Florida Department of Transportation

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GOVERNOR

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Tallahassee, FL 32399-0450

DENVER J. STUTLER, JR.
SECRETARY

Mail Station 32

ROADWAY DESIGN BULLETIN 06-05

DATE: June 27, 2006

TO: District Design Engineers, Plans Preparation Manual Holders

FROM: David C. O'Hagan, PE, State Roadway Design Engineer

COPIES: Robert Greer, Brian Blanchard, Tim Lattner, William Nickas, Duane Brautigam, Greg Davis, Elwin Broome, Chris Richter, FHWA

SUBJECT: Performance Turf

REQUIREMENTS

The following Plans Preparation Manual Exhibits are updated as shown in the attached to reflect the new specification and pay items for Performance Turf (Turf) and Performance Turf (Sod).

Volume II, Chapter 6, Exhibits TYP-1 thru TYP-16

Volume II, Chapter 7, Exhibit 7-1

Volume II, Chapter 28, Exhibit SWP-2

BACKGROUND

As stated in the BOE April 28, 2006 Cover Letter, a new specification for Performance Turf (Section 570) will be implemented beginning with the January 2007 letting. There will be two pay items under the new specification, 570-1-1 Performance Turf (Turf) and 570-1-2 Performance Turf (Sod). Separate payment for items such as seed, mulch, fertilizer, water, etc., are eliminated. The new specification also eliminates minimum requirements for these various items. Instead, the contractor must provide whatever quantities of seed, mulch, fertilizer, water, etc. that he deems necessary to meet the minimum performance requirements called for in the specification. When the plans call

for Performance Turf (Turf), the contractor will have the option to establish the turf by a variety of methods. These methods include seeding similar to past practice, hydroseeding, bonded fiber matrix, and sod. However, when the plans call for Performance Turf (Sod), the contractor will have no option and will be required to provide sod.

In general, designers should call for Performance Turf (Sod) in areas where historically sod was specified. This would include the area along pavement edges, areas around drainage structures and ditch pavement, and on slopes steeper than 1:3, etc. Sod areas should continue to be tabulated on the Summary of Quantities sheet in accordance with past practice.

Performance Turf (Turf) should be used in areas where historically seeding, or seeding and mulching was specified. Some Districts in recent years have been calling for sod almost exclusively, including areas where historical practice was to specify only seeding or seeding and mulching. Districts are advised to reevaluate this practice in light of the new specification and limit the requirement for sod to those areas where it is the only practical method for erosion control and/or establishing turf.

There will be no separate pay items for the different varieties of sod or turf, such as Saint Augustine or Centipede. When a specific variety is required, it must be identified in the plans. Likewise, the plans must include a note when it is intended that the contractor install grass type(s) to match adjoining private property.

Corresponding changes to Design Standards Index 104, Permanent Erosion Control, Index 105, Shoulder Sodding and Turf on Existing Facilities, and the Index 200 Drainage Series will be included in the January 1, 2007 Design Standards Modifications to be issued in early July 206.

The new 570 specification and pay items will also be used for temporary sod and turf. The quantities of temporary sod and turf are to be identified in pay item notes in plans as described in PPM Volume II, Chapter 7, Exhibit 7-1 attached. Stormwater Pollution Prevention plans are to be updated to reflect the new terminology as well (see example shown on PPM Volume II, Chapter 28, Exhibit SWP-2 attached). Changes to Specification Section 104, Prevention, Control, and Abatement of Erosion and Water Pollution, to address temporary sod and turf will be included in the January 2007 Workbook.

The FDOT CADD Cell Library typical sections will be updated to include these changes in the FDOT 2004 Maintenance Release 3, scheduled for release August 2006. Until Maintenance Release 3 is issued, designers will need to manually change the typical section sheet cells to use the new terminology.

IMPLEMENTATION

Plans must be updated beginning with the January 2007 letting to reflect the new terminology for turf as shown in the updated PPM exhibits, and include the new pay items for Performance Turf.

CONTACT

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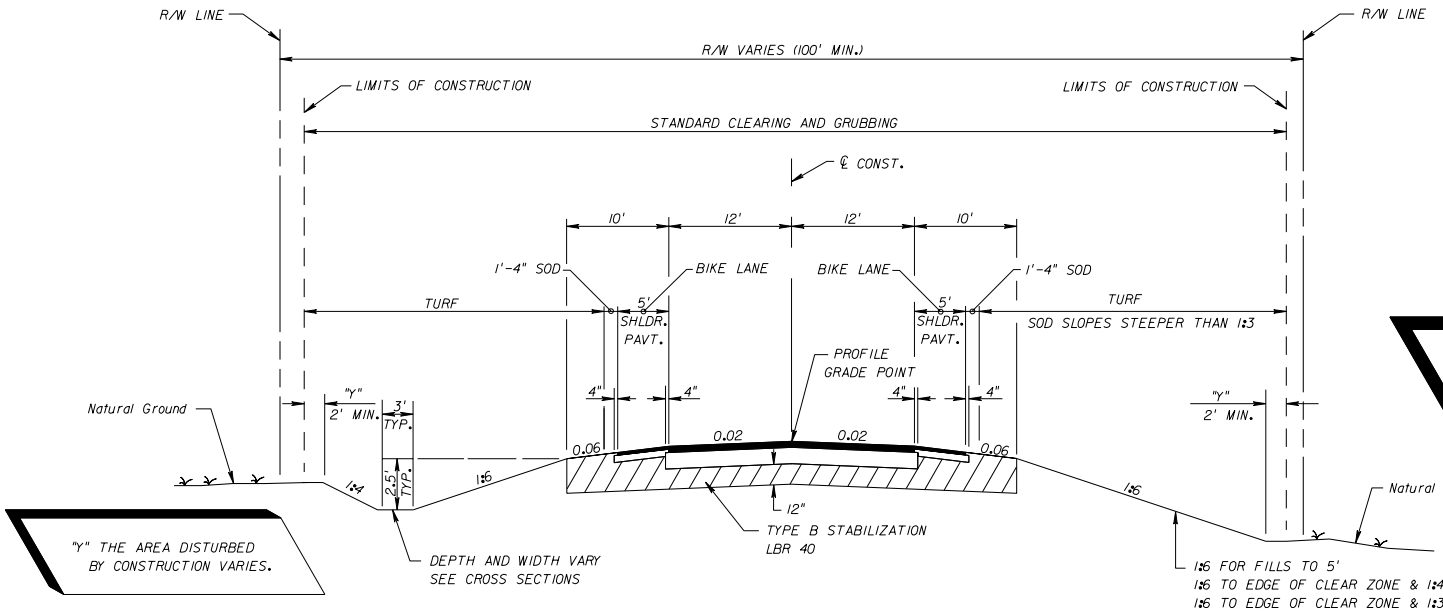


"Y" THE AREA DISTURBED BY CONSTRUCTION VARIES.

2-LANE (2-WAY)
ARTERIAL/COLLECTOR
NEW CONSTRUCTION
RURAL
WITH DESIGNATED OR
UNDESIGNATED BIKE LANE
DESIGN SPEED 55 MPH
OR GREATER
WITH PROJECTED
20 YR. AADT OF 1500
OR GREATER

DESIGNATED BIKE LANES SHALL BE LABELED ON TYPICAL. UNDESIGNATED BIKE LANES SHOULD NOT BE LABELED ON TYPICAL.

TYPICAL SECTION
SR 10 (U.S. 90-A)
STA. 10+00.00 TO STA. 267+34.89

TRAFFIC DATA

CURRENT YEAR = 1998 AADT = 6800
ESTIMATED OPENING YEAR = 2000 AADT = 7600
ESTIMATED DESIGN YEAR = 2020 AADT = 15000
K = 6% D = 55% T = 2% (24 HOUR)
DESIGN HOUR T = 1%
DESIGN SPEED = 45 MPH

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

NEW CONSTRUCTION

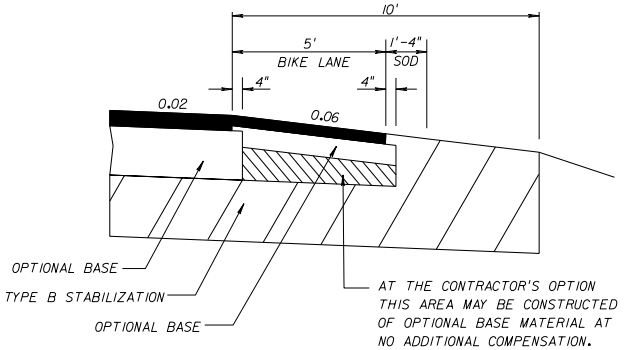
OPTIONAL BASE GROUP 8 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC C) (2")
AND FRICTION COURSE FC-12.5 (1½") (RUBBER)

SHOULDER PAVEMENT

OPTIONAL BASE GROUP 1 WITH
FRICTION COURSE FC-12.5 (1½") (RUBBER)

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

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



SHOULDER PAVEMENT DETAIL

EXHIBIT TYP-1
Date: 5/11/06

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

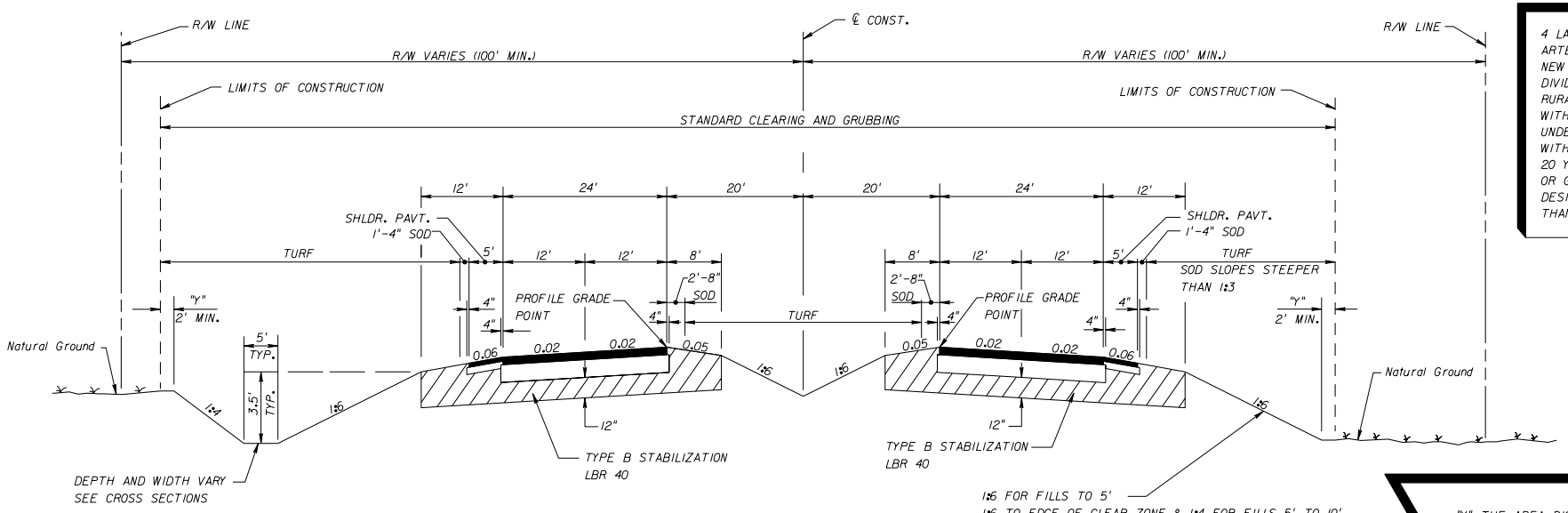
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
		- - -

TYPICAL SECTION

SHEET NO.

$USER$ $DATE$ $TIME$ $FILE$



4 LANE
ARTERIAL/COLLECTOR
NEW CONSTRUCTION
DIVIDED
RURAL
WITH DESIGNATED OR
UNDESIGNATED BIKE LANE
WITH PROJECTED
20 YR. AADT OF 1500
OR GREATER
DESIGN SPEED GREATER
THAN 50 MPH

"Y" THE AREA DISTURBED BY CONSTRUCTION VARIES.

