

**MARATHON COUNTY METROPOLITAN PLANNING COMMISSION'S  
BICYCLE AND PEDESTRIAN SUB-COMMITTEE  
AGENDA**

**January 24, 2019**  
**5:30 P.M.**

**LARGE CONFERENCE ROOM**  
**210 RIVER DRIVE, WAUSAU, WI**

**Marathon County Mission Statement:** *Marathon County Government serves people by leading, coordinating, and providing county, regional, and statewide initiatives. It directly or in cooperation with other public and private partners provides services and creates opportunities that make Marathon County and the surrounding area a preferred place to live, work, visit, and do business. (Last updated: 12-20-05)*

**Commission Purpose:** *The Commission shall be concerned with studies and recommendations relating to activities including but not limited to land-use; natural resources; utilities; and transportation systems within the metropolitan planning area. (Commission Bylaws last updated: 12-18)*

**AGENDA ITEMS:**

1. CALL TO ORDER
2. WELCOME AND INTRODUCTIONS

**POLICY DISCUSSION AND POSSIBLE ACTION:**

3. APPROVE THE MINUTES OF THE NOVEMBER 29, 2018 MEETING
4. COUNTY ROAD B AND 1978 BIKE PLAN
5. CRITERIA FOR MODIFYING BIKE ROUTE SYSTEM
6. REQUEST TO EXTEND BIKE ROUTE 14 IN TOWN OF WESTON
7. REQUEST TO EXTEND BIKE ROUTE 9 IN VILLAGE OF ROTHSCHILD
8. COMMUNITY UPDATES AND AREAS OF CONCERN
9. ITEMS FOR THE NEXT AGENDA
10. NEXT MEETING DATE – FEBRUARY 28, 2019
11. ADJOURN

**Any person planning to attend this meeting who needs some type of special accommodation in order to participate should call the County Clerk's Office at 715-261-1500 or e-mail [infomarathon@mail.co.marathon.wi.us](mailto:infomarathon@mail.co.marathon.wi.us) one business day before the meeting.**

SIGNED



**PRESIDING OFFICER OR DESIGNEE**

848-9361      848-5887  
FAXED TO: Daily Herald City Pages  
FAXED TO: Mid-west Radio Group - 848-3158  
FAXED TO: CenterState Marketplace – 446-2370  
FAXED BY: BI  
FAX DATE: 01/16/2019  
FAX TIME: 3:30 p.m.  
FAX BY/DATE/TIME: \_\_\_\_\_

NOTICE POSTED AT COURTHOUSE:

By: \_\_\_\_\_  
Date: \_\_\_\_\_  
Time: \_\_\_\_\_ a.m/p.m.

**MARATHON COUNTY METROPOLITAN PLANNING COMMISSION**  
**Bicycle and Pedestrian Sub-Committee**  
**Minutes – November 24, 2018**

**Members:** John Nowaczyk, Chair, Thomas Mullaley, Brad Sippel

**Staff:** Andrew Lynch

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**1. CALL TO ORDER**

Meeting called to order by Chairperson NOWACZYK at 5:30pm

**2. WELCOME AND INTRODUCTIONS**

**3. APPROVE THE MINUTES OF (PREVIOUS MEETING DATE) MEETING**

**Motion/second** by MULLALEY/SIPPEL to approve the meeting minutes from the October 25, 2018 meeting. Motion **carried** by voice vote, no dissent.

**4. 2018 BIKE/PED COUNTER NUMBERS**

LYNCH presented the 2018 counter totals for the four infrared trail counters stationed around the metro area. Counts were in line with expected amounts. The Wisconsin River Bridge was the best performing. LYNCH mentioned on the Birch St Bridge and 51/29 trail there was some excessive data cleaning needed as some counts ranged into the multiple thousands. No clear reason for this is known. Plans for next year include the same points of Wisconsin River Bridge, 51/29 trail, County R, and Birch St Bridge as well as the Cedar Creek Trail, River's Edge Trail, Doepke Park and other places in the metro area. Four counters were set up in on the Sylvan Hill Bike Park trails to aid CWOCC in data gathering on park use.

**5. REQUEST TO EXTEND BIKE ROUTE 14 IN TOWN OF WESTON**

Milton Olson from the Town of Weston submitted a written request to the committee to extend the Bike Route 14 on Ross Ave from its terminus at Quentin Street to County Road N. During discussion, the committee decided to wait on a decision until they had more information on the current conditions of Ross Ave as well as create criteria for when and how routes should be modified in the future.

**6. CWOCC MOUNTAIN BIKE FACILITIES UPDATE**

CWOCC representative Aaron Ruff sent the committee an email update on area mountain bike facilities. CWOCC is in the process of hiring a contractor for Phase II of the Ringle trail system to begin work in the Spring of 2019. Ringle is also ready to ride and will be groomed for snow biking.

**7. NEXT BIG PROJECTS VISIONING**

LYNCH and NOWACZYK discussed some ideas for a large recreational trail and loop system around the metro area. LYNCH used these ideas as a reminder for the committee to continue thinking big with their projects. LYNCH emphasized the need to start planning for the next project even before the current one is built.

**8. COMMUNITY UPDATES AND FUTURE EVENTS**

Rothschild: Military Road extension is open.

Village of Maine: Bridge across W will be closed in 2019 for repairs.

Wausau: River's Edge trail from Thomas St along rail corridor will be part of the Thomas St rebuild in 2019. Towline Road and 1<sup>st</sup> Ave will also be closed for rebuilding in 2019.

MPO: The MPO Commission is preparing a white paper on the 2017 change in the

condemnation laws and how it has affected local projects. This will be shared with legislators in Madison as they begin the new session February.

Trek Store: Talked with users and facility directors at the Boulder Junction and WinMan trails on their experience with e-bikes. So far they have had no issues.

Marathon County Parks: Director Jamie Polley sent a written report. The Parks department is working to gather interested citizens to be a part of the Friends of the Mountain Bay Trail Group. The current group is not active. To remain a Friends Group and qualify for a number of funding sources for the trail the group needs an active Board of Directors at a minimum. Members that were involved in the past will be asked if they would like to continue and what suggestions they might have to keep the group active. If the friends group cannot be rejuvenated the Friends designation from the DNR will go away. It will then be very difficult to reestablish the 501c3. The Wausau Wheelers and CWOCC attended a meeting with me and the DNR and may be willing to assist in gathering interested members. The Friends Group needs to be citizen run. The County is a support department to the friends group. Any suggestions the committee has would be greatly appreciated and can be forwarded to me.

## **9. ITEMS FOR THE NEXT AGENDA**

### **10. NEXT MEETING DATE – JANUARY 24, 2019**

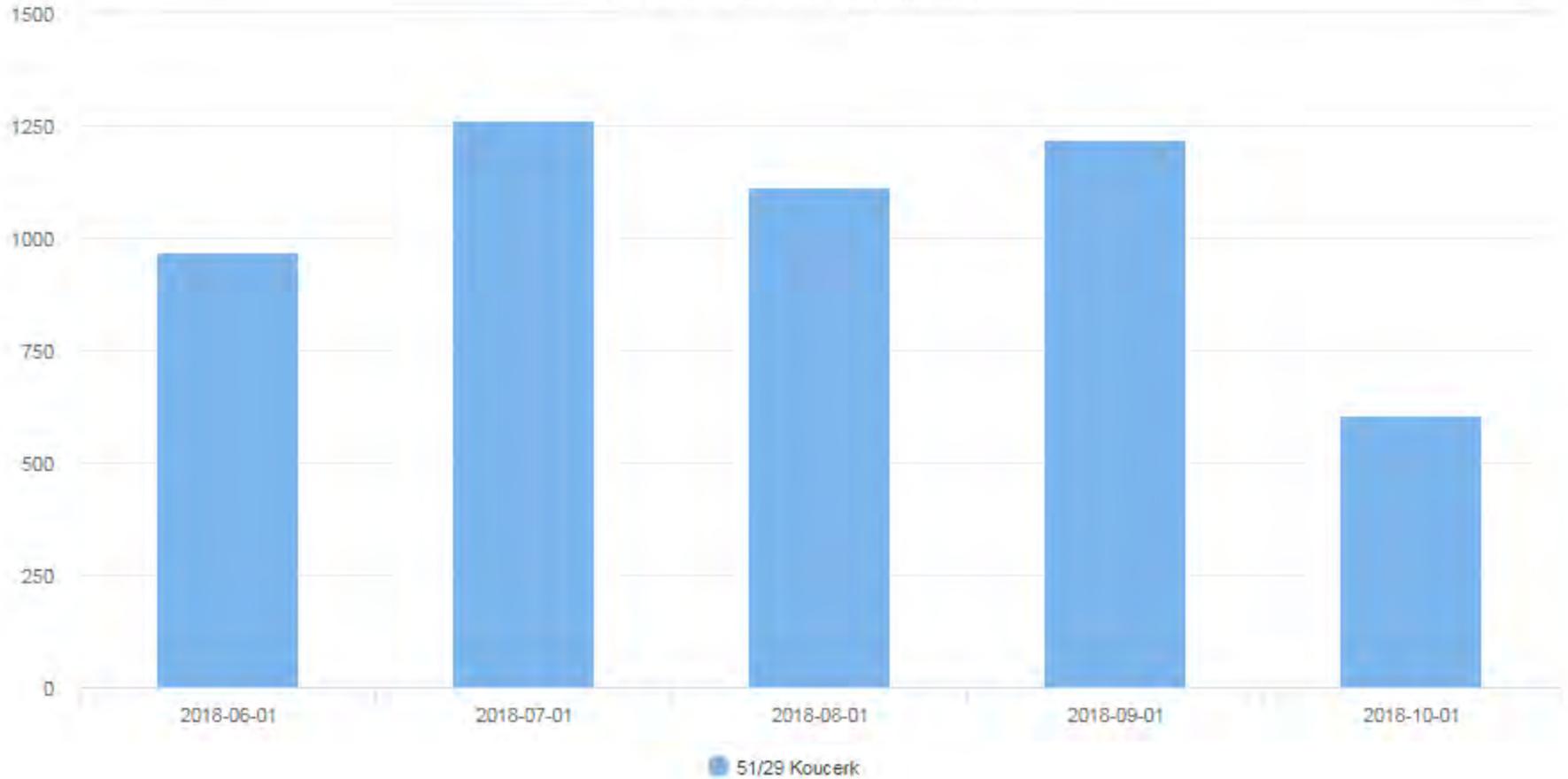
### **11. ADJOURN**

**Motion/second** by SIPPEL/NOWACZYK to adjourn the meeting. Motion **carried** by voice vote, no dissent. Meeting Adjourned at 7:00 pm.

Submitted by:  
David Mack  
Program Manager/MPO Director  
Marathon County  
Conservation, Planning and Zoning/Wausau MPO

# Monthly\* totals

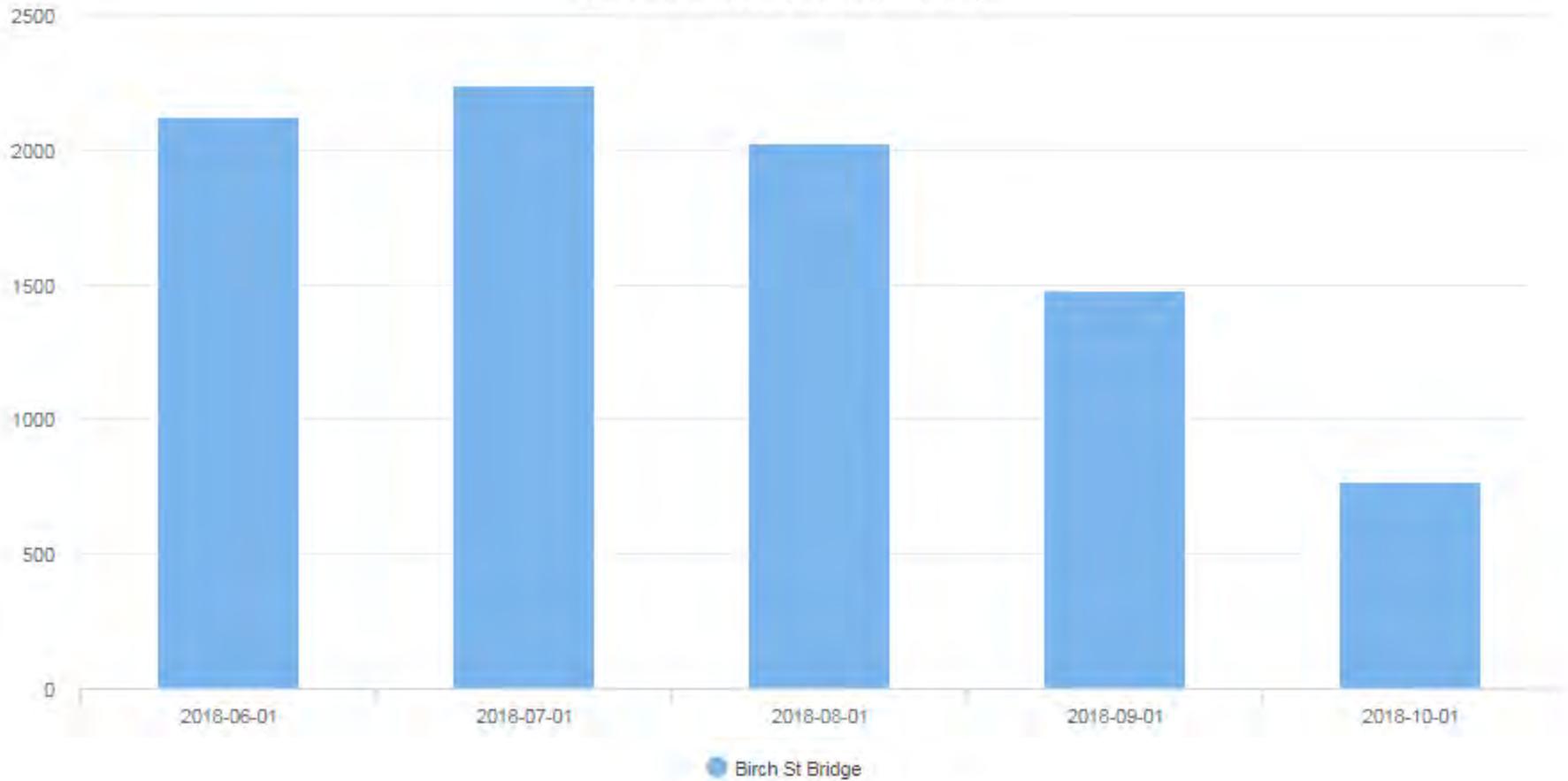
2018-06-01 to 2018-10-31 (5 months)



<u>51/29 Koucerk</u>	
2018-06-01	968.6
2018-07-01	1263
2018-08-01	1113
2018-09-01	1217
2018-10-01	604

# Monthly\* totals

2018-06-01 to 2018-10-31 (5 months)

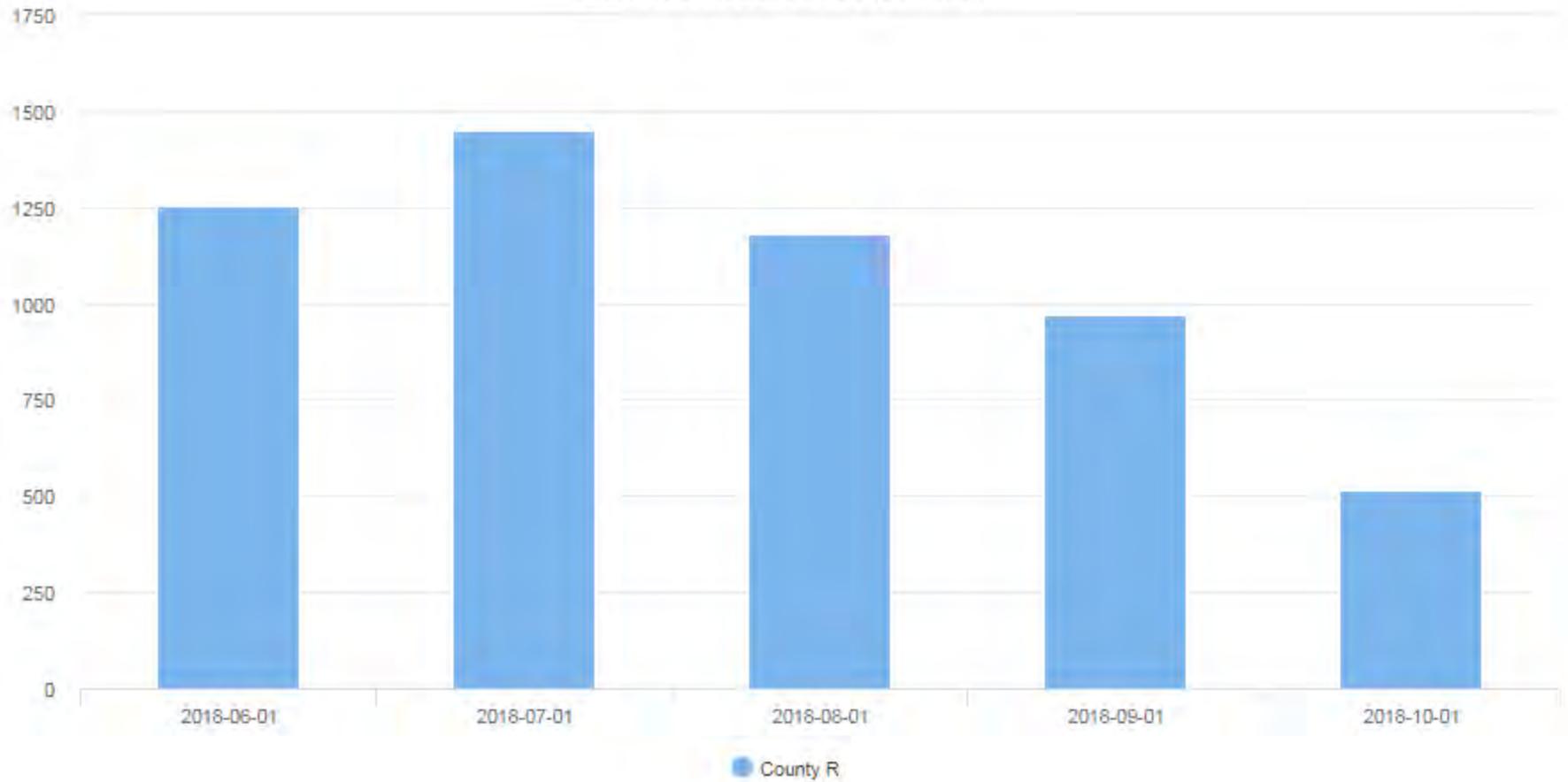


## Birch St Bridge

2018-06-01	2122.5
2018-07-01	2238
2018-08-01	2026
2018-09-01	1481
2018-10-01	768

# Monthly\* totals

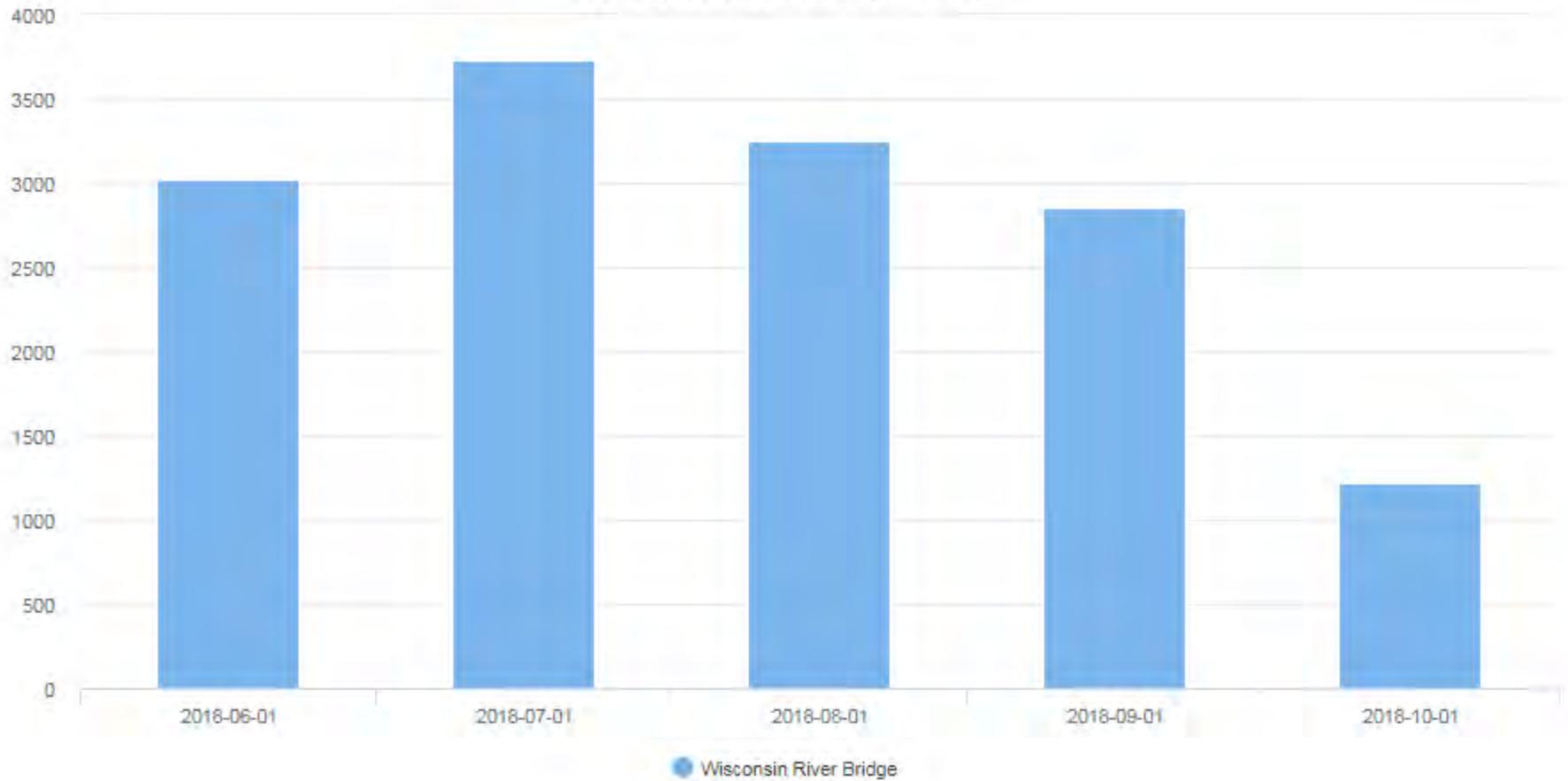
2018-06-01 to 2018-10-31 (5 months)



County R	
2018-06-01	1251.4
2018-07-01	1449
2018-08-01	1182
2018-09-01	974
2018-10-01	517

# Monthly\* totals

2018-06-01 to 2018-10-31 (5 months)



## Wisconsin River Bridge

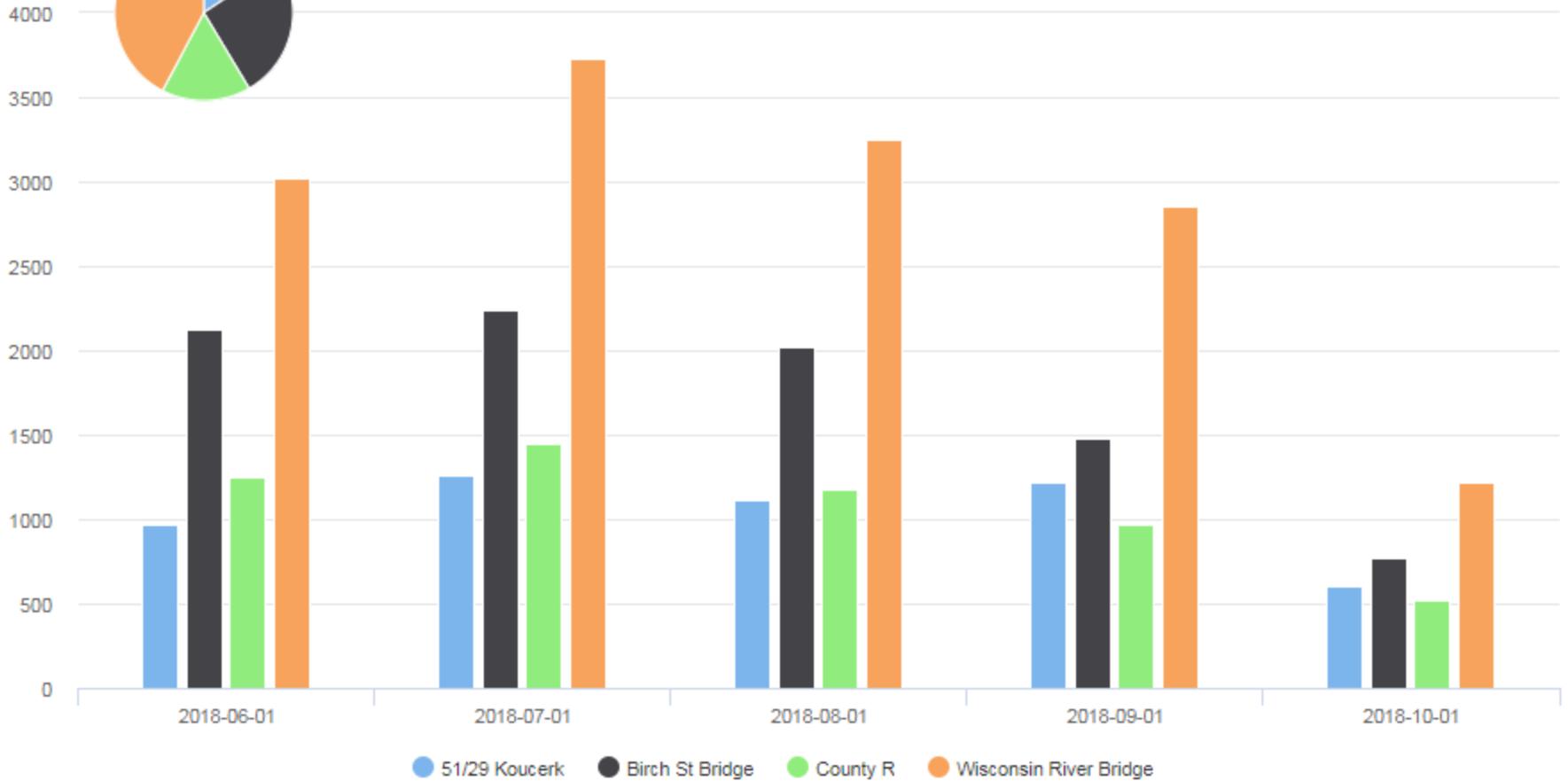
2018-06-01	3025.7
2018-07-01	3726
2018-08-01	3253
2018-09-01	2849
2018-10-01	1221

