ENVIRONMENTAL EVALUATION OF FACILITIES DEVELOPMENT ACTIONS
Wisconsin Department of Transportation (WisDOT)
DT2094 6/2015

BASIC SHEET 1 - PROJECT SUMMARY

Project ID 5290-00-02 Construction ID 5290-00-72	Project Termini River Road to I-39	Funding Sources (*check all that apply*) ☒ Federal ☒ State ☒ Local Estimated Project Cost and Funding Source (state and/or federal). Year of Expenditure (YOE) dollars include delivery cost. $9.0 million in 2020 dollars (State Highway Rehab) (includes 15% for Engineering and Contingency)
Route Designation (*if applicable*) WIS 19 National Highway System (NHS) Route ☐ Yes ☒ No (Minor Arterial)	Nearest Community Village of DeForest Town of Westport Town of Burke	Real Estate Acquisition Portion of Estimated Cost (YOE) $259,000 in 2019 dollars
Project Title US 12 – I-39, WIS 19	Section / Township / Range Section 1, Town 8, Range 9 East Section 6, Town 8, Range 10 East Section 31, Town 9, Range 10 East	Utility Relocation Portion of Estimated Cost (YOE) $70,000 in 2019 dollars
County Dane		
Bridge Number(s) *(if applicable)* B-13-861 (WIS 19 over Yahara River)	For an ER, indicate the date funding was authorized to begin preliminary engineering. 12/22/2015	

Right of Way Acquisition	Acres
Fee	7.2
TLE	3.0
PLE	

Functional Classification of Existing Route (FDM 3-5-2)	Urban	Rural
Freeway/Expressway	☐	☐
Principal Arterial	☐	☐
Minor Arterial	☐	☒
Major Collector		☐
Minor Collector		☐
Collector	☐	
Local	☐	☐
No Functional Class	☐	☐

WisDOT Project Classification (FDM 3-5-2)	
Resurfacing	☐
Pavement Replacement	☐
Reconditioning	☐
Expansion	☒
Bridge Rehabilitation	☐
Bridge Replacement	☒
"Majors" Project (there are both state and federal majors)	☐
SHRM	☐
Reconstruction	☒
Preventive Maintenance	☐
Safety	☐
Other–Describe:	☐

☐ FHWA Draft Type 2c Categorical Exclusion (CE)/WisDOT Draft Environmental Report (ER). **No significant impacts indicated by initial assessment.**
☐ FHWA/WisDOT Draft Environmental Assessment (EA). **No significant impacts indicated by initial assessment.**

(Print – Preparer Name, Title, Company/Organization) (Date – m/d/yy)

(Signature, Title) (Date – m/d/yy)

(Signature, Title) (Date – m/d/yy)
☐ Region ☐ Aeronautics ☐ Rails & Harbors

(Signature – Director, Bureau of Technical Services) (Date – m/d/yy)

(Signature, Title) (Date – m/d/yy)
☐ FHWA ☐ FAA ☐ FTA ☐ FRA

ENVIRONMENTAL EVALUATION OF FACILITIES DEVELOPMENT ACTIONS *(continued)*

DT2094

☒ FHWA Final Type 2 Categorical Exclusion (CE)/WisDOT Final Environmental Report (ER). It has been determined no significant impacts will occur and a Public Hearing is not required.

After reviewing and addressing substantive public comments, updating the Draft CE/ER or Draft EA and coordinating with other agencies, it is determined this action:

☐ **Will NOT significantly affect** the quality of the human environment. This document is a Final CE/Final ER.

☐ **Will NOT significantly affect** the quality of the human environment. This document is a Final EA/Finding of No Significant Impact.

☐ **Has potential to significantly affect** the quality of the human environment. Draft Environmental Impact Statement (EIS) required.

Dave Tollefson — 5/15/2018
(Dave Tollefson, Environmental Manager, KL Engineering) (Date – m/d/yy)

Matthew Bam, Project Manager — 5/15/18
(Signature, Title, Ayres Associates) (Date – m/d/yy)

Larry J Barta — 5/16/18
(Signature, Title) (Date – m/d/yy)

☒ Region ☐ Aeronautics ☐ Rails & Harbors

5-17-18
(Signature – Director, Bureau of Technical Services) (Date – m/d/yy)

PETER M GARCIA
(Signature, Title)
☒ FHWA ☐ FAA
Date – m/d/yy

Digitally signed by PETER M GARCIA
DN: c=US, o=U.S. Government, ou=FHWA.FHWAMadisonWI, ou=DOT FHWAMadisonWI, cn=PETER M GARCIA
Date: 2018.05.17 13:27:31 -05'00'

BASIC SHEET 2 – TABLE OF CONTENTS, ABBREVIATIONS/ACRONYMS, DOCUMENT DESCRIPTION

Table of Contents

Abbreviations and Acronyms

AADT	Average Annual Daily Traffic
ACHP	Advisory Council on Historic Preservation
ACM	Asbestos Containing Material
AIN	Agricultural Impact Notice
AIS	Agricultural Impact Statement
AWDT	Average Annual Weekday Traffic
BOA	Bureau of Aeronautics
CE	Categorical Exclusion
CFR	Code of Federal Regulations
County	County Highway
DATCP	Department of Agriculture, Trade and Consumer Protection
dBA	Decibels, A-weighted
DHV	Design Hourly Volume
EA	Environmental Assessment
EAB	Emerald Ash Borer
ECIP	Erosion Control Implementation Plan
EIS	Environmental Impact Statement
EJ	Environmental Justice
EO	Executive Order
EPA	Environmental Protection Agency
ER	Environmental Report
FAA	Federal Aviation Administration
FDM	Facilities Development Manual
FHWA	Federal Highway Administration
FUDA	Future Urban Development Area
GP	General Permit
HCM	Highway Capacity Manual (2010)
HMA	Hazardous Materials Assessment
I	Interstate Highway
ICE	Intersection Control Evaluation
LOP	Letter of Permission
LOS	Level of Service
LWCF	Land and Water Conservation Fund
MOA	Memorandum of Agreement
MPH	Miles per Hour
MPO	Metropolitan Planning Organization
MUTCD	Manual on Uniform Traffic Control Devices
MVMT	Million Vehicle Miles Traveled
NA	Not Applicable
NAC	Noise Abatement Criteria
NEPA	National Environmental Policy Act
NHI	National Heritage Inventory
NFIP	National Flood Insurance Program
NLEB	Northern Long Eared Bat
NLC	Noise Level Criteria
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
OE/AAA	Obstruction Evaluation and Airport Airspace Analysis
OSOW	Oversize-Overweight
PCN	Pre-Construction Notification
PIM	Public Involvement Meeting
PLE	Permanent Limited Easement
ROW	Right of Way
RPC	Regional Planning Commission
SHPO	State Historic Preservation Office
STIP	State Transportation Improvement Program
TIP	Transportation Improvement Program
TLE	Temporary Limited Easement
TNM	Traffic Noise Model
TSS	Total Suspended Solids

US	United States
USACE	United States Army Corps of Engineers
USCG	United State Coast Guard
US DOT	United States Department of Transportation
USFWS	United States Fish and Wildlife Service
V/C	Volume-to-Capacity
VPD	Vehicles per Day
WDNR	Wisconsin Department of Natural Resources
WEPA	Wisconsin Environmental Policy Act
WI	Wisconsin
WIS	Wisconsin State Highway
WisDOT	Wisconsin Department of Transportation
YOE	Year of Expenditure

Environmental Document Statement

This environmental document is an essential component of the National Environmental Policy Act (NEPA) and Wisconsin Environmental Policy Act (WEPA) project development process, which supports and complements public involvement and interagency coordination.

The environmental document is a full-disclosure document which provides a description of the purpose and need for the proposed project, the existing environment, analysis of the anticipated beneficial or adverse environmental effects resulting from the proposed action and potential mitigation measures to address identified effects. This document also allows others the opportunity to provide input and comment on the proposed action, alternatives and environmental impacts. Finally, it provides the decision maker with appropriate information to make a reasoned choice when identifying a preferred alternative.

This environmental document must be read entirely so the reader understands the reasons that one alternative is selected as the preferred alternative over other alternatives considered.

1. Purpose and Need

Project Status

The proposed project is located in a predominantly rural area, in the towns of Westport and Burke, and the village of DeForest in Dane County, Wisconsin. The project area is adjacent to the western edge of more developed areas in the village of DeForest.

The project extends approximately 1.1 miles, from a point just west of River Road on the west end, to Interstate Highway (I)-39/90/94 on the east end. The western end of the project, including the portion containing the Wisconsin State Highway (WIS) 19/River Road intersection, is in the town of Westport. The project crosses the Yahara River near the western end of the project.

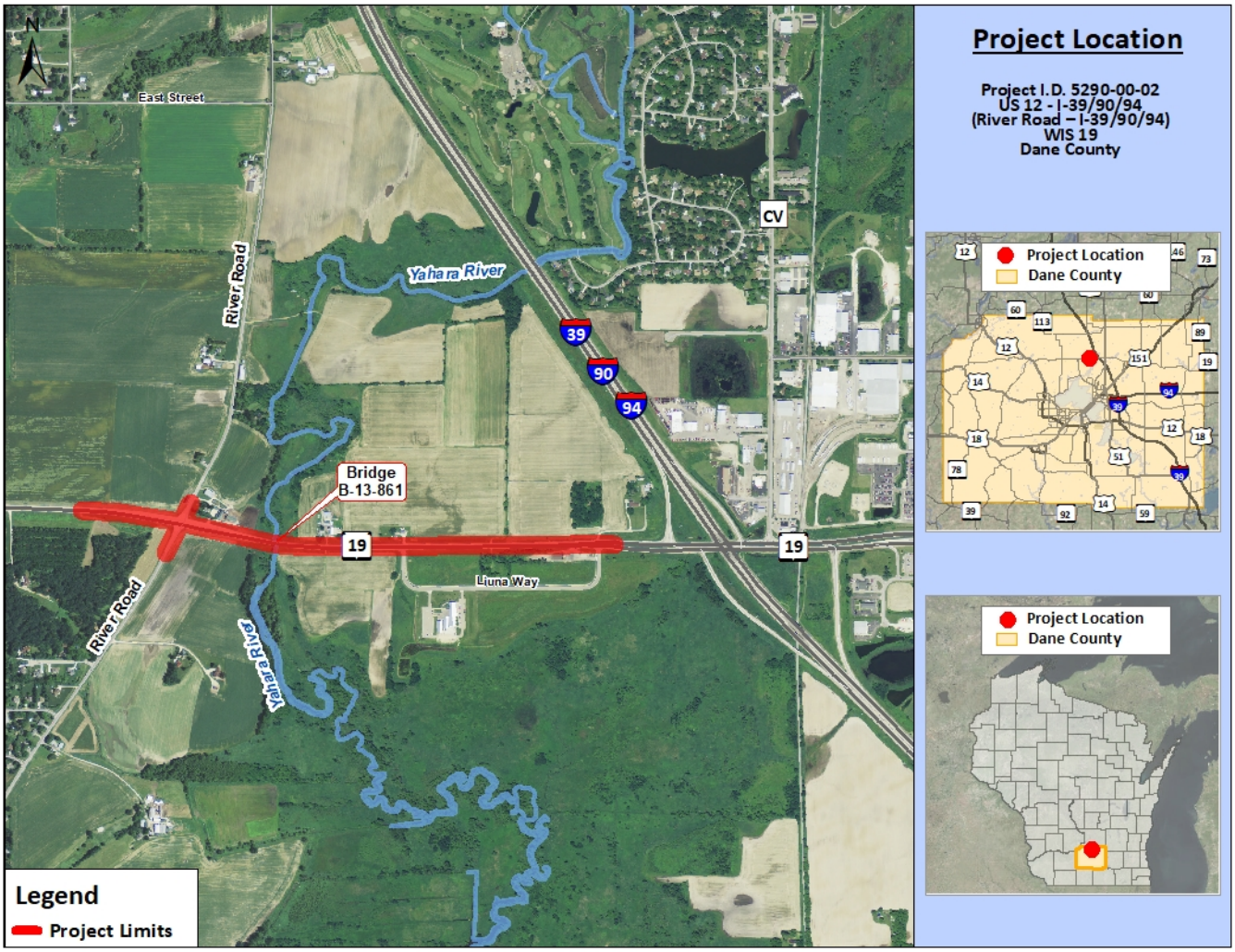
Lands in the project area that are adjacent to the Yahara River provide recreation and preservation opportunities of the Yahara River waterway. Property along the east side of the Yahara River is part of the Dane County owned Cherokee Marsh Wildlife Area. Property south of WIS 19 and west of the river is part of the Wisconsin Department of Natural Resources (WDNR) owned Cherokee Marsh Fishery Area. Much of the area north of the project is used as agricultural land, but planned for a mix of residential and commercial development.

This portion of WIS 19 is functionally classified as a rural minor arterial in an urbanized area with a population > 50,000. Within the project area, WIS 19 is a Designated Long Truck Route for freight movement. The corridor is also a State Oversize-Overweight (OSOW) route.

A Project Location Map is included below and in Appendix 1.

Figure 1-1: Project Location Map

(*A larger version of this map is provided in Appendix 1)



Adjacent Projects

The proposed project is within limits of a corridor study along WIS 19, which was completed in March of 2016. The study investigated access, safety, and traffic issues along 30.5 miles of WIS 19 from US 12 to WIS 89. Information and recommendations included in that study is being considered as part of this project. Additional information on the WIS 19 Corridor Study can be found by clicking the following link: (http://wisconsindot.gov/Pages/projects/by-region/sw/191289/default.aspx), or by contacting Wisconsin Department of Transportation (WisDOT) SW-Region.

WisDOT is in the development process of a safety improvement project on WIS 19 west of the proposed action, at the intersections of WIS 19/WIS 113 and County I. Project ID 5290-02-70 is scheduled to be completed in 2018 and will replace the existing intersections with a multi-lane roundabout. Additional information on project ID 5290-02-70 can be found by clicking the following link: (http://wisconsindot.gov/Pages/projects/by-region/sw/19113/default.aspx), or by contacting WisDOT SW-Region.

Project Purpose

The purpose of the proposed action is to address structural deficiencies, roadway conditions, and meet WisDOT design and safety standards.

Project Needs

Three components make up the needs for this project:

- Deficient Bridge Structure
- Safety
- Operational Deficiencies

Deficient Bridge Structure

Figure 1-2: Existing Yahara River Bridge

The existing WIS 19 structure over the Yahara River (B-13-861) is a two-span concrete haunched slab bridge that was built in 1958, widened in 1979, and is nearly 60 years old (see Figure 1-2). The existing structure has a deteriorating deck and superstructure. The bridge was last inspected on May 31, 2017, and had a sufficiency rating of 59.3. Sufficiency ratings for bridges vary from 0 to 100. The sufficiency rating formula includes factors for structural condition, bridge geometry, and traffic considerations. A bridge with a sufficiency rating of 80 or less is eligible for bridge rehabilitation funding according to the WisDOT Bridge Manual and Wisconsin State Statutes. Federal guidelines and WI State Statutes indicate that a bridge with a sufficiency rating of less than 50 is eligible for replacement. The existing WIS 19 structure over the Yahara River (B-13-861) qualifies for rehabilitation and is approaching the criteria for replacement. There are also ratings for individual sections of bridges. The superstructure and deck of this bridge has a rating of 4 which classifies it as "structurally deficient" according to the WisDOT Bridge Manual.

Safety

Crash rates along the WIS 19 project corridor are considerably higher than the statewide crash rate for similar roadways. Table 1 displays crash information for the WIS 19 project corridor from the years 2011 through 2015.

Table 1: WIS 19 Corridor Crash Information

Roadway	Crash Rate[1] (2011-2015)	Statewide Crash Rate[1] (2011-2015)	KAB Crash Rate (2011-2015)	KAB Statewide Average Crash Rate (2011-2015)	Number & Severity of Crashes			
					Fatal	Injury	Property Damage	Total No. Crashes
WIS 19 (River Rd to I-39)	139.78	90.04	17.79	17.90	1	16	38	55

[1] Crash rate based on 100 million vehicles miles traveled (100 MVMT)
[2] "KAB" designates higher severity crashes including fatal and injury-related crashes evident at the accident scene.

A crash history review of the WIS 19 project corridor shows that 55 crashes, including one fatality, occurred over the five-year period from 2011-2015. Corridor crash rates are calculated based on number of crashes per million vehicle miles traveled. Having a crash rate above the statewide crash rate does not indicate whether a safety issue exists, nor does it provide any information related to the nature of the crashes. The comparison simply helps to identify where safety issues may exist and where further analysis might be beneficial.

Based on a crash history analysis, safety at the WIS 19/River Road intersection is also a concern. Table 2 displays crash information for the WIS 19/River Road intersection from the years 2011 through 2015.Over the five-year period from 2011-2015, 29 crashes (5.8 per year) occurred at the intersection, including one that resulted in a fatality. The predominant collision pattern is right angle crashes occurring between vehicles traveling northbound on River Road and westbound on WIS 19. Right angle crashes are among the most dangerous for vehicle occupants. Although WisDOT does not provide a statewide average crash rate for intersections, the speed of traffic on WIS 19 (55 mph posted speed limit), and the nature of the crashes at the WIS 19/River Road intersection, indicates a potential safety issue.

Table 2: WIS 19/River Road Intersection Crash Information

Roadway	Number & Severity of Crashes			
	Fatal	Injury	Property Damage	Total No. Crashes
WIS 19 (River Rd to I-39)	1	12	16	29

Operational Deficiencies

A 2016 WisDOT traffic forecast report indicates that this portion of WIS 19 carried an average of 18,000 vehicles per day in 2016. River Road carried an average of 3,300 vehicles south of WIS 19 and 3,000 vehicles north of WIS 19 in 2014. Traffic projections indicate that traffic on WIS 19 will grow to 33,000 vehicles per day in the Design Year of 2040. Traffic projections indicate that traffic on River Road will grow to 5,900 vehicles per day south of WIS 19 and 5,600 vehicles north of WIS 19 in the Design Year of 2040. The design year is normally 20 years from the date a project is proposed to be opened to traffic, as stated in WisDOT's Facilities Development Manual (FDM), Chapter 11-10-1, (http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/rdwy/fdm.aspx).

As stated previously, WIS 19 is categorized as a rural minor arterial in an urbanized area with a population > 50,000. Traffic volumes on WIS 19 exceed the desirable upper limits of 15,000 vpd for rural arterial two-lane roadways identified in the FDM Chapter 11-15, Attachment 1.1 (Design Class A2). The current LOS value based on WisDOT's Meta-Manager model is 5.7 which is in the mid to low range of LOS E. Two-lane rural minor arterial roadways with volumes that exceed 15,000 vehicles will on average have a LOS of E or worse. LOS of mid-E or better is recommended for this roadway classification.

According to the 2010 version of the Highway Capacity Manual, intersection operations are typically expressed in terms of level of service (LOS), which is a measure of traffic flow and delay conditions. LOS ratings of A, B, and C indicate that an intersection is operating below capacity with minor delays. At LOS D, the intersection is operating near capacity and drivers experience longer delays. LOS E indicates the intersection is operating at or above capacity, traffic flow is unstable, and drivers typically experience lengthy delays and backups. LOS F indicates the intersection is failing, is operating over capacity, and drivers are experiencing significant and unpredictable delays and backups.

Existing operations on the WIS 19 approaches to the River Road intersection are acceptable, with all movements operating at LOS 'A' during both the morning and evening peak periods. Conversely, operations on the River Road approaches to the intersection are all at LOS 'C' or worse. During the morning peak hour, both the northbound and southbound right turn lanes on River Road operate at LOS 'C'. The northbound shared through/left turn lane on River Road operates at LOS 'D' and the southbound shared through/left turn lane on River Road operates at LOS 'F'. During the evening peak hour, the northbound right turn lane on River Road operates at LOS 'D' and the southbound right turn lane on River Road operates at LOS 'C'. The shared through/left turn lane on both River Road approaches operates at LOS 'F'. Detailed performance reports showing the existing levels of service, delay, queuing, and volume-to-capacity (V/C) ratios for each approach movement are summarized in the Phase 1: Intersection Control Evaluation (ICE) Memorandum provided in Appendix 2. Detailed information can be obtained by contacting WisDOT SW-Region.

Although the River Road approaches have relatively low traffic volumes, the heavy WIS 19 volumes do not provide sufficient gaps for River Road traffic maneuvers. The combination of the high speeds and high traffic volumes on WIS 19 leads to delays for traffic on River Road, which can encourage risky maneuvers by drivers. With continued development expected in neighboring communities and the region (village of Waunakee, city of Sun Prairie, village of DeForest, village of Windsor, and city of Madison), traffic volumes are expected to increase along this corridor, further affecting traffic operations. Field observations completed for this project, and summarized in the Phase 1: ICE Memorandum provided in Appendix 2, showed that while some vehicles were able to cross WIS 19 or turn onto WIS 19 from River Road after only waiting for several seconds, other vehicles had to wait over two minutes before receiving an acceptable gap in WIS 19 traffic.

Summary of Project Needs

Needs of the project are summarized as follows:

- The existing WIS 19 structure over the Yahara River (B-13-861) is nearly 60 years old, has a deteriorating deck and superstructure, and is classified as structurally deficient based on the latest structural ratings. The existing WIS 19 structure over the Yahara River (B-13-861) was last inspected on May 31, 2017, and had a sufficiency rating of 59.3. A bridge with a sufficiency rating of 80 or less is eligible for bridge rehabilitation funding according to the WisDOT Bridge Manual and Wisconsin State Statutes. Federal guidelines and WI State Statutes indicate that a bridge with a sufficiency rating of less than 50 is eligible for replacement. The existing WIS 19 structure qualifies for rehabilitation and is approaching the criteria for replacement.
- Crash rates along the WIS 19 project corridor are considerably higher than the statewide crash rate for similar roadways. At the WIS 19/River Road intersection, high traffic volumes on WIS 19 and the nature of historic crashes at the intersection (right angle) indicate a substantial safety issue.
- Existing and projected traffic volumes on WIS 19 exceed the upper volume limits for rural arterial two-lane roadways identified in FDM design standards. A WisDOT traffic volume forecast report for the project area indicates that this portion of WIS 19 carried an average of 18,000 vehicles per day in 2016. Proposed development in the project area suggests that this volume will continue to grow. The upper volume limit to help avoid mid-LOS 'E' or worse is 15,000 vehicles for two-lane roadways (Design Class A2). Roadways with volumes that exceed 15,000 vehicles fall under Design Class A3 standards, which call for 4 travel lanes to help maintain a higher LOS and avoid slower speeds and potential delays.
- Traffic operations at the WIS 19/River Road intersection have movements that are operating at LOS D and LOS F during peak hours, which is increasing driver delay. Traffic volumes are expected to increase along this corridor, further affecting traffic operations. The combination of the high speeds and high traffic volumes on WIS 19 leads to delays for traffic on River Road, which can encourage risky maneuvers by drivers.

2. Summary of Alternatives

Alternative Screening Criteria

The range of alternatives described in this ER will be evaluated using the three needs identified for this project. In addition to considering the project needs, evaluation of alternatives also considers the cost and impact of detouring traffic compared to constructing while open to traffic.

Staging Costs and Impacts

Maintaining traffic along the WIS 19 corridor during construction is the recommended method of traffic control given the lack of a feasible detour route. Due to high traffic volumes and lack of an adequate detour, two-way traffic would need to be maintained throughout construction. Reconstruction of WIS 19 on its existing location with no capacity addition would include substantial throw-away costs if through traffic were maintained during construction, especially at the Yahara River bridge area. A temporary bridge and traffic shift would need to be built and implemented prior to project construction, and then removed once project construction was complete. The rest of the roadway would require temporary widening on one or both sides to maintain through traffic during construction. Construction of a temporary bridge and temporary road widening would add substantial time and cost to the project. Reconstruction that adds another permanent lane in each direction avoids most of the throw-away costs because the existing road can be used while new lanes are built parallel to the existing road. When complete, the new pair of lanes can carry traffic while the existing lanes are reconstructed.

Detour Route Costs and Impacts

If WIS 19 were closed to traffic, a detour route would be needed to accommodate existing traffic volumes and minimize costs associated with maintaining traffic through a construction zone. When WisDOT signs a detour route, it is preferable to identify a route on Interstate, United States, or Wisconsin State Highways. If WIS 19 were closed, it would add 11 miles to a trip through the corridor. A detour would also send additional traffic volume on to already congested US 51, 151, and WIS 113.

If a detour route were established on county or local roads, upgrades to these roadways may be required to safely accommodate the additional traffic. Any county or local roadways used for an established detour route would also likely require repair once the detour route is removed, due to the additional traffic volumes it would be carrying. If a detour is necessary, given the length of the potential detour route, it will also likely result in local traffic finding alternate routes, increasing traffic volumes on adjacent local roads.

See Appendix 1 for a map of the nearest feasible detour.

Alternatives Considered

Alternative #1: No-Build Alternative – WIS 19 Corridor and River Road Intersection

The No-Build Alternative consists of routine maintenance on the project corridor. Any future improvements would consist only of those that attempt to maintain the existing infrastructure in serviceable condition. As traffic volumes increase under the No-Build Alternative, safety, mobility, and operational capacity concerns would continue to rise and more traffic would divert to local road alternate routes. The No-Build Alternative does not address the project's purpose and need components. The construction cost would only consist of pavement maintenance, and would be minimal compared to the other reconstruction alternatives considered, but frequency of repairs would rise over time, increasing traffic disruption and costs per year.

The No-Build Alternative has not been identified as the preferred alternative, but is being carried through this document to compare with build alternatives.

Alternative #2: Reconstruct WIS 19 as a Four-Lane Rural Roadway with Traffic Signals at River Road
This alternative would add capacity to WIS 19, expanding the existing two-lane facility to four lanes within the project area. The expanded corridor would consist of a rural typical section with 50-foot open ditched median and open drainage ditches along the shoulders. It would replace the WIS 19 Bridge over the Yahara River with two, two-lane bridges. The intersection of WIS 19 and River Road would be reconstructed, and a traffic signal would be added. A traffic signal would also be included at the western Liuna Way intersection with WIS 19. This intersection would be the main entrance into a planned development in the area north of WIS 19, between I-39/90/94 and the Yahara River. A second entrance into the planned development is proposed on the north side of WIS 19, between the two Liuna Way intersections. The second entrance would be restricted to right-in / right-out movements. The planned development is within the village of DeForest and construction of the development began in fall of 2017.

At the River Road intersection with WIS 19, projected traffic volumes for the year 2025 indicate that two warrants are met that signify the need for a traffic signal, per the WisDOT MUTCD. The MUTCD identifies nine traffic signal control intersection warrants and this intersection meets two of the warrants meaning that a traffic signal is an option for the intersection control at this location. See the Intersection Control Evaluation Report presented in Appendix 2 for a list of the nine warrants. The traffic analysis indicates that during the peak hour in 2040, the signalized intersection would provide LOS values of A and B along WIS 19 and LOS A through C along River Road.

At the Liuna Way (west) intersection with WIS 19, an ICE memorandum was prepared for the village of DeForest on August 8, 2017 for a proposed development along the north side of WIS 19. That document included an analysis of roundabout and traffic signal alternatives for the Liuna Way (west) intersection. Other alternatives including a 2-way stop, an all-way stop, a J-turn configuration, and a median U-turn option were all dismissed for various reasons. The analysis indicated that a multi-lane roundabout was not a feasible alternative. The traffic volumes at this intersection are higher than those at the River Road intersection and they would be well beyond capacity by the 2040 design year. A traffic signal would accommodate the anticipated volumes and operate at an acceptable level of service (LOS D) with the addition of appropriate geometry and lane configurations at the intersection.

Although the Four-Lane Traffic Signal Alternative addresses some of the safety and operational issues identified in the project's purpose and need, the addition of traffic signals could result in an increase in vehicular crashes. Traffic signal-controlled intersections provide more conflict points when compared to other intersection controls, such as a roundabout. Crashes at traffic signals are also often higher speed type crashes due to vehicles trying to speed through yellow and red lights. Adding a traffic signal would also require project construction limits to extend farther along the south, west, and north legs of the intersection than other options for intersection control (see Figure 1-3 on the following page). This alternative has not been identified as the preferred alternative.

Alternative #3: Reconstruct WIS 19 as a Four-Lane Rural Roadway with a Roundabout at River Road (Preferred)
This alternative would add capacity to WIS 19, expanding the existing two-lane facility to four lanes within the project area. The expanded corridor would consist of a 50-foot open ditched median and open drainage ditches along the shoulders. It would replace the WIS 19 Bridge over the Yahara River with two, two-lane bridges. The intersection of WIS 19 and River Road would be reconstructed with a roundabout that would provide two through lanes along WIS 19, and one through lane with right turn bypass lanes at River Road approaches. The proposed roundabout at the River Road intersection would provide adequate intersection capacity and level of service. The roundabout is expected to maintain acceptable traffic operations with all movements operating above the mid-range LOS E threshold of 42.5 seconds of delay per vehicle until the year 2037. The only movement that would exceed that threshold prior to the 2040 design year is the peak hour movement along eastbound WIS 19. A traffic signal would be included at the western Liuna Way intersection with WIS 19. This intersection would be the main entrance into a planned development in the area north of WIS 19, between I-39/90/94 and the Yahara River. A second entrance into the planned development is proposed on the north side of WIS 19, between the two Liuna Way intersections. The second entrance would be restricted to right-in / right-out movements. The planned development is within the village of DeForest and construction of the development began in fall of 2017.

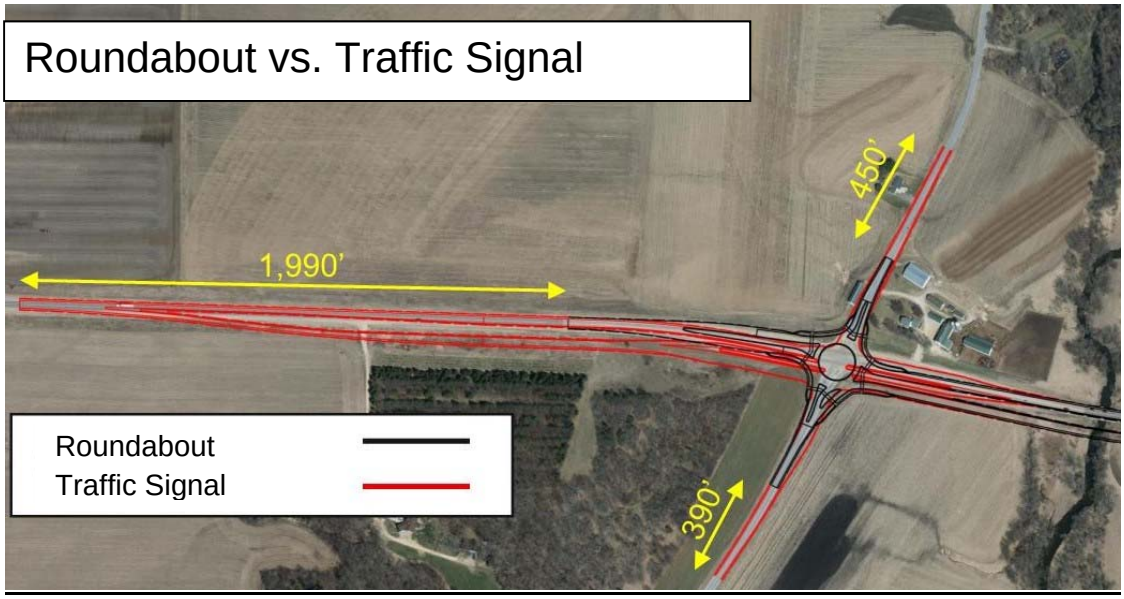
At the Liuna Way (west) intersection with WIS 19, an ICE memorandum was prepared for the village of DeForest on August 8, 2017 for a proposed development along the north side of WIS 19. That document included an analysis of roundabout and traffic signal alternatives for the Liuna Way (west) intersection. Other alternatives including a 2-way stop, an all-way stop, a J-turn configuration, and a median U-turn option were all dismissed for various reasons. The analysis indicated that a multi-lane roundabout was not a feasible alternative. The traffic volumes at this intersection are higher

than those at the River Road intersection and they would be well beyond capacity by the 2040 design year. A traffic signal would accommodate the anticipated volumes and operate at an acceptable level of service (LOS D) with the addition of appropriate geometry and lane configurations at the intersection.

This alternative would satisfy the project's purpose and need by improving safety, providing adequate traffic operation conditions (see ICE addendum in Appendix 2), and replacing the structurally deficient bridge. A roundabout would require traffic to slow down which would help reduce the severity of crashes compared to a stop controlled or signalized intersection, and also provides fewer vehicle conflict points than a signalized intersection would. Intersection improvements and roadway expansion from a two-lane roadway to a four-lane roadway would provide appropriate operational capacity for existing and future traffic volumes and improve traffic flow to and from WIS 19. This alternative would appropriately serve the land and transportation uses in the project area, would allow flexibility for future transportation and land use decisions, and would have lower maintenance costs than Alternative 2. In addition, Alternative 3 is less costly and has fewer impacts compared to Alternative 2, mainly due to the shorter length of construction required on three legs of the River Road intersection when compared to Alternative 2 (see Figure 1-3 below). This alternative also can accommodate OSOW vehicles, bicyclists, and pedestrians.

Alternative #3, reconstruct WIS 19 as a four-lane rural roadway with a roundabout at River Road, has been identified as the **Preferred Alternative**.

Figure 1-3: Intersection Alternatives Construction Limits



Other River Road Intersection Alternatives Considered

Several intersection variations were initially analyzed for the WIS 19/River Road intersection. River Road intersection variations initially analyzed but not carried forward for further analysis are identified below. Additional information on intersection options can be found in the Intersection Control Evaluation Report presented in Appendix 2.

Two-Way Stop Control

This option would reconstruct the WIS 19/River Road intersection with stop signs on River Road. The Two-Way Stop Control option would provide a similar situation to what exists today, and would not adequately address the safety issues or the traffic operations deficiencies identified in the project's purpose and need. The Two-Way Stop Control option was dismissed.

All-Way Stop Control

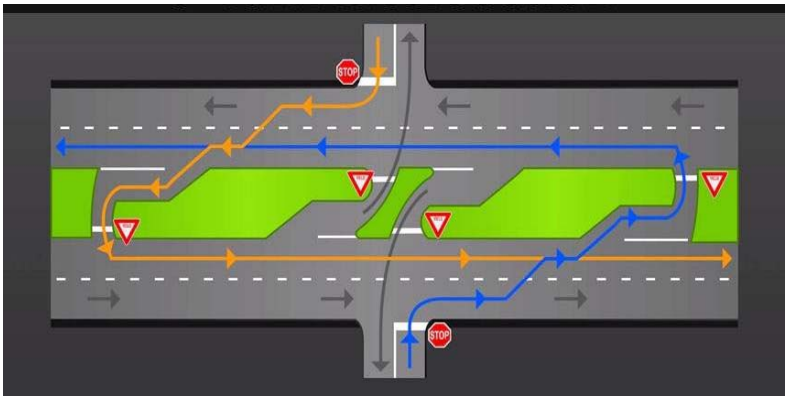
This option would reconstruct the WIS 19/River Road intersection with stop signs on all four legs of the intersection. Although the All-Way Stop Control option may satisfy some of the safety issues identified in the project's purpose and need, this option would disrupt traffic operations along WIS 19, and would not address the identified traffic

operations deficiencies. An all-way stop control intersection is also generally not recommended on a state trunk highway. The All-Way Stop Control option was dismissed.

J-Turn

This option would reconstruct the WIS 19/River Road intersection to include a J-Turn. Figure 1-4 shows a typical J-turn intersection. The purpose of a J-turn intersection is to reduce the conflict points at an intersection by eliminating left-turn and through movements from the side road. In order to make these movements, drivers at the side road have to first turn right then make a U-turn down the road from the original intersection. Although the J-Turn option would alleviate the safety and operational issues identified in the project's purpose and need, this option was determined to be not reasonable due to large right-of-way impacts, construction costs, and geometric constraints. Sight distances are also a concern due to a hill located west of the intersection, and the Yahara River Bridge and Liuna Way intersection are located in close proximity east of the intersection. The J-Turn option was dismissed.

Figure 1-4: Typical J-Turn Intersection



Reconstruct WIS 19 as a Two-Lane Roadway

This option would reconstruct WIS 19 as a two-lane roadway. As stated previously, several traffic movements at the WIS 19/River Road intersection have an unacceptable LOS, and the heavy WIS 19 volumes do not provide sufficient gaps for River Road traffic maneuvers. Based on existing and projected traffic volumes, the LOS of a two-lane roadway would continue to decline, resulting in increased delays and potentially increased crashes. A four-lane facility would increase capacity and improve traffic operations. In addition, the project corridor has an inadequate detour for this volume of traffic, and reconstruction as a two-lane roadway would require considerable staging costs and impacts. This option was dismissed because it would not address the identified need to improve the operational efficiency and safety of the WIS 19 corridor and the intersection at River Road.

Reconstruct WIS 19 as a Four-Lane Urban Roadway with 30-foot median

This option would reconstruct WIS 19 as a four-lane urban roadway with a 30-foot wide median, mountable curb and gutter in the median, and open ditches along the outsides of the roadway. This option was dismissed because adding curb and gutter to the roadway would also require the addition of a storm sewer system. Construction cost of an urban roadway would be higher than a rural roadway, and the addition of curb, gutter, and storm sewer would result in additional maintenance costs.

Reconstruct WIS 19 as a Four-Lane Urban Roadway with no median

An alternative with a four-lane urban roadway with no median was not evaluated. A median is typically provided on higher speed rural facilities such as this section of WIS 19. Medians help to separate opposing traffic lanes in order to minimize the risk of head-on collisions, provide a recovery area for out-of-control vehicles, allow space for vehicles changing speed, provide storage for left-turning vehicles, minimize headlight glare, and control access. A median also provides room for the addition of more intersection or through capacity, should volumes rise over time to the extent this is needed.

Additional information on WIS 19 corridor options can be found in the Typical Section Report presented in Appendix 2.

3. Description of Proposed Action

WisDOT, in cooperation with the Federal Highway Administration (FHWA), is planning transportation improvements on the WIS 19 bridge over the Yahara River (B-13-861), on the WIS 19 roadway, and at the WIS 19/River Road intersection.

The proposed action, Alternative 3: Reconstruct WIS 19 as a Four-Lane Rural Roadway with a Roundabout at River Road and a signal at Liuna Way (west), was selected because: it best meets the project's purpose and need factors; it satisfies additional screening criteria identified; and it requires acceptable right-of-way impacts and is cost effective. Final plans for the project are anticipated to be completed in the summer of 2019 with construction in the spring of 2020. Preliminary project plans and typical sections are included in Appendix 3.

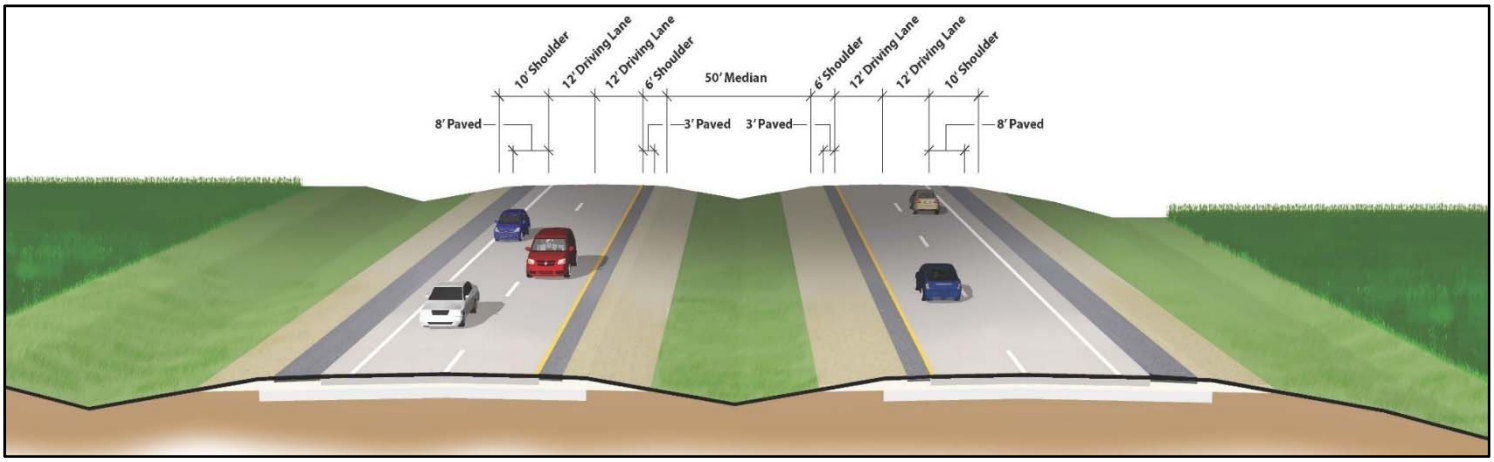
Yahara River Bridge Improvements

Two new bridges would be constructed on WIS 19 over the Yahara River. The existing slab span bridge would be removed and replaced with a new single span girder bridge for the westbound roadway, and a second single span girder bridge would be constructed to the south for the new eastbound roadway. The grade of the WIS 19 roadway across the Yahara River bridges would be raised slightly to accommodate the thicker single span bridges and maintain adequate clearance over the river for hydraulic purposes. Through coordination with municipalities within the project limits, the village of DeForest has identified a potential shared use path along the north side of WIS 19 in their future plans. The westbound bridge could be designed to allow for the cost-efficient widening of a shared use path crossing over the river in the future.

WIS 19 Roadway Improvements

The proposed action would expand the WIS 19 roadway into a 4-lane rural roadway with a 50-foot median (see Figure 1-5). The improvements would increase operational capacity, and the addition of a roundabout at the River Road intersection and a signal at the Liuna Way (West) intersection would improve traffic operations and improve safety. There may be an increase in the number of crashes at the River Road intersection initially, but roundabouts force traffic to slow down which helps reduce the severity of crashes compared to a stop controlled or signalized intersection.

Figure 1-5: Proposed Typical Cross Section (4-Lane Rural Roadway)



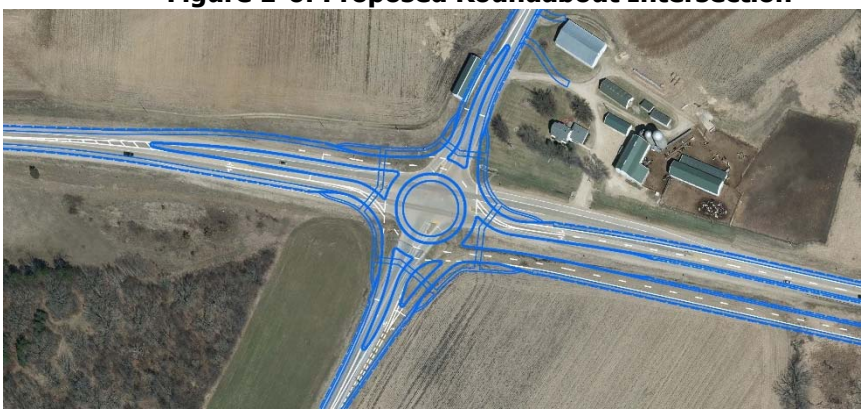
The new lanes would be located south of the existing roadway and would function as eastbound WIS 19. The existing travel lanes would function as westbound WIS 19. The new four-lane segment would extend west of the River Road intersection and then taper down to match the existing two-lane WIS 19 roadway west of the proposed action. The full four-lane section would extend far enough to the west to allow a future project to tie-in without requiring reconstruction of the River Road intersection. The east end of the proposed project would connect into an existing 4-lane segment of WIS 19 at the I-39/90/94 and WIS 19 interchange. The roadway would have twelve-foot driving lanes with 10-foot shoulders on the outside (8-foot paved) and 6-foot shoulders on the inside (3-foot paved). The paved shoulders along WIS 19 would provide on-road bike accommodations. Vegetative ditches would be widened in some areas to improve water quality.

The Dane County property entrance on the north side of WIS 19, east of the Yahara River Bridge, would be restricted to right-in/right-out only due to the proposed median on WIS 19. WIS 19 would remain open during construction; no detour routes are planned. The south leg of River Road is anticipated to remain open during construction and the north leg would be further analyzed for the possibility of closing to facilitate construction of that intersection.

Intersection Improvements

The proposed action would reconstruct the WIS 19/River Road intersection as a multi-lane roundabout (see Figure 1-6). The proposed roundabout would be designed to accommodate OSOW vehicles. The paved shoulders along WIS 19 and River Road would provide on-road bike accommodations. Roundabout sidewalks and crosswalks would be constructed to accommodate pedestrians and bicyclists using the intersection. Roundabout splitter islands and side paths would also be designed to accommodate a future trail along the north side of WIS 19.

Figure 1-6: Proposed Roundabout Intersection



The property access on the north side of WIS 19, immediately east of the River Road intersection, would be removed due to its proximity to the intersection. This property has two full access driveways onto River Road north of the intersection and at least one of those would remain open.

The expanded WIS 19 roadway would include a traffic signal at the western Liuna Way intersection. This intersection would be the main entrance into a planned development in the area north of WIS 19, between I-39/90/94 and the Yahara River. A second entrance into the planned development is proposed on the north side of WIS 19, between the two Liuna Way intersections. The second entrance would be restricted to right-in / right-out movements. The planned development is within the village of DeForest and construction of the development began in fall of 2017.

No permanent modifications are proposed at the I-39/90/94 ramp terminals. The proposed traffic control measures would extend through the I-39/90/94 interchange as part of the construction staging which would impact traffic operations on WIS 19. Full access will be maintained at the two ramp terminal intersections; however, some delays are anticipated due to the closure of one of the WIS 19 westbound lanes. It is anticipated that queues on the southbound off ramp would be between 100 and 200 feet long and queues on the northbound off ramp would be approximately 150 feet during peak hours. Through traffic along I-39/90/94 would not be affected. Signal timing adjustments at these intersections will be made if necessary to ensure there are no queue backups onto the interstate.

Real Estate

The proposed action would require approximately 3.0 acres of temporary limited easement, and 7.2 acres of right-of-way acquisition. The proposed action would not require any residential or business relocations.

4. Construction and Operational Energy Requirements

Construction energy requirements for the proposed project would consist primarily of fuel consumption by construction equipment and energy expended in producing materials needed to construct the new facility. Operational energy requirements are measured by the efficiency of vehicle operation in the corridor. While the amount of construction energy expended would be least for the No Action Alternative, the projected construction energy requirements for the Build Alternatives would be relatively similar.

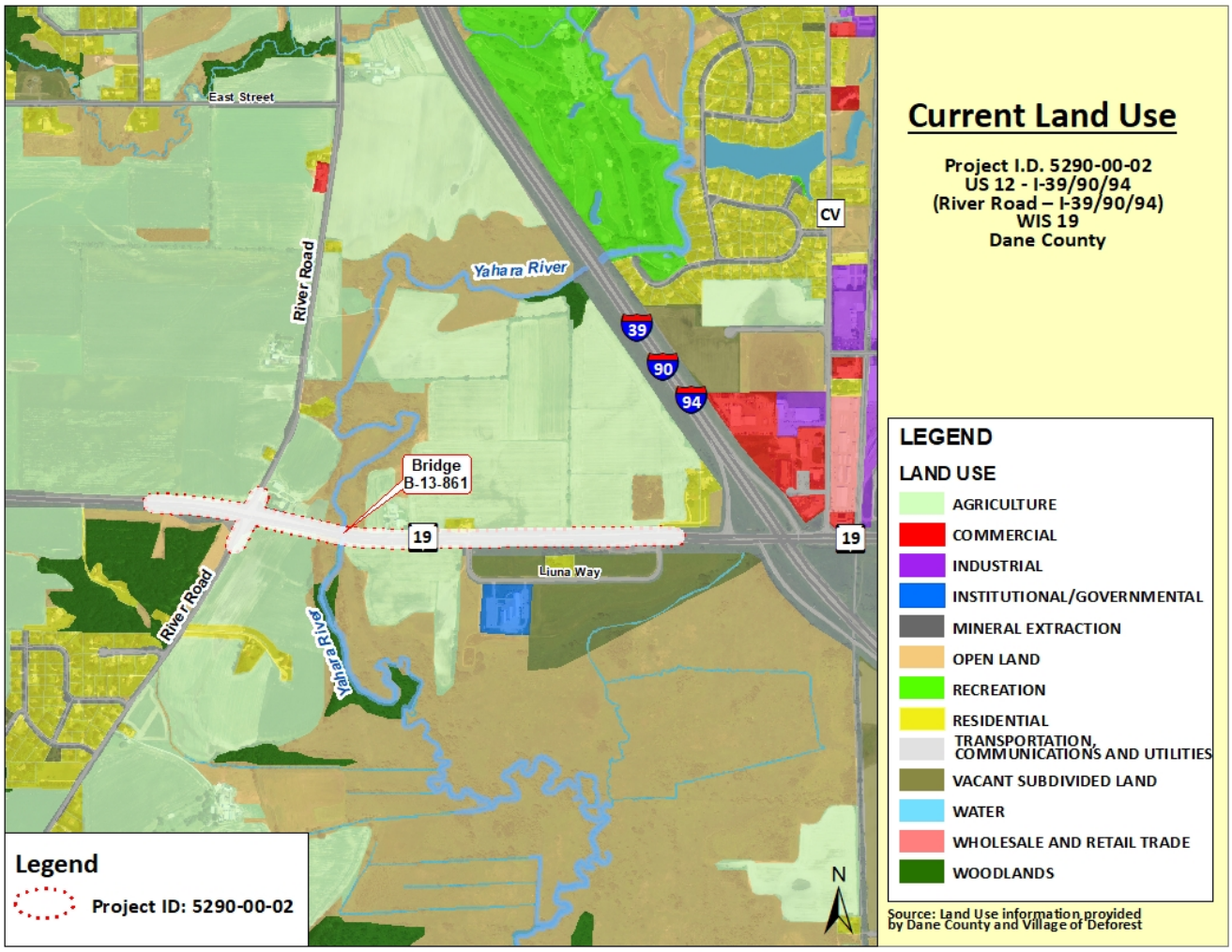
Immediate energy requirements for construction of the Build Alternatives would be greater than the No-Action Alternative. However, the No-Action Alternative would perpetuate the use of an inefficient transportation system. Over the design life of the facility, savings in operational energy would likely be greater than the energy required to construct the facility.

5. Land Use Adjoining and Surrounding Area

Land Use Adjoining the Project Corridor

The majority of land within the project area is zoned and used as agricultural land, public recreation land, or vacant subdivided land. Several agricultural properties that existed along the corridor were recently sold to Dane County for recreational and conservation use. The property located northwest of the WIS 19/River Road intersection remains in agricultural use. The Cherokee Marsh State Fishery Area, Dane County Bollig Property, and Cherokee Marsh Natural Resource Area are all public lands located adjacent to the project corridor. Figure 1-7 shows existing land use in the adjoining project area.

Figure 1-7: Project Area Land Use Map (based on Land Use Data provided by Dane County Land Information Office)



Surrounding Area Land Use

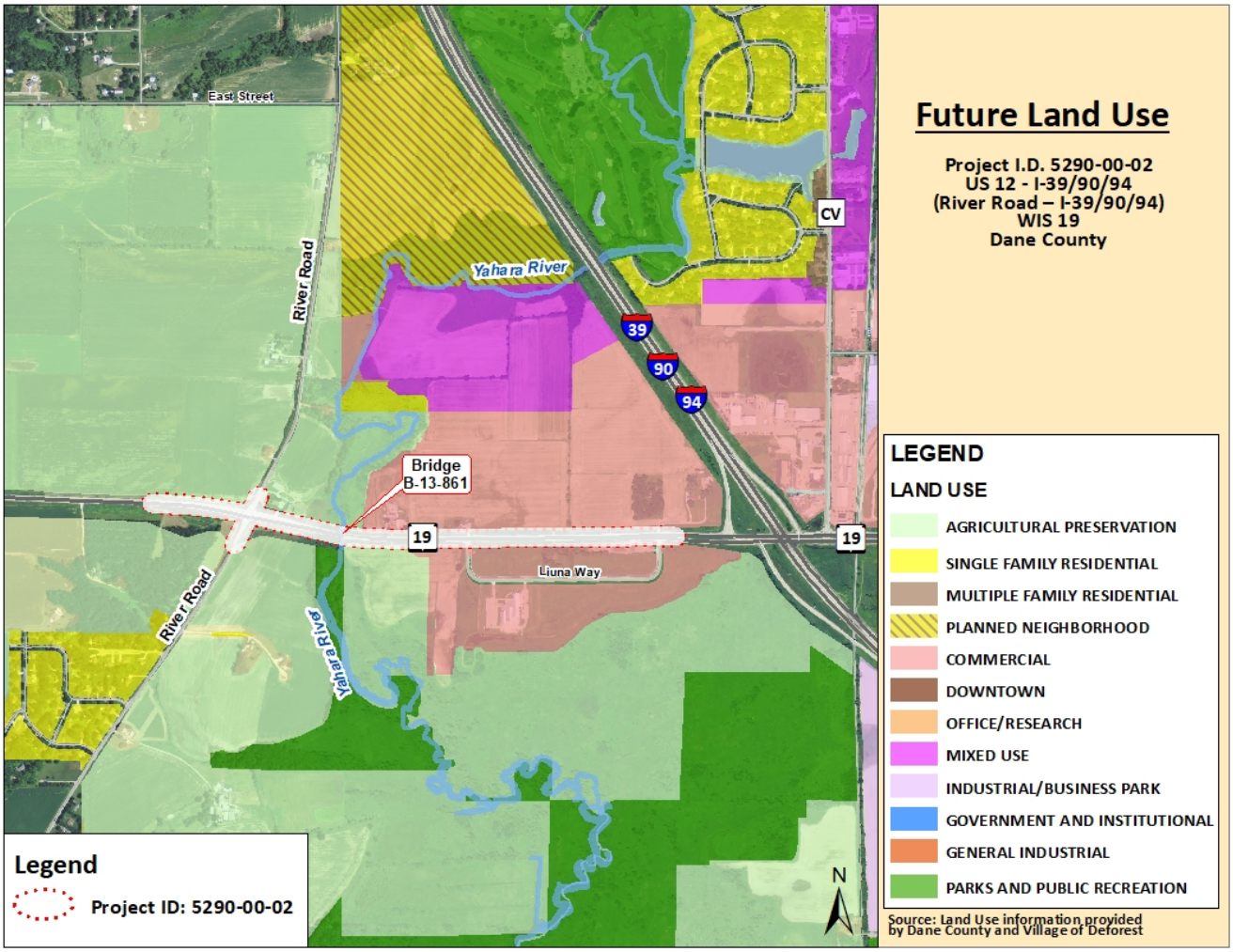
Land use in the project corridor's surrounding area is generally consistent with land use adjoining the project, with the exception of lands directly east of the project. The project's east terminus is directly adjacent to I-39/90/94. Lands east of I-39/90/94 are dedicated to a mix of highway commercial and industrial/warehouse land uses. There are also some residential areas located southwest of the project, on River Road, and on the fringe of the village of Windsor, northeast of the project area and east of I-39/90/94.

6. Planning and Zoning

The proposed action would be built on existing alignment and would not result in the direct change, or inconsistencies with any zoning regulations.

The proposed action is also compatible with planned development in the project area. The village of DeForest has adopted future land use plans indicating considerable commercial and mixed-use development of land along the project corridor. These plans are reflected in the village of DeForest Comprehensive Plan (updated in 2016). DeForest identifies nearly all the developable lands west of the Interstate, up to the Westport town line, as being appropriate for future development and in a "Future Urban Development Area" (FUDA). Figure 1-8 shows future land use information, as provided by the village of DeForest.

Figure 1-8: Future Land Use Map (based on Land Use Data provided by village of DeForest)



Future development plans for land along the WIS 19/River Road corridor were made independent of the WisDOT's WIS 19/River Road project. The village of DeForest identified plans for a big box store development in the area west of I-39/90/94 and North of WIS 19, in response to WisDOT's coordination efforts for the project. This big box retail development is independent of WisDOT's WIS 19 project, and construction of the development began in fall 2017. WisDOT did consider resources impacted by the WIS 19 project and those that may be impacted by the development, and determined that the likely impacts of the two actions combined would not reach a critical threshold. WisDOT will continue to coordinate with the village of DeForest and all other local governments regarding the proposed action's impacts.

In the project area, WIS 19 is a direct east-west route linking I-39/90/94, US 51, and communities to the east (DeForest, Sun Prairie, eastern Dane County) with US 12, WIS 113, and communities to the west (Waunakee, Middleton, western Dane County). The project is consistent with local transportation plans. It is included in the 2017-2021 Madison Area

Transportation Planning Board's Transportation Improvement Program (TIP) and the WisDOT 2017-2020 Statewide Transportation Improvement Program (STIP). The project's TIP number is 111-12-024.

The following is a list of planning documents within the project area. A review of the planning documents listed shows that although the specific improvements proposed for WIS 19/River Road are not specifically identified in each of these plans, the goals of the proposed action (maintaining a safe and efficient roadway for all users) is compatible with all of the planning documents listed.

Plan Name	**Author and Year**
Village of DeForest Comprehensive Plan	Village of DeForest, 2016
Village of Windsor Comprehensive Plan	Foth Infrastructure & Environment, LLC, 2016
Village of Waunakee & Town of Westport Comprehensive Plan	MSA Professional Services, 2017
Town of Burke Comprehensive Plan	Mead & Hunt, 2013
Dane County Comprehensive Plan	Dane County Department of Planning and Development, 2012
2035 Regional Transportation Plan for Madison Metropolitan Area & Dane County	Madison Area Transportation Planning Board, 2012
Bicycle Transportation Plan for Madison Metropolitan Area and Dane County	Madison Area Metropolitan Planning Organization, 2000
Village of DeForest Park and Open Space Plan	Schreiber Anderson, 2015
2017-2021 Transportation Improvement Program for the Madison Metropolitan Area & Dane County	Madison Area Transportation Planning Board, 2017
WisDOT 2017-2020 Wisconsin Department of Transportation Statewide Transportation Improvement Program (STIP)	WisDOT, 2017

7. Indirect Effects and Cumulative Effects

If any of the following boxes are checked, the Pre-Screening Worksheet for EA and ER Projects For Determining the Need to Conduct a Detailed Indirect Effects Analysis found in Appendix 4 of the WisDOT report titled *Guidance for Conducting an Indirect Effects Analysis* must be completed and attached to this environmental document.

An alternative being carried forward for detailed consideration includes;

- ☐ Economic development as a purpose and need element of the proposed project.
- ☒ Construction of one or more new or additional through lanes.
- ☐ Construction of a new interchange or elimination of an existing interchange.
- ☐ Construction of one or more additional ramps or relocation of a ramp lane to a new quadrant on an existing interchange.
- ☐ Changing an at-grade intersection to a grade-separation with no access or a grade-separation to an at-grade intersection.
- ☐ Construction of one or more additional intersections along the mainline created by a new side road access.
- ☐ One or more new access points along a side road within 500' of the mainline.

☐ None of the above boxes have been checked, it has therefore been concluded that the proposed action will not result in indirect effects or cumulative effects.

☒ The proposed action may result in indirect effects or cumulative effects. The Pre-Screening Worksheet for EA and ER Projects For Determining the Need to Conduct a Detailed Indirect Effects Analysis attached as Appendix 4 indicates a detailed indirect effects and cumulative effects analysis is not required.

☐ The proposed action may result in indirect effects or cumulative effects. It has been determined that a detailed indirect effects and cumulative effects analysis is required. See (N/A) for the detailed analysis.

8. Environmental Justice

Describe how the project development process complies with Executive Order 12898 on Environmental Justice (EJ). If populations of any group covered by EO 12898 are present in the project area, complete Factor Sheet B-4, Environmental Justice.

How was information obtained about the presence of populations covered by EO 12898? *(check all that apply)*	
☒ US Census Data	☐ Survey Questionnaire
☐ Real Estate Company	☐ WisDOT Real Estate
☒ Public Information Meeting	☒ Local Government
☒ Official Plan	☒ Windshield Survey*
☐ Human Resources Agency Identify agency: Identify plan, approval authority and date of approval:	
☒ Other – Identify: EPA screening and mapping tool. (www.epa.gov/ejscreen)	

*Conducting only a windshield survey is not sufficient to make a determination regarding whether or not populations are present.

Based on data obtained from the methods above, are populations covered by EO 12898 present in the project area?

a. ☒ No

b. ☐ Yes – Factor Sheet B-4 must be completed.

2010 census data for populations within ½ mile of the project corridor, and for comparison, Dane County and the State of Wisconsin, is shown below. This information was obtained using the EPA screening and mapping tool. (www.epa.gov/ejscreen)

	Within ½ Mile of Project Corridor	**Dane County**	**State of WI**
Total population	160	488,073	5,686,986
White	93% of total population	84.7% of total population	86.2% of total population
Black or African American	2% of total population	5.2% of total population	6.3% of total population
American Indian and Alaska Native	0% of total population	0.4% of total population	1.0% of total population
Asian	2% of total population	74.7% of total population	2.3% of total population
Some Other Race	1% of total population	22.5% of total population	2.4% of total population
Hispanic or Latino of any Race	3% of total population	5.9% of total population	5.9% of total population
Age 65 and over	8% of total population	10.3% of total population	13.7% of total population
*Totals greater than 100 are due to persons reporting more than one race.			

Based on the results of demographic analysis using the EPA screening and mapping tool, 0% of the households within ½ mile of the project corridor are reported as being linguistically isolated. Linguistic isolation is defined as households in which no one age 14 and over speaks English very well or speaks English only.

No minority or low-income populations have been identified that would be adversely impacted by the proposed project. Therefore, this project is in compliance with Executive Order 12898 on Environmental Justice.

9. Title VI of the 1964 Civil Rights Act, the Americans with Disabilities Act or the Age Discrimination Act

Indicate whether or not issues have been identified or concerns have been expressed related to Title VI of the 1964 Civil Rights Act, the Americans with Disabilities Act or the Age Discrimination Act.

a. ☒ No – Issues related to the above laws were not identified and concerns were not expressed

b. ☐ Yes – Issues related to the above laws were identified and/or concerns were expressed. Explain:

10. Public Involvement

A. Public Meetings

Date (m/d/yyyy)	**Meeting Sponsor** (WisDOT, RPC, MPO, etc.)	**Type of Meeting** (PIM, Public Hearings, etc.)	**Location**	**Approx. Number of Attendees**
11/15/2016	WisDOT	Local Officials Meeting #1	Village of DeForest Public Safety Building (DeForest, WI)	15
11/29/2016	WisDOT	PIM #1	Windsor Elementary School (Windsor, WI)	15
11/9/2017	Village of DeForest / WisDOT	PIM #2	DeForest Village Hall	5

B. Other methods such as those identified in the Public Involvement Plan and Environmental Justice Plan (if applicable):

Public Notices

Public Involvement Meeting notices were produced and distributed to study area residents and property owners 2-3 weeks prior to PIM #1. The notices served to update stakeholders on project development and to invite area residents, businesses, and property owners to public involvement activities.

The village of DeForest posted a notice for PIM #2 on the village of DeForest website and listed the notice in the local village of DeForest newspaper, the DeForest Times Tribune.

C. Identify groups that participated in the public involvement process. Include any organizations and special interest groups including but not limited to:

The public involvement process was inclusive of all residents and population groups in the study area and did not exclude any persons because of income, race, color, religion, national origin, sex, age, or disability. Public meetings were held in a handicap accessible building. No extraordinary measures were needed due to disabilities.

Public involvement and coordination meetings included representatives from the village of DeForest, the village of Windsor, the town of Westport, and Dane County. Invitations were distributed to study area residents and property owners, local businesses, and local, regional, and state government officials.

D. Indicate plans for additional public involvement, if applicable:

Additional public involvement meeting opportunities planned at this time include the following:

Meeting Sponsor (WisDOT, RPC, MPO, etc.)	**Type of Meeting** (PIM, Public Hearings, etc.)
WisDOT	Public Involvement Meeting #3 (Spring 2019)
WisDOT	Local Official Meeting #3 (Spring 2019)

11. Briefly summarize the results of public involvement.

A. Describe the issues, if any, identified by individuals or groups during the public involvement process:

The following issues were identified and discussed at the Public Involvement Meeting held in November of 2016. Information provided to the public was largely based on an Intersection Control Evaluation document prepared at that time. That document did not include updated traffic forecasts completed in 2017 that include traffic volumes associated with the new development being constructed at the east end of the project corridor, and did not include the proposed traffic signal at Liuna Way. An update to the Intersection Control Evaluation was prepared after the November 2016 PIM to incorporate the updated traffic forecasts.

1. Would the proposed roundabout cause backups on WIS 19 if the projected traffic volume increases occur?
2. Is landscaping proposed for the center of the roundabout?
3. Would there be gaps in the flow of WIS 19 traffic within the roundabout, allowing River Road traffic to enter?
4. Concern about trucks encroaching on both lanes of roundabout.
5. Would westbound WIS 19 have backups, due to WIS 19 traffic merging into one lane west of the roundabout?

B. Briefly describe how the issues identified above were addressed:

1. The roundabout is being designed to have sufficient capacity, with the design year peak hour average delay expected to meet or exceed the desirable maximum of mid-level LOS E. Project analysis indicates delays during the PM peak hour could be up to 36 seconds for the WIS 19 westbound movement and up to 50 seconds for the eastbound movement in the design year 2040. The delay for the eastbound movement is estimated to fall below the desirable mid-level LOS E threshold of 42.5 seconds in the year 2037. However, the roundabout provides other advantages over the traffic signal alternative and was selected as the preferred alternative for those reasons.
2. The center of the roundabout would be mounded and vegetated with grass. The mounded center would be installed to restrict vision so motorists entering the roundabout are limited to looking left to direct their focus to traffic flow within the roundabout.
3. The operational analysis indicates that there would be little delay for vehicles on River Road during most periods, with maximum delays of approximately 30 seconds during the design year PM peak hour. *(*Note* This issue was identified during public involvement efforts conducted prior to the decision to include a traffic signal at the western Liuna Way intersection. The Liuna Way signal will also help create additional gaps for westbound WIS 19 traffic at the River Road roundabout*)
4. The roundabout is being designed to allow trucks to stay in their own lane within the roundabout.
5. The roundabout is designed to slow traffic to lower speeds. A tapered section is included in the roundabout design which will help traffic merge into one lane on westbound WIS 19, west of the proposed roundabout.

12. Local/regional/tribal/federal government coordination

A. Identify units of government contacted and provide the date coordination was initiated.

Unit of Government (MPO, RPC, City, County, Village, Town, Tribal, Federal, etc.)	**Coordination** Correspondence Attached	**Coordination Initiation Date** (m/d/yyyy)	**Coordination Completion Date** (m/d/yyyy)	**Comments**
Village of DeForest	☒ Yes ☐ No (see Appendix 5)	3/1/2016	Ongoing	Coordination was first initiated to discuss village future plans for the project area. Village officials were invited to local officials meetings and public meetings. Additional coordination and meetings were held with the village regarding planned land development in the project area.
Village of Windsor	☐ Yes ☒ No	11/1/2016	Ongoing	Coordination has been ongoing since invitations were sent for the project's Local Officials Meeting. Village officials were invited to local officials meetings and public meetings.
Town of Westport	☐ Yes ☒ No	11/1/2016	Ongoing	Coordination has been ongoing since invitations were sent for the project's Local Officials Meeting. Town officials were invited to local officials meetings and public meetings. Project development team attended a Town Board meeting on 12/19/2016 to present project information.
Town of Burke	☐ Yes ☒ No	11/1/2016	Ongoing	Coordination has been ongoing since invitations were sent for the project's Local Officials Meeting. Town officials were invited to local officials meetings and public meetings.
Town of Vienna	☐ Yes ☒ No	11/1/2016	Ongoing	Coordination has been ongoing since invitations were sent for the project's Local Officials Meeting. Town officials were invited to local officials meetings and public meetings.
Dane County	☒ Yes ☐ No (see Appendix 5)	2/12/2016	Ongoing	Coordination was first initiated to discuss Dane County future plans for the project area. Coordination has been ongoing since then. County officials were invited to local officials meetings and public meetings. Additional coordination meetings were held with county officials to discuss future plans for land acquired by the county adjacent to the WIS 19 project corridor.
Madison Area Transportation Planning Board (MPO)	☐ Yes ☒ No	2/8/2016	Ongoing	MPO representatives were notified of the project via email on 2/8/2016. Representatives were invited to public meetings.

B. Describe the issues, if any, identified by units of government during the public involvement process:

1. The village of DeForest identified the village's plans for development in the project area (see discussion in Planning and Zoning section).
2. The village of DeForest identified a shared use path along the north side of WIS 19 in their future plans.
3. Dane County and the town of Westport identified erosion and stormwater runoff control and treatment concerns related to the proposed bridges over the Yahara River. Issues identified by the town include:
    a. Stormwater from the two proposed bridges draining directly into the Yahara River.
    b. Stormwater treatment during a 100-year storm event.
4. Dane County/town of Westport identified potential project impacts to public use lands owned by Dane County Parks, and to public use lands that Dane County was planning to acquire in the near future.

C. Briefly describe how the issues identified above were addressed:

1. WisDOT will continue to coordinate with the village of DeForest on all aspects of the project.
2. The westbound bridge over the Yahara River will be designed wide enough to allow for a shared use path crossing to be added over the river in the future.
3. The project development team attended a Westport Town Board meeting on 12/19/2016 to present project information and discuss identified issues, including erosion and stormwater runoff issues. WisDOT identified design changes that can be implemented to address stormwater concerns include the following:
    a. Adding a small ditch section and berm to contain the drainage flowing off the northeast corner of the bridge along the future westbound WIS 19 lanes, which would then drain approximately 400 feet east in a grass ditch to a culvert pipe under WIS 19, and then into another grass ditch section on the south side of WIS 19 before flowing west into the Yahara River.
    b. Constructing a berm between the future eastbound lanes of WIS 19 and a proposed access road to impede the flow of water draining directly into the Yahara River. This would include adding a flat bottom ditch east of the berm which could help detain the stormwater in a small pond area, which would then flow through a 15-inch concrete culvert pipe before discharging into the river. This berm would hold some of the water during large storm events before it is released into the river. The pond would function as a detention pond since the culvert would still allow the flow of water, although at a slower rate than it would without the berm in place. The existing 100-year storm runoff for this area is approximately 62.8 cfs and this design modification would result in a runoff of approximately 63.7 cfs. This change would be an improvement from the 79.9 cfs total that would occur with the preliminary design concept that didn't include any berms.

        (see Stormwater Factor Sheet (D-5) for additional information, and Appendix 5 for documentation of coordination with the town of Westport and Dane County)
4. Meetings were held with Dane County staff to discuss potential impacts to public use lands owned by Dane County, and to discuss potential mitigation efforts to the public use lands. Additional information regarding impacts and the mitigation efforts that were agreed to by Dane County are included in the Section 4(f) and 6(f) or Other Unique Areas Factor Sheet (B-8), and in the Section 4(f) finding of de minimis impact presented in Appendix 7.

D. Indicate any unresolved issues or ongoing discussions:

Coordination with Dane County and DNR will continue through the final design process regarding the proposed mitigation efforts for impacts to public use lands owned by Dane County (access road, parking lots, canoe/kayak boat launch at the Yahara River).

13. Public Hearing Requirement

☐ This document is an Environmental Assessment.

- ☐ A Notice of Opportunity to Request a Public Hearing **will be** published, or,
- ☐ A Public Hearing **will be** held.

☒ This document is a Type 2c Categorical Exclusion / Environmental Report.

- ☐ A substantial amount of right-of-way **will** be acquired.
- ☐ The proposed action **will** substantially change the layout or functions of connecting roadways or of the facility being improved.
- ☐ The proposed action **will** have a substantial adverse impact on abutting property.
- ☐ The proposed action **will** have other substantial social, economic, environmental effects.
- ☐ The department has made a determination that a public hearing is in the public interest.

☒ None of the above boxes have been checked, it has therefore been concluded that a Notice of Opportunity to Request a Public Hearing **will not** be published and a Public Hearing **is not** required, or,

☐ A Notice of Opportunity to Request a Public Hearing **will be** published, or,

☐ A Public Hearing **will be** held.

Note: For federally-funded projects, FHWA signature of this environmental document indicates concurrence with the department's Public Hearing requirement determination.

BASIC SHEET 4 - TRAFFIC SUMMARY MATRIX

	ALTERNATIVES/SECTIONS		
	No-Build Alternative	**Alternative #1: Reconstruct WIS 19 as a Four-Lane Roadway With Traffic Signal**	**Alternative #2: Reconstruct WIS 19 as a Four-Lane Roadway With Roundabout (Preferred)**
TRAFFIC VOLUMES			
Base Yr. AADT Yr. 2016	18,000 (WIS 19 east of River Rd) 3,000 (River Road north of WIS 19) 3,300 (River Road south of WIS 19)	18,000 (WIS 19 east of River Rd) 3,000 (River Road north of WIS 19) 3,300 (River Road south of WIS 19)	18,000 (WIS 19 east of River Rd) 3,000 (River Road north of WIS 19) 3,300 (River Road south of WIS 19)
Const. Yr. AADT Yr. 2020	28,000 (WIS 19 east of River Rd) 4,300 (River Road north of WIS 19) 4,600 (River Road south of WIS 19)	28,000 (WIS 19 east of River Rd) 4,300 (River Road north of WIS 19) 4,600 (River Road south of WIS 19)	28,000 (WIS 19 east of River Rd) 4,300 (River Road north of WIS 19) 4,600 (River Road south of WIS 19)
Const. Plus 10 Yr. AADT Yr. 2030	30,500 (WIS 19 east of River Rd) 5,000 (River Road north of WIS 19) 5,200 (River Road south of WIS 19)	30,500 (WIS 19 east of River Rd) 5,000 (River Road north of WIS 19) 5,200 (River Road south of WIS 19)	30,500 (WIS 19 east of River Rd) 5,000 (River Road north of WIS 19) 5,200 (River Road south of WIS 19)
Design Yr. AADT Yr. 2040	33,000 (WIS 19 east of River Rd) 5,600 (River Road north of WIS 19) 5,900 (River Road south of WIS 19)	33,000 (WIS 19 east of River Rd) 5,600 (River Road north of WIS 19) 5,900 (River Road south of WIS 19)	33,000 (WIS 19 east of River Rd) 5,600 (River Road north of WIS 19) 5,900 (River Road south of WIS 19)
DHV Yr. 2040	3,760 (WIS 19 east of River Rd) 640 (River Road north of WIS 19) 670 (River Road south of WIS 19)	3,760 (WIS 19 east of River Rd) 640 (River Road north of WIS 19) 670 (River Road south of WIS 19)	3,760 (WIS 19 east of River Rd) 640 (River Road north of WIS 19) 670 (River Road south of WIS 19)
TRAFFIC FACTORS			
K [☐ 30 /☒ 100/☐ 200] (%)	11.4% (WIS 19 east of River Rd)	11.4% (WIS 19 east of River Rd)	11.4% (WIS 19 east of River Rd)
D (%)	58/42	58/42	58/42
Design Year T (% of ADT)	5.6 (WIS 19 east of River Rd)	5.6 (WIS 19 east of River Rd)	5.6 (WIS 19 east of River Rd)
T (% of DHV)	4.7 (WIS 19 east of River Rd)	4.7 (WIS 19 east of River Rd)	4.7 (WIS 19 east of River Rd)
Level of Service (Yr.2040)	Current Condition WIS 19 Corridor – LOS E Peak Hour – River Road Intersection LOS A to LOS B (WIS 19) LOS C to LOS F (River Road)	Design Year Peak Hour-2040 LOS A to LOS B (WIS 19) LOS A to LOS C (River Road) LOS A to LOS B (Overall intersection)	Design Year Peak Hour- 2040 LOS C to LOS F (WIS 19) LOS A to LOS D (River Road) LOS C to LOS E (Overall intersection)
SPEEDS			
Existing Posted	55 mph (WIS 19 west of Liuna Way) 45 mph (WIS 19 east of Liuna Way)	55 mph (WIS 19 west of Liuna Way) 45 mph (WIS 19 east of Liuna Way)	55 mph (WIS 19 west of Liuna Way) 45 mph (WIS 19 east of Liuna Way)
Future Posted	55 mph (WIS 19 west of Liuna Way) 45 mph (WIS 19 east of Liuna Way)	55 mph (WIS 19 west of Liuna Way) 45 mph (WIS 19 east of Liuna Way)	55 mph (WIS 19 west of Liuna Way) 45 mph (WIS 19 east of Liuna Way)
Design Year Project Design Speed	60 mph (WIS 19 west of Liuna Way) 50 mph (WIS 19 east of Liuna Way)	60 mph (WIS 19 west of Liuna Way) 50 mph (WIS 19 east of Liuna Way)	60 mph (WIS 19 west of Liuna Way) 50 mph (WIS 19 east of Liuna Way)
OTHER *(specify)*			
P (% of ADT)	12.5 (WIS 19 east of River Rd)	12.5 (WIS 19 east of River Rd)	12.5 (WIS 19 east of River Rd)
K_8 (% OF ADT)	Not Known	Not Known	Not Known

AADT = Average Annual Daily Traffic
K [$_{30/100/200}$] : K_{30} = Interstate, K_{100} = Rural, K_{200} = Urban, % = AADT in DHV
T = Trucks
DHV = Design Hourly Volume
D = % DHV in predominate direction of travel
P = % AADT in peak hour

K_8 = % AADT occurring in the average of the 8 highest consecutive hours of traffic on an average day (required only if CO analysis is required).

1. **Identify the agency that generated the data included in the Traffic Summary Matrix.**
   Data obtained from WisDOT Traffic Forecast Report was updated by Ayres Associates to include projected traffic volumes from new development proposed along WIS 19 in 2018.
2. **Identify the date (month/year) that the traffic forecast data included in the Traffic Summary Matrix was developed.**
   WisDOT forecast prepared on 7/13/2017 and updated by Ayres Associates on 3/6/2018.
3. **Identify the methodology and/or computer program(s) used to develop the data included in the Traffic Summary Matrix.**
   The 2010/2050 Dane County Travel Demand Model was used to complete the forecast. Traffic Analysis Forecasting Information System output was used as a comparison tool to check against the model output. Trip generation results from the Traffic Impact Analysis (TIA) prepared by MSA on 8/8/2018 were incorporated into the traffic forecasts.
4. **If a metric other than Annual Average Daily Traffic (AADT) is used for describing traffic volumes such as Average Annual Weekday Traffic (AWDT), explain why a different metric was used and how it compares to AADT.**
   AADT was used to describe traffic volumes.

BASIC SHEET 5 - AGENCY AND TRIBAL COORDINATION

Agency	Coordination Required?	Correspondence Attached?	Comments
WisDOT			
Regional Real Estate Section	☐ No	N/A	
	☒ Yes	☐ Yes ☒ No	Minor real estate acquisitions would be required. Appropriate coordination with property owners will be conducted. No inhabited houses or active businesses would be acquired; one shed would be relocated. Evidence of coordination is not required when no inhabited houses or active businesses would be acquired. Coordination with Regional Real Estate Section will occur once the project's right-of-way plat is completed. Coordination is anticipated to begin in the spring of 2018.
Bureau of Aeronautics (BOA)	☐ No	N/A	
	☒ Yes	☒ Yes ☐ No	When a proposed highway project that would change the horizontal or vertical alignment of a highway is within five miles of a public use or military airport, the Bureau of Aeronautics shall be notified. The Waunakee Airport is identified in the WisDOT airport database as a public use airport, and located 4.2 miles west of the project. The Dane County Regional Airport is identified in the WisDOT airport database as a public use airport, and located 3.7 miles south east of the project. **June 19, 2017** – Information regarding the project was provided to BOA. **June 22, 2017** – Comments received from BOA indicate that the BOA will have no issues with the proposed action. No impacts are anticipated. The 'Notice Criteria Tool' on the Federal Aviation Administration's (FAA) Obstruction Evaluation and Airport Airspace Analysis (OE/AAA) website indicates that the use of temporary equipment or permanent structures will require study prior to construction. The BOA will be contacted at least 45 days prior to the star of construction to complete the study of temporary equipment or permanent structures that could potentially obstruct airspace functions. Wildlife attractants from project design features will not be an issue. All storm water features will be designed to not hold water.
Railroads and Harbors Section	☒ No	N/A	Coordination is not required because no railways or harbors are in or planned for the project area.
	☐ Yes	☐ Yes ☐ No	

Agency	Coordination Required?	Correspondence Attached?	Comments
STATE AGENCY			
Natural Resources (DNR)	☒ Yes	☒ Yes ☐ No	**May 23, 2016** – Initial Information regarding the project was provided to WDNR. **June 15, 2016** – Preliminary comments received from WDNR. **December 6, 2016** – Additional coordination regarding potential threatened and endangered species impacts was conducted with WDNR. **August 14, 2017** – WDNR provided an updated review of the Natural Heritage Inventory (NHI) database. The NHI database identified two endangered species with the potential to inhabit the project limits; Henslow Sparrow and the Big Brown Bat. A Section 401 Water Quality Certification from the WDNR will be requested prior to construction. Coordination with WDNR will occur related to necessary navigation aids and location prior to construction activities. Navigational markers will be placed within the waterway prior to bridge construction activities. A Waterway Marker Application Permit from WDNR will be requested prior to any bridge construction activities. WDNR correspondence is presented in Appendix 5.
State Historic Preservation Office (SHPO)	☒ Yes	☒ Yes ☐ No	The WisDOT and SHPO concur that this project would have no effect on historic properties. It was determined that one identified site (Township Lane site [DA-445]) shall not be used for borrow or waste disposal, and the site area not currently capped by asphalt/concrete shall not be used for the staging of personnel, equipment and/or supplies. The Wisconsin State Historic Preservation Office signed the project's Section 106 form on July 3, 2017. The signed Section 106 Form is presented in Appendix 6.
Agriculture (DATCP)	☒ Yes	☒ Yes ☐ No	**July 18, 2017** – An Agricultural Impact Notice (AIN) was provided to DATCP. **July 27, 2017** – DATCP determined that an Agricultural Impact Statement (AIS) would not be prepared for the project. All proposed acquisitions from farm operations are less than 5 acres and are in strips along the existing right-of-way. None of the impacts appear to have any substantial impacts on farm operations. DATCP correspondence is presented in Appendix 5.
Other (Identify)	☐ Yes ☐ No	☐ Yes ☐ No	

Agency	Coordination Required?	Correspondence Attached?	Comments
FEDERAL AGENCY			
U.S. Army Corps of Engineers (USACE)	☒ Yes ☐ No	☐ Yes ☒ No	Coordination with USACE will occur with application of the project's Section 404 permit. A Non-Reporting General Permit (GP) is anticipated.
U.S. Fish and Wildlife Service (USFWS)	☒ Yes ☐ No	☒ Yes ☐ No	Section 7 consultation was conducted with USFWS. An official species list for the project area was obtained from the local USFWS office. This includes a list of species which should be considered under Section 7 of the Endangered Species Act. The USFWS species list identifies the potential for threatened or endangered species in the general project area. However, the list states there is not critical habitat within the proposed project area. Species identified in the official species list include: • Northern Long Eared Bat (NLEB) • Whooping Crane (experimental population) • Higgins Eye (pearly mussel) • Eastern Prairie Fringed Orchid • Mead's Milkweed • Prairie Bush Clover The NLEB, a threatened species, is identified as having the potential to occur within the boundary of the proposed project. Based on a WDNR review of the NHI database on 8/14/2017 for the presence of NLEB occurrences along the project corridor, it was determined that no known NLEB roost sites or hibernaculum are within a 2-mile buffer of the project area. NLEB has a Not Likely to Adversely Effect Determination. Consultation was completed using the Streamlined Consultation Framework developed for the final 4(d) rule. USFWS coordination is presented in Appendix 5.
Natural Resources Conservation Service (NRCS)	☒ Yes ☐ No	☒ Yes ☐ No	**August 14, 2017 -** Information regarding the project was provided to NRCS The Site Assessment Criteria Score on the Farmland Impact Conversion Rating Form (CPA-106) is less than 60 points for the proposed action. See NRCS coordination in Appendix 5.
U.S. National Park Service (NPS)	☐ Yes ☒ No	☐ Yes ☒ No	Coordination with NPS was not required for the project.
Agency	**Coordination Required?**	**Correspondence Attached?**	**Comments**
U.S. Coast Guard (USCG)	☒ Yes ☐ No	☒ Yes ☐ No	**April 19, 2017 -** Initial Information regarding the project was provided to the USCG. **April 24, 2017 -** Comments received from USCG indicate that no USCG permit will be required. The USCG is not currently exercising jurisdiction over the Yahara River. USCG correspondence is presented in Appendix 5.
U.S. Environmental Protection Agency (EPA)	☐ Yes ☒ No	☐ Yes ☒ No	Coordination with EPA was not required for the project.
Advisory Council on Historic Preservation (ACHP)	☐ Yes ☒ No	☐ Yes ☒ No	Coordination with the ACHP is not required.
SOVEREIGN NATIONS			
American Indian Tribes	☒ Yes ☐ No	☒ Yes ☐ No	In accordance with WisDOT policy, all required American Indian Tribes were notified of the proposed project. **February 9, 2015 –** Letter sent to Native American Tribe/interests. No responses received. Correspondence with American Indian Tribes is presented in Appendix 5.

