

■ MAPLE

■ MILLER

TRAFFIC
AND
CIRCULATION
STUDY

■ NEWPORT

An Amendment to the
City of Ann Arbor
West Area Plan

November 1995

Adopted by Ann Arbor City Planning Commission on October 3, 1995

Adopted by Ann Arbor City Council on November 9, 1995

Miller/Maple/Newport Traffic & Circulation Study

City of Ann Arbor Planning Department

November 1995

Purpose of Study

The purpose of this study is to project the traffic impacts that will result from the development of several vacant parcels of land north of M-14 between Newport and Maple Roads, and to recommend improvements to reduce or eliminate traffic conflicts and congestion. The West Area Plan identifies vacant sites north of M-14 that have the potential for low density, single-family residential development: A 109-acre site owned by the Ann Arbor Public Schools; a 41-acre site referred to as Newport Creek; and a 42-acre site, called the Pirrup property. While these sites are the major vacant, developable parcels north of M-14, other existing parcels along Newport Road could be subdivided to create additional housing units and curb cuts on Newport Road. Additional vacant acreage west of Maple Road also has development potential, but is located in Scio Township. This land is not included in the study.

Scope of Study

The study area is bounded on the north by the Huron River; on the east by Huron River Drive/Hampstead/Beechwood; on the south by Miller Avenue; and on the west by Maple Road. Map 1 shows the study area boundaries. It is expected that development of these sites will affect road systems within these general boundaries to some degree. The study will project the total possible number of housing units, analyze the expected travel patterns of residents of these new neighborhoods, and identify the area of influence likely to be affected by the resulting increased traffic.

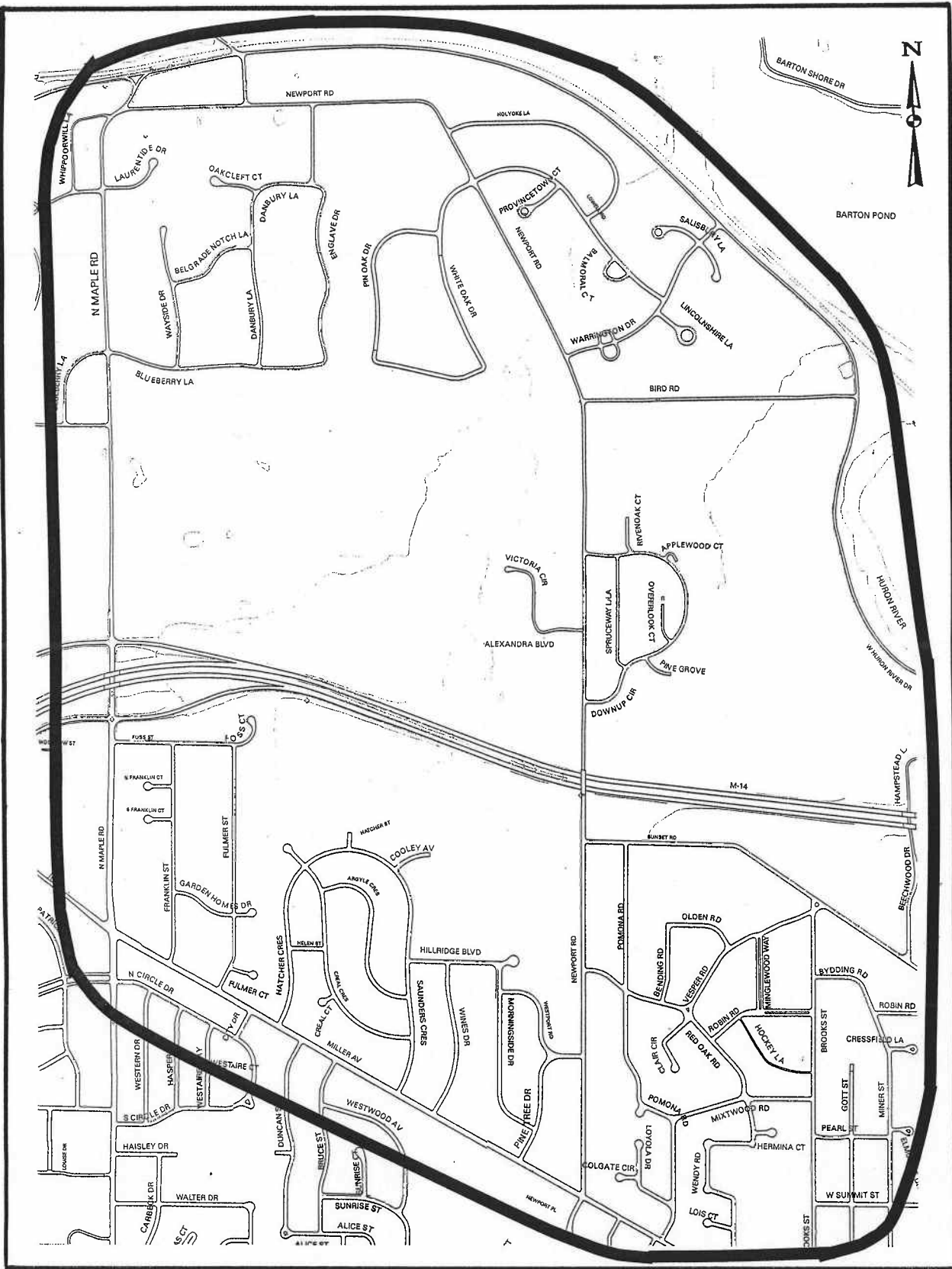
The study will focus primarily on the impacts on Newport Road, as well as other routes likely to be taken by residents of the new neighborhoods. The roads most likely to be impacted by development include North Maple Road, Bird Road, Huron River Drive, North Main Street, Summit Street and Miller Avenue.

