

CHAPTER 8: TRANSPORTATION

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INTRODUCTION

This chapter provides an inventory of the existing transportation facilities that serve Oconto County and the communities within. This element of the comprehensive plan also addresses the County's future transportation needs and concerns. The transportation facility and services inventory includes descriptions of the various modal elements of the county's transportation system. Those elements include the county's highway system, transit systems (where applicable), elderly and disabled transportation services, intercity bus service, bicycle transportation, pedestrian transportation, waterborne, rail, air service, and commercial trucking. The detailed description of the highway and road system includes the functional classification of roads within the county, traffic counts, traffic flow capacity, crash history, access controls, and an evaluation of the current internal traffic circulation system.

This chapter also includes an inventory and analysis of applicable transportation plans, including county functional and jurisdictional studies, transportation corridor plans, rural transportation plans, state and local airport plans, state railroad plans, state, regional and local bicycle plans, state and local pedestrian plans, state and local transit plans, as well as any other special transportation plans that are applicable. In addition, this element of the plan will compare local plans to the existing transportation plans developed at the state, regional and county level. At the conclusion of the chapter, specific transportation system recommendations are presented and may include design standards, recommended improvements, capacity additions to existing facilities, new road alignments, highway expansion projects, and improvements to other transportation modes.

INVENTORY OF TRANSPORTATION FACILITIES

The transportation facility inventory conducted for Oconto County has established that the county currently has jurisdiction over, and responsibility for, approximately 313 miles of highway. The county's jurisdictional responsibility relative to its highway system includes maintenance, repair and reconstruction of the highways as required. The primary funding source for maintaining, rehabilitating and reconstructing the county highway system is the state's disbursement of general transportation aids. Through this funding program, the state provides a payment to the county for costs associated with such activities as road reconstruction, filling potholes, snow removal, and marking pavement. The county's local transportation system is complimented by USH 41, USH 141, STH 22, STH 32 and STH 64; as well as an extensive county trunk highway system, all of which provide access to major urban areas located within Oconto County, the region and the state.

The transportation facility inventory conducted for this plan also determined that the county has access to rail; no public transit services operating within any county municipality; limited special transportation services for the county's elderly and disabled residents; private intercity bus service; local air service (Oconto County Airport); and, regional private and public passenger-air service at Austin Straubel International Airport in Green Bay.

Streets and Highways

There are several basic considerations that are useful in assessing the highway system within Oconto County. Those considerations include the functional classification of the existing roads, the annual average daily traffic and an evaluation of the system's capability to handle present and projected future traffic volumes. In addition, vehicle crash data is useful in determining problem areas relative to safety. This information can provide an indication of the improvements that may be needed during the planning period.

Wisconsin is unique to all 49 other States because it does not own or operate one single highway maintenance truck or piece of highway maintenance equipment. The Oconto County Highway Department is responsible for the maintenance of all State and US Highways located in the County.

Functional Class

The county's highways and roads, which make up the principal component of the transportation circulation system, may be divided into three categories, or functional classes, and include: 1) arterial highways, 2) collector roads; and, 3) local streets and roads. The three categories are determined by the function that the highway, street or road serves in relation to traffic patterns, land use, land access needs and traffic volumes. The highway system for the Oconto County (shown in Map 8.1) has been functionally classified based on criteria identified in Table 8.1.

Arterial Highways

The function of an arterial highway is to move traffic over medium to long distances, often between regions as well as between major economic centers, quickly, safely and efficiently. Arterial highways are further categorized into either "major" or "minor" arterials based on traffic volumes. The primary arterial highways located within Oconto County are USH 41, USH 141, STH 22, STH 32 and STH 64.

USH 41

USH 41 is classified as a principal arterial highway. In Wisconsin, USH 41 extends from I-94 southwest of the City of Kenosha to the USH 41 Bridge in the City of Marinette, and has an approximate overall length of 224 miles. In 1930 the last section of gravel surfaced USH 41, between the City of Oconto and the Oconto/Marinette County line, was paved. In 1967, USH 41 was realigned onto new highway bypassing the southern Oconto County communities of Brookside and Pensaukee, with the former route being turned back to local control and the portion through Pensaukee being designated as CTH SS. In 1972, the portion of USH 41/USH 141 from the northern end of the freeway near Suamico north of Green Bay to the USH 41/USH 141 "split" at Abrams is converted to four-lane, divided highway. In 1989 the portion of USH 41 from Peshtigo to the southern limits of Marinette is converted to four-lane, divided highway.

In 1991 and 1992 the interchange at the USH 41/USH 141 "split" at Abrams was constructed and the portion of USH 41 from the split northeasterly to the southern limits of the City of Oconto was converted to four-lane, divided expressway along its existing alignment.

Table 8.1: Functional Classification Criteria for Rural Roads and Highways

RURAL PRINCIPAL ARTERIALS					
Basic Criteria				Supplemental Criteria	Mileage Percent of System Range
Must meet any two of the criteria below					
Population Service*	Land Use Service	Spacing	Current ADT		
Connect places =50,000 with other places =50,000 Connect places 5,000 - 49,999 with places =50,000	Provide access to major recreation areas of the state.	Maximum: 30 miles between Principal Arterials	=6,000	None	2.0% to 4.0% statewide
*A place is considered served by a principal arterial if the principal arterial either penetrates its boundary or comes within 10 miles of the center of the place and penetrating service is provided by a minor arterial.					
RURAL MINOR ARTERIALS					
Basic Criteria				Supplemental Criteria	Mileage Percent of System Range
Must meet any two of the criteria below					
Population Service*	Land Use Service	Spacing	Current ADT		
Connect places 1,000 - 4,999 to places =50,000 Connect places 5,000 - 49,999 to other places 5,000 - 49,999 Connect places 1,000 - 4,999 to places 5,000 - 49,999, or with principal arterials	Serve all traffic generating activities with an annual visitation of 300,000, if not served by a principal arterial.	Maximum: 30 miles between Arterials	=2,000	1. Alternate population connection 2. Major river crossing/ restrictive topography	4.0% to 8.0% statewide
*A place is considered served by a minor arterial if the minor arterial either penetrates its boundary or comes within two miles of the center of the place and a major collector provides penetrating service.					

Table 8.1: Functional Classification Criteria for Rural Roads and Highways (continued)

RURAL MAJOR COLLECTORS*						
Basic Criteria				Supplemental Criteria		
Must meet any two of the criteria below or the Parenthetical Current ADT Alone				Must meet two of the criteria below plus 90% of Current ADT		
Population Service**	Land Use Service	Spacing	Current ADT***	Mileage Percent of System Range		
Connect places 1,000 - 4,999 to other places 1,000 - 4,999	Land Use Service Index =16.	Maximum: 10 Miles between Major Collectors or Higher Function Routes	=1,000 (=4,000)	1. Alternate population connection 2. Major river crossing 3. Restrictive topography 4. Interchange with a freeway 5. Parallel to a principal arterial		5.0% to 18.0% countywide
Connect places 500 - 999 to places =50,000						Most counties should be at 7.0% to 14.0%
Connect places 500 - 999 to places 5,000 - 49,999						
Connect places 500 - 999 to places 1,000 - 4,999						
Connect places 500 - 999 to other places 500 - 999						
Connect places 100 - 499 to places =50,000						
Connect places 100 - 499 to places 5,000 - 49,999						
Connect places 100 - 499 to places 1,000 - 4,999						
Connect places 100 - 499 to places 500 - 999, or with higher function routes						

*Loop routes and stub ended routes less than five miles long and meeting the basic criteria for a major collector should be limited to a minor collector classification.
 **A place is considered served by a major collector if the major collector comes within a half mile of the center of the place.
 ***The roadway or highway segment must be a minimum of a half mile long.