BASIC SHEET 6 - ALTERNATIVES COMPARISON MATRIX

All estimates including costs are based on conditions described in this document at the time of preparation in the year of expenditure (YOE). Additional agency or public involvement may change these estimates in the future.

PROJECT PARAMETERS	Unit of Measure	WIS 19 Corridor Alternatives		
		Alternative #1: No-Build Alternative	**Alternative #2: Reconstruct WIS 19 as a Four-Lane Roadway With Traffic Signal**	**Alternative #3: Reconstruct WIS 19 as a Four-Lane Roadway With Roundabout (Preferred)**
Project Length	Miles	1.1	1.5	1.1
PRELIMINARY COST ESTIMATE (YOE)				
Construction (YOE 2020) *	Million $	$1.0 **	$10.82	$8.97
Real Estate (YOE 2019)	Million $	$0.0	$0.39	$0.26
TOTAL	Million $	$1.0	$11.2	$9.2
LAND CONVERSIONS				
Total Area Converted to ROW	Acres	0.0	10.8	7.2
REAL ESTATE				
Number of Farms Affected	Number	0	4	2
Total Area Required From Farm Operations	Acres	0	4.7	4.0
AIS Required		☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
Farmland Rating	Score	NA	46	42
Total Buildings Required	Number	0	1	1
Housing Units Required	Number	0	0	0
Commercial Units Required	Number	0	0	0
Other Buildings or Structures Required	Number & Type	0	1 farm shed	1 farm shed
ENVIRONMENTAL FACTORS				
Indirect Effects		☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
Cumulative Effects		☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
Environmental Justice Populations		☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
National Register Eligible Historic Structures in the Area of Potential Effect	Number	0	0	0
National Register Eligible Archeological Sites in the Area of Potential Effect	Number	0	0	0
Burial Site Protection (*authorization required*)		☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
106 MOA Required		☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
Section 4(f) Evaluation Required		☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
Section 6(f) Land Conversion Required		☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
Flood Plain		☐ Yes ☒ No	☒ Yes ☐ No	☒ Yes ☐ No
Unique Upland Habitat Identified		☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
Total Wetlands Filled	Acres	0.0	0.70	0.70
Stream Crossings	Number	1	1	1
Threatened/Endangered Species		☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
Noise Analysis Required		☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No
Receptors Impacted	Number	5	5	5
Contaminated Sites	Number	0	1	1

[1] The estimated cost of routine maintenance through the design year should be included in the "Construction" box for the No Build alternative.

* Includes 15% for engineering and contingencies

** Assumes pavement overlays in 2020 and 2030

BASIC SHEET 7 - EIS SIGNIFICANCE CRITERIA

In determining whether a proposed action is a "major action significantly affecting the quality of the human environment," the proposed action must be assessed in light of the following criteria (1) if significant impact(s) will result, the preparation of an environmental impact statement (EIS) should commence immediately. Indicate whether the issue listed below is a concern for the proposed action or alternative and (2) if the issue is a concern, explain how it is to be addressed or where it is addressed in the environmental document.

1. Will the proposed action stimulate substantial indirect environmental effects?
☒ No
☐ Yes – Explain or indicate where addressed.

2. Will the proposed action contribute to cumulative effects of repeated actions?
☒ No
☐ Yes – Explain or indicate where addressed.

3. Will the creation of a new environmental effect result from this proposed action?
☒ No
☐ Yes – Explain or indicate where addressed.

4. Will the proposed action impact geographically scarce resources?
☒ No
☐ Yes – Explain or indicate where addressed.

5. Will the proposed action have a precedent-setting nature?
☒ No
☐ Yes – Explain or indicate where addressed.

6. Is the degree of controversy associated with the proposed action high?
☒ No
☐ Yes – Explain or indicate where addressed.

7. Will the proposed action be in conflict with official agency plans or local, state, tribal, or national policies, including conflicts resulting from potential effects of transportation on land use and transportation demand?
☒ No
☐ Yes – Explain or indicate where addressed.

BASIC SHEET 8 - ENVIRONMENTAL COMMITMENTS

Attach a copy of this page to the design study report and the PS&E submittal package.

Factor Sheet	**Commitment** (If none, include "No special provision or supplemental commitments required.")
A-1 General Economics	The Transportation Management Plan will be developed during final design and followed; access to residences and will be maintained during construction. The WisDOT Construction Project Manager will assure fulfillment of this commitment.
A-2 Business	The Transportation Management Plan will be developed during final design and followed; access to businesses will be maintained during construction. The WisDOT Construction Project Manager will assure fulfillment of this commitment.
A-3 Agriculture	No commitments needed.
B-1 Community or Residential	The Transportation Management Plan will be developed during final design and followed; access to businesses, residences, schools, and emergency vehicles will be maintained during construction. The WisDOT Construction Project Manager will coordinate with police, fire, and emergency services to assure fulfillment of this commitment.
B-2 Indirect Effects	No commitments needed
B-3 Cumulative Effects	No commitments needed
B-4 Environmental Justice	No commitments needed
B-5 Historic Resources	No commitments needed
B-6 Archaeological/Burial Sites	Identified site(s) (Township Lane site [DA-445]) shall not be used for borrow or waste disposal, and the site area not currently capped by asphalt/concrete shall not be used for the staging of personnel, equipment and/or supplies. The WisDOT Construction Project Manager will assure fulfillment of this commitment.
B-7 Tribal Coordination/Consultation	No commitments needed
B-8 Section 4(f) and 6(f) or Other Unique Areas	WisDOT will construct a 24-foot driveway and a 60' x 60' parking lot extending from Liuna Way to provide access to the Dane County area east of the Yahara River. The driveway will include a culvert. WisDOT will construct a 24-foot access road from the above referenced 60' x 60' parking lot onto WDNR property. This access road will expand the use of the Dane County property as well as facilitate use of the abutting WDNR property and safe access to the Yahara River. WisDOT will construct another 60' x 60' parking lot on the western end of the Dane County property for canoe/kayak launching on WDNR property. WisDOT will construct a non-motorized canoe/kayak soft bottom launch per WDNR specifications on WDNR property. WisDOT will construct and install information kiosks and park signage in the proposed parking areas per Dane County and WDNR specifications. WisDOT will construct a terrestrial terrace beneath the two new WIS 19 bridge structures over the Yahara River. WisDOT will coordinate with Dane County and the WDNR regarding the use of berms and native vegetated landscaping as a visual buffer in selected locations as well as minimizing the impacts to existing vegetation and re-use of stripped topsoil. Following construction, WisDOT will seed south of the new access road between Dane County and WDNR property with seed mixes recommended by Dane County and will facilitate these seedings up to three acres on Dane County Park and WDNR land at the direction of Dane County park staff and WDNR staff. The WisDOT Construction Project Manager will assure fulfillment of these commitments.

ENVIRONMENTAL EVALUATION OF FACILITIES DEVELOPMENT ACTIONS *(continued)* DT2094

Factor Sheet	**Commitment** (If none, include "No special provision or supplemental commitments required.")
B-9 Aesthetics	No commitments needed
C-1 Wetlands	Unavoidable wetland impacts shall be mitigated in accordance with the WisDOT/WDNR Cooperative Agreement and the WisDOT Wetland Mitigation Banking Technical Guideline. The Wisconsin Department of Natural Resources (WDNR) and U.S. Army Corps of Engineers (USACE) shall be notified regarding the amount and type of unavoidable wetland impacts at final design. A Section 401 Water Quality Certification from the WDNR and a Section 404 Permit from the USACE are required prior to construction. The WisDOT environmental coordinator and design engineer will ensure fulfillment of this commitment.
C-2 Rivers, Streams and Floodplains	In order to protect developing fish eggs and substrate for aquatic organisms, all instream work that could adversely impact water quality should be avoided between March 1 and June 15. Navigational Markers will be placed within the waterway prior to bridge construction activities. Coordination with DNR will occur related to necessary navigation aids and location prior to construction activities. A Waterway Marker Application Permit will be obtained prior to any bridge construction activities. The Design Engineer, Construction Project Manager and Regional Environmental Coordinator will ensure fulfillment of this commitment. WisDOT Standard Special Provision 107-055 Environmental Protection – Aquatic Exotic Species Control will be followed. The WisDOT Construction Project Manager will assure fulfillment of this commitment.
C-3 Lakes or other Open Water	No commitments needed
C-4 Groundwater, Wells and Springs	No commitments needed
C-5 Upland Wildlife and Habitat	WisDOT will construct a terrestrial terrace beneath the two new WIS 19 bridge structures over the Yahara River. The WisDOT Construction Project Manager will assure fulfillment of these commitments.
C-6 Coastal Zones	No commitments needed
C-7 Threatened and Endangered Species	<u>Henslow Sparrow</u> Surveys for the Henslow Sparrow will be completed during project final design. Avoidance, minimization or mitigation measures, if necessary, will be determined in consultation with WDNR once surveys have been completed. <u>Migratory Birds/Swallows</u> One year prior to construction, WisDOT will inspect bridges for the presence of nesting birds. Migratory bird nests cannot be disturbed from May 1 to August 30. If the proposed construction schedule conflicts with the migratory bird nesting period, means of preventing migratory bird nesting on the bridge will be implemented. Measures to prevent nesting include the removal of unoccupied nests during the non-nesting season and installation of barrier netting prior to May 1. If netting is used, it must be properly maintained, and removed as soon as the nesting period is over. <u>Big Brown Bat/NLEB</u> One year prior to construction a visual inspection of the bridges will be conducted to determine if the Big Brown or the NLEB is present within the existing structure. The WisDOT Final Design and Construction Project Managers will assure fulfillment of these commitments.

ENVIRONMENTAL EVALUATION OF FACILITIES DEVELOPMENT ACTIONS *(continued)* DT2094

Factor Sheet	**Commitment** (If none, include "No special provision or supplemental commitments required.")
D-1 Air Quality	No Commitments Needed
D-2 Construction Stage Sound Quality	WisDOT Standard Specification 107.8(6) and 108.7.1 will apply. The WisDOT Construction Project Manager will assure fulfillment of this commitment.
D-3 Traffic Noise	No commitments needed
D-4 Hazardous Substances or Contamination	WisDOT Standard Special Provision 107.24 will be followed. If contaminated material or when other obvious potentially contaminated materials are encountered or material exhibits characteristics of industrial-type wastes, such as fly ash, foundry sand, and cinders, or when underground storage tanks are encountered, excavation in that area will be suspended. The WisDOT Construction Project Manager will assure fulfillment of this commitment.
D-5 Storm Water	WisDOT will follow TRANS 401 and the WisDOT/WDNR Cooperative Agreement Amendment regarding stormwater management. Stormwater management facilities will be constructed within the scope of this construction project. Peak discharge rates will be maintained or reduced from pre- to post construction standards to the maximum extent practicable. The WisDOT Construction Project Manager will ensure fulfillment of these commitments.
D-6 Erosion Control	Erosion and sediment transport will be controlled through the use of methods shown in WisDOT's Standard Specifications for Highway and Structure Construction and through consultation with the WDNR pursuant to the WisDOT/WDNR Cooperative Agreement. An ECIP ensuring BMPs during construction will be submitted to the WDNR by the contractor 14 days prior to the pre-construction conference. If erosion mat is used along stream banks, WisDOT will use biodegradable non-netted mat (e.g. Class I Type A Urban, Class I Type B Urban, or Class II Type C). Long-term netted mats may cause animals to become entrapped while moving in and out of the stream. WisDOT will avoid the use of fine mesh matting that is tied or bonded at the mesh intersection such that the openings in the mesh are fixed in size. The WisDOT Construction Project Manager will assure fulfillment of these commitments.
E-1 Other – Oak Wilt	To prevent the spread of oak wilt disease, the project will avoid cutting or pruning of oaks from April through September. Further coordination during design will be done to determine the presence of Oak trees, and to determine provisions with DNR to allow cutting during this time period. The WisDOT Design Engineer and Construction Project Manager will assure fulfillment of this commitment.
E-2 Other – Emerald Ash Borer	To prevent the spreading of Emerald Ash Borer (EAB), the project will not move or transport ash material, the emerald ash borer, and/or hardwood debris (i.e. firewood) from EAB quarantined areas to a non-quarantined area. The WisDOT Construction Project Manager will assure fulfillment of this commitment.

ENVIRONMENTAL EVALUATION OF FACILITIES DEVELOPMENT ACTIONS *(continued)* DT2094

Factor Sheet	**Commitment** (If none, include "No special provision or supplemental commitments required.")
E-3 Other – Airport Coordination	The 'Notice Criteria Tool' on the Federal Aviation Administration's (FAA) Obstruction Evaluation and Airport Airspace Analysis (OE/AAA) website indicates that the use of temporary equipment or permanent structures will require study prior to construction. The BOA will be contacted at least 45 days prior to the star of construction to complete the study of temporary equipment or permanent structures that could potentially obstruct airspace functions. The WisDOT Construction Project Manager will assure fulfillment of this commitment.
E-4 – Traffic Operations	Prior the closure of the westbound WIS 19 through lane at the east end of the project for construction staging, WisDOT traffic staff will be notified so they can monitor the impacts to traffic operations. Signal timing adjustments will be made if necessary to ensure there are no queue backups onto the interstate. The WisDOT Construction Project Manager will assure fulfillment of this commitment.

Factors	Adverse	Benefit	None Identified	Factor Sheet Attached	Note: If the effect on the environmental factor can't be adequately summarized in several sentences, the Factor Sheet for the environmental factor must be included. **Effects**
A. ECONOMIC FACTORS *Factor Sheet A-1, General Economics, must be included if Factor Sheet A-2 or A-3 is completed.*					
A-1 General Economics	☒	☒	☐	☒	The Proposed Action would cause a minor temporary inconvenience to services and access to local commerce during construction. The project would assist in increasing economic viability of the area by promoting safe and efficient travel and access to and through the project area.
A-2 Business	☒	☒	☐	☐	No businesses would be acquired or relocated due to the proposed action. There are no businesses located along the project corridor. The Proposed Action would cause a minor temporary inconvenience to services and access to local commerce via the project area during construction. The improved roadway would benefit local business that use the project corridor by increasing level of service and safety through the project area.
A-3 Agriculture	☒	☐	☐	☒	Approximately 4.0 acres of agricultural land from three existing farm operations would be converted to ROW for the Proposed Action. An AIN was provided to DATCP. DATCP determined that no AIS will be prepared for the project as none of the impacts appear to have any substantial impacts on farm operations.
B. SOCIAL/CULTURAL FACTORS					
B-1 Community or Residential	☒	☒	☐	☒	No residential or business properties would be acquired or relocated due to the proposed action. The preferred alternative would benefit the project area by providing a safer and more efficient roadway, ensuring safe pedestrian and bicycle travel, and providing safe and efficient access of police, fire, and other emergency services. The proposed action may cause temporary traffic delay to local residents during construction.
B-2 Indirect Effects	☐	☐	☒	☐	No indirect effects have been identified, as much of the project would be on existing alignment. Land use, development, and traffic volume changes are not expected to change due to construction of the proposed action. See Appendix 4: WisDOT Pre-Screening Indirect Effects Analysis Worksheets, for additional information on this topic.
B-3 Cumulative Effects	☐	☐	☒	☐	No cumulative effects have been identified.
B-4 Environmental Justice	☐	☐	☒	☐	No environmental justice populations, as defined by EO 12898, were identified as present in the project area.
For B-5 through B-8, if any of these resources are present on the project, involve the REC early because of possible project schedule implications.					
B. SOCIAL/CULTURAL FACTORS (cont'd)					
B-5 Historic Resources	☐	☐	☒	☐	The WisDOT and SHPO concur that the proposed action would have no effect on historic properties. The Wisconsin State Historic Preservation Officer signed the project's Section 106 form on July 3, 2017. This concludes the Section 106 review process for the project. The signed Section 106 Form is presented in Appendix 6.
B-6 Archaeological/ Burial Sites	☐	☐	☒	☐	No archaeological sites eligible for listing on the National Register of Historic Places were identified in the project area. The WisDOT and SHPO concur that this project would have no effect on historic properties. It was determined that one identified site (Township Lane site [DA-445]) shall not be used for borrow or waste disposal, and the site area not currently capped by asphalt/concrete shall not be used for the staging of personnel, equipment and/or supplies. The Wisconsin State Historic Preservation Officer signed the project's Section 106 form on July 3, 2017. This concludes the Section 106 review process for the project. The signed Section 106 Form is presented in Appendix 6.
B-7 Tribal Coordination /Consultation	☐	☐	☒	☐	In accordance with WisDOT policy, all required American Indian Tribes were notified of the proposed project. No other tribal interests or issues were expressed in response to project notification.

Factors	Adverse	Benefit	None Identified	Factor Sheet Attached	Note: If the effect on the environmental factor can't be adequately summarized in several sentences, the Factor Sheet for the environmental factor must be included. **Effects**
B-8 Section 4(f) and 6(f) or Other Unique Areas	☒	☒	☐	☒	Two resources that would be impacted by the proposed action are identified as meeting criteria for protection under Section 4(f): • Cherokee Marsh Fishery Area • Cherokee Marsh Natural Resource Area The proposed action would not impact any resources protected by Section 6(f). The **Cherokee Marsh Fishery Area** is a WDNR owned property south of WIS 19, adjacent to the Yahara River. Anticipated impacts to this property amount to an estimated 0.79 acres of permanent impacts (Fee Simple) and 0.07 acres of temporary impacts (TLE). The **Cherokee Marsh Natural Resource Area** is a Dane County Parks owned property along both sides of WIS 19 adjacent to the Yahara River. Anticipated impacts to the existing Cherokee Marsh Natural Resource Area is estimated at 5.77 acres of Fee Simple acquisition and 0.85 acres of TLE. Impacts to the properties are required for excavation and placement of new embankment required for the reconstruction of WIS 19 and River Road and the construction of the two new bridges along WIS 19 over the Yahara River. Temporary impacts would also occur. A mitigation plan for identified impacts to public use properties has been coordinated with WDNR and Dane County Parks. Mitigation measures are identified in more detail in Factor Sheet B-8 and include construction of a new access road, parking lots, and a canoe/kayak boat launch at the Yahara River. WDNR and Dane County Parks have been informed that FHWA may make a de minimis finding under Section 4(f). A letter of concurrence was obtained from WDNR and Dane County Parks. Section 4(f) finding of de minimis impact and letters of concurrence are included in Appendix 7.
B-9 Aesthetics	☐	☐	☒	☐	The proposed action would not alter the viewshed through the project area.

Factors	Adverse	Benefit	None Identified	Factor Sheet Attached	Note: If the effect on the environmental factor can't be adequately summarized in several sentences, the Factor Sheet for the environmental factor must be included. Effects
C. NATURAL RESOURCE FACTORS					
C-1 Wetlands	☒	☐	☐	☒	Approximately 0.70 acres of wetland would be impacted by the Proposed Action. See preliminary wetland impact displays in Appendix 8. Wetland fill would require compensatory mitigation pursuant to the DNR/DOT cooperative agreement. Wetland impacts would be mitigated in accordance with the WisDOT Wetland Mitigation Banking Technical Guidelines.
C-2 Rivers, Streams and Floodplains	☐	☐	☒	☒	Two new bridges would be constructed on WIS 19 over the Yahara River. The existing slab span bridge would be removed and replaced with a new single span girder bridge for the westbound roadway, and a second single span girder bridge would be constructed to the south for the new eastbound roadway. The grade of the WIS 19 roadway across the Yahara River bridges would be raised slightly to accommodate the thicker single span bridges and provide adequate clearance over the river. The proposed bridge replacement work is within the 100-year floodplain according to the National Flood Insurance Program (NFIP) flood insurance rate map, Dane County, WI and incorporated areas. There are no long term impacts anticipated on the floodplain. All required hydraulic computations will be completed.
C-3 Lakes or Other Open Water	☐	☐	☒	☐	No lake or other open water resources within the project area.
C-4 Groundwater, Wells, and Springs	☐	☐	☒	☐	No groundwater, well, or spring resources impacted by the project.
C-5 Upland Wildlife and Habitat	☐	☐	☒	☐	No upland wildlife or habitat resources are impacted by the project.
C-6 Coastal Zones	☐	☐	☒	☐	No coastal zone resources within the project area.
C-7 Threatened and Endangered Species	☐	☐	☒	☒	WDNR review of the NHI database identified two endangered species with the potential to inhabit the project limits; Henslow Sparrow and the Big Brown Bat. The Yahara River bridges were identified by the WDNR as potential habitat for migratory birds. Section 7 coordination was conducted with USFWS. An official species list from USFW identifies the potential for threatened or endangered species in the general project area. However, the list states there is no critical habitat within the proposed project area. Species identified in the official species list include: • Northern Long Eared Bat (NLEB) • Whooping Crane (experimental population) • Higgins Eye (pearly mussel) • Eastern Prairie Fringed Orchid • Mead's Milkweed • Prairie Bush Clover The NLEB, a threatened species, is identified as having the potential to occur within the boundary of the proposed project. Based on a WDNR review of the NHI database on 8/14/2017 for the presence of NLEB occurrences along the project corridor, it was determined that no known NLEB roost sites or hibernaculum are within a 2 mile buffer of the project area. NLEB has a Not Likely to Adversely Effect Determination. Consultation was completed using the Streamlined Consultation Framework developed for the final 4(d) rule. Appropriate consultation measures were taken with USFWS and WDNR. A copy of USFWS and WDNR concurrence with the project is presented in Appendix 5.

Factors	Adverse	Benefit	None Identified	Factor Sheet Attached	Note: If the effect on the environmental factor can't be adequately summarized in several sentences, the Factor Sheet for the environmental factor must be included. Effects
D. PHYSICAL FACTORS					
D-1 Air Quality	☐	☐	☒	☐	This project is exempt from permit requirements. No substantial impacts to air quality are expected.
D-2 Construction Stage Sound Quality	☒	☐	☐	☒	WisDOT Standard Specification 107.8(6) and 108.7.1 will apply.
D-3 Traffic Noise	☒	☐	☐	☒	A traffic noise analysis was performed for the project area. Impacts are anticipated per FDM Chapter 23 (http://wisconsindot.gov/rdwy/fdm/fd-23-00toc.pdf). Four receptors were modeled along the WIS 19 corridor. Modeling results indicate that future sound levels would not produce a noise impact at any modeled receptors.
D-4 Hazardous Substances or Contamination	☐	☐	☒	☐	Based on the findings of the Phase 1 Hazardous Materials Assessment (HMA), one site of concern was initially identified within the proposed WIS 19/River Road project area. The site may have two underground tanks located at unidentified locations. The project would only require narrow strips of ROW in the property area. No hazardous substance or contamination concerns are anticipated. See the project's environmental commitments page for project commitments related to inadvertent discovery of hazardous materials. An inspection to identify and collect samples of potential asbestos-containing material (ACM) was conducted on August 15-16, 2017 following WisDOT standard sampling procedure for bridge inspections found in FDM 21-35-45. None of the materials that were sampled and identified as potentially ACM tested positive for asbestos. Based on the Phase 1 HMA and input from the WisDOT Environmental Coordinator, no further action is recommended for the project corridor.
D-5 Stormwater	☐	☒	☐	☒	Stormwater would be controlled through the use of the methods shown in the latest edition of the WisDOT's Standard Specifications for Highway and Structure Construction through consultation with the Wisconsin Department of Natural Resources pursuant to the DOT/DNR Cooperative Agreement. This will be made part of the construction contract to be administered by the WisDOT project engineer. The proposed action would result in stormwater discharge into the Yahara River. To mitigate potential stormwater runoff issues into the Yahara River, WisDOT would add a small ditch section and berm to contain drainage flowing off the northeast corner of the bridge along the future westbound WIS 19 lanes. This berm would drain approximately 400 feet east into a grass ditch, to a culvert pipe under WIS 19, and then into another grass ditch section on the south side of WIS 19, before ultimately flowing west into the Yahara River. WisDOT would also construct a berm between the future eastbound lanes of WIS 19 and a proposed access road, to impede the flow of water draining directly into the Yahara River. This would include adding a flat bottom ditch east of the berm which could help detain the stormwater in a small pond area, which would then flow through a 15-inch concrete culvert pipe before discharging into the river. The pond area would be designed not to hold water. These measures would result in a design that exceeds state and federal standards for treating stormwater during a 100-year storm event. See Factor Sheet D-5 for additional information.
D-6 Erosion Control and Sediment Control	☐	☒	☐	☒	Erosion and sediment transport would be controlled through the use of the methods shown in the latest edition of the WisDOT's Standard Specifications for Highway and Structure Construction through consultation with the Wisconsin Department of Natural Resources pursuant to the DOT/DNR Cooperative Agreement. An erosion control plan will be submitted to WDNR as required under TRANS 401 and the DOT/DNR Cooperative Agreement. This will be made part of the construction contract to be administered by the WisDOT project engineer.

ENVIRONMENTAL EVALUATION OF FACILITIES DEVELOPMENT ACTIONS *(continued)*

DT2094

E. OTHER FACTORS					
E-1	☐	☐	☐	☐	
E-2	☐	☐	☐	☐	

Factor Sheet A-1

Alternative **Alternative #3: Reconstruct WIS 19 as a Four-Lane Roadway With Roundabout**	Total Length of Center Line of Existing Roadway: **1.1 Miles** Length of This Alternative: **1.1 Miles**
Preferred ☒ Yes ☐ No ☐ None Identified	

1. Briefly describe the existing economic characteristics of the area around the project:

Economic Activity	Description
a. Agriculture	Much of the area surrounding the proposed action is used as agricultural crop land. Four farms have direct access to WIS 19 within the project area. Much of the area used as crop land is identified by the village of DeForest as future mixed-use development.
b. Retail business	No existing retail specific businesses are located in the direct project area. The project's east terminus is adjacent to I-39/90/94. Lands east of I-39/90/94 include a mix of highway oriented commercial land uses. The village of Deforest anticipates substantial commercial, retail, and mixed-use development for the triangle of land north of WIS 19 between I-39/90/94 and the Yahara River. The village of DeForest identified specific plans for a big box store development in the area west of I-39/90/94 and north of WIS 19. This big box retail development is independent of WisDOT's WIS 19 project, and construction of the development began in fall 2017.
c. Wholesale business	No wholesale specific businesses are located in the direct project area. The project's east terminus is adjacent to I-39/90/94. Lands east of I-39/90/94 include a mix of warehouse/wholesale business uses.
d. Heavy industry	No heavy industry specific businesses are located in the direct project area.
e. Light industry	No light industry specific businesses are located in the direct project area.
f. Tourism	No tourism specific businesses are located in the direct project area.
g. Recreation	No recreation specific businesses are located in the direct project area. The Yahara River, the Cherokee Marsh Natural Resource Area, and the Cherokee Marsh Fishery Area are all publicly owned natural resource areas used for recreation in the project area.
h. Forestry	No forestry specific businesses are located in the direct project area.
i. Office	No office specific businesses are located in the direct project area. There is one office building located on Liuna Way, just south of WIS 19.

2. Discuss the economic advantages and disadvantages of the proposed action and whether advantages would outweigh disadvantages. Indicate how the project would affect the characteristics described in item 1 above:
Advantages: The proposed improvements to WIS 19 and River Road would provide safe and efficient travel through the project area. The improvements would provide safer access to existing and proposed businesses adjacent to the project area, and provide safer local and regional transportation connections via WIS 19.

Disadvantages: Businesses and residents may be temporarily disadvantaged during construction due to delays and temporary reduced access to the roadway during construction. The north leg of River Road may be closed during construction, which may impact traffic traveling to and from the businesses on the south side of DeForest and in the village of Windsor. Motorists choosing to use alternate routes to avoid the construction area would be disadvantaged during construction.

The advantages of the proposed action outweigh the temporary disadvantages.

3. What effect will the proposed action have on the potential for economic development in the project area?

☐ **The proposed project will have no effect on economic development.**

☒ **The proposed project will have an effect on economic development.**

☒ Increase, describe: The additional roadway capacity on an improved WIS 19 may be seen as a benefit to land developers in the project corridor. As previously stated, much of the area directly north of WIS 19 is identified by the village of DeForest as future mixed-use development. The proposed action is not a catalyst for this development, but the improved WIS 19 roadway may be seen as beneficial to development.

☐ Decrease, describe: _____

AGRICULTURE EVALUATION

Wisconsin Department of Transportation

Factor Sheet A-3

Alternative **Alternative #3: Reconstruct WIS 19 as a Four-Lane Roadway With Roundabout**	Total Length of Center Line of Existing Roadway: **1.1 Miles** Length of This Alternative: **1.1 Miles**
Preferred ☒ Yes ☐ No ☐ None Identified	

1. Total acquisition interest, by type of agricultural land use:

Type of Land Acquired From Farm Operations	Type of Acquisition (acres)		Total Area Acquired (acres)
	Fee Simple	Easement	
Crop land and pasture	2.6	0.7	3.3
Woodland	0.0	0.0	0.0
Land of undetermined or other use (e.g., wetlands, yards, roads, etc.)	0.5	0.2	0.7
Totals	3.1	0.9	4.0

2. Indicate number of farm operations from which land will be acquired:

Acreage to be Acquired	Number of Farm Operations
Less than I acre	1
1 acre to 5 acres	1
More than 5 acres	

3. Is land to be converted to highway use covered by the Farmland Protection Policy Act?

☒ No
- ☐ The land was purchased prior to August 6, 1984 for the purpose of conversion.
- ☐ The acquisition does not directly or indirectly convert farmland.
- ☐ The land is clearly not farmland
- ☐ The land is already in, or committed to urban use or water storage.

☐ Yes (This determination is made by the Natural Resources Conservation Service (NRCS) via the completion of the Farmland Impact Conversion Rating Form, NRCS Form AD-1006)
- ☐ The land is prime farmland which is not already committed to urban development or water storage.
- ☐ The land is unique farmland.
- ☐ The land is farmland which is of statewide or local importance as determined by the appropriate state or local government agency.

4. Has the Farmland Impact Conversion Rating Form (AD-1006 / CPA-106) been submitted to NRCS?

☐ No - Explain. The Site Assessment Criteria Score (Part VI of the form) is less than 60 points for this project alternative.

☒ Yes: See Appendix 5.
- ☒ The Site Assessment Criteria Score (Part VI of the form) is less than 60 points for this project alternative.
  Date Form AD-1006 / CPA-106 completed. August 14, 2017
- ☐ The Site Assessment Criteria Score is 60 points or greater.
  Date Form AD-1006 completed. _____

5. Is an Agricultural Impact Statement (AIS) Required?

☒ No

- ☐ Eminent Domain will not be used for this acquisition
- ☐ The project is a "Town Highway" project
- ☐ The acquisition is less than 1 acre
- ☒ The acquisition is 1-5 acres and DATCP chooses not to do an AIS.
- ☐ Other. Describe _____

☐ Yes

- ☐ Eminent Domain may be used for this acquisition.
- ☐ The project is not a "Town Highway" project
- ☐ The acquisition is 1-5 acres and DATCP chooses to do an AIS.
- ☐ The acquisition is greater than 5 acres

6. Is an Agricultural Impact Notice (AIN) Required?

☐ No, the project is not a State Trunk Highway Project - AIN not required but complete questions 7-16.

☒ Yes, the project is a State Trunk Highway Project - AIN may be required.

Is the land acquired "non-significant"?

☐ Yes - (All must be checked) An AIN is not required but complete questions 7-16.

- ☐ Less than 1 acre in size
- ☐ Results in no severances
- ☐ Does not significantly alter or restrict access
- ☐ Does not involve moving or demolishing any improvements necessary to the operation of the farm
- ☐ Does not involve a high value crop

☒ No

- ☒ Acquisition 1 to 5 acres - **AIN required**. Complete Pages 1 and 2, Form DT1999, (Pages 1 and 2, Figure 1, Procedure 21-25-30.) See Appendix 5.
- ☐ Acquisition over 5 acres - **AIN required**. Complete Pages 1, 3 and 4, Form DT1999. (Pages 1, 3 and 4, Figure 1, Procedure 21-25-30)

If an AIN is completed, do not complete the following questions 7-16.

An AIN was completed and submitted to DATCP in July 2017 (see Appendix 5). DATCP determined that an AIS would not be prepared for this project. Based on instructions above, the following questions 7-16 are not answered.

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

☐ Does Not Apply.
☐ Applies – Discuss.

8. Describe changes in access to farm operations caused by the proposed action:

☐ Does Not Apply.
☐ Applies – Discuss.

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

☐ Does Not Apply.
☐ Applies – Discuss.

10. 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.). Address the location, type, condition and importance to the farm operation as appropriate:

☐ Does Not Apply.
☐ Applies – Discuss.

11. 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 will be replaced.
- ☐ Replacement will occur at same location.
- ☐ Cattle/equipment pass or crossing will be relocated. Describe.

12. Describe the effects generated by the obliteration of the old roadway:

- ☐ Does Not Apply.
- ☐ Applies – Discuss.

13. Identify and describe any proposed changes in land use or indirect development that will affect farm operations and are related to the development of this project:

- ☐ Does Not Apply.
- ☐ Applies – Discuss.

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

- ☐ No effects indicated by farm operator or owner.
- ☐ Applies – Discuss.

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

- ☐ No
- ☐ Applies – Discuss.

16. Describe measures to minimize adverse effects or enhance benefits to agricultural operations:

COMMUNITY OR RESIDENTIAL EVALUATION

Wisconsin Department of Transportation

Factor Sheet B-1

Alternative **Alternative #3: Reconstruct WIS 19 as a Four-Lane Roadway With Roundabout**	Total Length of Center Line of Existing Roadway: **1.1 Miles** Length of This Alternative: **1.1 Miles**
Preferred ☒ Yes ☐ No ☐ None Identified	

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

Name of Community/Neighborhood

The proposed project is located in a predominantly rural area, in the towns of Westport and Burke, and the villages of Windsor and DeForest in Dane County, Wisconsin. The project area is adjacent to the western edge of more developed areas in the village of DeForest.

Incorporated

☒ Yes ☐ No

Within ½ Mile of Project Corridor

Total population—160
White—93% of total population
Black or African American—2% of total population
American Indian and Alaska Native—0% of total population
Asian—2% of total population
Some Other Race—1% of total population
Hispanic or Latino of any Race—3% of total population
Age 65 and over—8% of total population
*Totals greater than 100 are due to persons reporting more than one race.

2. Identify and discuss existing modes of transportation and their importance within the community or Neighborhood:

The primary transportation mode in the project area is by automobile. This portion of WIS 19 has a functional classification of minor arterial, is a Designated Long Truck Route for freight movement, and is also a State Oversize-Overweight (OSOW) route for vehicles on the Freight Network. The WIS 19 corridor is a well-used commuter route to, from, and around the Madison metro area. Paved shoulders on the WIS 19 corridor allow room for bicycles, but they are not common.

3. Identify and discuss the probable changes resulting from the proposed action to the existing modes of transportation and their function within the community or neighborhood:

The proposed action would be constructed generally on existing alignment and is unlikely to change existing modes of transportation and their function.

The village of DeForest has identified a shared use path along the north side of WIS 19 in their future plans. The westbound bridge would be designed wide enough to allow for a shared use path crossing to be added over the Yahara River in the future. The paved shoulders along WIS 19 and River Road would provide on-road bike accommodations. Roundabout side paths and crosswalks would also be constructed to accommodate pedestrians and bicyclists using the intersection. Roundabout splitter islands and side paths would also be designed to accommodate a future trail along the north side of WIS 19.

4. **Briefly discuss the proposed action's direct and indirect effect(s) on existing and planned land use in the community or neighborhood:**
The proposed project would be constructed on existing alignment and is not likely to have a direct or indirect effect on the planned land use in the area. The project is consistent with planned improvements in the area, and consistent with all local planning documents (see page 17 for a list of all relevant planning documents).

The proposed action is also included in the 2017-2020 Wisconsin Department of Transportation Statewide Transportation Improvement Program (STIP). The project was also approved in the 2017 – 2021 Madison Metropolitan Area and Dane County Transportation Improvement Program (TIP).

WisDOT Pre-Screening Indirect Effects Analysis Worksheets were completed for the proposed action and are included in Appendix 4. See Appendix 4 for additional information on this topic.

5. **Address any changes to emergency or other public services during and after construction of the proposed project:**
Emergency vehicles would have access through the project area and to properties within the project area during construction. However, construction activities may have the potential to cause traffic delays that may lead to delayed emergency vehicle response times during construction. The north leg of River Road may also be closed during construction which would require emergency vehicles to use an alternate route for this area.

6. **Describe any physical or access changes that will result. This could include effects on lot frontages, side slopes or driveways (steeper or flatter), sidewalks, reduced terraces, tree removals, vision corners, etc.:**
The following physical and access changes are associated with the preferred alternative:

- The expanded WIS 19 roadway would include a traffic signal at the western Liuna Way intersection. This intersection would be the main entrance into a planned development in the area north of WIS 19, between I-39/90/94 and the Yahara River. A second entrance into the planned development is proposed on the north side of WIS 19, between the two Liuna Way intersections. The second entrance would be restricted to right-in/right-out movements. The planned development is within the village of DeForest and construction of the development began in fall of 2017. A joint PIM was held by the village of DeForest and WisDOT to discuss the proposed action and the proposed village development plans.
- The eastern Liuna Way intersection would remain as right-in/right-out only.
- The entrance to a farmstead on the north side of WIS 19, east of the Yahara River Bridge would remain at approximately the same elevation and would be restricted to right-in/right-out only due to the proposed median on WIS 19.
- The driveway on the north side of WIS 19, immediately east of the River Road intersection, would be removed due to its proximity to the intersection. This property has two full access driveways onto River Road north of the intersection and at least one of those would remain open. River Road would be raised 2 to 3 feet in this area and those driveways would have slightly steeper grades.

7. **Indicate whether a community/neighborhood facility will be affected by the proposed action and indicate what effect(s) this will have on the community/neighborhood:**
No community / neighborhood facilities would be affected by the proposed action.

8. **Identify and discuss factors that residents have indicated to be important or controversial:**
No issues have been identified as controversial.

Public Involvement efforts identified initial concerns or questions from residents. See page 20 for a discussion of how public concerns were addressed.

9. **List any Community Sensitive Design considerations, such as design considerations and potential mitigation measures.**
The project would not include any Community Sensitive Design considerations.

10. Indicate the number and type of any residential buildings that will be acquired because of the proposed action.

a. ☒ None identified.

b. ☐ No occupied residential building will be acquired as a result of this project. Provide number and description of non-occupied buildings to be acquired.

c. ☐ Occupied residential building(s) will be acquired. Provide number and description of buildings, e.g., single family homes, apartment buildings, condominiums, duplexes, etc.

SECTION 4(f) AND 6(f) OR OTHER UNIQUE AREAS

Wisconsin Department of Transportation

Factor Sheet B-8

Alternative	Total Length of Center Line of Existing Roadway: **1.1 Miles**
Alternative #3: Reconstruct WIS 19 as a Four-Lane Roadway With Roundabout	Length of This Alternative: **1.1 Miles**
Preferred ☒ Yes ☐ No ☐ None Identified	

1. **Property Name:** Cherokee Marsh Fishery Area

2. **Location:** South of WIS 19, adjacent to the Yahara River

3. **Ownership or Administration:** WDNR

4. **Type of Resource:**
   - ☐ Public Park.
   - ☒ Recreational lands.
   - ☐ Ice Age National Scenic Trail.
   - ☐ NRCS Wetland Reserve Program.
   - ☐ Wildlife Refuge.
   - ☐ Waterfowl Refuge.
   - ☐ Historic/Archaeological Site eligible for the National Register of Historic Places (NRHP).
   - ☐ Other – Identify:

5. **Do FHWA requirements for section 4(f) apply to the project's use of the property?**
   - ☐ No - Check all that apply:
     - ☐ Project is not federally funded.
     - ☐ No land will be acquired in fee or PLE and the alternative will not affect the use.
     - ☐ Property is not on or eligible for the NRHP.
     - ☐ Property is on or eligible for the NRHP however includes a *de minimis* effect finding.
     - ☐ Interstate Highway System Exemption.
     - ☐ Other - Explain: _____
   - ☒ Yes - Check all that apply:
     - ☐ Indicate which of the Programmatic/Negative Declaration Section 4(f) Evaluation(s) applies.
       - ☐ Historic Bridge.
       - ☐ Park minor involvement.
       - ☐ Historic site minor involvement.
       - ☐ Independent bikeway or walkway.
       - ☐ Great River Road.
       - ☐ Net Benefit to Section 4(f) Property.
     - ☒ Determination of a de minimis Impact to Section 4(f) property approved on_____.
     - ☐ Full 4(f) evaluation approved on _____.

6. **Was special funding used to acquire the land or to make improvements on the property?**
   - ☒ No - Special funding was not used for the acquisition of this property.
   - ☐ Yes:
     - ☐ s.6(f) LWCF (Formerly LAWCON).
     - ☐ Dingell-Johnson (D/J funds).
     - ☐ Pittman-Robertson (P/R funds).
     - ☐ Other – Describe:

7. Describe the significance of the property:

The Cherokee Marsh Fishery Area is used for passive recreational activities such as fishing, hunting, canoeing, and kayaking. The fishery area extends to Cherokee Lake to the south and eventually to the Madison Chain of Lakes. The Cherokee Marsh Fishery Area is also contiguous with Dane County's identified Cherokee Marsh Natural Area which shares the same goals and objectives. The WDNR is the official with jurisdiction over the resource.

8. Describe the proposed alternative's effects on this property:

a. Describe any effects on or uses of land from the property. For other areas, include or attach statements from officials having jurisdiction over the property which discusses the alternative's effects on the property: **(A map, sketch, plan, or other graphic which clearly illustrates use of the property and the project's use and effects on the property must be included.)**

The permanent impacts to the Section 4(f) lands would involve placement of roadway embankment and the construction of a new bridge at the north end of the WDNR parcel to accommodate the new eastbound WIS 19 roadway. There would also be a small area of temporary impact on the east side of the river to allow for the construction of a kayak and canoe launch. This area would remain under WDNR ownership after construction is completed. An estimated 0.79 acres of permanent fee (Fee Simple) acquisition is assumed required. These impacts would not affect the activities, features, or attributes that qualify the property for protection under Section 4(f).

See Section 4(f) finding of de minimis impact and attachments in Appendix 7.

b. Discuss the following alternatives and describe whether they are feasible and prudent and why:

1. Do nothing alternative.

   N/A

2. Improvement without using the 4(f) lands.

   N/A

3. Alternatives on new location.

   N/A

9. Indicate which measures will be used to minimize adverse effects, mitigate for unavoidable adverse effects or enhance beneficial effects:

- ☐ Replacement of lands used with lands of reasonably equivalent usefulness and location, and of at least comparable value.
- ☐ The Small Conversion Policy for Lands Subject to Section 6(f) will be used.
- ☐ Replacement of facilities impacted by the project including sidewalks, paths, lights, trees, and other facilities.
- ☒ Restoration and landscaping of disturbed areas.
- ☒ Incorporation of design features and habitat features where necessary to reduce or minimize impacts to the section 4(f) property.
- ☒ Payment of the fair market value of the land and improvement taken.
- ☒ Improvements to the remaining 4(f) site equal to the fair market value of the land and improvements taken.
- ☒ Such additional or alternative mitigation measures determined necessary based on consultation with officials having jurisdiction. The additional or alternative mitigation measures are listed or summarized below:
- ☐ Property is a historic property or an archeological site. The conditions or mitigation stipulations are listed or summarized below:
- ☐ Other – Describe:

10. Briefly summarize the results of coordination with other agencies that were consulted about the project and its effects on the property:

(For historic and archeological sites, refer to Factor Sheet B-5 and/or B-6 for documentation. For other unique areas, attach correspondence from officials having jurisdiction that documents concurrence with impacts and mitigation measures.)

Meetings have been held with staff from the WDNR and Dane County to discuss the potential impacts to the public use lands owned by both agencies, and to identify mitigation measures for potential project impacts. See Section 4(f) finding of de minimis impact and attachments in Appendix 7. Proposed mitigation measures are as follows:

- WisDOT would construct a 24-foot driveway with a 60' x 60' parking lot extending from Liuna Way to provide access to the Dane County area east of the Yahara River. The driveway would also include a culvert.
- WisDOT would construct a 24-foot access road extending from the above referenced 60' x 60' parking lot onto WDNR property. This access road would expand the use of the Dane County property as well as facilitate use of the abutting WDNR property and safe access to the Yahara River.
- WisDOT would construct another 60' x 60' parking lot on the western end of the Dane County property for canoe/kayak launching on WDNR property.
- WisDOT would construct a non-motorized canoe/kayak soft bottom launch per WDNR specifications on WDNR property.
- WisDOT would construct and install information kiosks and park signage in the proposed parking areas per Dane County and WDNR specifications.
- WisDOT would construct a terrestrial terrace beneath the two new WIS 19 bridge structures over the Yahara River.
- WisDOT would coordinate with Dane County and the WDNR regarding the use of berms and native vegetated landscaping as a visual buffer in selected locations as well as minimizing the impacts to existing vegetation and re-use of stripped topsoil.
- Following construction, WisDOT would seed south of the new access road between Dane County and WDNR property with seed mixes recommended by Dane County and would facilitate these seedings up to three acres on Dane County Park and WDNR land at the direction of Dane County park staff and WDNR staff.

After the initial Public Involvement Meeting was held in late 2016, the WDNR signed a letter on April 27, 2017 agreeing that the project would not adversely affect the activities, features, and attributes that qualify the WDNR land for protection under Section 4(f) (see Appendix 7).

SECTION 4(f) AND 6(f) OR OTHER UNIQUE AREAS

Wisconsin Department of Transportation

Factor Sheet B-8

Alternative	Total Length of Center Line of Existing Roadway: **1.1 Miles**
Alternative #3: Reconstruct WIS 19 as a Four-Lane Roadway With Roundabout	Length of This Alternative: **1.1 Miles**
Preferred ☒ Yes ☐ No ☐ None Identified	

1. **Property Name:** Cherokee Marsh Natural Resource Area

2. **Location:** Along both sides of WIS 19; adjacent to the Yahara River

3. **Ownership or Administration:** Dane County Parks

4. **Type of Resource:**
   - ☐ Public Park.
   - ☒ Recreational lands.
   - ☐ Ice Age National Scenic Trail.
   - ☐ NRCS Wetland Reserve Program.
   - ☐ Wildlife Refuge.
   - ☐ Waterfowl Refuge.
   - ☐ Historic/Archaeological Site eligible for the National Register of Historic Places (NRHP).
   - ☐ Other – Identify:

5. **Do FHWA requirements for section 4(f) apply to the project's use of the property?**
   - ☐ No - Check all that apply:
     - ☐ Project is not federally funded.
     - ☐ No land will be acquired in fee or PLE and the alternative will not affect the use.
     - ☐ Property is not on or eligible for the NRHP.
     - ☐ Property is on or eligible for the NRHP however includes a *de minimis* effect finding.
     - ☐ Interstate Highway System Exemption.
     - ☐ Other - Explain:

   - ☒ Yes - Check all that apply:
     - ☐ Indicate which of the Programmatic/Negative Declaration Section 4(f) Evaluation(s) applies.
       - ☐ Historic Bridge.
       - ☐ Park minor involvement.
       - ☐ Historic site minor involvement.
       - ☐ Independent bikeway or walkway.
       - ☐ Great River Road.
       - ☐ Net Benefit to Section 4(f) Property.
     - ☒ Determination of a de minimis Impact to Section 4(f) property approved on_____.
     - ☐ Full 4(f) evaluation approved on _____.

6. **Was special funding used to acquire the land or to make improvements on the property?**
   - ☐ No - Special funding was not used for the acquisition of this property.
   - ☒ Yes:
     - ☐ s.6(f) LWCF (Formerly LAWCON).
     - ☐ Dingell-Johnson (D/J funds).
     - ☐ Pittman-Robertson (P/R funds).
     - ☒ Other – Describe:

   Knowles-Nelson Stewardship funding was used for the Dane County lands that were acquired in 2015. Replacement of the lands being permanently acquired is not proposed. Dane County and WDNR have agreed that the mitigation items listed under item #10 below would enhance the activities, features, and attributes of their public use land, and would be acceptable in lieu of acquiring additional lands elsewhere. See letter from the WDNR Knowles-Nelson Grant Manager with Section 4(f) finding of de minimis impact in Appendix 7.

7. Describe the significance of the property:

The Cherokee Marsh Natural Resource Area is used for passive recreational activities such as fishing, hunting, canoeing, and kayaking. The Cherokee Marsh Natural Resource Area is located adjacent to the WDNR Cherokee Marsh Fishery Area, which shares the same goals and objectives. Dane County is the official with jurisdiction over the resource.

Dane County recently acquired 53 acres of additional land to expand the Cherokee Marsh Natural Resource Area. Dane County also purchased a conservation easement on an additional 77 acres from the property northwest of the WIS 19/River Road intersection. The conservation easement will allow the property owner to determine use of the property. In the short term, it will continue to be agricultural land. Potential long-term uses may involve agriculture, prairie restoration, or other uses. The property is not planned to be open to the public at this time. See Section 4(f) finding of de minimis impact and attachments in Appendix 7 for more information and for a map showing the location of the Cherokee Marsh Natural Resource Area.

8. Describe the proposed alternative's effects on this property:

a. Describe any effects on or uses of land from the property. For other areas, include or attach statements from officials having jurisdiction over the property which discusses the alternative's effects on the property: **(A map, sketch, plan, or other graphic which clearly illustrates use of the property and the project's use and effects on the property must be included.)**

The permanent impacts to the Section 4(f) lands would involve excavation and placement of new embankment required for the reconstruction of WIS 19 and River Road and the construction of two new bridges along WIS 19 over the Yahara River, which would extend into the existing land owned by Dane County. Temporary impacts would occur on the east side of the river south of WIS 19 to allow for the construction of a new access road from Liuna Way to the Yahara River to provide access to the public use lands owned by Dane County and the WDNR. That access road would include a kayak and canoe launch at the west end for recreational use at the Yahara River. Temporary impacts would also be required south of WIS 19 east of River Road, and north of WIS 19 west of River Road for the addition of temporary pavement during construction. That is required to keep WIS 19 and the south leg of River Road open to traffic during construction. Temporary impacts would also be required north of WIS 19 both east and west of River Road for the grading of two existing driveways that provide access to those parcels. These areas of temporary impact would remain under Dane County ownership after construction is completed.

After the initial Local Officials Meeting and Public Involvement Meeting, the town of Westport and Dane County expressed concern about stormwater impacts to the Yahara River as a result of the proposed improvements. WisDOT agreed to implement design changes that would prevent stormwater from the two new proposed bridges from draining directly into the Yahara River and also to construct a berm between the proposed access road described above and WIS 19 to slow the flow of stormwater into the river during large storm events. These measures would result in a design that exceeds state and federal standards for treating stormwater during a 100-year storm event.

Anticipated impacts to the 81-acre Dane County property acquired in 2015 is estimated at 2.86 acres of permanent fee (Fee Simple) acquisition.

Anticipated impacts to the 130 acres Dane County acquired in 2017 is estimated at 2.91 acres of Fee Simple acquisition and 0.85 acres of TLE. The TLE is required for construction staging and driveway construction.

The total impacts to both properties is estimated at 5.77 acres of Fee Simple acquisition and 0.85 acres of TLE.

These impacts would not affect the activities, features, or attributes that qualify the property for protection under Section 4(f). See Section 4(f) finding of de minimis impact and attachments in Appendix 7.

b. Discuss the following alternatives and describe whether they are feasible and prudent and why:

1. Do nothing alternative.
   N/A
2. Improvement without using the 4(f) lands.
   N/A
3. Alternatives on new location.
   N/A

9. Indicate which measures will be used to minimize adverse effects, mitigate for unavoidable adverse effects or enhance beneficial effects:

- ☐ Replacement of lands used with lands of reasonably equivalent usefulness and location, and of at least comparable value.
- ☐ The Small Conversion Policy for Lands Subject to Section 6(f) will be used.
- ☐ Replacement of facilities impacted by the project including sidewalks, paths, lights, trees, and other facilities.
- ☒ Restoration and landscaping of disturbed areas.
- ☒ Incorporation of design features and habitat features where necessary to reduce or minimize impacts to the section 4(f) property.
- ☒ Payment of the fair market value of the land and improvement taken.
- ☒ Improvements to the remaining 4(f) site equal to the fair market value of the land and improvements taken.
- ☒ Such additional or alternative mitigation measures determined necessary based on consultation with officials having jurisdiction. The additional or alternative mitigation measures are listed or summarized below:
- ☐ Property is a historic property or an archeological site. The conditions or mitigation stipulations are listed or summarized below:
- ☐ Other – Describe:

10. Briefly summarize the results of coordination with other agencies that were consulted about the project and its effects on the property:

(For historic and archeological sites, refer to Factor Sheet B-5 and/or B-6 for documentation. For other unique areas, attach correspondence from officials having jurisdiction that documents concurrence with impacts and mitigation measures.)

Meetings have been held with staff from the WDNR and Dane County to discuss the potential impacts to the public use lands owned by both agencies, and to identify mitigation measures for project impacts. See Section 4(f) finding of de minimis impact and attachments in Appendix 7. Proposed mitigation measures are as follows:

- WisDOT would construct a 24-foot driveway with a 60’ x 60’ parking lot extending from Liuna Way to provide access to the Dane County area east of the Yahara River. The driveway would also include a culvert.
- WisDOT would construct a 24-foot access road extending from the above referenced 60’ x 60’ parking lot onto WDNR property. This access road would expand the use of the Dane County property as well as facilitate use of the abutting WDNR property and safe access to the Yahara River.
- WisDOT would construct another 60’ x 60’ parking lot on the western end of the Dane County property for canoe/kayak launching on WDNR property.
- WisDOT would construct a non-motorized canoe/kayak soft bottom launch per WDNR specifications on WDNR property.
- WisDOT would construct and install information kiosks and park signage in the proposed parking areas per Dane County and WDNR specifications.
- WisDOT would construct a terrestrial terrace beneath the two new WIS 19 bridge structures over the Yahara River.
- WisDOT would coordinate with Dane County and the WDNR regarding the use of berms and native vegetated landscaping as a visual buffer in selected locations as well as minimizing the impacts to existing vegetation and re-use of stripped topsoil.
- Following construction, WisDOT would seed south of the new access road between Dane County and WDNR property with seed mixes recommended by Dane County and would facilitate these seedings up to three acres on Dane County Park and WDNR land at the direction of Dane County park staff and WDNR staff.

After the initial Public Involvement Meeting was held in late 2016, Dane County Parks signed a letter on May 16, 2017 agreeing that the project would not adversely affect the activities, features, and attributes that qualify the Dane County land for protection under Section 4(f) (see Appendix 7).

Factor Sheet C-1

Alternative **Alternative #3: Reconstruct WIS 19 as a Four-Lane Roadway With Roundabout**	Total Length of Center Line of Existing Roadway: **1.1 Miles** Length of This Alternative: **1.1 Miles**
Preferred ☒ Yes ☐ No ☐ None Identified	

1. Describe Wetlands:

	Wetland 1		Wetland 2		Wetland 3		Wetland 4		Wetland 5	
Name (if known) or wetland number[1]	unknown		unknown		unknown		unknown		unknown	
County	Dane		Dane		Dane		Dane		Dane	
Location (Section-Township-Range)	Sec 1, Twn 8, Range 9		Sec 31, Twn 9, Range 10		Sec 1, Twn 8, Range 9		Sec 1, Twn 8, Range 9		Sec 6, Twn 8, Range 10	
Location (Latitude)										
Location (Longitude)										
Location Map	See Appendix 8		See Appendix 8		See Appendix 8		See Appendix 8		See Appendix 8	
Wetland Type(s)[2]	Wet Meadow		Wet Meadow		Shallow Marsh		Wet Meadow		Aquatic Bed	
Wetland Loss	0.23 Acres		0.04 Acres		0.34 Acres		0.08 Acres		0.03 Acres	
Wetland is: (Check all that apply)[3]	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
• **Isolated from stream, lake or other surface water body**		X		X		X		X		X
• **Not contiguous (in contact with) a stream, lake, or other water body, but within 100-year floodplain**		X		X		X		X		X
• **If adjacent or contiguous, identify stream, lake or water body**	All wetlands are adjacent to the Yahara River									

[1]Use wetland numbering from the project wetland delineation report.
[2]Use wetland types as specified in the "*WisDOT FDM 24-5 Attachment 10.2 Wetland Type Correspondence Table"*
[3]If wetland is contiguous to a stream, complete Factor Sheet C-2, Rivers, Streams and Floodplains Impact Evaluation. If wetland is contiguous to a lake or other water body, complete Factor Sheet C-3, Lake or Water Body Impact Evaluation.

2. Are any impacted wetlands considered "wetlands of special status" per WisDOT Wetland Mitigation Banking Technical Guideline, page 10 (6 categories)?

☒ No
☐ Yes:
- ☐ Advanced Identification Program (ADID) Wetlands
- ☐ Public or private expenditure has been made to restore, protect, or ecologically manage the wetland on either public or private land
- ☐ Other – Describe: _____

3. Describe proposed work in the wetland(s), e.g., excavation, fill, marsh disposal, other:
Work includes embankment fill adjacent to new bridges over the Yahara River, minor ditching outside the fill areas, and construction of the west end of a new access road and kayak/canoe launch area to the Yahara River at the southeast corner of the new eastbound bridge.

4. List any observed or expected waterfowl and wildlife inhabiting or dependent upon the wetland: (List should include permanent, migratory and seasonal residents).
Waterfowl and wildlife species potentially occurring in project wetlands are typical of the area. They include heron and duck species, song bird species, small mammals such as mice and voles, raccoons, rabbits, white-tailed deer, reptiles and amphibians.

5. Federal Highway Administration (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 three boxes below must be checked for the Statewide Wetland Finding to apply.**
- ☒ Project is either a bridge replacement or other reconstruction within 0.3 mile of the existing location.
- ☒ The project requires the use of 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.

6. Erosion control or storm water management practices which will be used to protect the wetland are indicated on form: (Check all that apply)
☒ Factor Sheet D-6, Erosion Control Evaluation.
☒ Factor Sheet D-5, Stormwater Evaluation.
☐ Neither Factor Sheet - Briefly describe measures to be used

7. U S Army Corps of Engineers (USACE) Jurisdiction - Section 404 Permit (Clean Water Act)
☐ Not Applicable - No fill to be placed in wetlands or wetlands are not under USACE jurisdiction.
☒ Applicable - Fill will be placed in wetlands under the jurisdiction of the USACE.
Indicate area of wetlands filled: **Acres 0.7**
Type of 404 permit anticipated:
- ☐ Individual Section 404 Permit required.
- ☒ General Permit (GP) or Letter Of Permission (LOP) required to satisfy Section 404 Compliance.

Indicate which GP or LOP is required:
- ☒ **Non-Reporting GP** [GP-002-WI (*expires 5/31/16*) or GP-004-WI (*expires 12/31/17*)]
- ☐ **Reporting GP** [GP-002-WI, GP-003-WI (*expires12/31/17*), or GP-004-WI]
- ☐ **Letter of Permission** [LOP-06-WI (*in effect 4/17/06, no expiration date*)]
- ☐ **Programmatic GP** [Applies to projects not covered under the DOT/DNR Cooperative Agreement]

8. Wisconsin Department of Natural Resources Coordination - Section 401 Water Quality Certification
☒ DNR has provided concurrence on the project wetland delineation. Received on: October 24, 2016
☐ Other- Explain

9. Section 10 Waters (Rivers and Harbors Act). For navigable waters of the United States (Section 10) indicate which 404 permit is required:

☒ No Section 10 Waters
☐ Section 10 Waters
  ☐ **Reporting GP** [GP-003-WI (*expires12/31/17*)]
  ☐ **Reporting GP** [GP-004-WI (*expires 12/31/17*)]

Indicate whether Pre-Construction Notification (PCN) to the USACE is:
☒ Not applicable.
☐ 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. Wetland Avoidance and Impact Minimization: [Note: Required before compensation is acceptable]

A. Wetland Avoidance:

1. 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.:
Wetland impacts were unavoidable. Wetland areas are present on both sides of the Yahara River crossing. Wetland impacts would occur whether expansion occurred to the north or south of the existing bridge.

2. Indicate the total area of wetlands avoided:
Acres: 0.00

B. Minimize the amount of wetlands affected:

1. Describe methods used to minimize the use of wetlands, such as increasing side slopes or use of retaining walls or beam guard, equalizer pipes, upland disposal of hydric soils, etc.:
Minor reductions to wetland impacts were achieved on the approach to the new eastbound bridge over the Yahara River by the use of slightly steeper slopes behind the proposed guardrail.

2. Indicate the total area of wetlands saved through minimization:
Acres: 0.025

11. Compensation for Unavoidable Wetland Loss:

According to Section 404(b)(1), of the Clean Water Act, wetland compensatory mitigation procedures and sequencing will conform to the U.S. Army Corps of Engineers (USACE) and U.S. Environmental Protection Agency (EPA) joint rule on Compensatory Mitigation for Losses of Aquatic Resources (33 CFR Parts 325 and 332; and 40 CFR Part 230 - dated April 10, 2008). Compensatory mitigation will be consistent with amendments to the Cooperative Agreement between DNR and WisDOT on compensatory mitigation for unavoidable wetland losses (July 2012), and the WisDOT Interagency Coordination Agreement and Wetland Mitigation Banking Technical Guidelines with DNR, USACE, EPA, USFWS and FHWA (March 2002).

	Type	Acre(s) Loss	Ratio	Compensation Type and Acreage	
				On-site	DOT Mitigation Bank site
RPF(N)	Riparian wetland (wooded)				
RPF(D)	Degraded riparian wetland (wooded)				
RPE(N)	Riparian wetland (emergent)				
RPE(D)	Degraded riparian wetland (emergent)				
M(N)	Wet and sedge meadows, wet prairie, vernal pools, fens				
M(D)	Degraded meadow	0.35	1:1		0.35
SM	Shallow marsh	0.34	1:1		0.38
DM	Deep marsh				
AB(N)	Aquatic bed				
AB(D)	Degraded aquatic bed	0.03	1:1		
SS	Shrub Swamp, shrub carr, alder thicket				
WS(N)	Wooded swamp				
WS(D)	Degraded wooded swamp				
Bog	Open and forested bogs				

D = Degraded
N = Non-degraded

12. If compensation is not possible within the drainage area and floristic province thru the use of the DOT mitigation bank, explain why and describe how a search for an on-site compensation site was conducted:

No on-site compensation is proposed.

13. Summarize the coordination with other agencies regarding the compensation for unavoidable wetland losses. Attach appropriate correspondence.

Wetland mitigation, compensation, and a potential wetland mitigation site will be coordinated with WDNR, and will be further coordinated with the USACE through the application of the projects 404 permit.

Factor Sheet C-2

Alternative **Alternative #3: Reconstruct WIS 19 as a Four-Lane Roadway With Roundabout**	Total Length of Center Line of Existing Roadway: **1.1 Miles** Length of This Alternative: **1.1 Miles**
Preferred ☒ Yes ☐ No ☐ None Identified	

1. Stream Name: Yahara River

2. Stream Type: (Indicate Trout Stream Class, if known)

☐ Unknown
☒ Warm water
☐ Cold water
If trout stream, identify trout stream classification: Not designated by WDNR as a trout stream

☐ Wild and Scenic River

3. Size of Upstream Watershed Area: (Square miles or acres)

The Yahara River and Lake Mendota watershed is located in north central Dane County and part of southern Columbia County. This watershed drains 85 square miles. The Yahara River and Token Creek are the principal streams of the watershed. The Cherokee Marsh is the last large wetland complex in the watershed.

4. Stream flow characteristics:

☒ Permanent Flow (year-round)
☐ Temporary Flow (dry part of year)

5. Stream Characteristics:

A. Substrate:

1. ☒ Sand
2. ☒ Silt
3. ☐ Clay
4. ☒ Cobbles
5. ☐ Other-describe:

B. Average Water Depth: 1-8 feet

C. Vegetation in Stream

☐ Absent
☐ Present - If known describe:
☒ Unknown

D. Identify Aquatic Species Present: The river supports a diverse warm water sport fishery of approximately forty-eight species including northern pike, central stoneroller, common carp, golden, emerald, common and spottail shiner, bluntnose and fathead minnow, creek chub, buffalo (unsp.) white sucker, black, yellow, and brown bullheads, brook silverside, brook stickleback, white bass, pumpkinseed, bluegill, largemouth bass, white and black crappie, johnny darter, yellow perch, walleye, and mottled sculpin.

E. If water quality data is available, include this information: Water quality data is not available. However, the DNR has indicated that the stretch of the Yahara River in the project area is a high-quality waterway. The gradient of the stream, which quickens the flow and prevents accumulation of silt, and heavy groundwater inflow, which maintains cool water temperatures, have produced unusually high-quality fish habitat.

F. Is this river or stream on the WDNR's "Impaired Waters" list?

☐ No
☒ Yes: The section of the Yahara River that flows south from Lake Kegonsa is identified as impaired by WDNR; total phosphorus are the pollutants identified. The impaired section of the river is over 20 miles downstream of the project area.

6. If bridge or box culvert replacement, are migratory bird nests present?

☐ Not Applicable
☒ None identified: One year prior to construction, WisDOT will inspect bridges for the presence of nesting birds.
☐ Yes – Identify Bird Species present
Estimated number of nests is:

7. Is a Fish & Wildlife Depredation Permit required to remove swallow nests?

☐ Not Applicable
☐ Yes
☒ No - Describe mitigation measures: Migratory bird nests cannot be disturbed from May 1 to August 30. If the proposed construction schedule conflicts with the migratory bird nesting period, means of preventing migratory bird nesting on the bridge will be implemented. Measures to prevent nesting include the removal of unoccupied nests during the non-nesting season and installation of barrier netting prior to May 1. If netting is used, it must be properly maintained, and removed as soon as the nesting period is over.

8. Describe land adjacent to stream*:*

The majority of land adjacent to the stream in the project area is used as agricultural land, public recreation land, or vacant subdivided land. The river runs through the Cherokee Marsh State Fishery Area and the Cherokee Marsh Natural Resource Area.

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

None identified

10. 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: Coast Guard must be notified when Section 10 waters are affected by a proposal. Also see Wetland Evaluation, Factor Sheet C-1, Question 8.]

Two new bridges would be constructed on WIS 19 over the Yahara River. The existing slab span bridge would be removed and replaced with a new single span girder bridge for the westbound roadway, and a second single span girder bridge would be constructed to the south for the new eastbound roadway. The grade of the WIS 19 roadway across the Yahara River bridges would be raised slightly to accommodate the thicker single span bridges and provide adequate clearance over the river. The bridge crossing is within the 100-year floodplain according to the National Flood Insurance Program (NFIP) flood insurance rate map, Dane County, WI and incorporated areas.

11. Discuss the effects of any backwater which would be created by the proposed action. Indicate whether the proposed activities would be in compliance with NR 116 by creating 0.01 ft. backwater or less:

No upstream backwater increases are anticipated from the proposed improvements. However, there may be a slight increase between the two new bridges. This will be further evaluated when the preliminary bridge plans are reviewed by the WisDOT Bureau of Structures.

12. Describe and provide the results of coordination with any floodplain zoning authority:

The project falls within a detailed Flood Insurance Study area. The need for coordination with a floodplain zoning authority will be determined after the preliminary structure plans are reviewed by the WisDOT Bureau of Structures.

13. 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.

14. Discuss existing or planned floodplain use and briefly summarize the project's effects on that use:

Minor losses to the floodplain would occur with the construction of the new structure.

15. 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:

There are no long-term impacts anticipated on the floodplain. There would be minimal (if any) effects to plants, animals, and fish. Minor siltation may occur during construction. The use of erosion control devices should minimize this effect on the water quality during and after construction. The minor siltation may have some of the following effects: some degrading of habitat for fish populations, water clarity of the river, and could stimulate aquatic weed and algae growth.

16. Are measures proposed to enhance beneficial effects?

☐ No

☒ Yes. Describe: The proposed action would result in stormwater discharge into the Yahara River. Additional stormwater and erosion control devices would be used to minimize effects of stormwater runoff into the river. To mitigate potential stormwater runoff issues, WisDOT would add a small ditch section and berm to contain drainage flowing off the northeast corner of the proposed bridge along the future westbound WIS 19 lanes. This berm would drain approximately 400 feet east into a grass ditch, to a culvert pipe under WIS 19, and then into another grass ditch section on the south side of WIS 19, before ultimately flowing west into the Yahara River. WisDOT would also construct a berm between the future eastbound lanes of WIS 19 and a proposed access road, to impede the flow of water draining directly into the Yahara River. This would include adding a flat bottom ditch east of the berm which could help detain the stormwater in a small pond area, which would then flow through a 15-inch concrete culvert pipe before discharging into the river. The pond area would be designed not to hold water. These measures would result in a design that exceeds state and federal standards for treating stormwater during a 100-year storm event.

Factor Sheet C-7

Alternative **Alternative #3: Reconstruct WIS 19 as a Four-Lane Roadway With Roundabout**	Total Length of Center Line of Existing Roadway: **1.1 Miles** Length of This Alternative: **1.1 Miles**
Preferred ☒ Yes ☐ No ☐ None Identified	

Federal Resources

1. Complete the following table using the Official Species List from U.S. Fish and Wildlife Service (FWS).

Date of Official Species List: **8/14/2017**

Document all species identified on Official Species List, including proposed species.

Species Common Name	Species Scientific Name	Federal Status	Effect Determination	Justification/ Explanation
Northern Long-eared Bat	*Myotis septentrionalis*	Threatened	Not likely to adversely effect	In accordance with the final 4(d) rule issued for the northern long-eared bat, WisDOT has determined that the proposed activity will not result in prohibited take of the NLEB. The activity involves removal a few trees from properties adjacent roadway, but will not occur within 0.25 miles of a known hibernacula, nor will the activity remove a known maternity roost tree or any other tree within 150 feet of a known maternity roost tree from June 1 – July 31.
Higgins Eye (pearlymussel)	*Lampsilis higginsii*	Endangered	No Effect	The Yahara River in this area does not contain suitable habitat. It does not contain deep water.
Whooping Crane	*Grus americana*	Experimental Population, Non-Essential	No Effect	This is a non-essential experimental population. A review of Wisconsin DNR's Natural Heritage Inventory Database did not identify previous occurrences or suitable habitat for this species.
Eastern Prairie Fringed	*Platanthera leucophaea*	Threatened	No Effect	Impacts to suitable habitat would not occur as part of this project. A review of Wisconsin DNR's Natural Heritage Inventory Database did not identify previous occurrences or suitable habitat for this species.
Mead's Milkweed	*Asclepias meadii*	Threatened	No Effect	Impacts to suitable habitat would not occur as part of this project. A review of Wisconsin DNR's Natural Heritage Inventory database did not identify previous occurrences or suitable habitat for this species.
Prairie Bush-clover	*Lespedeza leptostachya*	Threatened	No Effect	Impacts to suitable habitat would not occur as part of this project. A review of Wisconsin DNR's Natural Heritage Inventory Database did not identify previous occurrences or suitable habitat for this species.

2. Is there designated or proposed critical habitat in the vicinity of the project?

☒ No

☐ Yes – Describe critical habitat, proximity to project, and potential impacts to the critical habitat.

3. Has Section 7 consultation with FWS been completed?

☐ No – Explain:

☒ Yes – Describe consultation efforts and conclusions:
The Final 4(d) Rule for the Streamlined Consultation process was used for the NELB. Information was included with the submittal to USFWS related to no effect determinations for other species listed above.

4. Are avoidance, minimization or compensatory mitigation measures required?

☒ No

☐ Yes – Describe. Include commitments on Basic Sheet 8, Environmental Commitments.

State Resources

1. Are threatened or endangered species known to occur in the vicinity of the project?

☐ None identified.

☒ Yes – Complete the following table and include the date of the most recent NHI review by WDNR.

Date of Natural Heritage Inventory (NHI) database review: **8/14/2017**

Species Common Name	Species Scientific Name	State Status	Effect Determination	Justification/ Explanation
Henslow's Sparrow	*Ammodramus henslowii*	Threatened	No Effect Expected	The Henslow's Sparrow prefers old fields, open grasslands, wet meadows, un-mowed highway right-of-ways, undisturbed pastures and fallow land grown up to tall weeds. The recommended avoidance period is from May 20 through August 15. Surveys for the Henslow Sparrow will be completed during project final design. Avoidance, minimization or mitigation measures, if necessary, will be determined in consultation with WDNR once surveys have been completed.
Big Brown Bat	*Eptesicus fiscus*	Threatened	No Effect Expected	One year prior to construction a visual inspection of the bridges will be conducted to determine if the Big Brown or the NLEB is present within the existing structure.

2. Has threatened and endangered resource coordination with WDNR been completed?

☐ No – Explain:

☒ Yes – Attach and reference location in this document: Initial comment letter received from WDNR on June 15, 2016, and the results of updated WDNR review of the NHI database on August 14, 2017 are included in Appendix 5.

3. Are avoidance, minimization or compensatory mitigation measures required?

☐ No

☒ Yes – Describe. Include commitments on Basic Sheet 8, Environmental Commitments.

Henslow Sparrow

Surveys for the Henslow Sparrow will be completed during project final design. Avoidance, minimization or mitigation measures, if necessary, will be determined in consultation with WDNR once surveys have been completed.

Swallows

Swallow nests have been observed under the existing bridge. The Federal Migratory Bird Treaty Act requires that old bridges with active swallow nests should not be destroyed while swallows are nesting or rearing their young; established as May 1 through August 30.

Under the U.S. Migratory Bird Treaty Act, destruction of swallows and other migratory birds, or their nests, is unlawful unless a permit is obtained from the U.S. Fish and Wildlife Service. Therefore, the project must either utilize measures to prevent nesting (i.e., remove unoccupied nests during the non-nesting season and install barrier netting prior to May 1), or construction must avoid nesting and rearing season.

Netting should be removed promptly following deck removal to avoid trapping birds.

The cost for preventing nesting shall be included in the cost of Removing Old Bridge.

Other Protected Resources

Bald and Golden Eagles

1. Are bald and/or golden eagles known to occur in the vicinity of the project?

☐ None identified.

☒ Yes

2. Will there be adverse or beneficial effects on bald and/or golden eagles as a result of the project?

☒ No

☐ Yes – Describe general proximity to project and potential impacts:

3. Has bald and golden eagle-related coordination with WDNR and/or FWS been completed?

☐ No – Explain:

☒ Yes – Attach and reference location in this document: Initial Comments have been received by WDNR with no mention of bald or golden eagle habitat. Section 7 Consultation has been completed with no habitat identified. An updated review of the NHI database by WDNR on August 14, 2017 identified a bald eagle nest located approximately one mile from the project area. WDNR determined that the nest is sufficiently far enough from the project area to not be a concern. See Appendix 5.

4. Are avoidance, minimization or compensatory mitigation measures required?

☒ No

☐ Yes – Describe. Include commitments on Basic Sheet 8, Environmental Commitments.

Migratory Birds

1. Are migratory birds known to occur in the vicinity of the project?

☐ None identified.

☒ Yes

2. Will there be adverse or beneficial effects on migratory birds as a result of the project?

☐ No – Explain:

☒ Yes – Describe general proximity to project and potential impacts: Environmental commitments and Special Provisions include language to net the bridge prior to May 1 to prevent migratory bird nesting. Surveys for the Henslow Sparrow will be completed during project final design. Avoidance, minimization or mitigation measures, if necessary, will be determined in consultation with WDNR once surveys have been completed.

3. Has migratory bird-related coordination with WDNR and/or FWS been completed?

☐ No – Explain:

☒ Yes – Attach and reference location in this document: Initial Comments have been received by WDNR. See Appendix 5.

4. Are avoidance, minimization or compensatory mitigation measures required?

☐ No

☒ Yes – Describe. Include commitments on Basic Sheet 8, Environmental Commitments.

Henslow Sparrow

Surveys for the Henslow Sparrow will be completed during project final design. Avoidance, minimization or mitigation measures, if necessary, will be determined in consultation with WDNR once surveys have been completed.

Swallows

Swallow nests have been observed under the existing bridge. The Federal Migratory Bird Treaty Act requires that old bridges with active swallow nests should not be destroyed while swallows are nesting or rearing their young; established as May 1 through August 30.

Under the U.S. Migratory Bird Treaty Act, destruction of swallows and other migratory birds, or their nests, is unlawful unless a permit is obtained from the U.S. Fish and Wildlife Service. Therefore, the project must either utilize measures to prevent nesting (i.e., remove unoccupied nests during the non-nesting season and install barrier netting prior to May 1), or construction must avoid nesting and rearing season.

Netting should be removed promptly following deck removal to avoid trapping birds.

The cost for preventing nesting shall be included in the cost of Removing Old Bridge.

Factor Sheet D-2

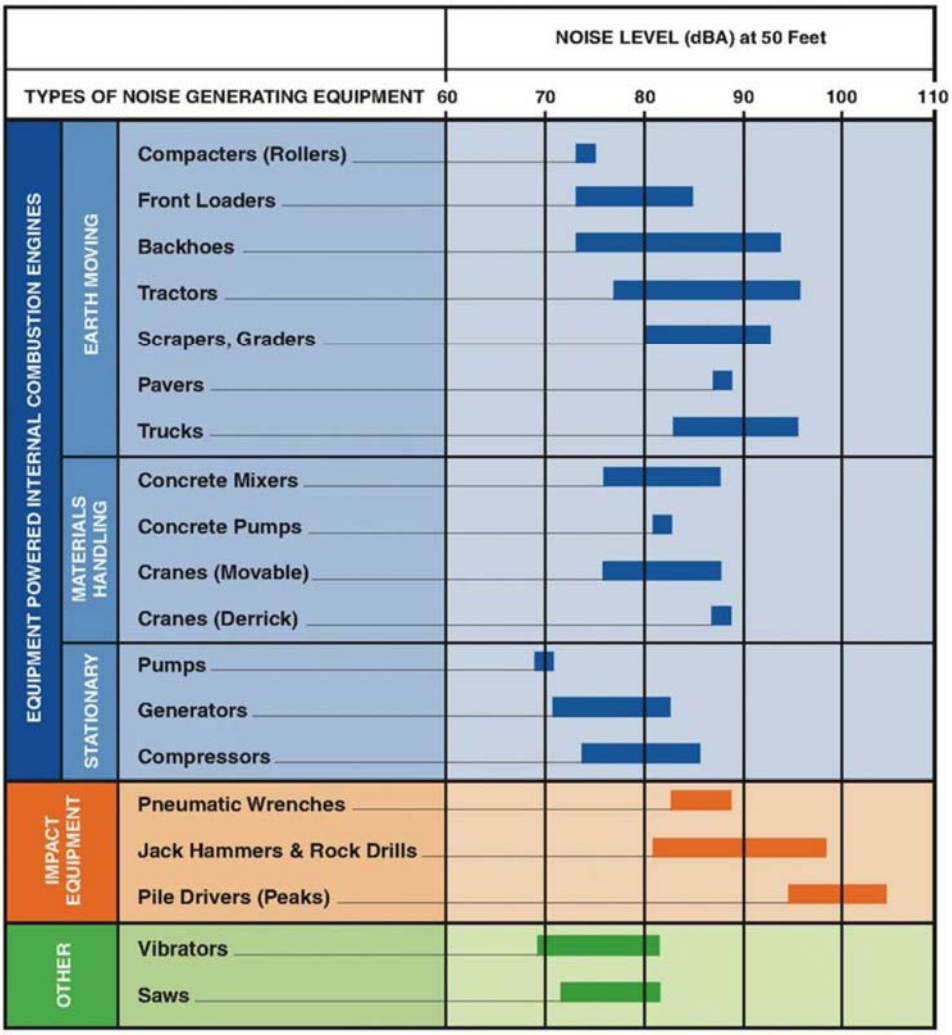
Alternative **Alternative #3: Reconstruct WIS 19 as a Four-Lane Roadway With Roundabout**	Total Length of Center Line of Existing Roadway: **1.1 Miles** Length of This Alternative: **1.1 Miles**
Preferred ☒ Yes ☐ No ☐ None Identified	

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

The receptors along the project corridor that would be affected by construction noise consist of private residences and local businesses. These receptors would be directly affected by the project, while others who regularly use the roadway would be indirectly affected.

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. Adverse effects related to construction noise are anticipated to be of a localized, temporary, and transient nature. A list of typical noise levels for a variety of construction equipment is shown in the figure below.



3. Describe the construction stage noise abatement measures to minimize identified adverse noise effects. Check all that apply:

☒ WisDOT Standard Specifications 107.8(6) and 108.7.1 will apply.

☐ WisDOT Standard Specifications 107.8(6) and 108.7.1 will apply with the exception that the hours of operation requiring the engineer's written approval for operations will be changed to __ P.M. until __ A.M.

☐ Special construction stage noise abatement measures will be required.

TRAFFIC NOISE EVALUATION

Wisconsin Department of Transportation

Factor Sheet D-3

Alternative **Alternative #3: Reconstruct WIS 19 as a Four-Lane Roadway With Roundabout**	Total Length of Center Line of Existing Roadway: **1.25 Miles** Length of This Alternative: **1.25 Miles**
Preferred ☒ Yes ☐ No ☐ None Identified	

1. Need for Sound Level Analysis:

Is the proposed action considered a Type I project or WisDOT Retrofit Project per FDM 23-10-1?

☐ No – Complete only Factor Sheet D-2, Construction Stage Sound Quality Evaluation.

☒ Yes – Complete Factor Sheet D-2, Construction Stage Sound Quality Evaluation, and the rest of this sheet.

2. Traffic Data:

Indicate whether traffic volumes for sound prediction are different from the Design Hourly Volume (DHV) on Basic Sheet 6, Traffic Summary Matrix*:*

☒ No

☐ Yes – Indicate volumes and explain why they were used:

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

3. Sound Level Analysis Technique

Identify and describe the noise analysis technique or program used to identify existing and future sound levels: (See attached receptor location map as Exhibit A). A receptor location map must be included with this document.

