Springfield Bikeway Plan 1974

SPRINGFIELD BICYCLE COMMITTEE MEMBERS

1974

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Springfield Bikeway Plan

General Plan Phase 1

Springfield

Bicycle

Committee

1974

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I.

INTRODUCTION

The story of the bicycle and its existence in the Eugene-Springfield area may be summarized in the following few words taken from the 1990 General Plan:

> .....bicycle traffic is not now being handled adequately in the (Eugene-Springfield) metropolitan area.[1]

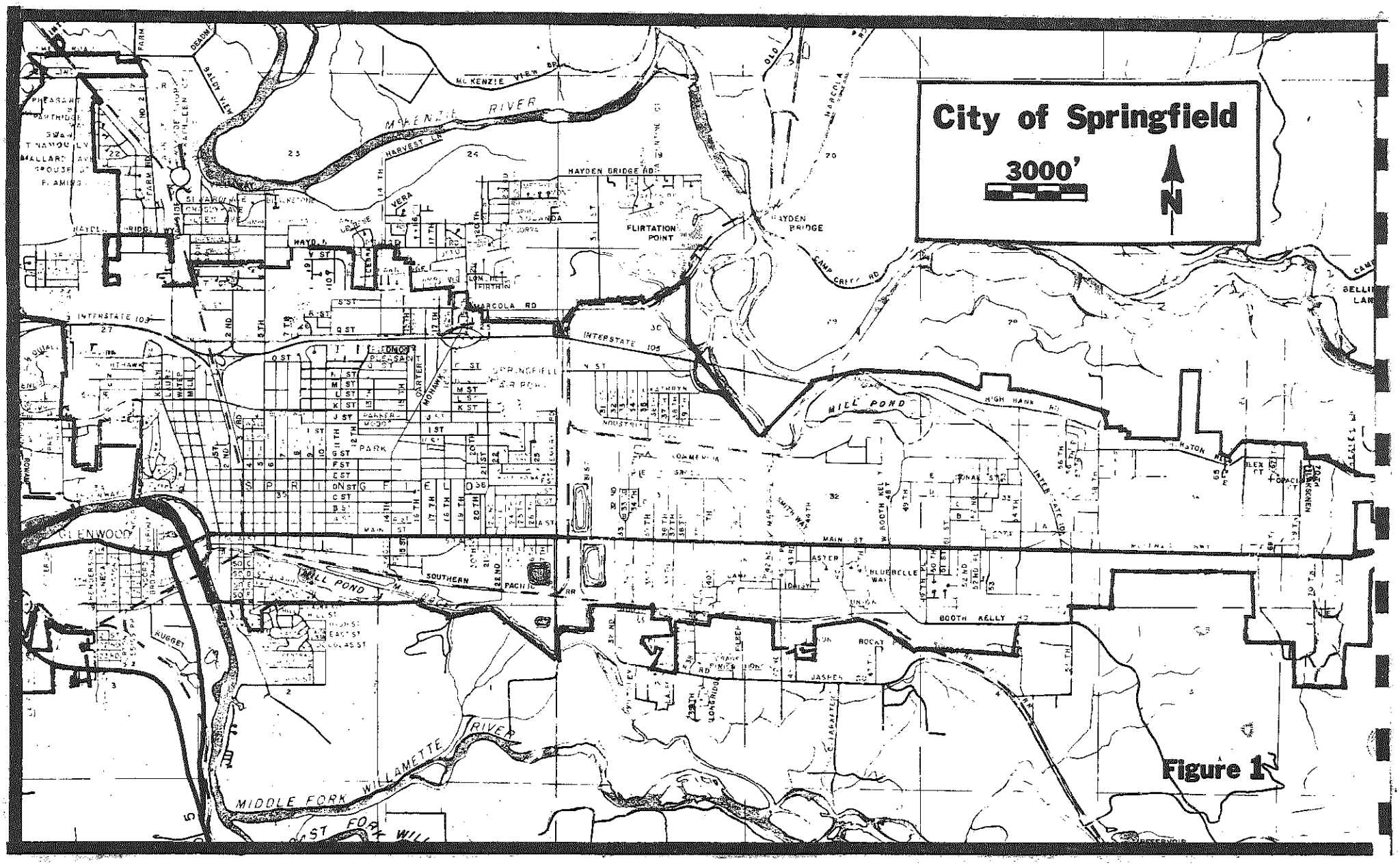
The network of highways, roads and streets has been built to accommodate the private auto, while only marginally providing room for the bicycle.

The Springfield area, as defined in Figure 1, includes areas within the Springfield City Limits and some portions of Lane County which are logical extensions of the urban area. In Springfield, as throughout most sections of the United States, two major developments make coordinated bikeway planning not only necessary, but needed at this time.

First, public recognition of the bicycle for recreation purposes has been growing rapidly, along with a greater understanding of the bicycle's potential for commuting and short distance trips. With the growing shortage of gasoline, a greater number of the public is considering the bicycle as an alternate means of transportation.

Second, widespread public concern for the quality of our environment, generally, and for the problems of air and noise pollution, specifically, has made the use of the bicycle attractive as a readily available, non-polluting alternative to the private automobile.

Systematic and effective working guidelines are essential to developing a coherent and comprehensive bicycle route plan. This plan will present different designs and types of bikeways, demand for


City of Springfield
3000'
N
McKENZIE RIVER
HAYDEN BRIDGE RD
HAYDEN BRIDGE
FLIRTATION POINT
MARCOLA RD
INTERSTATE 105
MILL POND
MAIN ST
SPRINGFIELD
GLENWOOD
BOOTH KELLY
SOUTHERN PACIFIC RR
MIDDLE FORK WILLAMETTE RIVER
Figure 1

bikeway facilities in the Springfield area, accident and safety considerations, as well as implementation problems - such as financing or law enforcement. Finally, the specific priority areas in which Springfield should concentrate the building of bikeways are given.

Although dealing primarily with the cyclist and his needs, all bikeway systems may be used as footpaths or hiking trails. This dual use will be assumed throughout the following discussion.

II.

BIKEWAY DESIGN

DESIGN CRITERIA

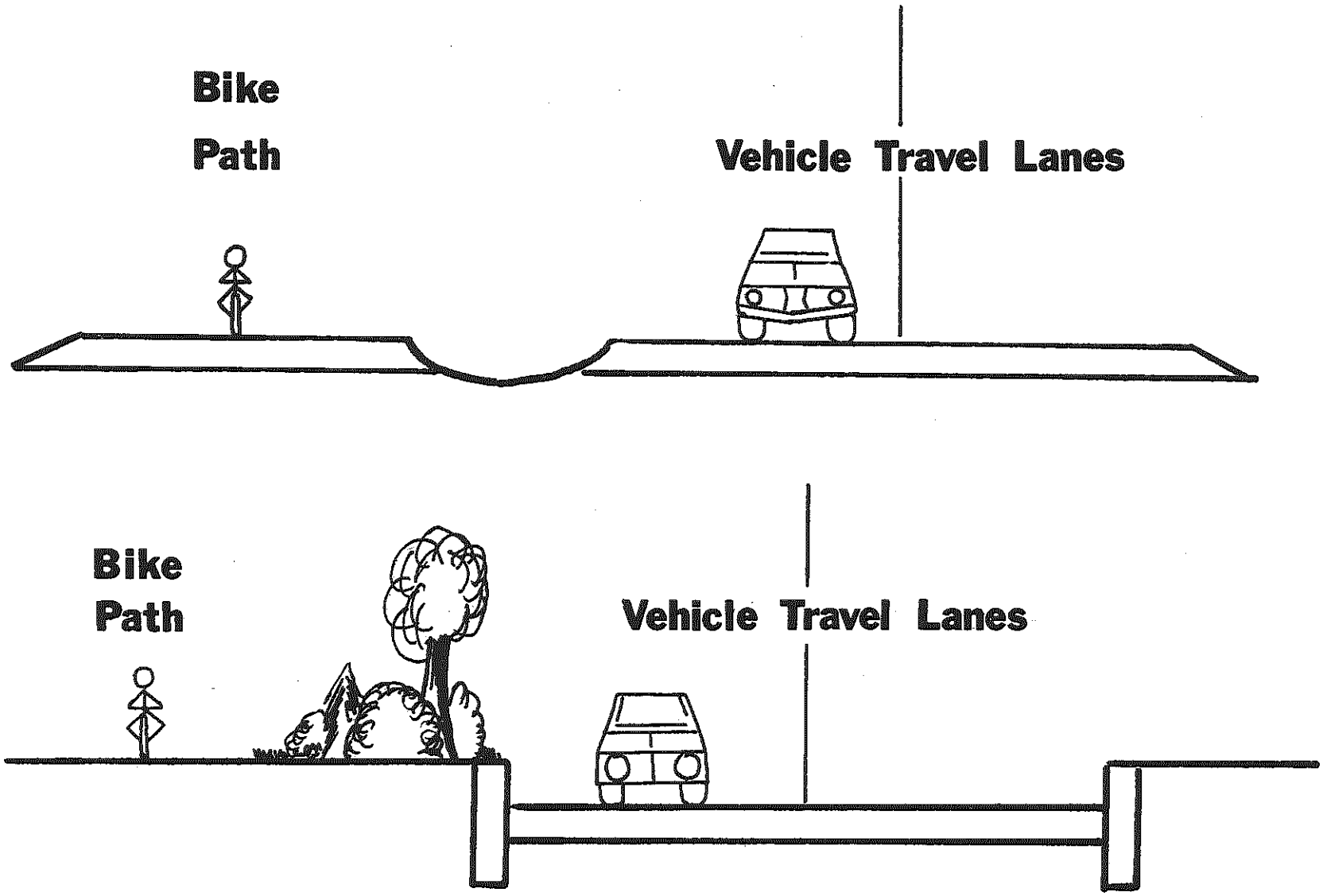
DEFINITIONS

The different types of routes or trails used by bicycles are described by various terms or groups of words. For the purpose of this report, the following definitions will apply.

Bikeway: Those facilities which are provided to support bicycle travel.

Class I: Bike Path. A separated trail for joint use of bicyclists and pedestrians. It may be entirely independent of other transportation facilities. (Figure 2)

Class II: Bike Lane. A bikeway that is adjacent to the travel lane of motorized traffic, but provides a physically separated through lane for bicycles and pedestrians. (Figure 3)



Class I Bikeway

Figure 2

Class III: Bike Route. A bikeway that shares the roadway with motor vehicles. Routes are designated by signing, striping or other visual markings only. (Figure 4)

Bikeway Route: Meant to denote the routing, in urban and rural areas, of either Class I, II, or III bikeways.

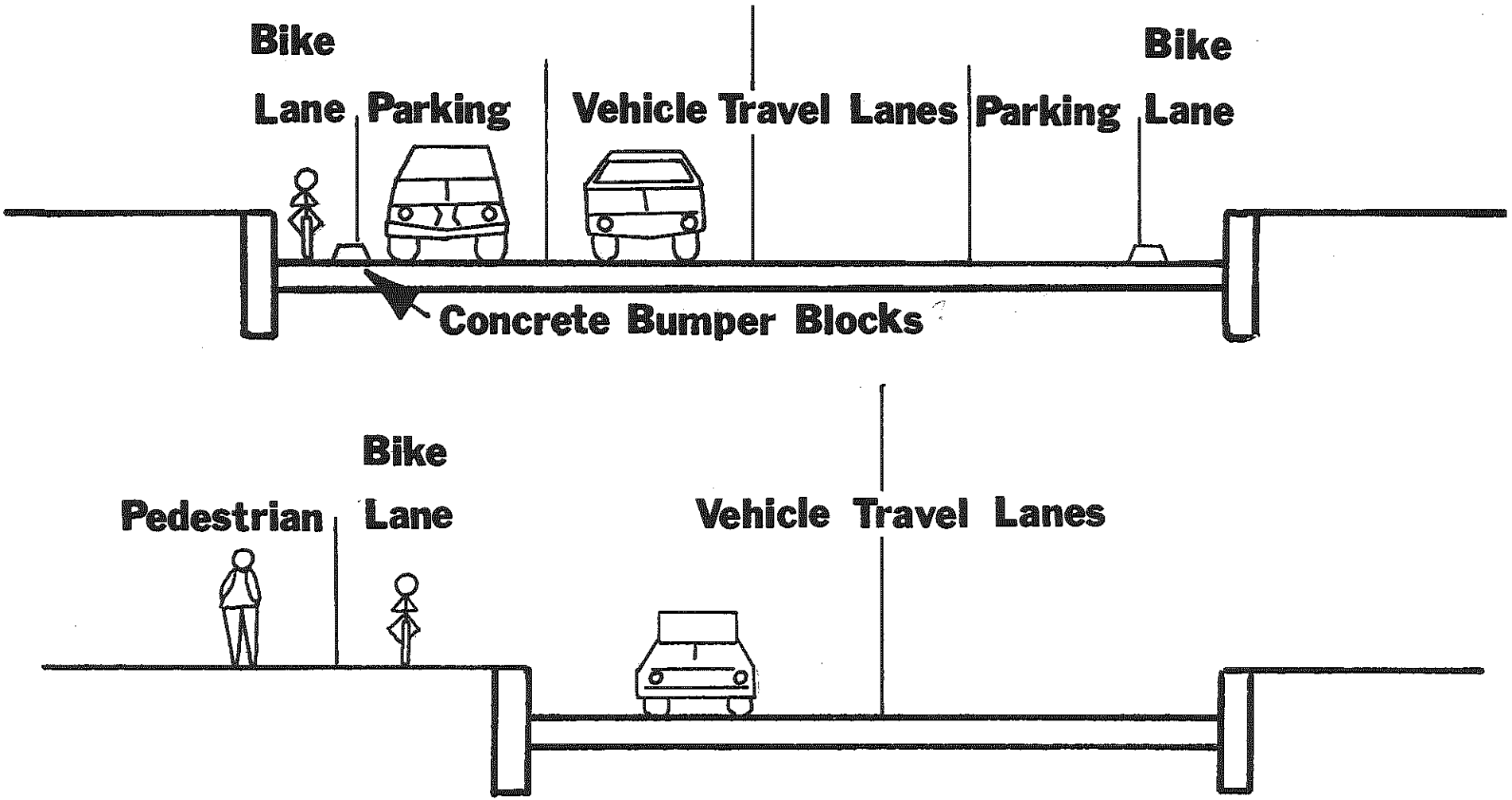
BIKEWAY DESIGN CHARACTERISTICS

COSTS

The actual placement of the bikeway, the type of bikeway built, and the cost of building depends on any combination of the following features:

1. Usage and Demand
2. Construction Features
   - Drainage
   - Grading
   - Landscaping
   - Bridge and retaining walls
3. Barriers
   - Grades
   - Fences
   - Curbs
   - Land acquisition
4. Guidance and Safety
   - Signs, striping
   - Lighting
   - Signals

It is difficult to estimate per mile cost of any particular path, lane or route because every bikeway route includes different portions of the above variables. A reasonable cost estimate of some of the possible variables taken from Bikeway



Class II Bikeway

Figure 3

Planning Criteria and Guidelines (State of California, 1972), is included in Appendix A. The reader should note that there will be both geographic variations in cost as well as the cost difference as an effect of inflation over time.

