Design Update Training 2013

February 19th & 20th

The Office of Design

Florida's Transportation Engineers

Plans Preparation Manual

January 1, 2013 Updates

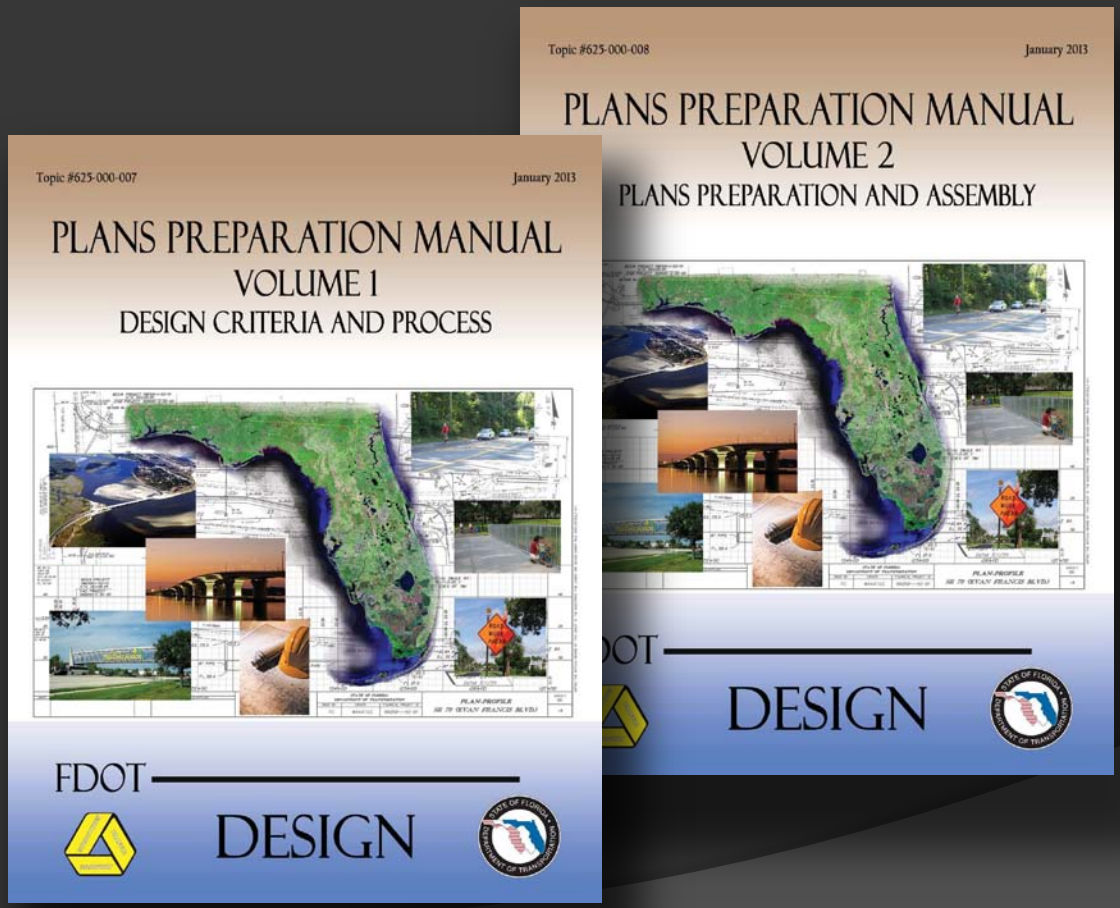
Roadway Design Office
Criteria and Standards Section

Benjamin Gerrell, P.E.
(850) 414-4318
benjamin.gerrell@dot.state.fl.us

María J. Irizarry
(850) 414-4317
maria.irizarry@dot.state.fl.us

Plans Preparation Manual

Overview of PPM Update Process



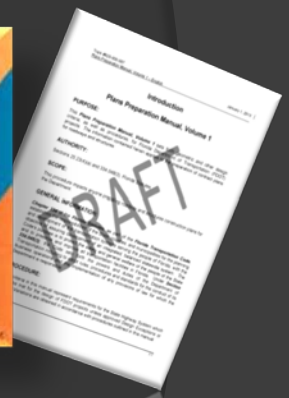
Overview of PPM Update Process

- Two Volumes
- English Units
- Electronic Version

http://www.dot.state.fl.us/rddesign/PPMManual/PPM.shtm

PPM Update Process

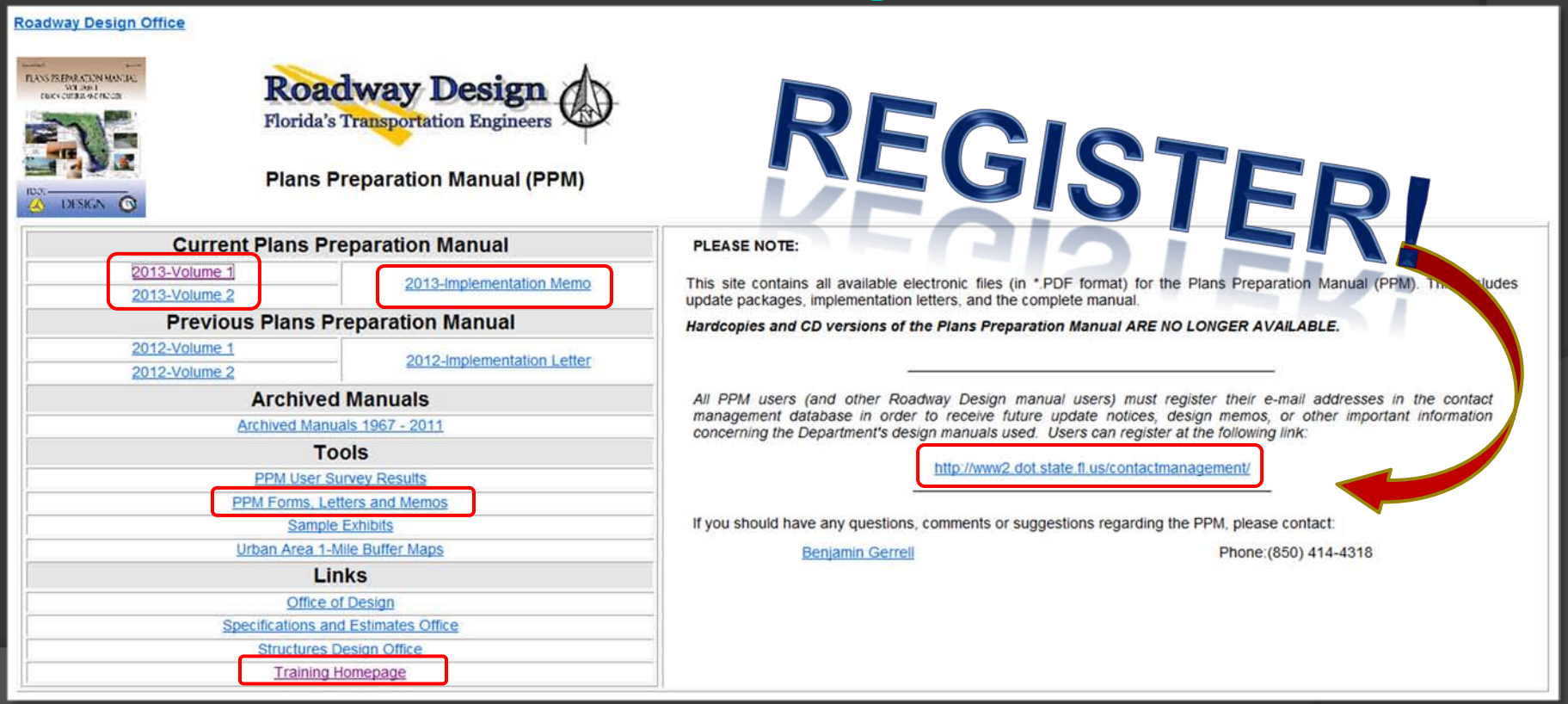
- **Senior Design Engineers Team**
  - Primary designer from each district
  - Monthly meetings
- **Draft Submittals**
  - Received throughout the year
  - Reviewed at SDE meetings
- **District Design Engineers**
  - Review Final PPM Draft
  - Provide Comments
- **Adoption of PPM Updates**



Updates

- Implementation Memo
- Complete Manual
- Updated Forms
- Contact Mailer - Notifications

http://www.dot.state.fl.us/rddesign/PPMManual/PPM.shtm



Design Bulletins

- Contact Mailer Notifications
- Our website:

http://www.dot.state.fl.us/rddesign/

Roadway Design
Florida's Transportation Engineers
State Roadway Design Office

INVITATION TO INNOVATION
DESIGN CPR ISSUES
TRAINING

About the State Roadway Design Office

The Roadway Design Office develops and provides policies, procedures, training, criteria and standards for the design of Florida roadways. Our functional areas include Criteria and Standards, Drainage, Pavement Management, Quality Assurance and Utilities. Our customer has direct access to Design Standards, Florida Greenbook, Utility Accommodation, Drainage, Training and other Publications. *For more Topics, navigate selections on the left under "**Office Level Navigation**" and select items under "**Functional Areas**","**Special Topics**" or "**Other Misc**".*

News & Recent Update Information

Day 1 Agenda - Register NOW-Day1

Day 2 Agenda - Register NOW-Day2

Visit our 2013 Design Update Training Website for more information as it is made available

Design Bulletin 13-01 - Design Standards, Index 430 "Crash Cushion Details"
Posted: January 9, 2013

Design Memorandum - 2013 Implementation - Plans Preparation Manual - January 1, 2013
Posted: January 9, 2013