Aerial photos of the study area and local property owner/occupant information were reviewed to select noise receptors. Noise receptor locations are identified on a receptor location map in Appendix 9. The Federal Highway Administration (FHWA) Traffic Noise Model, V 2.5 (TNM®) was used to model existing (2015) peak hour noise levels at these locations. Existing traffic was the primary source of noise. The receptors along the WIS 19 corridor were modeled for the preferred alternative.

The Federal Highway Administration (FHWA) traffic Noise Model, V 2.5 (TNM®) was also used to model future design year (2040) peak hour Leq noise levels at all noise receptors.

4. Sensitive Receptors

Identify sensitive receptors, e.g., schools, libraries, hospitals, residences, etc. potentially affected by traffic sound:

No sensitive receptors are present along the project corridor.

5. Noise Impacts

If this proposal is implemented will future sound levels produce a noise impact?

☒ No

☐ Yes - The impact will occur because:

- ☐ The Noise Level Criteria (NLC) is approached (1 dBA less than the NLC) or exceeded.
- ☐ Existing sound levels will increase by 15 dBA or more.

6. Abatement

Will traffic noise abatement measures be implemented?

☒ Not applicable – Traffic noise impacts will not occur.

☐ No – Traffic noise abatement is not reasonable or feasible (explain why).

Four receptors were modeled along the WIS 19 corridor. Modeling results indicate that future sound levels would not produce a noise impact at any modeled receptors..

☐ 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 will be determined whether or not those measures will be implemented:

			Sound Level L_{eq}[1] (dBA)			Impact Evaluation		
Receptor Location or Site Identification (See attached map)	Distance from C/L of Near Lane to Receptor in feet (ft.)	Number of Families or People Typical of this Receptor Site	Noise Level Criteria[2] (NLC)	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 Level Criteria (Col. e minus Col. d)	Impact[3] or No Impact
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1	80	1	67	60	58	2	-7	N
2	146	1	67	65	64	1	-2	N
3	386	1	67	55	54	1	-12	N
4	494	Business	72	56	53	3	-16	N

[1] Use whole numbers only.

[2] Insert the actual Noise Level Criteria from FDM 23-30, Table 1.

[3] 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 Level Criteria ("approach" is defined as 1 dB less than the Noise Level Criteria, therefore an impact occurs when Column (h) is –1 dB or greater). I = Impact, N = No Impact.

Alternative **Alternative #3: Reconstruct WIS 19 as a Four-Lane Roadway With Roundabout**	Total Length of Center Line of Existing Roadway: **1.1 Miles** Length of This Alternative: **1.1 Miles**
Preferred ☒ Yes ☐ No ☐ None Identified	

1. Indicate whether the affected area may cause a discharge or will discharge to the waters of the state (Trans 401.03).

The proposed action would result in stormwater discharge into the Yahara River. To mitigate potential stormwater runoff issues into the Yahara River, WisDOT would add a small ditch section and berm to contain drainage flowing off the northeast corner of the bridge along the future westbound WIS 19 lanes. This berm would drain approximately 400 feet east into a grass ditch, to a culvert pipe under WIS 19, and then into another grass ditch section on the south side of WIS 19, before ultimately flowing west into the Yahara River. WisDOT would also construct a berm between the future eastbound lanes of WIS 19 and a proposed access road, to impede the flow of water draining directly into the Yahara River. This would include adding a flat bottom ditch east of the berm which could help detain the stormwater in a small pond area, which would then flow through a 15-inch concrete culvert pipe before discharging into the river.

2. 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 alternative.
☒ Yes - Water special natural resources exist in the project area.
- ☒ River/stream
- ☒ Wetland
- ☐ Lake
- ☐ Endangered species habitat
- ☐ Other – Describe

3. 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
- ☐ Stream relocations
- ☐ Long or steep cut or fill slopes
- ☐ Cold water stream
- ☐ Large quantity flows
- ☐ Increased backwater
- ☐ Other -
- ☐ Areas of groundwater recharge
- ☐ Overland flow/runoff
- ☐ High velocity flows
- ☐ Impaired waterway
- ☐ Exceptional/outstanding resource waters

4. Describe the overall stormwater management strategy to minimize adverse effects and enhance beneficial effects.

Guidelines and regulations for WisDOT project storm water management include the WisDOT Facilities Development Manual, Chapter 10, Erosion Control and Storm Water Quality; Wisconsin Administrative Code Chapter TRANS 401, Construction site Erosion Control and Storm Water Management Procedures for Department Actions; and the WisDOT/DNR Cooperative Agreement Amendment-Memorandum of Understanding on Erosion Control and Storm water Management. The overall storm water management strategy for the proposed improvements would include the following:

Basic Principles and Best Management Practices

- Limit disturbance of natural drainage features and vegetation.
- Prepare and implement an approved erosion control plan before land disturbance begins.
- Protect areas that provide important water quality benefits or that are susceptible to erosion.
- Reduce direct discharge into streams and wetlands by having it flow through a filter strip or vegetated swale.
- Reduce runoff velocities by running stormwater in shallow, flat-bottom swales.

Geometric Design Features/Storm Water Facilities

- Storm sewer system to control roadway drainage
- Vegetated ditches or grass swales to control quality of storm water discharge
- Storm water treatment ponds to control quality and quantity of storm water discharge

The project development team attended a Westport Town Board meeting on 12/19/2016 to present project information and discuss town of Westport identified issues, including erosion and stormwater runoff issues (see town of Westport coordination in Appendix 5). WisDOT identified design changes that can be implemented to address stormwater concerns include the following:

- Adding a small ditch section and berm to contain the drainage flowing off the northeast corner of the bridge along the future westbound WIS 19 lanes, which would then drain approximately 400 feet east in a grass ditch to a culvert pipe under WIS 19, and then into another grass ditch section on the south side of WIS 19 before flowing west into the Yahara River.

- Constructing a berm between the future eastbound lanes of WIS 19 and a proposed access road to impede the flow of water draining directly into the Yahara River. This would include adding a flat bottom ditch east of the berm which could help detain the stormwater in a small pond area, which would then flow through a 15-inch concrete culvert pipe before discharging into the river. The pond are would be designed not to hold water. This pond would hold some of the water during large storm events before it is released into the river. The pond would function as a detention pond since the culvert would still allow the flow of water, although at a slower rate than it would without the berm in place. The existing 100-year storm runoff for this area is approximately 62.8 cfs and this design modification would result in a runoff of approximately 63.7 cfs. This change would be an improvement from the 79.9 cfs total that would occur with the preliminary design concept that didn't include any berms.

- These measures would result in a design that exceeds state and federal standards for treating stormwater during a 100-year storm event.

5. Indicate how the stormwater management plan will be compatible with fulfilling Trans 401 requirements.

The types of storm water management strategies listed in item 3, previous page, and in item 5 below are identified in and/or consistent with TRANS 401 *Construction Site Erosion Control and Storm Water Management Procedures for Department Actions*; and the WisDOT/DNR Cooperative Agreement Amendment—*Memorandum of Understanding on Erosion Control and Storm Water Management*.

6. Identify the stormwater management measures to be utilized.

- ☒ Swale treatment (parallel to flow) Trans 401.106(10)
- ☒ Vegetated filter strips (perpendicular to flow)
- ☐ Constructed storm water wetlands
- ☐ Buffer areas – Trans 401.106(6)
  Describe - _____
- ☒ In-line storm sewer treatment, such as catch basins, non-mechanical treatment systems.
- ☒ Detention/retention basins – Trans 401.106(6)(3)
- ☐ Distancing outfalls from waterway edge
- ☐ Infiltration – Trans 401.106(5)
- ☐ Other
  _____

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

☒ No - There will be no effects to a recognized drainage district.
☐ Yes

Has initial coordination with a drainage board been completed?

☐ No - Explain _____
☐ Yes - Discuss results _____

8. Indicate whether the project is within WisDOT's Phase I or Phase II stormwater management areas.

Note: See Procedure 20-30-1, Figure 1, Attachment A4, the Cooperative Agreement between WisDOT and WisDNR. Contact Regional Stormwater/erosion Control Engineer if assistance in needed to complete the following:

☒ No - the project is outside of WisDOT's stormwater management area.
☐ Yes - The project affects one of the following and is regulated by a WPDES stormwater discharge permit, issued by the WisDNR:

- ☐ A WisDOT storm sewer system, located within a municipality with a population greater than 100,000.
- ☐ A WisDOT storm sewer system located within the area of a notified owner of a municipal separate storm sewer system.
- ☐ An urbanized area, as defined by the U.S. Census Bureau, NR216.02(3).
- ☐ A municipal separate storm sewer system serving a population less than 10,000.

9. Has the effect on downstream properties been considered?

☒ No
☐ Yes

Alternative **Alternative #3: Reconstruct WIS 19 as a Four-Lane Roadway With Roundabout**	Total Length of Center Line of Existing Roadway: **1.1 Miles** Length of This Alternative: **1.1 Miles**
Preferred ☒ Yes ☐ No ☐ None Identified	

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.

Existing side slopes in the project corridor range from flat to 3:1 and proposed range from 2.5:1 to 6:1 Existing longitudinal slopes in the project corridor range from flat to 2.5% and proposed range from 0.5% to 2.5%. Existing soils are predominantly well drained silt and loam over calcareous sandy loam till, loamy lacustrine, or gravelly sandy outwash.

2. Indicate all sensitive 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
- ☐ Lake
- ☒ Wetland
- ☐ Endangered species habitat
- ☐ Other - Describe _____

3. Are there circumstances requiring additional or special consideration?

☒ No - Additional or special circumstances are not present.
☐ Yes - Additional or special circumstances exist. Indicate all that are present.
- ☐ Areas of groundwater discharge
- ☐ Overland flow/runoff
- ☐ Long or steep cut or fill slopes
- ☐ Areas of groundwater recharge (fractured bedrock, wetlands, streams)
- ☐ 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.

Guidelines and regulations for minimizing the potential for erosion and sedimentation for highway projects include the WisDOT Facilities Development Manual, Chapter 10, *Erosion Control and Storm Water Quality*; Wisconsin Administrative Code Chapter TRANS 401, *Construction Site Erosion Control and Storm Water Management Procedures for Department Actions*; and the WisDOT/DNR Cooperative Agreement Amendment, *Memorandum of Understanding on Erosion Control and Storm Water Management.* Key concepts are summarized as follows:

Basic Principles and Best Management Practices

- The proposed improvements would be planned to fit topography, soils, drainage patterns, and natural vegetation to the extent practicable.
- The size of exposed areas at any one time and the duration of exposure would be minimized.
- Control measures will be used to prevent erosion and sedimentation in sensitive areas (proper design of drainage channels with respect to width, depth, gradient, side slopes, and energy dissipation); protective groundcover (vegetation, mulch, erosion mat, or riprap); diversion dikes and intercepting embankments to divert sheet flow away from disturbed areas; and sediment control devices (retention/detention basins, ditch checks, erosion bales, and silt fence).
- Disturbed areas would be protected from off-site runoff and sediment would be prevented from leaving the construction site.
- Spoil piles would be stored away from sensitive areas.

- Runoff velocities would be kept low by maintaining short slope lengths, low gradients, and vegetative cover.
- Disturbed areas would be stabilized as soon as practicable (temporary vegetation, mulch, stabilizing emulsions).
- Do not park or store equipment in sensitive areas.

Geometric Design Features and Erosion Control Facilities

- Smooth grade lines with gradual changes would be used.
- Natural and existing drainage patterns would be preserved to the extent possible.
- Stabilized slopes, soil, and stream banks would be left undisturbed where possible.
- Trees and shrubs would be preserved, and over-clearing would be prevented or minimized.
- Irregular ditch profiles and steep gradients would be avoided where possible.
- Vegetated ditches and drainage channels with wide, rounded cross sections would be used where applicable.
- An undisturbed buffer would be left between disturbed soil and sensitive areas where possible.
- The soil surface would be protected by using permanent and temporary erosion control measures such as seeding and sodding, mulch, erosion mat, and riprap.
- Sediment would be removed and velocities reduced by using erosion bales, silt fence, stone or rock ditch checks, sediment traps, and basins.

Erosion Control Implementation Plan

The construction contractor is required to prepare an Erosion Control Implementation Plan that includes all erosion control commitments made during a future engineering phase. The ECIP is due 14 days prior to the project's preconstruction meeting. This plan must be approved by WisDOT with concurrence by WDNR. The construction plans and contract special provisions must include the specific erosion control measures agreed on by WisDOT in consultation with DNR who reviews the Erosion Control Implementation Plan.

5. Discuss results of coordination with the appropriate authorities as indicated below.

☒ WDNR: Coordination is ongoing.

☒ American Indian Tribe: In accordance with WisDOT policy, all required American Indian Tribes were notified of the proposed project.

Note: All erosion control measures (i.e., the Erosion Control Plan) shall be coordinated through the WisDOT-WDNR liaison process and TRANS 401 except when Tribal lands of American Indian Tribes are involved. WDNR's concurrence is not forthcoming without an Erosion Control Plan. In addition, TRANS 401 requires the contractor to 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 liaison 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/Stormwater Management Plan can be compatible.

6. Will any special erosion control measures be implemented to manage additional or special circumstances identified in Item 3 above?

☐ No

☒ Yes – Describe: If erosion mat is used along stream banks, WisDOT would use biodegradable non-netted mat (e.g. Class I Type A Urban, Class I Type B Urban, or Class II Type C). Long-term netted mats may cause animals to become entrapped while moving in and out of the stream. WisDOT would avoid the use of fine mesh matting that is tied or bonded at the mesh intersection such that the openings in the mesh are fixed in size.

Appendix

APPENDIX 1

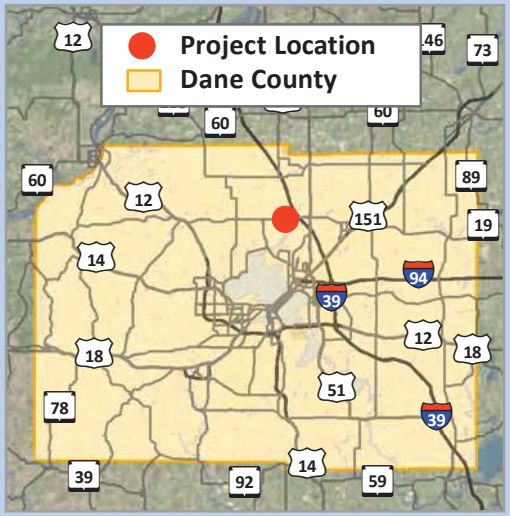
Project Maps

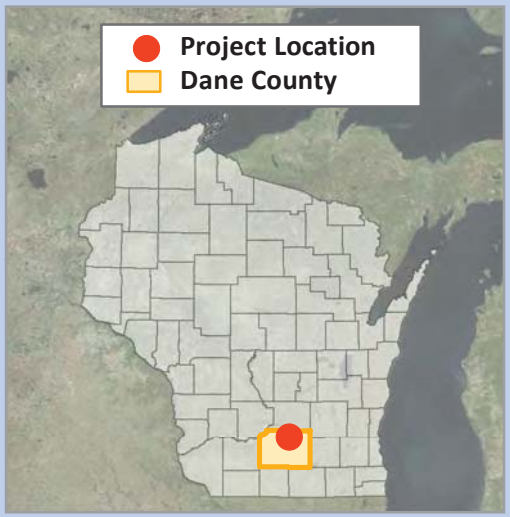
- Project Location Map
- Map of Nearest Available Detour Route

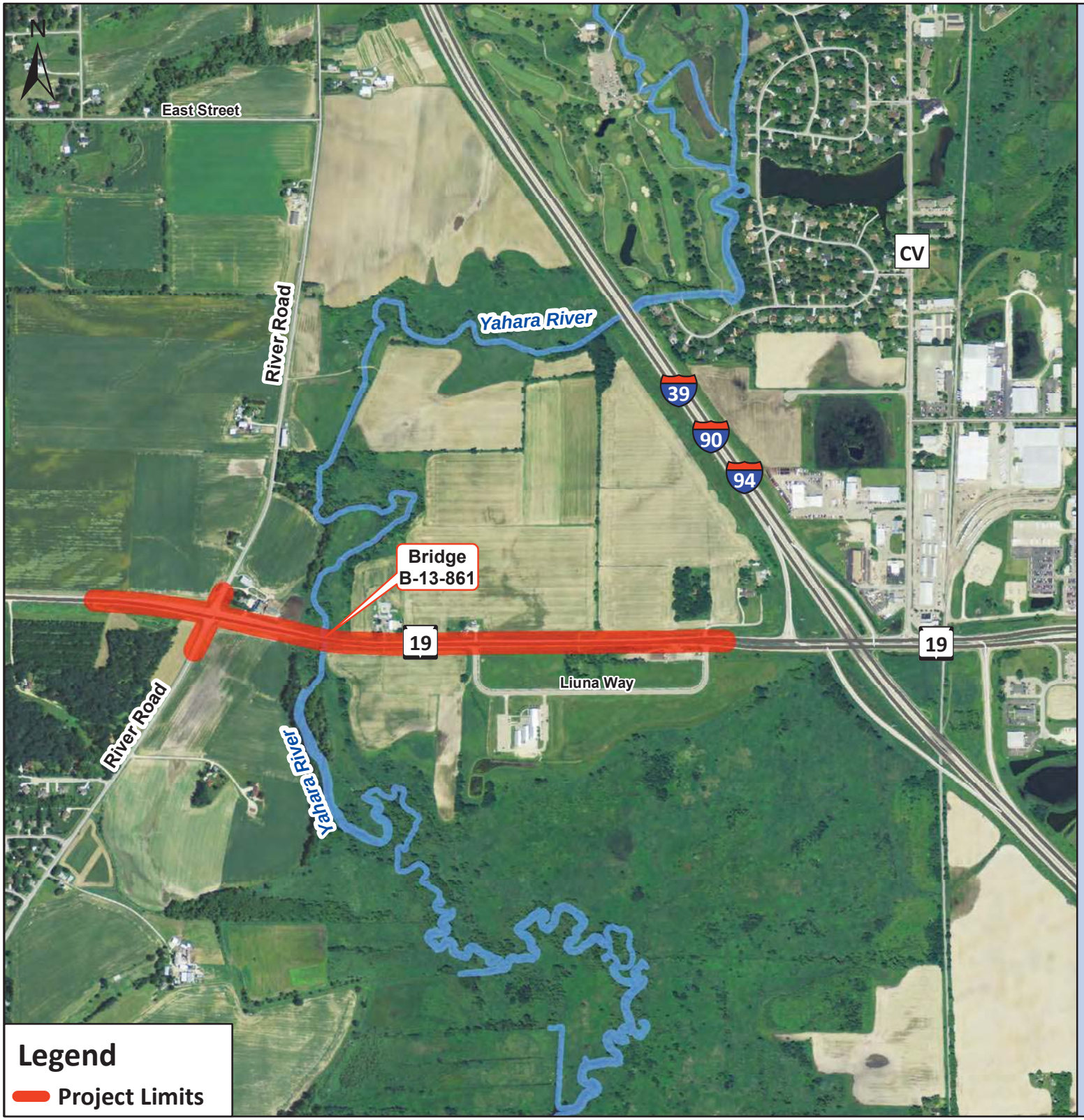
Project Location Map

Project Location

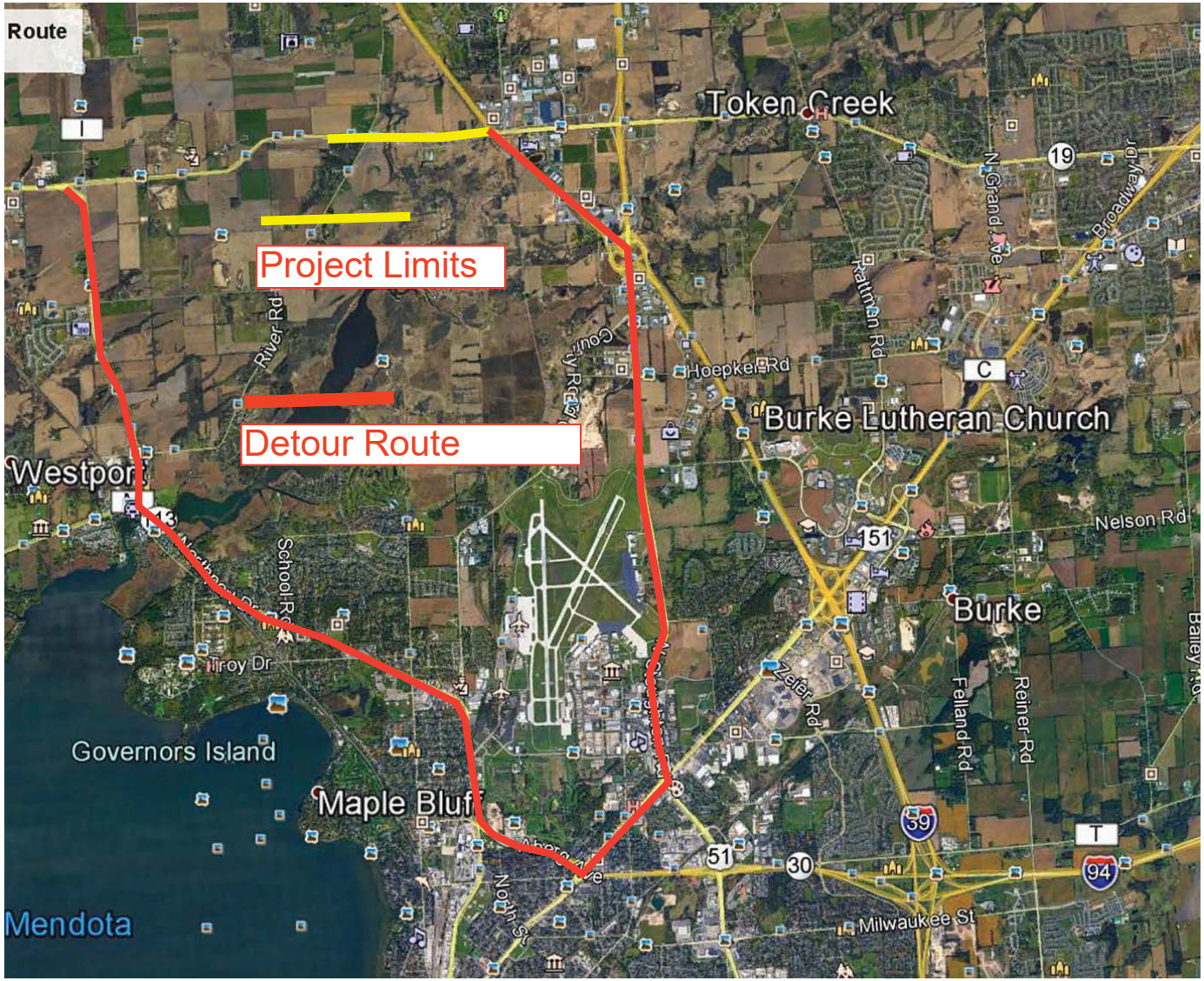
Project I.D. 5290-00-02
US 12 - I-39/90/94
(River Road – I-39/90/94)
WIS 19
Dane County







Map of Nearest Available Detour Route


Route
Project Limits
Detour Route
Token Creek
Burke Lutheran Church
Burke
Westport
Governors Island
Maple Bluff
Mendota
Hoepker Rd
Nelson Rd
Milwaukee St
Troy Dr
River Rd
School Rd
Zeier Rd
Felland Rd
Reiner Rd
Kaltman Rd
N Grand Ave
Broadway
North St
I
C
T
19
151
51
30
39
94

APPENDIX 2

Project Design Reports

- Intersection Control Evaluation
- Typical Section Alternative Analysis

Intersection Control Evaluation

To: DOT ICE Review
From: Kevin Kuhlow, P.E., Alexandria Motl, EIT
Date: 12/12/2016
RE: 5290-00-02
STH 19 and River Road
Waunakee, Dane County
Local Projects

Project Description:

This project will involve the reconstruction of a 1.25-mile-long section of STH 19 in Dane County from a point west of the River Road intersection to the IH 39/STH 19 interchange. As a part of the project, the STH 19 and River Road intersection will be reconstructed. Currently the intersection is two-way stop controlled, with stop signs on River Road. STH 19 has one through lane in each direction, with designated left turn and right turn lanes on each approach. Each River Road approach has a shared through/left turn lane and a right turn lane separated by a pork chop island. The reconstruction project on STH 19 will include an expansion of the cross section to provide two through lanes in each direction.

Safety at the intersection is a concern. Over the five-year period from 2011-2015, 29 crashes occurred, including one that resulted in a fatality. The predominant collision pattern is right angle crashes. Because the STH 19 expansion will provide two through lanes per direction and there is a safety concern at the intersection, the existing intersection traffic control is being re-evaluated as a part of the STH 19 reconstruction project.

Alternatives:

Please see the Phase I: ICE Brainstorming Guide, included in Attachment A, for a list of alternatives.

- The Two-Way Stop Control alternative does not adequately address the safety issues as the proposed STH 19 cross section will be expanded to provide two through lanes per direction to accommodate the expected AADT. Additionally, the Two-Way Stop Control alternative is not expected to provide adequate traffic operation conditions.
- The All-Way Stop Control alternative is not feasible as the warrants are not met and installing an All-Way Stop on a state trunk highway is not recommended.
- The traffic signal control alternative is not feasible as the traffic volumes do not satisfy the volume warrants and are unlikely to increase sufficiently to meet them in future.
- A J-Turn alternative would operate acceptably and would improve safety, but is not feasible due to right-of-way impacts and geometric constraints. Sight distances are a concern due to a hill located west of the intersection, and the Yahara River Bridge and Liuna Way intersection are located east of the intersection.
- The Roundabout alternative is expected to improve safety, maintain adequate traffic operation conditions and has the lowest project cost. It has acceptable ROW impacts and can accommodate OSOW vehicles, bicyclists and pedestrians.

Safety Considerations:

A crash diagram has been included in Attachment C. A review of the crash history was completed for the intersection from 2011-2015. As shown in Table 1, 29 crashes occurred at the intersection over the five-year period, or 5.8 crashes per year, including one fatality. Right angle crashes occurred between minor-street traffic from both directions and both near-side and far-side mainline traffic, but the most common pattern occurred between northbound and westbound vehicles. Other crashes included nine rear-end collisions, three fixed object collisions with sign posts, and one head-on collision where a driver lost control during inclement weather conditions and slid over the median.

Table 1: Crash History Severity and Collision Patterns

	Crash Severity				Collision Pattern			
Year	Fatality	Injury	Property Damage Only	Total	Right Angle	Rear-End	Fixed Object	Head-On
2011	0	3	3	6	3	3	0	0
2012	0	2	3	5	2	2	1	0
2013	0	0	5	5	4	0	1	0
2014	1	5	3	9	5	2	1	1
2015	0	2	2	4	2	2	0	0
Total	**1**	**12**	**16**	**29**	**16**	**9**	**3**	**1**

Operational Analysis:

Existing operations on the STH 19 approaches to the intersection are acceptable, with all movements operating at LOS 'A' during both the morning and evening peak periods. Conversely, operations on the River Road approaches to the intersection are all at LOS 'C' or worse. Table 2 shows the existing Levels of Service, Delay, Queuing, and Volume-to-Capacity (V/C) Ratios for each approach movement and the overall intersection for both peak periods. During the morning peak hour, both the northbound and southbound right turns lanes operate at LOS 'C'. The northbound shared through/left turn lane operates at LOS 'D' and the southbound shared through/left turn lane operates at LOS 'F'. During the evening peak hour, the northbound right turn lane operates at LOS 'D' and the southbound right turn lane operates at LOS 'C'. The shared through/left turn lane on both approaches operates at LOS 'F'. Detailed performance reports for the existing conditions are included in Attachment D.

Although the River Road approaches have very low traffic volumes, the heavy STH 19 volumes do not provide sufficient gaps for River Road traffic maneuvers. The Seconds of Delay shown in the table reflects average delay per vehicle. Field observations showed that while some vehicles were able to cross STH 19 or turn onto STH 19 from River Road after only waiting for several seconds, other vehicles had to wait over two minutes before receiving an acceptable gap in STH 19 traffic.

Table 2: Existing Traffic Operation Conditions for Two-Way Stop Control

2016 Existing TWSC Operation Conditions – 2010 Highway Capacity Manual											
Peak	MOE	Eastbound			Westbound			Northbound		Southbound		Overall
		LT	TH	RT	LT	TH	RT	LT/TH	RT	LT/TH	RT	
AM Peak	LOS	A	A	A	A	A	A	D	C	F	C	A
	Queue (ft)	25	0	0	25	0	0	25	25	100	25	N/A
	V/C Ratio	0.05	0.00	0.00	0.11	0.00	0.00	0.07	0.20	0.60	0.22	N/A
	Delay (sec)	9.8	0.0	0.0	9.9	0.0	0.0	31.1	15.8	68.5	17.1	4.9
PM Peak	LOS	B	A	A	B	A	A	F	D	F	C	A
	Queue (ft)	25	0	0	25	0	0	25	75	*	25	N/A
	V/C Ratio	0.16	0.00	0.00	0.15	0.00	0.00	0.28	0.52	3.21	0.22	N/A
	Delay (sec)	11.1	0.0	0.0	11.0	0.0	0.0	86.0	28.7	*	20.1	3.4

* HCM 2010 cannot compute queues or delay for a V/C Ratio of 3.21

Analysis for the alternatives under the 2040 design year peak hours is based on a volume forecast for the study area developed by WisDOT. The forecast is included in Attachment E.

Traffic operation conditions for the 2040 design year AM and PM peak hours under the improved Two-Way Stop Control alternative are summarized in Table 3. During both peak hours, the through and right turn movements on STH 19 are expected to operate at LOS 'A' and the left turn movements on STH 19 are expected to operate at LOS 'B'. The shared through and left turn lanes on the northbound and southbound River Road approaches are expected to operate at LOS 'F' during both peak hours. During the evening peak hour, HCS does not compute delay and queuing measurements for volumes that significantly exceed the capacity. It should be noted that operation conditions for the right turn lanes on the River Road approaches are expected to operate better than under the current conditions, due to the additional through lanes on STH 19; it is expected that there will be more gaps in STH 19 through traffic than exist currently. Detailed performance reports for the Two-Way Stop Control alternative are included in Attachment F.

Table 3: 2040 Traffic Operation Conditions to Improved Two-Way Stop Control

2040 TWSC (with 2 Through Lanes on STH 19) Operation Conditions – 2010 Highway Capacity Manual											
Peak	MOE	Eastbound			Westbound			Northbound		Southbound		Overall
		LT	TH	RT	LT	TH	RT	LT/TH	RT	LT/TH	RT	
AM Peak	LOS	B	A	A	B	A	A	F	B	F	B	A
	Queue (ft)	25	0	0	25	0	0	25	25	250	25	N/A
	V/C Ratio	0.09	0.00	0.00	0.21	0.00	0.00	0.21	0.24	1.49	0.26	N/A
	Delay (sec)	11.4	0.0	0.0	11.9	0.0	0.0	60.6	14.0	363.7	14.8	19.0
PM Peak	LOS	B	A	A	B	A	A	F	C	F	C	A
	Queue (ft)	50	0	0	50	0	0	*	100	*	25	N/A
	V/C Ratio	0.31	0.00	0.00	0.30	0.00	0.00	*	0.58	*	0.24	N/A
	Delay (sec)	14.8	0.0	0.0	14.6	0.0	0.0	*	24.6	*	16.3	1.4

* HCM 2010 cannot compute queues, delay, or V/C ratio for operations that significantly exceed capacity.

The Roundabout alternative is expected to maintain adequate levels of operation in the 2040 design year during all peak periods. Table 4 shows the expected Levels of Service, Delay, Queuing, and Volume-to-Capacity (V/C) Ratios for each approach movement and the overall intersection for both peak periods

during the 2040 Design Year. No movement is expected to operate below LOS 'C' during either peak period. In order to accommodate the traffic volumes expected to use the intersection and maintain adequate levels of service, the proposed roundabout includes two approach lanes per direction on the east and west legs, and one approach lane for each of the north and south legs, as well as a northbound right-turn bypass lane on the south River Road approach. Without the bypass lane, the approach is expected to operate below acceptable levels of service. Detailed performance reports for the Roundabout alternative are included in Attachment F.

Table 4: Design Year Operation Conditions for Roundabout Alternative

2040 Design Year Roundabout Operation Conditions – 2010 Highway Capacity Manual									
Peak	MOE	Eastbound		Westbound		Northbound		Southbound	Overall
		LT/TH	TH/RT	LT/TH	TH/RT	LT/TH	RT	LT/TH/RT	
AM Peak	LOS	A	A	A	A	A	A	B	A
	Queue (ft)	50	75	75	75	25	25	50	N/A
	V/C Ratio	0.39	0.44	0.42	0.47	0.02	0.17	0.36	N/A
	Delay (sec)	7.6	8.3	7.3	8.1	6.1	7.6	11.4	8.1
PM Peak	LOS	B	C	C	C	B	C	C	C
	Queue (ft)	150	200	175	250	25	100	50	N/A
	V/C Ratio	0.68	0.77	0.73	0.82	0.08	0.58	0.36	N/A
	Delay (sec)	13.8	17.7	15.7	21.2	10.4	21.5	16.0	17.5

Other Considerations:

A layout showing the proposed construction area for a roundabout controlled intersection compared to the proposed construction area for a two-way stop controlled or traffic signal controlled intersection is included in Attachment G. Table 5 shows a comparison of the construction costs, as well as several other parameters, such as right-of-way and wetlands impacts.

Table 5: Comparison of Partial-Stop Control and Roundabout Alternatives

	Partial-Stop Control	Roundabout
Construction Costs	$7,840,000	$6,740,000
Right-of-Way (acres)	7.6	4.3
Wetland Impacts (acres)	0.5	0.5
Agricultural Impacts (acres)	4.3	3.7
Utility Impacts	Same for both	Same for both
Drainage Issues	Flat bottom ditches for short-term detention and capacity	Flat bottom ditches for short-term detention and capacity

This segment of STH 19 is part of the OSOW truck route network. The proposed Roundabout alternative will be designed to accommodate the WisDOT vehicle inventory of OSOW vehicles.

Wider paved shoulders along STH 19 and River Road will provide on-road bike accommodations. Roundabout side paths and crosswalks will be constructed to accommodate pedestrians and bicyclists

using the intersection. Roundabout splitter islands and side paths will also be designed to accommodate a future trail along the north side of STH 19.

It is recommended that the driveway on the north side of STH 19 immediately east of the River Road intersection be removed due to its proximity to the intersection. This property has two full access driveways onto River Road north of the intersection that can remain open. Additionally, the driveway on the north side of STH 19 east of the Yahara River Bridge will be restricted to Right-In/Right-Out only due to the proposed median on STH 19.

There are currently no plans to expand STH 19 to four lanes between STH 113/CTH I and River Road. This project will be designed to accommodate potential future expansion, but the reconstruction should end as soon as possible west of River Road.

Feasibility of Alternatives:

The Improved Two-Way Stop Control alternative is not feasible. It is not expected to provide acceptable traffic operation conditions or to address the safety issues at the intersection.

The All-Way Stop Control alternative is not feasible. The Manual on Uniform Traffic Control Devices (MUTCD) and WisDOT each have warrants for an All-Way Stop Control intersection. The MUTCD warrants focus primarily on traffic volumes and crash history, while the WisDOT warrants include similar volume and crash history parameters, but also include factors such as functional classification, right turns, and mobility impacts. For both sets of warrants, the volumes on River Road do not meet the required thresholds. Additionally, the functional classification requirements for the WisDOT warrant are not met; WisDOT typically avoids installing All-Way Stop Control intersections on the state trunk highway network. Only the crash history warrants are satisfied for the All-Way Stop Control intersection.

The Traffic Signal Control alternative is not feasible. The MUTCD developed nine traffic signal control intersection warrants. The STH 19 and River Road intersection does not satisfy any of the nine warrants. The primary traffic signal warrants focus on traffic volumes. The first requires that eight hours of major and minor street volumes meet certain thresholds; the second requires that four hours of major and minor street volumes meet thresholds higher than the eight-hour thresholds; and the third evaluates peak hour total entering volumes only. Only one hour meets the eight-hour and four-hour warrants. In order to satisfy the eight-hour warrant, the minor street volumes for seven different hours would have to increase by between 20% and 76%. To satisfy the four-hour warrant, the minor street volumes for three different hours would have to increase by between 25% and 43%. Additionally, the WisDOT SW Region requires that the eight-hour warrant be met in order to consider a traffic signal control as a feasible alternative. It should be noted that because the MUTCD warrants specify that right turn volumes on any approach with a designated right turn lane be excluded from the analysis, and both the existing and proposed lane configurations for the study intersection include designated right turn lanes for all approaches, no right turn volumes were included in the warrant analysis. The crash history warrant consists of the three components: that five or more crashes susceptible to correction by a signal have occurred within a 12-month period, that the eight-hour warrants be met at 80% of the minimum volume

thresholds, and that other remedial countermeasures have been implemented to reduce the crash frequency before safety is used as justification for installing a traffic signal. While five or more crashes did occur within a 12-month period, the volume warrants were not met, and no other countermeasures have previously been implemented. The remaining warrants, which focus on pedestrian activity, school zones, coordinated signal systems, the roadway network, and railroad crossings, are not applicable to the STH 19 and River Road intersection.

The J-Turn intersection alternative is not feasible. Guidance in the FDM Section 11-25-1.3.2 states that the desirable location for U-Turns in a J-Turn intersection is 10 seconds per lane downstream of the primary intersection. Based on this, with a design speed of 60 mph and two travel lanes, the U-Turns should be located 1,760 feet from the primary intersection in order to provide adequate merging and weaving distance for cross-street vehicles navigating the U-Turn. STH 19 has a vertical curve west of the intersection which would impact sight distances for the west U-Turn location. The Yahara River is located approximately 1,000 feet east of the River Road intersection and the Liuna Way intersection is located approximately 2,300 feet east of the River Road intersection. The east U-Turn location would be 540 feet from the Liuna Way intersection, which could create operations and safety issues. Furthermore, a J-Turn intersection would impede pedestrian and bicycle users attempting to cross STH 19 at River Road. This alternative would expand the project limits, significantly impacting right-of-way and raising costs.

If the intersection remains two-way stop controlled, reconstruction will extend further to the west in order to accommodate the desirable westbound tangent prior to merge and merging taper distances for the potential installation of future traffic signals. A J-Turn configuration would extend the western project limit even beyond the two-way stop controlled alternative project limit. Therefore, the construction costs for a partial-stop controlled intersection, traffic signal controlled intersection, or J-Turn intersection are considerably higher than the construction costs for a multi-lane roundabout.

Conclusion:

The Roundabout alternative is the only feasible alternative. It is expected to improve safety, while maintaining adequate traffic operation conditions. Additionally, the costs and impacts of the roundabout alternative are expected to be less than the other alternatives. Although the traffic signal volume warrants should be met when installing a roundabout, the unique geometrics and safety concerns at the intersection justify installation of a roundabout.

Attachments:

Attachment A: Phase I: ICE Brainstorming Guide
Attachment B: All-Way Stop Control Warrant and Traffic Signal Control Warrant Analyses
Attachment C: Safety Analysis Collision Diagram
Attachment D: Existing Two-Way Stop Control Performance Reports
Attachment E: WisDOT Traffic Volume Forecast
Attachment F: Future Improved Two-Way Stop Control and Roundabout Analysis Performance Reports
Attachment G: Layout Comparison between Roundabout and Partial-Stop Control Conceptual Designs

To: DOT ICE Review
From: Kevin Kuhlow, P.E., Alexandria Motl, EIT
Date: 3/14/2018
RE: 5290-00-02
STH 19 and River Road
Waunakee, Dane County
Local Projects

Description:

In January 2017, a Phase I Scoping ICE Report recommending that a roundabout be installed at the STH 19 and River Road intersection was approved. Since that time, a Traffic Impact Analysis (TIA) for a new development in the northeast quadrant of the project area was submitted to the Department of Transportation by the Village of DeForest. This addendum to the ICE report includes an updated traffic operations analysis based on the new traffic forecast and trip generation expected by the development.

Alternatives:

In the Brainstorming Guide of the ICE report, it was determined that the only feasible alternative was roundabout control. Based on the volumes used for the ICE report, the traffic signal warrants were not met. However, with the updated volumes used in the TIA, the first and second traffic signal warrants are met. Therefore, the traffic signal control is also a feasible alternative.

All other alternatives remain infeasible for the reasons stated in the original ICE:

- The Two-Way Stop Control (TWSC) alternative does not adequately address the safety issues as the proposed STH 19 cross section will be expanded to provide two through lanes per direction to accommodate the expected AADT. Additionally, the Two-Way Stop Control alternative is not expected to provide adequate traffic operation conditions.
- The All-Way Stop Control alternative is not feasible as installing an All-Way Stop on a state trunk highway is not recommended.
- A J-Turn alternative would operate acceptably and would improve safety, but is not feasible due to right-of-way impacts and geometric constraints. Sight distances are a concern due to a hill located west of the intersection, and the Yahara River Bridge and Liuna Way intersection are located east of the intersection.

Safety

As outlined in the original ICE, 29 crashes occurred during the study period between 2011 and 2015. The predominant crash type was angle crashes, with 16 occurring in the 5-year period. Of those 16 angle crashes, there was one fatality, four Type B injury crashes, five Type C injury crashes, and six Property Damage Only (PDO) crashes. It is expected that both a roundabout and a traffic signal will improve safety and address the right-angle crash problem. However, the roundabout alternative is expected to have a slightly better impact on the overall intersection compared to that of the signal, due to a traffic signal's

potential to increase rear-end crashes. While PDO crashes are also expected to increase initially under a roundabout, there are a significant number of injury crashes at the intersection that are expected to benefit from a roundabout.

Table 1 summarizes the crash history by severity and pattern for the study period, from 2011 to 2015. Table 2 and Table 3 show the expected improvements by converting the Two-Way Stop Controlled Intersection to a Traffic Signal, or a Roundabout, according to the WisDOT Crash Modification Factors (CMFs). As shown in Table 2, a signal is expected to decrease angle crashes from 16 to 5.3. The signal is also expected to increase rear-end crashes from 9 to 21.9. Because the signal CMF indicates that rear-end crashes are expected to more than double after a conversion from TWSC to signal when the major road has a posted speed limit higher than 40 mph, the benefits from the reduction in angle crashes are expected to be outweighed by the increase in rear-end crashes. As shown in Table 2, the total number of expected crashes remains at 29 crashes per five-year period after the conversion to a signal. However, while an increase in PDO crashes is expected as a result of a conversion from a TWSC to a roundabout (from 16 to 18.6), the intersection currently experiences enough injury and fatality crashes that the expected benefits from the reduction in injury crashes outweighs the increase in PDO crashes. As shown in Table 3, the number of injury crashes is expected to decrease from 13 to 6.5, and the total number of crashes is expected to decrease from 29 to 25.1 in subsequent five-year periods as a result of a conversion from a TWSC to a roundabout.

Table 1: Existing Crash Analysis with Severity and Collision Pattern, 2011-2015

Crash Type	Severity					TOTAL
	K	A	B	C	PD	
Right Angle	1	0	4	5	6	16
Left Turn	0	0	0	0	0	0
Rear End	0	1	0	1	7	9
Sideswipe - Opposite	0	0	0	0	0	0
Sideswipe - Same	0	0	0	0	0	0
Merging	0	0	0	0	0	0
Head On	0	0	0	0	1	1
Hit Object	0	0	0	1	2	3
Run Off Road	0	0	0	0	0	0
Pedestrian/Bicycle	0	0	0	0	0	0
Overturn	0	0	0	0	0	0
TOTAL	1	1	4	7	16	29

Table 2: Expected Improvements with TWSC to Signal WisDOT CMF 1.4.1.01.2.0.v01, 2011-2015

CMF by Crash Type		CMF by Severity					Totals:		
Crash Type		Severity					Historic	Targeted	CMF Adjusted
		K	A	B	C	PD			
Right Angle	0.33	1	0	4	5	6	16	16	5.3
Left Turn	0.95	0	0	0	0	0	0	0	0.0
Rear End	2.43	0	1	0	1	7	9	9	21.9
Sideswipe - Opposite	0.95	0	0	0	0	0	0	0	0.0
Sideswipe - Same	0.95	0	0	0	0	0	0	0	0.0
Merging	0.95	0	0	0	0	0	0	0	0.0
Head On	0.95	0	0	0	0	1	1	1	1.0
Hit Object	0.95	0	0	0	1	2	3	3	2.9
Run Off Road	0.95	0	0	0	0	0	0	0	0.0
Pedestrian/Bicycle	0.95	0	0	0	0	0	0	0	0.0
Overturn	0.95	0	0	0	0	0	0	0	0.0
TOTALS: Historic Data		1	1	4	7	16	29	29	31.0
TOTALS: Targeted Crashes		1	1	4	7	16	29	29.0	
TOTALS: CMF Adjusted		1.0	1.0	4.0	7.0	16.0	29.0		

Table 3: Expected Improvements with TWSC to Roundabout WisDOT CMF 1.3.1.M02.1.0.v02, 2011-2015

CMF by Crash Type		CMF by Severity					Totals:		
		0.50	0.50	0.50	0.50	1.16			
Crash Type		Severity					Historic	Targeted	CMF Adjusted
		K	A	B	C	PD			
Right Angle		1	0	4	5	6	16	16	16.0
Left Turn		0	0	0	0	0	0	0	0.0
Rear End		0	1	0	1	7	9	9	9.0
Sideswipe - Opposite		0	0	0	0	0	0	0	0.0
Sideswipe - Same		0	0	0	0	0	0	0	0.0
Merging		0	0	0	0	0	0	0	0.0
Head On		0	0	0	0	1	1	1	1.0
Hit Object		0	0	0	1	2	3	3	3.0
Run Off Road		0	0	0	0	0	0	0	0.0
Pedestrian/Bicycle		0	0	0	0	0	0	0	0.0
Overturn		0	0	0	0	0	0	0	0.0
TOTALS: Historic Data		1	1	4	7	16	29	29	29.0
TOTALS: Targeted Crashes		1	1	4	7	16	29	25.1	
TOTALS: CMF Adjusted		0.5	0.5	2.0	3.5	18.6	25.1		

Additionally, WisDOT CMF 1.3.1.M04.1.0.v02 indicates that roundabouts are expected to have a greater impact on reducing injury crashes than signals. Therefore, while both alternatives are expected to improve safety, the improvements from the roundabout alternative are expected to be greater than those of the signal.

Operational Analysis:

The original ICE report included peak hour traffic operation analyses for the existing configuration (Two-Way Stop Control), a 2040 design year condition with TWSC and STH 19 as a four-lane divided roadway, and a 2040 design year condition with roundabout control. This addendum includes updated analysis for the 2040 design year roundabout control, using the same peak hour traffic volumes, peak hour factors, and heavy vehicle percentages used in the TIA. It also includes peak hour traffic signal control analysis using the same volume parameters. Because the TWSC traffic operations analysis in the ICE Report reported failing operations with the lower volumes, the TWSC analysis was not updated with the higher TIA volumes in this addendum.

As shown in Table 4, the updated analysis indicated that a 2x1 multilane roundabout with two entering lanes on the STH 19 approaches, one entering lane on the River Road approaches, a single southbound yielding right turn bypass lane, and double northbound yielding right turn bypass lanes is expected to operate with all movements at LOS 'D' or better in the 2040 Design Year AM Peak Hour. During the 2040 Design Year PM Peak Hour, the eastbound leg is expected to operate at LOS 'F', the westbound leg is expected to operate at LOS 'E', and the lanes on the northbound and southbound legs are expected to operate at LOS 'D' or better. The overall intersection is expected to operate at LOS 'E', with 40.7 seconds of delay per vehicle.

Table 4: Updated 2040 Peak Hour Roundabout Traffic Operations with TIA Development Volumes

2040 Design Year Roundabout Traffic Operations - SIDRA, 2010 HCM Model											
Peak	MOE	Eastbound		Westbound		Northbound			Southbound		Overall
		Left Lane	Right Lane	Left Lane	Right Lane	Left Lane	Left Bypass Lane	Right Bypass Lane	Left Lane	Bypass Lane	
AM Peak	LOS	C	C	D	D	A	B	B	D	D	C
	Queue (ft)*	200	200	325	325	25	25	25	50	75	N/A
	V/C Ratio	0.801	0.801	0.889	0.889	0.041	0.245	0.245	0.543	0.687	N/A
	Delay (sec)	22.6	22.6	25.8	25.8	9.7	12.8	12.8	29.8	34.3	24.7
PM Peak	LOS	F	F	E	E	C	D	D	C	B	E
	Queue (ft)*	650	650	500	500	25	75	75	25	25	N/A
	V/C Ratio	0.999	0.999	0.945	0.945	0.137	0.597	0.597	0.328	0.183	N/A
	Delay (sec)	50.3	50.3	36.6	36.6	15.7	29.7	29.7	17.7	12.3	40.7

* Queues are calculated based on "rounded-up" number of vehicles in 95th Percentile queue, at 25' per vehicle

It should be noted that the roundabout analysis included in the TIA only included a single northbound yielding right turn bypass lane. Under that configuration, the overall intersection is expected to operate at LOS 'F', with 51.1 seconds of delay and the northbound approach was also expected to operate at LOS 'F' in the 2040 Design Year. For unsignalized intersections, such as roundabouts, LOS 'E' includes delay ranging from 35 to 50 seconds of delay per vehicle. The updated analysis indicates that adding the second northbound yielding right turn bypass lane is expected to improve operations on the northbound

approach, which is expected to impact overall operations at the intersection by improving it from a low LOS 'F' to a mid-range LOS 'E'.

As shown in Table 5, traffic signal control is expected to operate with all movements at LOS 'C' or better during both peak hours in the 2040 design year.

Table 5: 2040 Peak Hour Traffic Signal Traffic Operations with TIA Development Volumes

2040 Design Year Traffic Signal Traffic Operations - 2010 HCM Model														
Peak	MOE	Eastbound			Westbound			Northbound			Southbound			Overall
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
AM Peak	LOS	B	B	A	B	A	A	B		A	C		A	A
	Queue (ft)*	75	325	25	150	275	25	25		0	100		0	N/A
	V/C Ratio	0.22	0.73	0.00	0.56	0.71	0.03	0.05		0.00	0.46		0.00	N/A
	Delay (sec)	12.0	11.0	5.7	12.3	5.5	2.3	19.7		0.0	22.6		0.0	8.9
PM Peak	LOS	B	B	A	B	B	A	C		A	C		A	B
	Queue (ft)*	100	475	25	125	400	50	50		0	75		0	N/A
	V/C Ratio	0.54	0.85	0.01	0.63	0.77	0.10	0.14		0.00	0.37		0.00	N/A
	Delay (sec)	11.2	13.1	4.6	14.5	10.1	4.8	21.5		0.0	23.1		0.0	12.0

* Queues are calculated based on "rounded-up" number of vehicles in 95th Percentile queue, at 25' per vehicle

Detailed SIDRA and Synchro Performance Reports are included in Attachment A.

A sensitivity analysis was completed for the roundabout alternative to determine the year in which the roundabout is expected to exceed the mid-range LOS 'E' 42.5 seconds of delay per vehicle threshold. 2020 Interim Year peak hour turning movement volumes and the 2040 Design Year peak hour turning movement volumes developed in the TIA were used to calculate turning movements for every year from 2020 to 2040, based on linear growth. The PM peak hour volumes were then analyzed. Based on the sensitivity analysis, it is expected the roundabout will maintain acceptable traffic operation conditions, with all movements operating above the mid-range LOS 'E' 42.5 seconds of delay per vehicle threshold, until 2037. In 2038, it is expected that the eastbound approach will exceed the threshold, with 44.4 seconds of delay per vehicle during the PM Peak Hour.

Table 6 summarizes the sensitivity analysis results for the design year (2040), five years prior to the design year (2035), and the years immediately before and after the threshold is exceeded (2037 and 2038).

Table 6: STH 19 and River Road Roundabout Sensitivity Analysis

Roundabout PM Peak Hour Traffic Operations Sensitivity Analysis - SIDRA, 2010 HCM Model											
Year	MOE	Eastbound		Westbound		Northbound			Southbound		Overall
		Left Lane	Right Lane	Left Lane	Right Lane	Left Lane	Left Bypass Lane	Right Bypass Lane	Left Lane	Bypass Lane	
2035	LOS	E	E	D	D	B	C	C	C	B	D
	Queue (ft)*	375	375	350	350	25	50	50	25	25	N/A
	V/C Ratio	0.937	0.937	0.892	0.892	0.127	0.526	0.526	0.293	0.160	N/A
	Delay (sec)	36.8	36.8	28.3	28.3	14.4	24.3	24.3	15.8	11.3	30.9
2037	LOS	E	E	D	D	B	D	D	C	B	D
	Queue (ft)*	500	500	400	400	25	50	50	25	25	N/A
	V/C Ratio	0.962	0.962	0.915	0.915	0.131	0.548	0.548	0.300	0.177	N/A
	Delay (sec)	41.5	41.5	31.4	31.4	14.9	25.9	25.9	16.4	11.8	34.4
2038	LOS	E	E	D	D	C	D	D	C	B	E
	Queue (ft)*	550	550	425	425	25	50	50	25	25	N/A
	V/C Ratio	0.975	0.975	0.923	0.923	0.133	0.565	0.565	0.320	0.179	N/A
	Delay (sec)	**44.4**	**44.4**	32.6	32.6	15.2	27.2	27.2	17.1	12.0	36.3
2040	LOS	F	F	E	E	C	D	D	C	B	E
	Queue (ft)*	650	650	500	500	25	75	75	25	25	N/A
	V/C Ratio	0.999	0.999	0.945	0.945	0.137	0.597	0.597	0.328	0.183	N/A
	Delay (sec)	**50.3**	**50.3**	36.6	36.6	15.7	29.7	29.7	17.7	12.3	40.7

* Queues are calculated based on "rounded-up" number of vehicles in 95th Percentile queue, at 25' per vehicle.

Detailed SIDRA and Synchro Performance Reports are included in Attachment B.

Costs and Impacts

The traffic signal alternative would extend the project limits on the west leg due to the required transition from four lanes to two lanes at the posted speed limit of 55 mph. The project limits on the River Road legs would also be extended to improve the profiles to accommodate the through movements that no longer have to stop if the traffic signal phasing is green when vehicles arrive. A roundabout is expected to have a smaller project footprint and would have lower construction costs. Table 7 compares the expected land impacts and overall cost between the traffic signal and roundabout alternatives.

Table 7: Costs and Right of Way Impacts Comparison

	Traffic Signal	Roundabout
Total R/W Required	10.8 acres	7.2 acres
Wetland Impacts	0.7 acres	0.7 acres
Farm Operation Impacts	4.7 acres	4.0 acres
Farm Operations Affected	4	2
Total Cost	$10.9 million	$9.0 million

Conclusions

Although the traffic signal would operate with less overall delay than the roundabout and perform better than the desirable intersection LOS threshold in the 2040 design year AM and PM peak hours, several other factors favor the roundabout alternative:

- The roundabout AM and PM peak hour average delay for the intersection is better than the desirable maximum of mid-range LOS E until year 2038
- In general, roundabouts are expected to improve safety more than signals due to crash severity and collision pattern concerns at STH 19 and River Road
- The TIA 2040 traffic volumes predicted for full buildout from the Fleet Farm development may not occur or may take longer than predicted. Either situation would extend the acceptable operations within the roundabout to the design year or beyond.
- A roundabout would provide traffic calming for eastbound traffic transitioning from a rural 55 mph zone to an urbanized 45 mph zone with multiple traffic signals
- The roundabout has a smaller footprint, which would reduce environmental impacts
- The roundabout is less costly to build and maintain

Given the above, the Southwest Region selects the roundabout as the recommended alternative at this intersection.

Typical Section Alternative Analysis

MEMORANDUM

To: David Pilon - WisDOT SW Region Project Manager

From: Ayres Associates Inc

Date: August 12, 2016 Project No.: 41-0717.00

Re: Typical Section Alternative Analysis
Project 5290-00-02
USH 12 – IH 39
River Road – IH 39
STH 19
Dane County

Introduction

The Wisconsin Department of Transportation (WisDOT) has retained Ayres Associates to complete the preliminary and final design services for the reconstruction of a 1.25-mile-long section of STH 19 in Dane County. The project will involve expanding the roadway from two lanes to four lanes from a point west of the River Road intersection to the IH 39/STH 19 interchange. One of the initial steps of the project involves analyzing two alternatives for the proposed typical section of the four-lane roadway:

- Four-lane urban roadway with 30-foot wide median and mountable curb and gutter in the median and open ditches along the outsides
- Four-lane rural roadway with 50-foot wide median with open ditches in the median and along the outsides

The purpose of this memo is to evaluate the impacts and costs associated with each alternative to help determine the most feasible option.

Background:

This section of STH 19 is within a 30-mile-long access and safety study. The corridor has experienced increased crash rates, growing traffic volumes, and expanding development. Separate projects have been programmed for improvements within this segment. This segment of STH 19 between River Road and IH 39 had daily traffic volumes of 17,300 in 2015 which are expected to grow to 23,500 in 2040. Because of the increased traffic volumes and safety concerns, WisDOT is proposing to expand this section of STH 19 to four lanes.

The STH 19 existing and proposed posted speed is 55 mph west of the eastern Liuna Way intersection, and 45 mph to the east through the IH 39 interchange. The design speeds will be 60 mph west of the eastern Liuna Way intersection, and 50 mph to the east.

A separate project will be completed by the end of 2017 at the I-39/STH 19 interchange which this new project will tie into. After that project is complete, the STH 19 typical section at the southbound IH 39 ramp terminal will be an urban section consisting of a 33.5-foot median with 36-inch curb and gutter, two 12-foot lanes in each direction, and 5-foot outside shoulders with 36-inch curb and gutter. Further

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5201 E. Terrace Drive, Suite 200 ● Madison, WI 53718
608.443.1200 ● Fax: 608.299.2184 ● www.AyresAssociates.com

east, east of the CTH CV intersection and northbound IH 39 ramp terminal, the typical section becomes rural and the median widens out to 66-feet.

The typical section to the west is a two-lane rural roadway and there are currently no plans to reconstruct that segment. Either the urban or rural alternatives could be extended to the west and be compatible with a future improvement.

Proposed Improvements:

The project involves adding two new eastbound lanes south of the existing roadway. The existing lanes will become the two westbound lanes. The new four-lane segment would extend west of the River Road intersection and then taper down to match the existing two-lane roadway. The full four-lane section will extend far enough to the west to allow a future project to tie-in without requiring reconstruction of the River Road intersection.

Two new bridges will be constructed over the Yahara River. The existing bridge will be removed and replaced with a new bridge for the westbound roadway, and a second bridge will be constructed to the south for the new eastbound roadway.

An Intersection Control Evaluation report is being prepared for the River Road intersection comparing traffic signals and a roundabout. Full access will be provided at the western Liuna Way intersection. The western Liuna Way intersection will be the main entrance into an area of land north of STH 19 between IH 39 and the Yahara River. This land is within the Village of DeForest and is anticipate to be developed in the future. The eastern Liuna Way intersection will remain as right-in/right-out only. There are also private access points within the project limits that will be evaluated for closure or converting to right-in/right-out only.

Design Elements:

The design class for a four-lane rural roadway is A3 and it is UA3 for a four-lane urban roadway. Both design classes require two 12-foot lanes with 10-foot outside shoulders and 6-foot inside shoulders.

With a posted speed of 55 mph west of the eastern Liuna Way intersection, the urban section alternative would be considered a High Speed Urban Roadway. The FDM states that “In general, neither vertical nor sloping curb are desirable for use on high-speed roadways. Therefore, eliminate curbs on urban high speed roadways, where it is practical to do so.” Based on this statement, the use of curb and gutter on high speed roadways is not desirable, which is a drawback for the urban typical section alternative.

Alternative Comparison

This analysis assumes a pavement consisting of 10” of concrete pavement over 6” of base course with 16” of selected crushed material. The actual pavement structure will be determined later when the Pavement Type Selection Report is prepared.

The table below shows a comparison between the two alternatives.

	30-Foot Median Urban Section	50-Foot Median Rural Section
Construction Costs	$8,030,000	$7,990,000
Right-of-Way (acres)	5.5	7.6
Wetland Impacts (acres)	0.4	0.5
Agricultural Impacts (acres)	3.2	4.3
Utility Impacts	Same for both	Same for both
Drainage Issues	Flat bottom ditches for short-term detention and capacity	Flat bottom ditches for short-term detention and capacity

The estimated costs for each of the alternatives are nearly equivalent with the difference less than $50,000. The rural section includes additional earthwork with more excavation required from the large hill located south of STH 19 just west of River Road. The urban section includes more curb and gutter with additional inlets and storm sewer pipe.

One of the more significant differences between the alternatives is the required drainage. The urban section would require inlets in the curb and gutter with storm sewer outfalls approximately every 400 feet, while the rural section would involve inlets draining the median at spacing of approximately 700 to 800 feet. Flat bottom ditches would be used with either alternative to provide short term detention and capacity for conveying water produced from the increase in impervious area. They would also increase the TSS removal percentage for water quality when compared to V-ditches.

As expected, the wider rural section requires additional right-of-way which is primarily located on the south side of STH 19. The rural section also has greater impacts to wetlands and agricultural lands.

The rural section allows for slotted left turn lanes with raised islands at the intersections. It also provides more flexibility for future expansion and the ability to add dual left turn lanes at signalized intersections if those are ever required. Both alternatives can be designed to accommodate a roundabout or a traffic signal at the River Road intersection.

The rural section seems to fit the current land use better and match the characteristics of the corridor to the west. However, if significant development is anticipated to occur where this section would transition into an urban type environment, then an urban section might be more appropriate. Although it should be noted that with the recent acquisition of a parcel of land adjacent to the Yahara River by Dane County Parks on both sides of STH 19, and the presence of existing DNR land along the river, it seems likely that section approximately ¼ miles in length will remain rural in nature in the future.

The urban section will require more maintenance than the rural section due to the additional inlets and storm sewer required and also the need to use smaller equipment to mow the grassed median areas.

Attachments

A. Typical sections
B. Urban alternative plan and profile sheets
C. Rural alternative plan and profile sheets

APPENDIX 3
Project Plans and Typical Sections

PROJECT ID: 5290-00-02
WITH: PROJECTID2

COUNTY: DANE

ORDER OF SHEETS

TOTAL SHEETS =

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

USH 12 - IH 39

RIVER ROAD TO IH 39

STH 19

DANE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5290-00-02		

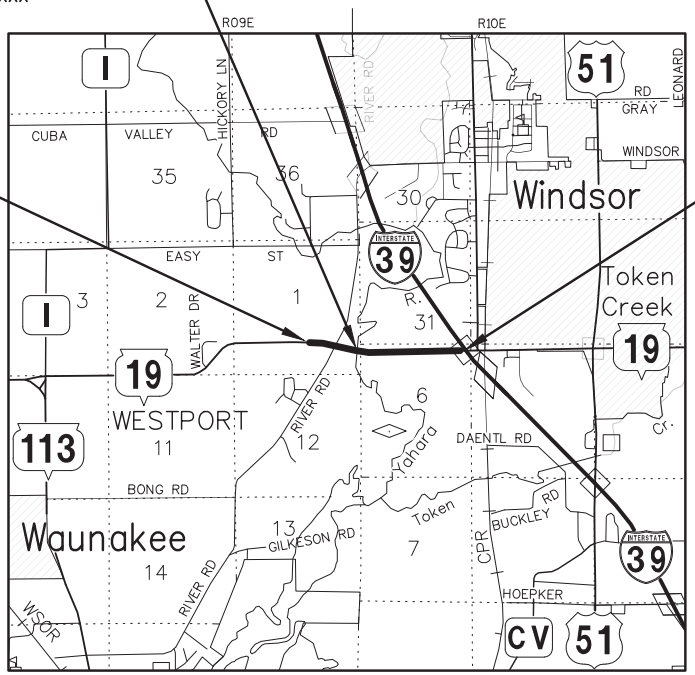
30% SUBMITTAL

STATE PROJECT NUMBER
5290-00-02

STUCTURES B-XX-XXX &
B-XX-XXX

BEGIN PROJECT 5290-00-02
STA. 135+00.00'EB'
X =
Y =

END PROJECT 5290-00-02
STA. 193+99.26'EB'
X =
Y =



LAYOUT
SCALE 0 1 mi.

TOTAL NET LENGTH OF CENTERLINE = 1.117 mi.

DESIGN DESIGNATION

A.A.D.T. (2016)	=	xxxxx
A.A.D.T. (2036)	=	xxxxx
D.H.V. (TWO WAY)	=	xxxxx
D.D. (%)	=	xxxxx
T. (%)	=	xx
DESIGN SPEED (MPH)	=	60
ESALS	=	xxxxxxx

CONVENTIONAL SYMBOLS

PLAN
- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE
- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES
- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, DANE COUNTY ZONE, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88 (2012).

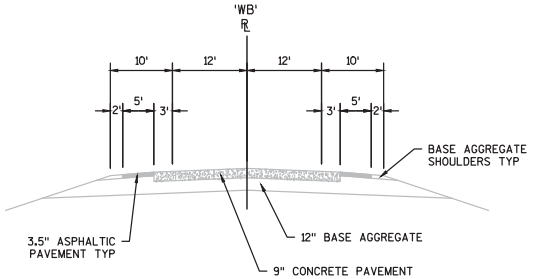
ORIGINAL PLANS PREPARED BY:
AYRES ASSOCIATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
Surveyor: AYRES ASSOCIATES
Designer: AYRES ASSOCIATES
Project Manager: MATT BARR
Regional Examiner:
Regional Supervisor: xxxxxxxxx

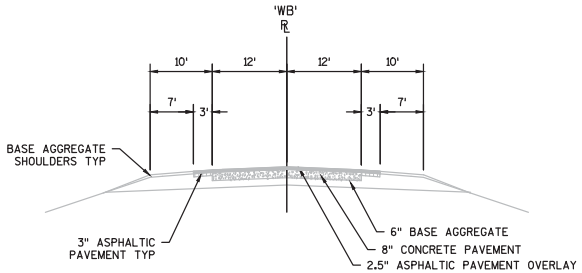
APPROVED FOR THE DEPARTMENT
DATE: _____ (Signature)

E



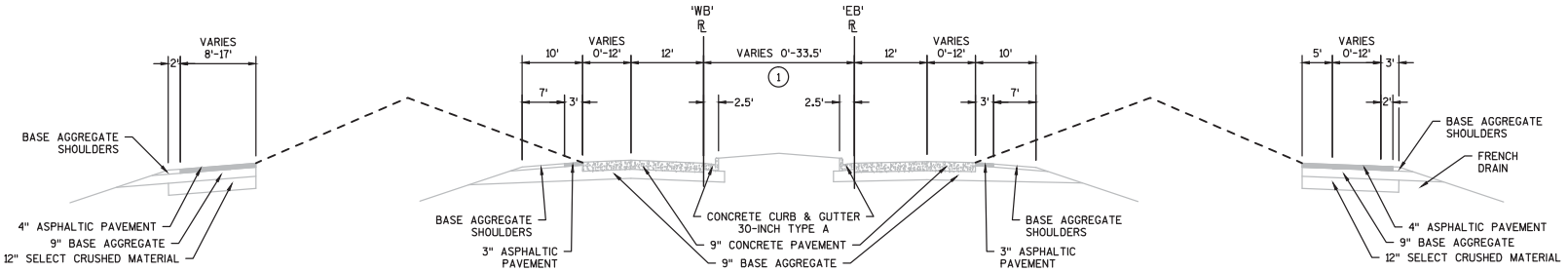
TYPICAL EXISTING SECTION - STH 19

STA. 134+82'WB' TO STA. 154+40'WB'



TYPICAL EXISTING SECTION - STH 19

STA. 154+40'WB' TO STA. 179+97'WB'



STA. 181+00'WB' TO STA. 194+34'WB'

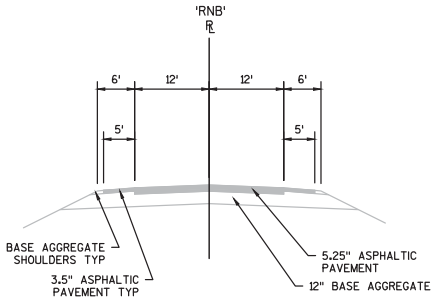
TYPICAL EXISTING SECTION - STH 19

STA. 179+97'WB' TO STA. 194+34'WB'

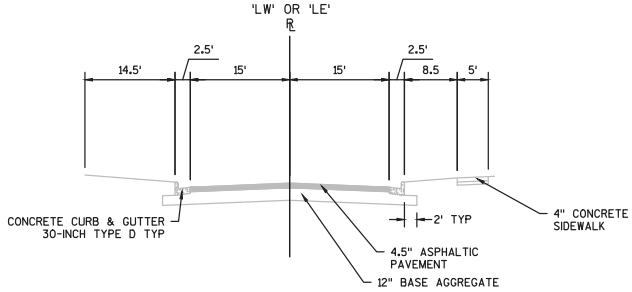
STA. 189+11'WB' TO STA. 194+34'WB'

(1) RAISED CURBED MEDIAN STA. 186+99'WB' TO STA. 194+34'WB'

PROJECT NO:5290-00-02	HWY: STH 19	COUNTY: DANE	PLAN: TYPICAL SECTIONS	SHEET	E

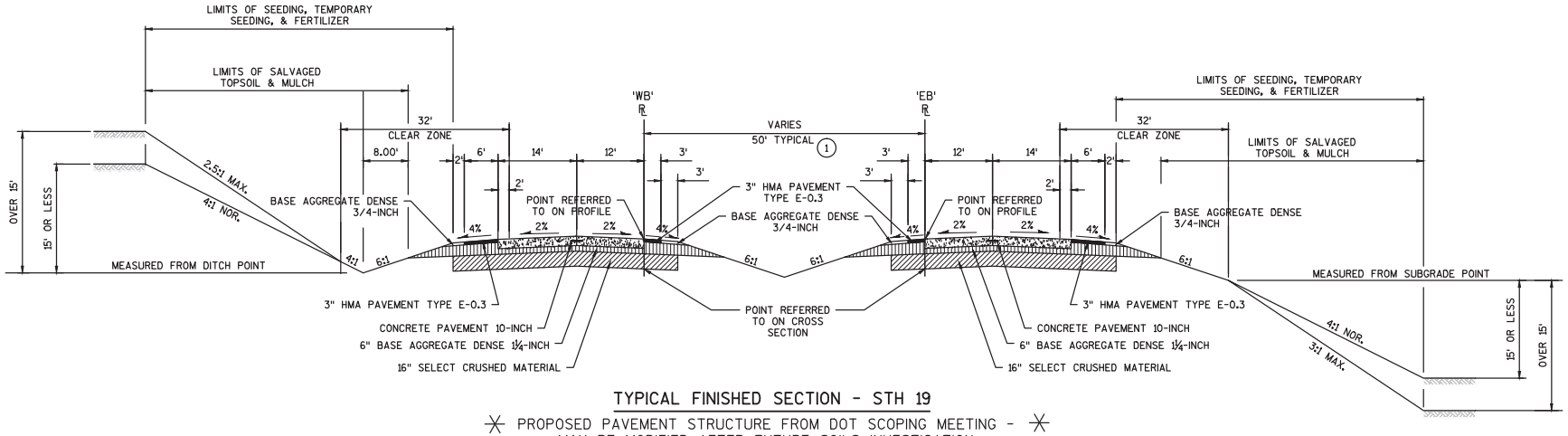


TYPICAL EXISTING SECTION - RIVER ROAD



TYPICAL EXISTING SECTION - LIUNA WAY

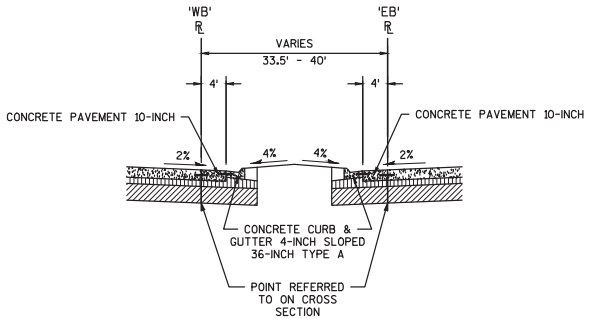
'LW' SHOWN - MIRROR SECTION FOR 'LE'



TYPICAL FINISHED SECTION - STH 19

⚹ PROPOSED PAVEMENT STRUCTURE FROM DOT SCOPING MEETING - ⚹
MAY BE MODIFIED AFTER FUTURE SOILS INVESTIGATION

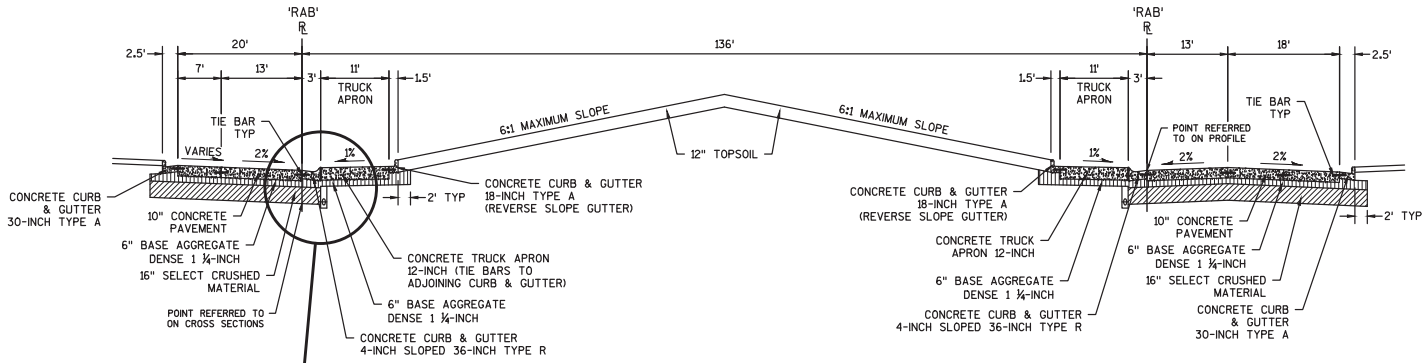
(1) 40' - 50' STA. 185+06.86'EB TO STA. 189+85.60'EB'



TYPICAL FINISHED MEDIAN SECTION - STH 19

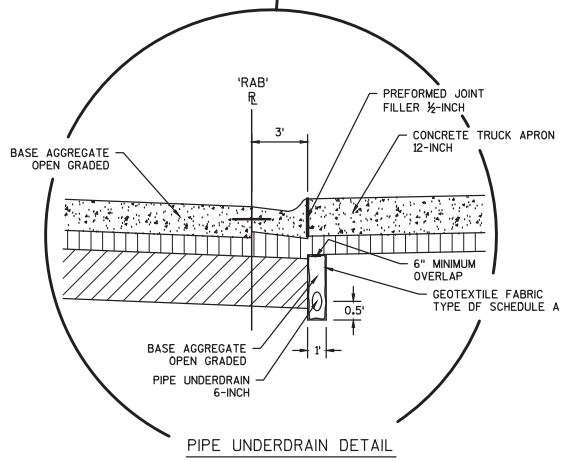
STA. 189+85.60'EB' TO STA. 193+99.26'EB'

PROJECT NO: 5290-00-02	HWY: STH 19	COUNTY: DANE	PLAN: TYPICAL SECTIONS	SHEET	E

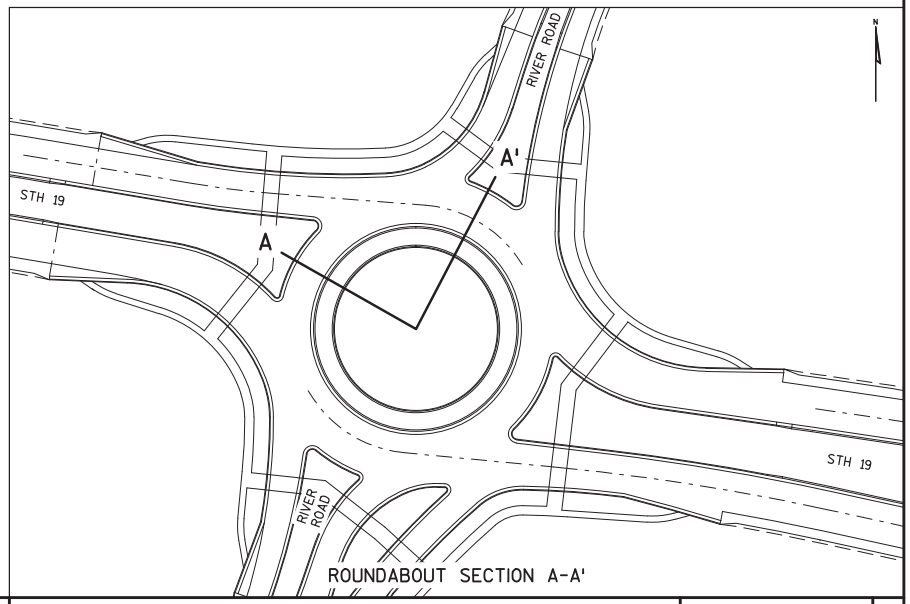


TYPICAL FINISHED SECTION - ROUNDABOUT

SECTION A-A'



PIPE UNDERDRAIN DETAIL



ROUNDABOUT SECTION A-A'

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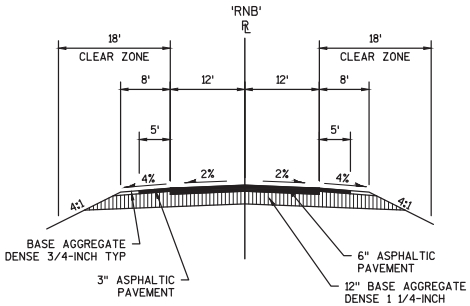
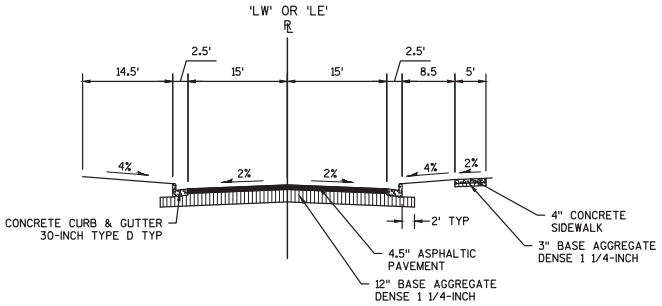


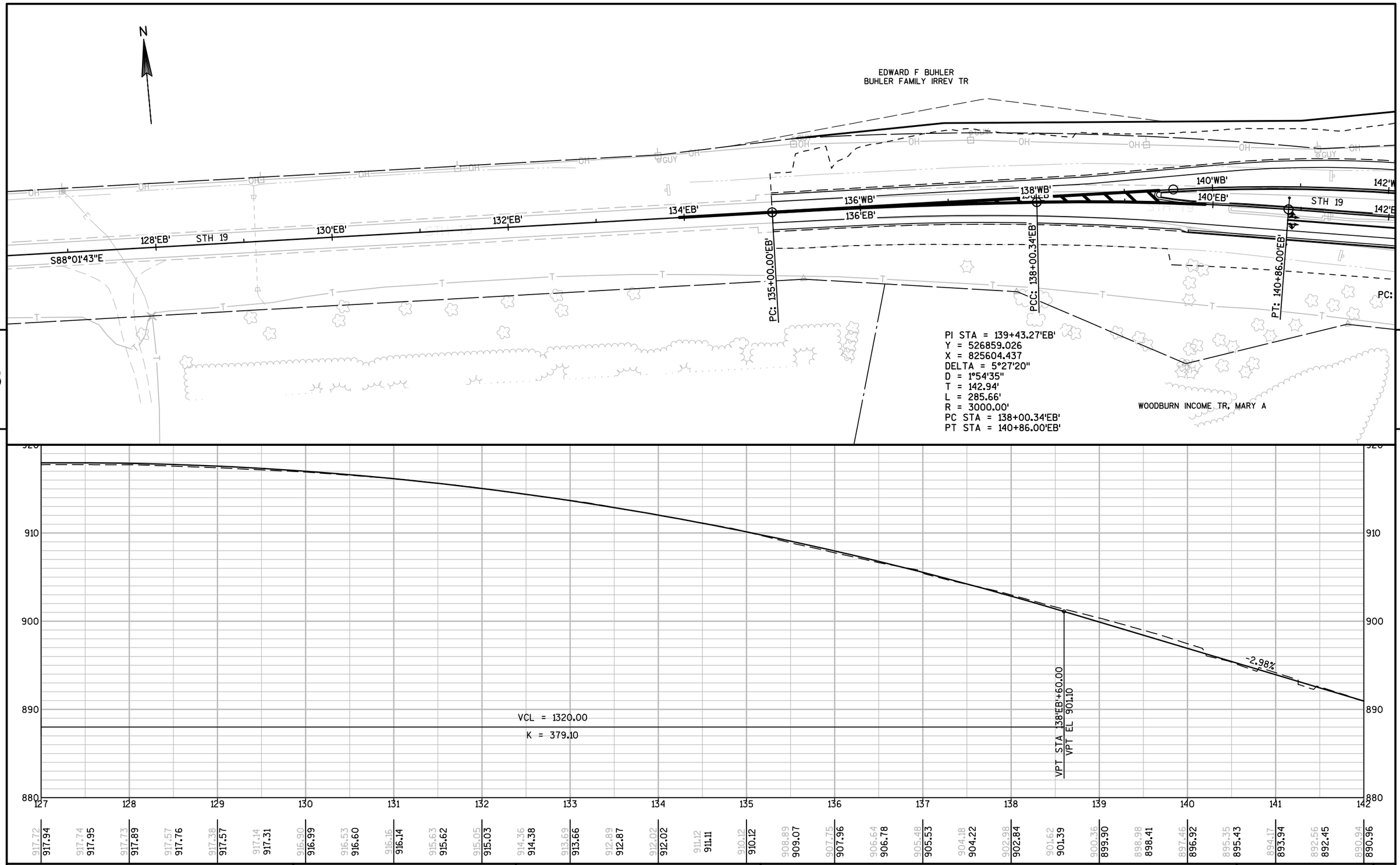
TYPICAL FINISHED SECTION - RIVER ROAD

✳ PROPOSED PAVEMENT STRUCTURE FROM DOT SCOPING MEETING - ✳
MAY BE REDUCED AFTER FUTURE SOILS INVESTIGATION



TYPICAL FINISHED SECTION - LIUNA WAY

'LW' SHOWN - MIRROR SECTION FOR 'LE'



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5

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'EB'	SHEET	E

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PROJECT NO:5290-00-72	HWY:STH 19	COUNTY:DANE	PLAN AND PROFILE: 'EB'	SHEET	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0501A_EB_PP.DWG
LAYOUT NAME - PP_02
PLOT DATE : 3/22/2018 2:02 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

PI STA = 157+09.07'EB'
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X = 827292.678
DELTA = 12°51'06"
D = 1°39'39"
T = 388.56'
L = 773.85'
R = 3450.00'
PC STA = 153+20.52'EB'
PT STA = 160+94.37'EB'

DANE COUNTY

TIERNEY CROSSING

YAHARA HILLS LLC

N

158'WB' 160'WB' 162'WB' 164'WB' 166'WB' 168'WB' 170'WB' 172'WB'

PT: 160+94.37'EB'

STH 19

158'EB' 160'EB' 162'EB' 164'EB' 166'EB' 168'EB' 170'EB' 172'EB'

STH 19

N89°26'12"E

POTENTIAL DANE COUNTY PARKING

158'YA' 160'YA' 162'YA' 164'YA' 166'YA' 168'YA'

LIUNA WAY

DANE COUNTY

WISCONSIN LABORERS APPRENTICESHIP & TRAINING FUND

5

5

VCL = 340.00
K = 340.00

VCL = 265.00
K = 265.00

LOW POINT STA 158+22.00
LOW POINT EL 871.06

MEDIAN SPECIAL DITCH

VPT STA 159'EB'+92.00
VPT EL 871.49

VPC STA 169'EB'+39.50
VPC EL 876.23

VPI STA 170'EB'+72.00
VPI EL 876.890

HIGH POINT STA 170+72.00
HIGH POINT EL 876.56

0.50%

-0.32%

0.50%

VPI STA 158'EB'+22.00
VPI EL 870.64

0.30%

0.30%

1.47%

SPECIAL DITCH RT

-0.50%

-1.07%

-0.59%

890
880
870
860

157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172

867.90 871.28
870.03 871.14
870.66 871.07
870.87 871.08
870.31 871.15
869.71 871.31
868.94 871.53
868.67 871.78
869.02 872.03
869.96 872.28
870.69 872.53
871.34 872.78
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868.84 874.28
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869.15 875.28
873.78 875.53
874.04 875.78
866.54 876.03
866.97 876.28
867.00 876.46
866.93 876.55
866.97 876.54
867.01 876.44
867.10 876.25

PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'EB'	SHEET	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0501A_EB_PP.DWG
LAYOUT NAME - PP_03

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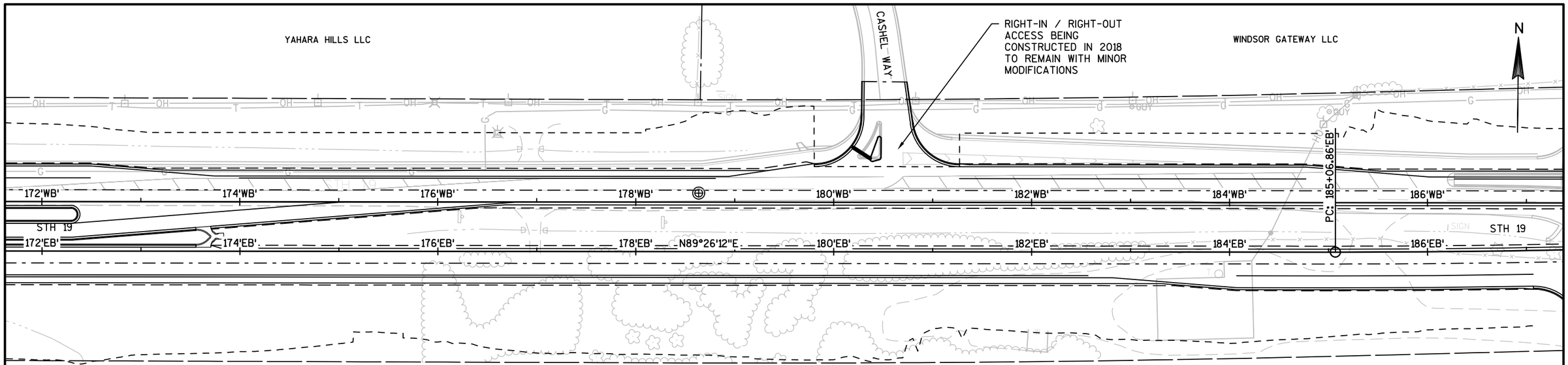

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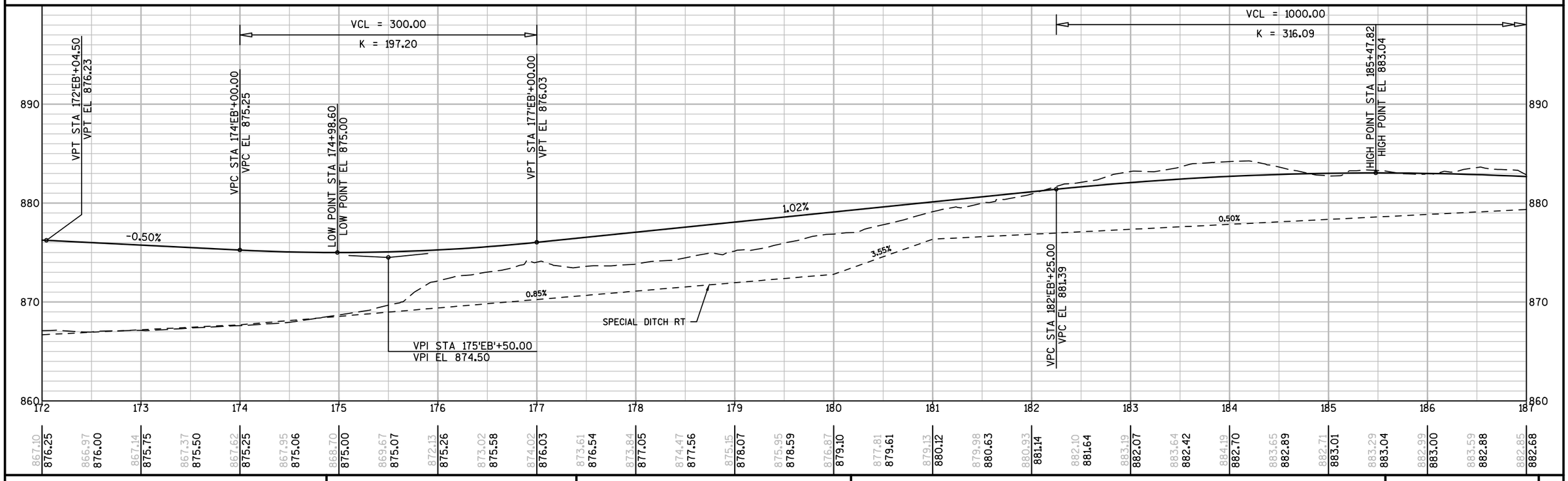
D = 0°30'58"
T = 209.46'
L = 418.87'
R = 11100.00'
PC STA = 185+06.86'EB'
PT STA = 189+25.73'EB'



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'EB'	SHEET	E

WINDSOR GATEWAY LLC

TEMPORARY RIGHT-IN / LEFT-OUT ACCESS BEING CONSTRUCTED IN 2018 TO BE REMOVED WITH THIS PROJECT.

