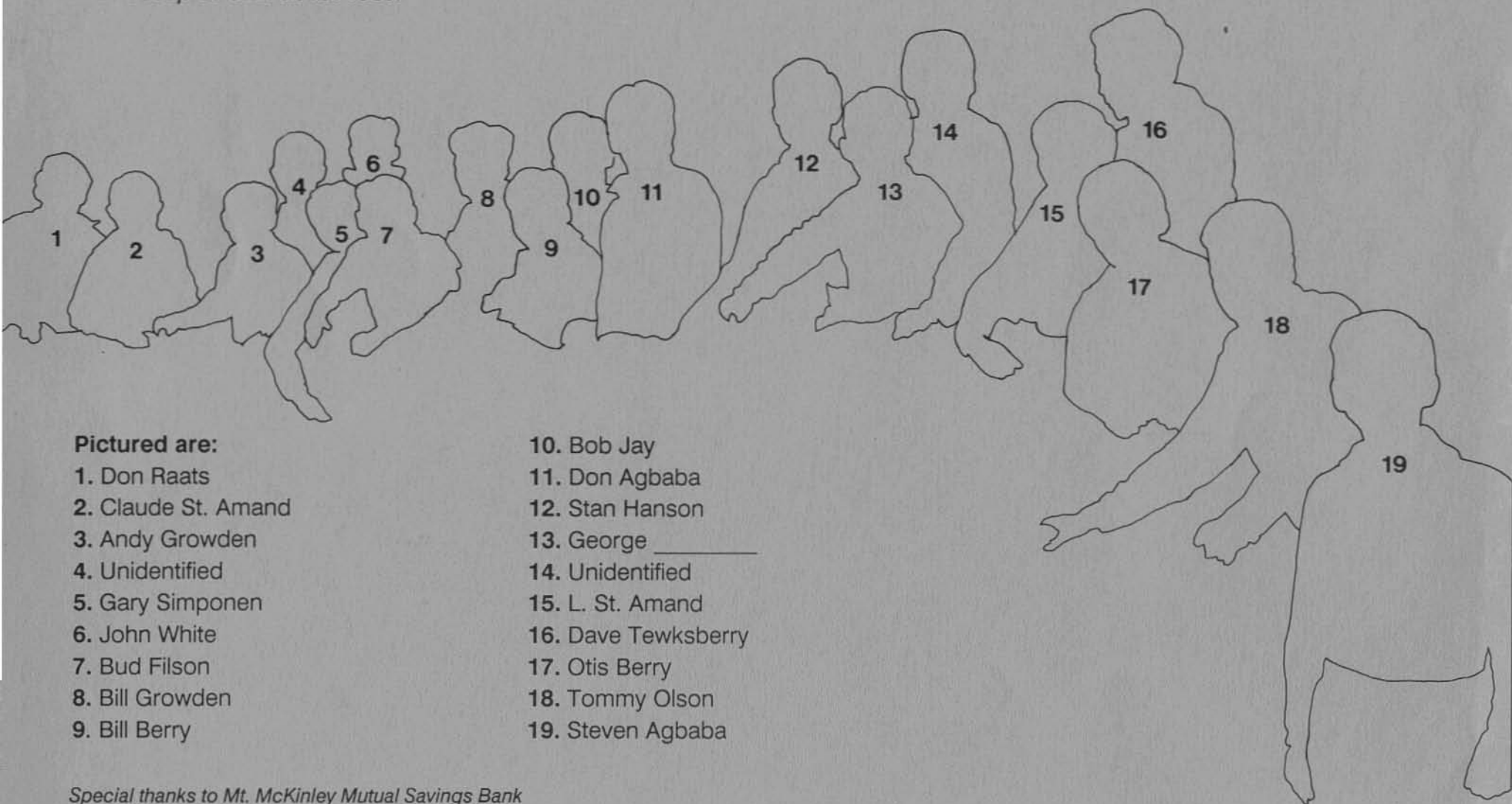


BIKE PLAN



Prepared by the Department of Community Planning, Fairbanks North Star Borough, Fairbanks, Alaska

Newsboys in front of the Fairbanks Daily News- Miner at Third and Cushman, which was occupied until about 1935.



Pictured are:

1. Don Raats
2. Claude St. Amand
3. Andy Growden
4. Unidentified
5. Gary Simponen
6. John White
7. Bud Filson
8. Bill Growden
9. Bill Berry

10. Bob Jay
11. Don Agbaba
12. Stan Hanson
13. George _____
14. Unidentified
15. L. St. Amand
16. Dave Tewksberry
17. Otis Berry
18. Tommy Olson
19. Steven Agbaba

Special thanks to Mt. McKinley Mutual Savings Bank

Photograph courtesy of Candace Waugaman

BIKE PLAN

**Prepared by
Department of Community Planning,
Fairbanks North Star Borough, Fairbanks, Alaska**

**for the
Alaska State Department of Transportation and Public Facilities**

**Adopted by
Fairbanks Metropolitan Area Transportation System Committee
November, 1989**

In 1981 the Fairbanks North Star Borough published a Long Range Bicycle Facilities Plan. Since that time the Borough has changed. Views on cycling have changed. This plan is a reflection of that change and is intended to provide transportation officials, educators and policy makers with a guideline for improving bicycling in the Fairbanks North Star Borough and other Alaskan communities.

RESOLUTION 90-001

**A RESOLUTION BY THE FAIRBANKS NORTH STAR BOROUGH PLANNING COMMISSION
IN SUPPORT OF THE ALASKA DEPARTMENT OF TRANSPORTATION
COMPREHENSIVE BICYCLE PLAN**

WHEREAS, the Alaska Department of Transportation and Public Facilities requested and contracted the Department of Community Planning to update the Comprehensive Bicycle Facilities Plan for the Borough area and;

WHEREAS, the Plan Update was completed per the requirements of the contract; and

WHEREAS, the Plan took one year to complete and received a great deal of public input; and

WHEREAS, the Plan has been adopted by the Fairbanks Metropolitan Area Transportation System; and

WHEREAS, the Plan describes the need for a safe and comprehensive bicycle system for both utilitarian and recreational bicyclists; and

WHEREAS, the Planning Commission acknowledges the needs of bicyclists and the value of a safe bicycle system.

NOW, THEREFORE, BE IT RESOLVED that the Fairbanks North Star Borough Planning Commission supports and applauds the Bicycle Plan which was prepared to satisfy the requirements of the Alaska Department of Transportation and Public Facilities.



Charles Goff, Chairman

cc: Juanita Helms, Fairbanks North Star Borough Mayor
Members, Fairbanks North Star Borough Assembly
Johnathan Widdis, Chairman, FMATS Technical Committee
Simon Rakowar, Chairman, Fairbanks Area Bicycle Advocacy Group

ACKNOWLEDGEMENTS

Fairbanks Metropolitan Area Transportation System, Policy Committee

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Juanita Helms, Mayor, Fairbanks North Star Borough
Carleta Lewis, Mayor, City of North Pole
James Nordale, Mayor, City of Fairbanks
Paul Chizmar, Presiding Officer of the Fairbanks North Star Borough Assembly
Robert Ruby, Federal Highway Administration

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Trails Advisory Committee

Don Prendergrast, Chairman

University of Alaska, Facilities Planning and Construction

Janet Matheson, Regional Architect

OUR BIKEWAYS TODAY

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INTRODUCTION

Bicycles Belong

Bicycling is very popular in the Fairbanks North Star Borough. On any given summer day (or night) you can see cyclists enjoying the bike path along the Chena River or training on Ballaine Road. Although the majority of bicycle use occurs in the summer, with the advent of mountain bikes and high tech winter clothing, there is a growing number of cyclists using their bicycles for year round transportation.

The popularity of cycling in the Borough has been increasing. The number of cyclists participating in events such as the Chena Hot Springs Classic has been rapidly increasing. Last year this event drew over eight hundred cyclists. The Fairbanks Cycling Club has also grown dramatically - from 23 members in 1983 to 125 members in 1988. Last year a bike rental business opened downtown. It began with three bicycles for rent. The business now sells dozens of used bicycles and has 34 rentals.

Impetus for this Bicycle Plan

In 1981 the Fairbanks North Star Borough produced a "Long Range Bicycle Facilities Plan". The plan was funded by a Federal Highway Administration PL grant, and presented as part of the Fairbanks

Metropolitan Area Transportation System (FMATS). The plan contained recommendations for upgrading existing bikeways, adding bicycle facilities, maintenance, and education. It also contained details on Borough bicyclists' habits and characteristics.

The Alaska State Department of Transportation and Public Facilities (DOT&PF) saw a need to update this plan. Roads and bicycle facilities have been built or upgraded since 1981. DOT&PF wanted an updated plan which reflected these changes. They also wanted a plan that could guide the design of new facilities or upgrades that are currently being planned. In July, 1988, the Borough was awarded a grant by the State Department of Transportation and Public Facilities to produce an update of the 1981 Bicycle Facilities Plan.

Purpose of this Plan

- To act as a guide for developing safe bicycle facilities in the Fairbanks North Star Borough and other Alaskan communities.
- To become an integral part of the Fairbanks Metropolitan Area Transportation System.

- To become an essential element in the Borough Comprehensive Road Plan.
- To insure consideration of bicycling in all transportation planning, design and construction activities.
- To encourage a comprehensive approach for bicycling programs.
- To expand the development and implementation of bicycle programs and facilities sensitive to local conditions and needs.
- To provide essential coordination for local bicycle programs and projects.

Methodology

Extensive research has been done in the development of this plan. The intent of the research was to obtain input from the users of the Borough bikeway system, survey existing conditions, and to obtain current bike planning information.

There was input from many people in the community. Public hearings and meetings were held which allowed cyclists and other bikeway users to voice their views.

Two bikeway surveys were circulated (see Appendix C and D). They were distributed to

sporting goods stores, schools, recreation centers, and businesses. A summer and a winter survey were distributed. Of the 2,000 summer surveys circulated approximately 500 responses were returned. 800 winter surveys were also circulated, and about 250 were completed and returned.

The plan also received input from local jurisdictions. Representatives from the City of North Pole, the City of Fairbanks and the University of Alaska reviewed the plan and offered comments which were incorporated in the final revision. The Trails Advisory Commission formed a subcommittee to review and revise the plan. The bike plan was also presented for public hearing at a Trail Advisory Commission meeting.

A review was done of existing plans. Borough recreation and development plans were consulted. Planned Borough and State road projects were examined.

Existing bikeways were surveyed. Conditions were inventoried and the deficiencies of the bikeway network were recorded. Major origin and destination points were identified. Laws pertaining to bikeways and cyclist were researched. Accident data was obtained from DOT&PF.

Current bike planning information from outside of the Borough was acquired. Interviews with employees from the City of Anchorage were conducted and the Anchorage Trails Plan was reviewed. Plans from other communities were also examined. National organizations such as League of

American Wheelman and Bicycle Federation of America were consulted.

A glossary of bicycling terms is included in appendix A for your convenience.

FINDINGS

Research regarding the current status of bicycling and bicycle programs in the Fairbanks North Star Borough has revealed some significant findings. It has pinpointed specific needs of cyclists in the Borough. It has supplied information about existing conditions, and some of the problems associated with our present road network and system of bikeways. The research has also furnished facts about bike education, bicycle laws and bicycle law enforcement.

Following is a summary of the most significant findings.

Existing Bicycle Facilities

There are about 41 miles of bikeways in the Fairbanks North Star Borough. They are of three basic types: bike paths which are separated from the roadway; sidewalks designated as bikeways; and bike lanes. Existing facilities have been classified by type and are listed in Table 1 and on Map 2.

According to the survey information the bikeways most frequently used were Farmers Loop Road, University Avenue, and College Road. Farmers Loop Road was also voted as the most in need of repair followed by Ballaine Road and College Road.

TABLE 1
Existing Bikeways

	BIKE PATH	SIDEWALK	BIKE LANE	MAINTENANCE	TOTAL
FAIRBANKS					
Airport Way		.50		State	.50
College Road		7.29		State	7.29
Chena River	1.25	.87		City/FNSB	2.12
Danby Road	.45				
Geist Road	1.00	.95		State	1.95
Johansen Expressway	.40				
Noatak Drive (UAF)			1.10	UAF	1.10
Peger Road	1.00			State	1.00
Steese Expressway	3.09			State	3.09
University Avenue		3.00		State	2.58
FAIRBANKS VICINITY					
Ballaine Road	4.34			State	4.34
Chena Pump Road	3.70			State	3.70
Farmers Loop Road	8.38			State	8.38
Parks Highway(Geist to Airport)	1.53			State	1.53
NORTH POLE					
8th Avenue	.50			City	.50
5th Avenue	.34			City/State	.34
Blanket Boulevard	.17			City	.17
Santa Claus/Snowman Lane	.37	.71		City/State	1.08
TOTAL MILES	26.62	13.32	1.10		40.97

Sixty - eight percent of the people who responded to the winter survey indicated that they did not believe there was adequate bicycle parking facilities in the Borough. Many theaters, shopping centers, public institutions, recreational facilities, and businesses do not have bicycle parking facilities. The lack of bike parking can be a deterrent to the use of bicycles for transportation.

Bicycle Use

From the surveys and public meetings it became apparent that there are basically two types of cyclists in the community. The two types can be classified as "recreational" and "utilitarian".

Recreational cyclists are those who are cycling for pleasure with no specific destination in mind. They want routes that are scenic and would prefer routes away from traffic. Fifty one percent of the survey respondents thought of themselves as recreational cyclists.

Utilitarian cyclists are those who are generally riding to a specific destination. They customarily cycle more regularly than recreational cyclists and prefer to ride in roads. Roads are preferred because they are more direct with minimum delays from cross traffic. The survey showed that forty nine percent of the cyclists consider themselves utilitarian or utilitarian and recreational cyclists.

At the hearings many of the utilitarian cyclists expressed a desire for access to roads that are presently closed to bicycles. They felt

that for experienced cyclists, limited access roads, like the Steese Highway and Airport Way, were safer and more direct than the adjacent bike paths or frontage roads.

Bicycle Accidents

Reported bicycle accidents in the Fairbanks North Star Borough have been increasing steadily since 1977 (see Map 1). In 1977 there were sixteen bicycle accidents in which a police report was filed. In 1988 twenty-four accidents were reported.

The method of police reporting of bike accident includes many details. It indicates the direction of travel, the time of day, the weather etc. Other factors which would be helpful to note would be whether the cyclist was on the sidewalk, and what was the action of the cyclist just prior to the accident.

These accident figures are misleading. Studies show that only about eighteen percent of the bike accidents are ever reported. Forty-two percent of the people that responded to the bikeway survey said that they had been in an accident.

The bikeway surveys showed that many factors contribute to bicycle accidents. Twenty-eight percent of the time poor maintenance of the bikeway was blamed. Other factors include collisions with other bicycles, pedestrians or dogs.

Studies show that inadequate bicycle facilities can also contribute to bicycle accidents. The Federal Highway Administration, the U.S. National Highway Traffic Safety Ad-

ministration and the National Safety Council commissioned bike safety studies in the mid-70's.

The studies presented statistics that show cyclists are 2.6 times more likely to get in an accident when cycling on a separated bike path than when cycling on the road. This is due in part to inadequate maintenance of bike paths. It is also because of conflicts with motorists at intersections and driveways.

These studies also revealed that the actual percentage of car-bike collisions is smaller than previously thought - 18% for college adults, and 10% for children. The major cause of car-bike collisions shown by the studies are as follows:

- Failure to yield to crossing traffic - 25%
- Wrong-way cycling - 17%
- Failure to yield when changing lanes - 13%
- Motorist left turn - 8%
- Sidewalk cycling - 7%
- Motorist right turn - 5%
- Motorist restarts from stop sign - 4%

There are safety concerns with the sidewalk bicycle facilities in the Borough. Many bike accidents have been reported on the sidewalk bikeways on College Road and University Avenue. The American Association of State Highway Transportation Officials (AASHTO) Guidelines state: "Sidewalks are generally not acceptable for bicycling."

Designating sidewalks as bicycle facilities is unsatisfactory for several reasons:

- Sidewalks are generally used as two way bicycle facilities despite one way signing.
- Sidewalks are typically not designed for speeds reached by bikes.
- There are conflicts with pedestrians, and fixed objects (sign posts, utility poles, bus shelters, etc.).
- Parked cars block the motorists view of the cyclists and vice-versa.
- At intersections and driveways, motorists are not expecting fast moving cyclists.
- Sight distance from driveways (for sidewalks) is generally designed for safe vehicle reaction time for slower moving pedestrians, not bicyclists traveling 10-20 miles per hour.

