DPZ CODESIGN

Royal Oak
Master Plan Direction

July 7, 2023

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Summary

This document summarizes the direction that the consultant team recommends for creating the first draft of Royal Oak's master plan. In each section, we provide information about the subject matter, its connection to goals of aging in place, housing costs, and climate action, along with strategies and solutions to achieve those goals. Overall, Royal Oak doesn't need significant change, no earth-shattering bold moves, rather it needs a lot of little changes over time that will be transformative altogether, but relatively minor in their singular application. This is due in large part to the fact that the city has a good underlying structure and is connected to other adjacent cities with similar qualities. These recommendations reinforce the qualities of the city's existing structure, bringing new life to areas that have declined, improving the ability to get around, and supporting policies that advance the goals of aging, housing, and climate.

This document follows upon a week-long concentrated workshop - a charrette - where the consultant team gathered in Royal Oak to coordinate goals and solutions across disciplines, to create proposals and recommendations, and to review those with residents. Prior to the charrette, the consultant team reviewed and analyzed existing plans and conditions throughout Royal Oak, interviewed city staff and officials, hosted an online survey, and discussed the future of the city with residents in a series of roundtables. A summary of input from the charrette follows. Participation varied from day-to-day and tended to be over-representative of a limited demographic. However, evening input sessions drew-in new participants, a more varied demographic, and by focusing attention on specific issues, meaningful input on the issues of sustainability, aging in community, housing, neighborhood amenities, downtown and other centers of activity, and getting around the city was gathered. The resulting goals and strategies summarized in this document are intended to be the source of another survey for broader resident input, ahead of drafting the master plan.

During the charrette, we focused heavily upon where housing of different types would be acceptable and what types of activities and services would be desirable near neighborhoods. These topics are closely related to future land use, which is the primary element of a master plan. While the city's population has declined relative to the high in 1970, household size has also reduced, resulting in more houses needed to sustain the same population. Today, the city is growing, while many others in Michigan are not, and is facing issues related to housing cost and limited opportunities for downsizing and senior housing.

Accommodating growth requires finding opportunities for multi-family housing, townhomes, and housing types other than single-family homes. There are complexities related to aging in community and housing costs that are discussed later, which provide additional context to the growth accommodation. Overall residents agreed that growth should occur in areas that are already intensive like downtown, formerly industrial areas, and along major roadway corridors. While some want no growth at all, others want to see growth everywhere. The draft future land use map illustrates a balanced compromise between opinions. We also focused on activities and services near neighborhoods, which combined with housing growth, can revitalize degraded commercial areas, provide opportunities for aging in community and housing diversity, and reduce vehicle trips. We illustrated different scales of growth and redevelopment along major road corridors and in neighborhood commercial areas to arrive at a balance between growth that would make sense from a development perspective while minimizing any negative impacts to surrounding neighborhoods.

The proposed future land use map, illustrated interventions, solutions, and strategies presented herein approach growth and change that is intentionally limited in scope and scale, while aimed at achieving goals around aging in community, housing cost, and climate action. The city could choose to pursue more progressive means of housing accommodation and a more

intensive scale of infill. A slight increase could easily be managed without significant disruption. However, because growth will be limited by a number of factors, including construction capacity, growth beyond what is proposed is not necessary to accommodate SEMCOG's projections, or beyond, which are about 3,000 residents in 20 years, or about 65 new residential units per year on average.

Aligning Policies

The need to align policies is a major theme that emerged through public engagement and touring the city. Presently, zoning and land use decisions are being made on a case-by-case basis through a planned unit development process (PUD). This clearly demonstrates that city zoning and land use regulations and policies are not inline with the direction being provided by city leadership. As a result, in order to allow for the type and scale of growth desired by leadership and the development community, and in demand by the general public, each development project is individually evaluated and is likely to not conform with expectations set by zoning and land use.

While using PUD 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. Regarding distrust: when any scale or type of development could potentially happen anywhere, it fuels distrust, and results in pushback against change and growth anywhere. In this process, future land use should clearly identify where growth should take place and to what extent, and decisions should uphold that, rebuilding trust. The discussion on future land use below will address why the current map is untenable. For developers, the situation is highly unstable. A developer wants to know, ahead of time, what they can build where 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 codes, developers are 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, particularly when illustrated through form-based codes, helping them to understand what 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 that is intended. 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. For city leadership, the current situation is also problematic, and would benefit from clear rules and processes, avoiding the current state of many reviews and hearings, increasing opposition, stalled projects, and developments that don't achieve desired outcomes.

Through this master plan, we intend to clarify where and in what form growth can occur, to recommend revising the zoning code in support of high-quality growth in those locations and goals for housing costs and sustainability, and to recommend administrative means of development approval that meets the clear standards of future land use and zoning. Once policies are aligned and crafted to support the city vision, they should be consistently enforced. The current PUD process should be applied in very limited instances with significant scrutiny, 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 only a 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.

Future Land Use

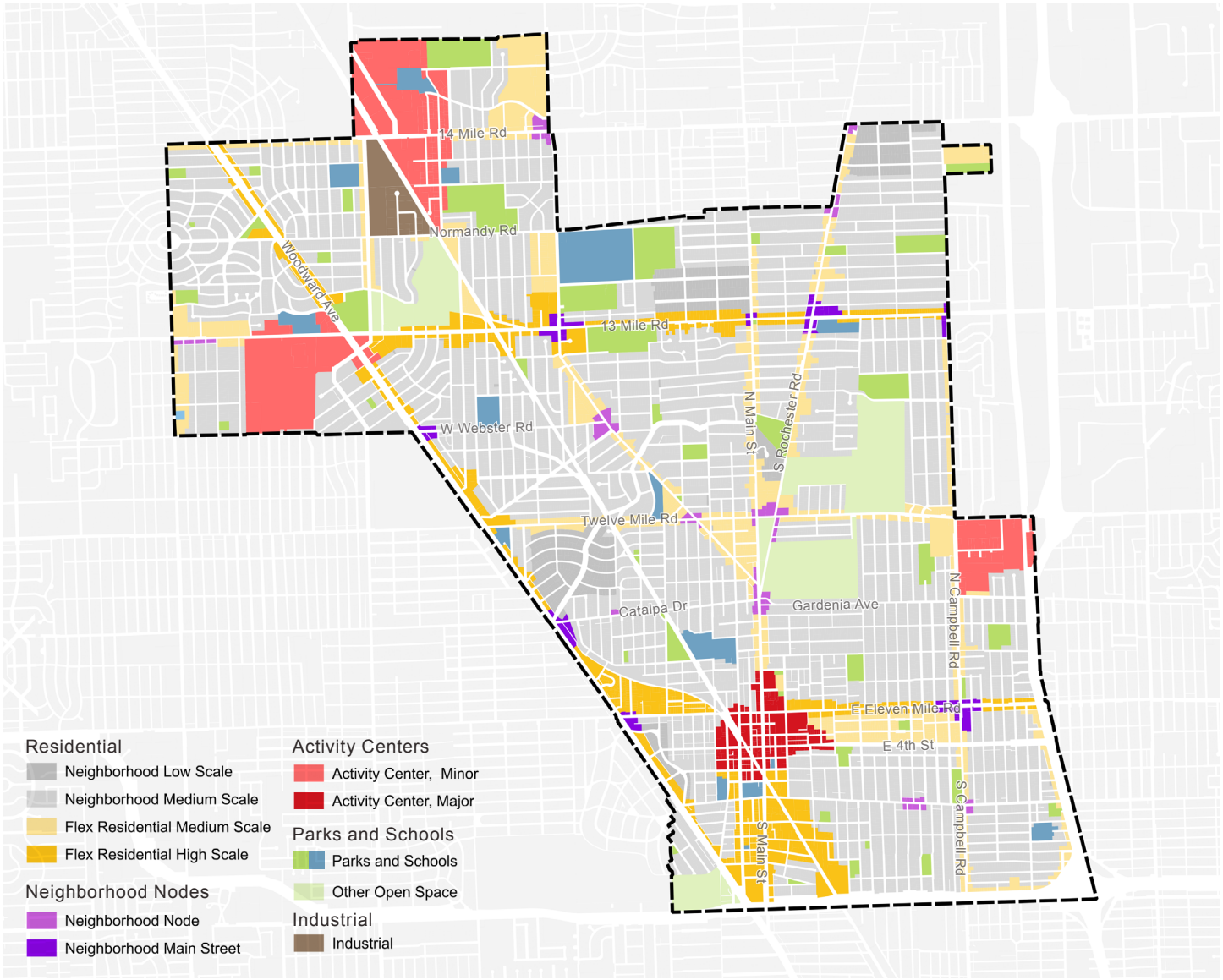
A master plan's main purpose is to establish future land use, which is the basis for the assignment of zoning districts and decisions related to zoning. Presently, Royal Oak's future land use map and categories are very similar to the zoning map. This is a common problem across the country that has arisen through decades of increasing separation between uses and a growing misconception that single-family housing is the only stable form of housing for cities. As a result, zoning and future land use has tended towards concentrating commercial uses along more highly trafficked roads, restricting neighborhoods to single-family homes even if that is not the historic character of the neighborhood, and restricting any housing that is not single-family to the locations that it had already been built. This has halted city growth and evolution, and contributed to degraded commercial corridors with excessive parking and vacant buildings. It has also resulted in fewer housing options, locking the housing cycle, and has fueled the spread of low scale housing and separated commercial and business districts, resulting in high levels of vehicle traffic and its' associated greenhouse gas emissions, and a separation of people from their neighbors and community as they spend more time traveling further distances to work, school, and shopping. This is the result of a 50-year process which is being reversed across the country in order to address aging in place, housing costs, and climate change.

The proposed future land use map addresses these issues while preserving the scale, character, and principally single-family composition of Royal Oak's neighborhoods. This is achieved by focusing growth in the places it is most needed - centers of activity and neighborhood commercial nodes - and in the places it is least disruptive - formerly industrial areas and major roadways. Royal Oak's southern industrial areas have mostly converted to housing and mixed-use and the northern industrial areas are on a similar trajectory, save a few of the larger parcels. The transitioning industrial area along Delemere is a focus of new mixed-use growth in this proposal, an area that benefits from two existing parks and connections to existing major roadways. These centers of activity need residents in a relatively high intensity of development in order to support local businesses, similar to neighborhood commercial nodes which are at a smaller scale of intensity. 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.