TRAFFIC DATA

CURRENT YEAR = 1998 AADT = 22300
ESTIMATED OPENING YEAR = 2000 AADT = 23300
ESTIMATED DESIGN YEAR = 2020 AADT = 51500
K = 9% D = 56% T = 10% (24 HOUR)
DESIGN HOUR T = 5%
DESIGN SPEED = 70 MPH

TYPICAL SECTION
SR 500
STA. 63+65.42 TO STA. 328+65.14

NEW CONSTRUCTION

OPTIONAL BASE GROUP 9 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC D) (2")
TYPE SP STRUCTURAL COURSE (TRAFFIC D) (1 1/2") (PG 76-22)
AND FRICTION COURSE FC-5 (3/4") (PG 76-22)

SHOULDER PAVEMENT

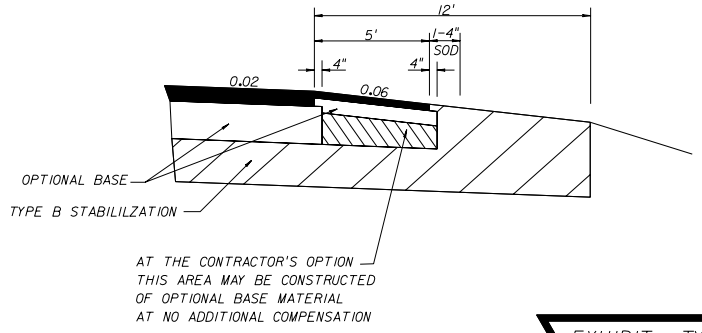
OPTIONAL BASE GROUP 1 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC D) (1 1/2") (PG 76-22)
AND FRICTION COURSE FC-5 (3/4") (PG 76-22)

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

DESIGNATED BIKE LANES SHALL BE LABELED ON TYPICAL. UNDESIGNATED BIKE LANES SHOULD NOT BE LABELED ON TYPICAL.

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

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



SHOULDER PAVEMENT DETAIL

EXHIBIT TYP-2
Date: 5/11/06

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
		- - -

TYPICAL SECTION

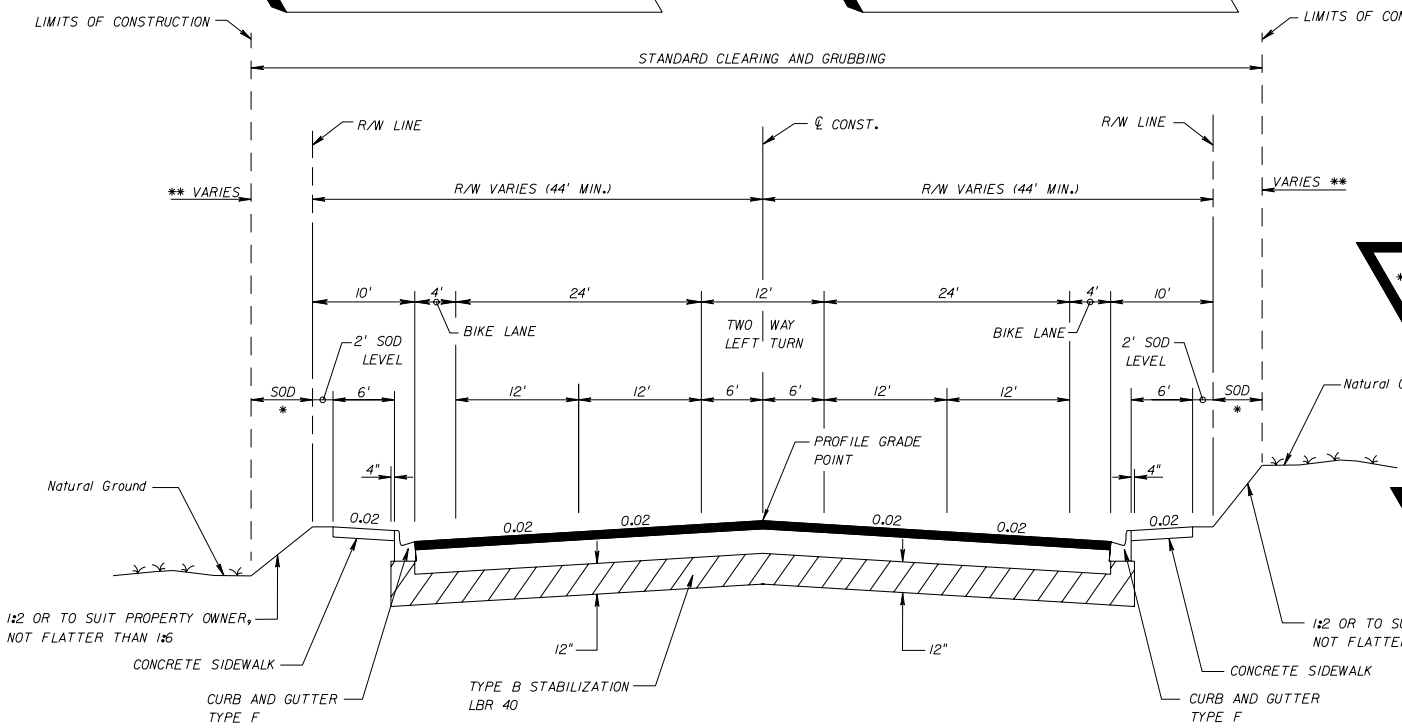
SHEET NO.

$USER$ $DATE$ $TIME$ $FILE$

DESIGNATED BIKE LANES SHALL BE LABELED ON TYPICAL. UNDESIGNATED BIKE LANES SHOULD NOT BE LABELED ON TYPICAL.

5-LANE SECTIONS ARE TO INCLUDE SECTIONS OF RAISED OR RESTRICTIVE MEDIAN. SEE PPM TABLE 2.2.1.

5-LANE
ARTERIAL/COLLECTOR
NEW CONSTRUCTION
UNDIVIDED
URBAN
WITH DESIGNATED OR
UNDESIGNATED BIKE LANE
MINIMUM RIGHT OF WAY
DESIGN SPEED 40 MPH
OR LESS
WITH PROJECTED
20 YR. AADT OF 1500
OR GREATER



** IF LIMITS OF CONSTRUCTION EXCEEDS RIGHT OF WAY, A PROPERTY AGREEMENT IS REQUIRED.

* TURF
SOD OR TURF
SOD

TYPICAL SECTION
SR 00 (DUVAL STREET)
STA. 252+12.00 TO STA. 323+19.42

TRAFFIC DATA

CURRENT YEAR = 1998 AADT = 9900
ESTIMATED OPENING YEAR = 2000 AADT = 10600
ESTIMATED DESIGN YEAR = 2020 AADT = 14000
K = 6% D = 55% T = 2% (24 HOUR)
DESIGN HOUR T = 1%
DESIGN SPEED = 40 MPH

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

NEW CONSTRUCTION

OPTIONAL BASE GROUP 8 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC B) (1 1/2")
AND FRICTION COURSE FC-12.5 (1 1/2") (RUBBER)

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

EXHIBIT TYP-3
Date: 5/11/06

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
		- - -

TYPICAL SECTION

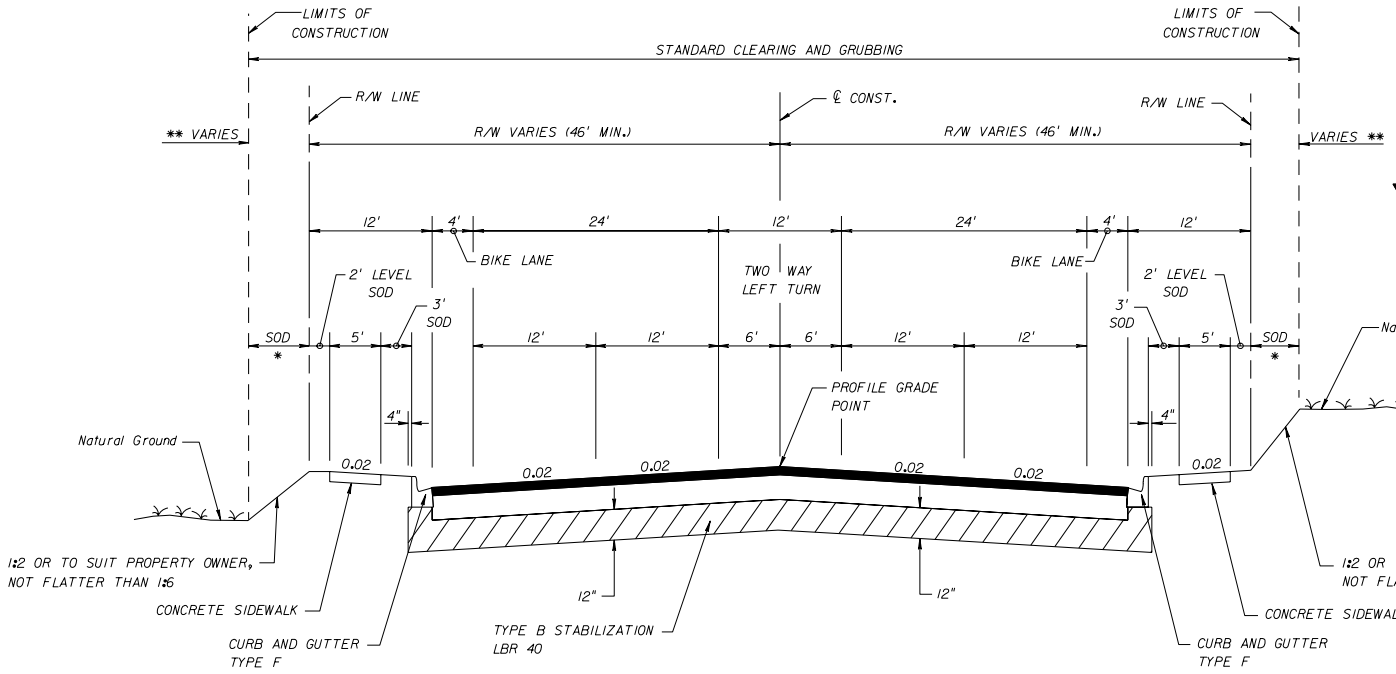
SHEET NO.

$USER$ $DATE$ $TIME$ $FILE$

DESIGNATED BIKE LANES SHALL BE LABELED ON TYPICAL. UNDESIGNATED BIKE LANES SHOULD NOT BE LABELED ON TYPICAL.

5-LANE SECTIONS ARE TO INCLUDE SECTIONS OF RAISED OR RESTRICTIVE MEDIAN. SEE PPM TABLE 2.2.1.

5-LANE
ARTERIAL/COLLECTOR
NEW CONSTRUCTION
UNDIVIDED
URBAN
WITH DESIGNATED OR
UNDESIGNATED BIKE LANE
DESIGN SPEED 40 MPH
OR LESS
WITH PROJECTED
20 YR. AADT OF 1500
OR GREATER



** IF LIMITS OF CONSTRUCTION EXCEEDS RIGHT OF WAY, A PROPERTY AGREEMENT IS REQUIRED.

* TURF
SOD OR TURF
SOD

TRAFFIC DATA

CURRENT YEAR = 1998 AADT = 20819
ESTIMATED OPENING YEAR = 2003 AADT = 24100
ESTIMATED DESIGN YEAR = 2023 AADT = 24900
K = 9% D = 60% T = 2% (24 HOUR)
DESIGN HOUR T = 1%
DESIGN SPEED = 40 MPH

TYPICAL SECTION
SR 00 (MATTHEWS STREET)
STA. 202+42.00 TO STA. 263+29.68

NEW CONSTRUCTION

OPTIONAL BASE GROUP 8 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC B) (1 1/2") (RUBBER)
AND FRICTION COURSE FC-12.5 (1 1/2") (RUBBER)

