



US Army Corps
of Engineers
St Paul District

Wisconsin Department
APPLICANT: of Transportation
(WisDOT)

Public Notice

ISSUED: May 15, 2014

EXPIRES: June 16, 2014

REFER TO: MVP-2009-04385-JWD

SECTION:404 - Clean Water Act

1. APPLICATION FOR PERMIT TO discharge dredged or fill material into approximately 15.53-acres of wetlands adjacent to the tributary system of the Baraboo River for the purpose of highway improvement, expansion and relocation of United States Highway (USH) 12 (WisDOT Project ID No. 1674-00-02).

2. SPECIFIC INFORMATION.

APPLICANT'S ADDRESS:

Wisconsin Department of
Transportation, 3550 Mormon
Coulee Road, La Crosse, Wisconsin
54601

AGENT: KL Engineering, Inc.

AGENT'S ADDRESS: 5950 Seminole Center Ct, Suite 200,
Madison, Wisconsin 53705

PROJECT LOCATION: The project site is located in Sections 3, 4, 9-10, 15-16, 22, and 27, T. 11 N., R. 6 E.; Sections 21, 27-28, and 33-34, T. 12 N., R. 6 E., Sauk County, Wisconsin. The approximate Lat./Long. are 43° 25' 12"N., 89° 46' 24" W to 43° 29' 7" N, 89° 46' 35" W.

DESCRIPTION OF PROJECT: This project is part of an existing highway improvement project that is being conducted in stages. In response to existing and projected traffic congestion and safety concerns on USH 12 from IH 90/94 to Ski Hi Road in Sauk County, a distance of approximately 12 miles, the Wisconsin Department of Transportation (WisDOT) originally investigated transportation improvement options that are documented in an Environmental Impact Statement (EIS). The proposed action involved upgrading the existing two-lane highway to a four-lane divided highway with managed access. The selected alternative included a four-lane off alignment highway bypass around Baraboo. The Federal Highway Administration (FHWA) approved the Final Environmental Impact Statement (FEIS) on October 21, 2004 and the Record of Decision (ROD) on February 10, 2005 with a revised ROD signed on October 29, 2008. There have been only minor design refinements along the corridor; therefore, a formal written re-evaluation of the FEIS was not required.

The selected alternative in the FEIS consists of three stages. Stage 1 performs individual spot improvements to the existing USH 12 alignment from IH 90/94 to Ski Hi Road. These improvements were made between 1999 and 2005. Separate environmental documentation was prepared for this stage. Stage 2, the North Section of the USH 12 Baraboo Bypass, resulted in a four-lane relocated roadway from IH 90/94 to just north of Terrytown Road. Access roads were provided to maintain

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access to some properties. Stage 2 also resurfaced the existing alignment and seeks to jurisdictionally transfer the roadway from state to local control. Stage 2 improvements were made between 2008 and 2011. Stage 3, the South Section of the USH 12 Bypass project, scheduled for 2015 or later, constructs a bypass around Baraboo from Terrytown Road to Ski Hi Road. This USACE Permit Request is for wetland impacts associated with Stage 3, the South Section of the USH 12 Bypass of Baraboo.

At the time of the Revised ROD, several design issues for the final alignment of Stage 3 were still being evaluated and needed additional environmental study to be completed. All design issues were resolved and documented in a Second Revised ROD. The Second Revised ROD was circulated to state and federal review agencies in September 2010, and approved by FHWA on June 16, 2011.

This proposed project involves the South Section of the USH 12 Bypass of Baraboo, through the City of West Baraboo, the City of Baraboo, the Town of Baraboo, and the Town of Sumpter, from Terrytown Road to Ski Hi Road.

The South Section of the USH 12 Bypass project will construct a four-lane relocated freeway approximately 1/4 to 1/2 mile west of the existing alignment from Terrytown Road, 3.77 miles south before coming back on alignment near the Point of Rocks outcropping (0.55 miles north of Lehman Road). The on alignment portion will extend from that point to the existing four lane section 0.75 miles south of Ski Hi Road and will reconstruct and expand the existing 2-lane roadway to a four-lane divided expressway. The project includes interchanges at STH 136 and CTH W, an overpass at Gasser Road, cul de sacs at Hatchery Road and existing USH 12, and at-grade intersections at Lehman Road and Ski Hi Road.

Relocated USH 12 will include crossings of the Baraboo River, Skillet Creek, and unnamed Skillet Creek Tributaries. Two bridges will be constructed over the Baraboo River (Station 373 – Station 381). The bridges will have five spans and each will have two piers adjacent to the Baraboo River. Construction will include placement of approximately 388 cubic yards of rip rap below the ordinary high water mark.

Two bridges will be constructed over Skillet Creek (Station 454 – Station 457). The bridges will have three spans. Approximately 1550' of a Skillet Creek Tributary will be relocated so that the relocated stream passes through the middle spans. The relocated stream thread will closely match the existing stream length and meander. Construction will include placement of approximately 66 cubic yards of rip rap below the ordinary high water mark.

Two bridges will be constructed over a Skillet Creek Tributary (Station 515 - 519). The bridges will have three spans. The bridges will also span a private driveway. The existing driveway and culvert (through which the existing stream passes) will be reconstructed and the stream will be realigned through two 60" culverts under the private driveway. In addition, approximately 1510' of the stream will be relocated north of this location to remove it from the footprint of proposed USH 12 (Station 516). The relocated stream thread will closely match the existing stream length and meander. A two cell 10' wide by 6' high box culvert will be constructed to replace the existing 10' wide by 6' high box culvert across USH 12 south of Ski Hi Road (Station 570). It will span the existing USH

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12 location as well as the additional two lanes that will be located west of the existing roadway. An existing Skillet Creek Tributary will be routed through the proposed box culvert. The half of the box culvert that will span the proposed eastbound lanes is located in wetlands.

A single cell 12' wide by 8' high box culvert will be constructed to replace the existing 72" culvert across Ski Hi Road east of USH 12 (east of Station 565). An existing Skillet Creek Tributary will be routed through the proposed box culvert, which is approximately 90' longer than the existing culvert. The additional culvert length is located in wetlands and is accounted for under Wetland Permit Activities.

Approximately 2040' of a Skillet Creek Tributary will be relocated on the west side of USH 12 in order to remove it from the footprint of proposed USH 12 (west of Station 577 – Station 598). The relocated stream thread closely matches the existing stream length and meander. The stream relocation is located in wetlands and is accounted for under Wetland Permit Activities.

The proposed road project can be seen on the enclosed maps (21 pages).

QUANTITY, TYPE, AND AREA OF FILL: There are approximately 44 sites that will be impacted by fill material resulting in a total area of wetlands impacted of 15.53-acres. These wetlands are a mix of wet meadow and shallow marsh. A breakdown of each wetland and its associated acreage being impacted is listed on the WDNR Wetland Impact Tracking Form included in the map packet.

Wetland area 1, also referred to as the USH 12 Ski Hi Road wetlands, is located west of and along existing USH 12 from the south project termini to just north of Ski Hi Road. These wetlands consist of good quality intermittent and riparian channel wetlands, wet mesic meadows, moderate quality wet mesic meadows, ditches, mesic woods, and rocky glades. Wetland area 1 will involve impacts to approximately 4.6-acres, as a result of the highway re-alignment and expansion into a separated highway.

Wetland area 2, also referred to as the Skillet Creek West of Point of Rocks wetlands, is located to the west and north of the Point of Rocks area. These wetlands consist of a variety of wetland habitats including wet and sedge meadows, a perennial warm water stream corridor with meadows, scrub/shrubs, and tall scrub/shrub wetland borders. A sedge meadow exists within farmed and prior converted wetlands. Wetland area 2 will involve approximately 9.4-acres of impacts, as a result of the highway being re-aligned to the west of its current location.

Wetland area 3, also referred to as the Skillet Creek East of Pewitt's Nest Wetlands, is located east of Pewitt's Nest and north of the Grasser Road and Cowles Road intersection. This area consists of a rocky, incised stream channel with areas of silt/sand bottoms and forested riparian wetland. Wetland area 3 will involve approximately 1.5-acres of impacts, as a result of .

Wetland area 4, also referred to as the Baraboo River wetlands, is related entirely to the open waters of the Baraboo River. Wetland area 4 will involve approximately 0.03-acre of impacts.

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VEGETATION IN AFFECTED AREA: Wetland area 1 includes dominant species of reed canary grass, cardinal flower, sunflowers and blue vervain in meadow areas; dogwoods, honeysuckle, and some alder in shrub areas; and willow, box elder, dogwood trees, and elmwood glades. Wetland vegetation associated with Wetland Area No. 2 showed strong wetland diversity among the undisturbed and previously grazed/cropped riparian areas, abandoned fields, and remnant wetlands. Good to high-quality scrub/shrub wetlands and sedge meadow pockets were identified near the Archibald driveway at approximate Station 517+20 of road plans. Near the central portion of the review area, wetland areas consisted of an agricultural stream-thread and wooded meandered banks. From the central portion of the review area to the northeast, wetlands contained reverting meadows and wet meadows dominated by reed canary grass and other lower-quality species. From the central portion of the review area to the northwest, Farmed Wetlands (FW) and Prior Converted (PC) Wetlands in the first years of succession dominated the vegetation. Uplands within the Wetland Area No. 2 review area included areas planted in oats and alfalfa. Wetland Area No. 3 had moderate quality vegetation and a blending of habitat types including upland and lowland woods, channel bank vegetation, and wet meadow vegetation. The vegetated corridor at Wetland Area No. 3 was identified as a moderate-quality riparian and forested wetland with sandy and stony banks adjacent upland forests dominated by reed canary grass, green ash, and black willow. Common nonwetland vegetation at this location included black cherry, common buckthorn, black snakeroot, American basswood, and white oak. Wetland vegetation associated with Wetland Area No. 4 was dominated by several tree species growing directly along the river banks including box elder, red maple, and common chokecherry. Nonwetland vegetation common at Wetland Area No. 4 included sugar maple, apple, basswood, and prickly ash.

SOURCE OF FILL MATERIAL: Licensed commercial provider.

