A-12 Tri Co/Cheese Country Bridge #41

State of Wisconsin
Department of Natural Resources
dnr.wi.gov

Due Date: April 15

Motorized Recreation Grant Application

For: (choose all that apply)
☒ ATV/UTV Trail Aid
☒ Snowmobile Trail Aid

Form 8700-159 (R 02/2024)

Notice: Completion of this form is required under Wisconsin Statutes 23.09(26) and 23.33. Failure to complete this form will result in denial of financial assistance. Personally identifiable information found on this form is not intended to be used for any other purpose. The Department of Natural Resources (DNR) may provide this information to requesters as required by Wisconsin's Public Records law {ss. 19.31 – 19.39, Wis. Stats.}.

Instructions: Applications may combine more than one source of funds. They may be submitted for consideration of traditional ATV, UTV, Snowmobile and Motorized Stewardship funding. Submit one copy of all forms and attachments. See Page 2 for necessary attachments. Send applications to your Community Services Specialist.

DNR Use Only	
Category	Number

Section 1: Applicant Information

Applicant / Organization Name			Check Recipient: Individual other than authorized individual to act on behalf of the applicant. ☒ Select if the same as applicant.		
Tri-County Trail Commission					
Individual Authorized to Act on Behalf of Applicant per Resolution			**Check Recipient Name** (Name to Appear on Check)		
Max Blackbourn			Max Blackbourn		
Title			Title		
Tri-County Trail Coordiantor			Tri-County Trail Coordiantor		
Address			Address		
700 Main Street			700 Main Street		
City	State	ZIP Code	City	State	ZIP Code
Darlington	WI	53530	Darlington	WI	53530
Telephone Number	Email Address				
(608) 776-4893	trails@lafayettecountywi.org				

Section 2: Project Information Required for all Projects

Project Title						**Current Funded Miles**	New Miles (if applicable)
Cheese Country Trail Bridge ~~#36~~ #41 Replacement							
County	Township	Range	Section	¼ ¼	¼	GPS Coordinates:	
Green	01 N	6 ◉E ○W	5	SE	SE	Lat. 42.579768 Long. -89.802541	

Project Description Summary

Proposed project is the complete replacement of Bridge #41 on the Cheese Country Trail over the Skinner Creek in Green County. Project scope is to include removing deteriorated components and replacement with a new structure.

During a routine bridge inspection, major deficiencies were found in the bridge structure indicating that it is at the end of it's useful like (1 to 2 years of longevity left)

Currently here is the breakdown of the request from all grant programs:

ATV/UTV = $185,532.50 (50%)
Snowmobile = $185,532.50 (50%)

☒ I certify that all maintenance land use agreements are on file.

Estimated Cost

Maintenance	Acquisition	Insurance	Development	Bridge Rehab.	Trail Rehab.	Total Estimated Cost
				$371,065.00		$371,065.00

Leave Blank – DNR Use Only

Applicant Certification

Printed Name of Authorized Official	Official's Title
Max Blackbourn	Tri-County Trail Coordinator

As the applicant's authorized official, I certify that, to the best of my knowledge, the information in this application is true and correct.

Max Blackbourn
Signature of Authorized Official

4-15-26
Date Prepared

Appendix A – Required for Bridge Rehab/Replace, New, or Reroute with New Bridge

☒ Bridge Rehab/Replace ☐ New Bridge ☐ Reroute with new bridge

County	Township	Range	Section	¼ ¼	¼	GPS Coordinates:
Green	01 N	6 ◉E ○W	5	SE	SE	Lat. 42.579768 Long. -89.802541

Water Body Name	Bridge Name	County Inventory Number
Skinner Creek	Bridge #41	#41

Funded Trail Name or Number (SNARS if applicable): Cheese Country Trail

Has this bridge site ever received development or rehabilitation funds in the past? ○ Yes ◉ No Year:_____ $_____

Bridge is located on: ◉ Private property ○ Public property

Old Bridge/Culvert Size: 12' X 97'

New Bridge/Culvert Size: 12' X 97'

Landowner Where Bridge is Located	Telephone Number	Length of Trail Use Agreement (5 year minimum)
Pecatonica Rail Transit Commission		Non-Expiring

Current maximum load	Proposed maximum load	Age of Bridge	Bridge Material
25,000 lbs.	25,000 lbs.	50+ yr.	Wood foundations, wood superstructure

Sponsoring Club Name	Club Contact	Telephone Number
Tri-County Trail Commission	Max Blackbourn	(608) 776-4983

Do you have your trail bridges posted as to maximum load? ○ Yes ◉ No

What is the maximum load of the other bridges on the system if groomed with this bridge?
At this time, maximum loads allowed on trail system are variable due to varying conditions of bridges.

What is the weight of your puller & drag/grading equipment?
~25,000

What other recreational trail uses are planned for this bridge?
Pedestrian, bicycle and e-bicycle

If there are other Recreational uses planned, how much of the bridge cost will be paid for by non-snowmobile or non-ATV users?
None

○ Yes ◉ No Have you contacted your local DNR Water Management Specialist (WMS) regarding a permit?
◉ Yes ○ No Is a permit needed? (Please provide any written correspondence from WMS.)
○ Yes ◉ No Have you contacted your County Zoning Dept. regarding a floodplain determination?
◉ Yes ○ No Will an H & H (hydrologic and hydraulic) study be required?

Bridge Project Detailed Description

Proposed project is the complete replacement of Bridge #41 on the Cheese Country Trail.

During a routine bridge inspection, major deficiencies were found in the bridge structure indicating that is at the end of it's useful life (1 to 2 years of longevity left).

Currently we are looking at proposing a new 12' X 97' bridge structure. Since the structure is so old, changes will have to be evaluated for floodplain compliance.

A pre-application meeting will be scheduled in the immediate future with DNR WMS for permitting requirements and with county zoning to work through floodplain permitting and H&H work that will be needed.