Constructing wider sidewalks does not necessarily make sidewalks safer for bike traffic. Cyclists tend to increase their speed with wider sidewalks which can increase the potential for conflicts with motorists at intersections, driveways and with pedestrians and fixed objects.

Sidewalks are however, appropriate for many other types of uses and will continue to be used by young bicycle drivers. Their construction should not be discouraged, but rather built in conjunction with appropriate bicycle facilities as outlined in this Bike Plan.

Bikeway Maintenance

The 1981 Bicycle Facility Plan for the Fairbanks North Star Borough indicated a need for better maintenance. Survey responses and input from the public meetings indicated that poor maintenance of bikeways is still considered a major problem in the Borough. The State is responsible for all but about four miles of the bikeway maintenance in the Borough.

Many communities throughout the United States, including Anchorage, have taken over the responsibility of maintaining the bike paths. Representatives from the Municipality of Anchorage believe that maintenance of bike paths is done more thoroughly and more often when it is done by the local authority.

Seventy six percent of the people that responded to the winter survey indicated that they would be willing to donate time to a bike path clean up effort.

There is no winter maintenance of bikeways except for the bike path along the Chena River. This is maintained by the Borough and the City of Fairbanks primarily for joggers and runners.

According to representatives from the Nordic Ski Club, who provide ski trail maintenance at Birch Hill, setting cross-country ski tracks on bike paths in the interior is not practical because of insufficient snow.

Bicycle Education

There is very little bicycle instruction in the Borough. Bike education consists of one or two schools and organizations that hold a cycling event once a year. The Fairbanks Area Bicycle Advocacy Group is also beginning to hold safe cycling instruction. A bike maintenance and repair class is taught at one of the junior high schools. But the majority of the cyclists in the Borough have never received bicycling instruction.

There is no information currently available for motorists and cyclists on the rules of how to safely share the road.

Bicycle Laws

Bicycles are legally classified in the State of Alaska as vehicles. As such they are allowed to drive on most roads in the Borough. The exception to this is limited access roads.

In addition to the motor vehicle laws which must be followed by cyclists, there are additional laws.

- Cyclists must ride as near to the right side of the roadway as practical.
- If cyclists are driving two abreast they must ride in the far right lane and not impede traffic.
- Cyclists must use the highway shoulder when it is maintained in good condition.

- Bicycles are not allowed to ride on sidewalks within the business district.
- Bicycles operating within the City of Fairbanks must be licensed with the City Police Department.

Input from the public hearings revealed that there is a common misconception in the Borough that there is a mandatory side path rule. There was a statewide mandatory side path rule which was repealed in 1979. This rule stated that when there is a bike path adjacent to a road a cyclist may not legally drive their bicycle in the road. The Municipality of Anchorage has a mandatory side path rule. The Borough or cities of Fairbanks and North Pole do not.

Mandatory side path rules are considered by professional bicycle organizations such as League of American Wheelmen, and Bicycle Federation of America, to be unfair and unsafe. The fast speeds of the utilitarian cyclists causes a hazard to other cyclists. Many cyclists also resent being forced onto a path that is often inadequately maintained with numerous cross streets and driveways which cause delays.

A complete list of the laws affecting cycling and bikeways are included in Appendix B.

Bike Law Enforcement

Enforcement of bike laws in the Borough is sporadic. Generally cyclists are warned several times before citations are issued. The decrease in the local police force makes

this type of enforcement difficult and is not placed as a very high priority.

For children the most common citations received are for riding on the sidewalk in the downtown area. Adults are most commonly issued citations for running stop signs or street lights.

Sixty-nine percent of the responses from the survey indicated that people thought the bike laws should be enforced.

The City of Fairbanks requires bicycles to be licensed if they are operating in the City of Fairbanks. Bicycle registration is considered a deterrent to bicycle theft. It is also easier for the police to contact the owner if a bike that has been registered is stolen.

Multiple Use of Bikeways

Bike paths are enjoyed by a variety of users throughout the year. Most of the year there are runners, joggers and walkers. In the summer there are also cyclists, skaters, roller skiers, parents with baby strollers, and occasionally horse riders. In the winter the Farmers Loop Road, Ballaine Road, and Chena Pump Road bike paths become winter trails for snow machine operators, three and four wheelers, cross-country skiers and skaters, skijorers, and dog mushers.

Many bike path users see the presence of snow machines as an asset to winter maintenance of bike paths. By driving snow machines on bike paths, they become groomed for other users.

There was some concern expressed at the public meetings, however, about the excessive speeds of snow machines on bike paths. This is of special concern near residential areas. The Fairbanks North Star Borough Comprehensive Recreational Trail Plan states:

"Identify trails or use areas adjacent to, but not within, residential areas which can be used for motorized recreation."

Conflicts between snow machines and dog mushers are also a concern. One of the areas where this could become a problem is along a section of Ballaine Road in the Goldstream Valley. There, a popular dog mushing trail uses a portion of the Ballaine Road bike path. This bike path is also used by snow machines, winter cyclists, and cross country skiers.

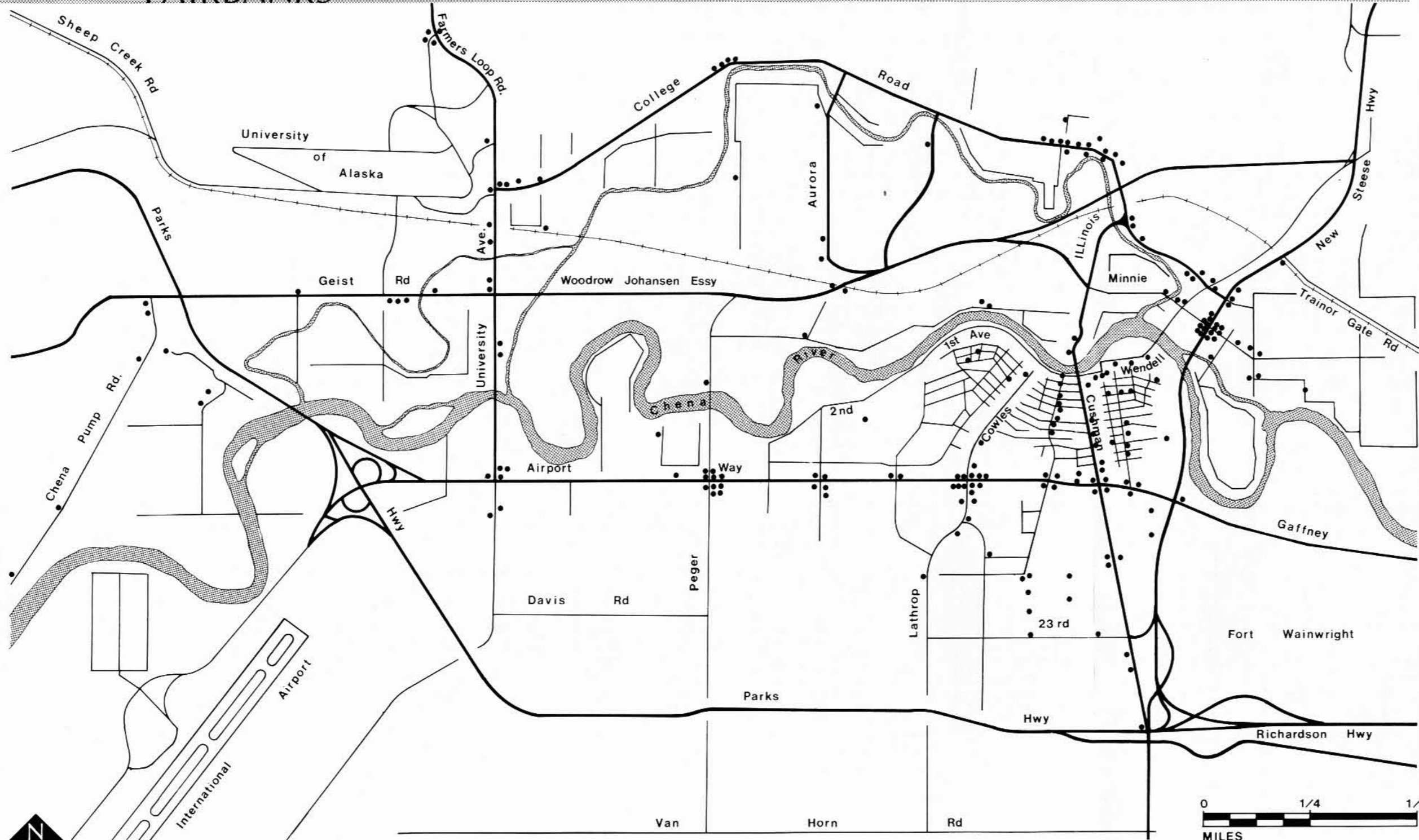
The Trails Advisory Commission felt that there could not be a blanket recommendation regarding the limitation of motorized uses on bike paths. They believe that each new bike path should be reviewed individually for possible motorized winter use.

At this time motorized winter use is only allowed on Ballaine Road, Farmers Loop, and Chena Pump Road bike paths. The University has expressed an interest in prohibiting motorized winter traffic on bike paths in the University area (Ballaine Road and Farmers Loop for example).

IMPROVING OUR BIKEWAYS

FAIRBANKS

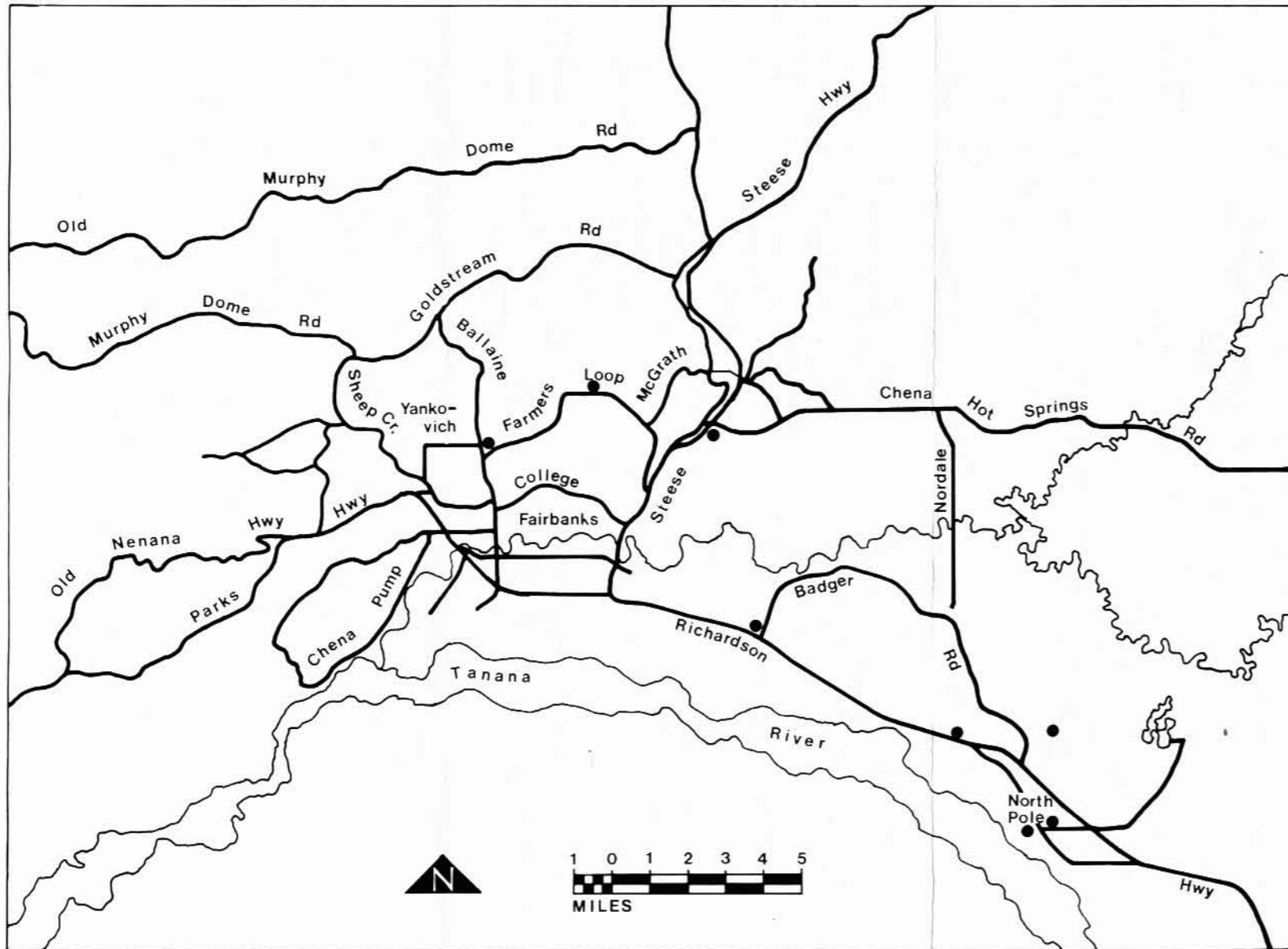
REPORTED BICYCLE ACCIDENTS Map 1



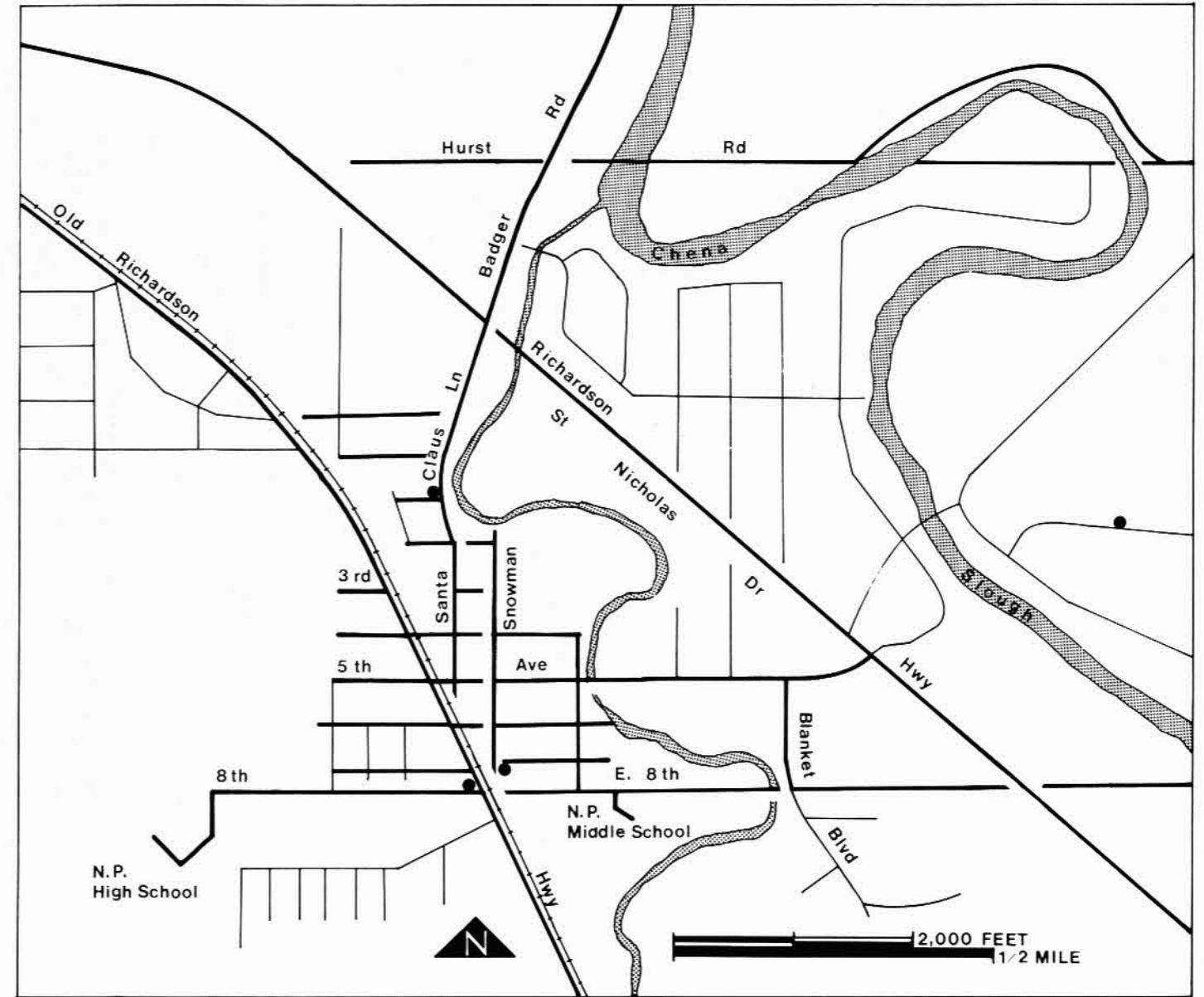
● Represents one reported accident (1977 - 1989)

Source: DOT & PF
Plans, Programs
& Budget
Juneau, AK

FAIRBANKS & VICINITY



NORTH POLE



GOALS AND OBJECTIVES

It is imperative that a set of common goals and objectives be established for a comprehensive bicycle program. This includes activities in five categories:

- Engineering
- Education
- Compliance
- Encouragement
- Implementation

Please note that many of the elements below are tied to specific recommendations that are found on the Bikeway Maps and the Bikeway Design and Recommendation chapters.

