for the

New Richmond Area

June 23, 2003

New Richmond and Surrounding Townships
Bicycle & Pedestrian Master Plan

Affecting
City of New Richmond
Town of Stanton
Town of Star Prairie
Town of Erin Prairie
Town of Richmond
County of St. Croix
State of Wisconsin

Prepared with the Active Involvement of:
Multi-Purpose Pathway Ad hoc Steering Committee
New Richmond, Wisconsin

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Towns of Erin Prairie, Star Prairie, Richmond
and Stanton; the County of St. Croix;
and the State of Wisconsin.

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NEW RICHMOND AREA
BICYCLE AND PEDESTRIAN MASTER PLAN

Executive Summary

This plan seeks to improve conditions and increase opportunities in the New Richmond Area for bicycling, walking and other non-motorized activities. It is acknowledged that walking and cycling are beneficial activities, and their active promotion (through facilities and programs) will contribute to a cleaner, healthier and quieter city.

Major Issues Addressed

In order to increase opportunities for cycling and walking the plan addresses the following issues:

Travel Corridors

For bicycling and walking to become viable transportation options, major destination points need to be accessible, and travel corridors made safe, pleasant and convenient. Routes that require many stops, or are less direct than those used by motorists, will not be fully utilized. To meet the needs of both novice and experienced bicyclists a system of both on-street and off-street facilities will need to be provided. While the existing roadway system can accommodate the majority of adult bicyclists, with the increased growth in the region, it is becoming increasingly difficult for children to safely travel by bike to major destinations This is particularly the case on Knowles Ave (64/65), the primary arterial running through the downtown.

> **"**For bicycling and walking to become viable transportation options, major destination points need to be accessible**."**

In order to avoid unsafe roadways many bicyclists use sidewalks, creating increased conflicts with pedestrians. Sidewalks also increase a bicyclist's vulnerability at intersections and driveways because of sight restrictions, and the unpredictability of such movements.

This plan identifies corridors that are suitable for pedestrian and bike paths or shared trails, such as abandoned rail rights of way, along streams, rivers, and other locations with low side friction. Since those areas are limited, this plan also analyzes the suitability of current streets and makes recommendations for changes. Generally, there are three types of "bikeways" proposed in this plan:

Major Issues Addressed

- ***Bike Paths*** - These are hard-surface facilities on exclusive rights of way, allowing for two-way travel and are at least 8 feet wide (AASHTO standards[1]). 10-12 feet when shared with pedestrians and in-line skaters.

- ***Bike Lanes*** - These are part of a roadway, generally 5' feet wide on both sides of the street, carrying traffic in the same direction as adjacent motor vehicle traffic.

- ***Bike Routes*** – Streets without special lane markings that are deemed most suitable for bicycling may be so designated with "Bike Route" signs. Often these are for the purpose of providing continuity in an overall bikeway system -- connecting, for instance, a bike lane with a bike path. Included also in this category are *bicycle boulevards* - streets that are through for bicyclists but dead end for motorists, or where other "traffic calming" techniques have been employed.

  In making recommendations for improving the walking environment, this plan focuses on sidewalks, multi-use trails, crosswalks, pedestrian zones and signalization.

Safety Education
Facilities alone are not a sufficient condition for the protection of all road users. While there are risks inherent in all modes of travel, safety instruction can reduce such risks. There is a need for increased awareness among motorists, bicyclists and pedestrians about their respective rights and responsibilities.

Enforcement and Ordinances
One of the best ways to educate citizens about their rights and responsibilities as road users is through enforcement efforts. Currently ***there are discrepancies between local ordinances (City of New Richmond) and Wisconsin state statutes governing the rules of the road for bicyclists***. Additionally, effective enforcement is difficult to achieve without a broad base of awareness and support for the laws.

Bicycle Parking Facilities
The lack of secure places to park a bicycle can be a major obstacle to using bikes for transportation. Bicycle parking is lacking at retail stores and other major destinations. Where facilities do exist, most do not accommodate the high-security U-shaped locks. Ensuring adequate parking may require special zoning ordinances and a commitment to thorough site reviews during the building permit process.

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[1] American Association of State Highway and Transportation Officials that establishes guidance and standards for the design of transportation facilities.

Major Issues Addressed

Resources

Improving the pedestrian and bicycling environment will require budgeting priorities. Such improvements can further the advancement of the City of New Richmond and township goals such as reduced traffic congestion, a cleaner environment, and less noise pollution. The implementation of this plan can be justified economically through public health benefits.

> "Improving the pedestrian and bicycling environment will require budgeting priorities."

Funding for bicycle facilities and safety programs is available from state, county, and local resources as well as private donations. This plan may open additional funding opportunities through the Transportation Efficiency Act (TEA-21).

Goals and Objectives

The following goals and objectives were first identified through a community planning process beginning with the Multi-Purpose Pathway AD Hoc Steering Committee established November 2001 for the purpose of producing a bicycle/pedestrian plan for the towns and City of the New Richmond Area.

GOAL I.

Identify and be responsive to the needs of pedestrians and bicyclists on an on-going basis

Objectives:

1. Support the continuation of the Multi-Purpose Pathway Steering Committee to ensure plan implementation.
2. Encourage public participation when new projects are proposed.
3. Conduct periodic bike counts at key intersections and destination points.

GOAL II.

Increase the level of safety and convenience for bicyclists and pedestrians

Objectives:

1. All arterials and collectors should accommodate bicycles through 1) wide curb lanes (14 foot minimum) or 2) marked on-street bike lanes (5' min.); or 3) off-street paths (8' min.). Where major streets exist that presently do not safely accommodate cyclists (e.g., Knowles) and where improvements are cost-prohibitive, adjacent streets should be utilized as alternatives.
2. Changes to better accommodate bicyclists should be part of all new road improvement or construction plans.
3. Implement a sidewalk policy that will ensure safe pedestrian travel. Sidewalks should be required in residential areas and business districts where the roadway is busy and deemed unsuitable for children on foot or wheel chair occupants.
4. Replace any unsafe drainage grates with bicycle-safe grates. (None identified).
5. Improve safety using signs and markings where needed.
6. Provide shortcuts to bicyclists and pedestrians where possible, through continuing paths from dead end roads, or across railroad tracks and other barriers.

GOAL III.

Increase the use of bicycles in the New Richmond Area

Objectives:

1. Construct a network of contiguous pathways, lanes and routes (see Map).
2. Develop and distribute maps and brochures.
3. Provide sufficient bike parking at all public buildings.
4. Consider special incentives for biking for public employees.
5. Encourage employers to adopt incentives.
6. Support the national "Bike to work day". Promote it locally.

GOAL IV.

Reduce the rate of bicycle and pedestrian crashes and minimize the severity of injuries.

Objectives:

1. Eliminate discrepancies between state and local laws.
2. Develop or encourage safety education programs in the public schools.
3. Target enforcement at motorists to protect cyclists and pedestrians.
4. Implement a "Recommended routes to school program"
5. Support a helmet promotion program through Hospital and/or public agencies.
6. Collect and analyze accident data through hospital and police to target problem areas.
7. Construct safe facilities using State and AASHTO standards.

GOAL V.

Construct facilities that will enhance the image and quality of life in the New Richmond area and expand recreational opportunities for area residents

Objectives:

1. Develop a trail corridor to and around the Hatfield Lake area
2. Develop trail linkages with the Casey rail-trail east and west of WITC as well extending the trail to the north and south.
3. Name, map and promote new and existing trail facilities.
4. Support efforts for the continued development of the Paperjack Creek Trail
5. Work with county and township officials to ensure continuity and connectivity.

GOAL VI.

Improve conditions for bicyclists and pedestrians in a cost-effective manner.

Objectives:

1. Acquire rights of way and require construction of facilities in developing and redeveloping areas as part of the annexation and/or building permit process.
2. Consider City rights of way, utility easements, rail rights of way, etc. for possible use as bikeway/walkway corridors.
3. Develop multi-use facilities where use rates are not expected to create user conflicts.
4. Institutionalize safe access for bicyclists and pedestrians through design standards and new policies.
5. Integrate bike routes with new subdivisions and plat approvals in townships and City.

GOAL VII.

Ensure destination points are as accessible to pedestrians and bicyclists as they are to motorists.

Objectives:

1. All roads should remain legally accessible to bicyclists and pedestrians.
2. Provide bike-activated signals at intersections where the light must be triggered.
3. Provide safe travel corridors for non-motorists to all schools, parks and shopping centers in the New Richmond Area.

Bicycle Master Plan

Introduction

As its name suggests, the hallmark of the Transportation Efficiency Act (TEA-21) is efficiency. Toward this end, the federal legislation encourages all states and municipalities to develop and adopt bicycle and pedestrian master plans and make them a component of their long-range transportation plans. This plan, commissioned by the City of New Richmond, and guided by the involvement of surrounding townships, was produced in conjunction with the City's Comprehensive Plan and will fulfill that objective.

Guiding Principles

This plan focuses on meeting the needs of both regular bicyclists (adults and children) and "potential" (infrequent) bicyclists. Providing better facilities for potential bicyclists (who may opt to drive fewer miles) ***promotes healthier lifestyles and a cleaner environment***. Providing better education and enforcement to reduce collisions is a matter of public safety and health.

> **"**This plan focuses on meeting the needs of both regular bicyclists (adults and children) and "potential" (infrequent) bicyclists**."**

The policies and recommendations contained within this plan reflect the following underlying principles:

1. Bicycling and walking are beneficial modes of transportation and should be accessible to all that might choose them;

2. The safety of bicyclists and pedestrians should be placed above the convenience of motorists.

3. The safety of pedestrians, including the physically challenged, should be placed above the convenience of bicyclists; and,

4. Removing obstacles that prevent people from bicycling and walking demands a comprehensive approach: education, enforcement and facilities are all important components in promoting safe cycling.

Policy Objectives

The policy recommendations contained within this plan are presented to reach the following objectives:

1. Allow people, including children, who do not have access to a private automobile, or are unable or choose not to drive to meet their transportation needs without undue risks or inconvenience.

2. Foster "friendlier" streets. Allow for greater positive social interaction, and stronger sense of community and neighborliness.

3. Reduce the number of collisions for bicyclists and pedestrians.

4. Enable youth to walk or bike to school; reduce the need for parents to drive their children to school and other nearby destination points.

5. Provide safe recreational opportunities in the News Richmond area for residents and tourists.

Existing Conditions

The New Richmond Area includes some of the best agricultural land in the region as well as prime land for development. Only 40 miles from the Twin Cities, the area is experiencing an annual growth rate of 5 percent. Situated in an area of glacial outwash and ground moraines, it is an area of significant beauty, with the Willow River, Paperjack Creek and numerous lakes enriching the landscape. These lakes and waterways offer tremendous opportunities for recreational enjoyment, learning about nature, and pleasant corridors for non-motorized travel. Plans for trails in these locations will support both recreational and transportation needs.

As one of the fastest growing areas in Wisconsin, there is no sign of abatement. Individuals wanting to live in smaller cities are increasingly being drawn from the Twin Cities and other urban centers to the New Richmond area. Its proximity to the Twin Cities also makes it a good candidate for attracting tourists.

