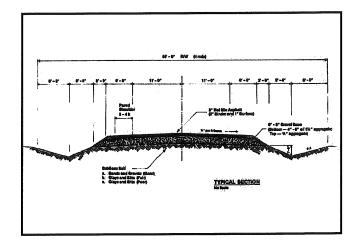
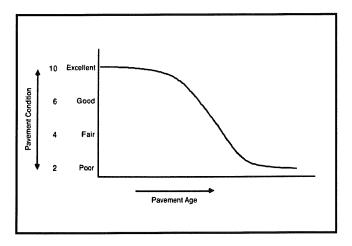
TOWN OF TOMAHAWK ROADWAY SURFACE MANAGEMENT PLAN



PASER

Pavement Surface Evaluation and Rating



Prepared April 2008 by:
NORTH CENTRAL WISCONSIN REGIONAL PLANNING COMMISSION
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TOWN OF TOMAHAWK, LINCOLN COUNTY, WISCONSIN ROADWAY SURFACE MANAGEMENT PLAN

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CHAPTER 1 ROADWAY SURFACE MANAGEMENT PLAN OVERVIEW

INTRODUCTION

A roadway management plan for a local street system provides a community with the ability to plan for future roadway improvements. With a roadway management plan in place, the limited resources allocated to local roads can be better spent. The overall goal of the Roadway Management Plan is to assist municipalities 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 Tomahawk's roadway system. Thus, the Roadway Management Plan will assist in preserving and rehabilitating the existing Town street 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 roadway management plan was collected during the summer of 2007 using the Pavement Surface Evaluation and Rating (PASER) system. The on-site roadway review was performed following the Wisconsin DOT Plat Record Map.

PURPOSE OF ROADWAY SURFACE MANAGEMENT PLAN

A Roadway 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.

Roadway 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;
- 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 SURFACE MANAGEMENT PLAN RESULTS

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

In addition, municipalities must report to the Wisconsin Department of Transportation an assessment of the physical condition of the roadways 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 roadway management plan process.

CHAPTER II TOMAHAWK'S EXISTING ROADWAY SYSTEM

EXISTING SYSTEM

Prior to the development of a Roadway 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 state road/transportation aid program, see Appendix A. This data file is used as the basis for beginning the Roadway 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 (earth, gravel, asphalt, or concrete);
- 3. Functional classification; and
- Surface and shoulder width.

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

FUNCTIONAL CLASSIFICATION SYSTEM

Tomahawk'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 Roadway Management Plan, the functional classification of the roads is described as follows:

<u>Major Collectors</u>: Major collectors 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 state or county trunk highways.

Minor collectors provide service to remaining population Minor Collectors: 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. One or two very densely developed roads could meet this classification, provided that the level of development is such that relatively high average daily traffic (ADT) counts are realized (a lake loop road is a good example of this type of situation).

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

Low Use Roads: Low use roads are roads that receive very limited traffic volume due to any of the following reasons: low level of development on property served by road, seasonality of use (hunting, fishing, cross country skiing, etc.), physical barrier to through traffic (road quality, dead end road, or other local factors that contribute to low or intermittent use).

The functional classification mileage of the roads is depicted in Figure 1 and by segment in Appendix A.

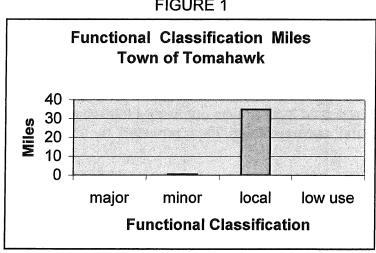


FIGURE 1

Most Town roads are in the local or low use category, and most county trunk highways are either major or minor collectors. 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 SURFACE MANAGEMENT PLAN RESULTS

PAVEMENT SURFACE EVALUATION AND RATING

The data reported in this Roadway Management Plan was produced using the Pavement Analysis Tool within the state's 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 throughout the Town in evaluating and assigning a value to each roadway segment. To achieve this uniform and 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 roadway system.

Based upon the WISLR data collected, there are 35.41 miles of road in the Town of Tomahawk's roadway system. On this system, 27.12 miles or 76.6 percent are unpaved and 8.29 miles or 23.4 percent are paved. FIGURES 2 and 3 depict the surface condition ratings of the paved and unpaved roadway system.

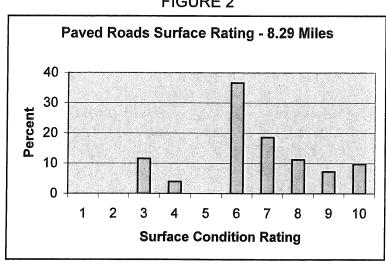
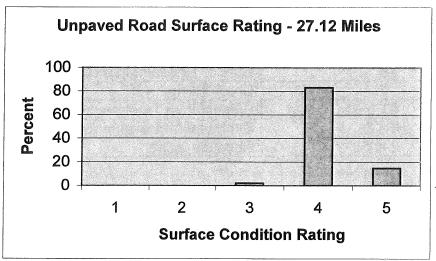


FIGURE 2

FIGURE 3



Focusing on paved roads, 28.3 percent is currently in need of no maintenance. About 18.6 percent is in need of only minor maintenance or crack filling, and 37.6 percent could benefit from a surface treatment such as sealcoating. About 15.5 percent is in need of structural improvement. Unpaved roads are currently in good condition with 98 percent needing only routine maintenance, and the remaining 2 percent in need of only minor ditching and/or additional gravel.

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) and gravel (unpaved) roads are represented in TABLES 1 and 2.