Avg

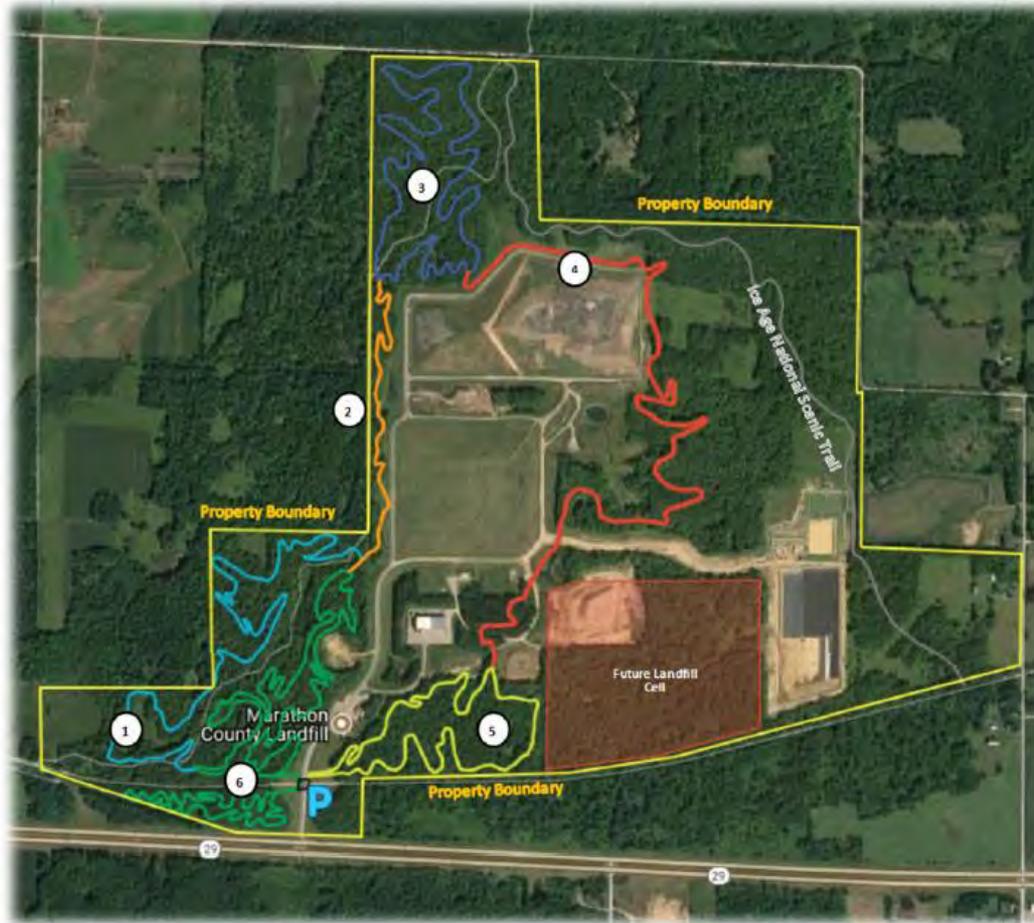


# Monthly\* totals

2018-06-01 to 2018-10-31 (5 months)



	<u>51/29 Koucerk</u>	<u>Birch St Bridge</u>	<u>County R</u>	<u>Wisconsin River Bridge</u>
2018-06-01	968.6	2122.5	1251.4	3025.7
2018-07-01	1263	2238	1449	3726
2018-08-01	1113	2026	1182	3253
2018-09-01	1217	1481	971	2849
2018-10-01	604	768	517	1221

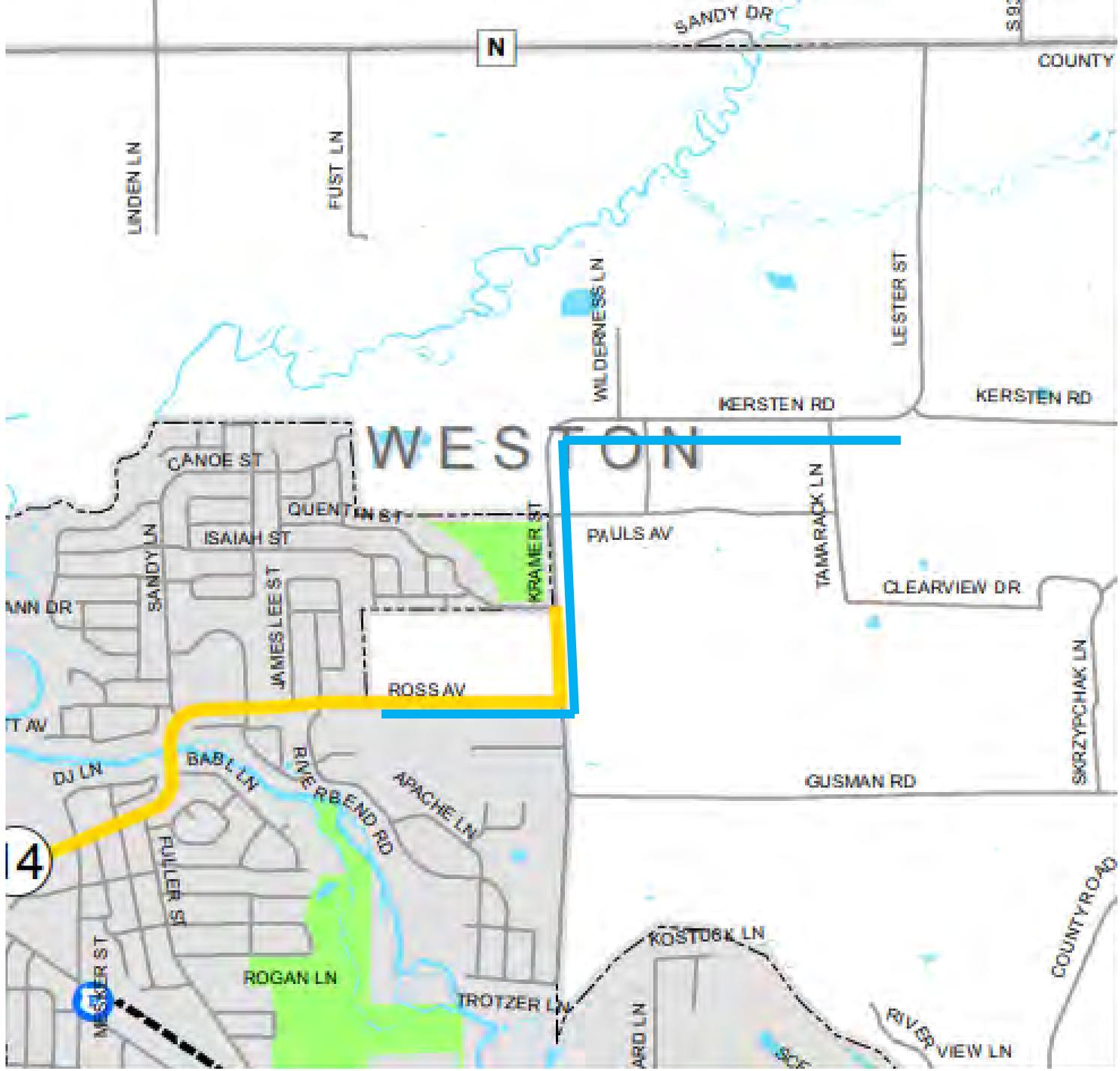


## Phase I

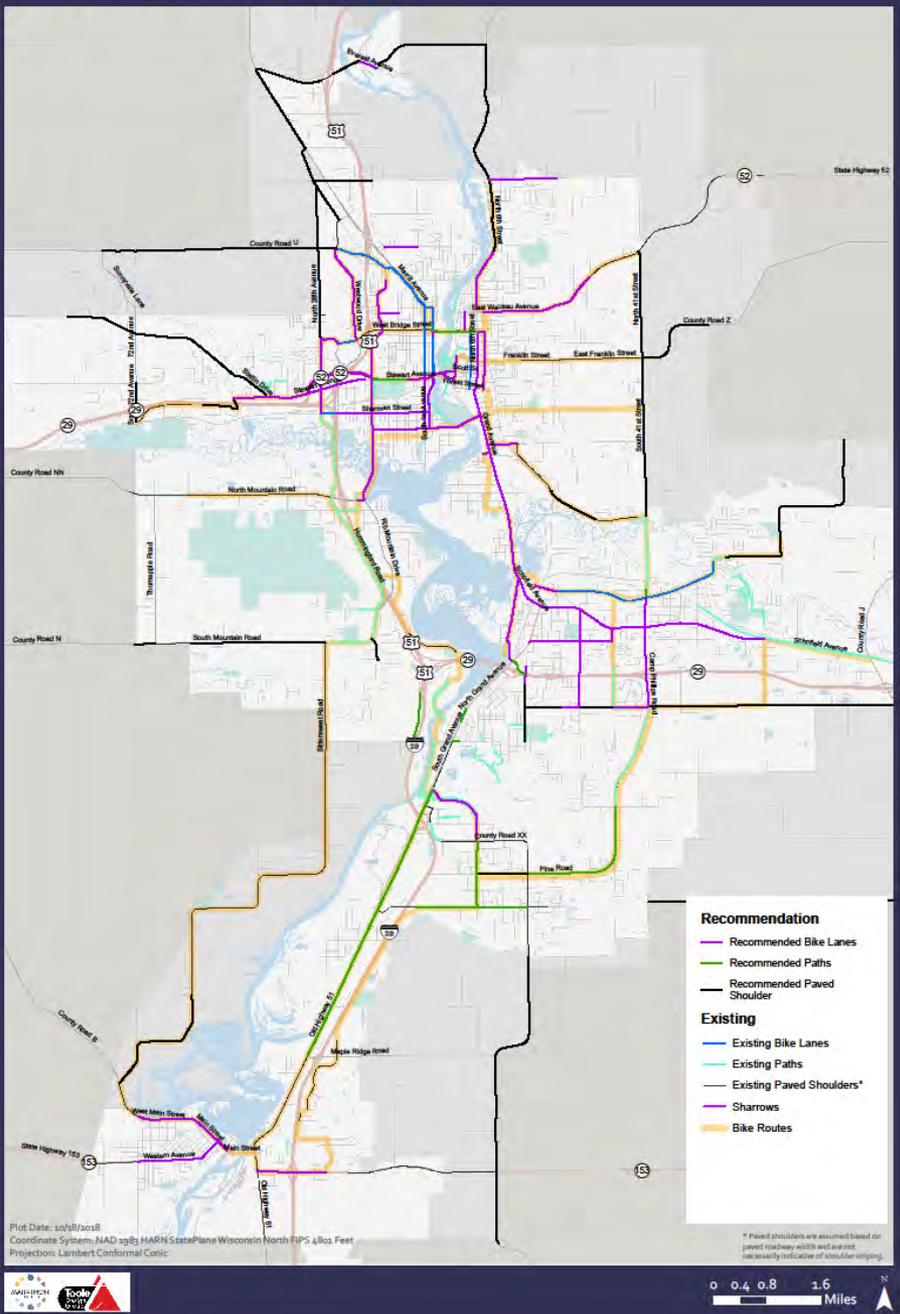
1. **Ruby Ridge**—Completed by FlowTrack in August 2018
2. **West Connector**—Completed by FlowTrack in August 2018
6. **Rock the Wierzba**—Currently being built by CWOCC volunteers; completion in Fall 2018

## Phase II

3. **Lost 40**—Will be built by professional contractor in Spring 2019.
4. **Rookery**—Will be built by professional contractor in Spring 2019.
5. **Oscar**—Will be built by professional contractor in Spring 2019.



# Projects - Build Out



MC 501

MARATHON COUNTY  
PLANNING COMMISSION

# A BIKEWAY IMPROVEMENT PLAN FOR MARATHON COUNTY

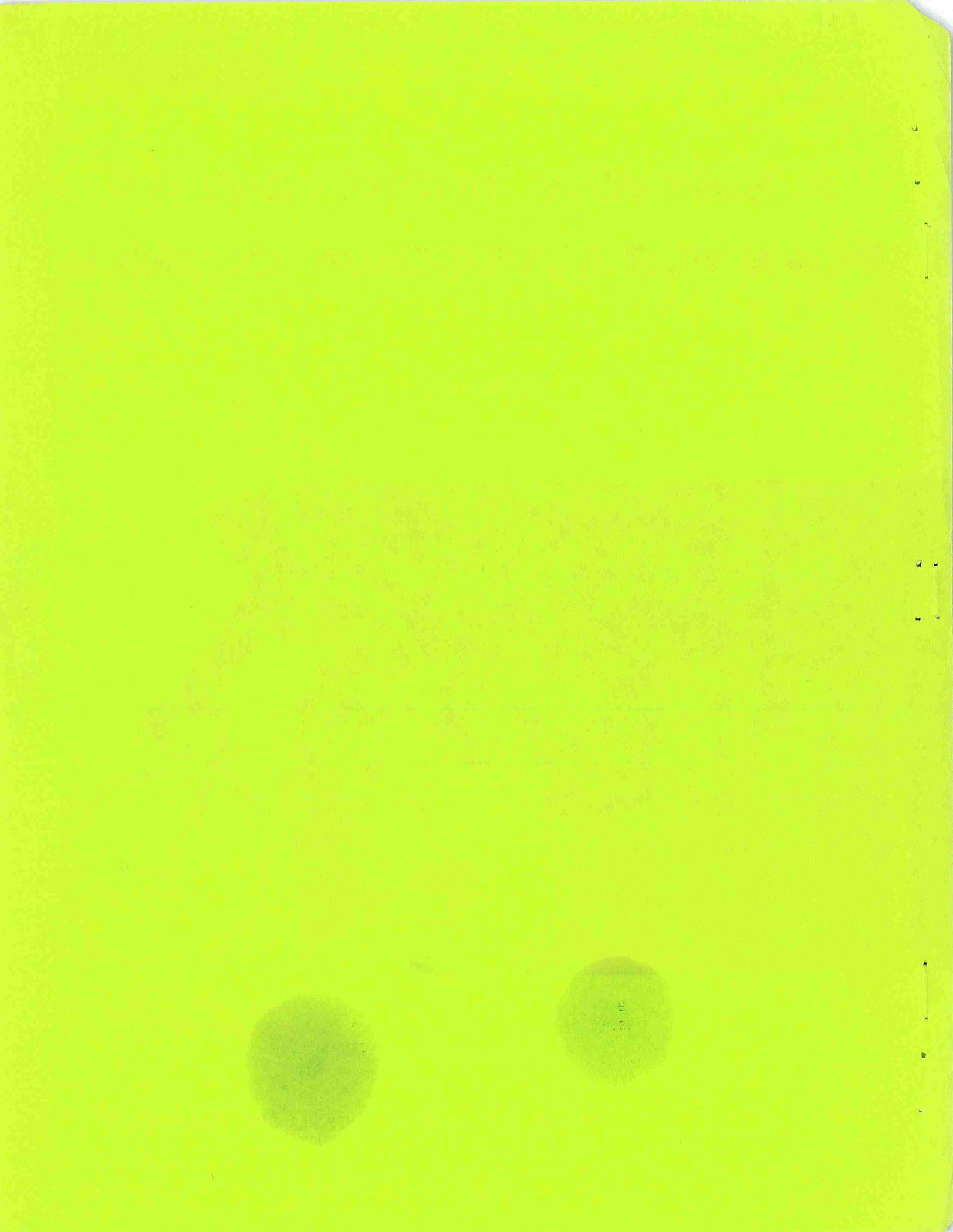
OCTOBER, 1978



MARATHON COUNTY  
PLANNING COMMISSION

PREPARED BY: MARATHON COUNTY PLANNING COMMISSION  
BICYCLE STUDY TASK FORCE

MC 501



MARATHON COUNTY PLANNING COMMISSION

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Marvin Knuth, Vice-Chairman  
Elmer Bootz, Secretary

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MARATHON COUNTY PLANNING COMMISSION  
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Marathon, WI 54401  
(715) 842-0771

M.C.P.C. STAFF

William L. Forrest, Director of Planning  
William E. Preboski, Associate Planner  
Joseph M. Pribanich, Assistant Planner  
P. Robert Strong, Assistant Planner  
Robert J. Rozewicz, Planning Technician  
Bruce P. Schaepe, Planning Intern (summer-1977)  
James R. Bricker, Planning Intern (summer-1978)  
Christine A. Meyer, Clerical Aide  
Virginia L. Kottke, Secretary

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# BICYCLE PLAN

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## INTRODUCTION

In 1977, the Marathon County Planning Commission completed an extensive analysis of outdoor recreation participation and facility needs in Marathon County. Their report entitled, "An Outdoor Recreation Plan for Marathon County and Its Communities" presents bicycling as a high participation activity with facilities in short supply. The results of a survey conducted for this planning program showed that 73 percent of the respondents engage in bicycling, and 50 percent recommended that additional bike routes and trails be established. In fact, the survey showed that the desire for improved bicycling facilities was greater than for any other outdoor recreation activity.

The Outdoor Recreation Plan Committee concluded that because of the lack of information on the supply-demand-need relationship for bicycling and the strong desire for improved facilities, an extensive study should be undertaken to address the following issues:

1. Identification of potential bike routes and trails;
2. Examination of bicycle safety programs; and
3. Coordination of municipal, County, and State bike route development efforts.

In June, 1977, the Marathon County Planning Commission appointed a seven member Bicycle Study Task Force Committee whose purpose was to address the above issues as well as, "review conditions, facilities, and demand for bicycle facilities and recommend improvements or changes in the existing route/trail system, or new routes and trails."

This report attempts to document the need and demand for new and improved bicycling facilities in Marathon County as well as present ideas and information on the "state of the art" of cycling facilities development.

At the onset, this planning effort was primarily concerned with meeting the short-term cycling needs in our County. However, as the work progressed, it became apparent that additional information should be provided to facilitate future facility planning and evaluation efforts.

This initial bicycling facilities improvement program should provide a foundation for an on-going development effort. The on-going program should be reviewed every four to five years to determine the impact of interim developments on meeting the bicycling facility and safety needs throughout our County. Bicycle facility funding programs, roadway improvements, and safety education programs should be clearly monitored to take advantage of cycling opportunities, especially funding programs, that might develop.

The process of updating this Bikeway Plan should be incorporated into the County's outdoor recreation planning program. Since the recreation planning program involves a high degree of contact and cooperation with the County's smaller, more rural communities, their needs and potentials for bicycling facilities should be carefully assessed at that time.

Implementation of the basic facility recommendations contained in the study will require a coordinated effort among several agencies including: the County Highway Department, County Park Department, County Planning Commission, State Highway Department, Governor's Bicycle Coordinating Committee, Department of Natural Resources, and municipal committees and departments concerned with the provision of local transportation and recreation facilities. In addition, the bicycle safety education programs conducted by local educators, law enforcement agencies and other groups should be closely monitored and improved whenever educational innovations become available.

Introduction

The Bureau of Outdoor Recreation terms bicycling as the fastest growing recreational activity in the country, and at the Wisconsin Department of Natural Resources, requests for bicycling information number second only to requests for camping information. In a 1974 survey of recreational activity participation performed by the State of Pennsylvania, bicycling ranked first in both activity days per capita and activity days per participant. It ranked fourth, behind sightseeing, picnicking, and swimming, in the percentage of the population participating.

Though less well documented, use of the bicycle for transportation is also on the upswing. As a mode of transportation, bicycling is pollution-free and inexpensive. It has been shown to be cost-efficient compared to the automobile for trips three miles and under in length, an advantage that will be sustained if not increased by the continuing high price of gasoline. While it is unlikely that, in this climate, bicycling will become a year-round substitute for other modes, it is becoming an important supplemental form of transportation for school, convenience shopping, and some work trips.

As bicycle usage has soared, so have accidents. National Safety Council statistics indicate a 70 percent increase in fatal bicycle accidents in the decade between 1961 and 1971. Then, in a single year--1972--they jumped again over 30 percent. By far, the largest increase in fatalities--300 percent for the ten year period-- was in the 25 to 44 year age group.

Significantly, much of the boom is attributable to an increased interest in adult cycling. Manufacturers estimate that today close to two-thirds of the new bicycle sales are made to adults for their own use as compared to 15 percent twenty-five years ago. These adults will not be satisfied with the bicycle riding opportunities

they enjoyed as children. They are riding longer distances and for a wider variety of purposes, using their bikes to ride to work, for cross country touring and for camping trips. It is time that the bicycle be taken seriously for what it is--a legitimate road user, not just a child's toy--and that provisions be made for its safe, efficient, and convenient use.

Bicycling Participation and Bicycle Ownership

In the Summer of 1975, the Wisconsin Department of Natural Resources conducted a recreational survey to estimate State-wide participation rates in bicycling and cross country skiing for State residents. Their analysis divides the State into fifteen "Regions". Marathon County is in Region 5, along with Wood, Portage, Juneau and Adams Counties. The population of Marathon County represents approximately 40 percent of the Region 5 total.

The D.N.R. made 1,966 phone calls State-wide and since about 2.19% of the State's population lives in Marathon County, approximately 37 calls were directed at random to our 104,000 residents. From the survey, the D.N.R. estimated that the total number of bikers State-wide was 879,476 (a participation rate of 19%), with approximately 550,000 bikers taking at least one trip for two or more hours during the preceding year. Region 5 lagged behind the rest of the State in participation with only 39,208 cyclists--a participation rate of about 15.4%. Forty percent of this 39,208 gives Marathon County a total of only 16,036 bikers. A further refinement of their data showed that Marathon County had only 8,300 people who cycled for more than two hours at least once in 1974.

The accuracy of these County estimates were questioned on two grounds: (1) Not enough calls were

completed in Marathon County to accurately predict participation (thirty-seven calls were completed in Marathon County); and,  
(2) An examination of the 1975 City of Wausau bicycle registration figures revealed that there were 10,500 bicycles registered in the City alone. Therefore, in an effort to arrive at a closer approximation of bicycling participation in Marathon County, the following analysis was undertaken.

Nationally, the bicycle industry has gone through a complete "boom" cycle in the last ten years. From 1966 through 1970, an erratic but steady growth pattern was established. Then, in 1971, with an increasing number of young adults, a national drive for physical fitness, a heightened national awareness of the environment, and the indication of a future fuel shortage, a bicycle fad developed. The fad caused bike sales to more than double in just three years; and at its peak (1973), bike sales outnumbered automobile sales. However, in 1974, the "Boom" began to subside and by 1975, the sales volume had returned to nearly pre-boom levels. (See Figure 1.) The current pre-boom sales level probably represents two types of purchases: parents buying bicycles for their children who are reaching "ridership age"; and adults replacing old or "out-of-style" bicycles with new ones.

During the ten-year-period--1967-1976--100,600,000 bicycles were sold nationwide, representing a per capita sales and ownership rate of approximately .47. This means that approximately one out of every two people in the Nation purchased a bicycle during the ten-year-period. This ownership rate assumes that the number of bicycles which were sold during the ten-year-period and later "junked" approximates the number of bicycles sold prior to 1967 that are still in use. At best, the .47 per capita ownership rate can be considered as conservative.

In an effort to more firmly establish the per capita bicycle ownership rate in Marathon County, a survey of

eighteen retail trade establishments that sell bicycles was conducted in June, 1977.

The manager of each store was asked to provide the best possible estimate of bicycle sales for each of the last six years. Since some of the bicycle dealers could only provide a rough approximation of their sales for a particular year (or no data for a particular year) a small portion of the total County sales figures had to be estimated. From 1972 through 1977, the best possible, although conservative, estimate of total bicycles sales is 30,310.

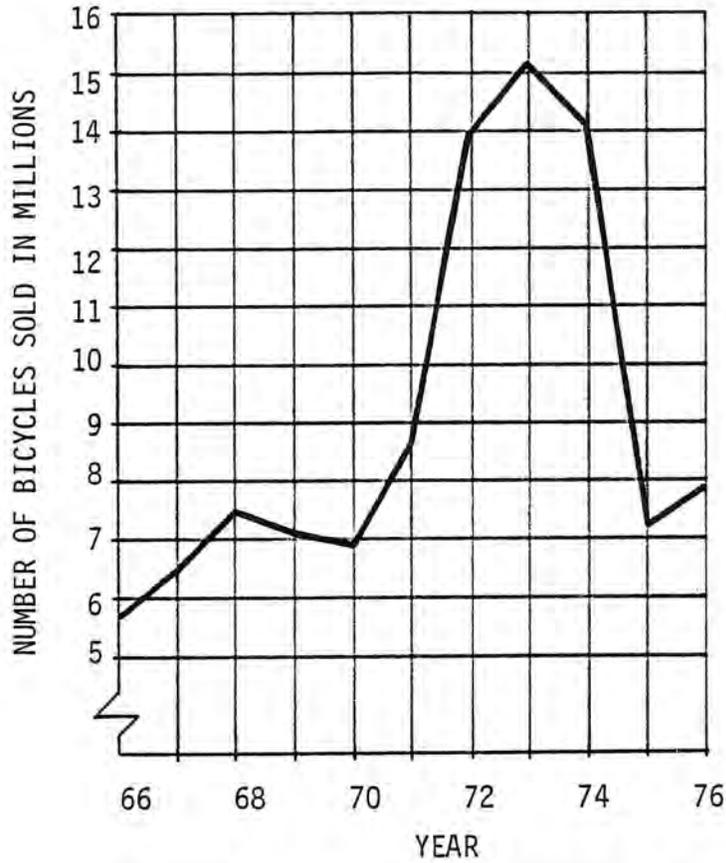
Figure 2 shows bicycle sales in Marathon County and also the County's share of national bicycle sales from 1967 through 1976. The County's share was derived by taking the yearly national sales figures for the United States and multiplying them by Marathon County's share of the total United States population (.05%), which yields an expected ten-year sales total of 48,969 (a per capita sales rate of .47).

An examination of the two curves in Figure 2 reveals that Marathon County sales figures from 1972 through 1975 closely followed the national sales trend but lagged behind it by one year. However, in 1975 and 1976--when national sales drastically dropped--sales in Marathon County remained very strong.

The cause of Marathon County's one-year lag in following the national trends cannot be determined; however, the continued high County sales in 1976 and 1977 may be attributed, in part, to two factors: (1) The County's population is growing at a rate of 1.40% per year compared to a national growth rate of .84%; and (2) The County is experiencing a large immigration of people who are in higher socio-economic status groups. It was shown in several studies that these higher status groups have a greater bicycle participation rate (and ownership rate) than people in lower

Figure 1

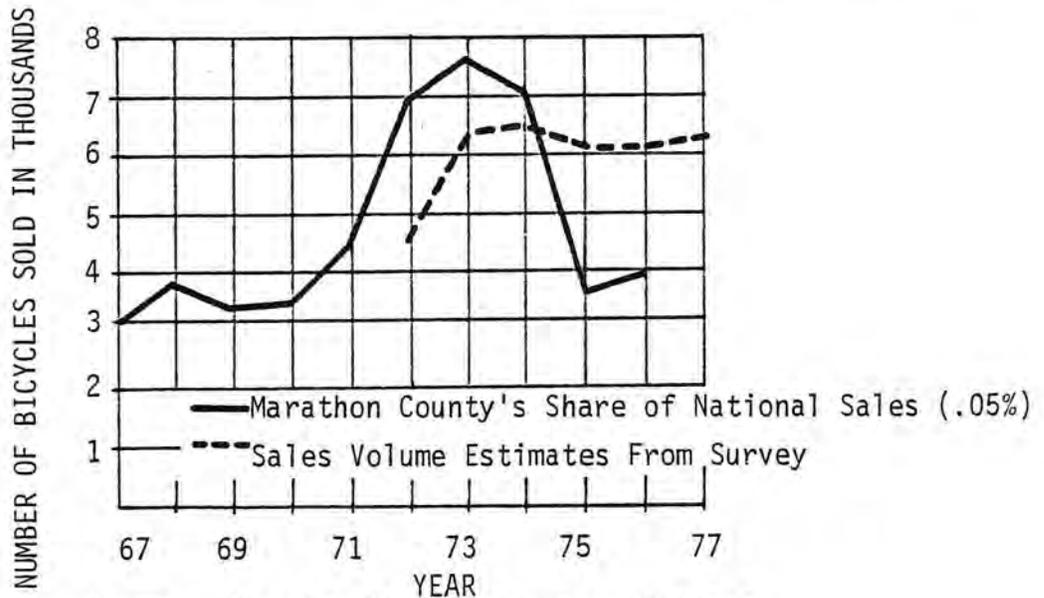
NATIONAL BICYCLES SALES: 1966 - 1976



Source: Schwinn Bicycle Company; M.C.P.C.

Figure 2

ESTIMATED BICYCLE SALE VOLUMES IN MARATHON COUNTY: 1967 - 1977



Source: Schwinn Bicycle Company; M.C.P.C.

socio-economic status groups.

From the preceding discussion, one could assume that a conservative estimate of Marathon County's per capita bicycle ownership rate would be .5.

To further substantiate this estimate, and gather additional bicycling data, a telephone survey of 100 randomly selected residents of Marathon County was conducted in Mid-June, 1977.

The phone numbers were taken from the Wausau-Hatley Phone Book (published in March 1977), which included listings for Wausau, Hatley, Marathon City, Athens, Edgar, Eldeeron, Mosinee and the surrounding Towns. It was hoped that this sample would proportionately represent most of the County; however, the Towns surrounding Spencer, Stratford and Marshfield were not included since they are not listed in the Wausau-Hatley Phone Book.

