

ENVIRONMENTAL EVALUATION OF FACILITIES DEVELOPMENT ACTIONS

Wisconsin Department of Transportation

DT2094 2004

Project ID 3738-00-00	Funding Source <input type="checkbox"/> State Only <input checked="" type="checkbox"/> Federal	Federal Number
Project Name (Highway, Airport, Rail Line) WIS 165 Highway		Project Termini WIS 31 to WIS 32
Section T1N R22E Sec 22-27 T1N R23E Sec 19,30	County Kenosha	Estimated Project Cost (Include R/W Acquisition) \$15.0 million

It is determined, after review of the comments from the public, and coordination with other agencies, that this action would not significantly affect the quality of the human environment. This document is a

Finding of No Significant Impact (FONSI).

Environmental Assessment (EA) No Significant Impacts Indicated by Initial Assessment

Environmental Assessment (EA) EIS Required

Environmental Report (2-ER)

(Signature) (Date)

(Signature) (Date)

(Title)

(Title)

(Signature) (Date)

(Signature) (Date)

(Title)

(Title)

(Signature) (Date)
(District, Aeronautics, Rails & Harbors)

(Signature) (Date)
(District, Aeronautics, Rails & Harbors)

(Director, Bureau of Equity & Environmental Services) (Date)

(Director, Bureau of Equity & Environmental Services) (Date)

(FHWA, FAA, FTA, FRA) (Date)

(FHWA, FAA, FTA, FRA) (Date)

1) Description of Proposed Action (Attach project location map and other appropriate graphics).

The proposed project is a planning study to evaluate long-term improvements to traffic flow and safety and identify the right-of-way needed for any future improvement for WIS 165. The project study area covers the 3.5 mile WIS 165 corridor between WIS 31 and WIS 32 in the Village of Pleasant Prairie, Kenosha County, Wisconsin. The engineering evaluation looks at the need for mainline capacity expansion and the need for intersection improvements. See the project location map in Exhibit A-1.

This is a corridor preservation project. The proposed action would preserve the right-of-way needed (by local zoning) to widen WIS 165 from a two-lane rural section to a 4-lane, divided section from WIS 31 to County EZ/39th Avenue with storm sewer and to a two-lane, urban roadway with auxiliary lanes and storm sewer from County EZ/39th Avenue to WIS 32. A traffic signal is proposed at the WIS 32 intersection.

TYPICAL SECTION

WIS 31 to County EZ/39th Avenue

In this section, the proposed roadway would be a divided section with an 8-foot to 20-foot (2.4-6.1 m) median and two 12-foot (3.6 m) driving lanes in each direction. Two-lane roundabouts are proposed at both Old Green Bay Road and CTH ML. A third, single-lane roundabout is proposed at County EZ and WIS 165 intersection. There would be a 5-foot (1.5 m) grass terrace behind the curb. A storm sewer system was included to control roadway runoff and direct it to detention basins as much as practicable. A two-foot gutter flange provides a minimal transitional width between the travel lanes and the curb [See Exhibit A-2]. The median width is measured between the flange lines and includes the median curb and gutter.

County EZ/39th Avenue to WIS 32

The roadway would be widened to the south (east of County EZ) to avoid impacts to archaeological resources. During the investigational stage, three archaeological resources were identified on the north side of STH 165: a platted cemetery, a prehistoric campsite, and a prehistoric campsite listed on the National Register of Historic Places. The proposed roadway section is a two-lane urban undivided roadway with auxiliary lanes. There would be one 12-foot (3.6 m) driving lane with an auxiliary lane that would be 12 feet wide in each direction. The auxiliary lanes would provide safe access to the driveways and refuge for vehicles that frequently stop, such as school buses, garbage trucks, and mail delivery vehicles. There would be a 5-foot (1.5 m) grass terrace behind the curb. A traffic signal is proposed for the WIS 32 and WIS 165 intersection. [See Exhibit A-2].

Storm water

Storm sewer is proposed the length of the project to control the roadway runoff and direct it to detention ponds or ditch discharges more than 200 feet from receiving waterways and wetlands. Three storm water detention facilities are proposed to handle the roadway runoff from the widened facility as shown in Exhibit A-4, Sheet 5.

Swales behind the curb are proposed to direct off-site runoff to cross-culverts in order to maintain the existing drainage pattern of the project area while allowing the roadway water to be handled separately and detained as much as possible.

Related Projects

The Village of Pleasant Prairie has plans to create a Village Center abutting the project north of WIS 165 at CTH ML. The Preferred Alternative would accommodate the Village improvement plans.

Planning study elements include:

- Investigate alternatives and provide 30% plan and profile for the Preferred Alternative
- Identify right-of-way widths to preserve the corridor from future developments.
- Develop drainage concept plan to manage storm water runoff in order to identify additional right-of-way needs.

From WIS 31 to CTH EZ the total right-of-way required varies from 70 feet to 153 feet (present right-of-way varies from 66 feet to 150 feet). From CTH EZ to WIS 32, the total right-of-way required varies from 66 feet to 95 feet (existing right-of-way is 66 feet).

Approximately 20.9 acres (8.5 hectares) of right-of-way and the relocation of eight residences would be required for the Preferred Alternative. This project is not scheduled for construction and may not be for at least 15 years. Construction would probably be staged into two sections, WIS 31 to CTH ML and CTH ML to WIS 32 and scheduled when traffic approaches the four-lane threshold volume. Real estate and relocation services normally begin 2-3 years prior to construction.

2. Purpose and need of proposed action. Include description of existing facilities, abutting facilities, and how the action links into the overall transportation system. When appropriate, show that commitment for future work is not being made without evaluation, and that viable alternatives in a larger framework are not being unduly foreclosed.

Purpose

- Improve WIS 165 to accommodate existing and projected 2030 travel demand
- Plan and Preserve the highway corridor from future development by zoning
- Provide efficient access to commuters
- Bring WIS 165 to current design and safety standards

Need

System Linkage and Route Importance

WIS 165 is an east-west arterial extending east from Interstate 94 and to the intersection of WIS 32. The project begins at WIS 31, approximately 3 miles east of interstate 94 and runs east to WIS 32. See Exhibit A-1.

The project has major intersections with Old Green Bay Road at the beginning of the project, Cooper Avenue/51st Street, CTH ML, CTH EZ/39th Avenue in the middle, and WIS 32 on the east end. There are other intersections along the project with side roads and subdivision roads. The entire project is in the Village of Pleasant Prairie.

The interchange area of WIS 165 and IH94 is a divided four-lane facility. Beginning approximately 1,300 feet east of IH-94 and continuing for approximately 0.85 miles, WIS 165 is a two-lane rural undivided roadway with Des Plaines River floodplain on both sides. Previous improvements have preserved the corridor for future capacity expansion and the roadbed has been graded on the north side. Beginning a half mile west of CTH H to just east of the intersection with WIS 31, WIS 165 has four lanes. Completion of the proposed project would create a continuous four-lane corridor from the developed area west of IH-94 to CTH ML, where traffic levels drop substantially.

Traffic Demand

WIS 165 is an urban arterial highway serving local trips and providing access to adjacent existing and proposed commercial and residential developments. It also serves regional mobility needs for through traffic and is recommended as being a future four-lane highway by the 2020 Regional Transportation System Plan for Southeastern Wisconsin, prepared by SEWRPC (Southeastern Wisconsin Regional Planning Commission). As planned development continues along WIS 165 and the surrounding area it serves, traffic volumes are expected to grow to levels that can no longer be safely handled on a two-lane rural highway. The future four-lane highway recommended in both SEWRPC's 2020 Plan and 2035 Plan would address forecast traffic demand and air quality conformity. Existing and projected traffic volumes on WIS 165 from WIS 31 to WIS 32 are as follows:

Project Segment	Existing Traffic Year 2002 Vehicles Per Day	Projected Traffic Year 2030 Vehicles Per Day
WIS 31 to County ML/Spring Brook Road	7,100	15,425
County ML/Spring Brook Road to County EZ	4,200	11,975
County EZ to WIS 32	2,800	5,575

The WisDOT Facilities Development manual provides standards on when a four-lane roadway is appropriate. For a roadway of 45 mph or higher, the threshold for four lanes is 13,500 vehicles per day.

Transportation and Land Use Planning

WIS 165 is an arterial roadway connecting to Corridors 2020 backbone roadways such as interstate highway 94. The segment of WIS 165 from WIS 31 to County EZ is considered a transitional high-speed roadway based on the existing posted speed limit of 45 mph. According to WisDOT standards, a four-lane divided roadway with median is required when the traffic volume exceeds 13,500 vehicles per day.

The existing posted speed limit on WIS 165 from County EZ to WIS 32 is 35 mph. For this segment, a two-lane roadway with auxiliary lanes would accommodate the projected future traffic volumes and land uses.

Crash Rates

The crash rate for this section of WIS 165 from 2000 to 2002 is 72 crashes per 100 million vehicle miles, which is below the statewide average of 109 crashes per 100 million vehicle miles for similar roadways (non deer related crashes for rural state highways).

Existing Highway Characteristics and Deficiencies

The existing facility is a rural section consisting of two 12-foot (3.6 m) travel lanes with variable-width gravel shoulders. See Exhibit A-3. There are left turn lanes at WIS 31, 50th Street/Cooper Lane, CTH ML and WIS 32.

The existing right-of-way between WIS 31 and CTH EZ varies from 66 feet to 150 feet. The existing right-of-way width between CTH EZ to WIS 32 is 66 feet.

Currently, WIS 165 is a rural roadway with two 12-foot wide driving lanes with two to four-foot wide gravel shoulders and deep ditches.

The recommended shoulder width for a rural highway is 10 feet and the current facility does not meet this standard. The current facility also has steep ditch slopes (steeper than the recommended 4:1 within 20 feet of the roadway) and documented drainage concerns along the project length. The current two-lane rural arterial is already experiencing congestion and safety problems in the western portion of the project.

The WisDOT Facilities Development Manual recommends that roadways with a 45 mph posted speed have a minimum stopping sight distance of 487 feet while 588 feet is desirable. The existing vertical profile of STH 165 has crest curves with stopping sight distances as low as 240 feet, which is well below the minimum standard.

The existing County ML/Spring Brook Road intersection is skewed at approximately 50 degrees, which results in poor sight distances. Intersection design standards recommend skewing intersections no less than 70 degrees in order to provide adequate sight distance.

There are no turn lanes at many intersections, which does not allow for vehicles to leave the through lanes before reducing speed.

Corridor Preservation

The Village of Pleasant Prairie is experiencing development pressure. In order to preserve the ability to widen the roadway when the traffic counts warrant a wider roadway, the Village intends to modify their zoning to protect the required corridor for the widening of WIS 165 described in this document.

The Village of Pleasant Prairie is in support of the proposed improvements.

3. Summary of the alternatives considered and if they are not proposed for adoption, why not. (Identify which, if any, of the alternatives is the Preferred Alternative.)

In order to accommodate the projected traffic volume on WIS 165 additional lanes would be required. Two typical sections were evaluated to determine what type of facility would best serve the community, the regional transportation system and satisfy current design standards:

- Four-lane urban divided
The four-lane divided urban roadway typical section consists of two, 12-foot driving lanes in each direction with a 30-foot grass median, a 12-foot multi-use trail on the north side and 8-foot grass area behind curb and gutter for streetscaping and snow storage. The 30-foot median will accommodate left-turn lanes at intersections with side roads. The urban sections would have an enclosed storm sewer system and would eliminate most ditches along the corridor. This type of roadway requires less right-of-way when compared to the rural ditch section. Arterial roadways with medians are safer and operate more efficiently than those without medians.
- Four-lane rural divided
There would be two, 12-foot driving lanes and 8-foot gravel shoulders in each direction with a 50-foot grass ditch median. There would be a 12-foot multi-use trail on the north side adjacent to the outside ditch. The 50-foot median would accommodate left-turn lanes at intersections to provide safe turning movements to side roads. The rural sections would have shoulders and would retain ditches for storm water drainage. Arterial roadways with medians are safer and operate more efficiently. This type of roadway requires more right-of-way when compared to the urban roadway section and was eliminated from alternative analysis.

Four-lane urban or rural roadway alternatives without medians provide less refuge for turning and crossing vehicles or crossing pedestrians. Considering posted speed limit, turning and crossing vehicles, and forecasted traffic volumes, an undivided roadway is not recommended according to WisDOT Facilities Design Manual standards and was not considered in this study.

Based on the future traffic volumes and posted speed corridor, improvements to WIS 165 have been divided into two segments – WIS 31 to County EZ and County EZ to WIS 32.

Alternative 1 – No Build

This alternative maintains the existing condition. No improvements would be made to WIS 165; however, maintenance activities would still take place. While the No-Build Alternative does not meet the purpose and need for the project, it does serve as a baseline for a comparison of impact related to the Recommended Alternative.

The No-Build Alternative is not consistent with the SEWRPC 2035 regional transportation plan nor does it provide for corridor preservation

Build Alternatives

Four build alternatives were studied and evaluated to determine impacts to natural, cultural, and socio-economic resources.

In all the alternatives discussed below the roadway alignment has been shifted to the south east of County EZ to avoid archaeological resources discovered on the north side of WIS 165 during the investigation stage between 29th Ave. and WIS 32 (Sheridan Avenue): a platted cemetery; a prehistoric camp site; and a prehistoric camp site listed on the National Register of Historic Places located on the northwest corner of WIS 32 and WIS 165. All build alternatives include an enclosed storm sewer system to control roadway runoff.

Alternative 2

In this alternative the proposed road west of County EZ would be widened to the north.

WIS 31 to County EZ

The typical cross-section would be a four-lane urban divided roadway with a raised grass median. There would be two, 12-foot driving lanes in each direction. The median would be 30 feet measured between the edges of the inside travel lanes in order to provide sufficient space for the safety of turning vehicles. There would be an 8-foot grass terrace behind the curb and a 12-foot multi-use trail.

County EZ to WIS 32

The typical cross-section would be an urban undivided roadway. In this section there would only be one 12-foot driving lane in each direction with a 12-foot auxiliary lane to provide safe access for vehicles accessing the numerous driveways as well as to accommodate garbage pick-up, school buses, and mail delivery. There would be a 12-foot multi-use trail on the north side and an 8-foot grass terrace behind the curb.

