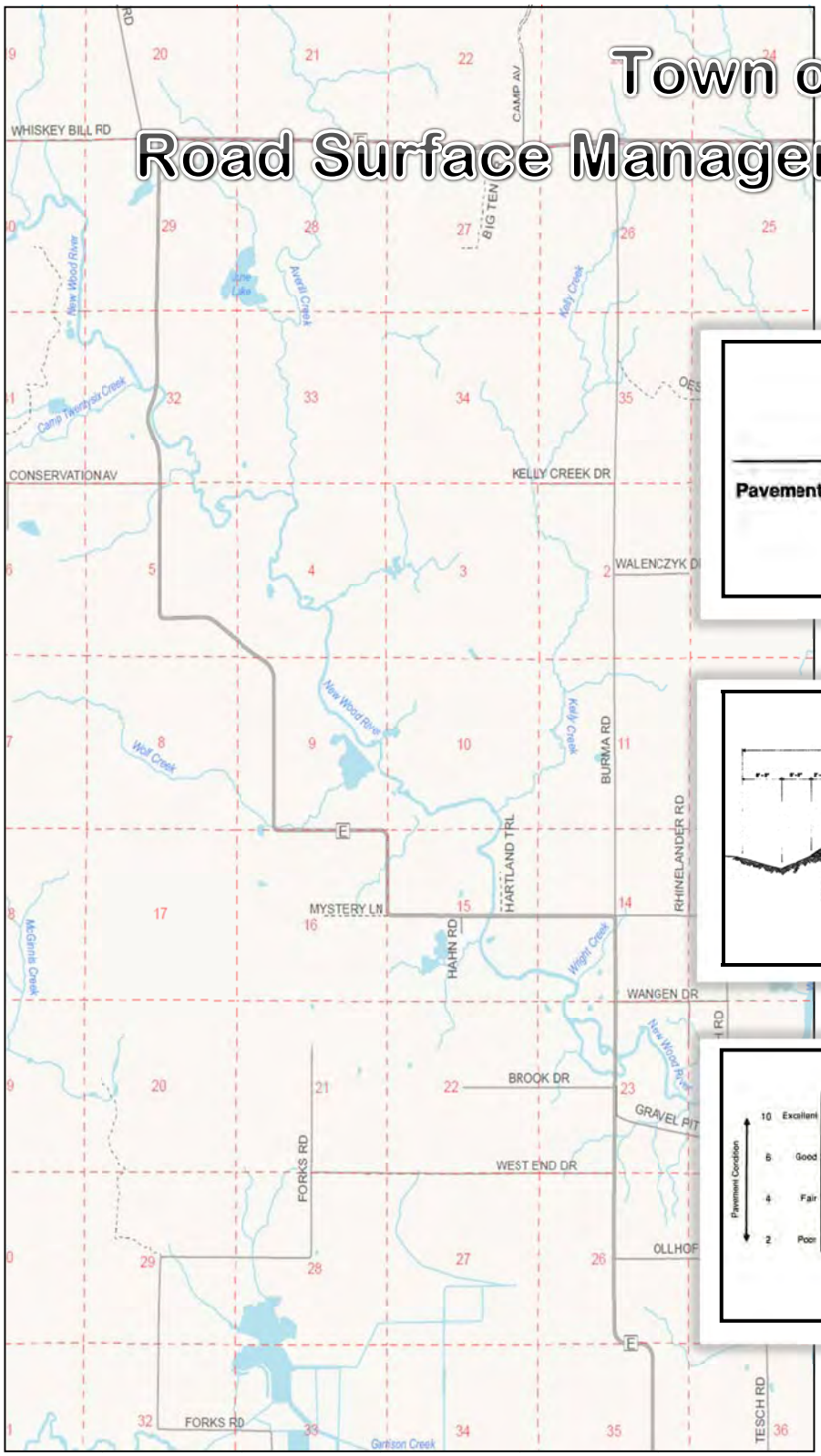
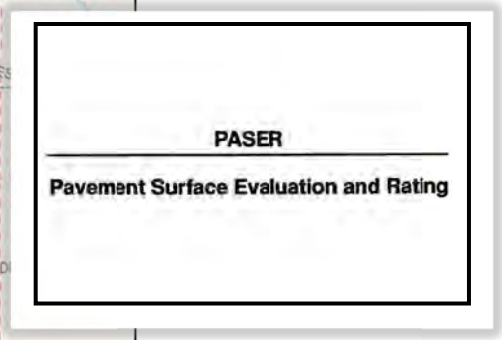
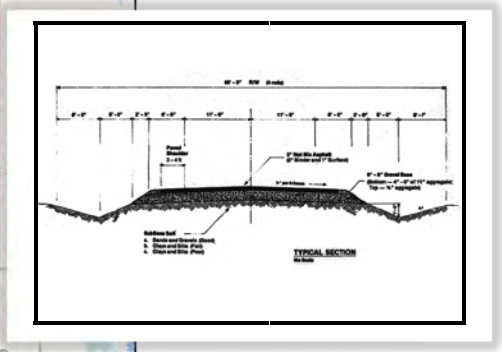
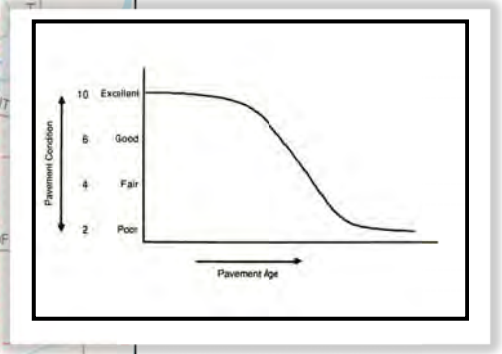
Town of Harding
Road Surface Management Plan
2019









Prepared by:

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NCWRPC

TOWN OF HARDING, WISCONSIN
ROAD SURFACE MANAGEMENT PLAN 2019 - 2023

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ROAD SURFACE MANAGEMENT PLAN OVERVIEW

INTRODUCTION

A road surface management plan for a local road network provides a town with the ability to plan for future road surface improvements. With a road surface management plan in place, the limited resources allocated to local roads can be better spent. The overall goal of the Road Surface Management Plan is to help the town make better decisions on the improvements to the local road system. This document contains information vital to the review and rating of the Town of Harding's highway system. Thus, the Road Surface Management Plan will assist in preserving and rehabilitating the existing town road system in a timely and cost-effective manner.

A review of each town road was performed by a representative from the North Central Wisconsin Regional Planning Commission (NCWRPC). Information necessary to complete the road surface management plan was collected during the summer of 2017 using a pavement surface evaluation and rating system. The on-site roadway review was performed following Wisconsin DOT's Plat Record Maps.

PURPOSE OF ROAD SURFACE MANAGEMENT PLAN

A Road Surface Management Plan helps local government officials respond to growing pressures from constituents to repair roads and upgrade the quality of roads by providing documented information on suggested priorities for improvement and reliable estimates of current and future costs of maintaining and improving the quality of the local road system.

Road Surface Management Plans help local officials allocate scarce resources, which are caused by some of the following:

1. Negative public attitudes towards higher property taxes;
2. The historic limits on state and federal revenues to local governments to keep pace with increasing costs of providing local services;
3. An increase in street maintenance and construction costs which have outstripped the available public resources;
4. Historic local budget difficulties have resulted in deferred maintenance on local street systems, thus compounding needs for additional local resources; and/or
5. Some local units of government have not used their scarce dollars in a wise manner. Local politics and poor decision-making have, in some cases, resulted in funds being spent in the wrong places or in an inefficient manner.

The objectives for using a pavement management system include:

1. A better understanding of pavement conditions by completing an overall field inventory;
2. An evaluation of causes of pavement conditions by the roadway segments' corresponding rating and analysis of distress;
3. Through improved decision making by taking advantage of preventative maintenance and selection of the most effective repair or rehabilitation;
4. Better communication of needs and strategies to decision makers as a tool to explain needs and convince elected officials and the public that adequate budgets are needed;
5. Long-term planning helps local governments coordinate pavement needs and scheduling with other budget and policy decisions.