Much of the new development however is encroaching on prime agricultural land, and other open space. The development seems to be occurring under the assumption that people will continue to meet all their transportation needs with a motor vehicle. While early development was largely done on a grid pattern of streets (except for where the waterways or rail lines prevented it) most of the newer homes are being built in subdivisions where local streets all lead to one major arterial or collector. Consequently, actual distances to shopping outlets, work-sites, schools, and churches are increasing.

Total land area represented by the City of New Richmond and the four surrounding townships is 144 square miles. At moderate cycling speeds, (12 miles per hour) a person could travel from the southeastern tip of Erin Prairie (Pine Lake County Park) to the northwestern point of Star Prairie in approximately two hours. The same trip would take about 30 minutes in a car. There is no bus service.

Most destinations within the City of New Richmond can be reached on a bicycle in less than fifteen minutes. Since the majority of trips in the City of New Richmond are less than 5 miles, the potential for an increase in bicycle travel is significant. At present the main deterrents to increased bicycling is 1) lack of public awareness and 2) lack of dedicated bikeway facilities.

> **"**Most destinations within the City of New Richmond can be reached on a bicycle in less than fifteen minutes**."**

General Findings[2]

1. The largest number of bicycle users within the City of New Richmond are children; **Children, aged 12-14, represented 100 percent of bicycle crash victims from 1998-2001!**

2. About one percent of New Richmond's workforce commutes by bicycle.

3. The greatest generator of bicycle travel is the New Richmond Middle School. The West Elementary School is the second largest generator. Recreational riding may be a greater generator than transportational purposes especially during fair-weather days.

4. The City of New Richmond has higher rates of bicycling and walking than the outlying townships. Most of the bicycle travel in the townships are racers on training rides and bicycle tourists from Hudson and the Twin Cities.

5. The most heavily used facility in the area is the Casey Trail between 6th Street and the Business Park.

6. Approximately twice as many walkers and joggers use the Casey Trail than bicyclists.

7. Most older neighborhoods in the New Richmond Area are ideally located for walking and bicycle travel to local schools, parks, and stores.

8. Many of the new subdivisions are not conducive for bicycling and walking, as many destination points can only be accessed through the use of high speed and/or narrow rural roads.

9. There is little awareness about the rights and responsibilities of bicyclists.

10. There is a need for a comprehensive education program at the elementary and/or middle school level.

[2] These findings are based on interviews, bicycle count data, bicycle crash reports, field analysis, committee meetings, earlier studies and comparisons with other cities.

Who rides bicycles?
There are approximately 950 children in the New Richmond area aged 7 to 16. For this age group the bicycle has traditionally been a primary means of transportation. It can be estimated that at least 80 percent of these children have access to bikes and use them on a fairly regular basis (2 to 3 times/week) during fair weather months. A typical day then would see over 100 children using bikes.

TABLE 1 Bicycle Commuting Rates Among Selected Counties in March (1990 Census Reports)

County	Bike	Walk	Drive Alone	Under 10 Minutes
St. Croix County	0.08%	4.3%	77%	24%
Polk County	0.25%	5.3%	76%	27%
Dunn County	0.82%	13%	74%	31%
Pierce County	0.26%	9.8%	71%	27%
Washington (MN)	0.10%	1.6%	83%	14%
Barron County	0.53%	6.7%	81%	38%
Wisconsin, Statewide	0.53%			

More revealing than the percentage of people who bike to work is the ratio that is achieved when comparing the Drive Alone category to the Bicycle category (the DAB ratio) for the journey to work. According to the Census data for 1990 there were 1005 times more workers in St. Croix County who drove alone than rode a bike for their trip to work (April 1).

The DAB ratio is important in assessing the potential growth in bicycle commuting. Since there is little public benefit in encouraging transit users or walkers to switch over to bicycling, the DAB ratio compares only the Drive Alone to Bicycling rates. Nationally, the DAB ratio ranges from 2.7 (Davis, California) to over 3000. DAB ratios for many Wisconsin communities are provided in Table 2.

24 percent of the workers in St. Croix County got to work in under ten minutes. Trips under ten minutes are typically less than five miles for motorists and are considered ideal distances for bicycle commuting. If ten percent of the work trips under five miles were made on bicycle instead of "drive alone", St. Croix County's new DAB ratio would be 32, still higher than both Madison and Steven's Point (and five other Wisconsin communities not listed in Table 3.) Hence, this number is achievable.

Where do bicyclists travel?

> "Bicyclists generally have the same needs as motorists."

Bicyclists generally have the same needs as motorists: to get from point A to point B as safely and conveniently as possible. With few exceptions, any major destination for users of motor vehicles is also (at least potentially) a major destination point for bicyclists. Experienced cyclists will often choose arterials and major collectors because they are the only roads that lead to the desired end point. Even when local streets are through streets, the number of stop signs or busy crossings can make use of such streets as frustrating for cyclists as they are for motorists.

Local streets however, are usually quite adequate for children going to school, when such schools are located in the older neighborhoods. Unfortunately, except for the Middle School, all other schools are located on GG, a higher speed, arterial roadway.

When bicycles are being used for recreation, the preference is for off-street facilities along a creek, through a park or around a lake. More serious cyclists, especially those in training, favor rural roads where they don't have to worry about joggers, skate boarders, and baby strollers. And unlike city streets, rural roads have few stops and much less congestion. High speeds however can be a concern resulting in a demand for paved shoulders.

Studies show that there is a direct correlation between the existence of bike facilities and use rates. Even the simple marking (striping and signing) of a bike lane on an already wide travel lane will more than double the use rate.[3] There is a strong perception that without such facilities bicycling is not safe.

Bicycle counts conducted during June 2002 revealed that approximately 60 percent of all bicycle use are on sidewalks. 80 percent of those counted were adults.

Presently, bikeways in the New Richmond Area include the Casey Path and the Somerset Trail on the north side of Somerset Street from the hospital to the Willow River. A path has also been constructed through the center of the Woodland Creek Addition. There are also bike lanes on County Road CC (Wall Street), Water's Edge and East First Avenue. The facility on East First is on the south side only, and does not meet the American Association of State Highway and Transportation Officials (AASHTO) standards. Both AASHTO, and WisDOT guidelines warn against any facility that might encourage riding against the normal flow of traffic.

The Casey Trail is a multi-use facility, paved with asphalt and 6-8 feet wide. The Somerset

[3] See Pro Bike News, June 1993, published by Bicycle Federation of America. Article describes benefits documented in Corvallis, Oregon after bike lanes were marked.

Path is also asphalt and is 7-8 feet wide.

TABLE 2: Ratio of Drive Alone to Bicycle Trips to Work (1990 Census Data)	
Appleton	132
Beloit	203
Brookfield	419
Janesville	250
Kenosha	183
La Crosse	42
Madison	18
Racine	118
Ripon	48
Sheboygan	87
Stevens Point	29
Superior	137
Waupaca	36
Wausau	142
St. Croix County	**1005**
Polk County	302
Washington (Minn.)	797
Barron County	154
Pierce County	267
Dunn County	90
Rates outside of Wisconsin where programs exist	
Ann Arbor, Michigan	29.3
Boulder, Colorado	8.8
Davis, California	2.7
Eugene, Oregon	15.8
Iowa City, Iowa	20.0
Seattle, Washington	46.0

How safe is cycling in the area?
By analyzing police accident reports, census data, bike counts and population figures, a general bicycle crash rate can be estimated. From 1998 to 2001 nearly two percent of the total crashes reported to the police involved bicyclists. It is estimated that bicycling accounted for less than one percent of vehicle miles traveled during 1998. Hence, bicyclists are over-represented in traffic accidents.

Places where bicycling has a higher percentage of the vehicle miles traveled tend to have lower crash rates.[4] New Richmond's bicycle crash rate[5], for instance, is more than three times as high as Madison, Eau Claire and Lacrosse where cycling levels are three to seven times higher.

TABLE 3: Locations in New Richmond City with Bike/Car Collisions 1998-2001	
Streets (including intersection locations)	
1. Knowles	(4)
2. N. Fourth (K)	(1)
3. W. Third	(1)
4. E. Third	(1)
5. S. Arch	(1)
6. Montana	(1)
7. E. First	(1)
8.) E. 2nd	(1)

Of the six collisions, five took place at an intersection. Three (or 50 percent) involved bicyclists trying to cross Knowles Ave (64/65), all of whom entered the roadway from a sidewalk. Each was at a different intersection. The streets with collisions in the last 5 years are listed in Table 3.

Two of the three pedestrian crashes also involved crossing Knowles. Clearly, Knowles represents both the highest concentration of bike and pedestrian accidents as well as greatest traffic. In 9 out of 10 crashes involving pedestrians or bicyclists, the motorist was at least partially at fault or was cited. In 5 of 10 crashes the bicyclist was at least partially at fault and/or cited. Twenty percent involved a hit and run motorist.

[4] This is based on research conducted by Steve Clark for the City of Boulder, Colorado in 1986.
[5] The City of New Richmond is the only jurisdiction within the planning area that had crash data readily available for analysis. A more complete study including crash data from townships and county is recommended.

TABLE 4: Major Causes of Bike/Car Collisions	
# of Collisions	**Causative Factor**
5	Failure to yield the right of way
2	Stop sign violation
1	Visibility obscured
1	Inattentive driving
1	Failure to have control

Unfortunately, police accident reports do not present the whole picture. First, only accidents involving over $500 in property damage or personal injury need to be reported to the police. And crashes not involving a motor vehicle -- even if serious injury occurs -- are not reportable. It is estimated that less than 10 percent of the crashes that produce injury to bicyclists are ever recorded by police.

Several national studies show that cyclists wearing helmets have about the same chance of being fatally injured as a driver of an automobile for the same amount of time spent at either activity[6]. But children and novice cyclists have higher risks, and fewer than 5 percent of the bicyclists in the New Richmond area wear helmets. This underscores the need for comprehensive safety programming, enforcement, helmet promotion campaigns and better facilities.

What do bicyclists want?
Bicyclists are not all alike. For planning purposes they are usually divided into three distinct groupings:

- Group A Experienced adult bicyclists
- Group B Novice or casual adult bicyclists
- Group C Child bicyclists (under 16)

The State of Wisconsin encourages cities to accommodate Group A bicyclists by providing wide curb lanes or bike lanes on arterials and major collectors. Generally the experienced bicyclists ride faster than the other two groups and are more likely to choose arterials in order to have the same mobility as a motorist.

Group B and C cyclists are typically lumped together for planning purposes, as their perceptions of what constitutes a safe facility are often very similar. Off-street facilities and low level residential roads are most often favored by bicyclists in these groups.

[6] National Safety Council and H. Katteler, Minutes of the Velo City Conference, Bremen Germany.

All bicyclists will look for shortcuts when using bikes for transportation purposes. Children riding bikes to school, for instance, will frequently cross at midblock rather than ride to the intersection if it means getting to the building entrance a few seconds sooner. Bicycle corridors most heavily used are those that provide such short cuts; e.g., a dead end street for motorists becomes a through street for bicyclists via a bike path through a park.

All bicyclists need adequate space to avoid conflicts with motorists and pedestrians. Safety experts instruct bicyclists to ride at least three feet from the curb or parked cars in order to be visible to motorists pulling out from side streets, and to have room to maneuver around roadside debris. Wisconsin state law also requires motorists to leave at least 3 feet of clearance when overtaking other vehicles, including bikes. This means a 12-foot outside lane is generally not sufficient for accommodating bicyclists and cars. Where traffic volumes are high, a minimum of 14 feet, not including the curb flag, is recommended.

