



M-231 Sub-Area Plan

Robinson Township

Ottawa County, Michigan

July 8, 2015



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1 INTRODUCTION

Construction of the new M-231 highway through the heart of Robinson Township has given rise to concerns over development pressure and appropriate land use at future access points along the route. The M-231 Sub-Area Plan (“Sub-Area Plan”), therefore, is intended to address planning, growth and development issues for two target areas: land in the vicinity of the M-231 intersections with M-45, sometimes referred to as Lake Michigan Drive in this document, and Lincoln Street. These locations are priorities because they are the two interchanges anticipated to be marketable for future development. This plan builds upon and supplements the Township’s long-range master plan by providing more detailed recommendations for these two subareas in an effort to balance preservation of prized community assets with economic growth opportunities.

PURPOSE

The purpose of the Sub-Area Plan is to present a future land use management strategy that illustrates an approach for logical and incremental development resulting from the new bypass construction project. More specifically, this plan will:

- Address the changes to road infrastructure and development pressure resulting from the M-231 bypass project.
- Plan for future land use and potential change.
- Provide a framework for decisions regarding zoning map amendments, zoning standards and other policies and regulations for the type, location, intensity and timing of development.
- Establish defensible guidelines concerning public services based on sound planning practices.
- Establish guidelines for reassessment and re-evaluation of the plan.
- Develop a clear and prioritized implementation strategy to achieve the goals outlined in the plan.

GOALS AND GUIDING PRINCIPLES

Not only do the goals of the 2008 plan remain applicable to growth and development in Robinson Township, they remain the fundamental overarching goals for the lands affected by the Sub-Area Plan. These goals are the following:

Fundamental Goals

1. *To establish a pattern of land use which will promote the highest degree of health, safety, and general welfare for all segments of the community.*
2. *To work towards the ideal community using the most economical means, yet not depriving the residents of those services, facilities, and values necessary to maintain desirable living conditions; nor depriving a reasonable freedom of choice to private interests.*
3. *To preserve and protect the natural resources of the area, while maintaining the necessary balance between the social and economic needs of the Township.*

Through the planning process, the Township Board and Planning Commission developed a set of refined goals and guiding principles specific to the study areas. The goals address preservation,

development, transportation and recreational opportunities- factors potentially affected by the major road infrastructure project.

M-231 Sub-Area Goals and Guiding Principles

1. *Preserve the rural landscape and protect the existing rural community character and atmosphere.*
2. *Consolidate and focus future development to planned and prioritized target areas.*
3. *Prioritize environmental and natural resource protection.*
4. *Ensure a safe multi-user transportation network, including sidewalks, pathways, crossings and access management.*
5. *Capitalize on the opportunities for future parks, recreational facilities and trails.*
6. *Promote harmonious and organized development consistent with adjacent land uses and ensure high quality site and building design that contributes to the character of the community.*
7. *Restrict consideration of sewer infrastructure to planned primary development areas.*

MICHIGAN PLANNING ENABLING LEGISLATION

The Township developed the Sub-Area plan in accordance with the Michigan Planning Enabling Act. A local unit of government may adopt, amend, and implement a master plan as provided by the Act for the purpose of guiding development. This guidance ensures that development:

- *Is coordinated, adjusted, harmonious, efficient, and economical.*
- *Considers the character of the planning jurisdiction and its suitability for particular uses, judged in terms of such factors as trends in land and population development.*
- *Will, in accordance with present and future needs, best promote public health, safety, morals, order, convenience, prosperity, and general welfare.*

Additionally, a master plan may consider:

- *A system of transportation to lessen congestion on streets and provide for safe and efficient movement of people and goods by motor vehicles, bicycles, pedestrians, and other legal users.*
- *Safety from fire and other dangers.*
- *Light and air.*
- *Healthful and convenient distribution of population.*
- *Good civic design and arrangement and wise and efficient expenditure of public funds.*
- *Public utilities such as sewage disposal and water supply and other public improvements.*
- *Recreation.*
- *The use of resources in accordance with their character and adaptability.*

Section 35 of the Planning Act allows for a jurisdiction to prepare and adopt a subplan (or sub-area plan) for a geographic area less than the entire planning jurisdiction, if, because of the unique physical characteristics of that area, more intensive planning is necessary for the purposes set forth in the Act. In conducting the required five-year review of the Township Master Plan, the Board of Trustees and Planning Commission determined that the goals, policies and guidance adopted in the 2008 Township Master Plan remained applicable and valid. However, the construction progress and



impending completion of the M-231 bypass project was determined to be justification for reassessing land use and development issues for targeted areas directly affected by this major infrastructure project. Therefore, the Township initiated the Sub-Area Plan.

M-231 BYPASS PROJECT

A new route (M-231) will be constructed near 120th Avenue from M-45 north to the I-96/M-104 interchange. As part of this project, a series of related improvements will be included: a new Grand River crossing, improvements to M-104, new ramps at the I-96 and M-231 interchange, and improvements to the I-96/112th Avenue interchange. M-231 will be constructed as a two-lane limited access roadway with controlled access at intersections. These actions to limit and control access will help preserve the traffic-carrying function of the new road. Acquisition of the right-of-way will also preserve the potential for expansion to a four lane divided facility and addition of a non-motorized pathway, when warranted.

Additional lanes on M-231 will likely be needed in the future, based on projected traffic levels, following the 20-year planning period. Lengthened sub-structure (piers) to allow for the future widening of the route have been incorporated into the construction project. Sufficient right-of-way to accommodate the planned expansion has been acquired as part of the initial construction.

M-231 is a limited access corridor with controlled access at two at-grade intersections in the Township - Lincoln Street and M-45. Access to the bypass facility is limited to these locations and overpasses and a cul-de-sac are proposed for other affected areas (Table 1).

Table 1 M-231 Impact to Existing Roads

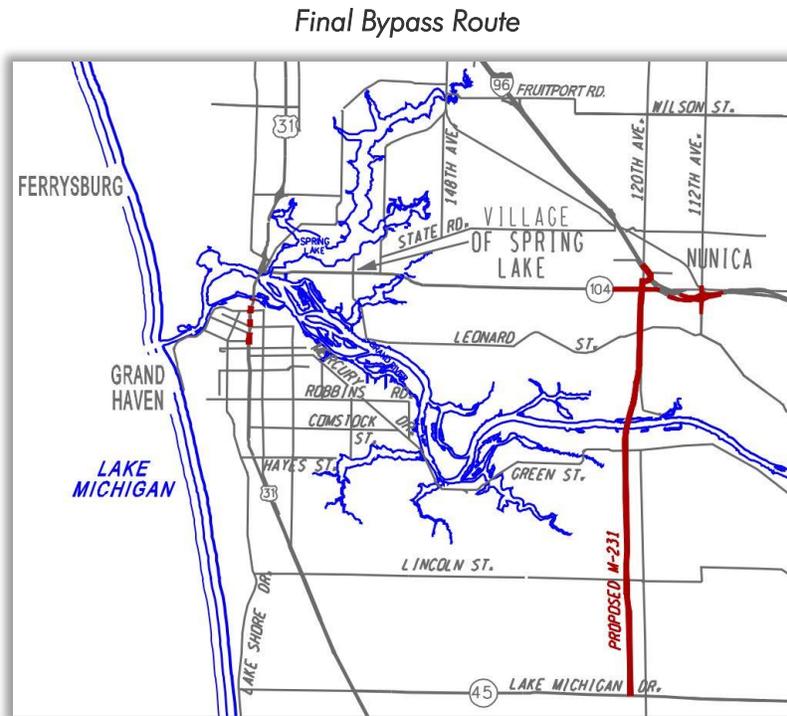
Intersection	Overpass	Cul-de-Sac
M-45 Lincoln Street	Rich Street Buchanan Street Sleeper Street North Cedar Drive Limberlost Lane	Johnson Street

This design presents both an opportunity and a challenge for Robinson Township. It allows for access to the highway within the community, while minimizing the potential land use impacts that typically follow such corridors. However, it does create a potential attraction for intense development pressure at the two accessible intersections. Therefore, it is incumbent upon the Township to be proactive and control the land use in those locations so future development is permitted within the context of the rural community and is consistent with specific standards of quality and design that such high visibility locations merit.

PREFERRED ALTERNATIVE

After many years of planning and multiple design alternatives, the final M-231 bypass route was approved and construction is underway as this plan is being prepared. The Federal Highway Administration states that the project provides the following benefits:

- Improves the movement of people and goods by reducing vehicular delay and congestion along key segments of US-31 in Grand Haven and the Holland area.
- Increases transportation system capacity, addresses regional growth and enhances Grand River crossing efficiency by providing a new river crossing (M-231) approximately mid-way between the two existing crossings of the Grand River in the study area.
- The new Grand River Bridge and existing US-31 improvements will enhance safety, emergency service access, incident management and traffic flow in the study area.
- Provides north/south route continuity and connectivity in Ottawa County by creating a new state highway segment (M-231), linking three existing state highways (M-45, M-104 and I-96), as well as county primary roads (Lincoln Street and 120th Avenue).
- Minimizes impacts compared to other Practical Alternatives evaluated in the FEIS. Potential indirect and cumulative impacts from urban sprawl pressures are minimized by limiting direct access to the new M-231 route.¹



TRAFFIC AND PROJECTIONS

The 2030 Average Annual Daily Traffic (AADT) counts for M-231 are projected to be 22,000 vehicles per day north of Lincoln Street and 10,000 vehicles south of Lincoln Street, as shown in the last two rows of Table 2. The projections include increases in 2030 traffic without M-231 and greater increases of overall Township traffic with the future presence of M-231, with the exception of 120th south of Lincoln, which is projected to have a decrease in traffic from present conditions due to the bypass project.

¹ US-31 Improvement Study Record of Decision, 4/23/10. Page 16 of 31.



Table 2 Average Daily Traffic and Projections²

Road Segment	2006 Count	2030 Projected without M-231	2006- 2030 Change	2030 Projected with 231	2006- 2030 Change (M-231)	2030 Difference due to Bypass
Lincoln west of M-231	4,300	6,800	58%	11,100	158%	4,300
Lincoln east of M-231	2,500	4,200	68%	4,800	92%	600
120th north of Lincoln	1,200	1,900	58%	2,300	92%	400
120th south of Lincoln	3,000	4,100	37%	2,400	-20%	-1,700
120th south of M-45	4,000	5,000	25%	8,200	105%	3,200
M-45 west of M-231	5,400	7,300	35%	8,400	56%	1,000
M-45 east of M-231	7,000	7,300	4%	14,100	101%	6,800
M-231 north of Lincoln				22,000		
M-231 south of Lincoln				10,000		

Considering the projected traffic volumes based on population projections and completion of M-231, it is important to consider the relationship of volume and road capacity. Determination of roadway capacity is dependent on a number of factors. Generally, a two lane paved roadway will have a 24 hour capacity at Level of Service A of 8,000 to 10,000 vehicle trips (unrestricted flow). However, an acceptable Level of Service under most conditions is a Level C. Level of Service will be influenced by a number of factors that define individual roadway capacity, including:

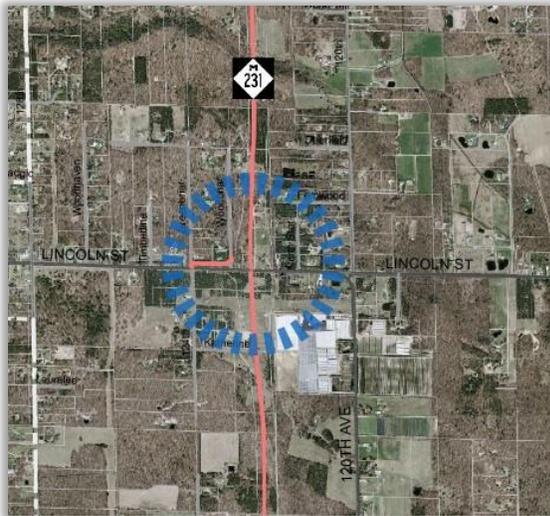
- Intersection design, turning lanes and traffic control devices.
- Pavement condition and material.
- Roadway width and number of lanes.
- Topography (rolling or flat).
- Design setting (winding rural or unswerving urban).
- Location and frequency of curb cuts.
- Speed limits and other traffic control devices.
- Sight distance limitations.

The traffic volume on Lincoln, west of M-231 is projected to be 11,100 vehicles, exceeding the count on M-231 south of Lincoln. While M-231 alleviates traffic volumes in the Grand Haven area, the Township will experience traffic volume growth based upon both regional population and bypass traffic. Because of the projected increases and the necessity to ensure acceptable Level of Service, a number of land use and traffic related policies and actions are presented in this Sub-Area Plan.

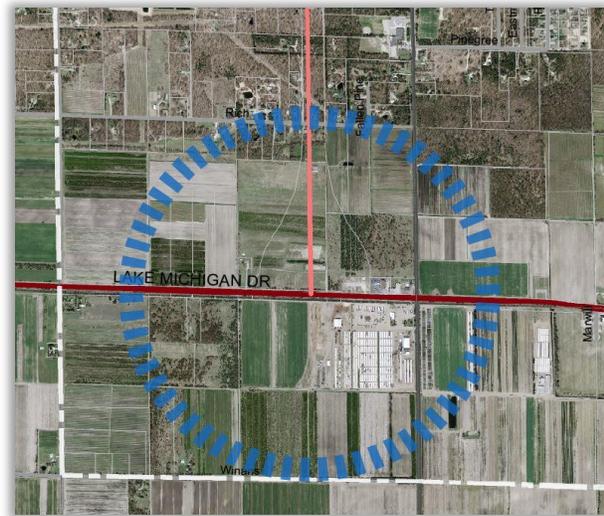
² US-31 Holland to Grand Haven- Final Environmental Impact Statement, 2/5/2010, Page 1-9.