There would be 42 residential displacements and 0.89 acres (0.36 hectares) of wetland impacts associated with this alternative.

From WIS 31 to CTH EZ the total right-of-way required varies from 150 feet to 185 feet (existing right-of-way varies from 66 feet to 150 feet). From CTH EZ to WIS 32, the total right-of-way required varies from 100 feet to 122 feet (existing right-of-way is 66 feet).

This alternative was not considered further because of public concerns due to the large number of residential displacements and higher environmental impacts.

Alternative 3

In this alternative the proposed road west of County EZ would be widened to the south. The entire project corridor is four lanes.

WIS 31 to County EZ

The typical cross-section would be a four-lane urban divided roadway with a raised grass median. There would be two, 12-foot driving lanes in each direction. The median would be 30 feet measured between the edges of the inside travel lanes in order to provide sufficient space for the safety of turning vehicles. There would be an 8-foot grass terrace behind the curb and a 12-foot multi-use trail.

County EZ to WIS 32

The typical cross-section would be an urban undivided roadway. In this section there would only be one 12-foot driving lane in each direction with a 12-foot auxiliary lane to provide safe access for vehicles accessing the numerous driveways as well as to accommodate garbage pick-up, school buses, and mail delivery. There would be a 12-foot multi-use trail on the north side and an 8-foot grass terrace behind the curb.

There would be 52 residential displacements and 1.25 acres (0.50 hectares) of wetland impacts associated with this alternative.

From WIS 31 to CTH EZ the total right-of-way required varies from 140 feet to 230 feet (existing right-of-way varies from 66 feet to 150 feet). From CTH EZ to WIS 32, the total right-of-way required varies from 100 feet to 122 feet (existing right-of-way is 66 feet).

This alternative was not considered further because of public concerns due to the large number of residential displacements and higher environmental impacts.

Alternative 4

In this alternative the proposed road west of County EZ would be widened on either side of existing roadway centerline.

WIS 31 to County EZ

The typical cross-section would be an urban undivided roadway. In this section there would only be one 12-foot driving lane in each direction with a 12-foot auxiliary lane to provide safe access for vehicles accessing the numerous driveways as well as to accommodate garbage pick-up, school buses, and mail delivery. There would be a 12-foot multi-use trail on the north side and an 8-foot grass terrace behind the curb.

County EZ to WIS 32

The typical cross-section would be an urban undivided roadway. In this section there would only be one 12-foot driving lane in each direction with a 12-foot auxiliary lane to provide safe access for vehicles accessing the numerous driveways as well as to accommodate garbage pick-up, school buses, and mail delivery. There would be a 12-foot multi-use trail on the north side and an 8-foot grass terrace behind the curb.

There would be 25 residential displacements and 1.37 acres (0.57 hectares) of wetland impacts associated with this alternative.

From WIS 31 to CTH EZ the total right-of-way required varies from 150 feet to 194 feet (existing right-of-way varies from 66 feet to 150 feet). From CTH EZ to WIS 32, the total right-of-way required varies from 100 feet to 122 feet (existing right-of-way is 66 feet).

This alternative was not considered further because of public concerns due to the large number of residential displacements and higher environmental impacts.

Alternative 5 - Roundabouts – Preferred Alternative

More than half of the comments received from the first public meeting were in regards to the wide 30-foot median and the overall right-of-way impacts, which were seen as excessive. According to FHWA and WisDOT standards, the 30-foot median is an absolute requirement for new construction of highways with posted speeds of 45 mph or greater. To reduce the median width and thereby the overall right-of-way impacts would require the posted speed be lowered to 40 mph.

However, WisDOT traffic guidelines prohibit the reduction in posted speed unless actual operating speeds are within 2 mph of the new reduced speed limit. A speed study was conducted on WIS 165 on February 14, 2006, and concluded that the operating speeds ranged from 45.3 mph to 48.2 mph, thereby prohibiting a reduction in the current speed limit of 45 mph to 40 mph.

However, if a series of roundabouts is used at successive intersections, the posted speed could be reduced to 40 mph because the nature of roundabouts reduces traffic speed. With a reduced posted speed the median width can be reduced to 20 feet, which lowers right-of-way impacts to abutting property owners.

WIS 31 to County EZ

In this section, the proposed roadway would be a divided section with 8-foot to 20-foot median and two 12-foot driving lanes in each direction. Two-lane roundabouts are considered at both Old Green Bay Road and CTH ML. A third, single lane roundabout is considered at County EZ and WIS 165 intersection. There would be a 5-foot grass terrace behind the curb.

County EZ to WIS 32

The proposed roadway section is a two-lane urban undivided roadway with auxiliary lanes. There would only be one 12-foot driving lane and an auxiliary lane in each direction to provide safe access for vehicles accessing the numerous driveways as well as to accommodate bicycle traffic, garbage pick-up, school buses, and mail delivery. There would be a 5-foot grass terrace behind the curb. A traffic signal is proposed at the WIS 165 intersection with WIS 32 at the east end of the corridor.

Roundabouts

Roundabout intersections are proposed at Old Green Bay Road, CTH ML, and CTH EZ/39th Avenue. Roundabouts are circular intersections that move traffic safely and efficiently through an intersection at slower speeds with fewer conflict points and easier decision-making. Greater safety is achieved primarily by slower speeds and the elimination of left turns. Motorists do not always have to stop at a roundabout because entering a roundabout is controlled by a "YIELD" condition, which results in less idling and, therefore, less fuel consumption and air pollution. Roundabouts also provide opportunities for traffic calming and speed transition. Additionally, roundabouts offer opportunities for enhanced landscaping, less pavement, and gateway treatments.

A study conducted by the University of Maine compared intersections before and after roundabouts were constructed and found a 39 percent reduction in crashes; a 76 percent decrease in injuries; and a 90 percent reduction in crashes involving fatalities or incapacitating injuries; and as much as 75 percent shorter traffic delays. [Status Report, Insurance Institute for Highway Safety, Vol. 35, No. 5, 2000.]

Storm water

Storm sewer is proposed the length of the project to control the roadway runoff and direct it to detention ponds or ditch discharges more than 200 feet from receiving waterways and wetlands. Three storm water detention facilities are proposed to handle the roadway runoff from the widened facility as shown in Exhibit A-4, Sheet 5.

Currently, off-site runoff flows in the roadside ditches to cross-culverts. Swales behind the curb are proposed to direct off-site runoff to cross-culverts, which will be extended or replaced in approximately the same location. This maintains the existing drainage pattern of the project area while allowing the roadway water to be handled separately and detained as much as possible.

There would be a total of 8 residential displacements (7 occupied and one unoccupied) and 1047 square feet [0.024 acres or 0.01 hectares] of wetland impacts associated with this alternative. From WIS 31 to CTH EZ the total right-of-way required varies from 70 feet to 153 feet (existing right-of-way varies from 66 feet to 150 feet). From CTH EZ to WIS 32, the total right-of-way required varies from 95 feet to 100 feet (present right of width is 66 feet).

Impacts to the environment (natural, cultural, and socio-economic) associated with this alternative are lower compared to other alternatives. The archaeological sites are avoided. This alternative was reasonably well received by the public and it addresses the project purpose and need.

4. In general terms, briefly discuss the construction and operational energy requirements and conservation potential of the various alternatives under consideration. Indicate whether the savings in operational energy are greater than the energy required to construct the facility.

Energy consumption related to highway construction includes energy required by raw materials and equipment to build or maintain the highway. The proposed action would require more construction energy than the No-Build alternative. However, the additional capacity of the new roadway would allow traffic to travel more efficiently. It is expected that the savings in operational energy requirements would more than offset construction energy requirements and, therefore, result in a net reduction in energy usage.

Operational energy is the direct consumption of fuel by vehicles using the roadway. Fuel usage is affected by vehicle type, roadway grade, speed, congestion, and queuing caused by stop and go conditions. Operational energy/fuel consumption would likely decrease under the recommended alternative because the roadway would operate more efficiently. The proposed roundabouts should allow less delay and engine idling.

5. Describe existing land use (Attach land use maps if available).
 - a. Land use in immediate area.

The majority of the project corridor is residential. There are some older (but not historic) homes with direct access to WIS 165, especially near the eastern end on the south side of the road, and several large, newer subdivisions with road access to the project. There is also some agricultural land along the project with much of it ditched to improve drainage. There is a mobile trailer park on the south side on the eastern edge of the project. There is a church with parsonage near CTH ML. The density of development is generally higher in the west than the east.

b. Land use in area surrounding project area.

The surrounding area is primarily residential. At the intersection of WIS 31, there is candy factory on the northwest quadrant and a day care center in the southwest quadrant. The area is urbanizing rapidly with residential development within the project limits. East of WIS 31 there are planned improvements for commercial development on the north and south side of WIS 165. The Village of Pleasant Prairie has plans to create a village center north of CTH ML adjacent to this project.

6. Briefly identify adopted plans for the area and discuss whether the proposed action is compatible with the plan. (For example, the following may be considered: Regional Planning Commission Plans, Transportation Improvement Program, State Transportation Improvement Plan, Local zoning and land use plans, DOT Storm Water Management Plans, others.)

A Regional Transportation System Plan for Southeastern Wisconsin: 2020 (SEWRPC Planning Report No. 46)

A Regional Transportation System Plan for Southeastern Wisconsin: 2035 (SEWRPC Planning Report No. 49)

Village of Pleasant Prairie Master Plan

Assessment of Conformity of the Year 2005-2007 Transportation Improvement Program and the Regional Transportation System Plan (SEWRPC Memorandum Report No. 162, January 2005).

Transportation Improvement Program for Southeastern Wisconsin: 2007-2010 (SEWRPC, December 2006) – This project is #541.

A Comprehensive Plan for the Kenosha Urban planning District (SEWRPC Planning Report No. 212, December 1995)

The proposed project is consistent with these plans.

7. Early coordination with Agencies.

a. Intra-Agency Coordination

i) Bureau of Aeronautics

No - Coordination is not required. Project is not located within 2 miles (3.22 kilometers) of a public or military use airport, nor would the project change the horizontal or vertical alignment of a transportation facility located within 6.44 kilometers (4 miles) of a public use or military airport.

Yes - Coordination has been completed and project effects have been addressed. Explain.

ii) District Office Real Estate Section

No - Coordination is not required because no inhabited houses or active businesses would be acquired.

Yes - Coordination has been completed. Project effects and relocation assistance have been addressed. A Conceptual Stage Relocation Plan is not attached because it will be completed at the time of final design. See the discussion on Community and Residential Impacts beginning on page 20 for additional information.

b. Interagency Coordination

STATE AGENCY	COORDINATION	COMMENTS
	Correspondence Attached Y/N	Explain or give results. If no correspondence is attached to this document, indicate when coordination with the agency was initiated and, if available, when coordination was completed.
Agriculture (DATCP)	Y	DATCP stated that no agricultural impact statement is required for this project. See letter dated March 15, 2006 in Exhibit B-1a.
Natural Resources (DNR)	Y	The DNR provided comments on April 3, 2006. Unavoidable wetland encroachments will need to be compensated as per DNR-DOT cooperative agreement. Storm water and erosion control plan needs to be developed in accordance with TRANS 401 requirements. Six endangered/threatened species known to exist in the nearby Chiwaukee Prairie Natural Area may exist along the project corridor. Surveys should be conducted to determine the presence of these species. To protect endemic and migrating fish species in Barnes Creek no in-stream construction activity should occur from March 15 th to May 15 th of any given year. See Exhibit B-2.
State Historical Society (SHS)	Y	SHPO concurred with proposed improvements, including the avoidance of the archaeological sites, on December 13, 2005. See Exhibit B-3.
Others:		

FEDERAL AGENCY

Advisory Council on Historic Preservation (AHP)	N	Coordination not required
Corps of Engineers (COE)	Y	A 404 permit will be needed. The COE letter dated May 23, 2006 indicates the wetland impacts associated with the proposed project would be eligible for a General Permit GP-001-WI. This permit expires in December 2008. The actual permit type required by the project may have changed when final design begins. See Exhibit B-4.
Environmental Protection Agency (EPA)	N	Coordination not required
National Park Service (NPS)	N	No NPS jurisdictional lands in project vicinity
Natural Resource Conservation Service (NRCS)	Y	NRCS Farmland Conservation Impact Rating Form (AD-1006, see Exhibit B-1b) was completed. The score was 50 so the form was shared with NRCS as a courtesy on May 2, 2006.
US Coast Guard (USCG)	N	No waters under USCG jurisdiction in project vicinity
US Fish & Wildlife Service (FWS)	Y	Identified threatened species (eastern prairie fringed orchid) lives in wet grassland habitat and has been recorded within Kenosha County at multiple locations within approximately one mile of the project corridor. During the next phase of the project it is necessary to determine as to whether the preferred alternative may affect the federally-listed threatened species or its habitat. Concurrence may be required from US Fish and Wildlife. See Exhibit B-5.
Native American Tribes	Y	Coordination was initiated on May 19, 2005. Responses were received from Sac & Fox Nation of Missouri in Kansas and Nebraska, Sac & Fox Nation of the Mississippi in Iowa and Prairie Band Potawatomi Nation. Coordination with all tribes will continue. See Exhibit B-6.

c. Local Government Coordination

LOCAL UNIT OF GOVERNMENT	COORDINATION	COMMENTS
	Correspondence Attached Y/N	Explain or give results. If no correspondence is attached to this document, indicate when coordination with the agency was initiated and, if available, when coordination was completed.
Village of Pleasant Prairie	N	Periodic meetings were held with the representatives of the Village of Pleasant Prairie during project scoping, project progress and prior to public informational meetings.
Kenosha County	N	Meetings were held with the representatives of the County during project scoping and project progress.

