Supplemental Information
Section 404 Permit Application

WisDOT ID: 9200-10-00/71
Shawano – Green Bay
CTH VV Interchange
WIS 29
Brown County, WI

Project Information

WisDOT Project 9200-10-00/71 is located along the boundary of the Villages of Hobart and Howard in Brown and Outagamie County, Wisconsin. The project is also located along the northern boundary of the Oneida Nation reservation; WIS 29 serves as a northern boundary of the reservation at this location. The project area includes the intersections of WIS 29/32 with County Highway (County) U (County Line Road) and WIS 29/32 with County VV (Triangle Drive). The project area also encompasses various connecting roadways including Marley Street, Milltown Road, Millwood Court, and North Overland Road. The west project terminus is identified as 800 feet west of the WIS 29/County U intersection. The east project terminus is identified as 2,000 feet east of the WIS 29/County VV intersection. The County U and County VV intersections are the last two remaining at-grade intersections along WIS 29 in Brown County. The WIS 29/WIS 32 connection directly west of the project is a full-service interchange. The WIS 29 at-grade intersections east of the project area [County FF (Hillcrest Road), County J (Riverdale Drive), and County EB] were each reconstructed as grade-separated facilities in the previous 10 years.

The overall purpose of the proposed action is to address the safety and mobility of the WIS 29 corridor. The project aims to provide a safe and serviceable corridor that is convenient for area businesses, residents, and the traveling public. This includes motor vehicles, bicyclists and pedestrians, freight carriers, and school/transit buses.

The project is needed to address identified corridor deficiencies. Identified needs include:

- Access and mobility barriers as a result of the expressway system.
- Roadway and safety issues resulting from the varying travel speeds and at-grade access points.
- Multimodal accessibility issues resulting from a lack of appropriate accommodations crossing the high speed and high volume WIS 29 roadway.
- Freight movement issues for area businesses located on both sides of WIS 29 that require safe and convenient WIS 29 access.
- School transportation issues resulting from a rural school district (Pulaski) with students located on both sides of WIS 29, requiring a safe and efficient crossing of the WIS 29 roadway.
- Coordination with local land use/transportation/economic development planning efforts.

Specific proposed project improvements of WisDOT Project ID 9200-10-00 include:

- Closure of the existing at-grade intersection of WIS 29 and County VV. Construction of a diamond interchange at County VV and WIS 29; located approximately 1,700 feet west of the existing County VV/WIS 29 intersection. This interchange would connect with Marley Street to the north and County VV to the south. Roundabouts would be constructed at the County VV/WIS 29 eastbound ramp terminus, and the Marley Street/WIS 29 westbound ramp terminus.
- Evergreen Avenue (existing Milltown Road) would be realigned to intersect with Marley Street at a roundabout located approximately 375 feet south of the existing Millwood Court/Marley Street intersection.

- County VV (Triangle Drive) would be realigned to intersect with a roundabout located approximately 1,000 feet southwest of the roundabout at County VV and the WIS 29 eastbound ramp terminus. A new roadway, Centerline Drive Extension, would be constructed on the south leg of this roundabout, providing a connection to North Overland Road.
- A cul-de-sac would be constructed at the intersection of North Overland Road and Triangle Drive.
- Closure of the WIS 29 intersection with County U (County Line Road). On the north side of WIS 29, County Line Road would end at Glendale Avenue, and on the south side of WIS 29, County Line Road would connect to Old Wisconsin 29.

A project location map and preliminary project plans are presented in Attachment 3.

Wetland Impacts

The proposed action will impact 5.497 acres of wetlands. Affected wetlands are located along Old Hwy 29/County U and at the proposed WIS 29/County VV interchange (see Attachment 3.2). The proposed action would also include 0.012 acres of temporary wetland impacts. The No Build Alternative would avoid wetlands, but this alternative was eliminated from consideration because it would not address project purpose and need. In order to construct the interchange to meet project purpose and need, it is not practicable or feasible to avoid wetland impacts. Proposed work in wetland areas associated with the proposed preferred alternative would consist of filling existing wetlands and constructing ditches within wetlands to accommodate roadway reconstruction.

Table 1 summarizes proposed wetland impacts, and Table 2 describes the impacts in more detail.

