

Section Four

SECTION 4(f) EVALUATION

4.1 INTRODUCTION

Section 4(f) of the 1966 Department of Transportation Act specifies that publicly owned land from a park, recreational area, or wildlife/waterfowl refuge of national, state or local significance or any land from a historic site of national, state or local significance may not be used for transportation projects unless: (1) there is no feasible and prudent alternative to the use of such land, and (2) the proposed project includes all possible planning to minimize harm.

Section 6(f) of the Land and Water Conservation Fund Act (L&WCF), as amended, ensures that property acquired or developed with L&WCF assistance shall not be converted to other than public outdoor recreation uses without the approval of the Secretary of the U.S. Department of the Interior. However, no lands within the study area have been acquired or developed with L&WCF assistance. Therefore, Section 6(f) documentation is not required.

This Section 4(f) Evaluation discusses the proposed project, its impact to Section 4(f) resources, avoidance alternatives and measures to minimize harm. Based on the following evaluation, a preliminary determination has been made that the Preferred Alternative will impact several Section 4(f), possible resources, that all alternatives have been fully evaluated, and that measures will be taken to minimize the impacts to the Section 4(f) properties. Upon considering comments received from resource agencies and the public concerning the Preferred Alternative, the Federal Highway Administration will either apply the Section 4(f) Evaluation and document the project files or prepare a separate Final Section 4(f) Evaluation for processing under the procedures set forth in Federal Highway Administration regulations 23 CFR 771.135.

For the purposes of this Section 4(f) Evaluation, both the Preferred Alternative (Alternative 1) and Alternative 1-N are evaluated (see Figure 2.1 and 2.6). The Preferred Alternative is the proposed construction of a multi-lane roadway using a combination five-lane urban arterial and four-lane urban boulevard cross-section. The proposed US-12 roadway improvements would extend from the east city limits of Saline to Munger Road near the US-12/I-94 interchange. Improvements will also be made to the existing US-12/US-23 rural diamond interchange.

The Preferred Alternative follows the existing US-12 roadway alignment throughout the study limits, starting from 2500 feet west of Industrial Park Drive (east of Visteon plant entrance) to Munger Road. The only variation in the proposed roadway is at the curve just east of Campbell Road where the proposed alignment is straightened to meet current MDOT roadway design standards.

Alternative 1-N follows the existing US-12 roadway within the study limits except for one section between Warner Road and the intersection of US-12 and Textile Road. Alternative 1-N departs the existing US-12 centerline just west of the Warner Road/US-12 intersection. The alignment parallels existing US-12 approximately 1160 feet to the north of the existing roadway. Alternative 1-N then runs northeast and ties into Textile Road approximately 900 feet west of the

Platt Road intersection. Alternative 1-N then follows Textile Road to the east until it rejoins the existing US-12 roadway at the Textile Road/US-12 intersection (see Figure 2.1).

4.2 PURPOSE AND NEED

The purpose of the US-12 Improvement Study is to determine how existing and projected travel demand on US-12, from Saline to Munger Road near I-94, may be accommodated. The purpose is to develop improvement alternatives to improve roadway continuity, increase travel capacity, reduce crashes, and provide viable access to existing and planned business, government and residential uses.

The need for US-12 improvements is based upon four elements: (1) system continuity, (2) roadway capacity and increased travel demand, (3) roadway safety, and (4) study area growth and economic development. The paragraphs below summarize these four needs. For more detailed information, see Section 1.4 of this EA.

System Continuity - US-12, from Saline to Munger Road, runs in a northeast/southwest direction, providing a direct link between the cities of Saline and Ypsilanti. US-12 intersects with State/Moon Road, Platt Road, and Carpenter Road, and an interchange provides access to US-23. All of these roadways are major north-south routes providing access to Ann Arbor. US-12 also intersects with Interstate 94, a major east-west thoroughfare connecting Detroit and Chicago.

East of the study area, US-12 passes through Ypsilanti and continues to the northeast into Detroit. Improvements to US-12 are necessary in order to enhance the roadway's function in relation to other major roadways that serve this area.

The study area contains the only two-lane segment of US-12 between Saline and Detroit. Beyond the study area to the east and west, US-12 becomes a five-lane roadway.