SURROUNDING LAND USE: Existing land use in the project corridor is primarily forest and agricultural land with scattered rural residential development. The project corridor lies within the Baraboo Hills, which contains the Baraboo Range Natural National Landmark (BRNNL). Approximately 35% of the land within the Baraboo Hills is composed of scattered and contiguous forested areas dominated by southern-mesic hardwoods. Agriculture incorporates about 55% of the corridor land use with the balance of land composed of meadow, shrublands, and wetlands. Devils Lake State Park lies 1 mile east of the USH 12 Roadway, near the projects southern terminus.

DESCRIPTION OF DREDGING OR EXCAVATION: Project work will be completed utilizing typical roadway construction machinery such as bulldozers, backhoes, excavators, cement trucks, tampering machinery, etc.

THE FOLLOWING POTENTIALLY TOXIC MATERIALS COULD BE USED AT THE PROJECT SITE: Oils and fuels associated with heavy equipment operation during construction activities.

THE FOLLOWING PRECAUTIONS TO PROTECT WATER QUALITY HAVE BEEN DESCRIBED BY THE APPLICANT: Standardized industry BMP's, such as silt screens, grass lined swales, rock ditch checks, erosion mats, inlet protections, rip rap, and culvert pipe ditch checks.

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MITIGATION: Mitigation has been proposed to include credit deduction from the WisDOT's Rockbridge mitigation site in Town of Rockbridge, Richland County, T. 11 N, R 1 E, Sections 3 and 10, in the Wisconsin HUC 6-070700 watershed, same as the project location. This mitigation site includes wet meadow and shallow marsh habitats.

3. REPLIES/COMMENTS.

Interested parties are invited to submit to this office written facts, arguments, or objections within 30 days of the date of this notice. These statements should bear upon the suitability of the location and the adequacy of the project and should, if appropriate, suggest any changes believed to be desirable. Comments received may be forwarded to the applicant.

Replies may be addressed to Regulatory Branch, St. Paul District, Corps of Engineers, 180 Fifth Street East, Suite 700, Saint Paul, MN 55101-1678.

Or, IF YOU HAVE QUESTIONS ABOUT THE PROJECT, call John Derinzy at the La Crescent, MN office of the Corps, telephone number (651) 290-5905.

To receive Public Notices by e-mail, go to:

http://mvp-extstp.mvp.usace.army.mil/list_server/ and add your information in the New Registration Box.

4. FEDERALLY-LISTED THREATENED OR ENDANGERED WILDLIFE OR PLANTS OR THEIR CRITICAL HABITAT.

None were identified by the applicant or are known to exist in the permit area. However, Sauk County is within the known or historic range of the following Federally-listed threatened (T) and endangered (E) species:

<u>Species</u>	<u>Habitat</u>
Higgins eye pearlymussel (<i>Lampsilis higginsii</i>)	Wisconsin River
Sheepnose (<i>Plethobasus cyphus</i>)	Wisconsin River
Northern Monkshood (<i>Aconitum noveboracense</i>)	shaded to partially shaded cliffs, algific talus slopes, or on cool, streamside sites

This application is being coordinated with the U.S. Fish and Wildlife Service. Any comments it may have concerning Federally-listed threatened or endangered wildlife or plants or their critical habitat will be considered in our final assessment of the described work.

5. JURISDICTION.

This application is being reviewed in accordance with the practices for documenting Corps jurisdiction under Sections 9 & 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act identified in Regulatory Guidance Letter 08-02. We have made an initial determination that the aquatic

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resources that would be impacted by the proposed project are regulated by the Corps of Engineers under Section 404 of the Clean Water Act and/or Section(s) 9 & 10 of the Rivers and Harbors Act. The Corps will prepare an approved or preliminary jurisdictional determination prior to making a permit decision. Approved jurisdictional determinations are posted on the St. Paul District web page at <http://www.mvp.usace.army.mil/Missions/Regulatory.aspx>.

THE APPLICANT HAS STATED THAT THE FOLLOWING STATE, COUNTY, AND/OR LOCAL PERMITS HAVE BEEN APPLIED FOR/ISSUED: Local zoning permits will be required, as well as, Wisconsin Water Quality Certification (Section 401).

6. STATE SECTION 401 WATER QUALITY CERTIFICATION.

This Public Notice has been sent to the Wisconsin Department of Natural Resources and is considered by the District Engineer to constitute valid notification to that agency for Section 401 water quality certification. A permit will not be granted until the Wisconsin Department of Natural Resources has issued or waived Section 401 certification.

7. HISTORICAL/ARCHAEOLOGICAL.

This public notice is being sent to the National Park Service and the State Archaeologist for their comments. This project has been reviewed pursuant to the provisions of Section 106 of the National Historic Preservation Act (NHPA) by the Federal Highway Administration (FHWA). One site (Point of Rocks geological site) was recommended eligible to listing on the National Register of Historic Places and was placed on the list subsequent the coordination with SHPO. The FHWA has determined, in consultation with the Wisconsin State Historic Preservation Office (SHPO), that there would be no adverse effect on the Point of Rocks geological site and no effect to other historic properties affected by the proposed project. The Corps, FHWA, and the SHPO agree that the FHWA review satisfies federal responsibilities for both agencies under the NHPA to consider the effects of their actions on historic properties.

8. PUBLIC HEARING REQUESTS.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, in detail, the reasons for holding a public hearing. A request may be denied if substantive reasons for holding a hearing are not provided or if there is otherwise no valid interest to be served.

9. PUBLIC INTEREST REVIEW.

The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including

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the cumulative effects. Among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production and, in general, the needs and welfare of the people. Environmental and other documents will be available for review in the St. Paul District Office.

The Corps of Engineers is soliciting comments from the public; Federal, State, and local agencies and officials; Indian tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Chad Konickson
Chief, Southwest Section

Enclosures

NOTICE TO EDITORS: This public notice is provided as background information and is not a request or contract for publication.

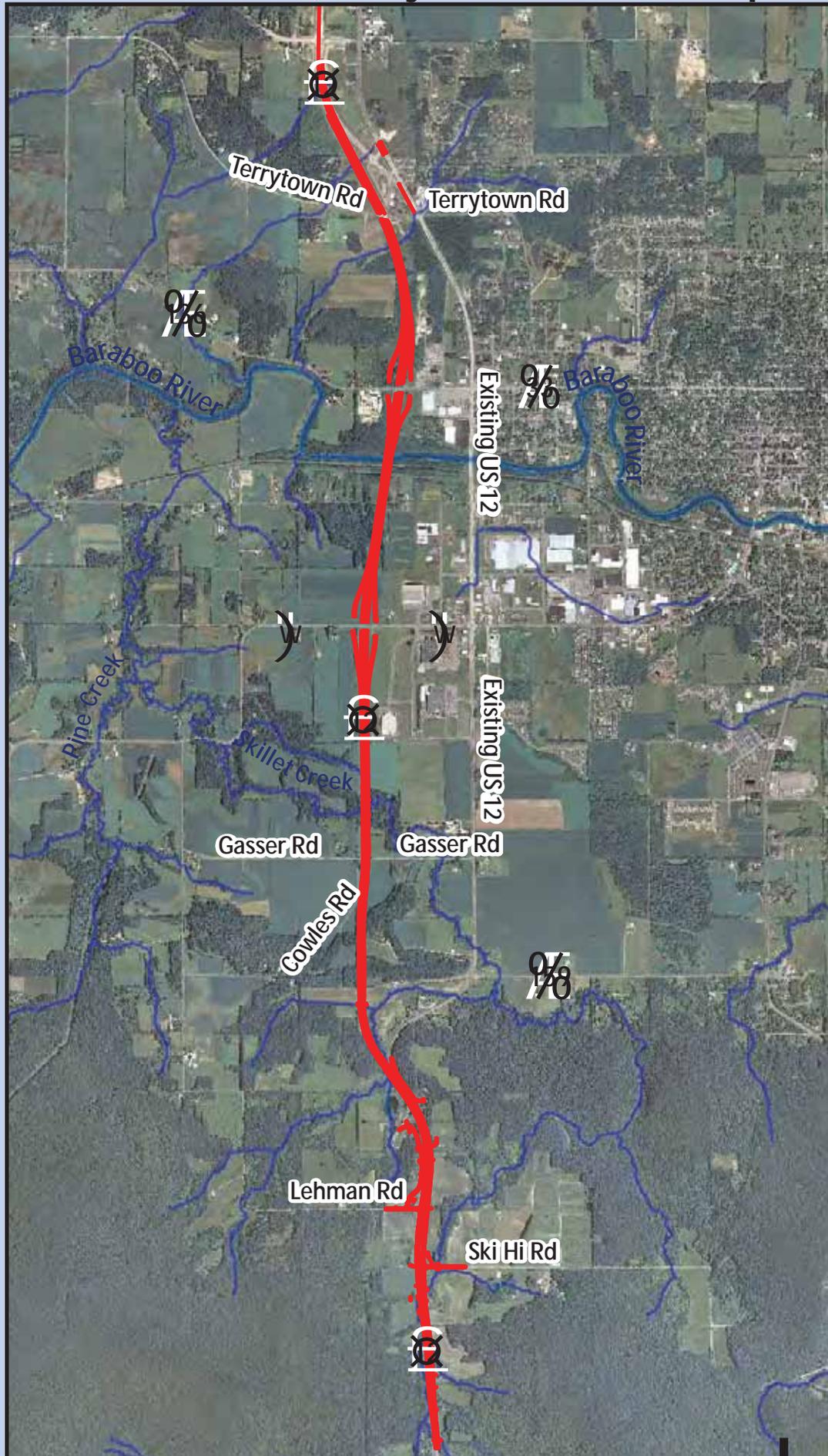
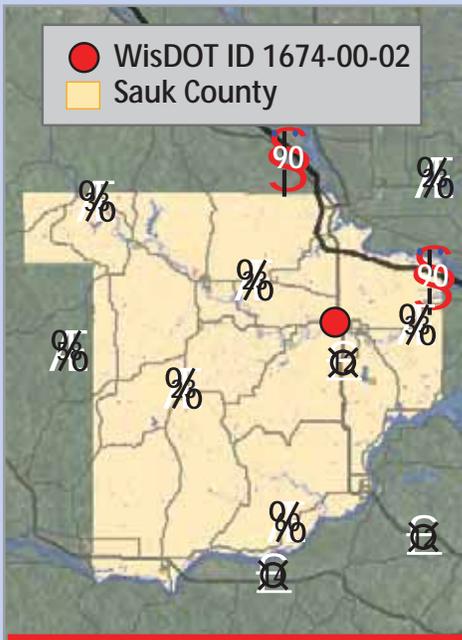
USH 12 (Terrytown Rd to Ski Hi Rd) Project Location Map