INTENDED ROADWAY MANAGEMENT PLAN RESULTS

The results of the Road Surface Management Plan are intended to assist the Town of Harding in developing a road surface improvement program whereby the limited transportation dollars allocated yearly can be spent more wisely. Through this effort, a better transportation system will be realized over time. A road surface management plan can also assist in vying for additional county, state or federal funding.

In addition, towns must report to the Wisconsin Department of Transportation an assessment of the physical condition of the roads under their jurisdiction. The assessment must be completed biennially and must be completed using a WisDOT approved pavement rating system. This surface condition assessment was completed and submitted to WisDOT as part of the road surface management plan process.

CHAPTER II
TOWN OF HARDING'S EXISTING ROADWAY SYSTEM

EXISTING SYSTEM

Prior to the development of a Road Surface Management Plan, an inventory of the existing system must be completed. This inventory will assist in cataloging the roadway characteristics by roadway segment and surface type. The field data collected will be used as a benchmark to establish the prioritization of the existing roadway system and will assist in the development of recommended improvements to the local road system.

The Wisconsin Department of Transportation (WisDOT) maintains a roadway characteristic inventory on all local roads eligible to receive state funding through the transportation aids program, see Appendix A. This data file is used as the basis for beginning the Road Surface Management Plan. From the base data already collected by the state, a review of the road system may note changes in the roadway characteristics. Thus, this information is updated and represented as such in the data sheets found in the back of this document. The state's inventory of the roadway system includes such features as:

1. Segment length;
2. Surface type (i.e. earth, gravel, asphalt, or concrete);
3. Functional classification; and
4. Surface and shoulder width.

The review of the town road system was completed following the Wisconsin DOT Plat Record Maps and corresponding data provided by WisDOT for each roadway segment.

FUNCTIONAL CLASSIFICATION SYSTEM

Town of Harding's roads perform varied functions from moving goods and people within the community or through the community. These roads differ from one-another and are characterized by a functional classification system. In the development of this Road Surface Management Plan, the functional classification of the roads is described as follows:

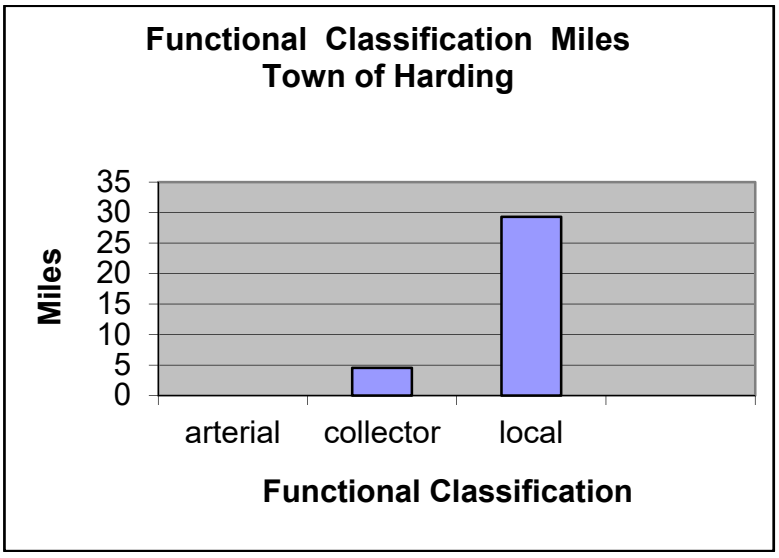
> Arterials: Arterials provide service to moderate sized communities and other intra-area traffic generators (schools, churches, employment or service centers) and link those generators to nearby larger population concentrations or major federal or state highways.

Collectors: Collectors provide service to remaining population concentrations not served by higher classified routes, link the locally important traffic generators (schools, churches, and employment and service centers) with the rural hinterland, and are spaced consistent with population density so as to collect traffic from local roads and bring developed areas within a reasonable distance of a higher classified road.

Local Roads: Local roads provide access to adjacent land and provide for travel over relatively short distances. All roads not classified as arterials or collectors will be local functional roads.

The functional classification mileage of the Town system is depicted in Figure 1.

FIGURE 1



By way of comparison, most county highways are in the collector category, and most state trunk and federal routes are arterials. The classification of roads indicates a number of factors regarding the nature of the road for roadway management such as:

1. Role the road plays in providing mobility (through traffic) as opposed to providing access to adjoining property.

2. Amount of development adjacent to a roadway. The more adjoining development, the higher the classification. The nature of the development must also be considered here. In the case of development that would serve a high number of trips, such as commercial, industrial, or institutional a road could be considered for a higher classification.

3. The average daily traffic on the road. Generally, the higher the traffic the higher the classification.

CHAPTER III
ROADWAY MANAGEMENT PLAN RESULTS

PAVEMENT SURFACE EVALUATION AND RATING

The data reported in this Road Surface Management Plan was produced using the Pavement Analysis Tool within the Wisconsin Information System for Local Roads (WISLR). Critical to the development of the surface condition rating of each roadway segment, was a uniform and consistent set of criteria used in evaluating and assigning a value to each roadway segment. To achieve this consistent evaluation, the Pavement Surface Evaluation and Rating (PASER) system developed by the University of Wisconsin - Madison, Transportation Information Center was utilized, see Appendix B. The consistency in evaluating each roadway segment is critical since this information will lead to the development of future improvements needed to the local system.

Based upon the WISLR data collected, there are 33.83 miles of road on the Town's system. On this system, about 16 percent are paved and 84 percent are unpaved surfaces. FIGURE 2 depicts the surface condition ratings of the town's paved roads, and FIGURE 3 shows the unpaved.

FIGURE 2

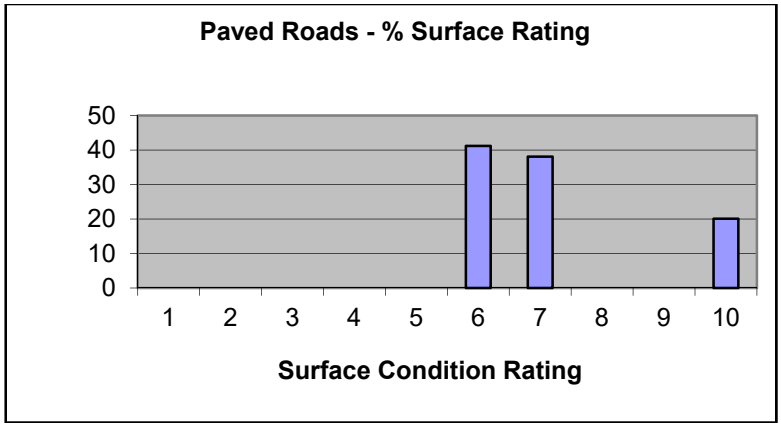
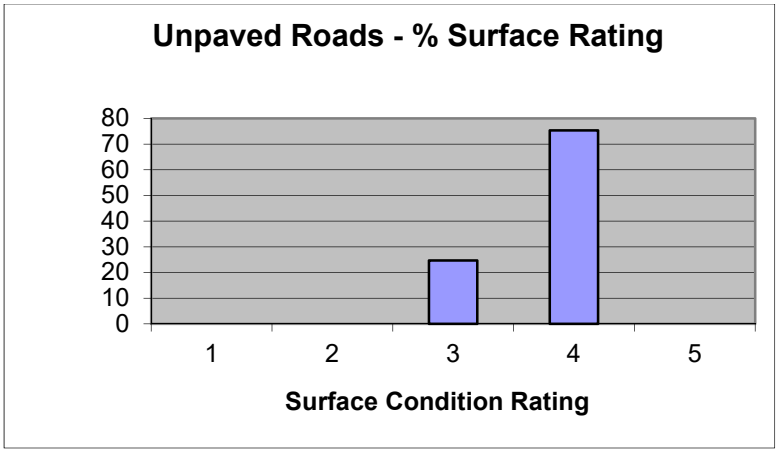


FIGURE 3



These ratings indicate that the system is in relatively sound condition and not in need of any immediate structural improvements. Only about ¾ mile of road are in need of a structural improvement such as an overlay. The vast majority (over 92%) of the system currently is in need of only minor or routine maintenance.