EXIT RAMP

IH 39/90/94

N

STH 19

186'WB' 188'WB' 190'WB' 192'WB' 194'WB' 196'WB' 198'WB'

186'EB' 188'EB' 190'EB' 192'EB' 194'EB' 196'EB' 198'EB'

N89°35'36"E

PRC: 189+25.73'EB'

PT: 193+75.00'EB'

EP: 200+00.00'EB'

WISCONSIN LABORERS APPRENTICESHIP & TRAINING FUND

LIUNA WAY

PI STA = 187+16.32'EB'
Y = 526473.872
X = 830303.041
DELTA = 2°09'44"
D = 0°30'58"
T = 209.46'
L = 418.87'
R = 11100.00'
PC STA = 185+06.86'EB'
PT STA = 189+25.73'EB'

WISCONSIN LABORERS APPRENTICESHIP & TRAINING FUND

PI STA = 191+50.40'EB'
Y = 526494.516
X = 830736.674
DELTA = 2°19'08"
D = 0°30'58"
T = 224.66'
L = 449.27'
R = 11100.00'
PC STA = 189+25.73'EB'
PT STA = 193+75.00'EB'

ENTRANCE RAMP

5

5

VPI STA 187'EB'+25.00
VPI EL 886.500

VPT STA 192'EB'+25.00
VPT EL 875.79

VPC STA 194'EB'+15.00
VPC EL 871.72

VPT STA 196'EB'+65.00
VPT EL 868.67

STA 198'EB'+90.00
EL 867.99

VCL = 250.00
K = 135.70

VCL = 1000.00
K = 316.09

-0.77%
-3.19%
-2.14%
-1.40%
-1.48%
-1.48%
-0.30%

SPECIAL DITCH RT

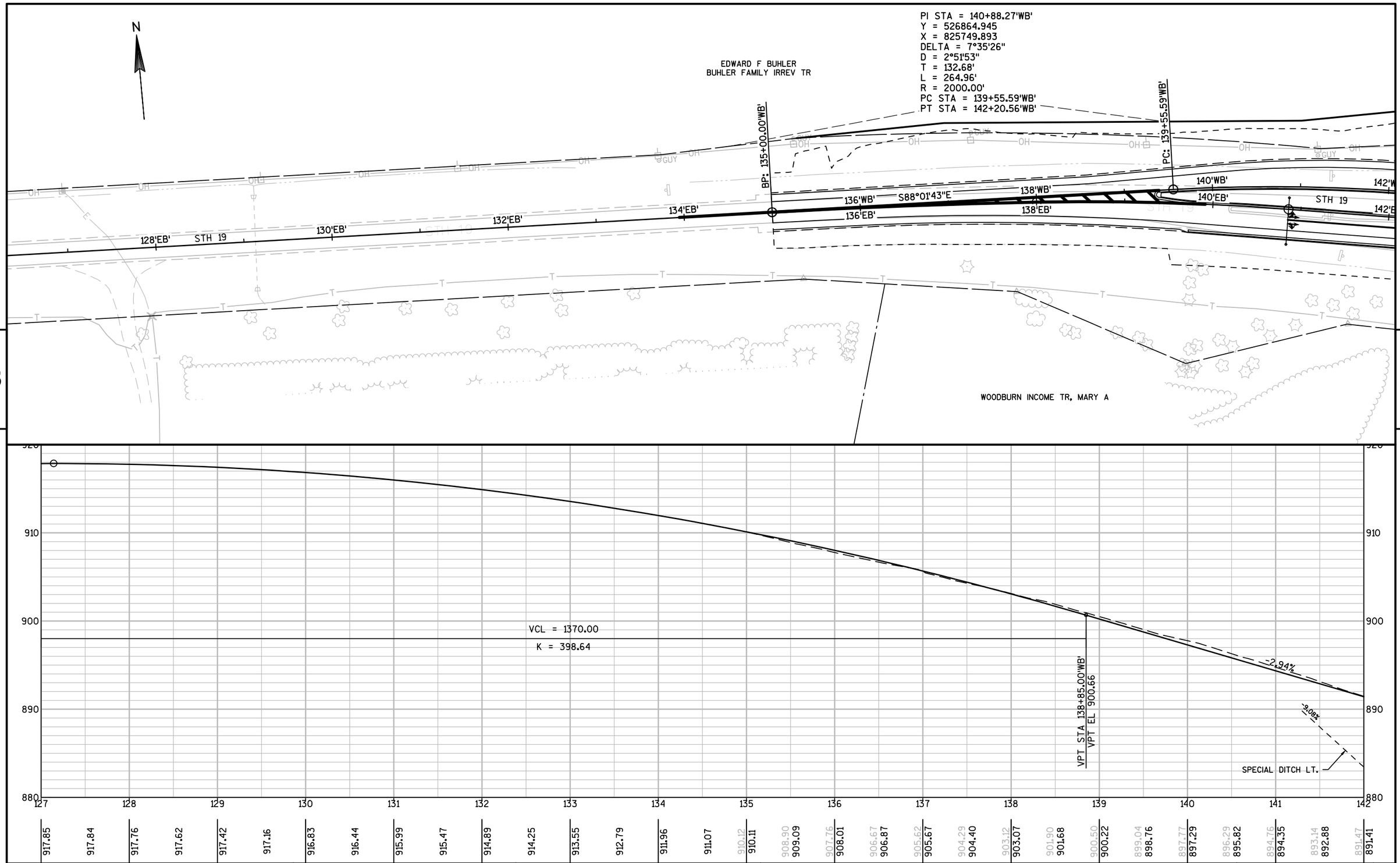
VPI STA 195'EB'+40.00
VPI EL 869.04

890 880 870 860

187 188 189 190 191 192 193 194 195 196 197 198 199 200

882.85 882.68 882.44 882.40 881.22 882.04 877.85 881.60 877.92 881.08 879.03 880.48 879.90 879.81 879.55 879.05 878.68 878.22 877.67 877.31 876.49 876.31 875.49 875.25 874.36 874.18 873.09 873.11 872.10 872.04 871.09 871.01 870.32 870.16 869.60 869.50 868.83 869.02 868.50 868.72 868.44 868.56 868.28 868.41 868.04 868.26 867.86 868.11 867.81 867.90 868.09

PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'EB'	SHEET	E



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'WB'	SHEET	E

EDWARD F BUHLER
BUHLER FAMILY IRREV TR

RIVER ROAD

REMOVE DRIVEWAY

EDWARD F BUHLER
BUHLER FAMILY IRREV TR

YAHARA RIVER

DANE COUNTY

PT: 142+20.56'WB'
PC: 143+31.74'WB'
PT: 143+68.35'WB'
EP: 144+25.29'WB'
BP: 146+08.01'WB'
PC: 147+89.18'WB'
PT: 151+18.74'WB'
PC: 153+31.84'WB'

142'WB' S80°26'17"E 144'WB'
142'EB' 141'EB'
148'WB' S81°54'28"E 150'WB' 152'WB' S77°42'42"E 154'WB' 156'WB'
146'EB' 148'EB' 150'EB' 152'EB' 154'EB' 156'EB'

STH 19

PT: 146+89.07'WB'

WOODBURN INCOME TR, MARY A

PI STA = 143+50.05'WB'
Y = 526821.395
X = 826008.419
DELTA = 3°29'43"
D = 9°32'57"
T = 18.31'
L = 36.60'
R = 600.00'
PC STA = 143+31.74'WB'
PT STA = 143+68.35'WB'

EDWARD F BUHLER
BUHLER FAMILY IRREV TR

PI STA = 146+50.48'WB'
Y = 526699.534
X = 826250.000
DELTA = 42°13'29"
D = 52°05'13"
T = 42.47'
L = 81.07'
R = 110.00'
PC STA = 146+08.01'WB'
PT STA = 146+89.07'WB'

PI STA = 149+54.04'WB'
Y = 526656.257
X = 826554.375
DELTA = 4°11'46"
D = 1°16'24"
T = 164.85'
L = 329.56'
R = 4500.00'
PC STA = 147+89.18'WB'
PT STA = 151+18.74'WB'

PI STA = 157+14.77'WB'
Y = 526494.320
X = 827297.818
DELTA = 12°51'06"
D = 1°41'07"
T = 382.93'
L = 762.64'
R = 3400.00'
PC STA = 153+31.84'WB'
PT STA = 160+94.48'WB'

WI DNR

DANE COUNTY

5

5

STA 144+25.29'WB'
EL 885.32

VCL = 100.00
K = 106.76

-2.00%

-3.08%

VPC STA 143+20.00'WB'
VPC EL 887.89

VPI STA 143+70.00'WB'
VPI EL 886.42

VPT STA 144+20.00'WB'
VPT EL 885.42

STA 146+08.01'WB'
EL 881.86

VCL = 400.00
K = 265.84

-2.00%

-0.50%

-2.50%

-1.00%

-5.50%

-6.75%

-1.50%

-4.12%

VPC STA 147'WB'+50.00
VPC EL 879.01

VPI STA 149'WB'+50.00
VPI EL 875.00

VPT STA 151'WB'+50.00
VPT EL 874.00

VPC STA 156'WB'+70.00
VPC EL 871.40

-0.50%

-0.30%

HIGH WATER EL. 863.5
100

SPECIAL DITCH LT.

SPECIAL DITCH LT.

WATER EL. 855.2 (4-22-16)

STREAM BED EL. 851.9±

890
880
870
860
855

142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157

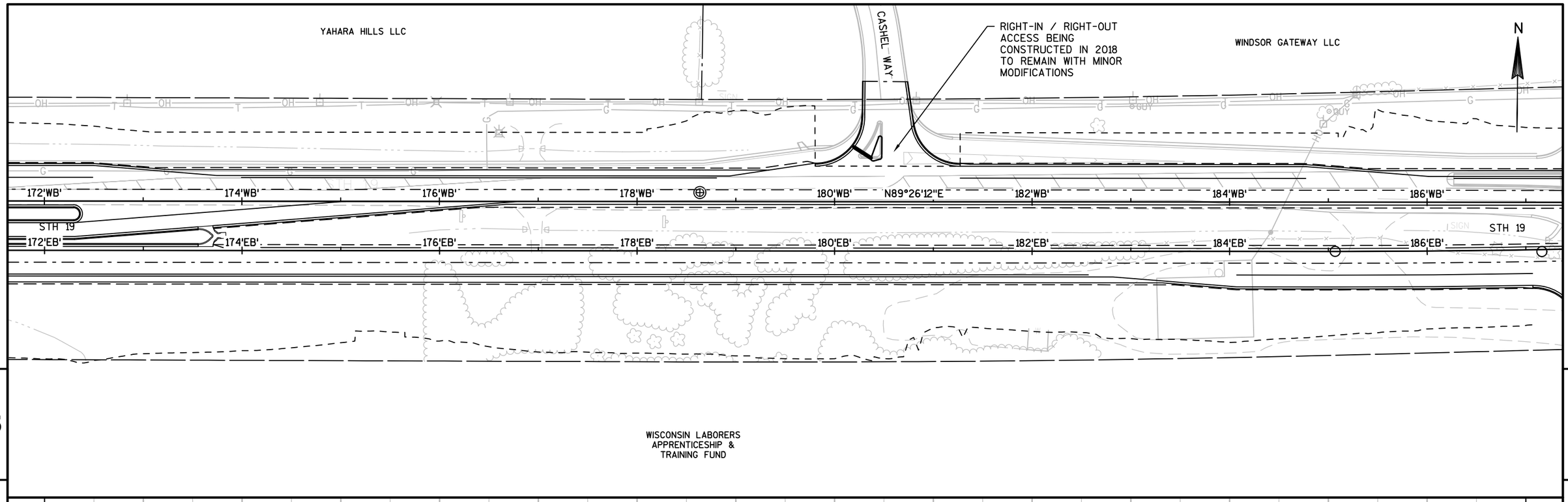
891.47 891.41
889.83 889.95
888.19 888.48
886.40 887.05
884.74 885.84
878.70 881.01
877.27 880.01
876.44 879.01
875.42 878.05
874.29 877.19
873.37 876.43
872.55 875.75
871.88 875.17
871.45 874.69
871.02 874.30
870.65 874.00
870.39 873.75
870.30 873.50
870.16 873.25
870.11 873.00
870.27 872.75
870.45 872.50
854.39 872.25
870.67 872.00
870.62 871.75
870.65 871.50
870.57 871.27

PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'WB'	SHEET	E

PROJECT NO:5290-00-72	HWY:STH 19	COUNTY:DANE	PLAN AND PROFILE: 'WB'	SHEET	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0501B_WB_PP.DWG
LAYOUT NAME - PP_03

PLOT DATE : 3/22/2018 2:09 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT



PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'WB'	SHEET	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0501B_WB_PP.DWG
LAYOUT NAME - PP_04

PLOT DATE : 3/22/2018 2:10 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WINDSOR GATEWAY LLC

TEMPORARY RIGHT-IN / LEFT-OUT ACCESS BEING CONSTRUCTED IN 2018 TO BE REMOVED WITH THIS PROJECT.

PI: 191+05.86'WB'
Delta = 0°09'25"
Y = 526527.6991
X = 830691.9646

EXIT RAMP

N

EP: 200+00.00'WB'

IH 39/90/94

186'WB' 188'WB' N89°26'12"E 190'WB' 192'WB' N89°35'36"E 194'WB' 196'WB' 198'WB'

STH 19

186'EB' 188'EB' 190'EB' 192'EB' 194'EB' 196'EB' 198'EB'

5

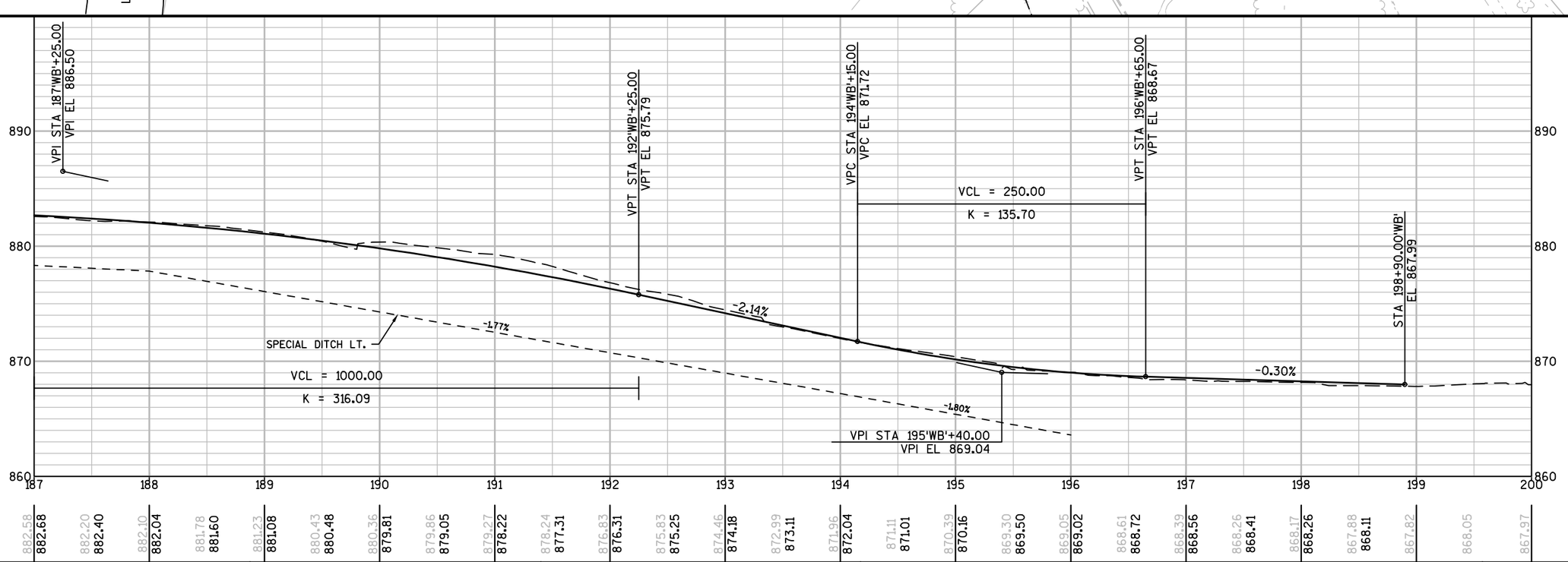
WISCONSIN LABORERS APPRENTICESHIP & TRAINING FUND

LIUNA WAY

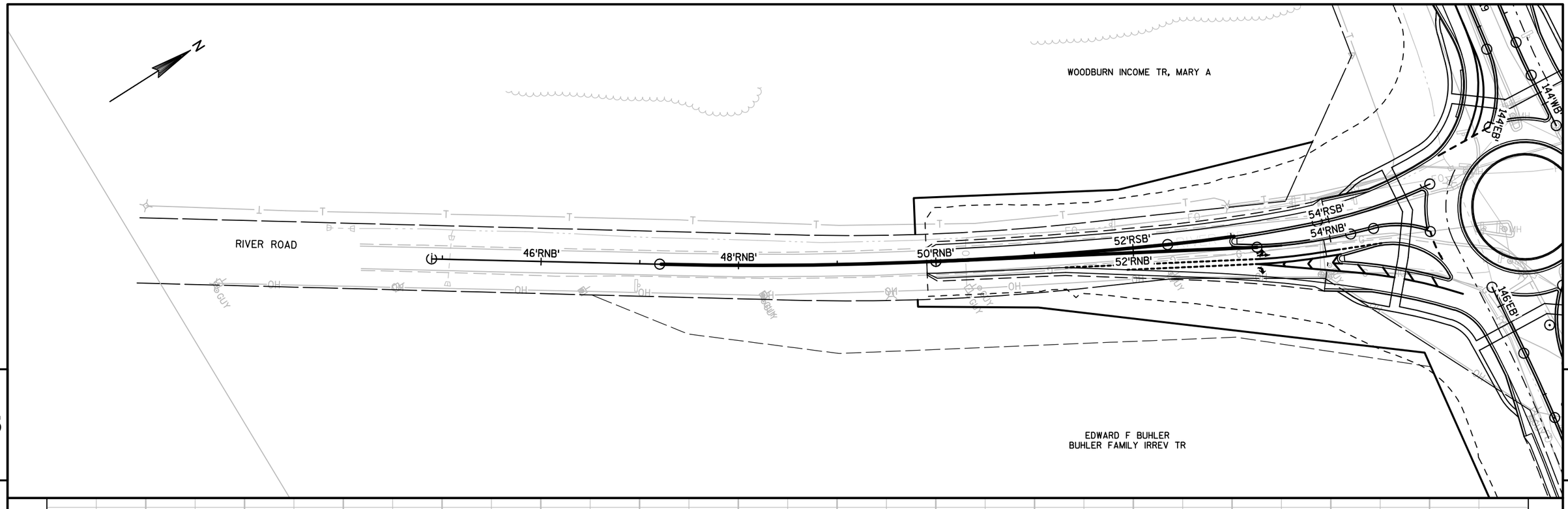
WISCONSIN LABORERS APPRENTICESHIP & TRAINING FUND

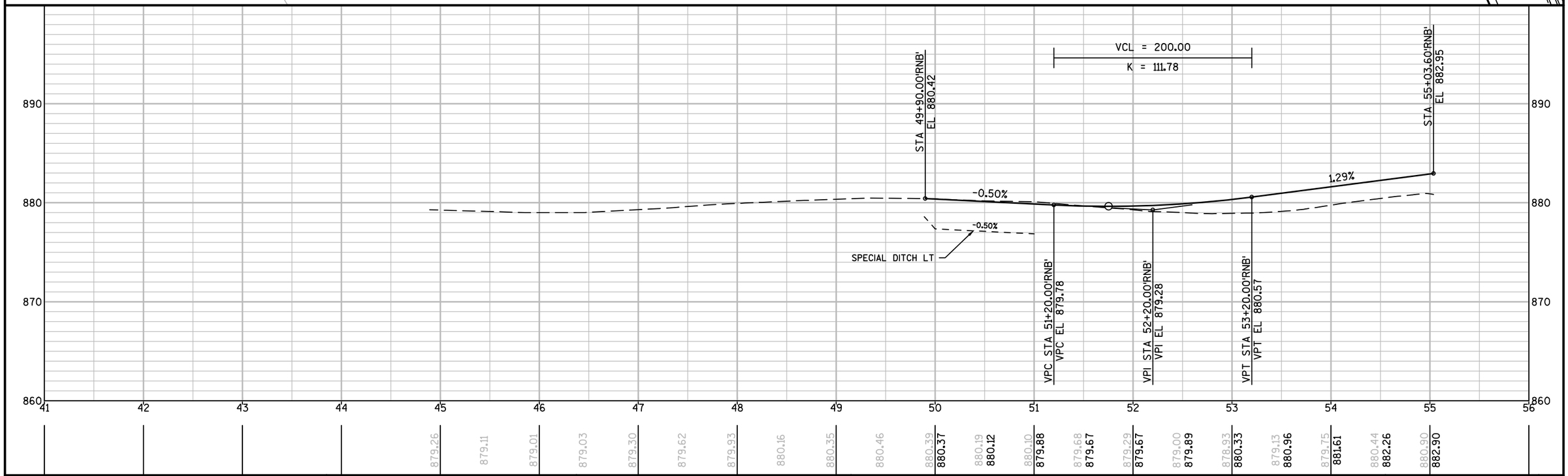
ENTRANCE RAMP

5



PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'WB'	SHEET	E



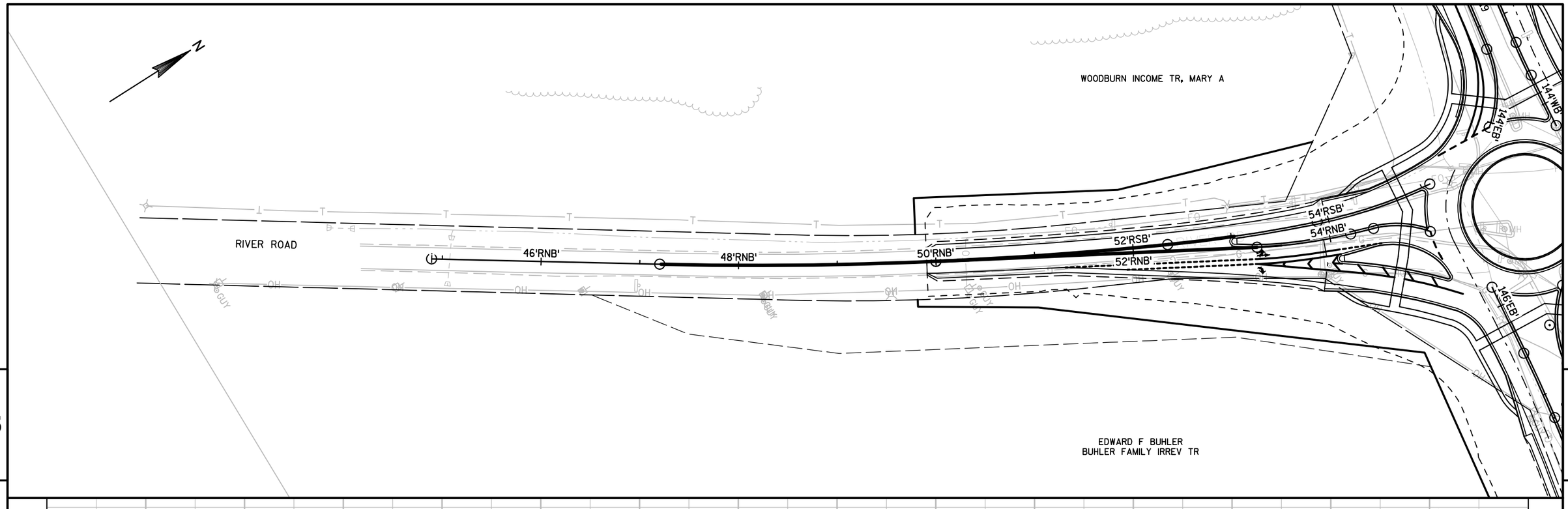


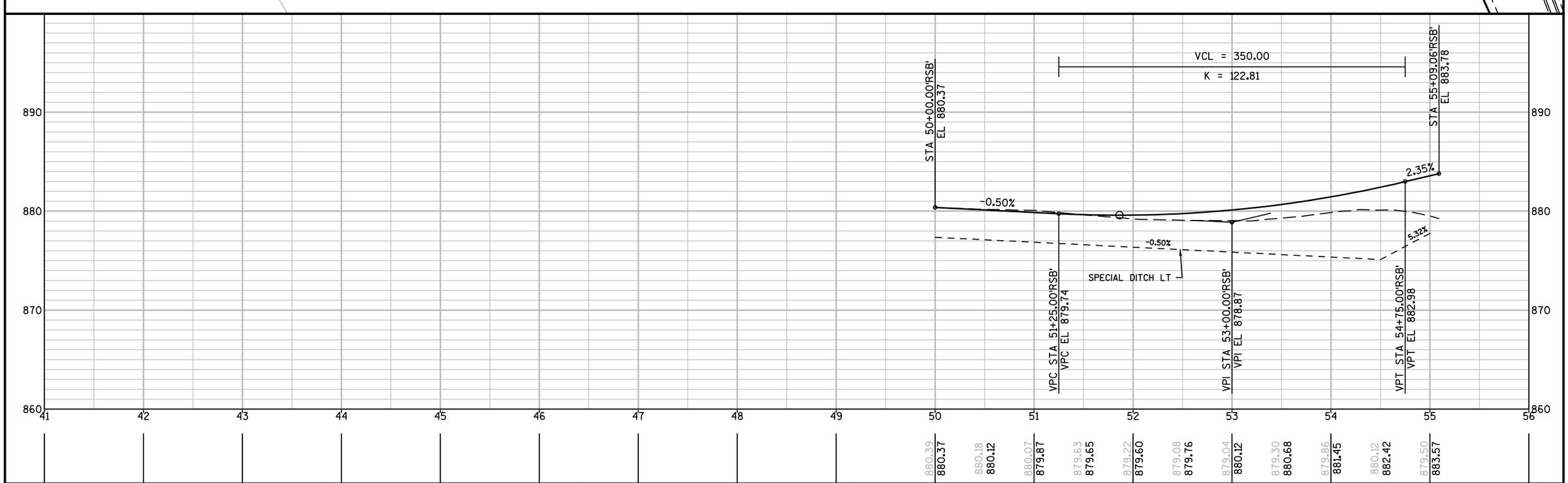
PROJECT NO:5290-00-02	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'RNB' RIVER ROAD	SHEET	E

PROJECT NO:5290-00-02	HWY:STH 19	COUNTY:DANE	PLAN AND PROFILE: 'RNB' RIVER ROAD	SHEET	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0501C_RIVER_PP.DWG
LAYOUT NAME - PP_101

PLOT DATE : 3/5/2018 7:38 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT

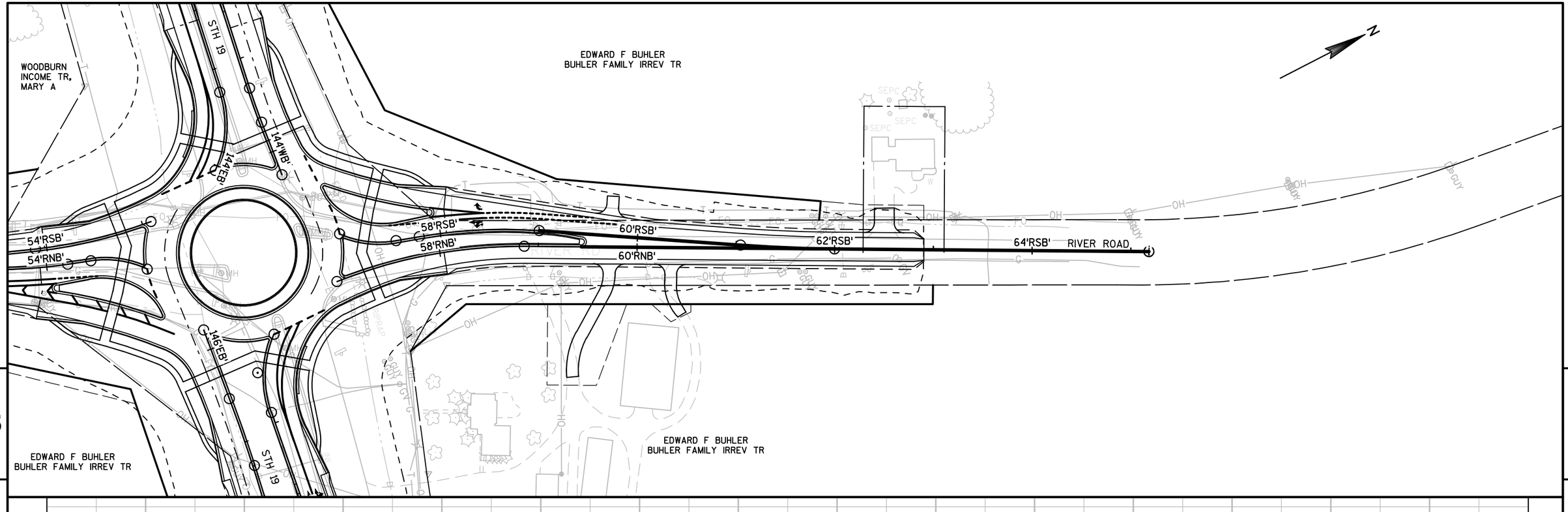




PROJECT NO:5290-00-02	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'RSB' RIVER ROAD	SHEET	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0501C_RIVER_PP.DWG
LAYOUT NAME - PP_102

PLOT DATE : 3/5/2018 7:38 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT



PROJECT NO: 5290-00-02	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'RSB' RIVER ROAD	SHEET	E

PI STA = 6+79.57'LWS'
Y = 526088.163
X = 828419.895
DELTA = 83°03'40"
D = 38°11'50"
T = 132.85'
L = 217.45'
R = 150.00'
PC STA = 5+46.72'LWS'
Y = 526089.109
X = 828552.743
PT STA = 7+64.17'LWS'
Y = 526219.924
X = 828402.906
BK = S89°35'30.4"W
AH = N07°20'49.1"W

POTENTIAL DANE COUNTY PARKING

STH 19

PT: 7+64.17'LWS'

PI: 8+46.07'LWS'

8+00'LWS'
N7°20'49"W

9+00'LWS'
N0°13'19"W

LIUNA WAY

7+00'LWS'

STA 168+05.02 'EB'=
STA 10+00.00 'LWS'

168+00'EB'

168+00'WB'

303+00'TC"

STA 168+17.43 'WB'=
STA 302+10.72 'TC"

169+00'EB'

169+00'WB'

SIGN

5

5

880
878
876
874
872
870
868
866

VPC STA 7+85.00'LWS'
VPC EL 869.24

VPT STA 8+65.00'LWS'
VPT EL 871.70

VPI STA 9+30.00'LWS'
VPI EL 874.63

STA 9+76.00'LWS'
EL 875.55

STA 9+87.72'LWS'
EL 875.67

STA 10+00.00'LWS'
EL 875.56

STA 7+64.00'LWS'
EL 868.89

VCL = 80.00
K = 28.03

1.65%
4.51%
2.00%
1.00%
0.95%

VPI STA 8+25.00'LWS'
VPI EL 869.90

VPC STA 8+96.00'LWS'
VPC EL 873.10

VPT STA 9+64.00'LWS'
VPT EL 875.31

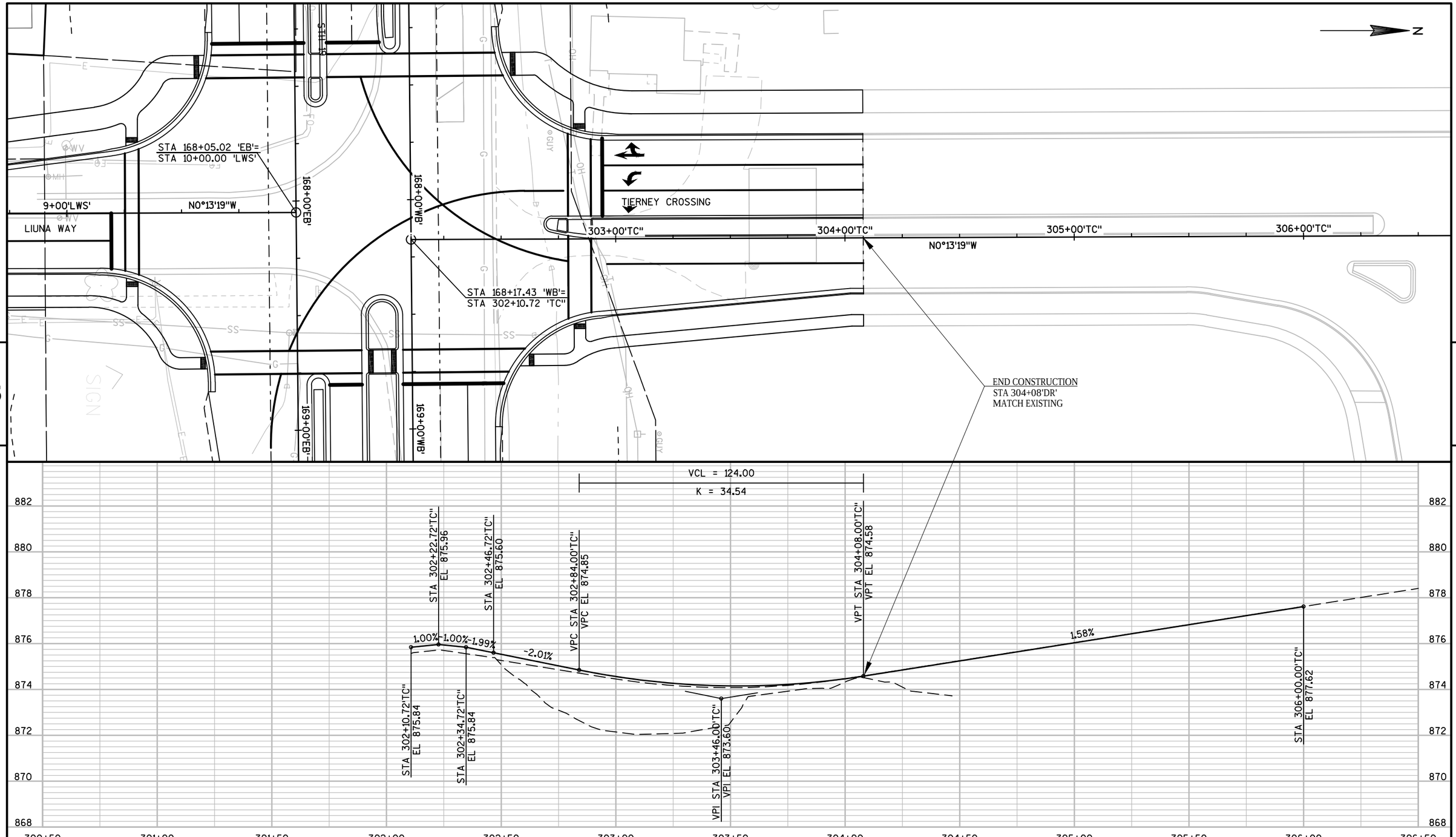
VCL = 68.00
K = 27.13

5+50 6+00 6+50 7+00 7+50 8+00 8+50 9+00 9+50 10+00 10+50 11+00 11+50

				869.07	869.53	870.19	870.37 871.07	870.97 872.16	871.52 873.28	872.13 874.25	872.72 875.00	873.31 875.53	873.94 875.56

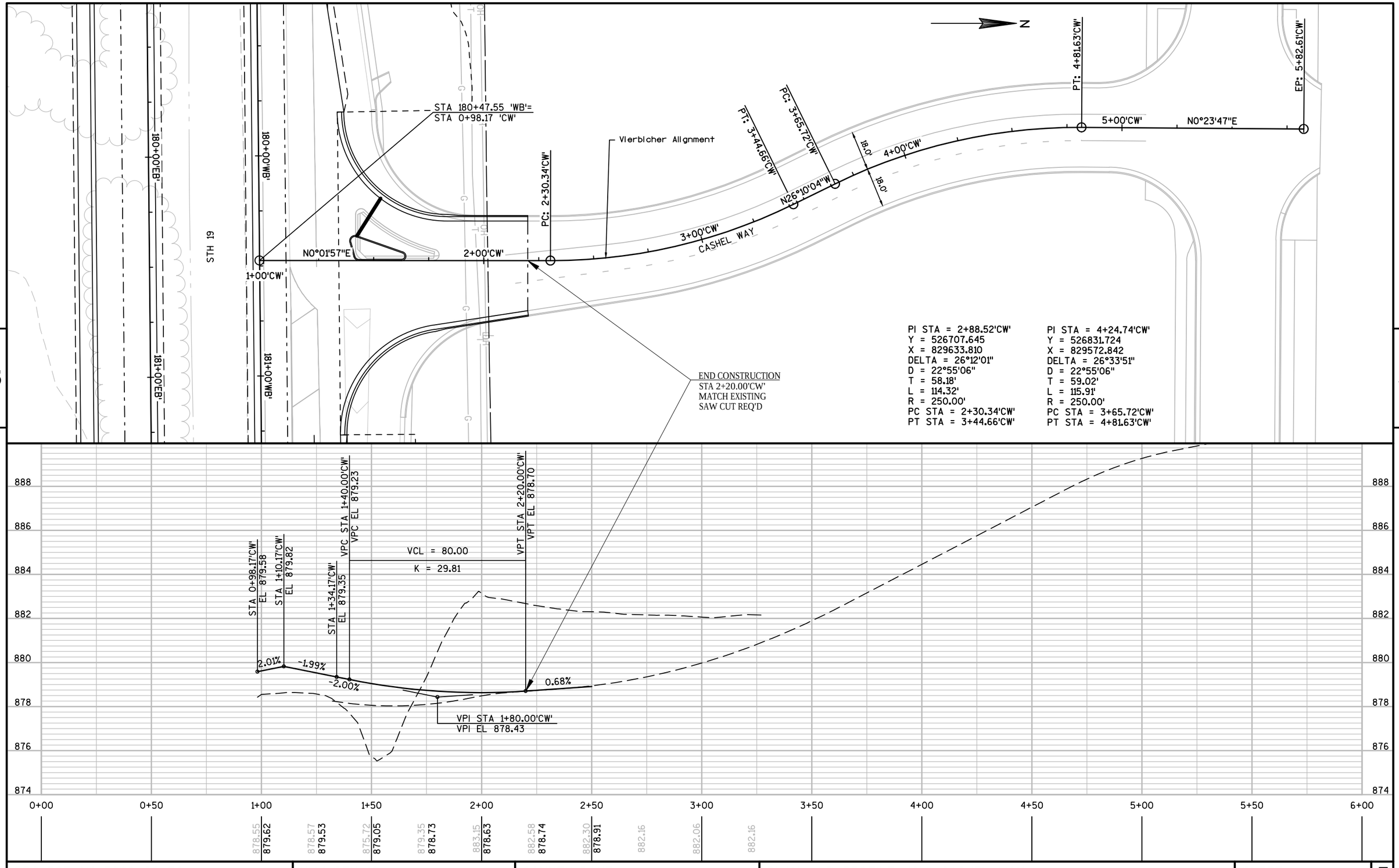
PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'LWS' LIUNA WAY WEST	SHEET	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0501D_SIDE RDS_EAST_PP.DWG
LAYOUT NAME - PP_200
PLOT DATE : 3/22/2018 2:19 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:40 FT



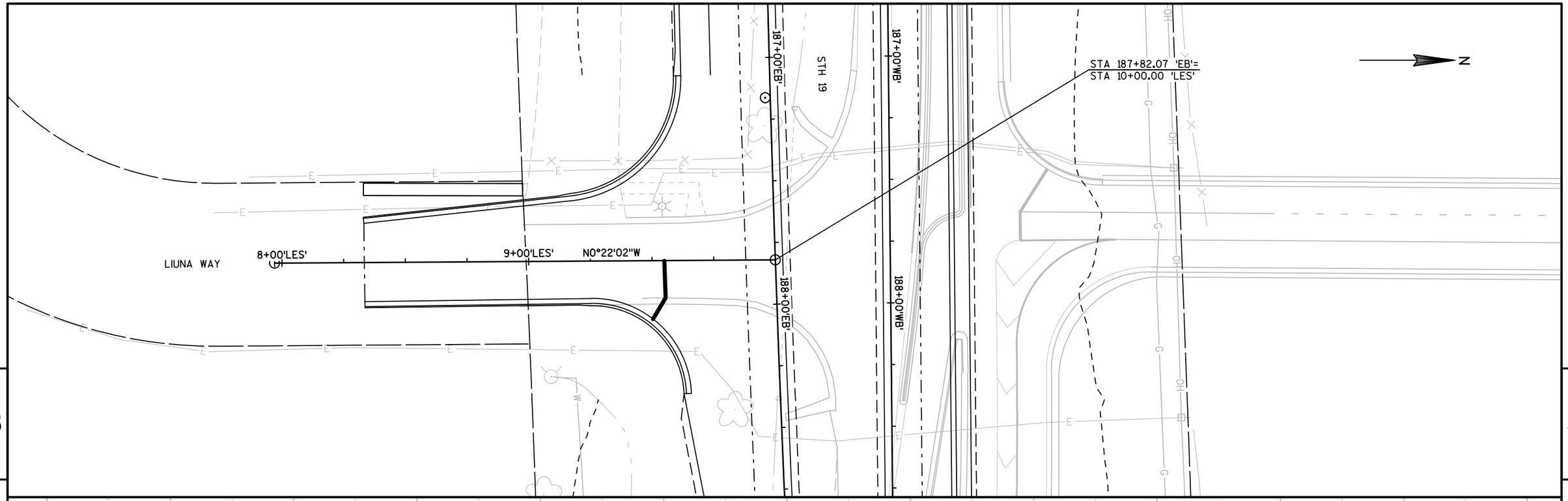
PROJECT NO: 5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'TC' TIERNEY CROSSING	SHEET	E

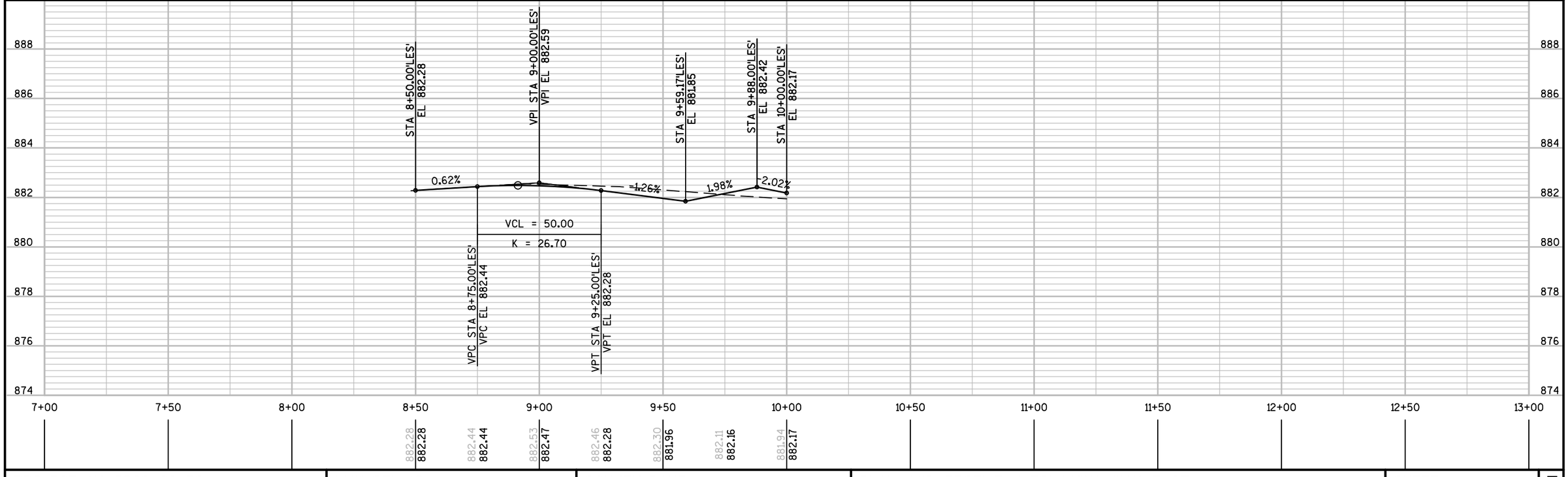
FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0501D_SIDE RDS_EAST_PP.DWG
LAYOUT NAME - PP_201
PLOT DATE : 3/22/2018 2:19 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:40 FT



PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'CW' CASHEL WAY	SHEET	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0501D_SIDE RDS_EAST_PP.DWG
LAYOUT NAME - PP_202
PLOT DATE : 3/22/2018 2:20 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:40 FT

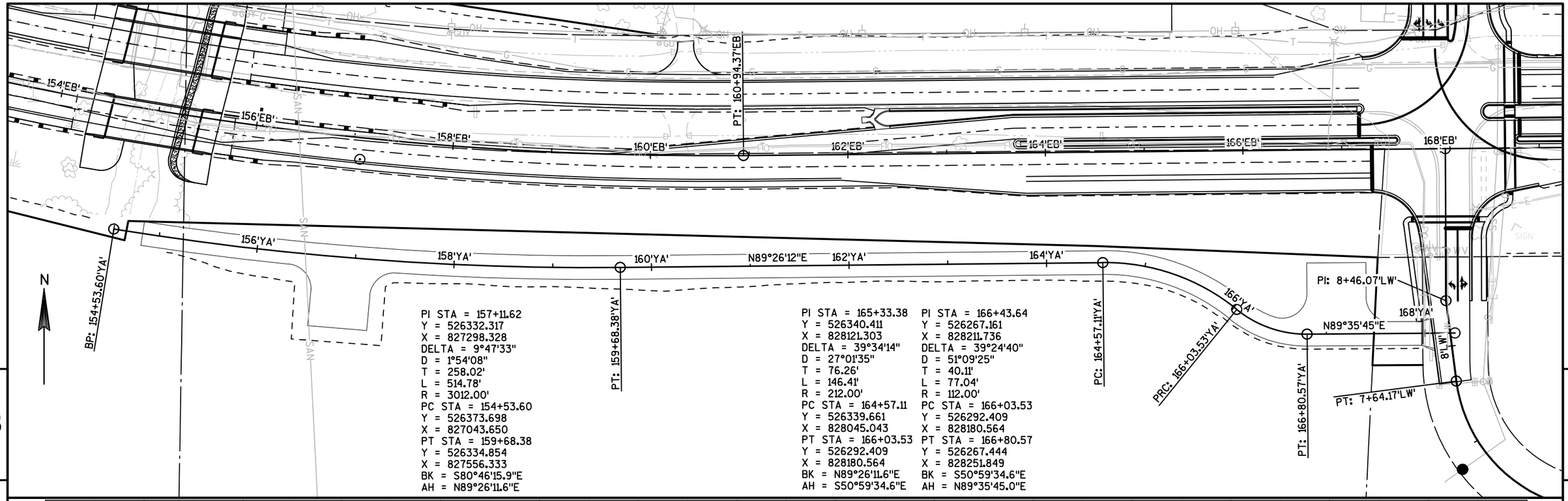




PROJECT NO:5290-00-72	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'LES' LUINA WAY EAST	SHEET	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0501D_SIDE RDS_EAST_PP.DWG
LAYOUT NAME - PP_203

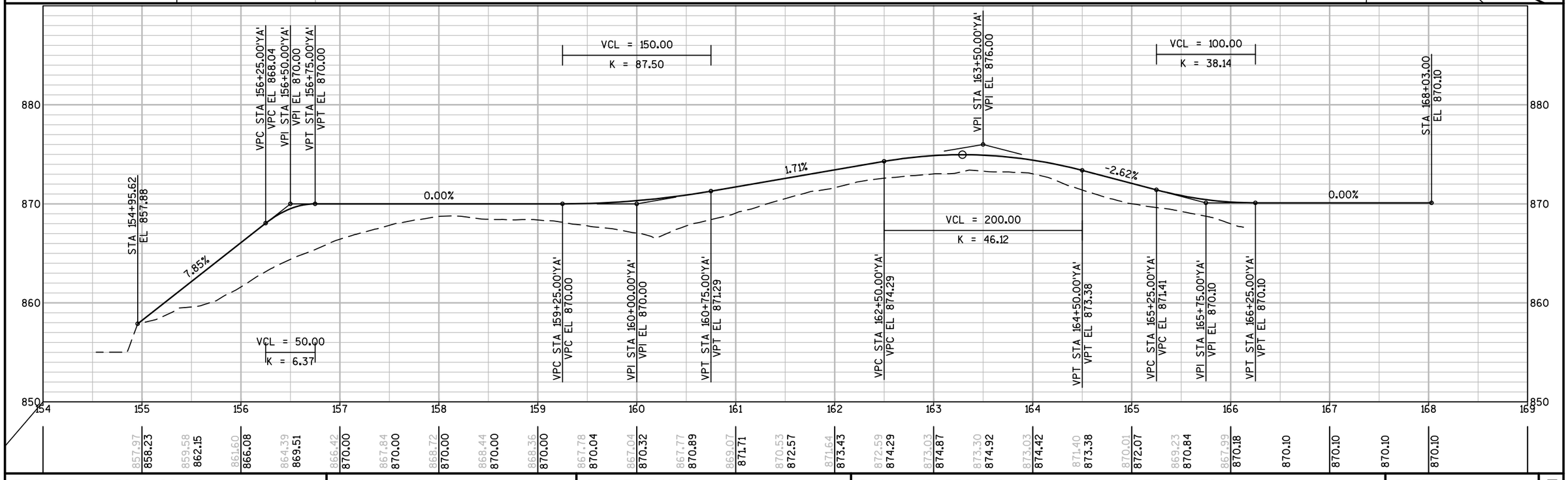
PLOT DATE : 3/22/2018 2:20 PM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:40 FT



PI STA = 157+11.62
Y = 526332.317
X = 827298.328
DELTA = 9°47'33"
D = 1°54'08"
T = 258.02'
L = 514.78'
R = 3012.00'
PC STA = 154+53.60
Y = 526373.698
X = 827043.650
PT STA = 159+68.38
Y = 526334.854
X = 827556.333
BK = S80°46'15.9"E
AH = N89°26'11.6"E

PI STA = 165+33.38
Y = 526340.411
X = 828121.303
DELTA = 39°34'14"
D = 27°01'35"
T = 76.26'
L = 146.41'
R = 212.00'
PC STA = 164+57.11
Y = 526339.661
X = 828045.043
PT STA = 166+03.53
Y = 526292.409
X = 828180.564
BK = N89°26'11.6"E
AH = S50°59'34.6"E

PI STA = 166+43.64
Y = 526267.161
X = 828211.736
DELTA = 39°24'40"
D = 51°09'25"
T = 40.11'
L = 77.04'
R = 112.00'
PC STA = 166+03.53
Y = 526292.409
X = 828180.564
PT STA = 166+80.57
Y = 526267.444
X = 828251.849
BK = S50°59'34.6"E
AH = N89°35'45.0"E



857.97	859.58	861.60	864.39	866.42
858.23	862.15	866.08	869.51	870.00
867.84	868.72	868.44	868.36	867.78
870.00	870.00	870.00	870.00	870.04
867.04	867.77	869.07	870.53	871.64
870.32	870.89	871.71	872.57	873.43
872.59	873.03	873.30	873.03	871.40
874.29	874.87	874.92	874.42	873.38
870.01	869.23	867.99		
872.07	870.84	870.18	870.10	870.10	870.10	870.10

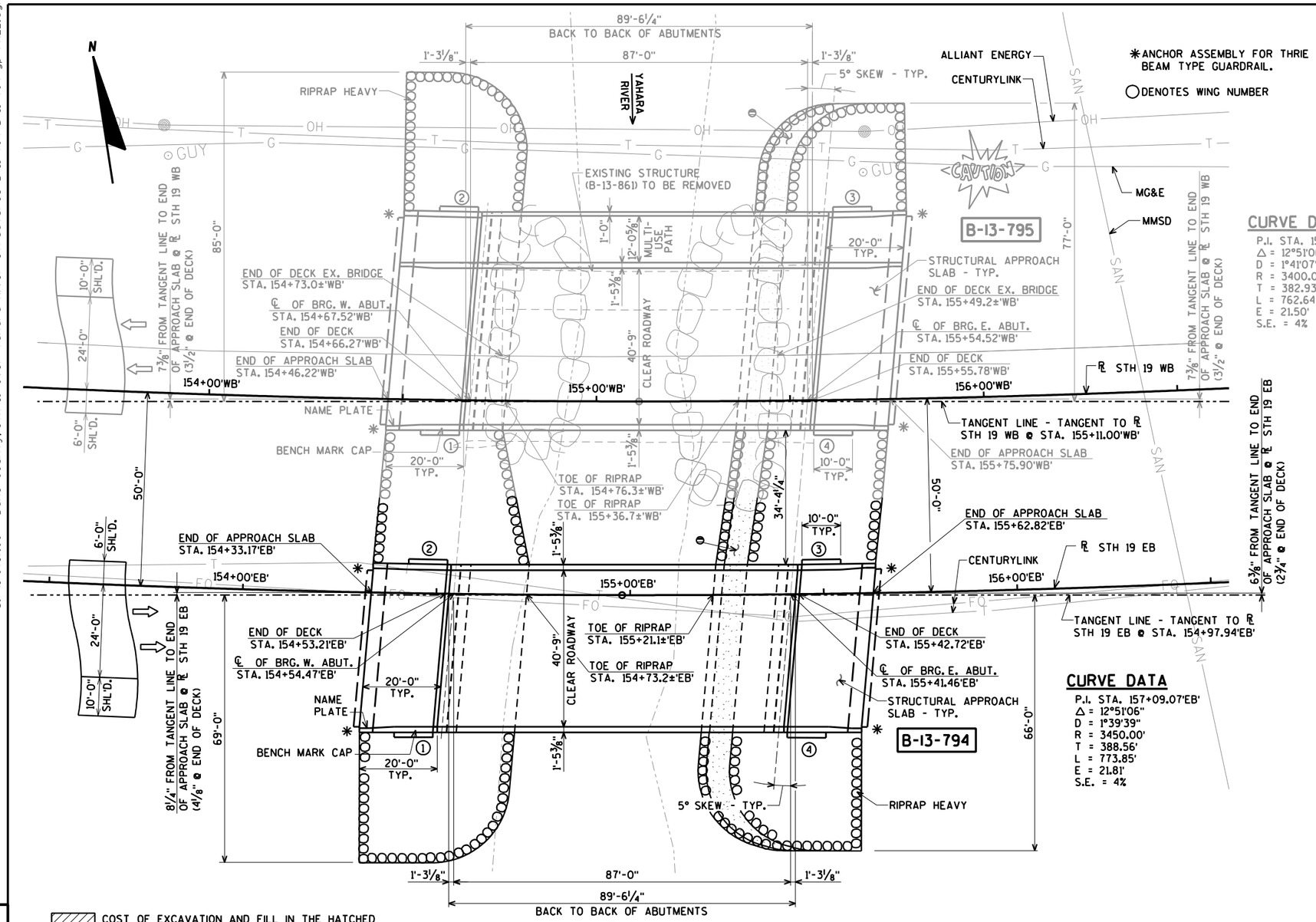
PROJECT NO: 5290-00-02	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'YA' YAHARA RIVER ACCESS	SHEET E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0501E_YAHARA ACCESS_PP.DWG
LAYOUT NAME - PP_300
PLOT DATE : 2/15/2018 11:07 AM
PLOT BY : KRUEGER, KIRK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

$PRFNAME$
U:\41-0717.00 - Dane County, STH 19 over Yahara River\Structures\B-13-794\B-13-794 gp PREL.dgn

DATE:
DATE:
DATE:
CHECKED BY:
BACK CHECKED BY:
CORRECTED BY:

STATE PROJECT NUMBER
5290-00-72



✱ANCHOR ASSEMBLY FOR THRIE BEAM TYPE GUARDRAIL.

◯DENOTES WING NUMBER

LIST OF DRAWINGS

1. PRELIMINARY PLAN
2. TYPICAL SECTION, DESIGN DATA, & PROFILE GRADE LINE
3. QUANTITES AND NOTES
4. SUBSURFACE EXPLORATION

CURVE DATA

P.I. STA. 157+14.77'WB'
△ = 12°51'06"
D = 1°41'07"
R = 3400.00'
T = 382.93'
L = 762.64'
E = 21.50'
S.E. = 4%

CURVE DATA

P.I. STA. 157+09.07'EB'
△ = 12°51'06"
D = 1°39'39"
R = 3450.00'
T = 388.56'
L = 773.85'
E = 21.81'
S.E. = 4%

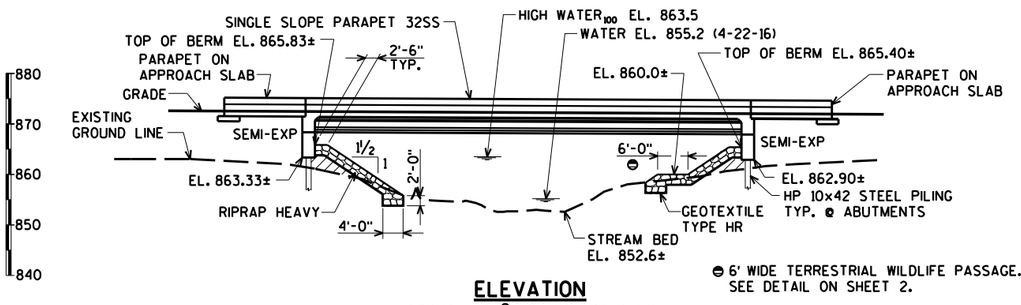
FOR TYPICAL SECTION, DESIGN DATA, AND PROFILE GRADE LINE, SEE SHEET 2

FOR QUANTITIES AND GENERAL NOTES SEE SHEET 3

▨ COST OF EXCAVATION AND FILL IN THE HATCHED AREAS SHALL BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR "EXCAVATION FOR STRUCTURES BRIDGES B-13-794".

PLAN

SINGLE SPAN - 36W-INCH PRESTRESSED CONCRETE GIRDER BRIDGE



ELEVATION

(NORMAL TO ℄ OF YAHARA RIVER)

⊖ 6' WIDE TERRESTRIAL WILDLIFE PASSAGE. SEE DETAIL ON SHEET 2.

BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608)-266-8489

CONSULTANT CONTACT:
CHRIS MCMAHON
(715)-834-3161

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-13-794

STH 19 EB OVER YAHARA RIVER

COUNTY	TOWN/~~CITY~~/VILLAGE
DANE	T WESPORT, V DEFOREST

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
		CLS	

PRELIMINARY PLAN

SHEET 1 OF 4

8

8

7/13/2017

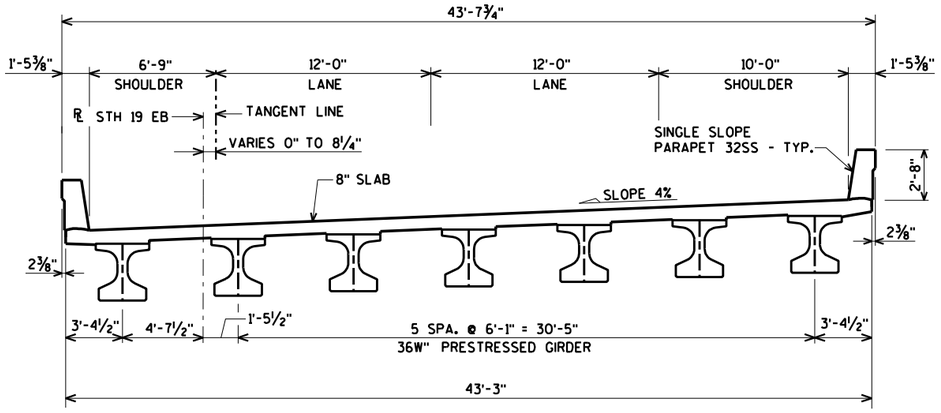
PENTABLE:BReau_shd_util.tbl

I.D.

DATE:

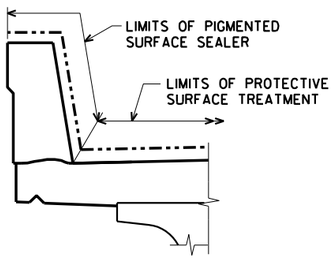
STATE PROJECT NUMBER

5290-00-72

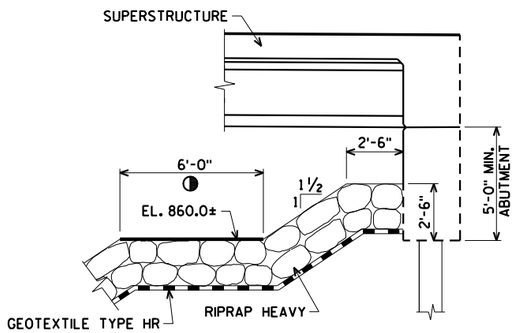


TYPICAL SECTION THRU BRIDGE

(LOOKING EAST)



PROTECTIVE SURFACE TREATMENT AND PIGMENTED SURFACE SEALER DETAILS



TERRESTRIAL WILDLIFE PASSAGE DETAIL

◑ FILL VOIDS IN RIPRAP HEAVY WITH TRAFFIC BOND LIMESTONE SCREENINGS ⅜-INCH TO FULLY FILL ALL VOIDS AND LEAVE, ON AVERAGE, TWO INCHES ABOVE THE LOWEST ROCK POINTS WHERE THEY ABUT EACH OTHER. PROVIDE LEVEL SURFACE OF THE TERRESTRIAL WILDLIFE PASSAGE. TRAFFIC BOND LIMESTONE TO BE INCIDENTAL TO THE BID ITEM "RIPRAP HEAVY".

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR:
OPERATING RATING FACTOR:
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 #/S.F.

MATERIAL PROPERTIES:

CONCRETE MASONRY	SUPERSTRUCTURE (HPC)	f'_c =	4,000 p.s.i.
	ALL OTHER	f'_c =	3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60)		f_y =	60,000 p.s.i.
STRUCTURAL CARBON STEEL ASTM A709 (GRADE 36)		f_y =	36,000 p.s.i.
36W" PRESTRESSED GIRDER			
CONCRETE MASONRY		f'_c =	8,000 p.s.i.
STRANDS - 0.6" DIA. WITH ULTIMATE TENSILE STRENGTH OF		=	270,000 p.s.i.

HYDRAULIC DATA:

100 YEAR FREQUENCY	2 YEAR FREQUENCY
Q_{100} = 2,842 c.f.s.	HW_2 = EL. 858.2
VEL. = 6.4 f.p.s.	Q_2 = 450 c.f.s.
HW_{100} = EL. 863.5	VEL. = 2.3 f.p.s.

WATERWAY AREA = 442 sq. ft.
DRAINAGE AREA = 43.1 sq. mi.
ROADWAY OVERTOPPING = N/A
SCOUR CRITICAL CODE = 8
DATUM = NAVD88 (2007)

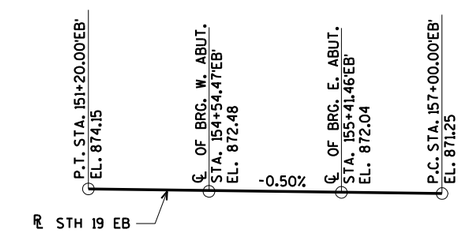
FOUNDATION DATA:

ABUTMENTS TO BE SUPPORTED ON HP 10 x 42 STEEL PILING
DRIVEN TO A REQUIRED DRIVING RESISTANCE OF TONS ‡ PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.
ESTIMATED LENGTH '-0" EACH ABUT.

‡ THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC DATA:

A.A.D.T. = 18,500 (2020)
A.A.D.T. = 23,500 (2040)
R.D.S. = 60 M.P.H.



PROFILE GRADE LINE

(STH 19 EB)

BENCH MARK:
DISC ON SW WINGWALL
STA. 154+69'WB', 12' RT.
EL. 873.45

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-794

DRAWN BY CLS | PLANS CK'D.

TYPICAL SECTION, DESIGN DATA, & PROFILE GRADE LINE

SHEET 2 OF 4

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	W. ABUT.	E. ABUT.	SUPER.	TOTAL
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-13-794	LS	-----	-----	-----	1
210.1500	BACKFILL STRUCTURE TYPE A	TON			-----	
305.0120	BASE AGGREGATE DENSE 1¼-INCH	TON	-----	-----	-----	
502.0100	CONCRETE MASONRY BRIDGES	CY			-----	
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-----	-----		
502.3210	PIGMENTED SURFACE SEALER	SY	-----	-----		
503.0137	PRESTRESSED GIRDER TYPE I 36W-INCH	LF	-----	-----		
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB			-----	
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB				
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH			-----	
506.4000	STEEL DIAPHRAGMS B-13-794	EACH	-----	-----		
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY			-----	
550.1100	PILING STEEL HP 10-INCH x 42 LB	LF			-----	
606.0300	RIPRAP HEAVY	CY			-----	
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF			-----	
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	-----	-----	-----	
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY			-----	
645.0120	GEOTEXTILE TYPE HR	SY			-----	
	NON-BID ITEMS					
	FILLER	SIZE	-----	-----	-----	½" & ¾"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET AND IN THE ABUTMENT DETAILS.

THE EXISTING GROUND LINE SHALL BE THE UPPER LIMIT FOR EXCAVATION FOR STRUCTURES.

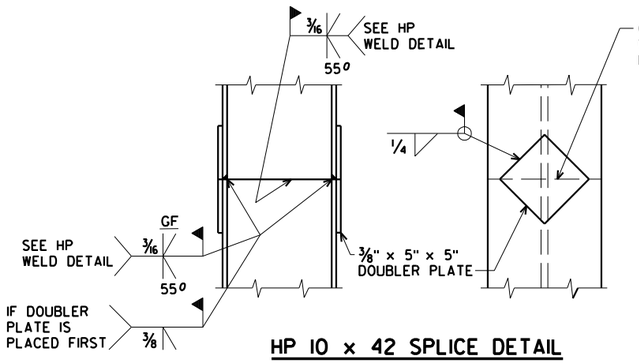
AT BACKFACE OF ABUTMENTS ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TYPE A.

PROTECTIVE SURFACE TREATMENT AND PIGMENTED SURFACE SEALER IS TO BE APPLIED AS SHOWN IN DETAIL ON SHEET 2.

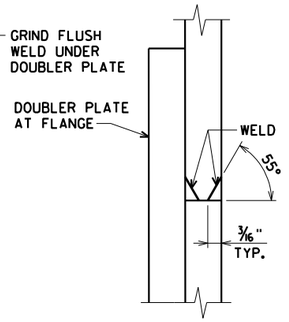
ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE PRESTRESSED GIRDER DETAILS SHEET.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

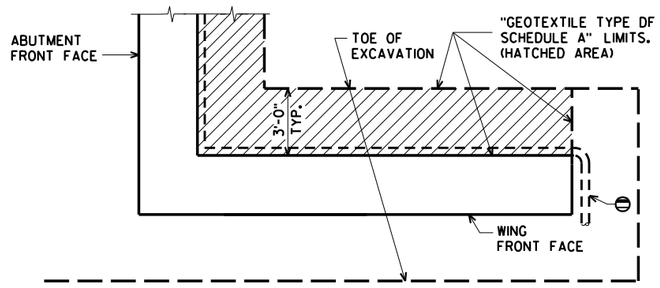


HP 10 x 42 SPLICE DETAIL

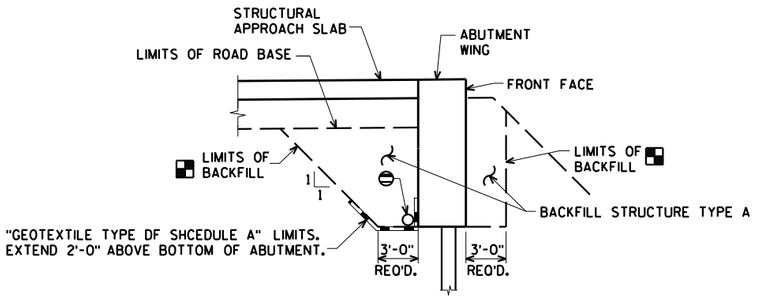


HP WELD DETAIL

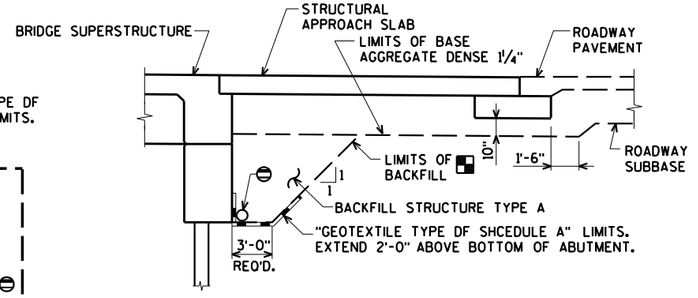
FLANGE SHOWN, WEB SIMILAR



BACKFILL STRUCTURE LIMITS ABUTMENT PLAN WITH WING



BACKFILL STRUCTURE LIMITS THRU WING



BACKFILL STRUCTURE LIMITS

▪ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET .

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-794

DRAWN BY CLS | PLANS CK'D.

QUANTITIES AND NOTES

SHEET 3 OF 4

ORIGINAL PLANS PREPARED BY
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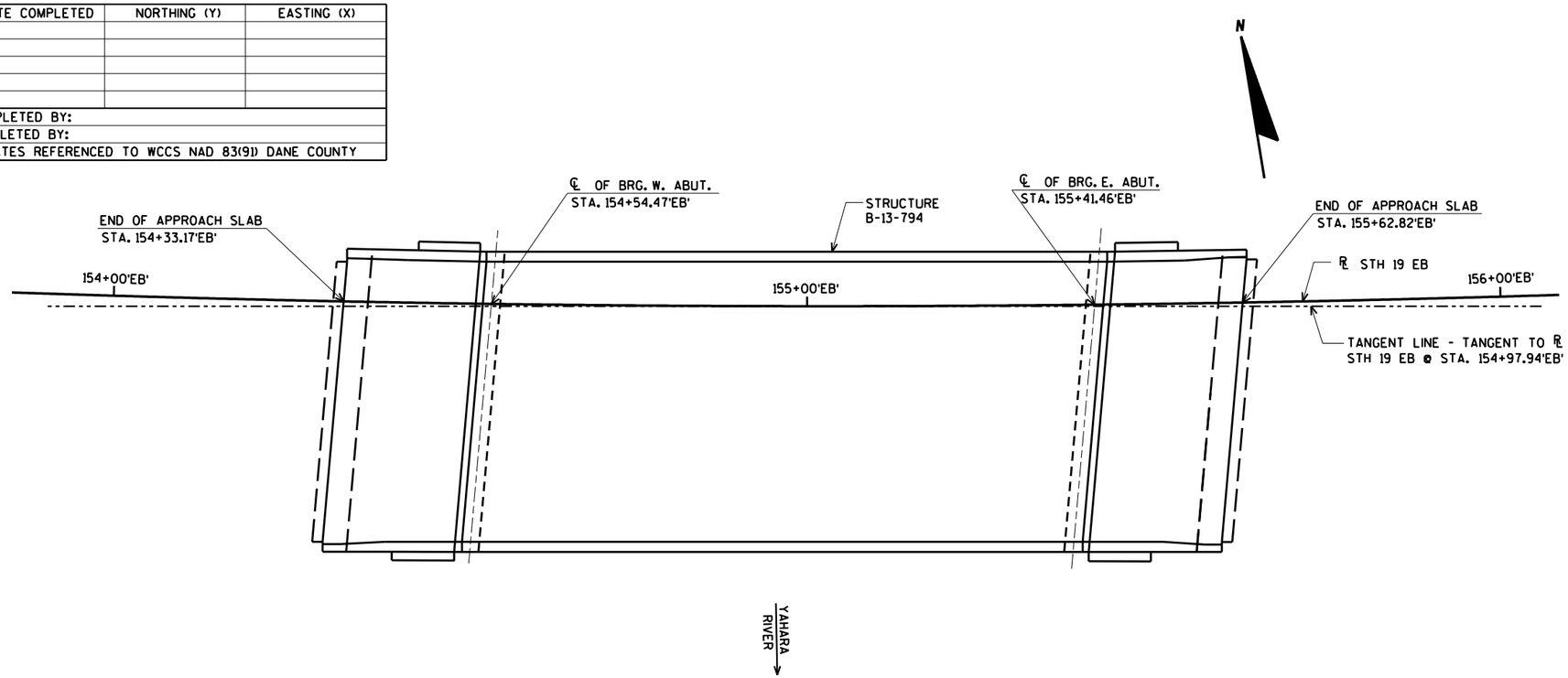
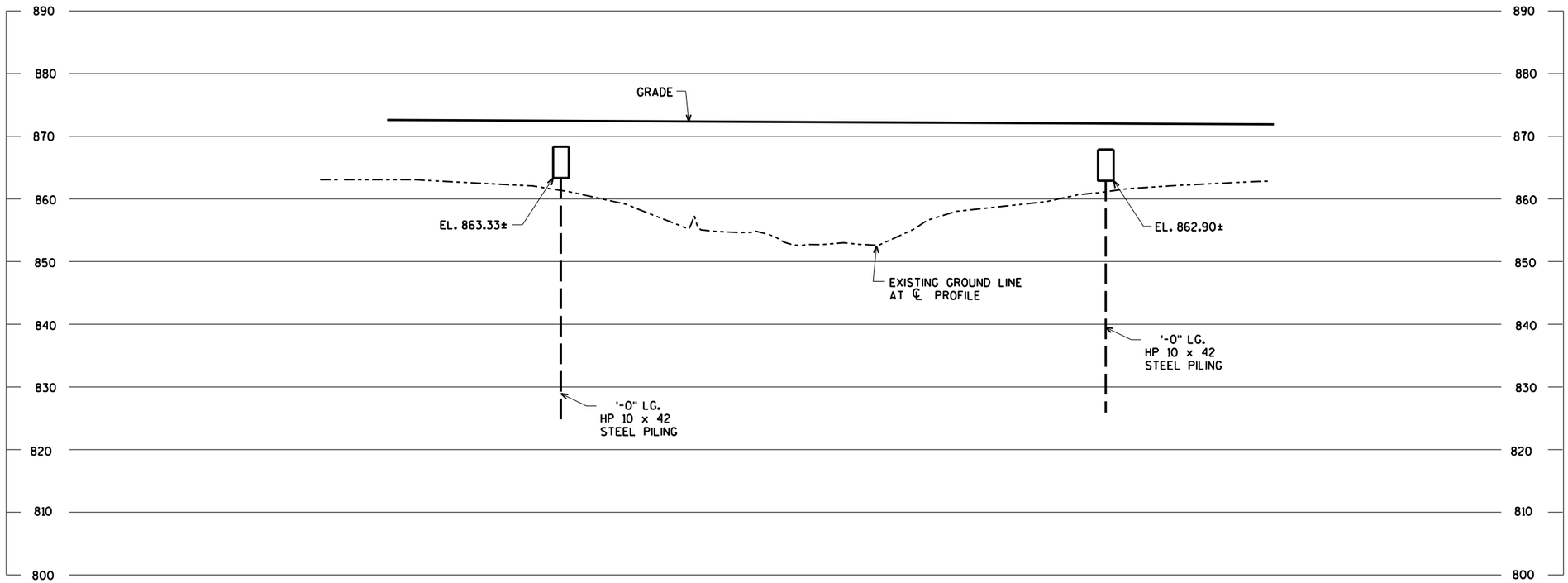
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1			
2			
3			
4			
5			
BORINGS COMPLETED BY:			
REPORT COMPLETED BY:			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) DANE COUNTY			





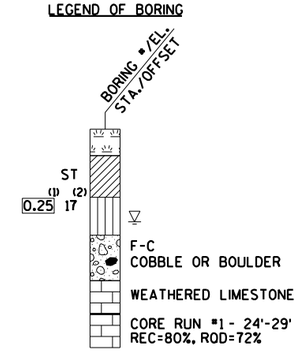
STATE PROJECT NUMBER

5290-00-72

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-794

DRAWN BY CLS | PLANS CK'D.

