

TABLE OF CONTENTS

Chapter 1 PROCEDURE

1.1 **Adoption Procedure.....1-1-1**

Chapter 2 SIGNS

2.1 **Use of Slippery When Wet Signs.....2-1-1**
 2.1.1 Conditions for Use.....2-1-1
 2.1.2 Location and Placement.....2-1-1
 2.1.3 Enhancement.....2-1-2
 2.1.4 Notification.....2-1-2

2.2 **Overhead Street Name Signs.....2-2-1**
 2.2.1 Purpose.....2-2-1
 2.2.2 Standards.....2-2-1
 2.2.3 Installation.....2-2-2
 2.2.4 Sign Design.....2-2-2

2.3 **Signs and Markings at Divided Highways and Crossroads.....2-3-1**

2.4 **Symbol Signs on the State Highway System.....2-4-1**
 2.4.1 Definitions.....2-4-1
 2.4.2 Conditions for Use.....2-4-1

2.5 **Destination-Distance Signs at Rural Interstate and Freeway Exit Ramp
Terminals.....2-5-1**
 2.5.1 Background.....2-5-1
 2.5.2 Purpose.....2-5-1
 2.5.3 Conditions for Use.....2-5-1

2.6 **Bridge Signs and Markings.....2-6-1**
 2.6.1 Bridge and Sign Structure Low Clearance Signs.....2-6-1
 2.6.2 Bridge Pier Marking.....2-6-1
 2.6.3 Cross Road Name Signs on Overpasses.....2-6-1
 2.6.4 Narrow Bridge Treatment.....2-6-2
 2.6.5 Guide Signs on Overpasses.....2-6-2

2.7 **Place Name Signs on the State Highway System.....2-7-1**

2.8 **Move Vehicles from Travel Lane Sign.....2-8-1**
 2.8.1 Sign Design.....2-8-1
 2.8.2 Location and Placement.....2-8-1

2.9	No Passing Zone Signs	2-9-1
2.9.1	Purpose.....	2-9-1
2.9.2	Background.....	2-9-1
2.9.2	Conditions for Use.....	2-9-1
2.10	Vending Machine Signs	2-10-1
2.10.1	Physical Characteristics.....	2-10-1
2.10.2	Location and Placement.....	2-10-1
2.11	Guidelines for Use of Bicycle Signs	2-11-1
2.11.1	Purpose.....	2-11-1
2.11.2	General.....	2-11-1
2.11.3	Bicycles May Use Full Lane (R4-11) Sign.....	2-11-1
2.11.4	Bicycle Passing Clearance Sign.....	2-11-2
2.12	Recycling Collection Center Signs	2-12-1
2.12.1	Definition.....	2-12-1
2.12.2	Sign Design.....	2-12-1
2.12.3	Sign Installation.....	2-12-1
2.13	Signing for Safety Belt Use and Child Restraint Laws	2-13-1
2.13.1	Purpose.....	2-13-1
2.13.2	Background.....	2-13-1
2.13.3	State Highway System Points of Entry.....	2-13-1
2.13.4	Rest Areas and Interstate Welcome Centers.....	2-13-1
2.13.5	Other Locations.....	2-13-2
2.13.6	Standard Safety Belt Sign (FTP-46-06 and FTP-47-06).....	2-13-2
2.13.7	Sign Design.....	2-13-3
2.13.8	Sign Availability.....	2-13-3
2.14	Signing for Emergency Management	2-14-1
2.14.1	Purpose.....	2-14-1
2.14.2	Background.....	2-14-1
2.14.3	Procedure.....	2-14-1
2.14.4	Evacuation Route Sign Design.....	2-14-1
2.14.5	Evacuation Route Sign Use.....	2-14-2
2.14.6	Evacuation Route Sign Placement.....	2-14-2
2.14.7	Sign Installation.....	2-14-2
2.14.8	Shelter and Traveler Information Signing.....	2-14-3
2.14.9	Shelter Sign Design and Use.....	2-14-3
2.14.10	Traveler Information Signing Design and Use.....	2-14-4