PAVEMENT SURFACE NEEDS ANALYSIS

Pavement management is a systematic process that uses roadway data to facilitate development of cost-effective maintenance and improvement programs. The WISLR Pavement Analysis Tool takes a "value-based" approach to pavement management. The objective of this approach is to get more value (cost-effectiveness) from improvement expenditures by getting more pavement life at a lower cost and improving ride quality.

Accomplishing this objective requires selecting the right projects and applying the right fix at the right time.

The surface condition rating value and corresponding suggested improvements for asphalt (paved) roads are represented in TABLE 1 and gravel (unpaved) in TABLE 2.

TABLE 1
ASPHALT SURFACE RATING CONDITION & SUGGESTED IMPROVEMENT

RATING	ACTION REQUIRED
10 – 9	No Maintenance Required
8	Little or No Maintenance Required
7	Crack Filling
6 - 5	Preservative Treatment (sealcoat)
4 – 3	Structural Improvement (overlay or recycling)
2 - 1	Reconstruction

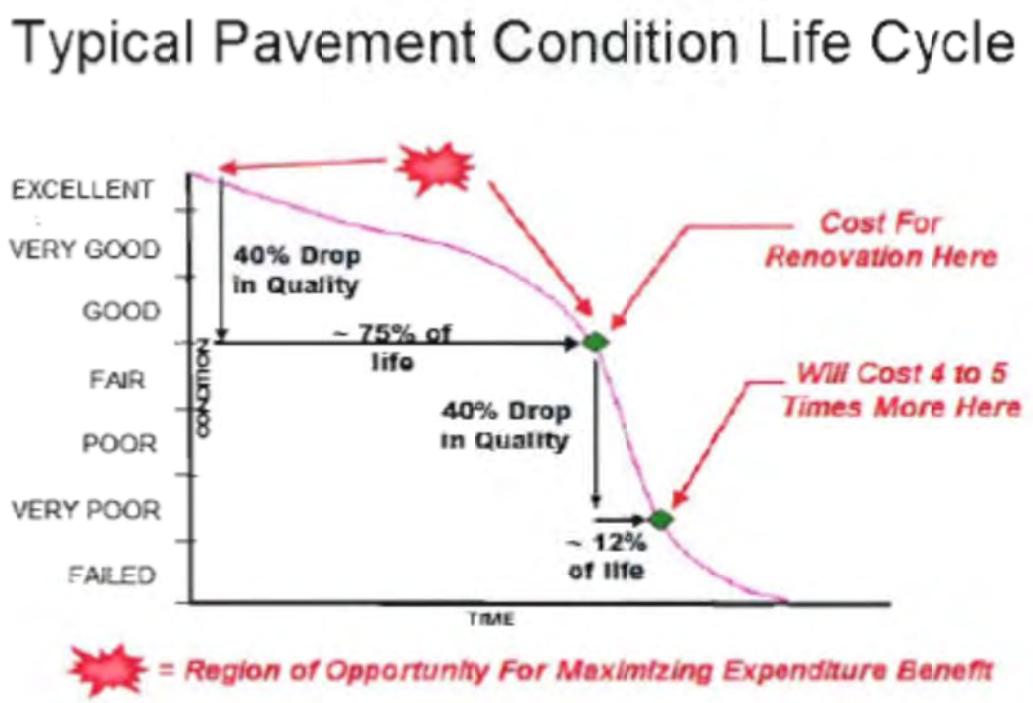
TABLE 2
GRAVEL SURFACE RATING CONDITION & SUGGESTED IMPROVEMENT

RATING	ACTION REQUIRED
5 – 4	Routine Maintenance
3	Minor Ditching/Add Gravel
2	Add Gravel/Drainage Improvement
1	Reconstruction

PROJECT PRIORITIZATION

WISLR prioritization emphasizes treating pavements in the "region of opportunity" (see Figure 4) because pavements in this condition range can typically be maintained at a much lower cost per year of service life extension. However, the WISLR model also places priority on roadway classification, recognizing that the most important roads in poor to failed condition can't be ignored. The combined effect of this dual-priority approach is intended to select projects based on both cost-effectiveness and importance to overall system function.

FIGURE 4



Source: WisDOT

This approach provides a reasonable starting point for programming within a constrained budget. Ultimately project selection will need to incorporate other important factors not included in the WISLR data such as safety, utilities, roughness, etc.

The intent of the WISLR pavement analysis tool is to provide abundant pavement condition and budget impact information in order to aid in project selection and in order to help substantiate budget levels.

CHAPTER IV
ROADWAY PRACTICES AND RECOMMENDED IMPROVEMENTS

GENERAL MAINTENANCE AND IMPROVEMENT PRACTICES

The maintenance and improvement of local roads is critical to having a sustainable roadway system. Building good roads result in longer lasting roads.

Building good roads is basic to having a local roadway system that will carry vehicles safely and efficiently, and that save money by lowering future improvement costs. What are some of the basic concepts of building good roads that will last? Below is a list of ten basic concepts to follow when building roads.

1. Get water away from the road. Good drainage is critical to making a good road. It has been estimated that nearly 90% of a road's problems can be attributed to excess water or to poor water drainage. Effective drainage systems divert, drain, and dispose of water along a roadway. These drainage systems use interceptor ditches and slopes, roadway crowns, and ditch and culvert systems. Interceptor ditches, located between the road and higher ground, divert the water by sloping away from the road so that the water does not reach the roadway. Crowning a roadway assists in moving water off the roadway to the interceptor ditch. Typically, a gravel roadway crown should be ½" higher than the shoulder for each foot of width from the centerline to the edge. A paved road crown should be ¼" higher than the shoulder for each foot of width from the centerline to the edge. Too much water remaining on a roadway surface, or in the subbase and subgrade combine with the action of traffic to create potholes, cracks, and pavement failure. Ditches and culverts dispose of water by carrying it away form the road structure. Ditches should be one foot lower than the base of the road. Improper drainage can allow water to seep under the roadway creating the potential for future roadway failures. A rule of thumb is that one-dollar spent on proper roadway drainage will save two dollars on maintenance.

2. Building a firm foundation. A roads foundation is important to the life of your road. A road wears out from the top down but falls apart from the bottom. The subgrade and subbase layer of a road support the entire roadway and traffic using it.

3. Use the best material. When it comes to using materials in the construction or improvement of a road, you will either "pay for it now or later." The selection of materials for the project will determine how long a road may last. Inferior materials may cause premature improvements or life long maintenance to the road. Crushed aggregate is the best material for a base course as the sharp edges interlock when compacted. Rounded aggregate is a poor base course as they will move under the weight of traffic.

4. Compact all layers. Generally, the more densely a material is compacted, the stronger it is. The compaction also helps prevent water moving in and throughout the subbase layer of the roadway. This helps prevent frost heaving and premature deterioration of the roadway. Using gravel with a mix of sizes (well-graded aggregate) allows smaller particles to fill-in the voids created by larger particles.

5. Design for traffic loads and volumes. A road should be designed to carry the highest anticipated load. If this load is unknown, the road should be designed to carry the largest maintenance equipment that will be used on the road. A well-constructed and maintained asphalt road should last 20 years without major repairs or reconstruction. One truck with 9 tons on a single rear axle does as much damage to a road as nearly 10,000 cars!

6. Design for maintenance. Design you road so that it may be easily maintained by having adequate ditches that can be cleaned regularly, culverts that are marked for future maintenance activities, an area where snow can be plowed onto, proper slopes of the roadway and ditches, ditches that are planted to prevent erosion, and ditches that can be mowed safely.

7. Pave only when ready. Every road does not have to be an asphalt road. Laying asphalt on an existing roadway will not fix a gravel road that is failing. Adequate crushed aggregate, drainage, and proper compaction must be in place to support the longevity of an asphalt road. Depending on the subgrade soils of any road, a recommended minimum subbase depth of crushed stone is 10".

8. Build form the bottom up. Do not waste material on a top dress or resurface if the problem is actually a subbase or subgrade problem. This method does not correct the problem and will result in unwisely spent funds. Choosing an improvement technique that gets to the root of the problem will be the only thing that makes the roadway better.