FOCUS AREAS AND DEVELOPMENT CONCEPTS

Initial stages of the planning process focused on the Lincoln Street and M-45 intersections with M-231, as shown below. During the planning process, the boundaries of the focus areas were refined and planned. Development concepts included as Maps 2 and 3 generally reflect some of the placement and layout recommendations presented in this plan. The development concept for the Primary Growth Area shows building bulk, scale, internal connectivity and limited access to M-45 and 120th Avenue. The concept for the Secondary Growth Area includes access that is limited to 124th Avenue, building areas and their relation to parking, civic space and pedestrian access. These maps serve as a preview of the overall vision for the Sub-Area target areas outlined in Chapter 3.



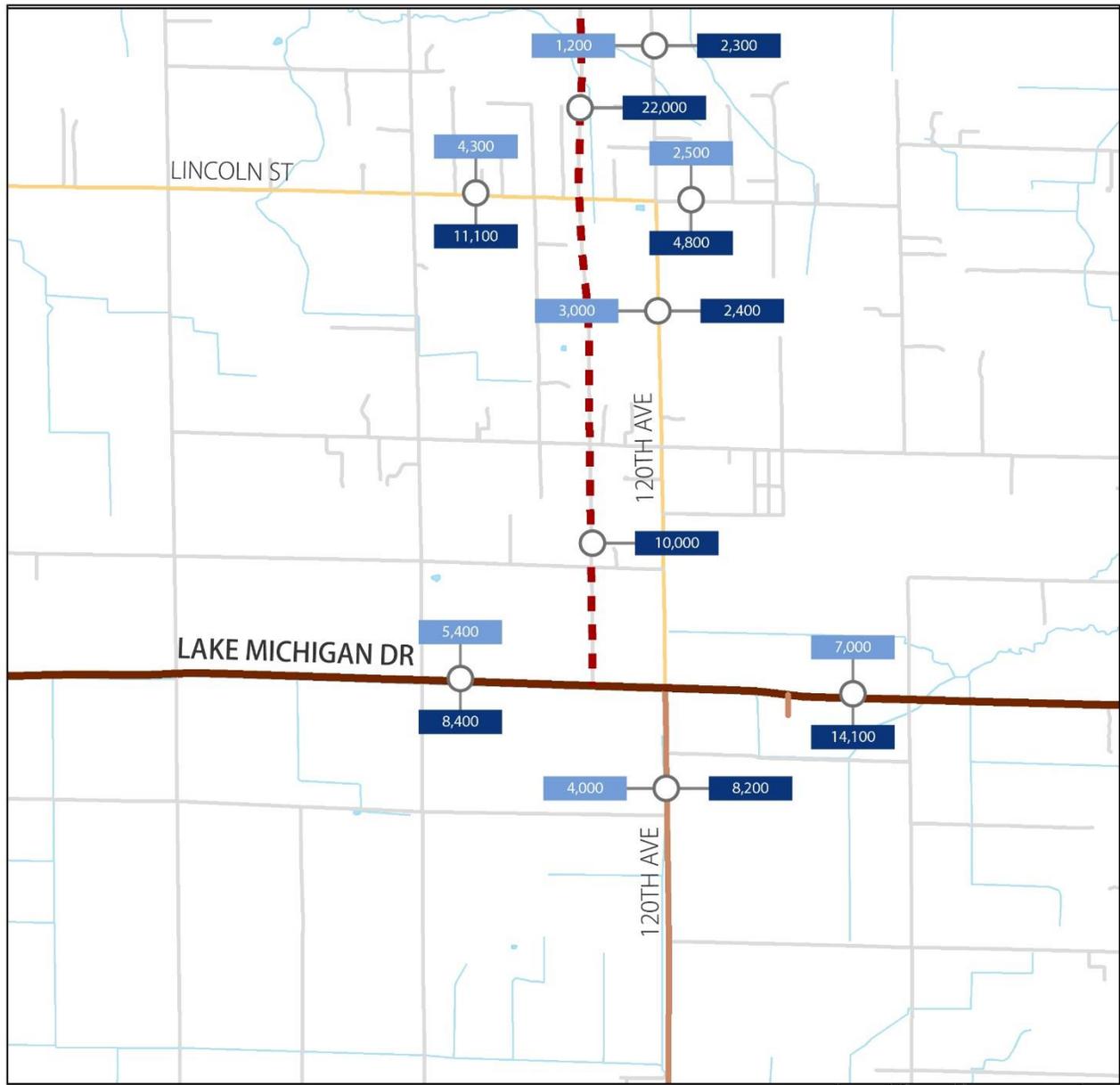
Original Lincoln Street Focus Area



Original Lake Michigan Drive Focus Area

MORATORIUM

During the planning process, the Township Board imposed a moratorium on the issuance of zoning, building or other permits or other approvals to any person, entity or premises, for the rezoning of any property, or for any special use, planned unit development, or variance pertaining to the “particular affected area.” This area was determined to be land within a one-mile radius of M-45 and 120th Avenue and a half-mile radius from M-231 and Lincoln Street (Map 4). Because of the anticipated relationship between the Sub-Area Plan and future development, the Planning Commission and Township Board believed it to be in the best interest of the community to postpone certain land use requests during consideration of the M-231 Sub-Area Plan to ensure development proceeds in a well-planned and orderly manner.

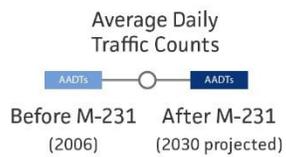


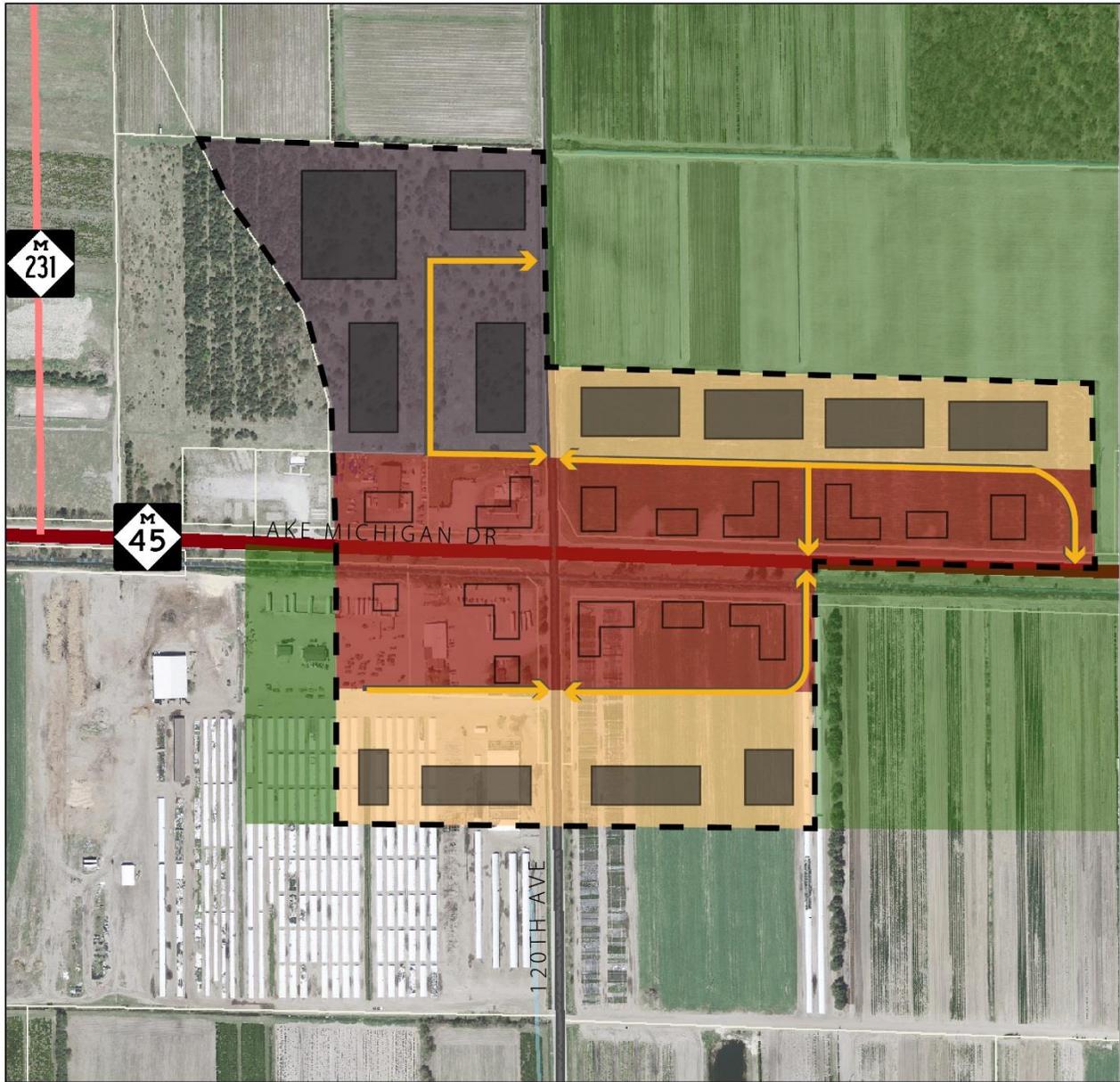
Map 1
M-231 Traffic Impact
Robinson Township



LEGEND

- Future M-231
- Principal Arterial
- Major Collector
- Minor Collector
- Local





Map 2
Development Concept
Primary Growth Area



LEGEND

- Future M-231
- Community Commercial
- Highway Commercial
- Industrial
- Agricultural
- Primary Growth Area Boundary
- Driveway Alignment
- Internal Service Drives
- Future Building Footprint



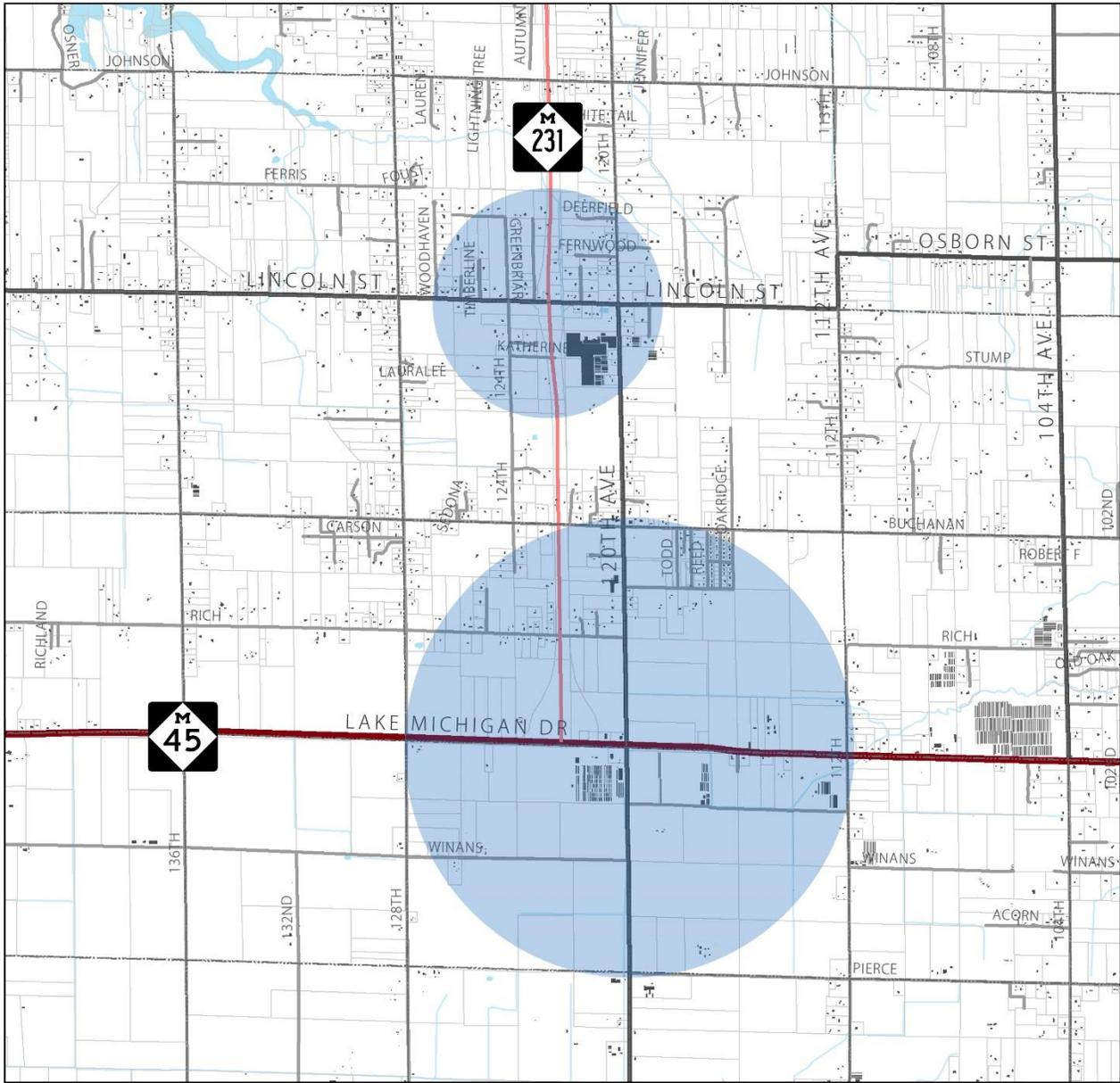


Map 3 Development Concept Secondary Growth Area



- Future M-231
- Neighborhood Business
- Secondary Growth Area Boundary
- ↔ Driveway Alignment
- Internal Service Drives





Map 4
 Particular Affected Area
 Robinson Township - M-231 Subarea Plan



LEGEND

-  Building Footprints
-  Future M-231
-  Particular Affected Area





2 PLANNING PROCESS

INTENT TO PLAN

In accordance with the requirements of Section 39 of the Michigan Planning Enabling Act, Township officials notified the Planning Commission Chairperson of nine adjacent and nearby townships and the County Planning Commission of the planning process. The correspondence explained the intent of the sub-area plan and the focus of land use and development surrounding the future M-231 interchanges. In addition to providing this information, the Township invited nearby jurisdictions to provide thoughts, concerns, or issues to ensure the planning process considered regional feedback and coordination.