Table 8.1: Functional Classification Criteria for Rural Roads and Highways (continued)

RURAL MINOR COLLECTORS					
Basic Criteria				Supplemental Criteria	Mileage Percent of System Range
Must meet any two of the criteria below or the Parenthetical Current ADT Alone				Must meet two of the criteria below plus 90% of Current ADT	
Population Service*	Land Use Service (served if within one half mile of place)	Spacing	Current ADT**		
Connect places 100 - 999 to other places 100 - 999	Land Use Service Index =8	Maximum: 10 Miles between Minor Collectors or Higher Function Routes	=400 (=1,600)	1. Alternate population connection 2. Major river crossing 3. Restrictive topography 4. Interchange with a freeway 5. Parallel to a principal arterial	5.0% to 10.0% countywide
Connect places 50 - 99 to places =50,000					
Connect places 50 - 99 to places 5,000 - 49,999					
Connect places 50 - 99 to places 1,000 - 4,999					
Connect places 50 - 99 to places 500 - 999					
Connect places 50 - 99 to places 100 - 499, or with higher function routes					
*A place is considered served by a minor collector if the minor collector comes within a half mile of the center of the place. **The roadway or highway segment must be a minimum of a half mile long.					
RURAL LOCAL ROADS					
All public roads not classified as arterials or collectors.				65.0% to 75.0% countywide	
				Most counties should be at 68.0% to 72.0%	
Source: Wisconsin Department of Transportation, <i>Functional Classification Criteria</i> , 2003; and Bay-Lake Regional Planning Commission, 2006.					

In 1999, the interchanges at CTH S (at the unincorporated community of Sobieski) and at the USH 41 & USH 141 "split" (at Abrams) were completed as part of the ongoing conversion of the portion of USH 41/USH 141 from Suamico (in Brown County) to the community of Abrams to full freeway standards. In 2000, the interchange at Brown Road was completed and USH 41/USH 141 from Suamico northerly to Abrams was now a fully-controlled access freeway facility.

Over the past decade USH 41 has been upgraded so that nearly 90% of the existing route is currently four-lane (or more) divided highway, with a total of 87% built to either freeway or expressway standards. The 21 mile section of USH 41 from just west of the City of Oconto to the City of Peshtigo is currently the only section of USH 41 in the state that remains a two-lane roadway.

The Wisconsin Department of Transportation (WisDOT) is continuing to take steps to expand USH 41 from Oconto to Peshtigo. In 1989, the roadway was identified as a backbone route in WisDOT's Corridors 2020 Plan, which meant the roadway received high priority status for improvement funding. In 2005, the final Environmental Impact for the USH 41 Expansion Project was completed and released to the public.

Approximately 1.5 miles of the existing USH 41 alignment are within the city limits of Oconto. The remaining 18 miles lie in rural areas. USH 41 will be constructed to a four-lane divided highway with access management that will allow for uninterrupted travel with a 65 mph speed limit. An average range of 250 to 350 feet will be needed to construct a four-lane divided facility for the chosen alternative in rural areas.

This would provide for two 12-foot driving lanes in each direction with 10-foot outside shoulders, of which eight feet will be paved, and six-foot inside shoulders, of which three feet will be paved. The standard width of the median will be 60 feet. Roundabouts are being considered to improve traffic flow in Oconto and Peshtigo.

The expansion of USH 41 from the City of Oconto to the City of Peshtigo will provide additional roadway capacity to serve existing and projected traffic volumes and improve the safety and efficiency of the roadway. Costs and environmental impacts will be kept at a minimum during this process.

USH 141

Before the construction of Interstate 43 between the cities of Milwaukee and Green Bay, USH 141 provided the primary north to south highway link between the two major urban areas along Lake Michigan. Presently, the southern terminus (beginning point) of USH 141 is the I-43 exit (Exist 178) near the Village of Bellevue, just southeast of downtown Green Bay. The highway's northern terminus in Wisconsin (ending point) is the Michigan state line on the Menominee River Bridge in the City of Niagara. The total length of USH 141, in Wisconsin, is slightly more than 102 miles.

Historically, USH 141 was to only provide an alternate route to USH 41 from Milwaukee to Green Bay, sticking close to the Lake Michigan shore while its "parent" route traveled inland via Fond du Lac, Oshkosh and Appleton, however within a few years after being designated, it was extended northerly from Green Bay into Michigan at Iron Mountain, then northwesterly back into Wisconsin and once again into Michigan and northerly to a new terminus at USH 41 near

Covington. Beginning in 1980 and 1981, the Milwaukee to Green Bay portion was replaced by I-43, leaving only the portion from Green Bay northerly.

For over three decades, the portion of USH 141 from Green Bay, through Oconto County has slowly been upgraded to freeway and expressway standards. Starting with the portion of USH 41/USH 141 from Velp Avenue on Green Bay's west side, northerly in the early-1970s to 2000 when the last segment of expressway just south of Abrams was converted to fully-controlled access freeway. Just a few years later, existing USH 141 from Abrams northerly began to be upgraded to expressway standards, first to just north of STH 22 (2002), then northerly past Lena on a new bypass (2005) with a further extension to the Village of Coleman and the Village of Pound in Marinette County, again with a bypass, opened to traffic in 2006 which will be completed in 2007. No further expressway upgrades north of STH 64 are currently planned, however.

USH 141 debuted along with the rest of the US Highway system in late 1926 as an alternate route to USH 41 between Milwaukee and Green Bay. It's "parent" route was to swing inland from Milwaukee through Fond du Lac, Oshkosh and Appleton before returning to its shoreline alignment at Green Bay. USH 141 was conceived to connect Milwaukee with Port Washington, Sheboygan, Manitowoc and Green Bay sticking closer to Lake Michigan. It replaced STH 17 from downtown Milwaukee to Manitowoc and took over the route of STH-16 from Manitowoc to downtown Green Bay. (At that time, the highway running northerly from Abrams to Niagara was part of STH 57.)

In one of the earlier extensions to the US Highway system, USH 141 was extended north of Green Bay in 1928 via USH 41 to Abrams, then northerly still supplanting STH 57 through Lena, Coleman, Crivitz, Wausaukee and Pembine to the Michigan state line at Niagara. At this point, USH 141 now looped east of its "parent" route from Milwaukee to Green Bay, dualled with it from there to Abrams and then looped west from USH 41 from Abrams to Covington, Michigan.

The conversion of the USH 141 corridor between Milwaukee and Abrams from two-lane highway to full freeway standards began in the early-1960s and proceeded along the following schedule:

1971: A northerly extension of the USH 41/USH 141 Green Bay freeway bypass extended the highway northerly from USH 141/Velp Ave to one mile north of CTH-B at Suamico where the new highway merged back with the existing alignment. The former route of USH 41/USH 141 was turned back to local control as CTH-HS.