Capacity - US-12 currently carries large volumes of traffic. At the western end of the study area, the Visteon plant (formerly the Ford Motor Company facility) and other industries are major traffic generators. US-12 also links many residential developments in the study area. Moreover, planned subdivisions are developing rapidly. As a result, the US-12 system currently carries between 22,000 and 32,000 vehicles per day average daily traffic (ADT) over much of its length. In the past two decades, traffic on US-12 has increased about 46 percent overall, and up to 70 percent at some intersections in the study area. Future US-12 traffic volumes for Year 2025 range between 34,000 and 52,000 vehicles per day ADT (more than 47 percent increase over current traffic volumes). Traffic volumes are highest in the western and eastern portions of US-12 and near the interchange of US-12 and US-23.

Increased Travel Demand - Improvements are needed to improve the capacity of US-12 so that it will meet current and projected travel demands. Six levels of service (LOS), designated by the letters A through F, define a roadway's operating conditions. LOS A represents the best operating conditions and LOS F represents the worst conditions. During peak travel demand, US-12 currently operates at the LOS E and F throughout most of the study area, and is expected to worsen as traffic increases in the future. The preferred LOS for the segment of US-12 under study is LOS C; however, LOS D is considered acceptable.

Roadway Safety – MDOT conducted a three year (1996-1999) safety review and crash analysis on US-12 between Industrial Park Drive and Munger Road. Study results showed that crash rates in the study area exceed the statewide and MDOT region rates for similar roadways. All roadway improvements will increase the safety for motorists using US-12. National studies have shown that implementing a multi-lane roadway has reduced crash rates by 19 to 35 percent.

Growth and Economic Development - Pittsfield Township has experienced and continues to experience extensive residential, industrial and commercial development. The Southeastern Michigan Council of Governments (SEMCOG) projected an 97 percent increase in Township population between 2000 and 2025. Employment in the study area is also expected to increase significantly (50 percent during the same time period), due to existing and planned industrial and commercial projects in the Township. Housing projections closely parallel the population growth. Improvements to US-12 are needed to accommodate this growth and economic development.

4.3 SECTION 4(f) PROPERTIES

Historic Resources

Evaluations of historic resources in the study area were performed according to MDOT guidelines for historic property investigations. During the US-12 Improvement Study, each property was assessed according to standards established for listing on the National Register of Historic Places (NRHP). MDOT requested the re-evaluation of the properties previously surveyed and found to be significant, and evaluation of any other properties in the APE not previously documented. In total, 10 properties were evaluated for possible eligibility for inclusion on the NRHP. During this re-evaluation, five of the 10 properties were determined to be eligible for inclusion on the NRHP, because they contain at least one structure which meets one or more National Register Criteria for Evaluation. Also, the Valentine School was added to the NRHP eligibility list after the SHPO asked that further research be conducted to determine its historical significance, based on a request from representatives of the Pittsfield Township Historical Commission and the Saline Area Historical Society. Therefore, a total of six properties in the study area are considered NRHP – eligible. These six properties are shown in Figure 2.6 and described in Table 4.1.

Table 4.1
Historic Properties in the Study Area

Property	National Register Criteria	Description	Impacts of the Preferred Alternative	Impacts of the Practical Alternative I-N
<p>Rentschler Farmstead 7640 Michigan Avenue</p>	<p>A C</p>	<p>Highly intact farmstead complex, associated with events relating to southeast Michigan's agricultural history. Currently owned by the City of Saline and managed since 1999 as a farm museum/working farm. Mid 1850s-era farmhouse is excellent example of Queen Anne style Gabled Ell form.</p>	<p>No property acquisition required. The new road will not be closer to the farmstead buildings than the present road. Yard vegetation and existing driveway (i.e., current property access) to be maintained.</p>	<p>Same impacts as Preferred Alternative</p>
<p>Morton-Hertler House (farmhouse) 7500 Michigan Avenue</p>	<p>C</p>	<p>1840s-era farmhouse. Considered an incomplete representation of an early farm. Farmhouse has unique combination of Greek Revival and Italianate elements. House currently used as a construction office for the planned Saline Area School complex.</p>	<p>Potential relocation or demolition of house</p>	<p>Same impacts as Preferred Alternative</p>
<p>Brown-McCoy House (farmhouse and guesthouse) 7443 Michigan Avenue</p>	<p>C</p>	<p>1850s-era farmhouse and associated outbuildings currently obscured from roadway by mature vegetation. Although there have been some alterations to the building, the farmhouse is considered an excellent example of the Italianate style.</p>	<p>No property acquisition required, and new roadway will remain approximately the same distance from the house and farmstead as the existing roadway. Yard vegetation not within the right-of-way, and existing driveway (i.e., current property access) to be maintained.</p>	<p>Same impacts as Preferred Alternative</p>