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

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

EXHIBIT TYP-4
Date: 5/11/06

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
		- - -

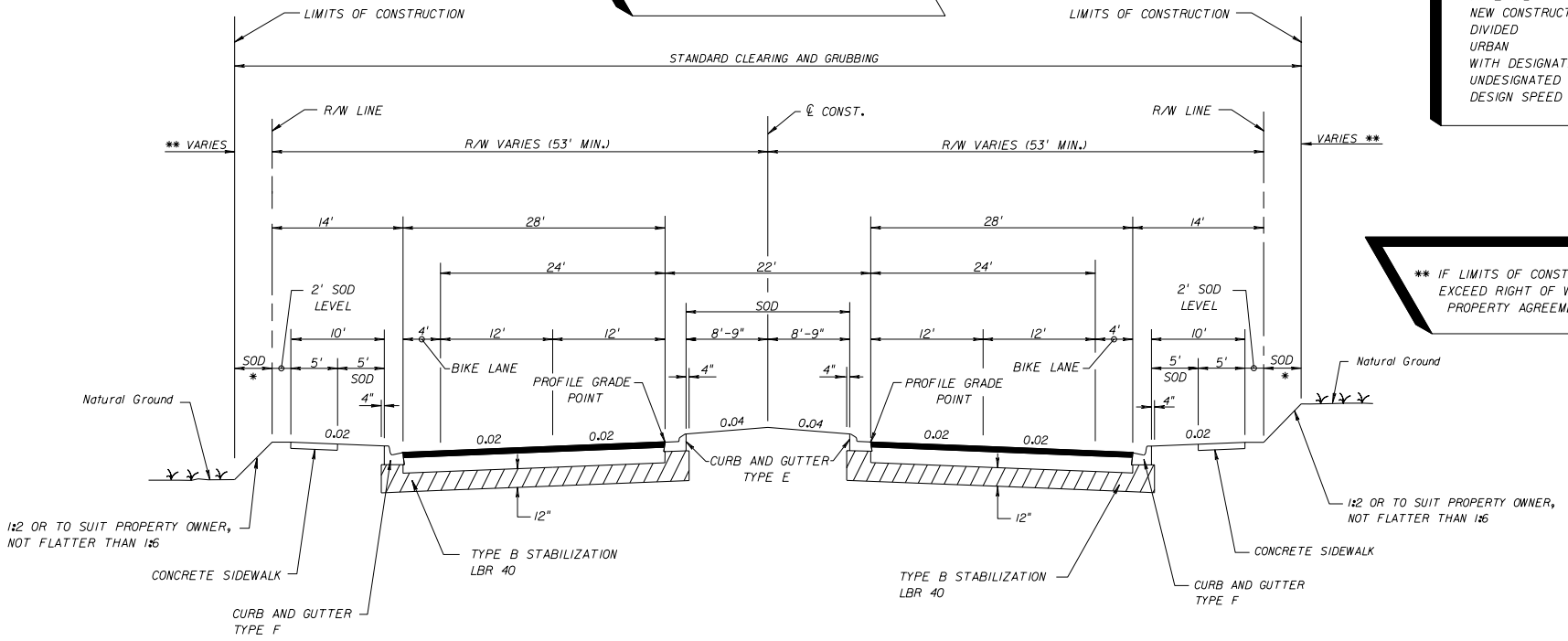
TYPICAL SECTION

SHEET NO.

$USER$ $DATE$ $TIME$ $FILE$

DESIGNATED BIKE LANES SHALL BE LABELED ON TYPICAL. UNDESIGNATED BIKE LANES SHOULD NOT BE LABELED ON TYPICAL.

4-LANE
ARTERIAL
NEW CONSTRUCTION
DIVIDED
URBAN
WITH DESIGNATED OR
UNDESIGNATED BIKE LANE
DESIGN SPEED 45 MPH OR LESS



** IF LIMITS OF CONSTRUCTION EXCEED RIGHT OF WAY, A PROPERTY AGREEMENT IS REQUIRED.

TYPICAL SECTION
SR 00 (WILSON STREET)
STA. 98+40.00 TO STA. 202+33.00

NEW CONSTRUCTION

OPTIONAL BASE GROUP 9 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC B) (1 1/2")
AND FRICTION COURSE FC-12.5 (1 1/2") (RUBBER)

TRAFFIC DATA

CURRENT YEAR = 1998 AADT = 22800
ESTIMATED OPENING YEAR = 2000 AADT = 25800
ESTIMATED DESIGN YEAR = 2020 AADT = 30600
K = 6% D = 55% T = 2% (24 HOUR)
DESIGN HOUR T = 1%
DESIGN SPEED = 45 MPH

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

* TURF
SOD OR TURF
SOD

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

EXHIBIT TYP-5
Date: 5/11/06

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
		- - -

TYPICAL SECTION

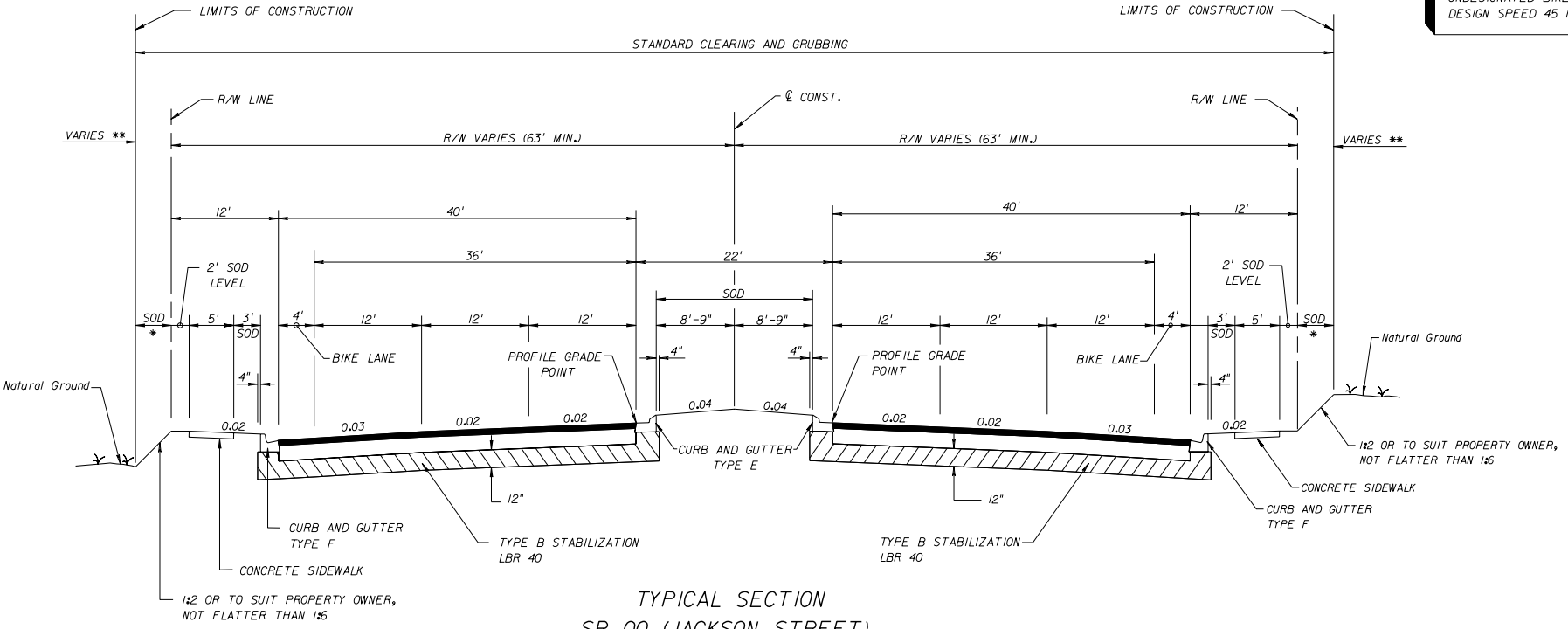
SHEET NO.

$USER$ $DATE$ $TIME$ $FILE$

DESIGNATED BIKE LANES SHALL BE LABELED ON TYPICAL. UNDESIGNATED BIKE LANES SHOULD NOT BE LABELED ON TYPICAL.

** IF LIMITS OF CONSTRUCTION EXCEED RIGHT OF WAY, A PROPERTY AGREEMENT IS REQUIRED.

6-LANE
ARTERIAL
NEW CONSTRUCTION
DIVIDED
URBAN
WITH DESIGNATED OR
UNDESIGNATED BIKE LANE
DESIGN SPEED 45 MPH OR LESS



TYPICAL SECTION
SR 00 (JACKSON STREET)
STA. 101+21.00 TO STA. 221+44.00

NEW CONSTRUCTION

OPTIONAL BASE GROUP 9 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC C) (2")
AND FRICTION COURSE FC-12.5 (1½") (RUBBER)

TRAFFIC DATA

CURRENT YEAR = 1998 AADT = 22800
ESTIMATED OPENING YEAR = 2000 AADT = 25800
ESTIMATED DESIGN YEAR = 2020 AADT = 30600
K = 6% D = 55% T = 2% (24 HOUR)
DESIGN HOUR T = 1%
DESIGN SPEED = 45 MPH

TRAFFIC DATA IS REQUIRED TO BE NOTED FOR CURRENT YEAR, OPENING YEAR AND DESIGN YEAR.

* TURF, SOD OR TURF SOD

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

EXHIBIT TYP-6
Date: 5/11/06

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
		- - -

TYPICAL SECTION

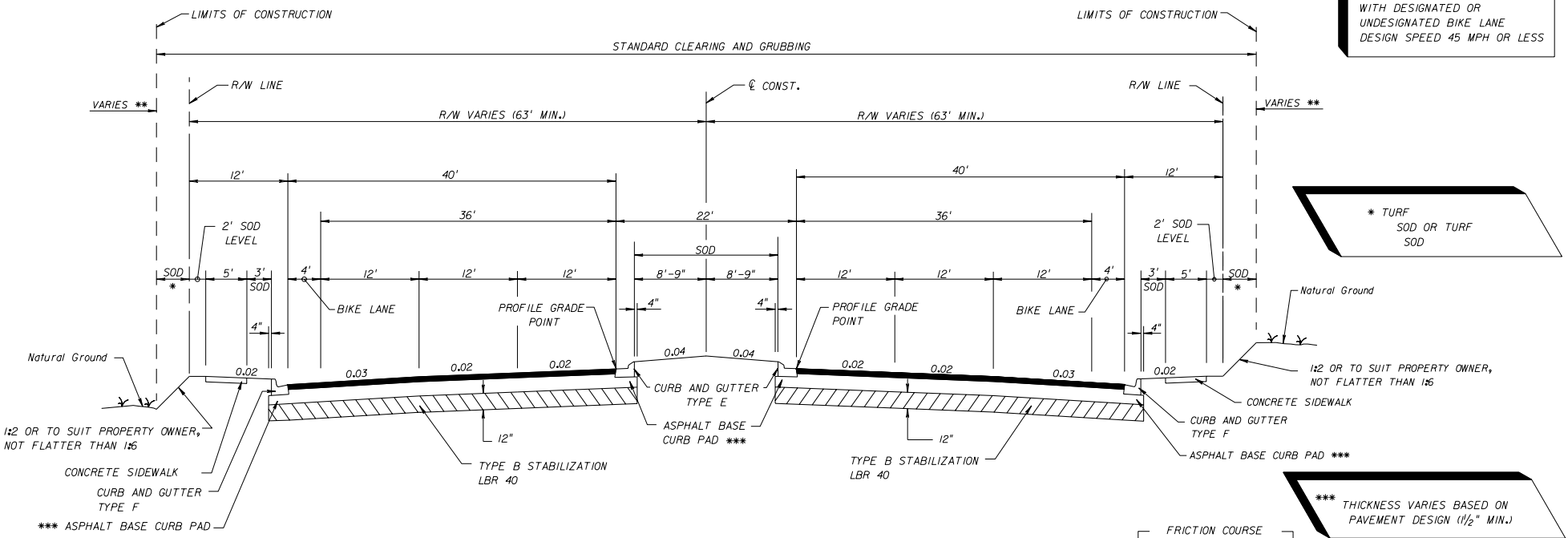
SHEET NO.

$USER$ $DATE$ $TIME$ $FILE$

DESIGNATED BIKE LANES SHALL BE LABELED ON TYPICAL. UNDESIGNATED BIKE LANES SHOULD NOT BE LABELED ON TYPICAL.

** IF LIMITS OF CONSTRUCTION EXCEED RIGHT OF WAY, A PROPERTY AGREEMENT IS REQUIRED.

6-LANE
ARTERIAL
NEW CONSTRUCTION
DIVIDED
URBAN
WITH DESIGNATED OR
UNDESIGNATED BIKE LANE
DESIGN SPEED 45 MPH OR LESS



* TURF
SOD OR TURF
SOD

*** THICKNESS VARIES BASED ON PAVEMENT DESIGN (1½" MIN.)

TYPICAL SECTION
SR 00 (JACKSON STREET)
STA. 101+21.00 TO STA. 221+44.00

NEW CONSTRUCTION

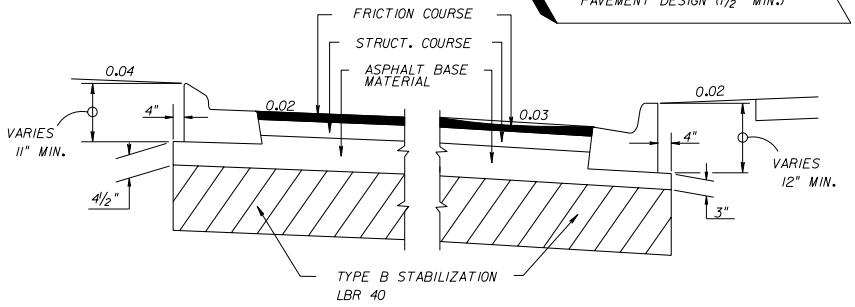
OPTIONAL BASE GROUP 9, TYPE B-12.5 (6") ONLY, WITH TYPE SP STRUCTURAL COURSE (TRAFFIC C) (3") AND FRICTION COURSE FC-12.5 (1½") (RUBBER)

TRAFFIC DATA

CURRENT YEAR = 1998 AADT = 22800
ESTIMATED OPENING YEAR = 2000 AADT = 25800
ESTIMATED DESIGN YEAR = 2020 AADT = 30600
K = 6% D = 55% T = 2% (24 HOUR)
DESIGN HOUR T = 1%
DESIGN SPEED = 45 MPH

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

TRAFFIC DATA IS REQUIRED TO BE NOTED FOR CURRENT YEAR, OPENING YEAR AND DESIGN YEAR.