In 1972, the portion of USH 41/USH 141 from the northern end of the freeway near Suamico north of Green Bay to the USH 41/USH 141 "split" at Abrams was converted to four-lane, divided highway. In 199 and 1992, an interchange at the USH 41/USH 141 "split" at Abrams was completed.

In 1999, interchanges were completed along USH 41/USH 141 north of Green Bay at CTH-S (Sobieski) and at Abrams as part of the ongoing conversion of the portion of USH 41/USH 141 from Suamico to Abrams to full freeway standards.

In 2000, the remainder of the conversion of USH 41/USH 141 from Suamico northerly to Abrams was completed with a new interchange at Brown Road north of Green Bay as well as an overpass at Northfield Road and the addition of frontage roads which allowed for the removal of all private driveway access. USH 41/USH 141 from Suamico northerly to Abrams was now a fully-controlled access freeway facility.

The latest ongoing project in the USH 141 corridor is the conversion of the existing two-lane highway to a four-lane divided expressway, partly on existing alignment, partly on new alignment (mostly in bypasses of Stiles Junction, Lena and Coleman/Pound). The first phase, from Abrams to LeMere Road north of Stiles Junction was completed in 2002 and features a new interchange at STH-22 east of the former intersection. The second phase, from LeMere Road south of Lena northerly to Benser Lane on the Oconto/Marinette Co line was completed and opened to traffic in the fall of 2005 and features an easterly bypass of Lena and an interchange at CTH-A. (Former USH 141 through Lena was transferred to local control on November 18, 2005.) The third phase from Benser Lane south of Coleman to the South Branch of Beaver Creek north of Pound features a westerly bypass of Coleman and Pound and an interchange at CTH-B, but otherwise consist of a conversion of the existing two-lane facility into a four-lane expressway.

STH 22

STH 22 originates in the south central part of the state, near the Wisconsin and Illinois border and from there travels north through the City of Shawano. From Shawano, the highway travels in a northeasterly direction to the City of Oconto Falls and then east, intersecting with USH 141, and then to the City of Oconto, where it ends at its intersection with USH 41.

STH 32

STH 32 begins at the Illinois border and from there travels more than 325 miles north and slightly west through the state to its end at the Michigan state line at Land O' Lakes. The state highway was designated the "32nd Division Memorial Highway" commemorating the 32nd Division of Wisconsin and Michigan National Guard troops that were formed in 1917 and fought in WW I and WW II. STH 32 provides a somewhat direct link between the northern Wisconsin communities of Eagle River, Three Lakes, Crandon, Laona, Lakewood, Suring, Gillett and Pulaski to Green Bay and Milwaukee.

STH 64

STH 64 begins at the corner of Marinette Avenue and Hall Avenue in the City of Marinette. From there, STH 64 travels more than 275 miles west across the state, through Marinette and Oconto Counties, to its ending point at the Minnesota state line on the Saint Croix River Bridge between Houlton and Stillwater, Minnesota.

Initially, STH 64 ran only 18 miles from STH 38 (now USH 141) at the Village of Pound to STH 15 (now USH 41) in Marinette. By 1921, though, sources show that STH 64 was either complete or under construction all the way across the state to Stillwater, Minnesota. The highway was complete from the City of Marinette to the City of Antigo (although it did run along present CTH M from today's USH 141 into Suring), from Goodrich to Bloomer, and from STH 79 (now STH-128) east of Forest through to the Minnesota state line. In 1926, the highway was routed via its current corridor from Mountain to Pound, with the old routing east from Suring designated STH 157 for a time.

Collector Highways

The primary function of the county roads that are classified as “collectors” is to provide general "area to area" routes for local traffic. Collector roads take traffic from the local road system (and the land based activities supported by the local roads) and provide relatively fast and efficient routes to arterial highways, farm markets, agricultural service centers and larger urban areas. With an overall socioeconomic trend that is characterized by the decline of small and medium agricultural concerns, and a significant increase in the number of rural single-family residential properties, collector streets generally serve the same function but with different trip purposes. Collector roads typically serve low to moderate vehicle volumes and medium trip lengths between commercial centers at moderate speeds. Collector roads serve to distribute traffic between local and arterial roads, between home and the work place, home and the place of worship, home and school and between the home and those places where business and commerce are conducted. Major county (collector) roads in Oconto County include:

CTH C

CTY C travels from Brown County (at STH 29) north through the Town of Chase, to Morgan to its end at CTH CC. CTH CC then travels east into the City of Oconto Falls.

CTH B

Travels from Oconto Falls north to Klondike and then east to the Village of Coleman in Marinette County. From Coleman, CTH B travels east intersecting with USH 41 just south of the City of Marinette.

CTH R

Intersects with STH 32 just west of the Village of Suring and travels west and south, eventually connecting to STH 22 just north of the City of Shawano into Shawano County.

CTH A

County Highway A begins on the east side of the county crosses USH 41 and travels west to USH 141 and the Village of Lena. From Lena the county highway travels west and north connecting to STH 32 just east of the Village of Suring.

CTH S

County Trunk Highway S begins in the City of Oconto and then travels south and west, crossing USH 41/USH 141 and ending at its intersection with STH 32 just north of the Village of Pulaski.

CTH T

CTH T begins at its intersection with STH 32 at Townsend and from there travels southwesterly crossing STH 64 and intersecting with CTH WW just east of STH 55 and White Lake.

CTH F

CTH F begins at its intersection with STH 32 at Lakewood and from there travels northeasterly, through the National Forest, to its end at CTH C east of Silver Cliff in Marinette County.

CTH W

CTH W begins at its intersection with CTH T and CTH WW, east of White Lake, and from there travels northeast through the county through Mountain, and then to the Village of Crivitz in Marinette County.

Local Roads

The primary and most important function of local roads and streets is to provide direct access to adjacent lands. Local roads and streets are constructed to serve individual parcels of land and properties. They also tend to serve the ends of most trips within the urban and rural areas of the County. All roads that are not classified as arterial or collector facilities within the county are classified as local streets.

Local Mileage Certification

Oconto County and any local government that increased or decreased the mileage of its roads or streets is required to file a certified plat with DOT by December 15 of each year. Local governments that have no changes in total local road and street miles are required to file a certified plat or a certified statement that no mileage increases or decreases have occurred. In addition, the county and each of its communities are required to provide WisDOT with a numeric based evaluation of the pavement condition of each segment of road and street in each municipality on a biannual basis.

Table 8.2 lists each community within Oconto County and the mileage of roads under their respective jurisdiction, by function.