Property	National Register Criteria	Description	Impacts of the Preferred Alternative	Impacts of the Practical Alternative I-N
Valentine School 7172 Michigan Avenue	C	1860s-era former one-room schoolhouse, currently vacant, but previously used as a rental residential property, resulting in alterations to the original exterior. One of 2 extant one-room schoolhouses in the Township.	Potential relocation or demolition of building.	Same impacts as Preferred Alternative
Harwood House 6356 Michigan Ave.	A and B	1840s-era home of early historical Figure in the settlement of Washtenaw County, William W. Harwood. Harwood was associated with the first grist mill in the County, assisted in the platting of Ypsilanti and served as a conductor for the Underground Railroad.	Building acquisition required. Potential relocation or demolition of the farmhouse.	No building or property acquisition required. New roadway would be located between Harwood Farmstead and the Harwood/ Aray Cemetery located north of the farmhouse.
Boss-Schmidt House 5138 Michigan Avenue	C	1870s-era farmhouse and associated outbuildings, one of which is currently used for the main showroom of Schmidt's Antiques. Farmhouse has the distinctive characteristics of a Gabled Ell house with Italianate features.	Roadway to pass within approximately 40 feet of the house. Acquisition required of a narrow, 10-foot-wide portion of land in front of the house. Existing driveway (i.e., current property access) and yard vegetation and landscaping to be maintained, but vegetation on opposite (south) side of road to be removed.	Same impacts as Preferred Alternative

Source: Evaluation Of Above-Ground Cultural Resources, Reconstruction Of US-12, August, 2002

Park/Recreational Resources

Pittsfield Preserve. In April 2002, Pittsfield Township purchased approximately 540 acres of undeveloped land north of US-12 to create the Pittsfield Preserve. The Pittsfield Preserve was added to the Pittsfield Township park system in an amendment to the Parks Master Plan on December 17, 2002. About 350 acres of this property continues to be farmed. The remainder contains a mixture of upland and wetland woods and fields crossed by several roads. The Township is currently programming a variety of passive and active recreational uses and non-recreational uses (i.e., community and public safety buildings) for this property. The park boundary touches US-12 in two locations, the largest of which lies between Campbell and Platt Roads across from and immediately west of the entrance to the Warner Creek subdivision (see Figure 4.1) US-12 frontage in this location is currently being farmed. The Township has indicated that plans for the Pittsfield Preserve property north of US-12 in this area could include a new Pittsfield Township community center and a new public safety building. East of this area, the Pittsfield Preserve contains a diverse woodlot that the Township anticipates maintaining in a passive recreation use. The other location where the park boundary touches US-12 is west of Campbell Road where the land is dominated by upland, non-native shrubs. The Township plans on passive recreation in this area as well (see Figure 4.1). There are no Section 6(f) lands of the L&WCF in the study area.