WisDOT ID 1674-00-02
USH 12
Terrytown Rd to Ski Hi Rd
Sauk County

- WisDOT ID 1674-00-02
- Sauk County



- WisDOT ID 1674-00-02
- Sauk County



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Wetland Impact 12A
Type: M
Impact Area: 0.401 Acres

Wetland Impact 11A
Type: RPE
Impact Area: 0.128 Acres

Wetland Impact 10A
Type: RPE
Impact Area: 0.261 Acres

**Skillet Creek Tributary
Box Culvert at Ski Hi Road**

Wetland Impact 9A
Type: M
Impact Area: 0.281 Acres

Wetland Impact 8A
Type: RPE
Impact Area: 0.090 Acres

Wetland Impact 6D
Type: RPE

Impact 0.023 Area 1 Acres
Impact 0.081 Area 2 Acres

**Skillet Creek Tributary
Box Culvert at USH 12**

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Wetland Impact 6C
Type: RPE
Impact Area: 0.098 Acres

Wetland Impact 7A
Type: RPE
Impact Area: 0.057 Acres

LEGEND

PROPOSED STRUCTURE

WETLAND IMPACTS

DELINEATED WETLANDS



Wetland Impact 6A
 Type: RPE
 Impact Area: 0.021 Acres

Skillet Creek
 Tributary Stream
 Relocation

Wetland Impact 4D
 Type: M/RPE
 Impact Area: 0.042 Acres

Wetland Impact 5A
 Type: RPE/RPF
 Impact Area: 1.634 Acres

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Wetland Impact 4C
 Type: M/RPE
 Impact Area: 0.060 Acres

Wetland Impact 4B
 Type: M/RPE
 Impact Area: 0.032 Acres

Wetland Impact 4A
 Type: M/RPE
 Impact Area: 0.016 Acres

Wetland Impact 3A
 Type: RPF
 Impact Area: 0.732 Acres

Skillet Creek
 Tributary Stream
 Relocation

LEGEND

-  PROPOSED STRUCTURE
-  WETLAND IMPACTS
-  DELINEATED WETLANDS

**Skillet Creek
Tributary Stream
Relocation**

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Wetland Impact 3A
Type: RPF
Impact Area: 0.732 Acres

Wetland Impact 1D
Type: RPE
Impact Area: 0.185 Acres

Wetland Impact 1C
Type: RPE
Impact Area: 0.010 Acres

Wetland Impact 2A
Type: RPF
Impact Area: 0.496 Acres

Wetland Impact 1A
Type: RPE
Impact Area: 0.006 Acres

LEGEND

-  PROPOSED STRUCTURE
-  WETLAND IMPACTS
-  DELINEATED WETLANDS



495EB

495WB

Wetland Impact 19A
Type: M
Impact Area: 0.129 Acres



Wildlife
Conveyance

500EB

500WB

Wetland Impact 17B
Type: RPE
Impact Area: 0.217 Acres



Wetland Impact 18A
Type: M
Impact Area: 0.647 Acres

505EB

505WB

Skillet Creek
Tributary Stream
Relocation

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Wetland Impact 16A
Type: M
Impact Area: 0.077 Acres



Wetland Impact 17A
Type: RPE
Impact Area: 2.820 Acres

510EB

510WB

LEGEND

-  PROPOSED STRUCTURE
-  WETLAND IMPACTS
-  DELINEATED WETLANDS



Wetland Impact 17A
Type: RPE
Impact Area: 2.820 Acres

Wetland Impact 15A
Type: RPE
Impact Area: 2.188 Acres

Skillet Creek
Tributary Stream
Relocation

Skillet Creek
Tributary Bridges

Point of
Rocks

Wetland Impact 14A
Type: RPF
Impact Area: 2.415 Acres

Wetland Impact 13A
Type: M
Impact Area: 0.869 Acres

515WB
515EB

520WB
520EB

525WB

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LEGEND

 PROPOSED STRUCTURE

 WETLAND IMPACTS

 DELINEATED WETLANDS



450EB

450WB

Wetland Impact 22A
Type: RPE/RPF
Impact Area: 0.112 Acres

Wetland Impact 21A
Type: RPE/RPF
Impact Area: 0.052 Acres

Wetland Impact 20C
Type: RPE/RPF
Impact Area: 0.175 Acres

Skillet Creek
Bridges

Skillet Creek
Tributary Stream
Relocation

455EB

455WB

Wetland Impact 20B
Type: RPE/RPF
Impact Area: 0.916 Acres

Wetland Impact 20A
Type: RPE/RPF
Impact Area: 0.226 Acres

460EB

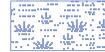
460WB

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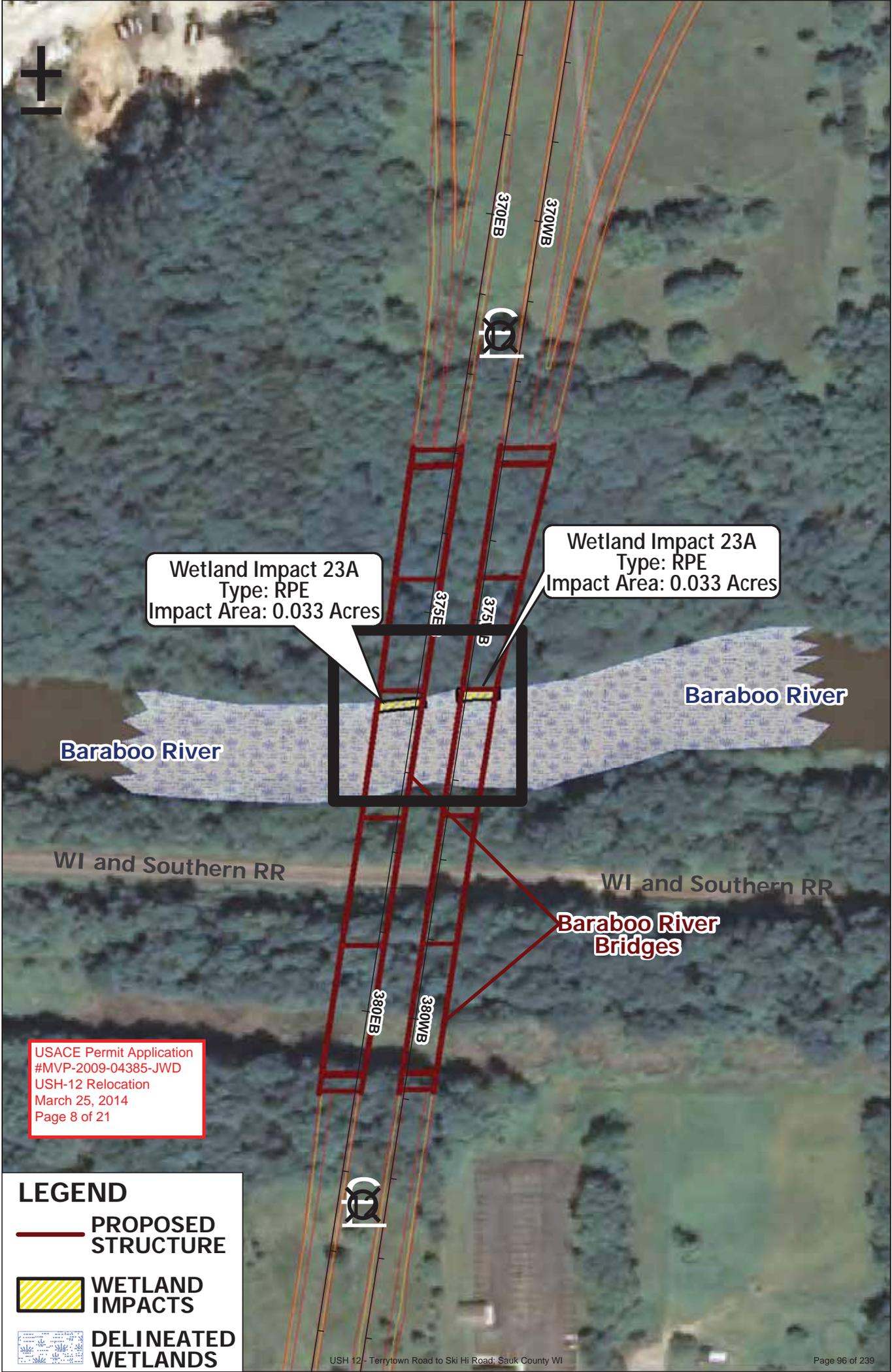
LEGEND

 PROPOSED STRUCTURE

 WETLAND IMPACTS

 DELINEATED WETLANDS





Wetland Impact 23A
Type: RPE
Impact Area: 0.033 Acres

Wetland Impact 23A
Type: RPE
Impact Area: 0.033 Acres

Baraboo River

Baraboo River

WI and Southern RR

WI and Southern RR

Baraboo River
Bridges

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LEGEND

 **PROPOSED STRUCTURE**

 **WETLAND IMPACTS**

 **DELINEATED WETLANDS**

STATE PROJECT NUMBER

1674-00-80

HYDRAULIC DATA

100 YEAR FREQUENCY
 $Q_{100} =$ C.F.S.
 $Q_{BRIDGE} =$ C.F.S.
 $Q_{ROADWAY} =$ C.F.S.
 VEL. = F.P.S.
 HW. = EL.
 WATERWAY AREA = SQ. FT.
 DRAINAGE AREA = SQ. MI.
 SCOUR CRITICAL CODE

ROAD OVERTOPPING FREQUENCY
 FREQUENCY = YEARS
 $Q_2 =$ C.F.S.
 HW. = EL.
 2 YEAR FREQUENCY
 $Q_2 =$ C.F.S.
 HW. = EL.