9. Protect your investment. The local road system often is the Community's largest investment. These maintenance activities are critical to the longevity of a local road:

   Surface Grade, shape, patch, seal crack, control dust, remove ice and snow;
   Drainage Clean and repair ditches and culverts, remove excess debris;
   Roadside Cut brush, trim trees and roadside plantings, control erosion; and
   Traffic Service Clean and repair or replace signs.

10. Keep good records. Knowing each road's construction, life, and repair history makes it easier to plan and budget for future improvements.

The ten basic concepts discussed above will assist in providing a good roadway system that will be more popular with the local citizens and will likely assist in making the transportation improvement budget cover more miles of road in a given year.

RECOMMENDED FIVE-YEAR IMPROVEMENT SCHEDULE

The 5-year work program is based on input from town officials and a projected improvement budget of $110,000 each year plus the potential for some additional funding to be available in reserve. The schedule lists projects by road name, proposed treatment and estimated cost. The costs for each project listed may differ from the final project costs. An engineering report is required for projects to be eligible for State LRIP funding. That report will identify the final project costs for each project.

PAVEMENT REHABILITATION SCHEDULE

YEAR 2019

ROAD SEGMENT (from - to)	TREATMENT	MILES	COST EST.
Alexander Lk Rd (CTH E - Termini)	Crack Fill	1.10	$ 6,400
Tesch Rd (Ollhoff Ave - CTH E)	Crack Fill	1.27	$ 6,700
Von Besser Dr (Edward - Alexander Lk)	Crack Fill	0.70	$ 3,700
Kellogg Rd (Conservation - termini)	Stone / Regrade	0.27	$ 2,200
Rhinelander Rd (Tesch Rd - termini)	Stone / Regrade	0.25	$ 2,200
Camp Ave (CTH E - Co. Forest 701)	Stone / Regrade	0.55	$ 8,000
Whiskey Bill Rd (CTH E - termini)	Stone / Regrade	1.51	$ 17,500
Gravel Pit Ln (CTH E - Tesch Rd)	Stone / Regrade	0.78	$ 9,000
Kelly Creek Dr (Burma - termini)	Stone / Regrade	0.42	$ 4,900
Wangen Dr (CTH E - Tesch Rd)	Stone / Regrade	0.74	$ 7,500
Ollhoff Ave (CTH E - Tesch Rd)	Stone / Regrade	1.00	$ 10,100
Lemmer Dr (Wangen Dr - termini)	Stone / Regrade	0.25	$ 4,400
Hahn Rd (CTH E - termini)	Stone / Regrade	0.11	$ 1,300
Pickering Dr (Tesch Rd - termini)	Stone / Regrade	0.23	$ 2,000
Annual Maint. - inc.: plowing, sanding, grading, ditching, brushing, etc.			*$ 24,100*
		Total	**$ 110,000**

YEAR 2020

ROAD SEGMENT (from - to)	TREATMENT	MILES	COST EST.
West End Dr (Forks Rd - CTH E)	Stone / Regrade	2.00	$ 28,900
Forks Rd (Cranberry Trl - termini)	Stone / Regrade	4.48	$ 63,200
Annual Maint. - inc.: plowing, sanding, grading, ditching, brushing, etc.			*$ 17,900*
		Total	**$110,000**

YEAR 2021

ROAD SEGMENT (from - to)	TREATMENT	MILES	COST EST.
Edward Dr (CTH E - Termini)	Overlay	1.35	$ 120,000
Walenczyk Rd (Burma Rd - termini)	Stone / Regrade	0.50	$ 4,400
Annual Maint. - inc.: plowing, sanding, grading, ditching, brushing, etc.			*$ 25,000*
From Reserve Account for Overlay Project -			*($ 39,400)*
	Total		**$110,000**

YEAR 2022

ROAD SEGMENT (from - to)	TREATMENT	MILES	COST EST.
Alexander Lk Rd (CTH E - Termini)	Crack Fill	1.10	$ 6,400
Von Besser Dr (Edward - Alexander Lk)	Crack Fill	0.70	$ 3,700
Tesch Rd (Ollhoff Ave - CTH E)	Crack Fill	1.27	$ 6,700
Tesch Rd (Burma Rd - Ollhoff Ave)	Stone / Regrade	2.81	$ 32,600
Cranberry Trl (*verify jurisdiction*)	Stone / Regrade	2.01	$ 35,000
Wegner Rd (Cranberry Trl - juris.)	Stone / Regrade	0.25	$ 2,900
Annual Maint. - inc.: plowing, sanding, grading, ditching, brushing, etc.			*$ 22,700*
	Total		**$ 110,000**

NOTE for 2022-2023: Consider including Brook Dr. crackfill in 2022 w/ other crackfill work shown if conditions on Brook Dr. warrant and budget allows.

YEAR 2023

ROAD SEGMENT (from - to)	TREATMENT	MILES	COST EST.
Brook Dr (CTH E - termini)	Crack Fill	0.99	$ 4,800
Burma Rd (CTH E - CTH E)	Stone / Regrade	4.54	$ 79,000
Annual Maint. - inc.: plowing, sanding, grading, ditching, brushing, etc.			*$ 26,200*
	Total		**$ 110,000**

Conclusion

This plan should serve as the road surface improvement budget plan for the Town of Harding. However, the Town Board may shift projects from year to year as conditions warrant. It is important that the inventory of pavement surface conditions be updated every two years, so that the priorities list may be kept current. Likewise, cost estimates can be revisited as the actual costs of road improvements change from year to year. Updating information on a regular basis is important to the long-range success of this program plan.

APPENDIX A - WISLR Road Inventory

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
WISCONSIN INFORMATION SYSTEM FOR LOCAL ROADS

Inventory Listing With Maintenance (R-20)
1-1-2018 Certification

TOWN OF HARDING (008)

Rd/St Name	Certified Miles

Alexander Lake Rd — 1.10

AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	OW	L	SURFACE Type	SURFACE WD	SURFACE YR	MAINT Type	MAINT YR	P	CURB LT	CURB RT	SHOULDER LT	SHOULDER RT	MEDIAN TYPE	MEDIAN WD	ADT I	ADT CNT	ADT YR	ROW I	ROW W	FC	RC	SC	O	U/A	NHS	H	AC	ALN H	ALN V	INV YR	PVT R	PVT YR	SW
CTH E	Von Besser Dr	0.26 (1373)	N	2	65	24	2007			4	0	0	102	102			E	000035		E	50	45	5		4	000	NON		00			2018	7	2017	
Von Besser Dr	Termini	0.84 (4435)	N	2	65	24	2007			4	0	0	102	102			E	000015		E	50	45	5		4	000	NON		00			2018	7	2017	

Brook Dr — 0.99

AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	OW	L	SURFACE Type	SURFACE WD	SURFACE YR	MAINT Type	MAINT YR	P	CURB LT	CURB RT	SHOULDER LT	SHOULDER RT	MEDIAN TYPE	MEDIAN WD	ADT I	ADT CNT	ADT YR	ROW I	ROW W	FC	RC	SC	O	U/A	NHS	H	AC	ALN H	ALN V	INV YR	PVT R	PVT YR	SW
CTH E	Termini	0.99 (5227)	N	2	55	18	1998			4	0	0	202	202			E	000015		E	50	45	5		4	000	NON		00			2018	4	2017	

Burma Rd — 4.54

AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	OW	L	SURFACE Type	SURFACE WD	SURFACE YR	MAINT Type	MAINT YR	P	CURB LT	CURB RT	SHOULDER LT	SHOULDER RT	MEDIAN TYPE	MEDIAN WD	ADT I	ADT CNT	ADT YR	ROW I	ROW W	FC	RC	SC	O	U/A	NHS	H	AC	ALN H	ALN V	INV YR	PVT R	PVT YR	SW
CTH E	Kelly Creek Dr	2.00 (10560)	N	2	35	24	1966			4	0	0	000	000			T	000090	2004	E	50	40	5		4	000	NON		00			2018	4	2017	
Kelly Creek Dr	Walenczyk Rd	0.52 (2746)	N	2	35	24	1966			4	0	0	000	000			E	000035		E	50	40	5		4	000	NON		00			2018	4	2017	
Walenczyk Rd	CTH E	2.02 (10665)	N	2	35	24	1966			4	0	0	000	000			T	000110	2004	E	50	40	5		4	000	NON		00			2018	4	2017	

