FY 2019-20 Standard Plans
Update Training

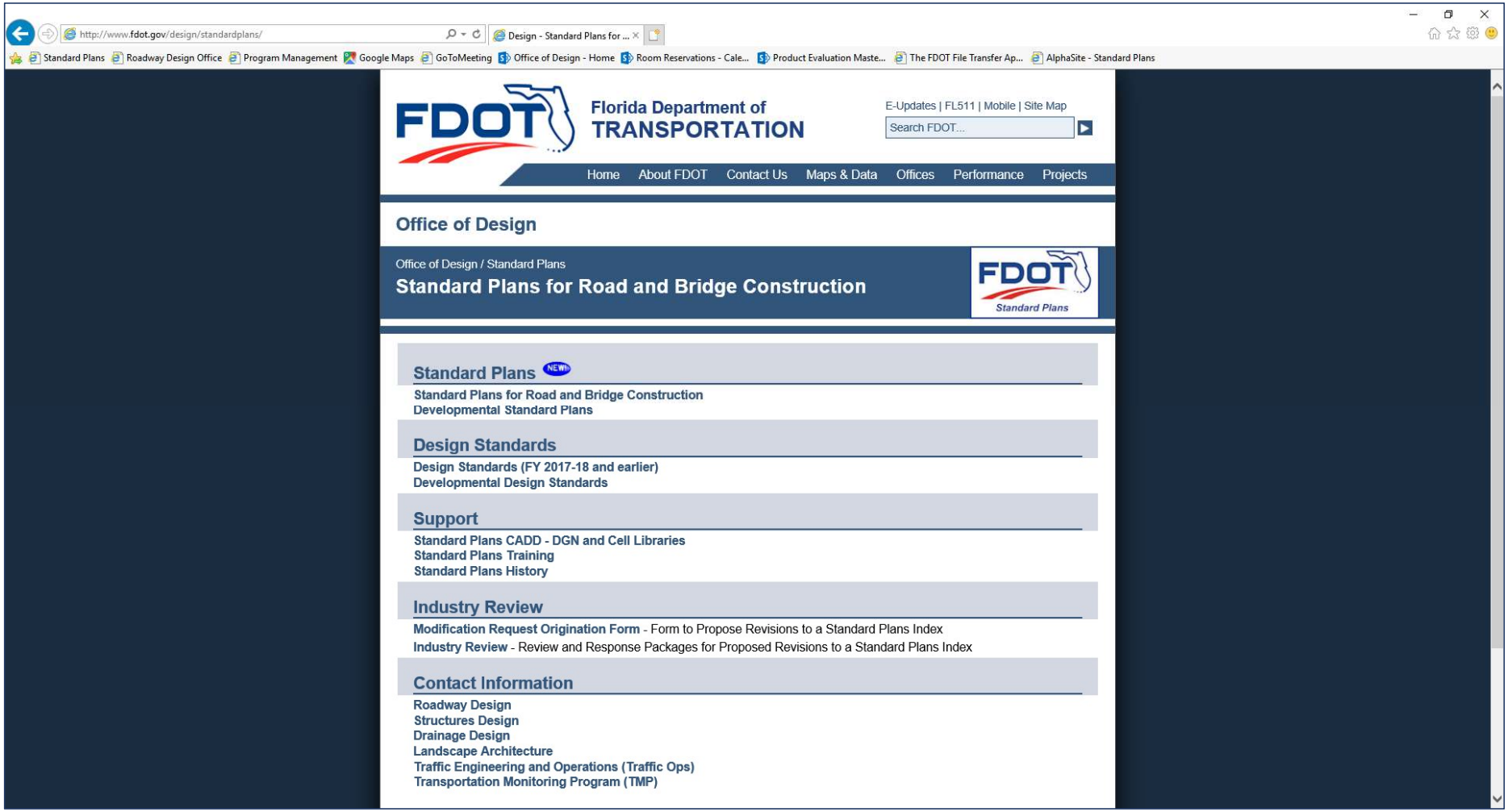
Derwood Sheppard, P.E., M.Eng.
Standard Plans Publication Engineer
Central Office, Roadway Design
(850) 414-4334
derwood.sheppard@dot.state.fl.us

Update Training Agenda

- **General Overview**
  - **Website**
  - **Revision History Log**
  - **Errata**
  - **FDOT Design Manual (FDM) Updates**
- **Standard Plans Updates**
  - **Derwood Sheppard**
    - Misc. Indexes – Earthwork Details, Superelevation, Turnouts/Driveways, Sidewalk, & Curb Ramps
    - Misc. Traffic Control Signals and Devices
  - **Richard Stepp**
    - Guardrail and Single-Slope Concrete Barrier
    - Opaque Visual Barrier
    - Crash Cushions
  - **Ed Cashman**
    - Temporary Traffic Control
    - Signing, Signal & Pavement Marking
    - Lighting
  - **Cheryl Hudson**
    - Structures Related Indexes

Standard Plans – New Website

http://www.fdot.gov/design/standardplans/



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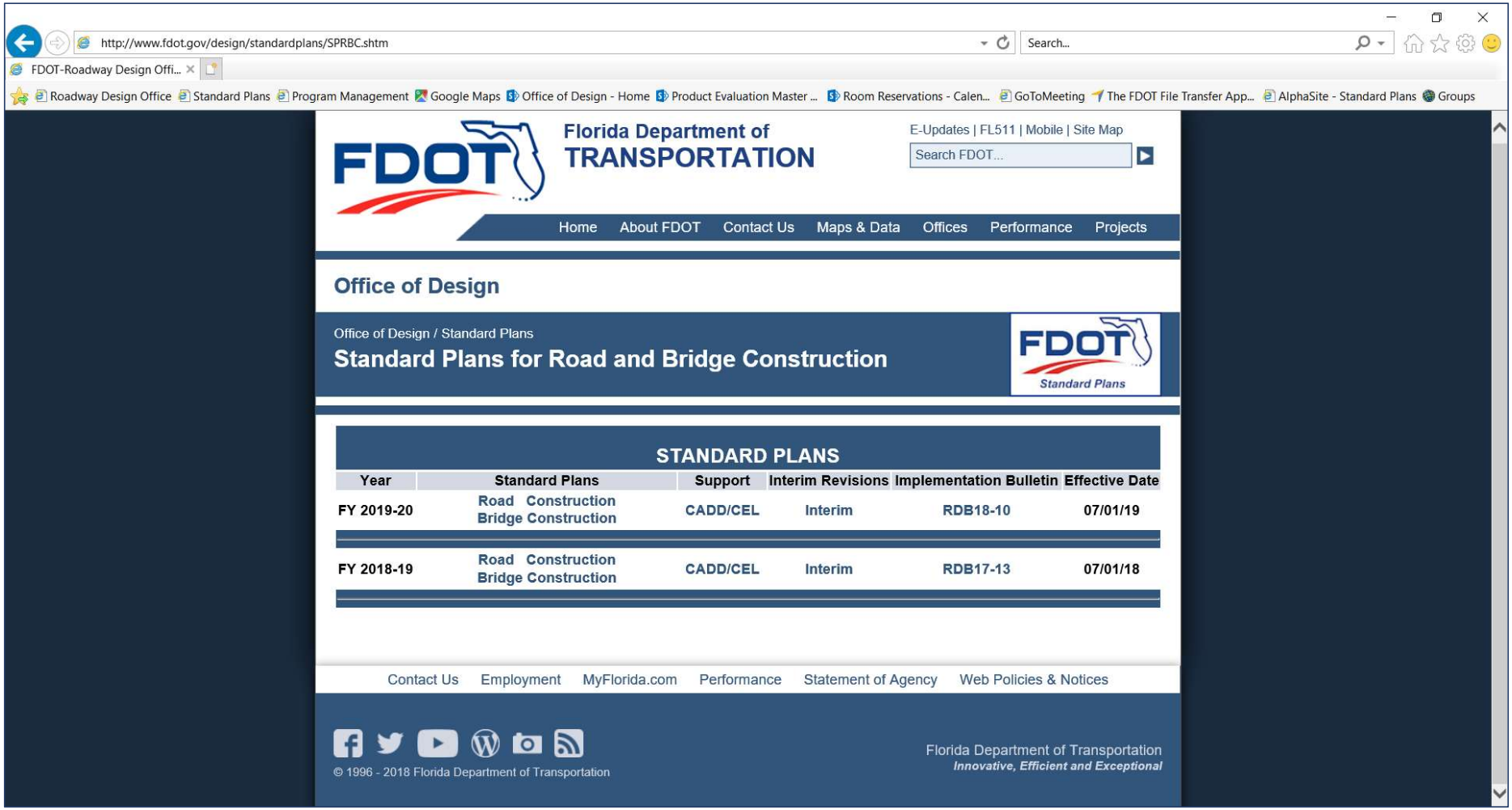

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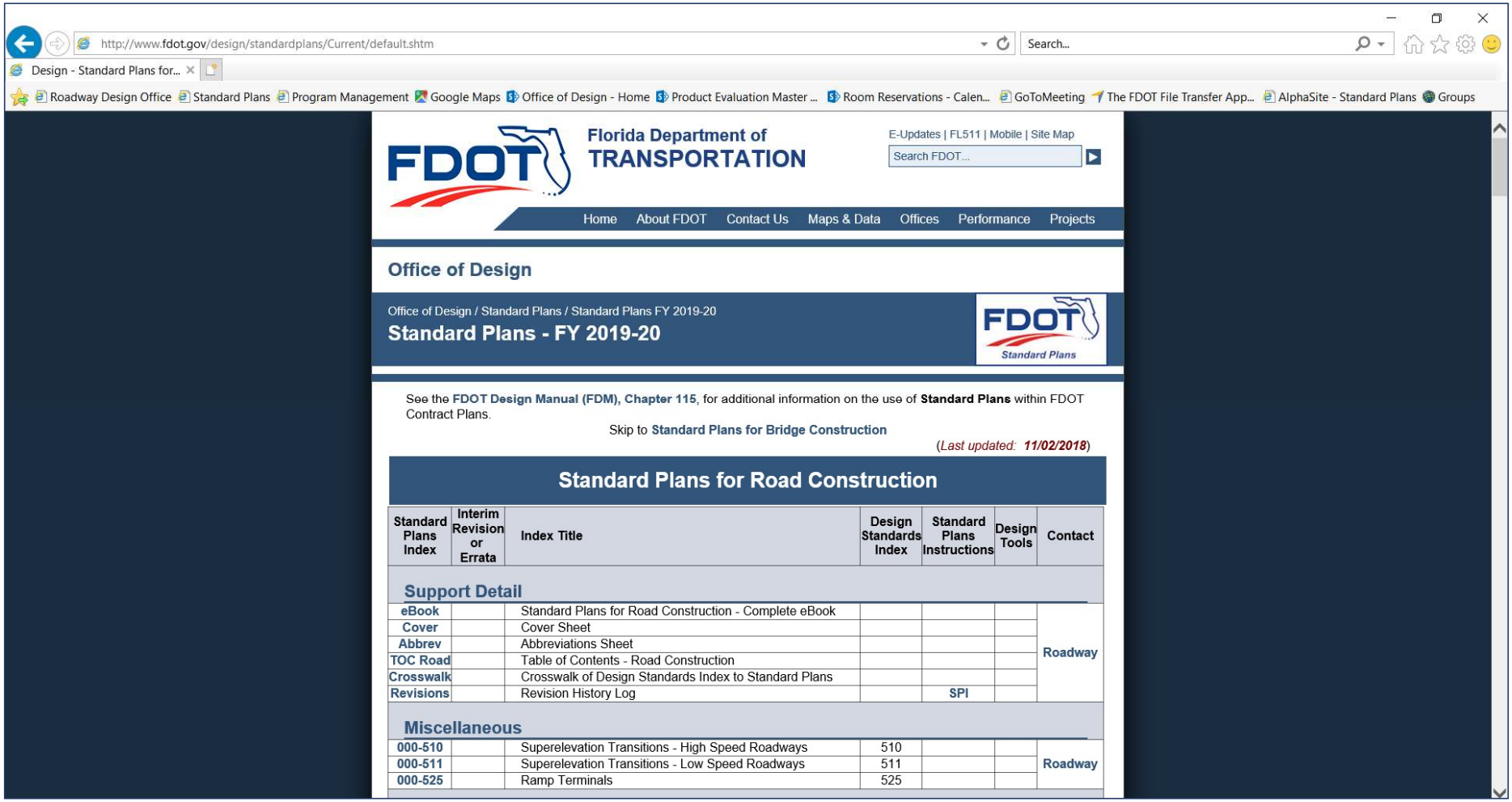

http://www.fdot.gov/design/standardplans/Current/default.shtm

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Standard Plans - FY 2019-20

See the **FDOT Design Manual (FDM), Chapter 115**, for additional information on the use of **Standard Plans** within FDOT Contract Plans.

Skip to **Standard Plans for Bridge Construction**

(*Last updated:* ***11/02/2018***)

Standard Plans for Road Construction

Standard Plans Index	Interim Revision or Errata	Index Title	Design Standards Index	Standard Plans Instructions	Design Tools	Contact
Support Detail						
eBook		Standard Plans for Road Construction - Complete eBook				Roadway
Cover		Cover Sheet				
Abbrev		Abbreviations Sheet				
TOC Road		Table of Contents - Road Construction				
Crosswalk		Crosswalk of Design Standards Index to Standard Plans				
Revisions		Revision History Log		SPI		
Miscellaneous						
000-510		Superelevation Transitions - High Speed Roadways	510			Roadway
000-511		Superelevation Transitions - Low Speed Roadways	511			
000-525		Ramp Terminals	525			

Standard Plans – Revision History

Revision Log:

STANDARD PLANS
FY 2019-20 REVISIONS LOG

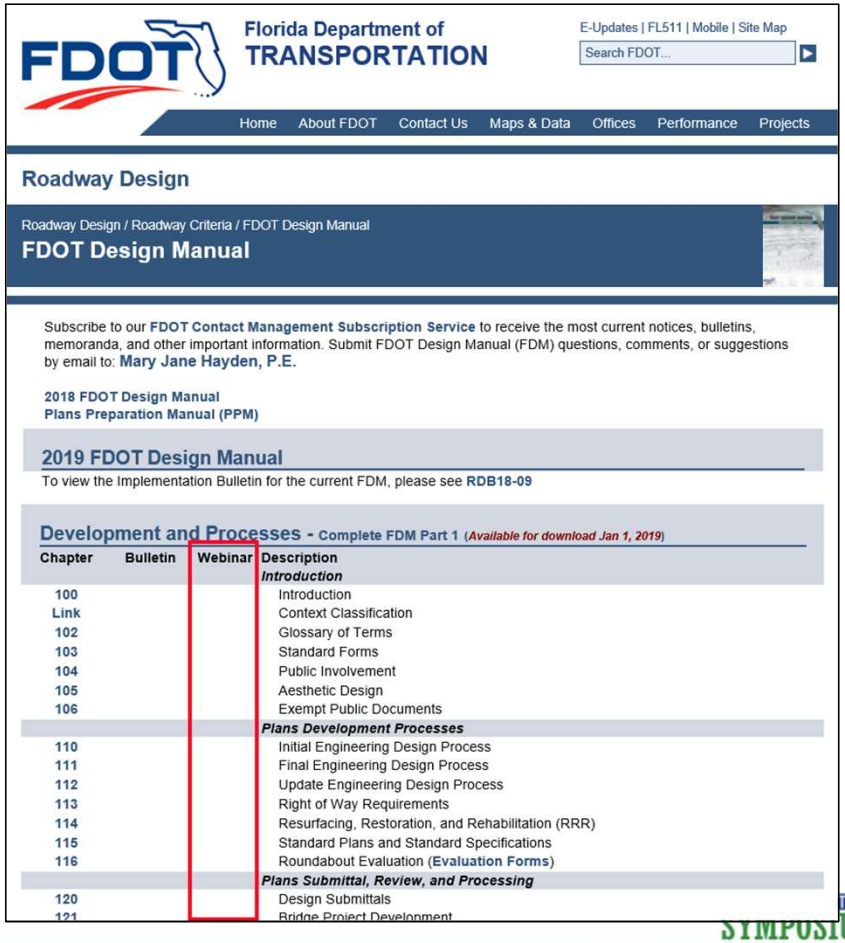
Standard Plans Index	Description
000-506	Changed to Index 160-001.
000-510	All Sheets: Changed Title. Sheet 1: Deleted "DESIGN SPEED" table and "RADIUS OF CURVE" table; Deleted subtitle. Sheet 2: Added Concrete Pavement note to clarify shoulder slope transitions.
000-511	All Sheets: Changed Title, Subtitles, and Renumbered. Sheet 1: Deleted Superelevations Rates Tabulated and Charted Values (information can be found in FDM); combined General Notes with Old Sheet 2; Deleted all callouts for "CHARTED VALUES" on Old Sheet 2. Sheet 2: Updated Subtitle.
000-515	Deleted Index, Criteria information moved to New FDM Chapter 214. Construction details moved to New Indexes 522-003 or 330-001.
000-516	Deleted Index and moved information to Index 330-001.
102-200	Sheet 1: "STORAGE FACILITY" Note; Changed phone number to 407-278-2727.
102-600	Sheet 3: Updated "LENGTH OF LANE CLOSURES" Note. Sheet 9: Changed "DROP-OFF CONDITION NOTES" Note 5.
102-655	Sheet 1: Changed Notes to remove limitations to Limited Access Facilities and Overhead work. Clarified "TRAFFIC PACING GUIDE" notes for the requirements of site specific traffic control plans. Added Note 6 to the "TRAFFIC PACING GENERAL NOTES" for short duration operations.