TRAFFIC VOLUME

USH 12
 A.D.T. = (20,55)
 R.D.S. = 70 M.P.H.

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PRELIMINARY PLAN

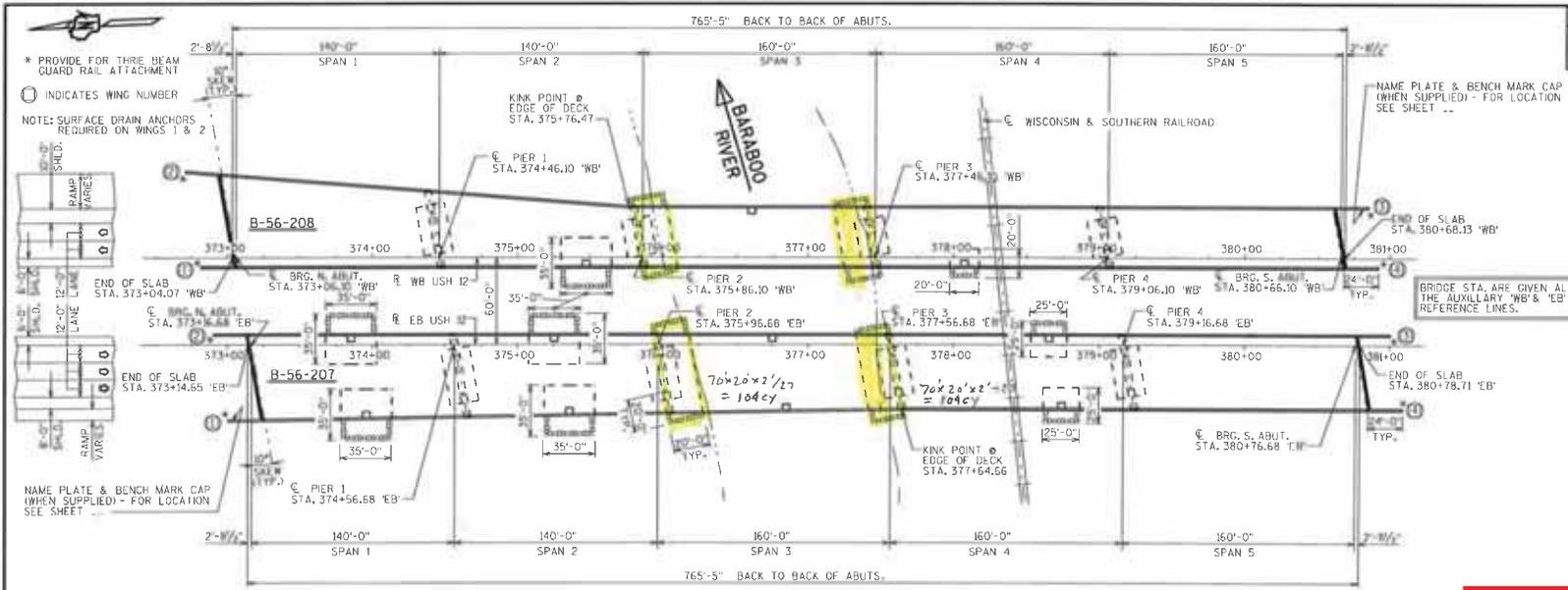
STRUCTURE DESIGN CONTACT:
 MATT COLPAP (608) 266-5083
 KENT BAHLER (608) 266-8490

NO.	DATE	REVISION	BY
<p>Plans Prepared by WISDOT BUREAU OF STRUCTURES</p>			
APPROVED _____ DATE _____			
<p>STRUCTURE B-56-207 EB USh 12 OVER BARABOO RIVER</p>			
COUNTY	SAIJK	TOWN/CITY/VILLAGE	BARABOO
DESIGN SPEC.	ASBUIL. SPEC.	DESIGN SPEC.	4th EDITION
LOAD	HL-93	DESIGN	DRAMA
PLANS	PLANS	WNR	WNR
GENERAL PLAN			SHEET 1 OF 2

I.D. 1674-00-02J

DATE: APRIL 2010

SCALE = 40



PLAN

5 SPAN 72" PRESTRESSED GIRDERS

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
 INVENTORY RATING FACTOR: RF=
 OPERATING RATING FACTOR: RF=
 WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): (KIPS)
 STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY SLAB — $f'_c = 4,000$ P.S.I. ALL OTHER — $f'_c = 3,500$ P.S.I.
 BAR STEEL REINFORCEMENT, GRADE 60 — $f_y = 60,000$ P.S.I.
 " PRESTRESSED GIRDERS, CONCRETE MASONRY STRANDS — " DIA. WITH ULTIMATE TENSILE STRENGTH OF 270,000 P.S.I.
 STRUCTURAL CARBON STEEL ASTM A709 GRADE 36 — $F_y = 36,000$ P.S.I.
 HIGH STRENGTH STRUCTURAL STEEL ASTM A709 GRADE 50 — $F_y = 50,000$ P.S.I.

FOUNDATION DATA

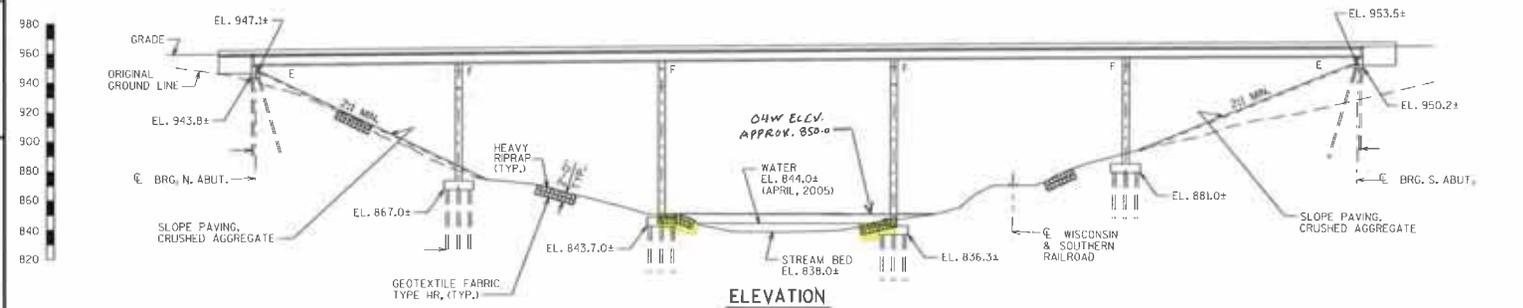
ABUTMENTS TO BE SUPPORTED ON PILING
 DRIVEN TO A REQUIRED DRIVING RESISTANCE OF TONS * * PER PILE
 AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.
 ESTIMATED LONG.

PIERS TO BE SUPPORTED ON PILING
 DRIVEN TO A REQUIRED DRIVING RESISTANCE OF TONS * * PER PILE
 AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.
 ESTIMATED LONG.

* * 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.

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.



ELEVATION

USH 12 - Terrytown Road to Ski Hi Road; Sauk County WI

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HYDRAULIC DATA

100 YEAR FREQUENCY
 $Q_{100} =$ C.F.S.
 $Q_{BRIDGE} =$ C.F.S.
 $Q_{ROADWAY} =$ C.F.S.
VEL. = F.P.S.
HW. = EL.
WATERWAY AREA = SQ. FT.
DRAINAGE AREA = SQ. MI.
SCOUR CRITICAL CODE =
ROAD OVERTOPPING FREQUENCY
FREQUENCY = YEARS
 $Q =$ C.F.S.
HW. =
2 YEAR FREQUENCY
 $Q_2 =$ C.F.S.
HW. = EL.

TRAFFIC VOLUME

USH 12
A.D.T. = (2035)
R.O.S. = TO M.P.H.

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PRELIMINARY PLAN

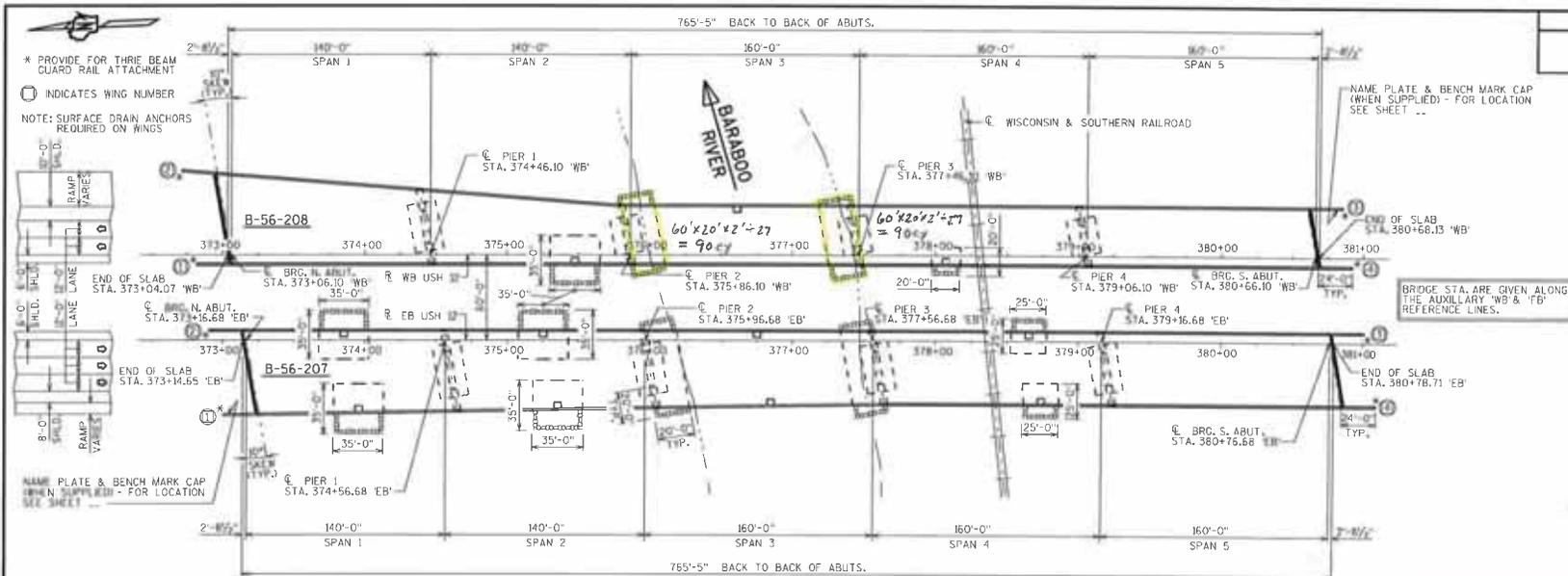
STRUCTURE DESIGN CONTACT:
WATT COUPAR 16081 266-5083
KENT BAHLER 16081 266-8490