Appendix A (continued)

Summarize Costs in Appropriate Categories:

Bridge Structure

		Quote 1	Quote 2
		◉ Steel ○ Wooden	○ Steel ○ Wooden
Bridge Dimensions:		12' X 97'	
Bridge Manufacturer:		TBD	
Design Weight Load		25,000 lbs.	lbs.
Cost of Structure:	1. Engineering	$ 45,778	$
	2. Structure	$ 269,280	$
	Subtotal	$ 315,058	$

Installation Costs: (Includes construction labor too - see attached cost estimate)	Quote 1 ◉ Contractor or ○ Sponsor Estimate	Quote 2 ○ Contractor or ○ Sponsor Estimate
1. Engineering	$ 39,757	$
2. Site Preparation	$	$
3. Abutments	$	$
4. Pilings/Piers	$	$
5. Approaches	$	$
6. Riprap	$	$
7. Labor	$	$
8. Equipment Rental	$	$
9. Culverts	$	$
10. H & H Study	$	$
11. Wetland Delineation	$	$
12. Other Soil Borings	$ 16,250	$
Subtotal	$ 56,007	$
Total Cost	$ 371,065	$

For the application grant, you must take the lowest of the two quotes.

Entire Deck and Railing Projects ○ Contractor ○ Sponsor ○ Club

Bridge Dimensions:	
Design Weight Load	lbs.
1. Materials	$
2. Labor	$
Total	$

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921
dnr.wi.gov

Recreation Grant Project Cost Estimate Worksheet

Form 8700-014 (R 02/23)

For use with Recreation Grant Application Forms

Recieved estimates from Craig Hardy Iowa Co. Hwy. Commissioner

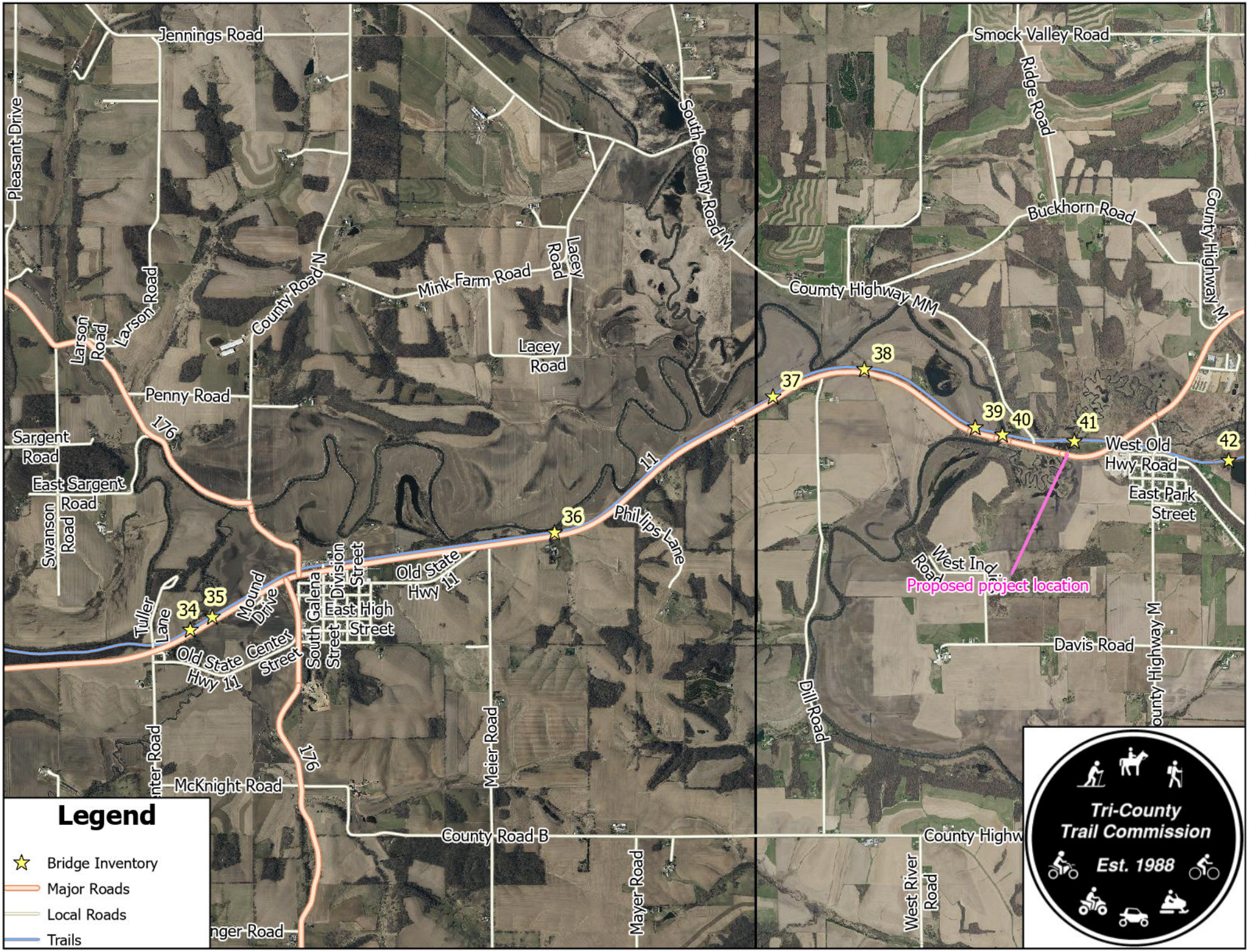
Project Name:		Prepared By:	Date
BRIDGE #41 REPLACEMENT		Max Blackbourn	02/27/2026
County	Project Applicant:	Landowner Name	○ Public ◉ Private
Lafayette	Tri-County Trail Commission	Pecatonica Rail Transit Commission	

Indicate - (C) Contract , (F) Force Acct., (D) Donated

	DEVELOPMENT PROJECT ITEMS *List by individual item or break down by Use Areas* (See Item List On Back Of This Form)	Quantity	Unit of Measure	Component Costs	Estimated Total Item Cost
	Bridge Materials	1		$269,280.00	269,280.00
	Design	1		$45,778.00	45,778.00
	Soil Borings	1		$16,250.00	16,250.00
	Engineering & Construction	1		$39,757.00	39,757.00
				TOTAL $	$371,065.00