ENVIRONMENTAL FACTORS	EFFECTS				Comments
	Adverse	Benefit	None	*N/A	
SOCIO-ECONOMIC FACTORS					
General Economics	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<p>The proposed action would benefit the general economics of the area by promoting safe and efficient transportation in the project area. It would also reduce potential delays and highway related crashes and increases the ability to serve existing and planned residential and commercial development within and outside the project study area. Traffic would flow more efficiently after construction. The additional lanes would also make access to and from WIS 165 easier due to the creation of gaps in the traffic stream.</p> <p>The project would cause temporary disruptions, but the roadway would remain open to traffic during construction.</p> <p>See page 19 for additional information.</p>
Community & Residential	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>The proposed project would require the relocations of 8 housing units (one is vacant) under the Preferred Alternative. The project would cause temporary disruptions, but the roadway would remain open to traffic during construction.</p> <p>See page 20 for additional information.</p>
Economic Development and Business	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>There are no businesses located along the project. The road would remain open to traffic during construction. See page 25 for additional information.</p>
Agriculture	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Five farms would be impacted by the project. Approximately 4.1 acres (1.6 hectares) would be acquired for the roadway and for storm water management. The project would improve shipment/access of farm products and materials to market and provide safe and efficient trade. No farms would be severed by the project. There may, however, be temporary disruptions during construction.</p> <p>DATCP stated that AIS would not be required. See page 28 for additional information.</p>
Environmental Justice	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>No populations of people subject to Environmental Justice have been identified in the project area.</p>
NATURAL ENVIRONMENT FACTORS					
Wetlands	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Based on preliminary design and wetland mapping, approximately 1047 square feet [0.024 acres or 0.01 hectares] of wetland would be impacted by the project in an area associated with the road crossing of tributary to Barnes Creek. Detailed delineations will need to be done during the final design phase to determine the exact extent of wetland impacts. The wetlands along the area shall be protected against erosion and sedimentation during the construction phase of the project. See page 30 and Exhibit A-4.</p>
Streams & Floodplains	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>The project would require replacing a culvert on a tributary to Barnes Creek, which is ditched and flows along the north side of the roadway. This tributary is considered navigable by the DNR. The current slopes are too steep, so the ditch must be regarded to flatten the side slopes. See page 35 for additional information.</p>
Lakes or Other Open Water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Upland Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Strip taking of suburban yards (lawns with landscaping and/or woods) would occur under the proposal, but any displaced wildlife should find adequate habitat in the remaining parcels and adjacent areas.</p>

ENVIRONMENTAL FACTORS	EFFECTS				Comments
	Adverse	Benefit	None	*N/A	
Erosion Control	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Erosion control measures would be included in the project, including (but not limited to) the use of silt fence, erosion bales, temporary seeding, and use of storm water detention. See page 38 for additional information.
Storm Water Management	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Currently runoff from WIS 165 is untreated when it enters either the tributary to Barnes Creek or the Des Plaines watershed. Three storm water detention basins are proposed for inclusion in the project, which will improve water quality. In those locations where detention cannot be utilized, the discharges will go into ditches prior to entering local waterways or wetlands. Cross-culverts and swales are proposed to maintain the existing drainage pattern for off-site runoff and keep the roadway runoff separate. The proposed detention basins are not intended to treat off-site runoff. See page 40 and Exhibit A-4 for additional information.

PHYSICAL ENVIRONMENT FACTORS

Air Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The project is exempt from permit requirements under Wisconsin Administrative Code – Chapter NR 411. No substantial impacts to air quality are expected. The project is included in the 2007-2010 Transportation Improvement Program. WIS165 is included as project #541. The project is listed on the Arterial Highway Capacity Improvement and Expansion Projects (Table 4) of the 2005-2007 Assessment of Conformity. [Memorandum Report 165, SEWRPC, June 2006] See page 43 for additional information. For a discussion of Mobile Source Air Toxics (MSAT) see Exhibit C.
Construction Stage Sound Quality	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Construction noise would be minimized to the extent practicable. The special provisions would contain measures to reduce the potential impact of construction noise. See Page 44 for additional information.
Traffic Noise	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A noise analysis was performed. Some impacts are anticipated per Wisconsin Administrative Code – Chapter TRANS 405. See page 45 for additional information.

CULTURAL ENVIRONMENTAL FACTORS

Section 4(f) and 6(f)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	There are no parks or other public recreation properties along the project. No property would be acquired from archaeological sites
Historic Resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	There are no structures eligible for National Register of Historic Places. See Exhibit B-3 for additional information.
Archaeological Resources	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Three sites were identified during the Phase I archaeological study: a platted cemetery, a potential prehistoric campsite, and a prehistoric campsite already included on the National Register of Historic Places. The Preferred Alternative has been shifted to south to avoid archaeological resources. See page 48 and Exhibit B-3 for additional information.
Hazardous Substances or USTs	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	A Phase I investigation was conducted in the project area in accordance with WisDOT criteria. No Phase II investigations are required. See page 52 for additional information.

ENVIRONMENTAL FACTORS	EFFECTS				
	Adverse	Benefit	None	*N/A	Comments
Aesthetics	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<p>An existing roadway would be widened. No new visual elements would be added to the landscape. The project corridor is characterized by flat terrain. Land use along the project corridor is primarily residential in nature.</p> <p>Travelers include local residents, and commuters. There are no visually sensitive areas and the visual environment would not be substantially altered. The road would change from a two-lane road with ditches to an urban road with storm sewers.</p>
Coastal Zone	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>The project will not have any direct impacts to Lake Michigan. Barnes Creek flows to Lake Michigan and will receive the storm water runoff after it has been treated in detention ponds. Therefore, the water quality will be improved and the peak flow of runoff will be delayed and decreased, both of which are benefits to Barnes Creek and Lake Michigan.</p>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

* N/A – Blacked out cells in this column require a check in at least one of the other columns

ENVIRONMENTAL COST MATRIX
Transportation Improvements

ENVIRONMENTAL ISSUE	UNIT MEASURE	ALTERNATIVES					
		No-Build Alternative 1	2	3	4	5 Preferred Divided Roadway with Roundabouts	
Project Length	Mi (Km)	3.5 (5.6)	3.5 (5.6)	3.5 (5.6)	3.5 (5.6)	3.5 (5.6)	
*Cost \$							
Construction	Million \$		14	14	14	11.7	
Real Estate	Million \$		11.3	13.6	7.6	3.3	
Total	Million \$		25.3	27.6	21.6	15.0	
Land Conversions							
Total Area Converted to R/W	Acres (Hectares)	0 0	29.0 (11.7)	31.0 (12.6)	30.0 (12.1)	20.9 (8.5)	
Wetland Area Converted to R/W	Acres (Hectares)	0 0	0.89 (0.36)	1.25 (0.50)	1.37 (0.55)	0.02 (0.01)	
Upland Area Converted to R/W	Acres (Hectares)	0 0	28.11 (11.4)	29.75 (12.0)	28.63 (11.6)	20.88 (8.39)	
Upland Area Converted to R/W for Storm Water Detention	Acres (Hectares)	0 0	Detention not evaluated for these alternatives			3.4 (1.3)	
Real Estate							
Number of Farms Affected	Number	0	5	5	5	5	
Total Area From Farm Operations Required	Acres (Hectares)	0 (0)	7.8 (3.1)	8.5 (3.4)	7.1 (2.9)	3.87 (1.6)	
AIS Required	Yes/No	No	No	No	No	No	
Farmland Rating	Score	0	50	50	50	50	
Total Buildings Required	Number	0	42	52	25	8	
Housing Units Required	Number	0	42	52	25	8	
Commercial Units Required	Number	0	0	0	0	0	
Other Buildings or Structures Required	Number (Type)	Because project is a planning study, garages and other residential outbuildings were not considered at this time as numbers can change.					
Environmental Issues							
Flood Plain	Yes/No	No	Yes	Yes	Yes	Yes	
Stream Crossings	Number	1	1	1	1	1	
Endangered Species	Yes/No	No	Detailed studies will be conducted prior to final design				
Historic Properties	Number	0	0	0	0	0	
Archeological Sites	Number	0	3	3	3	3	
106 MOA Required	Yes/No	No	No	No	No	No	
4(f) Evaluation Required	Yes/No	No	No	No	No	No	
Environ Justice At Issue	Yes/No	No	No	No	No	No	
**Air Quality Permit	Yes/No	No	No	No	No	No	
Design Year Noise Sensitive Receptors		2030	2030	2030	2030	2030	
No Impact	Number					5	
Impacted	Number					9	
Meet or Exceed dBA Levels	Number					6	
Contaminated Sites	Number	0	0	0	0	0	

*2006 estimate: \$220,000 per relocation; \$20,000/acre for large tracts of land; \$80,000 for small tracts of land with sewer; Four-lane Divided Roadway \$4million/per mile

** See Exhibit C for a discussion of mobile source air toxics

8) Describe how the project development process complied with Executive Order 12898 on Environmental Justice. (EO 12898 requires agencies to achieve environmental justice by identifying and addressing disproportionately high and adverse human health and environmental effects on minority populations and low-income populations, including the interrelated social and economic effects. Include those covered by the Americans with Disabilities Act and the Age Discrimination Act.)

a) Identify sources of data used to determine presence of minority populations and low-income populations.

- | | | |
|---|--|--|
| <input checked="" type="checkbox"/> Windshield Survey | <input type="checkbox"/> Survey Questionnaire | <input type="checkbox"/> Door to Door |
| <input type="checkbox"/> WisDOT Real Estate | <input checked="" type="checkbox"/> US Census Data | <input type="checkbox"/> Official Plan |
| <input type="checkbox"/> Real Estate Company | | |
- Identify Real Estate Company
- Human Resource Agency
Identify Agency

Identify Plan, Approval Authority, and Date of Approval

b) Indicate whether a minority population or a low-income population, including the elderly and the disabled, is in the project's area of influence.

i) The requirements of EO 12898 are met if both "No" boxes are checked below.

No minority population is in the project's area of influence.

No low-income population is in the project's area of influence.

ii) If either or both of the "Yes" boxes are checked, item c) below must be completed.

Yes, a minority population is within the project's area of influence.

Yes, a low-income population is within project's area of influence.

c) How was information on the proposed action communicated to the minority and/or low-income population(s)? Check all that apply.

- | | | |
|---|--|-------------------------------------|
| <input type="checkbox"/> Advertising | <input type="checkbox"/> Brochures | <input type="checkbox"/> Newsletter |
| <input type="checkbox"/> Notices | <input type="checkbox"/> Utility Bill Stuffers | <input type="checkbox"/> E-mail |
| <input type="checkbox"/> Public Service Announcements | <input type="checkbox"/> Direct Mailings | <input type="checkbox"/> Key Person |
| <input type="checkbox"/> Other (Identify) | | |

d) Identify how input from the minority population and/or low-income population was obtained. Check all that apply.

- | | | |
|---|---|---|
| <input type="checkbox"/> Mailed Survey | <input type="checkbox"/> Door-to-door interview | <input type="checkbox"/> Focus Group Research |
| <input type="checkbox"/> Public Meeting | <input type="checkbox"/> Public Hearing | <input type="checkbox"/> Key Person Interview |
| <input type="checkbox"/> Targeted Small Group Informational Meeting | | <input type="checkbox"/> Targeted Workshop/Conference |
| <input type="checkbox"/> Other (Identify) | | |

e) Indicate any special provisions, which were made to encourage participation from the minority population and/or low-income population(s)

- | | | |
|--|--|--|
| <input type="checkbox"/> Interpreter | <input type="checkbox"/> Listening Aids | <input checked="" type="checkbox"/> Accessibility for Elderly and Disabled |
| <input type="checkbox"/> Transportation Provided | <input type="checkbox"/> Child Care Provided | <input type="checkbox"/> Sign Language |
| <input type="checkbox"/> Other (Identify) | | |

- 9) Briefly summarize the status and results of public involvement. Briefly describe how the public involvement process complied with EO 12898 on Environmental Justice.

Public informational meetings were held on October 19, 2005, March 29, 2006, and November 1, 2006 from 4:30 pm to 7:30 pm at the Village Hall for the Village of Pleasant Prairie to inform the public of the project and obtain public input. These meetings were held in the open house format to share the progress of the design with the community. Comments were received that modified the design. The Roundabout Alternative (Preferred) was explained through a video presentation at the March 29, 2006 meeting. The video presentation was repeated several times during the meeting.

All property owners along the project, as well as anyone on the mailing list, were notified of each meeting. Meeting notices were also sent to the municipalities, Native American Tribes, and coordinating agencies.

- a) Identify groups (e.g., elderly, handicapped), minority populations and low-income populations that participated in the public involvement process. This would include any organizations and special interest groups.

No groups related to Environmental Justice participated in the public involvement process.

- b) Describe, briefly, the issues, if any, identified by any groups, minority populations and/or low-income populations during the public involvement process.

No groups, minority population and/or low-income population participated in the public involvement process.

- c) Briefly describe how the issues identified above were addressed. Include a discussion of those that were avoided as well as those that were minimized and those that are to be mitigated. Include a brief discussion of proposed mitigation, if any.

More than half of the comments received from the first public meeting were in regards to the wide 30-foot median and the overall right-of-way impacts, which were seen as excessive. According to FHWA and WisDOT standards, the 30-foot median is an absolute requirement for new construction of highways with posted speeds of 45 mph or greater. To reduce the median width and thereby the overall right-of-way impacts would require the posted speed be lowered to 40 mph.

However, WisDOT traffic guidelines prohibit the reduction in posted speed unless actual operating speeds are within 2 mph of the new reduced speed limit. A speed study was conducted on WIS 165 on February 14, 2006, and concluded that the operating speeds ranged from 45.3 mph to 48.2 mph, thereby prohibiting a reduction in the current speed limit of 45 mph to 40 mph.

The Preferred Alternative includes a series of roundabouts to be used at successive intersections, in which case the posted speed could be reduced to 40 mph because the nature of roundabouts reduces traffic speed. With a reduced posted speed the median width can be reduced to 20 feet, which lowers right-of-way impacts to abutting property owners.

No additional issues were raised.

TRAFFIC SUMMARY

	ALTERNATE	PREFERRED ALTERNATIVE				
	SEGMENT TERMINI	WIS 31 to CTH ML	CTH ML to WIS 32			
TRAFFIC VOLUMES Existing	ADT Yr. 2002	7,100	4,200-2,800			
Const. Year	ADT Yr. 2010	N/A	N/A			
Const. Plus 10 Years	ADT Yr. 2020	N/A	N/A			
Design Year	ADT Yr. 2030	15,425	5,575-11,975			
	DHV Yr. 2030	1,789	647-1,389			
TRAFFIC FACTORS	K ₁₀₀ (_{100/200} , Or %)	11.0	11.0			
	D (%)	50	50			
	Design Year	T (% of ADT)	6.4	6.4		
		T (% of DHV)	4.3	4.3		
		Level of Service				
SPEEDS Existing	Posted Existing	45	35			
	Posted	45	35			
Design Year	Project Design Speed	50	40			
OTHER (Specify)	P (% of ADT)					
	K (% OF ADT)					

ADT = Average Daily Traffic

K_{100/200} Or % = K₁₀₀ = Rural, K₂₀₀ = Urban, % = ADT in DHV

T = Trucks

K₈ = % ADT occurring in the average of the 8 highest consecutive hours of traffic on an average day. (Only required when a carbon monoxide analysis must be performed per Wisconsin Administrative Code - Chapter NR 411.)