DETAIL OF ASPHALT BASE CURB PAD

EXHIBIT TYP-6A
Date: 5/11/06

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
		- - -

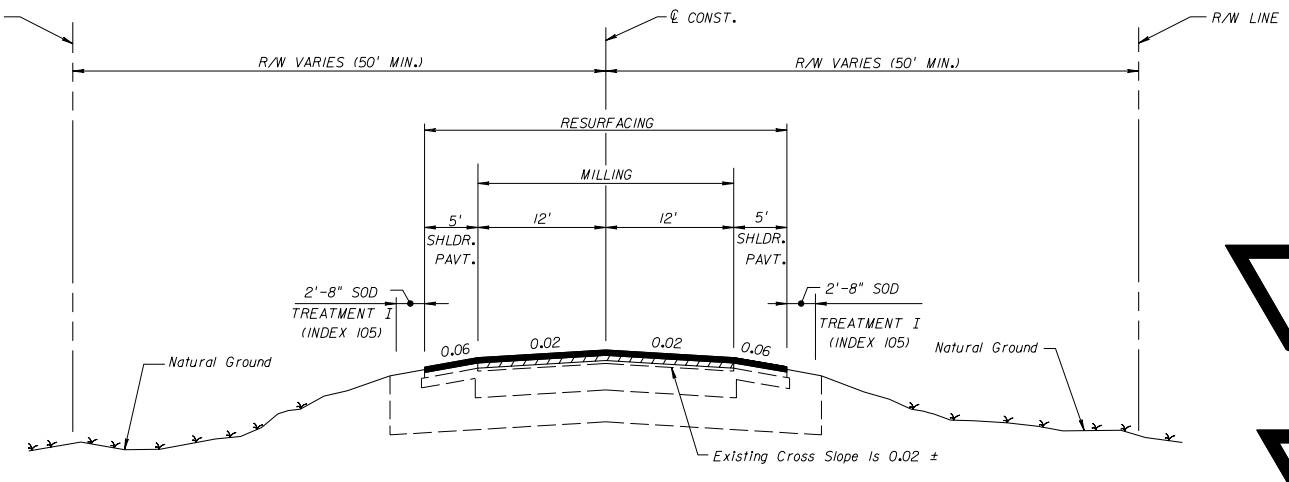
TYPICAL SECTION

SHEET NO.

$USER$ $DATE$ $TIME$ $FILE$

DESIGNATED BIKE LANES SHALL BE LABELED ON TYPICAL, UNDESIGNATED BIKE LANES SHOULD NOT BE LABELED ON TYPICAL.

EXISTING
2-LANE (2-WAY)
ARTERIAL/COLLECTOR
MILLING AND RESURFACING
NO CROSS SLOPE
CORRECTION REQUIRED
UNDIVIDED
RURAL
(WITH DESIGNATED OR
UNDESIGNATED BIKE LANE
EXISTING)
WITH PROJECTED 20 YR.
AADT OF 1500 OR GREATER



SOME PROJECTS MAY REQUIRE SHOULDER WORK. WHEN REQUIRED THIS SHOULD BE IDENTIFIED ON THE TYPICAL SECTION SHEET.

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

TRAFFIC DATA
STA. 10+53.00 TO STA. 130+77.00

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

TYPICAL SECTION
SR 00
STA. 10+53.00 TO STA. 130+77.00
STA. 206+82.28 TO STA. 368+41.21

MILLING

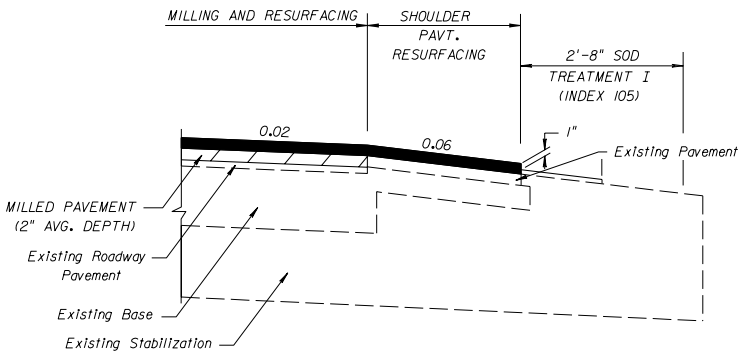
MILL EXISTING ASPHALT PAVEMENT (2" AVG. DEPTH)

RESURFACING

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

SHOULDER PAVEMENT RESURFACING

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



SHOULDER PAVEMENT DETAIL

STA. 206+82.28 TO 368+41.21

CURRENT YEAR = 1998 AADT = 6835
ESTIMATED OPENING YEAR = 2000 AADT = 8600
ESTIMATED DESIGN YEAR = 2010 AADT = 15100
K = 10% D = 65% T = 7% (24 HOUR)
DESIGN HOUR T = 3%
DESIGN SPEED = 55 MPH

TRAFFIC DATA IS REQUIRED TO BE NOTED FOR CURRENT YEAR, OPENING YEAR AND DESIGN YEAR.

EXHIBIT TYP-7
Date: 5/11/06

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

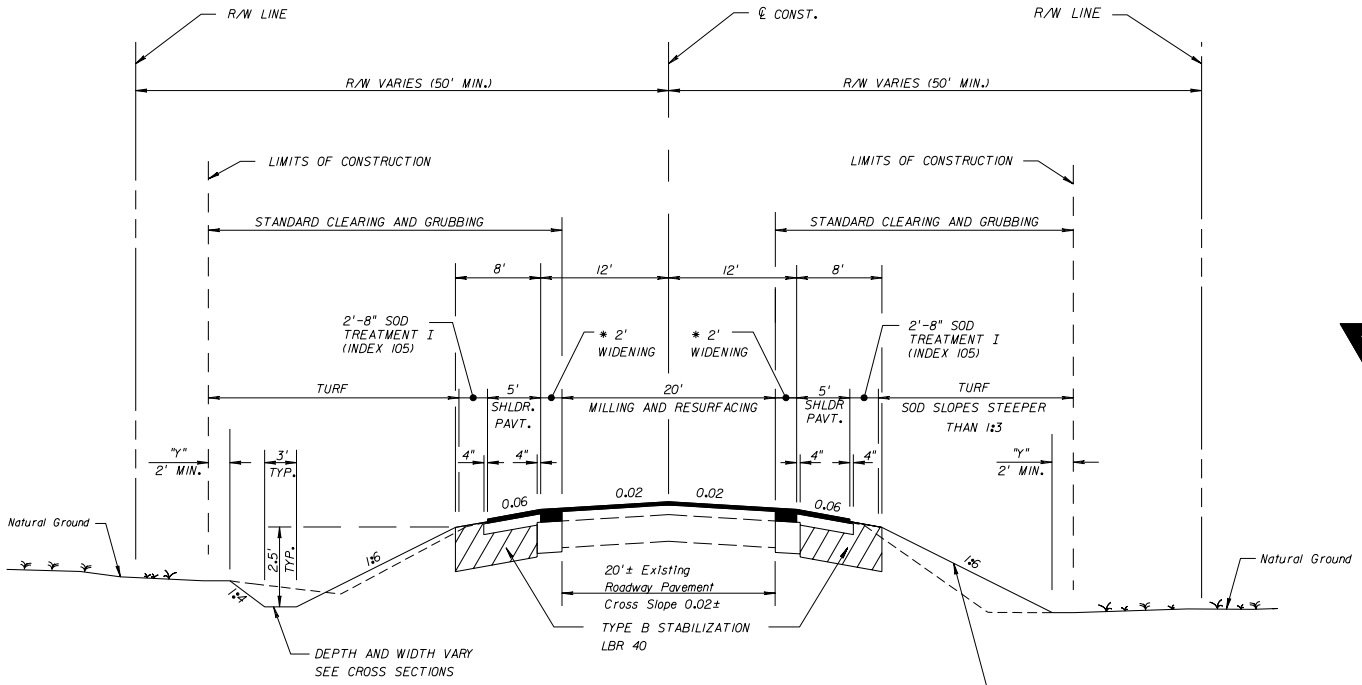
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
		- - -

$USER$ $DATE$ $TIME$ $FILE$

TYPICAL SECTION

SHEET NO.



EXISTING
2-LANE (2-WAY)
ARTERIAL/COLLECTOR
WIDENING
MILLING AND RESURFACING
UNDIVIDED
RURAL
CONST. 5' SHOULDER
PAVEMENT OR BIKE LANE
WITH PROJECTED 20 YR.
AADT OF 1500 OR GREATER
DESIGN SPEED GREATER
THAN 50 MPH

DESIGNATED BIKE LANES SHALL BE LABELED ON TYPICAL. UNDESIGNATED BIKE LANES SHOULD NOT BE LABELED ON TYPICAL.

"Y" THE AREA DISTURBED BY CONSTRUCTION VARIES.

1:6 FOR FILLS TO 5'
1:6 TO EDGE OF CLEAR ZONE & 1:4 FOR FILLS 5' TO 10'
1:6 TO EDGE OF CLEAR ZONE & 1:3 FOR FILLS 10' TO 20'
1:2 (WITH GUARDRAIL) FILLS OVER 20'

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

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

* SEE SHEET 2 OF 2 FOR WIDENING AND SHOULDER PAVEMENT DETAIL

TRAFFIC DATA
STA. 20+25.00 TO STA. 48+16.56

CURRENT YEAR = 1998 AADT = 8700
ESTIMATED OPENING YEAR = 2000 AADT = 9200
ESTIMATED DESIGN YEAR = 2020 AADT = 23600
K = 10% D = 56% T = 5% (24 HOUR)
DESIGN HOUR T = 3%
DESIGN SPEED = 55 MPH

STA. 57+82.78 TO STA. 93+41.21

CURRENT YEAR = 1998 AADT = 6835
ESTIMATED OPENING YEAR = 2000 AADT = 8600
ESTIMATED DESIGN YEAR = 2020 AADT = 17200
K = 10% D = 65% T = 7% (24 HOUR)
DESIGN HOUR T = 3 %
DESIGN SPEED = 55 MPH

TRAFFIC DATA IS REQUIRED TO BE NOTED FOR CURRENT YEAR, OPENING YEAR AND DESIGN YEAR.