NOTE:

- **For development projects, contingency and indirect costs are <u>not</u> eligible expenses.**
- **For acquisition projects, complete the Acquisition Project Cost Estimate Section of this form.**


Jennings Road
Pleasant Drive
South County Road M
Smock Valley Road
Ridge Road
Buckhorn Road
County Highway M
Mink Farm Road
Lacey Road
Larson Road
County Road N
Coumty Highway MM
Penny Road
176
Sargent Road
East Sargent Road
Swanson Road
11
36
37
38
39
40
41
42
West Old Hwy Road
East Park Street
Phillips Lane
Old State Hwy 11
Mound Drive
Division Street
South Galena Street
East High Street
Tuller Lane
34
35
Center Street
Old State Hwy 11
West Indian Road
Proposed project location
Davis Road
Dill Road
Meier Road
McKnight Road
County Road B
Mayer Road
West River Road
Legend
Bridge Inventory
Major Roads
Local Roads
Trails
Tri-County Trail Commission
Est. 1988

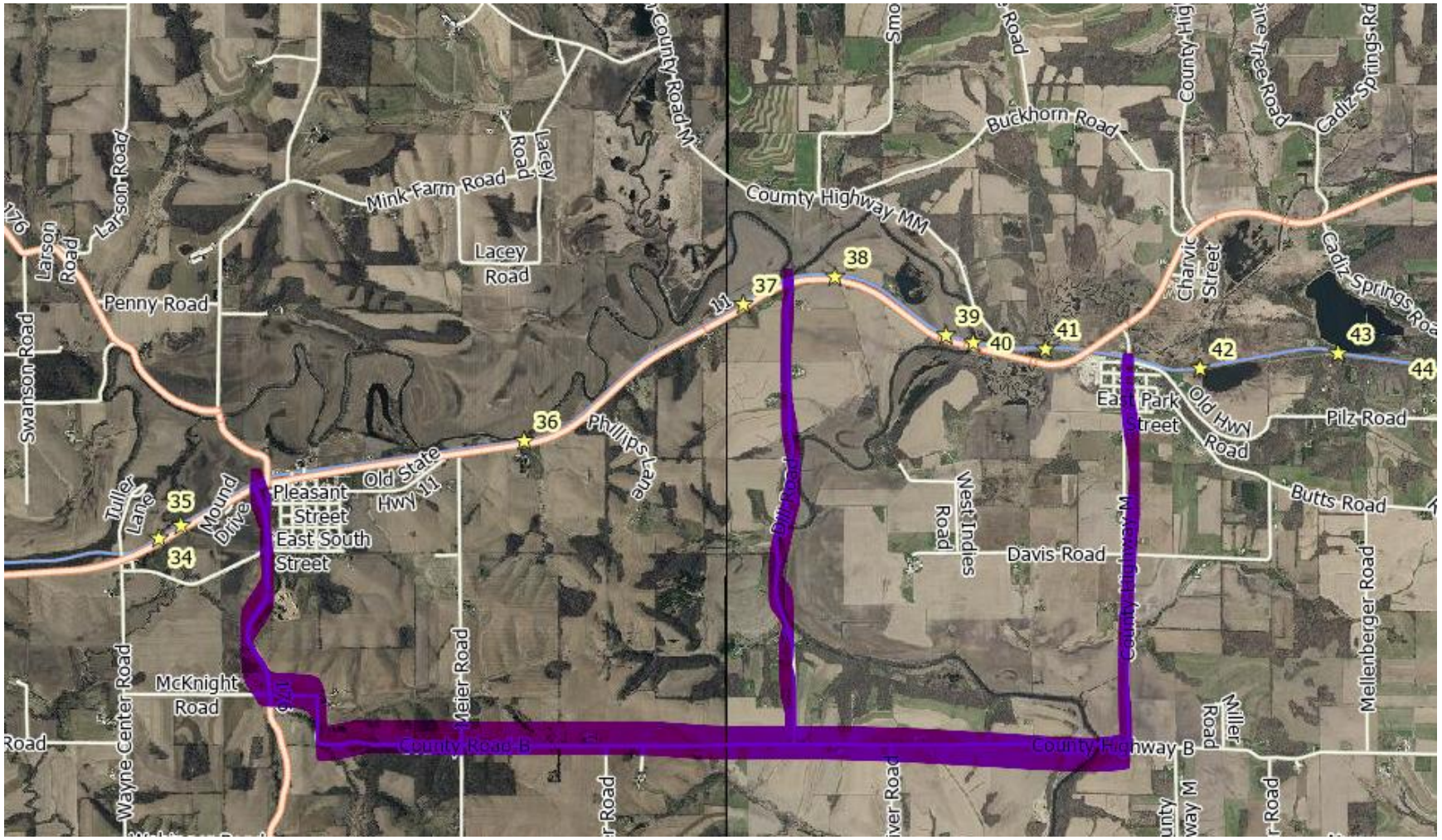
Bridge #41

Guidelines for Applicant

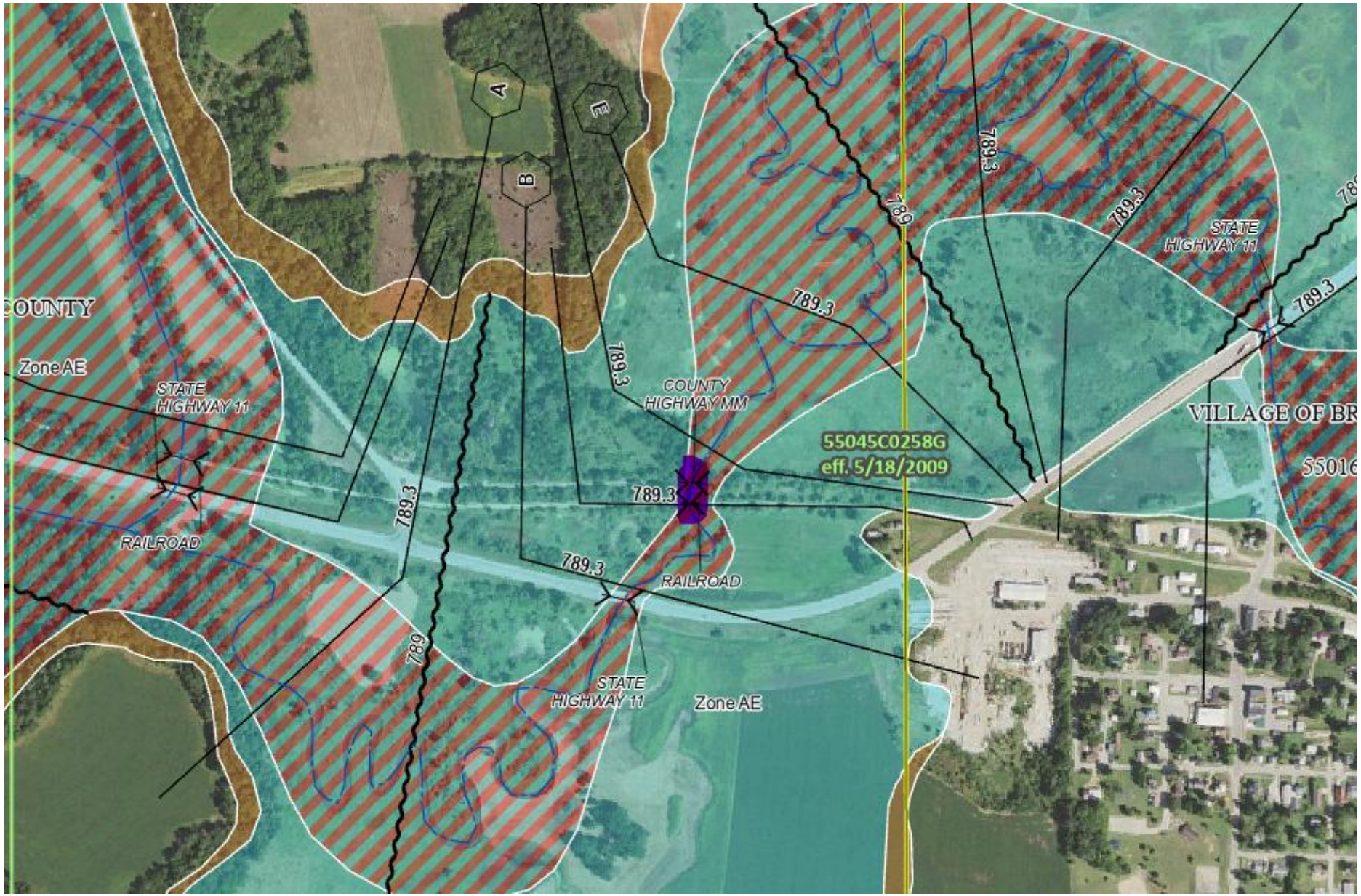
Complete this form for each bridge structure you are submitting a grant application for. Provide any additional documents not requested on application checklist to substantiate your points, including actual deeded easements.

This ranking tool is used for both **Snowmobile** and **ATV/UTV** Trail Aids programs, though each program may score things differently. If you are seeking funding from BOTH programs for a dual use bridge, please score ALL questions

	Category	Possible Points	Snow Points	ATV/UTV Points
1	**Condition of the Structure** (max of 10 points)			
	Has a certified bridge inspection report that supports the project & demonstrates need. Copy of report needed. Snowmobile Funded Projects	10	10	
	Calculation: 10 minus NBI Rating Score (0-9) ATV Funded Projects *Use overall NBI # if provided, or an average of the components. Redecking projects should just use the deck NBI #.*	10		6
2	**Permits** (maximum points 4)			