Master Plan Direction

Summary

Future Land Use



Place Types / Future Land Use Categories

Future land use categories describe the general character of 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. The terminology used in this section is temporary and will be adjusted, including more descriptive names.

Neighborhood Low Scale

This place type is characterized by medium-to-large single-family lots with detached buildings set back far from the sidewalk, significant tree canopy, and limited access to neighborhood amenities and services.

Neighborhood Medium Scale

This place type is characterized by small-to-medium single-family lots with detached buildings relatively near to the sidewalk, and occasional, typically historic, duplex and small multi-family buildings, significant street trees supported by additional trees in yards, and nearby access to neighborhood amenities and services.

Flex Residential Medium Scale

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 in use 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 trees located in the street tree planter and occasional trees in front setbacks, and close proximity to neighborhood amenities and services. Where mapped on existing commercial corridors, it is intended to transition those to primarily residential uses.

Flex Residential High Scale

This place type is characterized by a medium-to-high scale of buildings, up to 4 stories, occupying most of the site. Uses are principally residential with a varied mix of housing types, primarily attached buildings including duplexes and townhomes but more typically small and medium multi-family buildings, along with occasional, small-scale commercial uses. Buildings are located very near to the sidewalk relying on street trees for most tree canopy, and close proximity to neighborhood amenities and services. Where mapped on existing commercial corridors, it is intended to transition those to primarily residential uses.

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. 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 accessed by a rear alley or a side street.

Neighborhood Main Street

This place type is easily identified as a main street, characterized by a mix of uses with ground floor commercial uses that service local residential neighborhoods along one or more blocks. 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 accessed by a rear alley or side street.

Activity Center, Minor

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 neighborhoods. The retail mix includes a broader range of businesses than nodes or main streets, serving a larger segment of the city. This place type consists of medium-scale, multi-story attached buildings. Parking is typically handled on-street and in structured garages.

Activity Center, Major

This place type is a regional destination, providing businesses and activities for residents of Royal Oak as well as nearby cities. Major activity centers are intensive and complex, and tend to provide more substantial entertainment and dining options than lower scale place types, as well as a focused concentration of offices in addition to tall, multi-family buildings. Parking is typically handled in municipal structured garages, 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 schools in the structure of the city.

Other Open Space

Other open space includes publicly or privately owned cemeteries, golf courses, or other structures for entertainment. They do not create places on their own, yet they are substantial enough that they are not clearly a part of other place types.

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.

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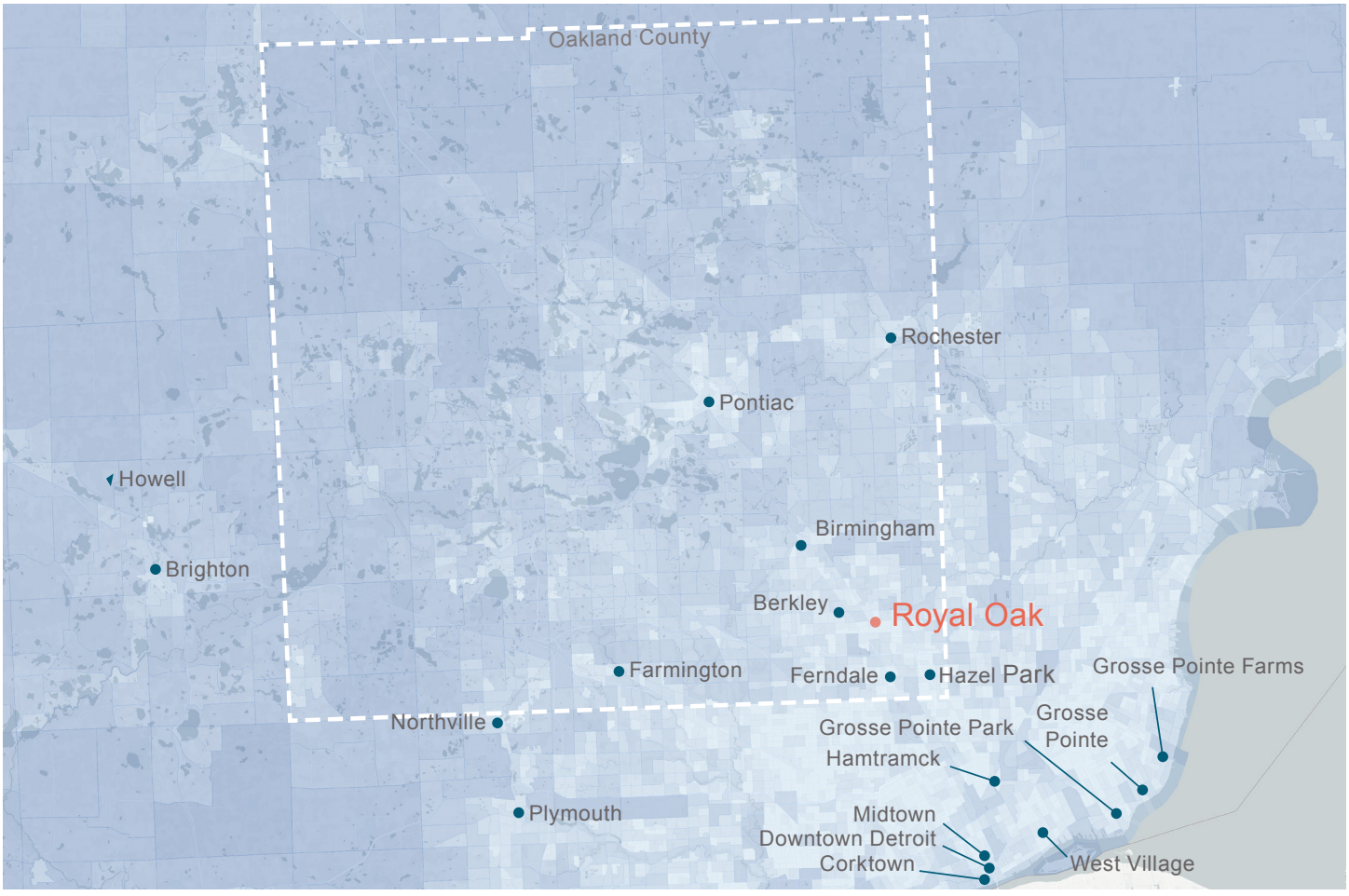
The Walkable Region

Royal Oak is one of a series of walkable cities in the Metro-Detroit region which is otherwise heavily suburbanized. Achieving climate, housing, and aging goals is made easier because of the city's structure. However Royal Oak is surrounded by many cities that are not as well equipped to address these issues, and as a result is impacted by a lack of regional sustainability. Stormwater is a prime example in which local actions can achieve limited results due in large part to regional growth patterns. Similarly, traffic issues in the city are regional, not local, and due in large part to the automobile centric growth of the region that occurred over the past 50 years. While Royal Oak cannot solve the region's issues, its actions can have a positive regional impact, both as a leader implementing needed policies as a model for other communities, and by growing more diverse housing within a sustainable city framework. The walkable cities of the region experience housing demand above that of others. As Royal Oak implements both its sustainability policies and master plan elements aimed at reducing transportation greenhouse gas emissions, it is also able to house and employ more people in that sustainable structure. Choosing how much to grow is about both community character and sustainability. The framework set here is able to absorb varying levels of growth with minimal impact to existing neighborhoods, and is made more viable and sustainable with every additional household. While this city and surrounding cities are not responsible for regional sustainability alone, this walkable region can have an outsized impact.



Sustainability & Climate Action

Current Efforts

There are a number of efforts in place currently that are guiding Sustainability and Climate Action efforts within Royal Oak. The consultant team has reviewed these documents and their suggested strategies, and will incorporate them into the Master Plan. Key existing programs and policies include:

- The recently completed 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 but provides a good framework for the Royal Oak Master Plan to reference for 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, which is an area most directly affected by coordinating land use and transportation. This is achieved by reactivating neighborhood commercial centers, improving the functionality of downtown and providing for a northern anchor in the Delemere industrial area, along with housing infill in close proximity to these locations, reducing the distance and frequency of vehicle trips. Additionally, proposals recommend improvements to getting around as pedestrians and cyclists, including prioritized routes through neighborhoods, connecting to schools and parks, and improved and more frequent crossings of major roads.

Energy and Buildings

Since Royal Oak is a mature, fully built-out community, most of the strategies for energy efficiency and sustainability are in retrofits of existing buildings.

Solutions and Strategies:

- Promote building energy efficiency programs (S-CAP 1.1.8).
- Promote adoption of solar in residential, industrial, and commercial sectors (S-CAP 1.2.2). 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.
- Promote resiliency hubs by reactivating neighborhood commercial centers.
- Since a sustainable building is one that already exists, it is important to promote the preservation of existing buildings. This can be accomplished by strengthening and promoting the existing Historic Preservation Code within the master plan and highlighting the historic precincts and applying a form-based code approach which emphasizes adaptive reuse and restoration, respect of cultural heritage, and appropriate infill development.

Mobility

The Master Plan will address sustainability and climate action through mobility by reducing vehicle miles traveled (VMT) and shifting transportation modes from single-occupant vehicles to public transit, cycling, and walking (see Getting Around section). Overall this is done by making walking, cycling, and using

transit easier and more comfortable by improving routes throughout the city and by encouraging distribution of frequent destinations into neighborhood centers which reduce the distance people need to travel. Reducing driving and the length of trips would result in significantly lower greenhouse gas emissions. Concerning the shift to electric vehicles, emissions will continue to be tied to the regional fuel mix -the way that energy is produced for the electrical grid- which includes fossil fuel sources. However, EVs emit less GHGs overall, and as a result their use should be encouraged for those trips that will continue to be taken by personal vehicle. Streets and their Rights-of-Way may also play a role in stormwater management (addressed in a subsequent section) and for electric vehicle charging.

Reducing vehicle trips also reduces the demand for parking. Requiring too much parking significantly increases development cost along with impervious surfaces. Today, it is well recognized that parking requirements have very little to do with the actual demands by any particular business. Parking spillover can be a concern, but is tied moreso 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. Downtown and similar districts need structured parking, and with future mobility changes, that parking should be designed for other future uses when no longer in demand, which has been accommodated through the new public garages. This approach is also appropriate for future activity centers outside of downtown, which removes the burden of parking from individual businesses and properties. 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 numeric standards that have been used in cities, including Royal Oak, don't have a scientific basis and as result, are a burden on owners and the environment. Doing so is supported by a reduction of vehicle trips and other activities recommended in other sections that follow.