ASPHALT SURFACE RATING	TABLE 1 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

GRAVEL SURFACE RATING	TABLE 2 G CONDITION & SUGGESTED IMPROVEMENT
RATING	ACTION REQUIRED
5 – 4	Routine Maintenance
3	Minor Ditching/Add Gravel
2	Add Gravel/Drainage Improvement
1	Reconstruction

Based on these suggested treatment actions, a rudimentary needs analysis can be generated. A rudimentary needs analysis provides an estimate of all pavement needs as indicated by existing pavement ratings (unconstrained). Appendix C contains the rudimentary needs analysis for the Town of Tomahawk.

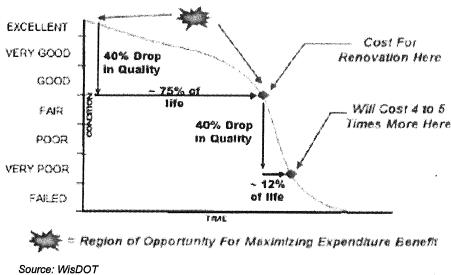
The rudimentary needs analysis categorizes need into two categories: capital and maintenance. Capital improvements are those that significantly extend service life. Examples of capital improvements are resurfacing, mill and overlay, and reconstruction. Maintenance improvements help preserve roads, but a typical application does not significantly extend service life. Examples of maintenance improvement are joint and crack sealing, patching and sealcoating.

The first page of the analysis shows a capital improvement need of \$91,074 associated with 1.32 miles of roadway and maintenance need of \$ 34,161 associated with 4.69 miles of roadway. A breakdown by street is also included.

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 Typical Pavement Condition Life Cycle



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 1/4" 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. <u>Building a firm foundation</u>. 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. <u>Use the best material</u>. 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. <u>Compact all layers</u>. 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. <u>Design for traffic loads and volumes</u>. 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. <u>Design for maintenance</u>. 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. <u>Build form the bottom up.</u> 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. <u>Protect your investment</u>. The local road system often is the Town's largest investment. These maintenance activities are critical to the longevity of a local road:

<u>Surface</u> Grade, shape, patch, seal crack, control dust, remove ice and snow;

<u>Drainage</u> Clean and repair ditches and culverts, remove excess debris;

<u>Roadside</u> Cut brush, trim trees and roadside plantings, control erosion; and

<u>Traffic Service</u> Clean and repair or replace signs.

10. <u>Keep good records</u>. 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 upon Town reported budget constraints of \$125,000 for maintenance and \$20,000 for construction. The maintenance budget provides for regular routine maintenance including fresh gravel and grading on unpaved roads and crack filling on paved surfaces.

In addition to the upcoming bridge project for which Town has budgeted its local share, 7 resurfacing projects are identified. This Plan recommends the Town budget an average of \$22,752 annually from 2009 to 2012 for these projects.

Town of Tomahawk Roadway Management Program 2008-2012

Maintenance (gravel, grading, crackfilling, etc.)	\$125,000	Annually
Local Match – Bridge Project	\$20,000	2008

Recommended Construction Projects 2009 - 2012

			Pvmt	Pvmt		
	Length	Width	Rtg	Rtg		Estimated
On Route*	Feet	Feet	(Year 1)	(Year 5)	Action	Cost
Millie Rd	1,320	20	4	9	Resurfacing	\$14,405.00
W Bilby Ln	475	20	4	9	Resurfacing	\$5,182.00
Tomahawk Rd	2,006	20	3	9	Mill and Overlay	\$28,519.00
E Bilby Rd	2,006	20	3	9	Mill and Overlay	\$26,767.00
Valley Rd	740	20	3	9	Mill and Overlay	\$10,519.00
TN RD 35	211	20	3	9	Mill and Overlay	\$2,808.00
W Bilby Ln	211	20	3	9	Mill and Overlay	\$2,808.00
						\$91,008.00

^{*}Refer to Appendix D for more detail on these road segments.

The estimated costs for each project listed may differ from final project costs. An engineering report is required for projects to be eligible for State LRIP funding. That report will identify the final project cost for any project.

APPENDIX A - WISLR Road In	ventory		
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COUNTY OF LINCOLN (35)

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

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Mitchell Rd	Eagle Waters Rd	0.29 (1531)	z	2 7	70 2	22 2006	96	0	0	202	202		-	E 000075	37.5	ш	99	8	4	8	N 000	NON	8		2008	9 20	2007
Eagle Waters Rd	Faust Rd	0.71 (3749)	z	2 7	70 2	22 20	906	0	0	202	202			E 000075	375	Ш	99	4	4	3 0	000	NON ON	8	2	2008	9 20	2002
Faust Rd	Evergreen Rd	0.57 (3010)	z	2 7	70 2	22 2006	90	0	0	202	202			E 000375	375	Ш	99	-	4	8	N	NON	8	Š	2008	9 20	2007
Evergreen Rd	Jaecks Rd	0.43 (2270)	z	2 7	70 2	22 2006	90	0	0	202	202		1 "	E 000375	375	Ш	99	6	4	3	000	NON	8	2	2008	9 20	2002
Jaecks Rd	W Bilby Rd	1.52 (8026)	z	2 70		22 20	906	0	0	202	202		٣	E 000375	375	Ш	99	\$	4	3	000	NON	8	Š	2008	9 20	2007
W Bilby Rd	E Bilby Rd	0.25 (1320)	z	2 70	-	22 20	90	0	0	202	202		 "	E 000375	175	Ш	99	8	4	3	000	NON	8	2	2008	9 20	2007
E Bilby Rd	Stegman Rd	1.28 (6758)	z	2 70	_	22 2006	90	0	0	202	202		╁╨	E 000375	175	Ш	99	64	4	3 0	Z 00	NON	8	N	2008	9 2007	10
Stegman Rd	СТН О (0.25)	0.25 (1320)	Z	2 70		22 2006	90	0	0	202	202			E 000225	125	Ш	99	40	4	3 0	N 000	NON	8	2	2008	2007	16
			1	1	\mathbf{I}	ł	1	-	-			1	1	-	$\left \right $	7			+		\dashv				_	4	-