2013 Drainage Manual - 2013 Drainage Manual - January 2013
Posted: January 2, 2013

Design Bulletin 12-19/Traffic Operations Bulletin 02-12/Design Standards Revision R2013-03 - Pivotal Adjustable Hanger Use on Two Point Span Wire Traffic Signal Projects
Posted: November 5, 2012

Design Bulletin 12-18/Design Standards Revision R2013-02 - Removal of Chevrons in Interstate Gores Areas and at Raised Urban Islands - Design Standards Revision (R2013-02), Dated January 1, 2013
Posted: October 26, 2012

Design Bulletin 12-17 - Use of Overhead Signs on Freeways and Expressways
Posted: September 9, 2012

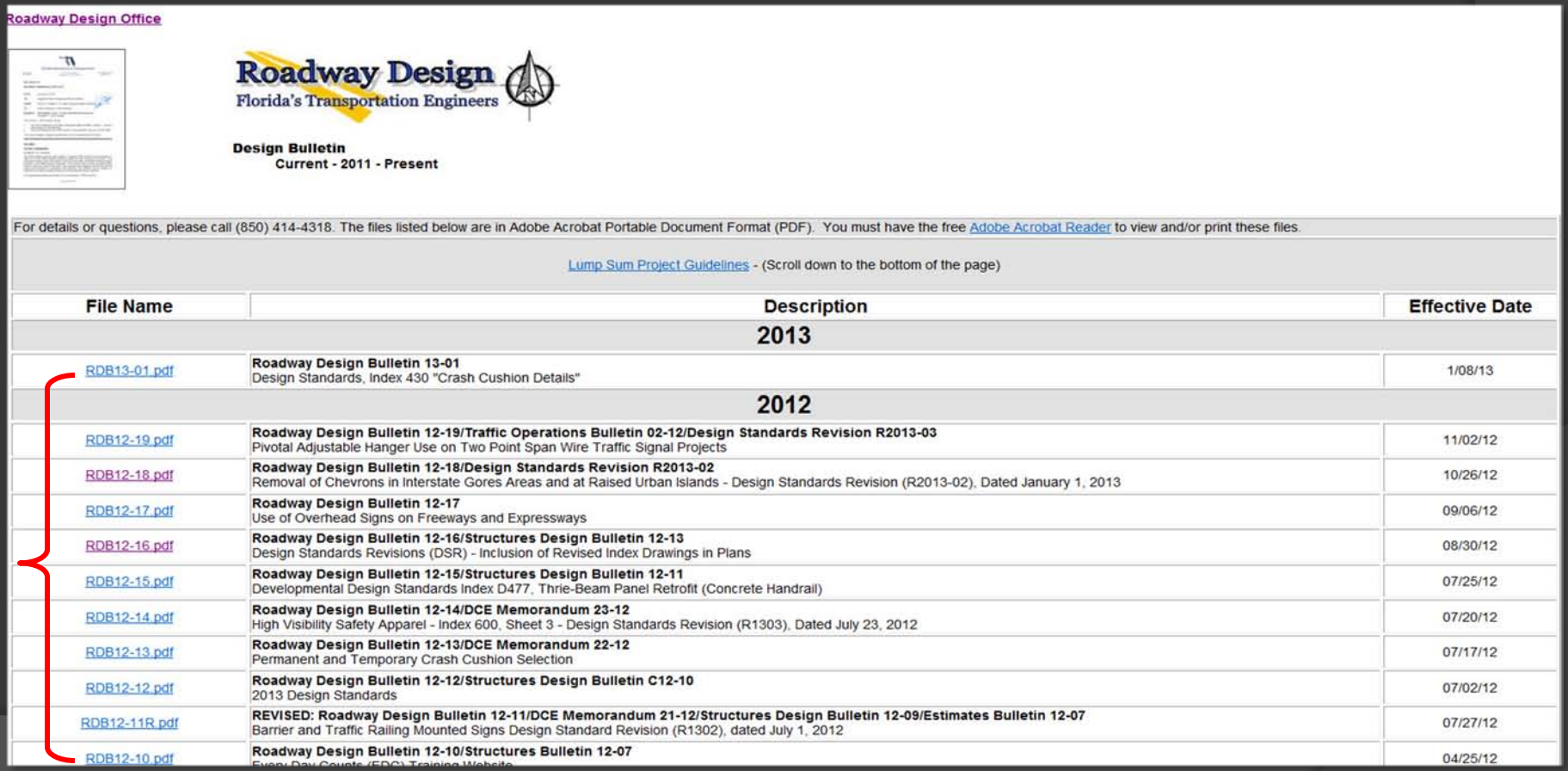
Design Bulletin 12-16/Structures Design Bulletin 12-13 - Design Standards Revisions (DSR) - Inclusion of Revised Index Drawings in Plans
Posted: August 30, 2012

Design Bulletins <--Click on this link

Design Bulletins

- **Contact Mailer Notifications**
- **Our website:**

http://www.dot.state.fl.us/rddesign/Bulletin/default.shtm



Roadway Design Office

Roadway Design
Florida's Transportation Engineers

Design Bulletin
Current - 2011 - Present

For details or questions, please call (850) 414-4318. The files listed below are in Adobe Acrobat Portable Document Format (PDF). You must have the free Adobe Acrobat Reader to view and/or print these files.

Lump Sum Project Guidelines - (Scroll down to the bottom of the page)

File Name	Description	Effective Date
	2013	
RDB13-01.pdf	**Roadway Design Bulletin 13-01** Design Standards, Index 430 "Crash Cushion Details"	1/08/13
	2012	
RDB12-19.pdf	**Roadway Design Bulletin 12-19/Traffic Operations Bulletin 02-12/Design Standards Revision R2013-03** Pivotal Adjustable Hanger Use on Two Point Span Wire Traffic Signal Projects	11/02/12
RDB12-18.pdf	**Roadway Design Bulletin 12-18/Design Standards Revision R2013-02** Removal of Chevrons in Interstate Gores Areas and at Raised Urban Islands - Design Standards Revision (R2013-02), Dated January 1, 2013	10/26/12
RDB12-17.pdf	**Roadway Design Bulletin 12-17** Use of Overhead Signs on Freeways and Expressways	09/06/12
RDB12-16.pdf	**Roadway Design Bulletin 12-16/Structures Design Bulletin 12-13** Design Standards Revisions (DSR) - Inclusion of Revised Index Drawings in Plans	08/30/12
RDB12-15.pdf	**Roadway Design Bulletin 12-15/Structures Design Bulletin 12-11** Developmental Design Standards Index D477, Thrie-Beam Panel Retrofit (Concrete Handrail)	07/25/12
RDB12-14.pdf	**Roadway Design Bulletin 12-14/DCE Memorandum 23-12** High Visibility Safety Apparel - Index 600, Sheet 3 - Design Standards Revision (R1303), Dated July 23, 2012	07/20/12
RDB12-13.pdf	**Roadway Design Bulletin 12-13/DCE Memorandum 22-12** Permanent and Temporary Crash Cushion Selection	07/17/12
RDB12-12.pdf	**Roadway Design Bulletin 12-12/Structures Design Bulletin C12-10** 2013 Design Standards	07/02/12
RDB12-11R.pdf	**REVISED: Roadway Design Bulletin 12-11/DCE Memorandum 21-12/Structures Design Bulletin 12-09/Estimates Bulletin 12-07** Barrier and Traffic Railing Mounted Signs Design Standard Revision (R1302), dated July 1, 2012	07/27/12
RDB12-10.pdf	**Roadway Design Bulletin 12-10/Structures Bulletin 12-07**	04/25/12

As customers, your input is important to us!

We want to hear from you!

Cross Slope Correction & Typical Sections

Benjamin Gerrell, P.E.
(850) 414-4318
benjamin.gerrell@dot.state.fl.us

María J. Irizarry
(850) 414-4317
maria.irizarry@dot.state.fl.us

Typical Sections

- Typical Sections and Details
  - Milling and layering details shall be shown in plans
  - ***Exhibits*** in ***PPM*** Volume 2, Chapter 6
- Refer to FDOT ***Flexible Pavement Design Manual***

  http://www.dot.state.fl.us/rddesign/PM/pcs/FlexiblePavementManualMarch152008.pdf

Typical Sections

- Resurfacing
  - Match Existing
  - Cross Slope Correction

Match Existing

(*PPM* Vol.1, Introduction)

This term is used when the existing cross slopes are to remain. This is applicable to constant depth milling and resurfacing projects.

Typical Sections

- Resurfacing
  - Match Existing
    - Existing cross slope is to remain.
    - Allowable ranges
      - ***Table 25.4.6*** or ***Table 25.4.7*** in ***PPM*** Volume 1, Chapter 25.

Typical Sections

- Resurfacing

Table 25.4.6 Roadway Cross Slopes

Facility or Feature	Standard	Allowable Range
Two-Lane Roads	0.02	0.015-0.030
Multilane Roads	0.02	0.015-0.040
Shoulders	0.06	Adjacent Lane Cross Slope-0.080
Parking Lanes	0.05	0.015-0.050

The multilane standard cross slope value shown is applicable for up to two lanes in one direction. See Section 2.1.5 for additional guidance.

Existing multilane curb and gutter sections may have outside lanes with a maximum cross slope of 0.05.

Existing curb and gutter sections originally constructed with a parabolic crown section may be resurfaced using a series of tangents with a cross slope range from 0.015 to 0.05.

The maximum algebraic difference between adjacent through lanes shall not exceed 0.06.

When existing shoulders are to remain, the algebraic difference between the shoulder slope and adjoining roadway pavement slope shall be ≤ 0.07.

