

METROPOLITAN DADE COUNTY



**COMPREHENSIVE
BICYCLE PLAN**

DRAFT

The Dade County
Comprehensive Bicycle Plan
Prepared by Staff of the
METROPOLITAN PLANNING ORGANIZATION
for the
Miami Urbanized Area
with the Assistance of the
BICYCLE ADVISORY COMMITTEE
and
THE FLORIDA DEPARTMENT OF TRANSPORTATION

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TABLE OF CONTENTS

	<u>PAGE</u>
TABLE OF CONTENTS	i
LIST OF TABLES	iii
LIST OF FIGURES	iv
EXECUTIVE SUMMARY	v
1.0 INTRODUCTION	1
1.1 Background	1
1.2 Bicycling in Dade County	2
1.3 Goals	2
1.4 Coordination and Citizens Participation	3
2.0 NEEDS ANALYSIS: FACILITIES AND USER SERVICES	6
2.1 Existing Bikeways	6
2.2 Bicycle Transit Integration	6
2.3 Availability of Showers as a Complement to Bicycling ..	11
3.0 ACCIDENT ANALYSIS: SAFETY NEEDS	14
3.1 Background	14
3.2 Introduction	14
3.3 Methodology	15
3.4 Accident Profile	17
3.5 Demographic Factors	25
3.6 Countermeasures for Consideration	28
4.0 COMPREHENSIVE PROGRAM ISSUES	30
4.1 Engineering	30
4.2 Education	31
4.3 Enforcement	32
4.4 Encouragement	32
5.0 RECOMMENDATIONS	34
5.1 Engineering	34
5.2 Education	34
5.3 Enforcement	35
5.4 Encouragement	35

	<u>PAGE</u>
6.0 PLAN APPROVAL AND IMPLEMENTATION PROCESS	36
6.1 Roles and Responsibilities	36
6.2 Funding Potential for Program	37
7.0 CONCLUSION	39
APPENDICES	44
A. Bike-On-Train Program	44
B. Bike-Car Accidents Types and Classes	71
C. Florida Legislation and FDOT Policy Memorandum ...	81
D. Chronicle of Bicycle Legislation, Rules, and Regulations	96

LIST OF TABLES

	<u>Page</u>
1. Key to Major Existing Bikeways in Dade County.....	7
2. 1983 Bike-Car Accidents in Dade County by Accident Type	16
3. Major Categories of Bike-Car Accidents, Dade County 1983	17
4. Citations Issued to Cyclists & Motorists, Bike-Car Accidents, Dade County, 1983	17
5. Bike-Car Accident Classes, Dade County, 1983	5
6. Top Ten Bike-Car Accident Types, Dade County, 1983	19
7. Lighting Conditions Bike-Car Accidents, Dade County 1983	22
8. Lighting Conditions by Accident Class	24
9. Race and Sex of Cyclists in Bike-Car Accidents	25
10. Age Group of Bicyclists in Bike-Car Accidents	27
11. Summary of Recommended Plan Actions	40

LIST OF FIGURES

	<u>Page</u>
1. Major Existing Bikeways in Dade County	8
2. When do Bike-Car Accidents Occur, Dade County, 1983	21
3. Location of Bike-Car Accidents, Dade County, 1983	23
4. Race and Sex of Cyclists in Bike-Car Accidents	25
5. Age of Cyclist in Bike-Car Accidents	26
6. Relative Distribution of Age of Cyclists in Bike-Car Accidents	27
7. Age of Cyclist by Accident Class, Dade County, 1983	28

EXECUTIVE SUMMARY

The Metropolitan Dade County Comprehensive Bicycle Plan (CBP) represents the first major planning effort addressing needed bicycling -related improvements in Dade County since the publication of the 1972 Dade County Bikeways Plan. The popularity of bicycling both as a means of transportation for essential travel and as a recreational activity has continued to increase since the 1972 Plan was published.

The main purpose of the CBP is to identify the projects and strategies needed to meet the most pressing needs of bicyclists in the urban area. The Plan has been prepared by staff of the Metropolitan Planning Organization of the Miami Urbanized Area in collaboration with the Florida Department of Transportation and with the assistance and guidance of the Bicycle Advisory Committee.

The CBP presents proposed projects and programs that respond to the needs identified in the process of plan preparation. By far, the most pressing needs relate to rider safety and almost all of the recommended strategies have been developed keeping this particular subject in mind. Another important need recognized is the availability of showers in work places to encourage commuting to work by bicycle.

The proposed actions have been grouped under program issue categories as follows: Engineering, Education, Enforcement and Encouragement. Specific proposals are as follows:

Engineering:

- Promote "Share the road" concept with motorists through the adoption of policies which support current FDOT design standards for incorporating bicycle considerations in the design of county and local roads.
- Review new road way construction projects to satisfy bicycle transportation needs.
- Provide curb-cuts where needed in areas heavily traveled by bicycle.
- Continue to adjust user hours for permitting bikes on Trains (METRORAIL).
- Install bicycle lockers and racks at METRORAIL Stations and METROBUS Terminals.
- Encourage the installation of bicycle lockers and racks in automobile parking lots and parking garages.

Education:

- Maintain and expand bicycle safety classes in public schools grade K through 6. Sufficient trained instructors would be needed for this.
- Offer courses in bicycle skill and safety to adults through service clubs.
- Make a conscious effort to inform the public about newly resurfaced roads that provide wide curb lanes.

- Include share the road instructions in the Florida Drivers' Manual.
- Seek private sponsors for training professional bike safety and bicycling instructor.

Enforcement:

- Encourage traffic patrols to give caution citations to bicyclists observed violating traffic laws or behaving in an unsafe manner.
- Provide information to users on various ways to secure a bicycle in the open.
- Organize law enforcement seminars to include all agencies and individuals interested in enforcement of bicycling laws.

Encouragement:

- Design route map detailing preferred routes to be followed by bicycle to reach county attractions like beaches, zoo, and recreational bikeways.
- Provide bicycle access and secure parking at all County facilities and functions.
- Encourage development of bicycle parking at private commercial facilities such as shopping centers and office buildings.
- Disseminate information on existing bicycle facilities for commuting.
- Encourage bicycle events such as Family Bike Day, bike races, rallies, jamborees, etc.

The Plan presents a summary of the recommended actions as well as information on the entities responsible for implementation, the time needed to complete the action, the cost associated with each measure and the relative priority of each. While it is recognized that, at present, sources of funding for bicycling programs are virtually non-existent, it is indicated in the CBP that a major effort is needed on the part of all those involved with program activities (including users) to identify and secure recurring funding for bicycling programs.

1.0 INTRODUCTION

1.1 Background

Over the past 15 years, the use of bicycles for recreation, sport, fitness and transportation has increased dramatically. The bicycle is popular because it is an inexpensive alternative mode of transportation and it is a healthful form of recreation. The potential for continued popularity is particularly favorable in Florida, where the generally mild climate and lack of steep topography provide a virtually year-round environment for bicycling.

There is growing recognition that bicyclists are legitimate users of the roadway and that roads are not for the exclusive use of motor vehicles. Responding to the need for wise planning and support at the state and local level to help individuals and communities deal constructively with the role that bicycles play in transportation, in 1979 the Governor of the State of Florida established a Bicycling Activities Advisory Committee. This was a milestone for cycling as the findings by this committee provided the impetus for future bicycle legislation, the establishment of bicycle rules and regulations, etc. Today, bicycling is an integral, routine part of the plans and programs of transportation, educational and enforcement agencies.

The following section from the Federal Highway Administration's (FHWA) "Bicycle Transportation Policy" issued on August 20, 1981, helps to clarify why it is appropriate to consider bicycles in the urban transportation planning process:

"The FHWA recognizes that the bicycle is a legitimate mode of personal transportation. The FHWA recognizes the rights of bicyclists to the use of the nation's highway system (except on certain interstate highways where prohibited by state laws), and FHWA recognizes its responsibility to ensure that bicyclists are appropriately considered in the planning, design, construction and operation of highways under its authority."

Florida statutes now require that the needs of bicyclists and pedestrians be addressed in all local, and state transportation plans and programs. The specific language appears as follows:

316.065(1)(a) Bicycle and pedestrian ways shall be given full consideration in the planning and development of transportation facilities, including the incorporation of such ways into state, and local transportation plans and programs. Bicycle and pedestrian ways shall be established in conjunction with the construction, reconstruction, and other change of any state transportation facility, and special emphasis shall be given to projects in or within five miles of an urban area.

The Florida Department of Transportation (FDOT) initiated in 1983 formal and comprehensive bicycle planning activities.

Each Metropolitan Planning Organization (MPO) in the State of Florida has been requested by the FDOT to develop a Comprehensive Bicycle Plan. Partial funds for this effort have been made available through the Governor's Energy Office, and coordination of this project has been handled through the office of the State Bicycle Coordinator.

1.2 Bicycling in Dade County

At present, nearly one of every two residents in Dade County owns, and at least occasionally rides, a bicycle. There is potential for bicycling to alleviate existing urban environmental problems. Bicycle use can reduce noise, produces no air pollution, and does no damage to the roadway. In addition, bicycle use can increase the efficiency of the existing transportation system by providing another access mode to public transit.

Unfortunately, the increased popularity of bicycling has not been without its problems. Dade County has experienced a high number of accidents between motor vehicles and bicycles. The seriousness of this problem is reflected in the accidents reported for Dade County by the State Bureau of Public Safety Management. In 1985 there were 1129 accidents in Dade County. Of this number, 15 involved fatalities. Dade County ranks 10th among the sixty-seven (67) counties in Florida in the number of fatal related accidents.

Bicycle accidents are the fastest growing highway accident type in Florida. A primary reason is that many streets and highways were designed without consideration for the needs of cyclists or acknowledgment by motorists that bicyclists have rights and are part of the traffic mix. The result is a system of streets and highways with conditions that are frequently dangerous for the cyclists. The street system often functions in ways that are unnecessarily disruptive to the overall flow of traffic when cyclists are present. At the same time, State and County transportation agencies are coming to the realization that experiencing the full transportation potential of bicycling will benefit cyclists and the community as a whole. This will be accomplished through the consideration of bicycling as an integral, routine part of the transportation planning system in the design of facilities and programs.

1.3 Goals

The purpose of this plan is to propose projects and programs to improve bicycling in Dade County. By integrating bicycling into the County's comprehensive transportation planning program, it is expected that there will be increased attention for bicycle use, especially for essential transportation

purposes. The bicyclists' safety and roadway sharing ability needs to be enhanced.

The plan provides an initial guide for the improvement of the bicycle program in Dade County. Additionally, this plan should help to remedy the prevalent lack of awareness, acceptance and treatment of the bicycle as a legitimate mode of transportation. The potential community benefits of increased bicycling need to be widely publicized. Consideration of bicycling needs to become a routine part of the planning process. There is a need, too, for the organizations and individuals that promote bicycling to be well informed on the current state-of-the-art in bicycle facility design and bicycle program development. This plan is an effort to respond to the above-mentioned needs. These goals can in a large part be achieved through the "4 E's approach" (Engineering, Education, Enforcement, Encouragement). The 4 E's approach is discussed in detail in Chapter 4.0 - "Comprehensive Program Issues".

1.4 Coordination and Citizen Participation

The U.S. Department of Transportation requires a continuing, comprehensive, cooperative (3 C's) transportation planning process in all urban areas with a population of more than 50,000. Each urbanized area is required to have a Metropolitan Planning Organization (MPO) to carry out the transportation planning process. The MPO is composed of locally elected officials appointed by the Governor. In Dade County the MPO is composed of the Dade County Board of County Commissioners.

The MPO has the lead responsibility in the development of the Urban area "Transportation Plan". The Transportation Plan describes policy, strategy and projects that are scheduled for implementation for a twenty year period. The "Transportation Improvement Plan" (TIP) is derived from the Transportation Plan and lists projects planned within the first five years of the planning period. The Comprehensive Bicycle Plan is intended to serve as the Bicycle Element of the Transportation Plan. Every reason exists to include appropriate bicycle-related projects in the TIP. This is not current done.

Coordination of bicycle plan components and participation of citizens in developing, adopting, and implementing the bicycle plan will greatly enhance the success of the bicycle plan. Citizen involvement in development of the plan improves community support of the program and makes it more responsive to local needs. The forum for these essential ingredients of a bicycle plan is the Bicycle Advisory Committee (BAC). The BAC is a group of citizens appointed by the Metropolitan Planning Organization (MPO) in April, 1985 to serve in an advisory capacity on matters relating to bicycle transportation. All actions of the committee must be confirmed by the MPO Board.

The functions and responsibilities of the committee include the following areas:

A. Bikeways Planning

Guide MPO staff in the development of a comprehensive bicycle plan for Dade County.

B. Plan Review

- Annually review the bicycle plan and propose amendments and purposes for new projects.
- Review the Annual Element of the Transportation Improvement Program (TIP) for inclusion of bicycle related projects.

C. Plan Implementation

Recommend bicycle plan priorities to the MPO Board for inclusion in State, County or local capital improvement programs.

D. Education and Coordination

- Coordinate bicycle concerns and present them to the MPO with recommendations for action.
- Assist in the promotion of bicycling, enforcement of bicycle rules and regulations, and safety programs.
- Assist in the dissemination of general bicycle information to bicycle organizations and citizens throughout the County.

The Dade County Bicycling Coalition (DCBC) is another example of existing citizen participation and public involvement. The DCBC is a loosely knit independent group of bicycle enthusiasts. Advocates are responsible for the lobbying of local Government to support bicycling as a mode of transportation and a legitimate element in urban transportation planning. This group energetically takes up bicycling causes and carries them directly to the public arena for attention. As such, the DCBC has also become an important element in the development and implementation of bicycle programs in Dade County.

The Office of the bicycle Coordinator under the aegis of the MPO, has the ability to draw upon multi-discipline staff support as needed. This resource will provide all the skills necessary in the development and implementation of bicycle programs. The MPO as the designated recipient of grants, simplifies the funding process for projects as they evolve.

Further, the technical review, provided by the Transportation Planning Council (TPC), assures that final products of the bicycle plan satisfy the effectiveness of the overall transportation planning program and insures their projects and programs approved by the MPO Board are technically sound and respond to stated community needs.

2.0 NEEDS ANALYSIS: FACILITIES AND USER SERVICES

The bicycling environment is the system of streets, and highways, special bicycle facilities, and bicycle parking facilities in Dade County. There are many off-street recreation facilities, some on-street signed bicycle facilities accommodating many bicyclists of all ages and background. Trip purposes range from leisure to commuting to work, school or shopping. The problems that exist are primarily the result of fragmentation of authority, lack of enforcement, insufficiency in awareness and education at all levels concerning effective, defensive bicycling necessary for successfully sharing the road with vehicles.

In 1975, the Dade County Board of County Commissioners adopted the Recommended Bikeways Plan for Metropolitan Dade County, Florida. Such Plan was prepared in recognition of the need for a coordinated system of bikeways to better meet the recreation and transportation needs of our residents. Also, the document served as a medium for inspiring public observations and input into an on-going process of providing for bicycling within the urban area structure.

2.1 Existing Bikeways

Adequately designed and located bicycle facilities are important when encouraging safe bicycle travel. The surface on which bicycles travel, appropriate signs, control devices, as well as parking facilities and other support facilities are all part of bicycle facility needs.

There are over 100 miles of separated bike paths within urbanized Dade County. These bikeways span from north to south Dade County and are part of a total 275 miles of on-road, off-road bikeways linking residential areas, places of work, school, shopping areas and parks. The major portion of bikepath construction was made possible by the 1972 "Decade of Progress" bond issue which allotted 1.5 million dollars to be spent on the development of bikeways.

Included as a part of this plan as Figure 1 is a map of existing major bikeways in Dade County. Table 1 in the page preceeding Figure 1 is the key which indicates locations of the major bikeways. Only those bikeways two (2) miles or more in length have been referenced.

Usage of the bikeways at present cannot be characterized as "heavy". While it is desirable to have more bikeways in the urban area, there are no current plans to build new ones because no new needs have been identified.

2.2 Bicycle Transit Integration

Bicycle-transit integration refers to the linkage of bicycles with public bus and rail systems. "Bike-N-Ride" programs for

TABLE 1
KEY TO MAJOR EXISTING BIKEWAYS

KEY #	BIKEWAY NAME	APPROX. LOCATION
1.	Miami Lakes	N.W. 67 - Miami Lakeway Dr
2.	Snake Creek	Greynolds Park to Sierra Park along Snake Creek Canal
3.	Haulover Beach Park	10800 Collins Ave
4.	Model City	Brownsville Jr. High School to Gwen Cherry Park Via 21 Ave
5.	Coconut Grove	Sunset & Old Cutler Rd North to Rickenbacker Causeway
6.	Old Cutler Rd	SW 216 St. to Sunset & Old Cutler Rd So
7.	Red Road	North Kendall Drive & Red Rd to Old Cutler Rd
8.	Snapper Creek	F.I.U. to 61 St. along Snapper Creek Canal
9.	Coral Way	SW 87 Ave to 117 Ave
10.	Miller Drive	SW 87 Ave to 117 Ave
11.	Black Creek	SW 184 St. to 216 St.
12.	Sunset Drive	SW 87 Ave to 107 St.
13.	Coral Reef Drive	US 1 to Metrozoo
14.	Biscayne Drive	Homestead A.F.B. to US 1
15.	Larry & Penny Thompson Pk	SW 184 St. & 127 Ave
16.	Crandon Beach Pk	4000 Crandon Blvd
17.	M Path	Metrorail Guideway (SW 88 St. to Vizcaya)
18.	Coral Gables	Country Club Prado, Alhambra Circle, Ponce de Leon Blvd, Riviera Drive, Anastasia Ave
19.	Tropical Park	7900 SW 40 St.
20.	Matheson Hammock Pk	Old Cutler Rd & SW 95 St.

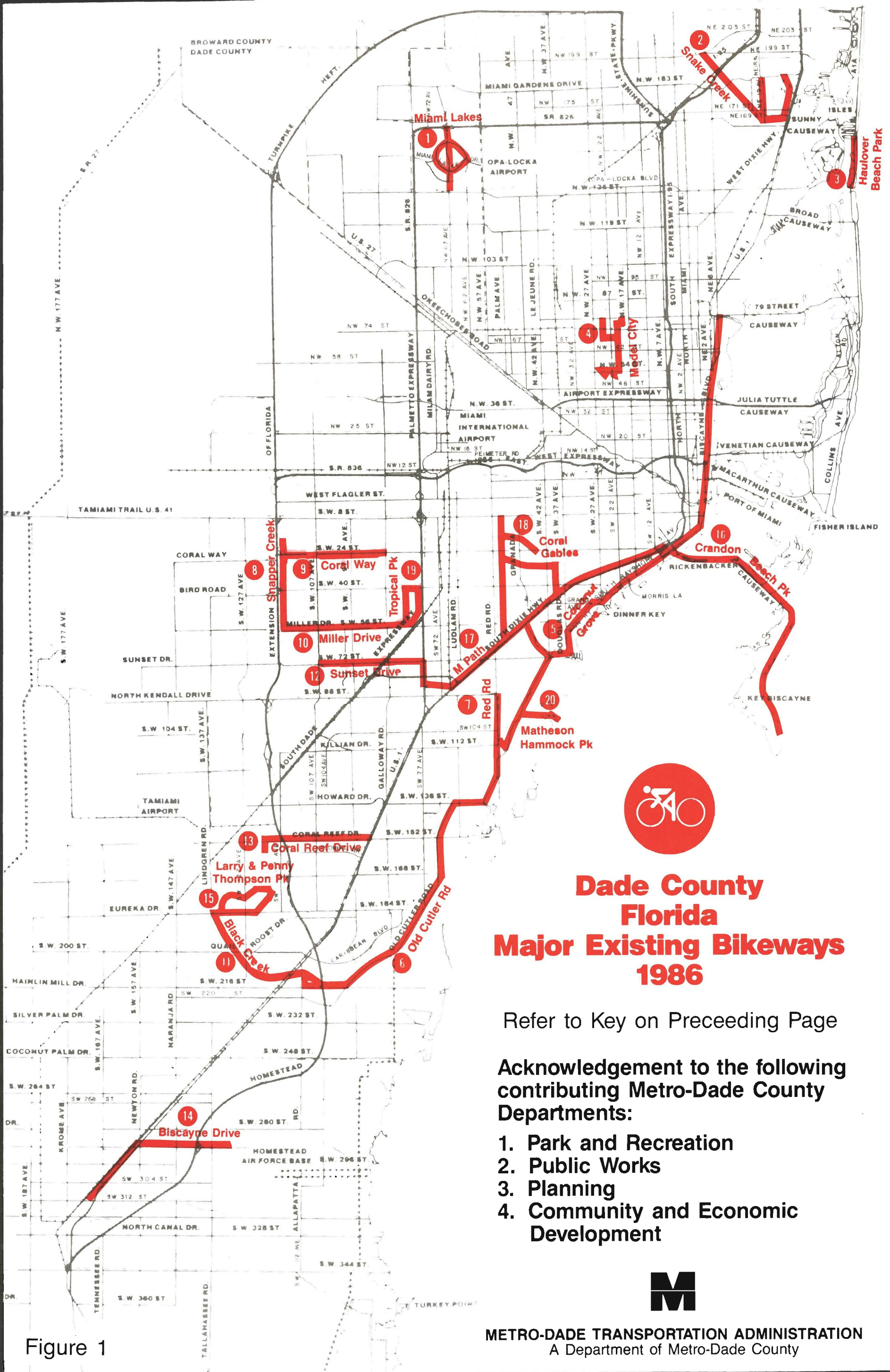


Figure 1

example provide safe bicycle parking at transit stops and stations. Expansion of these services can be attained by installing bike racks on buses, providing bicycle rentals or lockers at stations and allowing bicycles on rail systems.

In Dade County bicycle access to transit has been encouraged by the provision of racks and lockers at METRORAIL stations and the construction of the "M-Path", a bikepath running most of the length of the South line of METRORAIL.

A. METRORAIL Bike Path (M Path)

In 1983, an eight foot wide paved bikeway built under the aerial guideway of METRORAIL between Snapper Creek and the Miami River was added to the current network of bikeways.

Initially, the M-Path was planned to provide aesthetic ambiance to the system as well as providing access for maintenance and pedestrian. Today this path has come to be used by the community as a bicycle way and it is providing amenities for the safety and improving the access for bicycles with signs, curb cuts and safety/education information.

B. Bike-On-Train Program

The purpose and objective of the Bike-On-Train Program is to provide safety instructions to passengers and staff for the safe conduct of bicycles on trains as a means of interfacing bicycle travel with public transit.

In the fall of 1983 the Dade County Bicycling Coalition (DCBC) approached the Metro-Dade Transportation Administration (MDTA) with a proposal to allow bicycles on METRORAIL trains. Transit properties that allow bicycles on their trains were consulted to determine the feasibility of such program.

To test the proposed program of the METRORAIL system, a demonstration ride was held on October 15, 1983, in which cyclists from the DCBC were allowed to board a train with their bicycles.

As a result of this Bike-on-Train Demonstration, the Board of County Commissioners on November 20, 1984 adopted a resolution which approved a Bike-on-Train Demonstration Program, to assess whether this service would encourage the use of METRORAIL by bicycle riders and to further test the viability of a permanent program. The six month demonstration program was initiated March 2, 1985 and ended August 21, 1985. This was extended thru October 1985 and later extended to October 1986. The latter extension included the expansion of the program to include Saturday, Sundays and Holidays during posted hours of

operation in addition to the previously allowed schedule of weekdays from 10:00 a.m. to 4:00 p.m. and after 6:30 p.m. until closing.

To participate in this program, bicyclists receive written safety instructions (see Appendix A) concerning METRORAIL bicycle procedures and behavior from the MDTA, Metropolitan Planning Organization Office, and upon passing a written test receive an identification card with the biker's photo for a \$5.00 fee.