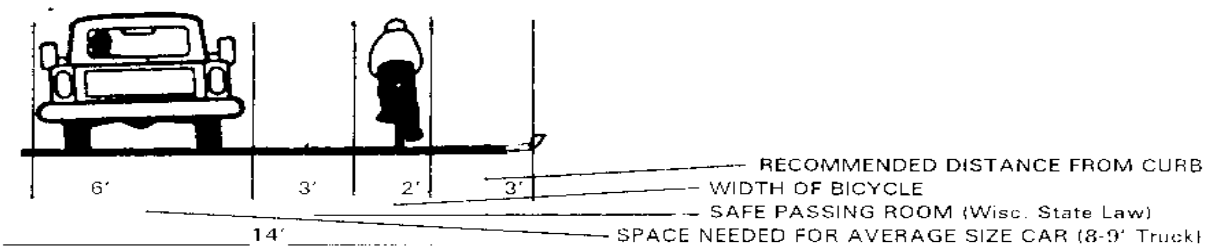

Figure 1 Space needed to adequately share lane with motorists

Figure 1 shows that cyclists need room to maneuver. Generally, the faster the movement, the greater the distance one should ride from the curb. Safety experts agree that bicyclists may need to move toward the center of the lane when descending down a hill or when approaching an intersection where the turning movements of cars can place the bicyclist in a vulnerable position.

Traffic volumes, speed limits and usable bike space all determine how suitable a road is for bicycling. All bicyclists benefit from roads with low traffic volumes, slower speeds and adequate width. (See Appendix A on what constitutes a safe facility.)

Except for bicyclists just out for exercise, all benefit from sufficient bike parking facilities. The lack of such facilities is frequently sited as a major obstacle to increased bicycle commuting.

According to both local surveys and national studies, a majority of the public supports efforts to improve conditions for bicyclists. This plan addresses how to make this happen.

Existing Policies, Plans

While this is the first bikeway/pedestrian plan developed specifically for the City of New Richmond and surrounding townships, there has been effort at the county level in trailway planning.

St. Croix County Bicycle Transportation Plan

In 1995, the West Central Wisconsin Regional Planning commission developed a Bicycle Transportation Plan for the county. While its focus was primarily on accommodating cyclists on existing roadways through the widening of shoulders and/or the marking of bike lanes, it did discuss the importance of providing a variety of strategies to ensure safe travel for family bike rides.

St. Croix County has designated 185 miles of county roadway as bicycle routes. Six miles have been marked as exclusive bicycle lanes, including a three-mile strip on CTH "CC" from New Richmond north towards Star Prairie. The rest are shared roadways that have been marked with bicycle route signs based on a rating system used by the State of Wisconsin. Because of increased traffic and high speeds, some of these roads would no longer meet acceptable levels of service for bicyclists under the rating system used in this plan.

> "St. Croix County has designated 185 miles of county roadway as bicycle routes."

St. Croix County Outdoors Recreation Plan

In April 2000, the St. Croix County Outdoor Recreation Plan was adopted. It acknowledged that while the county system of roads may work well for adult cyclists, it was not very conducive to family bicycle rides for parents with younger children. It called for the development of a comprehensive bicycle plan to connect facilities in all communities in St. Croix County.

In addition, the recreation plan recommended the continued implementation of the 1995 Bicycle Transportation Plan, as well as better promotion, increased maintenance, better signage, and coordination and cooperation between the County and local communities.

Proposed for the City of New Richmond was a trailway connecting the New Richmond Nature Center with Greenway Park along Paperjack Creek. It also recommended a multi-purpose path around Hatfield Lake and a path along Knowles between Sixth and 11th

Street.

St. Croix County Development Plan
In September 1999, St. Croix County adopted its Development Plan. Among its goals was the development of a "bikeway system throughout the County with varied facilities according to traffic volumes, road conditions and available trail routes."

Also relevant to this plan was the emphasis on encouraging conservation site design, mixed-use residential districts and the implementation of tax and fee policies requiring new developments to bear the costs for the additional facilities and services they necessitate.

Acknowledged in the plan was New Richmond's Park Dedication Ordinance and Township escrow dedicated to park and recreational facilities.

This Plan is consistent with the County Development Plan, as it also supports cluster-type developments, mixed use zoning and development fee policies. This Plan would seek to strengthen provisions within County Ordinances to ensure the needs of bicyclists and pedestrians are considered whenever a new development is approved. The goal of such provisions is to "institutionalize" facilities and improvements for bicycling and walking into the regular planning process. This will ensure that even with sustained growth and development, conditions for walking and bicycling will improve.

NOTE: The below recommendations for revisions in the City of New Richmond Ordinances should be also include revisions of township and county ordinances when applicable.

City Of New Richmond Ordinances
A review of City of New Richmond statutes indicates that some revisions may be necessary to fully respond to the needs of pedestrians and bicyclists. Such changes may also allow the City to be better able to coordinate their planning efforts with St. Croix County. Other changes are necessary to reduce discrepancies between Wisconsin and local bicycle ordinances. Since the State ordinances are more consistent with the model Uniform Vehicle Code, endorsed by bicycle safety experts this plan supports the adoption of the State bicycle traffic laws.

Table 5 on the following page, shows suggested revisions:

Table 5 Review Of City Of New Richmond Ordinances Possible Changes to Improve Conditions For Bicyclists and Pedestrians		
Reg. #	**Shortcomings/ concern**	**Proposed change**
10-1-14	Designates preferential lane use for bikes and pedestrians on two streets.	Inspect to ensure designation is desirable.
10-2-5	Does not conform to state statutes	Replace with state statutes
10-2-6	Licensing of bikes	Consider cost-effectiveness of program
13-1-122	No bicycle parking requirements	Consider adding requirement for bicycle parking for multi-family dwellings, retailers, and large employers
14-1-36 (c)	No mention of meeting the needs of pedestrians and bicyclists	Add language under c-7 to include the provision that the transportation system can accommodate bicycles and pedestrians
14-1-54	No mention of bicycle-safe drainage grates	Add language to ensure that all drainage grates are "bicycle-safe"
14-1-55 (d)	Could limit location of bikeways	Add language to clarify
14-1-55 (e)	No requirement for sidewalks or bikeways; leaves decision to City Engineer.	Specify sidewalks should be constructed in all residential areas and business districts within the city limits, where the roadway is deemed unsuitable for pedestrian traffic.
Appendix A	Environmental Assess. Checklist for subdivisions should include question about "Trails" development.	Add C. under Energy, Transportation and Communication for consideration of trails as proposed on the Multi-Use Trails Plan.
14-1-70	Cul-de-sac streets and dead end streets are only considered in terms of impacts on motor vehicles. No consideration for making them through streets for peds/bikes.	Consider adding, "wherever possible dead-end streets and cul-de-sac streets should provide for continuous access for bicyclists and pedestrians to the next nearest intersection or street."
14-1-80 (c)	No mention of trails as linear parks in any part of 14-1-80 or 14-1-81.	Under c-1 add "trailway" onto language; under c-2 add "including a greenway for non-motorized use."
14-1-81	$600 sum per unit for park or open space.	Sum could be increased in order to help fund trails program.

Facilities and Engineering

Recommendation 1

Begin to develop an entire bikeway system consisting of routes, lanes and separate paths; improvements to better accommodate bicyclists should be part of any new road improvement, development or construction plans.

This proposed system is a **long-term goal.** The attached Map shows an ideal bikeway system that can begin to be developed now, but may not be complete for twenty years. Project prioritization and revisions to this plan should occur at least every five years.

While most roads in the New Richmond Area can accommodate experienced bicyclists, many destinations are not accessible to the Group B and C cyclists. Several of the streets used by bicyclists have a Level of Service[7] (for bicyclists) at "D" (potential is high for conflicts). This includes a roadway marked as a bike route (CTH "K" going west from "CC"). Surveys show that many more people would use bicycles in the New Richmond area if they felt it was safe to do so. Especially lacking in safe facilities are the newer subdivisions in rural areas that rely on rural arterials, with no shoulders. Table 6 shows the level of service for bicyclists on selected roads.

Presently there are no existing policies or guidelines to ensure that the needs of bicyclists are considered including impacts a specific project or development might have on bicyclists and pedestrians.

Of particular concern are the many streets that presently bicyclists must use to conveniently reach their destinations that do not provide any safe area for cyclists. One of the most heavily used routes in the City of New Richmond is Knowles Ave. During two different bike counts in 2002, 100 percent of the bicycle traffic was on the sidewalk.

[7] See appendix for complete methodology in determining level of service.

TABLE 6 Ratings of Selected Streets in the New Richmond Area											
Road Name	**Index**	**Level**	**ADT**	**Speed**	**Lanes**	**Rt. Lane**	**Curb**	**Side Fric-tion**	**Truck s**	**Park-ing**	**Bike Sp.**
STH 65 s. of S.P	862	**C**	4600	55	2	18	10	0	1	0	7
65 (near WITC)	3728	**D**	16,700	35	4	15	11	1	1	0	2
65 n. of G	4773	**D**	6600	55	2	15	10	0	1	0	4
K e. of Grand	2250	**D**	2000	55	2	12	10	0	0	0	2
Washington Ave	236	**B**	590	25	2	12	11	1	0	0	0
GG w. of Bilmar	1250	**D**	3600	35	2	12	11	0	0	0	1
GG e. of Bilmar	1250	**D**	2400	35	2	11	10	0	0	0	1
H e. of CC	867	**C**	1200	55	2	15	10	0	0	0	5
200th street	405	**B**	200	55	2	10	10	0	0	0	0
K w. of CC	3062	**D**	4500	45	2	12	10	0	0	0	2
K n. of 64	463	**B**	3100	45	2	17	10	0	1	0	6

Notes:

- The above is using most recent available ADTs (average daily traffic) 2000 for City, 1997 for outside of City Limits.
- Right Lane includes shoulder if paved.
- To obtain Bike Space, the categories of curb, side friction, trucks, and parking are subtracted from Right Lane. If curb exists, 11 feet is subtracted. If no curb, 10 feet is subtracted.
- In just a three-year period GG has gone from a C level of service to D, because of increased traffic.
- In 1997 GG West of Bilmar had a suitability index of 937 and East of Bilmar an index of 781.
- K (N. 4th) west of CC has a rating of 1563 (C level of service) where speed limit is 35mph. Marked as a bike route.

Off-Street Paths

While studies suggest that sidewalks in urban areas may be less safe for bicycle travel than the adjacent roadways, well designed "bike paths" (appropriately signed and marked for two-way travel) can be the safest and most enjoyable types of facilities available to bicyclists. The best paths are located where there are few driveway crossings, side streets, and turning movements across the path. Hence, abandoned railroad rights-of-way, and corridors along streams, river, or through park lands are all recommended for trail development.