Solutions and Strategies:

- Include low impact development (LID) strategies, where appropriate, in bump outs or other road diet projects (S-CAP 2.4.4).
- Identify locations for additional EV charging stations on or adjacent to major arterials, in commercial areas and near multi-family developments where charging infrastructure would be most advantageous (S-CAP 1.2.4).
- See additional solutions and strategies in the Getting Around section, specifically focused on reducing GHG emissions by shortening the distance people need to travel to frequent destinations and providing viable alternatives to driving personal vehicles.

Waste

Municipal management strategies that address solid waste, recycling and composting, and promote a circular economy are foundational elements of future sustainability. Local and regional efforts to increase recycling and promote composting should be investigated.

Solutions and Strategies:

- Systems to track and report data as well as a new proposed law to require separate trucks for waste and recycle hauling will assist in this process of implementation.
- Investigate the need for a community-based recycling facility to achieve the following: increase facilitation from event-based recycling to a permanent location (volunteer staffed), collect recyclable building materials, reusable equipment and small household hazardous waste (batteries, paint, etc.). This facility should be connected to regional facilities and operations for further off-loading (S-CAP 3.1).
- The current vacant lot on the east side of Coolidge, North of 13 Mile Road is not currently meeting the community's needs and requires a more robust composting program. Supplementing with an additional composting drop-off location such as the farmer's market could help meet the demand (S-CAP 3.2).

Master Plan Direction

Sustainability & Climate Action

- Investigate local and regional solutions for municipal food-waste composting services along with incentives such as free recycling and composting paired with tiered fees for trash tied to frequency and bin size.

Stormwater & Sewer

Historically, Royal Oak was largely swamp and marshlands and retains a high water table, making absorption of stormwater less efficient. The soil composition also limits water absorption. As the region boomed after 1940 and has continued to grow to this day, the regional increase in impervious surface has led to increased flooding within the overall Clinton River Watershed and the Red Run Subwatershed. Surrounding communities suffer from similar issues. This is exacerbated by the city's combined sewer system, aging infrastructure, limited capacity, and increasing regional rain events. These historic and regional conditions mean that any individual property cannot easily address stormwater, which requires regional and community-wide solutions. Draining from northwest to southeast, the city can work to slow the flow of stormwater in streets and parks, and to restore portions of the Red Run that have been piped. Because these solutions are limited and the cost of providing a separate stormwater system are time consuming and expensive, interior solutions to reduce sewer loads through public education are an important intermediary solution.

Solutions and Strategies:

- Concentrate LID and green infrastructure (GI) in the north/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.
- Investigate district-wide stormwater solutions, including:
  - Investigate opportunities for underground stormwater storage within parks, especially in the northern half of the city. Exchange Park routinely floods and would be a good site to explore.
  - Investigate opportunities for dual-use surface stormwater storage within parks, which are lower elevation sections that fill with water during heavy rain events but are able to be used for recreational purposes most of the time. Earth moving associated with such spaces could be used to create kid-friendly play spaces that include elevation changes, and sledding opportunities during winter.
- Consider day-lighting buried portions of the Red Run waterway, such as Vinsetta Blvd, and provide intentional stormwater management in Wagner Park and Red Run Golf Club.
- Recommend that city-sponsored construction projects (such as municipal parking and buildings) should include permeable paving, LID strategies, and subsurface stormwater storage in their design and construction.
- 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.
- Study the incremental development of a separate municipal stormwater system, including subsurface storage that may be added along with future street projects.

Trees and Plantings

One of the key characteristics of Royal Oak's neighborhoods are their tree-lined streets. Currently, the approach to street trees is inconsistent in both plan and condition. Residents expressed concern for the effects of tree removal, as well as an interest in restoring and supplementing the tree canopy. Some expressed concern with damage caused to sidewalks and pipes from tree roots, however the community-wide and climate benefits of street trees far outweigh the occasional damage. Additional trees (both on-street and on private property), will assist the city in sequestering carbon, reducing heat island, improving the micro-climate, and shading sidewalks and streets. Plants that are native to the region will also assist in reducing irrigation and capturing stormwater runoff. Future planning is needed to select for native species that will be well adapted to the future climate and to diversify the species of trees planted to mitigate risk of pests and disease.

Solutions and Strategies:

- Prioritize tree preservation, especially large, old growth trees.
- Evaluate areas of the city that are lacking in tree canopy and target for tree improvements. (S-CAP 5.1.1) This should be tied to the neighborhood greenways mobility and safe routes to schools solutions, and provide for tree species diversity.
- Educate the public on benefits of native landscapes and encourage the conversion from turf grass to more native plantings. (S-CAP 5.2.3).
- Adopt requirements for native and climate adaptive trees and landscape, including specifications for street trees that are tied to commonly available park strip widths to ensure sufficient room for healthy root growth.

Regional Sustainability

While there are many aspects within Royal Oak where sustainable practices can greatly improve the climate impact and livability, regional strategies will also play a role in the degree to which Royal Oak's Sustainability and Climate Action goals can be achieved.

Solutions and Strategies:

- Explore regional partnership opportunities to maximize sustainability goals and climate actions. 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.
- Royal Oak should support regional green space preservation. The region has a goal of 30% conservation of natural areas. Currently, only 200,000 acres of the needed 800,000 acres have been conserved, falling well short of this goal.
- Use regional partnerships (and associated funding) to improve stormwater management in parks while improving them and upgrading amenities. (see Stormwater section)

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Activity Centers

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. Other centers of activity exist or are emerging, but are not currently developing in a manner that supports balanced 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. But aside from downtown, they have developed in a car-centric pattern and that wastes land and doesn't contribute housing that could easily be provided, helping to address issues of housing cost and aging in community.

Downtown

Royal Oak's downtown is active and successful, but there are many improvements possible to increase its success. Additionally, downtown would benefit from more housing, replacing surface parking lots and dilapidated buildings. But the character of building along the sidewalk is also critical to the area's success. Presently Main and Washington have clear main street characters but connections between these are not obvious or pleasant, and the edges unclear, such as the area around the train station and the civic center. Strategies proposed would support the future success of downtown and enable the growth of housing and jobs.

Solutions and Strategies:

- Identify 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 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.
- 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 grocery store. Convert the small 6th street parking lot into a public plaza to provide public open space in the southern portion of downtown.
- Study opportunities to provide a new transit center on the parking lot along the railroad, including re-use of the existing transit center, and a new public plaza.
- 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.
- Provide bicycle parking and seating throughout downtown.

Master Plan Direction

Activity Centers

13 Mile & Woodward

With the major draw of Beaumont Hospital, 13 Mile and Woodward could develop into a clear destination along the Woodward corridor. Later in this proposal, reduction of the amount of retail along Woodward is recommended, however this location should be encouraged for retail growth, along with other mixed-uses.

Solutions and Strategies:

- Update the zoning code to enable mixed-use development and multi-story buildings in proximity to 13 Mile and Woodward.
- Build a parking garage on the Memorial Park parking lot, lined with active uses towards 13 Mile and housing toward Memorial Park.
- Acquire the CVS property for a public plaza.
- Encourage additional development within Woodward Commons, especially along Coolidge and Judson.
- Encourage housing development on 13 Mile along the Beaumont frontage and vacant property to the north.
- Improve crossings of Woodward and 13 Mile for pedestrians, and add additional pedestrian crossings on 13 Mile.

Delemere Industrial Area

Like what occurred in Royal Oak's southern industrial area, the Delemere industrial area is transitioning from industrial and manufacturing uses to other less intensive businesses. Presently, future land use and zoning consider this area to be industrial. Planning ahead for the coming change, the Delemere area could develop into a viable mixed-use district, with a strong multi-block main street along Delemere and a direct connection to Normandy Oaks park, Cummingston Park, and access to Meyers at its' north end. This area can absorb a substantial amount of new housing, along with businesses. The area is well served by roads, however the Coolidge jog at 14 Mile is already in need of solutions. Luckily a number of properties in the area are for sale or have redevelopment proposals underway. Rather than reacting to the coming change, the city should get ahead with a vision for this northern urban center, which can advance housing affordability goals, provide opportunities for senior housing, and reduce household trips by creating an active main street along Delemere and providing housing in close proximity to jobs, retail, services, and parks.

Solutions and Strategies:

- 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.
- Implement housing affordability measures detailed elsewhere, and apply them to new growth in Delemere.
- Acquire the commercial properties on Delemere along Normandy Oaks park and expand the park to meet the road.
- Provide public parking within the district or encourage privately developed district parking.
- Implement a solution to the Coolidge & 14 Mile jog, options include:
  - Replacing the rail bridge to allow for more turning capacity, or
  - Creating a new rail underpass north of 14 Mile between the Garden Center and MacLean Shipping.