Camp Ave — 0.55

AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	OW	L	SURFACE Type	SURFACE WD	SURFACE YR	MAINT Type	MAINT YR	P	CURB LT	CURB RT	SHOULDER LT	SHOULDER RT	MEDIAN TYPE	MEDIAN WD	ADT I	ADT CNT	ADT YR	ROW I	ROW W	FC	RC	SC	O	U/A	NHS	H	AC	ALN H	ALN V	INV YR	PVT R	PVT YR	SW
CTH E	County Forest 701	0.55 (2904)	N	2	35	20	1966			4	0	0	000	000			E	000005		E	50	45	5		4	000	NON		00			2018	3	2017	

Conservation Ave — 1.62

AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	OW	L	SURFACE Type	SURFACE WD	SURFACE YR	MAINT Type	MAINT YR	P	CURB LT	CURB RT	SHOULDER LT	SHOULDER RT	MEDIAN TYPE	MEDIAN WD	ADT I	ADT CNT	ADT YR	ROW I	ROW W	FC	RC	SC	O	U/A	NHS	H	AC	ALN H	ALN V	INV YR	PVT R	PVT YR	SW
CTH E	Kellogg Rd	1.06 (5597)	N	2	35	16	1966			4	0	0	000	000			E	000015		E	50	45	5		4	000	NON		00			2018	3	2017	
Kellogg Rd	Conservation Ave	0.69 (3643)	N	2	35	16	1966			4	0	0	000	000			E	000015		E	50	45	5		4	000	NON		00			2018	3	2017	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
WISCONSIN INFORMATION SYSTEM FOR LOCAL ROADS

Inventory Listing With Maintenance (R-20)
1-1-2018 Certification

TOWN OF HARDING (008)

Rd/St Name — Certified Miles

Cranberry Trl — 2.01

AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	OW	L	SURFACE Type	SURFACE WD	SURFACE YR	MAINT Type	MAINT YR	P	CURB LT	CURB RT	SHOULDER LT	SHOULDER RT	MEDIAN TYPE	MEDIAN WD	ADT I	ADT CNT	ADT YR	ROW I	ROW W	FC	RC	SC	O	U/A	NHS	H	AC	ALN H	ALN V	INV YR	PVT R	PVT YR	SW
Wegner Rd (2.01)	Forks Rd	0.25 (1320)	N	2	35	24	1966			4	0	0	000	000			E	000035		E	33	45	5		4	000	NON		00			2018	4	2017	
Forks Rd	CTH MM	1.76 (9293)	N	2	35	26	1966			4	0	0	000	000			E	000035		E	50	45	5		4	000	NON		00			2018	4	2017	

CTH E — 17.19

AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	OW	L	SURFACE Type	SURFACE WD	SURFACE YR	MAINT Type	MAINT YR	P	CURB LT	CURB RT	SHOULDER LT	SHOULDER RT	MEDIAN TYPE	MEDIAN WD	ADT I	ADT CNT	ADT YR	ROW I	ROW W	FC	RC	SC	O	U/A	NHS	H	AC	ALN H	ALN V	INV YR	PVT R	PVT YR	SW
CTH E (2) (0.94)	Burma Rd	1.51 (7973)	N	2	70	22	2006			4	0	0	203	203			E	000075		E	66	40	4		3	000	NON		00			2018	7	2017	
Burma Rd	Camp Ave	0.60 (3168)	N	2	35	26	2006			4	0	0	000	000			E	000075		E	66	45	4		3	000	NON		00			2018	4	2017	
Camp Ave	Whiskey Bill Rd	2.42 (12778)	N	2	35	26	2006			4	0	0	000	000			T	000020	2004	E	66	45	4		3	000	NON		00			2018	3	2017	
Whiskey Bill Rd	Conservation Ave	2.03 (10718)	N	2	35	26	2006			4	0	0	000	000			E	000150		E	66	45	4		3	000	NON		00			2018	3	2017	
Conservation Ave	Hahn Rd (3.67)	3.67 (19378)	N	2	70	22	2006			4	0	0	000	000			E	000150		E	66	45	4		3	000	NON		00			2018	6	2017	
Conservation Ave (3.67)	Hahn Rd	0.64 (3379)	N	2	70	22	2006			4	0	0	203	203			E	000150		E	66	45	4		3	000	NON		00			2018	6	2017	
Hahn Rd	Burma Rd	0.95 (5016)	N	2	70	22	2006	2, 7, 8	2011	4	0	0	203	203			T	000090	2004	E	66	45	4		3	000	NON		00			2018	7	2017	
Burma Rd	Wangen Dr	0.47 (2482)	N	2	70	22	2006	2, 7, 8	2011	4	0	0	204	204			E	000150		E	66	40	4		3	000	NON		00			2018	7	2017	
Wangen Dr	Brook Dr	0.51 (2693)	N	2	70	22	2006	2, 7, 8	2011	4	0	0	204	204			E	000150		E	66	40	4		3	000	NON		00			2018	7	2017	
Brook Dr	Gravel Pit Ln	0.14 (739)	N	2	70	22	2006	2, 7, 8	2011	4	0	0	204	204			E	000150		E	66	40	4		3	000	NON		00			2018	7	2017	
Gravel Pit Ln	W End Dr	0.36 (1901)	N	2	70	22	2006	2, 7, 8	2011	4	0	0	204	204			E	000150		E	66	40	4		3	000	NON		00			2018	7	2017	
W End Dr	Ollhoff Ave	0.51 (2693)	N	2	70	22	2006	2, 7, 8	2011	4	0	0	204	204			E	000150		E	66	40	4		3	000	NON		00			2018	7	2017	
Ollhoff Ave	CTH MM (0.38)	0.38 (2006)	N	2	70	22	2006	2, 7, 8	2011	4	0	0	204	204			E	000150		E	66	40	4		3	000	NON		00			2018	7	2017	

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CTH E — **17.19**

Ollhoff Ave (0.38)	CTH MM	1.11 (5861)	N	2	70	22	2006	2, 7, 8	2011	4	0	0	203	203			E	000150		E	66	40	4		3	000	NON		00			2018	7	2017	
CTH MM	Tesch Rd	0.76 (4013)	N	2	70	22	2006	2, 7, 8	2011	3	0	0	203	203			E	000150		E	66	40	4		3	000	NON		00			2018	7	2017	
Tesch Rd	Alexander Lake Rd	0.74 (3907)	N	2	70	22	2006	2, 7, 8	2011	3	0	0	203	203			E	000150		E	66	40	4		3	000	NON		00			2018	7	2017	
Alexander Lake Rd	Edward Dr	0.05 (264)	N	2	70	22	2006	2, 7, 8	2011	3	0	0	203	203			E	000150		E	66	40	4		3	000	NON		00			2018	7	2017	
Edward Dr	Sunset Dr (0.34)	0.34 (1795)	N	2	70	22	2006	2, 7, 8	2011	3	0	0	203	203			E	000150		E	66	40	4		3	000	NON		00			2018	7	2017	

CTH MM — **0.60**

AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	OW	L	SURFACE Type	SURFACE WD	SURFACE YR	MAINT Type	MAINT YR	P	CURB LT	CURB RT	SHOULDER LT	SHOULDER RT	MEDIAN TYPE	MEDIAN WD	ADT I	ADT CNT	ADT YR	ROW I	ROW W	FC	RC	SC	O	U/A	NHS	H	AC	ALN H	ALN V	INV YR	PVT R	PVT YR	SW
CTH E	CTH MM (0.23)	0.23 (1214)	N	2	70	24	1985	2, 7, 8	2011	4	0	0	204	204			E	000150		E	66	40	4		3	000	NON		00			2018	8	2017	
CTH E (0.23)	CTH MM (0.60)	0.37 (1954)	N	2	65	24	2005	2, 7, 8	2011	4	0	0	204	204			E	000150		E	66	40	4		3	000	NON		00			2018	8	2017	