TYPICAL SECTION
SR 000
STA. 20+25.00 TO STA. 48+16.56
STA. 57+82.78 TO STA. 93+41.21

MILLING
MILL EXISTING ASPHALT PAVEMENT (2" AVG. DEPTH)

RESURFACING
TYPE SP STRUCTURAL COURSE (TRAFFIC C) (1 1/2") AND FRICTION COURSE FC-12.5 (1 1/2") (RUBBER)

WIDENING
OPTIONAL BASE GROUP 11 WITH TYPE SP STRUCTURAL COURSE (TRAFFIC C) (3") AND FRICTION COURSE FC-12.5 (1 1/2") (RUBBER)

EXHIBIT TYP-8
Date: 5/11/06

SHEET 1 OF 2

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
		- - -

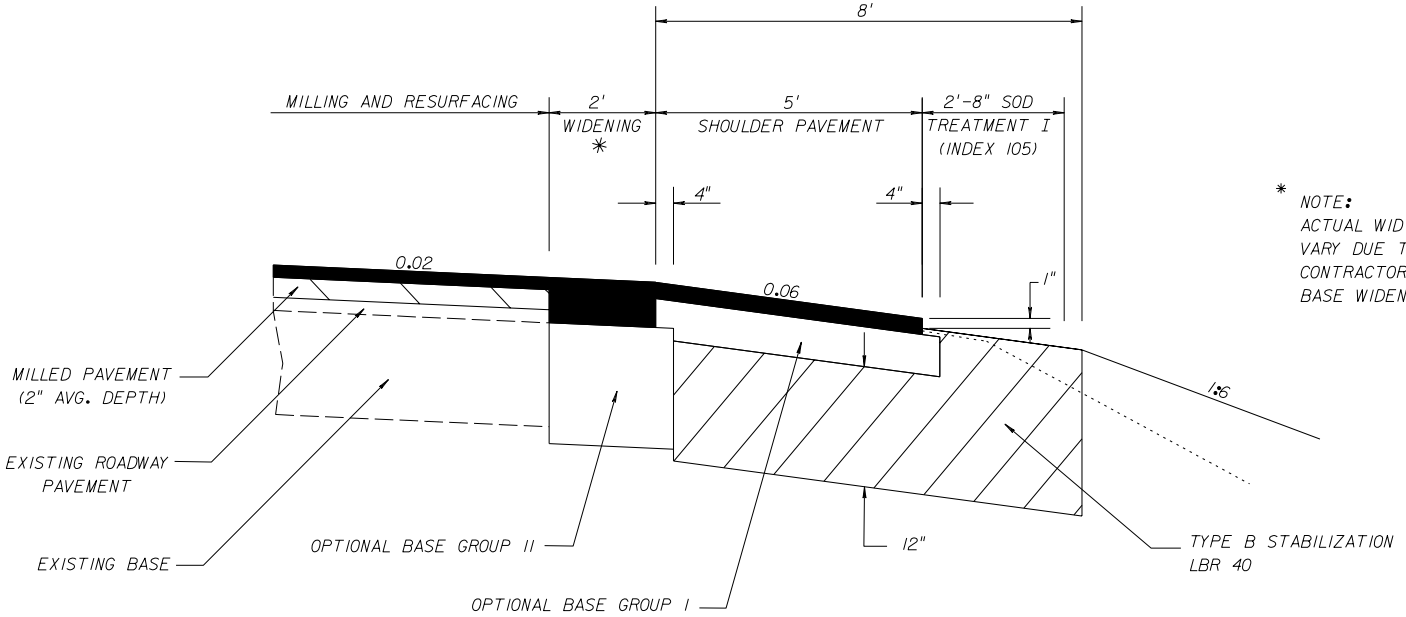
TYPICAL SECTION

SHEET NO.

$USER$ $DATE$ $TIME$ $FILE$

DESIGNATED BIKE LANES SHALL BE LABELED ON TYPICAL. UNDESIGNATED BIKE LANES SHOULD NOT BE LABELED ON TYPICAL.

THE NEED FOR STABILIZATION IN THE SHOULDER AREA ON RRR PROJECTS IS SITE SPECIFIC AND NOT ALWAYS REQUIRED. THE USE OF STABILIZING IN NARROW TRENCH WIDENING STRIPS IS NOT RECOMMENDED GENERALLY. SEE THE FLEXIBLE PAVEMENT DESIGN MANUAL FOR FURTHER CRITERIA.



* NOTE:
ACTUAL WIDTH OF BASE WIDENING MAY VARY DUE TO ACTUAL PAVEMENT WIDTH. CONTRACTOR MAY ELECT TO PLACE UNIFORM BASE WIDENING AT NO ADDITIONAL COST.

WIDENING & SHOULDER PAVEMENT DETAIL

WIDENING

OPTIONAL BASE GROUP II WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC C) (3")
FRICTION COURSE FC-12.5 (1½") (RUBBER)

SHOULDER PAVEMENT

OPTIONAL BASE GROUP I WITH
FRICTION COURSE FC-12.5 (1½") (RUBBER)

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

EXHIBIT TYP-8A
Date: 5/11/06

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

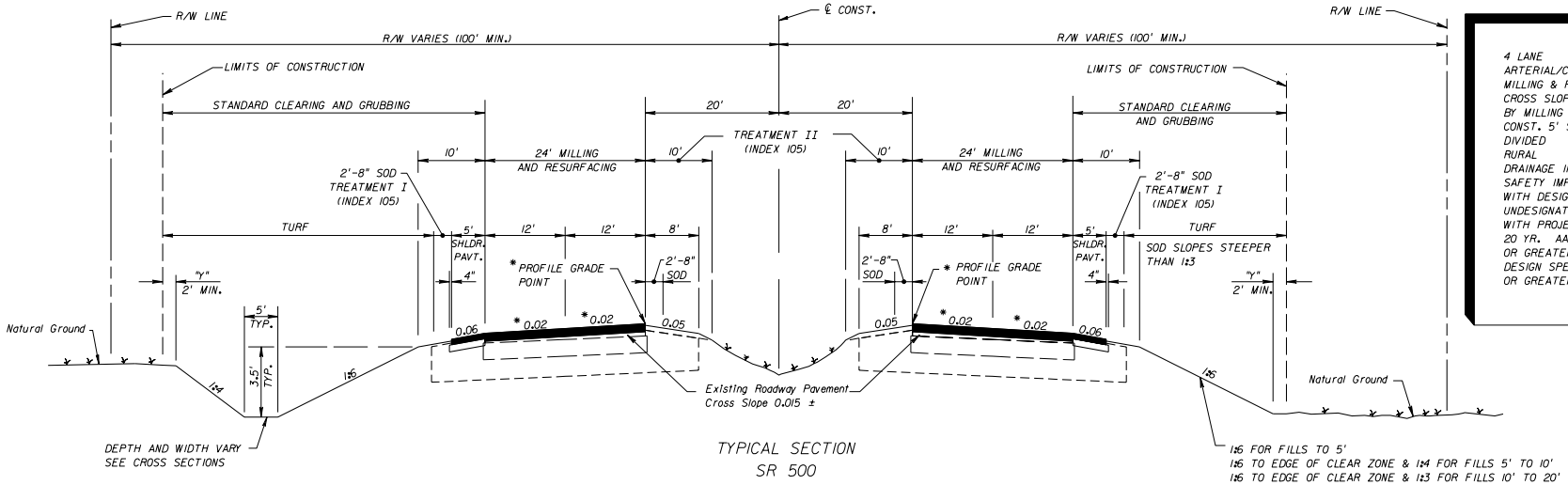
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
		- - -

TYPICAL SECTION

SHEET NO.

$USER$ $DATE$ $TIME$ $FILE$



4 LANE
ARTERIAL/COLLECTOR
MILLING & RESURFACING
CROSS SLOPE CORRECTION
BY MILLING OR OVERBUILD
CONST. 5' SHLDR. PAV'T
DIVIDED
RURAL
DRAINAGE IMPROVEMENTS
SAFETY IMPROVEMENTS
WITH DESIGNATED OR
UNDESIGNATED BIKE LANE
WITH PROJECTED
20 YR. AADT OF 1500
OR GREATER
DESIGN SPEED 45 MPH
OR GREATER

TYPICAL SECTION
SR 500
STA. 204+34.58 TO STA. 288+95.16

1:6 FOR FILLS TO 5'
1:6 TO EDGE OF CLEAR ZONE & 1:4 FOR FILLS 5' TO 10'
1:6 TO EDGE OF CLEAR ZONE & 1:3 FOR FILLS 10' TO 20'
1:2 (WITH GUARDRAIL) FILLS OVER 20'

DESIGNATED BIKE LANES SHALL BE LABELED ON TYPICAL. UNDESIGNATED BIKE LANES SHOULD NOT BE LABELED ON TYPICAL.

TRAFFIC DATA

CURRENT YEAR = 1998 AADT = 18100
ESTIMATED OPENING YEAR = 2000 AADT = 21000
ESTIMATED DESIGN YEAR = 2012 AADT = 30900
K = 11% D = 58% T = 22% (24 HOUR)
DESIGN HOUR T = 11%
DESIGN SPEED = 60 MPH
POSTED SPEED = 55 MPH

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

* 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.

MILLING
MILL EXISTING ASPHALT PAVEMENT (1½" AVG. DEPTH)

RESURFACING
TYPE SP STRUCTURAL COURSE (TRAFFIC D) (1½")
TYPE SP STRUCTURAL COURSE (TRAFFIC D) (1½") (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) (1½") (PG 76-22)
AND FRICTION COURSE FC-5 (¾") (PG 76-22)

STA. 316+53.67 TO STA. 527+82.00

MILLING
MILL EXISTING ASPHALT PAVEMENT (1½" AVG. DEPTH)

OVERBUILD
TYPE SP OVERBUILD (TRAFFIC D) (1¼" AVG.)

RESURFACING
TYPE SP STRUCTURAL COURSE (TRAFFIC D) (1½")
TYPE SP STRUCTURAL COURSE (TRAFFIC D) (1½") (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) (1½") (PG 76-22)
AND FRICTION COURSE FC-5 (¾") (PG 76-22)

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

"Y" THE AREA DISTURBED BY CONSTRUCTION VARIES.

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

FOR MILLING AND RESURFACING DETAILS SEE TYPICAL SECTION DETAILS SHEET 2 AND 3

EXHIBIT TYP-9
Date: 5/11/06

SHEET 1 OF 3

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
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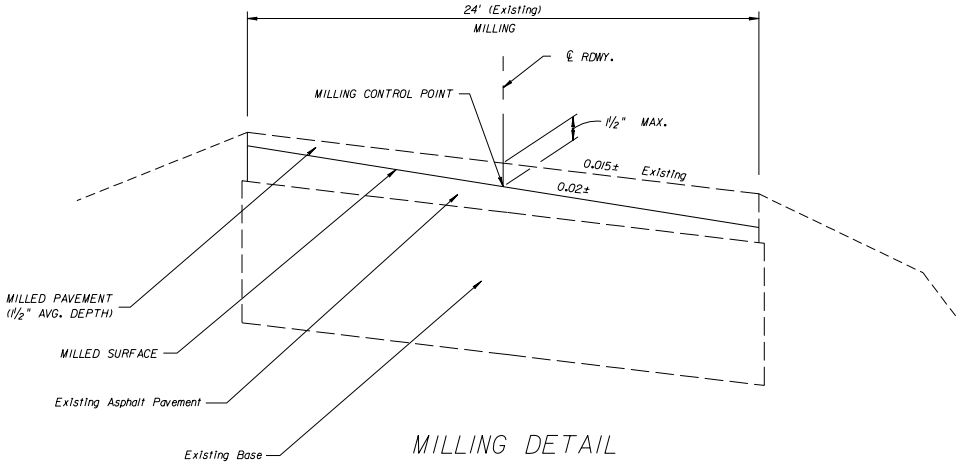
TYPICAL SECTION

SHEET NO.

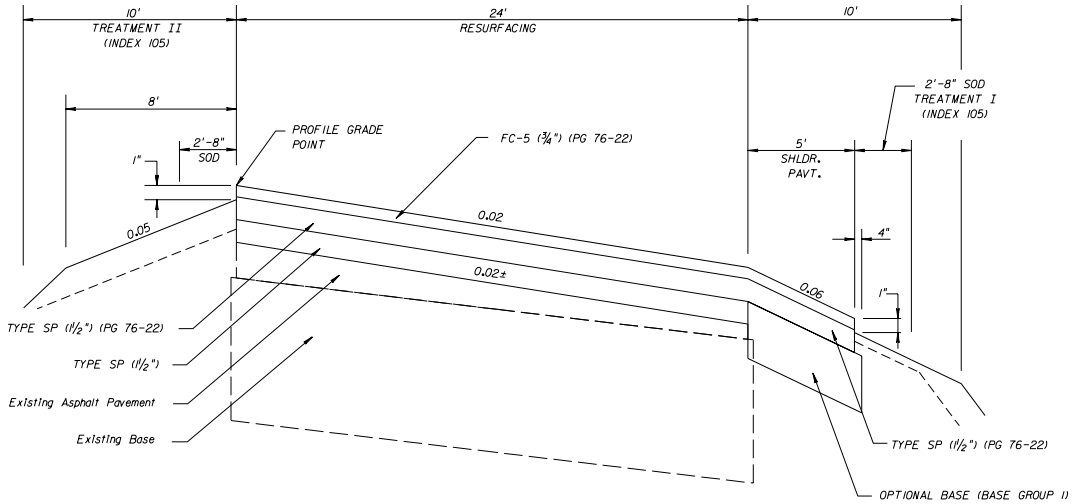
$USER$ $DATE$ $TIME$ $FILE$



MILLING DETAIL

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.

EXAMPLE OF CROSS SLOPE CORRECTION BY MILLING.



