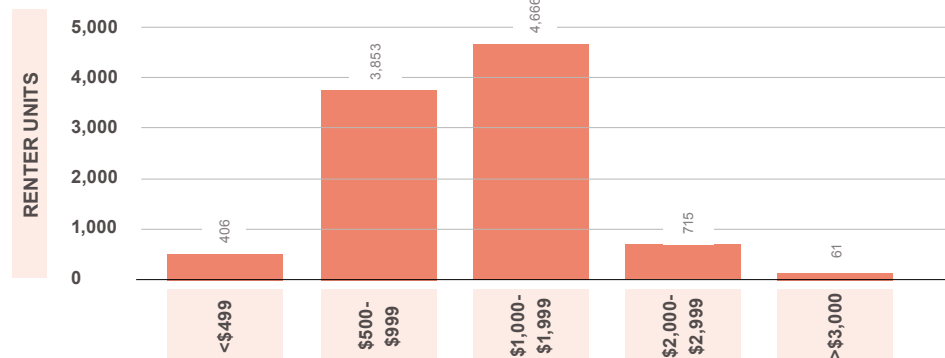


Figure 23. Royal Oak housing costs.



# Provide More Housing Options

## Align Policies

Currently, the City lacks a housing authority, land bank, or other means of actively supporting the provision of attainable and affordable housing. However, the city has a short-term opportunity to distribute ARPA funds earmarked for addressing housing affordability, and has further opportunities to leverage both publicly owned properties and state-level funding that municipalities can control.

Additional strategies may be pursued to provide development incentives when affordable or attainable housing is provided, alone or as part of a larger development

### Actions

- 3.3.1** Adopt a Future Land Use policy that clearly identifies where multi-family housing can be developed, as provided for in the master plan.
- 3.3.2** Update the zoning code and approvals processes to make it easy to develop multi-family housing where it is acceptable, as detailed elsewhere.
- 3.3.3** Provide permit navigation assistance and expedited processing as an incentive to develop affordable housing, providing timely review, consistency, and a streamlined process. This should include administrative approvals for projects that require no variances and meet city goals (AIP-P 4.3a, 4.3c).
- 3.3.4** Leverage critical publicly owned land assets, especially in the downtown, for new attainable and affordable housing, to be built by the private market and subsidized by public financing.
- 3.3.5** Study zoning incentives to encourage attainable or affordable housing. The affordable units provided would be in exchange for density bonuses, financing assistance, tax relief, or other benefits. Zoning incentives need to balance the desire for affordable housing with a lack of predictability concerning building size.
- 3.3.6** Encourage major employers to construct or otherwise provide financial assistance for lower cost housing to improve housing availability and reduce commuting.

### 3.4. Align Policies

Aligning policies and implementation regulations with each other and with overarching goals in the city is a major need that emerged through the background analysis and engagement processes for this plan. Presently, zoning and land use decisions are frequently being made on a case-by-case basis through a planned unit development process (PUD). This is a process through which the city and a developer can negotiate the details of a development - height, number of units, parking, architectural character, landscaping, and other details. Typically this is justified by the additional community benefits that could be provided by a development, such as sustainable construction practices or attainably-priced housing. However, in most cities, including Royal Oak, PUDs are being used as the only option to provide housing that is in demand because the current zoning regulations and land use policy do not permit it. (See Ch. 1.3)

Reliance upon PUDs clearly demonstrates that zoning and land use are not aligned with the desires of the market or the direction being provided by city leadership. Because of the misalignment, in order to allow for the type and scale of growth desired by leadership and the development community, and in demand by those looking for housing, each development project is individually evaluated and is likely to not conform with expectations set by zoning and land use.

While using PUDs is a remedy for immediate action in the face of the significant effort necessary to change and align zoning and land use with city goals, it is not advantageous for any party involved and has resulted in distrust among some residents. When any scale or type of development could potentially happen anywhere, it fuels distrust, and results in pushback against change and growth. To address this, the future land use plan clearly identifies “Areas of Growth,” where growth should take place, and clearly distinguishes the scale and extent of those areas - significant growth in Activity Centers while limited growth in Neighborhood Edges. (See Figure 1) These areas allow for a variety of housing types, including mixed-use, meeting market demand and clarifying expectations for residents. Similarly, the future land use plan identifies “Areas of Preservation,” where growth is not intended to take place. There may be renovations and new homes replacing

# Provide More Housing Options

## Align Policies

existing ones, as is the right of individual owners to do with their properties, and occasional accessory dwelling units; overall these places are not intended for change.

In addition to the lack of predictability for residents, the situation is also unstable and unpredictable for developers. A developer wants to know, ahead of time, what they can build in which locations, and they'd like a streamlined process to achieve that. If the community would like to request a higher quality outcome, such as that offered by form-based zoning codes, developers are generally happy to provide that if the process and the rules are clear and predictable. Long approval processes and unclear standards result in developments that are more expensive than necessary or that don't move forward at all.

Clear rules are also helpful for residents, clarifying the development that zoning allows on nearby properties. This is important to address concerns that development is encroaching into neighborhoods, when in fact it may be that development is following the rules and occurring in the locations and at the scale intended by city plans and regulations. If there is a need to transition or buffer in any way, that should be clear and understood by all parties. Overall the goal of aligning policies is to create clarity for all involved, and help ensure outcomes that align with the community's goals and aspirations. City leadership would also benefit from clear rules and processes, avoiding the current tendency for a protracted process of reviews and public hearings to result in escalating opposition, stalled projects, public dissatisfaction, and developments that don't achieve desired outcomes.

Under Michigan law, the Master Plan must include implementation steps and provide guidance for zoning ordinance updates to achieve the Plan's policy recommendations, but any changes to zoning would need to occur after the master plan is adopted with additional public review. There are many options available for updating zoning, and updates could be targeted to the areas identified for growth or for the city overall. Form-based zoning codes are proposed for consideration because they more clearly specify the city's expectations from development through diagrams and a strong focus on the form of buildings. They can also be more effective at preserving existing neighborhood character.

Once policies are aligned and crafted to support the city's vision, they should be consistently enforced. In particular, the current PUD (planned unit development) process should be applied in very limited instances, if at all. Rezoning and variances remain applicable, and are designed to include the appropriate amount of scrutiny and consideration, based upon the scale of change and whether it is aligned with established policies.

Overall, the master plan and subsequent updates to the zoning code and other policies are the means by which the future character of the city is shaped, whether that means very little change or a lot of change. Neighborhoods and centers of activities, like downtown, structure the city. Each is made up of a number of parts, all interacting to support residents and the community overall. This includes housing of different types, parks and schools, civic institutions, and businesses. Each should be a good neighbor and interact intentionally within their context. In some cases concern and opposition to change may be legitimately tied to the scale of development, the quality of design, or other predictable externalities. In other cases it may be due to a lack of clarity in policies or those policies not being consistently applied. Both can be addressed in service of supporting and strengthening the city's neighborhoods and districts.

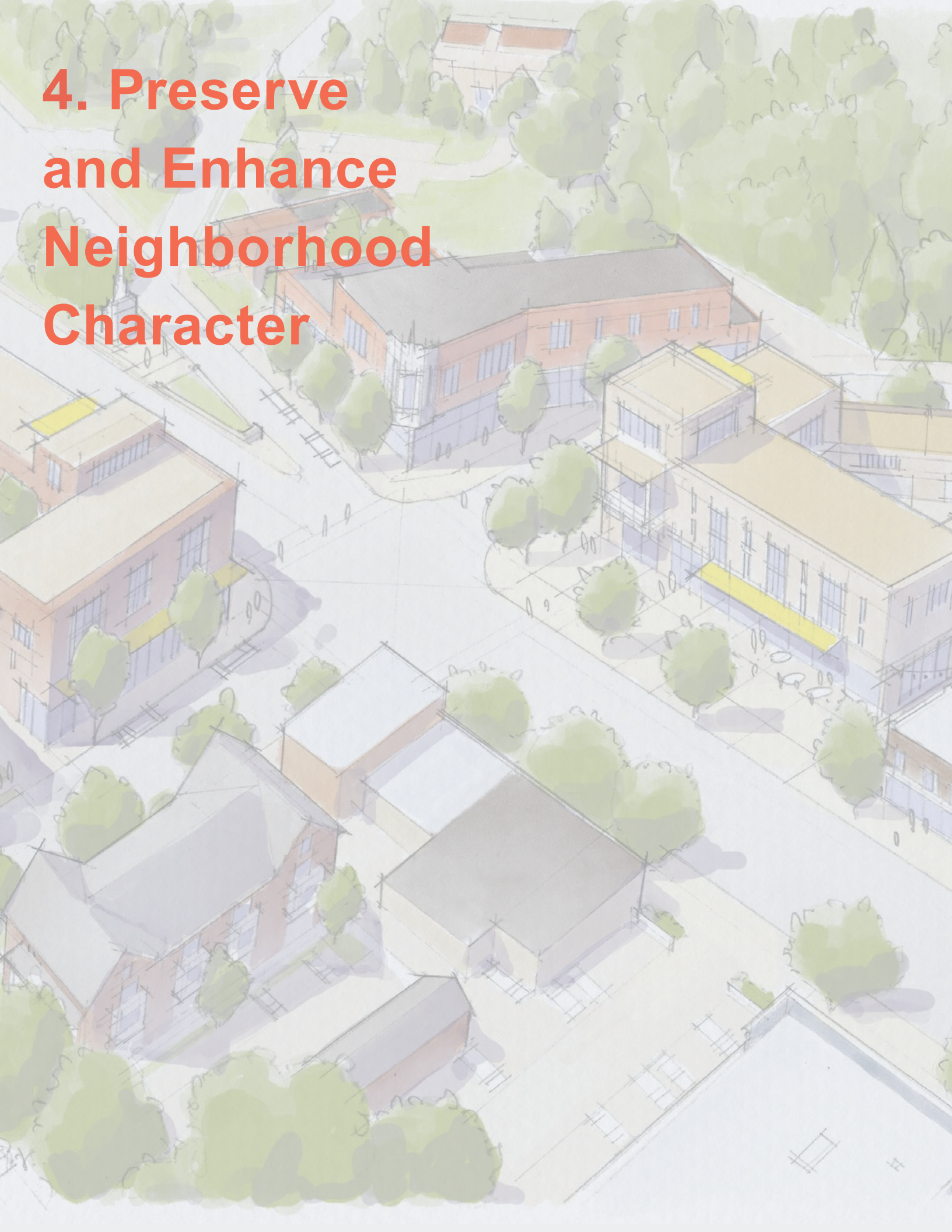
### Actions

- 3.4.1** Adopt a Future Land Use policy that clearly identifies the location and scale of growth, as provided for in the master plan.
- 3.4.2** Update the zoning code and approvals processes to make it easy to develop at the scale and in the locations prescribed by the master plan.

This page is intentionally blank.



# 4. Preserve and Enhance Neighborhood Character





# Preserve and Enhance Neighborhood Character

## Preserve Neighborhood Character

### 4.1. Preserve Neighborhood Character

Royal Oak residents love their neighborhoods. When asked “What are the best aspects of living in your neighborhood?,” most residents responded with Neighbors, Walkability, Safety, and Nearby Parks. This Master Plan aims to preserve and enhance the existing neighborhoods of Royal Oak by:

- Directing growth to areas outside of neighborhoods;
- Improving walking, rolling, and biking;
- Reducing traffic speed and volume on neighborhood streets;
- Improving access to diverse recreational amenities; and
- Activating many of the small commercial nodes throughout the city that are located conveniently to neighborhoods.

Royal Oak neighborhoods are some of the most desirable in Metro-Detroit. This master plan recognizes the desire of residents to preserve their neighborhoods, directing growth elsewhere. Neighborhood preservation is principally accomplished by the future land use map’s designations for growth and preservation. The neighborhood residential future land use category, which identifies the low-scale neighborhood fabric (streets, blocks, and houses) throughout the city, specifies that they are not intended for growth. Rather, growth is directed towards center and corridor future land use categories. To further reinforce

preservation, the master plan’s goal of aligning policies intends to make growth and development easy within centers and corridors, reducing the pressure to grow within neighborhoods.

Beyond growth, many residents express concerns about recent newly built homes in their neighborhoods that do not fit in with neighborhood character. In order to address this concern, revised zoning regulations should encourage new development in existing neighborhoods to match building size and characteristics with the existing neighboring buildings. This requires a careful analysis of the different types and scales of homes throughout Royal Oak, as well as current zoning standards to determine where zoning districts are not correctly fit to the predominant characteristics of neighborhood homes. Standards that deserve scrutiny include setbacks for homes and garages, building height, and lot coverage by buildings and pavement.

The majority of neighborhood improvements are accomplished in other sections of the master plan, principally concerning mobility. Improvements addressed include safer access to nearby destinations, cut-through traffic, sidewalks and crosswalks, and street trees. Neighborhoods generally have parks, schools, retail, and services nearby, however getting to these destinations often requires crossing or walking along busy streets. To prioritize neighborhood access to destinations, a network of safe pedestrian and bicycle paths is recommended, called the greenway

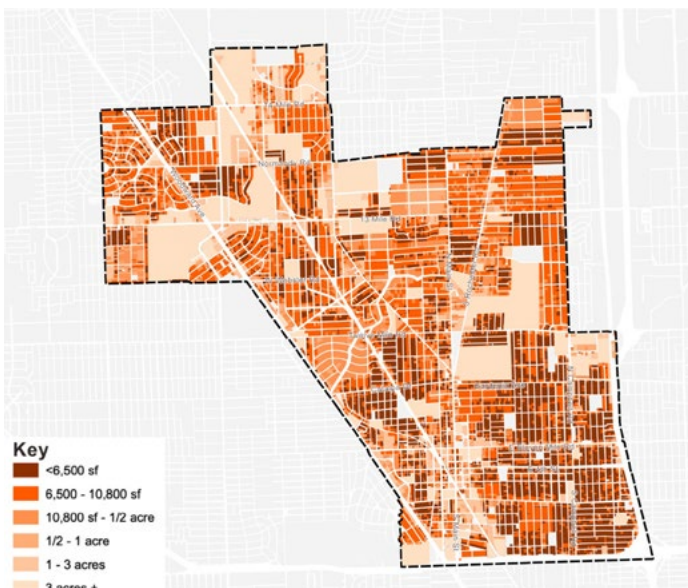


Figure 24. Property Sizes

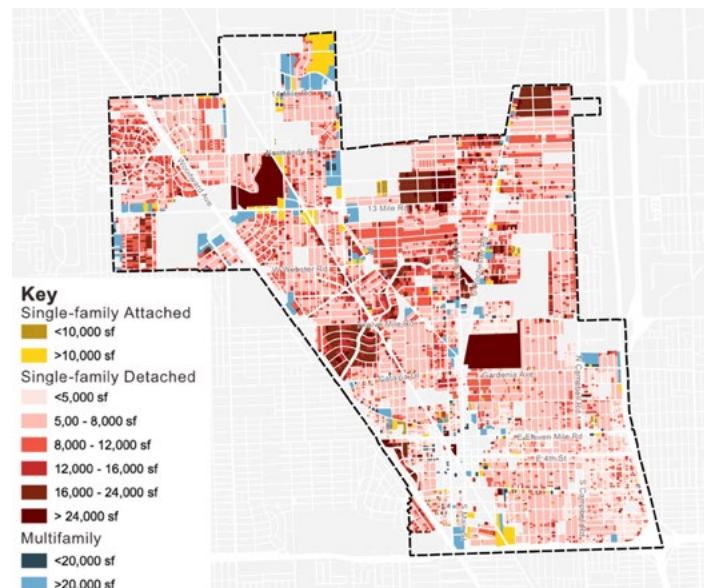


Figure 25. Home Type and Property Size

# Preserve and Enhance Neighborhood Character

## Reinvigorate Neighborhood Main Streets and Nodes

network. Additional crossing improvements are recommended along busy streets as well as wider sidewalks, providing more space and reducing the distance pedestrians have to go to safely cross.

Traffic is always a concern along neighborhood streets. To keep traffic under control, streets design, intersections, and street calming techniques must be coordinated. Street design is the first layer of protection against speedy traffic, and is generally not a concern in Royal Oak. Streets with on-street parking, street trees, and narrow travel lanes create visual friction that discourages speeding, characteristics of most neighborhood streets in the city. Gaps in street trees is the most common issue, addressed later in the master plan. In areas where this is not enough, additional traffic calming techniques are recommended in the mobility section. Next is speeding caused by cut-through traffic between major roads at rush hour. Traffic volume reduction - techniques that disallow through-movement - can be used where cut-through traffic is common. Unlike street closures, volume reduction still allows bicycle access and often only stops traffic in one direction. Volume reduction techniques are also recommended in the mobility section. Neighborhoods near Woodward are impacted more severely than other parts of the city due to the high traffic volume and speed. Recommended changes to Woodward in the mobility section are designed to stop cut-through traffic while allowing easy movement from those neighborhoods onto Woodward.

### Actions

- 4.1.1** Ensure neighborhood zoning encourages building sizes and characteristics that are compatible with existing and historic buildings.
- 4.1.2** Maintain on-street parking and street trees along neighborhood streets.
- 4.1.3** Fill-in gaps in tree plantings along neighborhood streets, as addressed in other sections.
- 4.1.4** Improve crosswalks and accessibility features throughout neighborhoods, as addressed in other sections (AIP-P 1.2).
- 4.1.5** Improve pedestrian and bicycle access through neighborhoods, as addressed in other sections by the greenway network (AIP-P 1.2).
- 4.1.6** Add safe crossings of major streets, as addressed in other sections.
- 4.1.7** Reduce cut-through traffic with traffic volume reduction techniques and improvements along Woodward, as addressed in other sections.

## 4.2. Reinvigorate Neighborhood Main Streets and Nodes

Royal Oak has many small-scale nodes of commercial activity along major roads distributed throughout the city. Ideally, these nodes would provide nearby residents with convenient access to retail and services, and places to socialize with neighbors. Because they are well distributed, most residents would have the opportunity to walk, roll, bike, or drive a short distance to a node or two for coffee, a salon, bank, or other neighborhood-scaled amenity. Frequent access to active commercial nodes between neighborhoods serves to both reduce driving and provide spaces to socialize. The historic neighborhood node at Lincoln and Blair demonstrates a scale that is well balanced with the neighborhood, consisting of just a few shops. The small scale of these nodes also limits the impact to neighborhoods in terms of noise, traffic, and parking.

Neighborhood main streets are a larger scale of commercial activity, usually a full block or two in length on both sides of a street. While larger than nodes, neighborhood

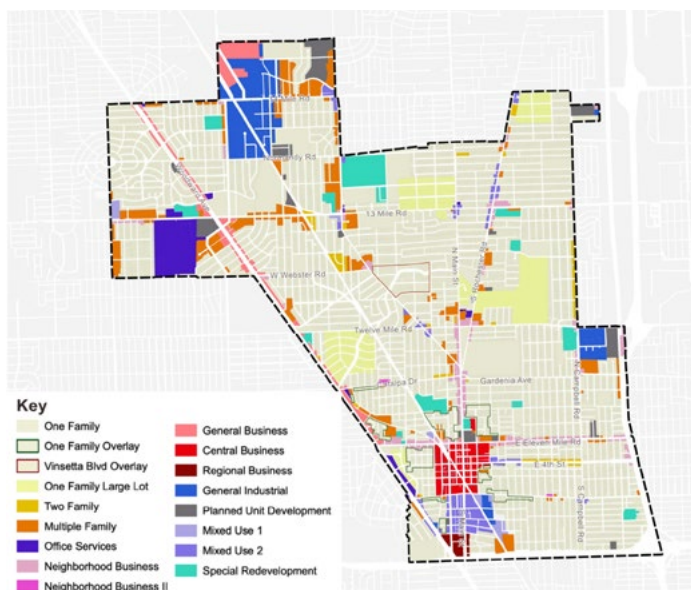


Figure 26. Zoning Districts



# Preserve and Enhance Neighborhood Character

## Reinvigorate Neighborhood Main Streets and Nodes

main streets are still much different from a downtown, attracting different businesses and customers, less oriented towards entertainment and more towards services and food. They also provide for social spaces like cafes, yoga studios, and other spaces and activities that bring people together and strengthen the connections between residents and businesses. This is especially important for older adults, providing social interaction and support networks within close proximity to homes. Main streets are also good locations to add public EV chargers, bike racks and repair stations, and similar infrastructure (as recommended in the S-CAP).

Today, most of the commercial nodes and main streets along the edges of neighborhoods suffer from vacancies and poorly maintained buildings. Many factors have led to their decline, and while not all can be successfully revived, activating these commercial nodes is an important neighborhood- and climate-focused strategy. One significant contributor to decline is commercial zoning spreading along major roads. Commercial uses are most likely to flourish in concentrated areas where they benefit from cross-shopping and can be branded together as a district or main street area. Such concentrations are also beneficial for improving walkability and transit access.

To re-concentrate commercial areas, most of the commercial areas along major roads should be encouraged to be redeveloped for housing, reducing the overall amount of commercial along major roads and also providing more nearby customers. This should be accomplished by allowing appropriately scaled multi-family housing along with commercial uses, and making the permitting process easy.