KICKOFF AND VISIONING

LSL team members and Township staff/officials toured the community to familiarize the team with current conditions, range of land uses, quality of development, and issues discussed during previous planning efforts. Township Board and Planning Commission members identified important sites, discussed construction progress and provided essential context and background to the planning process.

A “best practices” program was conducted on June 3, 2014, to review what other communities have done to manage land use along new corridors. The objective of the meeting was to discuss guiding principles, to identify the study area, and to cover best planning and zoning practices. The best practices discussion included concepts for limited commercial nodes with rural residential and agricultural lands in between, access management strategies, site design standards, and zoning techniques to help preserve rural character in undeveloped segments. Specific zoning tools and strategies were discussed.

Based on the earlier tasks, an initial set of Sub-Area Plan goals was developed to ensure future land use scenarios were addressing Township priorities. These goals were confirmed at the July 17, 2014, land use workshop. In addition to goals, the meeting participants refined primary and secondary growth areas and future land use categories and locations.



PLAN PREPARATION AND ADOPTION

A progress report of the Sub-Area Plan was presented to the Township Board of Trustees and Planning Commission on September 18, 2014 and document drafts were reviewed over the next four months. After plan revisions and subsequent review, the Township Board of Trustees authorized distribution of the draft plan for the state-required 42-day review process on April 30, 2015. Once this period ended, an official public hearing was held on June 23, 2015, and the Planning Commission recommended approval of the Sub-Area Plan on July 7, 2015. The Township Board of Trustees formally approved the Sub-Area plan by Resolution on July 8, 2015 (attachment 1).



3 LAND USE PLAN

The land use plan translates the Sub-Area’s vision and goals into maps and best practices. This section covers growth boundaries, future land use categories, and their application to the Particular Affected Area. Just as important, factors for establishment and re-evaluation of these areas during future updates are included in this section.

Future land use scenario workshops and the planning factors addressed in this chapter directly influenced the development of the Future Land Use plan. It is important to note that the future land use plan represents a 20-year vision for the community. The future land use pattern and growth boundaries described in this plan should be relied upon during consideration of land development applications, zoning map amendments and other land use, transportation and infrastructure decisions

GROWTH BOUNDARIES

Growth boundaries delineate designated areas for managed growth within a jurisdiction or region. Areas outside of the growth boundary are typically more rural, non-commercial and low-density residential/agricultural in nature. This section will address the factors considered during the planning process, development suitability at the M-231 intersections, and re-evaluation during the 5-year master plan review.

FACTORS

Delineation of growth boundaries and future land uses are based on a variety of objective and subjective factors. Although factors are not weighted, prioritized, or exclusive, an assessment of information concerning all factors and a cumulative evaluation of the factors serve as the basis for the Robinson Township growth strategy.

Considering these factors will help to ensure a defensible plan. Arbitrary growth boundaries without a method of future evaluation could be challenged.

1. **Road infrastructure (Existing and Planned).** Roads are an essential component of community infrastructure and are integral to land use decisions. Therefore, it is critical to ensure that the primary function of arterial roads (such as M-45 and Lincoln) which is to carry relatively high volumes of traffic long distances, is not compromised by inappropriate uses. All too often, the higher traffic volumes and greater visibility of arterial corridors entices businesses seeking that increased exposure to customer traffic. However, if not controlled, the proliferation of individual driveways and frequent in and out turning movements diminishes the capacity of the road and impedes its basic function to move traffic. Therefore, a delicate balance must be maintained between preserving the traffic-carrying function of the arterial road and permitting uses that depend on that traffic.
2. **Soils and Natural Resources.** Hydric soils are generally considered unsuitable for development due to their historically wet conditions. These soils are typically saturated through a significant part of the growing season or flooded long enough to eliminate oxygen in the root zone. According to the Robinson Township Hazard Mitigation plan, areas with hydric soils “are to be considered flood-prone, wetland, or otherwise suited to have development discouraged or specifically engineered to account for site hydrology.” Therefore, the presence of such soils is

considered a significant constraint to development due to their instability for buildings and limitations for on-site septic systems.

3. **Existing Land Use.** Established land use patterns must be considered in determining potential future land use options. Except in rare circumstances where redevelopment is advocated, the existing land use context must be a shaping influence as future land use options are explored. Intensive land uses may not be compatible and could potentially affect historically residential or agricultural areas negatively by reducing property values, increasing traffic or creating nuisances (noise, hours of operation, glare, odor, etc.).
4. **Future Land Use and Zoning.** Development should emanate incrementally outward from areas targeted for growth through conscious land use planning. A logical, orderly, sequential growth pattern allows for the gradual expansion of needed infrastructure and other municipal services in a cost-effective and efficient manner. The Township Master Plan and this Sub-Area Plan strive to manage growth and diminish incompatible land use relationships. Zoning regulations are the fundamental tools to support plan recommendations. They should ensure that appropriate uses are situated in conformance with the plan and an orderly transition is accomplished from intense uses to very low intensity uses.
5. **Survey and Community Preference.** Local desires are an important ingredient in any planning effort. All communities are different, local philosophies vary and conditions may be unique. During past planning efforts, residents were surveyed to gauge their opinions regarding growth and development. The results of that survey provided valuable direction for the preparation of this plan.
6. **Utilities.** Water and sewer service infrastructure are critical determinants for land use intensity. Where public water and sewer are available, greater intensity of development is feasible. However, where such facilities are unavailable and private systems (septic and well) are employed, the range of potential uses and the intensity of development are severely limited.
7. **Truck Routes.** Except as expressly permitted under the Truck Route Ordinance, operation of heavy trucks and trailers is restricted to designated truck routes. As commercial and industrial developments are reliant upon trucks for deliveries and general operation, the most suitable lands are those that have direct access to truck routes in all directions.
8. **Visibility and Demand.** Commercial and industrial zoning map amendments, special land use review and site plan review requests are indicators of general demand for development. Additionally, visibility of property based on new traffic patterns and increase in the number of travelers in the township affects suitability.

The following table includes the application of the assessment factors as they related to the planning areas targeted in the Sub-Area Plan.



Table 3 Growth Boundaries- Development Suitability Factors

Planning Factor	Lincoln Street Focus Area	Lake Michigan Drive Focus Area	Outlying Areas
1. Road Infrastructure (Existing and Planned)	Medium <ul style="list-style-type: none"> County Road-Lincoln Street. M-231. 	High <ul style="list-style-type: none"> M-45 Lake Michigan Drive. M-231. 	Low <ul style="list-style-type: none"> County secondary paved roads. County unpaved roads.
2. Soils	Low <ul style="list-style-type: none"> Hydric Soils. 	Low <ul style="list-style-type: none"> Hydric Soils. 	Varies <ul style="list-style-type: none"> Hydric and Non-Hydric Soils.
3. Existing Land Use	Low <ul style="list-style-type: none"> Low and medium density residential (north). Agricultural land (south). 	High <ul style="list-style-type: none"> Generally agricultural and undeveloped. Existing commercial. 	Low <ul style="list-style-type: none"> Agricultural uses. Low and medium density residential.
4. Future Land Use and Zoning	Low <ul style="list-style-type: none"> Existing low density residential zoning. Low density residential future land use planned. 	Medium/High <ul style="list-style-type: none"> Existing commercial and industrial zoning. Commercial and industrial land use planned. 	Low <ul style="list-style-type: none"> Existing residential zoning. Existing Residential future land use planned.
5. Community Survey	Low <ul style="list-style-type: none"> Development not desired. 	Medium <ul style="list-style-type: none"> Development more acceptable. 	Low <ul style="list-style-type: none"> Development not desired.
6. Utilities	Low <ul style="list-style-type: none"> No existing or planned water and sewer. 	Medium <ul style="list-style-type: none"> No existing or planned water and sewer. Closer proximity to existing utilities. 	Low <ul style="list-style-type: none"> No existing or planned water and sewer.
7. Truck Routes	Medium <ul style="list-style-type: none"> Truck routes travel in two directions. 	High <ul style="list-style-type: none"> Truck routes travel in all directions. 	Low <ul style="list-style-type: none"> Trucks are generally prohibited.

8. Visibility and Demand	<p>Medium</p> <ul style="list-style-type: none"> ▪ New bypass traffic capture-significant increase on Lincoln west of M-231 (see traffic projections in Table 2 and Map 1). 	<p>Medium/High</p> <ul style="list-style-type: none"> ▪ Regionally significant intersection ▪ New bypass traffic capture: travelers will stop for convenience-oriented needs but the location will not be a “destination.” Some commercial developers may seek to take advantage of a key location and a potential new market resulting from the new hub at Lake Michigan Drive and M-231 (see traffic projections in Table 2 and Map 1). 	<p>Low</p> <ul style="list-style-type: none"> ▪ No bypass traffic capture or increases anticipated.
	Lincoln Street Focus Area	Lake Michigan Drive Focus Area	Outlying Areas
Overall Score	Low/Medium	Medium/High	Low
Recommendation	Consolidated low-intensity commercial around new intersection to the southwest of the Lincoln/M-231 intersection.	Designation of existing commercial and industrial future land use areas as priority area for future development.	No change in growth concept.

GROWTH AREAS

The Sub-Area Plan establishes two unique growth area boundaries. Land subject to the primary growth boundary is in the vicinity of Lake Michigan Drive and its intersections with both M-231 and 120th Avenue. Land within the secondary growth boundary is west of the Lincoln Street intersection with M-231. The land outside of these boundaries is considered rural.

Primary Growth Area

The primary growth area is most appropriate for growth based on the earlier outlined development suitability factors. Highway Commercial businesses are proposed along the road frontage that focus on convenience, services and hospitality uses oriented toward the community and the traveling public. Community Commercial areas are designated to accommodate medium scale retail businesses that serve Township residents but will also draw from a wider consumer base because of M-231 traffic projections (Map 1 & Table 2). The Industrial area, which also includes more intense commercial uses, is proposed in the northwest quadrant of the primary growth area. Development in this area



shall have adequate spacing and buffers from the major intersections, and will serve local needs for construction, services, light industrial, automotive, landscaping and other similar uses.

Planning the boundary of the primary growth area relied on an understanding of build-out and potential capacity, to ensure logical, incremental and managed growth, outward from the core of the growth area. The existing land use analysis shown in Table 4 indicates that existing commercial land consists of approximately four (4) acres, or just under six (6) percent of the 72-acre primary growth area. Approximately 13 acres (18%) are considered “agricultural/improved,” which includes lands southwest of the M-45 and 120th Avenue intersection. This classification acknowledges land with existing infrastructure and office buildings for an agricultural operation that will likely be redeveloped. For the purpose of this analysis, land available for both development and redevelopment is considered together and consists of approximately 68 acres of the 72-acre study area.

Table 4 Existing Land Use Analysis- Primary Growth Area

Classification	Acres*	Percent
Commercial Development (existing)	4	5.6%
Agricultural/Improved	13	18.0%
Agricultural/Undeveloped	55	76.4%
Total	72	100.0%

**-All acreages are approximate and include right-of-way*

As a general rule of thumb, an acre of land can support approximately 10,000 square feet of typical commercial development. However, based on right-of-way, building size limitations, restrictions on land use, and recommendations for increased amounts of open space, civic area and landscaped features, this amount may be closer to 7,500 square feet per acre.

Redevelopment of the agricultural/improved area in the southwest quadrant of the primary growth area could potentially support 97,500 square feet of commercial development on 13 acres, but would be broken up into small and medium sized buildings (2,000 to 50,000 square feet). The remaining 55 acres of agricultural/unimproved land could potentially support 412,500 square feet of development, but approximately 33 percent of this square footage is located within a designated industrial area (135,000 square feet).

In total, the existing agricultural/improved and agricultural/undeveloped land within the primary growth area could potentially accommodate 510,000 square feet of buildings. Although this total square footage would be greater than a regional mall development, the primary growth area is generally divided into quadrants from the intersection of M-45 and 120th Avenue, with each area functioning independently. Sharing facilities, such as stormwater detention, parking and amenities, is less likely under this scenario. Therefore, development in four separate quadrants may further constrain the amount of developable land. Potential development breakdowns are listed below (all acreages are approximate and include right-of-way):

- Northwest: 135,000 square feet (18 acres industrial), in addition to existing commercial use.
- Northeast: 165,000 square feet (22 acres commercial).
- Southeast: 112,500 square feet (15 acres commercial).
- Southwest: 97,500 square feet (13 acres commercial).

Based on development suitability factors outlined earlier, it is anticipated that development within the commercial portion of the primary growth area will consist of community-oriented commercial development while also accommodating travelers on M-231, M-45 and 120th Avenue. Mid-sized grocery stores between 30,000 to 50,000 square feet, hardware stores and smaller retail stores up to 15,000 square feet, and smaller out parcel development and multi-tenant buildings between 2,000 and 10,000 square feet are projected as the target market, based on the development suitability factors.

Although there are a number of possible land use-combinations, the southeast and southwest areas could each accommodate (for example purpose only):

- Mid-sized grocery store, mid-sized retail and outparcel development.
- Four mid-sized retail stores and outparcel development.
- Larger retail store, multi-tenant buildings and outparcel development.

The northeast area could include an additional grocery store or four mid-sized retail stores while the northwest could be developed with a combination of industrial buildings, totaling 135,000 square feet.

