June 19 - 20, 2025
Hollywood, FL

TRANSPORTATION SYMPOSIUM

ADA for Design, Construction, and Maintenance

Randy E. (Brad) Bradley II, P.E.
State ADA Coordinator / Project Mgmt Engineer
Office of Forecasting and Performance

Transportation Symposium Website
SCAN ME

1

SAFETY & ACCESSIBILITY!

- Brief History of the ADA
- FDOT Design Manual (FDM)
- FDOT Standard Plans
- FDOT Standard Specifications
- FDOT Maintenance Rating Program Handbook (MRP)

2

SAFETY & ACCESSIBILITY!

- **Brief History of the ADA**
- **FDOT Design Manual (FDM)**
- **FDOT Standard Plans**
- **FDOT Standard Specifications**
- **FDOT Maintenance Rating Program Handbook (MRP)**

Capitol Crawl

FDOT

3

3

PERTINENT LEGISLATIVE HISTORY

1	2	3	4	5
Civil Rights Act.	Architectural Barriers Act.	Rehabilitation Act (Sect 504).	Americans w/ Disabilities Act.	ADA Amend. Act.
– 1964 –	– 1968 –	– 1973 –	– 1990 –	– 2008 –
Race, Color, National Origin	Accessible Buildings & Facilities	No Discrimination due to Disability	Title II – State & Local Governments	Emphasized Broad Coverage

"IT'S A CIVIL RIGHT TO BE INDEPENDENT IN AMERICA!"
-- KATE GAINER

4

4

CAPITOL CRAWL

MARCH 12, 1990

Protestors tossed aside their wheelchairs, walkers, and crutches to ascend the steps of the United States Capitol -- dragging themselves up the stairs to demonstrate their daily struggles due to physical barriers.

George H.W. Bush
July 26, 1990

5

5

WWW.ITSOURSTORY.COM

6

6

PRIMARY ELEMENTS FOR PEDESTRIANS

Try not to overcomplicate it!

1	2	3	4	5
Unobstructed Clear Width.	Protruding Objects.	Running & Cross Slopes.	Walking Surface.	Pedestrian Signals.
Clearance "window" over the full walking surface	Signs, utilities, equipment, landscape material	Parallel & Perpendicular to ped travel	Firm, Stable, Non-slip. Changes in level, horizontal openings	Reach distances and effective communication

Nominal Vs. Substantive Safety & Accessibility?

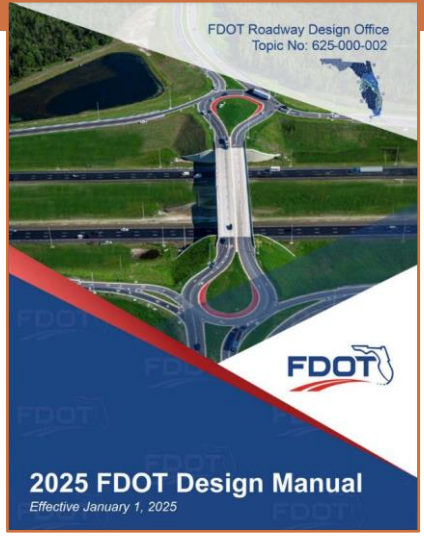
FLORIDA SHS & U.S. NHS = FDM FGB = FLORIDA LOCAL ROADS

7

7

SAFETY & ACCESSIBILITY!

- **Brief History of the ADA**
- **FDOT Design Manual (FDM)**
- **FDOT Standard Plans**
- **FDOT Standard Specifications**
- **FDOT Maintenance Rating Program Handbook (MRP)**



8

8

FGB 8.A

Refer to latest editions and other chapters!

FDM 222 FL Greenbook Ch. 8
PEDESTRIAN FACILITIES

222.1 General - This chapter provides the **minimum** criteria to be used for the design of pedestrian facilities on the **S**tate **H**ighway **S**ystem.

The term "**pedestrian**" used in this chapter includes any person traveling on foot or in a **wheelchair**.

Pedestrians should be expected on **all** of **Florida's** state **roadways** except where restricted on Limited Access (LA) facilities.

Local too!

9

9

FGB 14

TECHNICAL INFEASIBILITY

Documentation * required * by U.S. DOJ regulations!

222.1 General - Process a **Design Variation** when the design **criteria** for pedestrian facilities in this manual **are not met**.

See FDM 122 for DVs on the SHS!

Reference the **following conditions** that support not providing a pedestrian facility in the **Design Variation** documentation:

(1) The establishment of pedestrian facilities would be **contrary to public safety**.

(2) The cost of providing pedestrian facilities would be **excessively disproportionate** to the need or probable use.

(3) The presence of **other available means for pedestrian traffic**. Other available means **should meet the following** requirements:

(a) Meet the **design criteria** for pedestrian facilities on state roadways.

(b) **Provide access** to the same services, origination and destination sites, and transit connections as the project corridor.

(c) **Not result in a significant increase in travel time** or trip length, exposure to motorized traffic, or substantial elevation changes.

(d) Provide **appropriate locations to cross** limited access, arterial or collector roadways, or railroad corridors.

10

10

FGB 8.B.1 FGB 8.H

222.2 Pedestrian Facilities - Pedestrian **safety** can be **enhanced** through the following **measures**:

...and Accessibility!

(1) Maintaining a **smooth**, clean walking surface, **free of obstructions**.

(2) Responsive and appropriate **traffic control devices**, consistent with guidance in the ***Manual on Uniform Traffic Control Devices*** (***MUTCD***), including providing **pedestrian-oriented** directional signage.

(3) Sidewalks and other pedestrian **walkways are continuous**, and termini connect to existing sidewalk, pedestrian **crossing**, or **access point**. *Functional End-Point!*

(4) Providing **adequate lighting**.

Applies during TTC too!

11

FGB 8.B.1

FDOT SIDEWALK POLICY STATE HIGHWAY SYSTEM (SHS)

222.2.1 Sidewalk - Provide sidewalk **on all curbed** roadways, except where **prohibited** by ***Section 316.130 (18), Florida Statute (F.S)***.

The inclusion of sidewalk on **short isolated sections** of ***curbed*** roadway **is not required** when:

- Within **C1** and **C2** **context classification**, and

- There are **no pedestrian facilities** leading to, or from the location.

12

FGB 1.B.2 FGB 8.C.2.a

US-319 (FL-261), Tallahassee

222.2.1 Sidewalk - Provide sidewalk on **flush shoulder** and high speed **curbed** roadways within **C2T**, **C3C**, **C4**, **C5** or **C6** context classification; and within **C1**, **C2** or **C3R** where the **demand** for use is **demonstrated**.

For high speed curbed and flush shoulder roadways, **place sidewalk** in the following **order of desirability**:

(1) As near the **R/W line** as possible.

(2) Outside of the **clear zone**.

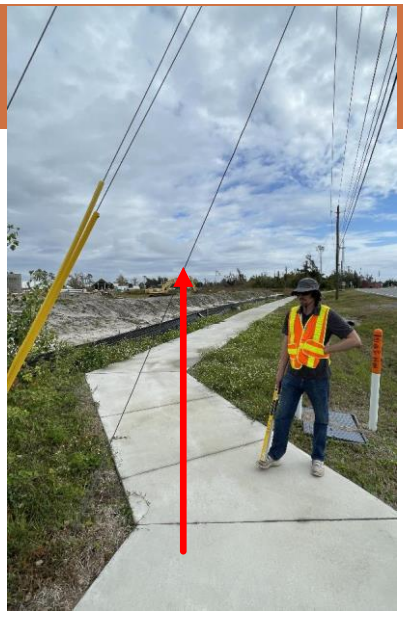
(3) **Five feet** beyond the limits of the full width **shoulder**.

(4) At the **limits** of the full width **shoulder**.

13

13

FGB 8.C.2.a FGB 8.G.1



WATCH OUT! FOR VULNERABLE USERS

222.2.1 Sidewalk - Sidewalk on **flush shoulder** roadways is **not to be constructed** directly **adjacent** to the *roadway* or *shoulder* **pavement**.

Nearing intersections, the sidewalk should be **transitioned** as necessary to provide a more **functional crossing** location that also meets **driver expectation**.

Further guidance on the placement of **stop** or **yield lines** and **crosswalks** is provided in the ***MUTCD***, ***Part 3*** and ***Standard Plans*** ***711-001***.

14

14

FGB 10.C.1

222.2.1 Sidewalk - For **RRR** Projects, other than meeting **detectable warning** and **curb ramp requirements**, **unaltered sidewalks** that are not in compliance with ***FDM*** **criteria**, ***Standard Plans***, or **ADA** requirements **are not required** to be **reconstructed**.

See language in FDM 114!

15

15

FGB 8.B.1

MORE THAN JUST LINEAR CONNECTIVITY!

222.2.1.1 Sidewalk Width - The standard sidewalk **width varies** by **context** classification as shown in ***Table 222.2.1***.

Continuous <=> Continuity!

See ***FDM*** ***214*** for information on sidewalks **across driveways**.

Think "homogenous" segments – just like AASHTO's Highway Safety Manual!

Table 222.2.1 Standard Sidewalk Widths

Context Classification		Sidewalk Width (feet)
C1	Natural	5
C2	Rural	5
C2T	Rural Town	6
C3	Suburban	6
C4	Urban General	6
C5	Urban Center	10
C6	Urban Core	12

Notes:

(1) For C2T, C3 and C4, sidewalk width may be increased up to 8 feet when the demand is demonstrated.

(2) For C5 and C6, when standard sidewalk width cannot be attained, provide the greatest attainable width possible, but not less than 6 feet.

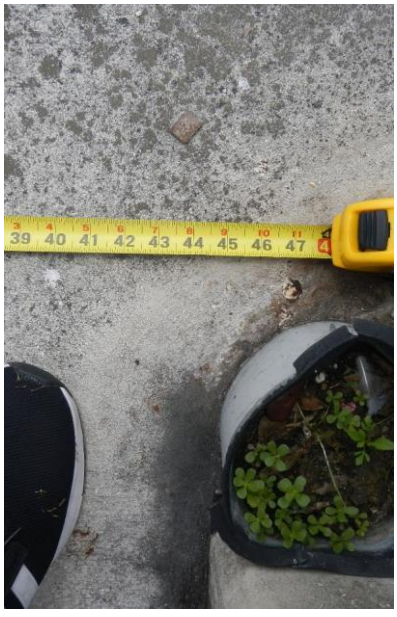
(3) For RRR projects, unaltered sidewalk with width 4 feet or greater may be retained within any context classification.

(4) See ***FDM 260.2.2*** for sidewalk width requirements on bridges.

16

16

FGB 8.B.1



222.2.1.1 Sidewalk Width - Provide the following **minimum unobstructed** sidewalk width (excluding the width of the curb) when there is **no practical alternative** to placing a pole within the sidewalk:

When FULL Compliance is not achievable...

- **36 inches** for **aboveground utilities**. This 36-inch width may be reduced to **32 inches**, not exceeding **24 inches in length**, when there is **no practical alternative** available to avoid an obstruction.
- **48 inches** for **signal**, **light**, **sign poles**

Exhaust all other options FIRST!

17

17

FGB 8.E

222.2.1.2 Vertical Clearance - Provide a minimum **7-foot vertical clearance** over the **entire walking surface**.

See ***FDM* 260.6** for **pedestrian bridge** vertical clearance requirements.

See FDOT's MRP for Vegetation!

18

18

FGB 8.B.1

222.2.1.3 Grade and Cross Slope - When sidewalk is **adjacent** to the roadway (i.e., located back of curb or consistent separation from curb), sidewalk **grades** may **mirror** the roadway profile.

Mainline sidewalk ONLY!

When sidewalk is **not adjacent** to a traveled way, sidewalk **grades** are **not to exceed 5%**, unless accessible ramps* are provided.

Full ADA Ramp Criteria applies!

Florida Accessibility Code

5% [1:20] < *ADA Accessible **Ramp Criteria** ≤ 8.3% [1:12]

19

19

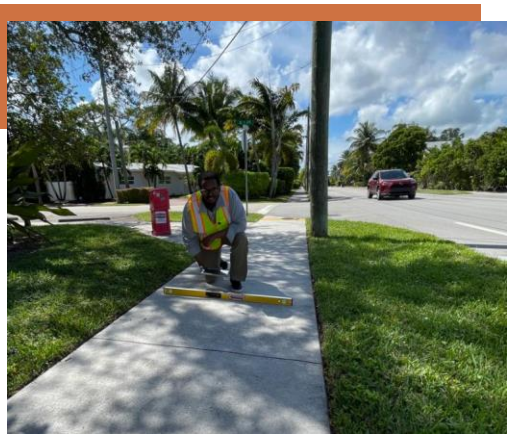
FGB 8.B.1

RUNNING & CROSS SLOPE

222.2.1.3 Grade and Cross Slope - There *should* be enough sidewalk **cross slope** to allow for adequate **drainage**; however, to **comply** with ADA requirements, the **maximum** cross slope is **2%**.

A clear **1-foot wide graded area** with a maximum 1:6 slope should be provided adjacent to the sidewalk.

Edge **drop-offs** *should* **be avoided**.

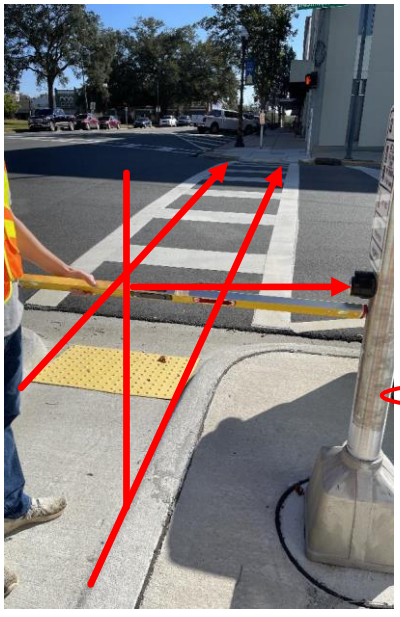


When drop-offs **cannot be avoided** and lie **within 2 feet** of the edge of sidewalk, they *should* be **shielded** as discussed in ***FDM 222.4***.

20

20

FGB 8.G.2

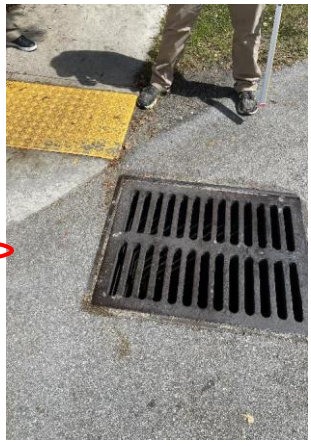


222.2.2 Curb Ramps and Blended Transitions - ***Standard Plans***, ***Index 522-002*** provides **requirements** and **details** for **curb ramps** and **landings** that are compliant with **Americans with Disabilities Act** Standards for Transportation Facilities.

A **continuous accessible pedestrian route**, **including curb ramps** and **blended transitions** (e.g., depressed corners, raised street crossings, flush roadway connections) are **required** along **sidewalks** and **shared use paths**.

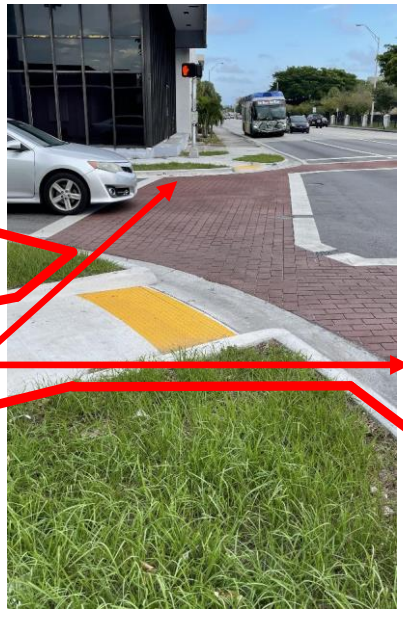
Provide **curb ramps** to be the **same width** as the sidewalk where practicable.

MUST condition!



21

FGB 8.G.2



222.2.2 Curb Ramps and Blended Transitions - **Include** sidewalk **curb ramps** at the following locations:

Nice use of separate ramps!

• All **intersections** and **driveways** with curbed returns. **Include a landing** at the top of each ramp.

• On **curbed** roadways between intersections where a **crosswalk** has been established.

22

FGB 8.G.2

222.2.2 Curb Ramps and Blended Transitions - Pull boxes, manholes (and other utility covers), and other types of **existing surface features** in the location of a proposed curb ramp or detectable warning **should be relocated**.

When **relocation is not feasible**, adjust the feature to meet the ADA requirements for surfaces (including the provision of a **nonslip** top surface, and adjustment to be **flush** with and at the **same slope** as the adjacent surface).

23

FGB 8.G.2

ADA TITLE II REQUIRES CLEAR COMMUNICATION

222.2.2 Curb Ramps and Blended Transitions - Curb ramps *should* be **in line** with the crossing and provide non-visual physically detectable elements (e.g., concrete edge lines or curb lines) to clearly indicate the direction of the crossing. Provide the flattest ramp slope practicable, not to exceed a **maximum** slope of 1:12 (8.3 percent).

Must Condition!

Provide a curb **ramp** or blended transition, as appropriate, at **both ends** of each crossing.

Crossings *are required* to meet the **same grade** and **cross slope** requirements as sidewalks.

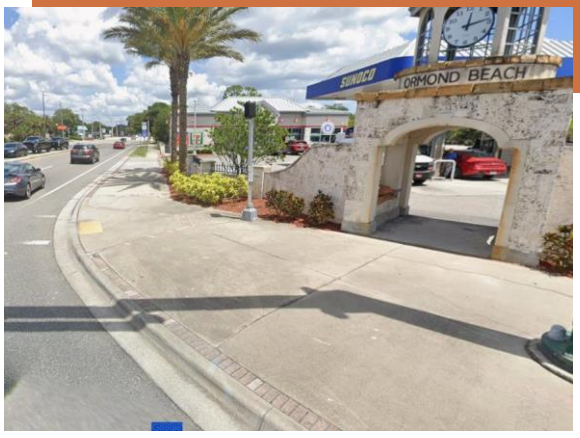
Where **criteria** for maximum cross slope **cannot be met**, process a **Design Variation** and provide the **minimum attainable** cross slope.

When following the **profile grade of the roadway**, curb ramp slopes should **not exceed 15 feet** in length.

24

FGB 8.G.2

LEVEL LANDINGS AT PEDESTRIAN DETECTORS



222.2.2 Curb Ramps and Blended Transitions - Provide a **landing** at **all pedestrian pushbutton** locations.

Two MUST conditions!

The **landing** *must* provide a **clear area of 30 inches by 48 inches** directly in front of the pedestrian pushbutton to allow persons using a **wheeled mobility device** to actuate the button while **remaining stationary**.

Horizontally **center** the **48-inch dimension** on the **pushbutton**.

25

25

FGB 8.B.1

222.2.2.1 Driveways - See ***FDM 214*** for **additional** information on pedestrian **accommodations** at driveways.

New and **reconstructed driveways** are to be in compliance with ***Standard Plans***, ***Index 330-001*** and ***522-003.***

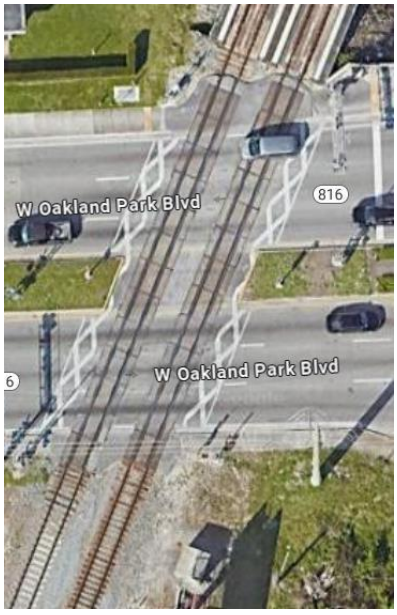
For **RRR** Projects, **unaltered driveways** that are not in compliance with ***Standard Plans*** or **ADA** requirements are **not required** to be **reconstructed**.