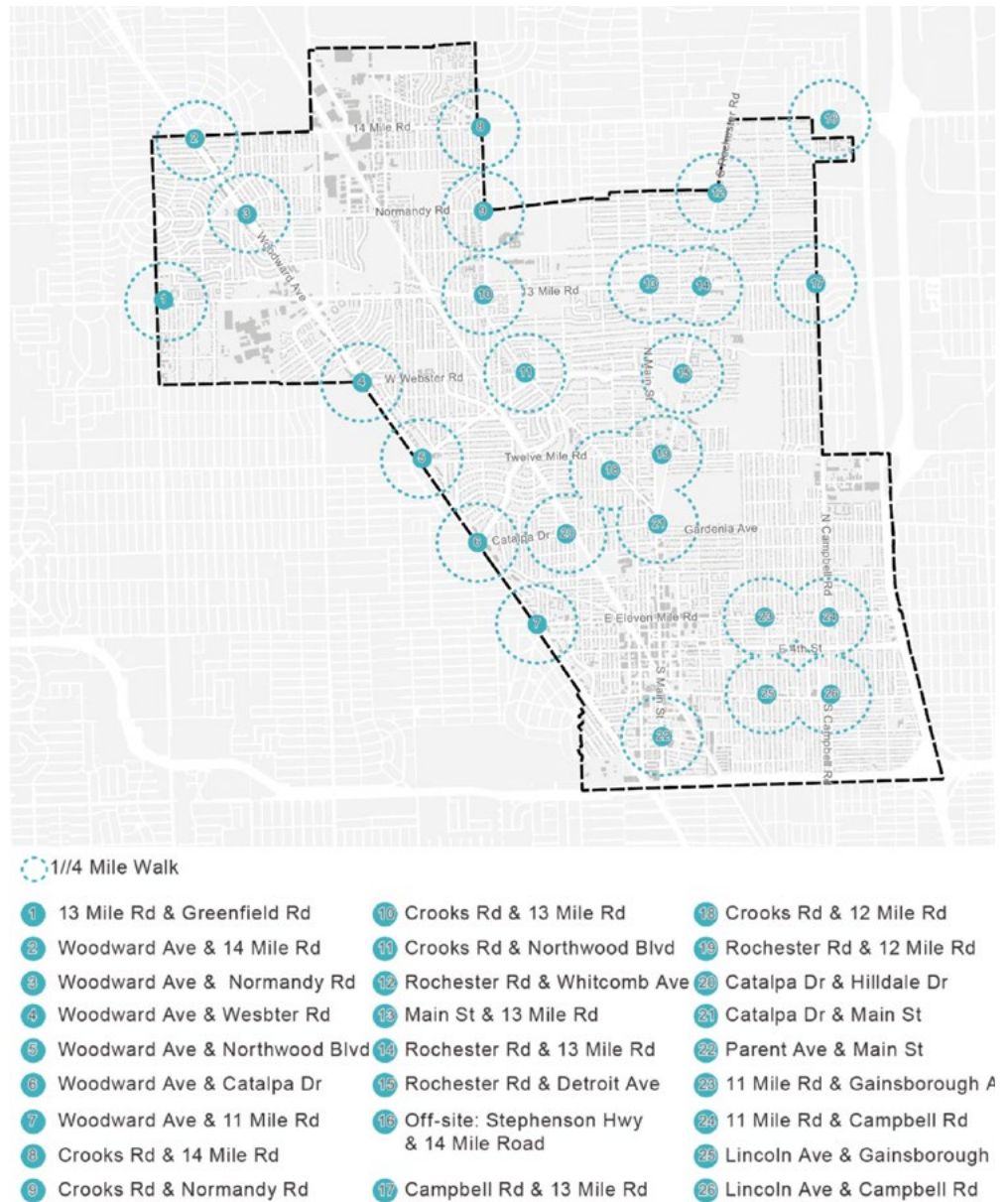


Figure 27. Neighborhood Main Streets and Nodes

Even at a low scale, a significant amount of housing can be absorbed by converting commercial areas and other uses along major road corridors to housing. Additional housing in and adjacent to nodes helps to support businesses and can provide opportunities for downsizing or more attainably priced housing. These locations are also well-situated for housing with easy access to transportation, parks, schools, and nearby retail and services, and growth in these areas has minimal impact on surrounding neighborhoods.



# Preserve and Enhance Neighborhood Character

## Reinvigorate Neighborhood Main Streets and Nodes

### Neighborhood Main Street: Main, Catalpa, Crooks, and Rochester



Existing



Proposed

### Neighborhood Main Street: Crooks and Webster



Existing



Proposed

### Neighborhood Node: Main Street and 13 Mile



Existing



Proposed

Figure 28. Neighborhood Main Streets and Neighborhood Node Examples

# Preserve and Enhance Neighborhood Character

## Improve Access to Parks & Schools

### Actions

- 4.2.1** Update zoning to enable moderately scaled houses, townhomes, and multi-family buildings along major roads, with standards to address the transition to neighborhood residential.
- 4.2.2** Update zoning to include mixed-use districts for neighborhood nodes and main streets that ensure compatibility with surrounding neighborhoods in terms of scale and the scale and mix of businesses, principally supporting smaller tenant spaces and encouraging small plaza spaces for outdoor community activities.
- 4.2.3** Provide more significant crosswalk improvements and additional opportunities to cross major roads, in coordination with other mobility recommendations.
- 4.2.4** Provide traffic calming and ensure on-street parking is available at neighborhood main streets and nodes, in coordination with other mobility recommendations.
- 4.2.5** Provide bike parking and repair, and EV charging stations at neighborhood main streets and nodes.
- 4.2.6** At Main and Catalpa, build structured public parking, or offer the site where an existing public parking lot is located for development to include public parking. The alley may need to be vacated

as part of an integrated development in order to face liner housing towards the west.

- 4.2.7** Offer facade improvement grants for buildings within neighborhood main streets and nodes, for building facades located along sidewalks.
- 4.2.8** Consider neighborhood main streets and nodes as locations for resiliency hubs (S-CAP 1.5.2)
- 4.2.9** Work with successful developers to rezone property to facilitate redevelopment to meet future senior or senior-friendly housing (AIP-P 4.3.d).

### 4.3. Improve Access to Parks & Schools

Royal Oak's neighborhoods are well-structured and most have good access to parks, schools, and many daily needs by a short trip. In many ways, they are their own amenities. Overall parks and schools should remain very much as they are today, with minor improvements to benefit existing residents and make it easier to get to regular destinations without a car. Improving access to parks and schools is addressed through a neighborhood greenway discussed later in this document, which improves major road crossings, reduces cut-through traffic, and prioritizes trees and benches to make it easier for more people to walk, bike, and roll, including older adults seeking opportunities for exercise and social interaction.

Royal Oak's park system is impressive, with more parks than most communities its size and more than 90% of residents within a convenient walk of a park. However parks vary significantly in size and amenity, meaning that the distribution of park amenities may still require frequent car trips. To address access to a diversity of services, a comprehensive analysis of park locations, services, and access by surrounding residents is required. The recently completed 2023-2027 Recreation Plan focused on guiding capital improvements to existing facilities for five- and ten-year time horizons and provides the basis for an analysis of service access recommended in this master plan.

Residents within each quadrant of the city, and ideally each neighborhood, should have

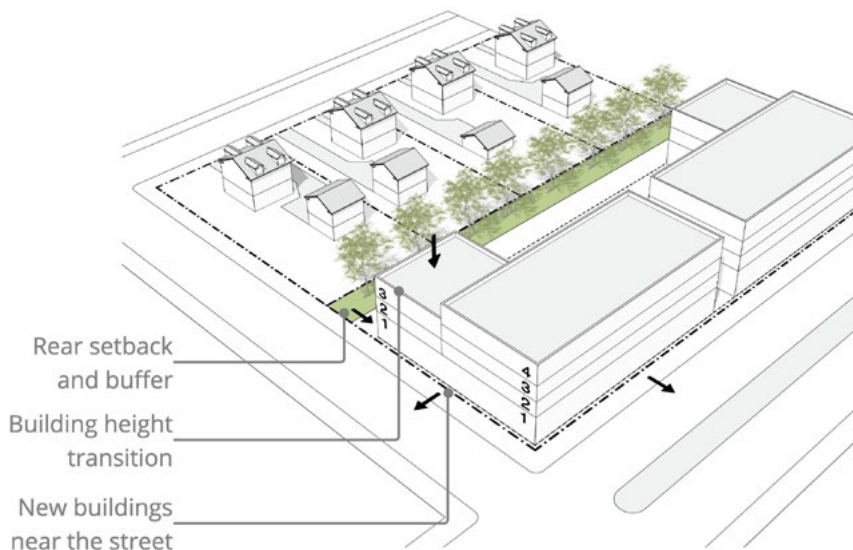


Figure 29. Transition With Neighborhood Residential



# Preserve and Enhance Neighborhood Character

## Improve Access to Parks & Schools



Figure 30. Access to Parks

convenient walking and biking access to parks that provide recreational opportunities to a wide range of users - including children, teens, young adults, family and friend groups, and older adults. To achieve this, services offered in each park may need to be adjusted to increase activity diversity based upon proximity to neighborhoods. All facilities require consideration for accessibility, trails and walkways, seating and shade, landscape, bike racks and repair stations, convenient parking and EV charging stations, lighting, water, and trash and recycling. Additionally, larger parks require consideration for restrooms. As the community

accommodates townhomes and multi-family along corridors, in neighborhood main streets, and in downtown, dog park access will be increasingly important as well.

Schools are best supported by providing a greater diversity of housing options. As communities age, schools often suffer a lack of enrollment, eventually closing schools which are then difficult to provide new. To retain a quality school system, housing for residents of all ages is necessary, allowing both younger and older adults to move into condos and apartments and growing families into larger homes. Housing diversity needs to be provided both citywide, as

# Preserve and Enhance Neighborhood Character

## Improve Access to Parks & Schools

well as in proximity to existing school locations. In order to balance the preservation of low-scale neighborhoods and housing diversity, adding housing to corridors and neighborhood main streets and nodes is needed, in addition to downtown housing. Housing diversity is addressed elsewhere in the master plan.

### Actions

**4.3.1** Develop a new Recreation Plan beyond 2027, including and evaluation of access to amenities for each city district and neighborhood to ensure distributed access for a diversity of ages and abilities to:

- Parks with facilities for kids, teens, young adults, family and friend groups, and seniors (AIP-P 5.1, 5.2, Older Adults Advisory Board).
- Park amenities including benches, exercise, trails and walking paths, accessibility, dog facilities, athletic fields, picnic tables, skating, shaded seating, bike racks and repair stations, EV chargers, trash & recycling, and restrooms, based upon the location within the city and park scale (AIP-P 1.1).
- Improve access to parks and schools by foot and bike, as addressed in the mobility recommendations (AIP-P 1.2).

**4.3.2** Create and identify with signage wellness circuits and resources (parks, recreation centers, the farmers market, food markets, and clinics) as part of the greenway circulation system, addressed in the mobility recommendations.

**4.3.3** Enhance multi-generational programming at community centers and the library, as with the Four Seasons Preschool at the Mahany Meininger Senior Center, reading programs, teen spaces, and technology labs as specified in the Aging In Place Plan (AIP-P 5.1).

**4.3.4** Study a smaller-scale senior center in the downtown, potentially part of redevelopment associated with city-owned surface parking lots.

**4.3.5** Enable housing growth in centers and corridors to help support schools, as addressed in other sections.

**4.3.6** Work to enhance the pedestrian experience throughout the community and work to improve accessibility to city facilities and parks.(AIP-P 1.1, 1.2)



# 5. Reinforce Activity Centers





# Reinforce Activity Centers

## Distribute Mixed-use Places

### 5.1. Distribute Mixed-use Places

Royal Oak is known throughout the region for its downtown, which is the city's main activity center. However, downtown is oddly located in relation to the city boundaries, and much of the city is not within easy walking distance. While some residents live near Clawson and Birmingham's downtowns, and Midtown Square in Troy, much of the northern half of the city is a far distance from a traditional main street or downtown area. Other centers within Royal

Oak exist or are emerging, but are not currently developing in a manner that supports a balance of housing, services, and jobs, nor in a way easily accessible by pedestrians and cyclists. These activity centers are critical to addressing sustainability, providing nearby access to retail, services, and jobs that don't require long trips by car. Each requires different strategies to reach their potential.

Presently, most of the activity centers outside of downtown have developed in a car-centric pattern that wastes land, obscures district edges, increases parking demand, and

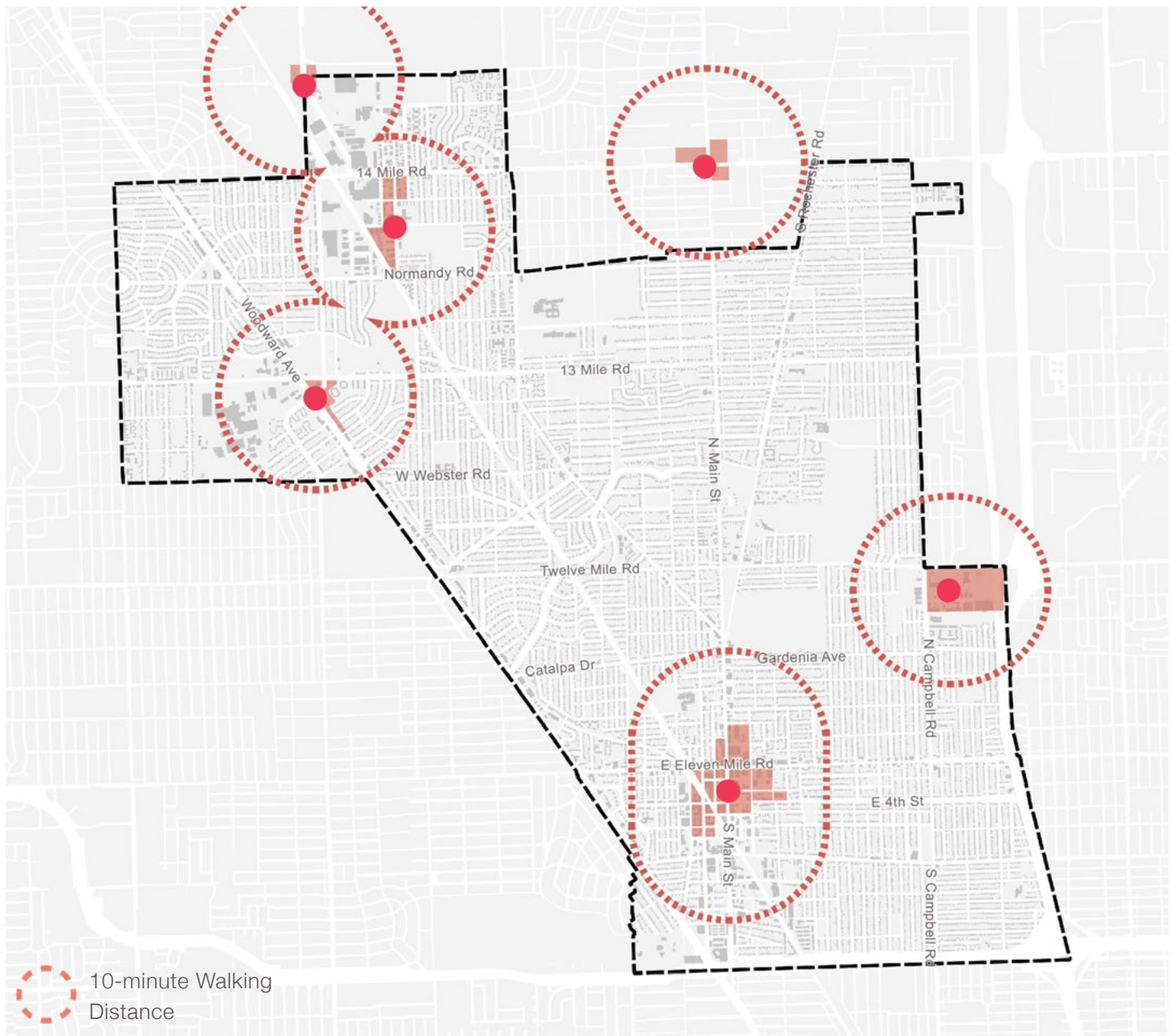


Figure 31. Royal Oak Activity Centers, Including Clawson and Midtown Square in Troy



# Reinforce Activity Centers

## Downtown

doesn't provide housing that is needed to address issues of housing cost, aging-in-community, and to support local businesses. In many instances, activity centers would benefit from a clearly defined boundary within which uses can be concentrated. Commercial uses outside of these areas should be discouraged, other than those within neighborhood main streets and nodes. Concentrated commercial and mixed-use districts are most successful. They are able to develop a clear identity and sense of place and support cross-shopping - shopping at more than one business in a single trip. Cross-shopping increases customer frequency across businesses and more efficiently uses parking spaces. In order to reduce surface parking and its climate impacts, public on-street parking and structured parking is needed in activity centers. Today, locations to invest in public parking outside of downtown are unclear, principally because the other activity centers do not yet have identities and edges.

Activity centers outside of downtown should become walkable, mixed-use districts, appropriately scaled to their context. Downtown is the most significant center in the city and should remain as such. Near 12 Mile and Campbell, a main street could emerge where former manufacturing

and logistics uses have begun to convert to retail, services, and offices. At 13 Mile and Woodward, the areas around the CoreWell-Beaumont campus have the potential to become a significant center of activity, anchored by a major employer and easily accessible by regional commuters. And the Delemere industrial area, which has begun to convert to retail and services, has significant potential for redevelopment as a mixed-use district. Its proximity to parks and large land area support quite a lot of housing, which would in turn support main street businesses, easily accessible to much of northern Royal Oak.

### 5.2. Downtown

Royal Oak's downtown is active, but there are many improvements possible to increase both its economic health and its success as an activity center for Royal Oak. Downtown's transition from the low scale, historic streets of Main, Washington, and 4th has progressed haphazardly, resulting in a number of "dead-zones:" street spaces that lack active ground floor spaces like retail, food, lobbies, and other spaces where goods or people are frequently visible from the sidewalk. Main streets and downtowns

need the pedestrian experience to be high-quality within their core shopping areas. Most pedestrians will avoid walking by parking lots, blank walls, dark windows, and empty storefronts, what we refer to as "poor-quality frontages". (See Figure 32) The downtown can tolerate some degree of poor-quality frontages, but only to a limited extent. Repairing degraded frontage conditions is important for the success of Downtown, prioritized in a manner that reinforces downtown's structure.

Michigan cities and towns are typically centered around an active, multi-block, retail main street, like those towns along Grand River Ave, or by a larger downtown district, such as those found in Jackson, Ann Arbor, and Grand Rapids. Royal Oak exhibits a transitional condition between these types, with parallel north-south

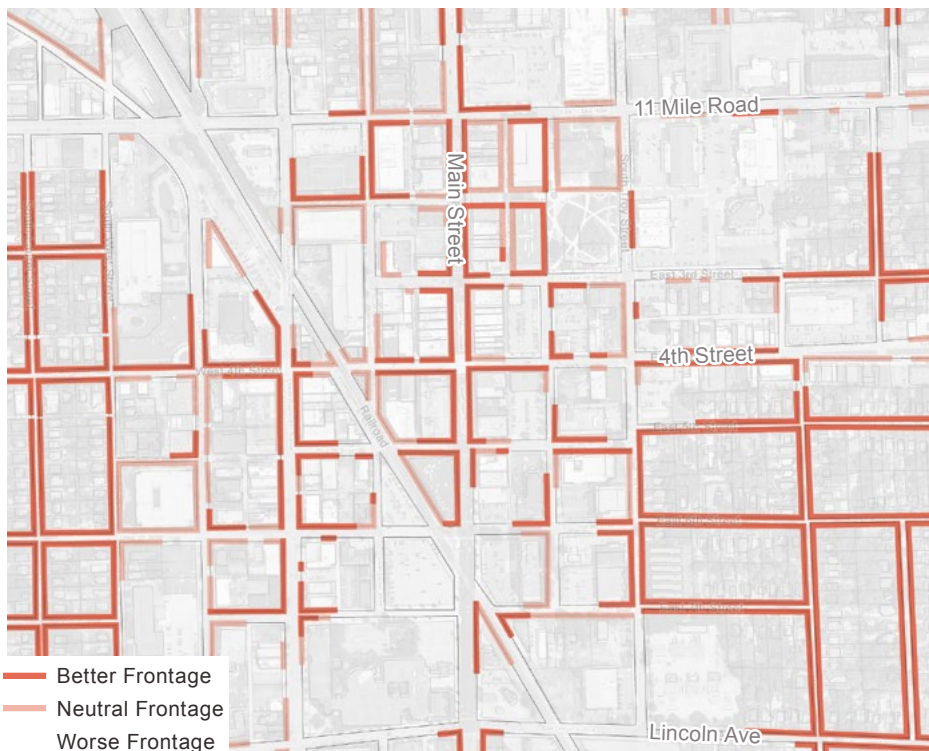


Figure 32. Downtown Area Frontage Quality

# Reinforce Activity Centers

## Downtown

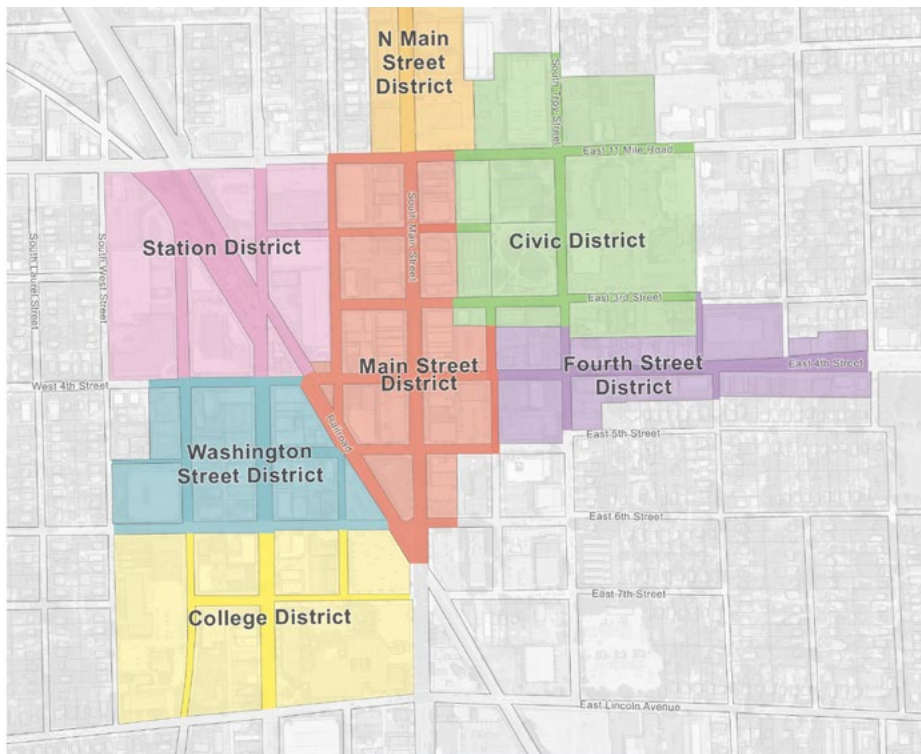


Figure 33. Downtown Sub-districts

retail streets that lack sufficient activity along east-west connections. The next stage of transition for Royal Oak is to reinforce a loop of pedestrian activity connecting Main and Washington, north and south of 4th, to allow patrons a continuous, high-quality experience. Not every street in downtown needs to have uninterrupted high-quality, rather the primary retail loop and 4th should be the focus. This can be achieved by a combination of zoning regulations, incentive and assistance programs, and replacing surface parking lots. The loop and 4th street should also receive priority when adding streetscape improvements such as lights, benches, trash and recycling containers, and crosswalks. (See Figure 34)