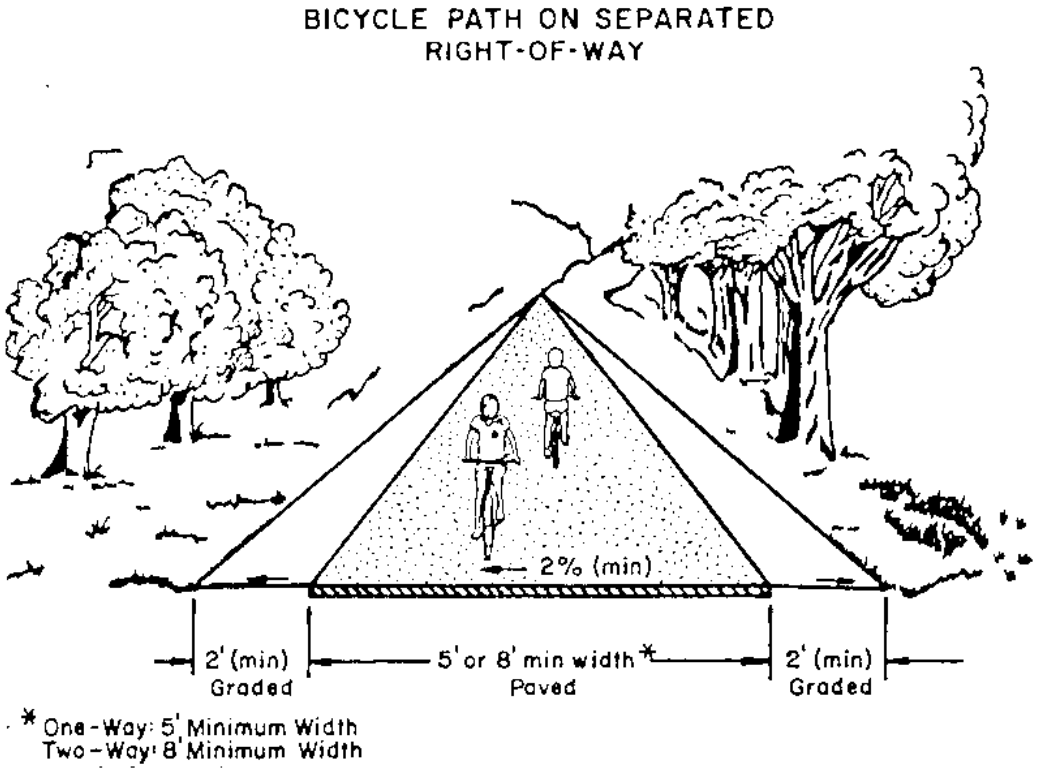

Figure 2 Cross section of a bicycle path (AASHTO, 1991)

Bike paths for two-way travel should be a minimum of 8 feet wide, with 2' graded shoulders on both sides. For use of maintenance and emergency vehicles, and if the path is to be shared with walkers and skaters, 10 or 12 feet is recommended. See Figure 2.

There is much opportunity to develop scenic trails in the New Richmond Area. There are 3,500+ acres of nature preserves. These trails could provide important and popular linkages to future trail networks in St. Croix County. See Map for possible connections to area trails

and key destinations.

Recommendation 2

Seek to develop continuous off street facilities on abandoned railroads, along streams and rivers and other corridors that can provide linkages. Attempt to link these trails up with other trails in the area.

Multi-purpose paths along both the Willow River and Paperjack Creek could provide an exceptional outdoor experience for both residents and tourists while serving important transportation needs. Extending the Casey Rail-Trail further to the Northeast and Southwest provides the main backbone of the overall system.

Recommendation 3

Provide short cuts to bicyclists and pedestrians wherever possible, through continuing paths from dead-end roads or across railroad tracks and other barriers.

TABLE 7: Recommended Trail Construction Program

Name	Jurisdiction
5-YEAR PROGRAM	
Paperjack Creek Trail	City of New Richmond
Casey Extension	City of New Richmond
140th Corridor	Town of Richmond City of New Richmond
10-YEAR PROGRAM	
Hatfield Lake	City of New Richmond
Minnesota St./ Millpond Path	City of New Richmond
WCL RR Willow River Crossing	City of New Richmond
15-YEAR PROGRAM	
Willow River Trail	City of New Richmond Town of Richmond

Recommendation 4

When there is a high number of turning movements and driveways, discourage the building of bike paths along major streets.

Some of the most beneficial and popular trails are those that provide the bicyclist or pedestrian a more direct route than nearby roads. For instance, residential streets that dead-end or become cul-de-sacs for motorists can be through ways for bicyclists with the construction of a path. In some cities, bicycle corridors have been created by installing barriers or diverters to motor vehicles, while allowing full access to bicyclists. Roads that end at a park are also good choices for bike routes -- assuming a path can be built through the park. Roads that are not through streets for motorists are more apt to have lower traffic volumes; removing as many stop signs from such streets to favor the bicycle travel can turn these minor collectors or residential streets into a major "bicycle boulevards." See more on bicycle boulevards on page 19.

TABLE 8: Suggested Short-Cut Bike Paths:
5th Street to Jefferson/Somerset
Williams to Mary Park
Monette Drive to 5th (through Park)
Heritage Drive to Paperjack Creek Trail
Rounds to E. Sixth Street

Sidewalk bike paths adjacent to busy streets can work, but only when bicyclists are willing to maintain slower speeds (under 10 miles per hour) and enter intersections at pedestrian speeds, so that other drivers may be able to anticipate the necessity to yield the right of way. Because bicyclists on sidewalks are normally less visible, and because motorists aren't accustomed to looking for potential conflicts off the roadway, more experienced cyclists will often choose the roadway where they can maintain faster speeds.

Studies show that 75 percent of all urban bike/car collisions happen at intersections. For adult cyclists the main causes are 1) left-turning motorist failing to yield the right of way and 2) right turning motorist into path of straight through cyclists. This is why safety experts recommend that cyclists ride nearer the center of the lane when approaching an intersection. Cyclists are even less likely to be seen when using an adjacent bike path. Consequently, unless the bike path has grade-separated crossings or a dedicated signal phase (or is far enough away from the adjacent roadway to have its own traffic control devices, an on-street facility (wide curb lanes or a dedicated bike lane) will be safer and more cost-effective.

On-Street Bike Lanes

When bicycles are ridden on arterials without adequate lane width, (12 feet or less) motorists may experience delays, and unsafe passing in the same lane may result. Moreover, overall traffic capacity will be reduced. Bike lanes and wide curb lanes solve these problems, allowing motorists to safely pass without the need to change lanes. Bike lanes are signed, striped and marked as restricted lanes (right turning motorists excepted), and should be a minimum of 5' feet wide. Bike lanes should be for one-way travel only, in the same direction as the traffic in the adjacent travel lane. See Figure 3 for typical bike lane cross-sections.

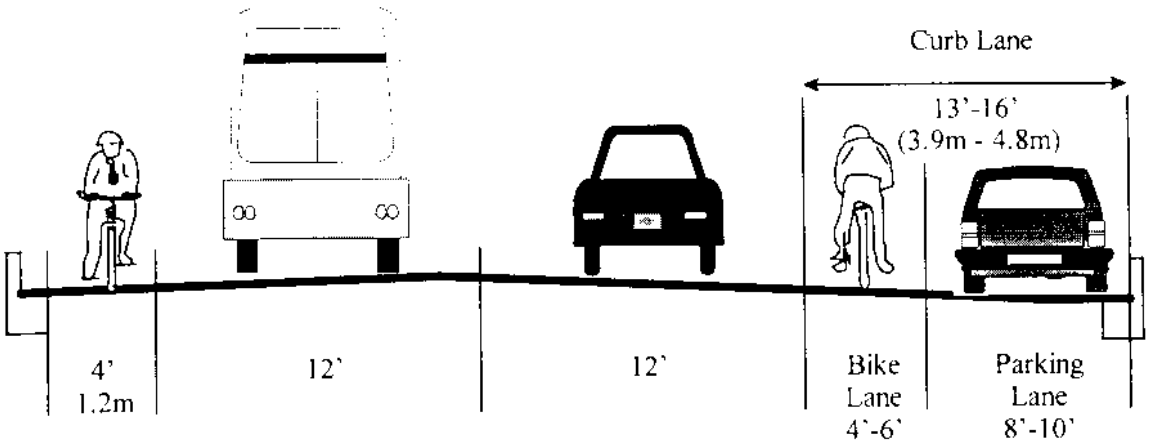

Figure 3 Typical Cross Section of Bike Lane

Although the lanes are not physically separated from the travel lanes, when bicyclists have their own space demarcated on the road, they perceive the situation to be safer. This leads to more people using bicycles, which studies show reduces the overall bike accident rates and quite often also reduces the rates of car/car collisions.

TABLE 9: Priority Bike Lane Program	
Highest Priority	**Entity**
N. 4th Street/ CTH "K"	St. Croix County
W. 5th Street (west of Minnesota)	City of New Richmond
E. First Street/CTH "K"	St. Croix County/City of New Richmond
Medium Priority	
CTH "A"	St. Croix County
Paperjack Drive	City of New Richmond
Long term	
Third Street	City of New Richmond
Green Avenue	City of New Richmond
Bilmar	City of New Richmond

On-Street Routes

In some situations it will be advantageous not to stripe a bike lane, but simply to re-stripe or widen the road for a wide outside curb lane or shoulder. The decision should be based on the potential user group. If group B and C cyclists (children and casual adult cyclists) are expected to use the street because of the location of schools, parks and other destination points, and there are no other facilities for safe routes, then a bike lane is recommended. However, if the ***roadway is not anticipated to be used*** by children, a wide curb lane or shoulder may be adequate and more cost-effective.

5 feet is needed for a bike lane in addition to the width of the travel lane. While 10-foot travel lanes have worked in other areas, it is probably inadequate where truck and bus traffic is frequent. A wide curb lane, on the other hand, only needs to be 14 feet, not including the curb flag. On a 4-lane street with standard 12 foot travel lanes, this can be accomplished by restriping the inside lane to 10 feet. This is recommended for Knowles Ave.

TABLE 10 Streets Proposed For Wide Curb Lanes, Paved Shoulders Or Separated Paths	
Highest Priority	**Entity**
Knowles Ave. (65/64)	State of Wisconsin
CTH "A" Boardman north	St. Croix County
Medium Priority	**Entity**
CTH "CC" from CTH "C" to CTH "H"	St. Croix County
All township roads when traffic volumes reach 1000 vehicles per day.	

There are some locations where bike lanes can make conditions less safe for bicyclists, by forcing them to ride too far to the right.[8] Chief among these are descents with steep grades. Slopes greater than 5 percent should not be striped for bike lanes, especially areas of significant side friction. In urban areas, where speeds are 30 mph[9] or less, such streets should be signed with "Use Full Lane" warning sign, depicting a bicycle traveling down hill. See Figure 4. These signs instruct both motorists and bicyclists, and help to legitimize what an experienced cyclist already does in such a situation in order to have more room to maneuver.

Starr Avenue approaching West Elementary and Riley Avenue near the high school are two locations with descents that may be unsuitable for 5' wide bike lanes. This plan proposes that bike lanes be provided on Starr Avenue. The markings should stop at the beginning of each descent near the school. The Figure 4 sign should be erected to clarify the situation. No other locations in the New Richmond Area have been identified as needing this special treatment.[10]

[8] Bike lanes should always end at least 75 feet from an intersection, to allow straight through cyclists to position themselves closer to the center of the travel lane in order to avoid being caught to the right of right-turning motorists. Refer to AASHTO *Bicycle Design Guidelines*, 1991.

[9] This is the speed that most bicyclists will travel when descending down a hill with a 5 percent or greater grade. Experienced cyclists learn that staying too far to the right at such high speeds places them in a very vulnerable position with cars pulling out from side streets (who don't always see them in time).