Goal I. Engineer safe bicycle facilities.

OBJECTIVE A. Upgrade existing bicycle facilities to meet design standards in conformance with Bike Plan standards.

1. Reconstruct certain bike paths to eliminate wrong way riding.
2. Provide signs and pavement markings on all existing bicycle facilities which conform to AASHTO standards.
3. Remove signs on existing roads and bicycle facilities which do not conform to AASHTO standards.
4. Insure that Borough schools are connected to adjacent bicycle facilities.
5. Insure that recreational facilities are connected to adjacent bicycle facilities.
6. Investigate the feasibility of changing the state policy of prohibiting bicycles on controlled access roads.

OBJECTIVE B. Consider bicycles in all future road projects.

1. Consult the AASHTO bicycle facility design guidelines listed in this Bike Plan when designing roads.

2. Refer to the specific bicycle facility recommendations listed in this Bike Plan when designing roads.

3. Include bicycle counts in traffic counting programs.

4. Encourage Service Area road projects to include bicycle facilities in their design and construction.

OBJECTIVE C. Plan and design safe recreational bike paths.

1. Build recommended bike paths as shown on the Bikeway map and as described in this Bike Plan.

2. Consult the AASHTO guidelines listed in this Bike Plan when designing recreational bike paths.

3. Provide safe bike path - road crossings, using appropriate signs, striping and large diameter culverts where appropriate.

4. Recognize bike path planning as a function of the Borough Parks and Recreation and Planning Departments.

OBJECTIVE D. Improve bicycle facility maintenance.

1. Include all bike lane, wide curb lanes, and shoulder bikeways in routine road maintenance programs.

2. Establish a method for reporting bikeway maintenance concerns to the responsible agency.

3. Provide winter maintenance on non-motorized bike paths (this includes sidewalks designated as bike paths).

4. Maintain all bike paths on the University of Alaska campus year round.

5. Investigate the feasibility of transferring some bike path maintenance and funding to the Fairbanks North Star Borough.

6. Pursue organization of volunteers for bike path maintenance.

Goal II. Improve bicycle education.

OBJECTIVE A. Develop school programs to educate young cyclists about bike safety and bike maintenance.

1. Make information available to parents to acquaint them with the types of accidents which involve young cyclists, and give them ideas on preventative measures.

2. Develop and implement a comprehensive bicycle education program to be delivered as part of the physical education program in the schools.

3. Distribute informational flyers on helmet usage and safe cycling skills.

4. Encourage Public Service Announcements on local radio and television on bike safety.

OBJECTIVE B. Develop a program to educate adults about bike safety and maintenance.

1. Teach safe cycling skills by sponsoring an "Effective Cycling" course, or its equivalent.

2. Develop a bike education and bike maintenance program for teachers.

3. Distribute safety informational flyers and pamphlets to motorists and cyclists on sharing the road.

4. Encourage Public Service Announcements on local radio and television alerting motorists of the need to safely share the road with cyclists.

OBJECTIVE C. Develop a multi-use trail education program.

1. Develop educational program for specific user groups informing them on the rights and restrictions of using bike paths.

2. Distribute informational pamphlets which highlight trail etiquette.

3. Encourage Public Service Announcements on local radio and television on trail etiquette and multiple trail use.

GOAL III. Encourage compliance with bicycle laws.

OBJECTIVE A. Improve driving skills of cyclists and motorists.

1. Develop a campaign to educate cyclists and motorists on the rules of the road.

2. Develop and conduct an awareness program for police officers which shows the importance of bicycle law enforcement.

3. Encourage the enforcement of traffic laws for cyclists.

OBJECTIVE B. Reduce the incidence of bicycle theft.

1. Expand present bicycle licensing procedures to encourage more cyclists to register.

2. Initiate a bike registration program Borough wide.

Goal IV. Encourage the use of bicycles.

OBJECTIVE A. Promote cycling for transportation.

1. Continue to expand events which encourage cycling to work such as "Bike To Work Day".

2. Develop a program to encourage businesses and institutions to install bicycle racks.

3. Provide maps which will identify the more desirable streets for cycling.

4. Encourage Public Service Announcements for broadcast on local media which encourage cycling as a form of transportation.

OBJECTIVE B. Promote recreational cycling.

1. Encourage recreational cycling events such as the Chena Hot Springs Classic, as a regular part of community activities.

2. Encourage Public Service Announcements on local radio and television which encourage recreational bicycling.

3. Provide a bicycle map for recreational cyclists.

4. Promote bicycling as a way for tourists to sight see.

Goal V. Implement the Bike Plan through coordination.

OBJECTIVE A. Coordinate local jurisdictions to follow through with Bike Plan goals.

1. Analyze Highway Projects for compliance with Bike Plan recommendations during the local review process.

2. Coordinate road projects that contain bicycle facilities with FMATS.

3. Review Service Area road projects for possible connections to the bikeways.

OBJECTIVE B. Involve Community Groups in the implementation of this Bike Plan.

1. Inform community groups such as the Fairbanks Area Bicycle Advocacy Group, of all road and bicycle facility projects.

2. Keep schools and community groups informed of current bicycle projects and events.

3. Inform Trails Advisory Commission of all projects involving bike paths.

OBJECTIVE C. Incorporate the Bike Plan in all local planning efforts.

1. Adopt the 1989 Bike Plan goals and objectives as an element in the Borough Comprehensive Plan.

2. Adopt the 1989 Borough Bike Plan as part of the Borough Comprehensive Road Plan.

3. Incorporate the Bike Plan as part of FMATS.

4. Coordinate Bike Plan implementation with the Borough Comprehensive Recreation Trail Plan.

5. Coordinate Bike Plan implementation with new and existing park development plans.

6. Coordinate Bike Plan implementation with the University of Alaska Facilities Planning and Construction.

IMPROVEMENT RESPONSIBILITIES

There is a need to improve bicycle facilities and bike programs in the Borough. Bicycling must be made safer. Motorists and cyclists must become more aware of cycling laws and skills. In this way the community can benefit from a safer, more efficient transportation network.

This section describes the conditions that must be met by institutions, individuals, and the environment for these improvements to occur.

Institutions

Institutions that guide the development and operation of our transportation system need to incorporate cycling in their program development and planning. This includes police departments, schools, civic organizations, as well as all state and local transportation planning departments. Bicycling needs should become a routine part of the planning process for all appropriate agencies.

Organizations and individuals that address bicycling need to be well informed on the current state-of-the-art in bicycle facility design and bicycle program development. Informed staff is necessary to design projects that respond to the needs of cyclists.

Individuals

Both cyclists and motorists need to know how to share the roadway safely. This requires an understanding of the factors critical to safe operation of motor vehicles and bicycles on the roadway network. It is also necessary for cyclists to become proficient at basic handling skills in various traffic situations.

To safely ride a bicycle on a separated bicycle facility cyclists must be extra cautious. It has been shown that a disproportionate number of accidents occur on this type of facility, generally at intersections and driveways. Studies done by federal and state safety institutions, indicate that a cyclist is 2.6 times more likely to get in an accident on a separated facility than when riding in the road. It is necessary for cyclists to ride slowly and carefully on separated bicycle facilities.

Environment

The cycling environment consists of the roadway network, bicycle facilities, and bicycle parking. Many of the streets of the Fairbanks North Star Borough were not designed with bicycling in mind and many hazards exist.

Roads need to be designed with widened lanes, bike lanes, or wide shoulders. It is especially important for cyclists that paved surfaces are smooth and well maintained. Recreational cyclists and other bikeway users need scenic routes that are designed to safely allow for multiple use with a minimum of intersections and driveways. Good signing, traffic signals that respond to bicycles, and secure and convenient bicycle parking are also essential for a "bicycle friendly" environment.

IMPLEMENTATION

Implementation of this bike plan requires the following:

- Funding from federal, state, local and private sources.
- Support from state and local agencies.

These implementation measures are discussed below.

Funding Sources

Funding for bicycle education, facility planning, construction, and maintenance can be acquired from federal, state, local and private sources. Most of the bicycle facility funding is derived from state or federal sources. Specific funding programs are listed below. Each of these sources should be considered for bicycle facilities funding.

Federal Aid Highway Funds

The major source of federal funding for bicycle related projects is the Federal Aid Highway Program. Applications for Federal Aid Highway Funds are made by the State Department of Transportation and Public Facilities. Eligible bicycle facility projects constructed as part of road projects receive approximately 90% federal funding. The

remaining 10% comes from state matching funds.

Only designated federal aid highway and urban routes are eligible for federal funding. Federal participation in bike funding is directed toward use of bicycles as an alternate to motorized vehicle transportation. Bicycle facilities built solely for recreational use are not eligible.

State Legislature Grants

Alaska State Legislature grants, funded from state revenues, are available for bicycle facilities projects. These projects are generally safety related projects that can include improvements or additions to the bikeway system.

In 1988 the State allocated several million dollars for a "Jobs Bill". This was money earmarked for projects that could begin immediately and put local residents to work. A bicycle project might be an appropriate project for this type of funding.

Local Service Roads and Trails (LSR&T) Funds

The purpose of the LSR&T program is to provide state assistance to developing local

roads and trails that are not eligible for federal-aid matching funds. The LSR&T funds do not require local matching funds. This program is administered by the State of Alaska, Department of Transportation and Public Facilities.

Although strongly supported by state legislatures in the 1970's and early 80's, the program has not been funded in recent years.

Local Funding

Local funds available for construction and maintenance of bikeways are limited. There are however, State funds that are given to cities or boroughs for Capital Improvement Projects. Bicycle facilities, especially those that can be justified for safety reasons, can be added to the list of Capital Improvement Projects. Revenues generated from expanding bicycle licensing could also be used.

Private Funding

Private businesses and organizations can also be approached for bicycle facility funding. For example, local businesses can supply bike racks and community groups can fund bike education materials. For larger projects, such as funding a bike path, funds from corporations or foundations can be ex-

amined. For bike path maintenance, volunteers from the community could be organized to donate time for bike path clean up and for locating problem areas.

Agency Roles

Several agencies play an important role in the implementation of this plan. Following is a list of the participating agencies and the roles that each must play.

STATE DEPARTMENT OF TRANSPORTATION

- Construct and improve bike paths and roadways to reflect the guidelines in this plan.
- Include bicycle facility projects in funding requests to the state legislature.
- Maintain on-road bike facilities.
- Pursue ways to turn over maintenance and funding of bike paths to the Borough.

FAIRBANKS NORTH STAR BOROUGH

- Include bicycle facilities in Capital Improvement Program requests.
- Develop bike education programs in schools.
- Pursue ways to obtain bike path maintenance responsibilities and funding.
- Include Bike Plan goals and objectives in all Borough plans including the FNSB Road Plan and the FNSB Comprehensive Plan.

- Initiate Borough wide bicycle registration program.
- Set clear priorities for bikeway development which responds to the needs and safety of the community.

CITY OF NORTH POLE

- Include bicycle facilities in Capital Improvement Program requests.
- Support a Borough wide bicycle registration program.
- Develop a policy of enforcing bicycle related laws.

CITY OF FAIRBANKS

- Include bicycle facilities in Capital Improvement Project requests.
- Support a Borough wide bicycle registration system.
- Develop a policy of enforcing bike path and bicycle related laws.

STATE DEPARTMENT OF PUBLIC SAFETY

- Develop a policy of enforcing bike path and bicycle related laws.
- Expand methods of bike accident reporting.

FMATS

- Encourage the planning and development of bicycle facilities.
- Support goals and objectives found in this Bike Plan.

TRAILS ADVISORY COMMISSION

- Coordinate trail plans with the bike path recommendations found in the Bike Plan.

- Review Highway projects which contain bike paths.
- Make recommendations concerning motorized winter use on all new bike paths.

UNIVERSITY OF ALASKA

- Encourage the planning and development of bicycle facilities.
- Include bicycle facilities in Capital Improvement Program requests.

BIKEWAY DESIGNS

For many people in the Fairbanks North Star Borough, bicycles are an important form of transportation. Therefore, it is necessary to consider bicycle facilities in the beginning design stages of all new road projects. New projects should be planned that include bicycle facilities which are continuous, effective, and safe.

For others, bicycling is a form of recreation. Bikeways for these cyclists need to be developed that are scenic with a minimum of cross streets. These bikeways must be designed for multiple use.

There are several different types of bicycle facilities. Some are more appropriate where traffic volumes and speeds are excessive, and others are designed for roads with limited right-of-ways. Roadways can often be improved for bicycling with minor upgrades at a minimum of expense.

The guidelines set up by the American Association of State Highway Transportation Officials (AASHTO) should be consulted when designing or planning any bicycle facility. This guide contains information that will help engineers, planners, and policy makers design bicycle facilities which accommodate bicycle traffic in a safe, efficient manner.

Appropriate and consistent signing and marking is essential for safety on bikeways.

Signs should be used to alert cyclists of potential hazards and communicate regulatory messages to both cyclists and motorists. Signing and marking also sends a message to motorists that cyclists are permissible users of the road network.

It is important that all bicycle facilities which contain traffic control devices conform to the state adopted Federal Highway Administration's "Manual On Uniform Traffic Control Devices"(MUTCD). This includes uniformity in shape, color symbols, wording, and lettering. All bikeway signs need to be reflectorized.

The following bicycle facility designs have been developed using the AASHTO guidelines and the MUTCD standards. They do not deal with all circumstances or situations. Sound engineering logic will have to be applied to achieve safe results in unique situations.

Note: Any updates of AASHTO and MUTCD guidelines and standards should be used to revise these designs as necessary.

BIKE LANES

A bike lane is a portion of the road that is designated exclusively for use by cyclists. Bike lanes are especially desirable in urban areas when bicycle travel is significant.

This type of bicycle facility must always be one-way. The bike lanes should be well marked and signed, exhibiting to all traffic their preferential use by cyclists.

Bike lanes have several advantages. They delineate a space for cyclists which makes cars more acutely aware of their presence. Bike lanes also give cyclists a sense of security and are likely to encourage more cycling along that route. Bike lanes may also encourage motorists to cycle to their destination instead of driving.

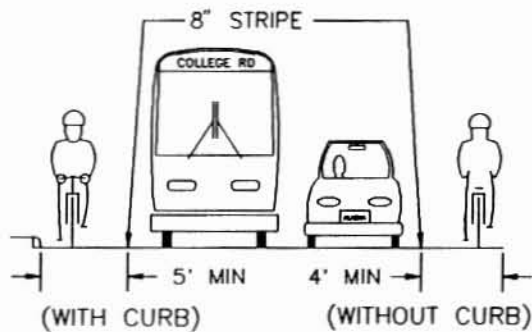
There are also some disadvantages to bike lanes. One disadvantage is the problem of how to design a bike lane when there are right turn only lanes present (discussed below). Another problem is that vehicles tend to propel debris into the bike lane which can be a serious hazard to cyclists.

DESIGN

The minimum width for a bike lane is 4 feet when there is no curb, and on roadways with curbs the minimum bike lane width is 5 feet

(see figure 1). The desirable width of a bike lane is 6 feet. If the bike lane is designed in excess of 6 feet it may be taken for a motor vehicle lane and it also may encourage cyclists to ride two abreast.