Table 8.2: Road Miles by Functional Classification and Jurisdiction, Oconto County, 2006

Geographic Location	Gross Miles	County Miles	Local Road/Street Miles	County Jurisdiction			Local Jurisdiction		
				Arterial	Collector	Local	Arterial	Collector	Local
Town of Abrams	66.59	10.43	56.16		10.43				56.16
Town of Bagley	50.86	6.28	44.58		6.28		12.48		32.1
Town of Brazeau	122.89	13.87	109.02	13.37	0.5		9.26		99.76
Town of Breed	62.24	3.57	58.67	3.57			4		54.67
Town of Chase	75.03	14.85	60.18	14.85			1.9		58.28
Town of Doty	78.12	17.66	60.46	17.66			3.72		56.74
Town of Gillett	58.29	12.48	45.81	10.82	1.66				45.81
Town of How	51.72	8.22	43.5	8.22					43.5
Town of Lakewood	110.35	10.34	100.01	10.34			7.5		92.51
Town of Lena	55.18	8.35	46.83	8.35			0.5		46.33
Town of Little River	89.33	27.32	62.01	19.82	7.5		3.54		58.47
Town of Little Suamico	103.28	13.9	89.38	13.9			0.68		88.7
Town of Maple Valley	56.51	19.73	36.78	19.73					36.78
Town of Morgan	64.35	13.53	50.82	13.53					50.82
Town of Mountain	101.34	9.39	91.95	9.39			7.81		84.14
Town of Oconto	69.99	14.58	55.41	10.96	3.62		5.18		50.23
Town of Oconto Fall	64.7	15.08	49.62	15.08			2		47.62
Town of Pensaukee	74.53	17.25	57.28	17.25					57.28
Town of Riverview	105.17	6.77	98.4	6.77			4.69		93.71
Town of Spruce	68.74	26.51	42.23	26.51			1.5		40.73
Town of Stiles	55.11	4.76	50.35	4.76			3.89		46.46
Town of Townsend	100.83	4.84	95.99	4.84			1.7		94.29
Town of Underhill	62.59	24.74	37.85	24.37	0.37				37.85
Village of Lena	5.08	1.18	3.9	1.18					3.9
Village of Pulaski	0.1		0.1				0.1		
Village of Suring	6.9		6.9						6.9
City of Gillett	11.01	1.08	9.93	1.08			1.16		8.77
City of Oconto	43.62	5.31	38.31	5.31			5.4		32.91
City of Oconto Falls	23.74	1.37	22.37	1.37			2		20.37
Total Mileage	1,838.19	313.39		299.74			79.01		1,445.79

Source: Wisconsin Information System for Local Roads, 2006; and, Bay-Lake Regional Planning Commission, 2007.

Traffic Counts

An analysis of past and present traffic volumes is beneficial in determining the traffic conditions in a community. Traffic volumes are usually presented as an Annual Average Daily Traffic (AADT) figure, and are calculated for a particular intersection or a segment of road. In the past, the Wisconsin Department of Transportation, as part of its traffic count program, provided highway traffic volumes from selected highways and roads for all state communities on a rotating basis, providing those counts for a county and each of its communities once every three years. For Oconto County, traffic volumes were last counted in 2003. The average daily traffic volumes on principal and minor arterial highways are shown on Map 8.2 and listed in Table 8.3. The daily traffic counts are taken for 48 hours, and are reported as a 24-hour average weekday count for a specific data collection period.

Table 8.3: Annual Average Daily Traffic, USH 41/USH 141, Oconto County, 2001 and 2003

Oconto County - USH 41/USH 141 Freeway			Number	Percent
Count Location	2001	2003	Difference	Difference
			2003-2001	2001- 2003
USH 41/USH 141				
Interchange at at Brown Road				
south - on ramp	2,100	2,200	100	4.76
south off ramp	360	310	(50)	(13.89)
north on ramp	430	480	50	11.63
north off ramp	2,200	2,300	100	4.55
north of Brown Road				
north bound	13,100	14,600	1,500	11.45
south bound	13,600	14,200	600	4.41
Interchange at CTH S				
south - on ramp	1,800	2,100	300	16.67
south off ramp	500	600	100	20.00
north on ramp	540	630	90	16.67
north off ramp	1,700	2,000	300	17.65
south of Lade Road				
north bound	11,800	12,700	900	7.63
south bound	12,300	11,800	(500)	(4.07)
Interchange at CTH D/Sampson Road				
south - on ramp	1,000	1,600	600	60.00
south off ramp	540	890	350	64.81
north on ramp	660	940	280	42.42
north off ramp	1,000	1,700	700	70.00
north of CTH D/Brown Road				
north bound	11,400	11,900	500	4.39
south bound	11,700	12,300	600	5.13

Beginning in 2006, principal arterials and minor arterials over 5,000 ADT will continue to be counted by WisDOT every three years. Minor arterials under 5,000 ADT and collectors over 5,000 ADT will be counted every 6 years. Collectors under 5,000 ADT are to be counted every 10 years. Special counts can be requested for highways where significant projects are planned.

Traffic on the USH 41/141 freeway has increased dramatically, particularly at the south and north bound on-ramps at CTH S and CTH D. At CTH D, annual average daily traffic has increased by as much as 70 percent on the north bound off-ramp, between 2001 and 2003; and by 60 percent on the south bound on-ramp. At CTH S, average traffic increases have been less pronounced with an increase of approximately 17 percent on the south bound on-ramp and 20 percent on the south bound off-ramp.

The following table (Table 8.4) list the average annual daily traffic counts for USH 41, USH 141, STH 22, STH 32 and STH 64.

Table 8.4: Annual Average Daily Traffic, US and State Highways in Oconto County, 2001 and 2003

Oconto County - USH 41/USH 141 Freeway Count Location	2001	2003	Number Difference 2003-2001	Percent Difference 2001- 2003
USH 41				
east of USH 141				
north bound	5,400	5,600	200	3.70
south bound	5,400	5,500	100	1.85
west of CTH J				
north bound	5,600	5,100	(500)	(8.93)
south bound	5,600	5,200	(400)	(7.14)
south of the City of Oconto				
north bound	5,500	5,300	(200)	(3.64)
south bound	5,600	5,000	(600)	(10.71)
at City limits				
north bound	5,200	5,100	(100)	(1.92)
south bound	5,200	5,200	-	-
City of Oconto				
Smith Avenue (USH 41)				
at Oconto River bridge	13,100	11,600	(1,500)	(11.45)
Brazeau Avenue (USH 41)				
south of Van Dyke Avenue	10,400	9,600	(800)	(7.69)
north of city of Oconto	11,700	10,400	(1,300)	(11.11)
south of CTH A	12,000	10,500	(1,500)	(12.50)
north of CTH A	10,600	8,900	(1,700)	(16.04)
USH 141				
south of STH 22 Interchange				
both lanes	9,600	11,300	1,700	17.71
at STH 22 Interchange				
north bound off ramp	1,200	1,100	(100)	(8.33)
north bound on ramp	770	820	50	6.49
south bound off ramp	770	720	(50)	(6.49)
south bound on ramp	1,200	1,200	-	-
south of Village of Lena ⁴	9,700	10,700	1,000	10.31

Table 8.4: Annual Average Daily Traffic, US and State Highways in Oconto County, 2001 and 2003

Oconto County - State Highways			Number	Percent
Count Location	2001	2003	Difference 2003-2001	Difference 2001- 2003
STH 32				
south of CTH S	4,600	5,000	400	8.70
south of STH 22	2,900	2,300	(600)	(20.69)
north of the City of Gillett	4,400	4,200	(200)	(4.55)
north of CTH H	3,600	3,000	(600)	(16.67)
south of intersection with STH 64	3,100	3,600	500	16.13
north of intersection with STH 64	4,500	4,000	(500)	(11.11)
south of intersection with STH 64 west	3,900	3,600	(300)	(7.69)
south of intersection with CTH F	3,800	4,000	200	5.26
at Lakewood	4,000	4,500	500	12.50
at Townsend	3,900	4,300	400	10.26
south of Forest County line	3,000	3,600	600	20.00
STH 22/STH 32				
west of STH 32 and STH 22 intersection	6,100	5,600	(500)	(8.20)
STH 22				
east of USH 141	3,300	4,000	700	21.21
west of USH 141	4,900	5,500	600	12.24
east of STH 32	4,300	4,200	(100)	(2.33)
west of City of Gillett	3,700	4,200	500	13.51
north of Shawano County line	3,200	3,200	-	-
STH 64				
south of White Potato Lake	1,100	1,200	100	9.09
east of intersection with STH 32	1,100	1,400	300	27.27
west of intersection with STH 32	1,200	1,300	100	8.33

Although, at some locations, traffic has fluctuated significantly between 2001 and 2003 on the county’s U.S. and State highways the total traffic volume in 2003 was still well within the highways capacity to handle the traffic. Steep increases and decreases are sometimes the result of local conditions at the time of the traffic volume count.