Several restrictions are placed on bicyclists boarding the trains with their bikes. In addition to the time constraints a maximum of four bicycles are allowed on the last train (see diagram on Appendix A). It is also required that all cyclists sign a release and indemnification form placing on the named cyclist the sole responsibility in case of an accident or injury caused by his bicycle.

To date (August 1986) 360 permits have been issued and no problems have arisen from allowing bicycles on METRORAIL trains. Some specific rules governing access and boarding provide that cyclists:

1. Shall not use escalators or stairs.
2. Shall not block platform area while waiting for train.
3. Shall stand away from the edge of platform while waiting for train.
4. Shall exercise caution to assure bicycle wheel does not slip between edge of platform and car.
5. Shall hold bicycle at all times while in the station or on a transit vehicle.
6. Shall not block aisles within car.
7. Shall not ride a bicycle within a station.

C. Bike-N-Ride Program

The Purpose and Objective of the Bike-N-Ride Program is to accommodate cyclists with bicycle parking facilities at METRORAIL Stations.

One of the options already in place is the leasing of bicycle lockers at METRORAIL Stations which provides another modal link (bicycle) to public transit by providing locked parking for bicycles at METRORAIL Stations. The initial phase was accomplished with the

installation of 314 bicycle lockers. To date 45 lockers have been leased. The minimum time a cyclist may rent a locker is three (3) months at \$25.00 or maximum twelve (12) months at \$70.00. There is a ten dollar (\$10) key deposit that is refunded when the contract is terminated and the key surrendered. The Bicycle Locker Rental Agreement form (see Appendix A) after completed by the applicant is processed at the MPO Office and the transfer of receipts to a specially designated revenue account takes place. The revenue is to be used to further promote the integration of bicycles with transit with the purchase of additional bicycle lockers and bicycle racks as demand warrants. Bicycle racks are also available at most METRORAIL Stations free of charge.

- D. In summary, the bicycle program needs concerning transit seem to be well addressed by existing facilities and services. As existing programs are evaluated and new proposals are developed, ideas for new projects and programs will be incorporated in future updates of the Plan.

2.3 Showers Availability as a Complement to Bicycling

The importance of showers in the workplace for getting people to commute by bike has been recognized. We know that people want their physical fitness training. We know that for almost everyone, commuting time is down time, and that precious off-the-job hours have to be used for exercising when these hours could be used for a variety of other leisure purposes.

For instance, is it clear that jogging cannot substitute for transportation. Bicycling can. Yet, understandably so, people will probably refuse to show up for work sweaty.

The answer is showers. Showers in the workplace, coupled with an awareness program, can lead to large numbers of city workers, already competent as cyclists, switching from automobiles to bikes for commuting. Coupled with effective cycling training, still larger numbers of bicycle owners can be induced to ride to work by bike.

Some major employers are encouraging employees to bike to work by providing attractive incentives. For example, the Xerox Research Center in Palo Alto, California in addition to providing Class I bicycle Parking facilities at a ratio of one bike space to every nine auto spaces, the company provides showers, clothes lockers, a free towel service, and flexible work schedules. These amenities have encouraged nearly 20 percent of the Xerox employees to commute to work by bicycle. As indicated by the Xerox Research Center, the provision of showers at the work place appear to make a significant difference in the number of persons using bicycles for transportation to and from the work place. Dade County could

probably be as successful if this service was offered by major employers. This could be a worthwhile project, and in brief outline, the following steps would be included in the needed research:

1. To research cities elsewhere where showers in the work place have been introduced to encourage bicycle commuting.
2. To survey the existence of showers available to workers in Dade County and the extent to which these have become the source of encouragement for bicycle commuting.
3. To research the cost of installing showers in new and existing buildings.
4. To research with developers of office buildings and factories the incentives they would require to install showers in buildings. Such incentives might include reduction in the number of automobile parking spaces they are required to provide if showers are combined with secure bike lock-ups and a program of bike commuting encouragement.
5. To research the existence of organizations which are interested to foster the use of bicycle commuting. Such organizations would include groups of bicyclists, the American Heart Association, American Lung Association, and others interested in reducing medical costs.
6. To research on the part of government what incentives would be reasonable for building developers if a program were instituted to get people out of their cars and on to bikes.
7. To research what cooperation, financial and otherwise, would be available from the bicycling and other industries to help promote interest in (a) showers in office buildings (b) a program of encouragement for people to substitute bicycles for automobile commuting.
8. To lay out a series of steps that would bring together the various parties in interest to consider who should take what steps first and with what support and with what follow-ups. For example, a first step might well include the convening of a workshop with building developers, representatives of the national bicycling industry, representatives of physical health organizations, law enforcement officials, proponents of safe bicycling. From such a workshop a series of steps would be decided upon toward at least a pilot program.
9. To develop a list of tools, such as costed building plans, training videotapes for bicyclists, other graphics materials, for moving the project forward.

With the cooperation of all interested parties, the above project can get started in the very near future. There is obviously a need for this activity to occur so that bicycling for daily commuting purposes can be significantly advanced.

3.0 ACCIDENT ANALYSIS: SAFETY NEEDS

3.1 Background

A major focus of the Comprehensive Bicycle Plan is the reduction of bicycle accidents in the County. For this reason, the analysis of accident focuses on the factors and the conditions that contribute to the accidents. An understanding of these is the first step in the development of effective countermeasures.

Similar analyses have been performed in several metropolitan areas in the State and copies of these documents were reviewed. However, no attempt has been made to compare Dade's accident profile with those of other metropolitan areas. Such a comparison might show some difference but a preliminary comparison suggests that the Dade County bike-car accident picture is not that different.

Metro-Dade County is committed to reducing bike-car accidents in the County. This report is part of that continuing commitment. the Metro-Dade Transportation Administration and the Metro-Dade Planning Department in cooperation with the Florida Department of Transportation, the Dade County public school system, and other local governments are working to ensure a steady reduction in bicycle accidents in Dade County.

3.2 Introduction

This analysis of almost 900 reported bike-car accidents in Dade County in 1983 is intended to determine the principal causes and circumstances of these accidents with a view to developing appropriate counter measures.¹ Bike-car collisions are not the most frequent type of bicycle accidents. They are however, the type that results in the most serious injuries and may be the most readily addressed by accident prevention programs at the local level.

The total number (897 accidents) is a reasonable size for Countywide statistical analysis of accident types and characteristics. A larger number would be required for detailed subarea analysis. The number of accidents is sufficient to provide a basis for understanding the factors and contributing causes in the accidents reported. It may be

¹ The original accident reports were coded by Ira Sheskin of the University of Miami following procedures developed by the National Highway Traffic Safety Administration, an agency of the United States Department of Transportation.

assumed that these factors were also present in the unreported bike-car accidents.

The year 1983 may not have been a typical year in terms of bike-car accident in Dade County. For example, only two fatalities were reported, whereas there were 20 bicycle related fatalities in the year prior and 13 in the year following. However, pending the acquisition of further data, the 1983 file does provide a snapshot of bike-car accidents in Dade County.

3.3 Methodology

A bike-car accident classification developed by the National Highways Traffic Safety Administration was used in this analysis following procedures suggested by the Florida Department of Transportation. Forty-four types of accidents were developed from an examination of the causal patterns found in typical bike-car accidents. The types and their frequency in Dade County are presented in Table 2.

The analysis in the remaining sections of this report begins with a brief profile of the typical bike-car accident in Dade County in 1983 sketching the most common situations in broad terms. Then follows a section on the demographic characteristics of the cyclist. Age and sex are significant factors in these accidents. This section concludes with a brief discussion of potential countermeasures.

TABLE 2

1983 Bike-Car Accidents in Dade County
by Accident Type

Code	Type	Count	Percent
1	Ride-Out - Residential Driveway	23	2.6
2	Ride-Out - Commercial Driveway	8	0.9
3	Ride-Out From Sidewalk	8	0.9
4	Ride-Out, Midblock	88	9.8
5	Ride-Out - Stop Sign	98	10.9
6	Trapped	4	0.4
7	Multiple Threat	-	-
8	Drive-Out - Driveway/Alley	71	7.9
9	Drive-Out - Stop Sign	57	6.6
10	Right on Red	11	1.2
11	Backing	25	2.8
12	Drive Through	21	2.3
13	Motorist Overtakes Undetected Cyclist	3	0.3
14	Motorist Lost Control	16	1.8
15	Motorist Overtaking, Counteractive Evasive Actions	-	-
16	Motorist Overtaking, Misjudges Passing Space	6	0.7
17	Motorist Overtaking Cyclist, Path Obstructed	1	0.1
18	Cyclist Left Turn, in Front of Traffic	31	3.5
19	Cyclist Left Turn, Facing Traffic	16	1.8
20	Cyclist Lost Control	18	2.0
21	Cyclist Right Turn, From Wrong Side Of Street	14	1.6
22	Motorist Left Turn in Front of Cyclist	12	1.3
23	Motorist Left Turn Facing Cyclist	35	3.9
24	Motorist Right Turn	27	3.0
25	Uncontrolled Intersection, Other	12	1.3
26	Wrong Way Cyclist	31	3.5
27	Cyclist Overtaking	11	1.2
28	Wrong Way Motorist	4	0.4
29	Non-Roadway	16	1.8
30	Head On, Counteractive Evasive Actions	1	0.1
31	Cyclist Cuts Corner	8	0.9
32	Cyclist Swings Wide	6	0.7
33	Motorist Cuts Corner	4	0.4
34	Motorist Swings Wide	4	0.4
35	Drive-Out - On-Street Parking	1	0.1
36	Weird	4	1.4
39	Motorist Overtaking	46	5.1
40	Play Vehicle	2	0.2
41	Cyclist Strikes Parked Vehicle	3	0.3
48	Drive-Out - Intersection	16	1.8
49	Ride-Out - Intersection	60	6.7
55	Controlled Intersection, Other	34	3.8
98	Parallel Path Unknown	29	3.2
99	Intersecting Paths Unknown	12	1.3
TOTAL		897	100.0

Source: 1983 Bike-Car Accident File, Metro-Dade County Planning
Department, 1986

3.4 Accident Profile

Crossing paths and turning maneuvers are key factors in most bike-car accidents. Table 3 shows that more than 60 percent of all reported accidents involved crossing paths, and that an additional 11 percent involved a parallel path cyclist suddenly turning or swerving. In contrast, the much-feared car overtaking accident accounted for only 8 percent, and this type, combined with other parallel path types, accounted for only 25 percent of the reported accidents.

TABLE 3

Major Categories of Bike-Car Accidents Dade County, 1983

<u>Category</u>	<u>Count</u>	<u>Percent</u>
Crossing Paths	549	61.2
Cyclist Swerves or Turns	102	11.4
Car Overtakes Bike	72	8.1
Other Parallel Path Collision	152	17.0
Unusual	22	2.5
TOTAL	897	100.2

Source: 1983 Bike-Car Accident File, tabulated by Metro-Dade Planning Department, 1986

Most of these crossing path and turning accidents occurred at or near intersections, driveways, alleys, etc., where the immediate cause was the failure of the cyclist or the motorist to yield the right-of-way. For both motorist and cyclist, failure to yield the right-of-way accounted for one of every three citations (see Table 4). The next most common citation was careless driving which accounted for 59 of the motorist violations and 11 of the cyclist.

TABLE 4

Citations Issued to Cyclists and Motorists Bike-Car Accidents, Dade County, 1983

<u>Violation</u>	<u>Total</u>	<u>Cyclist</u>	<u>Motorist</u>
Violation of Right-of-Way	124	42	82
Careless Driving	70	11	59
Left Scene of Accident	22	1	21
Disregarded Traffic Signal	22	12	10
Wrong Side of Road	15	11	4

Source: 1983 Bike-Car Accident File, tabulated by Metro-Dade Planning Department, 1986

Despite the fact that violations charged to the motorist outnumbered violations charged to the cyclist by a factor of two to one, it is clear that more than half of the reported accidents² were initiated by the action of the cyclist, not the motorist.² Cyclist rideouts, whether from an intersection, a driveway, or over the curb, accounted for 33 percent of the accidents reported (see Table 5). Cyclist turns and swerves accounted for an additional 9 percent. Motorist driveouts accounted for 23 percent, and car overtaking and car turning types accounted for an additional 8 percent each.

TABLE 5

Bike-Car Accident Classes
Dade County 1983

	<u>Class</u>	<u>Count</u>	<u>Percent</u>
A.	Bicycle Rideout: Midblock	127	14
B.	Bicycle Rideout: Controlled Intersection	162	18
C.	Motorist Driveout	201	23
D.	Motorist Overtaking	72	8
E.	Bicycle Unexpected Turn or Swerve	79	9
F.	Motorist Unexpected Turn	74	8
G.	Other	97	11

Source: 1983 Bike-Car Accident File, tabulated by Metro-Dade Planning Department, 1986

Classes A,B, and C are accidents initiated by the action of the cyclist. In Classes A and B the cyclist and the motorist are on intersecting or perpendicular paths; in Class E the paths of the cyclist and motorist are parallel. Classes C, D, and F are accidents initiated by the action of the motorist. In Class C the motorist's path intersects with the cyclist's. In Classes D and F the motorist and the cyclist are on parallel paths. Class G is a large catchall category for 17 accident types that could not be classified into any of the other classes and which occur with relatively low frequency. This class includes

² Traffic law violations were not cited in most bike-car accidents. In many cases, including many where citations were issued, the cause of the accident can only be determined from an examination of the contributing circumstances. The absence of cyclist citations in many of these instances may be related to the youth of the cyclist or the relatively light property damage or injury sustained.

accidents initiated by both motorist and cyclists, accidents in parking lots and other off-the-road situations, and accidents for which there is insufficient detail on the accident report. Additional details on the classification can be found in the Appendix.

It is important to note the difference between actions that initiate an accident and those that actually cause an accident. For example, there were eleven cases initiated by the motorist making a right turn on red, but in two of these cases the accident was caused by the cyclist riding on the wrong side of the road and thus not being seen by the motorist.

Table 6 lists the top accident types in Dade County in 1983. These types combined accounted for more than 60 percent of the accidents reported. It is clear that the cyclist was violating traffic laws and at fault in most accidents, regardless of who initiated the accident.

TABLE 6

Top Ten Bike-Car Accident Types in Dade County, 1983

Rank	Type (Code)	Count	Percent	Cumulative Percent
1	Cyclist Runs Stop Sign (5)	98	10.9	10.9
2	Cyclist Rides Out Midblock (4)	88	9.8	20.7
3	Motorist Drives Out Driveway (8)	71	7.9	28.6
4	Cyclist Rides Out Intersection	60	6.7	35.3
5	Motorist Drives Out - Stop Sign (9)	57	6.4	41.7
6	Motorist Overtakes Cyclist (39)	46	5.1	46.8
7	Motorist Left Turn Facing Cyclist (23)	35	3.9	50.7
8	Other Crossing, Controlled Intersection (55)	34	3.8	56.5
9	Cyclist Left Turn, With Traffic (18)	31	3.5	58.0
10	Wrong Way Cyclist, Head On (26)	31	3.5	61.6

Source: 1983 Bike-Car Accident File, tabulated by Metro-Dade Planning Department, 1986

This pattern is particularly clear in the five most frequent types, all crossing paths, which accounted for 42 percent of all accidents. In three of the top five types, the action of the cyclist initiated the accident. In the most frequent type (98 cases), the cyclist ran a stop sign, initiated the accident, and was clearly at fault. In the fourth most frequent type (60 cases), the cyclist ran a red light -- again clearly at fault. These three types combined for 246 of the 374 cases (66 percent) in the top five types.

In the remaining two of the top five types, the action of the motorist initiated the accident. In the third ranked type, the motorist drove out of a driveway (71 cases). In many cases the motorist was not at fault. The cyclist was off the roadway (on the sidewalk) in 29 of the these cases and riding the wrong way in the road in another 10 cases. In only six cases was the cyclist riding properly with traffic in the road. In the fifth ranked type, again motorist initiated, the motorist drove out at a stop sign (57 cases). Here, in eight cases the cyclist was riding the wrong way in the road.

This brief overview of the most frequent accident types shows that failure of the cyclist to follow the rules of the road is an important factor in the most common bike-car accidents in Dade County. Thus, measures designed to ensure that cyclists observe traffic laws should play a major role in any accident prevention program.

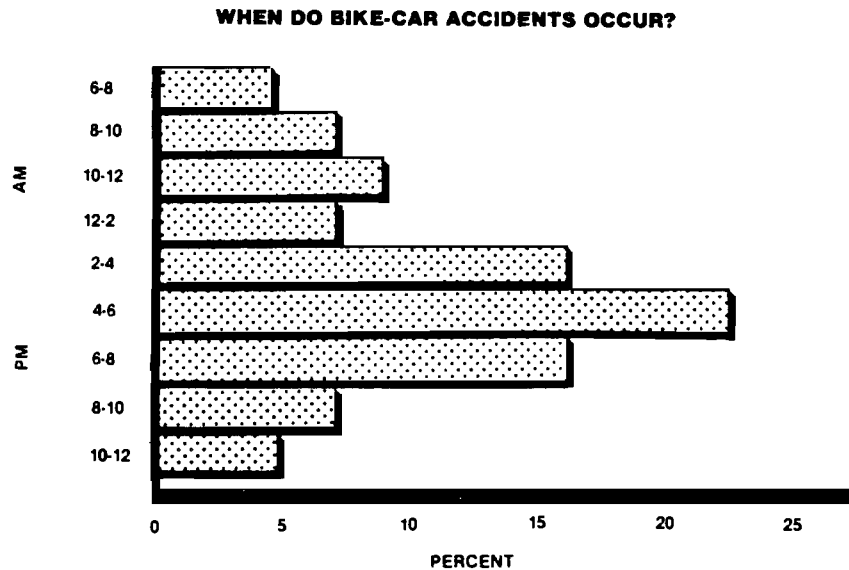
Before examining the age factor and its key role in the behavior of both cyclists and motorists, it is useful to review some of the other circumstances found in typical bike-car accidents in Dade. Here is a brief profile of those conditions:

When

Most bike-car accidents occurred in the late afternoon and early evenings (see Figure 2). About 25 percent of the accidents of a typical 24 hours period occurred in the two hours between 4:00 p.m. and 6:00 p.m. More than 50 percent occurred between 2:00 p.m. and 8:00 p.m. This pattern prevailed on all days -- including Saturdays and Sundays.

There were fewer accidents on a Sunday than any other day. This was true in all areas of the County and with all ages of bicycle riders, and is probably related to the reduced volume of automobile traffic on Sundays.

There was no discernible seasonal trend. Accidents were proportionately distributed in all months.



SOURCE: 1983 BIKE-CAR ACCIDENT FILE

FIGURE 2

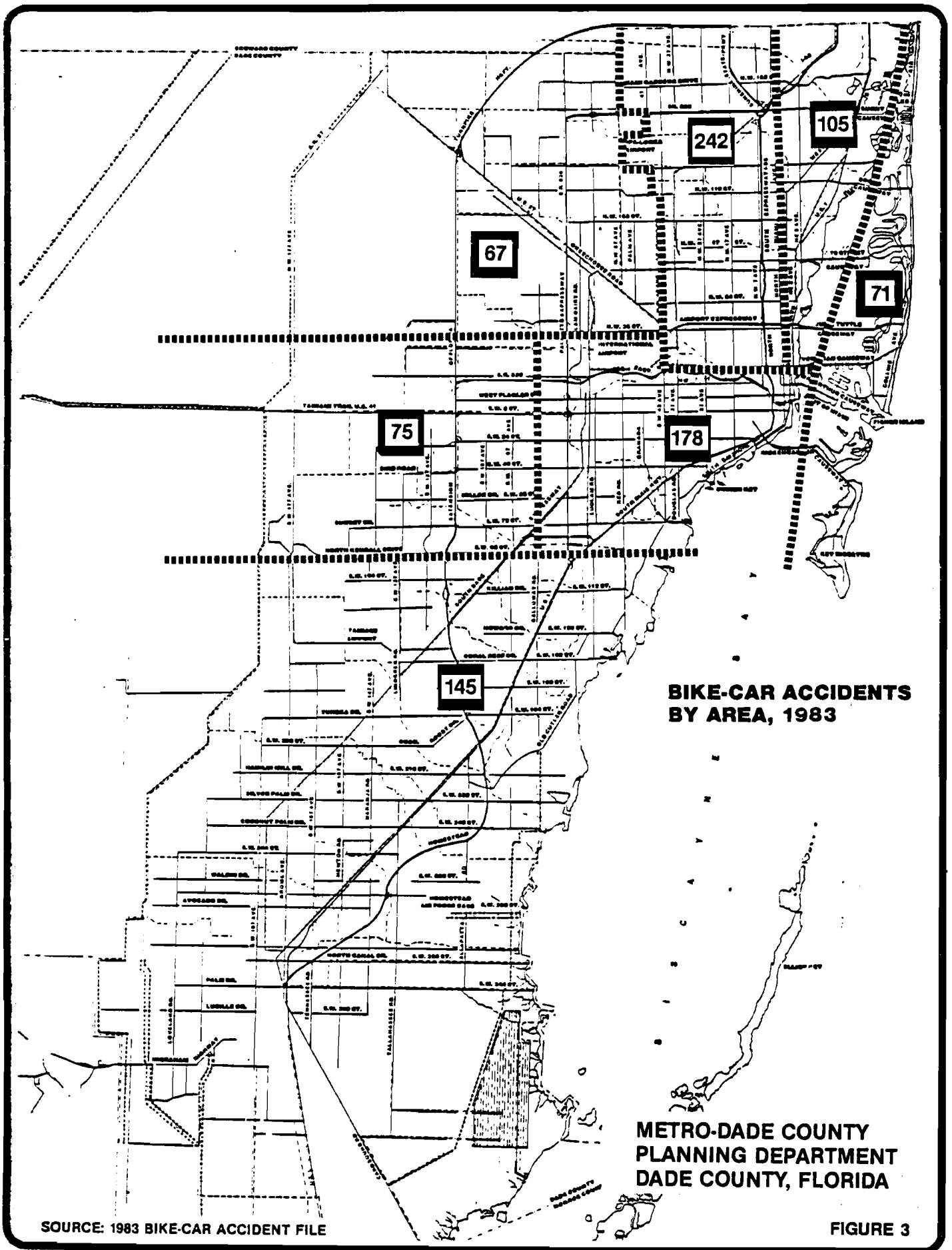
<u>Where</u>	Accidents occurred in all parts of the County (see Figure 3). In almost all cases County residents were involved, not out-of-towners. Bike-car accidents generally happened close to the home of the bicycle rider. On average, more than 80 percent of the bicyclists involved in accidents in a given ZIP Code area were residents of that or adjoining areas.
<u>Road Conditions</u>	Most accidents occurred on two-lane, undivided local street with speed limits of 30 mph or less. Another 24 percent occurred on four-lane streets. Only 10 percent occurred on six lane (or wider) highways. In Dade County sharp curves and steep grades were not factors -- 95 percent of the accidents occurred on straight and level roads. This neighborhood street characteristic of bike-car accidents is reflected in the generally low car speed involved (only 10 percent doing 35 mph or faster), which in turn contributed to less severe injuries. Road conditions (e.g. standing water or road under repair) were a contributing factor in less than 2 percent of the accidents reported. Obscured vision because of trees and shrubbery was reported in only 5 percent of all accidents.
<u>Environmental Conditions</u>	Environmental conditions were not a significant factor in most bike-car accidents. The road was dry in 90 percent of the accidents. Only 6 percent occurred in the rain.
<u>Lighting</u>	Three out of four bike-car accidents happened during daylight hours (see Table 7). Almost 20 percent occurred after dark, mostly on lighted streets. The twilight hours (dawn and dusk) accounted for only 5 percent of the total.