NO.	DATE	REVISION	BY
 Plans Prepared by WISDOT BUREAU OF STRUCTURES			
APPROVED _____ CHIEF STRUCTURES DESIGN ENGINEER DATE _____			
STRUCTURE B-56-208			
WB USH 12 OVER BARABOO RIVER			
COUNTY	SAUK	TOWN/CITY/VILLAGE	BARABOO
DESIGN SPEC.	AASHTO LRFD DESIGN SPEC. 4TH EDITION	LOAD	HL-93
DESIGNED BY	MSC (DXY)	DRAWN	WWR (EXT)
GENERAL PLAN			SHEET 1 OF 2

I.D. 1674-00-02J

DATE: APRIL 2010

SCALE = 40



DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF=
OPERATING RATING FACTOR: RF=
WISCONSIN STANDARD PERMIT VEHICLE (WIS. SPV): (KIPS)
STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.
ULTIMATE DESIGN STRESSES:
CONCRETE MASONRY SLAB — $f_c = 4,000$ P.S.I. ALL OTHER — $f_c = 3,500$ P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 — $f_y = 60,000$ P.S.I.
* PRESTRESSED GIRDERS, CONCRETE MASONRY STRANDS — " DIA. WITH ULTIMATE TENSILE STRENGTH OF 270,000 P.S.I.
STRUCTURAL CARBON STEEL ASTM A709 GRADE 36 — $F_y = 36,000$ P.S.I.
HIGH STRENGTH STRUCTURAL STEEL ASTM A709 GRADE 50 — $F_y = 50,000$ P.S.I.

PLAN

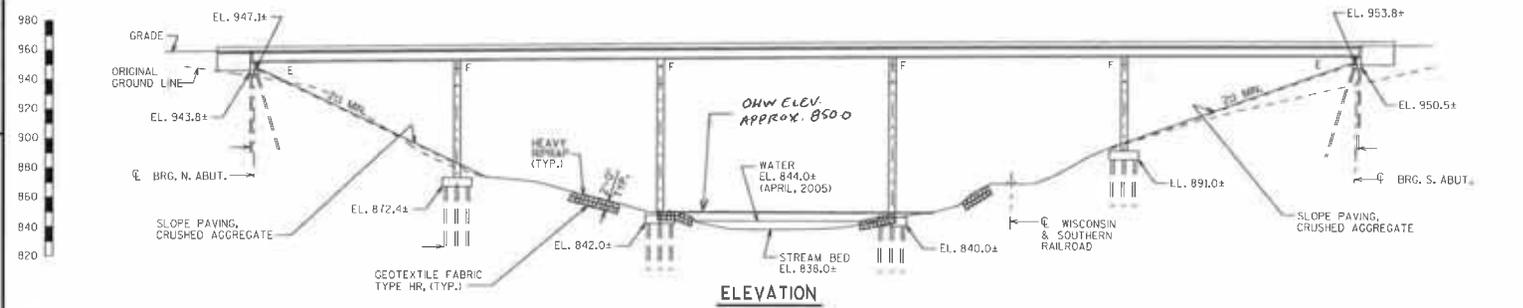
5 SPAN 72" PRESTRESSED GIRDERS

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON PILING
DRIVEN TO A REQUIRED DRIVING RESISTANCE OF TONS * PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LONG.
PIERS TO BE SUPPORTED ON PILING
DRIVEN TO A REQUIRED DRIVING RESISTANCE OF TONS * PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LONG.
* 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.

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.



ELEVATION



Wisconsin Department of Transportation

Division of Transportation System Development
Southwest Region

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WETLAND IMPACT TRACKING

****This form must be filled out for all projects****

Return This Completed Form to:

Environmental Coordinator
(*click box below for list)

Brian Taylor
WDOT SW Region-Madison
2101 Wright Street
Madison WI 53704
Phone: (608) 245-2630

**Please Complete All
Information Highlighted
In Yellow**

**The Environmental
Coordinator (EC) Will
Supply Information
Highlighted In Green**

Project Design I.D. #:	1674-00-02
Project Construction I.D. #:	1674-00-80/82/81
Project Hwy/Title :	USH 12/Lake Delton - Sauk City South Section from Terrytown Road - Ski Hi Road
County :	Sauk
Construction Year :	2015-2017
LET Date:	1/11/2013, 07/14/2015, 07/12/201
Date this form is completed:	12/05/2013

This Form Prepared by:	Scott Cramer	608-663-1218	scramer@klengineering.com
	NAME	PHONE	EMAIL

Is a discharge of dredged or fill material into wetlands anticipated?

NO **Form complete; no further information is required**

YES **Complete remainder of form and:**

1. Include this sheet with your DNR 401 and COE 404 permit applications.
2. When you receive DNR 401 final concurrence and COE 404 permit, return this form with:
 - a. A copy of plan sheet(s) showing impact areas. (11 x 17)
 - b. A copy of the DNR 401 Water Quality Certification Letter.
 - c. A copy of the U.S. COE 404 permit (Cover letter only).

Wetland Delineation/ Determination completed by:	James R. McCarthy	608-251-4843	James.Mccarthy@strand.com
	NAME	PHONE	EMAIL
	Env. Scientist (MS Restoration Ecology), Lake Co IL - Cert. Wetland Specialist		
	QUALIFICATIONS		

Directions:

1. One location may be made up of several different wetland types. List each type of wetland impacted from each location on the project corridor separately in the table below.
2. Contact the Environmental Coordinator for appropriate ratio and bank information.
3. Use Department of Transportation Wetland Classification System.
4. Areas should be reported to the nearest 0.01-acre.

Describe methods used to avoid and minimize impacts to wetlands:

Methods used to avoid and minimize impacts to wetlands are described in the attached PDF titled *USH 12 Baraboo Bypass South Section Wetland Avoidance and Minimization*.

Site #	Impact Location (project station)	Type Impacted	Area Impacted	The Environmental Coordinator (EC) will provide this		
				Debit Ratio	Type Mitigated	Area Mitigated
1A	603+26 - 603+48	RPE	0.006			
1C	597+37 - 597+86	RPE	0.010			
1D	594+86 - 597+59	RPE	0.185			
2A	592+12 - 605+53	RPF	0.496			
3A	589+45 - 595+32	RPF	0.732			
4A	589+09 - 589+45	M	0.016			
4A	589+09 - 589+45	RPE	0.000			
4B	588+81 - 589+61	M	0.032			
4B	588+81 - 589+61	RPE	0.000			
4C	587+25 - 587+55	M	0.060			
4C	587+25 - 587+55	RPE	0.000			
4D	581+75 - 582+25	M	0.042			

4D	581+75 - 582+25	RPE	0.000			
5A	576+36 - 583+27	RPE	1.634			
5A	576+36 - 583+27	RPF	0.000			
6A	575+93 - 576+36	RPE	0.021			
6C	572+92 - 574+17	RPE	0.098			
6D	570+07 - 571+41	RPE	0.081			
6D	571+33 - 571+63	RPE	0.023			
7A	573+83 - 574+94	RPE	0.057			
8A	569+61 - 570+85	RPE	0.090			
9A	563+93 - 570+35	M	0.281			
10A	564+86 - 565+58	RPE	0.261			
11A	563+80 - 564+44	RPE	0.128			
12A	561+26 - 564+13	M	0.401			
13A	522+72 - 525+13	M	0.869			
14A	517+13 - 523+49	RPF	2.415			
15A	511+42 - 517+00	RPE	2.188			
16A	508+51 - 511+21	M	0.077			
17A	502+30 - 512+60	RPE	2.820			
17B	500+70 - 502+12	RPE	0.000			
18A	499+77 - 504+73	M	0.647			
19A	496+34 - 496+84	M	0.129			
20A	456+94 - 458+19	RPE	0.077			
20A	456+94 - 458+19	RPF	0.149			
20B	454+24 - 457+73	RPE	0.870			
20B	454+24 - 457+73	RPF	0.046			
20C	454+10 - 456+40	RPE	0.082			
20C	454+10 - 456+40	RPF	0.093			
21A	453+80 - 454+68	RPE	0.023			
21A	453+80 - 454+68	RPF	0.026			
22A	453+12 - 454+02	RPE	0.056			
22A	453+12 - 454+02	RPF	0.056			
23A	374+39 - 377+77	RPE	0.250			
TOTAL			15.53			0.00

Is there potential for onsite mitigation? If unknown, check with the EC.