Edward Dr — **1.35**

AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	OW	L	SURFACE Type	SURFACE WD	SURFACE YR	MAINT Type	MAINT YR	P	CURB LT	CURB RT	SHOULDER LT	SHOULDER RT	MEDIAN TYPE	MEDIAN WD	ADT I	ADT CNT	ADT YR	ROW I	ROW W	FC	RC	SC	O	U/A	NHS	H	AC	ALN H	ALN V	INV YR	PVT R	PVT YR	SW
CTH E	Von Besser Dr	0.70 (3696)	N	2	57	22	1978			4	0	0	102	102			E	000015		E	66	45	5		4	000	NON		00			2018	6	2017	
Von Besser Dr	Termini	0.65 (3432)	N	2	57	20	1978	1, 7	2015	4	0	0	102	102			E	000015		E	66	45	5		4	000	NON		00			2018	7	2017	

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Forks Rd — 4.48

AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	OW	L	SURFACE Type	SURFACE WD	SURFACE YR	MAINT Type	MAINT YR	P	CURB LT	CURB RT	SHOULDER LT	SHOULDER RT	MEDIAN TYPE	MEDIAN WD	ADT I	ADT CNT	ADT YR	ROW I	ROW W	FC	RC	SC	O	U/A	NHS	H	AC	ALN H	ALN V	INV YR	PVT R	PVT YR	SW
Cranberry Trl	W End Dr	3.75 (19800)	N	2	35	18	1966			4	0	0	000	000			E	000015		E	50	45	5		4	000	NON		00			2018	4	2017	
W End Dr	Termini (0.20)	0.20 (1056)	N	2	35	20	1997			4	0	0	202	202			E	000015		E	33	45	5		4	000	NON		00			2018	4	2017	
W End Dr (0.20)	Termini (0.52)	0.32 (1690)	N	2	35	20	1966			4	0	0	000	000			E	000015		E	33	45	5		4	000	NON		00			2018	4	2017	
W End Dr (0.52)	Termini	0.20 (1057)	N	2	35	24	1966						00	00				000000		A	66	45	5		4	000	NON		00			2018	4	2017	

Gravel Pit Ln — 0.78

AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	OW	L	SURFACE Type	SURFACE WD	SURFACE YR	MAINT Type	MAINT YR	P	CURB LT	CURB RT	SHOULDER LT	SHOULDER RT	MEDIAN TYPE	MEDIAN WD	ADT I	ADT CNT	ADT YR	ROW I	ROW W	FC	RC	SC	O	U/A	NHS	H	AC	ALN H	ALN V	INV YR	PVT R	PVT YR	SW
CTH E	Tesch Rd	0.78 (4118)	N	2	35	16	1966			4	0	0	000	000			E	000015		E	50	45	5		4	000	NON		00			2018	4	2017	

Hahn Rd — 0.11

AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	OW	L	SURFACE Type	SURFACE WD	SURFACE YR	MAINT Type	MAINT YR	P	CURB LT	CURB RT	SHOULDER LT	SHOULDER RT	MEDIAN TYPE	MEDIAN WD	ADT I	ADT CNT	ADT YR	ROW I	ROW W	FC	RC	SC	O	U/A	NHS	H	AC	ALN H	ALN V	INV YR	PVT R	PVT YR	SW
CTH E	Termini	0.11 (581)	N	2	35	16	1966			4	0	0	000	000			E	000005		E	50	45	5		4	000	NON		00			2018	4	2017	

Kellogg Rd — 0.27

AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	OW	L	SURFACE Type	SURFACE WD	SURFACE YR	MAINT Type	MAINT YR	P	CURB LT	CURB RT	SHOULDER LT	SHOULDER RT	MEDIAN TYPE	MEDIAN WD	ADT I	ADT CNT	ADT YR	ROW I	ROW W	FC	RC	SC	O	U/A	NHS	H	AC	ALN H	ALN V	INV YR	PVT R	PVT YR	SW
Conservation Ave	Termini	0.27 (1426)	N	1	30	8	1985			4	0	0	000	000			E	000005		E	50	45	5		4	000	NON		00			2018	3	2017	

Kelly Creek Dr — 0.42

AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	OW	L	SURFACE Type	SURFACE WD	SURFACE YR	MAINT Type	MAINT YR	P	CURB LT	CURB RT	SHOULDER LT	SHOULDER RT	MEDIAN TYPE	MEDIAN WD	ADT I	ADT CNT	ADT YR	ROW I	ROW W	FC	RC	SC	O	U/A	NHS	H	AC	ALN H	ALN V	INV YR	PVT R	PVT YR	SW
Burma Rd	Termini	0.42 (2218)	N	2	35	16	1985			4	0	0	000	000			E	000005		E	33	45	5		4	000	NON		00			2018	4	2017	

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Lemmer Dr — 0.25

AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	OW	L	SURFACE Type	SURFACE WD	SURFACE YR	MAINT Type	MAINT YR	P	CURB LT	CURB RT	SHOULDER LT	SHOULDER RT	MEDIAN TYPE	MEDIAN WD	ADT I	ADT CNT	ADT YR	ROW I	ROW W	FC	RC	SC	O	U/A	NHS	H	AC	ALN H	ALN V	INV YR	PVT R	PVT YR	SW
Wangen Dr	Termini	0.25 (1320)	N	2	35	24	1974			4	0	0	000	000			E	000015		E	66	45	5		4	000	NON		00			2018	4	2017	

New Wood Rd — 4.10

AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	OW	L	SURFACE Type	SURFACE WD	SURFACE YR	MAINT Type	MAINT YR	P	CURB LT	CURB RT	SHOULDER LT	SHOULDER RT	MEDIAN TYPE	MEDIAN WD	ADT I	ADT CNT	ADT YR	ROW I	ROW W	FC	RC	SC	O	U/A	NHS	H	AC	ALN H	ALN V	INV YR	PVT R	PVT YR	SW
County Forest 702 (0.52)	Private	1.95 (10299)	N	2	35	16	1966			4	0	0	000	000			E	000035		E	50	45	5		4	000	NON		00			2018	3	2017	
Private	Whiskey Bill Rd	2.15 (11349)	N	2	35	16	1966			4	0	0	000	000			E	000035		E	50	45	5		4	000	NON		00			2018	3	2017	

Ollhoff Ave — 1.00

AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	OW	L	SURFACE Type	SURFACE WD	SURFACE YR	MAINT Type	MAINT YR	P	CURB LT	CURB RT	SHOULDER LT	SHOULDER RT	MEDIAN TYPE	MEDIAN WD	ADT I	ADT CNT	ADT YR	ROW I	ROW W	FC	RC	SC	O	U/A	NHS	H	AC	ALN H	ALN V	INV YR	PVT R	PVT YR	SW
CTH E	Tesch Rd	1.00 (5280)	N	1	35	14	1966			4	0	0	000	000			E	000015		E	50	45	5		4	000	NON		00			2018	4	2017	

Pickering Dr — 0.23

AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	OW	L	SURFACE Type	SURFACE WD	SURFACE YR	MAINT Type	MAINT YR	P	CURB LT	CURB RT	SHOULDER LT	SHOULDER RT	MEDIAN TYPE	MEDIAN WD	ADT I	ADT CNT	ADT YR	ROW I	ROW W	FC	RC	SC	O	U/A	NHS	H	AC	ALN H	ALN V	INV YR	PVT R	PVT YR	SW
Tesch Rd	Termini	0.23 (1214)	N	1	35	12	1966			4	0	0	000	000			E	000015		E	50	45	5		4	000	NON		00			2018	4	2017	

Rhinelander Rd — 0.25

AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	OW	L	SURFACE Type	SURFACE WD	SURFACE YR	MAINT Type	MAINT YR	P	CURB LT	CURB RT	SHOULDER LT	SHOULDER RT	MEDIAN TYPE	MEDIAN WD	ADT I	ADT CNT	ADT YR	ROW I	ROW W	FC	RC	SC	O	U/A	NHS	H	AC	ALN H	ALN V	INV YR	PVT R	PVT YR	SW
Tesch Rd	Termini	0.25 (1320)	N	1	30	8	1966			4	0	0	000	000			E	000005		E	50	45	5		4	000	NON		00			2018	3	2017	