TABLE 7

Lighting Conditions in Bike-Car Accidents
Dade County, 1983

	<u>Count</u>	<u>Percent</u>
<u>Total</u>	<u>814</u>	<u>100</u>
Daylight	614	75.4
Twilight	44	5.6
Dark-Lighted Streets	127	15.6
Dark-Unlighted Streets	29	3.6

Source: 1983 Bike-Car Accident File, tabulated by Metro-Dade Planning Department, 1986



However, the night-time frequency of some accident types was significantly higher than average. For example, almost 40 percent of the car overtaking type accidents occurred after dark (see Table 8). In contrast, there were relatively more bike rideout and car driveout accidents in the daylight hours.

TABLE 8

Lighting Conditions by Accident Class
Bike-Car Accidents, Dade County, 1983

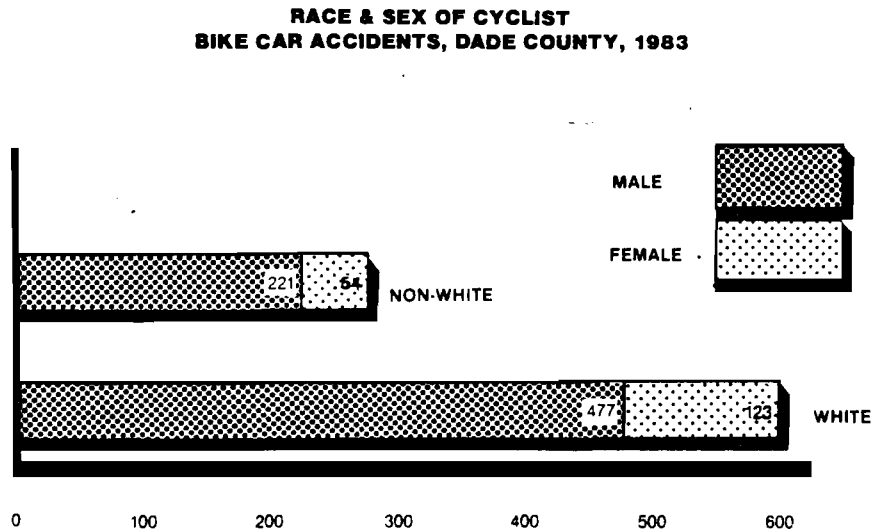
Class	Total Count	<u>Percent Distribution</u>		
		Daylight	Twilight	Dark
<u>Total</u>	<u>886</u>	76	6	18
Bike Rideout	289	80	6	14
Car Driveout	201	85	5	10
Car Overtaking	72	57	4	39
Car Turning	79	78	8	14
Bike Turning	74	66	4	30
Other	74	69	0	31
Low Frequency	97	72	9	19

Source: 1983 Bike-Car Accident File, tabulated by Metro-Dade Planning Department, 1986

3.5 Demographic Factors

(a) Race & Sex

Male cyclists were involved in eight out of ten reported bike-car accidents in 1983 (see Table 9 and Figure 4)



SOURCE: 1983 BIKE-CAR ACCIDENT FILE

FIGURE 4

TABLE 9

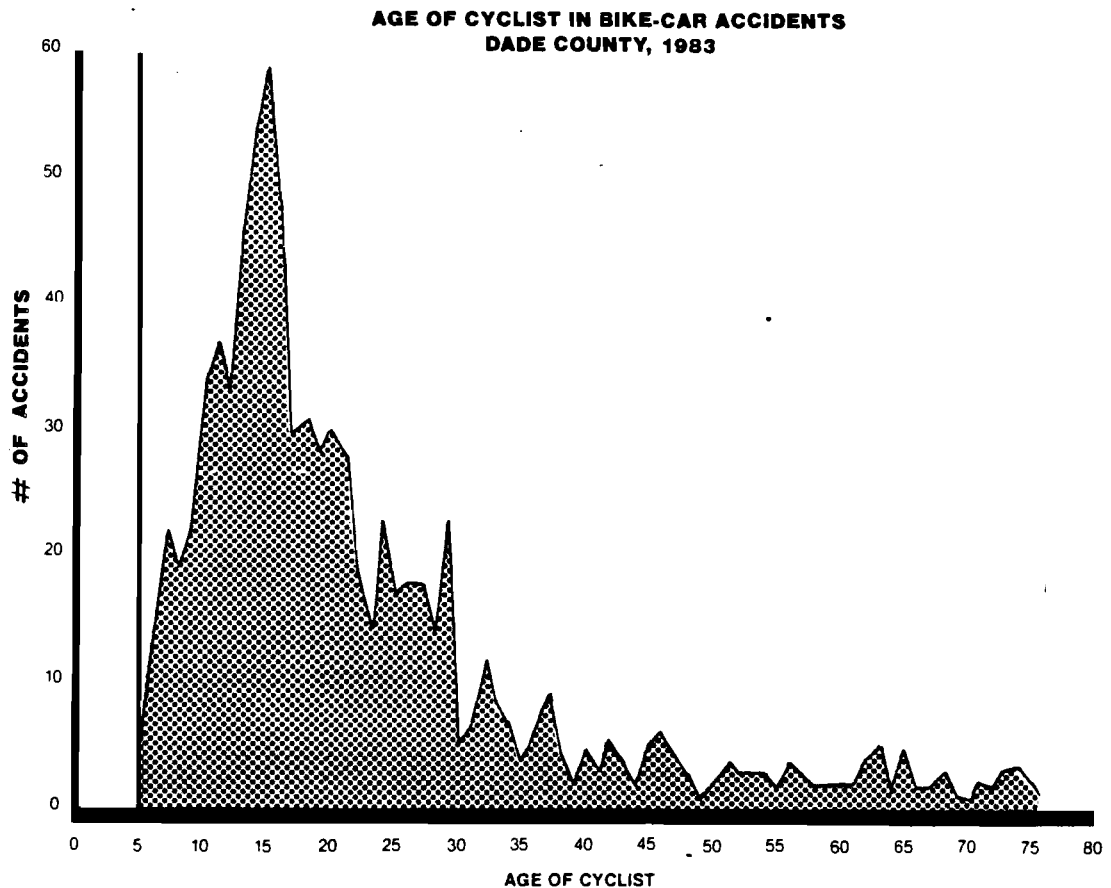
Race and Sex of Cyclists in Bike-Car Accidents
Dade County, 1983

	<u>Total</u>	<u>Male</u>	<u>Female</u>
<u>Total</u>	<u>875</u>	<u>698</u>	<u>177</u>
White	600	477	123
Nonwhite	275	221	54

Source: 1983 Bike-Car Accident File, tabulated by
Metro-Dade Planning Department, 1986

Females were involved in only 20 percent of the accidents reported and this pattern was evident for both Whites and Nonwhites. Nonwhites (almost all of whom were Black - 98 percent) were involved in three of every ten accidents reported, a proportion significantly higher than their share of the population in the prime bike riding ages.

- (b) Age. The age of the cyclist is clearly a significant factor in bike-car accidents. Figure 5 shows the frequency of bike-car accidents from age five (kindergarten age) to a sharp peak at age 15 (the age of most high school freshmen, and then a steep decline which tapers off in the early 30s. Table 10 presents the data for school age groupings. Junior and Senior high school age children have the highest relative incidence of accidents, followed by elementary school age children and college age youth.



SOURCE: 1983 BIKE-CAR ACCIDENT FILE

FIGURE 5

TABLE 10
Age Groups of Bicyclists in Bike-Car Accidents
Dade County 1983

	Count	Percent	Cum Percent
Preschool (0-5 yrs)	9	1.0	1.0
Elementary (6-11)	147	16.4	17.4
Junior High (12-14)	133	14.8	32.2
Senior High (15-18)	167	18.6	50.8
College (19-24)	142	15.8	66.6
Younger Adults (25-29)	90	10.3	76.9
Middle Age Adults (30-49)	100	11.2	88.1
Older Adults (50 and over)	109	12.2	100.3
Total	897	100.0	

Source: 1983 Bike-Car Accident File, tabulated by
Metro-Dade Planning Department, 1986

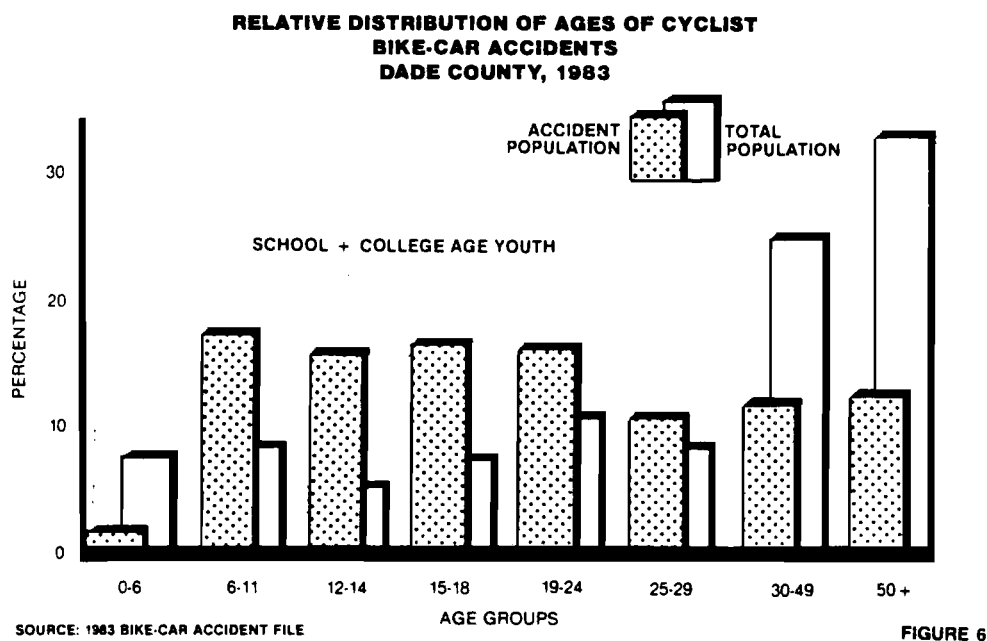


Figure 6 compares the age distribution of bicycle accident victims with the age distribution of the County's population in 1980. The concentration of school age riders is quite pronounced.

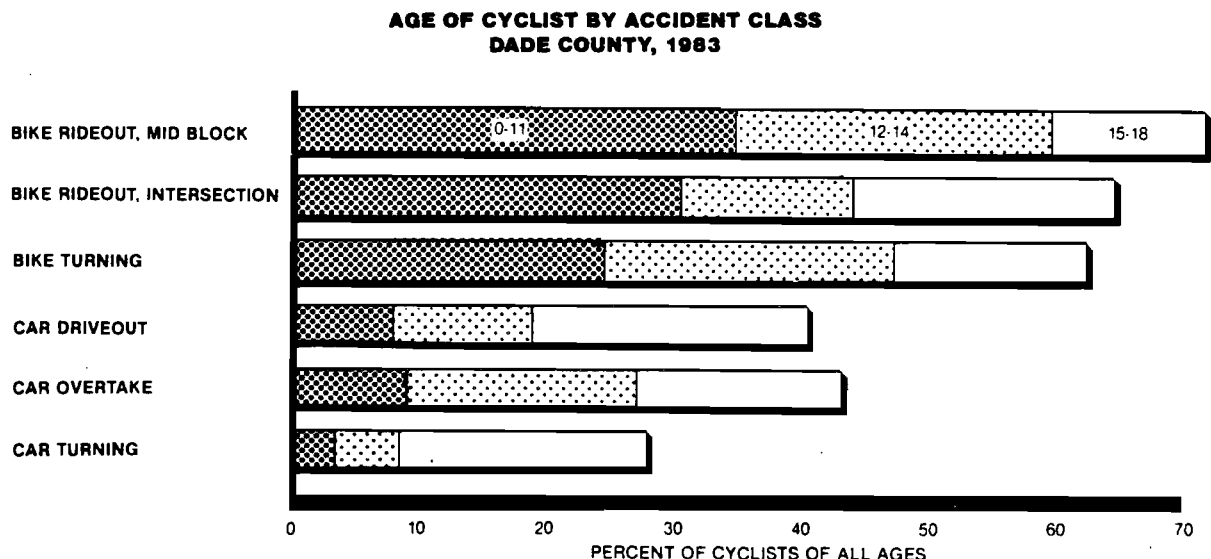
3.6 Countermeasures for Consideration

This section presents countermeasures for consideration by the community aimed at reducing bicycle car accidents throughout Dade County. The countermeasures suggested here related directly to the accident analysis of the previous sections. This discussion follows closely the treatment of accident reduction programs in John Forester's test book on the principles of cycling transportation engineering, Bicycle Transportation (Cambridge, Mass: The MIT Press, 1983).

In the words of Forester, the optimum bicycle safety program "will consist of mutually complementary countermeasures that each have high cost-effectiveness for one or more of the significant accident types" (Forester, p. 85). the bulk of bicycle safety expenditures in Dade County in the past have been devoted to the construction of bike paths aimed at separating the cyclist from automobile traffic -- an indirect countermeasure aimed at only a small proportion of bike-car accidents. In some instances the paths themselves have been the cause of serious casualties.

The preliminary analysis of the 1983 bike-car accidents in this report shows that the majority of these accidents are caused by cyclist incompetence and failure to follow traffic laws. Equipment failures, road defects, motorist error, and other factors make only a minor contribution to the total. What then is in the most effective way to expend the limited amount of cycling safety funds?

Figure 7 shows the age groups involved in the different classes of accidents. Note the overrepresentation of school age children in the bicycle rideout and bicycle turning classes. These age groups are underrepresented in the motorist initiated accidents - car driveout and car overtaking classes.



SOURCE: 1983 BIKE-CAR ACCIDENT FILE

The most direct countermeasure is obviously some program of cyclist competency training. In arguing for this direct approach, Forester points out that it is more likely to produce the desired results without the bad side-effects of indirect approaches. Children's bikeways, for example, often multiply the number of times that the cyclist must enter the roadway -- a major cause of bike-car accidents for children. Path maintenance is expensive and often lacking, resulting in even more accidents.

Competency training, in contrast, can teach cyclists, including children, driving procedures aimed at reducing their errors that now cause more than 50 percent of the bike-car accidents. It can teach them avoidance procedures that will help them avoid accidents that result from motorist errors. It can improve their riding ability so that they can avoid falls as well as collisions. Cyclist competency training programs have a demonstrated record of effectiveness. Forester cites the experience of the League of American Wheelmen, whose self-study program has "achieved a car-bike collision rate only 25% of the college cyclists and overall accident rate only 20% of the others." (Forester, p. 88). The most important and perhaps the most difficult part of the cyclist competency training program is persuading cyclists to obey the rules of the road for vehicles -- a bicycle is a vehicle. The design and implementation of such a program is the most important recommendation to emerge from this analysis.

Also required is a complementary program of selective traffic law enforcement by police officers and school crossing guards. Law enforcement officers must be prepared to issue citations to cyclists -- adults or children --- who fail to follow traffic laws. Disobeying the laws of the road are the major cause of bike-car accidents in Dade, and the traffic system will work properly only when cyclist cooperate and follow the rules.

The implementation of these programs is the key to reducing the number of bicycle accidents in Dade County. The development and deployment of these programs should be the top priority of Dade's Metropolitan Planning Organization.

4.0 COMPREHENSIVE PROGRAM ISSUES

The State of the Arts approach advocated for the development and implementation of bicycle plans and programs typically includes activities in four inter-related areas known as the "4 E's". The "4 E's" otherwise known as Engineering, Education, Enforcement and Encouragement when incorporated in a plan or program which addresses each of these elements in an integrated, coordinated way is termed a "Comprehensive Bicycle Program." The objective of a Comprehensive Bicycle Program is to blend all of the elements (i.e., engineering, education, enforcement and encouragement) together in such a way that they complement each other in the solution of local problems associated with bicycle programs. Traditionally, local bicycle programs have been characterized by their narrow focus. To be successful, bicycle programs need to be coordinated efforts involving many different actions and agencies. It is important to make sure all involved are working together towards compatible goals to avoid costly duplication, conflicts in direction and fragmented efforts. This becomes achievable with the establishment of a set of common goals to guide the development and implementation of plans and programs. The following goal statements have evolved for Comprehensive Bicycle Programs.

- To increase bicycle use, especially for transportation.
- To enhance bicyclists safety.
- To improve mobility for all users of the transportation system.

The use of the "4 E's" conceptualization evolved as a means of broadening the response to bicycling into something more than "just facilities". A brief overview of each of the four elements follows:

4.1 Engineering

The various engineering measures which are typically a part of a comprehensive bicycle plan program are:

- facilities improvements
- facility maintenance
- provision of parking
- elimination of hazards
- bottlenecks and barriers
- intermodal links

The focus of the engineering objectives of a Comprehensive Bicycle Plan is the provision of a transportation system which is as predictable as possible and provides for the operating characteristics and needs of vehicles using the transportation system.

The objectives are as follows:

- ° To upgrade existing designated bicycle facilities to meet minimum design standards.
- ° To assure that streets and highways provide appropriately for bicycle needs.
- ° To provide regular and sufficient maintenance of streets and separate bike facilities.
- ° To accommodate the special needs of the child and elderly cyclist.
- ° To provide continuity of facilities that safely accommodate bicycle travel.
- ° To provide a transportation system which accommodates bicycle access to activity areas.
- ° To provide for bicycle parking facilities of principle bicycle destinations.

4.2 Education

The innovative comprehensive bicycle education program provides education for bicyclist of all ages, both in school and out, for motorists, and for professionals. Four distinct audiences may be considered:

- ° child bicyclists
- ° adult bicyclists
- ° motorists
- ° professionals

The education element of a comprehensive bicycle plan should address all of these groups.

The objectives are as follows:

- ° To improve the bike-related knowledge and skill levels of cyclists of all ages.
- ° To provide teachers and other types of instructors involved with bicyclists safety education and training with a sound understanding of the principles of the subject.
- ° To improve motorists' acceptance and understanding of sharing the roads safely with bicyclists.
- ° To provide professional training related to bicycling to police officers, traffic engineers and other government officials, as appropriate.
- ° To insure that all bicycle education and public

information materials and programs are current with the best available knowledge on the subject and that they reflect the findings of local accident data.

4.3 Enforcement

The enforcement element of a comprehensive bicycle plan addresses public safety and crime prevention. An enforcement program can be broken into three areas: identification, apprehension, and adjudication.

Bicyclists involved in an accident or who have committed a traffic violation need to be identified. Apprehension involves enforcement of the traffic laws and stopping violators. Police officers need to be educated on the importance of apprehending bicyclists who violate traffic laws. Finally, adjudication is necessary to correct and remediate traffic law violators.

The objectives are as follows:

- ° To improve bicycle riding behavior and reduce bicycle accidents and fatalities.
- ° To reduce bicycle theft and improve the recovery rate for lost and stolen bicycles.
- ° To coordinate local bicycle enforcement programs.
- ° To educate police personnel on the importance of enforcing traffic laws relating to bicycles.
- ° To develop community support for traffic law enforcement for bicyclists.
- ° To establish liaison with bicycle education, encouragement, and engineering agencies in the state and region.

4.4 Encouragement

The encouragement element of a comprehensive bicycle plan entails "marketing" bicycling to the public. This aspect of the bicycle program is important in that bicycling can provide both the individual and the community as a whole with a variety of benefits. The promotion of bicycle use will help to get the maximum return on the public investment in bicycle program and facilities.

The objectives are as follows:

- ° To promote public awareness and acceptance of bicycling
- ° To create opportunities for new bicyclists to have a positive bicycling experience.

- ° To promote provisions of incentives for bicycling

5.0 RECOMMENDATIONS

This section identifies the recommended actions proposed to implement the Comprehensive Bicycle Plan. The objectives previously identified were selected on the basis of being realistically attainable.

The order of priority for these actions are identified in Chapter 8 "Conclusions".

5.1 Engineering

Recommended Actions:

- A. Promote "share the road" concept with motorists through the adoption of policies which support current Florida Department of Transportation design standards for incorporating bicycle considerations in the design of county and local roads., i.e. provide wide curb lanes and publicize this reconstruction and intention of the wide right hand lane. .
- B. Review new roadway construction projects to satisfy bicycle transportation needs.
- C. Provide curb-cuts where needed in areas heavily traveled by bicycle.
- D. Provide regular cleaning of curb lane and maintenance of bike paths.
- E. Continue to adjust user hours for permitting bikes on Trains (METRORAIL).
- F. Install bicycle lockers and racks at METRORAIL Stations and METROBUS Terminals.
- G. Encourage the installation of bicycle lockers and racks in automobile parking lots and parking garages.

5.2 Education

Recommended Actions:

- A. Maintain and expand bicycle safety classes in public schools grade K through 6. Sufficient trained instructors would be needed for this.
- B. Offer courses in bicycle skill and safety to adults through service clubs.
- C. Make a conscious effort to inform the public about newly

resurfaced roads that provide wide curb lanes.

- D. Include share the road instructions in the Florida Drivers' Manual.
- E. Seek private sponsors for training professional bike safety and bicycling instructors.

5.3 Enforcement

Recommended Actions:

- A. Encourage traffic patrols to give caution citations to bicyclists observed violating traffic laws or behaving in an unsafe manner.
- B. Provide information to users on various ways to secure a bicycle in the open.
- C. Organize law enforcement seminar to include all agencies and individuals interested in enforcement of bicycling laws.

5.4 Encouragement

Recommended Actions:

- A. Design route map detailing preferred routes to be followed by bicycle to reach county attractions like beaches, zoo, and recreational bikeways.
- B. Provide bicycle access and secure parking at all County facilities and functions.
- C. Encourage development of bicycle parking at private commercial facilities such as shopping centers and office buildings.
- D. Disseminate information on existing bicycle facilities for commuting.
- E. Encourage bicycle events such as Family Bike Day, bike races, rallies, jamborees, etc.

6.0 PLAN APPROVAL AND IMPLEMENTATION PROCESS

The Comprehensive Bicycle Plan becomes formalized upon official approval by the Board of the Metropolitan Planning Organization. The Plan is presented to the MPO Board after the review process is concluded and all the appropriate modifications proposed by staff, members of the Bicycle Advisory Committee and all other interested parties, including members of the Dade County Bicycling Coalition, have been incorporated. The anticipated date for MPO approval of the document is October, 1986.

Implementation of the various strategies recommended in Section 5.0 of the Plan will depend on the availability of resources to carry out the actions specified. Information on the various roles and responsibilities for the various activities leading to the preparation and implementation of an effective improvement plan is presented below. In addition, the chart presented in the "Conclusions" section (Section 8) identifies responsibilities for the initiation of efforts needed to complete the recommended actions as well as priorities to carry out these actions.

The Plan is to be updated as necessary based on changes that may occur in the future. These changes may include newly defined needs and projects, modifications on actions included in this document, or any other new information that may become relevant in efforts to improve the status of bicycling in Dade County.

6.1 Roles and Responsibilities

Implementation of a comprehensive bicycle plan will involve many functional agencies and/or organizations.

A. The MPO

The MPO for the Miami Urbanized Area is composed of ex officio members elected to the Dade County Board of County Commissioners. The role of the MPO is to carry out the transportation planning process.

B. The Florida Department of Transportation Bicycle Program Office

The role of this agency is to provide guidance to the local MPO in the development of a Comprehensive Bicycle Plan. The FDOT District Office is also to function as an active participant in plan and program activities.

C. Bicycle Advisory Committee (BAC)

Appointed to advise the MPO on matters relating to bicycle transportation and to assist the MPO staff with the development and the updating of a comprehensive bicycle plan.

D. The Transportation Planning Council (TPC)

This technical review committee is comprised of the directors of the Dade County agencies involved in the transportation planning process, plus senior technical staff of the Florida Department of Transportation. The TPC is responsible for the technical adequacy of transportation programs and plans which must be approved by this body before recommendation to the MPO for approval.