BIKEWAY TYPE

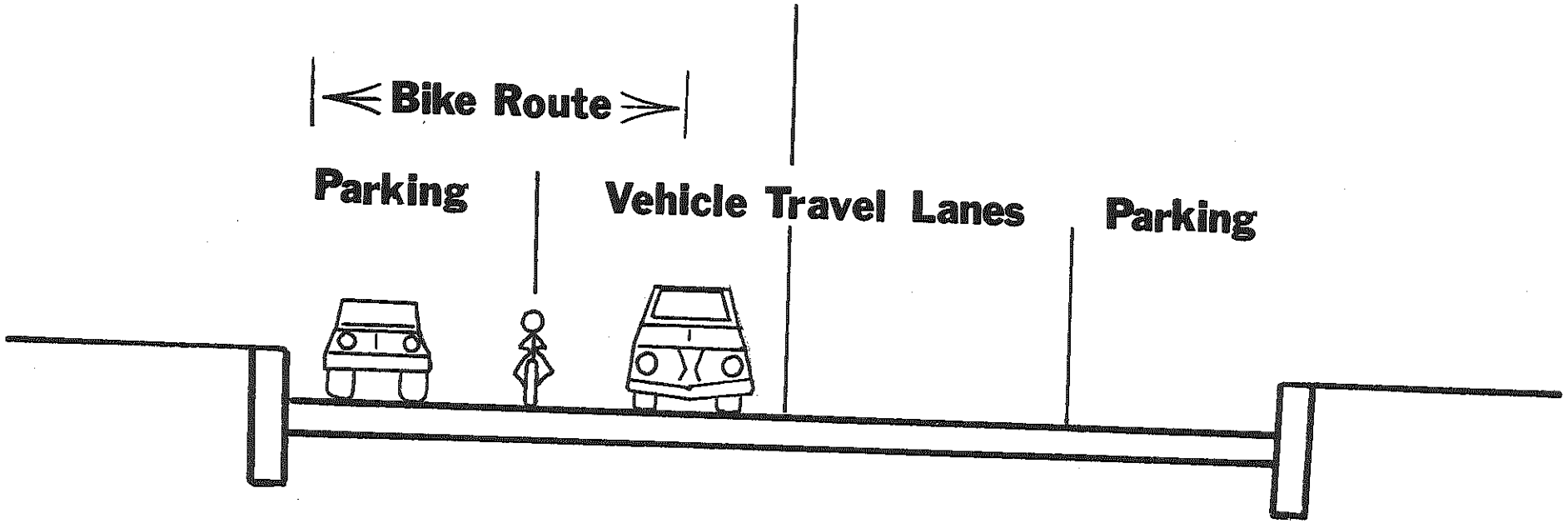
Class I bikeways (bike paths) have a minimum number of contacts between bicycles and motorized traffic. Likely locations for placement may be in continuous linear spaces, such as along railroads, electric transmission lines, along river banks or on right-of-way portions of public property. Bike paths may be maintained in public parks and recreation areas as well as being added to new developments. The bike path is the optimum facility for cycling whether for transport or recreation uses.

The Class II bikeway involves conflicts between the amount of available space for the bike lane and the amount of available space for parked cars. Class II Bikeways may not be feasible in areas where parking is necessary or where parking next to the curb is a habit of the motorist. The Class III bike route leaves the motorist or pedestrian in command with the cyclist riding either in the travel lane or on the sidewalk.

Although Class I bikeways are the optimum in cycling facilities, Class II or III bikeways are often used to offset the cost or space needed for the Class I bikeway.

BIKEWAY SIGNING

The two nationally accepted signs used in conjunction with bikeways are those shown below.



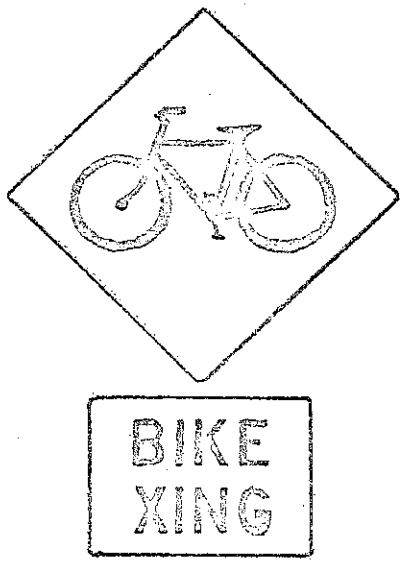
Class III Bikeway

Figure 4

BIKE ROUTE

Use:

A nationally approved sign for marking an officially designated bicycle trail, appropriate both where a trail is separate from a street or highway and where a trail may be routed on selected roads or streets.



XING

Use:

A nationally approved sign for placement on a street or highway just in advance of a point where an officially designated bicycle trail crosses the roadway.

(All signs and markings must conform to the MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 1971 edition, as shown in Appendix B.)

Other markings such as the "BIKE LANE ONLY" sign may be located immediately adjacent to an on street bicycle lane. This sign is an informational sign to the motorist as well as the cyclist. The background is white, finished with black lettering.

Pavement markings of a bright white paint will be used with all on street bicycle lanes, as well as intersections involving an on street bicycle route. This marking will aid both the bicyclist and motorist in negotiating an intersection.

With expanded bikeway developments, it may be that a completely new category of signs will be needed to designate direction or warning specifically for the cyclist.

BIKEWAY LIGHTING

Night riding is a hazard to the cyclist in areas where lighting, other than that provided by the cyclist, is non-existent, where lighting is not sufficient for others to see the rider or where lighting is not adequate for the rider to see in the direction in which he is traveling. It has been determined that artificial lighting on Class II and III bikeways is sufficient in some areas, although further investigation is needed. Existing streets in urban areas usually have either street lights provided for autos and pedestrians or lights from shops or homes may be adequate to illuminate the existing street or sidewalk.

With more Class I bikepaths being developed, however, further study is needed to determine the nature of adjacent land, night accident records and night crime records before definite recommendations are made to the extent and type of illumination provided.

BICYCLE PARKING

The importance of terminal parking

facilities for bicycles was stressed by the respondents in the Springfield Bicycle User Survey. With the exception of schools, parks or playgrounds, very few places provide adequate parking locations which would discourage casual or professional theft of bicycles.

Any increase in the use of the bicycle as a means of transportation would prove the current practice of leaving bikes chained to lamp or sign posts inadequate. It may be necessary for the City of Springfield to follow one of two directives:

1. Develop a process by which governmental agencies provide parking facilities at areas of traffic generation.

or

2. Develop a process by which service organizations, institutions and firms are encouraged to provide parking facilities throughout the Springfield area. Changes in City code may be necessary to allow installation of parking facilities by private firms on public property.

BIKEWAY NEED ASSESSMENT

DEMAND FOR BIKEWAYS - THE BICYCLE USER QUESTIONNAIRE.

In planning extended bikeway facilities, citizen participation should be included by means of a Bicycle User Survey. The survey provides a quick way to define public opinion on various aspects of bikeway facilities or bicycle safety.

During the month of December, 1973, approximately 2000 surveys were distributed throughout the Springfield area with twelve schools and 10 civic organizations participating. 1160 surveys, or 58% of the total distributed, were returned. (A sample survey is shown in Figure 5). Of those surveys being returned, the employment status percentages were as follows:

87% Student

11% Employed

1% Umemployed

1% Not looking for permanent employment

0% Armed Forces

SPRINGFIELD
BICYCLE USER SURVEY

1. How many bicycles are owned by your household? _____

2. How many people live in your house or apartment? _____

3. What is your present employment status?

_____ ARMED FORCES
_____ EMPLOYED
_____ UMEMPLOYED
_____ STUDENT
_____ NOT LOOKING FOR PERMANENT EMPLOYMENT

4. When you or your family made the decision to move to your present address, did you consider whether the area was favorable for bicycle use?

_____ YES _____ NO

5. How important to you would the following reasons for riding a bicycle be if there were no constraints, i.e., traffic, weather, etc. Not at all-Extremely

A. For touring.....	1	2	3	4
B. For recreation and exercise.....	1	2	3	4
C. For transportation.....	1	2	3	4
D. To school.....	1	2	3	4
E. To save time.....	1	2	3	4
F. To save money.....	1	2	3	4
G. Environmental reasons..	1	2	3	4
H. To ride with friends....	1	2	3	4
I. To ride with family.....	1	2	3	4
J. Other (specify).....	1	2	3	4

6. From your experience while riding a bicycle, how dangerous do you find the following conditions?

A. While making left hand turns.....	1	2	3	4
B. Car doors opening.....	1	2	3	4
C. Being hit from rear.....	1	2	3	4
D. Riding at night.....	1	2	3	4
E. Cars turning abruptly...	1	2	3	4
F. Bad weather.....	1	2	3	4

7. To what extent would bicycle pathways (facilities designated and restricted to cyclists) increase the number of times you use your bicycle if placed in the following places?

A. Downtown metropolitan areas.....	1	2	3	4
B. Along major arterial streets.....	1	2	3	4
C. Along residential or secondary streets.....	1	2	3	4
D. Through recreational areas and parks.....	1	2	3	4

8. Would it be important to you that bicycle parking facilities were located at your destination point?

_____YES _____NO

Figure 5A

9. Would you use the following types of bicycle routes if constructed or established?

	YES	NO	MAYBE
A. On city streets designated by painted lines.	___	___	___
B. On city streets by curbing.....	___	___	___
C. On city streets by signing only.....	___	___	___
D. On sidewalks with curb ramps.....	___	___	___
E. Exclusive bikeways parallel to street.....	___	___	___
F. Exclusive bikeways away from city streets.....	___	___	___

10. If bicycle routes were established on sidewalks, would you continue to ride in the streets? ___ ___ ___

11. In your opinion, are sidewalks safe for riding bikes? ___ ___ ___

12. If new bike routes are constructed, what type would you prefer?

	POOR	GOOD	BEST
A. One-way, widened shoulder types, separated by paint only, on both sides of highways.....	___	___	___
B. One-way routes on both sides of highway separated by a curb barrier	___	___	___
C. Two-way bikeway, separated from highway, on one side only.....	___	___	___
D. One-way route on 8-foot sidewalk on both sides of highway.....	___	___	___

13. Please fill in the appropriate response for each type of bicycle trip you take during an average week during the year and if made on weekends or weekdays?

Type of Trip	# of round trips per/wk	Approx. one-way dis. in miles.	CHECK ONE Wkday	Wkend
A. To & from work	_____	_____	_____	_____
B. To & from school	_____	_____	_____	_____
C. Shopping	_____	_____	_____	_____
D. Recreational	_____	_____	_____	_____

14. If a bikeway were built parallel to a route that you now take for non-recreational purposes, how many blocks would you be willing to go out of your way to ride the pathway?

None at all _____ Number of blocks _____

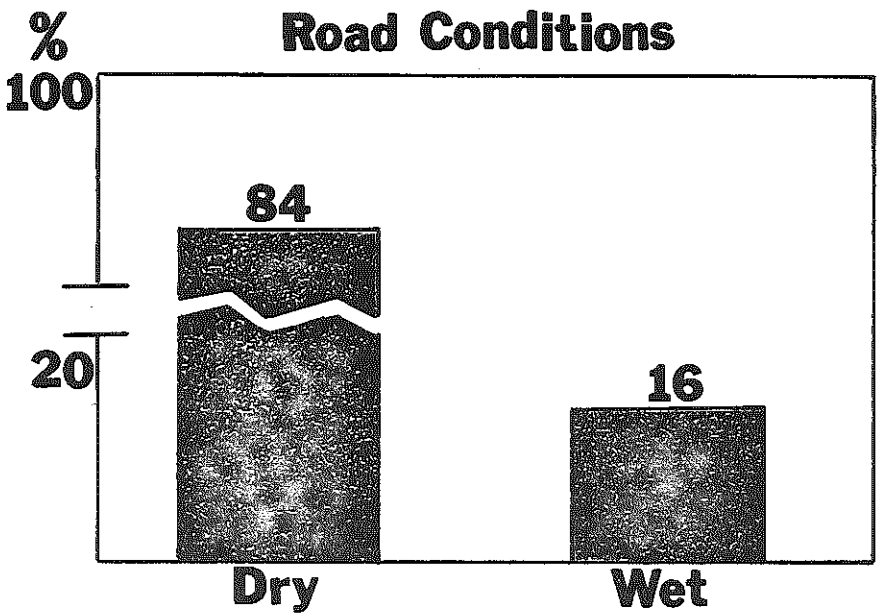
15. Would you transport your bicycle to ride bikeways established in parks?
YES_____ NO_____. If yes, how many times per year?_____

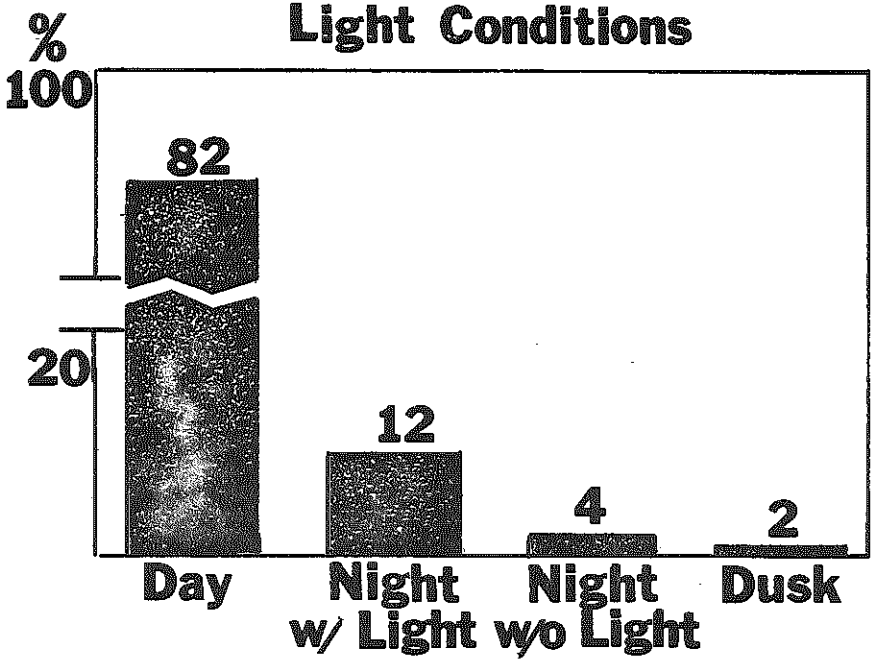
16. Would you attend a bicycle Safety/Maintenance Workshop if provided free of charge?
_____YES _____NO

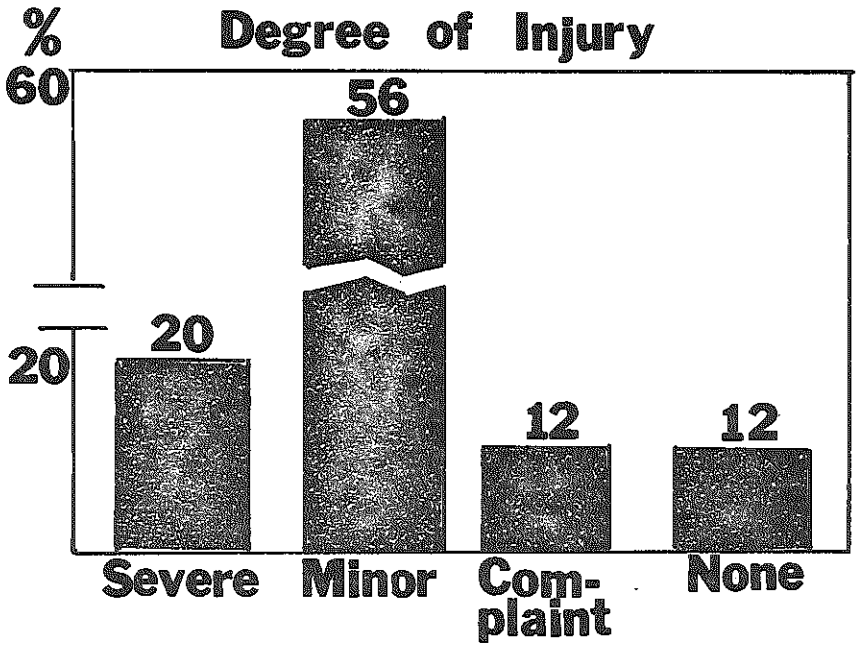
Thank you very much for your cooperation,

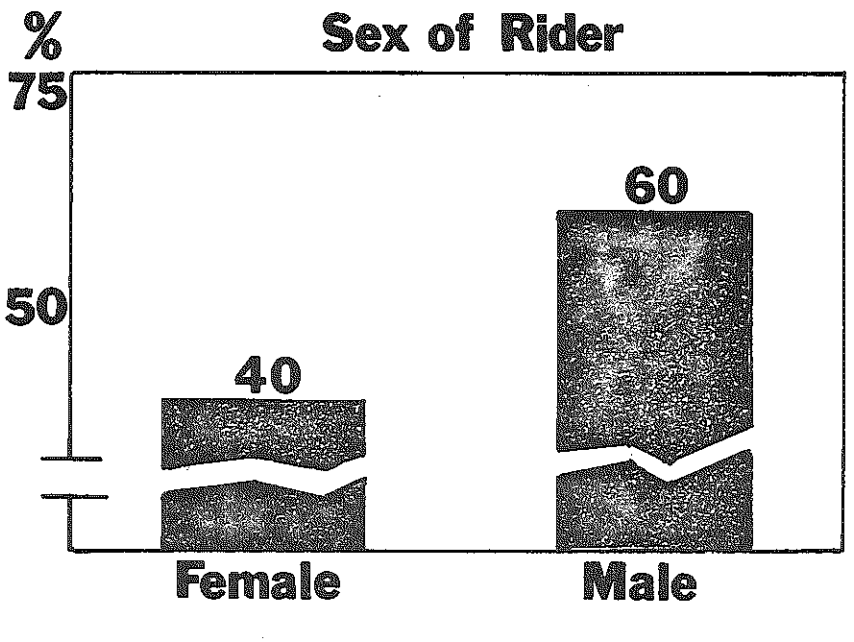
SPRINGFIELD CITIZENS' BICYCLE COMMITTEE

Figure 5B









Springfield Bicycle/Auto Accidents - Jan. 1970 - Dec. 1973

Figure 6

The great percentage of return from students, biases the survey results in the favor of the younger rider, as opposed to a full-time employed or non-working person.