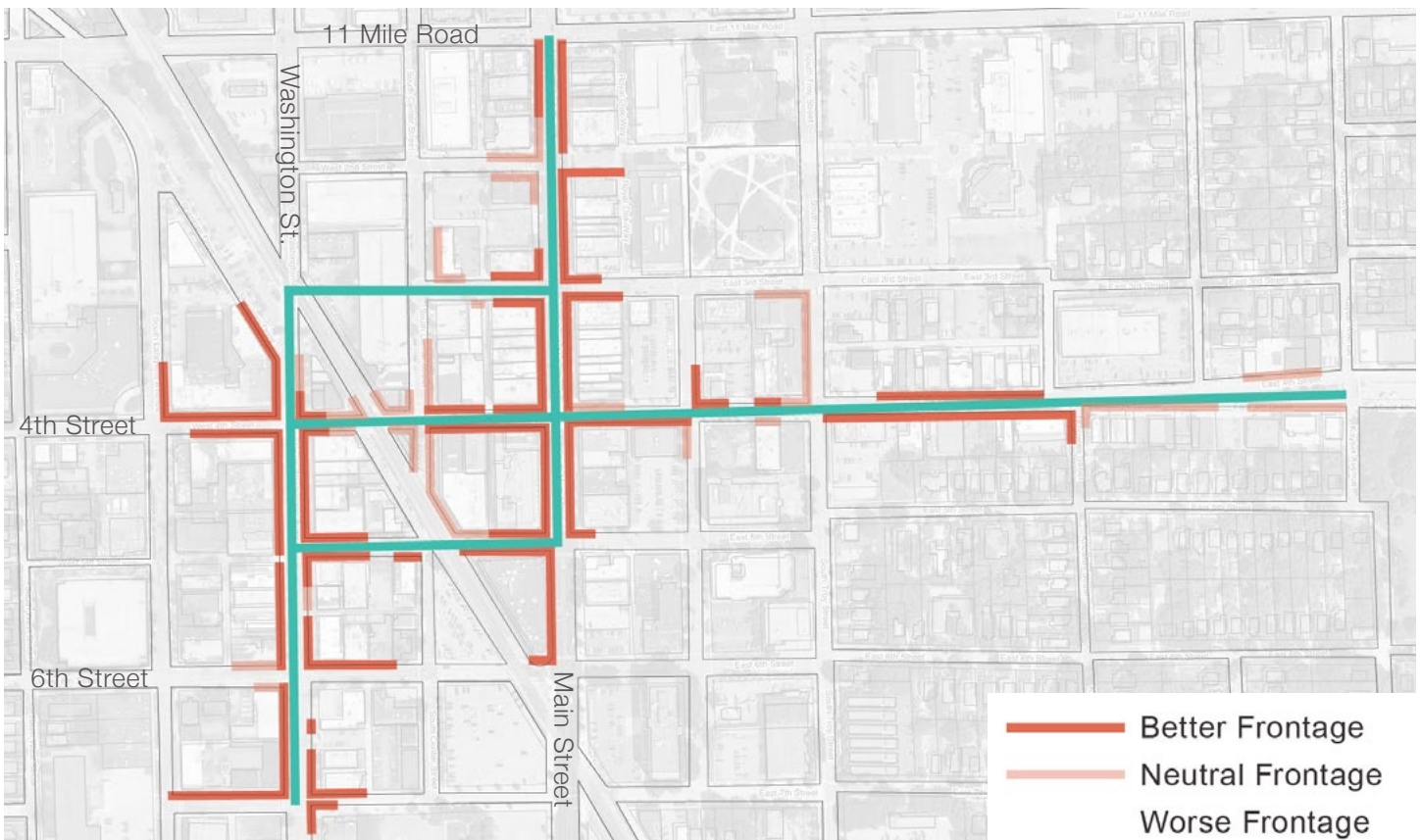


Figure 34. Downtown Loop and Frontage Quality



# Reinforce Activity Centers

## Downtown



Figure 35. 3rd Street Parking Garage Redevelopment

Given its multiple Main Streets and the rail line, Downtown Royal Oak is a complex place. This structure can be reinforced by defining a series of downtown districts, each with its own identity, but interconnected within the overall downtown. (See Figure 33) These districts include the Downtown Core, a Civic District (including Centennial Commons, the Library, the Farmers Market, etc), College District (at OCC), Station District (at Amtrak), and East 4th. Each of these should center on a public space that is appropriate for its context. Each district's identity should be supported by public art, street sign toppers, light pole banners, and other branding opportunities. Over time, the distribution of businesses could be curated by the Downtown Development Authority in order to reinforce district identity. For instance, the goal of retaining local small businesses and arts could be reinforced by branding East 4th street as the arts district.

Connectivity between downtown districts and a high-quality pedestrian loop is critical. In most downtowns, railroads are significant barriers to connectivity. Luckily in Royal Oak, the railroad has crossings at every street. With regularly connected streets and small blocks the main barriers to pedestrian movement in downtown are Oakland Community College (OCC) to the south and the 3rd street parking

garage. OCC is positioned at the southern end of downtown, and rather than being a barrier, it helps to form the end of the overall downtown district. South of Lincoln, Main Street should take on a more residential character, albeit relatively high density, with another small node of commercial activity around Holiday Market. The remaining barrier is the 3rd street parking garage. This garage is nearing its end of life and needs to be replaced. It may not be necessary to replace all of the parking spaces in the

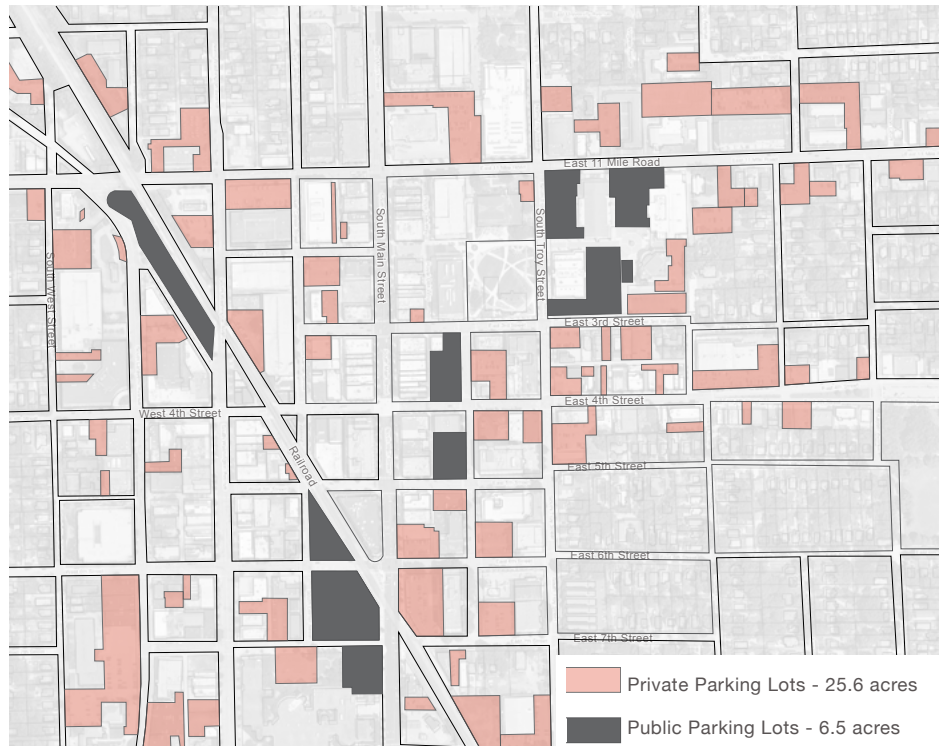


Figure 36. Downtown Surface Parking Lots

# Reinforce Activity Centers

## Downtown

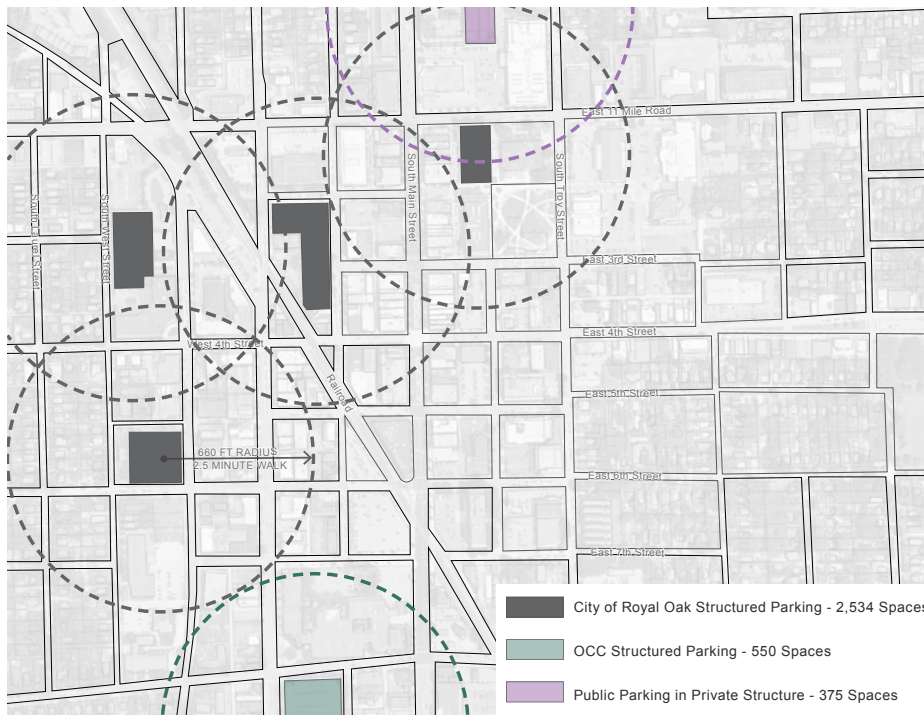


Figure 37. Downtown Structured Parking

garage, as discussed later. Rather the connection along 3rd street should be opened to Washington Ave and the proposed train station and plaza, also discussed later. Redevelopment of this site could provide some parking but principally housing and commercial needs that are missing in the downtown area, including groceries and hardware, tenants that do not pay high rents. (See Figure 35) The city's ability to leverage public land in downtown should include the opportunity to lease space for businesses that would benefit area residents, below the going market rate. Liner business spaces in parking garages, like the space at the corner of 2nd and Center, could also be offered at significantly reduced rents to encourage new businesses. However, note that this particular space is hindered by surrounding poor-quality frontages and will not be a viable business space until the older adjacent parking garages are redeveloped and the surface parking lot across the street is also redeveloped.

Like many downtowns, Royal Oak's needs housing and has far too many surface parking lots, interrupting the high-quality pedestrian experience and reducing the district's success. (See Figure 36) Surface parking lots are convenient for downtown visitors, but they erode the quality of street frontage, degrading the performance

of Downtown. As reported in the 2023 Downtown Parking Study, 40% or more of the parking spaces downtown are not utilized at peak times and the city already provides an above average amount of public parking as a percentage of the overall parking supply. Additionally, public investments in parking have provided a substantial amount of structured parking spaces in downtown. The majority of downtown is well served by nearby structured parking, the most significant gap being in the south Main Street area. (See Figure 37) On-street disabled parking is lacking throughout downtown, however, which should be remedied through a Downtown plan. Royal Oak would also benefit from improving frontage quality by replacing surface parking lots with buildings, including additional housing, and in the south Main Street area structured parking.

In November 2023, the city advanced a proposal with YMCA to redevelop a downtown surface parking lot for active use, including residences, setting a valuable precedent. Downtown needs more housing; residents provide customers and activity along sidewalks when they are normally quiet, and tend to represent both younger and older demographics, supporting a diversity of businesses. Housing is a crucial part of sustaining a mix of uses necessary to support both the social and economic qualities of the city center.

The downtown streetscape is also a critical element of downtown success. Along the priority improvement loop, Main, Washington, and 4th, there should be benches, bike parking, trash and recycling, newspaper boxes, street lights, and street trees. Many of these elements exist today but there are a number of gaps. Additionally the street lights, while in a preferred, traditional design, should be considered for replacement with dark sky friendly luminaires. However the light source should be diffused, not directly visible which is a significant issue with LED luminaires, which needs to be evaluated carefully in order to achieve both dark sky goals and light diffusion. Downtown crosswalks are generally well marked and include ADA



# Reinforce Activity Centers

## Downtown

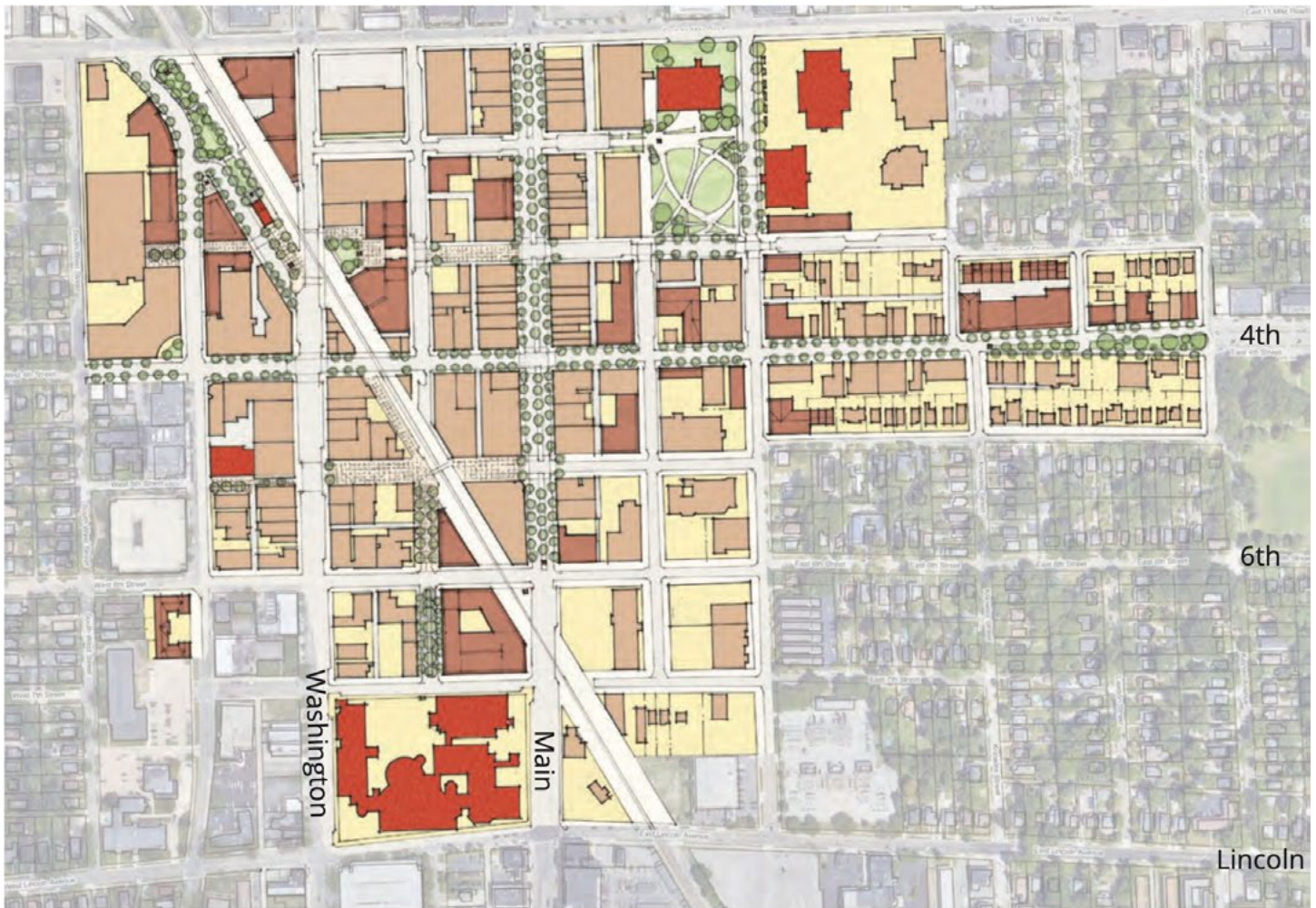


Figure 38. Downtown Improvements



# Reinforce Activity Centers

## Downtown



Figure 39. Train Station and Station Area Improvements, Looking South from 11 Mile



Figure 40. Train Station and Station Area Improvements, Looking North from 4th Street

compliant ramps and mats. But some future improvements should be considered: every crosswalk segment should have a crossing, pedestrian signals should all be automatic with timers, and the radius of the curb and crossing distance should be more carefully analyzed. The last point is particularly technical. When the curb has a large radius, it is easy to make a turn at higher speed, which is concerning for pedestrians. There is a careful balance between narrowing the distance to cross with curb extensions or bump-outs where the sidewalk area extends to include the space used for on-street parking, and with the radius of the curb. Curb extensions result in a larger curb radius, however they narrow the street crossing. The overall downtown streetscape should be studied in greater detail, especially in the areas identified for improvement.

The north end of Washington Street is a particularly important location to improve. The street's unique character is clearly different from Main Street, but it doesn't have a clear termination, rather it dribbles in activity around the theater, which should be an active district anchor. The Amtrak station, its parking lot, and the Smart bus terminal all contribute to the degraded public environment, despite the high quality shopfronts in the theater building. Streets need high-quality frontage on both sides, and the whole station area's lack of civic quality infrastructure erodes the potential of Washington Street as a whole, and its connection back to Main Street. Dreaming big, the area would benefit from a proper train station and multi-modal hub, replacing the Amtrak surface parking lot and integrating the Smart hub across Washington Street. (See Figure 39 and Figure 40) People arriving or leaving Royal Oak by

# Reinforce Activity Centers

## Downtown

train - which should become more common in the future - need to arrive at a place with character and vibrancy, not an uncovered platform next to a parking lot. A proper train station is a significant civic investment that could change the character of downtown and anchor Washington Street, creating a station district. A small public plaza should frame the entry to the train station at Washington Street and Sherman Drive. On the opposite side of the station, a small park and playground could be constructed to take advantage of the slope up to the railway. Parking is not a concern because there is a public parking garage only a block away - closer than parking for most train stations. This is Royal Oak's future front door which should represent the community's aspirations.

Overall, the downtown area is a significant asset for Royal Oak, but could benefit from a series of improvements, embracing its complexity and reinforcing its structure and assets. (See Figure 38)

### Actions

#### 5.2.1 Develop a Downtown Master Plan, including:

- Identifying a loop between Main and Washington, along with 4th, where the ground floor of buildings should be held to high standards, and focused on active uses as opposed to private offices, parking, apartments, or other non-public facing and non-active uses.
- Brand the different districts within downtown to reinforce their identities, such as the civic center, station district, and college district, including district-focused signage.
- Streetscape improvements throughout downtown, including crosswalks, seating, bicycle parking, trees, lighting, and other streetscape elements.
- Consideration for reducing Main Street from 4- to 3-lanes with a median.
- Parking supply reallocation and study of a south Main Street structure, or dual-use of an updated OCC structure, to balance parking access.

- Consideration for a public plaza in place of the smaller 6th street parking lot to provide public open space in the southern portion of downtown.
- Study of a new transit center on the parking lot along the railroad, including re-use of the existing transit center, and a new public plaza.
- Add accessible on-street parking throughout downtown and ensure parking decks provide sufficient accessible spaces to meet demand. (AIP-P 2.1)
- Create and promote a network of social engagement opportunities for multiple generations. (AIP-P 5.1)

**5.2.2** Offer publicly owned surface parking lots for development, in exchange for attainable and affordable housing as part of the development program, and needed retail spaces like a downtown market.

**5.2.3** Update the zoning code to include a form-based zoning district for the downtown that focuses on the quality of building ground floors and encourages infill growth.



# Reinforce Activity Centers

## 13 Mile and Woodward

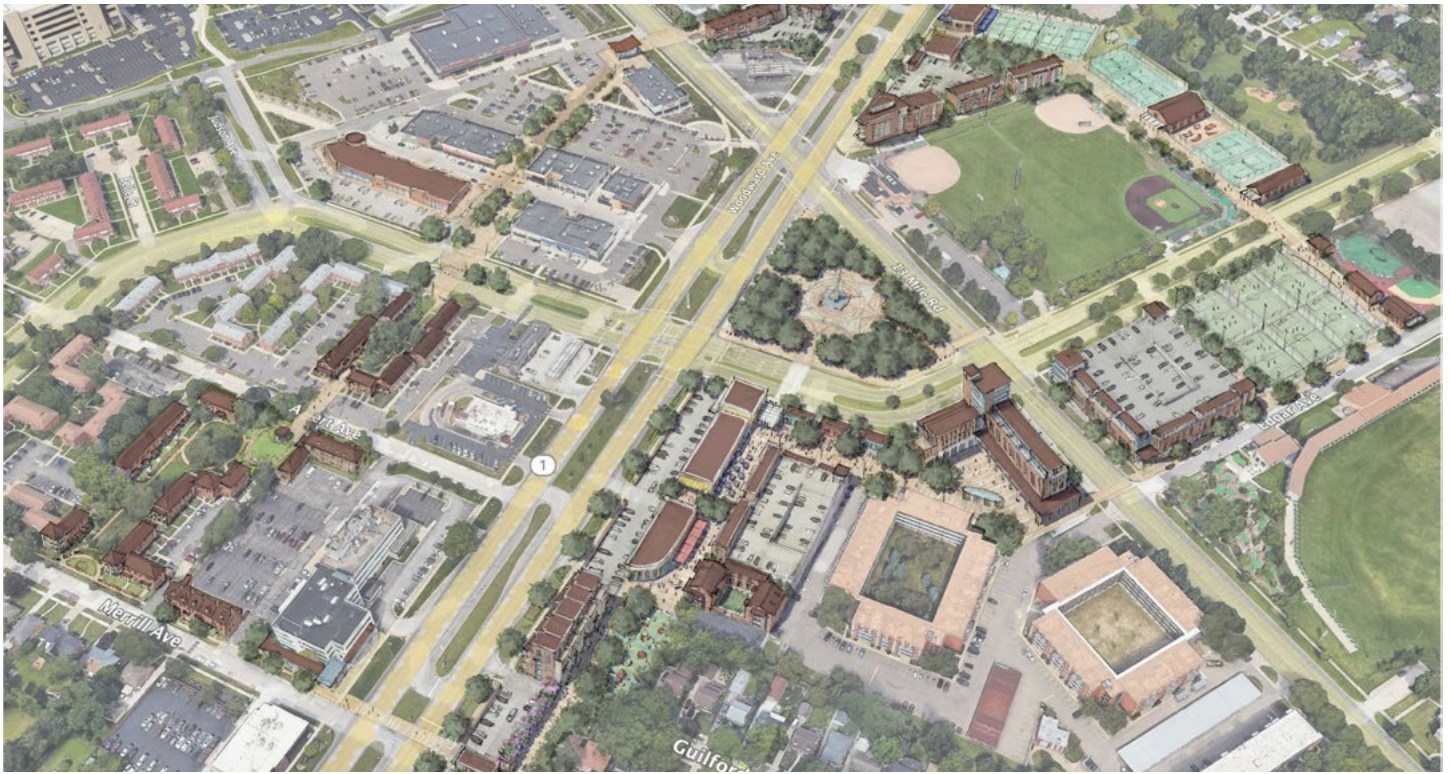


Figure 41. 13 Mile and Woodward Activity Center Depicting Future Development

### 5.3. 13 Mile and Woodward

With the major draw of Corewell-Beaumont Hospital, large commercial properties, and its location along the Woodward corridor, the intersection of 13 Mile and Woodward could evolve into a downtown-like activity center. Today the area is very much car-oriented, as would be expected on Woodward. However, very nearby, Ferndale's downtown is centered on Woodward, and Birmingham's abuts it. Over time both cities intend for their interface with Woodward to better balance cars and pedestrians and bicycles. While Royal Oak's downtown is removed from Woodward, the intersection at 13 Mile could serve as the public face for Royal Oak to those traveling along the Woodward Corridor. (See Figure 41)

This plan's Woodward strategy is to reduce the lower quality, low-scale retail along much of the corridor, focusing the retail on more significant intersections. 13 Mile and Woodward has a significant capacity for growth. Structured parking is needed to allow surrounding parking lots to be infilled with additional commercial uses and housing. The surface parking at Memorial Park is well sized for structured parking. Additional structured parking that is privately

funded or funded by public private partnership could be provided at Woodward Corners. While a recent development, Woodward Corners could support more buildings if there were less surface parking, lining its internal streets as well as Woodward.