2019 FDOT Design Manual Updates

Individual Chapter Webinars

- **Coming Soon!!**
- **Announcement will be sent out**

www.fdot.gov/roadway/fdm



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Roadway Design

Roadway Design / Roadway Criteria / FDOT Design Manual

FDOT Design Manual

Subscribe to our **FDOT Contact Management Subscription Service** to receive the most current notices, bulletins, memoranda, and other important information. Submit FDOT Design Manual (FDM) questions, comments, or suggestions by email to: **Mary Jane Hayden, P.E.**

2018 FDOT Design Manual
Plans Preparation Manual (PPM)

2019 FDOT Design Manual

To view the Implementation Bulletin for the current FDM, please see **RDB18-09**

Development and Processes - Complete FDM Part 1 (*Available for download Jan 1, 2019*)

Chapter	Bulletin	Webinar	Description
			Introduction
100			Introduction
Link			Context Classification
102			Glossary of Terms
103			Standard Forms
104			Public Involvement
105			Aesthetic Design
106			Exempt Public Documents
			Plans Development Processes
110			Initial Engineering Design Process
111			Final Engineering Design Process
112			Update Engineering Design Process
113			Right of Way Requirements
114			Resurfacing, Restoration, and Rehabilitation (RRR)
115			Standard Plans and Standard Specifications
116			Roundabout Evaluation (**Evaluation Forms**)
			Plans Submittal, Review, and Processing
120			Design Submittals
121			Bridge Project Development

Standard Plans – Primary Updates:

1) ***General Overview and Website***

2) ***Misc. Indexes***

   a) ***Index 000-506 - Miscellaneous Earthwork Details (Including: Indexes 160-001 & 120-001)***

   b) ***Index 000-510 - Superelevation - High Speed Roadways***

   c) ***Index 000-511 - Superelevation - Low Speed Roadways***

   d) ***Index 000-515 - Turnouts and Driveways (Including: Indexes 522-003 & 330-001)***

      - ***Index 000-516 - Turnouts - Resurfacing Projects***

   e) ***Index 350-001 - Concrete Pavement Joints***

   f) ***Index 522-001 - Concrete Sidewalk***

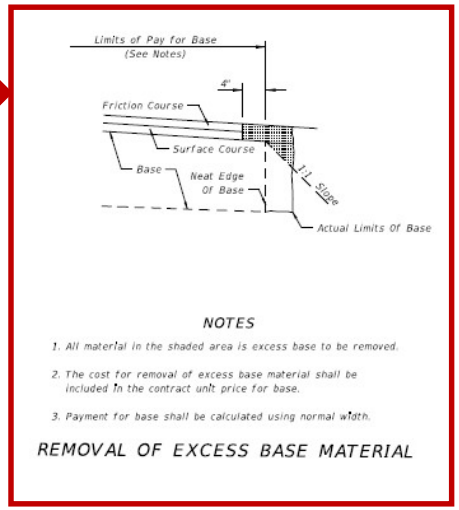
   g) ***Index 522-002 - Detectable Warnings and Sidewalk Curb Ramps***

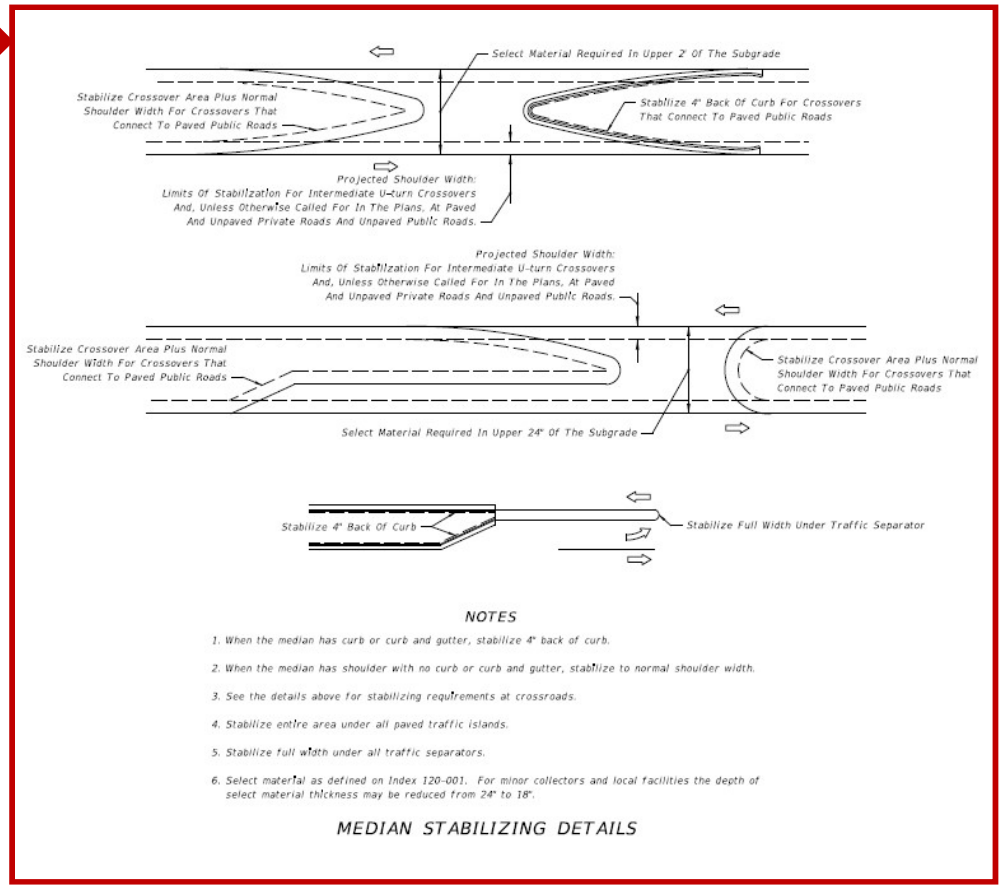
   h) ***Misc. Traffic Control Signals and Devices (Including: Indexes 630-001, 634-002, 635-001, 659-010, 660-001, and 676-010***

Miscellaneous Earthwork Details, Old Index 000-506

Re-Indexed 160-001: Stabilization Details

Index 120-001: Excess Base Materials Information Relocated



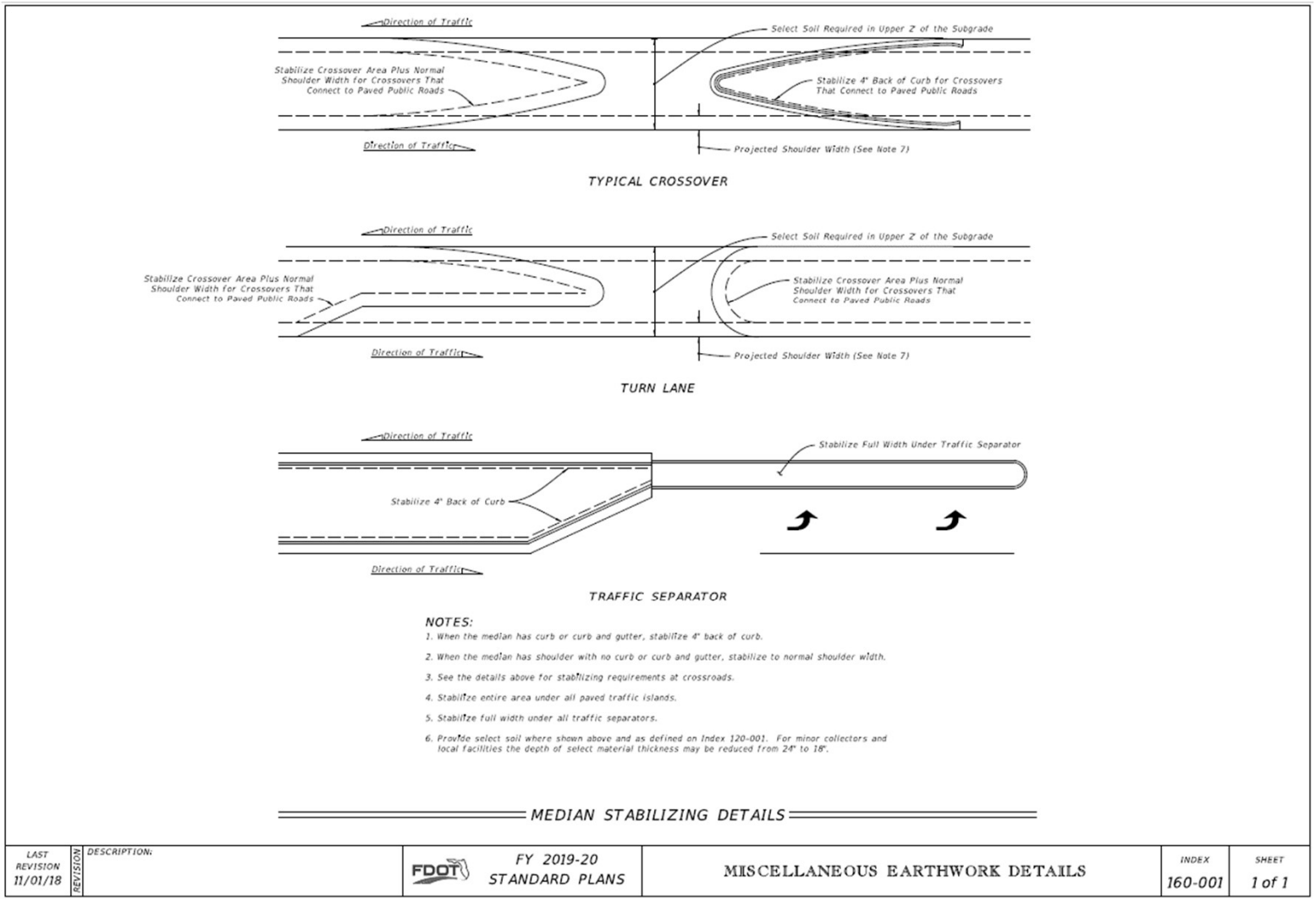


LAST REVISION 11/01/17	REVISION	DESCRIPTION:	FDOT FY 2018-19 STANDARD PLANS	MISCELLANEOUS EARTHWORK DETAILS	INDEX 000-506	SHEET 1 of 1

Miscellaneous Earthwork Details, Index 160-001

New Index 160-001:
Median Stabilizing Details

Specification 160 (*Stabilizing*)

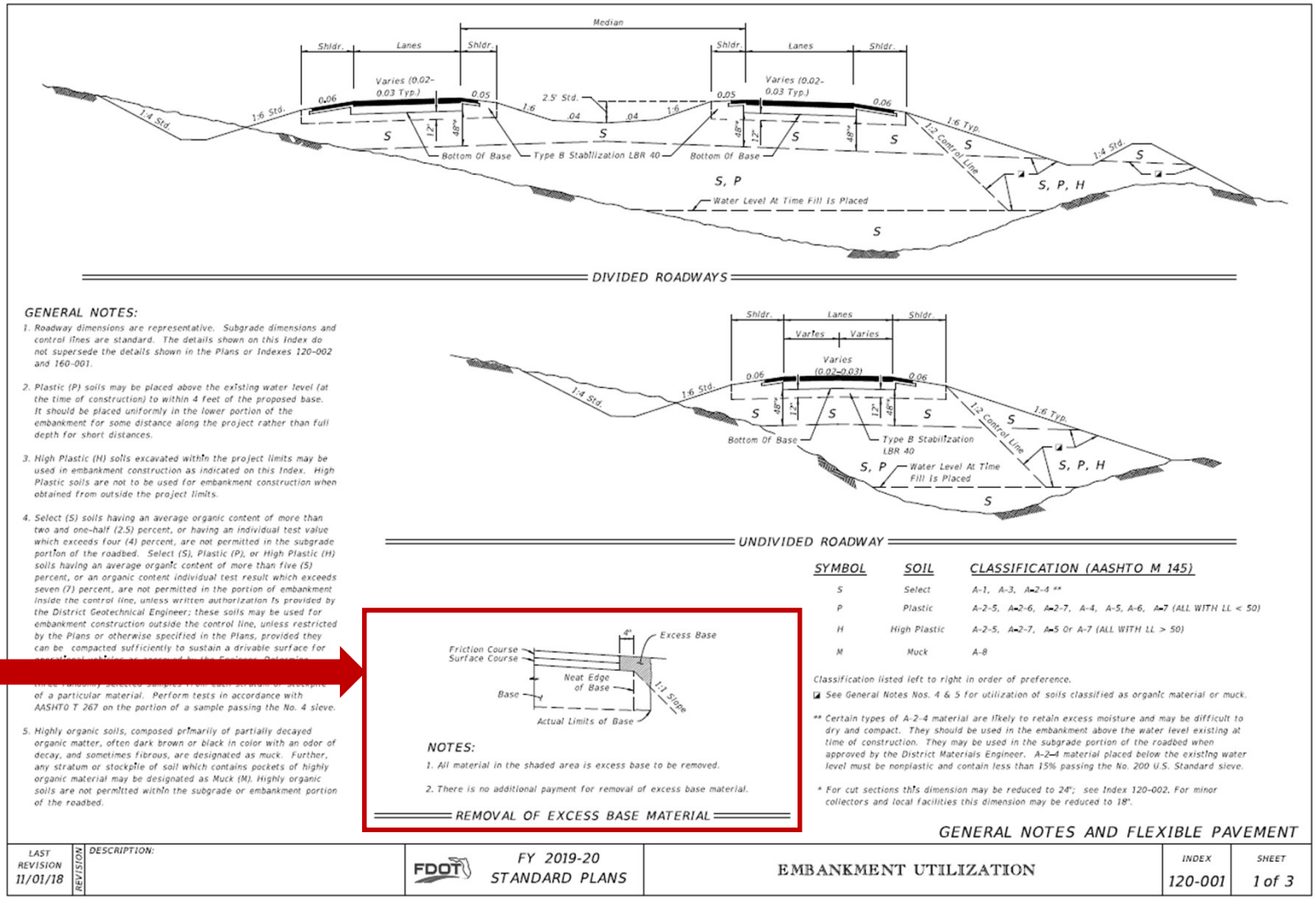


Embankment Utilization, Index 120-001

Updated:

- **Layout Style**
- **General Notes**

Removal of Excess Base Material



Embankment Utilization, Index 120-001

Removal of Treated Permeable Base Option

Departments Preference now:

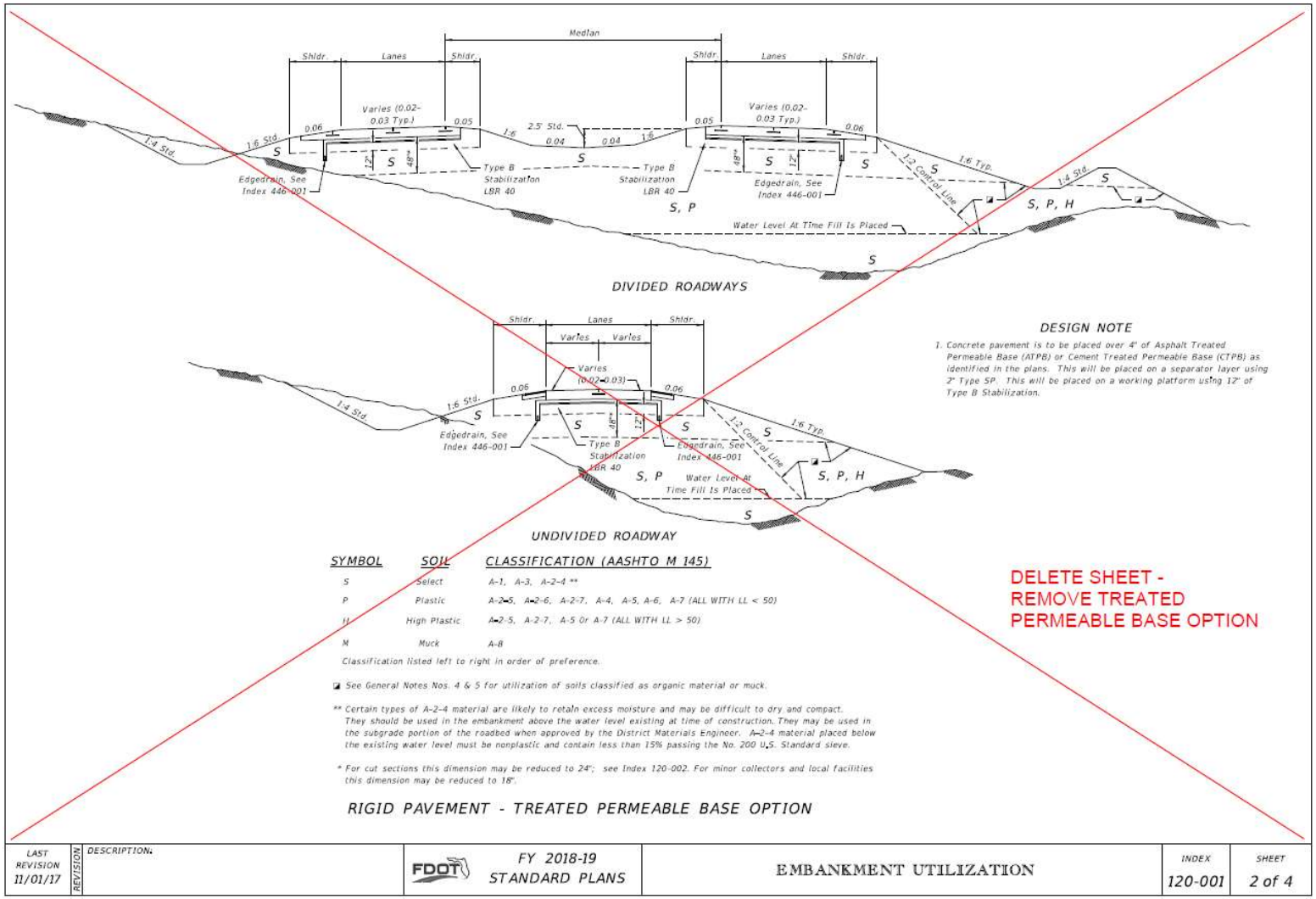
- **Asphalt Base**

  Or

- **Special Select Soils**

Refer to:

Rigid Pavement Design Manual



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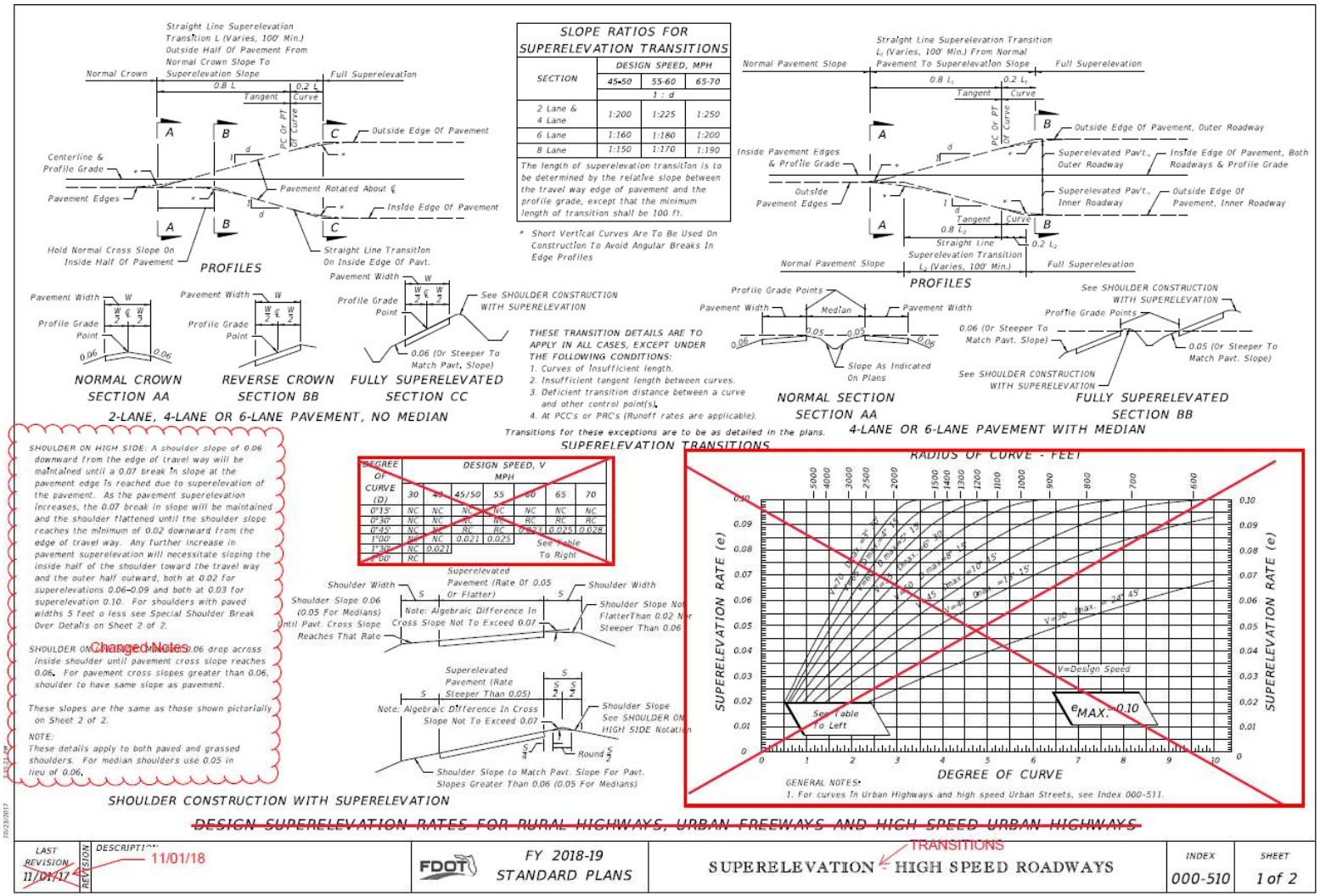
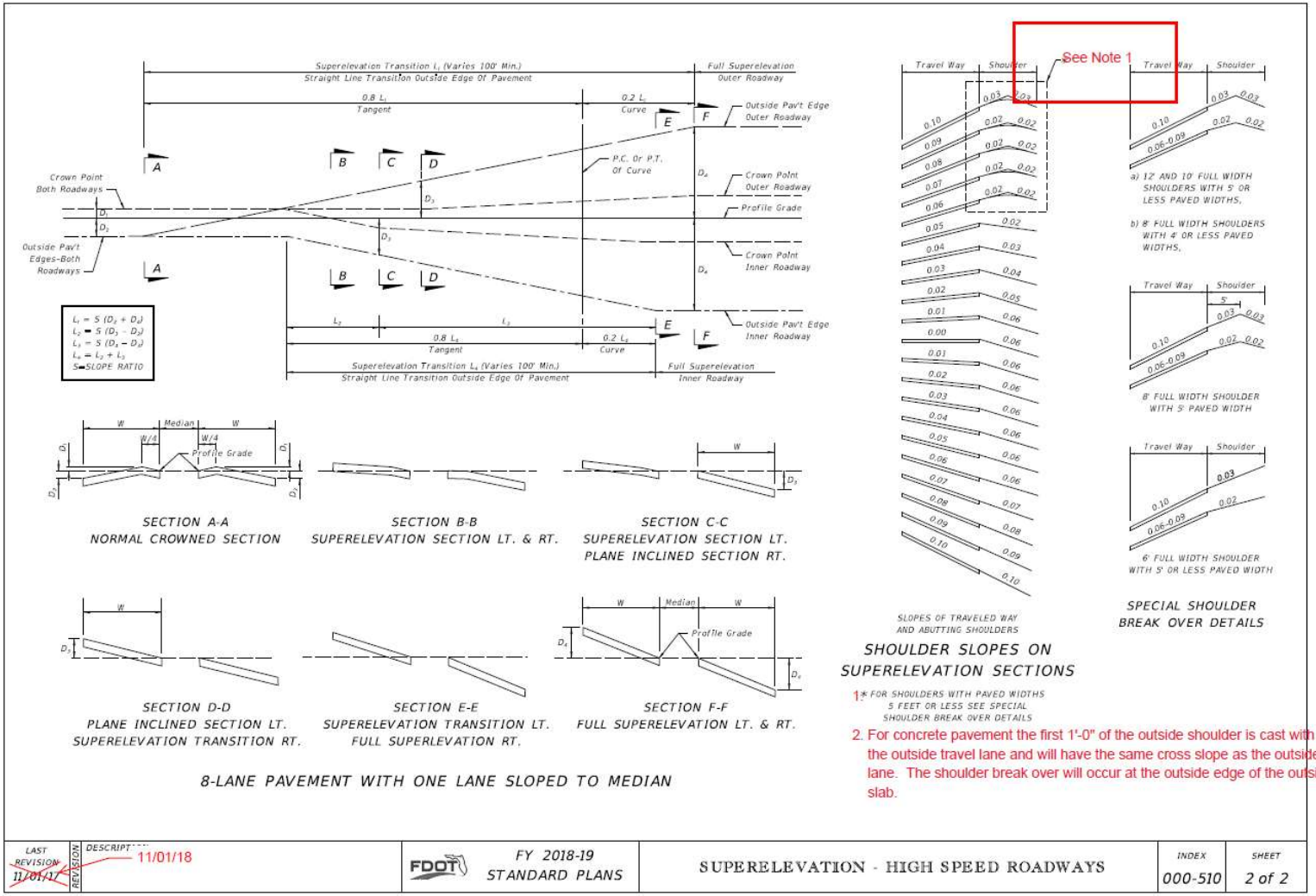
Superelevations – High Speed Roadways, Index 000-510

Removed Redundant Information Included in FDM 210.9



Superelevations – High Speed Roadways, Index 000-510

Added Note for Location of Shoulder Break for Concrete Pavement



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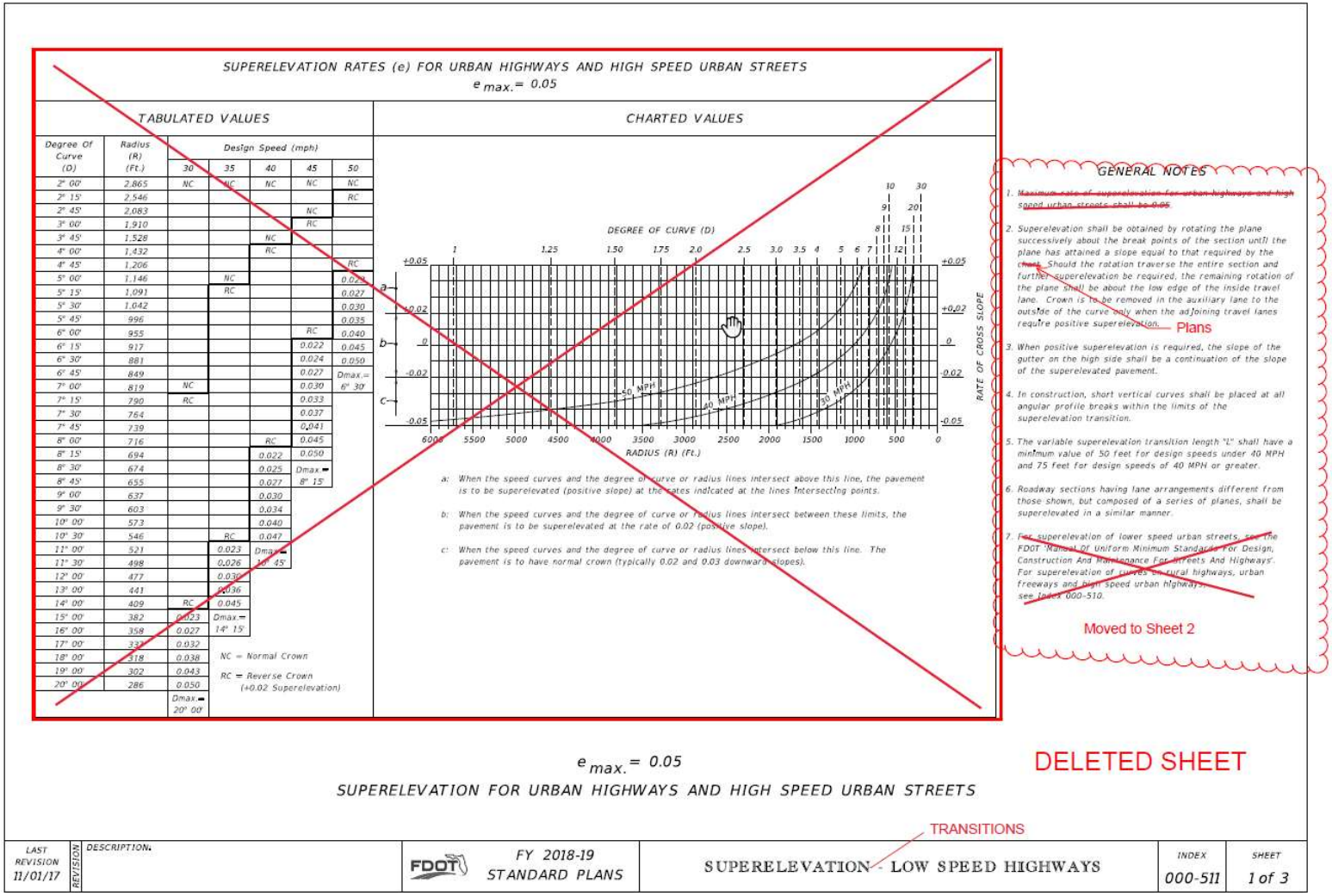
Superelevations – Low Speed Roadways, Index 000-511

Removed Redundant Information Included in FDM 210.9



SUPERELEVATION RATES (e) FOR URBAN HIGHWAYS AND HIGH SPEED URBAN STREETS

$e_{max.} = 0.05$

TABULATED VALUES

Degree Of Curve (D)	Radius (R) (Ft.)	Design Speed (mph) 30	35	40	45	50
2° 00'	2,865	NC	NC	NC	NC	NC
2° 15'	2,546					RC
2° 45'	2,083				NC	
3° 00'	1,910				RC	
3° 45'	1,528			NC		
4° 00'	1,432			RC		
4° 45'	1,206					RC
5° 00'	1,146		NC			0.020
5° 15'	1,091		RC			0.027
5° 30'	1,042					0.030
5° 45'	996					0.035
6° 00'	955				RC	0.040
6° 15'	917				0.022	0.045
6° 30'	881				0.024	0.050
6° 45'	849				0.027	Dmax.= 6° 30'
7° 00'	819	NC			0.030	
7° 15'	790	RC			0.033	
7° 30'	764				0.037	
7° 45'	739				0.041	
8° 00'	716			RC	0.045	
8° 15'	694			0.022	0.050	
8° 30'	674			0.025	Dmax.= 8° 15'	
8° 45'	655			0.027		
9° 00'	637			0.030		
9° 30'	603			0.034		
10° 00'	573			0.040		
10° 30'	546		RC	0.047		
11° 00'	521		0.023	Dmax.= 10° 45'		
11° 30'	498		0.026			
12° 00'	477		0.030			
13° 00'	441		0.036			
14° 00'	409	RC	0.045			
15° 00'	382	0.023	Dmax.= 14° 15'			
16° 00'	358	0.027				
17° 00'	337	0.032				
18° 00'	318	0.038				
19° 00'	302	0.043				
20° 00'	286	0.050				
		Dmax.= 20° 00'				

NC = Normal Crown

RC = Reverse Crown (+0.02 Superelevation)

CHARTED VALUES

a: When the speed curves and the degree of curve or radius lines intersect above this line, the pavement is to be superelevated (positive slope) at the rates indicated at the lines intersecting points.

b: When the speed curves and the degree of curve or radius lines intersect between these limits, the pavement is to be superelevated at the rate of 0.02 (positive slope).

c: When the speed curves and the degree of curve or radius lines intersect below this line. The pavement is to have normal crown (typically 0.02 and 0.03 downward slopes).