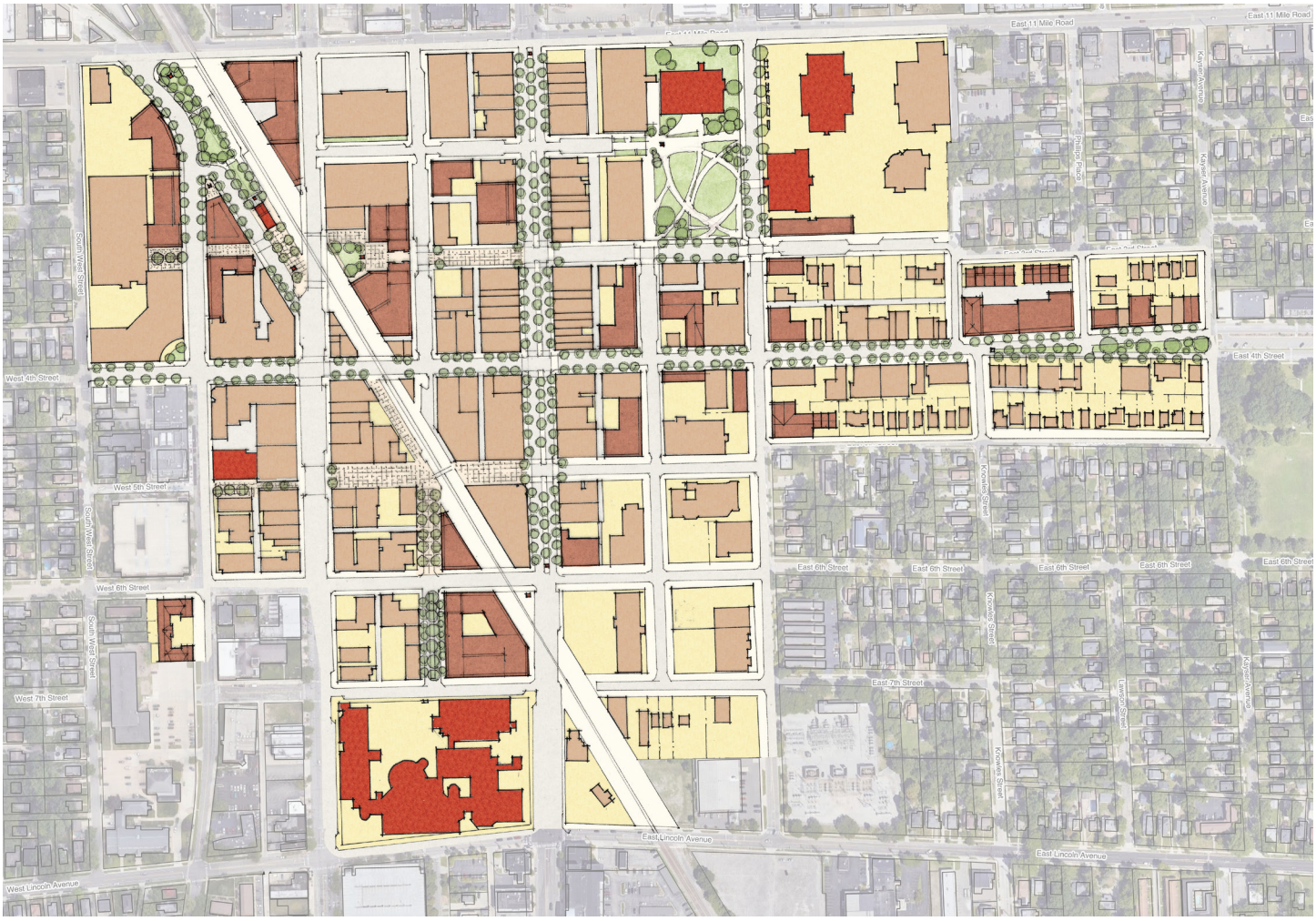
12 Mile & Campbell

The shopping and industrial area at 12 Mile & Campbell is transitioning in use as other industrial areas are, and the shopping properties are underdeveloped. This area could absorb housing growth and be redeveloped in a mixed-use format, improving access to retail and providing housing in proximity to retail and services. This area is small in scale, and the infill relatively minor, however it could develop a small along Campbell and Bellaire.

Solutions and Strategies:

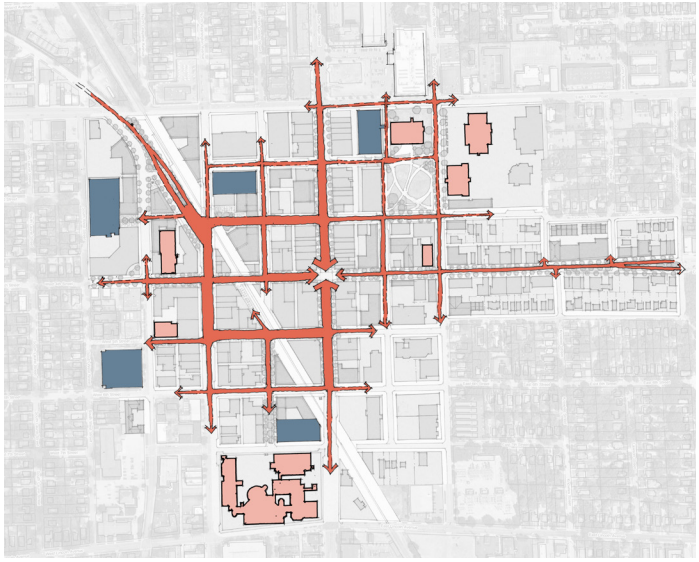
- Update the zoning code to enable mixed-use development in this district, with required ground floor commercial along Campbell and Bellaire.
- Consider relocating DPS to a less valuable property, such as the underutilized backlot of Meijer.

Downtown



Downtown Infill Plan

Districts



Parking Distribution

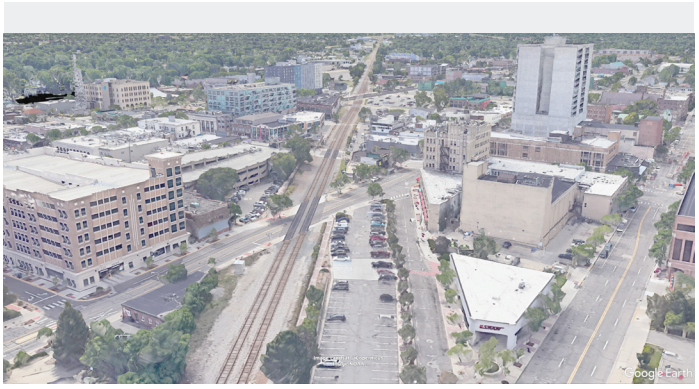
Master Plan Direction

Activity Centers

Downtown

3rd Street - Existing

3rd Street - Proposed



Station Plaza - Existing

Station Plaza - Proposed

Station Plaza - Existing

Station Plaza - Proposed

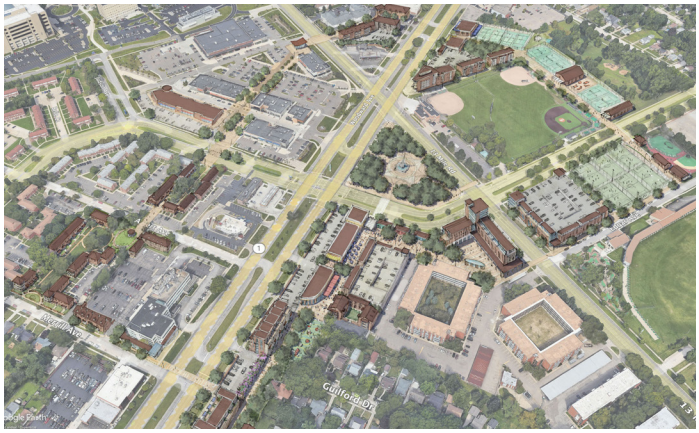
Delemere Industrial Area

Existing

Proposed

Coolidge

Existing



Proposed

12 Mile & Campbell

Existing

Proposed

Neighborhood Amenities

Royal Oaks's neighborhoods are well structured and most have access to parks, schools, and many daily needs by a short trip, in many ways they are their own amenities. Overall they 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 the greenway network 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 or bike, including older adults seeking opportunities for exercise and social interaction.

While Royal Oak has many parks, more than most communities its size, they require a comprehensive analysis of their locations, services, and access by surrounding residents. The recently completed parks master plan focused specifically on maintaining and improving existing facilities. This master plan considers the community as a whole over a longer period of time. Residents within each quadrant of the city, and ideally each neighborhood, should have convenient walking and biking access to parks that provide recreational opportunities to a wide range of users - children, teens, young adults, family and friend groups, and older adults. Some amenities are limited by the nature of their size or indoor facility needs, and may be located further from some residents. In all, offerings require analysis, and 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.

Commercial areas along the edges of neighborhoods have the most potential for change. Today most have declined, with poorly maintained buildings and vacant spaces. While a number of factors are to blame, some can be remedied, becoming neighborhood-focused main streets and small nodes of retail or services. However most of the commercial areas along major roads should be encouraged for housing, reducing the overall amount of commercial that is outside of activity centers. Overall, the US has far too much retail space per person, which has been exacerbated by zoning major road corridors for commercial uses. Commercial uses are best provided in concentrated areas where they benefit from cross-shopping and can be branded together as a main street area.

Main streets are much different from a downtown, which attracts different businesses and customers, less oriented towards entertainment and more towards services and food. They also provide for social spaces like cafes, yoga, and other spaces and activities that bring people together. 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 recommended in the S-CAP.

Additional housing in and adjacent to main streets helps to support businesses and can provide opportunities for downsizing or more attainably priced housing. The scale of development should remain relatively low to maintain compatibility with surrounding neighborhoods, which also requires careful control along the major road corridors. Even at a low scale, a significant amount of housing can be absorbed in converting commercial areas and other uses along major road corridors to housing, which has access to transportation, parks, schools, and nearby retail and services.

Solutions and strategies:

Neighborhood Main Streets & Nodes

- Update zoning to include 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.
- Build public parking, or offer the site for development to include public parking, at Main and Catalpa where an existing public parking lot is located. The alley may need to be vacated as part of an integrated development in order to face liner housing towards the west.
- Provide traffic calming and ensure on-street parking is available at neighborhood main streets and nodes, in coordination with other transportation recommendations.
- Provide bike parking and repair, and EV charging stations.
- Encourage housing along with businesses within centers and along adjacent corridors.
- Provide more significant crosswalk improvements and additional opportunities to cross major roads, in coordination with other transportation recommendations.
- Consider implementing resilience hubs for neighborhood self-organization and assistance in high heat and extreme cold events, and other disasters, especially services for older adults.

Parks & Schools

- Evaluate access to amenities for each city district and neighborhood to ensure access to parks with facilities for kids, teens, young adults, family and friend groups, and seniors.
- Evaluate parks for amenity access, 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.
- Improve access to parks and schools by food and bike, as addressed in the transportation recommendations.
- 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 transportation recommendations.
- Evaluate community center services and adjacent recreational facilities, especially with respect to senior programming but also programming for children such as a reading program coordinated with the library, teen spaces, and technology labs.