Don't forget about FDM 114!

26

26

FGB 8.G.6



222.2.4 At-Grade Railroad Crossings - Provide an ADA **accessible route** for pedestrians at **railroad** crossings by **extending** proposed or existing sidewalks or shared use paths **through** the **rail crossing**.

The **surface** of the crossing **must be**:

- Firm, **stable** and slip resistant,
- **Level and flush** with the top of rail at the outer edges of the rails, and
- Area between the rails **aligns with the top of rail**.

27

27

222.2.7 Pedestrian Signals - See ***FDM*** ***232.6*** for information on pedestrian signals.

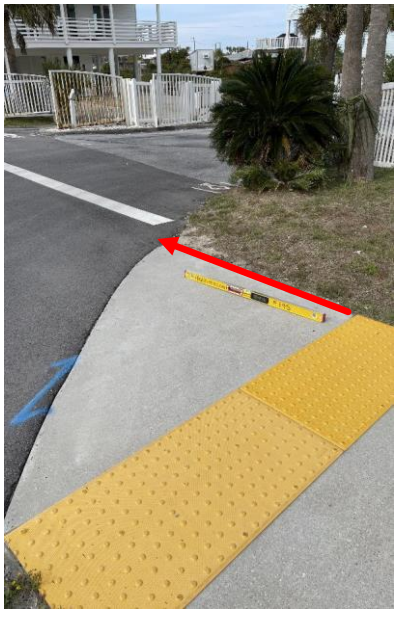
Pedestrian detector assemblies and pedestrian control signals are detailed in the ***Standard Plans***, ***Indexes 653-001*** and ***665-001***.

Accessible Pedestrian Signals (APS) in FDM 232.6.1!

28

28

FGB 8.G.3

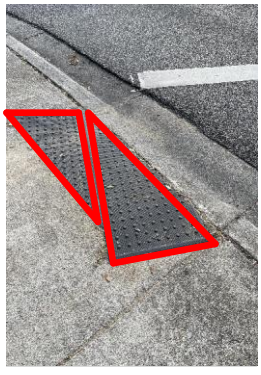


222.3 Detectable Warnings - Detectable warnings are a distinctive **surface pattern** of domes **detectable by cane or underfoot** that **alert** people with vision impairments of their approach to street crossings.

...in direction of ped travel!

Install detectable warnings to cover the **full width** of the walking surface and **2 feet deep**.

DWS is not an alignment indicator!



29

29

FDM 114
RESURFACING, RESTORATION, AND REHABILITATION (RRR)

114.1 General - Resurfacing, restoration, and rehabilitation (RRR) work is defined as work undertaken to **extend the service life** of an existing highway and enhance highway safety for all modes of travel.

This includes the **placement** of additional **surface materials** and **other work** necessary to return an existing roadway to a condition of structural and functional **adequacy**.

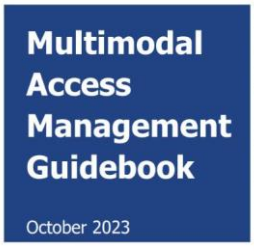
30

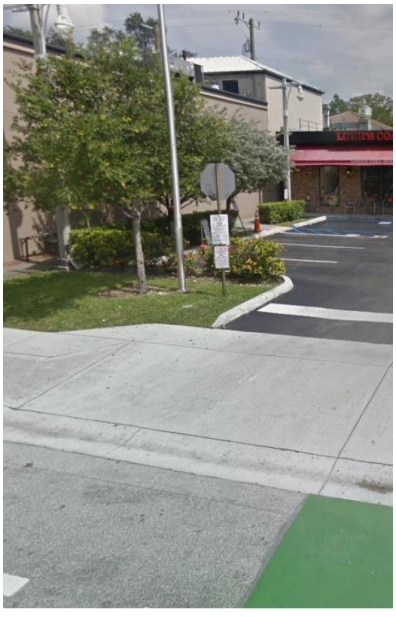
30

FDM 214
DRIVEWAYS

214.1 General - This chapter provides **driveway design criteria** and **requirements** for **connections** to the State Highway System.

The ***FDOT Multimodal Access Management Guidebook*** provides **further guidance** and information on **driveways** and **medians**.



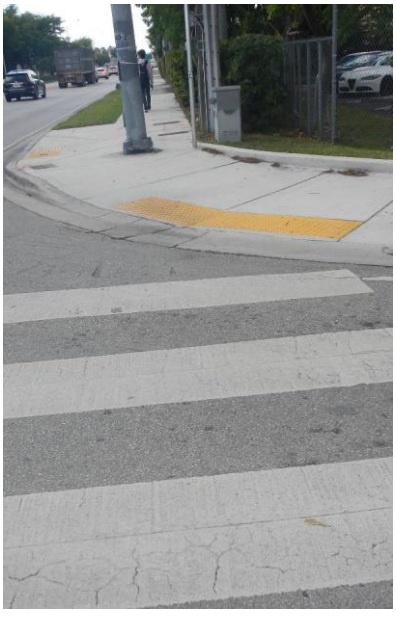


31

31

FDM 215
ROADSIDE SAFETY

215.2.4 Lateral Offset - At times, it **may be necessary** to **place poles** (e.g., signal, light, sign) **within** the **sidewalk**. Refer to ***FDM 222.2*** for **minimum unobstructed** sidewalk **width requirements**.



32

32

FGB 11.E, F, & G

FDM 240
TRANSPORTATION MANAGEMENT PLAN

240.1 General - A Transportation Management Plan (**TMP**) is **required** for minimizing activity-related traffic **delay** and **crashes**.

The **goal** of a TMP is to **reduce congestion** during construction by **managing** traffic through the project area.

33

33

ADDITIONAL REFERENCES

240.1.1 TMP Reference Documents - **Comply** with the following **documents** for the development of TMPs:

(1) ***Manual on Uniform Traffic Control Devices for Streets and Highways,*** (***MUTCD***), ***Part 6***

(2) ***Policy on Geometric Design of Highways and Streets, AASHTO***

(3) ***Roadside Design Guide, AASHTO, Chapter 9***

(4) ***Standard Plans***, ***102 Series*** and ***711-002***

(5) ***FDOT Standard Specifications for Road and Bridge Construction*** (***Standard Specifications***)

(6) ***Basis of Estimates Manual***

(7) ***FDOT Accessing Transit Handbook, Chapter 4.6.***

(8) ***AASHTO Guide for the Development of Bicycle Facilities, 4th Edition, Chapter 7***

(9) ***Traffic Analysis Handbook***

34

34

240.1.2 TMP Components - A TMP consists of **strategies** to **manage** the work zone **impacts** of a project.

The **scope**, **content**, and degree of **detail** will vary based upon the **expected** work zone **impacts** of the project.

A TMP may include the following three **components**:

- Temporary Traffic **Control Plan**
- Transportation **Operations** Plan
- Public **Information** Plan

35

35

TEMPORARY TRAFFIC CONTROL PLAN

240.2 Temporary Traffic Control Plan - A Temporary Traffic Control Plan (TTCP) is **required** for **all work zones** within, or adjacent to highways, roads and streets as specified by ***Florida Statute*** and ***Federal Regulations***.

337.11(14) F.S. 23 CFR 630.1008

Typical **applications** of some **commonly** encountered situations are **shown** in the ***MUTCD***.

Some of these typical applications have been **modified** by the ***Standard Plans***, ***102 Series***.

Most work zones will **require further development** of the typical applications to address **project-specific** conditions.

EOR's responsibility!! 'Engineered' Solutions!

36

36

240.2.1.9 Bicycle, Pedestrian, and Transit Accommodation - Include **accommodations** for the following road **users** of all ages and abilities in the **TTCP**:

- Pedestrians
- Bicyclists
- Transit users

Provide **accommodations** on Florida National Scenic Trail and SUN Trail.

ADA requirements **apply** during **TTC**.

Include provisions at the **same** level of **accessibility** as the existing facility or **greater**.

See ***Standard Specifications***, ***Section 102*** and ***FDM* 222**, ***225*** for more information.

37

37

LOCATION OF TEMPORARY ROUTES FOR PEDESTRIANS AND BICYCLISTS

240.2.1.9 – **Incorporate** the following requirements into the **TTCP**:

Location of Temporary Routes for Pedestrians and Bicyclists:

(1) **Do not lead** pedestrians or bicyclists into direct **conflicts** with **vehicles**, **equipment**, or **operations**.

(2) Keep **detour lengths** and **diversions** as **short** as practicable.

(a) Detours **should not create** more than a **30% increase** in the **length** of the non-motorized facility, or not longer than **0.5 miles** for bicyclists or **0.25 miles** for pedestrians.

(b) To **minimize** the detour **length**, **consider** providing a temporary **mid-block crosswalk instead** of detouring pedestrians to the **nearest** signalized **intersection** or existing crosswalk.

38

38

LOCATION OF TEMPORARY ROUTES FOR PEDESTRIANS AND BICYCLISTS

240.2.1.9 – **Incorporate** the following requirements into the **TTCP**:

Location of Temporary Routes for Pedestrians and Bicyclists:

(3) The order of **preference for routing**:

(a) Maintain facility on the **same side** of the road.

(b) Diversion to the **opposite side** of the road. **Return** to **original** side of road as soon as possible.

(c) Detour to **another road**. **Return** to **original** road and side of road as soon as possible.

(d) Where the above options are not feasible or are **cost prohibitive**, **consider** the use of a vehicle **transport service**.

Show **accessible pickup** and **drop off** locations in the TTCP. **Coordinate** with District Design **Engineer** and District Construction **Engineer**.

39

39

240.2.1.9 – **Transit Users:**

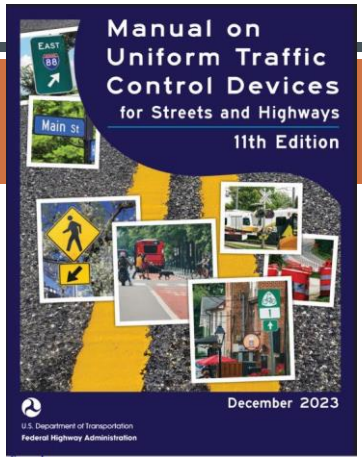
Ensure **provision** is made to allow **transit users** to **access** transit stops, and to board and depart transit vehicles **safely**.

Temporary transit access *must* **include** provisions at the **same level** of **accessibility** as the existing facility or **greater**.

See FDOT's ***Accessing Transit Handbook*** for **guidance** on **transit stops**.

40

40



TTC – TEMPORARY TRAFFIC CONTROL DEVICES

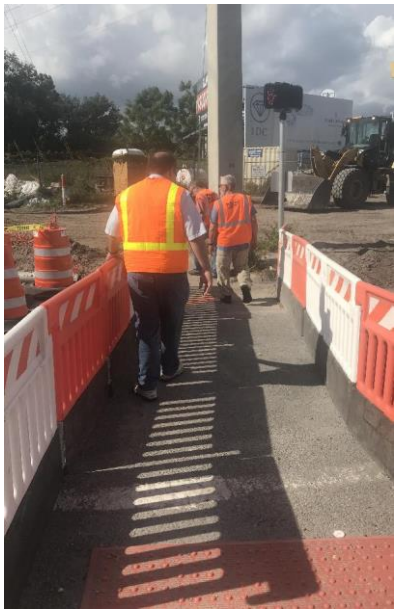
240.2.2 Temporary Traffic Control Devices - The ***MUTCD*** contains detailed **instructions** on the use of traffic control **devices**.

Special design **considerations** applicable to **Florida** are discussed in the following sections.

Temporary traffic control **devices** should **not be placed** in locations where they will **block** or **interfere** with transit **stops**, **pedestrians**, or **bicycle** traffic.

41

41



240.2.2.5 Pedestrian Longitudinal Channelizing Devices - Include **accommodations** for the following **road users** of all ages and abilities in the **TTCP**:

Specify the use of pedestrian Longitudinal Channelizing Devices (**LCDs**) for the following situations: See MUTCD 6F

- At **each closed** pedestrian way **location**, for the **full width** of the pedestrian way
- In locations where a **drop-off hazard exists** (see Standard Plans, 102 Series)
- In locations where the active **work zone** is **within 2 feet** of the sidewalk or pedestrian walkway
- Along **both sides** of a **temporary** pedestrian way
  - o Pedestrian **LCDs** are **not required** on sides where an existing or temporary **barrier** delineates the temporary pedestrian way.

42

42

240.3 Transportation Operations Plan - The Transportation **Operations** Plan (TOP) contains **strategies** to **improve** mobility, work zone **access**, and **safety**.

240.4 Public Information Plan - The Public **Information** Plan (PIP) describes how project **information** will be **communicated** to affected parties, **traveling public**, and project **stakeholders** prior to and during construction.

240.5 Temporary Traffic Control Training - The Department has prescribed **temporary traffic control training** requirements outlined in the Temporary Traffic Control (Maintenance of Traffic) Training Handbook.

43

43

SAFETY & ACCESSIBILITY!

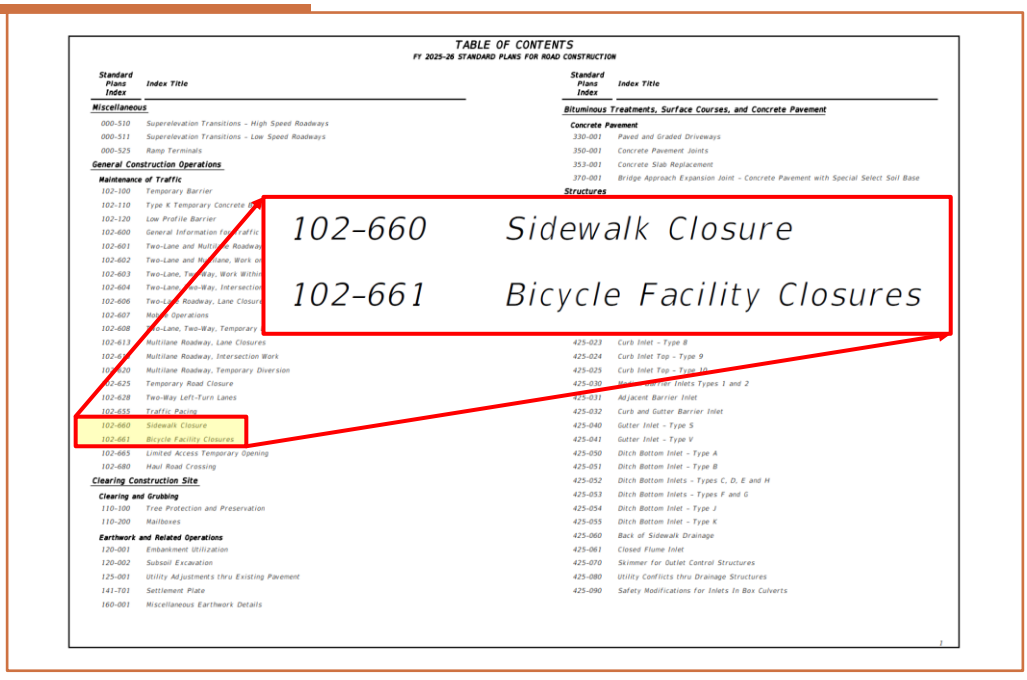
- **Brief History of the ADA**
- **FDOT Design Manual (FDM)**
- **FDOT Standard Plans**
- **FDOT Standard Specifications**
- **FDOT Maintenance Rating Program Handbook (MRP)**

FDOT

44

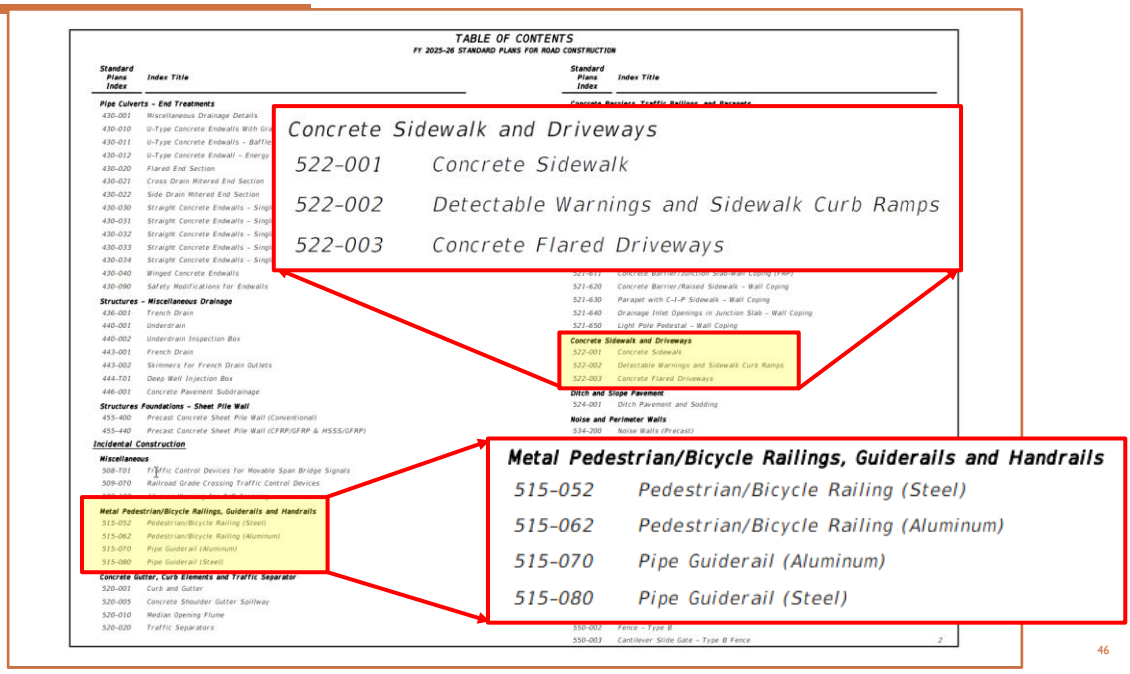
44

SPEC – TABLE OF CONTENTS



45

SPEC – TABLE OF CONTENTS



46

SPEC – TABLE OF CONTENTS

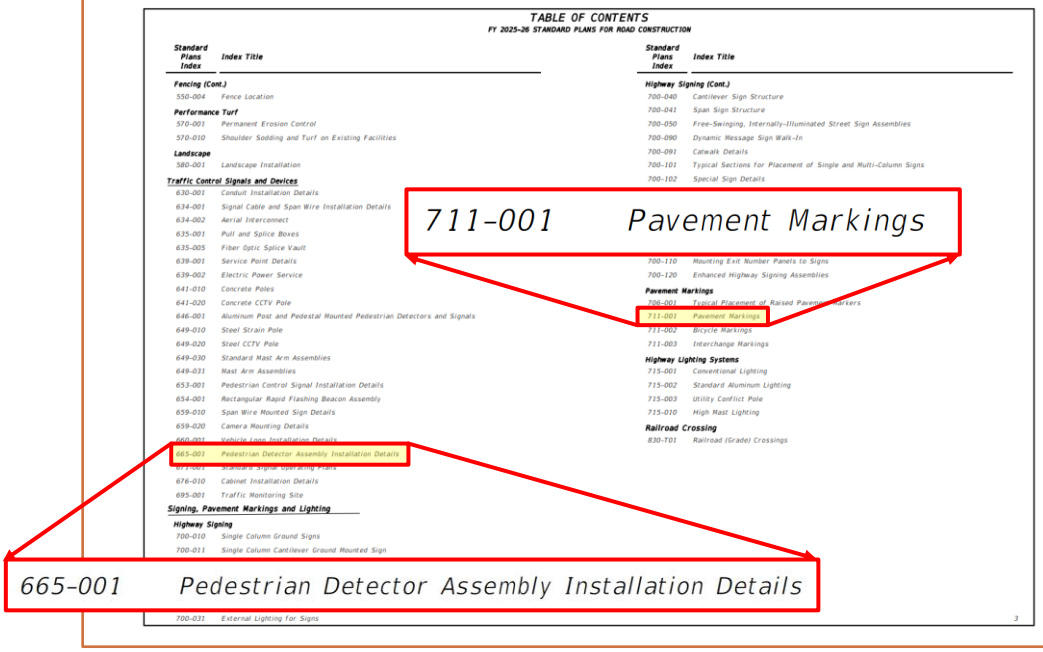


TABLE OF CONTENTS
FY 2025-26 STANDARD PLANS FOR ROAD CONSTRUCTION

Standard Plans Index	Index Title
Fencing (Cont.)	
550-004	Fence Location
Performance Turf	
570-001	Permanent Erosion Control
570-010	Shoulder Sodding and Turf on Existing Facilities
Landscape	
580-001	Landscape Installation
Traffic Control Signals and Devices	
630-001	Conduit Installation Details
634-001	Signal Cable and Span Wire Installation Details
634-002	Aerial Interconnect
635-001	Pull and Splice Boxes
635-005	Fiber Optic Splice Vault
639-001	Service Point Details
639-002	Electric Power Service
641-010	Concrete Poles
641-020	Concrete CCTV Pole
646-001	Aluminum Post and Pedestal Mounted Pedestrian Detectors and Signals
649-010	Steel Strain Pole
649-020	Steel CCTV Pole
649-030	Standard Mast Arm Assemblies
649-031	Mast Arm Assemblies
653-001	Pedestrian Control Signal Installation Details
654-001	Rectangular Rapid Flashing Beacon Assembly
659-010	Span Wire Mounted Sign Details
659-020	Camera Mounting Details
660-001	Vehicle Loop Installation Details
665-001	Pedestrian Detector Assembly Installation Details
671-001	Standard Signal Operating Plans
676-010	Cabinet Installation Details
695-001	Traffic Monitoring Site
Signing, Pavement Markings and Lighting	
Highway Signing	
700-010	Single Column Ground Signs
700-011	Single Column Cantilever Ground Mounted Sign
700-031	External Lighting for Signs

