

Minnesota Attorney General: Administrative Rules Proceedings

Copyright Notice:

This material may be protected by copyright law (U.S. Code, Title 17). Researchers are liable for any infringement. For more information, visit www.mnhs.org/copyright.

Version 3
August 20, 2018

MINNESOTA STATE REGULATIONS

Notice of filing by the Commissioner of Administration

We have received on this date, stamped and filed 2 copies of Rules and Regulations pertaining to

the Dept of Highways
(Agency or Board)

Regulation No. Not Coded

Subject: Rules Governing Standards for Bicycle and Recreational Vehicle Lanes along Public Roadway

Department of Administration
Publication, Central Services Division
Documents Section
140 Centennial Office Building
St. Paul, Minnesota 55155
Telephone: (612) 296-2874

FILED
RICHARD L. BRUBACHER
Commissioner of Administration

JUL 7 1975 3:45pm

BY Eda Staudemaier
AUTH. SIGNATURE

Stamped and filed with the Secretary of State 7-7-75

Rev. 9-72

RULES AND REGULATIONS ESTABLISHING MODEL STANDARDS FOR BICYCLE AND RECREATIONAL VEHICLE LANES ON AND ALONG PUBLIC ROADWAYS AND GOVERNING TRUNK HIGHWAYS.

(a) Purpose. The purpose of these regulations is to carry out the mandate of the legislature and to effectuate that mandate as set forth in Minnesota Statutes, Section 160.262, as amended by Laws of Minnesota 1973, Chapter 620, Section 1, with reference to the establishment of model standards for bicycle and recreational vehicle lanes on and along proposed and existing public roadways and governing State trunk highways.

(b) Scope. The scope of this regulation is intended to be confined within the framework of and consistent with Minnesota Statutes, Section 160.262, and responsive to Title 23 of the U. S. Code as amended by P.L. 93-410, the Federal Aid Highway Act of 1973, at Section 217. (Bicycle transportation and pedestrian walkways.)

(c) Definitions. For purposes of these regulations and the implementation thereof, the following terms shall have the meanings here given them.

(1) Average Daily Traffic. "Average daily traffic" means the total volume of traffic during a specified but arbitrary time period given in whole days (24 hours), greater than one day, but less than one year, divided by the number of days in the time period. Abbreviated A.D.T.

(2) Bicycle. "Bicycle" means a device propelled by human power upon which a person or persons may ride, having two tandem

wheels either of which is over 16 inches in diameter, and including any device generally recognized as a bicycle though equipped with two front or rear wheels.

(3) Bicycle Lane. "Bicycle lane" means a portion of a roadway designed for preferential use by persons using bicycles. Bicycle lanes may be designed with or without physical barriers to separate or channel bicycle traffic from motor vehicles or pedestrian traffic.

(4) Bicycle Lane With Barrier. "Bicycle lane with barrier" means a portion of a roadway which has been designated for preferential or exclusive use by bicycles, separated from (but a part of) that portion of the roadway designed for motor vehicle traffic by a physical barrier such as a curb or a guardrail.

(5) Bicycle Lane Without Barrier. "Bicycle lane without barrier" means a portion of a roadway which has been designated for preferential use by bicycles through pavement markings or other traffic control measures.

(6) Bicycle Path. "Bicycle path" means a bicycle facility designed for exclusive use by persons using bicycles and constructed or developed separately from the roadway.

(7) Bicycle Route. "Bicycle route" means a roadway signed to encourage bicycle use when no preferential lane is provided. Signing shall be in accordance with the Minnesota Manual of Uniform Traffic Control Devices. Such signing also indicates that safety precautions must be taken by all forms of traffic.

(8) Average Bicycle Traffic Volume. "Average bicycle traffic volume" means the amount of bicycle traffic passing a given point on an average daily basis computed over 180 days during the months of April through September.

(9) Clearway. "Clearway" is a clear recovery area extending 30 feet outwardfrom the edge of the outside through lane of the roadway where all physical obstacles to out-of-control motor vehicles are eliminated.

(10) Controlled Access Highway. "Controlled access highway" means every highway, street, or roadway in respect to which the right of access of the owners or occupants of abutting lands and other persons has been acquired and to which the owners or occupants of abutting lands and other persons have no legal right of access to or from the same except at such points only and in such manner as may be determined by the public authority having jurisdiction over such highway, street or roadway.

(11) Department. Unless stated otherwise, "department" means the Department of Highways of this state. Regardless of the department referred to, however, it is to be considered as acting directly or through its duly authorized officers and agents.

(12) Driver. "Driver" means every person who drives or is in actual physical control of a vehicle, or other device upon which a person or property may be transported.

(13) Intersection. "Intersection" means (a) the area embraced within the prolongation or connection of the lateral curb lines, or,

if none, then the lateral boundary lines of the roadways of two highways which join one another, at, or approximately at, right angles, or the area within which vehicles traveling upon different highways joining at any other angle may come in conflict.

(b) Where a highway includes two roadways 30 feet or more apart, then every crossing of each roadway of such divided highway by an intersecting highway shall be regarded as a separate intersection. In the event such intersecting highway also includes two roadways 30 feet or more apart, then every crossing of two roadways of such highways shall be regarded as a separate intersection.

(14) One-Way Roadway. "One-way roadway" means a street or roadway designated and signposted for one-way traffic and on which all vehicles are required to move in one indicated direction.

(15) Pedestrian Walkway. "Pedestrian walkway" means that portion of the street or highway between curb lines, or the lateral lines of a roadway, and the adjacent property lines intended for the use of pedestrians. An alternate term that may be used is "sidewalk", as defined in M.S. Chapter 169. For purposes of these regulations a pedestrian walkway may be construed to be a bicycle or recreational vehicle lane but is controlled as to the forms of traffic it may carry other than pedestrians.

(16) Recreational Vehicle. "Recreational vehicle" means a special purpose mobile and motive equipment or device not qualifying under the provisions of M.S. Chapter 168 for the purposes of

taxation in the State of Minnesota, and includes but is not limited to, all terrain vehicles (A.T.V.) and, snowmobiles.

(17) Recreational Vehicle Lane. "Recreational vehicle lane" means that portion of a street or highway or road or way outside of the roadway, improved, designed or ordinarily used for recreational vehicular travel by the public and placed and maintained by State or local authorities in their respective jurisdictions.

(18) Roadway. "Roadway" means that portion of a highway improved, designed or ordinarily used for motor vehicular travel. In the event a highway includes two or more separate roadways the term "roadway" as used herein shall refer to any such roadway separately but not to all such roadways collectively.

(19) Rural Section. "Rural section" is a highway design that has wide right-of-ways, open ditches for drainage and a clearway of 30 feet from the edge of the outside lane.

(20) Shoulder. "Shoulder" means that part of the roadway which is contiguous to the regularly traveled portion of the roadway and is on the same level as the roadway. The shoulder may be pavement, gravel or earth.

(21) Sidewalk. "Sidewalk" means that portion of a street between the curb lines, or the lateral lines of a roadway, and the adjacent property lines intended for the use of pedestrians.

(22) Street or Highway. "Street or highway" means the entire width between boundary lines of any way or place when any part thereof

is open to the use of the public, as a matter of right, for the purposes of vehicular traffic.

(23) Through Highway. "Through highway" means every highway or portion thereof at the entrances to which vehicular traffic from intersecting highways is required by law to stop before entering or crossing the same and when stop signs are erected.

(24) Urban District. "Urban district" means the territory contiguous to and including any street which is built up with structures devoted to business, industry, or dwelling houses situated at intervals of less than 100 feet for a distance of a quarter of a mile or more.

(25) Urban Section. "Urban section" means a roadway design used in urban districts where the right-of-way width is restricted. Because of the restricted right-of-way, there is not enough room for ditches, thus necessitating curbs and gutters.

(26) Vehicle. "Vehicle" means a bicycle or recreational vehicle.

(d) Criteria for Desirability of Lanes in any Given Location.

(1) The Department of Highways will have sole jurisdiction to establish bicycle or recreational vehicle lanes on the right-of-way of any State trunk highway. The Department of Highways will be responsible for all designs and construction on all lane facility projects within the right-of-way of any State trunk highway. Any such services performed for other state agencies or local governmental units will be done on a reimbursable basis. The Department of Highways may provide services

for the development of lane facilities for other agencies and local units of government upon request and upon such terms as may be mutually agreed upon. The Department of Highways will consider building bicycle or recreational vehicle lane facilities during the construction, reconstruction or improvement of any trunk highway or permit the establishment of such facilities within state trunk highway right-of-way when:

(aa) a proposed highway project destroys an existing lane of demonstrated or potential use and no desirable alternative is available to the user, or

(bb) there is no pedestrian or non-motorized access along or across an existing or proposed grade separated or through trunk highway or intersection in an urban area (example: access to the four quadrants created by two intersecting freeways), or

(cc) there are fringe development areas not meeting the urban district definition along trunk highways that have no non-motorized access (example: residential or commercial development along trunk highways on the outskirts of town), or

(dd) the facility is part of a comprehensive trail planning process on a local, regional or statewide basis, and

(ee) the facility must materially benefit the safety of the traveling public; such as, the elimination of a potential safety hazard caused by anticipated bicycle or recreational

vehicle traffic on or near the roadways of a trunk highway (example: heavy bicycle travel along a trunk highway between a town and an outlying school).

(ff) the highway right-of-way can safely accommodate the facility

(gg) there is sufficient projected bicycle or recreational vehicle traffic

(hh) the facility cannot be safely and feasibly constructed and utilized outside of the right-of-way (example: no suitable network of adjacent residential streets or existing parallel facilities exist)

(ii) the facility use does not conflict with existing utilities located on highway right-of-way or adjacent land use

(jj) the facility provides commuter transportation; or connects existing or proposed facilities; or connects areas or points of natural, scientific, cultural, historical, educational or economic interest

(kk) multi-use facilities do not conflict with each other or use during more than one season is feasible.

(2) Traffic Volume Criteria

(aa) Based upon Table One, following, the department will consider the establishment of bicycle or recreational vehicle lanes by use and type in accordance with the traffic volumes and other limitations shown. Exceptions to these traffic volume criteria may be made if good cause can be shown and upon approval of the Commissioner of Highways.

(bb) As motor vehicle traffic volumes increase the form that a bicycle or recreational vehicle lane may take and traffic control measures (or other physical safety precautions built into the facility) will also increase in physical design and safety standards.

(3) Traffic Regulations

(aa) Bicycle Traffic Regulations. The provisions of M.S. 169.221 shall apply for all persons driving or operating a bicycle upon a roadway. The provisions of M.S. 169.09 to 169.13 shall also apply in substance and effect insofar as applicable and consistent with reference to bicycle lanes on trunk highways.

(bb) Bicycle Recreational Vehicle Traffic Regulations. The provisions of M.S. 169.09 to 169.13 shall also apply in substance and effect insofar as applicable and consistent with reference to drivers or operators of bicycle or recreational vehicles on controlled access trunk highways. M.S. 169.13 and 169.18 shall also apply.

(e) Maintenance Criteria

(1) The responsibility for maintaining bicycle and recreational vehicle lanes within the limits of trunk highway rights-of-way shall be:

(aa) the responsibility of the Highway Department when the facility is located immediately adjacent to the roadway (highway shoulder).

(bb) the responsibility of the appropriate local or other governmental unit when the facility is separate from the roadway.

(2) Normal maintenance activities shall be provided for the maintenance of lanes established within trunk highway rights-of-way. These activities shall include, when applicable, but not be limited to:

(aa) maintenance of drainage,

(bb) debris removal,

(cc) sweeping of lane surfaces,

(dd) mowing and brush removal,

(ee) surface maintenance,

(ff) surface grading,

(gg) snowplowing, when applicable,

(hh) painting of stripes and stencils.

(f) Placement of Such Lanes in Relation to Roads.

(1) Placement of Bicycle or Recreational Vehicle Lanes

(aa) Bicycle or recreational vehicle lanes built subsequent to the date of adoption of these rules and regulations will be placed outside of a 30 foot (9.1 meters) clearway when located within the right-of-way of any State trunk highway with fully controlled access. Exceptions may be made at structure locations including but not limited to bridges.

(bb) Bicycle facilities built within the right-of-way of any State trunk highway shall be classified as a route,

lane - no barrier, lane - with barrier or path as defined in section (c) Definitions 3, 4, 5 and 6. Desirable configurations are indicated in:

Figure 1 for lane - no barrier

Figure 2 for lane - with barrier

Figure 3 for path (design for new facilities)

(g) Minimum Design Standards. The following standards are minimum criteria which may not be reduced to lesser values and constitute the lowest design limits. The values are not to be used as general design standards, but should generally be exceeded.

(1) Vertical Clearance. The vertical clearance between an overhead obstruction and the surface of bicycle or recreational vehicle lanes shall be not less than 10 feet (3 m).

(2) Lane Width. Bicycle facilities shall have a minimum surfaced width of 4 feet (1.2 m) for one-way and 6 feet (1.8 m) for two-way travel.

(3) Design Speed. The design speed for bicycle facilities shall not be less than 10 mph. For downgrades, design speeds may be in the range of 25 mph or greater.

(4) Sight Distance. The sight distance to any hazard or potential hazard for a bicycle facility shall be a minimum of 50 feet (15.2 m).

(5) Grades. Bikeway grades should not exceed 5% except for short distances.

(6) Radius of Curvature. The minimum radius of curvature for bike-

ways is figured by the formula: $R = 1.25 V+1.5$

R = radius of curvature in feet

V = velocity in miles per hour

(h) Bicycle or Recreational Vehicle Operations on Trunk Highway Right of Way. No provision within these regulations shall be deemed to be in conflict with the provisions of Minnesota law with respect to the operations on trunk highway right of way of any form of bicycle or recreational vehicle now or hereafter defined. Particular reference is made to M.S. Sections 84.81 through 84.87 in this regard.

(i) Severability.

The provisions of these regulations shall be severable, and the invalidity of any paragraph, subparagraph, or subdivision thereof shall not make void any other paragraph, subparagraph, or subdivision or any other part.

(j) Public Use of Trunk Highways.

No prohibition is intended or implied within these rules as to the rights of the public to use, occupy, traverse or travel the trunk highways of the State of Minnesota except where such prohibition or regulation is established by law or other promulgated regulation not a part of these rules.

(k) Private Roadways.

Nothing in these regulations shall be construed to prevent the owner of real property used by the public for purposes of bicycle or recreational vehicular travel by permission of the owner and not as a matter of right, from prohibiting such use, or from requiring

other or different or additional conditions than those specified in these regulations, or otherwise regulating such use as may seem best to such owner.

(1) At Grade Railroad Crossings.

In the event a proposed bicycle or recreational vehicle lane intersects at grade the right-of-way and tracks of a railroad, the approval of the Minnesota Public Service Commission with respect to the public safety aspects of the crossing shall be first secured.

APPROVED AS TO FORM AND LEGALITY
JUL 7 1975 19
WARREN SPANNAUS, ATTORNEY GENERAL
BY /s/ Michael B. Miller
SPECIAL ASSISTANT ATTORNEY GENERAL

STATE OF MINNESOTA
DEPARTMENT OF STATE
FILED - 3:30 pm
JUL 7 - 1975
Joan Anderson Growe
Secretary of State

FILED
RICHARD L. BRUBACHER
Commissioner of Administration
JUL 7 1975
BY Erla Staudenmaier
AUTH. SIGNATURE 3:45 p.m.

Table 1: TRAFFIC CRITERIA TO ESTABLISH A BICYCLE OR RECREATION VEHICLE LANE

CLASS OF FACILITY AND TRAFFIC LIMITS			BICYCLE OR RECREATIONAL VEHICLE LANE USE							
			BICYCLIST USE					PEDESTRIAN USE & RECREATIONAL VEHICLE USE		
			ROAD DESIGN LIMITATIONS	ROUTE (1)	LANE-NO BARRIER (1)	LANE-WITH BARRIER (2)	PATH (2)	ROAD DESIGN LIMITATIONS	SPECIAL WALKWAY	FACILITY FOR RECREATIONAL VEHICLE
TWO LANE NO CONTROL OF ACCESS	AVERAGE DAILY TRAFFIC VOLUME (A.D.T.)	MOTOR VEHICLE (A.D.T.)	(R)	≤ 2,000	≤ 3,000	X	→ 3,000	(R)	N/A	N/A
			(U)	≤ 4,000	≤ 6,000	≥ 6,000	→ 6,000	(U)	N/A	N/A
		BICYCLE (A.D.T.)	(R)	≤ 100	≤ 200	X	→ 200	(R)	X	O
			(U)	≤ 100	≤ 200	≥ 200	→ 200	(U)	O	X
MULTIPLE LANE NO OR PARTIAL CONTROL OF ACCESS	AVERAGE DAILY TRAFFIC VOLUME (A.D.T.)	MOTOR VEHICLE (A.D.T.)	(R)	X	≤ 14,000	X	→ 14,000	(R)	N/A	N/A
			(U)	≤ 8,000	≤ 20,000	≥ 20,000	→ 20,000	(U)	N/A	N/A
		BICYCLE (A.D.T.)	(R)	X	≤ 200	X	→ 200	(R)	X	O
			(U)	≤ 100	≤ 200	≥ 200	→ 200	(U)	O	X
MULTIPLE LANE FULLY CONTROLLED ACCESS	AVERAGE DAILY TRAFFIC VOLUME (A.D.T.)	MOTOR VEHICLE (A.D.T.)	(R)	X	X	X	→ 14,000	(R)	N/A	N/A
			(U)	X	X	X	→ 20,000	(U)	N/A	N/A
		BICYCLE (A.D.T')	(R)	X	X	X	→ 200	(R)	X	O
			(U)	X	X	X	→ 200	(U)	O	X

X - NOT PERMITTED

O = NON CONFLICTING USE

(1) Maximum ADT for Routes and Lanes no barrier.
(2) Minimum ADT for establishment of Lanes with Barrier or Paths.

(R) Rural Section
(U) Urban Section N/A Not Applicable

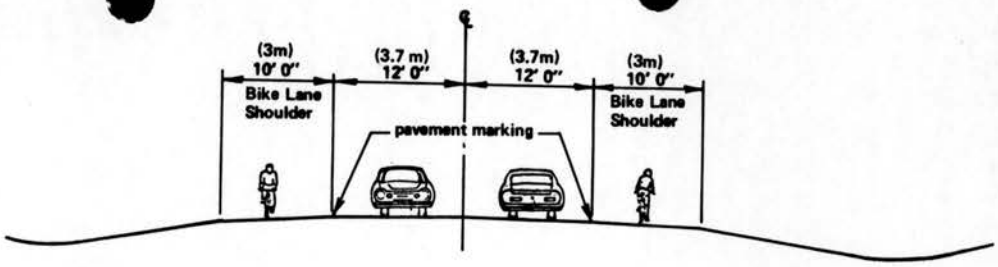


Figure 1: DESIRABLE BIKE LANE WITH NO BARRIER DESIGN

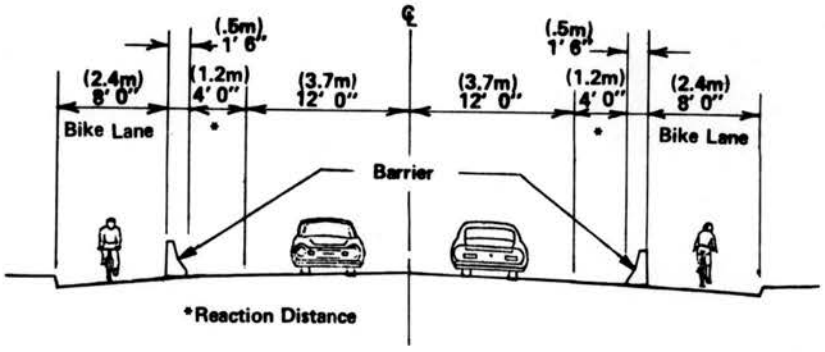


Figure 2: DESIRABLE BIKE LANE WITH BARRIER DESIGN

***Minimum, 10 feet desirable**

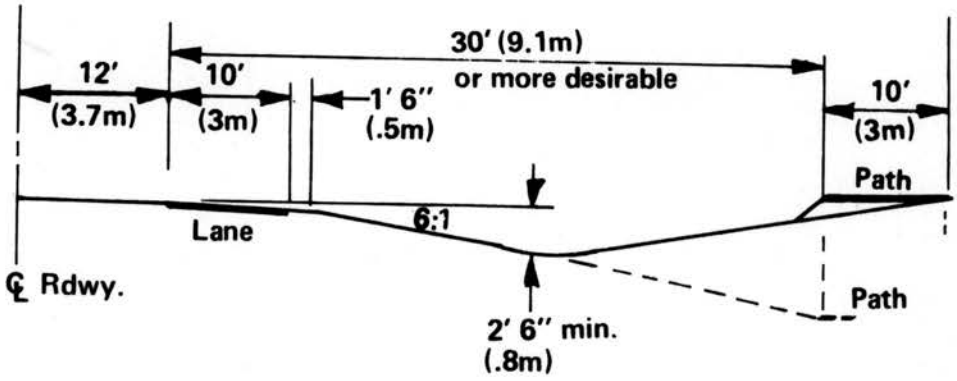


Figure 3: DESIRABLE BIKE PATH DESIGN

STATE OF MINNESOTA — BEFORE THE COMMISSIONER OF HIGHWAYS

COUNTY OF RAMSEY

In the Matter of the Adoption of Proposed Rules of the Department of Highways Governing Model Standards for Bicycle and Recreational Vehicle Lanes on and along Public Roadways and Governing Trunk Highways

---

HEARING OFFICER:
Edward J. Heinen,
Assistant Commissioner - Operations

COUNSEL
Craig R. Anderson,
Special Assistant Attorney General

IN BEHALF OF THE STATE:
Raymond A. Adolfson,
Road Design Standards Engineer

STATE OF MINNESOTA

COUNTY OF RAMSEY

Exhibit A

BEFORE FRANK D. MARZITELLI
COMMISSIONER OF HIGHWAYS

In the matter of the Proposed Adoption of Rules of the Department of Highways Governing Model Standards for Bicycle and Recreational Vehicle Lanes on and along Public Roadways and Governing Trunk Highways

ORDER FOR HEARING

To effictively implement M.S. 160.262, the Minnesota Commissioner of Highways deems it necessary to consider adoption of the proposed rules captioned above pursuant to the authority vested in me by M.S. 1974.

NOW, THEREFORE, IT IS ORDERED this 24th day of January, 1975, that a public hearing on the proposed rules captioned above be held in the Veteran's Service Building, Fifth Floor, Conference Room D, 20 West 12th Street and Columbus Ave. St. Paul, Minnesota, February 24, 1975, commencing at 1:00 P.M., and continuing until all representatives of associations or other interested groups or persons have hade an opportunity to be heard.

IT IS FURTHER ORDERED, that notice of said hearing be given to all representatives of associations or other interested groups or persons who have registered their names with the Secretary of State for that purpose.

Frank D. Marzitelli

FRANK D. MARZITELLI
COMMISSIONER OF HIGHWAYS

STATE OF MINNESOTA

DEPARTMENT OF HIGHWAYS

STATE OF MINNESOTA

COUNTY OF RAMSEY

BEFORE THE COMMISSIONER OF HIGHWAYS

In the Matter of the Adoption of Proposed Rules of the Department of Highways Relating to Model Standards for Bicycle and Recreational Vehicle Lanes on and Along Public Roadways and Governing Trunk Highways

NOTICE OF HEARING

NOTICE IS HEREBY GIVEN that a public hearing will be held pursuant to Minnesota Statutes Section 160.262, Section 15.0412, Subd. 4 regarding the above-entitled matter, in the Veteran's Service Building, Fifth Floor, Conference Room D, 20 West 12th Street and Columbus Avenue, St. Paul, Minnesota on February 24, 1975, commencing at 1:00 p.m. and continuing until all representatives of associations or other interested groups or persons have had an opportunity to be heard concerning adoption of the proposed rules captioned above by submitting oral or written data, statements or argument. Statements or briefs may be submitted in writing without the necessity of appearance at the hearing. The record shall remain open for receipt of written statements for thirty (30) days after the close of the hearing.

A copy of the proposed rules is attached hereto. Additional copies of the proposed rules are available and may be obtained by writing to the Commissioner of Highways, 411 State Highway Building, St. Paul, Minnesota 55155. The rules are proposed rules only and are subject to alterations or modifications as the Department of Highways deems necessary and appropriate from its consideration of all the evidence adduced at the public hearing and all statements entered into the record.

Dated this 24th day of January, 1975.

STATE OF MINNESOTA
DEPARTMENT OF HIGHWAYS

By Frank D. Marzitelli
Frank D. Marzitelli
Commissioner of Highways

MINNESOTA DEPARTMENT OF HIGHWAYS

PROCEDURAL RULES FOR HEARING

The purpose of the hearing is to allow interested parties to express their views and present facts bearing upon the proposed regulations. So as to provide for an orderly presentation of evidence, the following rules will be in effect during the hearing specified in the attached Notice of Hearing:

1. Anyone wishing to be heard should indicate by signing the speaking sheet, listing his name, address, and the group which he represents. The speaking sheet will be available at the main entrance to the hearing room. It is requested that each group select one speaker only to present their views.

2. The first time the witness makes a statement he should spell his name and identify the group he is representing. Prior to making any subsequent statements he should state his name and the group which he represents. He may be sworn upon his request but it is not required. If he elects not to be sworn, that may be considered in determining the weight to be given to his testimony.

3. By giving testimony, a witness, including one who may also be a member of the panel, subjects himself to questioning by the panel. However, he is subject to cross-examination by non-members of the panel only if he affirmatively consents to being so examined. A refusal to be cross-examined may be considered in determining the weight to be given to his testimony.

4. All parties interested in introducing any written matter may do so by having it marked as an exhibit and then introduced for the record. Unsworn written matter may be received, but the fact that it is unsworn may be considered in determining the weight to be given it.

RULES AND REGULATIONS ESTABLISHING MODEL STANDARDS FOR BICYCLE AND RECREATIONAL VEHICLE LANES ON AND ALONG PUBLIC ROADWAYS AND GOVERNING TRUNK HIGHWAYS.

(a) Purpose. The purpose of these regulations is to carry out the mandate of the legislature and to effectuate that mandate as set forth in Minnesota Statutes, Section 160.262, as amended by Laws of Minnesota 1973, Chapter 620, Section 1, with reference to the establishment of model standards for bicycle and recreational vehicle lanes on and along proposed and existing public roadways and governing State trunk highways.

(b) Scope. The scope of this regulation is intended to be confined within the framework of and consistent with Minnesota Statutes, Section 160.262, and responsive to Title 23 of the U. S. Code as amended by P.L. 93-410, the Federal Aid Highway Act of 1973, at Section 217. (Bicycle transportation and pedestrian walkways.)

(c) Definitions. For purposes of these regulations and the implementation thereof, the following terms shall have the meanings here given them.

(1) Average Daily Traffic. "Average daily traffic" means the total volume of traffic during a specified but arbitrary time period given in whole days (24 hours), greater than one day, but less than one year, divided by the number of days in the time period. Abbreviated A.D.T.

(2) Bicycle. "Bicycle" means a device propelled by human power upon which a person or persons may ride, having two tandem

wheels either of which is over 14 inches in diameter, and including any device generally recognized as a bicycle though equipped with two front or rear wheels.

(3) Bicycle Lane. "Bicycle lane" means a recreational vehicle lane designed for preferential use by persons using bicycles. Bicycle lanes may be designed with or without physical barriers to separate or channel bicycle traffic from motor vehicles or pedestrian traffic.

(4) Bicycle Lane With Barrier. "Bicycle lane with barrier" means a portion of a roadway which has been designated for preferential or exclusive use by bicycles, separated from (but a part of) that portion of the roadway designed for motor vehicle traffic by a physical barrier such as a curb or a guardrail.

(5) Bicycle Lane Without Barrier. "Bicycle lane without barrier" means a portion of a roadway which has been designated for preferential use by bicycles through pavement markings or other traffic control measures.

(6) Bicycle Path. "Bicycle path" means a bicycle facility designed for exclusive use by persons using bicycles and constructed or developed separately from the roadway.

(7) Average Bicycle Traffic Volume. "Average bicycle traffic volume" means the amount of bicycle traffic passing a given point on an average daily basis computed over 180 days during the months of April through September.

(8) Bicycle Route. "Bicycle route" means a roadway marked to

encouraged bicycle use pursuant to M.S. 169.06 and 169.14 when no preferential lane is provided. Such markings also indicate that safety precautions must be taken by all forms of traffic.

(9) Clearway. "Clearway" means the area extending 30 feet outward from the edge of the outside through lane of the roadway where all physical obstacles to out-of-control motor vehicles are eliminated. If a clearway is not established within the right of way of any street or highway, traffic control measures or other physical barriers designed to protect the motor vehicle driver and occupants must be in effect or present.

(10) Controlled Access Highway. "Controlled access highway" means every highway, street, or roadway in respect to which the right of access of the owners or occupants of abutting lands and other persons has been acquired and to which the owners or occupants of abutting lands and other persons have no legal right of access to or from the same except at such points only and in such manner as may be determined by the public authority having jurisdiction over such highway, street or roadway.

(11) Department. Unless stated otherwise, "department" means the Department of Highways of this state. Regardless of the department referred to, however, it is to be considered as acting directly or through its duly authorized officers and agents.

(12) Driver. "Driver" means every person who drives or is in actual physical control of a vehicle, or other device upon which a person or property may be transported.

(13) Intersection. "Intersection" means (a) the area embraced within the prolongation or connection of the lateral curb lines, or, if none, then the lateral boundary lines of the roadways of two highways which join one another, at, or approximately at, right angles, or the area within which vehicles traveling upon different highways joining at any other angle may come in conflict. (b) Where a highway includes two roadways 30 feet or more apart, then every crossing of each roadway of such divided highway by an intersecting highway shall be regarded as a separate intersection. In the event such intersecting highway also includes two roadways 30 feet or more apart, then every crossing of two roadways of such highways shall be regarded as a separate intersection.

(14) One-Way Roadway. "One-way roadway" means a street or roadway designated and signposted for one-way traffic and on which all vehicles are required to move in one indicated direction.

(15) Pedestrian Walkway. "Pedestrian walkway" means that portion of the street or highway between curb lines, or the lateral lines of a roadway, and the adjacent property lines intended for the use of pedestrians. An alternate term that may be used is "sidewalk", as defined in M.S. Chapter 169. For purposes of these regulations a pedestrian walkway may be construed to be a recreational vehicle lane but is controlled as to the forms of traffic it may carry other than pedestrians.

(16) Recreational Vehicle. "Recreational vehicle" means a special

purpose mobile and motive equipment or device not qualifying under the provisions of M.S. Chapter 168 for the purposes of taxation in the State of Minnesota, and includes but is not limited to, all terrain vehicles (A.T.V.), snowmobiles, and bicycles.

(17) Recreational Vehicle Lane. "Recreational vehicle lane" means that portion of a street or highway or road or way, improved, designed or ordinarily used for recreational vehicular travel by the public placed and maintained by State or local authorities in their respective jurisdictions.

(18) Roadway. "Roadway" means that portion of a highway improved, designed or ordinarily used for vehicular travel. In the event a highway includes two or more separate roadways the term "roadway" as used herein shall refer to any such roadway separately but not to all such roadways collectively.

(19) Rural Section. "Rural section" is a highway design that has wide right-of-ways, open ditches for drainage and a clearway of 30 feet from the edge of the outside lane.

(20) Shoulder. "Shoulder" means that part of the roadway which is contiguous to the regularly traveled portion of the roadway and is on the same level as the roadway. The shoulder may be pavement, gravel or earth.

(21) Sidewalk. "Sidewalk" means that portion of a street between the curb lines, or the lateral lines of a roadway, and the adjacent property lines intended for the use of pedestrians.

(22) Street or Highway. "Street or highway" means the entire width between boundary lines of any way or place when any part thereof is open to the use of the public, as a matter of right, for the purposes of vehicular traffic.

(23) Through Highway. "Through highway" means every highway or portion thereof at the entrances to which vehicular traffic from intersecting highways is required by law to stop before entering or crossing the same and when stop signs are erected.

(24) Urban District. "Urban district" means the territory contiguous to and including any street which is built up with structures devoted to business, industry, or dwelling houses situated at intervals of less than 100 feet for a distance of a quarter of a mile or more.

(25) Urban Section. "Urban section" means a roadway design used in urban districts where the right-of-way width is restricted. Because of the restricted right-of-way, there is not enough room for ditches, thus necessitating curbs and gutters.

(26) Vehicle. "Vehicle" means recreational vehicle.

(d) Criteria for Desirability of Lanes in any Given Location.

(1) The Department of Highways will have sole jurisdiction to establish recreational lanes on the right-of-way of any State trunk highway. The Department of Highways will be responsible for all designs and construction on all lane projects within the right-of-way of any State trunk highway. Any such services performed for other state agencies or local governmental units

will be done on a reimbursable basis. The Department of Highways may provide services for the development of lane facilities for other agencies and local units of government upon request and upon such terms as may be mutually agreed upon. The Department of Highways will consider building lane facilities during the construction, reconstruction or improvement of any trunk highway when:

(aa) a proposed or existing trunk highway destroys an existing lane of demonstrated use and no alternative is available to the user, or

(bb) there is no pedestrian or non-motorized access along or across an existing or proposed grade separated or through trunk highway or intersection in an urban area (example: access to the four quadrants created by two intersecting freeways), or

(cc) there are fringe development areas not meeting the urban definition along trunk highways that have no non-motorized access (example: residential, commercial development along trunk highways on the outskirts of towns).

(2) The Department of Highways will consider development of multi-use recreational vehicle lanes where:

(aa) sufficient projected traffic volumes or safety considerations warrant the facility, and

(bb) such uses do not conflict with each other (example: bicycling and hiking), and

will be done on a reimbursable basis. The Department of Highways may provide services for the development of lane facilities for other agencies and local units of government upon request and upon such terms as may be mutually agreed upon. The Department of Highways will consider building lane facilities during the construction, reconstruction or improvement of any trunk highway when:

(aa) a proposed or existing trunk highway destroys an existing lane of demonstrated use and no alternative is available to the user, or

(bb) there is no pedestrian or non-motorized access along or across an existing or proposed grade separated or through trunk highway or intersection in an urban area (example: access to the four quadrants created by two intersecting freeways), or

(cc) there are fringe development areas not meeting the urban definition along trunk highways that have no non-motorized access (example: residential, commercial development along trunk highways on the outskirts of towns).

(2) The Department of Highways will consider development of multi-use recreational vehicle lanes where:

(aa) sufficient projected traffic volumes or safety considerations warrant the facility, and

(bb) such uses do not conflict with each other (example: bicycling and hiking), and

(cc) use during more than one season is feasible (example: snowmobile use on bicycle paths).

(3) Lanes within state trunk highway rights-of-way will be considered only if they meet the following criteria:

(aa) the highway right-of-way can safely accommodate the lane, and

(bb) the lane or trail use does not conflict with adjacent land use, and

(cc) the lane cannot be feasibly built outside the right-of-way, and

(dd) it does not duplicate any other existing or proposed trail, and

(ee) if no suitable network of adjacent residential streets or trails exists, and

(ff) there is a potential safety hazard caused by anticipated non-motorized and recreational traffic on or near the roadways of a trunk highway (example: heavy bicycle travel along a trunk highway between a town and an outlying school).

(4) All lane development participated in by the Highway Department must meet the following criteria:

(aa) it must materially benefit the safety of the traveling public.

(bb) it must meet the traffic demands projected as determined by the criteria within these rules. See "Traffic Volume

Criteria" (below).

(cc) it must be part of a comprehensive trail planning process on a local, regional, or statewide basis.

(dd) it must provide commuter transportation, or

(ee) connect existing or proposed trails, or

(ff) travel along a route which connects areas or points of natural, scientific, cultural, historical, educational or economic interest.

(5) Traffic Volume Criteria

(aa) Based upon Table One, following, the department will consider the establishment of recreational vehicle lanes by use and type in accordance with the traffic volumes and other limitations shown.

(bb) As motor vehicle traffic volumes increase the form that a recreational vehicle lane may take and traffic control measures (or other physical safety precautions built into the facility) will also increase in physical design and safety standards.

(6) Traffic Regulations

(aa) Bicycle Traffic Regulations. The provisions of M.S. 169.221 shall apply for all persons driving or operating a bicycle upon a roadway. The provisions of M.S. 169.09 to 169.13 shall also apply in substance and effect insofar as applicable and consistent with reference to bicycle lanes on trunk highways.

(bb) Recreational Vehicle Traffic Regulations. The provisions of M.S. 169.09 to 169.13 shall also apply in substance and effect insofar as applicable and consistent with reference to drivers or operators of recreational vehicles on controlled access trunk highways. M.S. 169.13 and 169.18 shall also apply. The Commissioner will establish speed zones pursuant to M.S. 169.14 as appropriate.

(e) Maintenance Criteria

(1) The responsibility for maintaining bicycle and recreational vehicle lanes within the limits of trunk highway rights-of-way shall be:

(aa) the responsibility of the Highway Department when the facility is located immediately adjacent to the roadway (highway shoulder).

(bb) the responsibility of the appropriate local governmental unit when the facility is separate from the roadway.

(2) Normal maintenance activities shall be provided for the maintenance of lanes established within trunk highway rights-of-way. These activities shall include but not be limited to:

(aa) maintenance of drainage,

(bb) debris removal,

(cc) sweeping of trail surfaces,

(dd) mowing and brush removal,

(ee) surface maintenance,

(ff) surface grading, when applicable,

(gg) snowplowing, when applicable.

(f) Placement of Such Lanes in Relation to Roads.

(1) Placement of Recreational Vehicle Lanes

(aa) Recreational vehicle lanes built subsequent to the date of adoption of these rules and regulations will be placed outside of a 30 foot (9.1 meters) clearway when located within the right-of-way of any State trunk highway with fully controlled access. Exceptions may be made at structure locations including but not limited to bridges.

(bb) Recreational vehicle lanes built within the right-of-way of any State trunk highway shall be classified as a route, lane - no barrier, lane - with barrier or path as defined in section (c) Definitions 3, 4, 5 and 6.

Use Figure 1 for lane - no barrier

Use Figure 2 for lane - with barrier

Use Figure 3 for path (design for new facilities)

(g) Minimum Design Standards. The following standards are minimum criteria which may not be reduced by lesser values and constitute lower limits. The values are not to be used as general design standards at specific locations.

(1) Vertical Clearance. The vertical clearance between an overhead obstruction and the surface of recreational vehicle lanes shall be not less than 10 feet (3 m).

(2) Lane Width. Bicycle facilities shall have a minimum surfaced width of 4 feet (1.2 m) for one-way and 6 feet (1.8 m) for

two-way travel.

(3) Design Speed. The design speed for bicycle facilities shall not be less than 10 mph. For downgrades, design speeds may be in the range of 25 mph or greater.

(4) Sight Distance. The sight distance to any hazard or potential hazard for a bicycle facility shall be a minimum of 50 feet (15.2 m).

(5) Grades. Bikeway grades should not exceed 5% except for short distances.

(6) Radius of Curvature. The minimum radius of curvature for bikeways is figured by the formula: $R = 1.25 V+1.5$

R = radius of curvature in feet

V = velocity in miles per hour

(h) Recreational Vehicle Operations on Trunk Highway Right of Way.

No provision within these regulations shall be deemed to be in conflict with the provisions of Minnesota law with respect to the operations on trunk highway right of way of any form of recreational vehicle now or hereafter defined. Particular reference is made to M.S. Sections 84.81 through 84.87 in this regard.

(i) Severability.

The provisions of these regulations shall be severable, and the invalidity of any paragraph, subparagraph, or subdivision thereof shall not make void any other paragraph, subparagraph, or subdivision or any other part.

(j) Public Use of Trunk Highways.

No prohibition is intended or implied within these rules as to the rights of the public to use, occupy, traverse or travel the trunk highways of the State of Minnesota except where such prohibition or regulation is established by law or other promulgated regulation not a part of these rules.

(k) Private Roadways.

Nothing in these regulations shall be construed to prevent the owner of real property used by the public for purposes of recreational vehicular travel by permission of the owner and not as a matter of right, from prohibiting such use, or from requiring other or different or additional conditions than those specified in these regulations, or otherwise regulating such use as may seem best to such owner.

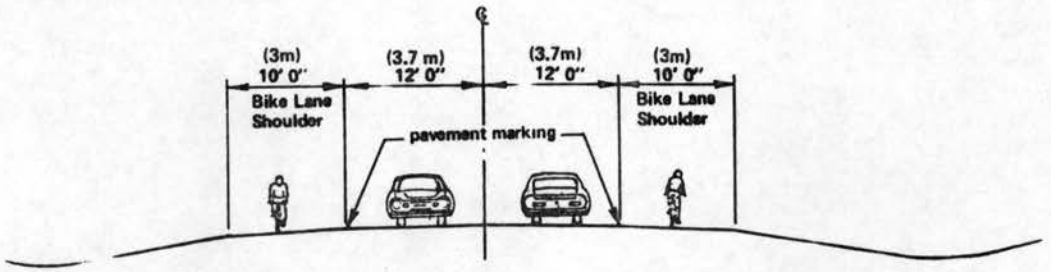


Figure 1: BIKE LANE WITH NO BARRIER

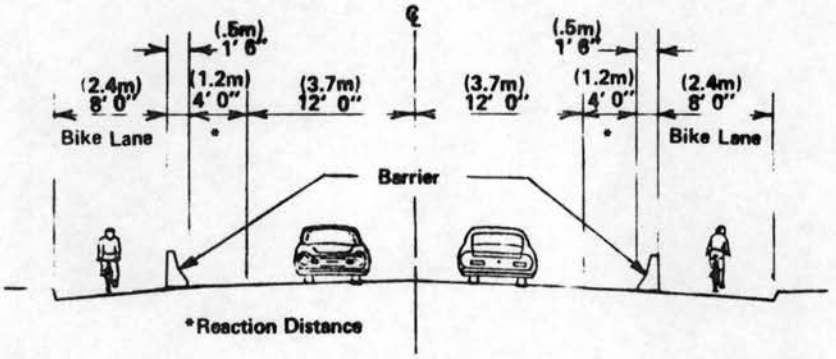


Figure 2: BIKE LANE WITH BARRIER

* Minimum, 10 feet desirable

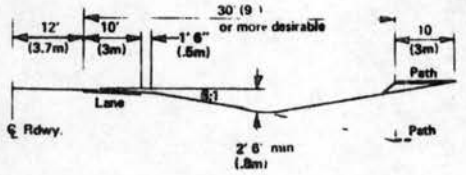


Figure 3: DESIRABLE BIKE PATH DESIGN

TABLE 1

TRAFFIC CRITERIA TO ESTABLISH A RECREATIONAL VEHICLE LANE

CLASS OF FACILITY AND TRAFFIC LIMITS			RECREATIONAL VEHICLE LANE CLASS BY USE AND TYPE							
			BICYCLIST USE					PEDESTRIAN USE & SPECIAL PURPOSE RECREATIONAL VEHICLE USE		
			ROAD DESIGN LIMITATIONS	ROUTE (1)	LANE-NO BARRIER (1)	LANE-WITH BARRIER (2)	PATH (2)	ROAD DESIGN LIMITATIONS	SPECIAL WALKWAY	FACILITY ALLOWED (Recreational Vehicle)
TWO LANE NO CONTROL OF ACCESS	AVERAGE DAILY TRAFFIC VOLUME (A.D.T.)	MOTOR VEHICLE (A.D.T.)	(R)	≤ 2,000	≤ 3,000	X	≻ 3,000	(R)	N/A	N/A
			(U)	≤ 4,000	≤ 6,000	≥ 6,000	≻ 6,000	(U)	N/A	N/A
		RECREATIONAL VEHICLE (A.D.T.)	(R)	≤ 100	≤ 200	X	≻ 200	(R)	X	O
			(U)	≤ 100	≤ 200	≥ 200	≻ 200	(U)	O	X
MULTIPLE LANE NO OR PARTIAL CONTROL OF ACCESS	AVERAGE DAILY TRAFFIC VOLUME (A.D.T.)	MOTOR VEHICLE (A.D.T.)	(R)	X	≤ 14,000	X	≻ 14,000	(R)	N/A	N/A
			(U)	≤ 8,000	≤ 20,000	≥ 20,000	≻ 20,000	(U)	N/A	N/A
		RECREATIONAL VEHICLE (A.D.T.)	(R)	X	≤ 200	X	≻ 200	(R)	X	O
			(U)	≤ 100	≤ 200	≥ 200	≻ 200	(U)	O	X
MULTIPLE LANE FULLY CONTROLLED ACCESS	AVERAGE DAILY TRAFFIC VOLUME (A.D.T.)	MOTOR VEHICLE (A.D.T.)	(R)	X	X	X	≻ 14,000	(R)	N/A	N/A
			(U)	X	X	X	≻ 20,000	(U)	N/A	N/A
		RECREATIONAL VEHICLE (A.D.T.)	(R)	X	X	X	≻ 200	(R)	X	O
			(U)	X	X	X	≻ 200	(U)	O	X

X - NOT PERMITTED

O = NON CONFLICTING USE

(1) Maximum ADT for Routes and Lanes no barrier.
(2) Minimum ADT for establishment of Lanes with Barrier or Paths.

(R) Rural Section
(U) Urban Section

N/A Not Applicable

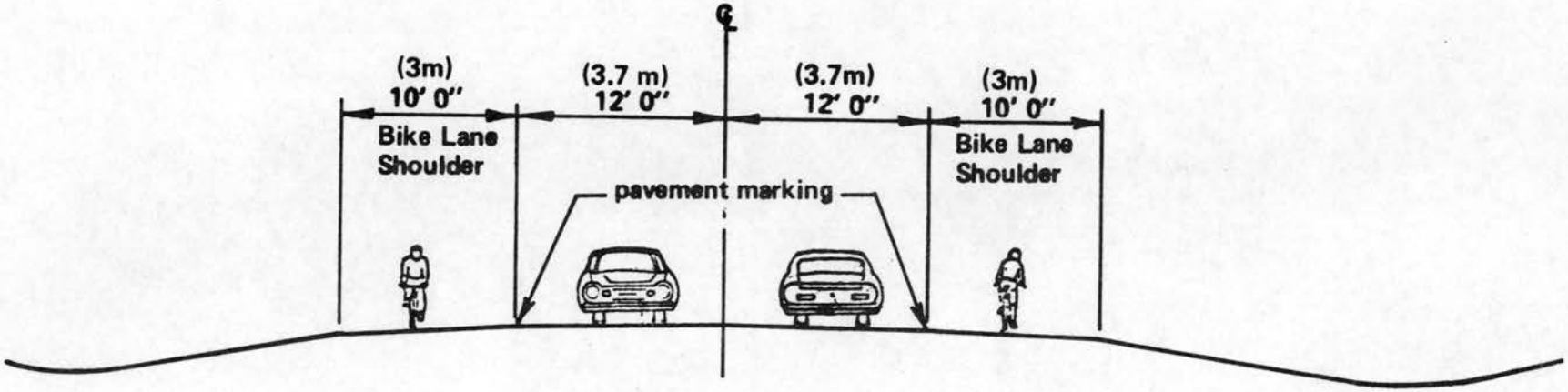


FIG. 1: BIKE LANE WITH NO BARRIER

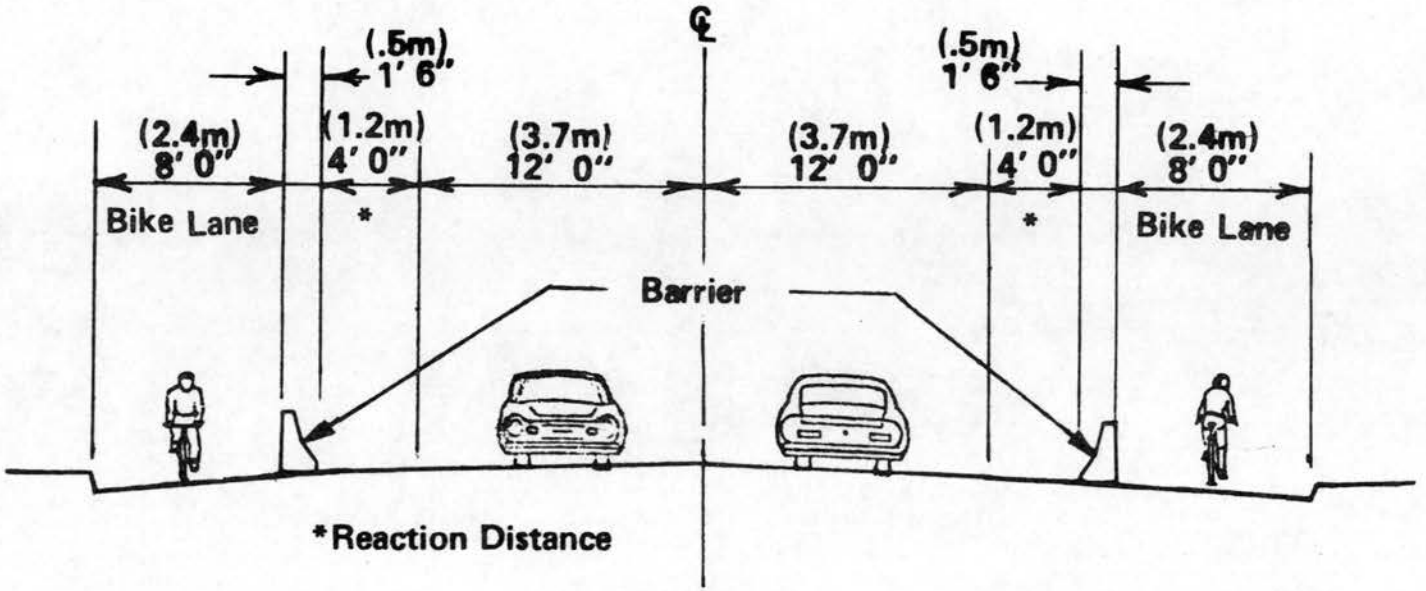


FIG. 2: BIKE LANE WITH BARRIER

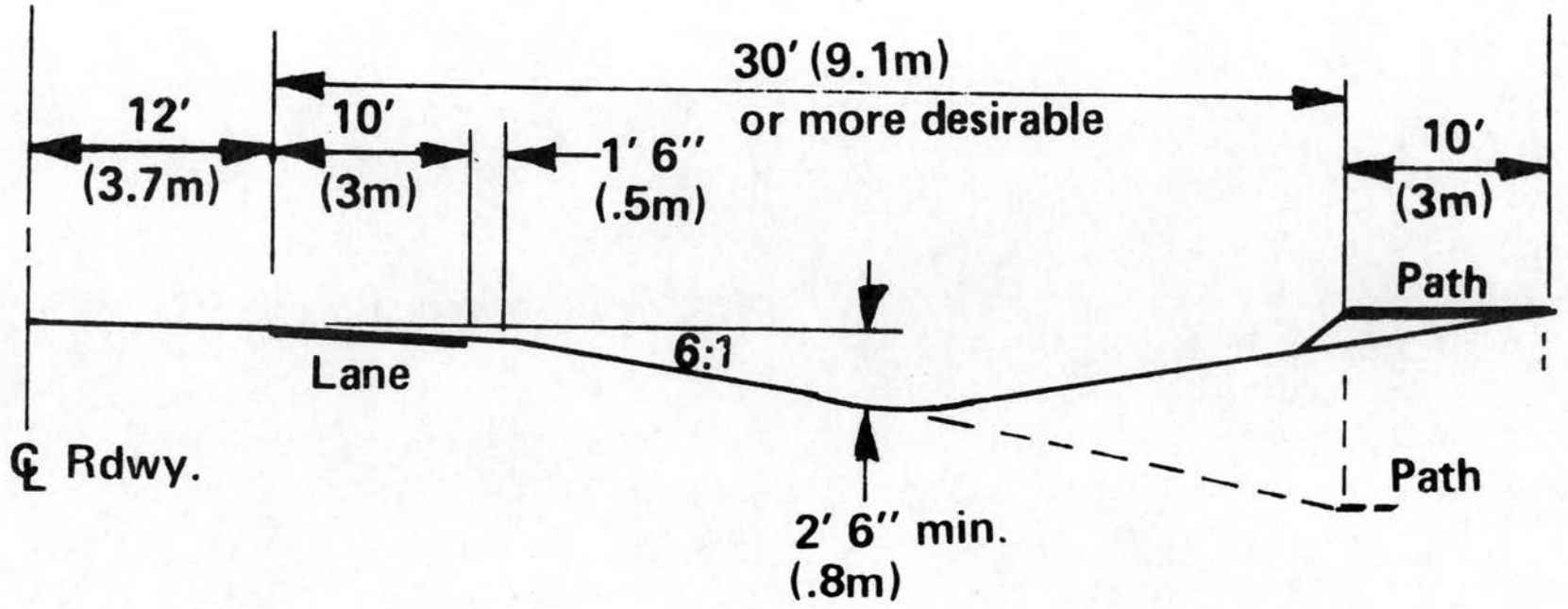


FIG. 3: TYPICAL BIKE PATH DESIGN

Exhibit C-1

STATE OF MINNESOTA

COUNTY OF RAMSEY

In the matter of the Proposed Adoption of Rules of the State of Minnesota Department of Highways Establishing Model Standards for Bicycle and Recreational Vehicle Lanes on and along Public Roadways and Governing Trunk Highways.

CERTIFICATE

I hereby certify that the attached 404 ladels & one sheets constitute the complete list of persons, associations, and other interested groups who as of 9:45 o'clock A.M., this 23rd day of January, 1975, have requested pursuant to M.S. 1971, 15.0421, that their names be placed on file with the Secretary of State for the purpose of receiving notice of public hearing on proposed rules on the subject captioned above.

Joan Anderson Growe
Secretary of State
Joan Anderson Growe

By Ceil Dixon

HIGHWAY

Ass'n of Cas. and Surety Executives, 60 John St., New York 7 10038

Bowar, C. L., Minnesota AAA, Burnsville 55378

Higgins, J. C., Brotherhood Rwy. Clks., 2317 W. 7th St., Duluth 55802

Hoglund United Sales, Inc., So. Hwy 25, Monticello, Minn. 55362

Hopkins, Bill, 2004 Lyndale Ave. S., Minneapolis 55405

Matthias, Dr. Howard, 329 Brown Hall, St. Cloud State College, St. Cloud 56301

Minnesota School Bus Operators Assn - Faribault, Minn. 55021

Nelson-Zepper, 9150 Central Ave N.E., Blaine 55434

Perley A. Thomas Car Works, Inc., Attn. Carroll Graham, High Point, North Carolina 27260 (School bus laws only)

Thields, J. B., Driver Ed. Range, 1000 N. Snelling Ave., St. Paul 55108

Stern, Philip J. - 1234 Soo Line Bldg., Mpls (Re driving instructor & sch.) 55402

St. Paul Motorcycle Escort Club, Inc., PO Box 3264, St. Paul 55101

E. Dean Carlson, Division Engineer
F. H. W. A.
Suite 490
Metro Square Bldg.
St. Paul, Minn. 55101

Commissioner Robert Herbst
Department of Natural Resources
Centennial Office Building
ST. Paul, Minnesota 55155

Edward G. Novak
Commissioner of Public Safety
Rm. 211
State Highway Building

Gerald W. Christensen
State Planning Director
State Planning Agency
Capitol Square Building
St. Paul, Minnesota 55155

Thomas Gauvin
401 27th Street N. E.
Rochester, Minnesota 55901

Romain Menard
Route #1 Box 118
Pengilly, MInnesota 55775

John Sem
Executive Director
West Central Regional Development Commission
Administration Building
Fergus Falls Community College
Fergus Falls, Minnesota 56537

Richard Reis
Moorhead Planning Department
Box 779
Moorhead, Minnesota 56560

Mrs. S. J. Trelstad
5236 - 3rd Avenue So.
Minneapolis, Minnesota 55419

Douglas Legg
887 22nd Avenue S. E.
Minneapolis, Minnesota 55414

Richard Schwartz Associates
Archetects
8030 Cedar Avenue So.
Bloomington, Minnesota 55420

Cindy Lynch
1911 E. 32nd Street
Minneapolis, Minnesto 55407

Wheel Goods Corp.
14524 21st Ave. No.
Minneapolis, Minnesota 55441
Attention: Robert F. Stahl, Jr. President

Dave Bednarczuk
2222 California St. N. E.
Minneapolis, Minnesota 55418

Connie Hienes
2880 Valle Vista
New Hope, Minnesota 55427

Mr. Gordy Sawyer
3990 Upper 71st. Street
Inver Grove Hieghts, Minnesota 55075

Wilton Gervais
805 Degree Of Honor Bldg.
St. Paul, Minnesota 55101

Harold Dahl
rm 227
State Office Bldg.
St. Paul, Minnesota 55155

Harold Sand
Edina City Hall
4801 W. 50th St.
Edina, Minnesota 55424

Ed Warn
421 Wabasha
St. Paul Planning Dept.
St. Paul, MInnesota 55102

Associated General Contractors of Minnesota
910 Builders Exchange Building
Minneapolis, Minnesota 55402

Robert Knudson
4375 Browndale Avenue
Minneapolis, Minnesota 55424

Kronlokken, J. E.
10048 Nord Road
Bloomington, Minnesota 55437

Minnesota Public Interest Research Group
3036 University Avenue S. E.
Minneapolis, Minnesota 55414

Leonard Libbey
Box 17011 Nokomis Station
Minneapolis, Minnesota 55417

M. E. C. C. A.
867 Grand Avenue
St. Paul, Minnesota 55105

Lyn Snell
Box 314
Eden Valley Minnesota 55329

Wanquist, Allen
Room 252 Federal Building
St. Paul, Minnesota 55101

Chas. W. Westin
220 Medical Arts Bldg.
Duluth, Minnesota 55802

Minnesota Comm. For The Handicapped
Metro Sq.
492 - 7th & Robt.
St. Paul, Minnesota 55101

Dick Anthony
WDSM Radio
230 Superior Street
Duluth, Minnesota 55802

H. D. Spurling
Midland Glass
P. O. Box 69
Shakopee, Minnesota 55379

Mrs. Robert L. George

2920 Overlook Drive

Bloominton, Minnesota 55431

Lowell Whiteis

6200 Scott Avenue No.

Minneapolis, Minnesota 55429

Martin C. Menk, Jr.

Bolton & Menk, Inc.

515 N. Front Street

Mankato, Minnesota 56001

Anderson Brothers Contruction Co. of Brainerd

General Road Contractors

Box 421 - Brainerd, Minnesota 56401

RECEIVED
FEB 19 1975
COMMISSIONERS OFFICE

Barton-Aschman Associates, Inc.
Ten Cedar Square West/Cedar-Riverside, 1610 South Sixth Street, Minneapolis, Minn. 55404 612-332-0421

February 18, 1975

Commissioner of Highways
411 State Highway Building
St. Paul, Minnesota 55155

Dear Sir:

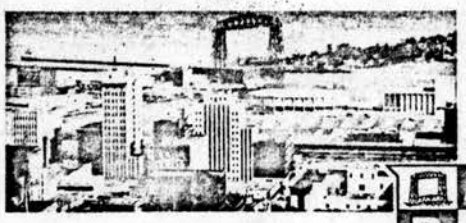
We would appreciate receiving a copy of the proposed bicycle and recreational vehicle rules as mentioned in "Highway News" dated February 14, 1975. If there is a charge for these rules please bill us at the above address. Thank you in advance.

Sincerely yours,

Gayle Goben

Gayle Goben

Provided
2/19/75
K.H. Boyle



RECEIVED

FEB 24 1975

COMMISSIONERS OFFICE

CITY OF DULUTH

DULUTH, MINNESOTA 55802

TRAFFIC ENGINEERING DIVISION
204 City Hall
Norris L. Ogard, P. E.
Traffic & State Aid Engineer

February 21, 1975

Commissioner of Highways
411 State Highway Building
St. Paul, Minnesota 55155

Dear Sir:

I would like to receive a copy of the proposed rules on bicycles and recreational vehicle lane standards.

Yours very truly,

Norris L. Ogard

Norris L. Ogard, P. E.
Traffic & State Aid Engineer

NLO:d

cc: File



City of Willmar

CITY OFFICE BUILDING BOX 755 WILLMAR, MINNESOTA 56201
OFFICE OF CITY ENGINEER 333 6th STREET S.W. PHONE 612/235-4202

February 21, 1975

RECEIVED
FEB 24 1975
COMMISSIONERS OFFICE

Commissioner of Highways
411 State Highway Building
St. Paul, MN 55155

Dear Commissioner of Highways:

Would you please send us a copy of the proposed rules and regulations on bicycle and recreational vehicle lane standards as proposed for Public Hearing on February 24, 1975.

Thank you.

Sincerely,

Verne E. Carlson

Verne E. Carlson, PE
City Engineer

VEC:bam

• RDD •

RICHARD D. DUERRE 351 Maple Island Road Burnsville, Minnesota 55337 612/435-5419

March 2, 1975

Mr. Frank Marzitelli
Commissioner of Highways
411 State Highway Bldg.
St. Paul, Minn. 55155

RECEIVED
MAR 4 1975
COMMISSIONERS OFFICE

Dear Sir:

Please send me a copy of the proposed rules for establishing bicycle lanes along proposed and existing roads in Minnesota.

I'd also like to register my protest to any plans to build a new I-94 freeway alongside existing Highway 12 from St. Paul to Hudson, Wisc.. I just drove that strecth this week and I made a special point of observing it with the need for a new hignway in mind. To me it is apparent tnat it can be upgraded to freeway standards with out building a completely new highway on another site. It would be a waste of land and money to do so and I can't understand why it is even being considered. If you have any information that would enlighten me on the need for a new highway I'd like to have it too.

Yours truly,

Dick Duerre

Dick Duerre

3/4/75

RECEIVED

FEB 24 1975

COMMISSIONERS OFFICE

zz

20520 Excelsior Blvd.
Shorewood, Minnesota 55331
February 20, 1975

Commissioner of Highways
411 State Highway Building
St. Paul, Minnesota

Dear Sirs:

Please send me a copy of the proposed rules regarding lanes for bicycles and recreational vehicles on and along public highways, also please inform me as to whether this includes horses. Thank you very much.

Sincerely,
Carole Cranbrook

Carole Cranbrook
Secretary Shorewood Horseowners

3M COMPANY

GENERAL OFFICES • 3M CENTER • SAINT PAUL, MINNESOTA 55101 • TEL. (612) 733-1110

3M COMPANY
P.O. BOX 33331 • SAINT PAUL, MINNESOTA 55133

RECEIVED
FEB 20 1975
COMMISSIONERS OFFICE

February 19, 1975

Mr. Frank D. Marzitelli
Commissioner of Highways
411 State Highway Building
St. Paul, Minnesota 55155

Dear Mr. Marzitelli:

In the February 14, 1975 issue of the "Highway News" there is an article on Bicycle Lane Standards. Would you please send me a copy of the proposed rules?

Very truly yours,

Robert D. Owens, P.E.
Senior Traffic Engineering Specialist

RDO:mw

OCTOBER 1974

Regional Development Commission Chairmen and Staff Directors

REGION	CHAIRMAN	EXECUTIVE DIRECTOR
1 (Northwest)	Ervin Strandquist Newfolden Minnesota 56738 218/874-2305	Eugene Abbott 114 West 2nd Street Crookston, Minnesota 56716 218/281-1396
2 (Headwaters)	Al Monico Box 584 Bemidji, Minnesota 56601 218/751-3108	Richard A. Pearson Box 584 Bemidji, Minnesota 56601 218/751-3108
3 (Arrowhead)	Jerry Jubie 900 Alworth Building Duluth, Minnesota 55802 218/722-5545	Rudy Esala 900 Alworth Building Duluth, Minnesota 55802 218/722-5545
4 (West Central)	Keith Zarling 301 South 7th Street Breckenridge, Minnesota 56520 218/643-4834	John Sem Administration Building Fergus Falls Community College Fergus Falls, Minnesota 56537 218/739-9798
5 (Region Five)	Bernard Walz Sebeka Minnesota 56477 218/837-5511	Robert F. Benner 102 - 6th Street North Staples, Minnesota 56479 218/894-3233
6E (Six East)	Ernie Bullert Route 2 Glencoe, Minnesota 55336 612/864-3096	Eugene Hippe City Auditorium 311 West 6th Street Willmar, Minnesota 56201 612/235-8504
6W (Six West)	John Thompson 800 - 16th Street South Benson, Minnesota 56215 612/843-2573	Dennis Dahlem 128 West Sorenson Appleton, Minnesota 56208 612/289-1981
7E (East Central)	Robert H. Anderson 600 McLean Mora, Minnesota 55051 612/679-3863	John Hill Kanabec County Courthouse 18 North Vine Street Mora, Minnesota 55051 612/679-4065
7W (Central Minnesota)	Ralph Thompson Belgrade Minnesota 56312 612/346-2637	Otto Schmid 1139 Franklin Avenue Sauk Rapids, Minnesota 56379 612/253-7870
8 (Southwest)	F. A. "Jim" Miller 774 DesMoines Drive Windom, Minnesota 56101 507/831-1951	Mark Atchison 2711 Broadway Slayton, Minnesota 56172 507/836-8549

GION	CHAIRMAN	EXECUTIVE DIRECTOR
9 (Region Nine)	Daniel J. Keasling 246 Amber Lake Drive Fairmont, Minnesota 56031 507/238-1306	Dean Doyscher Manpower Services Building 709 North Front Street Mankato, Minnesota 56001 507/387-5643
10 (Southeastern)	John Linbo Sargeant Minnesota 55973 507/568-3332	Rolf Middleton 741 Marquette Bank Building South Broadway at 2nd Street SE Rochester, Minnesota 55901 507/289-8443
11 (Metropolitan Council)	John E. Boland 300 Metro Square Building 7th and Robert Streets St. Paul, Minnesota 55101 612/227-9421	Robert Jorvig 300 Metro Square Building 7th and Robert Streets St. Paul, Minnesota 55101 612/227-9421 Larry Kallam

Governor's Trail Advisory Committee Membership List

Governor's Liaison to the Governor's Trail Advisory Committee

Mr. Peter Gove
Office of the Governor
State Capital
St. Paul, Minnesota 55155
Phone: (612)296-3391

GTAC Members

1. Mr. David Braslau, Chairman
   University Park Plaza
   2829 University Avenue, Suite 342
   Minneapolis, Minnesota 55414
   Phone: (612)331-4571 (Office)
   (612)331-5797 (Home)

2. Shelby Anderson
   Route 6 Box 69
   Anoka, Minnesota 55303
   Phone: (612)421-4363

3. Mr. Jon Bremer
   2782 Dean Boulevard
   Minneapolis, Minnesota
   Phone: (612)922-7609

4. Mr. Jim Campbell
   733 Memorial Drive
   Crookston, Minnesota 56716
   Phone: (218)281-5334 (Office)

5. Mr. Raymond E. Carson
   9141 Congdon Boulevard
   Duluth, Minnesota
   Phone: (218)727-4522 ext. 251 (Office)
   (218)525-2143 (Home)

6. Mr. Robert Cartford
   3456 White Bear Avenue
   White Bear Lake, Minnesota 55110
   Phone: (612)777-5926

7. Mr. George Colarich
   P.O. Box 9511
   Minneapolis, Minnesota 55440
   Phone: (612)335-8241

8. Mr. Rolland Comstock
   145 Spring Valley Drive
   Bloomington, Minnesota
   Phone: (612)888-2330

9. Mr. Richard Dethmers
   487 Montrose Lane
   St. Paul, Minnesota
   Phone: (612)296-2339 (Office)

10. Mr. Andrew Duncan
    1150 West Skillman
    St. Paul, Minnesota
    Phone: (612)488-9806

11. Lyn Erickson
    11511 Robbinwood Circle
    Minnetonka, Minnesota
    Phone: (612)938-1172

12. Mr. Alex Gallus
    716 N.E. Adams Street
    Minneapolis, Minnesota
    Phone: (612)338-8196

13. Mr. Milford Gentz
    Route 1
    Lakefield, Minnesota 56150
    Phone:

14. Mr. Lyle Haseltine
    608 S.W. 2nd Avenue
    Forest Lake, Minnesota
    Phone: (612)464-2285 (Office)

15. Mr. Bob Illingworth
    6750 France Avenue South
    Minneapolis, Minnesota 55435
    Phone: (612)920-6412 (Office)
    c/o Elster Agency

16. Ms. Marie Kelly
702 Park Place
St. Cloud, Minnesota 56301
Phone: (612)252-5070

17. Mr. Tim B. Knopp
Green Hall
University of Minnesota
St. Paul Campus
St. Paul, Minnesota 55101
Phone: (612)373-0831 (Office)

18. Mr. Dayton Larson
Area Ex ension Office
2215 East Fifth Street
Duluth, Minnesota 55812
Phone: (218)726-8126

19. Mr. Ray Loomis
6955 1st Avenue South
Richfield, Minnesota 55423
Phone: (612)869-4192

20. Mr. Roderick MacRae
1925 Irving Avenue South
Minneapolis, Minnesota 55403
Phone: (612)377-0130

21. Mr. Ken Nebel
2402 East 5th Street
Duluth, Minnesota 55812
phone: (218)727-6692 ext. 372 (Office)

22. Mr. Lloyd A. Nelson
115 Echo #403
Mankato, Minnesota 56001
Phone: (507)388-6261 (Office)

23. Mr. Edward Nicholson
1601 East River Terrace
Minneapolis, Minnesota
Phone: (612)

24. Ms. Jean Replinger
300 North Hill
Marshall, Minnesota 56358
Phone: (507)

25. Mr. J. Harrington Richards
17710 26th Avenue No th
Wayzata, Minnesota 55391
Phone: (612)545-2851 ext. 4130 (Office)

26. Mr. Robert H. Rygg
7851 Metro Parkway
Minneapolis, Minnesota 55420
Phone: (612)854-8005 (Office)

27. Mr. Wally Sande
319 Norwood Drive
Bemidji, Minnesota 56601
Phone: (218)

28. Mr. John Sem
Administration Building
Fergus Falls Community College
Fergus Falls, Minnesota 56537
Phone: (218)

29. Ms. Patricia D. Smith
Box 346
Ely, Minnesota 55731
Phone: (218)

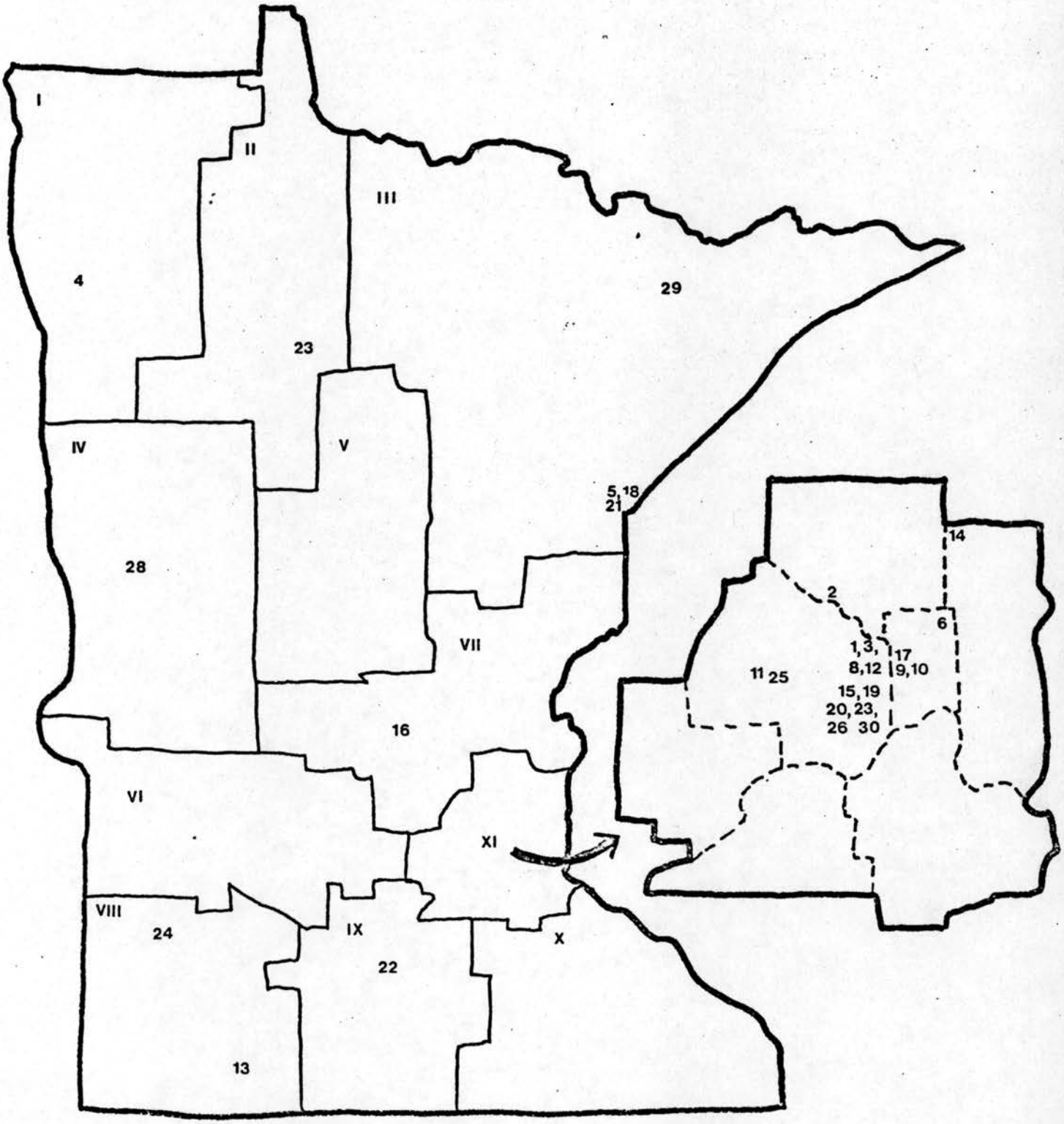
30. Mr. Edward K. Solstad
3701 Pillsbury Avenue South
Minneapolis, Minnestoa 55409
Phone: (612)822-0569

31. Franklin Star, Intern
Bureau of Environmental Planning and Protection
Department of Natural Resources
300 Centennial Office Building
St. Paul, Minnesota 55155
Phone: (612)296-4891 (Office)

Leonard Neiman
Room 1141
Radisson Center
44 South 7th Street
Minneapolis, MN 55402

Thomas Gauvin
401 27th Street NE
Rochester, MN 5590[illegible]

Map Location of GTAC Members



NAME	REPRESENTING	ADDRESS/PHONE
Jim Stahnke	St. Paul Public Works	200 Lowry Bldg. 298-5311 55102
Ed Warn	St. Paul Planning	421 Wabasha, 55102 298-4513
Mike Ryan	Ramsey Co. Open Space Trails Coord.	520 Commerce Bldg., 5510 298-5566 55101
David Braslau	Chairman, G.T.A.C.	2829 Univ. Ave. S.E. Suite 342, Mpls, 55414
Franklin Star,	Intern GTAC/STC	Bureau of Environmental Planning & Protection DNR 296-4891
John Lilly	DNR-Trails Section	1000 E. 51st St., Mpls. 55417
James Zenner	Dept. of Public Safety Highway Safety & Research	211 Hwy. Bldg., St.Paul 296-6953 55155
Karen Peterson	Assoc. Planner	Bloomington 2215 W. Old Shakopee Rd. 55431
Connie Kozlak	Metro Council, Transp. Dept.	Metro Sq. Bldg. 7th & Robert Str., St.Paul 55101
Elaine Stanley	Metro Council	Metro Sq. Bldg. 7th & Robert Str., St. Paul 55101
Barb Quade	U of M, Campus Bicyle Coord.	Physical Planning 503 Morrill Hall, Mpls 55455
Mark Hendrickson	Assoc. Planner	6700 Portland Ave. So. Richfield 55423
Tom Becker	City of Mpls, Traffic Engineering	Rm. 211, City Hall Mpls. 55415
Mike Fugleberg	City of Mpls, Planning & Dev. Dept.	888 Pillsbury Bldg. Mpls. 348-6520 55402
Bob Ready	City of Mpls, Planning & Dev. Dept.	888 Pillsbury Bldg. Mpls. 348-7553 55402
Al Wittman	Mpls. Park & Rec. Bd.	250 S. 4th St., Mpls 55415 348-2222 55401

Phyllis Kahn	State Representative	215 SOB 296-4257
[illegible]l Craig	Mpls. Citizen's Advisory Com. for Bikeway Planning	311 Walter Library U of M Mpls. 55455 373-7833
Chris Enger	City of Eden Prairie	8950 Eden Prairie Rd. 55436
Peter Johnson	City of Minnetonka	14600 Minnetonka Blvd. 55364
Ray Adolfson	MHD - Standards	G-20 Central Office 296-6116 55155
Brian Vollum	MHD - Dist. 5	2055 N. Lilac Dr. Mpls. 55422 545-3761
Carl Hoffstedt	MHD - Dist. 5	2055 N. Lilac Dr. Mpls. 55422 545-3761
R. H. Cartford	MHD - Dist. 9	3485 Hadley Ave. St.Paul 55109 770-2311
~~Frank Heng~~	~~MHD - Standards~~	~~G-20 Central Office~~ 296-6162 55155
~~Paul Qualy~~	~~MHD~~	~~408 Central Office~~ 296-6406
~~Bruce Warzala~~	~~MHD - TP&P~~	~~815 Central Office~~ 296-3028
~~Lyle L. Hansen~~	~~MHD - TP&P~~	~~814 Central Office~~ 296-3134
~~Ken H. Bjork~~	~~MHD~~	~~407 Central Office~~ 296-3113
Lyle D. Peterson	MHD - Dist. 5	2055 N. Lilac Dr. Mpls. 55422 545-3761

BICYCLING

User Organizations:

Racing:

Amateur Bicycle League of America, Inc. (ABLA)
P.O. Box 669, Wall Street Station
New York, New York 10005
(The governing body of amateur bicycle racing in the United States)
Minnesota Representative - ABLA
Mr. Phil Voxland
921 24th Avenue South
Minneapolis, Minnesota 55406
Phone: (612) 373-5599 (Office)
(612) 338-4050 (Home)

Touring:

American Youth Hostels, Inc. (AYH)
Delaplane, Virginia 22025
(Promotes low-cost activities for all age groups, many bicycling tours, charters and bike hikes. Publications which prepare for bike touring and bike vacations.)
Minnesota Council - AYH
Mailing address:
P.O. Box 9511
Minneapolis, Minnesota 55440
Office: Room 104
57 South 4th Street
Minneapolis, Minnesota 55401
Phone: (612) 336-2594
Executive Director, Minnesota Council - AYH
Mr. George Colarich
Phone: (612) 336-2594

Bicycle Touring League of America
Dr. Roland Geist
260 West 260 Street
Bronx, New York 10471
(Some organized charter bike tours of Europe and other countries. Adult-oriented. Provides suggested tours in U.S. and world. Stamped envelope brings detailed information.)

International Bicycle Touring Society (IBTS)
Dr. Clifford Graves
846 Prospect Street
LaJolla, California 92037
(Provides bicycle touring information and organizes many domestic and international tours for adult Americans. Descriptive folder available.)