E. Schools

School authorities have the greatest potential for reaching the youth of the area with critical information on the safe operation of the bicycle. This resource can be utilized to determine the attitudes of officials, teachers and parents toward bicycling education.

F. Law Enforcement Agencies

Police departments can be (and are) involved in a variety of bike-related activities, including maintaining records on bicycle accidents, investigating and recording bike thefts, enforcing the traffic laws as they relate to bicycles, registering bicycles, conducting bike safety education programs at schools, and helping to organize bicycle rodeos.

G. Bicycle Clubs

Various bike clubs in the community will be initiated to organize encouragement programs usually in the form of a mass participation events.

H. Bicycle Shops

Community bike shops are very useful resources in the development and implementation of a bike plan. Most often bike shops are involved in an education program, such as a repair clinic, or an encouragement program such as a bike race. In Dade County, some bicycle shop owners already serve on the BAC and are involved in a variety of outreach programs.

6.2 Funding Potential for Program

Other than limited funds for bicycle planning in the MPO's Unified Planning Work Program (UPWP) and monies which occasionally may be received from the Florida Department of Transportation for specific projects, sources of funding for bicycling programs are virtually non-existent. The sources

that do exist, are not highly visible, and in most cases, a great deal of competition exists for them. Grants at the state level may be available through the Department of Community Affairs, and the Department of Natural Resources.

Funding for the projects and activities proposed in this Plan will be pursued through state and local sources as well as private sources including both contributions and, where appropriate, users' fees.

In terms of local public resources, capital funds for bicycle related capital improvements have not been available since a number of bikeways were built during the Decade of Progress (1972-1982) with bond funds. While no specific local monies are currently earmarked for bicycling improvements, local public works projects that benefit bicycling such as the placement of curb cuts on sidewalks at intersections, are included in highway capacity improvement projects on County and municipal roads. Additionally, some funds are derived from the implementation of the bicycle-transit integration program through the rental of lockers and the issuance of bike-on-trains permits, but these resources are relatively small and are generally used for program administration purposes.

It is clear that a major effort is needed to identify and secure dedicated and recurrent funding sources for bicycling programs if improvements such as those proposed in this Plan are to become a reality.

7.0 CONCLUSION

The actions recommended for implementation in Section 5.0 of this Plan have been advanced to deal effectively with the critical program issues. These actions will have to be implemented if the most pressing needs of bicyclists in the urban area are to be addressed.

Table 11 presents a summary of the recommended Plan actions. Information identifying the entities responsible for implementation efforts, the time needed to complete the actions, the cost associated with each measure, and the relative priorities, is portrayed. Almost all of the recommended strategies have been developed keeping in mind that rider safety is the most critical concern of the program. Another important need relates to the availability of showers in work places to encourage bicycling commuting to work.

The emphasis in the area of engineering centers on the integration of the bicycle with existing transportation facilities, and most importantly, roadways. The need to incorporate bicycling as an integral transportation mode is key. As such, promotion of the "share the road" concept efforts to insure that highway construction projects include bike-related considerations, are listed as immediate priorities. Actions to continue and expand the bicycle-transit program described in Section 2.0 of the plan are also listed.

Education-related strategies are also important. Most of the actions identified in this program area are not in the first category of priorities but are nevertheless important and should be implemented in the short term. The one strategy that is highlighted relates to the need to continue and expand the teaching of safety skills to elementary school children. As indicated previously, this program already exists but needs additional resources.

The enforcement of traffic laws is an area of concern as well. The one strategy identified as an immediate priority relates to insuring that law-enforcement agencies focus on this issue. A concerted effort is needed involving all bicycling interest groups to get this particular action implemented effectively.

The area of encouragement is probably the least difficult to deal with. The actions presented in Table 11 for this category can be largely accomplished by program staff in cooperation with local clubs and others in the local bicycling community.

In summary, the actions presented provide a fairly comprehensive listing of the activities that can most significantly improve conditions for bicycling in Dade County. Clearly, the cooperation and hard work of all of those who believe that bicycling is a legitimate mode of urban transportation will be needed to make this plan a reality.

TABLE 11
SUMMARY OF RECOMMENDED
PLAN ACTIONS

RECOMMENDED ACTION	LEAD RESPONSIBILITY	TIME FOR COMPLETION	ESTIMATED COST (\$)	PROPOSED* PRIORITY
1. <u>ENGINEERING:</u>				
A) Promote "Share the road" concept with motorists through the adoption of policies which support current FDOT design standards for incorporating bicycle considerations in the design of county and local roads.	BAC/Program Support Staff	6-10 Months	N/A**	1
B) Review new roadway construction projects to satisfy bicycle transportation needs.	BAC	On-going	N/A	1
C) Provide curb-cuts where needed in areas heavily traveled by bicycle.	Program Support Staff	On-going	N/A	1
D) Provide regular cleaning of curb lane and maintenance of bike paths.	State/County/Municipalities	On-going	N/A	1
E) Continue to adjust user hours for permitting bikes on Trains (METRORAIL).	Program Support Staff	2-4 Months	N/A	2
F) Install bicycle lockers and racks at METRORAIL Stations and METROBUS Terminals.	Program Support Staff	On-going	175,000	2

* Priority Definition

1 = Immediate

2 = Short Term

3 = Last To Complete

** N/A = Not Applicable

RECOMMENDED ACTION	LEAD RESPONSIBILITY	TIME FOR COMPLETION	ESTIMATED COST (\$)	PROPOSED* PRIORITY
G) Encourage the installation of bicycle lockers and racks in automobile parking lots and parking garages.	BAC/Program Support Staff	On-going	N/A	2
2. <u>EDUCATION:</u>				
A) Maintain and expand bicycle safety classes in public schools grade K through 6. Sufficient trained instructors would be needed for this.	BAC/Program Support Staff	On-going	Undetermined	1
B) Offer courses in bicycle skill and safety to adults through service clubs.	BAC/ Bicycle Clubs	On-going	Undetermined	2
C) Make a conscious effort to inform the public about newly resurfaced roads that provide wide curb lanes.	Program Support Staff	On-going	N/A**	2
D) Include share the road instructions in the Florida Drivers' Manual.	BAC/Program Support Staff	9-12 months	Undetermined	2
E) Seek private sponsors for training professional bike safety and bicycling instructors.	BAC/Program Support Staff	On-going	Undetermined	3

* Priority Definition

1 = Indefinite

2 = Short Term

3 = Last To Complete

** N/A = Not Applicable

RECOMMENDED ACTION	LEAD RESPONSIBILITY	TIME FOR COMPLETION	ESTIMATED COST (\$)	PROPOSED* PRIORITY
3. <u>ENFORCEMENT:</u>				
A) Encourage traffic patrols to give caution citations to bicyclists observed violating traffic laws or behaving in an unsafe manner.	BAC/Program Support Staff	On-going	Undetermined	1
B) Provide information to users on various ways to secure a bicycle in the open.	BAC	On-going	N/A**	3
C) Organize law enforcement seminars to include all agencies and individuals interested in enforcement of bicycling laws.	BAC/Program Support Staff	On-going	Undetermined	3
4. <u>ENCOURAGEMENT</u>				
A) Design route map detailing preferred routes to be followed by bicycle to reach county attractions like beaches, zoo, and recreational bikeways.	Program Support Staff	6-9 months	Undetermined	2
B) Provide bicycle access and secure parking at all County facilities and functions.	Program Support Staff	On-going	Undetermined	3
C) Encourage development of bicycle parking at private commercial facilities such as shopping centers and office buildings.	BAC/Program Support Staff Bicycle Clubs	On-going	Undetermined	3

* Priority Definition

1 = Indefinite

2 = Short Term

3 = Last To Complete

* N/A = Not Applicable

RECOMMENDED ACTION	LEAD RESPONSIBILITY	TIME FOR COMPLETION	ESTIMATED COST (\$)	PROPOSED* PRIORITY
D) Disseminate information on existing bicycle facilities for commuting.	BAC/Program Support Staff Bicycle Clubs	On-going	N/A**	2
E) Encourage bicycle events such as Family Bike Day, bike races, rallies, jamborees, etc.	BAC/Program Support Staff	On-going	Undetermined	1

* Priority Definition

1 = Indefinite

2 = Short Term

3 = Last To Complete

** N/A = Not Applicable

BAC:46:bb

APPENDIX A
BIKE-ON-TRAIN PROGRAM

MEMORANDUM

Amended
Agenda Item No. 5(c)(1)TO: Honorable Mayor and Members
Board of County Commissioners

DATE: October 1, 1985

FROM: M. R. Stierholm
County ManagerSUBJECT: METROPAIL Bike-On-Train
ProgramRECOMMENDATION

It is recommended that the Board extend for one year the Bike-On-Train program, and expand the program to include Saturdays, Sundays and Holidays during posted hours of operation; and weekdays from 10:00 a.m. to 4:00 p.m. and after 6:30 p.m. until closing. The scope of this program is based on the favorable experience of the six (6) months demonstration just concluded. The cost of administering this program is fully funded from UMTA Bicycle/Transit Integration Grant FL-03-0088.

BACKGROUND

On November 20, 1984 the Board adopted Resolution No. R-1605-84 which approved a Bike-On-Train demonstration program to determine if this service would encourage the use of METRORAIL by bicycle riders. The six month demonstration program was initiated March 2, 1985 and ended August 31, 1985.

In order to participate in this program, bikers receive written safety instructions concerning METRORAIL bicycle procedures and behavior from the MDTA Bicycle Coordinator, and upon passing a written test receive an ID card with the biker's photo for a \$5.00 fee.

To-date, 65 permits have been issued. In June, an informal questionnaire was mailed to the holders of the Bike-On-Train permits to determine the use and reception of this program. The response to the questionnaire was better than 50%. The use of the Bike-On-Train program, although well received has been minimal. The singular unanimous comment from the bikers with permits was the recommendation that the Bike-On-Train program, in addition to Saturdays and Sundays, include holidays and weekdays during off peak hours. During this demonstration period, there have been no negative reports from either regular passengers or the Operations Division of METRORAIL.

In July, during the Network 86 Survey work, an access study was made at selected METRORAIL stations. It was discovered that the number of passengers who arrived at the station with their bicycles represented a small but significant percent of the mode of access. For example, 374 people were questioned at the Coconut Grove METRORAIL Station between the hours of 7:00 a.m. and 3:00 p.m. Of this number, 7 got to the METRORAIL Station by bicycle. Given that bike lockers have only been available since June, this two percent is meaningful. It is better than the national average which is 1/2 percent. Based on the experience in Washington, D.C. (WMATA), there is potential for developing 4-6 percent METRORAIL ridership generated by bicycle access.

Bike-On-Train is one part of the overall plan referred to as "BIKE-N-RIDE" which utilizes the bicycle as a transit link to expand the service area of METRORAIL and METROBUS. The plan provides two options to the bike commuter. One of the options already in place is the leasing of bicycle lockers at METRORAIL stations which provides a locked parking facility for the bicycle. The other option will be Bike-On-Train. This will allow the bike commuter to bicycle to the METRORAIL station, board the train with the bike during the designated hours, thereby providing a link from the METRORAIL Station to the bikers ultimate destination.

With the adoption of this Resolution, MDTA will continue to require the safety instruction and testing together with the photo ID to take bikes on METRORAIL.

RESOLUTION NO. R-1100-85

RESOLUTION AUTHORIZING THE EXTENSION FOR ONE YEAR OF THE BIKE-ON-TRAIN PROGRAM; ALLOWING PERMITTED BICYCLISTS TO BOARD METRO-RAIL TRAINS SATURDAYS, SUNDAYS, AND HOLIDAYS DURING POSTED HOURS OF OPERATION; AND WEEKDAYS FROM 10:00 A.M. TO 4:00 P.M. AND AFTER 6:30 P.M.

WHEREAS, this Board desires to accomplish the purposes outlined in the accompanying memorandum, a copy of which is incorporated herein by reference,

NOW, THEREFORE, BE IT RESOLVED BY THE COUNTY COMMISSIONERS OF DADE COUNTY, FLORIDA, that this Board approves the extension for one year of the Bike-On-Train Program during designated times and authorizes the Metro Dade Transportation Administration to issue permits to those cyclists desiring them at \$5.00 per permit following testing for knowledge of safety procedures.

The foregoing resolution was offered by Commissioner Clara Oesterle who moved its adoption. The motion was seconded by Commissioner Beverly B. Phillips, and upon being put to a vote, the vote was as follows:

Barbara M. Carey	Aye
Clara Oesterle	Aye
Beverly B. Phillips	Aye
James F. Redford, Jr.	Absent
Harvey Ruvlin	Aye
Barry D. Schreiber	Absent
Jorge E. Valdes	Absent
Sherran S. Winn	Aye
Stephen P. Clark	Aye

The Mayor thereupon declared the resolution duly passed and adopted this 1st day of October, 1985.

DADE COUNTY, FLORIDA
BY ITS BOARD OF
COUNTY COMMISSIONERS

RICHARD P. BRINKER, CLERK

Approved by County Attorney as to
form and legal sufficiency. J. K.

By: Richard P. Brinker
Deputy Clerk

STATE OF FLORIDA)
) SS:
COUNTY OF DADE)

I, RICHARD P. BRINKER, Clerk of the Circuit Court in and for Dade County, Florida, and Ex-Officio Clerk of the Board of County Commissioners of said County, DO HEREBY CERTIFY that the above and foregoing is a true and correct copy of Resolution No. R-1320-85, adopted by the said Board of County Commissioners at its meeting held on October 1, 19 85.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal on this 4th day of October, A. D. 19 85.

RICHARD P. BRINKER, Ex-Officio Clerk
Board of County Commissioners
Dade County, Florida

By


Deputy Clerk

SEAL



Board of County Commissioners
Dade County, Florida

MEMORANDUM

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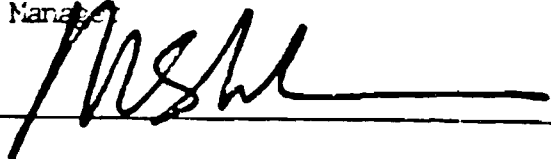
Agenda Item No. R-5(c)(3)

TO Honorable Mayor and Members
Board of County Commissioners

DATE September 18, 1985

SUBJECT Extension of Bike-On-Train
Demonstration Program

FROM M.R. Stierheim
County Manager

RECOMMENDATION

It is recommended that the Board extend the Bike-On-Train Demonstration Program from September 1, 1985 thru October 6, 1985.

BACKGROUND

On November 20, 1984 the Board adopted Resolution No. R-1605-84 which approved a Bike-On-Train Demonstration Program to determine if this service would encourage the use of METRORAIL by bicycle riders. The six month demonstration program was initiated March 2, 1985 and is programmed to end September 1, 1985 at 7 p.m..

The purpose for this request is to extend the existing program until the new program is adopted by the Board so that those persons now participating in the program can continue to do so.

It is anticipated that the Board will consider the establishment of the new program at its October 1, 1985 meeting.

RESOLUTION NO. R-1221-85

RESOLUTION RATIFYING COUNTY MANAGER'S ACTION
IN EXTENDING BIKE-ON-TRAIN DEMONSTRATION
PROGRAM TO OCTOBER 6, 1985

WHEREAS, this Board desires to accomplish the purposes outlined in the accompanying memorandum, a copy of which is incorporated herein by reference,

WHEREAS, at the County Commission meeting of July 16, 1985, this Board, by motion, authorized the County Manager to administer County business during the period of July 17, 1985, through September 2, 1985 [Agenda Item No. 7 (a) (8)]; such action(s) taken to be in accordance with the policies and procedures established by the Board of County Commissioners and be submitted to the Board for ratification at the County Commission meeting of September 17, 1985.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF DADE COUNTY, FLORIDA, that this Board approves and ratifies the County Manager's action in extending the Bike-on-Train demonstration program from September 1, 1985, to October 6, 1985.

The foregoing resolution was offered by Commissioner
Clara Oesterle, who moved its adoption, the
motion was seconded by Commissioner **Beverly Phillips**
and upon being put to a vote, the vote was as follows:

Barbara M. Carey	Aye
Clara Oesterle	Aye
Beverly B. Phillips	Aye
James F. Redford, Jr.	Aye
Harvey Ruvin	Absent
Barry D. Schreiber	Aye
Jorge E. Valdes	Absent
Sherman S. Winn	Absent
Stephen P. Clark	Absent

The Mayor thereupon declared the resolution duly passed and adopted this 18th day of September, 1985.

DADE COUNTY, FLORIDA
BY ITS BOARD OF
COUNTY COMMISSIONERS

RICHARD P. BRINKER, CLERK

Approved by County Attorney as
to form and legal sufficiency.

By:
Deputy Clerk

STATE OF FLORIDA)
) SS:
COUNTY OF DADE)

I, RICHARD P. BRINKER, Clerk of the Circuit Court in and for Dade County, Florida, and Ex-Officio Clerk of the Board of County Commissioners of said County, DO HEREBY CERTIFY that the above and foregoing is a true and correct copy of Resolution No. R-1221-85, adopted by the said Board of County Commissioners at its meeting held on September 18, 19 85.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal on this 23rd day of September, A. D. 19 85.

RICHARD P. BRINKER, Ex-Officio Clerk
Board of County Commissioners
Dade County, Florida


By

E. Rayner
Deputy Clerk



SEAL

Board of County Commissioners
Dade County, Florida

TO	Honorable Mayor and Members Board of County Commissioners	DATE	November 20, 1984
		SUBJECT	METRORAIL Bikes-on-Trains Six Month Demonstration Program
FROM	M.R. Stierheim County Manager 		

RECOMMENDATION

It is recommended that the Board approve a six (6) month demonstration program whereby cyclists who have purchased a permit for the duration of the demonstration will be allowed to board METRORAIL trains with their bicycles on Saturdays and Sundays from 7:00 am to 7:00 pm. This program will begin 30 days after weekend service is initiated. It is also recommended that the Board authorize the Metro-Dade Transportation Administration to issue said permits at \$5.00 per permit.

BACKGROUND

The Metro-Dade Transportation Administration has worked in conjunction with the Dade County Bicycling Coalition to develop this program to allow bicycles on METRORAIL trains. The Bikes-on-Trains demonstration program uses procedures that were established in other cities, such as Washington D.C and San Francisco.

To test how a program of this nature could be carried out on Dade County's METRORAIL system, a demonstration ride was held on October 15, 1983, in which cyclists from the Dade County Bicycling Coalition were allowed to board a METRORAIL train with their bicycles. Although the demonstration was deemed successful, MDTA staff raised a number of questions concerning safety and operation of this program, such as riding the bicycle anywhere in the station area; blocking any portion of the rail car door; injuring or dirtying any Metrorail passenger with the bicycle; and in the event of an emergency evacuation, leaving the bicycle on the rail car.

To address these questions, a Peer Review Forum was held in which appropriate Metro-Dade personnel, a representative from the Washington Metropolitan Area Transit Authority (WMATA) who designed Washington's program, and appropriate MDTA personnel, attended. At the Forum, WMATA's program was presented and questions concerning the viability of such a program for Dade County were satisfactorily answered.

MDTA staff meetings were held following the Forum to discuss the issues. In mid-March, agreement was reached that a six (6) month demonstration be recommended for approval by the Board to further test the viability of Bikes-on-Trains.

Essentially, the program will require an interested cyclist to participate in a safety program, pass a written test and then be given a permit for \$5.00 which will automatically expire at end of the demonstration program. The permit must be displayed on the cyclist's outer clothing at all times and cannot be transferred since it will bear the photograph of the cyclist. The cyclist must use the elevator to reach the platform and can only enter the rail car from the end door of the last car of the train. The cyclist must never leave the bicycle unattended or leaning against the rail car.

This program has been reviewed and approved by risk management.

RESOLUTION NO. R-1605-84

RESOLUTION AUTHORIZING A SIX (6) MONTH DEMONSTRATION PROGRAM THAT ALLOWS PERMITTED BICYCLISTS TO BOARD METRORAIL TRAINS ON SATURDAYS AND SUNDAYS BETWEEN THE HOURS OF 7:00 A.M. AND 7:00 P.M.

WHEREAS, this Board desires to accomplish the purposes outlined in the accompanying memorandum, a copy of which is incorporated herein by reference,

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF DADE COUNTY, FLORIDA, that this Board approves the METRORAIL Bikes-on-Trains Six Month Demonstration Program, to begin thirty (30) days after weekend service begins on said system, and authorizes the Metro-Dade Transportation Administration to issue permits to those cyclists desiring them at \$5.00 per permit.


The foregoing resolution was offered by Commissioner ~~Clara Oesterle~~, who moved its adoption. The motion was seconded by Commissioner ~~Beverly Phillips~~, and upon being put to a vote, the vote was as follows:

Barbara M. Carey	Aye
Clara Oesterle	Aye
Beverly B. Phillips	Aye
James F. Redford, Jr.	Aye
Harvey Ruvin	Aye
Barry D. Schreiber	Absent
Jorge E. Valdes	Aye
Sherman S. Wynn	Aye
Stephen P. Clark	Aye

The Mayor thereupon declared the the resolution duly passed and adopted this 20th day of November, 1984.

DADE COUNTY, FLORIDA
BY ITS BOARD OF
COUNTY COMMISSIONERS

RICHARD P. BRINKER, CLERK

Approved by County Attorney as  to form and legal sufficiency.

By: RAYMOND REED
Deputy Clerk

STATE OF FLORIDA)
) SS:
COUNTY OF DADE)

I, RICHARD P. BRINKER, Clerk of the Circuit Court in and for Dade County, Florida, and Ex-Officio Clerk of the Board of County Commissioners of said County, DO HEREBY CERTIFY that the above and foregoing is a true and correct copy of Resolution No. R-1605-84, adopted by the said Board of County Commissioners at its meeting held on November 20, 19 84.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal on this 27th day of November, A. D. 19 84.

RICHARD P. BRINKER, Ex-Officio Clerk
Board of County Commissioners
Dade County, Florida

By _____
Deputy Clerk

SEAL

Board of County Commissioners
Dade County, Florida

METRORAIL BIKES-ON-TRAINS



SAFETY INSTRUCTIONS

METRO-DADE TRANSPORTATION ADMINISTRATION

METRORAIL BIKE-ON-TRAIN PROGRAM

GENERAL RULES

1. Policy. This program concerns only conventional two wheeled operational bicycles. Tricycles, tandems, and bicycles with training wheels are prohibited.
2. Hours of Use. The METRORAIL Bikes-on-Train program allow "permitted" passengers to bring their bicycles on board trains weekdays from 10 a.m. to 4 p.m. and after 6:30 p.m. until closing; Saturdays, Sundays, and holidays during posted hours.
3. Registration. A permit system has been established to limit the taking of bikes on trains to those passengers who have been properly instructed and tested.
4. Eligibility. Permits will be issued in the Office of Bicycle Coordinator to persons 16 years of age or older. Children under the age of 16 will be permitted to take a bike on METRORAIL only in the company of a parent or guardian who has also been issued a permit.
5. Safety Instruction and Testing. Before issuance of a permit, the

registrant must participate in a special safety instruction program. This program will focus on the safe handling of bicycles on METRORAIL, entering and leaving, the system, and particularly the use of elevators, platforms, and trains will be stressed. Special instructions will be given for handling bicycles in the event of a METRORAIL emergency situation. Each applicant is required to take and pass the written safety test before receiving a permit.

6. Permit. Upon passing the written safety test, the permit will be issued. It will be numbered and will bear the registrant's photograph and a clip. The permit shall be affixed to the exterior of the cyclists' clothing at all times that the cyclist is on METRORAIL property.
7. Fee. A non-refundable fee of \$5.00 will be charged for each permit upon completion of the Bikes-on-Trains Safety Course and test.
8. Liability. A waiver indemnifying and releasing Metropolitan Dade County from all injury, loss, and/or damage involving any bicycle brought into station areas and aboard trains under this program must be signed by all registrants at the time the permit is issued. For minors (persons under age 18), the waiver and indemnity agreement must be co-signed by a parent or guardian at the time the permit is issued.
9. Revocation of Permits. Cyclists will be required to observe the

Rules and Regulations set forth by MDTA for this program. Cyclists failing to abide by these Rules and Regulations will be subject to the revocation of their permit. Additionally, violation of the public conduct rules set forth for rail operations could result in fines and/or arrests.