⇒CTH T		0.85																			11		-		
ATRD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES OW 1 (FEET)	T &	St	SURFACE Type WD YR	YR.) 12 13	RT	HOUL	CE CURB SHOULDER MEDIAN YR P LT RT LT RT Type WD I	SDIAN SE WD		ADT ROW FC RC SC 0 U/A	ROW I W	<u>*</u> *	: 22 :22 :23	ပ္သင္သ	UA	NHS H AC H V TR R TR SW	AC H	32	NR X	PVT R VI	Star.	
Wery (3.28)	STH 86	0.85 (4488)	7	N 2 70 22		996	0	1966 4 0 0 000 000	8	96		E 000015	315	ш	66	E 66 45 4		3 000 NON		8		2008			

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=>CTH YY		1.63					•																				
AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	OW.	H	SURFA		리	4	CURB		SHOULDER LT RT		MEDIAN Type WD	-	ADT	Y.R	ROW I W	FC FC	RC	SC 0	N/U	SHN	H AC	ALN	AN.	R N	T YR SW
Strucker Dr (0.52)	Ball Park Rd	0.41 (2164)	z	2	55	22 2	2001	4 0		203	3 203	<u> </u>		т	000075		E 66	6 40	4	ω	00	NON	8		2008	ဖ	2007
Ball Park Rd	STH 86 (0.76)	0.76 (4013)	z	2	55	22 2	2001	4 0	-	203	3 203	<u>ω</u>		т	000075		E 66	6 40	4	ω	8	NON	8		2008	ω .	2007
STH 86	Lost Ave (0.46)	0.46 (2429)	z	2	55	24 2	2001	4 0	•	203	3 203	ä		m	000035		E 66	6 40	4	ω	8	NON	8		2008	ω \	2007
=>Deer Tri		0.38				-			.								1 -										
AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	00%	- H	SURFA Type WD		R	되으	CURB		SHOULDER LT RT		MEDIAN Type WD	=	ADT	YR	ROW I W	FC	RC	SC O	U/A	H SHN	A _C	HAN A	¥ 37	R PVT	T YR SW
New Wood Rd	Bambi Ln	0.13 (686)	z	2	70	20 1	1996	0	•	203	3 203	ω		m	000015		<u>п</u> 66	6 45	(J)	4	00	NON	8	18	2008	o	2007
Bambi Ln	Blackhawk Rd	0.08 (422)	z	2	70 ;	20 1	1996	4 0	0	203	3 203	۵		Ш	000015		П 66	6 45	51	4	00	NON	8		2008	<u>о</u>	2007
Blackhawk Rd	Termini	0.17 (898)	Z	2	70	20 1	1996	0	-	203	3 203	ω		П	000015		E 66	6 45	5	4	000	NON	00		2008	<u>о</u>	2007
=>Eagle Waters Rd		0.48																									
AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	wo.	T	SUR Type V	SURFACE	R	P C	CURB		SHOULDER LT RT		MEDIAN Type WD		ADT	ΥR	ROW	- P	RC	o os	U/A	H SHN	Á		IN IN	- 7 PV	T VR SW
СТНО	Termini	0.48 (2534)	z	2	70	20 1	1999	0	0	202	2 202	2		ш	000015	1995	A 66	6 45	O1	4		NON 000	8		2008	σ N	2007

COUNTY OF LINCOLN (35)

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ATRD/ST TO ROAD NAME LENGTH SOFTER MILES OFFIET MILES OFFI TO 1974 MILES OFFI TO 1	=>Evergreen Rd		0.49												1 =								=			
Silver Birch Rd 0.49 N 2 35 20 1974 4 0 000 000 E 000015 E 66 45 5 4 000	AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MIT FS	LENGTH	12	S	URFA	()	٠ [URB	SHO	ULDER	MED	LAN	K	DT	H	ΛÓ	H		Ŀ			ALN	INV	PV	
Silver Birch Rd (2587) N 2 35 20 1974 4 0 0 0 000 000 E 00015 E 66 45 5 4 000 NON 00 2008 4			(FEET)			3	100	⊒ , ; , [*] 4	2]	<u>Z</u>	137pe	2 2 2	<u>5</u>	2	- ~	\$	FC FC FC FC FC FC FC FC FC FC FC FC FC F	ပ္တ ပ	C/A	NHS	н	ΑН	ΥR	В	YR SY
00002	СТНО	Silver Birch Rd		Z Z	35	20	1974	4	<u> </u>	8	8			E 0000	115	Щ	99	45.5		000	Ş	7		0000		
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	ADT	000015
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	EDIA Pe W	
	R Ty	
	SHOULDER LT RT	1966 4 0 0 000 000
	SHO	8
	CURB	0
	D TI	0
		4
	VCE VR	
	SURFACI Type WD	35 20
-	Type	35
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00'	H Ov	
-	LENGTH MILES OW 1 (FEET)	1.00 (5280)
	TO ROAD NAME OFFSET MILES	стно
⇒Faust Rd	AT RD/ST OFFSET MILES	Termini