It is important to note that the 20-year traffic projections (Map 1 & Table 2) show a doubling of daily trips, a long-term projection that will take many years to materialize. Without a current demand for commercial use and a 20-year doubling time, the primary growth boundary has been set to accommodate a reasonable amount of development based on the comprehensive assessment of suitability factors. While the market will ultimately drive demand for commercial development and site-specific environmental conditions will directly affect actual capacity, it is anticipated and projected that the size of the primary growth area is more than adequate to accommodate commercial development that can serve the community and the traveling public for the next 20 years.

The purpose of this analysis is to demonstrate the available capacity of the land. This analysis is one of the primary factors that has led to the significant decrease in the size of the area anticipated earlier in the Sub-Area planning process and previously designated for commercial and industrial development in 2008; it was simply more land than necessary to support the anticipated and projected development needs.

Secondary Growth Area- Lincoln Street

The secondary growth area to the southwest of the Lincoln Street and M-231 intersection is agricultural and residential. Public sewer is not available or planned. Due to its proximity to major road infrastructure and the intersection, it is appropriate for a limited amount of neighborhood-scale services and retail as well as a managed amount of commercial growth that is compatible with the surrounding area. The secondary growth area acknowledges the existing agricultural and residential land use and prioritizes the limited scale of controlled commercial growth.

Neighborhood business areas are designated for smaller scale retail and service establishments intended to serve the needs of nearby residential neighborhoods and accommodate a limited amount of travelers. Because of the low/medium suitability score in addition to the factors listed earlier, the amount of commercial development recommended is limited at this location and is given a “secondary” designation.



Planning the boundary of the secondary growth area also relied on an existing land use and build-out analysis. Currently, the entire secondary growth area (5 acres) is undeveloped. Using a lower estimate of 5,000 square feet per acre based on the rural level of uses and intensity, the secondary growth area could experience up to 25,000 square feet of commercial development.

Understanding the rural and residential nature of this area, but acknowledging the 250% increase daily trips on Lincoln Street by 2036, it is anticipated that there will be a demand for commercial use, although it will be significantly restricted based on the lower overall development suitability scoring. While there are a number of possible land use combinations, the secondary growth area could potentially accommodate as many as five or six business establishments within the constraints of this growth area, such as restaurants, small retail stores, offices and one service station.

Rural

The rural areas outside of the primary and secondary growth areas will be preserved at a relatively low intensity rural character of development, such as low-density residential development, agriculture, and agriculturally-related businesses, along with a limited commercial and industrial zoned development. Most of this land is served by unpaved and secondary roads.

Because of the low suitability score and factors listed earlier, areas outside of the primary and secondary growth areas should be considered generally rural for the purpose of the Sub-Area Plan. Future development and growth in the rural area is guided by the 2008 Township Master Plan, and any future amendments to the plan, including commercial and industrial lands scattered throughout the Township but outside of the focus areas of this Sub-Area Plan.

UTILITY SERVICE AREAS

The ability to provide utilities affects the development potential of land. Development sites within the primary growth area are not suited for larger scale on-site treatment of sewer wastewater because of poorly drained soils, a high groundwater table and the higher potential for environmental contamination. While sewer system extensions are recommended for primary growth areas, Township officials recognize the potential conflict between sewer service in the primary growth area and pressure to further extend sewer lines into valued agricultural and rural areas. Only utility extensions to locations best suited for development and consistent with the managed growth intent of the growth boundary should be supported. Therefore, the primary growth area, which is also the utility service area, shall mark the separation between rural and commercial/industrial areas.

Sewer extensions from adjacent townships should only be sized to accommodate the primary growth area in addition to a reasonable amount of extra capacity, should boundaries be re-evaluated in the future. Additionally, decisions concerning sewer options should consider cost, distance, capacity and land use. There are three potential options to provide sewer to the primary growth area, each with various capacities to serve future development:

- West Central Ottawa County Wastewater Treatment Plant.
- Grand Haven-Spring Lake.
- Allendale Township.

Acknowledging that on-site treatment is not the desired long-term solution to sewer water treatment, when approving Special Land Uses (SLUs) within the Primary Growth Area under the future overlay

district requirements, landowners shall agree to a Special Assessment Agreement. This agreement will be a precursor to a future special assessment district that will fund construction of the sewer system, as sewer infrastructure may not be feasible or cost-effective prior to a critical mass of development. As properties develop and construct on-site treatment facilities, systems shall be built to be expandable and ultimately convertible to connect to a public system.

RE-EVALUATION

The Michigan Planning Enabling Act requires that the Master Plan be reviewed at least every five years to determine if the plan remains relevant or is in need of revision. Over time, conditions inevitably change and a reevaluation of goals and accomplishments is needed. While the Planning Act does not provide specific guidance for the five-year plan review, the following criteria shall be used when considering amendments to the growth boundaries, land uses, and applicable land use policies within each growth area, or the combinations of these factors. Considerations during re-evaluation include, but are not limited to the following factors:

- Amount and capacity of undeveloped land remaining within the growth boundary, which should be used to satisfy the demand for development prior to expanding the boundary (only considered when 75% of the area within a growth boundary is developed).
- Projected population growth within the Township and demand for additional land areas for commercial or industrial development.
- Present and planned sewer capacity.
- The capacity and condition of the road system.
- The ability of the Township, County and other public agencies to provide necessary services to the new growth areas and the additional resulting population.
- Community surveys and input.
- Any other relevant criteria.

The Sub-Area Plan considers land use and infrastructure issues and projects 20 years into the future. The intent of establishing growth areas is to ensure that there is sufficient land capacity to accommodate growth within the 20-year timeframe, although growth within these target areas must occur incrementally and develop under sound planning practices. While the growth boundary is delineated on the future land use maps within this Sub-Area Plan (Maps 2-3 and 5-6), simple expansion of the boundary is not the default solution when build-out reaches a designated proportion (75%). If a five-year review of the Sub-Area Plan and the existing conditions within and around the growth areas indicates that the boundaries do not have sufficient capacity to accommodate forecasted growth, the Township should first assess strategies to enhance the efficiency of land use within the boundaries.

When considering a comprehensive approach to accommodation of forecasted growth, the Township may also consider:

- Amending zoning regulations to allow denser development, such as lessening building setbacks or increasing height.
- Assessing innovative stormwater management strategies to lessen the acreage necessary for retention while maintaining water quality and increasing development capacity.



- Providing incentives to encourage the redevelopment of abandoned or underutilized development sites.
- Implementing other strategies to maximize use of land to accommodate job growth and to provide goods and services to an increasing permanent and visiting population.

If these strategies prove to be effective and sustainable approaches to accommodate growth, no expansion of boundary lines will be appropriate. If there remains a need for additional capacity within the boundary to meet the forecast growth, boundaries may be expanded. However, this shall only occur after a full assessment and possibly only after implementation of the abovementioned strategies.

FUTURE LAND USE CATEGORIES

The following land use categories are proposed within the respective growth areas and described more fully below:

Primary Growth and Rural Areas- Map 5

- Highway Commercial
- Community Commercial
- Industrial
- Agricultural

Secondary Growth Area- Map 6

- Neighborhood Business



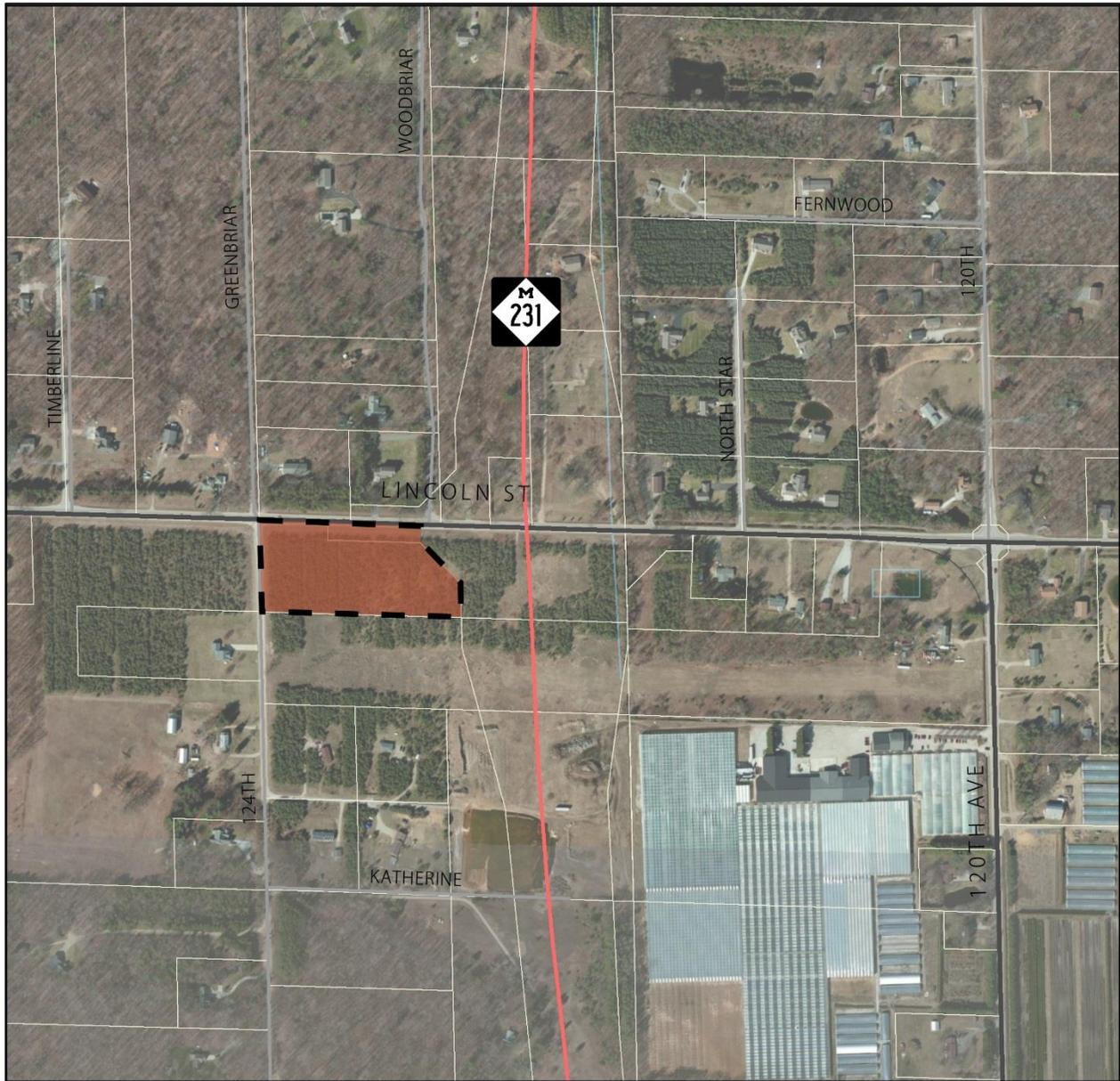
Map 5
 Future Land Use
 Primary Growth and Rural Areas



LEGEND

- Future M-231
- Community Commercial
- Highway Commercial
- Industrial
- Agricultural
- Primary Growth Area Boundary
- Driveway Alignment
- Internal Service Drives





Map 6 Future Land Use Secondary Growth Area



- LEGEND**
-  Future M-231
 -  Neighborhood Business
 -  Secondary Growth Area Boundary



Highway Commercial

Highway Commercial areas are intended to allow attractive business uses concentrated along the M-45 frontage. However, these uses should be designed to prevent monotonous commercial strip patterns and frequent driveways.

This type of development should be focused to the east of M-231, along Lake Michigan Drive. Buildings should be designed in clusters rather than in-line and be attractively landscaped to soften their visual impact and create a defined sense of arrival along the street edge. Buildings should be closer to the street and more limited in size and scale than structures in the Community Commercial area. Although thoughtful front yard landscaping is recommended, site design should maintain visibility to attract passing traffic. Access should be provided via interior roads and shared parking facilities. No individual driveways should be permitted along M-45.

In order to maintain the unique and historic rural feel, design standards should be incorporated into the zoning ordinance, providing a framework to: create pedestrian and vehicular connectivity between businesses, consolidate roadway access, shift parking areas so they do not detract from buildings and site design, and encourage quality architecture.

Attractive landscaping along Lake Michigan Drive should enhance the appearance of the corridor and the primary growth area. Harmonious design through coordination of architectural styles, landscaping, ornamental lighting, pedestrian circulation and vehicular access should be promoted. Distinct and prominent architectural features of enhanced character should reflect the importance of the site's location to create a positive visual landmark for the primary growth area.



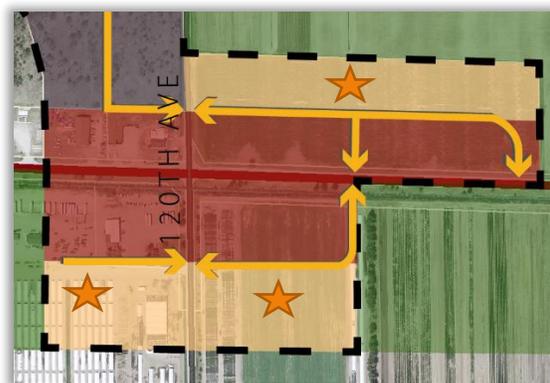


Highway Commercial	
Uses	Buildings
<ul style="list-style-type: none"> ▪ Fast food restaurant or sit-down restaurant. ▪ Service station and convenience store. ▪ Smaller-scale retail. ▪ Professional offices and banks. ▪ Pharmacy. ▪ Public and civic use. ▪ Other similar uses. 	<ul style="list-style-type: none"> ▪ Building sizes limited by square footage and should not exceed 10,000 square feet. ▪ Multi-tenant commercial facades longer than 25 feet should be designed so their mass appears to be divided into smaller elements by indentations, different building materials, architectural treatments, etc. ▪ Buildings should be no more than two stories, within the height limits defined in the Zoning Ordinance.
Site	
<ul style="list-style-type: none"> ▪ Incorporated sidewalks internally and along rights-of-way. ▪ Parking lots should be located in side or rear yards to minimize the dominance of automobiles and make the site more pedestrian friendly. ▪ Transition of building height, building sizes, buffer widths, setbacks, and use. ▪ Septic systems and wells transitioning to package wastewater systems and regional water and sewer service. ▪ A Special Assessment Agreement will require developments to eventually upgrade and connect to a regional water & sewer system. ▪ Buildings should be located close to the roadway, and consolidated or clustered instead of “strip development” style. ▪ To the extent practicable, outparcels and their buildings shall be configured and located to define street edges, development entry points, and spaces for gathering between buildings. ▪ Individual driveways should be limited. Either shared drives or internal access roads should be used to access these properties. ▪ Outparcel buildings located on lots at street corners shall be located and configured to define the corner through a combination of: <ol style="list-style-type: none"> a. Locating the building as close to the right-of-way as is practicable; b. Limiting surface parking between the building and the streets; c. Providing a public gathering space adjacent to the corner; and d. Distinctive roof form or other pedestrian features such as porches, canopies, or arcades. 	