Two questions were asked to help estimate the County's per capita bicycle ownership rate:

1. How many persons live in your household? and
2. How many bikes do you have in your home?

When the total number of bikes in the sample is divided by the total number of people in all of the households surveyed, a County-wide bicycle ownership figure of 519 bicycles per 1,000 residents was derived (a per capita ownership rate of .519).

In Wausau, the number of bicycles per 1,000 people was found to be 461. In the Rothschild-Schofield-Weston area, the number of bicycles per 1,000 people was 789. The higher ownership rate in the Rothschild-Schofield-Weston area may be attributed in part to the area's relatively higher average income and education (higher status group) and higher population of young people.

From the survey results, it was determined that there are approximately 14,700 bicycles within the City of Wausau and 39,300 in the remainder of the County, giving a County-wide total of 54,000 bicycles.

Thus, averaging the data obtained from the County bicycle sales analysis and the telephone survey, the best estimate of the number of bicycles in Marathon County is 51,500 (1977).

According to the Wisconsin Department of Natural Resources, bicycling is expected to continue its rise in popularity as an increasingly environment and health conscious public takes to bicycling, both for transportation and recreation. The best projections of future participation indicate that it will increase at a rate of 12 percent a year from 1975 to 1980. After 1980, growth rates will level off and subsequent increases in bicycling will be due mainly to population growth with per capita participation rates remaining close to the 1980 level.

As bicycling increases, potentials for recreation will also increase and the need for adequate, safe bikeways will become more urgent.

#### Bicycle Trip Types and User Characteristics

It is difficult to define a "typical" bicyclist or bicycle trip. The range of cyclist and trip characteristics is enormous. Cyclists will vary not only in age and experience, but also in knowledge of the street system and the vehicle code, in willingness to walk their bike or climb a hill, in tolerance for heavy traffic and poor road surfaces, in reaction to intimidation by auto traffic and in the ability to handle an emergency situation. Their trips will vary in purpose, length, time of day, relation to other modes, etc. In planning for bicycles, it takes a great deal of

difference whether one is talking about the child tottering around the neighborhood on his first two-wheeler, the seasoned long-distance tourist and camper, or a rush hour commuter. The problem, then, is to identify those attributes that make a difference in terms of needs and that will be useful in determining whether special bicycle facilities are required, and, if so, what kind and where. To this end, three broad categories of bicycle trip types have been identified:

(1) Neighborhood trips within the same neighborhood made by children or by adults for a short Sunday or evening spin. While these may account for a large number, perhaps even a majority of bicycle trips, they follow no particular route pattern and can generally be served by the existing street network.

(2) Recreational trips are those taken outside the neighborhood for the primary purpose of enjoying the trip itself. These would include longer home-based leisure trips, bicycle touring and camping, and dual mode combinations where the bicycle is transported to a bike trail or other facility and then used for the recreational portion of the trip. Bicycle racing might also be included as a small but active element.

(3) Transportation use includes commuting trips to work or schools outside the neighborhood; shopping trips; and trips to parks, theatres, sports events, and other social or recreational activities not related to bicycling. Here the bicycle serves as a vehicle for making the trip. Because the trips are destination conscious, they will be concentrated along lines often coinciding with major traffic arteries.

Generally, the more functional or transportation oriented the trip, the greater the need for directness and minimizing effort; while the more recreational the trip, the greater the need for protection and pleasant surroundings.

Many trips will not clearly fall into either the recreation or the transportation category but will exhibit characteristics of both. For such dual purpose trips, route planning will exhibit characteristics of both. For such dual purpose trips, route planning will involve something of a trade-off. Where leisure riding is one of the primary purposes of the trip, the rider may be willing to detour from the direct route if a safer or more scenic alternative is available.

Trips vary in length from the brief neighborhood spin to a whole day's outing but usually start and finish at the same point, be it a residence, campsite, motel or parking spot. Around-the-neighborhood trips will likely be too scattered to permit or require special facility treatment. Parks, developed recreation or resort areas, and the more scenic parts of town can, on the other hand, draw concentrated enough use to warrant a bikeway.

In general, extensive facility construction should not be required because the traffic conditions which would warrant separation also make the route inherently unattractive for recreational use. Recreational route signing should be used to steer cyclists around conflict points where possible and to indicate good ride locations. A loop approach might be used to give the rider the choice of return by a different route.

Separate trail facilities might also be considered where potential bike volume is high and an exceptional opportunity, such as a railroad right-of-way or a strip of parkland, presents itself. These facilities generate their own demand and have been tremendously popular in a number of communities.

Two bicycle surveys conducted in Marathon County during July, 1977, provided valuable information concerning bicyclists' participation in and attitudes toward cycling.

From approximately 1,500 surveys distributed at a local employer, 125 were returned--a response rate of 8.3%. The 125 surveys represent 357 people from twelve Marathon County Communities.

Since the basic purpose of this survey was to examine user characteristics of cyclists, the quantity returned is adequate.

The number of bike trips per week indicated by the respondents was broken into three groups: those riding 0-1 times; 2-4 times; and 5 or more times. The largest group are those who bike 2-4 times each week (42 percent of the sample). Thirty-two percent stated they ride 5 or more times each week, and only 21 percent ride one time or less.

Over one-half of the bicyclists who ride less than one-half mile per bike trip (11 percent of the respondents) are under 10 years of age. This could be expected since these children are generally restricted by their parents to places near their home. For the most part, these short rides need not be considered in the bikeway improvement plan since most occur on quiet residential streets, or on sidewalks.

Thirty-nine percent of the respondents said that the average length of their bike trips are between one-half and two miles. Thirty-six percent ride between two and five miles each trip, while sixteen percent average more than five miles. These findings indicate one of two things:

A. Since most riders travel relatively short distances, most additions to the bicycle route system should be relatively short.

OR

B. People are riding a short distance because bikeways are not long enough or abundant enough to support a large number of long (5 or more miles) trips.

When the responses to the questions pertaining to the number of trips taken and the length of trips taken are correlated together, no specific group emerges as being larger than the others.

This indicates that there is no "average Marathon County biker". In planning for bike routes, a variety of trip lengths and occasions should be considered.

In an attempt to learn whether people would ride more if better facilities were developed, respondents were asked if they would commute by bicycle if bike routes were improved. Over 15 percent of the respondents would commute by bike everyday with improved bike routes (weather permitting), and 37 percent said they would ride at least sometimes. These figures give some support to the proposition that if more bike routes are established, more people would use them. However, 11 percent of the respondents said they would only seldom commute, and 36 percent said they would never commute. Figure 3 shows the age distribution of those people who would commute with better bikeways. Commuting would probably increase the most in the 20-34 year old age group.

Eighty-one percent of the respondents stated their bikes were used primarily for recreation. However, commuter bike route improvements may reduce this figure. Since a large percentage of bikers drive for pleasure, an attempt was made to determine where people go on their rides. Respondents indicated that 41 percent of their trips have no definite destination, 18 percent are directed toward parks, and about 12 percent ride to see friends. Destinations with a non-recreational purpose include school (10.5 percent), shopping (9.9 percent), and work (4.5 percent).

When asked what type of bikeway they preferred, most respondents wanted bikeways that are separated from motor vehicle traffic. About 57 percent would like to see a bikeway completely separated from the road, while an additional 32 percent would like a route on the road shoulder--separated from the traffic lanes. The remaining 11 percent either were unsure of their preference or

indicated a desire to share the roadway with motor vehicles.

Figure 4 shows the age distribution of the survey respondents who use bikes for transportation. The 10-14 year old age group is the primary bicycle transportation users. This is probably true because people in this group are too young to drive and must rely on their bicycles for transportation. The 15-24 year old age group is also a major portion of those using the bicycle for transportation, probably because a large number of these people are unable to drive or do not have access to a car.

Only 4 percent of the respondents indicated that they frequently ride their bikes after dark, while 39.5% said they ride only sometimes at night, and the remaining people (over 50 percent) stated they never ride after dark.

One person reported being involved in a car/bike accident in the last year, indicating that on an annual basis, .3 percent of all cyclists have accidents.

A slightly higher percentage of people ride more on weekdays (56 percent) than on weekends (44 percent). But, when the age structure within these two groups is studied, the data takes on a new meaning. Weekend riders are dominated by people 20 years of age and older, representing nearly 90 percent of the weekend riders. Weekday riders are primarily the younger age groups.

### Bikeways

The term "bikeway" refers to any facility that explicitly provides for bicycle travel. For the first two decades of this century, bicycle "sidepaths" were common alongside Wisconsin roads, but as use of the automobile became wide-spread, they were gradually abandoned. Now, with the bicycle coming back into its own, bikeways, too, are undergoing a renaissance as communities across

the country attempt to make bicycling a safer, more convenient and pleasing experience.

Bikeways can be classified according to their treatment of the relationship between bicycle and motor vehicle traffic. There are three basic forms: bicycles may share the right-of-way with motorized traffic, they may be channeled into exclusive bicycle lanes on the roadway, or they may be provided as completely separate or independent bike trails.\* A brief discussion of each type of facility and its possible advantages and limitations follows (Figure 5).

### Bike Paths

Definition: A separate trail or path for the exclusive use of bicycles. Through traffic by motor vehicles is prohibited and cross flows are minimized. Where located on a highway right-of-way, the trail or path is separated from the roadway by an open space or barrier.

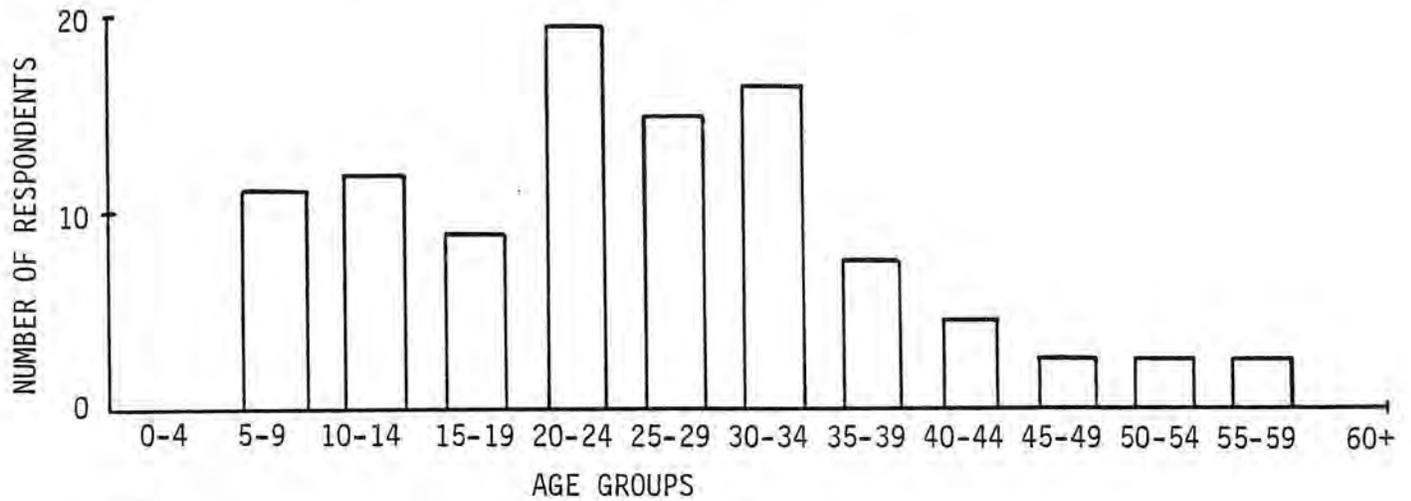
Often cited as the safest and most desirable form of bikeway treatment, the bike path or trail is something of a planner's ideal. By completely separating bicycle from motor vehicle traffic, it both reduces conflicts and spares the bicyclist from the fumes, noise, congestion, and safety hazards of the road. It can be used and enjoyed by anyone, no matter what his experience or how cheap his bicycle, and can provide a readily accessible alternative to the long ride in the country.

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\*The three bikeway alternatives go by a number of different and sometimes confusing names. The California DOT solved the problem by labeling them Class I, II, and III bikeways. The definitions developed by WDOT and DNR closely conform to Wisconsin statutes and are given in the Appendix. Terms used in this report are general to the literature and consistent with WDOT/DNR definitions.

Figure 3

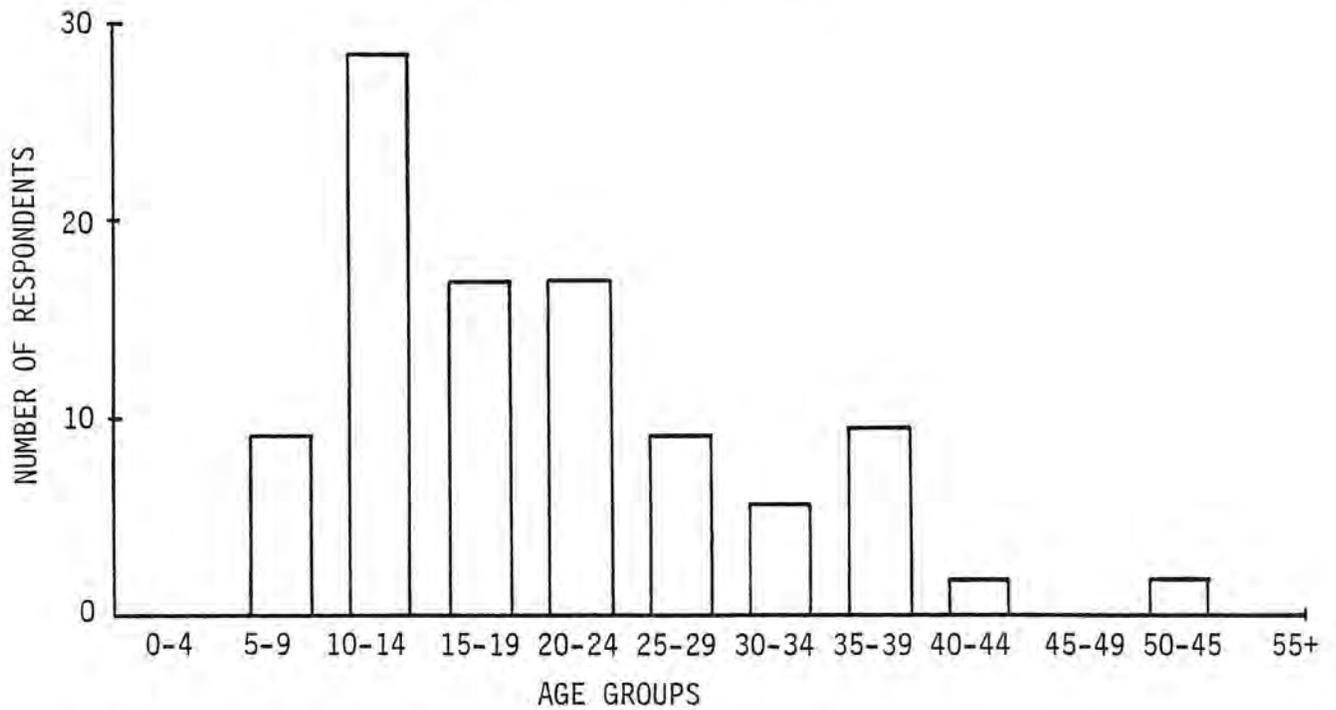
AGE DISTRIBUTION OF PERSONS WHO WOULD COMMUTE  
IF BETTER BIKEWAYS WERE PROVIDED



Source: Marathon County Planning Commission.

Figure 4

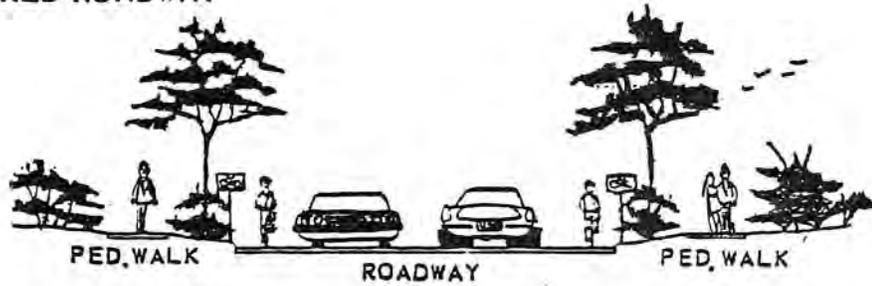
AGE DISTRIBUTION OF PERSONS WHO USE BICYCLES  
PRIMARILY FOR TRANSPORTATION



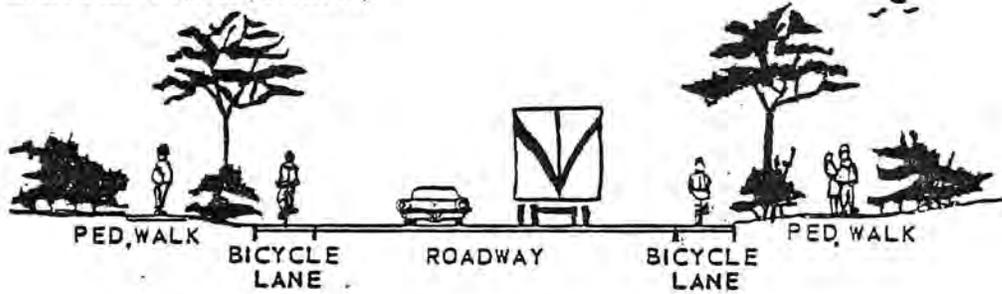
Source: Marathon County Planning Commission.

TYPICAL BIKEWAY ALTERNATIVES

SHARED ROADWAY



BICYCLE LANE (URBAN)



BIKE PATH (URBAN)



BIKE PATH (RURAL)



The bicycle path is also the most costly alternative. Construction costs alone can easily run in the \$25,000 to \$35,000 per mile range, and problems of space availability and land acquisition can be prohibitive, particularly in developed urban areas.

Because of the cost and space problems, bike path development will usually be limited to opportune situations. Railroad abandonments, for example, have been tremendously popular as recreational bicycle trails. Public parklands, new large scale residential developments, downtown redevelopment projects, and highway rights-of-way have also provided effective settings for bike path development in many parts of the country.

In some cases, the expense of developing a bike path will be justified even when such opportunities are not available. A short stretch of trail might be needed, for example, to skirt a particularly hazardous traffic situation or provide a link between other elements of the bikeway system.

Sidewalk paths have sometimes been used as expedient solutions but are dangerous. They promote conflicts between bicyclists and pedestrians and increase the cyclist's exposure to risk at driveways and intersections. Drivers do not generally expect bicyclists to come barreling down or off the sidewalks at high speeds. This is a special problem with right turning vehicles, as the driver's attention is usually drawn to oncoming traffic on the cross street. It also prevents the cyclist from executing a vehicle-style left turn, forcing him to turn across traffic moving in his own line of direction. Sidewalk paths are recommended only as a last resort or where they can be safely used.

## Bicycle Lane

Definition: A portion of a roadway which has been designated for preferential or exclusive use by bicycles. It is distinguished from the portion of the roadway for motor vehicular traffic by a paint stripe, or similar device.

Bicycle lanes have been shown to be particularly effective where bicycles and automobiles must share existing streets and where traffic volumes are heavy. Channeling the bicycle's position on the roadway lessens vehicle displacement and has a positive effect on both traffic flow and capacity. The more predictable vehicle positioning is also a safety factor. By forcing motor vehicle operators to give cyclists adequate clearance, bicycle lanes have been able to slow down the increase of bike/car collisions in communities with extensive lane systems.\*

Problems arise when traffic volumes and road widths are such that space is not available for the bicycle lane. Solutions to these problems can be costly and require a serious local commitment to bikeways since roads must be widened, shoulders paved, or parking removed.

Where parking is the problem, a compromise solution, though awkward and seldom used, is available: parking can be removed from one side of the street and the center line displaced to make room for bike lanes in either direction. However, resistance to the elimination of the parking is usually very strong. A

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\*Bicycle/car accidents increased 35 percent after bike lanes were installed in Davis, California; however, both bicycle and motor vehicle traffic increased by over 100 percent during the same period.

bicycle lane striped beside the parking lane should be wider than average in order to minimize obstruction from parking maneuvers and opening car doors.

A more fundamental problem with bicycle lanes is that they fail to protect the cyclist at intersections where his exposure to risk is great. The problem is inherent to all on-street bikeways and cannot really be solved by at-grade intersection design (Figure 6). With this in mind, care should be taken to insure that lane design does not further increase the cyclist's exposure by limiting his ability to take evasion action, forcing bicycles through traffic to the right of right-turning vehicles, or preventing vehicle-style left turns. Asphalt berms and other "protective" devices may cause just this kind of hazard and are not advised.

#### Bicycle Route (Shared Roadways)\*

Definition: A roadway is officially designated and marked as a bicycle route but which is open to motor vehicular travel and upon which no bicycle lane is designated.

Bicycle routes have been much maligned in the literature and with justification. Some will argue that route signing serves to warn motorists of the bicycle's presence, but the more general feeling is that it offers little or no protection from traffic and, instead, may lull the cyclist into a false sense of security.

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\*The term "bike route" generally refers to mixed use or shared facilities but may be used for the other bikeway types as well. "Shared roadway" is a more precise but less frequently used term.

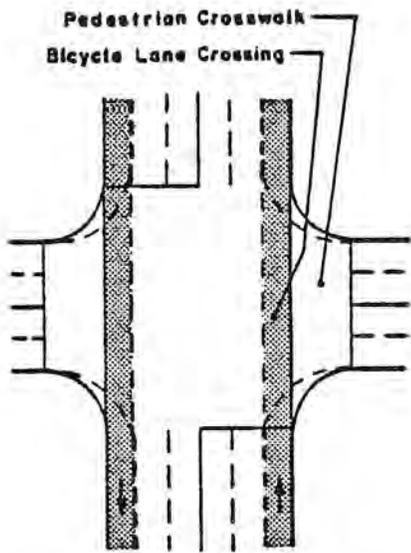
This is not to say route signing is without its advantages. While it may not protect the cyclist from traffic on the route itself, it can protect him from traffic on other streets. Rerouting bicycle traffic from high to low volume streets can be an effective and inexpensive solution to the safety problem, but in order for the benefit to be realized, bicyclists must be convinced to use the route. This will do only if it offers an advantage over existing alternatives. For transportation use, this means providing protection at little cost in time and effort. Often such desirable alternatives are not available--if they were, they would be in use--but sometimes the advantage can be created. For example, stop signs can be changed to speed through traffic on the bicycle route.

The remaining, and some would say principal, advantage of bike signing is informational. It can be used to steer cyclists to good rides in unfamiliar territory or to direct them to specific destinations. When used as a route identification technique, route markers might be supplemented by directional signs--"to the county park", to "downtown", and the like. Painted stencil markings and printed map brochures can also be used to identify the route and are inexpensive alternatives to the traditional bike route signs.

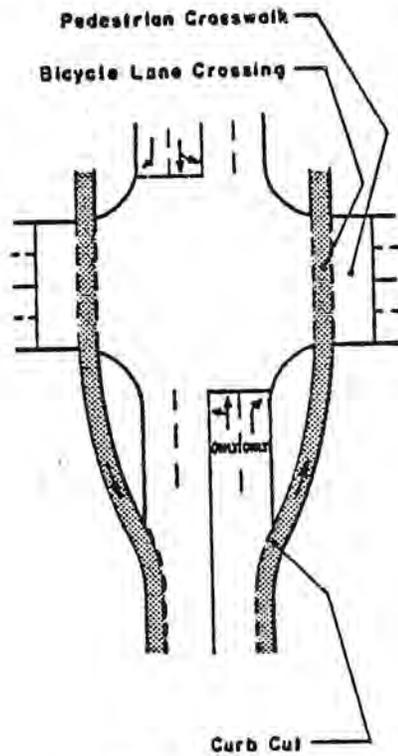
#### Bikeway Warrants

Warrants are criteria to be used in translating travel demand into facility needs; that is, standards used to determine when construction of a particular facility type is justified. A number of variables, including motor and bicycle traffic volumes, road surface width, speed limit, and highway vision, should be considered in making this decision. In addition, available space, cost, and alternate route possibilities must be considered.

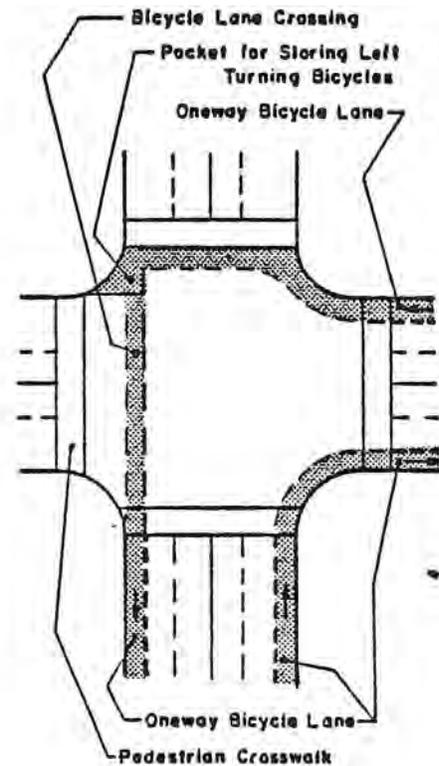
FIGURE 6



(a.) Bicycle Lanes crossing intersection



(b.) Bicycle Lanes offset to cross intersection



(c.) Bicycle Lanes continued on cross street

Typical Bicycle Channelization Arrangements At Street Intersections

Source: East Central Wisconsin Regional Planning Commission, Bicycle Study, 1975.

Perhaps the most complete treatment of bikeway warrants can be found in Guidelines for Developing Rural Bike Routes, a publication of the Wisconsin Department of Transportation and Department of Natural Resources (Table I ). Other commonly cited warrants focus on the relationship of motor vehicle to bicycle traffic or that of motor vehicle traffic to speed. The American Association of Highway and Transportation Officials recommends separate facilities for bicycles where "(a) bicycle volumes will be 200 or more per day in conjunction with motor vehicular volumes of 2,000 ADT or more, or (b) where the same bicycle volumes will be in conjunction with motor vehicular speeds of 40 mph or higher." Barton-Aschman, a consulting firm which has done considerable work on bikeways, prefers the speed-volume curves shown in Figure 7.

It is important to remember in applying warrants that, as criteria, they are not absolutes nor will they be equally applicable to all situations. There is considerable division of professional opinion on the subject and therefore much margin for judgment. Nor are they, by themselves, sufficient criteria for making bikeway location decisions. Rather, they should be used as guides in conjunction with other locational considerations: accessibility to residential areas and to desired bike trip destinations; continuity, directness, and conformity to natural behavior patterns (for example, the reluctance to lose momentum; visual interest; protection, and so on).

## Bicycle Accidents

Bicycle accidents are either falls or collisions. The falls are more common, but the collisions are more serious. Falls usually are the result of an unstable surface, trying to avoid a collision or "goofing off". The damage is usually nothing more than a few scratches to the rider and bike, and a loss of pride. Collisions are usually the result of traffic conflicts with pedestrians or motor vehicles which make joint use of the right-of-way.

Bicycles are permitted to be operated on sidewalks in some communities. Such use will probably increase as more curb ramps are installed at intersections (primarily for handicapped), and competition with the auto or use of the streets becomes more dangerous. Cyclists on sidewalks tend to not yield the right-of-way to pedestrians. Sometimes, pedestrians do not realize that a bike is approaching from behind and make a side movement that results in a collision as the cyclist attempts to pass. Sometimes approaching cyclists and pedestrians confuse each other by each trying to get out of the other's way and result in getting into each other's way. Fortunately, collisions that occur between bicycles and pedestrians are relatively minor in damage. Many such accidents are not reported so their number remains unknown.

Accidents that occur between bicycles and motor vehicles are more apt to result in injury or death to the cyclist than any other type of accident.

The main conflict between bicycles and motor vehicles is their joint use of the same roadway. The close proximity and difference in characteristics of the two methods of travel make them a particularly dangerous combination. The problem is compounded because both use the facility in heavy numbers during peak hours. As bicycling grows, the conflict is sure to increase.