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Tesch Rd — 4.08

AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	OW	L	SURFACE Type	SURFACE WD	SURFACE YR	MAINT Type	MAINT YR	P	CURB LT	CURB RT	SHOULDER LT	SHOULDER RT	MEDIAN TYPE	MEDIAN WD	ADT I	ADT CNT	ADT YR	ROW I	ROW W	FC	RC	SC	O	U/A	NHS	H	AC	ALN H	ALN V	INV YR	PVT R	PVT YR	SW
Burma Rd	Rhinelander Rd	0.51 (2693)	N	2	35	16	1966			4	0	0	000	000			E	000035		E	50	45	5	6	4	000	NON		00			2018	4	2017	
Rhinelander Rd	Wangen Dr	0.69 (3643)	N	2	35	16	1966			4	0	0	000	000			E	000035		E	50	45	5	6	4	000	NON		00			2018	4	2017	
Wangen Dr	Pickering Dr	0.79 (4171)	N	2	35	16	1966			4	0	0	000	000			E	000035		E	50	45	5	6	4	000	NON		00			2018	4	2017	
Pickering Dr	Gravel Pit Ln	0.10 (528)	N	2	35	16	1966			4	0	0	000	000			E	000035		E	50	45	5	6	4	000	NON		00			2018	4	2017	
Gravel Pit Ln	Ollhoff Ave	0.72 (3802)	N	2	35	16	1966			4	0	0	000	000			E	000035		E	50	45	5	6	4	000	NON		00			2018	4	2017	
Ollhoff Ave	CTH E	1.27 (6706)	N	2	55	22	1989	1, 7	2014	4	0	0	203	203			E	000075		E	50	45	5	6	4	000	NON		00			2018	6	2017	

Von Besser Dr — 0.70

AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	OW	L	SURFACE Type	SURFACE WD	SURFACE YR	MAINT Type	MAINT YR	P	CURB LT	CURB RT	SHOULDER LT	SHOULDER RT	MEDIAN TYPE	MEDIAN WD	ADT I	ADT CNT	ADT YR	ROW I	ROW W	FC	RC	SC	O	U/A	NHS	H	AC	ALN H	ALN V	INV YR	PVT R	PVT YR	SW
Edward Dr	Alexander Lake Rd	0.70 (3696)	N	2	57	22	1985	1, 7	2015	4	0	0	102	102			E	000050		E	50	45	5		4	000	NON		00			2018	7	2017	

Walenczyk Rd — 0.50

AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	OW	L	SURFACE Type	SURFACE WD	SURFACE YR	MAINT Type	MAINT YR	P	CURB LT	CURB RT	SHOULDER LT	SHOULDER RT	MEDIAN TYPE	MEDIAN WD	ADT I	ADT CNT	ADT YR	ROW I	ROW W	FC	RC	SC	O	U/A	NHS	H	AC	ALN H	ALN V	INV YR	PVT R	PVT YR	SW
Burma Rd	Termini	0.50 (2640)	N	1	35	12	1966			4	0	0	000	000			E	000015		E	33	45	5		4	000	NON		00			2018	4	2017	

Wangen Dr — 0.74

AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	OW	L	SURFACE Type	SURFACE WD	SURFACE YR	MAINT Type	MAINT YR	P	CURB LT	CURB RT	SHOULDER LT	SHOULDER RT	MEDIAN TYPE	MEDIAN WD	ADT I	ADT CNT	ADT YR	ROW I	ROW W	FC	RC	SC	O	U/A	NHS	H	AC	ALN H	ALN V	INV YR	PVT R	PVT YR	SW
CTH E	Lemmer Dr	0.50 (2640)	N	1	35	14	1966			4	0	0	000	000			E	000015		E	50	45	5		4	000	NON		00			2018	4	2017	
Lemmer Dr	Tesch Rd	0.24 (1267)	N	1	35	14	1966			4	0	0	000	000			E	000015		E	50	45	5		4	000	NON		00			2018	4	2017	

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Wegner Rd — 0.25

AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	OW	L	SURFACE			MAINT		P	CURB		SHOULDER		MEDIAN		ADT			ROW		FC	RC	SC	O	U/A	NHS	H	AC	ALN		INV YR	PVT		SW
					Type	WD	YR	Type	YR		LT	RT	LT	RT	TYPE	WD	I	CNT	YR	I	W									H	V		R	YR	
Termini (1.50)	Cranberry Trl	0.25 (1320)	N	2	35	16	1966			4	0	0	000	000			E	000005		E	50	45	5		4	000	NON		00			2018	4	2017	

W End Dr — 2.00

AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	OW	L	SURFACE			MAINT		P	CURB		SHOULDER		MEDIAN		ADT			ROW		FC	RC	SC	O	U/A	NHS	H	AC	ALN		INV YR	PVT		SW
					Type	WD	YR	Type	YR		LT	RT	LT	RT	TYPE	WD	I	CNT	YR	I	W									H	V		R	YR	
Forks Rd	CTH E	2.00 (10560)	N	2	35	20	1968			4	0	0	000	000			E	000015		E	50	45	5		4	000	NON		00			2018	4	2017	

Whiskey Bill Rd — 1.51

AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	OW	L	SURFACE			MAINT		P	CURB		SHOULDER		MEDIAN		ADT			ROW		FC	RC	SC	O	U/A	NHS	H	AC	ALN		INV YR	PVT		SW
					Type	WD	YR	Type	YR		LT	RT	LT	RT	TYPE	WD	I	CNT	YR	I	W									H	V		R	YR	
CTH E	New Wood Rd	0.11 (581)	N	2	35	16	1982			4	0	0	000	000			E	000015		E	50	45	5		4	000	NON		00			2018	3	2017	
New Wood Rd	Termini	1.40 (7392)	N	2	35	16	1982			4	0	0	000	000			E	000015		E	50	45	5		4	000	NON		00			2018	3	2017	

APPENDIX B – PASER Rating System

PASER Asphalt Surface Rating System		
Surface Rating	Visible Distress*	General condition/ Treatment measures
10 Excellent	None.	New construction.
9 Excellent	None.	Recent overlay, like new..
8 Very Good	No longitudinal cracks except reflection of paving joints. Occasional transverse cracks, widely spaced (40" or greater). All cracks sealed or tight (open ¼" or less).	Recent sealcoat or new road mix. Little or no maintenance required.
7 Good	Very slight or no ravelling, surface shows some traffic wear. Longitudinal cracks (open ¼") due to reflection or paving joints. Transverse cracks (open ¼") spaced 10 feet or more apart, little or slight crack ravelling. No patching or very few patches in excellent condition.	First signs of aging. Maintain with routine crack filling.
6 Good	Slight raveling (loss of fines) and traffic wear. Longitudinal cracks (open ¼" – ½") due to reflection and paving joints. Transverse cracking (open ¼" to ½") some paced less than 10 feet. First sign of block cracking. Slight to moderate flushing or polishing. Occasional patching in good condition.	Show signs of aging, sound structural condition. Could extend life with sealcoat.

*Note: Individual roadways may not have all of the types of distress listed for any particular rating. Each road may have only one or two types of distress.

PASER Asphalt Surface Rating System (continued)		
Surface Rating	Visible Distress*	General condition/ Treatment measures
5 Fair	Moderate to severe raveling (loss of fine and coarse aggregate). Longitudinal and transverse cracks (open ½") show first signs of slight raveling and secondary cracks. First signs of longitudinal cracks near pavement edge. Block cracking up to 50% of surface. Extensive to severe flushing or polishing. Some patching or edge wedging in good condition.	Surface aging, sound structural condition. Needs sealcoat or nonstructural overlay.
4 Fair	Severe surface raveling. Multiple longitudinal and transverse cracking with slight raveling. Longitudinal cracking in wheel path. Block cracking (over 50%) of surface). Patching in fair condition. Slight rutting or distortions (1/2" deep or less).	Significant aging and first signs of need for strengthening. Would benefit from recycling or overlay.
3 Poor	Closely spaced longitudinal and transverse cracks often showing raveling and crack erosion. Severe block cracking. Some alligator cracking (less than 25% of surface). Patches in fair to poor condition. Moderate rutting or distortion (1" or 2" deep). Occasional potholes.	Needs patching and major overlay or complete recycling.
2 Very Poor	Alligator cracking (over 25% of surface). Severe distortions (over 2" deep). Extensive patching in poor condition. Potholes.	Severe deterioration. Needs reconstruction with extensive base repair.
1 Failed	Severe distress with extensive loss of surface integrity.	Failed. Needs total reconstruction.