SUBSURFACE EXPLORATION

SHEET 4 OF 4

8

8

$PRFNAME$
U:\41-0717.00 - Dane County, STH 19 over Yahara River\Structures\B-13-794\B-13-794 soils.dgn

7/13/2017

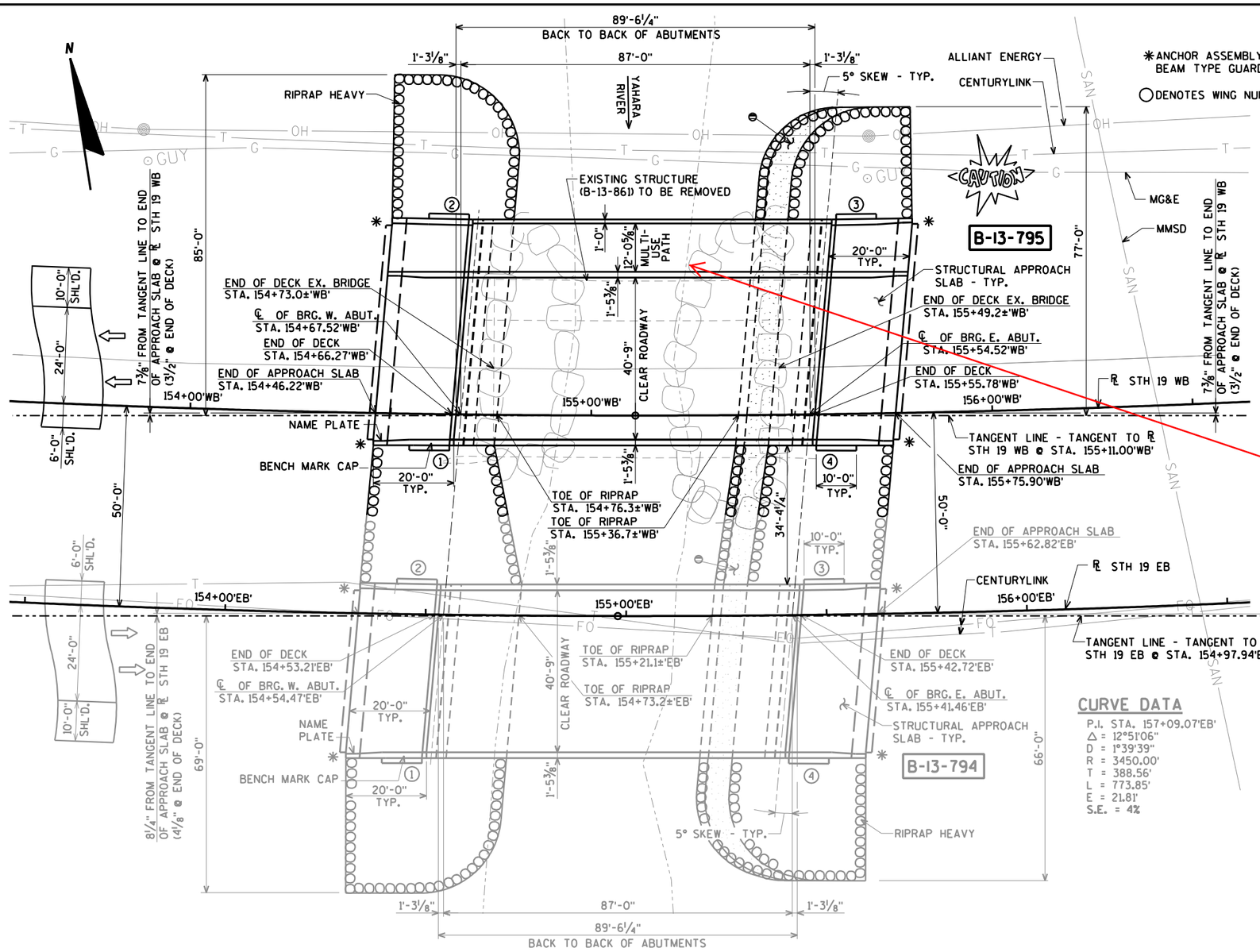
PENTABLE:BReau_shd_util.tbl

STATE PROJECT NUMBER

5290-00-72

LIST OF DRAWINGS

1. PRELIMINARY PLAN
2. TYPICAL SECTION, DESIGN DATA, & PROFILE GRADE LINE
3. QUANTITIES AND NOTES
4. SUBSURFACE EXPLORATION



CURVE DATA

P.I. STA. 157+14.77'WB'
Δ = 12°51'06"
D = 1°41'07"
R = 3400.00'
T = 382.93'
L = 762.64'
E = 21.50'
S.E. = 4%

Bridge widening shown here to be removed. Per current policy, bike facilities are not allowed to be added if additional right-of-way is required to accommodate them. Changes to be made during preparation of 60% plans.

CURVE DATA

P.I. STA. 157+09.07'EB'
Δ = 12°51'06"
D = 1°39'39"
R = 3450.00'
T = 388.56'
L = 773.85'
E = 21.81'
S.E. = 4%

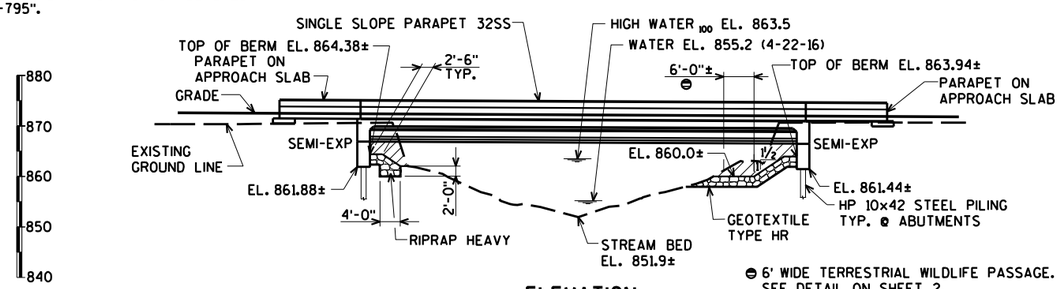
FOR TYPICAL SECTION, DESIGN DATA, AND PROFILE GRADE LINE, SEE SHEET 2

FOR QUANTITIES AND GENERAL NOTES SEE SHEET 3

PLAN

SINGLE SPAN - 36W-INCH PRESTRESSED CONCRETE GIRDER BRIDGE

COST OF EXCAVATION AND FILL IN THE HATCHED AREAS SHALL BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR "EXCAVATION FOR STRUCTURES BRIDGES B-13-795".



ELEVATION

(NORMAL TO ℄ OF YAHARA RIVER)

⊖ 6' WIDE TERRESTRIAL WILDLIFE PASSAGE. SEE DETAIL ON SHEET 2.

BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608)-266-8489

CONSULTANT CONTACT:
CHRIS MCMAHON
(715)-834-3161

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
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Eau Claire, WI 54701
www.AyresAssociates.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
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STRUCTURE B-13-795

STH 19 WB OVER YAHARA RIVER

COUNTY	TOWN/~~CITY~~/VILLAGE
DANE	T WESPORT, V DEFOREST

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

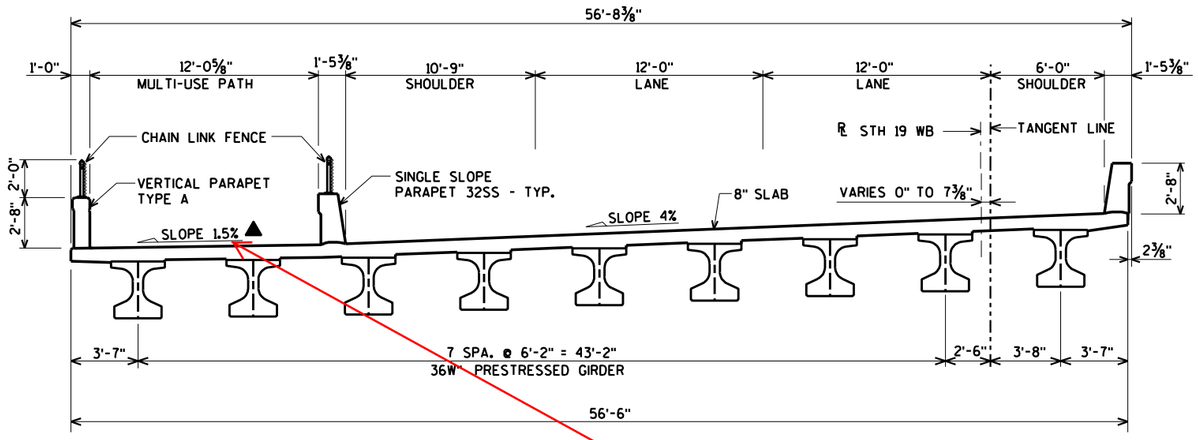
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
		CLS	

PRELIMINARY PLAN

SHEET 1 OF 4

STATE PROJECT NUMBER

5290-00-72

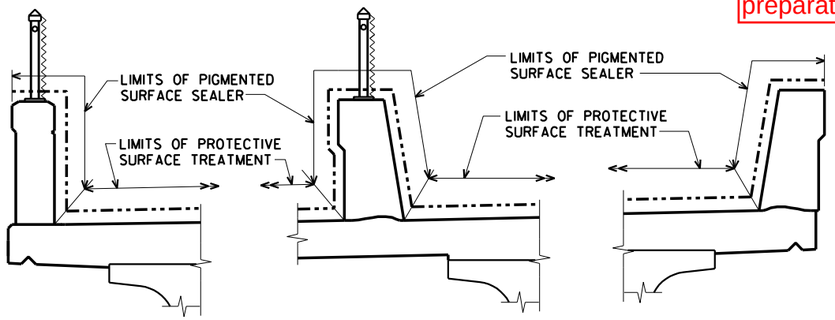


TYPICAL SECTION THRU BRIDGE

(LOOKING EAST)

▲ +0.5% CONSTRUCTION TOLERANCE IN MULTI-USE PATH CROSS SLOPE. THE MULTI-USE PATH CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

Bridge widening shown here to be removed. Per current policy, bike facilities are not allowed to be added if additional right-of-way is required to accommodate them. Changes to be made during preparation of 60% plans.



PROTECTIVE SURFACE TREATMENT AND PIGMENTED SURFACE SEALER DETAILS

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DESIGN LOADING: HL-93
INVENTORY RATING FACTOR:
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WATERWAY AREA = 536 sq. ft.	
DRAINAGE AREA = 43.1 sq. mi.	
ROADWAY OVERTOPPING = N/A	
SCOUR CRITICAL CODE = 8	
DATUM = NAVD88 (2007)	

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A.A.D.T. = 23,500 (2040)
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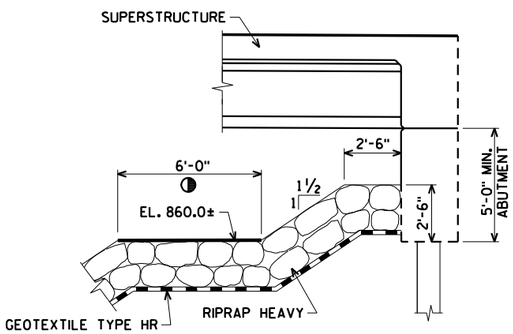

TERRESTRIAL WILDLIFE PASSAGE DETAIL

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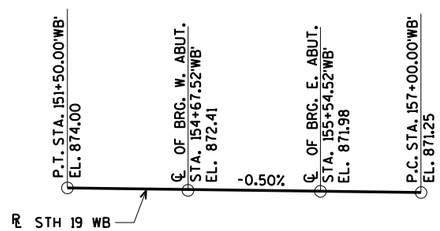

PROFILE GRADE LINE

(STH 19 WB)

BENCH MARK:
DISC ON SW WINGWALL
STA. 154+69'WB', 12' RT.
EL. 873.45

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-795

DRAWN BY CLS | PLANS CK'D.

TYPICAL SECTION, DESIGN DATA, & PROFILE GRADE LINE

SHEET 2 OF 4

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
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Eau Claire, WI 54701
www.AyresAssociates.com

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	W. ABUT.	E. ABUT.	SUPER.	TOTAL
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STATION 155+11'WB'	LS	-----	-----	-----	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-13-795	LS	-----	-----	-----	1
210.1500	BACKFILL STRUCTURE TYPE A	TON			-----	
305.0120	BASE AGGREGATE DENSE 1¼-INCH	TON	-----	-----	-----	
502.0100	CONCRETE MASONRY BRIDGES	CY			-----	
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-----	-----		
502.3210	PIGMENTED SURFACE SEALER	SY	-----	-----		
503.0137	PRESTRESSED GIRDER TYPE I 36W-INCH	LF	-----	-----		
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB			-----	
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB				
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH			-----	
506.4000	STEEL DIAPHRAGMS B-13-795	EACH	-----	-----		
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY			-----	
550.1100	PILING STEEL HP 10-INCH x 42 LB	LF			-----	
606.0300	RIPRAP HEAVY	CY			-----	
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF			-----	
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	-----	-----	-----	
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY			-----	
645.0120	GEOTEXTILE TYPE HR	SY			-----	
SPV.0090	FENCE CHAIN LINK 2-FT	LF				
	NON-BID ITEMS					
	FILLER	SIZE	-----	-----	-----	½" & ¾"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET AND IN THE ABUTMENT DETAILS.

THE EXISTING GROUND LINE SHALL BE THE UPPER LIMIT FOR EXCAVATION FOR STRUCTURES.

EXISTING BRIDGE B-13-861, IS A TWO-SPAN CONCRETE HAUNCH SLAB BRIDGE WITH AN OVERALL LENGTH OF 77'-8" AND A CLEAR ROADWAY WIDTH OF 44'-0". THE EXISTING BRIDGE IS TO BE REMOVED BEFORE CONSTRUCTING B-13-795.

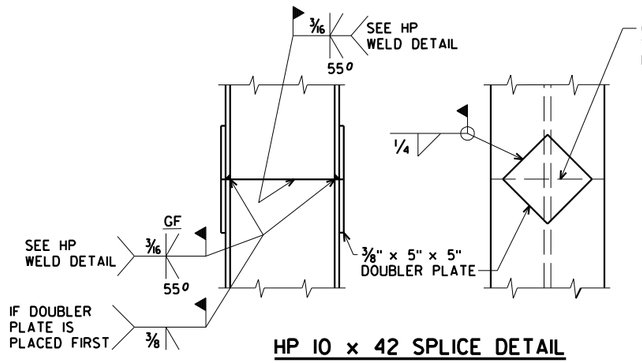
AT BACKFACE OF ABUTMENTS ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TYPE A.

PROTECTIVE SURFACE TREATMENT AND PIGMENTED SURFACE SEALER IS TO BE APPLIED AS SHOWN IN DETAIL ON SHEET 2.

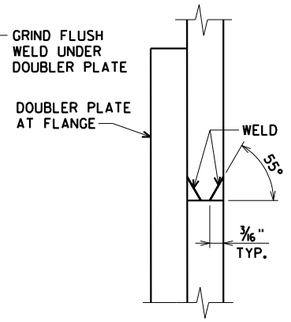
ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE PRESTRESSED GIRDER DETAILS SHEET.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

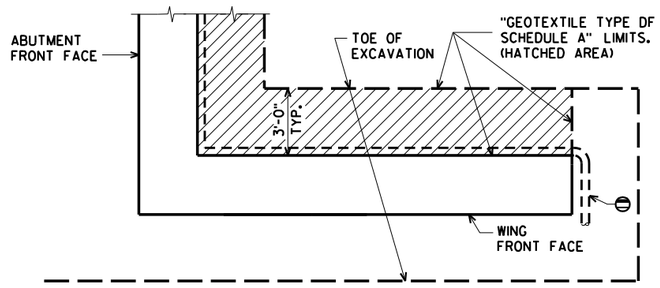


HP 10 x 42 SPLICE DETAIL

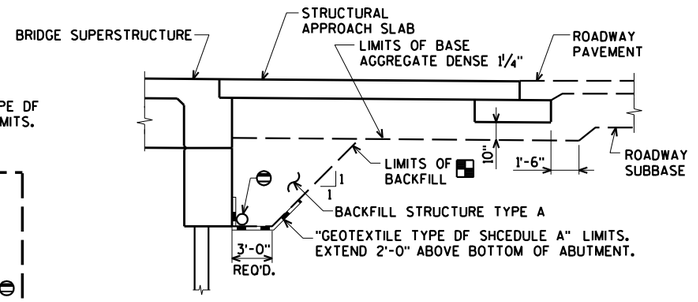


HP WELD DETAIL

FLANGE SHOWN, WEB SIMILAR



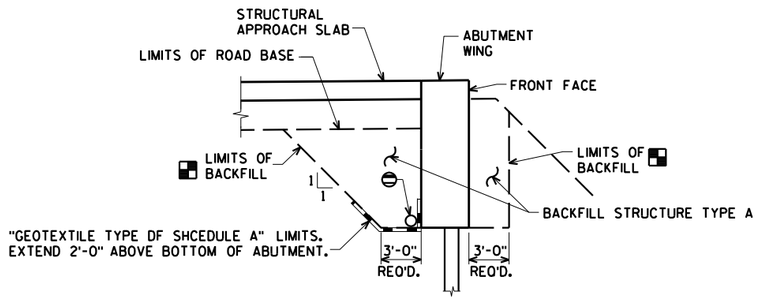
BACKFILL STRUCTURE LIMITS
ABUTMENT PLAN WITH WING



BACKFILL STRUCTURE LIMITS

BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET .



BACKFILL STRUCTURE LIMITS
THRU WING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-795

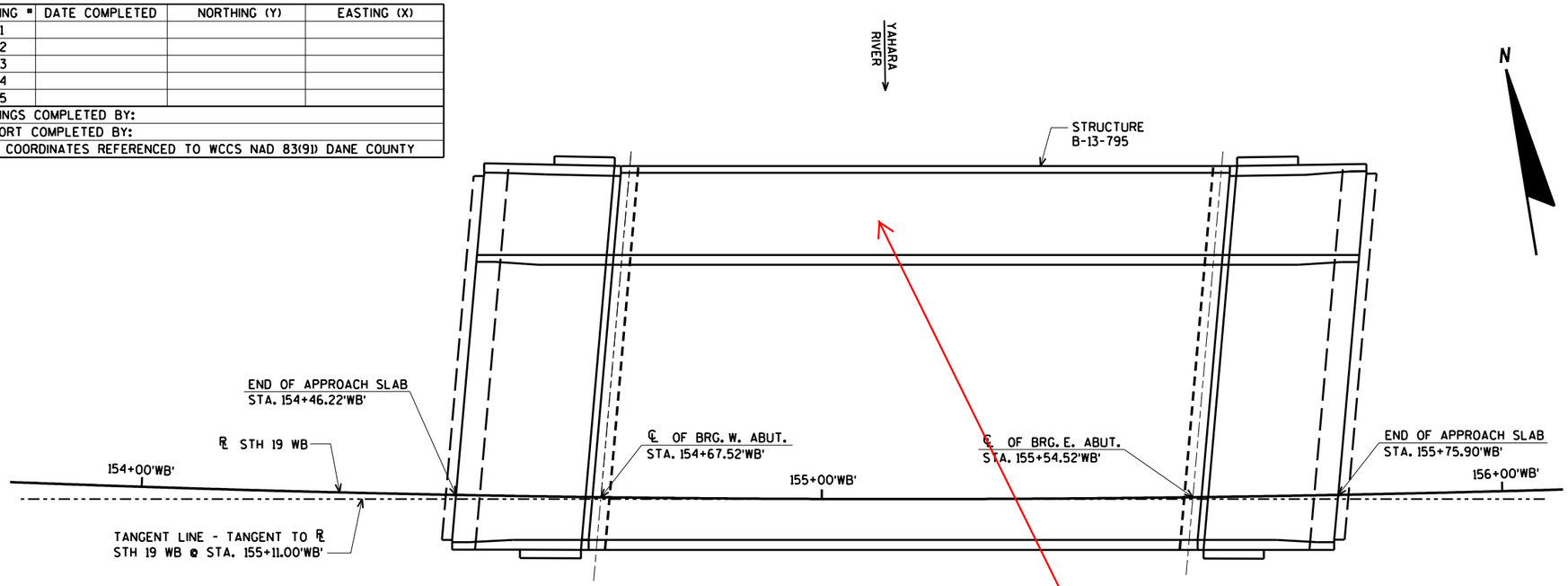
DRAWN BY CLS | PLANS CK'D.

QUANTITIES AND NOTES

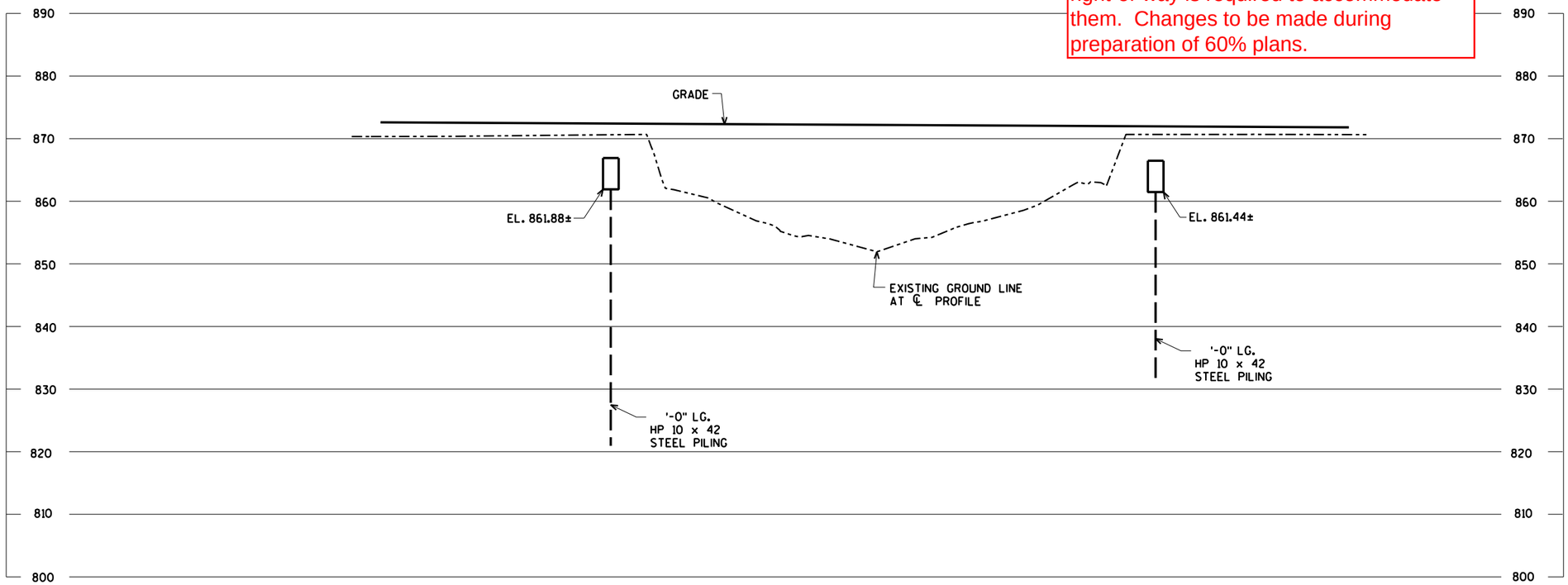
SHEET 3 OF 4

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1			
2			
3			
4			
5			
BORINGS COMPLETED BY:			
REPORT COMPLETED BY:			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) DANE COUNTY			



Bridge widening shown here to be removed. Per current policy, bike facilities are not allowed to be added if additional right-of-way is required to accommodate them. Changes to be made during preparation of 60% plans.



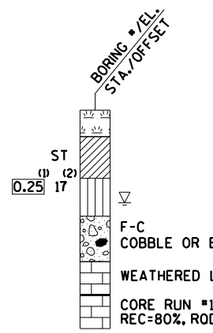
STATE PROJECT NUMBER

5290-00-72

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY occur.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-795

DRAWN BY CLS | PLANS CK'D.

SUBSURFACE EXPLORATION

SHEET 4 OF 4

8

8

$PRFNAME$
U:\41-0717.00 - Dane County, STH 19 over Yahara River\Structures\B-13-795\B-13-795 soils.dgn

7/13/2017

PENTABLE:BReau_shd_util.tbl

APPENDIX 4
WisDOT Pre-Screening Indirect Effects Analysis Worksheets

WisDOT's Pre-Screening Worksheet for EA and ER Projects For Determining the Need to Conduct a *Detailed* Indirect Effects Analysis

1. Project Design Concepts and Scope

Do the project design concepts include any one of the following?

- Additional thru travel lanes (expansion) **YES; existing WIS 19 roadway is two lanes; the proposed action would expand the WIS 19 roadway to 4 lanes, to match the WIS 19 roadway configuration to the east**
- New alignment **NO**
- New and/or improved interchanges and access **NO**
- Bypass alternatives **NO**

2. Project Purpose and Need

Does the project purpose and need include:

- Economic development –in part or full (i.e. improved access to a planned industrial park, new interchange for a new warehouse operation). **NO**

3. Project Type

What is the project document "type"? **Environmental Report**

- EIS project—a detailed indirect effects analysis is warranted.
- Many EAs will require a detailed indirect effects analysis (However, it also depends on the project design concepts and other factors noted here.)
- If a Categorical Exclusion applies, a detailed assessment is not generally warranted, however documentation must be provided that addresses this determination including basic sheet information.

4. Facility Function

What is the primary function of the existing facility? What is the proposed facility?

- Urban arterial
- **Rural arterial (both existing and proposed)**

5. Project Location (Location can be a combination.)

- Urban (within an Metropolitan Planning Area)
- Suburban (part of larger metropolitan/regional area, may or may not be part of an metropolitan planning area)
- Small community (population under 5000)
- Rural with scattered development
- **Rural, primarily farming/agricultural area (the project is adjacent to scattered rural residential areas, highway oriented retail land uses, and WDNR and Dane County owned public natural recreation areas)**

6. Improved travel times to an area or region

- Will the proposed project provide an improvement of 5 or more minutes? (Based on research, improvements in travel time can impact the attractiveness of an area for new development.) **NO**

7. Land Use and Planning

- What are the existing land use types in project area?
  The majority of land within the direct project area is used as agricultural land, public recreation land, or vacant subdivided land. Four farms have direct access to WIS 19 within the project area. The Cherokee Marsh State Fishery Area, Dane County Bollig Property, and Cherokee Marsh Natural Resource Area are all public lands located adjacent to the project corridor.

- What do the local plans, neighborhood plans, and regional plans, indicate for future changes in land use?
  The village of DeForest has adopted future land use plans indicating considerable commercial and mixed-use development of land in the project corridor, mainly on the north side of WIS 19. These plans are reflected in the Village of DeForest Comprehensive Plan (updated in 2016). DeForest identifies nearly all of the developable lands west of the Interstate, up to the Westport town line, as being appropriate for future development and in a "Future Urban Development Area" (FUDA). The village of DeForest has current plans for a big box store development in the area west of I-39/90/94 and North of WIS 19. This big box retail development is independent of WisDOT's WIS 19 project, and construction of the development began in fall 2017. Development plans for land within the WIS 19/River Road corridor were made independent of the WisDOT's WIS 19/River Road transportation project.

- What types of permitted uses are indicated in the local zoning?
  The project is being built on existing alignment and will not result in the direct change or opposition to any zoning regulations. The project is compatible with current and planned zoning and development within the project area.

- Would the project potentially conflict with plans in the project area? (e.g., capacity expansion in areas in which agricultural preservation is important to local government(s)?)
  NO, the project does not conflict with land use plans for the area.

8. Population/Demographic Changes

- Have the population changes over past 5, 10 and 20 years been high, medium, low growth rate vs. state average over same period? (i.e. USDA defines high growth in rural areas as greater than annual population growth of 1.4 %.)
  The direct project area has not experienced any population changes.

  Communities surrounding the project area have experienced population growth comparable to growth experienced throughout Dane County, and have grown at a greater rate than the State of WI as a whole. Tables 1 and 2 below show population changes and annual population growth rates since 1990 for surrounding communities, Dane County, and the State of Wisconsin.

Table 1: Municipal Population Change

Municipality	1990 Population	2000 Population	2010 Population	2015 Population (projection)
Village of DeForest	4,882	7,368	8,936	9,310
Village of Windsor (Town prior to 2015)	4,620	5,286	6,345	6,720
Village of Waunakee	5,897	8,995	12,097	12,750
Town of Westport	2,732	3,586	3,950	4,035
Town of Burke	3,000	2,990	3,284	3,360
Dane County	367,085	426,526	488,073	510,198
State of WI	4,891,769	5,363,675	5,686,986	5,742,117

Table 2: Municipal Population Growth Rate

Municipality	Annual Growth Rate since 1990	Annual Growth Rate since 2000	Annual Growth Rate since 2010
Village of DeForest	3.66%	1.79%	0.84%
Village of Windsor (Town prior to 2015)	1.87%	1.89%	1.18%
Village of Waunakee	4.71%	2.85%	1.08%
Town of Westport	2.01%	0.97%	0.43%
Town of Burke	0.46%	0.79%	0.46%
Dane County	1.56%	1.31%	0.91%
State of WI	0.70%	0.47%	0.19%

- What are the projections for the future for population? (Use Wisconsin DOA projections.) **Wisconsin DOA projections for surrounding communities and Dane County are shown in Table 3 below.**

Table 3: WI DOA Population Projections

Municipality	2020 Population Projection	2025 Population Projection	2030 Population Projection	2040 Population Projection
Village of DeForest	9,945	10,560	11,150	12,010
Village of Windsor (Town prior to 2015)	7,175	7,635	8,055	8,675
Village of Waunakee	13,850	14,920	15,940	17,530
Town of Westport	4,215	4,390	4,555	4,745
Town of Burke	3,495	3,625	3,740	3,875
Dane County	530,620	*Not Available*	577,300	606,620

- Have there been considerable changes for population demographics and employment over the past 10 – 20 or more years. **No.**

9. Rate of Urbanization

- Does the project study area contain proposed new developments? **YES, as stated in Question #7, the village of DeForest identifies nearly all of the developable lands west of the Interstate, up to the Westport town line, as being appropriate for future development and in a "Future Urban Development Area" (FUDA). Future development plans for land along the WIS 19/River Road corridor were made independent of the WisDOT's WIS 19/River Road project. The village of DeForest identified plans for a big box store development in the area west of I-39/90/94 and North of WIS 19, in response to WisDOT's coordination efforts for the project. This big box retail development is independent of WisDOT's WIS 19 project.**

- What are the main changes in developed area vs. undeveloped areas over past 5, 10 and 20 years? Have there been significant conversions of agricultural land uses to other land use types, such as residential or industrial? **The project corridor is predominantly undeveloped. The majority of the existing project area is used for agricultural or public recreational land purposes. Four farms have direct access to WIS 19 within the project area. The WDNR owned Cherokee Marsh State Fishery Area, Dane County Bollig Property, and Dane County Cherokee Marsh Natural Resource Area are all public lands located adjacent to the project corridor. Dane County is also proposing to acquire additional land for public recreation use within the project limits. The land Dane County is proposing to acquire includes 53 acres of permanent acquisition and an additional 77 acres of conservation easement (130 total acres). The permanent acquisition area is located both north and south of WIS 19 between River Road and the Yahara River. The portion north of WIS 19 consists of a farm residence and several other farm buildings and the portion south of WIS 19 is presently being farmed. The 77 acres of conservation easement is located north of WIS 19 and west of**

River Road and is presently being farmed. The portion north of WIS 19 and east of River Road abuts a parcel of land acquired by the County in 2015 and the portion south of WIS 19 abuts public use land owned by the WDNR along the Yahara River. Similar to the lands acquired in 2015, this property is intended to preserve the lands along the Yahara River corridor and will be used for fishing, hunting, canoeing, and kayaking. The southern end of the property is connected to additional public use lands to the south that extend to Cherokee Lake and eventually drains into the Madison chain of lakes.

10. Public, State and/or Federal Agency Concerns

- Have local officials, federal and/or state agencies, property owners, stakeholders or others raised concerns related to potential indirect effects from the project? (e.g., land use changes, "sprawl", increase traffic, loss of farmland, etc.)
  No, no concerns related to land use changes, "sprawl", increased traffic, loss of farmland, etc. have been expressed as a result of this project. Changes in the project area are not due to the proposed action. Any changes to the project area are planned developments taking place in accordance with local/regional land use and transportation plans.

  In response to WisDOT's initial coordination efforts for the project, the village of DeForest identified plans for a big box store development in the area west of I-39/90/94 and North of WIS 19, This big box retail development is independent of WisDOT's WIS 19 project. WisDOT met with village of DeForest officials on several occasions to discuss the proposed land development in the project area. Meetings were held with the village of DeForest on the following dates:

  - **May 26, 2016: WisDOT, Dane County, and village of DeForest held a meeting to discuss future bike paths in the project area. Village officials identified potential development in the triangle of land north of WIS 19, between I-39 and the Yahara River.**
  - **January 19, 2017: WisDOT met with the village of DeForest Planning and Zoning Commission to discuss proposed land development in the project area.**
  - **March 6, 2017: WisDOT and village of DeForest officials met to discuss a Traffic Impact Analysis (TIA) conducted for the village development proposal.**
  - **November 9, 2017: WisDOT and the village of DeForest held a public informational meeting to obtain public input on the placement of a traffic signal at the West Liuna Way / WIS 19 intersection. This intersection would be the main entrance into a planned development in the area north of WIS 19, between I-39 and the Yahara River. Traffic analysis done by the village of DeForest indicates that a traffic signal will be needed at the intersection.**

11. Conclusion

- Identify whether or not the results of this prescreening of potential indirect effects indicates a detailed indirect effects analysis is required.

a. No ☒ Through screening analysis using WisDOT's pre-screening for indirect effects procedure and FDM guidance on indirect effects, it is concluded that the factors of the project, its location and other conditions do not warrant further detailed analysis of the potential for indirect effects. The project will not have the likelihood to result in *significant* indirect effects as defined by NEPA. This conclusion was based on the evaluation of the preceding 10 pre-screening factors including project design concepts and scope; project purpose and need; project type; facility function (current and planned); project location; improved travel times to an area; local land use and planning considerations; population and demographic considerations; rate of urbanization; and public/agency concerns. Therefore, further evaluation of indirect effects in a detailed analysis is not warranted. If changes are made to the project design and alternatives, this screening will be re-examined for sufficiency.

b. Yes ☐ Through screening analysis using WisDOT's pre-screening for indirect effects procedure and FDM guidance on indirect effects, it is concluded that the factors of the project, its location and other conditions warrant further detailed analysis of the potential for indirect effects.

APPENDIX 5

Agency Coordination

- WDNR
- USFWS
- DATCP
- NRCS
- USCG
- Dane County
- Village of DeForest
- Bureau of Aeronautics
- American Indian Tribes

WDNR Correspondence

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
South Central Region Headquarters
3911 Fish Hatchery Road
Fitchburg, WI 53711-5397

Scott Walker, Governor
Cathy Stepp, Secretary
Telephone 608-275-3266
FAX 608-275-3338

June 15, 2016

David Pilon
Project Manager
WisDOT SW Region
2101 Wright Street
Madison, WI 53704

Subject: DNR Initial Project Review
Project I.D. 5290-00-02/72
STH 19
River Road – IH 39
(USH 12 – IH 39)
Dane County

Dear Mr. Pilon:

The Wisconsin Department of Natural Resources (DNR) has received the information you provided for the proposed above-referenced project on May 23, 2016. According to your proposal, the purpose of this project is to reconstruct STH 19 between IH 39 and a point west of River Road from a two lane roadway to four lanes. The new lanes are anticipated to be located to the south of the existing facility and a new bridge over the Yahara River would be required for this expansion. Two alternative cross sections are being investigated, a rural cross section and an urban cross section. In addition, the intersection with River Road is being studied for possible signals or a roundabout.

Preliminary information has been reviewed by DNR staff for the project under the DNR/DOT (Wisconsin Department of Transportation) Cooperative Agreement. Initial comments on the project as proposed are included below, and assume that additional information will be provided that addresses all resource concerns identified. In addition to the project specific resource concerns highlighted below, it is DNR's expectation that the full range of DOT roadway standards will be applied throughout the design process.

A. Project-Specific Resource Concerns

Public Lands:
There is DNR and Dane County managed property adjacent to STH 19 within the corridor, the DNR managed Cherokee Marsh State Fishery Area and the Dane County Bollig Property acquisition. Both properties are part of the Cherokee Marsh Natural Resources Area that includes over 1,300 acres of State, County and City lands. Cherokee Marsh is a very significant urban wetland complex that includes a diverse array of habitat types as well as critical spawning and nursery habitat for northern pike and gamefish in the Lake Mendota system. Cherokee Marsh is also identified in the Wisconsin Wildlife Action Plan and the WI Land Legacy Report. Improving the Yahara River and the surrounding wetlands is a key goal outlined in the Yahara Clean Strategic Action Plan.

Section 4(f) Requirement:
Public lands are present in the vicinity of this project. If there is potential for impacts to these lands, please begin coordination with us as soon as possible. *First and foremost, every effort should be taken to avoid impacts to these lands*.

There is a U.S. Dept. of Transportation "Section 4(f)" process for federally funded transportation projects that impact various types of public parks, wildlife refuges, and recreation areas. This requirement is coordinated by state and federal transportation departments. Please ensure the 4f process as described in DOT FDM Chapter 21-25-1 is followed.

Land and Water Conservation Fund (LWCF) Lands and 6(f) Requirement:
There are property acquisitions that were funded with LAWCON funds within the City of Madison for Cherokee Marsh. However, the maps for the LAWCON project boundary (grants # 55-01195 and 55-01760) does not extend into lands outside of the City and therefore the STH 19 corridor should not be impacted by the 6(f) requirement.

Pittman-Robertson/Dingell-Johnson Funded Lands:
According to a review of our records, there is not a PR-DJ interest in the areas that would be impacted by this project.

Stewardship Funded Lands:
The Stewardship Fund compensation requirement will apply to the Dane County Bollig Acquisition along the corridor. It appears from the provided plans that these areas will be impacted by the project. Lands acquired and/or developed with the Knowles-Nelson Stewardship Funds from the DNR that are converted from their recreational or natural resources conservation utility to any other use must be replaced, or made whole by land replacement of equal or greater value, pending approval from the DNR Secretary. This requirement is coordinated with the Regional DNR Grant Staff and the Statewide Grant Managers. The DNR requests the opportunity to review impacts and discuss compensation with WisDOT project staff and the County.

Wetlands:
A wetland delineation was completed by Robert E. Lee and Associates in August of 2014 and wetlands were identified adjacent to the Yahara River to the north and south of STH 19. A map of the delineated areas was included in the submittal. Please send the wetland delineation report and data sheets to this office for review and approval. There is potential for wetland impacts to occur as a result of this project. Wetland impacts must be avoided and/or minimized to the greatest extent practicable. Unavoidable wetland losses must be compensated for in accordance with the DNR/DOT Cooperative Agreement and the DOT Wetland Mitigation Banking Technical Guideline. Per the Cooperative Agreement, mitigation banking is the preferred compensation option; however DOT and DNR agree that other practicable and ecologically valuable project specific opportunities may be pursued on a case-by-case basis. DNR requests information regarding the amount and type of unavoidable wetland impacts.

Fisheries/Stream Work:
The upper Yahara River is a warm water fishery, although there are some cold water species present. In order to protect developing fish eggs and substrate for aquatic organisms, all instream work that could adversely impact water quality should be avoided between March 1 and June 15.

This reach of the Yahara River is considered to be of regional significance as one of the higher quality waterways in eastern Dane County. This stretch generally shows lower levels of adverse effects from straightening and from agricultural and storm water runoff than other sections of the Yahara or other streams in the area. The state and local municipalities have taken significant steps to preserve the corridor, improve habitat and expand recreational

opportunities along the upper Yahara River. The new structure should be designed to minimize impacts to the waterway, wetlands and wildlife and aquatic organism passage.

Storm water
The project may replace the rural cross section which drains to vegetated roadside swales with curb and gutter. Storm water runoff treatment for TSS should be included or accounted for as part of this project as described in Ch. Trans 401, if the curb and gutter option is selected.

Either cross-section alternative would likely result in an increase in impervious surfaces within the corridor. This can result in an increase in runoff and additional contribution of pollutants to receiving waters, which as described above are sensitive resources. The project should consider the use of storm water practices in order to reduce the impact on water quality, especially in areas that discharge to sensitive wetlands and waterways in the area. We expect that the project would meet or exceed post-construction storm water standards described in Ch. Trans 401 and the DNR/DOT Cooperative Agreement.

Endangered Resources:
Based upon a review of the Natural Heritage Inventory (NHI) and other DNR records dated June 8, 2016, the following Endangered Resources have been known to occur in the project area or its vicinity and could be impacted by this project.

Ammodramus henslowii, Henslow's Sparrow, Threatened. The Henslow's Sparrow prefers old fields, open grasslands, wet meadows, un-mowed highway right-of-ways, undisturbed pastures and fallow land grown up to tall weeds. The recommended avoidance period is from May 20 through August 15.

Eptesicus fiscus, Big Brown Bat. During the summer big brown bats are found in various habitats including deciduous woodlands, farmlands edges near water and urban areas. During the winter months they are found in natural and manmade structures such as caves, mines and human dwellings. Bats are known to use bridges, particularly those with concrete I-beams and expansion joints. Any bridges impacted should be surveyed for signs of bats prior to construction.

The DNR Transportation Liaison will initiate coordination with Lisie Kitchel, of the Bureau of Natural Heritage Conservation (NHC).

Migratory Birds:
The Yahara river bridges should be inspected for the presence of swallows. Under the U.S. Migratory Bird Treaty Act, destruction of swallows and other migratory birds or their nests is unlawful unless a permit has been obtained from the U.S. Fish & Wildlife Service (USFWS). Therefore, the project should either occur only between August 30 and May 1 (non-nesting season) or utilize measures to prevent nesting *(e.g., remove unoccupied nests during the non-nesting season and install barrier netting prior to May 1)*. If netting is used, ensure it is properly maintained, then removed as soon as the nesting period is over. If neither of these options is practicable then the USFWS must be contacted to apply for a depredation permit.

Invasive Species and Viral Hemorrhagic Septicemia (VHS):
Any equipment coming into contact with surface waters must be properly cleaned and disinfected to address the spread of invasive species and viruses. Special provisions must require contractors to implement the following measures before and after mobilizing in-water equipment to prevent the spread of VHS, Zebra Mussel, and other invasive species. Contractors should follow ***STSP 107-055*** *Environmental Protection, Aquatic Exotic Species Control*, or protocol found here: http://dnr.wi.gov/topic/fishing/documents/vhs/disinfection_protocols.pdf .

Additional information on invasive species and infested waters can be found at:
http://dnr.wi.gov/lakes/invasives/AISByWaterbody.aspx

Floodplains:
A determination must be made as to whether or not the project lies within a mapped/zoned floodplain. Floodplain impacts should be assessed and/or quantified and appropriate coordination must be carried out in accordance with the DOT/DNR Cooperative Agreement. Coordination must also occur with the Dane County Zoning Program.

Burning:
If burning of brush will occur as part of this project, the contractor should be informed that it is illegal to burn materials other than clean wood. It is also illegal to start or maintain fires using oily substances, or other materials prohibited under chapter NR 429, Wis. Adm. Code. All necessary burning permits must be obtained prior to construction, as required under local and state fire protection regulations, in order to comply with NR 429 (Malodorous Emissions & Open Burning) http://docs.legis.wisconsin.gov/code/admin_code/nr/400/429.pdf .

Burning permits are available through the local DNR ranger or fire warden, however other local burning permits maybe required.

B. Project Specific Construction Site Considerations

The following issues should be addressed in the Special Provisions, and the contractor will be required to outline their construction methods in the Erosion Control Implementation Plan (ECIP). An adequate ECIP for the project must be developed by the contractor and submitted to this office for review at least 14 days prior to the preconstruction conference. Erosion control and stormwater measures must adhere to the DNR/DOT Cooperative Agreement, Trans 401, and applicable federal laws.

Erosion Control and Storm Water Management:

- Erosion control devices should be specified on the construction plans. All disturbed bank areas should be adequately protected and restored as soon as feasible.

- If erosion mat is used along stream banks, DNR recommends that biodegradable non-netted mat be used (e.g. Class I Type A Urban, Class I Type B Urban, or Class II Type C). Long-term netted mats may cause animals to become entrapped while moving in and out of the stream. Avoid the use of fine mesh matting that is tied or bonded at the mesh intersection such that the openings in the mesh are fixed in size.

- If dewatering is required for any reason, the water must be pumped into a properly selected and sized dewatering basin before the clean/filtered water is allowed to enter any waterway or wetland. The basin must remove suspended solids and contaminants to the maximum extent practicable. A properly designed and constructed dewatering basin must take into consideration maximum pumping volume (gpm or cfs) and the sedimentation rate for soils to be encountered. Do not house any dewatering technique in a wetland.

- The contractor should restrict the removal of vegetative cover and exposure of bare ground to the minimum amounts necessary to complete construction. Restoration of disturbed soils should take place as soon as conditions permit. If sufficient vegetative cover will not be achieved because of late season construction, the site must be properly winterized.

- All temporary stock piles must be in an upland location and protected with erosion control measures (e.g. silt fence, rock filter-bag berm, etc.). Do not stockpile materials in wetlands, waterways, or floodplains.

Asbestos:
If the existing bridge will be reconstructed for this project, a Notification of Demolition and/or Renovation and Application for Permit Exemption, DNR form 4500-113 (chapters NR 406, 410, and 447 Wis. Adm. Code) may be required. Please refer to DOT FDM 21-35-45 and the DNR's notification requirements web page: http://dnr.wi.gov/topic/Demo/Asbestos.html for further guidance on asbestos inspections and notifications. Contact Mark Davis, Air Management Specialist 608-266-3658, with questions on the form. The notification must be submitted 10 working days in advance of demolition projects.

Navigation Concerns During Construction:
The bridge should be designed to maintain the existing navigation.

This reach of the Yahara River is regularly used by recreational watercraft. It will be necessary to place navigational aids around the construction area during construction. A Waterway Marker Application and Permit is required for both types of navigational markers (informational vs. control/restrictive) prior to construction. A local ordinance will also be required for buoys that control or restrict navigation. Adequate time should be allowed for the passage of an ordinance with the local municipality. A local ordinance is not required for informational navigational aids (a waterway marker permit is required). DNR will determine which type of navigational aids are needed in accordance with the project design and methods used during construction. The general steps for submission of a Waterway Marker Application and Permit are as follows:

1. Please fill out the Waterway Marker Application and Permit form: http://dnr.wi.gov/files/PDF/forms/8700/8700-058.pdf

2. The Wisconsin Department of Transportation should be listed as the applicant.

3. Be sure to include an aerial map-diagram or engineered-diagram of the work location and the placement of the waterway markers (buoys). If proposed GPS coordinates for each buoy are not provided, then markers placed on the diagram must show distance (in feet) from each marker location and from one permanent fixture as a benchmark.

4. Provide the completed application/permit to the local municipality having jurisdictional authority over the area in which the waterway markers will be placed. If an ordinance is required, consult with the local municipality regarding their ordinance process.

5. Forward the signed application/permit to myself as well as the Boating Program Specialist:

   Penny Kanable
   Wisconsin Dept. of Natural Resources
   101 S Webster Street - LE/8
   Madison WI 53703

   The Boating Program Specialist will communicate with the local Warden and Recreational Safety Warden in processing and finalizing the permit. If the permit application is incomplete or additional information is needed the Boating Program Specialist will work with DNR's Regional DOT Liaison to resolve.

6. Permanent Navigation Aids: The process outlined above will also apply to the placement of permanent navigational aids. This includes modifications, additions or temporary relocations of existing navigational aids. The locations of existing buoys (or other navigational aids) must be included in the permit application.

Other Issues/Unique Features: The Cooperative Agreement allows our agencies to be flexible with our review process in order to ensure the DOT project remains on schedule. At times we will identify unique resources or project specific concerns that necessitate creative solutions to complex resource issues. We believe the requests below are necessary to adequately protect resources, are reasonable, are site specific, and will not set precedence or new policy for statewide policy or guidance. The request made below apply only to this project, and should be incorporated into the project Special Provisions.

- **Oak Wilt:** This project involves work that may involve cutting or wounding of oak trees. To prevent the spread of oak wilt disease, please avoid cutting or pruning of oaks from April through September. See the DNR webpage at: http://dnr.wi.gov/topic/foresthealth/oakwilt.html .

- **Emerald Ash Borer:** This project has the potential for spreading the Emerald Ash Borer (EAB) beetle. It is illegal to move or transport ash material, the emerald ash borer, and hardwood debris (i.e. firewood) from EAB quarantined areas to a non-quarantined area without a compliance agreement issued by WI Department of Agriculture, Trade and Consumer Protection. Regulated items include cut hardwood (non-coniferous) firewood, ash logs, ash mulch or bark fragments larger than on inch in diameter, or ash nursery stock (DATCP statute 21).
  - For more information regarding the EAB and quarantine areas please click on the following link: http://datcpservices.wisconsin.gov/eab/article.jsp?topicid=20
  - Recommendations to reduce the spread of EAB in potentially infested Ash wood: http://datcpservices.wisconsin.gov/eab/articleassets/Recommendations%20to%20reduce%20the%20spread%20of%20EAB.pdf

This project may require a permit from the U.S. Army Corps of Engineers (ACOE). For further details you will need to contact the ACOE. All local, state, and federal permits and/or approvals must be obtained prior to commencing construction activities.

The above comments represent the DNR's initial concerns for the proposed project and do not constitute final concurrence. Final concurrence will be granted after further review of refined project plans, and additional consultation if necessary. If any of the concerns or information provided in this letter requires further clarification, please contact this office at (608) 275-3301, or email at eric.heggelund@wisconsin.gov.

Sincerely,

Eric Heggelund

Eric Heggelund
Environmental Analysis & Review Specialist

cc: Brian Taylor, WisDOT
Matthew Barr, Ayres Associates
Lisie Kitchel, WDNR
Jennifer Ghiring, WDNR
Cheryl Housley, WDNR
Michael LaBissiniere, WDNR
Dave Rowe, WDNR

From: Kitchel, Lisie E - DNR
To: Taylor, Brian F - DOT; Heggelund, Eric P - DNR
Cc: Pilon, David - DOT; Matt Barr; Kuhlow, Kevin
Subject: RE: DNR Initial Comments ID 5290-00-02, STH 19 Reconstruction (River Road to IH 39), Dane County
Date: Tuesday, December 6, 2016 1:45:03 PM

Brian – I concur with your comments/recommendations – with the exception of netting for the bats. We have found netting for bats does not work at excluding them, unless you can provide netting that has no space smaller than a dime, which is impractical. I feel you can go ahead with the other provisions as proposed and if you apply the time of year for clearing provisions for the bats you should be OK. Bats sometimes roost on bridges over water during the day, but we have not observed them roosting on bridges over roads or railroads. You certainly can check the bridge to make sure, especially looking for signs of bats (guano or urine staining) even if none are observed, and please let us know if you see any or have any questions.

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Visit our survey at http://dnr.wi.gov/customersurvey to evaluate how I did.
Lisie Kitchel
Phone: (608) 266-5248
Cell: (608) 220-5180
Lisie.Kitchel@wi.gov

From: Taylor, Brian F - DOT
Sent: Tuesday, December 06, 2016 10:56 AM
To: Heggelund, Eric P - DNR
Cc: Pilon, David - DOT; Kitchel, Lisie E - DNR; Barr, Matthew; 'KuhlowK@AyresAssociates.com'; Taylor, Brian F - DOT
Subject: RE: DNR Initial Comments ID 5290-00-02, STH 19 Reconstruction (River Road to IH 39), Dane County

Good Morning Eric !

As I was conducting the Section 7 consultation for the above referenced project I reviewed your June 2016 initial comments letter again. Per your letter and FWS Section 7 consultation, three endangered species have the potential to inhabit the project limits; Henslow Sparrow, the Big Brown Bat and the Northern Long-eared Bats (NLEB) as well as protected Migratory birds.

Migratory Birds

We can handle that with the Special Provision of netting of the bridge to prevent nesting.

Henslow's Sparrow

For the Henslow's Sparrow I am sure we can use the same Special Provisions to strip the topsoil or mow prior to May 20th similar to the way we handled it for the I39/WIS 19 project.

NLEB and Clearing

Since no NLEB critical habitat has been identified I am recommending that we use to the Special Provision to restrict clearing from June 1 to July 31 in order to avoid any potential impacts to the NLEB during the pup period.

Big Brown Bat/NLEB

I will set up field meeting date for **June 2017** to conduct a visual inspection of the bridges to determine if the Big Brown or the NLEB is present within the existing structure.

David, Matt and Kevin,

These discussions and surveys should not affect the completion of the environmental document which you hope to have signed by May 2017. In the ENV doc commitments we will list those Threatened and Endangered species and state that coordination with WDNR and FWS is on-going. If in the summer of 2017 if the Big Brown is identified should be able to provide Special Provisions for

deterrents through netting, etc as the bridge has a very small span.
Thank You !
Brian

From: Heggelund, Eric P - DNR
Sent: Wednesday, June 15, 2016 11:19 AM
To: Barr, Matthew <barrm@AyresAssociates.com>
Cc: Pilon, David - DOT <David.Pilon@dot.wi.gov>; Taylor, Brian F - DOT <BrianF.Taylor@dot.wi.gov>; Kitchel, Lisie E - DNR <Lisie.Kitchel@wisconsin.gov>; Gihring, Jennifer L - DNR <Jennifer.Gihring@wisconsin.gov>; Housley, Cheryl - DNR <Cheryl.Housley@wisconsin.gov>; LaBissoniere, Michael D - DNR <Michael.LaBissoniere@wisconsin.gov>; Rowe, David C - DNR <David.Rowe@wisconsin.gov>
Subject: DNR Initial Comments ID 5290-00-02, STH 19 Reconstruction (River Road to IH 39), Dane County

Good morning,
Please find attached DNR initial comments to the above referenced project in Dane County. Let me know if you have any questions or comments.
Eric

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Visit our survey at http://dnr.wi.gov/customersurvey to evaluate how I did.

Eric Heggelund
Phone: 608-275-3301
Eric.heggelund@wisconsin.gov

> **From:** Barr, Matthew [mailto:barrm@AyresAssociates.com]
> **Sent:** Monday, May 23, 2016 11:11 AM
> **To:** Heggelund, Eric P - DNR
> **Cc:** Pilon, David - DOT; Taylor, Brian F - DOT
> **Subject:** ID 5290-00-02, STH 19 Reconstruction (River Road to IH 39), Dane County
>
> Eric,
> Attached is the initial project review form for this project involving the reconstruction of STH 19 in Dane County. We are working on this project with the WisDOT's SW Region office in Madison. The project involves extending the existing 4-lane section at the STH 19/IHI 39 interchange approximately 1.25 miles to the west through the River Road intersection and constructing 2 new bridges over the Yahara River. Alternatives are being analyzed for the type of cross section for the 4-lane segment and also for the reconstructed intersection at River Road. Additional information is included in the attached packet which includes a location map, conceptual plans for one of the roadway alternatives, identified wetlands, and public lands adjacent to the corridor.
> Please review and provide us with your initial comments to the proposed project concepts. Let us know if you have any questions or need additional information. Thanks.
>
> **Matthew R. Barr, P.E.**
> Supervisor - Design Services
>
> **Ayres Associates**
> 5201 E. Terrace Drive, Suite 200 • Madison, WI 53718
> T: 608.443.1261
> BarrM@AyresAssociates.com

MEETING MINUTES

Meeting Location: WisDOT SW Region - Madison	Project No.: 41-0717.00
Date/Time: January 4, 2017	Re: Meeting with DNR – Potential Impacts to DNR Public Use Lands
Prepared By: Matt Barr	Project ID 5290-00-02 USH 12 – IH 39 River Road – IH 39 STH 19 Dane County

This meeting was set up to discuss potential impacts to DNR lands adjacent to the project corridor that are public use lands and fall under the requirements of Section 4(f). A similar meeting was held with representatives of Dane County Land & Water Resources regarding impacts to their property also adjacent to the project corridor. The following people were in attendance:

Dave Pilon – WisDOT SW Region Project Manager
Brian Taylor – WisDOT SW Region Environmental Coordinator
Eric Heggelund – DNR project contact
Mike LaBissoniere – DNR land acquisition
Dave Rowe – DNR
Andy Paulios – DNR
Matt Barr – Ayres Associates
Kevin Kuhlow – Ayres Associates

Brian provided some background information about the project and the recent coordination with Dane County staff. He mentioned that the preliminary design concepts shown approximately 2.75 acres being required from Dane County property and 0.7 acres from the DNR parcel along the Yahara River. A Section 4(f) letter was sent to Dane County and the County Board is supposed to act on it within the next few weeks. The letter included proposed mitigation efforts to address the project impacts, which include a new parking lot off Liuna Way.

The DNR staff indicated that a key item they would like is access provided to the river for kayaks and canoes. We talked about having this access extend from the existing parking lot on the north side of the road owned by Dane County. There was also discussion about possibly moving the entrance further west, although the location of the new guardrail off the bridge would need to be determined first. An access on the north side seems like it may involve more wetland impacts than the south side.

An access to the river on the south side is also acceptable to the DNR. This may require the addition of a new access point off STH 19 which is not desirable. It would also have to be placed far enough east so it isn't in the way of any proposed guardrail off the bridge. Dave R. said the stream flow on the downstream side of the bridges is typically better than the upstream side.

5201 E. Terrace Drive, Suite 200 • Madison, WI 53718
608.443.1200 • Fax: 608.299.2184 • www.AyresAssociates.com

If a boat launch is added, it is preferable that it not be paved. It could consist of gravel or some other type of surface such as railroad ties for example.

Dave P. said that he had tried navigating the stream in a kayak and found it difficult due to all the debris in the river. Dave R. said he thinks if this stream gets used more, then the boaters will likely remove a lot of the obstructions on their own. They are not supposed to remove any permanent type vegetation however.

We discussed the possibility of a path underneath the bridges for pedestrian access. Matt said that there are no current plans for a path under the bridge based on discussions with Dane County. Their long range plans call for a shared use path along the west side of the river to the south but not necessarily crossing STH 19. If an access to the river and parking lot is on the north side on the east side of the river, this path could be used to allow hunters to cross STH 19 under the bridge.

Brian pointed out that if acquisition is proposed from lands that were developed with Knowles-Nelson funding, then additional lands need to be acquired to replace those. He wasn't sure if the acreage numbers need to match and will check into that.

Matt asked if a path is proposed under the bridge, then what elevation does it need to be at? Above the normal water elevation, 2-year flood elevation? Other? Ayres wasn't able to find any guidance on this. Nobody seemed to know for sure, but Eric mentioned a couple other projects with paths under bridges, including one on CTH P in Dane County.

Matt mentioned that the low chord elevation of the existing bridge is 3.7 feet above the 100-year flood elevation while standards state that it needs to be at least 2 feet above. He asked about the possibility of lowering the low chord if it provides a preferable design. The new proposed bridges will consist of a deck with girders and the overall depth is greater than that of the existing bridge which is a slab span. Therefore, the grade of the road will need to be raised if the low chord elevation is required to be maintained. Eric said the low chord elevation can be lowered if it doesn't impact the floodplain.

The general feeling from the DNR staff was that a parking lot just off Liuna Way wouldn't be as desirable as one closer to the river. Brian said he will contact Chris James from Dane County and tell him to hold off on signing the Section 4(f) letter that included provisions for adding that parking lot. He will tell them that an alternate location is being discussed and that we will likely set up another meeting with them to discuss.

Brian asked the DNR if they have any other thoughts on mitigation efforts if Dane County isn't receptive to an access road and parking lot closer to the river. The DNR staff said they will come up with a "Plan B" and provide to the DOT.

From: Brown, Joel R - DOT
To: Matt Barr; Dave Tollefson
Cc: Pilon, David - DOT
Subject: FW: 5290-00-02 WIS 19 I-39/90/94 to River Road
Date: Tuesday, August 22, 2017 8:19:10 AM

Matt and Dave FYI. Comments on the ER will reference this e-mail and the NHI update.

Joel Brown
Major Studies Environmental Coordinator

From: Heggelund, Eric P - DNR
Sent: Monday, August 14, 2017 3:34 PM
To: Brown, Joel R - DOT <Joel.Brown@dot.wi.gov>
Subject: RE: 5290-00-02 WIS 19 I-39/90/94 to River Road

Hi Joel,

I reviewed the NHI database today for the 5290-00-02 STH 19 corridor from I-39/90/94 to River road. The listed species are the same as the earlier reviews (from the initial comment letter) with the addition of a bald eagle nest located approximately one mile from the project area. I believe that this "hit" is the result of data being entered/updated on the database since the initial review. My understanding is that this nest is sufficiently far enough away from the highway to not be a concern.

Let me know if you have any questions or want to talk about this.

Eric

Eric Heggelund
Phone: 608-275-3301
Cell: 608-228-7927
Eric.heggelund@wisconsin.gov

> **From:** Brown, Joel R - DOT
> **Sent:** Monday, August 14, 2017 12:21 PM
> **To:** Heggelund, Eric P - DNR <Eric.Heggelund@wisconsin.gov>
> **Subject:** 5290-00-02 WIS 19 I-39/90/94 to River Road
>
> Hi Eric,
>
> I left you a voicemail on this matter earlier today, I was recently assigned the reconstruction project on WIS 19 from I-39/90/94 to River Road. Brian Taylor was previously the REC on the

project. Could you please verify in NHI that no additional species have been added since the initial project review letter. I need to coordinate with FWS and need an updated look. I have attached the review letter and any other relevant correspondence since the initial letter to this e-mail. An e-mail response will be sufficient for the purposes of this request. If you would like to discuss anything related to this request or the project let me know.

Joel Brown
Major Studies Environmental Coordinator
Wisconsin Dept. of Transportation
Southwest Region
2101 Wright St.
Madison, WI 53704
Office: 608-242-8014
Cell: 608-516-6511

From: Brown, Joel R - DOT
To: Matt Barr
Cc: Pilon, David - DOT
Subject: FW: 5290-00-02 WIS 19 I-39/90/94 - River Road. State Threatened Species.
Date: Wednesday, August 30, 2017 8:57:07 AM

Matt,

Here is the e-mail from Eric at DNR I promised you yesterday.

Joel Brown

Major Studies Environmental Coordinator

From: Heggelund, Eric P - DNR
Sent: Wednesday, August 30, 2017 8:56 AM
To: Brown, Joel R - DOT
Cc: Rowe, Stacy A - DNR ; Pilon, David - DOT
Subject: RE: 5290-00-02 WIS 19 I-39/90/94 - River Road. State Threatened Species.

Joel,

We have discussed this internally and agree with the approach outlined below. Let us know if you need to discuss the survey methodology or other requirements for this species. Otherwise, we will look forward to discussing this in final design.

Thank you,

Eric

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Eric Heggelund
Phone: 608-275-3301
Cell: 608-228-7927
Eric.heggelund@wisconsin.gov

> **From:** Brown, Joel R - DOT
> **Sent:** Monday, August 28, 2017 2:25 PM
> **To:** Heggelund, Eric P - DNR <Eric.Heggelund@wisconsin.gov>
> **Cc:** Rowe, Stacy A - DNR <Stacy.Rowe@wisconsin.gov>; Pilon, David - DOT <David.Pilon@dot.wi.gov>
> **Subject:** RE: 5290-00-02 WIS 19 I-39/90/94 - River Road. State Threatened Species.
>
> Eric,
>
> Conducting surveys for the Henslow Sparrow sounds like the best course of action for WisDOT project 5290-00-02, WIS 19, I-39/90/94 to River Road. I suggest we (WisDOT) complete habitat area surveys during final design (next season). This will allow ample time for discussion between our agencies prior to construction. It would also save project cost and staff time for DNR not having to review survey information twice.
>
> In our environmental document we would include language along the lines of: the WDNR has identified Henslow Sparrow, a state threatened species, and its habitat has been found in the project area. Surveys for the Henslow Sparrow will be completed during project final design. Avoidance, minimization, or mitigation measures, if necessary, will be discussed with WDNR once surveys have been completed.
>
> Let me know what you think.
>
> Thank you again

Joel Brown
Major Studies Environmental Coordinator

From: Heggelund, Eric P - DNR
Sent: Monday, August 28, 2017 1:14 PM
To: Brown, Joel R - DOT <Joel.Brown@dot.wi.gov>
Cc: Rowe, Stacy A - DNR <Stacy.Rowe@wisconsin.gov>
Subject: RE: 5290-00-02 WIS 19 I-39/90/94 - River Road. State Threatened Species.

Joel,

I talked with Stacy about this project. Surveys will be needed for the sparrow. The bird would not be in areas of manicured lawn or in row crops, but other areas have the potential for habitat and will need to be surveyed.

A rusty-patched bumble bee was also found nearby in the last couple weeks. I'll keep an eye on the database to see exactly where, but it would be good to plan for that as well.

Let me know if you want to talk or want information on what is needed for the survey.

Eric

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Visit our survey at http://dnr.wi.gov/customersurvey to evaluate how I did.

Eric Heggelund
Phone: 608-275-3301
Cell: 608-228-7927
Eric.heggelund@wisconsin.gov

From: Brown, Joel R - DOT
Sent: Monday, August 28, 2017 7:22 AM
To: Heggelund, Eric P - DNR <Eric.Heggelund@wisconsin.gov>
Subject: 5290-00-02 WIS 19 I-39/90/94 - River Road. State Threatened Species.

Hi Eric,

I would like to discuss am item included in the attached e-mail. It is related to the mitigation measure for the Henslow's Sparrow and project constructability. I also included a copy of our initial comment letter for reference.

In addition to the item above I would like to quickly discuss another project that will be coming your way shortly.

Give me a call in the next few days when you have a little bit of time.

Thank you

Joel Brown
Major Studies Environmental Coordinator
Wisconsin Dept. of Transportation
Southwest Region
2101 Wright St.
Madison, WI 53704
Office: 608-242-8014
Cell: 608-516-6511

USFWS Correspondence

Northern Long-Eared Bat 4(d) Rule Streamlined Consultation Form

Federal agencies should use this form for the optional streamlined consultation framework for the northern long-eared bat (NLEB). This framework allows federal agencies to rely upon the U.S. Fish and Wildlife Service's (USFWS) January 5, 2016, intra-Service Programmatic Biological Opinion (BO) on the final 4(d) rule for the NLEB for section 7(a)(2) compliance by: (1) notifying the USFWS that an action agency will use the streamlined framework; (2) describing the project with sufficient detail to support the required determination; and (3) enabling the USFWS to track effects and determine if re-initiation of consultation is required per 50 CFR 402.16.

This form is not necessary if an agency determines that a proposed action will have no effect to the NLEB or if the USFWS has concurred in writing with an agency's determination that a proposed action may affect, but is not likely to adversely affect the NLEB (i.e., the standard informal consultation process). Actions that may cause prohibited incidental take require separate formal consultation. Providing this information does not address section 7(a)(2) compliance for any other listed species.

Information to Determine 4(d) Rule Compliance:	**YES**	**NO**
1. Does the project occur wholly outside of the WNS Zone[1]?	☐	☒
2. Have you contacted the appropriate agency[2] to determine if your project is near known hibernacula or maternity roost trees?	☒	☐
3. Could the project disturb hibernating NLEBs in a known hibernaculum?	☐	☒
4. Could the project alter the entrance or interior environment of a known hibernaculum?	☐	☒
5. Does the project remove any trees within 0.25 miles of a known hibernaculum at any time of year?	☐	☒
6. Would the project cut or destroy known occupied maternity roost trees, or any other trees within a 150-foot radius from the maternity roost tree from June 1 through July 31.	☐	☒

You are eligible to use this form if you have answered yes to question #1 **or** yes to question #2 **and** no to questions 3, 4, 5 and 6. The remainder of the form will be used by the USFWS to track our assumptions in the BO.

Agency and Applicant[3] (Name, Email, Phone No.): Joel Brown, joel.brown@dot.wi.gov, 608-516-6511

Project Name: WIS 19 reconstruction, I-39/90/94 to River Road

Project Location (include coordinates if known):

Basic Project Description (provide narrative below or attach additional information):
WisDOT has a project on WIS 19 in Dane County. The project would reconstruct WIS 19 between I-39/90/94 and a point west of River Road. The preferred alternative would add two additional lanes (one each direction) to WIS 19 as part of the reconstruction. The additional lanes would be located south of the existing facility. Clearing of a few trees would be required for the project.

---

[1] http://www.fws.gov/midwest/endangered/mammals/nleb/pdf/WNSZone.pdf
[2] See http://www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html
[3] If applicable - only needed for federal actions with applicants (e.g., for a permit, etc.) who are party to the consultation.

General Project Information	YES	NO
Does the project occur within 0.25 miles of a known hibernaculum?	☐	☒
Does the project occur within 150 feet of a known maternity roost tree?	☐	☒
Does the project include forest conversion[4]? (if yes, report acreage below)	☐	☒
Estimated total acres of forest conversion		
If known, estimated acres[5] of forest conversion from April 1 to October 31		
If known, estimated acres of forest conversion from June 1 to July 31[6]		
Does the project include timber harvest? (if yes, report acreage below)	☐	☒
Estimated total acres of timber harvest		
If known, estimated acres of timber harvest from April 1 to October 31		
If known, estimated acres of timber harvest from June 1 to July 31		
Does the project include prescribed fire? (if yes, report acreage below)	☐	☒
Estimated total acres of prescribed fire		
If known, estimated acres of prescribed fire from April 1 to October 31		
If known, estimated acres of prescribed fire from June 1 to July 31		
Does the project install new wind turbines? (if yes, report capacity in MW below)	☐	☒
Estimated wind capacity (MW)		

Agency Determination:

By signing this form, the action agency determines that this project may affect the NLEB, but that any resulting incidental take of the NLEB is not prohibited by the final 4(d) rule.

If the USFWS does not respond within 30 days from submittal of this form, the action agency may presume that its determination is informed by the best available information and that its project responsibilities under 7(a)(2) with respect to the NLEB are fulfilled through the USFWS January 5, 2016, Programmatic BO. The action agency will update this determination annually for multi-year activities.

The action agency understands that the USFWS presumes that all activities are implemented as described herein. The action agency will promptly report any departures from the described activities to the appropriate USFWS Field Office. The action agency will provide the appropriate USFWS Field Office with the results of any surveys conducted for the NLEB. Involved parties will promptly notify the appropriate USFWS Field Office upon finding a dead, injured, or sick NLEB.

Signature: _____ Date Submitted: 8/15/2017

[4] Any activity that temporarily or permanently removes suitable forested habitat, including, but not limited to, tree removal from development, energy production and transmission, mining, agriculture, etc. (see page 48 of the BO).

[5] If the project removes less than 10 trees and the acreage is unknown, report the acreage as less than 0.1 acre.

[6] If the activity includes tree clearing in June and July, also include those acreage in April to October.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Green Bay Ecological Services Field Office
2661 Scott Tower Drive
New Franken, WI 54229-9565
Phone: (920) 866-1717 Fax: (920) 866-1710

In Reply Refer To: August 14, 2017
Consultation Code: 03E17000-2017-SLI-1191
Event Code: 03E17000-2017-E-02727
Project Name: WIS 19 reconstruction, I-39/90/94 to River Road

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The attached species list identifies any federally threatened, endangered, proposed and candidate species that may occur within the boundary of your proposed project or may be affected by your proposed project. The list also includes designated critical habitat if present within your proposed project area or affected by your project. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation.

Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-federal representative) must consult with the Service if they determine their project "may affect" listed species or critical habitat.

Under 50 CFR 402.12(e) (the regulations that implement Section 7 of the Endangered Species Act) the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally. You may verify the list by visiting the ECOS-IPaC website http://ecos.fws.gov/ipac/ at regular intervals during project planning and implementation and completing the same process you used to receive the attached list. As an alternative, you may contact this Ecological Services Field Office for updates.

Please use the species list provided and visit the U.S. Fish and Wildlife Service's Region 3 Section 7 Technical Assistance website at - http://www.fws.gov/midwest/endangered/section7/s7process/index.html. This website contains step-by-step instructions which will help you determine if your project will have an adverse effect on listed species and will help lead you through the Section 7 process.

For all **wind energy projects** and **projects that include installing towers that use guy wires or**

are over 200 feet in height (e.g., communication towers), please contact this field office directly for assistance, even if no federally listed plants, animals or critical habitat are present within your proposed project or may be affected by your proposed project.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

Although no longer protected under the Endangered Species Act, be aware that bald eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.) and Migratory Bird Treaty Act (16 U.S.C. 703 et seq), as are golden eagles. Projects affecting these species may require measures to avoid harming eagles or may require a permit. If your project is near an eagle nest or winter roost area, see our Eagle Permits website at http://www.fws.gov/midwest/midwestbird/EaglePermits/index.html to help you determine if you can avoid impacting eagles or if a permit may be necessary.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Green Bay Ecological Services Field Office
2661 Scott Tower Drive
New Franken, WI 54229-9565
(920) 866-1717

Project Summary

Consultation Code: 03E17000-2017-SLI-1191

Event Code: 03E17000-2017-E-02727

Project Name: WIS 19 reconstruction, I-39/90/94 to River Road

Project Type: TRANSPORTATION

Project Description: The purpose of this project is to reconstruct WIS 19 between I-39/90/94 and a point west of River Road. The project may add two additional lanes (one lane each direction) to WIS 19 as part of the reconstruction. If a capacity expansion alternative is selected for the project, the additional lanes would be located to the south of the existing facility.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/43.19498117383333N89.36410554197518W

Counties: Dane, WI

Endangered Species Act Species

There is a total of 6 threatened, endangered, or candidate species on this species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

Mammals

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Birds

NAME	STATUS
Whooping Crane *Grus americana* Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non-Essential

Clams

NAME	STATUS
Higgins Eye (pearlymussel) *Lampsilis higginsii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5428	Endangered

Flowering Plants

NAME	STATUS
Eastern Prairie Fringed Orchid *Platanthera leucophaea* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/601	Threatened
Mead's Milkweed *Asclepias meadii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8204	Threatened
Prairie Bush-clover *Lespedeza leptostachya* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4458	Threatened

Critical habitats

There are no critical habitats within your project area under this office's jurisdiction.

DATCP Correspondence

AGRICULTURAL IMPACT NOTICE

Wisconsin Department of Transportation

DT1999 2003 (Replaces ED872)

Proposing Agency		
Wisconsin Department of Transportation - Southwest Region		
Project ID 5290-00-02	Highway STH 19	County Dane
Project Title USH 12 - IH 39, STH 19		Project Length 1.12 miles
Type and Status of Environmental Document Draft Environmental Report (ER)		
Proposing Agency Wants to Review Pre-Publication Draft of AIS? ☐ Yes ☒ No		AIS Needed by What Date? Not proposed for this study

1. Project Description

a. Describe existing facility - Include existing right of way width.

WIS 19 is a two-lane east-west highway connecting the communities of Waunakee, Windsor, and Sun Prairie together on the north side of Madison. A system interchange just east of the project limits provides a connection to I-39/90 and the larger interstate system. Interchanges with US 12 west of the project and US 51 east of the project provide connections to Madison and to the north. WIS 19 is classified as a minor arterial, and the project area extends just west of the River Road intersection to just west of Interstate Highway (IH) 39 to the east.

River Road is an existing two-lane roadway extending SW-NE from WI-113 to WIS 19. River Road is classified as a major collector, and the WIS 19/River Road intersection is being reconstructed with this project. See Exhibit 1 for a project location map.

The existing right of way width is approximately 120'-250' wide on WIS 19 and 66' wide on River Road.

b. Describe proposed action - Include anticipated right of way width and any easements.

WIS 19 Roadway Improvements

The proposed action will expand the WIS 19 roadway into a 4-lane rural roadway with a 50-foot median. The proposed improvements will increase operational capacity and address roadway safety issues.

The new lanes will be located south of the existing roadway, and will function as eastbound WIS 19. The existing travel lanes will function as westbound WIS 19. The new four-lane segment would extend west of the River Road intersection and then taper down to match the existing two-lane WIS 19 roadway. The full four-lane section will extend far enough to the west to allow a future project to tie-in without requiring reconstruction of the River Road intersection. The east end of the proposed project will connect into an existing 4-lane segment of WIS 19 at the IH 39/WIS 19 interchange. The roadway will have twelve-foot driving lanes with 10-foot shoulders on the outside (8-foot paved) and 6-foot shoulders on the inside (3-foot paved). The paved shoulders along WIS 19 will provide on-road bike accommodations. Vegetative ditches will be widened in some areas to improve water quality.

The expanded roadway will include a median opening at the western Liuna Way intersection. The western Liuna Way intersection will be the main entrance into an area of land north of WIS 19, between IH 39 and the Yahara River. This land is within the Village of DeForest and is expected to be developed in the future. The eastern Liuna Way intersection will remain as right-in/right-out only. Additionally, the driveway on the north side of WIS 19, east of the Yahara River Bridge will be restricted to right-In/right-Out only due to the proposed median on WIS 19. The proposed right of way width is approximately 150'-325' wide on WIS 19 and 66'-200' wide on River Road.

Yahara River Bridge Improvements

Two new bridges will be constructed on WIS 19 over the Yahara River. The existing slab span bridge will be removed and replaced with a new single span girder bridge for the westbound roadway, and a second single span girder bridge will be constructed to the south for the new eastbound roadway. The grade of the WIS 19 roadway across the Yahara River bridges will be raised slightly to accommodate the thicker single span bridges and provide adequate clearance over the river. Through coordination with municipalities within the project limits, the Village of DeForest has identified a shared use path along the north side of WIS 19 in their future plans. Therefore, the westbound bridge will be designed wide enough to allow for a shared use path crossing to be added over the river in the future.

2. Alternatives considered - Identify the preferred alternative if any, and if other alternatives are no longer under consideration include the reasons why they are not proposed for adoption.

   The alternatives discussed below have been divided into the WIS 19 Mainline and the WIS 19/River Road intersection.

   No-Action Alternative – WIS 19 Corridor and River Road Intersection
   The No-Action Alternative is a no-build scenario and would consist of no improvements other than continued routine maintenance on the project corridor without any structural, safety, capacity, or intersection improvements. Any future improvements would consist only of those that attempt to maintain the current service levels and to keep the driving surface in good condition. As traffic volumes increase, the No-Action Alternative would result in increased safety, mobility, and operational capacity concerns; would lead to degraded levels-of-service; and would impede mobility through the area. The No-Action Alternative is not a viable alternative for addressing key purpose and need factors (structural deficiencies, safety, operational deficiencies). The construction cost would only consist of pavement maintenance, and would be minimal compared to the other reconstruction alternatives considered.

   The No-Action Alternative was eliminated in the project development process because it does not meet the purpose and need defined for the project. However, the No-Action Alternative serves as a baseline for comparison of the build alternatives.

   <u>WIS 19 Corridor Alternatives</u>

   Corridor Alternative #1: Reconstruct WIS 19 as a Four-Lane Urban Roadway
   This alternative would replace the WIS 19 bridge over the Yahara River, as well as construct a second in the reconstruct of WIS 19 as a four-lane urban roadway with a 30-foot wide median, mountable curb and gutter in the median, and open ditches along the outsides of the roadway. This alternative meets the purpose and need of the project, but was dismissed because the addition of curb and gutter to the roadway would also require the addition of a storm sewer system, and this type of roadway would result in additional maintenance costs. Therefore, this alternative is not proposed for future consideration.

   Corridor Alternative #2: Reconstruct WIS 19 as a Four-Lane Rural Roadway (Preferred)
   This alternative would replace the WIS 19 bridge over the Yahara River, as well as construct a second in the reconstruct of WIS 19 as a four-lane rural roadway with a 50-foot wide median, with open ditches in the median, and with open ditches along the outsides of the roadway. This alternative meets the purpose and need of the project. This alternative requires slightly more right-of-way than the urban roadway alternative (Corridor Alternative #1), but better fits the current land and transportation uses in the project area, allows flexibility for future transportation and land use decisions, and has reduced maintenance costs. Therefore, this alternative is the preferred WIS 19 corridor alternative.

   Corridor Alternative #2 (Four-Lane Rural) meets the purpose and need of the project, and is the **Preferred Alternative**.

   <u>River Road Intersection Alternatives</u>

   River Road Intersection Alternative #1 – Two-Way Stop Control
   This alternative would reconstruct the WIS 19/River Road intersection with stop signs on River Road. The Two-Way Stop Control alternative would provide a similar situation to what currently exists, and does not adequately address the safety issues or the traffic operations deficiencies identified in the project's purpose and need. Therefore, this alternative is not proposed for future consideration.

   River Road Intersection Alternative #2 – All-Way Stop Control
   This alternative would reconstruct the WIS 19/River Road intersection with stop signs on all four legs of the intersection. Although the All-Way Stop Control alternative may satisfy some of the safety issues identified in the project's purpose and need, this alternative would disrupt traffic operations along WIS 19, and does not address the identified traffic operations deficiencies. This alternative is also not feasible, as the intersection does not meet the traffic warrants which indicate the need for an all-way stop control per the WisDOT Manual on Uniform Traffic Control Devices (MUTCD).

To determine the warrants of an All-Way Stop Controlled intersection, the MUTCD warrants focus primarily on traffic volumes and crash history. However, functional classification, right turns, and mobility impacts as also considered. Functional classification groups highways and streets according to the character of service they are intended to provide, ranging from a high degree of travel mobility to land access functions. For the primary sets of warrants, the traffic volumes on River Road do not meet the required thresholds. Additionally, the functional classification requirements for the WisDOT warrant are not met as WisDOT typically avoids installing all-way stop control intersections on the state trunk highway network. Only the crash history warrants are satisfied for the All-Way Stop Control Alternative. Therefore, this alternative is not proposed for future consideration.

River Road Intersection Alternative #3 – Traffic Signal
This alternative would reconstruct the WIS 19/River Road intersection with a traffic signal. Although the Traffic Signal Alternative may satisfy some of the safety and operational issues identified in the project's purpose and need, this alternative is not feasible, as the traffic volumes do not satisfy the volume warrants that signify the need for a traffic signal per the WisDOT MUTCD. The MUTCD identifies nine traffic signal control intersection warrants. The WIS 19/River Road intersection does not satisfy any of the nine warrants. Traffic volumes are also not expected to increase sufficiently enough to meet the warrants in the future. Therefore, this alternative is not proposed for future consideration.

River Road Intersection Alternative #4 – J-Turn
This alternative would reconstruct the WIS 19/River Road intersection to include a J-Turn. Figure 1-3 shows what a typical J-turn looks like. A J-turn does not allow left-turn and through movements from the side road. In order to make these movements, drivers at the side road have to first turn right then make a U-turn down the road from the original intersection. Although the J-Turn Alternative would alleviate the safety and operational issues identified in the project's purpose and need, this alternative is not feasible due to large right-of-way impacts and geometric constraints. Sight distances are also a concern due to a hill located west of the intersection, and the Yahara River Bridge and Liuna Way intersection are located in close proximity east of the intersection. Therefore, this alternative is not proposed for future consideration.

River Road Intersection Alternative #5 – Roundabout (Preferred)
This alternative would reconstruct the WIS 19/River Road intersection as a multi-lane roundabout. The Roundabout Alternative satisfies all issues identified in the project's purpose and need. This alternative is expected to improve safety, maintain adequate traffic operation conditions, and has an acceptable project cost. This alternative also has acceptable right-of-way impacts and can accommodate OSOW vehicles, bicyclists, and pedestrians.

River Road Intersection Alternative #5 (Roundabout) meets the purpose and need of the project, and is the **Preferred Alternative**.

3. Maps and Exhibits

a. Include a project location map showing the project's limits. See Exhibit 1.

b. Include an exhibit illustrating property lines, parcel number, and any roadway to be obliterated. The exhibit (township plat map, aerial photograph, layout sketch, contour map, etc.) should clearly present the pertinent information and be commensurate with the scope of the project and its apparent impact on farm operations. See Exhibit 2.