TABLE 1

## RURAL BIKE ROUTE WARRANTS

## TWO-LANE RURAL HIGHWAYS

SPEED LIMIT	<40	≥40	50	>50		
A. SPEED FACTOR	0.7	0.8	0.9	1.0		
MOTOR VEHICLE VOLUME (MVV)						
CURRENT AVERAGE DAILY TRAFFIC (ADT)	<1500	>1500	>2000	>2500	>3000	>3500
CURRENT MAXIMUM HOURLY VOLUME (HV)			<350	<425	>500	>575
B. MVV FACTOR	1.0	1.5	2.0	2.5	3.0	3.5
BICYCLE VOLUME (BV)						
AVERAGE DAILY TRAFFIC (ADT)		<100	<150	<200	<250	>250
MAXIMUM HOURLY VOLUME (HV)				<30	<40	>40
C. BV FACTOR		1.0	1.5	2.0	2.5	3.0
TRAFFIC LANE WIDTH						
		<11	11	>11		
D. LANE FACTOR		1.2	1.1	1.0		
HIGHWAY VISION (SSD)						
		<300	400	500	≥600	
E. STOPPING SIGHT DISTANCE FACTOR		1.3	1.2	1.1	1.0	
TRUCK VOLUME (TV)						
		<10%	10%	>10%		
F. TV FACTOR		0.9	1.0	1.1		

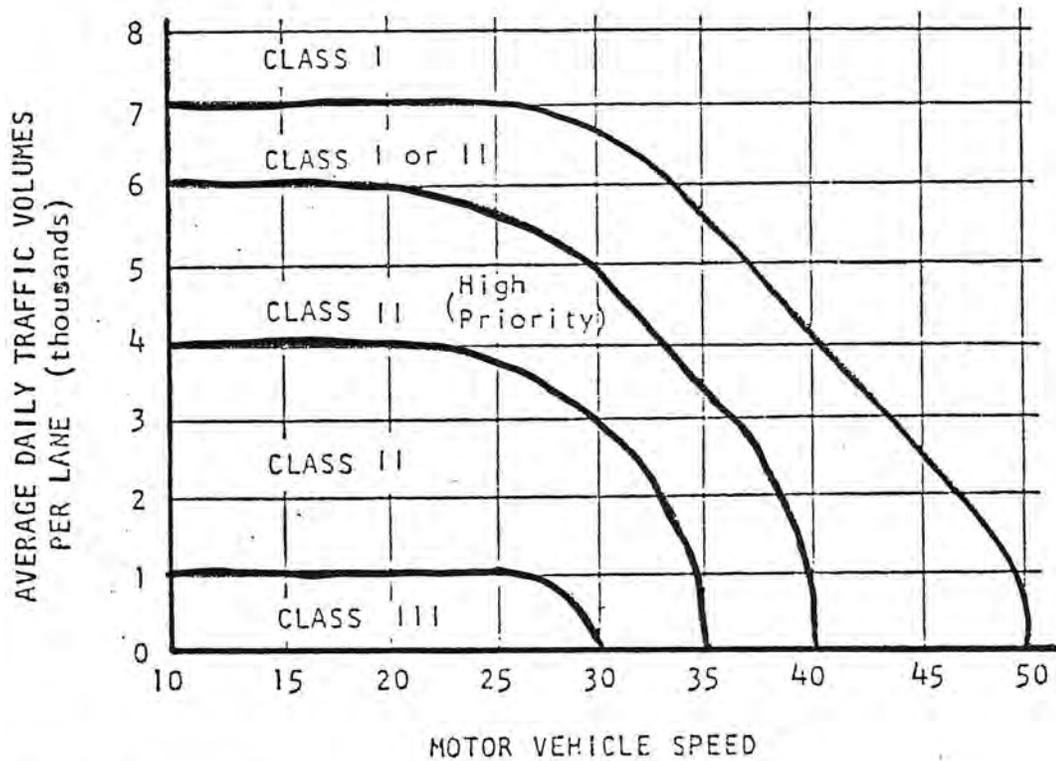
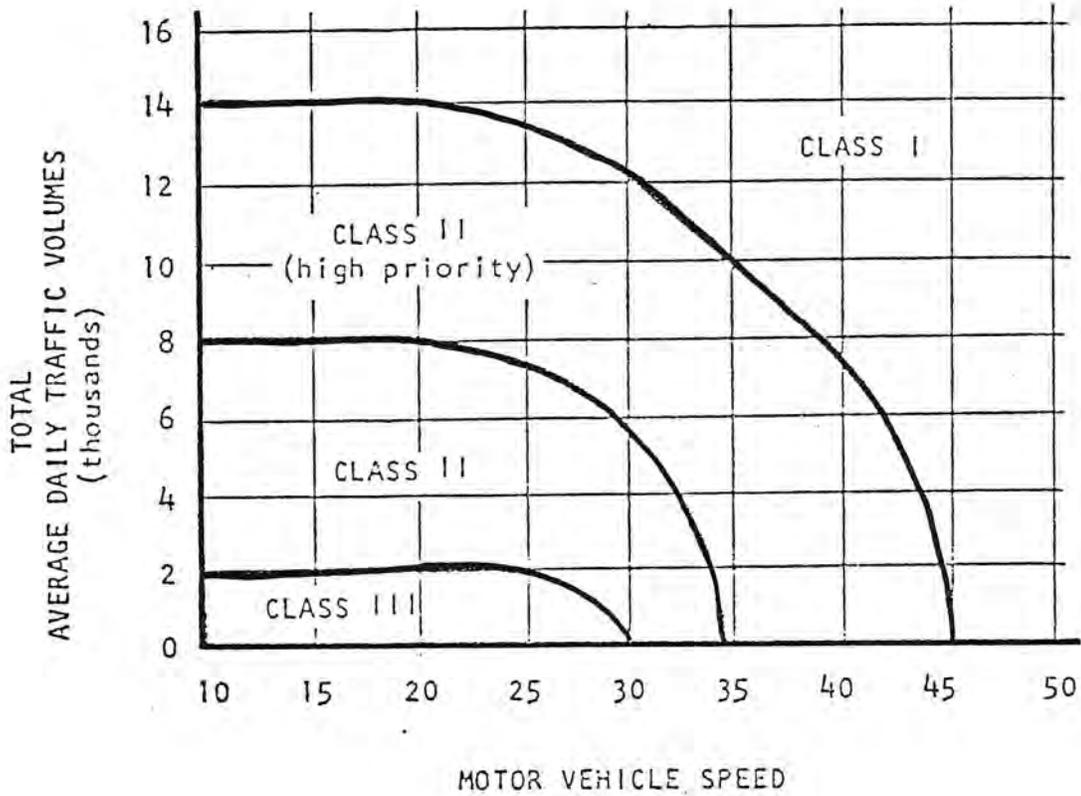
A x B x C x D x E x F = <2 Shared Roadway

= ≥2 Bicycle Way (Shoulder)

= ≥7 Bike Path

FIGURE 7

RELATIONSHIP OF MOTOR VEHICLE SPEED VOLUMES TO BICYCLE FACILITIES REQUIREMENTS



Source: Long Range Bikeway Program, Madison, Wisc.

The dangers of multiple-use of the same facility by motor vehicles and bicycles are numerous. The danger of a simple spill is multiplied when a bike is closely followed by swiftly moving vehicles. The speed differential between bikes and motor vehicles reduces the reaction/correction time available to avoid collisions and makes them more serious. Often, mutual antagonism develops between the motorist and the cyclist. This tends to decrease the caution that each observes toward the other. Motorists often do not recognize bikes as a legitimate form of transportation and enjoy the "sport" of forcing cyclists off the road or driving dangerously close. Some cyclists want to prove their rights to the road by becoming "road-hogs" and ignoring rules of the road. The battle between these adversaries creates a dangerous situation for those who do not share their attitudes.

In bicycle-motor vehicle accidents, the cyclist is characteristically regarded as being at-fault. Typical contributing factors to accidents include lack of skill in operating the bike, "goofing" around, negligence, not knowing rules of operation or disobeying them, and inadequate biking facilities.

The best indication of unsafe bicycling conditions are accidents. Basically, unsafe conditions between motor vehicles and bicycles are due to three elements: the riding habits of the cyclists; the driving habits of the motorist; and the design of the bikeway.

Bicycle accidents' studies at the national level have revealed that:

- 1) Based on the movements of the vehicles involved, the bicyclist and/or bicycle was probably responsible for the initiation of more than three-fourths of the collisions.

- 2) The age of the cyclist is strongly related to the probable responsibility for the collision. Through age 12, nine out of ten bicyclists were probably responsible for the collision; over age 12, probable responsibility decreased in proportion to age.
- 3) Males are the victims of about 90 percent of the bicyclists' fatalities due to bicycle-motor vehicle collisions.
- 4) Over 60 percent of the fatalities and 75 percent of the injuries were in the 5-14 age group.
- 5) Accidents occurring during hours of darkness on unlighted roads are more likely to result in fatalities.
- 6) Nonfatal accidents are more likely to occur in residential areas, while fatal accidents are more likely to occur in open country. Two significant conclusions can be drawn from these national findings:
  - a. The extremely high accident rate for male bicycle riders, age 5-14 years, stresses the need for bicycle safety education in elementary schools, especially for boys.
  - b. Bicycle safety education as a possible solution to the bicycle accident problem is given greater credence by the reported high incidence of bicycle driver errors.

On a State-wide basis, conclusions drawn from Wisconsin Department of Transportation data show that: (See Table 2 for State-wide bicycle-motor vehicle accident trends during 1974).

Table 2

STATE-WIDE TRENDS IN BICYCLE/MOTOR VEHICLE ACCIDENTS DURING 1974

1. 94% occurred on the roadway.
2. 67% occurred during clear weather.
3. 95% occurred on straight roadway.
4. 68% occurred on level roadway.
5. 88% occurred on dry pavement.
6. 84% occurred during daylight hours (severity increased with darkness).
7. 50% occurring at intersections had no traffic controls.
8. 97% occurred on non-interstate roads.
9. 71% on the urban highway system occurred on city streets in urban areas.
10. 80% in the urban area occurred on urban state/federal systems in population areas of 5,000-100,000.
11. 32% in rural areas occurred on state/federal roads.
12. Most fatal accidents occurred in the rural areas and most injury accidents in the urban areas.
13. 56% occurred at a non-intersection and involved one car.
14. 59% listed possible contributing circumstances as unknown.
15. 87% involved Wisconsin licensed motor vehicle drivers. (9% of licenses were from a foreign country.)
16. 16% involved motor vehicle drivers 26-34 years of age.
17. 31% of all bicyclist fatalities are males in the 10-14 age group. 26% of all injured were males in the same age group.
18. 13% occurred between the hours of 4-5 P.M.
19. 13 counties had total economic losses exceeding \$200,000.

Source: Wisconsin Division of Highway Safety. Wisconsin Pedestrian and Bicycle Safety Plan. 1976.

1. Most bicycle/motorcar collisions are not environmentally induced; it is a human error problem, since in most cases driving conditions were technically ideal.
2. Problems are different in rural areas than in urban areas with traffic speed being the major difference.
3. There is a need for better data collection, especially in accident reporting and bicycle registration.
4. The large number of injuries and high economic loss mandate a need for bicycle safety programs.

In Marathon County, the Sheriff's Office estimated that there were approximately 60 accidents in 1976, one of which resulted in a death. This number excludes accidents occurring in all incorporated municipalities before July 1, 1976, and accidents in Wausau for the entire year. Since bicycle-automobile accidents are filed with all traffic accidents in the County for the entire year, an analysis of the location and factors contributing to specific accidents is beyond the scope of this study. However, the Sheriff's Office reported that the residential areas in the Town of Rib Mountain were the main trouble spots in their jurisdiction. In Schofield, where three accidents were recorded in 1976, Grand Avenue, north of the Eau Claire River was singled out as the biggest problem area. In Weston, several accidents were reported near D. C. Everest High School.

The Wausau Police Department recorded 16 accidents in 1976. From 1973 through 1975, a similar number of bicycle accidents were recorded each year.

Police officials suggest that most accidents in the four-year-period involved children in the 11-14 year old age group, and most of these children were boys. In addition, the police indicated that neighborhood

streets and Grand Avenue were the scene of most accidents.

### Safety Programs

As previously shown, over 50 percent of all bicycle accidents involve children between the ages of 5 and 14 years of age, even though these riders represent only a small portion of the bicycling public. The main reason for this problem is that almost all children think of their bicycles as toys and only second as a means of transportation. By some method, the safe practices and rules of the road must be learned by children before they begin riding on the streets.

The following are basic rules of the road which every bicycle driver should know and obey. The bicycle driver is a part of traffic just the same as any motor vehicle, and has the responsibility of obeying all of the general traffic laws--except those which clearly do not apply.

The bicycle driver must:

1. Drive as close as practical to the edge of the pavement, in the same direction of flow as the traffic.
2. Stop for all stop signs or signals--every time--regardless of whether or not anyone is coming. Obey all traffic signals and regulatory signs. Also obey lawful orders or directions of traffic officers.
3. Stop prior to leaving an alley or driveway, yielding first to pedestrians on the sidewalk and then to vehicles on the street before entering the roadway.
4. Signal all turns and stops using proper signals. Signals should be given at least 100 feet before turning.
5. Sit astride the permanent, regular seat, carrying no more persons than the number for which the bicycle is designed and equipped to carry.

6. Never hitch rides on other vehicles.
7. Never carry any package or article which prevents keeping at least one hand on the handlebars. (It is best to use a basket or other carrier device.)
8. Ride single file.
9. Yield to pedestrians at crossings and on sidewalks.
10. Do not operate a bicycle upon a roadway where a sign is erected indicating that bicycle riding is prohibited.
11. Stop at the edge of the roadway when an emergency vehicle is passing or approaching.

Parents or guardians can be held responsible for allowing a child to disobey any of the bicycle regulations described above. In the City of Wausau, the police will issue a summons directing the young violator to appear at the Bicycle Review Board if the child is 15 years old or younger. This Review Board is composed of four junior and senior high school students who are appointed by the City Safety Officer. The parents of the child also receive a notice informing them that their child was issued a citation and must appear at the Review Board.

At the weekly session of the Review Board, the charges against the child are read and the reprimand determined. Generally, the children under 10 years of age are given a picture that must be colored, and older children are required to submit a written theme explaining safe bicycle riding practices. This program seems to work well, according to the Safety Officer for the Wausau Police Department. It has never been the practice of Wausau police to confiscate the bicycle of a young violator. However, in the case of a frequent offender, the police may request the child's parents to restrict the child from using the bicycle.

Approximately 100 children were stopped for various violations as of August 1, 1977. The three violations most frequently committed by children are: failure to obey a stop sign or light; failure to register a bicycle; and riding without lights after dark. Other high incidence violations were: riding more than one on a bike; riding on the sidewalk where not permitted; and going the wrong way on a one-way street. Of the youthful violators, 72 were boys and only 18 were girls. Most of the violations occurred in the 12-15 year age group as shown below:

<u>Age</u>	<u>Number Of Violations</u>
8	2
9	3
10	5
11	5
12	20
13	14
14	19
15	22

Wausau's Safety Officer points out that most police officers dislike stopping children who are in violation of traffic laws. However, since violation of traffic laws are the main cause of accidents, this facet of enforcement is very important especially when dealing with this accident-prone age group.

If the biker is 16 years old or over, a violation may be charged against his regular operator's license. However, no "points" are added to the rider's traffic record.

In Wausau, there were over 85 violations involving these older riders from the beginning of 1977 to August 1st. Over half of the violations were for driving without lights and one-fourth were for an

arterial violation--either disobeying a stop sign or traffic signal. Another 12 cyclists were cited for not registering their bicycle. Other violations included: riding the wrong way on a one-way street; riding double; and riding without hands on handlebars.

State-wide, the five most common violations in 1975 were:

1. Driving at night without lights;
2. Stop sign and signal light violations;
3. Driving on the wrong side of the road;
4. Riding double; and
5. Failure to yield right of way.

The violations correspond closely with those experienced in Wausau.

There is far more to driver safety than having law enforcement officers stopping violators. The best safety effort is a comprehensive education program which reaches every cyclist and impresses upon him/her the importance of following the rules of the road.

In the City of Wausau, bicycle safety education is a coordinated effort between the Wausau Police Department and the Wausau School District. The School District has a safety coordinator and a safety committee. The committee consists of one teacher from each school, several parents, and a representative from both the Wausau Police and Fire Departments. Both bodies oversee all forms of safety education including: bus, water, pedestrian, and bicycle.

The Wausau Police Department has a Safety Officer responsible for all facets of safety. His duties concerning bicycling include: safety programs, bike registration, designing the City bike routes, and overseeing the administration of riding violators. The County Sheriff's Department also has a Safety Officer with similar duties.

In the Spring of each year, the Safety Officers visit each of the elementary schools in the Wausau School District, to teach bicycle safety to the young cyclists, (Grades K through 5). The filmstrip, "I'm no Fool with a Bicycle", by Walt Disney, is shown to all the children.

Bike safety is taught to all 4th and 5th Graders in the school system as part of the general curriculum. This training includes use of a teacher's guide and a colorful student booklet, entitled, "Wisconsin Bicycle Drivers Handbook", published and distributed by the Wisconsin Department of Public Instruction. The teacher in charge of the program at each school generally uses a number of filmstrips as visual aids in the safety education program.

A program aimed at children in the 9-11 year old age group is extremely important since they are approaching the age group which is responsible for a majority of bicycle driving violations and bike/car accidents.

Children in Middle School are required, as part of their physical education class, to receive more comprehensive information on bike riding. They see filmstrips describing bicycling history, safety, maintenance, and theft prevention. Two films, "Ride on By" and "Bicycling on the Safe Side" are shown to the students. Some parts of these films are considered gory, but they help to emphasize the importance of safe driving and the consequences of negligence.

Finally, in high school, bike safety education is now a state required part of the high school driver's education program. This is extremely important since motor vehicles are involved in the most serious bicycle accidents. The driver's education program helps raise motorist's awareness of the bicyclist's rights. In addition to the driver's education class, bicycle construction and maintenance is

taught in certain industrial art classes.

The D.C. Everest School District also has an extensive bike safety program; however, the timing of the safety units is different than those in Wausau. In addition, local police address youths at different grade levels concerning bicycle safety each Fall and Spring.

### Bicycle Registration

Bicycle registration in Marathon County varies greatly from one municipality to the next. State Statutes do not allow County-wide registration; however, the Cities of Wausau and Schofield, Villages of Athens and Rothschild, and Towns of Weston and Rib Mountain pursue licensing programs.

By far, Wausau has the most active program involving numerous registration "clinics" throughout the City during the opening months of the licensing period. Since Wausau has such a comprehensive registration system, an examination of their records provides a good indication of the trend in bicycle ownership and registration. As indicated on Figure 8, bike registration has increased fairly steadily over the years. In fact, the registration growth rate is far above the population growth rate for the 22-year period. The number of bikes registered today is 4 times larger than it was in 1953, while during the same period, population increased by only 7.4 percent.

At present, bicycle registration is used mainly to identify bikes when stolen. Some people question the value of this practice, but it does make an extremely significant difference in the bicycle recovery rate.

A good example of the effectiveness of instituting a registration program was shown in the City of Vancouver, British Columbia in Canada. From 1964 to 1970, the recovery rate of stolen bicycles stood at approximately

14 percent annually. After the establishment of a bicycle registration program in September, 1971, approximately 33,000 bicycle license applications were received in the first four months. During the same four-month-period, recovery of stolen bikes showed a steady increase from 11.5 percent in September, to 51 percent in October, to 71.4 percent and finally to 74.1 percent by the end of December. This increase in the police's ability to recover bicycles was due almost entirely to the licensing system.

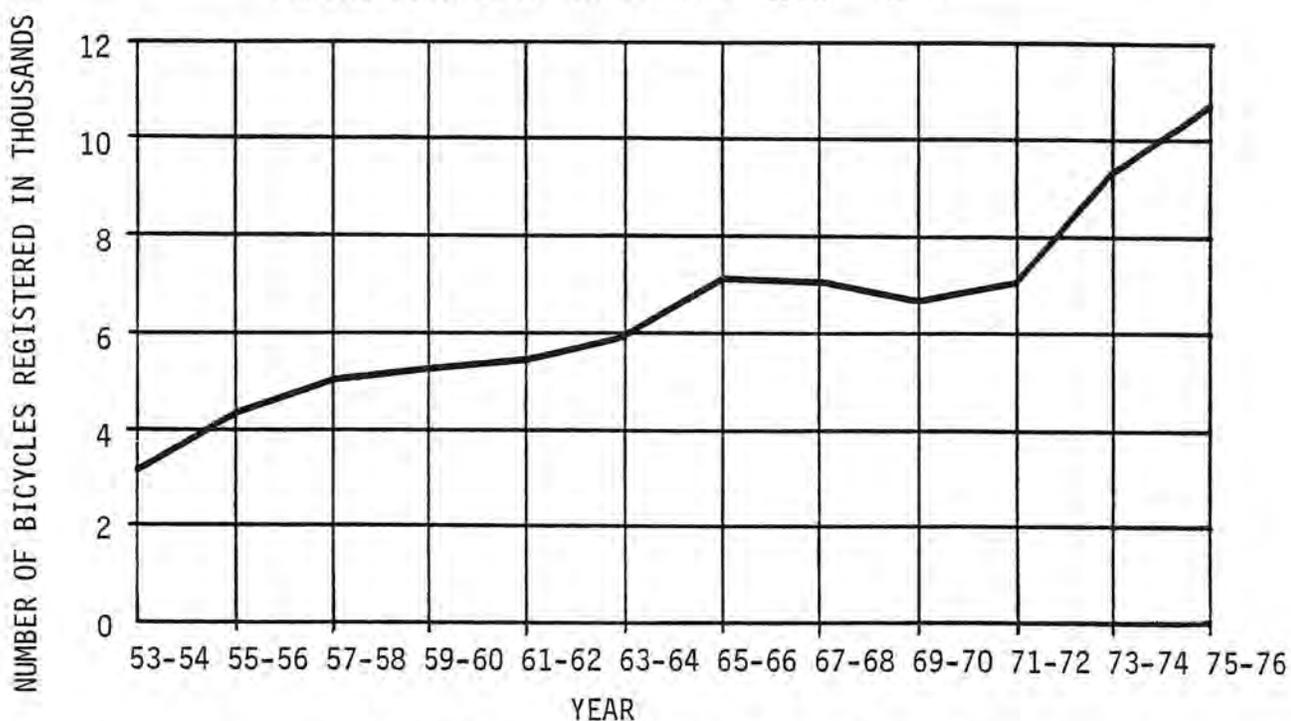
In Wausau, there were a total of 55 bikes stolen during the first eight months of 1977. Police indicated that 45 of these bikes were returned to their owner--a recovery rate of over 81 percent. The registration system used by Wausau was the most important factor contributing to this impressive recovery rate.

Table 3 shows that the estimated number of bikes for each unit of government and the number of bikes registered are quite dissimilar.

Most municipalities in Marathon County charge about fifty cents per year for registration. In the City of Wausau, these fees go to the general City Revenue Account with a small amount used to defray the cost of making the licenses. During 1975-1976, Wausau collected \$10,536 from license fees with \$1,512.36 being expended for printing the plates. This left \$9,023.64 to be added to the General Revenue Account.

Figure 8

WAUSAU BICYCLE REGISTRATION: 1953 - 1976



Source: Wausau Police Department; Marathon County Planning Commission

Table 3

BICYCLE REGISTRATIONS IN MARATHON COUNTY

Municipality	Registration Years	No. of Bicycles Registered	Est. Bike Pop. 1975*	% of Bikes Registered
Wausau	1975-1976	10,536	17,074	61.7%
Rothschild	1976-1977	715**	1,783	40.1%
Schofield	1975-1976	440	1,687	26.1%
Athens	1975-1976	163	457	35.7%
Weston	1975-1976	845	4,318	19.6%
Rib Mountain	1978-1980	1,600***	2,743	72.9%
Marshfield (Wood County)	1976	3,866	8,764	44.1%
COUNTY TOTAL:		14,299		

\*1975 population times the ownership rate of 51.9%

\*\*To June 6, 1977.

\*\*\*To June 30, 1978.

Source: Marathon County Planning Commission.

## Bikeway Design Characteristics

The actual design of bikeways in the United States is in its infant stages. Cities are experimenting with variations in bikeway width, markings, signs, and means of route relocation. Special needs and problems exist which distinguish bicycle operation from other modes of transportation. Design is affected by problems of rider balance and control associated with stopping, route surface material, and speed. The bicycle provides little physical protection for the user from impacts with other objects; therefore, wherever feasible, an attempt should be made to avoid mixing bicycle and vehicular traffic.

The specific structural and geometric details that must be addressed in the physical design of a bikeway include: width, speed, radius of curvature, drainage, grades, surface material, delineators, and signing. (See Table 4 for summary of bike path design criteria.) When combined, these factors describe the physical configuration of the bikeway:

WIDTH: The average width dimension of the adult bicycle is approximately two feet. An additional three-fourths foot of maneuvering room on each side of the bicycle is required for comfortable riding. Thus, the basic minimum horizontal space requirement for the bicyclist is approximately three and one-half feet. When vertical obstructions (curbs, drainage ditches, street furniture, or any maneuverable obstacle one and one-half feet above or below grade) are located adjacent to the bikeway, it is assumed that a minimum clearance of three-fourths foot is required. The total minimum cleared space allotted for a one-way bikeway, therefore, is approximately five feet. A two-way facility must incorporate sufficient room to provide safe separation when passing. Tests have shown that two and one-half feet is acceptable for this maneuver. Thus, the minimum paved width of a two-way bikeway is six and one-half feet (two 2' bicycles plus two and a half feet for passing). Minimum width

between obstructions for the two-way facility is approximately eight feet.

Where the bicyclist is subjected to "dynamic obstructions" (i.e. opening of doors in adjacent parking lanes) an additional clearance must be provided to allow a safe maneuvering movement. Similarly, the proximity of the bikeway to traffic lanes involving heavy volumes or high speeds will require additional clearance if barriers are not provided and if the traffic lane is not wide enough to provide the necessary special separation.

In the case of joint use of the sidewalk by the bicyclist and the pedestrian, it is desirable to extend the sidewalk width an additional two to four feet, depending on pedestrian volume. The total effective width of the facility would range from seven to nine feet.

SPEED: The speed that a bicyclist travels is dependent on a number of factors including: the bicycle equipment, gearing, slope, surface conditions, wind, air resistance, and the power of the bicyclist. Most bikers travel at a fairly slow rate of speed; however, this might increase radically when going downhill. Curves in conjunction with downhill bicycle operation should be adjusted to anticipate the speeds that may be attained.

The average bicyclist can easily sustain a speed of ten miles per hour. Measurements of bicycle velocity in Davis, California showed a range of seven to fifteen miles per hour. In urban areas where many traffic stops are encountered, average speeds are usually slower. In rural areas where the cyclist is out for long distance touring, speeds in excess of fifteen miles per hour are not uncommon.

