PROJECT ID 1440-13-00 **FHWA-WI-EIS-04-03-F**

WISCONSIN STATE HIGHWAY 23
FOND DU LAC to PLYMOUTH
FOND DU LAC AND SHEBOYGAN COUNTIES, WISCONSIN

FINAL ENVIRONMENTAL IMPACT STATEMENT
And Section 4(f) Evaluation
Submitted Pursuant to 42 U.S.C. 4332(2)(c) and 49 U.S.C. 303
By the
U.S. Department of Transportation
Federal Highway Administration
and
Wisconsin Department of Transportation

COOPERATING AGENCY
U.S. Army Corps of Engineers (pursuant to 33 CFR 230)

APPROVALS

[redacted]

6-3-10
Date For Federal Highway Administration

[redacted]

6/2/10
Date For Wisconsin Department of Transportation

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ABSTRACT

Wisconsin Highway 23 is part of the National Highway System (NHS) and is a rural principal arterial that connects Fond du Lac and Sheboygan in east central Wisconsin. Both west and east ends of the project are located in the growing urban areas of Fond du Lac and Plymouth. Nearly 20 miles in length, this highway corridor serves high traffic volumes near the urban areas and lower traffic volumes in rural areas. As traffic volumes increase, the existing characteristics of the 2-lane roadway will obstruct smooth and safe traffic flow. Primary impacts include agricultural land acquisition, residential and small business relocations, and encroachments on wetlands and other sensitive natural resources. This document evaluates the No-Build Alternative and a combination of Build Alternatives and discusses how they address the project's purpose and need. It also evaluates a series of corridor preservation alternatives for future transportation improvements. A Preferred Build Alternative has been selected and reconstructs WIS 23 to a 4-lane divided highway on the existing alignment and creates interchanges, connector roads, and a trail. Corridor preservation alternatives evaluate areas needed for future interchanges, overpasses, and connector roads as well as the US 151/WIS 23 interchange.

NATIONAL ENVIRONMENTAL POLICY ACT STATEMENT

The National Environmental Policy Act (NEPA), 42 USC 4321-4347, became effective January 1, 1970. This law requires that all federal agencies have prepared for every recommendation or report on proposals for legislation and other major federal actions significantly affecting the quality of the human environment a detailed Environmental Impact Statement (EIS). The Federal Highway Administration (FHWA) is therefore required to have prepared an EIS on proposals that are funded under its authority if the proposal is determined to be a major action significantly affecting the quality of the human environment.

EISs are required for many transportation projects as outlined in NEPA. The processing of an EIS is carried out in two stages. Draft EISs are first written and forwarded for review and comment to federal, state, and local agencies with jurisdiction by law or special expertise and are made available to the public. This availability to the public must occur at least 15 days before the public hearing and no later than the time of the first public hearing notice or notice of opportunity for a hearing. Normally, 45 days plus mailing time will be allowed for comments to be made on the Draft EIS unless a time extension is granted by the Director of the Bureau of Equity and Environmental Services (Wisconsin Department of Transportation). Supplemental Draft EISs are prepared whenever there are changes, new information, or further developments on a project that result in significant environmental impacts not identified in the most recently distributed version of the DEIS [40 CFR 1502.9(c)]. They have the same review period and hearing requirements as a Draft EIS. After this period has elapsed for a Draft EIS or Supplement Draft EIS, preparation of the Final EIS can begin.

1. Basic content of the Draft Statement (or Supplemental Draft Statement), as amended, due to internal agency comments, editing, additional alternatives being considered, and changes due to the time lag between the Draft, Supplemental Draft, and Final EIS.
2. Summary of public hearing environmental comments.
3. Copies of comments received on the Draft Statement or Supplemental Draft Statement.
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Administrative action cannot take place sooner than 90 days after circulation of the Draft Statement or Supplemental Draft Statement to the Environmental Protection Agency (EPA) or 30 days after submittal of the Final Statement to the EPA.

The Draft, Supplemental Draft, and Final EIS are full-disclosure documents, which provide a full description of the proposed project, the existing environment, and an analysis of the anticipated beneficial or adverse environmental effects.

The name, address, and telephone number of the individual from whom additional information can be obtained is listed on the cover of this document.

GENERAL REVIEWER INFORMATION

New material in the Final EIS is either highlighted with shading or noted with a vertical line in the margin.

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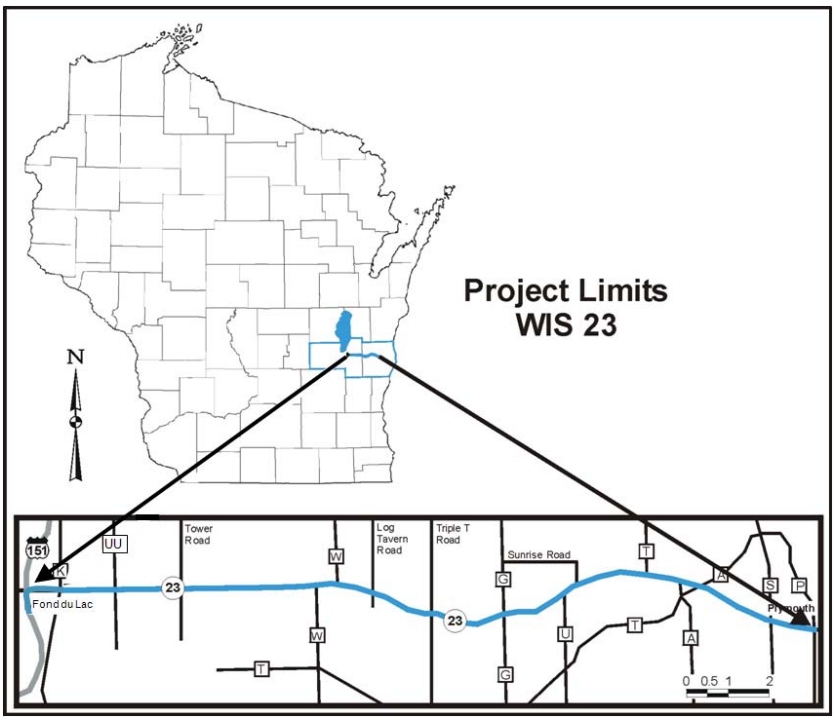

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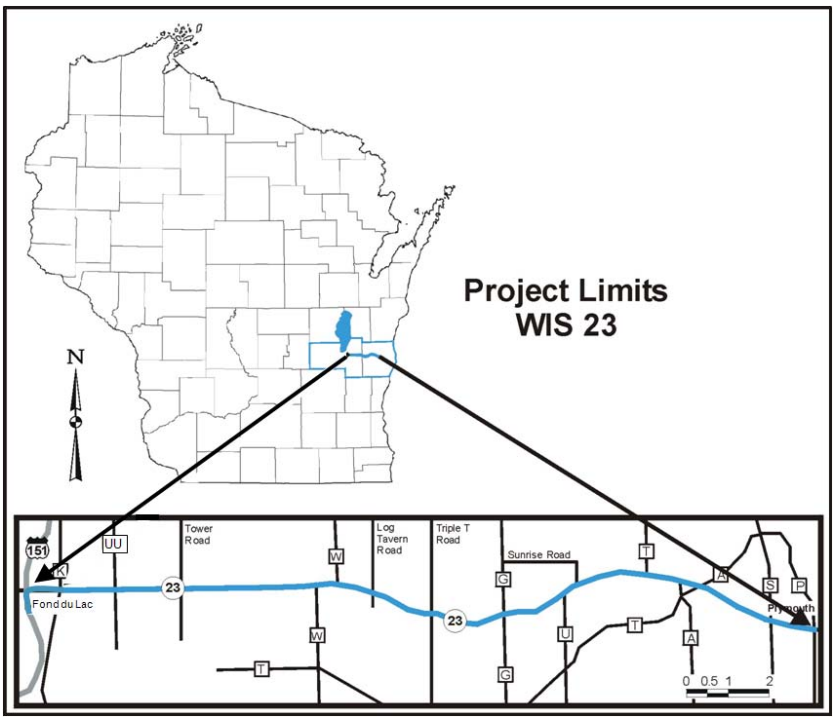

ES.1 LOCATION

The study corridor is Wisconsin Highway (WIS) 23 in east central Wisconsin (see Figure ES-1). The project is located in Fond du Lac and Sheboygan Counties between the cities of Fond du Lac and Plymouth. The project begins at United States Highway (US) 151 Fond du Lac Bypass, and extends approximately 19 miles easterly to County P in Sheboygan County.