2.14.11	Continuous Hinge Requirements.....	2-14-5
2.14.12	Radio Frequency Information Signs.....	2-14-5
2.14.12.1	Radio Frequency Information Sign Design.....	2-14-5
2.14.12.2	Radio Frequency Information Sign Placement.....	2-14-5
2.14.12.3	Radio Frequency Information Sign Installation.....	2-14-7
2.15	Smoke on Highway Signs.....	2-15-1
2.15.1	General.....	2-15-1
2.15.2	Temporary Smoke on the Highway Sign.....	2-15-1
2.15.3	Prescribed Burn Sign.....	2-15-1
2.16	Supplemental Guide and Motorist Services Signs on Limited and Non-Limited Access Highways.....	2-16-1
2.17	Emergency Highway Traffic Plan.....	2-17-1
2.18	*FHP Highway Assistance Program.....	2-18-1
2.18.1	Purpose.....	2-18-1
2.18.2	Sign Location.....	2-18-1
2.18.3	Sign Design and Installation.....	2-18-1
2.18.3.1	Interstate and Other Limited Access Routes.....	2-18-1
2.18.3.2	Major Arterial Routes.....	2-18-2
2.18.4	Sign Availability.....	2-18-2
2.20	Call Box/Mile Marker Signs.....	2-20-1
2.21	Florida Litter Law Signs.....	2-21-1
2.21.1	Purpose.....	2-21-1
2.21.2	Sign Design and Placement.....	2-21-1
2.21.3	Sign Installation.....	2-21-2
2.22	Traffic Control for Toll Collection Facilities.....	2-22-1
2.23	Florida's Turnpike and Toll Road Numbering and Signing Program.....	2-23-1
2.23.1	Purpose.....	2-23-1
2.23.2	Background.....	2-23-1
2.23.3	Road Numbering Program.....	2-23-1
2.23.4	Signing Program.....	2-23-2
2.23.5	Recommended Maximum Trailblaze distance.....	2-23-3
2.23.6	Limited Access Sign Designs.....	2-23-3
2.24	Placement of Crime Watch Signs on the State Highway System	2-24-1
2.24.1	Purpose.....	2-24-1
2.24.2	Definitions.....	2-24-1
2.24.3	Background.....	2-24-1

2.24.4	Requests for Signing.....	2-24-1
2.24.5	Sign Locations.....	2-24-1
2.24.6	Sign Design and Placement.....	2-24-2
2.24.7	Installation and Maintenance.....	2-24-2
2.24.8	Special Considerations.....	2-24-3
2.25	Distance Signing for Non-Limited Access Highways.....	2-25-1
2.25.1	Purpose.....	2-25-1
2.25.2	Background.....	2-25-1
2.25.3	Procedure.....	2-25-1
2.26	Advance Guide Signs on Limited Access Highways.....	2-26-1
2.26.1	Purpose.....	2-26-1
2.26.2	Background.....	2-26-1
2.26.3	Definitions.....	2-26-1
2.26.4	Procedure.....	2-26-1
2.27	Commuter Assistance Signs.....	2-27-1
2.27.1	Purpose.....	2-27-1
2.27.2	Background.....	2-27-1
2.27.3	Sign Design and Installation.....	2-27-1
2.28	Reference Location Signs (Mile-Markers).....	2-28-1
2.28.1	Purpose.....	2-28-1
2.28.2	Standards.....	2-28-1
2.28.3	Criteria for Limited Access Roadways.....	2-28-1
2.28.4	Criteria for Non-Limited Access Roadways.....	2-28-1
2.29	Use of Fluorescent Yellow-Green Sign Sheeting.....	2-29-1
2.30	Signing for One-Stop Career Centers.....	2-30-1
2.30.1	Purpose.....	2-30-1
2.30.2	Background.....	2-30-1
2.30.3	Definitions.....	2-30-1
2.30.4	Sign Design and Installation.....	2-30-1
2.31	Unique Transportation Symbol Signs.....	2-31-1
2.31.1	Purpose.....	2-31-1
2.31.2	Background.....	2-31-1
2.31.3	Scope.....	2-31-1
2.31.4	Passenger Ship Sign.....	2-31-1
2.31.5	Amtrak Sign.....	2-31-2
2.31.6	Greyhound Signing.....	2-31-2