Table 8.5: Annual Average Daily Traffic, Select Oconto County Highways, 2001 and 2003

Oconto County - Selected County Highways			Number	Percent
Count Location	2001	2003	Difference	Difference
			2003-2001	2001- 2003
CTH C				
South of CTH S	1,200	1,400	200	16.67
North of CTH S	740	950	210	28.38
South of CTH E	760	830	70	9.21
North of CTH E	900	970	70	7.78
CTH B				
south of CTH A	1,700	1,500	(200)	(11.76)
north of CTH A	2,000	1,700	(300)	(15.00)
north of CTH M	1,500	1,300	(200)	(13.33)
south of CTH G	1,300	1,300	-	-
south of CTH Z	990	990	-	-
east of CTH Z	1,000	1,000	-	-
CTH A				
west of USH 41	830	840	10	1.20
east of CTH J	980	980	-	-
east of Village of Lena	1,800	1,600	(200)	(11.11)
west of Village of Lena	1,700	1,600	(100)	(5.88)
east of CTH B	1,000	900	(100)	(10.00)
CTH S				
east if USH 41/USH 141	1,500	1,500	-	-
west of USH 41/USH 141	3,000	3,100	100	3.33
east of CTH C	1,700	1,900	200	11.76
east of STH 32	990	1,200	210	21.21
CTH CC				
east of STH 32	730	760	30	4.11
east of CTH K	870	870	-	-
east of Oconto Falls city limits	1,300	1,500	200	15.38
CTH BB				
south of Gillett	1,000	1,200	200	20.00
east of STH 22/WashingtonStreet	2,500	2,400	(100)	(4.00)
CTH R				
south of CTH VV	2,800	2,900	100	3.57
south of CTH H	2,300	2,100	(200)	(8.70)
south of CTH M	2,200	2,000	(200)	(9.09)
CTH M				
west of STH 32	2,400	2,400	-	-
CTH Z				
south of STH 64	870	940	70	8.05
CTH T				
southwest of STH 32	1,300	1,400	100	7.69
north of STH 64	650	610	(40)	(6.15)

Source: Wisconsin Department of Transportation, 2006; and, Bay-Lake Regional Planning Commission, 2006

Traffic Flow Capacity

The streets and roads that serve the state, the region, and the county and local communities are designed and engineered to accommodate a maximum level of traffic (Table 8.6). The maximum total capacity of a two-lane, two-way highway (such as USH 41 and USH 141) under ideal conditions is 2,000 vehicles per hour in both lanes, as determined by the Peak Hourly Traffic (PHT), regardless of traffic distribution by direction. The maximum capacity values given in Table 8.4 should be considered as the average maximum volume on various types of streets under ideal conditions.

Table 8.6: Uninterrupted Traffic Flow Capacities Under Ideal Conditions

Highway Type	Capacity Peak Hourly Traffic
Multi-Lane and Divided Highways	2,000 vehicles per lane
Two-Lane, Two-Way Highways	2,000 vehicles both lanes
Three-Lane, Two-Way Highways	4,000 vehicles both lanes

Source: Highway Capacity Manual, Highway Research Board of the Division of Engineering and Industrial Research, 1985; Bay-Lake Regional Planning Commission, 2005.

As the comparison of the recorded average annual daily traffic, peak hourly traffic and the traffic flow capacities indicate, at present, there are no roads or streets within the county that are exceeding their design capacity.

Traffic Crashes

Vehicle crash reports are filed by the county and city police departments with the Wisconsin Department of Transportation. The reports provide the detail of the time, location, type and severity of the crash that has occurred. These reports are often excellent indicators of problems with road and street alignments, construction, and geometric design of the street. The number, location and severity of accidents can often indicate problem areas (in terms of traffic safety) which may be alleviated through a variety of measures including alterations in the street geometry, enlargement of the intersection turning radii, placement of more prominent signs, relocation of access drives and speed changes. *(Crash Data Tables Reserved - 2006 crash data will not be available until May or June of 2007 and will be incorporated into the text at that time)*

Level of Service

The highway's level of service is a measure of its capacity to serve the traffic demands placed on it. Traffic and roadway design factors such as average daily traffic volumes, peak hour volumes, truck percentages, number of driving lanes, lane widths, vertical grades, passing opportunities, and numbers of access points affect the level of service. Levels of service range from 'A' to 'F' in order of decreasing operational quality.

Level of Service 'A'

- Unrestricted free flow.
- Drivers virtually unaffected by others.
- High level of freedom to select speed and maneuver.
- Excellent level of driver comfort and convenience.

Level of Service ‘B’

Slightly restricted stable flow.
 Drivers aware of use by others.
 Slight restriction in speed and maneuvering.
 Good level of driver comfort and convenience.

Level of Service ‘C’

Moderately restricted stable flow.
 Driver operation completely affected by others.
 Moderate restriction in speed and maneuvering.
 Fair level of comfort and convenience.

Level of Service ‘D’

Heavily restricted flow.
 Driver operation completely-affected by others.
 Severe restriction in speed and maneuvering.
 Poor level of driver comfort and convenience.

Level of Service ‘E’

Unstable flow (approach greater than discharge flow)
 Slow speeds and traffic backups; some stoppage.
 Total restriction in vehicle maneuvering.
 High driver frustration.

Level of Service ‘F’

Forced flow (approach greater than discharge flow)
 Stop and go movements with long backups and delays.
 Forced vehicle maneuvers.
 Maximum driver frustration.

Levels of service ‘A’ and ‘B’ are desirable in rural and rural and urban areas, while levels ‘D’ through ‘F’ are considered poor. Intermediate level of service ‘C’ provides for stable operation, but traffic flow approaches a level at which small increases in traffic may cause a substantial deterioration in the level of service.

Access Controls

Access management is a means to maintain the safe and efficient movement of traffic along arterial highways by controlling the number and location of intersecting streets and driveways. State statutes allow counties, cities and villages (through an adopted ordinance) to control access on county highways that have traffic counts in excess of 1,000 vehicles daily.

Driveway Permits

Driveways to local roads and streets may also impair vehicle safety, if improperly sited and/or designed.

Wisconsin State Statutes allow communities to issue permits for all new driveways which can allow the community to prohibit driveways which due to location (at the base or top of hills, within a specified distance from an intersection, etc.) are unsafe. The permit process can also regulate the size and design of driveway.