DHV = Design Hourly Volume

D = % DHV in predominate direction of travel

P = % ADT in peak hour

ENVIRONMENTAL ISSUES

Indicate whether the issue listed below is a concern for the proposed action or alternative. If the issue is a concern, explain how it is to be addressed or where it is addressed in this environmental document.

1) Would the proposed action stimulate substantial secondary environmental effects?

No

Yes - Explain or indicate where addressed.

2) Would the creation of a new environmental effect result from this proposed action?

No

Yes - Explain or indicate where addressed.

3) Would the proposed action impact geographically scarce resources?

No

Yes - Explain or indicate where addressed.

4) Would the proposed action have a precedent-setting nature?

No

Yes - Explain or indicate where addressed.

5) Is the degree of controversy associated with the proposed action high?

No

Yes - Explain or indicate where addressed.

6) Would the proposed action have any conflicts with official agency plans or local, state, or national policies, including conflicts resulting from potential effects of transportation on land use and land use on transportation demand?

No

Yes - Explain or indicate where addressed.

7) Would the proposed action contribute to cumulative environmental impacts of repeated actions?

No

Yes - Explain or indicate where addressed.

ENVIRONMENTAL COMMITMENTS

Identify and describe any commitments made to protect the environment. Indicate when the commitment should be implemented and who in WisDOT would have jurisdiction to assure fulfillment for each commitment.

ATTACH THIS PAGE TO THE DESIGN STUDY REPORT

A.	General Economics	No Commitments Needed	
B.	Community & Residential	No Commitments Needed	
C.	Commercial & Industrial	Not Applicable	
D.	Agriculture	No Commitments Needed	
E.	Environmental Justice	No Commitments Needed	
F.	Wetlands	Commitments Made	No storage of materials or equipment shall be allowed in wetland areas. The project's wetland impacts will be mitigated in accordance with the Cooperative Agreement between the Wisconsin DNR and WisDOT on Compensatory Wetland Mitigation.
G.	Streams & Floodplains	Commitments Made	All in-water construction activities shall be separated from live water. No in-water construction activity will be allowed between March 15 and May 31. New culverts shall be installed 6 inches below the existing streambed elevation to allow a natural streambed condition within the culvert.
H.	Lakes or Other Open Water	Not Applicable	
I.	Upland Habitat	No Commitments Needed	
J.	Erosion Control	Commitments Made	Appropriate erosion control, including, but not limited to silt fence, hay bales, and other appropriate erosion control measures would be included in the plan and utilized during construction. All plans will be developed in adherence with TRANS 401.
K.	Storm Water Management	Commitments Made	Detention ponds are proposed at three location and grassed swales are also proposed to treat storm water runoff. All plans will be developed in adherence with TRANS 401.
L.	Air Quality	No Commitments Needed	
	<input checked="" type="checkbox"/> The project is exempt from permit requirements per Wisconsin Administrative Code – Chapter NR 411 criteria.		
	<input type="checkbox"/> A construction permit is required for this project and an application has been submitted to the Department of Natural Resources – Bureau of Air Management. Construction on the project would not begin until the Construction Permit has been issued. See the Air Quality Factor Sheet.		
	<input type="checkbox"/> A construction permit is required for this project and has been issued by the Department of Natural Resources – Bureau of Air Management. The Construction Permit Number is . See the Air Quality Factor Sheet.		
M.	Construction Stage Sound Quality		
	<input type="checkbox"/> No receptors are located in the project area. No impacts are anticipated from construction noise.		
	<input checked="" type="checkbox"/> To reduce the potential impact of Construction Noise, the special provisions for this project would require that motorized equipment shall be operated in compliance with all applicable local, state and federal laws and regulations relating to noise levels permissible within and adjacent to the project construction site. At a minimum, the special provisions would require that motorized construction equipment shall not be operated between 7:00 PM and 7:00 AM without prior written approval of the project engineer. All motorized construction equipment would be required to have mufflers constructed in accordance with the equipment manufacturer's specifications or a system of equivalent noise reducing capacity. It would also be required that mufflers and exhaust systems be maintained in good working order, free from leaks or holes. See Construction Stage Sound Quality Factor Sheet and Exhibit A-5.		
N.	Traffic Noise	No Commitments Made	
O.	Section 4(f) and 6(f)	Not Applicable	
P.	Historic Resources	No Commitments Needed	
Q.	Archaeological Resources	Commitments Made	Impacts to existing sites are avoided by shifting the alignment to the south. No storage of materials will be allowed on these sites.
R.	Hazardous Substances or USTs	No Commitments Needed	
S.	Aesthetics	No Commitments Needed	
T.	Coastal Zone	No Commitments Needed	
U.	Other – Endangered & Threatened Species	Commitments Made	Surveys for endangered, threatened and watch list species would be conducted during final design to determine the presence in the project area. Coordination will continue with FHWA, US Fish & Wildlife and Wisconsin DNR.

Alternative	Preferred <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Portion of Project This Sheet is Evaluating WIS 31 to WIS 32	

- 1) Describe, briefly, the existing economic characteristics of the area around the project. This could include type(s) of farming, retail or wholesale businesses, manufacturing, tourism, or other elements contributing to the area's economy and potentially affected by the project.

The area around the project is primarily residential. In general, building density is higher to the west of CTH ML.

- 2) Discuss the economic advantages and disadvantages of the proposed action. Indicate how the project would affect the characteristics described in item 1 above.

There may be short-term disruptions to access and traffic flow during construction, but the road would remain open to traffic. Long-term changes to the economics of the area are not anticipated. Access to properties along WIS 165 should be improved due to the additional capacity. However, there would be U-turns required to access some parcels because of the addition of the median between WIS 31 and CTH EZ/39th Avenue. The proposed roundabouts and median openings provide a safe option for u-turning vehicles.

- 3) In general, would the proposed action increase or decrease the potential for economic development in the area influenced by the project?

Proposed improvements are based on existing and anticipated traffic volumes. The proposed project would provide efficient and safer traffic operation. Failure to implement the proposed improvements would result in deteriorated traffic conditions such as long delays and unsafe movements at intersections.

The proposed improvements may increase the potential for economic development of the corridor by increasing capacity.

The remaining few undeveloped land is already being platted for future development. No secondary development beyond the planned improvements is anticipated as a result of this project.

Alternative	Preferred <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
-------------	--

Portion of Project This Sheet is Evaluating if Different From First Basic Sheet

- 1) Give a brief description of the community or neighborhood affected by the proposed action.

Community/Neighborhood Name Village of Pleasant Prairie	
Community/Neighborhood Population 16,136 (2000 census)	Community is Unincorporated <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Community/Neighborhood Characteristics Residential with scattered agricultural	

The project is in the Village of Pleasant Prairie. The demographic breakdown of the population based on 2000 census is:

Population	Percent White	Percent Black	Percent Native American	Percent Asian	Percent Other Race	Percent Two + Races
16,136	94.08	1.45	0.39	1.38	1.06	1.64
Percent Elderly (over 65) Per 2000 Census		Percent of Persons Under Poverty Level in 1999				
10.63%		3.0%				

Based on census data, discussions with local officials, and observations at public meetings, there do not appear to be any populations of protected classes affected by this project. There are, however, several homes owned by retired/elderly persons.

There are two known persons with special educational needs, which would be met by providing adequate driveway access to meet the requirements of transportation services.

Seven occupied homes and one unoccupied home would be acquired for the project.

This document is in compliance with U.S. DOT and FHWA policies to determine whether a proposed project would have induced socioeconomic impacts or any 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". Neither minority nor low-income populations would receive disproportionately high or adverse impacts as a result of the Preferred Alternative.

- 2) Identify and discuss the existing modes of transportation and their traffic within the community or neighborhood.

There is no mass transit in the project corridor other than via school bus. All traffic is individual cars or trucks.

- 3) Identify and discuss the probable changes resulting from the proposed action to the modes of transportation and their traffic within the community or neighborhood.

No changes are anticipated to the modes of transportation in the project corridor as a result of the project.

- 4) Briefly discuss the proposed action's effect(s) on existing and planned land use in the community or neighborhood.

The majority of the corridor is already rapidly developing. The proposed action is not expected to change the existing land use or accelerate development in the area.

- 5) Address any changes to emergency services or other public services during and after construction of the proposed project.

The road would remain open to traffic during construction although there may be some delays. Emergency services would not be obstructed. After construction, the improved capacity on WIS 165 should enhance the response of emergency services.

- 6) Describe any physical or access changes and their effects to lot frontages, driveways, or sidewalks. This could include effects on side slopes or driveways (steeper or flatter), reduced terraces, tree removal, vision corners, sidewalk removal, etc.

The Preferred Alternative involves improving the vertical profile of WIS 165, which results in changes to driveways. Some driveways become flatter, others steeper, but all are within acceptable limits. The widening of WIS 165 and creation of a terrace would reduce the depth of some properties. In addition, trees would be impacted by road widening.

- 7) Indicate whether a community/neighborhood facility would be affected by the proposed action and indicate what effect(s) this would have, overall, on the community/neighborhood. Also include and identify any minority population or low-income population that may be affected by the proposed action.

There are no community or neighborhood facilities along the project. No community facility should be directly impacted because traffic patterns are not being changed by the project.

No minority population or low-income population is affected by the proposed action. Several property owners are retired/elderly.

- 8) Place an "X" in the appropriate box below if one of the populations indicated would be affected by the proposal. Give a brief description of the community/neighborhood and population affected by the proposed action. Include demographic characteristics of those affected by the proposal.

For the populations shown below, The Orders issued by the U.S. Department of Transportation and its implementing agencies to satisfy the requirements of Executive Order 12898 require an evaluation to determine whether a minority and/or low-income population would experience a disproportionately high and adverse effect. If any of the populations shown below are affected, form DT2093, Environmental Justice Impact Evaluation, along with the remaining items on this worksheet, would need to be completed to satisfy Environmental Justice requirements.

- a) Is disabled population affected?

No
 Yes - See form DT2093, Environmental Justice Impact Evaluation.

- b) Is elderly population affected?

No
 Yes - See form DT2093, Environmental Justice Impact Evaluation.

- c) Are minority populations affected?

No
 Yes - See form DT2093, Environmental Justice Impact Evaluation.

- d) Are low-income populations affected?

No
 Yes - See form DT2093, Environmental Justice Impact Evaluation.

- 9) Identify and discuss, in general terms, factors that residents have indicated to be important or controversial.

- Change in character of area from rural to urban – the area has been experiencing development pressure
- Proximity of the roadway to their homes
- 30-foot wide median in Alternative 1, 2 and 3

- 10) Indicate the number and type of any residential buildings, which would be removed because of the proposed action. If either item a) or b) is checked, items 11 through 18 do not need to be addressed or included in the environmental document.

- a) None
b) No occupied residential building would be acquired as a result of this project.
c) Occupied residential building(s) would be acquired. Provide number and description of buildings, e.g., single family homes, apartment buildings, condominiums, duplexes, etc. If item c) is checked, you must complete items 11 through 18.

Seven occupied and one unoccupied, single-family homes would be removed by the WIS 165 project.

11) Estimate the number of households that would be displaced from the Occupied residential buildings identified in item 10c) above.

Total Number of Households to be Relocated 7 occupied, and 1 unoccupied homes
--

(Note that this number may be greater than the number shown in 10c) above because an occupied apartment building may have many households.)

a) Number by Ownership

Number of Households Living in Owner Occupied Building 7 occupied	Number of Households Living in Rented Quarters
--	--

b) Number of households to be relocated that have

1 Bedroom	2 Bedroom 1	3 Bedroom 2 occupied, 1 unoccupied	4 or More Bedrooms 4
-----------	----------------	---------------------------------------	-------------------------

c) Number of relocated households by type and price range of dwelling

Valuations are taken from the 2005 assessed values in the Kenosha County property database

Number of Single Family Dwellings	Price Range
1	70,000 to 100,000
1	100,000 to 125,000
1	125,000 to 150,000
3	150,000 to 175,000
1	175,000 to 200,000
1 unoccupied	200,000 to 225,000
Number of Multi-Family Dwellings None	Price Range
Number of Apartments None	Price Range

12) Describe the relocation potential in the community.

a) Number of Available Dwellings

1 Bedroom	2 Bedrooms	3 Bedrooms 30	4 or More Bedrooms 11
-----------	------------	------------------	--------------------------

b) Number of Available and Comparable Dwellings by Location – see table in item c) below – all potential replacement housing in Pleasant Prairie and Kenosha.

within	within
within	within

- c) Number of Available and Comparable Dwellings by Type and Price. (Include dwellings in price ranges comparable to those being dislocated, if any.)

The following table summarizes the potential for relocating residential displacements within the area. This information is based on the website coldwellbanker.com, which is connected to the multiple listing service. All properties are in Pleasant Prairie or Kenosha and have at least 3 bedrooms. Although property acquisitions would not occur for a number of years, the review of currently available replacement housing may indicate the future potential to relocate affected residents within the community. Including adjacent communities would yield more potential replacement housing. There appears to be sufficient replacement housing available in the project vicinity.

Availability of Replacement Residential Housing		
As of May 2006		
Price	Number with 3 Bedrooms	Number with 4 Bedrooms
100,000 to 125,000	1	-
125,000 to 150,000	5	2
150,000 to 175,000	5	3
175,000 to 200,000	5	1
200,000 to 225,000	9	3
225,000 to 250,000	5	2

No two-bedroom homes were found in the listings at the time of the search. In the event that a suitable two-bedroom home is not available in the immediate area, the search radius will be expanded. In addition, a three-bedroom home may be considered suitable replacement housing depending on the specifics of the residents of the property. The relocation plan prepared at the time of acquisition will consider the specifics of each resident and property owner and special measures will be adopted as needed per the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.