2.31.7	Installation and Placement.....	2-31-3
2.32	511 Telephone Service Sign.....	2-32-1
2.32.1	Purpose.....	2-32-1
2.32.2	Sign Design and Placement.....	2-32-1
2.32.2.1	Interstate and other Limited Access Routes.....	2-32-2
2.32.2.2	Major Arterial Routes.....	2-32-2
2.33	Signing for Nature-Based Tourism and Heritage Tourism Trails.....	2-33-1
2.33.1	Purpose.....	2-33-1
2.33.2	Background.....	2-33-1
2.33.3	Pilot Program.....	2-33-1
2.33.4	Criteria for Signing Program.....	2-33-1
2.33.5	DOT Participation.....	2-33-2
2.33.6	Sign Approval and Design.....	2-33-2
2.33.7	Sign Maintenance.....	2-33-3
2.34	Signing for the Florida Scenic Highways Program and the National Scenic Byways Program.....	2-34-1
2.34.1	Purpose.....	2-34-1
2.34.2	Background.....	2-34-1
2.34.3	Program Coordination.....	2-34-2
2.34.4	Sign Criteria.....	2-34-2
2.34.5	Florida Scenic Highway Signs.....	2-34-3
2.34.5.1	Coordination.....	2-34-3
2.34.5.2	Sign Detail.....	2-34-3
2.34.5.3	Sign Installation.....	2-34-3
2.34.5.4	Maintenance.....	2-34-4
2.34.6	National Scenic Byway Signs.....	2-34-5
2.34.6.1	Coordination.....	2-34-5
2.34.6.2	Sign Detail.....	2-34-6
2.34.6.3	Installation.....	2-34-6
2.34.6.4	Maintenance.....	2-34-6
2.35	Signing for Memorial Roadway Designations.....	2-35-1
2.35.1	Purpose.....	2-35-1
2.35.2	Background.....	2-35-1
2.35.3	Signing Process.....	2-35-1
2.35.4	Sign Installation and Maintenance.....	2-35-2
2.35.5	Sign Design.....	2-35-2

2.36	Community Wayfinding Guide Signs	2-36-1
2.36.1	Purpose.....	2-36-1
2.36.2	Background.....	2-36-1
2.36.3	Standards.....	2-36-1
2.36.4	Review Process.....	2-36-1
2.37	Advance Street Name Signs	2-37-1
2.37.1	Purpose.....	2-37-1
2.37.2	Background.....	2-37-1
2.37.3	Definitions.....	2-37-1
2.37.4	Standards.....	2-37-1
2.37.5	Advance Street Name Signs at Signalized Intersections.....	2-37-2
2.37.6	Advance Street Name Signs at Non-Signalized Intersections.....	2-37-5
2.37.7	Advance Street Name Plaques on Intersection Warning and Advance Traffic Control Signs.....	2-37-6
2.38	Use of Generators and Portable Stop Signs at Non-Functioning Signalized Intersections	2-38-1
2.38.1	Purpose.....	2-38-1
2.38.2	Conditions for Use.....	2-38-1
2.38.3	Location and Placement.....	2-38-1
2.38.4	Storage and Distribution.....	2-38-2
2.38.5	Removal and Recovery.....	2-38-2
2.39	Warning, Stop, and Yield Sign Sizes	2-39-1
2.39.1	Background.....	2-39-1
2.39.2	Recommended Warning Sign Sizes.....	2-39-1
2.39.3	Recommended Stop Sign Sizes.....	2-39-3
2.39.4	Recommended Yield Sign Sizes.....	2-39-4
2.40	Approved Safety Messages for Permanently Mounted Dynamic Message Signs	2-40-1
2.40.1	Purpose.....	2-40-1
2.40.2	Definitions.....	2-40-1
2.40.3	Approved Standard Safety Messages for Display on Permanently Mounted DMS.....	2-40-1
2.41	Guidelines for Use of Retroreflective Strips	2-41-1
2.41.1	Purpose.....	2-41-1
2.41.2	Definitions.....	2-41-1
2.41.3	Conditions for Use.....	2-41-1