Community Commercial

Land uses within this category include higher intensity commercial uses that serve the shopping needs of the entire community and the traveling public. Unlike Neighborhood Commercial, which caters to nearby residents and local traffic at a limited scale, Community Commercial areas serve a broader market. This market area includes the Township as a whole and bypass traffic.

Typical Community Commercial developments include uses that rely on vehicular access, good visibility and higher traffic volumes such as those



expected from the M-231 construction. Potential land uses in this category could include home improvement stores, sit-down restaurants, grocery stores, junior department stores and associated retail uses.

The location of this land use category is focused near M-231 and M-45. Development should occur within a planned, integrated commercial setting. Site design for these Community Commercial uses should convey high quality architectural and landscape design. Parking areas and access points should promote safe and efficient circulation throughout the site. While these areas are designed to be accessible primarily by automobile, the interior of the site should be kept to a walkable scale. In order to maintain the unique traditional rural feel the following design guidelines should be followed to create a cohesive, accessible and attractive commercial concentration that serves the needs of the public and enhances the image of the rural community in the primary growth area.



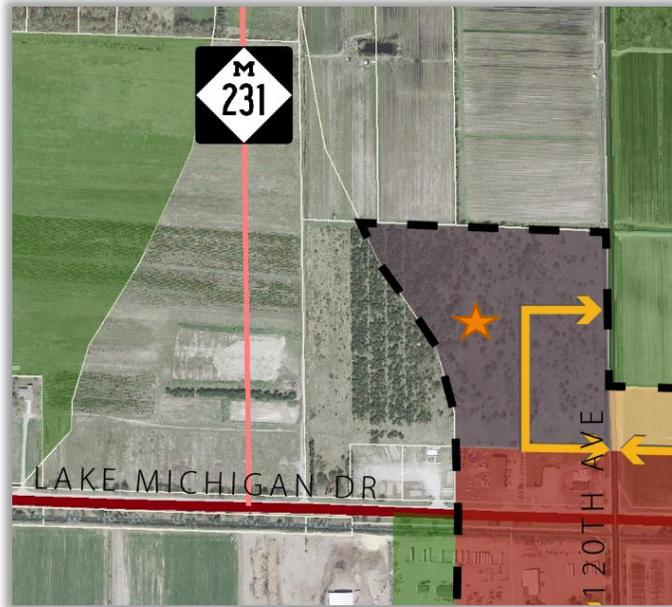


Community Commercial	
Uses	Buildings
<ul style="list-style-type: none"> ▪ General commercial and retail. ▪ Sit down restaurants. ▪ Accommodations, hospitality, entertainment. ▪ Professional offices and banks. ▪ Mid-sized grocery stores. ▪ Residential on second stories. ▪ Hardware or lawn care supply. ▪ Nursery or landscape supply. ▪ Lumberyard or building supply. 	<ul style="list-style-type: none"> ▪ Multi-tenant commercial facades longer than 25 feet should be designed so that their mass appears to be divided into smaller elements with building articulation, architectural elements, change of color and materials, etc. ▪ No more than two wall materials should be used (not including the foundation material or trim work) ▪ Separations between materials should be primarily horizontal. Heavier materials should always be below lighter materials. ▪ Stone, whether natural or dressed, should only be used as a secondary or accent material. ▪ Buildings should be no more than two stories, within the height limits defined in the Zoning Ordinance. ▪ Buildings should be no more than 40,000 square feet.
Site	
<ul style="list-style-type: none"> ▪ The main position of the building should always be oriented toward the main frontage street. ▪ Septic systems and wells transitioning to package wastewater systems and regional water and sewer service. ▪ A Special Assessment Agreement will require developments to eventually upgrade and connect to a regional water & sewer system. ▪ Landscape parking areas. ▪ Sufficient exterior site buffering to soften visual impact. ▪ Incorporation of public spaces and open space. ▪ Shared access or interior roadways, no individual driveways should connect directly to M-45 or M-231. ▪ Loading docks, overhead doors, and other service entries may not be located on street-facing facades. ▪ Development composed of multiple buildings totaling 20,000 gross square feet or more shall be configured in one or more of the following ways: <ul style="list-style-type: none"> ▪ Break up the site into a series of smaller “blocks” defined by on-site streets, pedestrian walkways, or other circulation routes. ▪ Frame the corner of an adjacent street intersection or entry point to the development; ▪ Frame and enclose parking areas, public spaces, or other site amenities on at least three sides; or ▪ Frame and enclose outdoor dining or gathering spaces for pedestrians between buildings. 	

Industrial

Light industrial centers provide opportunities to concentrate employment. Industrial centers support manufacturing and production uses, including warehousing, light manufacturing, assembly operations and “heavier” commercial uses (e.g., major vehicle repair). Clusters of uses that support or serve one another often locate in the same light industrial center.

An industrial area is proposed to accommodate light industrial development, north of M-45, west of 120th Avenue. This area is in close proximity to major transportation corridors and are generally buffered from surrounding development by transitional uses or landscaped areas that shield the view of structures, loading docks, or outdoor storage from adjacent properties. In keeping with the concept of the anticipated commercial development in this area, the industrial facilities should adhere to certain architectural standards to ensure their compatibility with the commercial uses and reflect the standards of quality desired for the Township, in general.



Industrial Building



Industrial	
Uses	Buildings
<ul style="list-style-type: none"> ▪ Light manufacturing and assembly. ▪ Processing facilities. ▪ Laboratory and research. ▪ Wholesale and warehouse. ▪ Landscape supply. ▪ Automotive or vehicle repair, rental and service. ▪ Contractor's offices. ▪ Self-storage facilities. ▪ Artisan / craft product. ▪ Furniture and fixtures manufacturing. ▪ Food preparation and packaging. 	<ul style="list-style-type: none"> ▪ Buildings should be limited to one and a half stories within the height limits defined in the Zoning Ordinance. ▪ Buildings should be limited to 50,000 square feet. ▪ Building material standards should be adopted.
Site	
<ul style="list-style-type: none"> ▪ Limit outdoor activities or mitigate impact through site design. All manufacturing, processing, and packaging operations shall occur within an enclosed building. ▪ Access should be from a main interior road directly to 120th Avenue rather than individual driveways or connectivity to M-45. ▪ Landscaping and buffering requirements should be adopted. ▪ Septic systems and wells transitioning to package wastewater systems and regional water and sewer service. ▪ A Special Assessment Agreement will require developments to eventually upgrade and connect to a regional water & sewer system. ▪ The site shall be designed to ensure proper functioning of the site as related to vehicle stacking, circulation, and turning movements. ▪ Activities shall not create noise, vibration, odor, fumes, or electrical or communications interference that can be detected by the normal senses off the premises. 	

Neighborhood Business

This designation promotes limited neighborhood-scale development near the new Lincoln Street/M-231 intersection. Uses here should present high quality architecture and design, rather than a typical highway interchange where gas stations and fast food establishments are built piecemeal with little consideration for aesthetics. The primary intent of the Neighborhood Business designation is to provide accessible convenience services without diminishing the vitality of existing and future adjacent neighborhoods. A secondary intent is to maintain a standard of quality design for new buildings that reflects the character of the rural community.



This proposed designation is located to the southwest of M-231 and Lincoln Street. The proximity to existing neighborhoods on three sides requires that operations be low-intensity, unobtrusive, and at a scale and design compatible with the surrounding residential development. The design intent of the

Neighborhood Business is to effectively transition between residential and non-residential uses and include safe and convenient pedestrian and bicycle access for nearby residents.

This category includes a limited scale of retail and service establishments whose primary market is residents and employees generally within a one or two mile radius. Only limited services should be available for motorists passing through the Township, as a wider range of goods and services are accommodated by the more intense commercial categories in the Primary Growth Area at M-45 and M-231.

Neighborhood business activities should be conveniently located in relation to neighborhoods. Ideally, connectivity should be promoted to allow for walking or bicycling for those that do not wish to drive. In order to maintain the traditional rural feel, this designation includes design guidelines that provide a framework to encourage walkability, control roadway access, minimize parking within the front yard, and define architectural expectations.



Country Store Concept



Example Roof



Use of Materials



Building Set into Landscape



Neighborhood Business	
Uses	
<ul style="list-style-type: none"> ▪ Site-down restaurant, without drive-through service. ▪ Café or coffee shop. ▪ Service station with limited amount of pumps (4) and convenience store (no vehicle repair). ▪ Small-scale (less than 5,000 square feet) community-serving retail. ▪ Professional offices. ▪ Personal services. ▪ Places of worship. ▪ Farmers market. ▪ Public/civic space 	
Site	Buildings
<ul style="list-style-type: none"> ▪ Storefronts should be oriented to address and enhance public areas and pedestrian pathways. ▪ The use of shared parking entrances and common access roads should be encouraged. ▪ Building faces should be parallel to the street with major roof ridges either parallel or perpendicular to the street to be consistent with established patterns. ▪ Civic buildings and public gathering places should be provided as locations that reinforce community identity. ▪ Buildings should be placed between Lincoln Street and associated parking areas. ▪ Parking should be in the rear and/or along the sides of buildings. ▪ Front setbacks should be minimal to bring uses closer to the street, reinforcing the neighborhood scale. ▪ Design standards should be established to promote walkability, landscaping, pedestrian-scale building siting and massing, and outdoor dining/gathering. ▪ The use of street level porches should be encouraged to maintain the alignment of facades and to emphasize entrances; aid in weather protection and complement the character of the neighborhood. They can also enhance the public realm with outdoor seating and can cover the walkway. 	<ul style="list-style-type: none"> ▪ Traditionally, country stores and retail are barn like structures one to one and a half stories, within the height limit defined in the Zoning Ordinance, with gambrel or gable end roofs, and a porch or awning. Columns that support the roof are simply square wood or round steel posts. Entries are single or double doors with window in the doors. Windows are often ganged together or are oversized on front facades. ▪ Architectural design standards should be adopted to support rural character. Franchise or corporate architecture should not be permitted. ▪ All street level facades should be designed to stimulate and enhance the public street scene. To encourage pedestrian activity storefronts should be designed with doorways that face the main pedestrian pathway. ▪ Architectural form should retain and strengthen the character of traditional country buildings. ▪ The color, height, materials, and façade treatment of new development should not dramatically contrast with the predominant style of adjacent buildings. ▪ Acceptable development in a residential area should reflect the character of surrounding architecture in scale, relation to the street, roof pitch, etc. Illustrations are shown on the previous page. ▪ Individual uses should be limited to no more than 5,000 square feet and buildings containing more than one use should be no more than 10,000 SF.

Agricultural

This category includes areas where soil conditions are well suited for agricultural use, shown in green below and on Maps 2 and 5. Residential uses that are not incidental to an agricultural use of land should be discouraged, in order to protect and preserve the area for continued agricultural use.

These areas were previously classified as Industrial and Commercial in the 2008 Master Plan. As the primary growth area is more refined and reduced than the areas previously planned for Industrial and Commercial in 2008, these areas outside of the primary growth areas have been reclassified as Agricultural.





4 ZONING AND SITE DEVELOPMENT

DESIGN ELEMENTS AND CIVIC SPACE

Community amenities such as patios, seating areas, water features, artwork or sculpture, clock towers, pedestrian plazas with park benches or other features located adjacent to the primary entrance to buildings are highly encouraged.

BICYCLE AND PEDESTRIAN ACCOMMODATION

According to MDOT's projections, current traffic volumes can, in most cases, be expected to increase significantly as a result of the M-231 bypass. For this reason, strict land use control and adherence to the design recommendations described in the preceding pages will be essential. However, another element of planning and design that should not be overlooked is non-motorized access. To the extent non-motorized transportation can be incorporated into development designs, cyclists and pedestrians will be more likely to travel to these areas and not add to the average daily traffic counts. Additionally, as developments incorporate connections between parcels and businesses, there will be less need to travel by motor vehicle between attractions that are within reasonable walking distance - a "park once" principle.

Parking Lot Pathway



Parking lot islands that incorporate pedestrian access to businesses may be appropriate for larger lots or high traffic sites, such as the image shown on this page. Internal pedestrian walkways should be provided for persons to access the building(s) from parking areas. Walkways should be designed to separate people from interior traffic as much as possible. Vehicle drive aisles or parking spaces should not be used for this purpose. Crosswalks should be distinguished from the parking and driving areas by use of pavers, bricks, raised elevation or scored concrete and sidewalks should be incorporated along rights-of-way.

BUILDINGS

No more than two wall materials should be used (not including the foundation material or trim work). Separations between materials should be primarily horizontal. Heavier materials should always be below lighter materials. Stone, whether natural or dressed, should only be used as a secondary or accent material. Architectural-grade shingles or standing-seam metal roofs are preferred for visible roof finishes. Flat roofs should not be permitted.