Parking spaces and access aisles dedicated to serving persons with disabilities shall have cross slopes no steeper than 0.02 (1:50) in any direction.

PPM Volume 1, Chapter 25

Typical Sections

- Resurfacing

Table 25.4.7 Freeway Cross Slopes

Facility or Feature	Standard	Allowable Range
Travel Lanes	0.02*	0.015-0.025
Travel Lanes	0.03*	0.025-0.035

* Applies to lanes as designated in Figure 2.1.1.

The algebraic difference in cross slope between adjacent travel lanes shall not exceed 0.04. The maximum algebraic difference in cross slope between a through lane and an auxiliary lane at a turning roadway terminal shall meet Table 2.1.4.

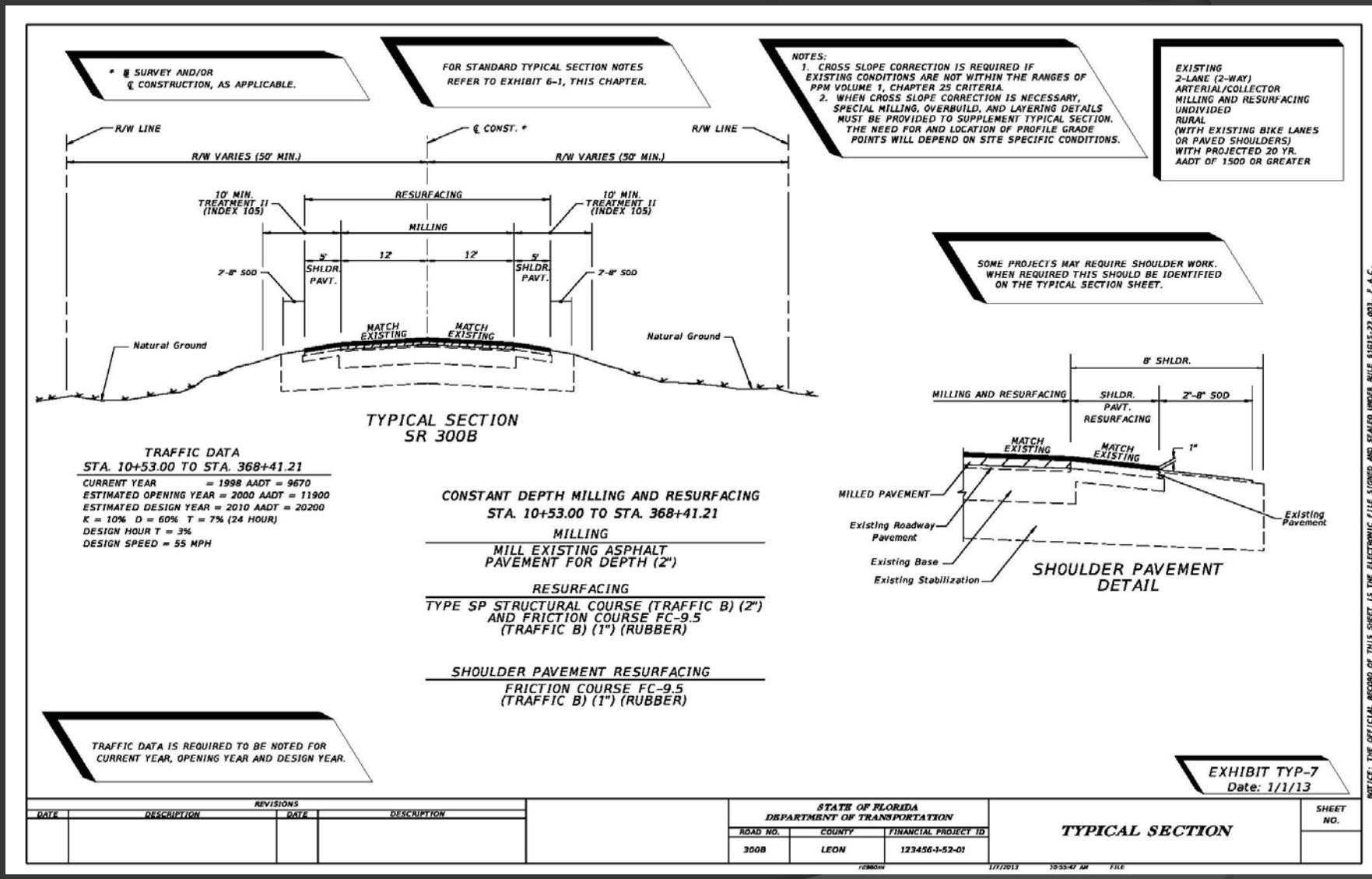
Paved shoulder cross slopes do not need to be corrected if they meet the values in Table 25.4.6 and the algebraic difference in cross slope between the shoulder and adjacent travel lane is 0.07 or less.

PPM Volume 1, Chapter 25

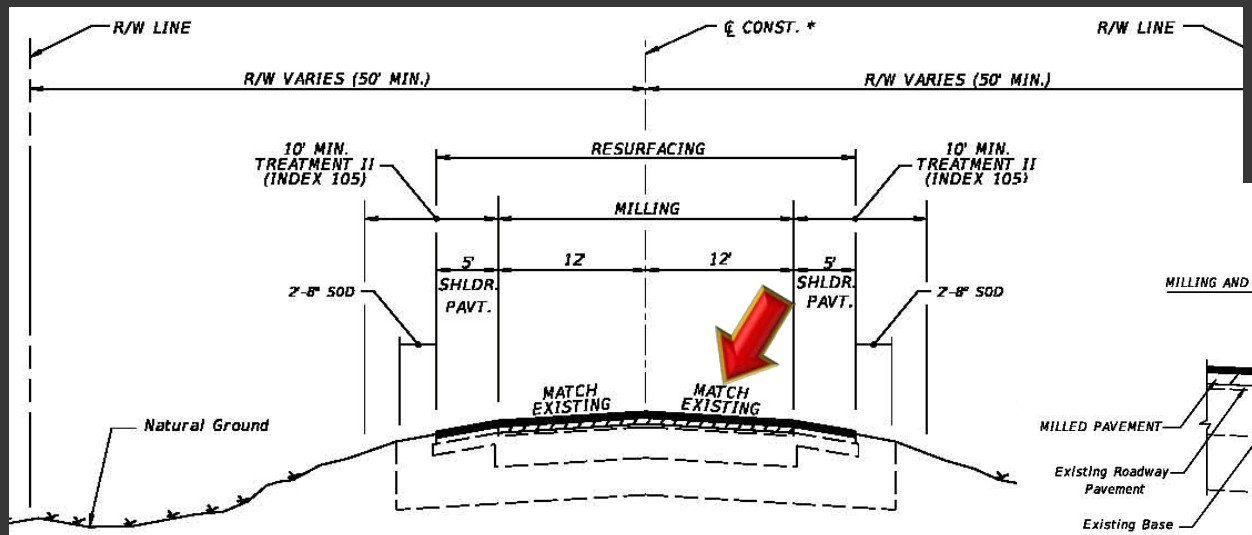
Match Existing

- Constant depth milling
- Resurface at constant thickness

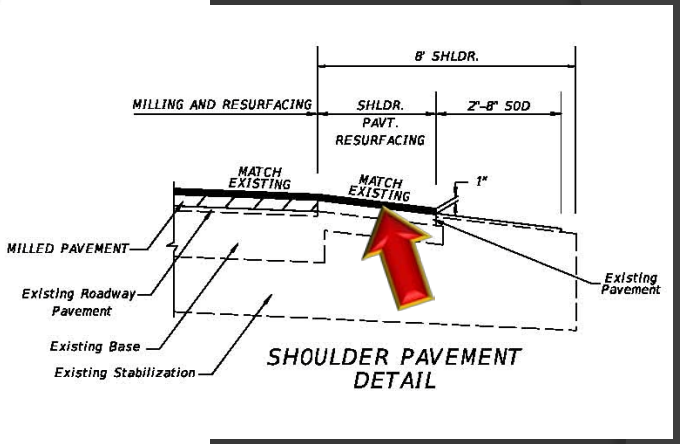
Constant Depth Milling



Constant Depth Milling



TYPICAL SECTION
SR 300B



SHOULDER PAVEMENT DETAIL

TRAFFIC DATA
STA. 10+53.00 TO STA. 368+41.21

CURRENT YEAR = 1998 AADT = 9670
ESTIMATED OPENING YEAR = 2000 AADT = 11900
ESTIMATED DESIGN YEAR = 2010 AADT = 20200
K = 10% D = 60% T = 7% (24 HOUR)
DESIGN HOUR T = 3%
DESIGN SPEED = 55 MPH

CONSTANT DEPTH MILLING AND RESURFACING
STA. 10+53.00 TO STA. 368+41.21

MILLING

MILL EXISTING ASPHALT PAVEMENT FOR DEPTH (2")