A Supplemental Draft Environmental Impact Statement (SDEIS) was completed for this project, augmenting the information contained in the Draft Environmental Impact Statement (DEIS), signed on November 3, 2004. A SDEIS is prepared for a project whenever there are changes, new information, or further developments on a project that result in significant environmental impacts not identified in the most recently distributed version of the DEIS (40 CFR 1502.9(c)). The SDEIS, signed on December 23, 2009, contained new information regarding trail, intersection, grade separation, and interchange treatments that were not discussed in the DEIS. It also contained new information regarding corridor preservation alternatives.

This Final Environmental Impact Statement (FEIS) contains the information provided in the SDEIS. It also documents and responds to the comments received from the DEIS and SDEIS. This FEIS documents the Preferred Build Alternative and the Preferred Corridor Preservation alternatives and the reasons for selection.

ES.2 DESCRIPTION OF EXISTING FACILITY

The WIS 23 project corridor is a two-lane facility that connects the existing four-lane facilities from the east end of the City of Fond du Lac to County P in Plymouth. The existing WIS 23 two-lane roadway has approximately 1.3 miles of adequate concrete pavement sections and approximately 17.3 miles of bituminous pavement that is exhibiting some signs of distress. Horizontal and vertical curves within the project limits are adequate for the posted speeds. The pavement is 24 feet wide with 8-foot shoulders, of which 3 feet are paved.

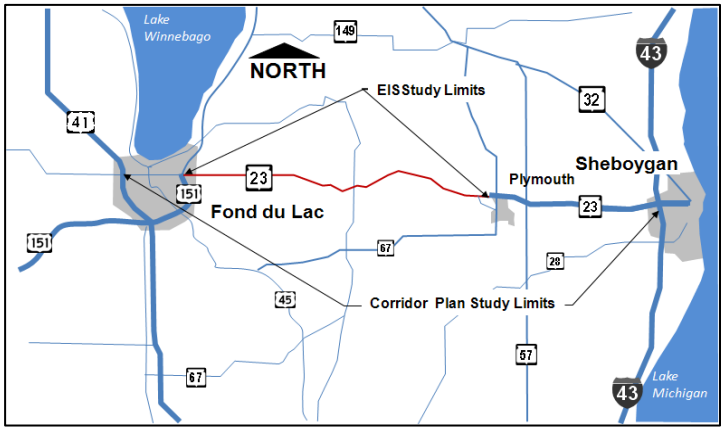

Figure ES-1 EIS Study Limits

Approximately 22 percent (average) of the existing roadway has no passing zones. Traffic volumes often prevent passing opportunities on the remaining roadway. The inability to pass restricts speed and maneuverability for through-traffic and may lead to driver frustration and inconvenience.

The Wisconsin Department of Transportation (WisDOT) has access controls defined by Wis. Stats 84.09 along the existing route. Approximately 168 driveways and field entrances and 67 side roads are present along the existing route.

ES.3 DESCRIPTION OF ALTERNATIVE STRUCTURE AND PROPOSED ACTION

This FEIS evaluates highway expansion options, highway corridor locations, intersection treatments, and corridor preservation alternatives, and their associated impacts. The format of the alternative evaluation is illustrated in Figure ES-2. They include the No Build Alternative, Dismissed Build Alternatives, Dismissed Corridor Preservation Alternatives, the Preferred Build Alternative, and the Preferred Corridor Preservation Alternatives. Components highlighted in orange represent newer alternatives that

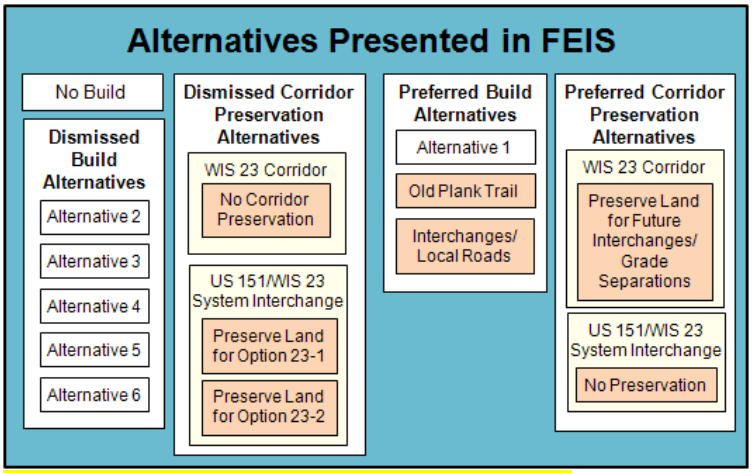

Figure ES-2 Alternative Evaluation Structure

were not addressed in the DEIS but were addressed in the SDEIS. As shown, WisDOT has chosen a Preferred Build Alternative after gathering input from the public, municipalities, and participating agencies. The proposed action will preserve and provide a safe and efficient transportation system for the WIS 23 corridor between the City of Fond du Lac and the City of Plymouth to serve present and future traffic while minimizing disturbance to the natural and built environment. The Preferred Build Alternative includes the following components:

1. Alternative 1, which expands WIS 23 to a four-lane divided highway on the existing alignment. Alternative 1 uses existing roadway from US 151 to County W and from Division Road to County P as its eastbound lanes. From County W to Division Road, Alternative 1 uses the existing roadway as its westbound lanes.
2. Associated interchanges and local roads, including the County K jug-handle, the County UU and County G interchanges, a roundabout at Wisconsin American Parkway, the extension of Lynn Avenue, an alternate access to Ledgewood Drive, the extension of Coary Lane, the rerouting of Twinkle Lane, and alternative access to Inez Court.
3. Extension of the Old Plank Trail, which is a multiuse trail located parallel to and south of the WIS 23 roadway.

Additionally, WisDOT has chosen Preferred Corridor Preservation Alternatives after gathering input from the public, municipalities, and participating agencies. Corridor preservation measures preserve future right-of-way (R/W) where roadway improvements are likely to be needed. This corridor preservation is accomplished through the official mapping provisions under §84.295(10) of the Wisconsin State Statutes. The first corridor preservation project element focuses on the WIS 23 corridor and what land may be needed for future interchanges and overpasses. The second corridor preservation project element focuses on the US 151/WIS 23 interchange. The adjacent US 151 Fond du Lac bypass corridor preservation study investigated the system interchange alternatives for this connection, yet the connection more fully falls within the logical termini of this WIS 23 project. Therefore these corridor preservation measures were incorporated into this document. The following paragraphs summarize the Preferred Corridor Preservation Alternatives.

1. WIS 23 Corridor

   Corridor preservation–including land for future interchanges at the County A and County W intersections and grade separations at the Scenic View Drive, Tower Road, Sugarbush Road, and 7 Hills Road intersections. Other intersections along the corridor will be at-grade with right-in/right-out access or cul de sacs.

2. US 151/WIS 23 Interchange

   No Preservation–the US 151/WIS 23 Interchange No Preservation Alternative will not preserve R/W for future system interchange improvements at this connection. Land adjacent to the existing diamond interchange will be unencumbered by official mapping, allowing development in accordance with local land use plans.

ES.4 PROJECT PURPOSE AND NEED

The purpose of the WIS 23 project is to provide additional highway capacity to service existing and projected traffic volumes and improve operational efficiency and safety for local and through traffic while avoiding or minimizing environmental effects. It also seeks to preserve the corridor and R/W for future transportation needs such as grade separations and interchanges. This preservation will help coordinate local governmental land use plans with transportation improvement plans. These plans include nonmotorized transportation accommodations.

The improved facility will meet today's physical and operational standards for a Connections 2030 Connector Route. Through-traffic, commuters, and truck traffic will be able to maintain steady flow through the project area when WIS 23 is updated to standards. The project will enhance safety and efficiency while avoiding or minimizing socioeconomic and environmental impacts to the extent possible. The following items discuss the needs of the project.

System Linkage and Route Importance–WIS 23 is a Connector Route in the Corridors 2020/Connections 2030 State Transportation Plan. It is a rural principal arterial between the City of Fond du Lac and the City of Sheboygan and is a major east-west connecting highway between these and other population centers of east central Wisconsin. It provides a major link between I-43 and US 41. WIS 23 is a

state designated long truck route. It is a vital interregional Connector and part of the Corridors 2020/Connections 2030 State Transportation Plan as a Connector Route. As a Connector Route, it should be upgraded to current standards for roadway capacity and alignment. WIS 23 has been expanded to four lanes from US 151 to County K in Fond du Lac County and from Plymouth to Sheboygan in Sheboygan County with this section currently existing as a two-lane roadway.

Transportation Demand and Economic Development–WIS 23 connects numerous economic sectors with the east Wisconsin region. It helps connect east central Wisconsin to the Fox Valley, Green Bay, Milwaukee, Madison, and Chicago economic centers. The current two-lane roadway does not adequately meet the transportation needs of these economic sectors and decreases the region's competitiveness.