Issues

The character of the study area generally is rural and existing development patterns are low-density residential. Residents of the area have become accustomed to the wooded areas, narrow streets and substantial open space found here. The development of almost 200 acres of heretofore vacant land raises issues that previously had not been present.

Conflicting City Policies. City policies call for enhancement of pedestrian and bicycle accessibility and portions of Newport Road, particularly north of M-14, currently lack sidewalks. However, the construction of sidewalks on Newport Road would necessitate the removal of trees, which is contrary to City policies to preserve natural features.

2



MAP 1
STUDY AREA BOUNDARY



3

Neighborhoods Connections. Linkages between developments, for both pedestrians and vehicles, is a goal of the West Area Plan. Sites 1, 2 and 3 should be interconnected, and further should link with Newport Hills Subdivision. Existing neighborhoods often resist links to new subdivisions because they want to remain isolated. The City supports neighborhood links because they facilitate the provision of City services, create a sense of "connectedness" between neighborhoods, and reduce conflict points by better distribution of traffic.

Conflicting Roadway Functions. Most roadways serve two primary purposes: to provide for efficient through movement of traffic and to provide access to abutting properties. There are 162 curb cuts on Newport and North Maple Roads north of M-14, between M-14 and the Huron River. The presence of so many curb cuts creates conflict points that can slow traffic and even pose safety hazards when poorly spaced or when traffic is moving too swiftly. The opportunity for so many vehicular turning movements clashes with the through movement of traffic.

Goals

Goals for the study area were culled from the 1990 Transportation Plan Update, the 1995 West Area Plan, and were augmented with data and findings revealed while undertaking this study. The goals were established to guide the development of solutions or improvements to traffic and circulation problems, address issues dealing with quality of life and preservation of community character, identify a Level of Service (LOS) acceptable to the community, and balance the sometimes differing perspectives of the community and transportation specialists.

Goal To provide a street system that safely and efficiently serves the travel needs of the community.