Standard Plans Index	Index Title
Highway Signing (Cont.)	
700-040	Cantilever Sign Structure
700-041	Span Sign Structure
700-050	Free-Swinging, Internally-Illuminated Street Sign Assemblies
700-090	Dynamic Message Sign Walk-In
700-091	Catwalk Details
700-101	Typical Sections for Placement of Single and Multi-Column Signs
700-102	Special Sign Details
700-110	Mounting Exit Number Panels to Signs
700-120	Enhanced Highway Signing Assemblies
Pavement Markings	
706-001	Typical Placement of Raised Pavement Markers
711-001	Pavement Markings
711-002	Bicycle Markings
711-003	Interchange Markings
Highway Lighting Systems	
715-001	Conventional Lighting
715-002	Standard Aluminum Lighting
715-003	Utility Conflict Pole
715-010	High Mast Lighting
Railroad Crossing	
830-T01	Railroad (Grade) Crossings

711-001 Pavement Markings

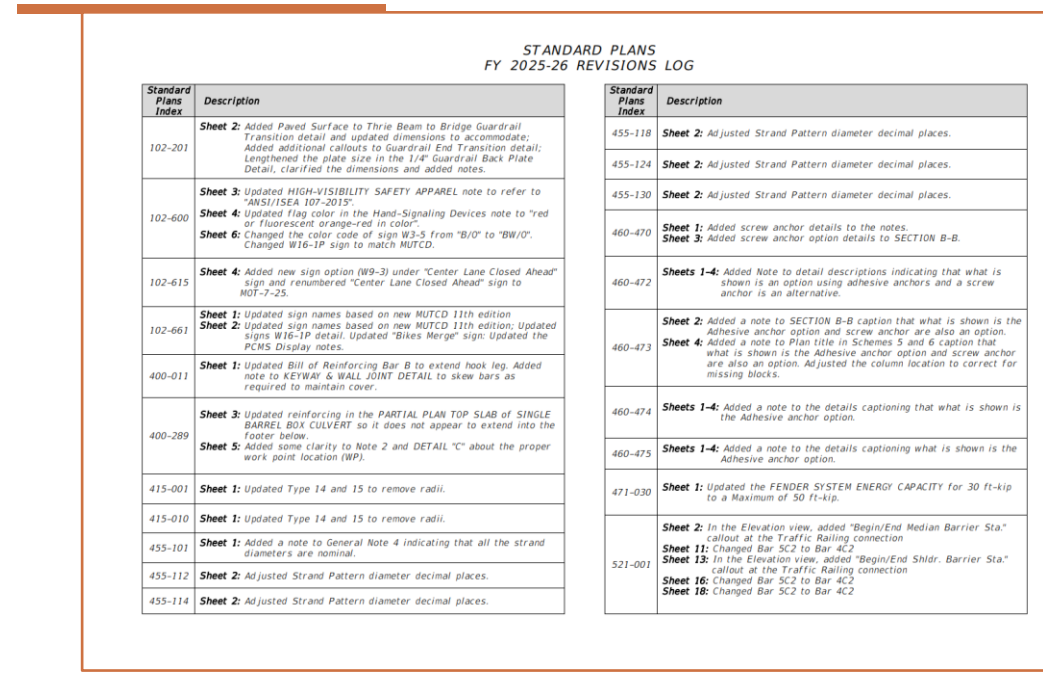
665-001 Pedestrian Detector Assembly Installation Details

3

47

47

SPEC – REVISION LOG



STANDARD PLANS
FY 2025-26 REVISIONS LOG

Standard Plans Index	Description
102-201	**Sheet 2:** Added Paved Surface to Thrie Beam to Bridge Guardrail Transition detail and updated dimensions to accommodate; Added additional callouts to Guardrail End Transition detail; Lengthened the plate size in the 1/4" Guardrail Back Plate Detail, clarified the dimensions and added notes.
102-600	**Sheet 3:** Updated HIGH-VISIBILITY SAFETY APPAREL note to refer to "ANSI/ISEA 107-2015". **Sheet 4:** Updated flag color in the Hand-Signaling Devices note to "red or fluorescent orange-red in color". **Sheet 6:** Changed the color code of sign W3-5 from "B/O" to "BW/O". Changed W16-1P sign to match MUTCD.
102-615	**Sheet 4:** Added new sign option (W9-3) under "Center Lane Closed Ahead" sign and renumbered "Center Lane Closed Ahead" sign to M0T-7-25.
102-661	**Sheet 1:** Updated sign names based on new MUTCD 11th edition **Sheet 2:** Updated sign names based on new MUTCD 11th edition; Updated signs W16-1P detail. Updated "Bikes Merge" sign; Updated the PCMS Display notes.
400-011	**Sheet 1:** Updated Bill of Reinforcing Bar B to extend hook leg. Added note to KEYWAY & WALL JOINT DETAIL to skew bars as required to maintain cover.
400-289	**Sheet 3:** Updated reinforcing in the PARTIAL PLAN TOP SLAB of SINGLE BARREL BOX CULVERT so it does not appear to extend into the footer below. **Sheet 5:** Added some clarity to Note 2 and DETAIL "C" about the proper work point location (WP).
415-001	**Sheet 1:** Updated Type 14 and 15 to remove radii.
415-010	**Sheet 1:** Updated Type 14 and 15 to remove radii.
455-101	**Sheet 1:** Added a note to General Note 4 indicating that all the strand diameters are nominal.
455-112	**Sheet 2:** Adjusted Strand Pattern diameter decimal places.
455-114	**Sheet 2:** Adjusted Strand Pattern diameter decimal places.

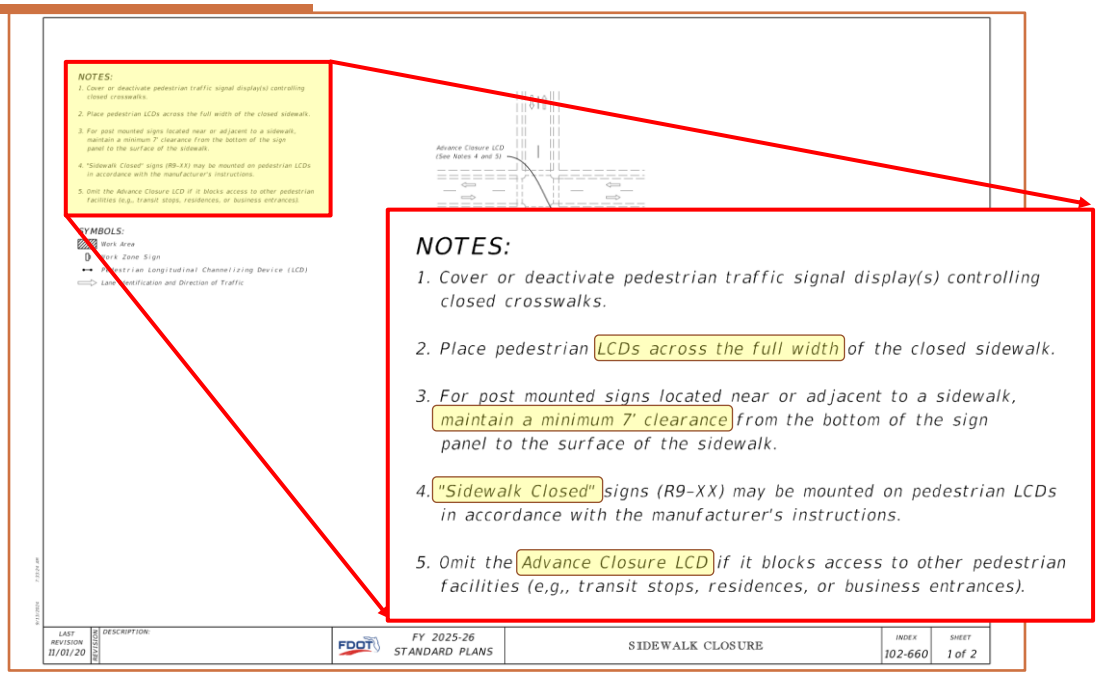
Standard Plans Index	Description
455-118	**Sheet 2:** Adjusted Strand Pattern diameter decimal places.
455-124	**Sheet 2:** Adjusted Strand Pattern diameter decimal places.
455-130	**Sheet 2:** Adjusted Strand Pattern diameter decimal places.
460-470	**Sheet 1:** Added screw anchor details to the notes. **Sheet 3:** Added screw anchor option details to SECTION B-B.
460-472	**Sheets 1-4:** Added Note to detail descriptions indicating that what is shown is an option using adhesive anchors and a screw anchor is an alternative.
460-473	**Sheet 2:** Added a note to SECTION B-B caption that what is shown is the Adhesive anchor option and screw anchor are also an option. **Sheet 4:** Added a note to Plan title in Schemes 5 and 6 caption that what is shown is the Adhesive anchor option and screw anchor are also an option. Adjusted the column location to correct for missing blocks.
460-474	**Sheets 1-4:** Added a note to the details captioning that what is shown is the Adhesive anchor option.
460-475	**Sheets 1-4:** Added a note to the details captioning what is shown is the Adhesive anchor option.
471-030	**Sheet 1:** Updated the FENDER SYSTEM ENERGY CAPACITY for 30 ft-kip to a Maximum of 50 ft-kip.
521-001	**Sheet 2:** In the Elevation view, added "Begin/End Median Barrier Sta." callout at the Traffic Railing connection **Sheet 11:** Changed Bar 5C2 to Bar 4C2 **Sheet 13:** In the Elevation view, added "Begin/End Shldr. Barrier Sta." callout at the Traffic Railing connection **Sheet 16:** Changed Bar 5C2 to Bar 4C2 **Sheet 18:** Changed Bar 5C2 to Bar 4C2

1.