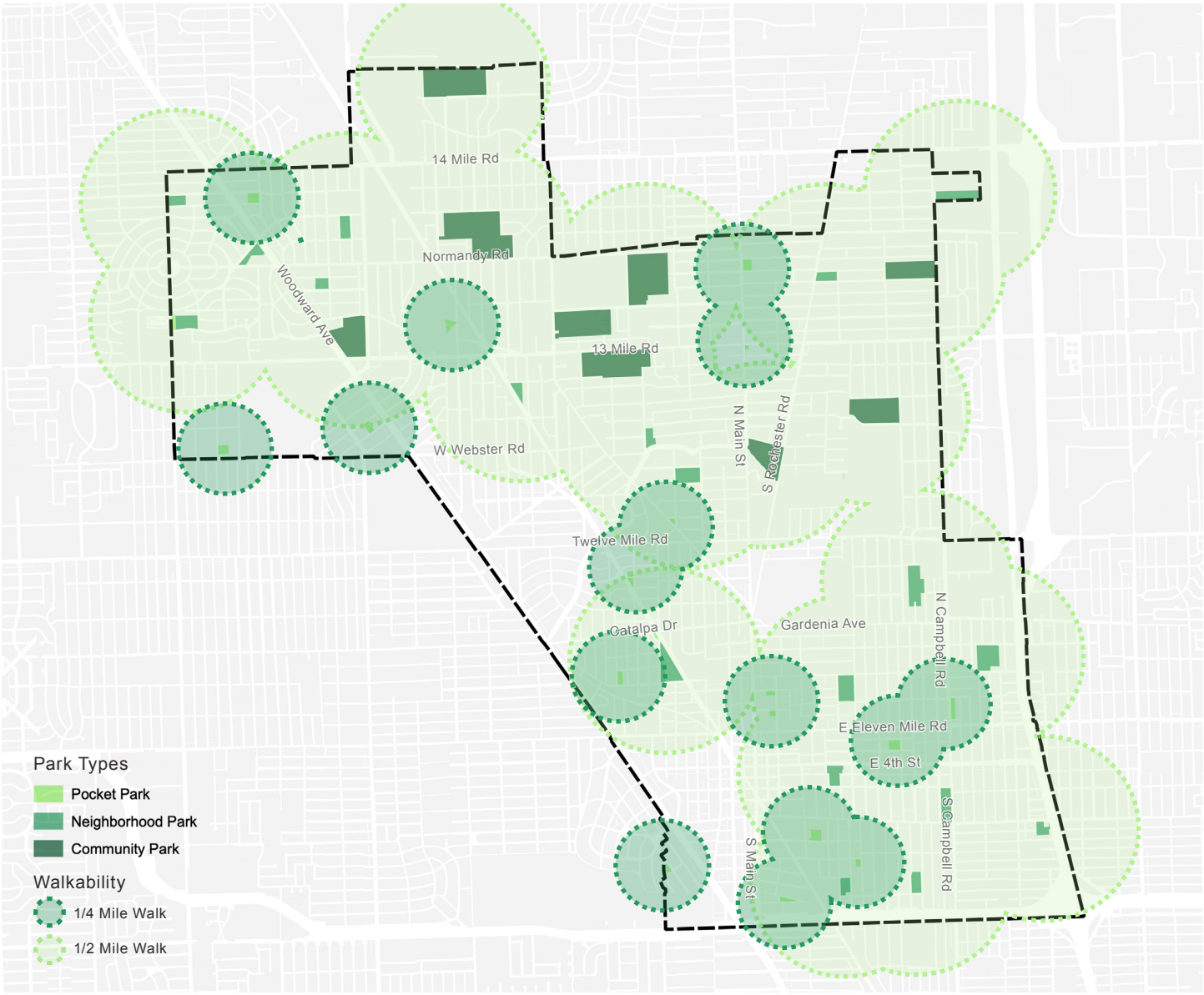
Neighborhood Preservation

- Ensure neighborhood zoning encourages building sizes and characteristics that are compatible with existing and historic buildings.
- Retention neighborhood characteristics by maintaining slow streets, deep setbacks, tree lawns, street parking, and consistent sidewalks.
- Improvement crosswalks and accessibility throughout neighborhoods.
- Increase tree plantings along neighborhood streets, as addressed in sustainability recommendations.

Master Plan Direction

Neighborhood Amenities

Access to Parks



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

Existing

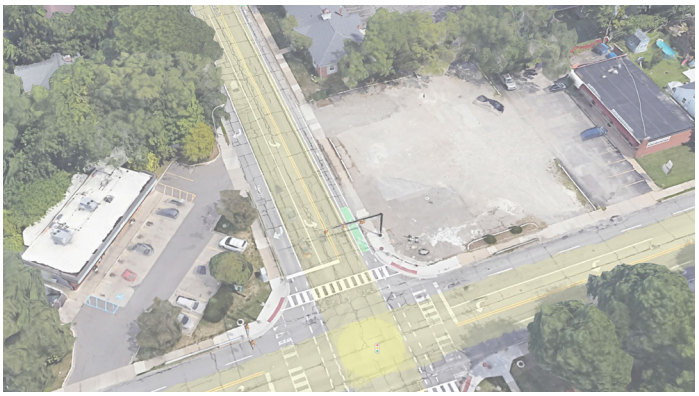
Proposed

Neighborhood Main Street: Crooks, and Rochester

Existing

Proposed

Neighborhood Node: Main Street and 13 Mile



Existing

Proposed

Housing Options

Areas of Growth & Growth Process

Royal Oak is poised to grow in the coming years due to a variety of factors. Royal Oak's population is growing, while most other cities in the region are shrinking. The City experiences significant housing price pressure, above that of many other Metro-Detroit cities, and the population of Royal Oak is becoming younger. Because the number of people per household is declining, simply maintaining population requires more housing units. Many of the concerns of residents regarding housing growth within the city today are based on where and to what extent that growth should occur, exacerbated by the zoning and development approvals process, which also severely hinders the production of new housing. To address this, land use should clarify where and to what extent growth should occur, which should be paired with strategies to align all documents, processes, and policies to enable growth to occur efficiently within the City's development framework. Specific issues related to the format of housing, aging in community, and the cost of housing are addressed in subsequent sections.

Solutions and Strategies:

- Revise the Future Land Use Map to clearly define areas for growth and areas for preservation.
- Update the zoning code to provide zones that align with the scales of growth as intended in the Future Land Use map.
- Updated development review processes to enable streamlined approvals of projects that comply with the Future Land Use Map and the City's goals.
- 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.

Housing Types & Aging in Community

Royal Oak's existing housing stock is largely defined by single-family detached homes. Prior to the regional growth that all of Metro-Detroit experienced during and after the 1940's, Royal Oaks's neighborhoods included a number of duplexes and small multi-family buildings. Growth in and after the 1940's was almost exclusively single-family detached homes, along with some garden-style multi-family in the 1960's and 1970's. Townhomes were rare prior to the 2000's. Recently housing growth has consisted of multi-family and townhouse developments, along with new single-family detached homes replacing existing structures.

Housing needs and the life cycle of individuals and families are closely tied. Younger and older residents need access to apartments or condos, near services. Young families need starter homes and growing families a larger home, near schools and parks. A typical life cycle includes a variety of housing types and locations within a city. Presently the lack of housing options aside from single-family detached houses causes limitations across the spectrum. Young residents and families are not provided sufficient apartments, townhomes, or cottages, raising the price of these units and pushing some into larger homes than they need or out of the city. Many older residents would like to downsize or live in senior housing, but sufficient options are not available and many remain in larger single-family homes which could be available for growing families.

There are three housing options for those with a desire to Age in Community. Some residents may choose to age in an existing home, assisted by the large single-story housing stock, however there are needs for modifications (ramps, doorways, bathrooms, kitchens), assistance with maintenance and chores, and delivery of personal services (food, medicine, etc.). 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 and no or few modifications would be needed to the built environment 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 and the tax structure. 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. 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.

While there are many single-family homes in Royal Oak, there are very few apartment-style buildings that are suited to the needs of seniors or young residents. Similarly, there are very few townhomes or cottages that serve middle demographics. Without land to expand, future growth is limited to infill locations. Growth within corridors, activity centers, and transitioning industrial areas are most readily acceptable to residents, especially for new multi-family housing. Townhomes, duplexes, and cottages are more acceptable closer in to and within neighborhoods. Overall the housing supply needs greater diversity to support more residents, the changing lifestyles of existing residents, and both older and younger residents.

Solutions and Strategies:

- Enable a wider range of housing types along major road corridors and within neighborhood nodes and activity centers.
- Update the zoning code with form-based districts to more carefully control the character of higher-intensity building types.
- 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).
- Study where accessory dwelling units (ADUs) may be allowed and develop a pilot project to familiarize the community with both detached and attached ADUs.
- Incentivize additional senior housing by leveraging public property or providing incentives.
- Enable multi-family housing, and support senior housing, within neighborhood nodes and activity centers that are close to activities and services.
- Facilitate housing relocation assistance for seniors above a certain age, and assistance in response to challenging events (heavy rain, snowstorm, loss of power, heat, tornados).

Housing Cost

Attainable and affordable housing options are sparse in Royal Oak. Prices within the open housing market are elevated and the significant demand to live in Royal Oak means that prices will remain high. Naturally occurring attainable housing is only provided for by enabling multi-family housing in all areas of the city that it is acceptable, which are severely limited. Additionally, the approvals process can take a lot of time and is unpredictable, adding to costs. At a minimum, the approvals process needs to be easier and more predictable in order to reduce barriers to delivery housing at a reasonable cost. These actions will help to keep up with demand and push prices to a somewhat more reasonable level. 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.

Master Plan Direction

Housing Options

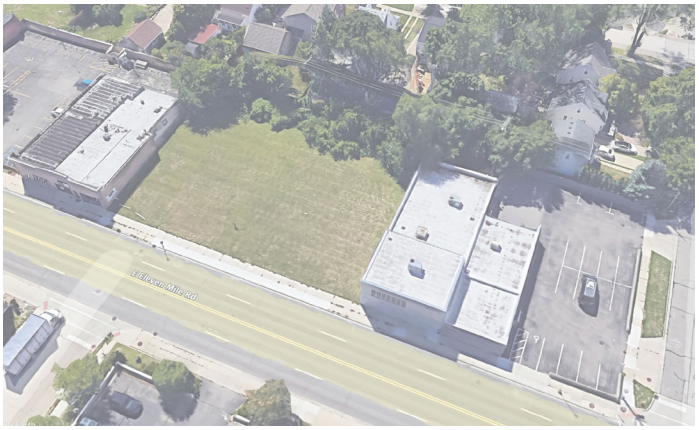
In order to meet the needs of a growing, more diverse population, Royal Oak will need to address housing affordability. Because of the demand to live in Royal Oak, the limited supply of multi-family housing, and the need to redevelop properties to accommodate growth, naturally occurring affordable housing doesn't exist in the market. Additionally, the City lacks a housing authority, land bank, or other means of actively providing 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.

Both attainable and affordable housing are important for community stability, aging in community, and climate action. Social diversity 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 housing, high priced housing, desire smaller units without the need to maintain landscapes, or need the accommodations provided by larger multi-family buildings. And lastly, supporting housing for workforce and lower income members of the community can reduce transportation GHG emissions as well as reduce climate impact on a per household basis as multi-family housing is more efficient from an energy use, water use, and land occupation perspective.