GENERAL NOTES

1. ~~Maximum rate of superelevation for urban highways and high speed urban streets shall be 0.05~~
2. Superelevation shall be obtained by rotating the plane successively about the break points of the section until the plane has attained a slope equal to that required by the chart. Should the rotation traverse the entire section and further superelevation be required, the remaining rotation of the plane shall be about the low edge of the inside travel lane. Crown is to be removed in the auxiliary lane to the outside of the curve only when the adjoining travel lanes require positive superelevation.
3. When positive superelevation is required, the slope of the gutter on the high side shall be a continuation of the slope of the superelevated pavement.
4. In construction, short vertical curves shall be placed at all angular profile breaks within the limits of the superelevation transition.
5. The variable superelevation transition length "L" shall have a minimum value of 50 feet for design speeds under 40 MPH and 75 feet for design speeds of 40 MPH or greater.
6. Roadway sections having lane arrangements different from those shown, but composed of a series of planes, shall be superelevated in a similar manner.
7. ~~For superelevation of lower speed urban streets, see the FDOT 'Manual Of Uniform Minimum Standards For Design, Construction And Maintenance For Streets And Highways'. For superelevation of curves on rural highways, urban freeways and high speed urban highways, see Index 000-510.~~

Plans

Moved to Sheet 2

$e_{max.} = 0.05$

SUPERELEVATION FOR URBAN HIGHWAYS AND HIGH SPEED URBAN STREETS

DELETED SHEET

TRANSITIONS

LAST REVISION	REVISION	DESCRIPTION.	FDOT	FY 2018-19 STANDARD PLANS	SUPERELEVATION - LOW SPEED HIGHWAYS	INDEX	SHEET
11/01/17						000-511	1 of 3

Standard Plans – Primary Updates:

1) *General Overview and Website*

2) *Misc. Indexes*

a) *Index 000-506 - Miscellaneous Earthwork Details (Including: Indexes 160-001 & 120-001)*

b) *Index 000-510 - Superelevation - High Speed Roadways*

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- *Index 000-516 - Turnouts - Resurfacing Projects*

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g) *Index 522-002 - Detectable Warnings and Sidewalk Curb Ramps*

h) *Misc. Traffic Control Signals and Devices (Including: Indexes 630-001, 634-002, 635-001, 659-010, 660-001, and 676-010*

Turnouts and Driveways, Old Indexes 000-515 & 000-516

Redevelopment Effort:

- **Criteria vs Construction Information**
  - **e.g.: Geometric Requirements**
    - Connection Width
    - Flare Distance
    - Radial Return Radius
    - Setback
  - **Definitions (i.e., Connection Categorie**
  - **Florida Administrative Code (F.A.C.), R**
    - Maintenance vs. Permittee Respo
    - Minimum Requirements
- **iveways)**
- **Index 522-003 (Concrete Driveways)**
- **Index 330-001 (Paved and Graded Driveways)**

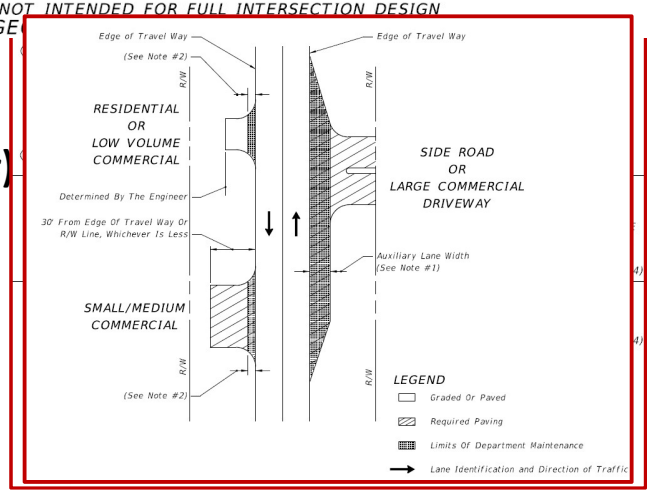
ELEMENT DESCRIPTION	CURBED ROADWAYS			FLUSH SHOULDER ROADWAYS		
	1-20 Trips/Day or 1-5 Trips/Hour	21-600 Trips/Day or 6-60 Trips/Hour	601-4000 Trips/Day ◪ or 61-400 Trips/Hour	1-20 Trips/Day or 1-5 Trips/Hour	21-600 Trips/Day or 6-60 Trips/Hour	601-4000 Trips/Day ◪ or 61-400 Trips/Hour
		2-Way □	2-Way □		2-Way □	2-Way □
CONNECTION WIDTH W	12' Min. 24' Max.	24' Min. 36' Max. ☆	24' Min. 36' Max. ☆	12' Min. 24' Max.	24' Min. 36' Max. ☆	24' Min. 36' Max. ☆
FLARE (Drop Curb) F	10' Min.	10' Min.	N/A	N/A	N/A	N/A
RETURNS (Radius) R & U	N/A	△	25' Min. 50' Std. 75' Max.	15' Min. 25' Std. 50' Max.	25' Min. 50' Std. 75' Max.	25' Min. 50' Std. (Or 3-Centered Curves)
ANGLE OF DRIVE Y		60°-90°	60°-90°		60°-90°	60°-90°
DIVISIONAL ISLAND (Throat Median)		4'-22' Wide	4'-22' Wide		4'-22' Wide	4'-22' Wide
SETBACK G	12' Min., All categories. See General Note No. 5.					

◪ Side road intersection design, with possible auxiliary lanes and channelization, may be necessary. Intersection design, with possible auxiliary lanes and channelization, should be considered for connections with more than 4000 trips/days.
□ "2-Way" refers to one "in" movement and one "out" movement i.e., not exclusive left or right turn lanes on the connection.
☆ When more than 2 lanes in the turnout connection are required, the 36' max. width may be increased to relieve interference between entering and exiting traffic which adversely affects traffic flow. These cases require documented site specific study and design.
△ Small radii may be used in lieu of flares as approved by the Department.
DESIGN NOTE: 1-Way connections will be designed to effectively eliminate unpermitted movements.

DESCRIPTION/PROJECTED AVERAGE VEHICLE TRIPS PER DAY OF SITE
Category A – Uses to 20 VTPD
Category B – Uses with 21 - 600 VTPD
Category C – Uses with 601 - 1,200 VTPD
Category D – Uses with 1,201 - 4,000 VTPD
Category E – Uses with 4,001 - 10,000 VTPD
Category F – Uses with 10,001 - 30,000 VTPD
Category G – Uses with 30,001 + VTPD

NOT INTENDED FOR FULL INTERSECTION DESIGN

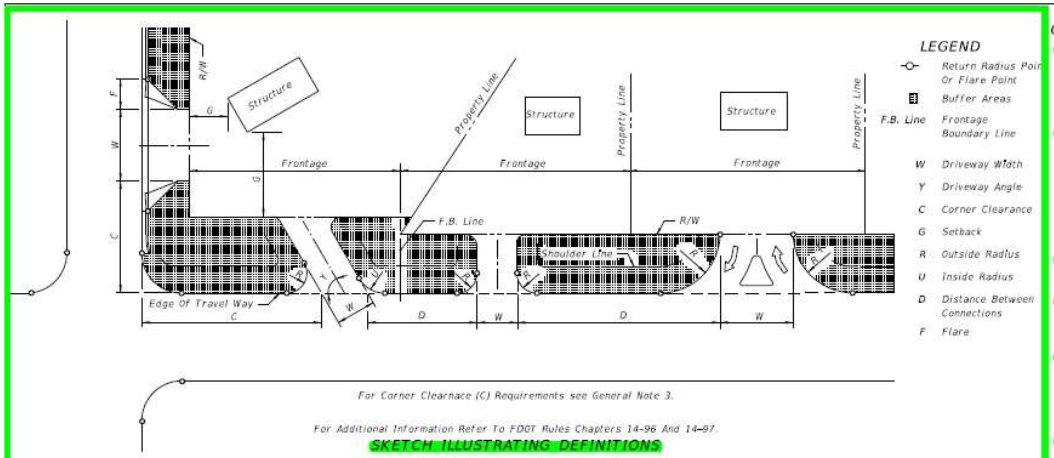
SUMMARY OF GE



Turnouts and Driveways, Old Indexes 000-515 & 000-516

Old SHEET 1 of 7:

Content Moved to *FDM 214*



ELEMENT DESCRIPTION	CURBED ROADWAYS			FLUSH SHOULDER ROADWAYS		
	1-20 Trips/Day or 1-5 Trips/Hour	21-600 Trips/Day or 6-60 Trips/Hour	601-4000 Trips/Day ◪ or 61-400 Trips/Hour	1-20 Trips/Day or 1-5 Trips/Hour	21-600 Trips/Day or 6-60 Trips/Hour	601-4000 Trips/Day ◪ or 61-400 Trips/Hour
		2-Way □	2-Way □		2-Way □	2-Way □
CONNECTION WIDTH W	12' Min. 24' Max.	24' Min. 36' Max. ☆	24' Min. 36' Max. ☆	12' Min. 24' Max.	24' Min. 36' Max. ☆	24' Min. 36' Max. ☆
FLARE (Drop Curb) F	10' Min.	10' Min.	N/A	N/A	N/A	N/A
RETURNS (Radius) R & U	N/A	△	25' Min. 50' Std. 75' Max.	15' Min. 25' Std. 50' Max.	25' Min. 50' Std. 75' Max.	25' Min. 50' Std. (Or 3-Centered Curves)
ANGLE OF DRIVE Y		60°-90°	60°-90°		60°-90°	60°-90°
DIVISIONAL ISLAND (Throat Median)		4'-22' Wide	4'-22' Wide		4'-22' Wide	4'-22' Wide
SETBACK G	12' Min., All categories. See General Note No. 5.					

◪ Side road intersection design, with possible auxiliary lanes and channelization, may be necessary. Intersection design, with possible auxiliary lanes and channelization, should be considered for connections with more than 4000 trips/days.
□ "2-Way" refers to one "In" movement and one "out" movement i.e., not exclusive left or right turn lanes on the connection.
☆ When more than 2 lanes in the turnout connection are required, the 36' max. width may be increased to relieve interference between entering and exiting traffic which adversely affects traffic flow. These cases require documented site specific study and design.
△ Small radii may be used in lieu of flares as approved by the Department.
DESIGN NOTE: 1-Way connections will be designed to effectively eliminate unpermitted movements.

NOT INTENDED FOR FULL INTERSECTION DESIGN
SUMMARY OF GEOMETRIC REQUIREMENTS FOR DRIVEWAY TURNOUTS

GENERAL NOTES

1. For definitions and descriptions of access connection "Categories" and access "Classifications" of highway segments, and for other detailed information on access to the State Highway System, refer to FDOT Rule Chapter 14-96, "State Highway Connection Permits Administrative Process" and Rule Chapter 14-97, "State Highway System Access Management Classification System And Standards."

2. For this index the term "turnout" applies to that portion of driveways or side roads adjoining the outer roadway. For this index the term "connection" encompasses a driveway or side road and their appurtenant islands, separators, transition tapers, auxiliary lanes, travelway flares, drainage pipes and structures, crossovers, sidewalks, curb cut ramps, signing, pavement marking, required signalization, maintenance of traffic or other means of access to or from controlled access facilities. The turnout requirements set forth in this index do not provide complete intersection design, construction or maintenance requirements.

3. The location, positioning, orientation, spacing and number of connections and median openings shall be in conformance with FDOT Rule Chapter 14-97.

4. On Department construction projects all driveways not shown on the plans shall be reconstructed at their existing location in conformance to these standards, or, in conformance to permits issued during the construction project.

5. Driveways shall have sufficient length and size for all vehicular queuing, stacking, maneuvering, standing and parking to be carried out completely beyond the right of way line. Except for vehicles stopping to enter the highway, the turnout areas and drives within the right of way shall be used only for moving vehicles entering or leaving the highway.

6. Connections with expected daily traffic over 4000 vpd shall be constructed as intersecting side roads. The design requirement of this index and that of the local government will be used to select appropriate connection widths, radii and intersection design, subject to the approval of the Department. For connections with expected daily traffic less than 4000 vpd, the Department will determine if a drop curb or radius returns are required in accordance with existing or planned connections. Where radius returns apply, the design requirements of this index and that of the local government will be used to select appropriate connection widths, radii and intersection design, subject to the approval of the Department.

For connections that are intended to daily accommodate either multi-unit vehicles or single unit vehicles exceeding 30' in length, returns with 50' radii shall be used, unless otherwise called for in the plans or otherwise stipulated by permit. Where large numbers of multi-unit vehicles will use the connection, the connection width and radii shall be increased and auxiliary lanes, tapers, lane flares, separators and/or islands constructed, as determined by the Department to be necessary for safe turning movements.

7. Any connection requiring or having a specified median opening with left turn storage and served directly by that opening shall have radial returns.

8. Where a connection is intended to align with a connection across the highway, the through lanes shall align directly with the corresponding through lanes.

9. For new connections and for connections on all new construction and reconstruction projects, pavement materials and thicknesses shall meet the requirements applicable to either that detailed for "Curbed Roadway-Flared Turnouts", or, that described in "Table 515-1" for connections with radial returns and/or auxiliary lanes.

10. The responsibility for the cost of construction or alteration to an access connection shall be in accordance with FDOT Rule Chapter 14-96.

DESIGN NOTES

1. Prior to the adoption of FDOT Rules Chapters 14-96 and 14-97, connections to the State Highway System were defined and permitted by Classes. Connections have been redfined by Categories under Rule 14-96, and, the term "Class" has been applied to highway segments of the State Highway System as defined under Rule 14-97.

LAST REVISION 11/01/17	REVISION	DESCRIPTION.	FDOT FY 2018-19 STANDARD PLANS	TURNOUTS AND DRIVEWAYS	INDEX 000-515	SHEET 1 of 7

Turnouts and Driveways, Old Indexes 000-515 & 000-516

Old SHEET 6 of 7:

Content Covered in F.A.C., *Rule 14-96*

MATERIAL TYPES AND THICKNESSES IN DRIVING AREAS FOR ALL CONNECTIONS

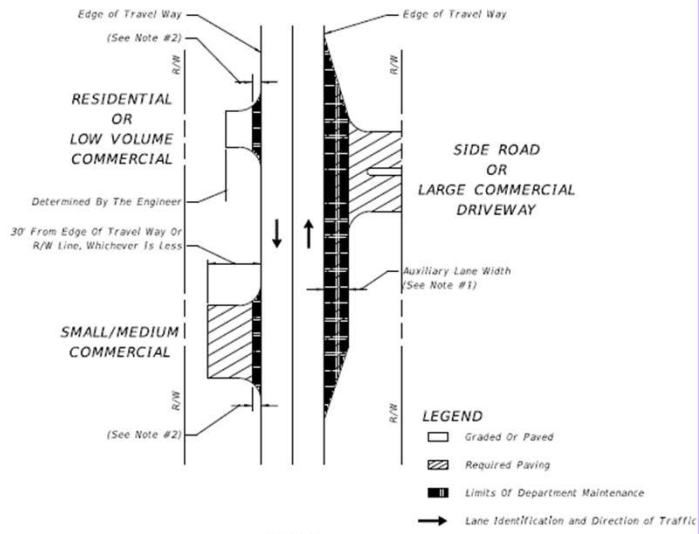
Course	Materials ②	Thickness (in.) ①	
		Connections ③	Roadway ④
Structural	Asphaltic Concrete	1"	1½"
Bases	Optional Base (See Spec. Section 285)	0.B.G. 1	0.B.G. 3

① Minimum thickness.
② All materials shall be approved by the Department prior to being placed.
③ Connection structure other than traffic lanes. See Notes 1 and 2 below.
④ Travel way flares (bypass lanes), auxiliary lanes serving more than a single connection, and all median crossovers including their auxiliary lanes and/or transition tapers. See Notes 1 and 2 below.