The major conclusions drawn from the survey may be condensed into the following priority listings or statements:

Reasons for riding bicycle:

1. For recreation and exercise
2. To ride with friends
3. For transportation
4. To save money

Most dangerous conditions for riding bicycle:

1. Riding at night
2. Cars turning abruptly
3. Being hit from rear

Places where bikeways would increase bicycle travel:

1. Through recreational areas and parks
2. Downtown metropolitan areas

Type of bikeways which citizens prefer:

1. One-way routes on both sides of highway separated by a curb barrier.
2. One-way route on 8 foot sidewalk on both sides of highway

Average number of blocks the cyclist is willing to go out of the way to ride the pathway is 6 blocks.

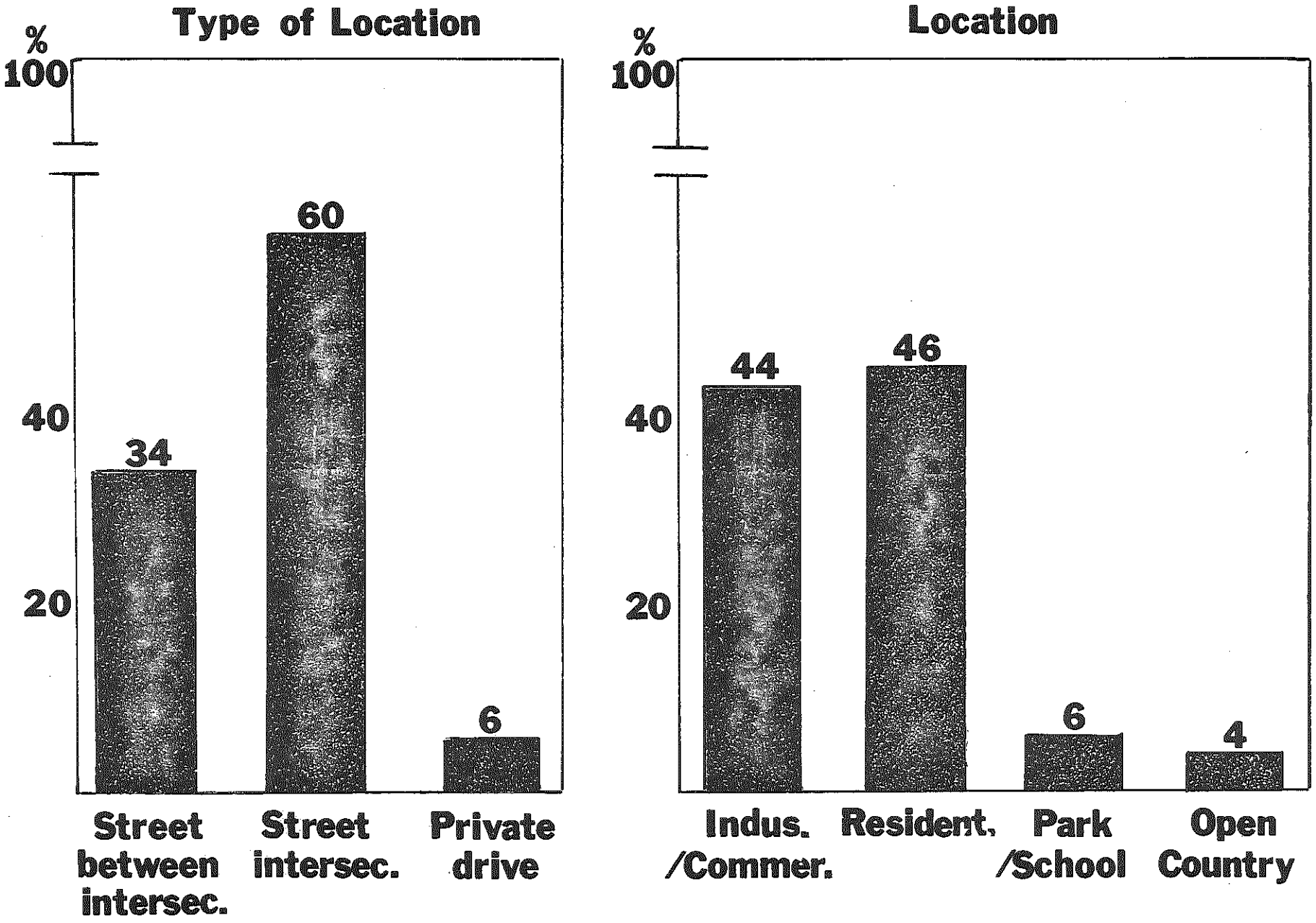
The information in these surveys, should provide the background information for decisions on the bikeway facilities. For continuous input, it is recommended that a revised Bicycle User Survey be used either annually or semi-annually to maintain contact with citizen feelings and attitudes toward an extended bikeway system.

ACCIDENTS AND SAFETY CONSIDERATIONS

ACCIDENT REPORTS

The accident records taken from the Traffic Division of the Springfield Public Works Department consist of those bicycle accidents which involve motor vehicles and which occur on public streets. The charts and graphs included on the following pages (Figures 6 through 8) attempt to show the general nature of the safety problem.

No information is available on what percent of



Springfield Bicycle/Auto Accidents - Jan. 1970 - Dec. 1973

Figure 7

the total number of bicycle riders are involved in accidents or what definite correlation occurs between the number of riders and the weather, the number of riders as compared to the number of motor vehicles, the number of riders at any one time of day, the number of riders in each age group or the amount of psychological hazard resulting from the intermodal conflict of bicycles and cars.

Keeping in mind the analysis restraints, certain conclusions may be carefully drawn from the accident information. The breakdown by age group of recorded Oregon bicycle accidents for the year 1971 parallel those of Springfield, with predominance of 10 to 14 year age group being involved in auto-bicycle accidents. (Figure 9). With school age children being involved in the majority of accidents, it is important to note the low rate of accidents occurring at schools, where, in fact, a high concentration of bicycles occur. This information possibly reflects the amount of supervision of children, regulation of traffic and driver awareness in the school areas.

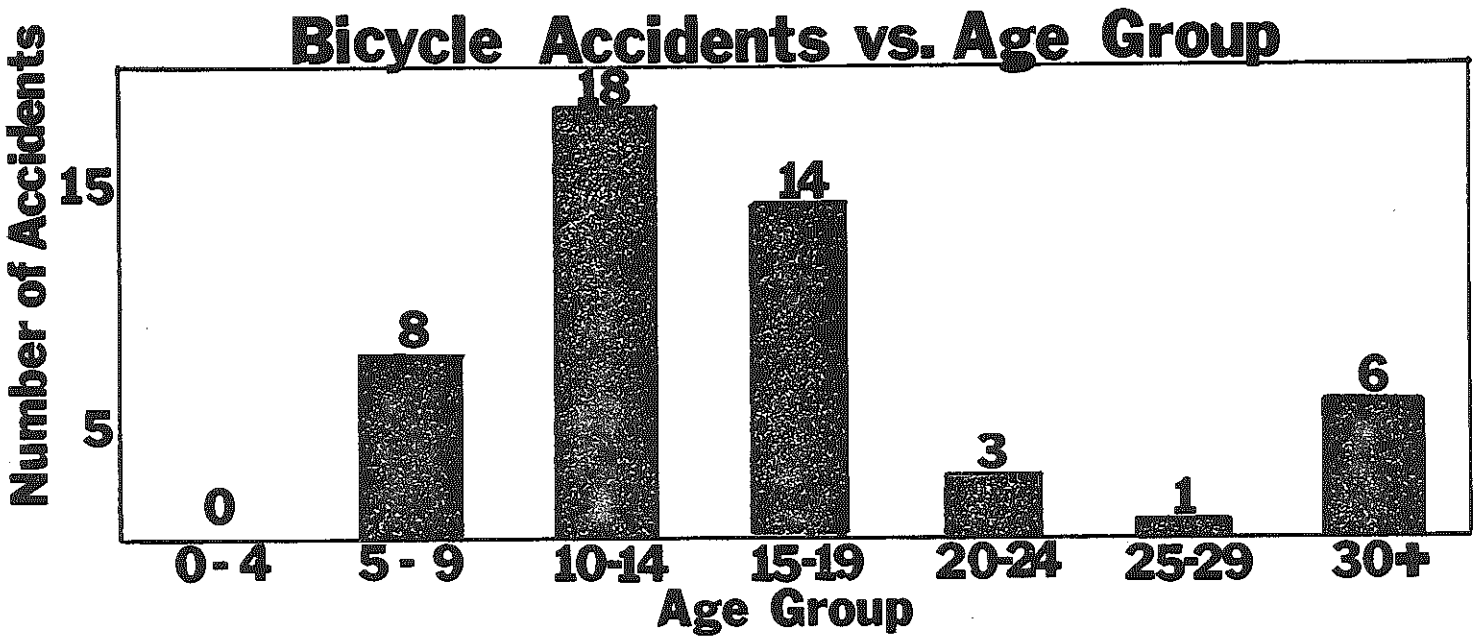
As recognized in the Eugene-Springfield 1990 Plan, "existing facilities place pedestrians and bicycles in immediate proximity to vehicular traffic, creating undue conflicts and safety problems".[2] To lessen the conflicts and problems, two steps may be taken:

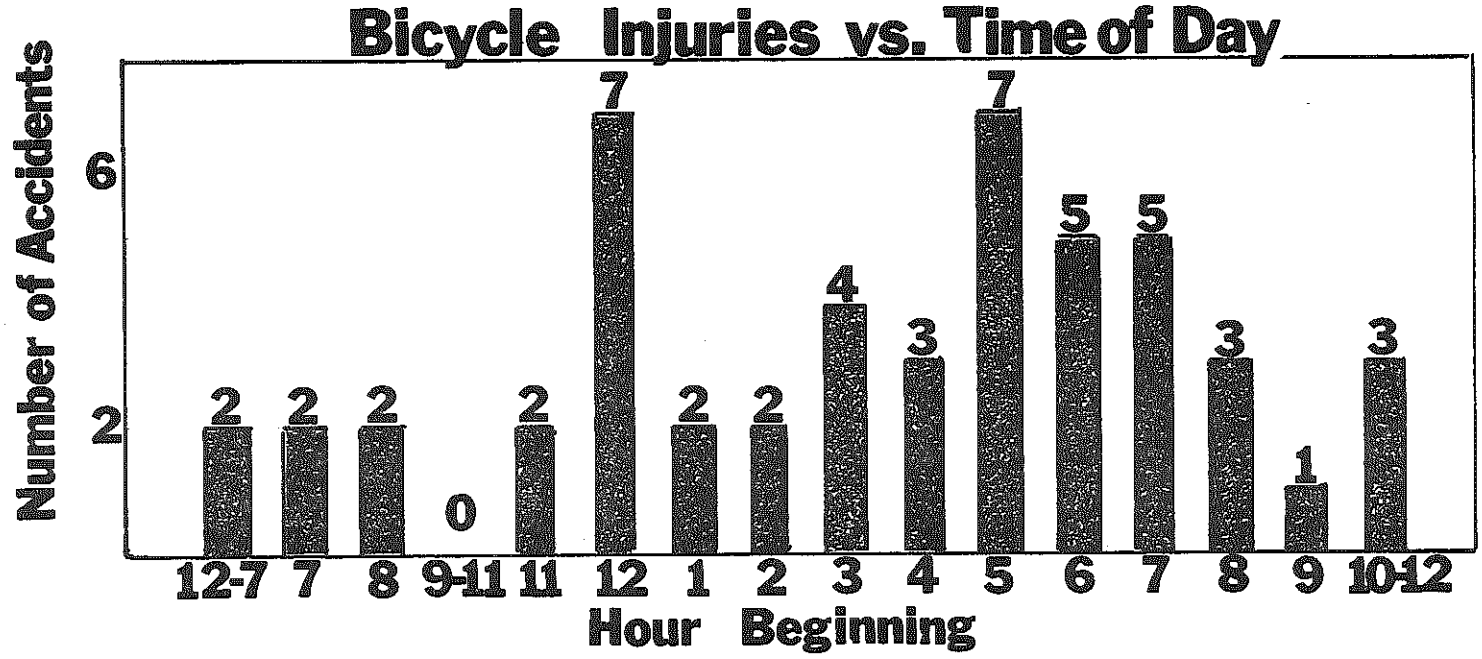
1. Eliminate the modal conflict between pedestrians, bicycles and autos through the use of designated bikeways.

2. Promote bike safety programs which make both driver and bicycle rider aware of the problems and alert to the traffic rules which pertain to both.

SAFETY PROGRAM

Bikeway design, especially Class I Paths, can do much to prevent accidents. There is little doubt that segregating bicyclists from vehicles and pedestrians would attain this goal. At present, most of the bikeway routes and much of the bicycle riding is done on streets where there is the opportunity for auto-bike interaction,





Springfield Bicycle/Auto Accidents - Jan. 1970 - Dec. 1973

Figure 8

conflicts and accidents.

A Bicycle Safety Program should communicate to all persons, whether they are motorists, pedestrians or cyclists, the following:

-A clear knowledge of bicycle safety and attitudes leading to proper bicycle operation behavior.

-An awareness of traffic safety laws and many local bicycle ordinances, an understanding of why such laws were made and the importance of obeying such laws.

-An opportunity to practice skills needed to adequately and effectively use a bicycle, and

-To learn elementary care and adjustment of bicycles and how to select a bicycle that best fits the size and needs of the rider.[3]

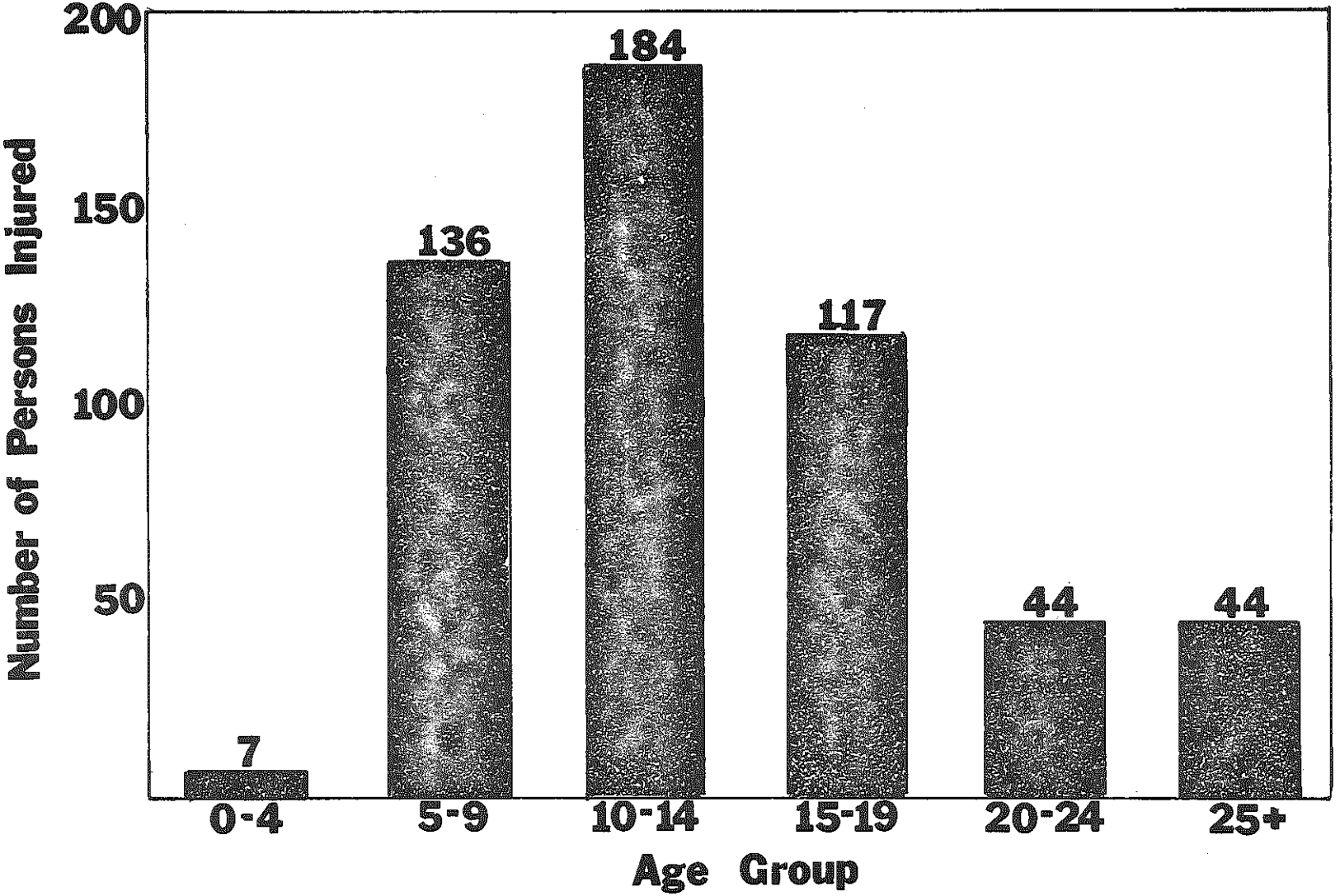
The Springfield Police Department and the Springfield School District are responsible for the Bicycle Safety Education Program for the City. In the program, an officer is assigned to visit elementary school classrooms and make a presentation to students on the safety rules and maintenance of a bicycle. Pamphlets, covering the material presented, are handed out to the students for their own personal use.