Solutions and Strategies:

- Adopt future land use policy that clearly identifies where multi-family housing can be developed, as provided for in the master plan.
- Update the zoning code and approvals processes to make it easy to develop multi-family housing where it is acceptable, as detailed elsewhere.
- Complete a housing needs assessment to determine attainable and affordable housing targets for use by incentives and other future programs.
- Provide permit navigation assistance and expedited processing as an incentive to develop affordable housing, providing timely review, consistency, and a streamlined process.
- Leverage critical land assets in the downtown for new attainable and affordable housing, to be built by the private market.
- Develop policy to control the availability of state grant funds for attainable and affordable housing in coordination with community housing needs.
- Implement inclusionary zoning to require attainable or affordable housing. Inclusionary zoning, if pursued, is most applicable for larger development projects (above 30 units). The affordable units provided would be in exchange for density bonuses, financing assistance, tax relief, or other benefits.

Flex Residential - High Scale: 11 Mile



Existing

Proposed

Flex Residential - Medium Scale: Rochester

Existing

Proposed

Getting Around

Streets are the most pervasive public spaces in a city and that space should be used wisely. Prior decades of traffic engineering had led to streets that provide more space for cars than is technically required, to the detriment of pedestrians and cyclists. Today, traffic engineering has been rebranded to transportation engineering, with a focus on all of the roadway users. In addition to those using streets to get around, streets also need to be designed in coordination with the land uses around them. Neighborhood main streets need slow moving traffic and on-street parking to function properly, and should have wide sidewalks. Typical neighborhood streets may have narrower sidewalks than a main street, but traffic should move even more slowly than along a main street, as much space as possible should be given to tree lawns, and on-street parking is needed both for nearby homes and uses and also to further slow cars. The city has very few streets with enough traffic to warrant more than one travel lane in each direction, and those streets that do also need traffic calming and additional safe crossings to reduce the traffic impact on adjacent properties and to make streets safe for all users.

This section focuses heavily on walking, rolling, and biking. Making streets safe and convenient for these users helps achieve climate goals to reduce transportation greenhouse gas emissions, but they also help make neighborhoods more pleasant and main streets more successful. Much of this is done by either reducing space for cars or providing accommodations like more frequent crosswalks that mitigate the impacts car space has on surrounding uses. Despite some concern, traffic counts show that these accommodations can be made without any serious impact on car movement, and similarly without impacting emergency services. Street space is a delicate balance between needs, and those different in different parts of the city, however the state of most major roads in Royal Oak still retain the car-focused design that was built through roadway widenings in prior decades, to the detriment of safety and the success of properties along them.

Walking, Rolling, & Biking

Pedestrian accommodations within Royal Oak are generally good but could be improved. There are sidewalks present on nearly every street, but they are usually provided at the minimum width. This is adequate for low-volume areas but in downtown, major corridors, and neighborhood main streets, sidewalks may not be wide enough to accommodate everyone at once. In many cases, there is not enough space within the street to add sidewalk width. Sidewalks on major arterials are sometimes curb attached, for example on Eleven Mile Road. Curbed sidewalks are less safe and comfortable for pedestrians than sidewalks set back from the street. When sidewalks are set back from the street, they are better protected from errant vehicles, and more comfortable for pedestrians due to the increased distance from road noise and debris. Where road diets are possible (addressed later), additional space for sidewalks should be considered.

Trees are common along neighborhood streets but are frequently missing. Where trees exist, they provide shade, pleasant aesthetics, and protection from errant vehicles (if between the sidewalk and the street). Street trees play many additional roles, improving public health and climate response. Tree coverage along streets should be increased, initially along the greenway network (detailed later), parks, and schools. Tree plantings should also be aligned with species tolerant to the future climate and include species that are diversified to avoid the spread of disease and pests.

Generally, street crossings along major roads are not frequent enough, often leaving long gaps. On Thirteen Mile Road, there are five stretches of sidewalk that are greater than 500 feet from any crosswalk, including one gap that is over 2,000 feet long. A 500-foot walking diversion represents about a five-minute delay if a pedestrian were to walk to the crosswalk and walk back after crossing, something a pedestrian is unlikely to tolerate. It should be noted that on these major arterials, simply

adding curb ramps and striping a crosswalk may not be enough at unsignalized locations; additional treatments such as warning signs, beacons, bump-outs, and refuge islands may be necessary. Crosswalks on side streets along major roads are often unmarked which does not indicate to turning drivers that pedestrians should be expected. At crossings, curb ramps are generally present with tactile warning pads for visually impaired pedestrians, though improvements could be made. Curb ramps are often of the "single corner design" where crossings are diagonal, the tactile pads are arrayed in a single radius that serves both crossing directions. These pads meet the standard of warning pedestrians when they are entering the street but do not always provide clear direction which way someone who is visually impaired should walk to cross the street.

Signalized intersections typically provide pedestrian signals where crosswalks are marked. These signals are usually of the preferred "countdown" type, but not always. Crosswalks at signals are not present on every corner which may cause pedestrians to make extra crossings to reach their destination. Pedestrian signals outside of downtown usually do not operate automatically; rather pedestrians must push a button to get the signal to change for them and activate the pedestrian signals, delaying pedestrians and prioritizing vehicles, especially if a pedestrian forgets or doesn't know they need to press the button for the signal to change.

Schools often have dedicated pedestrian signals across major roadways but these signals can have mixed results as drivers are often used to ignoring them if they regularly pass outside of school hours.

The bicycle network within Royal Oak is lacking clarity and broad coverage - connections appear to be provided as opportunities have been presented and not in a cohesive network. The only striped bike lanes are the recently installed lanes on the section of Main Street north of Euclid Avenue and on E 4th Street east of Knowles Street, however this type of lane isn't appropriate everywhere.

There are no buffered or protected bike lanes in the City despite some roads with high traffic counts. Bike lanes often stop at intersections, which is the most dangerous and intimidating part of the bike network. Some neighborhood bikeways exist but they must be interconnected and fully designed to feel safe and see significant use. Sharrows on major streets such as Crooks are intimidating for most riders, serving only the most aggressive bicyclists and those in large groups. Overall a cohesive and connected network is needed, which also addresses the context of each bike accommodation in terms of the street size, traffic count, types of intersections, and land uses.

An improved pedestrian and bicycle network can help meet many goals:

- Safe Routes to Schools.
- Increased mobility for people who choose not to have personal cars, cannot afford personal cars, or cannot drive including children, seniors, and those with disabilities.
- Mode share shift to meet sustainability goals, reducing driving and transportation-related greenhouse gas emissions.
- Public health benefits.
- Increased pedestrian and cycling safety, in support of Vision Zero goals.

Solutions and Strategies:

- Increase the safety and frequency of crossings of major roads and along the Neighborhood Greenway network to improve access for those who choose not to drive. Consider seniors, aging in place, and people of different abilities when optimizing the pedestrian networks and improved road crossings to promote walkability, including sidewalk shading and frequent places to rest.

Master Plan Direction

Getting Around

- Along major roadways:
  - Safe crossings at intersections and across major roadways should be prioritized in support of Vision Zero goals.
  - For bikeways on major roadways, off-street facilities (shared use paths, curb-separated bike lanes, etc.) should be used more than on-street facilities where possible. On-street facilities on major roadways with high traffic volumes and high speed will not feel comfortable for most riders and will not see the usage desired. The Neighborhood Greenway network provides an alternative path to major road bikeways.
  - Address access management, consolidating existing driveways and reducing new driveways to reduce conflicts at driveways which represent a potential threat to pedestrians and bicyclists, especially off-street bicyclists.
- At uncontrolled crosswalks, considered additional crosswalk improvements such as:
  - Warning signs;
  - Highly visible crosswalk striping;
  - Flashing beacons (RRFB);
  - Curb extensions or bump-outs;
  - Refuge islands;
  - Raised crosswalks; and
  - Pedestrian hybrid beacons (HAWK signal).
- At signalized intersections:
  - Continue upgrading pedestrian signals to countdown signals.
  - Consider operating signals in high demand areas such as downtown, in neighborhood main streets, and along the Neighborhood Greenway network, with automatic pedestrian phases so that pedestrians are not required to push the button.
  - Shorten signal cycle lengths when possible to minimize bike and pedestrian delays.
- 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. The Michigan Manual for Uniform Traffic Control Devices (MUTCD) determines standards for signage and signals in the state of Michigan. Section 4D.03.04 states “Accessible pedestrian signals…that provide information in non-visual formats (such as audible tones, speech messages, and/or vibrating surfaces) should be provided where determined appropriate by engineering judgment.”
- For sidewalks away from intersections:
  - Add street trees where possible for shade, aesthetics, comfort, and safety.
  - Set back the sidewalk from the traveled way as much as possible, providing safety buffering and more space for tree roots.
  - Provide street furniture and visually appealing street elements to improve the walking experience, especially for those who need to rest during long walks.
  - Widen the sidewalk in high use areas or in areas near parks and schools where people may be more likely to have strollers, wagons, carts, or other items.
  - Shared use paths where pedestrians share with bicyclists, scooter riders, rollerbladers and others should be considered but should be intentionally designed to ensure adequate width is provided for safe use of all.
- For the Neighborhood Greenway network, connecting to parks and schools throughout neighborhoods should be emphasized:
  - The Neighborhood Greenway network should provide a low-stress bike and pedestrian network with an emphasis on connecting parks, schools, and neighborhoods main streets and nodes. The improvements should consist of:

- Bike signage and pavement markings;
- Speed control;
- Traffic volume control;
- Green infrastructure;
- Crossing improvements;
- Pedestrian and bike-oriented signals; and
- Refuge islands.
- A Neighborhood Greenway map of neighborhood bike lanes was developed to link key destinations such as schools, parks, and the neighborhood main streets with low-street bike lanes that are safe and comfortable for riders of all skill levels. This neighborhood greenway network is meant to supplement or replace the existing signed bike network as well as a separate potential bike network on major roadways, often accompanied by right-sizing roadways.

- At activity centers and neighborhood main streets:
  - Bike parking should accompany destinations such as retail, schools, parks, etc.
  - Simple bike racks should be combined with occasional more secure bike locker parking, repair stations, and covered bike parking.
  - Policy could require bike parking as part of new development with more secure parking required with larger developments.

Right-sizing Streets

Many roadways in Royal Oak have been evaluated as road diet candidates recently. These include Main Street north of Crooks Road (4-to-3 conversion), and the road diet currently underway on Rochester Road (4-3 conversion). A list of other arterials along with their most recent ADTs and typical number of lanes is shown in the Table below. When a “typical number of lanes” is odd that means the roadway has a continuous center turn lane or two-way left-turn lane.