FIGURE 1
Bike Lane

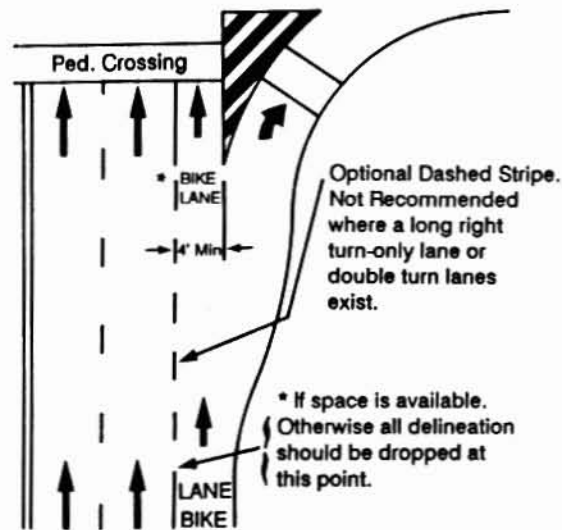


At intersections where right-turn only lanes are provided, bike lanes can become a problem. Cyclists can get a false sense of security riding in a bike lane. At intersections they can become "trapped" in the right-turn lane and are unable to travel straight through the intersection.

Where a right turn lane begins 50 feet or more before the intersection, the bike lane should be truncated and a "Begin Right Turn Lane-Yield to Bicycles" sign should be installed.

Adequate space should be allowed for bicyclists in the through lane (see figure 2).

FIGURE 2
Bike Lane With Right Turn Only Lane



For this reason bike lanes must be designed carefully at intersections. Where numerous right turn only lanes exist it may be more appropriate to design a wide curb lane type of facility.

SIGNS AND STRIPING

All bike lanes should have:

- Bike Lane sign - R3-16 and R3-17 (see figure 3)

- "Bike Only" on pavement with Diamond-shaped pavement symbol
- 8-inch bike lane stripe separating bike lane from rest of roadway
- Bike lane sign R3-16 should be used at the beginning and end of bike lanes, with the word END being substituted for AHEAD where appropriate. Bike lane sign R3-17 should be used at least every 1000 feet in urban areas and once every mile in rural areas.

It is important that the bike lane striping be broken in advance of intersections to alert motorists and encourage cyclists to make left hand turns from the left hand turn lane.

FIGURE 3
Bikeway Signs



ROADWAY SHOULDER BIKEWAYS

AASHTO highly recommends standard four to eight foot shoulders when designing most arterial and collector roadways. With some additional design considerations bike traffic can be safely accommodated with virtually no added construction cost.

Roadway shoulder bikeways differ from bike lanes in the following ways:

- they are not designed for the exclusive use by bicycles and can be used for parking emergency vehicles
- there are no pavement markings other than the roadway striping
- signs and lane striping are different

Shoulder bikeways should be smooth and swept regularly. In areas where bicycle traffic is expected to be high, rumble strips should be avoided or designed so that they do not become a problem for bicycle drivers.

As with bike lanes, special design considerations are needed for shoulder bikeways at intersections.

DESIGN

Shoulder bikeways should be a minimum of 4 feet when there is no curb and 5 feet when a curb exists (see figure 4). If motor vehicle speeds exceed 35 mph or if the percentage of trucks, buses and recreational vehicles is high, then additional width is needed.

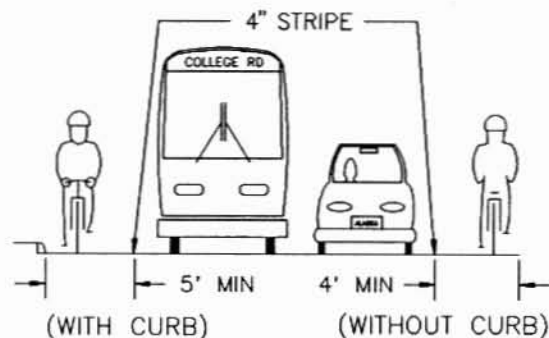
SIGNS AND STRIPING

To designate a roadway shoulder as a bikeway it is necessary to use the following signs and pavement markings.

- Bike Route sign - D11-1 (see figure 3)
- 4" shoulder stripe

The signs should be placed every 1000 feet in an urban area and once every mile in a rural area.

FIGURE 4
Shoulder Bikeway



WIDE CURB LANES

An increasingly popular bikeway design is to widen the roadway to accommodate

bicyclists. With this type of facility cyclists share the normal travel lane with motorists. Motorists can pass bicyclists without changing lanes.

There are many benefits of sharing the roadway:

- conservation of funds
- minimal right-of-way needs
- increased sight distance at intersections
- more maneuvering room for drivers exiting from driveways.
- some of the confusion of being trapped in a right turn only lane from a bike lane is eliminated
- less debris build up than a bike lane or shoulder bikeway

DESIGN

The optimum width for a wide curb lane is 14 feet of usable pavement width (see figure 5). Allowances must be made for encumbrances in the road such as drainage grates and parking.

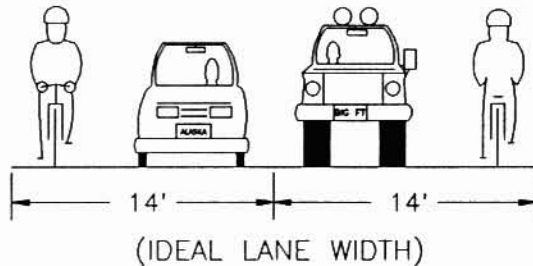
A 14 foot lane width allows a motor vehicle and a bicycle to drive side-by-side. When lanes are wider than this, two motor vehicles may attempt to use one lane.

SIGNS AND STRIPING

When the outside travel lanes are widened to accommodate bicycles on the roadway and bike traffic is significant they should be marked and signed with:

- Bike Route sign - D11-1 with "On Roadway" sign attached (see figure 3)
- 4-inch shoulder striping

FIGURE 5
Wide Curb Lane



BICYCLE PATHS

A bicycle path is a bicycle facility that is physically separated from the road. This separation can be an open space or barrier and may be within the road right-of-way or within independent right-of-way.

Bicycle paths are generally for two-way bicycle traffic and are shared with many other users. In the FNSB we have many examples of this type of facility, such as Farmers Loop

Road bike path, Ballaine Road bike path, and Chena Pump bike path.

It is very important when planning bike paths to choose locations that will involve minimal driveway crossings or road intersections. Traffic intersecting a bike path can put the cyclist in a position where the motorist does not expect them. This is especially true of two-way bicycle facilities. Motorists typically are looking left for approaching vehicles and may not see a cyclist approaching from the right.

Cyclists on bike paths may also be obscured from motorists' view by utility poles, trees, parked cars, or other obstacles. Good locations for bike paths are along rivers, streams, sloughs, canals, parks, abandoned railroad grades and heavily traveled freeways or arterials that have limited access.

DESIGN

The AASHTO guidelines for bicycle facility development suggest two-way bike paths should be built to a 10' minimal standard (see figure 6). However, 8' bike paths may be adequate when certain conditions exist such as:

- bicycle traffic is expected to be low at all times
- there are many safe opportunities available for passing
- there is only occasional pedestrian use

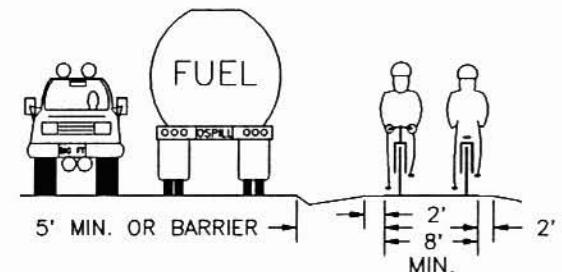
At least a two foot wide area should be maintained adjacent to both sides of the bike path to allow safe operation. When possible

a four foot unpaved area should be maintained adjacent to the bike path for equestrian and pedestrian use.

Special attention must be given to bike paths when they cross roads. Warning signs and pavement markings should be installed. If the bike path will have heavy dog mushing and equestrian use a large diameter culvert may be installed for the road crossing.

Clearance to overhead obstructions should be a minimum of eight feet, although ten feet is desirable. Driveways that cross bike paths should be paved.

FIGURE 6
Bike Path



If the bike path is constructed adjacent to a roadway there should be a minimum of 5 feet separating it from the traveled lane or a barrier should be installed. The barrier should be a minimum height of 4.5 feet to prevent a cyclist from falling over it.

For one-way bicycle paths a minimum width of 5 feet is needed (see figure 6). It is important to recognize that most one-way bicycle facilities will be used by pedestrians and cyclists in two directions and should probably be designed to accommodate this use.

SIGNS AND STRIPING

Bike Path signs should be placed at all major access points to bike paths. When the bike path changes direction, or is needed to show direction to the bike path, appropriate arrow and message signs should be added. The appropriate sign is:

- Bike Route sign - D11-1 (see figure 3)

Where there is heavy use by many different types of users it may be necessary to apply pavement markings to a bike path.

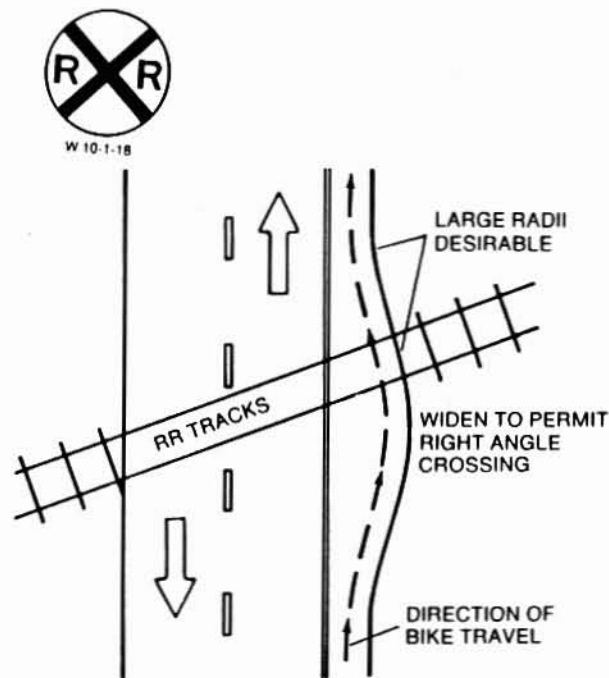
SPECIAL DESIGN CONSIDERATIONS

For routes to be bicycle-safe, hazards must be removed from the traveled way. Roadways should be examined for safe railroad crossings, bridge crossings, and smooth surfaces. It is also important to conveniently locate signal lights and ensure they are responsive to cyclists. Adequate bicycle parking should be provided at major destination points. To reduce crime, vegetation should be selectively cut from the area surrounding isolated bike paths. Bike paths must also be examined for acceptable motorized winter use (ATV's). Special attention should be given to the following types of specific design problems in order to develop a safe system of bikeways.

Railroad Crossings

Railroad crossings can be very hazardous for cyclists. Both the City of Fairbanks and the City of North Pole have roads and bike paths which cross railroad tracks. Serious accidents have occurred at some of these crossings. When new bike facilities are designed every attempt should be made to design the bikeway so that it crosses the track at a 90 degree angle. If the tracks cross at a severe angle the bikeway should be angled to give a better approach (see figure 7).

FIGURE 7
Signs and Pavement Markings at Railroad Crossings



Advance warning signs and pavement markings should be installed at all railroad crossings to alert the bicyclists of the crossing. Smooth crossings should be installed whenever possible. It is also important to install pavement markings on bike paths at the approach to railroad crossings.

Combining Types of Bicycle Facilities

It is important to avoid combining types of bikeways. This can cause confusion and unpredictable behavior among cyclists which can bewilder and anger motorists. Along the Ballaine Road bike path and several places along Chena Pump Road the two-way separated bike path intrudes onto the roadway, essentially becoming a two way shoulder bikeway for short segments. This also forces cyclists to ride against traffic which is very undesirable. The AASHTO Guidelines state:

"Two-way bicycle lanes on one side of the roadway are unacceptable because they promote riding against the flow of motor vehicle traffic. Wrong-way riding is a major cause of bicycle accidents and violates the Rules of the Road as stated in the Uniform Vehicle Code."

BIKEWAY RECOMMENDATIONS

This chapter contains a summary of recommended bikeways and road improvements. Included are funding sources that could be investigated to finance the projects.

Justification for the type of recommended facilities is derived from public input, origin and destination information, and from estimated peak bike traffic volumes.

For roads which lead to major origin and destination points, bike lanes, shoulder bikeways or wide curb lanes were recommended.

Bike paths were recommended in areas where there are a limited number of driveways or cross streets.

To coordinate with projects that have been planned by DOT&PF, it was necessary to establish a time frame for project implementation.

The projects were divided into short, medium and long range projects as shown in Table 2, 3 and 4 and on Map 3.

Definition:

- **Short-range** - Construction expected to be begin within three years. These projects have definite funding commitments.
- **Medium-range projects** - Construction expected to begin in three to six years. Additional planning may be needed. Funding commitments may not exist.
- **Long-range projects** - Construction not expected for at least six years. These projects need additional investigation to determine their feasibility. They may require additional right-of-way. No construction date has been set.

Farmers Loop Road will be reconstructed to include eight foot shoulders. The existing bike path will be replaced with an improved eight foot bike path separated from the roadway.

Johansen Expressway

Programmed Bicycle Facility - Bike Path

Funding Source - Federal Aid Highway Funds

Project Responsibility - DOT&PF

Expected Construction - FY90-95

The Woodrow Johansen Expressway (formerly the Geist Road Extension) will be a major east/west roadway corridor. It will link the west side of Fairbanks at Geist Road to the Steese Expressway near Birch Hill. Included are connections to the downtown area, the Railroad Industrial Area, Peger Road, Aurora Drive, and College Road.

The majority of this facility is controlled access which limits the number of entrances and exits and prohibits pedestrians and bicycles on the roadway facility. There will however, be six miles of separated bike path constructed along its north side. The bike path will be eight feet wide with two foot shoulders and be separated from the Expressway by a fence.

This project will be carried out in several phases (see Johansen Expressway map, page 29). The Expressway to the Illinois Street connection is planned for 1995 or later.

Laurance Road

Programmed Bicycle Facility - Shoulder Bikeway

Funding Source - State Legislature Funds

Project Responsibility - DOT&PF

Expected Construction - FY89/90

Laurance Road will be substantially widened and will include eight foot shoulders. The section of Laurance Road from the Richardson Highway to the Old Rich will be upgraded beginning in 1989. Construction of the section from the Richardson Highway to the Nelson Road will begin in 1990. These projects will provide safer bicycle access to the Chena Lakes Recreation Area from North Pole.

Loftus Road

Programmed Bicycle Facility - Shoulder Bikeway

Funding Source - State Legislature Funds

Project Responsibility - DOT&PF

Expected Construction - FY89

Loftus Road is presently being widened to improve access to the new University Park Elementary School and Howard Luke Alternative Jr./Sr. High School. There will be six foot roadway shoulders and a pedestrian sidewalk on the west side of the roadway.

A 500' bike path connecting the end of Loftus Road to the Parks highway bike path was constructed in September, 1989.

Old Richardson Highway - Sunset Inn to Richardson Highway

Programmed Bicycle Facility - Shoulder Bikeway

Funding Source - Federal Highway Funds

Project Responsibility - DOT&PF

Expected Construction - FY90

This section of the Old Richardson is going to be widened to three lanes. There will be six foot roadway shoulders.