[10] Whenever bicyclists are given the right to the full lane, there is an advantage in narrow travel lanes, i.e., it is easier for a bicyclist to control a 10 foot travel lane than one that is 12 feet or greater. While travel lanes on downhill grades can be reduced to 10 feet, up hill slopes should be widened. This is because cyclists are most likely to impede the flow of traffic when traveling up hill. Also, many cyclists tend to weave when grades are especially difficult. A special 4 or 5-foot wide bicycle *climbing lane* is ideal in such situations.

Figure 4 Use Full Lane Sign

It also should be noted that striped bike lanes require greater maintenance than a wide outside curb lane. Motor vehicles tend to "sweep" debris toward the side of a street with the movement of their wheels. A bike lane tends to get less sweeping and more of the debris since motorists are less likely to cross over the line. Bike lanes also need to be restriped periodically, and plowed in the winter if they are to remain viable.

Recommendation 5

Where feasible, arterials and collectors should accommodate bicycles through 1) wide curb lanes, 14 ft. minimum; or 2) marked on-street bike lanes. Where arterials exist that presently cannot safely accommodate bicyclists and where improvements would be cost-prohibitive adjacent streets should be found as alternatives for bicycle travel. These should be marked as bicycle routes unless bike lanes are warranted by the traffic volumes.

There may be situations where it would be cost-prohibitive to create a safe facility for bicyclists. In such situations, alternative parallel streets should be found. While residential streets or local town roads rarely need widening or special lane striping to safely accommodate bicyclists, there are improvements that can be made to make such streets better bicycle corridors.

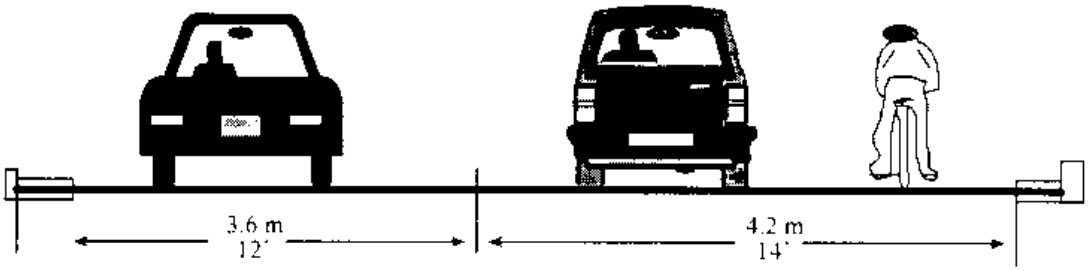

Figure 5 Wide Curb Lane

Recommendation 6
Consider a bike route-signing program.

As a general rule, signing streets for recreational purposes as bike routes is not recommended. The choosing of one low volume road over another is usually arbitrary, and some road users may believe that other streets in an area are off limits to bicyclists. While there is often a high demand for such recreational routes, the same goal can be achieved (at a lower cost) through the printing and distribution of maps showing various recommended routes. This also provides the bicyclist with more options and less fear of getting lost (when one is focused on traffic, bike route signs are easy to miss.)

There is, however, a place for bike route signs. Mostly they should be used when there is a desire to point bicyclists on roads that have clear advantages over others in the area. For instance, streets with wide curb lanes are good candidates for bike route signs. They also should be used to designate the best street connecting other bike facilities. A residential street that dead ends for motorists but continues on as a bike path, for example, should be signed as a bike route.

Rural roads that have adequate shoulders (but are not marked as bike lanes) also make good candidates for bike route signage. On the other hand, streets that have considerable number of stops or other delays should not be identified as bike routes unless changes are planned to make such streets as convenient as others in the general vicinity.

The streets listed in Table 11 are good candidates for bike route signing. They have more than adequate width and low traffic volumes. Parking is allowed but sporadic. Consideration should be given in the future (especially with any increase in traffic volume) for special bike lanes. Such markings may require the removal of parking from at least one side of the street.

TABLE 11: Proposed Bike Routes in the New Richmond Area
Can be signed without improvements
Paperjack Drive
Bilmar Ave.
Green Ave.
Third St.

Bicycle Boulevards/Traffic Calming

The most pleasant and optimum bike routes are known as "bicycle boulevards". Establishing a bicycle boulevard normally involves active "traffic calming" measures. The goal is to transform a street from one that primarily serves motorists into one that offers bicyclists and pedestrians a high degree of safety and convenience. This is usually done by creating barriers or speed reductions for motorists. The most effective bicycle boulevards are those that span a distance of 8 blocks or greater and lead to common destination points.

Bicycle boulevards often take advantage of dead end streets with a bike path serving as a connector. The number of stop signs on such streets can often be reduced to make travel more convenient. Pedestrian paths along such streets are typical. Once parking is removed, speed limits are reduced and the connectors are in place, such streets can be signed with regular bike route signs. However, to ensure their use, public awareness activities ought to be conducted, including map dissemination. Table 12 shows potential streets in the New Richmond Area for bicycle boulevards. These correspond with the listing of bike path "connectors" revealed in Table 8.

TABLE 12: Potential Bicycle Boulevards
Minnesota Street
W. 5th
Williams

Bicycle Parking
The lack of adequate bicycle parking facilities can be a major disincentive for riding. Presently there exists a significant shortage of racks in the New Richmond area. Among bicyclists surveyed, none believed there were enough bicycle racks in New Richmond. Many bicyclists indicated in personal interviews that they either did not ride to do shopping errands, or would bring their bikes inside with them. Bicycle theft rates are largely associated with the availability and design of bicycle racks.

Recommendation 7

Provide sufficient bicycle parking at all public buildings and at many retail areas; apply for enhancement funds to meet this need.

Along with the installation of bike route signs depicting recommended routes, providing sufficient bicycle parking facilities is a good low-cost method of improving conditions for bicyclists. It has been one of the most successful project types to receive TEA-21 funding across the country.

Some cities have produced ordinances to ensure that bicycle parking becomes as much a part of the development review process as auto parking. When people see bike-parking facilities it reminds them that a bicycle is an option for transportation.

Recommendation 8

Consider a zoning ordinance requiring new developments to provide bicycle parking

Maintenance
A trail system needs to be properly maintained if it is going to be fully utilized and allow for the safety and enjoyment of its users.

Each entity should have designated personnel to provide this service. This should be a function of streets maintenance departments. Recreational paths can be serviced by parks and recreation departments. A bike committee can ensure such maintenance is being conducted on a regular basis.

Recommendation 9

Ensure that all bikeway facilities are inspected and maintained on a regular basis.

All landowners shall only be required to clear snow to a width of a sidewalk or 5'.

Recommendation 10

Amend local ordinance to clarify that the clearing of snow from all Multi-Purpose trails shall be removed by the property owner unless said trail is in the rear of the lot in which case the local jurisdiction shall maintain or clear the snow at the discretion of local officials.

Signs, Signals and Pavement Markings
One of the best ways to encourage the safe use of facilities is by properly signing them. Without adequate signs and pavement markings, facilities may go unnoticed, or worse, be used incorrectly. For example, bike lanes need to be striped on both sides of a two-way street. Pavement markings need to show the direction the bicyclists are to travel. Without such markings, it is common for cyclists to treat a bike lane as a bike path and travel the wrong way.

Recommendation 11

All regulatory signs, pavement markings and signals should conform to the *Manual on Uniform Traffic Control Devices*.

Bicycles are defined as vehicles under Wisconsin state law. To use other than standard traffic control devices could pose a liability problem. Signs that are not consistent with the MUTCD can be more easily challenged in the courts.

Non-regulatory signs specially designed to attract users and provide directional support can aid in promoting new facilities. Consideration should be given to naming each facility and marking it accordingly.

Special signing could prove beneficial for attracting users to: Hatfield Lake Trail, Casey Trail, Somerset Trail, Paperjack Trail, and Mary Park Trail.

Recommendation 12

All demand-actuated signals should respond to the presence of bicycles.

If loop detectors are placed on any streets in the future, care should be taken to ensure that they would detect the presence of bicyclists. Pavement markings can be used to denote area where cyclist can be detected. (Most signals can detect bicycles if cyclists know where to place the wheels. At intersections with standard square or rectangle loops, for example, the right edge of the loop is often sensitive enough to detect bikes. This area can be marked with a special pavement marking.)

Recommendation 13

Install stop or yield signs on low-volume residential streets that intersect with proposed bicycle routes. Reduce the number of uncontrolled intersections where bicycling activity is common.

While most intersections in the New Richmond Area have adequate traffic control signs, some do not. Typically, where intersections are uncontrolled, the rights of bicyclists are often ignored, and bicyclists, especially children, fail to understand when they need to stop. Without a stop or yield sign, all users may assume they have the right of way.

Recommendation 14

Increase sight distance at crossings by signing and striping no parking zones within 50 feet from any intersection and drive- throughs.

Many bike/car collisions occur because motorists simply do not see the cyclists due to sight restrictions. This is particularly true when bicyclists use sidewalks or travel "as far to the right as possible" as the current New Richmond ordinance requires. Frequently this causes the bicyclists to be hidden behind parked cars, shrubs or other obstructions. In addition to eliminating parking within

50 feet from intersections, care also should be taken to remove other sight restrictions at intersections where there is significant bicycle travel.

Recommendation 15

Create and demarcate shoulder lines on rural roads wherever feasible. Travel lane widths need not exceed 11 feet. Any additional width should be striped as a shoulder. Where shoulders are 4' wide or greater, consideration should be given to striping them as a bike lane.

See Table 10 for suggested shoulder program. This schedule of priorities should be modified in accordance with any Long Term Transportation Plans or local Transportation Improvement Programs. All highways with projected average daily traffic volume (ADT) of 1000 or more should have a paved shoulder of at least 3 feet.

Recommendation 16

Restripe four-lane arterial streets to allow for wider curb lanes as part of any new overlay or improvement project.

Table 10 also lists streets suggested for wide curb lanes. This schedule of priorities should be modified in accordance with the TIP. See Figure 5.

Recommendation 17

Sign and provide pavement markings where bike lanes are established.

Refer to the MUTCD for appropriate pavement markings and signs. It is necessary to provide both for optimum utilization and user safety.

Design, Zoning and Land Use

Zoning and land use patterns greatly affect the feasibility of bicycling and walking. Strip development and malls with large parking lots for instance, assumes and ensures a continued dependency upon the automobile. On the other hand, neighborhood commercial and mixed-use development districts that are closer to or within residential areas will make it easier for people to meet their needs on foot or on bike.

> "Zoning and land use patterns greatly affect the feasibility of bicycling and walking."

Similarly, traditional highway design that does not take into consideration the needs of bicyclists will lead to their further exclusion. Arterials designed with 12' lanes for instance, do not allow motorists to safely share the same lane with bicyclists. Yet, this is still the design standard for many states including Wisconsin.

Mixed-Used Development

Many cities are beginning to experiment with some mixed-used development districts. These areas can highlight a natural feature like a lake or river, while allowing for parks, industry, retail space, educational institutions and a new housing complex all within the same corridor. Trails integrated within such innovative developments allow area residents and visitors safe access without the use of a motor vehicle.

Recommendation 18

Explore areas suitable for mixed-use developments. If necessary, make appropriate changes in zoning regulations to allow for mixed use.