Transport Rules

1. Entering Stations. Rail Passenger Guides are positioned near the handicapped entry/exit gate. Passenger/cyclists with a bicycle, wearing the MDTA Bike-on-Train Permit in clear view will approach the Rail Passenger Guide for identification verification. The passenger/cyclist will pay the posted fare into the fare box immediately adjacent to the handicap gate and enter the station with the bicycle through the handicap gate.
2. Vertical Circulation. Cyclists will access station platforms by use of the elevators only. Escalators and stairs shall be off limits to cyclists except under special instruction by authorized personnel. Cyclists will show extreme courtesy towards other passengers when placing their bicycles in or taking their bicycles out of the elevators. Only two bicycles at a time will be allowed on the elevator.

When boarding elevators, handicapped persons and non-bicyclists shall always have priority over bicyclists. In no case shall a bicycle be placed in a elevator with another passenger. The

passenger/cyclists shall wait for the next elevator. If the elevator is out of order, cyclists shall not be allowed to enter the station unless specifically authorized by the station attendant. If the cyclists alights from a train at a station where the elevator is not working cyclist shall request specific instructions from authorized METRORAIL Personnel.

3. Waiting for the Train. Passenger/cyclist shall exercise caution while waiting for the train on the platform standing near the bench/billboard part of the platform, clear of the granite portion of the platform. The front of the bicycle will face the train, thereby being held perpendicular to the train. The passenger/cyclist shall be prepared to enter the train with no impediments presented to other patrons on the platform or in the train.

4. Boarding Train. Entry for the passenger/cyclist will be permitted only into the two end sections of the last car of a train through either of the two end doors, and shall never use the middle door of the car or the aisle of the car between the two end doors. No more than four (4) bicycles shall be allowed on the last car at any one time, two (2) at each end. (See diagram on page 8)

Cyclists must wait until all exiting and entering passengers have cleared the doorway before moving the bicycle into the car. Aboard the train, whether standing or sitting, cyclist must hold bicycle

firmly at all times, with the kickstand up, and not allow bicycle to lean against any part of the car or other passengers.

5. Exiting Train and Station. Cyclists shall wait for all passengers to exit the train before alighting. Cyclists will proceed cautiously to the elevator and exit station through the handicap gate.
6. Use of Handicapped Facilities. Since passenger/cyclists will be using handicap facilities throughout the trip, it shall be understood at all time that handicap passengers have priority over passenger/cyclists, both in entering and exiting stations, use of the elevator, and riding the train.

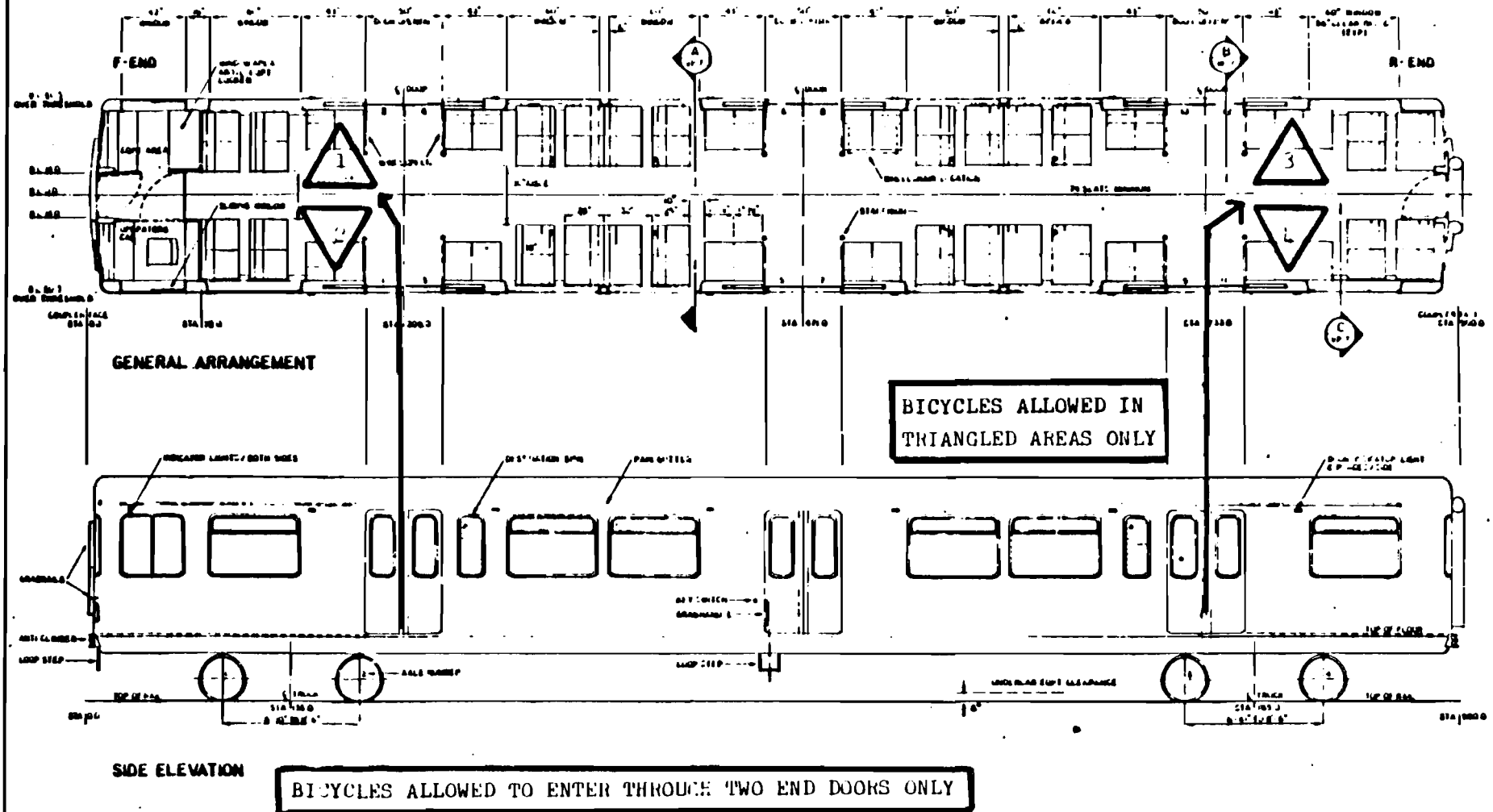
Rules and Regulations



1. A valid METRORAIL Bike-on-Train permit is required for a passenger/cyclist to transport one conventional bicycle aboard METRORAIL trains at the specified times and under the conditions set forth hereinafter.
2. Permits will be issued to anyone successfully completing the Bikes-on-Trains Safety Course. Persons under 16 years of age may obtain a permit only when a parent or guardian accompanies them, completes the safety course, and is issued a permit.
3. METRORAIL Bike-on-Train permits are not transferable and shall be

displayed on the exterior of the cyclists' clothing and visible at all times while transporting a bicycle on METRORAIL trains.

4. During the time when bicycles are permitted, authorized MDTA personnel or Police may, at their discretion, during periods of passenger congestion, temporarily deny cyclists access to station areas and platforms until the congestion is cleared.
5. Bicycle allowed under this program are conventional two-wheeled vehicles. Bicycles shall not be longer than 80 inches, not higher than 48 inches or wider than 22 inches. Motor-powered bicycles, tandem bicycles, motorcycles, mopeds, tricycles and bicycles with training wheels are prohibited.
6. Bicycles must be clean, free of excess grease and dirt and not have any sharp projections.
7. Bicycles shall not be left unattended at any time and the passenger/cyclists shall be in full control of the bicycles at all times.
8. Bicycle riding anywhere in the METRORAIL station building area, or property, including sidewalks, park/ride and adjacent bus facilities areas, is strictly prohibited. Bicycle riding shall be allowed only in areas intended for vehicle traffic, such as parking lots and access roads.

9. Bicycles must not block any portion of the rail car doors used by passengers to board and alight.
10. In case of emergency evacuation of a METRORAIL train, and upon direction of a METRORAIL train operator, MDTA personnel, police, or fire official, bicycles shall be placed on top of the seats and abandoned on the train; Metropolitan Dade County assumes no responsibility for bicycle loss of damage.
11. In addition to these rules and regulations, cyclists must abide by the instructions and directives of MDTA personnel, METRORAIL train operators, police or fire officials at all times.



STATE OF FLORIDA AND DEPARTMENT OF TRANSPORTATION MASS TRANSIT ADMINISTRATION	METROPOLITAN DADE COUNTY DADE COUNTY TRANSPORTATION IMPROVEMENT PROGRAM			DATE: 05-18-78 BY: [Signature] TITLE: [Signature]						VEHICLE PROCUREMENT GENERAL ARRANGEMENT SIDE ELEVATION VP-4
DANIEL, BAKER, JOHNSON & HENDERSON, INC. ENGINEERING FIRM	THE KAISER TRANSIT GROUP - a joint venture Kaiser Engineers Inc. Kaiser Engineers Inc. Kaiser Engineers Inc.									



METRORAIL Bike-On-Train Permit Application

Date: _____

Please Print

Applicant: _____
(Last Name) (First Name) (Middle Initial)

Address: _____
(City) (State) (Zip)

Phone: _____ DOB: _____ SS#: _____

Color of Hair: _____ Color of Eyes: _____ Height: _____ Weight: _____

Parent or Guardian (for persons 18 years old and younger)

Parent/Guardian: _____
(Last Name) (First Name) (Middle Initial)

Address: _____
(City) (State) (Zip)

Employment: _____
(Name) (Address) (Zip)

Telephone: _____
(Home) (Business)

I have read and understand the Rules and Regulations of the Metro Bike-On-Rail Demonstration and will abide by these rules and regulations with the understanding that if I break any of these rules and regulations, my permit will be revoked.

Signature: Applicant _____ Date _____

Signature: Parent/Guardian _____ Date _____

FOR OFFICE USE ONLY

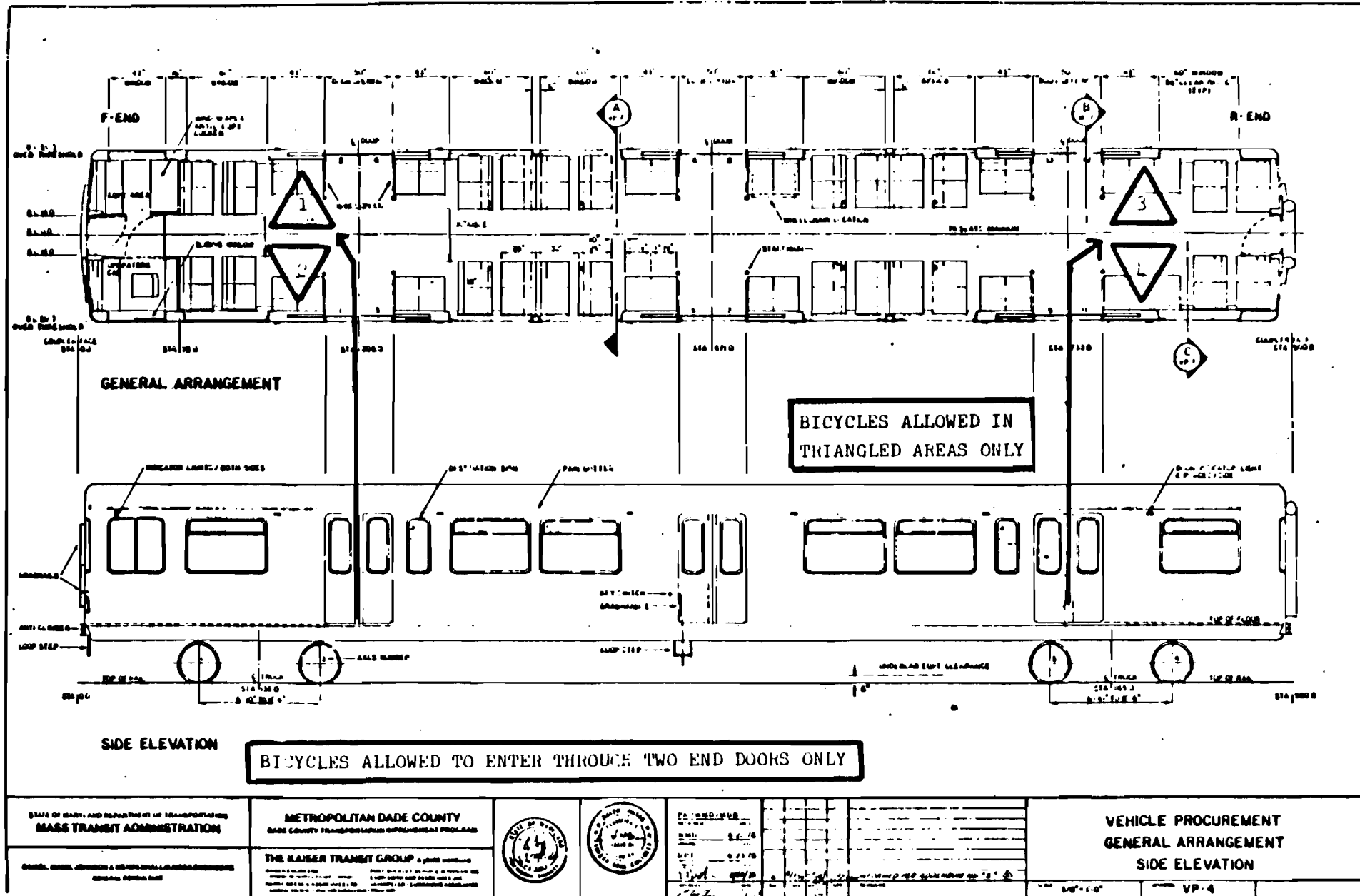
Tested By: _____ Card No.: _____

Test Score: _____ Passed ☐ Yes ☐ No Date Issued: _____

Fee Paid: _____ Issued By: _____

Received By: _____ Expiration Date _____

Indemnification Form on Reverse Side



METRORAIL BIKE-ON-TRAIN PERMIT TEST

1. How will the cyclist normally move between fare gate and station platform?
 - a. elevators only
 - b. escalators
 - c. either elevators or escalators
 - d. escalators or stairs
2. If a cyclist has a METRORAIL "Bike-On-Train" permit, a fare is not needed to enter the METRORAIL.
 - a. True
 - b. False
3. To enter a faregate, a cyclist must:
 - a. pay fare and take bicycle through the handicap gate
 - b. cyclist shall park bicycle out of the way of other passengers, walk through faregate and process fare, exit through handicap gate, take bicycle and enter through handicap gate, and ascend to platform via elevator
 - c. have another passenger take the bicycle through the faregate
4. In case of an emergency evacuation while on the train, the cyclist shall immediately:
 - a. attempt to exit via the side doors
 - b. go to another car
 - c. place bicycle on top of the seat and abandon the train without the bicycle
5. The METRORAIL "Bike-On-Train" permit must be visibly displayed on the exterior of the cyclist's clothing whenever transporting a bicycle on a METRORAIL train or within a station.
 - a. True
 - b. False
6. Cyclists shall enter the last car of the train:
 - a. through any of the doors
 - b. through the middle door only
 - c. through the two end doors
7. You are about to enter an elevator with your bike, and a handicapped person arrives at the elevator at the same time. You should:
 - a. wait and let the handicapped person use the elevator first
 - b. show the handicapped person your permit and board the elevator
 - c. use the escalator

8. You and five of your friends (a total of six persons) are going on a bicycle trip together. You are all standing on the platform and a train comes. Which of the following is the correct procedure?
- a. two persons should enter at each of the three doors
 - b. two of you should enter the first door and two should enter the last door of the last car, and two should enter the first or last doors of the first car
 - c. two should enter the first door and two should enter the last door of the last car, and the other two will wait for the next train
9. You are permitted to use METRORAIL with your bicycle:
- a. on Saturdays, Sundays and holidays from 7 a.m. to closing
 - b. during evenings and weekends
 - c. weekdays from 10 a.m. to 9 p.m. and after 6:30 p.m. until closing and Saturdays, Sundays and holidays during posted hours
10. Your bicycle permit may be used only by you and:
- a. another member of your family
 - b. nobody else
 - c. family members who are experienced cyclists
11. While riding METRORAIL you should:
- a. leave your bicycle at one of the side doors and find a seat anywhere in the last car
 - b. sit anywhere in the last car, and hold onto your bicycle at all times
 - c. sit or stand in the two end sections of the last car of a train and hold onto your bicycle at all times
12. Your bicycle Permit may be revoked by METRORAIL Transit Police or a METRORAIL Station Attendant for which of the following actions:
- a. taking a bicycle on the escalator
 - b. riding a bicycle on the platform
 - c. entering a METRORAIL car without waiting for regular passengers and handicapped persons to get off
 - d. refusing to show your permit to a station agent or transit policeman, when requested
 - e. any of the above
13. Cyclists shall await trains as far away from the granite edge of the platform as possible and not allow the bicycle to interfere with passengers on the platform or when boarding or alighting a train.
- a. True
 - b. False

14. Which type of bicycle is the only one allowed on the system with a bicycle permit?
- a. a child's tricycle
 - b. an adult tricycle
 - c. a standard two-wheeled bicycle
15. To get your bicycle out of the aisle in an emergency evacuation, you should store your bicycle:
- a. in front of the rear door
 - b. on top of the seats
 - c. hold it raised above the floor
16. Cyclists failing to abide by the rules and regulations of the METRORAIL Bikes-on-Trains Program are subject to revocation of their permit. Additionally, the Rules and Regulations Ordinance provide for the possibility of fines and/or arrest and prosecution for violation of that ordinance.
- a. True
 - b. False

Male [] Female []

16 - 25 [] 25 - 50 [] 50 + []

Name _____

Address _____

Score _____

RELEASE OF LIABILITY AND INDEMNIFICATION

RELEASE:

Recognizing that my bicycle in METRORAIL station areas and aboard trains poses a potential hazard to other METRORAIL passengers and to me in the event of sudden stop, acceleration, collision, fire or other emergency, as well as to passengers who may stumble, fall, or bump into my bicycle, I freely and willingly waive all claims for injury to myself or damage to my bicycle arising out of the Bikes-on-Trains Program. Further, in consideration of the permission granted me to bring my bicycle onto a METRORAIL train while riding the system as a passenger, I hereby release Metropolitan Dade County, its directors, officers, representatives, agents and employees from any and all liability for injury of any kind to me or to my bicycle or other property I may have with me, incurred by reason of any act or failure to act, on my part, or Metropolitan Dade County directors, officers, representatives, agents, and employees, arising because of the presence of my bicycle on METRORAIL property.

INDEMNIFICATION:

I further agree to indemnify and hold harmless Metropolitan Dade County and its directors, officers, representatives, agents, and employees from all costs, damages, or expenses, direct or indirect, for injury to other persons and/or their property and/or damage to METRORAIL property, including but not limited to loss of use, incurred by reason of any act or failure to act on my part or by reason of any act, including negligence, of Metropolitan Dade County Directors, officers, representatives, agents and employees, arising because of my bringing my bicycle on METRORAIL property. I recognize that these provisions cause me to be personally liable for injuries to passengers, employees and property arising by reason of my bicycle's presence on METRORAIL cars or in the stations.

DATE: _____

SIGNATURE OF PERMIT HOLDER

WITNESS: _____

METRO-DADE
TRANSPORTATION
ADMINISTRATION
(Staff)

SIGNATURE OF PARENT OR GUARDIAN

**0347
BIKE-
ON-TRAIN
PERMIT**

Name

Address

Phone No.

Signature



**THIS PERMIT IS
NOT TRANSFERABLE**

This permit entitles the person to whom issued to bring his/her bicycle on board Metrorail Saturdays and Sundays between the hours of 7 a.m. and 7 p.m. upon payment of posted fare. This permit expires



**MDTA BICYCLE LOCKER
APPLICATION/RENTAL AGREEMENT**

Complete Sections 1–5 and 9 and return to:
MDTA, Office of Bicycle Coordinator
Metropolitan Planning Organization
Metro-Dade Center
111 NW 1st Street–Suite 810
Miami, Florida 33128

LOCKERS ARE ASSIGNED ON A FIRST COME–FIRST SERVED BASIS

1. NAME _____
(Please print)

2. ADDRESS _____
(Street)

(City)

(Zip Code)

3. TELEPHONE _____
(Day) _____ (Evening)

4. REQUEST LOCKER AT: 1st Choice _____
(Station)

2nd Choice _____
(Station)

5. RENTAL PAYMENT IS ENCLOSED FOR:

3 Months (\$25) _____ 1 Year (\$70) _____

6 Months (\$45) _____ AMOUNT: \$ _____
+ \$10.00 (Key Deposit)

TOTAL: \$ _____

6. READ BUT DO NOT COMPLETE SECTION 6.

You have been assigned Locker No. _____ at _____ Station. This Agreement expires on _____, unless payment for the following rental period is received by _____, not less than ten (10) working days before the expiration date stated above.

If the locker key is not returned to MDTA upon expiration or termination of this Agreement, MDTA may recover possession of the locker, retain the key deposit, and dispose of any property remaining in the locker in accordance with law.

7. In the event that you wish to terminate this Agreement, notify MDTA Office of Bicycle Coord. by letter. A refund for any remaining full month(s) will be issued to you upon termination.

8. **THIS AGREEMENT LIMITS OUR LIABILITY–READ IT CAREFULLY**

This agreement entitles the renter to store one bicycle in the above designated locker for the time period indicated herein. **STORE BICYCLE PROPERLY AND LOCK LOCKER.** MDTA is not responsible for fire, theft, loss or damage to the bicycle or any other article left in the locker. No employee or agent may alter or enlarge MDTA's liability under this Agreement, orally or otherwise.

THIS CONSTITUTES THE ENTIRE AGREEMENT, AND EXECUTION OF IT CONSTITUTES ACKNOWLEDGMENT BY THE RENTER THAT THE RENTER HAS READ AND AGREES TO THE FOREGOING. THE PERSON SIGNING THIS AGREEMENT MUST BE 18 YEARS OF AGE OR OLDER.

9. _____
(Signature) _____ (Date)

To renew this Rental Agreement, complete the enclosed renewal form when appropriate and return it to MDTA Office of Bicycle Coordinator.