CURVATURE: The minimum radius of curvature must be consistent with the design speed of the bicycle facility. It should be noted that bike lanes usually follow the roadway alignment, and, as such, will generally have curvature as dictated by the highway system. Since these curves were designed to accommodate the motor vehicle, they will be more than adequate for bicyclists. Curves with a radius of 100 feet or less should be

Table 4

SUMMARY OF BIKE PATH DESIGN CRITERIA

Design Element	Summary																								
1. Speed	Speeds vary from 7-15 mph; use 15 mph for design; average speed is between 10-11 mph																								
2. Bike Path Clearances	Horizontal clearance -- min. = 2 ft. wider on each side of the path itself  Vertical clearance -- min. = 8.2 ft. desirable = 10 ft. above the grade of the bike route																								
3. Surface Width	For one-way traffic: minimum -- 3.5' desirable -- 4.0'  For two-way traffic: minimum -- 6.0 ft. on a 10 ft. grade desirable -- 8.0 ft.																								
4. Grade	Maximum for very short runs -- 10% Maximum desirable -- 5% for short grades 2% for long grades																								
5. Curvature	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">Design Speed (mph)</th> <th style="text-align: center;">Design Radius (feet)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">10</td> <td style="text-align: center;">15</td> </tr> <tr> <td style="text-align: center;">15</td> <td style="text-align: center;">35</td> </tr> </tbody> </table>	Design Speed (mph)	Design Radius (feet)	10	15	15	35																		
Design Speed (mph)	Design Radius (feet)																								
10	15																								
15	35																								
6. Drainage	Bike Path: 1/4-3/8 inch per foot lateral slope should be used along the bikeway surface																								
7. Stopping Sight Distances	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th rowspan="2" style="text-align: left;">Design Speed</th> <th colspan="4" style="text-align: center;">Stopping Sight Distances for Downhill Gradients of</th> </tr> <tr> <th style="text-align: center;">0%</th> <th style="text-align: center;">5%</th> <th style="text-align: center;">10%</th> <th style="text-align: center;">15%</th> </tr> <tr> <th style="text-align: left;">mph</th> <th style="text-align: center;">feet</th> <th style="text-align: center;">feet</th> <th style="text-align: center;">feet</th> <th style="text-align: center;">feet</th> </tr> </thead> <tbody> <tr> <td style="text-align: left;">10</td> <td style="text-align: center;">50</td> <td style="text-align: center;">50</td> <td style="text-align: center;">60</td> <td style="text-align: center;">70</td> </tr> <tr> <td style="text-align: left;">15</td> <td style="text-align: center;">85</td> <td style="text-align: center;">90</td> <td style="text-align: center;">100</td> <td style="text-align: center;">130</td> </tr> </tbody> </table>	Design Speed	Stopping Sight Distances for Downhill Gradients of				0%	5%	10%	15%	mph	feet	feet	feet	feet	10	50	50	60	70	15	85	90	100	130
Design Speed	Stopping Sight Distances for Downhill Gradients of																								
	0%	5%	10%	15%																					
mph	feet	feet	feet	feet																					
10	50	50	60	70																					
15	85	90	100	130																					
8. Bridges	Exclusively designed to carry a bike path over a natural barrier or across a roadway: Desired minimum width -- 8 ft. Design and cost estimates are based on a uniform load of 60 lbs. per sq. ft., with a concentrated load of 10,000 lbs.																								

Source: Wisconsin Department of Transportation. Guidelines for Developing Rural Bike Routes. 1975.

widened on two-way bike paths to compensate for lean and provide increased sight distance.

DRAINAGE: For the bikeway that is located on existing street facilities, the drainage provided for that street should serve the needs of the cyclist. Exposed and recessed sewer grates, however, do present a unique hazard which warrants serious attention. Since the openings of some grates can easily entrap the wheels of bicycles, it is important that alternative designs for the grating be considered and installed where possible. When streets are covered with a new layer of asphalt, sewer grates should be raised to the new street level to avoid excessive drops which might cause cyclists to lose control of their bicycles. In the event that such alternatives are not feasible, the hazard should be emphasized by markings on the roadway or with street signing.

On bicycle paths, proper drainage is important for three reasons: first, standing water may cause damage to the path, especially if the path is constructed of gravel or some other non-stabilized material. Second, since most of today's bicycles have no fenders, passing through puddles can leave the cyclist quite wet. Finally, wet wheel rims severely reduce the effectiveness of caliper-type (hand) brakes.

GRADE: When designing bike route systems in Marathon County, the hills of our area become an important factor. While some bikers desire the challenge of a few good hills, most people prefer little or no slope in their bike routes. It should be kept in mind that if the grade and alignment of a bike path is less favorable than that of a nearby roadway, many cyclists will use the adjacent road rather than the bike path. (See Appendix for a generalized topography map of Marathon County.)

Hills also represent a serious problem from the standpoint of safety. Often, the cyclist ascending a hill in the rural areas is doing so at a

slow rate of speed. A motorist approaching the cyclist from the rear must pass the cyclist by crossing the "solid yellow" no-passing line. If another vehicle is approaching this passing motorist, a serious accident could result. Probably the best means of mitigating this problem is by constructing asphalt shoulders for cyclists' use on ascending grades. Another less expensive means would be through the placement of signs warning the motorist of the cyclist's presence.

In investigating a proposed route or designating a new facility, the following criteria should be considered as a working guide for evaluating ascending grade conditions: 0% to 3% desirable, 3% to 5% maximum, 5% to 10% maximum acceptable for very short grades.

SURFACE MATERIAL: Where the bikeway is to be used jointly with automobiles, the surface material should be asphalt or concrete with a minimum of bumps, chuck holes, and scattered gravel. Gravel roads can be used as part of the bike route system; however, such roads should be fairly wide and have very low traffic volumes, thus allowing the cyclist to ride on the smoothest portion of the roadway.

Throughout most of Wisconsin, crushed limestone rock has become widely accepted as a quality bike path material. Unfortunately, Marathon County has no such deposits and a substitute bike path construction material must be used.

The most inexpensive material is rotten granite, which costs approximately 65¢ per cubic yard; however, a shrinkage or compaction of 50% can be expected. Unfortunately, granite is a relatively poor riding surface for bicycles because the top material remains uneven and loose, even after considerable packing by traffic. This loose material creates a "slippery" surface for bicycles with narrow tires. The hazard and likelihood of losing control are greatest on descending grades where speeds are high and at the edges of the roadway or path, where loose material builds up.

Another inexpensive material is gravel, which, like rotten granite, is readily available in the County. The cost is nearly twice that of rotten granite (\$1.10 per cubic yard) but the shrinkage is only about 25 percent. There is still the problem of a rough and uneven surface; however, the problem of loose surface material is reduced.

By far, the best surface material for biking is asphalt. The two lowest priced blacktop materials are cold mix--costing \$9.00 per cubic yard--and hot mix--at \$14.50 per cubic yard. These prices are much greater than either of the gravel-types, but the high quality surface provided by blacktop may be desired regardless of cost. This alternative is the optimum solution for short routes which must handle a large volume of bike traffic, or, where the cyclist is exposed to a large volume of motor vehicle traffic or hazardous roadway conditions.

The prices given above are estimates from the County Highway Department for July, 1977. It must be noted that the prices quoted DO NOT include preparation of the trails for surfacing or the cost of hauling and placement of the surface material. These costs are extremely variable depending on the soil, slope, access to site, and other factors. The actual cost would have to be calculated for each segment of a particular path or route. The State Department of Transportation estimates that one mile of two, eight-foot wide asphalt road shoulders, two inches thick, would cost approximately \$15,700 (1974 estimate). Table 5 provides additional information on the costs and potentials of various bikeway construction materials.

Irregardless of the surface material used, careful consideration should be given to edging material and its installation to assure safe operation. There should be no abrupt and/or protruding edges or grade changes which might disrupt the balance of the cyclist. In the case of taper treatment, the degree of taper should be 30 to 45 degrees with a rolled edge.

DELINEATORS: In the interest of safety and operating efficiency, it is necessary that the bikeway be clearly delineated as such. It is of particular importance where the facility shares space with other modes of transportation. Delineation of the bikeway can be effected by the use of a barrier or signing or, in some cases, by signing alone.

Where a portion of the bikeway is to be used by both bicycle and motor vehicle (a bikeway with adjacent curb parking), a symbolic barrier (stripping, pavement coloring or traffic buttons) may be used to indicate the special usage of the bikeway and yet allow passage of the motor vehicle through the area. A physical barrier provides a positive means of delineating the bikeway right-of-way and controlling encroachment by the motor vehicle. This type of a barrier is required where the bicyclist has the right to exclusive use of certain portions of the street. Physical barriers may be in the form of curbs, landscaped strips or even the parked motor vehicle, where the bikeway is located between the parking lane and sidewalk. Breaks in the physical barrier are required where access to abutting property is established, such as that afforded to driveways.

The type of barriers to be installed must be evaluated on the basis of its impact on safety requirements, access to abutting properties, drainage, maintenance and cost, as well as other factors indicated by the particular location.

Uniform color and size of lane strips have not been established by the State of Wisconsin; however, an eight inch wide solid white line seems to be the most acceptable. In some communities, green strips are used to distinguish them from other road markings.

SIGNING: Adequate signing of the bikeway is required to insure that the bicyclist and motorist easily recognize the facility and the traffic regulations related to it. Basically, there are three types of signs needed on bicycle facilities:

Table 5

COST AND POTENTIAL OF VARIOUS BIKE PATH MATERIALS

MATERIAL	COST/MILE* 6' wide - 8' wide	MAINTENANCE COST TREAD-UPKEEP	ADVANTAGES	DISADVANTAGES
Portland Cement Concrete (4" concrete on 4" base course)	\$19,700 - \$26,300 (Includes cost of base course)	Low - Moderate	<ol style="list-style-type: none"> <li>1) Long service life</li> <li>2) Supports heavy loads if reinforced</li> <li>3) All weather surface</li> </ol>	<ol style="list-style-type: none"> <li>1) High construction cost</li> <li>2) Difficult and costly to maintain</li> </ol>
Bituminous Concrete (2" concrete on 4" base course)	\$10,500 - \$14,100 (Includes cost of base course)	Low	<ol style="list-style-type: none"> <li>1) Long service life</li> <li>2) Easy to maintain</li> <li>3) All weather service</li> <li>4) Smooth riding surface</li> </ol>	<ol style="list-style-type: none"> <li>1) Moderately high construction cost</li> <li>2) Requires skilled technicians for good quality</li> </ol>
Compacted Aggregate (4" deep)	\$2,100 - \$2,800	Moderate - High	<ol style="list-style-type: none"> <li>1) Easy to maintain</li> <li>2) Low cost</li> </ol>	<ol style="list-style-type: none"> <li>1) Short life expectancy</li> <li>2) Not an all weather surface</li> <li>3) Poor riding quality</li> </ol>
Soil-Aggregate Mixture (4" deep)	\$2,800 - \$3,700	High	<ol style="list-style-type: none"> <li>1) Low cost</li> <li>2) Easy to maintain</li> </ol>	<ol style="list-style-type: none"> <li>1) Not an all weather surface</li> <li>2) Cannot support heavy load</li> <li>3) Poor riding quality</li> </ol>
Soil Cement (4" deep)	\$6,200 - \$8,300	Moderate	<ol style="list-style-type: none"> <li>1) Smooth riding surface</li> <li>2) Easy to maintain</li> </ol>	<ol style="list-style-type: none"> <li>1) Susceptible to erosion</li> <li>2) Erodes easily under traffic</li> </ol>
Limestone Screenings (3" deep-in place)	\$1,175 - \$2,286	Moderate	<ol style="list-style-type: none"> <li>1) Relatively maintenance free-when less than 4% grade</li> <li>2) Low cost</li> </ol>	<ol style="list-style-type: none"> <li>1) Becomes soft when frost first begins to leave the ground each spring</li> <li>2) Dusty when dry</li> </ol>

\*1974 Dollars

Source: Wisconsin Department of Transportation. Guidelines for Developing Rural Bike Routes. 1975.

1. Identification and reassurance markers which identify the facility, help the user to distinguish it from other routes, and reassure the user that he is still on the right route.
2. Warning markers which identify hazards along the route such as "bumps", "dangerous intersection", "stop ahead", and many others.
3. Regulatory markers which provide control over the use of the facility such as "stop", "yield", "no bicycles", "bicycles must use sideway", and many others.

The standard BIKE ROUTE sign displays a white message on green background. (See Figure 9.) The most important aspect of the signing is to alert the motorist to the existence of bicycle traffic. Adequate signing should be displayed at all decision points along a bike route. This includes both signs informing the cyclist of directional changes and reassurance signs to ensure that route change has been correctly perceived (See Figure 9). Such signing is especially important on bike routes that do not "loop", since the cyclist who misses a turn is not likely to soon encounter another segment of the bike route network. Another area where signing continuity is essential is along segments of a bike route system designed to lead a cyclist around hazardous or impassable points on the roadway.

Additional route signing should be provided at regular intervals to inform newcomers to the route (both bicyclists and motorists) of the presence of the route and the likelihood of encountering bicyclists. Such signing has the added value of confirming decision point signing for persons already on the route.

Warning signs for bicyclists and motorists should be installed on the approaches to points of potential conflict and at high activity areas including: places where a bike route crosses a busy roadway; at

intensive activity areas such as schools, parks, swimming pools; and where cyclists must walk their bikes across a roadway to utilize a walkway such as a bridge.

A sign which alerts motorists to the bicycle crossing is shown in Figure 9. Such signs should be placed well in advance of the conflict point to permit appropriate perception and reaction. Bicyclists' warning signs may be required to alert cyclists of specific hazardous conditions. Most of these signs (see Figure 10) are standard highway warning signs or adaptations of them. Where the bike route is located in a highway corridor, special bicycle warning signs should not be employed if they duplicate existing highway signs.

The U. S. Department of Transportation prescribes that the lower edge of signs placed along rural roadways should be mounted at least five feet above the road surface. These specifications reflect driver field of vision characteristics. However, because of the cyclist's head inclination, his field of vision is focused lower than the operator of a motor vehicle. Therefore, signing along bicycle routes should be mounted at slightly lower heights than those for motor vehicles. Warning signs which are directed specifically at the cyclist should be positioned 50 to 60 feet in advance of the condition so as to provide sufficient perception and reaction time.

As a supplement to posted signs, pavement stencils provide an important means of conveying messages to the bicyclist and motorist. At intersections, directional arrows are now commonly used to designate motor vehicle turning movements. Channelization of the bikeway can also be effected by using a bikeway stencil marking at intersections and along the route itself. A change in pavement marking paint would further delineate bicycle territory.

The location of posted signs and/or pavement stencils is directly related to the vehicle approach speed and the

# FIGURE 9

## MOTOR VEHICLE DIRECTED SIGN



Black on Yellow Background  
(30''x30''; 24''x18'')

## BIKE ROUTE DESIGNATION SIGNS (White on Green Background)



Standard Route Sign  
(24''x18'')



### Message Plates

To be mounted above the official marker to designate the beginning and ending of the bike route, and to trailblaze to the bike route (24''x6'')

### Directional Plates

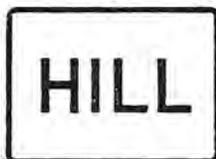
To be mounted below the official marker to guide bicyclists along the bike route and to trailblaze to the bike route. (24''x6'')

FIGURE 10

BICYCLIST DIRECTED WARNING SIGNS FOR BIKE PATHS

(Black on Yellow Background 18"x18")

(Message Plates 12"x 9")



Source: D.O.T. Guidelines For Developing Rural Bike Routes. 1975

physical nature of the facility. The final location of the signs for any bikeway route can only be determined after a detailed evaluation of the route's particular needs.

Detailed information on bikeway signing and pavement delineation will be contained in the Federal Manual on Uniform Traffic Control Devices, which should be available in late 1978.

LIGHTING: Where the bikeway is to be an integral part of the existing street system, the illumination provided for the street will, in most cases, be adequate for the bicyclist. If the bikeway is anticipated to be popular for night use, a survey of dark spots--where safety hazards may exist--should be conducted and additional lighting or surface markings provided.

When considering the lighting needs of a bike path, many variables must be evaluated before a final determination can be made. Such things as abutting land use, accident rate, vehicular speed, turning movements and fixed obstacles may require special lighting treatment. The lighting furniture, illuminaires and standards, should be designed to fit harmoniously with the bikeway site. Since all of these facilities can vary according to location, each bike path should be studied on an individual basis as to its requirements for adequate and attractive lighting.

REST AREAS AND OVERLOOKS: Rest areas should be provided along route facilities at 20-to-25-mile intervals in rural areas. Rest areas may include campsites, trash facilities, restroom, trail shelters, water fountains, and bike route information map dispensers. Rest areas may be located near scenic, historic or recreational points of interest. Small rest stops for bike routes may be included at 5-to-10-mile intervals along the highway right-of-way. These provide no more than a bench and a small shelter so the bicyclist can get out of the rain or away from the sun. Overlooks, waysides, and points of interest can provide these small rest stops for bicyclists.

AUTOMOBILE PARKING AREAS: Along rural highways, areas for automobile parking should be provided so bicyclists can bring their bicycles by recreation vehicle or car and leave their vehicle at a designated facility while enjoying bicycling on the bikeway. The parking facilities could be at a park, wayside, or other public land, or along a wide and low traffic volume road. When parking facilities are provided, their designation should be indicated on a bikeway map.

## GOALS, OBJECTIVES, AND POLICIES

### Introduction

Goals, objectives, and policies were established by the Bicycle Study Task Force to provide a framework for the development and improvement of the County's bikeways.

Goals are usually expressed in general terms and deal with subjective values. They represent the major direction of efforts intended to solve identified problems. A goal will seldom be entirely attained; however, the general situation should be improved through the accomplishment of objectives and the adherence to prescribed policies.

Objectives are the various programs, projects and activities undertaken toward achievement of a particular goal. Such objectives are the precise specifications of the plan and can generally be measured in quantitative terms. Accomplishing a particular objective contributes to the achievement of the goal.

Policies are guidelines to be followed to reach goals and objectives. Effective policies aid in evaluating means of dealing with new problems as well as carrying out the day-to-day administration of existing programs.

### GOAL 1. IMPROVE BICYCLE SAFETY IN MARATHON COUNTY.

#### OBJECTIVES:

- A. Post an adequate number of bike route signs so motorists will be aware that they may encounter bicyclists as part of the traffic.
- B. Investigate and institute measures to improve bicycle safety on:
  1. Grand Avenue from the Eau Claire Flowage north to Forest Street.

2. Rib Mountain Drive (CTH "N") from Snake Bridge to USH "51".
  3. The approaches and span length of Bridge Street Bridge and George Stevens Bridge.
  4. Other portions of the urban and rural bike routes where safety is a problem because of visibility, high speeds, high traffic volume, or poor roadway design or maintenance.
- C. Investigate the need for and feasibility of a County or State bicycle registration program.
  - D. Increase bike education programs for children in the schools, possibly culminating in the issuance of a bike rider's permit which would be necessary before a bike is licensed.
  - E. Clean all sidewalks designated for bike use at regular intervals.

#### POLICIES:

- A. Safety must be the primary consideration in the determination of bicycle route location, design, and route improvement priorities.
- B. Increase motorists' awareness of bicycles as a legitimate road user with equal rights through public speaking engagements, and radio and television announcements.
- C. Increase enforcement of traffic laws relating to bicycles.
- D. Encourage the provision of bike lanes on major new roads where feasible.
- E. Designate routes so as to avoid major hills and hilly areas wherever possible.
- F. Establish bike routes to minimize stop signs, cross traffic, and mixing with other modes of traffic.

- G. Install curb cuts at all corners on streets where bikers are restricted to the sidewalks, i.e. Grand Avenue, Stewart Avenue, bridges.
- H. Construct bike lanes on existing County Trunk bike routes when the County Trunk is widened and resurfaced.

GOAL 2: PROVIDE FOR AN EFFICIENT AND CONVENIENT RELATIONSHIP WITH OTHER FORMS OF TRANSPORTATION.

POLICIES:

- A. Encourage diversity and balance in the transportation system to ensure maximum effectiveness for all residents of the County. Consideration should be given to the capabilities and preferences of all population subgroups.
- B. Provide direct, continuous and accessible transportation routes for bicycles to schools, shopping, swimming and major recreation areas, and places of employment.
- C. Provide bike parking facilities where needed.

GOAL 3: DEVELOP BICYCLING AS A MAJOR RECREATION RESOURCE.

OBJECTIVES:

- A. Encourage municipalities to divert bike registration monies into a fund for bikeway improvements.
- B. Publish and distribute a map identifying and describing bike routes, points of interest, and rest areas.
- C. Coordinate bikeway development with other regional trail systems, such as scenic roads, rustic roads, and snowmobile trails.

POLICIES:

- A. Provide bikeways with scenic and natural views.
- B. Provide bikeway access to major recreation facilities, historic sites, and scenic areas.
- C. Promote the bicycling resources of the County to attract tourists.
- D. Create bike route "loops" for recreational biking.
- E. Coordinate the establishment of bike routes with existing and planned State, regional, County and local recreation facilities.

## RURAL BIKE ROUTES

### Development

In early 1972, the Wausau Wheelers Bike Club requested that the Marathon County Highway Safety Committee designate bike routes within the County. The Safety Committee formed a sub-committee to work with the Wausau Wheelers to examine possible bike routes. By mid-1972, 77 miles of bike routes were delineated, and in September, the entire Highway Safety Committee met to approve the routes.

Before signs could be erected to designate the routes, approval was necessary from each of the Towns through which a segment of the bike route traveled. By mid-1973, \$374.55 was spent to purchase 90 bike route signs and about 20 directional signs. In addition, since bike route signs cannot share a post with any other highway sign, 75 posts were purchased at a cost of \$150.

In 1974, the signs were erected by the County Highway Department, and the routes became official; the process taking nearly two years from inception to completion. (See Map 1.)

### Summary of Existing Routes

The 77 miles of roads in the County which comprise the rural bike route system were driven by car to examine them from the standpoint of convenience and safety. From this windshield survey, six generalizations concerning the route can be made:

1. Almost the entire route system is characterized by roadways shared with motor vehicle traffic. The single exception is the McCleary (Snake) Bridge in Rib Mountain, which offers a separated path from the road. The use of shared roadways is fine as long as there is a good shoulder, low traffic volume, and a high visibility of cyclists. When taking all of these factors into consideration, over three-fourths of the route miles can be classified as being in good condition.

2. There are numerous hills throughout the County and some of them represent major obstacles to bike riders. While it would be desirable to eliminate some of these hills from the bike route system, feasible route alternatives that would avoid them do not exist.
3. For the most part, the present routes are quite aesthetic with only a few short segments passing some objectionable industrial sites.
4. There is a deficiency of bike route direction signs along the routes. The signs were either stolen or never put in place. Whatever the cause, signs should be erected at all turns in the bike route system. There should be one sign indicating that a turn should be made, and another sign assuring the rider that the correct course has been taken.
5. Nearly all of the routes are too narrow to establish a bike lane on the side of the existing pavement. All the roads are just wide enough to accommodate two lanes of motor vehicle traffic.
6. Of the two loop routes in the County, nearly five miles are unpaved and the other seventy-two miles are covered with some type of bituminous surface. The unpaved portions are surfaced with rotten granite.

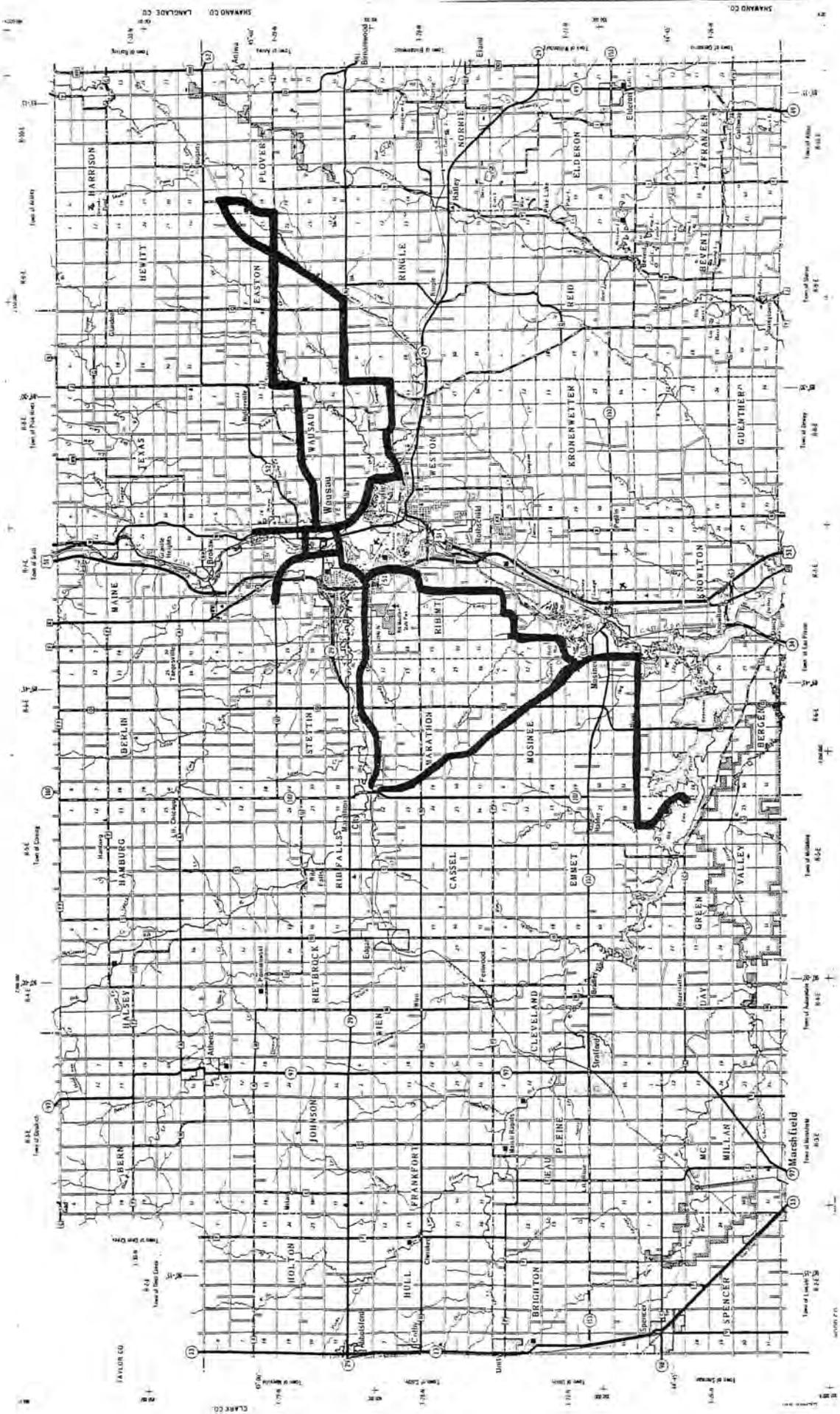
Following is a detailed analysis of the two rural bike route loops in the County: one east of the Wisconsin River and the other west. Subsequent to each analysis is a set of recommendations for improving and expanding the existing routes.