League of American Wheelmen (LAW)
19 South Bothwell
Palatine, Illinois 60067
Executive Director: Morgan Groves
(Promotes extended bicycle trips for experienced cyclists, and serves as coordinating agency for most American Bicycle clubs. Organizes many long-distance tours each year.

Minnesota Representative - LAW
Mr. Tom Pegors
2736 Lee Avenue
Golden Valley, Minnesota 55422
Phone: (612) 588-2749 (Work)
(612) 522-1697 (Home)

LAW Bulletin
Editor Phyllis Wittarmon
356 Robert Avenue
Wheeling, Illinois 60090
(Newsletter describes all major sponsored long-distance bicycle tours in the nation.)

Trade Organizations

Bicycle Institute of America, Inc. (BIA)
122 East 42nd Street
New York, New York 10017
Phone: (212) 697-6340
(Represents the American bicycle industry on matters of safety, facilities development, legislation. Provides a list of free safety and bikeways literature. Membership limited to industry.)

National Bicycle Dealers Association
29025 Euclid Avenue
Wickliffe, Ohio 44092
(Organization of bicycle dealers)

Other Organizations

Bikecentennial 76
317 Beverly Avenue
Missoula, Montana 59801
(Bikecentennial is a private organization promoting the establishment of a permanent, coast to coast bike trail.)

Friends of Bikecology
1035 East DeLaGuerra Street
Santa Barbara, California 93101
(Friends for Bikecology is a private organization that is promoting bicycling.)

Metropolitan Association of Urban Designers and Environmental Planners (MAUPED)
P.O. Box 722
Church Street Station
New York, New York 10008
(Sponsors Bicycle/Pedestrian Planning and Design Seminars)

HIKING

User Organizations

National Campers and Hikers Association, Inc. (NCHA)
7172 Transit Road
Buffalo, New York 14221
(The NCHA is a family camping organization. It is a non-profit, volunteer, educational organization. Its aims are to educate the public in the necessity of conservation of our natural resources and to enhance the recreational level of people throughout North America and the world.)

Minnesota North Star State Association
c/o Mr. Ed Grassl, President
2309 Sherwood Circle
Bloomington, Minnesota 55431

National Hiking and Ski Touring Association (NAHSTA)
P.O. Box 7421
Colorado Springs, Colorado 80933
(The National Hiking and Ski Touring Association is a non-profit corporation devoted to the research, planning and rebuilding of America's trails and to the encouragement of the walking, hiking, ski touring and orienteering use of these trails.)

National Trails Council
53 W. Jackson Blvd.
Chicago, Illinois 60604
(312) 427-4256
(The National Trails Council is a national body organized to support the planning, promotion, and execution of trails systems at the local, county, state, regional and national levels; to establish guidelines for all kinds of trails; and to effect land use planning. This is to be accomplished by providing resources to planning agencies, services to trail organizations, reports to federal agencies and the promotion of responsible local projects.

North American Trail Complex (NOAMTRAC)
P.O. Box 3367
Tucson, Arizona 85722
(to research, design, map and coordinate the establishment of an interlocking network of foot trails throughout Canada, the United States and Mexico, to support the wilderness and natural area protection, and to help stimulate concern for preservation of the natural environment.)

HORSEBACK RIDING

User Organizations

Arrowhead Association of Saddle Clubs
c/o Betty Johnson
4672 Midway Road
Duluth, Minnesota 55811
(218) 729-7355

Equestrian Trails, Inc.
10639 Riverside Drive, Suite 102
North Hollywood, California 91602
(A non-profit organization dedicated to equine legislation and the acquisition and preservation of riding and hiking trails in the state of California and throughout the United States.)

Minnesota Horse Council
c/o W. G. Schroeder, DVM, President
14817 McGinty Road
Wayzata, Minnesota 55391
Phone: (612) 938-5555
(The Minnesota Horse Council is composed of horse breed and other horse oriented associations. The purpose of the Minnesota Horse Council is to promote and protect state-wide equestrian opportunities.)

Trails Committee
c/o Shelby Anderson
Route 6, Box 69
Anoka, Minnesota 55303
(612) 421-4363

Western Saddle Clubs Association, Inc. (WSCA)
c/o Benny Van Cleve
Route 2, Box 244
Lakeville, Minnesota 55044
Phone: (612) 461-2031
(The WSCA is promoting the use of Western type horse for pleasure and competition. It is interested in preserving and developing trails.)

Trails Committee
c/o Pat Moriarty
4832 Otter Lake Road
White Bear Lake, Minnesota 55110
Phone: (612) 474-5845

MOTORCYCLING

User Organizations

American Motorcycling Association (AMA)
P.O. Box 141
Westerville, Ohio 43081
(614) 891-2425
(The American Motorcycle Association is an Association of motorcycle owners interested in both on and off road motorcycling. The AMA lobbies for the motorcyclist's interests and promotes motorcycling safety. The AMA is the official sanctioning body for all national championship trails, enduro and track racing series motorcycling events.)

Trade Organizations

Motorcycle Industry Council, Inc. (MIC)
1001 Connecticut Avenue
Washington, D.C. 20036
(202) 872-1381
(The Motorcycle Industry Council is a non-profit trade association which represents manufacturers and distributors of motorcycles, motorcycle parts and equipment, members of allied trades and franchised motorcycle dealers. MIC works with governmental regulators helping them in establishing fair and effective regulations for motorcycles. For example, four areas MIC is continuously involved in are noise abatement, emission standards, land use and safety.)

Minnesota Motorcycling Industry Council, Inc.
c/o Bob Illingworth, President - Executive Director
6750 France Avenue So.
Suite 203
Minneapolis, Minnesota 55435
(612) 920-6412
(The M.M.I.C. is an incorporated, non-profit association of motorcycle dealers in the state of Minnesota. Other members of the Council are parts and accessories dealers, and other allied trades retailers. The MMIC serves as an effective voice for the viewpoints of its members and employs a legislative advocate to deal with matters before the state legislature. This organization concerns itself with the public image of motorcycling, and works to strengthen that image. Input from motorcycle clubs and the motorcycling consumers is sought out and included in the overall MMIC program. The goal of MMIC is to be a unified spokesman for the world of motorcycling. This Minnesota organization is a recognized affiliate of the national Motorcycle Industry Council located in Washington, D.C.

SKI TOURING

User Organizations

Minnesota Federation of Ski Touring Clubs (MINNTOUR)
4312 Coolidge Avenue
Minneapolis, Minnesota 55424
Phone: (612) 920-5730
(The purpose of the Minnesota Federation of Ski Touring Clubs is to represent Minnesota ski tourers. Objectives are: to encourage and assist in development of ski touring trails and facilities within the state of Minnesota; to facilitate communication and cooperation between Minnesota's ski touring clubs, and; to promote the sport of ski touring. See club section page for listings of member clubs.)

National Hiking and Ski Touring Association (NAHSTA)
P.O. Box 7421
Colorado Springs, Colorado 80933
(The National Hiking and Ski Touring Association is a non-profit corporation devoted to the research, planning and rebuilding of America's trails and to the encouragement of the walking, hiking, ski touring, and orienteering use of these trails.)

United States Ski Association (USSA)
1726 Champa Suite 300
Denver, Colorado 80202
(Working under administrative direction of the recreational skiing vice president, the USSA's Hut, Mountaineering, and Ski Touring Committee, with its national chairman and 8 divisional chairmen, is conducting programs in trail directories and guides, touring instructor certification, bibliography, retailer and skier education, a facilities inventory and development program with the United States Forest Service, and other similar efforts. USSA also supervises competitions in cross country skiing.)
USSA - Central Division
P.O. Box 66014
AMF - O'Hare
Chicago, Illinois 60666
USSA - Area Representative for Ski Touring
Mr. Robert Larson
5352 1st Avenue South
Minneapolis, Minnesota 55419

Ski Touring Council
c/o Rudolf F. Mattesich, President
West Hill Road
Troy, Vermont 05868
(802) 744-2472
(The Ski Touring Council is a non-commercial membership committee whose purpose is to promote the sport of ski touring. The council works with all organizations Federal, State, community, clubs, schools in its promotion of this sport.)

Trade Organizations

North Country Ski Touring Foundation (NCSTF)
Box 479
Walker, Minnesota 56484
(The NCSTF is a non-profit organization of resorters whose purpose is to develop ski touring in the Walker area. Their first order of business is trails for skiers which will not be used by snowmobilers.)

SNOWMOBILING

User Organizations

International Snowmobile Association (ISA)
c/o Loren Filter, President
11 Evergreen Lane
Babbitt, Minnesota 55706
Phone: (218) 741-7893
(The ISA is an association of snowmobile clubs)

International Snowmobile Council (ISC)
Dr. Donald Duddles, Co-Chairman
7021 Crystal Avenue
Beulah, Michigan 49617
Monsieur Rejean Demers, Co-Chairman
702 Route Marie
Victorin, Ste. 4
Tracy, Quebec
J3R1K7
W.T. Jobe Jr., Secretary
2502 Leesburg Pike
Falls Church, Virginia 22041
(The ISC is an international organization of state snowmobile associations and related groups)

Minnesota Association of Snowmobilers (MAS)
c/o Lyle Haseltine, Executive Director
Box 428
Forest Lake, Minnesota 55025
Phone: (612) 464-2285
(The MAS is a non-profit organization of snowmobile clubs dedicated to safe, responsible snowmobiling.)

Duluth Area Association of Snowmobile Clubs (DAASC)
Leo Kennedy, President
P.O. Box 6395
Duluth, Minnesota 55806
(The DAASC is made up of delegate from the 11 snowmobile clubs of Duluth. Its purpose is to act as liaison between national, state and municipal governing bodies and the snowmobiling public; to insure an adequate safety program in our area; to help enforce laws regulating snowmobiling as set up within the City of Duluth; to promote better public relations between the general public and the snowmobiler as well as within the sport itself; to correlate development of new trails and the maintenance thereof; to lend assistance to groups wishing to form new clubs.)

Trade Organizations

International Snowmobile Industry Association (ISIA)
2505 Leesburg Pike
Falls Church, Virginia 22041
Phone: (703) 379-9100
(The ISIA is an association of snowmobile manufacturers.)
Midwest ISIA Division
c/o Mr. Robert H. Rygg, Director
7851 Metro Parkway
Minneapolis, Minnesota 55420
Phone: (612) 854-8005

Snowmobile Leisure Equipment Distributors (SLED)
c/o Mr. Robert Rygg, Director
7857 Metro Parkway
Minneapolis, Minnesota 55420
Phone: (612) 854-8005
(SLED is an organization of snowmobile distributors.)

OTHER USER GROUPS

Farm Lake Multi-Purpose Trail Association
c/o Robert Klaesger, Trail Administrator
Route 1, Box 3111
Ely, Minnesota 55731
Phone: (218) 365-4879
(The Farm Lake Multi-Purpose Trail Association is a newly formed organization now in the process of building a multi-purpose trail from County Road 16 across country (approx. 35 miles) to Highway 1. In the winter it will be primarily used for snowmobiles and sled dogging. In the summer its primary use will be for hiking. It is state funded.)

Ely Sled Dog Assocation
Box 247
Ely, Minnesota 55731
(The Ely Sled Dog Association Trail is used annually for the All American Championship Races which is the largest sled dog race in the lower 48 states. After the racing season the trail is open for snowmobile also. It is maintained and funded at present by the Ely Sled Dog Association.)
Mr. Randy Housey, Trail Chairman
1420 N. 19th Avenue E.
Ely, Minnesota 55731
Phone: (218) 365-4422

Hubbard County Trails Association
c/o T. J. (Jerry) Maley
Headwaters Sports Center
Highway 34 East
Park Rapids, Minnesota 56470
(Initial specific objective of the Hubbard County Trails Association is the acquisition of an abandoned Burlington Northern right of way from Cass Lake to Park Rapids for use as a recreational trail. The Association was instrumental in the formation of a Hubbard County Parks Board.)

Goodhue County Trails Association
c/o Mr. Arlon Ringeisen, President
Goodhue, Minnesota 55027
Phone: (612) 923-4758
(This is an organization primarily interested in the development of snowmobile trails, but at the same time, feel they should be year round, multi-purpose trails for snowmobiles, hikers, bikers and horses.)

Wadena County Crow Wing Trails Association
c/o Lee Schumacker
Rural Route
Menahga, Minnesota 56464
(This is an organization whose primary function is to promote the use of the recreational trails that have been established in Wadena County.)

Northwest Area Trails Development Association
c/o Mr. Ed Helgeson, President
614 Dayton Road
Champlin, Minnesota 55316
(612) 421-7072 (Office)
(612) 421-7793 (Home)
(The Northwest Area Trails Development Association is promoting coordinated trails in the North Hennepin area and working with the Hennepin County Park Reserve District on developing trails that would connect the Hennepin County Park Reserves.)

East Metro Trails Development Association
c/o John Saurs, Secretary
15326 11th Street S.
Afton, Minnesota 55001
(612) 436-5514 (Home)
(The East Metro Trails Development Association is promoting trails in the East Metro Area.)

State Trail Association
c/o John Kahler
1613 Dixon Drive
St. Paul Park, MN
(612) 459-3208
(The Star Trail Association is primarily interested in the development of snowmobile trails within the state of Minnesota.)

CLUBS

This section identifies individual clubs whose members use trails. The following information about each club has been included:

Column 1: Club Number - corresponds to numbers on the maps following the Club list.
Column 2: Name of Club, Address
Column 3: Name of Contact, Address, Phone Number. This contact is a person from whom more information about the club may be obtained.
Column 4: Number of members in club. Fam. means number listed is number of families in the club.
Column 5: Club Interests. The following is a key to the abbreviations in this column

- B - The club is interested in Bicycling
- C - Canoeing interest
- H - Hiking interest
- HB - Horseback riding interest
- ST - Ski Touring interest
- SM - Snowmobiling interest
- M - Motorcycling interest
- SS - Snowshoeing interest
- T - The Club has been involved in the planning, construction or maintenance of trails
- N - The Club publishes a newsletter.

Clubs which belong to the following larger organizations have been identified:

1. Minnesota Council, American Youth Hostels, Inc. (# 1-11)
2. League of American Wheelmen (#12,13)
3. International Snowmobile Association (#13-42)
4. Minnesota Federation of Ski Touring Clubs (#43-53)
5. Arrowhead Association of Saddle Clubs (#54-68)
6. Minnesota North Star State Association, National Campers and Hikers Association, Inc. (#70-101)
7. Duluth Area Association of Snowmobile Clubs (#216-226)

Also included are other clubs whose membership in a larger organization has not yet been identified (#102-215, 227-).

Also included in this section are maps for each of the activities. These maps locate the clubs interested in that activity. The numbers on the map correspond to those in Column 1 of the list of clubs.

The information included in this section was obtained through a post card-questionnaire survey (see Appendix). The post card and letter shown in the Appendix were sent to each of the clubs noted. Those clubs which did not return the survey will have Columns 3 and 4 blank.

NUMBER	NAME OF GROUP ADDRESS	NAME OF CONTACT ADDRESS PHONE	NUMBER OF MEMBERS	CLUB INTERESTS
	Minnesota Council, American Youth Hostels, Inc. Member Clubs			
1	Austin-Albert Lea AYH Club c/o John Meyer, Jr., Pres. Meyer Funeral Home Austin, MN 55912	Frank Rahfeldt 1003 8th Ave. N.W. Austin, MN 55912 (507) 437-6473	27	B, H, ST
2	Bloomington AYH Club c/o Tom Hardesty, President 10337 Little Road Bloomington, MN 55437 (612) 831-6522			B
3	Coon Rapids Hostel Club c/o Randy Stenson, President 11699 Juniper Coon Rapids, MN 55433 (612) 755-2285			B
4	Crystal Church AYH Club 6421 45th Ave. North Crystal, MN 55428	Paul Carlson 7759 Olympia Street Golden Valley, MN 55427 (612) 546-2936	18	B, C, H, ST, SS
5	East Calhoun Hostel Club c/o Charles Glaman, President 3233 E. Calhoun Blvd. Minneapolis, MN 55408	Charles Glaman 3233 E. Calhoun Blvd. Minneapolis, MN 55408 (612) 825-3889	10	B, C, HB, H, ST, SS
6	Golden Valley AYH Club c/o Greg Menk, President 1625 Zealand Avenue Minneapolis, MN 55427	Greg Menk 1625 Zealand Ave. Minneapolis, MN 55427 (612) 544-4379	16	B, C, ST, T
7	Owatonna Youth Hostel Club c/o Gregory L. Wright, President 345 E. Academy Owatonna, MN 55060			B
8	Robbinsdale AYH Club c/o Sheila Angland, President 3818 Crystal Lake Blvd. Minneapolis, MN 55422	Sheila Angland 3818 Crystal Lake Blvd. Minneapolis, MN 55422 (612) 588-8320	25	B, C, HB, H, ST
9	The Minnetonka AYH Wheelmen c/o Kevin Rust, Pres. 17145 Clear Springs Terrace Minnetonka, MN 55343 (612) 935-0931			B

NUMBER	NAME OF GROUP ADDRESS	NAME OF CONTACT ADDRESS PHONE	NUMBER OF MEMBERS	CLUB INTERESTS
10	West Richfield Jr. H.S. AYH Club c/o Jane Femrite, President 2926 Washburn Circle Richfield, MN 55423 (612) 869-7122			B
11	Worthington H.S. AYH Club c/o Suzanne Fenelle, Advisor 612 Strait Avenue Worthington, MN 56187	Suzanne Fenelle 612 Strait Avenue Worthington, MN 56187 (507) 372-2715	15	B, H
	League of American Wheelmen (LAW) Affiliated Clubs			
12	St. Croix Valley Wheelpeople c/o Steve Clark 804 Rainbow Court Stillwater, MN 55082	Steve Clark 804 Rainbow Court Stillwater, MN 55082 (612) 439-7257	46	B, C, ST, SS, N
13	St. Cloud Cycle Club c/o Don Andrews 1515 8th Avenue N. St. Cloud, MN 56301	Don Andrews 1515 8th Avenue N. St. Cloud, MN 56301 (612) 251-5297	30	B, C, ST
	International Snowmobile Assocation (ISA) Member Clubs			
14	Arrowhead Snow Trak c/o Donald Gassert Moose Lake, MN 55767			SM
15	Babbitt Knight Riders c/o Sharon Beckman Box 193 Babbitt, MN 55706	Lawrence Kohanek Babbit, MN 55706 (218) 827-6077	127	SM, T
16	Britt Brush Busters c/o Char Arn Box 250 Britt, MN 55710			SM
17	Chippewa Riders c/o Violet Hansen [illegible]moon Rural State Deer River, MN 56637			SM
18	Chisholm Stump Jumpers c/o Larry Even 24 S.W. Third St. Chisholm, MN 55719			SM

NUMBER	NAME OF GROUP ADDRESS	NAME OF CONTACT ADDRESS PHONE	NUMBER OF MEMBERS	CLUB INTERESTS
19	Cook County Ridge Riders Grand Marais, MN 55604	Steve Benson Grand Marais, MN 55604 (218) 387-1531	145	SM, T
20	[illegible]k River Stump Bumpers c/o Robert Reini Route 1, Box 143 Britt, MN 55710	Robert Reini Route 1, Box 143 Britt, MN 55710 (218) 258-3908	12	SM
21	Driftbusters c/o Mary Jean Sterbenk Box 112 Winton, MN 55796			SM
22	Driftskippers c/o Mary O'Brien 3113 LaPlant Rd. Grand Rapids, MN 55744	Mary O'Brien 3113 LaPlant Rd. Grand Rapids, MN 55744 (612) 326-6106	32	SM, T
23	Ely Igloo Snowmobile Club c/o Mary Paris 1115 East Madison St. Ely, MN 55731	Edward Junke 1139 E. Washington St. Ely, MN 55731 (218) 365-4445	108	H, ST, SM, T
24	[illegible]y Lake Sno-Rangers Woodlawn Ave. Eveleth, MN 55734	Dick Obidowski Woodlawn Avenue Eveleth, MN 55734 (218) 741-5225	20	B, SM, T
25	Hill & Gully Riders c/o Mrs. Daniel Malterud Route 1, Box 180 Eveleth, MN 55734	Bruce Malterud Box 2 Differding Point, MN (218) 749-2161	28	SM, T
26	Kabetogama Sno Drifters c/o Bev Pedpeskar Ray, MN 56669			SM
27	Laurentian Igloo c/o Larry Landmark Route 1 Embarrass, MN 55732			SM
28	Lost Brigade c/o Wanda Tornow [illegible]x 115 Embarrass, MN 55732			SM
29	Mesabi Igloo c/o Mrs. John Sepin Route 1, Box 466 Eveleth, MN 55734			SM

NUMBER	NAME OF GROUP ADDRESS	NAME OF CONTACT ADDRESS PHONE	NUMBER OF MEMBERS	CLUB INTERESTS
30	Mesabi Snow Voyageurs Box 374 Virginia, MN 55792	D. Marvin Hill 625 South 13th St. Virginia, MN 55792 (218) 749-2286	30 Fam	SM, T
31	[illegible]e Owls c/o Romaine Menard Pengilly, MN 55775			SM
32	Northern Lites c/o Ray Gunville 3226 Second Avenue W. Hibbing, MN 55746			SM
33	Outcrowd Sports Club c/o Evelyn Pratt Box 383 Marble, MN 55764			SM
34	Range Riders c/o Pat Medure Kinney, MN 55758	Serverin Thielen Kinney, MN 55758 (218) 258-3338	13 Fam	SM, T
35	Ridge Riders c/o Mrs. Richard Oksanen Box 644 Gilbert, MN 55741			SM
36	Silver Sledders Box 55 Silver Bay, MN 55615			SM
37	Snowmonauts c/o Silvia Alt Route 1 Angora, MN 55703			SM
38	Timberwolves c/o Nancy Erickson Route 1, Box 29A Angora, MN 55703			SM
39	Trailblazers Route 1, Box 245 Hibbing, MN 55746			SM
40	[illegible]million Penguin Club c/o Marcia Vietanen Route Box 179 Tower, MN 55790	Edward Van Heumen Birch Point Road Tower, MN 55790 (218) 753-2344	34	SM, T
41	Waasa Snow Drifters c/o Donald Foster Route 2, Box 263 Embarrass, MN 55732			SM

NUMBER	NAME OF GROUP ADDRESS	NAME OF CONTACT ADDRESS PHONE	NUMBER OF MEMBERS	CLUB INTERESTS
42	Winter Wasps c/o Judith Mattson Star Route Brookston, MN 55711			SM
	Minnesota Federation of Ski Touring Clubs (MINNTOUR) Member Clubs			
43	Bunker Hills Ski Touring Club P.O. Box 33115 Coon Rapids, MN 55433	Roger Geis 520 Dover St. N.E. Minneapolis, MN 55432 (612) 784-4612	100	B, ST, T, N
44	Duluth Ski Touring Club c/o Tom Jordan 2249 Dunedin Avenue Duluth, MN 55803	Tom Jordan 2249 Dunedin Avenue Duluth, MN 55803 (218) 724-4466	95	ST, T
45	Grand Marais Ski Touring Club c/o Norris Hystad Grand Marais, MN 55604	Norris Hystad Grand Marais, MN 55604 (218) 387-2991	65	ST, T
46	Marine-on-St. Croix Ski Touring Club Marine-on-St. Croix, MN 55047	Ralph Malmberg Marine-on-St. Croix, MN 55047 (612) 433-2445	25	B, C, H, ST, T
47	Nordic Skiers P.O. Box 176 Owatonna, MN 55060	Lyle E. Templer 1450 7th Avenue N.E. Owatonna, MN 55060 (507) 451-9590	96	B, C, H, ST, SS, N
48	North Star Ski Touring Club P.O. Box 15052, Commerce Station Minneapolis, MN 55415	Tim Knopp 3085 Old Highway 8 St. Paul, MN 55113 (612) 636-3244	915	ST, T
49	Paul Bunyan Ski Touring Club c/o Wally Sande 319 Norwood Drive Bemidji, MN 56601	Wally Sande 319 Norwood Drive Bemidji, MN 56601 (218) 757-1260	95	B, C, H, ST, T, N

NUMBER	NAME OF GROUP ADDRESS	NAME OF CONTACT ADDRESS PHONE	NUMBER OF MEMBERS	CLUB INTERESTS
50	SkiTasca Ski Touring Club Box 393 Pengilly, MN 55775	Marion V. Barta Box 393 Pengilly, MN 55775		ST
51	[illegible]A - Central Division Ski Touring Committee 5352 First Avenue S. Minneapolis, MN 55419	Bob Larson 5352 First Avenue S. Minneapolis, MN 55419 (612) 825-2172		ST
52	Voyageurs Ski Touring Club Box 503 Island View Route International Falls, MN 56649	Jack Haase Box 503 Island View Route International Falls, MN 56649 (218) 286-4863	100	C, ST, T
53	Walker Ski Touring Club c/o Rev. Carl Prostka Box 307 Walker, MN 56484	Rev. Carl Prostka Box 307 Walker, MN 56484 (218) 547-1330	18	ST, T
	Arrowhead Association of Saddle Clubs Member Clubs			
54	[illegible]uglas County Saddle Club c/o Geo. Love Route 1, Box 429 Superior, Wisconsin			HB
55	Itasca Sunset Saddle Club c/o Mary Jean Eichorn Route 1, Box 35 Bovey, MN 55709	Mary Jean Eichorn Route 1, Box 35 Bovey, MN 55709 (218) 245-2395	160	HB
56	Carlton County Saddle Club c/o Toddy Holznagle 1543 Airport Road Cloquet, MN			HB
57	Iron Range Saddle Club c/o Lyle LaBarge Route 1, Box 65A Chisholm, MN 55719			HB
58	T-K Saddle Club [illegible] Gloria Kollerhuis [illegible]ute 3, Box 662K Lismore Road Duluth, MN	Tom Kellerhwis Box 622 K, Route 3 Duluth, MN 55803 (218) 728-3375	30	HB,
59	Midwest Riders c/o Rita Butterfield Box 123 Barnum, MN 55707	Bordon Aanerud Carlton, MN 55718 (218) 384-4697	50	HB

NUMBER	NAME OF GROUP ADDRESS	NAME OF CONTACT ADDRESS PHONE	NUMBER OF MEMBERS	CLUB INTERESTS
60	Little Fork Saddle Club c/o Josie Promersberger Littlefork, MN 56653			HB
61	Pike Lake Riders 4672 Midway Road Duluth, MN 55811			HB
62	Circle H Ridein Club c/o Vern Chandler Dupont Road Box 330A Hibbing, MN 56401	Vicki Del Grande Townline Road Hibbing, MN 55746 (218) 263-5345		HB, T
63	Duluth Saddle Club c/o Leo Johnson Route 4, Box 427D Duluth, MN 55803	Ms. Beth Luther 508 N. 58th Ave. E. Duluth, MN 55804 (218) 525-2639	112	HB, T
64	Northwoods Saddle Club c/o Laurel Bjorge Route 1, Box 66 Embarrass, MN 55732	Curt Christianson Route 2, box 191 Embarrass, MN 55732 (218) 984-2773	30	HB
65	Three Rivers Saddle Club c/o Jean Jensen Route 1, Box 226C Saginaw, MN 55779			HB
66	Normanna Riding Club c/o Michaelie Luzella 617 Irving Place Duluth, MN 55812			HB
67	Brainerd Saddle Club c/o John Sunby Route 3 Brainerd, MN 56407			HB
68	Itasca County Sheriffs Posse c/o John Ritter Route 3, Box 291 Grand Rapids, MN 55744			HB

NUMBER	NAME OF GROUP ADDRESS	NAME OF CONTACT ADDRESS PHONE	NUMBER OF MEMBERS	CLUB INTERESTS
	National Campers and Hikers Association, Inc. Minnesota North Star State Assoc. Member Clubs			
70	Arrowhead Campers c/o Howard Mason 5610 Highland St. Duluth, MN 55807	Howard B. Mason 5610 Highland St. Duluth, MN 55807 (218) 624-3011	8 fam.	H, SM, M, T
71	Bozu-Nege c/o Leslie Anderson 5704 43rd Ave. S. Minneapolis, MN 55417	Will DeHarpporte 4441 Standish Ave. S. Minneapolis, MN (612) 724-0798	13 fam	B, HB, H, T
72	Caboose Campers c/o Howard Stensund 2422 Nanticoke St. Duluth, MN 55811			H
73	Camden Vikings c/o Floyd Schultz 310 A St. Marshall, MN 56258			H
74	Camper Scampers c/o Dennis Miest Route # 1 St. James, MN 56081	Campers Scampers 704 Armstrong Blvd. St. James, MN 56081 (507) 375-5574		C, H, SM, N
75	Camper Trampers c/o Arno Bergstrom Route 3 New Ulm, MN 56073	Arno Bergstrom Route 3 New Ulm, MN 56073 (507) 228-8527	30	B, C, H
76	Cloud Chasers c/o Russel Tidd 1001 Washington Mem. Drive St. Cloud, MN 56301			H
77	Cross Roads Campers c/o Clyde Dilling 1824 Bridge St. Albert Lea, MN 56007			H
78	Crystal Campers c/o Lois Degendorfer 6309 Brentwood N. Crystal, MN 55428			H
79	Dan Patch c/o Harley & Jean Hatch 8529 Bryant Ave. S. Bloomington, MN 55420			H

NUMBER	NAME OF GROUP ADDRESS	NAME OF CONTACT ADDRESS PHONE	NUMBER OF MEMBERS	CLUB INTERESTS
80	Go-pher Fun c/o Ray Hammer 846 87th Ave. W. Duluth, MN 55806	Ray Hammer 846 87th Ave. W. Duluth, MN 55806 (218) 626-1166	100	B, C, H, ST, N
81	Kaposia Kampers c/o Paul Gersmeyer 1608 E. 3rd St. St. Paul, MN 55106			H
82	Minni-Camp=Hi c/o Virginia Alverson 4723 Beard Ave. S. Minneapolis, MN 55410	Mrs. Virginia Alverson 4753 Beard Ave. S. Minneapolis, MN 55410	48	B, C, H, ST, SS, N
83	Minnesota Lamplighters c/o Don Langanki, Pres. 1831 Onacrest Drive St. Paul, MN 55117	Don Langanki 1831 Onacrest Drive St. Paul, MN 55117 (612) 484-0019	18 fam	B, H, SM, N
84	Minnetirees c/o Phillip Seamans 5216 Newton Ave. Minneapolis, MN 55430			H
85	Moose on the Loose c/o Robert Peterson Route # 1 Barnum, MN 55767			H
86	Nobles Campers c/o John Lucht 608 Humiston Worthington, MN 56187	Charles Kennedy P.O. Box 571 Worthington, MN 56187 (507) 376-5623	50 fam.	B, H, SM, N
87	Ore Capital Nomads c/o Walter Meyer 3226 2nd Avenue E. Hibbing, MN 55746	Walter Meyer 3226 2nd Avenue E. Hibbing, MN 55746 (218) 262-1332		B, H, SM
88	Otter Go Camping c/o Joe Hovland 702 W. Spruce Fergus Falls, MN 56537			H
89	Prairie Schooners c/o Gene Francis 341 Fourth St. N.W. Blooming Prairie, MN 55917			H
90	Rambling Itascans c/o Arthur Nyman 406 Corey Ave. Coleraine, MN 55722			H

NUMBER	NAME OF GROUP ADDRESS	NAME OF CONTACT ADDRESS PHONE	NUMBER OF MEMBERS	CLUB INTERESTS
91	Rochester Roamers c/o Jack Roeder 343 2nd Ave. N.E. Byron, MN 55901			H
92	Roving Robins c/o Howard Maas 8008 Georgia Ave. No. Brooklyn Park, MN 55445	Howard Maas 8008 Georgia Ave. Minneapolis, MN 55445 (612) 561-6746	15 fam.	H
93	Rovin Rogues c/o Herb Lambert 16506 Frazer Way Rosemount, MN 55068			H
94	Shagosh Kodians c/o Gary Larsen 461 S. Todd St. Long Prairie, MN 56347			H
95	Sioux Trailers c/o Hank Bell 13200 Irving Ave. S. Burnsville, MN 55337			H
96	Spamtown Campers c/o Jim Juenger 812 9th Avenue S.E. Austin, MN 55912			H
97	Traveling Saints c/o Edward Jensen 1478 Charles Ave. St. Paul, MN 55104			H
98	Valley Vagabonds c/o Herb Olson 724 N. 12th St. Moorhead, MN 56560			H
99	Valley Voyagers c/o Milton Henke 218 W. First Blue Earth, MN 56013			H
100	Vikingland Rovers c/o Harlan Campbell Route #5 Alexandria, MN 56308			H
101	Young Northeners c/o Fred Strub 1286 Lafond Avenue St. Paul, MN 55104			H

	NAME OF GROUP ADDRESS	NAME OF CONTACT ADDRESS PHONE	NUMBER OF MEMBERS	CLUB INTERESTS
	Other Clubs			
2	Alex Touring Club Viking Sports Alexandria, MN 56308	David Abel Viking Sports Alexandria, MN 56308 (612) 736-3000	60	B, C, ST, T
3	3M Ski Touring Club c/o Sharon Ecker 3M Co., 3M Center Bldg. 220-2E St. Paul, MN 55101	Steve Mills 3M Company - 3M Center Bldg. 224-1 St. Paul, MN 55101 (612) 733-7113	60	ST, T
4	Sunrise Riders Box 33 Stockton, MN 55988	Melanie Riemann Box 33 Stockton, MN 55988 (507) 689-2726	19	HB, T
5	Greenway Snowmobile Club Box 383 Ma[illegible]le, MN 55764	Evelyn Prait Route 1 Box 84 Bovey, MN 55709 (218) 247-7786	115	SM, T
6	Sunset Saddle Club c/o C. Hibbard Rt. 1, Box 119 Albert Lea, MN 56007	C. F. Hibbard Route 1, Box 119 Albert Lea, MN 56007 (507) 373-8261	200	HB
7	UMC Conservation Club Owen Hall, University of MN Crookston, MN 56716	Dan Svedarsky U of M Crookston, MN 56716 (218) 281-6510	25	B, C, H, ST, T
8	Alden Snowgems Alden, MN 56009	Roger L. Peterson Alden, MN 56009 (507) 874-3613	30 fam	SM
9	The Trailmakers c/o Preston Brenon Glen Route Aitkin, MN 56431	Preston Brenon Glen Route Aitkin, MN 56431 (612) 684-2219	100+	B, M, SK, HB, SM, H
10	S[illegible]dle Club c/o James F. McNerney Box 720 Fairmont, MN 56031	James F. McNerney Box 720 Fairmont, MN 56031 (507) 235-5750	75	HB
11	Prairie Sno-Dogs Long Prairie, MN 56347	Math G. Zwilling Route 2, Long Prairie, MN 56347 (612) 732-3658	46	B, C, HB, H, ST, SM, M, SS, T

NUMBER	NAME OF GROUP ADDRESS	NAME OF CONTACT ADDRESS PHONE	NUMBER OF MEMBERS	CLUB INTERESTS
2	Minnesota Canoe Assoc., Inc. Box 14177 University Station Minneapolis, MN 55414	Dr. Joseph Conrad 1431 Englewood Ave. St. Paul, MN 55104 (612) 645-8365	1,400	C, T, N
3	Moon Shiner Snowmobile Club Twin Valley, MN 56584	Harold Allrich Box 541 Twin Valley, MN 56584 (218) 584-8431		SM
4	Sierra Club Box 80004 St. Paul, MN 55108	Dan Flory 4614 Edgebroch Place Minneapolis, MN 55424 (612) 926-6041	2,300	B, C, H, ST, SS, T, N
5	Hackensack Sno Bo's Hackensack, MN 56452	Gene Wolters Hackensack, MN 56452 (218) 675-6155	88	B, HB, SM, T
6	Finland Snowmobile Club Finland, MN 55603	Wayne Goutermont Box 53A Star Rt. Silver Bay, MN 55614 (218) 353-7681	160	C, SM, SS, T
17	Belview Snofliers Belview, MN 56214	Henry A. Holt Belview, MN 56214 (507) 938-3281	30	SM
18	Big Lake Snocruisers Big Lake, MN 55309	Big Lake Snocruisers Big Lake, MN 55309 (612) 263-2430	24	SM
19	Trail Blazers Goodridge, MN 56725	Lynn Hanson Goodridge, MN 56725 (218) 378-3137	28	HB, SM, T
20	Byron Snowbears Box 351 Byron, MN 55920	Gary Blom Box 351 Byron, MN 55920 (507) 775-6670	30	SM, T
21	Town & Country Saddle Club c/o James Molter Route #1 Fergus Falls, MN 56537	James Molter Route #1 Fergus Falls, MN 56537 (218) 736-6231	200	HB, T, N
22	Eagan Valley Rangers c/o Doris Smith 2082 Marble Lane Eagan, MN 55122	Doris Smith 2082 Marble Lane Eagan, MN 55122 (612) 454-2369	25	B, HB, SM, T, N

NUMBER	NAME OF GROUP ADDRESS	NAME OF CONTACT ADDRESS PHONE	NUMBER OF MEMBERS	CLUB INTERESTS
23	Swift Riders 1915 Denfield Drive Benson, MN 56215	Craig Peterson 506 14th St. N. Benson, MN 56215 (612) 843-2074	95	SM, T
24	St. Croix Horse & Carriage Society Box 75 A Marine on St. Croix, MN 55047	Rollie Isker Box 75 A Marine on St. Croix, MN 55047 (612) 433-2796	35	HB, O (Driving horses)
25	Waconia Sno Goers Waconia, MN 55387	President, Waconia Sno Goers Waconia, MN 55387 (612) 442-4056	150	SM, T
26	St. Martin Rough Riders, Inc. St. Martin, MN 56376	Joseph M. Thelen Box 254 St. Martin, MN 56376 (612) 548-4912	120	SM
27	Snow Drifters Snowmobile Club c/o Carl Eady P.O. Box 190 Montevideo, MN 56265	Carl Eady P.O. Box 190 Montevideo, MN 56265 (612) 269-8624	47 fam	SM
28	Sno Runners c/o Buckey Legried Frost, MN 56033	Elwood Langsen Bricelyn, MN (507) 653-4235	72	SM
29	Natural History Club c/o Christopher Neumann Carleton College Northfield, MN 55057	Christopher Neumann Carleton College Northfield, MN 55057	43	B, C, HB, H, ST, T
30	Sno-Skippers 520 Julii Willmar, MN 56201	Ron Holm 520 Julii Willmar, MN 56201 (612) 235-4658	20 fam	B, ST, SM, T
31	Spring Lake Park E-Z Riders 755 Maple Avenue Minneapolis, MN 55432	Spring Lake Park E-Z Riders 775 Maple Avenue Minneapolis, MN 55432 (612) 786-2957	50	SM, M
32	Waksurs Outing Club R #2 Student Center U of M, St. Paul Campus St. Paul, MN ~~55101~~ 55108	Barb Kuehn Apt. #9 516 5th St. S.E. Minneapolis, MN (612) 331-5378	100	B, C, H, ST, SS, T, N

NUMBER	NAME OF GROUP ADDRESS	NAME OF CONTACT ADDRESS PHONE	NUMBER OF MEMBERS	CLUB INTERESTS
33	Baudette Drifters Box 275 Baudette, MN 56623	George Lindquist Box 275 Baudette, MN 56623 (218) 634-2139	58	SM, T
34	4H Saddle Club Box 366 Luverne, MN 56156	Stan Soutar Box 366 Luverne, MN 56156 (507) 283-2931	35	B, HB, ST
35	Oklee Moonlighters Snow Cat Club c/o Postmaster Oklee, MN 56742	Lowell Sovde c/o Postmaster Oklee, MN 56742 (218) 796-4385	83	SM, T
36	St. Boni Sno-Saints St. Bonifacius, MN 55375	Clarence Luebke St. Bonifacius, MN 55375 (612) 446-1164	140	SM, T, N
37	Moonlight Trail Riders c/o Lester Erickson Rt. 1 Sebeka, MN 56477	Lester Erickson Rt. 1 Sebeka, MN 56477 (218) 837-5535	75	HB, T
38	[illegible]l Lake Drifters Snowmobile Club Rt. 6 Brainerd, MN 56401	Robert Hurst Rt. 6 Brainerd, MN 56401 (218) 963-2902	90	H, SM, T, N
39	Gopher Wheelmen 105 S. Milton St. St. Paul, MN 55105	James H. Holding 105 S. Milton St. St. Paul, MN 55105 (612) 225-6154	120	B, T, N
40	Blizzard Snowmobile Club P.O. Box 625 Fairmont, MN 56031	Bill Brown 920 Victoria St. Fairmont, MN 56031 (507) 238-2659	110 fam	SM, T
41	Valley Voyâgeurs Camping Club Mankato, MN 56001	Joyce Srock Wells, MN (507) 553-3719		B, H, M
42	Goodridge Bit & Bridle Club Goodridge, MN 56725	Howard Henrickson Goodridge, MN 56725 (218) 294-6467	30	HB
43	Hi-Valley Ridge Runners 4050 Jagusch Dr. Red Wing, MN 55066	Bill Griffin 4050 Jagusch Dr. Red Wing, MN 55066 (612) 388-6682	25	B, C, H, ST, N

NUMBER	NAME OF GROUP ADDRESS	NAME OF CONTACT ADDRESS PHONE	NUMBER OF MEMBERS	CLUB INTERESTS
44	American Swedish Institute Ski Club 2600 Park Avenue Minneapolis, MN 55407	Ake Olsson 9010 Medley Lane Golden Valley, MN 55427 (612) 544-3254	40	ST, N
45	3M Sno-Blazers c/o 3M Club 896 E. 7th St. St. Paul, MN 55055	Tom Lynch 3912 76th Way E. Inver Grove Heights, MN 55075 (612) 861-2211	126	B, C, H, SM, T
46	Monty Sno-Busters Montgomery, MN 56069	Claude W. Pickett East Park Plaza Montgomery, MN 56069 (612) 364-5254	120	SM, T
47	Crane Lake Voyageurs Snowmobile Club Crane Lake, MN 55725	W. Jack Hunter Crane Lake, MN 55725 (218) 993-2265	50	H, ST, SM, SS, T
48	Minnetonka Horsemen, Inc. 5504 Mayview Road Minnetonka, MN 55343	Fred Korger 5504 Mayview Road Minnetonka, MN 55343 (612) 938-7090	300 fam	HB, T, N
49	UMC Horsemasters Ag. Division University of Minnesota Crookston, MN 56716	UMC Horsemasters Ag. Division University of Minnesota Crookston, MN (218) 281-6510	35	HB, N
50	Snow Masters Snowmobile Club c/o Les Kleinke RR # 3 Luverne, MN 56156	Les Kleinke RR #3 Luverne, MN 56156 (507) 283-4755	72 fam	B, C, H, SM
51	Miss. Headwaters Natural Audubon Society Box 193 Bemidji, MN 56601	John Mathisen 1001 Miles Bemidji, MN (218) 751-1780	100	B, C, HB, H, ST
52	Snow - Drifters Swanville, MN 56382	Royal Lovan Swanville, MN 56382 (612) 547-2245	52	HB, SM, T
53	Faribo Sno Go-Club, Inc. 402 Western Ave. Faribault, MN 55021	D. W. Simpson 402 Western Ave. Faribault, MN 55021 (507) 334-8605	162	SM, T, N

NUMBER	NAME OF GROUP ADDRESS	NAME OF CONTACT ADDRESS PHONE	NUMBER OF MEMBERS	CLUB INTERESTS
54	Kato Hiking Club c/o MARC 51 Park Lane Mankato, MN 56001	Berniel Weigt 414 N. 2nd St. Mankato, MN 56001 (507) 388-3416	66	B, H, N
55	Hutchinson Drift Riders c/o David R. Carlson Route 2, Box 103 Hutchinson, MN 55350	David R. Carlson Route 2, Box 103 Hutchinson, MN 55350 (612) 896-3513	110	SM, N
56	Sno-Thumpers c/o Richard Larson 1417 18th St. N.W. New Brighton, MN 55112	Richard Larson 1417 18th St. N.W. New Brighton, MN 55112 (612) 633-0742	30	SM, T
57	Sebeka Trailbreakers Sebeka, MN 56477	Lee Schumacher Sebeka, MN 56477 (218) 837-5416	50	B, C, HB, ST, SM, SS T
58	River Trail Riders, Inc. c/o H. DeWald Minn. Rt. #2 Staples, MN 56179	Mrs. Howard DeWald Minn. Rt. #2 Staples, MN 56179 (218) 445-5288	64	HB, SM, T
59	Double S Saddle Club c/o Marcia Norrgard Route 3 Brainerd, MN 56401	Lloyd England R.R. 1 Brainerd, MN 56401 (218) 829-5657	38	HB, T
60	Fairmont Saddle Club Box 583 Fairmont, MN 56031	Marlow Whitman Granada, MN 56039	50	HB, T
61	St. Cloud Area Environmental Council c/o Linda Peck Rt. 4 St. Cloud, MN 56301	Dr. O. E. Davis 2007 N. 8th St. St. Cloud, MN 56301 (612) 252-8749	30	B, H, SM
62	Sno Angels Route 1 Cold Spring, MN 56320	Robert Mueller Route 1 Cold Spring, MN 56320 (612) 685-8300	80	SM
63	Duluth Audubon Society-Hawk Ridge c/o Biology Dept. University of MN - Duluth Duluth, MN 55812	Molly Kohlbry 2928 reysoloh Road Duluth, MN (218) 724-0261		H, T (Nature), N
64	Brancheroos Saddle Club c/o Ken Hales Route 1 North Branch, MN 55056	Ken Hales Route 1 North Branch, MN 55056 (612) 674-7325	84	HB
65	BMW Club c/o George Warner 5553 - 32nd Avenue S. Minneapolis, MN 55417	George Warner 5553 - 32nd Avenue S. Minneapolis, MN 55417 (612) 722-3001	55	M, SM

NUMBER	NAME OF GROUP ADDRESS	NAME OF CONTACT ADDRESS PHONE	NUMBER OF MEMBERS	CLUB INTERESTS
66	Fairfax Saddle Club Fairfax, MN 55332	Mike Hoops, President R.F.D. Fairfax, MN 55332	100	HB, T
67	Sno-Barons 6007 Halifax Avenue Minneapolis, MN 55429	Walt Scollard 6007 Halifax Avenue Minneapolis, MN 55429 (612) 529-7903	70	SM, T, N
68	Chatfield Saddle Club Chatfield, MN 55923	Theresa Ahern RR 3 Chatfield, MN 55923 (507) 867-4990	60	HB, SM
69	Chances R.Saddle Club Norwood, MN 55368 (612) 467-2087		128	HB
70	Hi-Wonders Motorcycle Club Rt. 1 Millville, MN 55957	Grant Marquardt Rt. 1 Millville, MN 55957 (507) 753-2672	25	M, T
71	S Cruisers c/o Diane Weber, Sec. 11519 Yucca St. Anoka, MN 55303	Diane Weber 11519 Yucca Street Anoka, MN 55303 (612) 421-1053	126	SM, T, N
72	Milaca Mustangs Box 37 Pease, MN 56363	George Helm Box 37 Pease, MN 56363 (612) 369-4343	12	SM, M
73	Echo Riders Box 58 Pequot Lakes, MN 56472	Sue Akerson Box 58 Pequot Lakes, MN 56472 (612) 568-8455	25	HB
74	Trail Dusters of Hamel 5718 Troy Drive New Brighton, MN 55112	Lynne S. Loven 5718 Troy Drive New Brighton, MN 55112 (612) 484-4837	170	HB, T, N
75	Mankato Saddle Club c/o Marian Studer, Sec. Porter Ave. Mankato, MN 56001	Marian Studer 103 Porter Ave. Mankato, MN 56001 (507) 387-2172	60	HB, N
76	Fox Hollow Saddle Club Rt. 1 Kasota, MN 56050	Mr. & Mrs. Jame Acosta Rt. 1 Kasota, MN 56050 (507) 931-5896	125	HB

NUMBER	NAME OF GROUP ADDRESS	NAME OF CONTACT ADDRESS PHONE	NUMBER OF MEMBERS	CLUB INTERESTS
77	Tartan Motorcycle Club c/o R.T. Clark 3M Co. 3[illegible]enter 235-2A St. Paul, MN 55101	Bob Clark 2210 Beech St. Paul, Minnesota 55119 (612) 735-5786	57	SM, M, N
78	Minneapolis Municipal Hiking Club 250 South 4th Street Minneapolis, MN 55415	President Minneapolis Municipal Hiking Club 250 South 4th Street Minneapolis, MN 55415	486	B, C, H, T
79	Gliders Motorcycle Club Box 451 Hopkins, MN 55343	Donald Gilleshammer Box 451 Hopkins, MN 55343 (612) 788-8426	20	SM, M
80	Wilton River Riders c/o Mrs. Harlan Berg Rt. 3, Box 139 New Richland, MN 56072	Mrs. Harlan Berg Rt. 3, Box 139 New Richland, MN 56072 (507) 465-3366	85	HB, SM
81	North Central Horsemans Assoc. 5[illegible]8 Irving Ave. N. Minneapolis, MN 55430	A. J. Mostad 5158 Irving Ave. N. Minneapolis, MN 55430 (612) 522-4582	32	HB
82	Straight Arrow Enduro Riders, Inc. 5117 39th Ave. S. Minneapolis, MN 55417	Mike Carson 3324 40th Ave. S. Minneapolis, MN 55406 (612) 729-2533	20	HB, SM, M, T
83	Los Charros Saddle Club Lake Lillian, MN 56253	Ray Flaton Atwater, MN 56209 (612) 974-8782	95	HB
84	Zumbrota Saddle Club Zumbrota, MN 55992	Dave Matthees Mazeppa, MN 55956 (507) 843-2153	100	HB, T
85	Forest Lake Motorcycle Racing Assn P.O. Box 361 Forest Lake, MN 55025	John Sullivan P.O. Box 361 Forest Lake, MN 55025 (612) 464-5572	30	SM, M
86	F[illegible]ing D Saddle Club Rt. 3, Box 119 Prior Lake, MN 55372	Judy Bergquist, Sec. Rt. 3, Box 119 Prior Lake, MN 55372 (612) 447-5634	95	HB

NUMBER	NAME OF GROUP ADDRESS	NAME OF CONTACT ADDRESS PHONE	NUMBER OF MEMBERS	CLUB INTERESTS
87	Rad-A-Hi Horsemen Inc. 432 134th Ave. N.E. Anoka, MN 55303	Mrs. Evelyn Murney 432 134th Ave. N.E. Anoka, MN 55303 (612) 755-4736	54	HB, T
88	Rambling Riders R. 2, Box 181 Sauk Centre, MN 56378	Everett Wolfe 211 N. 3rd Street Sauk Centre, MN 56378 (612) 352-2093	70	HB, SM, T
89	Dodge County Saddle Club c/o Karla Leth, Sec. Rt. 1, Box 105 Kasson, MN 55944	Karla Leth Rt. 1, Box 105 Kasson, MN 55944 (507) 635-2995	100	HB, T
90	Fox and Spur Saddle Club c/o Jane Rettner, Sec. 1036 Fremont Ave. St. Paul, MN 55106	Jane Rettner 1036 Fremont Ave. St. Paul, MN 55106 (612) 771-9174	15	HB
91	Valley View Riders Club 208 15th Ave. S. Minneapolis, MN 55404	John Harwood 208 15th Ave. S. Minneapolis, MN 55404 (612) 336-7194	12	M
92	Winter Knights 2720 161st Ave. N.W. Anoka, MN 55303	Al Niklason 2720 161st Ave. N.W. Anoka, MN 55303 (612) 434-6460	36	SM, T
93	Rum Runners 1325 96th Ave. N.E. Blaine, MN 55434	Wendle Rennaker Isanti, MN (612) 742-5126	11	SM, T
94	Blo Pra Rough Riders R #1 Austin, MN 55912	Kathy Hartjes R #1 Austin, MN 55912 (507) 451-7860	30	HB
95	LeSueur Saddle Club LeSueur, MN 56058	Janet R. Straub RR #3, Box 144 LeSueur, MN 56058 (612) 665-6556	50 fam	HB
96	Sky-Hi Riders c/o Sue Hooke, Sec. Box 93 Brook Park, MN 55007	Marvin White Braham, MN (612) 396-3129	116	HB
97	Ham Lake Lions 2814 Crosstown Blvd. Anoka, MN 55303	Bill Nelson, President 2814 Crosstown Blvd. Anoka, MN 55303	58	SM, T, N

	NAME OF GROUP ADDRESS	NAME OF CONTACT ADDRESS PHONE	NUMBER OF MEMBERS	CLUB INTERESTS
	Kinney Range Riders Kinney, MN 55758	Severin Thielen Kinney, MN 55758 (218) 258-3669	13 fam	ST, SM, M, T
	Ramsey Wheelers 333 Sibley Street Room 510 St. Paul, MN 55101	Joan Roehl 333 Sibley Street Room 510 St. Paul, MN 55101 (612) 298-5510	30	B, ST
0	Rochester Riders Inc. 1325 Eiton Hills Drive Rochester, MN 55901	Robert Gustafson David Jones Eyota, MN 1325 Elton Hills Dr (507) 288-8564 Rochester, MN	65	HB, T
1	Saddelite Riders c/o Sharon Grinager, Sec. Rt. 1 Apple Valley, MN 55124	Sharon Grinager Rt. 1 Apple Valley, MN 55124 (612) 454-4016	160	HB
2	T & M Riders Rt. 1 Long Prairie, MN 56347	Marian V. Hanson Rt. 1 Long Prairie, MN 56347 (612) 547-2392	58	HB
3	Wabasha Kellogg Wranglers c/o Dennis Crowley Theilman, MN 55978	Dennis Crowley Theilman, MN 55978 (612) 565-4301	40	HB, T
4	Orchard Rangers Saddle Club Route 2, Box 244 Lakeville, MN 55044	Bill Kennedy Route 3 Lakeville, MN 55044 (612) 435-7379	130	HB, N
5	Double R/C Riding Club Rush City, MN 55069	Mike Fox Rush City, MN 55069 (612) 358-4544	52	HB, N
6	Trail Riders Saddle Club 3271 Military Road Newport, MN 55055	Mrs. William Blaksley 3271 Military Road Newport, MN 55055 (612) 459-2958	60	HB
7	Boot Jack Saddle Club Route 5, Box 53 Osseo, MN 55369	Colleen Riley Route 5, Box 53 Osseo, MN 55369 (612) 425-4703	40 fam	HB, SM

NUMBER	NAME OF GROUP ADDRESS	NAME OF CONTACT ADDRESS PHONE	NUMBER OF MEMBERS	CLUB INTERESTS
08	Minneapolis Saddle & Bridle Club Geo. Rerat, President 664 I.D.S. Center Minneapolis, MN 55402	R. Don Anderson Route 1, Box 182 Maple Plain, MN 55359 (612) 479-1615	85	HB, N, T
09	[illegible]th Star Saddle Club Route #5, Box 68 Princeton, MN 55371	Sherry Luedke Route #5, Box 68 Princeton, MN 55371 (612) 389-2813	94	HB
10	Wright Saddle Club c/o Linda Veches Route 1, Box 42 Monticello, MN 55362	Linda Veches Route 1, Box 42 Monticello, MN 55362 (612) 878-2448		HB, SM
11	Midstate Riders Route 1, Box 658 Cambridge, MN 55008	Glen Christensen Route 1, Box 658 Cambridge, MN 55008 (612) 689-2269	43	HB, N
12	Cannon Valley Saddle Club c/o Norma Schultz Route 1, Box 209 Faribault, MN 55021	Dennis Hermel, President Medford, MN (507) 334-6023	50 fam.	HB, T
13	[illegible] Creek Valley Saddle Club Route 3 Red Wing, MN 55066	Ron Bystrom Route 3 Red Wing, MN 55066 (612) 388-7233	263	HB, T
14	St. Paul Hiking Club c/o Dorothee Angel 1456 E. Magnolia Ave. Apt. 30 St. Paul, MN 55106	Dorothee Angel 1456 E. Magnolia Ave. Apt. 30 St. Paul, MN 55106 (612) 776-8361	150	C, SM, H, N
15	Prairie Dusters Saddle Club c/o Bonnie Langfield Route 4, Lot #37 Long Prairie, Minnesota 56347	Bonnie Langfield Route 4, Lot #37 Long Prairie, MN 56347 (612) 732-2518	137	HB, SM, H, T
	Duluth Area Association of Snowmobile Clubs			
16	Drift-Toppers Snowmobile Club c/o Arthur J. Jacquart [illegible] Woodland Avenue Duluth, MN 55803	Arthur J. Jacquart 614 Woodland Avenue Duluth, MN 55803 (218) 724-8724	40 fam	SM, T

NUMBER	NAME OF GROUP ADDRESS	NAME OF CONTACT ADDRESS PHONE	NUMBER OF MEMBERS	CLUB INTERESTS
217	Park Point Snowmobile Club c/o David Poulin 3101 Lake Avenue South Duluth, MN 55802	David Poulin 3101 Lake Avenue South Duluth, MN 55802 (218) 722-1511		SM
218	Proctor Area Snowmobile Club c/o David C. Larson 130 Anchor Proctor, MN 55810	David C. Larson 133 Anchor Proctor, MN 55810 (218) 624-1517		SM
219	Scenic City Snowdrifters c/o Leonard Gnew 43 Kingston Road Duluth, MN 55803	Leonard Gnew 43 Kingston Road Duluth, MN 55803 (218) 728-2808	55	SM
220	Sno Mads c/o Gene R. Bauers 7020 Arrowhead Road Duluth, MN 55810	Gene R. Bauers 7020 Arrowhead Road Duluth, MN 55810 (218) 729-9524		SM
221	Sno Moles c/o Rodney Ridgewell 610 Walnut Street Duluth, MN 55811	Rodney Ridgewell 610 Walnut Street Duluth, MN 55811 (218) 722-8236	25 fam.	SM , T
222	Sno Saints c/o James Wilander 2216 Springvale Court Duluth, MN 55811	James Wilander 2216 Springvale Court Duluth, MN 55811 (218) 722-2190	60 fam.	SM, M, T
223	Sno Snakes c/o Karl Kendall 4155 Maple Grove Road Duluth, MN 55810	Karl Kendall 4155 Maple Grove Road Duluth, MN 55810 (218) 729-7938	25	SM , M, C, T
224	Turtle Patrol c/o Thomas J. Miller 331 W. Farrell Road Duluth, MN 55811	Thomas J. Miller 331 W. Farrell Road Duluth, MN 55811 (218) 727-1296	100	SM, M
225	Western Trail Blazers c/o Mrs. Lee Danielson 1047 85th Avenue West Duluth, MN 55808	Mrs. Lee Danielson 1047 85th Avenue West Duluth, MN 55808 (218) 626-1703		SM
226	Wolf Pack c/o Arthur Pickar 4024 East Superior Street Duluth, MN 55804	Arthur Pickar 4024 East Superior Street Duluth, MN 55804 (218) 525-3961	20	SM , T

NUMBER	NAME OF GROUP ADDRESS	NAME OF CONTACT ADDRESS PHONE	NUMBER OF MEMBERS	CLUB INTERESTS
	Other Clubs			
227	Valley Hi Riders Saddle Club c/o Peg Friedrich 9255 31st Street N. Lake Elmo, MN 55042	Peg Friedrich 9255 31st Street N. Lake Elmo, MN 55042 (612) 777-6582	200	B, M, SS, C, ST, HB, SM, H
228	Hinckley Saddle Club c/o Laura Klar Hinckley, MN 55037	Laura Klar Hinckley, MN 55037 (612) 384-6852	60	HB, SM
229	Drift Dusters Snowmobile Club c/o Don Calverley Route 4, Box 127 Cambridge, MN 55008	Don Calverley Route 4, Box 127 Cambridge, MN 55008 (612) 689-3182		SM
230	Lake Region Saddle Club, Inc. Box 110 Alexandria, MN 56308	Rosemary Diedrich Garfield, MN 56332 (612) 834-2269	90	HB, T, N
231	Mille lacs Maurauders c/o Patricia Ryan Route 1 Milaca, MN 56353	Patricia Ryan Route 1 Milaca, MN 56353 (612) 556-3382	65	HB, T
232	Hi Circle Vee Saddle Club c/o Kathy Aynes 4500 Nancy Lane Edina, MN 55424	Charles Mannel 3424 Sky Croft Drive N.E. Minneapolis, MN 55418 (612) 781-1034	25	HB
233	Bit and Spur Saddle Club c/o Maxine Heitman 1002 Lyon Avenue Lake City, MN 55041	Maxine Heitman, President 1002 Lyon Avenue Lake City, MN 55041 (612) 345-2729	115	HB, SM, T
234	Silver Buckle Saddle Club c/o Pam Iverson 5724 Rhode Island N. Minneapolis, MN 55428	Harlan Peterson 9912 Bass Lake Road Minneapolis, MN 55428 (612) 537-9443	100	HB, T, N
235	Madelia Saddle Club c/o Esther H. Johnson Route 2A, Box 148 Madelia, MN 56062	Esther H. Johnson Route 2A, Box 148 Madelia, MN 56062 (507) 439-6662		HB, SM
236	I.G.H. Snowmobile Club 6930 Crosby Avenue E. Inver Grove Heights, MN	I.G.H. Snowmobile Club 6930 Crosby Avenue E. Inver Grove Heights, MN 55075 (612) 451-2638	150	SM, T, N

CLUB NUMBER	NAME OF GROUP ADDRESS	NAME OF CONTACT ADDRESS PHONE	NUMBER OF MEMBERS	CLUB INTERESTS
237	Line Riders Saddle Club, Inc. c/o Rita Wendell Rose Creek, MN 55970	Rita Wendel Rose Creek, MN 55970 (507) 437-2994	30+ fam.	HB
238	Buffalo Saddle Club c/o Leonard Daluge Route 4 Buffalo, MN 55313	Leonard Daluge Route 4 Buffalo, Minnesota 55313	54	HB
239	Wagon Wheel Saddle Club c/o Gail Rook Route 2, Box 681 Lakeville, MN 55044	Gail Rook Route 2, Box 681 Lakeville, MN 55044 (612) 445-1982	35	HB
240	Tamarack Sno-Flyers, Inc. c/o Wm. Haapota Tamarack, MN 55787	Wm. Haapota Tamarack, MN 55787 (218) 325-3144	20	SM, T
241	Birch Lake Riders c/o Kathy Gabelick P.O. Box 68 Grey Eagle, MN 56336	Kathy Gabelick P.O. Box 68 Grey Eagle, MN 56336 (507) 285-6212	50	HB, SM, H
242	Glacial Ridge Riders Inc. c/o Mrs. Cheryl Sinf Box 46 Starbuck, MN 56381	Mrs. Cheryl Sinf, Secretary Box 46 Starbuck, MN 56381 (218) 239-2175	75	HB
243	Sno-Eagles, Inc. c/o Jerome Bohnert 108 So. Third Street Eagle Lake, MN 56024	Jerome Bohnert 108 So. Third Street Eagle Lake, MN 56024 (507) 257-3443	51 Fam.	B, SM, H, T
244	Mystic Riders c/o Harold Tompkins Rt 3 Princeton, MN 55371	Harold Tompkins Rt 3 Princeton, MN 55371	70	SM, T
245	Sno-Peelers c/o John V. Kehler 1613 Dixon Drive St. Paul, MN 55071	John V Kehler 1613 Dixon Drive St. Paul, MN 55071	32	SM, T
246	Shorewood Association 24460 Yellowstone Trail Shorewood, MN 55331	Mrs. W.H. Drews 24460 Yellowstone Trail Shorewood, MN 55331	103	HB

247 Sno-Hummers Snowmobile Club — Don Pe... — 120 SM, T
c/o Don R... Glen ...t
Glen Rt.
Aitkin, MN 56431
Aitkin, MN 56431

248 Long Lake Drift Skippers — Woody Grandstaff — ?? SM, T
P.O. Box 212 — Rt 2 Box 44
Long Lake, MN 55356 — Maple Plain, MN 55359

249 North Star Sled Dog Club — Dinah Knight
Dinah Knight — 1657-161st Ave N.W.
1657-161st Ave N.W. — Anoka, MN 55303
Anoka, MN 55303

250 16H Snowmobile Club — Gordy Sawyer — 75 Fam SM, T
Box 195 — 3990 Upper 71st
Inver Grove Heights, MN 55075 — Inver Grove Heights, MN 55075

251 Valley Riders Saddle Club, Inc — Gayle Goetzman — 100 HB, ST
Winona, MN 55987 — E. Burns Valley Rd — SM, T, I
Winona, MN 55987

252 Pine Island Riders Saddle Club — Gary Hindal — 110 HB
Pine Island, MN 55963 — Rt 2
Zumbrota, MN

253 Cottage Grove SSS — P.O. Box 70 — 386 SM, T
P.O. Box 70
St. Paul Park, MN 55016
St. Paul Park, MN

STATE OF MINNESOTA

COUNTY OF RAMSEY

Exhibit C-2

In the matter of the Proposed Adoption of Rules of the State of Minnesota Department of Highways Relating to Model Standards for Bicycle and Recreational Vehicle Lanes On and Along Public Roadways and Governing Trunk Highway

AFFIDAVIT

Kenneth H. Bjork, being duly sworn on oath deposes and says:

1) That he is an employee of the Department of Highways of the State of Minnesota.

2) That on the 23rd day of January, 1975, he went to the Secretary of State's office for the State of Minnesota and requested a current list of all representative of associations or other interested groups or persons who had registered their names with the Secretary of State for the purpose of obtaining notices of public hearings relating to the promulgation of rules pursuant to M.S. 15.0412.

3) That on the 23rd day of January, 1975, in response to the above request, the Secretary of State provided him with such a list.

Further affiant sayeth not.

Kenneth H. Bjork

Subscribed and sworn to before me this 2nd day of June, 1975.

Agnes I. Litfin
Notary Public

Ramsey County, Minnesota
My Commission expires Nov. 21, 1980.

AGNES I. LITFIN
Notary Public, Ramsey Co., Minn.
My Commission Expires
November 21, 1980

STATE OF MINNESOTA

COUNTY OF RAMSEY

Exhibit F

In the matter of the Proposed Adoption of Rules of the State Highway Department Relating to Model Standards for Bicycle and Recreational Vehicle Lanes On and Along Public Roadways and Governing Trunk Highways.

AFFIDAVIT OF MAILING

Kenneth H. Bjork, being first duly sworn, deposes and says:

That on the 23rd day of January, 1975, at the City of St. Paul, County of Ramsey, State of Minnesota, he served the attached Notice of Hearing by depositing in the United States mail at said City of St. Paul, a true and correct copy thereof, properly enveloped, with postage prepaid, to all persons and associations at the addressed provided with the attached Certificate of the Secretary of State as well as known interested parties.

Kenneth H. Bjork

Subscribed and sworn to before me this 2nd day of June, 1975.

Agnes I. Litfin

AGNES I. LITFIN
Notary Public, Ramsey Co., Minn.
My Commission Expires
November 21, 1980

STATE OF MINNESOTA

COUNTY OF RAMSEY

Exhibit G

BEFORE FRANK D. MARZITELLI
COMMISSIONER OF HIGHWAYS

In the matter of the Proposed Adoption Of Rules of the State Highway Department Governing Model Standards for Bicycle and Recreational Vehicle Lanes On and Along Public Roadways and Governing Trunk Highways

ORDER ADOPTING RULES

The above-entitled matter came on for hearing before the Commissioner of Highways of the State of Minnesota on the 24th day of February, 1975, at 1:00 P.M. in the Veteran's Service Building, Fifty Floor, Conference Room D, 20 West 12th Street and Columbus Avenue, St. Paul, Minnesota after proper notice required by M.S. Section 15.0412, Subd. 4 was served upon all persons, associations and other interested groups registered with the Secretary of State for that purpose.

After affording interested persons an opportunity to present written and oral data, statements and arguments, having heard all of the testimony, having considered all of the evidence adduced and upon the records, files and proceedings herein, and applicable statutory standards or criteria, and having confirmed the need for the above captioned rules.

NOW THEREFORE, it is ordered that these rules identified as Rules of the Department of Highways Relating to Model Standards for Bicycle and Recreational Vehicle Lanes on and Along Public Roadways and Governing Trunk Highways are adopted this 30th day of May, 1975, pursuant to authority vested in me by M.S. Section 160.262.

STATE OF MINNESOTA

DEPARTMENT OF HIGHWAYS

Frank D. Marzitelli

FRANK D. MARZITELLI
COMMISSIONER

STATE OF MINNESOTA

COUNTY RAMSEY

BEFORE FRANK D. MARZITELLI
COMMISSIONER OF HIGHWAYS

In the Matter of the Adoption of Proposed Rules of the Department of Highways Relating to Model Standards for Bicycle and Recreational Vehicle Lanes on and Along Public Roadways and Governing Trunk Highways

STATEMENT OF NEED

In accordance with Minnesota Statutes 1974, Section 160.262, the Commissioner of Highways desires to establish the attached rules for model standards for bicycle and recreational vehicle lanes on and along public roadways and governing trunk highways. These rules are intended to assist in increasing multiple use of trunk highway and other roadway right of way for the greater welfare and benefit of the public. In addition, the Federal Aid Highway Act of 1973 authorizes the use of Federal Aid Highway funds for bicycle and pedestrian lanes on or near federal aid highways and allows for the use of those lanes by snowmobiles when appropriate. These rules are intended to be drawn in such a manner that the State might qualify for the use of such monies as are or might be available for these purposes.

In addition, these rules are intended to be comprehensive and answer questions of safety for the motorist and provide for local governmental option and initiative to develop such use.

Frank D. Marzitelli

STATE OF MINNESOTA

DEPARTMENT OF HIGHWAYS

FRANK D. MARZITELLI
COMMISSIONER OF HIGHWAYS
MAY 30, 1975

STATE OF MINNESOTA

COUNTY OF RAMSEY

BEFORE FRANK D. MARZITELLI
COMMISSIONER OF HIGHWAYS

In the Matter of the Adoption of Proposed Rules of the Department of Highways Relating to Model Standards for Bicycle and Recreational Vehicle Lanes on and Along Public Roadways and Governing Trunk Highways

FINDINGS OF FACT

The above entitled matter came on for hearing before the Commissioner of Highways of the State of Minnesota on the 24th day of February, 1975, at 1:00 P.M. in the Veteran's Service Byilding, Fifth Floor, Conference Room D, 20 West 12th Street and Columbus Avenue, St. Paul, Minnesota 55155, after proper notice is required by M.S. Section 15.0412 was served upon all persons associations and other interested groups registered with the Secretary of State for that purpose.

After affording interested persons an opportunity to present written and oral data, statements and arguments, having heard all of the testimony and having considered all of the evidence adduced and upon the records files and proceedings herein, I find the fillowing:

The Department of Highways has attempted to comply with both the spirit and intent of M.S. Section 160.262 in drawing the attached rules and regulations.

Testimony given by the public and interested parties spoke to the need for providing greater flexibility in the development of bicycle and recreational vehicle lanes generally. Therefore, the Department of Highways has attempted to simplify the criteria for desirability of lanes in any given location.

I therefore find the attached rules to be necessary and in the public interest.

STATE OF MINNESOTA

DEPARTMENT OF HIGHWAYS

Frank D. Marzitelli

FRANK D. MARZITELLI
COMMISSIONER OF HIGHWAYS

Transcript Record

ORIGINAL COPY

STATE OF MINNESOTA BEFORE THE COMMISSIONER OF HIGHWAYS

COUNTY OF RAMSEY

In the Matter of the Adoption of Proposed Rules of the Department of Highways Relating to Model Standards for Bicycle and Recreational Vehicle Lanes on and Along Public Roadways and Governing Trunk Highways

---

The above-entitled matter came on for hearing before the Commissioner of Highways, and recorded by John T. Kirby, a Notary Public in and for the County of Dakota, State of Minnesota, on the 24th day of February, 1975, at the Conference Room D of the Veteran's Service Building, 12th Street and Columbus Avenue, St. Paul, Minnesota, commencing at approximately 1:00 o'clock p.m.

* * *

PRESENT:

Edward J. Heinen, Hearing Officer

Craig R. Anderson, Special Assistant Attorney General

Ray Adolfson, Design Standards Engineer

* * *

INDEX

WITNESS	PAGE
Ray Adolfson	5
Dick A. Reis	7
Ed Warn	14
Gordon Sawyer	20
George M. Colarich	22
Richard P. Moriarty	24
Paul D. Wyatt	35
Lyle Haseltine	38
Randall J. Cleven	45
Gary Carlson	48
Jake Koppendrayer	49

MILLER-ESSER 227-8863

MR. HEINEN: Good afternoon, ladies and gentlemen. A few more people coming in to sign in, but we can start the hearing. I am Edward Heinen, Commissioner of Highways, Department of Highways. The hearing today I will read the announcement. The Notice of Hearing. In the matter of the adoption of proposed rules of the Department of Highways relating to model standards for bicycle and recreational vehicles lanes on and along public roadways and governing trunk highways.

Notice is hereby given that a public hearing will be held pursuant to Minnesota Statutes Section 160.262, Section 15.0412, Subdivision 4 regarding the above-entitled matter, in the Veteran's Service Building, Fifth Floor, Conference Room D, 20 West 12th Street and Columbus Avenue, St. Paul, Minnesota on February 24, 1975, commencing at 1:00 p.m. and continuing until all representatives of associations or other interested groups or persons have had an opportunity to be heard concerning adoption of the proposed rules captioned above by submitting oral or written data, statements or argument. Statements or briefs may be submitted in writing without the necessity of appearance at the hearing. The record shall remain open for receipt of written statements for thirty days after the close of the hearing.

A copy of the proposed rules is attached hereto. Dated the 24th day of January, 1975. State of Minnesota,

COPYRIGHT

signed Frank D. Marzitelli, Commissioner of Highways.

I will give the procedural rules for the hearing. They are attached, second sheet. I will read into the record.

The purpose of the hearing is to allow interested parties to express their views and present facts bearing upon the proposed regulations. So as to provide for an orderly presentation of evidence, the following rules will be in effect during the hearing specified in the attached Notice of Hearing:

1. Anyone wishing to be heard should indicate by signing the speaking sheet, listing his name, address, and the group which he represents. The speaking sheet will be available at the main entrance to the hearing room. It is requested that each group select one speaker only to present their views.

2. The first time the witness makes a statement he should spell his name and identify the group he is representing. Prior to making any subsequent statements he should state his name and the group which he represents. He may be sworn upon his request but it is not required. If he elects not to be sworn, that may be considered in determining the weight to be given to his testimony.

3. By giving testimony, a witness, including one who may also be a member of the panel, subjects himself to questioning by the panel. However, he is subject to cross-examination by non-members of the panel only if he affirmatively consents to being so examined. A refusal to be cross-examined may be

considered in determining the weight to be given to his testimony.

4. All parties interested in introducing any written matter may do so by having it marked as an exhibit and then introduced for the record. Unsworn written matter may be received, but the fact that it is unsworn may be considered in determining the weight to be given it.

We have a court reporter here who is recording all the minutes of the hearing. We also have a recording system. Anyone that desires to speak may use this microphone up here. The people at the head table here are Craig Anderson, our Attorney from the Department of Highways, and Attorney General's staff. Ray Adolfson, who is our Design Standards Engineer with the Department of Highways. I believe that, Ray, you should be sworn in now before the court reporter.

RAY ADOLFSON,

the above-named was first duly sworn.

MR. HEINEN: I will briefly read the start of the rules and regulations. Rules and regulations establishing model standards for bicycle and recreational vehicle lanes on and along public roadways and governing trunk highways.

a. Purpose. The purpose of these regulations is to

carry out the mandate of the legislature and to effectuate that mandate as set forth in Minnesota Statutes, Section 160.262, as amended by Laws of Minnesota 1973, Chapter 620, Section 1, with reference to the establishment of model standards for bicycle and recreational vehicle lanes on and along proposed and existing public roadways and governing state trunk highways.

We will now ask for any statements or arguments that people attending would like to make. We would like to follow this order of calling on the various categories: The first would be members of the legislature that may be present. The second would be county board members, and third would be city officials. Next would be township officials. Next would be school boards and similar boards. Sixth would be the regional development commissions. Seventh would be government agencies, federal, state or county or city. Eighth would be public groups or associations. Then anybody from the general public.

With that, I would first like to ask if there are any legislators? Any members of the legislature present, if they would like to make a statement.

MR. BEAUCHAMP: Representative David Beauchamp from House District 9-A in Moorhead. In complying with one, proposed rules, I would refer any subject to that matter to the Assistant Planning Director of Moorhead, Mr. Dick Reis.

MR. HEINEN: Thank you, Representative Beauchamp.

DICK A. REIS,

after having been first duly sworn, testified under oath as follows:

MR. REIS: My name is Dick Reis, and I am the Assistant Planning Director for the City of Moorhead, representing the Planning Department of Moorhead. It is the opinion of the Moorhead Planning Department that the draft rules are in need of major revisions. Without such changes, local units of government will not be able to develop safe bicycle systems for the residents, both the recreation and as an alternate form of transportation. I will outline our major objections to the draft rules as they pertain to bicycles only. Title 23, the 1973 Federal Aid Highway Act, Part 652, titled Bikeways and Walkways in Conjunction with Federal Aid Highways specifically states the following: "Independent and walkway projects may be constructed on completed sections of federal aid highways. The projects may include the acquisition of lands outside of the right of way, provided the facility will accommodate traffic which will have normally used a federal aid highway route, disregarding any legal prohibitions on use of the route by cyclists or pedestrians."

The Planning Department feels that secondary streets running parallel to the federal aid urban system would qualify

as a facility which would accommodate bicycle traffic that would normally have used the federal aid routes. This type of bicycle system would attract bicycles off of the heavily traveled streets and provide a safer and more convenient bicycle system on a lesser used parallel secondary residence street. The draft rules, only bicycle routes within the rights of way of the urban systems are addressed.

I have some maps here which I would like to make distribution of as an exhibit, if you wish.

MR. HEINEN: Give them to the reporter.

MR. REIS: What you have before you is proposed three year bikeway plan for Moorhead. The whole philosophy in our bicycle approach was, since we do have a good secondary system of roads, parallel to the presently overcrowded major arteries, let's try to attract the bicycles off the major arteries onto the secondary streets, thereby increasing the capacity of the urban arteries, because you are taking the bicycle traffic off, thus not pushing the automobile further away from the curb to avoid bicyclists, but also to make a safer route for the bicyclist on the lesser used residential streets. So the whole philosophy was to do this, and in reading the draft regulations, unless I totally misread it, doesn't address it in the least. The draft rules state that the Highway Department will only consider building lane facilities during the construction, reconstruction, or improvement of any trunk high-

way. They do not address the feasibility of construction on completed sections of the federal aid highway as again outlined under Title 23 of the 1973 Aid to Highway Act. As I read these rules and regulations, you are only willing to come in on improved and new construction. But what about existing system which is already there? For Moorhead's purposes, and I will assume for a lot of other purposes, you couldn't start anything unless it was new and improved. Yet most of the streets are already in place. We would try to build a system, and not to rely totally on new construction.