One area that should be considered for innovative redevelopment on this scale is the old Mill Pond site, along the Willow River and near downtown.

Recommendation 19

Downsize parking requirements contained within zoning ordinances.

Requirements for off-street parking should be made flexible in locations that have high potential of attracting people on foot, transit and bus. These areas include WITC, new parks, and low-income housing units. The addition of expanded parking lots and new ramps should be discouraged until every effort is made in the New Richmond to significantly decrease the percentage of single-occupant vehicles.

Auto Disincentives
One of the most effective ways to promote alternatives to the automobile is to level the playing field. While it may be difficult and extremely expensive to give bicyclists and walkers the same degree of convenience that motorists presently enjoy, it is extremely cost-effective to decrease the convenience of motorists. Studies show that the easiest way to control the number of motorists in a given area (and reduce congestion and unnecessary trips) is to decrease the amount of available parking.

Recommendation 20

Where feasible, and only after considerable public discussion, eliminate on-street parking along proposed bicycle corridors.

The less off-street parking spaces the greater the demand for use of the public right of way for parking. Again, without active promotion of alternatives, neither recommendation 22 or 23 will be effectively implemented.

Recommendation 21

Work with corporations to promote alternatives to the automobile.

Provide special recognition to companies who can increase ride sharing, bicycling and walking.

Site Review Process
New developments should include desirable facilities for bicyclists. A checklist should be given to all developers of what is and what is not acceptable. Ordinances should be developed to enforce the inclusion of the following items:

Bicycle Safe Drainage Grates

- Bicycle parking facilities
- Sidewalks and bike trails for proper connections to neighborhoods and other destinations
- Box culverts under major roadways
- Bike lanes, wide curb lanes or traffic calming techniques on any new street
- Special fund for park and bikeway improvements

Recommendation 22

Ensure that the needs of bicyclists and pedestrians are considered in all new developments. Any new development that will change the level of service for bicyclists on an existing roadway should be responsible for the costs of rectifying the situation (through road widening or bike path development).

Education and Awareness

Elementary and Secondary Schools

Public and private schools are the strongest bicycle trip generators in the New Richmond Area. Counts taken in late October, March and early May at bicycle parking racks revealed that the middle school in particular, has a very high rate of bicycling activity. This is also the age group that the police reports show as having 100 percent involvement in bike crashes.

Recommendation 23

Continue to teach bike safety in the schools through bike rodeos and other programs. Implement a pilot education program.

Such a program should include the printing and distribution of safety brochures teaching children the rules of the road and at least one state-of-the-art (AAA/Bicycle Forum) bike rodeo involving on-bike training. Joint effort of police, parks and bike enthusiasts targeting 4,5 & 6 graders.
Efforts should also be made to bring "Basics of Bicycling" into the school districts.

Recommendation 24

Sponsor interested elementary teachers, police officers and park leaders to attend WisDOTs "Teaching the teachers" bike safety workshops held the spring of each year.

WITC

This technical school is potentially the greatest generator of bicycle transportation in the City.
Many of the students, not from the area, are not familiar with New Richmond's ordinances or bicycling environment.

Recommendation 25

Enlist an Effective Cycling Instructor to teach at least one course at WITC on safe cycling skills.

Maps and Brochures

Maps and are useful in helping bicyclists determine the safest routes for recreational and transportational trips. Brochures are important in conveying the rules of the roads and

providing riding tips. The most effective strategy is to combine a safety brochure with a map. People hang on to maps.

Recommendation 26

Develop a bicycle routes map for the New Richmond Area. Include safety information and user-friendly graphics.

Private Efforts

Civic groups, concerned citizens, bicycle enthusiasts are all potential contacts for helping to conduct an effective safety awareness campaign. However, it should not be assumed that anyone with an interest could effectively teach safe cycling.

Recommendation 27

Ensure that any major effort is led by someone trained in bicycle safety instruction.

Media Campaigns

Large-scale audiences, especially non-bicyclists, can most effectively be reached via the media.

Recommendation 28

Consider producing Public Service Announcements for local radio stations to promote safe cycling.

Enforcement and Ordinances

State and Local Ordinances

State laws have changed in Wisconsin in the last few decades based on the recognition that 1) bicyclists are operators of vehicles and 2) bicyclists fare best when treated as having the same rights and responsibilities as drivers of motor vehicles. Presently there are several discrepancies between state and local law that can create confusion for bicyclists. Since the state statutes governing bicyclists would overrule local ordinances in a courtroom, it would be advantageous to adopt the state statutes.

The City of New Richmond requires all bikes operating on city streets to be registered (10-2-5d).

This could be especially problematic for non-resident cyclists riding through as tourists or visitors. A non-mandatory program would solve this problem and be more consistent with current compliance rates.

Recommendation 29

Change the City of New Richmond ordinances to conform to state statutes, and more closely resemble the Uniform Vehicle Code. (See appendix B).

Bicyclists' Rights

Increased efforts need to be made to analyze the causes of bike/car collisions. There is a high percentage of motorists in the New Richmond Area who do not understand that bicyclists have nearly the same rights as motor vehicle operators. There is a need in the New Richmond Area to increase the legitimacy of bicycling. This can occur with increased enforcement for both bicyclist's rights and their responsibilities.

Recommendation 30

The City of New Richmond should consider pilot project of police on bikes, for both regular patrol and bike enforcement. Publicize this as a pilot project and provide information to the media on how this has been tried in over 100 cities with very positive results.

Bicyclists' Responsibilities

Many survey respondents stated that bicyclists frequently violate traffic laws. Such behavior leads to increased animosity on the streets and the potential for serious injury. Some cyclists aren't aware that they have to abide by the same laws as motorists. A strong enforcement

program can quickly change this situation.

Recommendation 31

Make the enforcement of bicycle traffic laws a higher priority within all law enforcement agencies.

Especially target riding behaviors that lead to accidents such as:

- Wrong way riding
- Riding at night without lights
- Stop sign violations

It is understood that increased enforcement efforts might mean additional personnel. Some cities have had successful programs utilizing college students on bikes, who provide warning tickets to children.

Encouragement

Bike to Work Day

The City of New Richmond and surrounding communities should consider sponsoring a bike-to-work day as part of the national effort (third week in May). Efforts should be made to get support from major employers and businesses.

Corporate Programs

Major employers should be invited to participate in a "drive alone reduction program". The City should sponsor seminars and activities to encourage alternatives to the automobile.

Maps and Brochures

Maps should be developed showing the recommended routes with safety information. Brochures promoting bicycling and walking as beneficial modes of transportation should be distributed.

Implementation

Bicycle Committee

The current Trails committee chaired by Jim Heebink should be encouraged to provide modifications to this plan and to ensure its effective implementation. The committee should include representatives from all jurisdictions within the New Richmond Area and include both serious and casual bicyclists.

Evaluation

Program documentation should be required. Accident rates, bicycle counts and number of new facilities created should be part of on-going data collection efforts. More in depth questionnaires on bicycle use, barriers, attitudes, etc. should be developed and distributed at the program's inception. Repeat these same questions several years later.

Funding

To improve conditions for bicyclists and pedestrians, money will have to be spent, or reprioritized. However, any investment made in making it easier for people to walk or bicycle should in the long run be economically advantageous for the New Richmond Area. A study by the Minnesota Department of Transportation predicted that by increasing Minnesota's investment in bicycle transportation from $4 million to $10 million per year, the state would save over $13 million per year in public funds![11]

Sources of Funds

States and local units of government have considerable flexibility in obtaining and spending federal transportation funds. The Transportation Efficiency Act (TEA-21) makes bicycle and pedestrian projects eligible for funding under many different categories. However, state and federal officials will be reluctant to fund any project that is not included in this bicycle/pedestrian plan.

Many improvements can be made for bicyclists and pedestrians without a huge expenditure of funds. Sometimes it's just a matter of changing policies and procedures. For instance, Knowles Ave presently consists of four 12' lanes. This road could be restriped to provide two 10 ft lanes and two 14 ft outside curb lanes. A curb lane of 14 feet will allow bicyclists and motorists to travel in the same lane without one impeding the other. Such restriping can be done after an overlay at no additional cost.

To obtain federal dollars, projects should be for transportation purposes. The most likely projects to be funded will be those with the highest projections of use by bicycle commuters. Being able to demonstrate that a project will increase the use of bicycles for transportation is the key.

The exception to this is the National Recreational Trails Program. At least 30 percent of the monies will go towards the development or maintenance of non-motorized recreational trails. Contact State Trails Coordinator, DNR, P.O. Box 7921, Madison, WI 53707, (608) 266-7616.

The Surface Transportation Program (STP) funds (out of the TEA-21 legislation) can be used for both construction and non-construction activities including paying for bike & pedestrian programs. In addition, bridge and federal lands highway dollars may be spent on bicycle/pedestrian facilities.

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[11] This is based on the anticipation that bicycling will increase 10 percent per year over a ten-year period, assuming a public benefit of $.05 per mile. Several other studies show the savings to the general public from each bicycle mile traveled in lieu of travel by car is closer to $.15. This would yield a public savings of $29 million per year by 1999. From Plan B: The Comprehensive State Bicycle Plan, MNDOT, 1989

Funding for Safety Programs (Section 2002)
For the first time in many years, bicycling and pedestrian safety are priority areas for these NHTSA community highway safety grants. The federal 402 funds can be used for bike safety courses, bike patrol and other enforcement efforts, and motorist awareness campaigns.

Transportation Enhancement Activities (TEAs)
10 percent of the STP funds must be spent on TEAs, which include bicycle and pedestrian facilities, and the conversion of abandoned railroad corridors to bicycle and pedestrian trails. These projects are to "enhance the transportation system" or to retrofit existing facilities that do not safely accommodate bicyclists and pedestrians. The State of Wisconsin is expected to receive more than $6 million per year for transportation enhancements.

In Wisconsin, a special **Statewide Multi-Modal Improvement Program (SMP/STP)** has been established which incorporates the Enhancements Program with what had been a separate Bicycle and Pedestrian Facilities Program. The contact person for Bicycle and Pedestrian projects is Tom Huber, 608-267-7757. All projects must first be approved by the regional DOT office in Eau Claire.

Private Funding
The Cascade Bicycle Club in Seattle and the Miami Valley Regional Bicycle Committee in Dayton, Ohio, raise enough funds from events to pay for publications, full-time staff, and safety programs. While there are no strong bicycle clubs in the New Richmond area, other private organizations may have an interest in promoting safe trails. The New Richmond Trails Committee has already been highly effective in raising money and will most likely be instrumental in the development of a new trail system.

User Fees
There is increasing interest among national bicycle organizations to develop some sort of a users' fee to help pay for bicycle improvement projects. The City of New Richmond has a registration program but costs for program administration leave little revenue remaining for projects.

Some states, including Minnesota and Wisconsin, administer an annual trail fee program. A city could also do this but compliance would have to be voluntary.

Parking Fees/Gas Taxes
While politically unpopular, charging for parking is one way to reduce the subsidies motorists enjoy. Some states have raised gas taxes in order to put more money into alternatives to the automobile. Charging a fair price for auto parking is one way to discourage unnecessary driving. By putting those dollars into a bicycle/pedestrian program more options can be created for the citizens, resulting in a more livable city.