	Consultation with DNR Water Mgmt Specialist has occurred & permit is likely, if needed	1	–	–
	Permit in hand / Bridge already permitted	3	–	–
3	**Funding** (maximum points 2) Has an application been submitted for other funding			
	50% or greater from other funding source(s)? (includes 50/50 Snow/ATV projects)	2	2	2
	11% - 49% from other funding source(s)?	1	–	–
4	**Length of Written Easements or Land Use Agreement** (max points 5)(ch. 23.09(26)(am)1 WI Stats)			
	On public land (County, State, Federal)	5	5	5
	10 or more year **deeded easement** on private land or other public land, for all portions of that trail to the nearest road on each side of the bridge	5	–	–
	3-9 year **deeded easement** on private land or other public land, for all portions of that trail to the nearest road on each side of the bridge	4	–	–
	10 or more year **deeded easement** on private land or other public land, for just the bridge site	3	–	–
	3-9 **deeded easement** on private land or other public land, for just the bridge site	2	–	–
	10 or more year land use agreement (LUA, not deeded) on private land or other public land	1	–	–
	3-9 year land use agreement (LUA, not deeded) on private land or other public land	0	–	–
5	**Miles Impacted** – How many miles will need to rerouted if the structure is not replaced? Measured from nearest intersection on both sides of the bridge. (max 4 points)			
	Less than 20 miles Snowmobile Funded Projects	1	1	
	20 miles or more Snowmobile Funded Projects	3	–	
	No other snowmobile trails connect. Snowmobile Funded Explain:	4	–	
	For ATV/UTV projects, describe the relocation (on routes? Trail?) Include sketch/map		✓	
6	**If ATV/UTV, Seasons of Use** (max 3 points)			
	Year-Round or Summer Only ATV/UTV Trail	3		3
	Winter Only ATV/UTV Trail	1		–
	DEDUCTIONS			
7	**County Active Project Deduction** (maximum deduction 1 point) A snowmobile active project is one that has exceeded it's initial grant period.			
	Two or more active projects - deduct 1 point	-1	-1	
	GRAND TOTAL		17	16