The Planning Department recognizes the importance of traffic criteria, determining the type of bicycle lane, but we feel the rules should be extended to allow for other considerations to be taken into account in determining the type of lane. Additional factors should include the width of the road, its corresponding ability to absorb bicycle lanes on the paved surfaces, the type of traffic, the speed limit, parking problems and adjacent land uses. Only when all these factors are weighed together can the best decision be made.

For example, we notice on your map specifically, on Eighth Street here, we have a heavily used urban system route, about 13,000 vehicles per day. It can accommodate only - it is four lane. It can accommodate four lanes. There is no room for safe bicycle lane. Yet to the right is Concordia property for Concordia College. There are no curb cuts whatso-

ever, and it would be ideal and a lot safer to take it off of the streets where there is actually no room for a lane or even to designate it as a route, and put it as separate right of way. But under your criteria, you are only looking at the traffic and not the other factors. I think the other factors are very important.

In your definitions, Page 3, Line 4, these are just some points I would prefer to have clarified. Under clearway, it is defined as the area extending thirty feet outward from the edge of the outside through lane of the roadway where all physical obstacles to out-of-control motor vehicles are eliminated. If a clearway is not established, traffic control measures or other physical barriers must be in effect. My question is, in urban areas do curbs constitute a physical barrier? Is it possible to get an answer on that? Most of the times we don't have a thirty foot additional right-of-way to go off.

MR. ADOLFSON: Usually the clearway is applied to rural areas.

MR. REIS: Well, that I wanted clarified. Plus, there is a curb there, and I suppose that would be a physical barrier. My next question is Page 4, Line 23, on recreational vehicle, that includes snowmobiles and bicycles. My question is, if such a lane were constructed within a highway right-of-way running within the city limits, could the city prohibit

snowmobiles or any other motorized vehicle applicable under this definition from using the lane? Or basically, can we just designate it as a bike route and not necessarily leave it open to snowmobiles also?

Page 10, Line 17. In terms of maintenance criteria, under maintenance criteria specifically in bicycle lanes you are talking about striping, stenciling. I wonder if it would be possible to clarify who is responsible? You have such things as maintenance of drainage and surface maintenance. But specifically, possibly cover any loopholes by stenciling and striping. Does surface maintenance cover stenciling and striping?

MR. ADOLFSON: Probably should be clarified.

MR. REIS: And then finally to your traffic criteria. In the multiple lane listing it is felt that average daily traffic for a route should be reduced to maximum of 6,000, the lane with no barrier to maximum of 15,000, the lane with barrier a minimum of 15,000, and the path minimum 15,000. Also since the traffic volume varies from intersection to intersection, what criteria will be used to judge which traffic constitutes traffic flow for that particular street? For example, again on Eighth Street in the lower portion of Eighth Street I think the traffic count is about 13,000, whereas when you get further up, may go down to 10,000. Yet one may be within the criteria, one may not. You are not going to have

a bike run running for two blocks and then cut it off and because the traffic doesn't dictate it. Something should be determined on how that would be determined.

In conclusion, if the proposed draft rules are allowed to become final without major revisions, they will serve no impetous to allow viable bicycle systems, but provide unsafe routes leading nowhere.

MR. HEINEN: Yes, Mr. Reis. The questions that you asked I believe would be best answered after we had a chance to review them and then come back to you with our answer. I might make one note here, the rules that we are promulgating, of course, are for the trunk highways and they may be adopted, of course, by local government. It does not say that they are adopted for all county roads, township roads, city streets and such. These rules are promulgated for the Department of Highways within trunk highway right-of-way, and the cities and villages and such may adopt them.

MR. REIS: But the problem I am having in understanding this, you are taking federal monies and the intent of the 1973 legislation, and developing rules and regulations for them, and it is based on that that the monies would be allocated say on the 70%-30% basis to the cities, so that actually there is a federal intent in guidelines passed through the 1973 Highway Act, and yet you are drawing up specific rules for their amplification. Is this correct, or am I wrong?

MR. HEINEN: We are drawing up model standards for use for bikeways --

MR. REIS: You say trunk highways. That is the same as the urban system?

MR. HEINEN: Yes. Anyplace within the trunk highway right-of-way.

MR. REIS: But again going back to my use for secondary streets, I think it is the intent of the federal legislation that it be interpreted to mean adjacent secondary streets, and not necessarily restricted to trunk highways.

MR. HEINEN: That I can't answer. I would have to look that up, the Federal Aid Highway Act, going into detail of how that money is to be used.

MR. REIS: Well, I am just taking it from the Federal Register.

MR. HEINEN: Mr. Adolfson, do you have anything you can add?

MR. ADOLFSON: I don't think so.

MR. HEINEN: Thank you. Are there any other members of the legislature who would like to present any statements or argument?

We would then go to a county board officials.

City officials or councils.

Planning Department I believe would follow.

Township officials.

Any school boards, other boards, governmental boards? Regional development commissions?

Next would be the governmental agencies, federal government.

State government.

County or planning commissions would be in there, and then City Planning Commissions.

All right, sir. I may just add before this man gets up, these rules are promulgated through the recommendations of the State Planning Agency. I believe I forgot that. That was part of the statutes of 1973 where the State Planning Agency was directed to make recommendations to the Highway Commissioner, and then we would promulgate the regulations.

ED WARN,

after having been first duly sworn, testified under oath as follows:

MR. WARN: My name is Ed Warn, spelled W-a-r-n. I am with the St. Paul Planning staff.

The proposed rules and regulations by the Minnesota Highway Department are unacceptable. We feel there is too much confusion that results from attempting to cover all types of recreational vehicles in one document. The document is,

therefore, vague and incomplete.

Recommendations for bicycles are unique and we therefore request the Minnesota Highway Department to adopt in its entirety or at least major portions thereof Section 7-1000 of the California Highway Division Manual relating to bicycle regulations, a copy of which I have given for an exhibit. This was developed by combination of theory, empirical analysis, and substitive analysis of cyclists. I am suggesting basically that we do not reinvent the wheel, because the State of California has been in the business of providing - or has provided more bicycle facilities than the State of Minnesota and therefore obviously has considerable more experience in this subject.

I will attempt to bring out examples of the more serious conflict between the two documents. The first and most basic lack in the Minnesota Highway Department document is a general design philosophy. This is brought out in Section 7-1000.2 in the California document, entitled General Design Philosophy. I want to read this short section to you. "The primary purpose of Section 7-1000 is to provide information and guidance on the accommodation of bicycle traffic on state highways. The design standards in this section are intended to be a guide as to how the existing road system may be supplemented with the facilities or measures specifically designed to enhance the safety and feasibility of bicycle

travel. The standards represent an attempt at a consensus as to what is required to provide a good level of service for cyclists. Since experience and research in this area are relatively limited, the standards are based on a combination of theory, empirical analysis, and the subjective judgement of cyclists.

It is recognized that much of the existing street and highway system is suitable for general cycling. The Department supports the precept that cyclists are entitled to use all public roads except certain prohibited freeways. The fact that standards have been established for designating portions of some roadways as bike routes is not intended to affect a cyclist's right to use other roads as well.

In planning any highway improvement, consideration should be given to the bicycle as a potential part of the traffic mix, whether or not the highway includes a designated bike route. In order for the bicycle to be a viable transportation alternative, the opportunity for a cyclist to ride his bicycle to virtually any destination he may choose should be preserved, restored or initially provided, as the case may be. The mere provision of well maintained paved shoulders along as many roads as possible will bring this objective much closer to realization.

Finally, the designer should be aware that a cyclist is capable of adopting to quite a range of conditions. Thus,

subject to adequate attention to safety, some departure from the recommended standards may be tolerated under special conditions where dictated by economic, environmental, or other considerations. Needs must be evaluated from a practical point of view, keeping in mind that any objective is to provide the most service for cyclists with the resources available."

Another example, and I am not reading from this document, another example of basic bicycle design criteria which is not covered in the Minnesota Highway Department document is found in Section 7-1000.7 entitled Existing Streets and Highways, with one short paragraph of that says, "When it becomes necessary to modify the roadway cross section, it is desirable to preserve or provide an adequate shoulder for cycling and other uses. If this is not feasible, the outside lane should be wide enough to accommodate joint use. A minimum paved width of fifteen feet is recommended for such situations."

Safety is of extreme importance, yet there is no mention in the Minnesota Highway Document regarding sewer grates as found in Section 7-1000.9, Item 4 of the California document. I won't read that now. They do cover that.

There are some very basic differences regarding geometric design standards between the Minnesota Highway Department and the California document. These are, the lane width. The Minnesota Highway Department has proposed four foot minimum lane widths for one way design, six foot minimum for two way

design. The California document, their research and study has recommended five feet and eight feet respectively.

The design speed. Minnesota Highway Department has recommended a ten mile per hour minimum design speed. The California document has a fifteen mile per hour minimum design speed, with increasing figures depending on conditions. For example, open country is twenty miles per hour, and long downgrades is thirty miles per hour. These are minimum figures.

Site distances. The Minnesota Highway Department recommends maintaining a fifty foot minimum site distance in all cases. California has also a fifty foot minimum, but that applies to the ten mile per hour design speed. For increasing design speeds, the site distances increase to maximum of 200 feet and 30 miles per hour. The radius of curvature shows the greatest example of difference. Minnesota Highway Department empirical formula is inadequate. For example, at thirty miles per hour the minimum highway department formula recommends only thirty-nine feet as a minimum design, whereas the California document in its chart, which is in the Exhibit, recommends 440 foot minimum for thirty miles per hour design. Plus, the Minnesota Highway Department does not recognize intersections, which are, and which have been proven as the major accident locations for bicyclists. The California document has covered this thoroughly in section 1000.10, Item 8, with illustrations.

In summary then, based on the very basic conditions to providing safe bicycling facilities, I have brought out in these various examples, I again suggest that Minnesota Highway Department gives serious consideration to adopting the California document, the exhibit I have given you, in its entirety, or at least revise this document to reflect these very basic considerations in bicycle facility design. Minnesota Highway Department may wish to study further the implementation of a separate document providing facilities for other recreational facilities that have unique characteristics not related to bicycles. That's all. Thank you.

MR. HEINEN: Thank you, Mr. Warn. Mr. Adolfson.

MR. ADOLFSON: I might mention that the Minnesota Highway Department is in the process of writing a section for their road design manual similar to California's. These are just the basic regulations. Much of the detail that is in California's will also be within design --

MR. WARN: Yes, but the items I brought out are the same items that you have in the regulations. Minimum lane, minimum design speed, curvatures and the general facilities if you are in the rules and regulations I think should be included.

MR. ADOLFSON: These were values from the state planning agency. We will give consideration to your comments. We do make the statement though that these values are not to be used as general design standards.

MR. WARN: I realize that.

MR. ADOLFSON: They are absolute minimums.

MR. WARN: I realize that. But the figures I brought out in the California document are also absolute minimums, and so it is a difference of absolute minimums and my contention is that California people have been in the business sometime longer.

MR. HEINEN: Real good. We will take those into consideration in reviewing the final draft of these regulations, Mr. Warn. Thank you.

Anyone else of any planning commissions, agencies, such as that from the county governments, city governments?

Any associations, public groups or such? I suppose I could work from the list that had signed in and go right down that maybe. First person is Gordon J. Sawyer, I believe he is located in the Twin City area, and he represents 16H snowmobile club. Mr. Sawyer.

GORDON SAWYER,

after having been first duly sworn, testified under oath as follows:

MR. SAWYER: For the record, it is the IGH Snowmobile Club. That is a mistake that has been made before. My name

is Gordon Sawyer, S-a-w-y-e-r, 3990 Upper 71st Street, Inver Grove Heights, which is a suburb of the Twin City Metro area.

I just have a few things that I wish to have clarified. On the maintenance of the recreational vehicle lanes, under new construction, reconstruction and improvement. I would ask that it be more clearly defined who is going to pay for this construction or reconstruction. The responsibility of local governments is being taxed to the utmost, and they can not probably afford to do this. So it will either have to come from federal, state or county. These, too, are being taxed to the utmost, and we must find a different method of financing. Monies are available to local and county governments through snowmobile funds either through the registration funds or the unrefunded gas tax, now have full commitments. We cannot draw from this monies to make bicycle paths. I suggest that the state set up a system for bicycles such as the snowmobiles have, a user's fee. The user's fee that we snowmobilers now pay is being used for our benefit, and I am sure the bicycles could be the same way.

The proposed lanes will require monies that are not available through snowmobile funds, and we ask that a different method of financing be researched so that the bicycle lanes can become a possibility. We are not as snowmobilers against bicyclists. Everyone must have their method of recreation, and the bicycle is a fine way to do it. We would ask also that

if you are going to construct them in the same area, that the width be wide enough for two snowmobiles to pass on a two lane situation. I would ask that the Minnesota Department of Highways work very closely with the Minnesota Department of Natural Resources and the Minnesota Association of Snowmobiles in further hearings that you might have on these bicycle paths. We are certainly willing to help at any and all times to further the end of bicycle paths. I believe that's all I have.

MR. HEINEN: Thank you, Mr. Sawyer. We will take that into consideration. I know that as you mentioned, we are all aware of our financial problems for building highways or any other type things. That, of course, is not part of this hearing to determine where the finances would come from.

The next gentleman is George M. Colarich, Minneapolis, representing the American Youth Hostels Group.

GEORGE M. COLARICH,
after having been first duly
sworn, testified under oath
as follows:

MR. COLARICH: George M. Colarich, represent the American Youth Hostels Association, Minnesota Council.

My concern first of all, since this is to be a model

standard for bicycle and recreation lanes, my first concern is the definition of a bicycle. According to the definition that I read here in Section 2, apparently Page 1, bicycle is a device propelled by human power upon which a person or persons may ride, having two tandem wheels either of which is over fourteen inches in diameter, and including any device generally recognized as a bicycle though equipped with two front or rear wheels. According to this definition, you are going to have tricycles on your roadways and on your bicycle lanes. Fourteen inch wheels really is not a type wheel that an adult or a competent cyclist would use. I would recommend that that should be reconsidered to be twenty-six inches as a minimum.

I haven't completely read the California standards, but I am sure they have adopted -- they don't have the fourteen inch and tricycles.

The second thing I am concerned about is bicycle safety, which, of course, is not a part of this rules and regulations. But since you are adopting model standards, I think should be in the model standards should be proposed or defined as far as safety useage is concerned. Again, I disagree with the width of the bicycle lane as was already referred to. I really think that five feet is much more realistic than two, especially having ridden some 62,000 miles on my present bike and observing countless other cycles in the amount of room they take up, I am sure the two feet for

bicycles is not adequate. I realize that this minute we have somewhere in the neighborhood of one and three-tenths million cyclists in the present time or bicycles that are ridden, whereas we have something like probably 250,000 to 300,000 snowmobiles, and yet bicycles in Minnesota at the present time have a 22 mile country view lane bicycle path, which is not a separate bicycle path. It is a roadway upon which bicycles are allowed to ride with markings and so forth. We have one 20 mile bicycle path as such, then I realize others are in the making. So we are quite a bit behind in developing bicycle paths, and I think that this model regulation and set up of standards should be thought out a little bit more carefully. In other words, I wouldn't be willing to accept this in toto as it stands now. Thank you.

MR. HEINEN: Thank you, Mr. Colarich. We will take that under consideration when we are reviewing it.

Next gentleman is Richard P. Moriarty, White Bear Lake, representing the Saddle Clubs Association.

RICHARD P. MORIARTY,
after having been first duly
sworn, testified under oath
as follows:

MR. MORIARTY: My name is Richard Pat Moriarty,

M-o-r-i-a-r-t-y. I am from White Bear Lake and I represent the Western Saddle Clubs Association, Trail Committee.

Western Saddle Club is an association of 300 saddle clubs in Minnesota, which is really a drop in the bucket from the number of horse people there are in the state. We are concerned with this not only in our trail rides, but there are some areas here that we are concerned about. Traditionally, horses have not been barred or restricted from the roadways in the State of Minnesota except for the freeways, such as the previous gentleman mentioned about bicycles. Most horse people do not ride on the road, they are not crazy, they like their safety as well as everybody else. But traditionally as you drive through the rural areas you will see horses riding on the shoulder of the road. We have a concern that these pathways are being adopted for recreational vehicles and bicycles. Doesn't mention horses at all. As long as horses are allowed to ride on the road, would this mean that if we couldn't use the trailways on the side of the road and that, that we would have to ride our horses on the other side of the barriers and ride in with the vehicle traffic? That's our concern.

I am sure in your planning you must have thought of horse riding, and I don't know if you have planned on eliminating horses from these trails or not. We are concerned, and I am going to ask for your consideration. Horse trail doesn't take

much room. I have also read the California proposal or regulations that are being mentioned here frequently today. Many of those are multi-used trails. Some of them are separated in their use, hikers and bikers are not riding in the same trail as horses. If we have a ten to twelve inch trail, single file, that's enough for a horse. We don't need pavement, we don't need all the inequities that some of the other recreational uses do need. We work with every group that works with trails. We work for multi-use trails. We have worked on projects where a horse wouldn't be allowed just to further the trail and recreational use. But we do feel that this proposal is restrictive for horses. Doesn't spell it out, doesn't say also that they are allowed.

Another concern we have at the last hearing I attended from the DNR, that be eliminated entirely from the DNR land recreational perhaps the use of driven horse vehicles in the state parks and forests. There are four driving clubs in the state, and it is mostly a family project, and they get a lot of use out of some of the old logging roads and things through the woods. I don't know if it was an oversight or not, but came as kind of a surprise to everybody that their planned rules didn't include these people, and they are being prohibited from the use of the parks and recreation unless there is some change in their planning. So these people also - there are buggies and sleighs and carts, they will be driven back out on

the road where I am sure where nobody wants them. They realize this, and they have asked that this also be considered in the planning of your expansion of the road to include recreational uses. Thank you.

MR. HEINEN: Thank you, Mr. Moriarty. Very well put, and we will consider your suggestions and points in our reviewing of these regulations again.

The next gentleman is Philip M. Voxland, Amateur Bicycle League of America.

PHILIP M. VOXLAND,
after having been first duly
sworn, testified under oath
as follows:

MR. VOXLAND: My name is Philip M. Voxland, State Representative of the Amateur Bicycle League of America, resident of Minneapolis.

The regents of the University instruct me to inform you that I am employed by the University, but the opinions are not officially University opinion. I am not a paid consultant for the Amateur Bicycle League of America. It is an unsalaried volunteer position.

The league has as its task supervising licensing of potential of potential cyclists in America organizing and

sanctioning racing events. My remarks are also not the official policy of the Amateur Bicycle League of America. I also served last year as a member of the Minneapolis Citizens Bicycle Review Committee, which had as its task advising Minneapolis Planning Department in its attempts to prepare comprehensive bicycle transportation programs. As an active cyclist, concerned citizens, I appreciate the interest of the department and the state, and I am greatful of having been informed of this hearing. My remarks today will be relatively brief and relatively general. I see there are other representatives of the bicycle organizations here who have made and will make specific comments. The situation I think that we have now in Minnesota is something like this. We have a situation of increased interest once again, sales of bicycles exceeded those of cars in America and in Minnesota. We find that the expanding number of cyclists has brought an awareness in government and among the new and former bicycle riders that transportation networks which we have built here in Minnesota very often do not serve the needs of the bicycling public. For example, formerly safe routes have been increasing with the number of traffic everyday, speeds are increasing, or in some cases decreasing, new highways are built, freeways block old routes, new routes that are available are often out of the way, or poorly maintained, or even not existent. This has com e about partially because of lack of consideration, neglect, changing

urbanization, simple passage of time. The result is in some places are unsafe to ride bicycles. Say for example Highway 13 between Mendota and Burnsville, which is sort of a one way route. If you only go on it once, you should never go back. Others are definitely inappropriate for the self-powered vehicle, such as the major metropolitan arterials. At this hearing I guess it is an opportunity for we the public to tell you the Highway Department what our needs are, and for us to tell you how your plans and proposals compare with our expectations and judgements. I would like for this hearing as much to be a chance for the department to inform us what its perspectives and preceptions are. I think both of us can profit by the communications with each other, in an effort to improve our state's transportation system. So I would like to try and make several distinctions now.

On the first has been emphasized earlier there are various types of cyclists, their needs vary greatly. Their understanding of other cyclists needs also very greatly. Some of the biking crest says, "From our friends deliver us." That is to say well-intentioned citizens and governments have spent a great deal of time and great deal of money creating relatively dangerous or unuseable or useable but unused bike routes and bike paths. The recent history of bicycle transportation routes and bikeways in the country is a relatively unhappy one and filled with many unsuccessful projects. Well,

the type of bicycle riders does vary, and I guess the useful classification is unlikely to ever be formulated because every cyclist, particularly the most active riders use their bicycles in many different ways, different times, different purposes. The trips vary in length, most are short, some in fact less than a mile, some are very long, over a hundred miles in a day. They have different purposes, transportation, recreation. And the riders themselves vary in their skill and speeds from the speeds somewhere around 5 miles an hour to well in excess of twenty miles an hour. Riders differ in their ability to handle riding in heavy traffic. Some are timid, some are aggressive, some can cope, and some have a tough time.

Let me talk momentarily about the transportation and recreation distinction. I suspect that most trips are not in fact recreational. Cyclists are usually at least in transit from origin to a destination, to work, to school, to play, to receive, to deliver. A recreational trip is one in which the act of traveling is gained with the trip itself and I think is relatively rare. Consequently the Minnesota Highway Department would be misunderstanding the predominant use of bicycles if it conceived that bicycles is substantially a recreational activity. Cycling is a serious, legitimate method of transit. It is not a superfluous, periferal or secondary use of roadways.

Let's look just briefly at the needs of say the short distance or the urban cyclist. When I sat on the Minneapolis

Citizens Bikeways review committee, I encountered a group of people who really impressed me quite a bit, and I had not met them anywhere else before. They came from diverse neighborhoods, from the north side, northeast Minneapolis, and all rode to work in the downtown area. They were of a wide variety of occupations represented, secretaries, social workers, telephone linemen. But for them there was very little pleasure in their riding, yet it was the best way. It had become difficult because an urban island in the inner city had been carved out partially by the river, railroad, and by freeways. They are all connected by very busy bridges or small bridges or ill-maintained roads. For many it is not possible to enter the city in a safe and convenient and relatively direct route. Yet they continue to ride, and all of the recent building perhaps of the Highway Department have done nothing to make their trip any safer. These people pleaded with our group for bicycle paths and lanes and routes. Yet their needs are unlikely to be met, because, well, frankly, political issues and lack of funding. Anything really short of a radical bicycle transportation system, in compromising using existing arterials would probably be unsafe and inadequate, if not politically unrealistic. The point I tried to make with that committee was something really what the man from Moorhead had to say. The best available resource are the low volume residential streets designed and appropriately maintained.

Seems to me the appropriate local activity is to locate and improve these low traffic parallel routes.

Finally, I think it is unrealistic in terms of politics, expense, and physical constraints to believe that any kind of an adequate grid of physically separate bike routes could be laid down along trunk highways within the densely populated areas. There just is not room. I would add kind of a periferal comment to that, that if a person nonetheless insisted on conceiving bicycles as a recreational vehicle, it would be most inappropriate to have a recreational lane next to a high volume highway. Just is no fun to ride in that environment where fumes and noise and whatever. Now, just briefly comment on what I believe the needs of the long range or urban cyclists are. For them, the most appropriate route I think in our experience is a local volume, paved county road. In a few instances, some state highways which have a relatively low traffic count, say 600 cars a day or fewer. If we compare Wisconsin, which has an extensive network of county highways with Minnesota, where the emphasis has been more on the state highway system, we find that in Wisconsin you can go most anywhere, and in Minnesota there are points that are relatively restricted for bicycle access. Some of the far western counties consist mainly of gravel roads and state highways, and it is very difficult to get from one place to another, except on an extremely busy highway. So their principal needs

is not for trails that are adjacent to highways, but rather parallel routes along county roads which avoid the congested or unsafe high speed, high volume state trunk highways.

I have two recommendations then for the Minnesota Highway Department to consider. First is that I would rather see the Minnesota Highway Department design bicycles into rather than out of the routine projects and programs that are undertaken in the department. The bicycle has honestly been completely ignored and neglected for the -- well, really the past in total past. Let's take a look quickly at the Mendota Mississippi area, where many bridges and freeways have been built. To this day I do not know how the Minnesota Highway Department expects the St. Paul resident to bicycle to the airport, or how they expect me to cross the river to get into Dakota County without going twenty miles out of my way. Fortunately, my discussions and letters with the Highway Department indicate that the Cedar Avenue Bridge, which is now under design, may well indeed take care of some of the needs of cyclists. But these studies are relatively preliminary, and I would hate to see in a pinch that bicyclists would once again be completely ignored, or within the city and less elegant projects, there are simple things that have made our life extremely difficult. One of the most astounding examples of this is the pedestrian overpass on 24th Street in Minneapolis, which if you start up on one side, is a nice ramp, you can ride

up. When you get down to the other side, you find stairs. I don't know, bicyclists can get off and carry his bicycle down the stairs. But I hope no one in a wheel chair went up the other side. This is simple design consideration that simply hasn't been made in the past.

The other point being that places like overpasses, simple curb cuts would go a long way to making use of some facilities like overpasses much more easy.

Secondly, my final recommendation in the line with the needs that I think exist for the long distance cyclist, the Minnesota Highway Department should concentrate its efforts on Minnesota Counties to upgrade county roads that connect points of interest, rather than construct lanes along trunk highways. I think the counties would probably appreciate this more, and certainly the bicyclists would also. Thank you.

MR. HEINEN: Thank you, Mr. Voxland. Your points and discussions were very well put and placed I am sure. I know that we in the department feel that way very much. I don't know if we could go into the details of locations and such today. I am sure you realize that. But the department has been looking at this much closer. Just as a coincidence I guess you would say, the one thing you mentioned you don't want bikeways along the high capacity high traffic freeways or roadways. Just happened to be mentioned at our staff meeting this morning that nobody wants to be near those automobiles and

breathing the fumes and everything else. I think that most of this probably lends itself to rural areas more than the city urban area. There we are going to have to get into the cities a little more and the cities will have to be into planning and location of those. Maybe we could take just a few minute break here. Our reporter is here at a steady hour. Give him five, ten minutes and continue on.

(At this time a recess was taken.)

MR. HEINEN: The next gentleman asked to speak is Paul D. Wyatt, Bloomington Avenue, Minneapolis, representing the Minnesota Gopher Wheelmen.

PAUL D. WYATT,
after having been first duly
sworn, testified under oath
as follows:

MR. WYATT: I have a statement here I would like to submit for the record when I am done. First I would like to read a portion of it, and have a few comments concerning the specific regulations.

First, from my statement, we find that the needs of cyclists are not best met by bicycle paths separated from road-

ways. The needs of cyclists are better met by lanes of adequate width marked on existing or widened roadways with no barriers.

The grooving of bicycles with recreational vehicles is unfortunate. Bicycles are a legitimate and important form of transportation. As such, they continued access to the public roadways, along with the privileges and responsibilities that go with it, is to the best interest of cyclists.

Our fear is that the provisions of separate bicycle pathways from other public roadways could lead to restrictive legislation regarding the use of public roadways by cyclists. Repressive rules could originate in local municipalities burdened with the maintenance of a pathway as outlined in the proposal.

Some more specific criticisms I think of the proposal again come back again to the design minimums. The expenses of myself and the group I represent, which is the Minnesota Gopher Wheelmen, are purely empirical. We don't want to rely on what California says, but we have ridden thousands of miles every year, and four feet is inadequate in width for any pathway that cannot border on an adjacent roadway for space. Four feet is very adequate as the widening of a roadway to accommodate a bicycle lane, but if a barrier will be present or separate pathway, it is not wide enough.

The designed minimum speed ten miles per hour is

unrealistic. Most cyclists in the country and the rural section travel at speeds in excess of fifteen miles per hour sometimes. We feel that the design minimum speed of perhaps twenty miles an hour is much safer and more adequate.

The site distance to a potential hazard as outlined in the proposal is far too short also, any speed in excess of ten miles per hour. I can't say what a better figure would be, but it would be much larger than that.

Another concern we have is the surface of the proposed pathways. For safe bicycling, you need a hard roadway, bituminous or concrete. Gravel, crushed limestone, clay are all inadequate surfaces for safe bicycle transportation. A pathway located adjacent to a highway and with a hard surface will insure that maintenance operations can be done simultaneously on a bicycle pathway and the roadway, because we are skeptical that a separate pathway will be maintained as well as the roadway. As much as we don't enjoy the company of cars on the roads, we do realize where there is money, there is maintenance, and that's where we will get the better care of our pathways.

In conclusion, I suppose the recreational use of cycles, bicycle riding, as well as the transportation needs can better be met by pathways merely located adjacent to highways, not separated from them. Maybe less restrictive, and better meets the transportation needs and the recreational

needs of cyclists.

MR. HEINEN: Very good. Thank you, Mr. Wyatt. We will use those in the review of the regulations as we go through them.

Next gentleman is Lyle Haseltine from Forest Lake, Minnesota representing the Minnesota Association of Snowmobilers.

LYLE HASELTINE,

after having been first duly sworn, testified under oath as follows:

MR. HASELTINE: Mr. Heinen, members of the panel, my name is Lyle Haseltine, Executive Director of the Minnesota Association of Snowmobilers as stated.

I first would like to commend the legislature and the Highway Department for undertaking what seems to be a horrendous task. The amount of roadways in the State of Minnesota I believe are second only to California. There is a desperate need for bicycle lanes and recreational vehicle lanes. I might add that this moment at this time our organization does intend to submit a formal resolution to this committee within the thirty day limit.

I have basically a few questions before submitting or formulating any resolutions of any sort. So if you would

bear with me, please. On Page 8, Line 1, use during more than one season is feasible. Perhaps I should back up on the next page here, on seven where it begins. Such uses do not conflict with each other (example: bicycling and hiking). At this point I would like to mention that having snowmobiled for ten years I have never seen a ten speed bike out on the trail in February. So I think they are compatible. And then it says use during one season is feasible (example: Snowmobiles used on bicycle paths). Would it be the Highway Department then, gentlemen, that would determine the feasibility in this particular statement?

MR. HEINEN: Yes, I would say so. Commissioner of Highways, Department of Highways is responsible for the location of them, and at this time I think we would determine what they could be used for.

MR. HASELTINE: Thank you, sir. On Page 8, Line 13, if no suitable network of adjacent residential streets or trails exists. Could you explain that to me, sir? What constitutes a suitable network? I am not knit-picking, but before we submit something, I would like to thoroughly understand what is being said.

MR. HEINEN: That Section 3 deals with lanes within state trunk highway rights of way will be considered only if they meet the following criteria: Then we went down to 13 which says, if no suitable network of adjacent residential

streets or trails exist. I better call on Ray for that one maybe.

MR. ADOLFSON: Basically, I would interpret that would be that if there are adjacent facilities that could be used, these would be used preferably rather than the trunk highway right of way.

MR. HASELTINE: Fine. But specifically if there was a snowmobile trail adjacent to, then obviously the trail per se would be the better of the two?

MR. ADOLFSON: Yes.

MR. HASELTINE: Thank you, sir. Also on Page 8, Line 20,all lane development participated in by the Highway Department must meet the following criteria: (aa) It must materially benefit the safety of the traveling public. May I ask specifically to whom you are referring? The person in the automobile or the trail user?

MR. ADOLFSON: Both.

MR. HASELTINE: Both, okay. On Page 9, Line 2, (cc) It must be part of a comprehensive trail planning process on a local, regional, or statewide basis. Again, my question is, gentlemen, because we have such an overlap, we have the DNR, State Planning, what have you, involved in comprehensive trail planning. Would it be the Highway Department per se, or would it be DNR, or whomever? And in other words, it must be part of a comprehensive trail planning process. This deter-

mination would again be made by the Highway Department no matter whom was involved in the development, is that correct?

MR. ADOLFSON: I would think so, yes.

MR. HASELTINE: Thank you. On Page 10, Line 1, (bb) Recreational vehicle traffic regulations. The provisions of M.S. 169.09 to 169.13 shall also apply in substance and effect insofar as applicable and consistent with reference to drivers or operators of recreational vehicles on controlled access trunk highways. Minnesota Statutes 169.13 and 169.18 shall also apply. My question specifically, gentlemen, correct me if I am wrong, but Minnesota Statutes 169.13 eludes to age and hours of use. Am I correct? As I understand it, this statute covers or stipulates that one under the age of 17 as I understand it wouldn't be able to operate along the highways from 12:00 p.m. to 5:00 a.m.

MR. HEINEN: That's part of 169.13. The 169.13 starts out reckless or careless driving is the title of that subsection.

MR. HASELTINE: Then that is correct. May I respectfully submit that perhaps we elude to rules and regulations of the DNR that might effectively have worked with the age of fourteen through eighteen as far as training that deal with that nature. Thank you.

MR. HEINEN: This one says unless accompanied by an adult.

MR. HASELTINE: What I have in mind, sir, we have been very active in training youngsters and, of course, we are going to try to train adults. We have extended our program as well, and we feel if a youngster can adequately say handle a snowmobile at age fourteen, perhaps we can take a look at reducing that age from seventeen to fourteen.

MR. HEINEN: This applies to motor vehicle originally I think when it says seventeen years of age before you get a motor --

MR. HASELTINE: Right. If this can be clarified -- you can understand why I say this. We would have trouble with not only our constituency, but also the law enforcement agencies, and I am sure that wasn't the legislative intent to do anything but perpetuate safe, responsible bicycling and snowmobiling. Now we come to Page 12. This I am very pleased to see in there. Line 14. If you will bear with me and indulge with me for a moment, I would like to read and see if I understand this correctly. Recreational vehicle operation on trunk highway right of way. No provision within these regulations shall be deemed to be in conflict with the provisions of Minnesota Law with respect to operations on trunk highway right-of-way of any formal recreational vehicle now or hereafter defined. Particular reference is made to M.S. Sections 84.81 through 84.87 in this regard. 84.81 and 87 eludes to the fact that the Department of Natural Resources will handle recreation -

rules and regulations for snowmobilers in the State of Minnesota, does it not? Don Levine is sitting back there, let's put him on.

MR. HEINEN: I don't have that at hand, Craig. Do you have any?

MR. ANDERSON: I believe it does.

MR. HASELTINE: Then this is not to be inconsistent with the rules and regulations already established?

MR. ANDERSON: That's right. That's my understanding of that.

MR. HASELTINE: Which then does allow snowmobiling according to those statutes, allows snowmobiling in the ditches, right?

MR. ANDERSON: Right. Because the statutes allow that. Nothing in the regulations here should be inconsistent with any statute.

MR. HASELTINE: Fine. You made my whole day, sir. To continue on again, to be certain that I don't miss interpret anything along the way. The very next paragraph starting with Line 21, provisions of these regulations shall be severable, and the invalidity of any paragraph, subparagraph, or subdivision thereof shall not make void any other paragraph, subparagraph, or subdivision or any other part. I believe that's quite self-explanatory.

On 25, to continue, (j) Public Use of Trunk Highways.

No prohibition is intended or implied within these rules as to the rights of the public to use, occupy, traverse or travel the trunk highways of the State of Minnesota except where such prohibition or regulation is established by law or other promulgated regulation not a part of these rules. That is eluding to highway - to specifically to municipalities, towns, cities, what have you, correct?

MR. HEINEN: That would be correct. Also to the reference you made to 84, that section where it says that they could use certain parts of the right of way can operate snowmobiles on.

MR. HASELTINE: Fine. This, of course, when we were talking out in the hall a moment ago during our break, am I correct in understanding that the state - or the State Highway Department has the same philosophy as that of the DNR when it comes to municipalities? Obviously it is their turf and they should take priority, and as I recall DNR says that they can come up with rules and regulations, that are less stringent than DNR rules and regulations, is that correct? This is the basic philosophy applying here?

MR. HASELTINE: Private roadways, to continue, and I will wrap it up then. Nothing in these regulations shall be construed to prevent the owner of the real property used by the public for purposes of recreational vehicular travel by permission of the owner and not as a matter of right, from pro-

hibiting such use, or from requiring other or different or additional conditions than those specified in these regulations, or otherwise regulating such use as may seem best to such owner. Translated, I am a layman here. Translated meaning if I own property adjacent to the Highway Department, I do not relinquish any of my rights whatsoever, and obviously anyone that is violating my rights, whether snowmobile or bicycle, it is not the intent of the Highway Department to infringe upon any of my private property. Is that simply stated what you have in mind?

MR. HEINEN: Yes, you are right there. We cannot infringe upon the person's rights.

MR. HASELTINE: Nor can I as a private property owner extend my line limits to restrict the use of the highway rights of way conversely?

MR. HEINEN: Right.

MR. HASELTINE: Thank you, gentlemen. That's it. Thank you very much for the invitation here, and if there is anything further we can do, please call on us. Thank you again.

MR. HEINEN: Thank you, Mr. Haseltine. The next gentleman is Randall J. Cleven, Minneapolis, Minnesota, representing himself.

MR. CLEVEN: I don't really feel it is necessary to swear to anybody. What I say is going to be essentially the

truth. I want to talk to you just specifically from my point of view. Last summer my wife and I and my son, who is seven, went on a bicycle trip. We got 170 miles out of the city, and I got hit by an automobile. We traveled essentially on back county roads. If I had to do this same trip all over again, I would go right down Highway 35W straight to Duluth. Now that's illegal. But that is the only place where you have got enough room between you and the automobiles.

Now, on some of the county roads that we were on, there were maybe one car per hour. But this car, because these roads were not properly patroled, were traveling in excess of the speed limit, probably upwards of seventy-five miles an hour. They did it consistently. There were very few people that drove on those roads at the proper fifty-five mile an hour speed limit. Now, this was not to say the least pleasant way to travel. I feel it should be. I do not feel that this type of thing, the figures that you have per lane development, is something that is going to be very helpful to the bicyclist. Now those county roads would be fine if you would give us maybe two feet of shoulder, plus another foot of the roadway, that's three feet, that would be sufficient for us to travel if again the speed limits were enforced in that particular area. I submit to you that they would be if this was designated as a path, for example, to the numbers of areas in the state that would be nice to go to by bicycle.

The North Shore, for example, Detroit Lakes. There should be facilities for these county road pathways. It is a very serious mistake. I submit to you that it would cost one heck of a lot less than making ten foot shoulder lanes and then putting barriers there to keep the cars away. I don't think that will ever be implemented. Now, you might have ten miles here, ten miles there. By 1980 there is no way we will be able to get from here to Duluth or from here to Detroit Lakes or from here to wherever these people might want to do their camping.

I also submit that there was not a whole lot of cooperation from your predecessor, Mr. Lapagaard. I believe there was an article in the newspaper a week after I had been in to talk to him about how upset some public - one of his constituents was because of being run over on the side of a road. To give some idea of how much room we had, this table is about the width that we were using. Consider the edge lines on the road, the white lines that define the road, gives about half of this. I put my wife in front and my son in the middle, and both of them would ride inside that white line. That left them about, oh, maybe a foot to ride on. I rode a foot to the outside of that white line so that people would have to go around me. Well, needless to say, in Sandstone no one went around. Ended up with me on one side of the road and my bicycle in pieces on the other side, and on a clear day like

today the gentleman said, "Well, I just didn't see you." Okay. I can believe that. He wasn't accustomed to seeing bicyclers on that kind of a road and he probably did not see me. But if that road was designated as a bicycle path, I am convinced that he would have at least been aware that there might be a possibility of someone riding on this road. And that, gentlemen, is what I would like to see you look into. Thank you.

MR. HEINEN: Thank you, Mr. Cleven. We certainly will.

I believe that pretty well, unless I have missed someone who has indicated on the sign-in sheet that they would care to present a statement, I believe it completes -- there was a couple of maybes. If those folks would like to get up, yes.

GARY CARLSON,

after having been first duly sworn, testified under oath as follows:

MR. CARLSON: Gary Carlson, C-a-r-l-s-o-n. I am representing today the Minnesota Public Interest Research Group, commonly known as MPIRG. Several other members of the Minnesota Bicycling Community have made excellent comments on the needs of the cyclers. In substance, I agree with the comments.

I will not repeat them.

I have several comments which relate directly to the proposed standards. On Page 2, Section 3, the definition of bicycle lanes includes the word recreational. The intention of the bill requiring these standards to be drafted include a distinction that bicycles were more than just recreational vehicles. This distinction has not been carried out in the rules as proposed.

Page 5, Section 17, Page 6, Line 8, includes similar flaws. On Page 8, Line 1, I would agree with Mr. Haseltine that requiring each trail, each proposed trail to be utilized by more than one type of vehicle is advantageous, but also may preclude trails where they are required. The example Mr. Voxland used was trail to the airport or from St. Paul to near the airport. It is very unlikely that too many snowmobiles would be using that trail, yet it is desperately needed. That's essentially the substance of my comments.

MR. HEINEN: Thank you, Mr. Carlson. We will certainly take those into consideration.

Another gentleman asked to say a few words. He didn't show to make a statement. Mr. Jake Koppendrayer, County Commissioner of Mille Lacs County. Mr. Koppendrayer.

MR. KOPPENDRAYER: I am Commissioner from the First District of Mille Lacs County, Jake Koppendrayer is my name.

What I am going to say, just a few words about a

bicycle. When I visited the country of Holland in 1970, Holland being a very small country with thirteen million population has seven million bicycles. Of these seven million, two million are what they call broughm fetes. That's a buzz bicycle. It has a little motor of the size of two fists on the front wheel. They are not called motorcycles. This small motor is an assist to people who are elderly, tired, heart patient or anything. But bicycles are the main way of transportation. There are many small cars coming, but bicycles is still the main object of transportation for shoppers, for going to work, for going to church or for recreation. But especially going to work. The villages or the buroughs are very close together. They are not long distance like you would find in the rural areas of Minnesota. Every road has its bicycle paths between all the -- all the roads are hard surfaced there. You won't find a gravel road in Holland. There is a small strip probably a foot wide of grass between the hard surfacing of the bicycle path and the road. In the rural areas most of the bicycle paths are about thirty inches wide. In the metropolitan areas there are actually - or I would have to say I did not see any specific bicycle streets or paths. They are amongst the cars, just scares you. But you seem to get used to it.

The gasoline there is so expensive that I can very well see why the bicycles are the main object of transportation.

When I look at the energy situation here and looking way ahead, then I would like to see the Highway Department take into thought a long range planning that we may come to this, that we are going to use some other manner of transportation than something that burns a lot of energy. These small things they call the buzz bikes, and they also have motorcycles, although not very many, but small buzz bikes travel in excess of one hundred miles a gallon. They are started pedaling and let the motor down and takes off, and sounds like a very small chain saw, but it is a big assist to the elderly and to the ladies who use the bicycle. The motorcycles are not allowed on the bicycle paths. Only the buzz bikes and the bicycles. So that's about all I would like to say. But just that it is the main source of transportation there, and they do separate the rural areas. By the way, I have to tell you the reason why. There is no speed limit in Holland. Cars go as fast as they want to, until they hit an urban area, and then they hit the speed limit signs. Thank you.

MR. HEINEN: Thank you, Mr. Koppendrayer, for those remarks. Quite interesting.

I might entertain once more if there is anyone else in the group? Yes, sir.

MR. BUCKHOLTZ: My name is Charles Buckholtz, President of Dakota County Trails, Dakota County. I would like to make a few comments.

Most of the snowmobilers and bicyclers have spoken and said just about everything they wish to say. However, I do favor using the county roads and town roads that are less traveled so that we may have an immediate trail system. I think the trail systems are there right now, all that has to be done is pick out the roads that are not being heavily traveled. You could restrict one lane to the people that live on that particular road, turn the other lane over to the bicyclists which would give them all the room required or even half the lane. Use the ditches for the snowmobiler and the horseback rider which we are very compatible also. This is about all I have to say. I think your idea on the trail system, other than the corrections that have been made today, is fine, except that you are five years too late. I think everybody knows that, and I think if you go with the idea that I have thought, and which I have talked about here, using the rural roads, less traveled roads, we could have an immediate trail system. I think that's what it is all about. Thank you.

MR. HEINEN: Thank you, Mr. Buckholtz. That's a real good suggestion. We will take that under consideration, too. Yes.

THE FLOOR: May I ask a question? I was concerned about what will happen to this document after the thirty day -- I understand there is another thirty days where you can submit --

MR. HEINEN: Yes, after the thirty days that you can

submit any further written statements, we would then come up with the final rules and regulations and file them with the Secretary of State to be made a regulation. That way they become regulations, Department of Highway Regulations. We will be in contact with the people that have raised questions, we would hope to be able to then show them in our regulations their consideration has been given to their concerns, and at that time they would be advised of what happens.

THE FLOOR: Sir, do you see the need for any further public hearings before the final draft?

MR. HEINEN: At this time it would be difficult to say until we have had a chance to review all of this and see if there are any major changes that we would want to do.

THE FLOOR: You would then in your judgement call another public hearing if the changes are excessive?

MR. HEINEN: Better ask Mr. Anderson.

MR. ANDERSON: Yes, I think it would depend on how major any changes were going to be. I think if they got to be major changes, you know, might be appropriate to have more hearings on these. But as Mr. Heinen said, it is hard to tell that until you decide what, if anything, to do with the regulations in their present form.

THE FLOOR: Thank you.

MR. HEINEN: At that time if we did continue the hearing or - I believe that is what it would be called, a con-

tinuation of this hearing, we put out notices again, and you would have to ask Ken Bjork if it would take thirty day's notice again, I don't know. I don't think it would be. We would all have your names here to give you especially a notice, and we would make a publication in the papers like we have before. I wouldn't think we would want to go thirty days if we could help it.

Okay. That would be the end of this hearing. As I have stated before, you have thirty days from this date to submit any written statements, and at that time we will consider them. Thank you.

* * *

STATE OF MINNESOTA]
: ss.
COUNTY OF DAKOTA]

Be it known that I recorded the hearing before the Commissioner of Highways, on the 24th day of February, 1975, at St. Paul, Minnesota;

That I was then and there a notary public in and for the County of Dakota, State of Minnesota, and that by virtue thereof I was duly authorized to administer an oath;

That the witnesses before testifying were by me first duly sworn to testify the whole truth and nothing but the truth relative to said cause;

That the testimony of said witnesses were recorded in Stenotypy by myself and transcribed into typewriting under my direction, and that the hearing is a true record of the testimony given by the witnesses to the best of my ability;

That I am not related to any of the parties hereto nor interested in the outcome of the action;

WITNESS MY HAND AND SEAL THIS 26th DAY OF FEBRUARY, 1975.

[Seal] /s/ John T. Kirby

JOHN T. KIRBY
Notary Public, Dakota County, Minn.
MY COMMISSION EXPIRES
November 9, 1976

City of
MOORHEAD
Box 779
Moorhead, Minnesota 56560

January 27, 1975

Mr. Lyle L. Hansen, Director
Office of System Planning
State of Minnesota
Department of Highways
St. Paul, Minnesota 55155

Dear Mr. Hansen:

Enclosed is a copy of Moorhead's proposed Bikeway Plan for your review. Also attached is an evaluation of the draft rules and regulations establishing model standards for bicycle and recreational vehicle lanes. I sincerely hope consideration will be given to the Planning Departments recommendations.

Sincerely,

Dick Reis

Dick Reis,
Asst. Planning Director

encs.

pb

Public Exhibit I
2-24-75

Evaluation of Draft Rules and Regulations establishing model standards for bicycle and Recreational vehicle lanes on and along Public Roadways and Governing Trunk Highways

It is the opinion of the Planning Department that the draft rules are in need of major revisions. Without such changes local units of government will not be able to address the bicycle needs of its residents both for recreation and as an alternate form of transportation.

In the following paragraphs I will outline my major objections to the draft rules as they pertain to bicycles only.

Title 23 of the 1973 Federal Aid Highway Act Part 652 - Bikeways and Walkways in conjunction with federal and federal-aid highways - specifically states the following: Independent bikeway or walkway projects may be constructed on completed sections of federal-aid highway. Projects may include the acquisition of lands outside the right-of-way, provided the facility will accommodate traffic which would have normally used a federal-aid highway route disregarding any legal prohibitions on the use of the route by cyclists or pedestrians.

The Planning Department feels that secondary streets running parallel to the federal-aid urban system would qualify as a facility which would accommodate bicycle traffic that would have normally used the federal-aid routes. This type of bicycle system would attract the bicyclist off the heavy used urban streets and provide a safe and convenient bicycle system on the lesser used parallel secondary residential streets. In the draft rules only bicycle routes within the right-of-ways of the urban system are addressed.

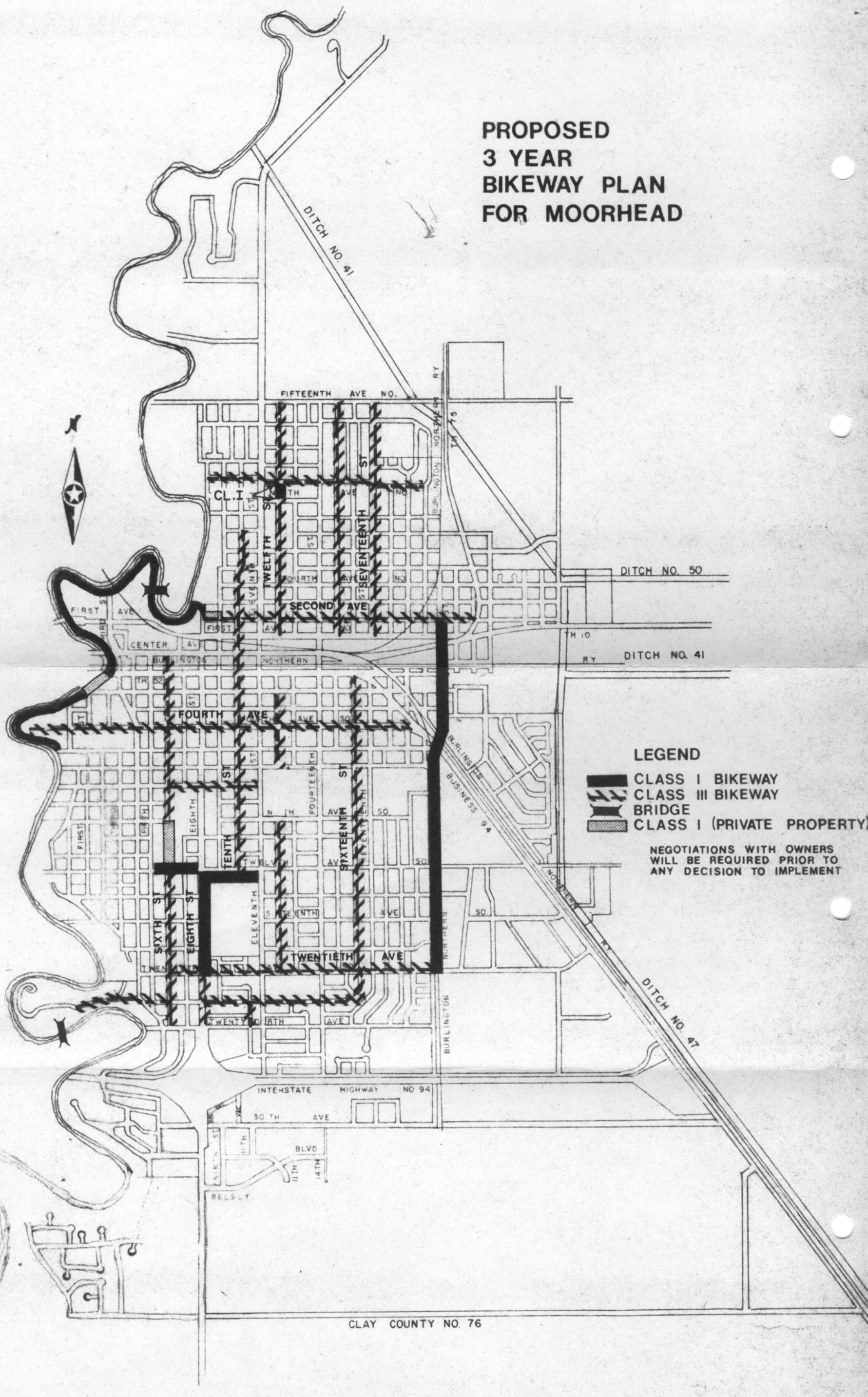
The Planning Department recognizes the importance of traffic volume criteria (Page 9, Draft Rules) in determining the type of bicycle lane, but the rules should be expanded to allow for other considerations to be taken into account in determining the type of lane. Additional factors should include the existing width of the road and its corresponding ability to absorb bicycle lanes on the paved surfaces, the type of traffic, the speed limit, parking problems, and adjacent land uses. Only when all these factors are weighed together can the best decision be made. To rely totally on an existing traffic count to determine the type of lane would result in many non-functional bicycle lanes and result in a waste of tax payers money.

Design standards for bicycle facilities are critical. They can make the difference between a viable system and one that is either abused or ignored. It is our opinion that the lane width should be

increased to a minimum of four feet for one-way and six feet for two-way travel in an urban section. The lane width of three feet and five feet respectfully as stated (Draft Rules, Page 13) would not be adequate on an urban route except for short stretches when no other alternative is possible. A three foot lane would allow only six inches of maneuverability on each side within the lane. In addition, it does not provide for one bicyclist to overtake another without going completely outside of the lane. In urban sections most streets are curbed. This is an obstruction to a bicyclist. Because of this the rider will be forced further outside of an already critically small lane. Three feet also restricts ones ability to avoid dangerous drainage grates and other obstructions that have a tendency to end up in the gutter. The same considerations apply to the five foot two-way bike lane.

The Planning Department feels that the federal intent in passing Title 23 of the 1973 Federal Aid Highway Act was to encourage viable bicycle systems for recreation and as an alternate form of transportation. The draft rules and regulations falls far short of this objective. Under the existing draft only fragmented and in many respects unsafe bikeways would be approved.

PROPOSED 3 YEAR BIKEWAY PLAN FOR MOORHEAD



CALIFORNIA
DEPARTMENT OF TRANSPORTATION

manual change transmittal

NO. M74-44

TITLE	DIVISION	DATE ISSUED
Highway Project Development Highway Design No. 7-81	Highways	7/11/74
		PAGE 1 OF 1
SUBJECT AREA	ISSUING UNIT	DISTRIBUTION
Bike Routes	Project Development Branch	All manual holders
REFERENCE	APPROVED BY	

Lub EXH 2
2-24-75
J.T.K.

Attached is new Section 7-1000 of the Highway Design Manual.

The new sheets should be placed after Section 7-900.

This new section covers the subject of bike routes on State highways. These standards can also be used for local roads, where applicable.

This manual change is effective August 1, 1974.

Attachment

DAS M6 102

Bike Routes (7-1000)

7-1000.1 Definitions

Bike route is used as a general term to designate all facilities that explicitly provide for bicycle travel in some way or other. These facilities may be classified into the following three types:

(1) *Shared Route.* A shared route is a street identified as a bicycle facility by "Bike Route" guide signing only. There are no special lane markings, and bicycle traffic shares the roadway with motor vehicles.

(2) *Bike Lane.* A bike lane is a lane on the paved area of a road for preferential use by bicycles. It is usually located along the edge of the paved area or between the parking lane and the first motor vehicle lane. It is identified by "Bike Lane" or "Bike Route" guide signing, special lane lines and other pavement markings. Bicycles have exclusive use of a bike lane for longitudinal travel, but must share the facility with motor vehicles and pedestrians crossing it.

(3) *Bike Path.* A bike path is a special pathway facility for the exclusive use of bicycles, which is separated from motor vehicle facilities by space or a physical barrier. A bike path may be on a portion of a street or highway right of way or on a special right of way not related to a motor vehicle facility; it may be grade separated or have street crossings at designated locations. It is identified with guide signing and also may have pavement markings.

Various other designations are sometimes used for the above types of facilities, such as Class III, Class II and Class I, respectively.

7-1000.2 General Design Philosophy

The primary purpose of Section 7-1000 is to provide information and guidance on the accommodation of bicycle traffic on State highways. The design standards in this section are intended to be a guide as to how the existing road system may be supplemented with facilities or measures specifically designed to enhance the safety and feasibility of bicycle travel. The standards represent an attempt at a consensus as to what is required to provide a good level of service for cyclists. Since experience and research in this area are relatively limited, the standards are based on a combination of theory, empirical analysis, and the subjective judgment of cyclists.

It is recognized that much of the existing street and highway system is suitable for general cycling. The Department supports the precept that cyclists are entitled to use all public roads except certain prohibited freeways. The fact that standards have been established for designating portions of some roadways as bike routes is not intended to affect a cyclist's right to use other roads as well.

In planning any highway improvement, consideration should be given to the bicycle as a potential part of the traffic mix, whether or not the highway includes a designated bike route. In order for the bicycle to be a viable transportation alternative, the opportunity for a cyclist to ride his bicycle to virtually any destination he may choose should be preserved, restored or initially provided, as the case may be. The mere provision of well maintained paved shoulders along as many roads as possible will bring this objective much closer to realization.

Finally, the designer should be aware that a cyclist is capable of adapting to quite a range of conditions. Thus, subject to adequate attention to safety, some departure from the recommended standards may be tolerated under special conditions where dictated by economic, environmental, or other considerations. Needs must be evaluated from a practical point of view, keeping in mind that the objective is to provide the most service for cyclists with the resources available.

7-1000.3 Policy and Warrants

It is Department policy to consider the needs of cyclists from a positive and cooperative point of view. When existing facilities that serve bicycle traffic are severed by freeway construction, service must be continued, either over satisfactory alternate facilities, or by means of new construction at State expense. When a District becomes aware of a probable need to provide for bicycle travel in conjunction with any new or existing State highway, the District should carefully explore all pertinent facts, giving full consideration to the degree of need, anticipated volume and types of bicycle trips, input from user groups, compatibility with existing or planned regional and local bicycle facilities, effects on highway safety and capacity, departmental policies and guidelines, applicability of State laws, sources of financing, the possibility of a cooperative project and the alternative of using the existing highway. The final decision and recommendation should be a logical outgrowth of a planning type process involving the assembly and analysis of information relative to the need.

Although estimates of anticipated volumes of bicycle traffic are sometimes rather speculative, they are one of the factors that should be considered in establishing the need for a bicycle facility. Predictions of bicycle ADT's can be made on the basis of: field counts (adjusted for anticipated increases generated by the new facility), distribution of an appropriate questionnaire to a statistically valid sample group, an origin and destination survey of potential users, consultation with local groups such as schools, cycling

clubs, etc., judgment based on experience with similar facilities or other appropriate means.

The selection of the type of bicycle facility to be provided is influenced by a number of factors. Among the considerations are:

(1) *Character of the User.* Users may include elementary school children with their first two wheel bicycles, casual recreational cyclists, commuters, highly experienced individual or club cyclists, adult tricyclists, etc. It is desirable that some facilities, such as those used extensively by young children for access to schools and playgrounds, be separate from motor vehicle facilities, if possible. However, if the users are primarily mature riders, the highway shoulder may accommodate them adequately.

(2) *Feasibility.* In some areas, such as congested urban localities, it is difficult to provide separate facilities because of right of way constraints and frequent intersections.

(3) *Roadway Conditions.* The negative and positive features of such factors as motor vehicle speeds, volume of commercial traffic, parking densities, spacing between intersecting driveways and streets, motor vehicle turning volumes, width and smoothness of shoulder areas, etc., should be analyzed in determining whether a designated bicycle facility can be accommodated on the roadway.

(4) *Other Factors.* Due to the physical demands of cycling, the rider has a great urge to maintain momentum, particularly on trips of more than a mile or two. Thus, where longer trips predominate, the desirability of minimizing the number of stops required should be kept in mind.

Also, a cyclist will tend to select the most direct route which in his judgment is acceptable, whether or not it is a designated bicycle facility. Thus, in general, bike routes should tend to follow the most direct course feasible between logical origins and destinations.

7-1000.4 Shared Routes

A shared route may be established by placing "Bike Route" signs along a road that is to be shared by bicycle and motor vehicle traffic. If the road is not wide enough to accommodate bike lanes, it should be considered suitable for bicycle travel only if motor vehicle volumes are fairly light. For example, a 30 foot wide, two lane facility with an ADT on the order of 2,000 motor vehicles or less might be designated as a shared route. Somewhat less width might be tolerable with very light traffic volumes.

The chief advantages of a shared route are:

a. The "Bike Route" signs alert motorists to watch for cyclists, and thus to some degree make the route safer for cycling.

b. The "Bike Route" signs can guide cyclists to a specific destination or through an unfamiliar area.

c. The "Bike Route" signs may attract use by cyclists, and thus further establish the road as a bicycle facility.

7-1000.5 Bike Lanes

Bike lanes for preferential use by bicycles may be established within the paved area of a highway. Bike lane stripes promote an orderly flow of traffic by establishing a specific line of demarcation between the area reserved for bicycles and the lanes occupied by motor vehicles. This effect is supported by signs and additional pavement markings. A cyclist can be reasonably confident that he will not stray into the path of a motorist if he remains within the bike lane. Likewise, with more certainty as to where a cyclist will be, a passing motorist has less of a tendency to swerve unnecessarily toward opposing traffic, in order to be sure that he will not hit a bicycle.

It is preferable that motor vehicle lanes adjacent to bike lanes be 12 feet wide, although lesser widths may sometimes be tolerable, particularly where both prevailing speeds and truck volumes are relatively low.

Bike lanes should be one-way facilities. Two-way bike lanes are generally unsatisfactory for the following reasons:

a. In most cases one direction of bicycle travel will be immediately adjacent to motor vehicle traffic moving in the opposite direction. The bicycles and motor vehicles will close with a speed equal to the sum of their individual speeds, thus greatly reducing the time available for evasive action in an emergency and increasing the force of any collision.

b. Since a motorist who is about to enter a street on which a two-way bike lane is located usually does not expect a cyclist to be approaching from his right on the near side of the street, he concentrates his immediate attention to his left, and may pull out with insufficient clearance to avoid a collision with the cyclist on the near right.

In addition, there are grounds on which to question the legality of two-way bike lanes.

Some typical bike lane configurations are illustrated in Figure 7-1000.5, and are described below:

a. Figure 7-1000.5(a) depicts one-way bike lanes on an urban type curbed street where parking is permitted. Bike lanes are located between the parking lanes and motor vehicle lanes. Widths shown are in the satisfactory range, but may be varied slightly to fit the space available. For example, a foot or two of additional width in the parking lane will help to reduce the hazard to cyclists when vehicle doors are opened next to a bike lane. In some cases, it may be possible to prohibit parking during periods of

peak bicycle flow.

b. Figure 7-1000.5(b) depicts one-way bike lanes along the outer portions of an urban type curbed street where parking is prohibited. Widths showns are in the satisfactory range, but may be varied slightly to fit the space available. If there are vertical displacements at transverse or longitudinal gutter joints, additional width or remedial treatments should be considered. This is generally the most desirable configuration for a bike lane, as it eliminates conflicts with parked vehicles caused by parking maneuvers or the sudden opening of a vehicle door. As a prerequisite, however, it is often necessary for local interests to provide adequate off street parking.

c. Figure 7-1000.5(c) depicts one-way bike lanes on a rural type highway without curbs. Widths shown are minimum, and additional width is desirable, particularly when motor vehicle speed limits exceed 40 mph.

d. Where no other feasible route is available, bike lanes may be established on the outside shoulders of a freeway or expressway, as illustrated in Figure 7-1000.5(d), subject to the following conditions:
   - There is a reasonable need and demand for such a bike lane, and local authorities are in concurrence with the proposal.
   - A paved outside shoulder, preferably at least 8 feet wide, exists on each side of the road.
   - Bicycle travel is in the same direction as the adjacent motor vehicular travel.
   - The facility will not be used extensively by young children.
   - Either no ramp connections are crossed by bicycle traffic, or those crossed have a motor vehicle ADT of 800 or less. In special cases where it is feasible to direct cyclists to leave and reenter the freeway via the ramps, thus avoiding undesirable crossing or weaving movements at ramp connections, bike lanes may sometimes be established along freeways even though ramp volumes exceed 800.

Notwithstanding the above, where unusually hazardous conditions exist, bicycle travel should not be allowed on freeway shoulders.

7-1000.6 Bike Paths

Bike paths may be constructed along alignments generally parallel to highways or more or less unrelated to highways. See Figures 7-1000.6A and B. The chief advantage of bike paths is that motor vehicles cannot encroach on them, except at intersections at grade.

Bike paths tend to be easier to lay out in the green belts of specially designed subdivisions, parks, other open spaces and rural areas. However in addition, bike paths may be the appropriate solution in such cases as the following:

a. To serve schools and playgrounds in urban areas, if right of way is available.

b. To serve a bicycle demand which would otherwise have to be served by a freeway or some other high speed arterial with heavy traffic volumes.

c. To bypass constricted areas where right of way constraints preclude the development of bike lanes.

d. Along natural or man made features which have few cross roads, such as rivers, canals, abandoned railroads, utility easements, etc., where these features correspond to a reasonable degree with desired routes for bicycle travel.

As implied above, intersections are a prime consideration in bike path design. If alternate locations for a bike path are available, the one with the most favorable intersection conditions should generally be selected.

At intersections at grade where cross traffic is heavy the right of way should generally be assigned by traffic signals, if a grade separation is not feasible. At such locations grade separations are desirable to eliminate conflicts with motor vehicles, but both the availability of funds and right of way constraints will limit the number that can be constructed. Where traffic is less heavy, "Stop" or "Yield" signs may suffice.

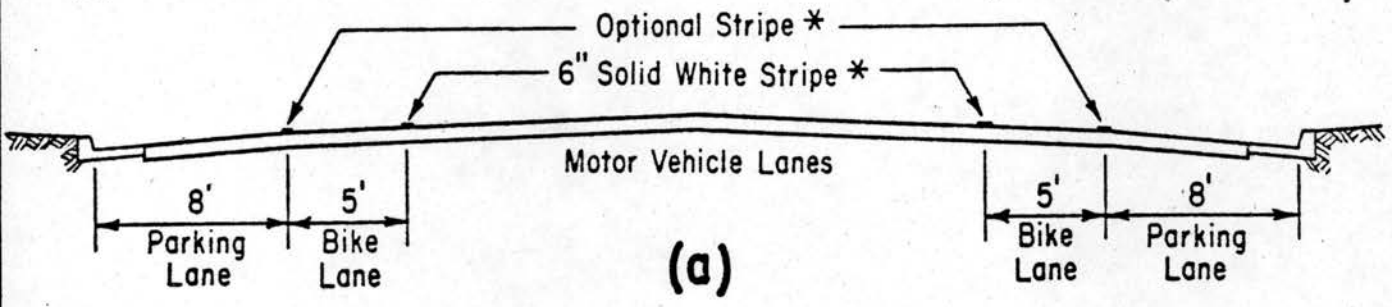
The basic typical cross section for a bike path is an 8 foot paved section with a 2% cross slope within a 14 foot graded area. The outside graded area should have a flush junction with the path, and slope smoothly and gently away from the path. The 8 foot paved width is the minimum for two-way use, for passing slower bicycles, and for the accommodation of light vehicles used in maintaining the bike path. A center stripe may be provided to help separate opposing directions of travel.

Five feet is the minimum width for one-way travel, but may be impractical where maintenance vehicles must be accommodated. Ease of access for maintenance forces is an important design consideration. Attention should also be given to construction equipment requirements in terms of horizontal clearances, vertical clearances, turning radii, etc., unless it is concluded that environmental or other considerations justify the use of hand labor.

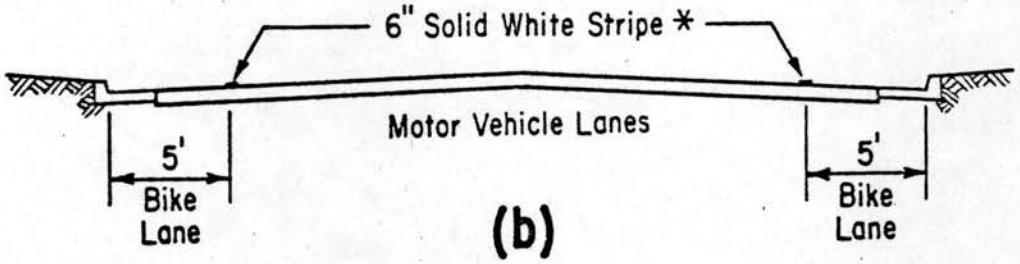
Where bicycle volumes are heavy (ADT over 1,000), speeds are high (such as on down grades) or where the bike path must be shared with pedestrians (generally not desirable), up to 4 feet of additional pavement may be provided. In some cases, where a few equestrians are expected, a 4 foot graded area can be provided on one side for their use. However,

TYPICAL BIKE LANE CROSS SECTION

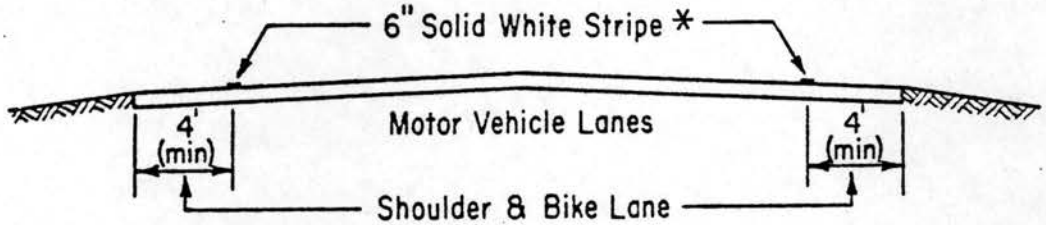
on 2-lane or Multi-lane Highways



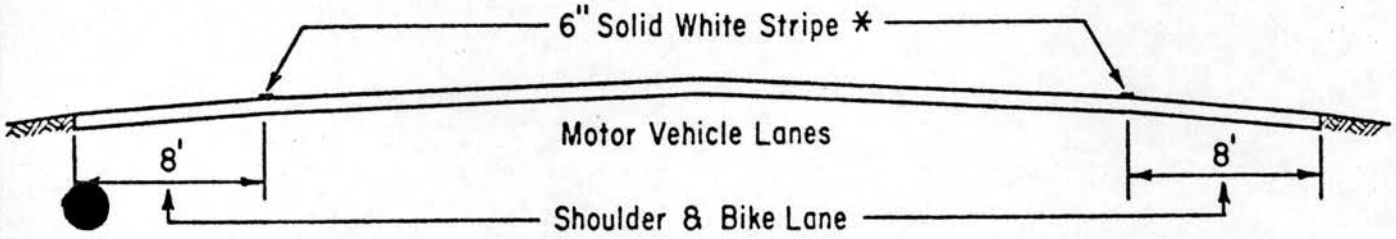
(a)



(b)



(c)

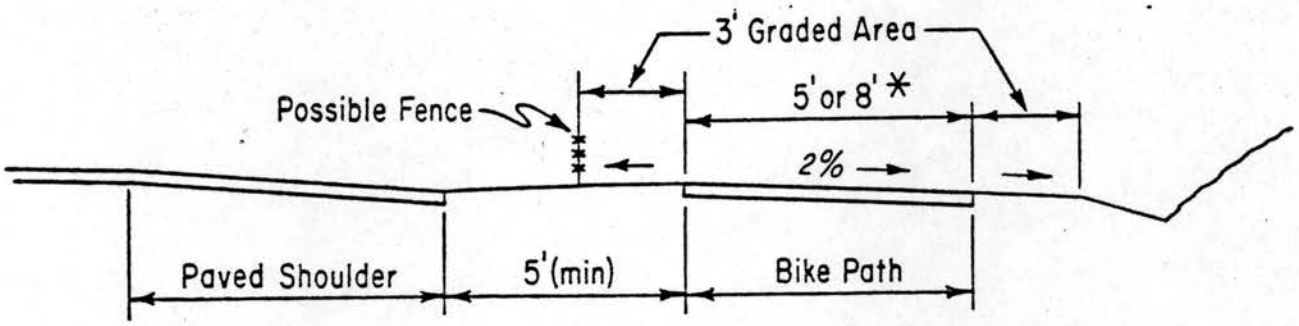


(d)

*....Final Striping Plan subject to Traffic Branch approval.

(A)

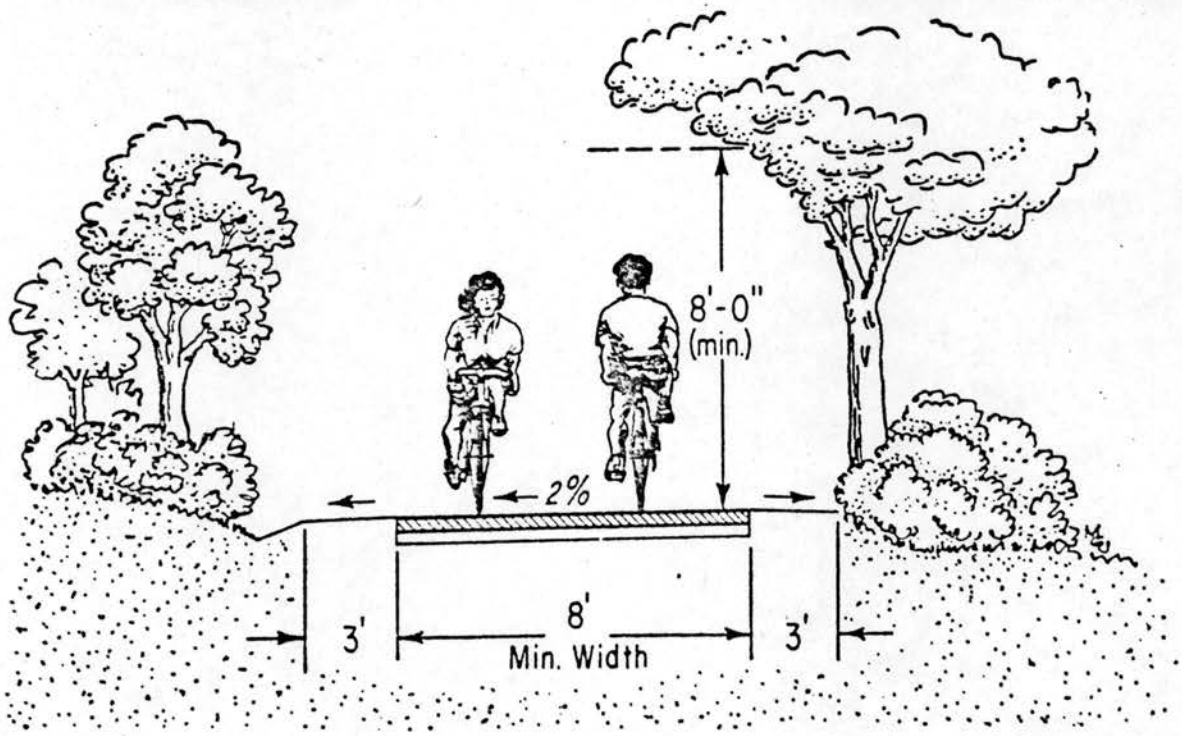
TYPICAL CROSS SECTIONS BIKE PATH ALONG HIGHWAY



* 1-Way : 5' Minimum Width
2-Way : 8' Minimum Width

(B)

TWO WAY BIKE PATH ON SEPARATE ALIGNMENT



if the equestrian traffic is more than this, each mode should be on a separate facility.

Bike paths along freeways should be clear of a 30 foot recovery area wherever feasible. Due to the hazards physical barriers, guardrails, concrete walls, etc., present to motor vehicle traffic, their use along bike paths should be restricted to situations where substantial hazards to bicyclists may exist. Along freeways, in particular, use of a fence to separate motor vehicle and bicycle traffic should be considered where the location of the bike path is such that out of control or unwary cyclists may easily enter the traveled way of the highway. Where practical, the regular highway fence may be used for this purpose with the outside of the bike path being unfenced.

Consideration should be given to the provision of simple rest stops and vista points where feasible along bike paths when such facilities are not otherwise available.

In general, the use of sidewalks for bike paths is not satisfactory because of conflicts with pedestrians, driveways, building entrances, cross streets, etc., as well as sight distance restrictions caused by shrubbery, buildings, signs, etc. Only in very special situations may bike paths be established on lightly used sidewalks that have few intersecting driveways, alleys, and cross streets. Intersection treatment in such cases will be similar to that of bike paths along arterials. See Figure 7-1000.10C and accompanying text.

7-1000.7 Existing Streets and Highways

As a practical matter, cyclists will probably do most of their riding on existing streets and highways that are not designated bicycle facilities. It will be necessary for them to share the roadway with motor vehicles.

Sometimes certain modifications to a roadway, undertaken to improve the flow of traffic, can create hazardous conditions for cyclists. For example, the elimination of shoulders caused by restriping to provide additional traffic lanes or turning lanes may in effect crowd bicycles off the road. The provision of a free right turn at an intersection also creates a point of conflict with through bicycle traffic.

When it becomes necessary to modify the roadway cross section, it is desirable to preserve or provide an adequate shoulder for cycling and other uses. If this is not feasible, the outside lane should be wide enough to accommodate joint use. A minimum paved width of 15 feet is recommended for such situations.

7-1000.8 Reasonable Alternate Facilities

As mentioned above, when existing cycling routes are severed by freeway construction, the Department is required to see that service is continued, either over satisfactory existing facilities or by means of new construction. Under the warrants and policy in this section, an existing route is not considered to be an alternate satisfactory facility for bicycle travel if any of the following conditions prevail:

a. The paved width is less than 30 feet while the two-way vehicular ADT is greater than 2,000.
b. The out of direction travel for cyclists is unreasonable. No precise formula is available as to what is reasonable, as many factors must be considered. As a guide, it is suggested that out of direction travel of up to one quarter mile or 20 percent of the average trip length, whichever distance is greater, be considered acceptable.
c. The horizontal and vertical alignment of the facility does not meet either the standards of the severed route or those set forth herein for bike routes, whichever are least. Note that, in general, a cyclist will prefer to follow the route with the least steep grades, even if it is longer. Thus, the more that the grades on a possible alternate facility exceed those on the base facility, the less reasonable and feasible is the alternate facility.
d. The facility does not have a smooth enough pavement to accommodate bicycles in reasonable comfort, i.e. contains pot holes, wide cracks, ravelling, corrugations, loose material, debris, etc.

Again, it should be noted that it is not the Department's intention to prevent cyclists from using such facilities when they desire to do so.

7-1000.9 Miscellaneous Considerations

(1) *Special Destination Signing.* Every effort should be made to avoid ending bike routes at illogical locations. Undesirable termini include such locations as the middle of open country and the edge of an unfamiliar urban area, which the touring cyclist may wish to pass through by the most direct route. Where a bike route nevertheless does end at such a location, it may be desirable to place directional signs showing the route to some logical destination such as another bike route, a recreational area, the next town, etc.

(2) *Maintenance.* Deliberate measures should be undertaken to ensure that the surface of any bike route is maintained in a smooth condition free of pot holes, corrugations, gravel, broken glass and other debris. Roadway debris is often pushed off to the shoulder area by the action of traffic and presents an obstacle to cyclists. Observations have shown that many cyclists would rather ride in a motor vehicle lane than contend with debris that might cause a flat tire or loss of control.