- 13) Identify all the sources of information used to obtain the data in item 12.

- WisDOT Real Estate
 Multiple Listing Service (MLS)
- Newspaper Listing(s)
 Other – web site coldwellbanker.com

- 14) Indicate the number of households to be relocated that have the following special characteristics.

Number of Minority Households	Number of Elderly Households 2
Number of Households with Disabled Residents	Number of Low-Income Households
Number of Households Made up of a Large Family (5 or more individuals)	Number of Households with no Special Characteristics 6

Number of Households for Which it is not Known Whether They Have Special Characteristics
 Because this is a planning study, it is unknown when acquisitions will take place and who will be occupying the homes in question. Two of the households are known to be elderly, no other special characteristics have been identified.

- 15) Describe how relocation assistance would be provided in compliance with the WisDOT Relocation Manual or FHWA regulation 49 CFR Part 24.

Acquisitions and relocations would be in accordance with the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970*, as amended, and any other applicable rules. In addition to providing for payment of just compensation of property acquired, additional benefits are available to eligible persons displaced from their residences. Some available benefits include relocation advisory services, reimbursement for moving expenses, replacement housing payments, and down payment assistance. Under State law, no person would be displaced unless a comparable replacement dwelling location is located by the displacing agency. The replacement housing must also be open to persons regardless of race, color, religion or national origin.

Compensation is available to all displaced persons without discrimination. Before initiation of any property acquisition activities, property owners would be contacted and given an explanation of the details of the acquisition process and Wisconsin eminent domain law under Section 32.05, Wisconsin Statutes. A professional appraiser would inspect any property acquired. The property owner would be invited to accompany the

appraiser during the inspection to ensure the appraiser is informed on every aspect of the property. Owners would be given the opportunity to obtain a second appraisal that would be considered by WisDOT in establishing just compensation. Based on the appraisal(s) made, the value of the property would be determined, and the amount offered to the owner.

16) Identify any difficulties or unusual conditions for relocating households displaced by the proposed action.

Based on the information gathered, the Department of Transportation foresees no unusual conditions or difficulties for relocating households displaced by the proposed action. Because this is a planning study, any specific information is likely to change between this evaluation and the actual acquisition and relocation of the households.

17) Indicate whether Special Relocation Assistance Service would be needed. Describe any special services or housing programs needed to remedy identified difficulties or unusual conditions noted in item #14 above.

- No
- Yes - Describe services that would be required.

Based on the information gathered, the Department of Transportation foresees no problem with relocating all residents of the occupied units in a reasonable time period. Therefore, there should be no need for a special relocation advisory service program. However, if necessary, special advisory services would be set-up to handle the needs and desires of the relocatees.

18) Describe any additional measures which would be used to minimize adverse effects or provide benefits to those relocated, those remaining, or to community facilities affected.

During the alternatives development and refinement phases, every effort was made to minimize residential impacts.

A construction traffic management plan would be developed and implemented during construction phase to ensure reasonable convenient access to residences, community services and local roads during construction. Work would likely be staged to minimize disruption during construction period. To minimize delays to emergency vehicles, WisDOT would coordinate construction activities, sequencing and traffic management plans with local fire, police, and emergency rescue services and school administrators. Measures to minimize construction noise impacts are discussed on Page 44.

Alternative

Preferred

Yes No

Length of Project This Sheet is Evaluating
3.5 miles

- 1) Describe the economic development or existing business areas affected by the proposed action.

There are no existing businesses within the project corridor. There is a church and a parsonage at CTH ML intersection. There are several businesses on WIS 165 west of the project limits.

- 2) Identify and discuss the existing modes of transportation and their traffic within the economic development or existing business area.

There is no mass transit in the project corridor. WIS 165 would remain open to traffic during construction.

- 3) Place an "X" in the appropriate box below if one of the populations indicated would be affected by the proposal. Give a brief description of the community/neighborhood and population affected by the proposed action. Include demographic characteristics of those affected by the proposal.

The Village of Pleasant Prairie has a population of 16,136 (2000 census). Land use in the project area is primarily lower density residential with scattered agricultural properties and undeveloped land. See page 20 for a more detailed description of the demographics.

For the populations shown below, The Orders issued by the U.S. Department of Transportation and its implementing agencies to satisfy the requirements of Executive Order 12898 require an evaluation to determine whether a minority and/or low-income population would experience a disproportionately high and adverse effect. If any of the populations shown below are affected, DT2093, Environmental Justice Impact Evaluation, along with the remaining items on this worksheet, would need to be completed to satisfy Environmental Justice requirements.

- a) No - Disabled population is not affected.

Yes - Disabled population is affected. See DT2093, Environmental Justice Impact Evaluation.

- b) No - Elderly population is not affected.

Yes - Elderly population is affected. See DT2093, Environmental Justice Impact Evaluation.

- c) No - Minority population is not affected.

Yes - Minority population is affected. See DT2093, Environmental Justice Impact Evaluation.

- d) No - Low-income population is not affected.

Yes - Low-income population is affected. See DT2093, Environmental Justice Impact Evaluation.

- 4) Identify and discuss effects on the economic development potential and existing businesses that are dependent upon the transportation facility for continued economic viability.

The proposed project would have no effect on a transportation-dependent business or industry.

The proposed action would change the conditions for a business that is dependent upon the transportation facility. Identify effects, including effects that may occur during construction.

5) Estimate the number of businesses and jobs that would be created or displaced because of the project.

a) Total number created None

Number created by type including number of jobs.

Retail businesses created

Retail jobs created

Service businesses created

Service jobs created

Wholesale businesses created

Wholesale jobs created

Manufacturing businesses created

Manufacturing jobs created

b) Total number displaced. None

Number displaced by type and number of jobs.

Retail businesses displaced

Retail jobs displaced

Service businesses displaced

Service jobs displaced

Wholesale businesses displaced

Wholesale jobs displaced

Manufacturing businesses displaced

Manufacturing jobs displaced

6) Identify any special characteristics of the created or displaced businesses or their employees.

a) Number of created businesses by special characteristics None

Number of created businesses that would employ elderly
serve elderly

Number of created businesses that would employ disabled
serve disabled

Number of created businesses that would employ low income people
serve low income people

Number of created businesses that would employ a minority population
serve a minority

b) Number of displaced businesses by special characteristics None

Number of displaced businesses that would employ elderly
serve elderly

Number of displaced businesses that would employ disabled
serve disabled

Number of displaced businesses that would employ low income people
serve low income people

Number of displaced businesses that would employ a minority population
serve a minority

7) Is Special Relocation Assistance Needed?

No – No businesses would be relocated by the project.

Yes – Describe special relocation needs.

8) Describe the business relocation potential in the community. No Business Relocations

a) Total number of available business buildings in the community.

b) Number of available and comparable business buildings by location

Number of available and comparable business buildings within

Number of available and comparable business buildings within

Number of available and comparable business buildings within

- c) Number of available and comparable business buildings by type and price (Include business buildings in price ranges comparable to those being dislocated, if any.)

Number of available and comparable single business buildings in the price range of

Number of available and comparable single business buildings in the price range of

Number of available and comparable single business buildings in the price range of

Number of available and comparable multi- business buildings in the price range of

Number of available and comparable multi-business buildings in the price range of

Number of available and comparable multi- business buildings in the price range of

- 9) Identify all the sources of information used to obtain the data in item 8.

WisDOT Real Estate

Multiple Listing Service (MLS)

Newspaper listing(s)

Other - Identify:

- 10) Describe how relocation assistance would be provided in compliance with the WisDOT Relocation Manual or FHWA regulation 49 CFR Part 24.

- 11) Identify any difficulties for relocating a business displaced by the proposed action and describe any special services needed to remedy identified unusual conditions.

- 12) Describe any additional measures which would be used to minimize adverse effects or provide benefits to those relocated, those remaining, or to community facilities affected.

- 13) Generally describe both the beneficial and adverse effects accruing to:

- a) The area's economic development potential or existing business area caused by the proposed action. Include any factors identified by business people that they feel are important or controversial.
- b) The employment potential and existing employees in businesses affected by the proposal. Include, as appropriate, a discussion of effects accruing to minority populations or low-income populations.

Alternative	Length of Centerline and termini this sheet is evaluating if different from Sheet 1.		
Preferred Yes			
Type of Land	Type of Acquisition		Total Area Acquired
	Acquired From Farm Operations		
	Area Acquired In Fee Simple	Area Acquired By Easement	
Crop land and pasture	3.87	Acres	3.87 Acres
Woodland	0 Acres	Acres	0 Acres
Land of undetermined or other use (e.g., wetlands, yards, roads, etc.)	0 Acres	Acres	0 Acres
TOTAL	3.87 Acres	Acres	3.87 Acres

1. Indicate the number of farm operations from which land would be acquired.

Total Number of Farm Operations from which land would be acquired 5

- a) 3 Number of Farm Operations from which 1 acre or less would be acquired.
- b) 2 Number of Farm Operations from which more than 1 acre but less than 5 acres would be acquired.
- c) 0 Number of Farm Operations from which more than 5 acres would be acquired.

2. Identify and describe the effects to farm operations because of land lost due to the project.

Does Not Apply

In the Preferred Alternative, the road embankment for WIS 165 would be widened requiring acquisition ranging from 0.08 acres to 1.68 acres from five different farming operations. The total estimated loss of production is 3.87 acres (1.57 hectares).

There would be no farm severances and no buildings or other improvements would be impacted.

3. Describe changes in access to farm operations caused by proposed action.

Does Not Apply

Existing access would be maintained.

4. Indicate whether a farm operation would be severed because of the project and describe the severance (include area of original farm and the size of any remnant parcels).

Does Not Apply

No farm operations would be severed.

5. Identify and describe effects generated by the acquisition or relocation of farm operation buildings, structures or improvements, e.g., barns, silos, stock watering ponds, irrigation wells, etc. As appropriate, address the location, type, condition and importance to the farm operation.

Does Not Apply

6. Describe effects caused by the elimination or relocation of a cattle/equipment pass or crossing. Attach plans, sketches, or other graphics as needed to clearly illustrate existing and proposed location of any cattle/equipment pass or crossing.

Does Not Apply

Replacement of an existing cattle/equipment pass or crossing is not planned. Explain.

Cattle/equipment pass or crossing would be replaced.

Replacement would occur at same location.

Cattle/equipment pass or crossing would be relocated. Describe.

7. Describe the effects generated by the obliteration of the old roadway.

Does Not Apply

8. Identify and describe any proposed changes in the land use or secondary development that would affect farm operations and is related to the development of this project.

Does Not Apply

No changes in land use are expected as a result of the project.

9. Describe any other project-related effects identified by a farm operator or owner, which may be adverse, beneficial or controversial.

No effects indicated by farm operator or owner.

10. Indicate whether minority population or low-income population farm owners, operators, or workers would be affected by the proposal. (Include migrant workers if appropriate.)

No effects would accrue to farm owners, operators or workers from minority populations or low-income populations

Yes – Discuss.

11. Describe measures to minimize adverse effects or enhance benefits.

Storm water detention is proposed near the farm to handle increased roadway runoff.

Alternative	Preferred <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
-------------	--

Length of Center Line and Termini This Sheet is Evaluating
3.5 miles, WIS 31 to WIS 32

- 1) Describe proposed work in the wetland(s), e.g., excavation, fill, marsh disposal, other.

Proposed work includes fill for embankment and roadway widening.

- 2) Describe the location of wetland(s) affected by the proposal. Include wetland name(s), if available. (Use maps, sketches, or other graphic aids.)

Because the proposed project is a corridor study, a detailed wetland delineation will be performed during final design. The wetland information below was taken from SEWRPC wetland mapping.

Wetland W1 is located on south side of WIS 165 associated with the crossing of the tributary to Barnes Creek.

Wetland locations are shown on Exhibit A-4

- 3) This wetland is:

Isolated from stream, lake or other surface water body.

Not contiguous, but within 5-year floodplain.

Contiguous (in contact) with a stream, lake, or other water body. – The identified wetland impacts are associated with the tributary to Barnes Creek.

All wetland impacts were identified based on inventory mapping received from SEWRPC. There may be additional wetland impacts to wetlands too small to be mapped on the inventory maps.

Identify corresponding stream, lake, or other water body by name or town-range location: Barnes Creek, which flows into Lake Michigan.

NOTE: If wetland is contiguous or adjacent to a stream, complete form DT2097, Streams and Floodplains Impact Evaluation. If wetland is contiguous to a lake or other water body, complete form DT2071, Lake or Water Body Impact Evaluation.

- 4) List any observed or expected waterfowl and wildlife inhabiting or dependent upon the wetland. (List should include both permanent and seasonal residents).

Deer, raccoons, mice, and other small mammals are expected to live in this sort of habitat. Songbirds would use the wetlands for both migration and breeding habitats. Various reptiles and amphibians are expected to live in these wetlands, but none were observed.

- 5) Are there any known endangered or threatened species affected by the project?

No

Yes - Identify the species and indicate whether it is on Federal or State lists.

Wisconsin DNR National Heritage Inventory (NHI) data files contain rare species endangered & threatened species known to exist in the nearby Chikauke Prairie State Natural Area. The US Fish & Wildlife Service letter indicates a federally threatened species that occupies wet grassland habitat has been recorded within the Kenosha County at multiple locations within approximately one mile of the project corridor. See Exhibits B-2 and B-5 for additional information.

These same species may exist along the project corridor. Because this is a corridor preservation study, detailed wetland delineations were not conducted. At the time of final design, wetland delineations will include plant species studies to establish the presence or absence of endangered & threatened species. During final design process coordination will continue with FHWA, US Fish & Wildlife and Wisconsin DNR.

Section 7 coordination has been completed with the U.S. Fish & Wildlife Service. Describe mitigation required to protect the federally listed endangered species.

Coordination with DNR has been completed. Describe mitigation required to protect the State listed species.

Surveys for endangered, threatened and watch list species would be conducted during final design to determine the presence in the project area during. During final design process coordination will continue with FHWA, US Fish & Wildlife and Wisconsin DNR.

6) FHWA Wetland Policy

Not Applicable - Explain

Individual Wetland Finding Required - Summarize why there are no practicable alternatives to the use of the wetland.