Street Name	Functional Classification	ADT	Typical No. of Lanes	Road Diet
Woodward Avenue	Principal Arterial Non-Interstate	61,000	9	Studied in different communities
Coolidge Highway	Principal Arterial Non-Inter state	28,800	5	
Crooks Road	Principal Arterial Non-Interstate	16,900	4	Studied in 2014
Main Street (south of Crooks Road)	Principal Arterial Non-Interstate	14,800	5	
Main Street (north of Crooks Road)	Minor Arterial	13,600	3*	Recently complete
Rochester Road	Principal Arterial Non-Interstate	17,000	4	Under construction
Campbell Road	Principal Arterial Non-Interstate	16,800	4	Studied in 2014
Eleven Mile Road	Minor Arterial	17,700	4	Studied in 2022
Twelve Mile Road	Principal Arterial Non-Interstate	22,900	4	
Thirteen Mile Road	Minor Arterial	24,700-27,000	5	
Fourteen Mile Road	Principal Arterial Non-Interstate	23,700	5	

Master Plan Direction

Getting Around

In general, right-sizing roadways by fitting the correct number of vehicle lanes to the current and anticipated vehicle traffic volumes has the potential to reclaim pavement for other uses such as bike infrastructure, wider sidewalks, on-street parking, or green space. Several roadways have a potential for four-lane to three-lane conversions such as Eleven Mile Road. Four-to-three conversions have proven safety benefits with studies showing they have reduced crashes on streets by 19-47% . If done on the right corridors, they will often have only limited effect on traffic as the left turns that occupy the inside lane waiting for a gap in oncoming traffic are moved out of the through travel lane into their own dedicated space.

FHWA guidance says that roadways with an ADT of up to 20,000 vehicles could be candidates for road diets. Right-sizing can also take the form of reducing excess lane widths where they are not needed. 11 foot lanes should be maintained on freight and bus routes, but on other streets excess lane width can be reclaimed for other purposes. Right-sizing, as well as some of the pedestrian and bike improvements discussed below, can also bring down speeds by visually narrowing the roadway which naturally slows drivers. Excess paved width can be utilized for parking at Activity Centers, Neighborhood Main Streets, and Neighborhood Nodes where it contributes to business success.

Solutions and Strategies:

- Road diets can be a critical tool for not only accomplishing pedestrian and bicyclist goals but also better organizing traffic, reducing travel speeds, and achieving Vision Zero goals to eliminate traffic-related deaths. The City should continue their pursuit of road diets where traffic allows and reclaim that space for other uses.
- If a travel lane is removed for a road diet, several different options are available for that reclaimed space:
  - On-street parking can slow traffic, provide a barrier between the traveled way and bike and pedestrian facilities, and reduce the need for driveways and off-street lots. Street parking is critical for neighborhood main streets and nodes and in activity centers so road diets should balance for those needs.
  - Bike lanes can provide needed bike facilities but removing only one travel lane, such as in a 4-to-3 lane conversion, may not provide enough room for a protected or off-street bike facility which should be prioritized for major roads.
  - Green space can be useful for green infrastructure or as a buffer between pedestrians and cars.
- The City should prioritize road diets in areas with safety and speeding concerns or where the reclaimed space could do the most good. For example, the Eleven Mile Road corridor has significant commercial activity which could benefit from on-street parking, calmer traffic, and more crossing opportunities due to several long gaps between crosswalks which makes it a barrier for pedestrians. Installing a road diet with on-street parking could allow for curb extensions at the end of each block of on-street parking as well as median refuge islands.

Woodward

Woodward is an important regional corridor which often serves the goals of a limited-access highway while being a surface level road with signal control and frequent businesses and curb cuts. Crossing Woodward is a major barrier for all modes but especially to those walking, rolling, or cycling. Additionally, access to commercial uses is poor, with frequent and dangerous driveways mixing with high-speed cars. The poor condition of Woodward has long been recognized and surrounding communities continue to pursue improvements. Ferndale, which has a narrower Woodward cross-section and on-street parking, is currently undergoing a road diet on Woodward. Birmingham also has made Woodward safety and beautification a focus, installing pedestrian crossing improvements where possible and studying the feasibility of a road diet through the city as well.

Woodward carries a lot of regional traffic but the reconstruction effort on I-75 to the east should alleviate some of the need for capacity on Woodward. Several studies over the years have been undertaken to improve Woodward for non-motorists by reclaiming a lane of car traffic for other uses such as bus lanes, bike lanes, commercial access area, pedestrian walkways, beautification, or other needs.

It is likely that a lane reduction would not cause significant capacity impacts on Woodward. Traffic moves well and at high speeds. Michigan Lefts in the median eliminate left turns at intersections, simplifying the traffic signals, though they do take up significant space and require some additional travel distance. The existing signals on Woodward are simple, two-phase signals, yet their timing is difficult for those using crosswalks, which are also infrequent.

Parking and business viability are serious problems along Woodward. Presently, much of the length of Woodward is lined with small areas for angled parking that are accessed by frequent curb-cuts. These areas are generally not sufficient to serve the parking needs of adjacent businesses and the frequent curb cuts are dangerous and disruptive to the flow of traffic along the road. The parking areas are part of the Woodward right-of-way which fall under the maintenance responsibility of MDOT, however they are rarely maintained. Recent developments have removed these in order to consolidate curb cuts, like the development with Trader Joe's. Parking in addition to these areas is severely restricted by the shallow depth of properties along Woodward, frequently causing parking spill-over into adjacent neighborhoods and reducing the ability to open businesses without sufficient available parking. Additionally, speedy traffic turning from Woodward impacts neighborhood street safety. While calls for closing neighborhood street access from Woodward are understandable, this would load more traffic onto other major roads and reduce emergency response access. These are many concerns to balance in a solution that would help neighbors, help Woodward properties, help pedestrians and bicyclists, and maintain function for regional and local vehicle traffic. The proposed solution addresses all of these issues by converting the outer travel lanes and the shallow parking areas into slip lanes (similar to service lanes) which operate at a lower speed, buffer neighborhood street intersections from high speed traffic, provide on-street parking, opportunities for 2 rows of street trees, and bike and pedestrian access. In addition, to reduce the overall parking needs of the corridor and improve its beauty, most of the commercial areas are recommended for conversion to residential, with commercial uses being concentrated at major road intersections.

Solutions and Strategies

- The focus of this study was on improving the accessibility of the properties along Woodward, beautification, and reducing the impact on neighboring properties by reducing a travel lane on Woodward and creating an improved frontage road. The frontage road would have on-street, parallel parking, two-way bike facilities, and two rows of trees separating Woodward from the buildings. Access to the frontage road would be near major intersections and in occasional additional locations, buffering neighborhood streets and parking access from higher-speed through traffic on Woodward. Bus stops would also be integrated into the frontage road medians.
- A regional trail for longer-distance bikes and runners through the center of the Woodward median could also be considered. 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. Special care would need to be taken to ensure the trail crossed the Michigan Left turn-arounds safely. Crossings would need to be located so that drivers performing a U-turn can see oncoming trail users from both directions.
- An Access Management Study should be undertaken as part of the reimagining of Woodward. Access Management Studies analyze existing driveways and desired driveways and develop recommendations for consolidating access points. Driveways and access points should be well thought out, especially for high speed roadways like Woodward, to ensure that access points are safe and organized. If a frontage road concept is pursued, it would address access management issues, but in absence of this solution, access should be consolidated.

Master Plan Direction

Getting Around

Delemere

Growth is projected along the Delemere corridor as part of the master plan over an approximately 65-acre area. 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, this level of development projects to generate 7,085 daily trips, half entering and half exiting. Actual trip generation is likely lower due to internal trip capture that would be achieved with businesses along the future Delemere main street and nearby access to Meijer. While more detailed traffic impact studies should be considered, the roadways around this node should be able to support additional traffic. The ADTs of the surrounding roadways are as follows with approximate capacity levels noted:

Street Name	ADT	No. of Lanes	Approx. ADT Capacity
Fourteen Mile Road	23,700	4 - with turn lanes	35,000
Coolidge Highway	23,600	4 - with turn lanes	35,000
Delemere Boulevard	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 should be considered 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 more functional solution is possible and worthy of consideration, despite higher costs. Coolidge could be adjusted such that the jog occurs further north, before 14 Mile, just below the existing garden center. This would require property acquisition and a new rail bridge, however that new rail bridge may be of similar significance to improving the existing 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 provide for consistent street parking, pedestrian or bike access, street plantings or even curbing. To spark private sector investment in the area, a new street section should be designed and constructed along Delemere, to better support future uses. Other surrounding streets will require additional improvements, which can be completed at a future date. Additionally, a TIF district should be studied in order to fund public space improvements, and potentially public parking, to support the transformation of the area.

Solutions and Strategies:

- Study alternatives for the Coolidge jog at 14 Mile.
- Adopt a new main street section for Delemere and construct the new section along with changes to future land use and zoning.
- Consider a TIF district to fund public space and parking improvements in the Delemere area, similar to the Downtown Business Improvement District.

Transit

Transit usage in Royal Oak is limited but there are some options available. SMART has fixed route bus service on Woodward, Eleven Mile, Main, and a few other roads. SMART also offers Paratransit “on-call” service for Seniors and disabled residents. 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 an important element for bus stops to provide a more comfortable experience and demonstrate a commitment to the transit service.

As part of the Downtown recommendations, improvements for Amtrak service and the SMART and Greyhound stations are proposed. In addition to increased housing in Downtown, these improvements would increase the accessibility and visibility of transit services within the City’s core.

As part of the Woodward recommendations, improvements for SMART service is proposed by providing shelters and seating at bus stops, and increasing safe pedestrian and bike access to those stops.