(3) *Surface Drainage.* For proper drainage the surface of a bike path should be sloped transversely at a rate of approximately 0.02 foot per foot. Sloping in one direction usually simplifies longitudinal drain-

age design and surface construction and, accordingly, is the preferred practice. Ordinarily, surface flow off of the path will be adequately dissipated as it flows down the gently sloping shoulder. However, when a bike path is constructed on the side of a hill, a drainage ditch of suitable dimensions may be desirable on the uphill side to intercept the hillside drainage. Where necessary, catch basins with drains should be provided to carry the intercepted water across the path. Culverts or bridges are also usually required where a bike path crosses a drainage channel.

(4) *Drainage Grates and Manhole Covers.* Drainage inlet grates, manhole covers, etc., should be designed and installed in such a manner as not to present a hazard to cyclists. They should be maintained flush with the surface when resurfacing.

Drainage inlet grates with openings large enough to admit bicycle tires can cause serious accidents by bringing a bicycle to a sudden halt. Grates installed in areas accessible to bicycles should have openings narrow enough or short enough to preclude this possibility, regardless of the direction of bicycle travel. Standard Plan Drawing D77-B shows the details of approved bicycle proof grates. As an alternate, where it is not immediately feasible to replace existing grates with the latter, 1" x ¼" steel cross straps may be welded to the grates at a spacing of 6" to 8" on centers, so as to reduce the size of the openings adequately.

(5) *Storage Facilities.* Bicycle racks, lockers, or other storage facilities are desirable at logical cyclist destinations, and should be encouraged. Normally, however, it is the responsibility of others to provide such facilities, as the Department has no funds for this purpose.

7-1000.10 Geometric Design Standards

Widths for bike routes were discussed in Indexes 7-1000.4, 7-1000.5 and 7-1000.6. Most other geometric features of shared routes and bike lanes—design speed, sight distance, alignment, etc.—are the same as the highways of which these facilities are a part, and therefore are usually adequate. Thus, the following standards apply mostly to bike paths, but should be considered, where applicable, in the establishment of shared routes and bike lanes.

(1) *Design Speed.* The speed that a cyclist travels is dependent on such factors as the type of bicycle, grades, surfacing, wind velocity and direction, and the physical condition of the cyclist. Whether the bike route is used for recreation, commuting, or long distance touring may also affect the proper choice of design speed.

The following design speeds establish the minimum standards which facilities should meet for the conditions noted:

Table 7-1000.10A
Relation of Conditions to Design Speed

Conditions	Minimum Desirable Design Speed (mph)
Urban—city streets, not a separate bike path	15
Open country, level or undulating; separate bike path in urban areas	20
Long downgrades	30

Although prudent cyclists will hold their speeds down if the topography makes the need to do so apparent, it should be borne in mind that speeds of over 40 mph are attainable on long, steep downgrades. Higher than the minimum desirable design speeds may be considered under such circumstances. Design speeds for one-way, up hill facilities may be reduced, depending on the steepness and length of the grade.

(2) *Sight Distance.* Sight distance is the length of bike route ahead visible to the rider, including intersecting roads and driveways. Sufficient sight distance must be provided so that the rider can either stop or take evasive action to avoid a collision when he comes upon an obstruction or another vehicle along the bike route. An adequate lateral view must be available at intersections and driveway connections. Passing sight distance is not considered, due to the relatively low speeds and high maneuverability of bicycles. The following are the minimum stopping sight distances for various design speeds:

Table 7-1000.10B
Sight Distance Standards

Design Speed (mph)	Minimum Stopping Sight Distance (feet)
10	50
15	80
20	120
25	160
30	200

Stopping sight distance is measured from the rider's eyes which are assumed to be 4.25 feet above the pavement surface to an object 0.05 foot high on the bike route.

Stopping sight distance at grade crests may be checked using the following approximations:

When $S < L$, $L = \frac{AS^2}{1040}$ When $S > L$, $L = 2S - \frac{1040}{A}$

Where: S = Sight distance in feet
L = Length of vertical curve in feet
A = Algebraic difference in grade rate in percent

Stopping sight distance in undercrossing separations should be checked to ensure adequate sight distance beneath the overhead obstruction.

(3) *Horizontal Alignment.* The minimum radius of curvature of horizontal curves must be consistent with design speed, safety, grade profile, type and use of facility, topography, and reasonable construction cost.

Below is the minimum radius of curvature for specific design speeds, assuming a superelevation of .02 ft/ft:

Table 7-1000.10C
Standards for Curve Radius

Design Speed (mph)	Minimum Radius (feet)
10	15
15	35
20	65
25	100
30	140

The minimum radius can be decreased approximately 2% for each .01 ft./ft. increase in superelevation. However, in general, it is recommended that superelevation not exceed .05 ft./ft., as the lean of a bicycle in traversing a curve helps to overcome centrifugal force. Lower superelevations will generally tend to fit the terrain, minimize earthwork, lessen drainage problems and accommodate average speeds better. It is suggested that curves with radii less than 100 feet be widened one foot on the inside for each 25° of central angle, up to a maximum of 4 feet of widening.

On curves, superelevation should be applied by rotating the pavement around its inside edge, in order to avoid the creation of low spots in which drainage water can accumulate.

(4) *Clearances.* As illustrated in Figure 7-1000.6B, the desirable minimum lateral clearance to obstructions from the edge of pavement of a bike path is 3 feet. The minimum overhead clearance to overhead obstructions is 8 feet.

(5) *Grades.* Cyclist characteristics (age, weight, conditioning, oxygen intake, etc.), bicycle characteristics (gear ratios, type of bicycle, tires, weight, etc.) and the road surface have a bearing on the maximum acceptable gradient and length of a bike route grade. Existing topographical controls will often restrict the options as to grade but in general, it is desirable to design the minimum grade rate feasible, even if this increases the length of a facility. Although in special situations steeper grades may be tolerated for a few hundred feet, 5% is the maximum grade rate recommended for most designs. It is desirable that sustained grades be limited to 1% to 2%, if a wide range of riders is to be accommodated.

(6) *Structures.* Existing bridges may be widened to accommodate bike routes, or it may be appropriate to use the existing shoulders, if wide enough, for one-way bike lanes.

On long structures a physical separation such as a 4 foot chain link fence, positive barrier or island is usually desirable between motor vehicle and bicycle traffic. Where volumes are light, cost effectiveness considerations may dictate the omission of the separation in the case of one-way bicycle facilities. On short bridges painted stripes to delineate bike lanes will frequently suffice. It is desirable that outside bridge railings along bike routes be a minimum of 4 feet high so as to minimize the likelihood of a cyclist falling over the railing in the event of an accident.

Bike routes on bridges must be carefully coordinated with the approach bike routes to make sure that all elements are compatible. This includes toll bridges—see Section 30112 of the Streets and Highways Code. The utility of an expensive bike route bridge may be greatly reduced unless there is an adequate bike route approach. For example, bicycle traffic bound in opposite directions is frequently accommodated in one-way bike lanes on opposite sides of a highway. In such a case, provision of a two-way bike route on one side of a bridge would be inappropriate, as one direction of bicycle traffic would be compelled to cross the highway at grade twice to get to and from the portion of the bridge occupied by the bike route. This would be satisfactory only if a grade separation was provided for the two transverse crossings of the highway.

The following criteria apply to a two-way bike route on one side of a bridge:

(a) The bicycle approach to the bridge should generally be by way of a separate two-way facility for the reason explained above.

(b) A physical separation such as a 4 foot chain link fence, positive barrier, or island is needed to offset the adverse effects of having adjacent bicycles and motor vehicles traveling in opposite directions to one another.

(c) The physical separation should be designed to minimize both sight distance restrictions at ramp intersections and fixed end hazards for vehicles.

Separate overcrossing structures for bike route traffic will conform to the Division of Highways' standard pedestrian overcrossing design loading. The basic minimum width will be that of the approaching bike route. If significant pedestrian traffic is to use the structure, an additional width of 4 feet will usually be required.

As noted above, combination bicycle pedestrian facilities are not recommended, but cost considerations may lead to the construction of a multi-use bridge in certain situations.

(7) *Structural Section.* Basic bike route structural section criteria are that the section should be adequate to support the wheel loads of bicycles and light maintenance vehicles.

In general, asphalt concrete should be used due to its low cost, long life, smooth surface, and ease of maintenance. A mixture of ⅜ inch maximum aggregate and paving asphalt grade AR 4000 placed with an asphalt paver is recommended for general use. It is suggested that the asphalt content be from one half to one percent higher than that normally used on highway paving projects.

For all but the poorest quality basement soils (R-value less than 5), 0.25 foot thick asphalt concrete placed directly on prepared subgrade of basement soil is considered adequate.

(8) *Intersections.* Intersections with cross streets pose difficult bike route design problems. Most car bicycle accidents occur at these locations. Especially prevalent are those types of accidents involving straight through bicycle traffic and right turning motorists. The left turning cyclist also has a significant problem, as the bike route is usually on the right side of the street and the cyclist has to cross the path of cars traveling in both directions. At the same time, operating conditions at intersections are susceptible to improvement through an approach involving some or all of the following elements: signs, pavement markings, traffic signals, law, and education.

Signs and pavement markings can alert motorists to the presence of a bike route and to potential conflicts at intersections. Pavement markings can also delineate the exact location of the bike route. Where appropriate, traffic signals can assign rights of way. Law can clarify the respective rights of cyclists and motorists where their paths cross, or on shared facilities.

Education can enable drivers to adapt better to a traffic mix that includes bicycles, and can also help newer cyclists to perfect their skills.

While there is sufficient variation in conditions at intersections that each case must be individually engineered, some typical possibilities are illustrated below. Note that the sketches are schematic, and the precise details and standards used for signing, marking and electrical installations should be based on instructions issued by the Traffic Branch, DOH.

Figure 7-1000.10A schematically illustrates a typical intersection of multilane streets with bike lanes on all approaches. Some common movements of motor vehicles and bicycles are shown. As mentioned above, one of the most troublesome movements is that where a right turning motorist crosses the path of a straight through cyclist. In the event that a motorist does not see the cyclist, the motorist may hit him or turn immediately in front of him, so that the cyclist hits the motorist. Traffic engineering measures and legal clarification of right of way can help to alleviate this situation, but nevertheless as a matter of self preservation, it appears to be prudent for a cyclist to treat motorists in the right hand lane as possible right turners. The cyclist can then adjust his travel to ensure that he can avoid an accident if any unwary motorist makes a sudden right turn across the bike lane.

The negotiation of a left turn by a cyclist also poses problems at multilane intersections. Some cyclists are proficient enough to weave through one or more lanes of traffic to use the left turn lane provided for motor vehicles. However, there are many people riding bicycles who do not have this capability. They have the option of making a two legged left turn along a course similar to that followed by a pedestrian, as shown in the diagram.

Figure 7-1000.10B shows schematically the recommended means by which to carry a bike lane through ramp connections that may be encountered on a freeway or crossroad. The optimum angle of the ramp crossing tends toward a right angle to maximize visibility and minimize the time of exposure to collisions, but is skewed slightly to be more traversable. Bicycle traffic should be controlled by yield signs or stop signs. "Bike Xing" signs should be placed in advance of the crossing to alert motorists. Bike path crossings of ramp connections may be handled in a similar manner to that outlined above.

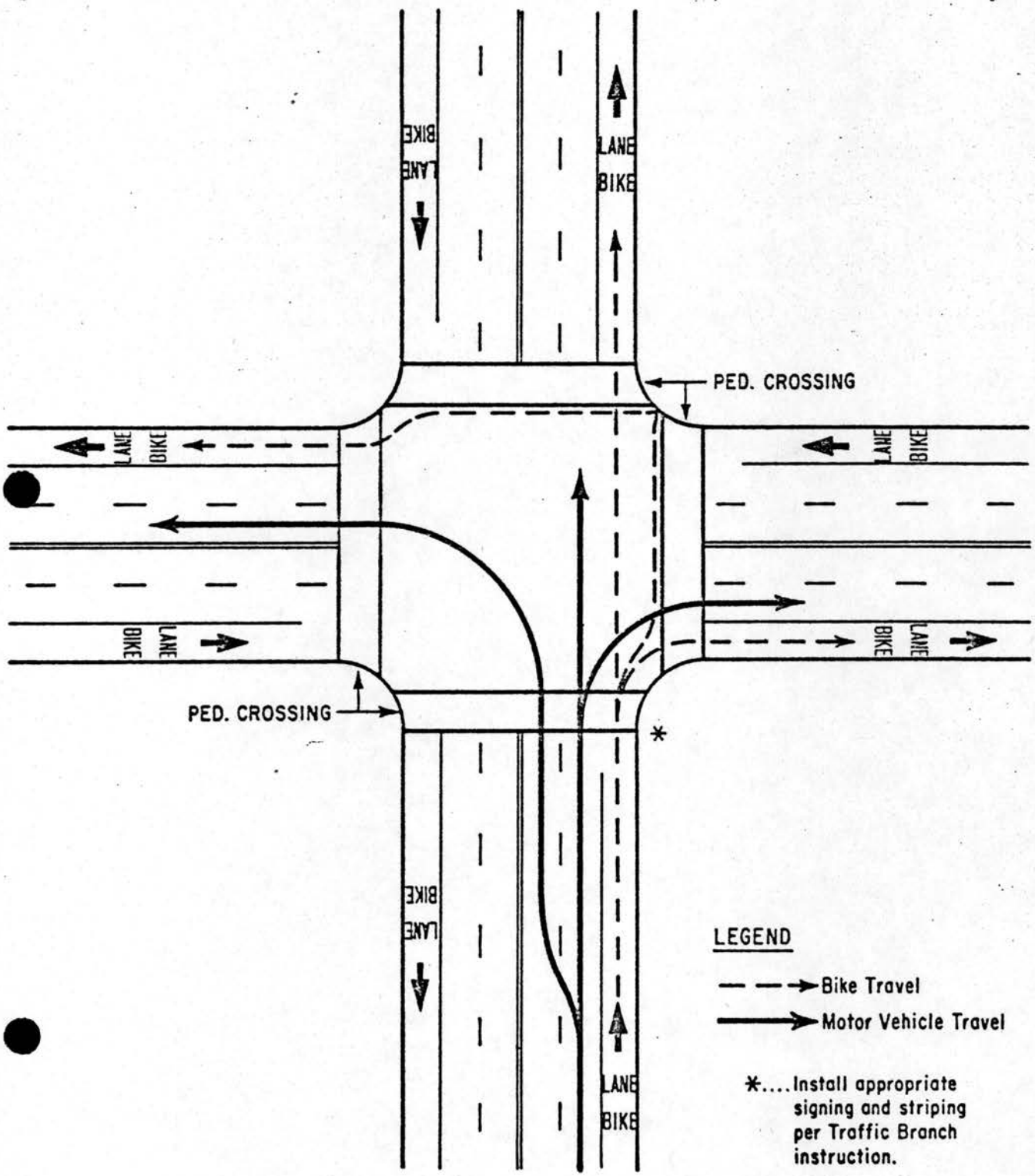
Figure 7-1000.10C shows schematically how a bike path parallel to an arterial may be carried across an intersecting crossroad. It is recommended that the crossing be located adjacent to the corner or the pedestrian crosswalk, if one exists, as this is the logical location for motor vehicles to stop. A curve in the alignment of the bike path just prior to the crossing may be helpful in promoting extra care on the part of cyclists. Right of way should usually be assigned by devices such as yield signs, stop signs, or traffic signals. "Bike Xing" signs may be placed in advance of the crossing to alert motorists. It is generally desirable to install ramps in the curbs to preserve the utility of the bike path by allowing cyclists to enter the crossing without dismounting. The driveway details in Figure 7-206.3 may be used for the design of the ramp with "W" equal to the width of bike path.

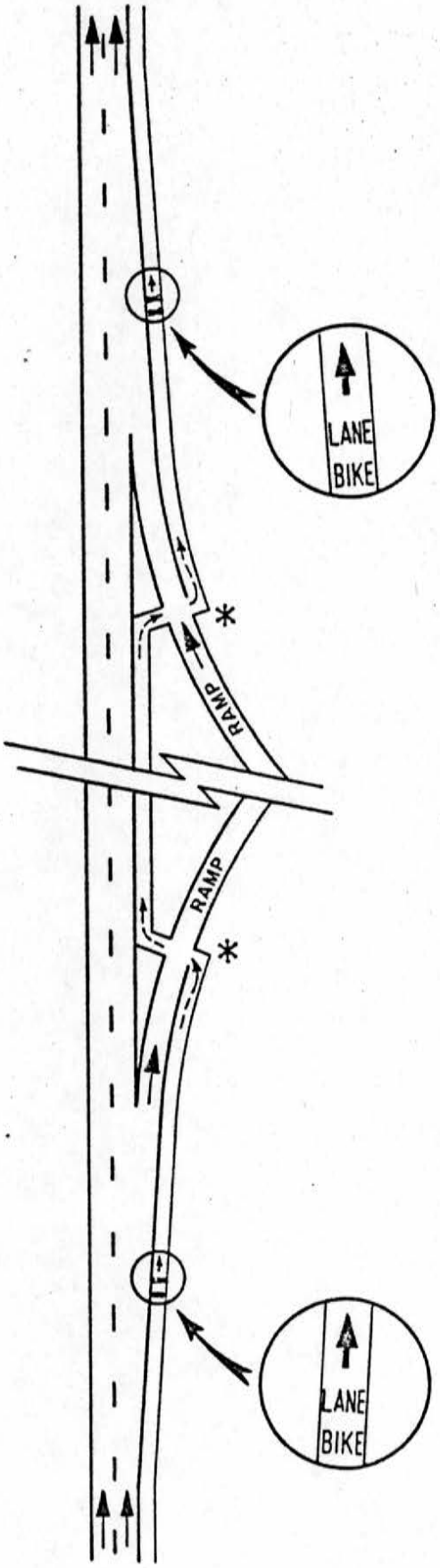
Where a bike path crosses a heavily traveled street at a midblock location, the installation of a traffic signal to be actuated by cyclists should be considered. In addition, at intersections where traffic signals exist, the possible need to make switches available to cyclists on adjacent bike lanes or bike paths should be considered. All such switches should be located where a cyclist can operate them without dismounting, generally on a post at the edge of the bike route.

Intersections with significant night bicycle traffic should be adequately lighted.

(9) *Signs and Markings.* The bicycle route signs and markings developed by the California Traffic Control Devices Committee have been adopted for use on California highways by the Director of Transportation.

BIKE LANES AT TYPICAL INTERSECTION OF MULTILANE STREETS





LEGEND

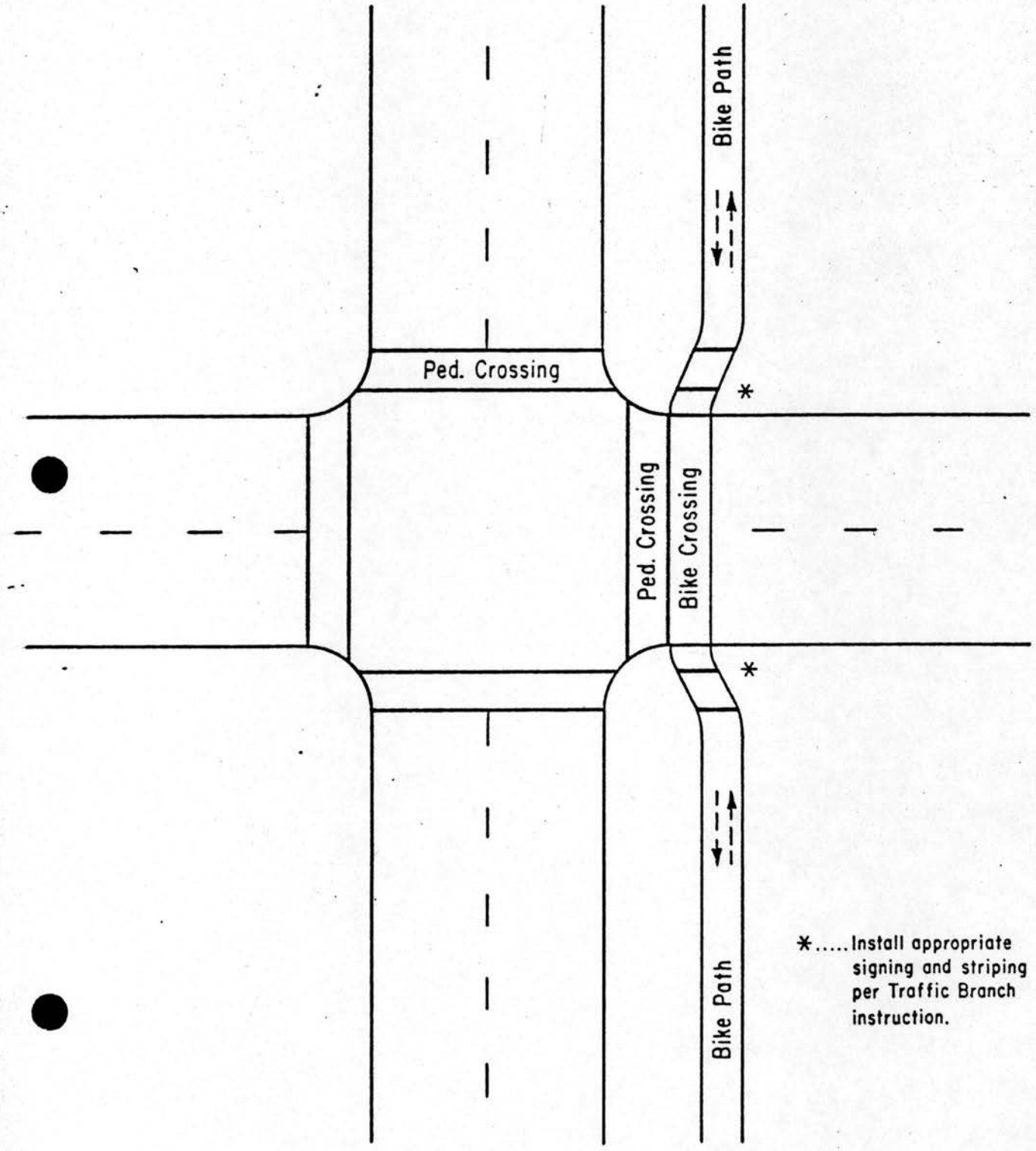
Bike Travel

Motor Vehicle Travel

*.....Install appropriate signing and striping per Traffic Branch instruction.

BIKE LANE THROUGH RAMP CONNECTIONS

BIKE PATH PARALLEL TO ARTERIAL CROSSING INTERSECTING ROAD



*.....Install appropriate signing and striping per Traffic Branch instruction.

7-1000.11 Approvals

Approval by the Project Development Branch, DOH is required for all bike route projects. A letter type report should be submitted, including a description of the proposal, justification, discussion of alternatives, cost estimate, and the other pertinent factors listed in the first paragraph of Index No. 7-1000.3. The Project Development Branch, DOH will obtain the approval of the Traffic Branch, DOH when a bike lane is to be established on a highway roadbed by striping.

Photoelectronic composition by
CALIFORNIA OFFICE OF STATE PRINTING

VC 86639—500 8-74 6M

Pub EXH 3
2-24-75 J.T.K.

Feb. 24, 1975

Response of the Minnesota Gopher Wheelmen to the proposed rules of the Department of Highways relating to Model Standards for Bicycle and Recreational Vehicle Lanes on and along Public Roadways

We find that the needs of cyclists are not best met by bicycle paths separated from roadways. Needs of cyclists are better met by lanes of adequate width marked on existing or widened roadways with no barrier.

The grouping of bicycles with recreational vehicles is unfortunate. Bicycles are a legitimate and important form of transportation. As such, the continued access to the public roadways, along with the privileges and responsibilities that go with it, is to the best interest of cyclists.

Our fear is that the provision of separate bicycle pathways from other public roadways could lead to restrictive legislation regarding the use of public roadways by cyclists. Repressive rules could originate in local munincipalities burdoned with the maintanence of a pathway as outlined in the proposal.

Other criticisms of the proposal are more specific. On pages 11 and 12 of the proposal the minimum design standards are outlined. Several of these are inadequate if applied to either a separate pathway or a non-separated lane. A minimum design speed of 10 mph is too slow. Cyclists travelling on a flat commonly maintain speeds over 15 mph. A design minimum of 20 mph is much safer and more appropriate.

A lane width of four feet is only adequate for for a bicycle lane separated from other traffic lanes by just a pavement markings. The pressence of a barrier on a four foot wide lane is dangerous. Likewise, a four foot wide separated pathway would be inadequate at speeds likely to be achieved by most riders. Also, a minimum sight distance to a potential hazard of 50 feet is much too short at the most probable speed of a cyclist.

The proposal does not state what surface will be used on bicycle facilities. Cyclists need a hard surface for maximum safety. Crushed limestone, gravel and clay do not provide a hard enough surface for safe cycling. A hard surface and the location of bicycle lanes with no barriers also insures that routine

maintainence operations can be accomplished simultaneously on the bicycle lane and the adjacent traffic lane.

We sincerely hope that these considerations can be incorperated into any rules that go into effect.

Submitted by

Paul D. Wyatt

Paul D. Wyatt
President, Gopher Wheelmen

2880 Val[illegible] Vista
New Hope, Minn. 55427
March 4, 1975

Mr. Frank D. Marzitelli
Commissioner of Highways
Minnesota Department of Highways
Saint Paul, Minnesota 55155

Dear Mr. Marzitelli:

Thank you for the opportunity to comment upon the rules proposed by your department regarding model standards for bicycles and recreational vehicles. While I laud the efforts of the Highway Department for developing the standards, there are several modifications that should be made before the rules are implemented.

The biggest problem in the proposal springs from the use of an invalid definition of the bicycle. Although a legal definition of the bicycle is provided on page one, the proposal then proceeds to state that a bicycle lane is a "recreational vehicle lane designed for preferential use by persons using bicycles. (p.2)." This unwarranted assumption that a bicycle is primarily a recreational vehicle is further expressed in the definition of a recreational vehicle which is "a special purpose mobile and motive equipment or device (which)...includes but is not limited to, all terrain vehicles (ATV), snowmobiles and bicycles. (p.5)"

There is a fundamental difference between bicycles, and ATV's and snowmobiles. Whereas the latter two vehicles are motorized, the bicycle is propelled solely by human power. Even more important, the bicycle is used not only for recreational purposes, but also for commuting.

Indeed, in the six years, that I have been bicycling, I have encountered a substantially greater number of bicycle commuters than bicycle tourists.

Because the proposal submitted by the Highway Department fails to differentiate between the different purposes for which the bicycle is utilized, it should be changed before the rules are finalized.

A second aspect of the proposed rules that warrants your consideration is the design criteria. The Bicycle Institute of America (BIA) has published a document entitled Bike Trails and Facilities: A Guide to their Design, Construction and Operation. The document suggests a minimum width of five feet for a one-way bicycle lane and eight feet for a two-way bicycle lane. The rationale for the BIA's recommendation is that meeting and passing a fellow bicyclists is less hazardous. Your department, unfortunately, has recommended only a four foot width for a one-way path and only six feet for a two way path.

As a bicycle commuter, I am concerned that there are some design standards that you have not even considered in the proposal. One is the placement of grates on the roadway. Grates running parallell to the roadway are extremely hazardous. Bicycle tires are thin enough that they could be caught in a grate. The consequences of that happening could result in severe injury to the bicyclist. With automobiles on the same road, the problem is only compounded.

The number of cars using a roadway is another aspect that should be considered in the design standards. Even with the tremendous increase in bicycle ridership over the last few years, drivers are not always cognizant of the bicyclist. In addition, bus drivers, forced to constantly pull over to the side of the road pose an additional safety hazard to the bicyclist.

Heavily used roadways are problematic for yet another reason. Riding a bicycle forces one to expend far more exertion than either walking or driving require. If in a zone heavily trafficked by motor vehicles, the dangers posed by carbon monoxide inhalation rapidly multiply.

A general nuisance that bicyclists attempt to avoid is continually starting and stopping at every intersection. Your design standards should probably include a section minimizing the number of stops on a bicycle lane.

Surfacing requirements is another subject not broached in your proposal. Riding on sand or gravel plays havoc with the internal mechanisms of any bicycle. Consequently, any constructed lane facility should be surfaced with a hardened material, preferably asphalt or concrete.

The needs of the recreational bicyclist include the above considerations. But, when designing a touring route, points of interest and aesthetics should be included in the design. When touring, I cover distances ranging from forty to one-hundred fifty miles at a time. My average distance is, perhaps, sixty-five miles per day. The distances I cover are not unusual. I suggest, therefore, that the department include a distance factor when designing recreational routes.

I would appreciate any consideration you give to the above ideas. In addition, I would like to see a copy of the final criteria before they are officially implemented.

Sincerely,

Connie Hinitz

Ms. Connie Hinitz

cc: State Representative Phyllis Kahn

NSP

NORTHERN STATES POWER COMPANY
414 Nicollet Mall
MINNEAPOLIS, MINNESOTA 55401

March 11, 1975

Mr Ray Adolfson
Minnesota Department of Highways
State Highway Building
St Paul, Minnesota 55155

Proposed Rules of the Department of Highways Relating to Model Standards for Bicycle and Recreational Vehicle Lanes on and Along Public Roadways and Governing Trunk Highways

Dear Mr Adolfson:

We appreciate receiving a copy of the subject Proposed Rules for review. As I am sure you are aware, public utilities and highways have shared rights-of-way for many years. In some instances, the placement of an electric transmission or distribution line on a highway right-of-way may be the only feasible alternative in providing energy to an area. The only apparent concern of Northern States Power Company with your Proposed Rules is where there may be conflict with these existing joint uses. As we discussed on the telephone, conflict situations such as this would normally be avoided anyway when applying the criteria listed under Section (d)(3), page 8.

To clarify this area, however, we recommend Section (d)(3)(bb) on page 8 be amended to read as follows:

> "(bb) the lane or trail use does not conflict with <u>existing utilities located on highway right-of-way or</u> adjacent land use, and".

We believe this will avoid confusion in applying the criteria and in the implementation of these Rules and Regulations when adopted.

Thank you for the opportunity to submit these comments.

M L ANDERSON, Administrator
Governmental Activities

alm

GOVERNOR'S
TRAIL
ADVISORY
COMMITTEE

Minnesota Department of Natural Resources / Bureau of Planning / 300 Centennial Office Building / Saint Paul, Minnesota 55155

RECEIVED
MAR 26 1975
COMMISSIONERS OFFICE

David Braslau, Chairman
Shelby Anderson
Jon Bremer
Jim Campbell
Raymond Carson
Robert Cartford
George Colarich
Rolland Comstock
Richard Dethmers
Andrew Duncan
Lyn Erickson
Alex Gallus
Thomas R Gauvin
Milford Gentz
Lyle Haseltine
Bob Illingworth
Marie Kelly
Tim B Knopp
Dayton Larson
Ray Loomis
Roderick MacRae
Ken Nebel
Leonard Nerman
Lloyd Nelson
Edward Nicholson
Jean Replinger
Jay Harrington Richards
Robert Rygg
Sally Sande
John Sem
Patricia Smith
Edward Solstad

Frank D. Marzitelli
Commissioner of Highways
411 State Highway Building
St. Paul, Minnesota 55155

Dear Mr. Marzitelli:

Listed below are the comments and recommended changes on the Proposed Rules relating to Model Standards for Bicycle and Recreational Vehicle Lanes on and along Public Roadways. These comments and changes were proposed by the Bicycle sub-committee at its March 20th meeting.

1. Page 2 - Line 4 - Eliminate "Bicycle lanes" means a recreational vehicle lane and substitute, "A portion of the roadway".

2. Page 3 - Lines 7 to 10 - Eliminate the second sentence in the definition of Clearway. It doesn't appear to be part of the definition.

3. Page 4 - Lines 1 to 13 - Eliminate the definition of Intersection. This is a long definition and intersections are not discussed in these standards.

4. Page 5 - Line 4 - Eliminate "All Terrain Vehicles (A.T.V.)." All terrain vehicles shouldn't be highlighted.

5. Page 6 - Line 21 - Add "vehicle" between "recreational" and "lanes".

6. Page 7 - Line 9 - Add "desirable" between "no" and "alternative".

7. Page 7 - Line 4 - It is our feeling that the most important criteria is located in point (4) on page 8 beginning on line 20. Therefore, we recommend it be moved to begin on page 7, line 4, and the remaining portion of point (1) be relocated to point (4).

8. Page 7 - Line 24 - Omit - (example: bicycling and hiking). There are times when these two uses do conflict.

9. Page 8, Line 1 - Omit - (example: snowmobile use on bicycle paths).

10. Page 8 - Line 13 - Eliminate (ee) as it repeats (dd). A lane within the right of way may be safer than an adjacent residential street.

11. Page 9 - Lines 9-18 - Comment: Traffic Volum Criteria was meant as planning guides; they should not be made absolute. This section should include a statement such as: "Exceptions to these Traffic Volume Criteria may be made if good cause can be shown and upon the approval of the Commissioner."

12. Page 10 - Line 15 - add "or other" between "local" and "government".

13. Page 11 - Line 17 - page 12 - line 13 - Recommended design standards should include both minimum and recommended standards. The following are suggested minimum and recommended design standards.

    2. Line width

        one way - minimum 3 feet
                  recommended 8 feet
        two way - minimum 5 feet
                  recommended 10 feet

    3. Design Speed - minimum 10 m.p.h.
                      recommended 25 m.p.h.

    4. Sight Distances - minimum 50 feet (if less must have special signing)
                         recommended 160 feet

    6. Radius of Curvature

Design Speed	Recommended Radius of Curvature
10 m.p.h.	15 feet
15 m.p.h.	35 feet
20 m.p.h.	65 feet
25 m.p.h.	100 feet
30 m.p.h.	140 feet

14. Page 11 - Line 25 - The minimum surfaced width of a one-way lane should be 3'. There are many roads where a 3' bituminous shoulder could be added where a 4' would require grading.

If you have any question, please call.

Sincerely,

R. H. Cartford

R. H. Cartford
Chairman, Bicycle Sub-Committee

m

GOVERNOR'S
TRAIL
ADVISORY
COMMITTEE

Minnesota Department of Natural Resources / Bureau of Planning / 300 Centennial Office Building / Saint Paul, Minnesota 55155

January 20, 1974

David Braslau, Chairman
Dorothy Anderson
Jon Bremer
Jim Campbell
Raymond Carson
Robert Gafford
George Golanch
Richard Comstock
Richard Dethmers
Andrew Duncan
Lyn Erickson
Alex Gallus
Thomas R. Galuvin
Millard Gentz
Lyle Hasselfine
Dick Illingworth
Marie Kelly
Tom R. Knapp
Clayton Larson
Ray Loomis
Frederick MacRae
Jean Nabel
Richard Newman
Lloyd Nelson
Edward Nicholson
Jean Nippinger
Roy Harrington Richards
Robert Rugg
Wesley Sande
John Sem
Patricia Smith
Edward Solstad

Mr. Ken Bjork
407 Highway Bldg.
St. Paul, MN 55155

Dear Mr. Bjork:

At the January 16th meeting of the GTAC, a motion was made, and unanimously passed to make the following written recommendation to the Minnesota Department of Highways:

> The Governor's Trail Advisory Committee asks the Minnesota Department of Highways to disregard the recommendations made on page 49 in the publication Bikeways Guide, SPA, 1974: "Bicycling is the only major trail use which should be accommodated within the highway right-of-way." The GTAC asks that MHD consider multiple use of highway right-of-way for recreation and travel by the public by whatever means are appropriate with regard to existing seasonal conditions unless restrictions can be justified, and then such restriction should not discriminate against various user groups.

Sincerely,

David Braslau
Chairman

tm

cc: STC
GTAC



Village of Edina

4801 WEST FIFTIETH STREET • EDINA, MINNESOTA 55424

927-8861

March 24, 1975

RECEIVED

MAR 26 1975

COMMISSIONERS OFFICE

Mr. Frank D. Marzitelli
Commissioner
Department of Highways
State of Minnesota
St. Paul, Minnesota 55155

Dear Mr. Marzitelli:

Subject: Rules and regulations establishing model standards for bicycle and recreational vehicle lanes on and along public roadways and governing trunk highways.

We appreciate the opportunity to comment on this set of rules. There appear to be some conflicts between the enacting legislation, Edina's goals and the proposed standards.

1. The techniques for counting bicycle path A.D.T. should be specified.

2. It is unwise to restrict consideration of lane facilities to just construction, reconstruction or improvement of any trunk highway.

3. Line 9, page 7, should be worded to read ". . . of demonstrated or potential use . . ."

4. Standards specifying maximum spacing and size of crossing facilities for limited access highways should be adopted. The proposed regulations are too restrictive for urban needs.

5. The process for receiving state funding and the criteria for eligibility are not clear.

6. The state should fund bicycle lane projects on a proposed or improved highway or a proposed lane on an existing highway when it meets the criteria in paragraph 1 (page 6) and paragraph 3 (page 8).

7. There are instances where a suitable network of residential streets or other feasible locations for lanes may exist although the most reasonable and logical path location may be the highway right of way (lines 9, 10, 13, 14, page 8).

8. The Minnesota Highway Department should adopt a more positive attitude and assist development of lane facilities as encouraged by Subdivision 1 of M.S. 160.262.

Thank you for your attention and cooperation in regard to this matter.

Sincerely,

Harold Sand

Harold Sand
Planning Assistant

HS:ln

cc Robert C. Dunn



RECEIVED
MAR 21 1975
COMMISSIONERS OFFICE

State of Minnesota
HOUSE OF REPRESENTATIVES
March 20, 1975

Mr. Frank D. Marzitelli
Commissioner of Highways
State Highway Building
Wabasha & Rice Streets
St. Paul, MN 55155

Dear Mr. Marzitelli,

I am responding to your request for my comments on the State Department Hearings on the Proposed Rules for Bicycle and Recreational Vehicle Lanes On and Along Public Roadways and Governing Trunk Highways.

My first concern has to do with two things that Mr. Colorich said in his statement on page 23, line 3 to line 12. First, about the tricycles; your proposed rules do indeed include tricycles, and I think they should. There are some large (26 inch wheel) tricycles that I have seen some senior citizens riding in my neighborhood. I think that they should also be allowed to use these paths.

My second concern is about the 14 inch wheel. I agree that a 14 inch wheel is a little small. I don't think there are many bicycles with that small a wheel, but there are a lot of bicycles with 18 inch wheels. I feel that this is a good size.

The last thing I would like to say has to do with the barrier. I feel that eight feet is a sufficient width on which a fast cyclist can pass a "not-so-fast" cyclist, and they also need a barrier to protect them.

Sincerely,

Douglas B. Legg

Douglas B. Legg
Intern to Rep. Phyllis Kahn

DBL:mec

P.S. Please send me the California Bicycle Standards

Metropolitan Council of the Twin Cities Area

300 Metro Square Building, 7th Street and Robert Street, Saint Paul, Minnesota 55101 Area 612, 227-9421

RECEIVED
MAR 11 1975
COMMISSIONERS OFFICE

March 7, 1975

Commissioner Frank D. Marzitelli
Minnesota Highway Department
State Highway Building
St. Paul, Minnesota 55155

Dear Frank:

Thank you for sending us a copy of your "Proposed rules and regulations establishing model standards for bicycle and recreational vehicle lanes on and along public roadways and governing trunk highways". The staff has reviewed this document and finds it to be generally consistent with the policies of the Metropolitan Development Guide, with the following specific comments to be entered into the public hearing record:

1) Transportation policy 6 states

> "The transit and highway system should complement and facilitate local movements provided by local streets, bicycle paths, and pedestrian facilities."

The concept of providing bicycle paths along trunk highway rights-of-way is in accord with this policy. However, if bicycles are to be considered part of the movement system, facilities for bicycles should not be defined as "recreational vehicle lanes" as is done on page 2, line 4 of the proposed rules.

2) Under "Criteria for Desirability of Lanes in any given location" (p. 6 of the proposed rules), criteria 1 aa-cc describe situations in which the highway department will consider construction of bicycle facilities as part of trunk highway construction. MHD should be aware of the Recreation Open Space Policy 7 which states

"In the planning, design, and construction of highway facilities, there shall be provision for trail corridors in at least the following situations:

1) Highways that cross existing or proposed regional trail corridors
2) Bridge crossings as they may be part of local or regional trail corridors
3) As part of highway corridors as they may parallel local or regional trails.

This policy supports criteria 1 aa-cc, although these criteria do not seem to cover situations 2 and 3 above, unless these situations occur in an urbanized area. The criteria should be modified to fully cover all the situations mentioned in policy 7.

Thank you very much for offering the Metropolitan Council an opportunity to comment on these proposed rules and regulations. If your staff has any questions on the above comments please have them contact Connie Kozlak of the Council staff.

Sincerely,

John Boland
Chairman

JB:hk

R. Adelson - MOC. Action
E. Heenan
Paul Zealy
Ed Zuern
Ken Bjork
} info

RECEIVED
MAR 14 1975
COMMISSIONERS OFFICE

1515 8 Avenue North
St. Cloud, MN 56301
March 6, 1975

Minnesota Department of Highways
Frank Marzitelli
Highway Commissioner
State Capital, St. Paul, MN

Dear Sir:

This is a statement for the public hearing scheduled for February 24, 1975. I am an avid bicyclist. I average four thousand miles a year and hope that you will consider my statement in light of the fact that I do ride a bicycle considerably.

I am concerned about the traffic volume criteria which you have set up. If I interpret the data correctly, construction of bicycle lanes would be determined by the average daily traffic. It is my feeling that average daily traffic will be low until lanes are built because the bicyclist will try to find the safest route.

Therefore, I believe we should estimate the probable use when we build the lanes. Once the lanes are built many bicyclists will be using it.

An example is Highway 10, close to St. Cloud, with the asphalt shoulder. During the summer months I ride this highway at least twenty-five miles a day. I very seldom make this trip without seeing other bicyclists. I would not use this road if it were not for the asphalt shoulder.

This concerns minimum design standards. Your statement prohibits the addition of a three foot asphalt shoulder which would be adequate for bicycle travel, particularly with the speed limit now at fifty-five miles an hour. The thing that worries me about this statement is that at a time when we are trying to encourage people to get out of their cars the necessity of meeting a minimum lane of four feet might cause us to cancel a road construction project because of the high cost.

Thank You,

Don Andrews

Don Andrews

DA/mbc

BURLINGTON NORTHERN

RECEIVED
MAR 10 1975
COMMISSIONERS OFFICE

Frank S. Farrell
Vice President-Law

Herbert B. Krengel
General Counsel

Curtis H. Berg
Sr. Associate General Counsel — Commerce

Donald C. Knickerbocker
George A. Morrison
Assistant General Counsel — Taxes

James R. Walker
John C. Smith
Reginald Ames
Louis A. Harris
Associate General Counsel

Barry McGrath
Robert L. Bartholic
Kurt W. Kroschel
Assistant General Solicitors

Harold K. Bradford, Jr.
Richard V. Wicka
Byron D. Olsen
Richard M. Gleason
Assistant General Counsel

Peter M. Lee
William R. Power
James W. Becker
Attorneys

March 7, 1975

Mr. Frank D. Marzitelli
Commissioner of Highways
State Highway Building
St. Paul, Minnesota 55155

Dear Mr. Marzitelli:

Re: In the Matter of the Adoption of Proposed Rules of the Department of Highways Relating to Model Standards for Bicycle and Recreational Vehicle Lanes on and Along Public Roadways and Governing Trunk Highways

This has reference to the notice of hearing in the above matter and the provision allowing a statement to be filed within 30 days of February 24, 1975. Burlington Northern Inc. had a representative at the hearing and submits the following statement.

It is the position of Burlington Northern Inc. that the rules and regulations proposed by the Minnesota Department of Highways with respect to establishing standards for bicycle and recreational vehicle lands on and along public roadways should contain a requirement that in the event a proposed bicycle or recreational vehicle lane intersects at grade the right of way and track of a railroad, the approval of the Minnesota Public Service Commission with respect to the public safety aspects of the crossing should be first secured. Under Minnesota law, it is the Public Service Commission which has exclusive jurisdiction over the intersection at grade of any public way and railroad track and your rules and regulations on this subject should reflect that fact.

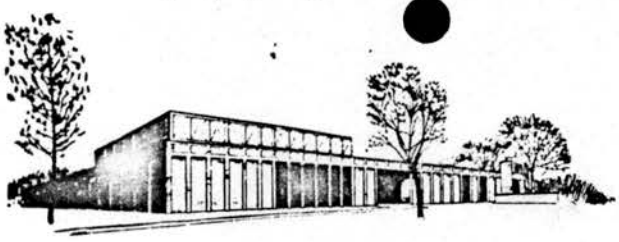
Burlington Northern respectfully urges that this provision be included.

Sincerely yours,

Richard V. Wicka
Assistant General Counsel

cc: Minnesota Public Service Commission

R. Adolphson - com. sig.
Ew Zuiriw - info
Paul Lusby - "
Ken Bjork - "



CITY OF BLOOMINGTON
OLD SHAKOPEE ROAD AT PENN • BLOOMINGTON, MINN. 55431

February 27, 1975

RECEIVED
MAR 5 1975
COMMISSIONERS OFFICE

Frank D. Marzitelli, Commissioner of Highways
State of Minnesota
Department of Highways
State Highway Building
St. Paul, Minnesota

RE: In the Matter of the Adoption of Proposed Rules of the Department of Highways Relating to Model Standards for Bicycle and Recreational Vehicle Lanes on and Along Public Roadways and Governing Trunk Highways

I am encouraged by the proposed State of Minnesota Department of Highways model standards for bicycle and recreational vehicle lanes, but feel the bill does not address the entire bicycle problem.

The proposed model standards promote the truism that a bicycle is a recreational vehicle. If the Department of Highways, through the proposed standards, intends to promote the bicycle as a recreational device then collateral facilities, such as rest areas, park and ride facilities and bicycle parking facilities should also be provided for in conjunction with the recreational vehicle lane. The bill should also establish standards for lighting of recreational vehicle lanes.

The model standards could be written to take a more positive approach in providing optimum bicycle facilities, for example, page 8, line 5 should read, "the highway right-of-way can be made to safely accommodate the lane." The State Highway Department should recognize the bicycle's potential, not only as a recreational vehicle but also as a means of personal transportation and develop a more comprehensive set of standards.

To exemplify, the State Department of Highway's positive action approach, ambiquities, such as, "short distance", page 12, line 8, should be clarified, as well as, page 3, line 9, what is the purpose of a clearway in the urban area? page 7, line 22, define traffic and page 2, line 25, define marked.

All references to providing recreational vehicle lanes for bicycles should be deleted, as well as defining a bicycle as a recreational vehicle.

Bicycle safety and public awareness considerations should be addressed to reflect the needs of both the recreational and commuter bicyclist. Standards for design speed, sight distances, grades, radius of curvatures, horizontal and vertical clearances, barriers, signing and stencilling should be written to reflect the multiple needs of the different types of bicyclist.

The speed of both the motor vehicle and bicycle should be a consideration when establishing criteria for type of bicycling facility as well as the average daily traffic of bicycles and motor vehicles.

The proposed standards, as a whole, are a good start but need a more comprehensive, positive approach to providing good, safe and convenient bicycling facilities.

DEPARTMENT OF COMMUNITY DEVELOPMENT
Department of City Planning

Karen Peterson

Karen A. Peterson
Associate Planner

jt

Ray Adolphson - Com. sig.
Paul Grealy - info
E. J. Kennin - "
Kenn Bjork - "

ADMIN 1000

STATE OF MINNESOTA

Office Memorandum

DEPARTMENT HIGHWAY - Utilities Sec.
Rm. 509 - Ext. 2517

TO : R. A. Adolfson
Road Design Standards Engineer (320)

DATE: February 27, 1975

FROM : J. G. Osendorf
Utilities Engineer

SUBJECT: In the matter of the adoption of proposed rules of the Department of Highways relating to model standards for bicucle and recreational vehicle lanes on and along public roadways and governing trunk highways.

M.S. 161.45 and 222.37 establish the rights of utilities to occupy trunk highway right of way, subject however, to the rules and regulations of the Commissioner.

Highway Regulations 33, Chapter 500, Laws of 1959 states in part, "If at any time the State of Minnesota, acting through its Commissioner of Highways, shall deem it necessary to make any improvements or changes on all or any part of the right of way which affect a utility located on the trunk highway right of way, then and in such event, the owner of the utility shall within 15 days after written notice . . . shall proceed to alter, change, vacate or remove such utility . . . such work shall be done without any cost to the State of Minnesota."

Utilities are generally accommodated in the following manner; pole lines in the outer 5 feet of the right of way, buried cables in the outer 10 feet and others in the areas remaining. These locations vary substantially dependent on terrain, topography, soil types and vegetative growth.

The Industry is concerned specifically with Figure 3, Typical Bike Design Path. Its proposed location could require costly utility relocations for a relatively insignificant highway change. They suggest that Page 8, Line 7 read " (bb) the lane or trail does consider inplace utilities and adjacent land use, and "

J. G. Osendorf
Utilities Engineer

cc:
R.G. Brennan, 511

JGO/mw

International Snowmobile Industry Association

Regional Office
2950 Metro Drive, Room 210
Minneapolis, Minnesota 55420
(612) 854-8005

March 3, 1975

RECEIVED
MAR 17 1975
COMMISSIONERS OFFICE

Mr. Frank D. Marzitelli
Commissioner of Highways
Minnesota Department of Highways
St. Paul, Minnesota

Dear Commissioner:

Manufacturers of snowmobiles have not only been interested in the safety and reliability of their product, but are also interested in the availability of facilities for the safe operation of snowmobiles. Since Minnesota is a state with a large number of snowmobilers, it was a progressive step when the State of Minnesota enacted legislation to establish recreational vehicle lanes on road right-of-ways.

In our opinion, the Proposed Rules of Minnesota's Department of Highways Relating to Model Standards for Bicycle and Recreational Vehicle Lanes on and Along Public Roadways and Governing Trunk Highways were presented in a very professional manner. Also, it appears they are based on scientific and use data developed by the Department over a period of time. We would like to congratulate you and your Department for this fine effort.

During our review, questions on a few of the proposed rules were developed; and it is hoped these could be clarified:

Who will determine on what basis which takes precedence in the case of conflicting uses?

Will Minnesota Statute 169.11 be construed to include the revoking of a snowmobile safety certificate from any person convicted of the crime of criminal negligence?

Washington, D.C. Headquarters
1755 South Jefferson Davis Highway
Arlington, Virginia 22202
(703) 979-7600
Telex: ISIA AGTN 89-9439

Regional Office
1440 St. Catherine Street West
Room 1016
Montreal, Quebec, Canada H3G 1R8
(514) 871-9121

Will the requirement that the maintenance of recreational vehicle lanes within a right-of-way and separated from the roadway be the responsibility of local government units create an administrative problem for the Department?

Understandably so, the proposed minimum design standards appear to have been established on the basis of bicycle use. It is respectfully suggested that some adaptation may be required for the safe use of snowmobiles. In this respect, we suggest that a minimum surfaced width of eight feet (2.4 m.) be provided for two way travel. Also, a design speed of 30-35 m.p.h. with proper radiuses of curvatures should be considered for facilities where snowmobiling may be permitted.

ISIA, through the Snowmobile Safety and Certification Committee, is interested in all aspects of the design and safe use of snowmobile trails and facilities. In cooperation with government agencies, workshops on this subject have been held; and a document entitled "Trails - A Strategy for Snowmobile Fun and Safety" has been drafted, a copy of which is enclosed.

If we can be of any service to you in implementing safe recreational vehicle lanes along highways, please let us know.

Sincerely,

John F. Nesbitt

John F. Nesbitt, PE
Vice President, Engineering

JFN/dlp
cc: M. B. Doyle
L. Haseltine
S. McKibbon

TRAILS: A STRATEGY FOR SNOWMOBILE FUN AND SAFETY

Snowmobile Safety And
Certification Committee, Inc.
1755 S. Jefferson Davis Hwy.
Suite 312
Arlington, Virginia 22202
(703) 979-7600

DAC
1/30/75

RECEIVED
MAR 17 1975
COMMISSIONERS OFFICE

DRAFT - NOT FOR PUBLICATION

TABLE OF CONTENTS

	Page
• INTRODUCTION	i
• TRAIL AND USE AREA DEFINITIONS AND RATIONALE	iv

	Tab
• STRUCTURING A SNOWMOBILE TRAIL AND USE AREA PROGRAM	1
• DEVELOPING A SNOWMOBILE TRAIL AND USE AREA GUIDEBOOK	2
• BIBLIOGRAPHY AND APPENDIX	3

INTRODUCTION:

The advent of the lightweight snowmobile resulted in a remarkable transformation in the winter outdoor recreation patterns of North Americans living within the snowbelt. The snowmobile offered millions of individuals the opportunity to increase and expand their outdoor, family-oriented activities in a new and exciting manner. The phenomenal growth of the snowmobile community during the 1960's is an adequate testimony to the extent to which snowmobiles captured North American imaginations.

Yet, we are seeing today a transformation still more radical and far reaching in impact: the second revolution in the snowmobile experience. The decade of the 1960's marked the discovery and initial widespread participation in the phenomena of snowmobiling; the decade of the 1970's has been and will continue to be the time period in which snowmobiling becomes not a phenomenon but rather a mature and integral part of the North American recreational scene.

The ultimate success of this phase will depend upon guaranteeing the continuation of the enjoyable aspects of the sport while increasing safety, insuring full family participation while reducing conflicts with other recreationists, and maintaining access to both public and private lands while taking the steps necessary to minimize environmental impact.

The challenge is great, and the solutions are complex, but efforts already underway in Quebec and Minnesota, and in the development stages in so many other locations, are an adequate rationale for an optimistic prognosis.

It is clear that this ultimate success will be based upon a three pronged program. First, good operator skills must be taught and encouraged among novice and experienced snowmobilers alike. Secondly, machine design must be continually improved by each manufacturer to reflect the latest safety improvements, technology must be applied to issues as yet unresolved, and a new emphasis must be given to snowmobile service and warranties. Finally, but most importantly, the snowmobile community must work together to greatly expand the opportunities for safe, enjoyable snowmobiling through the development of marked and maintained public trail and use area systems.

The intent of this document is to establish a blueprint for the third of these three program areas, as well as to provide a collection of background information for use by interested individuals in government, snowmobile associations, and local clubs. Resource materials on the first two program areas mentioned are available by request through the Snowmobile Safety and Certification Committee, Inc. (SSCC), a nonprofit organization established to integrate the efforts of all elements of the snowmobile community - snowmobilers, manufacturers, dealers,

distributors, interested governmental officials, safety organizations, and more - to improve and expand recreational snowmobiling. Requests for these documents and general inquiries should be directed to:

Snowmobile Safety and
Certification Committee, Inc.
Suite 312
1755 South Jefferson Davis Highway
Arlington, Virginia 22202

(703) 979-7600

DAC
1/30/75

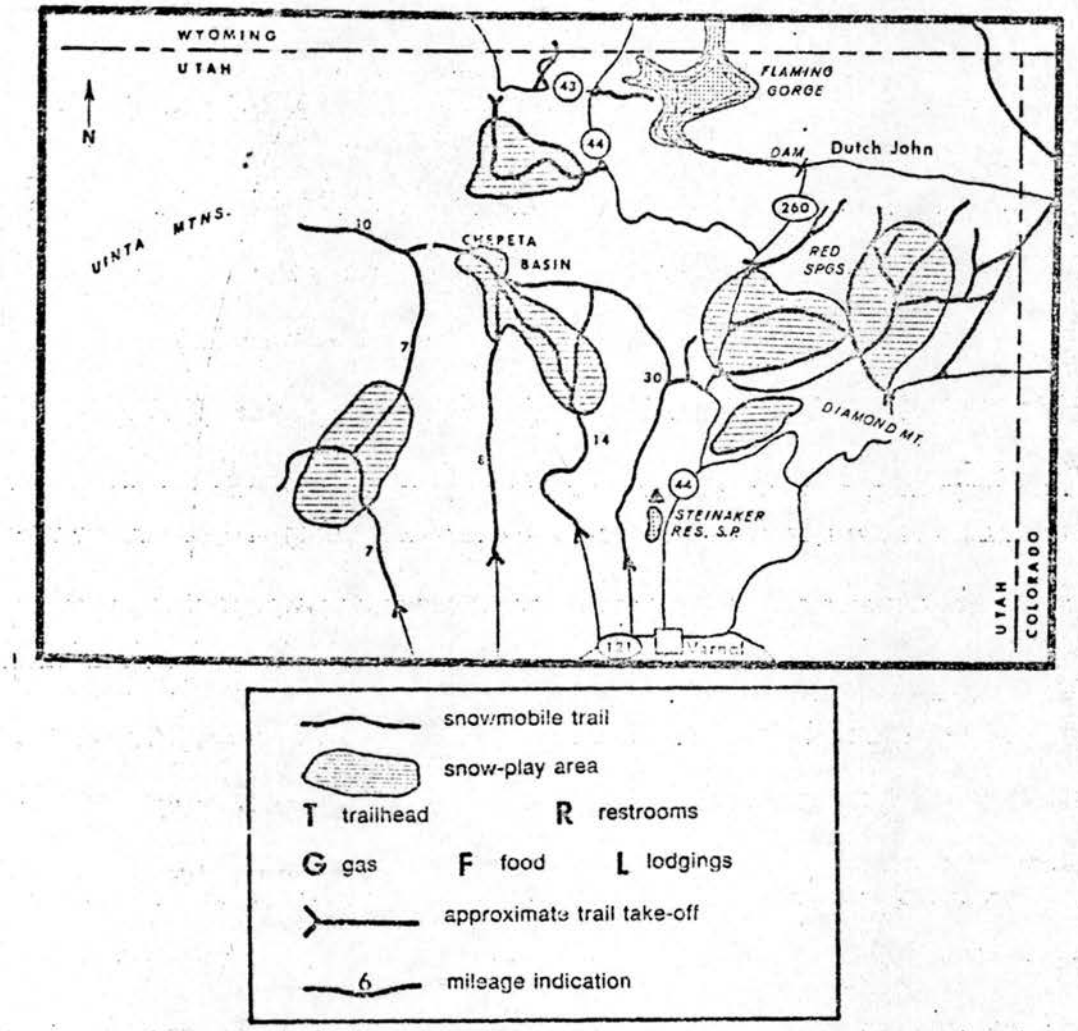
TRAIL AND USE AREA DEFINITIONS AND RATIONALE

Before proceeding with a discussion of the elements of a trail and use area system, it is important to define certain terms and explain the significance of such resources to snowmobilers and the community at large.

In simplest terms, a snowmobile trail is a corridor designated for snowmobile passage to and/or from specific locations. To insure user safety, trails should conform to certain basic design guidelines, discussed later in this document. However, differing terrain, vegetation, purposes, and available land areas act to make more precise definitions meaningless. A snowmobile use area, on the other hand, is a sizeable, bounded area within which snowmobile use is permitted in its entirety, with little or no relationship to adjoining and proximate locations. In many ways, a snowmobile trail could be compared with the linear characteristics of a golf course, while a use area might be compared to a park.

A snowmobile trail and use area system, then, is an integrated network of interconnecting trails and use areas, as well as other facilities such as shelters and parking lots. Such a system provides the snowmobiler with a wide choice of enjoyable experiences. A trail system requires a certain level of administrative overview, provided by a club, a regional association, a commercial enterprise, or one of the several levels of government.

An example of such a system is shown in the following map and legend, taken from "Utah Snowmobiling," a trail guide prepared by Utah's Division of Parks and Recreation:



A system of this type represents a valuable community resource, as well. Indeed, it acts as a near-panacea for ending the problems of both snowmobilers and nonsnowmobilers. Most importantly, a trail and use area system, properly designed and maintained, is the single most potent safety device available.

Devoid of natural obstacles and man-planned fences, a well planned trail and use area system eliminates the physical dangers associated with a large portion of all snowmobile accidents. Careful sign placement and conscientious maintenance further reduce chances of snowmobiler injuries. A trail and use area system also reduces reliance upon portions of the highway right-of-way.

Safety is hardly the only asset attributable to a trail and use area system. Due to the speed with which snowmobiling has grown in both the United States and Canada, large numbers of novice riders, unaware of their full responsibilities, interrupted the activities of others and offended some landowners. The growth of local snowmobile clubs and the establishment of trail and use area systems have acted to make such inconsiderateness more of a rarity. Landowners opposed to granting indiscriminate access are glad to permit controlled use. Conflicting uses can be separated.

Trail development also permits far more effective environmental protection. Critical wildlife and vegetative areas can be avoided. Buffer zones can be established between such places as deer-yarding areas and trails and use areas. Use of snowmobiles on inadequate snowcover, tree plantations, and steep slopes can be eliminated.

Still another benefit for many areas is the increased tourist activity. As people discover that winter can also be the host of fun-filled vacations and weekend activities, more and more individuals are seeking winter resort areas and ancillary businesses. Places with existing trail and use areas have already observed this phenomenon, and have expanded their once warm weather seasonal tourist industries to year-round operation and thereby increased employment opportunities in areas which have been traditionally hard pressed during the winter months.

Finally, a snowmobile trail and use area system coordinated and assisted by a public body can offer all citizens an important recreational resource, utilizing private as well as public lands, at low cost and with a major portion of the responsibilities borne by actual users. Greater attention has been given over recent years to the critically important role private lands must play in fulfilling public recreational needs in future years. Snowmobile trail systems can be important steps in this direction. In fact, by beginning with a snowmobile trail and use area system, a year-round, multiple-purpose recreational system can be developed. The organized and supportive nature of snowmobilers can provide an excellent mechanism to commence this still more ambitious project.

Section I

STRUCTURING A SNOWMOBILE TRAIL AND USE AREA PROGRAM

While actual trail-building is perhaps best accomplished at the local level, its coordination and support should rely on a broader base. An effective trail and use area system is a complex and interactive matrix of physical characteristics and human efforts requiring a great deal of planning and skillful periodic adjustments. It is a living system, with the flexibility necessary to resolve a wide range of varying situations. Moreover, a successful system must facilitate compatible and mutually supportive activities by Federal, state or provincial and local governmental agencies as well as private groups and organizations. Among the key concerns of such a system are:

- snowmobiler enjoyment
- snowmobiler safety
- environmental protection
- material costs
- land supply solicitation
- landowner protection
- facilities and equipment
- construction manpower
- maintenance manpower
- user and operator liability

Much as the dimensions and nature of a trail must be expected to vary between New Hampshire and Manitoba, for example, so must the coordinating system reflect geographical and political peculiarities and subtleties. Also, because the systems rely upon the perceptions and judgments of a handful of individuals, each program should be personalized to suit individual talents and

resources. This means that the successes of one club, or of one political entity, are not directly translatable to a second. Rather, a skillful tailoring, using facets of several successful programs, is more likely to yield a functional program.

Several factors argue persuasively for investing coordination of the snowmobile trail and use area with provincial or state officials. First, the province or state is the recipient of substantial snowmobile-derived revenues, including registration fees, sales tax, and gasoline tax. Secondly, provinces and states are the normal channels by which funds and technical assistance from Federal programs reach the local level. For example, money from the Land and Water Conservation Fund of the U.S. Department of the Interior is divided among the states, which in turn establish local project priorities. Finally, states and provinces are accorded substantial autonomy within their respective boundaries, and as such have virtually all the authority required to establish a functioning system.

It is possible to pinpoint some of the key elements contained within a typical successful trails program. These would include:

I. A mechanism to recognize and support local snowmobile organizations;

II. An operator safety training program;

III. An effective snowmobile registration law;

IV. A "grant-in-aid" program to reimburse clubs/municipalities for trail construction and maintenance costs;

V. A trail and use area safety design guidebook, which would include a specified sign placement and design policy;

VI. A public trail certification and mapping program;

VII. Mechanisms to solicit private lands and protect landowners;

VIII. A means to obtain cooperation for public land managers and public recreation officials;

IX. A right of first refusal in railroad and utility right-of-way abandonment proceedings;

X. A public works program;

XI. A state or provincial provision to insure consumer protection through the requirement that all snowmobiles eligible for sale, incorporate minimum safety design standards as certified by a qualified testing laboratory.

The remainder of this section will be devoted to an examination of the alternative methods employed by government bodies to supply each of these ten needs.

I. - Recognizing and Supporting Local Snowmobile Organizations

Strong snowmobile clubs and organizations provide a snowmobile program coordinator with an irreplaceable reservoir of talent and energy. Landowners and law enforcement officials all appreciate the existence of responsible groups to whom they can turn to help avoid and solve problems. Moreover, the manpower represented by these organizations must play a key role in

developing and maintaining a trail and use area system.

The Province of Quebec recognizes and supports clubs in several ways. For example, a portion of the "grant-in-aid" moneys (described in greater detail later in this document) are eligible for use to defray club administrative expenses. This facilitates the establishment of permanent club offices with part-time clerical assistance. Moreover, because admission to the Quebec provincial trail system is available either through payment of daily use fees or membership in a recognized club, snowmobilers have a strong incentive to affiliate and become active in their local organizations.

In fact, the philosophy behind Quebec's entire snowmobile program may be described as the encouragement and recognition of good citizenship by snowmobile clubs and their members. Informational mailings to the clubs are made several times each year, and assistance is offered on a case-by-case basis throughout the year.

The state of Vermont recently enacted a revision to their snowmobile law which acts to strongly encourage all snowmobilers to affiliate with the state's snowmobile club organization structure. The result has been an important strengthening of the state organization, the Vermont Association of Snow Travelers (VAST), as well as Vermont's local clubs. VAST is now capable of accurately representing Vermont's many snowmobilers at the state level.

Another state, Montana, has endeavored to expand communications between state officials and snowmobile clubs through a newsletter

published by the Department of Fish and Game. For states and provinces with small populations, this is an important step towards nurturing the club network.

In many states and provinces, from Alberta to Wisconsin, snowmobile advisory councils have been established with strong club and association representation. In this way, snowmobilers are able to discuss needs and problems directly with the responsible public policy-makers. The Province of Ontario has recently announced its intention to institute such a council. Recent events in New Brunswick foreshadow increased attention to clubs and their needs in that province through this type of format.

Minnesota, like Quebec, has accorded clubs a major role in its trail and use area program. The Trails Coordinator of the Minnesota program plays a strong positive role in state and local club activities.

One method for adding to the strength of organized snowmobilers within the province is through assisting them in disseminating information on the mutually-beneficial role snowmobile clubs can play for both users and government officials. A recent booklet, "An Organizational Guide for Local Snowmobile Clubs," prepared by the International Snowmobile Industry Association and the International Snowmobile Council, is available for widespread use of this nature. Bulk purchases can be arranged through ISIA offices.

II. - Operator Safety Training Program

Operator safety is and will remain a paramount concern for all elements of the snowmobile community. Safe trails and use areas merged with safe operating techniques represent the greatest chance of minimizing snowmobiling risks. Because of the critical importance of snowmobile operator training programs, a separate review and synthesis of existing knowledge and experience in this field has been prepared.

Government officials involved with existing snowmobile operator training programs, key industry representatives, snowmobilers with safety training interests and private safety organizations joined together to incorporate their knowledge and experience into one comprehensive document on the subject of safe snowmobile operation.

The resulting document, the SSCC Snowmobile Operator's Training Program, published in October 1974, provides guidance to the safety program administrator, instructor, and student alike. Its first section assists a program administrator to design and implement a suitable training program. The second portion provides the instructor with tips on effective teaching methods and lesson plans. The third part is the student guide, and is designed for publication and widespread distribution following the incorporation of state/provincial law specifics. Finally, a listing of teaching aids, including audio-visuals, is provided. A copy of this

document is in the hands of responsible safety training officials in all states and provinces to assist them in augmenting existing training programs in their formation in those locations without such programs.

Information on safe operating techniques and other safety tips is very important. Thus, a student guide such as contained in the document described above can and should be made widely available to both those involved in courses and those not enrolled. Quebec has published such a guide entitled "Guide du Motoneigiste." A booklet of this nature should be an important portion of any provincial snowmobile program and should be made available to the owners of registered snowmobiles.

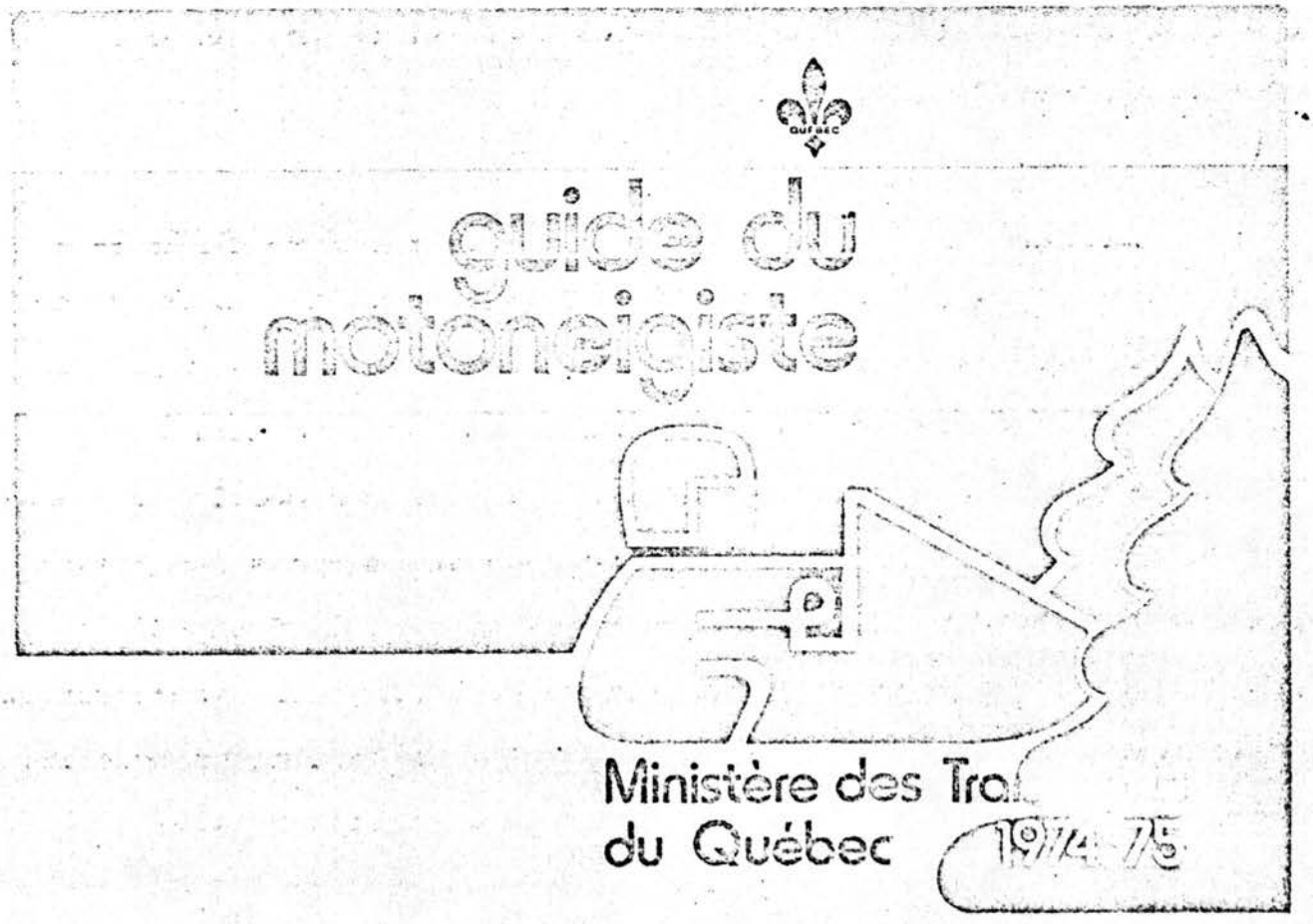


Table des matières

Code d'éthique du motoneigiste
Signification des mots et expressions 6
Immatriculation 9
Mise au rancart 11
Plaque illégale 11
Propriété de la plaque 11
Remplacement de la plaque 11

Permis de conduire 12
Permis obligatoire 12
Qui peut obtenir un permis de conduire une motoneige 13
Examen pour l'obtention d'un permis de conduire une motoneige 14
Coût du permis 15
Documents requis 15
Restrictions ou limitations des droits du détenteur 15
Durée et renouvellement 16
Suspension de permis 16
Système de points de démérite 16
Adresse et changement d'adresse 16

Carte de membre ou laissez-passer annuel 17
Laissez-passer journalier 19
Contrôle du droit d'accès 19

Règlements de la circulation 20
Signaux de direction 20
Arrêt 21
Stationnement 21
Utilisation des phares 22
Circulation dans les sentiers 22
Circulation hors des sentiers 22

Interdictions particulières 23
Motoneige modifiée 24
Animaux 24
Armes à feu 24
Alcool et drogue 24
Déchets 24
Autres personnes 24

Vérifications avant départ 25
Équipement supplémentaire 26

Conseils de conduite 26
Casque protecteur 30
Port obligatoire 30
Normes de fabrication 30

Habillement 31
Température 34
Clubs de motoneigistes 34
Agrément des clubs 35
Documents requis 35
Certificat d'agrément 36
Liste des clubs agréés 36
Subventions gouvernementales 37

Sentiers
Droit de passage 38
Assurance-responsabilité 38
Obligations du propriétaire 38
Obligations du club 38
Construction et entretien 39
Refuges 42
Agrément des sentiers 43

La motoneige 45
Normes de construction 46
Traîneau 48
Remorque 49
Remorquage 49
Conseils d'entretien 49
Mélange essence-huile 50
Remisage 51

Accidents 52
Aide-mémoire en cas d'accident 53

Indemnisation des victimes d'accidents de motoneige 54
Responsabilité du propriétaire 54
Responsabilité du conducteur 54
Solvabilité 55
Suspension à la suite d'accident 56
Suspension à la suite d'un jugement 56
Suspension à la suite d'infractions 57
Conduite durant suspension 57
Film sur la motoneige 58
Cours: éducation — motoneige 59

III. - Effective Snowmobile Registration Laws

The relationship between a successful snowmobile trail and use area system and an effective registration system is very direct. Registration fee revenues are the primary source directly or indirectly of funds for each of the operating systems in North America today.

In addition, effective registration laws can reduce snowmobile thefts and provide a means to further safe snowmobile operation. Specific implementation varies: some states and provinces have instituted multiple-year registration periods; some utilize snowmobile dealers to register machines, and, of course, registration costs vary but normally lie within the $3 - $7 range.

Applicable portions of some well run snowmobile registration programs are appended to this document. In general, registration provisions should be: (1) equitable, ie., that the snowmobiler receives appropriate public services such as operator training programs and trail and facility development programs; (2) comprehensive, so that all snowmobiles, except those used exclusively for racing and those used strictly for utilitarian purposes on private lands, are included; (3) designed to provide sufficient financial resources for an energetic public trail and use area program; and (4) restrictive of the sale of unsafe and/or illegal machines.

In addition, it is important to facilitate the prompt registration of newly purchased machines and of those machines arriving into the state or province from another state or province not covered under reciprocity agreements. In such instances, dealer or local governmental involvement have been effectively employed.

IV. - "Grant-in-Aid" Program

It is critically important that a mechanism exists to provide financial support for local level trail development to either or both snowmobile clubs and local governments. At least five formal programs of this type exist in North America. Financial support for four distinct areas is included in these programs:

- material costs
- construction labor costs
- maintenance costs
- administrative costs

The first of these areas is probably the most crucial. Among the material expenses which will be incurred in the construction of a safe trail are those for signs, bridges, fill, shelters and fences. If the general public will have access to the trail, it is only just that such expenditures should be assumed, at least in part, by public funding.

Needless to say, actual material costs represent only a portion of total construction costs. Labor and equipment costs are considerable in the clearing, grading, and bridge and facility construction aspects of trail development. If full prevailing wages for these projects were required, trail system development costs could easily be raised to prohibitive levels. However, the resources of the clubs should not be overlooked. Minnesota's program institutionalizes a volunteer system by allowing local governments to count club member labor, at a fixed rate of $3.00 per hour, as some or all of the local trail contribution under

the 65% state/35% local matching formula.

Costs hardly end upon completion of the construction phase of the trail, especially for heavily-traveled sections. Depending upon terrain, equipment type, and intensity of use, maintenance costs can be expected to range between $40.00 and $150.00 per mile per season; in addition, much of the grooming equipment requires substantial initial capital outlays. Quebec, Minnesota and Wisconsin all provide funding for maintenance purposes.

Finally, some "grant-in-aid" programs are designed to strengthen the club structures by providing resources to cover clerical and general administrative expenses. Volunteer organizations are often hard-pressed to carry on tedious jobs such as preparing and updating membership lists, typing newsletters, and other such regular office functions. Moreover, many provincial programs actually impose new responsibilities on the clubs. Since again, such activities are supportive of the public interest, a cogent argument exists for incorporating some level of administrative support into the "grant-in-aid" formula.

Because of the importance of this specific element of a snowmobile trail and use area program, an analysis of several effective grant mechanisms is of value.

The Province of Quebec hosts the world's most extensive public snowmobile trail and use area system, some 23,000 miles as of the beginning of the 1974-75 season. Quebec's "grant-in-aid" program to local snowmobile clubs plays a major role in this

system. Originally implemented in 1972, the "grant-in-aid" program now includes some 282 clubs (1973-74), which in turn represent a large percentage of all Quebec snowmobilers. The grant formula used in Quebec is based upon (1) the number of registered snowmobiles belonging to members of the club and (2) the number of miles marked and maintained by an eligible club. After several years of experience, it is now apparent that Provincial grants cover between 1/3 and 1/2 of all club costs, including trail efforts. Because the public trail network, which actually consists of all trails under the administration of grant-recipient clubs, is open to all card-bearing members of recognized snowmobile clubs, Quebec's snowmobilers are eager to join clubs for dues ranging between $15 - $25 for the first machine and $8 - $10 for subsequent machines. As a result, dues income for Quebec clubs is substantial, and the mainstay of their programs.

In addition to outright grants of money, Quebec's Ministry of Transport, administrator of the program, provides a full set of reflectorized signs to each club for its trail system. The number of types of signs, as well as the amount of the grant, are decided in large part on the basis of a carefully prepared map submitted by each participating club. Later, these club maps are transferred to regional maps of the province, which are printed and distributed by the Ministry of Transport.

Up to 20% of the monetary grant in Quebec can be used to cover clerical and administrative expenses. Otherwise, all funds

can be divided between material and labor costs according to need. Further details of the program can be found in the following selected materials on the Quebec system:

CHAPITRE IX

Les subventions

7.136 Sous réserve des articles 7.137 à 7.140, chaque année, le ministre verse, à même les fonds appropriés à cette fin, au club agréé une subvention qu'il juge appropriée, pour la construction, l'amélioration et l'entretien des sentiers et refuges et pour son administration savoir: $5 pour chaque motoneige immatriculée au nom d'un membre de ce club agréé, inscrit à ce club avant le 15 janvier d'une année et dont la liste finale parvient au ministère avant le 25 janvier suivant.

7.137 La subvention visée à l'article 7.136 ne peut cependant être versée que si le club agréé est directement responsable d'au moins un mille de sentier agréé par tranche maximum de 12 motoneiges immatriculées au nom des membres de ce club agréé.