13 Mile and Woodward is also missing a place. At the speed of Woodward, people most often recall special buildings and open spaces, like Roseland Park Cemetery and Little Flower Basilica. While Memorial Park is an open space, it is not the scale of the cemetery nor is it lined with buildings. The current CVS site between Woodward and Coolidge could serve as a highly visible public square, framed by buildings along Coolidge to the south. A formal open space at this location would make a clear impression of Royal Oak along Woodward, and also potentially improve traffic operations. If CVS chooses to close this location, the city should acquire the property, significantly changing the character of the area.

Redevelopment at 13 Mile and Woodward is further in the future, requiring a reduction of lower quality commercial along Woodward and zoning standards that enable and potentially require a different development format. In the

# Reinforce Activity Centers

## Delemere Industrial Area

near term, zoning changes can be pursued along with a more detailed plan for the area, investigating the potential changes, acquisitions, parking, and development.

### Actions

- 5.3.1** Improve crossings of Woodward and 13 Mile for pedestrians, and add additional pedestrian crossings on 13 Mile.
- 5.3.2** Encourage additional development within Woodward Corners, especially along Coolidge and Judson, including housing. This may be accomplished by providing structured parking in a public private partnership in exchange for developing a more complete internal streetscape and the edge of Woodward.
- 5.3.3** Encourage housing development on the Corewell / Beaumont campus, whether the primary medical campus, its 13 Mile frontage, or additional Corewell / Beaumont holdings.
- 5.3.4** Update the zoning code to enable mixed-use development and multi-story buildings in proximity to 13 Mile and Woodward.
- 5.3.5** Build a parking garage on the Memorial Park parking lot, lined with active uses towards 13 Mile and housing toward Memorial Park.
- 5.3.6** Acquire the CVS property for a public square.

### 5.4. Delemere Industrial Area

The Delemere industrial area is slowly transitioning from industrial and manufacturing uses to other less intensive businesses, similar to what has happened in Royal Oak's southern industrial area and Birmingham's rail district. Rather than reacting to the coming change, the city should get ahead of piecemeal redevelopment with a vision for this northern center. (See Figure 42) Being proactive about the development vision will provide a better outcome toward the city's goals of advancing housing affordability, providing opportunities for senior housing, and reducing household vehicle trips with increased access to jobs, retail, services, and parks.

North Royal Oak is far from Downtown and other activity centers, much of which does not have walkable access to Clawson either. The area is in need of a more significant main street area and is a good opportunity for housing growth. The area is well served with Normandy Oaks Park and Cummingston Park to the south and north, easily accessible from new homes. The distance between Normandy and 14 Mile is approximately the same as Lincoln and 11 Mile, the entirety of downtown. Delemere has a great deal of opportunity if the needed support is provided as well as controls to ensure that it becomes active, but not at the scale of downtown.

The Delemere area is generally well served by roads, but the intersection where Coolidge jogs at 14 Mile and the railroad does not function well. This intersection is of concern with additional growth. Solutions to address the intersection need to be studied, including:

- Minor adjustments to turning lane striping to provide capacity for up to 6 more turning vehicles per light cycle;
- Widening the railroad bridge to provide more turning capacity; and
- Re-aligning Coolidge north of 14 Mile with a new railroad underpass just south of English Gardens. This is a more significant change and is certainly expensive, but it is a much better solution than the condition today.

To enable growth that is scaled with surrounding neighborhoods and not at the scale of downtown, public



# Reinforce Activity Centers

## Delemere Industrial Area



Figure 42. Delemere Activity Center



# Reinforce Activity Centers

Delemere Industrial Area





# Reinforce Activity Centers

## Bellaire

improvements and zoning change are required. The street design for Delemere is the first target, which needs to be designed for the future main street, with two travel lanes, on-street parking, street trees and wide sidewalks. Zoning needs to allow for multi-story mixed-use, concentrated near Delemere, and reducing in scale away from the main street. And the city should pursue a parking structure in the proximity of Samoset Road or Nakota Road, west of Delemere. Opportunities to purchase properties should also be pursued, which can be made available for multi-story development aligned with goals including attainable and senior housing.

See the mobility section concerning Delemere for more information.

### Actions

- 5.4.1** Update the zoning code to enable mixed-use development in this district, with required ground floor commercial along Delemere, however limit the height and intensity of development.
- 5.4.2** Redevelop Delemere Blvd to provide a main street focused streetscape.
- 5.4.3** Provide public parking within the district or encourage privately developed district parking.
- 5.4.4** Acquire the commercial properties on Delemere along Normandy Oaks park and expand the park to meet the road.
- 5.4.5** Acquire available properties in the area for redevelopment to include attainable and senior housing.
- 5.4.6** Implement a solution to the Coolidge & 14 Mile jog.

## 5.5. Bellaire

**L**ike other light industrial areas in Royal Oak, the area southeast of the 12 Mile & Campbell intersection has been in transition. Today this area includes the Department of Public Services (DPS) buildings, fleet, and storage facilities, Kroger, and a number of smaller buildings and businesses concentrated around Bellaire Avenue. Today the area is characterized by one- and two-story buildings with surface parking, haphazardly arranged with buildings of varying sizes and parking located inconsistently. Some businesses have converted from warehousing and manufacturing to customer-facing services. The Bellaire area could be redeveloped in the future as a walkable, mixed-use activity center, providing space for businesses and housing, directly adjacent to Kroger. To prepare for the future, Bellaire should be planned as a future main street and the areas surrounding it should grow to support that. There are a number of steps to achieve this, like in Delemere, including zoning changes to enable mixed-use and 4 story height, streetscape improvements on Bellaire, structured parking perhaps at the current DPS site, and pedestrian improvements along Campbell and 12 Mile.

### Actions

- 5.5.1** Study relocating DPS to a less valuable property, such as the underutilized back lot of Meijer next to Cummingston Park.
- 5.5.2** Study public structured parking on the current DPS site, including DPS functions or as part of a public private partnership redevelopment of the site to include parking, housing, and commercial uses.
- 5.5.3** Update the zoning code to enable mixed-use development in this district, with required ground floor commercial along Campbell and Bellaire.
- 5.5.4** Improve the Bellaire streetscape to main street standards.
- 5.5.5** Provide additional pedestrian crossings along Campbell and 12 Mile, as specified in the mobility chapter.

# 6. Increase Mobility Across the City





# Increase Mobility Across the City

## Increase Access to Destinations

### 6.1. Increase Access to Destinations

Streets are the most widespread public spaces in a city, and their design should serve all users effectively. In the past, traffic engineering prioritized cars, often providing more space than necessary while neglecting the needs of pedestrians, cyclists, and businesses. Today, transportation planning emphasizes balance, designing streets for all users, including pedestrians of all abilities, cyclists, scooters, cars, trucks, and buses.

In Royal Oak, most neighborhood streets are well-designed, with connected sidewalks, ample trees, and just enough space for cars to keep speeds low. However, larger streets often fail to accommodate all users comfortably. Enhancing mobility requires thoughtfully balancing the needs of different users within the available space.

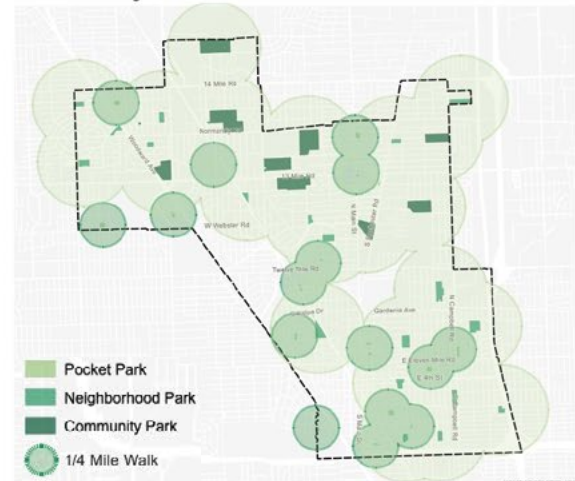
Mobility improvements must also prioritize access to key destinations, such as the commercial nodes, parks, and schools identified in the chapter Reinforce Activity Centers. (See Figure 43) Making these destinations more accessible—whether by walking, biking, driving, or public transit—is essential for improving quality of life. At the same time, it's crucial to mitigate regionally-based through traffic, which can disrupt neighborhoods. While welcoming visitors from Metro Detroit to Downtown is valuable, traffic in residential areas must be managed to maintain safe speeds and volumes.

Both goals can be achieved through strategies such as right-sizing streets, increasing safe crossings, and creating well-placed pedestrian and bicycle priority routes. These changes will improve access to local destinations while protecting the character and safety of Royal Oak's neighborhoods.

#### Proximity to Retail and Services



#### Proximity to Parks



#### Proximity to Schools

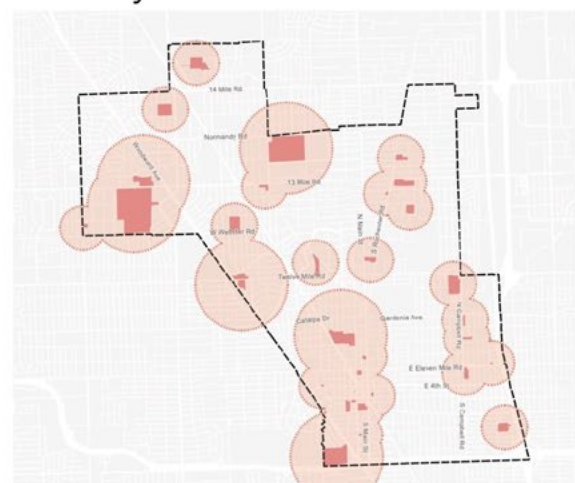


Figure 43. Proximity to Common Destinations

# Increase Mobility Across the City

## Support Walking and Biking

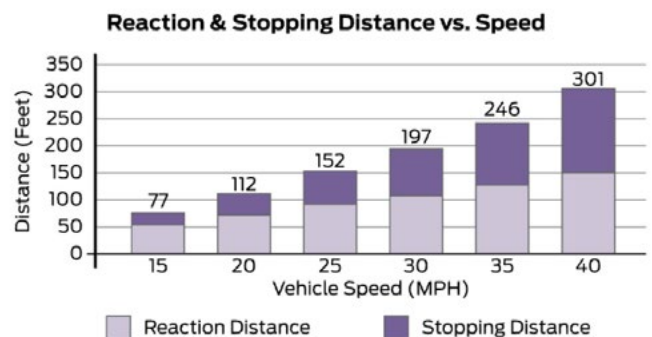
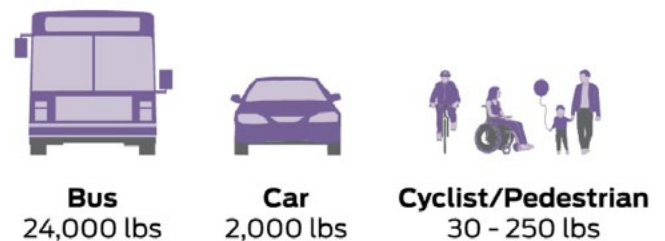
### 6.2. Support Walking and Biking

Walking is a highly viable mode of transportation in Royal Oak, thanks to its historic layout, which places parks, schools, and commercial areas near most neighborhood homes. Unlike many Metro Detroit communities where walking is neither convenient nor safe, Royal Oak offers a strong foundation for pedestrian mobility. However, ensuring that walking is a practical, comfortable, and safe option for more trips can further reduce reliance on cars—a key climate action—and foster greater community interaction among residents. While pedestrian infrastructure in Royal Oak is generally good, improvements are needed to enhance convenience, comfort, and safety, making walking an even more appealing choice for daily activities. The following elements contribute to walking convenience, comfort, and safety:

- Proximity of destinations, addressed in this Master Plan through Activity Centers and Neighborhood Nodes and Main Streets, makes walking convenient.
- Right-sized streets increase safety by reducing car speeds and the distance to cross streets.
- Improved crosswalks increase safety at key street crossings, which also makes walking more convenient.
- Good network connectivity provides more direct routes for people walking
- Right-sized sidewalks improve convenience by providing wider sidewalks in places likely to have more pedestrians.
- Street trees improve comfort by providing shade and reducing heat island, and also contribute to air quality and mental health.
- Street furniture, including seating and other amenities, improves convenience and safety in a number of areas.
- Good land access control limits the number of driveways and therefore conflict points between vehicles and pedestrians.

### 6.3. Implement Active Speed Management

Vehicle speed is a critical factor in the safety and comfort of walking and biking. As vehicle speeds increase, the likelihood of severe injury or death for pedestrians rises dramatically. For example, a pedestrian struck by a vehicle traveling at 20 mph has a 10% chance of being killed. At 30 mph, that risk jumps to 40%, and at 40 mph, it soars to 80%. (See Figure 44) This risk is even higher for vulnerable pedestrians, such as seniors and children. Higher speeds not only increase collision force but also reduce a driver's ability to perceive and respond to potential conflicts. A vehicle traveling at 20 mph requires about 90 feet to react and stop, while one traveling at 40 mph needs 195 feet. Additionally, as speed increases, drivers



Source: NACTO Urban Street Design Guide

Figure 44. Speed and Pedestrian Safety

# Increase Mobility Across the City

## Balance Street Priority

experience “tunnel vision,” which narrows their field of vision and makes it harder to notice pedestrians or cyclists on the road.

Reducing vehicle speeds is largely a matter of thoughtful street design. Studies show that drivers choose speeds based more on how a street looks and feels than on posted speed limits. Features such as narrower lanes, closer placement of trees, lighting, and street furniture, as well as on-street parking, signal to drivers that they need to slow down and pay attention to their surroundings.

While lower speed limits may slightly increase travel times, the impact in a compact city like Royal Oak is minimal. Slower speeds can significantly enhance safety for all road users, making streets more welcoming and accessible.

### Actions

- 6.3.1** Narrow lane and street widths citywide with pavement markings, bump-outs, and other infrastructure.
- 6.3.2** Encourage on-street parking use. Limiting off-street parking lots can increase on-street usage.
- 6.3.3** Install traffic calming features on neighborhood streets like chicanes, volume reducers, speed humps, raised crosswalks, and traffic circles.
- 6.3.4** Limit the use of traffic signals at intersections.

## 6.4. Balance Street Priority

Streets should be designed in harmony with the land uses they serve, recognizing their role in shaping the character and identity of a place. Properly designed streets support the success of surrounding uses—neighborhood streets create quiet, safe environments, while main streets thrive with vibrant shopping, dining, and active sidewalks. (See Figure 45)

Street design involves balancing various elements to meet the needs of land uses, users, and the street’s role in the mobility network. While most neighborhood streets in Royal Oak function well, major roads like the mile roads, Campbell, Main, Crooks, Rochester, Coolidge, and Woodward often prioritize cars at the expense of other

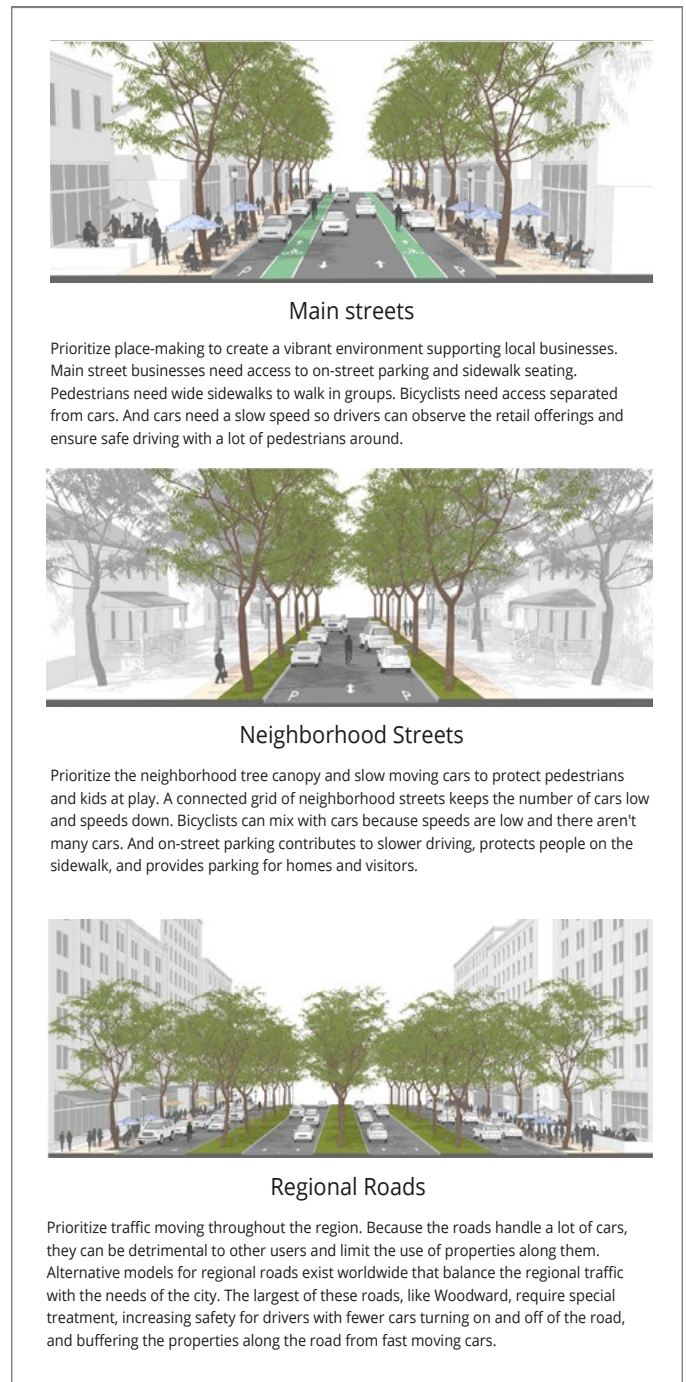


Figure 45. Priorities According to Street Type

users and adjacent properties. Adjustments to streetscape elements can improve their functionality for all users and enhance nearby land uses. In cases where space is limited, changes to land use or providing alternative routes for certain users, like cyclists, may be necessary. A common approach to these changes is a “street retrofit,”



# Increase Mobility Across the City

## Balance Street Priority

often involving a “road diet” to repurpose excess car lanes for other uses.

Streetscape elements should reflect the street’s primary function, whether as a neighborhood street, main street, or regional road, and adapt as the context changes. For example, Crooks Road shifts from a regional thoroughfare north of 14 Mile to a neighborhood street and even a main street within Royal Oak. Its design must balance these competing roles to the extent allowed by its width, prioritizing different users based on context. Future Land Use categories guide this balance, ensuring street design aligns with community priorities.

**Neighborhood Residential** is supported by neighborhood streets. These streets should prioritize the resident in their domestic environment. The speed of cars should be severely limited, influenced by a narrow roadway, large trees, parked cars, and traffic diverters where cut-through traffic is common. Neighborhood streets should be safe places for kids to play and for pedestrians and cyclists to find convenient routes to nearby destinations.

**Neighborhood Edge** balances land use and street design by increasing the land use intensity - with townhomes and small multi-family - in order to reduce curb cuts for driveways from a traffic standpoint and to create more spatial enclosure with consistent buildings in order to slow traffic speed. These streets are oriented more towards cars than other users, often requiring support from alternative bicycle routes where the street is not large enough to provide bike lanes, however sidewalks should be larger than neighborhood streets. While on-street parking is still

helpful for speed reduction and pedestrian safety, it is not critical at the neighborhood edge.

**Neighborhood Node** needs to support small, neighborhood-serving businesses along somewhat larger roadways. Streets are more oriented towards cars than other users, however, on-street parking and wider sidewalks should be provided wherever possible to support abutting businesses.

**Neighborhood Main Street** prioritizes sidewalk vibrancy and the success of surrounding businesses by slowing cars and focusing on the sidewalk experience. Lanes for cars should be reduced in width and number to the greatest extent possible. On-street parking is very important and should be added, even to the detriment of throughput. Sidewalks should be wide, and pedestrians protected by on-street parking or street trees.

**Activity Center** varies in the needs of users, and is identified in places that need to increase pedestrian facilities over time. While Delemer between Normandy and 14 mile should act more like the Downtown Core, Beaumont and other centers have a different balance, oriented more towards cars than other users, but transitioning to support pedestrians and bikes.

**Downtown Core** upholds sidewalk vibrancy as its priority, but is limited by the width of existing rights-of-way. On-street parking should be available as much as possible, however it may be converted to dining decks and parklets where sidewalk space is limited. Sidewalks should be as wide as space allows, with street trees surrounded

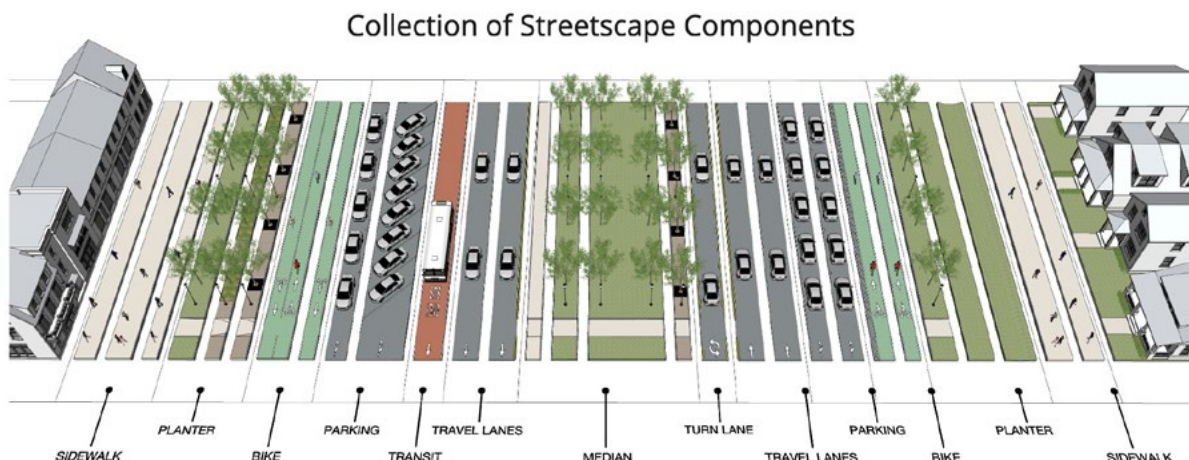


Figure 46. Collection of Streetscape Components

## Right-Size Streets

**Mixed-use Corridor** requires a careful balance between vehicle movement and business needs. A mixed-use corridor can handle higher traffic volumes due to the frequent non-residential uses and larger building formats. However, ground floor businesses rely on on-street parking and pedestrians, as well as drive-by customers. These corridors should be reduced in width to the greatest extent possible, and provided with on-street parking and wide sidewalks. While not ideal, street trees may be sacrificed to provide space for other users, however sidewalks should not be located next to travel lanes without either on-street parking or street trees as a separator.