Bicycle Rodeos are held in the spring. A week before the rodeo, each student is given a bicycle checklist to take home so that he may check his bike for mechanical safety. If the bike is found to be unsafe when examined during the rodeo, the child is not allowed to participate. On the day of the rodeo the individual child demonstrates the bicycle skills learned, such as balance, hand signals, etc.

Recognition of the child's efforts is an important part of the program. A Police officer is present at the rodeo to give certificates of accomplishment to each child.

Lack of manpower is frustrating the expansion of the Bicycle Rodeo. Although the officer in

Bicycle Accidents vs. Age Group*



* OREGON BICYCLE/MOTOR VEHICLE ACCIDENTS REPORTED FOR 1971, OREGON MOTOR VEHICLES DIVISION

Figure 9

charge of the rodeo has many other duties requiring his attention, he is very willing to train people to run the events. In the past, both P.T.A. mothers and Explorer Scouts have donated time to help conduct a rodeo at each school site, both in the fall and in the spring of every year. (See Appendix C for more details)

With the above information noted, the following recommendations may be made:

-Include lessons on bicycle safety in the Driver Education classes of both the schools and private agencies.

-Include a section on bicycle safety in the Oregon Drivers License Manual and include questions pertaining to bicycle safety on the examination.

-The Springfield Bicycle Committee should investigate the possibilities of obtaining a person to devote full-time to the bicycle safety education program.

-The Springfield Bicycle Committee should create an adult education program on bicycle safety.

-The Springfield Bicycle Committee should investigate the possibilities of aquiring additional volunteer manpower and additional equipment for the Bicycle Rodeos.

-An effort should be made to coordinate Springfield Bicycle Safety Programs with those of Lane County and/or the City of Eugene.

III.

BIKEWAY PLAN IMPLEMENTATION

A bikeway plan is hindered if adequate financing for construction is unavailable. Although many citizens agree with the "Bikeway Plan" concept, it is another matter to have those same people agree to provide the financial backing with which to

implement the plan.

Springfield, being part of a larger metropolitan area, can draw input - both financial and technical - from any number of governmental agencies or various sources. Included in the following paragraphs are some examples in the ways funding may be obtained, a discussion of law enforcement difficulties and the role of the citizen, all with respect to an extended bikeway system.

FINANCING

FEDERAL ASSISTANCE PROGRAMS

The various grant and aid programs, taken from the 1973 Catalog of Federal Domestic Assistance, provide examples of the type of funding available at the Federal level. It should be noted that all programs are not applicable to every type of bikeway, and some various restrictions are inevitably associated with various grant or aid programs. Although a good supplementary source of funding, exclusive reliance on these funds should be carefully evaluated. (Possible Federal funding applicable to bikeways are listed in Appendix D.)

STATE FINANCING PROGRAMS

Chapter 376 of the Oregon Revised Statutes makes available a minimum of 1% of all gasoline revenue to any governmental entity within any Council of Government jurisdiction, for use on footpath and bicycle trail planning. If the local governmental entity is willing to spend 5% of these funds for planning, the Highway Commission will agree to match this amount. This match will provide an amount equal to ten percent of available local funds for developing a bicycle route comprehensive plan.

To qualify for these funds, the Council of Government must agree to prepare and submit to the State, a comprehensive master plan of bicycle

routes for the area under their jurisdiction within one year of the agreement date. Route proposals, priorities, anticipated usage and suggested methods of construction are to be included in the comprehensive plan.

LOCAL FINANCING PROGRAMS

Working on a bikeway plan, in a community such as Springfield, depends on a coordinated program of funding from several sources. One direct way of financing is through the local bond issue, when and if the magnitude of public demand is reflected in the political atmosphere.

Other sources of local funding may come from increased taxes, a general fund, special tax levies, park and recreational assessments. Also, property may be received directly from dedication of street frontage and easements. Specifically in Springfield at this time, notice should be taken of the possibilities of using Federal Revenue Sharing Funds for use in constructing an extended bikeway system. Each method of funding varies in amount of public support needed to procure the specific money. It is important that elected and public officials are sensitive to the magnitude of public demand and the political climate so that they might be ready to implement a comprehensive program of financing for bikeways at the proper time.

ENFORCEMENT

Along with a good safety program, the enforcement of regulations may be able to make cycling more safe. The Springfield Police Department does not have enough manpower to provide consistent enforcement of bicycle regulations with problems such as motor vehicle violations or crime taking precedence over the issuing of citations for bicycle-related violations.

The current procedure is to stop the violator and either talk to the bike rider about the violation or issue a warning. If a warning is issued to a juvenile, the parents are notified and asked to help correct the situation - no court appearance is required. If three warnings are issued within a twelve month period, the juvenile is summoned to appear in Springfield Municipal Court.

The number of warnings issued has been small, due to both the lack of manpower and the reluctance of officers to issue warnings to a minor. The age group of 10 to 14 years of age have received the most warnings, the same group which is involved in the most accidents. The most frequent violations cited are for ignoring stop signs and traffic lights and travelling at night without a light.

It is important that enforcement of regulations correspond with the growth of the use of bicycles. The practice of fining has been used in some areas to control violations. As an example, the City of Hood River, Oregon has an ordinance which includes fining of up to $100, spending up to 10 days in jail or both.[4] Although this fine may be a little severe, the concept of the fine should not be dismissed.

Regulations that have been enforced in the past have been confined solely to Class II and III bikeways. Police officers do not have ready access to Class I bikepaths and alternate methods of enforcement must be found.

ALTERNATE METHODS OF ENFORCEMENT

The enforcement of regulations of Class I or exclusive bikepaths is a problem. For areas where motorized vehicles are not allowed, the City of Palo Alto, California has suggested an inexpensive way of providing additional manpower for enforcing bicycle regulations. Bicycle patrol persons could be deputized to supplement the police force for peak hour use in early morning, late afternoons and weekends. Mounted on special colored bikes, the patrols are stationed near Class I or exclusive

paths, high accident or violation areas.[5]

Class II and III bikeways do not present as great a problem of patrolling as do Class I bikeways as motorized vehicles are allowed on or near them. The above idea could be used or police officers on motorcycles might offer an officer greater maneuverability in patrolling the Class I bikeways.

REGISTRATION AND LICENSING

The City of Springfield requires that all bicycle owners living within the City purchase a one time only license for a dollar fee. The licensing procedure usually occurs once a month, with places and times for obtaining a license being advertised in the local newspaper. The fees collected are recorded in a separate account with the money going into the City's General Fund, not necessarily to be used for a bicycle program.

With the problems and conditions existing as noted above, several recommendations or directions may be considered:

- Give immediate attention to the problem of insufficient manpower for enforcing regulations.

- Consider the use of motorized bicycles or some other form of movement for those who enforce regulations.

- Develop a system of fines for bicycle violations.

- Earmark bicycle license fees for bicycle safety program use.

- Consider license renewal and other means of increasing monies available for manpower, equipment, etc.

- Consider coordination of metropolitan area wide procedure for bicycle licensing and registration.

EXISTING LAWS

The bicycle has some definite laws pertaining

to its use and required equipment standards.

The laws included here are those of the Oregon Statute and those peculiar to the City of Springfield. The entire Springfield Code pertaining to bicycles is included in Appendix E.

BICYCLE EQUIPMENT REQUIREMENTS

The 1973 Oregon Legislature adopted new laws which changed equipment requirements for bicycles. The following is a summary of such requirements for bicycles in Oregon:

Definition:

A bicycle is defined in Oregon law as every device propelled by human power upon which any person may ride, having two tandem wheels either of which is more than 14 inches in diameter, or having three wheels, all of which are more than 14 inches in diameter.

Equipment Requirements:

When a bicycle is in use at night, the bicycle or its rider must be equipped with a headlight visible at least 500 feet in front of the bicycle. A red reflector must be large enough and mounted so it is visible from all distances from 100 feet to 600 feet to the rear when directly in front of lawful lower beams of headlights on a motor vehicle. The law also permits use of a red light, visible from 500 feet to the rear, in addition to the rear reflector.

Every bicycle must be equipped with a brake which will enable the operator to make the braked wheels skid on dry, level, clean pavement.

It is against the law for a parent of any child or the guardian of any ward to authorize or knowingly permit any child or ward to violate the equipment requirement provisions of the law.[6]

RIDING RULES

Several laws pertaining to riding requirements were also changed under the new law of the 1973 Oregon Legislature. The following riding rules are laws for the State of Oregon:

Riding Rules:

You must ride upon or astride a permanent and regular seat attached to the bicycle.

A bicycle cannot be used to carry more persons at one time than the number for which it was designed and equipped.

If you ride a bicycle (coaster, roller skates, sled or toy vehicle) do not "hitch" a ride by attaching either yourself or the unit to some other vehicle.

You are to ride as near to the right side of the roadway as practicable, except on one-way streets. Exercise due care when passing a standing or moving vehicle going in the same direction.

On streets or roads where the designated speed exceeds 25 miles per hour, you must ride single file. In other locations, ride not more than two abreast.

If a bicycle lane has been provided adjacent to a roadway, bicycle riders are to use that lane and not the regular street or road.

Do not carry any package, bundle or article which prevents you from keeping at least one hand on the handlebars and having full control at all times.

Bicycle riders also are expected to obey all other traffic laws that apply to the driver of a motor vehicle, except those which by their very nature can have no application. (This is not new; Oregon law has long contained this provision.)

Bicycles and Pedestrians:

When a bicycle is on a sidewalk, the

rider is to give an audible warning before overtaking and passing a pedestrian and shall yield right-of-way to all pedestrians on the sidewalk.

Do not operate a bicycle on a sidewalk in a careless manner that endangers or would be likely to endanger any person or property.

The City of Springfield has restrictions on bicycle use that are more specific than those in the State laws. The following regulations are taken from the Springfield Code, Chapter VI, Article 4:

6-4-3 Riding on Right Side of Street. Every person operating a bicycle on any street, alley, or public place in the City shall keep the bicycle on the extreme right of the traffic lane.

6-4-9 Single File. It shall be unlawful for two or more operators of bicycles to travel abreast on any street, alley, or public place in the City or to operate a bicycle on traffic lanes otherwise than in single file, except momentarily when it is necessary for one to pass another.

6-4-13 Racing. It shall be unlawful for any person to run or engage or cause to run or to be engaged in any bicycle race on any street, alley, or public place within the City, except under permit from and supervision of the Chief of Police of the City.

6-4-14 Pedestrians. The driver or operator of a bicycle shall give the right-of-way at all times to a pedestrian proceeding lawfully regardless of when and where he is driving or operating the bicycle.

6-4-15 Riding over Yards, Parkways. No person shall operate or ride a bicycle across, over, or on any yard, lawn or parkway in the City, other than a yard, lawn or parkway owned by or under the lawful control of such person, or constituting a part of the premises at which he resides.

It should be noted that when two laws cover the same area, the more stringent or rigid law should be obeyed. It should be recommended that City laws be redesigned to be consistent with laws set forth in the State statutes.

CITIZEN'S BICYCLE COMMITTEE

SPRINGFIELD BICYCLE COMMITTEE

The Springfield Bicycle Committee is a special purpose citizen's group, which has limited their particular interests and concerns to that of bicycle and footpath use. The Committee is comprised of seven lay citizens who are appointed by the City Council with meetings being held twice a month and open to the public.

Through the use of the Citizen's Committee, it should be possible to analyze, not only the need for bikeways, but also the areas in which the bikeway routes should be developed. Hopefully, with the greater interest in and importance placed on the bicycle, citizen interest will become stronger and participation in the planning of bikeways will increase. It was under the direction of the Citizen's Bicycle Committee, that the Springfield Bikeway Plan was outlined and completed. As specific bikeway routes are under consideration, the Committee will work with the City to determine the type of bikeway necessary for optimum use and safety in each instance.

Adopted Bylaws of the Springfield Bicycle Committee are included in Appendix F.

REGIONAL COORDINATION

Existing within Lane County, in addition to the Springfield Bicycle Committee are the Eugene Bicycle Committee and the Lane Council of Governments Transportation Bicycle Planning Committee. To coordinate efforts of the three committees, meetings are held regularly with representatives from Lane County, City of Eugene, City of Springfield, Oregon Department of Transportation and the Lane Council of Governments participating. The Bike Planning Committee provides coordination of bikeway route development between the overlapping jurisdictions and provides technical analysis and assistance on pertinent problems in providing a balanced and efficient transportation system.

During the calendar years 1974-1975, the Bicycle Planning Committee will be working on a

specific bicycle "Master Plan", to later incorporate State and local plans for an extended bikeway system.

IV.

RECOMMENDATIONS AND REVIEW

PLACEMENT OF BIKEWAY ROUTES

Using the information provided by the forgoing text, the Citizen's Bicycle Committee defined specific goals relating to an extended bikeway system in the Springfield area. With no order of priority, the goals adopted are as follows:

- Provide an effective and alternative means of transportation.
- Eliminate the modal conflict between pedestrians/bikes/autos through the use of designated bikeways.
- Promote viable citizen input in the planning of bikeway system.
- Promote programs in education of bicycle safety and enforcement of laws and regulations.
- Promote coordination of efforts between various governmental jurisdictions in the planning and construction of bikeways.

By attempting to achieve these goals, the Springfield Bicycle Committee devised a Bikeway Corridor Plan incorporating recommendations already noted. Included in the following section are the recommended placement of the Bikeway Corridors and a suggested outline for review procedures.

CRITERIA FOR PLACEMENT

The high, medium, low classifications for safety factors as shown on Table 2, indicate the amount of hazard existing both to the driver and to the cyclist at the present time when no bikeway

facility exists. One street may only have one or two cyclists a year, but if both of those people are involved in accidents, there exists a high hazard or safety factor for that area. The assumption is made that the addition of bikeway facilities will reduce or eliminate the hazards of cycling on that street.

User demand is determined by both the demand for extended bike facilities and the projected demand or use after the facility is completed. In the previous example of the street with two cyclists, such a street may have a high hazard factor, but because only two bikes will ever use the extended facility, it would have a low user demand.

Comparative cost is the third factor in choosing a bikeway corridor. The figures on Table 2 were based on the considerations of:

(1) Mode alternative

...what would it cost to supply a different transportation mode to the same group, such as bus transportation to young children?

(2) feasibility of construction

...can a bikeway be constructed through a hill or over a freeway?

(3) construction cost

...does the City already have the right-of-way, or must land be bought to provide space for the bikeway?

No detailed analysis of hazard, user demand or cost-benefit factors was conducted. Chief sources of information for Table 2 were the Bicycle User Questionnaire (See page 14), the Bicycle Committee and voluntary citizen input. The latter indicated which areas were of particular interest because of user demand or safety factors.