7.138 Les subventions versées à un club agréé par le gouvernement doivent être utilisées par ce dernier dans les proportions suivantes:

a) au plus 20% pour les frais d'administration du club; et

b) au moins 80% pour les frais de construction, amélioration et entretien des sentiers du club et des refuges.

7.139 Toute subvention destinée à un club agréé en vertu du présent chapitre, ne peut excéder, chaque année, une somme supérieure au tiers de la somme totale des revenus de ce club agréé.

7.140 Toute subvention prévue au présent chapitre est versée dans les 90 jours qui suivent celui de la réception par le ministre ou son représentant autorisé de la formule 3 contenue à l'annexe C du présent règlement, dûment remplie et accompagnée des documents démontrant, à la satisfaction du ministre ou de son représentant, que le club agréé a effectué telle dépense ou qu'il aura à débourser une certaine somme d'argent en vertu d'un engagement de sa part.

CHAPITRE X

Les dispositions finales et transitoires

7.141 L'arrêté en conseil par lequel le présent règlement est adopté, modifie l'arrêté en conseil 3761 adopté le 7 octobre 1970 en tout ce qui, dans cet arrêté, est contraire ou inconciliable avec les dispositions du présent règlement.

7.142 L'arrêté en conseil par lequel le présent règlement est adopté, abroge l'arrêté en conseil 3762 adopté le 7 octobre 1970.

CHAPTER IX

Subsidies

7.136 Subject to sections 7.137 to 7.140, the Minister grants each year, to approved clubs, from the funds set aside for such purpose, a subsidy which he deems appropriate, for purposes of construction, improvement and maintenance of trails and shelters, and for their administration, namely $5 for each snowmobile registered in the name of a member of the approved club enrolled prior to January 15 of any year, the final list of which is sent to the Department prior to the following January 25th.

7.137 The subsidy contemplated in section 7.136 may be granted only if the approved club is directly responsible for not less than one mile of approved trail for every 12 snowmobiles registered in the name of the members of such approved club.

7.138 The subsidies granted by the government to an approved club shall be used by the latter in the following proportions:

(*a*) not more than 20% for administration costs of the club; and

(*b*) not less than 80% for costs of construction, improvement and maintenance of the club's trails and shelters.

7.139 Every subsidy intended for an approved club under this chapter shall not exceed, each year, an amount exceeding one-third of the total income of such approved club.

7.140 Every subsidy set out in this chapter is granted within 90 days of the receipt, by the Minister or his authorized representative, of Form 3 contained in Schedule C of this Regulation, duly completed and showing, to the satisfaction of the Minister or his representative, that the approved club has incurred such expense or that a certain amount of money must be disbursed pursuant to an agreement made by it.

CHAPTER X

Transitional and Final Provisions

7.141 The Order in Council under which this Regulation is enacted amends Order in Council 3761 dated 7 October 1970, wherein the provisions are contrary to or inconsistent with the provisions of this Regulation.

7.142 The Order in Council under which this Regulation is enacted revokes Order in Council 3762 dated 7 October 1970.

conformément aux articles 7.108 et 7.112 du Règlement 7 sur la motoneige adopté par l'arrêté en conseil 2876-72 du 28 septembre 1972.

EN FOI DE QUOI, j'ai signé à .....
ce.....ième jour de .....197...

.....

Formule 3

DEMANDE DE SUBVENTION

C.1. DÉCLARATIONS

Nous soussignés _____
(nom et adresse)

_____ président,

_____
(nom et adresse)

_____ vice-président,

_____
(nom et adresse)

_____ secrétaire (trésorier),

_____
(nom et adresse)

_____ trésorier,

déclarons que:

C.1.1. Le club _____ a été incorporé en vertu de la troisième partie de la Loi des compagnies de Québec, le _____ les règlements de ce club ont été approuvés le _____ et la publication de cette approbation a été faite dans la *Gazette officielle du Québec* le _____

C.1.2 Le siège social de ce club est situé à _____

C.1.3 Ce club a été agréé le _____

C.1.4 Le club _____ groupe _____ membres.

C.1.5 Ce club exploite _____ milles de sentiers agréés au sens du Règlement 7 sur la motoneige adopté par l'arrêté en conseil 2876-72 du 28 septembre 1972. _____

C.1.6 La cotisation annuelle par membre est de _____

C.1.7 Les droits d'entrée sur les sentiers pour les personnes qui ne détiennent pas de carte de membres d'un club agréé ou de laissez-passer émis par un exploitant de sentiers de catégorie A, sont de: _____

in accordance with sections 7.108 and 7.112 of Regulation 7 respecting snowmobiles enacted under Order in Council 2876-72 dated 28 September 1972.

IN WITNESS WHEREOF, I have signed at .....
this.....day of.....19.....

.....

Form 3

APPLICATION FOR SUBSIDY

C.1 DECLARATIONS

We, the undersigned _____
(Name and address)

_____ President,

_____
(Name and address)

_____ Vice-President,

_____
(Name and address)

_____ Secretary (Treasurer),

_____
(Name and address)

_____ Treasurer,

declare that:

C.1.1 The club _____ was incorporated under Part III of the Québec Companies Act, on _____, The by laws of this club were approved on _____ and publication of this approval was made in the Official Gazette on _____

C.1.2 The head office of the club is situated at _____

C.1.3 The club was approved on _____

C.1.4 The club _____ consists of _____ members.

C.1.5. The club operates _____ miles of approved trails within the meaning of Regulation 7 respecting snowmobiles enacted under Order in Council 2876-72 dated 28 September 1972 _____

C.1.6 The annual fee per member is _____

C.1.7 The admission fees for access to trails for persons not holding a membership card of an approved club or a pass issued by an operator of class A trails are: _____

C.1.8 Les sommes perçues à date sous forme de cotisation des membres s'élèvent à S _____ et les droits d'admission perçus à date s'élèvent à S _____ le tout formant un montant total de S _____

C.1.9 Les dépenses de ce club s'élèvent à date à S _____ dont S _____ ont été consacrés à l'administration et S _____ à l'établissement et à l'entretien de sentiers agréés au sens du Règlement 7 sur la motoneige adopté par l'arrêté en conseil 2876-72 du 28 septembre 1972 et des refuges au sens du même règlement.

C.2. DEMANDE DE SUBVENTION

C.2.1 Nous demandons que soit versée au club _____ une subvention de S _____

C.2.2 Ce montant ou tout autre montant qui sera accordé à ce club sera affecté dans une proportion de pas plus de 20% à des frais d'administration et d'au moins 80% à la construction et l'entretien de sentiers agréés et des refuges.

C.2.3 Nous annexons à la présente demande les pièces démontrant que les déboursés encourus ont été réellement faits ou que les argents précités sont réellement engagés conformément au Règlement 7 sur la motoneige adopté par l'arrêté en conseil 2876-72 du 28 septembre 1972.

C.2.4 Nous annexons aussi:

a) la liste des membres et le dernier numéro d'immatriculation de leurs motoneiges s'ils en ont;

b) copie du dernier état financier; et

c) copie des prévisions budgétaires pour l'année en cours ou à venir.

C.3 ATTESTATIONS

C.3.1 Nous attestons par la présente que la présente demande est conforme au Règlement 7 sur la motoneige adopté par l'arrêté en conseil 2876-72 du 28 septembre 1972.

_____
Président

_____
Vice-président

_____
Secrétaire (trésorier)

_____
Trésorier

C.1.8 The sums collected to date from membership fees amount to _____ and the admission fees collected to date amount to S _____ the whole totalling S _____

C.1.9 The expenses of the club to date amount to S _____ of which S _____ was used for administration and S _____ for the establishment and maintenance of approved trails within the meaning of Regulation 7 respecting snowmobiles enacted under Order in Council 2876-72 dated 28 September 1972, and of shelters within the meaning of the same Regulation.

C.2 APPLICATION FOR SUBSIDY

C.2.1. We hereby apply for the granting of a subsidy to the _____ club in the amount of S _____

C.2.2 This amount or any other amount which shall be granted to the club shall be used in a proportion of not less than 20% for administration expenses and of not less than 80% for construction and maintenance of approved trails and shelters.

C.2.3 We annex to this application documents showing that the expenses incurred were in fact made, or that the sums previously mentioned are in fact used, in accordance with Regulation 7 respecting snowmobiles enacted under Order in Council 2876-72 dated 28 September 1972.

C.2.4 We also annex:

(*a*) the list of members and the latest registration numbers of their snowmobiles, if any;

(*b*) a copy of the latest financial statement; and

(*c*) a copy of the budgetary provisions for the current or forthcoming year.

C.3 ATTESTATION

C.3.1 We hereby certify that this application is in accordance with Regulation 7 respecting snowmobiles enacted under Order in Council 2876-72 dated 28 September 1972.

_____
President

_____
Vice-president

_____
Secretary (Treasurer)

_____
(Treasurer)

C.4 DÉCLARATION FINALE

Je, soussigné, _____
résidant et domicilié à _____
_____
étant dûment assermenté sur les Saints Évangiles déclare que les faits récités dans la présente demande de subvention sont vrais, et j'ai signé ce _____
_____ième jour d _____
19 _____

_____
Président

Assermenté devant moi
à _____
ce _____
ième jour d _____
_____
19 _____

_____
Commissaire à l'assermentation

C.4 FINAL DECLARATION

I, the undersigned _____
residing and domiciled at _____
_____
having been duly sworn, declare that the facts set forth in this application for subsidy are true, and I have signed this _____ day of _____
19 _____

_____
President

Sworn before me
at _____
this _____
day of _____
19 _____

_____
Commissioner for Oaths

A.C. 3496-73, 25 septembre 1973
Règ. 73-502, 28 septembre 1973

CODE DE LA ROUTE
(S.R.Q., 1964, ch. 231)

Motoneige

Présent: Le lieutenant-gouverneur en conseil.

CONCERNANT une modification au Règlement 7 sur la motoneige.

ATTENDU QUE le Règlement 7 sur la motoneige a été adopté par l'arrêté en conseil 2876-72 du 28 septembre 1972;

ATTENDU QUE l'article 7.139 dudit règlement stipule que « toute subvention destinée à un club agréé en vertu du présent chapitre, ne peut excéder, chaque année, une somme supérieure au tiers de la somme totale des revenus de ce club agréé »;

ATTENDU QUE cette mesure de restriction quant aux subventions pouvant être accordées est susceptible de défavoriser certains clubs de motoneiges en raison de l'absence de normalisation des budgets;

ATTENDU QU'il y a lieu de supprimer cette mesure de restriction;

IL EST ORDONNÉ, en conséquence, sur la proposition du ministre des transports:

QUE le Règlement 7.E modifiant le Règlement 7 sur la motoneige soit adopté tel que rédigé et qu'il entre en vigueur le 29 septembre 1972.

Le greffier du Conseil exécutif,
JULIEN CHOUINARD.

Concernant le Règlement 7.E modifiant le Règlement 7 sur la motoneige

1. Le Règlement 7 sur la motoneige adopté par l'arrêté en conseil 2876-72 du 29 septembre 1972 est modifié en abrogeant l'article 7.139 dudit règlement.

2. Le présent règlement entre en vigueur le 29 septembre 1973.

O.C. 3496-73, 25 September 1973
Reg. 73-502, 28 September 1973

HIGHWAY CODE
(R.S.Q., 1964, ch. 231)

Snowmobiles

Present: The Lieutenant-Governor in Council.

CONCERNING an amendment to Regulation 7 respecting snowmobiles.

WHEREAS Regulation 7 respecting snowmobiles was made under Order in Council 2876-72 dated 28 September 1972;

WHEREAS section 7.139 of the said Regulation stipulates that "every subsidy intended for an approved club under this chapter shall not exceed, each year, an amount exceeding one-third of the total income of such approved club";

WHEREAS this restrictive measure respecting subsidies which may be granted may be unfair to certain snowmobile clubs due to a lack of budget standardization;

WHEREAS it is expedient to abolish this restrictive measure;

IT IS ORDERED, therefore, upon the recommendation of the Minister of Transport:

THAT Regulation 7.E amending Regulation 7 respecting snowmobiles be made as drafted and that it come into force on 29 September 1973.

JULIEN CHOUINARD,
Clerk of the Executive Council.

Concerning Regulation 7.E amending Regulation 7 respecting snowmobiles

1. Regulation 7 respecting snowmobiles made under Order in Council 2876-72 dated 29 September 1972 is amended by revoking section 7.139 of the said Regulation.

2. This Regulation shall come into force on 29 September 1973.

A.C. 3355-74, 19 septembre 1974
Règ. 74-458, 20 septembre 1974

Motoneige

Présent: Le lieutenant-gouverneur en conseil.

CONCERNANT le Règlement 7H modifiant le Règlement 7 sur la motoneige.

ATTENDU QUE le Règlement 7 sur la motoneige a été adopté par l'arrêté en conseil 2876-72 du 28 septembre 1972 et a été modifié par le Règlement 7A adopté par l'arrêté en conseil 3646-72 du 6 décembre 1972, par les Règlements 7B adoptés par les arrêtés en conseil 903-73 du 21 mars 1973 et 1488-73 du 27 avril 1973, par le Règlement 7C adopté par l'arrêté en conseil 2039-73 du 6 juin 1973, par le Règlement 7D adopté par l'arrêté en conseil 3118-73 du 29 août 1973, par le Règlement 7E adopté par l'arrêté en conseil 3496-73 du 25 septembre 1973, par le Règlement 7F adopté par l'arrêté en conseil 3908-73 du 22 octobre 1973 et par le Règlement 7G adopté par l'arrêté en conseil 4790-73 du 27 décembre 1973;

ATTENDU QUE dans le but de favoriser une meilleure utilisation des subventions gouvernementales aux clubs de motoneigistes il y a lieu de réserver ces subventions pour les clubs de plus de cent membres et de modifier la structure desdites subventions;

ATTENDU QU'eu égard à l'augmentation des coûts, il y a lieu d'inciter les clubs de motoneigistes agréés à hausser les cotisations des membres et les droits d'entrée du public sur les sentiers;

ATTENDU QUE pour des raisons de sécurité, il y a lieu de modifier certaines dispositions concernant les casques protecteurs de motoneigistes;

IL EST ORDONNÉ, en conséquence, sur la proposition du Ministre des Transports:

QUE le Règlement 7H soit adopté et entre en vigueur à compter de sa publication dans la *Gazette officielle du Québec*.

Le greffier du Conseil exécutif,
JULIEN CHOUINARD.

Règlement 7H modifiant le Règlement 7 sur la motoneige

7H.1 Le Règlement 7 sur la motoneige adopté par l'arrêté en conseil 2876-72 du 28 septembre 1972, modifié par le Règlement 7A adopté par l'arrêté en conseil 3646-72 du 6 décembre 1972, par les Règlements 7B adoptés par les arrêtés en conseil 903-73 du 21 mars 1973 et 1488-73 du 27 avril 1973, par le Règlement 7C adopté par l'arrêté en conseil 2039-73 du 6 juin 1973, par le Règlement 7D adopté par l'arrêté en conseil 3118-73 du 29 août 1973, par le Règlement 7E adopté par l'arrêté en conseil 3496-73 du 25 septembre 1973, par le Règlement 7F adopté par l'arrêté en conseil 3908-73 du 22 octobre 1973 et par le Règlement 7G adopté par l'arrêté en conseil 4790-73 du 27 décembre 1973 est de nouveau modifié:

a) en remplaçant le paragraphe g de l'article 1 par le suivant:

«g) «Club de motoneigistes» ou «club»: une association incorporée en vertu de la troisième partie de la Loi des compagnies (S.R.Q., 1964, ch. 271) aux fins de promouvoir, d'organiser et de contrôler l'utilisation de la motoneige et:

i) formée, avant le 31 décembre 1974, d'au moins 20 personnes et, le ou après le premier janvier 1975, d'au moins 100 personnes entre lesquelles se répartit la propriété d'au moins 50 motoneiges immatriculées pour l'année d'immatriculation courante; ou

ii) incorporée le ou après le 25 septembre 1974 et formée d'au moins 100 personnes entre lesquelles se répartit la propriété d'au moins 50 motoneiges immatriculées pour l'année d'immatriculation courante.

O.C. 3355-74, 19 September 1974
Reg. 74-458, 20 September 1974

Snowmobiles

Present: The Lieutenant-Governor in Council.

CONCERNING Regulation 7H amending Regulation 7 respecting snowmobiles.

WHEREAS Regulation 7 respecting snowmobiles was enacted by Order in Council 2876-72 dated 28 September 1972 and was amended by Regulation 7A enacted by Order in Council 3646-72 dated 6 December 1972, by Regulations 7B enacted by Orders in Council 903-73 dated 21 March 1973 and 1488-73 dated 27 April 1973, by Regulation 7C enacted by Order in Council 2039-73 dated 6 June 1973, by Regulation 7D enacted by Order in Council 3118-73 dated 29 August 1973, by Regulation 7E enacted by Order in Council 3496-73 dated 25 September 1973, by Regulation 7F enacted by Order in Council 3908-73 dated 22 October 1973 and by Regulation 7G enacted by Order in Council 4790-73 dated 27 December 1973;

WHEREAS in order to encourage a more profitable utilization of government subsidies to snowmobile clubs, it is expedient to restrict such subsidies to clubs with more than one hundred members and to modify the structure of the said subsidies;

WHEREAS in consideration of the increase in costs, it is expedient to induce approved snowmobile clubs to increase membership fees and the public admission fees for access to the trails;

WHEREAS for safety reason, it is expedient to amend certain provisions with respect to the protective helmets of snowmobilists;

IT IS ORDERED, therefore, upon the recommendation of the Minister of Transport:

THAT Regulation 7H be enacted and come into force upon its publication in the *Québec Official Gazette*.

JULIEN CHOUINARD,
Clerk of the Executive Council.

Regulation 7H amending Regulation 7 respecting snowmobiles

7H.1 Regulation 7 respecting snowmobiles enacted by Order in Council 2876-72 dated 28 September 1972, amended by Regulation 7A enacted by Order in Council 3646-72 dated 6 December 1972, by Regulations 7B enacted by Orders in Council 903-73 dated 21 March 1973 and 1488-73 dated 27 April 1973, by Regulation 7C enacted by Order in Council 2039-73 dated 6 June 1973, by Regulation 7D enacted by Order in Council 3118-73 dated 29 August 1973, by Regulation 7E enacted by Order in Council 3496-73 dated 25 September 1973, by Regulation 7F enacted by Order in Council 3908-73 dated 22 October 1973 and by Regulation 7G enacted by Order in Council 4790-73 dated 27 December 1973 is further amended:

(a) by replacing paragraph g of section 1 by the following:

"(g) "Snowmobile club" or "club": an association incorporated under Part III of the Companies Act (R.S.Q., 1964, ch. 271) for the purposes of promoting, organizing and controlling the use of snowmobiles and:

(i) consisting of, prior to 31 December 1974, at least 20 persons and, on or after 1 January 1975, at least 100 persons among whom the ownership of at least 50 snowmobiles registered for the current registration year is divided; or

(ii) incorporated on or after 25 September 1974 and consisting of at least 100 persons among whom the ownership of at least 50 snowmobiles registered for the current registration year is divided."

b) en remplaçant l'article 7.32 par le suivant:

«7.32 Sous réserve du paragraphe 2 de l'article 7.64, tout casque protecteur dont le port est prescrit par le présent règlement doit être conforme aux normes prescrites par le Règlement 9 concernant les casques protecteurs pour motocyclistes et motoneigistes adopté par l'arrêté en conseil 1487-73 du 27 avril 1973 et ses amendements. »

c) en remplaçant l'article 7.64 par le suivant:

«7.64 (1) Sauf s'il circule dans un traineau tiré par une motoneige, tout motoneigiste doit porter sur la tête le casque protecteur visé l'article 7.32;

(2) Nonobstant le paragraphe 1, un travailleur qui circule en motoneige dans l'exécution de son travail ou pour se rendre à son lieu de travail ou en revenir peut porter au lieu du casque protecteur visé à l'article 7.32 un casque de sécurité homologué selon la norme Z.94.1-1966 de la C.S.A. »

7H.2 Ledit Règlement est modifié:

a) en remplaçant dans le paragraphe *a* de l'article 7.121 le chiffre «$10» par le chiffre «$15»;

b) en remplaçant dans le paragraphe *b* dudit article les chiffres «$5» et «$7.50» par les chiffres «$7» et «$15».

7H.3 Ledit Règlement est modifié en remplaçant le paragraphe *b* de l'article 128 par le suivant:

«qu'il paie au club ou à l'exploitant d'un sentier agréé de catégorie «A», le droit d'entrée fixé à au moins $2 et au plus $5 par jour».

7H.4 L'article 7.132 dudit Règlement est modifié en remplaçant les mot et chiffre «15 janvier» par les mot et chiffre «1er novembre».

7H.5 L'article 7.134 dudit Règlement est remplacé par le suivant:

«7.134 Après avoir examiné les documents visés au présent chapitre, le ministre délivre un certificat d'agrément au club et ce certificat est valide du 1er janvier au 31 décembre de l'année à laquelle il se rapporte.»

7H.6 L'article 7.136 dudit Règlement est remplacé par le suivant:

«7.136 Sous réserve des articles 7.137 à 7.140, chaque année le ministre verse, à même les fonds appropriés à cette fin, une subvention aux clubs agréés pour la construction, l'amélioration et l'entretien des sentiers et refuges et pour leur administration; cette subvention est calculée selon le taux établi en annexe D du présent règlement.»

7H.7 L'article 7.137 dudit Règlement est remplacé par le suivant:

«La subvention visée à l'article 7.136 ne peut cependant être versée que si le club agréé est directement responsable:

a) avant le premier janvier 1975, d'au moins un mille de sentier agréé par tranche maximum de 12 motoneiges immatriculées au nom des membres de ce club agréé;

b) le ou après le premier janvier 1975, d'au moins un mille de sentier par tranche maximum de 20 motoneiges immatriculées au nom des membres de ce club agréé.»

7H.8 Ledit Règlement est modifié en ajoutant, après l'annexe «C», ce qui suit:

(b) by replacing section 7.32 by the following:

"7.32 Subject to subsection 2 of section 7.64, every protective helmet the wearing of which is prescribed by this Regulation must be in accordance with the standards prescribed by Regulation 9 respecting protective helmets for motorcyclists and snowmobilists enacted by Order in Council 1487-73 dated 27 April 1973 and amendments thereto."

(c) by replacing section 7.64 by the following:

"7.64 (1) Unless he travels in a sleigh drawn by a snowmobile, every snowmobilist must wear on his head the protective helmet contemplated in section 7.32;

(2) Notwithstanding subsection 1, a worker who, in the performance of his duties, travels in a snowmobile to go to or return from his place of work may wear, in lieu of the protective helmet contemplated in section 7.32, a safety helmet endorsed by C.S.A. standard Z.94.1-1966."

7H.2 The said Regulation is amended:

(a) by replacing in paragraph *a* of section 7.121 the amount "$10" by the amount "$15"

(b) by replacing in paragraph *b* of the said section the amounts "$5" and "$7.50" by the amounts "$7" and "$15".

7H.3 The said Regulation is amended by replacing paragraph *b* of section 7.128 by the following:

"that he pay to the club or operator of an approved Class A trail the admission fee, fixed at not less then $2 and not more than $5 per day".

7H.4 Section 7.132 of the said Regulation is amended by replacing the word and figure "January 15" by the word and figure "1 November".

7H.5 Section 7.134 of the said Regulation is replaced by the following:

"7.134 After examining the documents contemplated in this Chapter, the Minister shall issue a certificate of approval to the club and such certificate shall be valid from 1 January to 31 December of the year to which it refers."

7H.6 Section 7.136 of the said Regulation is replaced by the following:

"7.136 Subject to sections 7.137 to 7.140, the Minister shall grant each year, to approved clubs, from the funds set aside for such purpose, a subsidy for the construction, improvement and maintenance of trails and shelters and for their administration, such subsidy shall be computed according to the rate established in Schedule D to this Regulation."

7H.7 Section 7.137 of this Regulation is replaced by the following:

"The subsidy contemplated in section 7.136 may be granted only if the approved club is directly responsible for:

(a) prior to 1 January 1975, not less than one mile of approved trail for every 12 snowmobiles registered in the name of the members of such approved club;

(b) on or after 1 January 1975, not less than one mile of trail for every 20 snowmobiles registered in the name of the members of such approved club."

7H.8 The said Regulation is amended by adding, after Schedule "C", the following:

ANNEXE D

LE TAUX DE SUBVENTION

Section 1

LE MODE DE SUBVENTION

D.1 Les facteurs considérés:

Le taux de subvention est établi, pour chaque club agréé, en tenant compte de deux facteurs:

a) le nombre total des motoneiges immatriculées au nom des membres de ce club; et

b) le nombre total de milles de sentiers agréés de ce club.

D.2 Le nombre total des motoneiges:

Le nombre total des motoneiges immatriculées au nom des membres d'un club est établi à l'aide des numéros d'immatriculation apparaissant sur la liste des membres de ce club fournie avec sa demande de subvention de l'année en cours et est constitué de la somme des motoneiges immatriculées au nom des membres d'un club agréé inscrit à ce club avant le 31 janvier d'une année et dont la liste parvient au ministère avant le 10 février suivant.

D.3 Le nombre total de milles de sentiers:

Le nombre total de milles de sentiers agréés d'un club est établi d'après le plan de sentiers de motoneige fourni par ce club, pour l'année en cours ou à venir, lors de sa demande d'agrément de sentiers.

Ce nombre total est également établi en tenant compte de l'observance des prescriptions des articles 7.36 à 7.45 du présent règlement et de celles de l'article D.4 de la présente annexe.

D.4 Le mille de sentier équivalent:

Un mille de sentier, avec une circulation dans les deux sens ou à deux voies de circulation dans le même sens, est considéré comme équivalent à deux milles de sentier dans le calcul du nombre total de milles de sentiers pourvu:

a) que sa largeur dégagée de tout obstacle soit, en tout temps, d'au moins 12 pieds;

b) que la largeur de sa surface entretenue soit, en tout temps, d'au moins 8 pieds; et

c) qu'il soit entretenu au moyen d'une machinerie lourde spécialement adaptée à l'entretien des sentiers de motoneige.

D.5 Le nombre de motoneiges par mille de sentier:

Le nombre de motoneiges par mille de sentier est établi en divisant le nombre de motoneiges immatriculées au nom des membres de ce club par le nombre total de milles de sentiers de ce club.

Ce nombre est le nombre de référence qui permet d'établir le taux de subvention par motoneige accordé à un club agréé.

Ce nombre est calculé au dixième d'unité et ne peut être considéré comme inférieur à 1.0 ni supérieur à 20.0.

D.6 Les catégories de nombres de motoneiges par mille de sentier:

Le nombre de motoneiges par mille de sentier est classé en trois catégories:

a) catégorie A: de 1.0 à 6.0 motoneiges par mille de sentier;

b) catégorie B: de 6.1 à 10.0 motoneiges par mille de sentier; et

c) catégorie C: de 10.1 à 20.0 motoneiges par mille de sentier.

SCHEDULE D

RATE OF SUBSIDY

Division 1

MODE OF SUBSIDY

D.1 Factors considered:

The rate of subsidy shall be established, for each approved club, by taking two factors into account:

(a) the total number of snowmobiles registered in the name of the members of that club; and

(b) the total number of miles of approved trails of that club.

D.2 Total number of snowmobiles:

The total number of snowmobiles registered in the name of the members of a club shall be established by means of the registration numbers entered on the list of the members of that club furnished with its application for subsidy for the current year and shall be constituted by the total number of snowmobiles registered in the name of the members of an approved club registered with that club prior to 31 January of a given year and whose list reaches the Department prior to the following 10 February.

D.3 Total number of trail miles:

The total number of miles of approved trails of a club shall be established according to the plan of snowmobile trails furnished by the club, for the current or forthcoming year, upon its application for trail approval.

That total number shall also be established by taking into account compliance with the prescriptions of sections 7.36 to 7.45 of this Regulation and with those of section D.4 of this Schedule.

D.4 Equivalent trail mile:

A trail mile, with traffic in both directions or with two lanes in the same direction, shall be deemed equivalent to two trail miles in computing the total number of trail miles, provided that:

(a) its width free from any obstacle be, at all times, not less than 12 feet;

(b) the width of its maintained area be, at all times, not less than 8 feet; and

(c) it be maintained by means of heavy-duty equipment specially designed for the maintenance of snowmobile trails.

D.5 Number of snowmobiles per trail mile:

The number of snowmobiles per trail mile shall be established by dividing the number of snowmobiles registered in the name of the members of the Club by the total number of trail miles of the club.

Such number shall be the reference number which shall determine the rate of subsidy per snowmobile granted to an approved club.

The number shall be calculated to the tenth of a unit and shall not be deemed less than 1.0 nor higher than 20.0.

D.6 Classes of numbers of snowmobiles per trail mile:

The number of snowmobiles per trail mile shall be classified into three classes:

(a) Class A: from 1.0 to 6.0 snowmobiles per trail mile;

(b) Class B: from 6.1 to 10.0 snowmobiles per trail mile; and

(c) Class C: from 10.1 to 20.0 snowmobiles per trail mile.

D.7 Le taux de subvention par motoneige:

Le calcul du taux de subvention correspondant à chaque nombre de motoneiges par mille de sentier s'effectue à l'aide d'une formule de calcul déterminée pour chaque catégorie de nombres de motoneiges par mille de sentier.

La formule T=($8.40/N)+$3.60 est utilisée pour déterminer les taux de subvention correspondants à la catégorie A.

La formule T=($15.00/N)+$2.50 est utilisée pour déterminer les taux de subvention correspondants à la catégorie B.

La formule T=($30.00/N)+$1.00 est utilisée pour déterminer les taux de subvention correspondants à la catégorie C.

Dans ces formules, le symbole «T» désigne le taux de subvention et le symbole «N» désigne le nombre de motoneiges par mille de sentier d'un club agréé.

L'Illustration des taux de subvention correspondant à chaque nombre unitaire de motoneiges par mille de sentier d'un club apparaît au tableau de la section II du présent annexe.

D.8 Le montant total de subvention:

Le montant total de subvention accordé à un club agréé, à la suite d'une demande de subvention est égal au taux de subvention par motoneige établi pour ce club, multiplié par le nombre total de motoneiges immatriculées au nom des membres de ce club.

D.7 Rate of subsidy per snowmobile:

The computing of the rate of subsidy corresponding to each number of snowmobiles by trail mile shall be carried out by means of a computing formula determined for each class of numbers of snowmobiles per trail mile.

Formula R=($8.40/N)+$3.60 shall be used to determine the rates of subsidy corresponding to Class A.

Formula R=($15.00/N)+$2.50 shall be used to determine the rates of subsidy corresponding to Class B.

Formula R=($30.00/N)+$1.00 shall be used to determine the rates of subsidy corresponding to Class C.

In these formulas, the symbol "R" means the rate of subsidy and the symbol "N" means the number of snowmobiles per trail mile of an approved club.

The illustration of the rates of subsidy corresponding to each unit number of snowmobiles per trail mile of a club appears in the table of Division II of this Schedule.

D.8 Total amount of subsidy:

The total amount of subsidy granted to an approved club, following upon an application for subsidy, shall be equal to the rate of subsidy per snowmobile established for that club, multiplied by the total number of snowmobiles registered in the name of the members of the club.

Section II

LE TAUX DE SUBVENTION PAR MOTONEIGE IMMATRICULÉE EN FONCTION DU NOMBRE UNITAIRE DE MOTONEIGES PAR MILLE DE SENTIER

Division II

RATE OF SUBSIDY PER SNOWMOBILE REGISTERED IN TERMS OF THE UNIT NUMBER OF SNOWMOBILES PER TRAIL MILE

Nombre unitaire de motoneiges immatriculées par mille de sentier	Taux de subvention par motoneige immatriculée	Montant de subvention équivalent par mille de sentier pour chaque voie de largeur minimum		Unit number of registered snowmobiles per trail mile	Rate of subsidy per registered snowmobile	Equivalent amount of subsidy per trail mile for each lane of minimum width
N	T ($)	($)	($) (1)	N	R ($)	($)
1	12.00	12.00	24.00	1	12.00	12.00
2	7.80	15.60	31.20	2	7.80	15.60
3	6.40	19.20	38.40	3	6.40	19.20
4	5.70	22.80	45.60	4	5.70	22.80
5	5.28	26.40	52.80	5	5.28	26.40
6	5.00	30.00	60.00	6	5.00	30.00
7	4.64	32.48	64.96	7	4.64	32.48
8	4.37	34.96	69.92	8	4.37	34.96
9	4.16	37.44	74.88	9	4.16	37.44
10	4.00	40.00	80.00	10	4.00	40.00
11	3.72	40.92	81.84	11	3.72	40.92
12	3.50	42.00	84.00	12	3.50	42.00
13	3.30	42.90	85.80	13	3.30	42.90
14	3.14	43.96	87.92	14	3.14	43.96
15	3.00	45.00	90.00	15	3.00	45.00
16	2.87	45.92	91.84	16	2.87	45.92
17	2.76	46.92	93.84	17	2.76	46.92
18	2.66	47.88	95.76	18	2.66	47.88
19	2.57	48.83	97.66	19	2.57	48.83
20	2.50	50.00	100.00	20	2.50	50.00

Note du Service des permis d'exploitation:

(1) Montant de subvention équivalent par mille de sentier à "double" voie de largeur minimum. (voir D.4.)

Minnesota's Grants-in-Aid Program, administered by the state's Department of Natural Resources, differs somewhat in detail from Quebec's. While Quebec grants go directly to snowmobile clubs, Minnesota grant funds must be applied for and received by local units of government. Further, grants are made on the basis of receipts for actual expenditures in the form of reimbursement for 65% of total costs. The Minnesota program specifically provides for land acquisition, easements, leases and permits, in addition to construction and maintenance costs. As mentioned previously, trail project costs may reflect the value of volunteer labor (figured at $3.00 per hour) utilized by the director of the project, usually a snowmobile club official.

To date, some 3,300 miles of trail have been incorporated into the Minnesota public trail network, much of it the result of state grants-in-aid. As with the Quebec system, maps of snowmobile trails developed under the program must be submitted, and the trails must be opened for public usage. Some further information on the Minnesota program follows:

Section III

MINNESOTA'S GRANTS-IN-AID PROGRAM

In 1971, the Minnesota Legislature allocated funds to the Department of Natural Resources to be used in conjuction with local units of government for the establishment, construction and maintenance of public snowmobile trail systems. Your club, working with a local unit of government, can be eligible for these funds. The DNR can reimburse the local unit of government 65 percent of all costs attributed to trail acquisition, development and maintenance.

APPLICATION PROCEDURE

To apply for snowmobile grant money submit: (1) two application forms (2) two **maps** *showing the trail route (3)* **permits** *or* **easements** *from landowners and (4) two* **agreement** *forms to the State Trail Coordinator. The chairman and auditor of the County Board or the Mayor and Clerk of the municipality must sign the* **agreement.** *When the local unit of government is not the county, a County Board resolution indicating support for the proposed trail is needed (send with* **application**).

After the **application** *is approved and work totals $500 or more; a* **work sheet** *(plus invoices and receipts) in duplicate, signed by the County or Municipal official can be submitted to the Trail Coordinator.*

The State will then reimburse the local unit of government 65% of the invoice. Revision of these formal procedures may be made periodically. The application form reads as follows.

STATE-AID GRANT APPLICATION
SNOWMOBILE TRAILS ASSISTANCE PROGRAM

To apply for state-aid grants for snowmobile trail acquistion, maintenance and/or development, local units of government shall submit two original signed copies with Project Documentation to: Trail Coordinator, Department of Natural Resources, Division of Parks and Recreation, 320 Centennial Building, St. Paul, Minnesota 55155.

NAME OF POLITICAL SUBDIVISION: Itasca County
ADDRESS: Itasca County Court House, Grand Rapids, Minnesota
COUNTY: Itasca ZIP CODE: 55744

Name of Project Director: Person to whom inquiries about trail application should be directed.

NAME: Tom Locator
TITLE: President, Iceberg Snowmobile Club
ADDRESS: Snowtown, Minnesota 55705
TELEPHONE NUMBER: 218 (Area Code) 326 9777 phone Number

Approximate length of proposed trail: 25 miles

TRAIL LOCATION:
Sections: 2, 3, 4, 9, 10 Township: T.54N. Range: R.23W.
County: Itasca
Sections: _____ Township: _____ Range: _____
County: _____

Estimated cost of land for trail acquisition, lease, easement, permit	$ 500.00
Estimated cost of development such as shrub removal, cutting brush, erection of signs and posts	$ 4,250.00
Estimated cost of maintenance such as grooming trails, plowing parking area, etc.	$ 1,000.00
Estimated cost of facilities: shelter, toilet, etc.	$ 500.00
ESTIMATED TOTAL COST OF PROJECT	$ 6,750.00

Please submit two copies of each item listed with your application:

(1) Map of proposed trail showing ownership of land that trail will cross.

(2) Work Plan for construction of trail.

MUNICIPALITY _____

COUNTY OF Itasca

BY John Dollar
(County or Municipal Official)

TITLE Itasca County Auditor

DATE _____

CERTIFICATION BY DEPARTMENT OF NATURAL RESOURCES,
Division of Parks and Recreation

The undersigned hereby certifies that this project has a high priority rating according to criteria and priorities established for snowmobile trail development objectives, or otherwise meets the provision of Minnesota Laws.

We therefore, recommend a grant of $ _____

Dep Coordinator
State Trail Coordinator — Date

U.W. Director
Director, Division of Parks and Recreation

The contract that must be executed between your local unit of government and the State of Minnesota, Department of Natural Resources, reads as follows:

(sample)

AGREEMENT

THIS INDENTURE, Made this 1st day of December, 19 73 between the STATE OF MINNESOTA acting by and through the Commissioner of Natural Resources, hereinafter referred to as the State, and Itasca County, hereinafter referred to as the local unit of government.

WHEREAS, the local unit of government desires to establish, construct and maintain a public snowmobile trail system, and,

WHEREAS, by Laws 1971, Extra Session, Chapter 3, Section 36, Subd. 1, (c) 1, there was appropriated to the Commissioner of Natural Resources, as a grant-in-aid to local units of government, funds for said purpose to be expended with the approval of the Governor after consultation with the Legislative Advisory Committee.

NOW THEREFORE, IT IS AGREED between the parties hereto:

The State agrees to reimburse the local unit of government 65 percent of the cost of trail acquisition, development and maintenance subject to the following terms and conditions:

A. (APPROVAL) The local unit of government shall not expend any funds on the proposed trail until the trail proposal is approved as hereinafter provided, by the Trail Coordinator, Department of Natural Resources.

I. The local unit of government shall submit to the Trail Coordinator, Department of Natural Resources, the following trail documentation:

(a) A county map depicting the location of the proposed trail over all lands, private and public, together with parcel numbers for individual owners of said lands.

(b) Names of landowners, legal description and parcel number corresponding to parcel numbers depicted on county map.

(c) A work plan for the proposed trail shall include but not be limited to the following:

1. Clearing and maintaining the trail;
2. Grooming trails at least once a week and after each snow fall of 3 inches or more;
3. Provide and plow parking area when needed;
4. Erect post and signs where designated by the Department of Natural Resources;
5. Erect sanitary facilities and shelters if needed;
6. Provide refuse cans and make collections once a week;
7. Remove all signs, posts, shelters and sanitary facilities by April 1st of each year of contract;
8. Repair any fences which had to be cut for trail entrance or exit.

II. For the purpose of making the trail proposal plan acceptable to the Trail Coordinator, the local unit of government may revise any submitted trail documentaiton.

III. The Trail Coordinator shall give his written approval of the proposed trail plan to the local unit of government official executing this agreement.

IV. The local unit of government shall not amend, revise or change the approved trail plan without written consent of the Trail Coordinator.

B. (TECHNICAL ASSISTANCE) The State will give

technical assistance to the local unit of government in establishing a snowmobile trail.

C. (REIMBURSEMENT) The State agrees to reimburse the local unit of government 65 percent of all costs attributed to trail acquistion, development and maintenance.

1. Costs incurred must be in accordance with the approved trail plan and approved revision thereto.
2. The local units of government may acquire land in fee, easement, lease, or permit, but in no event shall the term of said interest be less than four (4) months between November 15th of any year and March 15th of the succeeding year.
   (a) A person having personal knowledge of ownership shall sign an affidavit that the person whose name appears on the document of conveyance or permit is the same in possession of said premises and one and the same who is the grantee on the last instrument of record in the office of said Register of Deeds of the County in which the land lies conveying said premises.
   (b) Any instrument of conveyance or permit with a consideration exceeding $500.00 shall be accompanied by an Attorney's certificate of title.

D. (PAYMENT) The local unit of government shall submit invoices for actual costs incurred in establishing, constructing and maintaining the approved snowmobile trail.
   (a) First Payment: Upon receipt of invoices evidencing acceptable trail costs of $500 or more, the States agrees to pay the local unit of government 65 percent of the amount submitted and approved.
   (b) Subsequent Payments: Each thirty (30) successive days after the first payment the local unit of government may submit invoices evidencing acceptable trail costs. If the costs are approved, the State agrees to pay the local unit of government 65 percent of the amount submitted and approved. Said payments shall continue to be made until authorized reimbursement for the costs of said trail as provided herein is satisfied.

E. (STATE LIABILITY) Notwithstanding the grant-in-aid as provided herein, the State of Minnesota *shall not* be liable for such costs as are incurred by the local unit of government because grant in aid funds for said trail are depleted.

F. (OBLIGATION OF THE LOCAL UNIT OF GOVERNMENT) After the trail has been approved, the local unit shall forthwith proceed to acquire necessary interests in lands and establish the trail and open the same to the public. Should the local unit of government fail to expedite completion of project and thereafter fail to provide for adequate maintenance which shall include keeping the trail reasonably safe for public use, providing sanitation and sanitary facilities when needed and other maintenance as the State may require, the State may withhold future payments to the local unit of government and terminate this agreement.

APPROVED:
STATE OF MINNESOTA
DEPARTMENT OF ADMINISTRATION

By: Jack Formal
Title: Grant Coordinator
Date: _____

APPROVED AS TO FORM AND EXECUTION

By: Ben Legal
Spec. Asst. Attorney General
Date: _____

LOCAL UNIT OF GOVERNMENT
COUNTY OF
VILLAGE
OR OTHER (SPECIFY)

Itasca County
By: Fred Crystal
(Board Chairman or Mayor)
Title: Board Chairman
By: John Duller
Title: County Auditor
(Auditor or Clerk)
Date: _____

DEPARTMENT OF NATURAL RESOURCES

By: Joe Good
Title: Commissioner
Date: _____

(Section continued on Page 12)

Permit-Easement Forms

Two other forms — a permit form or an easement agreement must be signed by each landowner the trail crosses and submitted with your application. Both are available from the Department of Natural Resources. These read as follows:

(sample)

PERMIT

THIS PERMIT, is granted this 6 day of October, 1972, by Joe Landowner, Permitters to the County of Itasca Permittee, to establish and maintain on the hereinafter described land a snowmobile route.

That Joe Landowner, the (record owners) (contract for deed purchasers) (lessees) in consideration of One Dollar, grants this permit over and upon the following described premises situated in the County of Itasca, State of Minnesota, to wit:

The North 100' of the NE¼ of the NE¼ Section 5, Township 54 North, Range 23 West

SUBJECT TO:

1.) This permit shall terminate upon sale of the land, or upon notification in writing to the county six months prior to termination by the Permitters.

2.) The snowmobile route shall be open to the general public for snowmobile use.

3.) The Permittee shall, at all times, have the right to enter upon the route right-of-way for any purpose necessary to the performance of lawful powers and duties.

4.) The Permitters shall have the right to close said right-of-way during any emergency, with the approval of the Permittee.

5.) The permit for a 100 foot width over the route to be used.

6.) Other

SIGNATURE: Joe Landowner
(Landowner)

DATED: November 9, 1973 Tom Locator
(Snowmobile Club, Couty of Municipal Official)

(sample)

EASEMENT

THIS INDENTURE, made this 6 day of October, 72, between Joe Landowner, herein referred to as the landowner, and the State of Minnesota, acting by and through the Commissioner of Natural Resources, herein referred to as the State.

WITNESSETH, that the landowner, in consideration of the sum of One Dollar to _____ in hand paid by the state, the receipt whereof is hereby acknowledged, do(es) hereby Grant and Convey an (easement and right in perpetuity; easement and right during the winter season; easement and right during the months of November, December, January, February for the coming 10 year(s) unto the landowner, its successors and assigns, subject to the terms hereof, over and upon the following described premises situated in the County of Itesca, State of Minnesota) to wit:

A strip of land 100 feet in width over and across the following described lands:

The north 100' of the NE¼ of the NE¼ Section 5, Township 54 North, Range 23 West.

The location of said strip of land is shown on Exhibit "A" attached hereto and made a part hereof, for the following described purposes:

The purpose and intent of this easement is to establish, construct and maintain a snowmobile trail to be used by the public. This easement is conveyed subject to the following terms and conditions:

1.) The State acknowledges that the Landowner shall incur no expenses associated with the construction and maintenance of the trail.

2.) Prior to this easement taking effect, the State will submit for approval to the Landowner, a plan describing the placement and construction of any items that the State intends to place or construct on the described lands. Any such items to be placed or constructed pursuant to this agreement will be limited to items which may be reasonably construed as furthering the express purpose of this land use. No deviations from this plan will be allowed except with the approval of the Landowner.

3.) All stumps, slash and other debris resulting from the clearing of the right-of-way will be disposed of by the State, according to law.

4.) All trees, having a commerical value, will be cut in standard lengths and piled conveniently by the State for disposal by sale or otherwise by the Landowner.

5.) In order to preserve the scenic beauty of the demised land, the State agrees to refrain from cutting any trees or removing any vegetation from said land without the express written consent of the Landowner.

6.) All signs, postings and other markers shall be approved by the Landowner.

7.) This easement is terminated if the designated land is not used by the State for the purpose of constructing a snowmobile trail for a period of one year, or if the State fails to comply with any of the conditions of this easement.

8.) The State shall maintain the area under easement in a safe condition at all times.

TO HAVE AND TO HOLD THE SAME, to Landowner, its successors and assigns.

IN TESTIMONY WHEREOF, the said Parties have hereunto subscribed their names the day and year first above written.

IN PRESENCE OF:

John Witness _____ Joe Landowner

Joe Witness

STATE OF MINNESOTA)
) ss.
COUNTY OF)

On this 6 day of October, 19 72, before me, a Notary Public in and for the State of Minnesota, appeared Joe Landowner

to me known to be the persons described in and who executed the foregoing easement, and acknowledged that they executed the same as their free act and deed.

Bill Notary

When development and maintenance expenditures exceed $500, a work sheet of trail costs should be submitted, in duplicate, with invoices and receipts to the Trail Coordinator. The State will then reimburse the local unit of government 65 percent of the documented cost.

WORK SHEET OF TRAIL COST

Two copies of completed work sheet should accompany each invoice.

Land

Trail located entirely on county lands ☐

Portions of trail located on either public or private lands ☐

Number of easements, leases or permits obtained ☐

Easement acquiring costs:

Labor Cost $3.00 Per hour Mileage Cost $.10 Per Mile Misc. Cost $3.00 Per Hour

LAND TOTAL $ 500

DEVELOPMENT

Erecting posts, signs, shelters and sanitary facilities; trail brushing and improving grade; construction of bridges, etc.

Labor Cost $3.00/hr. Equipment Cost $1-20/hr.

DEVELOPMENT TOTAL $ 400

MAINTENANCE

Grooming trails 10' and number of miles 25

Number of times trail groomed per month 4

Labor Cost $3.00/hr. Equipment Cost $5-15/hr.

Total _____

Miscellaneous maintenance costs such as trash collection, etc.

Labor Cost $3.00/hr. Equipment Cost $5/hr.

Total _____

Plowing Parking Areas

Labor Cost $3.00/hr. Equipment Cost $5.00/hr.

Total _____

MAINTENANCE TOTAL $ 200

TOTAL AMOUNT OF INVOICE $ 100

MUNICIPALITY OF Itasca County COUNTY OF Itasca BY John Dollar AUDITOR OR CLERK County Auditor DATE _____

FOR STATE USE ONLY

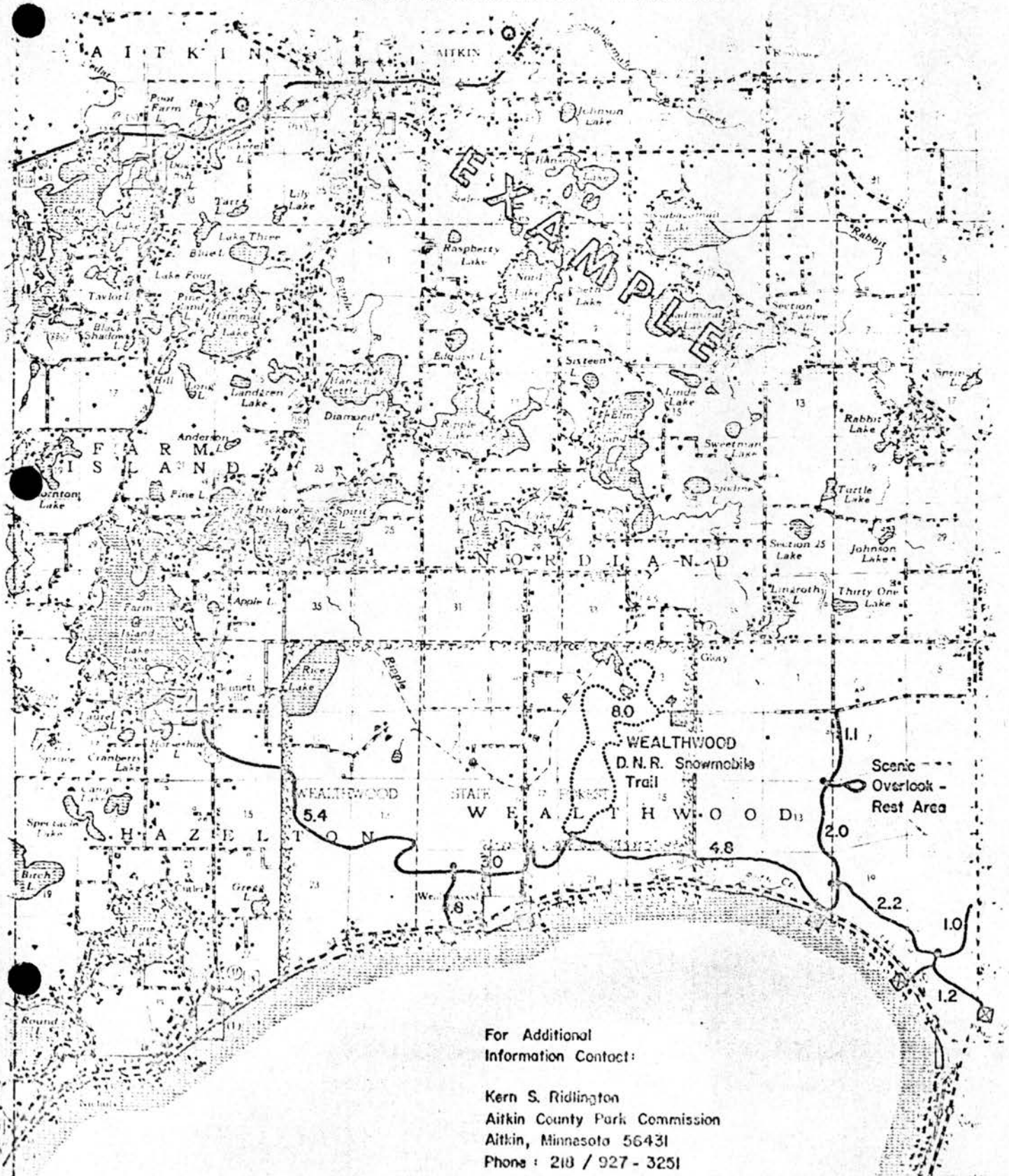
This invoice approved for payment by _____

_____ DATE _____

SEEK DNR'S HELP

Once you have handled the necessary documentation, you are well on the way to putting your trail together. The Department of Natural Resources is anxious to help your club or organization. DNR officials will help to make the paper work as easy and understandable as possible. However, you should discuss you trail plans with them from the start to keep them informed of both your progress and problems. The program is designed to provide more recreational facilities statewide and therefore, the Department of Natural Resources is vitally interested in its successful implementation.

Aitkin County
Mille Lacs Snowhummers
SNOWMOBILE TRAIL



For Additional Information Contact:

Kern S. Ridlington
Aitkin County Park Commission
Aitkin, Minnesota 56431
Phone : 218 / 927 - 3251

The third program to be analyzed is run by Wisconsin's Department of Natural Resources. Like Minnesota's program, grants from the state are made to local governments, chiefly counties. Again, both labor and material costs are covered for trail development and maintenance. Also, land acquisition, leasing, easements and permits are specifically included. Wisconsin's program, however, provides 100% reimbursement to the county, with up to 75% of the necessary funds provided prior to actual expenditures on the basis of submitted estimates. Trail maintenance funds are available on the basis of $100 per mile per year.

Wisconsin has promulgated and disseminated a series of design criteria which must be incorporated into all state-recognized trails. The state DNR is also endeavoring to coordinate the trail-building efforts of all levels of govenment within Wisconsin. The identification and creation of key corridor trails is a priority target for the program.

Further details on the program are found in a document prepared and distributed by the Association of Wisconsin Snowmobile Clubs entitled "Your Guide to Trails." Portions thereof follow:

YOUR GUIDE TO TRAILS



PREPARED BY AWSC

Business Office
128 N. Commercial St.
Neenah, Wis. 54956
414 — 725-9133

Association of Wisconsin Snowmobile Clubs, Inc.

P.O. BOX 1029 • NEENAH, WIS. 54956

Last year the AWSC brought out "Your Guide to Trails" which was well received by Wisconsin snowmobilers and county forestry groups. This booklet represents our second edition of "Your Guide to Trails" and includes the revisions to Wisconsin snowmobile laws contained in Chapters 298 and 350.

It should be a much easier task this year to have your county continue it's trail program or start a trail program. The basic reason for this is the fact that trail permits may be granted to the county by property owners on a verbal agreement. No longer is it necessary to secure a legal instrument registered with the Register of Deeds to obtain Snowmobile Aids.

The other changes in the law this year affecting trail development are:

A. 100% trail maintenance monies paid to counties up to $100.00/mile.

B. All county trails will have liability insurance funded by the State Aids program to protect property owners.

C. County law enforcement program will be funded 100% by State Aids.

Further, the Department of Natural Resources has promised that trail approval will be handled in much less time than in the past - - and we promise you that the AWSC intends to hold the DNR to that promise.

In addition, trail route signing programs are entitled to up to 100% funding for the sign programs. Details are covered in NR 50 included in this booklet.

Now how do you start to get State Aids to develop county trails. Following is a brief outline of the procedures to be followed. The index of this booklet correlates to the outline below.

A. Get a new plat book - cut out the pages and glue together to make a map. Lay out your proposed trail system on this map.

B. Describe by ¼ quarter sections all the land owners whose property your trail system crosses. This should read:

T34N R14F Township
Tom Jones Sec. 24 NWNW, NWSW
Bob Smith Sec. 3 SESE
etc. for all property owners in each Township.

With this list in hand, get verbal permission for land usage from Dec. 1, 1974 until March 31, 1975, or as many more years as the owner will grant trail privileges. If the trail project cost on any one piece of property is to cost $3,000.00 or more for a bridge, parking lot or shelter, it will be necessary to get a three year minimum written agreement.

C. Now get three copies of your county's map and lay out the trail system on this map, and submit this map with the list of property owners names to your County Board's resolution committee. Ask that your trail system be approved by formal resolution by the County Board as a county trail.

D. Be ready, or better yet, have ready a three year county snowmobile system with the projects outlined in different colors.

E. Make a map showing trail signing details. This map should show locations of blazers, directional arrows, danger signs, stop signs, route signs, etc.

F. Now lets make an estimated construction cost detail sheet for those trail systems requiring construction funding. Again, this should be done by Township T34N R14E -- Example:

a. Bulldozing of 6'-8' tread	- $18.00/hr. - 20 hrs. = $360.00		
b. Brushing additional 2' wide, 10' high	- 3.00/hr. - 25 hrs. = 75.00		
c. Install 10 gates and posts			
1. material	- $40.00 each = $400.00		
2. labor to install	- $10.00 each = $100.00		
	sub-total =		500.00
d. Signing =			25.00
e. Seeding tread =			10.00
	Township T34N R14F Total		$970.00

The best bulldozing can be done with machines in the JD 450 class fitted with a six-way dozer blade. The hourly charge for machine and operator will be in the $15.00 to $18.00 range. Number of hours per mile will have to take into consideration what has to be done to make a suitable trail surface.

G. The DNR now requires permanent bridges over all navigable streams, there is no longer allowed a temporary winter bridge as used in past years. All bridges over navigable streams must be 5 feet over the normal high water mark. The bridge must be designed by a professional engineer registered with the State of Wisconsin. All bridges must be approved by DNR District Office, and if the bridge is over 35 feet long, there must be a public hearing. The cost for a wooden structure bridge will be anywhere from $15.00 to $50.00 per square foot, depending on length, stream bottom, approaches, etc. To make your job easier, the AWSC Neenah office will furnish you with names of engineers, lumber sources, fixture manufacturers, etc. if you don't know where to locate these sources. Our list is short at this time, but the sources are competent.

H. DNR Forms 8700-70, 8700-69, 8700-71 and supplemental sheets to 8700-70 must be completed in triplicate by your county representative and forwarded to DNR District Office with maps, cost sheets, County Board resolution, notarized property owners' permits, etc. for DNR approval. The DNR will not approve a trail construction fund unless there is provided a means by which the trail will be groomed during the snow season. So figure out if the County will maintain the trails, or clubs, or individuals under contract to the County.

I. Before any funding approvals can be made by the DNR, an environmental impact study of the trail location must be made. Keep this in mind when laying out the trail so that you avoid game or bird areas, tree seedling areas, areas in delicate environmental balance, areas of high hazard to snowmobilers or others.

J. If everything has been done properly, you should receive funds for trail construction in the amount of 75% of your request, with the balance payable upon trail completion and fund audit. Maintenance contract will be approved with monies payable at snow season end, upon proof of work. Maintenance payment will vary considerably according to type of equipment used to groom trails.

Your first meeting after you have your map made will be with the County Forester or the Chairman of your County Forest Crop Committee. This meeting or other meetings will be required to secure county approval for the project and the County Board resolution.

In most counties, it will be up to the Alliance or club members to secure the verbal property owners approvals (written if project costs on a particular piece of property exceed $3,000.00.) It is necessary for you to make maps, detail a three year county plan, make signing detail maps, estimate all project costs by township and section, and develop how you will maintain the trail.

After you have developed all of the above details, you will probably work with your county club on necessary DNR application forms and LAWCON estimate sheets. This process is somewhat time consuming and any assistance you can give to the person making the application will be sincerely appreciated by that person.

In developing the trail, please take into consideration the fact that an environmental impact study has to be completed by the DNR as a part of the trail aids program.

If you desire more assistance from the AWSC, please do not hesitate to ask. We have people who have worked on these trail projects for the past several years. These persons have met with County Boards, Forest Crop Committees, DNR personnel, etc. So we repeat, if you need help - let us know.

Good Luck and let's get those trails started. United We Trail - Divided We Fail

V. - Trail and Use Area Design Guidebook

A comprehensive guide for snowmobile club trail committees and trail crews is the most effective means to promote uniformly safe trails throughout a province or state. Such a guide must be designed to genuinely assist trail builders. Thus, it must serve both as a trail construction checklist and a broad resource document. Among the major areas which should be included in this guide are: (1) information on available provincial or state aid for club trail programs; (2) a complete listing of approved snowmobile trail signs, and guidance on obtaining and placing such signs; (3) guidance on planning a trail, including a listing of sources of topographical and land ownership maps; (4) advice on key sources of special land, such as abandoned railroad rights-of-way, utility rights-of-way, etc., (5) trail construction guidance, including minimum design safety standards; (6) information on trail maintenance practices and equipment; (7) a "safe trail" certification program; (8) copies of provincial and state snowmobile laws and regulations; (9) provincially or state approved forms to obtain trail easements from landowners, and an explanation of provincial and state limitations on landowner liability; and (10) a map showing major trail and use areas in the province and state to facilitate the development of inter-connected trails.

To date, Minnesota alone has developed a booklet of this type; many states and provinces have developed and circulated portions of such a guide, however, and the Association of Wisconsin

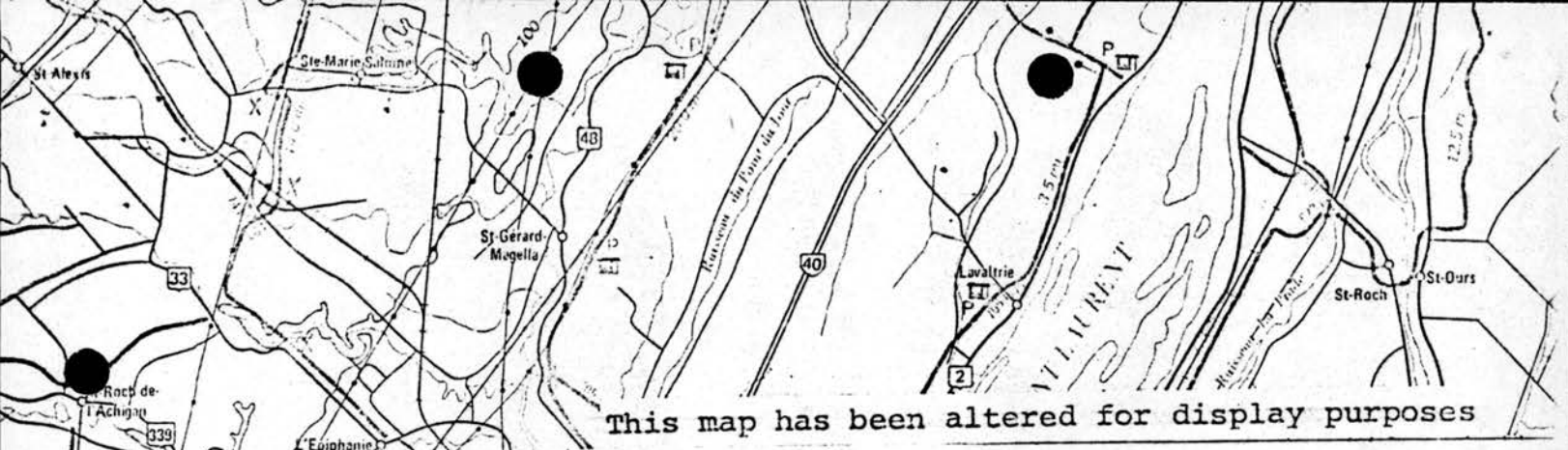
Snowmobile Clubs has prepared a document with many of the elements listed above.

The chapter behind Tab 2 of this document is designed to provide the skeletal structure for such a state or provincial document, to be revised in such ways as to make the guide appropriate for a specific political subdivision.

VI. - Public Trail Certification and Mapping Program

With the advent of marked and maintained trails available to the public, the province or state should begin to monitor the trails for minimum safety standards, just as water quality is monitored at public bathing places. Criteria for certification should be identical to those construction standards set forth in the Provincial Trail and Use Area Guidebook. In those areas with grant-in-aid programs, public sponsorship of new trail development and maintenance should be restricted to those trails in conformance with these design standards. Qualifying trails can be specially marked; thereafter, these trails can be marked upon a provincial or state map for widespread distribution.

The Province of Quebec publishes some eight maps annually showing its safe public trails. A portion of one such map is reproduced on the following pages:



This map has been altered for display purposes

LISTE DES NUMÉROS DE TÉLÉPHONE DES CLUBS DE MOTONEIGE AGRÉÉS

numéros	noms	téléphone
602	CLUB DE MOTO-NEIGE ADIDOU RIVE-SUD INC.	(514) 678-4341
603	CLUB D'AUTOS NEIGE ALLIANCE	(514) 222-2434
605	CLUB DE MOTOS-NEIGE ARGENTEUIL INC.	
610	CLUB AUTO-NEIGE BLAINVILLE INC.	(514) 430-4765
611	CLUB AUTO-NEIGE BLIZARD INC.	(514) 228-2240
612	CLUB AUTO NEIGE BON-AIR INC.	(514) 835-2262
619	CLUB CAR CAMP INC.	(514) 830-4164
620	CLUB AUTO NEIGE CHAMBLY 90 INC.	(514) 658-1874
623	CLUB AUTO NEIGE CLAUNOR INC.	(514) 786-3246
626	CLUB MOTOS-NEIGE LES COPAINS (ST-RÉMI) INC.	(514) 454-9343
633	CLUB DE MOTO-NEIGE LYNX DE DEUX-MONTAGNES	(514) 258-4128
634	CLUB DE MOTO-NEIGE DORION GARDEN INC.	(514) 455-4714
644	CLUB MOTONEIGE FRONTIÈRE INC.	(514) 269-2381
646	CLUB GAI LURON INC.	(514) 456-3632
649	CLUB GUILLAUME TELL INC	(514) 289-2195
656	CLUB AUTO NEIGE VOLANT DE HUDSON INC.	(514) 276-4859
658	CLUB HYDRO-NEIGE LES CÈDRES INC.	(514) 455-9606
660	CENTRE AUTO-NEIGE ILE BIZARD	(514) 626-5512
661	CLUB DE MOTO-NEIGE ILE-NITRO INC.	(514) 525-2121
663	CLUB SPORTIF MOTOS-NEIGE IROQUOIS INC.	(514) 348-3635
664	CLUB AUTO NEIGE DE JOLIETTE INC.	(514) 759-0833
667	CLUB DE MOTOS-NEIGE LES RENARDS L'ACADIE-NAPIERVILLE	(514) 245-3621
672	CLUB AUTO NEIGE LA SALLE INC.	(514) 389-2578
673	CLUB AUTO NEIGE LAURENTIEN	(514) 438-2977
674	CLUB DE MOTO-NEIGE LAVAL INC.	(514) 622-0572
675	CLUB MOTOS NEIGE LES CASTORS DU LAC-DE-LA-MONTAGNE-NOIRE	(514) 224-5210
686	CLUB MOTO NEIGE DE LA VALLÉE DE MASCOUCHE INC.	(514) 474-2064
688	CLUB MOTO-NEIGE LES MICHES	(514) 464-5968
699	CLUB LES VOYAGEURS DE LACOLLE INC.	(514) 246-2014
700	CLUB LES PIN-KOUINS DE POINTE FORTUNE INC.	(514) 238-5238
704	CLUB D'AUTO-NEIGE CARAVANE DE RAWDON INC.	(514) 834-2416
705	CLUB DE MOTOS-NEIGE RÉGIONAL DE REPENTIGNY	(514) 581-1585
706	CLUB DE MOTOS-NEIGE X.M. RICHELIEU INC.	(514) 348-4383
707	CLUB RIGOLO INC.	(514) 238-5349
714	CLUB AUTO-NEIGE DES SENTIERS (NORD DE JOLIETTE) INC.	(514) 753-3638
723	ASSOCIATION LES COUREURS DE BOIS	(514) 883-2958
731	CLUB DE MOTO-NEIGE ST-CHARLES INC.	(514) 835-2327
733	CLUB DE MOTOS-NEIGE DE ST CONSTANT LIMITÉE	
734	CLUB AUTO-NEIGE ST-DAMIEN INC.	(514) 886-3697
736	CLUB DE MOTO-NEIGE ST-DIDACE INC.	(514) 835-2420
737	CLUB D'AUTO-NEIGE ST-ÉDOUARD	(514) 454-3158
738	CLUB AUTO-NEIGE LAURENTIDES DE STE-ÉMILIE INC.	(514) 886-2543
741	CLUB AUTO-NEIGE ST-GABRIEL INC.	(514) 835-2648
744	CLUB MOTONEIGE ST-JACQUES INC.	(514) 638-2954
747	CLUB STE-JULIENNE INC. (Sentiers agréés)	(514) 525-8575
748	CLUB STE-JUSTINE INC.	(514) 764-3656
749	CLUB AUTO-NEIGE ST-LAZARE INC.	(514) 455-2653
751	CLUB AUTO-NEIGE DE STE-LUCIE	(514) 295-8586
753	CLUB DE MOTO-NEIGE STE-MARTINE INC.	(514) 427-2627
755	CLUB D'AUTOS-NEIGE ST-MICHEL	(514) 833-6835
758	CLUB AUTO-NEIGE LES COUCHE-TARD ST-POLYCARPE	(514) 265-3238
767	CLUB AUTO-NEIGE ST-ZÉNON INC.	(514) 884-3665
768	CLUB D'AUTO-NEIGE GRANDE VALLÉE INC.	(514) 456-3626

LÉGENDE

SENTIER DE MOTONEIGE .....

NUMÉRO DE CLUB AGRÉÉ (en 1972-73) 741

JONCTION DE CLUBS ..... 741 | 619

DISTANCE EN MILLES ..... 3.0 mi

RÉSEAUX ROUTIERS ..... 15 · 131 · 348

CHEMIN DE FER .....

LIGNE A HAUTE TENSION .....

ZONE BOISÉE .....

COURBES DE NIVEAU (équidistance: 100 pieds) 500

LIMITES DE PARC ET RÉSERVE .....

REFUGE .....

STATIONNEMENT ..... P

SERVICES: (essence, réparations, restaurant) ..... Ω ⅄ X

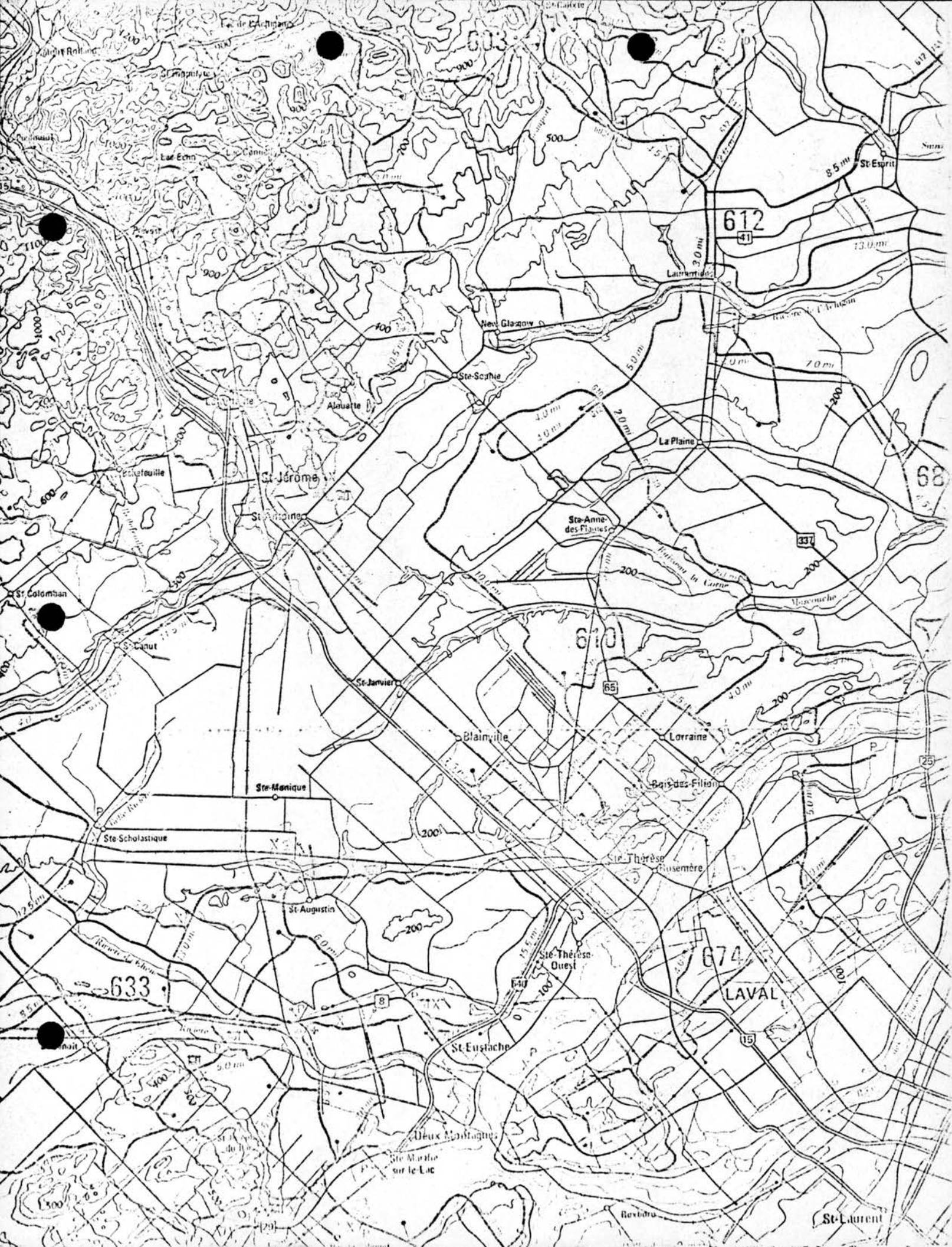
PREMIERS SOINS ..... +

Échelle en milles

3 2 1 0 3 6

Les sentiers de motoneige sont actuellement numérotés par le club.

Litho LXXIII


603
612
41
St-Esprit
Lac Echo
Lac Clair
Lac Ouimet
Lac Caribou
Lac Gagnon
Lac Ste-Marie
Lac Ste-Sophie
Lac Alouette
Lac Rond
Lac Long
Lac Bellefeuille
Lac Bellerive
Lac Bellevue
Lac Bellemare

VII. - Mechanisms to Solicit Private Lands and Protect Landowners

Relatively few areas of intensive snowmobile use occur in regions with public lands adequate to support the entire activity. In fact, with rising fuel prices and the increasingly suburban orientation of the sport, private lands close to population centers will play a still more important role in the future.

Thus, a successful trail and use area system must utilize private as well as public lands. A careful analysis of provincial laws relating to landowner liability should be undertaken, and sample legally binding permission for use forms, "right-of-way" acquisition forms, and waivers of responsibility should be provided.

In many cases, both small parcels of land owned by individuals and large tracts under the control of commercial interests can be utilized. Examples of landowners in the latter category are:

- forest products industries,
- mining industries, and
- agricultural industries

It is unfair to saddle the consenting landowner with substantial added responsibilites. In fact, the possibility of such responsibilities can be in itself a powerful disincentive to permitting the use of private lands. Rather, landowners should be legally protected except in those cases involving willful and/or malicious acts on their part and those in which their gross

negligence causes personal injury or property damage. Several states and provinces currently provide such protection. Two examples follow: Minnesota's 1971 Recreation Liability Law, and Michigan's 1974 law, which provides one of the most forthright examples of this type of legislation.

MICHIGAN
Regular Session

Public Act 177, Laws 1974

Senate Bill No. 1196

AN ACT to amend the title and section 1 of Act No. 201 of the Public Acts of 1953, entitled as amended "An act restricting suits by persons coming upon the property of another for the purpose of hunting, fishing, trapping, camping, hiking, sightseeing or other similar outdoor recreational use; and to declare the limited liability of owners of property within this state," being section 300.201 of the Compiled Laws of 1970.

The People of the State of Michigan enact:

Section 1. The title and section 1 of Act No. 201 of the Public Acts of 1953, being section 300.201 of the Compiled Laws of 1970, are amended to read as follows:

TITLE

An act restricting suits by persons coming upon the property of another for certain purposes; and to declare the limited liability of owners of property within this state.

Sec. 1. No cause of action shall arise for injuries to any person who is on the lands of another without paying to such other person a valuable consideration for the purpose of fishing, hunting, trapping, camping, hiking, sightseeing, motorcycling, snowmobiling, or any other outdoor recreational use, with or without permission, against the owner, tenant, or lessee of said premises unless the injuries were caused by the gross negligence or wilful and wanton misconduct of the owner, tenant, or lessee.

This act is ordered to take immediate effect.

Approved, June 23, 1974

RECREATION LIABILITY LAW

CHAPTER 87

Minnesota Statutes 1971

PRIVATE LANDS AND WATERS, PUBLIC USE

87.01 POLICY. It is the policy of the state, in furtherance of the public health and welfare, to encourage and promote the use of privately owned lands and waters by the public for beneficial recreational purposes, and the provisions of this chapter are enacted to that end.

87.021 DEFINITIONS. Subdivision 1. For the purposes of this chapter the terms defined in this section have the meanings given them, except where the context clearly indicates otherwise.

Subd. 2. "Land" means land, roads, water, watercourses, private ways and buildings, structures, and machinery or equipment when attached to the realty.

Subd. 3. "Owner" means the possessor of a fee interest or a life estate, a tenant, lessee, occupant or person in control of the premises.

Subd. 4. "Recreational purpose" includes, but is not limited to, any of the following, or any combination thereof: hunting, trapping, fishing, swimming, boating, camping, picnicking, hiking, bicycling, horseback riding, pleasure driving including snowmobiling and the operation of any motorized vehicle or conveyance upon a road or upon or across any land in any manner whatsoever, nature study, water skiing, winter sports, and viewing or enjoying historical, archaeological, scenic, or scientific sites.

Subd. 5. "Charge" means the admission price or fee received in return for invitation or permission to enter or go upon the land.

87.022 OWNER'S DUTY OF CARE OR DUTY TO GIVE WARNINGS. Except as specifically recognized by or provided in section 87.025, an owner of land (a) owes no duty of care to render or maintain his land safe for entry or use by other persons with a motorized recreational vehicle for recreational purposes, (b) owes no duty to warn those persons of any dangerous condition on the land, whether patent or latent, (c) owes no duty of care toward those persons except to refrain from willfully taking action to cause injury, and (d) owes no duty to curtail his use of his land during its use for recreational purposes.

87.023 LANDOWNER'S LIABILITY. Except as specifically recognized by or provided in section 87.025, an owner of land who either directly or indirectly invites or permits without charge any person to use such property for recreational purposes does not thereby:

(a) Extend any assurance that the premises are safe for any purpose;

(b) Confer upon such person the legal status of an invitee or licensee to whom a duty of care is owed;

(c) Assume responsibility for or incur liability for any injury to person or property caused by an act of omission of such persons.

87.024 LIABILITY; LEASED LAND. Unless otherwise agreed in writing, the provisions of sections 87.022 and 87.023 shall be deemed applicable to the duties and liability of an owner of land leased to the state or any subdivision thereof for recreational purposes.

87.025 LANDOWNER'S LIABILITY; NOT LIMITED. Nothing in this chapter limits in any way liability which otherwise exists:

(a) For conduct which, at law, entitles a trespasser to maintain an action and obtain relief for the conduct complained of;

(b) For injury suffered in any case where the owner of land charges the person or persons who enter or go on the land for the recreational use thereof, except that in the case of land leased to the state or a subdivision thereof, any consideration received from the state or subdivision thereof by the owner for such lease shall not be deemed a charge within the meaning of this section.

87.026 LAND USER'S LIABILITY. Nothing in this chapter shall be construed to:

(a) Create a duty of care or ground of liability for injury to persons or property;

(b) Relieve any person using the land of another for recreational purposes from any obligation which he may have in the absence of this chapter to exercise care in his use of such land and in his activities thereon, or from the legal consequences of failure to employ such care.