NOTES

1. The pavement should be structurally adequate to meet the expected traffic loads and should not be less than that shown above, except as approved by the Department for graded connections. Other Department-approved equivalent pavements may be used at the discretion of the Engineer.
2. Auxiliary lanes and their transition tapers shall be the same structure as the abutting travel way pavement thickness or any of the roadway structures tabulated above, whichever is thicker.
3. If an asphalt base course is used for a turnout, its thickness may be increased to match the edge of travel way pavement thickness in lieu of a separate structural course. 6" of Portland cement concrete will be acceptable in lieu of the asphalt base and structural courses. See Notes 4 and 5 below.
4. A structural course is required for flexible pavements when they are used for auxiliary lanes serving more than a single connection.
5. Connections paved with Portland cement concrete shall be Class NS concrete at least 6" thick. The Department may require greater thickness when called for in the plans or stipulated by permit. Materials and construction shall conform with FDOT Standard Specifications Sections 347, 350 and 522.
6. The Department may require other pavement criteria where local conditions warrant.

PAVEMENT STRUCTURE FOR TURNOUTS AND AUXILIARY LANES
TABLE 515-1



NOTES

1. Auxiliary lane pavements and crossover pavements shall be maintained by the Department.
2. Department maintenance of turnout pavement extends 5' from edge of the travel way or to the edge of paved shoulder, whichever is greater. The remainder of any turnout paved area on the right of way shall be maintained by the owner or his authorized agent. As a function of routinely reworking shoulders, the Department may grade and shape existing material on nonpaved areas beyond the maintained pavement.
3. Control and maintenance of drainage facilities within the right of way shall be solely the responsibility of the Department, unless specified differently by Department permit.
4. The maintenance and operation of highway lighting, traffic signals, associated equipment, and other necessary devices shall be the responsibility of a public agency.
5. All pavement markings on the State highways, including acceleration and deceleration lane markings, and signing installed for the operation of the State highway shall be maintained by the Department.
6. All signing and marking installed for the operation of the connection (such as stop bars and stop signs for the connection) shall be the responsibility of the permittee.

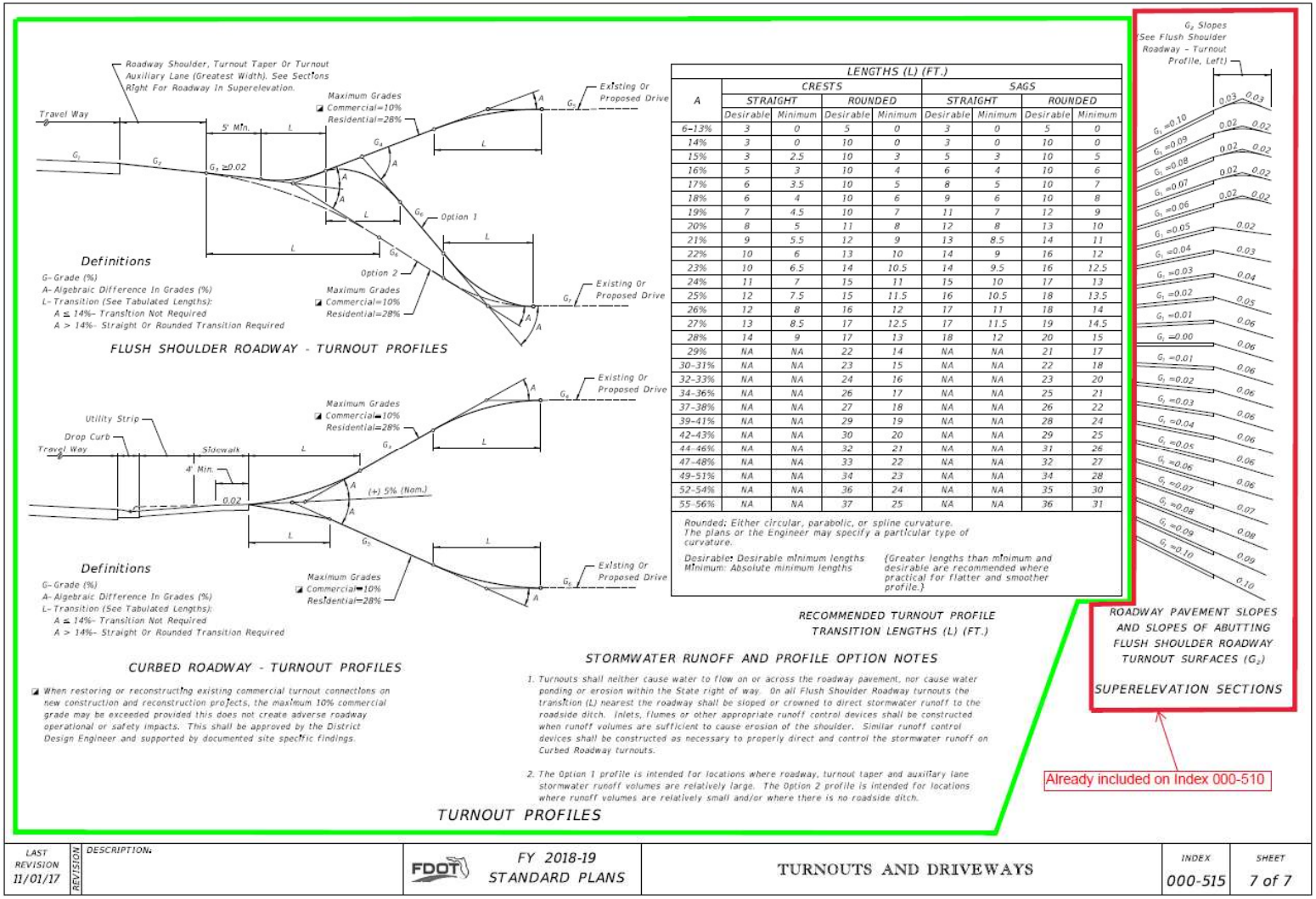
LIMITS OF CONSTRUCTION AND MAINTENANCE FOR FLUSH SHOULDER ROADWAY CONNECTIONS

LAST REVISION 11/01/17	REVISION DESCRIPTION.	FDOT FY 2018-19 STANDARD PLANS	TURNOUTS AND DRIVEWAYS	INDEX 000-515	SHEET 6 of 7

Turnouts and Driveways, Old Indexes 000-515 & 000-516

Old SHEET 7 of 7:

Content Moved to *FDM 214*



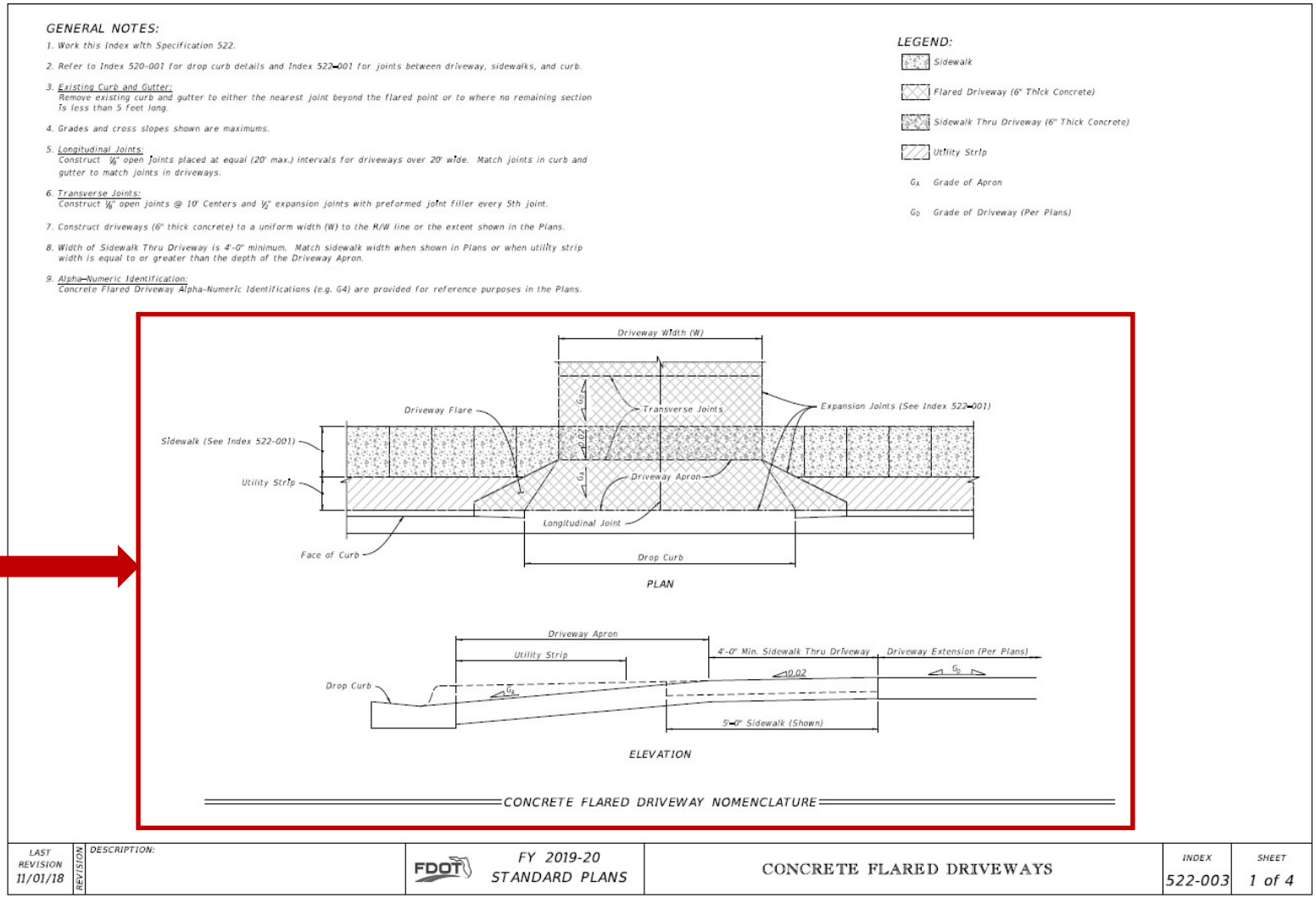
NEW - Concrete Flared Driveways, Index 522-003

SHEET 1 of 4:

Formatted to Resemble *Index 522-002* for Curb Ramps

Construction Information from Sheet 2 of Old *Index 000-515*

Added Nomenclature Drawings to Define Components



GENERAL NOTES:

1. Work this Index with Specification 522.
2. Refer to Index 520-001 for drop curb details and Index 522-001 for joints between driveway, sidewalks, and curb.
3. Existing Curb and Gutter:
   Remove existing curb and gutter to either the nearest joint beyond the flared point or to where no remaining section is less than 5 feet long.
4. Grades and cross slopes shown are maximums.
5. Longitudinal Joints:
   Construct 1/8" open joints placed at equal (20' max.) intervals for driveways over 20' wide. Match joints in curb and gutter to match joints in driveways.
6. Transverse Joints:
   Construct 1/8" open joints @ 10' Centers and 1/2" expansion joints with preformed joint filler every 5th joint.
7. Construct driveways (6" thick concrete) to a uniform width (W) to the R/W line or the extent shown in the Plans.
8. Width of Sidewalk Thru Driveway is 4'-0" minimum. Match sidewalk width when shown in Plans or when utility strip width is equal to or greater than the depth of the Driveway Apron.
9. Alpha-Numeric Identification:
   Concrete Flared Driveway Alpha-Numeric Identifications (e.g. G4) are provided for reference purposes in the Plans.

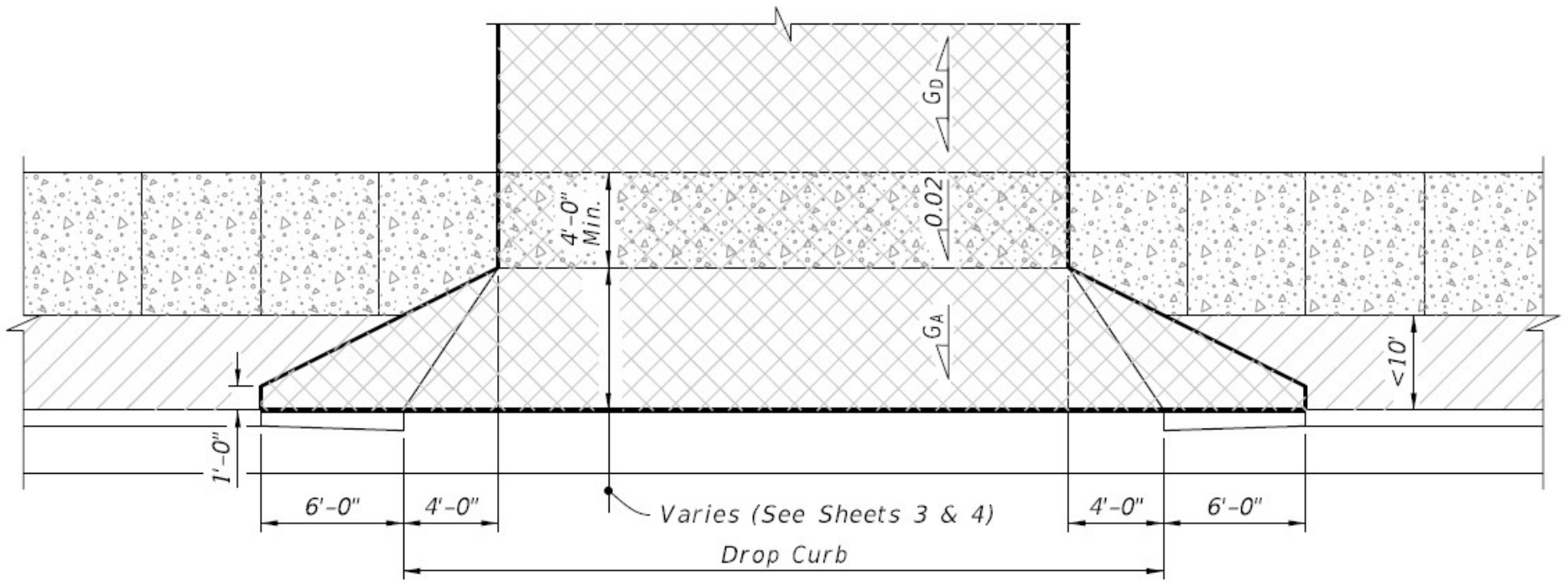
LEGEND:

- Sidewalk
- Flared Driveway (6" Thick Concrete)
- Sidewalk Thru Driveway (6" Thick Concrete)
- Utility Strip
- G_A Grade of Apron
- G_D Grade of Driveway (Per Plans)

CONCRETE FLARED DRIVEWAY NOMENCLATURE

LAST REVISION 11/01/18	REVISION DESCRIPTION:	FDOT FY 2019-20 STANDARD PLANS	CONCRETE FLARED DRIVEWAYS	INDEX 522-003	SHEET 1 of 4