RESURFACING DETAIL

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

STA. 204+34.58 TO STA. 288+95.16

EXHIBIT TYP-9A
Date: 5/11/06

SHEET 2 OF 3

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
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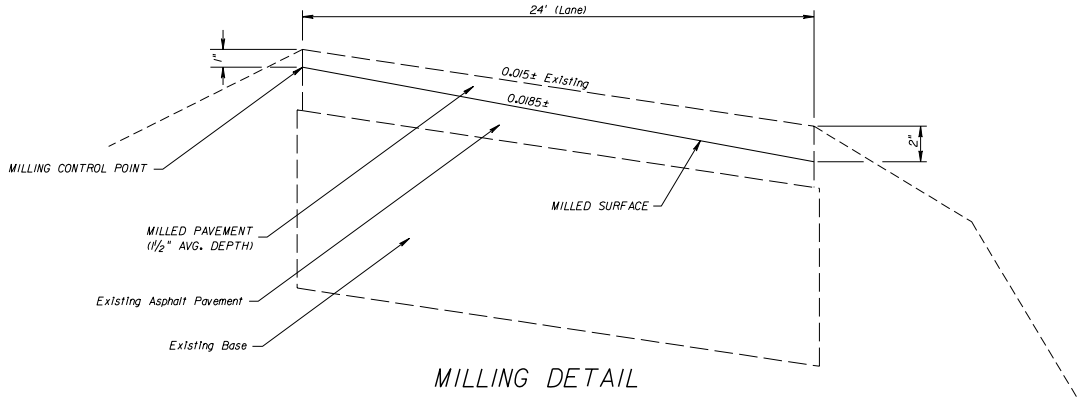
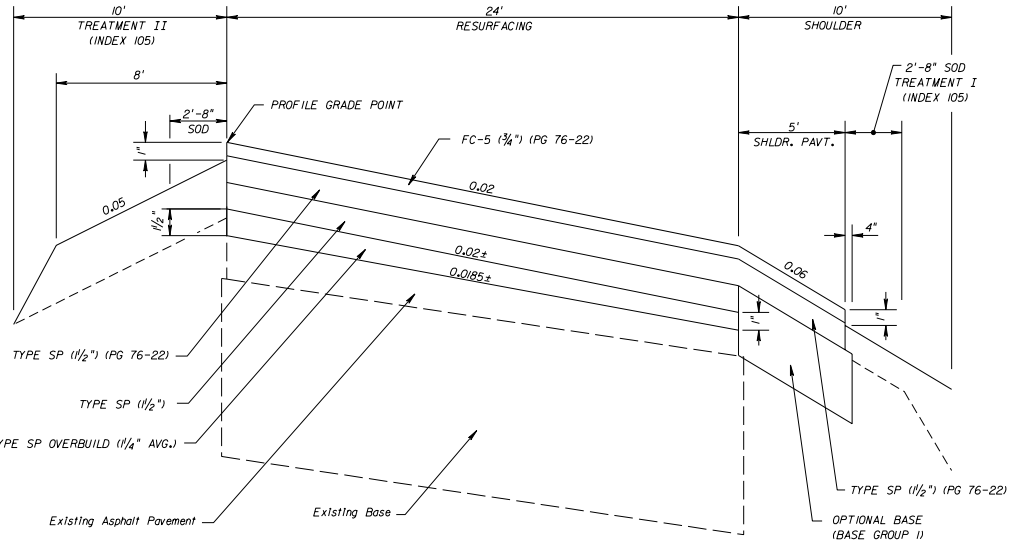
TYPICAL SECTION DETAILS

SHEET NO.

$USER$ $DATE$ $TIME$ $FILE$



MILLING DETAIL



OVERBUILD AND RESURFACING DETAIL

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.

EXAMPLE OF CROSS SLOPE CORRECTION BY MILLING AND OVERBUILD.

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.

STA. 316+53.67 TO STA. 527+82.00

EXHIBIT TYP-9B
Date: 5/11/06

SHEET 3 OF 3

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
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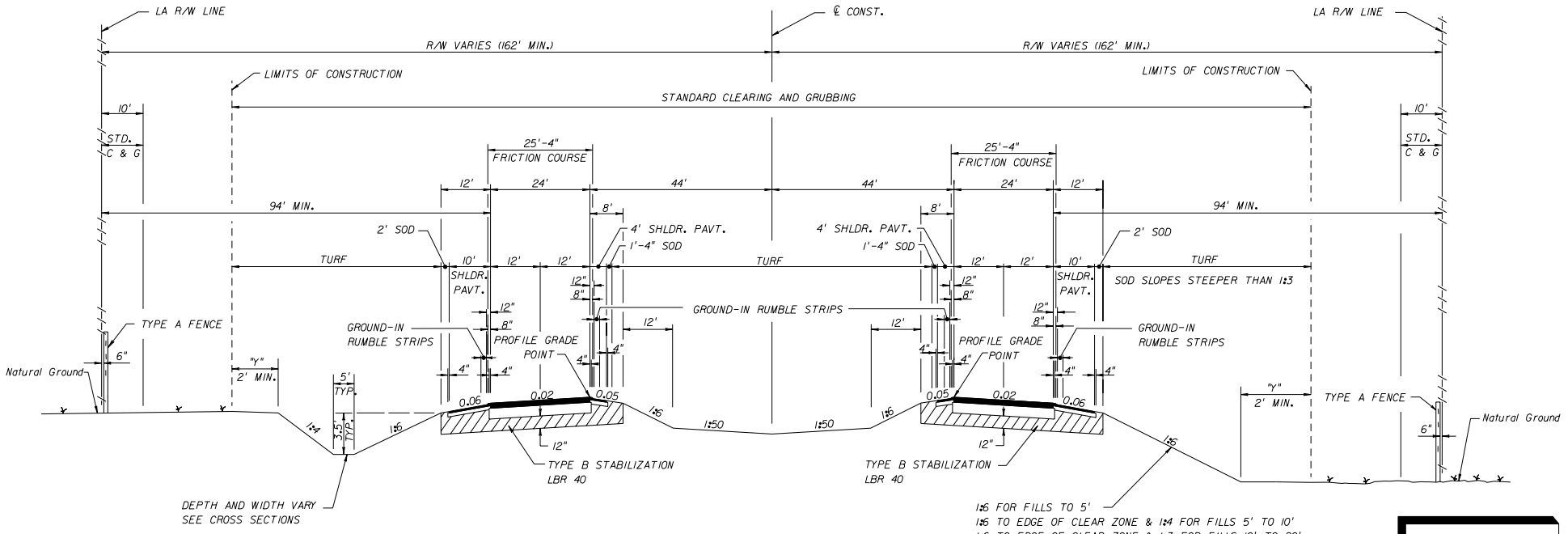
TYPICAL SECTION DETAILS

SHEET NO.

$USER$ $DATE$ $TIME$ $FILE$



TYPICAL SECTION
SR 8
STA. 567+25.67 TO STA. 1056+84.35

TRAFFIC DATA

CURRENT YEAR = 1998 AADT = 22300
ESTIMATED OPENING YEAR = 2000 AADT = 23300
ESTIMATED DESIGN YEAR = 2020 AADT = 51500
K = 9 % D = 56 % T = 10 % (24 HOUR)
DESIGN HOUR T = 5 %
DESIGN SPEED = 70 MPH

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

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

NEW CONSTRUCTION

OPTIONAL BASE GROUP 9 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC D) (2½")
TYPE SP STRUCTURAL COURSE (TRAFFIC D) (1½") (PG 76-22) AND
FRICTION COURSE FC-5 (¾") (PG 76-22)

MEDIAN SHOULDER PAVEMENT

OPTIONAL BASE GROUP 1 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC D) (1½")
TYPE SP STRUCTURAL COURSE (TRAFFIC D) (1½") (PG 76-22) AND
FRICTION COURSE FC-5 (¾") (PG 76-22)

OUTSIDE SHOULDER PAVEMENT

OPTIONAL BASE GROUP 1 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC B) (1½") AND
FRICTION COURSE FC-5 (¾") (PG 76-22)

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

4 LANE
INTERSTATE SYSTEM
NEW CONSTRUCTION
DIVIDED
RURAL
WITH PROJECTED
20 YR. AADT OF 1500
OR GREATER
DESIGN SPEED
70 MPH

"Y" THE AREA DISTURBED BY CONSTRUCTION VARIES.

EXHIBIT TYP-10
Date: 5/11/06

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

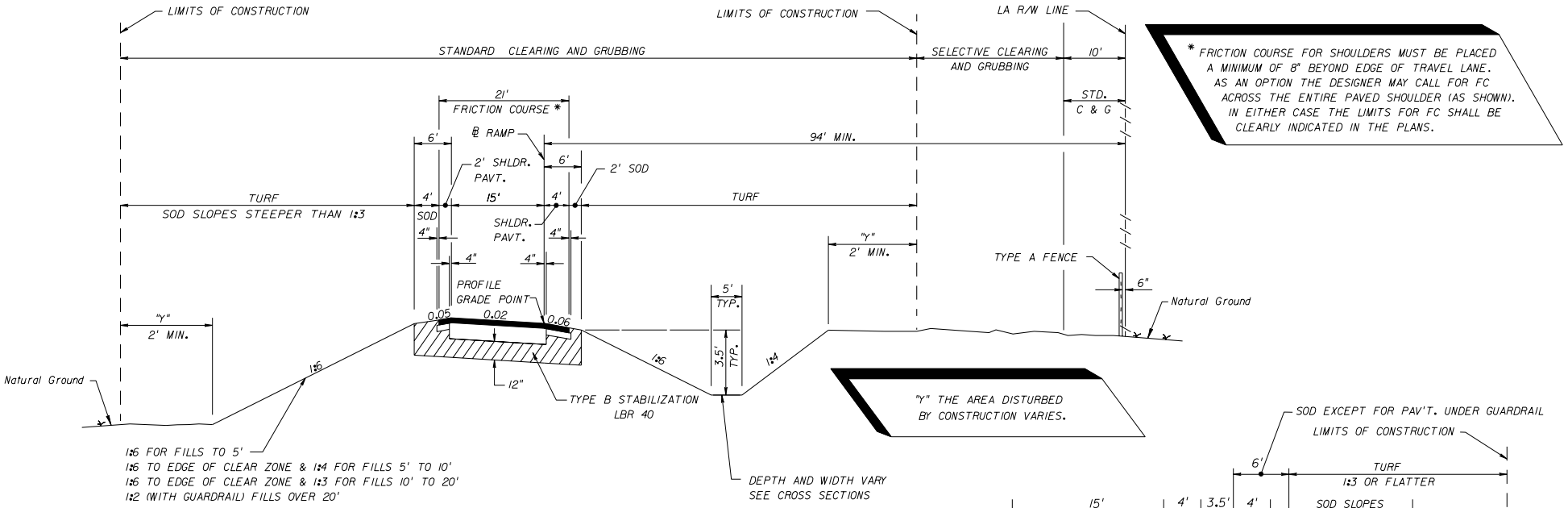
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
		- - -

TYPICAL SECTION

SHEET NO.

$USER$ $DATE$ $TIME$ $FILE$



* FRICTION COURSE FOR SHOULDERS MUST BE PLACED A MINIMUM OF 8" BEYOND EDGE OF TRAVEL LANE. AS AN OPTION THE DESIGNER MAY CALL FOR FC ACROSS THE ENTIRE PAVED SHOULDER (AS SHOWN). IN EITHER CASE THE LIMITS FOR FC SHALL BE CLEARLY INDICATED IN THE PLANS.

"Y" THE AREA DISTURBED BY CONSTRUCTION VARIES.

1:6 FOR FILLS TO 5'
1:6 TO EDGE OF CLEAR ZONE & 1:4 FOR FILLS 5' TO 10'
1:6 TO EDGE OF CLEAR ZONE & 1:3 FOR FILLS 10' TO 20'
1:2 (WITH GUARDRAIL) FILLS OVER 20'

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

TYPICAL SECTION
RAMP "B"
STA. 415+67.28 TO STA. 421+23.68
(SINGLE LANE RAMP)

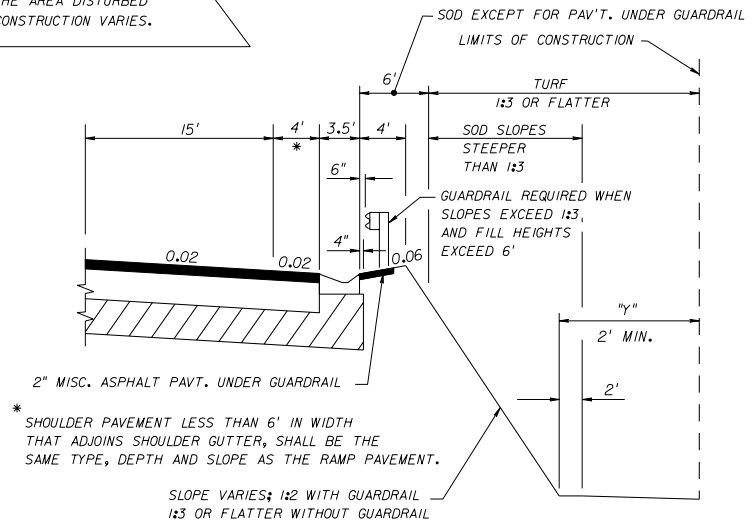
NEW CONSTRUCTION

OPTIONAL BASE GROUP 9 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC D) (2½") (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) (2½") (PG 76-22) AND
FRICTION COURSE FC-5 (¾") (PG 76-22)

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



* SHOULDER PAVEMENT LESS THAN 6' IN WIDTH THAT ADJOINS SHOULDER GUTTER, SHALL BE THE SAME TYPE, DEPTH AND SLOPE AS THE RAMP PAVEMENT.