=>Four Mile Dr		3.94									,																	i	
AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	MO		SURFAC Type WD		, §	- I	L RT	SHC	and .	CURB SHOULDER MEDIAN LT RT LT RT Type WD 1	DDIA!	1-	ADT ROW FC RC SC 0 U/A	K K	ROW 1 W	H	RC	SC	<u> </u>	NHS H	H	V H	ALN	AC H V YR R YR SW	N N N	T.	MS
New Wood Rd	County Forest 701	2.03 (10718)	z	7	35 20 1	20 1	1966 4 0 0 000 000	0	-	ĕ	ŏ	g g		Ш	000035		E 5	E 50 45	22		8	4 000 NON	8	0		2008 5 2007	ro.	2007	
County Forest 701	Bridge Rd	1.91 (10085)	z	2	N 2 35 20 1		966 4 0 0 000 000	 	0	ĕ	ŏ	l e		Ш	000035		<u>П</u>	E 50 45 5	5		ĕ	4 000 NON	8	-		2008 5 2007	3	2002	

		3.											$\left \ \right $	11	$\left \cdot \right $]	$\ \ $	1		-	1	\exists	4	
		1.90	ŀ			ŀ									G.		-							
AT RD/ST	TO ROAD NAME	LENGTH		SU			E	S SI	TOOL	CURB SHOULDER MEDIAN	DIAN	AD.	1	ROW	A						AIN INV	.12	дЛd	L
OFFISIEL MILLES	OFFSET MILES	MILES OW (FEET)		L Type WD		ম ন	j i	RT	5	Xf Typ	W.D	YR P LT RT LT RT Type WD 1 CNT YR I W FC RC SC O U/A NHS H AC H V YR R YR SW	YR	H	W FC	2 RC	ر کرد	U/A N	HS H	E Sy	>	\ <u>₹</u>	YR	SW
			F	T	+	H	I	ł	t	1	ļ		1	1	+	1	Ŧ							
STH 86	Termini	1.90 (10032) ^N	7	2 35 18	_	99	0	0	1966 4 0 0 000 000	8		E 000015	2	Ш	E 50 45 5	5	4	4 000 NON	N O	8	<u> </u>	308	2008 4 2007	
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=>Hoffman Rd		0.27																								12			
AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	ow.	7	SURFA	SURFACE WD YR	P P	E C	CURB	SHOULDER LT RT	LDER		MEDIAN Type WD		CNT	ă l	ROW	200	FC RC	SC O	U/A	SHN	н ус	CHALN	V VR	R	PVT	R SW	ج ا
STH 86	Termini	0.27 (1426)	z	2 3	35 20	0 1966	66	0	0	00	000			т	00005		m on	50 45	01	4		NON	00	•	2008	4.	1 2007	97	
=>Island View Dr		0.24								,													IF			11		11	
AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	WO	T T	SURFA Type WD	SURFACE	~	CURIS		SHOULDER LT RT	LDER		MEDIAN Type WD	-=	ADT	YR	ROW I W	V V FC	RC	SC O	U/A	SHN	H AC	H	V IN V	# T	V VR	R SW	4
STH 86	E Island View Dr	0.06 (317)	z	2 7	70 20	0 2006	<u>6</u> 3	0	0	202	202	0	0	Е 0	00015 1995		A 66	6 45	On .	4	000	NON	00	0	2008	9	2007	07	
E Island View Dr	Termini	0.18 (950)	Z	2 7	70 20	0 2006	<u>В</u>	0	0	202	202	0	0	т 0	00015 1995		A 66	6 45	57	4	00	NON	00		2008	9	2007	07	
=>E Island View Dr		0.38																					1			11			
AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	WO.	T 7	SURFA	SURFACE VVD YR	72	CURB		SHOULDER LT RT	LDER			-1	ADT	Ϋ́R	ROW I W	V V	RC	sc o	U/A	SHN	JV H	C ALN	V YR	2	PVT	RSW	
Island View Dr	Termini	0.38 (2006)	Z	2 70	0 20	2006	3	0	0	202	202	0	0	E 0	000015 1995		A 66	6 45	ΟΊ	4	000	NON 000	00	0	2008)8 9	2007	97	
=>Jaecks Rd		0.63																											
AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	OW	177	SURFACE Type WD Y	ACE D YR	2	CURB	. The second of the second	SHOULDER LT RT	LDER	MEDIAN Type WD			ADT	ΥR	ROW 1 W	FC FC	RC	SC 0	0 u/A	SHN	H AC	H A	V TNV	25	PVT VR	R SW	
СТНО	Termini	0.63 (3326)	z	2 35	5 20	1966	36 4	0	0	000	000			Е 0	000005		E 50	0 45	Οī	4	000	000 NON	00		2008)8	2007	97	<u>l</u>

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Town Of Tomahawk (030)

COUNTY OF LINCOLN (35)

AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH NILES OW L (FEET)	WC I		SURFACE L Type WD	ACE D YR	F.	100 Ju	RT S	HOUL	DER	CURB SHOULDER MEDIAN LT RT LT RT Type WD	X Q.W	T CURB SHOULDER MEDIAN ADT ROW YR F LT RT Type WD I CNT YR I W FC RC SC O U/A	CNT Y	H	ROW I W	2 <u>4</u>	ў У	0	J/A	NHS	H	H H	ACN INV. H V YR	¥ 8	PVT R SYR	NHS H AC H V YR R YR SW
СТНО	Termini	0.24 (1267)	z	3,4	N 1 35 20 16	136	6 4	966 4 0 0 000 000	0	8	8			E 000015	15	ш	20	E 50 45 5	2	4	8	000 NON 000	8		 	2008 4 2007	# R	200
en e			1	$\ \ $	$\ \ $		-		1	1		1	1		+	1			\dashv		\forall		\dashv	4	┪	-	\dashv	٦

