

# Minutes (Draft)

## FLORIDA GREENBOOK ADVISORY COMMITTEE MEETING

Monday November 15, 2021, 9:00 AM – 12:00 PM

---

**Monday, November 15, 2021**

### Attendance

The following members, associate members, Department staff, technical advisors and public were in attendance, either in-person or remotely via Go-To-Webinar. The meeting began at 9:00 AM.

- **Members**

Allan Urbonas, Andy Garganta, Andy Tilton, Deborah Snyder, Gail Woods, Gene Howerton; Ghulam Qadir, Jeffrey Cicerello, John Olson, John Veilleux, Juvenal Santana, Karina Fuentes, Kathy Thomas, Kenneth Dudley, Kerrie Harrell, Kevin Ingle, Margaret Smith, Miguel Soria, Milton Martinez, Naziru Isaac, Nikesh Patel, Richard Szpyrka, Richard Tornese, Keith Bryant, Robert Behar, Shane Parker.

- **Associate Members**

Charles Ramdatt, Ramon Gavarrete, and Faith Alkhatib.

- **FDOT Staff, Technical Advisors and Public**

Michael Shepard, Mary Anne Koos, Jeremy Fletcher, Tim Lattner, Alissa Torres, Alison Stettner, Anna Harlson, Barry Westmark, Brenda Young, Brian Landeweer, Chris Wigglesworth, Christopher Cairns, George Borchik, Gevin McDaniel, Dave Cerlanek, David Johnson, David Murphy, Derwood Sheppard, Francisco Gonzales, Gabe Matthews, Kristin Larsson, Vibhuti Patel, Mary Jane Hayden, May Cheng, Benjamin Gerrell, Aurybell Rivero, Gabe Matthews, Gracielyn Rezba, Liza Herrera, Matt Wernersbach, Michael Roberge, Naomi Tillet, Paul Roberts, Richard Zion, Robert Phelan, Thomas Marquadt, Weldon Spurling, William Corbett, and Ashley Peacock.

### Introductions and General Information

- **Welcome and Introductions (Michael Shepard, Kristin Larsson, & Mary Anne Koos)**

Michael Shepard, Chair, of the Florida Greenbook Committee welcomed members and the public to the 2020 Florida Greenbook Committee meeting. Kristin Larsson provided general tips on webinar communication. Mary Anne Koos summarized changes in membership for the Committee due to retirement or new positions for former members and new members were introduced.

- **Sunshine Law, Rulemaking Timeline for 2021 Florida Greenbook (Ashley Peacock)**

Ashley Peacock reminded the Committee that all meetings that are official acts are governed by Florida's Sunshine law. All discussion between voting members must be conducted in a public meeting and they cannot meet or discuss business through an intermediary. A copy of Florida's Sunshine law was included in the meeting package. The rulemaking flowchart was reviewed. The legal office will be assisting the Roadway Design Office in the review of the future Greenbook.

**FDOT Presentation on Safety (Allison Stetner, Michael Shepard, Jeremy Fletcher)**

Allison Stetner gave an overview of FDOT's Vital Few and why preventing roadway departures has become an important focus of the Department. Michael Shepard and Jeremy Fletcher presented data on the frequency of lane departure crashes and appropriate countermeasures.

**Public Comments, General Discussion (Mary Anne Koos)**

There were no public comments at this time.

**Review and Approval of Revisions for 2021 Greenbook (Mary Anne Koos)**

All revisions shown are anticipated for publication in the 2021 Greenbook Edition. The meeting package includes the revisions that will be discussed today. Ms. Koos reviewed the color-coding of the text for the group. Green-highlighted text has already been approved by the Committee in previous meetings. Yellow highlights are notes that will be deleted in the final format or are areas that need follow up discussion.

- **Purpose (Mary Anne Koos)**

Mary Anne Koos presented the proposed changes to the chapter. The purpose of the changes is to clarify that decisions for projects shall be based on supporting context based design and add a definition for a shared lane.

The Committee voted unanimously to accept the changes.