New Projects
Approximately 30 percent of Boulder, Colorado's bicycle and pedestrian facilities were paid in part by developers. Once a plan is in place, new development projects can be expected to pay for the necessary sidewalks, bike paths, and amenities required by zoning ordinances such as shower and bike parking facilities. Of course, there first needs to be zoning ordinances requiring such provisions -- and a plan showing where bike routes are proposed.

"Approximately 30 percent of Boulder, Colorado's bicycle and pedestrian facilities were paid in part by developers."

This procedure should especially be followed if there is to be any additional development along the Willow River or adjacent to the proposed Paperjack Creek Trail, and other off-street facilities. Such trails will benefit the developer as well as the public at large.

Tie-ins with planned roadway improvements
Anytime a road is going to be overlaid, reconstructed or in someway improved, consideration should be given to making it as bicycle friendly as possible. By "institutionalizing" the accommodation of bicyclists, little extra money needs to be spent. The ultimate goal ought to be that all roads become safe and accessible to pedestrians and bicyclists.

Funding Requirements
The major cost elements of facilities and programs are as follows:

- Planning
- Engineering and construction of facilities
- Improvement of facilities
- Ancillary facilities
- Maintenance
- Monetary or time incentives
- Educational and marketing programs

- Regulatory and enforcement programs

Many of the components sited above can be absorbed into other city personnel current responsibilities. Total personnel costs to implement this plan over a 20-year period is estimated to be $10,000 annually. Non-personnel costs are estimated below:

TABLE 13: Construction Costs For Bicycle/Pedestrian Facilities[12]		
Item	**Description**	**Unit Cost**
Grade-separated intersection	Concrete conduit underpass, 10 ft.	$ 153,000
Pedestrian overpass	180 ft long, 6 feet wide $3375/ft.	$ 607,600
Bicycle-safe grates	(not needed in New Richmond)	$ 310
Bicycle parking racks	Holds two bicycles, high security	$ 80
Bicycle locker	Holds two bicycles, shelters bikes	$ 700
Signing	Sign, post and installation	$ 55
Pedestrian signal	Pedestrian activated for midblock	$ 2,350

TABLE 14: Costs per 100 Linear Feet of Facility			
Item	**Description**	**Unit Cost**	**$ per mile**
Right-of-way	20 feet wide	100-500	5,000-26,400
Base and pavement	for each foot of width, asphalt	200	10,560
Base and pavement	for each foot of width, concrete	400	21,120
Widening of	3 foot shoulder	400-700	20,000-35,000
Widening of bridge	Widening of 3 feet	30,000	
Striping	bike lane markings	30	1,584
Barriers/diverters	stop motor vehicles	160	
Lighting	pedestrian scale	1,200	63,360
Landscaping	20 feet wide	1,850	97,680

[1] "Pedestrian" is defined by Wisconsin state law as "any person afoot or any person in a wheelchair, either manually or mechanically propelled, or other low-powered, mechanically propelled vehicle designed specifically for use by a physically disabled person."

acquisition, landscaping and striping. A crushed limestone trail on an abandoned railroad right of way can be built for as little as $10,000 (WisDOT figures).

If utility poles or other permanent structures have to be removed the costs become significantly higher.

Pedestrian Master Plan

Guiding Principles

The policies and recommendations contained within this plan reflect the following underlying principles:

1. Walking and bicycling are beneficial modes of transportation and should be accessible to all who might choose them.

2. The safety of bicyclists and pedestrians should be placed above the convenience of motorists.

3. The safety of pedestrians, including the physically challenged, should be placed above the convenience of bicyclists.

4. A significant percentage of people in New Richmond and surrounding area (children, many elderly, low-income, etc.) do not have access to private automobiles to meet their daily transportation needs.

5. Pedestrian modes of transportation ***promote*** a healthier lifestyle and should be encouraged.

Policy Objectives

The policy recommendations contained within this plan are presented to reach the following objectives:

1. Allow people who do not have access to a private automobile, or are unable or choose not to drive to meet their needs without undue risks or inconvenience.

2. Foster "friendlier" streets. Allow for greater positive social interaction, and stronger sense of community and neighborliness.

3. Reduce the number of pedestrian accidents.

4. Enable youth to walk or bike to school; reduce the need for parents to drive their children to school and other nearby destination points.

Existing Conditions

General Findings

Walking for transportation purposes is more common in New Richmond than bicycling, and efforts have been made to accommodate this nearly universal activity. While most people choose other means for trips over 5 blocks in length, it is nearly impossible to meet needs without at some point becoming a pedestrian.[1]

> "Walking for transportation purposes is more common in New Richmond than bicycling."

Currently there is no written policy in the City of New Richmond specifying when and where sidewalks need to be built. Hence, there remain numerous locations where sidewalks are non-existent or intermittent. A majority of the roads within the City of New Richmond do not have sidewalks (See Sidewalk Inventory Map for New Richmond).

If the Census Report can be used as a reliable indicator of how many people walk to work, a slight decrease from 1980 to 1990 can be observed for St. Croix County.

It can be surmised that this increasing dependency on the automobile is the result of the tremendous growth in rural subdivisions; the majority of the housing units built in the last fifteen years are not within walking distance to job sites. In addition, more and more people moving into the area have jobs outside of the area, some as far away as Chicago.

Demand for Pedestrian Facilities

Better bicycle facilities, as ***recommended in this plan, will help mitigate conflicts between bicyclists and pedestrians***. Bicyclists choose sidewalks when they perceive the roadway as too dangerous.

Stronger enforcement of stop sign violations and the establishment of a safety education program will also make crosswalks safer.

Still, most conflicts that pedestrians have, especially those that severely injure or kill, have to do with encounters with automobiles. Nationally, it has been demonstrated that pedestrian safety increases with sidewalk availability. Throughout New Richmond, sidewalks are intermittent and in many locations either in need of repair or non-existent.

However, because property owners are assessed at 100 percent for sidewalk construction along local roads there is little incentive for neighborhood groups to draw attention to the problem. Especially in the outlying townships, there is reluctance among property owners to support sidewalk construction.

One way property owners can avoid being assessed for new sidewalks is for a sidewalk to be designed as a multi-use trail or bike path. Often times such treatment can be justified. However, if there are numerous driveways the path must cross, and sight distance is compromised, on-street improvements such as special bike lanes, are safer.

A better strategy may be for local governing bodies to reconsider their policy of 100 percent assessments, and provide greater assistance at improving the walking environment in the older neighborhoods. New developments should be required by zoning ordinances to build or improve sidewalks. Presently this is limited.

Pedestrian Safety Issues

In the years from 1998 to 2001 there were four pedestrian/car crashes within New Richmond

TABLE 1: Main Causes of Pedestrian/Car Crashes in City of New Richmond	
Failure to have control	1
Failure to yield ROW	3

The four accidents cited here were all caused by an error on the part of the motorist.

All but one occurred at intersections where the pedestrian was in the crosswalk.

The streets with the greatest number of collisions reported generally correspond to locations where there are major pedestrian trip generators and/or motor vehicle traffic.

TABLE 2: Streets with Pedestrian/Car Crashes	
Knowles & E. First	2
E. Third & S. Arch	1
Parking Lot	1

Facilities

Crosswalks

Wisconsin state law requires that motorists stop for pedestrians regardless if they are in marked or unmarked crosswalks. Unfortunately, the law is not well understood by either motorists or pedestrians and most believe that crosswalks only exist when they are marked.

On the other hand, marked crosswalks may provide a "false sense of security", i.e., the false expectation that drivers will stop. There may be more cost-effective approaches at educating motorists about pedestrian rights and protecting pedestrian rights than striping crosswalks at every intersection.

However, marked crosswalks do seem to encourage motorists to maintain slower speeds and have a more watchful eye for pedestrians.

Recommendation 1

Provide marked crosswalks where the following conditions exist:

1. Signalized intersections (intersections and midblock)

2. 4-way stops on streets where there is curb and adjacent sidewalk

3. School zone areas and recommended walking routes to school

4. At intersections where the legally defined unmarked crosswalk is deemed less safe than an alternative location;

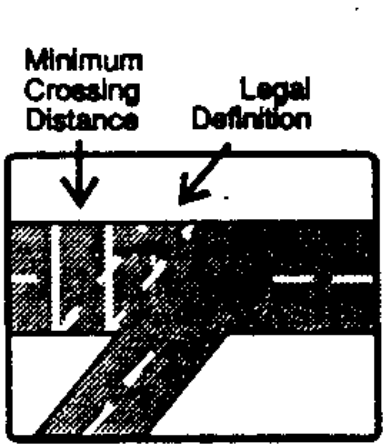
    a. To minimize the distance and reduce the length of time the pedestrian is in the street. (See figure 5).
    b. To provide a better sight distance between pedestrian and motorist or other safety considerations.

5. At midblock locations where a legal crosswalk is desired to increase protection of pedestrians

    a. At stairways, walkways or other places of unexpected entry into the street. Installed as a ladder-type crosswalk.

6. Where there is a high citizen demand for a crosswalk.

The above policy does not reflect pedestrian volumes, street classification, speeds or street width. These factors should all be considered within engineering judgement. Overall, the above policy should encourage more marked crosswalks, not less. Crosswalks clearly identify a pedestrian place in the street. Apart from all other considerations this is important.



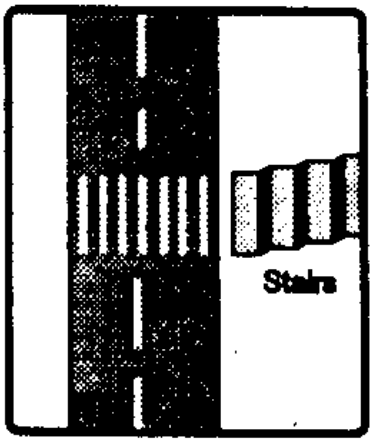


Figure 6 Marking crosswalks to delineate preferred crossing points

Recommendation 2

In high volume pedestrian areas, special surfaced and/or raised crosswalks should be considered.

A raised surface constructed of brick or a crushed colorful aggregate will draw special attention to a pedestrian crosswalk, and better protect pedestrian rights. A raised surface acts like a speed bump for bicyclists and motorists and may also improve the site distance. These materials, unlike paint, provide a permanent, maintenance-free marking, but costs of initial construction are much higher, and the task of snow removal may become more difficult. This treatment should be tried (demonstration project) where violation of pedestrian rights has been documented, or where there has been a history of pedestrian accidents. Possible locations include:

- Any crossing from a future Paperjack Creek Trail across GG to the schools.
- Crossing from Middle School to access road to Rec Center.
- From E. First across Knowles

Appropriate "yield to pedestrians" signage should be erected at these locations.

Recommendation 3

"Neck downs" at the above intersections and other locations should be explored.

The goal of "neck downs" is to reduce the crossing distance and reduce the length of time the pedestrian is in the street. Neck downs also reduce the speed of turning motorists while improving site distance. Streets with on-street parking are the best candidates for neck downs. Parking lane should be eliminated within 30 feet from intersection and road narrowed at crosswalk, with the sidewalk extended in a bulb like fashion. Delays for turning motorists are compensated by reduced pedestrian walk phase.[2] In particular neck downs should be considered on Knowles at First Ave, Third and Fourth. Present distance to cross Knowles at 4th is 84 feet.