Table 1: Summary of Permanent Wetland Impacts

Wetland	Wetland Types* and Impacts					
	FARMED WM(D)	WM(D)	WM	WS	SM(D)	SM
Outside of exterior boundary of the Oneida Nation reservation						
7	-	-	0.015	-	-	-
8	-	-	0.137	-	-	-
12	-	0.086	-	-	-	-
13	-	2.223	-	-	-	-
21	-	-	-	-	0.046	-
22	-	-	-	0.019	-	-
23	-	-	-	-	0.003	-
24	-	-	-	-	0.032	-
25	-	-	-	-	0.014	-
26	-	-	-	-	0.151	-
27	-	-	-	-	0.145	-
28	0.053	-	-	-	-	-
29	-	-	-	-	0.016	-
30	-	-	-	-	0.035	-
Subtotals	0.053	2.309	0.152	0.019	0.442	0
Total outside of reservation: 2.975 acres						
Within exterior boundary of the Oneida Reservation						
1	-	-	-	0.033	-	-
2	-	0.224	-	-	-	-
3	-	-	-	0.054	-	-
4	-	0.136	-	-	-	-
5	-	0.006	-	-	-	-
6	-	-	-	-	-	0.033
9	-	-	-	-	0.07	-
10	-	0.153	-	-	-	-
11	0.148	-	-	-	-	-
14	0.303	-	-	-	-	-
15	0.119	-	-	-	-	-
16	1.038	-	-	-	-	-
17	-	-	-	-	0.009	-
18	-	-	-	-	0.087	-
19	-	-	0.051	-	-	-
20	-	-	-	-	0.058	-
Subtotals	1.608	0.519	0.051	0.087	0.224	0.033
Total within reservation: 2.522 acres						
Total by Type	**1.661**	**2.828**	**0.203**	**0.106**	**0.666**	**0.033**
Total Wetlands Impacted=	**5.497**					

*Wetland types are based on WisDOT's Wetland Mitigation Technical Guideline:
WM(D)-Wet Meadow Degraded Wetlands
WM-Wet Meadow Degraded Wetlands
WS_Wooded Swamp Wetlands
SM(D)-Shallow Marsh Degraded Wetlands

Table 2: Wetlands Impacts, Detailed Summary

Wetland 1 (within Oneida Nation)	**Wetland 2 (within Oneida Nation)**
Location (Section-Township-Range): 04 - 24 - 19	Location (Section-Township-Range): 04 - 24 - 19
Fill Impact: 0.033 acres	Fill Impact: 0.224 acres
Type: WS	Type: WM(D)
Latitude: 44.584716 Longitude: 88.192692	Latitude: 44.584471 Longitude: 88.191822
Wetland 3 (within Oneida Nation)	**Wetland 4 (within Oneida Nation)**
Location (Section-Township-Range): 04 - 24 - 19	Location (Section-Township-Range): 04 - 24 - 19
Fill Impact: 0.054 acres	Fill Impact: 0.136 acres
Type: WS	Type: WM(D)
Latitude: 44.583485 Longitude: 88.190502	Latitude: 44.583272 Longitude: 88.190567
Wetland 5 (within Oneida Nation)	**Wetland 6 (within Oneida Nation)**
Location (Section-Township-Range): 04 - 24 - 19	Location (Section-Township-Range): 03 - 24 - 19
Fill Impact: 0.006 acres	Fill Impact: 0.033 acres
Type: WM(D)	Type: SM
Latitude: 44.582982 Longitude: 88.190439	Latitude: 44.582621 Longitude: 88.190114
Wetland 7	**Wetland 8**
Location (Section-Township-Range): 03 - 24 - 19	Location (Section-Township-Range): 03 - 24 - 19
Fill Impact: 0.015 acres	Fill Impact: 0.137 acres
Type: WM	Type: WM
Latitude: 44.580142 Longitude: 88.180153	Latitude: 44.579108 Longitude: 88.177445
Wetland 9 (within Oneida Nation)	**Wetland 10 (within Oneida Nation)**
Location (Section-Township-Range): 03 - 24 - 19	Location (Section-Township-Range): 03 - 24 - 19
Fill Impact: 0.07 acres	Fill Impact: 0.153 acres
Type: SM(D)	Type: WM(D)
Latitude: 44.578518 Longitude: 88.177464	Latitude: 44.577415 Longitude: 88.17512
Wetland 11 (within Oneida Nation)	**Wetland 12**
Location (Section-Township-Range): 03 - 24 - 19	Location (Section-Township-Range): 03 - 24 - 19
Fill Impact: 0.148 acres	Fill Impact: 0.086 acres
Type: WM(D)	Type: WM(D)
Latitude: 44.577161 Longitude: 88.175579	Latitude: 44.578261 Longitude: 88.174635
Wetland 13	**Wetland 14 (within Oneida Nation)**
Location (Section-Township-Range): 03 - 24 - 19	Location (Section-Township-Range): 03 - 24 - 19
Fill Impact: 2.223 acres	Fill Impact: 0.303 acres
Type: WM(D)	Type: FARMED WM(D)
Latitude: 44.578143 Longitude: 88.173039	Latitude: 44.576089 Longitude: 88.173703
Wetland 15 (within Oneida Nation)	**Wetland 16 (within Oneida Nation)**
Location (Section-Township-Range): 03 - 24 - 19	Location (Section-Township-Range): 03 - 24 - 19
Fill Impact: 0.119 acres	Fill Impact: 1.038 acres
Type: FARMED WM(D)	Type: FARMED WM(D)
Latitude: 44.574715 Longitude: 88.175375	Latitude: 44.575447 Longitude: 88.171766
Wetland 17 (within Oneida Nation)	**Wetland 18 (within Oneida Nation)**
Location (Section-Township-Range): 03 - 24 - 19	Location (Section-Township-Range): 02 - 24 - 19
Fill Impact: 0.009 acres	Fill Impact: 0.087 acres
Type: SM(D)	Type: SM(D)
Latitude: 44.57627 Longitude: 88.171442	Latitude: 44.575252 Longitude: 88.168943