Statewide Wetland Finding. **NOTE: All must be checked for the Statewide Wetland Finding to apply.**

Project is either a bridge replacement or other reconstruction within 0.5 km (0.3 mile) of the existing location.

The project requires the use of 3 hectares (7.4 acres) or less of wetlands.

The project has been coordinated with the DNR and there have been no significant concerns expressed over the proposed use of the wetlands.

7) Erosion control or storm water management measures, which would be used to protect the wetland, are shown on form (either or both)

DT2080, Erosion Control Impact Evaluation

DT2076, Storm water Impact Evaluation

Neither form - Briefly describe measures to be used

8) Section 404 Permit

Not Applicable - No fill to be placed in wetlands

Applicable - Fill would be placed in wetlands.
Indicate area of wetlands filled 1047 square feet [Acres 0.024 or 0.01 Hectares]

Individual Section 404 Permit required

General Permit (GP) or Letter Of Permission (LOP) required to satisfy Section 404 Compliance.
Indicate which GP or LOP required.

Non-Reporting GP

Provisional LOP

Provisional GP

Programmatic GP

The 404 Permit will be completed during final design. According to the May 23, 2006 letter from The Army Corps, a General Permit GP-001-WI would be required for the wetland impacts associated with the proposed project. This general permit expires in 2008.

9) Section 10 Waters. For navigable waters of the United States (Section 10) indicate which Nationwide Permit is required.

N/A

Indicate whether Pre-Construction Notification (PCN) to the U.S. Corps of Engineers(USACE) is:

- Required
- Submitted on (Date)

Status of PCN

USACE has made the following determination on (Date)

USACE is in the process of review, anticipated date of determination is: (Date)

10) Identify wetland type(s), which would be filled or converted to another use. Use the DOT Wetland Bank System. (See FDM Procedure 24-5-10, Figure 2.) If the National Wetlands Inventory (NWI) or Wisconsin Wetlands Inventory (WWI) are used to identify the types of wetlands, translate them to the DOT Wetland Bank System, wetland types.

a) Approximate areas of wetlands filled or converted by type.

Wetland Type	Area of Wetland Type	Square Feet	Acres	Hectares
W1	W, SS	1,047	0.024	0.01
	Total	1,047	0.0246	0.01

11) Wetland Mitigation

(NOTE: Avoidance and minimization mitigation are required.)

a) Wetland Avoidance

i) Describe methods used to avoid the use of wetlands, such as using a lower level of improvement or placing the roadway on new location, etc.

Reconstruction without capacity expansion or profile improvements would avoid wetland impacts, but does not address the purpose and need for the project (see Page 2), which includes the need to accommodate more than 15,000 vehicles per day. Relocation on a new alignment was not considered due to development in the area. The Preferred Alternative has a narrower typical section, which reduces the amount of impacts to wetlands adjacent to the roadway.

ii) Indicate the total area of wetlands avoided – The other alternatives had between 0.44 and 0.92 acres (0.18 and 0.37 hectares) of additional impact

b) Minimize the amount of wetlands affected

i) Describe methods used to minimize the use of wetlands, such as a steepening of side slopes or use of retaining walls, equalizer pipes, upland disposal of hydric soils, etc.

The embankment is only a few feet high so there is no opportunity for steepening side slopes outside of the clear zone or a need for retaining walls. Hydric soils would be disposed on upland sites.

ii) Indicate the total area of wetlands saved through minimization

0 Acres

0 (Hectares)

c) Compensation for unavoidable loss

Is compensation of unavoidable wetland loss required?

- Yes
 No. Explain.

d) Type and amount of compensation

Wetland impacts total approximately 1,047 square feet [0.024 acres or 0.01 hectares]. A wetland compensation proposal is needed in accordance with the DNR-DOT Cooperative Agreement for any unavoidable wetland losses. This will be coordinated with the DNR during final design phase.

- On-Site Replacement- Wetland replacement located in the general proximity of the project site within the same local watershed. These replacements are often contiguous to the project.

Wetland type of on-site replacement

Total area of on-site replacement
Acres
(Hectares)

- Near-Site or Off-site Replacement - Replacement opportunity for wetland compensation within a 8.05 kilometers (5 mile) corridor centered over the highway alignment or a wetland replacement located away from the project site, generally outside the project's local watershed.

Wetland type of off-site replacement

Total area of off-site replacement
Acres
(Hectares)

- No near or off-site replacement - Describe reasons no near or off-site opportunities were found.

Because this is a corridor study and construction is not scheduled at this time, the specifics of wetland mitigation will be developed during the final design phase of the project.

- Wetland Mitigation Bank Site - A wetland compensation site containing wetland credit areas and wetland types from bank developed wetland restoration/creation projects or surplus areas from the wetland compensation projects of specific DOT facility development projects.

Indicate name or location of wetland mitigation bank site to be used for the replacement of unavoidable wetland loss.

Wetland type of bank-site replacement

Total area of bank-site replacement

Acres

(Hectares)

Describe decision process used to determine the use of the bank-site and provide any coordination documentation with regulatory or resource agencies.

Alternative	Preferred <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Length of Project This Sheet is Evaluating 3.5 miles	
1) Stream Name Barnes Creek and unnamed tributary	2) Stream Location West of WIS 32
3) Stream Type (Indicate Stream Class, if known) <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Warm water <input type="checkbox"/> Trout-Class <input type="checkbox"/> Wild and Scenic River	4) Size of Upstream Watershed Area <input type="checkbox"/> Permanent Flow (year-round) <input checked="" type="checkbox"/> Temporary Flow (dry part of year)
5) Stream Characteristics	
a) Substrate <input checked="" type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt <input type="checkbox"/> Clay <input type="checkbox"/> Cobbles <input type="checkbox"/> Other-describe:	
b) Average Water Depth	c) Vegetation in Stream <input checked="" type="checkbox"/> Absent <input type="checkbox"/> Present - If known describe:
d) Identify Fish Species Present	e) If water quality data is available, include this information (e.g., DNR or local discharger might have such records).

6) Are there any known endangered or threatened species affected by the project?

No

Yes - Identify the species and indicate whether it is on Federal or State lists.

Wisconsin DNR National Heritage Inventory (NHI) data files contain rare species endangered & threatened species known to exist in the nearby Chiwaukee Prairie State Natural Area. The US Fish & Wildlife Service letter indicates a federally threatened species that occupies wet grassland habitat has been recorded within the Kenosha County at multiple locations within approximately one mile of the project corridor.

These same species may exist along the project corridor. Because this is a corridor preservation study, detailed wetland delineations and plant surveys were not conducted. At the time of final design, wetland delineations will establish the presence or absence of endangered & threatened species. During final design process coordination will continue with FHWA, US Fish & Wildlife, and Wisconsin DNR.

See Exhibits B-2 and B-5 for additional information.

Section 7 coordination has been completed with the U.S. Fish & Wildlife Service. Describe mitigation required to protect the federally listed endangered species.

Coordination with DNR has been completed. Describe mitigation required to protect the State listed species.

7) If bridge replacement, are migratory bird nests present?

No - The existing structure is a twin, metal culvert pipe and birds cannot nest in it.

Yes - Identify Bird Species present
Estimated number of nests is:

8) Is a U.S. Fish & Wildlife Depredation Permit required to remove swallow nests?

Not Applicable The existing structure is a twin, metal culvert pipe and swallows cannot nest in it.

No - Describe mitigative measures. Yes

9) Describe land adjacent to stream. If wetland, give type.

The land adjacent to Barnes Creek and the navigable ditch along the north side of WIS 165 primarily agricultural.

10) Identify upstream or downstream dischargers or receivers (if any) within 0.8 kilometers (1/2 mile) of the project site.

None

11) Section 404 Permit

Not Applicable - No fill to be placed in wetlands.

Applicable - Fill would be placed in wetlands.

Indicate area of wetlands filled. 1,047 square feet [0.024 acres or 0.01 hectares]

Individual Section 404 Permit required

General Permit (GP) or Letter Of Permission (LOP) required to satisfy Section 404.

Indicate which GP or LOP is required.

Non-Reporting GP

Provisional GP

Provisional LOP

Programmatic GP

The 404 Permit will be completed during final design. According to the May 23, 2006 letter from The Army Corps, a General Permit GP-001-WI would be required for the wetland impacts associated with the proposed project. This general permit expires in 2008. The type of permit required may change before construction is scheduled.

12) Section 10 Waters

For navigable waters of the United States (Section 10) indicate whether the U.S. Coast Guard has been notified?

No - Not in Section 10 Waters

Yes - Describe results of Notification.

Identify which Nationwide Section 10/404 Permit is required.

Indicate whether Pre-Construction Notification (PCN) to the U.S. Corps of Engineers(USACE) is:

Required

Submitted on (Date)

Status of PCN

USACE has made the following determination on (Date)

USACE is in the process of review, anticipated date of determination is: (Date)

13) Describe proposed work in, over, or adjacent to stream. Indicate whether the work is within the 100-year floodplain and whether it is a crossing or a longitudinal encroachment. (Note: U.S. Coast Guard must be notified when Section 10 waters are affected by a proposal.)

The roadway would be widened. The existing navigable drainage ditch slopes would be flattened to 3:1, which will require that the ditch be regraded. The existing twin metal culvert pipes would be replaced with a new structure that is to be determined during final design.

- 14) Discuss the effects of any backwater, which would be created by the proposed action. Indicate whether the proposed activities would be consistent with NR 116, the National Flood Insurance Program, and Governor's Executive Order #73.

The proposed improvements may encroach into the floodplain at stream crossings. Chapter 116 of the Wisconsin Administrative Code and Executive Order #73 requires notification of upstream landowners for construction in a floodplain that would increase the 100-year flood elevation more than 0.01 foot (3 mm). Presidential Executive Order 11988, Floodplain Management, requires agencies to reduce the risk of flood loss; minimize impacts of floods on public health, safety, and welfare; and restore and preserve the floodplains' natural and beneficial values.

Preliminary hydraulic modeling of the crossing of the tributary to Barnes Creek indicates the existing twin, 48-inch culverts are undersized and the roadway is overtopped during events small than the 10% exceedance (10-year) flood event. In order to pass the 1% exceedance (100-year) flows without overtopping the roadway, a two-cell, 6-foot by 8-foot box culvert would be needed.

The ultimate structure configuration will be determined during final design and would be designed to limit the increase in the upstream flood level and adequately pass the 100-year flood without interrupting the traveling public or emergency vehicles because of damage to the roadway or structures. The project would be consistent with local floodplain management goals and objectives, and would minimize impacts on natural and beneficial values to the extent possible. If floodplain investigations during the design phase determine the backwater effects would result from filling floodplain, WisDOT would take appropriate measures to mitigate the impacts according to the requirements of Chapter 116.

- 15) Describe and provide the results of coordination with any floodplain zoning authority.

WisDOT would coordinate with floodplain zoning authorities during the design phase of this project.

- 16) Would the proposal or any changes in the design flood, or backwater cause any of the following impacts?

- No impacts would occur.
- Significant interruption or termination of emergency vehicle service or a community's only evacuation route.
- Significant flooding with a potential for property loss and a hazard to life.
- Significant impacts on natural floodplain values such as flood storage, fish or wildlife habitat, open space, aesthetics, etc.

- 17) Discuss existing or planned floodplain use and briefly summarize the project's effects on that use.

The roadway improvement is not expected impact the floodplain.

- 18) Discuss probable direct impacts to water quality within the floodplain, both during and after construction. Include the probable effects on plants, animals, and fish inhabiting or dependent upon the stream.

Measures would be incorporated into the design and construction to minimize direct impacts to the waterways.

- 19) Describe proposed measures to minimize adverse effects or to enhance beneficial effects.

Measures to minimize adverse impacts that could possibly be utilized on the project include a diversion channel for the creek along the westbound lane is necessary to flatten the ditch slopes. The actual measures and techniques to be utilized on the project would be determined during the design of the project elements when they are scheduled. The wetlands existing along the project need to be protected against erosion and sedimentation during the construction phase of the project.

- 20) Erosion control or storm water management measures that would be used to protect the stream are shown on form DT2080, Erosion Control Impact Evaluation and form DT2076, Stormwater Impact Evaluation.

- Yes
- No - Briefly describe measures to be used such as sheet piling, cofferdam, turbidity barrier, barges, construction blackout window, etc.

Alternative	Preferred <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
-------------	--

Length of Center Line and Termini This Sheet is Evaluating
3.5 miles, WIS 31 to WIS 32

1. Give a brief description of existing and proposed slopes in the project area, both perpendicular and longitudinal to the project. Include both existing and proposed slope length, percent slope and soil types.

The project is located in relatively flat terrain. The grades on WIS 165 range from very flat to approximately 5 percent. Existing side slopes are as steep as 2:1. The proposed project would generally follow the existing terrain, but the grades are typically less steep. Proposed side slopes would be to design standards (4:1 or flatter) within the clear zone and will be steepened to allowable standards (3:1) outside the clear zone. The proposed improvement would not greatly change existing characteristics.

2. Indicate all natural resources to be affected by the proposal that are sensitive to erosion, sedimentation, or waters of the state quality degradation and provide specific recommendations on the level of protection needed.

No - There are no sensitive resources affected by the proposal.

Yes - Sensitive resources exist in or adjacent to the area affected by the project.

River/stream

Wetland

Lake

Endangered species habitat

Other – Describe

Both DNR and the US Fish & Wildlife Service letters contain information regarding known locations for endangered species and their habitats in the general project vicinity. See Exhibits B-2 and B-5 for additional information. Detailed surveys will be conducted during the final design of the project. Coordination with the DNR and US Fish & Wildlife Service will continue.

3. Are there circumstances requiring additional or special consideration?

No additional or special circumstances are present.

Yes - Additional or special circumstances exist. Indicate all that are present.

Areas of groundwater discharge

Areas of groundwater recharge (fractured bedrock, wetlands, streams)

Long or steep cut or fill slopes

Overland flow/runoff

Other – Describe any unique or atypical erosion control measures to be used to manage additional or special circumstances.

4. Describe overall Erosion Control strategy to minimize adverse effects and/or enhance beneficial effects.

The sensitive resources on the project are Barnes Creek and the isolated wetlands. Measures to protect the wetlands from sedimentation and erosion runoff would be incorporated into the plan. Where possible, proposed detention basins may be constructed first to capture runoff from the construction project. No extraordinary measures are required.