### Eastern Loop

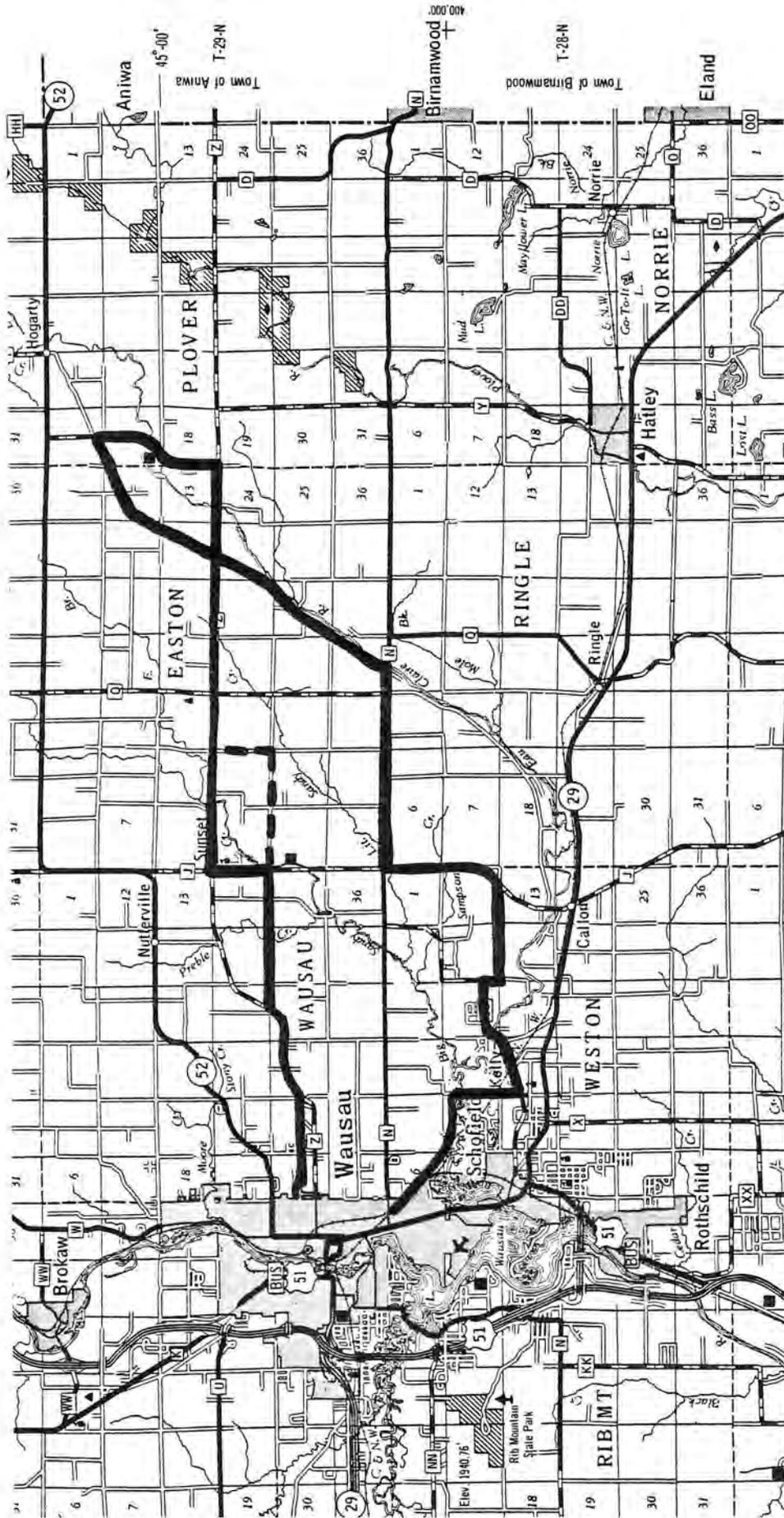
As indicated on Map 2, the eastern route begins on Stark Street after leaving the Wausau City Limits, near 16th Street. The route change at 16th Street is indicated by a sign and

Map 1

DESIGNATED CITY-COUNTY BIKE ROUTES  
Approved By Highway Safety Committee: 9-14-72



EASTERN BIKE ROUTE LOOP



- BIKE ROUTE
- - - PROPOSED ROUTE ALTERNATIVES

Source: Marathon County Planning Commission.

an arrow on Stark Street, but there is no sign on 16th Street to assure the rider that the correct turn has been made (assurance sign).

After turning onto Hamilton Road, the pavement becomes rough and narrow (20½ feet wide), and the route crosses a fairly steep hill with a slope of about 10 percent. However, two factors make Hamilton an adequate segment of the bike route: the traffic volumes are very low, and Hamilton Road provides the easiest ascent of "East Hill". The route continues on Hamilton Road with no increase in road width and no shoulder. However, the low traffic volumes, speed limit of 35 mph, and good visibility make up for the narrow road width.

Where Hamilton junctions CTH "Z", there are no directional signs indicating that the cyclist should make a turn; however, there are assurance signs after the correct turn is made. Although traffic volumes on CTH "Z" are low, a number of hills and curves make visibility of bikers and on-coming automobile traffic quite poor. This visibility problem is especially hazardous for the motorist who must cross the solid yellow lane divider to pass a cyclist. If an on-coming vehicle is approaching, the passing driver has three choices: (1) Brake, and drop behind the cyclist; (2) Run the cyclist off the road; and (3) Experience a head-on collision.

The turn from CTH "Z" onto the granite covered Tower Road has no turn signs, which is the same situation found at the intersection of Hamilton Road and CTH "Z". Tower Road is quite scenic, but the gravel makes a poor riding surface.

The change from Tower Road onto CTH "J" is completely unmarked; cyclists unfamiliar with the route would probably become lost at this point. The stretch of CHT "J" is smooth, with wide pavement and an adequate shoulder.

At the intersection of CTH "J" and CTH "Z", there is a tavern and a store

where refreshments can be purchased. The segment of CTH "Z" from CTH "J" to CTH "Y" is much the same as earlier sections described: traffic volume is relatively low; the road is paved; and the shoulder is gravel, narrow, and covered with low vegetation. One very steep hill is encountered just before crossing the Eau Claire River. On steep hills like this, a hazard is created by the slow-moving bicyclists as they ascend the hill. The problem is compounded by the poor visibility, making motorist detection of cyclists and on-coming motor vehicles quite difficult.

Again, at the intersection of CTH "Z" and CTH "Y", no turn indicators have been erected but a bike route sign has been placed on the new road after the corner. CTH "Y" is an excellent road, since it was paved during the Summer of 1977. The shoulders are narrow, but the traffic volume is light except on weekends when many people visit Eau Claire Dells County Park.

The turn onto the Eau Claire River Road, off CTH "Y", is completely unmarked. Highway Department records indicate that signs were initially placed there, but have since disappeared. The River Road is followed from CTH "Y", to CTH "N", a distance of about 8 miles. The entire length is paved, traffic volume is low and slopes moderate; but there are no road shoulders.

The turn onto CTH "N" is unmarked; however, records indicate that signs were placed there by the Highway Department. This road is wide and smooth, with a fairly low traffic volume. The shoulders are wide and well maintained. A few hills on this 3-mile segment are very steep and could present the traffic problems associated with slow moving cyclists and poor visibility. A tavern, which can be used as a rest stop, is passed along CTH "N".

Where CTH "N" intersects with CTH "J", the route turns south, but the turn is poorly marked. One bike route sign

is missing and more are needed. CTH "J" was repaved during 1977 and its present condition is excellent.

After traveling two miles on CTH "J", the route turns west on Gusman Road. This road is perhaps the most scenic stretch found in the entire eastern loop route. Its 1.7 miles pass through a part of the Eau Claire River Valley, which is flat and mostly wooded.

The intersection of Gusman Road and CTH "SS" is the best marked corner in the bike route system. CTH "SS" is followed for one mile and its roughly paved surface crosses the Eau Claire River on a one-lane bridge before intersecting with Ross Avenue. This section of Ross Avenue passes through a growing residential area in the Town of Weston. The traffic is medium in volume; however, as the population in this area grows, a bike lane or perhaps a change in the course of the bike route may be necessary to assure the safety of the cyclist.

After turning north onto Camp Phillips Road, at an unmarked corner, the route passes a variety of land use types. The recently widened road and shoulders make this a high quality segment of the bike route.

Northwestern Avenue is joined after re-crossing the Eau Claire River. Near that intersection is the new Sandy Beach County Park. Other points of interest along this paved road are the Dell-O-Claire Girl Scout Camp and the Y.M.C.A. camp. After about one mile, the level terrain changes to a long, steep hill. The north side of the hill is not as steep as the south side, but some curves and rough pavement are encountered.

After intersecting with Town Line Road, the route heads west. Town Line is the only segment of the eastern loop wide enough for establishment of bike lanes. However, since very few cars park on this road, parked vehicles are not a problem and creation of bike lanes is unnecessary at this time.

## Recommendations for Eastern Loop

1. All course changes in the bike system from one road to the next should be well marked. This means at least 2 signs are required for each traffic lane at every turn: one sign to indicate the route direction change (arrows), and another sign on the new road to assure the cyclist that the correct turn has been made. Basically, 26 additional signs and 17 additional arrows should be installed along the Eastern Loop.
2. At the intersection of Tower Road and CTH "J", the route should be changed to continue east on Tower Road which was paved in 1977. After following Tower Road for 2 miles, the route should then turn north on Highland Road which intersects with CTH "Z". This route avoids the more heavily traveled CTH "Z" for 2 miles, and CTH "J" for 1 mile. In addition, Tower Road and Highland Road are quite scenic. Although the one mile stretch of Highland Road is surfaced with crushed granite, the scenic qualities of the route and low traffic volume make it quite desirable for the recreational cyclist.

Since blacktopping Highland Road is a Town of Easton responsibility, they should be encouraged to do so if the bike route is changed.

3. The shoulders of all roads which cross steep hills, should be improved for the traffic lane ascending the slope. Portions of the Eastern Loop which this recommendations applies are: two hills on CTH "Z" between Hamilton Road and Tower Road; the hills on CTH "Z" on either side of the Eau Claire River Valley; Northwestern Avenue, one mile south of Town Line Road; and several segments of CTH "N".

Steep hills create a serious hazard due to a combination of factors: the biker is moving slowly because he is ascending the hill; traffic moving in the same direction as the biker cannot legally pass because there is a

solid yellow line in his lane; and, if the driver becomes impatient and disregards the solid yellow line, he runs the risk of a head-on collision or running the cyclist off the road to avoid a head-on collision.

Improvements for these hills would ideally involve paving a 5-6 foot strip of the shoulder adjacent to the road surface. However, since the costs for such improvements are high, an emulsion primer applied to the graveled shoulder would be a more economical yet satisfactory alternative. At the very least, all graveled shoulders on hills should be wide enough to accommodate a bicycle comfortably and be free of obstructions such as signs and mailboxes.

4. Curves in the road also create a hazard to bikers. The problems are similar to those experienced on hills, in that the biker is not immediately visible to the motorist who is approaching the curve. Especially hazardous curves in the Eastern Loop Route are located between Hamilton Road and Tower Road on CTH "Z", along the River Road, and along Northwestern Avenue. Asphalt shoulders should be constructed for cyclist use in these hazard areas. In addition, signs requiring the cyclist to use the shoulders should be erected.
5. Paving Tower Road from CTH "Z" to CTH "J" would greatly improve the riding quality of this stretch of the bike route and the Town of Wausau officials should be encouraged to place this project on their paving program.
6. When the River Road between CTH "Z" and CTH "N" is repaved, the shoulders should be widened since traffic volumes on this road are increasing as residential development expands along the River.
7. Further field work should be conducted in the southern portion of the County to examine the feasibility of establishing additional loop routes. Mission

Lake County Park could be the "turn-around" for one of these loops. This recreational route could utilize existing County roads that carry a low traffic volume and a few short segments of unpaved Town roads.

8. An east-west and north-south bicycle route across the County should be established in a cooperative effort with adjacent counties and the State. These routes should be designated to identify the safest bicycle route for cyclists who are traveling cross-County.

Since the demand for these long distance routes is presently low, identification of a "preferred route" could be made on a County bicycle map, and as demand increases, the routes could then be signed.

## Southern Loop

The southern bike loop begins in the City of Wausau, at the intersection of South 12th Avenue and Sherman Street. (See Map 3.) After proceeding south on 12th Avenue, the route joins Rib Mountain Drive (CTH "N").

Extremely high motor vehicle and bicycle traffic volumes, poor visibility, rough road surface, awkward cyclist movements, and deteriorated road shoulders make this the most hazardous stretch of bicycle way in the entire County.

Approximately 150 bicycles per day cross the McCleary Bridge (Snake Bridge) which is the single access point for bicycles to the City of Wausau from the southwest. On the west side of the bridge structure, bicycles must share a 4-foot wide wood plank walkway with pedestrians and fishermen, resulting in conflicts and inconveniences. In addition, the narrow walkway makes it impossible for cyclists traveling in opposite directions to pass one another without dismounting. A railing on the west side of the walkway is not high enough to prevent bicyclists from falling over it into the Rib River.

South of the bridge on the causeway, a 6-foot wide asphalt path is used by bicyclists and pedestrians.

Cyclists traveling south off the causeway encounter a rough roadway with gravel shoulders that are not at grade, making the transition from the asphalt surface to the shoulder quite hazardous. Cyclists using the road shoulder encounter large potholes and culverts at driveway and street intersections. Several inclines create visibility problems for the motorists. In addition, businesses located south and north of the bridge generate cross-traffic problems for the cyclist who uses the shoulder.

Cyclists traveling north on Rib Mountain Road to the bridge encounter several hundred feet of roadway that does not have any

shoulder. A wood post and cable barrier along this stretch, make it impossible for the cyclist to take any evasive action. Rib Mountain Drive is especially hazardous because of the hilly conditions and poor visibility. Upon reaching the bridge, bicyclists must stop and walk the bikes across the roadway to gain access to the bridge bike path; however, no pedestrian crosswalks or signs are present. On the north side of the bridge, cyclists must again cross the roadway to get back into the correct flow of traffic.

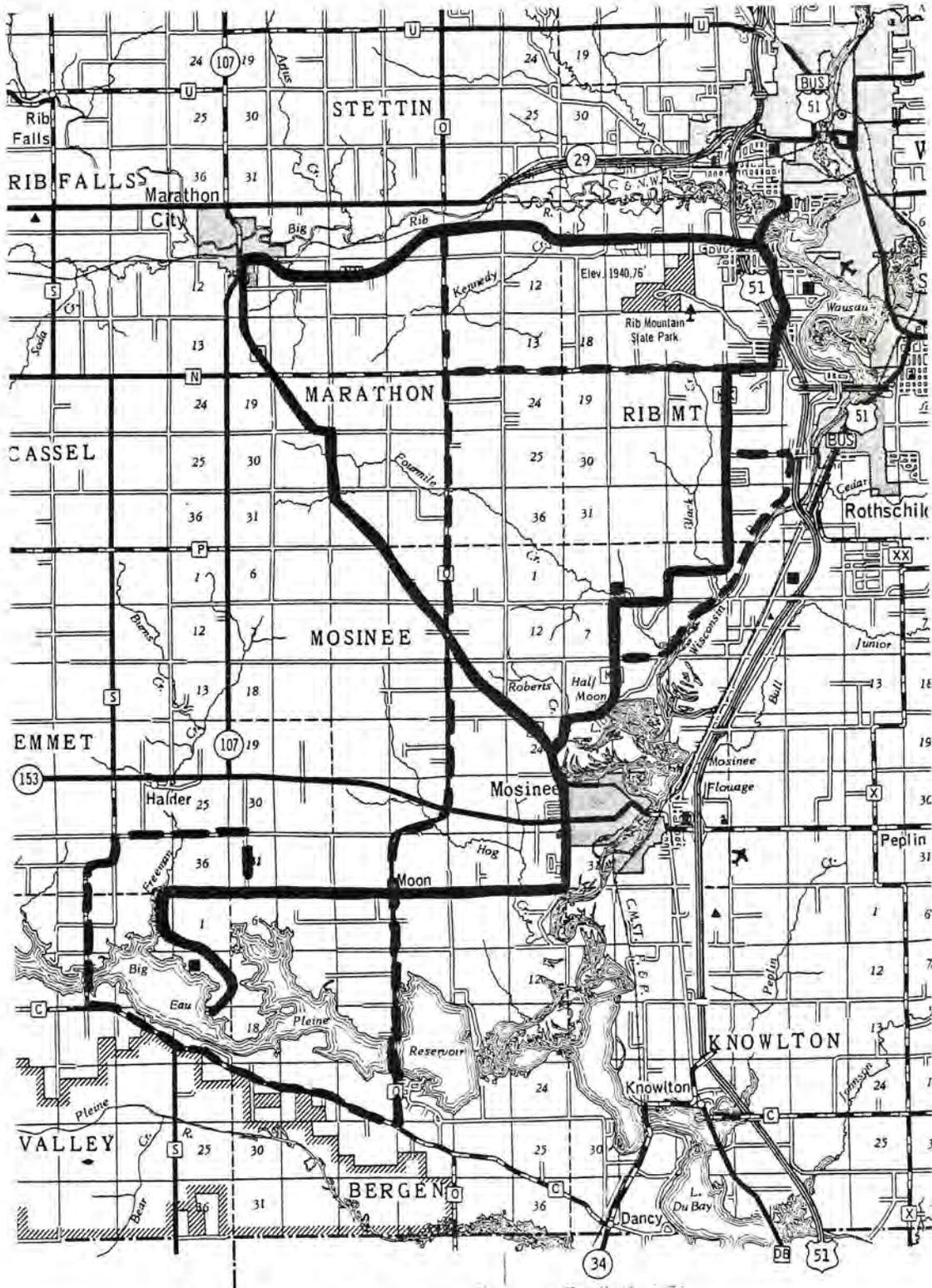
South of Robin Lane, the cyclist traveling south on CTH "N", encounters five mailbox structures which overhang the road shoulders. The mailboxes prevent the cyclist from using the shoulder, and present a serious collision hazard for cyclists who are "forced" from the roadway by motor vehicles. The pavement as well as the road shoulders are extremely rough. Several hills and curves create visibility problems.

The entire stretch of Rib Mountain Drive from 12th Avenue, south to the USH "51" underpass requires extensive modification to reduce the safety hazards that cyclists are exposed to. As the Town of Rib Mountain continues to expand its suburban residential neighborhoods, greater volumes of bicycle and motor vehicle traffic will increase the probability of serious accidents.

South of USH "51", cyclists find some relief in lower traffic volumes, and a straighter, smooth, less hilly road.

At the intersection of CTH "N" and CTH "KK", no bike route signs are posted to indicate that the route turns south onto CTH "KK". Most of CTH "KK" is good for biking: the pavement and shoulders are wide; the topography is nearly level; and a predominately wooded landscape on either side of the road creates a very pleasurable bike route. On the last 2 miles of CTH "KK", before it intersects with CTH "B", a number of curves are encountered, and the shoulder deteriorates, but low

SOUTHERN BIKE ROUTE LOOP



- BIKE ROUTE
- - - PROPOSED ROUTE ADDITION

Source: Marathon County Planning Commission.

traffic volumes mitigate these potential problems.

At CTH "B", the bike route goes in two directions: south to Mosinee and Big Eau Pleine County Park; and north to Marathon City.

The route to Eau Pleine Park is down CTH "B" and then south onto Range Line Road. The bike route signs indicating that the route turns onto Range Line Road are missing. After Range Line Road turns west, south of STH "153", its surface becomes very rough and there are no road shoulders; but the very low traffic volume reduces the need for a shoulder.

After crossing CTH "O", the paved section of Moon Road continues for two-tenths of a mile, but then changes to a granite covered road. The 2.2 mile stretch of gravel is quite scenic, with many trees overhanging the road; however, the crushed granite surface makes the road quite rough.

The bike route continues west; the road name changes to Eau Pleine Park Road and becomes paved once again. Several hills are crossed on the way to the park entrance and the road shoulders are quite narrow. These characteristics of the Park Road may be hazardous to bikers, especially on weekends when the park attracts a large volume of auto traffic. After entering the park, the road becomes very scenic; however, small hills and curves limit the motorist's ability to see cyclists. The hills should not be a serious problem, however, if the existing speed limit of 35 mph within the park is observed and enforced.

The route away from the park follows the same roads as the route into the park to the intersection of CTH "KK" and CTH "B".

CTH "B" from its intersection with CTH "KK" to Marathon City is very poor for biking. Most of the 7.2 miles of CTH "B" are very rough, with narrow shoulders, numerous

curves, and many hills with moderate to steep slopes. These factors create a bike route that is not only unpleasant, but very dangerous.

Marathon City is entered on the south-east corner of the Village. At this point, the bike route is on the top of a hill and descends while passing through the Village. The three turns required to drive through Marathon City are poorly marked and at least three more signs should be added to clarify the necessary road changes the bike route takes.

Upon leaving Marathon City, the bike route joins CTH "NN" and heads east. For the first 2 miles, the pavement is old and in need of general repair. Some short (100-300 yards) stretches have been resurfaced, but the remainder of the roadway is in poor condition. Hills on this road are moderate to steep and the traffic is generally quite heavy. The curves, hills, and narrow roadway make "NN" a relatively poor bike route. Further east (2.5 miles from Marathon City), the road quality improves, but sharp curves create a visibility problem. The problem is compounded by mailboxes and trees located close to the road, obstructing the use of the road shoulder when motor vehicles are passing.

About 2 miles west of its junction with CTH "N", CTH "NN" becomes relatively straight and level. However, it passes through a growing residential neighborhood in Rib Mountain and the volume of motor vehicle traffic is quite high.

#### Recommendations for Southern Loop

1. All course changes in the bike route from one road name to the next should be well marked.

At a minimum, 14 additional bike route signs, and 8 additional arrow signs should be installed along the existing Southern Loop. However, before funds are appropriated for these signs, another survey of the route should be made to assure that some of the

signs accounted for in the last survey have not been removed.

The disappearance of bike route signs is apparently the result of theft. The County snowmobile signs have also been the target for vandals, but after holes were shot in these signs, theft was nearly eliminated.

Apparently, "road sign collectors" are not interested in damaged signs. A similar means of defacing new bike route signs might be employed to discourage theft. In addition, all signs should contain a tag indicating that it is against State Law to remove the sign.

2. An alternative route for the cyclist traveling north from Eau Pleine County Park, back to the Wausau Area, should be provided since C.T.H. "B" and "NN", west of C.T.H. "O", are in poor cycling condition. In addition, taking C.T.H. "B" and "NN" would require the cyclist to travel about 10 miles out of his way.

A cyclist leaving the County Park could take C.T.H. "O" north from Moon to C.T.H. "N", and then take C.T.H. "N" east. Both C.T.H. "O" and "N" are straight, relatively smooth roads; however, several steep hills must be crossed on C.T.H. "O". This route should be established in addition to C.T.H. "B" and "NN" and not as a replacement. Another variation suggested for the alternate route involves taking C.T.H. "O" to C.T.H. "NN", which is tentatively planned to be rebuilt on Red Wing Road (one-half mile south of present C.T.H. "NN") to the Rib Mountain Town Line and then east along existing C.T.H. "NN". This route is flatter than the C.T.H. "N"

alternative, but C.T.H. "NN" requires rebuilding (resurfacing, widening and adequate shoulders).

3. A loop route, from Big Eau Pleine County Park, around the Flowage should be established. This route would serve two cycling groups: families camping at the Park who wish to take a bicycle tour of the area around the Flowage; and cyclists from throughout the County who wish to bring their bicycles by car or recreation vehicle to the trail head. Parking for this latter group could be designated at one of the Park's several picnic grounds.

A preliminary proposal for this route would include County Trunk Highways "S", "C", and "O"; and 2½ miles of Sugar Bush Road which is gravel. (See Map 3.) Only two steep ascents are encountered on this route--one at each of the Big Eau Pleine Reservoir crossings.

The scenic qualities of the route, low traffic volumes, and general good road surface conditions make this an extremely desirable bike route which would add approximately 17 miles to the existing recreational route system.

4. When roadway improvements to C.T.H. "NN" are made by the County Highway Department, the road shoulders should be widened by 5 to 6 feet to reduce the bicycling hazards associated with the heavy traffic volume and poor road surface and visibility conditions. Although asphalt shoulders would be ideal, rotten granite would be sufficient.

5. Highway improvements on the McCleary Bridge on C.T.H. "N", north and south of the Bridge, should be made to reduce bicycling safety hazards.

Long-term improvements to this roadway would involve constructing asphalt shoulders and eliminating the visibility problems associated with the Highway's hills and curves. The improvements should be incorporated into the County Highway Department's roadway improvement plans.

Short-term improvements would center on improving the quality of maintenance provided to the existing gravel shoulders as well as adding several warning and information signs. In addition, pedestrian crosswalks and signs should be added at both ends of the Bridge to reduce the safety hazards for cyclists crossing the roadway to utilize the McCleary Bridge bike path. As an alternative, a two-way bike lane from 12th Avenue to North Mountain Drive could be established along the western road shoulders.

However, major shoulder improvements would be necessary, and cyclists traveling north on C.T.H. "N" would be required to make a very awkward turning movement at the North Mountain Drive intersection. To avoid this dangerous intersection, it is recommended that the 2-way bike lane be extended to Robin Lane. Irregardless of the alternative chosen, several signs warning motorists of the bicyclist's presence should be placed along this stretch of roadway.

When the McCleary Bridge is redesigned, adequate provisions for bicycle and pedestrian traffic should be incorporated. Ideally, the new bridge would be designed with two bike lanes to accommodate a safe bicycle

traffic flow moving in either direction.

6. The Rib Mountain Bicycle Committee has been working toward the construction of an asphalt bike lane along the south side of Robin Lane from its junction with C.T.H. "N", to Rib Mountain Elementary School. When the lane is completed, it may serve as an alternative route to C.T.H. "NN", since Robin Lane and C.T.H. "NN" run parallel. It is recommended that upon completion of the Robin Lane route, its feasibility as an alternative to C.T.H. "NN" should be further studied.

7. In conjunction with the camping and other recreational opportunities available at Rib Mountain State Park, the Town of Rib Mountain Recreation Committee has designated Park Road as a bike route in their long-range recreation plan. This route will junction with the County bike route at C.T.H. "N" and provide a continuous marked route from the Park to the City of Wausau.

To compliment the recreation activities at the State Park as well as in the Wausau Urban Area, a bicycle path should be established along the Wisconsin River from Half Moon Lake north through the Wausau School Forest. The potential for a bike path in this area is excellent, since much of the property is publically owned. This path could follow a recently completed snowmobile trail and logging roads; however, additional trail work, easement negotiations and liability problems would have to be studied further. The County Forestry Department, Snowmobile Coordinator, and Park Department would be the logical agencies to help implement this path.

## URBAN BIKE ROUTES

Although establishing bike paths on logging and hunting trails in the McMillan Marsh, Mead Wildlife Area, and the County forestry units is not compatible with the forestry, hunting, and wildlife management uses in these areas, some of the motor vehicle access roads through these public lands should be further examined for possible inclusion into the bike route.

8. Several agencies including the Wisconsin Department of Natural Resources, Wisconsin Department of Transportation, and the North Central Wisconsin Regional Planning Commission are examining various uses for the Chicago Northwestern Transportation Company railroad right-of-way from Edgar to Marshfield. Their indepth analysis of the environmental and economic factors associated with the abandonment and re-use of this right-of-way should consider bicycling as an appropriate alternative.
9. The possibility of extending the City of Marshfield's bike routes into Marathon County to serve the Villages of Stratford and Spencer should be examined as part of the County's Outdoor Recreation Plan update.
10. A detailed County bikeway map should be prepared and made available for public distribution. This map should clearly identify the existing routes and include a narrative description of points-of-interest along the way. In addition, bicycle safety tips and some of the most important cycling rules of the road should be provided.