Table 2: Wetlands Impacts, Detailed Summary (cont'd)

Wetland 19	**(within Oneida Nation)**			**Wetland 20**	**(within Oneida Nation)**		
Location (Section-Township-Range):			11 - 24 - 19	Location (Section-Township-Range):			11 - 24 - 19
Fill Impact:	0.0511	acres		Fill Impact:	0.058	acres	
Type:	WM			Type:	SM(D)		
Latitude:	44.574725	Longitude:	88.167374	Latitude:	44.573726	Longitude:	88.1649
Wetland 21				**Wetland 22**			
Location (Section-Township-Range):			11 - 24 - 19	Location (Section-Township-Range):			02 - 24 - 19
Fill Impact:	0.046	acres		Fill Impact:	0.019	acres	
Type:	SM(D)			Type:	WS		
Latitude:	44.574241	Longitude:	88.164257	Latitude:	44.57495	Longitude:	88.159583
Wetland 23				**Wetland 24**			
Location (Section-Township-Range):			11 - 24 - 19	Location (Section-Township-Range):			02 - 24 - 19
Fill Impact:	0.003	acres		Fill Impact:	0.032	acres	
Type:	SM(D)			Type:	SM(D)		
Latitude:	44.574505	Longitude:	88.164066	Latitude:	44.574968	Longitude:	88.16538
Wetland 25				**Wetland 26**			
Location (Section-Township-Range):			02 - 24 - 19	Location (Section-Township-Range):			02 - 24 - 19
Fill Impact:	0.014	acres		Fill Impact:	0.151	acres	
Type:	SM(D)			Type:	SM(D)		
Latitude:	44.575086	Longitude:	88.165751	Latitude:	44.576745	Longitude:	88.169472
Wetland 27				**Wetland 28**			
Location (Section-Township-Range):			02 - 24 - 19	Location (Section-Township-Range):			02 - 24 - 19
Fill Impact:	0.145	acres		Fill Impact:	0.053	acres	
Type:	SM(D)			Type:	FARMED WM(D)		
Latitude:	44.579036	Longitude:	88.170033	Latitude:	44.580163	Longitude:	88.169293
Wetland 29				**Wetland 30**			
Location (Section-Township-Range):			03 - 24 - 19	Location (Section-Township-Range):			02 - 24 - 19
Fill Impact:	0.016	acres		Fill Impact:	0.035	acres	
Type:	SM(D)			Type:	SM(D)		
Latitude:	44.582444	Longitude:	88.170293	Latitude:	44.582435	Longitude:	88.170124

Wetland Avoidance and Minimization

Due to the scattered location of wetlands in the highway corridor, proximity of wetlands to the proposed interchange and highway mainline, and scope of proposed improvements, it is not possible to completely avoid wetland impacts. A lower level of improvement would not address project purpose and need.

Several alignment alternatives were evaluated throughout the design process in an attempt to minimize wetland disturbance. A calculated 0.43 acres of wetland impacts were minimized by steepening side slopes from 4:1 to 3:1 outside of the clear zone for fill sections greater than 15' in height.

As part of the alternative analysis for the project, WisDOT worked closely the DNR to avoid/minimize impacts to wetlands. Evergreen Avenue was initially aligned to intersect Marley Street across from Millwood Court. However, due to the wooded wetlands that this alignment would have impacted, the Evergreen Ave intersection with Marley Street was shifted approximately 350 feet to the south to avoid the wooded wetlands across from Millwood Court. A calculated 1.03 acres were avoided through the alignment shift.

In addition, the median along County VV south of WIS 29, and the median along Marley Street, north of WIS 29, was narrowed from 20 feet to the minimum width of 8 feet, to minimize the wetland impacts along County VV and Marley Street. A calculated 0.21 acres were avoided by narrowing the median.

Wetland Mitigation Site

Wetland impacts will be mitigated in accordance with the WisDOT Wetland Mitigation Banking Technical Guidelines. All affected wetlands are within existing or proposed WisDOT right-of-way. There are no feasible opportunities to mitigate within the existing right-of-way. Wetlands impacted by the proposed project will be mitigated through the purchase of credits at a WisDOT~~'s Peshtigo Brook Phase 2~~ wetland mitigation site.

Stream Impacts

An unnamed stream/drainage area to Trout Creek would be impacted by the proposed action by extending an existing culvert beneath County VV/Triangle Drive. A total of 20 linear feet (0.11 acres) of impacts are anticipated. Discharge into the unnamed creek is generally from overland flow. There are no identifiable dischargers or receivers within ½ mile of the project site. Proposed mitigation strategies for Trout Creek watershed impacts would include routing drainage north of North Overland Road into a pond to control the flow of water into an existing agricultural ditch. Ponds that would discharge water into the Trout Creek watershed would have thermal treatment to cool the pond water.

Attachment 5

Approved Environmental Report

(WisDOT Project Link: https://wisconsindot.gov/Pages/projects/by-region/ne/wis29study/environ.aspx)