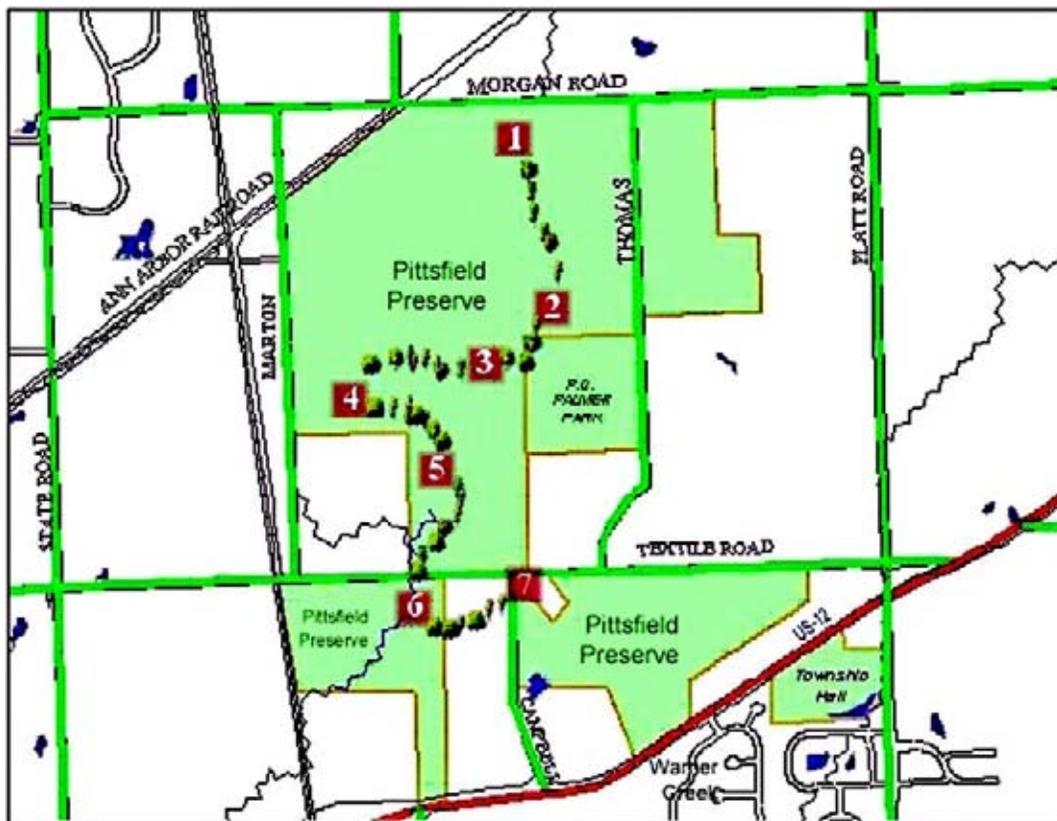


Figure 4.1
Pittsfield Preserve

4.4 IMPACTS ON SECTION 4(f) PROPERTIES

Historic Resources

For the No-build Alternative, no impacts are anticipated for historic Section 4(f) properties. Table 4.2 summarizes the comparison of the Preferred Alternative and Practical Alternatives 1 and 1-N and describes the direct impacts that would result from implementation of these alternatives. The impact results are presented for the resources of land use (residences/businesses, right-of-way), wetlands, woodlands, streams, historic properties and recreational properties.

For the Preferred Alternative, three historic properties would be potentially relocated or demolished and one property would require property acquisition. For Alternatives 1 and 1-N, two historic properties would be relocated or demolished and one property would require right-of-way. Even though Alternative 1 potentially displaces one less historic resource, impacts to wetlands and woodlands are similar. Even though Alternative 1-N also potentially displaces one less historic resource, significant potential impacts would occur to the Pittsfield Preserve. MDOT has coordinated with SHPO regarding the Determination of Effects for the historic resources in the US-12 study area (see Appendix D).

Based upon the analysis results shown in Table 4.2, Alternative 1 (five-lane arterial cross-section) would require less residential and business displacements or relocations than the Preferred Alternative. However, Alternative 1 (four-lane boulevard cross-section) would displace four more residences, two more businesses, and requires 2.5 acres more right-of-way than the Preferred Alternative with a combination five-lane arterial and four-lane boulevard cross-section. Alternative 1 would also affect more planned residences south of US-12 between Warner Road and the Warner Creek subdivision. Alternative 1-N (five-lane arterial cross-section) would displace one less residence, but would require 7.5 acres more right-of-way, affect 0.9 more acres of wetlands and 5.3 more acres of woodland that includes important Indiana bat habitat. Alternative 1-N would also require 12.2 more acres of the Pittsfield Preserve, another important Section 4(f) resource.

For the Preferred Alternative, the proposed roadway location between Campbell Road and Sauk Trail has been shifted up to 80 feet north of existing US-12 in the area of the Warner Creek subdivision. This alignment shift reduces noise impacts compared to Alternative 1. The Preferred Alternative also provides a more balanced solution to the area's transportation needs and meets the study's purpose and need better than both Alternative 1 and 1-N.

For the Rentschler Farm and the Brown-McCoy house, the two historic resources that are not affected by a direct use of property for transportation purposes, there is also no constructive use impact.