Peger Road - Van Horn to Johansen Expressway

Programmed Bicycle and Pedestrian Facilities - Shoulder Bikeway/Sidewalk

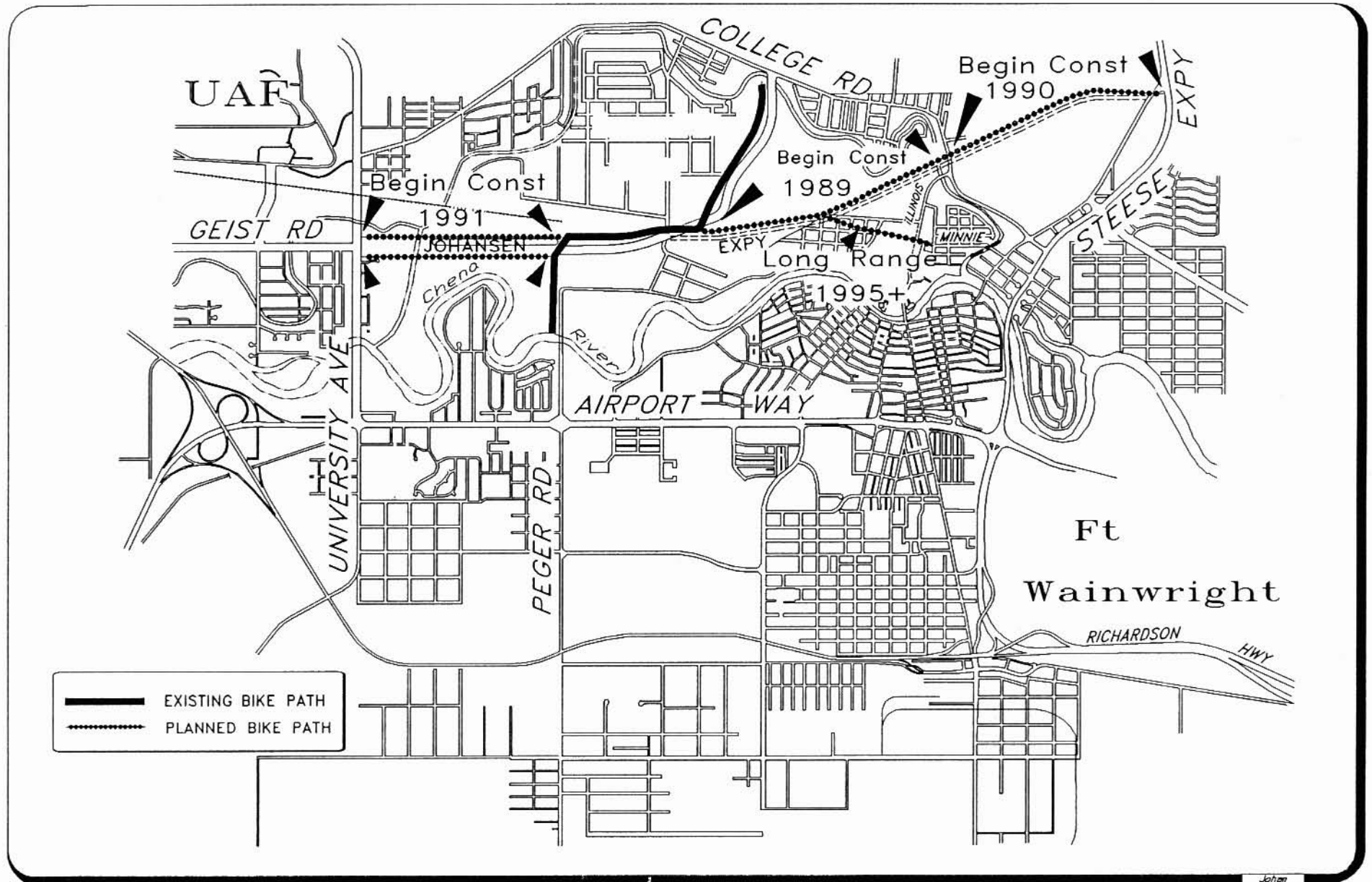
Funding Source - Federal Aid Highway Funds

Project Responsibility - DOT&PF

Expected Construction - FY91

Peger Road will be reconstructed to a four lane roadway north of the Parks Highway with six to eight foot shoulders. Intersections should be designed carefully to allow safe bicycle crossings. The shoulders will improve the bicycle network by providing bicycle access to east-west bike routes (Davis/23rd Avenue, Chena River, and

JOHANSEN EXPRESSWAY



Johansen Expressway). From Davis Road to Airport Way there will be a sidewalk along the west side of the roadway.

There will also be some improvements to the bike path under the Peger Road bridge to reduce high water problems.

Porcupine Drive (UAF)

Recommended Bicycle Facility - Shoulder Bikeway

Possible Funding Source - State Legislature Funds

Project Responsibility - UAF

There are plans to create a new east entrance to the University of Alaska. An eight foot shoulder bikeway will be included for bicycle access.

Richardson Highway Frontage Road - Santa Claus to Laurance Road

Recommended Bicycle Facility - Shoulder Bikeway

Possible Funding Source - Federal Aid Highway Funds

Project Responsibility - DOT&PF

Expected Construction - no construction needed

Along the Richardson Highway in North Pole there is already established a system of frontage roads - Finnel Drive, Missletoe Drive and Saint Nicholas Drive. With the addition

of bikeway signs, these roads can be established as bike routes. This will encourage cyclists to use the frontage road system over the busier Richardson Highway.

South Chandalar Road

Programmed Bicycle Facility - Shoulder bikeway or Bike Lane

Funding Source - State Legislature Funds

Project Responsibility - UAF/DOT&PF

Expected Construction - FY89-91

South Chandalar is being widened in fiscal year 1989 from the Fairbanks Street intersection to the coal plant on the University of Alaska campus. Future plans include to widen South Chandalar to College Road and to open up the intersection at College Road to through traffic. The roadway will include four foot shoulders and a sidewalk on the north side and eight foot shoulders on the south side. The University plans to designate the shoulders as bike lanes.

Wilbur Street Extension - Airport Way to Davis/23rd Avenue

Programmed Bicycle and Pedestrian Facilities - Bike Path/Shoulder Bikeway/Sidewalk

Funding Source - Federal Aid Highway Funds

Project Responsibility - DOT&PF

Expected Construction - FY90

This project includes eight foot roadway shoulders for the length of the project and a separated bike path along the east side of Wilbur from the Airport Way Frontage Road to the new entrance to the Hez Ray Recreation Area. A seven foot pedestrian sidewalk will also be constructed on the west side of Wilbur Street from Airport Way to Eagan Drive.

MEDIUM RANGE PROJECTS 1992-1995

1st/2nd Avenue/Wilbur Street

Recommended Bicycle and Pedestrian Facility - Shoulder Bikeway/Sidewalk

Funding Source - Federal Aid Highway Fund

Project Responsibility - DOT&PF/City of Fairbanks

Expected Construction - FY90-'91

1st and 2nd Avenue between Cushman and Wilbur Street is scheduled to be widened. Also part of this project is Wilbur Street from Airport Way to 2nd Avenue. Some reconnaissance work has been done but the final design is not complete. Bicycle facilities along these roads will improve access to the Growden Park Recreation Area and the new John Carlson Community Activity Center.

3rd Street/Minnie Street

Recommended Bicycle and Pedestrian Facilities - Wide Curb Lane/Sidewalk

Funding Source - Federal Aid Highway Funds

Project Responsibility - DOT&PF/City of Fairbanks

Expected Construction - FY93

Third Avenue and Minnie Street (from Illinois Street to Hamilton Avenue) is to be widened. A reconnaissance study is currently being

done by DOT&PF to develop recommendations for future improvements. Because this is the primary route serving the Hamilton Acres, Slaterville and Island Homes neighborhoods consideration must be given to bike traffic. Right of way restrictions may make a wide curb lane type of design the most workable type of bicycle facility.

Ballaine/Goldstream /Sheep Creek

Recommended Bicycle Facility - Shoulder Bikeway

Possible Funding Source - Federal Aid Highway Funds

Project Responsibility - DOT&PF

Expected Construction - FY95

DOT&PF plans to upgrade and resurface Ballaine Road, Goldstream Road, and Sheep Creek Road. By upgrading and resurfacing the shoulders bicyclist will be provided with a scenic bicycle loop.

It is recommended that the present bike path on Baillaine Road be upgraded to eliminate wrong way riding at the top of the Ballaine Road Hill. Improving the shoulders and signing appropriately would encourage cyclists to use the right side of the road.

Chena Hot Springs Road - Steese Expressway to Nordale Road

Recommended Bicycle Facility - Shoulder Bikeway

Funding Source - Federal Aid Highway Funds

Project Responsibility - DOT&PF

Expected Construction - FY94

Chena Hot Springs Road is commonly used as a recreation and transportation route for cyclists. The present plans are for eight foot shoulders. Proper signing and shoulder maintenance will make this an important addition to the bikeway system. There has been some local support to continue the wide shoulders to Anders Cache at about 10 mile. This should be considered in future upgrades of this portion of the Chena Hot Springs Road.

Chena Lakes Recreation Area

Recommended Bicycle Facility - Bike Path

Possible Funding Source - Army Corps of Engineer Project Money/COE

Project Responsibility - COE

Expected Construction - FY92

The Corps of Engineers is planning to construct a four and a half mile bike path from the entrance of the Chena Lakes Recreation Area to the Chena River. The bike path will connect with bike paths that were built by the Fairbanks North Star Borough and the DOT&PF project along Laurance Road which includes 8 foot shoulders.

Lathrop Avenue - Parks Highway to 19th Avenue

Recommended Bicycle and Pedestrian Facilities - Shoulder Bikeway/Sidewalk

Possible Funding Source - Federal Aid Highway Funds

Project Responsibility - DOT&PF/City of Fairbanks

Expected Construction - FY94

The widening of this portion of Lathrop Street to include shoulders and sidewalk will provide better access to the Hez Ray recreation complex from South Fairbanks. Further plans to develop the Lathrop Corridor should also include bicycle facilities and sidewalks.

South Cushman Street

Recommended Bicycle and Pedestrian Facilities - Shoulder Bikeway/Sidewalk

Possible Funding Source - Federal Aid Highway Funds

Project Responsibility - DOT&PF/City of Fairbanks

Expected Construction - FY94

A location study has been completed for an upgrade of Cushman Street between Airport Way and Van Horn Road. The study recommends roadway shoulders and sidewalks. With proper bikeway signs this route could be used to expand bicycle access from South Fairbanks into the downtown area.

University Avenue

Recommended Improvements - Bike Lane/Wide Curb Lane

Possible Funding Source - Federal Aid Highway Funds

Project Responsibility - DOT&PF

Expected Construction - FY95

The existing sidewalk which is designated as a bikeway along University Avenue is inadequate. The curb ramps are substandard and the crossing of the Chena River Bridge is especially hazardous. Because the sidewalk is used heavily by pedestrians the sidewalk can become too congested for shared pedestrian and bicycle use. It is also inappropriate as a bicycle facility because of numerous busy driveways and cross streets.

DOT&PF have plans to upgrade and widen University Avenue. The draft location study recommends an eight to ten foot sidewalk bikeway along the west side of University Avenue from College Road to Swenson Avenue (south of Airport Way).

The study also recommends a five foot sidewalk on the east side of University Avenue from College Road to Davis Road. The draft report also recommends eight foot roadway shoulders be used on the entire project. However, the use of the shoulder as a bicycle facility was not addressed. University Avenue is a busy route for cyclists and a safe bicycle facility must be included with this

project. Future plans must realize the potential for using the shoulder as a bikeway.

LONG RANGE PROJECTS 1995-2010

Airport Way Corridor

Recommended Bicycle Facility - Bike Lane or Wide Curb Lane

Possible Funding Source - Federal Aid Highway Funds

Project Responsibility - DOT&PF

The Airport Road Frontage Road is heavily used by recreational and utilitarian cyclists. All of the major intersections have several reported bicycle accidents.

DOT&PF is conducting a location study for the Airport Way Corridor. Several alternatives are being evaluated including a no-build alternative. Consideration of bikeways should be given to improving the frontage road to better accommodate both cyclists and motorists. The roadway should be designed wide enough to accommodate both cyclists and motorists. A sidewalk should not be substituted for a bicycle facility.

Barnette Ave. - 7th Avenue to Airport

Recommended Bicycle Facility - Wide Curb Lane

Possible Funding Source - Federal Aid Highway Funds

Project Responsibility - City of Fairbanks/FNSB

To complete the bikeway that is proposed for Barnette Avenue it is necessary to continue a wide curb lane to Airport Way when this portion of Barnette Avenue is upgraded. Limited right of way may require examination of alternative options for bike traffic for a portion of this section. A bike route along 10th Avenue behind the Barnette School to Airport Way is one option.

College Road

Recommended Bicycle Facility - Bike Lane or Wide Curb Lane

Possible Funding Source - Federal Aid Highway Funds

Project Responsibility - DOT&PF

College Road is a primary travelway for bicycles in the Fairbanks area. The sidewalks were constructed in the 1960's. They were designated as bikeways in the early 1970's with the addition of curb ramps. The entire facility is substandard and any future improvements to College Road must include upgrading the bikeways. Of special concern are the Lemeta and College area where numerous roadways and driveway approaches created hazards and restrict efficient bicycle travel.

DOT&PF is currently conducting a Location Study for widening College Road between the Johansen Expressway in Lemeta to Aurora Drive. Actual construction is considered long term (beyond 1995).

Chena River (north side) - Illinois Street to Peger Road

Recommended Bicycle Facility - Bike Path

Possible Funding Source - LSR&T Funds, State Legislature Funds, Local Funds

Project Responsibility - FNSB/City

A Borough resolution recognized the north side of the Chena River from approximately M.U.S. to Peger Road as having "High Public Interest". A long range plan is to develop a bike/pedestrian path from Illinois Street to Peger Road which would connect the existing Peger Road bikeway to the future bicycle facilities along Illinois Street. This would serve as a recreational route for cyclists as well as joggers, runners, etc.

Chena River (south side) - Cushman Street to Steese Expressway

Recommended Bicycle Facility - Bike Path

Possible Funding Source - LSR&T funds, State Legislature Grant, Private funds

Project Responsibility - FNSB/City

A route is desirable along the south side of the Chena River between Cushman Street and the Steese Highway. This would serve primarily as a recreational route linking the Steese Highway bike paths to the downtown area and the 1st Avenue bike path. Access to Griffin Park ball fields would also be improved.

Fifth Avenue (North Pole)

Recommended Bicycle and Pedestrian Facilities - Bike Lane or Wide Curb Lane/Sidewalk

Possible Funding Source - State Legislature Grants and/or LSR&T Funds/City of North Pole

Project Responsibility - City of North Pole

When Fifth Avenue in North Pole is improved a bike lane or wide curb lane should be established. This will provide a bikeway for cyclists that will connect the Blanket Boulevard bike path and the Santa Claus Lane bicycle facilities. The Post Office and the small neighborhood park on Fifth Avenue also make this a desirable bike route.

Hez Ray Recreation Area

Recommended Bicycle Facility - Bike Path

Possible Funding Source - State Legislature Grants, Local Funds

Project Responsibility - FNSB

A bike path is needed for recreational cyclists through the Hez Ray Recreation Area. It should connect with Wilbur and Lathrop Street.

Hurst Road

Recommended Bicycle Facility - Shoulder Bikeway

Possible Funding Source - State Legislature Funds

Project Responsibility - DOT&PF

It may be necessary to include wide shoulders to accommodate bicycles in future upgrades of Hurst Road if increases in population warrant. This will provide a route for rural residents into the City of North Pole and its associated bikeways.

Illinois Street

Recommended Bicycle Facility - Bike Lane or Wide Curb Lane

Possible Funding Source - Federal Aid Highway Funds/DOT&PF

Project Responsibility -DOT&PF

Reconstruction is programmed by DOT&PF as a final segment of the overall Johansen Expressway project. It is to provide improved access to the downtown area. Construction is not likely to begin before 1995. Because of the complicated nature of this project, final decisions on some of the design features are uncertain at this time.

The current 4 lane design concept includes roadway shoulders. A five to ten foot sidewalk is planned along both sides of the roadway. It is important that future design work permits use of the shoulders as a shoulder bikeway or bike lane.

McGrath Road/Old Steese Highway

Recommended Bicycle Facility - Wide Curb Lane or Shoulder Bikeway

Possible Funding Source - State Legislative Grant/DOT&PF

Project Responsibility -DOT&PF

McGrath Road is a popular recreational loop tying in with the Old Steese Highway. Its narrow design makes it inadequate for safe recreational cycling. Poor roadway alignment is also a problem on this road. Future road improvements should include bicycle facilities.

Miller Hill/Yankovich Road

Recommended Bicycle Facility - Bike Path

Possible Funding Source - LSR&T, State Legislature Grant

Project Responsibility -DOT&PF

Miller Hill and Yankovich Road are used by many runners, joggers, walkers, and cyclists. It is part of a loop from the University which also includes Sheep Creek, Ballaine Road, and Farmers Loop Road. Because of its proximity to the University the loop is very popular. There is a lot of public support to construct some type of bikeway along the entire route.

DOT&PF has done some preliminary estimates which recommends a separated bike path that is primarily on University land and requires a minimal amount of right of way take. Funding is not secured for this project.

Mission Road

Recommended Bicycle Facility - Shoulder Bikeway

Possible Funding Source - State Legislature Funds

Project Responsibility -FNSB (Road Service Area)

It may be important for upgrades of Mission Road to include wide shoulders. This would provide residents with improved access to the City of North Pole and its associated bikeways.