The erosion control plan would be developed as part of the final design in accordance with TRANS 401.

5. Erosion control measures reached consensus with the appropriate authorities as indicated below.

No WDNR

N/A County Land Conservation Department

N/A Native American Tribe

No Army Corp of Engineers

(All Erosion Control measures (i.e., the Erosion Control Plan) shall be coordinated through the DOT-DNR liaison process and TRANS 401 except when Tribal lands of Native Americans are involved. DNR's concurrence is not forthcoming without an Erosion Control Plan. In

addition, TRANS 401 requires the contractor prepare an Erosion Control Implementation Plan (ECIP), which identifies timing and staging of the project's erosion control measures. The ECIP should be submitted to the WDNR and to WisDOT 14 days prior to the preconstruction conference (Trans 401.08(1)) and must be approved by WisDOT before implementation. On Tribal lands, coordination for 402 (erosion) concerns are either to be coordinated with the tribe affected or with the U.S. Environmental Protection Agency (EPA). EPA or the Tribes have the 401 water quality responsibility on Trust lands. Describe how the Erosion Control/Storm Water Management plan can be compatible.)

The specifics of the erosion control plan would be developed with the final plans. The erosion control plan would include measures to minimize the amount of sediment leaving the site. In addition, measures would be included in the plan to prevent the sediment from entering area waterways and wetlands. Items that may be included are identified in item 6 below.

6. Identify the temporary and permanent erosion control measures to be utilized on the project. Consult the FDM Chapter 10 and the Products Acceptability List (PAL).

- | | |
|---|--|
| <input checked="" type="checkbox"/> Minimize the amount of land exposed at one time | <input checked="" type="checkbox"/> Detention basin |
| <input checked="" type="checkbox"/> Temporary seeding | <input type="checkbox"/> Vegetative swales |
| <input checked="" type="checkbox"/> Silt fence | <input type="checkbox"/> Pave haul roads |
| <input checked="" type="checkbox"/> Ditch checks | <input type="checkbox"/> Dust abatement |
| <input type="checkbox"/> Erosion or turf reinforcement mat | <input checked="" type="checkbox"/> Rip rap |
| <input checked="" type="checkbox"/> Ditch or slope sodding | <input type="checkbox"/> Buffer strips |
| <input type="checkbox"/> Soil stabilizer | <input type="checkbox"/> Dewatering – Describe method |
| <input checked="" type="checkbox"/> Inlet protection | <input type="checkbox"/> Silt screen |
| <input type="checkbox"/> Turbidity barriers | <input type="checkbox"/> Temporary diversion channel |
| <input type="checkbox"/> Temporary settling basin | <input type="checkbox"/> Permanent seeding |
| <input checked="" type="checkbox"/> Mulching | <input checked="" type="checkbox"/> Other - Describe Early construction of stormwater detention and use for control of construction runoff |

Note: The erosion control plan will be developed with the final plans and will include the most appropriate measures. Erosion control check dams constructed of washed stone could be provided in the ditch lines at strategic locations to protect waterways. Filter fabric silt fence should be installed between the construction work sites and any sensitive areas such as wetlands or along waterways. Siltation basins may be utilized as appropriate. Other methods to control erosion such as sodding, seeding and mulching, erosion matting, and riprap shall be utilized as needed. Items checked above are an idea of the types of items that would be utilized.

Alternative	Length of Centerline and Termini This Sheet is Evaluating 3.5 miles, WIS 31 to WIS 32
-------------	--

Surrounding land use and a discussion of adopted plans are described on DT2094, Environmental Evaluation of Facilities Development Actions.

1. Indicate whether the affected area may cause a discharge or would discharge to the waters of the state (Trans 401.03). Special consideration should be given to areas that are sensitive to water quality degradation. Provide specific recommendations on the level of protection needed.

No water special natural resources are affected by the proposal.

Yes – Water special natural resources exist in the project area.

River/stream

Wetland

Lake

Endangered species habitat

Other - Describe

2. Indicate whether circumstances exist in the project vicinity that require additional or special consideration, such as an increase in peak flow, total suspended solids (TSS), or water volume.

No additional or special circumstances are present.

Yes - Additional or special circumstances exist. Indicate all that are present.

Areas of groundwater discharge

Areas of groundwater recharge

Stream relocations

Overland flow/runoff

Long or steep cut or fill slopes

High velocity flows

Cold water stream

Impaired waterway

Large quantity flows

Exceptional/outstanding resource waters

Increased backwater

Other – Describe any unique, innovative, or atypical stormwater management measures to be used to manage additional or special circumstances.

3. Describe the overall storm water management strategy to minimize adverse effects and enhance beneficial effects.

The project straddles the sub-continental divide. West of Cooper Road, the project is in the Des Plaines River watershed and to the east it is in the Lake Michigan watershed. The proposed storm sewer system maintains the current drainage pattern and does not direct water across the divide.

The project proposes to detain increased runoff due to the construction of additional impervious surfaces that currently flows to a tributary to Barnes Creek and the Des Plaines watershed. The use of curb and gutter and storm sewer on the project allows for more control of roadway runoff, which should reduce some localized flooding problems that currently exist at 39th Avenue. Construction of urban roadway with storm sewer and profile modification would alleviate this problem.

Three storm water detention ponds are proposed to treat roadway runoff prior to discharge to local waterways and wetlands. In addition, local regional drainage patterns will be maintained by utilizing intercepting swales behind the curb and gutter to direct off-site water to existing (or replaced) cross-culverts. Item 5 below includes some of the measures that are proposed for inclusion in the plan.

4. Indicate how the stormwater management plan would be compatible with fulfilling Trans 401 requirements.

Storm water would be collected in a storm sewer system and conveyed to the proposed detention areas or grassed swales. See Exhibit A-4. After delaying the peak, the runoff stored in the detention pond would be discharged to local waterways. Detaining water in the pond would enhance the water quality of the receiving waterways.

5. Identify the storm water management measures to be utilized on the project.

- | | |
|--|--|
| <input checked="" type="checkbox"/> Swale treatment (parallel to flow) Trans 401.106(10) | <input type="checkbox"/> In-line storm sewer treatment, such as catch basins, non-mechanical treatment systems |
| <input type="checkbox"/> Vegetated filter strips (perpendicular to flow) | <input checked="" type="checkbox"/> Detention/retention basins - Trans 401.106(6)(3) |
| <input checked="" type="checkbox"/> Distancing outfalls from waterway edge | <input type="checkbox"/> Buffer areas - Trans 401.106(6) - Describe |
| <input type="checkbox"/> Constructed storm water wetlands | <input type="checkbox"/> Infiltration - Trans 401.106(5) |
| | <input type="checkbox"/> Other |

6. Indicate whether any Drainage District may be affected by the project.

- No – There would be no effects to a recognized drainage district.
- Yes - Identify the affected drainage district.

Has initial coordination with drainage board been completed?

- No
- Yes - Discuss results.

Has initial coordination with Department of Agriculture, Trade and Consumer Protection (DATCP) been completed?

- No
- Yes - Discuss results. – DATCP determined an AIS was not needed.

7. Indicate whether the project is within DOT's Phase I or Phase II storm water management area. (NOTE: See Procedure 20-30-1, Figure 1, Attachment A4 the Cooperative Agreement between the Wisconsin Departments of Transportation and Natural Resources. Contact Bureau of Equity and Environmental Services Stormwater Engineer or the District Environmental Coordinator for more details on the following areas.)

The project is within the area under A4 of the cooperative agreement. The specifics of the rules and permits required may change between now and construction. The project construction plan documents would address appropriate rules and permits at the time of design and construction.

- No - The project is outside of WisDOT's stormwater management area.
- Yes - The project affects one of the following regulated by a WPDES storm water discharge permit issued by the DNR.
- WisDOT storm sewer system located within municipalities with populations > 100,000.*
 - WisDOT storm sewer system located within a notified owner of municipal separate storm sewer systems.*
 - Urbanized areas as defined by the U.S. Census Bureau, NR216.02(3).*
 - Municipal separate storm sewer systems serving > 10,000.

8. Has the affect of downstream properties been considered?

No – There would be no effect on the downstream properties

Yes – Coordination is in process.

9. Are there any property acquisitions for storm water management purposes?

No - There are no property acquisitions acquired for stormwater management purposes.

Yes - Complete the following.

Safety measures, such as fencing, flooding, are not needed for potential conflicts with existing and expected surrounding land use.

Safety measures are needed for potential conflicts with existing and expected surrounding land use.

Describe proposed safety measures.

The proposed detention ponds were located based on topography and undeveloped land. The type of pond was not determined. During the final design for the project, specifics on safety measures will need to be addressed.

Alternative	Preferred <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
-------------	--

Portion of Project This Sheet is Evaluating if Different From Sheet 1
WIS 31 to WI S 32

Carbon Monoxide

1) Is this project exempt from air quality analysis under Wisconsin Administrative Code – NR 411

No – NR 411 exemptions do not apply

Yes – NR 411 exemption(s) apply – Identify exemption(s) and explain why project is exempt.
The WIS 165 project is exempt under provisions of NR 411.04(2)(b)2 and 5b, as the increase in peak hour volume would not exceed 1,200 motor vehicles per hour within 10 years of construction and the road has no more than 2 approach lanes and no receptors are closer than 25 feet (7.6 meters) to the road at those locations.

2) An air quality analysis was required

No

Yes – Identify the air quality modeling technique or program used to perform the analysis. Attach the Maximum Projected Carbon Monoxide (CO) Concentrations worksheet to this evaluation to illustrate the results.

3. If an air quality analysis was performed, would a Construction Permit be required to address air quality before the project may proceed

No

Letter of concurrence from DNR Bureau of Air Management requested. (See attached request letter – Exhibit)

Letter of concurrence received from DNR Bureau of Air Management. (See attached Exhibit)

Yes – Indicate:

Date Permit Requested	OR Date of Permit
-----------------------	-------------------

Ozone

4) Is the project located in a county which is designated non-attainment or maintenance for ozone

No

Yes – If Yes, one of the following boxes must be checked

This project is included in the approved Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP) endorsed by the region's Metropolitan Planning Organization (MPO). The TIP was found to conform by the Federal Highway Administration and the Federal Transit Administration. Provide RTP Name, TIP name, TIP number and conformity finding date(s).

RTP Name A Regional Transportation System Plan for Southeastern Wisconsin:2035, Planning Report No. 49	TIP Name The project is not included in the 2007-2010 Transportation Improvement Program for Southeastern Wisconsin, dated 12/6/2006.
---	--

MPO Name Southeastern Wisconsin Regional Planning Commission	TIP Number 541
---	-------------------

Conformity Finding Date(s)
December 11, 2006

This project is located outside of a Metropolitan Planning Organization's boundaries and has received a positive conformity determination per the rural conformity section of the WisDOT/WDNR Memorandum of Agreement regarding determination of conformity. Provide conformity finding date.

This project is located outside of a Metropolitan Planning Organization's boundaries, it is a project comparable to one of those described in 40 CFR 93.126 and is included in the State Transportation Improvement Program (STIP).

This project is exempt per 40 93.127

Other, describe

For a discussion of Mobile Source Air Toxics (MSAT) see Exhibit C.

Alternative	Preferred <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
-------------	--

Length of Center Line and Termini This Sheet is Evaluating
 3.5 miles, WIS 31 to WIS 32

- 1) Identify and describe residences, schools, libraries, or other noise sensitive areas near the proposed action and which would be in use during construction of the proposed action. Include the number of persons potentially affected.

Noise sensitive areas near the proposed improvements are primarily residences, but there is also one church with parsonage located along WIS 165 at CTH ML. The estimated number of potential receptors is approximately 30 adjacent to WIS 165.

- 2) Describe the types of construction equipment to be used on the project. Discuss the expected severity of noise levels including the frequency and duration of any anticipated high noise levels.

The noise generated by construction equipment would vary greatly, depending on equipment type/model/make, duration of operation and specific type of work effort. However, typical noise levels may occur in the 67 to 107 dBA range at a distance of 50 feet (15.2 meters).

Exhibit A-5 shows typical noise levels for a variety of construction equipment. Adverse effects related to construction noise are anticipated to be of a localized, temporary, and transient nature.

- 3) Describe the construction stage noise abatement measures to minimize identified adverse noise effects.

To reduce the potential impact of construction noise, the special provisions for this project would require that motorized equipment shall be operated in compliance with all applicable local, state, and federal laws and regulations relating to noise levels permissible within and adjacent to the project construction site. *At a minimum, the special provisions would require that motorized construction equipment shall not be operated between 7:00 p.m. and 7:00 a.m. without the prior written approval of the project engineer. All motorized construction equipment would be required to have mufflers constructed in accordance with the equipment manufacturer's specifications or a system of equivalent noise reducing capacity. It would also be required that mufflers and exhaust systems be maintained in good working condition, free from leaks and holes.

Alternative	Preferred <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
-------------	--

Portion of Project This Sheet is Evaluating
WIS 31 to WIS 32

Need for Noise Analysis

1) Is the proposed action considered a Type I project? (A type I project is defined as a project that involves construction of a roadway on new location or the physical alteration of an existing highway, which substantially changes either the horizontal or vertical alignment or increases the number of through-traffic lanes.)

- No – Complete only form DT2074, Construction Stage Sound Quality Impact Evaluation.
 Yes – Complete form DT2074, Construction Stage Sound Quality Impact Evaluation and the rest of this sheet.

Traffic Data

2) Indicate whether traffic volumes for sound prediction are different from the Design Hourly Volume (DHV) on DT2094, Environmental Evaluation of Facilities Development Action, Traffic Summary Basic Sheet.

- No
 Yes – Indicate volumes and explain why they were used.

Automobiles Veh/hr
Trucks Veh/hr
Or Percentage (T) %

3) Identify and describe the noise analysis technique or program used to identify existing and future sound levels. (See attached receptor location maps – Exhibit A-4, sheets 1 to 6.) A receptor location map shall be included with this document.

Both existing and design year (2030) noise levels for WIS 165 were determined using the Traffic Noise Modeling computer program. The receptor locations are presented on the proposed project plans in Exhibit A-4.

4) Identify sensitive receptors, e.g., schools, libraries, hospitals, residences, etc. potentially affected by traffic sound. (See attached receptor location maps– Exhibit A-4, sheets 1 to 6.)