*Note: Individual roadways may not have all of the types of distress listed for any particular rating. Each road may have only one or two types of distress.

PASER Gravel Surface Rating System		
Surface Rating	Visible Distress*	General condition/ Treatment measures
5 (10) Excellent	No distress. Dust controlled. Excellent surface condition and ride.	New construction – or total reconstruction. Excellent drainage. Little or no maintenance required.
4 (8) Good	Dust under dry conditions. Moderate loose aggregate. Slight washboarding.	Recently regraded. Good crown and drainage throughout. Adequate gravel for traffic. Routine maintenance may be needed.
3 (6) Fair	Good crown (3"-6") Ditches present on more than 50% of roadway. Gravel layer is mostly adequate but additional aggregate may be needed at a few locations to help correct washboarding or isolated potholes and ruts. Some culvert cleaning needed. Moderate washboarding (1"-2" deep), over 10%-20% of the area. Moderate dust, partial obstruction of vision. None or slight rutting (less than 1" deep). An occasional small pothole (less than 2" deep). Some loose aggregate (2" deep).	Shows traffic effects. Regrading (reworking) necessary to maintain. Needs some ditch improvement and culvert maintenance. Some areas may need additional gravel.

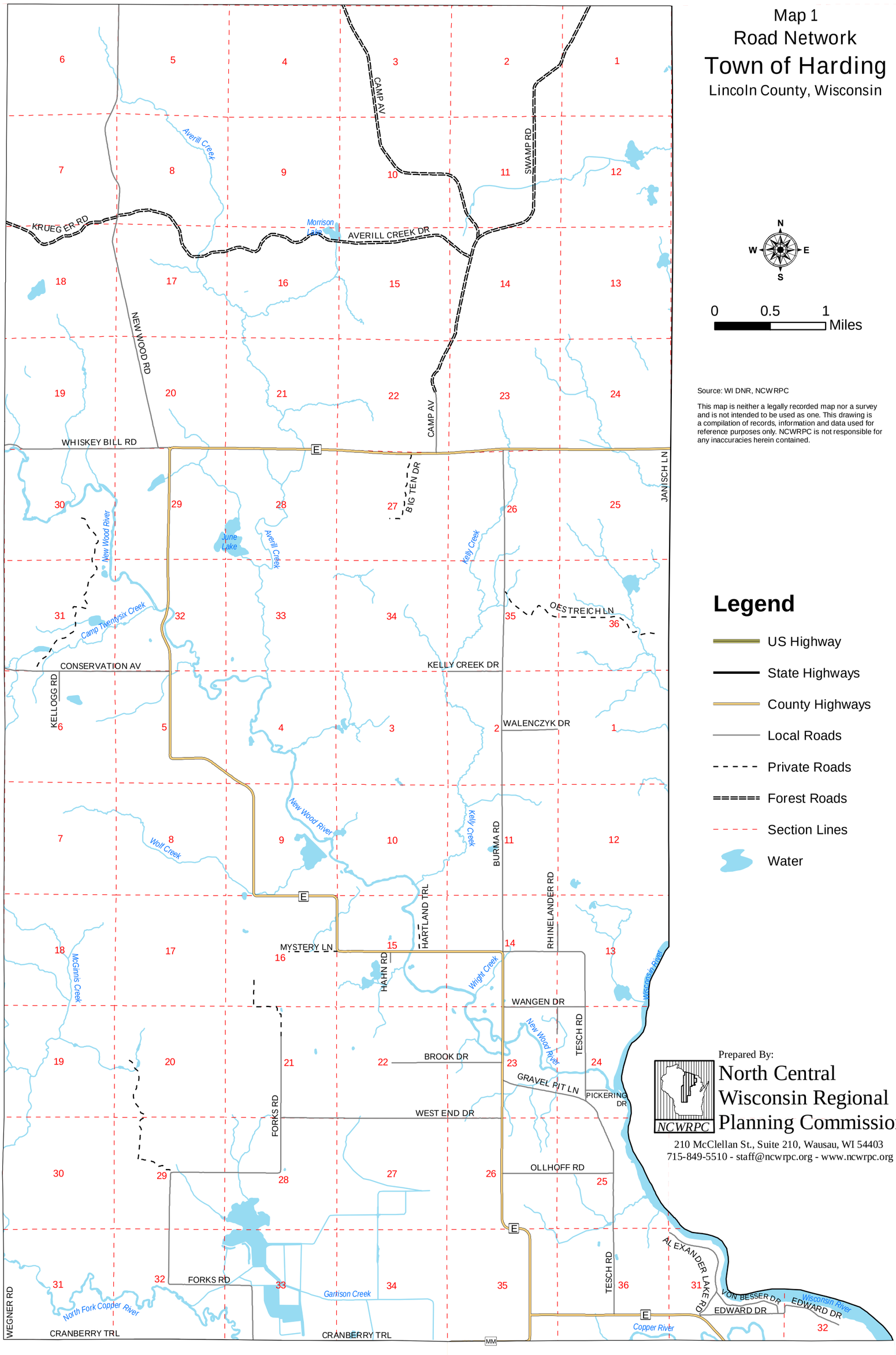
*Note: Individual roadways may not have all of the types of distress listed for any particular rating. Each road may have only one or two types of distress.

PASER Gravel Surface Rating System (continued)		
Surface Rating	Visible Distress*	General condition/ Treatment measures
2 (4) Poor	Little or no roadway crown (less than 3"). Adequate ditches on less than 50% of roadway. Portions of the ditches may be filled, overgrown and/or show erosion. Some areas (25%) with little or no aggregate. Culverts partially full of debris. Moderate to severe washboarding (over 3" deep) over 25% of area. Moderate rutting (1"- 3"), over 10% - 25% of area. Moderate potholes (2" – 4"), over 10% - 25% of area. Severe loose aggregrate (over 4").	Travel at slow speeds (less than 25 mph) is required. Needs additional new aggregrate. Major ditch construction and culvert maintenance also required.
1 (2) Failed	No roadway crown or road is bowl shaped with extensive ponding. Little if any ditching. Filled or damaged culverts. Severe rutting (over 3" deep), over 25% of the area. Severe potholes (over 4" deep), over 25% of area. Many areas (over 25%) with little or no aggregrate.	Travel is difficult and road may be closed at times. Needs complete rebuilding and/or new culverts.

*Note: Individual roadways may not have all of the types of distress listed for any particular rating. Each road may have only one or two types of distress.

Source: Wisconsin Transportation Information Center.

APPENDIX C – Town Road Map


Map 1
Road Network
Town of Harding
Lincoln County, Wisconsin
N
W
E
S
0
0.5
1
Miles
Source: WI DNR, NCWRPC
This map is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information and data used for reference purposes only. NCWRPC is not responsible for any inaccuracies herein contained.
Legend
US Highway
State Highways
County Highways
Local Roads
Private Roads
Forest Roads
Section Lines
Water
CAMP AV
SWAMP RD
KRUEGER RD
AVERILL CREEK DR
Averill Creek
Morrison Lake
NEW WOOD RD
WHISKEY BILL RD
BIG TEN DR
JANISCH LN
New Wood River
June Lake
Kelly Creek
OESTREICH LN
Camp Twentysix Creek
CONSERVATION AV
KELLY CREEK DR
KELLOGG RD
WALENCZYK DR
Wolf Creek
BURMA RD
RHINELANDER RD
HARTLAND TRL
MYSTERY LN
HAHN RD
McGinnis Creek
Wright Creek
Wisconsin River
WANGEN DR
TESCH RD
BROOK DR
GRAVEL PIT LN
PICKERING DR
FORKS RD
WEST END DR
OLLHOFF RD
AL EXANDER LAKE RD
VON BESSER DR
EDWARD DR
WEGNER RD
North Fork Copper River
Garrison Creek
Copper River
CRANBERRY TRL
MM
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