Newby Road

Recommended Bicycle Facility - Shoulder Bikeway

Possible Funding Source - State Legislature Funds

Project Responsibility -DOT&PF

If population increases demand, future upgrades of Newby Road should include wide shoulders for cyclists. This will provide a bicycle route for residents into the City of North Pole and its associated bikeways.

Noyes Slough

Recommended Bicycle Facility - Bike Path

Possible Funding Source - State Legislature Funds/FNSB

The Borough is presently researching the feasibility of constructing a path along the

Noyes Slough from the Johansen Expressway bike path to the Danby Street bike path. This will function as a recreational path linking the two bike paths.

Parks Highway

Recommended Bicycle Facility - Bike Path

Possible Funding Source - Federal Aid Highway Funds/DOT&PF

Project Responsibility -DOT&PF

This project would add a bike path along the west side of the Parks Highway (a limited access facility), when the Chena Ridge/Chena Pump intersection is upgraded. The bike path would tie in with the bike path that under the Parks Highway bridge and the Loftus Road bikeways.

Santa Claus Lane

Recommended Bicycle and Pedestrian Facilities- Bike Lane or Wide Curb Lane/Sidewalk

Possible Funding Source - Federal Aid Highway Funds/State Legislature Funds

Project Responsibility -DOT&PF/City of North Pole

Santa Claus Lane needs a safer bicycle facility. Presently the sidewalk on the east side of the roadway is a designated bikeway. A small neighborhood park and the post office are destination for cyclists. Future upgrades of Santa Claus Lane should include

either a wide curb lane or a bike lane on both sides of the roadway.

South Main Entrance (UAF)

Recommended Bicycle and Pedestrian Facilities - Bike Lane/Sidewalk

Possible Funding Source - State Legislature Funds

Project Responsibility - UAF

There are long range plans to make improvements to the south main entrance to the University of Alaska. The road will be widened and include a bike lane on both sides of the road. Plans also include sidewalks.

Tanana Levy

Recommended Bicycle Facility - Bike path

Possible Funding Source - LSR&T Funds, State Legislative Funds, Local Funds/FNSB

This route was recommended in the FNSB 1981 Bicycle Facilities Plan. A recreational bike path along the Tanana Levy would create a link between Fairbanks and North Pole. The absence of cross roads, driveways and motorized traffic makes this an ideal area for a separated type of facility. Presently there is a portion of the levy that is used by the military. Realistically they will have to abandon the use of this section before a bike path can be seriously considered.

Tanana Loop/Yukon Drive (UAF)

Recommended Bicycle and Pedestrian Facilities - Bike Lane/Sidewalk

Possible Funding Source - State Legislature Funds

Project Responsibility -UAF

Tanana Loop and Yukon Drive on the University campus are heavily used by cyclists. Presently the roadway is narrow and the sidewalks are crowded with pedestrians. The University has plans to widen the road and provide bike lanes. A link between the campus and University Avenue will also be established as part of plans to reopen the intersection at College Road/University Avenue.

route along this road but it should be placed at a high priority.

Trainor Gate Road

Recommended Bicycle and Pedestrian Facility - Shoulder Bikeway or Wide Curb Lane/Sidewalk

Possible Funding Source - State Legislature Grants

Project Responsibility -DOT&PF

Trainor Gate Road is used by local residents and school children from Tanana Junior High School and Nordale Elementary School. It is also used by the military residents from Ft. Wainwright and residents from Hamilton Acres. Recent public input has indicated that this is considered an important route by many local residents. There is no funding presently available for a bike/pedestrian

TABLE 2
1989 FNSB Bike Plan
Short Range Projects 1989-1991

	Sidewalk	Bike Path	Bike Lane	Shoulder Bikeway	Wide Curb Lane	Programmed Construction	Project Responsibility	Maintenance Responsibility
Badger Road		x		x		FY91-'92	DOT&PF	FNSB/DOT&PF
Badger Road/Holmes Connector				x		FY90	DOT&PF/City	City
Barnette Street	x				x	not programmed	DOT&PF	DOT&PF
Davis Road	x			x		FY90	DOT&PF	DOT&PF
Dawson Road				x		not programmed	DOT&PF	DOT&PF
Farmers Loop Road		x		x		FY90-'91	DOT&PF	FNSB/DOT&PF
Johansen Expwy.		x				FY89-'90	DOT&PF	FNSB
Laurance Road				x		FY90-'91	DOT&PF	DOT&PF
Loftus Road	x			x		FY89	DOT&PF	DOT&PF
Old Richardson Highway				x		FY89	DOT&PF	DOT&PF
Peger Road	x			x		FY91	DOT&PF	DOT&PF
Porcupine Drive				x		FY90	DOT&PF/UAF	UAF
Richardson Hwy. Frontage - (N.P.)					x	not programmed	DOT&PF	DOT&PF
South Chandalar (UAF)	x		x			FY89-'91	UAF/DOT&PF	UAF
Wilbur Street Extension	x	x		x		FY90	DOT&PF	City

TABLE 3
1989 FNSB Bike Plan
Medium Range Projects 1992-1995

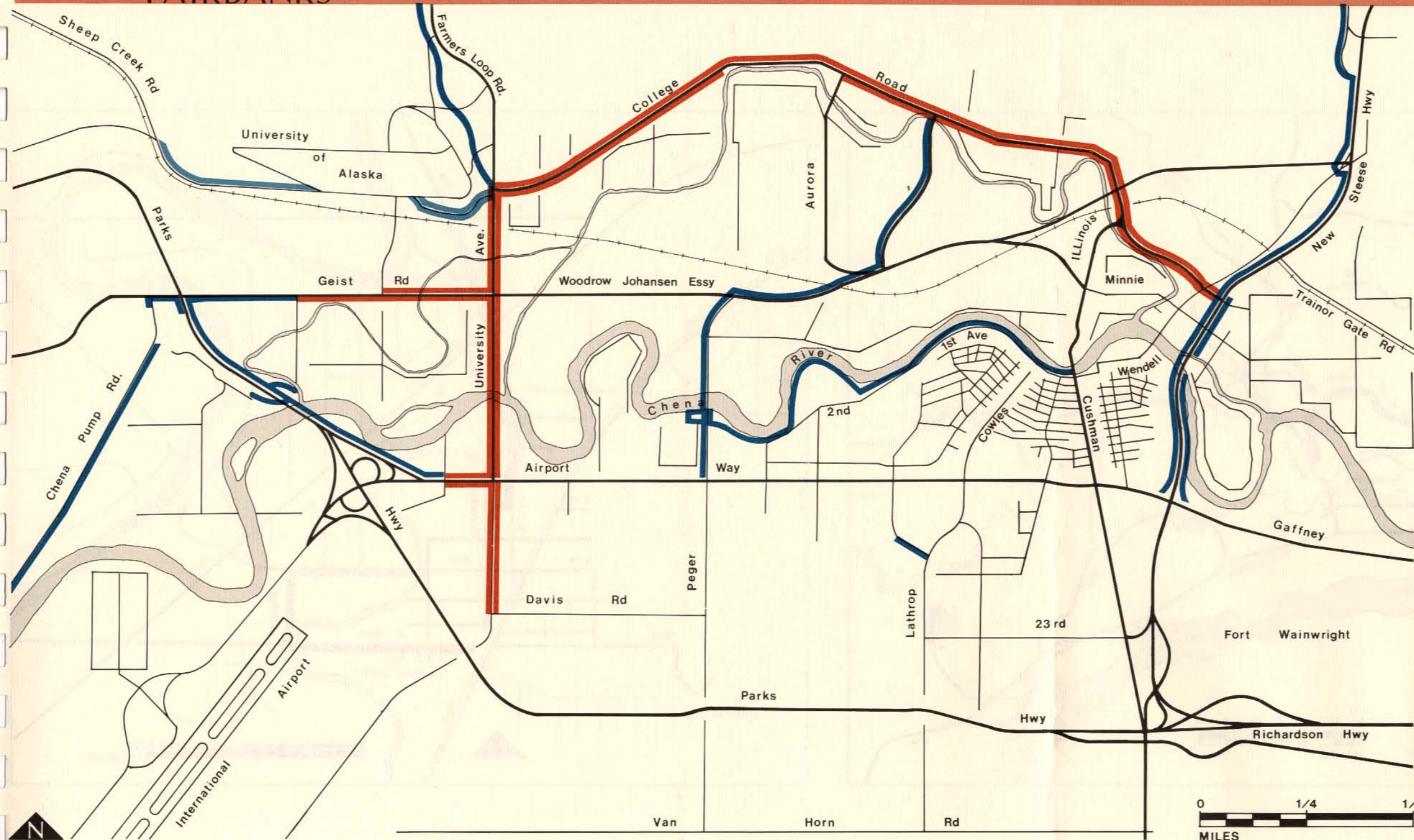
	Sidewalk	Bike Path	Bike Lane	Shoulder Bikeway	Wide Curb Lane	Programmed Construction	Project Responsibility	Maintenance Responsibility
1st/2nd/Wilbur	x			x		Fy92	DOT&PF/City	City/FNSB
3rd Street	x				x	FY93	DOT&PF/City	DOT&PF/City
Ballaine/Goldstream/SheepCr.				x		FY95	DOT&PF	DOT&PF
Chena Hot Springs Road				x		FY94	DOT&PF	DOT&PF
Chena Lakes Recreation Area		x				FY92	COE	COE
Lathrop Ave. - Parks to 19th Ave.	x			x		FY94	DOT&PF/City	City
South Cushman	x			x		Fy94	DOT&PF/City	City
University Ave.	x		x/or		x	FY95	DOT&PF	DOT&PF




TABLE 4
1989 FNSB Bike Plan
Long Range Projects 1995-2010

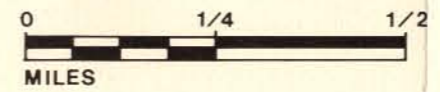
	Sidewalk	Bike Path	Bike Lane	Shoulder Bikeway	Wide Curb Lane	Project Responsibility	Maintenance Responsibility
Airport Way Corridor			x/or		x	DOT&PF	DOT&PF
Barnette Ave.-7th to Airport					x	City/FNSB	City/FNSB
College Road	x		x/or		x	DOT&PF	DOT&PF
Chena River--N. Side		x				City/FNSB	FNSB
Chena River--S. Side		x				City/FNSB	FNSB
Fifth Avenue (North Pole)	x		x/or		x	City/FNSB	City
Hez Ray Rec. Area		x				FNSB	FNSB
Hurst Road				x		DOT&PF	DOT&PF
Illinois Street	x		x/or		x	DOT&PF	DOT&PF
McGrath/Old Steese					x	DOT&PF	DOT&PF
Miller Hill/Yankovich		x			x	DOT&PF	FNSB/DOT&PF
Mission Road				x		FNSB	FNSB (Service Area)
Newby Road				x		DOT&PF	DOT&PF
Noyes Slough		x				FNSB	FNSB
Parks Hwy.		x				DOT&PF	FNSB
South Main Entrance (UAF)	x		x			DOT&PF/UAF	UAF
Santa Claus Lane	x/orx				x	City	City
Tanana Levy		x				FNSB	FNSB
Tanana Loop/Yukon Drive(UAF)	x		x			UAF	UAF
Trainor Gate	x			x/or	x	DOT&PF	DOT&PF/City