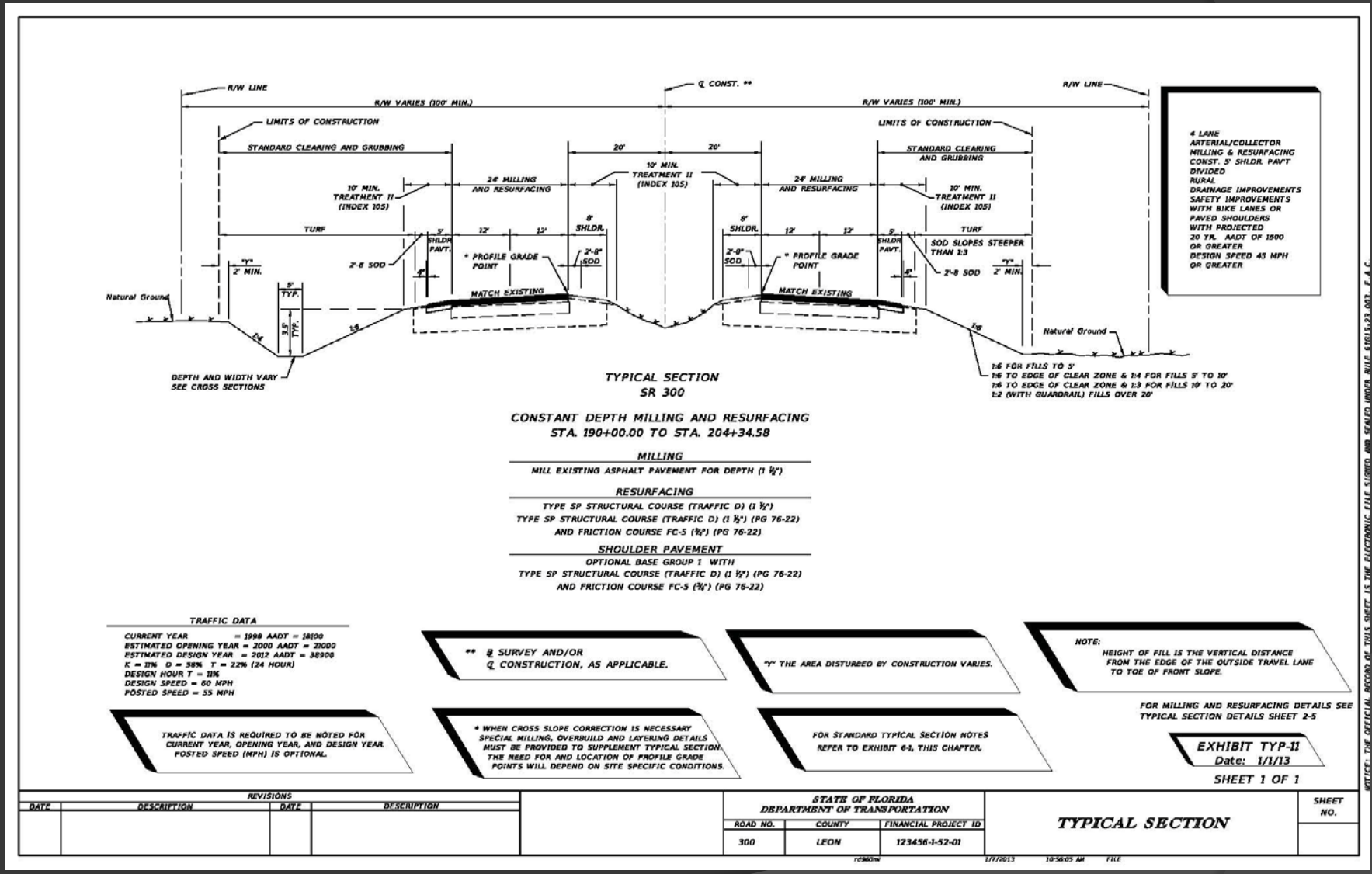
RESURFACING

TYPE SP STRUCTURAL COURSE (TRAFFIC B) (2") AND FRICTION COURSE FC-9.5 (TRAFFIC B) (1") (RUBBER)

SHOULDER PAVEMENT RESURFACING

FRICTION COURSE FC-9.5 (TRAFFIC B) (1") (RUBBER)

Constant Depth Milling



PPM Volume 2, Chapter 6 - ***Exhibits***

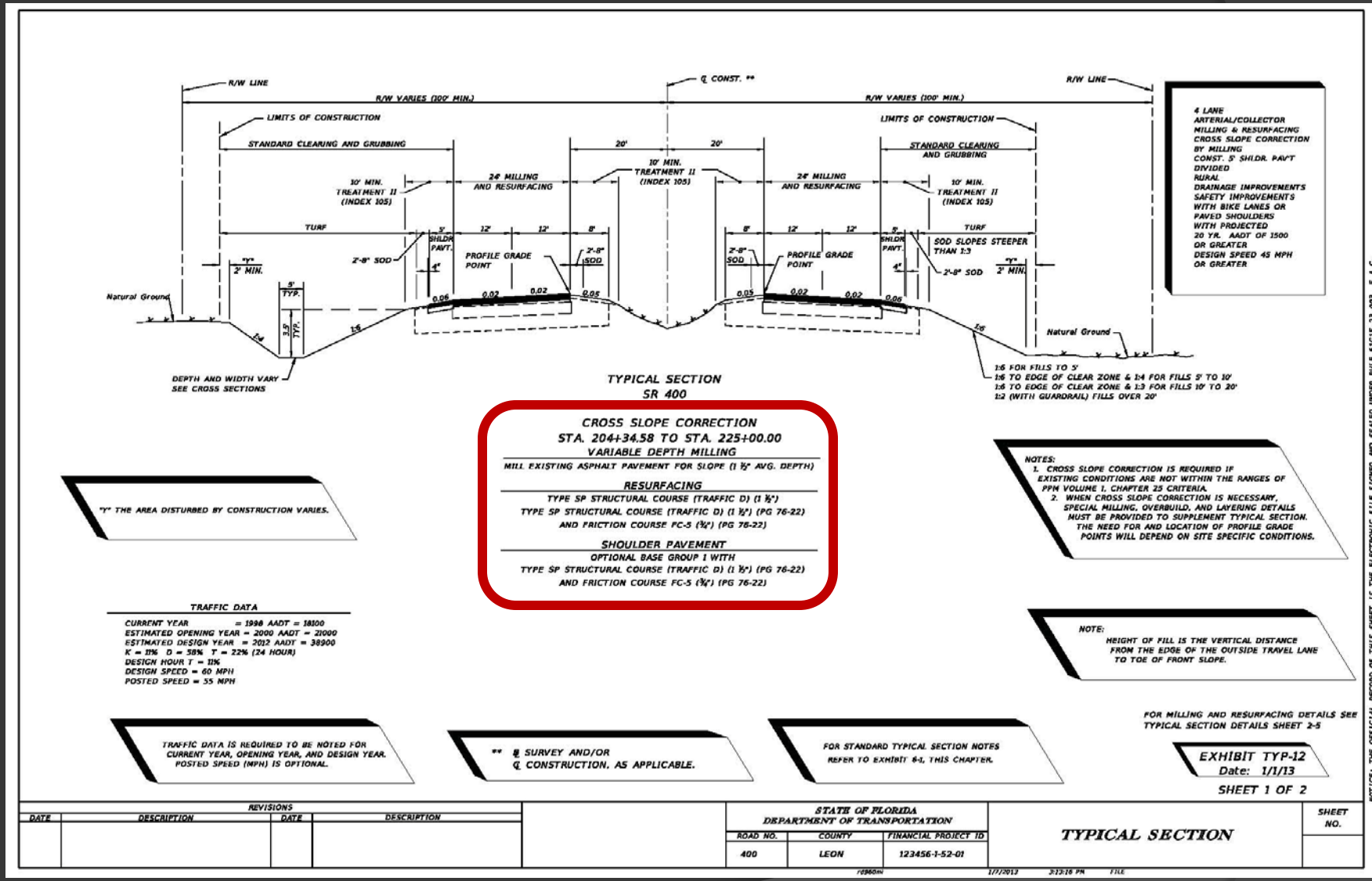
Typical Sections

- Resurfacing
  - Match Existing
  - Cross Slope Correction
    - Method
      - Variable depth milling
      - Constant depth milling & Overbuild
      - Variable depth milling & Overbuild

Variable Depth Milling

- Slope correction by:
  - Variable depth milling
- Resurface at constant thickness

Variable Depth Milling



TYPICAL SECTION
SR 400

CROSS SLOPE CORRECTION
STA. 204+34.58 TO STA. 225+00.00

VARIABLE DEPTH MILLING
MILL EXISTING ASPHALT PAVEMENT FOR SLOPE (1 ½" AVG. DEPTH)

RESURFACING
TYPE SP STRUCTURAL COURSE (TRAFFIC D) (1 ½")
TYPE SP STRUCTURAL COURSE (TRAFFIC D) (1 ½") (PG 76-22)
AND FRICTION COURSE FC-5 (¾") (PG 76-22)

SHOULDER PAVEMENT
OPTIONAL BASE GROUP 1 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC D) (1 ½") (PG 76-22)
AND FRICTION COURSE FC-5 (¾") (PG 76-22)

"Y" THE AREA DISTURBED BY CONSTRUCTION VARIES.

NOTES:
1. CROSS SLOPE CORRECTION IS REQUIRED IF EXISTING CONDITIONS ARE NOT WITHIN THE RANGES OF PPM VOLUME 1, CHAPTER 25 CRITERIA.
2. WHEN CROSS SLOPE CORRECTION IS NECESSARY, SPECIAL MILLING, OVERBUILD, AND LAYERING DETAILS MUST BE PROVIDED TO SUPPLEMENT TYPICAL SECTION. THE NEED FOR AND LOCATION OF PROFILE GRADE POINTS WILL DEPEND ON SITE SPECIFIC CONDITIONS.

TRAFFIC DATA
CURRENT YEAR = 1998 AADT = 18100
ESTIMATED OPENING YEAR = 2000 AADT = 21000
ESTIMATED DESIGN YEAR = 2012 AADT = 38900
K = 11% D = 58% T = 22% (24 HOUR)
DESIGN HOUR T = 11%
DESIGN SPEED = 60 MPH
POSTED SPEED = 55 MPH

NOTE:
HEIGHT OF FILL IS THE VERTICAL DISTANCE FROM THE EDGE OF THE OUTSIDE TRAVEL LANE TO TOE OF FRONT SLOPE.