Preferred color schemes should relate to naturally occurring materials. Designers should avoid using colors that are disharmonious with other colors used on adjacent buildings. Contrasting colors that

accent architectural details are encouraged but the use of silver chrome or shiny metallic-looking colors should be discouraged overall and should be prohibited in Neighborhood Business locations. Building heights should be in scale with the established character of the area. A maximum of two stories is recommended for the Community and Highway Commercial areas and one and-a-half stories in the Neighborhood Business area, within the height limits defined in the Zoning Ordinance.

SIGNS

For the purposes of the Sub-Area Plan, signage is any form of lettering or graphic that is visible to pedestrians on public walkways or in any way produces a visual impact on the streetscape. In general, signs should relate to other building elements in placement, proportion, and size. Materials, style, and color should complement the building façade. Signs should be of a traditional and rural design that adds interest to the business and the streetscape but is consistent with the character of the surrounding, predominantly rural, area. Internally illuminated signs should not be permitted. Franchise and chain stores should be expected to adapt their standard graphics to meet these guidelines and signs permanently or temporarily affixed to glass should not be permitted, unless required by law.

Sign design is of particular importance in the Neighborhood Business area. Three types of signage are appropriate: flush-mounted, hanging, and ground-mounted signs. Signs should be lit externally only. Internally and LED sign illumination is not appropriate for this area. The light used to illuminate signs should be down-directed and contained within the limits of the sign and not spill over to other areas. Neon features, indoor or outdoor, are not compatible with this area.

Wall Signs: Flush-mounted signboards or individual letters placed on the building façade.

Hanging signs: Signs hung from eaves, soffits, overhangs, or projecting from a wall in such a way as to be mounted perpendicular to the building façade.

Ground-mounted: Signs mounted on posts, hanging from a crossbar-post or arm, are the only freestanding ground-mounted signs recommended.



Rural Signage

ACCESS MANAGEMENT

Access management strategies involve zoning tools that reduce traffic conflict points, preserve capacity and improve safety along major roadways. Access management standards regulate the number, spacing and design of driveways and promote the use of shared access systems where practical.

Access management is especially important along Lincoln Street, west of M-231, and generally along Lake Michigan Drive. Both of these corridors will experience significant increases in traffic. Implementation of sound access management in Township ordinances and incorporation of site plan review standards will ensure a balance between preserving the traffic-carrying function of these major roads and providing convenient access to abutting land uses.

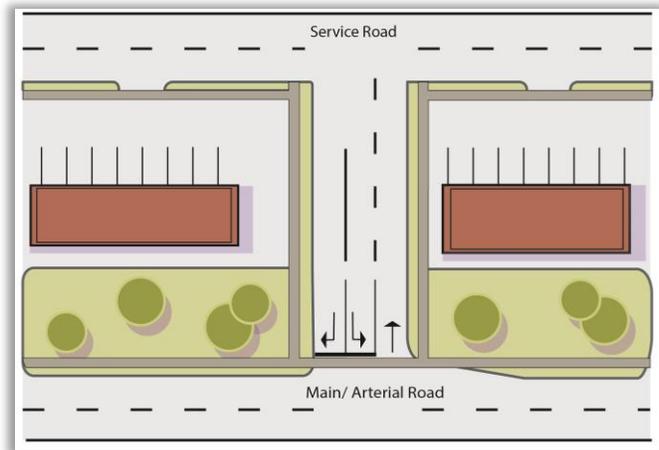
Because the primary and secondary growth areas are served by county and state roads, close coordination among Township officials, the respective road agencies and potential developers is essential.

Primary Growth Area

The following guidance should be considered during cooperative planning processes in the Primary Growth Area.

- Unobstructed sight distances should be maintained on all approaches at each intersection. At intersections and driveways, a driver should have sufficient sight distance to make a safe departure through an intersection. The intersection design should provide adequate sight distance for all vehicular maneuvers required upon departure from a stopped position.
- The number of access points should be consolidated to the maximum extent practical. Individual driveway access directly to M-45 should be avoided. Driveways and access roads should be sufficiently separated, following MDOT's minimum spacing standards. Access points should be directly aligned with those across M-45 or sufficient offset to prevent left-turn conflicts.

- Connectivity should be required to link out-parcels via frontage roads, shared parking lots or drive aisles. Frontage or service road access may be appropriate for multiple parcels. A network of pedestrian pathways should also be constructed to promote walkability and a “park once” strategy for shopping.
- The area should be developed with an interconnected grid street pattern.
- Connectivity should be required with existing roadways whenever possible. Industrial access points should be sufficiently separated from retail traffic.



Service Road and Driveway

Secondary Growth Area

The following guidance should be considered during cooperative development planning processes in the Secondary Growth Area.

- 124th Avenue should serve as a primary access point and direct access to Lincoln Street should be limited.
- Lower speeds and traffic calming efforts should be encouraged.
- Driveways should be limited and shared access required by establishment of cross-access easements and shared driveway agreements between adjacent parcels.
- Block sizes should be created for safe pedestrian use.
- Connections should always be sought with other existing streets when possible.

Zoning Recommendations for Access

Adoption of access management standards in the zoning ordinance can ensure efficient traffic flow, preserve the roadway’s capacity, and reduce crashes while maintaining reasonable access to land uses. This can be accomplished through careful placement of access points to reduce conflicts with traffic using other access points and traffic flowing through intersections. Access management usually involves zoning tools to space access points or restrict certain turning movements. The zoning ordinance could require:

- Driveway location, to provide adequate sight distance and ensure favorable driveway grades.
- Sufficient driveway separation from intersections to minimize impact to intersection operations.
- Commercial driveway alignment and offset requirements to reduce left-turn conflicts.
- Shared access when spacing requirement cannot be met (connections between land uses, shared driveways, frontage roads or rear service drives).
- Geometric design of driveway access.
- Adequate driveway depth to accommodate stacking.
- Increased minimum lot frontage along Lincoln Street, 120th Avenue and M-45 for new subdivisions and land divisions to ensure lots are wide enough to meet spacing requirements, unless internal connectivity strategies are incorporated.



- Traffic generation thresholds that require larger developments to have traffic impact studies prepared and submitted by qualified professionals.
- Formalization of a review process for major development along 120th Avenue or M-45 to require a coordinated review by the Township and MDOT or the Ottawa County Road Commission. The intent of the process is to ensure Township review of the site plan design and the road agency's access permit process is coordinated to implement the recommendations of Sub-Area Plan and local access management standards.

LIGHTING

Site lighting is an additional factor, and one of the most obvious, that may cause incompatibility between land uses. Outdoor lighting should be unobtrusive. The negative effects of glare on neighboring properties and abutting streets should be controlled by regulating the height, location and intensity of lights and dimming lighting levels after business hours.

Lighting should provide security and visual interest but not spill over onto adjacent properties. On-site lighting should be located to avoid harsh glares that distract drivers or impact adjacent property owners. Light fixtures must be shielded to prevent glare. Except where needed to illuminate driveways, lighting levels between 0.5 and 1.0 foot candles at the property line are sufficient. Additionally, the Zoning Ordinance should include minimum lighting for public safety within parking areas and walkways, maximum light levels, light fixture height and type.

Standards that are more sensitive to the rural community character will contribute to the goals of the plan. Direct cut-off and "dark sky" compliant lighting will prevent excessive brightness that causes visual discomfort and glare, urban sky glow and light trespass.

Low-level building mounted light fixtures may be used to highlight architectural features, create interest, and provide safety. The use of selective accent lighting should be encouraged; however, creating bands of light or lighting entire facades or parking areas should not be permitted. Light fixtures that are visible to pedestrians should be aesthetically pleasing and of a style that is appropriate to the building architecture. Traditional style fixtures are preferred and lights should not shine outward toward adjoining properties or public areas.

LANDSCAPING

A variety of landscaping practices can help to preserve the rural character of the Township and promote natural qualities and design elements in commercial developments, consistent with the goals of this Sub-Area Plan. Practices such as parking lot canopy trees, parking lot screening, front yard landscaping and buffers should be employed to improve both the aesthetics of the site and its functionality.

Parking Lot Landscaping: Expansive paved parking areas are typical of urban developments. Increased and uninterrupted pavement increases stormwater runoff, increases "heat island" effects and creates a negative visual impact. To provide areas for infiltration, increase shade and to soften the visual appearance of large paved areas, new parking lots in the Township should include landscaping. Canopy trees within internal parking lot islands or peninsulas will lessen impacts of larger paved areas and encourage creative parking area site design. At least one canopy tree placed in a landscaped island or peninsula for every 12 parking spaces should be required.

Parking Lot Screening: Although this plan recommends parking areas to the side or rear of developments, screening should be incorporated to generally “soften” the look of parked cars. Low-level fences, brick walls or thoughtfully placed evergreen shrubs can create a more aesthetically pleasing development and prevent the glare of bright headlights from shining directly onto adjacent properties or abutting streets.

Front Yard Landscaping: In many cases, front yard landscaping is normally intended to screen buildings and parking lots that front the roadways. This plan encourages attractive and quality architecture that is harmonious with the rural community and recommends that parking lots not be located in the front yard. Therefore, structures should be celebrated instead of blocked by vegetation. Front yard landscaping, however, is still an important element of site development and complements the architecture and site design. An appropriate amount of canopy, evergreen and ornamental trees in addition to lower shrubbery should be incorporated within the front yard and regulations should allow for creativity and flexibility based on final design and site characteristics.

Buffers: The perimeter of commercial and industrial developments should be adequately buffered when abutting non-commercial/industrial land. While this plan encourages innovative and compatible design, buffers and screening are a final measure to protect the privacy of residents and lessen the visual and audible impact of non-residential development.

OVERLAY DISTRICTS

Overlay zoning districts are often used to add or modify zoning regulations across several different zoning districts that lie within a specific area such as a highway corridor. An overlay zone is useful when there is a defined public interest in a specific location or locations, such as the primary and secondary growth areas designated in the Sub-Area Plan. For example, to achieve the goals and recommendations of this plan, an overlay district might be employed to add more stringent sign, landscaping, access management and/or building material requirements to the underlying districts that lie within the sub-areas or within a specified distance on either side of M-45 and Lincoln Street.



Parking Lot Landscaping



PLAN REVIEW STANDARDS

Low Impact Development

Low Impact Development (LID) is a natural method of stormwater management with the goal of mimicking a site's pre-settlement hydrology by using design techniques that infiltrate, filter, store, evaporate, and detain runoff close to its source. While site plans must fully conform to the Ottawa County Drain Commissioner standards, stormwater systems should be designed to protect public health, the environment and downstream or neighboring properties. Special attention should be given to proper site surface drainage so the flow of surface waters will not adversely affect adjacent, surrounding or downstream properties or the public storm drainage system. Development should incorporate Low Impact Development best management practices that are appropriate for site conditions to reduce stormwater runoff by slowing it down, spreading it out and soaking it in as much as possible on the site. Only as a last resort, and only if permitted for the project, should storm water be removed from all roofs, canopies and paved areas and carried away in an underground-piped drainage system. Until Township standards and requirements are developed, developers should refer to the Low Impact Development Manual for Michigan: A Design Guide for Implementers and Reviewers, SEMCOG 2008, for detailed information on Low Impact Development and the best management practices.

Site Plan Review

Future development in Robinson Township should be designed in a manner that is harmonious, to the greatest extent possible, with the character of the surrounding area and the community as a whole. Each site must be designed to minimize impacts upon adjacent property and issues of incompatibility. More importantly, the site plan review must ensure that the long-term recommendations of the Sub-Area Plan are implemented in a comprehensive manner, instead of piecemeal. If developers are required to plan for integrated and connected commercial and industrial land uses, the goals of this plan will be achieved.

In addition to more specific or restrictive standards in the Zoning Ordinance, all uses and structures subject to site plan review should comply with a number of general design standards. The following are offered as examples of such standards:

- *Master Plan and Sub-Area Plan.* Proposed uses and development activity shall be substantially consistent with the Robinson Township Master Plan and M-231 Sub-Area Plan.
- *Connectivity.* Pathways for bicycles and pedestrians shall be incorporated throughout the development and along all perimeter streets to ensure connectivity between uses and with adjacent properties.
- *Traffic Circulation.* The number, location, size of access and entry points, and internal vehicular and pedestrian circulation routes shall be designed to promote safe and efficient access to and from the site, and circulation within the site. In reviewing traffic features, the number, spacing, and alignment of existing and proposed access points shall be considered relative to their impact on traffic movement on abutting streets and adjacent properties.
- *Interior Streets.* Public or private streets may be required to be extended to exterior lot lines in order to allow connection to existing or planned streets on adjacent parcels, so as to provide for secondary access, continuity of the circulation system and to reduce traffic and impact to the transportation network.

- *Stormwater.* Stormwater detention and drainage systems shall be designed so the removal of surface waters will not adversely affect neighboring properties or public stormwater drainage systems and shall mimic predevelopment conditions.
- *Landscaping.* The landscape shall be preserved in its natural state, insofar as practicable, by minimizing unnecessary tree and soil removal, and any grade changes shall be in keeping with the general appearance of neighboring developed areas. Provision or preservation of landscaping, buffers, or greenbelts may be required to ensure that the proposed uses will be adequately buffered from one another and from surrounding property.
- *Screening.* Where commercial uses abut residential uses, appropriate screening consisting of attractively designed, opaque fencing or equivalent landscaping shall be provided to shield residential properties from noise, headlights and glare.
- *Lighting.* Lighting shall be designed to minimize glare on adjacent properties and public streets, be downward directed and dark sky compliant. As a condition of plan approval, reduction of lighting during non-business hours may be required.
- *Utility Service.* All utility service shall be underground, unless impractical.
- *Exterior Uses.* Exposed storage areas, machinery, heating and cooling units, service areas, loading areas, utility buildings and structures, and similar accessory areas shall be located to have a minimum negative effect on adjacent properties, and shall be screened, if reasonably necessary, to ensure compatibility with surrounding properties.
- *Emergency Access.* All buildings and structures shall be readily accessible to emergency vehicles.
- *Water and Sewer.* Water and sewer installations shall comply with all township, county and state specifications and requirements.
- *Signs.* Permitted signs shall be located to avoid the creation of distraction and visual clutter.
- *Building Design.* New or substantially remodeled buildings shall be reasonably compatible in appearance with, or shall enhance, the established general character of other buildings in the immediate vicinity.