SHOULDER PAVEMENT & SHOULDER GUTTER DETAIL FOR SINGLE LANE RAMP

EXHIBIT TYP-11
Date: 5/11/06

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

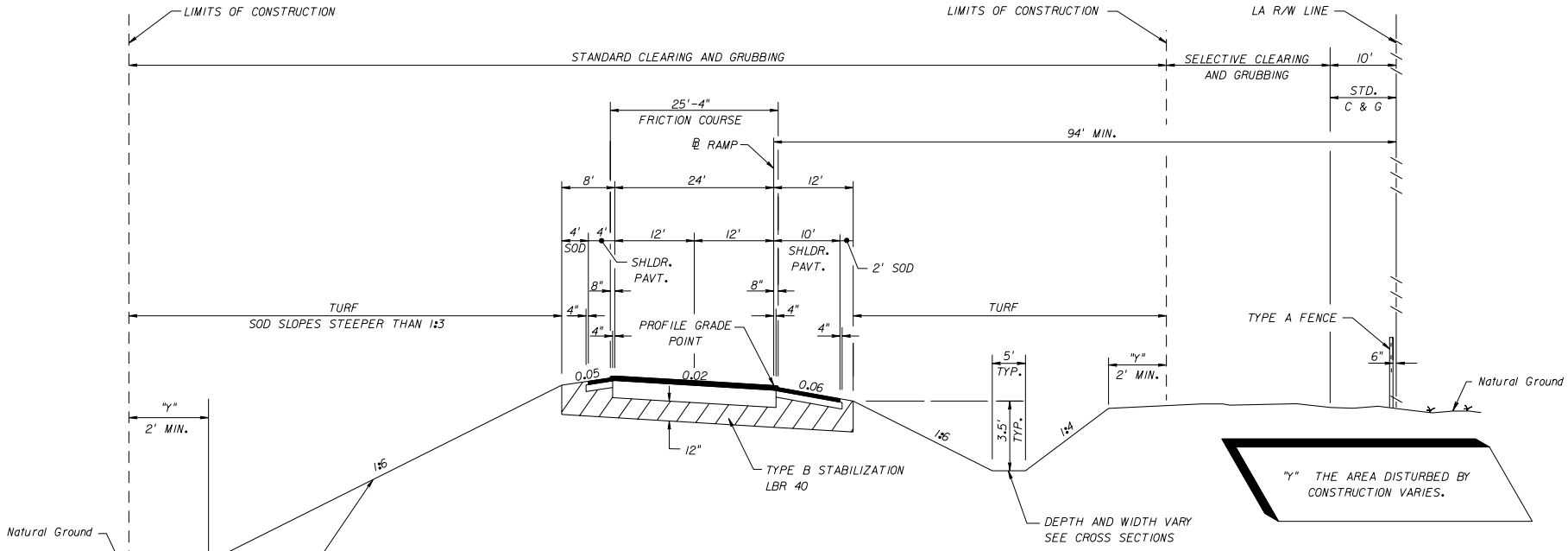
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
		- - -

RAMP TYPICAL SECTION

SHEET NO.

$USER$ $DATE$ $TIME$ $FILE$



TYPICAL SECTION
RAMP "C"
STA. 623+28.64 TO STA. 629+13.78
(TWO LANE RAMP)

1:6 FOR FILLS TO 5'
1:6 TO EDGE OF CLEAR ZONE & 1:4 FOR FILLS 5' TO 10'
1:6 TO EDGE OF CLEAR ZONE & 1:3 FOR FILLS 10' TO 20'
1:2 (WITH GUARDRAIL) FILLS OVER 20'

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

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

NEW CONSTRUCTION

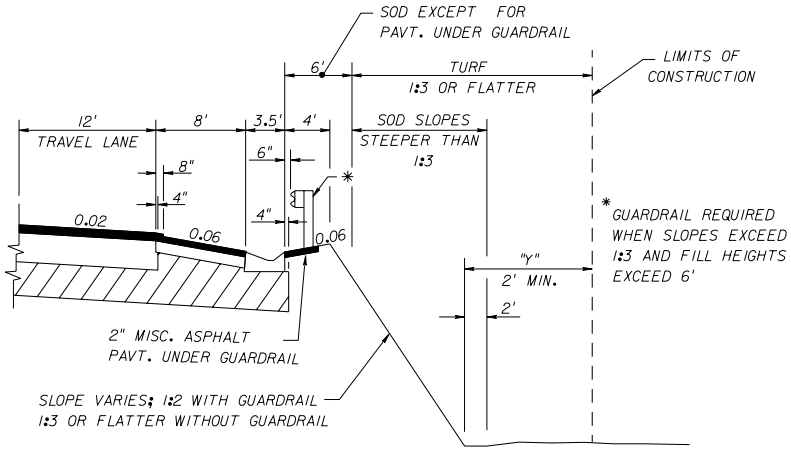
OPTIONAL BASE GROUP 9 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC D) (2") (PG 76-22) AND
FRICTION COURSE FC-5 (¾") (PG 76-22)

LEFT SHOULDER PAVEMENT

OPTIONAL BASE GROUP 1 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC D) (2") (PG 76-22) AND
FRICTION COURSE FC-5 (¾") (PG 76-22)

RIGHT SHOULDER PAVEMENT

OPTIONAL BASE GROUP 1 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC B) (2") AND
FRICTION COURSE FC-5 (¾") (PG 76-22)



* GUARDRAIL REQUIRED WHEN SLOPES EXCEED 1:3 AND FILL HEIGHTS EXCEED 6'

SHOULDER PAVEMENT & SHOULDER GUTTER DETAIL
MAINLINE AND MULTILANE RAMPS

EXHIBIT TYP-12
Date: 5/11/06

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
		- - -

RAMP TYPICAL SECTION

SHEET NO.

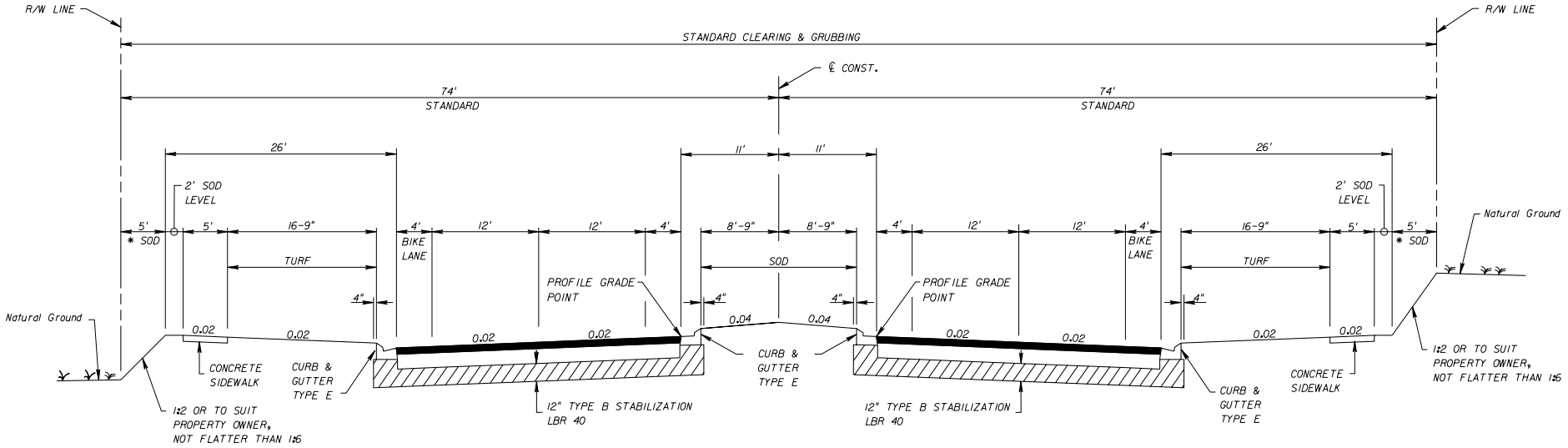
$USER$ $DATE$ $TIME$ $FILE$

DESIGNATED BIKE LANES SHALL BE LABELED ON TYPICAL. UNDESIGNATED BIKE LANES SHOULD NOT BE LABELED ON TYPICAL.

IF LANDSCAPING IS DESIRED, TREES SHALL BE TYPES THAT WILL NOT HAVE AN EXPECTED GROWTH GREATER THAN 4" IN DIAMETER MEASURED 6" ABOVE THE GROUND.

TURF SLOPES 1:3 OR FLATTER
* SOD SLOPES STEEPER THAN 1:3

4-LANE
ARTERIAL
NEW CONSTRUCTION
DIVIDED
SUBURBAN
WITH DESIGNATED OR
UNDESIGNATED BIKE LANE
DESIGN SPEED 55 MPH



TRAFFIC DATA

CURRENT YEAR = 1999 AADT = 22800
ESTIMATED OPENING YEAR = 2002 AADT = 25800
ESTIMATED DESIGN YEAR = 2022 AADT = 30600
K = 6% D = 55% T = 2% (24 HOUR)
DESIGN HOUR T = 1%
DESIGN SPEED = 55 MPH

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

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

SUBURBAN TYPICAL SECTION
SR 00 (SARA AVE.)
STA. 50+40.00 TO STA. 125+50.00

NEW CONSTRUCTION

OPTIONAL BASE GROUP 9 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC C) (3½")
AND FRICTION COURSE FC-5 (¾") (RUBBER)

EXHIBIT TYP-13
Date: 5/11/06

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
		- - -

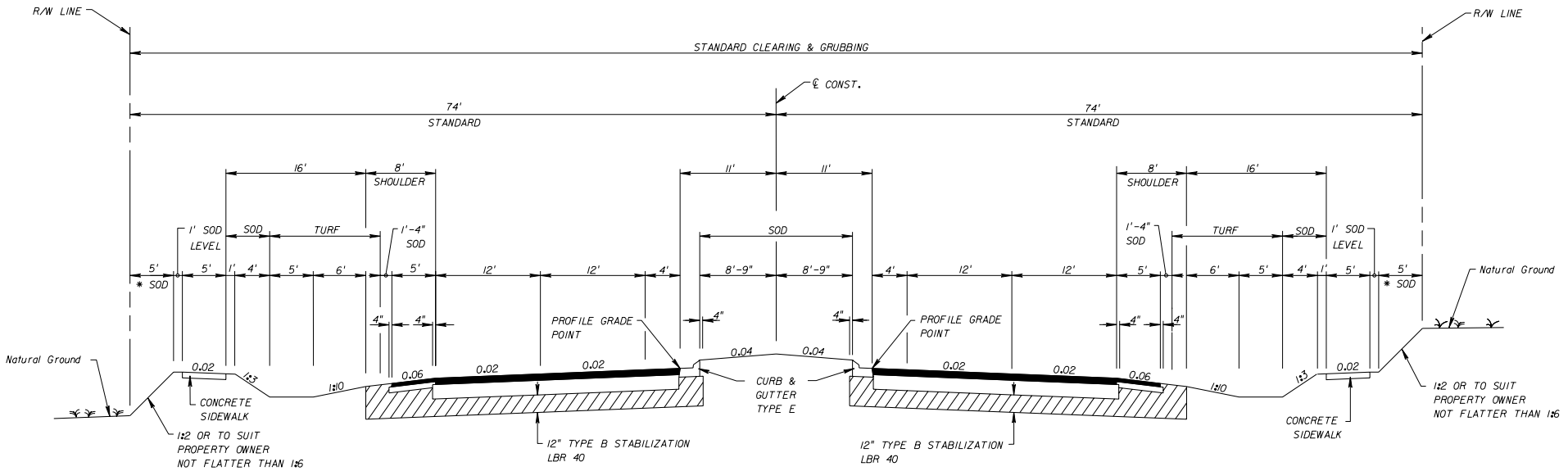
SUBURBAN TYPICAL SECTION

SHEET NO.