Legislative and Planning History–As a Connector in the State Highway Plan, WIS 23 warrants high levels of mobility and safety. Because of this, in the 1999 biennial budget, the legislature enumerated WIS 23 as a major project. Authorization for expanding highway capacity along the portion of WIS 23 from WIS 67 to US 41 in Sheboygan and Fond du Lac Counties is found in Wis Stats 84.013(3)(ra).

Existing and Future Traffic Volumes and Resulting Operation–Many portions of WIS 23 exceed the threshold that warrants a four-lane facility. By 2035, most of the corridor will exceed these thresholds. The lack of adequate capacity will create service levels that are below desirable standards for a Connector Route.

Existing Highway Geometric Characteristics–The traffic volumes on much of WIS 23 warrant a four-lane cross section according to current WisDOT design standards. Additionally, much of the route is striped for no passing. Even when passing zones are available, opposing traffic volumes reduce passing opportunities and result in a lower LOS. The connection between the US 151 Fond du Lac bypass and WIS 23 is a junction of two Connector routes in the State Highway Plan. To be consistent with the State Highway Plan, this junction should be served with a partial "system" interchange that provides freeflowing ramps from and to these two roadways.

Access–The high number of access points is directly related to both highway safety and mobility. WIS 23 has greater numbers of driveway and side-road access than what is typical for a Connector Route. Local traffic and farm machinery enter and exit the highway from approximately 235 county and local roads, private driveways, and field access points.

Safety–While WIS 23 crash rates are comparable or lower than the average for a state trunk highway, they are projected to increase as WIS 23 traffic volumes and side-road access increases.

Accommodations for Non-Motorized Travel–There are currently no adequate facilities for nonmotorized transportation along WIS 23 between the Town of Greenbush and the City of Fond du Lac. In Sheboygan County, the Old Plank Road Trail extends from Sheboygan 17 miles west to Greenbush and connects with the Kettle Moraine State Forest. This leaves a 16-mile gap along the WIS 23 corridor between Fond du Lac and Greenbush where no satisfactory facilities exist for nonmotorized travel.

Other factors that support the project purpose and need include:

1. Project History

   In the 1999 Biennial Budget, the Wisconsin State Legislature enumerated WIS 23 as a major project. Authorization for expanding highway capacity along the portion of WIS 23 from WIS 67 to US 41 in Sheboygan and Fond du Lac Counties is found in Wis. Stats 84.013(3)(ra).

2. Transportation and Areawide Plans

   Other WisDOT transportation projects or actions in the project area include the 4-year US 151 Bypass of Fond du Lac construction project completed in 2008 as well as the US 151 Fond du Lac Corridor Preservation Project currently underway.

   WIS 23 between County P and WIS 67 in the City of Plymouth was expanded to a four-lane facility in 2004 and 2005. WIS 23 expansion from the US 151 Bypass improvements to the improvements in Plymouth is consistent with this corridor and growing needs in east central Wisconsin. This project will complete the four-lane expansion of WIS 23 from Fond du Lac to Sheboygan.

The Fond du Lac Long-Range Plan (Plan) dated 2006 identifies WIS 23 as the third most important route serving the Fond du Lac area. The Plan indicates that WIS 23 east to Plymouth is scheduled to be expanded to four lanes in 2013 and the Metropolitan Planning Organization (MPO) should continue to work with WisDOT to identify additional safety improvements that can be made as part of the project. As an example, the Plan identifies the WIS 23 project's inclusion of a grade-separated jug-handle interchange at County K. The Fond du Lac Plan's recommendation for the WIS 23 Project is "Proceed."

The Sheboygan MPO long-range plan also recognizes the importance of WIS 23 to its metropolitan area. The MPO indicates the limits for the WIS 23 project are outside the metropolitan planning area.

3. Corridor Preservation

Corridor preservation involves protecting future R/W for planned long-term transportation needs. It prevents land development from occurring in areas that may be needed for future transportation improvements.

The R/W needs associated with the corridor preservation measures will be officially mapped under Wis. Stats 84.295 when the Preferred Build Alternative is implemented, about the year 2015. The intent of this proposed action is to designate WIS 23 as an expressway under Wis. Stats 84.295. This designation is a *planning* action to identify the requisite improvements and associated R/W needs to improve this facility to a higher level expressway. This designation is also a *preservation* action where Official Mapping, under Wis. Stats 84.295(10), is used to preserve those R/W needs for the eventual conversion.

Since Wis. Stats 84.295(10) also provides WisDOT the authority to purchase officially mapped lands as R/W, this action is intended to complete the environmental analysis to a Tier 1 level. When the future expressway conversion improvements plan is to be implemented, Tier 1 level environmental analysis will enhance the validity of the designation and conversion process as required under Wis. Stats 84.295(3) and serve as a link between the planning and preservation process and the final project design.

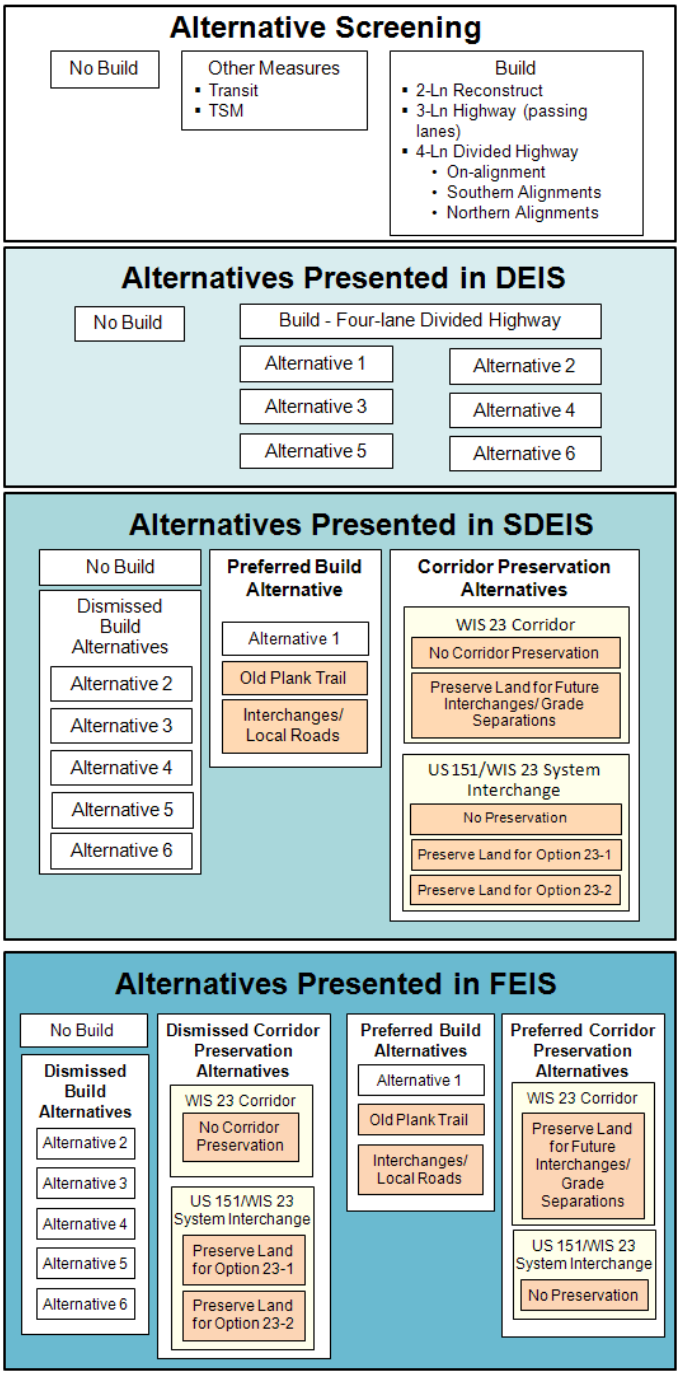

Figure ES-3 Alternative Evaluation Structure

ES.5 ALTERNATIVES

A. Alternative Screening

In the early stages of the project, WisDOT staff worked with the Public Advisory Committee (PAC) to develop broad improvement concepts. These included the No-Build Alternative, Other Measures, and the Build Concepts. While these will be discussed briefly in Section 2.3, only Build-Four-Lane met enough of the project purpose and need to move into the alternative development phase to be presented in the DEIS.

1. No-Build Alternative

Under the No-Build Alternative, WIS 23 would not be expanded to provide additional roadway capacity. Any future work along WIS 23 would attempt to preserve an acceptable roadway surface and address safety concerns at critical locations.

The No-Build Alternative would fail to address future traffic demands, highway deficiencies, and safety concerns throughout the WIS 23 corridor. The No-Build served as a comparison to the Build Alternatives discussed in the study.

The No-Build Alternative does not make any improvements to the corridor except for basic maintenance. It is presented in the EIS to comply with CEQ regulations and to serve as a baseline for comparison.