5 COMMUNITY FACILITIES

GREENWAYS AND OPEN SPACE

The Ottawa County 2011 Parks, Recreation and Open Space Plan presents a conceptual plan for the Grand River Greenway. This concept plan presents a vision that links greenway lands with a hard-surface multi-use trail. The plan describes greenway corridors and their purpose:

Greenway corridors often provide trail systems (e.g., foot, bridle, bicycle, canoe), and may maintain, protect or preserve existing lineal, natural and cultural features such as watercourses (rivers, streams, shorelines), abandoned transportation rights-of way (railroad and highway), utility rights - of - way, and scenic drives. The greenway corridor can function as an entity in itself or more ideally as a connecting link to one or more of the five categories listed above. The major recreational use of greenway corridors is typically oriented towards various trail systems; however, other supporting activities can be included at strategic points along the corridor, e.g., picnicking, camping, etc. Greenway corridors often straddle multiple political jurisdictions and require combined efforts of governmental units at all levels.³

Grand River Greenway Concept Plan



The greenway system goal is to provide a full greenway connection between Ottawa and Kent Counties in three “character” segments, two of which are shown on the inset map above. M-231 is the dividing line between the Urban Greenway Segment and the Rural Greenway Segment outlined by the hatched green lines on the map above. The Urban segment is primarily developed and there is less opportunity for land acquisition. However, the trail system is more established in this western segment. The Rural segment extends from approximately 120th Avenue east to M-45 crossing. This portion of the river is the most rural segment and contains primarily farming and residential land uses. In the plan, the Parks Commission recognized that the Grand River corridor is the largest greenway corridor in Ottawa County and has greatest potential for land acquisition. Ottawa County Parks will seek to expand the greenway through protection of key natural and recreational lands as identified in the greenway concept plan.

Recognizing the importance of this countywide effort, the Township should work cooperatively with the state and local government concerning potential acquisitions of M-231 excess right-of-way and other

³ 2011 Parks, Recreation and Open Space Plan, Page 41.

state-owned properties for passive open space within the greenway segments and consider M-231 an important future north-south connector to the Grand River and the existing and proposed trail segments (Map 7). Considering the width of the M-231 right-of-way and the Department of Transportation's efforts to collaborate on bicycle and pedestrian facilities, the Township should capitalize on any future opportunities for greenway connectivity for residents and visitors within the existing right-of-way. An off-road multi-use pathway within the existing M-231 right-of-way, similar to the facility shown within the M-6 right-of-way in Kent County, could be a desirable and important bicycle and pedestrian corridor.

Off-Road Multi-Use Pathway in M-6 Right-of-Way





Map 7 Potential Parks & Trail Projects Robinson Township



LEGEND

- State-Owned Property
- Future M-231
- County Parks
- Conceptual Trail Route
- State Parks
- Local Parks
- Golf Courses
- Hunting Lands



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6 IMPLEMENTATION

ZONING PLAN

The Michigan Planning Enabling Act requires that a master plan include a “zoning plan” with an “explanation of how the land use categories on the future land use map relate to the districts on the zoning map (MCL 125.3833).” As zoning is the one of the primary Sub-Area Plan implementation tools, this same element is incorporated into the plan. Table 5 summarizes the future land use designations and indicates how they relate to each of the existing zoning districts.

Table 5 Zoning Plan

Future Land Use Category	Zoning District
Neighborhood Business	B-1, Neighborhood Commercial Zoning District. This Zoning District is intended for neighborhood convenience shopping where retail business or service establishments supply commodities or perform services to meet the daily needs of the neighborhood. The intent of this Zoning District is also to encourage the concentration of business uses, to the mutual advantage of both the consumers and merchants, and thereby avoid the encouragement of marginal business throughout the community.
Highway Commercial	B-2, General Business Zoning District. This Zoning District is intended to provide for the construction or continued use of land for general community-wide commercial and service uses and to provide for orderly development and concentration of such uses to satisfy the needs of the overall community. Within this Zoning District, linear or strip commercial development shall be discouraged.
Community Commercial	B-2, General Business Zoning District. This Zoning District is intended to provide for the construction or continued use of land for general community-wide commercial and service uses and to provide for orderly development and concentration of such uses to satisfy the needs of the overall community. Within this Zoning District, linear or strip commercial development shall be discouraged.
Industrial	I-1, Industrial Zoning District. This Zoning District is intended to provide for light industrial uses involving assembly and/or fabrication, the retailing and/or wholesaling of products, and service oriented businesses which cause a minimum of adverse effect beyond the boundaries of the site upon which they are located.
Agricultural	A-1, Agricultural Zoning District. This Zoning District is intended to preserve and protect important farmlands from encroachment by conflicting non-farm uses and to restrict non-farm residential uses from locating in farmland areas where the greatest conflicts might arise. Areas included in this zone have been found to be prime or unique agricultural lands due to crop productivity and/or special soil characteristics. To meet the intent of this zone, uses permitted by right in this zone are those which generally preserve, promote, maintain and enhance agriculture. Non-agricultural uses, structures or activities which create conflicts with or are negatively affected by agriculture are prohibited.
Remainder	See Township Master Plan

IMPLEMENTATION STRATEGY

The Sub-Area Plan is intended to be the foundation for zoning decision-making and should be referenced during any consideration of a development with the study area. The strategy outlined in this section includes the specific tasks that should be completed to implement the recommendations of the plan. The objectives of the plan include both policy and action-oriented items:

- Policy: Protocol to guide decisions and achieve desired outcomes. Description of the intent of the Township regarding land use related issues at interchange areas (M-45 and Lincoln).
- Action: A statement of a specific task or series of tasks that must be accomplished to prepare for development pressures resulting from M-231.

POLICIES

The following general policies should be considered during review of all land development applications

1. Preserve the rural landscape and protect the existing rural community character and atmosphere.
 - a. Land outside of primary and secondary growth areas should be considered rural and subject to the guidance of the 2008 Robinson Township Master Plan.
 - b. Growth area boundaries may be re-evaluated but should only be changed under those circumstances outlined in the Sub-Area Plan.
2. Consolidate and focus future development within planned and prioritized target areas.
 - a. Commercial and Industrial development should not be considered outside of the primary and secondary growth areas unless previously planned and zoned for those purposes.
 - b. Consider zoning map amendments on a case-by-case basis.
3. Prioritize environmental and natural resource protection.
 - a. Zoning map amendments and development reviews should respect natural resources and environmental protection as a priority.
4. Ensure a safe multi-user transportation network, including sidewalks, pathways, crossings and access management through a comprehensive and coordinated development review process.
 - a. Developments shall incorporate non-motorized transportation and safety.
 - b. Partner with MDOT and Ottawa County Road Commission officials to begin cooperative development review processes at initial concept planning.
5. Capitalize on the opportunities for future parks, recreational facilities and trails.
 - a. Acquisition of public or MDOT owned land should be considered on a case-by case basis to meet projected parks and recreation level of service needs.
 - b. Off-road multi-use pathways should remain an option along the new M-231 ROW.



6. Promote harmonious and organized development consistent with adjacent land uses and ensure high quality site and building design that contributes to the character of the community.
 - a. The development concept maps should be used as a guide for growth scenarios.
 - b. Amend the zoning map on a case-by-case basis to ensure consistency with the Sub-Area Plan. Along with other implementation actions, including the overlay districts, the B-1 Zoning district will implement the Neighborhood Business future land use category while the B-2 Zoning District will implement the Highway and Community Commercial categories as underlying base zoning districts.

7. Restrict consideration of sewer infrastructure to planned priority development areas.
 - a. The Township should only support utility improvements in locations best suited for development that respects the managed growth and growth boundary recommendations of this plan.
 - b. Sewer services extension from adjacent townships should only be sized to accommodate the primary growth area.
 - c. When approving Special Land Uses (SLUs) within the Primary Growth Area under the future overlay district requirements, the Township Board will include the execution of a Special Assessment Agreement as a condition of approval.

ACTIONS

While the Township will rely on policies to guide future decision-making, the actions must be implemented to achieve the goals of the Master Plan. Therefore, it is essential to develop a prioritized “work plan” for the next five-year timeframe, identifying responsible parties, timeframes and priorities to ensure that the plan remains a dynamic and “living” document. Prioritization as it relates to timing is presented below:

- Priority 1: Projects are those that should be given an immediate and concentrated effort within six months of adoption.
- Priority 2: Projects necessary to implement the plan, but dependent upon commencement or completion of Priority 1 projects or do not have the same urgency of those projects (7-12 months from adoption).

The following tables include the action plan and implementation strategy for the Sub-Area Plan.

Table 6 Actions- Overlay District Development

Action	Priority and Timeframe
1. Create the Lincoln Street Neighborhood Business Overlay District. The overlay district shall regulate architecture, site design, building size, signs and allow non-commercial use through the Special Land Use Process.	First Priority- 6 months
2. Create the Lake Michigan Drive Commercial Overlay District. The overlay district shall regulate architecture, site design and building design.	First Priority- 6 months

Table 7 Actions- Site Plan Review

Action	Priority and Timeframe
1. Adopt general site development review standards to consider for all Township development, including but not limited to: Master Plan and Sub-Area Plan consistency, connectivity, traffic circulation, interior streets, stormwater, landscaping, screening, lighting, utility service, exterior uses, emergency access, water and sewer, signs and building design.	First Priority- 6 months
2. Adopt specific access management standards and strategies as a subsection of the Lake Michigan Drive Commercial Overlay District.	First Priority- 6 months
3. Adopt LID standards and requirements for all commercial development.	Second Priority- year 1

Table 8 Actions- General Development Requirements

Action	Priority and Timeframe
1. Adopt lighting requirements concerning maximum and minimum lighting levels, fixture height, fixture type and dark sky compliant lighting plans.	Second Priority- year 1
2. Adopt landscaping requirements, including but not limited to: parking lot landscaping, parking lot screening, front yard landscaping and buffers between potentially incompatible uses.	Second Priority- year 1
3. Adopt bicycle and pedestrian requirements for new development.	Second Priority- year 1



7 BACKGROUND INFORMATION

TRAFFIC NETWORK

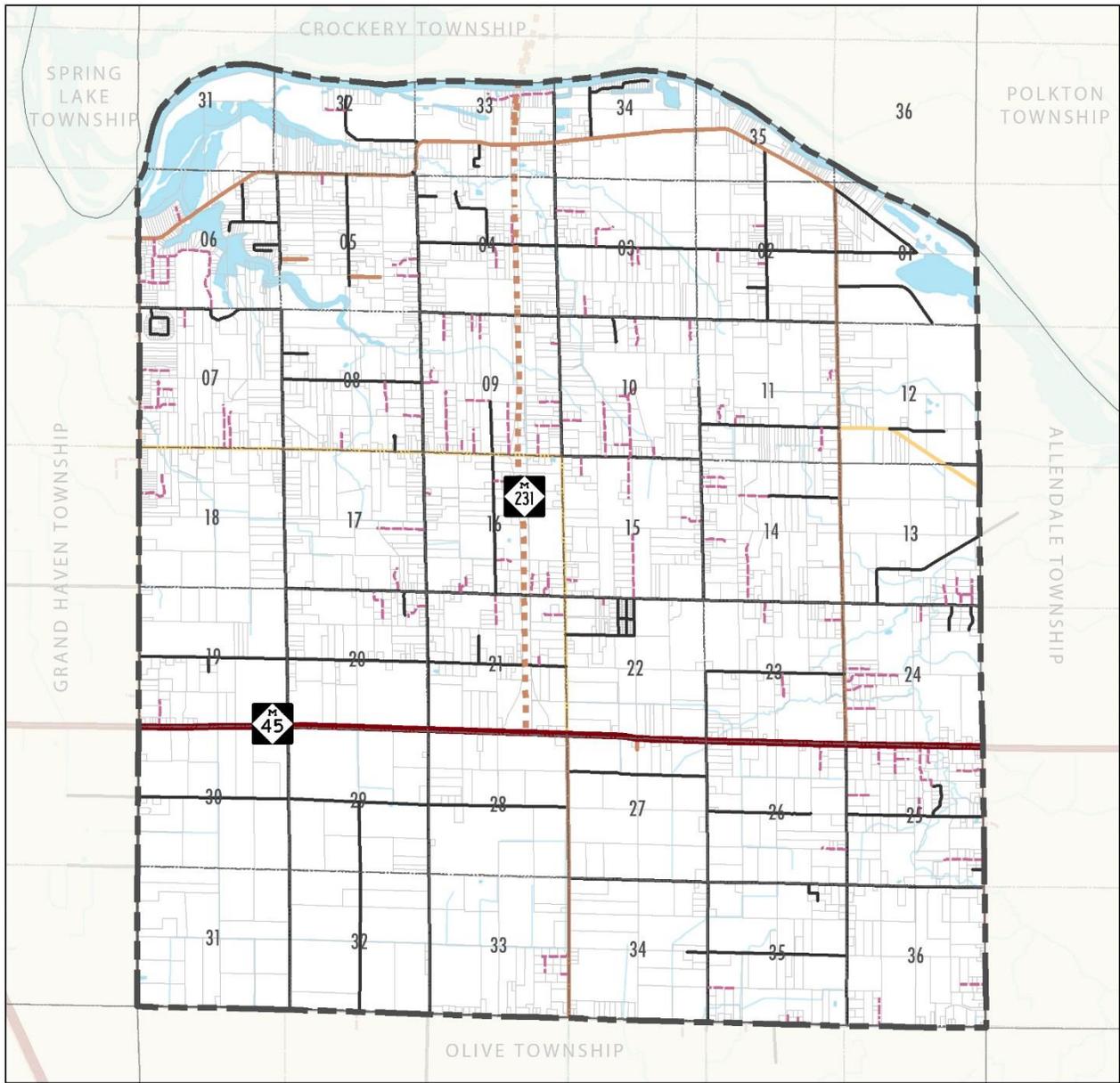
Roadway function, efficiency and safety in Robinson Township can be furthered by defining a roadway classification system and planning and designing these facilities for their specific purpose. A functional system or hierarchy of roads provides for movement of traffic as well as access to specific sites. This hierarchy will range from principal arterials such as Lake Michigan Drive, which primarily serves cross-county movement, to local subdivision streets that provide access to individual homes.