Objectives

- To provide sufficient capacity in the transportation system to accommodate existing and forecasted travel demand.
- Implement roadway designs that improve the operational characteristics of the transportation system and meet accepted engineering standards.
- To reduce conflict by reducing or limiting access points.
- To link residential areas by providing connections via logically-sited roadways.

Goal To be compatible with adjacent land uses and the environmental character of the area.

Objectives

- Implement improvements that are sensitive to the characteristics of the Miller/Maple/Newport area.
- Implement improvements that are sensitive to adjacent land uses and natural features.

Goal To provide a safe, efficient and convenient circulation and street system that facilitates the movement of people either walking or using cars, bicycles and public transit within and around the west area.

Objectives

- To make the City's street system easy to understand and use.
- To maintain and improve the efficiency and function of west area streets without widening existing roads.
- Improve the balance between automobiles and other modes of transportation, such as transit, bicycle and pedestrian.

Goal Provide a comprehensive bicycle transportation system to serve the needs of all bicyclists.

Objectives

- Maintain and enhance the existing, convenient and direct bicycle transportation system serving high travel demand corridors and major recreational, shopping, employment, and education centers.
- Maintain and enhance a bicycle transportation system which links residential areas with significant trip attractors.

Background Studies

An important element of a traffic and circulation study is background information. An analysis of existing conditions must be undertaken before recommendations can be proffered. Staff from the Planning Department and the Transportation Division have gathered data, including an inventory of existing traffic and circulation conditions. This data serves as a baseline for analyzing the traffic impacts of future development.

General Physical Conditions. General physical conditions including speed limits, traffic signal locations, pavement conditions, transit service in the area, and traffic volumes were considered for distinct segments of roadways in the study area. The following summary details those areas reviewed.

Newport Road from Maple Road to Miller Road

Speed Limit - The posted speed limit on Newport Road from the Miller/Newport intersection to the Maple/Newport intersection is 25 miles per hour.

Traffic Control Locations - Miller/Newport intersection: Stop sign for traffic on Newport. Newport/Red Oak intersection: Flashing yellow light; pedestrian crossing approximately 50 feet north of light. Newport/Sunset intersection: Four-way stop sign. Newport/Maple intersection: Stop sign for Newport traffic.

Pavement Conditions - Pavement conditions are good along Newport Road from Miller Avenue to Bird Road. North of Bird Road, the pavement conditions on Newport Road deteriorate, with frequently occurring areas of patched and uneven pavement.

Physical Conditions

- **General Description** - Newport Road, from Miller Road to Maple Road is a two-lane road with no usable shoulder and is striped as a no-passing zone.
- **Curbs and Gutters** - Newport Road contains curbs and gutters from Miller Avenue to Warrington Road. The remainder of Newport Road to Maple Road has neither curbs nor gutters.
- **Parking** - On-street parking is permitted on the east side of Newport Road from the Sunset/Newport intersection to the north end of the Forsythe School property.
- **Sidewalks** - A sidewalk extends along the east side of Newport Road, starting at the Newport/Miller intersection, terminating after approximately 300 feet. The sidewalk begins again at the Newport/Red Oak intersection and extends approximately 50 feet to the pedestrian crossing. The last segment of sidewalk exists along the bridge over M-14. A continuous sidewalk is present along the west side of Newport Road, extending from Miller Road and terminating at the M-14 bridge. The bridge itself has sidewalks on both sides.
- **Topography** - Newport Road from Miller Road north to M-14 has a steady incline, but is fairly straight. From M-14 north to Bird Road, Newport Road gently rolls and curves. At Bird Road, Newport Road jogs to the west, continues, and again jogs west, changing its course from a north-south road to an east-west road.
- **Other** - A bridge is located over a small creek approximately 450 feet North of Bird Road along Newport Road. A storm drain is located approximately 750 feet north of Alexandria Boulevard on the east side of Newport Road.

Transit System - Two AATA bus routes serve the Newport Road area: 12A and 13. A bus stop is located approximately 450 feet south of Lowell Road on the west side of Newport Road, and the buses serve both Forsythe and Rudolph Steiner Schools.