Solutions and Strategies:

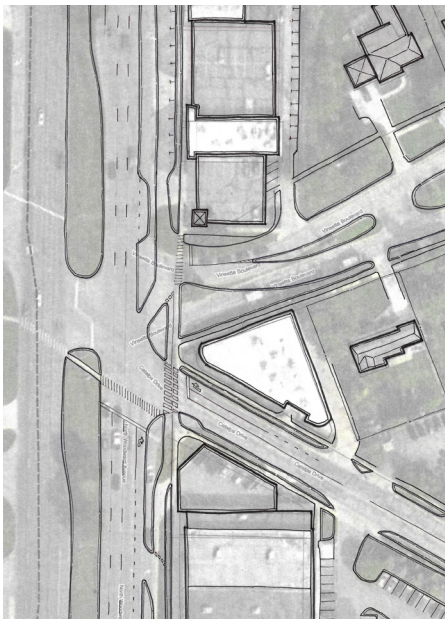
- Oakland County passed a transit millage in November of 2022 which will provide additional funding for transit in the region. Royal Oak should work with SMART and others in the county to expand or improve service, prioritizing additional stops at key destinations and routing improvements to reduce wait times.
- Improved bus stops with shelters and accessible waiting areas, lighting, and other amenities should be considered as part of street improvement projects, and prioritized within Activity Centers and Neighborhood Main Streets and Nodes.
- A comprehensive approach to updating the existing network should create efficiencies and help promote public transportation as a viable, safe and reliable commuting option.
- Prioritize multi-modal options for all households with a focus on senior housing.

Master Plan Direction

Getting Around

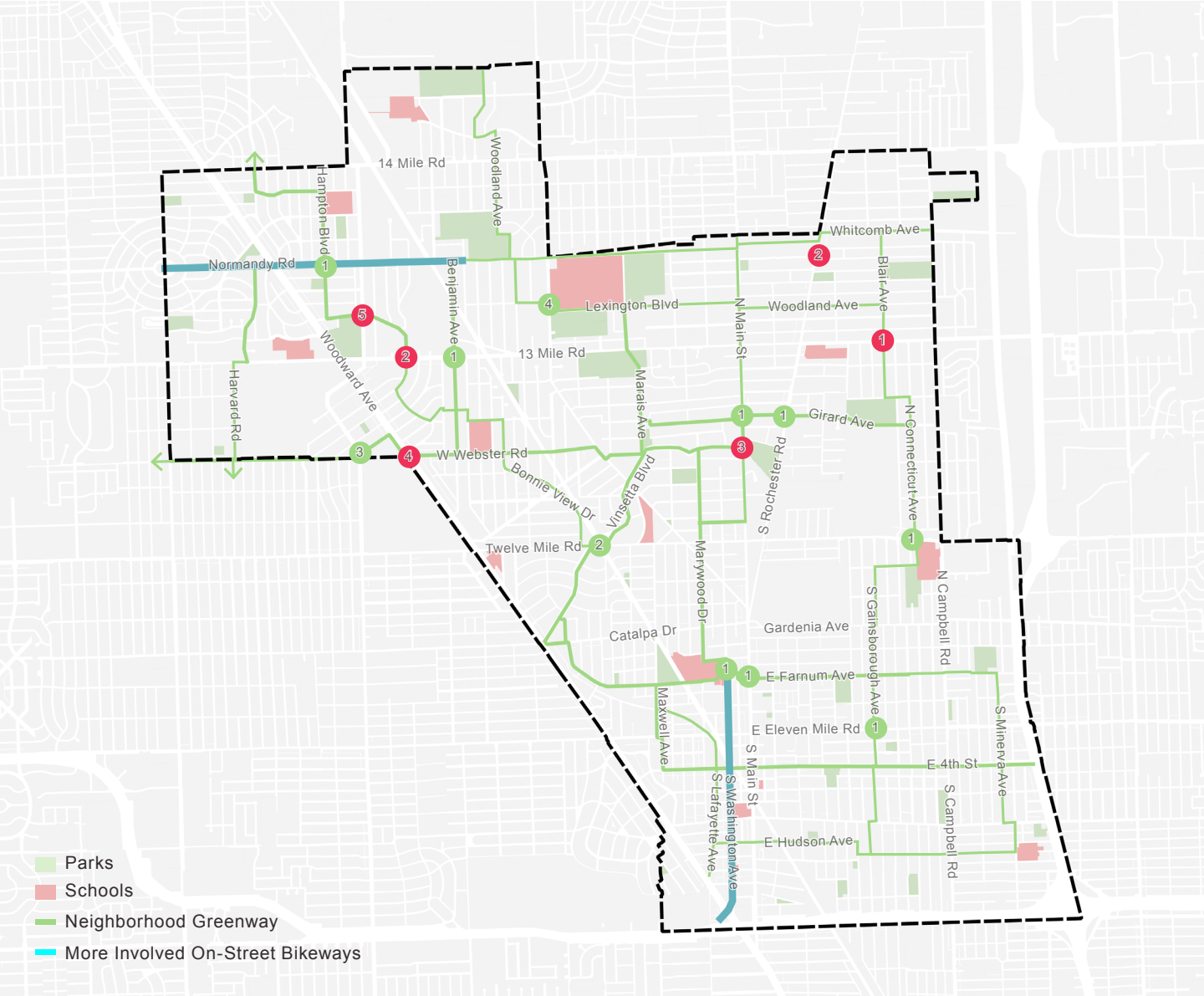
Woodward Slip Lane

Proposed



Intersection of Vinsetta & Woodward with slip lane condition

Neighborhood Greenway Route



Existing Crossing Improvements in Place

1. Signalized
2. Use Service Lanes
3. Beware of Sight Lights
4. Off-Street Connections

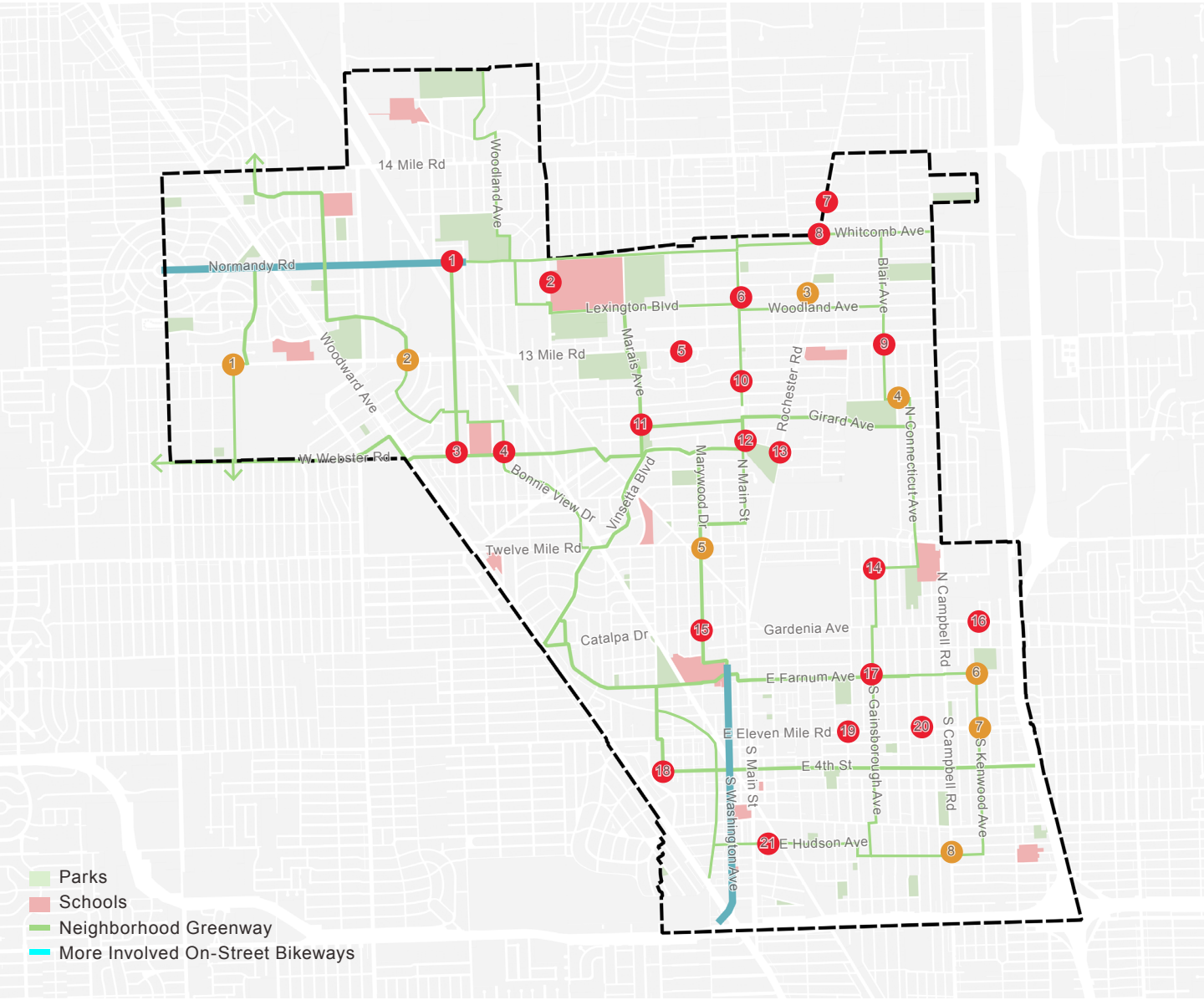
Crossing Improvements Needed

1. Add Signal
2. Signal or Refuge
3. Bike Refuge Island
4. Improve Signal for Bikes
5. Signalize or Improve Medians for Bikes

Master Plan Direction

Getting Around

Crosswalk Improvements



New Crosswalks Needed

1. Benjamin Ave/Normandy Rd
2. Royal Oak High School
3. Benjamin Ave/Webster Rd
4. Bonnie View Dr/Webster Rd
5. Columbus Ave/13 Mile Rd
6. Lexington Blvd/Main St
7. Ottawa Ave/Rochester Rd
8. Whitcomb Ave/Rochester Rd
9. Blair Ave/13 Mile Rd
10. Bloomfield Ave/Main St
11. Hickory Ave/Marais Ave
12. Detroit Ave/Main St
13. Detroit Ave/Rochester Rd
14. Bellaire Ave/Ferris Ave
15. Marywood Dr/Catalpa Dr
16. Kenwood Ave/Gardenia Ave
17. Farnum Ave/Gainsborough Ave
18. Oakdale St/4th St
19. 11 Mile Rd/Alexander Ave
20. Vermont Ave/11 Mile Rd
21. Hudson Ave/Knowles St

Add/Complete Existing Crosswalk

1. Harvard Rd/13 Mile Rd
2. Woodslee Dr/13 Mile Rd
3. Woodland Ave/Rochester Rd
4. Vermont Ave/De Villen Ave
5. Marywood Dr/12 Mile Rd
6. Kenwood Ave/Farnum Ave
7. Kenwood Ave/11 Mile Rd
8. Hudson Ave/Campbell Rd