TRAFFIC DATA IS REQUIRED TO BE NOTED FOR CURRENT YEAR, OPENING YEAR, AND DESIGN YEAR. POSTED SPEED (MPH) IS OPTIONAL.

** ℄ SURVEY AND/OR ℄ CONSTRUCTION, AS APPLICABLE.

FOR STANDARD TYPICAL SECTION NOTES REFER TO EXHIBIT 6-1, THIS CHAPTER.

FOR MILLING AND RESURFACING DETAILS SEE TYPICAL SECTION DETAILS SHEET 2-5

EXHIBIT TYP-12
Date: 1/1/13

SHEET 1 OF 2

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	LEON	123456-1-52-01

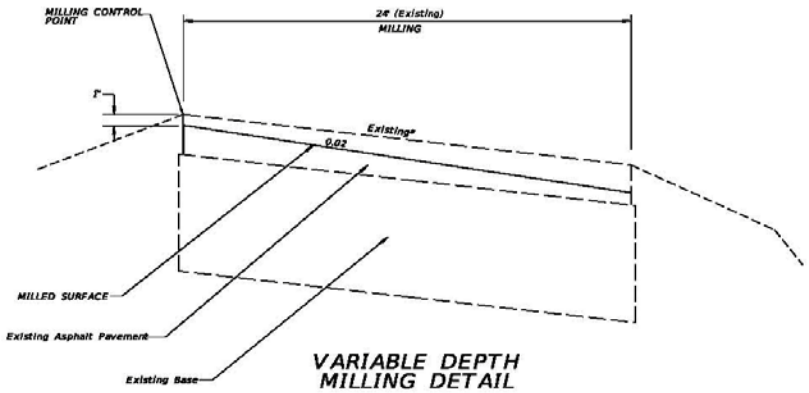
TYPICAL SECTION

SHEET NO.

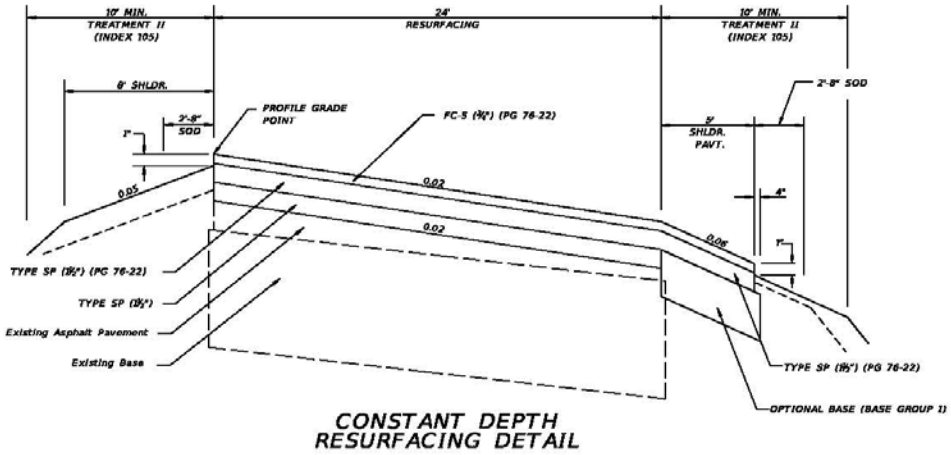
r0960m 1/7/2012 3:13:18 PM FILE

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

Variable Depth Milling



VARIABLE DEPTH MILLING DETAIL



CONSTANT DEPTH RESURFACING DETAIL

EXAMPLE OF CROSS SLOPE CORRECTION BY MILLING AND PAVING WITH CONSTANT DEPTH.

WHEN CROSS SLOPE CORRECTION IS NECESSARY SPECIAL MILLING AND LAYERING DETAILS MUST BE PROVIDED TO SUPPLEMENT TYPICAL SECTION. THE NEED FOR AND LOCATION OF PROFILE GRADE POINTS WILL DEPEND ON SITE SPECIFIC CONDITIONS.

FOR STANDARD TYPICAL SECTION NOTES REFER TO EXHIBIT 6-1, THIS CHAPTER.

STA. 204+34.58 TO STA. 225+00

*EXISTING PAVEMENT CROSS SLOPES

STATION	EASTBOUND LANES	
	INSIDE	OUTSIDE
205+00	0.014	0.013
206+00	0.012	0.012
207+00	0.013	0.013
208+00	0.011	0.012
209+00	0.013	0.014
210+00	0.013	0.015
211+00	0.014	0.015
212+00	0.013	0.013
213+00	0.012	0.012
214+00	0.012	0.011
215+00	0.013	0.011
216+00	0.014	0.012
217+00	0.015	0.013

*EXISTING PAVEMENT CROSS SLOPES

STATION	EASTBOUND LANES	
	INSIDE	OUTSIDE
218+00	0.015	0.013
219+00	0.014	0.014
220+00	0.013	0.016
221+00	0.012	0.015
222+00	0.013	0.014
223+00	0.013	0.013
224+00	0.014	0.013
225+00	0.016	0.016

EXHIBIT TYP-12A
Date: 1/1/13

SHEET 2 OF 2

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	LEON	123456-1-52-01

TYPICAL SECTION DETAILS

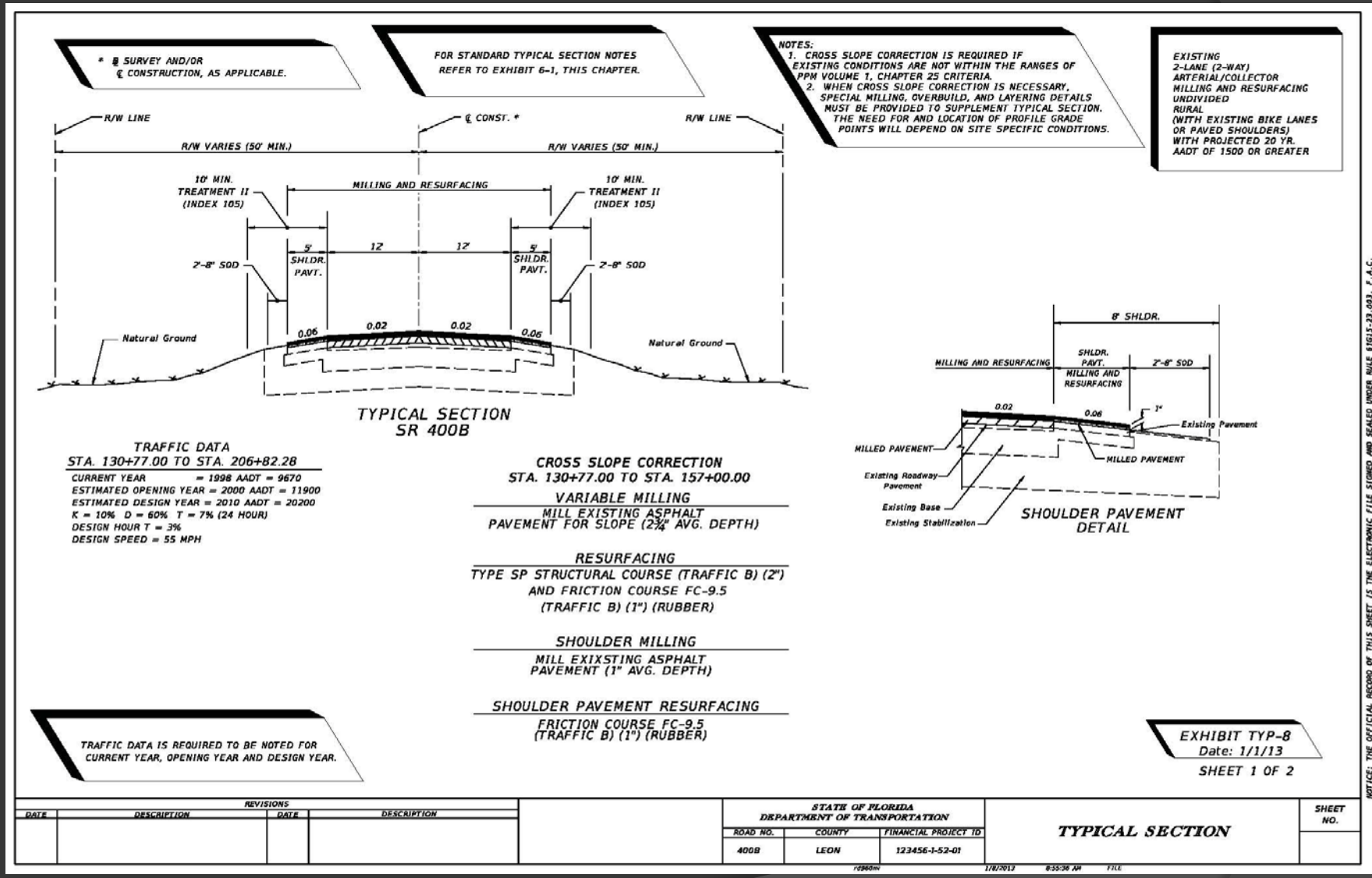
SHEET NO.