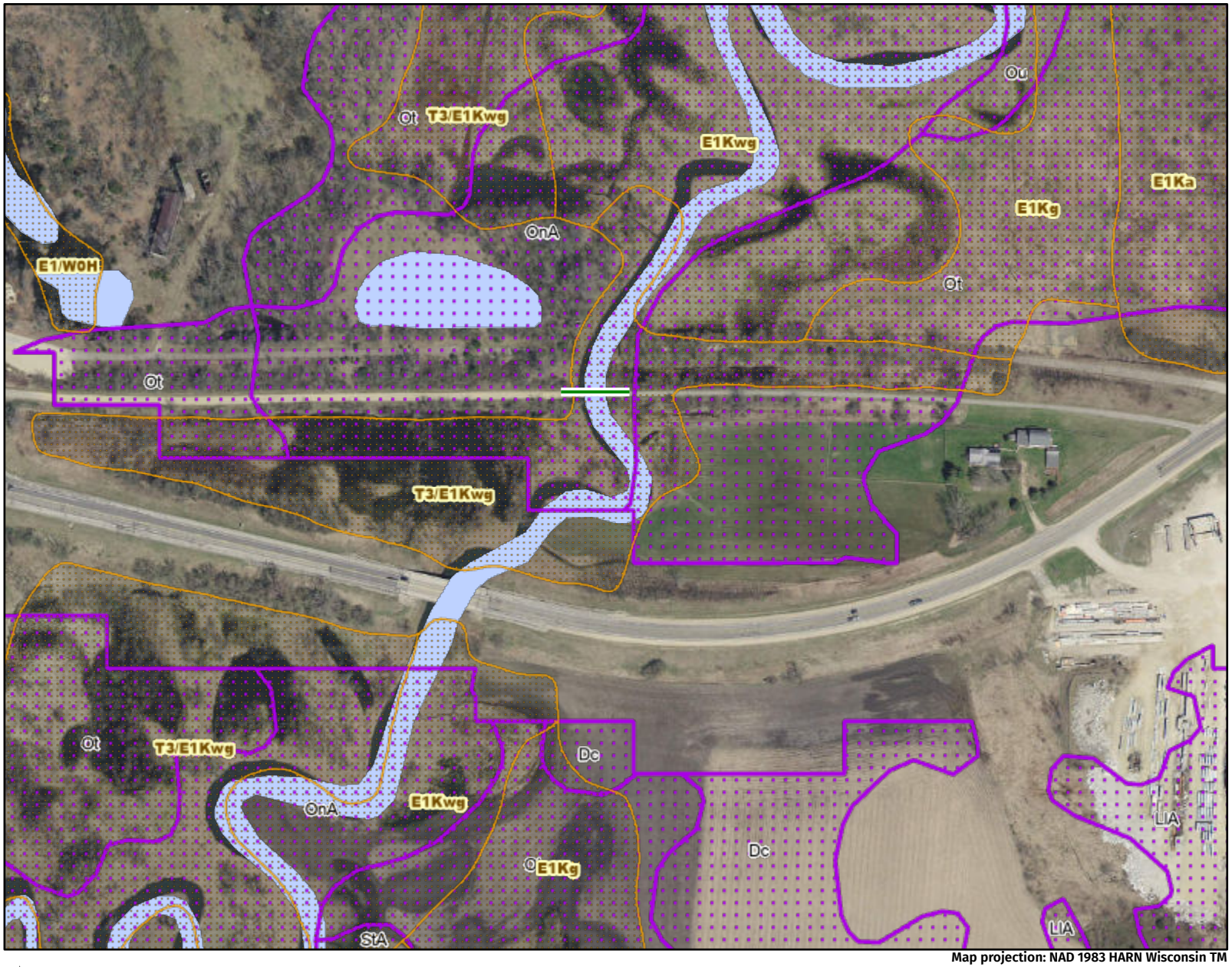
Trail re-route (2 choices) if bridge 41 would have to close.



Bridge is located in the purple highlighted area. This area is within FEMA regulated floodplain.

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

Bridge #41 Map



Legend: (some map layers may not be displayed)

- Wetland Class Areas
- Wetland Indicators
- Rivers and Streams
- Intermittent Streams
- Open Water
- Rivers and Streams
- Intermittent Streams
- Open Water
- 24K Lakes and Open Water
- 24K Streams and Rivers
- Latest Leaf Off Index
- Latest Leaf Off Imagery

Notes:

Map projection: NAD 1983 HARN Wisconsin TM

N

Map: 0 250 500 Feet
0 75 150 Meters

Service Layer Credits:
Wetland Indicators & Soils^: Surface Water Data Viewer Team, DNR Basic Feature VTL (WTM): Wisconsin Department of Natural Resources, GIS Section, Latest Leaf Off: , Surface Water: WiDNR, USGS, and other data, Wetland Inventory NWI (Dynamic): Calvin Lawrence, Dennis Weise, Nina Rihn

This map is a product generated by a DNR web mapping application.

This map is for informational purposes only and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. The user is solely responsible for verifying the accuracy of information before using for any purpose. By using this product for any purpose user agrees to be bound by all disclaimers found here: https://dnr.wisconsin.gov/legal.

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Inspection Report for

Bridge #41

Cheese Country Trail over Skinner Creek

Executive Summary

Recommended Inspection Frequency:

- 12 Months.
- *Monthly interim monitoring by local forces should be completed with supplemental inspections after any suspected overload crossing.*

Estimated Remaining Longevity:

- The remaining serviceable life of this structure can be reasonably estimated at 1 years.
- There are likely no feasible rehabilitation efforts that would extend the longevity of the structure.

Summary of Channel Conditions:

- Erosion has undermined the backwall plank at west abutment. 2ft-3ft local scour at Piers W2 & W3.

Summary of Structural Conditions:

- Decayed timber components throughout are susceptible to overload damage, with the beams and pier piles being especially vulnerable.
- **Isolated crushing of one pier pile**.