Elderly and Disabled Transportation System

Elderly and disabled transportation systems refer to those programs that provide rides through scheduled bus services, volunteer programs with private vehicles, etc. Current transportation services for elderly and disabled persons living within Oconto County is provided through programs administered by the Oconto County Commission on Aging. Transportation is provided by wheelchair accessible buses, an eight-passenger van and by volunteer drivers using personal vehicles. The Oconto County Department of Human Services also provides limited transportation service to the county’s disabled population. Service is provided by appointment, and involves door-to-door transportation.

Medical related and nutritional related trip purposes receive priority, followed by work related and recreational and/or business related trip needs. A four member advisory committee to the County’s Commission on Aging provides coordination of the special transportation services that are available within the town. The committee sets policy and oversees transportation services. The transportation is provided by paid and volunteer staff utilizing both publicly and privately-owned vehicles. The cost of the special transportation services is borne by state subsidy through the Wisconsin Department of Transportation’s Section 85.21 (Special Transportation for the Elderly and Disabled Transportation) grant program, county funds (20 percent of the state grant), donations and fares collected from passengers.

Intercity Bus

In the past, nearly every small community in the state was connected by an intercity bus service, which traditionally served the elderly, those who could not drive, students, and those individuals unable to afford alternative forms of transportation. Following World War II, intercity bus systems helped to fill a void for “affordable transportation” that was created by the decline of passenger rail service. Unfortunately, intercity bus service suffered the same fate as passenger rail; and as intercity bus ridership decreased, the number of intercity bus routes operating within the state also declined drastically. Intercity bus routes tend to serve only the largest urban centers and those smaller urban areas that just happen to be adjacent to a route that connects two larger cities.

Greyhound Bus service through Oconto County was discontinued early in 2007. However, connections to Milwaukee, Chicago, Madison and Minneapolis, can be made from the City of Green Bay.

Air Service

The inventory of air transportation systems and facilities includes both public airports that service the region and also the private or semi-public airport facilities that service private commercial and recreational interest.

At the regional level, the primary commercial-passenger and air freight service for residents of Oconto County is provided by Austin Straubel International Airport, located near the City of Green Bay. The facility is owned and operated by Brown County. Austin Straubel International Airport is a full service regional connector that in 2006 is being served by 6 passenger airlines serving 7 destinations; Atlanta, Chicago, Cincinnati, Detroit, Las Vegas, Milwaukee and Minneapolis. An alternative choice for passenger service is Mitchell International Airport located in Milwaukee, which is able to provide a wider range of continental and international destinations, as well as services and fares unavailable at Austin Straubel Airport.

In addition to the full service airport located near Green Bay, Oconto County and the City of Oconto jointly own and operate a facility on approximately 240 acres located in the town of Oconto, immediately to the southwest of the City of Oconto. The J. Douglas Bake Airport is classified as general utility airport facility and is capable of handling single and larger twin engine aircraft as well as smaller corporate jets.

There are also several privately owned airstrips located within Oconto County providing general small craft services and/or recreational flights to the public. These small, private airport facilities offer minimal services, and are generally utilized by recreational fliers. Private facilities are generally characterized by short (2,000' to 3,000') turf covered runways which can accommodate small single engine and light twin engine aircraft.

Harbors and Marinas

There are two harbors currently servicing Oconto County, both are classified as commercial ports although commercial activity is restricted to commercial fishing and limited launches of small recreational craft.

Oconto Harbor

Oconto Harbor is located at the mouth of Oconto River, on the west shore of the Bay of Green Bay. The harbor consists of an entrance channel, two parallel piers and a turning basin. The head of navigation is approximately 0.5 miles upstream of the river's mouth, and does not extend to the city (Plate 8.1).

Harbor Channel

A dredged entrance channel leads from deep water in the Bay of Green Bay between two piers to a turning basin inside the mouth of the river. The outer ends of the north and south piers are marked by lights. In July, 2003, the controlling depths were 12.1 at the entrance channel to the piers, then 7.6 feet (8.1 feet at mid channel) in the southeast section of the wide harbor channel between the piers and to the turning basin; the northwest section of the wide harbor channel had a controlling depth of 4.4 feet. The turning basin had depths of 4 to 7.8 feet in the northwest and southeast sections of the turning basin. A spoil bank, about 100 feet wide and extending about 500 feet into the center of the turning basin from the southwest end, has a minimum depth of 2.3 feet.

Industrial and Commercial Uses

At present the primary commercial use of the harbor is limited to commercial fishing uses. However, the Mirro Marine Company, a manufacturer of 18 to 29 foot pleasure craft located just upstream of the Brazeau Avenue Bridge, uses the river for testing boats.

Water Related Recreational Uses

Marinas on the north side of the river provide transient berths, gasoline, water, electricity, sewage pump-out, limited marine supplies and launching ramps. A 15-ton hoist is available for hull and engine repairs.

There are approximately six public and private launch lanes and 80 dock spaces available to recreational boaters in the Oconto Harbor. All but two of the launch lanes and two of the dock spaces are upstream of the federal navigation project. Recreational boating facilities include two public parks, a private marina and a private yacht club. The private facilities consist of the Oconto River Marine and the Oconto Yacht Club. The marina is located approximately 0.95 miles upstream from the river's mouth on the north bank of the Oconto River. The marina, which is approximately four acres in size, has a ramp, gas, electricity, slips, water, restrooms, pumpout and full boat repair facilities. The Oconto Yacht Club is located approximately 1.33 miles upstream from the mouth of the river on the north bank of the Oconto River. The Oconto Yacht Club is about seven acres in size, and has one boat ramp and 50 dock spaces.

Harbor Cove

Harbor Cove marina is located on the Oconto River. In 2004, the marina offered 34 permanent slips and two transient slips. The marina can accommodate vessels up to 35 feet. The water depth is 5 feet. Facilities include electricity.

Breakwater Park and Harbor

The Breakwater Park and Harbor is a municipal marina operated by the City of Oconto Park and Recreation Department. The facility has 14 slips for permanent and transient guests. The marina offers amenities such as electrical and water hook-ups, fishing piers, a pavilion and public restrooms.

Oconto Yacht Club

This marina is located on the north shore of the Oconto River. The marina offers 37 permanent and transient slips to its guests.

Hi Seas Marina

This marina is located on the western shores of Green Bay in Oconto. The marina offers 80 permanent slips and 10 transient slips. The marina can accommodate vessels up to 45 feet. The water depth is 5 feet. Facilities include gasoline, diesel fuel and pump out services. Special features include a dock attendant, a travel lift, indoor storage, showers and restrooms. A service department is located on site.

Pensaukee Harbor

The Pensaukee Harbor is classified as a recreational port by the Wisconsin Department of Transportation. It is located approximately four miles south of the Oconto Harbor on the west shore of the Bay of Green Bay at the mouth of the Pensaukee River.

A dredged entrance channel leads from deep water in the Bay of Green Bay to the mouth of the Pensaukee River. A lighted buoy marks the dredged channel, and a light marks the pier ruins on the north side of the entrance channel. In July, 2002, the controlling depth was 2.7 feet along the south edge of the channel with a mid-channel depth ranging between 6.6 and 5.5 feet.