There are approximately 12 miles of signed bike routes in the City of Wausau which are primarily laid out to connect the rural routes and conduct through traffic

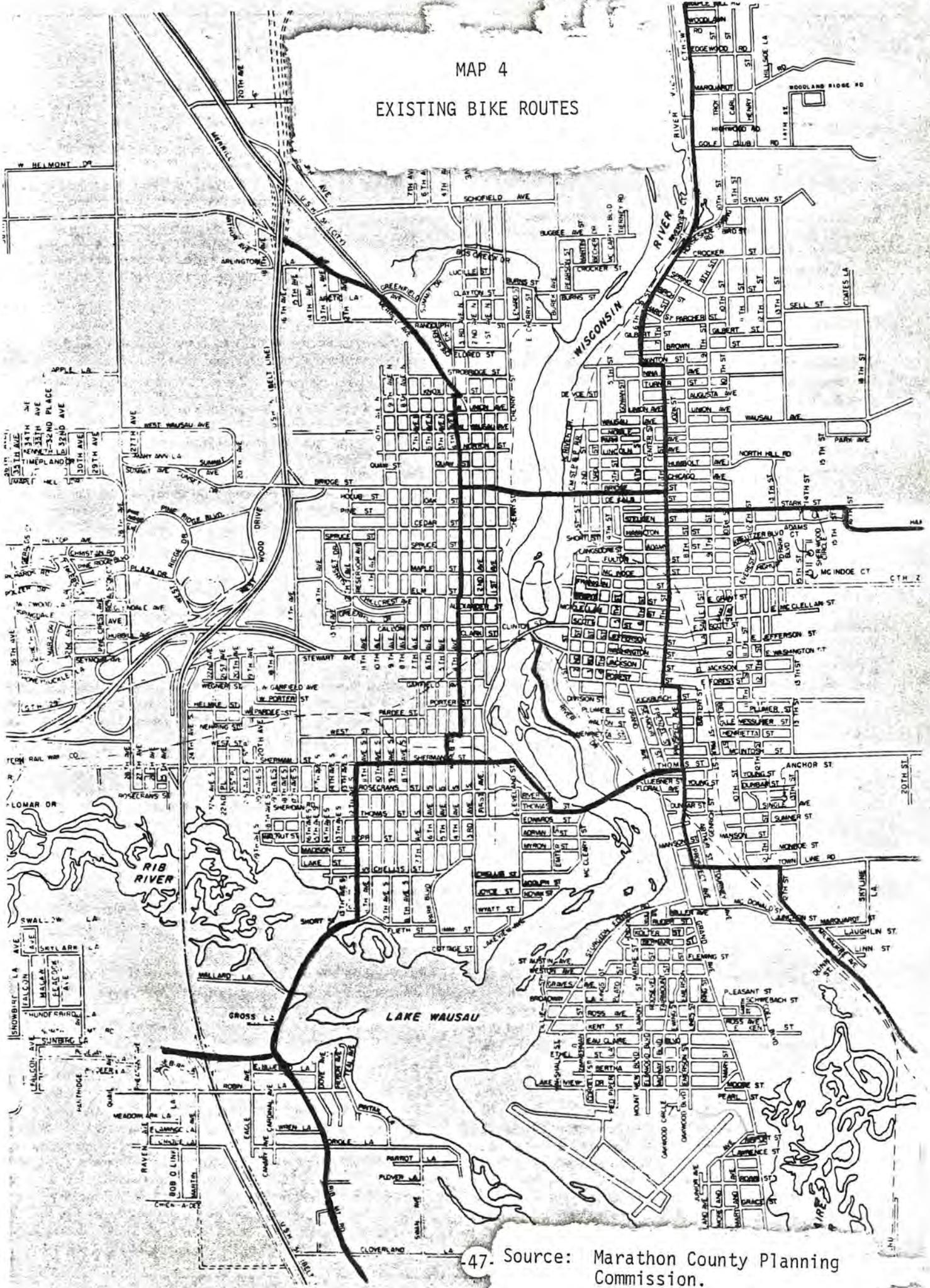
(See Map 4.)

These routes were established in conjunction with the County routes, and consist almost entirely of paved streets, where cyclists share the roadway with automobiles.

The only exceptions to these shared routes are the two bridges which cross the Wisconsin River and the bike path south of Slough Bridge along the east bank of the Wisconsin River. The two bridges, which are part of the City's major arterial system, carry a large volume of auto and trunk traffic as well as bicycle traffic. At present, the City has restricted bicycle traffic from all the bridges roadways by placing, "Bicycles Must Use Sidewalk" signs on the bridge approaches. Use of these bridge walkways by bicycles creates conflicts with pedestrians as well as passing cyclists. Bikers who accidently ride from the sidewalk onto the roadway during a passing maneuver may be seriously injured by the fall or collision with a motor vehicle. Furthermore, the low fence railings on the bridges do not provide adequate protection to prevent bikers from falling over them into the River.

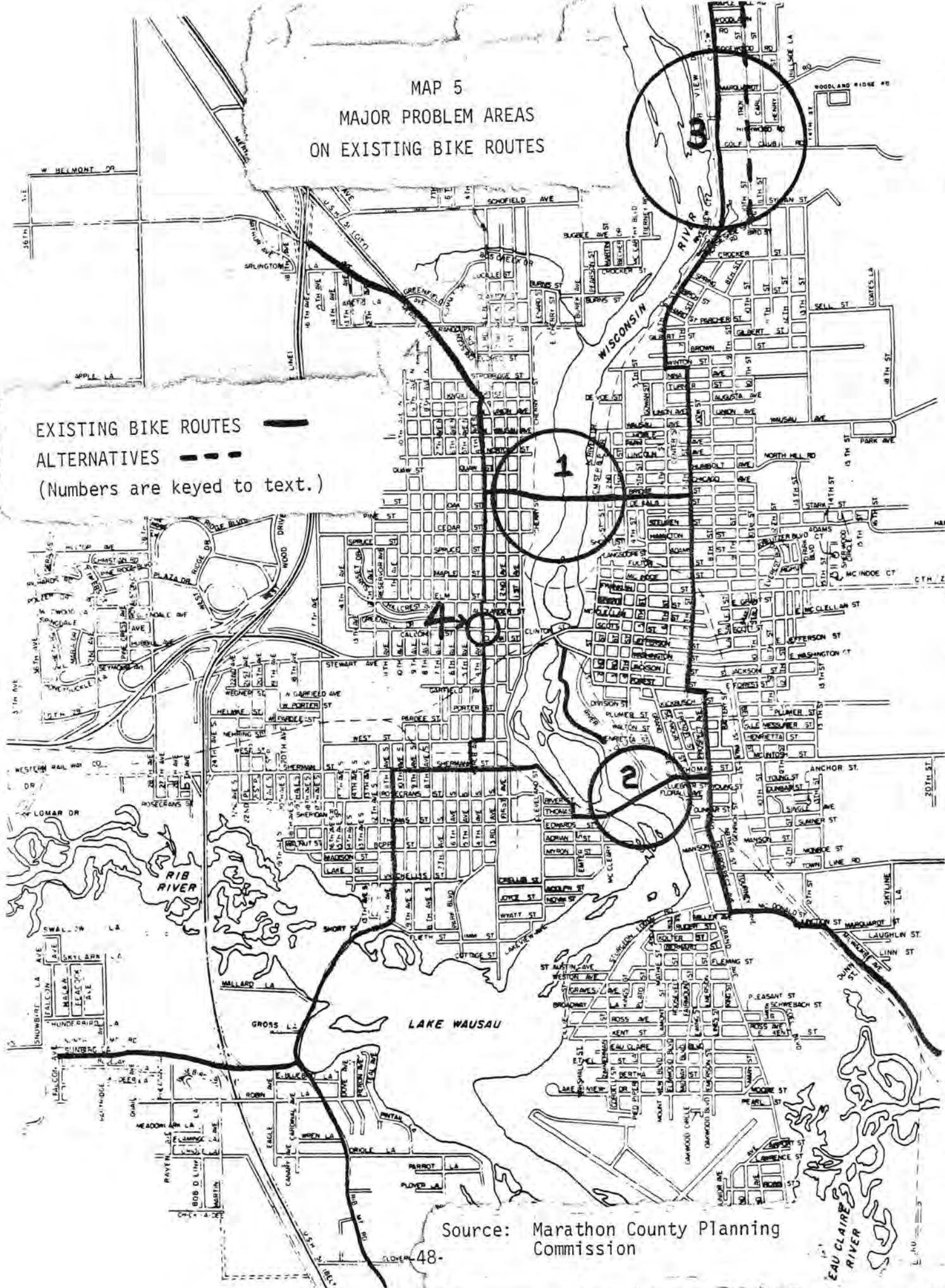
Although the bridges pose some serious bicycling hazards, there are several other problem areas that should be corrected to improve bicycling safety in the City of Wausau. The following outline presents most of the cycling hazard areas on the existing City bike routes and suggests means of mitigating these hazards. The numbers on the outline are keyed to Map 5:

MAP 4  
EXISTING BIKE ROUTES



MAP 5  
 MAJOR PROBLEM AREAS  
 ON EXISTING BIKE ROUTES

EXISTING BIKE ROUTES ———  
 ALTERNATIVES - - - -  
 (Numbers are keyed to text.)



Source: Marathon County Planning Commission

## Conflicts in Existing Bike Routes

### 1.) Bridge Street from 4th Avenue to 7th Street.

#### Problems

- A. High motor vehicle traffic volume, between 10,000 and 15,000 vehicles per day.
- B. Narrow roadways:
  - 1. 2-300 block East 39 feet,
  - 2. 3-400 Block East 32 feet,
  - 3. 4-500 Block East 31 feet,
  - 4. 5-600 Block East 30 feet.
- C. Turning lanes at 6th, 5th, 3rd, and 2nd Streets, and 1st and 3rd Avenues reduce effective road width for bicyclists. Traffic turning right onto these roads is especially hazardous for the cyclist proceeding straight.
- D. East bound bicycle traffic must use the walkway on the south side of the bridge.
- E. The steep slopes on both sides of the bridge walkway greatly increase the cyclist's speed.
- F. The east end of the bridge walkway has a blind spot on the south side making pedestrian visibility difficult. In addition, motorists pulling out from 2nd and Bridge have difficulty seeing cyclists traveling off the bridge walkway.
- G. The roadway is extremely narrow and rough under the Chicago and Northwestern Viaduct, and the sidewalks are in a state of disrepair.

## Alternatives and Recommendations

- A. A bike lane should be established for west bound cyclists on the side of the bridge structure. The bridge is wide enough to safely allow marking off a 4½ to 5 foot bike lane. The recessed sewer grates on the bridge would have to be brought up to grade to eliminate these hazardous bumps. West of the River, at the Chicago-Northwestern Viaduct, the bike lane would have to be routed around the bridge supports onto an asphalt path that should be constructed since cyclists presently use the existing dirt path. Cyclists could use the driveways on either side of the Viaduct for access to the path. When the railroad viaduct is removed or rebuilt, the underpass should be widened to provide bike lanes.
- B. On the west side of the bridge, east bound cyclists could be required to use the sidewalk from 1st Avenue. Sidewalk improvements would be necessary especially where the route crosses under the Railroad Viaduct.
- C. "Warning", "Slow" or "Dangerous Intersection" signs should be placed at the east end of the bridge walkway to alert cyclists of the blind spot, and the speed hazard associated with the steep descent of the bridge. "Slow" signs on the west side of the bridge are probably not necessary since the visibility is much better there.
- D. When the Bridge Street Bridge is reconstructed or substantially improved, widening of the walkway should be given

consideration. A wider path would reduce bicycle-pedestrian conflicts as well as provide improved safety for cyclists. In addition, a slightly higher fence along the walkway would eliminate the possibility of a cyclist crashing over it into the Wisconsin River.

- E. Road cracks and chuck holes should be carefully repaired on Bridge Street to provide the smoothest possible riding surface. This is especially important since cyclists must share a very narrow roadway with as many as four moving lanes of motor vehicle traffic. In addition, the street should be swept frequently to remove glass, gravel and other debris that could cause a cyclist to lose control of his vehicle and be thrown into traffic.

2.) Thomas Street between Seventh Street and Emter Street.

Problems

- A. Heavy motor vehicle traffic volume, between 12,000 and 15,000 vehicles per day.
- B. Bicycles are required to use sidewalks on bridge, but there are no curb cuts at Riverside Drive and Thomas Street.
- C. Walkways on the bridge are quite narrow.
- D. Motor vehicle turning movements at Thomas and Grand are particularly hazardous for thru bicycle traffic.

Alternatives and Recommendations

- A. The best means of reducing cycling hazards would be to restrict bicycles to the sidewalks from Grand Avenue to Emter on both sides of Thomas. Several curb cuts would be necessary; however, these will be provided through the County's routine replacement program. In fact, all corners in the City will eventually

have ramped curbs to accommodate persons in wheel chairs. (See State Statutes 66.616.)

- B. A bike lane could be established for westbound traffic east of the bridge between the A & P driveway and the bridge. A bike lane for westbound traffic could also be established on the west side of the bridge to Emter. A bike lane on Stevens Bridge is probably not feasible.

3.) North Sixth Street.

Problems

- A. Motor vehicle traffic is quite heavy.
- B. Narrow roadway north of Horseshoe Spring Road; speed limit increases to 35 miles per hour; and limited street lighting reduces night visibility.

Alternatives and Recommendations

- A. When Troy Street has an asphalt overlay applied, the bike route should be changed to turn east on Horseshoe Spring Road and then proceed north on Troy Street, thus avoiding the hazards on North Sixth Street and providing better access to the American Legion Golf Course and Riverview School.
- B. A bike lane could be established from Winton Street north to Horseshoe Spring Road; however, parking would probably have to be eliminated on Sixth Street.

4.) There is extremely poor visibility at the intersection at 4th Avenue and Callon Street. A four-way "Stop" sign system could be established to reduce the cycling and motor vehicle hazard; however, the steep slope of Callon creates stopping difficulties in the Winter time. Since "Stop" signs are not feasible, a "Dangerous Intersection" sign should be placed along the north bound lane of 4th Avenue, to alert bicycle and motor vehicle drivers to the hazard.

#### Other High Priority Problem Areas

In addition to the problems encountered on existing bike routes, other segments of the City's roadway network are hazardous for cycling. The following roadways convey large volumes of bicycle traffic but are not designated as bike routes: Memorial and Slough Bridge; Grand Avenue from the Eau Claire Flowage Bridge to the Courthouse; Forest Street from 4th Street to Grand Avenue; and several streets downtown. These areas should be further examined to identify the problems encountered and to investigate means of these problems. Field studies including: observational work; origin-destination data; interviews; and an indepth analysis of roadway, sidewalk, and parking conditions should be made. The City Traffic Commission, Engineering Department, and Police Department should be involved in this work.

Improvements to Grand Avenue should be the top priority since numerous bicycle-auto accidents have occurred along Grand Avenue over the last several years. Many factors combine to make this road especially hazardous for bicycling: two-way bike traffic on either sidewalk; over 100 commercial and residential driveways cross the sidewalks; a large volume of bicycle and motor vehicle traffic; poor visibility at many driveways; and motorists pulling into and out of driveways generally do not expect to encounter fast moving bicycles (coming from either direction) on the sidewalk. At the very least, signs

should be placed along Grand Avenue to alert motorists to the cyclist's presence on the sidewalks.

Establishing vision clearance triangles at driveways thru the Wausau and Schofield zoning ordinances would also improve bicycle and motor vehicle safety. Where set backs could not be met because of the location of a building, convex mirrors could be installed to provide motorists with the visibility they need when approaching a "blind" sidewalk

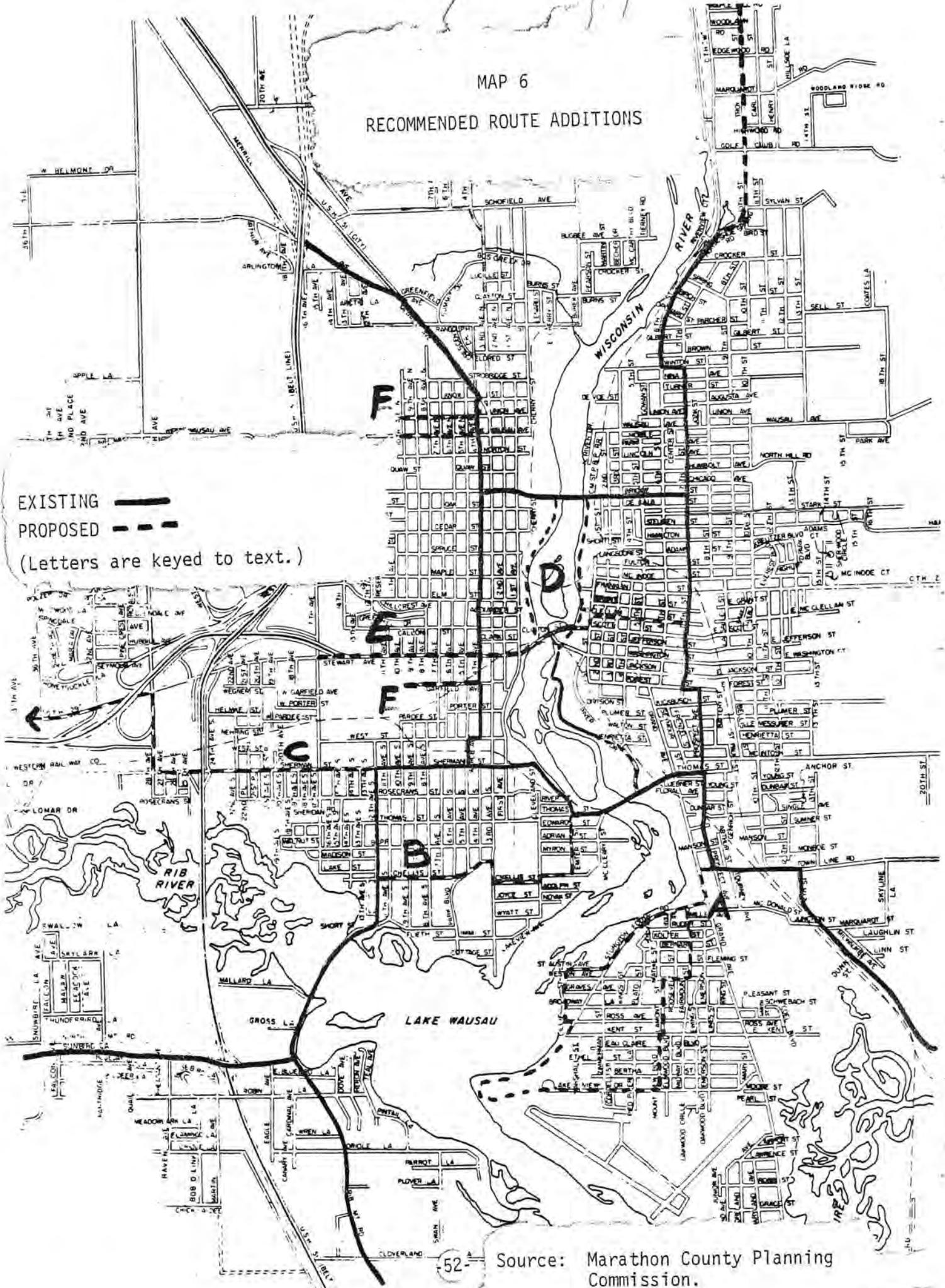
#### Recommended Additions to the City's Bike Route System. (See Map 6.)

A. Develop a loop bike route in the neighborhood north of Wausau Municipal Airport. This bikeway should be connected to the Prospect Avenue route and should be laid out along the Wisconsin River to take full advantage of the scenic vistas and aesthetic qualities of the area. This route would serve Memorial Park, Airport Park, and John Marshall School as well as provide an alternative route for cyclists who normally use Grand Avenue.

The County Park Commission should work with the Human Services Board of Directors and Airport Commission to investigate the feasibility and cost of establishing a continuation of the above mentioned route onto the Marathon County Health Care Center grounds and Wausau Municipal Airport.

B. A more direct route from the Town of Rib Mountain to the east side of the Wisconsin River should be established. This route should extend east from 12th Avenue along Chellis Street to Emter Street, and then north to Thomas. The 11th Avenue and Fleith Street intersection should be avoided because of the cycling hazards at this junction. This proposed route would:

# MAP 6 RECOMMENDED ROUTE ADDITIONS



EXISTING ———  
 PROPOSED - - -

(Letters are keyed to text.)

- 1.) Provide safer access to the Thomas Street Bridge by encouraging cyclists to satff off Thomas Street;
- 2.) Provide direct access to the new recreational facilities at "3-M" Park; and, 3.) Improve access from the Town of Rib Mountain to the east side of the River.

A "Hill" warning sign would have to be placed on Park Avenue where it intersects with 3rd Avenue to allert cyclists to the steep grade. (See Page 31.) In addition, several uncontrolled intersections should have "Stop" signs erected.

A cooperative effort between the City of Wausau and the Town of Rib Mountain would be necessary since the route addition crosses municipal boundary lines.

- C. Since Sunny Vale County Park currently attracts hundreds of cyclists to its swimming beaches and will increase its attraction when additional recreation facilities are completed, a bikeway to the Park should be established.

Initially, this bikeway could extend west along Sherman Street to 28th Avenue, then north to Stewart Avenue, west along Stewart to 48th Avenue, south on 48th Avenue to Packer Drive, and Packer west to 72nd Avenue. The route would not only serve cyclists going to Sunny Vale, but also workers in the Industrial Park. This route would be the safest means of reaching both parks by bicycles since it avoids the 17th and Stewart Avenue intersection as well as the 50 mph stretch of Stewart Avenue from 48th Avenue west.

However, as the business and residential areas along and north of Stewart Avenues grow, the route may become quite hazardous.

As an alternative, the right-of-way that the City holds for a sanitary sewer serving the Industrial Park may also be appropriate as a bike path from 36th Avenue west to 72nd Avenue. Although a bridge would have to be constructed at the Little Rib River, the feasibility of such a bike path should be studied by the Park Commission and City Engineering Department.

An alternative to the City's right-of-way route would involve the use of Sherman Street, Sherman Road and Central Drive to the Little Rib River; constructing a bridge across the River; and establishing a bike path to junction with 48th Avenue.

- D. The Bike Path - Walkway Project that the River's Edge Commission and Park Commission have been working on should be completed to provide a continuous mid-town bicycle route from Bridge Street to Thomas. The existing completed section, from Slough Bridge to Oak Island Park, should be connected to Thomas by placing "BIKE ROUTE" signs on River Drive south of Thomas.

In conjunction with the bike path-walkway, a bike route should be established on McClellan Street from 7th Street to 1st Street to junction with the path. The final right-of-way this route should follow will have to be determined after the entire bike path-walkway project is completed.

- E. The possibility of establishing a bike lane along Stewart Avenue from 1st Avenue west should be further studied. Establishing such a facility would require eliminating parking on both sides of the street. However, when Stewart Avenue was widened in

the mid-1960's, the parking lanes were added as temporary facilities. As traffic volume increases on Stewart Avenue, these lanes will be eliminated and used by through traffic. Establishing bike lanes in the near future would merely involve removing the parking at an earlier date than anticipated.

- F. Other streets leading to large generators of bicycle traffic which should be considered for "BIKE ROUTE" signing include:
- 1.) Garfield Avenue, from 4th Avenue west to Marathon Park and the University of Wisconsin-Marathon Campus, and,
  - 2.) Union Avenue and Wausau Avenue west from 4th Avenue to Wausau West High School.

As previously discussed, bike paths are the safest means of conveying bicycle traffic. Although paths are not feasible alternatives in many parts of the City, signing does help alert motorists to the cyclist's presence, as well as direct bicycles down the safest route.

As the City continues to develop its highway transportation network, the needs of the cycling population should be considered. Planning and designing activities for the Brown Street Bridge, Grand Avenue Alternative route, and improvements at the intersection of 17th and Stewart Avenues should consider safety features for cyclists. In addition, as the residential neighborhoods north of Stewart Avenue and in the northwest quarter of the City grow, the need for cycling facilities should be examined.

Other municipalities in the Urban Area should be encouraged to establish bike paths and investigate needed bike routes. The County Planning Commission and Park Commission can provide assistance to these municipalities for bikeway development.

## FINANCING BIKEWAY DEVELOPMENT AND IMPROVEMENT

The costs of developing a bikeway system can be extremely high or relatively minimal depending on the type of bikeway system chosen for development. As previously shown, rural bike routes along existing roads in Marathon County have been established at a rate of about \$7.00 per mile. On the other hand, construction of an asphalt bike path can exceed \$15,000 per mile.

Although signing existing roads is certainly the least expensive means of establishing bikeways, it may not be the most cost-effective in the long-run. The hazards that exist on some shared roadways greatly increase the likelihood of an auto-bicycle accident. If a cyclist was seriously injured in a highway accident that could have been prevented if he were riding on an asphalt shoulder instead of the roadway, the monetary and social costs associated with the accident should be added to the cost of merely signing the roadway (or the savings deducted from the cost of constructing an improved shoulder.)

When the decision is made to establish or improve a bikeway through the placement of signs, improvement of roadways, or construction of paths, funds must be obtained from somewhere.

In rare cases, private interests or civic organizations undertake fund raising campaigns to assist local governments in meeting the cost of bikeway development. A local example of what private initiative can accomplish was demonstrated in Wausau in 1976. A bikeway-walkway project along the Wisconsin River, which was refused federal funds, later received financial backing from the Wausau Women's Club and the Altrusa Club. As a result, the first segment of the project was completed in June, 1977. Additional segments of this path will be completed as funds become available.

Local municipal funds are quite limited, and bikeways are competing with higher priority uses for the same dollars. One simple means of obtaining local funds for bikeway expenditures is thru the user-fee. Revenues obtained from the registration of bicycles could be earmarked for bikeway improvements by depositing these dollars in a segregated fund.

At the State level, the Wisconsin Department of Transportation has yet to spend State money on bicycle facility construction or to administer the Federal Highway Act funds available for bicycle facility development. It has considered bikeways in conjunction with several highway construction projects and generally favors the separated facility alternatives (shoulder lanes and paths) for safety reasons. It will not support the signing of bike routes on State Trunk Highways. Their position on funding bike projects is explained further by this statement:

"The Department has recently provided right-of-way for short sections of bikeways (locally developed adjacent to reconstructed highways). Beyond this, however, D.O.T.'s involvement has been limited to one of interest. The Department feels that the statutes do not specifically provide for the expenditure of State highway funds for bikeway related construction or land acquisition. In addition, since State responsibility for highways is primarily on inter-city routes, the development of urban bikeways is considered to be the responsibility of local government."

The Department of Natural Resources has been more generous in funding bikeways. In addition to its State trails acquisition program, it has enabled a number of communities to make use of Federal programs on a

State and local matching grant basis. As with the D.O.T., priority is given to the acquisition and development of separated facilities and financial support is generally not available for shared roadway alternatives. This is a funding priority and does not imply a negative attitude toward on-the-road bicycle facilities. In its planning efforts, the D.N.R. has been very supportive of the bike route approach.

Additional bikeway funding programs which should be closely examined during the implementation stages of this plan are described below:

### Federal

#### 1. Federal Highway Act of 1973

Enacted by Congress in 1973, the Act permitted the Federal Highway Administration to expand its bicycle program. Section 124 of this Act allowed the use of Federal-aid highway funds to construct bicycle and pedestrian facilities independent of regular highway projects. However, it should be emphasized that this program does not involve a separate fund for constructing bike routes and pedestrian walkways; rather it simply authorizes the use of funds appropriated for highways for these purposes at the discretion of the State agency administering the funds. In Wisconsin, the Department of Transportation and local authorities administer these funds. The Federal Highway Administration makes available construction funds only; another agency must assume responsibility for the operation and maintenance of the facility. In Marathon County, these F.H.A. funds have been committed entirely to highway projects.

#### 2. Land and Water Conservation Act of 1965 (LAWCON)

As administered through the Wisconsin Department of Natural Resources, this act provides for the distribution of U.S. Department

of the Interior funds to local governments for the acquisition and development, but not maintenance, of public outdoor recreation areas and facilities--bikeways included--if they are essentially recreational in nature.

#### 3. U.S. Department of Agriculture GREENSPAN and Cropland Adjustment Programs (Agriculture Act of 1970)

Under the terms of both of these programs, which are administered by the U.S. Agricultural Stabilization and Conservation Service Office in each county seat, funding assistance is available for the acquisition and development of recreational facilities in rural areas.

#### 4. Federal Revenue Sharing

Tax monies returned to local units of government may be used (in fact such use is encouraged) to fund community recreation programs and projects, including bike paths. A critical provision is that the locality must know and indicate in advance how the money will be used.

#### 5. Department of Housing and Urban Development Open Space Programs

#### 6. Federal Bikeway Demonstration Program

#### 7. U.S. Army Corps of Engineers

### State

#### Outdoor Recreational Act Program (O.R.A.P.)

The D.N.R. administered ORAP-200 "Local Park Aids" Program, budgeted at \$1 million for 1974, provides State support for local recreational land acquisition and facilities development projects on a 50-50 matching basis. As in the LAWCON program, funds are distributed to counties according to their proportionate share of the State population (70 %) and also to them equally (30%).

On land acquisition projects, any combination of O.R.A.P. and Federal monies cannot exceed 75% of the total cost; on development projects, 50%.

#### Local (Theoretical Options)

##### 1. Bicycle Registration and Licensing

Units of government requiring bicycle registration and licensing could hold the fees collected in trust for the future development of local bikeways. However, unless the fees are set high enough, they will probably not amount to much more than is necessary to administer the registration program.

##### 2. General Fund

The local General Fund, consisting primarily of real estate taxes and State aids, could be tapped or used to back a general-obligation bond issue, with the proceeds going for bikeway development.