- **Chapter 1 – Planning and Land Development (Mary Anne Koos)**

Mary Anne Koos presented the proposed changes to the chapter. The purpose of the changes is to revise from should to shall that the following criteria would be considered in the initial planning: safety, economic constraints, access management, maintenance capabilities, etc. The Land Development section was revised from should to shall that the design of the street network be consistent with the desired context.

The Committee voted unanimously to accept the changes.

- **Chapter 4 – Roadside Design (Mary Anne Koos)**

Mary Anne Koos presented the proposed changes to the chapter. The purpose of the changes is to clarify the Minimum Width of Clear Zone table and superscript. Lateral Offset was clarified to say that the requirement is for both flush shoulder and curbed roadways, and that meeting requirements for lateral offset on curbed roadways meets clear zone requirement, added criteria for low-speed urban roadways.

The Committee voted unanimously to accept the changes.

- **Chapter 5 – Pavement Design and Construction (Mary Anne Koos)**

Mary Anne Koos presented the proposed changes to the chapter. The purpose of the changes is to add language that “provide lateral support” is a function of shoulder treatment. The Committee voted unanimously to accept the changes.

- **Chapter 8 – Pedestrian Facilities (Mary Anne Koos)**

Mary Anne Koos presented the proposed changes to the chapter, which revised from should to shall the requirement for a 1-foot-wide shoulder adjacent to sidewalk with exceptions. The use of pipe rail or countersunk bolts when guardrail is within 4 feet of sidewalk or path was revised from should to shall the requirement. The section on crosswalks was revised from should to shall that sidewalk design be based on listed requirements.

The Committee voted unanimously to accept the changes.

- **Chapter 9 – Bicycle Facilities (Mary Anne Koos)**

Mary Anne Koos presented the proposed changes to the chapter. The purpose of the changes is to require that bicycle facilities be given full consideration in planning and development of projects. Drainage inlets be flush, and consideration be given to smoothness and width and depth of flangeway openings of RR crossings. The section on Separated Bicycle Lanes was revised to add the need for appropriate end treatments if rigid barriers are used. The section on Shared Use Paths was revised to include additional information on accessibility, width, and clearance including a minimum 2-foot wide, clear, level area be maintained on both sides of a shared use path, and when physical barriers are recommended.

The section on Separation Between Shared Use Path and Roadways was clarified how to measure the separation between path and roadway curb, paved and unpaved shoulders. The Accessibility section also clarifies when longitudinal grade can exceed 5% and that curb ramps or blended transitions shall be the full width of the path.

A new section on Shared Use Path – Roadway Intersections provides information on designing these intersections and brings in criteria from AASHTO Greenbook and AASHTO Bike Guide, including table for intersection sight distance calculations. The Structures section revises from should to shall the minimum clear width of paths on structures and clarifies longitudinal grade and cross slope requirements.

The Committee voted unanimously to accept the changes.

- **Chapter 13 – Transit (Mary Anne Koos)**

Mary Anne Koos presented the proposed changes to the chapter, which revised the Introduction from should to shall that all modes of transportation be considered when planning and designing transportation facilities. Boarding and Alighting Areas was updated to 1:50 to 2% for cross slope criteria

The Committee voted unanimously to accept the changes.

- **Chapter 14 – Design Exceptions and Variations (Mary Anne Koos)**

Mary Anne Koos presented the proposed changes to the chapter, which added additional information for when exceptions and variations are not needed for safety, drainage, landscape-only, and maintenance, ride, rehabilitation only projects.

The Committee voted unanimously to accept the changes.

- **Chapter 18– Signing and Marking (Mary Anne Koos)**

Mary Anne Koos presented the proposed changes to the chapter, which added a requirement for use of thermoplastic for final pavement markings and revised the section on Longitudinal Audible Vibratory Pavement Markings to require use of longitudinal, audible, and vibratory treatments on high speed, flush shoulder roadways. A reference was added to see the Work Zone Safety Chapter for use of transverse rumble strips in work zones.