NEW - Concrete Flared Driveways, Index 522-003



UTILITY STRIP < 10' WIDE

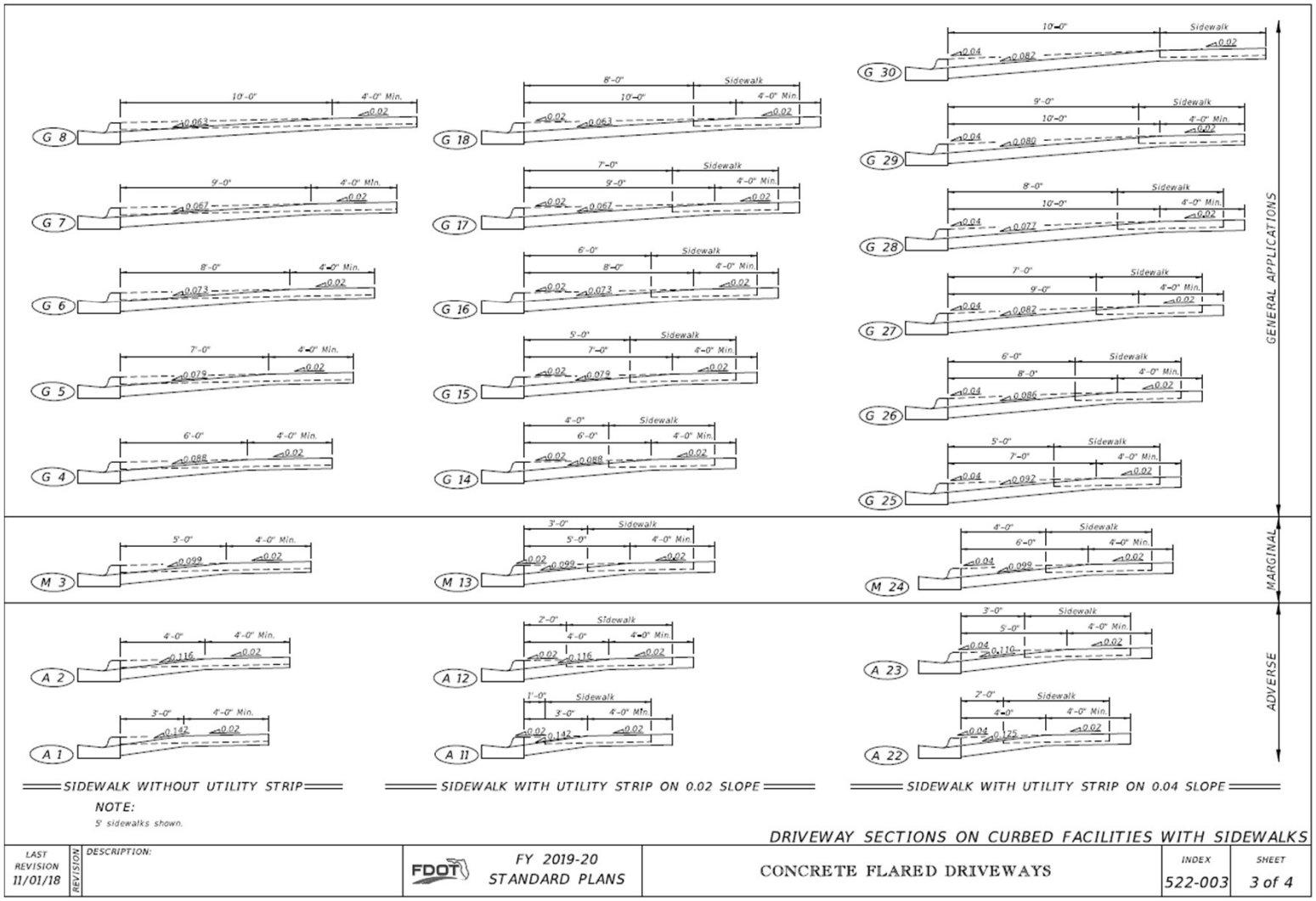
NEW - Concrete Flared Driveways, Index 522-003

SHEET 3 of 4:

Typical Driveway Profiles: Alpha-Numeric Identifications

Details from Old *Index 000-515*

Sheet 4 of 4 Similar



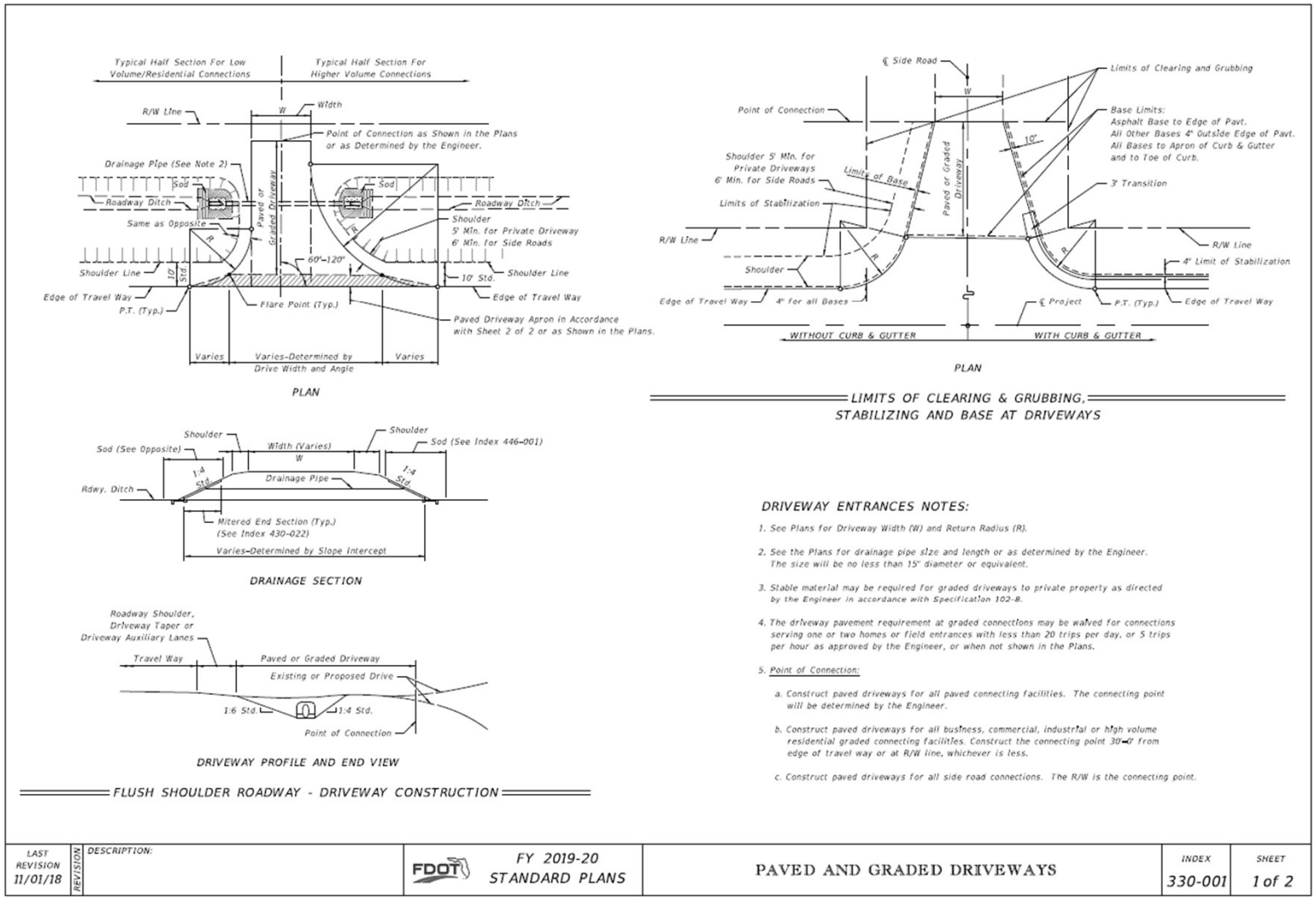
NEW - Paved and Graded Driveways, Index 330-001

SHEET 1 of 2:

Relocated Information Relating to Paved and Graded Driveways From Indexes 000-515 and 000-516

Construction Information from Sheet 5 of Old *Index 000-515*

Updated Notes to Remove Construction Phase Discussion Making



NEW - Paved and Graded Driveways, Index 330-001

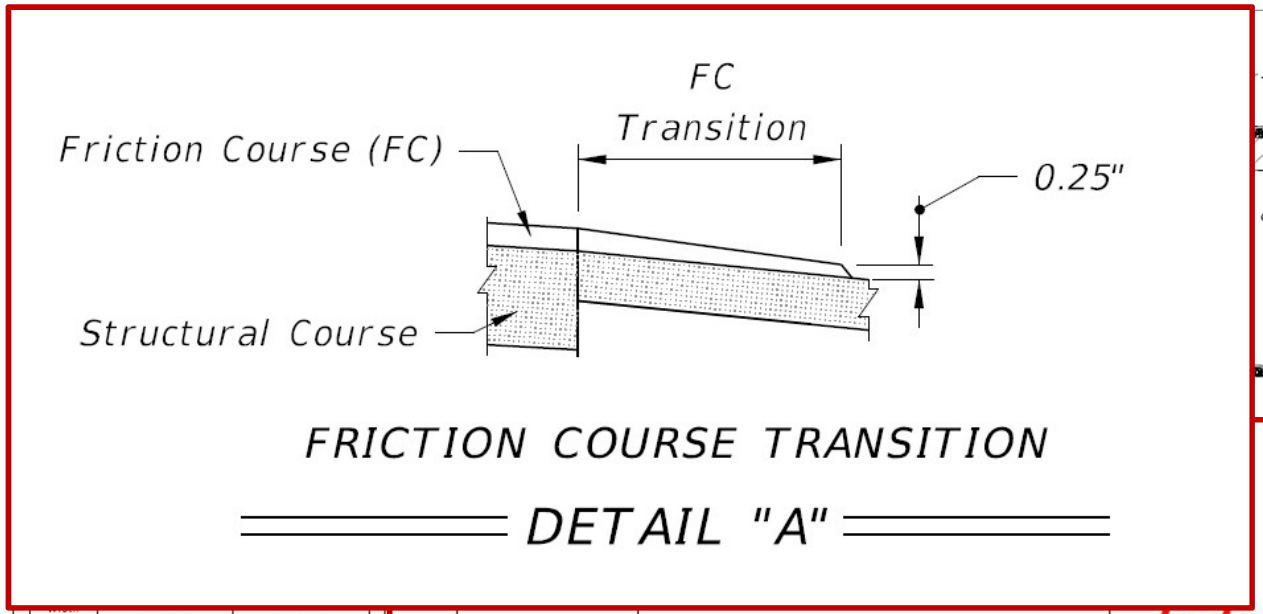
SHEET 2 of 2:

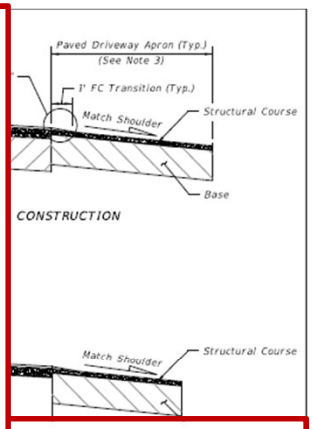
Construction Information from Old *Index 000-516*

Updated Material Requirements to Work for New Construction and Resurfacing Projects

Updated Cross-Sections

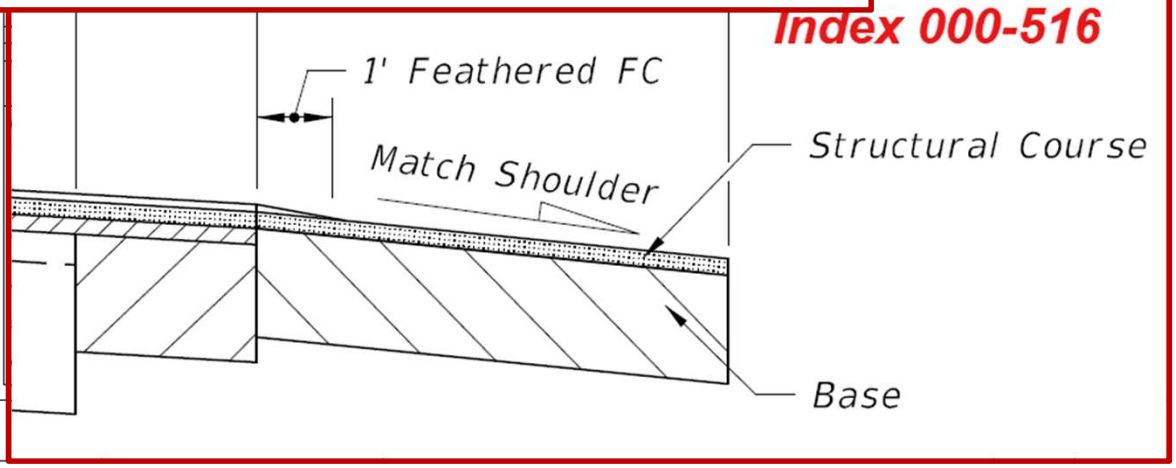
Added NEW Friction Course Transition Detail (*DETAIL 'A'*)





(Ft.)	Type I	Type II	Type I	Type II
12	26	51	31	60
14	27	52	33	61
16	28	53	34	63
18	29	54	35	64
20	31	55	37	65
22	32	56	38	67
24	33	57	39	68
26	34	58	40	69
28	35	59	42	70
30	36	61	43	72
32	37	62	44	73
34	38	63	46	74
36	39	64	47	76
38	41	65	48	77
40	42	66	49	78
42	43	67	51	79
44	44	68	52	81
46	45	69	53	82
48	46	71	55	83
50	47	72	56	85
52	48	73	57	86
54	49	74	58	87
56	51	75	60	88
58	52	76	61	90
60	53	77	62	91

LAST REVISION 11/01/18 | REVISION | DESCRIPTION:



Standard Plans – Primary Updates:

1) ***General Overview and Website***

2) ***Misc. Indexes***

a) ***Index 000-506 - Miscellaneous Earthwork Details (Including: Indexes 160-001 & 120-001)***

b) ***Index 000-510 - Superelevation - High Speed Roadways***

c) ***Index 000-511 - Superelevation - Low Speed Roadways***

d) ***Index 000-515 - Turnouts and Driveways (Including: New Indexes 522-003 & 330-001)***

- ***Index 000-516 - Turnouts - Resurfacing Projects***

e) ***Index 350-001 - Concrete Pavement Joints***

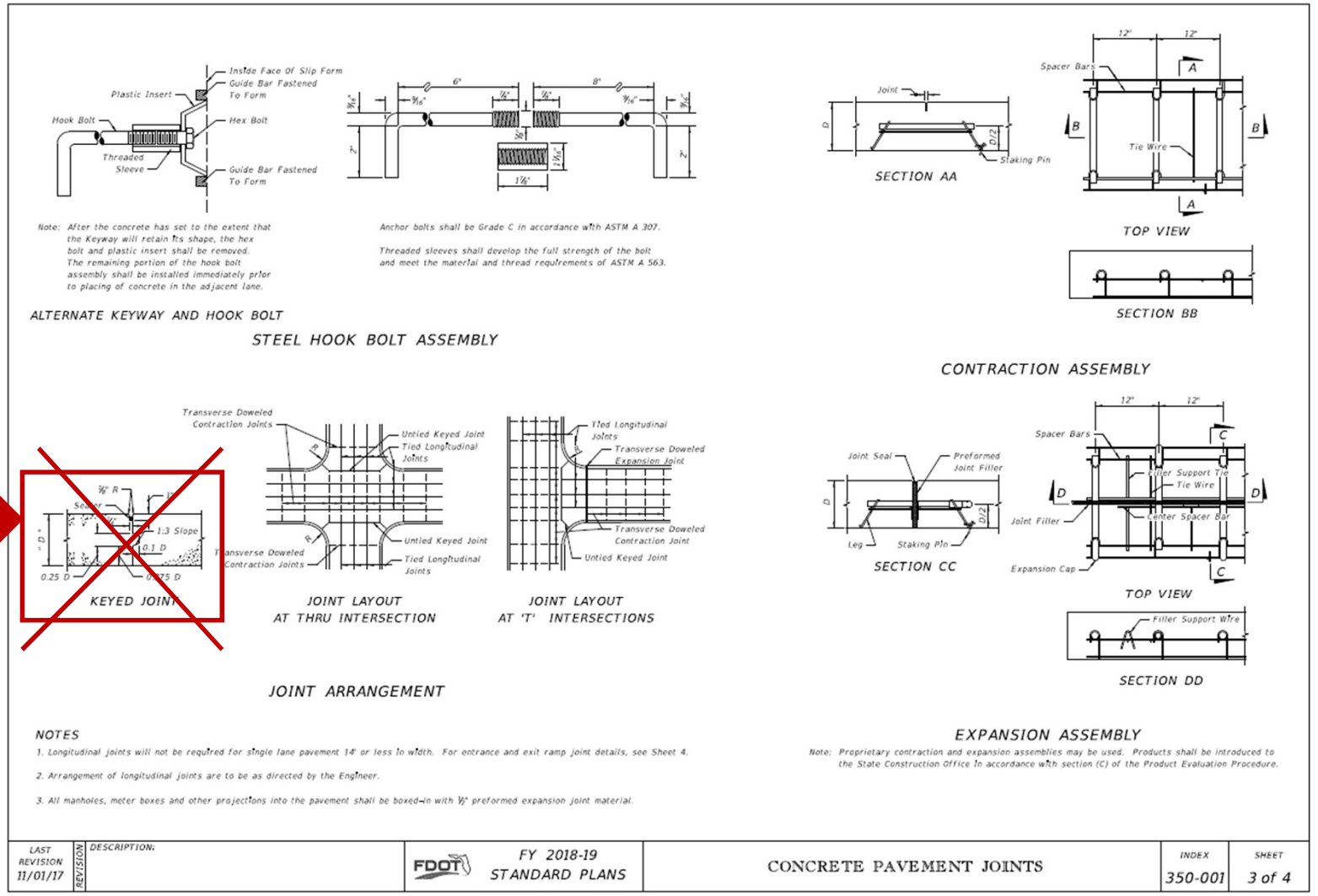
f) ***Index 522-001 - Concrete Sidewalk***

g) ***Index 522-002 - Detectable Warnings and Sidewalk Curb Ramps***

h) ***Misc. Traffic Control Signals and Devices (Including: Indexes 630-001, 634-002, 635-001, 659-010, 660-001, and 676-010***