Maintenance/Repair Recommendations: *Refer to subsequent element descriptions for detailed component specific maintenance recommendations, if appliable.*

- **Bridge should be evaluated for structural capacity and posted for load.**
- Posting for reduced load capacity may extend longevity**.**
- Schedule for complete replacement or closure.

Nathan W. Miller
Bridge Inspection Team Leader, Inspector Number: 9601

11.20.2025
Date

Bridge ID / Structure No.	Inspection Date:	11.20.2025
Bridge #41	**Inspection TL:**	Nate Miller, PE
	NBI Project No:	2503501
Facility Owner/Managing Agency: Tri-County Trails Commission	Representative: Max Blackbourn	
Email: trails@lafayettecountywi.org	Phone: 608-776-4893	

Summary of Inspection Intent, Procedures, and Limitations

- NBI Engineering Services personnel visited the above referenced structure to observe the existing conditions and collect information on behalf of The Tri-County Trail Commission. The purpose of this inspection was to determine the physical and functional condition of the bridge.
- Observations have been limited to readily available surface conditions. No destructive or invasive testing procedures, load rating, or detailed measurements have been performed as part of this inspection. NBI Engineering Services reserves the right to revise our opinions if additional evidence becomes available.
- Timber conditions were evaluated by visual inspection and acoustic sounding.
- Due to access limitations, assessment of components above 6 ft above grade was limited primarily to visual observation.
- No subsurface or underwater inspection efforts have been completed.
- The facility was open to traffic during the inspection.
- No plans or prior inspection information for the structure have been provided.

Time Log	Onsite: 1.5 Hours

Inventory Data

Feature On:	Cheese Country Trail	Feature Under: Skinner Creek
Lat./ Long.:	42.5797, -89.8024	
Orientation:	Traffic Direction: EB/WB	Channel Flow: Upstream: North - Downstream: South

Structure Type

No. Spans:	6	Wearing Surface: Concrete Deck
Deck	Cast-In-Place Concrete over Timber Cross-Ties	
Superstructure	3-Ply Timber Beams	No. Beam Lines: 2
Substructure	Abutments: Timber Pile with Timber Backwall Plank	
	Pier(s): Timber Pile Bent	

Geometric - *Dimensions are approximate.*

Width (O-O):	12.0’	Deck Length (O-O): 97.0’
Width (C-C):	10.5’	Span Length(s): 15.5’/16.0’/15.5’/16.0’/16.0’/15.5’

Assessments

Assessment	Description	UOM	Total	Quantity in CS 1	2	3	4	Comments
9001	Drainage -Ends of Structure	EA	4			4		Well Vegetated. Edges of Approaches Undermined.
9004	Drainage - Structure	EA	0					No Bridge Deck Drains.
9030	Signs – Object Markers	EA	4		4			Present at All 4 Corners.
9035	Signs – Other	EA	0					“BRIDGE AHEAD”. None.
9035	Signs - Other	EA	2		2			“15 MPH ON BRIDGE”.
9041	Slope Protection -Bare	EA	2		1	1		Natural Earth Embankments.
9324	Approach Roadway -W: Gravel E: Asphalt	EA	2		2			Minor Rutting at Wheel Lines.

SNBI Condition Ratings & Commentary

Deck (C.01) | 4 | Poor Condition – Deteriorating

1. Concrete slab (wearing surface) over timber crossties(deck).
2. Minor wear of concrete throughout wearing surface, most pronounced along wheel lines. Multiple unsealed moderate/wide width transverse cracks throughout concrete slab.
3. Timber crossties decayed and split at ends. Signs of decay throughout all timber components. Timber preservative treatment is no longer effective.

Maintenance/Repair Recommendations

No feasible rehabilitation options to extend longevity of component.

Railings (C.05) | 4 | Poor Condition – Stable

1. (3) rows of W-beam bridge rail supported by angled timber posts.
2. Initial signs of incipient decay of timber components. Timber preservative treatment appears marginally effective.
3. Isolated areas of minor damage to w-beam curb rails.
4. Post in north railing cracked/broken.

Maintenance/Repair Recommendations

Repair damaged rail post.

Transition Railings (C.06) | **N/A** | Not Applicable

Joints (C.08) | **N/A** | Not Applicable

Superstructure (C.02) | 3 | Serious Condition - Deteriorating

1. (2) lines of timber beams each comprised of (3) through-bolt connected laminations.
2. Beams are decayed +/- 75% throughout with widespread prominent checking and generally appear hollow when sounded. Isolated areas of more advanced decay and signs of horizontal shear cracking.
3. No readily evident signs of crushing.
4. Beams are highly susceptible to overload damage.

Maintenance/Repair Recommendations

No feasible rehabilitation options to strengthen or extend longevity of component.

Bearings (C.07) | **N/A** | Not Applicable

Substructure (C.03) **| 2 | Critical Condition** – Deteriorating

Abutments:

1. Driven timber piles, timber pile caps, and timber backwall plank.
2. Decayed timber components throughout with no readily evident signs of crushing.
3. Caps are decayed 50%-75% throughout with widespread minor checking and generally appear hollow when sounded. Isolated areas of more advanced decay and splitting at ends.
4. Piles: Bearing piles sound hollow with an estimated 50%-90% loss of section.

Pier(s):

1. Driven timber piles and timber pile caps.
2. Decayed timber components throughout with **isolated crushing of pier piles**.
3. Caps are decayed +/-75% throughout with widespread minor checking and generally appear hollow when sounded. Areas of more advanced decay and splitting at ends.
4. Piles: Bearing piles sound hollow with an estimated 50%-90% loss of section. Multiple piles splitting vertically.

Maintenance/Repair Recommendations

No feasible rehabilitation options to strengthen or extend longevity of component.

Channel (C.09) | 5 | Fair Condition - Deteriorating

1. Embankment Erosion: Erosion of natural earth berms at west abutment has undermined backwall plank.
2. Drift: No significant deposits in channel.
3. Channel Change: Waterway flows through spans W2 & W3 and around Piers W2 & W3. Upstream channel migrating west. Downstream channel bends to the east to flow through roadway bridge.
4. Adequacy of Opening: No readily visible signs of overtopping.