##### 3. Private Financing

Although the cost of developing bikeways is relatively inexpensive when compared to other modes of transportation, it is unlikely that a private group would have enough area-wide influence to completely bear the total cost of bikeway developments. There possibly would be legal restrictions that would prohibit total bikeway development by a private group. One possibility for private financing is the concept of the land easement. It is possible that some private establishment might donate some land to be used as the bikeway right-of-way. Some tax benefits could be used as an incentive for such donations. Bicycle clubs and other organizations might be willing to undertake fund-raising campaigns.

##### 4. County Highway Department

The Marathon County Highway Committee recently adopted a policy that will greatly enhance the possibility of improving the County's bike routes. The policy statement (see Appendix) provides \$5,000 for cost-sharing with Townships to construct bicycle lanes along certain segments of the County's current and planned bike route system.

## IMPLEMENTATION

Although the recommendations of this report are designed to meet the short-term cycling needs in Marathon County, the majority of the text is structured to outline the cycling problems, needs, and potentials that should be considered by education, recreation, and transportation providers.

Securing funds for bike route construction is perhaps the most difficult administrative problem in implementing a bicycle system plan. Often, a great deal of effort is expended planning bike routes which ultimately will never be built because local officials are unable to obtain adequate construction funds. This is not to say that the planning effort has been wasted, since in the process of planning a local bike route system, bicycling "bottlenecks" and safety hazards have been identified for future action. Locations for bike routes and other roadway improvements have been identified according to need and desirability regardless of where the construction funds might have come from.

The responsibility for implementing bicycle facility improvements must rest with the local officials responsible for administering recreation and transportation programs. During the administration of the programs, the problems and needs of the cyclist as well as the cycling potentials should be carefully considered.

Funding for bikeway projects should be sought from agencies most likely to fund the particular project. Although an application for financial assistance may initially be rejected, persistence on the part of the applicant, and agency policy changes have frequently resulted in the eventual approval of funds.

A P P E N D I X



VEHICLE CODE DEFINITIONS RELATING TO  
BICYCLE FACILITIES: CHAPTER 340.01, WISCONSIN STATE STATUTES

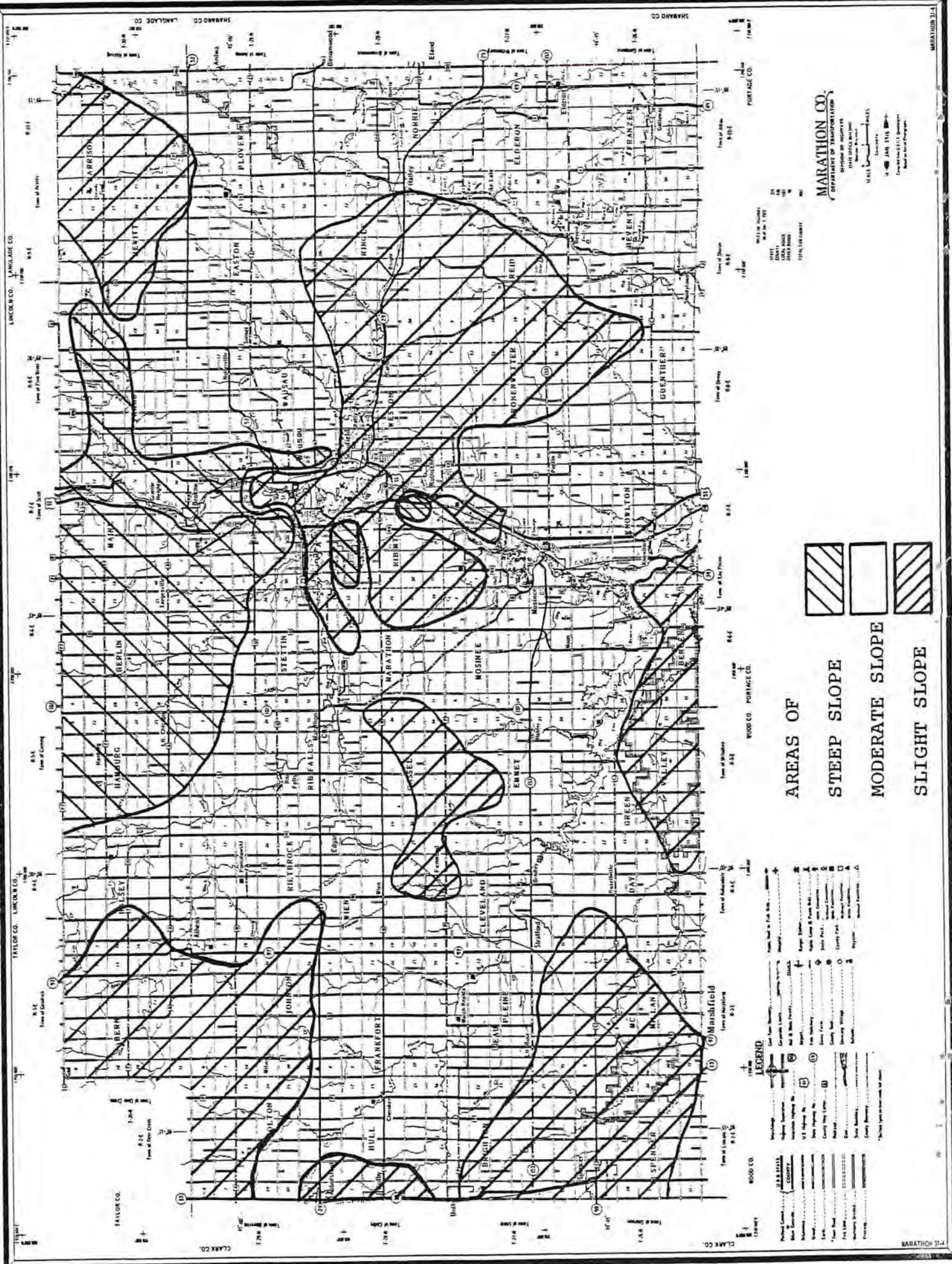
**(5)** "Bicycle" means every device propelled by the feet acting upon pedals and having wheels any 2 of which are not less than 14 inches in diameter.

**(5e)** "Bicycle lane" means that portion of a roadway set aside by the governing body of any city, town, village or county for the exclusive use of bicycles or other modes of travel where permitted under s. 349.23 (2) (a), and so designated by appropriate signs and markings.

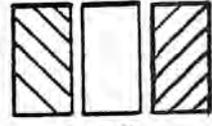
**(5m)** "Bike route" means any bicycle lane, bicycle way or highway which has been duly designated by the governing body of any city, town, village or county and which is identified by appropriate signs and markings.

**(5s)** "Bicycle way" means any path or sidewalk or portion thereof designated for the use of bicycles by the governing body of any city, town, village or county.

# GENERALIZED TOPOGRAPHY OF MARATHON COUNTY



**MARATHON CO.**  
 DEPARTMENT OF TOURISM & RECREATION  
 1000 W. Main Street  
 MARATHON, WISCONSIN 54451  
 PHONE 735-2111  
 FAX 735-2112  
 WWW.MARATHONCO.WI.GOV



**AREAS OF**  
**STEEP SLOPE**  
**MODERATE SLOPE**  
**SLIGHT SLOPE**

**LEGEND**

Political Boundaries	County Boundary	City Boundary	Town Boundary	Unincorporated Area
Water	Large Lake	Small Lake	Stream	Drainage
Highway	Interstate	State Highway	County Road	Local Road
Other	...	...	...	...

MARATHON COUNTY, WISCONSIN  
 U.S. GEOLOGICAL SURVEY  
 GEOLOGIC MAP  
 1:50,000  
 1984  
 MARATHON 31-4

MARATHON COUNTY PLANNING COMMISSION  
**RECEIVED**

JUL 17 1978

OFFICE OF  
HIGHWAY COMMISSIONER  
MARATHON COUNTY  
CALVIN E. COOK, COMMISSIONER  
P.O. BOX 1245 - WAUSAU, WI 54401

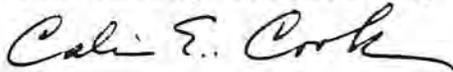
**COPY**

POLICY - BICYCLE LANES - MARATHON COUNTY TRUNK HIGHWAYS:

This policy was unanimously adopted by the Marathon County Highway Committee on Wednesday 12 July 1978, based on the recommendations of the Marathon County Planning Commission dated 26 June 1978.

- 1 - The sum of five thousand (\$ 5,000 ) dollars shall be earmarked in each annual County Highway budget for BICYCLE LANE construction or improvements.
- 2 - Projects must be on County Trunk Highway right-of-way, in areas of high Motor Vehicle and Bicycle traffic volume, and/or in hazardous areas due to physical condition of the highway, such as sharp hills or curves.
- 3 - Projects must exceed one thousand (1,000) feet in length, and shall consist only of marked asphalt-surfaced shoulder lanes.
- 4 - Projects must be on an official County Bicycle Route, or identified in a Bikeway Improvement Plan approved by the County Planning Commission.
- 5 - Project applications shall be made in writing by any municipality agreeing to a 50 - 50 cost sharing.
- 6 - The Bicycle Study Task Force shall establish priorities among competing projects, and recommend through the County Planning Commission to the County Highway Committee.
- 7 - A municipality participating in a project must forward its share of estimated costs to the County Highway Department before construction begins. Signing and pavement marking will not be a normal part of such costs.
- 8 - The County Highway Committee reserves the right to reject any project for just cause, such as planned highway construction.

I hereby certify that the above is a true and correct copy of the policy approved by the Highway Committee 12 July 1978.



Calvin E. Cook  
Highway Commissioner

## BIBLIOGRAPHY

Champaign County Regional Planning Commission. Bikeway Study. Champaign, Illinois, 1973.

East Central Wisconsin Regional Planning Commission. Bicycle Study for the East Central Wisconsin Region. Neenah, 1975.

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Oshkosh Plan Commission. City of Oshkosh Bike Route Plan. Oshkosh, 1975.

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Wisconsin Department of Natural Resources. Guidelines for Developing Rural Bike Routes. Madison, 1975.

Wisconsin Department of Natural Resources. Wisconsin Outdoor Recreation Plan. Madison, 1977.

Wisconsin Department of Transportation. Guidelines for Developing Urban Bike Routes. Madison, 1974.

Wisconsin Division of Highway Safety Coordination. Model Programs in Pedestrian and Bicycle Safety for Wisconsin Communities. Madison, 1973.

Wisconsin Division of Highway Safety Coordination. Wisconsin Pedestrian and Bicycle Safety Plan. Madison, 1976.

Wisconsin Governor's Office of Highway Safety Coordination. Planning Guide for the Development of Pedestrian and Bicycling Facilities. Madison, 1977.

## Request from Town of Weston to extend Bike Route 14

Andy

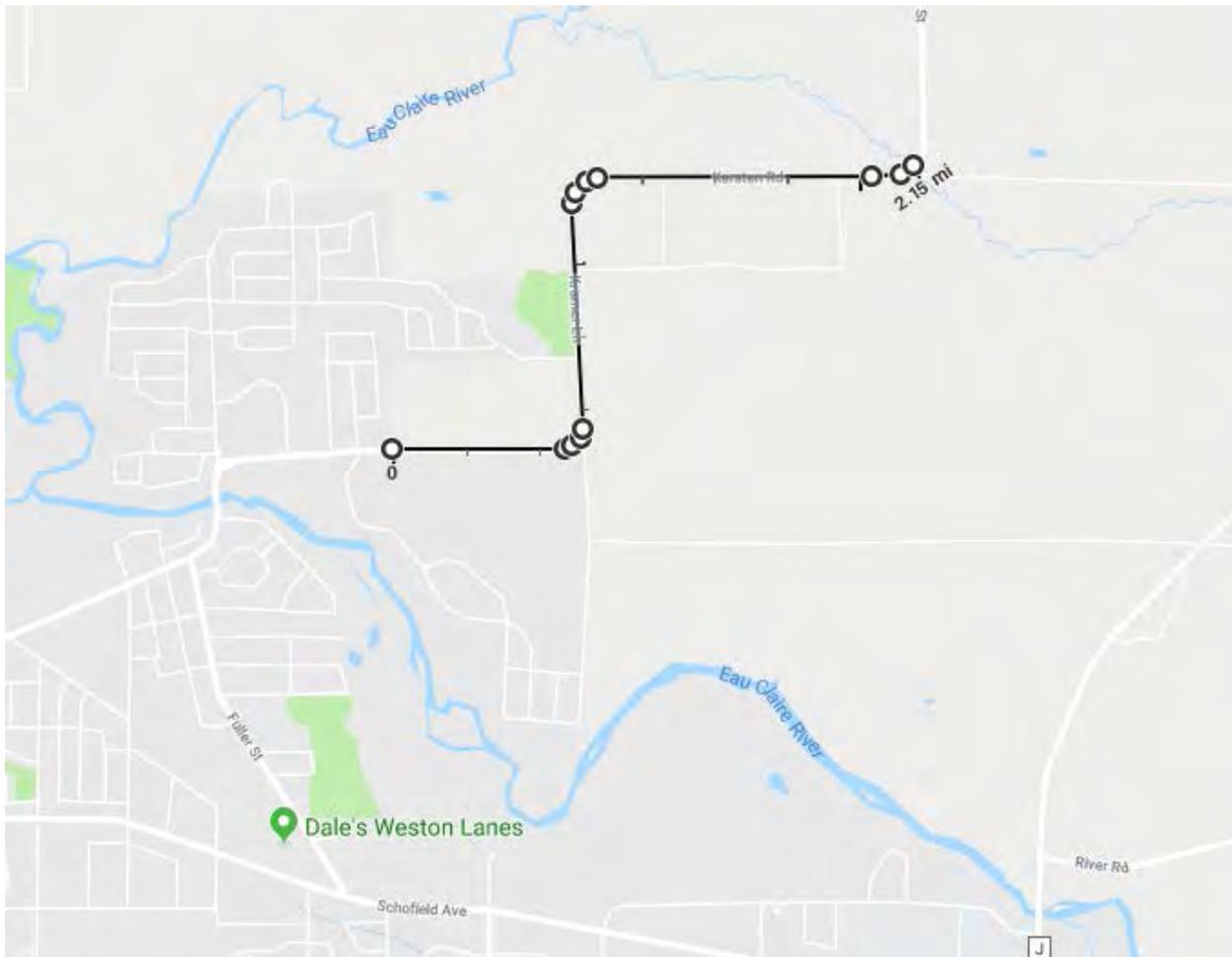
I would like to request that the new Ross Ave be put on the county bicycle rout map.

We are repaving the north end formally Lester St. this next year. We are going to put in 30 foot of blacktop so we will have 4 foot paved shoulders. My intent is to do the rest of Ross Ave. with 30 foot of blacktop. I intend to apply for the STP funds next year for that portion of Ross Ave. in the MPO area.

Is there any think that I have to do at the Town to make this happen?

Thanks

Milt Olson



George O. Peterson  
President  
[gpeterson@rothschildwi.com](mailto:gpeterson@rothschildwi.com)

Gary D. Olsen  
Administrator  
[golsen@rothschildwi.com](mailto:golsen@rothschildwi.com)

Timothy D. Vergara, P.E.  
Administrator of Public Works  
[tvergara@rothschildwi.com](mailto:tvergara@rothschildwi.com)



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Stacey S. Stepan  
Administrative Assistant  
[sstepan@rothschildwi.com](mailto:sstepan@rothschildwi.com)

December 11, 2018

Rebecca Frisch  
Director - Marathon County CPZ  
210 River Drive  
Wausau, WI 54403

**\*\* VIA EMAIL \*\***

**RE: Requested Trail Adoption by the MPO Bike and Pedestrian Sub-Committee**

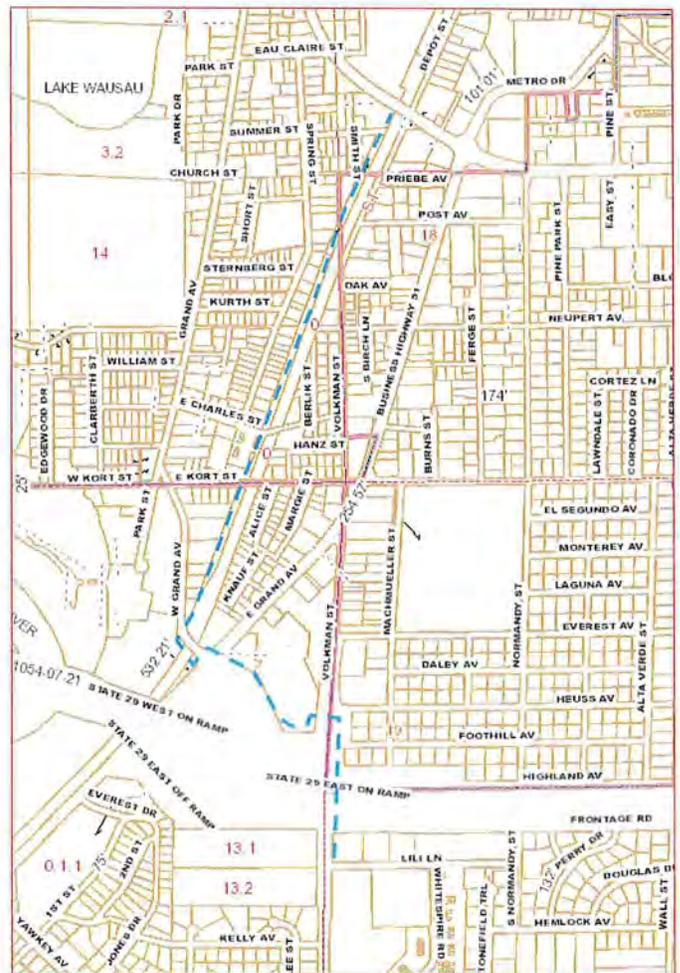
Dear Rebecca,

As you may already know, the Village of Rothschild and the City of Schofield have received notice of award from WisDOT for award of a Transportation Alternative Program (TAP) funding for the **Rothschild-Schofield Business 51 Bypass Trail**.

Generally, the project limits extend from Schofield Avenue to Lili Lane through the City of Schofield and the Village of Rothschild utilizing the old Wisconsin Central RR corridor, WisDOT right-of-way, and local right-of-way. The BLUE line represents the project in the image to the right.

As part of the planning for this project, both the Village of Rothschild and the City of Schofield are officially requesting the MPO Bike and Pedestrian Sub-Committee recognize the new route and appropriately add it to the overall metro route system.

As part of this review process by the Committee, it should be recognized that the City's master plan ultimately extends this same trail northerly to the Mountain Bay Trail in Wausau.



Conversely, the southern end will interconnect to the existing trail on Volkman Street connecting to Military Road. At Military Road, the route could be split allowing for an east and west component to this new route: one to the Cedar Creek Trail and the other to the Margaret-Shorey or Margaret-Alderson-Howland connector to Camp Phillips Road.

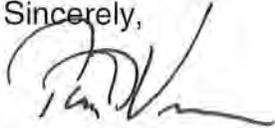
Incidentally, Margaret Street in Rothschild will be reconstructed in 2019 and is proposed to have bike route signage as prescribed by the MPO. However, it will not have bike lanes due to right-of-way restrictions.

Attached is a map that shows the current Village bike trails at present with the new proposed route added for your review. The Margaret-Alderson-Howland route was not shown on the map.

If you have any other questions or concerns, contact me at 715-359-3660 or [tvergara@rothschildwi.com](mailto:tvergara@rothschildwi.com).

On behalf of the Village and City, we thank you for your consideration.

Sincerely,



Timothy D. Vergara, P.E.  
Administrator of Public Works

CC: Mark Thout – DPW, City of Schofield  
Gary Olsen – Administrator, Village of Rothschild  
Andrew Lynch - Marathon :County CPZ Transportation Planner  
John Nowaczyk – Chair, MPO Bike and Pedestrian Sub-Committee

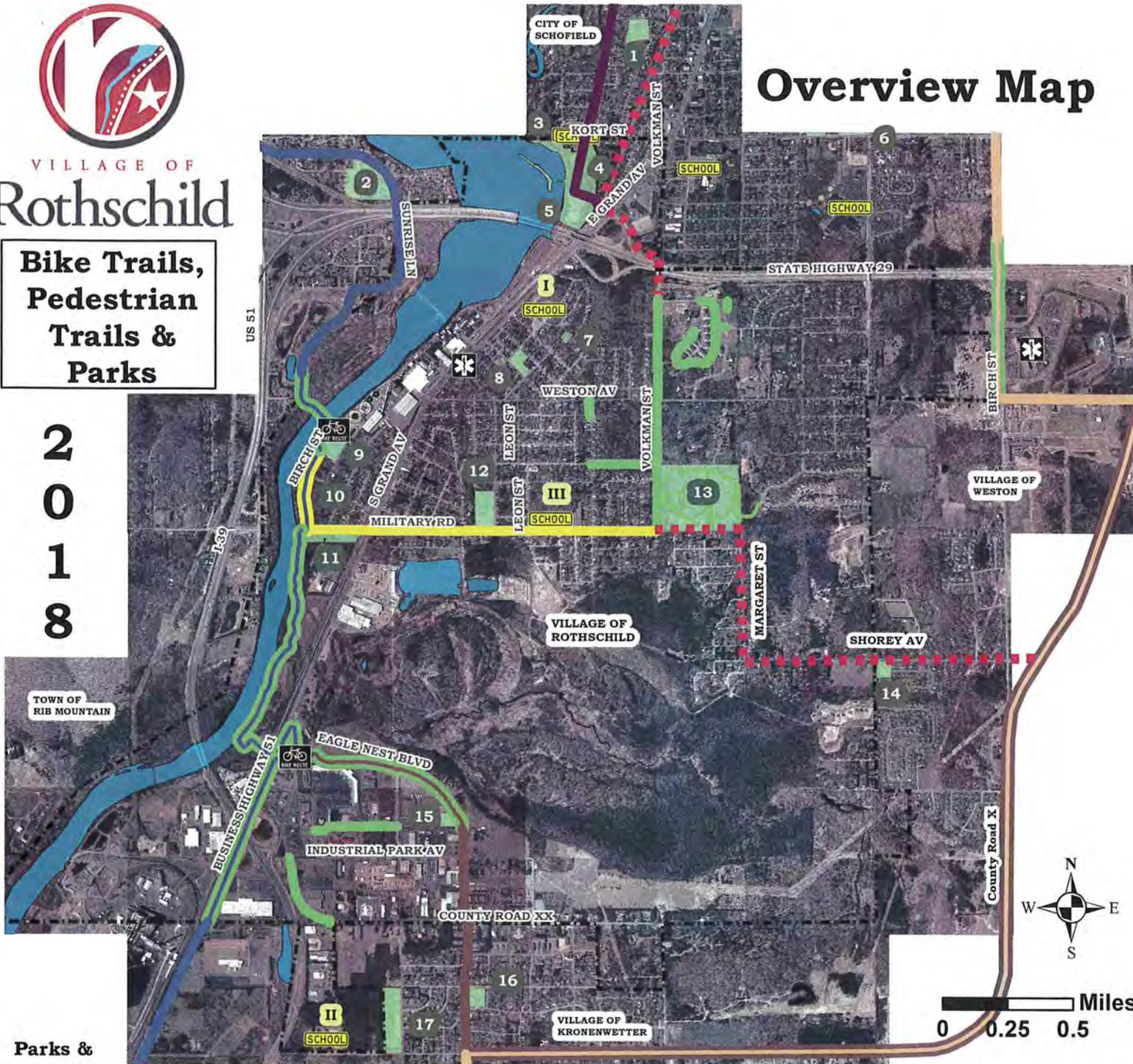


# VILLAGE OF Rothschild

## Bike Trails, Pedestrian Trails & Parks

2018

# Overview Map



### Parks & Amenities

- 1 James Krause Mayors Park: [Swimming, Restrooms, Tables/Structures, Parking, Sports, Biking]
- 2 Liberty Park: [Swimming, Restrooms, Tables/Structures, Parking, Sports, Biking]
- 3 Kort St Boat Launch Area: [Swimming, Restrooms, Tables/Structures, Parking, Sports, Biking]
- 4 Pavilion Park: [Swimming, Restrooms, Tables/Structures, Parking, Sports, Biking]
- 5 Rothschild-Schofield Aquatic Center: [Swimming, Restrooms, Tables/Structures, Parking, Sports, Biking]
- 6 Kennedy Park: [Swimming, Restrooms, Tables/Structures, Parking, Sports, Biking]
- 7 Jones Drive Park: [Swimming, Restrooms, Tables/Structures, Parking, Sports, Biking]
- 8 Tower Park: [Swimming, Restrooms, Tables/Structures, Parking, Sports, Biking]
- 9 River Street Park: [Swimming, Restrooms, Tables/Structures, Parking, Sports, Biking]
- 10 Garske Park: [Swimming, Restrooms, Tables/Structures, Parking, Sports, Biking]
- 11 Zimpro Park: [Swimming, Restrooms, Tables/Structures, Parking, Sports, Biking]
- 12 George Street Park: [Swimming, Restrooms, Tables/Structures, Parking, Sports, Biking]
- 13 Gaska Park: [Swimming, Restrooms, Tables/Structures, Parking, Sports, Biking]
- 14 Sandhill Meadows Park: [Swimming, Restrooms, Tables/Structures, Parking, Sports, Biking]
- 15 Cedar Creek Water Tower Park: [Swimming, Restrooms, Tables/Structures, Parking, Sports, Biking]
- 16 Sunset Park: [Swimming, Restrooms, Tables/Structures, Parking, Sports, Biking]
- 17 Recreation & Soccer Fields Park: [Swimming, Restrooms, Tables/Structures, Parking, Sports, Biking]
- I Rothschild Elementary: [Swimming, Restrooms, Tables/Structures, Parking, Sports, Biking]
- II Evergreen Elementary: [Swimming, Restrooms, Tables/Structures, Parking, Sports, Biking]
- III St. Mark's Catholic School: [Swimming, Restrooms, Tables/Structures, Parking, Sports, Biking]

### Bike & Pedestrian Trails

- Area Bike Route 9
- Area Bike Route 15
- Area Bike Route 22
- Area Bike Route 7
- Bike & Pedestrian - Off Street
- Bike & Pedestrian - On Street
- Proposed

### Map Legend

- [Bicycle icon] Fixation Station
- [Dashed line icon] Village Limits
- [School icon] Schools
- [Medical icon] Medical
- [Green square icon] Parks

### Parks Legend

- [Swimming icon] Swimming
- [Restrooms icon] Restrooms
- [Tables/Structures icon] Tables/Structures
- [Parking icon] Parking
- [Sports icon] Sports
- [Cross Country Skiing icon] Cross Country Skiing
- [Playground icon] Playground
- [Fishing icon] Fishing
- [Maintained Trails icon] Maintained Trails
- [Boat Launch icon] Boat Launch
- [Sledding (Winter) icon] Sledding (Winter)
- [Biking icon] Biking

### Wausau Area Bike Repair Shops

#### Builders cycle and Fitness Center

215 South 3rd Ave  
Wausau, WI 54403  
715-842-4185

#### City Bike Works

908 North 3rd St.  
Wausau, WI 54403  
715-845-1656

#### Rib Mountain Cycles

3716 Rib Mountain Dr.  
Wausau WI, 54401  
715-359-3925

#### Shepherd & Schaller Sporting Goods, Inc.

324 Scott Street  
Wausau, WI 54401  
715-845-5432

#### Trek Store of Wausau

2601 Stewart Ave  
Wausau, WI 54401  
715-845-7433

#### Sprocketz Bike Shop

2106 Schofield Ave.  
Ste 3 Weston, WI 54476  
715-359-7600

### Additional Information Links

Village of Rothschild Parks & Rec - [rothschildwi.com/Amenities/Parks-and-Recreation](http://rothschildwi.com/Amenities/Parks-and-Recreation)  
Wausau/Central WI Visitors Bureau - [visitwausau.com](http://visitwausau.com)  
Wausau Wheelers Bike Club - [wausauwheelers.org](http://wausauwheelers.org)  
Friends of Mountain Bay Trail - [mountain-baytrail.org](http://mountain-baytrail.org)  
Wausau Area Bike Information - [bicyclewauesau.org](http://bicyclewauesau.org)  
North Central WI Regional Planning - [ncwrpc.org](http://ncwrpc.org)