2.41.4	Sign Design.....	2-41-2
2.42	Express Lanes Signing.....	2-42-1
2.42.1	Purpose.....	2-42-1
2.42.2	Background.....	2-42-1
2.42.3	Criteria.....	2-42-1
2.42.3.1	Vehicle Eligibility Sign.....	2-42-1
2.42.3.2	Express Lanes Termination Sign.....	2-42-2
2.42.3.3	Toll Amount Sign (TAS).....	2-42-2
2.42.3.4	Periods of Operation Sign (R3-44).....	2-42-3
2.42.3.5	Advanced Guide Signs.....	2-42-4
2.42.3.6	Point of Entry/Ingress Signs.....	2-42-4
2.42.3.7	Point of Exit/Egress Signs.....	2-42-6
2.42.4	Sign Sequence.....	2-42-8
2.42.5	Special Consideration for Arterial Entrance/Ingress Connections with Express Lanes.....	2-42-8
2.43	Ramp Only Sign Panel.....	2-43-1
2.43.1	Purpose.....	2-43-1
2.43.2	Background.....	2-43-1
2.43.3	Conditions for Use.....	2-43-1
2.44	Turning Vehicles Stop for Pedestrians Sign	2-44-1
2.44.1	Purpose.....	2-44-1
2.44.2	General.....	2-44-1
2.44.3	Guidance.....	2-44-1

Chapter 3 SIGNALS

3.1	Signalized Intersection Flashing Mode Operation and Flashing Beacons	3-1-1
3.1.1	Definitions.....	3-1-1
3.1.2	Recommendations for Signalized Intersections.....	3-1-1
3.1.2.1	Programmed Flashing Mode Operation.....	3-1-1
3.1.2.2	Non-Programmed Flashing Mode Operation.....	3-1-2
3.1.3	Application Requirements for Signalized Intersection.....	3-1-2
3.1.3.1	Yellow-Red Flashing Mode.....	3-1-2
3.1.3.2	Red-Red Flashing Mode.....	3-1-2
3.1.4	Heads to Be Flashed.....	3-1-3

3.1.5	Flashing Indication Colors.....	3-1-3
3.1.6	Application Requirements for Flashing Beacons.....	3-1-4
3.1.7	Operation of Flashing Beacons.....	3-1-4
3.2	Guidelines for Left Turn Treatment.....	3-2-1
3.2.1	Purpose.....	3-2-1
3.2.2	Left Turn Signal Phasing.....	3-2-1
3.2.3	Left Turn Signal Displays.....	3-2-3
3.2.4	Signal Display for Exclusive Left Turn Lane.....	3-2-3
3.2.5	Left Turn Phases for Separated Left and Thru Lanes.....	3-2-3
3.2.6	Permissive Only Mode in Multi- Left Turn Lane Approaches.....	3-2-6
3.3	Scheduling Intersection Control Evaluations and Funding Arrangement	3-3-1
3.3.1	Purpose.....	3-3-1
3.3.2	General.....	3-3-1
3.3.3	Response to Signal Requests and Scheduling Traffic Signal Studies	3-3-1
3.3.4	Traffic Signal Studies and Engineering.....	3-3-2
3.3.5	Funding Arrangements for Warranted New Signal Installations.....	3-3-3
3.3.6	Other Considerations.....	3-3-4
3.4	Emergency Traffic Control Signals.....	3-4-1
3.4.1	Purpose.....	3-4-1
3.4.2	Background.....	3-4-1
3.4.3	Procedure.....	3-4-1
3.4.4	Configuration and Operation of Emergency Traffic Control Signals	3-4-2
3.4.5	Emergency Signal Sign (R10-13).....	3-4-3
3.4.6	Other Requirements.....	3-4-3
3.5	Traffic Signal Mast Arm Support Boundaries.....	3-5-1
3.5.1	General.....	3-5-1
3.5.2	Implementation.....	3-5-1
3.5.2.1	Mast Arm Structures Boundary Maps.....	3-5-1
3.6	Standardization of Yellow Change and Red Clearance Intervals for Signalized Intersections.....	3-6-1
3.6.1	Purpose.....	3-6-1
3.6.2	Standard.....	3-6-1
3.6.2.1	Yellow Change Interval.....	3-6-2