This system defines the roles of each street, in terms of operational requirements; which is translated into planning, management and physical design features.

Principal Arterial: The Lake Michigan Drive corridor is a major roadway through the heart of Ottawa County and serves a vital function toward connecting Robinson Township with developed areas in Grand Haven Township, Allendale Township and further east to Grand Rapids and Kent County in general. Scattered commercial development has occurred over the years, mainly resulting from the higher traffic counts and easy access.

Collectors: The collectors serve to funnel traffic from local subdivision streets in residential neighborhoods to the arterials. Collectors also afford access to abutting properties. Many individual subdivisions contain one or more collector streets that carry traffic from the local streets and connect with adjacent neighborhoods.

Local and Private Streets: These interior streets provide access to abutting property and homes. These roadways are generally short and discontinuous and only provide connection to one or two collector streets.



Map 8
Transportation Facilities
Robinson Township

Data sources: Ottawa County GIS; MCGI

LEGEND

- Future M-231
- Principal Arterial
- Major Collector
- Minor Collector
- Local
- Private





DEMOGRAPHIC TRENDS

During the 10-year period of the U.S. Decennial Census, Robinson Township experienced a steady increase in population, with an increase of approximately nine percent (9%) in total population during this timeframe. The 2010 count was 6,084 residents and 2012 population was estimated to be 6,103.⁴

The number of housing units increased faster than total population, an increase of almost 18 percent during the same timeframe. Although a slight decrease in proportion from 2000, home occupancy is high in the township, with less than 7 percent of units unoccupied in 2010. Additionally, home ownership is high in Robinson Township - statistics consistently show that the vast majority of occupied units are owner-occupied.

Table 9 Demographics⁵

Category	2000	2010
Population		
	5,588	6,084 (+ 8.9%)
Housing Units		
	1,885	2,217 (+ 17.6%)
Occupied Units		
	1,805	2,065
	95.8%	93.1%
Owner-Occupied		
	1,688	1,931
	93.5%	93.5%

COMMUNITY SURVEY

In an effort to obtain consensus regarding community values important to the Township's future, a community opinion survey was prepared and conducted in 1998 and included in the 2008 Master Plan. Surveys were mailed to each owner of real property in the Township and responses were completed by approximately 337 households. The following are some general findings regarding the community as expressed through that survey:

- Most of the Township residents live north of M-45.
- The residents of Robinson Township were either raised here and have continued to reside here or moved here because they wanted to own their own home and liked the rural setting.
- Regarding the speed of development in the Township, 59% wanted to slow it down, 35% wanted to keep it the same, and only 6% preferred that it be increased.

⁴ U.S. Census Bureau, 2008-2012 American Community Survey

⁵ U.S. Census Bureau, 2000, 2010 Census

- Almost 90% of the respondents felt high density housing is undesirable. They supported low density housing and retaining rural character.
- Most residents felt the following are desirable characteristics of Robinson Township: The quality of drinking water, the river and bayou resources, animals and plant life, accessibility to developed areas, the lack of population, and the limited amount of traffic on the roads.
- Residents wanted more large lot sizes and were strongly not in favor of subdivisions and multiple family dwellings. There was some interest in senior housing. Residents were strongly against a mobile home park and duplex housing.
- Residents indicated interest in the same amount or slightly more neighborhood commercial and professional service establishments. Interest in highway commercial was split, with about equal size groups supporting more and less.
- Residents were not in favor of either light or heavy industrial development.
- The residents preferred more agricultural, recreational, and open unused land.
- The majority of respondents were not in favor of a US-31 bypass going through the Township.
- Most respondents were willing to pay to receive bike paths, to enhance fire and police protection, to purchase land for a Township park, and to preserve agriculture.
- The residents wanted to preserve the natural waterways, wetlands, forests, woodlands, farmlands, and the open spaces of the Township.
- The most frequently offered comments were: high taxes, junk in yards, pave more roads, keep the area as it is, have less development, dislike of pollution of the Grand River, and a liking of the rural area. Some people objected to traffic speed and noise in some areas. Most people liked their neighbors and the Township.

The general sentiment of the Board of Trustees and the Planning Commission is that this survey remains an accurate indicator of the attitudes or perspectives of township residents. The above-reference responses were considered in the Sub-Area Plan planning process, as they were particularly meaningful to the growth and development issues resulting from the M-231 project.

ECONOMY AND MARKET CONDITIONS

While employment figures are dated (2007), data shows a limited economic base. The population figure in 2007 was within the range of 5,500 and 6,000 residents, but the number of paid employees in the Township only ranged between 154 and 271 individuals (Table 10). Data that is more specific is not available at the township-level and is dated. However, it is clear that the township is not a significant employment center and most working residents are employed outside of the Township.

Considering M-45 as a major travel corridor and the current amount of undeveloped commercially zoned land, the market for commercial development appears low at present. However, traffic projections and marketability due to increased trips along M-231, M-45 and 120th suggest that conditions will likely change over the next 20 years.



Table 10 Employment Summary⁶

2007 NAICS Code	Meaning of 2007 NAICS code	Number of Employer Establishments	Number of Paid Employees
44-45	Retail trade	5	16
53	Real estate and rental and leasing	1	0-19
54	Professional, scientific, and technical services	7	9
56	Administrative and support and waste management and remediation services	4	38
62	Health care and social assistance	3	20-99
71	Arts, entertainment, and recreation	4	11
72	Accommodation and food services	5	60
81	Other services (except public administration)	5	0-19

NATURAL RESOURCES

The following natural resource review is included in the 2008 Master Plan.

- **Topography:** The landscape is relatively flat, aside from ravines and stream and river valleys.
- **Watercourses:** The Grand River runs the entire width of the Township westward toward Lake Michigan. Stearns Creek flows into Stearns Bayou, which is located at the northwest part of the Township. Other creeks are Wolf Creek, Bear Creek, Robinson Creek and Bass Creek. All other drains are under the control of the Ottawa County Drain Commission.
- **Wetlands:** The majority of wetlands in the Township are found adjacent to the Grand River, the Township creeks, and drains. There are, however, several scattered areas of shrubs and lowland hardwoods that include wetlands, throughout the Township.
- **Woodlands:** As determined from aerial photographs, there are approximately 8,300 acres of deciduous trees and 2,700 acres of conifers.
- **Mineral Resources:** Deposits of sand and gravel exist in the Township. Commercial mining operations are found on 108th Avenue, 104th Avenue, North Cedar Street and 120th Avenue, north of Fillmore Street. *Note: mining information updated since 2008 Master Plan Adoption.*
- **Soils:** It is apparent that much of the Township is unsuitable for extensive development using septic tanks. With the exception of some lands along the eastern boundary, most of the southern portion of the Township would fall into this classification. Before construction, specific site approval is required from the Ottawa County Health Department. Generally, the areas containing soils with the least limitations are in the northern one third of the Township running parallel to the river and surrounding Stearns Bayou. Although this may tend to somewhat limit the area suitable for development, it also would tend to encourage a more

⁶ 2007 U.S. Economic Census

concentrated development, which would be beneficial, particularly from an economic standpoint, when the need for public services arises.

UTILITIES

According to the 2008 Master Plan, Robinson Township has public water systems serviced from four sources. The main line along the entire length of M-45 and the Fillmore Street line are owned by the City of Grand Rapids. A line also runs north along 96th Avenue from Fillmore Street beyond Pierce Street. The Northwest edge of the Township along 144th Ave to 1/2 mile south of Lincoln Street is supplied with water from the Northwest Ottawa County Water System. There is no public sewer in the Township and all residents are served by private septic systems.

A sewer study was recently prepared by an outside party that examines the feasibility of sewer line extension into the Township and assesses capacity and cost. Additionally a water service plan was commissioned by the Township that addresses system capacities, improvement costs and service area.

Natural gas is supplied to the southeast portion of the Township by Semco Energy along Fillmore Street and 96th Avenue. Energy One provides natural gas throughout the central and northern portions of the Township and natural gas is available in both the Primary and Secondary Growth Areas outlined in this Sub-Area Plan.

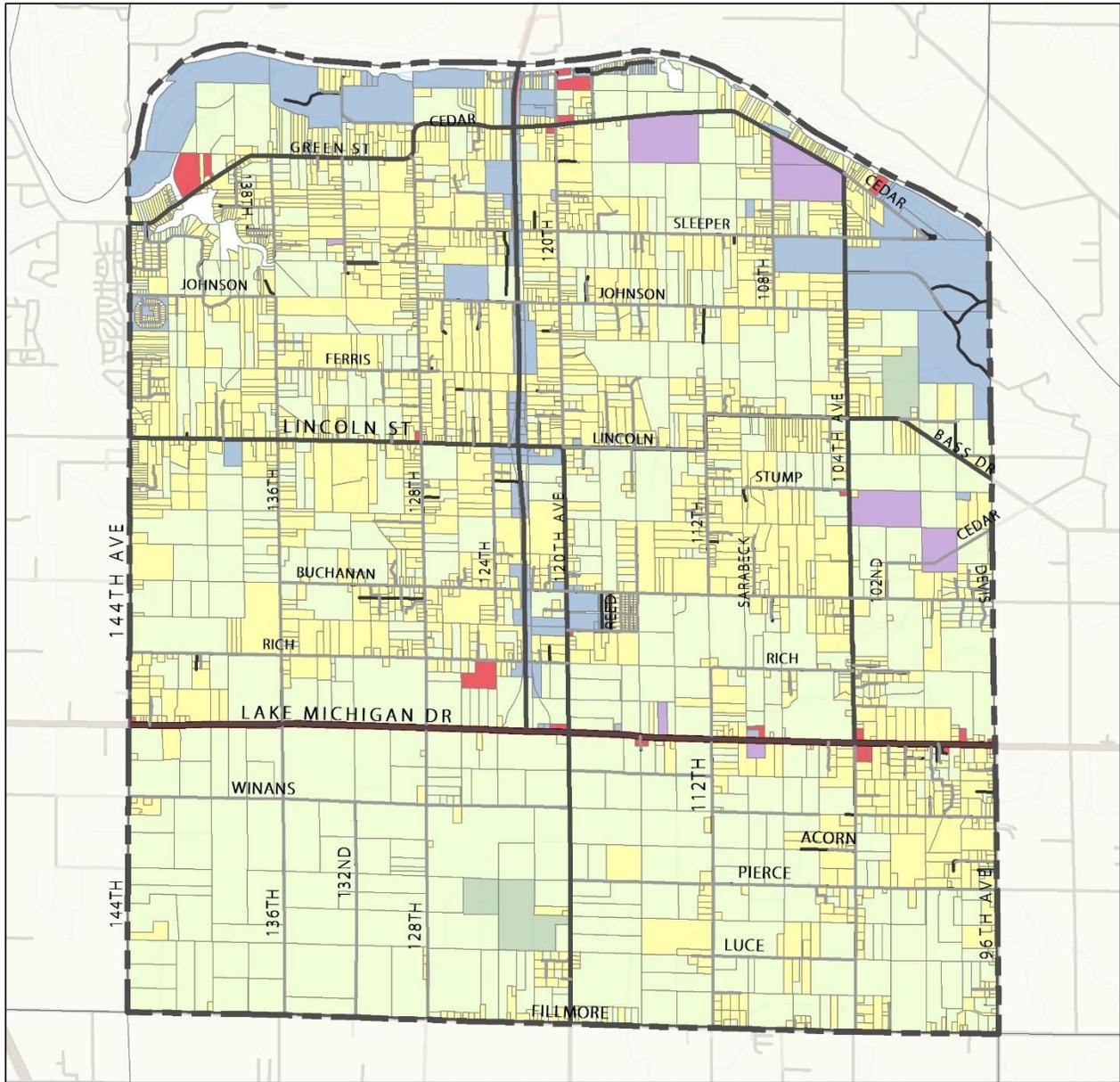
EXISTING LAND USE PATTERNS

The predominant land use in Robinson Township is agriculture, followed by single-family residential use. Residential land uses are generally clustered toward the northern portion of the Township where soils are more suitable for septic systems. There has not been a demand for new commercial development, likely because of the distance from existing sewer lines and the proximity to established and growing commercial areas in Allendale Township and along US-31 in Grand Haven Township.

Commercial: As a rural community on the suburban fringe, there is no central business or shopping district. Nearby business districts in neighboring communities serve retail and commercial needs. There are also no traditional industrial park developments, but commercial and light industrial uses are scattered throughout the community without any specific concentration.

Agricultural: Farming is the dominant land use in township. Most of the farms are nurseries and orchards, with blueberries as the dominant crop.

Residential: There has been moderate demand for new housing developments in the northern portion of the Township. Single-family detached housing is the dominant residential land use. Most homes are on larger lots but there a number of denser land divisions and established neighborhoods.



Map 9
Existing Land Use
Robinson Township



LEGEND

-  Agricultural/Undeveloped
-  Residential
-  Commercial
-  Industrial and Mining
-  Public/Quasi-Public
-  Golf Courses

Data Sources: Ottawa County GIS, MCGI