48

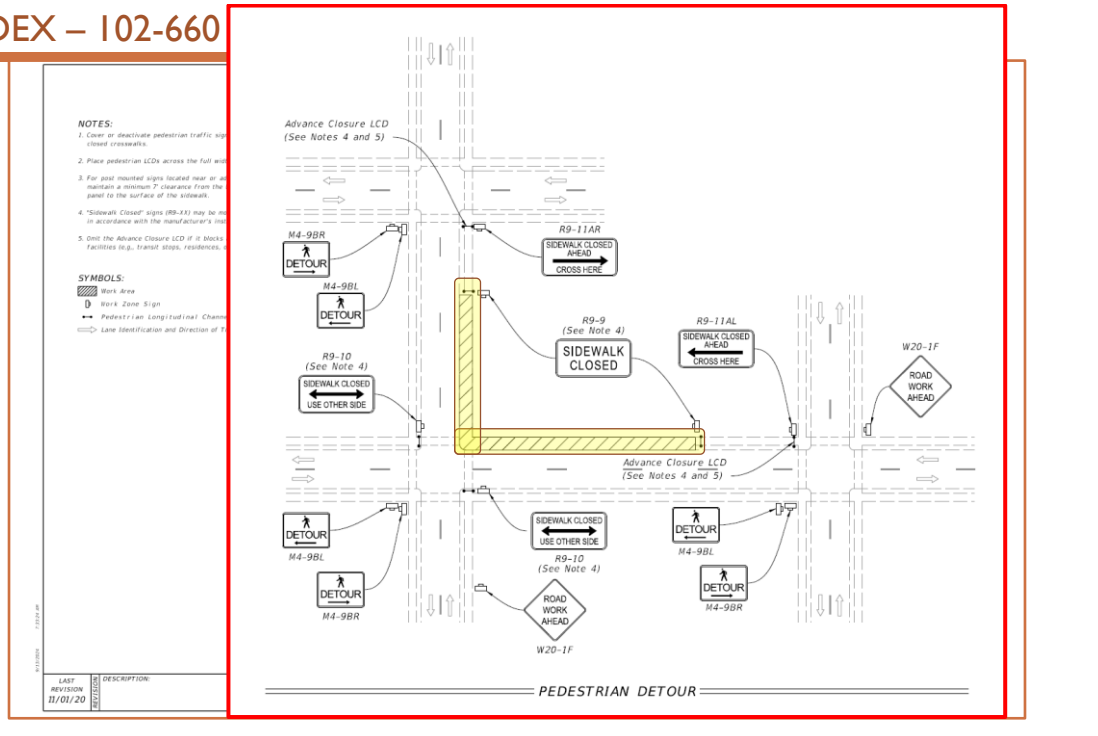
48

INDEX – 102-660 SHEET 1 OF 2



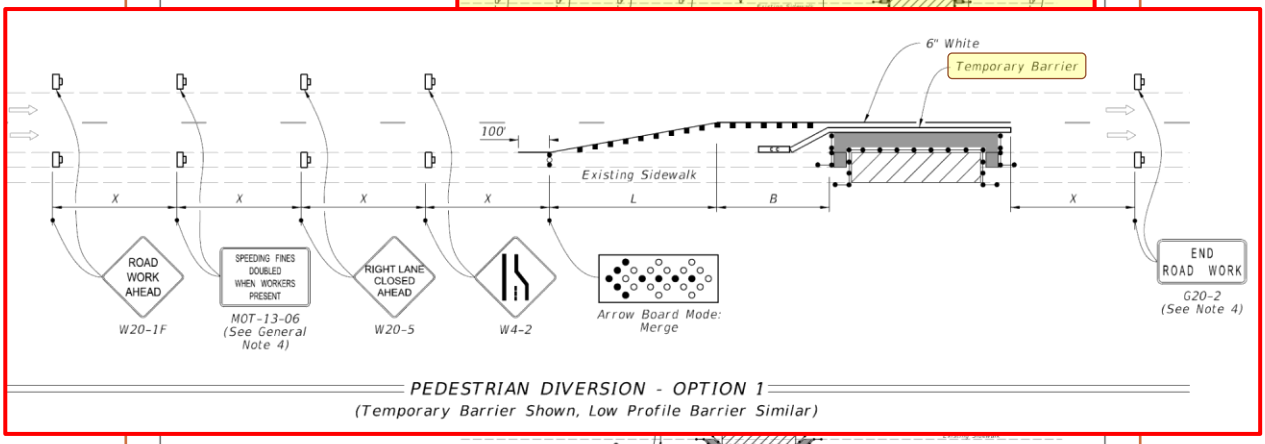
49

INDEX – 102-660



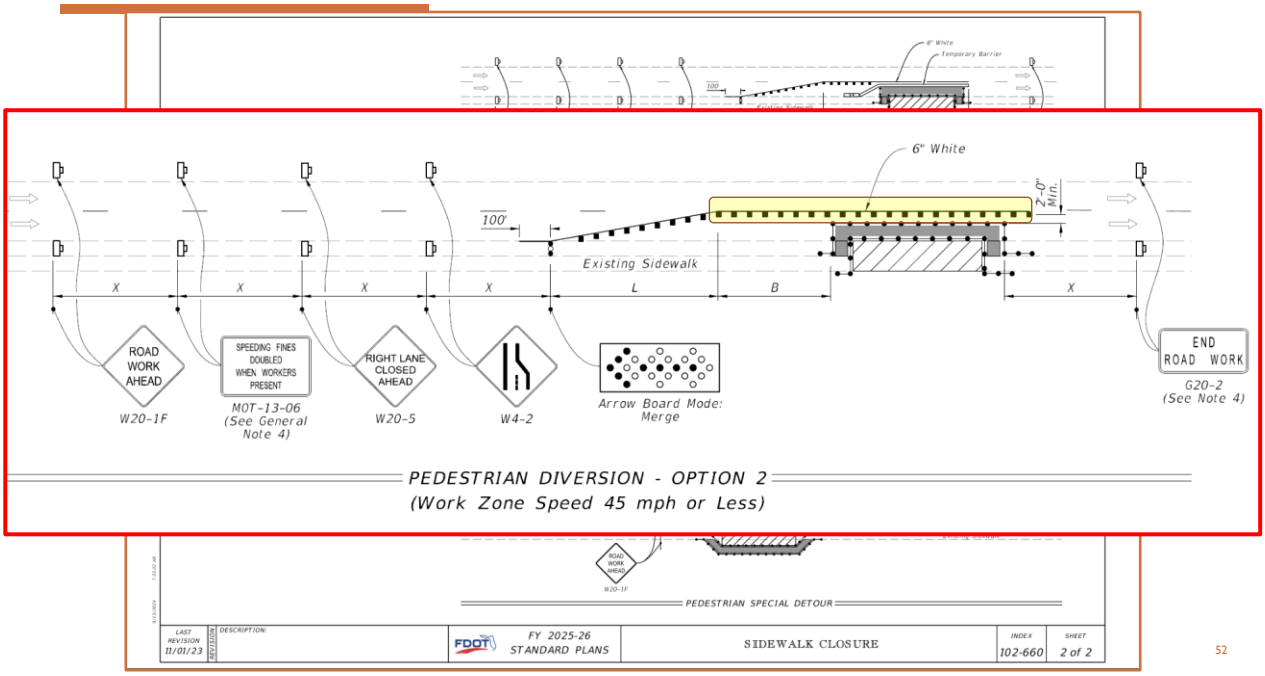
50

INDEX – 102-660 SHEET 2 OF 2



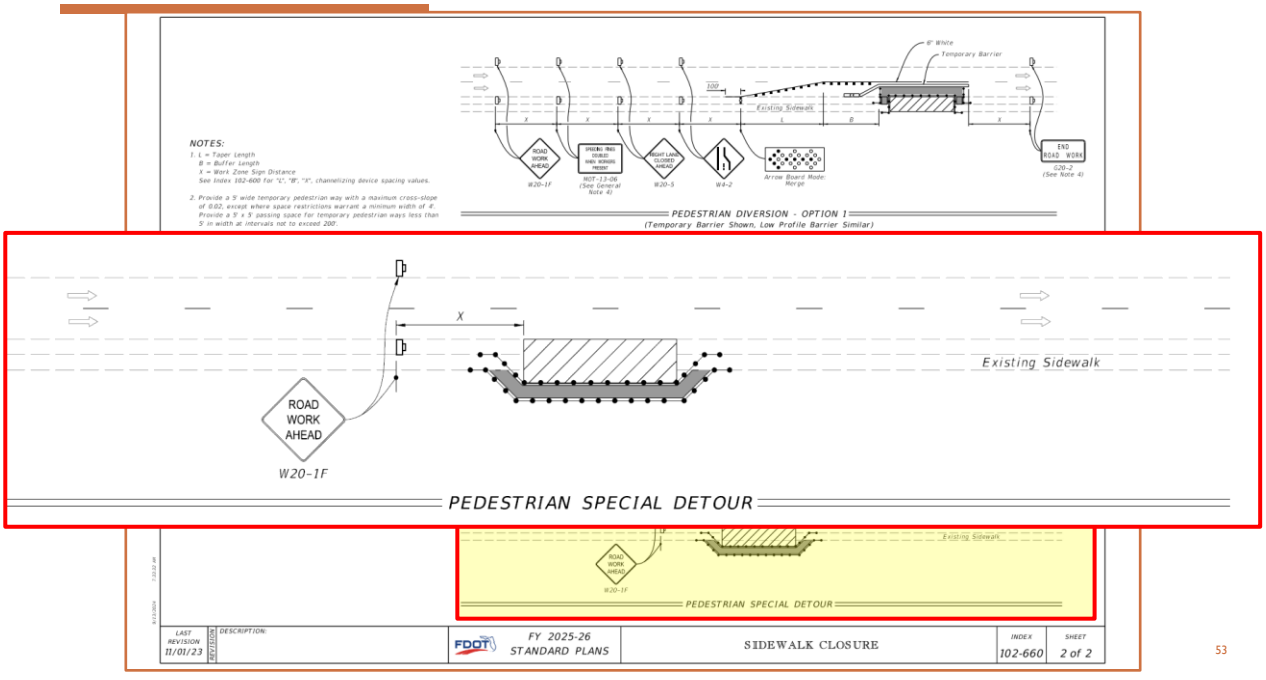
51

INDEX – 102-660 SHEET 2 OF 2



52

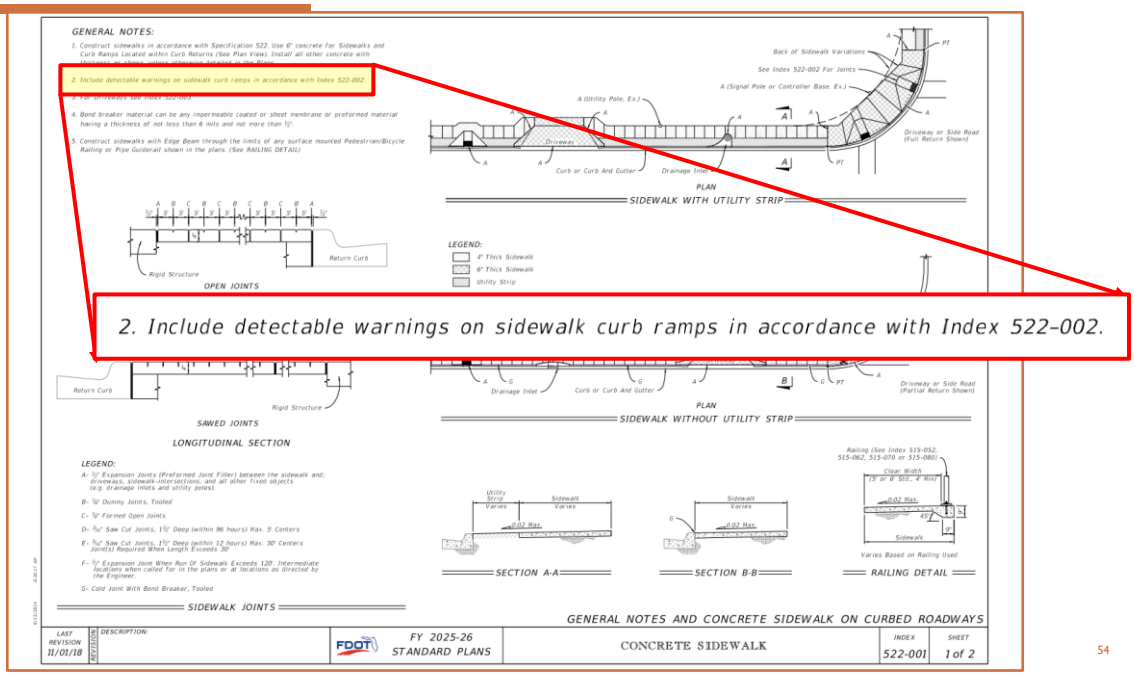
INDEX – 102-660 SHEET 2 OF 2



53

53

INDEX – 522-001 SHEET 1 OF 2



54

54

INDEX

GENERAL NOTES:

1. Cross Slopes and Grades:

   A. Sidewalk, ramp, and landing slopes (i.e. 0.02, 0.05, and 1:12) shown in this Index are maximums. With approval of the Engineer, provide the minimum feasible slope where the requirements cannot be met.

   B. Landings must have cross-slopes less than or equal to 0.02 in any direction.

   C. Maintain a single longitudinal slope along each side of the curb ramp. Ramp slopes are not required to exceed 15 feet in length.

   D. Joints permitted at the location of Slope Breaks. Otherwise locate joints in accordance with Index 522-001. No joints are permitted within the ramp portion of the Curb Ramp.

2. Curb, Curb and Gutter and/or Sidewalk:

   A. Refer to Index 522-001 for concrete thickness and sidewalk details.

   B. Remove any existing curb, curb and gutter, or sidewalk to the nearest joint beyond the curb transition or to the extent that no remaining section is less than 5 feet long.

   C. Width of Curb Ramp is 4'-0" minimum. Match sidewalk or Shared Use Path width as shown in the Plans.

3. Curb Ramp Alpha-Identification:

   A. Sidewalk curb ramp alpha-identifications (e.g. CR-A) are provided for reference purposes in the Plans.

   B. Alpha-identifications CR-I and CR-J are intentionally omitted.

4. Detectable Warnings:

   A. Install detectable warnings in accordance with Specification 527.

   B. Place detectable warnings across the full width of the ramp or landing, to a minimum depth of 2 feet measured perpendicular to the curb line and no greater than 5 feet from the back of the curb or edge of pavement.

   C. If detectable warnings are shown in the Plans on slopes greater than 5%, align the truncated domes with the centerline of the ramp; otherwise, the truncated domes are not required to be aligned.