3.6.2.2	Red Clearance Interval.....	3-6-3
3.7	Accessible Pedestrian Signals.....	3-7-1
3.7.1	Purpose.....	3-7-1
3.7.2	General.....	3-7-1
3.7.3	Procedure.....	3-7-1
3.7.4	Approval/Denial Process.....	3-7-2
3.8	Railroad Traffic Signal Preemption Time Calculation.....	3-8-1
3.8.1	Purpose.....	3-8-1
3.8.2	Background.....	3-8-1
3.8.3	General.....	3-8-1
3.8.4	Definitions.....	3-8-1
3.8.5	Procedure.....	3-8-4
3.8.6	Preempt Trap Check.....	3-8-8
3.8.7	Vehicle-Gate Interaction Check.....	3-8-9
3.8.8	Example.....	3-8-12
3.9	Installing Retroreflective Signal Backplates on Existing Structures.....	3-9-1
3.9.1	Purpose.....	3-9-1
3.9.2	Background.....	3-9-1
3.9.3	Definitions.....	3-9-1
3.9.4	Procedure.....	3-9-2
3.10	Flashing Yellow Arrow Signal Application.....	3-10-1
3.10.1	Purpose.....	3-10-1
3.10.2	Background.....	3-10-1
3.10.3	Operational Requirements.....	3-10-2
3.10.4	Installation Guide.....	3-10-5
3.10.5	Installation Criteria.....	3-10-6
3.10.6	Variable Mode of Operation.....	3-10-8
3.10.7	Public Notification.....	3-10-8
3.10.8	Education.....	3-10-8
3.10.9	Signal Retrofit Checklist.....	3-10-9
3.11	Signal Timing Applications for Pedestrian Movement.....	3-11-1
3.11.1	Purpose.....	3-11-1
3.11.2	Background.....	3-11-1
3.11.3	Definitions.....	3-11-1
3.11.4	LPI Implementation.....	3-11-3
3.11.5	LPI Considerations.....	3-11-4

Chapter 4 MARKINGS

4.1	Crosswalks in Heavy Pedestrian Concentration Areas.....	4-1-1
4.1.1	General.....	4-1-1
4.1.2	Markings.....	4-1-1
4.1.3	Signing.....	4-1-1
4.2	Pavement Word, Symbol, and Arrow Markings.....	4-2-1
4.2.1	General.....	4-2-1
4.2.2	Lane Use Arrow and “Only” Pavement Markings on Intersection Approaches.....	4-2-2
4.2.3	Route Shield Pavement Markings.....	4-2-3
4.2.4	Route Shields for Wrong Way Treatment.....	4-2-5
4.3	Use of Blue Raised Pavement Markers to Identify Fire Hydrants.....	4-3-1
4.4	Roundabout Markings.....	4-4-1
4.5	Express Lane Markings.....	4-5-1
4.5.1	Purpose.....	4-5-1
4.5.2	Definitions.....	4-5-1
4.5.3	The Words ‘Express’ and ‘Only’ Pavement Markings in Express Lanes	4-5-1
4.5.4	Chevrons and Markers in Buffer Area.....	4-5-2
4.5.5	Special Pavement Markings within the Tolling Area.....	4-5-3
4.6	Use of Internally Illuminated Raised Pavement Markers.....	4-6-1
4.6.1	Purpose.....	4-6-1
4.6.2	Definitions.....	4-6-1
4.6.3	Application.....	4-6-1
4.6.4	Procedure.....	4-6-1

Chapter 5 SPECIALIZED OPERATIONAL TOPICS

5.1	Golf Cart Crossing and Operation on the State Highway System.....	5-1-1
5.1.1	Purpose.....	5-1-1
5.1.2	General.....	5-1-1
5.1.3	Definitions.....	5-1-1
5.1.4	Procedure.....	5-1-1
5.1.5	Criteria for Approval of Crossing.....	5-1-3
5.1.6	Operation of Golf Carts on Sidewalks.....	5-1-7

5.2 Treatments for Pedestrian Crosswalks at Midblock and Unsignalized Intersections.....5-2-1

- 5.2.1 Purpose.....5-2-1
- 5.2.2 General.....5-2-1
- 5.2.3 Definitions.....5-2-2
- 5.2.4 Procedure.....5-2-3
- 5.2.5 Selection Criteria.....5-2-5
 - 5.2.5.1 Criteria for Marked Crosswalk.....5-2-5
 - 5.2.5.2 Criteria for Beacons and Signals.....5-2-7
- 5.2.6 Engineering Study.....5-2-10
- 5.2.7 Treatment Options.....5-2-12
 - 5.2.7.1 Pavement Markings.....5-2-12
 - 5.2.7.2 Signs.....5-2-14
 - 5.2.7.3 Beacons (Signal Warrant Analysis Not Required).....5-2-19
 - 5.2.7.4 Beacons and Signals (Warrant Analysis Required)5-2-22
 - 5.2.7.5 Other Treatments.....5-2-25
- 5.2.8 Treatment Options Selection Matrix.....5-2-28

APPENDICES

History.....A-1

Index.....B-1