2. Other Measures

   a. *Non-highway Transportation Alternative* using light rail, mass transit, and related highway improvements. The implementation and/or expansion of any one of these modes must be economically reasonable and viable. Presently, there is no rail passenger service or public bus transit in the project area. The unavailability of these services is due to insufficient demand at this time. There are no feasible alternatives to driving in the project area.

   b. *Transportation System Management* seeks to relieve congestion and enhance capacity through low cost improvements such as signal improvements or the removal of bottlenecks. Because of the rural nature of the two-lane WIS 23 corridor, transportation system management is not able to solve the capacity problems in the corridor.

3. Build Alternatives

Several Build alternatives were considered in the screening process. They include:

   a. *Reconstructing the Existing two-lane Highway*–This alternative results in no capacity expansion and does not address the purpose and need. The Fond du Lac County portion of this project was already reconstructed in 1989 with many geometric improvements.

   b. *Three-Lane Roadway (Passing Lanes)*–As mentioned, the passing lane alternative was examined both before the release of the DEIS and after the release of the DEIS in response to comments. The function of the alternative was to serve as an interim solution prior to full reconstruction of WIS 23 to a four-lane facility. The text of a report evaluating the Passing Lane Alternative is included in Appendix J.

   c. *Four-Lane Divided Roadway*–This alternative provides a divided four-lane roadway with access treatments at intersections. Several alignments were investigated.
      - On-alignment–This Alternative uses the existing R/W to construct the divided roadway. It was brought forward for further study because of the decreased R/W needs associated with it.
      - Southern Alignments–This alternative investigates routes south of the existing alignment. It was brought forward for further study to provide a range of alternatives and because impacts were not as great as northern alignment alternatives.
      - Northern Alignments–These were not studied beyond the concept level because they would accomplish the same goals of a southern alternative (Alternative 3) with greater impact to wetlands, more residential relocations, and higher costs.

ES.6 ALTERNATIVES PRESENTED IN SDEIS

Corridor alternatives were developed using local input, information compiled on composite constraint maps of the area, engineering feasibility, and design standards. The constraint map and screening information included property lines, homes, businesses, farms, buildings, wetlands, historic sites, archaeological sites, cemeteries, potentially contaminated sites, quarries, and drainage features. The alternatives retained for detailed study were selected based on the ability to fulfill the purpose and need while minimizing impacts.

A. No-Build

Under the No-Build Alternative, WIS 23 would not be expanded to provide additional roadway capacity. Any future work along WIS 23 would attempt to preserve an acceptable roadway surface and address safety concerns at critical locations.

The No-Build Alternative would fail to address future traffic demands, highway deficiencies, and safety concerns throughout the WIS 23 corridor. The No-Build served as a comparison to the Build Alternatives discussed in the study.

B. Dismissed Build Alternatives

All the four-lane expansion alternatives selected for detailed study are viable build options that satisfy the project purpose and need. There were six major alternatives that balanced impacts to adjacent development and environmental resources. Alternatives 3 through 6 represent a similar alignment concept and are represented by the single Alternative 3.

All three alternatives considered improvements to the County K and County UU intersections in the City of Fond du Lac, extended the multiuse Old Plank Trail from the Village of Greenbush in Sheboygan County to US 151 in the City of Fond du Lac, and added an underpass for the Ice Age and Equestrian Trails that cross WIS 23 in the Kettle Moraine State Forest Northern Unit. These improvements are discussed in Section 2.

Each alternative begins at WIS 23's interchange with US 151 in the City of Fond du Lac and follows the existing alignment to the top of the Niagara Escarpment, about 0.2 miles east of County K. Alternative 1 stays on the existing alignment and is brought forward. Alternative 2 travels north of the existing alignment in the middle of the corridor. Alternatives 3-6 travel south of the existing alignment on the west portion of the corridor and north of the existing alignment in the middle of the corridor. Each of the alternatives follows the existing highway alignment from just east of County U in Sheboygan County to the east for about 6.2 miles until ending at County P near the City of Plymouth. Figure ES-4 schematically illustrates the three main Build Alternatives.

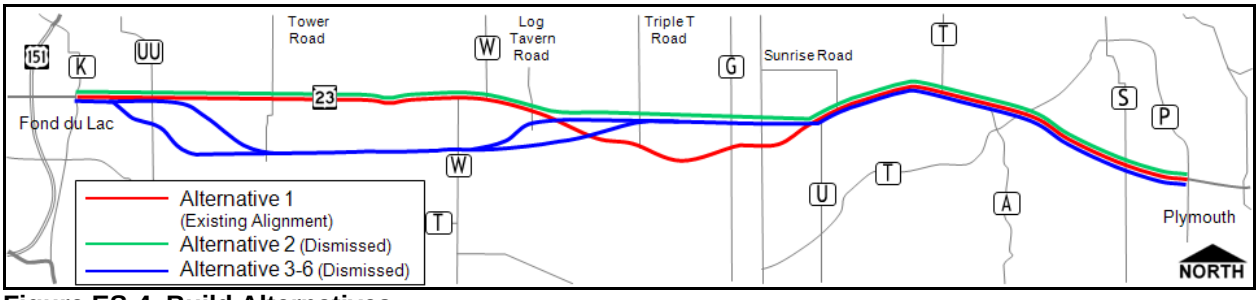

Figure ES-4 Build Alternatives

C. Preferred Build Alternative

All alternatives presented in the Draft EIS remained under consideration until the four-lane expansion portion of the Preferred Build Alternative was selected after the public hearing in January 2005. Selection of the four-lane expansion portion of the Preferred Build Alternative was made only after evaluation of all comments received as a result of the public hearing and following review of the Draft EIS by the public and agencies.

1. Four-lane Expansion (Alternative 1)

The Preferred Build Alternative constructs a full four-lane divided highway on the existing alignment for the full length of the project. From US 151 to County UU, WIS 23 will essentially have a suburban cross section. This includes four 12-foot lanes, 6-foot inside shoulders, 10-foot outside shoulders, and an 18-foot median with mountable curb. From County UU east to County P in Sheboygan County, WIS 23 will have a typical expressway cross section. This includes four 12-foot lanes, 6-foot inside shoulders, 10-foot outside shoulders, and a 60-foot median. Generally, the existing roadbed will carry the eastbound lanes, and the westbound lanes will be constructed north of the existing roadway. Figure 2.6-1 illustrates this cross section.

The Ice Age Trail (IAT) and the State Equestrian Trail cross WIS 23 at the Kettle Moraine Forest. The WIS 23 Preferred Build Alternative provides an underpass with a clear width of 20 feet and a minimum vertical clearance of 12 feet for the combined trails.

2. Old Plank Trail

The existing Old Plank Trail currently connects the City of Sheboygan with the Town of Greenbush on the east portion of the study corridor. The US 151 bypass of the City of Fond du Lac constructed the Prairie Multiuse Trail along the bypass roadway that connects the Wild Goose State Trail south of the city and the WIS 149 trail in Peebles. The Preferred Build Alternative will construct an extension of the Old Plank Trail from the Town of Greenbush, Wisconsin, to the Prairie Trail in Fond du Lac, Wisconsin. The trail will generally be located within the proposed roadway R/W on the south side of the four-lane expansion.

3. Local Roads and Interchanges

The Preferred Build Alternative also constructs a series of local roads and interchanges to improve highway mobility and safety. These improvements include a jug-handle grade-separated interchange at County K and diamond interchanges at County UU and County G. Several side roads will also have their direct access to WIS 23 removed but are provided alternate access via frontage roads and other local connections. Figures ES-5, ES-6, ES-7, and ES-8 show the County K jug-handle, the County UU and County G interchanges, and the roundabout at Wisconsin American Parkway. Figures ES-9 and ES-10 show local road modifications. Section 2 of this SDEIS describes these access modifications in greater detail.