Noise sensitive receptors along this project consist of private residences and a church with parsonage located along to the roadway. See Exhibit A-4.

5) If this proposal is implemented would future sound levels produce a noise impact?

- No
 Yes, the impact would occur because
 The Noise Abatement Criteria (NAC) is approached (1 dBA less than the NAC) or exceeded.

3 approach, 6 meet or exceed the NAC.

- Existing sound levels would increase by 15 dBA or more. - None

6) Would traffic noise abatement measures be implemented?

- Not applicable – Traffic noise impacts would not occur.
- No – Traffic noise abatement is not reasonable or feasible (explain why). In areas currently undeveloped, local units of government shall be notified of predicted sound levels for land use planning purposes. **A COPY OF THIS WRITTEN NOTIFICATION SHALL BE INCLUDED WITH THIS DOCUMENT.**
- Yes – Traffic noise abatement has been determined to be feasible and reasonable. Describe any traffic noise abatement measures, which are proposed to be implemented. Explain how it would be determined whether or not those measures would be implemented.

Fourteen (14) representative receptors along the project corridor were analyzed using the Traffic Noise Modeling software. The analysis indicated that 9 of the 14 representative receptors would be impacted by this project, as future noise levels at these locations would approach or exceed the abatement level of 67 dBA (approach is defined as within 1 dBA.) All impacted receptors are residential dwellings. The church with parsonage receptor would not be impacted. The location of each receptor is presented on the proposed project plans in Exhibit A-4.

When traffic noise impacts occur, measures to reduce or eliminate impacts should be considered by the project sponsor and only implemented where such measures are determined to be "reasonable and feasible." Trans 405 mandates that construction of noise barriers must reduce noise levels by 8 dBA at a cost of \$30,000 per dwelling unit or less to be considered reasonable.

Noise mitigation was considered for all of the noise receptors that would be affected by the project. Traffic noise mitigation measures commonly employed consist of design features, traffic control measures, buffer strips, soundproofing, and noise barriers.

According to the WDOT Facilities Development Manual, design features that reduce noise levels should be considered before other mitigation measures. Shifting the horizontal roadway alignment away from receptors is not feasible. Constraints from existing developed areas on both sides of the road and connections to existing roadways and driveways restrict the alignment to follow the existing corridor. Changes in vertical alignment, particularly lowering the highway to form a vertical cut section, would not be feasible for the same reasons.

Traffic control measures used to reduce noise levels consist of prohibiting certain vehicle types (particularly trucks) from using the roadway. Prohibiting trucks from the project corridor is not reasonable because trucks cannot be prohibited from using state highways.

The application of soundproofing materials to residential dwellings is not considered practical due to the exposure to outdoor noises normally associated with these receptors (open doors and windows; patio, deck, garage, and driveway use). The application of soundproofing materials is usually considered more effective when used for large public buildings with little exposure to outdoor noises (i.e. churches and libraries).

The final method of noise mitigation considered was a noise barrier or earthen berm constructed exclusively for the purpose of attenuating noise. The construction of noise barriers and earthen berms for the receptors along the project would be ineffective due to limited available space and numerous openings required for driveways and other access points.

Based on the above discussion, it is concluded that noise abatement is not reasonable or feasible.

Receptor Location or Site Identification (See attached map)	Distance from C/L of Near Lane to Receptor in meter (ft)	Number of Families of People Typical of this Receptor Site	Sound Level L_{eq} (dBA)			Impact Evaluation		
			Noise Abatement Criteria (NAC)	Future Sound Level	Existing Sound Level	Difference in Future and Existing Sound Levels (Col.e minus Col.f)	Difference in Future Sound Levels and Noise Abatement Criteria (Col.e minus Col.d)	Impact or No Impact
(a)	(b)	©	(d)	(e)	(f)	(g)	(h)	(i)
R1	28	2	66	71	65	6	5	I
R2	55	2	66	66	63	3	0	I
R3	111	1	66	60	58	2	-6	N
R4	22	3	66	72	65	7	6	I
R5	71	5	66	65	62	3	-1	I
R6	283	1	66	49	48	1	-17	N
R7	10	2	66	72	66	6	6	I
R8	51	4	66	65	62	3	-1	I
R9	58	6	66	65	61	4	-1	I
R10	30	2	66	68	63	5	2	I
R11	65	3	66	63	63	0	-3	N
R12	41	3	66	67	60	7	1	I
R13	81	1	66	61	62	-1	-5	N
R14	59	1	66	64	58	6	-2	N

¹ Use whole numbers only.

¹ Insert the actual Noise Abatement Criteria from Wisconsin Administrative Code, Chapter Trans. 405.04, Table 1.

¹ An impact occurs when future sound levels exceed existing sound levels by 15 dB or more, **or**, future sound levels approach or exceed the Noise Abatement Criteria (“approach” is defined as 1 dB less than the Noise Abatement Criteria, therefore an impact occurs when Column (h) is -1 db or greater). I = Impact, N = No Impact.

L.

- Native American Tribe(s) have been notified of the project. Those tribes expressing an interest would be considered a consulting party.

Date Notified (M/DD/YY)	Expressed Interest (Y/N)	Native American Tribe
5/10/2005		Bad River Band of Lake Superior Chippewa Indians of Wisconsin
5/10/2005		Forest County Potawatomi Community of Wisconsin
5/10/2005		Ho-Chunk Nation
5/10/2005		Iowa Tribe of Oklahoma
5/10/2005		Lac Courte Oreilles Band of Lake Superior Chippewa Indians
5/10/2005		Lac du Flambeau Band of Lake Superior Chippewa
5/10/2005		Menominee Indian Tribe of Wisconsin
5/10/2005		Minnesota Mdewakanton Sioux, Prairie Island Indian Community
5/10/2005		Stockbridge Munsee Board of Mohican Indians
5/10/2005		Oneida Nation
5/10/2005		Red Cliff Band of Lake Superior Chippewa Indians
5/10/2005	Yes	Sac & Fox of the Mississippi in Iowa
5/10/2005	Yes	Sac & Fox Nation of Missouri
5/10/2005		Sac & Fox Nation of Oklahoma
5/10/2005		St. Croix Band of Lake Superior Chippewa Indians
5/10/2005		Sokaogon (Mole Lake) Band of Chippewa Indians
5/10/2005	Yes	Prairie Bank Potawatomi Nation

Consultation:	Tribe	Issue	Date
	Sac & Fox Nation of Missouri in Kansas and Nebraska	No objections, However, if human skeletal remains and/or any objects falling under NAGPRA are uncovered during construction, notify NAGPRA representative, Deanne Bahr at 305 North Main Street, Reserve Kansas, 66434	May 19, 2005 October 19, 2005
	Sac & Fox of the Mississippi in Iowa	No objections, However, if human skeletal remains and/or any objects falling under NAGPRA are uncovered during construction, notify NAGPRA representative, Johnathan L Buffalo at 349 Meskwaki Road, Tama, IA 52339	May 13, 2005 May 20, 2005 October 13, 2005
	Prairie Bank Potawatomi Nation	They are unaware of any historical cultural resources in the proposed development area. However, they request to be immediately contacted if any inadvertent discoveries are uncovered at anytime throughout the various phases of the project. Zach Pahmahmie, 16281 Q Road, Mayetta, KS 66509	October 11, 2005

- Identify each site by alternative. Attach map to appendices depicting site(s) approximate location within alternate

Alternative (If applicable)	Site Name	Site #	Phase 2	Site Eligible for NHRP	Description & Pertinent Info on Site, e.g., historic, prehistoric, village, campsite, etc.	Site Affected	Effect
2,3,4	BKN	11			Historic EuroAmerican cemetery dating to the first half of the 19 th century. The site lies north of STH 165. No documentation appears to be extant for this cemetery. The cemetery appears to have fallen off of the plat maps after 1855. At the time of phase	No	

					1 survey, no surface indications of a cemetery (headstones, depressions, etc.) were visible and the area was in use an agricultural field.		
2,3,4	KN	191			This site is several hundred feet east of BKN-11, and also on the north side of the road, is characterized as a campsite/village of Archaic/Late Woodland origins. Five chert flakes and a biface tip were recovered from the site, along a linear distance of 1600 feet. During the 2004 survey, no artifacts were recovered from the surface, and all shovel tests were negative.	No	
2,3,4	KN	40		This site was listed on the National Register of Historic Places in 1978.	The site on a fossil beach that is north of STH 165. The site represents a multi-component habitation site, with occupations from the PaleoIndian through the Late Woodland periods. In addition every described cultural horizon in between these two is also represented at this site. The site is also associated with Chesrow complex in southern Wisconsin, which is associated with some of the earliest accepted manifestations of human presence in the State or with in North America.	No	

All three sites are on the north side of WIS 165. The project would widen the roadway to the south to avoid impacts to these sites. SHPO concurred with the avoidance on December 13, 2005. See Exhibit B-3

3. National Historic Landmark in project area? Yes, Name See above No

4. Traditional Cultural Properties (TCP) in project area? Yes No
 Type of TCP _____
 Discuss consultation and explain the treatment/mitigation.

5. Sacred Sites in project area? Yes No
 Discuss consultation and decisions reached. Attach documentation.

6. Cemeteries in project area? Yes See above No

Name of cemetery(ies) _____, _____, _____

Documentation Attached

Deed

Cemetery Association

Plat Map

Other SHPO concurred that widening the roadway to the south would avoid impacts. See Exhibit B-3

Consultation with Wisconsin Historical Society (Burials Sites Office & SHPO)

Dates 12/13/05 _____

Burials would not be affected.

Burials would be affected.

Documentation attached.

Project may proceed.

7. Human Remains/Burials Reported or Encountered During Archaeological Studies

Yes No If yes, Native American Euro-American

Area avoided.

Burials would not be affected.

Burials left in place.

Burials would be affected.

Project may proceed.

Consultation and dates

Native Americans _____

SHPO _____

Burial Sites Office _____

Permission to re-enter from Wisconsin Historical Society Director (date) _____

All documentation attached

8. Do FHWA requirements for Section 4(f) apply to the project's use of the historic property?

No – All widening east of County EZ will occur on the south side of WIS 165 to avoid the archaeological sites encountered.

Project is not Federally funded

Property is eligible for the National Register of Historic Places, would have no adverse effect.

Other – Explain. _____

Yes - Complete Factor Sheet O - Unique Area Impact Evaluation

Project is eligible, would have adverse effect.

Other, Explain. _____

9. Dates of Consultation

SHPO December 13, 2005 (Section 106 Review Completed)

Native American May 10, 2005 through October 13, 2005

10. Has a Determination(s) of Eligibility (DOE) been prepared?

No - Draft EIS-- Survey would be conducted on selected alternative and any DOE prepared would be documented in the Final EIS

Yes No - EA- DOEs must be completed prior to the FONSI. When there are multiple alternatives, Phase 2 would be completed only on the Preferred Alternative. Not needed.

Yes – DOE prepared for:
Name of eligible sites: _____, _____, _____

11. Documentaion for Consultation

Yes No Not needed.

12. MOA prepared? Yes No Not needed.

Signatories to MOA

- FHWA: Date: _____
- Native American Tribe Date: _____
- WisDOT: Date _____
- ACHP: Date _____
- Other _____, _____, _____, _____, _____

13. Data Recovery Plan

Yes Date Accepted: _____

No
Prepared by _____

14. Advisory Council on Historic Preservation (ACHP) would participate in project Yes No

Date FHWA contacted ACHP _____

15. Public Interpretation Participants

_____, _____, _____, _____, _____

16. Commitments to be included in contract specifications

No project-specific commitments are needed

HAZARDOUS SUBSTANCES OR UNDERGROUND STORAGE TANKS (USTs)

Wisconsin Department of Transportation

DT2079 10/2004

Alternative	Preferred <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
-------------	--

Length of Center Line and Termini This Sheet is Evaluating
3.5 miles, WIS 31 to WIS 32

1) Briefly describe the results of the Phase 1 hazardous materials assessment for this alternative. Do not use property identifiers (owner name, address or business name).

A Phase I environmental assessment was conducted in accordance with the Phase I-Recommendation and Records Search and Report, Procedure 21-35-5 of the WisDOT's Facilities Development Manual.

The record search of the local and state databases revealed that at least four (4) Wisconsin Department of Commerce (WDCOMM) Underground Storage Tank (UST) sites, one (1) Wisconsin Department of Natural Resources (WDNR) Leaking Underground Storage Tank (LUST) site, and two (2) Wisconsin Spills Database (SPILLS) sites were found within ¼-mile of the project corridor. The record search of the federal databases indicated one (1) Resource Conservation Recovery Information System (RCRIS) Small Quantity Generator (SQG) site within ¼-mile radius of the site.

No Phase II Site Investigations is required for this project.

2) Which contaminants are known or suspected to be affecting sites on this alternative?

- | | | |
|--|--|------------------------------------|
| <input checked="" type="checkbox"/> No | <input type="checkbox"/> Yes, how many sites | Petroleum |
| <input checked="" type="checkbox"/> No | <input type="checkbox"/> Yes, how many sites | Hazardous Waste |
| <input checked="" type="checkbox"/> No | <input type="checkbox"/> Yes, how many sites | Closed Landfill Sites |
| <input checked="" type="checkbox"/> No | <input type="checkbox"/> Yes, how many sites | Open Landfill Sites |
| <input checked="" type="checkbox"/> No | <input type="checkbox"/> Yes, how many sites | Farm/Agricultural/Other Dump Sites |
| <input checked="" type="checkbox"/> No | <input type="checkbox"/> Yes, how many sites | Other |

3) How many sites require further investigation? None

Were any sites not included in the Phase 1 assessment?

- No
 Yes, how many

Why were they not reviewed?

For the Preferred Alternative

4) Describe the results of any additional investigation (include number of sites investigated, level of investigation, and results for each site).

Having completed a Phase 1 investigation for the improvement under consideration, the District has determined that no further investigation sites is merited

5) Describe measures taken in selection of this alternative to avoid hazardous materials contamination for this project, for example: changes in location, changes in design, or relocation of utilities.

No changes in the project are required to avoid potentially contaminated sites.

6) For areas where contamination cannot be avoided by the proposed alternative, describe the remediation measures to be incorporated into the design, (e.g., waste handling plan, remediation of contamination, design changes to minimize disturbances).