Farm Operation Interests of 5 Acres or Less but more than 1 Acre

Project ID
5290-00-02

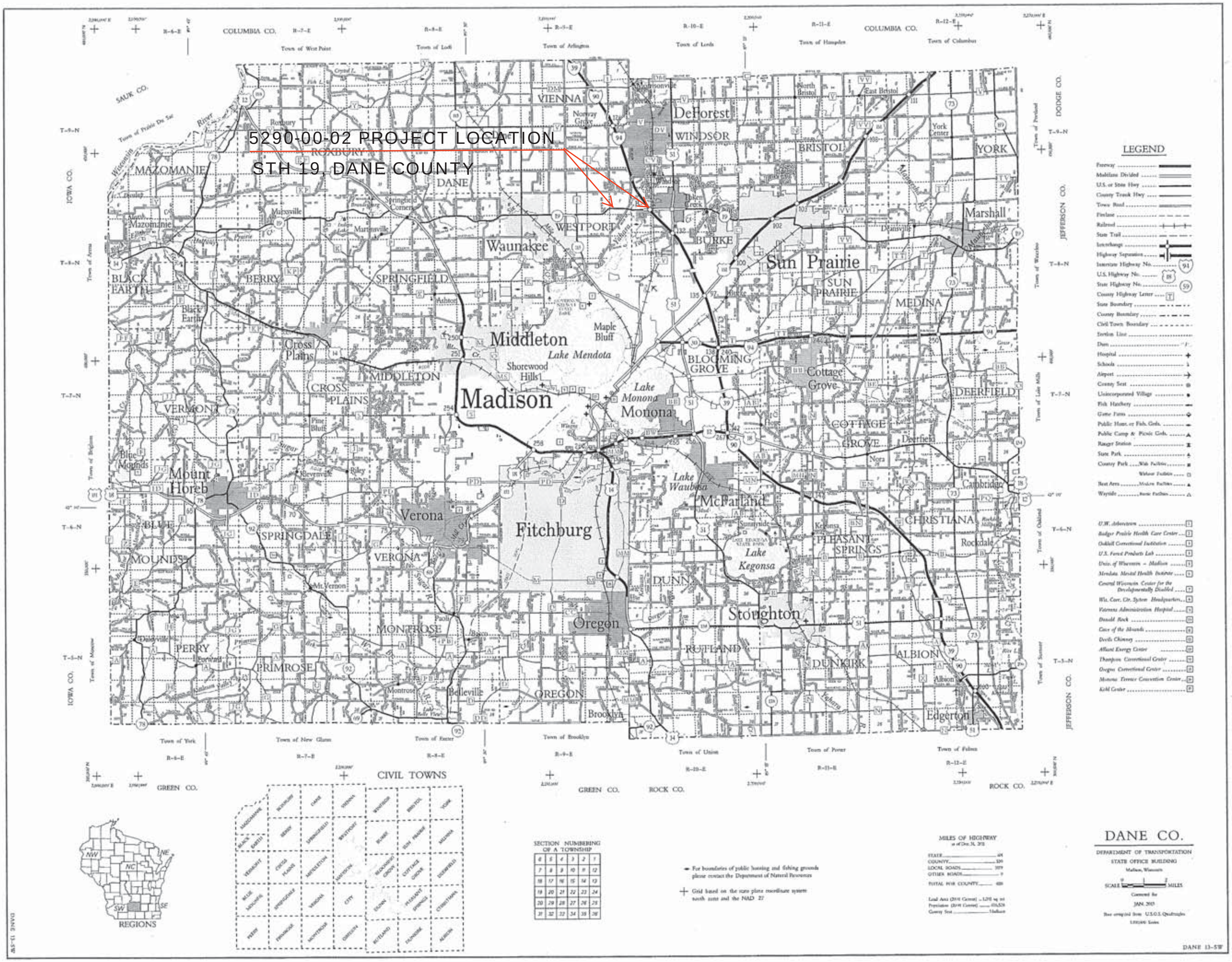
Project Title
USH 12 - IH 39, STH 19

		Acres				
Parcel No.	**Owner(s) (Include operator if diff. from owner)**	**Acquired**	**Fee S.**	**Ease.**	**Existing Farm Operation**	**Present Use/Remarks**
080901480504, 080901495007	Edward F Buhler, Buhler Family Irrevocable Trust	1.54	X	X	35.85	Property consists of cropland and woodland. The property appears actively farmed. There is a house and buildings on the property. The proposed improvements include strip acquisition, as well as the removal of a storage shed along River Road. Access to the house and farm buildings will be altered to remove direct access to STH 19. Access from River Road already exists on the property and will remain.
080901497120	Edward F Buhler, Buhler Family Irrevocable Trust	2.02	X	X	22.52	Property consists of cropland. The property appears actively farmed. There are no houses or buildings on the property. The proposed improvement includes strip acquisition. Access would not be expected to change.

There are 1 acquisitions, each one acre or less, that are categorically non-significant totaling:	0.343 Acres	

EXHIBIT 1

PROJECT LOCATION MAP


5290-00-02 PROJECT LOCATION
STH 19, DANE COUNTY
COLUMBIA CO.
SAUK CO.
IOWA CO.
DODGE CO.
JEFFERSON CO.
GREEN CO.
ROCK CO.
LEGEND
CIVIL TOWNS
REGIONS
SECTION NUMBERING OF A TOWNSHIP
MILES OF HIGHWAY
Madison
Middleton
Lake Mendota
Lake Monona
Monona
Fitchburg
Sun Prairie
Waunakee
DeForest
WINDSOR
BRISTOL
YORK
Marshall
BURKE
WESTPORT
VIENNA
ROXBURY
DANE
MAZOMANIE
BLACK EARTH
BERRY
SPRINGFIELD
CROSS PLAINS
MIDDLETON
VERMONT
BLUE MOUNDS
Mount Horeb
SPRINGDALE
Verona
VERONA
MONTROSE
PERRY
PRIMROSE
Belleville
OREGON
Oregon
Brooklyn
RUTLAND
DUNN
Stoughton
DUNKIRK
ALBION
Edgerton
PLEASANT SPRINGS
Lake Kegonsa
McFarland
Lake Waubesa
COTTAGE GROVE
Cottage Grove
BLOOMING GROVE
DEERFIELD
MEDINA
SUN PRAIRIE
CHRISTIANA
Cambridge
Rockdale
DANE CO.
DEPARTMENT OF TRANSPORTATION
STATE OFFICE BUILDING
DANE 11-SW

I.D. 5290-00-02
USH 12 - IH 39
River Road - IH 39
STH 19, Dane County

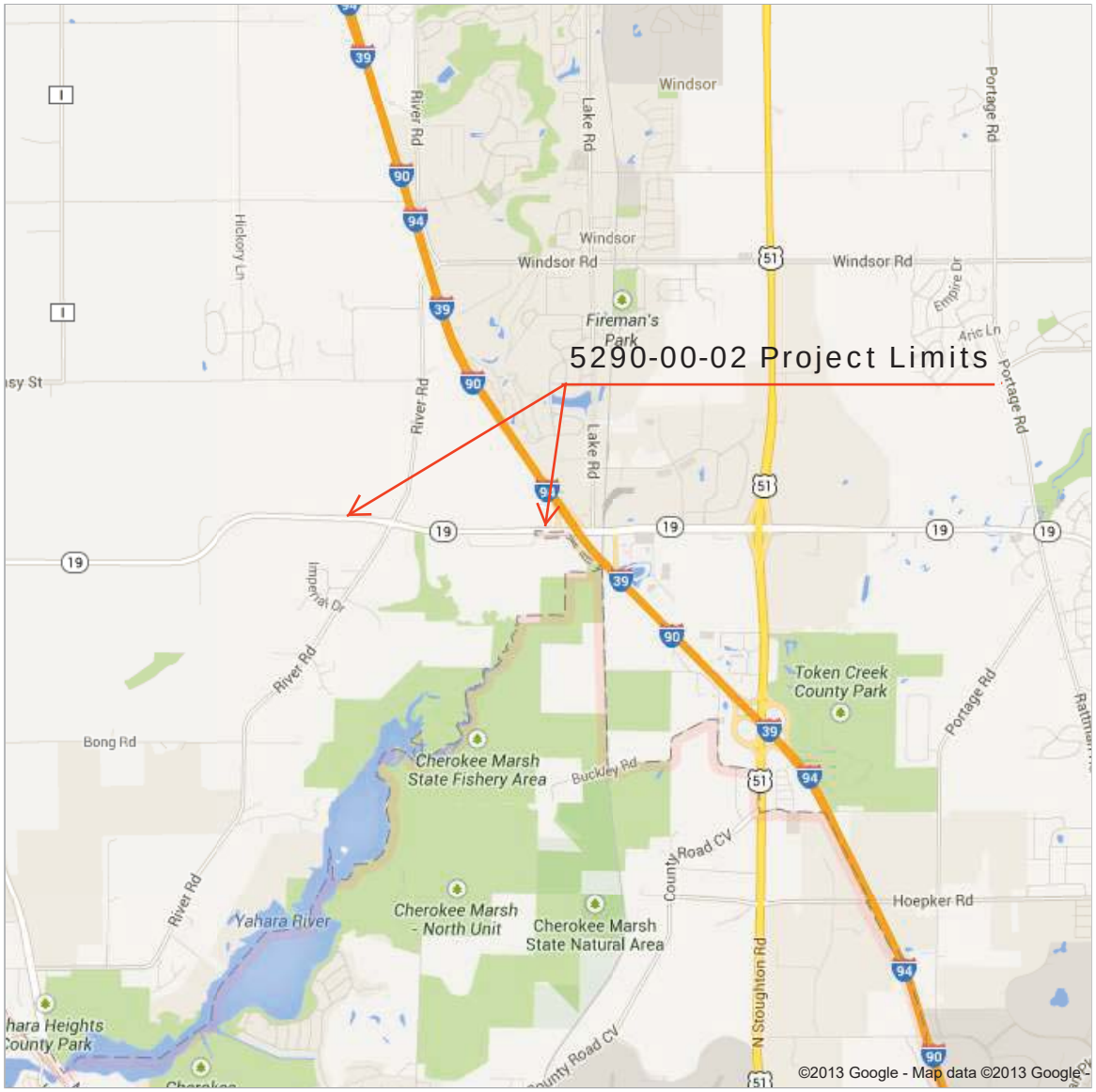
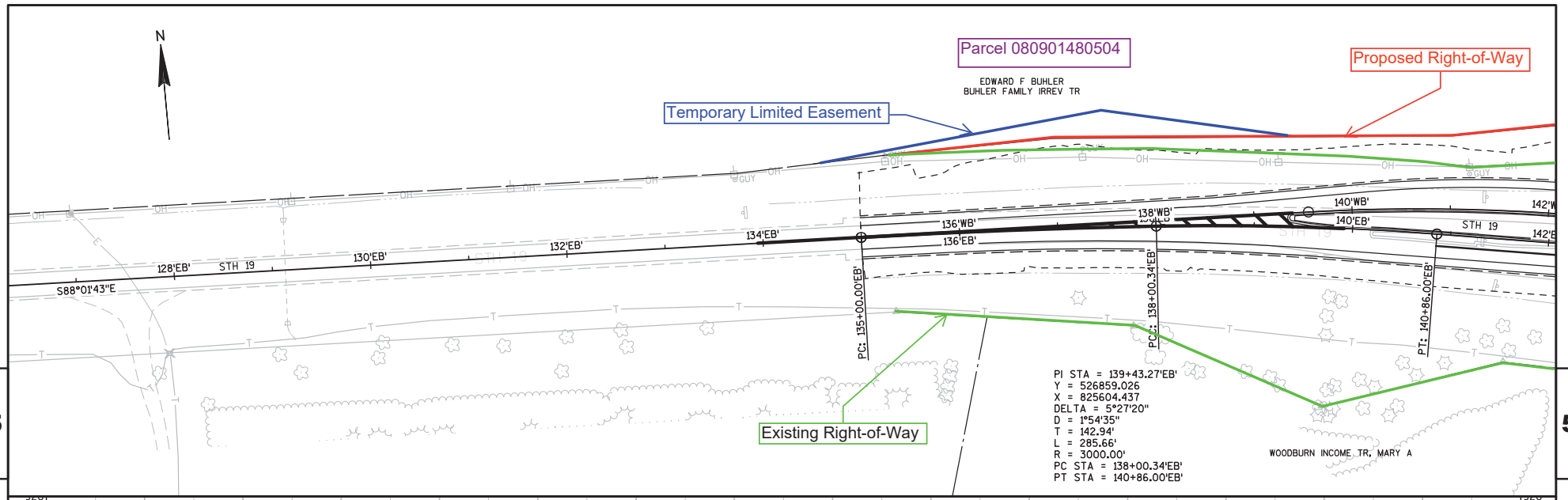
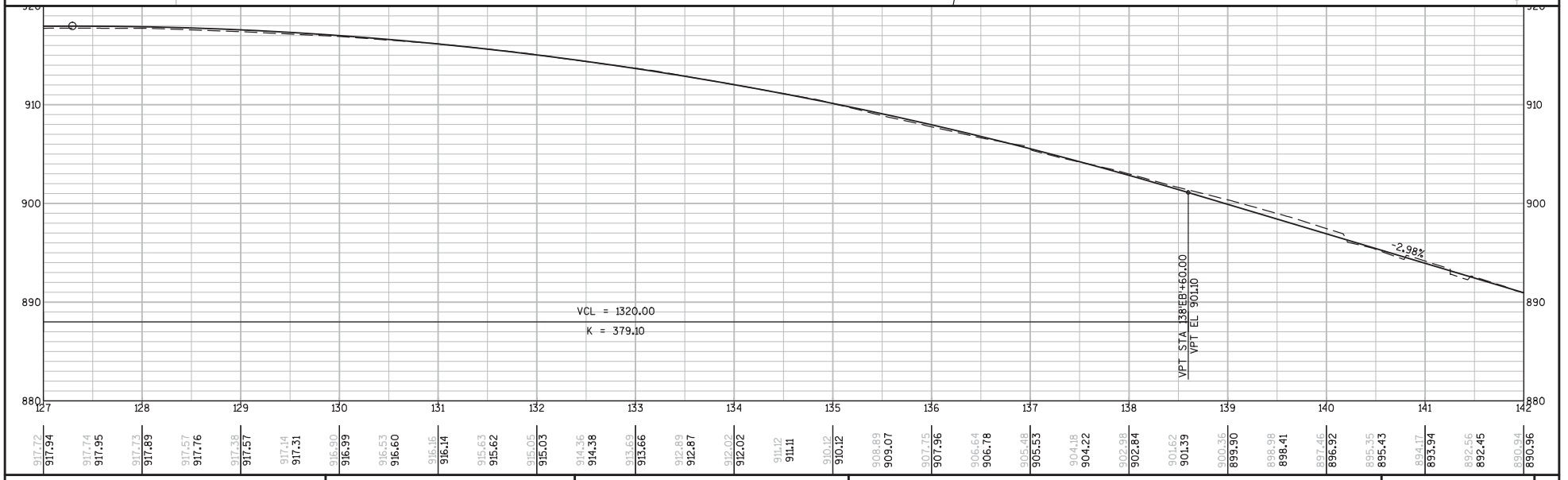


EXHIBIT 2

AGRICULTURAL IMPACT SHEETS





PROJECT NO:5290-00-02	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'EB'	SHEET	E

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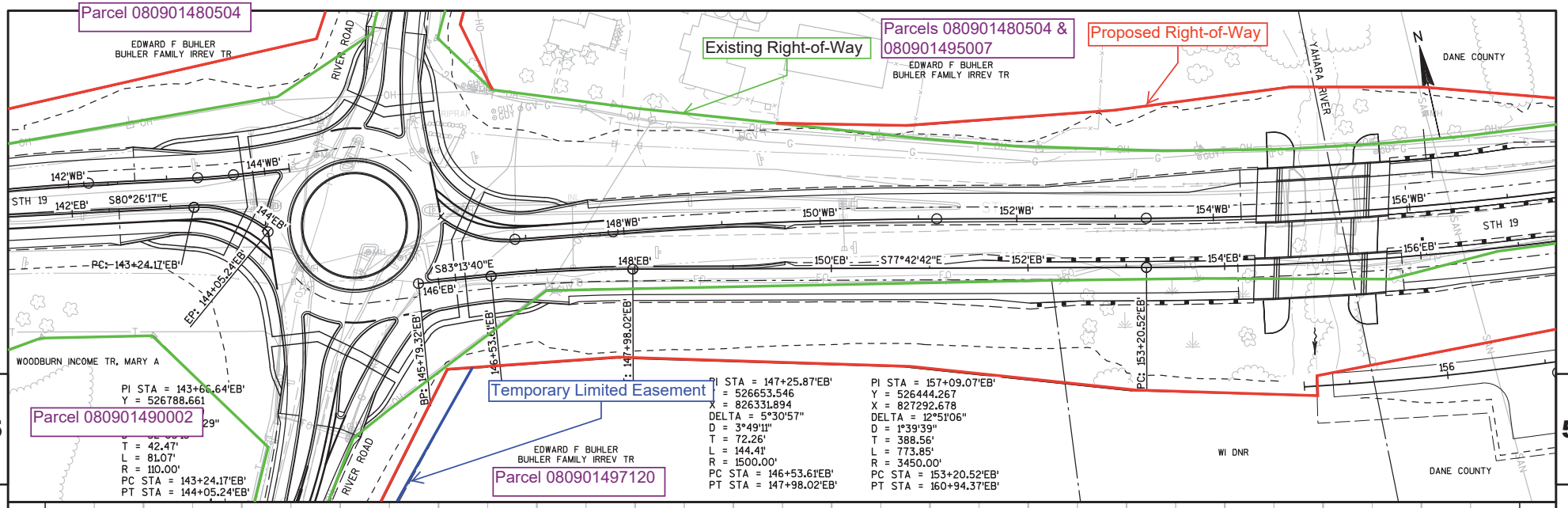
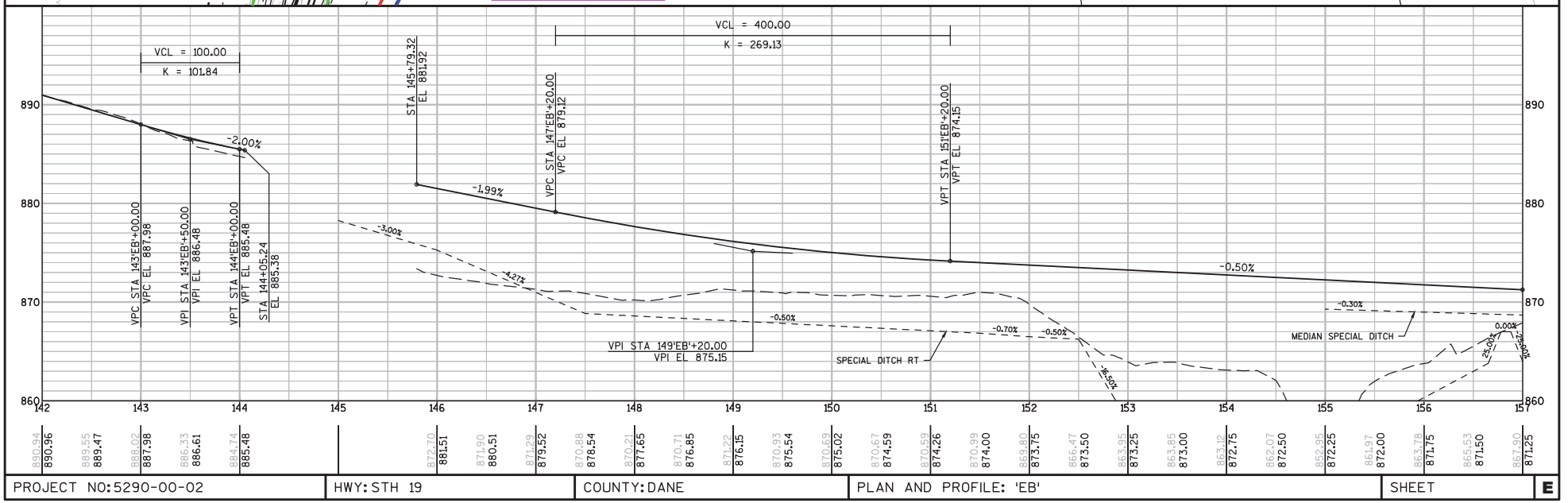
LAYOUT NAME - PP_01
PLOT DATE : 6/5/2017 11:18 AM
PLOT BY : KRUEGER, KIRK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44





PROJECT NO:5290-00-02	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'EB'	SHEET	E

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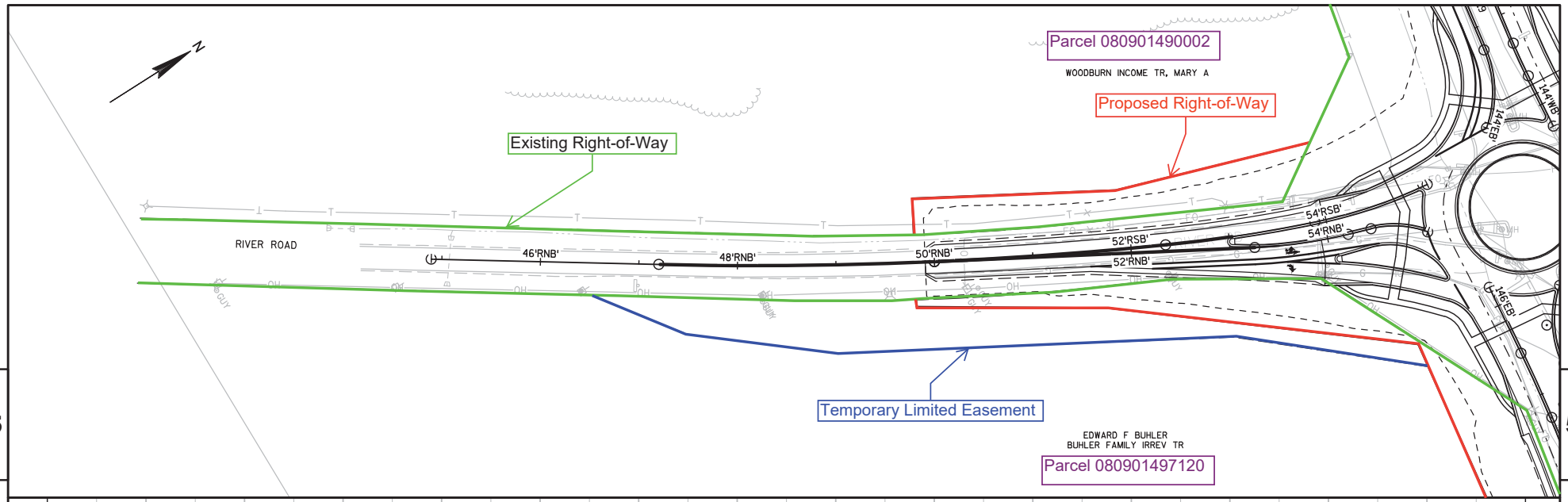
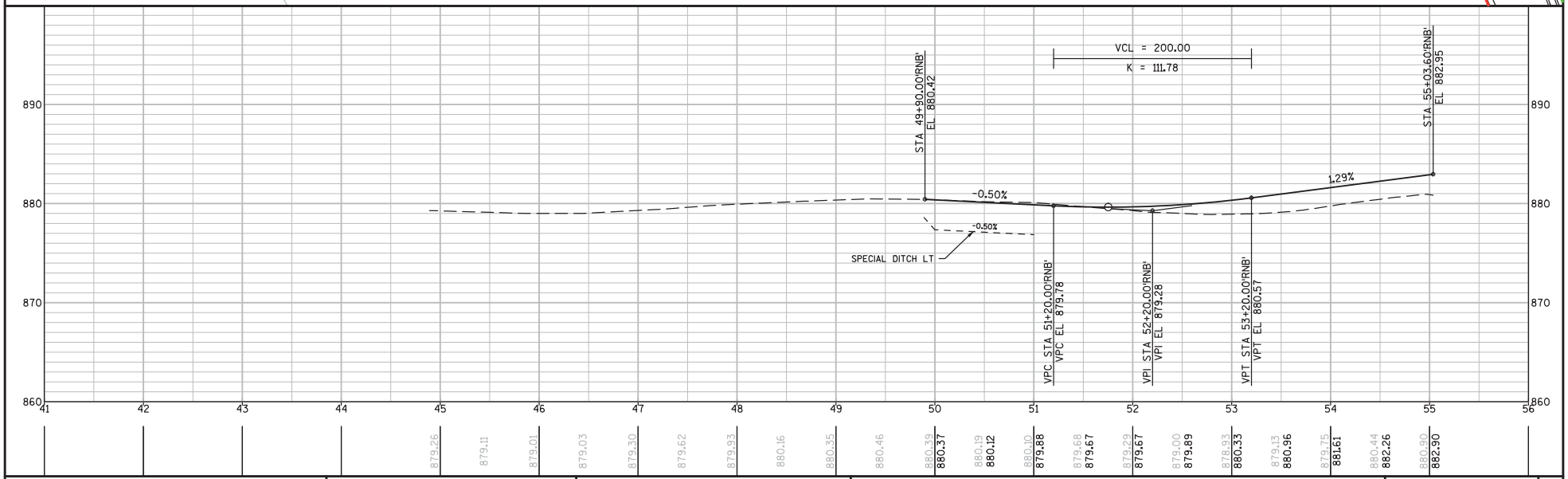
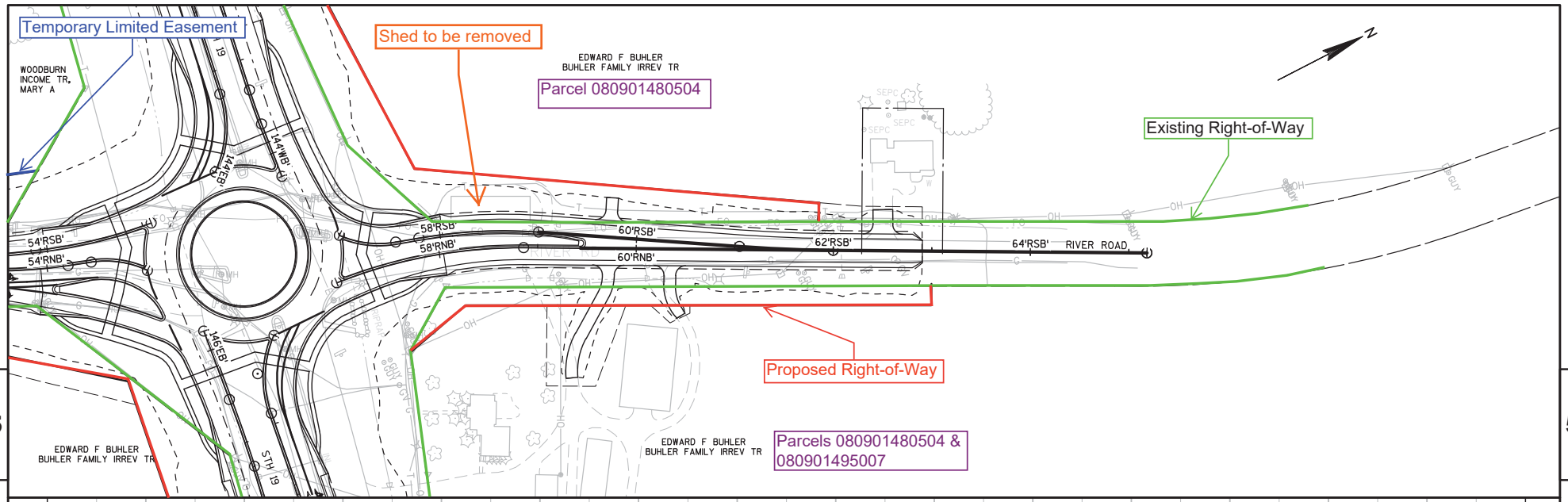


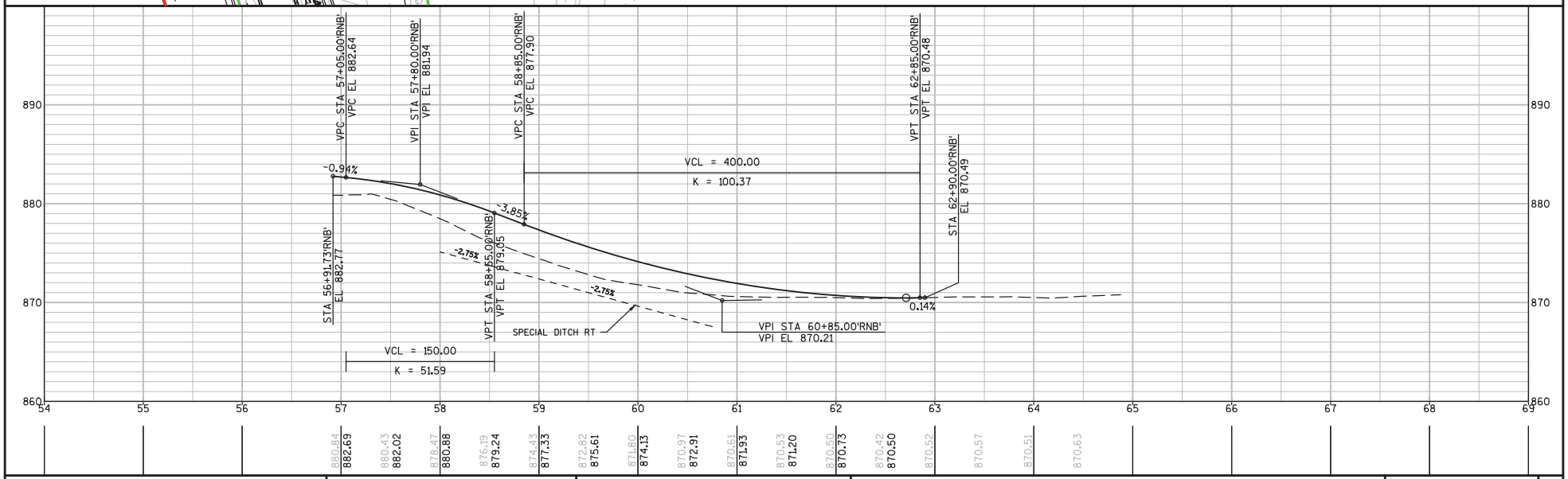


PROJECT NO:5290-00-02	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'RNB' RIVER ROAD	SHEET	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0501C_RIVER_PP.DWG
LAYOUT NAME - PP_100

PLOT DATE : 6/14/2017 10:26 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT





PROJECT NO:5290-00-02	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'RNB' RIVER ROAD	SHEET	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0501C_RIVER_PP.DWG
LAYOUT NAME - PP_101
PLOT DATE : 6/14/2017 10:26 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

State of Wisconsin
Governor Scott Walker

Department of Agriculture, Trade and Consumer Protection
Ben Brancel, Secretary

July 27, 2017

Matthew Barr
Ayres Associates
5201 E. Terrace Drive
Madison, WI 53718

Dear Matthew Barr:

Re: Project ID: 5290-00-02
Project Name: STH 19: USH 12 to IH 39
County: Dane

The Department of Agriculture, Trade, and Consumer Protection (DATCP) has reviewed the notification and any supplemental information you have provided concerning the potential need for an agricultural impact statement (AIS) for the above project. We have determined that an AIS will not be prepared for this project, based on the reasoning provided below.

Please note that if the proposed project or project specifications are altered in any way which could be construed as increasing the potential adverse effects of the project on agriculture or on any farm operation, DATCP should be renotified. Please contact me with any questions.

All of the proposed acquisitions from farm operations are less than 5 acre and they are in strips along the existing right-of-way. None of them appears to have any significant impacts on farm operations.

Sincerely,

Alice Halpin

Alice Halpin
Agricultural Impact Statements
(608)224-4646
Alice.Halpin@wi.gov

DATCP ID: #4217

NRCS Correspondence

August 14, 2017

Adam Dowling
District Conservationist
USDA – NRCS
1 Fen Oak Court, Room 208
Madison, WI 53718-8812

Re: Project ID 5290-00-02
USH 12 – IH 39
River Road – IH 39
STH 19
Dane County

Dear Mr. Dowling:

Ayres Associates is working with the Wisconsin Department of Transportation on a project involving the reconstruction of a section of STH 19 from just west of the River Road intersection to the I H39/STH 19 interchange in Dane County. The project includes expanding STH 19 from a two-lane to a four-lane roadway and constructing two new bridges along STH 19 over the Yahara River. The new lanes are anticipated to be located on the south side of the existing roadway and will accommodate eastbound traffic while the existing roadway will become the westbound lanes. A location map is attached.

The proposed improvements include grading, base aggregate, asphalt and concrete pavement, concrete curb & gutter, and guardrail along the reconstructed portion of STH 19 in addition to the new bridges. Acquisitions are anticipated from 2 farm operations which total approximately 3 acres of fee and 0.9 acres of temporary easement. Construction is scheduled for 2020.

We are sending you the enclosed AD 1006 form for your information. The computations show that the total for Part VI is below 60. Attached is a display showing the project area including areas of agricultural properties.

If you have any questions or need additional information, please feel free to contact me at (608) 443-1261.

Sincerely,

Ayres Associates Inc

Matthew Barr, P.E.
Project Manager
608.443.1261
BarrM@AyresAssociates.com

Enclosure

Project: 41-0717.00 File: n:\410717 sth 19\reports\enviro doc\ag impacts\nrcs_cpa 106 farmland conversion_working\sth 19 nrcs letter 8-14-17.docx

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request 8/14/17	4. Sheet 1 of 1
1. Name of Project **US 12 - IH 39, River Road to IH 39, STH 19**	5. Federal Agency Involved **FHWA**	
2. Type of Project **Highway Reconstruction**	6. County and State **Dane County, Wisconsin**	
PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS	2. Person Completing Form
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☐ NO ☐	4. Acres Irrigated	Average Farm Size
5. Major Crop(s)	6. Farmable Land in Government Jurisdiction Acres: %	7. Amount of Farmland As Defined in FPPA Acres: %
8. Name Of Land Evaluation System Used	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment			
	Corridor A	**Corridor B**	**Corridor C**	**Corridor D**
A. Total Acres To Be Converted Directly	2.99			
B. Total Acres To Be Converted Indirectly, Or To Receive Services	0			
C. Total Acres In Corridor	2.99			
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value				
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*				
PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))* — **Maximum Points**				
1. Area in Nonurban Use — 15	7			
2. Perimeter in Nonurban Use — 10	9			
3. Percent Of Corridor Being Farmed — 20	0			
4. Protection Provided By State And Local Government — 20	11			
5. Size of Present Farm Unit Compared To Average — 10	0			
6. Creation Of Nonfarmable Farmland — 25	0			
7. Availablility Of Farm Support Services — 5	5			
8. On-Farm Investments — 20	10			
9. Effects Of Conversion On Farm Support Services — 25	0			
10. Compatibility With Existing Agricultural Use — 10	0			
TOTAL CORRIDOR ASSESSMENT POINTS — 160	42	0	0	0
PART VII *(To be completed by Federal Agency)*				
Relative Value Of Farmland (From Part V) — 100	0	0	0	0
Total Corridor Assessment (From Part VI above or a local site assessment) — 160	42	0	0	0
TOTAL POINTS *(Total of above 2 lines)* — 260	42	0	0	0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES ☐ NO ☐

5. Reason For Selection:

Signature of Person Completing this Part: | DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

CORRIDOR - TYPE SITE ASSESSMENT CRITERIA

The following criteria are to be used for projects that have a linear or corridor - type site configuration connecting two distant points, and crossing several different tracts of land. These include utility lines, highways, railroads, stream improvements, and flood control systems. Federal agencies are to assess the suitability of each corridor - type site or design alternative for protection as farmland along with the land evaluation information.

(1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?
More than 90 percent - 15 points
90 to 20 percent - 14 to 1 point(s)
Less than 20 percent - 0 points

(2) How much of the perimeter of the site borders on land in nonurban use?
More than 90 percent - 10 points
90 to 20 percent - 9 to 1 point(s)
Less than 20 percent - 0 points

(3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?
More than 90 percent - 20 points
90 to 20 percent - 19 to 1 point(s)
Less than 20 percent - 0 points

(4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?
Site is protected - 20 points
Site is not protected - 0 points

(5) Is the farm unit(s) containing the site (before the project) as large as the average - size farming unit in the County ? (Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage or Farm Units in Operation with $1,000 or more in sales.)
As large or larger - 10 points
Below average - deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more below average - 9 to 0 points

(6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?
Acreage equal to more than 25 percent of acres directly converted by the project - 25 points
Acreage equal to between 25 and 5 percent of the acres directly converted by the project - 1 to 24 point(s)
Acreage equal to less than 5 percent of the acres directly converted by the project - 0 points

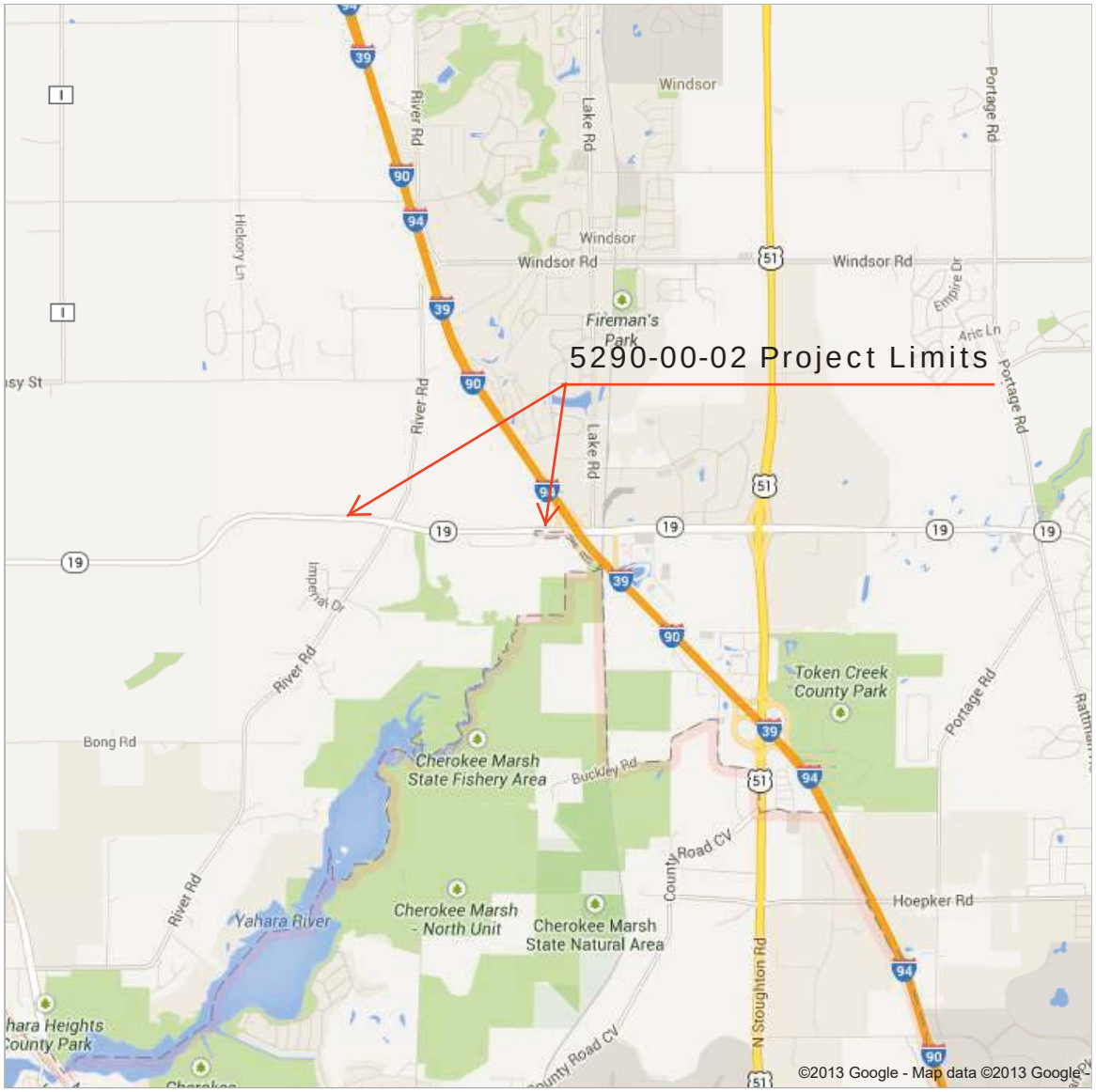
(7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?
All required services are available - 5 points
Some required services are available - 4 to 1 point(s)
No required services are available - 0 points

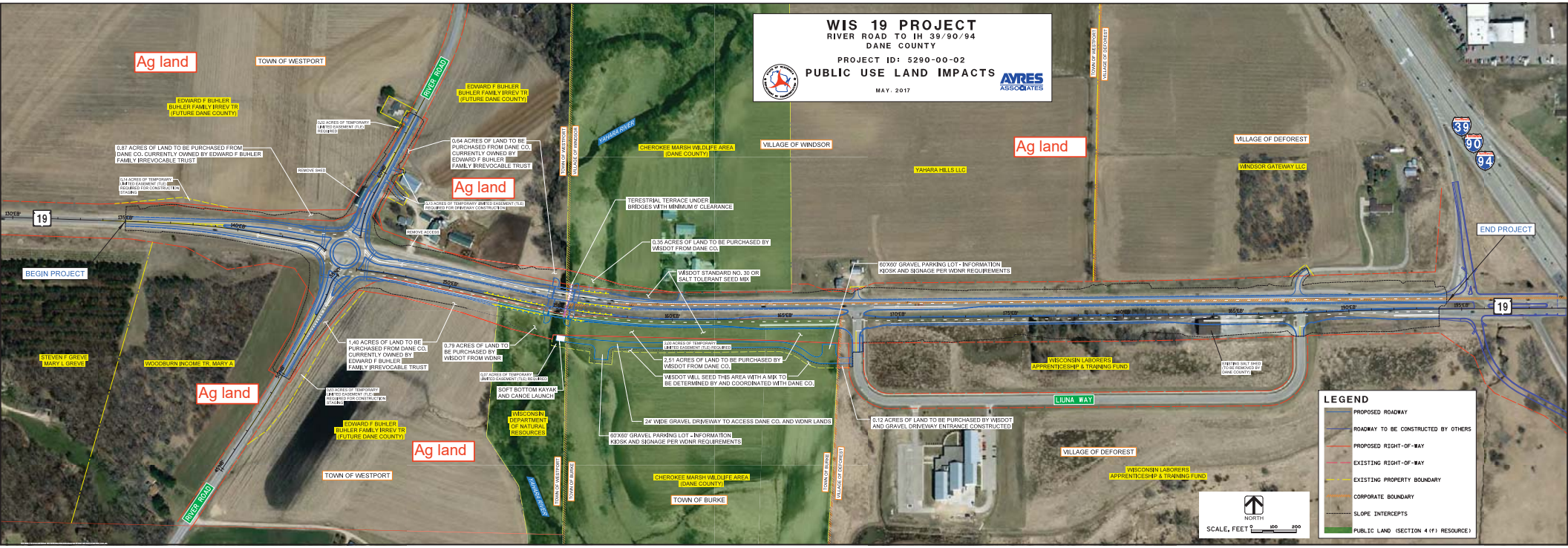
(8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?
High amount of on-farm investment - 20 points
Moderate amount of on-farm investment - 19 to 1 point(s)
No on-farm investment - 0 points

(9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?
Substantial reduction in demand for support services if the site is converted - 25 points
Some reduction in demand for support services if the site is converted - 1 to 24 point(s)
No significant reduction in demand for support services if the site is converted - 0 points

(10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?
Proposed project is incompatible to existing agricultural use of surrounding farmland - 10 points
Proposed project is tolerable to existing agricultural use of surrounding farmland - 9 to 1 point(s)
Proposed project is fully compatible with existing agricultural use of surrounding farmland - 0 points

I.D. 5290-00-02
USH 12 - IH 39
River Road - IH 39
STH 19, Dane County




WIS 19 PROJECT
RIVER ROAD TO IH 39/90/94
DANE COUNTY
PROJECT ID: 5290-00-02
PUBLIC USE LAND IMPACTS
MAY, 2017
AYRES ASSOCIATES
Ag land
TOWN OF WESTPORT
EDWARD F BUHLER
BUHLER FAMILY IRREV TR
(FUTURE DANE COUNTY)
RIVER ROAD
0.87 ACRES OF LAND TO BE PURCHASED FROM DANE CO, CURRENTLY OWNED BY EDWARD F BUHLER FAMILY IRREVOCABLE TRUST
0.64 ACRES OF LAND TO BE PURCHASED FROM DANE CO, CURRENTLY OWNED BY EDWARD F BUHLER FAMILY IRREVOCABLE TRUST
REMOVE SHED
REMOVE ACCESS
BEGIN PROJECT
19
STEVEN F GREVE
MARY L GREVE
WOODBURN INCOME TR, MARY A
1.40 ACRES OF LAND TO BE PURCHASED FROM DANE CO, CURRENTLY OWNED BY EDWARD F BUHLER FAMILY IRREVOCABLE TRUST
0.79 ACRES OF LAND TO BE PURCHASED BY WISDOT FROM WDNR
SOFT BOTTOM KAYAK AND CANOE LAUNCH
WISCONSIN DEPARTMENT OF NATURAL RESOURCES
YAHARA RIVER
CHEROKEE MARSH WILDLIFE AREA (DANE COUNTY)
VILLAGE OF WINDSOR
TOWN OF BURKE
VILLAGE OF DEFOREST
YAHARA HILLS LLC
WINDSOR GATEWAY LLC
TERRESTRIAL TERRACE UNDER BRIDGES WITH MINIMUM 6' CLEARANCE
0.35 ACRES OF LAND TO BE PURCHASED BY WISDOT FROM DANE CO.
WISDOT STANDARD NO. 30 OR SALT TOLERANT SEED MIX
60'X60' GRAVEL PARKING LOT - INFORMATION KIOSK AND SIGNAGE PER WDNR REQUIREMENTS
2.51 ACRES OF LAND TO BE PURCHASED BY WISDOT FROM DANE CO.
WISDOT WILL SEED THIS AREA WITH A MIX TO BE DETERMINED BY AND COORDINATED WITH DANE CO.
24' WIDE GRAVEL DRIVEWAY TO ACCESS DANE CO. AND WDNR LANDS
60'X60' GRAVEL PARKING LOT - INFORMATION KIOSK AND SIGNAGE PER WDNR REQUIREMENTS
0.12 ACRES OF LAND TO BE PURCHASED BY WISDOT AND GRAVEL DRIVEWAY ENTRANCE CONSTRUCTED
WISCONSIN LABORERS APPRENTICESHIP & TRAINING FUND
LIUNA WAY
END PROJECT
39
90
94
LEGEND
PROPOSED ROADWAY
ROADWAY TO BE CONSTRUCTED BY OTHERS
PROPOSED RIGHT-OF-WAY
EXISTING RIGHT-OF-WAY
EXISTING PROPERTY BOUNDARY
CORPORATE BOUNDARY
SLOPE INTERCEPTS
PUBLIC LAND (SECTION 4(f) RESOURCE)
NORTH
SCALE, FEET 0 100 200

USCG Correspondence

U.S. Department of Homeland Security

United States Coast Guard

Commander
Ninth Coast Guard District

1240 E 9th St
Cleveland, OH 44199
Staff Symbol: (dpb)
Phone: (216) 902-6087
FAX: (216) 902-6088
E-mail: Scot.M.Striffler@uscg.mil

16590
April 24, 2017
B-071/wbs

Mr. Brian Taylor
Environmental Coordinator
WisDOT DTSD Southwest Region
2101 Wright Street
Madison, WI 53704

Dear Mr. Taylor:

We are responding to your email dated April 19, 2017 regarding the proposed replacement of the Wisconsin State Highway 19 over the Yahara River, Village of Windsor, Dane County, Wisconsin.

The Coast Guard is not currently exercising jurisdiction over the Yahara River as it pertains to the Coast Guard's bridge administration functions. Therefore, a Coast Guard permit will not be required for the project as proposed. Coordination with this office will also not be required during construction activities associated with the proposed project.

Although a Coast Guard bridge permit will not be required for this project as proposed, you may need to comply with the requirements of other federal, state, or local agencies. Please ensure these requirements are satisfied.

If you require further assistance in this matter, or to schedule construction activities, please contact Blair Stanifer of this staff at (216) 902-6086.

Sincerely,

S. M. STRIFFLER
Chief, Bridge Branch
U. S. Coast Guard
By direction

Dane County Correspondence

Division of Transportation System Development
Southwest Region
20101 Wright Street
Madison WI 53704

Scott Walker, Governor
Dave Ross, Secretary
Internet: www.dot.wisconsin.gov

Telephone: 608-245-2622
Facsimile (FAX): 608-246-5380

E-mail: David.Pilon@dot.wi.gov

3/7/2017

ATTN: CHRIS JAMES
DANE COUNTY PARK – LAND AND WATER RESOURCES DIVISION
5201 FEN OAK DRIVE ROOM 208
MADISON, WI 53718

RE: State Highway 19 Reconstruction Project – Drainage Analysis & Section 4(f) de Minimis impact determination

Dear Mr. James;

As stated in our letter sent to you on January 30th, 2017, we have reviewed the stormwater drainage and treatment for the Wisconsin State Highway (WIS) 19 project between River Road and Interstate 39/90. This task was completed in response to concerns raised by Supervisor Ripp at the Dane County Park Commission meeting on January 11, 2017. The intent of the review was to determine if reasonable design modifications could be made to address the Town of Westport's concerns of erosion and stormwater runoff control and treatment.

The Wisconsin Department of Transportation (WisDOT) has determined that design changes could be implemented to address two items that were identified by the Town; a) prevent stormwater water from the two new proposed bridges from draining directly into the Yahara River and, b) consider design changes that would exceed state and federal standards for treating stormwater during a 100-year storm event.

Addressing the first item would involve adding a small ditch section and berm to contain the drainage flowing off the northeast corner of the bridge along the future westbound lanes, which would then drain approximately 400 feet east in a grass ditch to a culvert pipe under STH 19 and then into another grass ditch section on the south side of WIS 19 before flowing west into the river.

Addressing the second item would involve constructing a berm between the future eastbound lanes of WIS 19 and a proposed access road to impede the flow of water draining directly into the river. This would include adding a flat bottom ditch east of the berm which could help detain the stormwater in a

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E-mail: David.Pilon@dot.wi.gov

small pond area, which would then flow through a 15-inch concrete culvert pipe before discharging into the river. This berm would basically hold some of the water during large storm events before it is released into the river. The pond would function as a detention pond since the culvert would still allow the flow of water, although at a slower rate that it would without the berm in place. The existing 100-year storm runoff for this area is approximately 62.8 cfs and this design modification would result in a runoff of approximately 63.7 cfs. This change would be an improvement from the 79.9 cfs total that would occur with the preliminary design concept that didn't include any berms. Attached is a diagram illustrating these design concepts.

These design modifications will exceed state and federal stormwater quality requirements for the project, however they could be implemented without a significant increase on construction costs and will result in significant additional stormwater runoff treatment during a 100-year event. Drainage throughout the project would be handled to minimize erosion and limit suspended solids from reaching waterways, using inlets at intersections, grassed ditches, culvert pipes, and riprap at discharge points as necessary.

We hope this addresses the concerns identified in the email sent to us from Laura Hicklin on January 17th and that you can move forward with the processing of the Section 4(f) de minimis document regarding the project's impact on Dane County's public use lands.

Please let us know if you would like any additional information or have any further questions.

Sincerely,

David Pilon, PE
Project Manager,
Madison SW Region

Enclosure: March 6, 2017 Drainage Display

MEETING MINUTES

Meeting Location: WisDOT SW Region Office	Project No.: 41-0717.00
Date/Time: February 18, 2016; 8:30 a.m.	Re: Meet with Dane County Parks
Notes By: Matt Barr	Project ID 5290-00-02 USH 12 – IH 39 River Road – IH 39 STH 19 Dane County

Attendees:
Chris James, Park Planner – Dane County Land & Water Resources
Laura Hicklin, Deputy Director – Dane County Lane & Water Resources
Dave Pilon – WisDOT SW Region Project Manager
Matt Barr – Ayres Associates Project Manager

We met to discuss Dane County's recent acquisition of the Bollig Farm property adjacent to the Yahara River within the limits of this project. The following items were discussed:

- Matt spent a couple minutes providing an overview of the STH 19 project pointing out that the new road will be 4 lanes with a median and 2 new bridges are proposed over the Yahara River.
- The County did complete the acquisition. Matt said the most recent articles he had seen said the County was considering buying the property. It is approximately 81 acres and the boundaries are approximately the same as was shown in the newspaper articles. They are still in the early planning stages for what this area will all include.
- The acquisition includes the buildings on the north side of the road. They plan to remove some of the buildings while some will remain since the area will continue to be farmed. The County plans to add a kiosk and make a parking area for several cars. We told them that we haven't analyzed access yet, but this driveway may become right-in, right-out only.
- The property is intended to be used for public hunting and recreation. Work may start this April for removal of the buildings and shaping of the parking lot area.
- They also have long range plans to extend an off-road trail from the dog park along STH 113 up to this location. This trail would be along the west side of the river. It would eventually split off with a trail heading east toward Token Creek Park and another trail extending north to Cuba Valley Road and tying into the ABS area and connecting to trails at the Village of DeForest.
- We talked about a parking area to access the land to the south. Vehicles currently park along the south shoulder of STH 19. One option discussed was to provide access off Liuna Way. The County's property appears to extend almost up to that road. However, that is on the east side of the river. Laura sent a map after the meeting that shows they don't actually own all the way up to Liuna Way so this option may not work unless they acquire a small strip of land.
- They would prefer some type of parking accommodations on the south side if possible. They don't own property southwest of the bridge so they would need to acquire more land for a lot there. The area just west of the river is owned by the DNR and is wetland. We informed them that a lot on the west side of the river would require permit approval from the DOT for a new access and would also likely be right-in, right-out only.

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- Dane County is considering acquiring the property in the NE quadrant of the River Road intersection. That is currently a farming operation with several buildings. If they did acquire that, it could provide better access to the west side of the river. Their second preference would be an access off Liuna Way.
- We talked about the possibility of lengthening the new bridges and providing a trail underneath. If the lengthening is on the west side, it would match in with where the trail is proposed, but would make access more difficult from the Bollig farm parking lot area. Dave pointed out that clearance under the new bridges for bike accommodations could be an issue if girders are proposed. This needs to be analyzed as part of the hydraulic analysis and preliminary bridge design. Dave wasn't sure whether the DOT would fully fund the extra cost for lengthening the bridges.
- Laura mentioned that they are looking at obtaining a grant from the DNR for some reimbursement for the acquisition which would be Knowles-Nelson Stewardship funding. That may make the property fall under Section 6(f) requirements, but is something we should check into. Laura said preparing Section 6(f) documentation could possibly be avoided depending on when the DOT acquires land for this project. We told her that is likely a couple years or more into the future and she said they are hoping to complete the grant process in the next few months.
- Matt asked about the coordination required for these types of properties and Laura said the DNR would be involved. We mentioned Eric Heggelund is the DNR liaison for this project and she said they are working with a different DNR contact on the grant.
- Chris asked about bicycle accommodations with the project and we said we haven't looked into it yet, but that fairly wide paved shoulders will likely be included which would meet the needs for bicycle traffic. They indicated they think STH 19 is designated as a bike route on the Dane County bike maps.
- Chris said there is a lot of bike traffic on River Road and pointed out that the roundabout being considered at that location is less accommodating for bikes than a signalized intersection would be.
- We told them we are planning a PIM this summer to present preliminary concepts and obtain some public input. We asked what we should say regarding this property. Laura said they can provide us with some language to use. They don't want this advertised as a new park area.

Barr, Matthew

From: James, Christopher <James@countyofdane.com>
Sent: Tuesday, May 31, 2016 3:22 PM
To: Barr, Matthew
Cc: Brokaw, Michelle - DOT; Rigelman, Sara; 'Kelli Bialkowski'; Meixner, Brian; Marsh, Darren; Black, Richard
Subject: Upper Yahara River Trail

Matt,

As a follow up to our meeting last week, this email confirms the County's designation of a future off road multi use trail that will extend from Yahara Heights County Park on STH 113 to the Village of Deforest. The draft trail concept is identified as the Upper Yahara River Trail within the Dane County Parks and Open Space Plan, the Village of Deforest has already completed sections of this trail north of River Road. The County will begin working on the first phases between Country Day School and Yahara Heights County Park, with future connectivity planned to STH 19. Bicycle/pedestrian crossing accommodations at the STH 19/River Road intersection would greatly benefit this future trail network.

Sara Rigelman from our office will be hosting an upcoming public information meeting in early July for phase 1 of the Upper Yahara River Trail, we will send you more information when the meeting details have been finalized.
Thanks,
chris

Chris James, PLA
Senior Landscape Architect
Dane County Land and Water Resources-Parks Division
5201 Fen Oak Drive
Madison, Wisconsin 53718
608.224.3763

MEETING MINUTES

Meeting Location: WisDOT SW Region - Madison	Project No.: 41-0717.00
Date/Time: May 26, 2016, 8:30 am	Re: Meeting with Dane County & Village of DeForest – Future Bike Paths
Prepared By: Matt Barr	Project ID 5290-00-02 USH 12 – IH 39 River Road – IH 39 STH 19 Dane County

Following is the meeting agenda with minutes from the meeting shown in red.

The following people were in attendance:

Dave Pilon – WisDOT SW Region Project Manager
Michelle Brokaw – WisDOT SW Region Bike Coordinator
Matt Barr – Ayres Associates
Kevin Kuhlow – Ayres Associates
Deane Baker – Village of DeForest Director of Public Services
Mark Roffers – MDRoffers Consultant (Planning consultant for Village)
Chris James – Dane County Land & Water Resources

1. PROJECT BACKGROUND
   - A) Expansion of STH 19 to 4 lanes from just west of River Road to IH 39
   - B) Looking at 2 options for cross section
     - i) Rural section with 50-foot median
     - ii) Urban section east of River Road with 30-foot median
   - C) Signals or roundabout at River Road intersection
   - D) Two new bridges over Yahara River
   - E) Construction scheduled for 2020
2. SCHEDULE

Meeting with Dane County Parks	Feb 18, 2016
Typical Section Report	June 2016
Local Officials Meeting	August 2016
Public Involvement Meeting	September 2016
Operational Planning Meeting/30% Plan Review	October 2016
Environmental Report	May 2017
Design Study Report	August 2017

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Right-of-Way Plat	September 2017
Right-of-Way Acquisitions	October 2017 – July 2019
PS&E	August 2019
Construction	2020

3. BIKE ACCOMMODATIONS

   A) 8-foot paved shoulders for on-road proposed for this project

   B) Off road path not proposed with project since doesn't comply with Trans 75

   C) Potential roundabout at River Road – Would be designed for bike accommodations

   D) IH 39 interchange project being constructed this summer

      i) Ends just west of southbound ramps

      ii) 5-foot bike lanes west of IH 39

      iii) Approx 3-foot paved shoulders under bridges – Deck replacements only

      Michelle mentioned there are studies underway along the interstate where they are analyzing bike accommodations along that corridor. Once those studies are farther along, the DOT should have a better idea of where crossings of the interstate are planned.

   E) Potential off-road paths proposed by County and Village

4. Dane County Parks

   A) Recently acquired 81-acre parcel along Yahara River

   B) Proposed kiosk and parking area north of bridge west of river

   C) Tentative plans for off road trail along west side of Yahara River extending north of STH 19

   D) Timeline for construction?

   E) Bike Path Design Issues

      i) Location for crossing of STH 19

      ii) Proposed location to cross interstate to the north?

- Kiosk will be built this summer on the north side of STH 19. It will have a sign and about 10 gravel parking spots. There was a discussion about combining that parking lot with parking for potential future development park in that area and Chris said they would probably prefer to keep the lot separate.
- No current plans for parking on the south side of STH 19. Dave mentioned hunters that access the woods to the south will likely park along the shoulder of STH 19 if no parking area is provided there.
- Chris said hunting would probably still be allowed on the south side. However, it may be restricted north of STH 19 because of future planned development in that area.
- No set plans for a path along Yahara River, however it would likely be along the west side

- We asked where the County thinks they would cross the interstate north of STH 19 and Chris mentioned Cuba Valley Road had been suggested. Dave pointed out there isn't a way to get from River Road to Cuba Valley Road. Therefore, running the bike path along River Road might make sense north of STH 19. If so, the crossing of both STH 19 and IH 39 could occur along River Road.
- The County may look to acquire the parcel to the west between River Road and the Yahara River north of STH 19 within the next 10 years. We summarized the following items for the County:
  - ✓ Provide bike accommodations along River Road through the STH 19 intersection
  - ✓ Snowmobile plans need to be investigated to determine if they have any trails in this area with the potential for crossings of STH 19 or River Road

5. Village of DeForest

   A) Bike trail identified along STH 19 in their future Park and Open Space plan

   B) Tentatively planned along south side

   C) Timeline for construction?

   D) If a path is extended across STH 19 bridge:

      i) 12-foot width behind barrier

      ii) Guardrail would have to be attached to barrier

- Mark mentioned that development is anticipated for the triangle of land north of STH 19 between IH 39 and the Yahara River, which would be a mix of residential and commercial.
- Deane said there are current discussions about potential development for the area north of STH 19 just east of the river.
- ✓ They are thinking that having the multi-use path running along the north side of STH 19 may make sense. Matt said Kelli Bialowski had stated in an email that the Village was thinking it might run on the south side, but Mark said that may be because an easement was acquired on the south side to the east of IH 39.
- ✓ Michelle said the DOT has constructed bridges on other projects that have future plans for a shared use path. The bridge would be built wide enough so it could be added in the future but would not include the barrier between the travel lanes and the path initially.
- ✓ Matt asked if documentation is needed for the DOT to implement bike accommodations with the proposed design. Michelle said documentation would be helpful and could even be an email.
- ✓ Matt said there doesn't seem to be a need for lengthening the bridges over the Yahara River with this project for the potential addition of a path underneath and everyone concurred.
- ✓ We decided that the STH 19 design team will investigate widening the WB STH 19 structure to allow for a future multi-use path on the north side
  - o The structure would be designed to have a 10' shoulder, an inside barrier wall, a 12'-14' path and an outside barrier wall with a fence on top of it
  - o The inside barrier wall would be added when warranted in the future
- The Village of DeForest and Dane County will send emails outlining their future plans and their desire for a multi-use path on the north side of the WB STH 19 bridge.

MEETING MINUTES

Meeting Location: WisDOT SW Region - Madison	Project No.: 41-0717.00
Date/Time: October 24, 2016	Re: Meeting with Dane County Land & Water Resources – Potential Impacts to County property
Prepared By: Matt Barr	Project ID 5290-00-02 USH 12 – IH 39 River Road – IH 39 STH 19 Dane County

Following is the meeting agenda with minutes from the meeting shown in red. The following people were in attendance:

Dave Pilon – WisDOT SW Region Project Manager
Brian Taylor – WisDOT SW Region Environmental Coordinator
Michelle Brokaw – WisDOT SW Region Bike Coordinator
Laura Hicklin – Deputy Director, Dane County Land & Water Resources Dept.
Chris James – Dane County Land & Water Resources Dept.
Matt Barr – Ayres Associates
Kevin Kuhlow – Ayres Associates

Matt went through some background on the project status in items 1. and 2. below.

1. PREVIOUS COORDINATION

A) Meeting held with Dane County on 2/18/16

i) Plan to remove buildings and add kiosk on north side of STH 19

Some of the buildings have already been removed and the plan is to remove more.

ii) Long range plans for off road trail from dog park on STH 113 along west side of river

iii) Discussed options for accessing the property

iv) County considering acquiring property in NE quadrant of intersection

They have had some discussions with the property owner but the site hasn't been acquired.

v) County was looking at a grant from DNR using Knowles-Nelson funding. This would make it fall under Section 6(f) requirements.

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Laura said they received a grant but that this property doesn't fall under Section 6(f) requirements.

B) Meeting held with Dane County and Village of DeForest on 5/26/16

i) County mentioned hunting would still be allowed on south side but may be restricted on north side due to future planned development

Hunting is currently still allowed on the north side.

ii) Discussed possible location of path crossing STH 19 being at River Road

iii) County still discussing acquiring property in NE quadrant of intersection

iv) Need to review snowmobile routes to determine if any in this area

Matt mentioned the current maps for the area show no snowmobile routes within the project limits.

v) Village said off road path would likely be along north side of STH 19

vi) Discussed providing widening on north side of bridge to accommodate future path. But barrier would not be installed initially between road and path.

vii) Didn't seem to be a need for a path under the bridges

2. DESIGN UPDATE

A) Analysis completed for urban section with 30-foot median and rural section with 50-foot median – Decision made to proceed with rural section

B) Intersection analysis completed for River Road – Recommendation made for a roundabout

C) Alignments and profiles refined – Likely need to raise grade at bridges to maintain existing clearance

D) Preliminary drainage analysis completed – Flat bottom ditches desirable. May use V ditches to minimize impacts

E) 8-foot paved shoulders proposed which will accommodate on-road biking

F) Preliminary slope limits identified

i) Approximately 2.75 acres from Dane County land

ii) Approximately 0.7 acres from DNR land

G) Plan to hold Local Officials Meeting and Public Meeting in next couple of months

3. DISCUSSION ITEMS

A) Obtain update on plans for County property

- Matt asked what the name of the park is and they said it is Cherokee Marsh Wildlife Area.
- They are still interested in the parcels in both the NE and SE corners of the River Road intersection.
- They plan to remove crops from the land acquired and add prairie grass. They may also do some wetland work.

- Yahara Winds is putting some money into restoration.
- There was discussion about the use of pollinator mix seeding for lands disturbed with the project. The design staff could work with Leif Hubbard from Central Office on that. Areas discussed were the north and south ditches adjacent to the County land.

B) Proposed plans for access

- The County would like the DOT to acquire the narrow strip of land just west of Liuna Way that is between that road and the property line of their land. This would allow them to build a driveway and parking lot extending off Liuna Way. This lot would provide access to the area east of the river. They requested the lot be their typical gravel parking lot that is 60'x60' with a 24' wide driveway.
- Based on the current drainage patterns, a culvert will probably be needed under a driveway that would be added off Liuna Way.
- The County asked if there would be a median opening to the parking area on the north side. They would like one if possible. They were told there are no plans for a median opening here. One is proposed at the western Liuna Way intersection to the east. There was some discussion about possibly adding a "left in" only movement off STH 19 to this lot.
- The County asked about a deceleration lane being added for westbound traffic into the north lot. They were told this likely isn't warranted since traffic volumes aren't high enough. Motorists would have an 8-foot paved shoulder they could use, plus traffic could bypass motorists turning into this site by using the inside lane on westbound STH 19.
- The County asked about possible access on the south side west of the bridge and were told there are no plans to add any. If the County acquires the property in the SE corner of the River Road intersection, that would provide an opportunity for accessing the area west of the river on the south side of STH 19.

C) Confirm Section 4(f) applicability

D) Section 6(f) applicability

E) Discuss possibility of lowering clearance under bridge

- The County indicated they didn't have a concern with lowering the clearance but said the DNR requires 5 feet be maintained above the normal water level for navigation.
- We discussed the need for preparing the Section 4(f) document and potential measures the DOT could implement to mitigate the impacts. The DNR also needs to concur with a mitigation plan. Some options discussed included:
    - Acquiring strip of land just west of Liuna Way
    - Constructing an entrance and parking lot off Liuna Way
    - Providing signing for the parking lot
    - Incorporating a pollinator mix into the seeding for the project
- Brian Taylor will send an email to the County with meeting minutes and ask for the County's mitigation requests.

4. SCHEDULE

Typical Section Report	August 12, 2016
Intersection Control Evaluation	September 19, 2016
Submit Completed Base Plat for DEPARTMENT review	October 7, 2016
30% Preliminary Plans	November 11, 2016
LOM and PIM	Mid November
30% Plan Review Meeting	Early December 2016
Signed Environmental Report	May 1, 2017
Preliminary Structure Plans	July 1, 2017
60% Preliminary Plans	July 1, 2017
Signed Design Study Report	August 1, 2017
Submit Final Plat for DEPARTMENT Review	September 1, 2017
Signed Final Plat submittal	November 1, 2017
90% Plans	May 1, 2019
Final P.S.& E. to SW Region	July 15, 2019
Final P.S. & E. to Central Office	August 1, 2019
Construction	2020

MEETING MINUTES

Meeting Location: WisDOT SW Region Office	Project No.: 41-0717.00
Date/Time: March 22, 2017; 2:00 p.m.	Re: Meet with Dane County Parks
Notes By: Matt Barr	Project ID 5290-00-02 USH 12 – IH 39 River Road – IH 39 STH 19 Dane County

Attendees:
Chris James, Park Planner – Dane County Land & Water Resources
Laura Hicklin, Deputy Director – Dane County Lane & Water Resources
Brian Taylor – WisDOT SW Region Environmental Coordinator
Matt Barr – Ayres Associates Project Manager

The purpose of the meeting was to discuss the County's plans for acquiring additional property adjacent to STH 19 within the limits of this project. They had previously acquired a large parcel east of the Yahara river and are now in the process of acquiring land from the Buhler farm north and south of STH 19 west of the river. The following items were discussed:

- Before discussing the proposed acquisition, we talked about the letter recently sent to Chris regarding the stormwater design changes that were made to address concerns from the Town of Westport. The Parks Commission is meeting tonight but this item is not on the agenda. Laura mentioned she had a call into Tom Wilson about this but hadn't talked to him yet. Brian said that after the letter was sent, Supervisor Ripp sent an email saying he thinks the design changes will help with the water quality. Laura and Chris said they hadn't seen that email but were glad to hear of his response.
- The parcels the County is acquiring east of River Road will both be fee title. They are also acquiring a conservation easement from the Buhler property north of STH 19 on the west side of River Road.
- Ron Treinen currently farms the land and is acquiring the 2 parcels from the Buhlers and the County will then acquire them from Mr. Treinen.
- The County plans to rent the land out for farming initially. They want to implement agricultural best management practices and may add a buffer area between the field and the river on the south side.
- Mr. Treinen would like to keep the building closest to River Road on the north side of STH 19 and have the rest removed. Laura asked if the DOT planned to remove any of the buildings with the project and Matt said there weren't any plans to. They likely don't fall within the sight corners required for the roundabout but Matt will discuss with Kevin K. to confirm.
- The acquisition is scheduled to take place later this summer. There was discussion on how to handle this regarding Section 4f coordination. Since the land currently isn't Section 4f land, it isn't an impact. But it likely will be when the R/W plat for the project is prepared and the DOT acquires land for the project.

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- Brian mentioned the possibility of a Memorandum of Agreement that would document the discussion and state that the County is acceptable to selling the land to the DOT for the project and recognize that it wouldn't need to go through the Section 4f approval process. Laura didn't think they had the authority to sign that type of document. Brian also mentioned a Letter of Understanding as another option. He wants to avoid having to re-open the project's environmental document at a later date. He will check into this some more and see if there are any other similar examples.
- Laura and Chris said they are happy with the efforts the DOT has taken so far to mitigate the current Section 4f impacts and likely aren't looking for any additional measures.
- Since the property in the NW corner of the River Road intersection will still be privately owned and only under an easement with the County, they weren't sure if it would fall under the requirements of Section 4f. Brian asked if there was any special funding being used for these acquisitions and they said no.
- Brian may put this project on the agenda for next Tuesday's DOT meeting with FHWA to discuss the Section 4f issues with them.
- Laura asked how far south on River Road they would need to place a new entrance. They will likely want one for access to that parcel and will need to coordinate with the Town of Westport since it's a town road. Matt said he wasn't totally sure but would check the design manual. Brian suggested also contacting Scott Henkel or Wendy Braun from the DOT Region office who handle new access points.
- Matt pointed out that the current design shows 2 access points into the Buhler farm north of STH 19 on the east side of River Road and asked if they feel they need both. Those 2 were shown to match the existing condition with the farming operations in place. Laura and Chris didn't think they needed both.
- Brian pointed out that the display currently shows 2 parking lots on the new access road off Liuna Way and asked the Laura and Chris if they see a need for the one closest to Liuna Way. Laura and Chris said they would like to keep it. They may want to add a gate just west of that lot to close off the rest of the access road to the west during winter. They also felt some hunters may decide to use that lot instead of one near the river.

Village of DeForest Correspondence

Barr, Matthew

From: Deane Baker <Bakerd@vi.deforest.wi.us>
Sent: Monday, June 06, 2016 10:02 AM
To: Barr, Matthew
Cc: Mark Roffers; Kelli Bialkowski; Brandi Cooper
Subject: Justification for Separated Bike/Ped Accommodations Along HIghway 19

Hello Matt—

I am writing in follow-up to our meeting of May 26, 2016, related to bike/ped accommodations associated with the Highway 19 project in the DeForest area.

One significant outcome of that meeting was support for bridge width over the Yahara River to accommodate a future separated multiuse path on the north side of Highway 19. This accommodation was agreed to because of Village and regional bike plans, the Village's projected mixed use development in the Highway 19 corridor west of the Interstate, and the plan for most of that development being on the north side of Highway 19 and including housing. The group agreed that the Village of DeForest would articulate the extent and timing of the need in a follow-up email.

Here is the Village's justification:

1. Through its Comprehensive Plan, updated in 2015, DeForest identifies nearly all of the developable lands west of the Interstate, up to the Westport Town line, as being appropriate for future development and in a "Future Urban Development Area" (FUDA). That future use pattern and FUDA is acknowledged and reflected in the 2012 intergovernmental and regional North Yahara Future Urban Development Area Study (CARPC). Further, through the 2010 DeForest-Windsor Cooperative Plan, the two municipalities agreed that such development would take place in DeForest.
2. DeForest already has sanitary sewer and water service available in the Highway 19 corridor, serving the Union Conservancy Park development on the south side of Highway 19.
3. DeForest is actively working with two prominent developers of land on the north side of Highway 19, west of the Interstate. One, a prominent commercial developer, already owns 53 acres directly northwest of the interchange, and the second, a prominent residential developer, has an option to purchase 56 acres directly to its west. The two parties and Village are working now to prepare a conceptual neighborhood development plan, in advance of utility extension agreements, annexation to DeForest, and application to Capital Area Regional Planning Commission to add the lands to the Northern Urban Service Area. We expect that application to be made no later than 2017, and development to begin on these 109 acres shortly thereafter.
4. DeForest has long planned for a separated, multiuse path along Highway 19. This desire is most recently reflected in the Village's 2015 Park and Open Space Plan. Given the lack of other crossing opportunities and the heavy and diverse traffic along Highway 19, the Village believes that separated bike and pedestrian facilities will be essential for safe, multi-modal movement. In addition, a parallel path has, for over a decade now, been included in conceptual intergovernmental plans for the North Mendota Parkway, which includes this segment of Highway 19.

In short, it continues to remain the Village's hope that DOT accommodate an off-street bicycle and pedestrian facility in its planning and design work for Highway 19, as both a local and regional means of safely accommodating cyclists and walkers. We are certainly interested in learning more about how best we can together make that happen.

If you have any further needs or questions related to this topic, please let me know. We greatly appreciate Ayres' and WisDOT's consideration of this matter.

Thank you for reaching out to us.

Sincerely,

Deane Baker, PE
Director of Public Services
Capital Projects and Zoning
Village of DeForest, Wisconsin
Phone: 608.846.6751
Email bakerd@vi.deforest.wi.us
www.vi.deforest.wi.us

WIS 19 Development
Village of DeForest, WI

KICK-OFF MEETING

March 6, 2017 – 1:30pm
WisDOT SW Region Conference Room

1. Attendees

   Sam Blahnik (Village of DeForest)
   Greg Hall (Village of DeForest)
   Graham Heitz (WisDOT)
   David Pilon (WisDOT)
   John Marchewka (WisDOT)
   Rita Lybek (WisDOT)
   David Wronski (WisDOT)
   Kevin Ruhland (MSA)
   Sarah Gengler (MSA)

2. Development and Study Information

   a. An informational meeting was assembled to discussion coordination between WisDOT and the Village of DeForest for upcoming roadway and development projects along the state highway system.

   b. Agenda
      i. WisDOT Reconstruction Project

         David Pilon (WisDOT WIS 19 Project Manager) updated the group on the reconstruction project. The project will consist of expanding the current infrastructure to a 4 lane divided highway, 2 new structures across the Yahara River, and a multilane roundabout at River Road. Ayres Associates in the consultant onboard for design.

         The intersection with W. Liuna Way will include a left turn bay to the south, but does not currently include a north leg to serve the proposed development. No traffic signals are currently planned as part of the project.

         The profile of the roadway is also anticipated to change. The roadway will be raised 1-2 feet to adjust for the new structures.

         The build year is 2020 with a horizon design year of 2040. The current project schedule is:

         30% Plans – Submitted
         60% Plans – Summer 2017
         PS&E – 8/1/2019
         LET – 12/10/2019
         Construction – 2020

Construction of WIS 19 will be done in stages. It is anticipated that the eastbound lanes will be constructed first as WIS 19 will be widened to the south of the existing alignment. Traffic will then be shifted to the newly constructed eastbound lanes to reconstruct the westbound lanes.

ii. Proposed Development Plans

Sam Blahnik (Community Development Director, Village of DeForest) provided the group with a preliminary neighborhood plan for the development area (attached). Portions of the study area were recently annexed into the Village and the remaining land is anticipated to be annexed by the end of March Livesey Company currently owns the eastern half of the property. Don Tierney owns the western half of the property.

There has been ongoing interest in a few of the parcels within the development. There are two users that are interested in occupying the larger parcels near the interstate. At this time, there has been significant enough interest to complete a traffic study.

The Village is anticipating a September 2018 opening of a big-box user.

There is potential for an additional access (Street D) to cross the Yahara River to the west and connect to River Road in the long-term future. As part of this study, an access point on River Road will not be analyzed as any connections to River Road would happen beyond the horizon year of this study due to environmental constraints.

iii. WIS 19 Access Locations and Intersections

The existing farm closest to the interstate is currently vacant. That access location is anticipated to be removed when development occurs.

The TIA will consider and evaluate a secondary restricted (right-in/right-out) access at the Street C location with WIS 19. An ICE report will vet the ultimate condition based on the study findings and WisDOT's concurrence of the access.

The intersection with W. Liuna Way (Street A in the provided neighborhood plan layout) is proposed to be a full access. It is anticipated to need further intersection control. The Traffic Impact Analysis and subsequent Intersection Control Evaluation (ICE) report will determine the ultimate intersection control and trigger for the installation of an improvement project. An abbreviated ICE report is acceptable be used for this traffic study in accordance with the TIA Guidelines Manual and Phase I ICE process.

The ICE report will evaluate each improvement scenario including traffic signal/roundabout at W. Liuna Way.

A resolution between the Village and WisDOT for the street connection will be needed for any new access to WIS 19.

A State-Municipal Agreement (SMA) should be created now for State and consultant review for any changes/updates to the WIS 19 reconstruction plans.

iv. Other Discussion

Traffic Impact Analysis:

Graham Heitz indicated that the study must include the southbound ramp of the interchange within the study area. The modeling can use a 90 second cycle length to maintain the proposed signal progression.

WisDOT will provide intersection turning movement counts at River Road and the interchange for use in this study. MSA did request if Synchro models are available from the WIS 19 and/or interchange reconstruction project, those would be helpful to have as the baseline to use for the TIA for consistency.

A single TIA will be completed for the entire development. The TIA will consider several scenarios including:

- *2018 Build – before WIS 19 construction*
- *2020 Design Project Build Year – after WIS 19 construction*
- *2040 Design Project Horizon Year*

As previously noted, these analyses will be completed both with and without the secondary "right-in/right-out" access between the Liuna Way connection and the Southbound Ramp terminal.

Graham indicated that traffic signal warrants must be met in order to install a traffic signal. The underground can be put into place sooner but the signal may not be operable before warrants are met. Graham will provide any 12-hour land use traffic distributions the SW Region may have, otherwise MSA will use the SE Region distributions. The warrant analysis will assume that the restricted access east of the intersection will be installed.

Graham also noted that there is a concern for queuing and delays along WIS 19, particularly for the short term analysis before the WIS 19 project is constructed. The current ADT is 18,000 vehicles per day and accommodating the existing traffic and development traffic may be difficult with a controlled intersection and only one lane of through traffic in each direction.

David Pilon did request that any interim infrastructure improvements be reusable for the future reconstruction project to the degree possible. Any improvements above and beyond the current project plans will be subject to cost sharing. David Pilon (WisDOT) will be the main contact.

Other Considerations:

A stormwater management report will be required as part of the permitting process. Wendy Braun from WisDOT will send the guidelines to the Village for consideration. (received 3-6-17)

Proposed Timeline and Next Steps:

1) *SMA between the Village and State for state or consultant time to review impacts to existing WIS 19 design project*
2) *TIA*
    a. *Initial Submittal – Target Submittal Date March 24 (will need WIS 19 traffic counts and development information to begin)*
    b. *Final Report – Target Submittal Date - May 1*
    c. *Final Report WisDOT Review – minimum 4 week review time*
3) *ICE Report – once the initial submittal is approved and the TIA analysis begins, the ICE report will begin – Target Submittal Date June 1*
4) *Memoranda of Agreement (MOA)*
5) *Access Permit including*
    a. *Improvement Plans*
    b. *Stormwater Report*
    c. *Transportation Management Plan (TMP)*
6) *Work in Highway Right-of-Way Permit*
7) *Construction of necessary temporary/interim improvements completed prior to Development Opening Sept 1, 2018*

3. Follow Up Action Items

<u>WisDOT</u>

☐ WisDOT will provide any recent traffic turning movement count information for River Road and the interstate. Synchro models and/or ICE Reports for both the WIS 19 and Interstate Ramp construction projects will also be provided to create consistency in the analysis across the different projects and studies.

☐ WisDOT will provide any 12-hour distributions for the SW Region for the traffic signal warrant analysis.

☐ WisDOT will begin preparing a SMA with the Village

☒ WisDOT will send the stormwater drainage guidelines

Village of DeForest

☐ Send MSA all development land uses, sizes, and phasing for inclusion in the initial submittal to WisDOT

NEIGHBORHOOD PLAN MAP
VILLAGE OF DEFOREST, WI

vierbicher
planners | engineers | advisors
REEDSBURG - MADISON - PRAIRIE DU CHIEN
402 Viking Drive Reedsburg, Wisconsin 53959
Phone: (608) 524-6468 Fax: (608) 524-8218

16 Feb 2017 - 7:40a R:\DeForest, Village of\170008 - TID No. 8\CADD\TID 8 - Neighborhood Plan Map.dwg by: mmuc

Bureau of Aeronautics Correspondence

Division of Transportation
Investment Management
PO Box 7914
Madison, WI 53707-7914

Scott Walker, Governor
Dave Ross, Secretary
Internet: http://wiisconsindot.gov

Telephone: 608-266-3351

Facsimile (FAX): 608-267-6748

June 22, 2017

AYERS ASSOCIATES INC
ATTN: AMANDA INMAN, P.E.
5201 E TERRACE DR, SUITE 200
MADISON, WI 53718

STH 19, Dane County Regional, Waunakee Airports
STH 19 – Dane County

Dear Ms. Inman:

I have reviewed the information submitted on the STH 19 project located in Dane County. I do not have any issues with the project at this time from a Bureau of Aeronautics standpoint. Since portions of the project are in the vicinity of two airports, Dane County Regional Airport and Waunakee Airport, the 'Notice Criteria Tool' on the FAA's Obstruction Evaluation and Airport Airspace Analysis (OE/AAA) website should be used to see if any temporary equipment or permanent structures will require study.

If you have any questions about this process I can assist you. If required to file for a study, the FAA requests submittal at least 45 days prior to the start of construction to give them enough time to complete the study.

Additionally, the FAA guidance on wildlife attractants on or near airports is FAA Advisory Circular 150/5200-33. Please make sure that any storm water retention and/or detention facilities follow the recommendations outlined in the FAA guidance.