RAMPS | INDEX 522-002 | SHEET 1 of 7

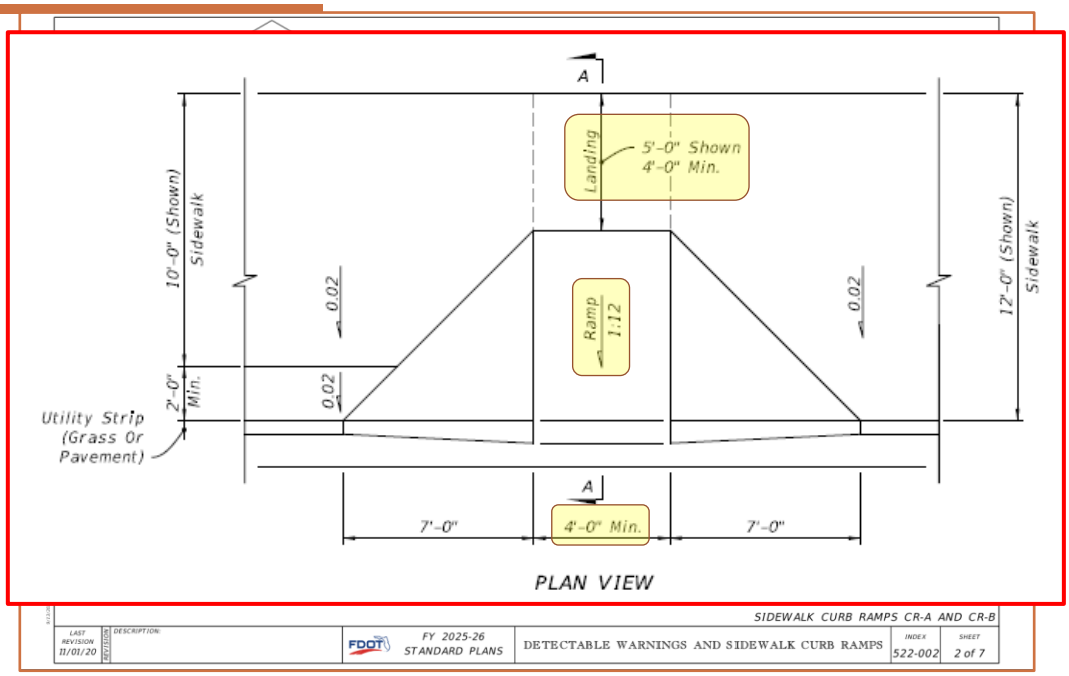
55

55

56

56

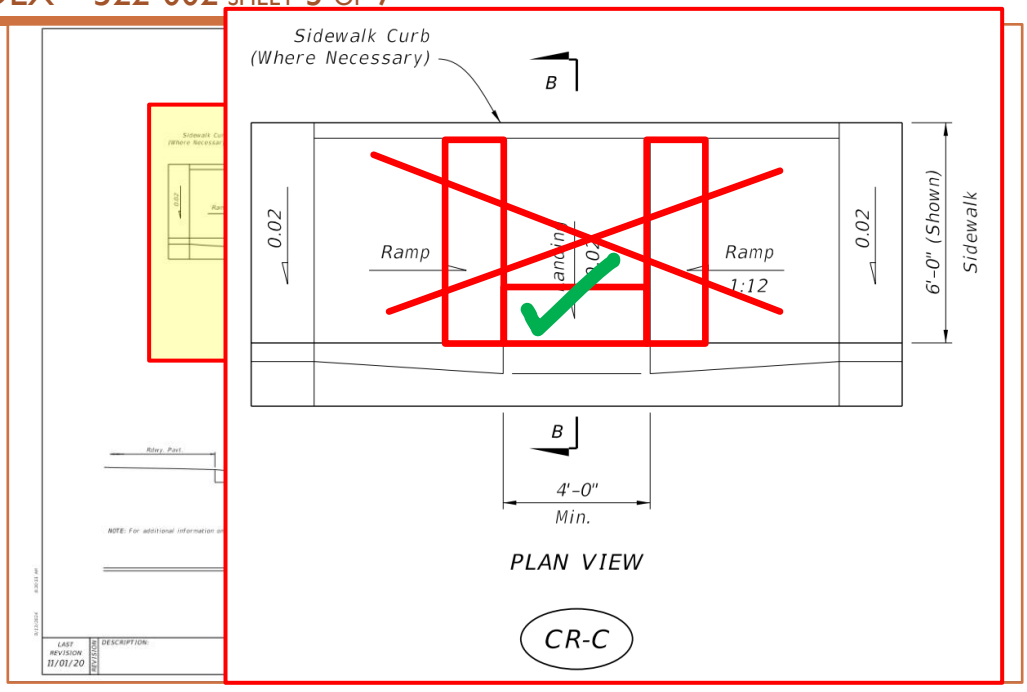
INDEX – 522-002 SHEET 2 OF 7



57

57

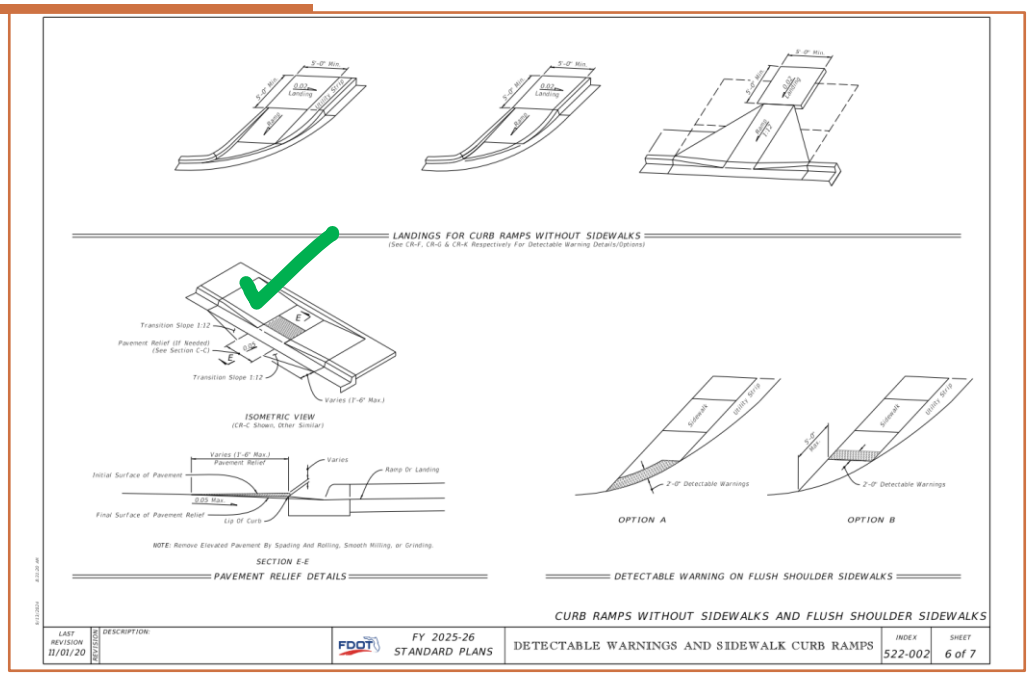
INDEX – 522-002 SHEET 3 OF 7



58

58

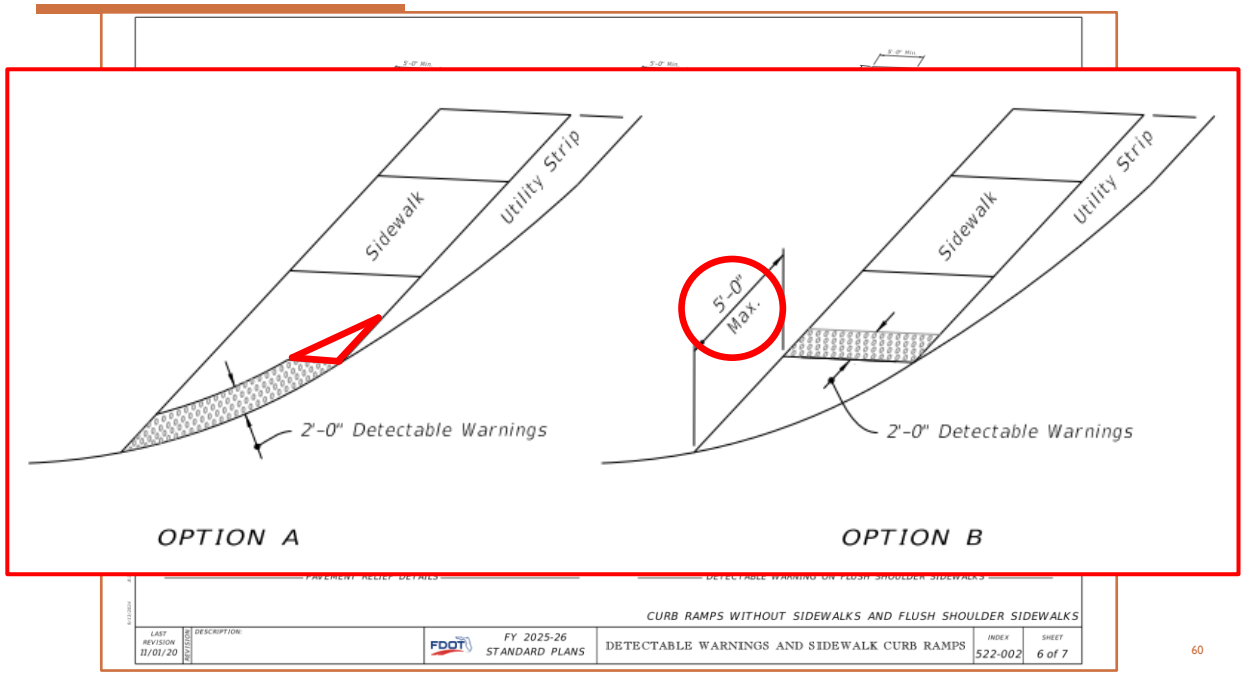
INDEX – 522-002 SHEET 6 OF 7



59

59

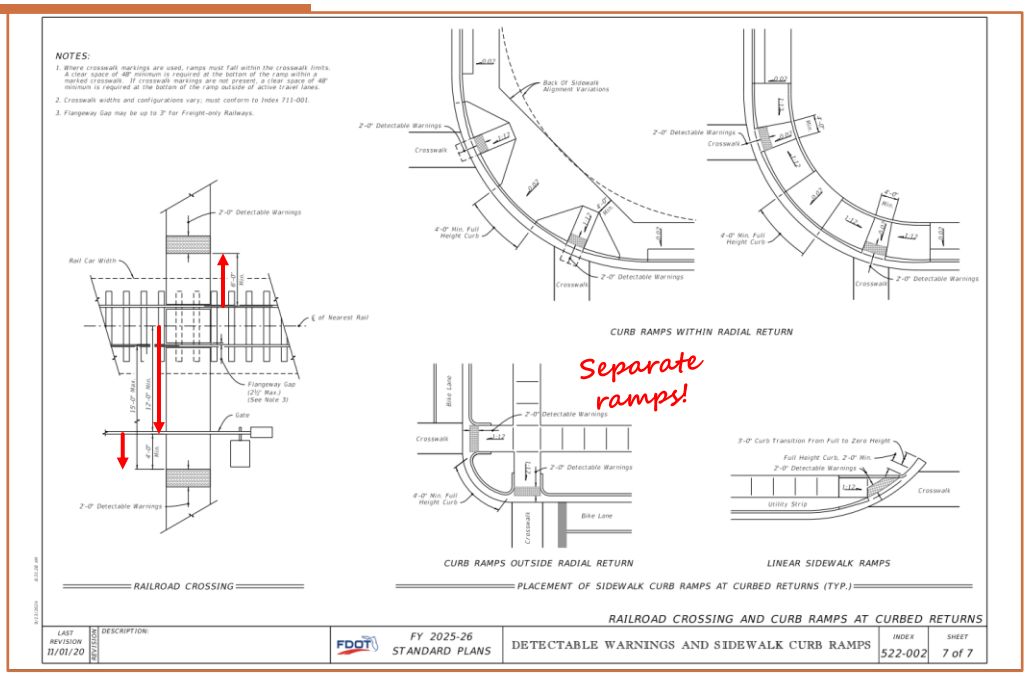
INDEX – 522-002 SHEET 6 OF 7



60

60

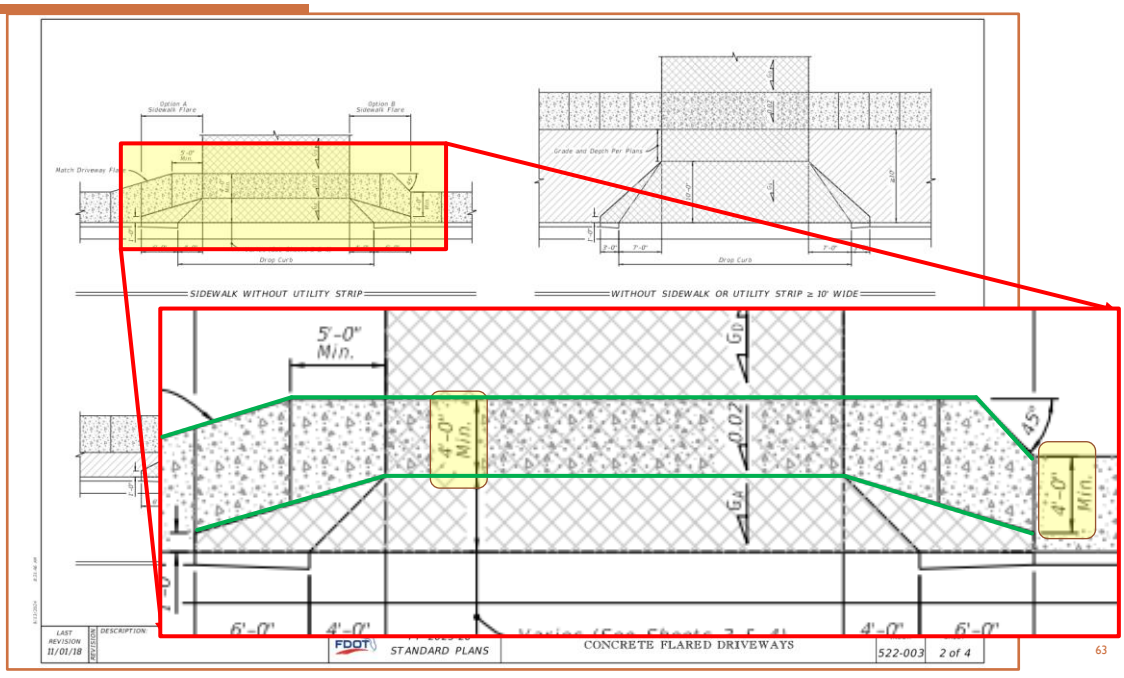
INDEX – 522-002 SHEET 7 OF 7



61

62

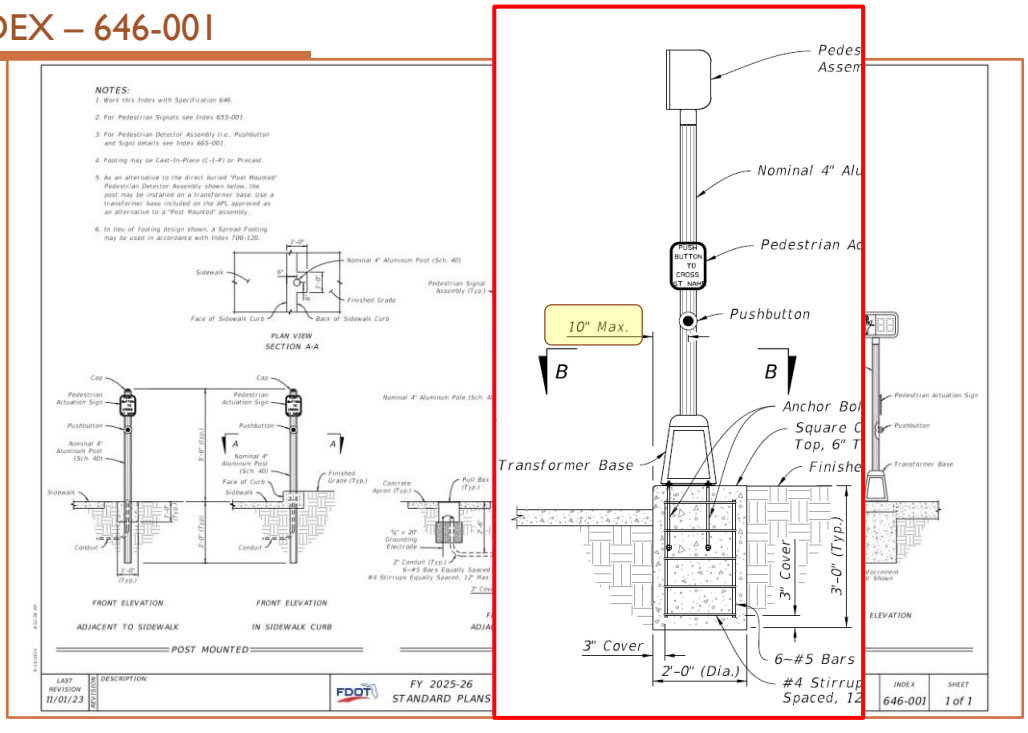
INDEX – 522-003 SHEET 2 OF 4



63

63

INDEX – 646-001



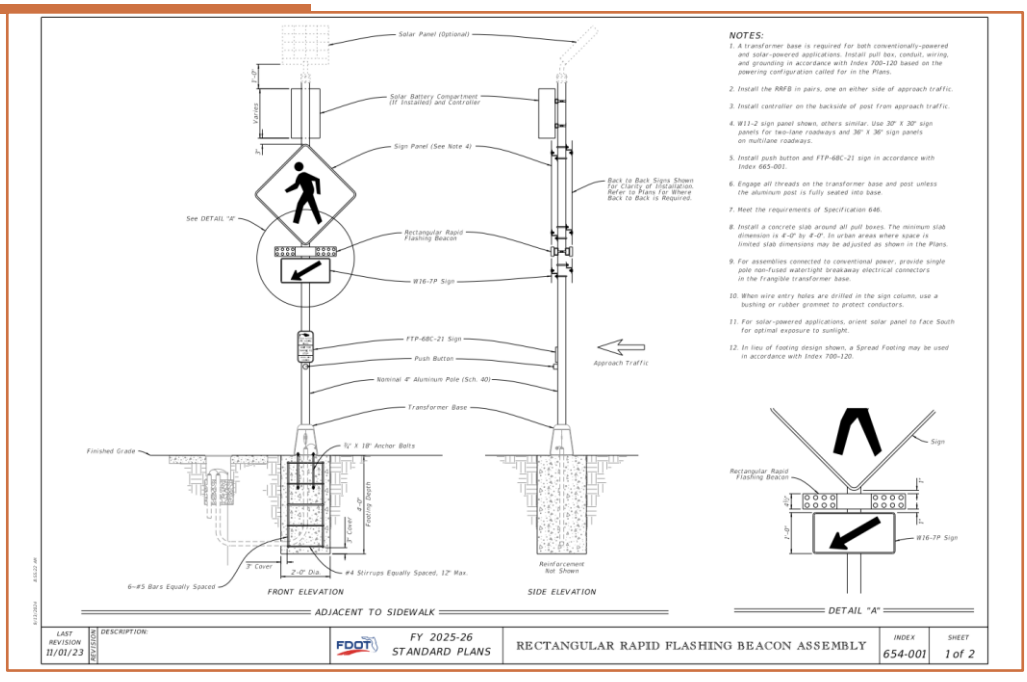
64

64

65

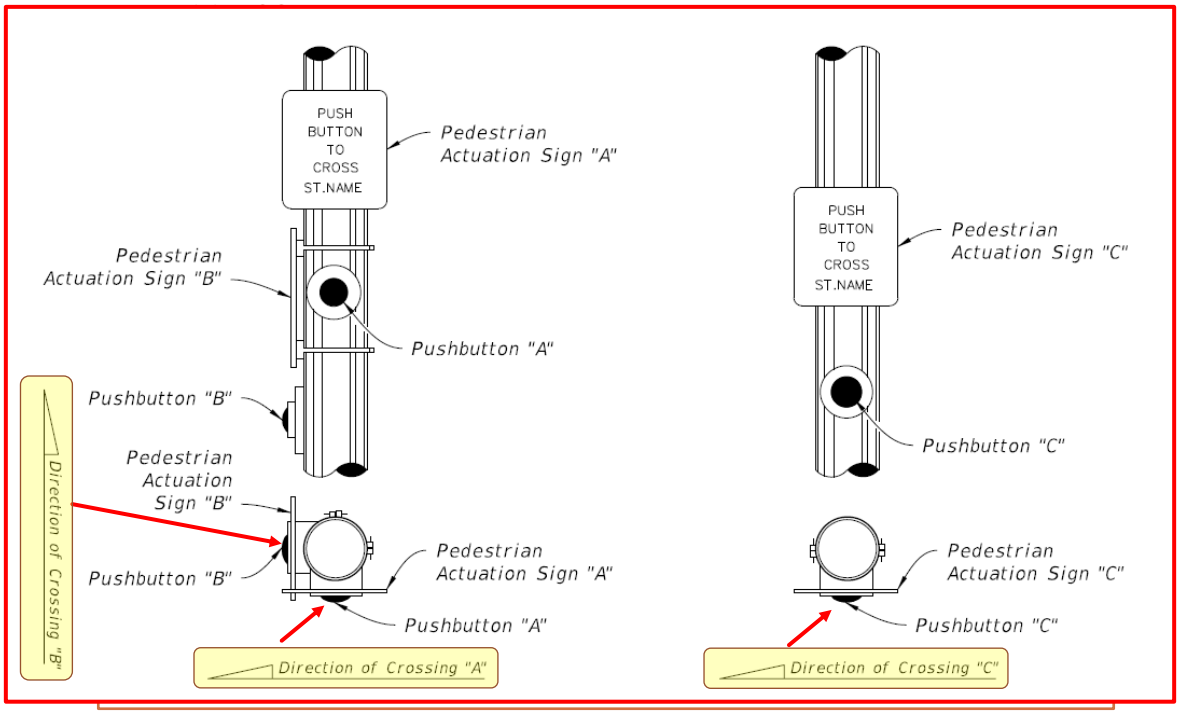
65

INDEX – 654-001 SHEET 1 OF 2



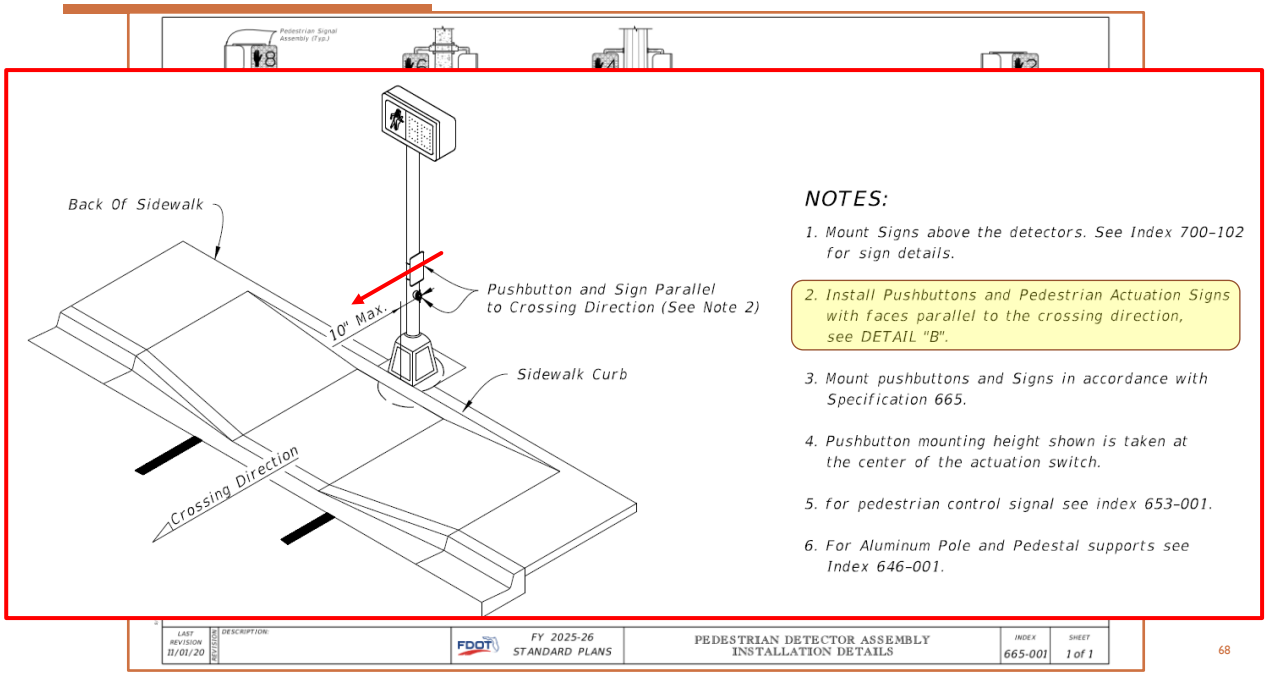
66

66



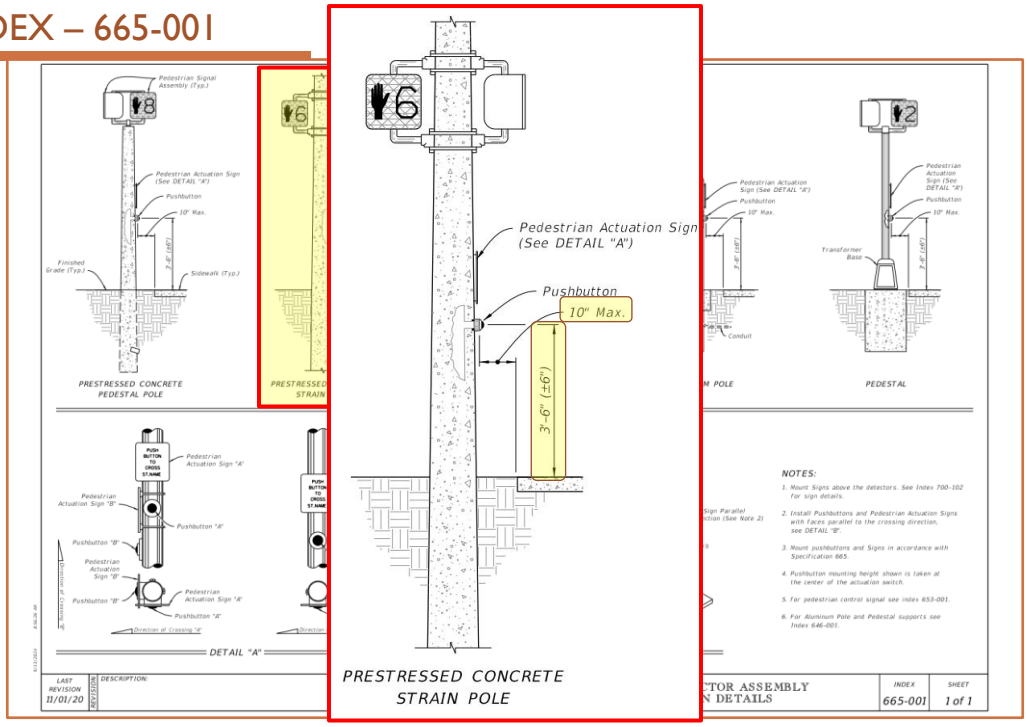
67

INDEX – 665-001



68

INDEX – 665-001



69

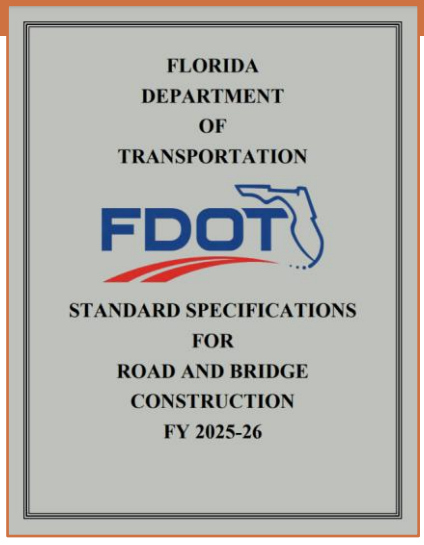
69

70

70

SAFETY & ACCESSIBILITY!

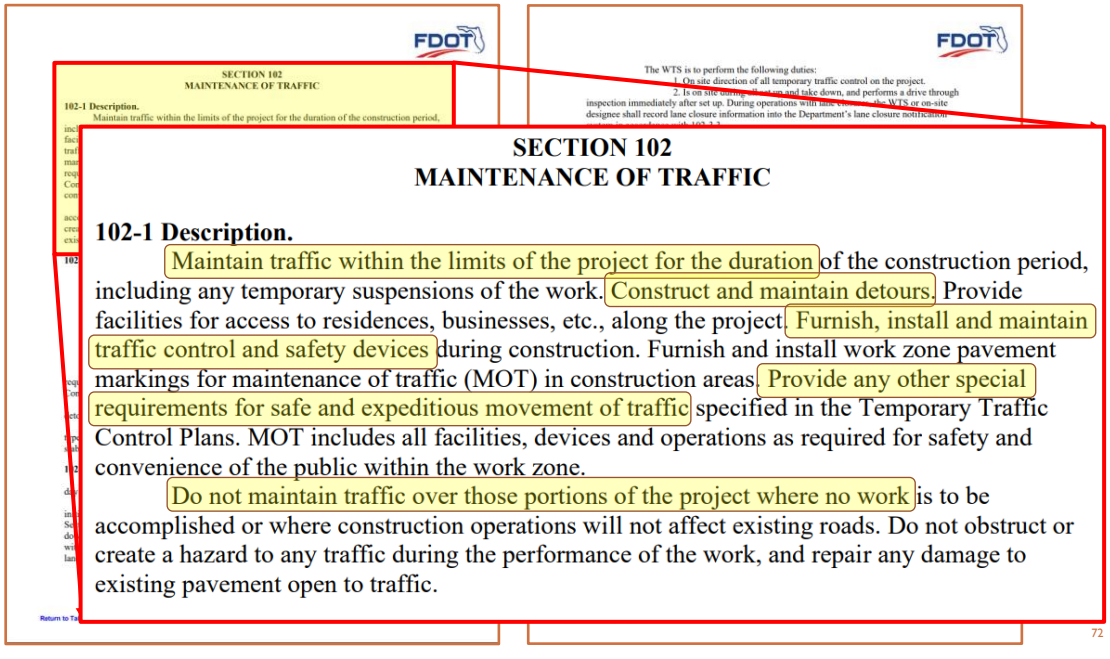
- Brief History of the ADA
- FDOT Design Manual (FDM)
- FDOT Standard Plans
- FDOT Standard Specifications
- FDOT Maintenance Rating Program Handbook (MRP)



71

71

SECTION 102 – MAINTENANCE OF TRAFFIC



SECTION 102
MAINTENANCE OF TRAFFIC

102-1 Description.

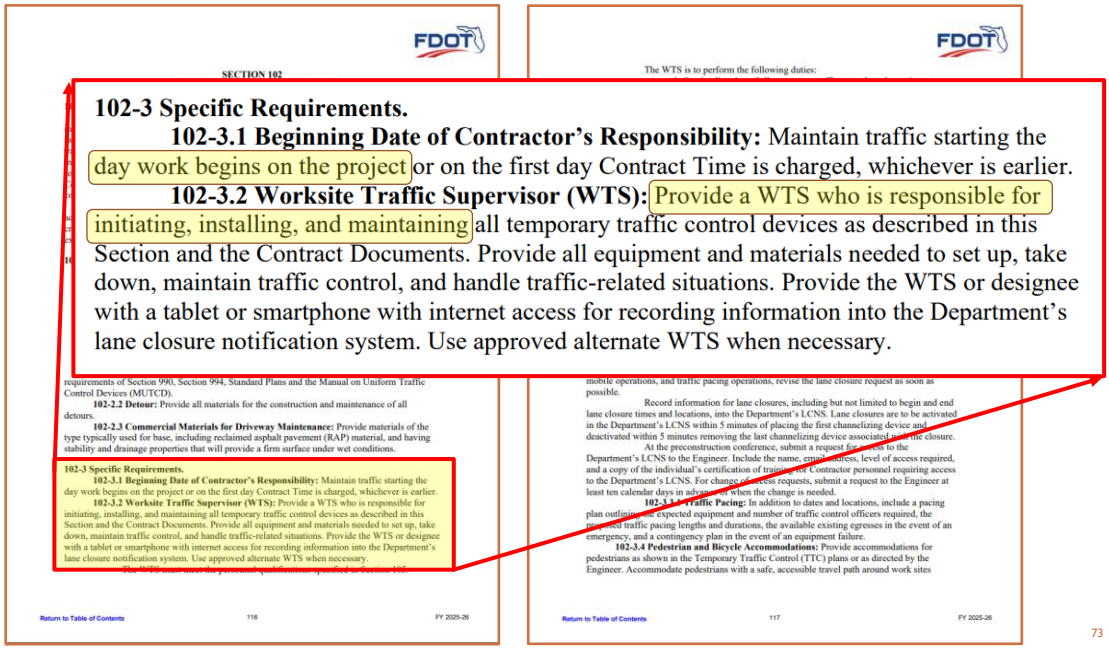
Maintain traffic within the limits of the project for the duration of the construction period, including any temporary suspensions of the work. Construct and maintain detours. Provide facilities for access to residences, businesses, etc., along the project. Furnish, install and maintain traffic control and safety devices during construction. Furnish and install work zone pavement markings for maintenance of traffic (MOT) in construction areas. Provide any other special requirements for safe and expeditious movement of traffic specified in the Temporary Traffic Control Plans. MOT includes all facilities, devices and operations as required for safety and convenience of the public within the work zone.