Figure ES-5 County K Jug-handle

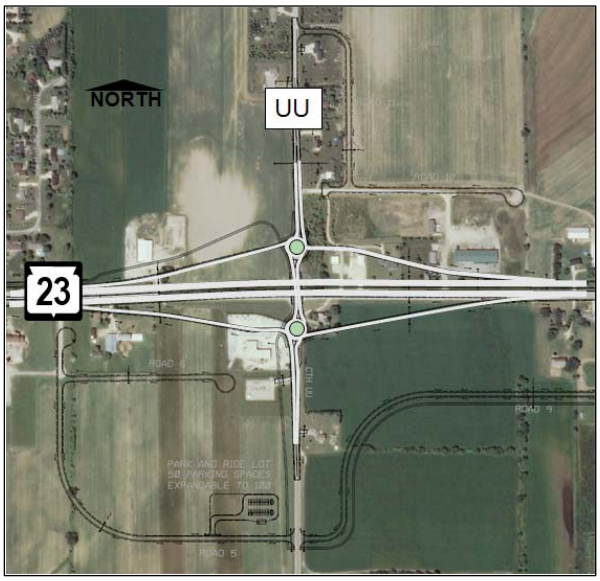

Figure ES-6 County UU Diamond Interchange

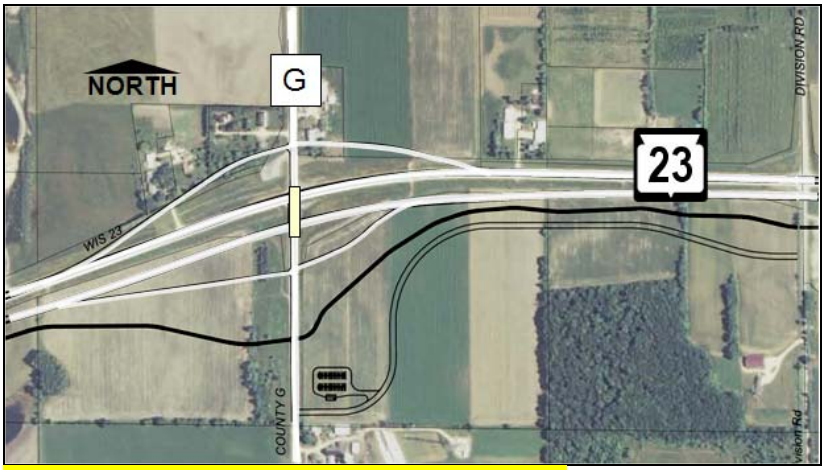

Figure ES-7 County G Diamond Interchange

Figure ES-8 Wisconsin American Parkway Roundabout

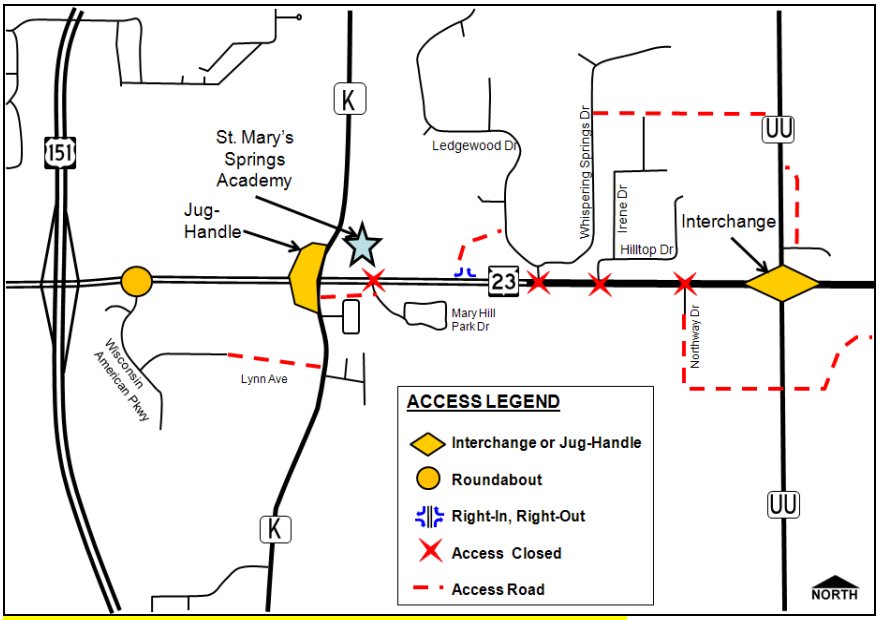

Figure ES-9 Local Road Changes in Fond du Lac

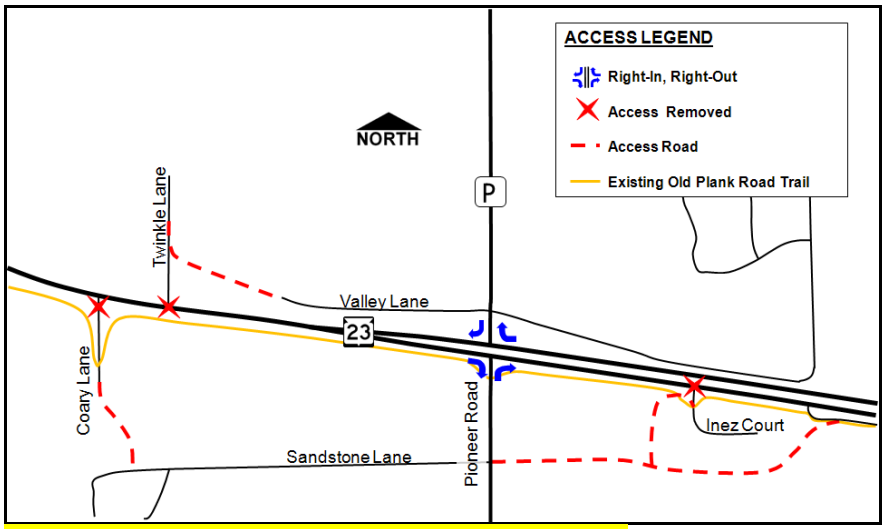

Figure ES-10 Local Road Changes in Sheboygan

J-turns are being considered at several high-volume intersections east of County UU. This intersection concept only allows right-in/right-out/left-in movements and removes the most hazardous movements from the intersection. This intersection access treatment is shown in Figure ES-11. Other at-grade intersection treatments are also being considered at high-volume intersections. Ultimate intersection configuration will be made in final design and in consultation with local officials.

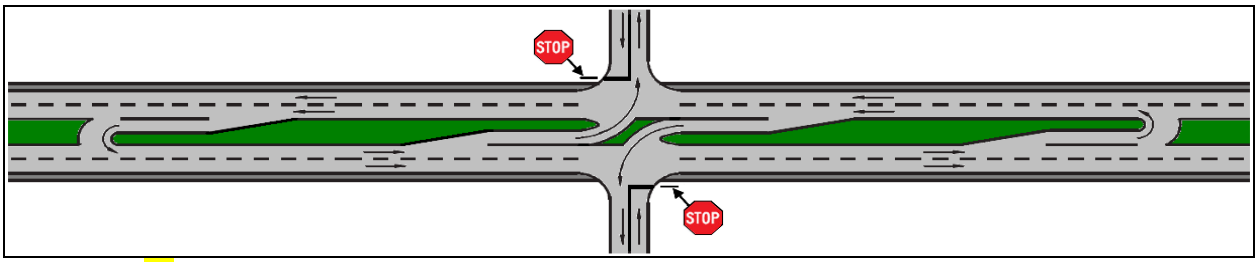

Figure ES-11 J-turn Concept

4. Corridor Preservation Measures

Corridor preservation measures will be implemented when operational and safety needs dictate. These improvements focus on either removing access from WIS 23 or improving the access type. Access modifications will be determined on a case-by-case basis as needed. Modifications will generally be based on traffic volumes and crash history and will include the same types of treatments. These include access closure, Right-In/Right-Out (RIRO), dedicated left turns, and J-turns.

1. WIS 23 Corridor

a. No Corridor Preservation

The WIS 23 No Corridor Preservation Alternative would not preserve any R/W for anticipated future transportation improvements along the corridor. Land adjacent to the corridor would be unencumbered by official mapping. This is not the preferred corridor preservation alternative because it would increase costs and disruption when future access improvements were needed.

b. Corridor Preservation (Preferred)

The Preferred WIS 23 Corridor Preservation Alternative implements corridor preservation at key intersections and local road connections. These WIS 23 corridor preservation measures would preserve R/W needed to remove access from WIS 23 or improve the access type. The actual construction of these access modifications will occur when operational and safety needs dictate. From Wisconsin American Parkway east to County P, the land needed to construct two diamond interchanges would be preserved. The locations of these interchanges include the Loehr Road/County W north intersection and the County A intersection. Additionally, the Preferred WIS 23 Corridor Preservation Alternative preserves the R/W needed for grade separations at

Tower Road, 7 Hills Road, Scenic View Drive, and Sugarbush Road. The footprints for these interchanges and grade separations can be seen in Figures 2.6-9 to 2.6-23.

2. US 151/WIS 23 System Interchange

Another corridor preservation measure was studied for different system interchange types for the connection between US 151 and WIS 23. This is a junction between two Connector routes in the Corridors 2020/Connections 2030 State Highway Plan. Ultimately the connection between these important highways warrants a free-flowing interchange, which gives priority to these movements. In the SDEIS, three corridor preservation options were evaluated at this interchange. Selection of the Preferred US 151/WIS 23 corridor preservation option was made after evaluation of all comments received as a result of the February 2010 public hearing and following review of the SDEIS by the public and agencies.

a. No Preservation (Preferred)

The US 151/WIS 23 Interchange No Preservation Alternative does not preserve any R/W for anticipated future system interchange improvements at this connection. Land adjacent to the existing diamond interchange will be unencumbered by official mapping. If future transportation improvements need land with structures, WisDOT will have to purchase the land and structures and relocate any businesses or residences.

b. Option 23-1 Preservation.