87.03 DEDICATION. No dedication of any land in connection with any use by any person for a recreational purpose shall take effect in consequence of the exercise of such use for any length of time hereafter except as expressly permitted or provided by the owner or as otherwise expressly provided by sections 160.05 and 160.06, or other legislative act.

Once such limitations exist, the province or state has a further responsibility to explain applicable laws, and perhaps take additional steps to assure prospective cooperating landowners. The State of New Hampshire, for example, has executed a large insurance policy to further allay concerns of large corporate landowners. The policy names each of the consenting landowners within the state as beneficiaries, and will be rewritten annually. Because of the statutory limitations on liability, the cost of the policy is minimal. Again, this imaginative step provides an important additional selling tool to those persons soliciting private lands for public trail use.

A further concern of landowners is actual damage to property by users of the public trail and use area system. Here, protection has been achieved in several manners. The province of Quebec requires that its recognized clubs, those eligible to receive "grants-in-aid," must obtain a blanket policy covering consenting landowners within the portion of the trail under their jurisdiction. Other experiments have utilized insurance policies held by municipalities, states and provinces, and individual operators.

Finally, increasing attention is being given to property tax incentives for opening lands to public recreation. This concept is exciting because of both its attractiveness to heavily-taxed landowners and its simplicity. Its administration resembles systems already used by many

communities for such special groups as senior citizens. Often, two or more classifications of tax relief exist based upon the extent to which public use will be made of the property. In each case, a specified percentage of the assessed taxes would be eliminated; perhaps 5 - 15%.

This method of compensating landowners for providing public recreational resources has several additional beneficial effects. Procurement of easements, another common device used in consolidating lands for snowmobile trails and use areas, is far more complex, and is a cause for concern by landowners because they have lost clear title to their lands for the length of the easement.

Still more significantly, leases and easements are prone to uncontrollable cost escalations. In fact, this danger is most serious for extensive, sophisticated systems, where improvements have been made and heavily-utilized corridors have been established. The temptation for property owners to make increasingly high demands for financial compensation, particularly in key areas, is difficult to control. This upward bidding process could well destroy a public trail system by adding costs several magnitudes greater than snowmobile registration revenues.

Consequently, public trail systems can be protected by restricting compensation to property tax rebates or allowances. This removes the threat of uncontrollable cost increases by

placing the decision on the amounts to be paid on existing land value assessments. To minimize the adverse impact upon the locality, a partial payment of rebated tax money can be made from the provincial or state snowmobile funds to town, city, county, or other local taxing authorities. One-hundred percent reimbursement is both unnecessary and unwarranted, because the local community has also received the benefit of increased public resources, in this case a trail and use area system; thus, perhaps 50% to 70% reimbursement may be appropriate.

VIII. - Means to Obtain Cooperation From Public Land Managers and Public Recreation Officials

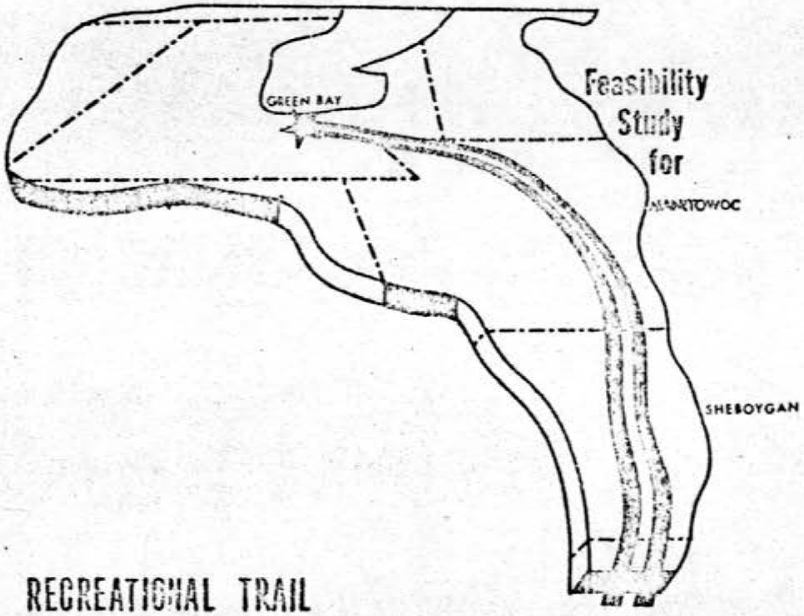
Some states and provinces have found that the organization of local snowmobile clubs and private landowners is significantly less difficult than coordinating the multitude of relevant public officials and programs. In fact, the difficulty merely emphasizes the extent of the resources within this sector. Federal, provincial, state and local land management officials are obvious targets. Some provinces have established special councils consisting of representatives from these bodies; often this group meets in conjunction with either a public snowmobile advisory committee or a public trails advisory committee.

However, many governmental bodies whose principal responsibilities lie outside land management can contribute substantially to a snowmobile trail and use area system. Quasi-public utilities, for example, and public agencies regulating

private utilities can make pipeline and powerline right-of-ways available. Transportation officials with highway responsibilities can provide recreational trail corridors within highway rights-of-way safely removed from vehicular traffic.

Highway-associated trails are worthy of further scrutiny. First, we must realize that one major use of our roadway network in North America is recreation. Pleasure driving of automobiles constitutes a full one-third of all automotive usage in the United States, and approximately the same in Canada. Thus, billions of dollars spent on highway construction have been, in effect, devoted to developing a major recreational resource. Highway, planners, then, are already intimately involved in recreational planning.

These same planners can now turn their talents to creating recreational trails compatible with highway design. By sharing the highway rights-of-way, permanent trails can be established at greatly reduced cost. Already, in the United States, such activity is mandated under Section 124 of the Federal-Aid Highway Act of 1973. Close coordination between U. S. snowmobile program administrators and the state highway planners is thus essential. Similar developments can be expected in Canada. An example of the possibilities for this program is shown in the following excerpts from a plan for I-43(57) in Wisconsin:



Feasibility Study for

RECREATIONAL TRAIL on INTERSTATE — 57

Technical Study
coordinated through
Bay-Lake Regional Planning Commission
November 1973

To the Citizens of the Bay-Lake Region:

This study to determine the feasibility of providing a recreational trail as an integral part of proposed Interstate Highway 57 was oriented to two major questions. First, can such a trail be physically accommodated into the corridor, and, secondly, is there a need for such a trail in this area of Northeastern Wisconsin.

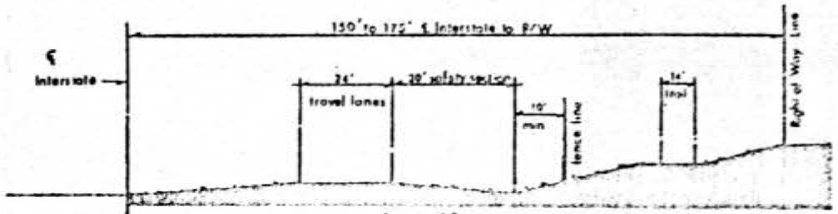
Coordinated through the activities of the Bay-Lake Regional Planning Commission this study represents a collective effort of county, regional and state personnel. Without the cooperation of all participants, the construction of this report would not have been possible.

This technical effort has identified a number of positive conclusions. As your representatives, we endorse this study and refer it to you for your consideration and utilization.

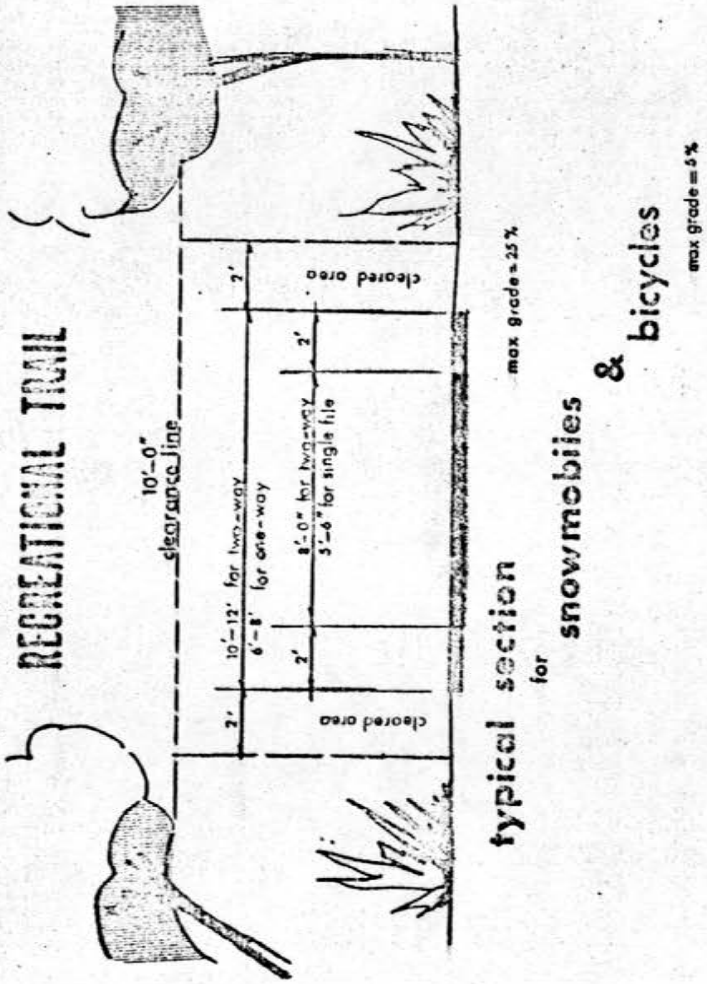
Sincerely,

Anthony V. Dufek

Anthony V. Dufek, Chairman
Bay-Lake Regional Planning Commission



Typical Half Section
Interstate Roadway & Recreation Trail



typical section for snowmobiles & bicycles

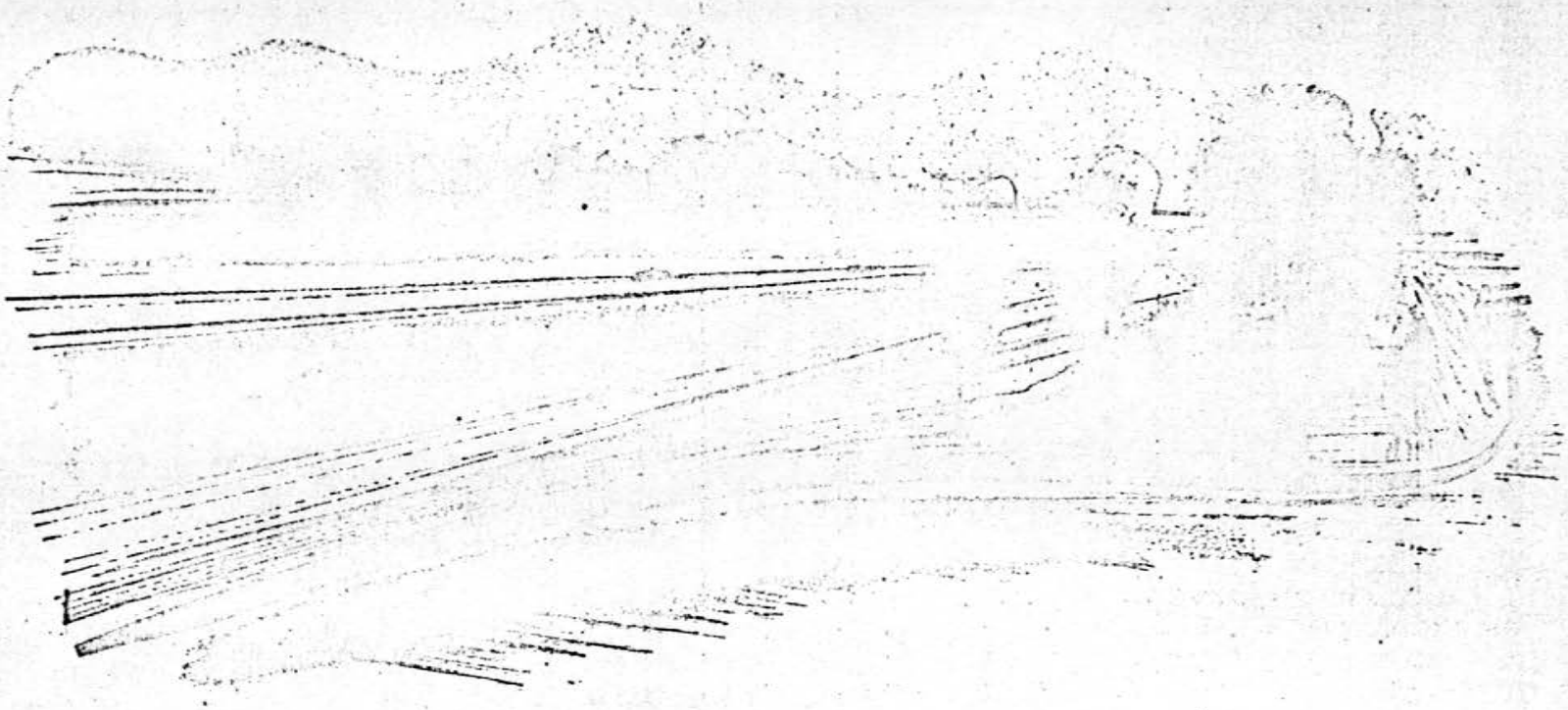
TO LOCAL TRAIL PLANNERS:

As noted in the detailed report, a principal use of the I-57 recreational trail will be to supplement the design ard development of local trails. Local trail planners can use the interstate corridor as a given leg of a local loop trail system.

Two major elements which will help justify the development of a recreational trail are the location of recreation resource attractions and population concentration. Both of these issues are defined within the formal report.

To determine specifically what portions of the total trail should be developed first requires direct participation of local interested recreation groups throughout the area. Your participation will help to integrate this trail proposal into existing trails and other recreational resource facilities and also to define which portions of the interstate trail would have the greatest use potential.

We encourage your participation and suggest that you contact your county planning office and/or the Bay-Lake Regional Planning Commission office if you desire additional information on the subject.



I-57 RECREATIONAL TRAILS
CONCLUSIONS AND RECOMMENDATIONS

* There is a need for the provision of a recreational trail facility as an integral part of the Interstate 57 right of way corridor.

  This trail can provide additional facilities and can also enhance the value of existing recreational facilities within the area.

* Multiple forms of recreational activities have different demands which should be recognized and accommodated in the system.

  Trails should be constructed to accommodate several forms of recreational activity. Bicycles in summer and snowmobiles in winter are identified as the greatest potential users of the trail.

* A need exists for additional activity to refine the elements contained within this report.

  This activity is appropriately related to all levels of government and special interest groups and includes local, regional and state planning agencies and special interest groups.

* The practical application of the recreational trail facility is greater in certain areas than in others.

  The location of other recreational resource areas will determine the practical need for the I-57 trail as will the location of population concentration and demand. Over 70 percent of the population of Brown, Manitowoc and Sheboygan counties live within three miles of the corridor location.

* Implementation of portions of the recreational trail within the I-57 corridor should occur at different time intervals.

  Trails should be constructed only where current demand warrants. Additional trail segments for future use should be recognized and adequate provision made for them.

Finally, the state or provincial department with tourism promotion responsibilities should be enlisted to gain support and assistance for the trail and use area program from resort owners and ancillary businesses. There is much room for commercial involvement in the public trail program. Snowmobile rentals and repair, lodging, food and guide services can all be profitable undertakings supported by snowmobiler spending; each in turn will result in taxes for local and Federal governments. In return, commercial enterprises can and should be expected to work in concert with local clubs and government officials in establishing and maintaining safe snowmobiling opportunities. In Quebec, these businesses have joined clubs en masse, and constitute a considerable source of revenue.

IX. - Right of First Refusal in Railroad and Utility Right-Of-Way Abandonment Proceedings

Throughout North America, little-used trackage owned by ailing railroads and utility rights-of-way no longer needed are periodically abandoned and become available for alternative uses. These properties are valuable recreational lands, precisely because attempts to consolidate lands into similar corridors are very costly, time-consuming, and difficult. Thus, these parcels should not be permanently lost to land developers or other non-public uses.

To avoid this, laws allowing state and provincial recreational officials first options upon these properties are needed. The

laws require skillful legal research to blunt the difficulties posed by such phenomena as reversion clauses. If necessary, the power of eminent domain possessed by government must be used to assure control of these lands.

X. - Public Works Program

When one focuses upon snowmobiling and its many fun-filled family activities, unemployment seems a wholly removed issue. Yet, for thousands of Canadians, there is good reason to connect these two phenomena, because an imaginative Canadian Federal program to attack seasonal unemployment and encourage local entrepreneurship has added significantly to safe snowmobiling opportunities. Moreover, the program offers still greater benefits over future years.

This device, known as the Local Initiative Program, is hardly a recent development. In fact, its predecessor, the Winter Works Program, was initiated in the early 1960's. The intent was to moderate the higher unemployment during the lengthy winter season in ways beneficial to both the individuals involved and the public interest.

Unfortunately, the widespread successes of the initial program were marred and, in some instances, overshadowed by abuses. Some funds were diverted by social activists to programs of questionable public value. Utilizing its experiences with this program, the Federal government moved to strengthen and improve

the program in 1969. L.I.P., as the resulting program has come to be known, has subsequently become an important program in large portions of Canada.

The premier attribute of the program is its simplicity. Because it is almost completely administered by local-level officials of the Ministry of Manpower, bureaucratic tangles and red tape are held to a minimum.

Officials administering the program and program participants alike agree that the most attractive aspect of the program is its role in promoting personal self-respect. The individual applying for sponsorship is rewarded by seeing his idea, a public service fulfilled. The employees participate in a productive program of genuine public interest.

The Province of Quebec has hosted the most extensive involvement of L.I.P. programs in support of snowmobiling to date. The results have been extraordinary. The tale is still more exciting, though, because its lesson is applicable throughout Canada.

Knowledgeable sources in Quebec advise that a large majority of the 23,000 miles of public trails in the province was constructed by L.I.P. - funded trail crews. Even today, L.I.P. funds are being employed by snowmobile clubs in Quebec for trail construction, maintenance and special projects, such

as bridges, supplementing provincial funds also available for these purposes under Quebec's snowmobile law, Regulation 7.

The success of this program is a strong argument in favor of its expansion in Canada. The opportunity to combine heightened self-confidence among the unemployed with the development of worthwhile public resources, while spending little or no additional public funds in doing so* is an attractive rarity.

With the recent advent of an emergency public employment program in the United States, the opportunity to achieve such results has spread to both sides of the border. Indeed several states and local governments are proceeding to establish recreational trail employment programs. In light of the social values derived, such steps are worthy of imitation throughout the U.S.

XI. - Provision to Insure Consumer Protection Through Mandatory Snowmobile Safety Standard Certification Requirements

The viability of a public trail and use area system can be seriously affected by the nature of the machines utilizing the area. Similarly, potential public agency and private landowner liability questions are minimized by fostering machines with safety-

*Funding of L.I.P. is from employer-paid unemployment compensation taxes.

related improvements. Finally, excessive vehicle sound emissions can reduce the potentials for urban and suburban recreational trails.

For these and related reasons, many states and the Federal government in Canada have acted to establish snowmobile performance standards covering such items as: noise emissions; throttle controls; lighting; reflectors; braking performance; seat design and other important facets. While these features have been in large measure targets for the adoption of voluntary standards, many governments and citizens in general have become distrustful of unenforced measures.

As an alternative to normal voluntary standards, several governments are acting to require independent certification of compliance. This technique minimizes the enforcement costs otherwise weighing upon any government acting to establish mandatory standards while yielding identical control over important safety considerations.

The most comprehensive and widely used program in the snowmobile industry, covering some 90% of all snowmobiles, was established by the SSCC. Specific information on the standard can be obtained from this organization.

SECTION II

MODEL TRAIL AND USE AREA DESIGN GUIDEBOOK

Explanation:

This portion of Trails: A Strategy For Snowmobile Fun and Safety is designed to assist provincial and state officials in the development of a useful trail and use area design guidebook. Recommendations made herein are those believed to generally reflect the best available knowledge on snowmobile trails and snowmobile safety. Many of the concepts presented are abstracted from excellent works on this subject listed both in the Bibliography found in Section III and later in this guidebook.

Governmental bodies, snowmobile associations and local snowmobile clubs are all encouraged to use all or portions of the following materials in their own publications and efforts. Moreover, the SSCC will gladly assist such organizations in meeting specialized needs and in expanding the treatment given to individual topics herein.

SNOWMOBILE

TRAIL AND USE AREA

GUIDEBOOK

Prepared By:

_____

_____

CONTENTS

STATE/PROVINCIAL PROGRAMS WHICH CAN ASSIST YOU..... 1

SNOWMOBILE TRAIL AND USE AREA SIGNING POLICY..... 1

PLANNING A SNOWMOBILE TRAIL..... 3

SPECIAL LANDS TO BE CONSIDERED..... 6

CONSTRUCTING YOUR TRAIL; SOME DESIGN GUIDELINES..... 10

TRAIL-HEADS AND TRAIL FACILITIES..... 20

TRAIL AND USE AREA MAINTENANCE EQUIPMENT AND TECHNIQUES..... 21

APPLYING FOR "SAFE TRAIL" CERTIFICATION..... 24

CURRENT SNOWMOBILE LAWS AND REGULATIONS..... 29

APPROVED FORMS FOR OBTAINING LANDOWNER PERMISSION, ETC..... 30

MAP OF PRINCIPAL PUBLIC SNOWMOBILING TRAILS AND USE AREAS..... 31

STATE/PROVINCIAL PROGRAMS WHICH CAN ASSIST YOU

(There can be no "model chapter" here; the opportunities afforded within each particular state or province must be fully and accurately explained. This would of course include information on a "grant-in-aid" program, if one existed.)

SNOWMOBILE TRAIL AND USE AREA SIGNING POLICY

Signs play an important role in any well-designed trail and use area system, just as they do on highways. Many signs warn of possible dangers requiring operator attention, while others serve more informational purposes.

Sign posting must be adequate, uniform and as inexpensive as practicable. Thus, signs must be used wherever potential dangers exist, including road crossings, avalanche areas, and bridges; however, excessive signing must be avoided because of its adverse visual impact. Further, signs should be sufficiently uniform in format, to facilitate comprehension by operators from other regions of the same state of province as well as from other states and provinces.

The international Snowmobile Council, a voluntary federation of snowmobiler associations from throughout North America representing some one million dues paying snowmobilers, has adopted a double-faceted trail and use area signing policy: one system for Canada and another for the United States. ISC's recommendations are:

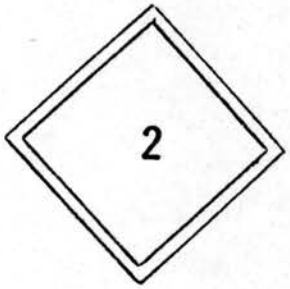
TRAIL IDENTIFICATION AND NUMBERING

To identify trails for the user a system for numbering is proposed:

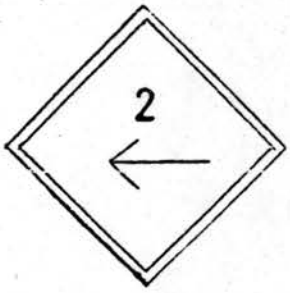
Within each state or province;

ODD numbered trails shall travel north and south, while EVEN numbered trails shall travel east and west.

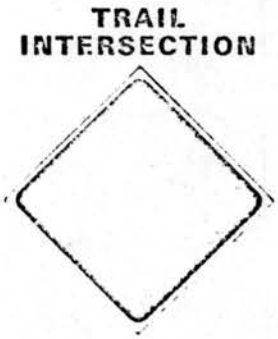
Trail numbers shall be contained on the following signs:



Orange reassuring blazer, 6" X 6" or 5" X 7" with 2" black numbers



Orange directional blazer, 9" X 9" or 9" X 12", with black arrow and number



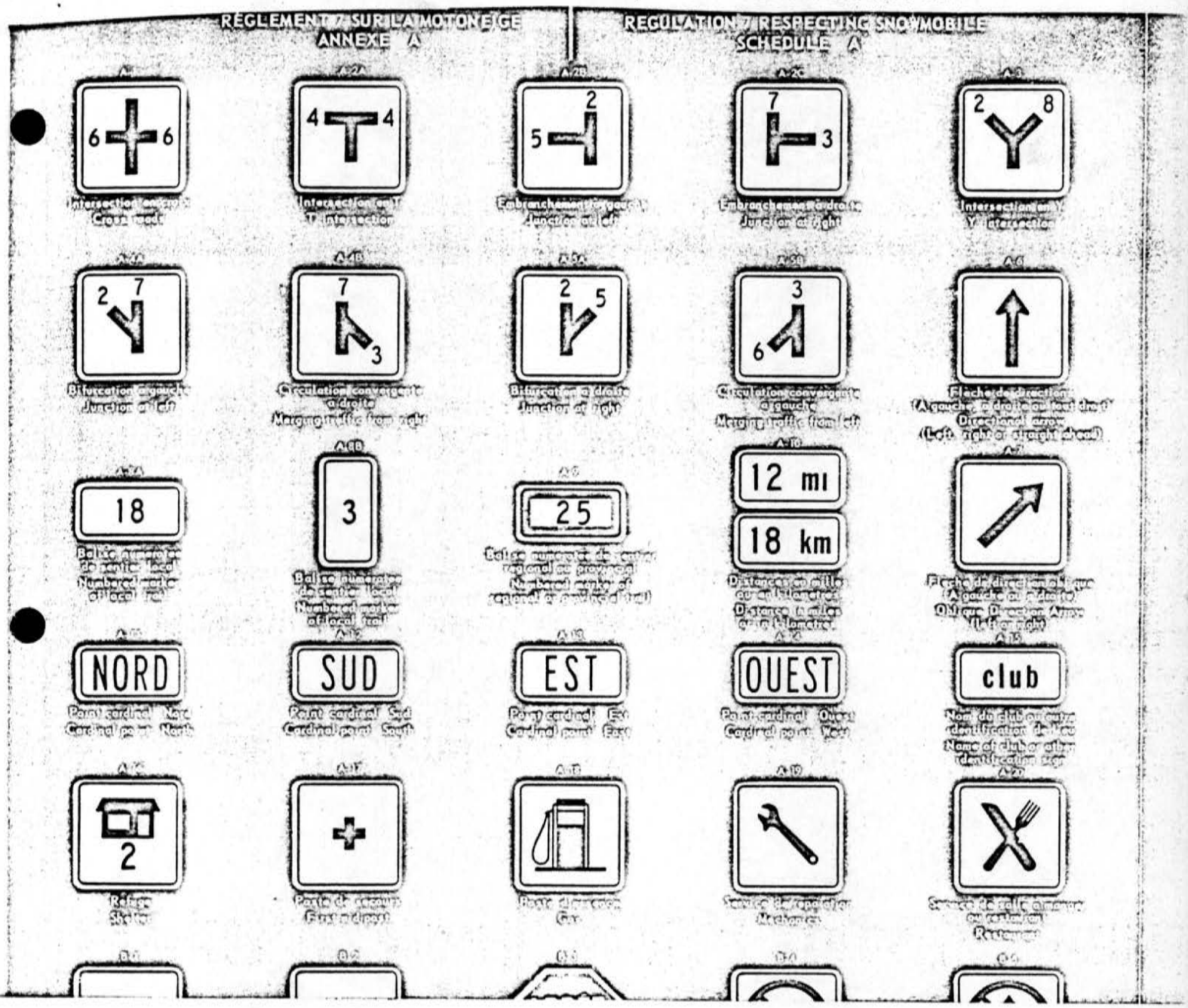
Orange trail intersection, 12" X 12" or 9" X 9", with black trail indicator and 2" black trail numbers

For those trails and use areas likely to receive substantial usage at night, the use of reflectorized materials in sign construction is strongly urged. In addition, it is important to standardize the use of markers and signs to warn of obstructions and other stationary hazards. We suggest that red flags and reflectors be utilized to indicate the farthest point on the right for safe passage in dangerous situations. The use of this color also conveys a universal warning signal calling for reduced speed and especially attentive operation.

One example of the use of this device is to alert snowmobilers to culverts and obstructions along trails following highway drainage ditches. Care must be taken to insure that the use of such warning devices restricts the view of the warning device to only that direction for which the "stay left" message is intended, and that the hazard be appropriately marked from each possible direction of approach.

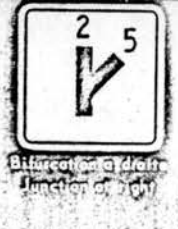
Further guidance of sign placement can be obtained from the following hypothetical diagrams prepared by Quebec's Ministry of Transport:

ISC CANADIAN SNOWMOBILING TRAIL SIGN RECOMMENDATIONS



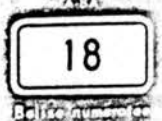




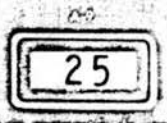










































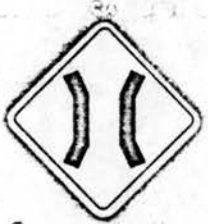




























Ministère des Transports
Direction générale du
Bureau des véhicules automobiles
Distribution Service des Communications
880 Chemin Ste-Foy, suite 466
Québec 6 Qué

JANVIER 1972

RECOMMENDED U.S. SNOWMOBILE TRAIL AND USE AREA SIGN POLICY

TRAIL BLAZER



PURPOSE: to reassure the user he is on the trail
SIZE: 5" X 7" - 6" X 6"
BACKGROUND COLOR: Orange

DANGER



PURPOSE: to indicate an area of danger on the snowmobile trail
SIZE: 12" X 12" - 9" X 9"
BACKGROUND COLOR: Yellow
LEGEND: Black

STOP SIGN



PURPOSE: to be used along trails prior to a road crossing
SIZE: 12" X 12" - 9" X 9"
BACKGROUND COLOR: Red
BORDER AND LEGEND: Silver

PERMISSIVE



PURPOSE: to indicate snowmobile trails and other areas where snowmobiling is permitted
SIZE: 12" X 12" - 8" X 8"
BACKGROUND COLOR: Silver
LEGEND: Green circle. Black snowmobile symbol

RESTRICTIVE



PURPOSE: to indicate areas where snowmobiling is not permitted
SIZE: 12" X 12" - 8" X 8"
BACKGROUND COLOR: Silver
LEGEND: Red circle. Black snowmobile symbol

DIRECTIONAL BLAZER



PURPOSE: to indicate changes in trail direction
SIZE: 9" X 12" - 9" X 9"
BACKGROUND COLOR: Orange
LEGEND: Black directional arrow



PURPOSE: to indicate a private trail with no public outlet.
SIZE: 12" x 12"
BACKGROUND COLOR: silver with red bull
LEGEND: black

TRAIL INTERSECTION



PURPOSE: to indicate an intersection in the trail.
SIZE: 12" X 12" - 9" X 9"
BACKGROUND COLOR: orange
LEGEND: Black 2" X 11" vertical and 2" X 5-1/2" diagonal

PLANCHE 1

IMPLANTATION DES PANNEAUX DE SIGNALISATION

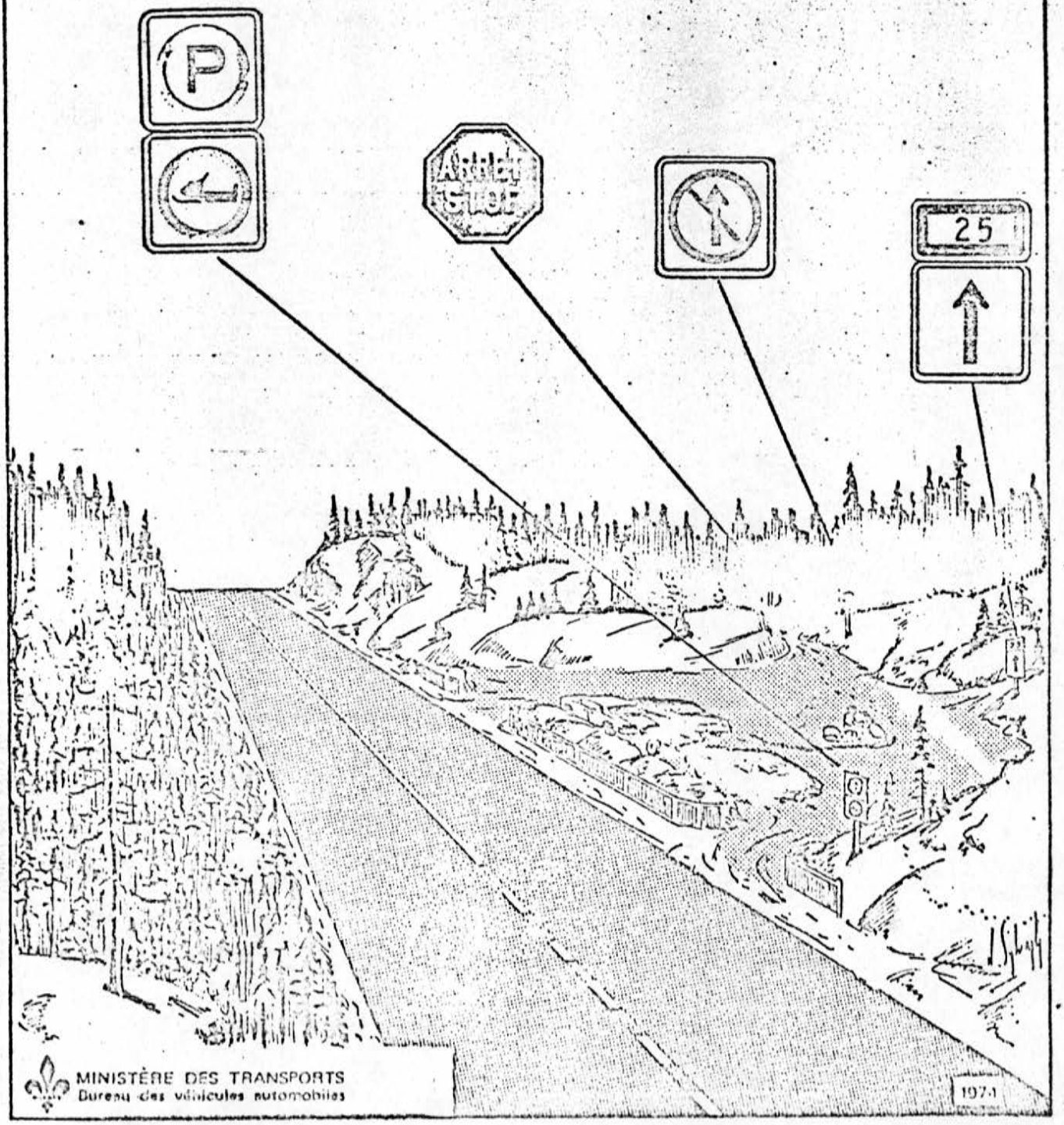
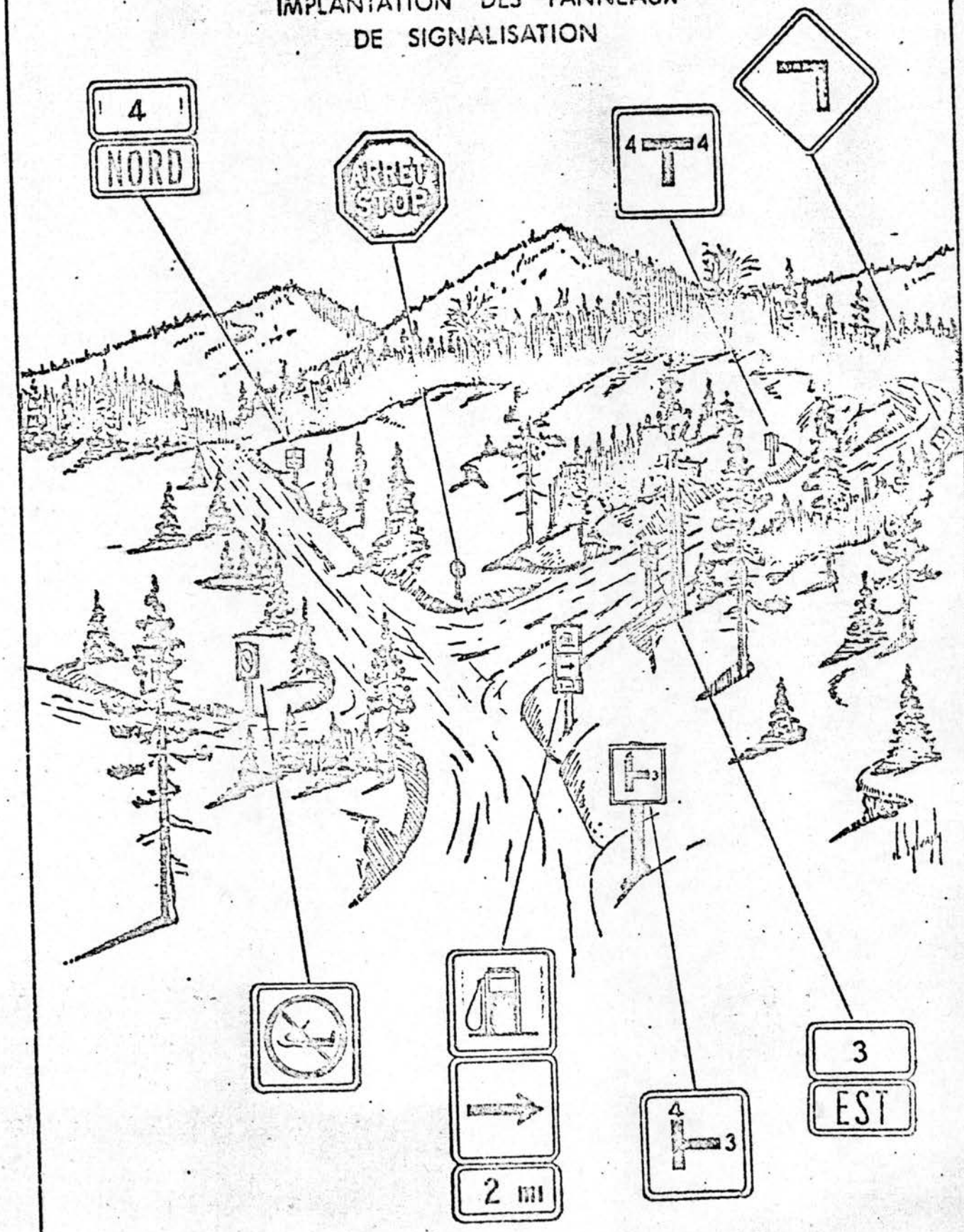


PLANCHE 2

IMPLANTATION DES PANNEAUX DE SIGNALISATION

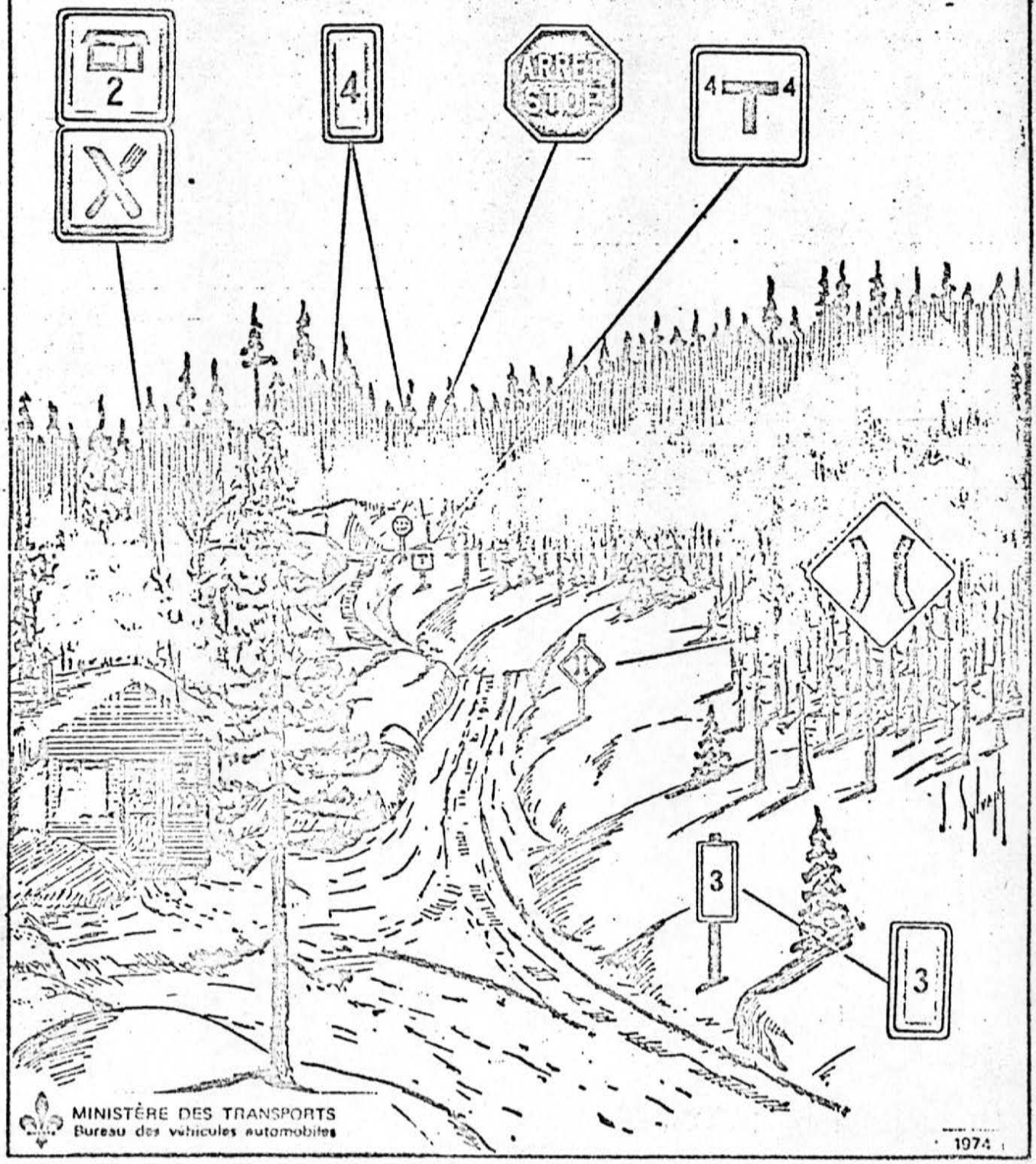


MINISTÈRE DES TRANSPORTS
Bureau des véhicules automobiles

1974

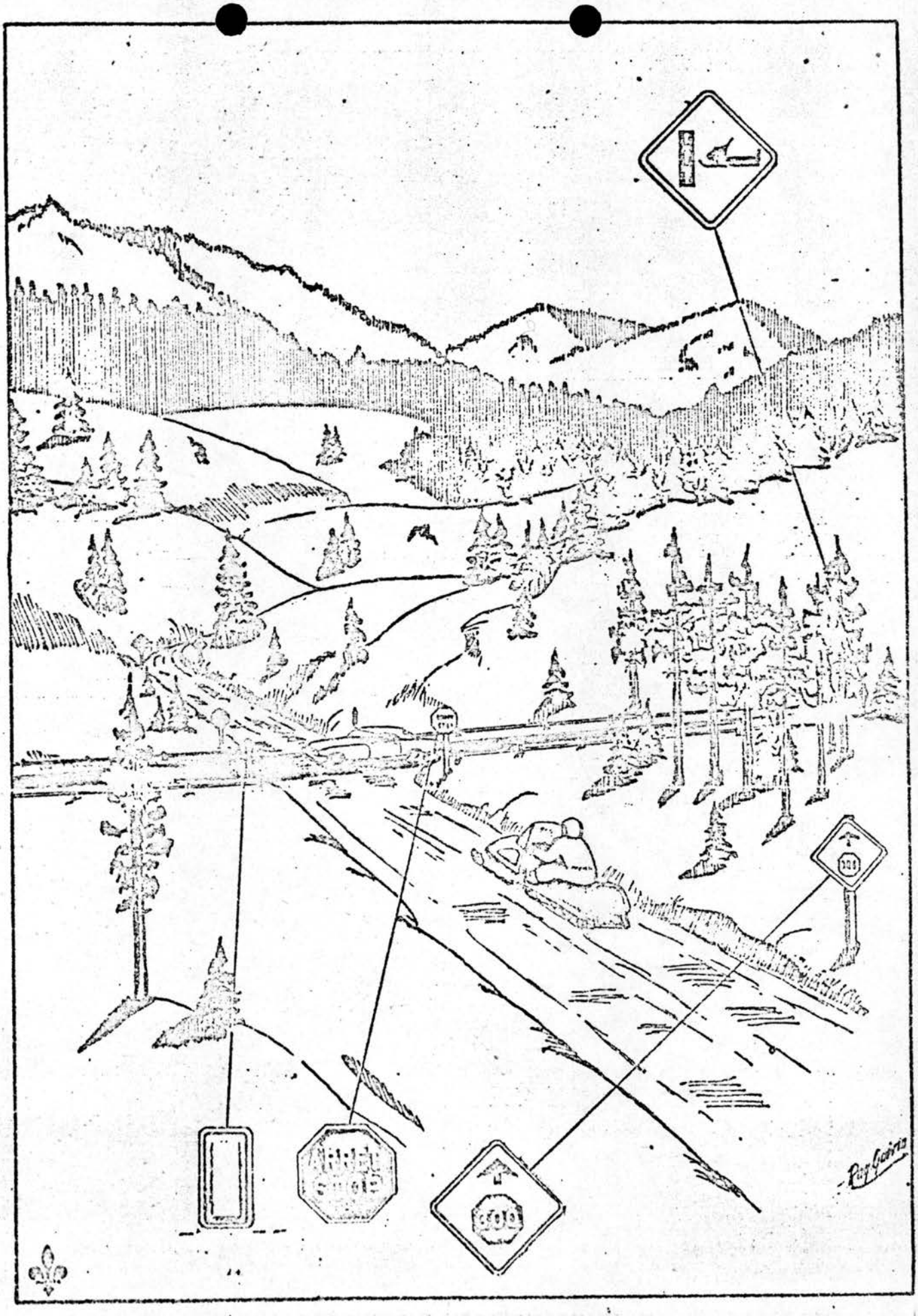
PLANCHE 3

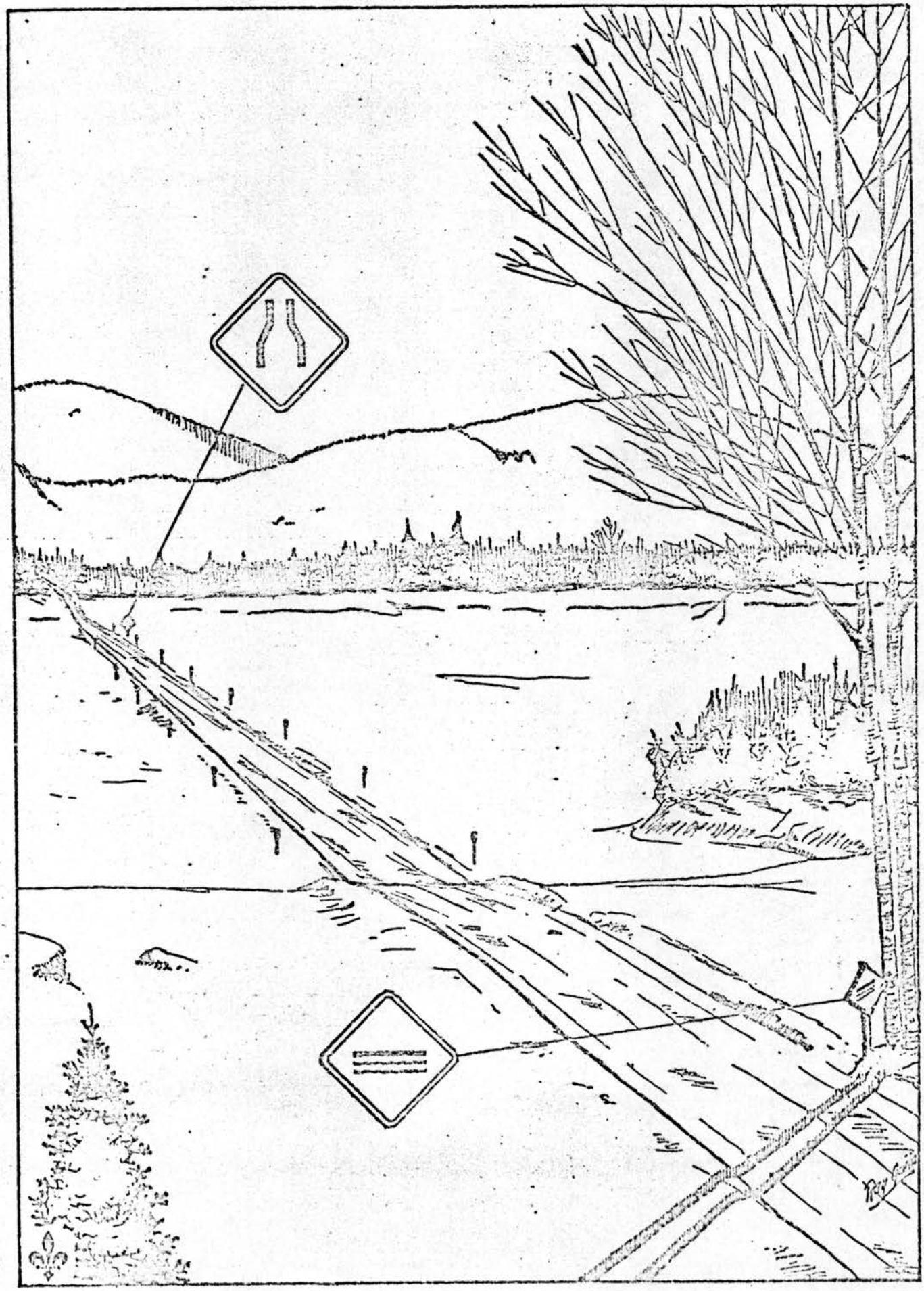
IMPLANTATION DES PANNEAUX DE SIGNALISATION



MINISTÈRE DES TRANSPORTS
Bureau des véhicules automobiles

1974





PLANNING A SNOWMOBILE TRAIL

The first step in planning a snowmobile trail is identifying a need. Is there a Federal, state or provincial park or forest to which club members from your area regularly trailer their machines? Is there a trail system operated by snowmobilers in an adjoining town? Is there a need for many short, close-in trails linking different areas in your town?

These are but examples of the differing purposes snowmobile trails can serve. As you can see from the above questions, some trails will be designed to bring you to a desired location, just as a highway leads from your home to a store. Others will be designed to incorporate a single experience: snowmobile riding. Good trail systems feature a blend of both types of trails.

Once you have identified a purpose for your trail, you should begin a process we will call corridor identification during the spring or early summer. By this, we mean you should establish a broad path running from your beginning point to your intended destination, or through the general area you wish to include if your trail has no planned destination.

Once you have done this, obtain large-scale topographical maps. These are available through the U.S. Geological Survey, Department of the Interior, Reston, Va. 22092, and the Canada Map Office, 615 Booth St., Ottawa, Ontario, Canada K1A 0E9. Once you have these maps, update roads and other new developments to the best of your ability within your corridors.

From the map, try to identify a path utilizing existing cleared areas, including logging roads, abandoned railroad rights-of-way, unserviced roadways, and other recreational trails. On the other hand, try to avoid highway crossings, bodies of water, tree plantations, sensitive wildlife areas, including deer yarding zones, heavily populated and/or intensively used areas, and areas with precipitous terrain.

Once you have identified one or more possible paths for your trail, conduct a field examination, walking the path and noting the extent of clearing work, grading, and other construction which would be required. If one or more paths continue to look feasible, it is time to begin identifying the landowners over whose property the path passes. Otherwise, you should return to your maps and begin examining alternative routes: perhaps a less direct corridor, for example.

Identification of the landowners can be accomplished through governmental tax maps. (More specific information should be included on this subject in each actual state/provincial Trail and Use Area Design Guidebook). Once you have obtained the names of the property owners, plan to visit each personally. Bring your maps and a state/provincially prepared grant of permission form. Emphasize that your request is for a single corridor across their lands. In most instances, you will quickly obtain the necessary permission. However, be prepared to revise your path around landowners unwilling to grant use. This may entail returning to both topographical and tax maps.

Remember that you will be dealing with these landowners year after year. Thus, be sure you understand each other completely, and put all agreements in writing, whether they concern sign mounting and removal or bridge and facility construction. Emphasize that the "pavement" for a snowmobile trail is snow, and that a trail is rarely discernible following the snow melt and removal and storage of trail signs and markers.

Minnesota snowmobilers have found that joint meetings with several of the involved landowners are a productive tool to speed the process of gaining permissions to use land. In all cases, be prepared to compromise, and be considerate of the landowners property rights. Your trail need not detract from the beauty and value of his property, and you must take steps to insure that it indeed does not.

Throughout this process, utilize the resources of your state/provincial snowmobile program officials. Keep them posted on your activities. This becomes especially important if your path includes public lands of any type. It is often easier to obtain permission to use public lands than private lands, especially if responsible public officials are acting as your advocates.

SPECIAL LANDS TO BE CONSIDERED

Certain specialized land corridors present special opportunities to the snowmobile trail developer. Examples of these special lands include:

- abandoned railroad rights-of-way;
- utility rights-of-way; and
- highway corridors.

To maximize opportunities for obtaining the use of these lands, however, special techniques must be developed. In addition, relevant Federal, state or provincial and local programs in these areas must be used. For example, railroad right-of-way abandonment proceedings are occurring constantly in the United States, particularly in the Northeast and Upper Midwest. In fact, a study by the U. S. Department of Transportation indicates that some 15,575 miles, of a total railroad mileage of 61,184 miles, is potentially excess. Needless to say, established and graded rights-of-way of this magnitude should be of great interest to snowmobile trail developers. Moreover, these corridors are ideally suited for all-season recreational use by planning for compatible activities. An explanation and state-by-state summary of DOT's findings and recommendations follows:

RAIL SERVICE IN THE MIDWEST AND NORTHEAST REGION

A Report
by
The Secretary of Transportation

Submitted in Accordance with Section 204 of the
Regional Rail Reorganization Act of 1973
(P. L. 93–236)

U.S. Department of Transportation
February 1, 1974

INTRODUCTION AND SUMMARY

LEGISLATIVE MANDATE

Much of the railroad system in the region comprising the Northeast and portions of the Midwest has fallen into serious physical disrepair and financial insolvency.[1] Seven of the region's Class I and one of its Class II railroads are undergoing reorganization under section 77 of the Bankruptcy Act, and some are close to liquidation.[2] There are also 15 subsidiaries of the Penn Central that have filed for reorganization.

The Regional Rail Reorganization Act of 1973 (P.L. 93–236) ("the Act") which became law on January 2, 1974:

(1) Established the United States Railway Association to plan and finance the restructuring of this ailing rail system;

(2) Directed the establishment of the Consolidated Rail Corporation to operate and modernize parts or all of the restructured system;[3]

(3) Allowed for the future abandonment of unnecessary services; and

(4) Established an interim joint Federal-State subsidy program for the continuation and improvement of local rail services which would otherwise not be included in the Corporation's or other solvent railroads' operations.

The planning process for restructuring rail service within this region is to be accomplished in seven basic steps:

(1) Within 30 days of the date of enactment of the Act, the Secretary of Transportation will submit a report containing his conclusions and recommendations for rail service within and between the several geographic zones of the region and describing the criteria used in developing those conclusions and recommendations. This document, consisting of two volumes, is that report.

(2) The Rail Services Planning Office ("Office") of the Interstate Commerce Commission ("ICC"), established pursuant to the Act, will hold public hearings on the Secretary's report and prepare a report containing an evaluation of the Secretary's recommendations.

(3) The United States Railway Association will prepare a detailed Preliminary System Plan based upon the reports prepared by the Secretary of Transportation and the ICC Office.

(4) The ICC Office will hold public hearings on the Preliminary System Plan and prepare a report evaluating the Plan.

(5) The Association will then prepare a Final System Plan reflecting the changes recommended by the ICC Office report on the Preliminary System Plan.

(6) The ICC will prepare an evaluation of the Final System Plan.

(7) The Congress will approve or reject the Final System Plan before it is implemented. (If rejected, the Plan must be revised by the Association and returned to the Congress for approval.)

Once approved by the Congress, the Final System Plan will become the basis on which specific rail properties of the existing bankrupt[4] and solvent railroads in the region are transferred or conveyed to the Corporation or other solvent railroads to make up the restructured system or are abandoned (unless retained for the provision of rail service under the subsidy provisions of the Act).

Three of the six purposes set out in the declaration of policy in the Act are directly relevant to this planning process. They are:

"to provide for—

(1) the identification of a rail service system in the midwest and northeast region which is adequate to meet the needs and service requirements of this region and of the national rail transportation system;

[1] The region, as designated in the Act, includes Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, District of Columbia, Ohio, Indiana, Illinois, Michigan, Virginia, West Virginia, and those portions of contiguous States in which are located rail properties owned or operated by railroads doing business primarily in the aforementioned jurisdictions (as determined by the Interstate Commerce Commission by order). In its order in *Ex Parte No. 293* approved January 14, 1974, and served January 23, 1974, the Commission delineated areas in the vicinity of Louisville, Kentucky, St. Louis, Missouri, and Kewaunee and Manitowac, Wisconsin, as included in the region. Davenport, Iowa is included, for purposes of this Report, in the region under study because it is part of the Davenport-Rock Island-Moline Standard Metropolitan Statistical Area (SMSA), which is Zone 135 in this Report.

[2] Railroad operating companies are classified by the Interstate Commerce Commission on the basis of operating revenue, with those carriers with $5 million or more of annual revenue classified as Class I and those with less than $5 million classified as Class II. The Class I railroads in reorganization are the Ann Arbor, Boston & Maine, Central Railroad of New Jersey, Erie Lackawanna, Lehigh Valley, Penn Central, and Reading. The Class II railroad in reorganization is the Lehigh & Hudson River.

[3] If the Association deems it necessary for competitive or other reasons, there could be two or more new rail corporations established to operate the system.

[4] The term "bankrupt railroad" is used throughout this report to identify a railroad which is within the definition of "railroad in reorganization" in section 102(12).

532-218 O - 74 - 2

(2) the reorganization of railroads in this region into an economically viable system capable of providing adequate and efficient rail service to the region;

* * * * *

(6) necessary Federal financial assistance at the lowest possible cost to the general taxpayer."

The Act provided specific guidelines for the restructuring and reorganization process in terms of the goals to be sought in the Final System Plan. Among those goals are (1) the creation of a financially self-sustaining rail service system in the region; (2) the establishment and maintenance of a rail service system adequate to meet the rail transportation needs and service requirements of the region; (3) the preservation, to the extent consistent with other goals, of existing patterns of service by railroads, and of existing railroad trackage in areas in which fossil fuel natural resources are located, and the utilization of those modes of transportation in the region which require the smallest amount of scarce energy resources and which can most efficiently transport energy resources; (4) the retention and promotion of competition in the provision of rail and other transportation services in the region; and (5) the attainment and maintenance of environmental standards, particularly the applicable national ambient air quality standards and plans established under the Clean Air Act Amendments of 1970, taking into consideration the environmental impact of alternative choices of action.

Other factors which the Act directs the Association to consider in arriving at the Final System Plan include: the need for and the cost of rehabilitation and modernization of track, equipment and other facilities; methods of achieving economies in the cost of rail operations in the region; means of achieving rationalization of rail services and the rail system in the region; marketing studies; the impact on railroad employees; consumer needs; traffic analyses; financial studies; and any other factors identified by the Association or in the report of the Secretary.

This summary of the legislative mandate shows the important role of this report in the reorganization planning process. In essence, the purpose of this report is to launch the planning process and to give it direction as to where rail service should be provided in the restructuring of the region's rail system.

Thus, the objectives of this report are to provide:

- A description of the existing rail system in the region;
- An analysis of the capital and operating problems that exist and possible improvements that might be realized; and
- Recommendations as to where rail service should be provided and for the restructuring and consolidation of interstate and local rail service.

The report first discusses the railroad problem in the region with reference to the specific factors addressed by the Act. It then discusses the criteria on which the recommendations for rail service are based both for the interstate and local service rail networks, and presents conclusions and recommendations for use by the Association in its development of the Preliminary and Final System Plans.

CONCLUSIONS

The Department's analysis of rail service in the region has led to several basic conclusions which underlie the recommendations contained in this report. These conclusions are:

- A fundamental consolidation and restructuring of the region's railroad industry (including both bankrupt and solvent carriers) is required if the public policy goals described in the Act are to be realized.
- The major benefits to be realized from this consolidation and restructuring will be, first, improved capital productivity and a viable financial base for the Corporation and other railroads in the region. This improvement will then lead to higher quality rail service for the entire region.
- In order to achieve improved productivity, the existing, highly duplicative and underutilized individual railroad interstate mainlines in the region should be consolidated into a high volume, upgraded interstate network.
- In order to maintain and enhance rail competition and improve efficiency of operations within the region, the Corporation and other solvent carriers should, to the fullest extent practicable, share facilities and coordinate operations over the high volume network.
- Local rail service requirements in the region should be fulfilled generally with single carrier, direct rail service in order to give the rail mode a viable economic base and to support effective intermodal competition.
- The existing, highly duplicative, feeder and local service network used for local rail services should be streamlined by permitting the abandonment of rail facilities which are not financially self-sustaining.

RECOMMENDATIONS

Based on the above conclusions, the Department makes the following recommendations:

- The solvent carriers in the region are urged to become full participants in the planning and restructuring of the region's rail system.
- The Association should concentrate its planning efforts on two levels of the region's rail system--local rail service and high volume, interstate rail service. Each of these levels must be restructured in order to improve the economic efficiency and financial viability of rail operations in the region.
- At the local service level, continued direct rail service should be provided for nearly all of the region's normal rail freight traffic. Less than ½ percent of the region's rail traffic is originated or terminated on lines which are potentially excess and most of this traffic can be retained by the rail mode through subsidy programs or combined motor carrier/rail service.
- At the interstate level, duplicative lines and facilities should be downgraded or eliminated and service coordinated with the goal of substantially increasing utilization of the consolidated and restructured system.

- At the local level, rail pick-up and delivery service should be coordinated so that it is provided by a single railroad in a given geographic area.
- Existing interstate routes should be consolidated to establish a high volume interstate network which warrants a major modernization program.
- Rail competition should be maintained only over the high volume interstate network between major traffic generating centers which provide a sufficient volume of rail traffic to produce at least eight train loads per day each moving more than approximately 200 miles in the same general direction. In our judgment other points do not require mainline service by more than one railroad.

Table 1 summarizes, by State in the region, the Secretary's recommendations on regional rail service, comparing current levels of traffic and route mileage with the levels resulting from the recommendations as to points in the region which should receive direct local rail service. As can be seen in the table, at least 96 percent of the region's rail traffic would continue to receive direct rail service. Of the remaining 4 percent of the traffic, a part may be covered by additions to the Association's Final System Plan, other elements may continue under the short term subsidy provisions contained in the Act, and the remainder can be served by motor carrier or joint motor carrier/rail service. Thus, the overall impact of the recommended cutback in rail freight service is quite small.

Approximately 25 percent of the region's railroad route mileage appears to be potentially excess, either because it is uneconomic or clearly redundant. However, it is emphasized that this constitutes only a rough estimate of the route mileage which may be classified as excess in the Final System Plan. The available mileage data is neither current nor precise, and additional analysis by the Association will be necessary to establish the mileage involved and further define the potentially excess trackage.

TABLE 1.—SUMMARY OF SECRETARY'S RECOMMENDATIONS

States	1972 Route Mileage			1972 Annual Carloads Generated [1]		
	State Totals (Miles)	Potentially Excess [2] Rail Line		State Totals (Thousands)	Retained In Service Recommendations	
		Miles	Percent of Total		Carloads (Thousands)	Percent of Total [3]
Connecticut	664	175	26	161	154	95
Delaware	291	75	26	157	154	98
District of Columbia	30	—	—	180 [4]	167 [4]	93
Illinois	10,822	2,650	24	4,541 [5]	4,393 [5]	97
Indiana	6,405	2,350	37	1,846 [6]	1,733 [6]	94
Maine	1,666	75	5	309	289	94
Maryland	1,110	225	20	631	613	97
Massachusetts	1,430	475	33	399	375	94
Michigan	6,159	2,275	37	2,053	1,985	97
New Hampshire	817	400	49	71	63	88
New Jersey	1,742	300	17	819	809	99
New York	5,595	1,875	34	1,330	1,258	95
Ohio	7,804	2,500	32	3,979	3,837	96
Pennsylvania	8,273	1,450	18	3,539	3,389	96
Rhode Island	146	25	17	41	38	91
Vermont	766	250	33	60	52	88
Virginia	3,895	275	7	1,872	1,824	97
West Virginia	3,569	200	6	1,985	1,916	97
Total for Region	61,184	15,575	25	23,973	23,049	96

[1] Total, originating or terminating traffic.

[2] Estimated from zone maps (see Volume II); does not include mileage in zones not served by bankrupt railroads.

[3] It is expected that some additional traffic will also continue to be carried by rail, either directly or via motor carrier/rail piggy-back combinations.

[4] Includes entire Washington, D.C., Standard Metropolitan Statistical Area.

[5] Includes St. Louis, Missouri.

[6] Includes Louisville, Kentucky.

Data Sources: (1) State Mileage from *Transport Statistics in the U.S.*, Interstate Commerce Commission; (2) State annual carloads from Federal Railroad Administration, Office of Economics, compiled from traffic data supplied by the region's Class I railroads.

Obtaining these corridors for snowmobile trail use is, however, no quick and easy job. The formal abandonment procedure requires an extensive review by the Interstate Commerce Commission of the nature of service and available alternative uses of the corridor. The process entails public hearings as well as environmental impact statements, where necessary. Notification of the commencement of these proceedings is given in the U.S. Federal Register, as well as in local newspapers. A sample notification extracted from the Federal Register follows:

Since few clubs are able to contemplate actual purchase of these corridors, it becomes necessary to interest governmental officials in obtaining title to the land. Funds are available for this purpose from several sources, including the Federal Land and Water Conservation Fund in the United States.

Utility rights-of-way present less of a problem of immediacy. In fact, successful access to utility corridors often follows protracted negotiations between the involved parties. Among the different types of utility corridors of interest to trail builders are:

- gas and oil pipelines;
- power transmission lines;
- municipal water supply pipelines, and
- waste water trunklines.

In such instances, contact should be made by responsible club officials with those utility officials charged with land management responsibilities. Just as with all the land managers and landowners, the trail builder must keep in mind that his chances for successful negotiations are enhanced if he can avoid entangling the potential lessors with additional responsibilities. For this reason club held liability policies are often critically important.

Lands within the highway corridor, but outside the actual roadway surface, are still another attractive option.

in the proceeding should address themselves to the issue of abandonment as well as that of discontinuance of service.

Any such submissions must identify, by its Docket No., the request to which it relates, and must be filed with the Docket Clerk, United States Railway Association, Room 2216, Trans Point Building, 2100 Second Street SW., Washington, D.C. 20595, by November 4, 1974, to enable timely consideration by USRA. The docket containing the original application and all submissions received shall be available for public inspection at that address.

In addition to this publication, Penn Central shall, by October 3, 1974, furnish a copy of this notice and invitation for written submissions, to known shippers on the portion of the Northern Branch sought to be abandoned, to each creditor holding an obligation secured by that property, and to each labor union whose members are employed on that part of its line. It shall also post and prominently display a copy of this notice at each station along that part of the line, continually during the period from October 3–November 4, 1974.

This action is taken pursuant to section 304(f) of the Regional Rail Reorganization Act of 1973, Pub. L. 93–236.

Copies of this notice have been sent by USRA to the Cleveland, Cincinnati, Chicago, and St. Louis R.R. (the secondary debtor), the Governors of Michigan and Ohio, the Public Service Commission of Michigan, the Public Utilities Commission, the Ohio Department of Transportation, the Board of Supervisors of Jackson, Lenawee and Hillsdale Counties, Michigan; the County Commissioners of Williams County, Ohio; the President and Council of Cement City, Addison and Waldron, Michigan; the Mayor and Council of Hudson and Manitou Beach, Michigan; the Township Supervisor of Rollin, Michigan; the Board of Trustees of Mill Creek, Brady and Pulaski Townships, Ohio; the Mayors of Alvordton, West Unity, Pulaski and Bryan, Ohio, the Director of the Rail Services Planning Office, the Chairman of the Interstate Commerce Commission, the President of the National Railroad Passenger Corporation, and also to newspapers and radio and television broadcasting stations servicing the area involved.

All affected or interested parties are invited to submit written statements, views, arguments or comments either favoring or opposing the discontinuance proposal.

Dated at Washington, D.C. this 25th day of September, 1974.

EDWARD G. JORDAN,
President, United States Railway Association.

[FR Doc.74-22962 Filed 10-2-74;8:45 am]

[USRA Docket No. 75-34]

PENN CENTRAL TRANSPORTATION CO.

Proposed Interim Abandonment of Part of Branch

The Trustees in Bankruptcy of the Penn Central Transportation Company ("Penn Central") propose to abandon operation over a segment of the Northern Branch in Williams, Defiance and Paulding Counties, Ohio, and have made a request to the United States Railway Association ("USRA") for the authorization required for that purpose under section 304(f) of the Regional Rail Reorganization Act of 1973 ("the Act"), Pub. L. 93–236. The line of railroad under consideration in this notice is owned by a leased line of the Penn Central Transporation Company which is a secondary debtor in the Penn Central Reorganization proceeding.

Section 304(f) provides:

After [January 2, 1974], no railroad in reorganization may discontinue service or abandon any line of a railroad other than in accordance with the provisions of [the Act], unless it is authorized to do so by the Association and unless no affected State or local or regional transportation authority reasonably opposes such action, notwithstanding any provision of any other Federal law, the constitution or law of any State, or decision or order of or the pendency of any proceeding before any Federal or State court, agency, or authority.

The portion of the Northern Branch sought to be abandoned extends from milepost 60.0 near Bryan, Ohio, in a southerly direction to milepost 79.5 near North Paulding, a distance of 19.5 miles in Williams, Defiance and Paulding Counties, Ohio. The line includes the stations of Ney, Sherwood, and Cecil.

In support of its request, Penn Central asserts that:

(1) The line is generally in poor condition. Continued use of the line would require extensive restoration and renewal work due to progressive wear and tear.

(2) The area is served by motor common carriers, as well as by private carriers which will adequately accomodate any demand for freight service in the area.

(3) No pasenger service is provided on the line involved.

(4) The line is not operated as part of a larger operating system.

(5) The volume of freight traffic on the line has decreased in recent years because of the improvement in highway facilities and the concurrently increased use of highway carriers.

(6) The line is not operated as a joint facility.

(7) Expenditures for the line improvements and maintenance would be prohibitive and could not be justified because of the small traffic volume.

(8) Alternative service in the future will be provided by Penn Central Trail-Van Service, PCTC team track facilities, or by other railroads.

The request is accompanied by exhibits providing more detailed information.

The Trustees of the secondary debtor have been served with a copy of this notice and have been invited to file a statement with the Association indicating whether they desire the physical abandonment of the line in the event that discontinuance of service is authorized. Interested parties submitting comments in the proceeding should address themselves to the issue of abandonment as well as that of discontinuance of service.

Any such submissions must identify, by its Docket No., the request to which it relates, and must be filed with the Docket Clerk, United States Railway Association, Room 2216, Trans Point Building, 2100 Second Street, SW, Washington, D.C. 20595, by November 4, 1974, to enable timely consideration by USRA. The docket containing the original application and all submissions received shall be available for public inspection at that address.

In addition to this publication, Penn Central shall, by October 3, 1974, furnish a copy of this notice and invitation for written submissions to known shippers on the portion of the Northern Branch sought to be abandoned, to each creditor holding an obligation secured by that property, and to each labor union whose members are employed on that part of its line. It shall also post and prominently display a copy of this notice at each station along that part of the line, continually during the period from October 3–November 4, 1974.

This action is taken pursuant to section 304(f) of the Regional Rail Reorganization Act of 1973, Pub. L. 93–236.

Copies of this notice have been sent by USRA to the Cleveland, Cincinnati, Chicago and St. Louis R.R. (the secondary debtor), the Governor of Ohio, the Public Utilities Commission of Ohio, the Ohio Department of Transportation, the County Commissioners of Williams, Defiance and Paulding Counties, Ohio; the Board of Trustees of Pulaski, Washington, Delaware, Crane, and Paulding Townships, Ohio; the Mayors of Bryan, Ney, Sherwood, Cecil and Paulding, Ohio, the Director of the Rail Services Planning Office, the Chairman of the Interstate Commerce Commission, the President of the National Railroad Passenger Corporation, and also to newspapers and radio and television broadcasting stations servicing the area involved.

All affected or interested parties are invited to submit written statements, views, arguments or comments either favoring or opposing the discontinuance proposal.

Dated at Washington, D.C. this 25th day of September 1974.

EDWARD G. JORDAN,
President, United States Railway Association.

[FR Doc.74-22963 Filed 10-2-74;8:45 am]

Major highways especially often have considerable lands adjoining the roadway surface for aesthetic purposes, potential expansion, or for use as buffer zones. By incorporating plans for a recreational trail in the early stages of highway design and construction, trail development cost can be held to a bare minimum. Land acquisition costs and initial grading costs are minimized. Successful trail development of this nature requires a great deal of ground-breaking effort by club officials. Responsible Federal, state and provincial highway officials must be convinced of the desirability of this concept. Only then can the inclusion of recreational trails in initial highway planning be assured.

The framework for broad application of this concept has been established in the United States through the 1973 Federal-Aid Highway Act. Section 124 of this act provided $40 million in Federal matching funds to the states for the purposes of bikeway/snowmobile trail development. The legislative authorization and implementing regulations of this provision follow, as does a short description of the plans to make use of this program in Wisconsin:

Public Law 93-87
93rd Congress, S. 502
August 13, 1973

An Act

To authorize appropriations for the construction of certain highways in accordance with title 23 of the United States Code, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

Highway construction and safety. Appropriation authorization.

TITLE I

SHORT TITLE

SEC. 101. This title may be cited as the "Federal-Aid Highway Act of 1973".

BICYCLE TRANSPORTATION AND PEDESTRIAN WALKWAYS

72 Stat. 906; 84 Stat. 1721. 23 USC 201.

SEC. 124. (a) Chapter 2 of title 23, United States Code, is amended by adding at the end thereof the following new section:

"§ 217. Bicycle transportation and pedestrian walkways

"(a) To encourage the multiple use of highway rights-of-way, including the development, improvement, and use of bicycle transportation and the development and improvement of pedestrian walkways on or in conjunction with highway rights-of-way, the States may, on Federal-aid highway projects, include to the extent practicable, suitable, and feasible, the construction of separate or preferential bicycle lanes or paths, bicycle traffic control devices, shelters and parking facilities to serve bicycles and persons using bicycles, and pedestrian walkways in conjunction or connection with Federal-aid highways. Sums apportioned in accordance with paragraphs (1), (2), (3), and (6) of section 104(b) of this title shall be available for bicycle projects and pedestrian walkways authorized under this section and such projects shall be located and designed pursuant to an overall plan which will provide due consideration for safety and contiguous routes.

Ante, p. 256; 77 Stat. 270.

"(b) For all purposes of this title, a bicycle or pedestrian walkway project authorized by subsection (a) of this section shall be deemed to be a highway project, and the Federal share payable on account of such bicycle project or pedestrian walkway shall be that provided in section 120 of this title.

72 Stat. 898. 23 USC 120.

"(c) Funds authorized for forest highways, forest development roads and trails, public lands development roads and trails, park roads and trails, parkways, Indian reservation roads, and public lands highways shall be available, at the discretion of the department charged with the administration of such funds, for the construction of bicycle and pedestrian routes in conjunction with such trails, roads, highways, and parkways.

"(d) No motorized vehicles shall be permitted on trails and walkways authorized under this section except for maintenance purposes and, when snow conditions and State or local regulations permit, snowmobiles.

"(e) Not more than $10,000,000 of funds authorized to be appropriated in any fiscal year may be obligated for projects authorized by subsections (a) and (c) of this section, and no State shall obligate more than $2,000,000 for such projects in any fiscal year."

Supra.

(b) The analysis of chapter 2, title 23, United States Code, is amended by inserting at the end thereof the following:

"217. Bicycle transportation and pedestrian walkways."

Title 23—Highways

CHAPTER I—FEDERAL HIGHWAY ADMINISTRATION, DEPARTMENT OF TRANSPORTATION

Subchapter G—Engineering and Traffic Operations

PART 652—BIKEWAYS AND WALKWAYS IN CONJUNCTION WITH FEDERAL AND FEDERAL-AID HIGHWAYS

By virtue of authority contained in 23 U.S.C. 106, 217 and 315, the Federal Highway Administration hereby issues this regulation. In that this material is a matter relating to a grant program, the relevant provisions of the Administrative Procedure Act (5 U.S.C. 553), requiring notice of proposed rulemaking opportunity for public participation and delay in effective date are inapplicable. Further, delay in promulgation of this regulation would hinder the use of funds appropriated for use in fiscal year 1974 for bikeways and walkways.

However, because of public interest in this matter, interested persons may submit comments on this regulation to the Associate Administrator for Engineering and Traffic Operations, Federal Highway Administration, Washington, D.C. 20590. Attention: Bikeways, FHWA Docket No. 74-1, by April 5, 1974. Material thus submitted will be considered and evaluated in determining any changes to this regulation. Until such time as further changes are made, the regulation as here set forth shall remain in effect.

Sec.
652.1. Purpose.
652.2. Definition.
652.3. Policy.
652.4. Federal Participation.
652.5. Planning.
652.6. Programming.

AUTHORITY: (23 U.S.C.) 106, 217 and 315.

§ 652.1 Purpose.

The purpose of this subsection is to provide policies and procedures relating to bicycle and pedestrian facilities on Federal-aid system highways and Federal participation in the cost of these facilities.

§ 652.2 Definitions.

(a) "Bicycle" means a two-wheeled vehicle propelled solely by human power.

(b) "Bikeway" means a continuous way designated for use of bicycles and other vehicles propelled by human power.

(c) "Bicycle trail" means a bikeway separated from the through lanes for motor vehicles by space or barrier.

(d) "Shared roadway" means a roadway which may be shared by motor vehicles and bicycles, or a portion of which is reserved for use by bicycles and other nonmotorized vehicles.

(e) "Pedestrian walkway" or "walkway" means a continuous way designated for pedestrians and separated from the through lanes for motor vehicles by space or barrier.

(f) "Highway construction project" means a project financed in whole or in part with Federal-aid or Federal funds for the construction, reconstruction or improvement of a highway or a portion thereof, including bridges and tunnels.

(g) "Independent bikeway or walkway construction project" means a highway construction project to provide bicycle or pedestrian facilities, in contrast with a project whose primary purpose is to serve motorized vehicles.

(h) "Snowmobile" means a motorized vehicle solely designed to operate on ice.

§ 652.3 Policy.