**Woodward Corridor** requires special attention due to its regional significance and its impact on surrounding properties. An entire section of this chapter is dedicated to Woodward. This Regional Road should take the form of a boulevard, a street type common around the world that allows for high-volume and higher speed movement in the middle of the boulevard and slower cars along with bicycles and pedestrians at its edges.

**Industrial** prioritizes cars and trucks for the movement of materials. Streets tend to be wider to accommodate truck movement, however they are short in distance.

**6.4.1** Refer to future land use for transportation decisions, prioritizing street users and space allocation based upon the future desired character for an area.

# Right-Sizing Streets in Royal Oak: A Path to Safer, More Accessible Roads

## What is Right-Sizing?

Right-sizing involves adjusting the number and width of vehicle lanes to align with traffic demands, safety goals, and land use priorities. Most streets can accommodate traffic with two travel lanes (one in each direction) and lanes no wider than 10 feet, except in cases where 11-foot lanes are needed for buses or trucks. In some cases, medians may be added to provide turning lanes or space for pedestrian refuge islands.

Reclaimed roadway space can be used for wider sidewalks,

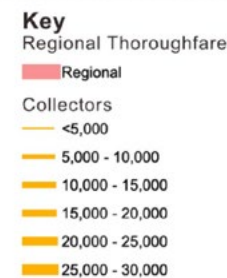


Figure 47. Traffic Volumes (2023)

# Increase Mobility Across the City

## Right-Size Streets

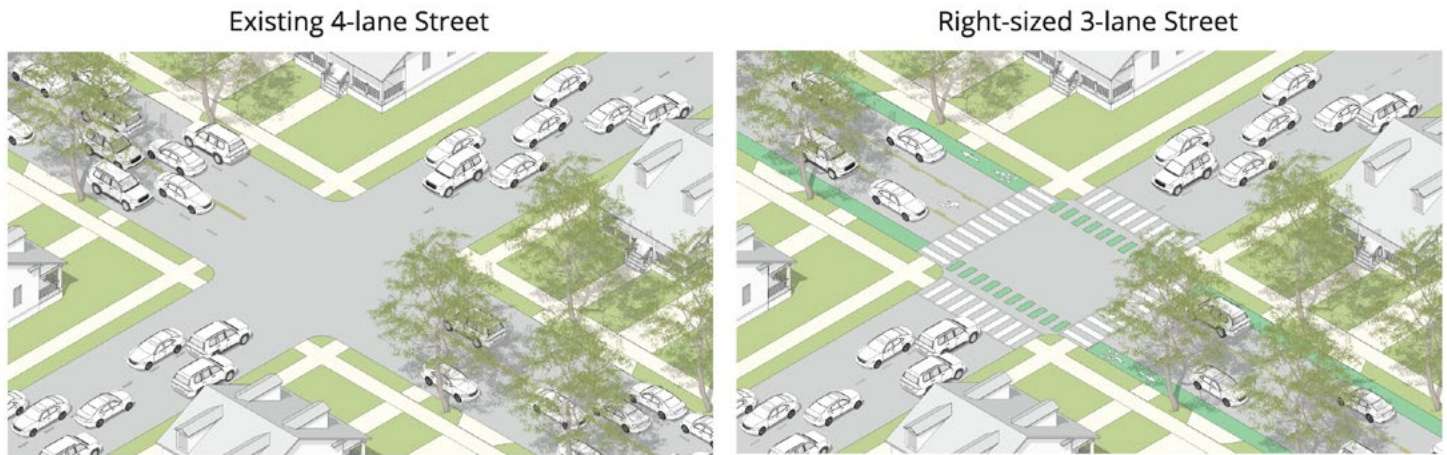


Figure 48. Right-sizing Example for 12 Mile Road

on-street parking, bike lanes, or green infrastructure. The most common approach, a 4-to-3 lane conversion, replaces two vehicle lanes with a single center turn lane and two travel lanes. (See Figure 48) These designs reduce crashes by 20-50%, improve safety for left-turning vehicles, and create opportunities for pedestrian refuge islands, which lower pedestrian-vehicle crash rates by 40-45%.

### Benefits of Right-Sizing

- **Improved Safety:** Right-sizing reduces traffic speeds and provides safer environments for all users. It enhances visibility for drivers, pedestrians, and cyclists, particularly during left-turn maneuvers and at crosswalks.
- **Enhanced Mobility Options:** Reallocating space can accommodate bike lanes, pedestrian paths, and transit facilities. Where space is limited, alternative routes for cyclists may be developed.
- **Economic and Environmental Benefits:** Adding on-street parking supports businesses, while green infrastructure improves stormwater management and adds street trees that visually narrow roads, naturally slowing traffic.

### Addressing Concerns

Public concerns about right-sizing typically include increased traffic delays, cut-through traffic in neighborhoods, and emergency response access. However, studies show that right-sizing has minimal impact on traffic flow when designed within Federal Highway Administration

(FHWA) guidelines, which recommend 4-to-3 conversions for roads with average daily traffic (ADT) up to 20,000 vehicles, and consideration for conversions up to 25,000 vehicles. (See Figure 47 and Figure 49) Right-sized streets maintain adequate space for first responders as required by national standards.

### Complementary Strategies

For larger streets where significant redesign is costly, traffic calming measures—such as corner bump-outs, chicanes, and diverters—can achieve similar results. These measures enhance safety by slowing traffic and improving crossing conditions.

### The Case for Right-Sizing in Royal Oak

Streets like Main Street (north of Crooks) and Rochester Road already demonstrate the benefits of right-sizing. Additional opportunities exist throughout the city, as identified in the accompanying table. Right-sizing Royal Oak's major roads can reduce their role as cut-through routes, decrease speeds, and improve mobility within the city, particularly for pedestrians and cyclists.

By aligning street designs with surrounding land uses, Royal Oak can reduce barriers to mobility, enhance safety, and create a more balanced, accessible transportation network that supports businesses, neighborhoods, and active transportation. Right-sizing is a critical tool for achieving these goals and improving quality of life citywide.



# Increase Mobility Across the City

## Right-Size Streets

**Eleven Mile** is a critical corridor well suited to right-sizing. Presently, excessive lanes encourage high vehicle speeds and make crossing challenging and dangerous. As a result, downtown is cut-off from safe and convenient pedestrian and bicycle access from the city's northern neighborhoods. Additionally, the lack of on-street parking limits business success along the corridor. Retrofitting Eleven Mile is a key priority that must balance bicycle access, on-street parking, sidewalks, and street trees, all within a limited right-of-way. The following page includes a series of recommendations for this balance, prioritizing bicycle connections from the west and east, connecting to the greenway network, on-street parking in the more constrained commercial areas around Downtown, and street trees along the north side of the street where they are able to be accommodated. (See Figure 50 and Figure 51) While frequent curb-cuts make on-street parking challenging today, redevelopment should be encouraged through zoning changes, relocating parking towards the rear of properties and consolidating curb cuts.

### Actions

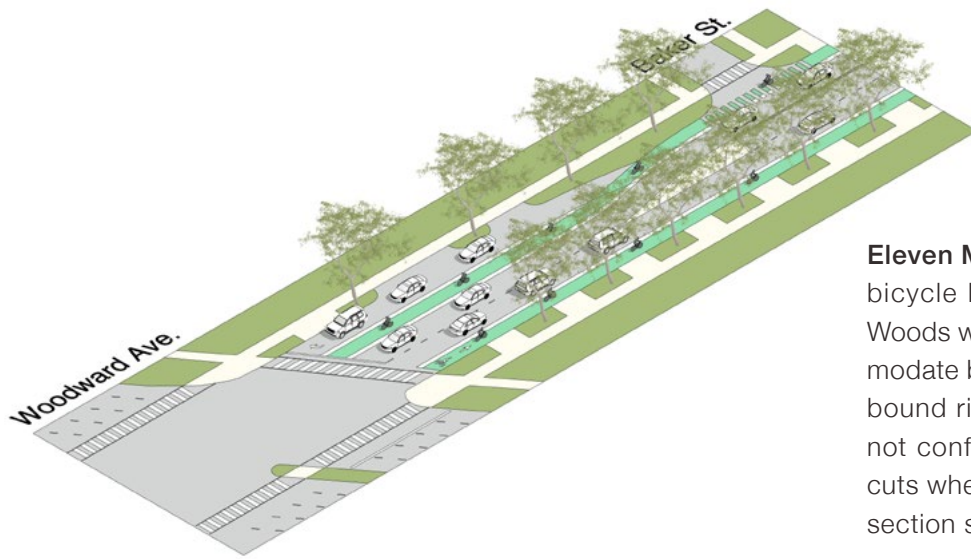
- 6.5.1** Continue pursuit of road diets where traffic allows and reclaim that space for other uses.
- 6.5.2** Study traffic calming along Coolidge Highway, which is inundated at rush hour and detrimental to pedestrians, bicyclists, and surrounding properties.
- 6.5.3** Pursue right-sizing of Crooks Road.
- 6.5.4** Pursue right-sizing of Campbell Road.
- 6.5.5** Pursue right-sizing of 11 Mile Road. This improvement should be combined with zoning changes to enable more development capacity.
- 6.5.6** Study right-sizing of 12 Mile Road.
- 6.5.7** Study traffic calming opportunities for 13 Mile Road, which does not qualify for right-sizing but is high-speed and detrimental to pedestrians, bicyclists, and surrounding properties.
- 6.5.8** Study right-sizing of 14 Mile Road.

Street Name	Classification	Jurisdiction	ADT	Lanes	Right-sizing Potential
<b>Woodward Avenue</b>	Principal Arterial	State	61,000	9	Studied in different communities
<b>Coolidge Highway</b>	Principal Arterial	City	28,800	5	Not applicable
<b>Crooks Road</b>	Principal Arterial	City	16,900	4	Reduction possible, studied in 2014
<b>Main Street</b> (south of Crooks Road)	Principal Arterial	City	14,800	5	Reduction should be pursued
<b>Main Street</b> (north of Crooks Road)	Minor Arterial	City	13,600	3*	Reduction recently complete
<b>Rochester Road</b>	Principal Arterial	City	17,000	4	Reduction under construction
<b>Campbell Road</b>	Principal Arterial	City	16,800	4	Reduction should be pursued, studied in 2014
<b>Eleven Mile Road</b>	Minor Arterial	City	17,700	4	Reduction should be pursued, studied in 2022
<b>Twelve Mile Road</b>	Principal Arterial	County	22,900	4	Reduction should be studied
<b>Thirteen Mile Road</b>	Minor Arterial	City	24,700-27,000	5	Not applicable
<b>Fourteen Mile Road</b>	Principal Arterial	City & County	23,700	5	Reduction should be studied

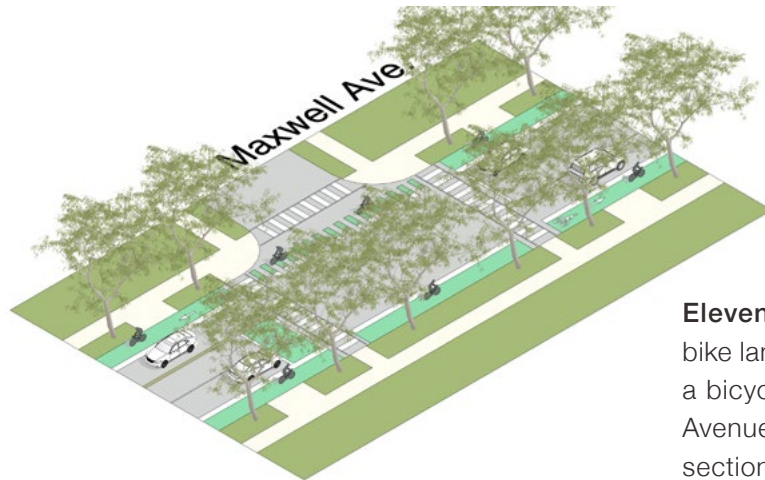
Figure 49. Right-sizing Potential for Major Streets

# Increase Mobility Across the City

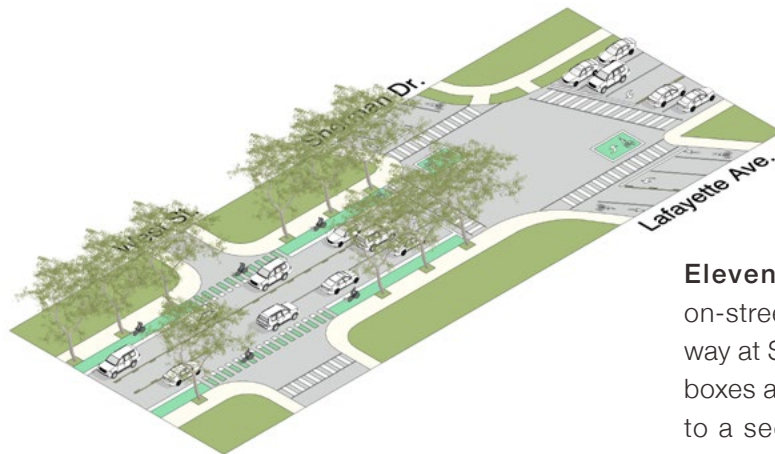
## Right-Size Streets



**Eleven Mile at Woodward.** Provide buffered bicycle lanes to connect with Huntington Woods which plans wide sidewalks to accommodate bikes along 11 Mile; ensure the west-bound right-turn lane onto Woodward does not conflict with the bike lane; reduce curb cuts where possible. This reflects an existing section study with minor modifications.



**Eleven Mile at Maxwell.** Continue buffered bike lanes; provide enhanced crosswalks and a bicycle box for left-turns onto the Maxwell Avenue greenway and other controlled intersections in this segment.

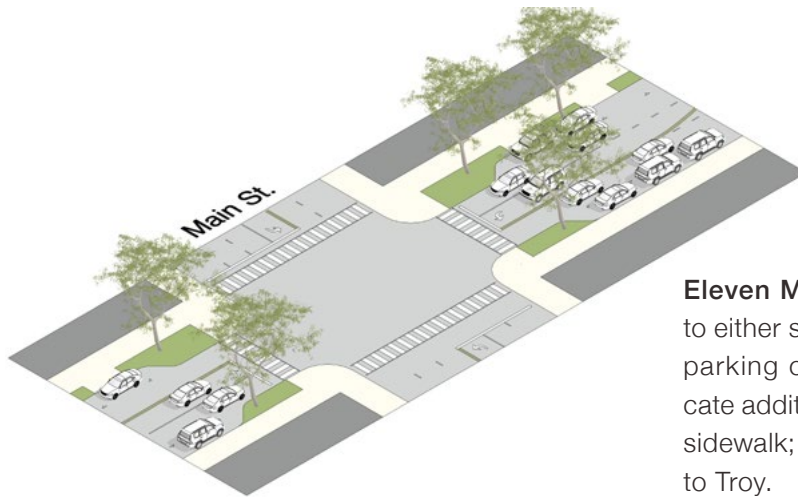


**Eleven Mile at Lafayette.** Transition the on-street bike lanes to connect to the greenway at Sherman / Lafayette, including left-turn boxes and bike lanes along Lafayette; change to a section with on-street parking east of Lafayette to support Downtown.

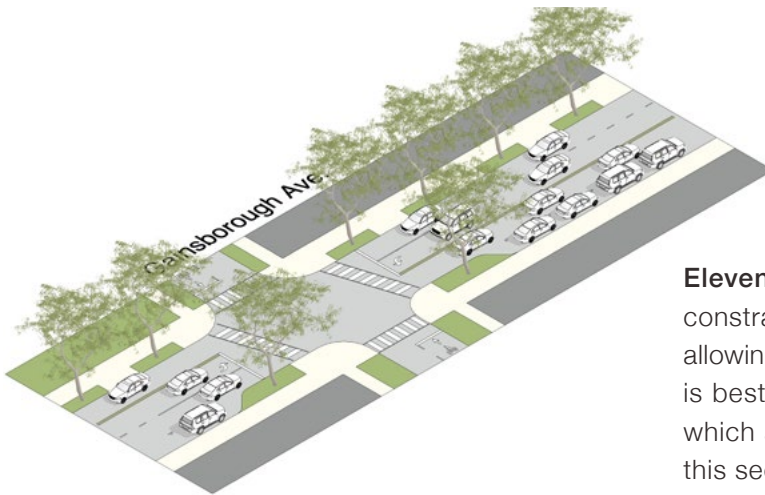
Figure 50. Eleven Mile Proposed Right-Sizing, Woodward to Lafayette

# Increase Mobility Across the City

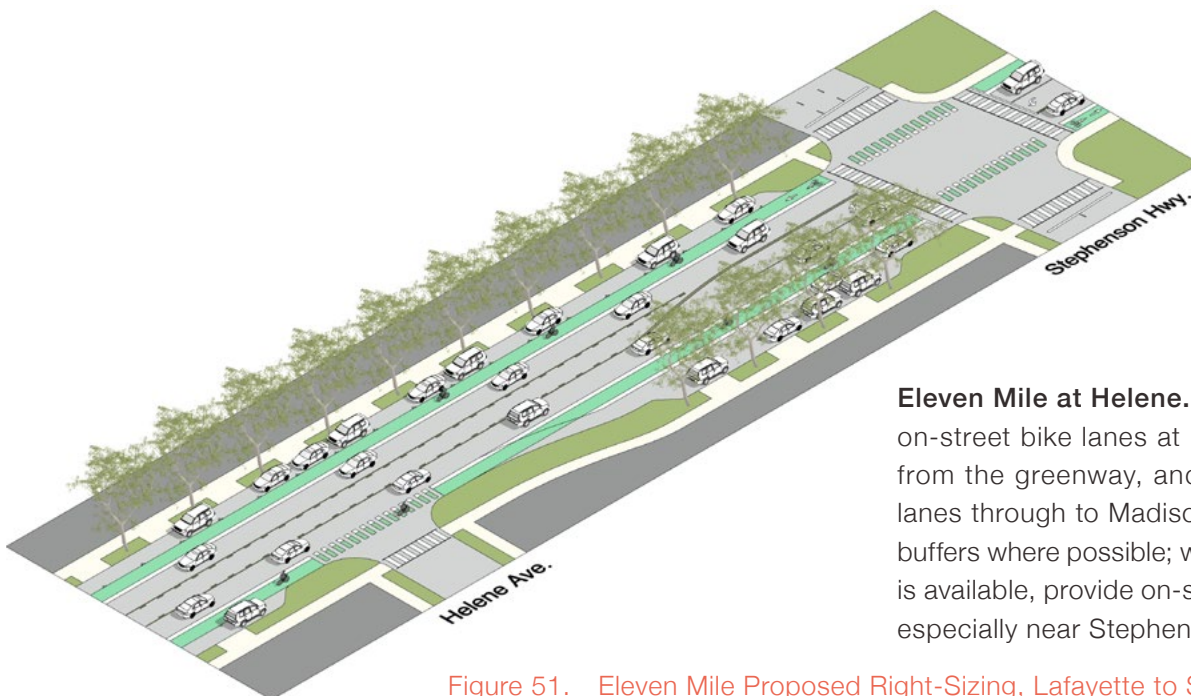
## Right-Size Streets



**Eleven Mile at Main.** Where 11 Mile is wide to either side of Main Street; provide on-street parking on both sides of 11 Mile and dedicate additional space for trees along the north sidewalk; continue this section from Lafayette to Troy.



**Eleven Mile at Gainsborough.** The street is constrained through this significant segment, allowing only one on-street parking lane which is best suited on the south, and street trees which are best suited on the north; continue this section from Troy to Campbell.



**Eleven Mile at Helene.** Transition to include on-street bike lanes at Minerva, connecting from the greenway, and continue on-street lanes through to Madison Heights, providing buffers where possible; where additional width is available, provide on-street parking as well, especially near Stephenson Highway.

Figure 51. Eleven Mile Proposed Right-Sizing, Lafayette to Stephenson Highway



### 6.6. Improve Sidewalks

**S**idewalk width should align with the surrounding land use to support pedestrian activity and create comfortable, inviting environments. While most streets in Royal Oak have sidewalks, many are built at minimum widths. This is sufficient for low-traffic residential areas but inadequate for Downtown, major corridors, and neighborhood main streets, where higher pedestrian volumes and vibrant street life require wider sidewalks.

To accommodate pedestrian activity, sidewalks should meet the minimum standards outlined in the Master Plan, based on land use:

- Neighborhood Residential: 5 feet minimum
- Neighborhood Edge, Neighborhood Node, Industrial: 6 feet minimum
- Mixed-Use Corridor, Woodward Corridor, Neighborhood Main Street, Activity Center: 8 feet minimum
- Downtown: 10 feet minimum

For sidewalks directly adjacent to the curb without a buffer, such as along Eleven Mile Road, an additional 4 feet should be added to improve safety and comfort. Ideally, a tree planting buffer should be included, with the design tailored to the context:

- Active commercial areas: Paved buffers for outdoor seating or displays
- Residential areas: Landscaped buffers for a natural setting
- Mixed-use areas: A combination of paved and landscaped buffers

Sidewalk upgrades should be implemented through private development projects, public street reconstruction (including right-sizing efforts), and targeted improvements in areas with inadequate pedestrian infrastructure. Planting buffers not only enhance safety but also improve the aesthetic and functionality of streetscapes, contributing to pedestrian comfort and slowing adjacent traffic.

Frequent driveways along major roads, such as Eleven Mile and other commercial corridors, disrupt sidewalk continuity and create conflicts between pedestrians and vehicles. This problem is often worsened by narrow commercial

lots, where properties without alley access rely on individual driveways. Frequent driveways also reduce space for street trees and on-street parking, which are essential for pedestrian comfort and traffic calming.

Strategies to Improve Safety and Efficiency:

- Encourage alley or side-access driveways where feasible, with front access as a last resort.
- Limit driveway width along front property lines.
- Require shared access between adjacent properties to consolidate driveways and reduce conflicts.

Reducing and consolidating driveways improves pedestrian safety, maintains continuous street trees and parking, and enhances traffic flow on major roads.

By aligning sidewalk widths and driveway standards with land use, Royal Oak can enhance pedestrian safety, support vibrant streetscapes, and improve traffic flow. These changes will make streets safer, more accessible, and more enjoyable for all users, contributing to a more livable and dynamic community.