Park/Recreational Resources

For the No-Build Alternative, no impacts are anticipated for the Pittsfield Preserve. Construction of the Preferred Alternative will require acquisition of a limited amount of right-of-way (3.8 acres) along approximately 1,100 feet where the Pittsfield Preserve abuts the existing roadway in

Table 4.2
Section 4(f) Evaluation
COMPARISON OF IMPACTS
Preferred Alternative and Practical Alternatives 1 and 1-N
US-12 IMPROVEMENT STUDY

Alternatives		Displacements		New ROW Required* (acres)	Wetlands Affected* (acres)	Woodlands Affected ** (acres)	Stream Crossings	Historic Properties Affected***	Recreational Properties Affected (acres)****
		Residences	Businesses						
Preferred	Combination Five-Lane Arterial and Four Lane Boulevard	10	2	77.2	4.6	0.7	3	4	3.8
	Five-Lane Urban	7	1	66.7	4.1	0.5	3	3	1.4
Alternative 1	Four-Lane Blvd.	14	4	79.7	4.7	1.1	3	3	1.3
	Five-Lane Urban	9	2	84.7	5.3	6	3	3	16
Alternative 1-N	Four-Lane Blvd.	15	3	104.7	6.1	9	3	3	20

* Includes Improvements to the US-12/US-23 Interchange and additional right-of-way for stormwater detention.

** Woodlands north/south of Textile Road contain potential Indiana Bat habitat.

*** Effects on historic properties would include taking additional land for road right-of-way.

****Recreational property is the Pittsfield Preserve.

Note: The Preferred Alternative was developed as a refinement of Alternative 1 with a combination five-lane and four-lane boulevard roadway cross-section.

two locations as previously noted (see Figure 4.1). Existing noise level at this location is dBA and the projected noise level is dBA for the Preferred Alternative. Approximately 3.1 acres of right-of-way are required at the eastern location, across from and immediately west of the entrance to the Warner Creek subdivision, on land that is currently being farmed. Upland shrubs dominate the western location where approximately 0.7 acres of right-of-way is required.

In addition to use of the land, there would be a slight increase in noise levels at the Pittsfield Preserve where the alignment is proposed north of the existing road. Existing noise level at this location is 67 dBA and the projected noise level is 68 dBA for the Preferred Alternative. Noise level changes in the vicinity of the diverse woodlot, east of the active agricultural land, will be minor because the proposed road is only 20 feet north of the existing road in this location (see Figure 4.1). The proposed road is approximately 40 feet north of the existing road at the western Pittsfield Preserve location. The proposed road will only present a minor visual intrusion on the Pittsfield Preserve as well. The area is generally flat and no major grade changes are proposed as part of the project. Vegetation in the western Pittsfield Preserve parcel will not be affected as the site is currently farmed. The eastern parcel will require removal of approximately 0.3 acres of shrub habitat, primarily composed of non-native species.

Currently, there is no formal access identified for the Pittsfield Preserve. However, there are several temporary access points located around the 540-acre area. The proposed roadway will impact none of these temporary facilities.

4.5 AVOIDANCE ALTERNATIVES

Historic and Park/Recreational Resources

During the Illustrative Alternatives phase of the US-12 Improvement Study, the No-Build Alternative and several on-alignment and off-alignment alternatives were evaluated (see Figure 2.1). Some of the off-alignment alternatives avoided several of the historic resources eligible for the NRHP Pittsfield Preserve. After the Illustrative Alternatives were evaluated, it was determined that the No-Build Alternative did not meet the travel demand needs of the US-12 Study area. In addition, three of the four off-alignment alternatives (both north and south of the existing US-12 roadway) were eliminated from further consideration due to right-of-way needs and anticipated impacts on both the natural and the human environment.

Illustrative Alternative 2-N required more residential displacements, more acres of new ROW, more acres of woodlot habitat, and more community impacts. Alternative 1-S required more acres of new ROW and more acres of woodlot habitat. Alternative 2-S required more acres of new ROW, more acres of high quality wetlands, and more acres of woodlot habitat. The Morgan Road Alternative was also eliminated because it required more residential and business displacements, more community impacts, more acres of woodlot habitat, more wetlands and did not meet the needs of improved travel capacity and better access and mobility in the US-12 study area.

The *Illustrative Alternatives Technical Report* documents the evaluation results and recommendations for detailed study of the Practical Alternatives 1 and 1-N. For Alternative 1 and Alternative 1-N, three roadway cross-sections, the five-lane urban arterial, the four-lane urban boulevard, and a combination five-lane arterial/four-lane boulevard were considered.

For the Preferred Alternative and Practical Alternatives 1 and 1-N, many design refinements to the cross-section and shifts in roadway alignment were considered during the Practical Alternatives phase to minimize impacts to Section 4(f) resources. For the section of US-12 from the western study limits to east of the Brown-McCoy house, only the five-lane urban arterial cross-section was selected to minimize impacts to the Rentschler farmstead and the Brown-McCoy house. For the Preferred Alternative and Practical Alternatives 1 and 1-N, only the five-lane urban arterial was selected from the US-23/US-12 interchange to Munger Road due to the traffic operations, additional ROW takes, impacts to the natural and built environment, and additional impacts at the Boss-Schmidt House for the four-lane boulevard cross-section.