On a final note, due to the proximity to the two airports listed above, the Bureau of Aeronautics recommends contacting the airports as a friendly heads up about your project. The airports will welcome any information you have about the use of equipment that may affect airport operations. The contacts for the airports listed above are as follows:

Dane County Regional Airport:
Contact: Bradley Livingston: 608-246-3380

Waunakee Airport:
Contact: Lynn Erickson: 608-849-4318

Sincerely,

Levi Eastlick
Airspace Safety Program Manager
WisDOT/DTIM/Bureau of Aeronautics
4802 Sheboygan Ave Room 701
Madison, WI 53705
608.267.5018| Levi.Eastlick@dot.wi.gov

American Indian Tribe Correspondence

Division of Transportation System Development
Southwest Region
2101 Wright St
Madison, WI 53704-2583

Scott Walker, Governor
Mark Gottlieb, P.E., Secretary
Internet: www.dot.wisconsin.gov

Telephone: 608-246-3800
Facsimile (FAX): 608-246-7996
E-mail: swr.dtsd@dot.wi.gov

February 9, 2015

ATTN:EDITH LEOSO, THPO
BAD RIVER BAND OF LAKE SUPERIOR CHIPPEWA INDIANS OF WISCONSIN
P.O. BOX 39
ODANAH, WI 54861

RE: Notice of federal undertaking and request for comments under 36 CFR 800

I am writing to you in regards to the following project:
Project ID: 5290-00-02
USH 12 – IH 39
River Road to IH 39
STH 19
Dane County

The Wisconsin Department of Transportation (WisDOT), in cooperation with the Federal Highway Administration, is considering an undertaking located on STH 19 from one mile west of River Road to IH 39 in Dane County for a total of two miles. The proposed undertaking will consist of reconstructing the existing 2-lane highway to a 4-lane highway and constructing two (2) new bridges over the Yahara River. (See attached Project Location Map).

Your tribe has requested to be notified of undertakings in this area of Wisconsin. Attached is information regarding the proposed undertaking to assist in consultation on the scope of identification efforts, which includes the determination and documentation of the area of potential effects (APE).

WisDOT would be pleased to receive any comments your tribe wishes to share regarding this undertaking, the determination of the APE, and any potential impacts to historic properties and/or burials. Environmental studies may be conducted for this undertaking such as archaeological site identification survey, architecture/history survey, endangered species survey, contaminated material investigations, soil testing and right-of-way surveys. Results of these studies and comments provided by you will assist the engineers in the design to avoid, minimize or mitigate effects upon cultural and natural resources. To ensure your comments are considered during this early phase of project development, WisDOT requests a response within 30 days of receipt of this letter.

If your tribe wishes to become a consulting party under Section 106 of the National Historic Preservation Act or would like to receive additional information regarding this undertaking, please contact me by mail at 2101 Wright Street, Madison, WI 53704 or by phone at (608) 246-3821.

Sincerely,

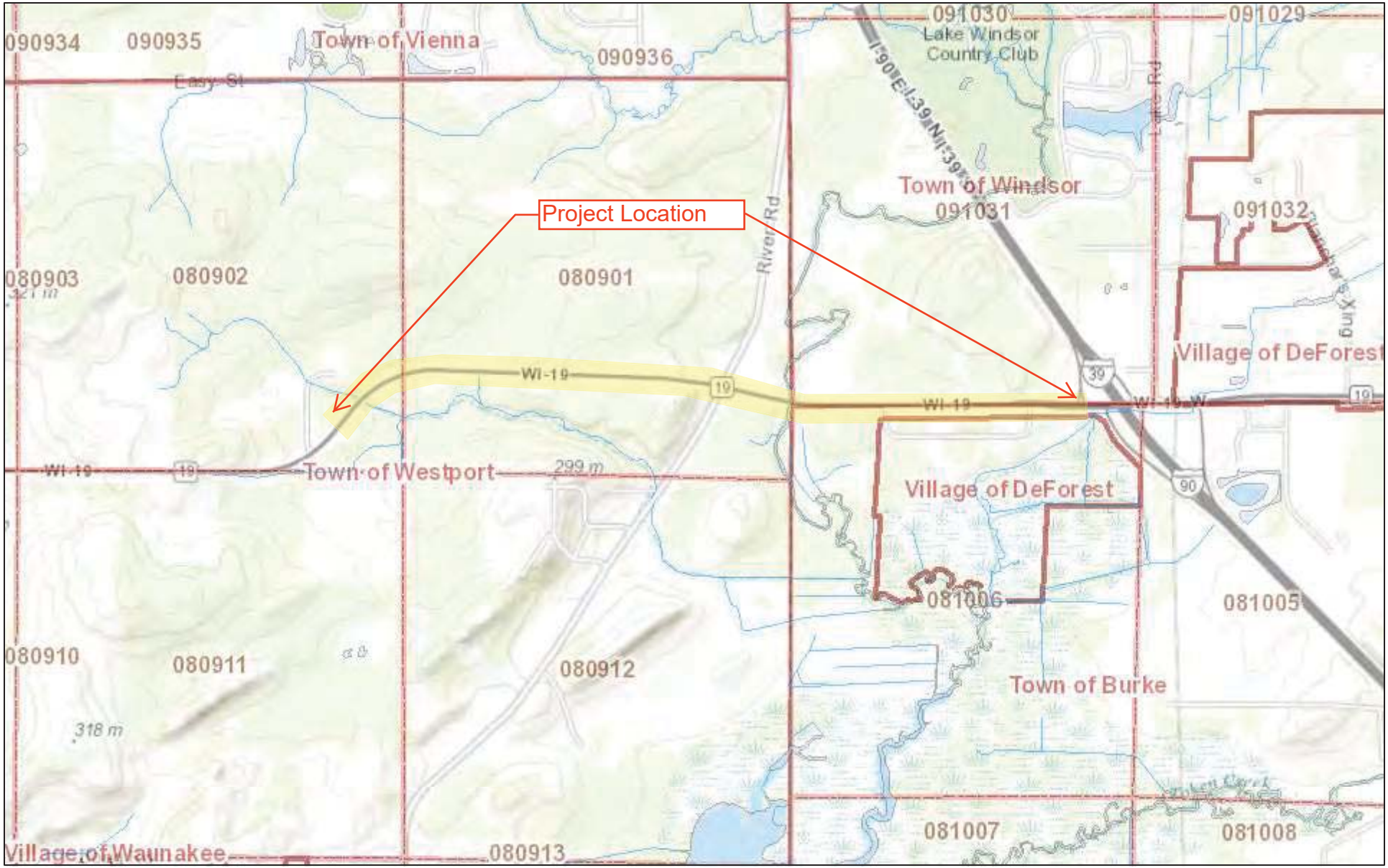
David Layton

WisDOT Project Manager

Cc: Rebecca Burkel, Transportation Historic Preservation Officer, WisDOT Bureau of Technical Services (via email)
James Becker, Archaeology/Burial Site Program Manager, WisDOT Bureau of Technical Services (via email)
Lynn Cloud, WisDOT Bureau of Technical Services (via email)
Roger Larson, Tribal Coordinator, WisDOT SW Region (via email)

Attachments: Project Location Map

STH 19



February 6, 2015

1:31,222

- Rivers and Streams
- Lakes and Ponds
- City
- Village
- Town
- Sections

0 0.275 0.55 1.1 mi

0 0.425 0.85 1.7 km

Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL,

Project Mailing List

Tribal Contacts - Updated October 2013

SELECTED COUNTY -> Dane

	Tribal Name	Contact	Address 1	Address 2	City	State	Zip	Website etc
1	Bad River Band of Lake Superior Chippewa Indians of Wisconsin	Edith Leoso, THPO	P.O. Box 39		Odanah	WI	54861	Website: http://www.badriver.com/
2	Forest County Potawatomi Community of Wisconsin	Melissa Cook, THPO	Tribal Office	P.O. Box 340	Crandon	WI	54520	Website: http://www.fcpotawatomi.com/
3	Ho-Chunk Nation	William Quackenbush, THPO	Executive Offices	P.O. Box 667	Black River Falls	WI	54615	Website: http://ho-chunknation.com/
4	Lac Vieux Desert Band of Lake Superior Chippewa Indians	giiwegiizhigookway Martin, THPO	Ketegitigaaning Ojibwe Nation	P.O. Box 249	Watersmeet	MI	49969	Website: http://www.lvdtribal.com/
5	Menominee Indian Tribe of Wisconsin	Dave Grignon, THPO	P.O. Box 910		Keshena	WI	54135	Website: http://www.menominee-nsn.gov/ Fed Ex Address: Menominee Indian Tribe of Wisconsin W3426 CTH V V WestKeshena, WI 54135
6	Prairie Band Potawatomi Nation	Attn: Hattie Mitchell	16281 Q Road		Mayetta	KS	66509	Website: http://www.pbpindiantribe.com/
7	Red Cliff Band of Lake Superior Chippewa Indians of Wisconsin	Larry Balber, THPO	88385 Pike Road, Highway 13		Bayfield	WI	54814	Website: http://www.redcliff-nsn.gov/
8	Sac and Fox Nation of Missouri in Kansas and Nebraska	Edmore Green	305 N. Main		Reserve	KS	66434	Website: http://www.sacandfoxcasino.com/tribal-history.html/
9	Sac and Fox Nation of Oklahoma	Sandra Massey, NAGPRA Rep.	RR 2, Box 246		Stroud	OK	74079	Website: http://www.sacandfoxnation-sn.gov/index.htm/
10	Sac and Fox of the Mississippi in Iowa	Jonathan Buffalo, NAGPRA Rep.	349 Meskwaki Road		Tama	IA	52339-9629	Website: http://www.meskwaki.org/

APPENDIX 6
Section 106 Documentation

17-0742/DA

SHPO

SECTION 106 REVIEW ARCHAEOLOGICAL/HISTORICAL INFORMATION

Wisconsin Department of Transportation
DT1635 6/2014

For instructions, see FDM Chapter 26.

I. PROJECT INFORMATION

☐ Amended Submittal *(include new information only)*

Project ID	Highway – Street	County
5290-00-02	STH 19	Dane
Project Termini		**Region – Office**
River Road to IH 39		SW Region - Madison
Regional Project Engineer – Project Manager		**(Area Code) Telephone Number**
David Pilon		(608) 245-2622
Consultant Project Engineer – Project Manager		**(Area Code) Telephone Number**
N/A		N/A
Archaeological Consultant		**(Area Code) Telephone Number**
Museum Archeology Program - Kent Dickerson		608-221-5904
Architecture/History Consultant		**(Area Code) Telephone Number**
Mead and Hunt - Emily Pettis		608-273-6380
Date of Need		**SHSW Number**
Return a Signed Copy of This Form to		

RECEIVED JUN 01 2017 BY:

II. PROJECT DESCRIPTION

Project Length	Land to be Acquired: Fee Simple	Land to be Acquired: Easement
2.0 miles	30.5 acres	0 acres

Distance as measured from existing centerline	Existing	Proposed	Other Factors	Existing	Proposed
Right-of-Way Width	60' - 160'	160'	Terrace Width	N/A	N/A
Shoulder	22'	22' - 106'	Sidewalk Width	N/A	N/A
Slope Intercept	34' - 80'	140'	Number of Lanes	2	4
Edge of Pavement	15'	15' - 104'	Grade Separated Crossing	N/A	N/A
Back of Curb Line	N/A	N/A	Vision Triangle acres	N/A	N/A
Realignment	N/A	N/A	Temporary Bypass acres	N/A	N/A
Other – List:			Stream Channel Change	☐ Yes	☒ No
Attach Map(s) that Depict "Maximum" Impacts.	☒ Yes	☐ No	Tree Topping and/or Grubbing	☒ Yes	☐ No

Brief Narrative Project Description: Include all ground disturbing activities. For archaeology, include plan view map indicating the maximum area of ground disturbance and/or new right-of-way, whichever is greater. Include all temporary, limited and permanent easements. For amendments (e.g. design refinements, scope changes, etc) description should only include new/added project actions and materials.

The project involves extending the existing 4-lane section at the WIS 19/IH 39 interchange approximately 1.25 miles to the west through the River Road intersection and constructing 2 new bridges over the Yahara River.

☐ Add continuation sheet, if needed.

SECTION 106 REVIEW ARCHAEOLOGICAL/HISTORICAL INFORMATION *(continued)*

Wisconsin Department of Transportation DT1635

III. CONSULTATION

How has notification of the project been provided to:

Property Owners	Historical Societies/Organizations	Native American Tribes
☐ Public Information Meeting Notice	☐ Public Information Meeting Notice	☐ Public Info. Mtg. Notice
☒ Letter - Required for Archaeology	☒ Letter	☒ Letter
☐ Telephone Call	☐ Telephone Call	☐ Telephone Call
☐ Other:	☐ Other:	☐ Other:

Attach one copy of the base letter, list of addresses and comments received. For history include telephone memos as appropriate.

IV. AREA OF POTENTIAL EFFECTS – APE

ARCHAEOLOGY: Area of potential effect for archaeology is the existing and proposed ROW, temporary and permanent easements. Agricultural practices do not constitute a ground disturbance exemption.

HISTORY: Describe the area of potential effects for buildings/structures.

The APE for this project includes all properties adjacent to the project corridor that may be directly or indirectly affected by the project.

V. PHASE I – ARCHAEOLOGICAL OR RECONNAISSANCE HISTORY SURVEY NEEDED

ARCHAEOLOGY	HISTORY
☒ Archaeological survey **is needed**	☒ Architecture/History survey **is needed**
☐ Archaeological survey **is not needed**	☐ Architecture/History survey **is not needed**
☐ Screening list (date)	☐ Screening list (date)
☐ Burial site in project area, Wis. Stat. 157.70 applies	☐ No structures or buildings of any kind within APE
	☐ Non-Survey History Documentation attached

VI. SURVEY COMPLETED

ARCHAEOLOGY	HISTORY
☐ **NO** archaeological sites(s) identified – ASFR attached	☒ **NO** buildings/structures identified – Report attached
☐ **NO** potentially eligible site(s) in project area – Phase I Report attached	☐ Potentially eligible buildings/structures identified in the APE – Report attached
☒ Potentially eligible site(s) identified-Phase I Report attached	☐ Avoided through redesign
☐ Avoided through redesign	☐ Previously listed/eligible property identified in the APE – Report attached
☒ Phase II conducted – go to VII (Evaluation)	
☐ Phase I Report – Cemetery/cataloged burial documentation	

VII. DETERMINATION OF ELIGIBILITY (EVALUATION) COMPLETED

☒ No arch site(s) eligible for NRHP – Phase II Report attached	☐ No buildings/structure(s) eligible for NRHP – DOE attached
☐ Arch site(s) eligible for NRHP – Phase II Report attached	☐ Building/structure(s) eligible for NRHP – DOE attached
☐ Site(s) eligible for NRHP – DOE attached	

VIII. COMMITMENTS/SPECIAL PROVISIONS – must be included with special provisions language

☐ Per Wis. Stat. 157.70 obtain burial authorization from WHS one year prior to construction.

IX. PROJECT DECISION

☒ No historic properties (historical or archaeological) in the APE.

☐ No historic properties (historical or archaeological) affected.

☐ Historic properties (historical and/or archaeological) may be affected by project;

- ☐ Go to Step 4: Assess affects and begin consultation on affects.
- ☐ Documentation for Determination of No Adverse Effects is included with this form. WisDOT has concluded that this project will have No Adverse Effect on historic properties. Signature by SHPO below indicates SHPO concurrence in the DNAE and concludes the Section 106 Review process for this project.

X. SIGNATURES

X		X		X	
(Regional Project Manager Signature)	3/24/17 (Date – m/d/yy)	(WisDOT Historic Preservation Officer Signature)	6/1/2017 (Date – m/d/yy)	(State Preservation Officer Signature)	July 3 2017 (Date – m/d/yy)

X

Do not use Township Line Site (DA-445) for staging or borrow.

APPENDIX 7

Section 4(f) Documentation

- Cherokee Marsh Fishery Area - WDNR
- Cherokee Marsh Natural Resource Area – Dane County Parks

Cherokee Marsh Fishery Area - WDNR
Section 4(f) De Minimis Form

Wisconsin Federal Highway Administration
Finding of *De Minimis* Impact on Parks, Recreation Areas and Wildlife and Waterfowl Refuges

1. Project Description

   WISDOT ID: 5290-00-02
   Route: STH 19
   Termini: USH 12 – IH 39 (River Road – IH 39)
   City/County: Dane County
   Project Description:

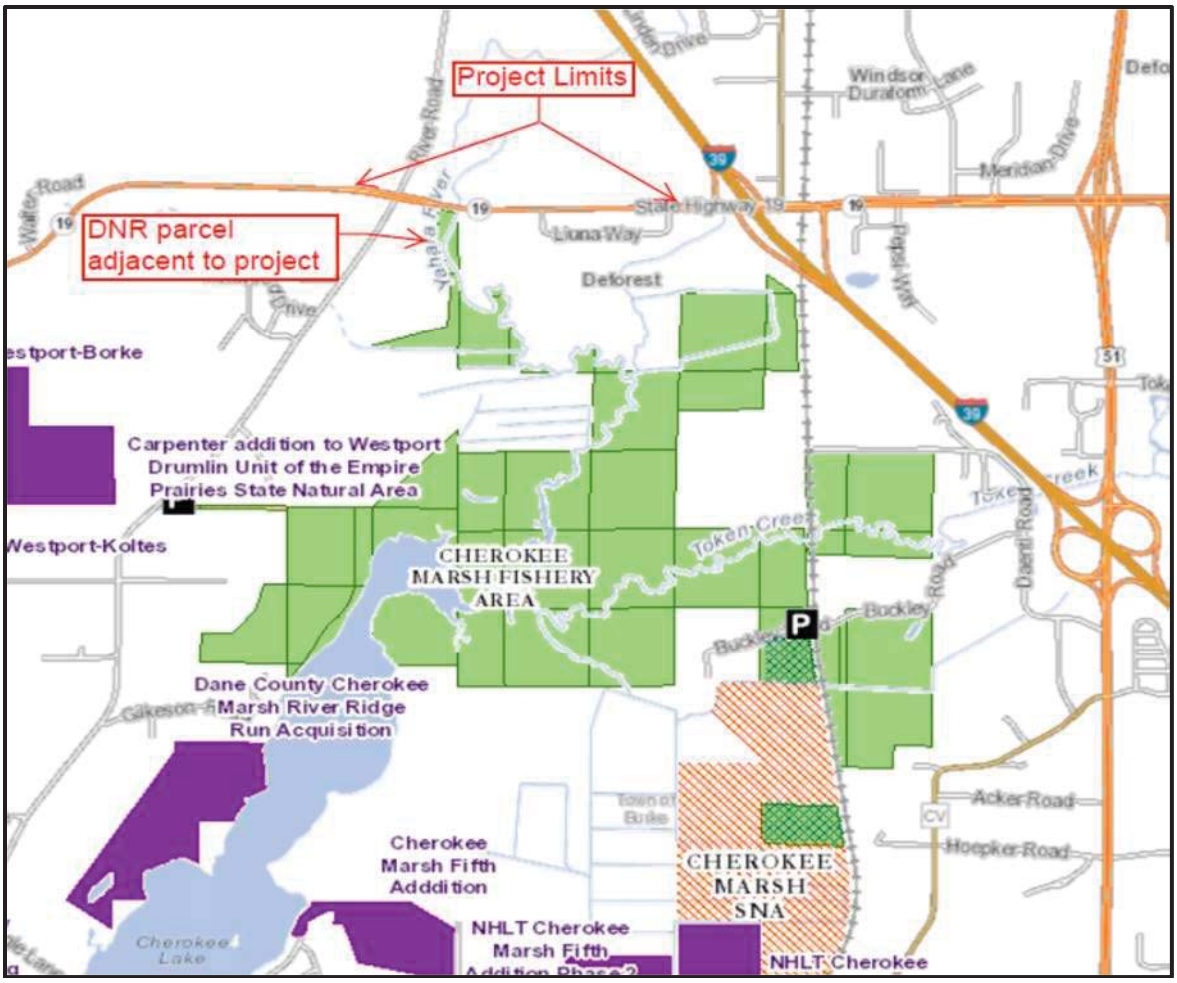
   The project involves the reconstruction of a segment of the existing two-lane Wisconsin State Highway (WIS) 19 roadway from River Road to Interstate Highway (I) 39/90/94 and the addition of two additional lanes to provide a four-lane roadway. The existing lanes would become the westbound roadway and the new lanes would accommodate eastbound traffic. A multi-lane roundabout would be added at the WIS 19/River Road intersection and two new bridges would be constructed over the Yahara River. The existing bridge would be removed and replaced with a new bridge for the westbound roadway, and a second bridge would be constructed to the south for the new eastbound roadway.

   The project is approximately 1.1 miles long and falls within the Village of DeForest and the Towns of Westport and Burke. The project is scheduled for construction in 2020 and the estimated construction cost is $6,750,000.

2. Name of Section 4(f) resource: Cherokee Marsh Fishery Area

3. Description of Section 4(f) resource (Include a map and/or photos of the property in relation to the proposed project):

   One of the resources protected by Section 4(f) that would be impacted by the WIS 19 project is the Cherokee Marsh Fishery Area. The WDNR is the official with jurisdiction over the resource. The Cherokee Marsh Fishery Area is used for passive recreational activities such as fishing, hunting, canoeing, and kayaking. The fishery extends to Cherokee Lake to the south that eventually to the Madison Chain of Lakes. The Cherokee Marsh Fishery Area is also contiguous with Dane County's identified Cherokee Marsh Natural Area which shares the same goals and objectives.



Map of WDNR Public Use Land Adjacent to Project Corridor

Looking Southeast at WDNR Public Use Land

4. Description of impacts:

   The permanent impacts to the Section 4(f) lands would involve placement of roadway embankment and the construction of a new bridge at the north end of the WDNR parcel to accommodate the new eastbound WIS 19 roadway. There would also be a small area of temporary impact on the east side of the river to allow for the construction of a kayak and canoe launch. This area would remain under WDNR ownership after construction is completed. An estimated 0.79 acres of permanent fee (Fee Simple) acquisition is assumed required (see attached public use land impact map). These impacts would not adversely affect the activities, features, or attributes that qualify Cherokee Marsh for protection under Section 4(f).

5. Discuss how the impacts do not adversely affect the activities, features, and attributes listed in Number 3 above:

   The recreational use of the property is for fishing, hunting, canoeing, and kayaking and the impacts of the project should not affect those activities. The 0.79 acres that are required are located at the far north end of this parcel adjacent to the existing WIS 19 facility and there is sufficient land remaining on this parcel to maintain those recreational activities.

   Meetings have been held with staff from the WDNR and Dane County to discuss the potential impacts to the public use lands owned by both agencies and possible measures to mitigate impacts caused by the project. WisDOT has agreed to the mitigation measures described below. See attached map and signed Section 4(f) letter. Once constructed, the mitigation measures would enhance the activities features, and attributes that qualify the property for protection under Section 4(f).

   - WisDOT would construct a 24-foot driveway and with a 60’ x 60’ parking lot extending from Liuna Way to provide access to the Dane County area east of the Yahara River. The driveway would also include a culvert.

   - WisDOT would construct a 24-foot access road extending from the above referenced 60’ x 60’ parking lot onto WDNR property. This access road would expand the use of the Dane County property as well as facilitate use of the abutting WDNR property and safe access to the Yahara River.

   - WisDOT would construct another 60’ x 60’ parking lot on the western end of the Dane County property for canoe/kayak launching on WDNR property.

   - WisDOT would construct a non-motorized canoe/kayak soft bottom launch per WDNR specifications on WDNR property.

   - WisDOT would construct and install information kiosks and park signage in the proposed parking areas per Dane County and WDNR specifications.

- WisDOT would construct a terrestrial terrace beneath the two new WIS 19 bridge structures over the Yahara River.

- WisDOT would coordinate with Dane County and the WDNR regarding the use of berms and native vegetated landscaping as a visual buffer in selected locations as well as minimizing the impacts to existing vegetation and re-use of stripped topsoil.

- Following construction, WisDOT would seed south of the new access road between Dane County and WDNR property with seed mixes recommended by Dane County and would facilitate these seedings up to three acres on Dane County Park and WDNR land at the direction of Dane County park staff and WDNR staff.

6. Name of and notification to the official(s) with jurisdiction over the property:

   The WDNR has been informed that FHWA may make a de minimis impact determination under Section 4(f) and may utilize the WDNR official's written concurrence that the project does not adversely affect the activities, features, and attributes that qualify the property for protection under Section 4(f) in making that finding. On April 27, 2017, Dan Oele, WDNR, concurred.

7. Describe the public involvement process and results:

   A Public Involvement Meeting was held on November 29, 2016 where the public was afforded the opportunity to review and comment on the effects of the project on the WDNR public use lands adjacent to the project corridor. The news release informing the public about the meeting, the handout provided at the meeting, and the power point presentation included information about the potential impact to public use lands (see attached Public Involvement Meeting documents). No one in attendance had any comments regarding these impacts. Two additional Public Involvement Meetings are anticipated later in the design process where the public will be provided additional opportunity to provide comments on the project.

8. Describe the results of coordination with the official(s) with jurisdiction over the property following public involvement (attach correspondence from the official(s)):

   After the initial Public Involvement Meeting was held on November 29, 2016, Dan Oele from WDNR signed the letter on April 27, 2017 agreeing that the project would not adversely affect the activities, features, and attributes that qualify the WDNR land for protection under Section 4(f) (see attached letter).

9. Are there federal and/or state special funding encumbrances such as Land and Water Conservation funds or Knowles-Nelson Stewardship Program grants on the Section 4(f) resource? If "Yes", indicate the type of encumbrance and discuss how all requirements relating to the encumbrance will be satisfied independent of this 4(f) determination. This should be addressed in Factor Sheet # in the Environmental Document.

There are no special funding encumbrances on this WDNR property.

This *de minimis* determination documentation was prepared by

Signature _____ Date 3/29/18

Print Name & Title Matthew Barr, Supervisor – Design Services, Ayres Associates Inc
(Consultant or Region Project Staff)

This *de minimis* determination documentation was reviewed by

Signature _____ Date 3/29/2018

Print Name & Title Region Env. Coordinator
(Regional Environmental Coordinator or Region Local Program Manager)

Signature _____ Date 3/29/2018

Print Name & Title EPDS Liaison
(EPDS *Liaison or Section Manager)*

This *de minimis* determination documentation was reviewed and approved by

Signature _____ Date 5/11/18

Print Name & Title PETER M GARCIA
(Federal Highway Administration)

cc: WISDOT Bureau of Technical Service /EPDS
WISDOT Region

Attachments

DeMinimis Concurrence Letter
Public Use Land - Mitigation Features Map
Public Involvement Meeting News Release
Public Involvement Meeting Handout
Public Involvement Meeting Power Point Slide
Preliminary Plans

DeMinimis Concurrence Letter

Division of Transportation System Development
Southwest Region
2101 Wright St
Madison, WI 53704-2583

Scott Walker, Governor
Mark Gottlieb, P.E., Secretary
Internet: www.dot.wisconsin.gov

Telephone: 608-246-3800
Facsimile (FAX): 608-246-7996

E-mail: swr.dtsd@dot.wi.gov

April 19, 2017

MR. DAN OELE
FISHERIES BIOLOGIST - DANE CO
WDNR - SCR
3911 FISH HATCHERY ROAD
FITCHSBURG WI 53711

Mr. Oele,

The Wisconsin Department of Transportation (WisDOT), on behalf of the Federal Highway Administration (FHWA), is in the process of preliminary design for the proposed highway expansion and reconstruction project of Wisconsin State Highway (WIS) 19 between Interstate Highway (IH) 39 and River Road within the Townships of Burke and Westport as well as the Villages of Deforest and Windsor, Dane County. As part of the proposed project, WisDOT is planning to construct a four lane expressway facility which will require purchase of right-of-way from property owned by the Wisconsin Department of Natural Resources (WDNR). See Attachment A.

The purpose of this letter is to request your concurrence that the proposed project will not adversely affect the activities, features, and attributes of the WDNR property, thus allowing the FHWA to make a Section 4(f) *de minimis* impact determination.

As a facility owned by WDNR, the multi-use recreational land is afforded special protections under Section 4(f) of the USDOT Act (recodified in 49 U.S.C 303 and 23 U.S.C. 138). Under the provisions of Section 4(f), if the proposed transportation project would result in adverse effects to the park or recreation facility, the transportation agency must conduct an evaluation to demonstrate that there is no prudent and feasible alternative to the use of the 4(f) property. Because this evaluation can be expensive and potentially result in project delays, an exemption is provided in cases where the official with jurisdiction over the park or recreation area concurs in a determination that the impacts are not adverse. This concurrence enables FHWA to make a *de minimis* (minimal) impact determination, which satisfies the requirements of Section 4(f) and precludes the need for a section 4(f) Evaluation. *De minimis* impact on publicly owned parks, recreation areas, and wildlife and waterfowl refuges are defined as those that do not "adversely affect the activities, features and attributes" of the Section 4(f) resource.

For purposes of federal law, including Section 4(f) of the USDOT Act of 1966, the future right of way will be considered transportation right of way, not multi-use recreational land, and will be purchased from WDNR. The proposed project will require approximately 0.79 acres for right of way, as shown in the attached drawings. WisDOT will compensate for the 0.79 acres of land acquired for the project, in accordance with applicable federal and state laws.

The below mitigation measures are in conjunction with mitigation measures for impacts to the adjacent Dane County property (former Bollig Acquisition).

Mitigation Measures

1. WisDOT will purchase additional land (approximately .2 acres) just west of Liuna Way to enable safe access to the WDNR and Dane County land (former Bollig property) south of WIS 19. Please Note: Acreage is an estimate and will be refined during Final Design.
    - WisDOT will construct a 24 foot driveway and with a 60X60 parking lot extending from Liuna Way to provide access to the WDNR and Dane County area east of the river.
    - The driveway would also include a culvert.

2. WisDOT will construct a 24 foot access road extending from the above referenced 60X60 parking lot onto WDNR property. This access road will expand the use of the Dane Co property as well as facilitate use of the abutting WDNR property and safe access to the water way (Yahara River).

3. WisDOT will construct another 60X60 parking lot on the western end of the property for canoe/kayak launching on WDNR property.

4. WisDOT will construct a non-motorized canoe/kayak soft bottom launch per WDNR specifications on WDNR property.

5. WisDOT will construct and install an information kiosks and park signage in the proposed parking areas per Dane County and WDNR specifications.

6. WisDOT will construct a terrestrial terrace beneath the two new bridge structures

7. WisDOT will coordinate with Dane County and WDNR regarding the use of berms and native vegetated landscaping as a visual buffer in selected locations as well as minimizing the impacts to existing vegetation and re-use of stripped topsoil.

8. Following construction, WisDOT will seed south of the new access road between Dane Co and WDNR property with seed mixes recommended by Dane Co and will facilitate these seeding's up to three acres on Dane County Park land (former Bollig property) and WDNR land at the direction of Dane County park staff and WDNR staff.

As the official with jurisdiction over the WDNR land, adjacent to WIS 19 within the Townships of Burke and Westport as well as the Villages of Deforest and Windsor, Dane County, I concur with the determination that the proposed transportation project as described in this letter and shown on the accompanying attachment would not adversely affect the activities, features, and attributes that qualify this WDNR land for protection under Section 4(f). I have also been informed that, based on my concurrence, the FHWA intends to make a *de minimis* finding regarding the impacts to this WDNR land, thus satisfying the requirements of Section 4(f).

Print: Daniel L. Dele

Signature: Daniel L. Dele **Date:** 4-27-17

Please keep a copy for your records and return a signed and dated original to my attention within 30 days of the date of this letter to the following address:

Wisconsin Department of Transportation
Southwest Region
2101 Wright Street
Madison, WI 53704-2583

WisDOT is thankful for your assistance in making this transportation project possible. Should you have any questions or concerns, please contact me at (608) 245-2622 or david.pilon@dot.wi.gov.

Sincerely,

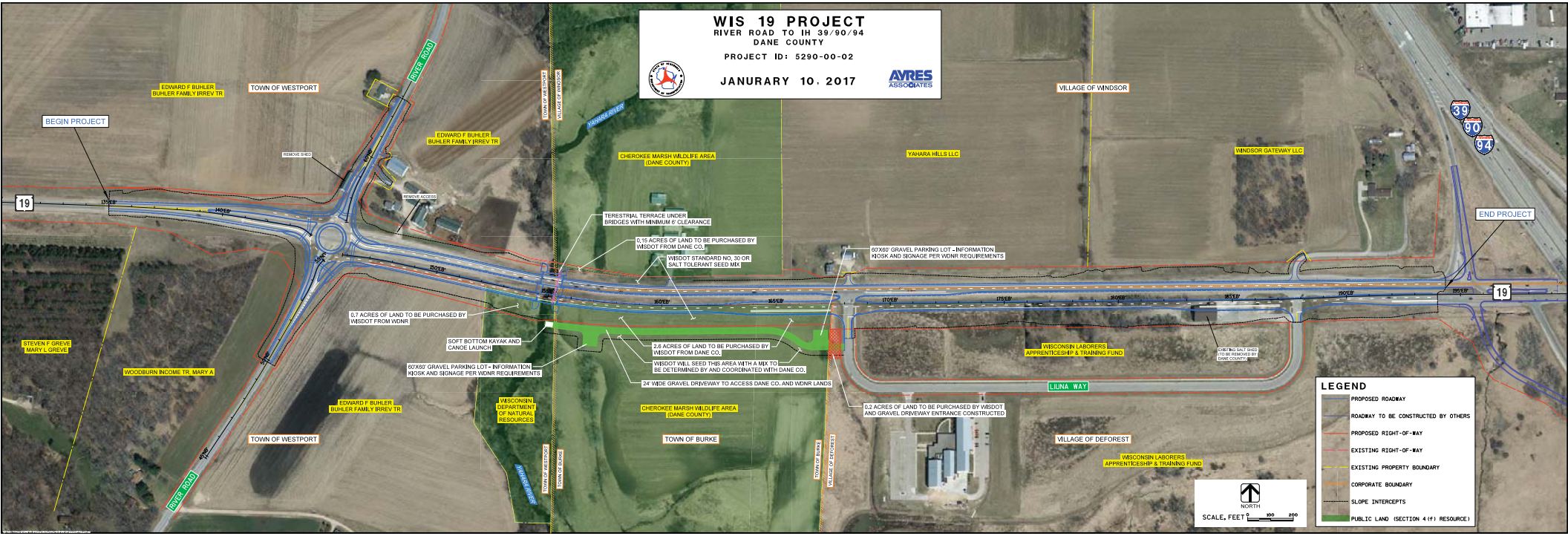
David Pilon

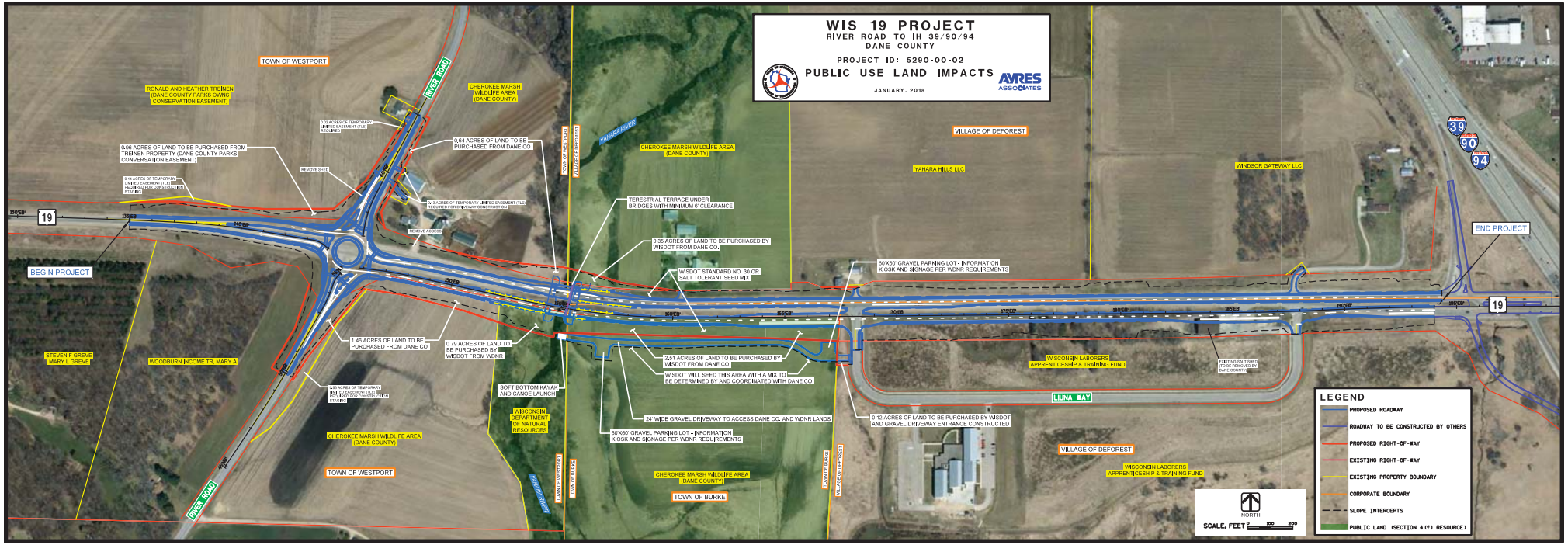
Dave Pilon, P.E.
Project Manager

Encl: Attachment A - Section 4(f) Impacts and Mitigation

Cc: Brian Taylor – WisDOT Region Environmental Coordinator
Kevin Kuhlow – Ayres Associates
Matthew Barr – Ayres Associates

This is display sent along with letter to the DNR




WIS 19 PROJECT
RIVER ROAD TO IH 39/90/94
DANE COUNTY
PROJECT ID: 5290-00-02
PUBLIC USE LAND IMPACTS
JANUARY, 2018
AYRES ASSOCIATES
TOWN OF WESTPORT
RONALD AND HEATHER TREINEN (DANE COUNTY PARKS OWNS CONSERVATION EASEMENT)
RIVER ROAD
CHEROKEE MARSH WILDLIFE AREA (DANE COUNTY)
0.03 ACRES OF TEMPORARY LIMITED EASEMENT (TLE) REQUIRED
0.96 ACRES OF LAND TO BE PURCHASED FROM TREINEN PROPERTY (DANE COUNTY PARKS CONVERSATION EASEMENT)
0.64 ACRES OF LAND TO BE PURCHASED FROM DANE CO.
REMOVE SHED
0.14 ACRES OF TEMPORARY LIMITED EASEMENT (TLE) REQUIRED FOR CONSTRUCTION STAGING
0.03 ACRES OF TEMPORARY LIMITED EASEMENT (TLE) REQUIRED FOR DRIVEWAY CONSTRUCTION
REMOVE ACCESS
BEGIN PROJECT
19
1.46 ACRES OF LAND TO BE PURCHASED FROM DANE CO.
0.79 ACRES OF LAND TO BE PURCHASED BY WISDOT FROM WDNR
STEVEN F GREVE
MARY L GREVE
WOODBURN INCOME TR, MARY A
0.50 ACRES OF TEMPORARY LIMITED EASEMENT (TLE) REQUIRED FOR CONSTRUCTION STAGING
CHEROKEE MARSH WILDLIFE AREA (DANE COUNTY)
TOWN OF WESTPORT
YAHARA RIVER
TOWN OF DEFOREST
VILLAGE OF DEFOREST
CHEROKEE MARSH WILDLIFE AREA (DANE COUNTY)
TERESTRIAL TERRACE UNDER BRIDGES WITH MINIMUM 8' CLEARANCE
0.35 ACRES OF LAND TO BE PURCHASED BY WISDOT FROM DANE CO.
WISDOT STANDARD NO. 30 OR SALT TOLERANT SEED MIX
SOFT BOTTOM KAYAK AND CANOE LAUNCH
WISCONSIN DEPARTMENT OF NATURAL RESOURCES
2.51 ACRES OF LAND TO BE PURCHASED BY WISDOT FROM DANE CO.
WISDOT WILL SEED THIS AREA WITH A MIX TO BE DETERMINED BY AND COORDINATED WITH DANE CO.
24' WIDE GRAVEL DRIVEWAY TO ACCESS DANE CO. AND WDNR LANDS
60'X60' GRAVEL PARKING LOT - INFORMATION KIOSK AND SIGNAGE PER WDNR REQUIREMENTS
CHEROKEE MARSH WILDLIFE AREA (DANE COUNTY)
TOWN OF BURKE
VILLAGE OF DEFOREST
YAHARA HILLS LLC
WINDSOR GATEWAY LLC
60'X80' GRAVEL PARKING LOT - INFORMATION KIOSK AND SIGNAGE PER WDNR REQUIREMENTS
END PROJECT
WISCONSIN LABORERS APPRENTICESHIP & TRAINING FUND
EXISTING SALT SHED TO BE REMOVED BY DANE COUNTY
LUNA WAY
0.12 ACRES OF LAND TO BE PURCHASED BY WISDOT AND GRAVEL DRIVEWAY ENTRANCE CONSTRUCTED
VILLAGE OF DEFOREST
WISCONSIN LABORERS APPRENTICESHIP & TRAINING FUND
39
90
94
LEGEND
PROPOSED ROADWAY
ROADWAY TO BE CONSTRUCTED BY OTHERS
PROPOSED RIGHT-OF-WAY
EXISTING RIGHT-OF-WAY
EXISTING PROPERTY BOUNDARY
CORPORATE BOUNDARY
SLOPE INTERCEPTS
PUBLIC LAND (SECTION 4(f) RESOURCE)
NORTH
SCALE, FEET 0 150 300

PIM News Release

News Release

Wisconsin Department of Transportation

November 17, 2016

For more information, contact:
David Pilon, WisDOT Project Manager
(608) 245-2622, david.pilon@dot.wi.gov

Public meeting for WIS 19 project in Dane County

The Wisconsin Department of Transportation (WisDOT) Southwest Region in Madison is conducting a public involvement meeting to discuss the reconstruction of WIS 19 between River Road and Interstate 39/90/94 in Dane County.

The meeting is scheduled for Tuesday, November 29, from 5-7 p.m. at Windsor Elementary School, 4352 Windsor Road, Windsor. The meeting will familiarize the public with the purpose and need for the project and gather input on the proposed improvements.

The meeting will present preliminary plan concepts for the expansion of WIS 19 from a two-lane to a four-lane highway from just west of River Road to the WIS 19/I-39/90/94 interchange. Included with the project is the construction of new bridges over the Yahara River and the reconstruction of the River Road intersection. The project is adjacent to a publicly owned property, Cherokee Marsh Wildlife Area.

The public is encouraged to attend the meeting, provide input and ask questions concerning this project. The meeting will be organized in an open-house format with a brief presentation beginning at 5:30 p.m. Representatives from the Wisconsin Department of Transportation and Ayres Associates will be available to discuss project details, address comments, and answer questions. Displays showing WisDOT's recommended design will be available.

If you are unable to attend the meetings, or would like more information, contact David Pilon at (608) 245-2622. Written comments regarding the project can be mailed to David Pilon, 2101 Wright St, Madison, WI 53704.

-WisDOT-

PIM Handout

Public Involvement Meeting Handout

WIS 19 Project
River Road to IH 39/90/94
Dane County

Project ID: 5290-00-02

November 29, 2016
5:00 p.m. to 7:00 p.m.
Windsor Elementary School
4532 Windsor Road

Purpose of the meeting

Welcome to the public involvement meeting to discuss the reconstruction of WIS 19 between River Road and Interstate 39/90/94. The intent of this meeting is to present information about the proposed project and gather input from you. The meeting will be held in an open house format with a presentation at 5:30 p.m. Project representatives from the Wisconsin Department of Transportation (WisDOT) and Ayres Associates are available to discuss project details and answer questions.

Project information

We are proposing to improve approximately 1.2 miles of WIS 19 from just west of River Road to the WIS 19/Interstate 39/90/94 interchange.

The purpose of the project is to replace the structurally deficient bridge over the Yahara River and expand WIS 19 from 2 to 4 lanes to increase capacity and improve traffic operations. The recommended alternative for the proposed improvements will be presented here tonight. We are in the preliminary design phase of the project and would like to present the current design concepts and obtain feedback before proceeding with the next phases of the project development process.

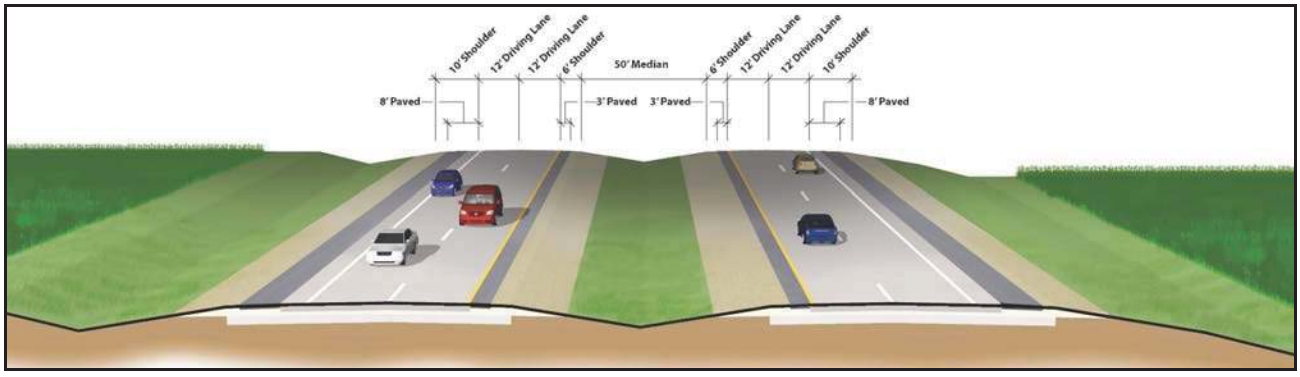
Proposed improvements include:

- Construct 2 new bridges over the Yahara River
- Expand WIS 19 by adding 2 additional lanes south of the existing roadway
    - New lanes will function as eastbound WIS 19
    - Existing lanes will function as westbound WIS 19
- Reconstruct River Road intersection
- Provide wider shoulders to meet current standards

The project is adjacent to public properties owned by the Wisconsin Department of Natural Resources (DNR) and Dane County adjacent to the Yahara River. After the preliminary design is refined, impacts to environmental resources will be analyzed and documented in an environmental report.

WIS 19 Location Map

Proposed Typical Section – WIS 19



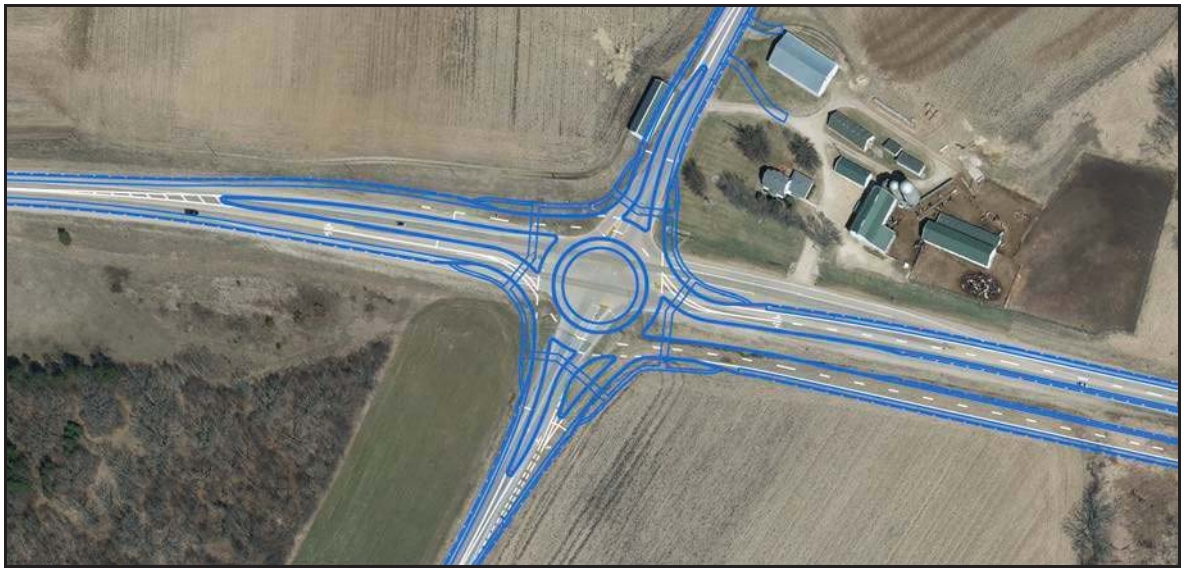
4-lane roadway with 50-foot wide median

River Road intersection alternatives

Alternatives being analyzed for the River Road intersection include:

- 2-Way Stop Control
- 4-Way Stop Control
- Traffic Signals
- Roundabout

Warrants for the 4-Way Stop Control and Traffic Signal alternatives are not met. The 2-Way Stop Control alternative does not address safety issues and would result in poor traffic operations. A roundabout is the preferred alternative.



Roundabout alternative

Proposed traffic impacts

Construction is currently scheduled for 2020. Details have not yet been developed for the construction staging, however the work will likely be completed in one season. During construction, WIS 19 is anticipated to remain open. The new lanes will be constructed in the initial stage and traffic will be shifted onto those while the existing roadway is reconstructed in the next stage. River Road may be closed during a portion of the construction.

Real estate

Additional right of way will be required for this project. These consist of strips of land mainly along the south side of WIS 19 and at the River Road intersection. WisDOT expects to begin real estate acquisition in late 2017 or early 2018.

Project update/next steps

This is the first public involvement meeting for the project and two additional meetings are anticipated prior to the start of any construction work. Following is the current project schedule.

Local Officials Meeting #1	November 15, 2016
Public Meeting #1	**November 29, 2016**
Environmental Document	May 2017
Design Study Report	August 2017
Local Officials/Public Meeting #2	Fall 2017
Right-of-Way Plat	Fall 2017
Right-of-Way Acquisition	November 2017 – July 2019
Local Officials/Public Meeting #3	Spring 2019
Final Plan Completion	August 2019
Construction	2020

Public input/comments

We encourage you to talk to the project representatives and ask them questions. Attached to this handout is a sheet for your written comments and input regarding the proposed project. Please mail any written comments about the project before December 13, 2016 or leave them in the comment box tonight. You can also e-mail your comments to the contacts listed below.

Your comments assist us in developing a project that will serve the needs of the traveling public as well as the needs of the local community. Your input is welcome and appreciated throughout the design process.

For more information, please contact:

David Pilon
Project Manager
Wis. Dept. of Transportation
Southwest Region – Madison
2101 Wright Street
Madison, WI 53704-2583
(608) 245-2622
david.pilon@dot.wi.gov

Matthew Barr
Project Manager
Ayres Associates
5201 E. Terrace Drive, Suite 200
Madison, WI 53718
(608) 443-1261
barrm@ayresassociates.com

Public Involvement Meeting #1 Comment Form

Project ID 5290-00-02
WIS 19 Project
River Road to Interstate 39/90/94
Dane County

Tuesday, November 29, 2016, 5:00 p.m.

Please place this form in the comment box or mail by December 13, 2016 to the address on the back of this sheet. Comments can also be e-mailed to David.Pilon@dot.wi.gov or BarrM@AyresAssociates.com. Your comments assist us in developing a project that will serve the needs of the traveling public as well as the needs of the local community. Your input is welcome and appreciated throughout the design process.

Name: _____

Address: _____

Daytime Phone Number (optional): _____

Email Address (optional): _____

Please Print Comments (attach additional sheets if necessary)

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

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_____

_____

The information in this document including names, addresses, phone numbers, e-mail addresses, and signatures is not confidential, and may be subject to disclosure upon request, pursuant to the requirements of the Wisconsin open records law, sections 19.31 - 19.39 of the Wisconsin Statutes.

Please Fold, Fasten, and Mail. No envelope or stamp necessary.

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DTSD SOUTHWEST REGION
WISCONSIN DEPARTMENT OF TRANSPORTATION
2101 WRIGHT ST
MADISON WI 53791-9449

ATTN: David Pilon

FOLD

PIM Presentation - Only slides included that pertain to public use lands

WIS 19 Project
Public Involvement Meeting #1

WisDOT SW Region – Madison

November 29, 2016

Windsor Elementary School

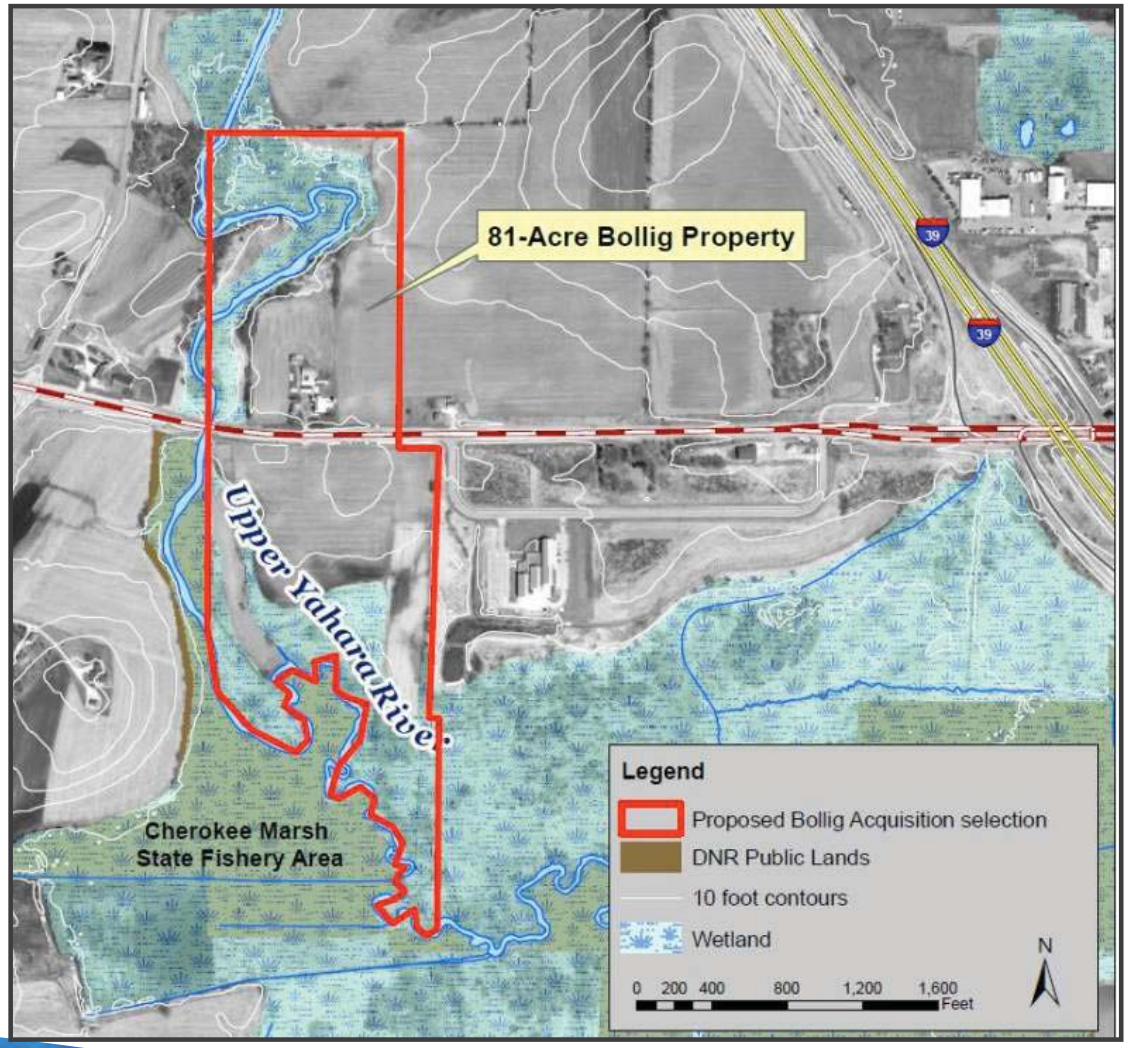
4352 Windsor Road

Project Background

- Dane County Property
  - 81 acre parcel along both sides of WIS 19
  - Cherokee Marsh Wildlife Area
  - Provides for recreation and preservation of Yahara River waterway
  - Potential bike path along west side of river
- Village of DeForest
  - Potential off road bike path along north side of WIS 19
- Potential development at east end of corridor

Project Background

- Dane County Property
  - Cherokee Marsh Wildlife Area



Preliminary plan sheets for areas adjacent to DNR public use land

PROJECT ID: 5290-00-02
WITH: PROJECTID2
COUNTY: DANE

ORDER OF SHEETS

TOTAL SHEETS =

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

USH 12 - IH 39

RIVER ROAD TO IH 39

STH 19

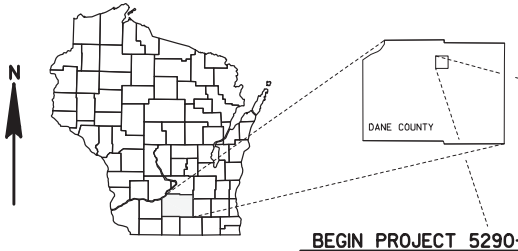
DANE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5290-00-02		

30% SUBMITTAL

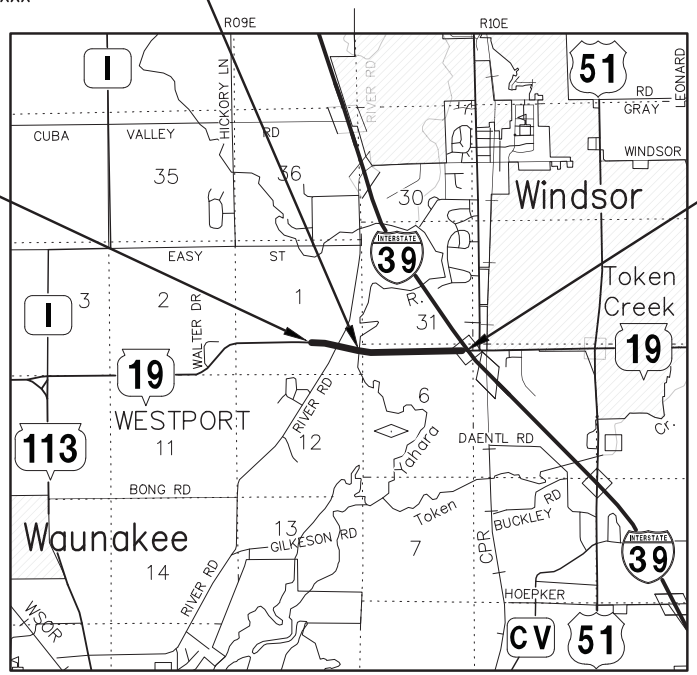
STATE PROJECT NUMBER
5290-00-02

STUCTURES B-XX-XXX &
B-XX-XXX



BEGIN PROJECT 5290-00-02
STA. 135+00.00'EB'
X =
Y =

END PROJECT 5290-00-02
STA. 193+99.26'EB'
X =
Y =



LAYOUT
SCALE 0 1 mi.

TOTAL NET LENGTH OF CENTERLINE = 1.117 mi.

DESIGN DESIGNATION

A.A.D.T.	(2016)	=	xxxxx
A.A.D.T.	(2036)	=	xxxxx
D.H.V.	(TWO WAY)	=	xxxxx
D.D.	(%)	=	xxxxx
T.	(%)	=	xx
DESIGN SPEED	(MPH)	=	60
ESALS		=	xxxxxxx

CONVENTIONAL SYMBOLS

PLAN
- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE
- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES
- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, DANE COUNTY ZONE, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88 (2012).

ORIGINAL PLANS PREPARED BY:
AYRES ASSOCIATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

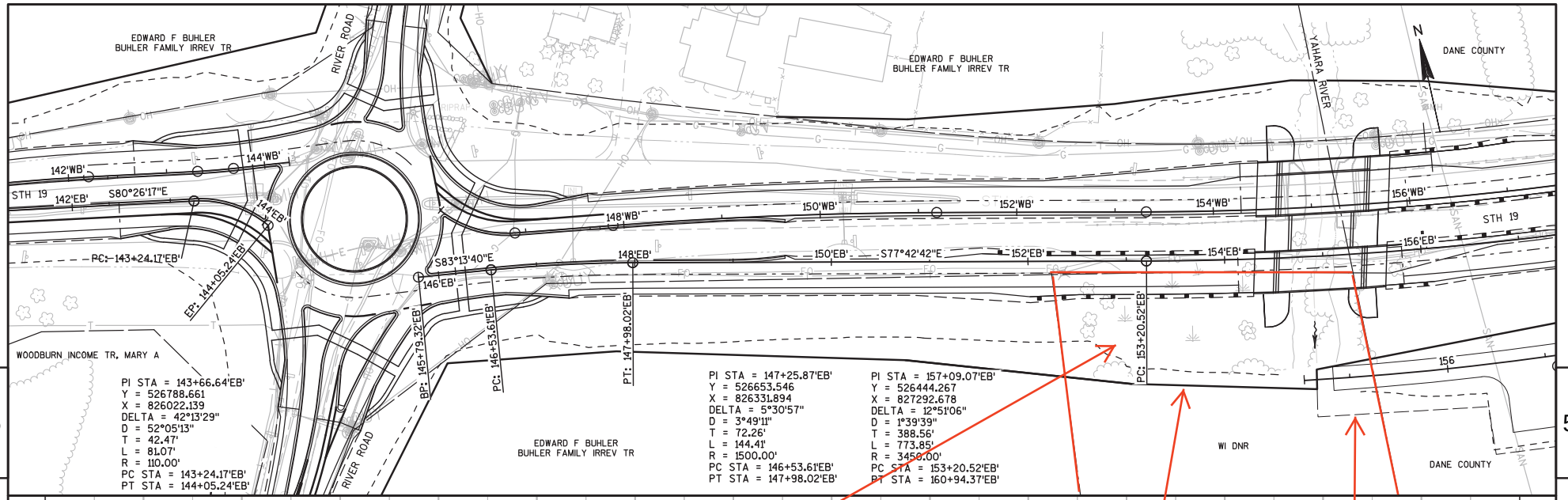
PREPARED BY
Surveyor: AYRES ASSOCIATES
Designer: AYRES ASSOCIATES
Project Manager: MATT BARR
Regional Examiner:
Regional Supervisor: xxxxxxxxx

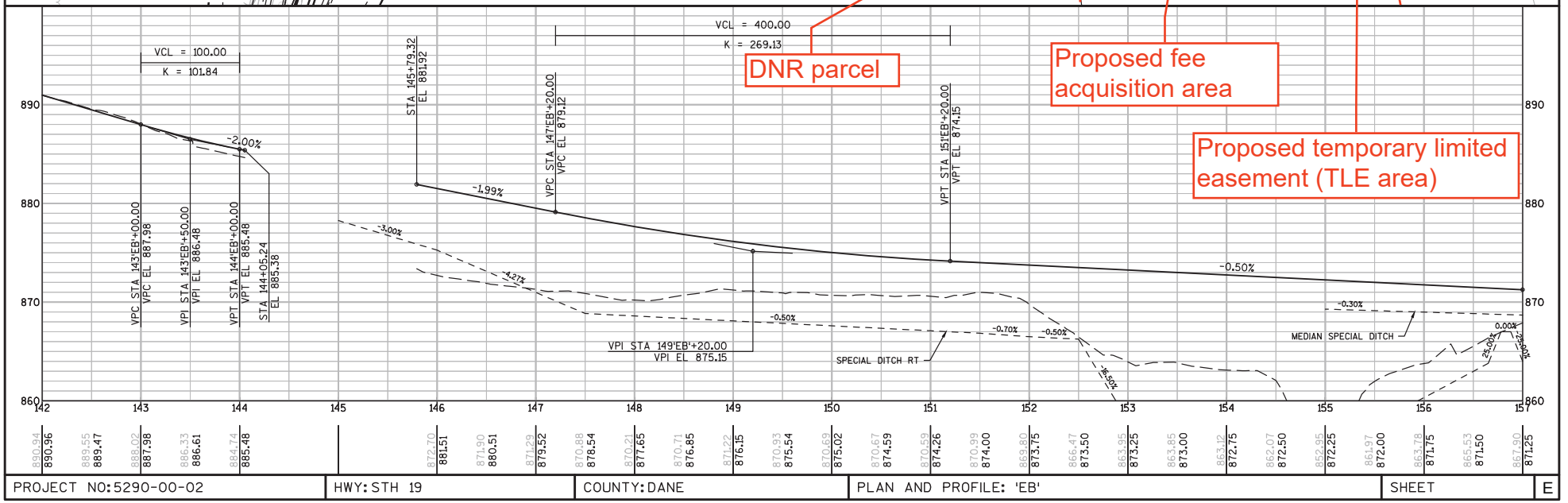
APPROVED FOR THE DEPARTMENT
DATE: _____ (Signature)

E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0101_TI.DWG
PLOT DATE : 11/7/2016 1:48 PM
PLOT BY : KRUEGER, KIRK
PLOT NAME :

WISDOT/CADDS SHEET 10



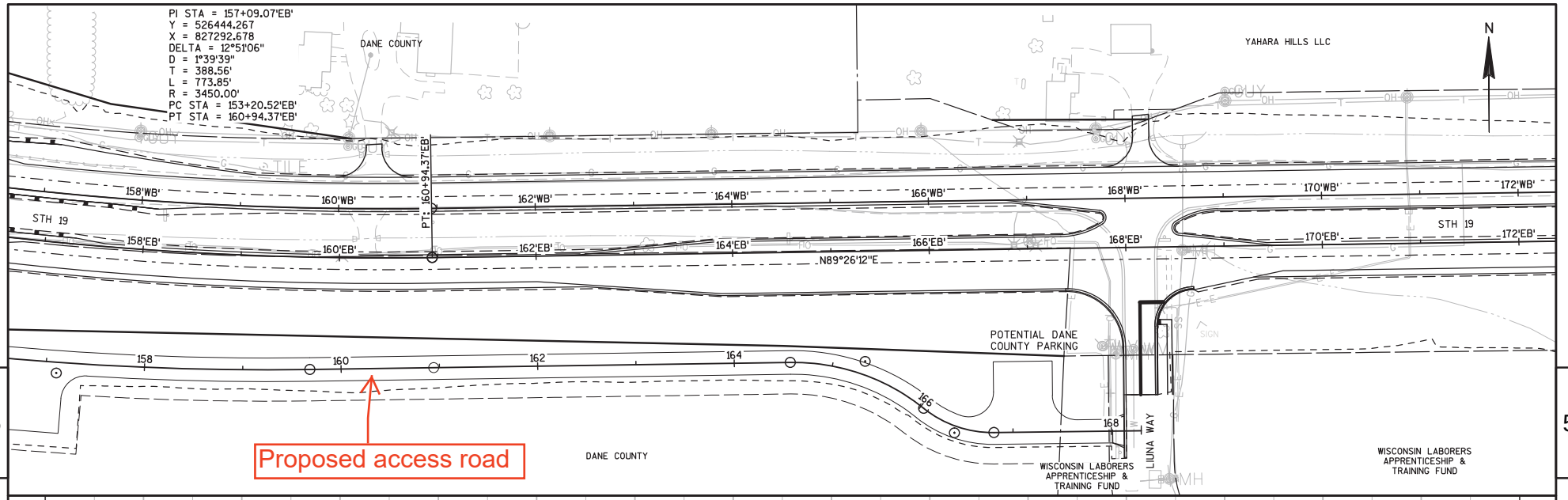


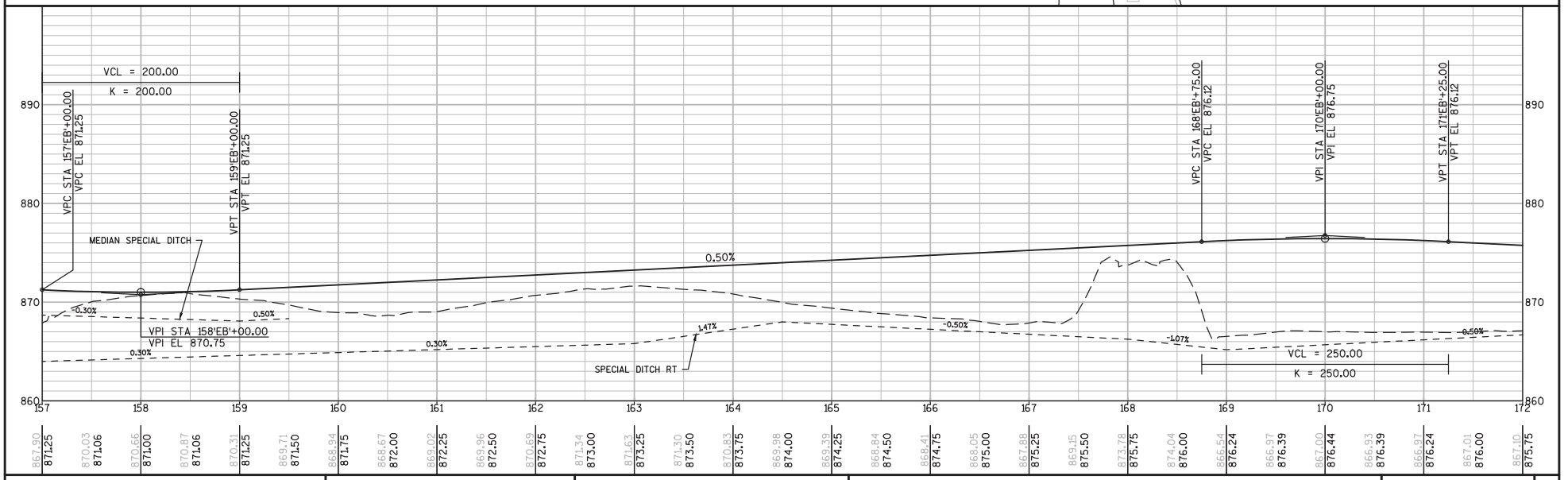
890.94 890.96	889.55 889.47	888.02 887.98	886.33 886.61	884.74 885.48
872.70 881.51	871.90 880.51	871.29 879.52	870.88 878.54	870.21 877.65
870.71 876.85	871.22 876.15	870.93 875.54	870.69 875.02	870.67 874.59
870.59 874.26	870.99 874.00	869.80 873.75	866.47 873.50	863.96 873.25
863.85 873.00	863.12 872.75	862.07 872.50	852.95 872.25	861.97 872.00
863.78 871.75	865.53 871.50	867.90 871.25		

PROJECT NO:5290-00-02	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'EB'	SHEET E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0501A_EB_PP.DWG
LAYOUT NAME - PP_02

PLOT DATE : 5/8/2017 8:57 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT





PROJECT NO:5290-00-02	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'EB'	SHEET	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0501A_EB_PP.DWG
LAYOUT NAME - PP_03
PLOT DATE : 5/8/2017 8:57 AM
PLOT BY : KRUEGER, KIRK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

Cherokee Marsh Natural Resource Area – Dane County Parks Section 4(f) De Minimis Form

Wisconsin Federal Highway Administration
Finding of *De Minimis* Impact on Parks, Recreation Areas and Wildlife and Waterfowl Refuges

1. Project Description

   WISDOT ID: 5290-00-02
   Route: STH 19
   Termini: USH 12 – IH 39 (River Road – IH 39)
   City/County: Dane County
   Project Description:

   The project involves the reconstruction of a segment of the existing two-lane Wisconsin State Highway (WIS) 19 roadway from River Road to Interstate Highway (I) 39/90/94 and the addition of two additional lanes to provide a four-lane roadway. The existing lanes would become the westbound roadway and the new lanes would accommodate eastbound traffic. A multi-lane roundabout would be added at the WIS 19/River Road intersection and two new bridges would be constructed over the Yahara River. The existing bridge would be removed and replaced with a new bridge for the westbound roadway, and a second bridge would be constructed to the south for the new eastbound roadway.

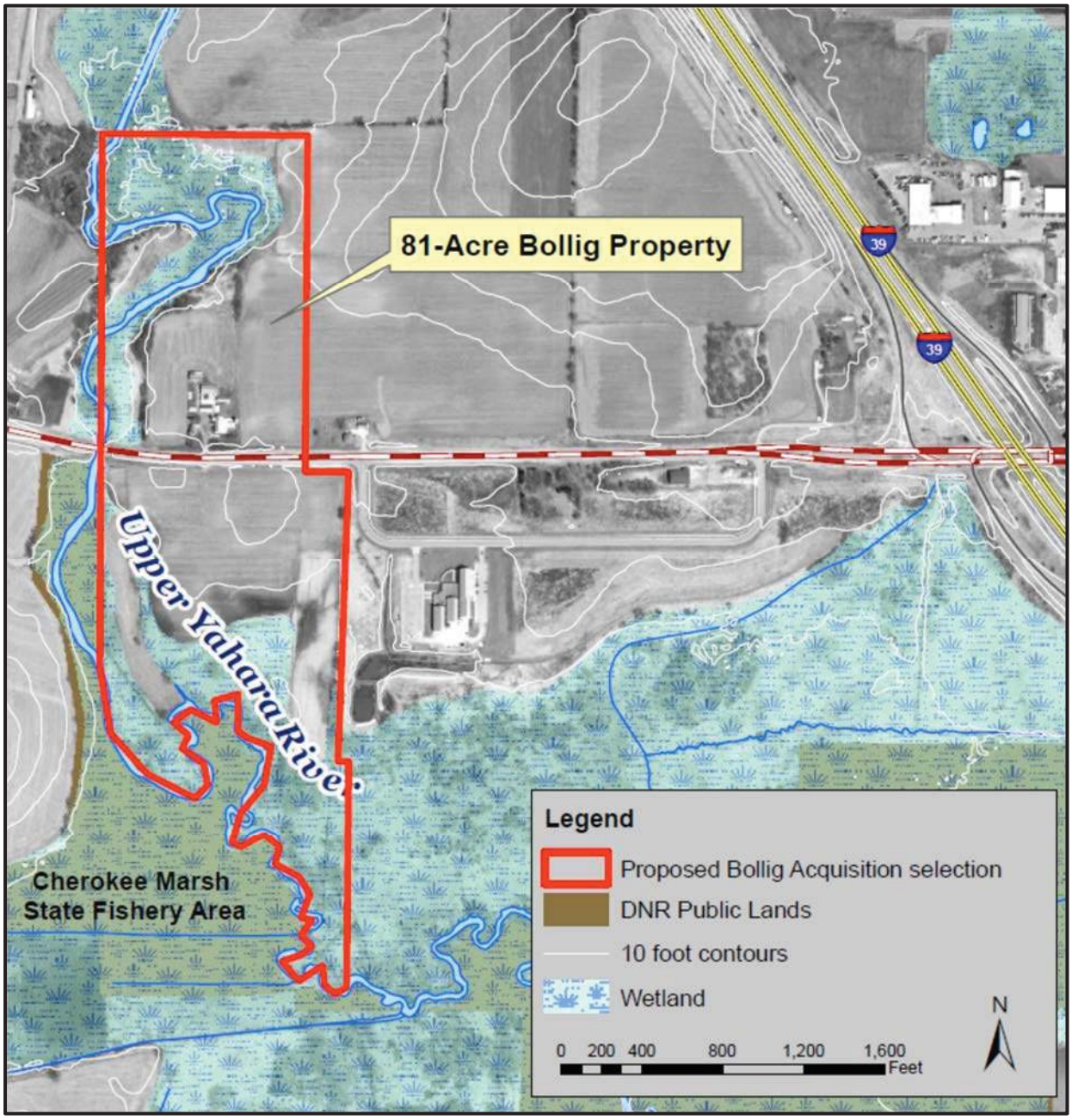
   The project is approximately 1.1 miles long and falls within the Village of DeForest, and the Towns of Westport and Burke. The project is scheduled for construction in 2020 and the estimated construction cost is $6,750,000.

2. Name of Section 4(f) resource: Cherokee Marsh Natural Resource Area

3. Description of Section 4(f) resource (Include a map and/or photos of the property in relation to the proposed project):

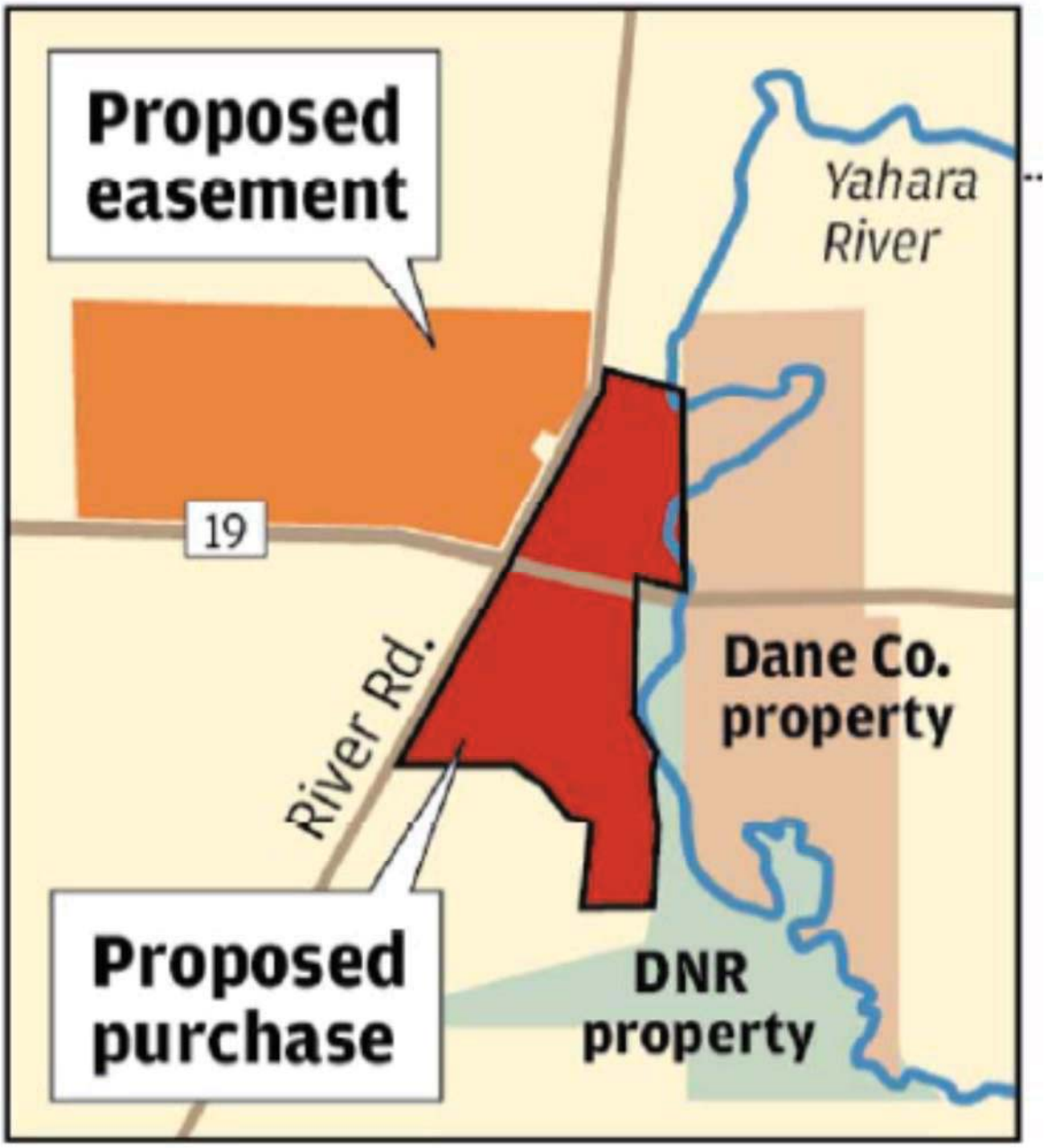
   One of the resources protected by Section 4(f) that would be impacted by the WIS 19 project is the Cherokee Marsh Natural Resource Area. Dane County is the official with jurisdiction over the resource. The Cherokee Marsh Natural Resource Area is used for passive recreational activities such as fishing, hunting, canoeing, and kayaking. The Natural Resource Area is located adjacent to the WDNR Cherokee Marsh Fishery Area, which shares the same goals and objectives. Dane County's Parks and Open Space Plan identifies a project area to focus conservation efforts for Cherokee Marsh as I-39/90/94 on the west and east to WIS 113. It further identifies lands existing in public ownership in these areas being a mixture of the City of Madison, Dane County and WDNR. The plan further recommends Dane County Parks continue working with the Friends of Cherokee Marsh, City of Madison, and the WDNR on acquiring lands within the project area boundary.

The Cherokee Marsh Natural Area includes an 81-acre area that was acquired in 2015 from the Bollig Farm property, a 53-acre area acquired in 2017 from the Buhler Farm property, and a 77-acre conservation easement area acquired in 2017 from the Buhler Farm property. The following map shows the area acquired in 2015 which is adjacent to the Cherokee Marsh Fishery Area owned by the DNR.



Map of Dane County Public Use Land Acquired in 2015

The map below shows the areas acquired in 2017 located adjacent to the land acquired in 2015 (identified as Dane Co. Property) and also the Cherokee Marsh Fishery Area (identified as DNR property). The figure below also identifies the area acquired as a conservation easement northwest of the WIS 19/River Road intersection. The conservation easement will allow the property owner to determine use of the property. In the short term, it will continue to be agricultural land. Potential long term uses may involve agriculture, prairie restoration, or other uses. The property is not planned to be open to the public at this time. Photos of these areas are shown on the following page.



Map of Dane County Public Use Land Acquired in 2017

Looking Northwest at Dane County
Land Acquired in 2015

Looking Southwest at Dane County
Land Acquired in 2015

Looking Northwest at Dane County
Land Acquired in 2017

Looking Southwest at Dane County
Land Acquired in 2017

Looking Northwest at Dane County
Land Acquired as Conservation
Easement in 2017

4. Description of impacts:

   The permanent impacts to the Section 4(f) lands would involve excavation and placement of new embankment required for the reconstruction of WIS 19 and River Road and the construction of two new bridges along WIS 19 over the Yahara River, which would extend into the existing land owned by Dane County. Temporary impacts would occur on the east side of the river south of WIS 19 to allow for the construction of a new access road from Liuna Way to the Yahara River to provide access to the public use lands owned by Dane County and the DNR. That access road would include a kayak and canoe launch at the west end for recreational use at the Yahara River. Temporary impacts would also be required south of WIS 19 east of River Road, and north of WIS 19 west of River Road for the addition of temporary pavement during construction. That is required to keep WIS 19 and the south leg of River Road open to traffic during construction. Temporary impacts would also be required north of WIS 19 both east and west of River Road for the grading of two existing driveways that provide access to those parcels. These areas of temporary impact would remain under Dane County ownership after construction is completed.

   After the initial Local Officials Meeting and Public Involvement Meeting, the Town of Westport and Dane County expressed concern about stormwater impacts to the Yahara River as a result of the proposed improvements. WisDOT agreed to implement design changes that would prevent stormwater from the two new proposed bridges from draining directly into the Yahara River and also to construct a berm between the proposed access road described above and WIS 19 to slow the flow of stormwater into the river during large storm events. These measures would result in a design that exceeds state and federal standards for treating stormwater during a 100-year storm event.

   Anticipated impacts to the 81 acre Dane County property acquired in 2015 is estimated at 2.86 acres of permanent fee (Fee Simple) acquisition.

   Anticipated impacts to the 130 acres Dane County acquired in 2017 is estimated at 2.91 acres of Fee Simple acquisition and 0.85 acres of TLE. The TLE is required for construction staging and driveway construction.

   The total impacts to both properties is estimated at 5.77 acres of Fee Simple acquisition and 0.85 acres of TLE (see attached public use land impact map).

   These impacts would not adversely affect the activities, features, or attributes that qualify Cherokee Marsh Natural Resource Area for protection under Section 4(f).

5. Discuss how the impacts do not adversely affect the activities, features, and attributes listed in Number 3 above:

   The recreational use of the property acquired in 2015 is for fishing, hunting, canoeing, and kayaking and the impacts of the project should not affect those activities. The 2.86 acres that

are required are located adjacent to the existing WIS 19 facility and there is sufficient land remaining on this property to maintain those recreational activities.