#### Actions

- 6.6.1** Revise minimum sidewalk widths to correspond with future land use categories and the anticipated amount of pedestrian activity.
- 6.6.2** Require new private development to improve abutting sidewalks to the revised minimum width, including extension into the private property front setback where not enough space exists in the public right-of-way.
- 6.6.3** Ensure public works projects that reconstruct portions of streets use revised minimum sidewalk widths.
- 6.6.4** Widen sidewalks along major streets within the city where they are substantially narrower than the revised minimum.
- 6.6.5** Consider shared use paths where pedestrians share with bicyclists, scooter riders, rollerbladers, and others share a wider, intentionally designed path.
- 6.6.6** As part of a zoning code update, change access management standards for non-residential uses

# Increase Mobility Across the City

## Increase Crossing Safety

to:

- Restrict driveways along front property lines where there are opportunities for access from an alley or side property line;
- Require vehicular cross-access between abutting properties; and
- Restrict driveway width to the minimum required to meet access needs, typically no wider than 22ft for combined ingress and egress and 11ft for separated.

### 6.7. Increase Crossing Safety

A lack of frequent and safe crosswalks along major roads is a significant deterrent to walking and a safety concern throughout Royal Oak. Crosswalk design and frequency should be tailored to the characteristics of the roadway and surrounding land uses, particularly on major roads like the mile roads. Simply adding curb ramps and painted crosswalks may be insufficient at unsignalized locations; enhanced treatments such as warning signs, flashing beacons, bump-outs, and refuge islands are often necessary to ensure pedestrian safety. (See Figure 52)

Crosswalk frequency is a particular issue along major roads, where long gaps between safe crossings discourage walking. For example, Thirteen Mile Road has five stretches of sidewalk with gaps greater than 500 feet between crosswalks, including one stretch exceeding 2,000 feet. A 500-foot diversion to reach a crosswalk adds roughly five minutes to a pedestrian's journey. Such delays often lead pedestrians to cross at unmarked and unsafe locations or choose driving over walking. Increasing the frequency of crosswalks on these major roads is essential to reduce these barriers and encourage safer pedestrian activity. (See Figure 53 for recommended improvements)

Most signalized intersections in Royal Oak include pedestrian signals with countdown timers, but not all crosswalks are marked on every corner, forcing pedestrians to make additional crossings to reach their destination. Additionally, outside of Downtown, pedestrian signals often require pressing a button to activate. This can be frustrating for pedestrians who are unaware of the need to push the button, leading to longer waits. To better accommodate

pedestrians, all signalized intersections should feature marked crosswalks, automatic pedestrian signal cycles, and countdown timers.

While most intersections in Royal Oak meet ADA requirements with curb ramps and tactile warning pads, many ramps use a "single corner design." This design fails to provide clear directional guidance for visually impaired pedestrians. Especially on major roads, curb ramps should be upgraded to include separate tactile warning pads for each crossing direction, ensuring safer navigation.

In support of Royal Oak's Vision Zero goals to eliminate traffic-related fatalities and serious injuries, crosswalk improvements should be a priority. This includes:

- Increasing the frequency of crosswalks, particularly on major roads with long gaps.
- Enhancing unsignalized crossings with additional safety features.
- Standardizing pedestrian signals with automatic cycles and countdown timers.
- Upgrading curb ramps to better serve visually impaired pedestrians.

By addressing these crosswalk deficiencies, Royal Oak can create a safer, more walkable environment that encourages walking over driving and improves accessibility for all users.

#### Actions

**6.7.1** Update the street millage priorities to include improvements for safe street crossings.

**6.7.2** Improve crossing safety along major roads:

- Increase the frequency of crosswalks.
- Add crosswalk markings at minor street intersections along the major road to alert turning vehicles of pedestrians.
- Add crosswalks at signalized intersections where they are missing.
- Add highly visible striping and pedestrian signals at signalized intersections and other crossings of major roads.
- Modify pedestrian signal operation to provide an automatic pedestrian phase.



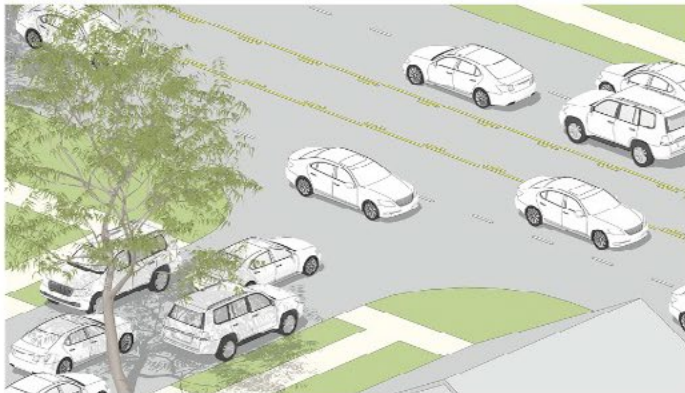
# Increase Mobility Across the City

Increase Crossing Safety

13 Mile and Blair Ave



Crossing Improved



Protected pedestrian refuge

Highly visible crosswalk marking

Bicycle markings at bicycle routes

Illuminated crosswalk sign

Seating

ADA compliant crosswalk

Figure 52. Crossing Improvements



# Increase Mobility Across the City

## Increase Crossing Safety

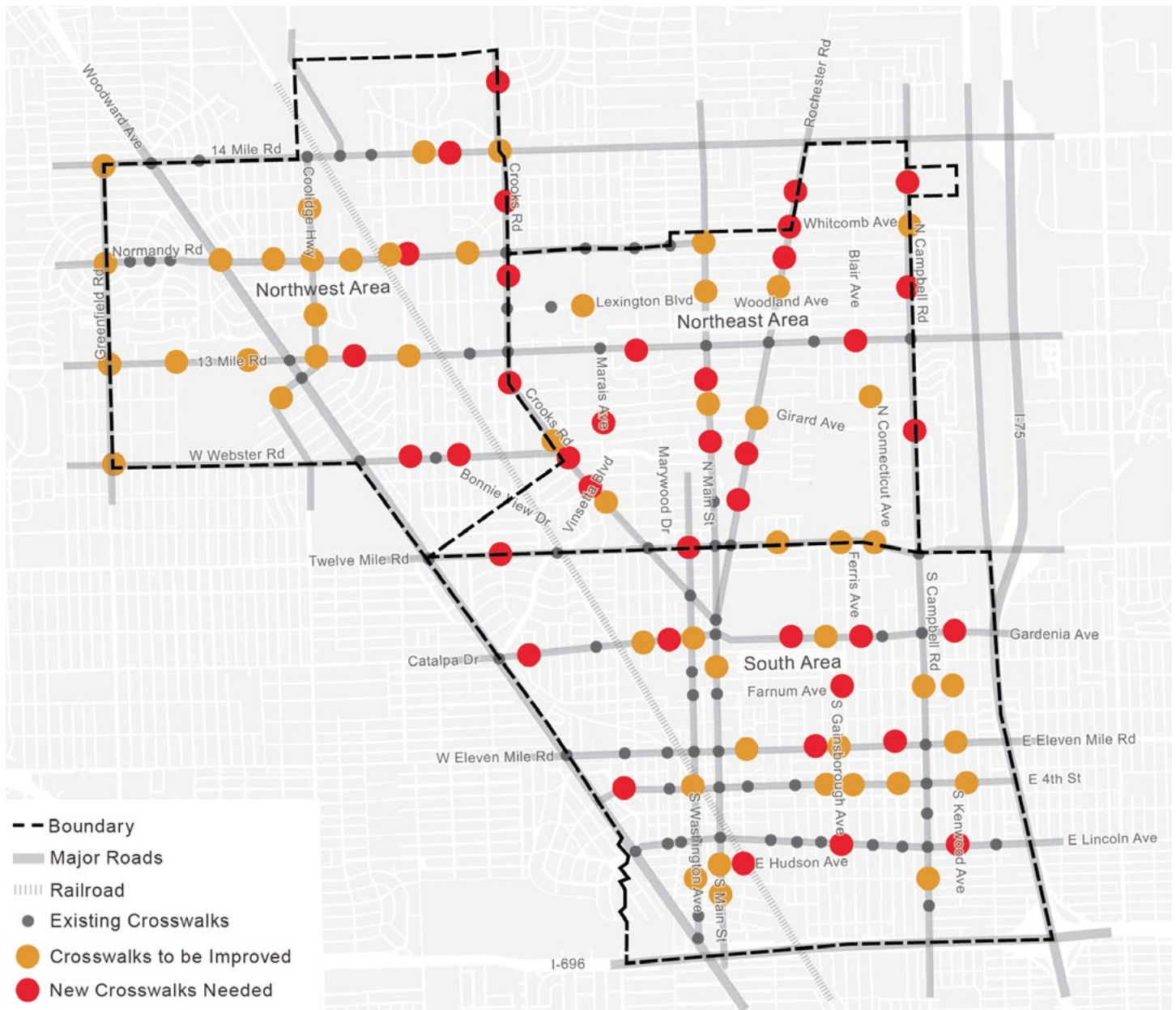


Figure 53. Recommended Crossing Improvements (see detailed maps at the end of this section)

- 6.7.3** Improve crossing safety at uncontrolled crosswalks, consider additional crosswalk improvements as applicable to the context, such as:
- Warning signs along the street;
  - Highly visible crosswalk striping, such as special emphasis;
  - Pedestrian-oriented lighting;
  - Flashing beacons (RRFB) or pedestrian hybrid beacons (HAWK signal);

- Bicycle activated signals;
- Curb extensions or bump-outs;
- Refuge islands; and
- Raised crosswalks.

**6.7.4** Improve crossing safety at signalized intersections:

- Continue upgrading pedestrian signals to count-down signals.
- Modify pedestrian signal operation to provide an

# Increase Mobility Across the City

## Add and Diversify Street Trees

automatic pedestrian phase.

- Shorten signal cycle lengths to minimize bike and pedestrian delays.

### 6.7.5 Improve crossing safety for accessibility:

- Continue upgrading and installing curb ramps with tactile warning pads with truncated domes.
- Maintain sidewalks and curb ramps to avoid tripping hazards and ensure that maximum allowable ADA slopes are adhered to.
- Consider accessible (audible) pedestrian signals in high-traffic areas such as Downtown, Activity Centers, and Neighborhood Main Streets.

## 6.8. Add and Diversify Street Trees

Street trees are a defining feature of Royal Oak's neighborhoods, offering numerous environmental, economic, and social benefits. Beyond their aesthetic appeal, street trees improve mental health, enhance air quality, provide shade that mitigates the urban heat island effect, and increase pedestrian and street comfort. They also reduce vehicle speeds, create a safety barrier between cars and pedestrians, and boost property values.

Although Royal Oak's tree canopy is more robust than in many cities, there is significant room for improvement. Gaps in tree coverage are common in areas where spacing should otherwise be consistent. Major roads that have been widened often lack tree planters and street trees, and commercial areas, including Downtown, have relatively few trees.

To enhance tree coverage, efforts should focus initially on strategic locations, such as parks, schools, and along the greenway network (as outlined in later sections). Expanding tree coverage in these areas will maximize benefits and align with broader community goals for walkability and sustainability.

Tree species should be selected for resilience to future climate conditions to ensure their longevity. Additionally, diversifying species is essential to reduce vulnerability to diseases and pests, protecting the integrity of the tree canopy over time.

By prioritizing tree planting and selecting resilient, diverse species, Royal Oak can further enhance its neighborhoods, create more comfortable streetscapes, and strengthen its environmental resilience.

### Actions

#### 6.8.1 Add street trees where missing, prioritized along:

- Schools;
- Parks;
- The greenway network (detailed later);
- Downtown;
- Activity Centers;
- Neighborhood Main Streets; and
- Neighborhood Nodes.

#### 6.8.2 Create a tree species diversification plan to preserve the longevity of the city's tree canopy against future disease and climate risks.

#### 6.8.3 Where streets are retrofitted or built new, set back the sidewalk from the traveled way as much as possible to provide sufficient root space.

## 6.9. Provide Street Furniture

Street furniture like seating, bike racks, and trash receptacles is often overlooked in street design outside of downtown areas. However, pedestrians have similar needs in other concentrated commercial areas, like neighborhood main streets and nodes. And elsewhere in the community, opportunities to sit along walks are important intermittently, as are needs to dispose of trash, fix bikes, and utilize other public furnishings. Street furniture should be provided in coordination with the future land use of the area, and to support other goals like increasing recycling or promoting public health and walking.

### Actions

#### 6.9.1 In Activity Centers, and Neighborhood Main Streets and Nodes:

- Provide frequent benches;
- Provide trash and recycling on every street corner;

# Increase Mobility Across the City

## Build Neighborhood Greenways and Optimize Bicycle Accommodations

- Provide frequent bike racks; (S-CAP 2.1.6)
- Provide frequent pedestrian-oriented lighting; and
- Provide parking areas for scooters and other devices on each block.

### 6.9.2 In Corridors and the Neighborhood Edge

- Provide benches at significant intersections;
- Provide benches at bus stops;
- Provide trash and recycling at bus stops; and
- Provide pedestrian-oriented lighting at bus stops.

### 6.9.3 Along the Greenway Network:

- Provide benches at significant intersections and every 3 blocks where possible;
- Provide trash and recycling at significant intersections; and
- Provide pedestrian-oriented lighting at intersections.

### 6.9.4 In Parks

- In coordination with the park design, each park should provide benches, trash and recycling receptacles, bike racks and repair stations, and pedestrian-oriented lighting. (S-CAP 2.1.6)

### 6.9.5 Encourage businesses and schools to expand bicycle parking (S-CAP 2.2.4). For businesses, this should be prioritized in Activity Centers and Neighborhood Main Streets and Nodes.

## 6.10. Build Neighborhood Greenways and Optimize Bicycle Accommodations

Getting around Royal Oak by bike or on foot is generally safer and more comfortable within neighborhoods than along major roads. However, efforts to provide consistent bicycle accommodations on major roads have been limited and inconsistent, often due to the cost and space constraints of right-sizing streets. As a result, the city's bicycle network lacks both coverage and consistency.

Currently, the only striped bike lanes are on Main Street and E 4th Street, but these lanes stop at intersections,

the most intimidating and dangerous parts of the network. On higher-speed, higher-traffic roads, bike lanes should include buffers or be protected with barriers like posts or concrete, neither of which exists in Royal Oak today. Sharrows—painted markings directing drivers and cyclists to share a lane—are found on roads like Crooks but serve only confident, experienced riders, leaving families, children, and less confident cyclists feeling unsafe.

### Establishing a Neighborhood Greenway Network

To better support walking and biking throughout the city, Royal Oak should prioritize the creation of a neighborhood greenway network. (See Figure 54) This system, also called greenways or bicycle boulevards in other communities, would link key destinations like parks, schools, dining, entertainment, and services in Activity Centers, Neighborhood Nodes, and Main Streets. Designed for low-stress travel, the greenway network would be safe and comfortable for users of all ages and abilities, encouraging broader participation in active transportation.

Key benefits of a greenway network:

- Provides safe, low-stress routes for biking and walking.
- Connects frequently visited destinations across the city with active transportation.
- Serves as an affordable solution compared to more intensive roadway projects.

Essential features of the greenway network include:

- Intersection improvements at major crossings.
- Signage and pavement markings to guide users.
- Amenities such as seating, lighting, and occasional traffic diverters.
- Traffic-calming measures, like volume reduction treatments, to discourage cars from using these routes as cut-throughs.

Traffic diverters also improve safety by reducing vehicular speeds and volumes on greenways, creating a safer environment for pedestrians and cyclists. These measures align with Vision Zero, a national initiative aimed at eliminating traffic fatalities. (See Figure 55)



# Increase Mobility Across the City

## Build Neighborhood Greenways and Optimize Bicycle Accommodations

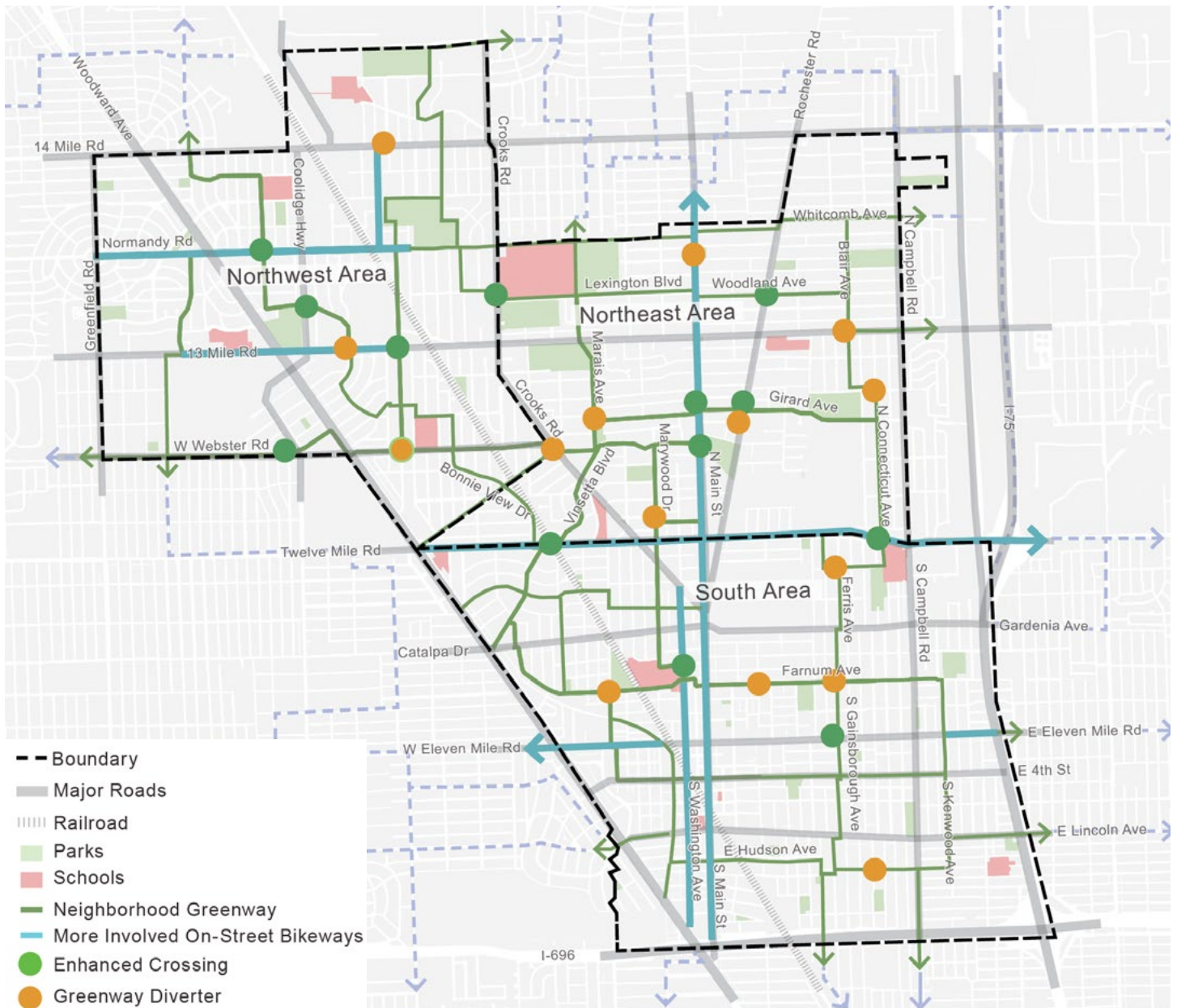


Figure 54. Recommended Greenway Network (see detailed maps at the end of this section)

### Supporting Broader Community Goals

A comprehensive pedestrian and bicycle network supports multiple objectives:

- Safe Routes to Schools: Enhancing safe walking and biking access for children.
- Equitable mobility: Expanding options for residents who cannot or choose not to drive, including children, seniors, and those with disabilities.
- Sustainability goals: Reducing car trips and greenhouse gas emissions.
- Public health: Encouraging active transportation for healthier lifestyles.
- Safety improvements: Reducing accidents and injuries, particularly for pedestrians and cyclists.

# Increase Mobility Across the City

## Build Neighborhood Greenways and Optimize Bicycle Accommodations

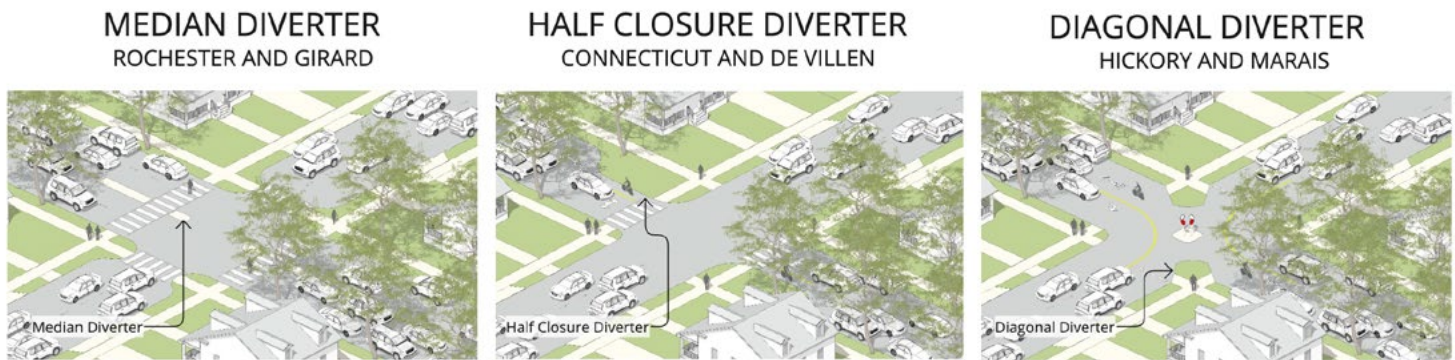


Figure 55. Vehicular Volume Reduction Treatments

Treatment	Description
<b>Diagonal Diverters</b>	Curbs placed diagonally across an intersection which force vehicles to turn. If placed on a neighborhood bike greenway, this can allow bikes to pass through the diverter.
<b>Half Closures</b>	Conversion of some of a street to one-way to prevent traffic from entering residential streets. If placed on a neighborhood bike greenway, it can allow bikes to travel against the flow of general traffic and still have access.
<b>Median Barriers</b>	Median barriers that prevent vehicles from continuing straight through an intersection. If placed on a neighborhood bike greenway, it can allow bikes to pass through the barrier.

### Expanding Active Transportation in Royal Oak

To complement the greenway system, updates to the existing bicycle network are needed:

- Routes should direct cyclists toward the greenway network for safer crossings of major roads.
- Sharrows and other unsafe bike facilities on roads like Main and Campbell should be replaced with protected lanes or parallel greenway routes.
- Clear signage should guide users to greenways and other safe bike routes.

Royal Oak already has a significant bicycling community compared to neighboring cities, but a consistent, low-stress network is necessary to grow participation. By investing in a comprehensive greenway and bike network, the city can make biking and walking safer, more convenient, and more appealing. These improvements will reduce car

dependency, advance climate goals, and promote healthier, more sustainable transportation options for everyone.