Do not maintain traffic over those portions of the project where no work is to be accomplished or where construction operations will not affect existing roads. Do not obstruct or create a hazard to any traffic during the performance of the work, and repair any damage to existing pavement open to traffic.

72

72

SECTION 102 – MAINTENANCE OF TRAFFIC



102-3 Specific Requirements.

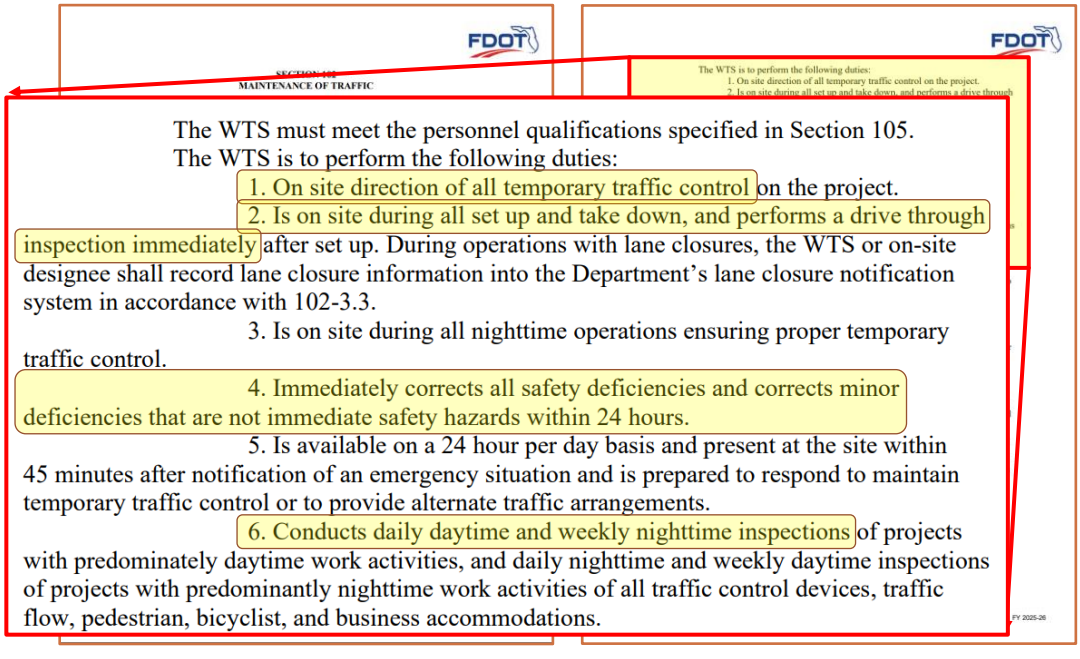
102-3.1 Beginning Date of Contractor's Responsibility: Maintain traffic starting the day work begins on the project or on the first day Contract Time is charged, whichever is earlier.

102-3.2 Worksite Traffic Supervisor (WTS): Provide a WTS who is responsible for initiating, installing, and maintaining all temporary traffic control devices as described in this Section and the Contract Documents. Provide all equipment and materials needed to set up, take down, maintain traffic control, and handle traffic-related situations. Provide the WTS or designee with a tablet or smartphone with internet access for recording information into the Department's lane closure notification system. Use approved alternate WTS when necessary.

73

73

SECTION 102 – MAINTENANCE OF TRAFFIC



The WTS must meet the personnel qualifications specified in Section 105.

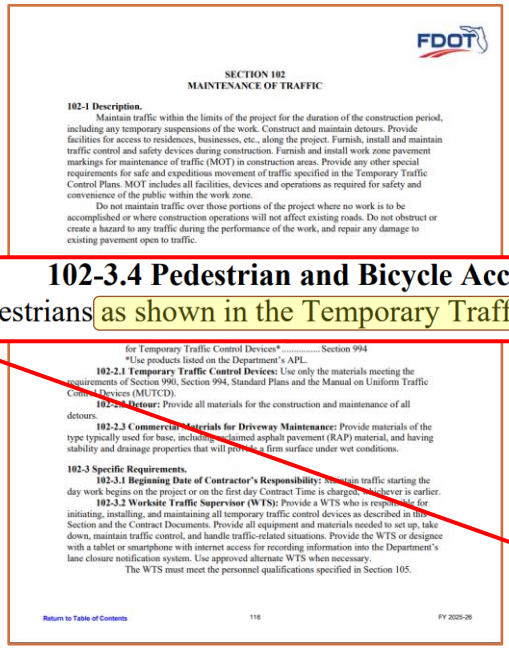
The WTS is to perform the following duties:

1. On site direction of all temporary traffic control on the project.
2. Is on site during all set up and take down, and performs a drive through inspection immediately after set up. During operations with lane closures, the WTS or on-site designee shall record lane closure information into the Department's lane closure notification system in accordance with 102-3.3.
3. Is on site during all nighttime operations ensuring proper temporary traffic control.
4. Immediately corrects all safety deficiencies and corrects minor deficiencies that are not immediate safety hazards within 24 hours.
5. Is available on a 24 hour per day basis and present at the site within 45 minutes after notification of an emergency situation and is prepared to respond to maintain temporary traffic control or to provide alternate traffic arrangements.
6. Conducts daily daytime and weekly nighttime inspections of projects with predominately daytime work activities, and daily nighttime and weekly daytime inspections of projects with predominantly nighttime work activities of all traffic control devices, traffic flow, pedestrian, bicyclist, and business accommodations.

74

74

SECTION 102 – MAINTENANCE OF TRAFFIC



SECTION 102
MAINTENANCE OF TRAFFIC

102-1 Description.
Maintain traffic within the limits of the project for the duration of the construction period, including any temporary suspensions of the work. Construct and maintain detours. Provide facilities for access to residences, businesses, etc., along the project. Furnish, install and maintain traffic control and safety devices during construction. Furnish and install work zone pavement markings for maintenance of traffic (MOT) in construction areas. Provide any other special requirements for safe and expeditious movement of traffic specified in the Temporary Traffic Control Plans. MOT includes all facilities, devices and operations as required for safety and convenience of the public within the work zone.
Do not maintain traffic over those portions of the project where no work is to be accomplished or where construction operations will not affect existing roads. Do not obstruct or create a hazard to any traffic during the performance of the work, and repair any damage to existing pavement open to traffic.

for Temporary Traffic Control Devices* ..... Section 994
*Use products listed on the Department's APL.
102-2.1 Temporary Traffic Control Devices: Use only the materials meeting the requirements of Section 990, Section 994, Standard Plans and the Manual on Uniform Traffic Control Devices (MUTCD).
102-2.2 Detour: Provide all materials for the construction and maintenance of all detours.
102-2.3 Commercial Materials for Driveway Maintenance: Provide materials of the type typically used for base, including reclaimed asphalt pavement (RAP) material, and having stability and drainage properties that will provide a firm surface under wet conditions.

102-3 Specific Requirements.
102-3.1 Beginning Date of Contractor's Responsibility: Maintain traffic starting the day work begins on the project or on the first day Contract Time is charged, whichever is earlier.
102-3.2 Worksite Traffic Supervisor (WTS): Provide a WTS who is responsible for initiating, installing, and maintaining all temporary traffic control devices as described in this Section and the Contract Documents. Provide all equipment and materials needed to set up, take down, maintain traffic control, and handle traffic-related situations. Provide the WTS or designee with a tablet or smartphone with internet access for recording information into the Department's lane closure notification system. Use approved alternate WTS when necessary.
The WTS must meet the personnel qualifications specified in Section 105.

Return to Table of Contents 116 FY 2025-26

The WTS is to perform the following duties:
1. On site direction of all temporary traffic control on the project.
2. Is on site during all set up and take down, and performs a drive through inspection immediately after set up. During operations with lane closures, the WTS or on-site designee shall record lane closure information into the Department's lane closure notification system in accordance with 102-3.3.
3. Is on site during all nighttime operations ensuring proper temporary traffic control.
4. Immediately corrects all safety deficiencies and corrects minor deficiencies that are not immediate safety hazards within 24 hours.
5. Is available on a 24 hour per day basis and present at the site within 45 minutes after notification of an emergency situation and is prepared to respond to maintain temporary traffic control or to provide alternate traffic arrangements.
6. Conducts daily daytime and weekly nighttime inspections of projects with predominately daytime work activities, and daily nighttime and weekly daytime inspections of projects with predominantly nighttime work activities of all traffic control devices, traffic flow, pedestrian, bicyclist, and business accommodations.

advance of planned lane closures, mobile operations, and traffic pacing operations. Requests for planned lane closures are to be submitted through the Department's Lane Closure Notification System (LCNS). For unforeseen events that require cancelling or rescheduling lane closures, mobile operations, and traffic pacing operations, revise the lane closure request as soon as possible.
Record information for lane closures, including but not limited to begin and end lane closure times and locations, into the Department's LCNS. Lane closures are to be activated in the Department's LCNS within 5 minutes of placing the first channelizing device and deactivated within 5 minutes removing the last channelizing device associated with the closure.
At the preconstruction conference, submit a request for access to the Department's LCNS to the Engineer. Include the name, email address, level of access required, and a copy of the individual's certification of training for Contractor personnel requiring access to the Department's LCNS. For change of access requests, submit a request to the Engineer at least ten calendar days in advance of when the change is needed.
102-3.3.1 Traffic Pacing: In addition to dates and locations, include a pacing plan outlining the expected equipment and number of traffic control officers required, the proposed traffic pacing lengths and durations, the available existing egresses in the event of an [illegible]
102-3.4 Pedestrian and Bicycle Accommodations: Provide accommodations for pedestrians as shown in the Temporary Traffic Control (TTC) plans or as directed by the Engineer. Accommodate pedestrians with a safe, accessible travel path around work sites

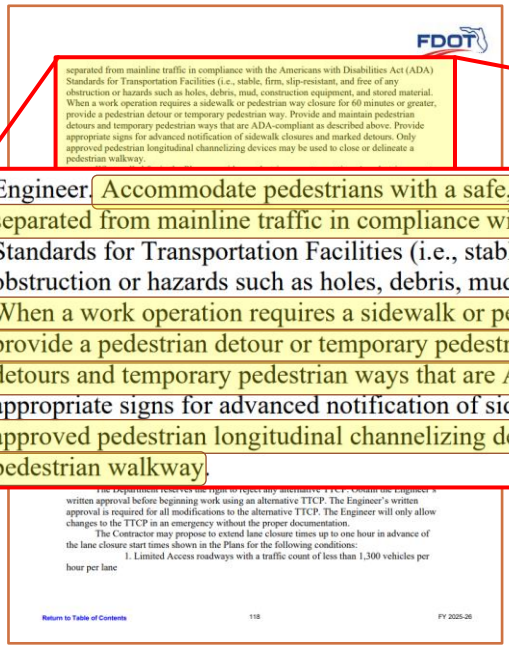
Return to Table of Contents 117 FY 2025-26

102-3.4 Pedestrian and Bicycle Accommodations: Provide accommodations for pedestrians as shown in the Temporary Traffic Control (TTC) plans or as directed by the Engineer. Accommodate pedestrians with a safe, accessible travel path around work sites separated from mainline traffic in compliance with the Americans with Disabilities Act (ADA) Standards for Transportation Facilities (i.e., stable, firm, slip-resistant, and free of any obstruction or hazards such as holes, debris, mud, construction equipment, and stored material. When a work operation requires a sidewalk or pedestrian way closure for 60 minutes or greater, provide a pedestrian detour or temporary pedestrian way. Provide and maintain pedestrian detours and temporary pedestrian ways that are ADA-compliant as described above. Provide appropriate signs for advanced notification of sidewalk closures and marked detours. Only approved pedestrian longitudinal channelizing devices may be used to close or delineate a pedestrian walkway.

75

75

SECTION 102 – MAINTENANCE OF TRAFFIC



separated from mainline traffic in compliance with the Americans with Disabilities Act (ADA) Standards for Transportation Facilities (i.e., stable, firm, slip-resistant, and free of any obstruction or hazards such as holes, debris, mud, construction equipment, and stored material. When a work operation requires a sidewalk or pedestrian way closure for 60 minutes or greater, provide a pedestrian detour or temporary pedestrian way. Provide and maintain pedestrian detours and temporary pedestrian ways that are ADA-compliant as described above. Provide appropriate signs for advanced notification of sidewalk closures and marked detours. Only approved pedestrian longitudinal channelizing devices may be used to close or delineate a pedestrian walkway.

The Department reserves the right to reject any alternative TTCP. Obtain the Engineer's written approval before beginning work using an alternative TTCP. The Engineer's written approval is required for all modifications to the alternative TTCP. The Engineer will only allow changes to the TTCP in an emergency without the proper documentation.
The Contractor may propose to extend lane closure times up to one hour in advance of the lane closure start times shown in the Plans for the following conditions:
1. Limited Access roadways with a traffic count of less than 1,300 vehicles per hour per lane

Return to Table of Contents 118 FY 2025-26

2. Arterials and Collector roadways with a traffic count of less than 1,550 vehicles per hour per lane.
To determine traffic count, record the number of vehicles in the direction of the closure during a 15-minute period. Multiply the number of vehicles by four and divide by the number of lanes in the direction of the closure.

102-5 Traffic Control.
102-5.1 MUTCD: Comply with the requirements in Part 6 of the MUTCD.
102-5.2 Temporary Traffic Control Plan: The Temporary Traffic Control Plan (TTCP)

102-5.7 Protection of the Work from Damage by Traffic: Where traffic would damage a base course, surface course, or structure constructed as a part of the work, control all traffic to remain outside the limits of such areas until the potential for damage no longer exists.
102-5.8 Flagger: Provide flaggers to control traffic when traffic in both directions must use a single lane and in other situations as required.
102-5.9 Conflicting Pavement Markings: Remove all existing pavement markings (paint, tape, thermoplastic, raised pavement markers, etc.) that conflict with temporary paths of vehicles, bicycles, or pedestrians when the conflict will exceed 24 hours. Use any method, other than paint or sprayed asphalt, approved by the Engineer to remove existing pavement markings.

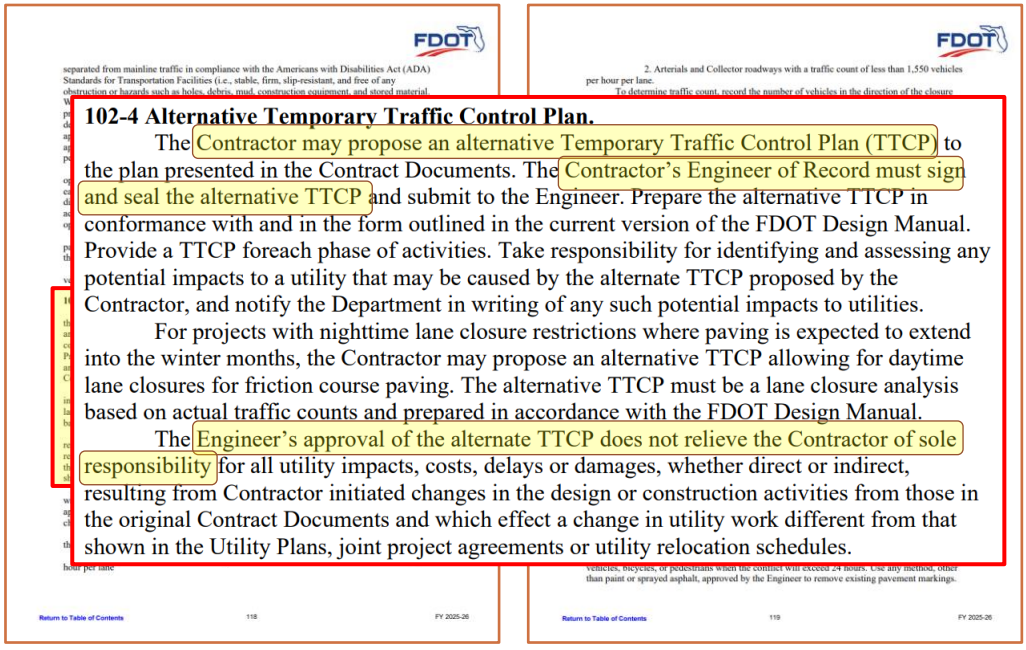
Return to Table of Contents 119 FY 2025-26

Engineer. Accommodate pedestrians with a safe, accessible travel path around work sites separated from mainline traffic in compliance with the Americans with Disabilities Act (ADA) Standards for Transportation Facilities (i.e., stable, firm, slip-resistant, and free of any obstruction or hazards such as holes, debris, mud, construction equipment, and stored material. When a work operation requires a sidewalk or pedestrian way closure for 60 minutes or greater, provide a pedestrian detour or temporary pedestrian way. Provide and maintain pedestrian detours and temporary pedestrian ways that are ADA-compliant as described above. Provide appropriate signs for advanced notification of sidewalk closures and marked detours. Only approved pedestrian longitudinal channelizing devices may be used to close or delineate a pedestrian walkway.

76

76

SECTION 102 – MAINTENANCE OF TRAFFIC



separated from mainline traffic in compliance with the Americans with Disabilities Act (ADA) Standards for Transportation Facilities (i.e., stable, firm, slip-resistant, and free of any obstruction or hazards such as holes, debris, mud, construction equipment, and stored material.

102-4 Alternative Temporary Traffic Control Plan.

The Contractor may propose an alternative Temporary Traffic Control Plan (TTCP) to the plan presented in the Contract Documents. The Contractor's Engineer of Record must sign and seal the alternative TTCP and submit to the Engineer. Prepare the alternative TTCP in conformance with and in the form outlined in the current version of the FDOT Design Manual. Provide a TTCP foreach phase of activities. Take responsibility for identifying and assessing any potential impacts to a utility that may be caused by the alternate TTCP proposed by the Contractor, and notify the Department in writing of any such potential impacts to utilities.

For projects with nighttime lane closure restrictions where paving is expected to extend into the winter months, the Contractor may propose an alternative TTCP allowing for daytime lane closures for friction course paving. The alternative TTCP must be a lane closure analysis based on actual traffic counts and prepared in accordance with the FDOT Design Manual.

The Engineer's approval of the alternate TTCP does not relieve the Contractor of sole responsibility for all utility impacts, costs, delays or damages, whether direct or indirect, resulting from Contractor initiated changes in the design or construction activities from those in the original Contract Documents and which effect a change in utility work different from that shown in the Utility Plans, joint project agreements or utility relocation schedules.

Return to Table of Contents 118 FY 2025-26

2. Arterials and Collector roadways with a traffic count of less than 1,550 vehicles per hour per lane.

To determine traffic count, record the number of vehicles in the direction of the closure

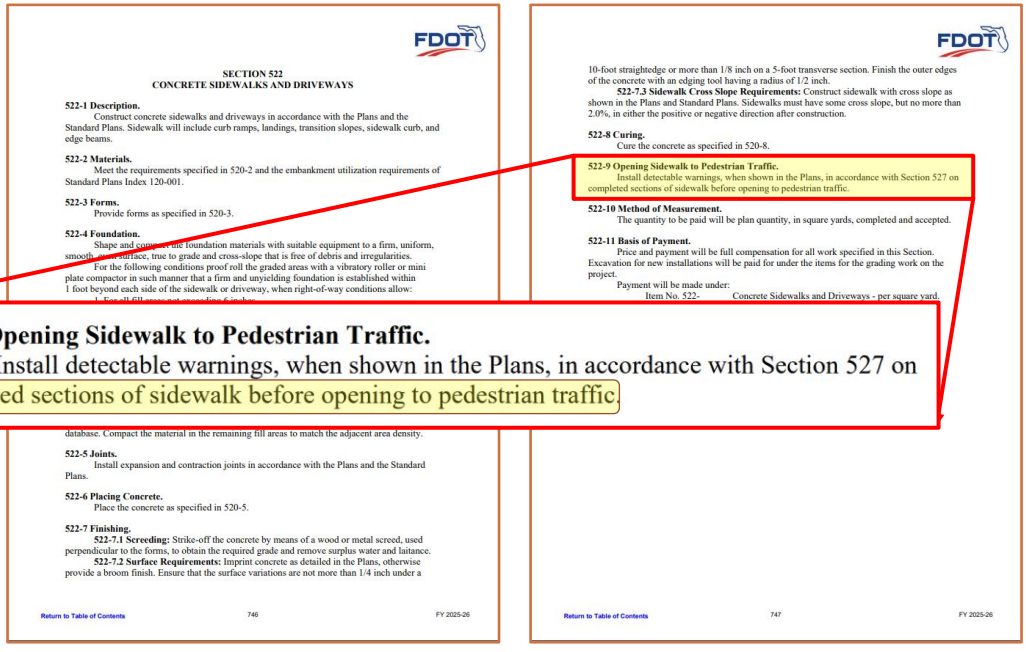
vehicles, bicycles, or pedestrians when the contract will exceed 24 hours. Use any method, other than paint or sprayed asphalt, approved by the Engineer to remove existing pavement markings.