Recommendation 4

Consider the impacts of "right turn no stop lanes" and other roadway traffic capacity-enhancing projects on pedestrian safety and convenience in the planning process.

The convenience of motorists should not have a higher value than the safety of pedestrians. All projects need to be considered in light of how they will impact the pedestrian environment. Any widening of streets at intersections should be especially scrutinized with full-scale public involvement.

[2] Neck-downs will result in reduced lane-width for bicyclists at intersections. From purely a safety perspective, this can be beneficial. Bicycle safety experts now teach cyclists to merge with the traffic when coming to an intersection in order to be more visible and to avoid collisions with parallel, overtaking right-turning motorists. For this same reason, bike lanes should end at least 50 feet from any intersection, consistent with AASHTO and State guidelines.

Signals and Signs

Recommendation 5

Place signs on multi-use paths indicating mixed-use and advising pedestrians to keep to the right

This will be especially important in the development of new trails along popular corridors such as around Hatfield Lake and along the Paper Jack Creek. Often there exists confusion as to where pedestrians should walk when using multi-use trails. Because pedestrians are required to walk facing traffic when using a street, many believe the same rules should apply to trails. However, in most situations, fewer conflicts will result if all trail users stay to the right, with bicyclists yielding the right of way to pedestrians. Local units of government may also wish to adopt specific ordinances requiring such practice. See figure 6 for recommended signs.

Figure 7 Signs for Multi-Use Trails

Recommendation 6

Restrict "right turn on red" at intersections where there exists:

1. Significant pedestrian/vehicular conflict; high complaint location
2. All-way walk locations
3. Sight restrictions or geometric considerations

Recommendation 7

Develop warrant for pedestrian half signals based upon roadway conditions and pedestrian generators; install two or three as demonstration projects.

Pedestrian half signals can only be triggered when a pedestrian or bicyclist pushes a button at a crosswalk location. They force vehicle operators to stop at areas where no other traffic control devices exist. Typically they are used at mid-block crossings. The warrant should be responsive to pedestrian exposure and risk. Areas that should be considered for pedestrian signals include senior citizen housing, crossings to parks and schools, and shopping centers where there are inadequate gaps in motor-vehicle traffic.

Possible locations include:

- GG crossing where the future Paper Jack Creek path comes closest to Starr St. and also at East Elementary.
- Crossing at Knowles at 6th Street (future bike route)
- Any future location where a bicycle/pedestrian trail intersects a major roadway where no other traffic control devices exist, and gaps in traffic are deemed inadequate for safe crossings.

Recommendation 8

Install crosswalk-warning beacons where additional warning is deemed necessary.

To avoid potential of multiple threat accident types (where one motorist stops but not the one in the adjacent lane), these should not be used on four-lane arterials. Priority installation of the devices should be at midblock crossings on two lane arterials void of pedestrian signals, such as Eleventh Street, near East Elementary.

Recommendation 9

Where speed limits are above 25 mph, consider their reduction in combination with other improvements along select sections of arterials that are commercial/pedestrian oriented.

Studies reveal motorists' compliance to the crosswalk legislation is significantly reduced at higher speeds; pedestrian collisions are more frequent and severe where speed limits are higher. While the 85th percentile on most streets in the New Richmond Area is 5 - 10 miles higher than the posted speed limit, lowering the limits will also result in the lowering of the 85th percentile.

Many pedestrian-friendly cities in Europe are enforcing a 30 km/hour (18.6 mph) speed limit within city limits.

Areas that should be considered for speed reduction include:

- CTH "GG" from 140th to Knowles.
- CTH "K" from Wall Street to County Health Bldg.
- E. First Street from Knowles to 140th

Sidewalks

As this plan is revised and updated, an effort to provide an inventory of all existing sidewalks and their condition should be made. The City of New Richmond should establish a sidewalk improvement program and attempt to reduce the number of missing links. Many of the sidewalks throughout the New Richmond Area are discontinuous or in need of repair. Many streets do not have adjacent sidewalks. See Sidewalk/Trail Inventory Map.

Recommendation 10

***Consider adopting* the guidelines listed in Table 3 for installing sidewalks**

This table was provided by WisDOT in their "Wisconsin Pedestrian Planning Guidance. ***Consideration should be given*** to having it codified through zoning and subdivision ordinances, and implemented through site design review processes, and sidewalk improvement program.

TABLE 3: Guidelines for Installing Sidewalks		
Classification/Dwelling Unit	**New Urban and Suburban Streets**	**Existing Urban and Suburban Streets**
Commercial and Industrial (All Streets)	Both sides.	Both sides. Every effort should be made to add sidewalks where they do not exist and complete missing links.
Residential (Major Arterials)	Both sides	Both sides.
Residential (Collectors)	Both sides.	Multi-family - both sides. Single-family dwellings- prefer both sides; require at least one side.
Residential – more than four units per acre (Local Streets)	Both sides.	Prefer both sides; require at least one side.
Residential – one to four units per acres (Local Streets)	Prefer both sides; require at least one side. Shoulder on both sides.	One side preferred, at least four feet. Shoulder on both sides.
Residential – less than one unit per acre (Local Streets)	One side preferred, shoulder both sides.	At least 4-ft. shoulder on both sides required.

NOTES:

1) Any local street within two blocks of a school site that would be on a walking route to school - sidewalk required on at least one side.

2) Sidewalks may be omitted on one side of new streets where that side clearly cannot be developed and where there are no existing or anticipated uses that would generate pedestrian trips on that side.

3) Where there are service roads, the sidewalk adjacent to the main road may be eliminated and replaced by a sidewalk adjacent to the service road on the side away from the main road.

4) For rural roads not likely to see development, a shoulder at least 4 feet in width, preferably 8 feet on primary highways should be provided. Surface material should provide a stable, mud-free walking surface. If shared with bicycles, the surface should be paved.

TABLE 4: Streets Where Sidewalks Are Needed From Highest Priority To Lower Priority
1. Minnesota (proposed bike path on west side, sidewalk on east)
2. Missing links on Sixth St.
3. Missing links on Fifth St.
4. N. 4th Street
5. 3rd St. between Knowles and Arch.
6. Green Ave. Hughes to Mary Park

Multi-Use Paths

The paths recommended for bicycling should be built to accommodate pedestrian traffic. Two-way facilities should be a minimum of 10 feet wide in urban settings, and a minimum of 8 feet in more rural areas. These paths will link up residential areas with parks, schools and retail outlets as well as provide scenic recreational corridors for area residents and visitors.

Recommendation 1

Seek to develop multi-use trails and footpaths on abandoned railroads, along streams and rivers and other natural corridors that can provide for a pleasant experience. Attempt to link these trails up with other trails in the area. See Map A.

TABLE 5: Recommended Trail Construction Program	
Name	**Jurisdiction**
5-YEAR PROGRAM	
Paperjack Creek Trail	City of New Richmond
Casey Extension	City of New Richmond
140th Corridor	Town of Richmond, City of New Richmond
10-YEAR PROGRAM	
Hatfield Lake	City of New Richmond
Minnesota St./ Millpond path	City of New Richmond
WCL RR Willow River Crossing	City of New Richmond
15-YEAR PROGRAM	
Willow River Trail	City of New Richmond, Town of Richmond

Recommendation 12

Children be allowed to ride bicycles on all sidewalks, except Knowles Avenue, at speed limits under 7 mph until the age of 12.

Recommendation 13

Provide short cuts to bicyclists and pedestrians wherever possible, through continuing paths from dead-end roads or across railroad tracks and other barriers.

Some of the most beneficial and popular trails are those that provide the bicyclist or pedestrian a more direct route than nearby roads. For instance, residential streets that dead-end or become cul-de-sacs for motorists can be through ways for pedestrians with the construction of a path.

TABLE 6: Suggested Short-Cut Paths
5th Street to Jefferson/Somerset
Williams to Mary Park
Monette Drive to 5th (through Park)
Heritage Drive to Paperjack Creek Trail
Rounds to E. Sixth Street

Education

Studies show that pedestrian crashes can be prevented. While the development of safer facilities can go a long way towards reducing the potential of collisions, the importance of proper education and increased awareness cannot be overemphasized. Enforcement is also an essential component in protecting pedestrians. Since half of the pedestrians injured or killed are typically aged 19 and younger, it makes sense to begin an education program in the schools teaching children the rules of the road, and helping them choose the safest routes to school.

"Routes to School" Program

Recommendation 14

Develop and implement a "Recommended Routes to School Program" working with the school district

Key components of such a program would be 1) the development of maps showing the school and the recommended routes; 2) providing at least one assembly program per elementary school on the most common types of pedestrian crashes and how they can be prevented; and 3) sending home a letter to parents about the program and encouraging them to walk with their children the recommended route at least once.

This program should be implemented at the beginning of the school year, preferably during the month of September. The City of New Richmond Police Department should play the leading role, working jointly with the Public Works Department on coordinating the program and map development. Within three years the program should be taken over by the school district; maps would continue to be provided by public works departments.

Enforcement

One of the most effective ways to educate the public is through strong enforcement efforts. When motorists begin to receive tickets for not stopping at a crosswalk where pedestrians are standing (and trying to walk), the news will spread fast. A strong enforcement program should be preceded by an equally strong media campaign.

Pedestrian Rights

Recommendation 15

Increase awareness about the rights of pedestrians through a media campaign followed by a strong selective enforcement program.

News releases should be sent to area newspapers, radio stations and television networks about the reason for the "crackdown". The most recent analysis of pedestrian crashes should be made available to the media at this time. The message should be: Let's make our city (village, town) a safe place to walk; no more violations of pedestrian rights..."

Tickets should be given to motorists who violate the rights, including the following traffic offenses:

- Failure to yield the right of way to pedestrian in a crosswalk
- Speed limit violations (especially in school zones when children are present) and
- Inattentive driving (even where the pedestrian is behaving unlawfully)

Most crashes involving children are caused by an unlawful or unpredictable action on their part. Many times the motorist simply is not able to react fast enough to avoid a collision. Sometimes contributing factors are slippery conditions, or speeds too fast for conditions. When drivers learn that they must be attentive at all times to the possibility of unsafe pedestrian behavior, streets should become more safe.

Pedestrian Violations

The effort to reduce the number of pedestrians violating traffic laws should be primarily accomplished through greater education (see recommendation 14) and warning tickets. Since pedestrians understand that they are the victims in any collision with vehicles, a strong enforcement program aimed at pedestrians would not be cost-effective. Areas where jay-walking[3] is both common and deemed dangerous should be considered for special treatment (e.g., midblock crossings, ped signal, or overpass).

[3] State statutes allow crossing at places other than a crosswalk (commonly called jaywalking) as long as the pedestrian yields the right-of-way to all vehicles upon the roadway.

Implementation

Public participation is key to the successful implementation of this plan.

Coordination

Because pedestrian issues often involve many different departments, it is advantageous for someone to be in the position of coordinating the various efforts. Without such coordination, implementation becomes less effective.

This plan should be considered a tool for the person in the position of coordinator. It is a tool to involve the public in a greater discussion of transportation issues and how to resolve them for a balanced transportation system. It is also a tool for planning facilities, and helping to obtain federal and state monies for special facilities. But like any good tool, it will need modifications and fine-tuning.

Recommendation 16

Update this Master plan as an element of the long-range transportation plan as needed, but at a minimum of every three years.

Funding

See section on funding in Bicycle Master Plan.