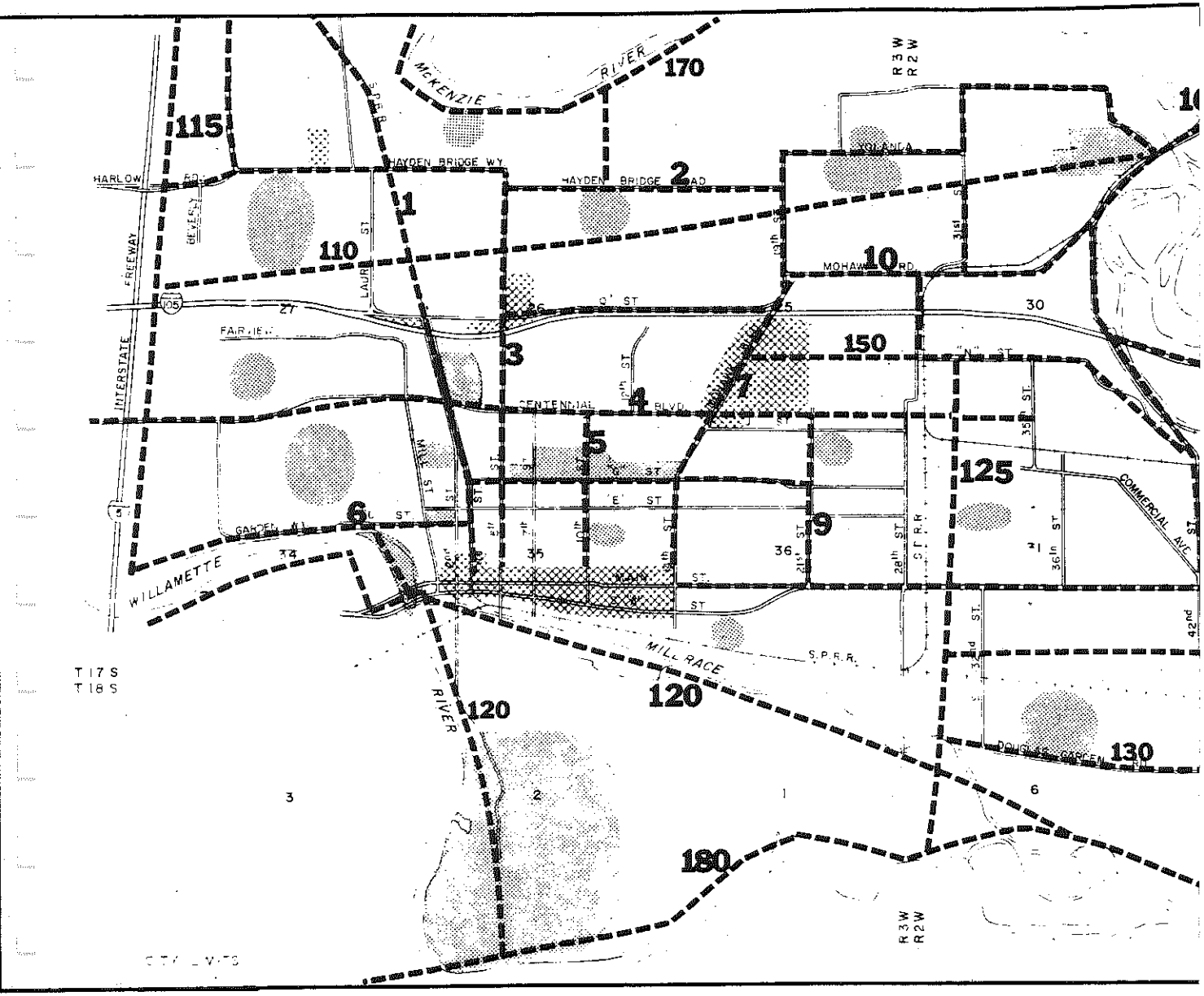
PRIORITY OF BIKEWAY CORRIDORS

Figure 10 and Table 1 show the plan for the general Bikeway Corridors. Actual placement and specific bikeway type or design will have to be determined by further technical engineering

BIKEWAY ROUTE NAME	BIKEWAY ROUTE NUMBER*
EAST-WEST	
McKenzie River Touring Path	170
Harlow-Hayden Bridge	2
EWEB Right-of-Way	110
Mohawk Rd./Q Street	10
Thurston Rd./I 105	160
N Street	150
Centennial	4
Garden Way/West D/G Street	6
Main Street (10th St. to City Limits)	8
Daisy Street	140
Douglas Gardens/Jasper	130
Mill Race/Willamette River	120
Willamette River	180
NORTH-SOUTH	
I-5 Corridor	115
S. 2nd/2nd-3rd Street Couplet/Coberg	1
5th Street	3
10th Street	5
14th/Mohawk Blvd./19th Street	7
21st Street	9
SPRR Right-of-Way/30-30/29th/31st Street	125
42nd/Marcola Road	135
52nd Street	145
57th/58th Street	11
69th Street	155
Marcola	165

* Short range project (1-5 years) = one or two digit number
Long range project (over 5 years before completion) = three digit number
East-West Bikeway route = even numbered digit
North-South Bikeway route = odd numbered digit

TABLE 1


MCKENZIE RIVER
170
115
110
1
2
3
4
5
6
7
9
10
120
125
130
150
180
HARLOW RD.
HAYDEN BRIDGE WY.
HAYDEN BRIDGE ROAD
MOHAWK RD.
FAIRVIEW
CENTENNIAL BLVD.
INTERSTATE FREEWAY
LAUREL ST.
MILL ST.
WILLAMETTE
MILL RACE
S.P.R.R.
C.R.R.
COMMERCIAL AVE.
DOUGLAS GARDEN
R3W
R2W
T17S
T18S

BIKEWAY ROUTES PRIORITIZED BY CHARACTERISTICS
USING BIKEWAY ROUTE NUMBERS

BIKE ROUTE NO.	SAFETY FACTOR			USE FACTOR			COST FACTOR		
	High Hazard	Medium Hazard	Low Hazard	High Demand	Medium Demand	Low Demand	Least Cost	Medium Cost	High Cost
1	X			X			X		
2	X				X			X	
3	X			X			X		
4	X			X				X	
5		X		X			X		
6	X			X			X		
7	X				X		X		
8	X			X			X		
9	X				X		X		
10	X			X				X	
11	X			X				X	
110			X		X			X	
115			X			X			X
120			X		X				X
125		X				X			X
130	X					X		X	
135	X				X			X	
140			X			X	X		
145		X				X		X	
150		X				X	X		
155			X			X		X	
160	X				X				X
165			X			X			X
170			X			X			X
180			X			X			X

TABLE 2

BIKEWAY ROUTE NUMBER	BIKEWAY ROUTE NAME	PRIORITY LISTING
	SHORT TERM PRIORITY BIKEWAY PROJECTS	
8	Main Street	1
3	5th Street	2
1	S. 2nd/2nd-3rd St./Coberg	3
6	Garden Way/West D/G Street	4
11	57th/58th Street	5
4	Centennial Blvd.	6
7	14th/Mohawk Blvd./19th Street	7
5	10th Street	8
9	21st Street	9
10	Mohawk/Q Street	10
2	Harlow-Hayden Bridge Road	11
	LONG-RANGE PRIORITY BIKEWAY PROJECTS	
135	42nd/Marcola Road	1
130	Douglas Gardens/Jasper Road	2
150	'N' Street	3
160	Thurston Road/I 105	4
145	52nd Street	5
140	Daisy Street	6
110	EWEB Right of Way	7
120	Mill Race/Willamette River	8
115	I-5 Corridor	9
125	SPRR Right of Way/30-30/29th/31s Street	10
155	69th Street	11
170	McKenzie River Touring Path	12
165	14th/McKenzie River	13
180	Willamette River Touring Path	14

TABLE 3

reports. The Bikeway Corridor Plan is meant as a general plan to be followed as engineering requirements dictate.

The corridors, as shown in Table 1, are separated into those to be completed on a short-term basis of one to five years and those for which more long-term planning is necessary. Each group, short or long term, has then been further priortized in Table 2 by using the criteria previously discussed. The total overall priority listing is known by street name and route number in Table 3.

The priority listing of bikeway corridors is a flexible guide to development. Any bikeway which may be completed as new streets are developed will be included in that construction, regardless of priority.

SUMMARY OF RECOMMENDATIONS

The implementation of a coordinated bikeway plan is needed in conjunction with the actual placement of the bikeway corridors. The following recommendations are taken from the forgoing plan and listed in summary form.

I. Bicycle User Questionnaire

For continuous input, it is recommended that a revised Bicycle User Survey be used either annually or semi-annually to maintain contact with citizen feelings and attitudes toward an extended bikeway system.

II. Accidents and Safety Considerations

A. Accidents

To lessen the conflicts and problems:

- Eliminate the modal conflict between pedestrians, bicycles and autos through the use of designated bikeways.
- Promote bike safety programs which make both driver and bicycle rider

aware of the problems and alert to the traffic rules which pertain to both.

B. Safety Program

- Include lessons on bicycle safety in the Driver Education classes of both the schools and private agencies.
- Include a section on bicycle safety in the Oregon Drivers License Manual and include questions pertaining to bicycle safety on the examination.
- The Springfield Bicycle Committee should investigate the possibilities of obtaining a person to devote full-time to the bicycle safety education program.
- The Springfield Bicycle Committee should create an adult education program on bicycle safety.
- The Springfield Bicycle Committee should investigate the possibilities of aquiring additional volunteer manpower and additional equipment for Bicycle Rodeos.
- An effort should be made to coordinate Springfield Bicycle Safety Programs with those of Lane County and/or the City of Eugene.

III. Bicycle Parking

The City of Springfield should:

- Develop a process by which governmental agencies provide parking facilities at areas of traffic generation or
- Develop a process by which service organizations, institutions and firms are encouraged to provide parking facilities throughout the Springfield area. Changes in City code may be necessary to allow installation of parking facilities by private firms on public property.

IV. Enforcement

- Give immediate attention to the problem

of insufficient manpower for enforcing regulations.

- Consider the use of motorized bicycles or some other form of movement for those who enforce regulations.
- Develop a system of fines for bicycle violations.
- Earmark bicycle license fees for bicycle safety program use.
- Consider license renewal and other means of increasing monies available for manpower, equipment, etc.
- Consider coordination of metropolitan area wide procedure for bicycle licensing and registration.

V. Existing Laws.

- City laws pertaining to bicycles should be redesigned to be consistent with laws set forth in the Oregon State statutes.

DESIGN REVIEW PROCEDURE

In addition to the implementation of the Bikeway Plan, a constant review of its implications and affects is necessary to assure best usage of resources. The following review procedures should be used as a means to qualify the progress of the Bikeway Plan:

- Implementation
  - Review accident figures, being careful to compare the number of accidents before and after the building of the bikeway route.
  - Maintain record of usage per individual bikeway, comparing location and designs of bikeways with amount of usage.
- Information

By means of survey procedures, determine:

- level of public awareness and knowledge of bicycle laws and ordinances.

- level of public understanding, acceptance and adaptation to bicycle lanes and paths.

- attitude of the public toward the bicycle safety efforts.

- Enforcement

- Determine volume of citations and warnings issued by police officers to the bicycle riders.

- Determine impact of education on the illegal bicycling habits and amount of compliance with bicycling laws.

It is necessary to consider the effectiveness of each of the elements (design, signing, financing, enforcement, etc.) and to what extent that element enhances the goals of a better and safer bicycling environment.

V.

APPENDIX

A. Cost estimates (average values) given for contract (including materials, construction and installation) and maintenance.

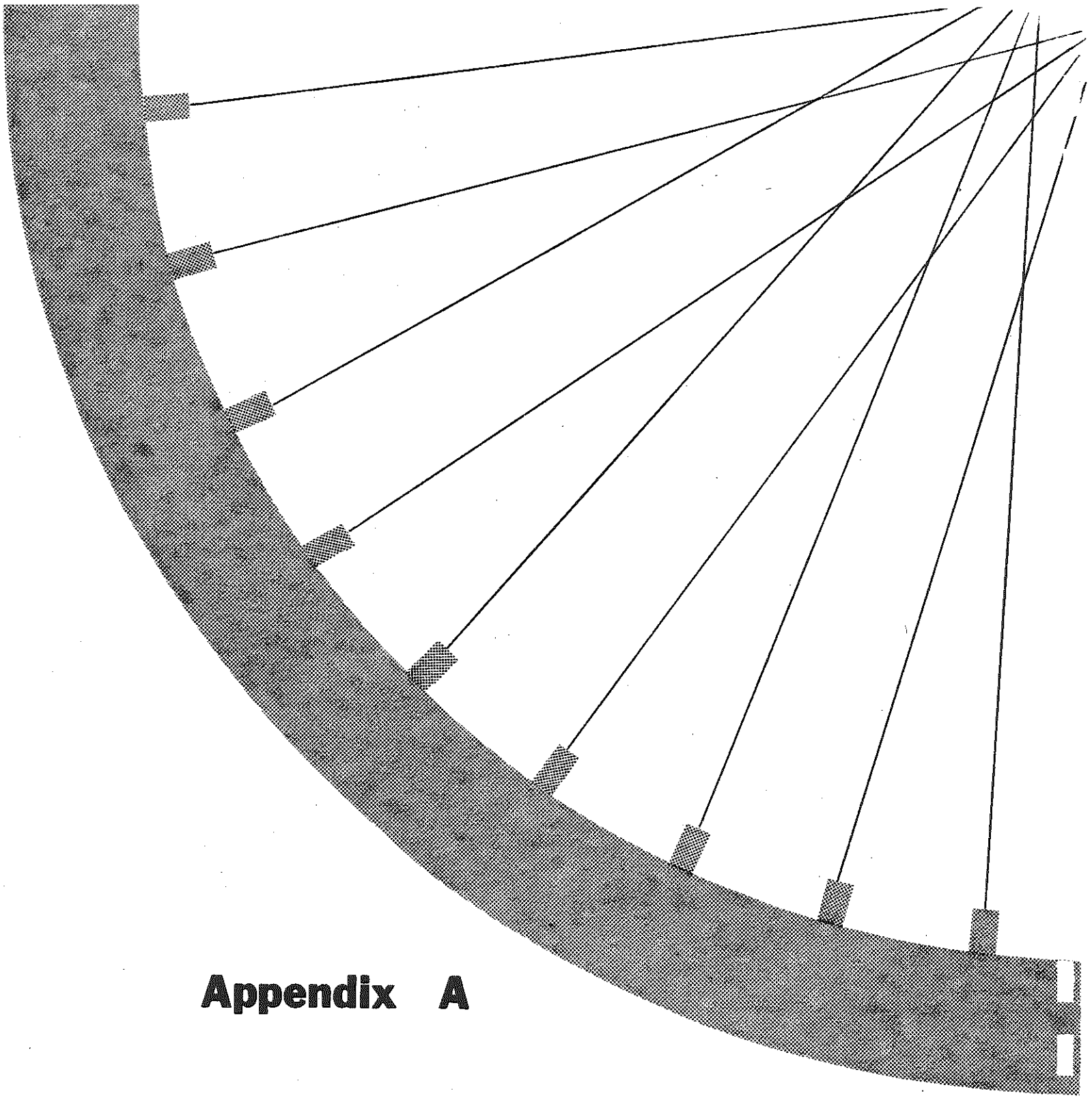
B. Regulations for signs located on bikeways.

C. Springfield Bicycle Safety Test.

D. Federal Domestic Assistance programs applicable to bikeway construction and/or development.

E. Springfield City Code, Chapter VI.

F. Adopted Bylaws Springfield Bicycle Committee.



Appendix A

APPENDIX A

Cost extimates (average values) given for contract (including materials, construction and installation) and maintenance.[1,2]

I. STRUCTURAL SECTION

a.	2" Surface (Type B Asphalt Concrete)	$ 8.00/ton
b.	4" Aggregate Base	$ 4.00/CY

II. GRADING

a.	Roadway Excavation	$ 2.00/CY
b.	Imported Borrow	$ 2.00/CY

III. DRAINAGE

a.	Graded Ditch (Ditch Excavation 1' Wide Vee ditch 2 to 1 side slopes	$ 2.50/CY
	or	$ 0.06/LF
b.	Cross Drains 6" Asbestos - cement drain pipe	$ 6.00/LF
c.	Modify existing catch basin grates (welded cross bars to prevent bicycle wheels from dropping-in) Note: Hydraulic design should be considered.	$10.00 EA

IV. LANDSCAPING

a. Plant shrubs to form a screen or barrier -10 foot on center, including a one year maintenance period:

With irrigation $4.50 to $6.00/LF

Without irrigation $1.50 to $3.00/LF

b. Other landscaping including irrigation $8,000 to $20,000/Acre

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[1] Cost extimates were supplied by Richard H. Kermode, District Design Coordinator, Design B, State of California, Division of Highways, District 7, Los Angeles. Estimated costs for specific projects could run either higher or lower depending on the design, location, topography, and size of project.

[2] Notation: LF = linear foot, SF = square foot, CY = cubic yard.

Cost varies with location, size of project type of planting, size of plants and availability of water.