FAIRBANKS

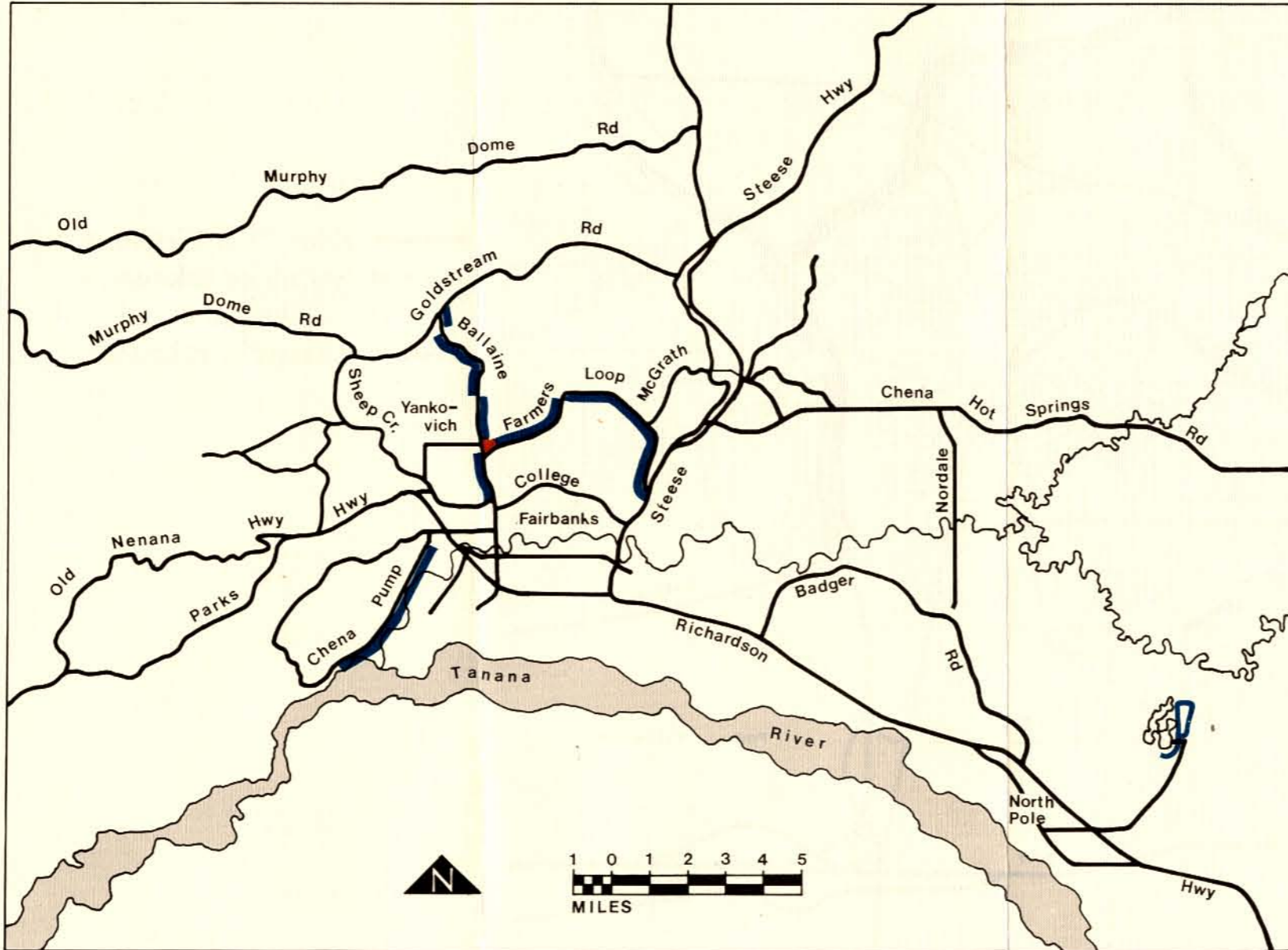
EXISTING BIKEWAYS Map 2



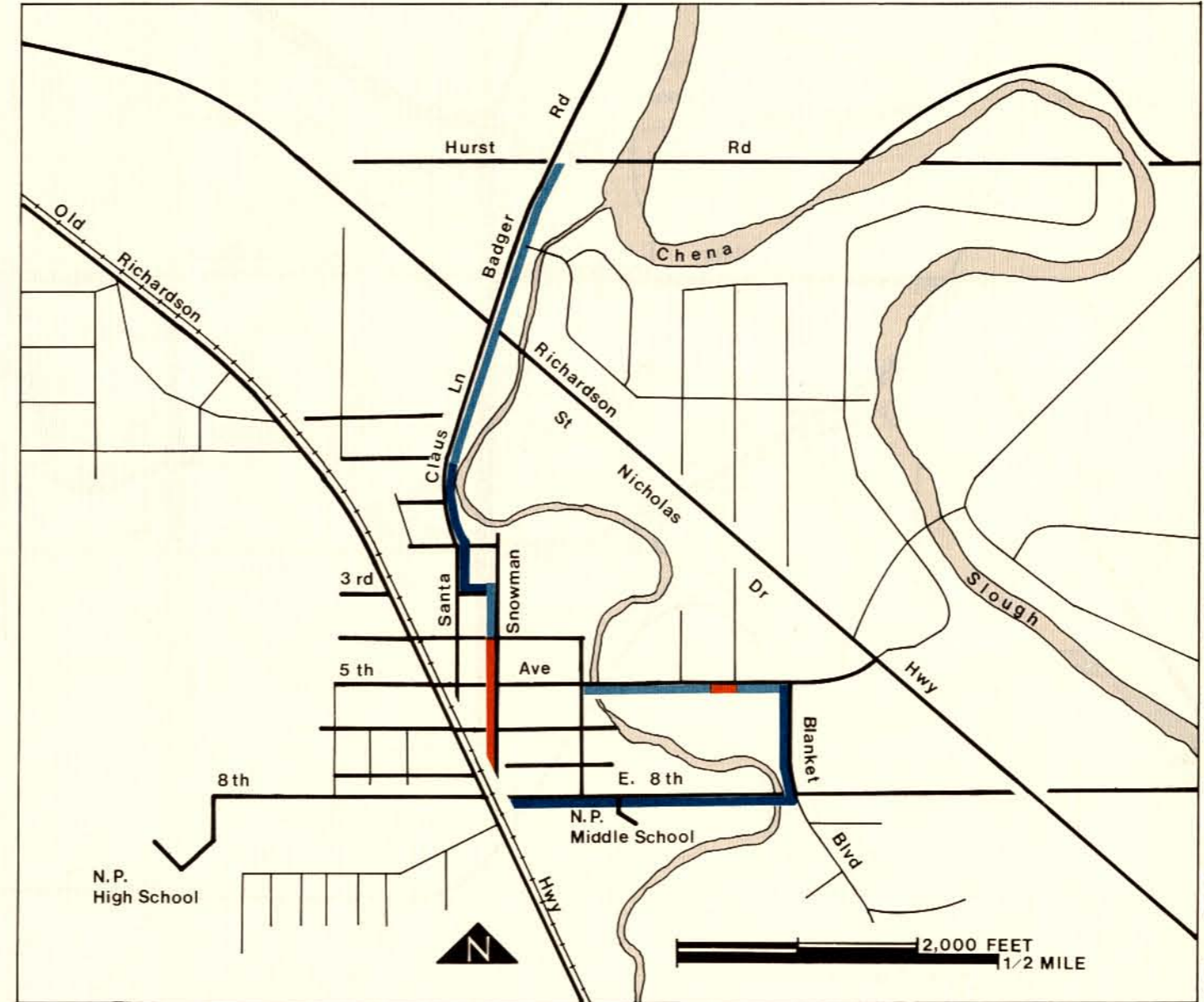
-  Bike Path (Separated)
-  Shoulder Bikeway/
Bike Lane
-  Sidewalk Bikeway



FAIRBANKS & VICINITY

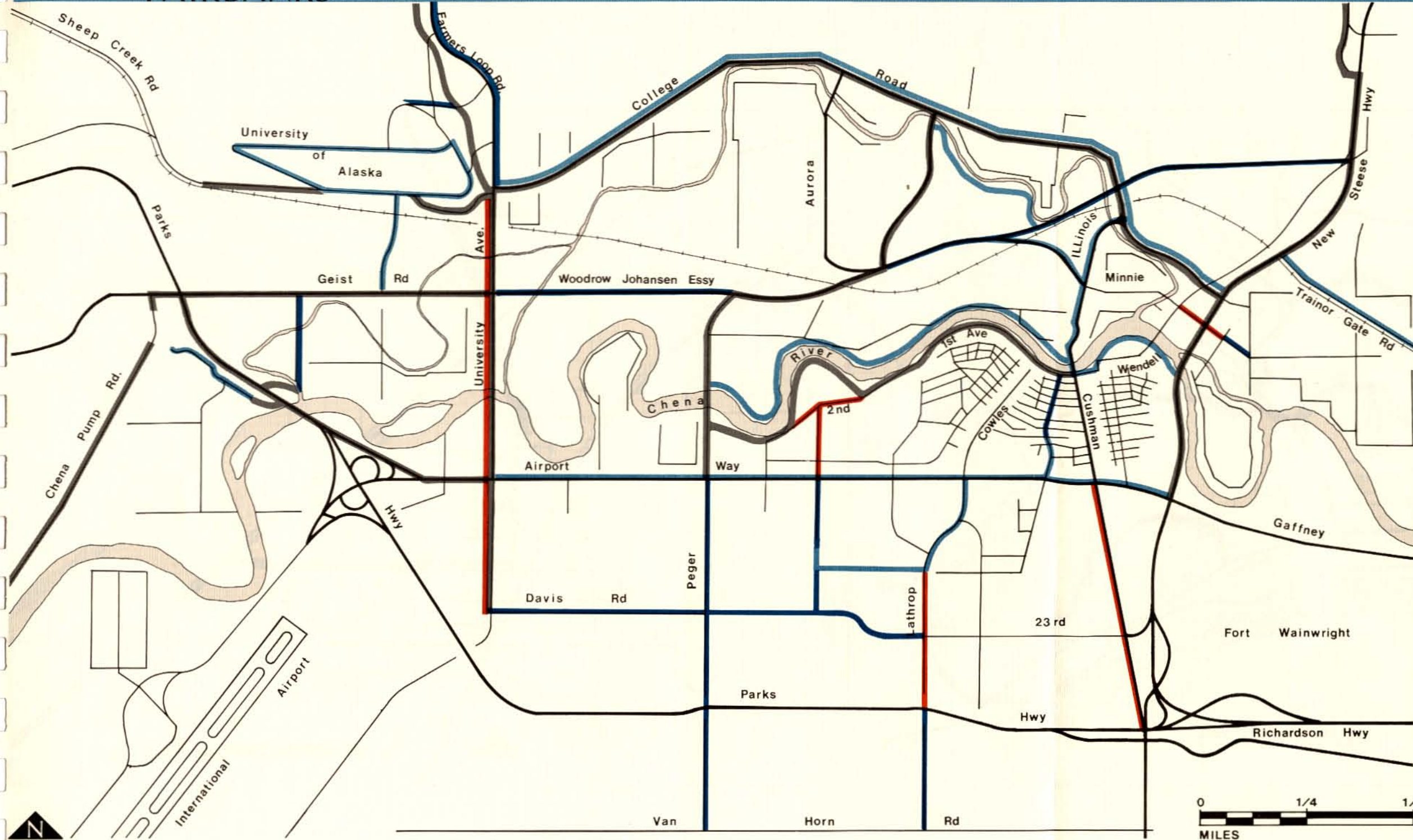


NORTH POLE



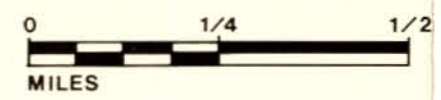
FAIRBANKS

PROPOSED BIKEWAYS Map 3

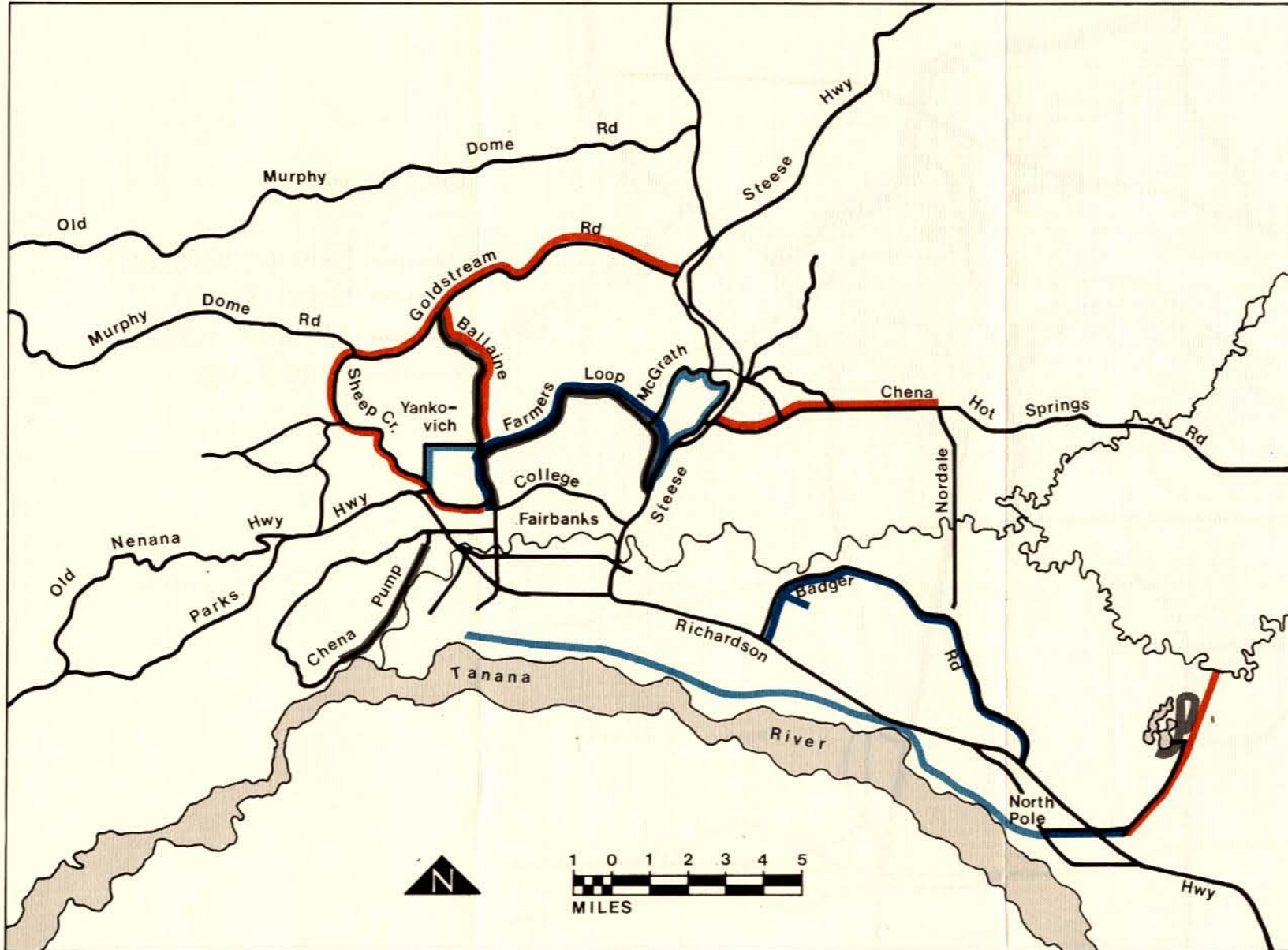


PROJECTS

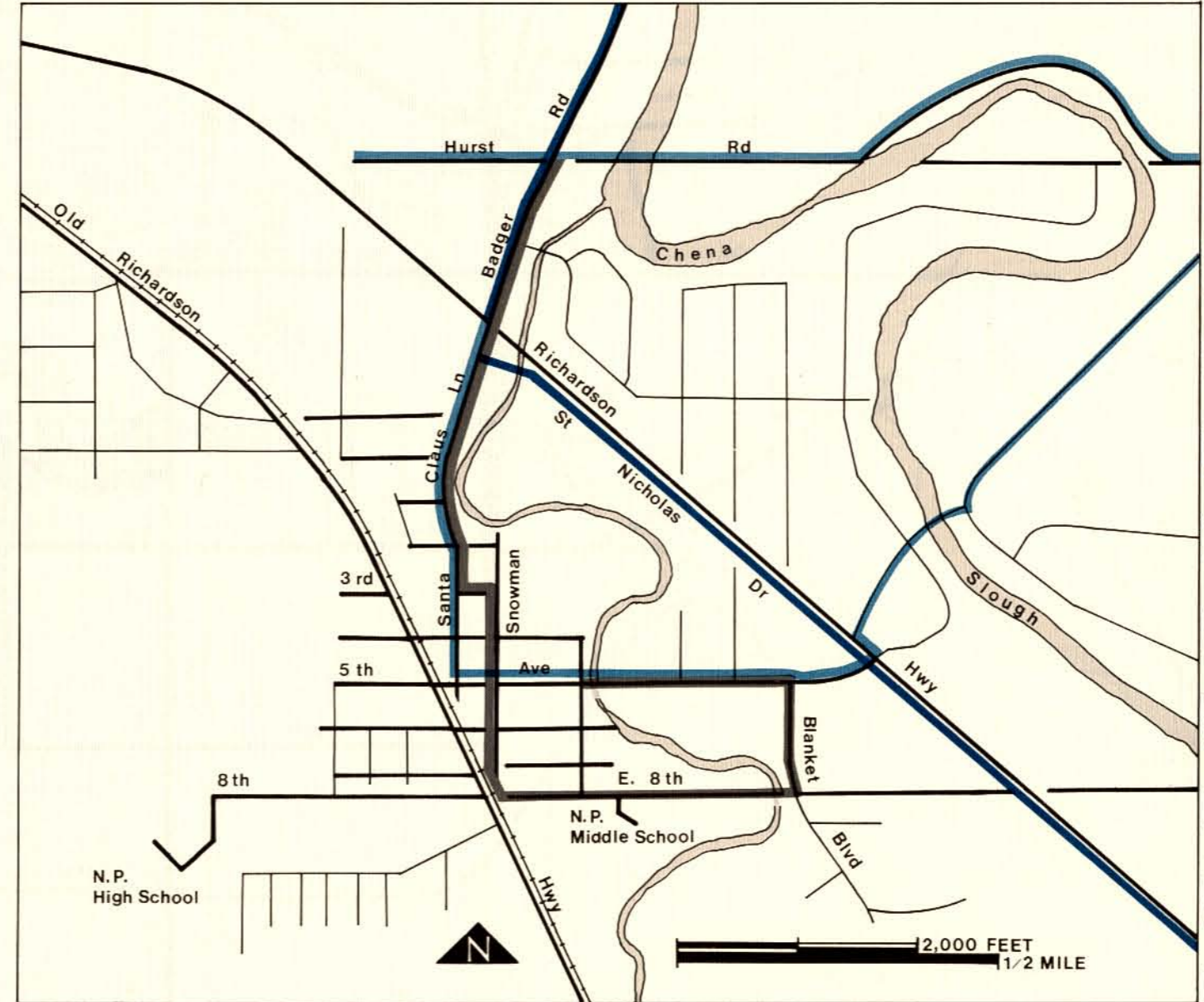
- Existing Bikeways
- Short Range
- Medium Range
- Long Range



FAIRBANKS & VICINITY



NORTH POLE



APPENDICES

AASHTO - Abbreviation for American Association of State Highway and Transportation Officials.

ATV - All Terrain Vehicles. Refers primarily in this document to snow machines (snow mobiles) and four wheelers.

BICYCLE DRIVERS - Refers to all cyclists. This term is a reflection of a growing trend towards treating cyclists as drivers of vehicles rather than riders of bicycles.

BICYCLE FACILITIES - Improvements and provisions made to accommodate or encourage bicycling. This includes parking facilities, maps, bikeways, and shared roadways not specifically designed for bicycle use.

BICYCLE FRIENDLY STREETS - Refers to roadways that have bike lanes, wide smooth shoulders, or are wide enough to accommodate both bicycles and motor vehicles.

BICYCLE LANE (BIKE LANE) - A portion of the road that has been designated for the exclusive use of bicycles.

BICYCLE PATH (BIKE PATH) - A bikeway physically separated from the roadway by an open space or barrier.

BICYCLE ROUTE (BIKE ROUTE) - A portion of the bikeway system designated as an approved route by local authority for bicycles

either with or without a specific bicycle route number.

BIKEWAY - A road or path which is in some way designed for bicycle use.

COE - Abbreviation for Corps of Engineers.

DESTINATION POINT - The termination point of a trip.

EFFECTIVE CYCLING - Term for a type of safe cycling technique which is recognized and practiced by many national cycling organizations and clubs.

FMATS - Abbreviation for Fairbanks Metropolitan Area Transportation System. A group of policy makers assigned to examine and make recommendations on Fairbanks area roadways.

FNSB - Abbreviation for Fairbanks North Star Borough.

FHWA - Abbreviation for Federal Highway Administration

LIMITED ACCESS ROAD - A road on which egress and ingress locations are limited by a local authority. State policy generally prohibits bicycles on this type of facility.

MANDATORY SIDE PATH RULE - A rule which states that cyclists must use the bike path adjacent to the road if one is available.

MULTI-MODAL TRANSPORTATION CORRIDOR - Another term for a bicycle path that is not designated for the exclusive use by bicycles.

MUTCD - Abbreviation for Manual on Uniform Traffic Control Devices. These are approved by the Federal Highway Administration as national standards for placement and selection of all traffic control devices on or adjacent to all highways open to public travel.