≕Little Beaver Rd		0.15		-																								
AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH SURFACE MILES OW L Type WD (FEET)	ž	E L	SURFACE rpe WD N	()	YR P	ರವ	RB	SHO	RT	CURB SHOULDER MEDIAN ADT	NYI	l	ADT	T _{\beta}	ROW 1 W	<u> </u>	R.	SC 0	ROW FC RC SC O U/A	NHS H AC H V YR R YR SW	H AC	THE STATE OF THE S	ALN INV	_ ⊭	R YR	M.S. Z
Termini	Blackhawk Rd	0.11 (581)	z	2 7	N 2 70 20 19	196	36	0	0	203	996 4 0 0 203 203			<u>8</u> ш	000015		В	3 45	Ŋ	4	00	000 A	8		1 6	(d	2000	
Blackhawk Rd	Termini		$\frac{1}{z}$	7 2	0	196) 4	٥	C	283	N 2 70 20 1996 4 0 0 203 203			E 00001E	204		- 3			+					3	P	3	
			\dashv	\dashv	\vdash		\exists		,					3	2		0 U	45	ဂ	4	000	000 NON NO	8			<u> </u>	2008 6 2007	
⇒Loop Rd		0.48			,											,										11	-	

OFFSET MILES	OFFSET MILES	MILES OW L Type WD (FEET)	.Mo	<u>1</u>	pe V	e WD Y	A .		Z Z	LT	XR P LT RT LT RT Type WD 1	Type	e Kill	-	ADT ROW FC RC SC 0 U/A	K,	ROW W	्र <u>।</u> ऽ।ऽ	. RC	သွ	S	NHS H AC H V YR	# #	<u>~</u> =	Z >	ALN INV H V YR	PV-T EX	PVT R YR SW	AS
Loop Rd (2)	Loop Rd (2) (0.48)	0.48 (2534)	z	2 7	0 2	2 20	02 3	0	0	202	2 70 22 2002 3 0 0 202 202		 	Ш	000035		E 33 40 5	\ \frac{\times}{6}	က	7 2	8	4 000 NON	14	8		2008 8 2007		2007	
(3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4			1	$\ \ $		$\left \cdot \right $							4			7	\dashv	4						\dashv					
=>Max Tilly Rd		05.0													,														
AT RO/ST	TO ROAD NAME	LENGTH			SUR	. ()		ŭ	IRB	SHOU	CURB SHOULDER MEDIAN		DIAN	L	ADT	Г	ROW	H		L	L		L	F					
OFFSET MILES	OFFSET MILES	MILES OW L Type WD (FEET)	150	т <u>т</u>	.be W		<u>원</u>	LT	RT	T.	RT	Type	e WD	-	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	XX.	1 1	<u>2</u>	, S	SC	CVA	NHS	H	T U	>	ALN 1 V YR	R J	Y.R	H.S
			T	\vdash	H	\vdash	+	L	I			1	1	Ţ	1	T	╁	4	I	1	1								
STH 86	Termini	0.50 (2640)	z	N 2 35 22 1	5 2	2 19	992 4 0	0	0	000	000 000 0		- And Consequence	Ш	E 000015		E 66 45 5	3 45	Ŋ	4	, 00 1	4 000 NON	8	0		2008 3 2007	3	2007	

MILES (FEET) LENGTH

TO ROAD NAME OFFSET MILES

OFFSET MILES AT RD/ST

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=>Millie Rd		0.25																											
AT RD/ST OFFSET MILES	TO ROAD NAME OFESET MILES	LENGTH MILES (FEET)	OW:	۲	SURFA		CEL	Peg .	CURB		TT	SHOULDER LT RT	MEDIAN Type W.D	Ħ	ADT	S	ROW	W. F.C	C RC	S	0 и/а	NHS	Z Z	ń	ALN TWV	R R	— F	r STR SW	
Termini	E Bilby Rd	0.03 (158)	z	2	57	20	1991	4	_	0	202	202		m	000015		m .	50 45	5		4 000	NON	Z	8	2008	4	1.0	2007	
E Bilby Rd	TN RD 35	0.12 (634)	z	N	57	20	1991	4	0	0	202	202		m	000015		m	50 45	57		4 000	NON	2	8	2008	4	1 2007	07	
TN RD 35	E Bilby Rd	0.10 (528)	z	2	57	20	1991	4	0	0	202	202		т	000015		m	50 45	5		000	NON	Z	8	2008	4		2007	
=>Mitchell Rd		0.11	7																				11			11	1	1 }	
AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	WO.	. e	SURFA	SURFACE	YR	***	CURB		THOR	SHOULDER LT RT	 MEDIAN Type WD		CNT	YR	ROW	W FC	70	RC SC O	o WA	SHN	=	AC]	ALN INV	7	 ₹	YR SW	٦
СТНО	Termini	0.11 (581)	Z	2	35	20	1966	4	0	0	000	000		ш	000005		m	50 45	51		4 000	NON		8	2008	4.	2007	9	
=>New Wood Rd		5,19																											
AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	ow	- F.	SURFA Type WD		CE.	ਚ	CURB		LT	SHOULDER LT RT	 MEDIAN Type WD		CNT	Y _R	ROW I W	W FC	RC C	SC	ν,η Ο	NHS	=	AC H V	V 17.7.	n l	PVT	RST	- 4
W Averill Creek Rd (1.95)	County Forest 702	0.52 (2746)	Z	2	35	20	1966	4	0	-	8	000		ш	000035		Ш	50 45	51		8	NON		8	2008	4	2007	07	
County Forest 702	Four Mile Dr	2.70 (14256)	Z	2	35	20	1966	4	0	0	000	000		ш	000035		Ш	50 45	51		4 000	NON		8	2008	4	2007	07	
Four Mile Dr	Deer Trl	1.56 (8237)	Z	2	35	20	1966	4	0	0	000	000		т	000035		Ш	50 45	5		4 000	NON		8	2008	<u>8</u> 4	2007	9	
Deer Trl	СТНО	0.41 (2165)	Z	2	70	20	1966	4	0	0	000	000		т	000035		Ш	50 45	51		8	NON 000		8	2008	6	2007	9	