This option preserves future R/W needed for the Option 23-1 system interchange. Option 23-1 would be a two-level free-flow connection between US 151 and WIS 23 located in the southeast quadrant of the existing US 151/WIS 23 diamond interchange. With this alternative, northbound-to-eastbound and westbound-to-southbound traffic would have a free-flowing ramp. Figure ES-12 illustrates this interchange. The existing US 151/WIS 23 diamond interchange would remain to serve local traffic. Additionally, the Wisconsin American Parkway/Johnson Street (Old WIS 23) intersection could remain as an at-grade intersection or roundabout. East of Wisconsin American Parkway intersection, Johnson Street would transition to on- and off-ramps for the WIS 23 freeway. The ramps to the County K jug-handle would be removed and redirected to the Wisconsin American Parkway intersection. This corridor preservation option was dismissed because the benefits derived from the corridor preservation did not outweigh the impacts and encumbrances to affected property owners as well as impacts to the natural environment.

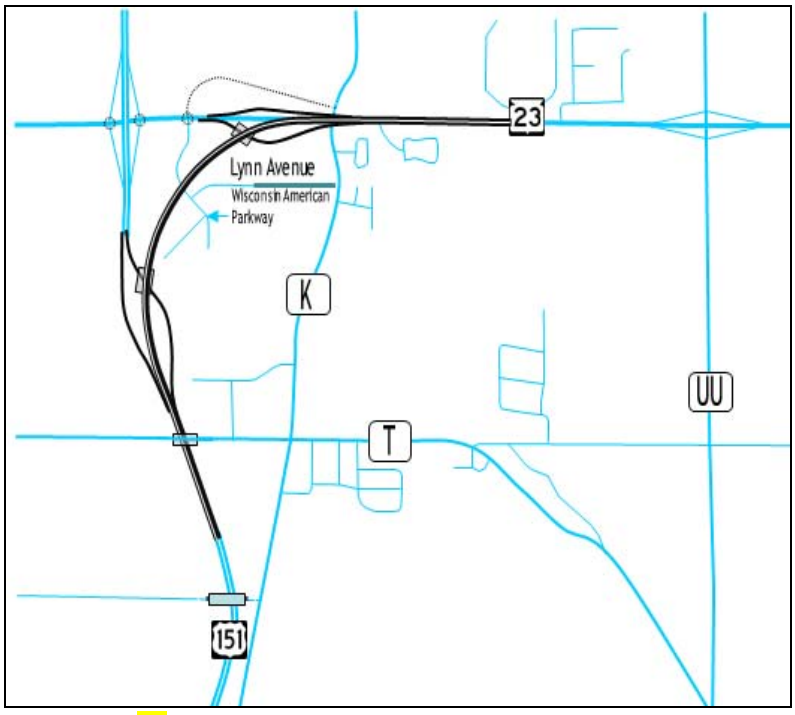

Figure ES-12 Option 23-1 System Interchange

b. Option 23-2 Preservation.

This option preserves future R/W needed for the Option 23-2 system interchange. Option 23-2 would be a three-level free-flow connection between US 151 and WIS 23 located directly above the existing US 151/WIS 23 diamond interchange. Figure ES-13 schematically illustrates this interchange. As with Alternative 23-1, the existing US 151/WIS 23 interchange remains to serve local traffic. Similarly, the Wisconsin American Parkway intersection remains as an intersection or roundabout. As with Alternative 23-1, this option also reroutes the ramps at the County K jug-handle to the Wisconsin American Parkway intersection. At-grade intersections and driveways would be eliminated along WIS 23.

The corridor preservation option was dismissed because the benefits derived from the corridor preservation did not outweigh the impacts and encumbrances to affected property owners as well as impacts to the natural environment.

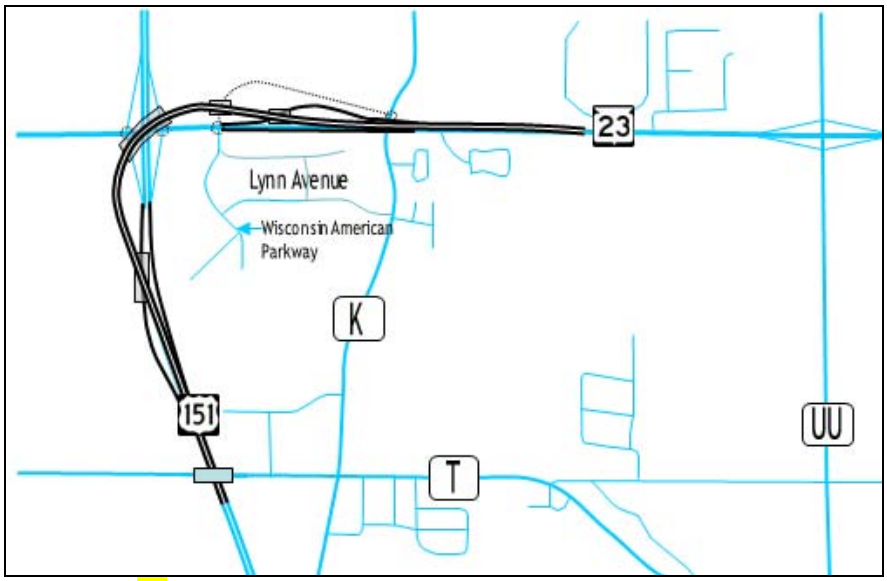

Figure ES-13 Option 23-2 System Interchange

ES.7 ENVIRONMENTAL IMPACTS

Environmental impacts were identified for each corridor alternative. The impact analysis included a review of the following: economic and community/residential impacts; air and noise effects; farmland impacts; residential and business relocations; upland habitat impacts; wetlands, streams, lakes, and floodplains impacted; erosion control and potential stormwater impacts; endangered species impacted; potential impacts to archaeological and historical sites that may be eligible for the National Register of Historic Places (NRHP); locations of possibly contaminated sites; public and private access points; estimated R/W required; public input; and project costs.

A detailed discussion of environmental consequences is provided in Section 4.0. The Environmental Cost Matrix, Table ES-1 at the end of this summary, lists the impacts of the detailed study alternatives. Figures ES-14 and ES-15 show the project corridor and the alternatives considered.

The way in which R/W impacts were allocated for 4-lane improvement in the DEIS compared to the SDEIS is shown graphically in Figure 4.1-1. For the SDEIS analysis, the impacts allocated to the Old Plank Trail (OPT) include some of the slopes associated with the 4-lane roadway expansion (WIS 23 mainline). Without the trail, about 35 percent of the land allocated to the trail would still be needed for the 4 lane expansion.

All Build Alternatives will have some adverse environmental impacts. The project must balance the concern for environmental protection with the project purpose and need, economic development, and indirect and cumulative effects. To achieve this, environmental impacts will be avoided if possible or minimized to the extent that is practicable. Impacts may be minimized through design. Specifically, impacts may be avoided by adjusting the horizontal or vertical alignments, by selecting other appropriate

design features and standards, and by specifying appropriate construction techniques. Mitigation will be provided in ways appropriate to the impact and magnitude. This may include the creation of adjacent or off-site wetland areas and the improvement of public crossings, trails, and access points. Section 5 describes specific commitments related to the environmental impacts within the WIS 23 study area.

ES.8 COOPERATING AGENCY

The Federal Highway Administration (FHWA) is the federal lead agency for this EIS under the NEPA and Safe, Accountable, Flexible and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). FHWA is conducting the environmental and engineering evaluations. WisDOT is the state lead agency and is preparing the EIS in consultation with the FHWA.

The United States Army Corps of Engineers (COE) is a Cooperating Agency for the EIS as described in 33 CFR 230. In accordance with COE regulations under Section 404 of the Clean Water Act, the COE remains impartial until an independent public interest review has been completed.

ES.9 ENVIRONMENTAL JUSTICE

This document is in compliance with United Stated Department of Transportation (DOT) and FHWA policies to determine whether a proposed project will have induced socioeconomic impacts or any other adverse impacts on minority or low-income populations, and it meets the requirements of Executive Order on Environmental Justice 12898–"Federal Actions to Address Environmental Justice in Minority and Low-Income Populations." Minority or low-income individuals may be dispersed throughout the study area, though no known minority or low-income populations will be disproportionately impacted by the alternatives selected for detailed study.

ES.10 OTHER ACTIVITIES REQUIRED

Relocation Assistance Plans for displaced residents and businesses require approval by the Wisconsin Department of Commerce under Wis. Stats. 32.25.