Return to Table of Contents 119 FY 2025-26

77

77

SECTION 522 – CONCRETE SIDEWALKS AND DRIVEWAYS



SECTION 522
CONCRETE SIDEWALKS AND DRIVEWAYS

522-1 Description.
Construct concrete sidewalks and driveways in accordance with the Plans and the Standard Plans. Sidewalk will include curb ramps, landings, transition slopes, sidewalk curb, and edge beams.

522-2 Materials.
Meet the requirements specified in 520-2 and the embankment utilization requirements of Standard Plans Index 120-001.

522-3 Forms.
Provide forms as specified in 520-3.

522-4 Foundation.
Shape and compact the foundation materials with suitable equipment to a firm, uniform, smooth, stable surface, true to grade and cross-slope that is free of debris and irregularities.
For the following conditions proof roll the graded areas with a vibratory roller or mini plate compactor in such manner that a firm and unyielding foundation is established within 1 foot beyond each side of the sidewalk or driveway, when right-of-way conditions allow:

database. Compact the material in the remaining fill areas to match the adjacent area density.

522-5 Joints.
Install expansion and contraction joints in accordance with the Plans and the Standard Plans.

522-6 Placing Concrete.
Place the concrete as specified in 520-5.

522-7 Finishing.
522-7.1 Screeding: Strike-off the concrete by means of a wood or metal screed, used perpendicular to the forms, to obtain the required grade and remove surplus water and laitance.
522-7.2 Surface Requirements: Imprint concrete as detailed in the Plans, otherwise provide a broom finish. Ensure that the surface variations are not more than 1/4 inch under a

Return to Table of Contents 746 FY 2025-26

10-foot straightedge or more than 1/8 inch on a 5-foot transverse section. Finish the outer edges of the concrete with an edging tool having a radius of 1/2 inch.
522-7.3 Sidewalk Cross Slope Requirements: Construct sidewalk with cross slope as shown in the Plans and Standard Plans. Sidewalks must have some cross slope, but no more than 2.0%, in either the positive or negative direction after construction.

522-8 Curing.
Cure the concrete as specified in 520-8.

522-9 Opening Sidewalk to Pedestrian Traffic.
Install detectable warnings, when shown in the Plans, in accordance with Section 527 on completed sections of sidewalk before opening to pedestrian traffic.

522-10 Method of Measurement.
The quantity to be paid will be plan quantity, in square yards, completed and accepted.

522-11 Basis of Payment.
Price and payment will be full compensation for all work specified in this Section. Excavation for new installations will be paid for under the items for the grading work on the project.
Payment will be made under:
Item No. 522- Concrete Sidewalks and Driveways - per square yard.

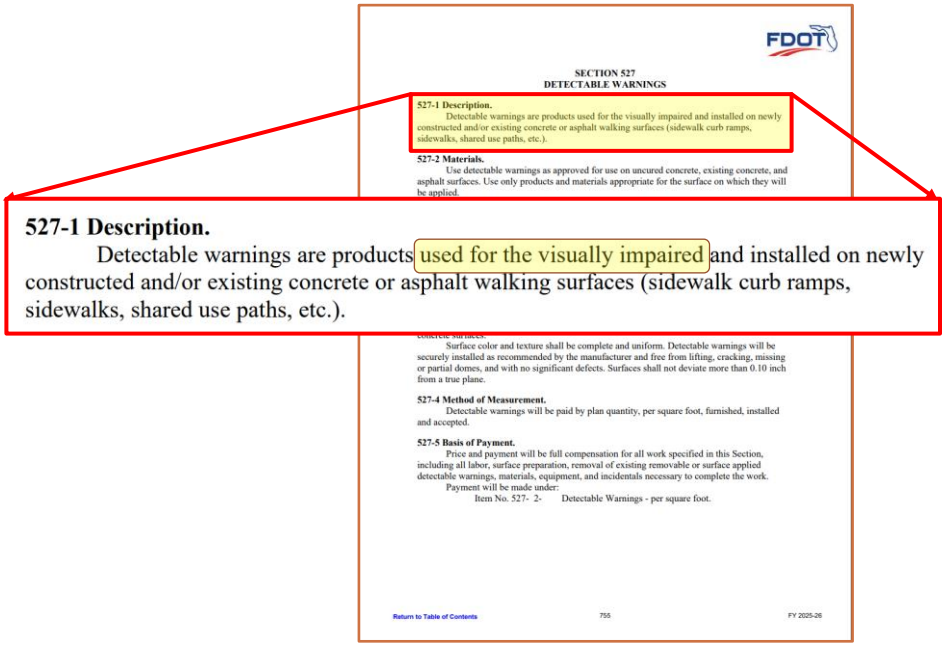
Return to Table of Contents 747 FY 2025-26

522-9 Opening Sidewalk to Pedestrian Traffic.
Install detectable warnings, when shown in the Plans, in accordance with Section 527 on completed sections of sidewalk before opening to pedestrian traffic.

78

78

SECTION 527 – DETECTABLE WARNINGS



SECTION 527
DETECTABLE WARNINGS

527-1 Description.
Detectable warnings are products used for the visually impaired and installed on newly constructed and/or existing concrete or asphalt walking surfaces (sidewalk curb ramps, sidewalks, shared use paths, etc.).

527-2 Materials.
Use detectable warnings as approved for use on uncured concrete, existing concrete, and asphalt surfaces. Use only products and materials appropriate for the surface on which they will be applied.

Surface color and texture shall be complete and uniform. Detectable warnings will be securely installed as recommended by the manufacturer and free from lifting, cracking, missing or partial domes, and with no significant defects. Surfaces shall not deviate more than 0.10 inch from a true plane.

527-4 Method of Measurement.
Detectable warnings will be paid by plan quantity, per square foot, furnished, installed and accepted.

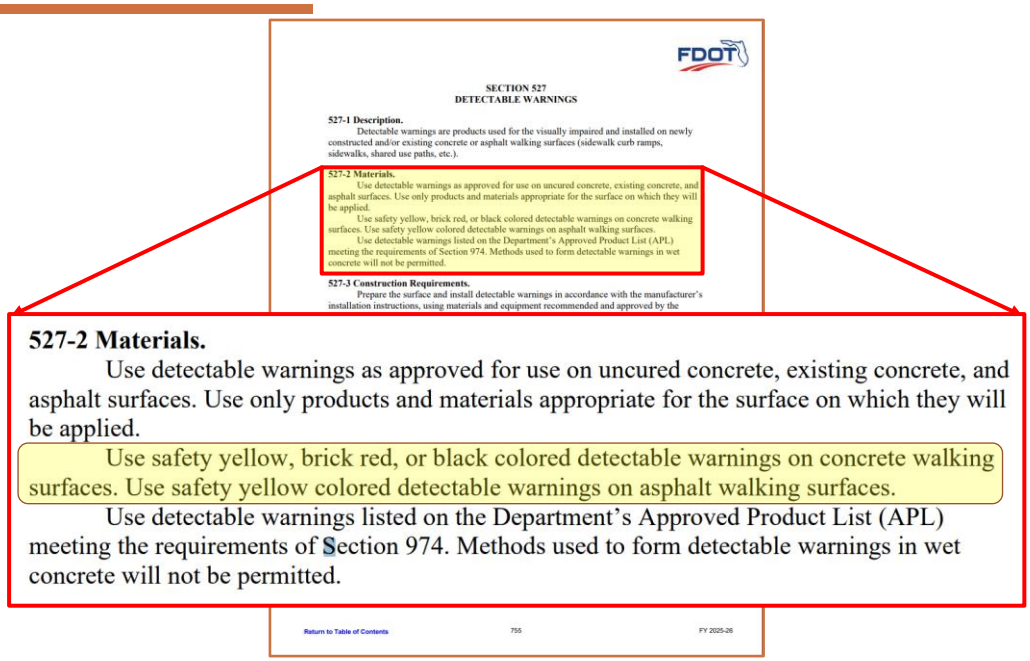
527-5 Basis of Payment.
Price and payment will be full compensation for all work specified in this Section, including all labor, surface preparation, removal of existing removable or surface applied detectable warnings, materials, equipment, and incidentals necessary to complete the work.
Payment will be made under:
Item No. 527- 2- Detectable Warnings - per square foot.

Return to Table of Contents 755 FY 2025-26

79

79

SECTION 527 – DETECTABLE WARNINGS



SECTION 527
DETECTABLE WARNINGS

527-1 Description.
Detectable warnings are products used for the visually impaired and installed on newly constructed and/or existing concrete or asphalt walking surfaces (sidewalk curb ramps, sidewalks, shared use paths, etc.).

527-2 Materials.
Use detectable warnings as approved for use on uncured concrete, existing concrete, and asphalt surfaces. Use only products and materials appropriate for the surface on which they will be applied.
Use safety yellow, brick red, or black colored detectable warnings on concrete walking surfaces. Use safety yellow colored detectable warnings on asphalt walking surfaces.
Use detectable warnings listed on the Department's Approved Product List (APL) meeting the requirements of Section 974. Methods used to form detectable warnings in wet concrete will not be permitted.

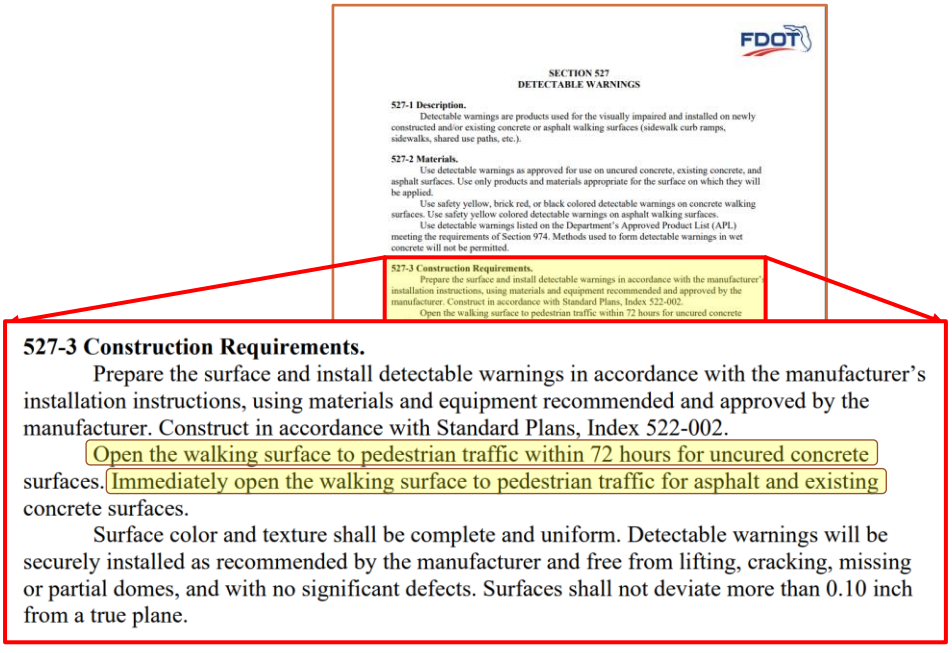
527-3 Construction Requirements.
Prepare the surface and install detectable warnings in accordance with the manufacturer's installation instructions, using materials and equipment recommended and approved by the

Return to Table of Contents 755 FY 2025-26

80

80

SECTION 527 – DETECTABLE WARNINGS



SECTION 527
DETECTABLE WARNINGS

527-1 Description.
Detectable warnings are products used for the visually impaired and installed on newly constructed and/or existing concrete or asphalt walking surfaces (sidewalk curb ramps, sidewalks, shared use paths, etc.).

527-2 Materials.
Use detectable warnings as approved for use on uncured concrete, existing concrete, and asphalt surfaces. Use only products and materials appropriate for the surface on which they will be applied.
Use safety yellow, brick red, or black colored detectable warnings on concrete walking surfaces. Use safety yellow colored detectable warnings on asphalt walking surfaces.
Use detectable warnings listed on the Department's Approved Product List (APL) meeting the requirements of Section 974. Methods used to form detectable warnings in wet concrete will not be permitted.

527-3 Construction Requirements.
Prepare the surface and install detectable warnings in accordance with the manufacturer's installation instructions, using materials and equipment recommended and approved by the manufacturer. Construct in accordance with Standard Plans, Index 522-002.
Open the walking surface to pedestrian traffic within 72 hours for uncured concrete

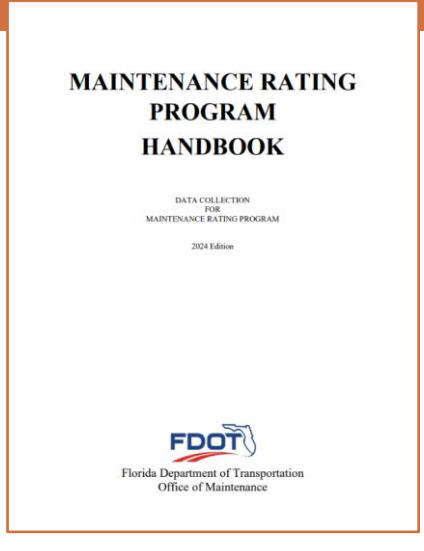
527-3 Construction Requirements.
Prepare the surface and install detectable warnings in accordance with the manufacturer's installation instructions, using materials and equipment recommended and approved by the manufacturer. Construct in accordance with Standard Plans, Index 522-002.
Open the walking surface to pedestrian traffic within 72 hours for uncured concrete surfaces. Immediately open the walking surface to pedestrian traffic for asphalt and existing concrete surfaces.
Surface color and texture shall be complete and uniform. Detectable warnings will be securely installed as recommended by the manufacturer and free from lifting, cracking, missing or partial domes, and with no significant defects. Surfaces shall not deviate more than 0.10 inch from a true plane.

81

81

SAFETY & ACCESSIBILITY!

- Brief History of the ADA
- FDOT Design Manual (FDM)
- FDOT Standard Plans
- FDOT Standard Specifications
- FDOT Maintenance Rating Program Handbook (MRP)



MAINTENANCE RATING PROGRAM HANDBOOK

DATA COLLECTION FOR MAINTENANCE RATING PROGRAM

2024 Edition

FDOT
Florida Department of Transportation
Office of Maintenance

82

82

MRP: DATA COLLECTION

CREW ORGANIZATION AND RESPONSIBILITIES

A Maintenance Rating Program survey team will be composed of a minimum of two persons. Each district will be responsible for implementing and maintaining the Maintenance Rating Program.

It is mandatory that the MRP survey team's first responsibility be the safety of the pedestrian and motoring public and themselves. On occasions, it may be necessary to schedule the survey of those samples with high traffic density during low traffic periods to provide proper safety. It may become necessary to request a safety crew (flag persons, cones, signs, flashing directional arrow) from the maintenance area in which the survey is taking place. The survey team shall walk together, facing traffic, as they evaluate each sample. Facing traffic is for safety of the survey team and walking together to prevent missing items that might be overlooked by one person and to permit accurate measurements.

- Straightedge (4 ft to 8 ft) (metal or wood)
- Leveling device (carpenter's level or string level)
- String line
- Handheld optical level
  - Probing device (rod or screwdriver)
  - Legal size writing clipboard
  - Pocket type calculator

2024 Maintenance Rating Program Handbook 7

83

83

MRP STANDARDS: SIDEWALK

SIDEWALK: 99.5% of sidewalk area is free of vertical misalignments greater than ¼ inch, horizontal cracks greater than ½ inch, or spalled areas greater than ½ inch in depth, and no visible hazards.

Sidewalk – Sidewalk is constructed of various materials and is subject to misalignments caused by growing tree roots, settling or deterioration. This measurement includes the normal sidewalk joint and the sidewalk to curb joint. Sidewalk should be projected across an urban flared paved turnout and that area evaluated as sidewalk. Any bike path located outside the roadway pavement area will be evaluated as sidewalk. Paved utility strips are evaluated as sidewalk if they are intended to be used as sidewalk.

Sidewalk shall not be evaluated across dedicated streets. Spalled areas greater than ½ inch in depth do not meet desired conditions. Uniform deviation from original grade that has vertical misalignments or cracks greater than ¼ inch do not meet desired maintenance conditions. Changes in level up to ½ inch may be beveled with a slope that complies with Fig. 7. For purposes of evaluating this characteristic, one

area. Then multiply the total area by 0.005 to determine the maximum area that can have vertical misalignments greater than ½ inch or horizontal cracks greater than ½ inch. Measure any rigid objects protruding from concrete sidewalk greater than ¼ inch in height, also measure for single misalignment, or deviations greater than 1½ inches.

SIDEWALK TABLE

Total Length (ft)	Width (ft)	Area (sq ft)	99.5% (sq ft)	0.5% (sq ft)
528	6	3168	3152	16
1056	6	6348	6316	32
528	5	2640	2627	13
1056	5	5280	5254	26
528	4	2112	2101	11
1056	4	4224	4203	21

Sidewalk does not meet MRP standards when the following exist:

1) More than 0.5% of the sidewalk area has vertical misalignments greater than ¼ inch, horizontal cracks greater than ½ inch, or spalled areas greater than ½ inch in depth.

2024 Maintenance Rating Program Handbook 45

2) Any rigid objects protruding from concrete greater than ¼ inch in height, or any single misalignment, or deviations greater than 1½ inches.

Sidewalk cracking. Measure each horizontal crack greater than ½ inch wide. For MRP purposes, each linear foot of horizontal crack greater than ½ inch equals 1 sq. ft. of crack area. Vertical misalignments greater than ½ inch equals 1 sq. ft. of crack area.

Sidewalk cracking. Measure each horizontal crack greater than ½ inch wide. For MRP purposes, each linear foot of horizontal crack greater than ½ inch equals 1 sq. ft. of crack area.

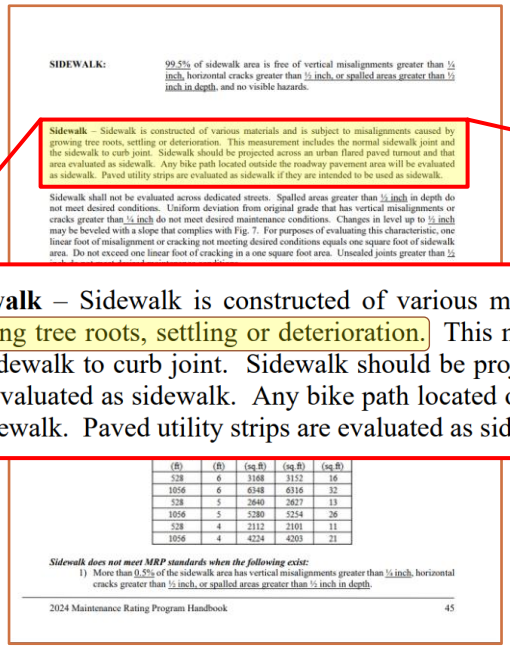
Any single vertical misalignment measured greater than 1½ inch would not meet desired maintenance conditions.

2024 Maintenance Rating Program Handbook 46

84

84

MRP STANDARDS: SIDEWALK



SIDEWALK: 99.5% of sidewalk area is free of vertical misalignments greater than ¼ inch, horizontal cracks greater than ½ inch, or spalled areas greater than ½ inch in depth, and no visible hazards.