YES Where is it located? (T/R, station, map) _____

NO List bank site to be used. **(Determined by EC)** _____

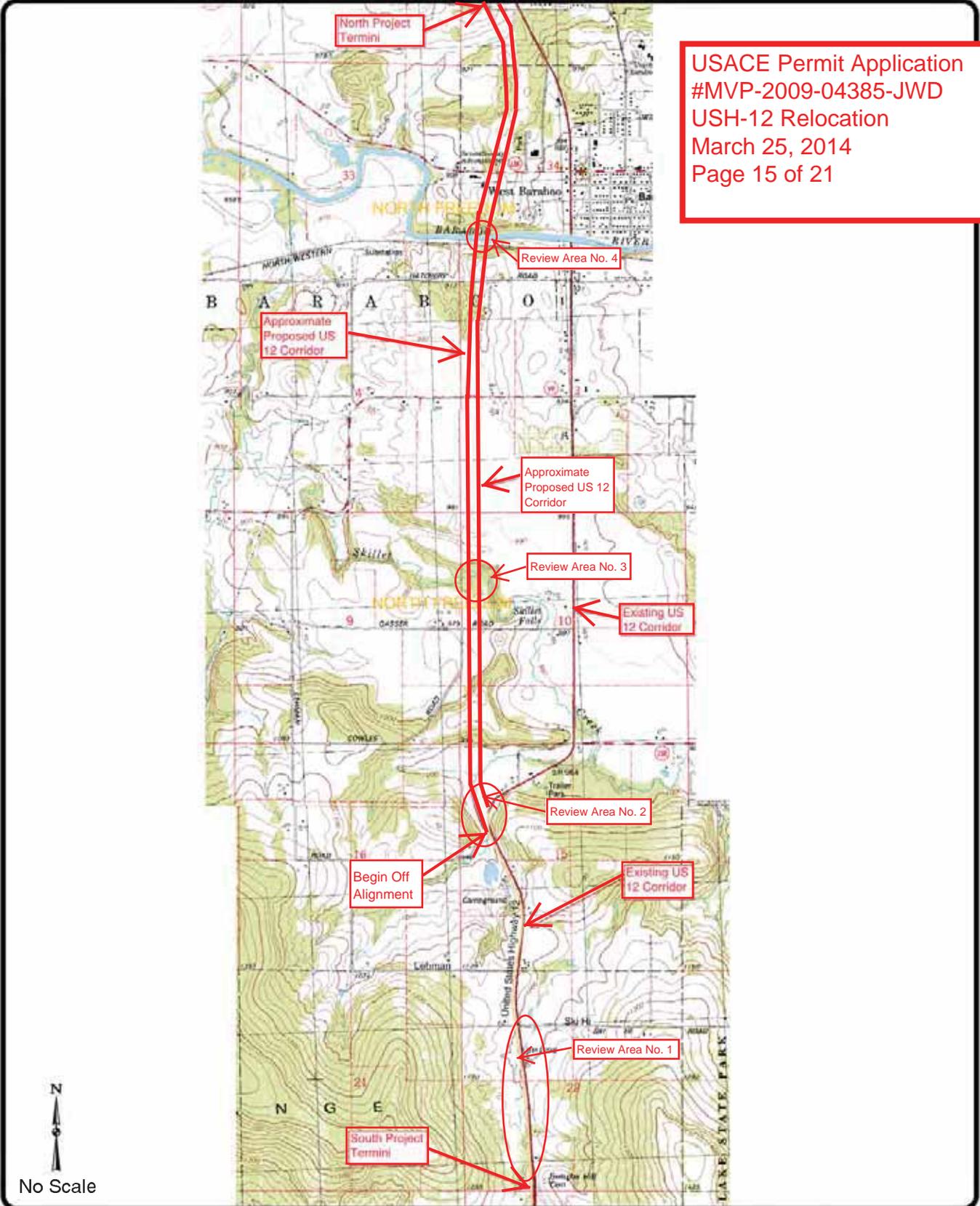
Please attach another sheet if the space provided is not adequate for all impacts or to add any additional comments.

This form is located at: P:\Support\FORMS\Environ_Form_SampLtrs\wetlands_404_Permits\SW Region_Wetland_Tracking_Form.xls

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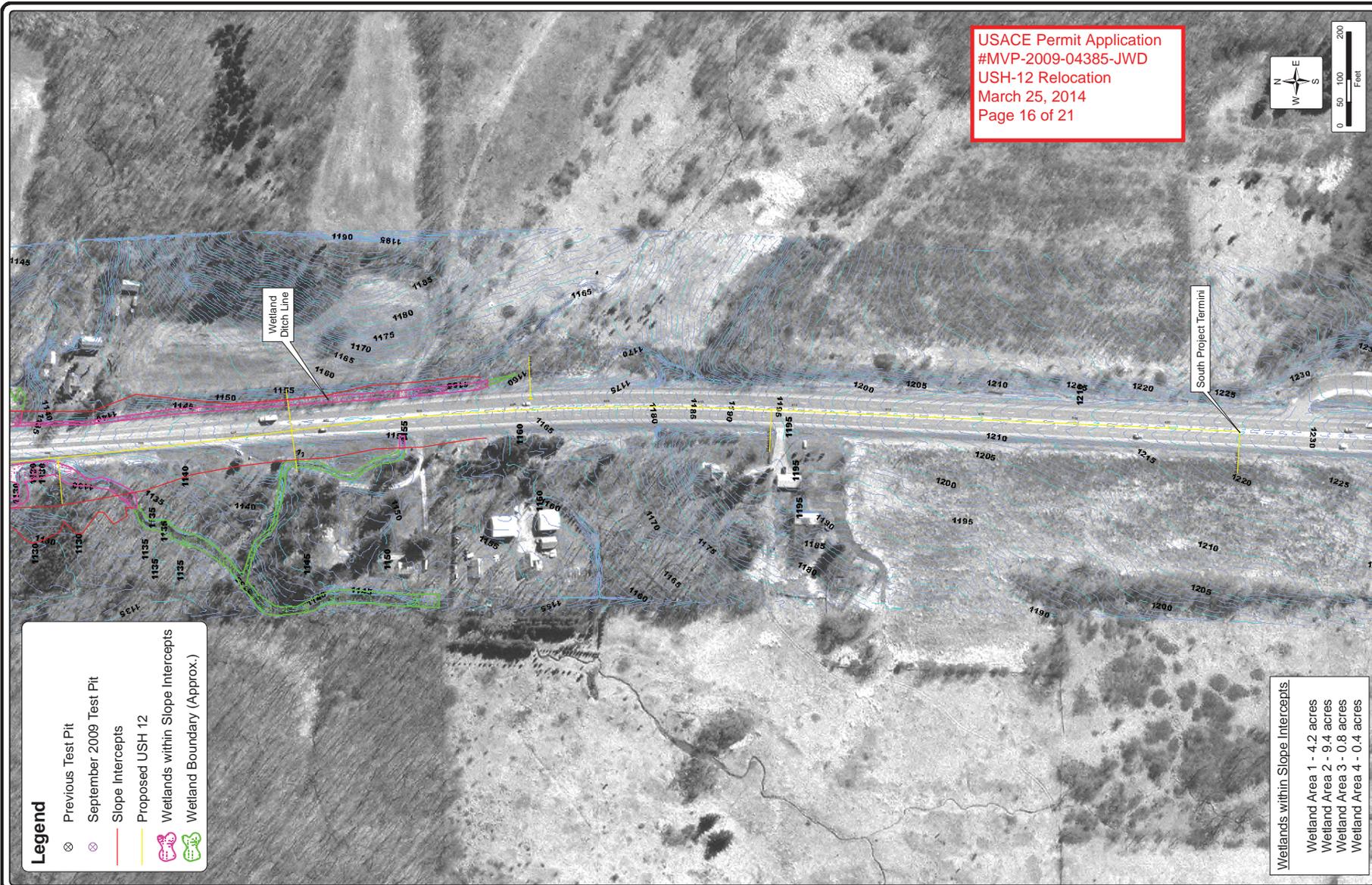
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**PROJECT LOCATION MAP
WETLAND DELINEATION
US 12 BYPASS, TERRYTOWN ROAD TO SKI HI ROAD
SAUK COUNTY, WISCONSIN
WISCONSIN DEPARTMENT OF TRANSPORTATION
WISDOT PROJECT I.D. NO. 1674-00-02**