### Actions

- 6.10.1** Update the street millage priorities to implement a neighborhood greenway network.
- 6.10.2** Establish a Neighborhood Greenway network (addresses S-CAP 2.1.7):
  - Map and publicize the network system;
  - Prioritize street crossing improvements along the network;
  - Provide destination and route signage;
  - Mark the greenway with sharrows;
  - Prioritize street tree additions along the network;
  - Install volume reduction treatments to reduce driving and cut-through traffic along the network; and
  - Provide street furniture to support walkers and bikers.
- 6.10.3** At greenway destinations:
  - Provide bicycle parking;
  - At activity centers and parks, provide bicycle repair stations and covered bike parking; and
  - At activity centers, provide occasional, more secure bike locker parking.
- 6.10.4** Along major roads:
  - Ensure that bicycle facilities are dedicated, not shared;
  - Provide buffering or other protections for bicycle



# Increase Mobility Across the City

## Improve Woodward

facilities; and

- Provide parallel facilities, such as the greenway, where bicycle lanes cannot be provided.

**6.10.5** Make other adjustments to the citywide bicycle network to provide clarity and predictability with route continuity, signage, and changes to accommodations that reflect the characteristics of the street they are along.

**6.10.6** Continue to Engage in Safe Routes to Schools projects. (S-CAP 2.4.1, 2.4.2) The greenway network is such a project.

### 6.11. Improve Woodward

Woodward Avenue serves as a critical regional corridor, balancing the roles of a high-capacity roadway and a surface-level street with signal control, frequent curb cuts, and commercial access. This dual function creates challenges, particularly for pedestrians and cyclists, who face significant barriers in crossing or accessing the corridor. Poor access to businesses, frequent driveways disrupting traffic flow, and high vehicle speeds contribute to unsafe conditions and diminished functionality for all users.

#### Existing Challenges and Regional Efforts

The condition of Woodward has long been recognized as a problem, and neighboring communities like Ferndale and Birmingham are pursuing improvements. Ferndale's ongoing road diet includes narrowing sections of Woodward to improve pedestrian and cyclist safety, while Birmingham has installed pedestrian crossing enhancements and is studying the feasibility of a similar road diet. These efforts reflect a regional consensus on the need to reimagine Woodward to better serve non-motorized users and adjacent businesses.

Reconstruction on I-75 to the east is expected to alleviate some traffic pressure on Woodward, creating an opportunity to reclaim a lane of traffic for other uses. Studies suggest that reducing lanes on Woodward would have minimal impact on traffic capacity, given the efficiency of the Michigan Left system, while offering substantial benefits for pedestrians, cyclists, businesses, and traffic safety in alignment with Vision Zero goals.

Parking along Woodward is a persistent issue. Much of the corridor is lined with small angled parking areas accessed by frequent curb cuts, which are dangerous, poorly maintained, and insufficient to meet demand. The shallow depth of many commercial properties exacerbates the problem, pushing parking into adjacent neighborhoods and limiting opportunities for new businesses.

Recent developments, like the Trader Joe's project, have consolidated curb cuts to improve safety and traffic flow, in accordance with MDOT standards.

Fast-moving traffic turning from Woodward onto adjacent neighborhood streets compromises safety and livability. While some advocate closing neighborhood access points, doing so would increase congestion on other major roads and hinder emergency response times. A balanced solution is needed to address the needs of neighborhoods, businesses, and all modes



Figure 56. Recommended Woodward Improvements



# Increase Mobility Across the City

## Accommodate Growth in Delemere

of transportation while maintaining the corridor's regional function.

### A Proposed Solution

This plan proposes converting Woodward's outer travel lanes and shallow parking areas into slip lanes, which function as lower-speed service lanes. (See Figure 56 and Figure 57) These lanes would:

- Buffer neighborhood intersections from high-speed traffic.
- Provide safe on-street parking and reduce curb cuts.
- Include two rows of street trees for shading, buffering, and beautification.
- Accommodate two-way bike lanes on both sides of the corridor.
- Enhance pedestrian access and safety.

To further improve Woodward's functionality and aesthetics, the plan recommends converting much of the corridor's commercial zoning to residential, concentrating commercial uses at major intersections. This shift would reduce parking demand, create better business environments, and allow for housing development buffered from high-speed traffic by slip lanes and tree coverage. These changes would transform Woodward into a more livable, attractive corridor that balances residential and commercial needs.

### Moving Toward Lane Reductions

Reducing lanes on Woodward may be difficult for the public to understand, given its role as a primary regional route. However, the current traffic demand is temporarily inflated by I-75 construction, and traffic levels are expected to normalize once the highway project is complete. By the time significant modifications to Woodward are implemented, the capacity of I-75 will have been restored, reducing the perceived need for additional lanes on Woodward.

Royal Oak should actively participate in regional efforts to implement lane reductions and community-focused improvements along Woodward. While transformative changes may take time, gradual steps like implementing slip lanes, enhancing crossings, and reducing curb cuts will lay the groundwork for a safer, more accessible corridor that better serves residents, businesses, and all modes of transportation.

### Actions:

- 6.11.1** Become actively involved in MDOT's vision update for the Woodward Corridor, elevating the land use, transportation, and access concerns addressed herein, and contributing the frontage road option for consideration.
- 6.11.2** Improve the accessibility of the properties along Woodward, beautify its character, and reduce the impact on neighboring properties by reducing a travel lane on Woodward and creating an improved frontage road.
- 6.11.3** Consider a regional trail for longer-distance bikes and runners through the center of the Woodward median. The trail would take advantage of the lack of left-turns from Woodward onto other streets and cross those other streets with a Woodward green indication.

## 6.12. Accommodate Growth in Delemere

The master plan encourages growth over an area of approximately 65 acres along the Delemere corridor. The expected density is an average of 20 dwelling units per acre, representing a mix of townhomes, small single family homes, and small and medium sized multi-family buildings along with commercial uses, leading to approximately 1,300 new dwelling units. Using the ITE Trip Generation Manual, the standard means of estimating future traffic, this level of development is projected to generate 7,085 daily trips, half entering the area and half exiting. Actual trip generation is likely lower due to internal trip capture, meaning that growth in the area provides more nearby destinations so people would be able to visit a business there rather than driving further away. Vehicle trips can also be reduced by increasing bicycle access and safety, and providing wider sidewalks and safe street crossings, making biking and walking more convenient. While more detailed traffic impact studies should be considered, the roadways around this node should be able to support additional traffic. The average daily traffic (ADT) of the surrounding roadways are specified in the table below.

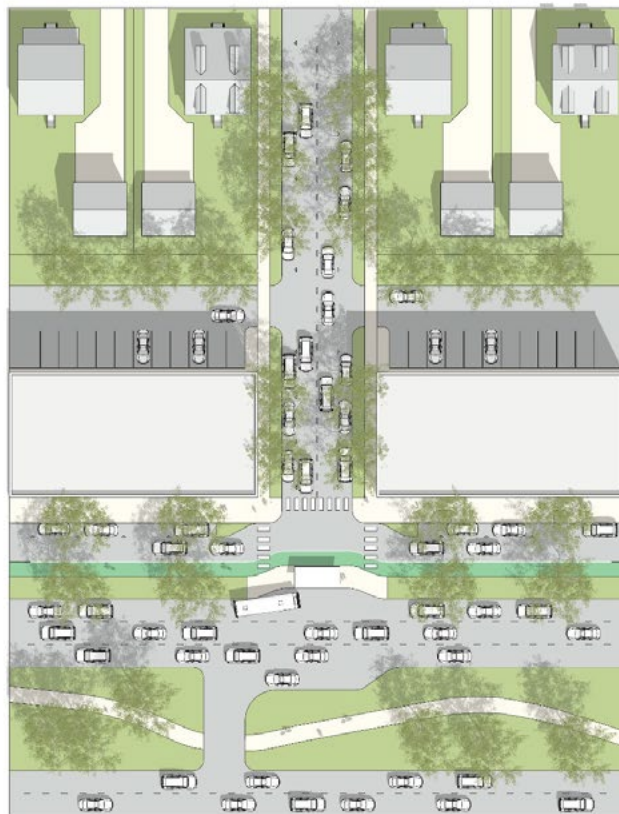
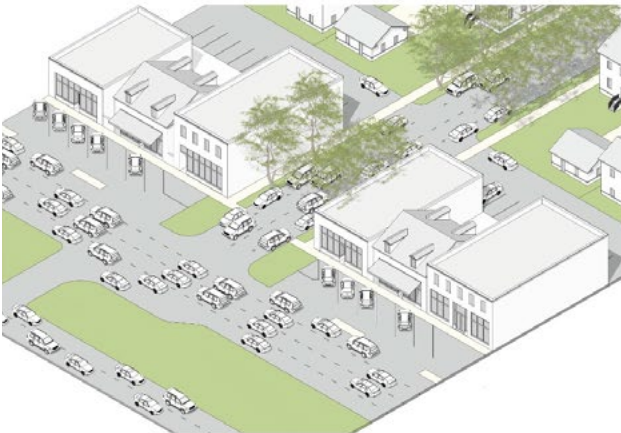
# Increase Mobility Across the City

Accommodate Growth in Delemere

Woodward Today



Woodward Reimagined



Adjacent Neighborhood  
Private Property along Woodward  
Sidewalk and street trees  
Parallel parking  
One-way travel lane  
Counter-flow bike lane  
Slip-lane median  
Northbound Woodward mainline  
Woodward median with regional trail

Figure 57. Recommended Woodward Improvements



# Increase Mobility Across the City

## Accommodate Growth in Delemere

Street	ADT	Lanes	Capacity
14 Mile	23,700	4, with turn lanes	35,000
Coolidge	23,600	4, with turn lanes	35,000
Delemere	3,896	2, with turn lanes	18,000

One possible bottleneck in the surrounding roadway network is the section of 14 Mile Road between the two Coolidge Highway intersections. This section of 14 Mile passes under a narrow railroad viaduct which constricts capacity and only allows two travel lanes in each direction. Traffic traveling along Coolidge Highway must divert onto 14 Mile before turning left to continue onto the other section of Coolidge, increasing traffic on 14 Mile and introducing a lot of left turns to the two intersections. As part of the development plan along Delemere, replacing and

widening the railroad viaduct would be an opportunity to provide additional capacity on 14 Mile Road. Removing the center pier and making it a clear span would allow for lengthening turn lanes between the two Coolidge intersections. Another potential solution is worthy of consideration for its functional benefits, although it involves higher costs. Coolidge could be adjusted such that the jog occurs further north, before 14 Mile and just below the existing garden center. This would require property acquisition and a new rail and improved bridge. This option would significantly improve the flow of Coolidge traffic and reduce the impacts along 14 Mile.

The evolution of the Delemere area from its current condition to an activity center with a main street along Delemere requires modifications to existing roads which don't currently provide for consistent street parking, pedestrian or bike access, street plantings or even curbing. To spark private sector investment in the area, an updated street



Figure 58. Enlarged Portion of the Delemere Activity Center Illustration



# Increase Mobility Across the City

## Invest in Public Transportation

section should be designed along Delemere which builds upon the recently added on-street parking with additional sidewalk width, lighting, and opportunities for trees. Other surrounding streets will require additional improvements, but these could be phased for completion at a future date. Additionally, a TIF district should be studied in order to fund public space improvements, improved public parking, generally to support the transformation of the area.

### Actions

- 6.12.1** Study alternatives for the Coolidge jog at 14 Mile.
- 6.12.2** Adopt a new main street section for Delemere, based upon the recently constructed parallel parking interventions with consideration for additional sidewalk width, street trees, and lighting, to be modified or reconstructed over time as new development occurs in the area.
- 6.12.3** Consider a tax increment financing (TIF) district to fund public space and parking improvements in the Delemere area, similar to the Downtown Development District.

### 6.13. Invest in Public Transportation

Transit access in Southeast Michigan is limited and has been difficult to improve. There is limited bus service and, despite decades of discussions and efforts, very little rail transit in the form of streetcars or commuter trains. Yet reducing driving is important for both climate action and quality of life. Additionally, many residents and employees of Royal Oak businesses rely on public transportation, despite its shortcomings.

Royal Oak is fortunate in its historic location along the Grand Trunk Railroad and Woodward Avenue, together providing the city with greater regional transit access than surrounding communities. Amtrak provides daily service to Royal Oak along the Wolverine Line, with morning and evening trains and additional trains on weekends. SMART has fixed route bus service on Woodward, Eleven Mile, Main, and a few other roads. Bus service is frequent along Eleven Mile and along Woodward on SMART's FAST service route. SMART also offers Paratransit "on-call" service for Seniors and disabled residents. While bus service is available in much of the community, it is not convenient to all homes and businesses and most buses run on an hourly schedule which can make many transfers between bus lines impractical.

Bus stops in Royal Oak mostly consist of a small SMART sign with route information on an existing light pole or dedicated sign pole. Stops rarely have benches or shelters to provide a dedicated place to wait for the bus. Bus stop infrastructure is important to increase ridership, provide a more comfortable experience, and demonstrate a commitment to the transit service. Along major roads, bus stops should be improved with seating, shelter, lighting, and trash and recycling receptacles.

Downtown is well served with the Amtrak stop adjacent to the SMART transit center which connects to multiple regional bus



Figure 59. Enlarged Portion of the Downtown Station District Illustration

# Increase Mobility Across the City

## Improve the Southwest Gateway

routes, however buses and trains do not arrive or depart frequently. As part of the Downtown recommendations, improvements for Amtrak service and the SMART and bus transfer stations are proposed. The most significant improvement would involve construction of a train station at the current Amtrak stop, and an integration of the services from the SMART transfer station within the same building as a downtown transit center. A new transit center would provide more convenient, safer and winter-friendly access to trains, a streamlined transfer to buses, and a physical presence for the Amtrak stop which would give identity to this under-appreciated corner of downtown. In addition to increased housing in Downtown, these improvements would increase the accessibility and visibility of transit services within the City's core.

Woodward is an important hub for bus trips throughout the region, concentrating routes and providing direct access to Downtown Detroit and other nearby city centers. As part of the Woodward recommendations, improvements for SMART service are proposed by providing more space and safety for bus stops. Like other bus stops, those along Woodward should have benches, shelter, lighting, and trash and recycling receptacles. Woodward service is also supported by the improvements proposed to pedestrian and bicycle access and safety.

### Actions

- 6.13.1** Work with SMART and others in the county to expand or improve service, prioritizing additional stops at key destinations and routing improvements to reduce wait times. Oakland County passed a transit millage in November of 2022 which will provide additional funding for transit in the region.
- 6.13.2** Improve bus stops with seating, shelters, and accessible waiting areas.
- 6.13.3** Improve bus stops with lighting and trash and recycling receptacles, prioritized within Activity Centers and Neighborhood Main Streets and Nodes, and along Woodward.
- 6.13.4** Advocate for more encompassing, frequent and reliable multi-modal transit service at the regional and state level. (S-CAP 2.2.7) This

should be done in partnership with surrounding communities and like-minded cities throughout the state.

## 6.14. Improve the Southwest Gateway

Royal Oak's southwest gateway, where Woodward Avenue intersects I-696, Main Street, and Washington Avenue, is in urgent need of improvements to enhance pedestrian and bicycle access, connectivity, and aesthetics. This critical entry point currently suffers from restricted crossings due to Woodward's dual surface and bypass lanes and I-696's lowered expressway. The limited crossings at Main Street and Washington Avenue are uninviting, with narrow sidewalks and little protection from fast-moving traffic, while the absence of bicycle infrastructure severs connections to the regional network.

Additionally, properties along the corridor, including near the Detroit Zoo, are dominated by car-oriented frontages, creating an unwelcoming streetscape. By contrast, the Main Street and 10 Mile Road entrance is more pleasant, featuring a park and pedestrian-friendly frontages, but it lacks recognition as a gateway to Royal Oak, with minimal signage or celebration along Woodward.

To address these issues, the area requires a comprehensive study and targeted interventions. Improvements should focus on creating safer, wider pedestrian crossings, introducing dedicated bike infrastructure, and transforming car-dominated frontages into pedestrian-oriented spaces. Enhancing the streetscape with greenery, public art, and gateway signage can establish a stronger identity for the city. A more ambitious approach could include capping the lower Woodward bypass lanes and portions of I-696 to unify the area and create a civic-focused gateway that highlights Royal Oak's connection to the Detroit Zoo.

By reimagining this gateway, Royal Oak can transform it into a vibrant and welcoming entry point that reflects the city's character and enhances connectivity for all users.

### Actions

- 6.14.1** Develop a Southwest Gateway plan, along with MDOT and the Detroit Zoo, celebrating this monumental entrance to the city.



# Increase Mobility Across the City

## Detailed Mobility Maps

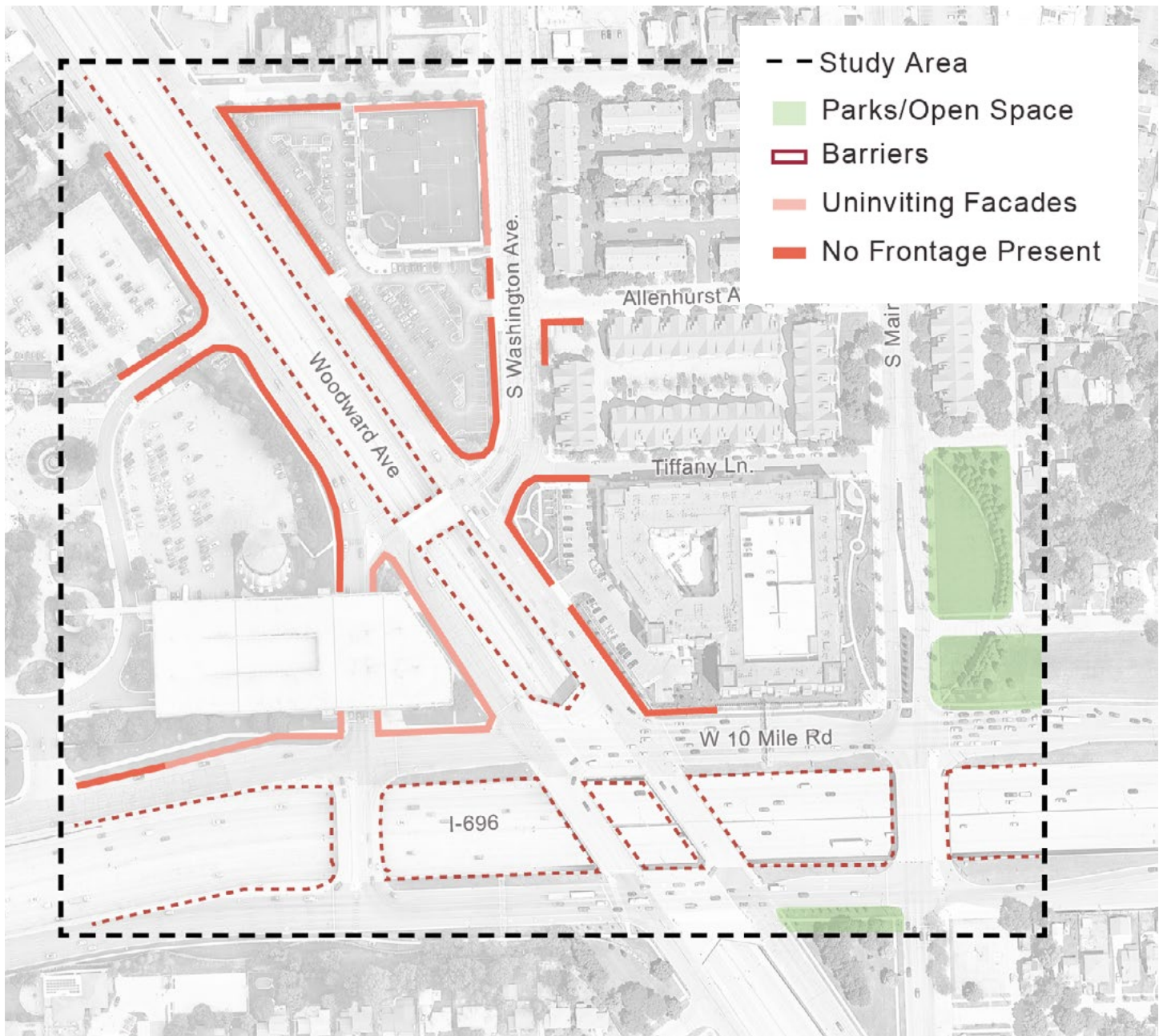


Figure 60. Barriers in the Southwest Gateway

### 6.15. Detailed Mobility Maps

Maps concerning the greenway network and crosswalk improvements are provided in greater detail on subsequent pages.