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Town Of Tomahawk (030)

⇒Phalzgraff Rd		1.03	هم ا																									
AT RD/ST OPPSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	MO M	OW L Type WD	Vpe V	SURFACE pe WD Y	YR			SHZ 1-1	CURB SHOULDER MEDIAN LT RT LT RT Type WD	R ME	DIAN		CURB SHOULDER WEDIAN ADT ROW RO RO RO RO RO RO R	E	ROW 1 W		RC	ပ္တ	av a	NHS	NHS H AC H V YR R SW SW	TA FI	ALN T	INV.	PVT R YR	TES S
Bridge Rd	Termini (0.75)	0.75	z	. 7	2	8	9	4 0	-	50.	N 2 70 20 2001 4 0 0 202 202	-	11 	Ш	E 000015		E 50 45	- 5	2		8	000 NON	8		<u> N</u>	2008 6 2007	9	200
Bridge Rd (0.75)	Termini (0.95)	0.20 (1056)	z	8	35	1 2	35 20 1966 4 0	4	0	ĕ	000 0	1_		Ш	E 000015		E 50 45	45	72		8	000 NON	8		7	2008 4 2007	4	100
Bridge Rd (1.02)	Termini	0.08 (422)	z	2	35	20	N 2 35 20 1991 4 0	4 0	0	ĕ	000 000 0	-		о Ш	E 000015		E 50 45	54	2		8	4 000 NON	8			2008 4 2007	+ 2	<u> </u>
⇒Pline Grove I n				11	11	11		-	4	41	41	_	_			1	4	-]		_						\vdash	

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	ADT ROW CNT YR I W FC	000015	
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	MEDIAN Type WD		
	Typ		
	LDEF	202	
	CURB SHOULDER LT RT LT RT	202 202	
	CURB	0	
		0	
	E VR p	2002 3 0	
	SURFA L Type WD	N 2 70 22	
		2 70	
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0.92	HH SS (T		
	LENGTH MILES OW (FEET)	0.92 (4858)	
	TO ROAD NAME OFFSET MILES	S River Rd	
⇒Pine Grove Ln	AT RD/ST OFFSET MILES	86	
ā S		STH 86	

Wagner Rd Wagner Rd Wagner Rd Pine Grove Ln (1.48)	0.37															1000		· · · · · · · · · · · · · · · · · · ·			SECTION AND	A 11 57 57 158	\$100 P. C.	157725 2505		
ET MILES TO ROAD NAME OFFSET MILES OFFSET MILES	The State			The Person named in				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		100 TO 10	AND CONTRACTOR				STATE OF THE PARTY	VCD/seems.		40 00 mm - 1 mm				Cale Thy ellows		24 TO COM SEC.		
Pine Grove Ln	MILES OW (FEET)		L Type WD	T	¥	੍ਹ ਹ	RR	SHOU	LDER	P LT RT LT RT Type WD 1	₹ Q.	ADT		YR I W FC RC SC O	ROW I W	FC R	C SC)n O	U/A NF	NHS H AC H V YR	YC.	ALN H V	INV		PVT SW	SW
	0.25 (1320) N	2	35	N 2 35 20 1995 4	195 4	0	0	0 0 203 203	203		<u> </u>	E 000005	ट	М	E 33 45		2	4 00	4 000 NON	z	8		2008	2008 4 2007	7007	
Pine Grove Ln Loop Rd (2) 0. (6	0.12 (634) N	2	02	N 2 70 20 1995 4	195 4	0 #	0	0 203 203	203		1 "	E 000015	5	Щ	E 33 45		ro	4	4 000 NON		8	-	2008	2008 7 2007	2007	
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Page 9 of 12

Inventory Listing - (R-20) 1-1-2008 Certification

=>Saindon Rd		0.75	5												-											
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=>Sanctuary Rd		0.41	7																	11						
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=>Spirit Falls Ave		0.59	9																							
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Inventory Listing - (R-20) 1-1-2008 Certification

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County Forest 701 (3.00)	Coffee Creek Rd (3.75)	0.75	z	N 1 35	16	—	966 4	0	0	8	8		Ш	E 000015	2	Ш	20	45	2	4 00	4 000 NON	i.	8		2008 4 2007	4	200	
County Forest 701 (5.25)	Coffee Creek Rd	1.01 (5333)	α Z	2 3	35 18	18 1966 4	36	0	0	000	8		Ш	E 000015	2	Ш	50	45	5	4	4 000 NON		8	"	2008	4 2007	200	T
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⇒TN RD 35		0.04												. . .										5.7				ſ
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STH 86	Valley Rd (0.38)	0.38 (2006)	N 2 70 20 1991 4	2	28	1991	4	0	7 2	0 203 203	<u> </u>	14. B	Ш	E 000015	1971 3 T 3 S	Ш	E 66 45 5	2	14	8	000 NON		8		2008		2008 3 2007	5

