

Chapter 5: Charter Township of Pittsfield

Introduction.

Portions of Washtenaw Avenue (M-17) corridor from US-23 east to Golfside Drive are located within Pittsfield Township. This chapter of the Plan includes analysis and recommendations for the corridor segment in Pittsfield Township. This segment of the corridor shares a boundary with the City of Ann Arbor on the west, and Ypsilanti Township on the east.



Existing Conditions

Overview of Land Use

M-17 in the Charter Township of Pittsfield has a variety of land uses along the one mile segment, from single- and multiple- family residential to commercial and office. The western end of the Township, at Hogback/Carpenter and M-17, has a more suburban-style commercial node. From that point east, there is multiple-family residential and commercial on the north side of the road and single-family and office uses on the south side of the road, to approximately Foster Road. From Foster, west to Golfside, commercial uses occupy both sides of the street.



Roadway Conditions

Average Daily Traffic (ADT) along the corridor is approximately 30,000. The volume is generally within the capacity of five lanes (see data table on the right and Figure 1.2), with additional dedicated turn lanes provided at several intersections. The posted speed limit is 40 MPH (see Figure 2.1). Two intersections with the highest number of crashes in 2006 are Washtenaw/Hogback-Carpenter and Washtenaw/Golfside (see Figure 2.2). Traffic signals at the US-23 southbound exit ramp and US-23 northbound exit ramp are in very close proximity to the adjacent signalized intersections to the west (400 feet) and to the east (200 feet), respectively.

2006 Average Daily Traffic (ADT) along the Plan corridor in the Charter Township of Pittsfield

| Road | ADT |
|-------------------|--------|
| Washtenaw: | |
| US-23-Golfside | 30,000 |

Source: WATS, MDOT

Access Conditions

Land uses patterns in Pittsfield Township along the Plan corridor results in most of the commercial access points being located around the commercial node at the intersection of Hogback/

Carpenter and Washtenaw, and from Foster Road east to Golfside Drive. Residential driveways dominate the remainder of the corridor, with a few shared commercial drives and access to side streets. Uncoordinated development in these two areas led to a pattern of numerous individual commercial businesses with multiple access points and few connections across property lines, especially near the Hogback/Carpenter and Golfside signalized intersections. Opportunities exist on the east end of this segment of the corridor where cross-access could be provided relatively easily (parking areas close proximity, no significant grade change), and some potential exists for the formation of rear service drives on the north and south sides of Washtenaw at Golfside.



Above: many of the businesses along the corridor in the township have shallow lots, no parking setbacks and no throat depth. **Below:** one example of the several opportunities that exist where cross-access could be constructed without significant cost.



Non-Motorized Conditions

Some segments of the Plan have a sidewalk on one or both sides of the street. As new development and redevelopment occurs, the Township's regulations will require current gaps in the non-motorized facilities network to be filled in, to provide continuous access between properties and also to transit stops. A non-motorized off-street pathway is scheduled to be constructed on the north side of Washtenaw in 2008, between approximately Dayton Drive and Hawks Avenue. No segments of the Plan corridor in the township currently have on-street bike lanes.

High volumes of pedestrians and bicyclists cross the Plan corridor in several key points throughout the township, namely at transit stops that have high volumes of boardings and deboardings such as the stops across from Glencoe Apartments and Ypsi-Arbor Bowl (located just east outside of the township limits).

A detailed study of non-motorized crossing patterns and potential configuration of future facilities across the US-23 / Washtenaw interchange (US-23/M-17 Non-Motorized Crossing Study) was completed separate from this Plan, and should be referenced for a more detailed examination of existing conditions and potential mitigation for this critical gap in the area's non-motorized facilities.

Transit Conditions

AATA offers multiple bus routes along the corridor. In addition, several locations in and adjacent to the township have the potential to serve as park-and-ride lots, including Arborland (expanded facility), the Lutheran Church east of the County Service Center, and the Ypsi-Arbor Bowl area. Long-term use of these sites for park-and-ride should include upgrades to the existing access points to include design elements to handle higher volumes of traffic, buses, and to promote safety for non-motorized crossings.