Concrete Pavement Joints, Index 350-001

Deleted Keyed Joint



Standard Plans – Primary Updates:

1) *General Overview and Website*

2) *Misc. Indexes*

a) *Index 000-506 - Miscellaneous Earthwork Details (Including: Indexes 160-001 & 120-001)*

b) *Index 000-510 - Superelevation - High Speed Roadways*

c) *Index 000-511 - Superelevation - Low Speed Roadways*

d) *Index 000-515 - Turnouts and Driveways (Including: New Indexes 522-003 & 330-001)*

- *Index 000-516 - Turnouts - Resurfacing Projects*

e) *Index 350-001 - Concrete Pavement Joints*

f) *Index 522-001 - Concrete Sidewalk*

g) *Index 522-002 - Detectable Warnings and Sidewalk Curb Ramps*

h) *Misc. Traffic Control Signals and Devices (Including: Indexes 630-001, 634-002, 635-001, 659-010, 660-001, and 676-010*

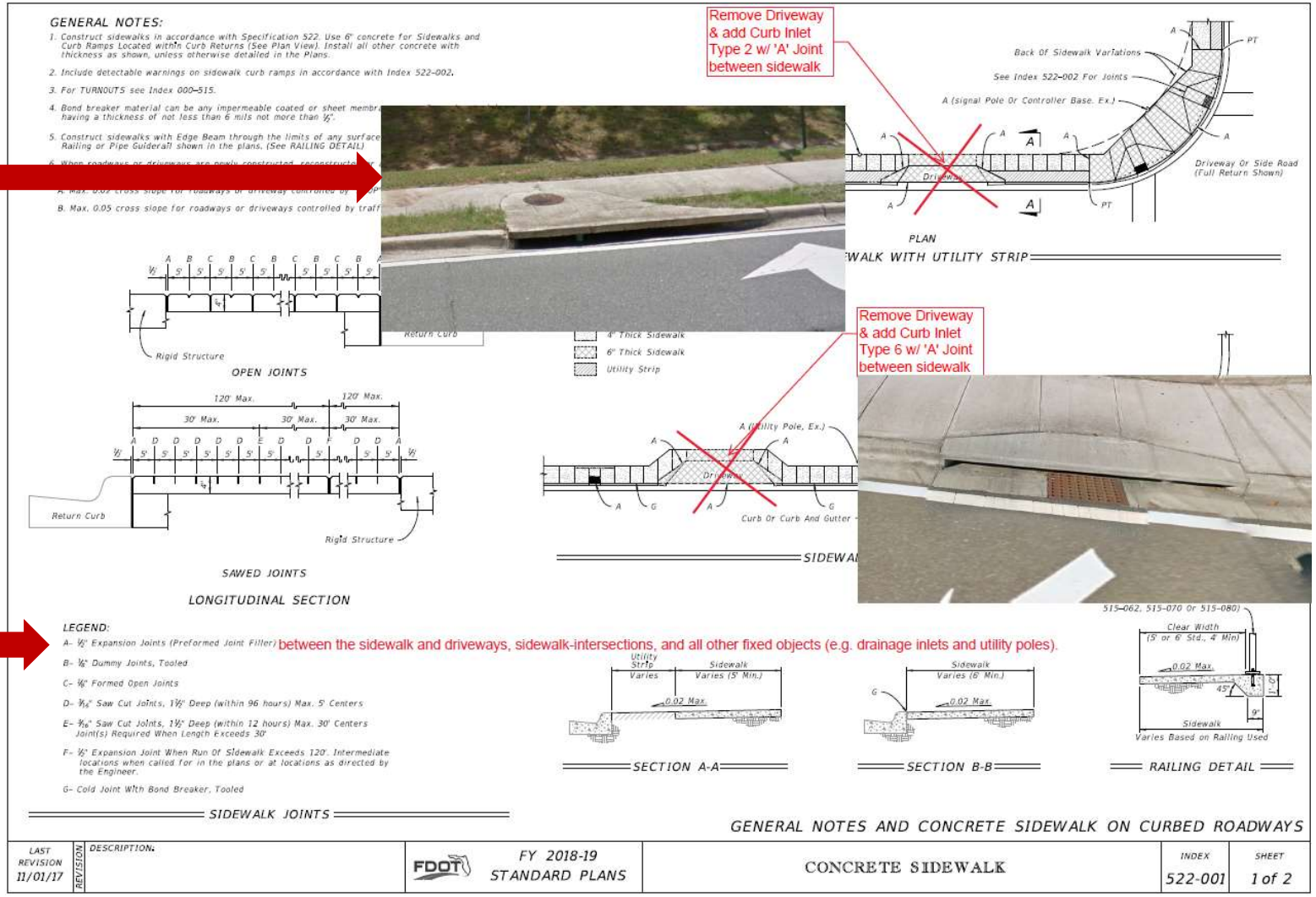
Concrete Sidewalk, Index 522-001

SHEET 1 of 2:

Added Curb Inlets to Examples

Clarified Intent of Expansion Joint Locations

Revised:
Specification 522

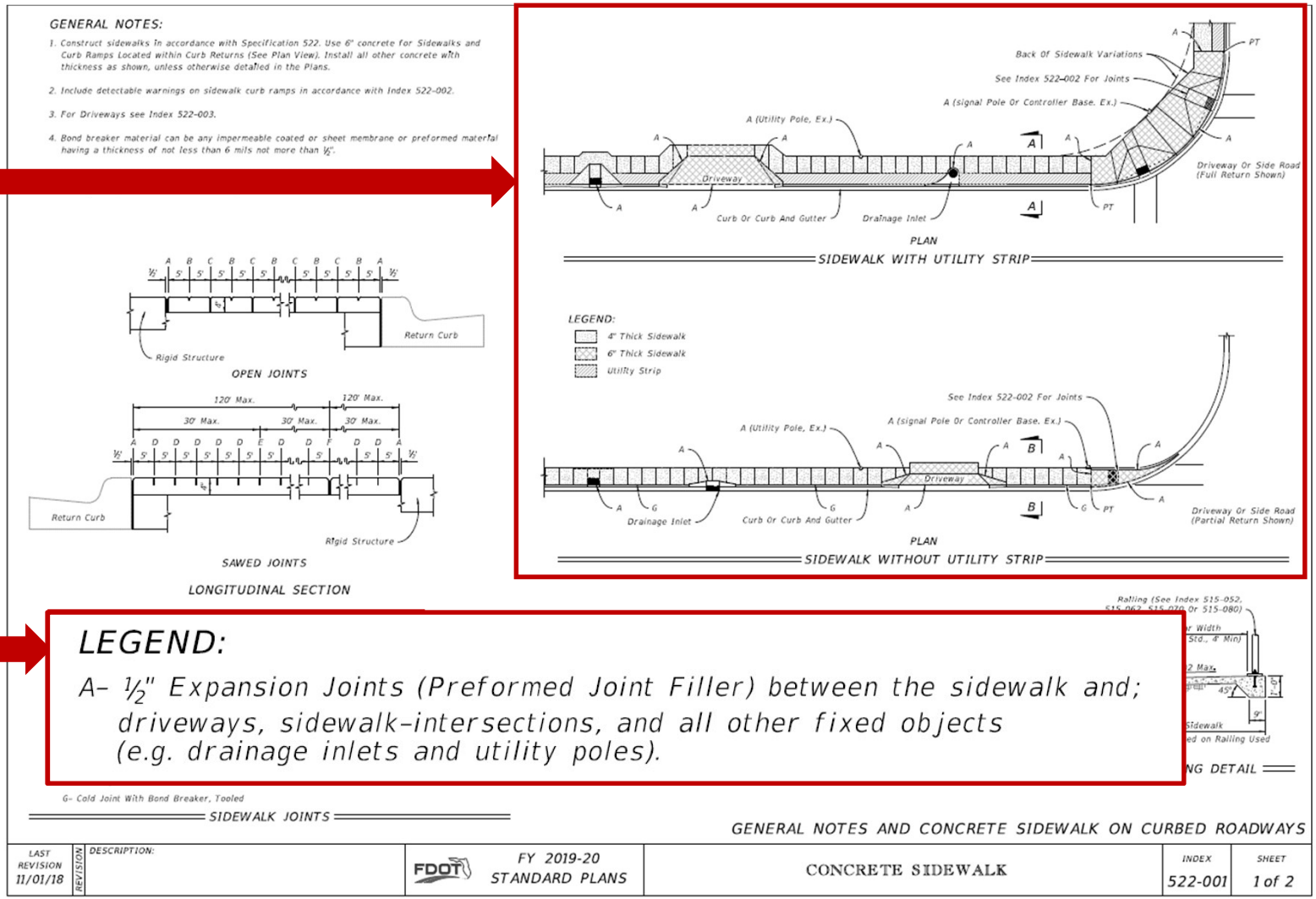


Concrete Sidewalk, Index 522-001

SHEET 1 of 2:

Added Curb Inlets to Examples

Clarified Intent of Expansion Joint Locations



GENERAL NOTES:

1. Construct sidewalks in accordance with Specification 522. Use 6" concrete for Sidewalks and Curb Ramps Located within Curb Returns (See Plan View). Install all other concrete with thickness as shown, unless otherwise detailed in the Plans.
2. Include detectable warnings on sidewalk curb ramps in accordance with Index 522-002.
3. For Driveways see Index 522-003.
4. Bond breaker material can be any impermeable coated or sheet membrane or preformed material having a thickness of not less than 6 mils not more than ½".

PLAN

SIDEWALK WITH UTILITY STRIP

LEGEND:

4" Thick Sidewalk
6" Thick Sidewalk
Utility Strip

PLAN

SIDEWALK WITHOUT UTILITY STRIP

OPEN JOINTS

SAWED JOINTS

LONGITUDINAL SECTION

LEGEND:

A– ½" Expansion Joints (Preformed Joint Filler) between the sidewalk and; driveways, sidewalk-intersections, and all other fixed objects (e.g. drainage inlets and utility poles).

G– Cold Joint With Bond Breaker, Tooled

SIDEWALK JOINTS

Railing (See Index 515-052, 515-062, 515-070 Or 515-080)

NG DETAIL

GENERAL NOTES AND CONCRETE SIDEWALK ON CURBED ROADWAYS

LAST REVISION 11/01/18	REVISION	DESCRIPTION:	FDOT FY 2019-20 STANDARD PLANS	CONCRETE SIDEWALK	INDEX 522-001	SHEET 1 of 2

Standard Plans – Primary Updates:

1) *General Overview and Website*

2) *Misc. Indexes*

a) *Index 000-506 - Miscellaneous Earthwork Details (Including: Indexes 160-001 & 120-001)*

b) *Index 000-510 - Superelevation - High Speed Roadways*

c) *Index 000-511 - Superelevation - Low Speed Roadways*

d) *Index 000-515 - Turnouts and Driveways (Including: New Indexes 522-003 & 330-001)*

- *Index 000-516 - Turnouts - Resurfacing Projects*

e) *Index 350-001 - Concrete Pavement Joints*

f) *Index 522-001 - Concrete Sidewalk*

g) *Index 522-002 - Detectable Warnings and Sidewalk Curb Ramps*

h) *Misc. Traffic Control Signals and Devices (Including: Indexes 630-001, 634-002, 635-001, 659-010, 660-001, and 676-010*

Detectable Warnings and Sidewalk Curb Ramps, Index 522-002

SHEET 1 of 8:

Updated Note 'C'

New Language

Old Language

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.

GENERAL NOTES

FY 2018-19 Standard Plans, Index 522-001

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. Install ramp slopes along a single linear plane (i.e. no warps or varying slope). Ramp slopes are not required to exceed 15 feet in length.

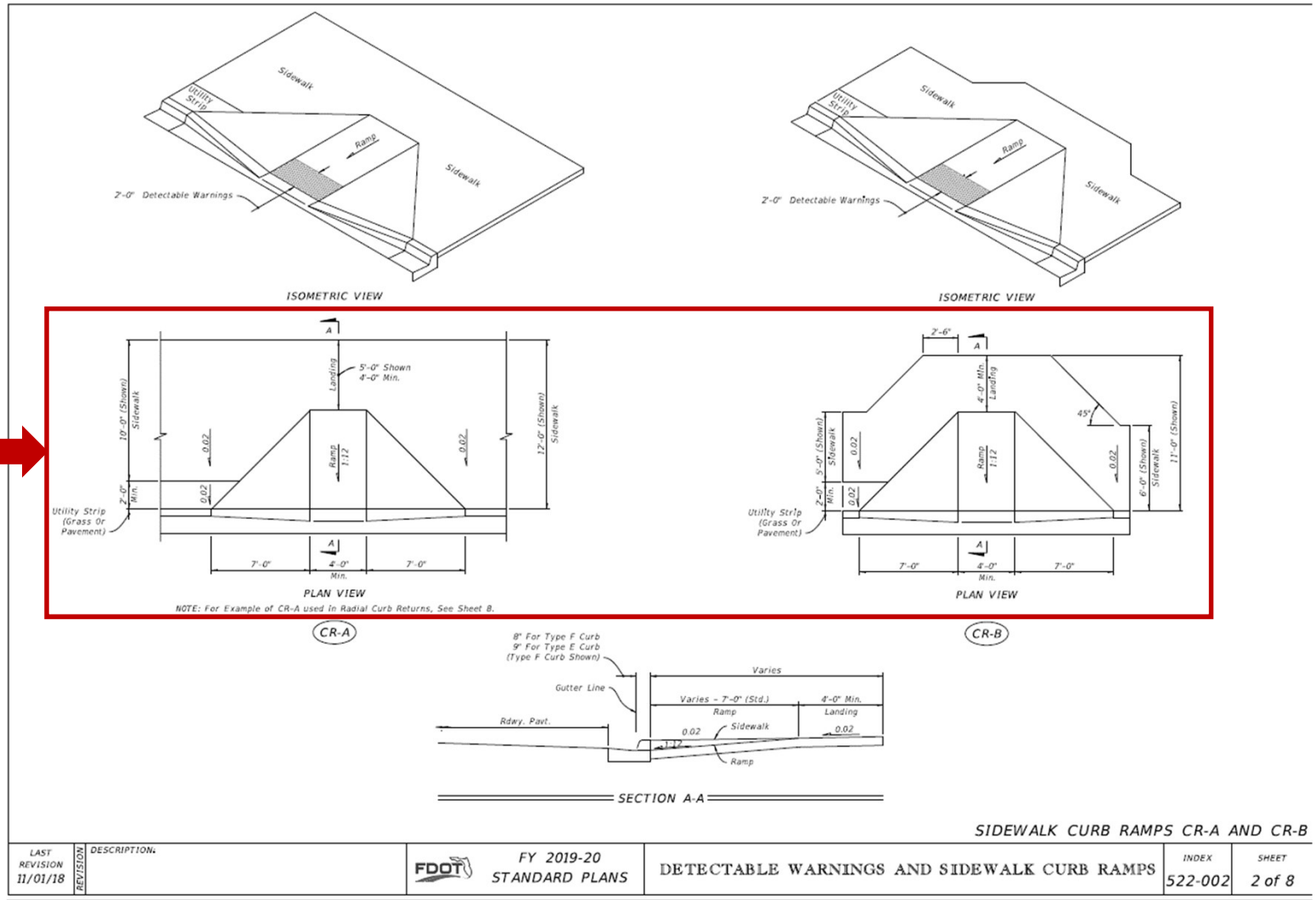
D. Joints permitted at the location of Slope Breaks. Otherwise locate joints in accordance with Index 522-001. No joints are permitted within the ramp portion of the Curb Ramp.