Stream and wetland impacts associated with the Recommended Alternative are subject to individual Section 404 permits required by the COE.

A water quality certification, Section 401 permit, is required by the Wisconsin Department of Natural Resources (WDNR).

The proposed highway improvement project will be planned and implemented in accordance with the standards of erosion control and stormwater management established in Trans 401.

Cultural resource impacts require coordination with the State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation (ACHP) and completion of requirements of the National Historic Preservation Act of 1966. Coordination and consultation with interested Native American tribes have been conducted throughout the course of this project.

An Agricultural Impact Statement (AIS) prepared by the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) is required under Wis. Stats. 32.025 before negotiating with property owners regarding real estate acquisition from farming operations. The Executive Summary of the AIS is provided as Appendix K.

Mitigation commitments for affected Section 4(f) and Section 6(f) properties are included in this document in Section 4.6. A summary of project commitments is provided in Section 5.

ES.11 REGULATORY COMPLIANCE

The planning, agency coordination, public involvement, and impact evaluation for the project have been conducted in accordance with the NEPA, the Clean Water Act, Executive Orders regarding wetland and floodplain protection, the Fish and Wildlife Coordination Act, the Migratory Bird Treaty Act, the Executive Order on Environmental Justice 12898, the National Historic Preservation Act of 1966, and other state and federal laws, executive orders, policies, and procedures for environmental impact analyses and preparation of environmental documents.

ES.12 PUBLIC CONCERNS AND UNRESOLVED ISSUES

To date, the meetings and other coordination activities have indicated several issues of concern. The following general concerns have been raised: conversion of farmland, impacts to farm operations, impacts to wetlands, uplands and wildlife habitats, and safety concerns. Specific concerns written to WisDOT include the following:

1. Several objection letters to Alternative 2 and Alternative 3.
2. Concerns about disturbing farms and business along Alternative 1 rather than building Alternative 2.
3. Comments regarding the design of the combined Ice Age Trail (IAT) and State Equestrian Trail crossing beneath WIS 23.
4. WisDOT has decided to build an interchange at County G. This decision was driven by input from local officials and citizens, combined with the fact an interchange would better serve transportation needs at that location, based on volume and types of traffic.
5. WisDOT has selected the No Preservation alternative for the US 151/WIS 23 system interchange and will not be mapping a location for a future interchange. A traffic analysis shows that the existing interchange will operate efficiently well into the future.

ES.13 PROJECT BENEFITS

The proposed project will provide the following benefits:

1. Provide a safe and dependable highway connection to and from regional communities while reducing conflicts between local and through traffic.
2. Improve the highway facility to meet current design standards for this Connector route in Wisconsin.
3. Complete the system link of US 41 to I-43 between the Cities of Sheboygan and Fond du Lac. WIS 23 is a Corridors 2020/Connections 2030 designated, multilane, east-west connector highway between the Green Bay and Milwaukee areas.
4. Improve safety at intersections and farm crossings.
5. Increase the mobility by adding capacity and minimizing public and private access.
6. Preserve corridor for future transportation use by coordinating local governmental land use plans. This will alleviate development pressures on WIS 23 and intersecting roads, preserving the corridor for future transportation use.
7. Maintain a rural highway-type facility while addressing the increased traffic needs of the expanding urban area.

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Table ES-1 Preferred Alternative Environmental Cost Matrix

		Build Alternatives					Corridor Preservation Measures					
			Preferred Build Alternative				WIS 23 Corridor Connection Rds, Grade Separation, and Interchanges		US 151 / WIS 23 System Interchange			
	UNIT	NO BUILD[3]	Alt 1 4-In Expansion Totals[1]	Connection Roads and Interchanges Totals	Old Plank Trail[5] Totals	Build Alternatives Total	No WIS 23 Preservation Totals	Preferred WIS 23 Preservation Totals	No US 151/WIS 23 Preservation (Preferred) Totals	US 151/WIS 23 23-1 Preservation Totals	US 151/WIS 23 23-2 Preservation Totals	Preferred Corridor Preservation Measures
Road Length	Miles	19.07	19.07	N/A	N/A	19.07	N/A	N/A	N/A	N/A	N/A	N/A
FOUR-LANE EXPANSION AND ACCESS PRESERVATION COST												
Design	Millions $	6.7	9			9.0	N/A	N/A	N/A	N/A	N/A	N/A
Real Estate [5]	Millions $		26.5			26.5	N/A	N/A	N/A	N/A	N/A	N/A
Utility	Millions $		5.4			5.4	N/A	N/A	N/A	N/A	N/A	N/A
Construction	Millions $		98.8			98.8						
SUBTOTAL	Millions $	**6.7**	**139.7**			**139.7**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
FUTURE ACCESS PRESERVATION COST (Construction and Real Estate)												
System interchange Roadway Construction	Millions $	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	47.2	70.9	N/A
System interchange Real Estate	Millions $	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.1	0.9	N/A
CTH W Interchange with connections	Millions $	N/A	N/A	N/A	N/A	N/A	N/A	9.8	N/A	N/A	N/A	9.8
CTH A Interchange with connections	Millions $	N/A	N/A	N/A	N/A	N/A	N/A	8.6	N/A	N/A	N/A	8.6
Grade Separation Overpass (Sugarbush, Tower, Seven Hills, Hillview, Scenic View, County P)	Millions $	N/A	N/A	N/A	N/A	N/A	N/A	19.6	N/A	N/A	N/A	19.6
SUBTOTAL	Millions $	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**38.0**	**N/A**	**50.3**	**71.8**	**38.0**
TOTAL COSTS[2]	Millions $	**6.7**	**139.7**			**139.7**	**N/A**	**49.0**	**N/A**	**50.3**	**71.8**	**49.0**
EIS IMPACTS												
Existing R/W Used	Acres	0	443	23	28	494	0	31	0	38	59	**31**
Total Land Converted to Highway R/W	Acres	0	209	112	102	423	0	72	0	60	48	**72**
Cropland Converted to Highway R/W	Acres	0	104	77	64	245	0	41	0	4	29	**41**
Residential Relocations	Number	0	13	11	0	24	0	4	0	10	0	**4**
Business Relocations (Not Including Farms)	Number	0	1	4	0	5	0	2	0	2	0	**2**
Farm Relocations	Number	0	14	2	0	16	0	1	0	0	0	**1**
Farms Severed	Number	0	0	7[4]	0	7	0	2	0	1	1	**2**
Wetland Converted to Highway R/W	Acres	0	31.9	0.7	10.7	43	0	2	0	14	11	**2**
Upland/Woodland Habitat Affected	Acres	0	51.7	3.7	16	71	0	11	0	10	0.4	**11**
Floodplain Encroachment	yes/no	NO	YES	YES	YES	YES	NO	YES	NO	YES	YES	**YES**
Threatened and Endangered Species	yes/no	NO	YES	YES	NO	YES	NO	YES	NO	YES	YES	**YES**
Historical Resources Nearby (Number Adversely Effected)	Number	0	19(0)	N/A	N/A	19(0)	0	N/A	0	0	0	**N/A**
Archaeological Resources	Number Phase II (III)	0	5(1)	0	0	5(1)	0	0	0	0	0	**0**

[1] Includes crossing for Ice Age Trail.

[2] All Costs are in Year of Expenditure dollars and include all project elements. The project schedule calls for construction of new lanes in 2013, rehabilitation of exising lanes in 2014, and reconstruction of the segment from US 151 to County UU in 2015. For Corridor Preservation Alternatives, year of expenditure is anticipated to be 2030.

[3] Mill and Overlay cost from Passing Lane and Cost Analysis. 2008 cost estimate based on 2005 dollars + 2% each year.

[4] Three of the farms severed by the connection roads and interchanges are also severed by the trail that runs along the proposed roadway.