**STRAND
ASSOCIATES, INC.
ENGINEERS**

**ATTACHMENT A
1089-402**

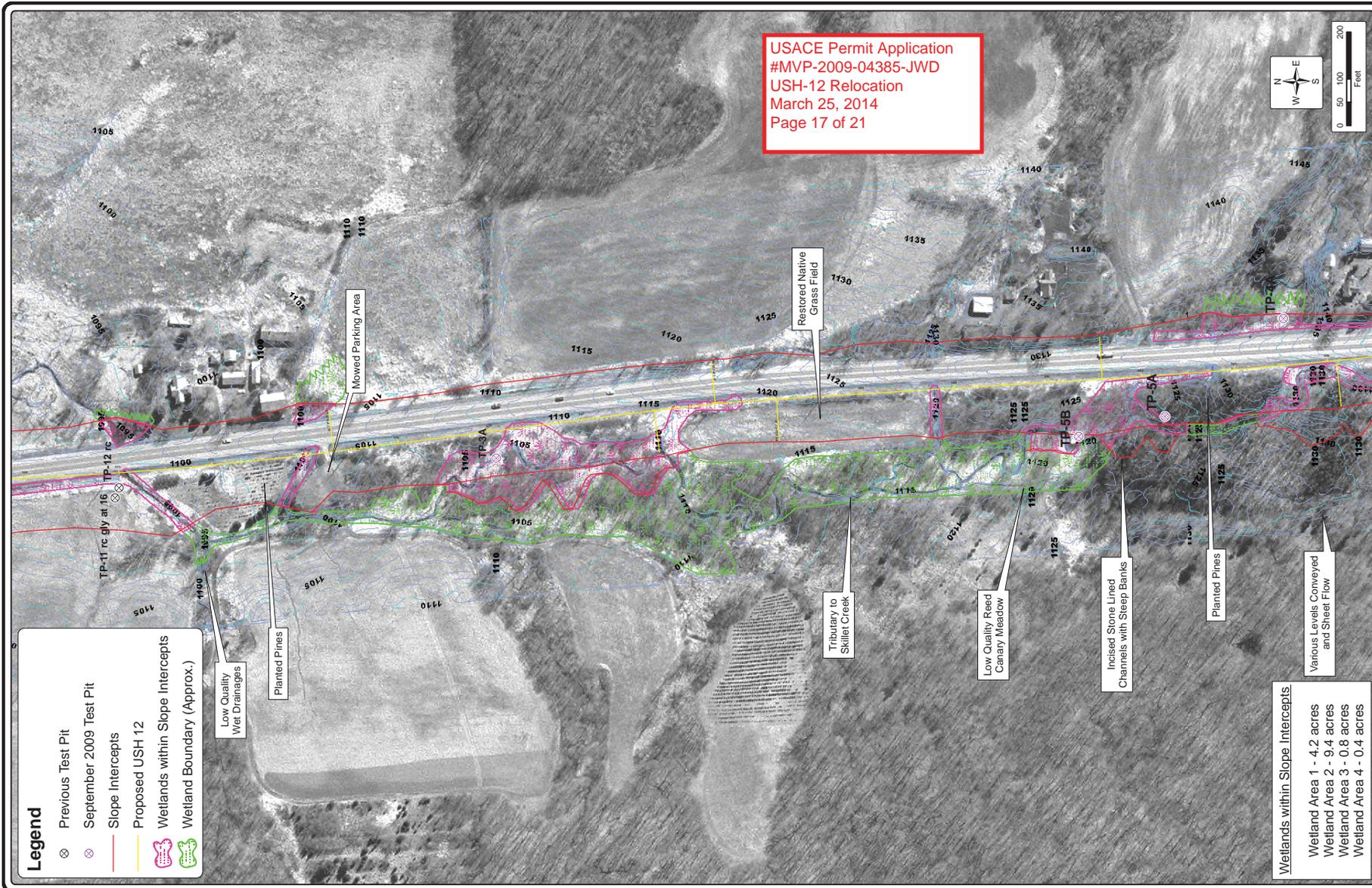


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WETLAND AREA NO. 1A
 WETLAND DELINEATION
 US 12 BYPASS, TERRYTOWN ROAD TO SKI HI ROAD
 SAUK COUNTY, WISCONSIN
 WISCONSIN DEPARTMENT OF TRANSPORTATION
 WISDOT PROJECT I.D. NO. 1674-00-02



ATTACHMENT B
 1089.402

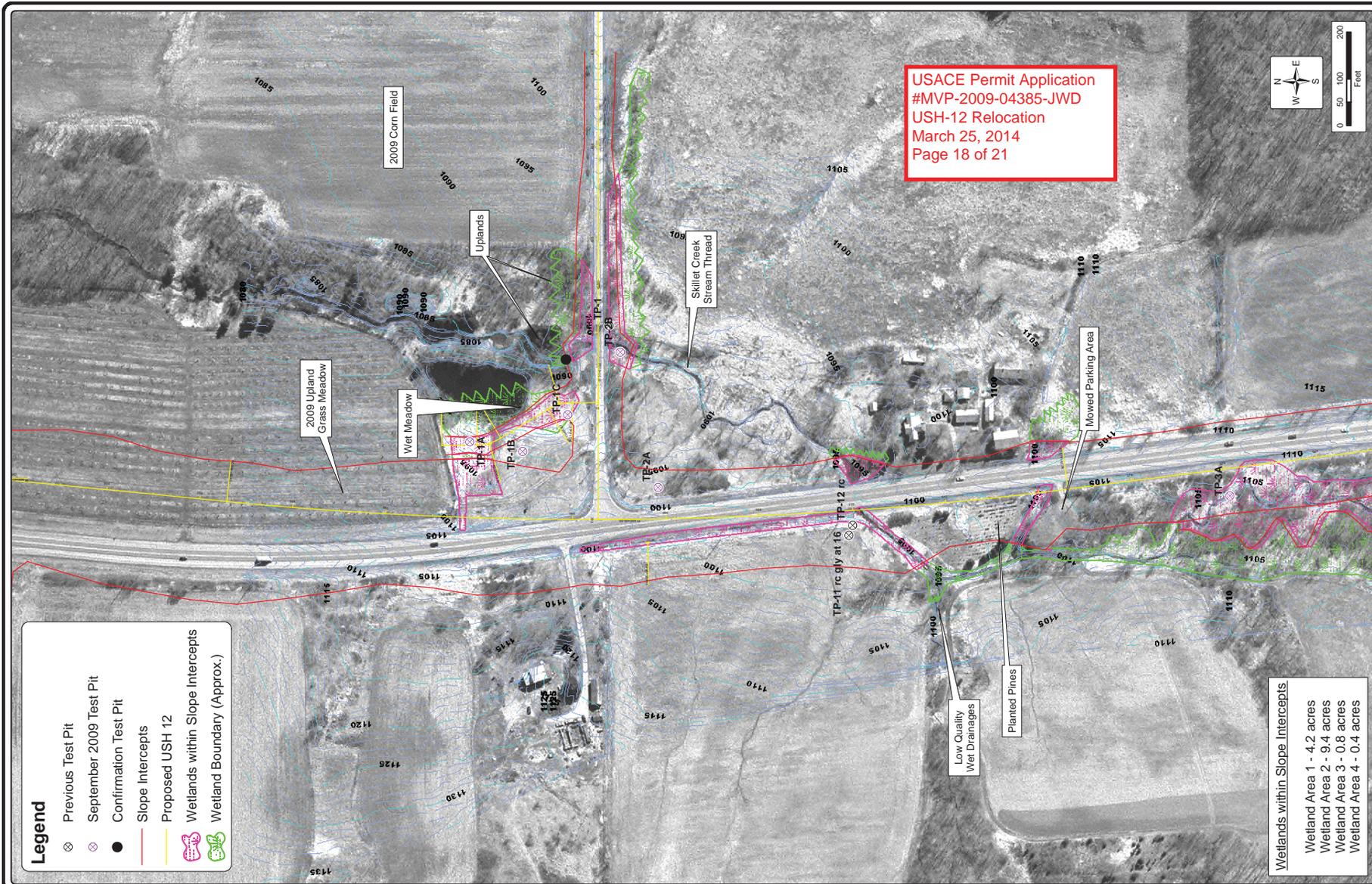


WETLAND AREA NO. 1B
WETLAND DELINEATION
 US 12 BYPASS, TERRYTOWN ROAD TO SKI HI ROAD
 SAUK COUNTY, WISCONSIN
 WISCONSIN DEPARTMENT OF TRANSPORTATION
 WISDOT PROJECT I.D. NO. 1674-00-02



ATTACHMENT B
1089.402

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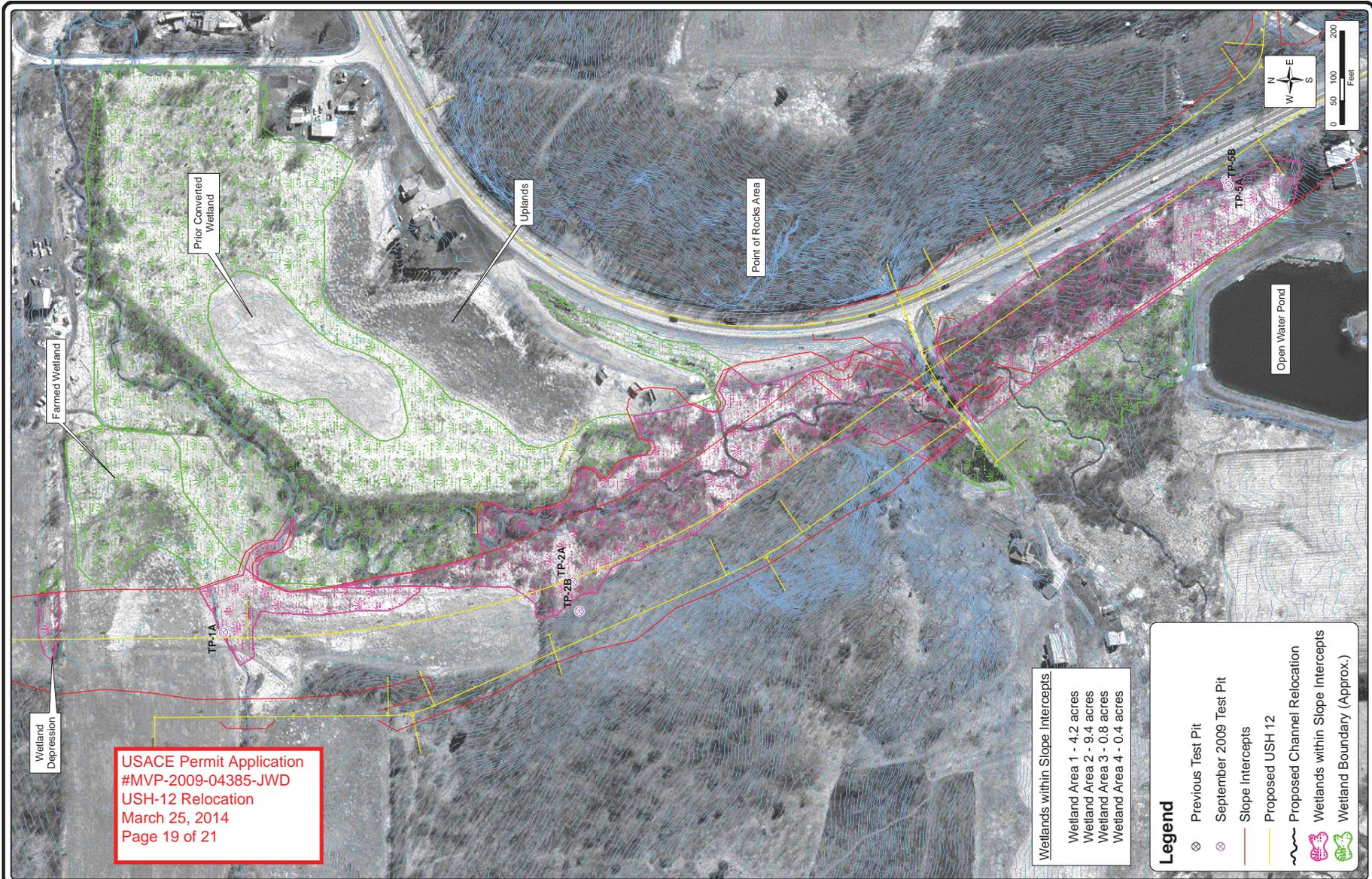


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WETLAND AREA NO. 1C
 WETLAND DELINEATION
 US 12 BYPASS, TERRYTOWN ROAD TO SKI HI ROAD
 SAUK COUNTY, WISCONSIN
 WISCONSIN DEPARTMENT OF TRANSPORTATION
 WISDOT PROJECT I.D. NO. 1674-00-02



ATTACHMENT B
 1089.402



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Wetlands within Slope Intercepts
 Wetland Area 1 - 4.2 acres
 Wetland Area 2 - 9.4 acres
 Wetland Area 3 - 0.8 acres
 Wetland Area 4 - 0.4 acres

- Legend**
- ⊗ Previous Test Pit
 - ⊗ September 2009 Test Pit
 - Slope Intercepts
 - Proposed USH 12
 - ~ Proposed Channel Relocation
 - Wetlands within Slope Intercepts
 - Wetland Boundary (Approx.)