The provision of bicycle and pedestrian facilities on Federal-aid highway projects is encouraged. The construction of bicycle facilities and walkways may be approved as either incidental features of highway construction projects primarily for motor vehicular traffic or as independent bikeway or walkway construction projects where all of the following conditions are satisfied:

(a) The facility will not impair the safety of the motorist, bicyclist or pedestrian.

(b) The facility will be accessible to users or will form a segment located and designed pursuant to an overall plan.

(c) A public agency has formally agreed to:

(1) Operate and maintain the facility.

(2) Ban all motorized vehicles other than maintenance vehicles and, when snow conditions and State or local regulations permit, snowmobiles.

(d) It is reasonably expected that the facility will have sufficient use in relation to cost to justify its construction and maintenance.

§ 652.4 Federal participation.

(a) Bicycle and pedestrian facilities may be constructed as incidental features of highway construction projects where the bikeway or walkway is to be constructed concurrently with the improvement for motor vehicular traffic and the bikeway or walkway will be within the normal right-of-way of the highway, including land acquired under 23 U.S.C. 135 and 319 (Traffic Improvements and Scenic Enhancement Programs). Projects constructed as incidental features or larger highway construction projects may be financed with the same types of Federal-aid funds as the basic highway project, including Interstate projects, and are not subject to the funding limitations for independent bikeway or walkway projects.

(b) Independent bikeway or walkway construction projects may be financed with all types of Federal-aid funds except Interstate, provided the total amount obligated for all such projects in any one State in any one fiscal year does not exceed $2 million for Federal-aid funds or a lesser amount apportioned by the Federal Highway Administrator to avoid exceeding the annual $40 million cost limitation on these projects for all States in a fiscal year. Independent bikeway or walkway projects may be constructed on completed sections of Federal-aid highways. Projects may include the acquisition of land outside the right-of-way, provided the facility will accommodate traffic which would have normally used a Federal-aid highway route, disregarding any legal prohibitions on the use of the route by cyclists or pedestrians.

(c) The Federal share payable for bicycle or pedestrian facilities on a Federal-aid system shall be as provided in 23 U.S.C. 120 for such systems, except that independent bikeway or walkway construction projects on the Interstate System shall be financed as projects on the primary system or urban extensions thereof.

(d) Federal participation in eligible bicycle and pedestrian facilities may include:

(1) The costs of grading, drainage, paving, barriers, landscaping, and structures necessary to accommodate the number and type of users of the facility.

(2) The costs of supplementary facilities such as shelters, parking facilities, bicycle storage facilities and comfort stations.

(3) The costs of traffic control devices including signs, signals and pavement markings.

(4) The costs of fixed source lighting where its use is appropriate.

(5) The costs of curb-cut ramps on new and existing facilities, including those for the physically handicapped.

(6) The costs of right-of-way (land acquisition and relocation assistance) on independent bikeway construction projects.

(7) The costs of walks, barriers and additional widths and lengths on bridges necessary for bikeways and pedestrian walkways for route continuity.

(8) The costs of bikeway and walkway grade separations where:

(i) Vehicular speeds and crossing volumes constitute a hazard of such magnitude as to justify the cost of the structure and the bikeway or walkway cannot be rerouted to another structure, or;

(ii) The separation is necessary because the highway has complete control of access.

§ 652.5 Planning.

Bikeways should be planned as parts of bicycle transportation systems. Where planning is conducted under 23 U.S.C. 134(a), consideration should be given to including bicycle transportation. Funds provided by 23 U.S.C. 307(c) may be used to plan bikeways. Consultation with organized groups of bicyclists is certain to prove valuable in the planning and design of bikeway projects and such counsel should be actively sought.

§ 652.6 Programming.

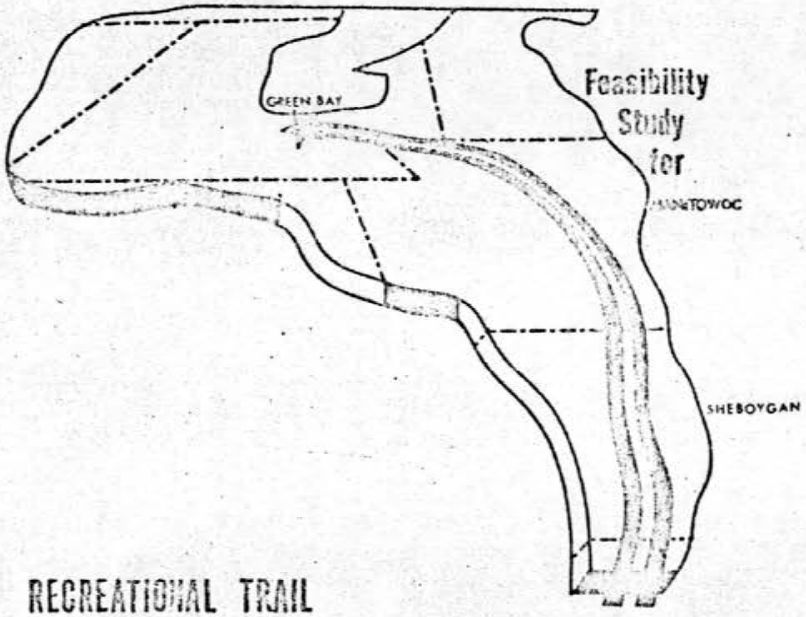
(a) Obligation of 1974 fiscal year funds may commence immediately on a first come, first served basis subject to the funding limitations set forth in § 652.4b.

(b) For FY 1975 and 1976, each State shall submit a program covering all independent bikeway or walkway construction projects not later than May 1, 1974, in the case of FY 1975 funds, and May 1, 1975, in the case of FY 1976 funds, identifying proposed projects and the source or sources of funds from which such projects are to be financed. Its proposed obligations shall not exceed $2 million in Federal-aid funds for each fiscal year. In the event the aggregate sum of all Federal and Federal-aid funds proposed to be obligated by all States and Federal agencies exceeds $40 million for either fiscal year 1975 or 1976, funds for obligation will be allocated to the States by the Federal Highway Administrator in relation to the apportionment received by the applicant States under 23 U.S.C., section 104(b) (1), (2), (3) and (6).

Issued on: March 13, 1974.

NORBERT T. TIEMANN,
Federal Highway Administrator.

[FR Doc.74-6734 Filed 3-20-74;10:03 am]



RECREATIONAL TRAIL
on
INTERSTATE — 57

Technical Study
coordinated through
Bay-Lake Regional Planning Commission
November 1973

To the Citizens of the Bay-Lake Region:

This study to determine the feasibility of providing a recreational trail as an integral part of proposed Interstate Highway 57 was oriented to two major questions. First, can such a trail be physically accommodated into the corridor, and, secondly, is there a need for such a trail in this area of Northeastern Wisconsin.

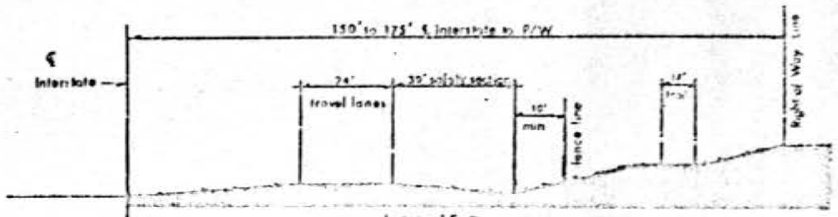
Coordinated through the activities of the Bay-Lake Regional Planning Commission this study represents a collective effort of county, regional and state personnel. Without the cooperation of all participants, the construction of this report would not have been possible.

This technical effort has identified a number of positive conclusions. As your representatives, we endorse this study and refer it to you for your consideration and utilization.

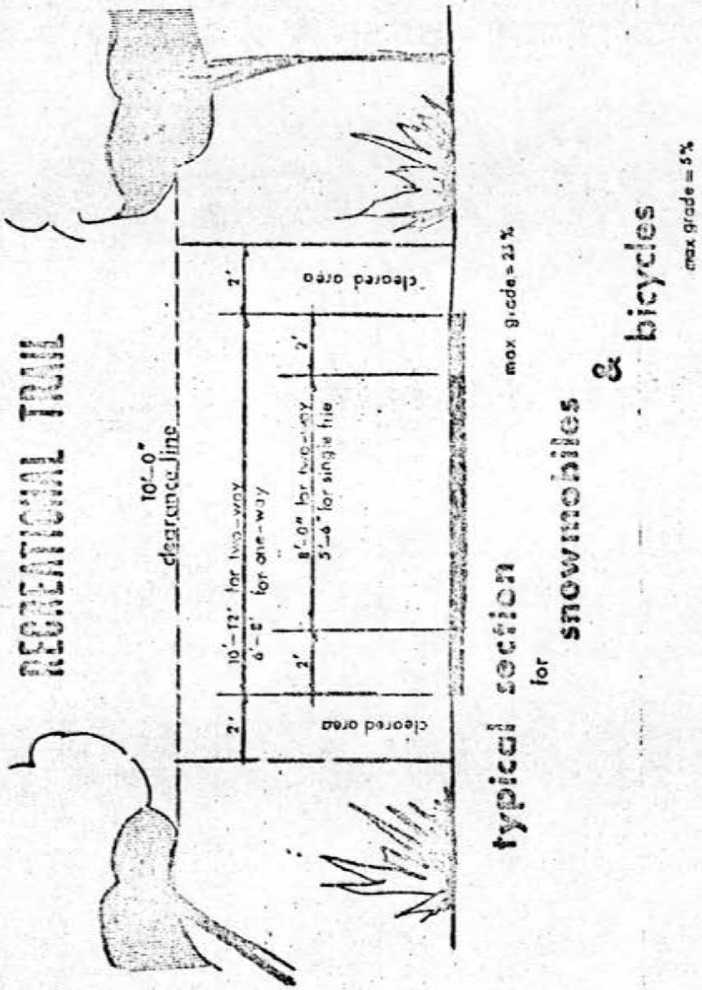
Sincerely,

Anthony V. Dufek

Anthony V. Dufek, Chairman
Bay-Lake Regional Planning Commission



Typical Half Section
Interstate Roadway & Recreation Trail



typical section for snowmobiles & bicycles

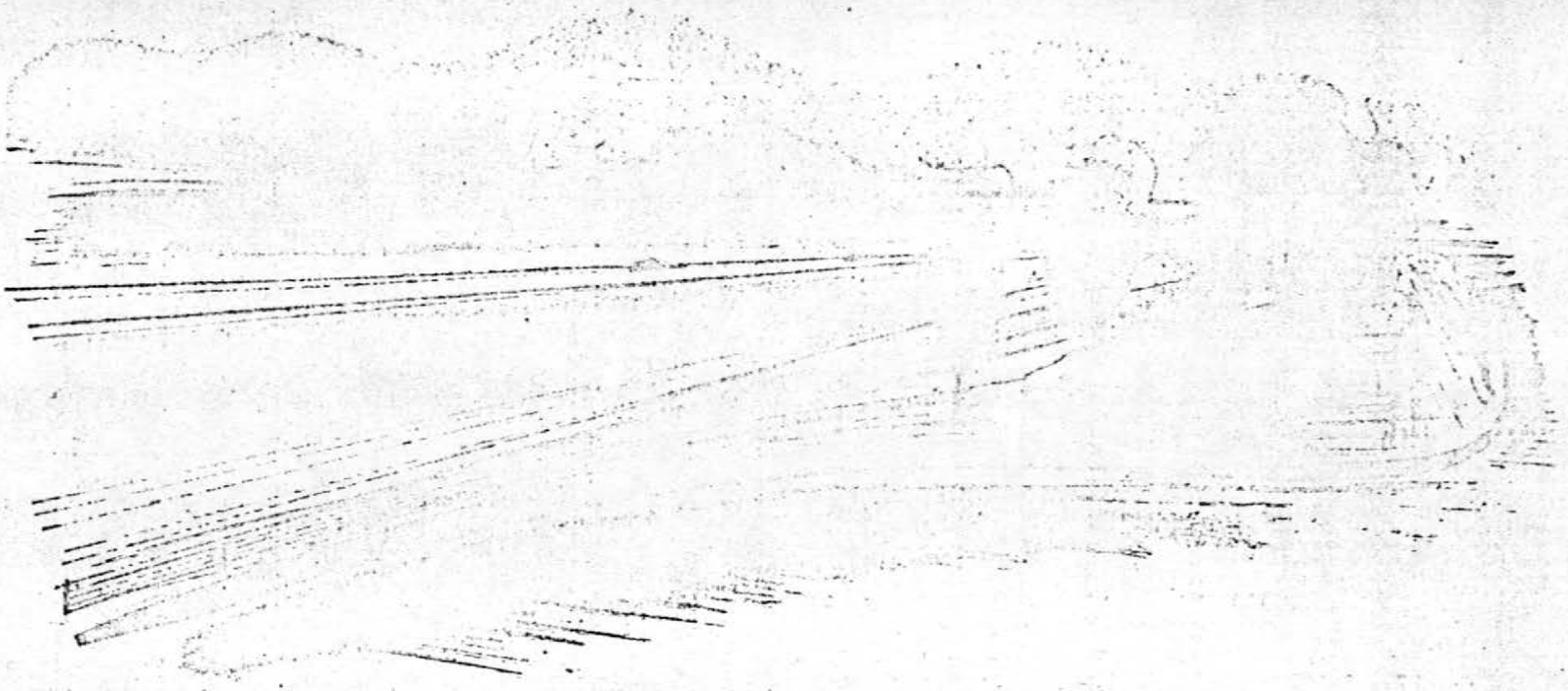
TO LOCAL TRAIL PLANNERS:

As noted in the detailed report, a principal use of the I-57 recreational trail will be to supplement the design and development of local trails. Local trail planners can use the interstate corridor as a given leg of a local loop trail system.

Two major elements which will help justify the development of a recreational trail are the location of recreation resource attractions and population concentration. Both of these issues are defined within the formal report.

To determine specifically what portions of the total trail should be developed first requires direct participation of local interested recreation groups throughout the area. Your participation will help to integrate this trail proposal into existing trails and other recreational resource facilities and also to define which portions of the interstate trail would have the greatest use potential.

We encourage your participation and suggest that you contact your county planning office and/or the Bay-Lake Regional Planning Commission office if you desire additional information on the subject.



I-57 RECREATIONAL TRAILS
CONCLUSIONS AND RECOMMENDATIONS

* There is a need for the provision of a recreational trail facility as an integral part of the Interstate 57 right of way corridor.

  This trail can provide additional facilities and can also enhance the value of existing recreational facilities within the area.

* Multiple forms of recreational activities have different demands which should be recognized and accommodated in the system.

  Trails should be constructed to accommodate several forms of recreational activity. Bicycles in summer and snowmobiles in winter are identified as the greatest potential users of the trail.

* A need exists for additional activity to refine the elements contained within this report.

  This activity is appropriately related to all levels of government and special interest groups and includes local, regional and state planning agencies and special interest groups.

* The practical application of the recreational trail facility is greater in certain areas than in others.

  The location of other recreational resource areas will determine the practical need for the I-57 trail as will the location of population concentration and demand. Over 70 percent of the population of Brown, Manitowoc and Sheboygan counties live within three miles of the corridor location.

* Implementation of portions of the recreational trail within the I-57 corridor should occur at different time intervals.

  Trails should be constructed only where current demand warrants. Additional trail segments for future use should be recognized and adequate provision made for them.

CONSTRUCTING YOUR TRAIL - SOME DESIGN GUIDELINES

Good snowmobile trail construction requires imagination, an understanding of soil structures and vegetative growth, and careful thought in addition to actual physical labor. Each mile of trail will be unique and will present new challenges. Thus, guidance to you, the trail builder, must be divided between broad, generalized parameters and technical, specialized applications.

In general, more initial effort devoted to developing a smooth and level trail bed usually reduces the magnitude of snow-season grooming and maintenance. However, it is important to realize that as much of the original soil structures and ground cover should be retained as possible. If existing corridors will be utilized for your trail, it is possible that little or no removal of trees, brush, rocks, and stumps is necessary. If you find that such activities are necessary, the following recommendations, based upon the U.S. Forest Service Trails Handbook (FSH 7709.12), Chapter 330, may be helpful:

> Clear trails to a minimum of 10 feet above the trail tread and to a width of 16 feet for two-way trails. A good means for measuring the area to be cleared is for an average height man (6 feet) to stand in the center of the trail tread with arms extended at right angles to the trail. Remove all limbs or branches within 5 feet of his hands. Estimate the 10-foot overhead clearing line by having the same man reach as high as he can with an ax. Overhead clearing should permit a man on snowmobile or horseback to ride over the trail without interference when limbs and brush are wet from rain or snow.

For protection against erosion and for the good appearance of the area, leave all healthy trees over 12 inches d.b.h. which will not interfere with snow trail route. In sparsely timbered country do not remove any healthy tree over 6 inches d.b.h. except where it interferes with trail traffic and the trail cannot be relocated to eliminate the interference.

Cut trees 3 feet above the ground when stumps will be removed by blasting or pulling. This will provide enough of a stem to give good leverage for pulling with a winch or other device. Remove trees and stumps if the tree roots will interfere with grading. Cut all brush flush with the ground, and treat the roots and stumps with chemicals to prevent sprouts. Cut all snags and dying trees which might fall across the trail. When trees are removed to provide the desired clearance, cut as nearly flush with the ground as practical.

Cut off green limbs flush with the tree trunk to permit the cut to heal over. In some instances, it may be justifiable and practical to paint wounds to prevent decay. Widen clearing areas at resting places, and scenic points where other may pass while the riders of the party are dismounted. Widen clearing on the upper side to permit passing at intervals in places where sideslopes are light.

For single-directional trails, a 8' cleared corridor is necessary. Moreover, areas with substantial snowcover accumulation should insure that clearing is done to a minimum of 8 feet above average snowdepth. Thus, if a four-foot base is anticipated vertical clearing should be done to a height of 12' - 14'. Be sure to consider the drooping of branches laden with snow.

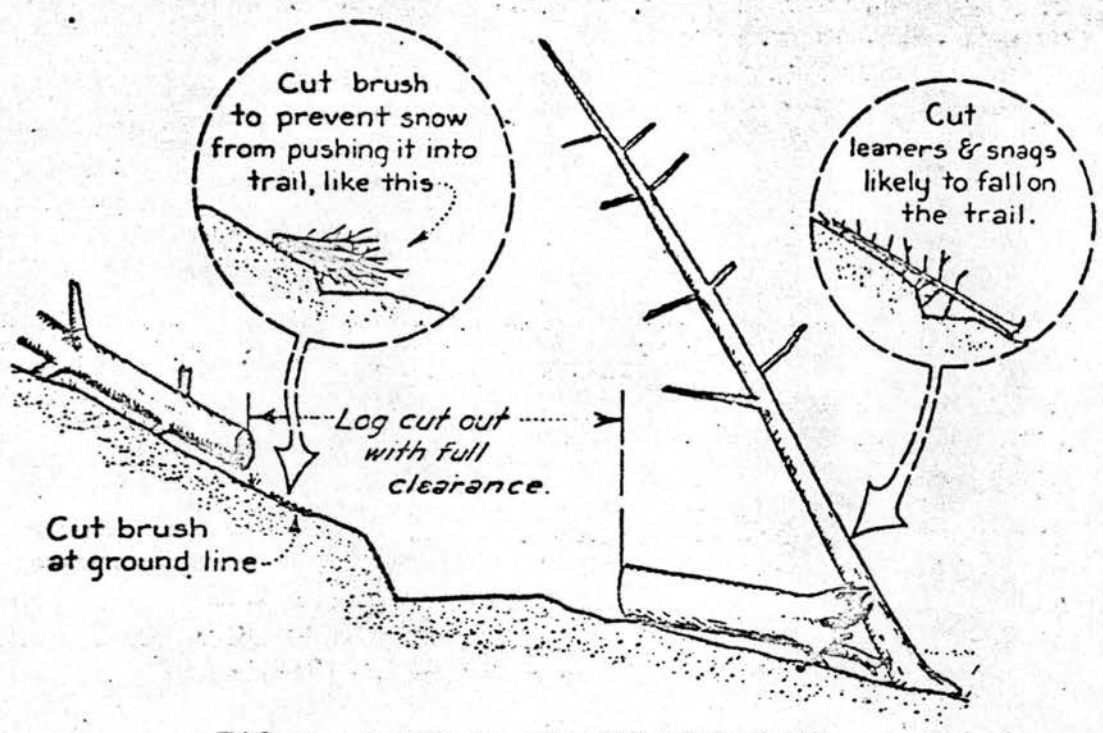
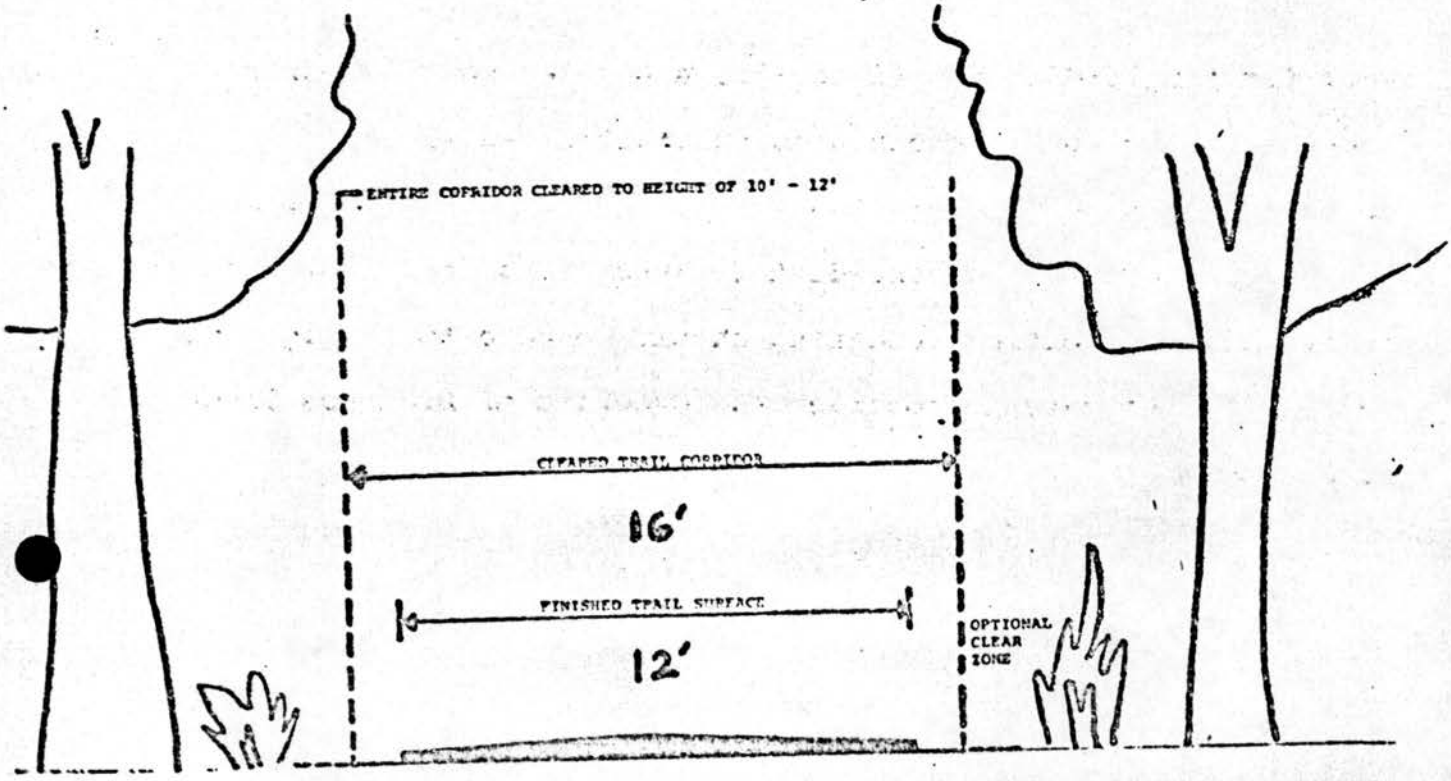


FIG. 4- GOOD CLEARING PRACTICE



Designing and constructing trails in hilly areas requires consideration of the following factors:

- possible soil erosion;
- operator safety;
- aesthetics and enjoyability; and
- suitability for maintenance.

Curves and hills are important ingredients of enjoyable snowmobiling, and operator safety can and must be incorporated into their design. First, slopes should be limited to a maximum average 25 percent for sizeable distances. Short steeper passages can be utilized providing an adequate "in-run" is provided for those ascending, and adequate warning and visibility is given to those descending. Particularly where the incline approaches the maximum recommended slope, the snowmobile trail should follow the fall line, at a right angle to contour lines.

Safety consideration dictate special considerations in three other areas:

- highway intersections;
- curves; and
- intersections with bodies of water.

Automobile-snowmobile collisions are the principal cause of user deaths and serious injuries. Thus, great care must

be taken to minimize the dangers associated with any area of common use by these two very different vehicle types. Again, highway crossings should be designed out of a trail system whenever alternative routings are avilable.

If such a crossing is necessary, the following guidelines should be rigorously applied:

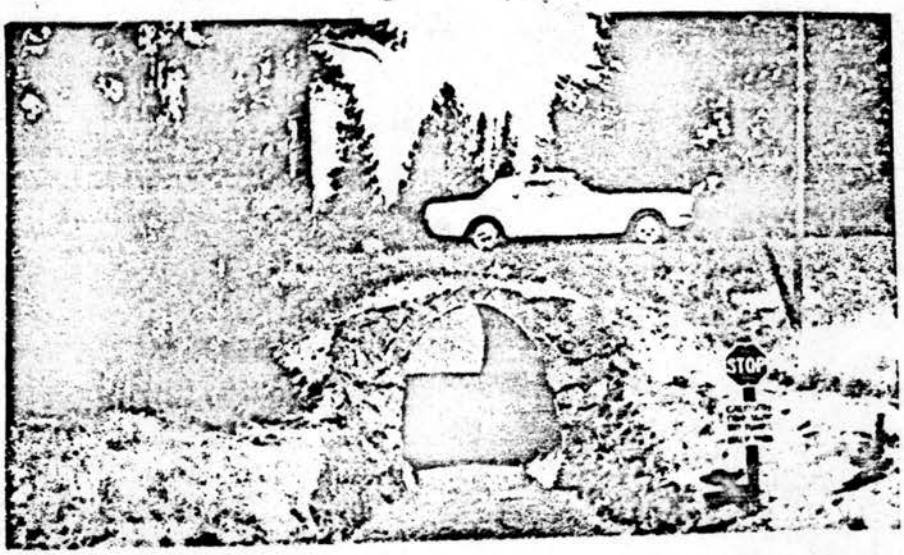
1) Give adequate advance warning of the upcoming intersection with approved snowmobile trail signs. A "STOP AHEAD" sign should be located at least 250 feet before the crossing.
2) Insure complete stops at the edge of the crossing by installing mandatory stop signs.
3) Crossings should be made perpendicular to the highway and only at locations at which the snowmobile operator is afforded a clear view of the roadway for at least 350 feet in each direction on roadways with speed limits of 45 mph or less, and 500 feet in each direction for highways with speed limits above 45 mph.

The highway department responsible for maintaining the involved roadway should install warning signs advising the automobile operator of the crossing ahead, as well.

One method of eliminating roadway intersections is through the use of grade separations. The use of culvert underpasses is especially well suited to areas of new high speed roadway construction. Several states and provinces have begun to utilize such techniques.

The use of culverts requires considerable forethought. Obviously steps must be taken to avoid a build-up of snow within the structure. Secondly, the underpass and its approaches must be relatively flat, with adequate forward visability. Culverts should not be designed to carry both snowmobilers and streams; the ice build-up and spring run-off both pose potential hazards.

The typical culvert design is very simple. Either a flat bottomed or round, heavy duty corrugated pipe, with a minimum diameter of 8 feet, is employed. Especially with round culverts, it is important to construct a flat, slatted, wooden platform for use as the trail bed. This allows free drainage of melting snow, and facilitates snow-clearing from within the culvert. Employing open trench construction methods, such culverts can be constructed at low costs. A diagram showing a typical application of the culvert underpass follows:


STOP

Curves should be controlled so that forward visibility of fifty feet is maintained wherever possible. Additionally, no curves should be constructed with a radius of less than 25 feet.

As with roadways, intersections with bodies of water raise special problems. Moving water and periodic thawing represent major hazards. If absolutely necessary, crossings should be made on permanent, well designed bridges at least 6 feet in width and equipped with sturdy guard rails. Again, signs must be placed on the snowmobile trail to advise operators of the approaching structure and the consequent need to reduce speed.

Sound Control Through Trail Design

One of the benefits of a trail is the ability to control snowmobile sound emissions through trail design. By designing trails in such a way as to create substantial buffer zones, noise levels in critical areas can be lessened. The use of natural terrain and snowbanks can also result in a 10dBA+ sound level reduction at 50 feet. Quite obviously, this can be a valuable technique for urbanized areas and for other areas where the trail necessarily passes by residences at close range.

Normally, sound level diminishes by 6dB for each doubling of distance. Thus a machine rated at 78 dBA under SAE J192a, and emitting 68 dBA at a normal trail speed of 15 mph, will register 62 dBA at 100 feet, and only 56 dBA at 200 feet. 56dBA is well below even the soft conversational level.

To take advantage of "sound barriers", a general rule can be formulated which, while not precise, is likely to result in an average 5-10dBA drop at 50 feet. Essentially, the rule is that the line of sight between the snowmobile and ear level at the critical area should be completely obscured by snow, dense vegetative growth, or terrain.

With a combination of trail layout and design it is possible to reduce sound levels to a barely audible 46-50dBA level at critical points.

At this point, a bibliographic guide to resource documentation is provided. These materials provide additional in-depth guidance to the snowmobile trail builder for dealing with special situations from avalanche regions to waterbars.

BIBLIOGRAPHY - TRAIL CONSTRUCTION

Anderson, G. S. et al. Fundamentals and Abatement of Highway Traffic Noise (PB-222 703). Springfield, Virginia: National Technical Information Service, 1973.

Bollinger, John G. et al. Report 1972-73: Snowmobile Noise Effects on Wildlife. Madison: University of Wisconsin, 1973.

Cook, David I. and David F. Van Haverbeke. Tree-Covered Land-Forms For Noise Control (Research Bulletin 263). U. S. Department of Agriculture, Forest Service, 1974.

_____. Trees and Shrubs For Noise Abatement (Research Bulletin 246). U. S. Department of Agriculture, Forest Service, 1971.

The Ecological Impact of Snowmobiles on Our Public Lands. New York: Popular Science Publishing Co., 1972.

Feasibility Study for Recreational Trail on Interstate 57. Green Bay, Wisconsin: Bay-Lake Regional Planning Commission, 1973.

A Guide to the Development and Maintenance of Good Snowmobile Trails. Valcourt, Quebec: Bombardier Ltd., 1972.

Martinelli, M., Jr. Snow Avalanche Sites: Their Identification and Evaluation (Agriculture Information Bulletin 360). Washington, D.C.,: U.S. Government Printing Office, 1974.

Moeller, George H. The Landowner and the Snowmobiler: Problem or Profit? (Research Paper NE-206). Upper Darby, Pennsylvania: U. S. Department of Agriculture, Forest Service, Northeastern Forest Experiment Station, 1971.

Off Road Recreation Vehicles: A Department of the Interior Task Force Study. Washington, D.C.: U. S. Government Printing Office, 1971.

Pendleton, J. W. et al. Second Report: Effect of Snowmobile Traffic on Non-Forest Vegetation. Madison: University of Wisconsin, 1973.

Smith, Dan, Jr. Bikeways: State of the Art, 1974 (FHWA-RD-/4-56). Springfield, Virginia: National Technical Information Service, 1974.

Snowmobiling and Ski Touring Trail Manual. St. Paul: Minnesota Department of Natural Resources, 1973.

Trails: A Strategy for Snowmobile Fun and Safety. Arlington, Virginia: Snowmobile Safety and Certification Committee, Inc., 1974.

Trail Handbook (FSH 7709.12). U. S. Department of Agriculture, Forest Service, 1967.

U. S. Department of Transportation, Federal Highway Administration, National Highway Institute. Noise Barrier Design and Example Abatement Measures. Vol. II of Fundamentals and Abatement of Highway Traffic Noise. Washington, D. C.: U. S. Government Printing Office, 1974.

TRAIL AND TRAILHEAD FACILITIES

The value of snowmobile trails and use areas is maximized by providing convenient access to them and appropriate supportive facilities. Plowed parking areas, away from the main roadway and with pull-through loading and unloading zones, are important safety precautions as well.

In designing snowmobile parking areas, traffic flow, actual parking needs and snow removal should be considered to avoid congestion and to facilitate safety. With maintenance and due consideration for both automobile and snowmobile traffic flow, a safe facility can be provided which will remove snowmobiles, snowmobilers, cars and trailers from roads and highways subject to regular automotive traffic.

To reduce costs, existing parking facilities, including those at schools, parks and marinas, should be incorporated where practical. In all cases, continuing snowplowing must be planned.

Parking facilities are important not only at primary access points, but also at intermediate points. This reduces congestion, adds to the flexibility of a system, and also facilitates regular maintenance and emergency rescue operations.

TRAIL AND USE AREA MAINTENANCE, EQUIPMENT AND TECHNIQUES

Specific trail maintenance requirements will depend upon many factors. Clearly, terrain, intensity of use, amount of snow cover, and trail design all have direct bearing upon the type and extent of trail grooming required.

The needs for advantages of a comprehensive trail maintenance program are many. Perhaps most importantly, groomed trails have important safety implications. Enjoyability is another principle reason for undertaking a snowmobile trail maintenance program. By eliminating moguls and "washboard surfaces", the snowmobiling experience can be made far more pleasurable. Marked and maintained trails also play an important role in controlling snowmobile use and protecting ciritical areas such as plantations and winter yarding areas.

Effective maintenance techniques can insure that an adequate protective blanket of snow covers the entire trail area. On the basis of scientific studies done at the University of Wisconsin and other locations, general recommendations on the required snow depth can be formulated. For relatively flat and rolling terrain which is not in agricultural production, a base of 3-4 inches is sufficient to provide the necessary protection. For agricultural lands, it seems advisable to require a slightly deeper base. Here, 6 inches of snow cover has been shown to eliminate adverse crop impact.

Trail maintenance is currently underway on many thousands of miles of trails in both the U. S. and Canada. The initial reaction when examining existing maintenance programs is a sense of awe at the innovation shown at the local club level. Indeed, one club may use horses, while an adjoining club utilizes the latest commercial equipment costing in excess of $20,000. Farm tractors, tracked construction equipment and ordinary snowmobiles are also frequently used in trail maintenance programs.

To determine the equipment best suited for a specific portion of a trail network, we suggest utilizing the following matrix as a general guide for projecting equipment needs:

A GUIDE TO DEFINING GROOMING EQUIPMENT NEEDS

Five physical parameters largely determine the type of equipment required for trail grooming and maintenance. To define the equipment best suited to your trail and use area network, total values given in each category for the pattern most characteristic of your situation. The total will then indicate which Grooming Class your needs most closely fit. Descriptions of available equipment in each Class follows the chart.

Intensity of Use

USERS/DAY	
1-20	1
20-40	2
40-60	3
60-80	4
80+	5

Terrain

Steepest Continuing Grade		
1-5°	Flat	1
5-10°	Occasional Hills	2
10-15°	Rolling	3
15-20°	Steep Hills	4
20-25°	Mountainous	5

Length of Single Grooming Run

Miles	
1-10	1
11-20	2
21-30	3
31-40	4
41+	5

Snow Cover

Depth	
3"- 8"	1
9"-18"	2
19"-30"	3
31"-42"	4
43"+	5

Snow Cover

Conditions	
Ice	1
Wet + Cold	2
Wet + Warm	3
Dry	4
Powder	5

TOTAL POINTS	SUITABLE GROOMING CLASS
5-14	II
15-25	I

Descriptions of
General Trail Maintenance
Equipment by Class

Class I — Large commercial snow maintenance equipment with plowing, dragging and packing capabilities, with 8-12 foot width trail grooming potential. In most cases, a large commercial drag with hydraulic controls is employed.

Class II — Utilitarian class specialty equipment with drag-towing and limited packing capabilities and 4-8 foot width trail grooming potential. Drags used may be either commercial or self-fabricated.

APPLYING FOR "SAFE TRAIL" CERTIFICATION

The availability of public funds for buinding and maintaining snowmobile trails should carry two necessary conditions. First, the trail must be available for public recreational useage, although this may be on a fee basis. Secondly, the resulting trails must give adequate protection to the welfare of the using public. A "safe trail" certification program insures consideration of the second need.

Criteria for certification are identical to the criteria employed in deciding eligibility of a trail construction plan for public funding. These can be:

BASIC REQUIREMENTS

1) long-term (3+ years) availability;

2) Minimum graded width for one-way trails is 6 feet;

3) Minimum graded width for two-way trails is 12 feet;

4) Minimum turning radius is 25 feet;

5) A height of 10 feet above the trail will be cleared;

6) Sustained grades and slopes will be a maximum average of 25%;

7) Brush will be cleared from an area 1-2 feet beyond the trail edge;

8) Appropriately signed, preferably reflectorized;

9) Periodic maintenance to insure trail useability and safety.

ADDITIONAL DESIRABLE SPECIFICATIONS:

1) Trail length of 25-50 miles, with the exception of interconnecting "corridor" trails;

2) Toilet facilities should be provided at about 15-mile intervals, perhaps more often on heavily used trails and in recreation areas.

3) Trail vertical and horizontal sight distances should be a minimum of 50 feet. Snowbanks at road crossings should be cut back to provide adequate visibility in both directions on both sides. Snowbanks should be kept low at trail crossing points to permit easy exit from and entrance to the trail. Warning signs should be installed on trails at both trail and road crossings. Highways should also be marked to alert motorists to the crossing.

4) Approaches and exits to grades and slopes should be straight and at least as long as the slope. Grades and hill crossings should be wider than the normal trails.

5) Access to trails should be controlled where possible. Caution signs should be used to indicate trail intersections. Trails should be routed away from areas that will attract undesireable traffic or uses. Emergency exits should be provided at about 5-mile intervals and shown by trail signing. Maximum distance for exits should be 20 miles and should be adequately signed to warn the trail user.

6) Topography and land characteristics should be varied to maintain user interest, and to take advantage of interesting features.

7) Occasional open areas should be provided for frolic and rest.

8) Snowmobile trails should not be routed over lakes, streams or other bodies of water. If stream crossings are necessary, provide bridges at least 6 feet wide. Permits may be required in navigable streams.

9) Trails should cross contours at right angles where possible. Routing trails along side slopes should be avoided.

10) Route trails away from areas designated by the Department of Lands and Forests as game reserves, critical winter browse areas, experimental stations, nurseries, plantations and other areas of anticipated conflict, particularly areas which may be damaged by trail development or snowmobile use.

11) Trash barrels and picnic facilities should be provided at all rest and other use areas.

A certified affidavit stating a trail is in compliance with the prerequisite criteria must be filed by the party charged with administration of the specific trail, along with a map.

Upon review of these documents, and upon completion of a field check if judged desirable, the applicant will be informed of the decision regarding inclusion of the trail in question into the Certified Trail System.

SNOWMOBILE LAWS AND REGULATIONS

A copy of currently applicable laws and regulations are included for your use.

(We recommend creating a "pocket", into which up-to-date versions can be slipped. In this way, a large number of trail construction and maintenance guides can be printed initially and be kept current by merely inserting new information.)

Approved Forms for Obtaining Landowner Permission

(Examples from Minnesota and Quebec's Regulation 7 are shown: however, specific forms must be developed for Alberta by skilled legal counsel.)

(sample)

PERMIT

THIS PERMIT, is granted this 6 day of October, 1972, by Joe Landowner, Permitters to the County of Itasca Permittee, to establish and maintain on the hereinafter described land a snowmobile route.

That Joe Landowner, the (record owners) (contract for deed purchasers) (lessees) in consideration of One Dollar, grants this permit over and upon the following described premises situated in the County of Itasca, State of Minnesota, to wit:

The North 100' of the NE¼ of the NE¼ Section 5, Township 54 North, Range 23 West

SUBJECT TO:

1.) This permit shall terminate upon sale of the land, or upon notification in writing to the county six months prior to termination by the Permitters.

2.) The snowmobile route shall be open to the general public for snowmobile use.

3.) The Permittee shall, at all times, have the right to enter upon the route right-of-way for any purpose necessary to the performance of lawful powers and duties.

4.) The Permitters shall have the right to close said right-of-way during any emergency, with the approval of the Permittee.

5.) The permit for a 100 foot width over the route to be used.

6.) Other

SIGNATURE: Joe Landowner
(Landowner)

DATED: November 9, 1973 Tom Locator
(Snowmobile Club, County of Municipal Official)

ANNEXE B

Formule I

CESSION D'UN DROIT DE PASSAGE

entre

(M.) (Mme) (Mlle) .....
et domicilié à .....
ci-après appelé le cédant

et

.....
(Club, organisme ou ministère)
(S'il s'agit d'un club; dont le siège social est situé à .....
ci-après appelé le cessionnaire.

B.1. DÉCLARATIONS

B.1.1 Le cédant déclare qu'il est propriétaire ou .....
.....
(Indiquer le droit du cédant sur l'immeuble ci-dessous décrit)
(désignation du cadastre, numéro civique ou autre description)

B.1.2 Le cessionnaire déclare qu'il a souscrit une police d'assurance responsabilité d'une couverture de $ .....dont lui-même et le cédant sont bénéficiaires et à l'effet d'indemniser les bénéficiaires de toute responsabilité qu'ils pourraient encourir du fait ou à l'égard des officiers, administrateurs, représentants, employés, membres ou détenteurs d'un laissez-passer ou de toute personne autorisée à utiliser le droit de passage ci-dessous décrit et que la police d'assurance susdite a été émise par la compagnie ....., porte le numéro .....a pour date d'échéance le .....et que la prime a été payée.

B.2. DROIT DE PASSAGE

B.2.1 Le cédant accorde au cessionnaire qui accepte, un droit de passage aux fins de permettre la circulation en motoneige ou en véhicule d'entretien de toute personne membre du club cessionnaire (ou détenant un laissez-passer du cessionnaire), et de toute personne autorisée conformément au Règlement 7 sur la motoneige adopté par l'arrêté en conseil 2876-72 du 28 septembre 1972, de toute personne membre du club cessionnaire ou détenant un laissez-passer, carte ou certificat du cessionnaire, et de toute personne autorisée conformément au Règlement 7 sur la motoneige adopté par l'arrêté en conseil 2876-72 sur un (des) sentier (s) devant être établi (s) comme suit, sur l'immeuble décrit à la clause 1.1 de la présente convention:

(décrire l'assiette du droit de passage)

SCHEDULE B

Form I

TRANSFER OF RIGHT OF WAY

between

(Mr.) (Mrs) (Miss) .....
and domiciled at .....
hereinafter called the transferor

and

.....
(Club, body or department)
(In the case of a club) whose head office is situated at .....
hereinafter called the transferee.

B.1. DECLARATIONS

B.1.1 The transferor declares that he is the proprietor of .....
(Indicate the transferor's right on the immoveable described hereinafter)
(designation of cadastre, civic number or other description)

B.1.2 The transferee declares that he has taken out a liability insurance policy in the amount of $ .....of which he and the transferor are the beneficiaries, and for the purpose of indemnifying the beneficiaries for all liability which they might incur from the positive act of, and with respect to, the officers, directors, representatives, employees, members or holders of passes, or any person authorized to use the right of way described hereinafter and that the abovementioned insurance policy was issued by the .....company, bearing number.....of which the date of expiry is.....and that the premium has been paid.

B. RIGHT OF WAY

B.2.1 The transferor grants to the transferee, who accepts, a right of way for the purpose of permitting travel in a snowmobile or maintenance vehicle by any person who is a member of the transferee club (or holder of a pass from the transferee), and by any person authorized in accordance with Regulation 7 respecting snowmobiles approved under Order in Council 2876-72 dated 28 September 197. by any person who is a member of the transferee club or holder of a pass, card or certificate from a transferee, and by any person authorized in accordance with Regulation 7 respecting snowmobiles approved under Order in Council 2876-72, on (a) trail (s) which shall be established on the immoveable described in clause 1.1 of this agreement as follows:

(describe the course of the right of way)

B.2.2 Le cédant accorde au cessionnaire qui accepte le droit d'ériger des refuges conformes aux règlements, en particulier audit Règlement 7 sur la motoneige aux endroits suivants:

_____

_____

_____

_____

_____

_____

B.2.3 Le cédant s'engage à ne pas entraver la circulation en motoneige sur les sentiers visés à la clause 2.1 et à laisser les personnes visées à la clause 2.1 la libre jouissance des refuges visés à la clause 2.2.

B.3. OBLIGATIONS DU CESSIONNAIRE

B.3.1 En considération de ce qui précède, le cessionnaire s'engage à:

a) effectuer, à ses frais et sous sa responsabilité entière, tous les travaux nécessaires à l'utilisation et à l'entretien de l'assiette du droit de passage visé à la clause 2.1 de la présente convention;

b) remettre, à l'expiration du droit de passage susdit, les lieux dans l'état dans lequel ils se trouvent en date de la signature de la présente convention et en particulier enlever toute balise et tout panneau de signalisation et à exécuter les travaux nécessaires à cette fin;

c) sous réserve du paragraphe *b*, permettre au cédant et sauf en ce qui concerne l'implantation et l'existence des refuges visés à la clause 2.2, à l'expiration du droit de passage visé à la clause 2.2, de garder et de jouir de toute amélioration apportée par lui à l'assiette du droit de passage susdit ou, au choix du cédant, à les enlever aux frais du cessionnaire;

d) payer tout dommage causé à l'immeuble ci-dessus décrit pendant la durée du droit de passage;

e) laisser circuler sur les sentiers visés à la clause 2.1 exclusivement les personnes à qui il accorde ce droit, conformément audit Règlement 7; et

f) maintenir en vigueur la police d'assurance visée à la clause 1.2 jusqu'à l'expiration du droit de passage visé à la clause 2.1.

B.4 DURÉE

B.4.1 Le droit de passage accordé par la présente convention prend fin le 15 avril 19....

B.5. DISPOSITIONS FINALES

B.5.1 Les signataires de la présente convention déclarent avoir l'autorité nécessaire à cette fin.

B.2.2 The transferor grants to the transferee, who accepts, the right to erect shelters in accordance with the regulations, in particular with respect to Regulation 7 respecting snowmobiles in the following places:

_____

_____

_____

_____

_____

_____

B.2.3 The transferor undertakes not to impede snowmobile traffic on the trails contemplated in clause 2.1 and to permit the free enjoyment of the shelters contemplated in clause 2.2 by the persons mentioned in clause 2.1.

B.3 OBLIGATIONS OF THE TRANSFEREE

B.3.1 In consideration of the foregoing, the transferee undertakes

(*a*) to effect, at his expense and upon his entire responsibility, all works necessary to the use and maintenance of the course of the right of way contemplated in clause 2.1 of this agreement;

(*b*) upon expiry of the abovementioned right of way, to restore the area to the state in which it is on the date of signature of this agreement and, in particular, to remove every marker and every traffic sign and to perform the work necessary for such purpose;

(*c*) subject to paragraph *b*, and with the exception of the placement and existence of shelters contemplated in clause 2.2, to permit the transferor, upon expiry of the right of way contemplated in clause 2.2, the use and enjoyment of any improvements made by him to the course of the abovementioned right of way, or, at the option of the transferor, to remove such improvements at the expense of the transferee.

(*d*) to pay for all damage caused to the above described property during the term of the loan;

(*e*) to ensure that the persons to whom he gives the right to travel on trails, pursuant to Regulation 7, use only the trails contemplated in clause 2.1;

(*f*) to maintain the insurance policy contemplated in clause 1.2 in force until the expiry of the right of way contemplated in clause 2.1

B.4. DURATION

B.4.1 The right of way granted by this agreement expires April 15, 19.....

B.5. FINAL PROVISIONS

B.5.1 The signers of this agreement declare that they have the necessary authority for such purpose.

B.5.2 En foi de quoi, les parties ont signé la présente convention en présence de deux témoins qui ont signé après elles à .....
ce.....ième jour de .....
19.....

Cédant

Cessionnaire

TÉMOINS:

Formule 2

RESPONSABILITÉ DÉCOULANT DE L'UTILISATION D'UN SENTIER

JE, ...
.....
(nom et adresse)

a) déclare être majeur (ou mineur);

b) renonce aux droits de réclamer toute indemnité pour dommages subis sur la propriété de toute personne qui a consenti le droit de passage pour tout sentier de catégorie A, B ou C sur lequel je me trouverai en motoneige en vertu des articles 7.106 à 7.114 et 7.128 du Règlement 7 sur la motoneige adopté par l'arrêté en conseil 2876-72 du 28 septembre 1972;

c) m'engage à payer à toute personne qui a consenti un tel droit de passage, tout dommage que je causerai ou que causera toute personne dont je suis responsable ou présumé tel alors que je me trouverai ou qu'elle se trouvera sur la propriété sur laquelle ce droit de passage est consenti; et

d) m'engage à respecter les règlements et règles d'éthique pertinents édictés de temps à autre par
.....
.....
(indiquer ici le nom de l'exploitant) ou tout autre exploitant au sens du Règlement 7 sur la motoneige adopté par l'arrêté en conseil 2876-72.

EN FOI DE QUOI, j'ai signé à .....
ce.....ième jour d ..... 19.....
(Au cas où la personne dont la signature apparaît ci-dessus est mineure, cette partie doit être complétée et signée par une *personne majeure*).
JE, ...
.....
(nom et adresse)
déclare être majeur et me porte fort des obligations assumées par .....
(indiquer ici le nom de la personne dont la signature apparaît ci-dessus)

B.5.2 In witness whereof, the parties have signed this agreement in the presence of two witnesses who have signed .....
at.....this.....day
of....., 19....

Transferor

Transferee

WITNESSES:

Form 2

OBLIGATIONS ATTACHING TO THE USE OF A TRAIL

I, ...
.....
(Name and address)

(*a*) declare that I am a person of the age of majority (or a minor);

(*b*) renounce the right to claim any indemnity for damages sustained on the property of any person who has granted a right of way for any Class A, B or C trail on which I may be travelling in a snowmobile pursuant to sections 7.106 to 7.114 and 7.128 of Regulation 7 respecting snowmobiles enacted under Order in Council 2876-72 dated 28 September 1972.

(*c*) undertake to pay to any person, who has granted such right of way, for any damage which I shall cause, or which shall be caused by any person for whom I am responsible or presumed to be to be responsible for, while I or such person may be on the property upon which such right of way is granted; and

(*d*) undertake to respect the pertinent regulations and rules of conduct made from time to time by
.....
.....
(indicate here the name of the operator) or any other operator within the meaning of Regulation 7 respecting snowmobiles enacted under Order in Council 2876-72 dated 28 September 1972.

IN WITNESS WHEREOF, I have signed at .....
this.....day of.....19.....
(Where the person whose signature appears hereinabove is a minor, this part shall be completed and signed by a person of the age of majority)
I, ...
.....
(name and address)
declare to be of the age of majority and guarantee the obligations assumed by .....
(indicate here the name of the person whose signature appears hereinabove)

conformément aux articles 7.108 et 7.112 du Règlement 7 sur la motoneige adopté par l'arrêté en conseil 2876-72 du 28 septembre 1972.

EN FOI DE QUOI, j'ai signé à .....
ce.....ième jour de .....197...
.....

in accordance with sections 7.108 and 7.112 of Regulation 7 respecting snowmobiles enacted under Order in Council 2876-72 dated 28 September 1972.

IN WITNESS WHEREOF, I have signed at .....
this.....day of.....19.....
.....

MAP OF STATE/PROVINCIAL PUBLIC

SNOWMOBILE TRAIL AND USE AREAS

(Again, we recommend a "pocket" into which a current map can be stuffed.)

BIBLIOGRAPHY - TRAIL CONSTRUCTION

Anderson, G. S. et al. Fundamentals and Abatement of Highway Traffic Noise (PB-222 703). Springfield, Virginia: National Technical Information Service, 1973.

Bollinger, John G. et al. Report 1972-73: Snowmobile Noise Effects on Wildlife. Madison: University of Wisconsin, 1973.

Cook, David I. and David F. Van Haverbeke. Tree-Covered Land-Forms For Noise Control (Research Bulletin 263). U. S. Department of Agriculture, Forest Service, 1974.

_____. Trees and Shrubs For Noise Abatement (Research Bulletin 246). U. S. Department of Agriculture, Forest Service, 1971.

The Ecological Impact of Snowmobiles on Our Public Lands. New York: Popular Science Publishing Co., 1972.

Feasibility Study for Recreational Trail on Interstate 57. Green Bay, Wisconsin: Bay-Lake Regional Planning Commission, 1973.

A Guide to the Development and Maintenance of Good Snowmobile Trails. Valcourt, Quebec: Bombardier Ltd., 1972.

Martinelli, M., Jr. Snow Avalanche Sites: Their Identification and Evaluation (Agriculture Information Bulletin 360). Washington, D.C.,: U.S. Government Printing Office, 1974.

Moeller, George H. The Landowner and the Snowmobiler: Problem or Profit? (Research Paper NE-206). Upper Darby, Pennsylvania: U. S. Department of Agriculture, Forest Service, Northeastern Forest Experiment Station, 1971.

Off Road Recreation Vehicles: A Department of the Interior Task Force Study. Washington, D.C.: U. S. Government Printing Office, 1971.

Pendleton, J. W. et al. Second Report: Effect of Snowmobile Traffic on Non-Forest Vegetation. Madison: University of Wisconsin, 1973.

Smith, Dan, Jr. Bikeways: State of the Art, 1974 (FHWA-RD-74-56). Springfield, Virginia: National Technical Information Service, 1974.

Snowmobiling and Ski Touring Trail Manual. St. Paul: Minnesota Department of Natural Resources, 1973.

Trails: A Strategy for Snowmobile Fun and Safety. Arlington, Virginia: Snowmobile Safety and Certification Committee, Inc., 1974.

Trail Handbook (FSH 7709.12). U. S. Department of Agriculture, Forest Service, 1967.

U. S. Department of Transportation, Federal Highway Administration, National Highway Institute. Noise Barrier Design and Example Abatement Measures. Vol. II of Fundamentals and Abatement of Highway Traffic Noise. Washington, D. C.: U. S. Government Printing Office, 1974.

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

-FSH 7709.12-

TRAILS HANDBOOK

Forest Service Handbook

*-December 1967
Amendment No. 12-*

CHAPTER 320 - TRAIL CONSTRUCTION PLANS

Contents

321	SURVEYS
321.1	Reconnaissance
321.2	Location Surveys
321.21	Survey Procedure
321.22	Location Survey Staking
322	DESIGN
322.1	Economics
322.2	Geometrics
322.21	Dimensions of Graded Sections
322.22	Alignment
322.23	Grade
322.24	Dimensions of Cleared Travel Way
322.25	Drainage
322.3	Plans and Specifications
322.31	Plans
322.32	Specifications
322.33	Estimates
322.34	Rights-of-Way

CHAPTER 330 - CONSTRUCTION

331 - GENERAL. The term "construction" refers to all work that is defined, for accounting purposes, as construction, reconstruction, replacement, betterment, or restoration. The methods used on the ground are the same, but the financing may dictate a different method of reporting.

Trails may be constructed by contract or by force-account methods. When work is done by contract, the crew planning and organization will be the responsibility of the contractor, but a well-run contract will probably be planned and organized similar to a good force-account crew. Inspection and inspection-record requirements are the same in either case.

332 - CLEARING. Clearing for trail construction will vary according to the service class and forest value of the trail to be built. The dimensions of the cleared area and specifications are discussed under each service class.

1. All-Purpose Trails--Class A. Clear all-purpose and administrative trails to a height of 10 feet above the trail tread and to a minimum width of 8 feet (figs. 4 and 5). A good means for measuring the area to be cleared is for an average height man (6 feet) to stand in the center of the trail tread with arms extended at right angles to the trail (fig 5). Remove all limbs or branches within 1 foot of his hands. Estimate the 10-foot overhead clearing line by having the same man reach as high as he can with an ax. Overhead clearing should permit a man on horseback to ride over the trail without interference when limbs and brush are wet from rain or snow.

For protection against erosion and for the good appearance of the area, leave all healthy trees over 12 inches d.b.h. which will not interfere with loaded pack animals. In sparsely timbered country do not remove any healthy tree over 6 inches d.b.h. except where it interferes with trail traffic and the trail cannot be relocated to eliminate the interference.

Cut trees 3 feet above the ground when stumps will be removed by blasting or pulling. This will provide enough of a stem to give good leverage for pulling with a winch or other device. Remove trees and stumps if the tree roots will interfere with grading. Cut all brush flush with the ground, and treat the roots and stumps with chemicals to prevent sprouts. Cut all snags and dying trees which might fall across the trail. When trees are removed to provide pack clearance, cut as nearly flush with the ground as practical.

Cut off green limbs flush with the tree trunk to permit the cut to heal over. In some instances, it may be justifiable and practical to paint

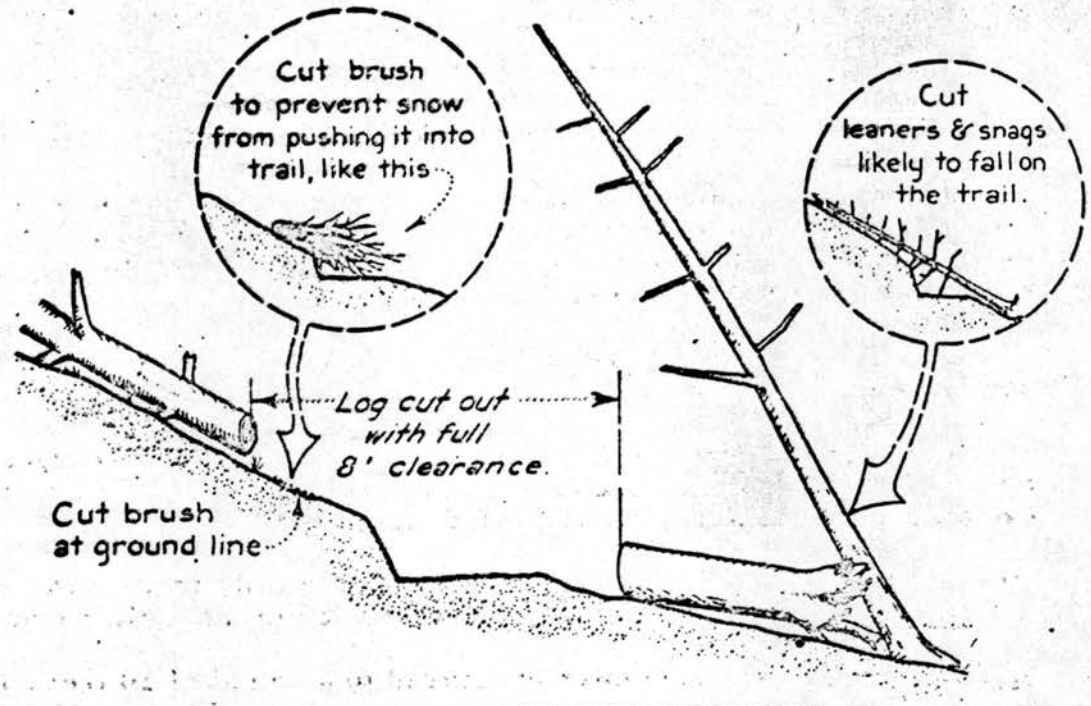


FIG. 4- GOOD CLEARING PRACTICE

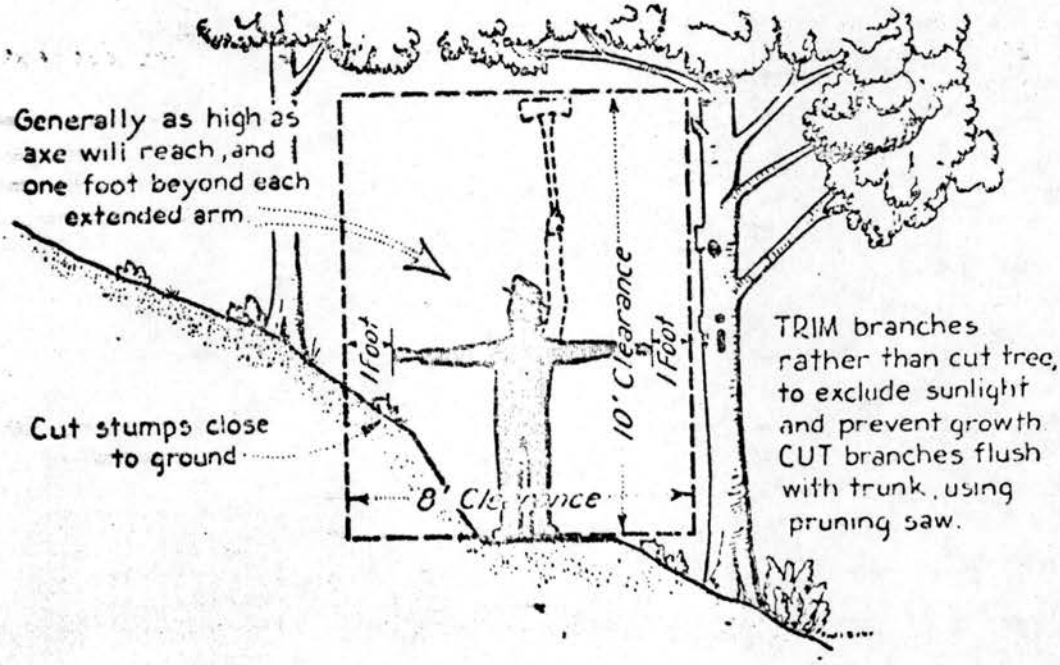


FIG. 5 - GOOD CLEARING PRACTICE

wounds to prevent decay. Widen clearing areas at waterholes, resting places, and scenic points where stock may pass while the riders of one party are dismounted. Widen clearing on the upper side to permit passing at intervals in places where sideslopes are light.

2. Administrative Trails--Class F. These trails will normally be cleared to the same standards as all-purpose trails.

3. Special-Purpose Trails--Class S. Clear special-purpose trails to the limits and specifications necessary to serve the particular use as detailed to serve the indicated forest values.

Where traffic is limited to hikers, clear trails only to the width that will insure an open trail at all times indicated in the maintenance plan.

Stock driveways are customarily cleared to a height of 10 feet and a width of 16 to 20 feet. Do not clearcut stock trails through thickets, but remove all trees that will interfere with driving stock. Prune the remaining trees within the driveway limits to open up the stand so the stock will recognize the driveway as an open lane. Cut all brush and stumps as nearly flush with the ground as is practical with the tools used. Prune all limbs flush with the trunk. Cut all snags and dying trees that may fall in the driveway. Place logs parallel with the driveway.

Ski trails (runs) are cleared to local specifications. See recreation handbook (FSH 2330).

333 - TREAD CONSTRUCTION. Do not unnecessarily disturb the existing ground surface to obtain a trail tread. Construction of sidehill all-purpose and administrative trails usually requires grading a shelf for the trail but if the existing surface provides a suitable tread, leave it undisturbed. This will reduce erosion and maintenance. Whenever practical, form the tread by building up rather than cutting down. Remove all duff before making fills for the tread.

333.1 - Slope Construction

333.11 - Construction Staking. The advantages of adequate construction staking are illustrated in figure 6. Two lines of stakes are required. These are (1) the grade stakes most of which are set by the locator, and (2) the upper slope stakes set at the point where the upper edge of the excavation intersects the existing ground surface. Lower edge of fill slope stakes are not used in trail construction.

The foreman first determines where additional or intermediate grade stakes are needed to mark the established grade or indicate needed drainage dips. Upper slope stakes are set above each grade stake. Take the distance from the grade stake to the upper slope stake from slope tables prepared in accordance with regional or local standards as well as individual project specifications. Read the sideslope with an abney, or estimate it. With a little experience, the foreman can estimate the sideslope within acceptable limits. Measure the distance from the grade stake with a tape, rule, or range pole.

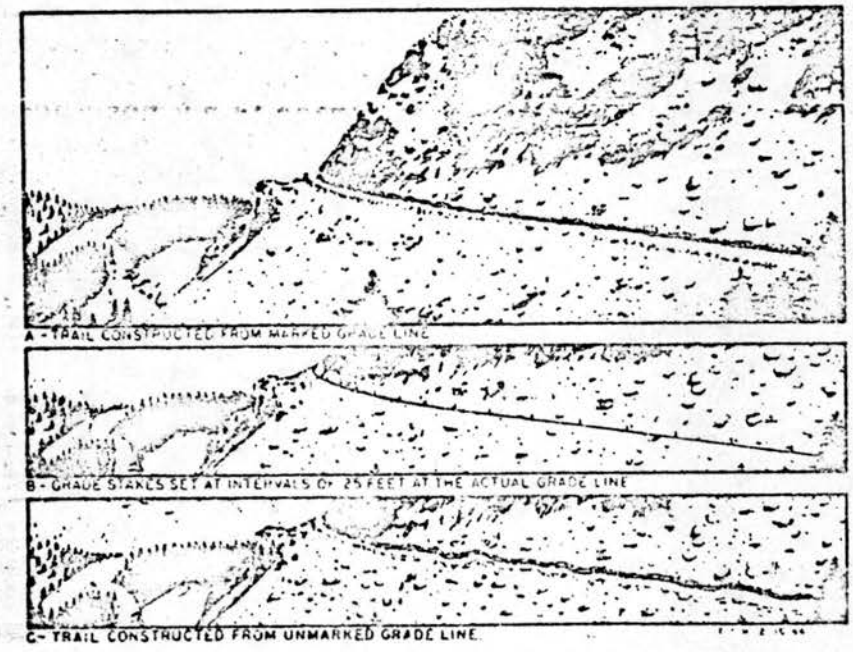


FIG. 6 THE ADVANTAGES OF ADEQUATE CONSTRUCTION STAKING

In setting slope stakes, consider the amount of duff on the ground as being waste material. Set the slope stakes high enough to insure that the full width of the completed trail is in mineral soil. Staking as well as construction work should provide for sloughing and settlement by building the trail a minimum of 6 inches wider than the specified or final "settled" width.

333.12 - Grading. Start grading at the upper slope stake and carry it down to the finished grade. The usual procedure is to "scratch" a continuous line between the upper slope stakes, using a pick or mattock. Remove any excess duff at this time. Begin excavation along this line, using the mechanical grader, a plow and trail grader combination, hand tools, light tractor, or other means. Keep the working surface approximately level or slightly insloped until the final grade is reached.

333.13 - Switchbacks. Avoid switchbacks whenever possible. If unavoidable, construct the turns as flat as possible. On sideslopes of less than 20 percent, treat the switchback as any other section of the trail following a long-radius curve. If this results in the centerline grade being steeper than is desirable, shorten the radius and build a conventional 8-foot radius switchback with the grade of the upper and lower legs meeting at the radius point. Start excavation along the upper slope stake line of the upper leg and carry down to grade at the radius point before starting the lower leg. In order to provide proper drainage, carry these cuts well out beyond the radius point. Then shape and complete the turn area.

333.2 - Turnpike Sections. Build turnpike sections across flats where there is wet or boggy ground. When the ground is so wet that grading work cannot be accomplished and drainage is not possible, import material or use puncheon surfacing. Surfacing of this type is covered in section 335. When drainage is practicable, first drain the area and let it dry before doing further construction. If the area is dry at the time of construction but turnpiking is necessary for trail use during other seasons, the problem is simplified. Cut ditches and build the tread up with the excavated material. Make ditches about 6 feet apart and from 6 to 12 inches deep. Slope the sides to facilitate maintenance. Make ditches self-draining.

333.3 - Other Sections. Level or gently sloping areas that drain readily and will not erode under use require little or no grading. Examples are ridge tops or dry flats. If clearing is required, no other marking is necessary to indicate the trail location. If no construction or clearing is done, the trail must be clearly marked for either day or night use.

333.4 - Mechanical-Powered Grader. Within recent years the mechanical-powered grader has come into general use for trail construction. It is a mechanical device operated by two men, and excavates and removes the material as it proceeds. Its effectiveness in many types of trail-construction work merits consideration in this handbook to the

extent of providing general instructions for its use. Standard machine-operating instructions are supplied with the equipment. The following procedures supply additional guidance in the use of this equipment.

1. In marking the line between the upper slope stakes with a pick or mattock, make the "scratch" line deep enough so the front-end operator, who proceeds backward, can "feel" and follow it with his feet while watching the cutting blade.

2. The forward man is responsible for the depth of cut and the rear operator controls the speed of the machine, speed of the cutter, and operation of the engine.

3. For one operation select a length of section that can be completed in a half day, a stretch between construction control points such as rocky sections, switchbacks, or points where the machine can be readily turned.

4. On normal slopes make the first cut about 3 to 6 inches deep (below the duff) with the rotor turning at sufficient speed to throw the duff well beyond the trail prism.

5. Normally, five passes are necessary to complete the trail. Make the second cut on the inside. Offset the proper distance from the first cut to form the proper backslope. On this cut tilt the machine toward the backslope. Make the third cut along the outside and daylight the second cut. The fourth and fifth cuts repeat the process of the second and third cuts and under normal conditions complete the machine portion of the construction job. On gentle slopes three passes of the machine may be sufficient and on steeper slopes seven trips or more may be necessary.

334 - DRAINAGE. As in all types of earth-grading work, drainage is perhaps the most important item in trail construction, and is often the most neglected. Water must be kept within manageable limits to prevent damage from erosion and keep a trail usable during the travel season. Figure 7 illustrates typical drainage features. The three natural divisions of the drainage job are:

334.1 - Surface Drainage. Surface water is the water from rain or snow that, before the trail was built, flowed in a sheet along the natural ground surface but is now cut off and channeled into the trail. This water will flow along the trail and, if allowed to accumulate above certain critical combinations for soil type and water velocity, will erode the trail surface.

The problem is solved by diverting the water from the trail at sufficiently close intervals before it builds up an erosive force. In trail construction, the methods of diverting the water are by outslope, grade dips, and water bars.

Outslope of the tread is probably the best method and the one most commonly used. This method requires periodic maintenance of the tread to prevent the formation of a rut and channel in the trail. Outslope should not exceed 1 inch in 18 inches except at dips, where it should not exceed 4 inches in 18 inches. Outslope is most satisfactory when used in combination with grade dips.

Grade dips are sections of trail where a shorter piece, generally not over 5 to 6 feet, has been built with a grade slightly adverse to the prevailing grade of the trail. This prevents the flowing water from passing that point. The trail is steeply outsloped at the low point in the dip to divert the water from the trail. Grade dips are most satisfactory when they are built into the original construction and the designed grade allows for the adverse grade. When grade dips are built into an existing trail, the upper portion generally is too steep for proper maintenance. Instead of building dips in an existing trail, it is customary to build water bars.

Water bars are generally made with a 6- to 8-inch diameter log laid at a slight angle to the trail and fastened in place with heavy stakes, posts, or steel pins (Fig. 8). Install concrete water bars cast from best local materials available when long-lived native logs are unavailable. Light rods or old No. 7 or No. 9 telephone wire may be used for reinforcing.

Downgrade from the water bar, make the tread flush with the top of the log. Upgrade, make the tread approximately at the center of the log. Immediately above the water bar, slope the outer edge of the trail outward to permit release of the water. Since water bars cannot be used that will accommodate scooter or duffel carrier traffic, provide culverts where outslopes (with or without dips) are not practicable.

Any provision for the discharge of surface water must include precautionary measures that will prevent silting, erosion, or gullying of areas off the trail.

In many instances, lead ditches along the upper side of the trail (above the backslope) will divert surface (or subsurface) water to a culvert or other outlet and eliminate the need for a number of dips and outslopes.

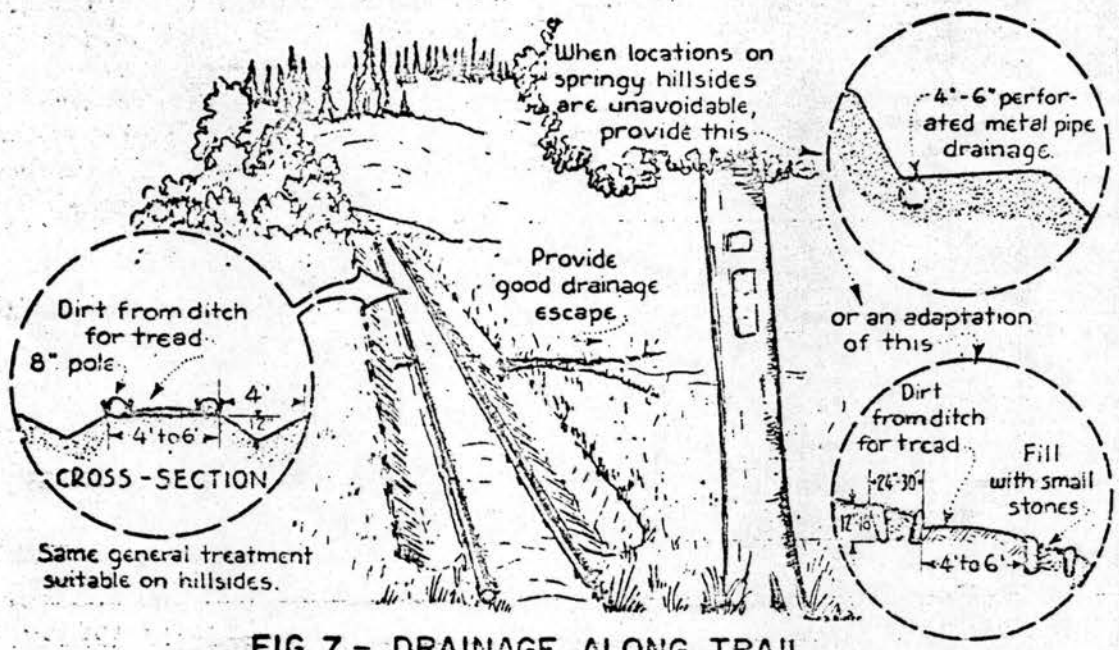


FIG. 7 - DRAINAGE ALONG TRAIL

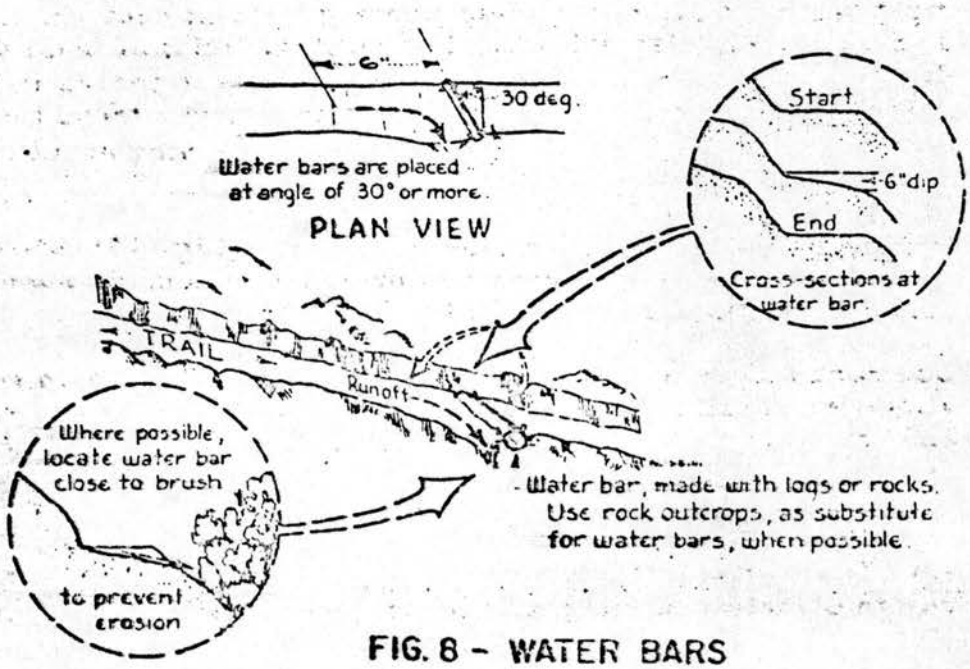


FIG. 8 - WATER BARS

336 - STRUCTURES. Hold the use of structures in trail construction to the minimum and assure that each case has ample economic justification. Labor is handicapped by lack of the heavy equipment normally used for the work. Men adept in the primitive skills of log and rockwork are hard to find today, or are often too old to endure the working conditions on trail construction. Transportation of sawn timbers and cement by pack string, duffel carrier, or helicopter is costly. Consider these factors in construction estimates of both money and time when work is programed.

336.1 - Bridges. Build bridges only after determination that this is the most practicable means of providing safe crossings. No bridges will be built on new or relocated trails likely to be in service indefinitely until the forest engineer determines the most economical permanent type installation and provides plans.

Ordinarily limit the type of bridge built as a part of the trail job to the single-span stringer bridge (Fig. 10). Sample plans are available for use of construction foremen. Where other types of bridges are required, they are built as a special project to replace another type of crossing in an existing trail. Ask the regional forester for the advice and assistance of skilled bridge designers when constructing truss bridges, cableways, suspension bridges, and simple spans that require spans greater than 36 feet. In all cases study drainage areas, estimated runoff, and high-water marks to be sure that ample opening is provided.

Five feet net clearance between curb logs is the standard width for bridges on all-purpose and administrative trails. That width is exceeded only when large stringers or the use of handrails require it in order to get proper clearance. Where snow load is excessive, it may be desirable to build bridges narrower than 5 feet. Place flooring at right angles to stringers. Use flooring at least equal in strength to a 3" x 12" plank. Use half-round or split material at least 4 inches in depth, and use round unsplit material at least 6 inches in diameter. Where round material is used as flooring, hew a tread along the center 2 feet of the bridge and be sure that the remaining uncut portion of the deck logs is at least 4 inches in depth.

Ordinarily, the box girder type foot bridge (Fig. 11) will be satisfactory for hiker trails. Galvanized prefabricated cable suspension bridges are also used for foot traffic.

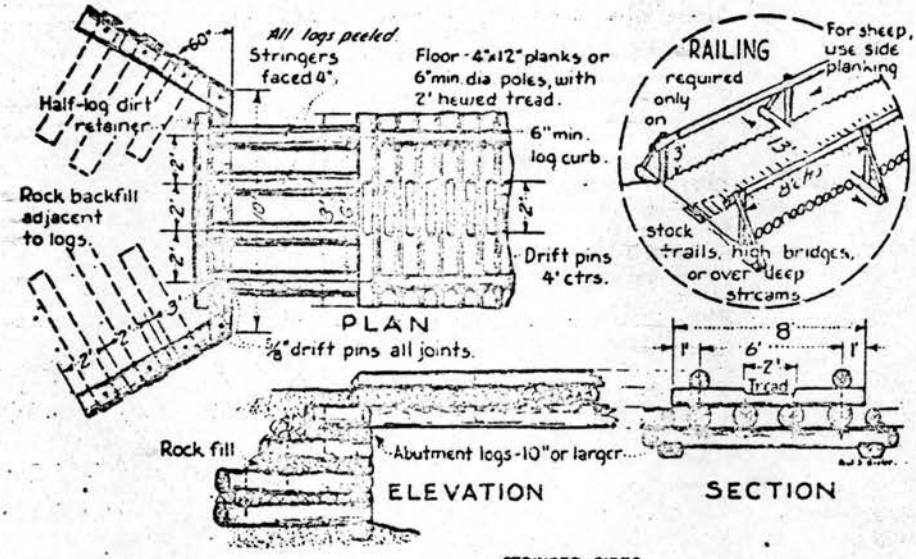
Use rock ledges or rock-filled cribs (Fig. 10) for abutments and piers whenever possible. Make rock fills around logs to permit drainage and retard decay. Peel all logs to retard decay. Do not cover bridge decks with dirt.