Sidewalk – Sidewalk is constructed of various materials and is subject to misalignments caused by growing tree roots, settling or deterioration. This measurement includes the normal sidewalk joint and the sidewalk to curb joint. Sidewalk should be projected across an urban flared paved turnout and that area evaluated as sidewalk. Any bike path located outside the roadway pavement area will be evaluated as sidewalk. Paved utility strips are evaluated as sidewalk if they are intended to be used as sidewalk.

Sidewalk shall not be evaluated across dedicated streets. Spalled areas greater than ½ inch in depth do not meet desired conditions. Uniform deviation from original grade that has vertical misalignments or cracks greater than ¼ inch do not meet desired maintenance conditions. Changes in level up to ½ inch may be beveled with a slope that complies with Fig. 7. For purposes of evaluating this characteristic, one linear foot of misalignment or cracking not meeting desired conditions equals one square foot of sidewalk area. Do not exceed one linear foot of cracking in a one square foot area. Unsealed joints greater than ½

(ft)	(ft)	(sq ft)	(sq ft)	(sq ft)
528	6	3168	3152	16
1056	6	6348	6316	32
528	5	2640	2627	13
1056	5	5280	5254	26
528	4	2112	2101	11
1056	4	4224	4203	21

Sidewalk does not meet MRP standards when the following exist:

1) More than 0.5% of the sidewalk area has vertical misalignments greater than ¼ inch, horizontal cracks greater than ½ inch, or spalled areas greater than ½ inch in depth.

2024 Maintenance Rating Program Handbook 45

2) Any rigid objects protruding from concrete greater than ¼ inch in height, or any single misalignment, or deviations greater than 1½ inches.

Sidewalk cracking. Measure each horizontal crack greater than ½ inch wide. For MRP purposes, each linear foot of horizontal crack greater than ½ inch equals 1 sq. ft. of crack area. Vertical misalignments greater than ¼ inch equals 1 sq. ft. of crack area.

2024 Maintenance Rating Program Handbook 46

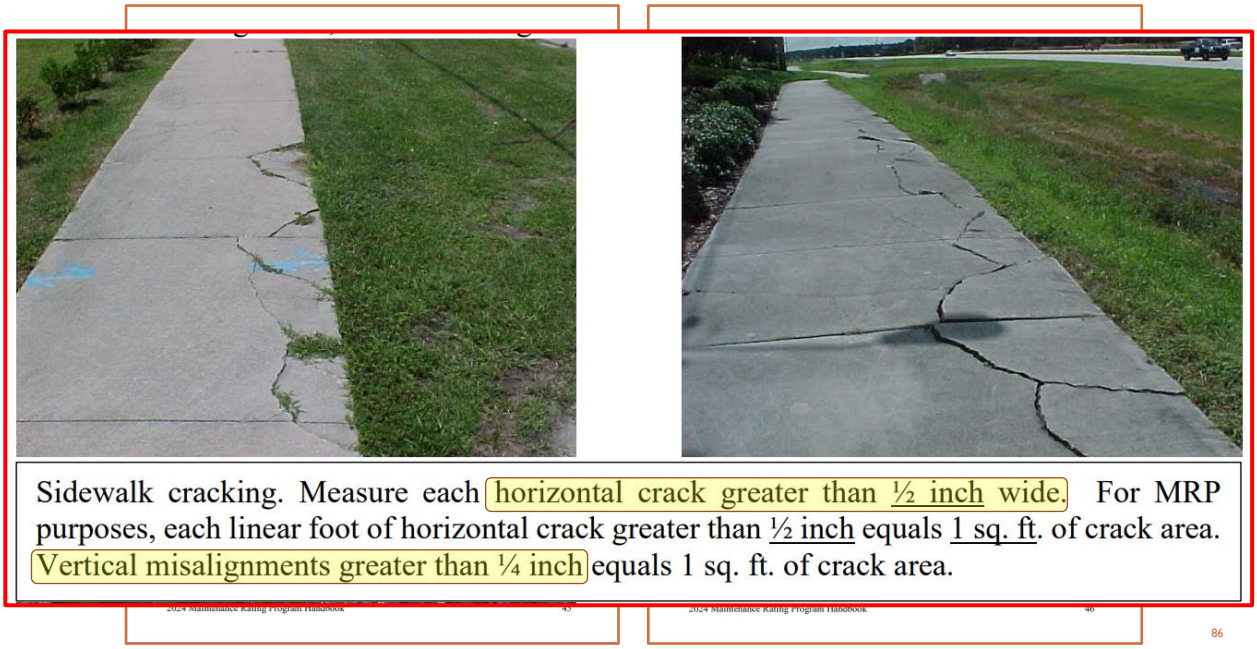
85

Sidewalk – Sidewalk is constructed of various materials and is subject to misalignments caused by growing tree roots, settling or deterioration. This measurement includes the normal sidewalk joint and the sidewalk to curb joint. Sidewalk should be projected across an urban flared paved turnout and that area evaluated as sidewalk. Any bike path located outside the roadway pavement area will be evaluated as sidewalk. Paved utility strips are evaluated as sidewalk if they are intended to be used as sidewalk.

85

85

MRP STANDARDS: SIDEWALK



Sidewalk cracking. Measure each horizontal crack greater than ½ inch wide. For MRP purposes, each linear foot of horizontal crack greater than ½ inch equals 1 sq. ft. of crack area. Vertical misalignments greater than ¼ inch equals 1 sq. ft. of crack area.

86

86

MRP STANDARDS: SIDEWALK

ADA

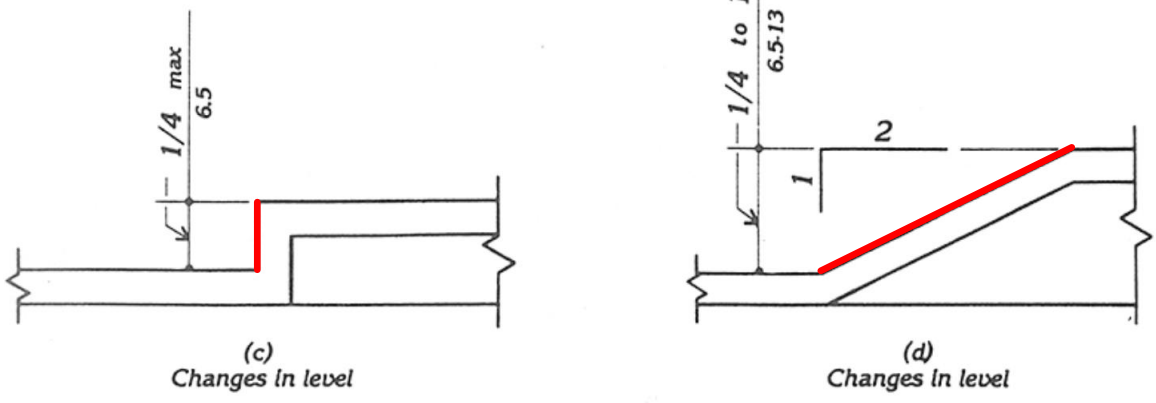


Fig. 7
Accessible Route

87

87

MRP STANDARDS: HANDRAIL

Handrail – Handrail is installed to protect pedestrians from drop-offs adjacent to sidewalk.

Handrail meets desired maintenance conditions.

Missing handrail, this does not meet MRP standards.

88

88

MRP STANDARDS: SIGNS

Sign Height:

1. Roads with curb and gutter:
   7 feet minimum height measured from top of curb to bottom of sign (measure from sidewalk, if present).

2. Roads without curb and gutter:
   5 feet minimum height measured from edge of driving lane to bottom of sign.

3. Limited access ramps:
   6 feet minimum height measured from edge of driving lane to bottom of sign.

4. Limited access medians:
   7 feet minimum height measured from edge of driving lane to bottom of sign.

5. Limited access roads:
   7 feet minimum height measured from edge of driving lane to bottom of sign.

89

89

MRP STAN

NOTES:

1) Highway signs shall be evaluated using two characteristics:
   - Ground signs greater than 30 square feet (including all over-lane signs).
   - Ground signs 30 square feet or less.
2) **MRP definition of a secondary sign:** A secondary sign is mounted below a primary sign and its message is not related to the primary sign message. Example: A "Do Not Block Intersection" sign mounted with a no U-turn sign below it.
3) The height to the bottom of a secondary sign mounted below another sign may be one foot less than the appropriate height except where signs are over sidewalks (a route marking assembly consisting of a route marker with an auxiliary plate is treated as a single sign).
4) Do not rate overhead school signs or county/city signs on signal cables.
5) Do not rate logo signs.
6) Do not rate wildflower signs.
7) For purposes of these guidelines, a turn lane will be considered a driving lane. Merge, rest area, signs on islands and exit gore signs shall be evaluated according to the Standard Plans.
8) If it is obvious the minimum lateral clearance cannot be met, the sign shall be considered to meet acceptable maintenance conditions. The presence of sidewalk by itself shall not be considered a reason a sign cannot meet the minimum lateral clearance.
9) A sign less than 30 square feet mounted to a sign greater than 30 square feet is evaluated as part of the sign greater than 30 square feet.
10) For MRP purposes, two post installations with round aluminum tubing less than or equal to 3 ½ inches meets maintenance conditions.
11) Signs in the median, as outlined in the Standard Plans are not evaluated for lateral clearance.
12) Do not rate slip bases for shims.
13) Retroreflective strips for signs - The retroreflective sign strips must be fastened in a manner that does not require drilling of holes in the column. Retroreflective sign strips must be 2 inches in width and a height of 5 feet for all signs except for when signs are mounted at 4 feet, then retroreflective sign strip will be 2 feet in height. Match the color of the retroreflective sheeting to the background color of the sign except for YIELD signs and DO NOT ENTER signs, where the color must be red.

90

90

MRP S

91

91

MRP STANDARDS: VEGETATION AND AESTHETICS

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE RATING PROGRAM STANDARDS

VEGETATION AND AESTHETICS

THE FOLLOWING CHARACTERISTICS MEET THE DESIRED MAINTENANCE CONDITIONS WHEN:

ROADSIDE MOWING: No more than 1% of vegetation exceeds (varies) inches high. This excludes allowable seed stalks and decorative flowers allowed to remain for aesthetics.

RURAL LIMITED ACCESS	5 inches – 18 inches
RURAL ARTERIAL	5 inches – 12 inches
URBAN LIMITED ACCESS	5 inches – 12 inches
URBAN ARTERIAL	9 inches maximum

VEGETATION AND AESTHETICS

ROADSIDE MOWING: No more than 1% of vegetation exceeds (varies) inches high. This excludes allowable seed stalks and decorative flowers allowed to remain for aesthetics.

FACILITY TYPE	CLASSIFICATION	DESIRED HEIGHT
1	Rural Limited Access	5 inches – 18 inches
2	Rural Arterial	5 inches – 12 inches
3	Urban Limited Access	5 inches – 12 inches
4	Urban Arterial	9 inches maximum

Roadside Mowing – This characteristic is the control of planted or natural grasses and vegetation for protection of soil shoulders and slopes, safety and aesthetics purposes.

Evaluation: Calculate the mowing area in the sample point. Determine the area of vegetation above the standard height by measuring with a rule or stick marked at the appropriate heights. Calculate the area of the

TREE TRIMMING: No encroachment of trees, tree limbs or vegetation in or over travel way or clear zone, lower than 14½ feet or lower than 8½ feet over sidewalks and curb and gutter clear zones. No vegetation shall violate the horizontal clearance as defined by this standard.

No deviation of soil of more than 4 inches above or 2 inches below the top of curb or sidewalk for more than 10 continuous feet.

LITTER REMOVAL: The volume of litter does not exceed 3 cubic feet per acre excluding all travel way pavement. No unauthorized graffiti/stickers within the state right-of-way on state owned property. No litter hazards are present in the roadway or on the paved shoulder, or clear recovery zone.

TURF CONDITION: Turf in the mowing area is 75% free of undesired vegetation. Unwanted vegetation found growing on or out of Mechanically Stabilized Earth (MSE) and Sound Wall greater than 6 inches in length and in 8 separate locations, and / or no more than 7-1/2 square feet of unwanted vegetation for any 50 square foot area of paved shoulder, pavement joints, concrete traffic separators, curb/asphalt joints and under guardrail. No vegetation exists causing damage or displacement to the evaluated asset structure. Vegetation damage is defined as defects both greater than 0.5 square feet in area and deeper than 1½ inches when measured. Vegetation displacement is defined as vertical, horizontal, or lateral movement in an MSE / Sound Wall of more than 1 inch or in a Pavement Structure of more than 2 inches.

2024 Maintenance Rating Program Handbook 109

Except for turf mowed by adjoining property owner, turf mowed at less than 5 inches on Facility Types 1, 2 and 3 does not meet desired maintenance conditions.

Do not evaluate mowing areas where wet conditions prevent mowing.

Do not evaluate mowing in areas of natural occurring or designated wildflower planting areas. Mowing should be evaluated by roadway (one pass) and outside the planted or natural area of wildflowers.

Roadside Mowing does not meet MRP standards when any of the following exist:

1) More than 1% of the vegetation varies from the standard height.
2) The turf is mowed less than 5 inches on facility types 1, 2 and 3, except turf mowed by adjoining property owner.

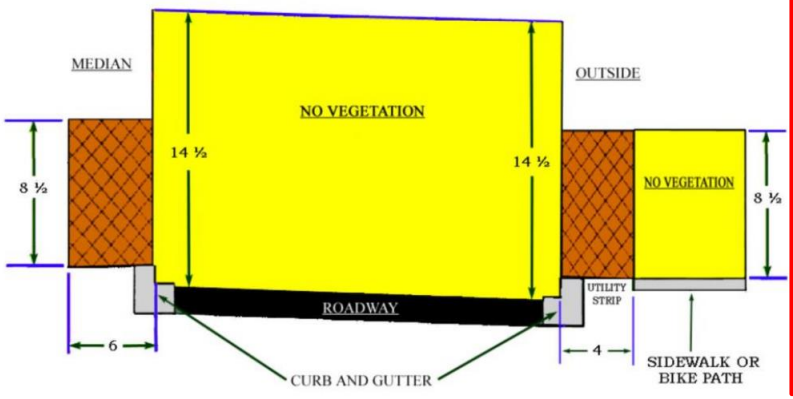
2024 Maintenance Rating Program Handbook 110

92

92

MRP STANDARDS: VEGETATION AND AESTHETICS

CLEAR ZONE VEGETATION CRITERIA



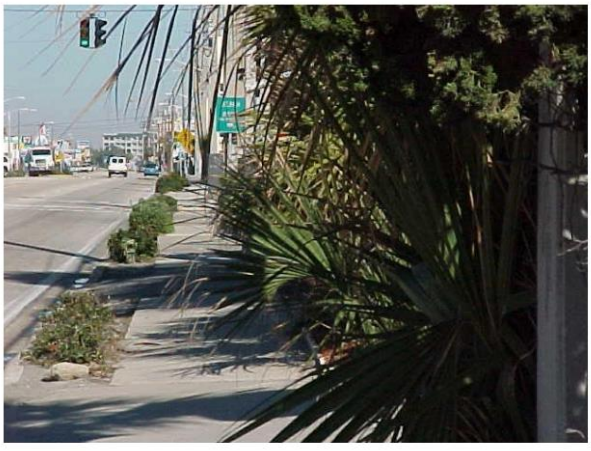
2024 Maintenance Rating Program Handbook 117

2024 Maintenance Rating Program Handbook 118

93

93

MRP STANDARDS: VEGETATION AND AESTHETICS



These pictures are examples of vegetation growing over the sidewalk. This obstructs the use of the sidewalk by pedestrians. If there is encroachment of vegetation onto the sidewalk more than 6 inch it does not meet MRP standards.

94

94

95

SAFETY & ACCESSIBILITY!

How do you contact me?

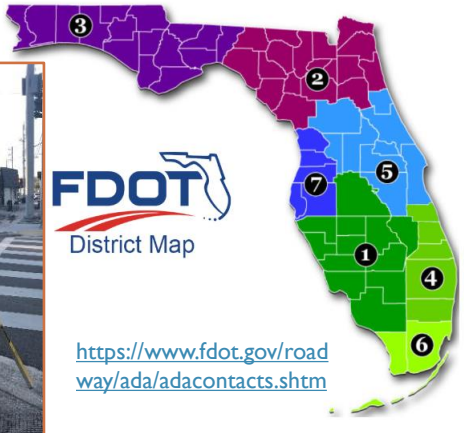
Randy E. (Brad) Bradley II, P.E.

Office of Design / Project Management

FDOT Central Office – Tallahassee

brad.bradley@dot.state.fl.us - 850-414-4295

96

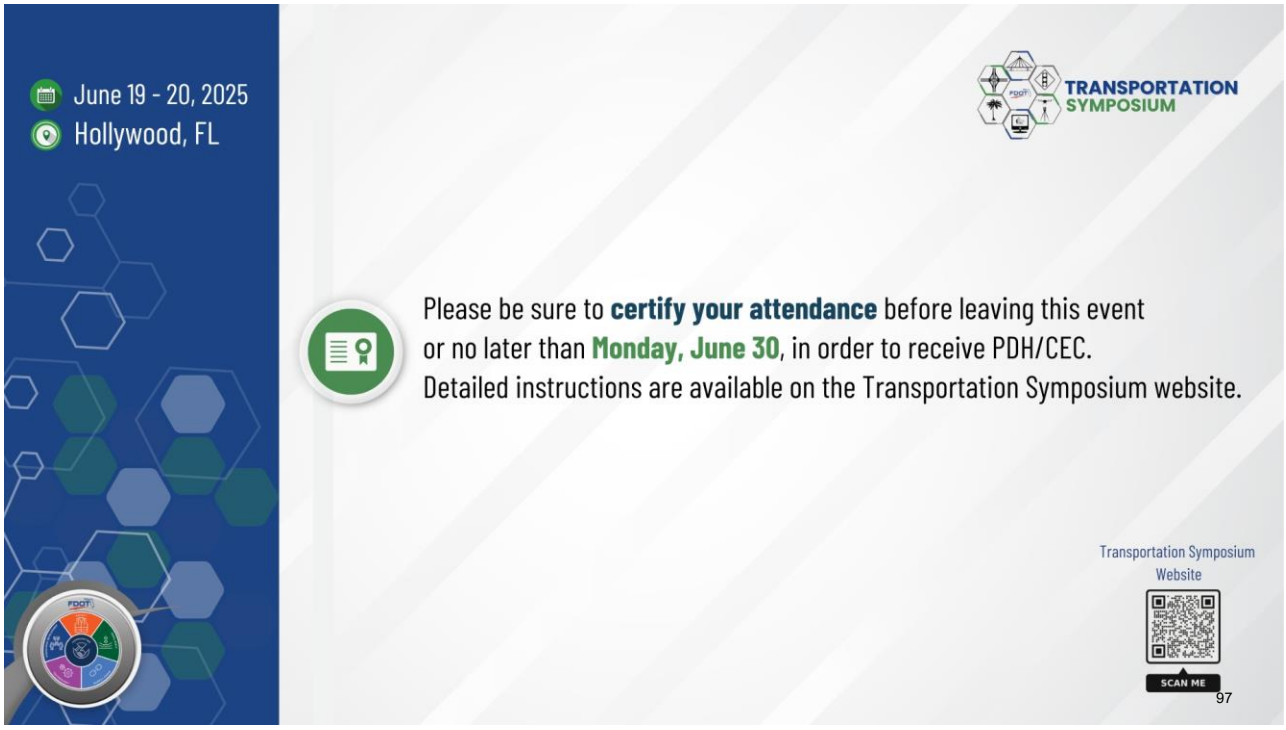


FDOT
District Map

https://www.fdot.gov/roadway/ada/adacontacts.shtm

FDOT

96


June 19 - 20, 2025
Hollywood, FL
TRANSPORTATION SYMPOSIUM
Please be sure to certify your attendance before leaving this event
or no later than Monday, June 30, in order to receive PDH/CEC.
Detailed instructions are available on the Transportation Symposium website.
Transportation Symposium Website
SCAN ME
97

97