Conditions of Select Intersections

- **Washtenaw Avenue/US-23 Ramps/Carpenter Road Intersection.** Washtenaw Avenue is a five-lane roadway with a posted speed limit of 40 mph and an ADT of 39,900 west of the Carpenter Road/Hogback Road intersection. East of the intersection, the ADT is somewhat lower (30,000). In 2006, this intersection had the highest number of crashes (70) along the corridor. Factors that may have contributed to crashes include high traffic volumes, congestion, complex signalization and lane assignments (multiple turning lanes), close proximity of driveways, and close proximity of the two intersections.

During site visits, it was observed that traffic queuing from the signal for eastbound traffic at Hogback Road/Carpenter Road often blocked the off ramp traffic, especially those attempting to enter a left turn lane across two lanes of traffic to access northbound Hogback Road, the location of the Washtenaw County Service Center. Right turns on red are very difficult and traffic is often blocked even when the signal is green. The crash history shows that 88.6 percent of the crashes are rear-end, side-swipe, and angle crashes, suggesting that congestion as well as geometry is a factor. This location is not conducive to pedestrian or bicycle movements due to the free flow of the US-23 ramps, complex signalization, high traffic volumes, and a wide roadway cross section.

Recommendations

Recommendations for Local Implementation

In concert with this plan’s recommended development review procedure, Pittsfield Township staff has prepared an amendment to its zoning ordinance to ensure that the current comprehensive set of access management standards reflects current best practices as part of this project. The township participated in a project similar to this plan for the US-12 corridor in the southern portion of the township, which established a community-wide zoning ordinance. The current ordinance, with minor revisions, will work together with both plans, using both the access standards and plan recommendations to continue to guide access decisions access along these corridors and throughout the rest of the township.



Above: an example of one of several gaps in the township’s non-motorized system. **Below:** the non-motorized crossing of the M-17/US-23 interchange has been studied in-depth as part of a separate study, and still remains a critical gap.



Pittsfield Township’s corridor segment is illustrated on Map Tiles 12 through 14, which illustrate specific recommendations for access management including how to improve the relationship between automobile access and non-motorized and transit facilities. All the Map Tiles are located after Chapter 7.



Above: *although some connections between parking areas exist, they are often poorly defined.*

In addition to the amendment of the township's code, the township should include this plan in whole or by reference in its Master Plan to further solidify the basis for the ordinance and emphasize the importance of the land use-transportation link.

Recommendations for Access, Non-Motorized, and Transit

The following pages include map tiles 12 through 14, which illustrate specific recommendations for access management including how to improve the relationship between automobile access and non-motorized and transit facilities. As outlined in Chapter 3: Using the Plan, these recommendations are based on state and national research, a thorough review of the existing conditions along the corridor, and the extensive experience and expertise of the Plan team with access management implementation across the state.

Because the recommendations are based on the existing conditions at the time this plan was developed, a significant change in conditions on a site should prompt a thorough consideration of any proposed project in the context of the policies, standards, and goals of this plan. The township, MDOT, and members of the Steering Committee will play an important role in reviewing development proposals along this corridor to promote the most efficient, and safe configuration of access.

Intersection Concepts

Several intersections throughout the Plan area were identified by the Steering Committee as having perceived problems with traffic congestion, crashes, and/or non-motorized and transit access. The following discussion of crash mitigation and intersection improvement concepts is intended to simply identify potential short- and long-term fixes to existing problems. Many more steps will be needed before any improvements will take place, including a more detailed study of traffic movements and volumes, improvement impacts, and costs.