Inventory Listing - (R-20) 1-1-2008 Certification

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=>Valley Rd												H				lŀ								-	ļF		$\ \ $		ΙL
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Tomahawk Rd (0.38)	Termini	0.14 (740)	z	2 70	0 20	0 1991	91 4	0	0	203	203			➤	000010		m	8	45	51	4	000	NON	8		2008	ω	2007	
=>Wauwatosa Ave		2																		lŀ		1							JL
AT RD/ST OPPSET MILES	TO ROAD NAME OFFSET MILES	LENGTH MILES (FEET)	OVV	T T	SURFA Type WD	SURFACE pe WD YR	7	F12	CURB	SHOULDER LT RT	RT		MEDIAN		ADT		VR 1	ROW	F.C	RC SC	0	D/A	A SHN	À	ATN	KK.	R PYT	T VR SW	<u> </u>
STH 86	Termini	0.44 (2323)	Z	2 35	5 24	1966	56 4	0	0	000	000			т	000005	<u></u> Ж	m	33	45	Oπ	4	000	NON I	8		2008	4	2007	
=>Wilderness Dr		0.45																				11							J L
AT RD/ST OFFSET MILES	TO ROAD NAME OFFSET MILES	LENGIH MILES (FEEI)	OW.	ν. 1	SURFACE Type WD Y	ACE VR	7	Ξg	CURB	SHOULDER LT RT	RT	100	MEDIAN Type W.D		CNT		YR I	Row	FC C	RC SC	0	TU/A	H SHN	AC .	ALN H V	33 23	RPVT	YR SW	-
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=>Zenith Tower Rd		0.87																											ii L
AT RD/ST OFFSET MILES	TO ROAD NAME- OFFSET MILES	LENGTH MILES (FEET)	OW.	T.77	SURFA	SURFACE DE WD YR	Z P	E E	CURB	SHOULDER LI RT	RT		MEDIAN Type WD		ADT CNT		YR I	ROW	FC	RC SC	. 0	UA	NHS H	λc	NTV	17.3	PVT	YR SW	
STH 86	Wilson School Rd (0.87)	0.87 (4594)	z	2 70	0 20	1994	94 4	0	0	203	203			m	000035	<u> </u>	m	66	4 5	ΟΊ	4	NON	Š.	8		2008	0	2007	

APPENDIX B – PASER Rating System	

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	PASER Asphalt Surface Rating Sys	stem
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.	Recent sealcoat or new road mix. Little or no
	Occasional transverse cracks, widely spaced (40" or greater).	maintenance required.
	All cracks sealed or tight (open 1/4" or less).	
7 Good	Very slight or no ravelling, surface shows some traffic wear.	First signs of aging. Maintain with routine crack filling.
	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.	
6 Good	Slight raveling (loss of fines) and traffic wear.	Show signs of aging, sound structural condition. Could
	Longitudinal cracks (open $\frac{1}{4}$ " – $\frac{1}{2}$ ") due to reflection and paving joints.	extend life with sealcoat.
	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.	

PASER Asphalt Surface Rating System (continued)					
Surface Rating		Visible Distress*	General condition/ Treatment measures		
5 Fe	Fair	Moderate to severe raveling (loss of fine and coarse aggregate).	Surface aging, sound structural condition. Needs sealcoat or nonstructural overlay.		
		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.			
4 Fc	air	Severe surface raveling.	Significant aging and first		
		Multiple longitudinal and transverse cracking with slight raveling.	signs of need for strengthening. Would benefit from recycling or overlay.		
		Longitudinal cracking in wheel path.	nom recycling or everlag.		
		Block cracking (over 50%) of surface).			
		Patching in fair condition.			
.,	**************************************	Slight rutting or distortions (1/2" deep or less).			
3 Po	por	Closely spaced longitudinal and transverse cracks often showing raveling and crack erosion.	Needs patching and major overlay or complete recycling.		
		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.			
2 Ve	Very Poor	Alligator cracking (over 25% of surface).	Severe deterioration. Needs reconstruction with extensive base repair.		
		Severe distortions (over 2" deep).			
		Extensive patching in poor condition.			
		Potholes.			
1 Fai	. 1	Severe distress with extensive loss of surface integrity.	Failed. Needs total reconstruction.		

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")	Shows traffic effects.		
		Ditches present on more than 50% of roadway.	Regrading (reworking) necessary to maintain.		
	·	Gravel layer is mostly adequate but additional aggregate may be needed at a few locations to help correct washboarding or isolated potholes and ruts.	Needs some ditch improvement and culvert maintenance.		
		Some culvert cleaning needed.	Some areas may need additional gravel.		
		Moderate washboarding (1"-2" deep), over 10%-20% of the area.	g-11-11-11-11-11-11-11-11-11-11-11-11-11		
		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).			

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.	Travel at slow speeds (less				
	Culverts partially full of debris.	than 25 mph) is required.				
	Moderate to severe washboarding (over 3" deep) over 25% of area.	Needs additional new aggregrate.				
	Moderate rutting (1"- 3"), over 10% - 25% of area.	Major ditch construction and culvert maintenance also required.				
	Moderate potholes (2" – 4"), over 10% - 25% of area.	roquirou				
	Severe loose aggregrate (over 4").					
1 (2) Failed	No roadway crown or road is bowl shaped with extensive ponding.					
	Little if any ditching.	Travel is difficult and road				
	Filled or damaged culverts.	may be closed at times.				
	Severe rutting (over 3" deep), over 25% of the area.	Needs complete rebuilding and/or new culverts.				
	Severe potholes (over 4" deep), over 25% of area.					
	Many areas (over 25%) with little or no aggregrate.					

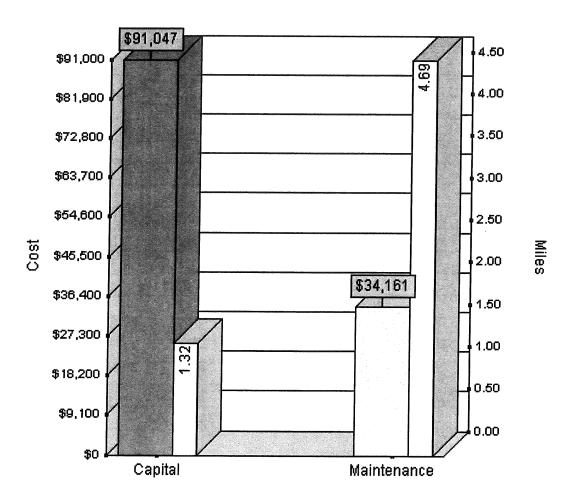
Source: Wisconsin Transportation Information Center.