FOR MDTA _____
(Signature) _____ (Date)

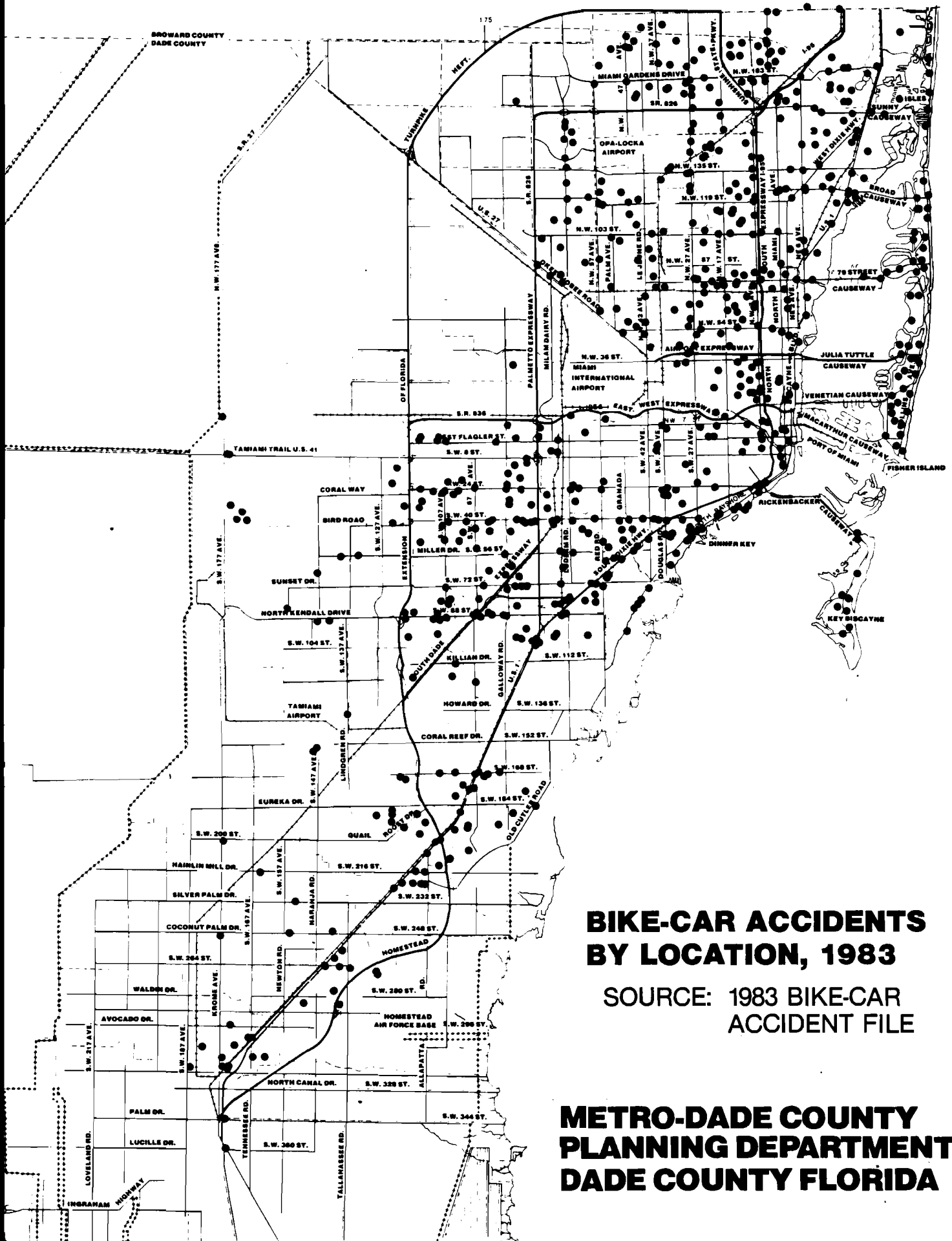
Distribution of Copies: White–Finance; Canary–MPO (Bicycle Coordinator); Pink–Lessee

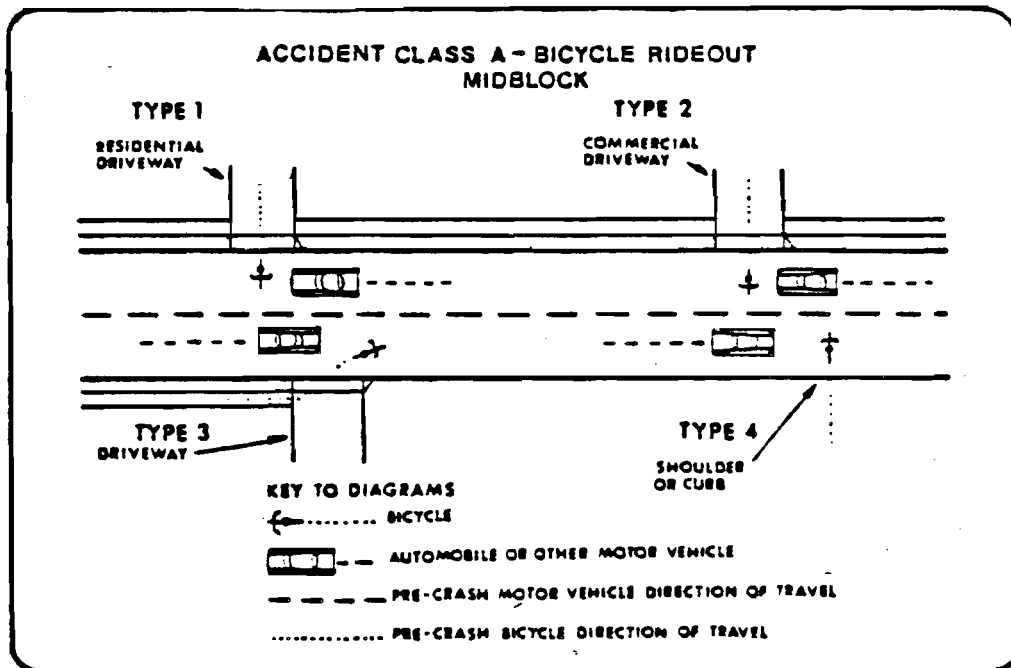
APPENDIX B
BIKE-CAR ACCIDENTS TYPES AND CLASSES

BICYCLIST ACCIDENT ANALYSIS SUMMARY AND PROFILE

Jurisdiction Dade County, FL Date Prepared 4-24-86
 Prepared by OK
 Covering Period June 1983 to Dec 31 1983
 Total Accident Cases Analyzed 897

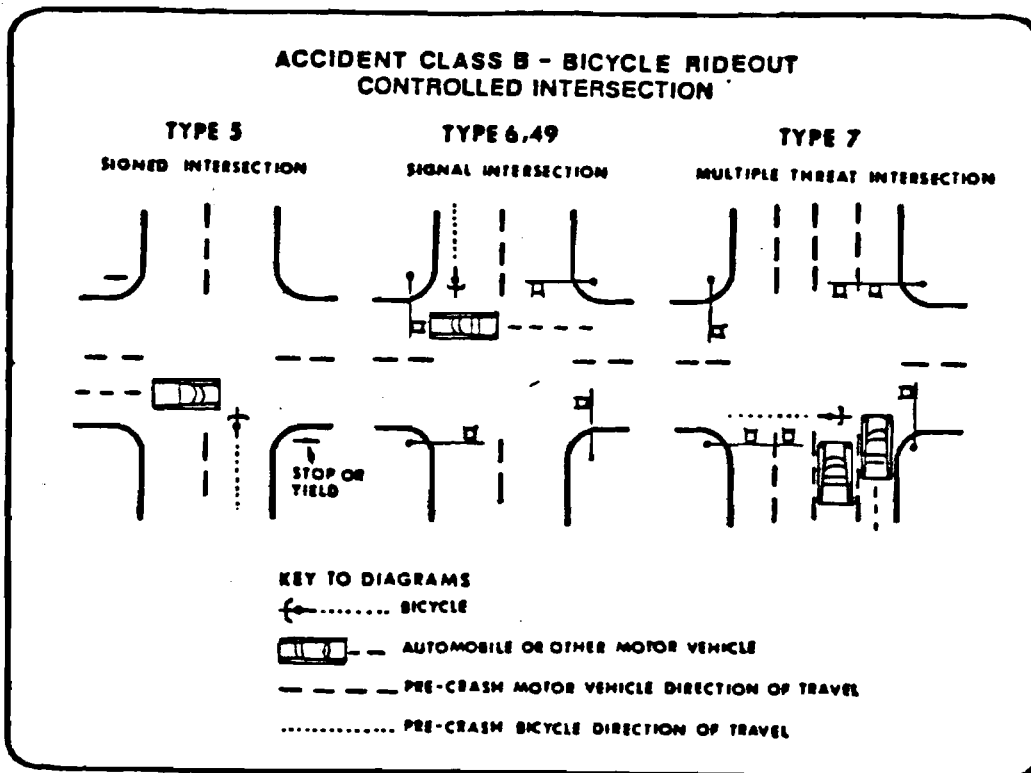
Class	Code	Type	Count	Percent	Profile					
					2%	4%	6%	8%	10%	12%
A	1	Ride-Out - Residential Driveway	23	2.6						
	2	Ride-Out - Commercial Driveway	8	0.9						
	3	Ride-Out From Sidewalk	8	0.9						
	4	Ride-Out, Midblock	88	9.8						
B	5	Ride-Out - Stop Sign	98	10.9						
	6	Trapped	4	0.4						
	7	Multiple Threat	-	-						
	49	Ride-Out - Intersection	60	6.7						
C	8	Drive Out - Driveway/Alley	71	7.9						
	9	Drive-Out - Stop Sign	57	6.4						
	10	Right on Red	11	1.2						
	11	Backing	25	2.8						
	12	Drive Through	21	2.3						
	48	Drive-Out - Intersection	16	1.8						
D	13	Motorist Overtakes Undetected Cyclist	3	0.3						
	14	Motorist Lost Control	16	1.8						
	15	Motorist Overtaking, Counteractive Evasive Actions	-	-						
	16	Motorist Overtaking, Misjudges Passing Space	6	0.7						
	17	Motorist Overtaking Cyclist, Path Obstructed	1	0.1						
	39	Motorist Overtaking	46	5.1						
E	18	Cyclist Left Turn, in Front of Traffic	31	3.5						
	19	Cyclist Left Turn, Facing Traffic	16	1.8						
	20	Cyclist Lost Control	18	2.0						
	21	Cyclist Right Turn, From Wrong Side of Street	14	1.6						
F	22	Motorist Left Turn in Front of Cyclist	12	1.3						
	23	Motorist Left Turn Facing Cyclist	35	3.9						
	24	Motorist Right Turn	27	3.0						
G	25	Uncontrolled Intersection, Other	12	1.3						
	26	Wrong Way Cyclist	31	3.5						
	27	Cyclist Overtaking	11	1.2						
	28	Wrong Way Motorist	4	0.4						
	29	Non-Roadway	16	1.8						
Other Low Frequency Types (Sum Types 30, 31, 32, 33, 34, 35)			24	2.7						
Weird/Insufficient Information (Sum Types 36, 40, 55, 98, and 99)			70	7.8						





The accidents within Class A occurred at a mid-block location after the bicyclist entered the roadway from a driveway, alley, or over a curb or shoulder. Four types of accidents under this classification are illustrated below and include:

- | | |
|---------|--|
| Type 1: | Rideout - Residential Driveway
A bicyclist rides straight out of a residential driveway or alley and collides with a motor vehicle approaching from the left or right. The pre-crash path is perpendicular to the roadway. |
| Type 2: | Rideout - Commercial Driveway
A bicyclist rides straight out of a commercial driveway or alley into the path of an approaching motor vehicle. The pre-crash path is perpendicular to the roadway. |
| Type 3: | Rideout - Sidewalk
A bicyclist enters the roadway from the sidewalk by way of a driveway apron. The pre-crash path is parallel to the roadway. |
| Type 4: | Rideout - Midblock
A bicyclist enters the roadway over a curb or shoulder. |



NOTE: Diagram for Types 6 and 49 is the same.

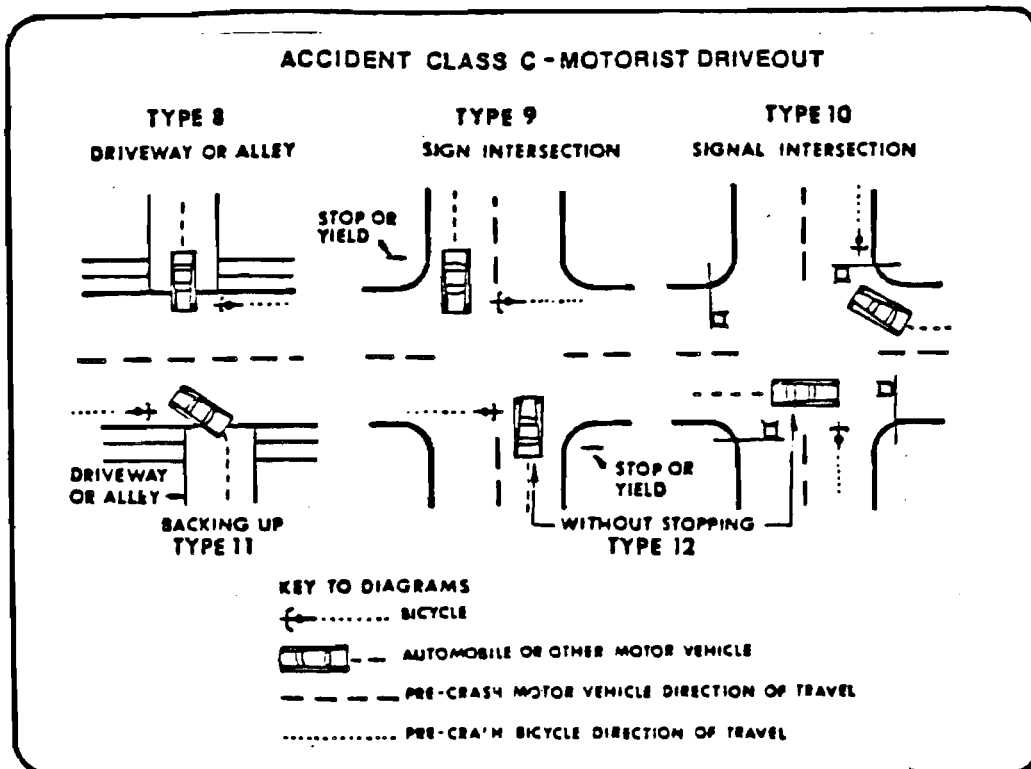
The accidents within Class B involve a bicyclist entering an intersection controlled by a sign or signal, and riding into the path of a motor vehicle. Class B accidents include four types which are described and illustrated below:

Type 5: Rideout - Stop Sign
A bicyclist rides into an intersection controlled by a stop sign, yield sign or flashing red signal, failing to yield the right-of-way to oncoming motor vehicles.

Type 6: Trapped
A bicyclist rides into an intersection controlled by a traffic signal, and does not clear the intersection before the light turns green for cross traffic. The motorist's view of the cyclist is not obstructed.

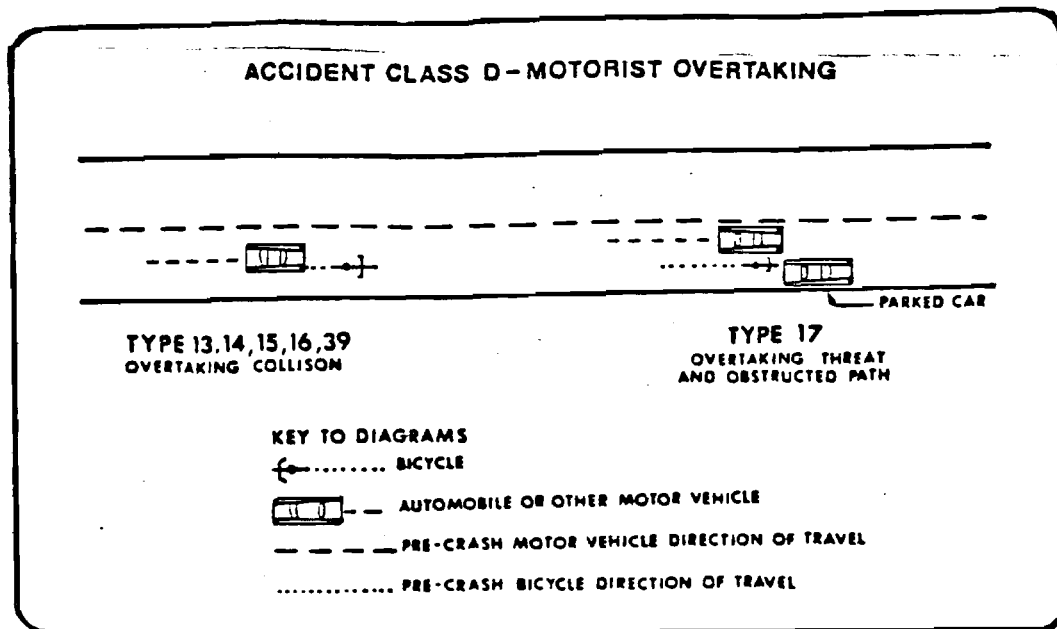
type 7: Multiple Threat
A bicyclist rides into an intersection controlled by a traffic signal, and does not clear the intersection before the light turns green for cross traffic. The motorist's view of the cyclist is obstructed by standing traffic.

Type 49: Rideout - Intersection
A bicyclist rides into an intersection controlled by a traffic signal, disobeying a red light, and rides across the path of oncoming traffic.



The accidents within Class C occurred as a motorist entered an uncontrolled roadway from a driveway, alley, or from a controlled leg of an intersection. Five of the six accident types within Class C are illustrated below:

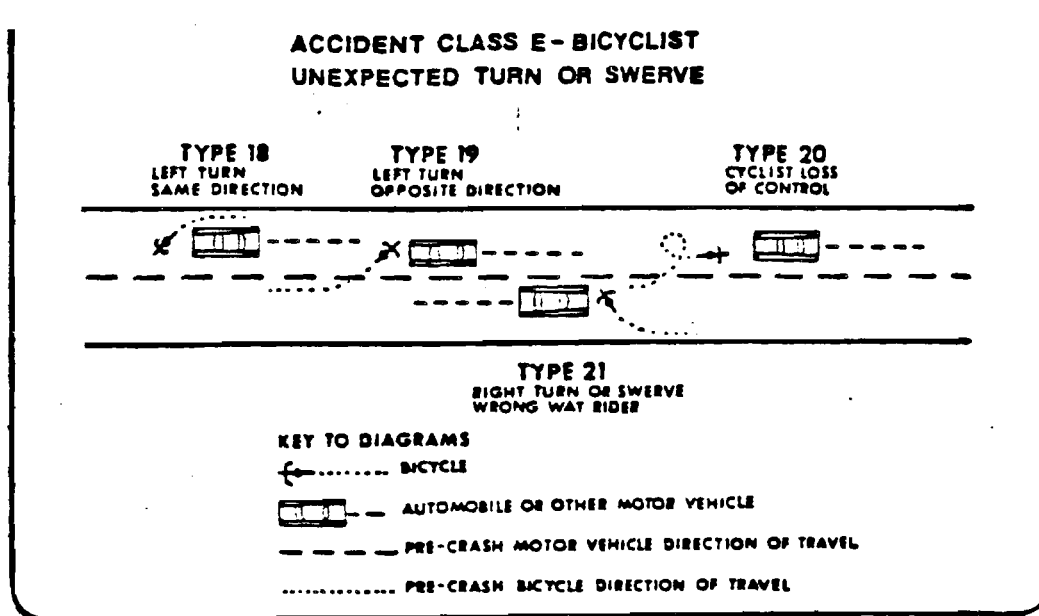
- Type 8:** Driveout - Driveway or Alley
A motor vehicle exits a driveway or alley into the path of a bicycle.
- Type 9:** Driveout - Stop Sign
A motor vehicle enters an intersection controlled by a STOP or YIELD sign and, after stopping or slowing, drives into the path of a bicycle.
- Type 10:** Right on Red
A motor vehicle drives into an intersection controlled by a signal after stopping for the signal. Typically, the motor vehicle is making a right turn on a red signal.
- Type 11:** Backing
A motor vehicle backs from a driveway or alley into the path of a bicycle.
- Type 12:** Drive Through
A motor vehicle fails to stop at an intersection controlled by a sign or signal, and drives into the path of a bicycle.
- Type 48:** Intersection
A motor vehicle drives into the path of bicycle at an intersection situation not covered above.



Class D - Motorist Overtaking

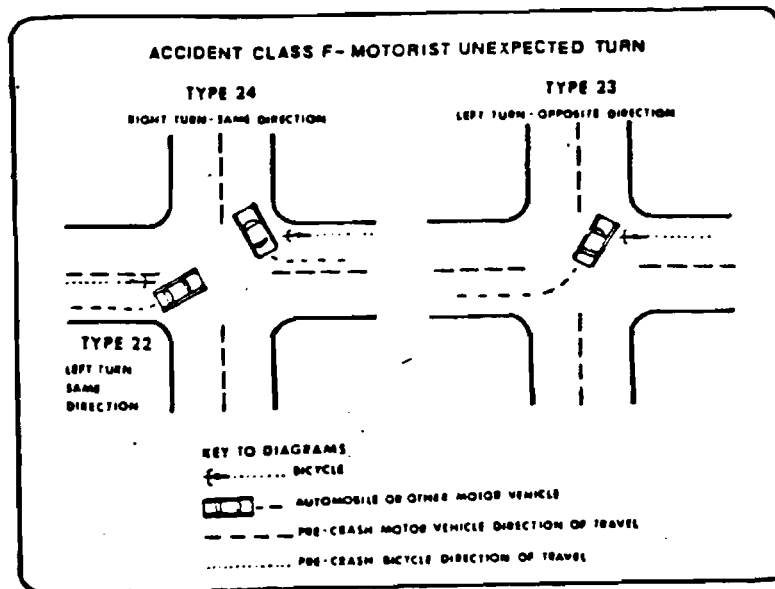
The bicycle/motor vehicle accidents within Class D involve a motor vehicle overtaking and colliding or threatening to collide with a bicycle. This accident class has been divided into the six following types:

- | | |
|----------|---|
| Type 13: | Motorist Overtakes Undetected Cyclist
A motor vehicle overtakes an undetected cyclist. |
| Type 14: | Motorist Lost Control
A bicyclist is struck from the rear by a motor vehicle which is out of control. |
| Type 15: | Motorist Overtaking, Counteractive Evasive Action
In attempting to avoid the accident, both operators turned in the same direction, which led to the collision. |
| Type 16: | Motorist Overtaking, Misjudges Passing Space
A bicyclist is sideswiped by a motor vehicle driver who misjudged the distance required to pass the bicycle. |
| Type 17: | Motorist Overtaking, Cyclist Path Obstructed
The threat of an overtaking motor vehicle causes the bicyclist to collide with an object that obstructed the path he would have taken had the obstruction not been present. |
| Type 39: | Motorist Overtaking
Other situations involving a motorist overtaking a cyclist. |



The bicycle-motor vehicle accidents within Class E include collisions in which the bicyclist turns suddenly, and without warning, into the path of a motor vehicle. The four types of collisions in Class E are illustrated below:

- Type 18:** Cyclist Left Turn in Front of Traffic
A bicyclist, traveling on a path parallel to and in the same direction as a motor vehicle, turns left into the path of a motor vehicle.
- Type 19:** Cyclist Left Turn Facing Traffic
A bicyclist traveling towards a motor vehicle on a parallel path, turns left across the path of a motor vehicle.
- Type 20:** Cyclist Lost Control
A bicyclist loses control and swerves into the path of the motor vehicle.
- Type 21:** Cyclist Right Turn From Wrong Side of Street
A bicyclist, traveling on the wrong side of the road towards a motor vehicle, turns right into the path of the motor vehicle.



The bicycle/motor vehicle accidents within Class F include accidents in which a motor vehicle driver turns unexpectedly across the path of a bicyclist approaching from the motorist's front or rear. The three types of accidents illustrated below include:

Type 22: **Motorist Left Turn in Front of Cyclist**
A motor vehicle turns left across the path of a bicyclist traveling on a parallel path and in the same direction as the motorist.

Type 23: **Motorist Left Turn Facing Cyclist**
A motor vehicle turns left across the path of an oncoming bicyclist on a parallel path.

Type 24: **Motorist Right Turn**
A motor vehicle turns right across the path of a bicyclist traveling on a parallel path.