The only facilities available at Pensaukee Harbor are for fish tugs which moor on the south side of the river mouth.

Industrial and Commercial Uses

There are no water related industrial uses of the harbor. In 1982, commercial uses consisted of approximately 12 commercial fishing boats utilizing the Pensaukee Harbor compared to four vessels in 2003. All but one of the fishing docks are located on the south bank of the Pensaukee River within 2,200 feet of the mouth. A fish processing plant is also located on the south bank at the river's mouth. There are no other commercial uses of the harbor.

Water Related Recreational Uses

There are two boat launching ramps located across the river from one another approximately 2,000 feet upstream from the river's mouth. The ramp on the north is in a state of disrepair and is unusable. There are no other public or private recreational boating facilities in the harbor.

Bicycle Transportation System

Bicycle transportation systems are comprised of designated and marked routes and marked on-road facilities or separated paths. At present there are no formal bicycle routes or bicycle transportation facilities (does not include recreational trails) located within Oconto County.

Railroads

In Oconto County rail service is provided by the Canadian National Railroad Company (the CN) and the Escanaba-Lake Superior Railroad Company (the E&LS).

The Canadian National track which serves the county originates approximately 105 miles north, in the City of Ishpeming, Michigan. The track traverses south from Ishpeming through the Upper Peninsula, through the Cities of Marinette and Peshtigo, and then to the City of Oconto. From Oconto the CN runs south to the City of Green Bay.

The CN is classified as a Class I railroad by the Wisconsin Department of Transportation generating over \$50 million dollars in annual revenues. The CN is one of the larger operating rail lines in the state of Wisconsin. In 2000 over 730,000 carloads of freight were carried by rail in the state, of which about 70 percent of that freight was inbound to Wisconsin businesses and corporations.

The Escanaba & Lake Superior Railroad (E&LS) is a privately owned (shortline) railroad company operating in Northeastern Wisconsin and the Upper Peninsula of Michigan. Under current ownership, the E&LS has expanded from the original core line of 65 miles that was purchased in 1978, to over 235 miles of operating railroad in 2005. The E.&L.S.R.R. is headquartered in Wells, Michigan, with an additional office located in Green Bay, Wisconsin.

The Escanaba and Lake Superior was originally incorporated more than a century ago, in 1898. On March 10, 1980, the Escanaba and Lake Superior acquired the former Chicago – Milwaukee, Saint Paul & Pacific track from the City of Green Bay northward to Channing and Ontonagon, Michigan. The 208 mile mainline of the E&LS stretches from Ontonagon, Michigan on the shores of Lake Superior to Green Bay. In addition to the mainline, two key branches are the 6-mile Stiles Junction to the City of Oconto Falls line and the 21-mile Crivitz to Marinette, line. Other lines currently owned and operated by the E&LS include Channing to Republic, and Channing to Wells. The E&LS operates on trackage rights over the Canadian National Railroad

from North Escanaba, Michigan to Pembine, Wisconsin. And also connects with the Canadian National at Green Bay, North Escanaba, Pembine, and Iron Mountain.

INVENTORY AND ANALYSIS OF APPLICABLE TRANSPORTATION PLANS

The following section of this chapter presents information on existing state, regional, county, and local transportation related plans that may apply to Oconto County.

State Highway Plan

The *Wisconsin State Highway Plan 2020* responded to key issues facing the State Trunk Highway system relative to both immediate and future needs. The Plan emphasized three areas including: pavement and bridge preservation, traffic movement, and safety. With the cooperation of its transportation partners, WisDOT developed a 21-year strategic plan which considered the highway system's current condition, analyzed future uses, assessed financial constraints and outlined strategies to address Wisconsin's preservation, traffic movement, and safety needs.

The state plan does not identify - or anticipate - the need for future expansion of STH 22, STH 32 or STH 64 within the 20 year planning horizon. The plan does, however, identify methods for preserving capacity and improving safety on those segments of the system where expansion is not currently an identified option. The preservation and safety management tools identified by the State Plan, which are consistent with the County Plan, include corridor preservation, management of highway access, and, where needed, specific geometric improvements that may include widening of lanes, straightening curves, adding turn lanes, adding travel lanes and improving intersections.

State Airport Plan

The Wisconsin State Airport System Plan 2020 (SASP 2020) provides a framework for the preservation and enhancement of the system of public-use airports adequate to meet current and future aviation needs of Wisconsin. The plan determined the number, location and type of aviation facilities required to adequately serve the state's aviation needs over a 21-year planning period, 2000 through 2020. The plan defined the State Airport System and established the current and future role of each airport in the system. The Oconto County plan recognizes the role that these airports play in the regional economy and the need to maintain as efficient a level of service as is attainable.

State Railroad Plan

The update of the *Wisconsin State Rail Plan 2020* is currently in progress. Upon completion the Wisconsin State Rail Plan (SRP 2020) will provide the policy framework for the preservation and enhancement of the Wisconsin State Rail System. This will be a long-range plan with a horizon year of 2020.

The SRP 2020 will define the rail system's role in the movement of people and goods within the context of Wisconsin's multi-modal transportation system. The plan will assess the rail system's current condition and determine a course for the future considering performance objectives, needed improvements, and alternatives to fund them.

A rail crossing inventory and analysis is being conducted in conjunction with the State Rail Plan. Policies and programs relative to rail crossings will be developed.

State and Regional Bicycle Plans

In December of 1998, the Wisconsin State Bicycle Transportation Plan was published by the Wisconsin Department of Transportation, Division of Investment Management, Bureau of Planning. The Plan was developed by the State Bicycle Plan Advisory Committee with written and technical assistance from the Bureau of Transportation Safety.

The State Bicycle Plan has two primary goals: to increase levels of bicycling throughout Wisconsin, doubling the number of trips made by bicycles by the year 2010, and to reduce crashes involving bicyclists and motor vehicles by at least 10% by the year 2010. State Bicycle Plan objectives are structured around the 4-E's of transportation safety: engineering (and planning), education, enforcement, and encouragement. There are two Engineering and Planning Objectives: to plan and design new and improved transportation facilities to accommodate and encourage use by bicyclists, and to expand and improve a statewide network of safe and convenient routes for bicycle transportation and touring, including safe and convenient access to and through the state's urban areas. The Education Objective is to expand the range of education activities such as driver licensing and training, bicycle safety education, traffic law enforcement, and provision of public service information to provide consistent safety messages and training to all roadway users. The Enforcement Objective is to improve enforcement of laws to prevent dangerous and illegal behavior by motorists and bicyclists. The Encouragement Objective is to encourage more trips by bicycles by promoting the acceptance and usefulness of this mode.

The recommendations of the State Bicycle Plan include intercity and urban/suburban improvement actions. Bicycle provisions for wide curb lanes, bike lanes, or paved shoulders should be made within urban areas. Where suitable accommodations for bicyclists now exist, new highway improvements will be planned to continue an acceptable level of service and safety for bicyclists. The State Bicycle Plan identifies general bicycling conditions within intercity areas. The two primary variables by which roads were classified for cycling were the volume of traffic and the paved width of roadway. The State Bicycle Plan indicates that "caution is advised" for bicycle travelers utilizing higher-volume roadways, such as major county trunk highways, due to the amount of traffic and the width of the road pavement. Lower-volume roadways are designated as "suitable for bicycling" based on the light traffic volumes and roadway width. Major arterial highways are classified as "not recommended for bicycling" because of relatively high traffic volumes, moderate to high truck traffic volumes, and narrow road shoulder width. The State's Bicycle Plan only assesses conditions on state highways and county trunk highways. The plan assumes that all local town roads are suitable for bicycling, basing that assumption on the low traffic volumes currently on average town roads. Serious consideration should be given to the accommodation of bicyclists when roadway projects are planned and designed.