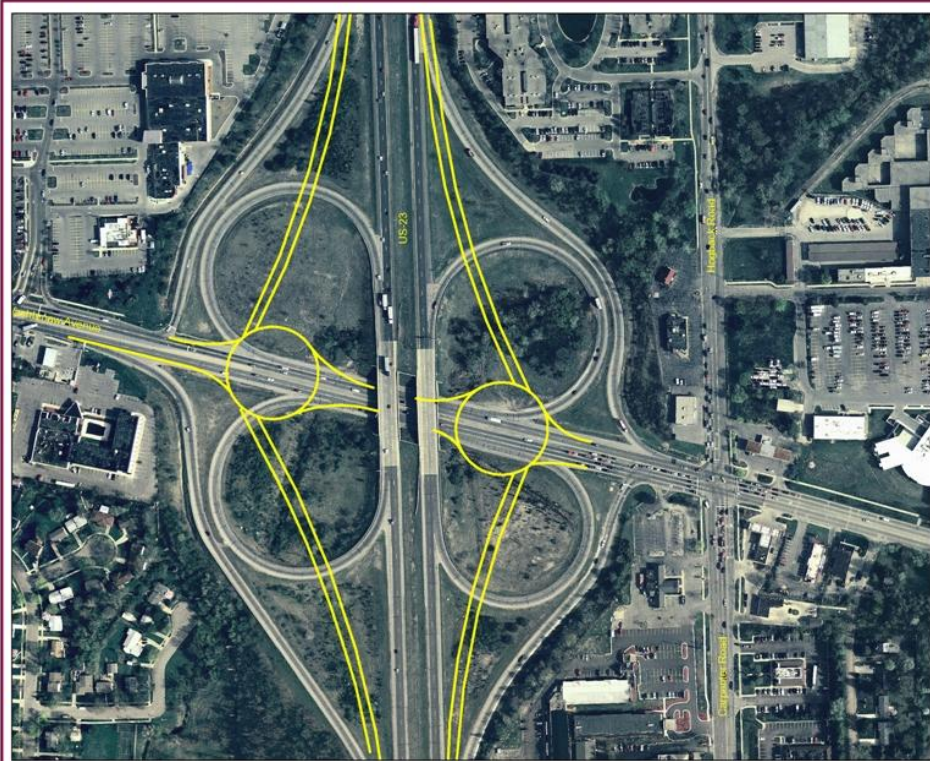
- **Washtenaw Avenue/US-23 Ramps/Carpenter Road Intersection.** Many possibilities for mitigation exist for the interchange and the adjacent intersections, however only two are presented here. Before any configuration is chosen, an interchange feasibility study would be conducted. One possible configuration would realign the NB US-23 off ramp to a point as far west as possible and make it perpendicular to Washtenaw Avenue in order to maximize a driver's line of sight. An analysis of current turning movements throughout the day to adjust and coordinate the signal timing of this intersection may improve traffic flow to a limited extent. Another possibility to significantly improve traffic operations and reduce the potential for crashes would be to investigate the installation of a series of modern roundabouts at the intersection and the interchange. These concepts are illustrated and on the next page.

It appears as though there may be adequate space to construct roundabouts at this location without major impacts to existing buildings. However, it should be noted that the turning movements would need to be investigated in greater detail to ensure the design is developed correctly. Given the complexity and volume of turning movements, the design should be prepared by an experienced expert. It should also be noted that with a reconfiguration of the interchange there would be additional opportunities for development and/or an additional park and ride area in the space that would become available.

Any new configuration for the interchange should address the following problems:

- The number, and severity of crashes
- The close proximity of adjacent signalized intersections
- The close proximity of driveways
- The Lack of connectivity for pedestrian and bicycle facilities
- The complexity of signal phasing and turning movements

For a more detailed analysis and recommended non-motorized crossing alignments, refer to the US-23/Washtenaw Interchange Non-Motorized Crossing Study.

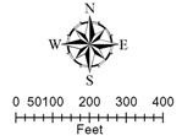


Washtenaw County Access Management Plan

Washtenaw Avenue / US-23 Diamond Concept

The Road Improvements depicted are conceptual and not geometrically correct or accurate. The concept shown has the potential to reduce congestion, improve safety, and/or improve non-motorized circulation.

Prior to determining what, if any, improvements are needed, additional studies would be needed that are significantly more detailed and in-depth than the current study.



Map produced by DLZ Michigan, Inc. for the Washtenaw County Access Management Plan, October 2007



- Critical factors:**
- Increase distance between intersections
 - Reduce the number of driveways close to intersections or each other
 - Increase intersection safety through redesign

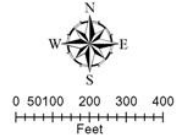


Washtenaw County Access Management Plan

Washtenaw Avenue / US-23 Roundabouts Concept

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