Maintenance/Repair Recommendations

See Channel Protection.

Channel Protection (C.10) | 5 | Fair Condition - Deteriorating

1. Vegetation: Channel is well vegetated.
2. Channel Protection: No channel armoring present-erosion of unprotected embankment adjacent to west abutment.

Maintenance/Repair Recommendations

Installation of channel protection would reduce likelihood of future erosion/scour issues. Channel armoring may not be feasible, and/or recommended, given the expected longevity of the structure and current observed conditions.

Scour (C.11) | 5 | Fair Condition - Stable

1. Streambed Scour: Soft/silty streambed is prone to scour. 2ft-3ft of local scour observed at Piers W2 & W3.

Maintenance/Repair Recommendations

See Channel Protection.

Bridge ID / Structure No.	Inspection Date:	11/20/2025
Bridge #41	Inspection TL:	Nate Miller, PE
	NBI Project No:	2503501

Deck

Deck Rating: 4

Quantity in Condition State

	Element	Defect	Description		OUM	Total	1	2	3	4
Wearing Surface	8514		**Wearing Surface-Concrete Overlay**	**6**	SF	1164		1056	108	
			Retrofit C-I-P concrete slab over timber crossties.							
		3220	WS-Crack		SF			528	108	
			CS3: 9 transverse lines of moderate/wide width cracks across width of deck.							
		8911	WS-Abrasion/ Wear/ Rutting or Loss of Friction		0			528		
			CS2: Concrete worn to large aggregate at wheel lines. Outside edges of deck covered with crushed stone/vegetation across 75% of length.							
Deck	31		**Deck-Timber**	**4**	SF	970		70	900	
			Timber Crossties.							
		1150	TBR-Checks/ Shakes/ Cracks/ Splits/ Delamination		SF			70	900	
			CS2: Signs of timber decay throughout. CS3: Full depth splitting and/or decay at end 3ft of 90% of crossties. Assume 25% section loss and 10% full length splitting across all crossties.							
	9004		**Drainage-Structure**	**N**	EA					
			None. No bridge deck drains.							

Bridge Railing

Bridge Railing Rating: 4

Bridge Railing Transition Rating: N

Quantity in Condition State

	Element	Defect	Description		OUM	Total	1	2	3	4
Railing	330		**Metal Bridge Railing**	**4**	LF	194		174		**20**
			(3) rows of W-beam bridge rail supported by angled timber posts.							
		1140	TBR-Decay/ Section Loss/ Abrasion/ Wear		LF			174		
			CS2: Timber posts show initial signs of incipient decay and weather checking.							
		9001	Timber Preservative Treatment		LF					
			CS3: Timber preservative treatment marginally effective.							
		7000	Damage		LF					**20**
			CS4: 1 Post in north rail cracked/broken (20-LF).							

Bridge Joints

Bridge Joints Rating: N

Quantity in Condition State

	Element	Defect	Description		OUM	Total	1	2	3	4
Joints	.		**Joint Type**	**N**	LF					
			None. Concrete bridge deck runs continuously over length of structure.							
		.	Defect		LF					
			N/A							

NBI Engineering Services
PO Box 188
Mount Horeb, WI 53572

Numbering convention increases from west to east or south to north.
Condition codes and methodology consistent with the Specifications for the National Bridge Inventory.

Bridge ID / Structure No.	Inspection Date:	11/20/2025
Bridge #41	Inspection TL:	Nate Miller, PE
	NBI Project No:	2503501

Superstructure

Superstructure Rating: 3

Quantity in Condition State

	Element	Defect	Description		OUM	Total	1	2	3	4
Superstructure	111		**Superstructure-Timber-Open Girder/ Beam**	**3**	LF	194			163	**31**
			2 beam lines of 3-ply timber beams.							
		1140	TBR-Decay/ Section Loss/ Abrasion/ Wear		LF				82	
			CS3: All beams decayed and sound hollow with an estimated 75% loss of section.							
		1150	TBR-Checks/ Shakes/ Cracks/ Splits/ Delamination		LF				81	**31**
			CS3: Prominent checking/horizontal shear cracking (+/- 3/16") throughout length of beams. CS4: Likely horizontal shear cracking (1/4" wide x 2" deep) in span W1.							
		1020	Connection		LF					
			Through-bolts pulling through sides of beams.							
		1900	Distortion		LF					
			Beam appear properly aligned with no readily visible signs of distortion.							
		7000	Damage		LF					
			No readily evident signs of crushing, extent of checking/cracking is likely indicative of initial signs of overload distress (See 1150).							
		Protective Coatings: CS4: Timber preservative treatment ineffective.								

Bearings

Bearing Rating: N

Quantity in Condition State

	Element	Defect	Description		OUM	Total	1	2	3	4
Bearings	.		**Bearing Type**	**N**	EA					
			None. Timber beams bear directly on timber caps.							
		2210	BRG-Movement		EA					
			N/A							
		2240	BRG-Loss of Bearing Area		EA					
			N/A							

NBI Engineering Services
PO Box 188
Mount Horeb, WI 53572

Numbering convention increases from west to east or south to north.
Condition codes and methodology consistent with the Specifications for the National Bridge Inventory.