The lands proposed for acquisition in 2017 is primarily agriculture land and the future use is to be determined. Potential long term uses may involve agriculture, prairie restoration, or recreational uses and there is sufficient land remaining on the property for those uses.

Meetings have been held with staff from the WDNR and Dane County to discuss the potential impacts to the public use lands owned by both agencies and possible measures to mitigate impacts caused by the project. WisDOT has agreed to the mitigation measures described below. See attached map and signed Section 4(f) letter. Once constructed, the mitigation measures would enhance the activities features, and attributes that qualify the property for protection under Section 4(f).

- The Wisconsin Department of Transportation (WisDOT) would construct a 24-foot driveway and with a 60' x 60' parking lot extending from Liuna Way to provide access to the Dane County area east of the Yahara River. The driveway would also include a culvert.

- WisDOT would construct a 24-foot access road extending from the above referenced 60' x 60' parking lot onto WDNR property. This access road would expand the use of the Dane County property as well as facilitate use of the abutting WDNR property and safe access to the Yahara River.

- WisDOT would construct another 60' x 60' parking lot on the western end of the Dane County property for canoe/kayak launching on WDNR property.

- WisDOT would construct a non-motorized canoe/kayak soft bottom launch per WDNR specifications on WDNR property.

- WisDOT would construct and install information kiosks and park signage in the proposed parking areas per Dane County and WDNR specifications.

- WisDOT would construct a terrestrial terrace beneath the two new WIS 19 bridge structures over the Yahara River.

- WisDOT would coordinate with Dane County and the WDNR regarding the use of berms and native vegetated landscaping as a visual buffer in selected locations as well as minimizing the impacts to existing vegetation and re-use of stripped topsoil.

- Following construction, WisDOT would seed south of the new access road between Dane County and WDNR property with seed mixes recommended by Dane County and would facilitate these seedings up to three acres on Dane County Park and WDNR land at the direction of Dane County park staff and WDNR staff.

6. Name of and notification to the official(s) with jurisdiction over the property:

   Dane County has been informed that FHWA may make a de minimis impact determination under Section 4(f) and may utilize the Dane County official's written concurrence that the project does not adversely affect the activities, features, and attributes that qualify the property for protection under Section 4(f) in making that finding. A letter was sent to Chris James at Dane County on April 19th documenting this information (see attached letter).

7. Describe the public involvement process and results:

   A Public Involvement Meeting was held on November 29, 2016 where the public was afforded the opportunity to review and comment on the effects of the project on the Dane County public use lands adjacent to the project corridor. The news release informing the public about the meeting, the handout provided at the meeting, and the power point presentation included information about the potential impact to public use lands (see attached Public Involvement Meeting documents). No one in attendance had any comments regarding these impacts. Two additional Public Involvement Meetings are anticipated later in the design process where the public will be provided additional opportunity to provide comments on the project.

8. Describe the results of coordination with the official(s) with jurisdiction over the property following public involvement (attach correspondence from the official(s)):

   After the initial Public Involvement Meeting was held in late 2016, Darren Marsh, Dane County Parks Director, signed the letter on May 16, 2017 agreeing that the project would not adversely affect the activities, features, and attributes that qualify the Dane County land for protection under Section 4(f) (see attached letter).

9. Are there federal and/or state special funding encumbrances such as Land and Water Conservation funds or Knowles-Nelson Stewardship Program grants on the Section 4(f) resource? If "Yes", indicate the type of encumbrance and discuss how all requirements relating to the encumbrance will be satisfied independent of this 4(f) determination. This should be addressed in Factor Sheet # in the Environmental Document.

   Knowles-Nelson funding was used for the Dane County lands that were acquired in 2015. Replacement of the lands being permanently acquired is not proposed. Dane County has agreed that the mitigation items listed under Item #5 above that would help to enhance the activities, features, and attributes of their public use land would be acceptable in lieu of acquiring additional lands elsewhere. See attached letter from the WDNR Knowles-Nelson Grant Manager.

This *de minimis* determination documentation was prepared by

Signature _____ Date 3/29/18

Print Name & Title Matthew Barr, Supervisor – Design Services. Ayres Associates Inc
(Consultant or Region Project Staff)

This *de minimis* determination documentation was reviewed by

Signature _____ Date 3/29/2018

Print Name & Title Region Env. Coordinator
(Regional Environmental Coordinator or Region Local Program Manager)

Signature _____ Date 3/29/2018

Print Name & Title EPDS Liaison
(EPDS *Liaison or Section Manager)*

This *de minimis* determination documentation was reviewed and approved by

Signature _____ Date 5/15/18

Print Name & Title PETER M. GARCIA
(Federal Highway Administration)

cc: WISDOT Bureau of Technical Service /EPDS
WISDOT Region

Attachments

DeMinimis Concurrence Letter
Letter from WDNR Knowles-Nelson Grant Manager
Public Use Land - Mitigation Features Map
Public Involvement Meeting News Release
Public Involvement Meeting Handout
Public Involvement Meeting Power Point Slide
Preliminary Plans

DeMinimis Concurrence Letter

Division of Transportation System Development
Southwest Region
2101 Wright St
Madison, WI 53704-2583

Scott Walker, Governor
Mark Gottlieb, P.E., Secretary
Internet: www.dot.wisconsin.gov

Telephone: 608-246-3800
Facsimile (FAX): 608-246-7996

E-mail: swr.dtsd@dot.wi.gov

April 19, 2017

CHRIS JAMES
DANE COUNTY PARK - LAND AND WATER RESOURCES DIVISION
5201 FEN OAK DRIVE, ROOM 208
MADISON, WI 53718

Dear Mr. James:

The Wisconsin Department of Transportation (WisDOT) is in the process of preliminary design for the proposed highway expansion and reconstruction project of Wisconsin State Highway (WIS) 19 between Interstate Highway (IH) 39 and River Road within the Townships of Burke and Westport as well as the Villages of Deforest and Windsor, Dane County. As part of the proposed project, WisDOT is planning to construct a four lane expressway facility which will require purchase of right-of-way from property owned by Dane County Parks – Land and Water Resources Division (Dane County) formally known as the Bollig property. See Attachment A.

The purpose of this letter is to request your concurrence that the proposed project will not adversely affect the activities, features, and attributes of the Dane County land (former Bollig property), thus allowing the Federal Highway Administration (FHWA) to make a Section 4(f) *de minimis* impact determination.

As a facility owned by Dane County, the multi-use recreational land is afforded special protections under Section 4(f) of the USDOT Act (recodified in 49 U.S.C 303 and 23 U.S.C. 138). Under the provisions of Section 4(f), if the proposed transportation project would result in adverse effects to the park or recreation facility, the transportation agency must conduct an evaluation to demonstrate that there is no prudent and feasible alternative to the use of the 4(f) property. Because this evaluation can be expensive and potentially result in project delays, an exemption is provided in cases where the official with jurisdiction over the park or recreation area concurs in a determination that the impacts are not adverse. This concurrence enables FHWA to make a *de minimis* (minimal) impact determination, which satisfies the requirements of Section 4(f) and precludes the need for a section 4(f) Evaluation. *De minimis* impact on publicly owned parks, recreation areas, and wildlife and waterfowl refuges are defined as those that do not "adversely affect the activities, features and attributes" of the Section 4(f) resource.

For purposes of federal law, including Section 4(f) of the USDOT Act of 1966, the future right of way will be considered transportation right of way, not multi-use recreational land, and will be purchased from Dane County. The proposed project will require approximately 2.75 acres for right of way, as shown in the attached drawings. WisDOT will compensate for the 2.75 acres of land acquired for the project, in accordance with applicable federal and state laws. In addition, although the land has not been purchased by Dane County, the mitigation measures detailed below includes the impacts the project will have on approximately 2.5 acres of the Edward F. Buhler-Buhler Family Irrevocable Trust land in the northwest, northeast and southeast quadrants of the WIS 19 and River Road intersection, which will be purchased by Dane County prior to WisDOT acquisition.

Mitigation Measures

1. WisDOT will purchase additional land (approximately .2 acres) just west of Liuna Way to enable safe access to the Dane County land (former Bollig property) south of WIS 19. Please Note: Acreage is an estimate and will be refined during Final Design.
    - WisDOT will construct a 24 foot driveway and with a 60X60 parking lot extending from Liuna Way to provide access to the Dane County area east of the river.
    - The driveway would also include a culvert.

2. WisDOT will construct a 24 foot access road extending from the above referenced 60X60 parking lot onto WDNR property. This access road will expand the use of the Dane Co property as well as facilitate use of the abutting WDNR property and safe access to the water way (Yahara River).

3. WisDOT will construct another 60X60 parking lot on the western end of the property for canoe/kayak launching on WDNR property.

4. WisDOT will construct a non-motorized canoe/kayak soft bottom launch per WDNR specifications on WDNR property.

5. WisDOT will construct and install an information kiosks and park signage in the proposed parking areas per Dane County and WDNR specifications.

6. WisDOT will construct a terrestrial terrace beneath the two new bridge structures

7. WisDOT will coordinate with Dane County and WDNR regarding the use of berms and native vegetated landscaping as a visual buffer in selected locations as well as minimizing the impacts to existing vegetation and re-use of stripped topsoil.

8. Following construction, WisDOT will seed south of the new access road between Dane Co and WDNR property with seed mixes recommended by Dane Co and will facilitate these seeding's up to three acres on Dane County Park land (former Bollig property) and WDNR land at the direction of Dane County park staff and WDNR staff.

As the official with jurisdiction over the WDNR land, adjacent to WIS 19 within the Townships of Burke and Westport as well as the Villages of Deforest and Windsor, Dane County, I concur with the determination that the proposed transportation project as described in this letter and shown on the accompanying attachment would not adversely affect the activities, features, and attributes that qualify this WDNR land for protection under Section 4(f). I have also been informed that, based on my concurrence, the FHWA intends to make a *de minimis* finding regarding the impacts to this WDNR land, thus satisfying the requirements of Section 4(f).

Print: DARREN MARSH
PARKS DIRECTOR

Signature: _____ **Date:** 5/16/17

Please keep a copy for your records and return a signed and dated original to my attention within 30 days of the date of this letter to the following address:

Wisconsin Department of Transportation
Southwest Region
2101 Wright Street
Madison, WI 53704-2583

WisDOT is thankful for your assistance in making this transportation project possible. Should you have any questions or concerns, please contact me at (608) 245-2622 or david.pilon@dot.wi.gov.

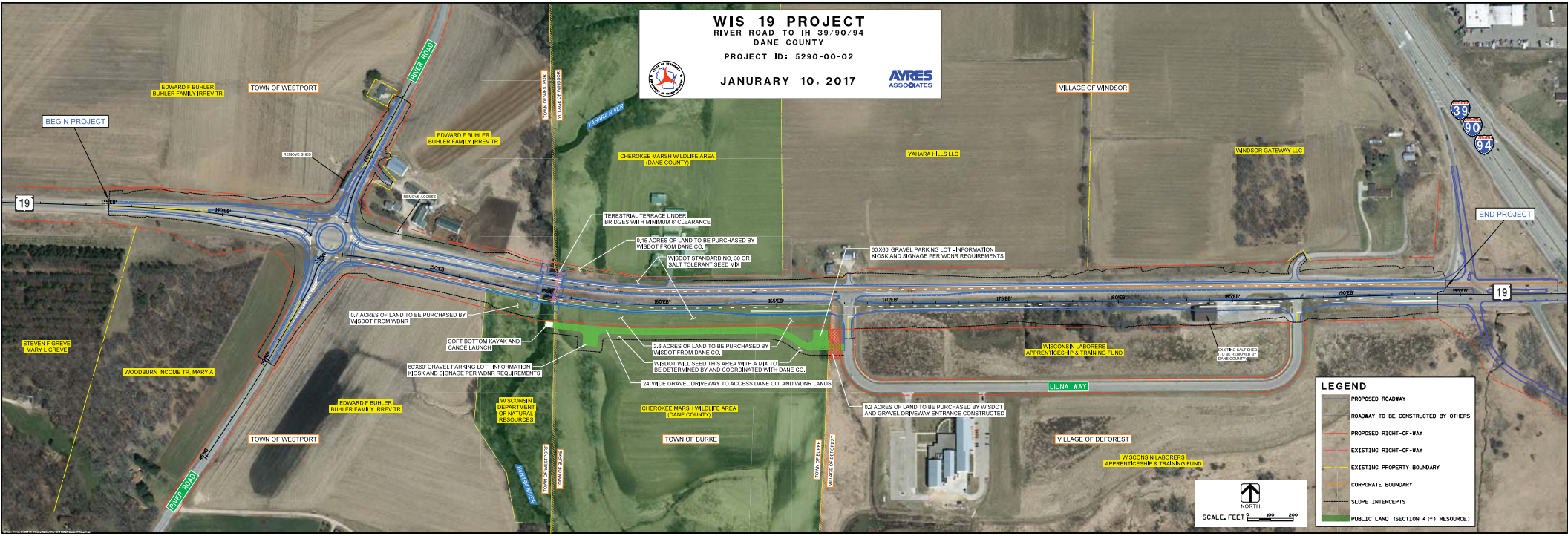
Sincerely,
David Pilon

Dave Pilon, P.E.
Project Manager

Encl: Attachment A - Section 4(f) Impacts and Mitigation

Cc: Brian Taylor – WisDOT Region Environmental Coordinator
Kevin Kuhlow – Ayres Associates
Matthew Barr – Ayres Associates

This is display sent along with letter to Dane County



Letter from WDNR Knowles-Nelson Grant Manager

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
101 S. Webster Street
Box 7921
Madison WI 53707-7921

Scott Walker, Governor
Cathy Stepp, Secretary
Telephone 608-266-2621
FAX 608-267-3579
TTY Access via relay - 711

WISCONSIN
DEPT. OF NATURAL RESOURCES

May 16, 2017

Brian Taylor
Southwest Region Environmental Coordinator
Wisconsin Dept. of Transportation
Sent via email: BrianF.Taylor@dot.wi.gov

Re: Stewardship Obligations Relative to Expansion/Reconstruction of STH19 between Interstate 39 and River Road (Burke/Westport/Deforest/Windsor)

Dear Brian:

As described in your email dated 5/12/17, Wisconsin Department of Transportation (WisDOT) is completing preliminary design for the proposed highway expansion and reconstruction of STH19 between Interstate 39 and River Road in the Townships of Burke and Westport and the Villages of Deforest and Windsor, Dane County. As part of the proposed project, WisDOT is planning to purchase right-of-way and temporary easements on property owned by Dane County (former Bollig property) which was acquired with assistance from the Knowles-Nelson Stewardship Grant Program (Grants UGS316201 & URGP316312).

The purpose of this letter is to document WDNR's findings regarding consistency between the proposed project and terms of Stewardship grant obligations on the subject property.

WDNR finds that the proposed project will enhance public outdoor recreation opportunities on the affected County and State properties and, as such, is consistent with terms of the County's grant agreement and the Stewardship grant program.

This is a preliminary finding, based on the following considerations:

- WisDOT/Dane County will construct the driveway, parking lot, and canoe/kayak launch as shown on the enclosed site plan;
- Fee acquisition and temporary easements will be of similar acreage and location as shown on the enclosed site plan;
- Per NR 51.003, WDNR may approve grant amendments that provide development-based replacement for conversions of grant property, provided that the goals of the grant agreement and Stewardship program remain intact;
- Per General Conditions A.2. and A.5., the grant contract may be amended per mutual agreement of Dane County and WDNR; and
- Dane County concurred with the WisDOT 4(f) *de minimis* finding (letter dated 4/16/17; signed 5/16/17).

If the project design changes significantly relative to the enclosed site map, additional WDNR review will be necessary.

Prior to initiating the necessary real estate transactions for this project, the County and WDNR will need to execute a grant amendment. The amendment request will need to come from the County. In order to process the

amendment, WDNR will need a final legal description for the fee acquisition area and the location, revegetation plan, and anticipated start/end dates for disturbance activity on the temporary easement.

You can reach me at 608-264-6138 or jennifer.gihring@wisconsin.gov with any questions. As always, I appreciate your positive attitude and constructive approach to addressing grant obligations.

Sincerely,

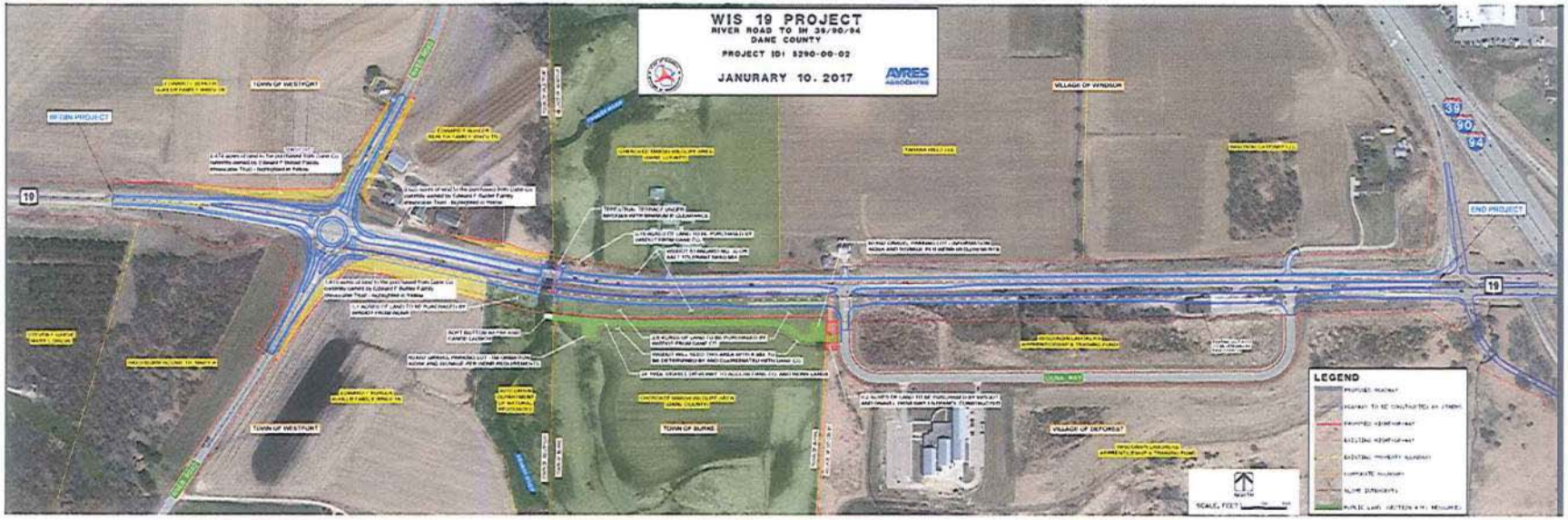
Jennifer Gihring
Stewardship Grant Manager

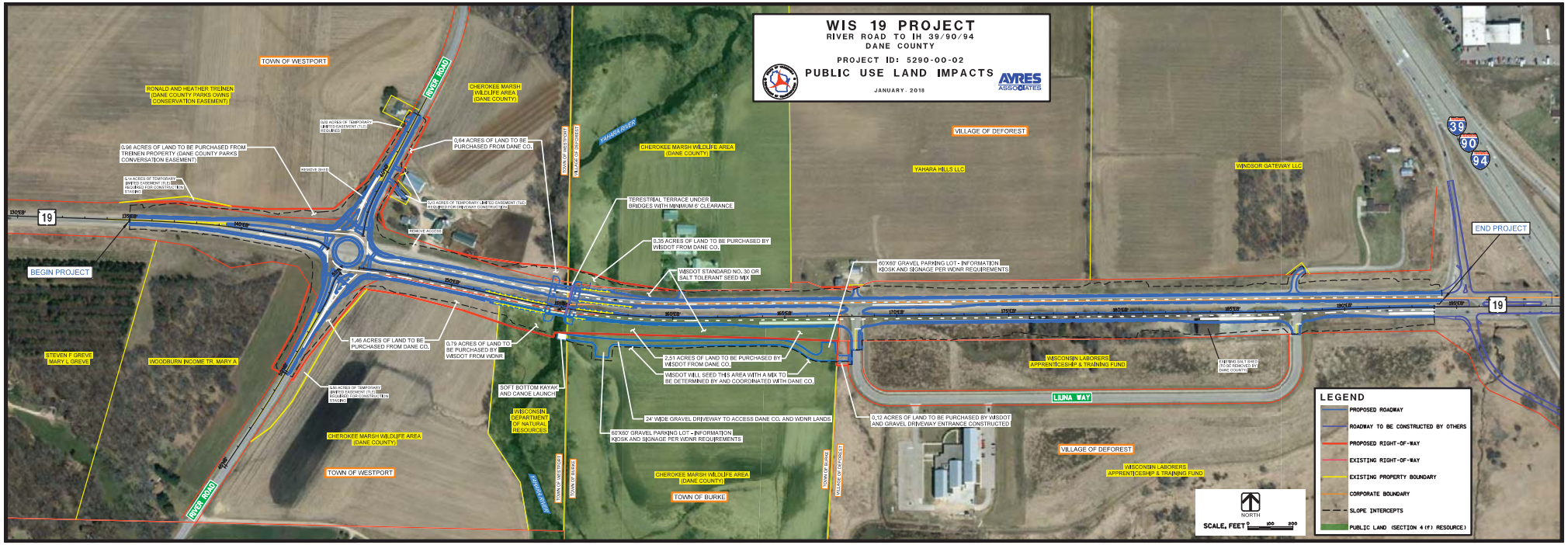
Cc: Darren Marsh, Dane County Parks Director
Cheryl Housley, DNR-SCR

Enclosure

Preliminary Site Plan

Re: Stewardship Obligations Relative to Expansion/Reconstruction of STH19 between Interstate 39 and River Road (Burke/Westport/Deforest/Windsor)




WIS 19 PROJECT
RIVER ROAD TO IH 39/90/94
DANE COUNTY
PROJECT ID: 5290-00-02
PUBLIC USE LAND IMPACTS
JANUARY, 2018
AYRES ASSOCIATES
TOWN OF WESTPORT
RONALD AND HEATHER TREINEN (DANE COUNTY PARKS OWNS CONSERVATION EASEMENT)
RIVER ROAD
CHEROKEE MARSH WILDLIFE AREA (DANE COUNTY)
0.03 ACRES OF TEMPORARY LIMITED EASEMENT (TLE) REQUIRED
0.96 ACRES OF LAND TO BE PURCHASED FROM TREINEN PROPERTY (DANE COUNTY PARKS CONVERSATION EASEMENT)
0.64 ACRES OF LAND TO BE PURCHASED FROM DANE CO.
REMOVE SHED
0.14 ACRES OF TEMPORARY LIMITED EASEMENT (TLE) REQUIRED FOR CONSTRUCTION STAGING
0.03 ACRES OF TEMPORARY LIMITED EASEMENT (TLE) REQUIRED FOR DRIVEWAY CONSTRUCTION
REMOVE ACCESS
BEGIN PROJECT
19
1.46 ACRES OF LAND TO BE PURCHASED FROM DANE CO.
0.79 ACRES OF LAND TO BE PURCHASED BY WISDOT FROM WDNR
STEVEN F GREVE
MARY L GREVE
WOODBURN INCOME TR, MARY A
0.50 ACRES OF TEMPORARY LIMITED EASEMENT (TLE) REQUIRED FOR CONSTRUCTION STAGING
CHEROKEE MARSH WILDLIFE AREA (DANE COUNTY)
TOWN OF WESTPORT
YAHARA RIVER
TOWN OF DEFOREST
VILLAGE OF DEFOREST
CHEROKEE MARSH WILDLIFE AREA (DANE COUNTY)
TERESTRIAL TERRACE UNDER BRIDGES WITH MINIMUM 8' CLEARANCE
0.35 ACRES OF LAND TO BE PURCHASED BY WISDOT FROM DANE CO.
WISDOT STANDARD NO. 30 OR SALT TOLERANT SEED MIX
SOFT BOTTOM KAYAK AND CANOE LAUNCH
WISCONSIN DEPARTMENT OF NATURAL RESOURCES
2.51 ACRES OF LAND TO BE PURCHASED BY WISDOT FROM DANE CO.
WISDOT WILL SEED THIS AREA WITH A MIX TO BE DETERMINED BY AND COORDINATED WITH DANE CO.
24' WIDE GRAVEL DRIVEWAY TO ACCESS DANE CO. AND WDNR LANDS
60'X60' GRAVEL PARKING LOT - INFORMATION KIOSK AND SIGNAGE PER WDNR REQUIREMENTS
CHEROKEE MARSH WILDLIFE AREA (DANE COUNTY)
TOWN OF BURKE
VILLAGE OF DEFOREST
YAHARA HILLS LLC
WINDSOR GATEWAY LLC
60'X80' GRAVEL PARKING LOT - INFORMATION KIOSK AND SIGNAGE PER WDNR REQUIREMENTS
END PROJECT
WISCONSIN LABORERS APPRENTICESHIP & TRAINING FUND
EXISTING SALT SHED TO BE REMOVED BY DANE COUNTY
LUNA WAY
0.12 ACRES OF LAND TO BE PURCHASED BY WISDOT AND GRAVEL DRIVEWAY ENTRANCE CONSTRUCTED
VILLAGE OF DEFOREST
WISCONSIN LABORERS APPRENTICESHIP & TRAINING FUND
39
90
94
LEGEND
PROPOSED ROADWAY
ROADWAY TO BE CONSTRUCTED BY OTHERS
PROPOSED RIGHT-OF-WAY
EXISTING RIGHT-OF-WAY
EXISTING PROPERTY BOUNDARY
CORPORATE BOUNDARY
SLOPE INTERCEPTS
PUBLIC LAND (SECTION 4(f) RESOURCE)
NORTH
SCALE, FEET 0 150 300

PIM News Release

News Release

Wisconsin Department of Transportation

November 17, 2016

For more information, contact:
David Pilon, WisDOT Project Manager
(608) 245-2622, david.pilon@dot.wi.gov

Public meeting for WIS 19 project in Dane County

The Wisconsin Department of Transportation (WisDOT) Southwest Region in Madison is conducting a public involvement meeting to discuss the reconstruction of WIS 19 between River Road and Interstate 39/90/94 in Dane County.

The meeting is scheduled for Tuesday, November 29, from 5-7 p.m. at Windsor Elementary School, 4352 Windsor Road, Windsor. The meeting will familiarize the public with the purpose and need for the project and gather input on the proposed improvements.

The meeting will present preliminary plan concepts for the expansion of WIS 19 from a two-lane to a four-lane highway from just west of River Road to the WIS 19/I-39/90/94 interchange. Included with the project is the construction of new bridges over the Yahara River and the reconstruction of the River Road intersection. The project is adjacent to a publicly owned property, Cherokee Marsh Wildlife Area.

The public is encouraged to attend the meeting, provide input and ask questions concerning this project. The meeting will be organized in an open-house format with a brief presentation beginning at 5:30 p.m. Representatives from the Wisconsin Department of Transportation and Ayres Associates will be available to discuss project details, address comments, and answer questions. Displays showing WisDOT's recommended design will be available.

If you are unable to attend the meetings, or would like more information, contact David Pilon at (608) 245-2622. Written comments regarding the project can be mailed to David Pilon, 2101 Wright St, Madison, WI 53704.

-WisDOT-

PIM Handout

Public Involvement Meeting Handout

WIS 19 Project
River Road to IH 39/90/94
Dane County

Project ID: 5290-00-02

November 29, 2016
5:00 p.m. to 7:00 p.m.
Windsor Elementary School
4532 Windsor Road

Purpose of the meeting

Welcome to the public involvement meeting to discuss the reconstruction of WIS 19 between River Road and Interstate 39/90/94. The intent of this meeting is to present information about the proposed project and gather input from you. The meeting will be held in an open house format with a presentation at 5:30 p.m. Project representatives from the Wisconsin Department of Transportation (WisDOT) and Ayres Associates are available to discuss project details and answer questions.

Project information

We are proposing to improve approximately 1.2 miles of WIS 19 from just west of River Road to the WIS 19/Interstate 39/90/94 interchange.

The purpose of the project is to replace the structurally deficient bridge over the Yahara River and expand WIS 19 from 2 to 4 lanes to increase capacity and improve traffic operations. The recommended alternative for the proposed improvements will be presented here tonight. We are in the preliminary design phase of the project and would like to present the current design concepts and obtain feedback before proceeding with the next phases of the project development process.

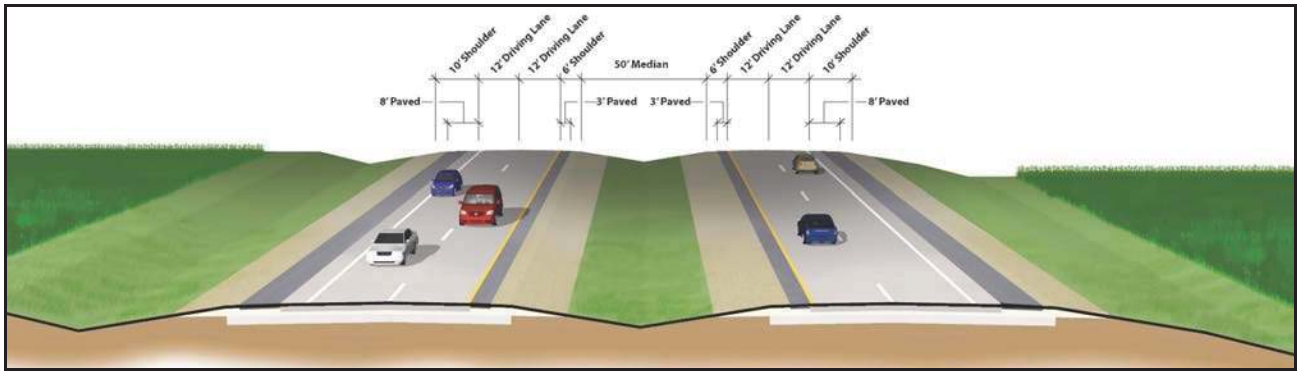
Proposed improvements include:

- Construct 2 new bridges over the Yahara River
- Expand WIS 19 by adding 2 additional lanes south of the existing roadway
    - New lanes will function as eastbound WIS 19
    - Existing lanes will function as westbound WIS 19
- Reconstruct River Road intersection
- Provide wider shoulders to meet current standards

The project is adjacent to public properties owned by the Wisconsin Department of Natural Resources (DNR) and Dane County adjacent to the Yahara River. After the preliminary design is refined, impacts to environmental resources will be analyzed and documented in an environmental report.

WIS 19 Location Map

Proposed Typical Section – WIS 19



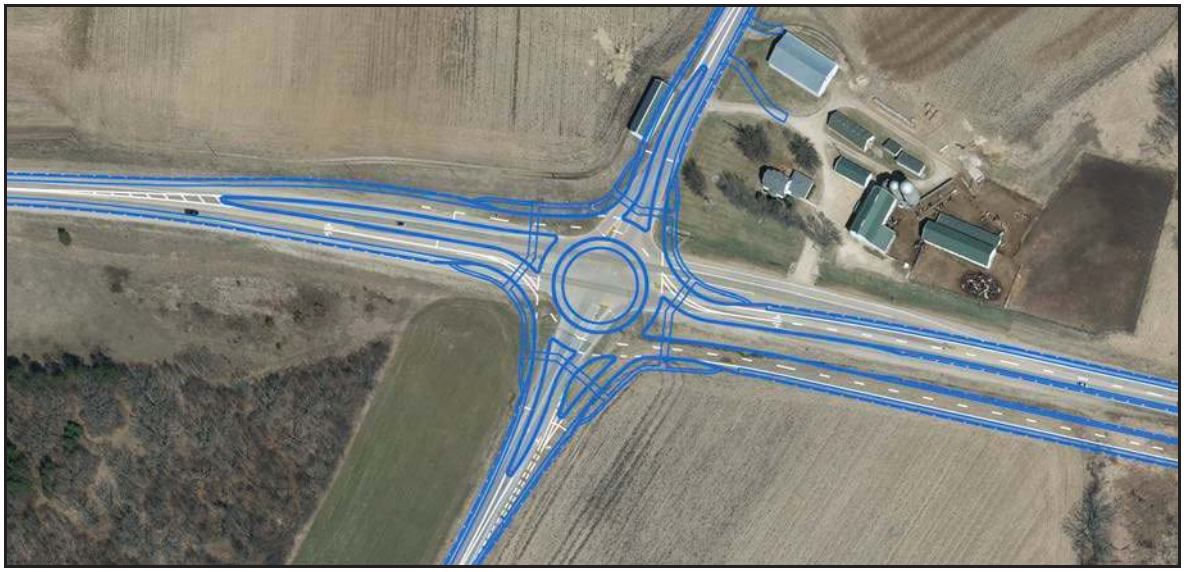
4-lane roadway with 50-foot wide median

River Road intersection alternatives

Alternatives being analyzed for the River Road intersection include:

- 2-Way Stop Control
- 4-Way Stop Control
- Traffic Signals
- Roundabout

Warrants for the 4-Way Stop Control and Traffic Signal alternatives are not met. The 2-Way Stop Control alternative does not address safety issues and would result in poor traffic operations. A roundabout is the preferred alternative.



Roundabout alternative

Proposed traffic impacts

Construction is currently scheduled for 2020. Details have not yet been developed for the construction staging, however the work will likely be completed in one season. During construction, WIS 19 is anticipated to remain open. The new lanes will be constructed in the initial stage and traffic will be shifted onto those while the existing roadway is reconstructed in the next stage. River Road may be closed during a portion of the construction.

Real estate

Additional right of way will be required for this project. These consist of strips of land mainly along the south side of WIS 19 and at the River Road intersection. WisDOT expects to begin real estate acquisition in late 2017 or early 2018.

Project update/next steps

This is the first public involvement meeting for the project and two additional meetings are anticipated prior to the start of any construction work. Following is the current project schedule.

Local Officials Meeting #1	November 15, 2016
Public Meeting #1	**November 29, 2016**
Environmental Document	May 2017
Design Study Report	August 2017
Local Officials/Public Meeting #2	Fall 2017
Right-of-Way Plat	Fall 2017
Right-of-Way Acquisition	November 2017 – July 2019
Local Officials/Public Meeting #3	Spring 2019
Final Plan Completion	August 2019
Construction	2020

Public input/comments

We encourage you to talk to the project representatives and ask them questions. Attached to this handout is a sheet for your written comments and input regarding the proposed project. Please mail any written comments about the project before December 13, 2016 or leave them in the comment box tonight. You can also e-mail your comments to the contacts listed below.

Your comments assist us in developing a project that will serve the needs of the traveling public as well as the needs of the local community. Your input is welcome and appreciated throughout the design process.

For more information, please contact:

David Pilon
Project Manager
Wis. Dept. of Transportation
Southwest Region – Madison
2101 Wright Street
Madison, WI 53704-2583
(608) 245-2622
david.pilon@dot.wi.gov

Matthew Barr
Project Manager
Ayres Associates
5201 E. Terrace Drive, Suite 200
Madison, WI 53718
(608) 443-1261
barrm@ayresassociates.com

Public Involvement Meeting #1 Comment Form

Project ID 5290-00-02
WIS 19 Project
River Road to Interstate 39/90/94
Dane County

Tuesday, November 29, 2016, 5:00 p.m.

Please place this form in the comment box or mail by December 13, 2016 to the address on the back of this sheet. Comments can also be e-mailed to David.Pilon@dot.wi.gov or BarrM@AyresAssociates.com. Your comments assist us in developing a project that will serve the needs of the traveling public as well as the needs of the local community. Your input is welcome and appreciated throughout the design process.

Name: _____

Address: _____

Daytime Phone Number (optional): _____

Email Address (optional): _____

Please Print Comments (attach additional sheets if necessary)

_____

_____

_____

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The information in this document including names, addresses, phone numbers, e-mail addresses, and signatures is not confidential, and may be subject to disclosure upon request, pursuant to the requirements of the Wisconsin open records law, sections 19.31 - 19.39 of the Wisconsin Statutes.

Please Fold, Fasten, and Mail. No envelope or stamp necessary.

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

DOT1767 2005

BUSINESS REPLY MAIL

FIRST-CLASS MAIL PERMIT NO. 2226 MADISON, WI

POSTAGE WILL BE PAID BY ADDRESSEE

DTSD SOUTHWEST REGION
WISCONSIN DEPARTMENT OF TRANSPORTATION
2101 WRIGHT ST
MADISON WI 53791-9449

ATTN: David Pilon

FOLD

PIM Presentation - Only slides included that pertain to public use lands

WIS 19 Project
Public Involvement Meeting #1

WisDOT SW Region – Madison

November 29, 2016

Windsor Elementary School

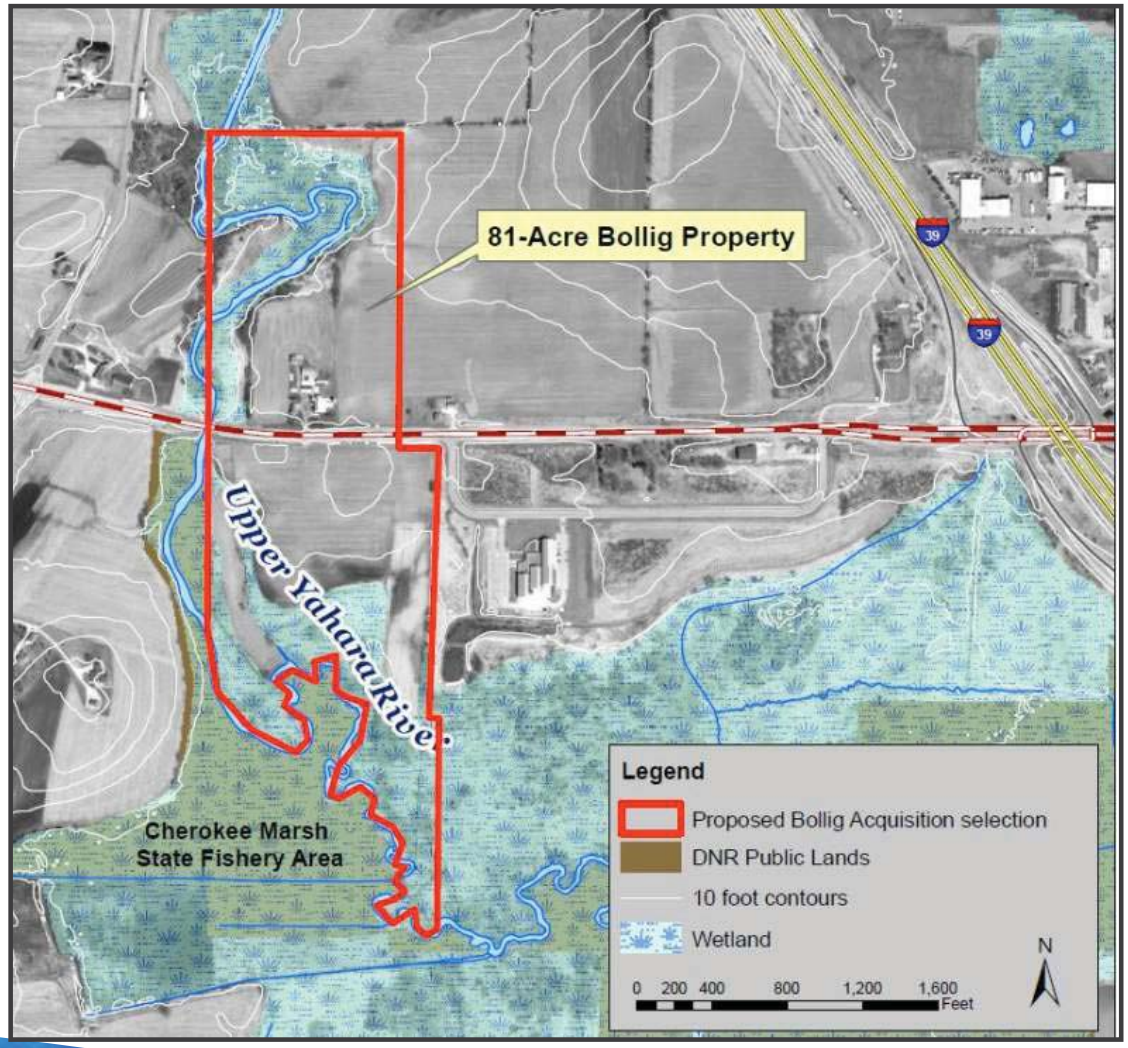
4352 Windsor Road

Project Background

- Dane County Property
  - 81 acre parcel along both sides of WIS 19
  - Cherokee Marsh Wildlife Area
  - Provides for recreation and preservation of Yahara River waterway
  - Potential bike path along west side of river
- Village of DeForest
  - Potential off road bike path along north side of WIS 19
- Potential development at east end of corridor

Project Background

- Dane County Property
  - Cherokee Marsh Wildlife Area



Preliminary plan sheets for areas adjacent to Dane County public use land

PROJECT ID: 5290-00-02
WITH: PROJECTID2
COUNTY: DANE

ORDER OF SHEETS

TOTAL SHEETS =

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

USH 12 - IH 39

RIVER ROAD TO IH 39

STH 19

DANE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5290-00-02		

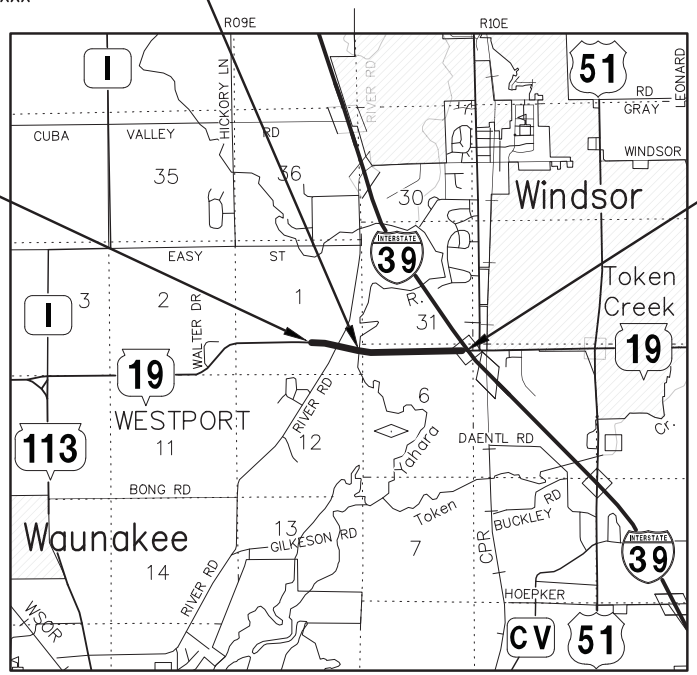
30% SUBMITTAL

STATE PROJECT NUMBER
5290-00-02

STUCTURES B-XX-XXX &
B-XX-XXX

BEGIN PROJECT 5290-00-02
STA. 135+00.00'EB'
X =
Y =

END PROJECT 5290-00-02
STA. 193+99.26'EB'
X =
Y =



LAYOUT
SCALE 0 1 mi.

TOTAL NET LENGTH OF CENTERLINE = 1.117 mi.

DESIGN DESIGNATION

A.A.D.T. (2016)	=	xxxxx
A.A.D.T. (2036)	=	xxxxx
D.H.V. (TWO WAY)	=	xxxxx
D.D. (%)	=	xxxxx
T. (%)	=	xx
DESIGN SPEED (MPH)	=	60
ESALS	=	xxxxxxx

CONVENTIONAL SYMBOLS

PLAN
- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE
- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES
- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, DANE COUNTY ZONE, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88 (2012).

ORIGINAL PLANS PREPARED BY:
AYRES ASSOCIATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
Surveyor: AYRES ASSOCIATES
Designer: AYRES ASSOCIATES
Project Manager: MATT BARR
Regional Examiner:
Regional Supervisor: xxxxxxxxx

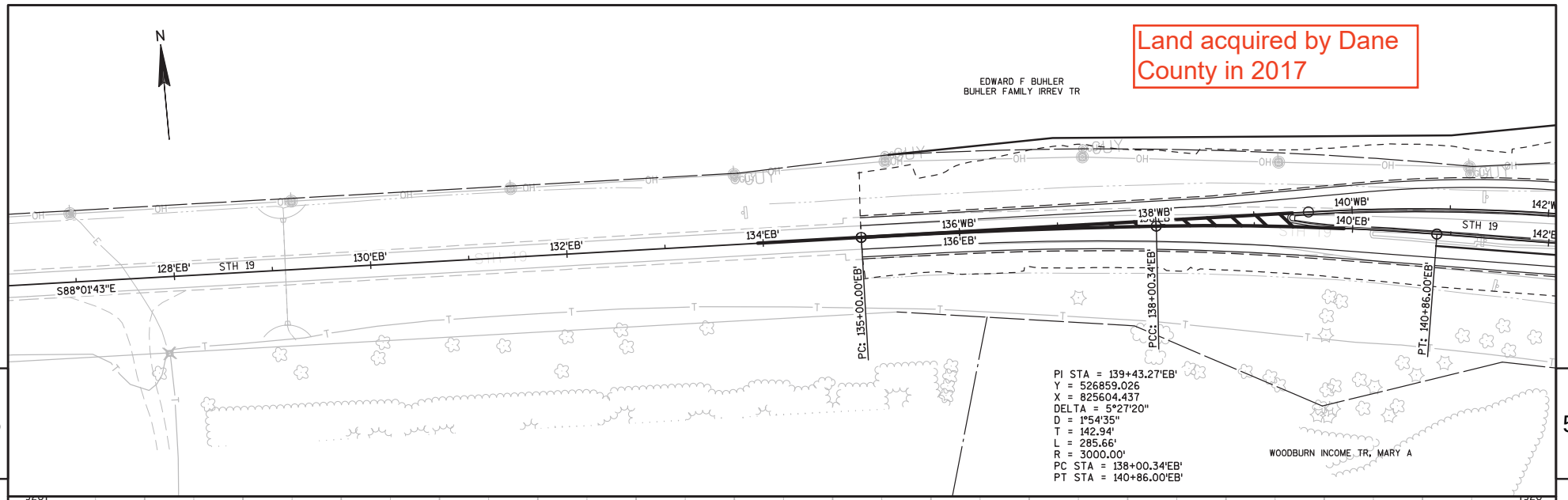
APPROVED FOR THE DEPARTMENT
DATE: _____ (Signature)

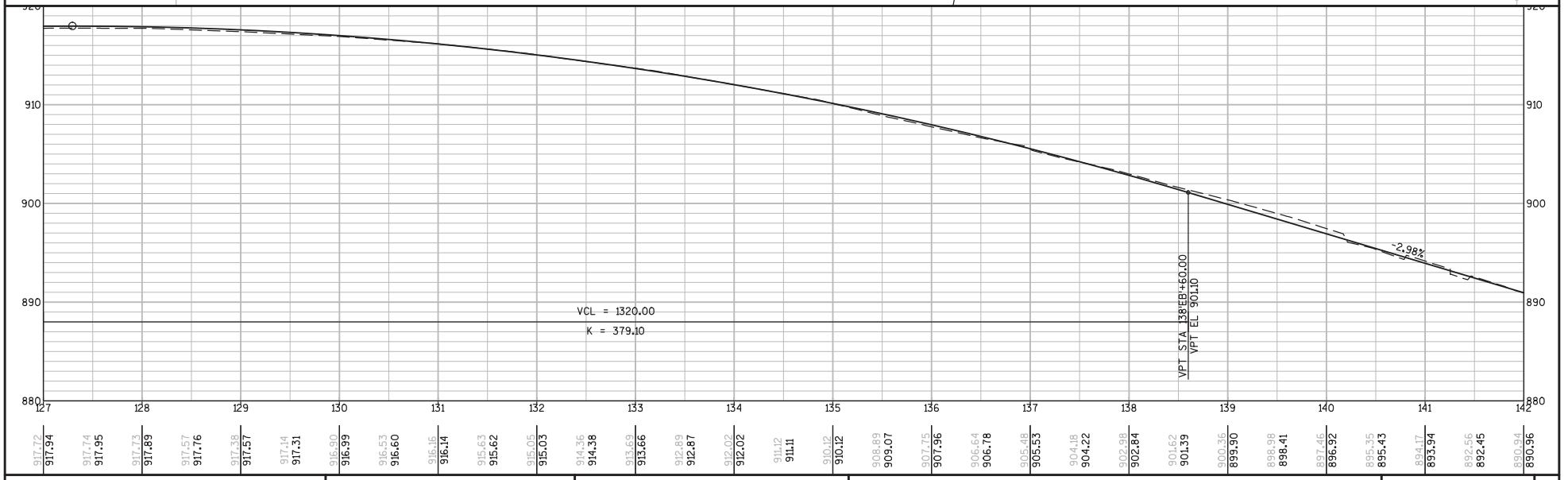
E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0101_TI.DWG
PLOT DATE : 11/7/2016 1:48 PM
PLOT BY : KRUEGER, KIRK
PLOT NAME :

WISDOT/CADDS SHEET 10

Plan sheets for STH 19





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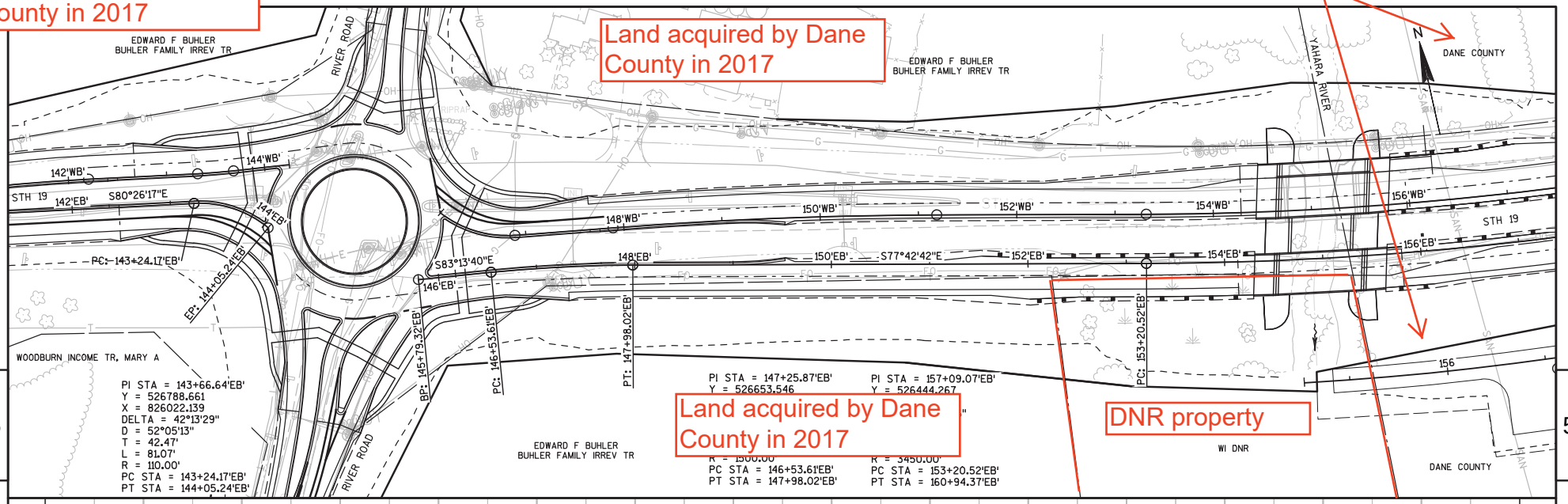
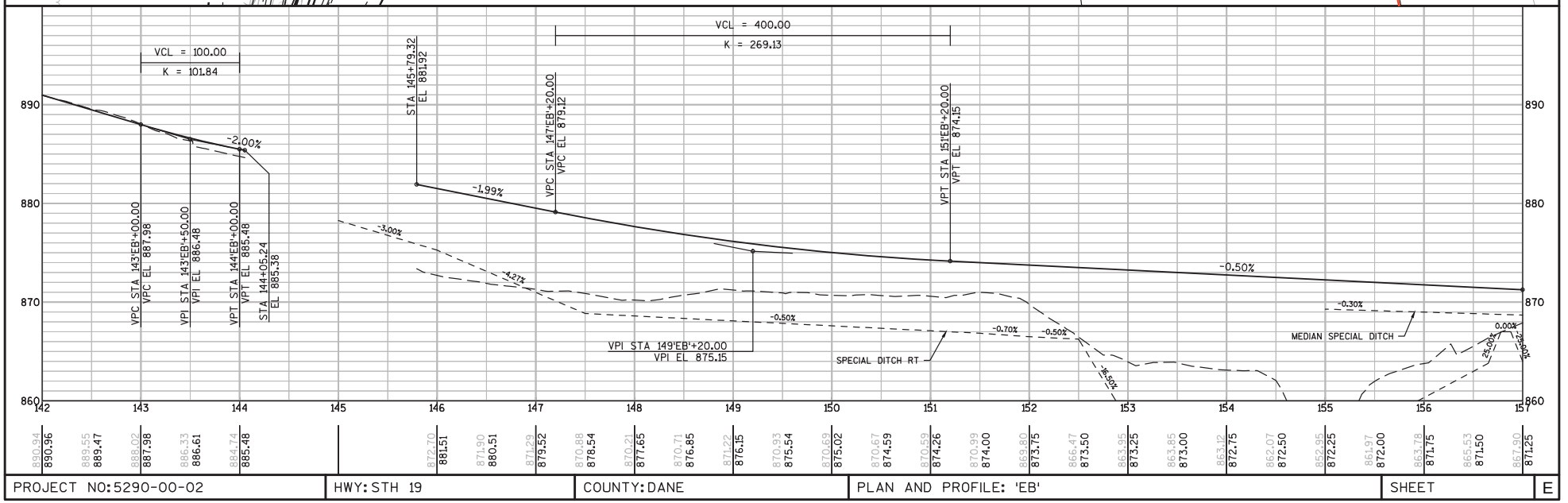
PLOT BY : KRUEGER, KIRK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

Land acquired by Dane County in 2017

Land acquired by Dane County in 2015





890.94	890.96	872.70	881.51	870.21	877.65	869.80	873.75	863.85	873.00	852.95	872.25
889.55	889.47	871.90	880.51	870.71	876.85	866.47	873.50	863.12	872.75	861.97	872.00
888.02	887.98	871.29	879.52	871.22	876.15	863.96	873.25	862.07	872.50	863.78	871.75
886.33	886.61	870.88	878.54	870.93	875.54	870.99	874.00			865.53	871.50
884.74	885.48			870.69	875.02	870.67	874.59			867.90	871.25
						870.59	874.26				

PROJECT NO:5290-00-02	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'EB'	SHEET	E

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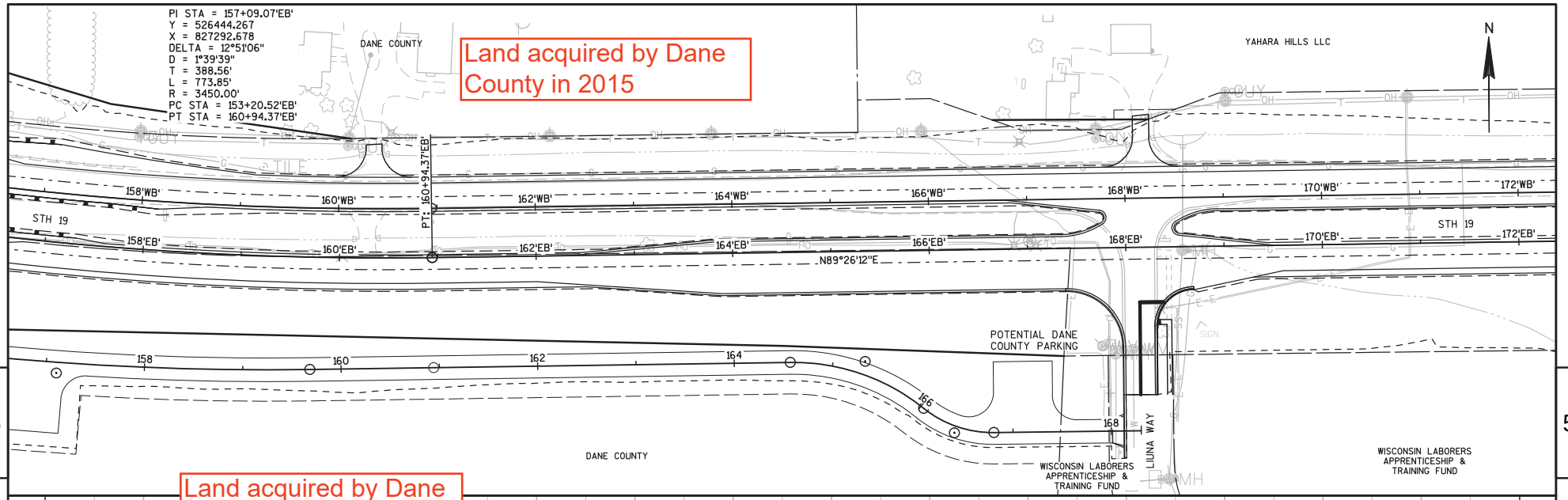
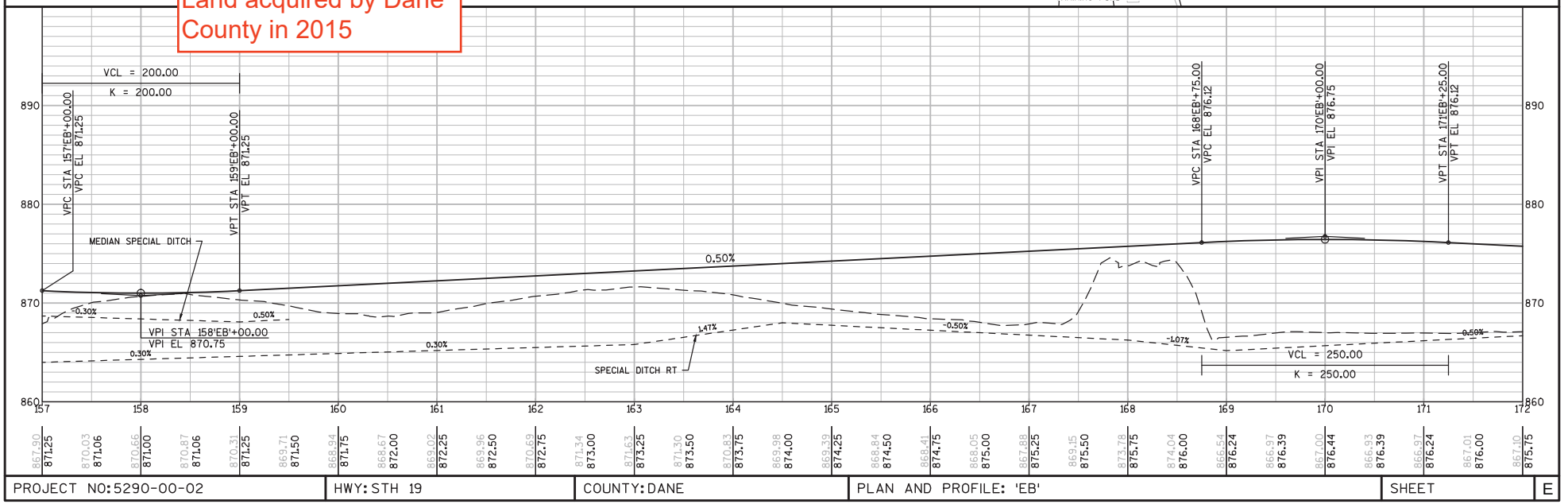
WISDOT/CADDS SHEET 44





PROJECT NO:5290-00-02	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'EB'	SHEET E

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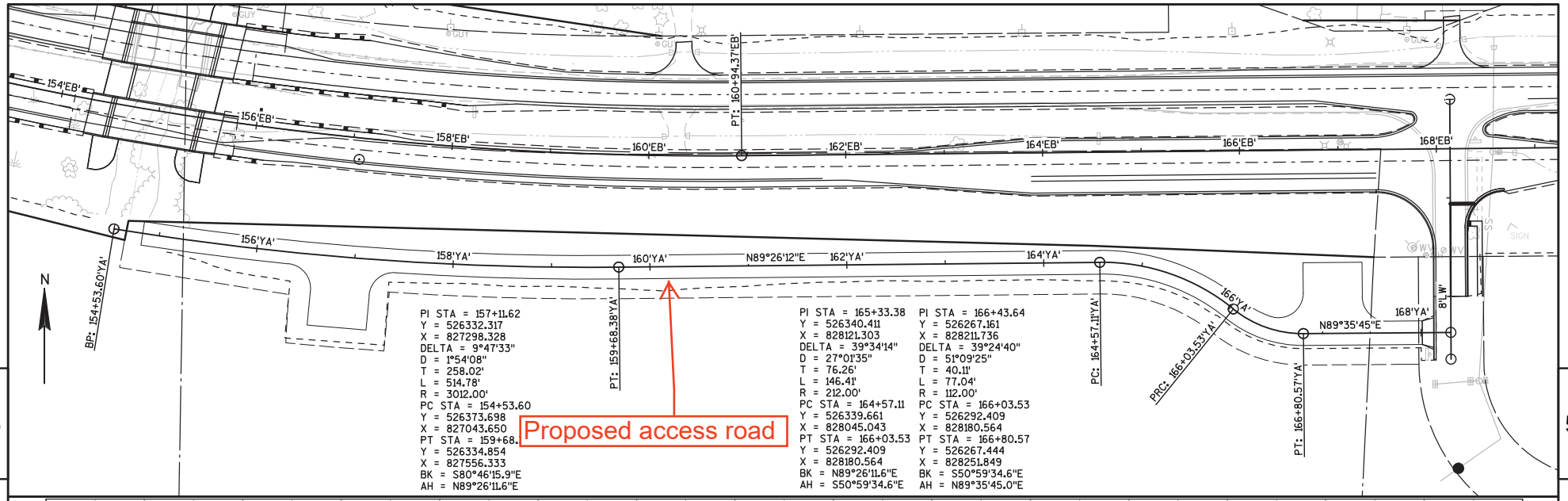
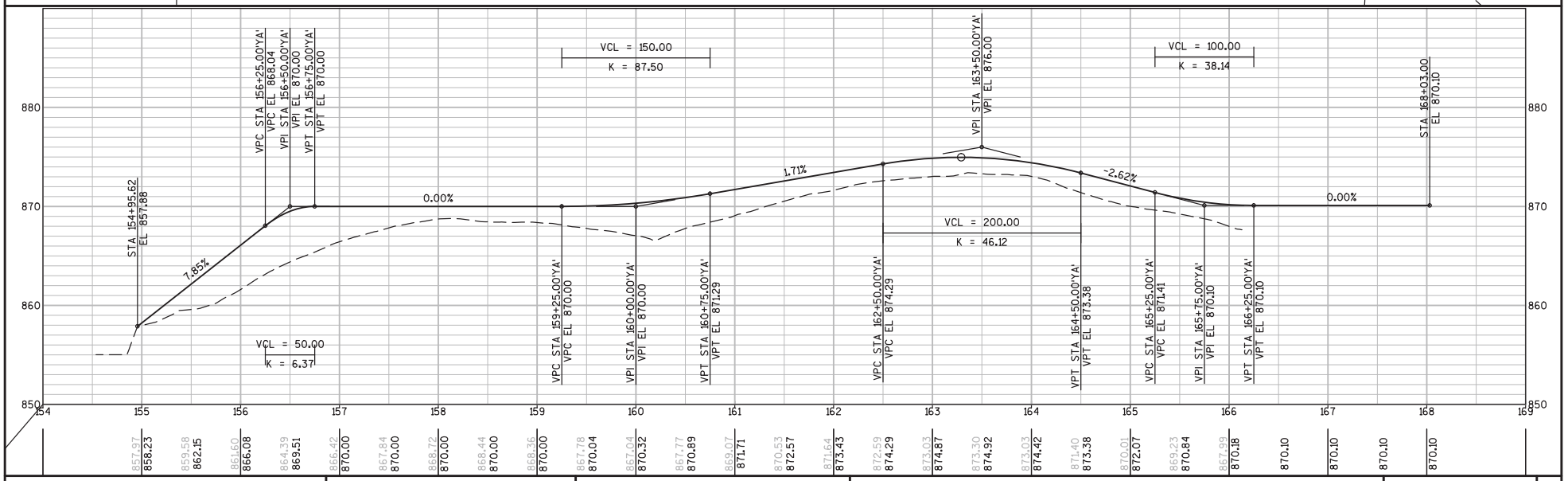
PLOT DATE : 5/8/2017 8:57 AM
PLOT BY : KRUEGER, KIRK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

Plan sheet for new access road





PROJECT NO: 5290-00-02	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'YA' YAHARA RIVER ACCESS	SHEET	E

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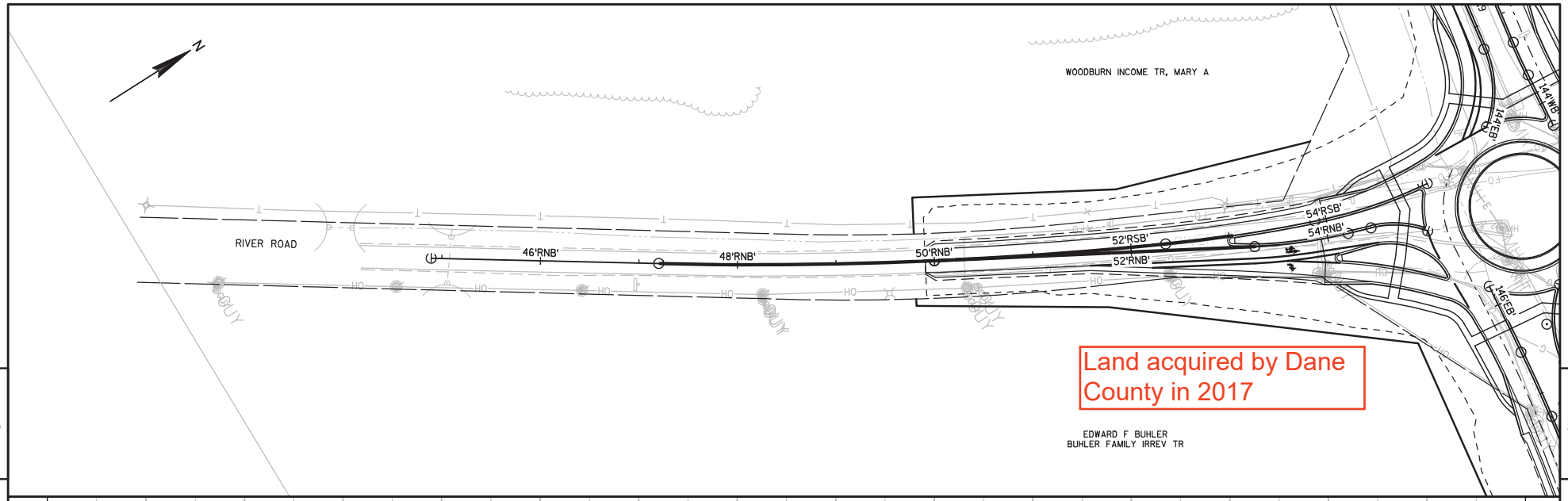
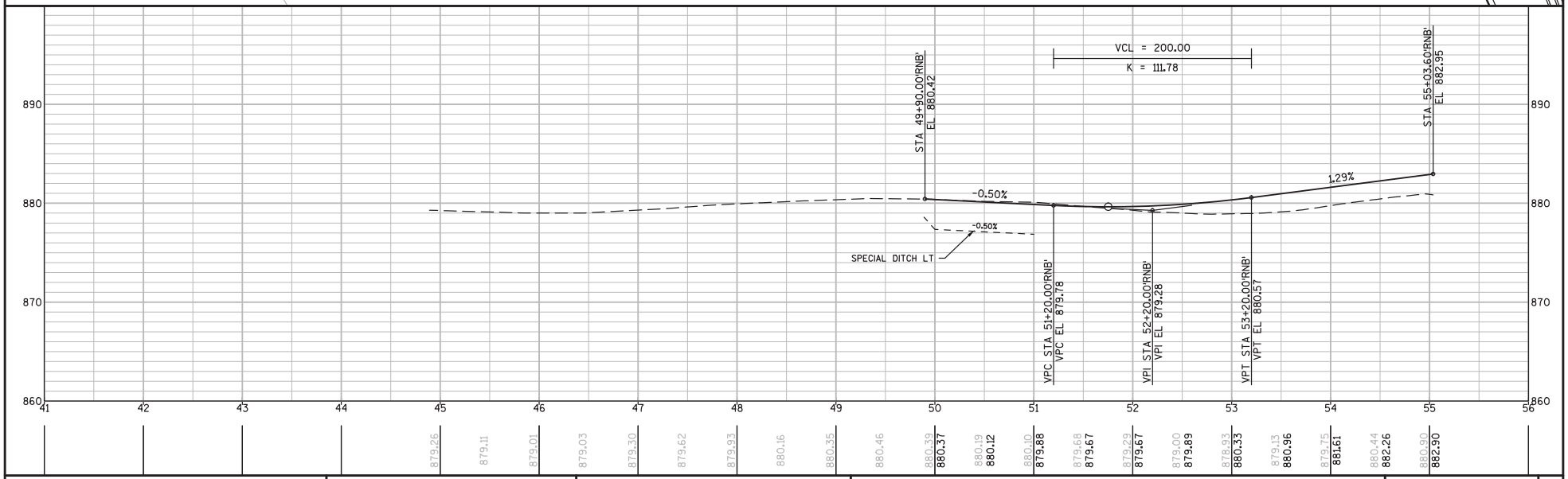
Plan sheets for River Road



Land acquired by Dane County in 2017



PROJECT NO:5290-00-02	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'RNB' RIVER ROAD	SHEET	E

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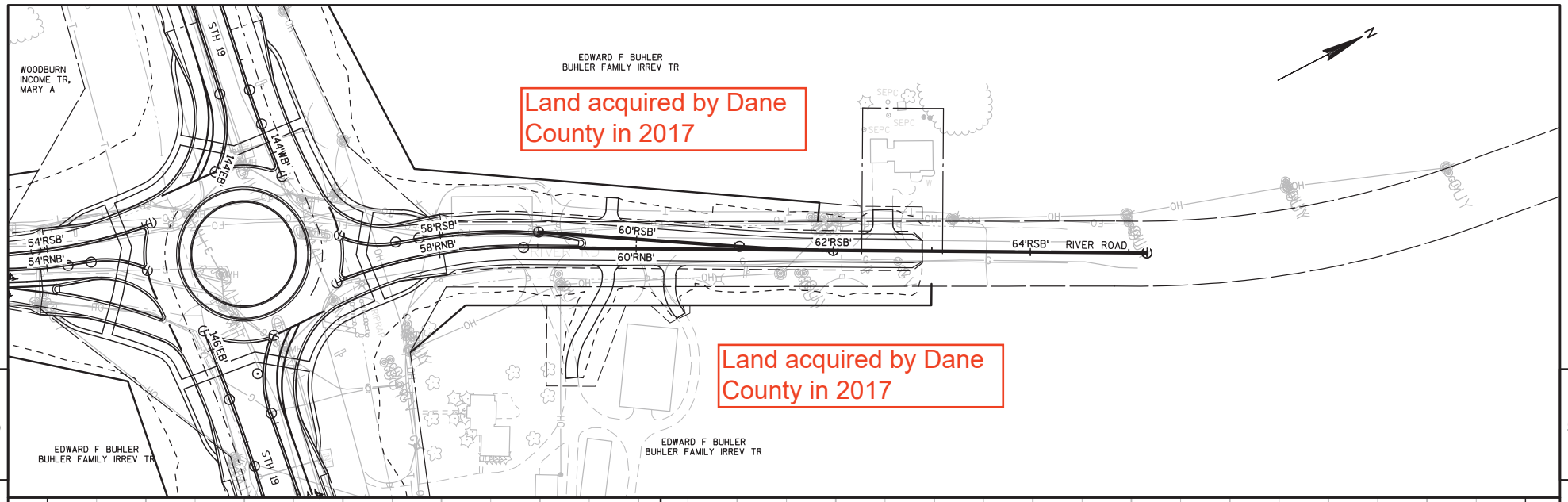

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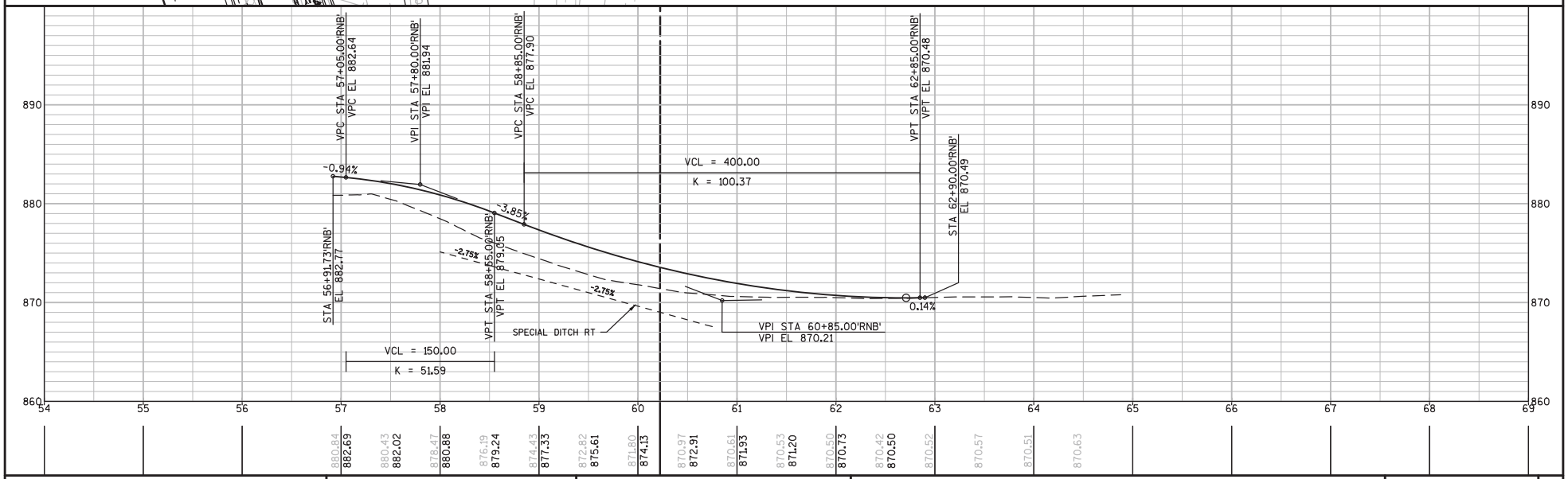
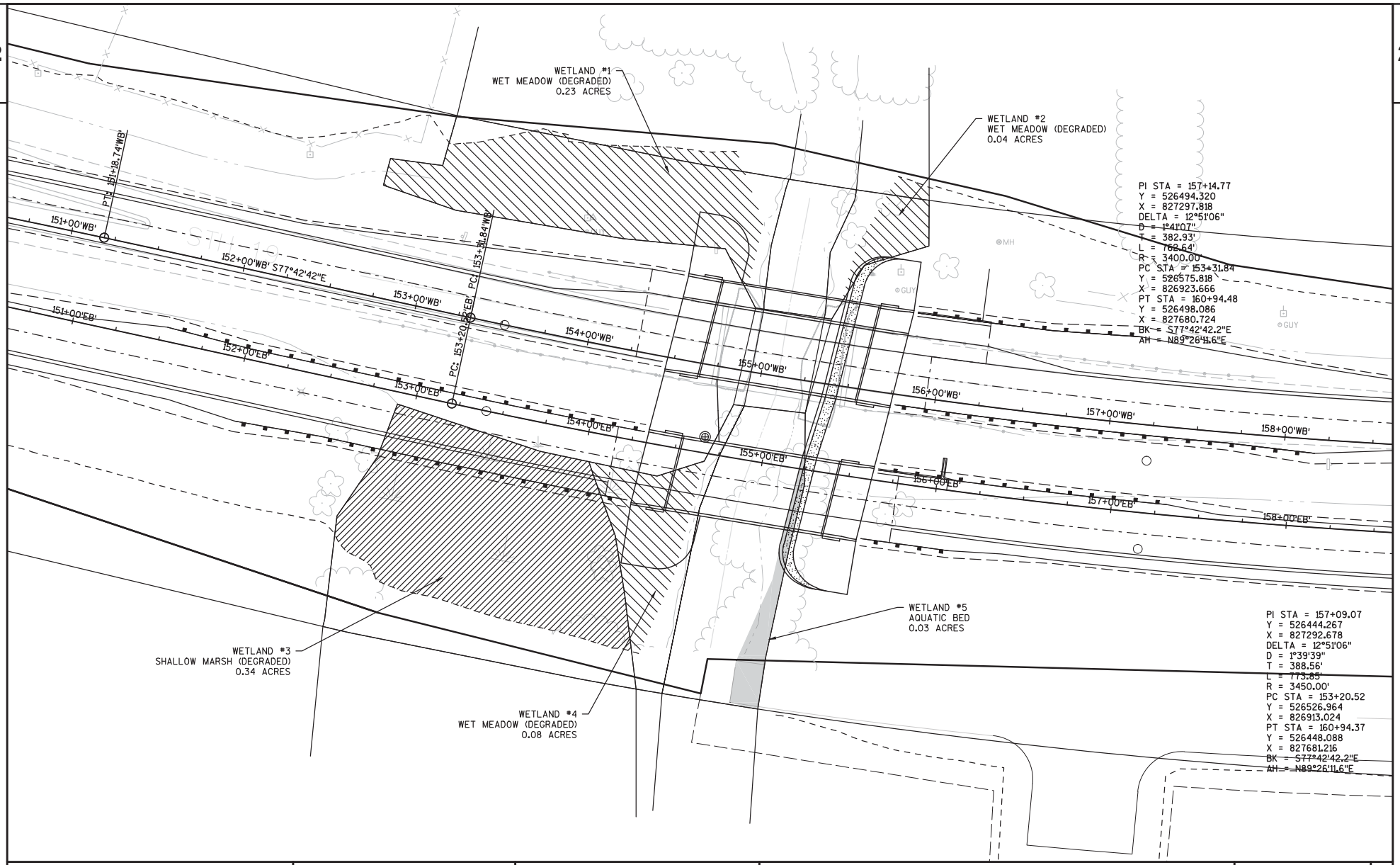


PROJECT NO:5290-00-02	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: 'RNB' RIVER ROAD	SHEET	E

FILE NAME : V:\TRANS-MD\410717 STH 19\ROADWAY\C3D\SHEETSPLAN\5290-00-02_0501C_RIVER_PP.DWG
LAYOUT NAME - PP_101
PLOT DATE : 5/8/2017 9:01 AM PLOT BY : KRUEGER, KIRK PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

APPENDIX 8
Wetland Impact Information



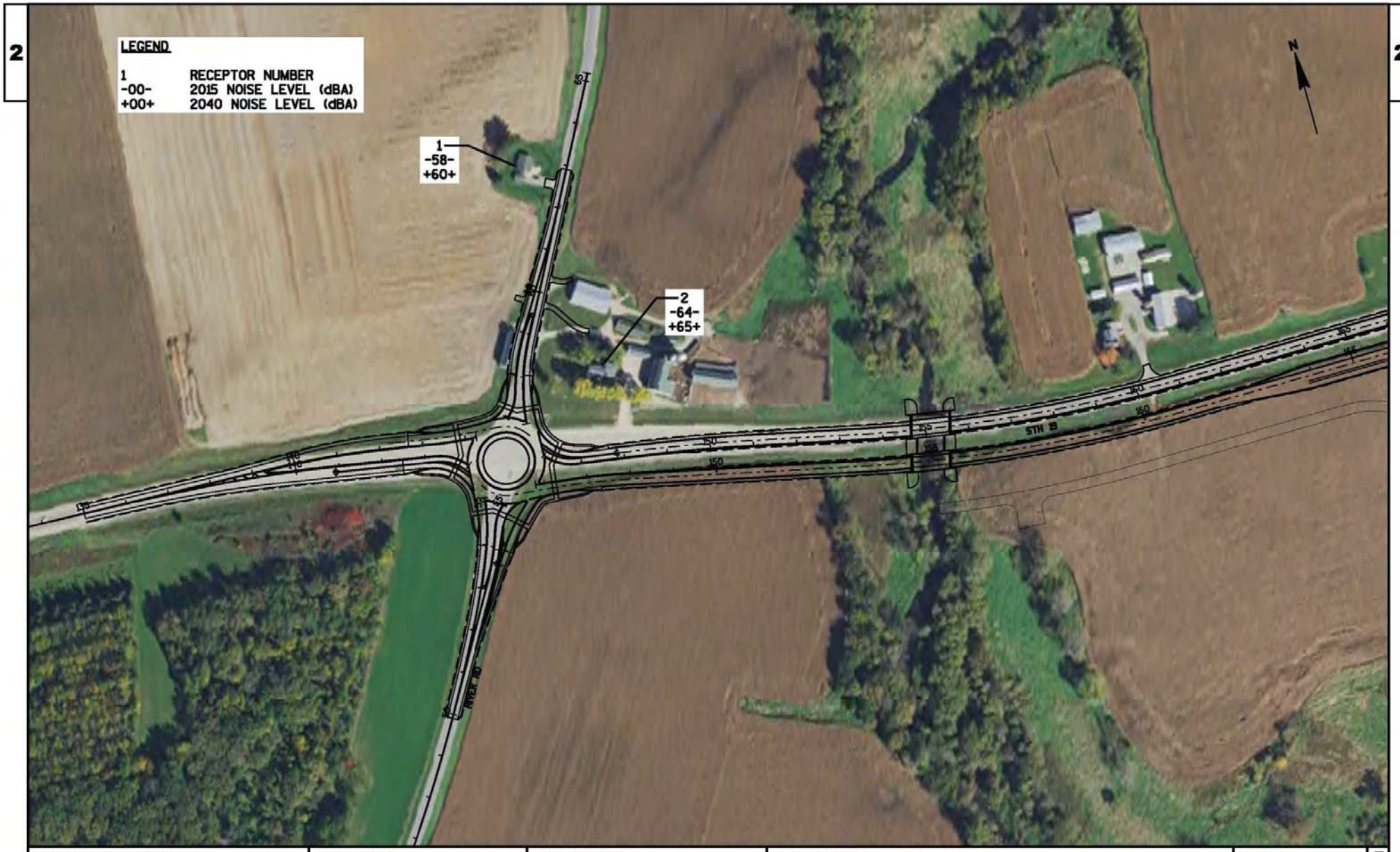
PROJECT NO:5290-00-02	HWY: STH 19	COUNTY: DANE	WETLAND IMPACTS	SHEET	E

FILE NAME : N:\410717 STH 19\ROADWAY\C3D\BASEDATA\SURVEY\WETLANDS\52900002_WETLAND IMPACTS.DWG
LAYOUT NAME - ****

PLOT DATE : 8/8/2017 9:06 AM PLOT BY : INMAN, AMANDA PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

APPENDIX 9
Traffic Noise Evaluation Receptor Location Map



PROJECT NO: 5290-00-02	HWY: STH 19	COUNTY: DANE	NOISE EXHIBIT	SHEET	E

FILE NAME : G:\AYRES\16019-000 STH 19\ENVIRONMENTAL\NOISE ANALYSIS\NOISE EXHIBIT.DWG
LAYOUT NAME - SHEET - (1)

PLOT DATE : 3/13/2017 11:41 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

PROJECT NO: 5290-00-02	HWY: STH 19	COUNTY: DANE	NOISE EXHIBIT	SHEET	E

FILE NAME : G:\AYRES\16019-000 STH 19\ENVIRONMENTAL\NOISE ANALYSIS\NOISE EXHIBIT.DWG
LAYOUT NAME - SHEET - (2)

PLOT DATE : 3/13/2017 11:42 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42