As a result of cultural resources evaluations, the Harwood house, located on the north side of US-12 just east of Campbell Road, was considered eligible for the National Register of Historic Places (NRHP) due to its owners' historical significance and connection with the Underground Railroad. Therefore, several roadway alignments were considered to the north and to the south to avoid displacement of the Harwood house and to minimize other direct impacts such as right-of-way taken from the property (see Figure 4.2). However, these alignments created additional impacts to nearby existing and planned residences, businesses, the Pittsfield Preserve, and the woodlot (critical habitat for the Indiana bat) west of Platt Road (see Figure 4.2). As a result, the Preferred Alternative was selected over Alternatives 1 and 1-N. The Preferred Alternative is a modification of Alternative 1. The proposed roadway alignment straightens the curve, east of Campbell Road providing a safer roadway design.

4.6 MEASURES TO MINIMIZE HARM

Historic Resources

Measures will be taken to limit impacts to the four historic resources sites in consultation with the State and the Pittsfield Preserve. For the historic resources, see the Section 106 Memorandum of Agreement (MOA) in Appendix D. The Federal Highway Administration and Michigan Department of Transportation in consultation with the State Historic Preservation Office and interested stakeholders will ensure that the following measures are carried out:

1. Morton-Hertler house at 7500 Michigan Avenue

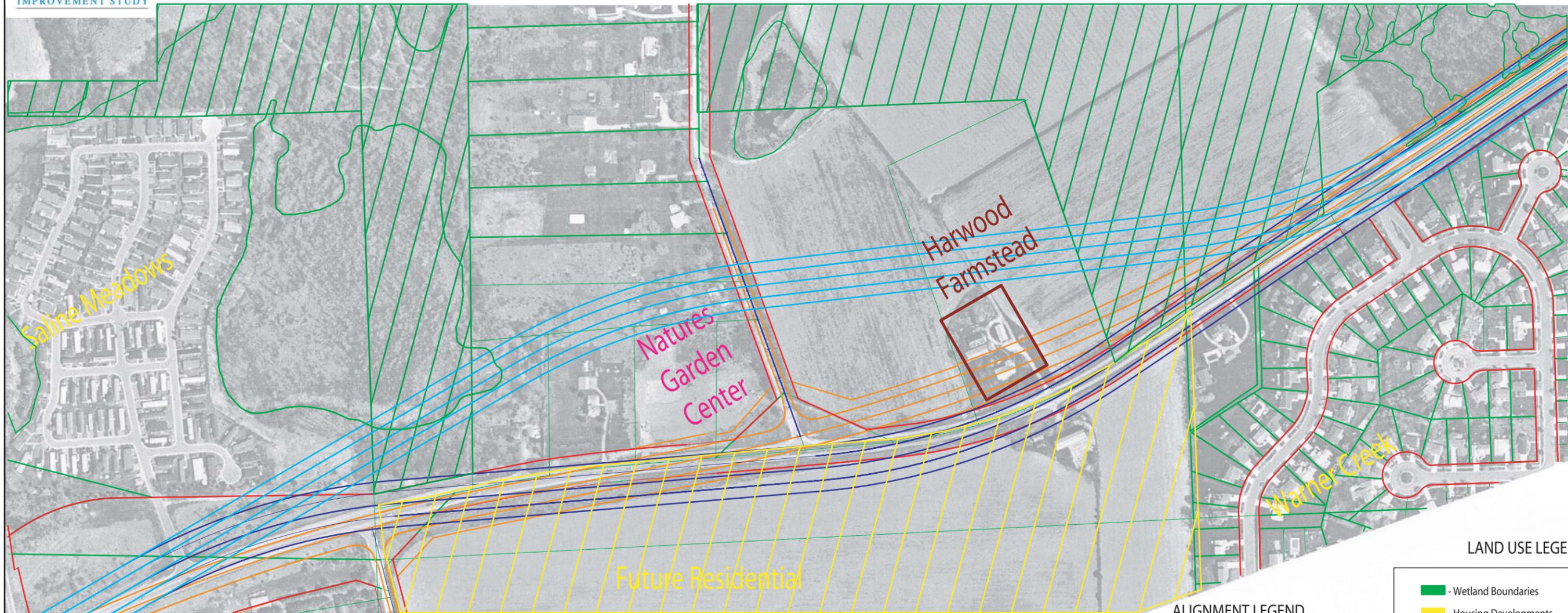
MDOT will cooperate with and coordinate efforts to relocate the Morton-Hertler House.