rd960m 1/7/2013 3:19:30 PM FILE

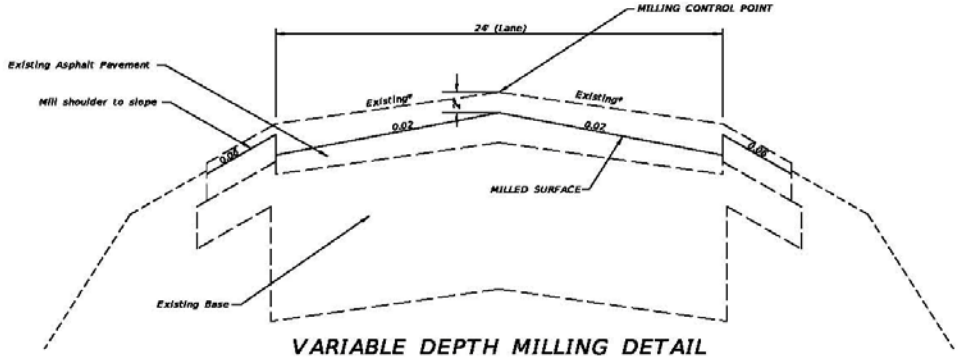
NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

PPM Volume 2, Chapter 6 - ***Exhibits***

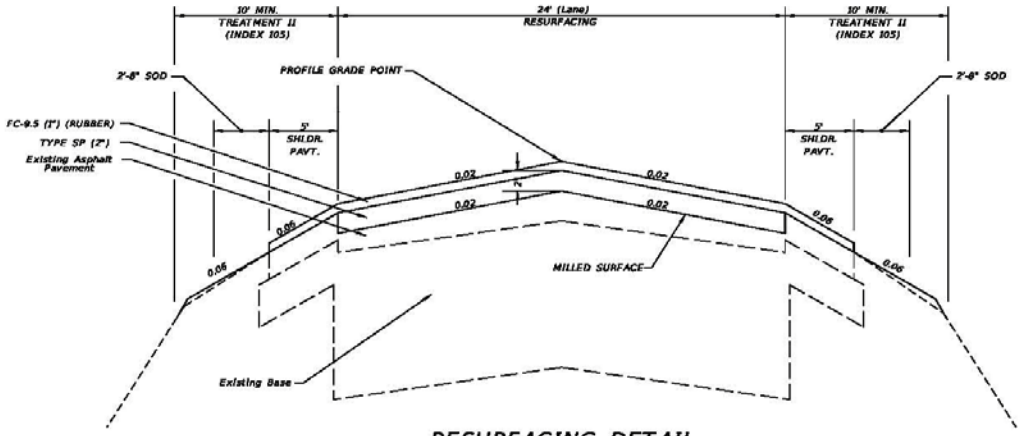
Variable Depth Milling



Variable Depth Milling



VARIABLE DEPTH MILLING DETAIL



RESURFACING DETAIL

EXAMPLE OF CROSS SLOPE CORRECTION BY VARIABLE DEPTH MILLING AND RESURFACE.

WHEN CROSS SLOPE CORRECTION IS NECESSARY SPECIAL MILLING, OVERBUILD AND LAYERING DETAILS MUST BE PROVIDED TO SUPPLEMENT TYPICAL SECTION. THE NEED FOR AND LOCATION OF PROFILE GRADES POINTS WILL DEPEND ON SITE SPECIFIC CONDITIONS.

FOR STANDARD TYPICAL SECTION NOTES REFER TO EXHIBIT 6-I, THIS CHAPTER.

SUGGESTED CONSTRUCTION SEQUENCES SHOWN. OTHER SEQUENCES THAT MEET SPECIFICATIONS. THICKNESS AND CROSS SLOPE REQUIREMENTS MAY BE CONSIDERED BY THE ENGINEER.

STA. 130+77.00 TO STA. 157+00.00

*EXISTING PAVEMENT CROSS SLOPES		
STATION	ROADWAY	
	LT	RT
131+00	0.014	0.014
132+00	0.014	0.014
133+00	0.013	0.013
134+00	0.013	0.012
135+00	0.013	0.013
136+00	0.013	0.013
137+00	0.012	0.013
138+00	0.012	0.013
139+00	0.013	0.014
140+00	0.012	0.013
141+00	0.013	0.011
142+00	0.014	0.011
143+00	0.015	0.011
144+00	0.015	0.011

*EXISTING PAVEMENT CROSS SLOPES		
STATION	ROADWAY	
	LT	RT
145+00	0.014	0.010
146+00	0.013	0.010
147+00	0.012	0.010
148+00	0.013	0.012
149+00	0.013	0.012
150+00	0.014	0.012
151+00	0.016	0.012
152+00	0.013	0.012
153+00	0.014	0.012
154+00	0.016	0.012
155+00	0.013	0.012
156+00	0.013	0.012
157+00	0.014	0.012

EXHIBIT TYP-8A
Date: 1/1/13
SHEET 2 OF 2

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
4008	LEON	123456-1-52-01

TYPICAL SECTION DETAILS

SHEET NO.

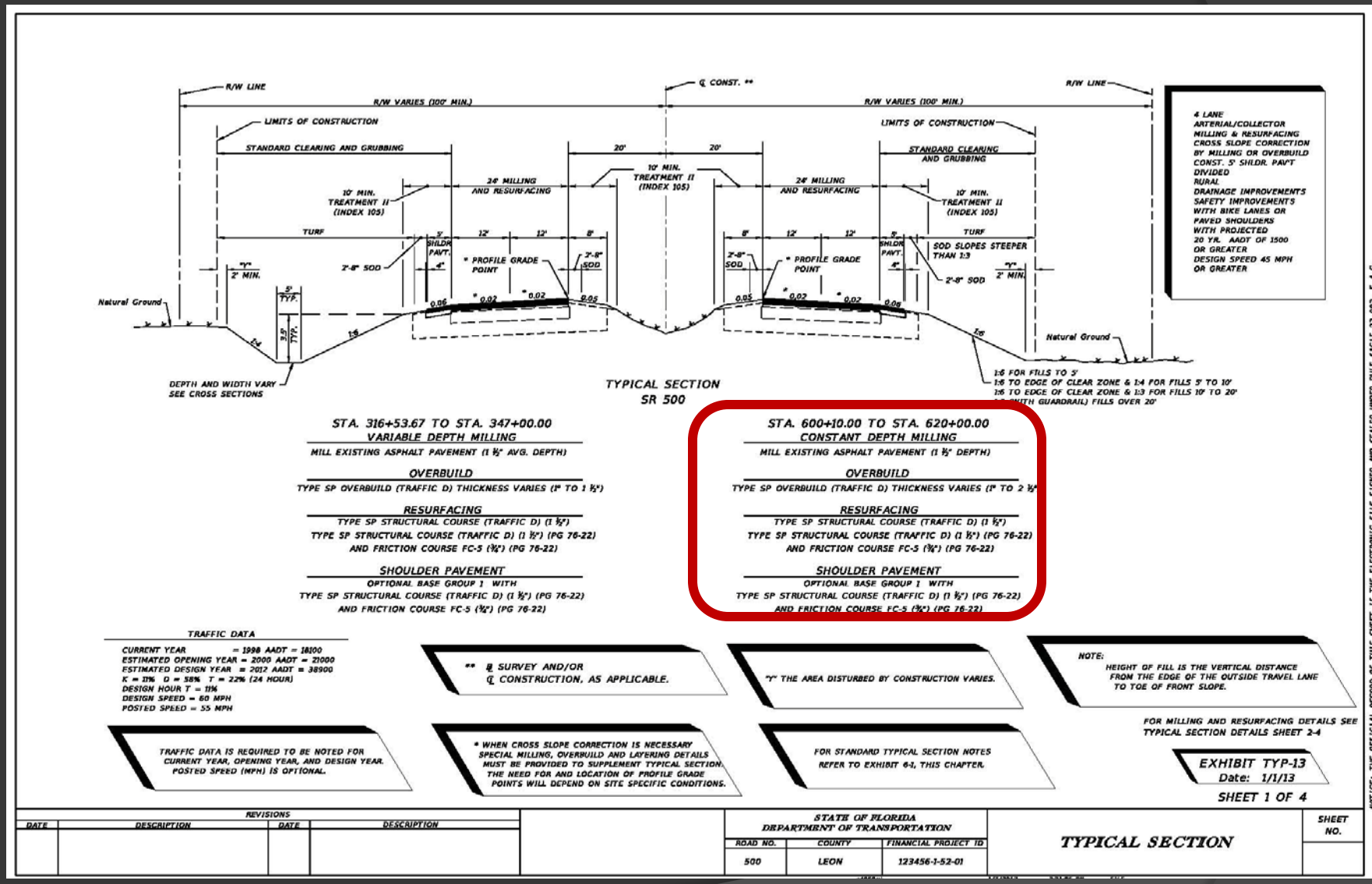
1/7/2013 2:45:48 PM FILE

PPM Volume 2, Chapter 6 - ***Exhibits***

Constant Depth Milling and Overbuild

- Constant depth milling
- Slope Correction by Overbuild
- Resurface at constant thickness

Constant Depth Milling and Overbuild



PPM Volume 2, Chapter 6 - ***Exhibits***

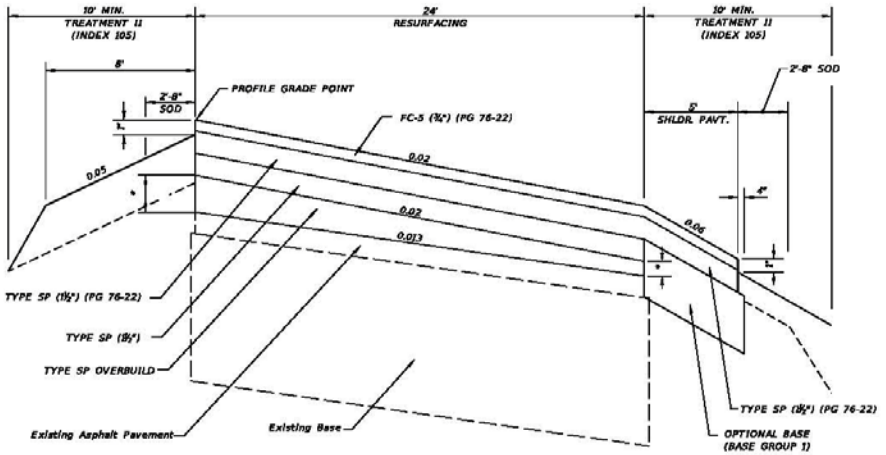
Constant Depth Milling and Overbuild

EXAMPLE OF CROSS SLOPE CORRECTION BY CONSTANT DEPTH MILLING AND OVERBUILD.