Maple Road from Miller Avenue to Huron River Drive

Speed Limit - The posted speed limit on Maple Road is 45 miles per hour from Newport Road south to just beyond the M-14 entrance ramp, at which point the limit changes to 35 miles per hour.

Traffic Control Locations - Newport/Maple intersection: stop sign for Newport Road only. Maple/Miller intersection: fully signalized with a left turn lane. Maple/Huron River Drive: stop sign for Maple only.

Pavement Conditions - Pavement conditions are good along Maple Road.

Physical Conditions

- *General Description* - Maple Road is a two-lane road, except at the M-14 entrance and exit ramps and the intersection with Miller Avenue, where it has two lanes of southbound traffic and a right turn lane. The road is flat in nature and has a straight alignment, except where it curves east prior to the Huron River Drive intersection.
- *Curbs and Gutters* - Maple Road has a shoulder along the west side of the road. Just south of the M-14 intersection, curbs and gutters exist and continue on past the intersection at Miller Avenue.
- *Sidewalks* - Sidewalks are present only along the east side of Maple Road from the M-14 intersection to Miller Road.
- *Parking* - No parking exists along this stretch of Maple Road.

Transit Systems - The AATA Bus Route 12 is accessible at the intersection of Maple and Miller, otherwise the only service for the remainder of Maple Road until the intersection with Huron River Drive is at the intersection of Maple Road and Newport Road. This intersection is served by AATA Bus Route 13.

Huron River Drive from Maple to North Main Street

Speed Limit - The posted speed limit on Huron River Drive is 35 Miles Per Hour.

Traffic Control Locations - Huron River Drive/Maple Road: stop sign for Maple Road only. Huron River Drive/Main Street: stop sign for Huron River Drive only. Huron River Drive/M-14: stop sign for Huron River Drive only.

Pavement Conditions - The pavement along Huron River Drive is generally good with some patchy and uneven areas.

Physical Conditions - Huron River Drive is a "Scenic Drive" consisting of a two lane road with winding curves following the topography of the Huron River. The winding curves result in poor sight distances around curves. Huron River Drive is often utilized by bikers. No parking is allowed, nor passing, but there are a few pull-off areas for fishing. No sidewalks, curbs and gutters.

Transit System - The AATA bus system is not available to Huron River Drive. Route 13 does access the intersection of Newport and Maple, which is within close proximity to the Huron River Drive/Maple Road intersection.

Accident Location Analysis. Few accidents have occurred at major intersections in the study area and, generally, traffic moves safely and efficiently through most intersections. The Miller/Maple intersection has had the highest number of accidents (5 in 1993), but since that time a left turn signal has been added. Table 1, on the following page, reveals the accident data for select intersections in the study area.

Existing Functional Classification. Functional roadway classification definitions provide guidelines for realizing the efficient movement of traffic on roadways throughout the City. Roadways are ranked based on their function, or use. At one end of the scale are expressways that provide no direct access to land uses. Cul-de-sacs that provide access only to those uses which front the road are the other extreme. In between are arterials, collectors and local streets that provide a decreasing function of traffic movement in relation to access. Higher classified roads usually carry higher traffic volumes. The following definitions apply to roads within the Miller/Maple/Newport Study Area. Map 2 summarizes the roadway classifications.

Principal Arterial - The primary function is for high speed traffic movement between regions, and no direct access is provided. Speed limits are 55-65 mph and typical average daily traffic is 30,000 to 100,000 vehicles. **M-14** is considered a principal arterial.

Major Arterial - Major arterials provide mobility between or within major sections of the City or area. Access to land use is secondary. Posted speed limits are generally 35-40 miles per hour in urban areas and 45-55 mph in rural areas. On-street parking is usually discouraged. Typical average daily traffic is generally 10,000 to 50,000 cars. **Maple Road south of M-14** is considered a major arterial.