NHTSA - abbreviation for National Highway Transportation and Safety Administration.

PEDESTRIAN - A person whose mode of transportation is on foot. In this document it includes a person "walking" a bicycle, and all other non-motorized uses except bicycling.

RECREATIONAL CYCLIST - A cyclist that is riding his/her bike primarily for pleasure, rather than to travel to a specific destination.

SHARED ROADWAY - Any roadway that does not have a designated bike lane which may be used legally for cycling regardless of whether it is specifically designated as a bikeway.

SIDEWALK - The portion of a roadway designed for preferential or exclusive use by pedestrians.

SIDEWALK DESIGNATED BIKEWAY - A sidewalk designated by signs as a bikeway which permits cyclists to share the sidewalk with pedestrians.

UTILITARIAN CYCLIST - Bicyclist whose primary goal is to use his/her bicycle to reach a destination. Recreation and health benefits may be seen as secondary motives.

WIDE CURB LANE - Same as a shared roadway.

Alaska Administrative Code**13 AAC 02.095. USE OF DIVIDED AND CONTROLLED - ACCESS HIGHWAY RESTRICTIONS**

(b) When the Department of Transportation and Public Facilities or a municipality, with respect to a controlled-access highway under its jurisdiction, prohibits or limits the use of the highway to certain types of vehicles or traffic, it must erect and maintain signs on the highway notifying drivers of the limitations.

13 AAC 02.385. APPLICABILITY OF REGULATIONS TO BICYCLES.

(a) Every person operating a bicycle upon a roadway has all the rights and is subject to all of the duties applicable to the driver of any other vehicle as set out in this chapter, in addition to special regulation in secs. 385-420 of this chapter, except as to those provisions of this chapter which by their nature have no application.

(b) No person may violate the provisions of secs. 385-420 of this chapter. The parent or guardian of a child may not authorize or knowingly permit a child to violate a provision of this chapter.

(c) When signs are erected indicating that no right, left or U-turn is permitted, no per-

son operating a bicycle may disobey the direction of the sign unless first pulling to the extreme right or shoulder of the road, dismounting and making the turn as a pedestrian.

13 AAC 02.395. RIDING ON BICYCLES AND CERTAIN NONMOTORIZED CONVEYANCES.

(a) Repealed 6/28/79.

(b) No person operating a bicycle upon a highway may carry a person other than the operator, unless the bicycle is equipped with a seat for the passenger, except that an adult rider may carry a child securely attached to his person in a backpack or sling.

(c) No person operating a bicycle or other nonmotorized conveyance may attach, hold on by hand or otherwise secure the bicycle or conveyance or himself to another vehicle so as to be towed or pulled.

(d) A person operating a bicycle upon a highway shall maintain control of the bicycle and shall at all times keep at least one hand upon the handlebars of the bicycle.

(e) No person may operate a unicycle, coaster, roller skates, or a similar device on a roadway.

(f) This section does not apply upon a roadway closed to motorized vehicle traffic.

13 AAC 02400. RIDING BICYCLES ON ROADWAYS AND BICYCLE PATHS.

(a) A person operating a bicycle upon a roadway shall ride as near to the right as practicable and shall give way to the right as far as practicable to a motor vehicle proceeding in the same direction when the driver of the motor vehicle gives audible signal.

(b) Persons riding bicycles on a roadway may not ride more than two abreast except on paths or parts of roadways set aside for the exclusive use of bicycles. Persons riding bicycles two abreast may not impede traffic and, in laned roadway, shall ride within the farthest right lane.

(c) When a shoulder of the highway is maintained in good condition, an operator of a bicycle shall use the shoulder of the roadway.

(d) A person operating a bicycle on a trail, path, sidewalk, or sidewalk area shall

(1) exercise care to avoid colliding with other persons or vehicles;

(2) give an audible signal before overtaking and passing a pedestrian; and

(3) yield the right-of-way to any pedestrian.

(e) Repealed 6/28/79 (Mandatory sidepath rule.)

(f) A person riding a bicycle intending to turn left shall, unless he dismounts and crosses as a pedestrian, comply with the provisions of sec. 200 of this chapter. The operator of a

bicycle must give a signal by hand and arm continuously during the last 100 feet traveled unless the hand is needed in the control or operation of the bicycle. When stopped to await an opportunity to turn, a hand and arm signal must be given continuously by the operator.

(g) No person may ride a bicycle upon a sidewalk in a business district or where prohibited by an official traffic-control device.

(h) No bicycle race may be conducted upon a roadway, except as provided under AS 05.35.

13 AAC 02.420. PARKING OF BICYCLES.

(a) No person may park a bicycle on a street or sidewalk in a manner which obstructs pedestrian traffic or the parking and driving of motor vehicles.

(b) No person may secure a bicycle to any of the following publicly owned facilities:

- (1) fire hydrants;
- (2) police and fire callboxes;
- (3) electric traffic signal poles;
- (4) stanchions or poles located within bus zones or stands;
- (5) stanchions or poles located within 25 feet of an intersection: or
- (6) trees under 10 inches in diameter.

(c) A bicycle parked on a highway must comply with the provisions of this chapter regulating the parking of vehicles.

13 AAC 02.455. OPERATION ON HIGHWAYS AND OTHER LOCATIONS.

(f) A snowmobile or an off-highway vehicle may make a direct crossing of a highway if

(1) the crossing is made approximately at a right angle to the highway and at a location where visibility along the highway in both directions is clear for a sufficient distance to assure safety, and the crossing can be completed safely and without interfering with other traffic on the highway; and

(2) the vehicle is brought to a complete stop before crossing the shoulder or roadway, and the driver yields the right-of-way to all traffic on the highway.

(g) No snowmobile or other off-highway vehicle may cross or travel on a sidewalk, a location intended for pedestrian or other non-motorized traffic, and alley, or a vehicular way or areas which is not open to snowmobile or off-highway vehicle operation, except as provided in (f) of this section.

13 AAC 02.487. DRIVING ON SIDEWALK.

No person may drive a vehicle on a sidewalk or sidewalk area other than upon a permanent or temporary driveway, except as a municipality allows the riding of bicycles on sidewalks outside of a business district.

13 AAC 02.560. APPLICATION OF TRAFFIC REGULATIONS.

The traffic regulations apply exclusively to the equipping, condition, movement or operation of a vehicle, bicycle, motorcycle, motor-driven cycle, person or animal upon a highway or a state-operated and maintained ferry facility except where a limited applica-

tion or a different place is specifically referred to in a section.

13AAC 02.482. LIMITED USE OF VEHICULAR WAYS AND AREAS.

(a) no pedestrian, rider of a bicycle, or driver of a vehicle may travel on a vehicular way or area as defined in 13 AAC 40.010 when it is designated for use by a different mode of travel than that used by the pedestrian, rider of a bicycle, or driver of a vehicle.

(b) A driver of a nonmotorized vehicle traveling upon a vehicular way or area shall, regardless of whether an official traffic-control device is present, yield the right-of-way in the manner specified in sec. 130(c) of this chapter to any traffic using a roadway, driveway, or vehicular way or area on which motor vehicle traffic is authorized.

13 AAC 04.004. SALE OR USE OF EQUIPMENT.

(c) No person engaged in the business of selling bicycles at retail may sell a bicycle unless the bicycle has an identifying number permanently stamped or cast on its frame.

13 AAC 04.320 HEADLIGHTS.

(c) A bicycle, when ridden at the times when lights are required under 13 AAC 04.010 must be equipped with at least one light on the front of the bicycle, emitting white light visible from a distance of at least 500 feet in front of the bicycle under normal atmospheric conditions.

13 AAC 04.325. TAILLIGHTS.

(a) A bicycle must be equipped with a tail-light which displays a red light visible 500 feet to the rear of the bicycle.

13 AAC 04.335. REFLECTORS.

(b) Every bicycle, when ridden at the time when lights are required under 13 AAC 04.010, must be equipped with a red reflector on the rear of the bicycle and reflective material visible from the sides of the bicycle meeting the visibility requirements of 13 AAC 04.030(a). Nothing in this subsection prohibits the use of additional reflectors or reflective materials upon a bicycle.

13AAC 04.340. BRAKES.

(b) Every bicycle must be equipped with a brake system, maintained in good working condition, which will enable its driver to stop the bicycle within 25 feet from a speed of 10 miles per hour on dry, level, clean pavement.

11A AAC 20.490. BICYCLES.

The use of a bicycle in the Chena River State Recreation Area is allowed only in campgrounds and in the following areas:

- (1) Chena Hot Springs Road:
- (2) picnic areas: and
- (3) trails designated as open to off-highway vehicles.

City of Fairbanks Ordinances

Sec. 7.11.102. BICYCLE LICENSES

(a) No person shall operate on the streets or public ways of the City of Fairbanks, Alaska, any bicycle without said bicycle being first licensed as in this section provided.

(b) Each owner shall apply to the office of the chief of police for a license for each bicycle owned or operated by him, giving his name and address (and his parents' name and address if a minor), the make, model and serial number of the bicycle, and state the date the bicycle was purchased and from whom. Each application shall be accompanied by the fee for the registration of the bicycle as provided by section 1.1115. The chief of police shall thereupon assign such bicycle a license number, deliver a license bearing the number to the registrant and a receipt attesting registration. The license shall be affixed to the bicycle. The license shall be issued for a calendar year and shall be renewed not later than May 31st of each year.

(c) Whenever a bicycle registered under this section shall be sold or transferred it shall be the duty of the seller to promptly advise the office of the chief of police. The person acquiring ownership shall apply to the chief of police for a change of registration, supplying the information required in subsection (b) above together with the registration number of said bicycle. The chief of police shall thereupon register the new ownership of said bicycle.

RESULTS OF THE SUMMER SURVEY

Appendix C

1. What is your age?

a. 12 and under	3 %
b. 13 - 18	8 %
c. 19 - 25	13 %
d. over 25	76 %

2. Where do you live?

a. Near the University	25 %
b. City Limits	20 %
c. Farmers Loop area	14 %
d. Chena Hot Springs Rd	6 %
e. North Pole	7 %
f. Ester	6 %
g. Goldstream	7 %
h. Badger Road	3 %
i. Other	12 %

3. Do you consider yourself mainly a:

a. Commuter cyclists	5 %
b. Recreational cyclist	51 %
c. Both	44 %

4. Approximatley how many miles a week do you ride?

a. 0 - 5	15 %
b. 5 - 10	13 %
c. 10 - 30	27 %
d. 30 - 50	21 %
e. 50 - 75	12 %
f. Over 75	12 %

5. Generally how many miles per ride?

a. 0 - 1	3 %
b. 1 - 5	34 %
c. 5 - 10	34 %
d. 10 - 20	18 %
e. over 20	11 %

6. Where do you ride to?

a. school	10 %
b. Shopping center	15 %
c. Ball field	5 %
d. Movies	6 %
e. Work	19 %
f. No specific destination	38 %
g. Other	7 %

7. Do use the bike paths?

a. always	36 %
b. usually	39 %
c. sometimes	21 %
d. never	4 %

8. If you do not always use the bike path, why not?

a. path in poor condition	35 %
b. not convenient	12 %
c. prefer roadway	9 %
d. not available	30 %
e. other	14 %

9. Of the following types of paths which, if any do you prefer?

a. Separate bike path	64 %
b. Designated sidewalk	7 %
c. Bicycle Lane in Road	29 %

10. Have you ever had a bicycle accident?

a. yes	42 %
b. no	38 %
c. almost	20 %

11. If the answer to the above question is yes or almost, did the accident involve:

a. a car	44 %
b. another bicycle	11 %
c. a pedestrian	4 %
d. poor maintenance	28 %
e. other	13 %

12. Which bicycle paths do you use?

a. Farmers Loop	14 %
b. University	13 %
c. Peger Road	6 %
d. College Road	12 %
e. Ballaine Road	9 %
f. Chena Pump Road	9 %
g. Geist Road	11 %
h. Parks Highway	7 %
i. Steese Highway	7 %
j. Chena River	9 %
k. North Pole	3 %

13. Which path(s) do you see as needing repair the most?

a. Farmers Loop	34 %
b. University	5 %
c. Peger Road	5 %
d. College Road	11 %
e. Ballaine Road	13 %
f. Chena Pump Road	10 %
g. Geist Road	3 %
h. Parks Highway	3 %
i. Steese Highway	6 %
j. Chena River	5 %
k. North Pole	5 %

j. Yankovitch	7 %
k. Airport Road	9 %
l. Chena Hot Springs Rd	13 %

14. Which path(s) seem in fairly good shape?

a. Farmers Loop	7 %
b. University	17 %
c. Peger Road	6 %
d. College Road	13 %
e. Ballaine Road	6 %
f. Chena Pump Road	6 %
g. Geist Road	17 %
h. Parks Highway	8 %
i. Steese Highway	6 %
j. Chena River	11 %
k. North Pole	3 %

15. Which path(s) would you like to see recommended the most?

a. Loftus Road	7 %
b. Sheep Creek Road	12 %
c. Goldstream Road	13 %
d. South Cushman	8 %
e. Badger	7 %
f. Richardson Highway	10 %
g. Wilbur Street	2 %
h. Barnette	5 %
i. Cowles	7 %

RESULTS OF THE WINTER SURVEY

Appendix D

1. How often do you use the bike trails in the winter?

a) never	34%
b) occasionally	47%
c) often	19%

2. If you do use the bike trails in the winter, how?

a) ride a bicycle	20%
b) jog	17%
c) walk	29%
d) snow machine	9%
e) dogmush	4%
f) ski	3%
g) other	19%

3. Do you use a helmet when you ride a bicycle?

a) always	30%
b) usually	12%
c) sometimes	11%
d) never	11%
e) I do not own a helmet	36%

4. Do you think bicycle laws should be enforced, i.e. riding on wrong side of street, running stop signs, etc.?

a) yes	69%
b) no	31%

5. If you answered yes, what do you think the penalties should be?

a) a verbal warning	27%
b) a small fine, \$5-\$10	41%
c) a large fine, \$10-\$50	11%
d) attendance of cycling course	18%
e) other	3%

6. Do you think there is adequate maintenance of the bikeways in the Fairbanks North Star Borough?

a) yes	27%
b) no	73%

7. If a volunteer group were formed to help maintain the bikeways i.e. sweep, clear brush etc., how much time would you be willing to donate?

a) none	1%
b) 2 hrs. a week	37%
c) 2 hrs. a month	37%
d) 2 hrs. a year	22%
e) other	3%

8. Do you think there are enough bicycle signs (pavement signs, warning signs, etc.) on our bikeways?

a) yes	48%
b) no	52%

9. If not, which types of signs would you like to see more of?

a) signs warning bikeway users of dangers	20%
b) pavement markings on bikeways indicating dangers	15%
c) location signs indicating where you are	11%
d) signs warning motorists of bike route	35%
e) lane markings at edge and/or center of bikeway	18%
f) other	2%

10. If a road were widened to accommodate bicycles, would you favor bike lane striping and signs warning motorists of cyclists on road?

a) yes	80%
b) no	6%
c) only on busy or roads	14%

11. If a separated bikeway were constructed along the Chena River to connect University Ave. to downtown, how often would you use it?

- a) often 46%
- b) sometimes 35%
- c) rarely 15%
- d) never 4%

12. If you answered rarely or never is it because:

- a) I would be afraid of crime 35%
- b) it would not be convenient 35%
- c) I prefer more direct routes 22%
- d) other 8%

13. Do you think there are adequate bicycle parking facilities in the Fairbanks North Star Borough?

- a) yes 32%
- b) no 68%

14. If not, where would you most like to see them added?

- a) shopping centers 45%
- b) schools 15%
- c) ball parks 15%
- d) movies 18%
- e) other - 7%

15. Many bicycle accidents are reported on the corner of 3rd and the Steese Expressway. Which of the following do you think might help prevent this?

- a) widen and maintain existing bike path 18%
- b) improve bike path under bridge 21%
- c) allow bikes on Steese Expressway 8%

- d) put up sign at the intersections to warn motorists of bike crossing 31%
- e) educate riders 17%
- f) there is nothing you can do 3%
- g) other 3%

16. Do you think separated bike paths put you in danger when they cross driveways and cross streets?

- a) yes - 68%
- b) no - 32%

17a. Circle the location of your house.

17b. Place an x on places you ride to on your bicycle.

17c. Draw lines on roads which you would use if they were widened to accommodate bicycle or areas where you might support a separated bikeway.

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