The *Bicycle Transportation Facility Plan for the Bay-Lake Region*, like the state plan, also sought to identify new and improved transportation facilities to accommodate and encourage use by bicyclists, and to develop, over time, a region-wide network of safe and convenient routes for bicycle transportation and touring, including safe and convenient access to and through the region's urban communities and rural communities. The primary focus of the plan was to

identify routes connecting all communities and destination points (state and county parks etc.) and to determine what improvements were needed to make those routes safer for bicycle travel.

Both plans recommend the development of bicycle facility plans for the community that provide access and connections to the state and regional system.

State Pedestrian Plan

The *Wisconsin Pedestrian Policy Plan 2020* outlines statewide and local measures to increase walking and to promote pedestrian comfort and safety. The plan provides a policy framework addressing pedestrian issues and clarifies WisDOT’s role in meeting pedestrian’s needs. It establishes actions and policies to better integrate pedestrian facilities into the transportation system over the next twenty years.

The state plan also provides recommendations to assist local officials in meeting their communities’ pedestrian transportation responsibilities. The plan outlines specific design guidance for local officials found in WisDOT’s Facilities Development Manual (FDM); state funding for local pedestrian projects provided primarily through the General Transportation Assistance (GTA) Program; and safety and education program funding provided by WisDOT to local agencies.

FUNDING AND TECHNICAL ASSISTANCE PROGRAMS

A complete list of state and federal programs that are specific to the provision of transportation facilities and services is found in Appendix A.

General Transportation Aid (GTA)

Highway improvements, construction and maintenance are funded, in part, through the state’s disbursement of general transportation aids. The state provides a quarterly payment to each county and municipality in the state that pays a portion of local governments’ costs for such activities as road and street reconstruction, filling potholes, snow removal, grading shoulders, marking pavement, and repair of curb and gutters.

TRANSPORTATION RECOMMENDATIONS

Local Mileage Certification

Each local government that increased or decreased the mileage of its roads and streets is required to file a certified plat with DOT by December 15 of each year. Local governments that have no changes in total local road miles are required to file a certified plat or a certified statement that no mileage statements have occurred. Local road certification also includes the requirement to report major street rehabilitation and improvements, new construction and reconstruction of existing streets. Asphalt overlays of 1-inch or more are considered major improvements to the road. Communities do not have to report crack filling or seal coating projects.

Recommended Transportation Programs

Work with Oconto County, the Wisconsin Department of Transportation, and the Bay-Lake Regional Planning Commission to develop and maintain a long-range maintenance and improvement program for highways and roads.

Work with the Oconto County Highway Safety Committee and the Wisconsin Department of Transportation to provide an ongoing assessment of highway safety and efficiency.

Work with the Wisconsin Department of Transportation to ensure safe and efficient access to USH 41, STH 22 and all major collector streets.

Employ Adequate Design Standards

New highways and streets, in the optimum setting, should be designed for their projected and desired use. Design standards should be applied to all new construction and, where possible, existing streets which are to undergo major repair and reconstruction shall undergo this work according to the standards set forth in this plan and the subdivision ordinance.

In examining the design of streets, the “road-scape” of these facilities also should be considered as well. The “road-scape” includes the area adjacent to the street and within the established right-of-way or the ditch that serves as a vegetative buffer between the street and the adjacent lots, a location for traffic signs and for utility lines.

Speed Limit Controls

Local units of government can change speed limits for their roads under authority and guidelines in the Wisconsin Statutes. Local officials play a key role in setting speed limits. They must balance the competing concerns and the opinions of a diverse range of interest including drivers (who tend to choose speeds that seem reasonable for conditions) and land owners or residents (who frequently prefer and request lower speed limits than those posted), law enforcement agencies with statutory requirements, and engineering study recommendations.

The prevailing speed, the one which most drivers choose - is a major consideration in setting appropriate speed limits. Engineers recommend setting limits at the 85th percentile speed, where 85 percent of the freely flowing traffic travels at or below that speed. An engineering study measuring average speeds is required to determine the 85th percentile speed limit. Other considerations include the roads design limit. This is the highest and safest speed for which the road was designed, and takes into account the road type, geometry, and adjoining land use.

Speeds should be consistent, safe, and reasonable; and enforceable. When 85 percent of the drivers voluntarily comply with posted speed limits, it is possible and reasonable to enforce the limits with the 15 percent who drive too fast. Unreasonably low speed limits tend to promote disregard for the posted limits and make enforcement much more difficult. They may also promote a false sense of security among residents and pedestrians who may expect that posting lower limits will change driver’s speed behavior.

Apply Traffic Considerations

Traffic considerations which the county's communities should take into account when planning for future development may include the following:

1. Adequate vehicular and pedestrian access should be provided to all parcels of land.
2. Local street systems should be designed to minimize through traffic movement.
3. The street pattern should minimize excessive travel.
4. A simple and comprehensible system of street names and house numbering should be provided.
5. Traffic generators located within new subdivisions (such as schools, churches and parks) should be considered in the local circulation pattern.
6. The planning and construction of local residential streets should clearly indicate their function.
7. The local streets should be designed for a relatively uniform and low volume of traffic.
8. Local streets should be designed to discourage excessive speeds.
9. Minimize intersections.
10. Devote a minimal but adequate amount of space to street uses.
11. Roads are a function of land use, and therefore should not unduly hinder the development of land.
12. Pedestrian and bicycle paths should be separated from vehicle paths where possible.

Assess Special Transportation Needs

Transportation services for elderly and disabled persons are provided by the county and by private nonprofit and for profit carriers. The County and its communities should play as active a role as possible in the support, development and maintenance of special transportation services for the elderly and disabled populations.

Bicycle Facility Plan

It is recommended that the County develop a bicycle facility plan that identifies future connections to existing facilities and to the other important destination points in the county such as State Park, parks, recreational areas, and schools.

Initiate A Pavement Management Program

Streets are rehabilitated, repaired and maintained with funds provided by the State's Local Roads Program (LRP). This program provides each local unit of government in the state with financial support derived from state taxes on gasoline and other transportation/vehicle related surcharges for local street maintenance and repair.

It is recommended that a "pavement management" system be developed and utilized by the County. The system provides a detailed inventory and description of all highways within the county, provides a detailed surface condition survey of those streets, defines the goals and objectives of the community with respect to street and road maintenance and repair, and establishes a long-term maintenance schedule which would prioritize the street and road maintenance and repair needs.

A pavement management program is simply a Capital Improvement Program geared specifically to the county’s streets. The pavement management program provides the County with a detailed, defensible document, which will assist elected and appointed officials in making informed decisions regarding street maintenance and repair.

Map 8.1: Functional Classification, Oconto County

Map 8.2: Recommended Bicycle Facilities, Oconto County