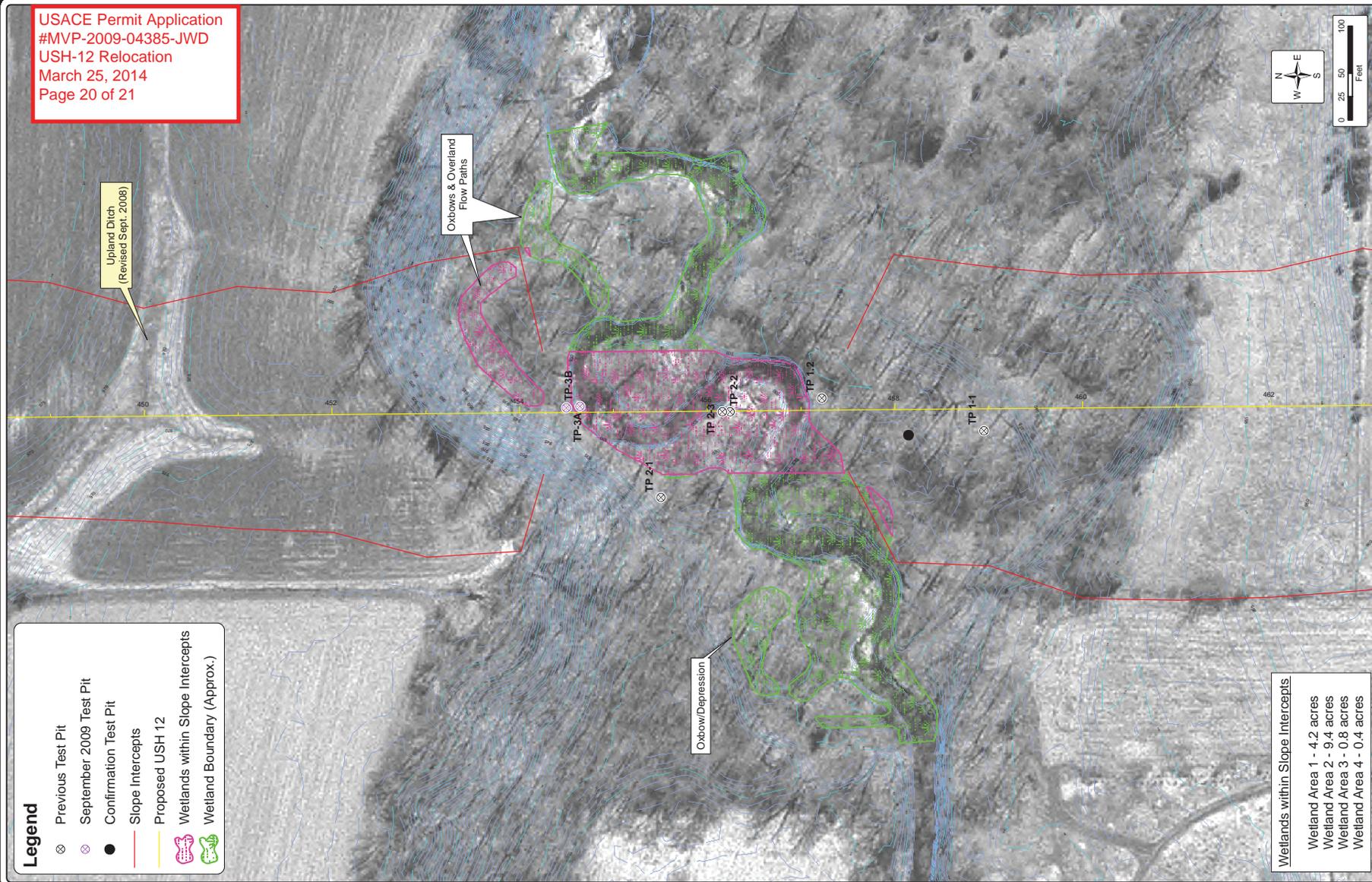
WETLAND AREA NO. 2
 WETLAND DELINEATION
 US 12 BYPASS, TERRYTOWN ROAD TO SKI HI ROAD
 SAUK COUNTY, WISCONSIN
 WISCONSIN DEPARTMENT OF TRANSPORTATION
 WISDOT PROJECT I.D. NO. 1674-00-02



ATTACHMENT B
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- Legend**
- ⊗ Previous Test Pit
 - ⊗ September 2009 Test Pit
 - ⊗ Confirmation Test Pit
 - Slope Intercepts
 - Proposed USH 12
 - Wetlands within Slope Intercepts
 - Wetland Boundary (Approx.)

Wetlands within Slope Intercepts

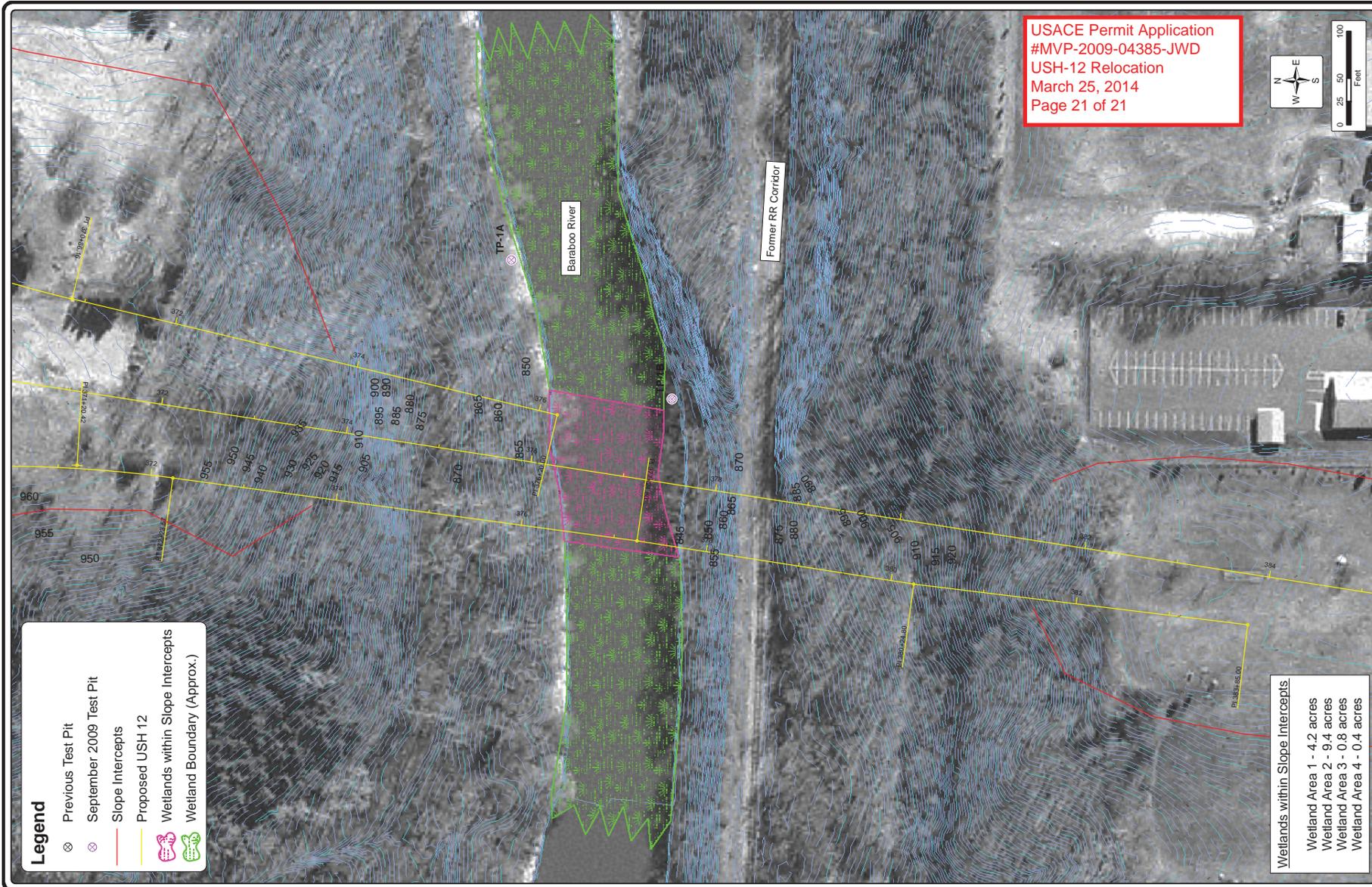
- Wetland Area 1 - 4.2 acres
- Wetland Area 2 - 9.4 acres
- Wetland Area 3 - 0.8 acres
- Wetland Area 4 - 0.4 acres

WETLAND AREA NO. 3
 WETLAND DELINEATION
 US 12 BYPASS, TERRYTOWN ROAD TO SKI HI ROAD
 SAUK COUNTY, WISCONSIN
 WISCONSIN DEPARTMENT OF TRANSPORTATION
 WISDOT PROJECT I.D. NO. 1674-00-02



ATTACHMENT B
 1089.402

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WETLAND AREA NO. 4
 WETLAND DELINEATION
 US 12 BYPASS, TERRYTOWN ROAD TO SKI HI ROAD
 SAUK COUNTY, WISCONSIN
 WISCONSIN DEPARTMENT OF TRANSPORTATION
 WISDOT PROJECT I.D. NO. 1674-00-02



ATTACHMENT B
 1089.402