V. BRIDGES AND RETAINING WALLS

a. Pedestrian Overcrossing including ramps 8' width, max. 100' span. $ 280/LF

b. Pedestrian Undercrossing $1250/LF
Min. 18' wide x 14' high required for freeways.
Cost does not include traffic detour.

c. Cantilevered bikeway attached to existing bridge. $ 155/LF
10' width including wire mesh railing

d. Retaining Walls: 4' height $ 25/LF
6' height $ 35/LF
8' height $ 50/LF

VI. BARRIERS AND FENCES

a. Concrete Median Barrier $ 12.00/LF

b. Single Metal Beam Barrier $ 8.00/LF

c. Cable Barrier (with mesh) $ 3.50/LF

d. Cable Barrier (without mesh) $ 3.00/LF

e. 0.5' Asphalt Dike $ 0.70/LF

f. Type B3 Dowelled Curb (Parking Bumper) Class B Concrete at $45.00/CY $ 0.50/LF

g. 72" Chain Link Fence "CL-6" $ 2.50/LF

h. 48" Chain Link Fence "CL-4" $ 2.00/LF

VII. MODIFICATIONS OF EXISTING STREETS

a. Remove Concrete Curb $ 0.60/LF

b. Remove Concrete Curb and Gutter $ 1.60/LF

c. Remove Concrete Sidewalk (4" depth) $ 0.50/LF

d. Construct Concrete Sidewalk (4" depth) Class B Concrete at $45.00/CY $ 0.55/LF

e. Construct Type A2-8 Curb & Gutter Class B Concrete at $45.00/CY $ 3.00/LF

f. Construct Concrete Bikeway Ramp (including curb removal, sidewalk removal and roadway excavation):

4' width	4'length 4" depth	$ 24.00 EA
6' width	4'length 4" depth	$ 36.00 EA
8' width	4'length 4" depth	$ 48.00 EA

VIII. SIGNS

a. Regulatory Signs $ 25.00 EA
3' x 3' enamel painted sign mounted on wooden post.

b. Bikeway Sign (enamel painted) $ 15.00 EA
mounted on wooden post.

IX. STRIPING

a.[1]	Single 3" solid white or green line (paint)	$ 500/Mi
b.[2]	Single 3" solid white or green line (thermoplastic)	$2000/Mi
c.[3]	Single 4" dashed white lane line (paint)	$ 500/Mi
d.[3]	Single 4" dashed white lane line (thermoplastic)	$2000/Mi
e.[3]	Double 4" solid yellow center line (paint)	$ 700/Mi
f.[3]	Double 4" solid yellow center line (thermoplastic)	$2800/Mi
g.	Cross walk stripe (12" white thermoplastic)	$ 1.00/LF
h.[3]	Remove traffic stripe (paint)	$ 0.20/LF
i.[3]	Remove traffic stripe (thermoplastic)	$ 0.50/LF

X. PAVEMENT MARKINGS - STENCIL

a.	Pavement markings (paint)	$ 0.50/SF
b.	Pavement markings (thermoplastic)	$ 2.00/SF
c.	Remove pavement markings (paint)	$ 0.60/SF
d.	Remove pavement markings (thermoplastic)	$ 1.50/SF

XI. PAVEMENT MARKERS

a.	Type G one-way clear Reflective Marker	$ 2.00 EA
b.	Type A non-reflective marker	$ 0.75 EA

XII. SIGNAL MODIFICATIONS

Modify signal heads and controllers $10,000/Intersection

XIII. LIGHTING

Light standard and conduit. Utilization of existing street lighting facilities may reduce this item cost. $1000 EA

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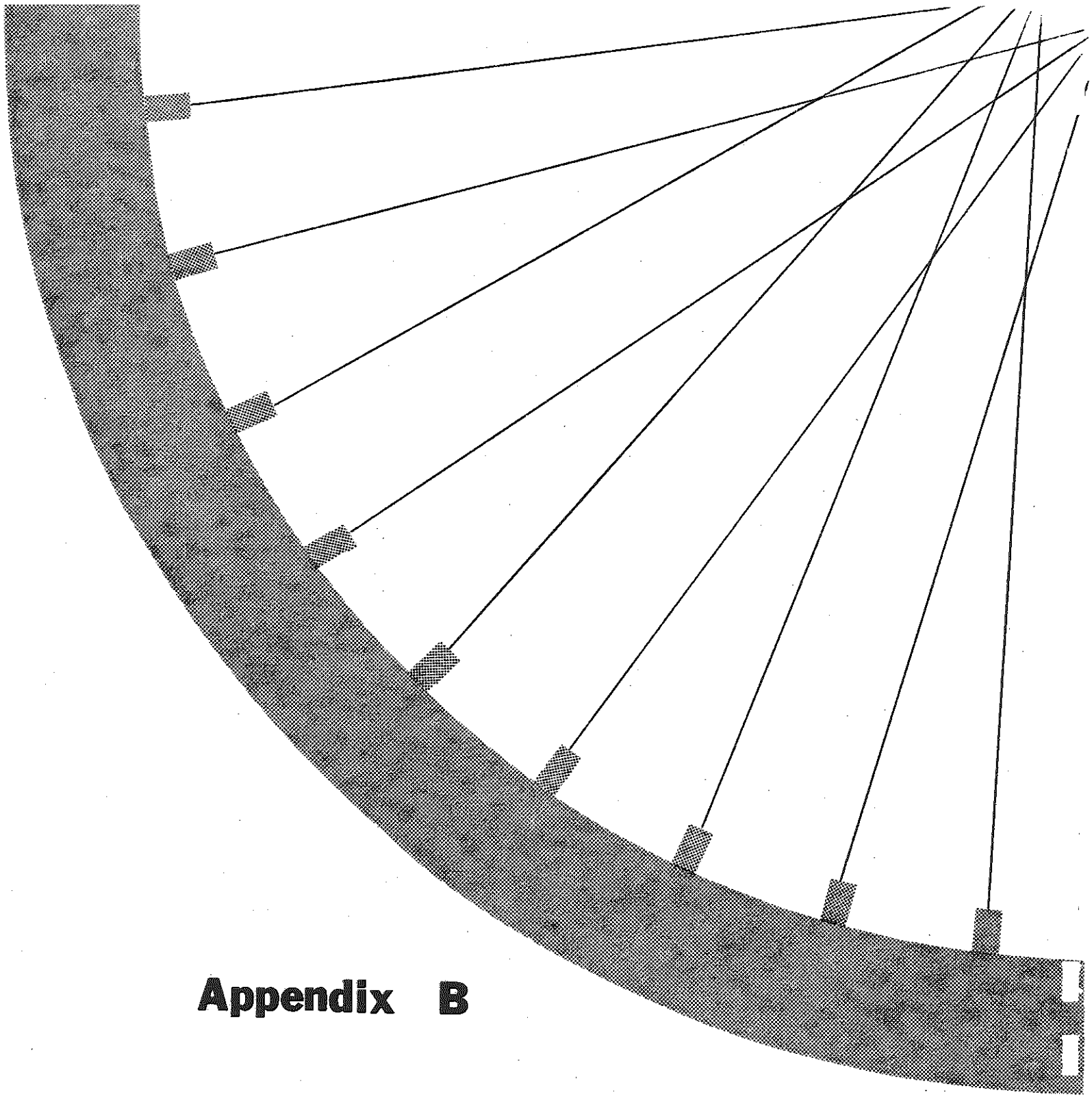
[1] white stripe is standard, green stripe may be considered for bikeway.

[2] use of thermoplastic lines may pose hazards to bicyclist when pavement is wet.

[3] these items are for striping or removal of traffic lanes.



Appendix B

APPENDIX B

Regulations for signs located on bikeways:

-BIKE ROUTE SIGN-

Material:

Alloy aluminum or any other suitable metal, plastic or high density plywood.

Finish:

Reflectorized if to be used at night by bicycles and automobiles, but otherwise not required.

Colors:

Standard Interstate Green, White.

Gauge of Metal:

Suggested: .064

Dimensions:

24" x 18" mounted as horizontal rectangle.

Design:

A bicycle symbol; the words BIKE ROUTE in 3" series C letters.

Category:

"Guide" or "Trail Blazer".

-BIKE CROSSING SIGN-

Material:

Alloy aluminum or any other suitable metal, plastic or high-density plywood.

Finish:

Reflectorized material as in warning signs if it must be effective at night.

Colors:

Standard Hi-way Warning Yellow, Black.

Gauge of Metal:

Suggested: .080"

Dimensions:

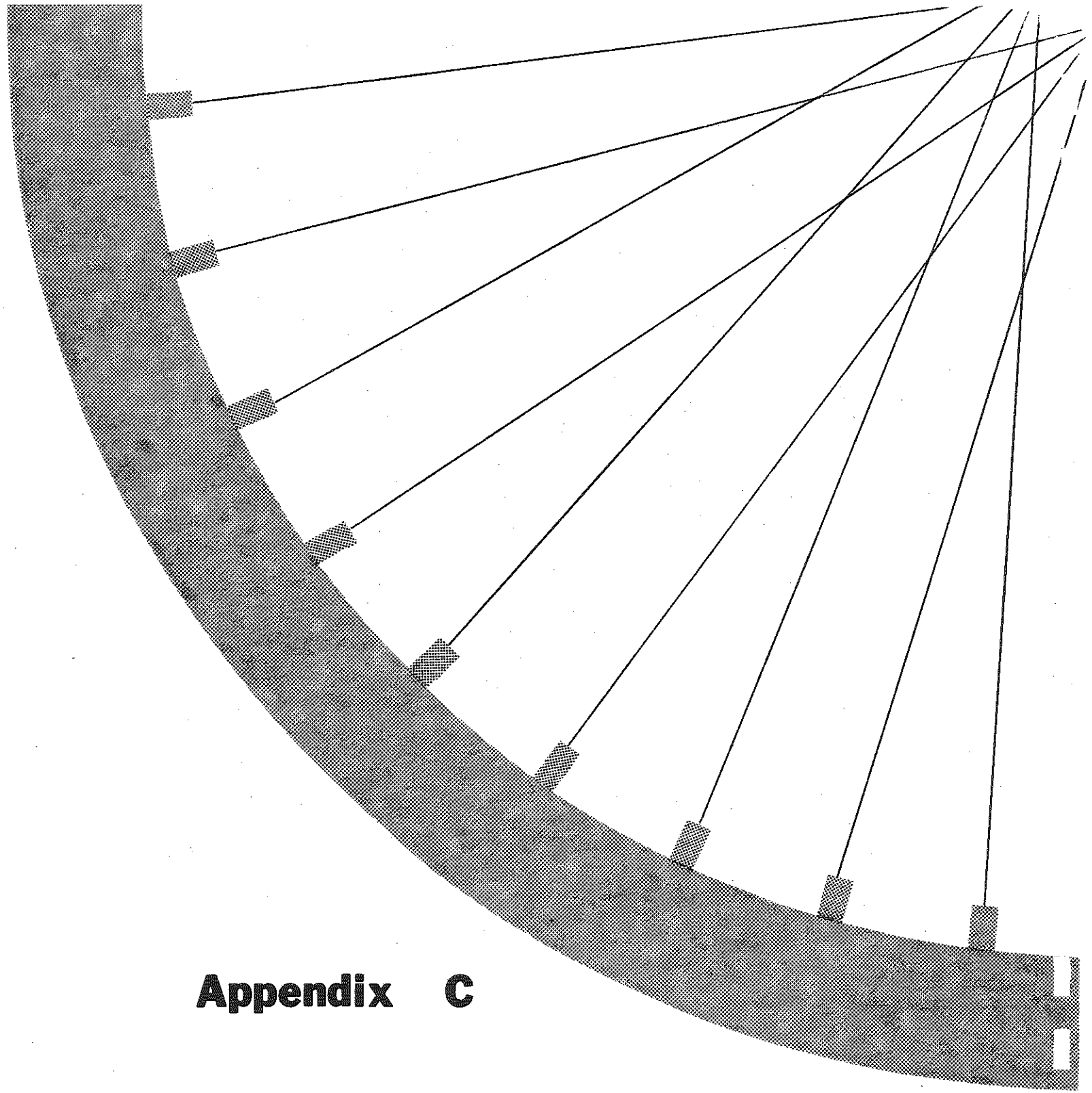
30" x 30" mounted as a diamond.

Design:

A bicycle symbol; the term XING in 6" Series D letters. "X" substitutes for "cross", shortening the word "crossing".

Category:

"Warning".



Appendix C

APPENDIX C

Springfield Public Schools
School District 19

Dear Parents,

On Friday, October 16, the P.T.A is sponsoring a bicycle safety program for students in the third through sixth year in school.

Today, Lieut. Baker, Youth Services Officer for the Springfield Police Department, explained the program to students. It consists of tests to increase skill in handling a bicycle as well as demonstrations and safety practices. In addition they will be required to have their bicycles mechanically safe as they will be inspected before they are allowed to compete.

Students may use their own bicycle or one owned by a family member but may not borrow one at school to use.

We hope that this program will provide an opportunity to learn as well as review good bicycle safety practice in order to avoid unnecessary accidents.

Sincerely,

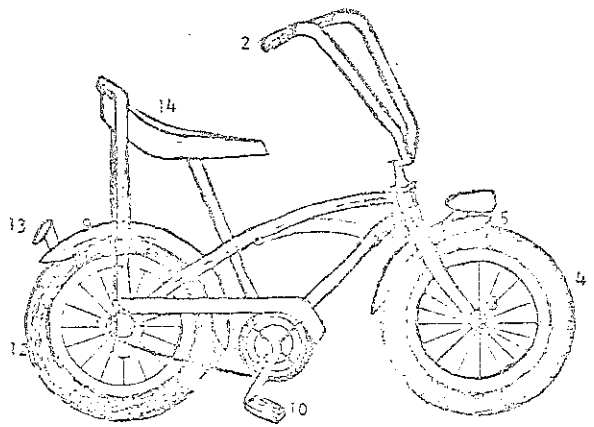
, Safety Chairman

, Principal

Revised: May 1969

Bicycle Safety Test

NAME_____ DATE_____ RM*_____



		Safe	Unsafe			Safe	Unsafe
1.	Handle bars			8.	Frame		
2.	Grips			9.	Rear fender		
3.	Front wheel			10.	Pedals		
4.	Front tire			11.	Brakes		
5.	Front fender			12.	Rear tire		
6.	Chain			13.	Reflector		
7.	Rear wheel			14.	Saddle		

TESTS	Points Earned	Possible Points
Bike Check		70
1		90
2		50
3		140
4		30
5		60
TOTAL		400

Springfield Police Department-Springfield Public Schools

BICYCLE SAFETY TEST

NAME_____

SCHOOL_____

GRADE_____ AGE_____

1. BIKE EQUIPMENT CHECK
   a. Registration Plate (If Required)
   b. Reflector
   c. Bell or horn
   d. Brake working
   ** Light required if riding at night.

	Points	Your Score
Handlebar tight	15	
Wheel, front	10	
Wheel, rear	10	
Rim, front	5	
Rim, rear	5	
Spokes, front	5	
Spokes, rear	5	
Pedals	10	
Inflation, front	5	
Inflation, rear	5	
Hand grips, tight	5	
Steering post	10	
Saddle	15	
Chain tension	10	
Total Points	115	
*Passing...100		

2. DRIVING TEST (Figure 8)
   a. Twice around figure 8

(1) Wheel does not cross in or out.	10	
(2) Change circles within 2' of circle crossover.	20	
(3) Follow instructions.	10	
(4) Complete test.	20	
b. Twice around 18' circle		
(5) Stay inside path.	10	
(6) Follow instructions.	10	
(7) Complete Test	20	
Total Points	100	
*Passing.....70		

***TOTAL POINTS ENTIRE TEST 415
POINTS NECESSARY TO PASS TEST 300

YOUR SCORE _____

3. JACKPOT TEST (Simulated City Block)

	Points	Your Score
(1) Stay in proper lane	10	
(2) Look before start	10	
(3) Right turn signal	10	
(4) Left turn signal	10	
(5) Turn in proper lane	10	
(6) Hand signal-stop	10	
(7) Hand signal-left	10	
(8) Emergency stop	10	
(9) Look before start	10	
(10) Control (weaving)	10	
Total Points	100	
*Passing.....70		

4. OBSTACLE TEST

(1) Off course	10	
(2) Hits Obstacles	10	
(3) Pedals, no coasting	10	
(4) Follow instructions	10	
(5) Complete test	10	
Total Points	50	

5. "S" TEST

(1) Off course	10	
(2) Hits obstacle	10	
(3) Pedals, no coasting	10	
(4) Complete Test	10	
(5) Stopped	10	
Total Points	50	

_____

COMMENT AND RECOMMENDATION:

_____ Practice on control

_____ Needs practice

_____ Bike in poor condition

_____ Should not ride at night

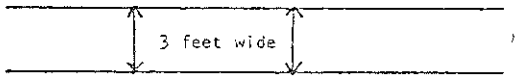
_____ If you must ride at night, light and reflector required.

_____ Should attend bike school

TEST NO. 1

BALANCE TEST (STRAIGHT LANE)

DIAGRAM:



PROCEDURE: The rider starts from a standstill with the front wheel ten feet from one end of the lane and very slowly rides through the lane in a minimum of 30 seconds, with neither tire touching the lines on either side, not feet touching the ground.