LAST REVISION 11/01/18	REVISION	DESCRIPTION:	FDOT FY 2019-20 STANDARD PLANS	DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS	INDEX 522-002	SHEET 1 of 8

Detectable Warnings and Sidewalk Curb Ramps, Index 522-002

SHEET 2 of 8:

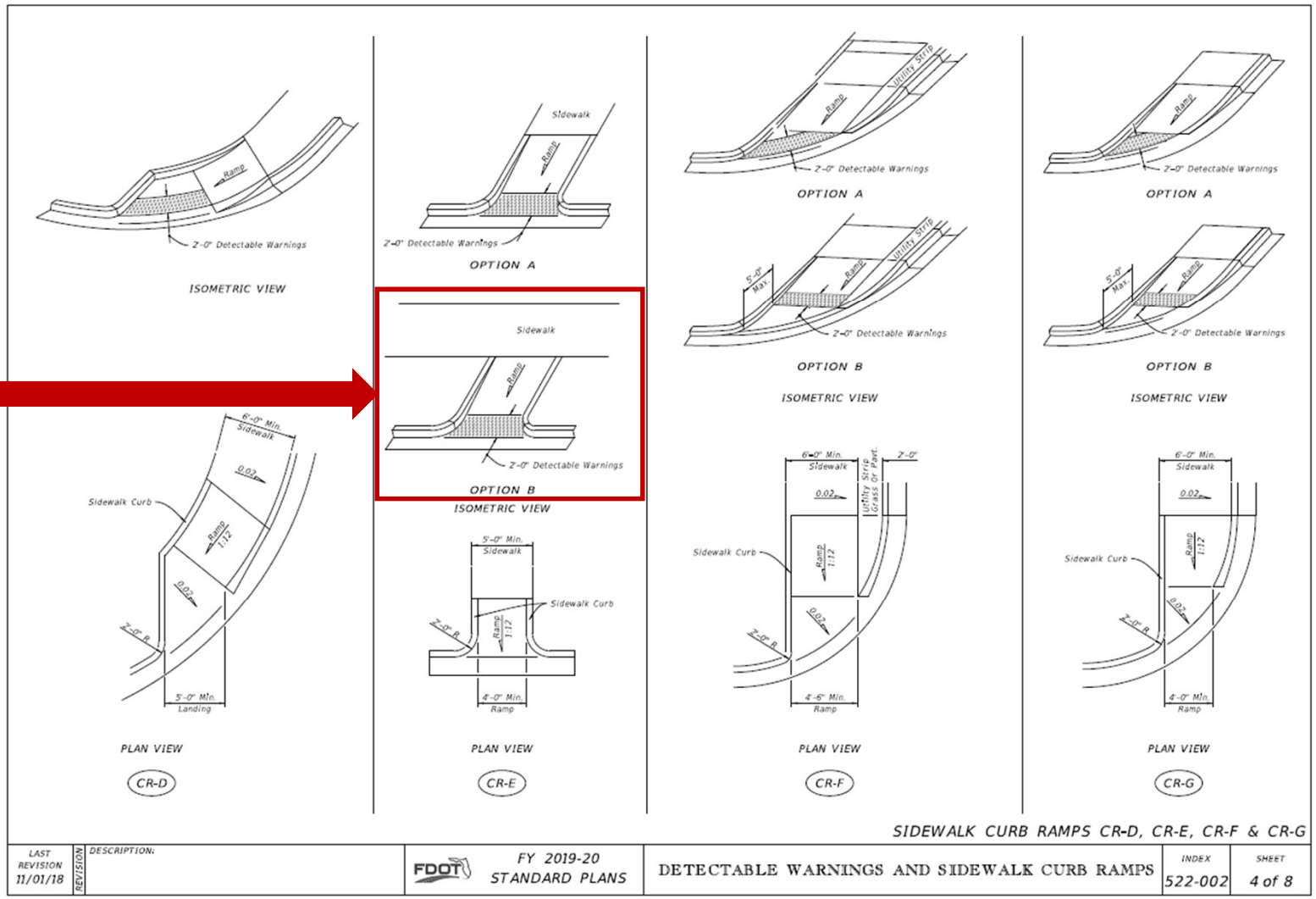
Updated CR-A and CR-B Plan View to Work With Current Sidewalk Width Requirements See FDM 222



Detectable Warnings and Sidewalk Curb Ramps, Index 522-002

SHEET 4 of 8:

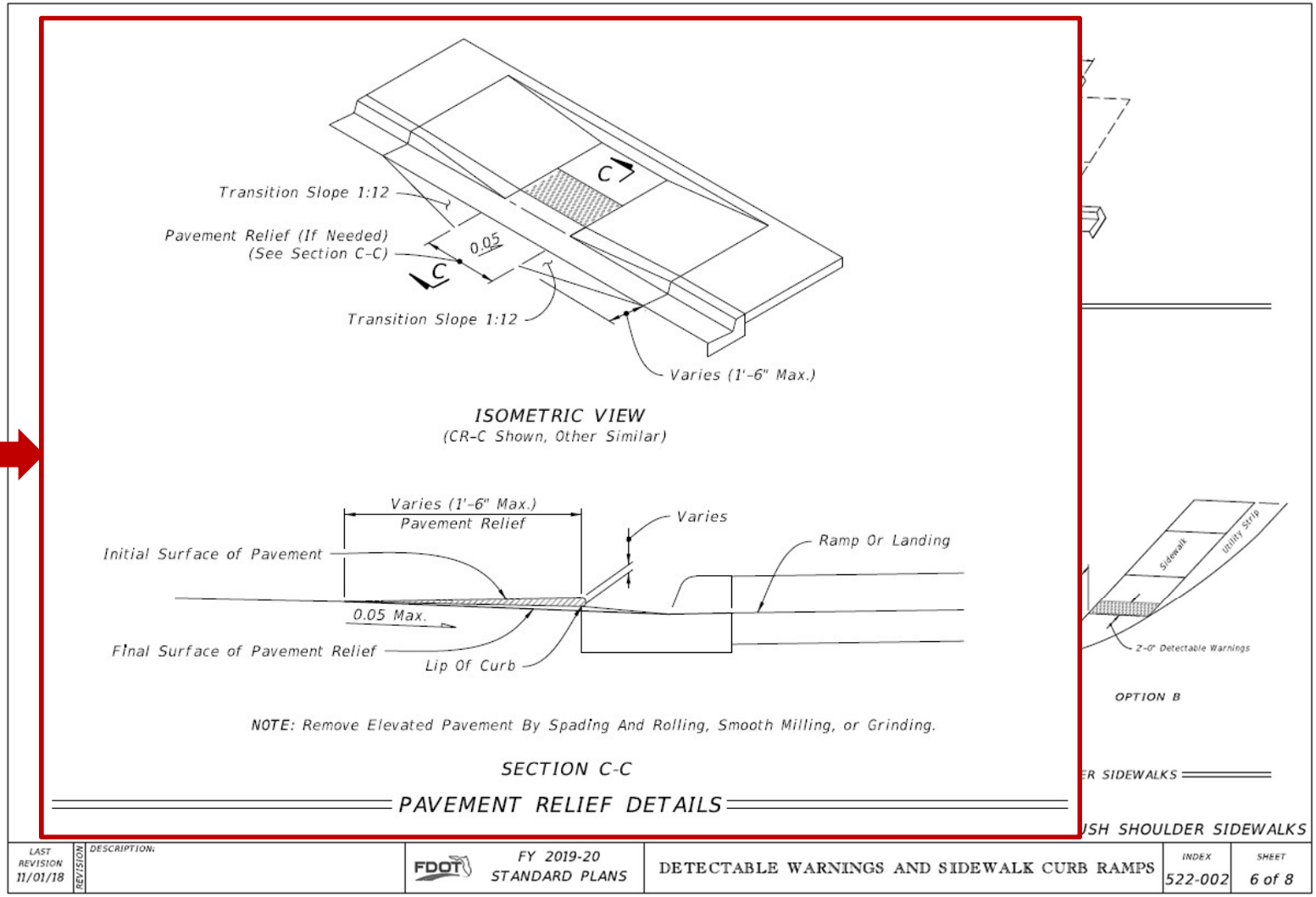
Added Option B for Parallel Sidewalk



Detectable Warnings and Sidewalk Curb Ramps, Index 522-002

SHEET 6 of 8:

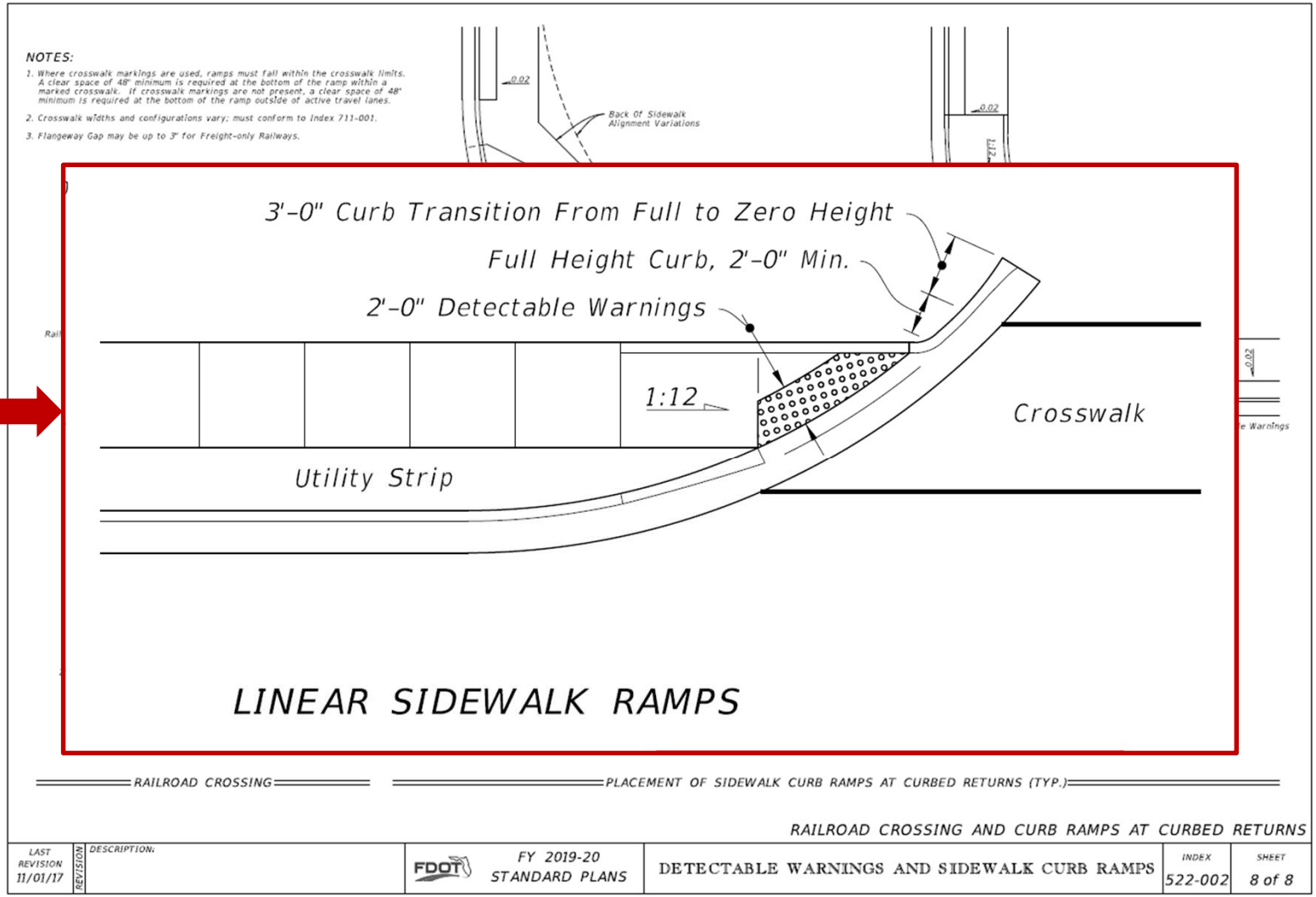
Re-Indexed 160-001: Stabilization Details



Detectable Warnings and Sidewalk Curb Ramps, Index 522-002

SHEET 8 of 8:

Added Curb Transition Details from Old *Index 000-515*

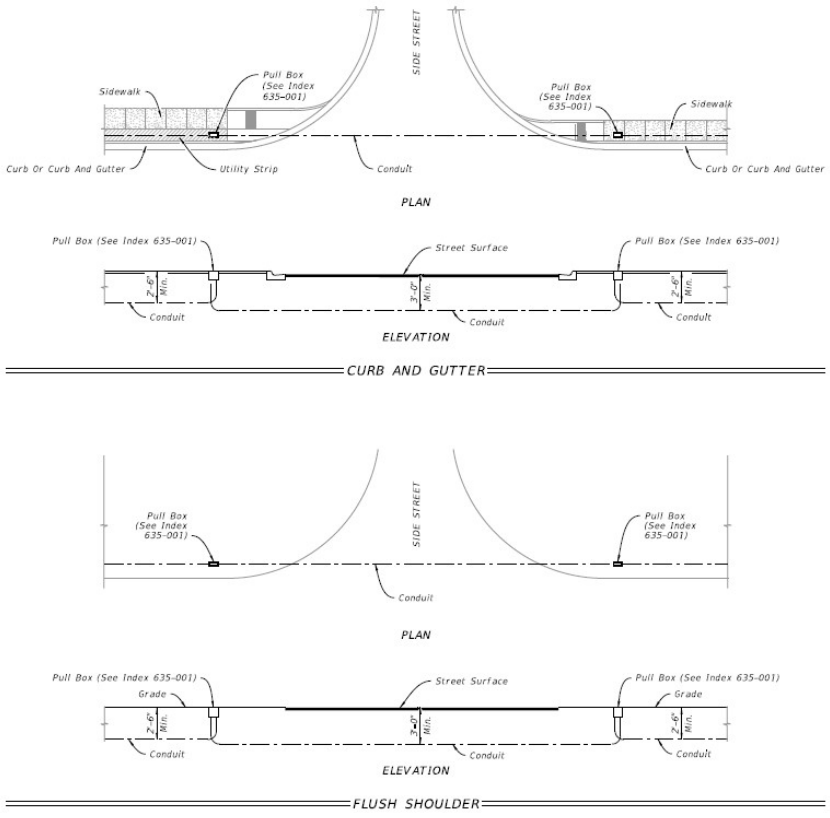


Standard Plans – Primary Updates:

- ✓ *1) General Overview and Website*
- *2) Misc. Indexes*
  - ✓ *a) Index 000-506 - Miscellaneous Earthwork Details (Including: Indexes 160-001 & 120-001)*
  - ✓ *b) Index 000-510 - Superelevation - High Speed Roadways*
  - ✓ *c) Index 000-511 - Superelevation - Low Speed Roadways*
  - ✓ *d) Index 000-515 - Turnouts and Driveways (Including: New Indexes 522-003 & 330-001)*
    - *Index 000-516 - Turnouts - Resurfacing Projects*
  - ✓ *e) Index 350-001 - Concrete Pavement Joints*
  - ✓ *f) Index 522-001 - Concrete Sidewalk*
  - ✓ *g) Index 522-002 - Detectable Warnings and Sidewalk Curb Ramps*
  - *h) Misc. Traffic Control Signals and Devices (Including: Indexes 630-001, 634-002, 635-001, 659-010, 660-001, and 676-010*

Miscellaneous 600 Series Indexes:

- **Updated Layout**
- **Consolidated Notes**
- **Detailed to Current CADD Standards**
- **Included:**
  - **Index 630-001 (*Conduit Installation Details*)**
  - **Index 634-002 (*Aerial Interconnect*)**
  - **Index 635-001 (*Pull and Splice Boxes*)**
  - **Index 659-010 (*Span Wire Mounted Sign Details*)**
  - **Index 660-001 (*Vehicle Loop Installation Details*)**
  - **Index 676-010 (*Cabinet Installation Details*)**



CONDUIT INSTALLATION DETAILS

INDEX 630-001

Questions?

Derwood Sheppard, P.E., M.Eng.
Standard Plans Publication Engineer
Central Office, Roadway Design
(850) 414-4334
derwood.sheppard@dot.state.fl.us