WHEN CROSS SLOPE CORRECTION IS NECESSARY SPECIAL MILLING, OVERBUILD AND LAYERING DETAILS MUST BE PROVIDED TO SUPPLEMENT TYPICAL SECTION. THE NEED FOR AND LOCATION OF PROFILE GRADES POINTS WILL DEPEND ON SITE SPECIFIC CONDITIONS.

FOR STANDARD TYPICAL SECTION NOTES REFER TO EXHIBIT 6-1, THIS CHAPTER.

SUGGESTED CONSTRUCTION SEQUENCES SHOWN. OTHER SEQUENCES THAT MEET SPECIFICATIONS, THICKNESS AND CROSS SLOPE REQUIREMENTS MAY BE CONSIDERED BY THE ENGINEER.



OVERBUILD AND RESURFACING DETAIL

* TYPE SP OVERBUILD THICKNESSES (PER FDOT SPECIFICATION 334)

STA. 600+10.00 TO STA. 620+00.00

EXISTING PAVEMENT CROSS SLOPES		
STATION	EASTBOUND LANES	
	INSIDE	OUTSIDE
600+00	0.015	0.015
601+00	0.014	0.014
602+00	0.013	0.013
603+00	0.013	0.012
604+00	0.013	0.013
605+00	0.013	0.015
606+00	0.012	0.015
607+00	0.012	0.015
608+00	0.013	0.014
609+00	0.012	0.013
610+00	0.013	0.011

EXISTING PAVEMENT CROSS SLOPES		
STATION	EASTBOUND LANES	
	INSIDE	OUTSIDE
611+00	0.014	0.011
612+00	0.015	0.012
613+00	0.015	0.013
614+00	0.014	0.014
615+00	0.013	0.016
616+00	0.012	0.015
617+00	0.013	0.014
618+00	0.013	0.013
619+00	0.014	0.013
620+00	0.016	0.016

EXHIBIT TYP-13B
Date: 1/1/12
SHEET 3 OF 4

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

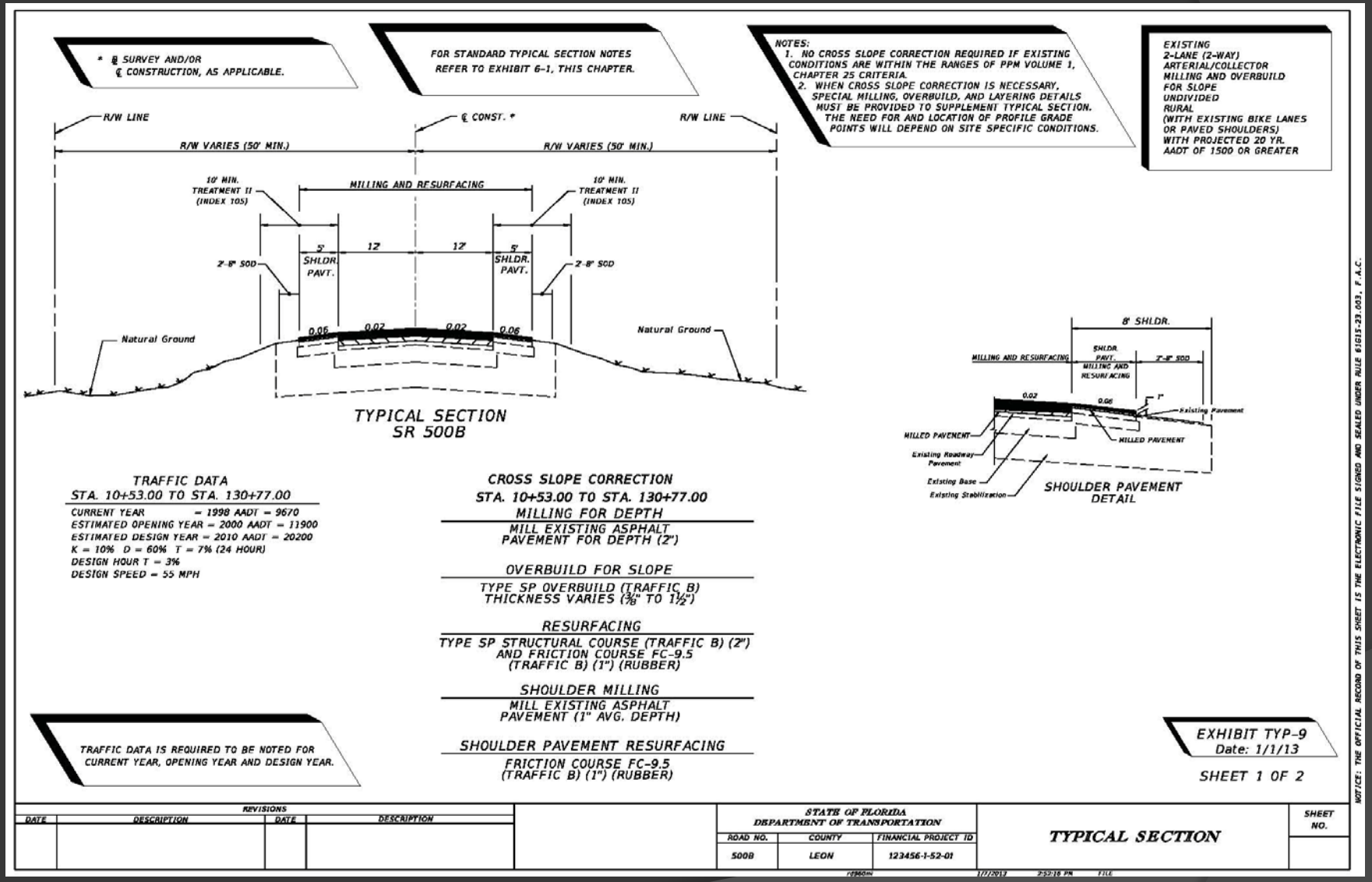
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
500	LEON	123456-1-52-01

TYPICAL SECTION DETAILS

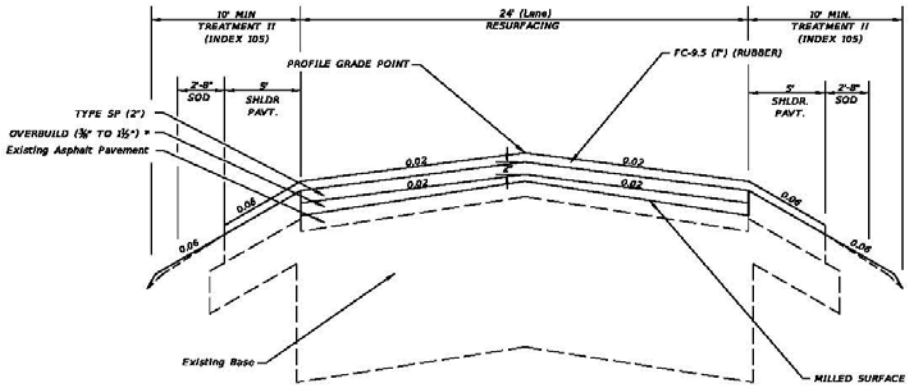
SHEET NO.

Constant Depth Milling and Overbuild



PPM Volume 2, Chapter 6 - ***Exhibits***

Constant Depth Milling and Overbuild



OVERBUILD AND RESURFACING DETAIL

* TYPE SP OVERBUILD THICKNESSES (PER FDOT SPECIFICATION 334)

EXAMPLE OF CROSS SLOPE CORRECTION BY CONSTANT DEPTH MILLING AND OVERBUILD.

WHEN CROSS SLOPE CORRECTION IS NECESSARY SPECIAL MILLING, OVERBUILD AND LAYERING DETAILS MUST BE PROVIDED TO SUPPLEMENT TYPICAL SECTION. THE NEED FOR AND LOCATION OF PROFILE GRADES POINTS WILL DEPEND ON SITE SPECIFIC CONDITIONS.

SUGGESTED CONSTRUCTION SEQUENCES SHOWN. OTHER SEQUENCES THAT MEET SPECIFICATIONS, THICKNESS AND CROSS SLOPE REQUIREMENTS MAY BE CONSIDERED BY THE ENGINEER.

FOR STANDARD TYPICAL SECTION NOTES REFER TO EXHIBIT 6-1, THIS CHAPTER.