STANDARDS FOR SUCCESS:

	CONST.	SELDOM	NEVER	TEST PASSED
A. Touches feet to the ground				
B. Without touching either line				
C. Uses brake				

D. Going distance in 30 sec. Time spent in test _____ sec.

REMARKS:

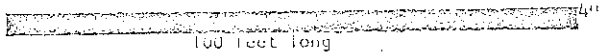
Students name_____ Age_____ Grade_____

TEST NO. 2

STRAIGHT LINE TEST

PURPOSE: To determine the rider's ability to ride on a straight line

DIAGRAM: A straight line 100 feet long by four inches wide.



PROCEDURE: From a riding start, keep the speed average or slow, the rider goes along the entire length of the line with both tires touching the line at all times, beginning at least ten feet from the line.

STANDARDS FOR SUCCESS:

	CONST.	SELDOM	NEVER	TEST PASSED
A. Follow the line				
B. Touches feet to the ground				
C. Uses brake				

Going time, minimum of 50 seconds. Time_____

REMARKS:

TEST NO. 3

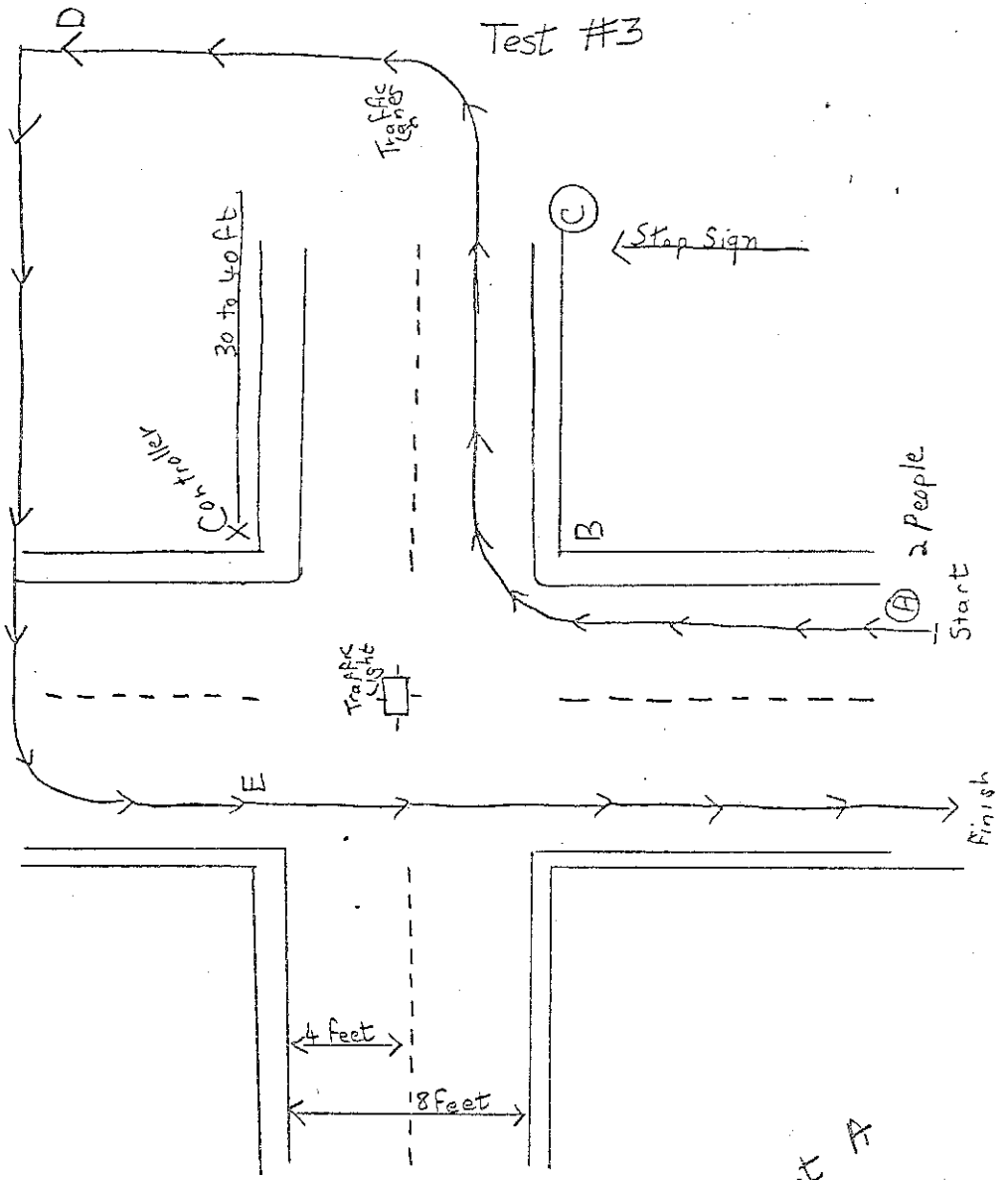
PURPOSE: To present standards

A. Bicycle Control
B. Hand Signals
C. Knowledge of intersection control

DIAGRAM: Insert A

PROCEDURE: From a standing start at a point 30 feet from the sidewalk "A" through point "B", turn and proceed to point "C", after stopping continue around traffic con(s) through point "D" to point "E" and complete course to finish, obeying traffic at points B and E.

STANDARDS FOR SUCCESS	CONST.	SELDOM	NEVER	TEST PASSED
A. Controlled start				
B. Obeys traffic light				
1. Signal				
2. Turn				
3. Control of bicycle				
C. Stop sign				
1. Signals				
2. Braking				
3. Take off				
4. Signals				
D. Follows traffic pattern				
E. Obeys traffic light				
1. Signal				
2. Control of bicycle				



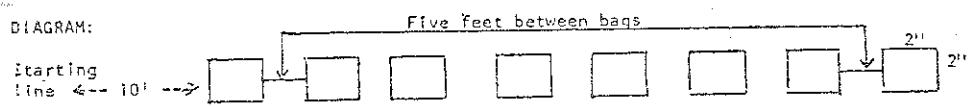
TEST NO. 4

SINGLE OBSTACLE TEST

PURPOSE: To determine the ability of the rider to demonstrate the feel of the bike in close quarters; to reveal judgment and accuracy in riding past obstacles.

PROCEDURE: The rider starts from a position back of the first obstacle (ten feet) so that balance is secured before the first obstacle is reached. He passes to the right of the first obstacle, and weaves in and out among the rest. When the last obstacle has been passed, the rider returns over the same route.

DIAGRAM:



(Note: The eight obstacles are preferably bean bags placed five feet apart on a straight line.)

STANDARDS FOR SUCCESS

A. Touches feet to ground

. Touching obstacles

C. Passes alternately to the right and left of obstacles

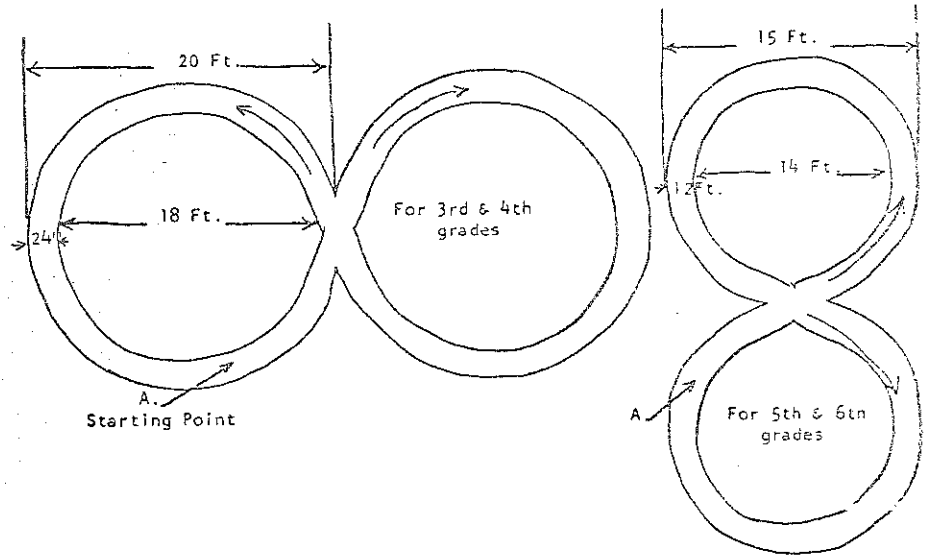
CONST.	SELDOM	NEVER	TEST PASSED

TEST NO. 5

Figure-Eight Balance Test

PURPOSE: To test the delicate balance of the rider.

PROCEDURE: The rider starts from a standstill at point A, intersects the figure eight at point B and travel within the confined lanes without touching either tire to the boundaries (lines) Test should be completed in a minimum of 45 seconds.



STANDARDS OF SUCCESS:

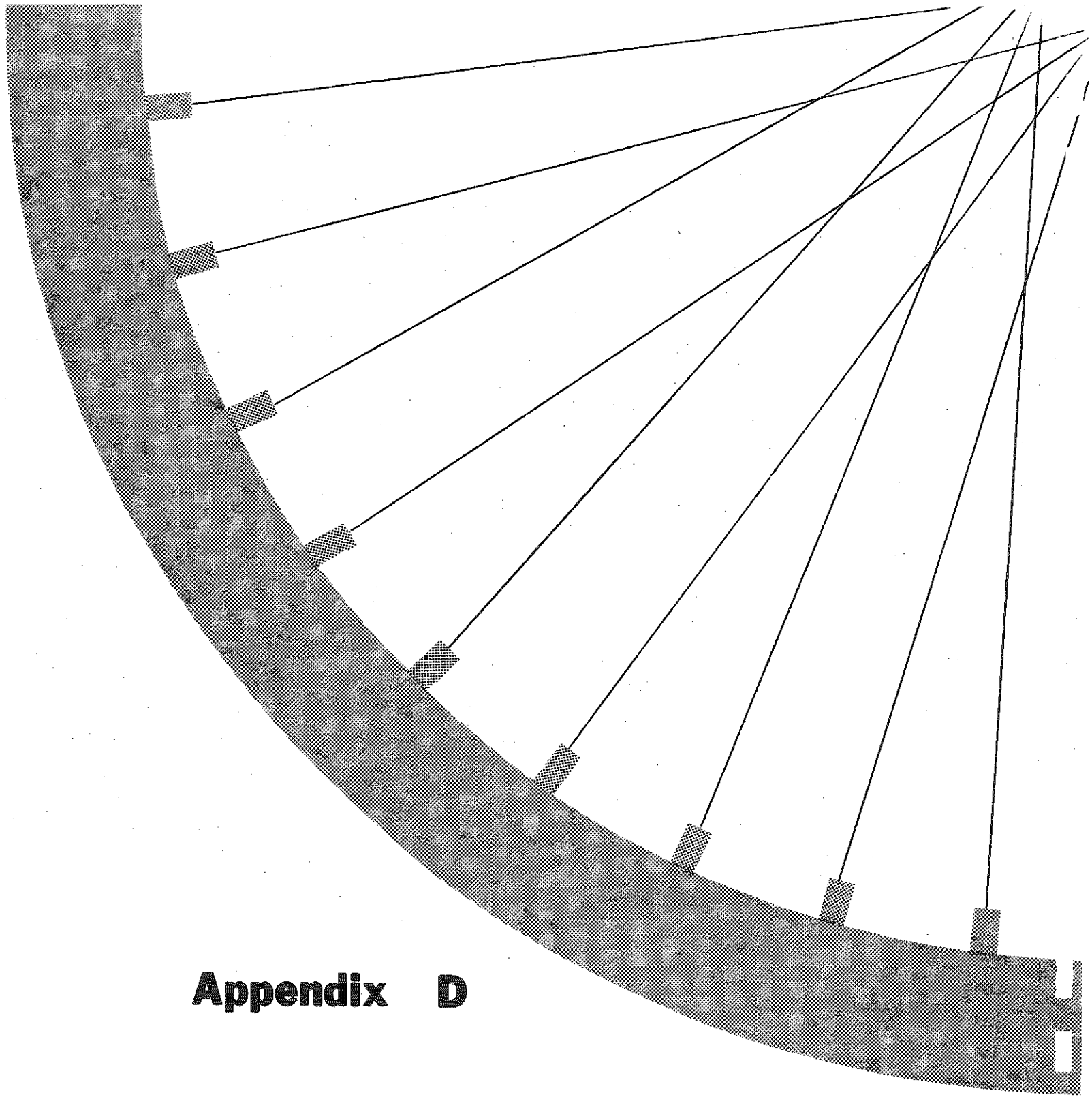
A. Touches feet to the ground

B. Controls bicycle

C. Touching either line

D. Uses brake

CONST.	SELDOM	NEVER	TEST PASSED



Appendix D

APPENDIX D

Federal Domestic Assistance programs applicable to bikeway construction and/or development:

--Beautification-Landscaping and Scenic Enhancement Grant, No. 20.204 (p. 469) Federal Highway Administration, Department of Transportation.

The main purpose of this grant is to assist in the beautification of highways and vicinity, including landscaping and roadside acquisition and development of publicly-owned rest and recreation areas, sanitary and other facilities necessary to accommodate the public. Matching funds are not required.

Appears to be applicable for bikeway land acquisitions.

--Highway Research, Planning and Coordination (Federal Aid Highway Program) No. 20.205 (p. 470) Federal Highway Administration, Department of Transportation.

This is a formula grant available for planning, engineering, right-of-way acquisition, construction, improvement, roadside beautification, recreation and rest areas.

The basic objective is to assist with various State Highway Departments in constructing the Interstate Highway System and for building primary, secondary, and urban system roads and streets.

Appears to be applicable to bikeways.

--Comprehensive Planning Assistance ("701") No. 14.203 (p. 319) Community Planning and Management, Department of Housing and Urban Development.

The program supports a large variety of planning activities, including bikeways. It is especially good for intergovernmental coordination and planning.

Bicycle committees may coordinate efforts for a project and apply for this grant.

--Urban Renewal Projects No. 14.307 (p. 323) Community Development, Department of Housing and Urban Development.

This program porvides grants and temporary loans for surveys and planning, land acquisition and clearing, and installation of certain public improvements including streets, incidental recreation areas and preservation of historic structures. Areas must be blighted, deteriorated or vacant, underused or inappropriately used lands.

Useful for bikeways in locations which meet HUD's criteria.

--Outdoor Recreation--Acquisition and Development (Land and Water Conservation Funds) No. 15.400 (p. 364) Bureau of Outdoor Recreation, Department of Interior.

This grant provides for the acquisition and development of outdoor recreation areas and facilities for the public to meet current and future needs. It may be used for a variety of projects including inner City parks, bike trails, etc. Priority is given to projects serving an urban population.

Appears to be a good fund for bikeways implementation.

--Operation Mainstream No. 17.223 (p. 435) (Mainstream) Manpower Administration, Department of Labor.