Keith Bryant presented additional information on the cost of thermoplastic, and requested the discussion be continued at a Spring 2022 meeting of the Greenbook Advisory Committee.

After much discussion and revision of the language, Michael Shepard requested a roll call vote of members present regarding the proposed revisions to Chapter 18 – Signing and Pavement Markings, Section E.1 Longitudinal Audible Vibratory Treatments of the draft 2021 Florida Greenbook. Shown below is the proposed language, followed by a record of those who voted.

## D.1 Pavement Markings

When the installation of pavement markings are included on a roadway project with flush shoulders and posted speeds of 50 mph or greater, use Standard Thermoplastic, Profiled Thermoplastic, Preformed Thermoplastic, Permanent Tape, or a Two Reactive Component material for the final pavement markings. The *FDOT Design Manual, Chapter 230* provides additional information on the various material options.

## E.1 Longitudinal Audible Vibratory Treatments

Longitudinal Audible and Vibratory Treatments (AVTs) are a countermeasure to reduce the severity and frequency of lane departure crashes. Longitudinal AVTs shall be used on high speed roadways (posted speed 50 mph or greater) with flush shoulders. Longitudinal AVTs must not be placed within the limits of intersections or crosswalks.

AVT's are designed to improve the opportunity for a safe recovery for distracted, drowsy, or otherwise inattentive drivers who may unintentionally drift over the edge or center line.

More information on these types of treatments are shown in the Department's Standard Plans, Index 546-010 and FDOT Design Manual, Chapter 210 Arterials and Collectors. AVT options include cylindrical ground-in rumble strips, sinusoidal ground-in rumble strips, and profiled thermoplastic. The sinusoidal ground-in rumble strip option provides the most durable solution with less noise pollution.

Greenbook Member	Representing	Vote
Andy Tilton	D1, Consultant	No
Andy Garganta	D6, Consultant	Yes
Keith Bryant	D3, Urban Local Government	No
Jeffrey Cicerello	D5, FDOT	Yes
Kenneth Dudley	D2, Rural Local Government	Yes
Karina Fuentes	D6, FDOT	Yes
Gail Woods	D5, Consultant	Yes
Ghulam Qadir	D5, Urban Local Government	Yes
Rick Hall	D3, Consultant	Yes
Kevin Ingle	D1, FDOT	Yes
Milton Martinez	D7, Urban Local Government	Yes
John Olson	D4, FDOT	Yes
Shane Parker	D1, Rural Local Government	No
Robert Behar	D4, Consultant	Yes
Margaret Smith	D7, Rural Local Government	No
Deborah Snyder	D5, Rural Local Government	No
Miguel Soria	D6, Urban Local Government	Yes
Richard Szpyrka	D4, Rural Local Government	Yes

Richard Tornese	D\$, Urban Local Government	Yes
Allan Urbonas	D7, FDOT	Yes
John Veilleux	D2, Urban Local Government	No

Twenty one members voted, with 15 for and 6 against.

- **Chapter 20 – Drainage Manual (Mary Anne Koos)**

Mary Anne Koos presented the proposed changes to the chapter, which updated the reference from 2021 to 2022 Drainage Manual. Additional considerations for the evaluation of culvert materials when project is in tannic water and limitations of the culvert service life estimator was added.

The Committee voted unanimously to accept the changes.

**Proposed Name for 2022? Greenbook (Mary Anne Koos)**

The Committee agreed to name this edition of the Greenbook the 2022 Florida Greenbook.

**Public Comments. General Discussion (Mary Anne Koos)**

Ramon-Gavarrete indicated that the cost per mile for thermoplastic markings is \$5,500 in Alachua County and felt very strongly that the “should: language be retained due to cost and the requirement for use of the audible vibratory treatment is greater than that required for FDOT’s Safety funded projects. John Veilleux preferred that the Greenbook not exceed the requirements in the MUTCD.

**Adjourn (Michael Shepard)**

The meeting ended at 3:00 PM.