The table in figure 10 indicates the minimum number and dimension of sawed and round stringers for stringer-type bridges. Normally, supply this information to the construction foreman as a part of the trail plans.

but there may be cases where the bridge span will vary from the plans, and this table will then be of value to the foreman.

The table in figure 10 is based on a maximum bending stress of 900 pounds per square inch for round timbers, and 1,200 pounds per square inch for sawed timbers. Allowable shear stress for all timber is 120 pounds per square inch. Structures are designed to carry a uniform load of 400 pounds per lineal foot of span.

The dimensions in the table are adequate for any of the species commonly used in trail bridge construction. The basic rule is to use the best species of native timber available. For example, lodgepole pine would not be used if Douglas-fir or larch is readily available and can be hauled by the equipment on the project. Do not use such short-life species as white fir unless it is the only material available and is treated with a preservative that can be applied on the job.

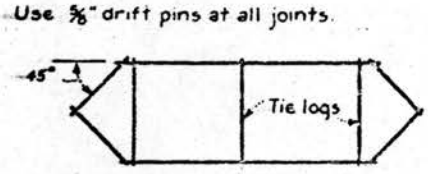


LOG STRINGER TRAIL BRIDGE

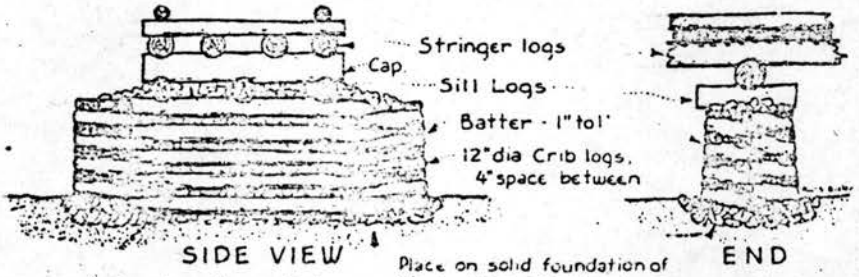
STRINGER SIZES

SPAN	3 STRINGERS		4 STRINGERS		5 STRINGERS	
	Sawn *	Round	Sawn *	Round	Sawn *	Round
8'	3x6	6"Ø	3x6	5"Ø	3x6	5"Ø
10'	3x6	7"	3x6	6"	3x6	6"
12'	3x8	7"	3x8	7"	3x8	7"
14'	4x8	8"	3x10	8"	3x8	8"
16'	4x10	9"	3x10	8"	3x10	8"
18'	6x8	10"	3x12	9"	3x12	9"
20'	6x10	11"	3x12	10"	3x12	10"
22'	6x10	11"	4x12	11"	4x12	10"
24'	6x12	12"	6x12	12"	6x12	11"
26'	6x14	13"	6x12	12"	6x12	12"
28'	6x14	14"	6x14	13"	6x12	13"
30'	6x16	14"	6x14	14"	6x14	13"
32'	6x16	15"	6x16	14"	6x14	14"
34'	—	16"	8x16	15"	6x16	15"
36'	—	16"	8x16	16"	8x14	16"

* Sawn stringers are rough



PLAN DIAGRAM



PIER FOR TRAIL BRIDGE

FIG. 10 - TRAIL BRIDGES

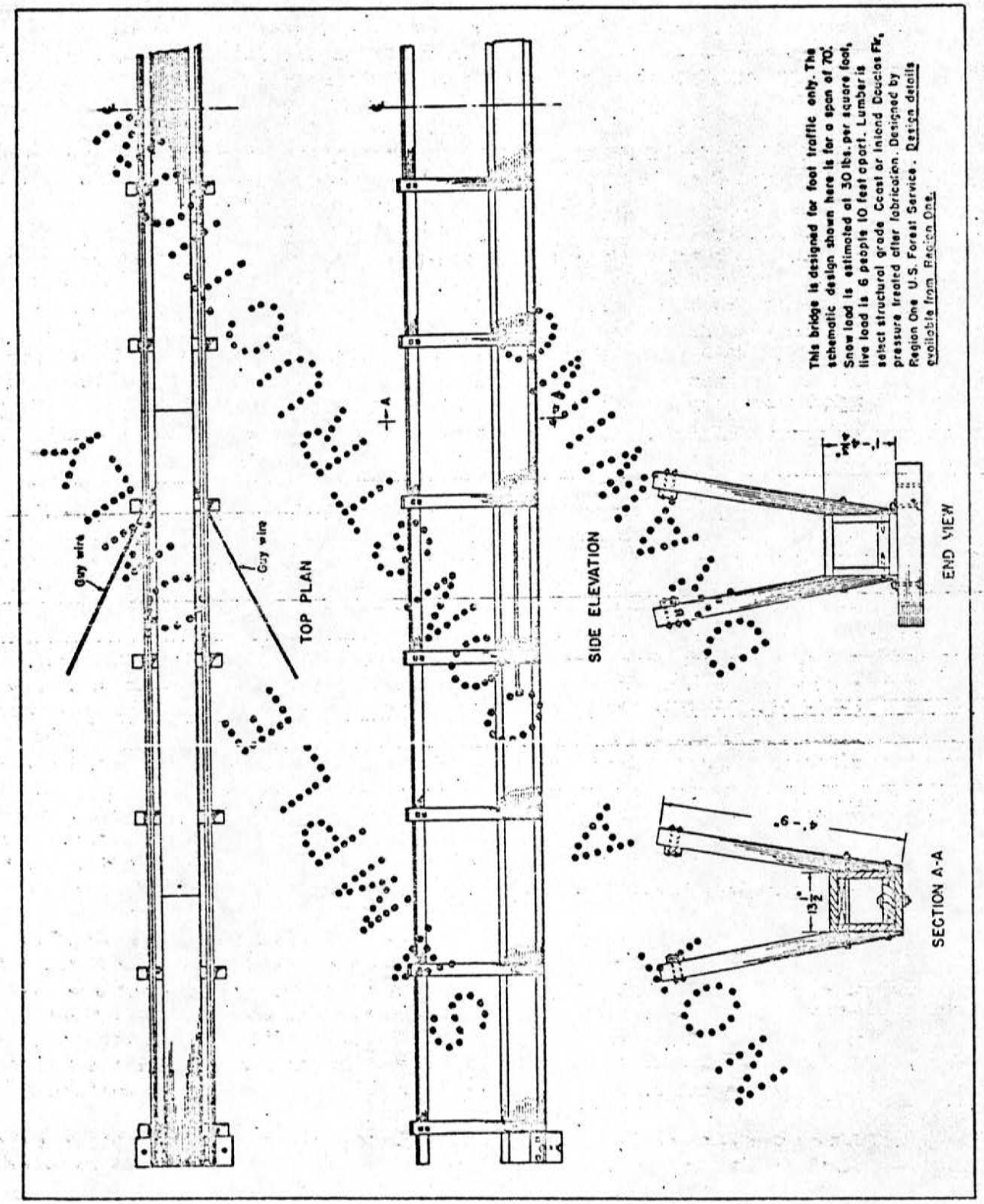


Figure 11.--Kahl trail footbridge. Box girder type. Douglas-fir lumber.--*

336.2 - Cableways. Cableways are used for crossing very wide streams where carriages are the means of hauling personnel and supplies. They are also an excellent means of getting mechanical duffel carriers or grading equipment across streams.

A long cableway with a carriage is classed as a major structure and must be designed and built to rather rigid, carefully drawn specifications and plans. A light cableway for moving duffel carriers over a stream can usually be built by stretching a small cable (1/2 to 5/8 inch) between two trees, one on each side of the stream. Loop the cable twice around each tree, then draw taut and fasten with cable clamps. Make the cable high enough so that the sag at the center will permit a dry crossing for a fully loaded duffel carrier. The sag should not be less than one-tenth of the length of span, otherwise the stresses will be excessive. If the sag is excessive, however, the crossing will be difficult since the load must be pulled up the steep cable. Provide some means of elevating the carrier to the cableway and fastening it to the trolley sheaves. A multiline block-and-tackle arrangement that can be left at the crossing or kept in the carrier is satisfactory.

336.3 - Fords. Fords are generally selected rather than constructed, but there are times when some improvement of the stream channel is required to provide good footing. Often fords are necessary in conjunction with a bridge, with the bridge for the foot, scooter, and duffel-carrier traffic, and the ford for pack and saddle-horse traffic.

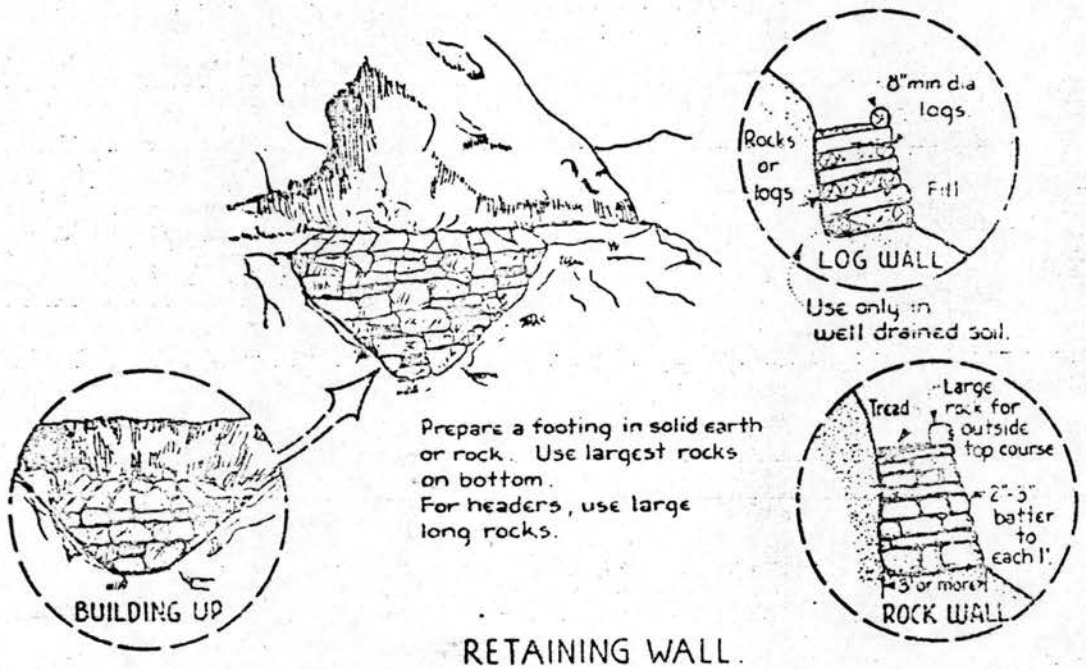
The tread across a ford often can be improved by pulling the larger rocks into a line across the stream parallel with the trail and below the downstream edge of the crossing. This allows sand and gravel to deposit above the barrier and develop a smooth level tread. In other places, move the larger rocks out of the way to clear the way to traffic.

Mechanical duffel carriers can ford water to about a foot depth on a solid bottom. Where the depth of the water exceeds 1 foot during the travel season, provide a bridge or cableway for taking scooters and duffel carriers across the stream.

336.4 - Retaining Walls. Retaining walls are structures of wood or stone designed to stabilize trail tread on a sideslope where normal "full bench" excavation would be uneconomical (Fig. 12). Do not use logs or other untreated wood if satisfactory rocks are available, and use neither unless completely justified. A good solid foundation is essential for a retaining wall, and in many cases the excavation for the foundation approaches the amount required to build the trail in firm material.

Make the rock wall thickness at the base at least one-half of the height of the wall, or a minimum of 2 feet. Make the outer edge of the completed trail on a retaining wall at least 6 inches higher than the inside edge. Use only rocks which are sound, durable, and have a good bearing surface. In the body of the wall, use the largest rocks that are

readily available and can be handled safely. Use smaller rocks for chinking. Never use round rocks in a dry wall, and carefully key them together in a mortar-filled wall. Stagger joints in the wall. At least one-fourth of the front and rear faces of the wall should be header rocks having a length at least 2-1/2 times their thickness. Lay all headers with their greatest dimension extending into the wall and never parallel to it, except at corners where alternating headers should cross. Remove all projecting points from the top and bottom of main rocks so that each is laid with a good bearing on its broadest face. On the outer face of the wall, put an inward slope of at least 3 inches to every foot of height. The wall should have a front and rear face, well tied together with header stones. Never build a dry wall by laying up a face course of good rock and filling behind it with small rocks and dirt as the wall is built up.



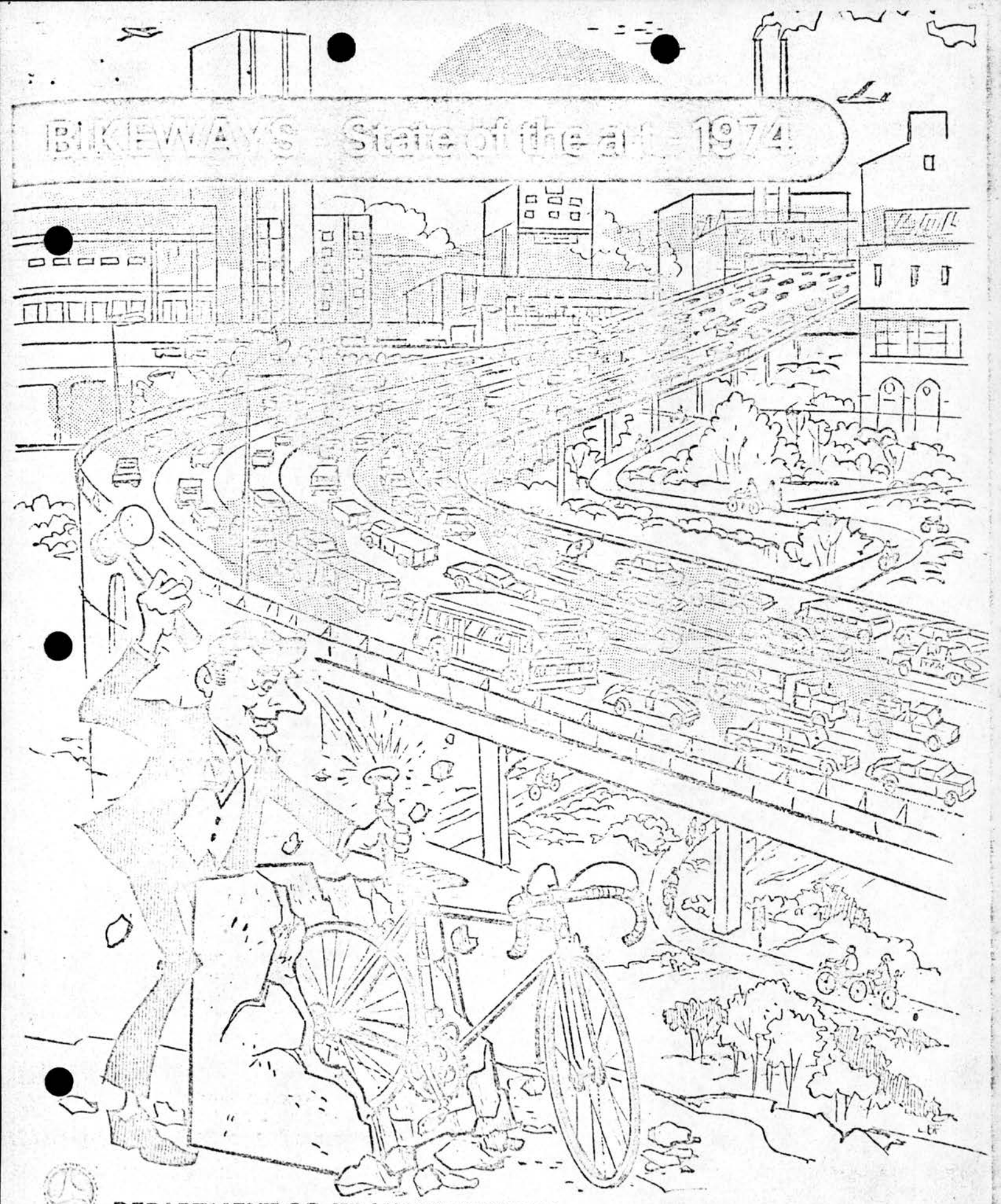
RETAINING WALL.

FIG. 12

336.5 - Shelters. Shelters may be constructed if weather, insects, or marauding animals justify them for trail maintenance crews. Use standard building plans. If such a structure is needed, build it during the original construction of the trail to permit its use by the construction as well as by the maintenance crews. Select the location of these structures to provide a work center for the trail maintenance crews and a convenient access to a reasonable volume of trail maintenance work.

337 - SAFETY. All applicable sections of the Forest Service Safety Code must be followed in trail construction. Crews engaged in this class of work must be in good physical condition when they are hired. They will be trained or tested to assure that they are able to use com-

BIKEWAYS - State of the art - 1974



DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

FHWA-RD-74-56

TECHNICAL REPORT STANDARD TITLE PAGE

1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.
FHWA-RD-/4-56		

4. Title and Subtitle	5. Report Date
BIKEWAYS. State of the Art, 1974.	July 1974
	6. Performing Organization Code

7. Author(s)	8. Performing Organization Report No.
Dan Smith, Jr.	

9. Performing Organization Name and Address	10. Work Unit No.
DeLeuw Cather and Company 120 Howard Street San Francisco, California 94120	FCP 31E3022
	11. Contract or Grant No. DOT-FH-11-8134
	13. Type of Report and Period Covered

12. Sponsoring Agency Name and Address	
Federal Highway Administration U. S. Department of Transportation Washington, D.C. 20590	Final Report 14. Sponsoring Agency Code

15. Supplementary Notes
FHWA Contract Manager - John C. Fegan

16. Abstract

The recent phenomenal growth of bicycling activity has been paralleled by accelerating concerns for increases in bike-involved accidents and demands for good recreational and utility-oriented facilities on which to ride. All jurisdictional levels have responded with enforcement, development of bikeway locational and design criteria, and provision of physical facilities. Unfortunately, U.S. planners and designers were generally unprepared to deal with the bicycle and programs were based largely on intuitive judgements, European experience and trial and error. Results of initial experiences in various localities are now becoming available. This "State of the Art" report focuses on planning and design practices employed to date, reviews their successes and failures, outlines practices which appear to contribute to bicycle facility utility and safety, and identifies design pitfalls.

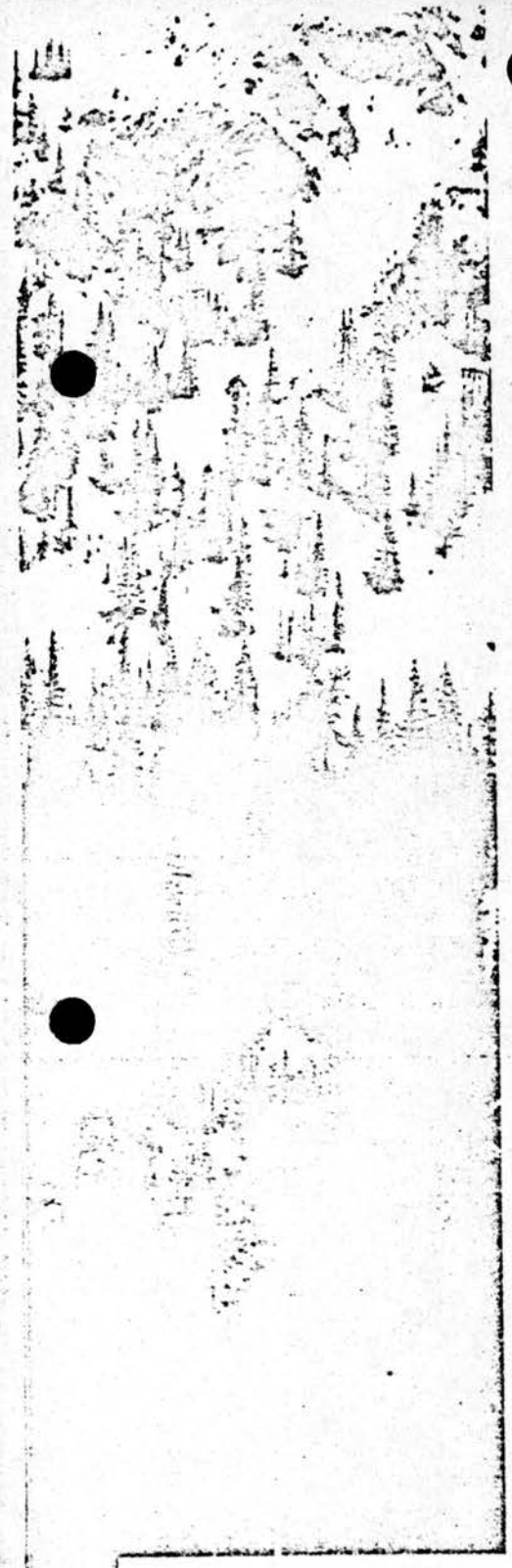
17. Key Words	18. Distribution Statement
Bicycle Bikeway Bike Lane Bike Route	No restrictions. This document is available to the public through the National Technical Information Service, Springfield, Virginia 22151

19. Security Classif. (of this report)	20. Security Classif. (of this page)	21. No. of Pages	22. Price
Unclassified	Unclassified	97	

Form DOT F 1700.7 (8-69)

snow avalanche sites

their identification and evaluation



snow avalanche sites
their identification and evaluation

M. Martinelli, Jr.

Avalanches are common in many mountain areas and often threaten lives and damage property. Persons who plan to build new facilities or expand or relocate old ones should know how to recognize potentially dangerous sites. This bulletin describes and illustrates avalanche-prone areas and recommends a checklist to help evaluate field evidence of avalanche activity.

Some avalanche paths, like those on the cover, are obvious even to the uninitiated.

Other paths, like the one pictured here in the trees to the left of the obvious path, are hard to find, even by experienced observers. Avalanches in this scattered timber have killed people.

NOTE: Cover photo is of the 160 Group of avalanches, Wolf Creek Pass, Colorado. The inside cover photo is of Floral Park Avalanche, Berthoud Pass, Colorado.
Cover: F-521844
Inside cover: F-521826

Issued February 1974

The guidelines given here should enable most observers to locate all but the most obscure avalanche paths and to make a general estimate of avalanche frequency. Avalanche frequency can be determined with accuracy only where good occurrence records are available.

reading list

If you would like to learn more about avalanches, the following publications may be of interest:

1. Atwater, Montgomery M.
   1968. The avalanche hunter. 223 p. Macrae Smith Co., Philadelphia.
   A very readable account of the experiences of the first snow ranger in the U.S. Avalanche forecasting and control information from several ski areas in North and South America and from mining operations in the Andes.

2. Brower, David, ed.
   1962. Manual of ski mountaineering. 224 p. Sierra Club, San Francisco.
   Good general treatment of all aspects of living and moving about in mountainous terrain in winter.

3. Fraser, Colin.
   1966. The avalanche enigma. 301 p. John Murray, London.
   A nontechnical account of the processes within the snow cover that lead to avalanches, plus a reconstruction of avalanche disasters to illustrate some of the technical points. Based on experience in the Swiss Alps.

4. Frutiger, Hans.
   1964. Snow avalanches along Colorado mountain highways. U.S. For. Serv. [USDA] Res. Pap. RM-7, 85 p. Rocky Mt. For. and Range Exp. Stn., Fort Collins, Colo.
   Illustrations and descriptions of 80 avalanche paths along Highways 40, 6, 160, and 550 in Colorado.

5. Gallagher, Dale, ed.
   1967. The snowy torrents. U.S. For. Serv. [USDA] Alta Avalanche Study Cent. Wasatch Natl. For. Available from the Rocky Mt. For. and Range Exp. Stn., Fort Collins, Colo. 80521.
   Details on avalanche accidents in the United States from 1910 to 1966.

6. International Association of Scientific Hydrology.
   1966. International symposium on scientific aspects of snow and ice avalanches [Davos, Switzerland, Apr. 1965]. Rep. and Discuss. IASH Publ. 69, 421 p.
   Forty-five articles on all aspects of avalanches. A good picture of the current state of research on avalanches throughout the world.

7. LaChapelle, E. R.
   1961. The ABC of avalanche safety. Colorado Highlander, Boulder.
   A pocket manual of important principles for travel in avalanche terrain.

8. Manning, Harvey, ed.
   1967. Mountaineering the freedom of the hills. 485 p. The Mountaineers, Seattle.
   Good coverage of all aspects of mountaineering in winter and summer with chapters on travel in avalanche terrain and mountain weather conditions.

9. Mellor, Malcolm.
1968. Avalanches. *In* Part III-A 3d, Cold Regions Sci. and Eng. 295 p. Cold Regions Res. and Eng. Lab., Corps. Eng., U.S. Army, Hanover, N.H.
A comprehensive "state-of-the-art" coverage of the entire subject from formation of snow in clouds to the destructive force of avalanches.

10. Oura, Hirobumi, ed.
1967. Physics of snow and ice. *In* Physics of Snow and Ice, Int. Conf. Low Temp. Sci. [Sapporo, Japan] Proc. 1966, Vol. 1, Part 2.
Over 50 scientific articles on many aspects of snow and avalanches.

11. Perla, R. I.
1968. Modern avalanche rescue. U.S. For. Serv. [USDA] Alta Avalanche Study Cent. Wasatch Natl. For., 19 p. Available from: Rocky Mt. For. and Range Exp. Stn., Fort Collins, Colo. 80521.
Gives most up-to-date rescue techniques for recovering avalanche victims.

12. Seligman, G.
1936. Snow structures and ski fields. 555 p. Macmillan and Co., Ltd., London, [Reprinted Ed., 1962. Jos. Adam, Brussels.]
This hard-to-find book is one of the best on avalanches in any language.

13. USDA Forest Service.
1970. Snow avalanche: General rules for avoiding and surviving snow avalanches. Reg. 1, Missoula.
A free pamphlet, available from USDA Forest Service, Federal Building, Missoula, Mont. 59801.

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402 • Price 50 cents
Stock Number 0100-0232

☆ U.S. GOVERNMENT PRINTING OFFICE: 1974 O--507-986

Research Bulletin

263

July 1974

Tree-Covered Land-Forms For Noise Control

by

David I. Cook
David F. Van Haverbeke

The Forest Service
U.S. Department of Agriculture
Cooperating With
The Agricultural Experiment Station
Institute of Agriculture and Natural Resources
University of Nebraska – Lincoln
H. W. Ottoson, Director

CONTENTS

Foreword 1
Summary 2
Introduction 3
Chapter I: Facilities, Equipment, and Procedure 6
Chapter II: Experimental Results 12
- Tree-Covered Land-Forms 12
- Bare Land-Forms 14
- Actual "Live-Sound" Tests 15
- Octave-Band Analysis 16
- Special Application Study—Site 4—I-80 Rest Area 19

Chapter III: Statistical Analysis 21
- Site 1: Hastings Tape-Recorded Sound 22
- Sites 2 and 3: Milford Highway Cuts and Fills 31

Chapter IV: Observations and Conclusions 34
- Tree-Covered Land-Forms 34
- Bare Land-Forms 35
- Tree-Cover Effect 36
- Land-Form Height Effect 36
- Wind Effect 36
- Trees vs. Land-Form Considerations 37
- Limitations and Requirements of Outdoor Noise Control 38
- Establishing Trees and Shrubs on Land-Forms 38

Recommendations 40
Appendix A—Glossary of Technical Terms 42
Appendix B—Selected List of Trees and Shrubs 44
Appendix C—References 46

Issued July 1974, 4,200

FOREWORD

This study, an extension of a previous study titled "Trees and Shrubs for Noise Abatement" (11), was conducted jointly by the University of Nebraska–Lincoln and the Forest Service, U.S. Department of Agriculture. The objective was to determine means for controlling intrusive noise by combining trees and shrubs with land-forms or other solid barriers. The solid barriers would provide some immediate relief, and the plant materials would increase the protection as they matured.

Personnel conducting the research were Professor David I. Cook, Department of Engineering Mechanics, principal investigator; Dr. David F. Van Haverbeke, Research Forester, Rocky Mountain Forest and Range Experiment Station, and Mr.. Thomas J. Von Aschwege, student of Civil Engineering, University of Nebraska. Statistical analysis of the data was under the direction of Dr. Jacob L. Kovner, Biometrician, Rocky Mountain Forest and Range Experiment Station. Credit is due Dr. Carl Berntsen, Assistant Director of the Rocky Mountain Station for encouragement in extending the preceding study to this one, to Ralph A. Read, Project Leader, for providing support services, and to R. H. Hamre, Rocky Mountain Station editor, for reviewing the manuscript.

The Rocky Mountain Forest and Range Experiment Station is headquartered in Fort Collins in cooperation with Colorado State University. Dr. Van Haverbeke is stationed in Lincoln in cooperation with the University of Nebraska.

SUMMARY

Combinations of trees, shrubs, and solid barriers are effective means for shielding sensitive areas from intrusive noise. Reductions of sound levels in the order of 10 to 15 decibels (less than half as loud) are common for 12-foot-high land-forms combined with wide belts of tall trees. Greater reductions have been observed in many instances.

Trees and solid barriers appear to be complementary in reducing noise levels. Either trees or solid barriers may be used separately, but the combination tends to provide more uniform control for a greater distance than does either one alone.

Relative placement of the barrier between the noise source and the protected area is of great importance, as is the overall sound propagation distance. Generally, a barrier placed close to a noise source is more effective than one placed midway between source and receiver.

Screening is effective only when the noise source is hidden from view at the protected area, and the effectiveness increases as the height of the screen is increased. Optimum heights are suggested for several applications, and brief instructions for establishing trees and shrubs on land-forms have been included.

esearch Bulletin

246

July 1971

Trees and Shrubs For Noise Abatement

by

David I. Cook

David F. Van Haverbeke

The Forest Service
U.S. Department of Agriculture
Cooperating With
University of Nebraska College of Agriculture
The Agricultural Experiment Station
E. F. Frolik, Dean; H. W. Ottoson, Director

CONTENTS

Page

Foreword 2
Summary 2
Introduction 3
Chapter I Equipment and Facilities 6
Chapter II Research Approach and Procedure 8
Chapter III Results of Experiments 10
- Major Belt Tests 10
- Comparative Surface Tests 30
- Longitudinal Propagation Within Belt 30
- Octave Band Analysis of Selected Belts 30
- Belt Location Tests 43
- Urban Residential Area Tests 43
- Statistical Analysis 51

Chapter IV Observations and Conclusions 54
- Factors Affecting Noise Reduction 54
- Surface Considerations 57
- Atmospheric Gradients 59
- Placement of Tree Belts 60
- Acceptable Noise Levels 61
- Value of Trees as Noise Screens 62
- Limitations on the Use of Trees and Shrubs as Noise Screens 63
- Observations and Conclusions from the Statistical Analysis 65

Chapter V Recommendations 67
- Current Applications 67
- Future Study 68

Appendix A — Glossary of Technical Terms 68
Appendix B — Illustrative Solved Problems 70
Appendix C — Common and Scientific Names of Plants Mentioned 73
Appendix D — References 75

Issued July 1971, 4,200
Reprinted December 1971, 3,000
Reprinted February 1972, 3,000
Reprinted April 1972, 3,000
Reprinted September 1972, 3,000

FOREWORD

The study, "Trees and Shrubs for Noise Abatement," was a joint effort by the University of Nebraska and the U.S. Forest Service. The principal objective was to determine effective means for reducing traffic noise levels by the use of trees and shrubs, wherever intrusive noise is a problem.

Personnel serving in the project were Professor David I. Cook, Department of Engineering Mechanics, principal investigator; Dr. David F. Van Haverbeke, Research Forester, Rocky Mountain Forest and Range Experiment Station, USDA; and Mr. Thomas L. Young, student of Architecture and Community Planning, University of Nebraska. Data were analyzed at the University of Nebraska Computer Center under the direction of Mr. Richard L. Kiger.

Credit is due Mr. Lloyd Hayes, Assistant Director of the Rocky Mountain Forest and Range Experiment Station (retired) for efforts in getting the project underway; Ralph A. Read, Project Leader, Rocky Mountain Forest and Range Experiment Station, for assisting in preliminary studies and reviewing the manuscript; Dr. John C. Barber, Chief, Branch of Forest Genetics, Division of Timber Management Research, U.S. Forest Service, for negotiating the supporting grant by the Forest Service to the University of Nebraska, and Dean John R. Davis for assisting in the final negotiations and in the preparation of the original budget request.

Credit is also due Dr. Gordon Banerian and his staff, Office of Noise Abatement, Department of Transportation, for reviewing the report.

The Rocky Mountain Forest and Range Experiment Station is headquartered in Fort Collins in cooperation with Colorado State University. Dr. Van Haverbeke is stationed in Lincoln in cooperation with the University of Nebraska.

SUMMARY

The potential value of trees and shrubs, as determined from a study of a variety of shelterbelts and urban screen plantings in southeastern Nebraska, appears to be very good. Reductions of sound levels (attenuations) in the order of 5 to 8 decibels are common, and attenuations of 10 decibels (approximately half as loud) are not unusual for wide belts of tall, dense trees.

When the difference in level is based on a comparison of tree-shrub-grass combinations with hard surfaces, the worth of trees and shrubs is even more evident and attenuations of 8 to 12 decibels are common. Occasional reductions of 15 decibels or greater (⅓ as loud) have been noted but these are attributed to exceptionally advantageous temporary atmospheric conditions.

The relative effects of tree species, height and belt width are discussed in some detail. In general, wide belts of tall trees are most effective. Species do not appear to differ greatly in their ability to reduce noise levels, provided deciduous varieties are in full leaf. Thus, evergreens are desirable for year-round noise screening.

Relative placement of noise screens between sound source and protected area is of great importance; a screen placed relatively close to a noise source is more effective than one placed close to an area to be protected.

Urban residential property was effectively screened from passenger car noise with a single row of dense shrubs backed by a row of taller trees, totaling a depth of 20 feet. Screening for rural areas or freeways, where large trucks account for much of the noise, requires wider belts consisting of several rows of tall trees in dense plantings. Distances of 100 feet or more between noise source and the area to be protected are therefore desirable.

Later phases of the study emphasized the desirability of combining trees with softer surfaces (grass) as opposed to hard surfaces (crushed rock, gravel, pavement) in reducing noise levels.

Trees and Shrubs For Noise Abatement

By David I. Cook[1]

David F. Van Haverbeke[2]

INTRODUCTION

Excessive noise is a form of environmental pollution. The continual increase in the community noise level during the past two decades indicates a future noise problem comparable to the current air pollution problem of our large industrial centers.

Trees and other forms of vegetation are known to have some effect on the transmission of sound but precise information on their use as noise screens is rather meager. In this study, we attempted to derive accurate, useful information for the above purpose, and to add to

[1] David I. Cook is Professor of Engineering Mechanics.

[2] David F. Van Haverbeke is Associate Professor of Horticulture and Forestry.

PB-222 703

FUNDAMENTALS AND ABATEMENT OF HIGHWAY TRAFFIC NOISE

BOLT BERANEK AND NEWMAN, INC.

PREPARED FOR

FEDERAL HIGHWAY ADMINISTRATION

JUNE 1973

Distributed By:

NTIS

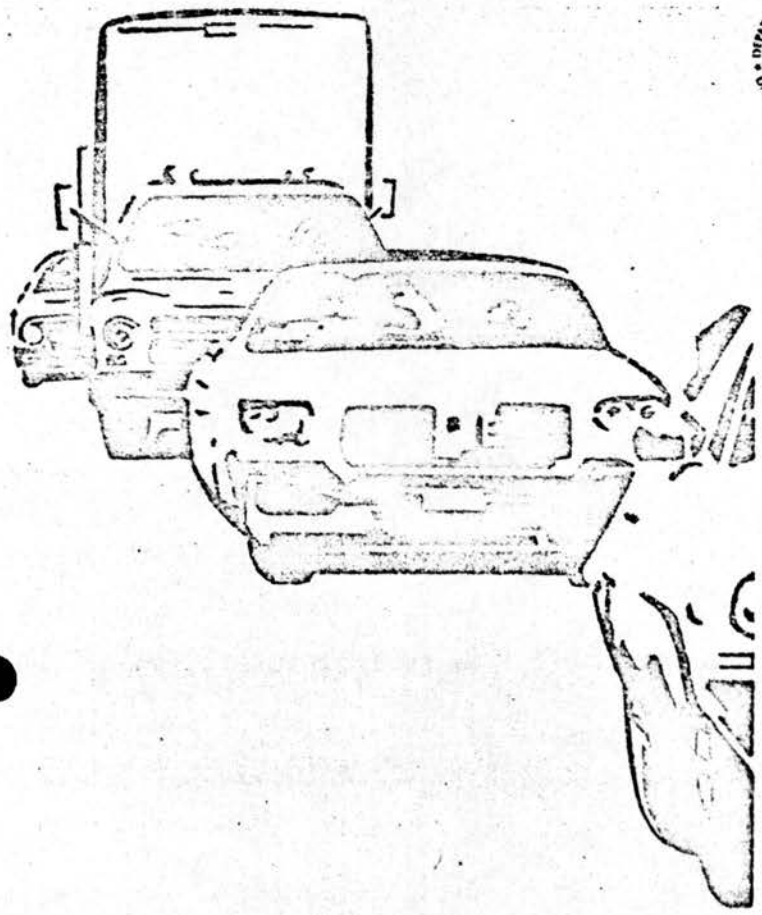
National Technical Information Service
U. S. DEPARTMENT OF COMMERCE

Volume Two

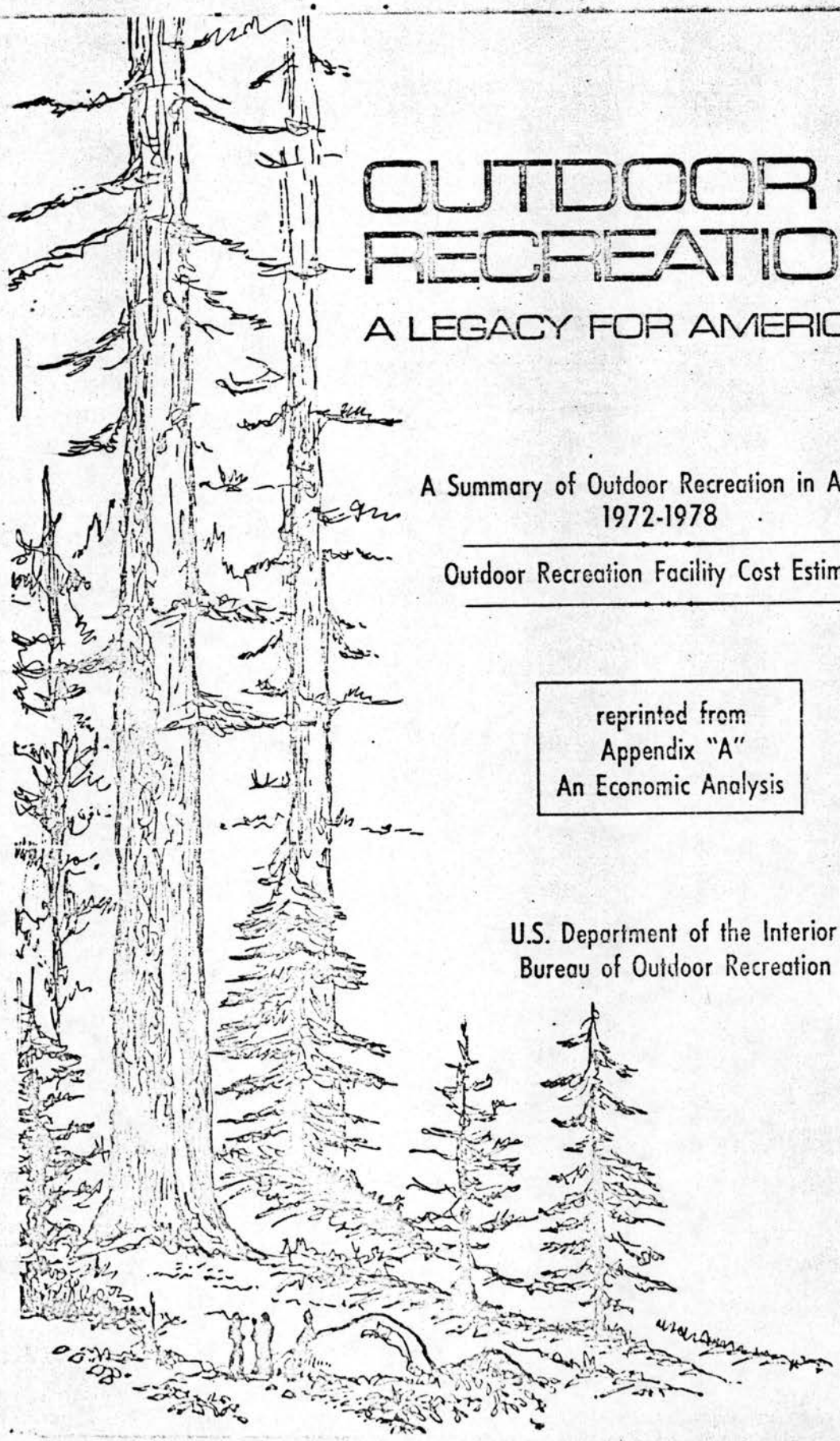
Fundamentals and Abatement of Highway Traffic Noise

NOISE BARRIER DESIGN AND EXAMPLE ABATEMENT MEASURES

U.S. DEPARTMENT OF TRANSPORTATION
Federal Highway Administration
National Highway Institute



April 1974



OUTDOOR RECREATION

A LEGACY FOR AMERICA

A Summary of Outdoor Recreation in America
1972-1978

Outdoor Recreation Facility Cost Estimates

reprinted from
Appendix "A"
An Economic Analysis

U.S. Department of the Interior
Bureau of Outdoor Recreation

Outdoor Recreation Facility Cost Estimates

Outdoor Beach Area

In table 14 the total construction cost of $186,400, $13.98 per sq. yd., for the beach area is broken down into two segments—beach and buffer zone. The beach is 600 feet long and 200 feet wide with a 100-foot-wide buffer zone directly behind for installation of tables.

Table 15 indicates a total estimated annual operating cost of $67,000 or $5.03 per sq. yd. Wages and payroll overhead account for 64 percent of this cost and the remaining 36 percent is for operating supplies, equipment, utilities, and the 50-year capital recovery payment.

Campgrounds

Total construction cost for a tent campground is $676,200 or $3,381 per site, and $763,500 or $3,818 per site for a trailer campground as shown in table 16. The topography of the area will vary the road construction cost per mile and the amount of road surface needed.

An allowance of $50,400 is made in the trailer campground for electrical receptacles and sanitary connections.

Wages and payroll overhead account for less than 50 percent of the operating cost as shown in table 18. A 50-year capital recovery payment at 10 percent of $77,700 and $68,200 is included for the trailer and tent camp site, respectively. Operating figures represent a median value based on 270 days per year.

Trails

Below is a summary of construction and operating costs presented in tables 19 through 26 for hiking, bicycling, nature, and horseback riding trails.

	CONSTRUCTION COST		OPERATING COST	
	Total	Per Mile	Total	Per Mile
Hiking	$226,800	$9,257	$64,700	$2,641
Bicycling	65,900	21,967	16,800	5,600
Nature	49,500	24,750	15,200	7,600
Horseback riding	246,400	12,320	66,600	3,330

In estimating the cost of trails, the following was used:

	Cost per linear foot	Width of trail, feet
Hiking	$0.75	3
Bicycling	1.75	6
Nature	1.25	6
Horseback riding	1.25	10

Boating Facilities

Boating facilities are shown for two types—ramps and marinas. Table 27 indicates a construction cost of $64,800 for a boat ramp with a 50-foot dock and table 29 shows a construction cost of $190,300 for a 100-boat capacity marina. Both the marina and ramp provide sanitary facilities for waste disposal from boats and comfort station, and the marina has a building for boat storage during the winter.

Annual operating cost for a boat ramp is $21,100 and for a marina, $73,900, as detailed in tables 28 and 30 respectively. A shop mechanic and two security guards represent a major portion of the difference.

Picnic Sites

Total construction and operating costs for the picnic areas are summarized below.

	CONSTRUCTION COST		ANNUAL OPERATING COST	
	Total	Per Unit	Total	Per Unit
50-unit site	$126,900	$2,538	$143,200	$358
400-unit site	668,900	1,672	45,500	910

An additional person is needed in the 400-unit picnic area to maintain the sewage treatment plant as shown in the personnel table.

Wages and payroll overhead account for 48 and 66 percent of the annual operating cost for the 400- and 50-unit site respectively. A 50-year capital recovery payment of $12,[illegible]0 and $67,470 is included for the 50- and 400-unit site respectively. Operating figures represent a median value based on 270 days per year.

Table 1. ESTIMATED PER-ACRE VALUE OF RECREATION LAND BY FARMING REGION

Region	WITHOUT WATER		WITH WATER	
	Range	Most Frequent	Range	Most Frequent
Northeast	340 - 1,290	730	*	*
Eastern dairy	660 - 970	730	1,820 - 3,320	2,520
Lake states dairy	530 - 870	700	1,590 - 3,330	2,210
Lake states cut-over	330 - 550	410	*	*
General farming	520 - 940	390	1,350 - 2,340	1,130
Eastern Corn Belt	690 - 1,060	890	1,210 - 2,260	1,710
Western Corn Belt	440 - 780	530	810 - 1,330	930
Spring wheat	250 - 440	310	650 - 1,130	820
Eastern cotton	950 - 1,550	1,250	1,785 - 4,160	2,970
Central cotton	410 - 770	490	1,430 - 2,470	1,850
Western cotton	480 - 830	730	960 - 1,850	1,460
Eastern tobacco	1,230 - 2,480	1,820	3,430 - 6,520	5,200
Northern range livestock	580 - 1,070	780	1,970 - 3,920	2,780
Southern range livestock	390 - 850	640	920 - 1,840	1,440
Northwest dairy	680 - 1,720	1,110	1,720 - 3,320	2,190
California	1,550 - 3,040	2,130	3,120 - 5,630	4,610
Gulf coast	*	*	*	*
Florida	630 - 1,030	860	890 - 1,870	1,120
All others	760 - 1,210	920	1,440 - 2,720	1,850
United States		800		2,070

* Sample too small; included in "All Others."

Source: Recreation Land Price Escalation, BOR, Jan. 1967.
Updated by Farm Real Estate Index, Farm Real Estate Market Developments, ERS-USDA, July 1972.

Table 19
ESTIMATED COST SUMMARY
Hiking Trail

Item	Quantity	Total Cost, Dollars
Trails		
20 miles	1	79,200
3 miles	1	11,880
1.5 miles	1	5,940
Parking lots		
100-unit	1	8,300
50-unit	1	4,200
25-unit	1	2,100
Access roads		15,000
Overnight rest area		
Tent pads	25	1,875
Pit toilets	4	3,000
Tables	25	2,500
Incinerator	1	500
Outdoor fireplace	25	1,250
Pump and well (100' deep)	1	1,000
Entrance building	1	8,000
Signs and markers		800
Site work		2,100
Pickup truck		3,500
Hand tools		500
Subtotal		151,600*
Contingency		15,200
		166,800
Acquisition of land (40 acres×$1,500)		60,000**
Total cost		226,800

Cost per mile of trail= $\frac{\$226,800}{24.5}$ =$9,257

* Rounded to nearest 100.
** See table 1 for land value by region.

Table 20
ESTIMATED ANNUAL OPERATING COST
Hiking Trail

	Quantity	Annual Cost, Dollars
Direct cost		
Maintenance man	3	19,968
Manager	1	9,400
		29,368
Operating supplies		
Chemicals		200
Camping area supplies		200
Motor fuel and supplies		700
Equipment and parts		500
		1,600

Table 20 cont'd

	Quantity	Annual Cost, Dollars
Payroll overhead (30% of payroll)		8,810
Land and equipment maintenance		2,000
Fixed cost		
50-year capital recovery payment		22,880
		64,700*

Cost per mile of trail= $\frac{64,700}{24.5}$ =$2,641

* Rounded to nearest 100.

Table 21
ESTIMATED COST SUMMARY
Bicycling Trail

Item	Quantity	Total Cost, Dollars
Trail, 3 miles	1	27,700
Parking and road access		15,000
Camp area		
Pit toilet	2	1,500
Tables	10	1,000
Incinerator and cans		600
Outdoor fireplace	10	500
Pump and well (100')	1	1,000
Storage building		1,000
Signs and markers		200
Site work		900
Pickup truck		3,500
Hand tools		200
Subtotal		53,100
Contingency		5,300
		58,400
Acquisition of land (5 acres×$1,500)		7,500[1]
Total cost		65,900

Cost per mile of trail= $\frac{\$65,900}{3}$ =$21,967

[1] See table 1 for land values by region.

Table 22
ESTIMATED ANNUAL OPERATING COST
Bicycling Trail

	Annual Cost, Dollars
Direct cost	
Maintenance man	6,656
Operating supplies	
Chemicals	100
Camping area supplies	100

Table 22 cont'd

	Annual Cost, Dollars
Motor fuel and supplies	600
Equipment and parts	200
Total operating supplies	1,000
Payroll overhead (30% of payroll)	1,997
Land and equipment maintenance	500
Fixed cost	
50-year capital recovery payment	6,650
	16,800*

Cost per mile of trail= $\frac{\$16,800}{3}$ =$5,600

* Rounded to nearest 100.

Table 23
ESTIMATED COST SUMMARY
Nature Trail

Item	Quantity	Total Cost, Dollars
Trail, 2 miles	1	13,200
Parking and access road		15,000
Camp area		
Pit toilet	2	1,500
Tables	10	1,000
Incinerator and trash cans		600
Outdoor fireplace	10	500
Storage building		1,000
Pumps and well (100' deep)		1,000
Signs and markers		2,500
Site work		700
Pickup truck	1	3,500
Hand tools		400
Subtotal		40,900
Contingency		4,100
		45,000
Acquisition of land (3 acres×$1,500)		4,500[1]
Total cost		49,500

Cost per mile of trail= $\frac{\$49,500}{2}$ = $24,750

[1] See table 1 for land values by region.

STATE OF MINNESOTA
COUNTY OF RAMSEY

000001

FEBRUARY 24, 1975

SPEAKING RECORD FOR THE DEPARTMENT OF HIGHWAYS HEARING RELATING TO MODEL STANDARDS FOR BICYCLE AND RECREATIONAL VEHICLE LANES ON AND ALONG PUBLIC ROADWAYS AND GOVERNING TRUNK HIGHWAYS.

****

1. NAME (Please Print): Edward J. Heiven
(First) (Initial) (Last)

ADDRESS: Hearing Officer
(No.) (Street) (City) (State) (Zip Code)

REPRESENTING: Dept. Highways
(Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? _____ (Yes) _____ (No)

2. NAME (Please Print): Raymond A. Adolfson
(First) (Initial) (Last)

ADDRESS: Road Design Standards Engineer
(No.) (Street) (City) (State) (Zip Code)

REPRESENTING: Dept. Highways
(Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? _____ (Yes) _____ (No)

3. NAME (Please Print): Craig R. Anderson
(First) (Initial) (Last)

ADDRESS: Special Assistant Attorney General
(No.) (Street) (City) (State) (Zip Code)

REPRESENTING: Dept. Highways
(Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? _____ (Yes) _____ (No)

4. NAME (Please Print): Kenneth W. Bjorke
(First) (Initial) (Last)

ADDRESS: Senior Management Analyst
(No.) (Street) (City) (State) (Zip Code)

REPRESENTING: Dept. Highways
(Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? _____ (Yes) _____ (No)

STATE OF MINNESOTA
COUNTY OF RAMSEY

000002

FEBRUARY 24, 1975

SPEAKING RECORD FOR THE DEPARTMENT OF HIGHWAYS HEARING RELATING TO MODEL STANDARDS FOR BICYCLE AND RECREATIONAL VEHICLE LANES ON AND ALONG PUBLIC ROADWAYS AND GOVERNING TRUNK HIGHWAYS.

****

1. NAME (Please Print): JAKE (First) Koppe (Initial) Kopperdraver (Last)

ADDRESS: R 4 (No.) Princeton (Street) Minn (City) 55371 (State) (Zip Code)

REPRESENTING: County Com. Mille Lacs Co. (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? ____ (Yes) ✓ (No)

2. NAME (Please Print): Gordy (First) J. (Initial) Sawyer (Last) X

ADDRESS: 3990 (No.) Upper 71st (Street) 16H (City) 55075 (State) (Zip Code)

REPRESENTING: 16H Snowmobile Club (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? ✓ (Yes) ____ (No)

3. NAME (Please Print): Franklin (First) E. (Initial) Star (Last)

ADDRESS: Rout 1 (No.) Box 206 (Street) Parkers Prairie (City) MN (State) 56361 (Zip Code)

REPRESENTING: Governor's Trail Advisory Committee STC (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? ____ (Yes) X (No)

4. NAME (Please Print): William (First) H. (Initial) Morrissey (Last)

ADDRESS: 320 (No.) Centennial Office Bldg (Street) St. Paul (City) (State) (Zip Code)

REPRESENTING: Dept. of Natural Resources (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? ____ (Yes) X (No)

STATE OF MINNESOTA
COUNTY OF RAMSEY

000003

FEBRUARY 24, 1975

SPEAKING RECORD FOR THE DEPARTMENT OF HIGHWAYS HEARING RELATING TO MODEL STANDARDS FOR BICYCLE AND RECREATIONAL VEHICLE LANES ON AND ALONG PUBLIC ROADWAYS AND GOVERNING TRUNK HIGHWAYS.

****

1. NAME (Please Print): ARNOLD (First) F (Initial) SETZLER (Last)

ADDRESS: 320 CENTENNIAL BLDG (No.) (Street) (City) (State) (Zip Code)

REPRESENTING: DNR (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? ____ (Yes) X (No)

2. NAME (Please Print): ROBERT L. ANDERSON (First) (Initial) (Last)

ADDRESS: CITY HALL RED WING, MN. 55066 (No.) (Street) (City) (State) (Zip Code)

REPRESENTING: CITY OF RED WING (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? ____ (Yes) ✓ (No)

3. NAME (Please Print): ROBERT H. CARTFORD (First) (Initial) (Last)

ADDRESS: 3456 White Bear Ave. White Bear Lake Minn 55110 (No.) (Street) (City) (State) (Zip Code)

REPRESENTING: MHO - District 9 (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? ____ (Yes) ✓ (No)

4. NAME (Please Print): Robert Crase (First) (Initial) (Last)

ADDRESS: 17008 Duck Lake Tr Eden Prairie Minn 55345 (No.) (Street) (City) (State) (Zip Code)

REPRESENTING: J.L. Shiely Co (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? ____ (Yes) ____ (No)

STATE OF MINNESOTA
COUNTY OF RAMSEY

000004

FEBRUARY 24, 1975

SPEAKING RECORD FOR THE DEPARTMENT OF HIGHWAYS HEARING RELATING TO MODEL STANDARDS FOR BICYCLE AND RECREATIONAL VEHICLE LANES ON AND ALONG PUBLIC ROADWAYS AND GOVERNING TRUNK HIGHWAYS.

****

1. NAME (Please Print): Raymond (First) A. (Initial) Adolfson (Last)

ADDRESS: St. Paul, Minn. (No.) (Street) (City) (State) (Zip Code)

REPRESENTING: Minnesota Highway Dept. (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? _____ (Yes) _____ (No)

2. NAME (Please Print): Donald (First) J (Initial) Flemming (Last)

ADDRESS: 68 E Sandralee St. Paul (No.) (Street) (City) (State) (Zip Code)

REPRESENTING: M.H.D. (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? _____ (Yes) ✓ (No)

3. NAME (Please Print): Randall (First) J (Initial) Cleven (Last)

ADDRESS: 3038 46th Ave So Mpls Minn 55400 (No.) (Street) (City) (State) (Zip Code)

REPRESENTING: (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? X (Yes) _____ (No)

4. NAME (Please Print): Leonard (First) G. (Initial) Eilts (Last)

ADDRESS: St. Paul, Minn. (No.) (Street) (City) (State) (Zip Code)

REPRESENTING: M.H.D (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? _____ (Yes) X (No)

****

1. NAME (Please Print): DWIGHT F. BOWN
(First) (Initial) (Last)

ADDRESS: MHD
(No.) (Street) (City) (State) (Zip Code)

REPRESENTING: MHD
(Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? _____ (Yes) ✓ (No)

2. NAME (Please Print): Lee J. Nelson
(First) (Initial) (Last)

ADDRESS: MHD
(No.) (Street) (City) (State) (Zip Code)

REPRESENTING: MHD
(Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? _____ (Yes) ✓ (No)

3. NAME (Please Print): Roger C Olson
(First) (Initial) (Last)

ADDRESS: Court House Shakopee Minn 55437
(No.) (Street) (City) (State) (Zip Code)

REPRESENTING: Scott County
(Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? _____ (Yes) ✓ (No)

4. NAME (Please Print): Rep. DAVID BEAUCHAMP
(First) (Initial) (Last)

ADDRESS: 1211-25 AVE S MOORHEAD MN 56560
(No.) (Street) (City) (State) (Zip Code)

REPRESENTING: DISTRICT 9A
(Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? ✓ (Yes) _____ (No)

STATE OF MINNESOTA
COUNTY OF RAMSEY

000006

FEBRUARY 24, 1975

SPEAKING RECORD FOR THE DEPARTMENT OF HIGHWAYS HEARING RELATING TO MODEL STANDARDS FOR BICYCLE AND RECREATIONAL VEHICLE LANES ON AND ALONG PUBLIC ROADWAYS AND GOVERNING TRUNK HIGHWAYS.

****

1. NAME (Please Print): Eric (First) R. (Initial) Teuber (Last)

ADDRESS: 2910 (No.) E. Franklin (Street) Mpls (City) Minn (State) 55406 (Zip Code)

REPRESENTING: Minnesota Daily (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? ____ (Yes) ✓ (No)

2. NAME (Please Print): Don (First) K. (Initial) Wedin (Last)

ADDRESS: 1824 (No.) Tatum (Street) St. Paul (City) 55113 (Zip Code)

REPRESENTING: Minn Dept. Natural Resources (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? ____ (Yes) ____ (No)

3. NAME (Please Print): John (First) M. (Initial) Lilly (Last)

ADDRESS: 1000 E 51st St (No.) (Street) Mpls. (City) Mn. (State) 55417 (Zip Code)

REPRESENTING: Mn. Dept. of Natural Resources (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? ____ (Yes) ____ (No) Maybe

4. NAME (Please Print): George (First) M. (Initial) Colarich (Last) (X)

ADDRESS: 615 (No.) E 22nd St (Street) Mpls. (City) Minn (State) 55404 (Zip Code)

REPRESENTING: American Youth Hostels (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? Y (Yes) ____ (No)

STATE OF MINNESOTA
COUNTY OF RAMSEY

000007

FEBRUARY 24, 1975

SPEAKING RECORD FOR THE DEPARTMENT OF HIGHWAYS HEARING RELATING TO MODEL STANDARDS FOR BICYCLE AND RECREATIONAL VEHICLE LANES ON AND ALONG PUBLIC ROADWAYS AND GOVERNING TRUNK HIGHWAYS.

****

1. NAME (Please Print): JAMES (First) W. (Initial) STANKE (Last)

ADDRESS: 570 (No.) CAMERON DR (Street) WOODBURY (City) MN (State) 55119 (Zip Code)

REPRESENTING: CITY of ST. PAUL - PUBLIC WORKS DEPT (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? ____ (Yes) ____ (No)

2. NAME (Please Print): EDWARD (First) J. (Initial) WARN (Last) (X)

ADDRESS: 421 (No.) WABASHA (Street) ST PAUL (City) MINN (State) 55107 (Zip Code)

REPRESENTING: ST PAUL PLANNING STAFF (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? X (Yes) ____ (No)

3. NAME (Please Print): DICK (First) A (Initial) REIS (Last) (X)

ADDRESS: Box 779 (No.) (Street) Moorhead (City) Minn (State) (Zip Code)

REPRESENTING: Moorhead Minn. (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? X (Yes) ____ (No)

4. NAME (Please Print): WILLIS (First) L (Initial) KINGSBURY (Last)

ADDRESS: 500 (No.) CENTER AVE (Street) MOORHEAD, (City) MINN (State) 56560 (Zip Code)

REPRESENTING: CITY PLANNING OFFICE (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? ____ (Yes) X (No)

STATE OF MINNESOTA
COUNTY OF RAMSEY

000008

FEBRUARY 24, 1975

SPEAKING RECORD FOR THE DEPARTMENT OF HIGHWAYS HEARING RELATING TO MODEL STANDARDS FOR BICYCLE AND RECREATIONAL VEHICLE LANES ON AND ALONG PUBLIC ROADWAYS AND GOVERNING TRUNK HIGHWAYS.

****

1. NAME (Please Print): RICHARD P. MORIARTY *
(First) (Initial) (Last)

ADDRESS: 4832 OTTER LK RD. WHITE BEAR LK. 55110
(No.) (Street) (City) (State) (Zip Code)

REPRESENTING: WESTER SADDLE CLUB ASS'N. (WSCA)
(Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? X (Yes) ____ (No)

2. NAME (Please Print): JOE G. OSENDORF
(First) (Initial) (Last)

ADDRESS: 955 FELIX ST - W. ST. PAUL MINN. 55118
(No.) (Street) (City) (State) (Zip Code)

REPRESENTING: M.H.D UTILITIES
(Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? ____ (Yes) X (No)

3. NAME (Please Print): Paul Qualy
(First) (Initial) (Last)

ADDRESS: ____
(No.) (Street) (City) (State) (Zip Code)

REPRESENTING: MHD
(Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? ____ (Yes) X (No)

4. NAME (Please Print): Philip M. Voxland
(First) (Initial) (Last)

ADDRESS: 921 24th Ave. So. Mpls. Mn. 55406
(No.) (Street) (City) (State) (Zip Code)

REPRESENTING: American Bicycle League of America
(Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? ✓ (Yes) ____ (No)

STATE OF MINNESOTA
COUNTY OF RAMSEY

000009

FEBRUARY 24, 1975

SPEAKING RECORD FOR THE DEPARTMENT OF HIGHWAYS HEARING RELATING TO MODEL STANDARDS FOR BICYCLE AND RECREATIONAL VEHICLE LANES ON AND ALONG PUBLIC ROADWAYS AND GOVERNING TRUNK HIGHWAYS.

****

1. NAME (Please Print): Paul D. Wyatt
(First) (Initial) (Last)

ADDRESS: 2550 Bloomington Ave. S. #1 Minneapolis 55404
(No.) (Street) (City) (State) (Zip Code)

REPRESENTING: Minnesota Gopher Wheelmen
(Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? X (Yes) _____ (No)

2. NAME (Please Print): JAMES A. HOULDING
(First) (Initial) (Last)

ADDRESS: 105 So Milton St. Paul 55105
(No.) (Street) (City) (State) (Zip Code)

REPRESENTING: Gopher Wheelmen
(Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? _____ (Yes) X (No)

3. NAME (Please Print): Robert A. Kurpius
(First) (Initial) (Last)

ADDRESS: _____
(No.) (Street) (City) (State) (Zip Code)

REPRESENTING: Hiwy - Traffic
(Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? _____ (Yes) ✓ (No)

4. NAME (Please Print): ARDELL N. BRAATEN
(First) (Initial) (Last)

ADDRESS: COURTHOUSE ANOKA MINN. 55303
(No.) (Street) (City) (State) (Zip Code)

REPRESENTING: ANOKA COUNTY
(Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? _____ (Yes) ✓ (No)

STATE OF MINNESOTA
COUNTY OF RAMSEY

000010

FEBRUARY 24, 1975

SPEAKING RECORD FOR THE DEPARTMENT OF HIGHWAYS HEARING RELATING TO MODEL STANDARDS FOR BICYCLE AND RECREATIONAL VEHICLE LANES ON AND ALONG PUBLIC ROADWAYS AND GOVERNING TRUNK HIGHWAYS.

****

1. NAME (Please Print): Rick (First) H. (Initial) Ford (Last)

ADDRESS: 1654 (No.) Ashland (Street) St. Paul (City) Mn. (State) 55104 (Zip Code)

REPRESENTING: Metro Transit Com. (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? ____ (Yes) ✓ (No)

2. NAME (Please Print): BRUCE (First) L. (Initial) WARZALA (Last)

ADDRESS: 2364 (No.) CASE ST. (Street) ST. PAUL (City) MINN (State) 55119 (Zip Code)

REPRESENTING: MHD (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? ____ (Yes) / (No)

3. NAME (Please Print): Charles NB (First) Mehlhoff (Initial) (Last)

ADDRESS: 3014 (No.) Brent Ave (Street) Inver Grove Hts (City) (State) (Zip Code)

REPRESENTING: Dakota County Trails. (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? Myself (Yes) ____ (No)

4. NAME (Please Print): Margaret (First) A. (Initial) FAIRHURST (Last)

ADDRESS: 417-5th Ave. No., So. St. Paul, Minn. 55075 (No.) (Street) (City) (State) (Zip Code)

REPRESENTING: SSP Environmental Commission (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? ____ (Yes) X (No)

STATE OF MINNESOTA
COUNTY OF RAMSEY

FEBRUARY 24, 1975

000011

SPEAKING RECORD FOR THE DEPARTMENT OF HIGHWAYS HEARING RELATING TO MODEL STANDARDS FOR BICYCLE AND RECREATIONAL VEHICLE LANES ON AND ALONG PUBLIC ROADWAYS AND GOVERNING TRUNK HIGHWAYS.

****

1. NAME (Please Print): Wilton (First) E (Initial) Gervais (Last)

ADDRESS: 805 Degree of Honor Bldg. St Paul Mn 55101
(No.) (Street) (City) (State) (Zip Code)

REPRESENTING: ✓
(Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? _____ (Yes) ✓ (No)

2. NAME (Please Print): V. (First) Lyle (Initial) Haseltine (Last)

ADDRESS: 608 S.W. 2nd Ave Forest Lake Mn 55025
(No.) (Street) (City) (State) (Zip Code)

REPRESENTING: Minn Assn of Snowmobilers
(Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? ✓ (Yes) _____ (No)

3. NAME (Please Print): Sherman (First) L (Initial) Goldberg (Last)

ADDRESS: 3025 Harbor Lane Plymouth Mn 55441
(No.) (Street) (City) (State) (Zip Code)

REPRESENTING: City of Plymouth
(Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? _____ (Yes) ✓ (No)

4. NAME (Please Print): _____ (First) _____ (Initial) _____ (Last)

ADDRESS: _____
(No.) (Street) (City) (State) (Zip Code)

REPRESENTING: _____
(Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? _____ (Yes) _____ (No)

STATE OF MINNESOTA
COUNTY OF RAMSEY

000012

FEBRUARY 24, 1975

SPEAKING RECORD FOR THE DEPARTMENT OF HIGHWAYS HEARING RELATING TO MODEL STANDARDS FOR BICYCLE AND RECREATIONAL VEHICLE LANES ON AND ALONG PUBLIC ROADWAYS AND GOVERNING TRUNK HIGHWAYS.

****

1. NAME (Please Print): M (First) Constance (Initial) Kozlak (Last)

ADDRESS: 3839 (No.) Hart Blvd. (Street) Mpls. (City) 55421 (State) (Zip Code)

REPRESENTING: Metro Council (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? ____ (Yes) X (No)

2. NAME (Please Print): KAREN A. PETERSON (First) (Initial) (Last)

ADDRESS: 2015 W. OLD SHAKOPEE ROAD (No.) (Street) BLOOMINGTON (City) MN (State) 55431 (Zip Code)

REPRESENTING: City of Bloomington (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? ____ (Yes) ____ (No)

3. NAME (Please Print): Shirley R Hasselmo (First) (Initial) (Last)

ADDRESS: 608 (No.) SW 2nd Ave (Street) Forest Lake (City) (State) 55025 (Zip Code)

REPRESENTING: (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? ____ (Yes) ____ (No)

4. NAME (Please Print): EDWARD F. KISHEL (First) (Initial) (Last)

ADDRESS: 1437 MARSHALL AVE (No.) (Street) ST PAUL (City) (State) 55104 (Zip Code)

REPRESENTING: CITY OF MENDOTA HEIGHTS (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? ____ (Yes) X (No)

STATE OF MINNESOTA
COUNTY OF RAMSEY

000013

FEBRUARY 24, 1975

SPEAKING RECORD FOR THE DEPARTMENT OF HIGHWAYS HEARING RELATING TO MODEL STANDARDS FOR BICYCLE AND RECREATIONAL VEHICLE LANES ON AND ALONG PUBLIC ROADWAYS AND GOVERNING TRUNK HIGHWAYS.

****

1. NAME (Please Print): Connie (First) M. (Initial) Hinitz (Last)

ADDRESS: 2880 (No.) Valle Vista (Street) New Hope (City) Mn (State) 55427 (Zip Code)

REPRESENTING: Self (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? ____ (Yes) X (No)

2. NAME (Please Print): Gary (First) R. (Initial) Carlson (Last)

ADDRESS: 1191 (No.) Shryer Ave. W. (Street) St. Paul (City) 55113 (State) (Zip Code)

REPRESENTING: MSIRC (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? (Maybe) (Yes) ____ (No)

3. NAME (Please Print): ____ (First) ____ (Initial) ____ (Last)

ADDRESS: ____ (No.) (Street) (City) (State) (Zip Code)

REPRESENTING: ____ (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? ____ (Yes) ____ (No)

4. NAME (Please Print): ____ (First) ____ (Initial) ____ (Last)

ADDRESS: ____ (No.) (Street) (City) (State) (Zip Code)

REPRESENTING: ____ (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? ____ (Yes) ____ (No)

STATE OF MINNESOTA
COUNTY OF RAMSEY

000014

FEBRUARY 24, 1975

SPEAKING RECORD FOR THE DEPARTMENT OF HIGHWAYS HEARING RELATING TO MODEL STANDARDS FOR BICYCLE AND RECREATIONAL VEHICLE LANES ON AND ALONG PUBLIC ROADWAYS AND GOVERNING TRUNK HIGHWAYS.

****

1. NAME (Please Print): Harold (First) (Initial) Sand (Last)

ADDRESS: 4801 W. 50th St. (No.) (Street) Edina (City) (State) (Zip Code)

REPRESENTING: City of Edina Planning Dept (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? _____ (Yes) _____ (No)

2. NAME (Please Print): _____ (First) (Initial) (Last)

ADDRESS: _____ (No.) (Street) (City) (State) (Zip Code)

REPRESENTING: _____ (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? _____ (Yes) _____ (No)

3. NAME (Please Print): _____ (First) (Initial) (Last)

ADDRESS: _____ (No.) (Street) (City) (State) (Zip Code)

REPRESENTING: _____ (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? _____ (Yes) _____ (No)

4. NAME (Please Print): _____ (First) (Initial) (Last)

ADDRESS: _____ (No.) (Street) (City) (State) (Zip Code)

REPRESENTING: _____ (Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? _____ (Yes) _____ (No)

STATE OF MINNESOTA
COUNTY OF RAMSEY

000015

FEBRUARY 24, 1975

SPEAKING RECORD FOR THE DEPARTMENT OF HIGHWAYS HEARING RELATING TO MODEL STANDARDS FOR BICYCLE AND RECREATIONAL VEHICLE LANES ON AND ALONG PUBLIC ROADWAYS AND GOVERNING TRUNK HIGHWAYS.

****

1. NAME (Please Print): DON (First) (Initial) BESKY (Last)

ADDRESS: 9150 CENTRAL AVE. N-E. BLAINE, MN. 55434
(No.) (Street) (City) (State) (Zip Code)

REPRESENTING: BLAINE PARKS & RECREATION DEPT.
(Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? _____ (Yes) X (No)

2. NAME (Please Print): _____
(First) (Initial) (Last)

ADDRESS: _____
(No.) (Street) (City) (State) (Zip Code)

REPRESENTING: _____
(Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? _____ (Yes) _____ (No)

3. NAME (Please Print): _____
(First) (Initial) (Last)

ADDRESS: _____
(No.) (Street) (City) (State) (Zip Code)

REPRESENTING: _____
(Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? _____ (Yes) _____ (No)

4. NAME (Please Print): _____
(First) (Initial) (Last)

ADDRESS: _____
(No.) (Street) (City) (State) (Zip Code)

REPRESENTING: _____
(Self, Organization)

DO YOU PLAN TO OFFER TESTIMONY? _____ (Yes) _____ (No)

ADMIN 1000

STATE OF MINNESOTA

Office Memorandum

DEPARTMENT HIGHWAY - Admin. Management
Room 407 - Extension 3113

TO : Lee J. Nelson, Director
Administrative Management

DATE: February 20, 1975

FROM : Kenneth H. Bjork
Management Analyst

SUBJECT: Hearings Reporter for February 24, 1975
Rule and Regulation Hearings (2)

The Office of Personnel has scoured State government to get us a hearings reporter to no avail. Ultimately, ten names were certified to the Department by the Department of Personnel for us to interview for temporary placement as a hearings reporter for the February 24 hearings. There were three interested in temporary employment who I was able to contact by telephone. Two were unable to find time in their schedules and the other person did not feel competent to take both hearings.

In checking with the industry (on a fee for service basis), we can engage a hearings reporter to take the hearings. The Office of Personnel indicates this would be acceptable. Mr. Peterson agrees to charge the cost against his proper budget.

Kenneth H. Bjork
Management Analyst

cc:
Jack C. Davis
John Schorn
R. M. Peterson
File - 2

February 20, 1975

Mr. John Kirby
Metropolitan Court Reporters
Metro Square Building
St. Paul, Minnesota 55101

Dear Mr. Kirby:

This letter will serve to confirm our request that your Company act as the State's hearing reporter for the Department of Highways hearings on February 24, 1975 relating to bridge inspection and recreational vehicle lanes. It is our understanding the Department will be billed your usual commercial rates but on a fee for service basis.

The Department requests that the hearing reporter be prepared to provide whatever proper administrative services may be necessary to make the hearing officer's task of conducting the hearings as expert as possible. We request also that the hearings transcripts and copies be provided as soon after the hearings as possible, but no later than thirty days after the date of the hearings.

Sincerely,

Kenneth H. Bjork
Management Analyst

cc:
Jack C. Davis
John Schorn
R. M. Peterson
File (2)

Attachments: Proposed Rules and Regulations

HEARING TRANSCRIPT REQUESTS

Harold Sand
Edina City Hall
4801 W. 50th St.
Edina , Minnesota 55424 927-8861

Ed Warn
421 Wabasha
St. Paul Planning Dept.
St. Paul, Mn. 55102

Douglas Legg Attn: Representative Phyllis Kahn
887 22nd. Ave. S. E.
Minneapolis, Minnesota 55414

Richard Schwartz Associates
Archetects
8030 Cedar Avenue So.
Bloomington, Minnesota 55420

Cindy Lynch
1911 E. 32nd St.
Minneapolis, Minnesota 55407

March 6, 1975

Mr. Douglas Legg
ATTENTION: Representative Phyllis Kahn
887 - 22nd Avenue S.E.
Minneapolis, Minnesota 55414

Dear Mr. Legg:

Thank you for the interest you have shown in the Department of Highways and in requesting a copy of the hearing transcript of the Department's hearing relating to Bicycle and Recreational Vehicle Lanes On and Along Public Roadways and Governing Trunk Highways held on February 24, 1975.

The Department is endeavoring to choose the most responsible course of action possible under the law in the development of these rules. If you would care to address yourself to any of the points made at the hearing, the Department would appreciate your counsel.

Please make your comments in writing to me within the thirty day period provided under the notice and every possible effort will be made to accomodate your views.

Sincerely,

Frank D. Marzitelli
Commissioner

FDM:nm
K. H. Bjork

March 6, 1975

Mr. Ed Warn
421 Wabasha
St. Paul Planning Department
St. Paul, Minnesota 55102

Dear Mr. Warn:

Thank you for the interest you have shown in the Department of Highways and in requesting a copy of the hearing transcript of the Department's hearing relating to Bicycle and Recreational Vehicle Lanes On and Along Public Roadways and Governing Trunk Highways held on February 24, 1975.

The Department is endeavoring to choose the most responsible course of action possible under the law in the development of these rules. If you would care to address yourself to any of the points made at the hearing, the Department would appreciate your counsel.

Please make your comments in writing to me within the thirty day period provided under the notice and every possible effort will be made to accommodate your views.

Sincerely,

Frank D. Marzitelli
Commissioner

FDM:nm
K. H. Bjork

March 6, 1975

Mr. Harold Sand
Edina City Hall
4801 West 50th Street
Edina, Minnesota 55424

Dear Mr. Sand:

Thank you for the interest you have shown in the Department of Highways and in requesting a copy of the hearing transcript of the Department's hearing relating to Bicycle and Recreational Vehicle Lanes On and Along Public Roadways and Governing Trunk Highways held on February 24, 1975.

The Department is endeavoring to choose the most responsible course of action possible under the law in the development of these rules. If you would care to address yourself to any of the points made at the hearing, the Department would appreciate your counsel.

Please make your comments in writing to me within the thirty day period provided under the notice and every possible effort will be made to accommodate your views.

Sincerely,

Frank D. Marzitelli
Commissioner

FDM:mm
K. H. Bjork

March 6, 1975

Miss Cindy Lynch
1911 East 32nd Street
Minneapolis, Minnesota 55407

Dear Miss Lynch:

Thank you for the interest you have shown in the Department of Highways and in requesting a copy of the hearing transcript of the Department's hearing relating to Bicycle and Recreational Vehicle Lanes On and Along Public Roadways and Governing Trunk Highways held on February 24, 1975.

The Department is endeavoring to choose the most responsible course of action possible under the law in the development of these rules. If you would care to address yourself to any of the points made at the hearing, the Department would appreciate your counsel.

Please make your comments in writing to me within the thirty day period provided under the notice and every possible effort will be made to accommodate your views.

Sincerely,

Frank D. Marzitelli
Commissioner

FDM:mm
K. H. Bjork

March 6, 1975

Richard Schwartz Associates
Architects
8030 Cedar Avenue South
Bloomington, Minnesota 55420

Gentlemen:

Thank you for the interest you have shown in the Department of Highways and in requesting a copy of the hearing transcript of the Department's hearing relating to Bicycle and Recreational Vehicle Lanes On and Along Public Roadways and Governing Trunk Highways held on February 24, 1975.

The Department is endeavoring to choose the most responsible course of action possible under the law in the development of these rules. If you would care to address yourself to any of the points made at the hearing, the Department would appreciate your counsel.

Please make your comments in writing to me within the thirty day period provided under the notice and every possible effort will be made to accommodate your views.

Sincerely,

Frank D. Marzitelli
Commissioner

FDM:mm
K. H. Bjork