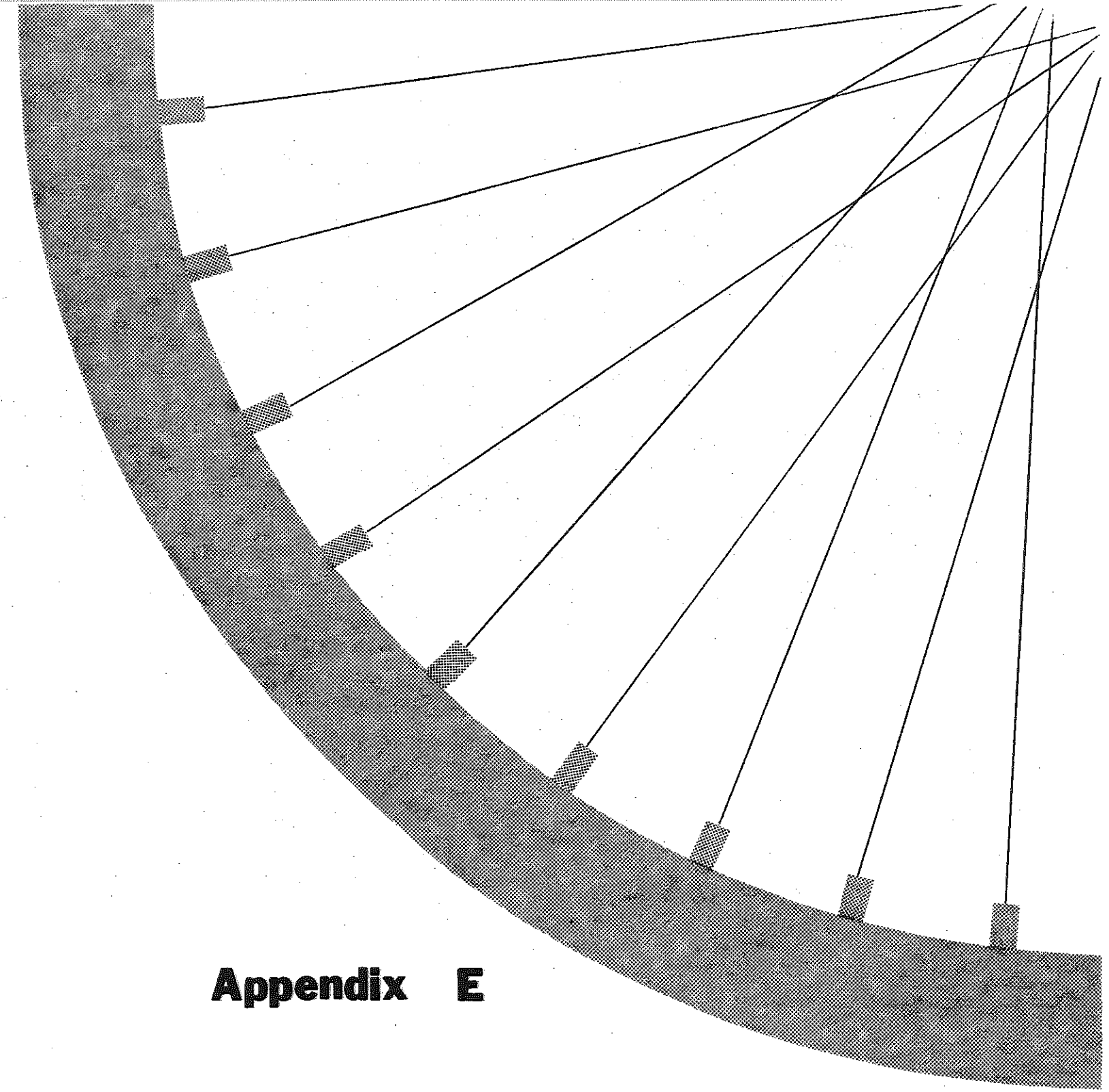
This grant provides work-training for chronically unemployed adults who are unable to secure employment or training under other programs. Jobs may involve the management and development of parks, highways and recreational facilities of various jurisdictions. There can be no displacement of any of the presently employed, nor may it affect existing contracts. The United States Government will finance up to 90% of project cost. Rural areas receive prime consideration.

Construction of bikeway routes appears to be a possibility.

--State and Community Highway Safety Grant No. 20.600 (p. 480) Federal Highway Administration, Department of Transportation.

This grant provides coordinated national highway safety programs, which will assist in reducing accidents and property damage. It can be used for pedestrian safety, highway design, community support and planning.

The fund is useful for bikeway safety studies.



Appendix E

APPENDIX E

Springfield Code

CHAPTER VI. TRAFFIC

ARTICLE 4. BICYCLES

6-4-1 Licenses. No person shall operate a bicycle in the city unless it is licensed as hereinafter provided. The fee for such license and tag shall be $1.00.

6-4-2 Licenses--Transfers. In the event of any tag of any licensed bicycle, the transferee shall notify the department of police within 30 days of such transfer and a new license and tag shall be obtained as herein provided.

6-4-3 Licenses--Record. The police department shall keep a record of the date of issue of each bicycle license, the number of the license and to whom it has been issued.

6-4-4 Licenses--Tags; Registration Cards: Violations. (1) The city shall provide license tags for bicycles, together with registration cards shall have numbers stamped thereon in numerical order. Such tags and registration cards shall be for an indefinite period, so long as there is no transfer of ownership. Upon notice of a transfer of registration of a bicycle, a new license tag and registration card shall be issued for such bicycle. The city manager shall designate an officer or department of the city to attach one such license tags to each bicycle license and to issue a corresponding registration card to the licensee. Such license tag shall remain so attached for the duration of the license. No person shall change or alter in any way the serial number or the license number of any bicycle.

(2) Violation of Sections 6-4-1 through 6-4-4 shall be punished by a fine of not less than $10.00 nor more than $25.00.

6-4-5 Passengers. No person shall operate a bicycle upon the streets, alleys, or public highways in the city with two or more persons upon the bicycle, unless the passengers are seated behind the operator. This restriction shall not apply, however, to tandem bicycles or other bicycles especially equipped for two or more riders.

6-4-6 Holding to Vehicles. No person, while riding or operating a bicycle on any street, alley, or public highway in the city, shall hold onto any other vehicle.

6-4-7 Riding on Sidewalks--Yielding to Pedestrians. Bicycles may be ridden or operated on any sidewalk in the city provided that any person riding or operating any bicycle on any sidewalk in the city shall yield the right-of-way to all pedestrians using such sidewalks.

6-4-8 Riding on Right Side of Street. Every person riding or operating a bicycle on any street, alley, or public place in the city shall keep the bicycle on the extreme right of the traffic lane.

6-4-9 Single File. It shall be unlawful for two or more operators of bicycles to travel abreast on any street, alley, or public place in the city or to operate a bicycle on traffic lanes otherwise than in single file, except momentarily when it is necessary for one to pass another.

6-4-10 Lights. No person shall ride or operate

any bicycle upon any specified in ORS 483.404 without having in operation the lighting equipment and reflectors specified for bicycles in ORS 483.404.

6-4-11 Sirens; Whistles. It shall be unlawful for any person to install or use upon a bicycle any siren or whistle.

6-4-12 Traffic Laws. Every person riding or operating a bicycle on any street, alley, or public place in the city shall be subject to all provisions of the laws of the state and the ordinances of the city applicable to the drivers of vehicles, except the provisions therof that by their very nature can have no application to bicycles.

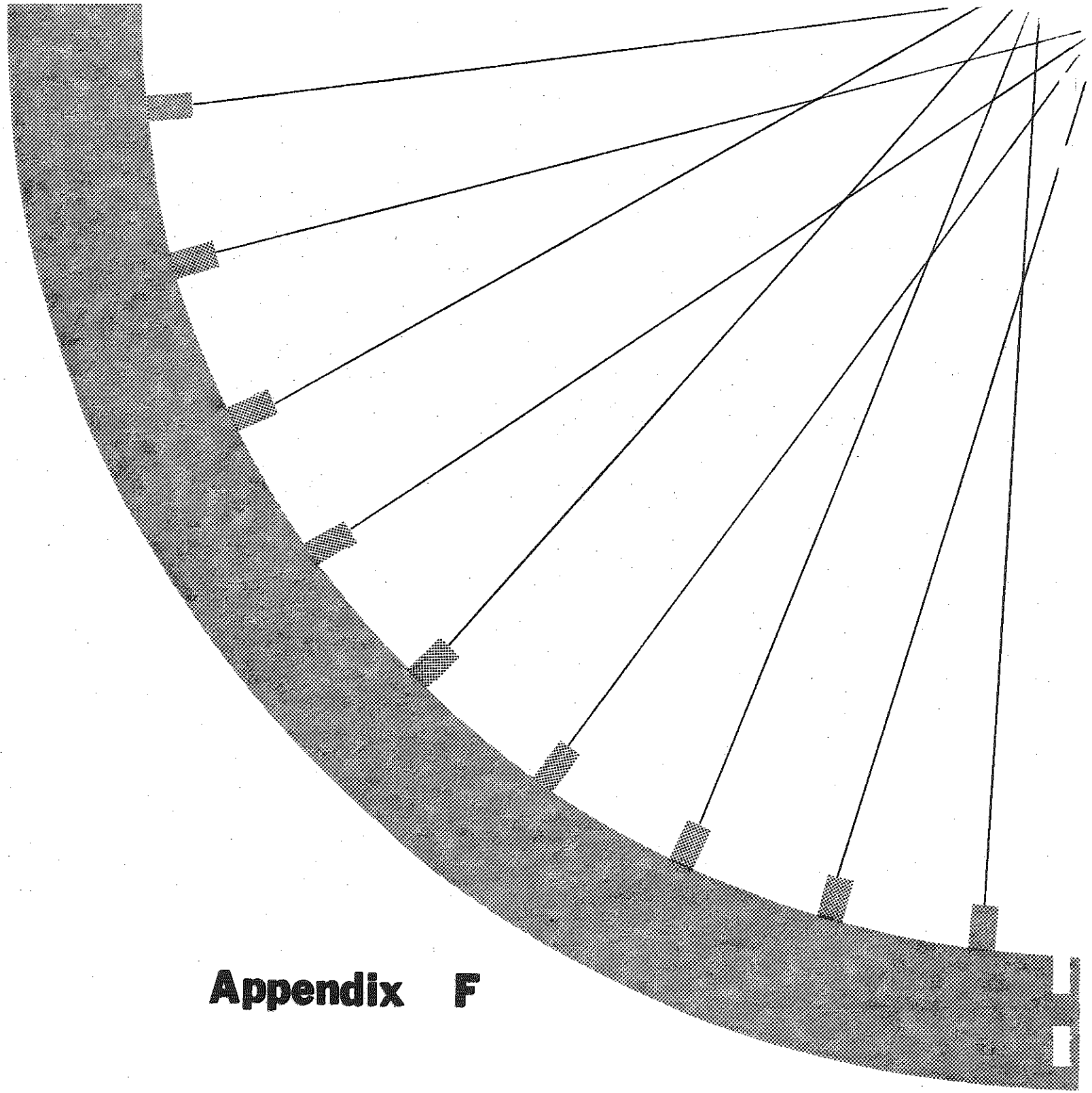
6-4-13 Racing. It shall be unlawful for any person to run or engage or cause to run or to be engaged in any bicycle race on any street, alley, or public place within the city, except under permit from and supervision of the chief of police of the city.

6-4-14 Pedestrians. The driver or operator of a bicycle shall give the right-of-way at all times to a pedestrian proceeding lawfully regardless of when and where he is driving or operating the bicycle.

6-4-15 Riding over Yards, Parkways. No person shall operate or ride a bicycle across, over, or on any yard, lawn, or parkway in the city, other than a yard, lawn, or parkway owned by or under the lawful control of such person, or constituting a part of the premises at which he resides.

6-4-16 Impoundment. In addition to any other penalty imposed for the violation of this article, the municipal court may, either in lieu of or in addition to the other penalty, prohibit the operation upon the streets, alleys, and public places of the city for a period not to exceed 30 days of the bicycle so used in such violation, in which event the bicycle so used in such violation shall be impounded with the chief of police of the city and retained by him for the period that the operation thereof is prohibited.

(Section 6-4-7 amended by Ordinance No. 2103, dated March 14, 1966; Sections 6-4-1 through 6-4-4 amended by Ordinance No. 2439, dated September 8, 1969; Section 6-4-4 amended by Ordinance No. 2469, dated January 12, 1970.)



Appendix F

APPENDIX F

ADOPTED BYLAWS

SPRINGFIELD BICYCLE COMMITTEE

March, 1973

ARTICLE I NAME

This committee, established by the Common Council of the City of Springfield, shall be called the Springfield Bicycle Committee.

ARTICLE II PURPOSE

The purpose of this committee is to advise and encourage the Mayor, Council, City Manager and Traffic Engineer of the City of Springfield to recognize and facilitate the use of bicycles as a regular means of transportation. The concerns of the committee shall include, but shall not be limited to, the following:

1. The development of a network of bicycle routes and paths to include:

   a. Links between destinations frequented for school, business and recreation:

   b. Streets designated as suitable for bicycle traffic and marked by bicycle lanes;

   c. Sidewalks marked for bicycle traffic in areas where such pathways do not interfere with the flow of pedestrian traffic;

   d. Separate paths designated primarily for non-motorized traffic;

2. The provision of a program of education in bycycle safety;

3. The aid in establishing effective licensing procedures;

4. The promotion and support of the enforcement of bicycle laws and regulations.

ARTICLE III MEMBERSHIP

Section 1. Composition of the Committee

The voting membership of the committee shall consist of seven lay citizens of the City of Springfield.

Section 2. Appointment

Members shall be appointed to the committee by the City Council. Recommendations for membership may be made by any interested citizen, the committee, City Council, Manager or Traffic Engineer.

Section 3. Tenure

All members shall serve until they resign or are removed by the City Council.

If any member of the committee shall be absent from three consecutive regular meetings, the City Council shall, upon recommendation from the committee and concurrence by the City Manager, declare this position vacant.

Section 4. Voting Privileges

Each of the seven voting members of the committee shall be entitled to one vote on all issues presented at meetings at which the member is present.

Section 5. Non-Voting Members

Additional non-voting members may be appointed to the committee by the approval of the City Council. They shall be ex officio members. "Ex officio" shall be construed to mean representatives of community organizations and other governmental agencies interested in promoting the use of bicycles and the movement of non-motorized transportation. Although ex officio members shall attend the meetings in the capacity of observers, they may be granted the privilege of the floor by the Chairman.

ARTICLE IV OFFICERS

The officers of the committee shall be Chairman, Vice-Chairman and Secretary, who shall be elected by the committee.

ARTICLE V MEETINGS

Section 1. Regular Meetings

Regular meetings shall be held twice a month at the Public Works Department, unless otherwise agreed upon. Time and duration of the meetings shall be determined by the committee.

Section 2. Special Meetings

Special meetings may be called by the Chairman or by resolution of the committee.

Section 3. Conduct of Meetings.

a. A majority of four members shall constitute a quorum for the transaction of business at any regular meeting.

b. The act of the majority of the members present at a meeting at which there is a quorum shall be the act of the committee.

ARTICLE VI AMENDMENTS TO THE BYLAWS

These bylaws may be amended at any regular meeting of the committee by a majority of the voting membership, i.e., (4 affirmative votes) of the committee, provided that written notice of the proposed amendment shall be mailed to each member of the committee not less than one (1) week prior to such a meeting.

VI.

FOOTNOTES

[1] Lane Council of Governments, Eugene-Springfield Metropolitan Area 1990 General Plan. 1972, page 44.

[2] Ibid.

[3] Mary MacDonald and Bob Cable, 4-H Bicycle Program. Oregon State University, Cooperative Extension Service, Eugene, Oregon. 1972.

[4] City of Hood River, Hood River Ordinances, Ordinance No. 1093, 1959.

[5] Tempe Planning Department, Tempe Bikeway Study: Preliminary Plans and Recommendations. 1973, page 5, section IV.

[6] Oregon Motor Vehicles Division, Oregon Bicycle Rules of the Road. Salem, Oregon, 1973, 7500.

VII.

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2. Davis (California), City of, The Code of the City of Davis, Chapter 5, Article 1-5; Ordinance 569.

3. Denver (City of), Colorado, The Bikeway Plan, Denver Planning Office, 1973, 66pp.

4. Eugene (Oregon), The Code of the City of Eugene, Chapter 5, Article 4.

5. Hamill, James P. "Planning and Development of Bikeway Systems", Management Information Services, Vol. 5 No. 4, April 1973, 25pp.

6. Hamill, James P. "Planning and Development of Bikeway Systems", Urban Land, Vol. 32 No. 9, October 1973, pages 9-15.

7. Hood River (Oregon), Hood River Ordinances, Ordinance No. 1093, 1959.

8. Independence (Oregon), Independence Ordinances, Ordinance No. 835, Sec. 47-62.

9. Institute of Transportation and Traffic Engineering, Bikeway Planning Criteria and Guidelines, Business and Transportation Agency, California, 1972, 178pp.

10. Lane Council of Governments, Eugene-Springfield Metropolitan Area 1990 General Plan, Eugene, 1972, 44pp.

11. Oregon Bicycle Rules of the Road, Oregon Motor Vehicles Division, 7500-9/73.

12. Oregon Department of Transportation, Footpaths and Bike Routes: Standards and Guidelines, Oregon State Highway Division, Oregon, 1972, 35pp.

13. Oregon Department of Transportation, Oregon Bikeways Progress Report, Oregon State Highway Division, 1973, 83pp.

14. Portland (Oregon), City of, Preliminary Study of Bicycle Facilities For the City of Portland, Robert J. Hansen, Department of Public Works, 1971, 32pp.

15. Salem (Oregon), The Code of the City of Salem, Chapter 101, 1972.

16. San Beunaventura, City of, Bicycle Use and Recommended Improvements in San Buenaventura, Department of Community Development, San Buenaventura, California, 1973, 43pp.

17. Santa Clara (California), Countrywide Bikeway Plan, VTN Bay Area (Engineers Architects Planners), 1973, 82pp.

18. Springfield (Oregon), The Code of the City of Springfield, Chapter 6, Article 4.

19. Tempe (City of), Arizona, Tempe Bikeway Study: Preliminary Plans and Recommendations, Tempe Planning Department, 1973.