# Increase Mobility Across the City

## Detailed Mobility Maps

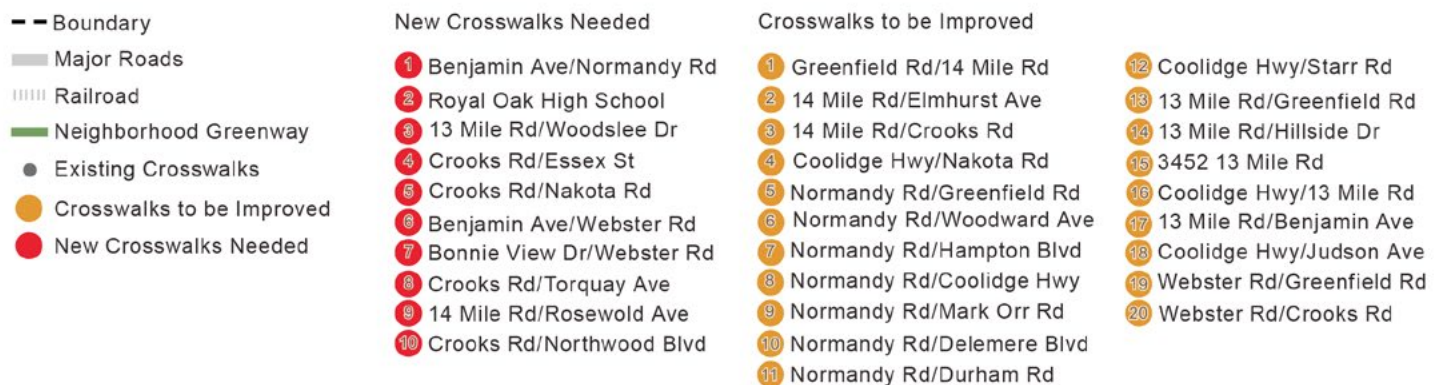
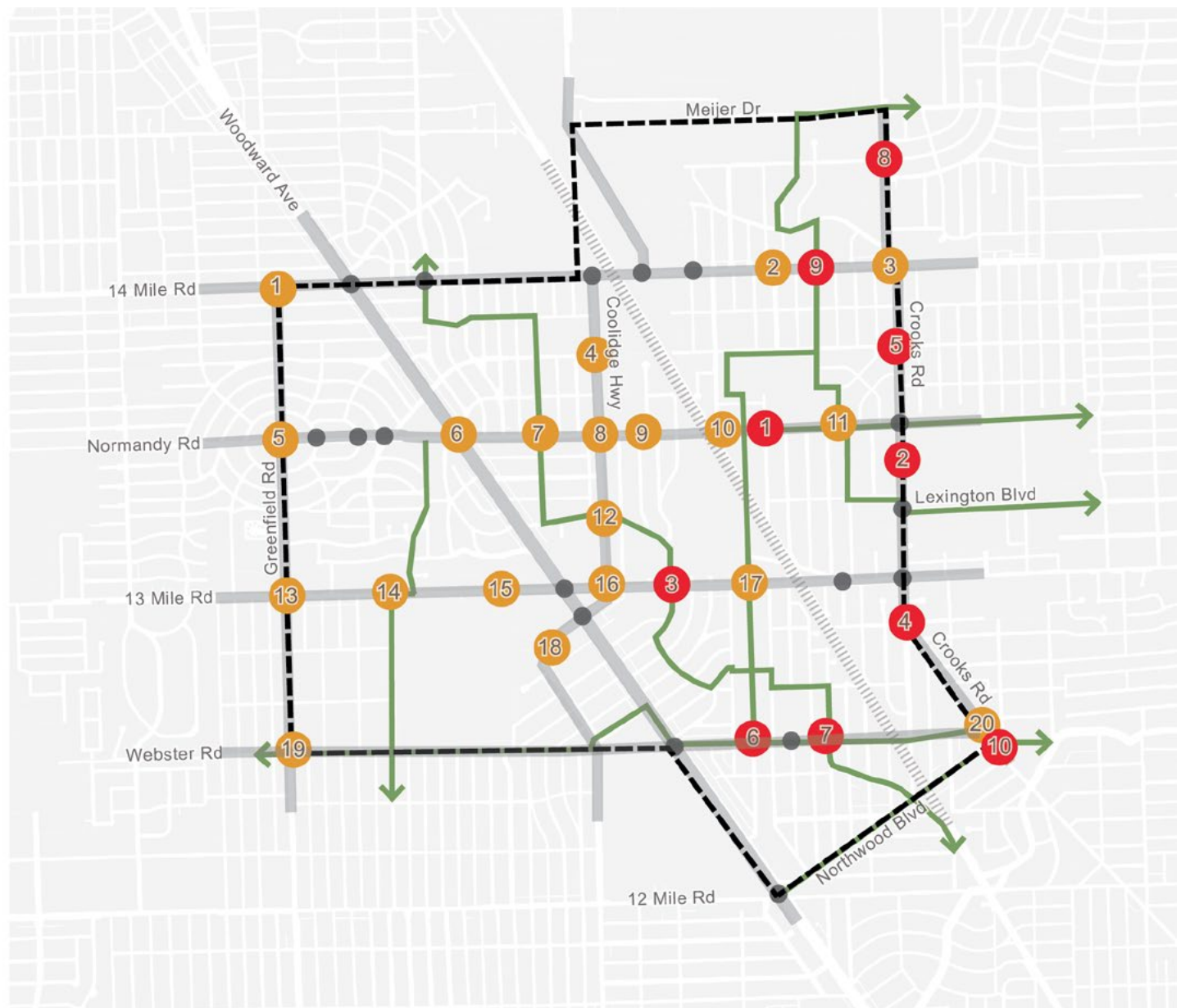


Figure 61. Recommended Crossing Improvements - Northwest Royal Oak

# Increase Mobility Across the City

## Detailed Mobility Maps

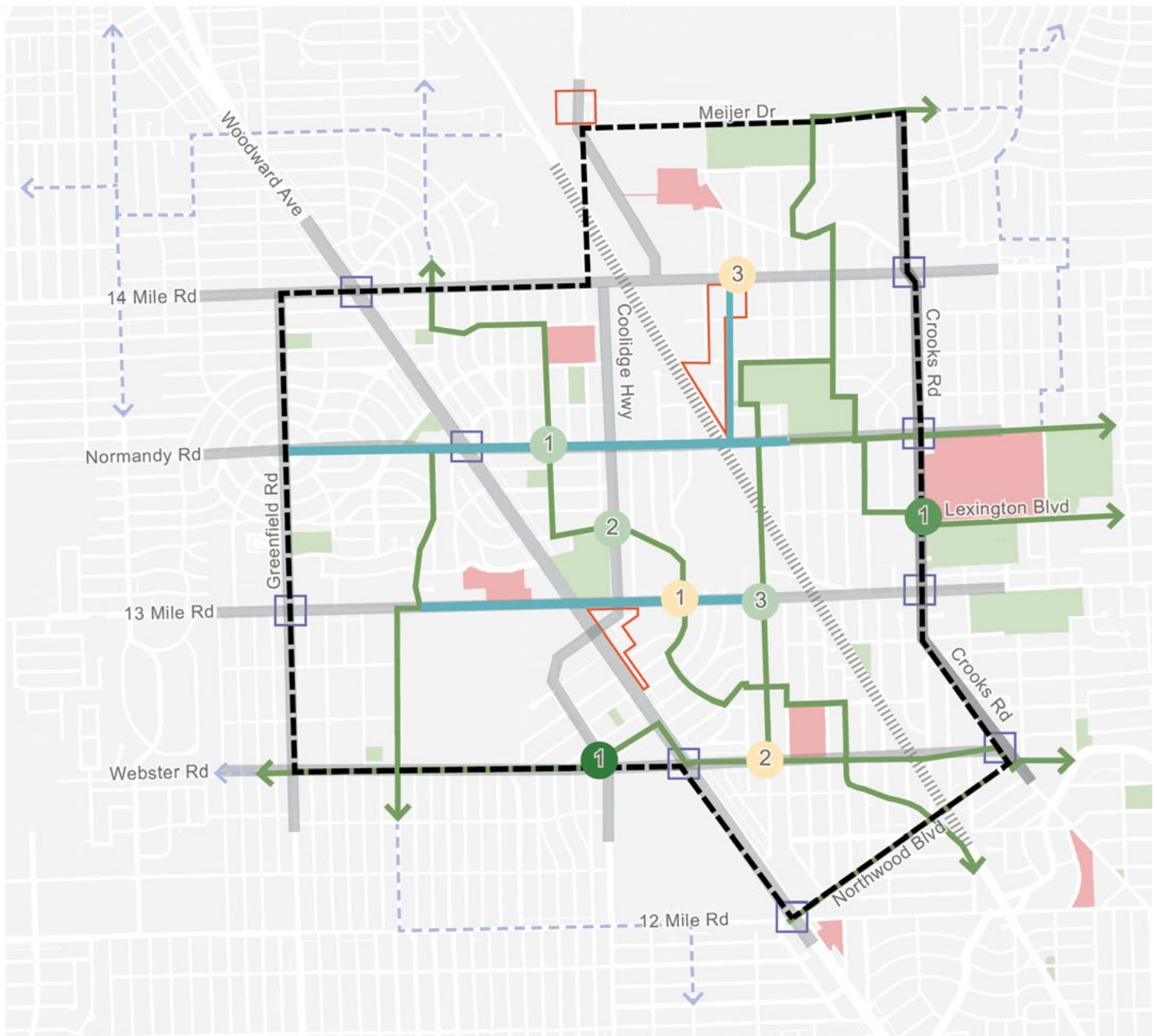


Figure 62. Recommended Greenway Network - Northwest Royal Oak



# Increase Mobility Across the City

## Detailed Mobility Maps



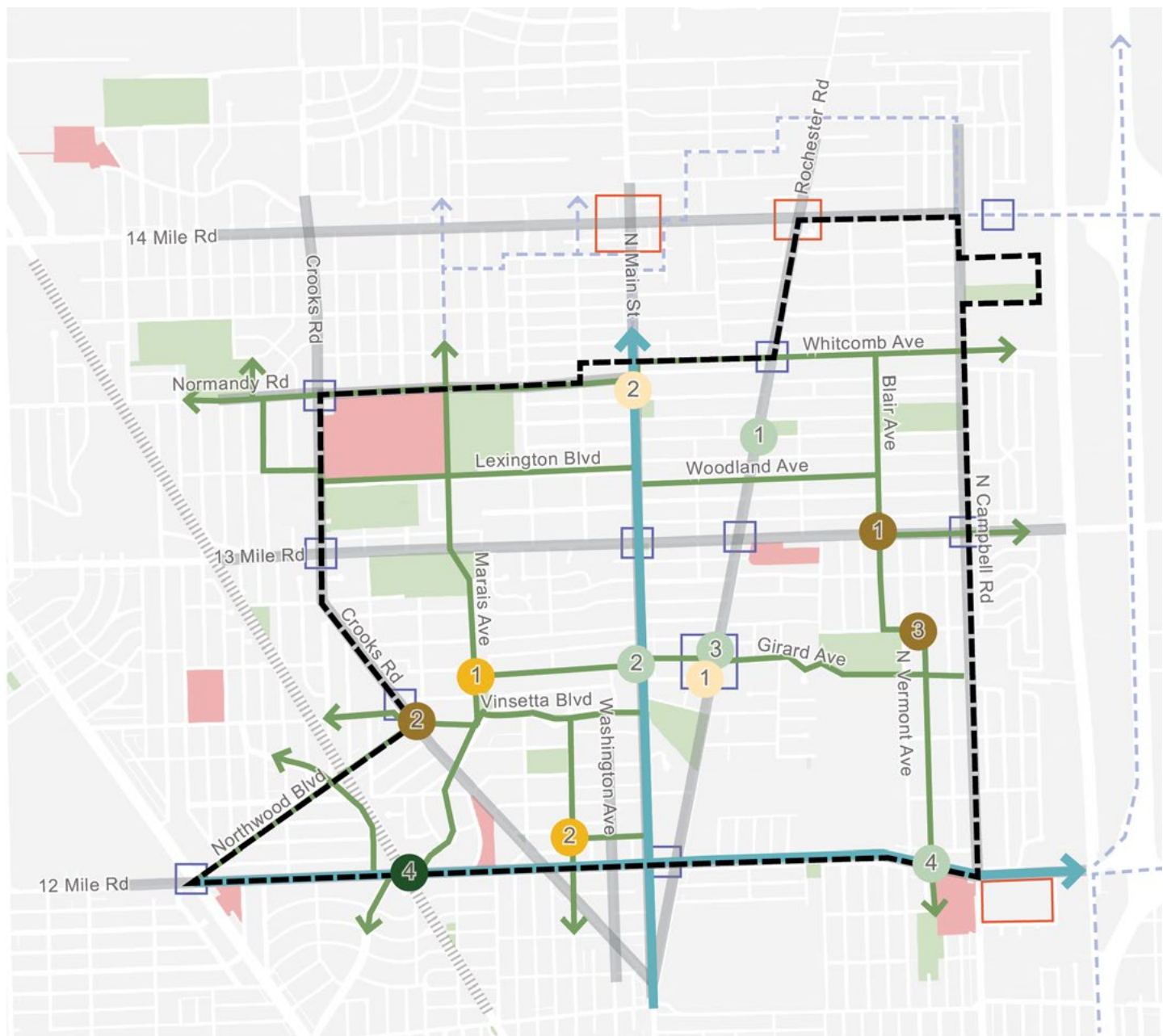
<ul style="list-style-type: none"> <li>--- Boundary</li> <li>Major Roads</li> <li>      Railroad</li> <li>Neighborhood Greenway</li> <li>Existing Crosswalks</li> <li>Crosswalks to be Improved</li> <li>New Crosswalks Needed</li> </ul>	<b>New Crosswalks Needed</b> <ul style="list-style-type: none"> <li>1 Rochester Rd/Ottawa Ave</li> <li>2 Rochester Rd/Whitcomb Ave</li> <li>3 Campbell Rd/Ottawa Ave</li> <li>4 13 Mile Rd/Sylvan Dr</li> <li>5 13 Mile Rd/N Blair Ave</li> <li>6 Main St/Bloomfield Ave</li> <li>7 Marais Ave/Hickory Ave</li> <li>8 Main St/Detroit Ave</li> <li>9 Rochester Rd/Detroit Ave</li> <li>10 N Campbell Rd/Girard Ave</li> <li>11 Rochester Rd/E Houstonia</li> <li>12 12 Mile Rd/Fairlawn Rd</li> <li>13 12 Mile Rd/Washington Ave</li> <li>14 Rochester Rd/E Sunnybrook Dr</li> <li>15 N Campbell Rd/Montrose Ave</li> <li>16 Crooks Rd/Northwood Blvd</li> <li>17 Crooks Rd/Vinsetta Blvd</li> <li>18 Royal Oak High School</li> <li>19 Crooks Rd/Essex St</li> </ul>	<b>Crosswalks to be Improved</b> <ul style="list-style-type: none"> <li>1 N Main St/Normandy Rd</li> <li>2 Lexington Blvd/Marais Ave</li> <li>3 Rochester Rd/Woodland Ave</li> <li>4 N Main St/Girard Ave</li> <li>5 Rochester Rd/Girard Ave</li> <li>6 N Vermont Ave/De Villen Ave</li> <li>7 Crooks Rd/Lloyd Ave</li> <li>8 12 Mile Rd/Fern St</li> <li>9 12 Mile Rd/N Altadena Ave</li> <li>10 12 Mile Rd/N Connecticut Ave</li> <li>11 N Main St/Lexington Blvd</li> <li>12 N Campbell Rd/Whitcomb Ave</li> </ul>
---	---	---

Figure 63. Recommended Crossing Improvements - North Royal Oak



# Increase Mobility Across the City

## Detailed Mobility Maps



- Boundary
  - Major Roads
  - ||||| Railroad
  - Parks
  - Schools
  - Activity Centers
  - Neighborhood Main Streets and Nodes
  - Neighborhood Greenway
  - More Involved On-Street Bikeways
  - Existing Adjacent
- Enhanced Crossings**
- Signalized**
- ① Rochester Rd & Montrose Ave
  - ② Main St & Girard Ave
  - ③ Rochester Rd & Girard Ave
  - ④ 12 Mile Rd & Connecticut Ave
- Use Service Lanes**
- ④ 12 Mile Rd & Vinsetta Blvd
- Diversers**
- Median**
- ① Rochester Rd & Girard Ave
  - ② Main St & Amelia St
- Diagonal**
- ① Hickory Ave & Marais Ave
  - ② Mary Ave & Marywood Dr
- Half Closure (One-way vehicular traffic)**

Figure 64. Recommended Greenway Network - North Royal Oak

# Increase Mobility Across the City

## Detailed Mobility Maps

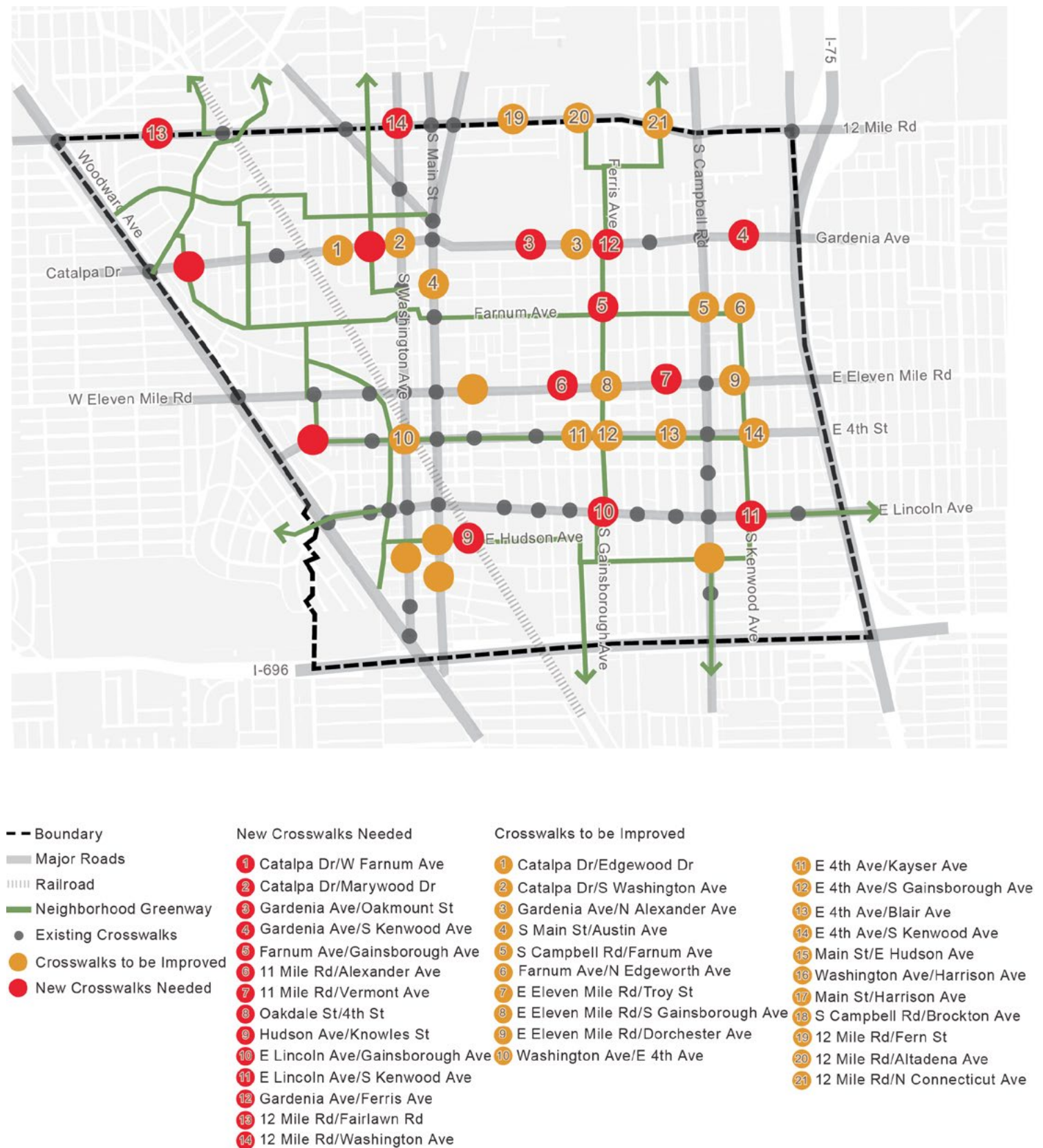
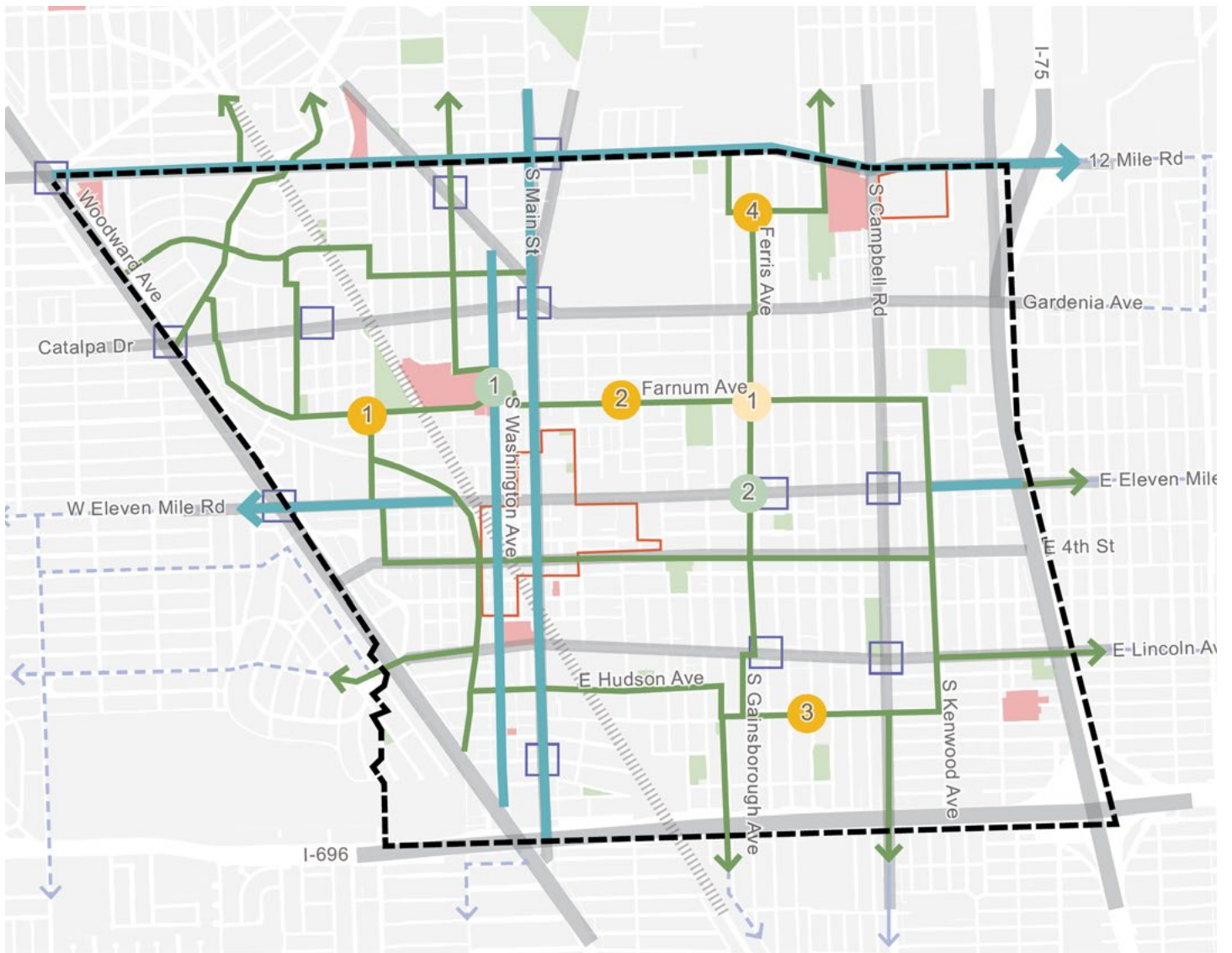


Figure 65. Recommended Crossing Improvements - South Royal Oak



# Increase Mobility Across the City

## Detailed Mobility Maps



Boundary  
Major Roads

Railroad

Parks

Schools

Activity Centers

Neighborhood Main Streets and Nodes

Neighborhood Greenway

More Involved On-Street Bikeways  
Existing Adjacent

Enhanced Crossings

Signalized

1 Washington Ave & Willis Ave

2 11 Mile Rd & Gainsborough Ave

Diversers

Median

1 Farnum Ave & Gainsborough Ave

Diagonal

1 Farnum Ave & Hilldale Dr

2 Farnum Ave & Fairgrove Ave

3 Hudson Ave & Owana Ave

4 Bellaire Ave & Ferris Ave

Figure 66. Recommended Greenway Network - South Royal Oak