Bridge ID / Structure No.	Inspection Date:	11/20/2025
Bridge #41	Inspection TL:	Nate Miller, PE
	NBI Project No:	2503501

Substructure

Substructure Rating: **2**

Quantity in Condition State

	Element	Defect	Description		OUM	Total	1	2	3	4
Abutments	216		**Substructure-Timber-Abutment**	**4**	LF	28			28	
			Timber Backwall Plank - Timber pile with backwall plank abutment.							
		1140	TBR-Decay/ Section Loss/ Abrasion/ Wear		LF				14	
			CS3: Timber plank showing signs of incipient decay.							
		4000	Settlement		LF					
			No readily visible signs of settlement.							
		6000	Scour		LF				14	
			Both abutments beyond channel flow. CS3: Erosion at west abutment has undermined backwall plank (14-LF).							
	Protective Coatings: CS4: Timber preservative treatment ineffective.									
	235		**Substructure-Timber-Pile Cap-Abutment**	**2**	LF	28			8	20
			Timber Pile Cap - Timber pile with backwall plank abutment.							
		1140	TBR-Decay/ Section Loss/ Abrasion/ Wear		LF				8	**20**
			CS3/CS4: Caps sound hollow with soft/easily dented shells-estimated 50%-75% decay/section loss. Prominent horiz. and vert. checking throughout. No definitive signs of crushing. West Abutment: More advanced decay at south half of cap. East Abutment: More advanced decay at both ends of cap.							
	Protective Coatings: CS4: Timber preservative treatment ineffective.									
	228		**Substructure-Timber-Pile-Abutment**	**3**	EA	10			5	5
			Timber Piles - Timber pile with backwall plank abutment.							
		1140	TBR-Decay/ Section Loss/ Abrasion/ Wear		EA				5	**5**
			[5] Bearing piles per abutment. CS3/CS4: Tops of piles sound hollow with moderate to wide checking throughout. No definitive signs of crushing. (1)- Vertical Spilt in Pile. West Abutment: -Estimated % Decay: S1-75%**(1)**_S2-90%**(1)**_S3-75%**(1)**_S4-75%**(1)**_S5-75%. East Abutment:-Estimated % Decay: S1-50%_S2-75%_S3-50%_S4-75%_S5-50%(**1**).							
	Protective Coatings: CS4: Timber preservative treatment ineffective.									
Wingwalls	8400		**Wingwall-Timber**	**4**	EA	4			4	
			Integral timber wingwalls. Backwall plank extends beyond bearing piles-no supplemental wingwall piles.							
		8903	WW-Deterioration		EA				4	
			CS3: Wingwall plank showing signs of incipient decay. NW wingwall bowed.							
		6000	Scour		EA					
			CS1: Wingwalls beyond channel flow. No signs of undermining.							
	Protective Coatings: CS4: Timber preservative treatment ineffective.									

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Numbering convention increases from west to east or south to north.
Condition codes and methodology consistent with the Specifications for the National Bridge Inventory.

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Pier(s)	235		**Substructure-Timber-Pile Cap Pier**	**2**	LF	75			40	35
			Timber Pile Cap - Timber pile bent pier.							
			TBR-Decay/ Section Loss/ Abrasion/ Wear		LF				40	**35**
		1140	CS3/CS4: Caps sound hollow throughout length estimated 50%-75% decay/section loss throughout length with +/- 75%-90%. at ends. Prominent horiz. and vert. checking/splitting throughout. Pier W1/W2-Full depth vertical split through full length of cap with 1/4"-1/2" separation. 75%-90% decay. Piers W3/W4/W5-Caps split vertically across 75%-90% of length with minimal separation. +/- 75% decay.							
	Protective Coatings: CS4: Timber preservative treatment ineffective.									
	228		**Substructure-Timber-Pile-Pier**	**2**	EA	25			16	9
			Timber Piles - Timber pile bent pier.							
			TBR-Decay/ Section Loss/ Abrasion/ Wear		EA				16	**9**
		1140	[5] Bearing piles per pier. Visual above 7ft. CS3/CS4: Piles sound hollow with prominent vertical checking/splitting throughout. Pile shells soft/easily damaged. Isolated piles show signs of crushing. (1)-Vertical Spilt in Pile. **(2)-Overload Distress (Crushing)**. (3)-Top of Pile Offset 1" to the South (Likely Flood Debris Impact). Pier W1-Estimated % Decay: S1-90%**(1)**_S2-75%_S3-90%**(1/2)**_S4-75%_S5-75% Pier W2-Estimated % Decay: S1-75%_S2-50%_S3-75%_S4-75%_S5-90%**(1)** Pier W3-Estimated % Decay: S1-90%**(1)**_S2-75%**(1)**_S3-75%_S4-75%_S5-90%**(1/3)** Pier W4-Estimated % Decay: S1-75%_S2-75%_S3-50%_S4-50%_S5-75%**(1)** Pier W5-Estimated % Decay: S1-50%_S2-75%**(1)**_S3-75%_S4-75%_S5-90%**(1)**							
			Settlement		EA					
		4000	No readily visible signs of settlement.							
			Scour		EA					
		6000	CS3: 2ft-3ft scour at Piers W2/W3.							
	Protective Coatings: CS4: Timber preservative treatment ineffective.									

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Inspection Photos: All photos taken at above referenced inspection date unless noted otherwise.

Photo 1 – Trail View Looking West.

Photo 2 – Trail View Looking East.

Photo 3 – Upstream Looking North.

Photo 4 – Downstream Looking South.

Photo 5 – Side View Looking South.

Photo 6 – Deck Looking South.

Photo 7 – North Rail Looking East.

Photo 8 – North Edge of Deck in Span W1.

Photo 9 – West Abutment.

Photo 10 – Pier W1 Looking East.

Photo 11 – Pier W1-Pile S3.

Photo 12 – Pier W1-Cap Over Pile S3.

Photo 13 – Pier W2 Looking East.

Photo 14 – Pier W1 Looking East.

Photo 15 – Pier W2 Cap-Piles S5-S4.

Photo 16 – Pier W2 Cap-Piles S4-S1.

Photo 17 – Pier W2-Pile S5.

Photo 18 – Pier W3 Looking East.

Photo 19 – Pier W3 Looking East-Piles W5-W3.

Photo 20 – Pier W3 Looking East Piles W3-W1.

Photo 21 – Pier W3 Looking West-Piles W3-W1.

Photo 22 – Pier W3 Looking West.

Photo 23 – Pier W3 Looking West.

Photo 24 – Pier W4-Piles S4-S5.

Photo 25 – Pier W4-Piles S1-S4.

Photo 26 – Pier W5 Looking East.

Photo 27 – Span W5-South Beam.

Photo 28 – East Abutment.

Photo 29 – Underside Looking West Near Pier W5.

-End of Report-