Class G or "Other" includes 17 accident types that could not be classified into any of the previously described classes, and which occur with relatively low frequency. These types are defined as follows:

- | | |
|---------------|---|
| Type 25: | A collision between a motorist and bicyclist approaching an uncontrolled intersection on perpendicular paths. |
| Type 26: | A head-on collision between a motorist and a bicyclist riding against traffic. |
| Type 27: | A bicyclist collides with the rear of a stopped or slow moving vehicle in a traffic lane. |
| Type 28: | A head-on collision between a bicyclist and a motorist traveling on the wrong side of the roadway. |
| Type 29: | Accidents which occurred in a parking lot. |
| Type 30: | A head-on collision caused by both the motorist and bicyclist evaded in the same direction. |
| Type 31: | A bicyclist cuts a corner when turning left at an intersection and collides with a motor vehicle. |
| Type 32: | A bicyclist swings too far to the left when making a right turn at an intersection and collides with a motor vehicle. |
| Type 33: | A motorist cuts a corner when turning left at an intersection and collides with a bicycle. |
| Type 34: | A motorist swings wide when making a right turn and collides with a bicycle. |
| Type 35: | A motorist drives into the path of a bicyclist when entering or exiting an off-street parking space. |
| Type 36: | Weird accidents attributed to unusual circumstances such as a motorist backing up into a bicyclist at an intersection, or a vehicle hitting a parked bicycle. |
| Type 40: | A bicyclist was riding a play vehicle such as a "Big Wheel" type tricycle. |
| Type 41: | A bicyclist collides with a vehicle in a parking lane. |
| Type 55: | The accident occurred at a controlled intersection, details unknown. |
| Type 98 & 99: | Insufficient information. |

APPENDIX C
FLORIDA LEGISLATION AND FDOT POLICY MEMORANDUM

Highlights of 1984 Bicycle Bill

Sponsors: Representative Patricia Bailey, D - Pinellas Park
Senator Jeanne Malchon, D - St. Petersburg

Requires that bicycle and pedestrian ways be given full consideration in the planning and development of transportation facilities (including state, regional, and local transportation plans and programs).

Bicycle and pedestrian ways shall be established in conjunction with the construction, reconstruction, or other change of any state transportation facility. Special emphasis will be placed in or within 5 miles of an urban area (50,000 or more population).

Establishment of bicycle and pedestrian ways is not required when it is contrary to public safety, if the cost of doing so is excessively disproportionate to the need or probable use, or when other factors indicate an absence of any need for such ways.

Requires the Department of Transportation to establish construction standards for bicycle and pedestrian ways, provide uniform signage of the ways, and establish reasonable rules for the maintenance of these ways.

Prohibits operating a bicycle on a limited access facility.

Defines bicycle path as any road, path or way open to bicycles which is physically separated from motorized traffic.

Prohibits operation of a motor vehicle on a bicycle path or sidewalk.

Prohibits operating a bicycle (vehicle) while wearing a headset, headphone, or other listening device (other than a hearing aid).

What does this legislation do? :

Emphasizes the growing importance of bicycle and pedestrian travel needs by calling for full consideration of these modes in the planning and development of transportation facilities at the state, regional and local level.

How is this different from what was previously being done?

This legislation strengthens current DOT policy requiring for the consideration of these facilities in state, regional and local plans, and requiring the inclusion of facilities for non-motorized transportation modes in the design of all new construction and reconstruction projects. This process is more cost-effective than retrofitting.

LECTED COPY

SB 789

Second Engrossed

THE BILL 789 BY AS PASSED LEGISLATURE

A bill to be entitled

An act relating to the state highway system;
amending s. 316.003, F.S.; defining the term
"bicycle path"; amending s. 316.091, F.S.;
prohibiting the operation of certain vehicles
upon a limited access facility; authorizing the
operation of a bicycle upon such facilities in
certain circumstances; amending s. 316.1995,
F.S.; prohibiting the operation of certain
vehicles upon a bicycle path; amending s.
316.304, F.S.; prohibiting a person from
operating a vehicle while wearing a headset or
certain other listening devices; providing
penalties; amending s. 335.065, F.S.; providing
for the planning and construction of bicycle
and pedestrian ways along state transportation
facilities; repealing s. 316.2075, F.S.,
relating to the prohibition against operating a
motor vehicle on bicycle and pedestrian ways;
providing an effective date.

Be It Enacted by the Legislature of the State of Florida:

Section 1. Subsection (76) is added to section
316.003, Florida Statutes, to read:

316.003 Definitions.--The following words and phrases,
when used in this chapter, shall have the meanings
respectively ascribed to them in this section, except where
the context otherwise requires:

(76) BICYCLE PATH.--Any road, path, or way that is
open to bicycle travel which is physically separated from

motorized vehicular traffic by an open space or by a barrier
and that is located either within the highway right-of-way or
within an independent right-of-way.

Section 2. Section 316.091, Florida Statutes, is
amended to read:

316.091 Limited access.--

(1) No person shall drive a vehicle onto or from any
limited access roadway except at such entrances and exits as
are established by public authority.

(2) Except as provided herein, no person shall operate
upon a limited access facility any bicycle, motor-driven
cycle, animal drawn vehicle, or any other vehicle which by its
design or condition is incompatible with the safe and
expedient movement of traffic.

(3) No person shall operate a bicycle on the roadway
or along the shoulder of an interstate highway.

(4) No person shall ride any animal upon any portion
of a limited access facility.

Section 3. Section 316.1995, Florida Statutes, is
amended to read:

316.1995 Driving upon sidewalk or bicycle path.--No
person shall drive any vehicle other than by human power upon
a bicycle path, sidewalk, or sidewalk area, except upon a
permanent or duly authorized temporary driveway.

Section 4. Section 316.304, Florida Statutes, is
amended to read:

316.304 Wearing of headsets.--No person shall operate
a motor vehicle while wearing a headset, headphone, or other
listening device, other than a hearing aid or instrument for
the improvement of defective human hearing. However, this
section does not apply to any law enforcement officer equipped

with any communication device necessary in performing his assigned duties. In addition, this section does not apply to any applicant for a license to operate a motorcycle or motor-driven cycle while taking the examination required by s. 322.12(3).

Section 5. Section 335.065, Florida Statutes, is amended to read:

335.065 Bicycle trails and pedestrian ways footpaths along state roads and transportation facilities.--

(1)(a) Bicycle trails and pedestrian ways footpaths shall be given full consideration in the planning and development of transportation facilities, including the incorporation of such ways into state, regional, and local transportation plans and programs. Bicycle and pedestrian ways shall be established in conjunction with the construction, reconstruction, or other change of any state transportation facility, and special emphasis shall be given to projects in or within 5 miles of an urban area, road or any portion of the state highway system at such locations as shall be determined by the Department of Transportation in cooperation with the Division of Recreation and Parks of the Department of Natural Resources.

(b) Notwithstanding the provisions provision of paragraph (a), bicycle trails and pedestrian ways footpaths are not required to be established:

1. Where the establishment of such ways trails and paths would be contrary to public safety.
2. If the cost of establishing such trails and paths ways would be excessively disproportionate to the need or probable use.

3. Where other available ways or other factors indicate an absence of any need for such trails and paths ways.

(2) The department of Transportation shall establish construction standards for bicycle trails and pedestrian ways footpaths, provide a uniform system of signing bicycle trails and pedestrian ways footpaths pursuant to this act, and adopt reasonable rules and regulations necessary for the maintenance and use of such bicycle trails and pedestrian ways footpaths. The department of Transportation, in cooperation with the Division of Recreation and Parks of the Department of Natural Resources, shall establish a statewide integrated system of bicycle trails and pedestrian ways footpaths in such a manner as to take full advantage of any bicycle trails or pedestrian ways footpaths which are maintained by any governmental entity within the state. For the purposes of this section, bicycle facilities may be established as part of or separate from the actual roadway and may utilize existing rights-of-way or other rights-of-way or easements acquired for public use. To this end, the Department of Transportation

the Division of Recreation and Parks shall cooperate with each municipality in the development of a comprehensive statewide integrated bicycle trail and footpath system.

(3) It is the legislative intent of this act that bicycle trails and footpaths are and shall be public ways open to travel by the public generally and dedicated to the public use as defined in ss. 224.022 and 224.02(9) and (15).

Section 6. Section 316.2075, Florida Statutes, is hereby repealed.

Section 7. This act shall take effect October 1, 19

SENATE BILL 417 AS PASSED LEGISLATURE

A bill to be entitled

An act relating to bicycles and other vehicles;
amending s. 163.3177, F.S., requiring inclusion
of bicycle and pedestrian ways in local
comprehensive plans; amending s. 316.157, F.S.,
authorizing an alternative hand and arm signal
for bicyclists; amending s. 316.172, F.S.,
expanding the application of provisions
requiring traffic to stop for school buses;
amending s. 316.1935, F.S., expanding the
application of provisions prohibiting persons
from fleeing or attempting to elude a police
officer; amending s. 316.2065, F.S.,
prescribing brake requirements for bicycles;
requiring permanent identifying numbers on
bicycles; amending s. 318.18, F.S., retaining
civil penalty for infractions by bicyclists 16
years of age and under; amending s. 322.27,
F.S., exempting operators of certain
nonmotorized vehicles from provisions relating
to driver's license suspensions; repealing s.
316.207, F.S., removing the penalties for
violations of bicycle regulations; amending s.
316.003, F.S.; redefining motor-driven cycle
and motorcycle; amending s. 320.01, F.S.;
deleting the brake horsepower requirements from
the definition of motor-driven cycle to
conform; amending s. 320.08, F.S., relating to
registration and renewal of registration fees
for motor-driven cycles to conform; amending s.
322.16, F.S., to prohibit persons under 16

years of age possessing a restricted operator's
license from operating a motorcycle; providing
an effective date.

Be It Enacted by the Legislature of the State of Florida:

Section 1. Paragraph (b) of subsection (6) and
paragraph (c) of subsection (7) of section 163.3177, Florida
Statutes, are amended to read:

163.3177 Required and optional elements of
comprehensive plan; studies and surveys.--

(6) In addition to the general requirements of
subsections (1)-(5), the comprehensive plan shall include the
following elements:

(b) A traffic circulation element consisting of the
types, locations, and extent of existing and proposed major
thoroughfares and transportation routes, including bicycle and
pedestrian ways.

(7) The comprehensive plan may include the following
additional elements, or portions of phases thereof:

(c) As a part of the circulation element of paragraph
(6)(b) and in coordination with paragraph (6)(e), where
applicable, a plan element for the circulation of recreational
nonautomotive-vehicular-and-pedestrian traffic, including
bicycle facilities paths-and-bikeways, exercise trails, riding
facilities, and such other matters as may be related to the
improvement and safety of movement of all types of
recreational vehicular-and-pedestrian traffic or-to
recreational-aspects-of-circulation.

Section 2. Subsection (2) of section 316.157, Florida
Statutes, is amended to read:

1 316.157 Method of giving hand and arm signals.--All
 2 signals herein required to be given by hand and arm shall be
 3 given from the left side of the vehicle in the following
 4 manner and such signals shall indicate as follows:
 5 (2) RIGHT TURN.--Hand and arm extended upward, except
 6 that a bicyclist may extend the right hand and arm
 7 horizontally to the right side of the bicycle.
 8 Section 3. Subsection (1) of section 316.172, Florida
 9 Statutes, is amended to read:
 10 316.172 Traffic to stop for school bus.--
 11 (1) Any person using, operating, or driving a motor
 12 vehicle on or over the roads or highways of this state shall,
 13 upon approaching any school bus used in transporting school
 14 pupils to or from school which is properly identified in
 15 substantial accordance with the provisions of s. 236.051, and
 16 which displays a stop signal, bring such motor vehicle to a
 17 full stop while the bus is stopped, and the motor vehicle
 18 shall not pass the school bus until the signal has been
 19 withdrawn.
 20 Section 4. Section 316.1935, Florida Statutes, is
 21 amended to read:
 22 316.1935 Fleeing or attempting to elude a police
 23 officer.--
 24 (1) It is unlawful for the operator of any motor
 25 vehicle upon a street or highway, having knowledge that he has
 26 been directed to stop such vehicle by a duly authorized police
 27 officer, willfully to refuse or fail to stop such vehicle in
 28 compliance with such directive or, having stopped in knowing
 29 compliance with such a directive, willfully to flee in an
 30 attempt to elude such officer, and any person violating this
 31 subsection shall, upon conviction, be punished by imprisonment

1 in the county jail for a period not to exceed 1 year, or by
 2 fine not to exceed \$1,000, or by both such fine and
 3 imprisonment.
 4 (2) The court may revoke the operator's or chauffeur's
 5 license of any operator of a motor vehicle person convicted of
 6 a violation of subsection (1) for a period not to exceed 1
 7 year.
 8 Section 5. Subsections (16) and (17) are added to
 9 section 316.2065, Florida Statutes, to read:
 10 316.2065 Bicycle regulations.--
 11 (16) Every bicycle shall be equipped with a brake or
 12 brakes which will enable its rider to stop the bicycle within
 13 25 feet from a speed of 10 miles per hour on dry, level, clean
 14 pavement.
 15 (17) A person engaged in the business of selling
 16 bicycles at retail shall not sell any bicycle unless the
 17 bicycle has an identifying number permanently stamped or cast
 18 on its frame.
 19 Section 6. Subsection (1) of section 318.18, Florida
 20 Statutes, 1984 Supplement, is amended to read:
 21 318.18 Amount of civil penalties.--The penalties
 22 required for a noncriminal disposition pursuant to s.
 23 318.16(1), (2), and (4) are as follows:
 24 (1) Five dollars for all infractions-of-bicycle
 25 regulations-under-sr-316,2065-and infractions of pedestrian
 26 regulations under s. 316.130, and violations of chapter 316 by
 27 a bicyclist 14 years of age and under.
 28 Section 7. Paragraph (1) is added to subsection (3) of
 29 section 322.27, Florida Statutes, to read:
 30 322.27 Authority of department to suspend or revoke
 31 license.--

1 (3) There is established a point system for evaluation
 2 of convictions of violations of motor vehicle laws or
 3 ordinances for the determination of the continuing
 4 qualification of any person to operate a motor vehicle. The
 5 department is authorized to suspend the license of any
 6 operator or chauffeur upon showing of its records or other
 7 good and sufficient evidence that the licensee has been
 8 convicted of violation of motor vehicle laws or ordinances
 9 amounting to 12 or more points as determined by the point
 10 system. The suspension shall be for a period of not more than
 11 1 year.

12 (a) When a licensee accumulates 12 points within a 12-
 13 month period, the period of suspension shall be for not more
 14 than 30 days.

15 (b) When a licensee accumulates 18 points, including
 16 points upon which suspension action is taken under paragraph
 17 (a), within an 18-month period, the suspension shall be for a
 18 period of not more than 3 months.

19 (c) When a licensee accumulates 24 points, including
 20 points upon which suspension action is taken under paragraphs
 21 (a) and (b), within a 36-month period, the suspension shall be
 22 for a period of not more than 1 year.

23 (d) The point system shall have as its basic element a
 24 graduated scale of points assigning relative values to
 25 convictions of the following violations:

- 26 1. Reckless driving, willful and wanton--4 points.
- 27 2. Leaving the scene of an accident resulting in
 28 property damage of more than \$50--6 points.
- 29 3. Unlawful speed resulting in an accident--6 points.
- 30 4. Passing a stopped school bus--4 points.
- 31 5. Unlawful speed:

1 a. Not in excess of 15 miles per hour of lawful or
 2 posted speed--3 points.

3 b. In excess of 15 miles per hour of lawful or posted
 4 speed--4 points.

5 6. Improper equipment (brakes, lights, steering)--2
 6 points.

7 7. All other moving violations (including parking on a
 8 highway outside the limits of a municipality)--3 points.

9 8. Any moving violation covered above resulting in an
 10 accident--4 points.

11 (e) A conviction in another state of a violation
 12 therein which, if committed in this state, would be a
 13 violation of the traffic laws of this state, or a conviction
 14 of an offense under any federal law substantially conforming
 15 to the traffic laws of this state, except a violation of s.
 16 322.26, may be recorded against a driver on the basis of one-
 17 half the number of points received had the conviction been
 18 made in a court of this state.

19 (f) In computing the total number of points, when the
 20 licensee reaches the danger zone, the department is authorized
 21 to send the licensee a warning letter advising that any
 22 further convictions may result in suspension of his driving
 23 privilege.

24 (g) The department shall administer and enforce the
 25 provisions of this law and may make rules and regulations
 26 necessary for its administration.

27 (h) Three points shall be deducted from the driver
 28 history record of any person whose driving privilege has been
 29 suspended only once pursuant to this subsection and has been
 30 reinstated, if such person has complied with all other
 31 requirements of this chapter.

1 (i) This subsection shall not apply to persons
 2 operating a nonmotorized vehicle for which a driver's license
 3 is not required.

4 Section 8. Section 316.207, Florida Statutes, is
 5 hereby repealed.

6 Section 9. Subsections (22) and (23) of section
 7 316.003, Florida Statutes, 1984 Supplement, are amended to
 8 read:

9 316.003 Definitions.--The following words and phrases,
 10 when used in this chapter, shall have the meanings
 11 respectively ascribed to them in this section, except where
 12 the context otherwise requires:

13 (22) MOTORCYCLE.--Any motor vehicle covered by a motor
 14 with a displacement of more than 50 cubic centimeters, with-a
 15 motor-rated-in-excess-of-1--1/2--brake-horsepower having a
 16 seat or saddle for the use of the rider and designed to travel
 17 on not more than three wheels in contact with the ground, but
 18 excluding a tractor.

19 (23) MOTOR-DRIVEN CYCLES.--Any motorcycle, including
 20 any motor scooter having a motor with 150 cubic centimeters
 21 displacement or less, and any bicycle or moped with a motor
 22 having a displacement of more than 50 cubic centimeters or
 23 which is capable of propelling the vehicle at a speed in
 24 excess of 30 miles per hour on level ground. Every-motorcycle
 25 and-every-motor-scooter-with-a-motor-which-produces-not-to
 26 exceed-5-brake-horsepower,-including-every-bicycle-propelled
 27 by-a-helper-motor-rated-in-excess-of-1--1/2--brake-horsepower.

28 Section 10. Subsection (16) of section 320.01, Florida
 29 Statutes, 1984 Supplement, is amended to read:

30 320.01 Definitions, general.--As used in the Florida
 31 Statutes, except as otherwise provided, the term:

1 (16) "Motor-driven cycle" means any motorcycle,
 2 including any motor scooter, ~~vith-a-motor-which-produces-no~~
 3 ~~more-than-5-brake-horsepower~~ and any bicycle propelled by a
 4 helper motor with a displacement in excess of 50 cubic
 5 centimeters rated-in-excess-of-1--1/2--brake-horsepower.

6 Section 11. Subsection (1) of section 320.08, Florida
 7 Statutes, is amended to read:

8 320.08 License taxes.--Except as otherwise provided
 9 herein, there are hereby levied and imposed annual license
 10 taxes for the operation of motor vehicles and mobile homes, as
 11 defined in s. 320.01, and mopeds, as defined in s. 316.003(2),
 12 which shall be paid to and collected by the department or its
 13 agent upon the registration or renewal of registration of the
 14 following:

15 (1) MOTORCYCLES, MOTOR-DRIVEN CYCLES, MOPEDS.--

16 (a) Any motorcycle: \$10 flat.

17 (b) Any motor-driven cycle which is certified by the
 18 manufacturer not to exceed 150 cubic centimeters displacement
 19 5-brake-horsepower: \$10 flat.

20 (c) Any moped as defined in s. 316.003(2): \$5 flat;
 21 however, annual renewal is not required.

22 Section 12. Subsection (2) of section 322.16, Florida
 23 Statutes, is amended to read:

24 322.16 Restricted licenses.--

25 (2) The department may issue a nonrenewable restricted
 26 operator's license, provided that:

27 (a) In no instance shall a restricted license be
 28 issued to a minor under 15 years of age;

29 (b) Any person holding a restricted operator's license
 30 when operating a motor vehicle, other than a motorcycle when
 31 such licensee is 16 years of age or older, or a motor-driven

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1 cycle, or-moped, shall be accompanied at all times by a
2 licensed operator or chauffeur who is not less than 18 years
3 of age and who is actually occupying the front seat beside
4 such restricted operator;

5 (c) Any restricted operator under the age of 15 years
6 and 10 months may operate a motor vehicle during daytime hours
7 only. During the last 60 days before the licensee's 16th
8 birthday, the restricted operator may, subject to the above
9 conditions, operate a motor vehicle after dark; and

10 (d) A restricted operator under 16 years of age shall
11 not be permitted to operate a motorcycle having a motor with
12 more than 150 cubic centimeter displacement.

13 (e)(d) A restricted operator under 16 years of age
14 shall not be permitted to rent a motorcycle; or motor-driven
15 cycle;-moped, or other motor-driven vehicle the operation of
16 which does not require that such restricted operator be
17 accompanied by a licensed operator or chauffeur under this
18 section.

19 Section 13. This act shall take effect October 1,
20 1985.

1983 FLORIDA BICYCLE BILL

Passed by House 101-12 (5-2-83)

Passed by Senate 34-0 (5-25-83)

Signed into Law

by Gov. Graham (6-3-83)

Section 1. Subsections (2) and (64) of section 316.003, Florida Statutes, 1982 Supplement, are amended to read:

316.003 Definitions.—The following words and phrases, when used in this chapter, shall have the meanings respectively ascribed to them in this section, except where the context otherwise requires:

(2) BICYCLE.—~~Every vehicle~~ ~~Any device~~ propelled solely by human power, or any moped propelled by a pedal-activated helper motor with a manufacturer's certified maximum rating of 1 1/2 brake horsepower, upon which any person may ride, having two tandem wheels, ~~either of which is 20 inches or more in diameter, and including any device generally recognized as a bicycle though equipped with two front or two rear wheels, except such vehicles with a seat height of no more than 25 inches from the ground when the seat is adjusted to its highest position, and except scooters and similar devices.~~

(64) VEHICLE.—~~Every~~ ~~Any device, in, upon, or by which any person or property is or may be transported or drawn upon a highway, excepting except bicycles or mopeds as defined in subsection (2) or devices used exclusively upon stationary rails or tracks.~~

Section 2. Subsection (15) of section 316.130, Florida Statutes, is amended to read:

316.130 Pedestrian obedience to traffic control devices and traffic regulations. —

(15) Notwithstanding ~~other the foregoing~~ provisions of this chapter section, every driver of a vehicle shall exercise due care to avoid colliding with any pedestrian or any person propelling a human powered vehicle upon any roadway and shall give warning by sounding the horn when necessary and shall exercise proper precaution upon observing any child or any obviously confused or incapacitated person upon a roadway.

Section 3. Subsections (1) and (2) of Section 316.151, Florida Statutes, are amended, present subsection (3) is renumbered as subsection (4), and a new subsection (3) is added to said section to read:

316.151 Required position and method of turning at intersections.—The driver of a vehicle intending to turn at an intersection shall do so as follows:

(1) RIGHT TURNS.—Both the approach for a right turn and a right turn shall be made as close as practicable to the right-hand curb or edge of the roadway.

(2) LEFT TURNS.—The driver of a vehicle intending to turn left at any intersection shall approach the intersection in the extreme left-hand lane lawfully available to traffic moving in the direction of travel of such vehicle, and, after entering the intersection, the left turn shall be made so as to leave the intersection in a lane lawfully available to traffic moving in such direction upon the roadway being entered. A person riding a bicycle intending to turn left in accordance with this section shall be entitled to the full use of the lane from which such a turn may legally be made. Whenever practicable the left turn shall be made in that portion of the intersection to the left of the center of the intersection.

(3) LEFT TURNS BY BICYCLE.—In addition to the method of making a left turn described in subsection (2), a person riding a bicycle intending to turn left shall have the option of following the course described hereafter: the rider shall approach the turn as close as practicable to the right curb or edge of the roadway. After proceeding across the intersecting roadway, the turn shall be made as close as practicable to the curb or edge of the roadway on the far side of the intersection. Before proceeding, the bicyclist shall comply with any official traffic control device or police officer regulating traffic on the highway along which he intends to proceed.

Section 4. Subsection (2) of section 316.153, Florida Statutes, is amended to read:

316.153 When signal required.—

(2) A signal of intention to turn right or left shall be given continuously during not less than the last 100 feet traveled by the vehicle before turning, except that such a signal by hand or arm need not be given continuously by a bicyclist if the hand is needed in the control or operation of the bicycle.