2. Valentine School at 7172 Michigan Avenue

MDOT will cooperate with and coordinate efforts to relocate the Valentine School.

3. Harwood House at 6356 Michigan Avenue

MDOT will cooperate with and coordinate efforts to move the Harwood house. Prior to any work, a Phase I archaeological survey of the Harwood property will be conducted. Phase II and Phase III archaeological surveys will be performed as necessary and in consultation with



ALIGNMENT LEGEND

- - North Avoidance Alignment
- - Alignment 1/Preferred Alignment
- - South Avoidance Alignment

LAND USE LEGEND

- - Wetland Boundaries
- - Housing Developments
- - Businesses
- - Historical Homes/Properties
- - Pittsfield Preserve

Figure 4.2
5-LANE URBAN ARTERIAL
HARWOOD FARMSTEAD AVOIDANCE ALIGNMENTS

the SHPO and the Office of the State Archaeologist. Any sites that may be discovered are important for the information they may yield and not preservation in place.

4. Boss-Schmidt House at 5138 Michigan Avenue

MDOT will offer two replacement trees and/or shrubs for every tree and/or shrub lost as a result of the project. Placement shall be outside MDOT Right-of-Way.

5. MDOT will cooperate with and coordinate the production of an educational pamphlet describing the US-12 Chicago Road history, with emphasis on the study area and the National Register of Historic Places (NRHP) eligible resources within this area.

6. Prior to the initiation of any demolition, or construction activity, including selling or moving any NRHP listed or eligible resource in the project area, MDOT will, in consultation with the SHPO, document the affected NRHP resources. The Morton Hertler house may be demolished by the property owner, Saline Area Schools, before MDOT initiates the construction of US-12. If this occurs, the resource would no longer be subject to mitigation requirements

Park/Recreation Resources

Measures taken to limit impacts at the Pittsfield Preserve will include an earthen berm and appropriate planting of trees and shrubs on the north side of the MDOT right-of-way. This will serve to minimize visual impacts as well as replace vegetation removed as a part of the grading activities. In addition, pedestrian access to the Pittsfield Preserve will be improved through installation of a cross walk at Platt Road.

4.7 COORDINATION ACTIVITIES

Historic Resources

Coordination regarding potential historic resources for the US-12 Improvement Study began with the first round of stakeholder meetings in October 2001. In July 2002, MDOT sent correspondence to all interested parties and coordination occurred throughout the summer with representatives of the Saline Area Historical Society, Washtenaw County Historic District Committee, and the Pittsfield Township Historical Commission, among others. Section 106 consultation meetings with interested parties occurred in September and November 2002 (see Appendix D).

Coordination with the Michigan State Historic Preservation Office (SPHO) has been ongoing throughout the US-12 study. A resources field review was conducted with SPHO in September 2002 and MDOT has received correspondence regarding the Area of Potential Effect (APE) and the Determination of Effects to historic resources (see Appendix D).

Park/Recreation Resources

Information pertaining to the Pittsfield Preserve has been obtained through multiple stakeholder meetings with Pittsfield Township and representatives of the community. Specifically, the Pittsfield Township Parks and Recreation Commission and the Planning Commission have provided information on the Pittsfield Preserve boundaries and potential plans for future development. In addition, the Pittsfield Township Board of Trustees has provided information from the recently adopted Pittsfield Township Comprehensive Plan (2002) which supports preserving right-of-way in the Pittsfield Preserve for upgrading Michigan Avenue (US-12) as part of its transportation policy. At their August 26, 2003 Township Board meeting, the Pittsfield Township Board concurred with the Preferred Alternative through the area of the Pittsfield Preserve, the assessment of impacts to the Preserve and the proposed mitigation measures (see Appendix D).

4.8 CONCLUSION

Based upon the considerations contained in this Section 4(f) Evaluation, there is no prudent and feasible alternatives to the use of the historic properties listed in this section and the use of the Pittsfield Preserve. The proposed roadway improvements include all possible planning to minimize harm to these resources from such use.