EXHIBIT TYP-9A
Date: 1/1/13
SHEET 2 OF 2

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TYPICAL SECTION DETAILS	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				500B	LEON	123456-1-52-01		

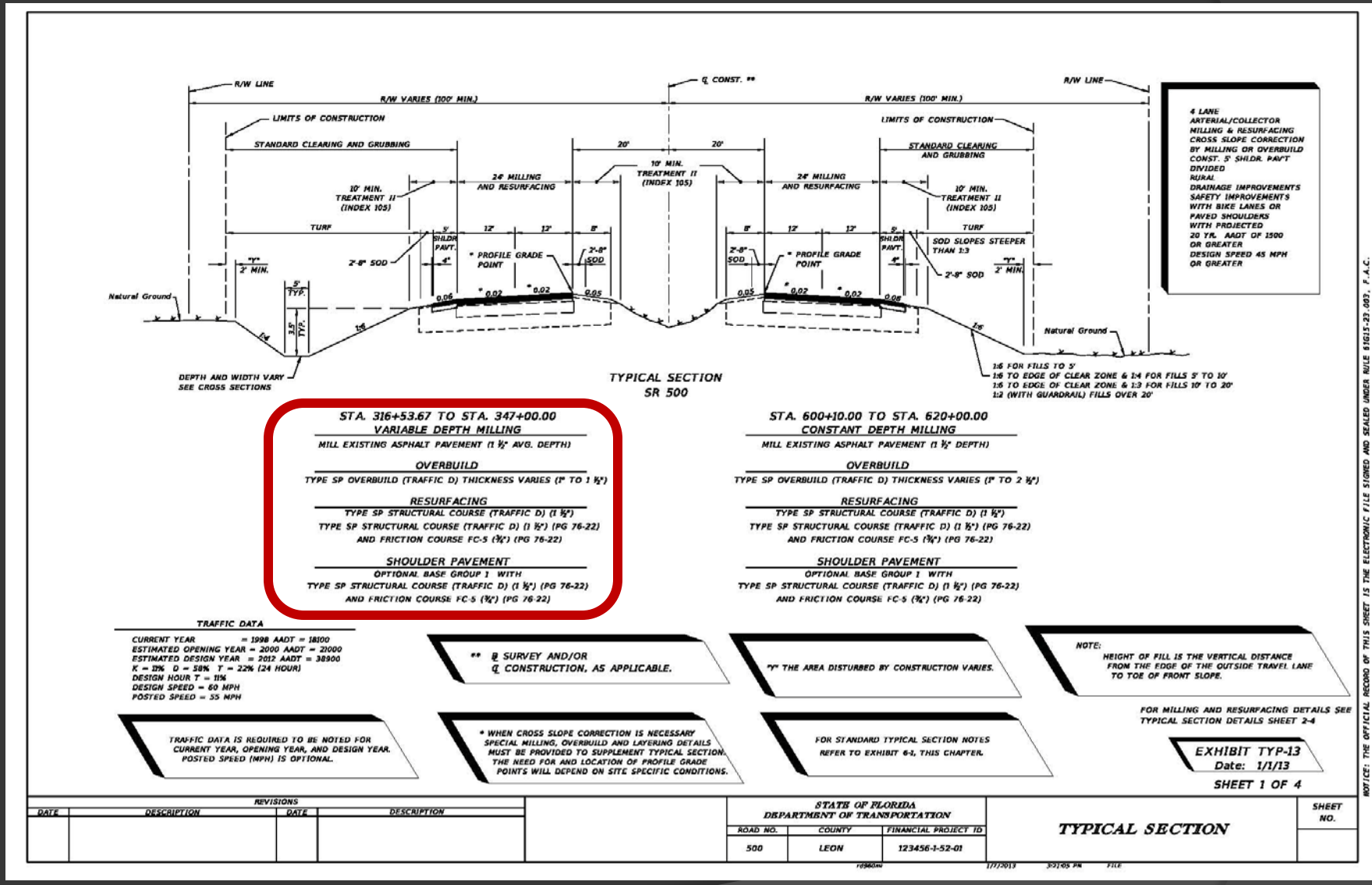
rgbeam 1/7/2013 3:42:34 PM TITLE

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

Variable Depth Milling and Overbuild

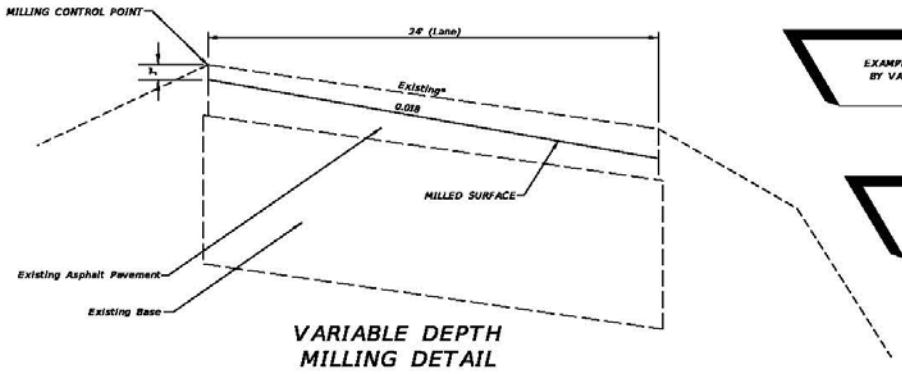
- Slope correction by:
  - Variable depth milling
  - Overbuild
- Resurface at constant thickness

Variable Depth Milling and Overbuild



PPM Volume 2, Chapter 6 - ***Exhibits***

Variable Depth Milling and Overbuild



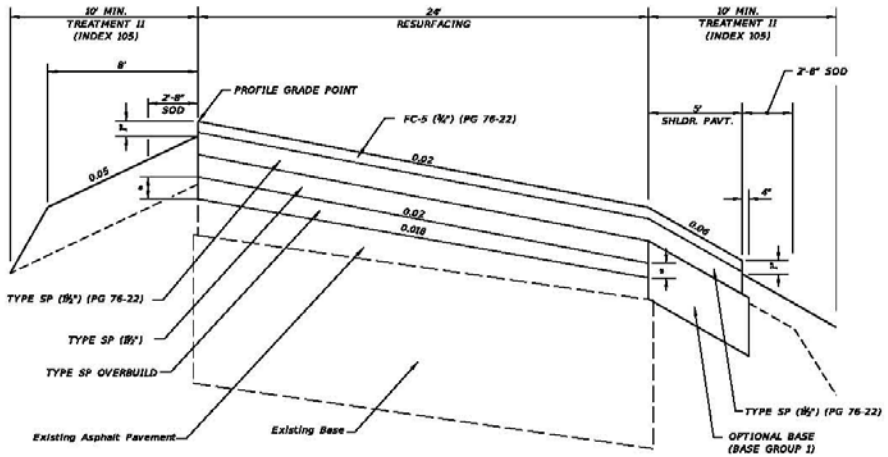
VARIABLE DEPTH
MILLING DETAIL

EXAMPLE OF CROSS SLOPE CORRECTION BY VARIABLE MILLING AND OVERBUILD.

WHEN CROSS SLOPE CORRECTION IS NECESSARY SPECIAL MILLING, OVERBUILD AND LAYERING DETAILS MUST BE PROVIDED TO SUPPLEMENT TYPICAL SECTION. THE NEED FOR AND LOCATION OF PROFILE GRADES POINTS WILL DEPEND ON SITE SPECIFIC CONDITIONS.

SUGGESTED CONSTRUCTION SEQUENCES SHOWN. OTHER SEQUENCES THAT MEET SPECIFICATIONS, THICKNESS AND CROSS SLOPE REQUIREMENTS MAY BE CONSIDERED BY THE ENGINEER.

FOR STANDARD TYPICAL SECTION NOTES REFER TO EXHIBIT 6-1, THIS CHAPTER.



VARIABLE DEPTH
OVERBUILD AND RESURFACING DETAIL

* TYPE SP OVERBUILD THICKNESSES (PER FDOT SPECIFICATION 334)

STA. 316+53.67 TO STA. 347+00.00

*EXISTING PAVEMENT CROSS SLOPES		
STATION	EASTBOUND LANES	
	INSIDE	OUTSIDE
317+00	0.014	0.013
318+00	0.012	0.012
319+00	0.013	0.013
320+00	0.011	0.012
321+00	0.013	0.014
322+00	0.013	0.015
323+00	0.014	0.015
324+00	0.013	0.013
325+00	0.012	0.012
326+00	0.012	0.011
327+00	0.013	0.011
328+00	0.014	0.012
329+00	0.015	0.013
330+00	0.015	0.013
331+00	0.014	0.014
332+00	0.013	0.016

*EXISTING PAVEMENT CROSS SLOPES		
STATION	EASTBOUND LANES	
	INSIDE	OUTSIDE
333+00	0.012	0.015
334+00	0.013	0.014
335+00	0.013	0.013
336+00	0.014	0.012
337+00	0.016	0.015
338+00	0.015	0.015
339+00	0.012	0.014
340+00	0.013	0.013
341+00	0.014	0.013
342+00	0.016	0.014
343+00	0.013	0.014
344+00	0.013	0.012
345+00	0.014	0.013
346+00	0.016	0.015
347+00	0.016	0.016

EXHIBIT TYP-13A
Date: 1/1/13

SHEET 2 OF 4

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
500	LEON	123456-1-52-01

TYPICAL SECTION DETAILS

SHEET NO.

Summary

- Cross Slope Correction
  - Match Existing cross slope
  - Determine appropriate cross slope correction method
    - Variable depth milling
    - Constant depth milling & Overbuild
    - Variable depth milling &Overbuild
  - Correction method in milling and resurfacing details (*PPM* Vol.2, Chapter 6 – *Exhibits*)

Thank You!

Benjamin Gerrell, P.E.
(850) 414-4318
benjamin.gerrell@dot.state.fl.us

María J. Irizarry
(850) 414-4317
maria.irizarry@dot.state.fl.us