Section 5. Paragraphs (a) and (b) of subsection (1) of section 316.1945, Florida Statutes, are amended to read:

316.1945 Stopping, standing, or parking prohibited in specified places.—

(1) Except when necessary to avoid conflict with other traffic, or in compliance with law or the directions of a police officer or official traffic control device, no person shall:

(a) Stop, stand, or park a vehicle:

1. On the roadway side of any vehicle stopped or parked at the edge or curb of a street;

2. On a sidewalk;

3. Within an intersection;

4. On a crosswalk;

5. Between a safety zone and the adjacent curb or within 30 feet of points on the curb immediately opposite the ends of a safety zone, unless the Division of Road Operations of the Department of Transportation indicates a different length by signs or markings;

6. Alongside or opposite any street excavation or obstruction when stopping, standing, or parking would obstruct traffic;

7. Upon any bridge or other elevated structure upon a highway or within a highway tunnel;

8. On any railroad tracks;

9. On a bicycle path.

10. At any place where official traffic control devices signs prohibit stopping.

(b) Stand or park a vehicle, whether occupied or not, except momentarily to pick up or discharge a passenger or passengers:

1. In front of a public or private driveway;

2. Within 15 feet of a fire hydrant;

3. Within 20 feet of a crosswalk at an intersection;

4. Within 30 feet upon the approach to any flashing signal, stop sign, or traffic control signal located at the side of a roadway;

5. Within 20 feet of the driveway entrance to any fire station and on the side of a street opposite the entrance to any fire station within 75 feet of said entrance (when property signposted);

6. On an exclusive bicycle lane;

7. At any place where official traffic control devices signs prohibit standing.

Section 6. Section 316.1995, Florida Statutes, is amended to read:

316.1995 Driving upon sidewalk.—No person shall drive any vehicle other than by human power upon a sidewalk or sidewalk area except upon a permanent or duly authorized temporary driveway.

Section 7. Section 316.2005, Florida Statutes, is amended to read:

316.2005 Opening and closing vehicle doors.—No person shall open any the door on of a motor vehicle on the side available to moving traffic unless and until it is reasonably safe to do so and can be done without interfering with the movement of other traffic, nor shall any person leave a door open on the side of a vehicle available to moving traffic for a period of time longer than necessary to load or unload passengers.

Section 8. Subsections (1) through (11) of Section 316.2065, Florida Statutes, are amended and a new subsection (11) is added to said section to read:

316.2065 Bicycle regulations.—

(1) Every person propelling a vehicle by human power shall have riding a bicycle upon a roadway shall be granted all of the rights and be subject to all of the duties applicable to the driver of any other vehicle under by this chapter, except as to special regulations in this chapter, and except as to provisions of this chapter which by their nature can have no application.

(2) A person operating propelling a bicycle shall not ride other than upon or astride a permanent and regular seat attached thereto.

(3) No bicycle shall be used to carry more persons at one time than the number for which it is designed or and equipped, except that an adult rider may carry a child securely attached to his person in a backpack or sling.

(4) No person riding upon any bicycle, coaster, roller skates, sled, or toy vehicle shall attach the same or himself to any vehicle upon a roadway. This section shall not prohibit attaching a bicycle trailer or bicycle semitrailer to a bicycle if that trailer or semitrailer has been designed for such attachment and solely for carrying cargo.

(5)(a) Any Every person operating a bicycle upon a roadway shall ride with the flow of traffic as near to the right side of the roadway as practicable, exercising due care when passing a standing vehicle or one proceeding in the same direction at less than the normal speed of traffic at the time and place and under the conditions then existing shall ride as close as practicable to the right-hand curb or edge of the roadway except under any of the following situations:

1. When overtaking and passing another bicycle or vehicle proceeding in the same direction.

2. When preparing for a left turn at an intersection or into a private road or driveway.

3. When reasonably necessary to avoid conditions including, but not limited to, fixed or moving objects, parked or moving vehicles, bicycles, pedestrians, animals, surface hazards, or substandard width lanes that make it unsafe to continue along the right-hand curb or edge. For purposes of this section, a "substandard width lane" is a lane that is too narrow for a bicycle and another vehicle to travel safely side by side within the lane.

(b) Any person operating a bicycle upon a one-way highway with two or more marked traffic lanes may ride as near the left-hand curb or edge of such roadway as practicable.

(6) Persons riding bicycles upon a roadway shall not ride more than two abreast except on paths or parts of roadways set aside for the exclusive use of bicycles. Persons riding two abreast shall not impede traffic when traveling at less than the normal speed of traffic at the time and place and under the conditions then existing and shall ride within a single lane.

(7) Wherever a usable path for bicycles has been provided adjacent to a roadway, bicycle riders shall use such path and shall not use the roadway.

(7)(b) Any person operating a bicycle shall keep at least one hand upon the handlebars.

(8)(b) After sundown, Every bicycle in use between sunset and sunrise shall be equipped with a lamp on the front exhibiting a white light visible from a distance of at least 500 feet to the front and a lamp on the rear exhibiting a red light visible from a distance of 600 feet to the rear, except that a red reflector meeting the requirements of this section may be used in lieu of the red light. A bicycle or its rider may be equipped with lights or reflectors in addition to those required by this section. All such lamps and reflectors shall be in place and in operation whenever a bicycle is operated after sundown.

(9)(10) No parent of any minor child and no guardian of any minor ward shall authorize or knowingly permit any such minor child or ward to violate any of the provisions of this section.

(10)(44) A person propelling a vehicle by human power upon and along a sidewalk, or across a roadway upon and along a crosswalk, shall have all the rights and duties applicable to a pedestrian under the same circumstances. This section shall apply whenever a bicycle is operated upon any street or upon any public path set aside for exclusive use of bicycles, subject to those exceptions stated herein.

(11) A person propelling a bicycle upon and along a sidewalk, or across a roadway upon and along a crosswalk, shall yield the right-of-way to any pedestrian and shall give an audible signal before overtaking and passing such pedestrian.

Section 9. This act shall take effect upon becoming a law.

Yeas—101

The Chair
Abrams
Allen
Armstrong
Arnold
Bailey
Bankhead
Bass
Bell
Bronson
Brown, C.
Brown, T. C.
Burke
Burnsed.
Burrall
Carlton
Carpenter
Casas
Clark
Combee
Cortina
Cosgrove
Crazy
Crotty
Danson
Dantzier

House Vote

Deutsch
Drage
Dudley
Dunbar
Easley
Evans-Jones
Figg
Friedman
Gallagher
Gardner
Gordon
Grant
Gustafson
Hargrett
Harris
Hawkins, L. R.
Hawkins, M. E.
Hazouri
Jamerson
Johnson, B. L.
Johnson, R. M.
Jones, C. F.
Jones, D. L.
Kelly
Kutun
Lawson

Lehman
Lahtinen
Lewis
Liberti
Lippman
Locke
Logan
Mackenzie
Martin
Martinez
McEwan
Messersmith
Metcalfe
Mills
Mitchell
Murphy
Nergard
Ogden
Pajcic
Patchett
Peeples
Press
Reaves
Reddick
Reynolds
Robinson

Ros
Sample
Sanderson
Shackelford
Shelley
Silver
Simon
Simone
Smith
Stewart
Thomas
Thompson
Titone
Tobiasen
Tobin
Wallace
Watt
Webster
Weinstock
Wetherell
Williams
Woodruff
Young

Nays—12

Brantley
Clements
Deratany

Grindle
Hill
Hodges

Hollingsworth
Johnson, R. C.
Meffert

Richmond
Seiph
Upchurch

Votes after roll call:

Yeas—Ready, Hanson, Speet, Healey, Morgan, Davis
Nays to Yeas—R. C. Johnson

Yeas—34

Mr. President
Beard
Castor
Childers, D.
Childers, W. D.
Crawford
Fox
Frank
Gersten

Senate Vote

Girardeau
Grant
Hair
Henderson
Hill
Jennings
Johnston
Kirkpatrick
Langley

Malchon
Mann
Margolis
Maxwell
McPherson
Meek
Myers
Neal
Plummer

Rehm
Scott
Stuart
Thomas
Thurman
Vogt
Weinstein

Nays—None

Vote after roll call:

Yea—Carlucci

MEMORANDUM

State of Florida Department of Transportation

DATE March 16, 1984

TO DISTRICT ENGINEERS, DISTRICT DESIGN ENGINEERS AND CONSULTANTS

FROM Thomas E. Drawdy, Director of Preconstruction and Design

COPIES TO W. Miller, P. White, M. Hilliard, C. Miller, B. Buser, J. Roberts, R. Magahey, M. Flanagan, D. Bullard, R. Hock, D. Burden, FHWA

SUBJECT Policy for Incorporation of Bicycle Facilities in Design - Wide Curb Lanes, Bicycle Lanes and Paved Shoulders
DMC1036

The Department's current policy is to provide for the needs of bicyclists and other non-motorized roadway users within five miles of urbanized area limits (population 50,000 or more). This policy will generally provide for the construction of wide curb lanes, bicycle lanes, or paved shoulders in conjunction with other planned roadway improvements. The lack of adequate right of way and the costs associated with acquisition in built up areas will not allow us to provide this additional width on all projects. Roadway improvements in urban areas (5,000 to 50,000 population) and the more rural sections will be reviewed on a case-by-case basis depending on anticipated bicycle travel and the need for wider pavement or paved shoulders based on other safety and operational benefits. Anticipated bicycle travel is to be considered of sufficient volume when the roadway section is identified for bicycle improvements in The Transportation Improvement Program, The State Transportation Plan (Bicycle Element) or other approved community Comprehensive Bicycle Transportation Plans.

Some of the additional benefits obtained in providing wide curb lanes or paved shoulders are:

1. Wide curb lanes provide for right turns without adjacent lane encroachment.
2. Wide curb lanes allow a vehicle to enter the roadway from either an intersection or driveway without adjacent lane encroachment.
3. Wide curb lanes and paved shoulders will allow a motorist to pass a bicyclist without delay.
4. Paved shoulders eliminate drop-off problems that occur at the edge of roadway pavement, reduce maintenance costs, and improve drainage of the roadway pavement.

Each of the above factors lead to improved traffic flow, add to the capacity of the roadway section, and enhance highway safety.

Wide Curb Lanes

Wide curb lanes (normally 14' wide) are to be provided as the minimum treatment in conjunction with other roadway improvements (curb and gutter construction) within five miles of all urbanized area limits unless right

Memo: District Engineers,
District Design Engineers,
and Consultants
March 16, 1984
Page 2

of way is inadequate and the cost associated with acquisition for this purpose is not feasible. For those projects that require additional right of way for the construction of the roadway the additional width to provide wide curb lanes is to be acquired. With severe right of way limitations 11' interior lanes, 11' continuous two-way turn lanes or painted medians may be used under interrupted-flow operating conditions at low speeds up through 40 mph. The presence of heavy truck traffic (design hour trucks greater than 10%) and intersection design controls should be evaluated in reducing the center-most lanes to 11 feet.

Heavily congested roadways with significant levels of commerce and numerous intersections are served best with wide curb lanes and not marked as a bike lane or bike route. In no case should an edge line be marked 2 or 3' in on a 14' wide curb lane, since this tends to channel bicyclists into a space that is too narrow.

Wide curb lanes are also to be considered in urban areas (5,000 - 50,000 population) based on anticipated bicycle travel needs as previously identified.

The Federal Highway Administration has recently agreed, in the First District, to allow a method of retrofitting projects for which the design has advanced to a stage that redesign (moving the curb out to provide the 14' curb lane) is not practical. This concept will avoid a redesign of the drainage system and new utility negotiations by retaining the curb to curb width and modifying the lane and median widths. Eleven foot lanes may be used for interior lanes under the conditions described above and median widths may be modified or converted to two-way turn lanes or painted medians to provide the additional width for the curb lane. Each of those projects must be discussed with the Federal Highway Administration on a project by project basis and modified typical sections submitted for approval.

The FHWA has recently agreed to a new striping policy for urban resurfacing projects that will allow restriping to provide wide curb lanes by using 11' interior lanes. (See DM10008 dated January 13, 1984.) This policy is to be applied on all future appropriate urban and urbanized area (curb and gutter) State and Federally funded resurfacing projects.

Bicycle Lanes

Bicycle lanes (4' minimum width) may be warranted in lieu of wide curb lane in some areas of the State. Collectors and the more lightly traveled arterials that have only a moderate level of commerce, and have fewer turning movements, may serve bicyclist with a bike lane. In some of these cases, with curb and gutter construction, it may be desirable to start with a 15' wide curb lane, leaving the section undesignated as a bike facility. In later years as bike traffic studies indicate a need, the lane will have sufficient width to mark the facility as a bike lane by simply adding pavement markings and a stripe 3' from the edge of the pavement. This does not meet current Department criteria for striping as a bike lane but is being successfully applied in California. Design standards will probably be modified to allow this treatment in future years.

Memo: District Engineers,
District Design Engineers,
and Consultants
March 16, 1984
Page 3

The width of the lane and gutter will normally provide 4 to 4 1/2' of surface for use by the bicyclist.

Roadway sections with low to moderate traffic and where it is desirable to attract bicyclists should be considered for 4' wide bike lanes in the initial roadway improvement. A 4' minimum width with urban curb and gutter construction or 5' minimum width with rural type (no curb) construction will be required.

Paved Shoulders

The construction of paved shoulders will improve traffic flow, increase capacity and enhance highway safety. Shoulder pavement will:

1. Provide protection for bicyclist.
2. Allow motorist to pass bicyclist without delays.
3. Reduce edge of pavement drop-off due to wind erosion created by trucks.
4. Provide better roadway pavement drainage and reduce potential for hydroplaning.
5. Reduce potential for run-off the roadway pavement accidents. Edge of pavement drop-offs that occur due to erosion will be further removed from the driving lane.

Shoulder pavement is to be constructed in accordance with the following criteria:

1. All new construction, reconstruction and lane addition projects (4' minimum paved shoulders). Does not apply to short bridge replacement, intersection improvement projects or urban curb and gutter construction.
 - a. Mandatory for all projects within five miles of all urbanized areas with a post construction ADT greater than 1600.
 - b. Mandatory for all coastal routes where the borrow material is of poor quality for growing grass. These will generally be within 1/2 mile of the coast but may extend beyond this on some projects. A project-by-project evaluation based on the quality of borrow material will be necessary.
 - c. Mandatory on the outside shoulder of all rural multilane facilities. The inside shoulder will be paved (4' wide) on the low side of pavement through superelevated curves and extended approximately 300' beyond the P.C. and P.T. of the curve.
 - d. Mandatory on all two-lane Major Arterials.

Memo: District Engineers,
District Design Engineers,
and Consultants
March 16, 1984
Page 4

- e. Mandatory on all other two-lane highways with a post construction ADT of 5,000 or greater.
 - f. Optional for all other projects in urban and rural areas based on anticipated bicycle travel and the need for paved shoulders based on other safety and operational benefits.
2. State and Federally funded resurfacing and widen-resurface projects with rural type (no curb) construction (4' minimum paved shoulders).
- a. Mandatory for all projects within five miles of all urbanized areas with a post construction ADT greater than 1600.
 - b. Mandatory for all coastal routes where the borrow material is of poor quality for growing grass. Those will generally be within 1/2 mile of the coast but may extend beyond this on some projects. A project-by-project evaluation based on the quality of borrow will be necessary.
 - c. Optional for all other projects in urban and rural areas based on anticipated bicycle travel and the need for paved shoulders based on other safety and operational benefits.

Shoulder pavement on non-interstate projects will normally be constructed using Base Group 16 on the Optional Base Chart. The surface will consist of a 1" minimum structural course and a friction course over the full width of the shoulder when a friction course is required.

This memo supersedes Directive 0711-12 dated August 18, 1976 (Paved Shoulders for Free Access Highway).

Additional Design Criteria for bicycle facilities is given in the Department's "Bicycle Facilities Planning and Design Manual - 1982". The manual shall be used to determine the best treatment for a given project.

This policy is to be implemented on projects at the earliest possible date without impacting letting schedules. Full implementation on all appropriate projects will begin with the January 1985 letting.

TED:bj

APPENDIX D
CHRONICLE OF BICYCLE LEGISLATION, RULES, AND REGULATIONS

CHRONICLE OF BICYCLE LEGISLATION, RULES, AND REGULATIONS

JULY 1973 - JULY 1986

July 1973 Bicycle Law Enacted by the Legislature of the State of Florida

CHAPTER 73-339

Committee Substitute for House Bill No. 1

AN ACT relating to transportation; providing for construction of bicycle trails and footpaths along state roads; authorizing the department of transportation, in cooperation with the division of recreation and parks of the department of natural resources, to establish a statewide integrated system of bicycle trails and footpath along certain state roads; providing for cooperation between the department of transportation and the division of parks with any municipality in the state which maintains bicycles trails or footpaths for the purpose of developing said comprehensive statewide plan; providing for construction standards; providing for a uniform system of signs; providing for rules and regulations; providing an appropriation; providing legislative intent; providing an effective date.

June 1979 Governor Bob Graham established a Bicycling Activities Advisory Committee to investigate the status of bicycling in the State of Florida, and to make recommendations for the promotion of the use of the bicycle as a significant mode of transportation.

October 1979 Governor's Bicycling Activities Advisory Committee submitted a report of their findings along with recommendations reviewed by the committee as priority items for the Governor's consideration. The following recommendations resulted from the Committee's findings:

1. Establish a comprehensive Florida Bicycle Program to include the development, implementation, and coordination of policies, programs, and facilities for the safe and effective integration of the bicycle into the Florida state transportation system. To carry out this program there should be designated:
 - a. The Florida Bicycle Advisory Council to serve as the advisory body to the Governor and Florida Bicycle Coordinator on matters pertaining to

bicycling in the State of Florida. This council should be appointed by the Governor and be composed of seven members from the affected state agencies and thirteen local community representatives for bicycling interests in Florida.

- b. The Florida Bicycle Coordinator in the Department of Transportation to serve as staff to the Florida Bicycle Advisory Council and to be responsible for the administration of the Florida Bicycle Program.
2. Provide sufficient state transportation funds to support a comprehensive statewide bicycle program, and secure maximum available matching funds for bicycle projects from federal sources.
3. Develop current roadway and bikeway design standards and criteria to maximize the safety and convenience of the bicycle as an alternative mode of transportation.
4. Direct the Department of Transportation to include the bicycle as a serious mode of transportation in urban area transportation studies.
5. Direct the Governor's Highway Safety Commission to analyze the current and projected bicycle safety needs and recommend within the context of Florida's Highway Safety Program, provisions for meeting those needs through the use of 402 funds for bicycle safety and education programs.
6. Consider bicycle related businesses in plans for economic development, including bicycle touring especially for the economic development of rural areas.
7. Provide for incentive for bicycle commuting including, bicycle parking facilities at state office buildings and promotion of local bicycle commuting routes, thereby increasing the use of bicycles in contingency planning for energy emergencies.
8. Develop, produce, and distribute a statewide system of bicycle route maps by the Department of Natural Resources in cooperation with the Office of State Bicycle Coordinator (D.O.T.), the Energy Office, and the Department of Commerce.
9. Repeal or revise section 316.2065(7) Florida Statutes which forces utilization of bicycle side paths, regardless of cyclists' age and driving ability,

nature of the bicycle trip, or condition of the side path.

10. Promote bicycle racing for competitive sport in Florida encouraging Olympic development training sites and races, construction of velodromes, and sponsorship programs for amateur competition.

April 1982 Florida Bicycle Planning and Design Manual prepared for the Division of Planning, Florida Department of Transportation. This manual provides state-of-the art information for Bicycling Specialists. It incorporates the latest standards published by the American Association of State Highways and Transportation Officials (AASHTO), October 1981.

June 1983 1983 Florida Bicycle Bill Enacted by the Legislature of the State of Florida. This Legislature defines Florida Bicycle Safety Laws and Regulations.

CHAPTER 83-68

316.205 Bicycle Regulations

Florida statutes now require that the needs of bicyclists and pedestrians be addressed in future local, regional and state transportation plans and programs. The specific language appears as follows:

316.065(1)(a) Bicycle and pedestrian ways shall be given full consideration in the planning and development of transportation facilities, including the incorporation of such ways into state, regional, and local transportation plans and programs. Bicycle and pedestrian ways shall be established in conjunction with the construction, reconstruction, or other change of any state transportation facility, and special emphasis shall be given to projects in or within five miles of an urban area.

1983 Funds made available exclusively for bicycle planning through the Governor's Energy Office, and coordination of this project has been handled through the Office of the State Bicycle Coordinator, Florida Department of Transportation.

October 1984 1984 Bicycle Bill Enacted by the Legislature of the State of Florida. This Legislature is different from what was previously being done in that it strengthens current DOT policy requiring for the consideration of bicycle facilities in state, regional and local plans, and

requiring the inclusion of facilities for non-motorized transportation modes in the design of all new construction and reconstruction projects. This process is more cost - effective than retrofitting.

CHAPTER 84-284

Senate Bill No. 789

An act relating to the state highway system; amending s. 316.003, F.S.; defining the term "bicycle path"; amending s. 316.091, F.S.; prohibiting the operation of certain vehicles upon a limited access facility; authorizing the operation of a bicycle upon such facilities in certain circumstances; amending s. 316.1995, F.S.; prohibiting the operation of certain vehicles upon a bicycle path; amending s. 316.304, F.S.; prohibiting a person from operating a vehicle while wearing a headset or certain other listening devices; providing penalties; amending s. 335.065, F.S.; providing for the planning and construction of bicycle and pedestrian ways along state transportation facilities; repealing s. 316.2075, F.S., relating to the prohibition against operating a motor vehicle on bicycle an pedestrian ways; providing an effective date.

October 1984

Section 38. Section 335.065, Florida Statutes, is amended.

CHAPTER 84-309

335.065 Bicycle and pedestrian ways along roads.

(1)(a) Bicycle and pedestrian ways shall be established in conjunction with the construction, reconstruction, or other change of roads on the state highway system at such locations as shall be determined by the department.

(b) Notwithstanding the provision of paragraph (a), bicycle and pedestrian ways are not required to be established where:

1. Their establishment would be contrary to public safety;
2. The cost would be excessively disproportionate to the need or probable use; or

3. Other available means or factors indicate an absence of need,

(2) The department shall establish construction standards and a uniform system of signing for said ways.

(3) The department in cooperation with the Department of Natural Resources, shall establish a statewide integrated system of bicycle and pedestrian ways in such a manner as to take full advantage of any such ways which are maintained by any governmental entity.

June 1985

The Transportation Reform, Accountability and Cooperation Act of 1985" was created. This Act amends s. 335.065, F.S.; requiring special emphasis in the planning of bicycle and pedestrian ways within one mile of an urban area.

CHAPTER 85-180

Committee Substitute for House Bill No. 1392

335.065 Bicycle and pedestrian ways along state roads and transportation facilities.--

(1)(a) Bicycle and pedestrian ways shall be given full consideration in the planning and development of transportation facilities, including the incorporation of such ways into state, regional, and local transportation plans and programs. Bicycle and pedestrian ways shall be established in conjunction with the construction, reconstruction, or other change of any state transportation facility, and special emphasis shall be given to projects in or within 1 mile of an urban area.

October 1985

Legislature requiring inclusion of bicycle and pedestrian ways in local comprehensive plans, redefining some safety regulations. Prescribing brake requirements for bicycles; requiring permanent identifying numbers on bicycles.

CHAPTER 85-309

Senate Bill No. 417

May 1986

House Bill #641 Senate Bill #541

This Bill requires a rear active light on a bicycle operated at night.

July 1986

House Bill #550

This act shall take effect July 1, 1986

A bill to be entitled

An act relating to the district school system;
amending s. 230.2319, F.S.; authorizing bicycle
safety training in physical education programs;
providing an effective date.