[5] Approximately 35% of R/W allocated to Old Plank Trail would be needed if WIS 23 were expanded without trail. See discussion Section 4.1

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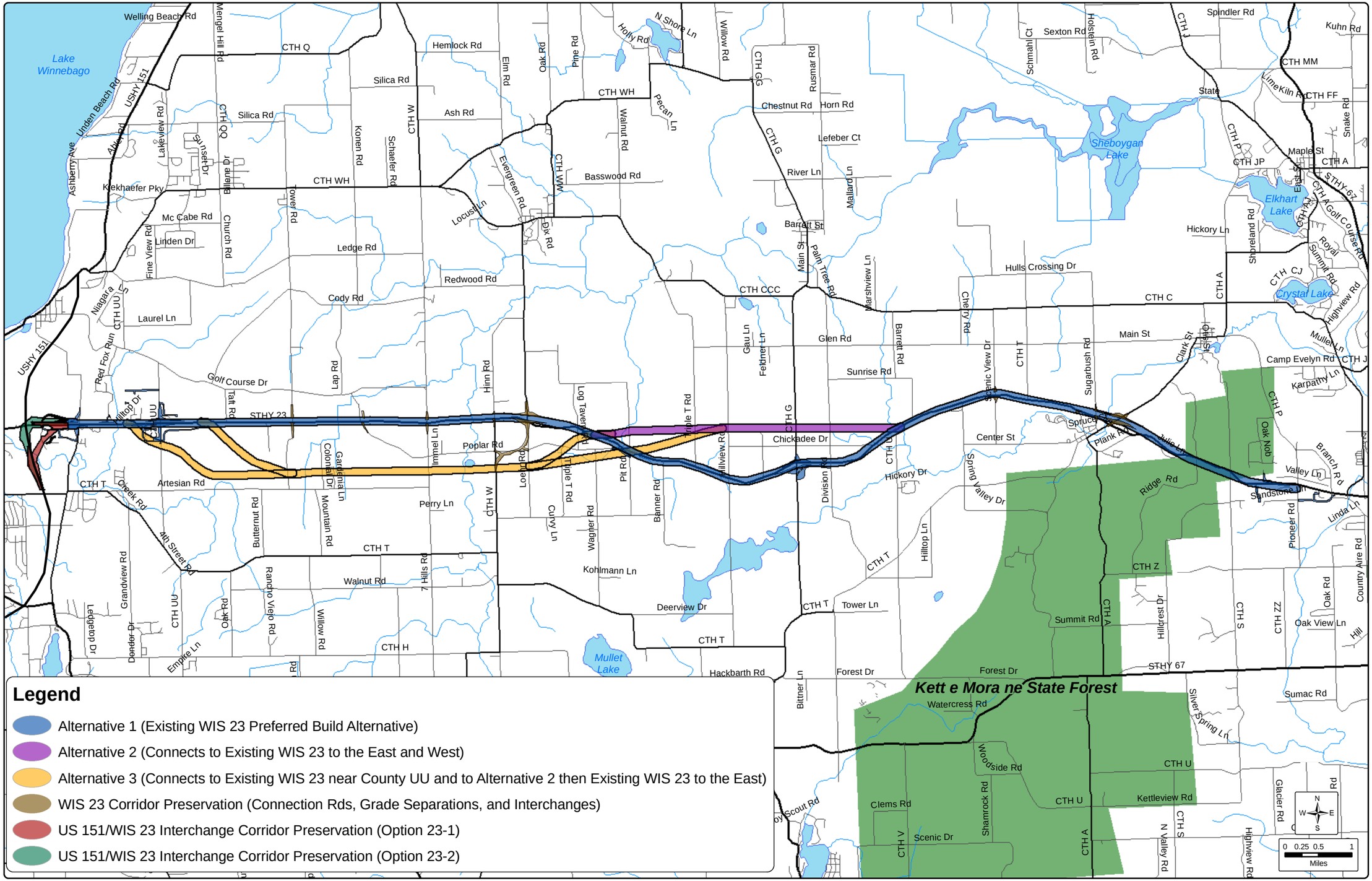
ES.14 LIST OF ABBREVIATIONS

106 (Section 106)	Section 106 of the National Historic Preservation Act, requires Federal agencies to take into account the effects of their undertakings on historic properties
4(f) (Section 4(f))	Section 4(f) of the Department of Transportation Act dealing with impacts on historic places, parks, and wildlife refuges.
AADT	Annual Average Daily Traffic
ADT	Average Daily Traffic
AIS	Agricultural Impact Statement
DATCP	Wisconsin Department of Agriculture, Trade, and Consumer Protection
decibel (dB)	a unit of measurement for sound level
DEIS	Draft Environmental Impact Statement
DHV	Design hourly volume
DOE	Determination of Eligibility, for the National Register of Historic Places
EIS	Environmental Impact Statement
Endangered Species	species identified by either the state of the federal government as likely to be in danger of becoming extinct through a significant portion of or all of its range
UST	Underground Storage Tank
USEPA	United States Environmental Protection Agency
FDM	Facilities Development Manual
FEIS	Final Environmental Impact Statement
FHWA	Federal Highway Administration
GIS	Geographic Information System
HazMat	Hazardous Materials
IAT	Ice Age Trail
LOS	Level of Service, refers to the overall quality of traffic flow at an intersection or mainline section.
LUST	Leaking Underground Storage Tank
mi	mile
MOA	Memorandum of Agreement
NAC	Noise Abatement Criteria
NEPA	National Environmental Policy Act
NEWRPC	Northeast Wisconsin Regional Planning Commission
NHS	National Highway System
NRHP	National Register of Historic Places
PAC	Public Advisory Committee
RIRO	Right-in/Right-out
R/W	Right-of-Way

ROD	Record of Decision
SDEIS	Supplemental Draft Environmental Impact Statement
SHPO	State Historic Preservation Officer
Threatened Species	species identified by either the state of federal government as likely to be in danger of becoming endangered in the foreseeable future
TPC	Transportation Projects Committee
TWLTL	Two-Way Left-Turn Lane
WIS 23	Wisconsin State Highway 23
USACE	United States Army Corps of Engineers
WisDOT	Wisconsin Department of Transportation



Legend

- Alternative 1 (Existing WIS 23 Preferred Build Alternative)
- Alternative 2 (Connects to Existing WIS 23 to the East and West)
- Alternative 3 (Connects to Existing WIS 23 near County UU and to Alternative 2 then Existing WIS 23 to the East)
- WIS 23 Corridor Preservation (Connection Rds, Grade Separations, and Interchanges)
- US 151/WIS 23 Interchange Corridor Preservation (Option 23-1)
- US 151/WIS 23 Interchange Corridor Preservation (Option 23-2)

PROJECT ID 1440-13-00
WIS 23 PROJECT BASE MAP

WISCONSIN DEPARTMENT OF TRANSPORTATION
FOND DU LAC AND SHEBOYGAN COUNTIES, WISCONSIN

FIGURE ES-14
1089.165

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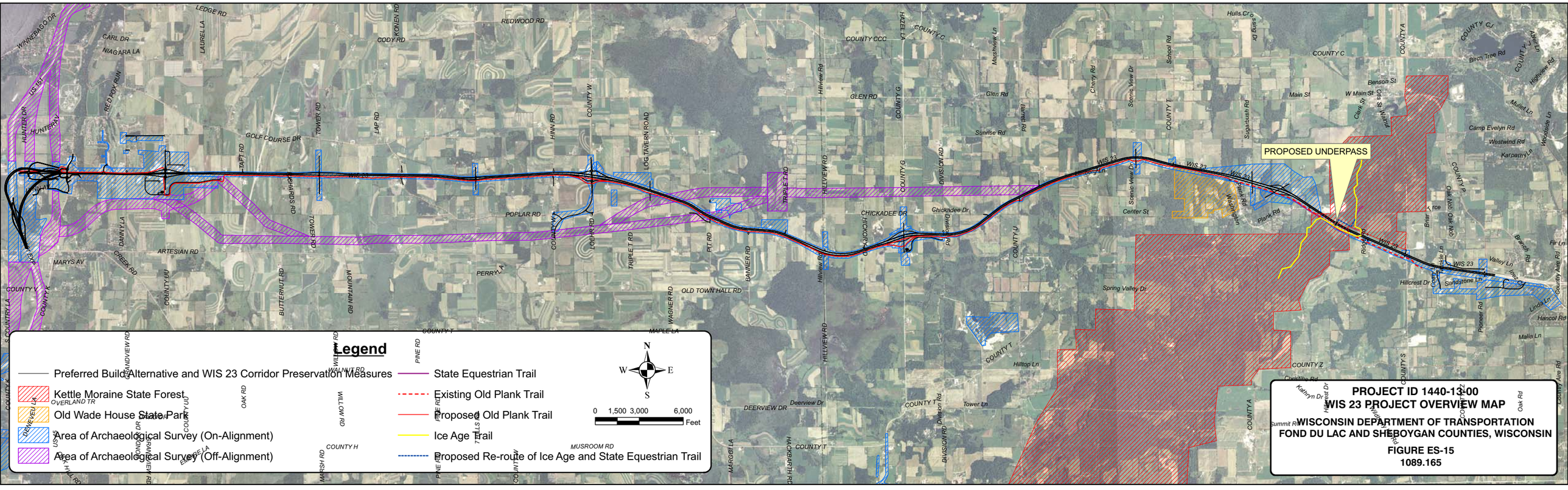

PROJECT ID 1440-13-00
WIS 23 PROJECT OVERVIEW MAP
WISCONSIN DEPARTMENT OF TRANSPORTATION
FOND DU LAC AND SHEBOYGAN COUNTIES, WISCONSIN
FIGURE ES-15
1089.165