APPENDIX C – Rudimentary Need	ls Analysis	APPENDIX C – Rudimentary Needs Analysis						
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Rudimentary Needs Analysis Town of Tomahawk



- 0.00% of needs attributed to this year's data
- 100.00% of needs attributed to one year old data
- 0.00% of needs attributed to two year old data
- 0.00% of needs are potentially unreliable Rating Data > 2 years old
- 0.00% of needs are estimated No Data
- 0.00% of needs are estimated Data Too Old (> 5 years old)

Rudimentary Needs Analysis Town of Tomahawk

Roadway Name	Maint. Cost	Capital Cost
W Bilby Ln	0.00	8001.04
E Bilby Rd	0.00	26773.41
Blackhawk Rd	1400.82	0.00
Deer Trl	3325.50	0.00
Eagle Waters Rd	4133.24	0.00
Little Beaver Rd	1312.96	0.00
Millie Rd	0.00	14408.53
New Wood Rd	3415.89	0.00
Phalzgraff Rd	6459.20	0.00
Pine Grove Ln	4156.29	0.00
S River Rd	493.11	0.00
TN RD 35	0.00	2816.15
Tomahawk Rd	0.00	28525.32
Valley Rd	0.00	10522.80
Wilderness Dr	1848.00	0.00
Zenith Tower Rd	7615.83	0.00
Total	34160.84	91047.25

APPENDIX D – Recommended Resurfacing Project Segment Details						
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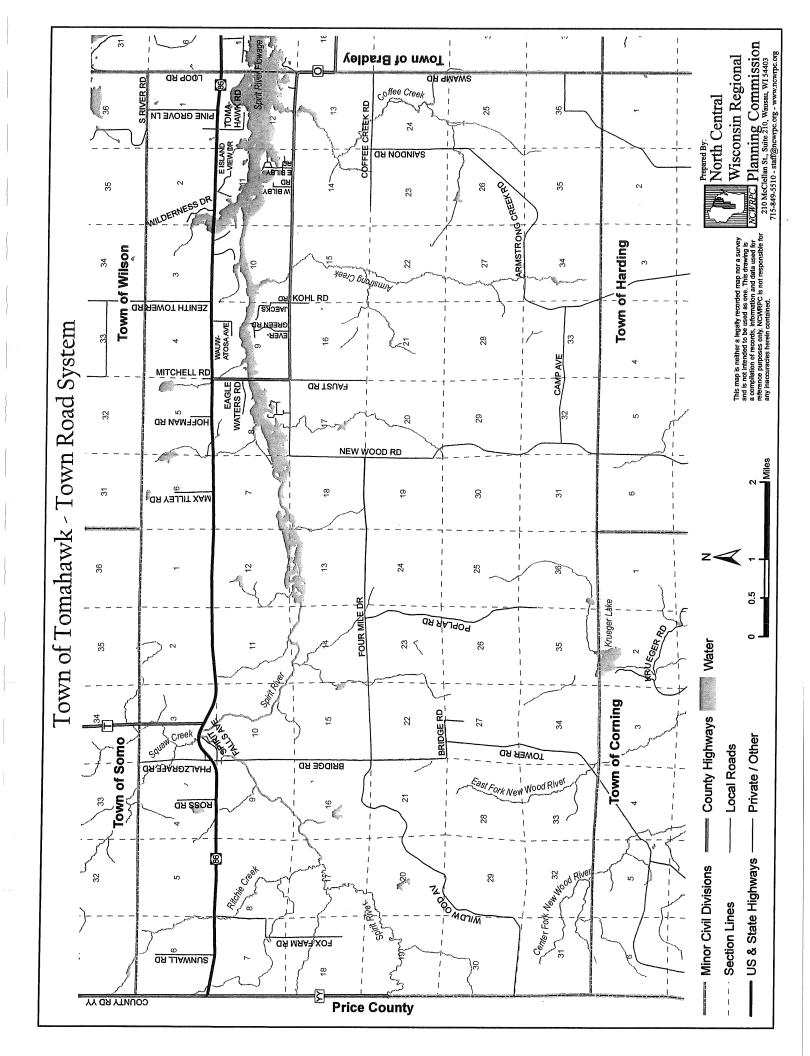
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Town of Tomahawk Recommended Resurfacing Projects 2009 - 2012

Estimated	Cost	14405	5182	20102	81007	79/97	10519		2808	2808	\$91,008.00
Pvmt Rtg	(Year 5) Action	9 Resurfacing	9 Resurfacing	9 Mill and Overlay		9 Mill and Overlay	9 Mill and Overlay		s Mill and Overlay	9 Mill and Overlay	•
Pvmt Rtg	(Year 1)	4	4	m) (°	2	ო	~	2	က	
	Width Surface	20 57	20 55	20 70	20 55	20.00	20 70	20.70	0	20 55	
	Length V	1320	475	2006	2006	0 1	740	211	1	211	
	To Offset Length V	1320	475	2006	2006	000	2/46	211	: ;	211	
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	At Koute	l ermini	lermini	STH 86	CTHO	Tomohomit Da	ייים וומוומשע אמ	Termini		_	
	On Route		w Bilby Ln	Iomahawk Rd	E Bilby Rd	Valley Bd	valicy ive	IN RD 35	W Bilby I n	V CIICY EII	

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