$USER$ $DATE$ $TIME$ $FILE$

DESIGNATED BIKE LANES SHALL BE LABELED ON TYPICAL. UNDESIGNATED BIKE LANES SHOULD NOT BE LABELED ON TYPICAL.

4-LANE
ARTERIAL
NEW CONSTRUCTION
DIVIDED
SUBURBAN
WITH DESIGNATED OR
UNDESIGNATED BIKE LANE
DESIGN SPEED 55 MPH OR LESS



TRAFFIC DATA

CURRENT YEAR = 1999 AADT = 22800
ESTIMATED OPENING YEAR = 2002 AADT = 25800
ESTIMATED DESIGN YEAR = 2022 AADT = 30600
K = 6% D = 55% T = 2% (24 HOUR)
DESIGN HOUR T = 1%
DESIGN SPEED = 55 MPH

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

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

SUBURBAN TYPICAL SECTION
SR 00 (CODY ROAD)
STA. 100+40.00 TO STA. 225+50.00

NEW CONSTRUCTION

OPTIONAL BASE GROUP 9 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC C) (3½")
AND FRICTION COURSE FC-5 (¾") (RUBBER)

SHOULDER PAVEMENT

OPTIONAL BASE GROUP 1 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC C) (1½")
AND FRICTION COURSE FC-5 (¾") (RUBBER)

TURF SLOPES 1:3 OR FLATTER
* SOD SLOPES STEEPER THAN 1:3

IF LANDSCAPING IS DESIRED, TREES SHALL BE TYPES THAT WILL NOT HAVE AN EXPECTED GROWTH GREATER THAN 4" IN DIAMETER MEASURED 6" ABOVE THE GROUND.

EXHIBIT TYP-14
Date: 5/11/06

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

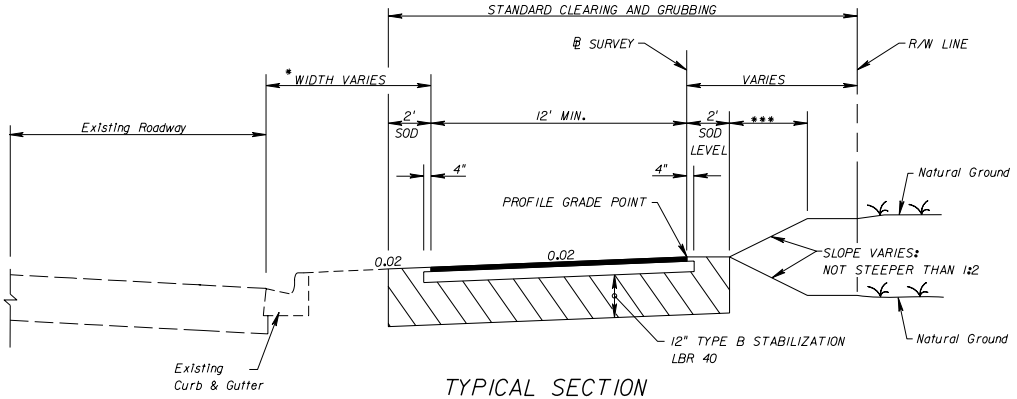
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
		- - -

SUBURBAN TYPICAL SECTION

SHEET NO.

$USER$ $DATE$ $TIME$ $FILE$



TYPICAL SECTION
SHARED USE PATH
SR 00 (WILLOW WAY)
STA. 122+00.000 TO STA. 210+65.000

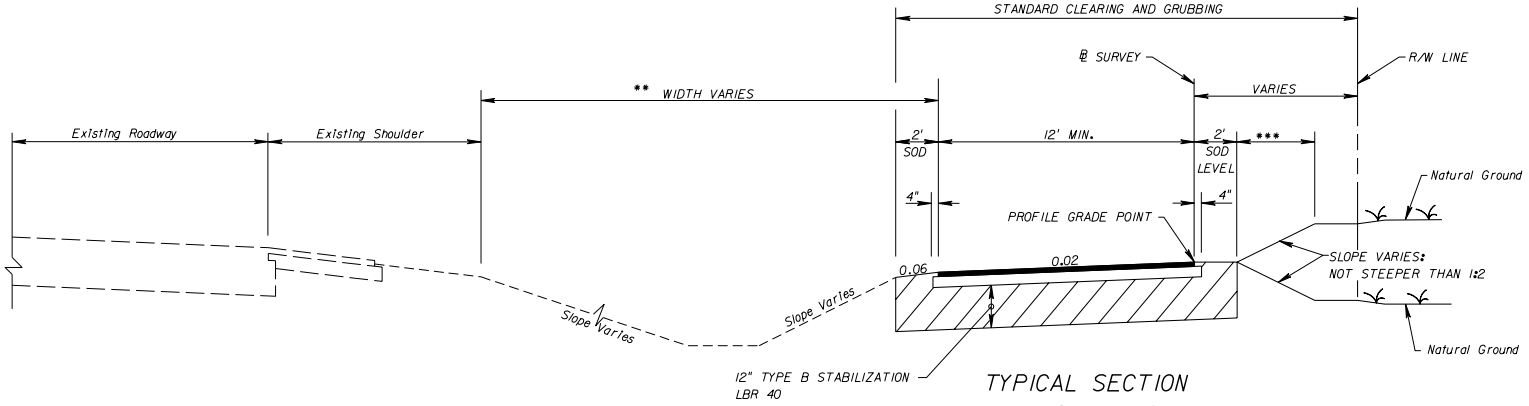
PATH

OPTIONAL BASE GROUP 1 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC A) (1")

* FOR ROADWAYS WITH CURBS, A MINIMUM SEPARATION OF 5 FEET MEASURED FROM THE OUTSIDE EDGE OF TRAVELED WAY TO THE INSIDE EDGE OF THE SHARED USE PATH SHOULD BE PROVIDED.

*** TURF SOD OR TURF SOD

NOTE:
THE DESIGN SPEED FOR SHARED USE PATHS IS 20 MPH.



TYPICAL SECTION
SHARED USE PATH
SR 00 (DEXTON HEIGHTS)
STA. 22+00.000 TO STA. 51+65.000

PATH

OPTIONAL BASE GROUP 1 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC A) (1")

** FOR ROADWAYS WITH FLUSH SHOULDERS, A MINIMUM SEPARATION OF 5 FEET MEASURED FROM THE OUTSIDE EDGE OF SHOULDER TO THE INSIDE EDGE OF THE SHARED USE PATH SHOULD BE PROVIDED.

EXHIBIT TYP-15
Date: 5/11/06

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID

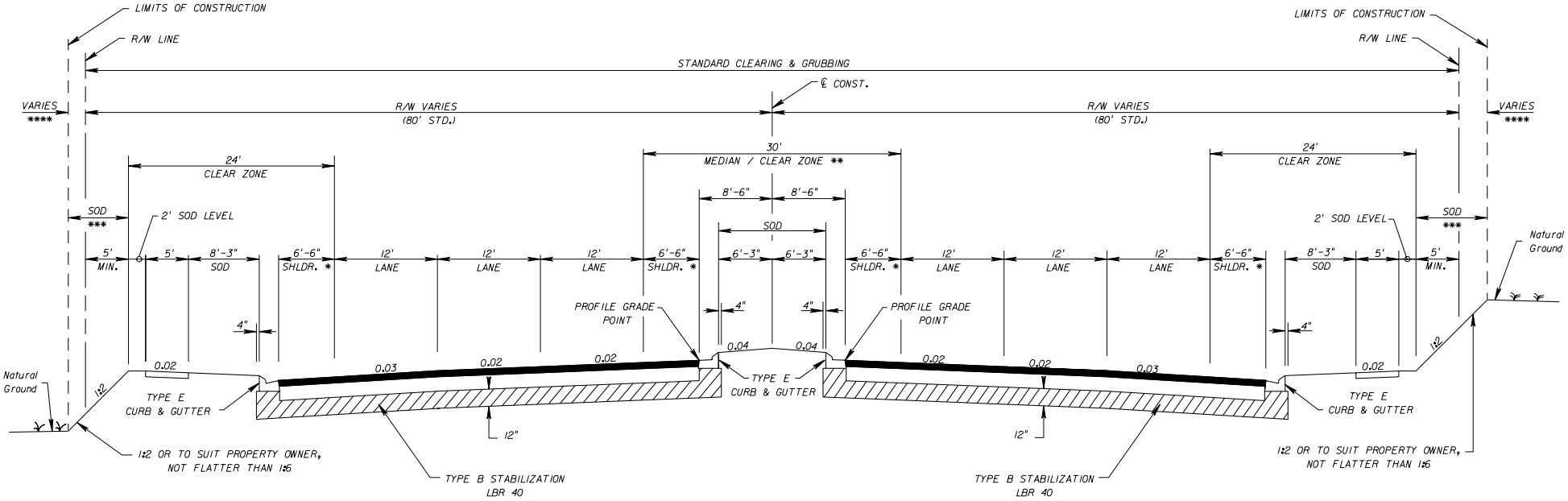
$USER$ $DATE$ $TIME$ $FILE$

SHARED USE PATH

SHEET NO.

**** IF LIMITS OF CONSTRUCTION EXCEED RIGHT OF WAY, A PROPERTY AGREEMENT IS REQUIRED.

6-LANE
ARTERIAL
NEW CONSTRUCTION
DIVIDED
URBAN
DESIGN SPEED 50 MPH



TYPICAL SECTION
SR 00 (SOUTH INDEPENDENCE STREET)
STA. 401+30.00 TO STA. 788+66.00

TRAFFIC DATA

CURRENT YEAR = 1998 AADT = 22800
ESTIMATED OPENING YEAR = 2000 AADT = 25800
ESTIMATED DESIGN YEAR = 2020 AADT = 30600
K = 6% D = 55% T = 2% (24 HOUR)
DESIGN HOUR T = 1%
DESIGN SPEED = 50 MPH

TRAFFIC DATA IS REQUIRED TO BE NOTED FOR CURRENT YEAR, OPENING YEAR AND DESIGN YEAR.

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

NEW CONSTRUCTION

OPTIONAL BASE GROUP 9 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC C) (3½")
AND FRICTION COURSE FC-5 (¾") (RUBBER)

* PROVIDES FOR 8' OF USABLE SHOULDER

** THE 30' MEDIAN AREA PROVIDES SUFFICIENT WIDTH FOR:
- 24' CLEAR ZONE
- DUAL LEFT TURN LANES (11' lanes, 4' separator in median shoulder)
- DIRECTIONAL MEDIAN OPENING (4' separators in median shoulder)

*** TURF
SOD OR TURF
SOD

EXHIBIT TYP-16
Date: 5/11/06

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID

TYPICAL SECTION

SHEET NO.

$USER$ $DATE$ $TIME$ $FILE$

Exhibit 7-1 Standard Notes for Summary of Quantities Sheet Sheet 2 of 2

9. 538- 1- This is to include replacement of _____ panels, _____ regular posts and ____ special posts which have been determined to be non-salvageable. Additional posts and panels determined to be non-salvageable during resetting shall be paid for under 538-5 of the Specifications.

10. Temporary Turf: When required by the project design, these items shall be included in the cost of the Performance Turf items. A pay item note should show the approximate quantities. For example:

    570- 1- 1 Includes approximately _____ SY Turf for temporary erosion control.

    570- 1- 2 Includes approximately _____ SY Sod for temporary erosion control.

11. 639- 2- 1 Payment shall be based on the linear feet of a single conductor.

12. The following pay item note should be shown in the Roadway Plans:

    710- The totals shown on the Summary of Roadway Pay Items are for painted pavement markings used for Maintenance of Traffic.

THIS EXHIBIT IS AN EXAMPLE NARRATIVE OF A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR A MAJOR RECONSTRUCTION PROJECT. ACTUAL PROJECT CONDITIONS OFTEN DICTATE DIFFERENT APPROACHES THAN SHOWN HERE. THE ENGINEER IS RESPONSIBLE FOR DEVELOPING A SITE SPECIFIC SWPPP THAT COMPLIES WITH VOLUME I CHAPTER II OF THE PLANS PREPARATION MANUAL.

2.0 CONTROLS:

2.a. Erosion And Sediment Controls:

In the Section 104 Erosion Control Plan, the contractor shall describe the proposed stabilization and structural practices based on the contractor's proposed Traffic Control Plan. The following recommended guidelines are based on the Traffic Control Plan (TCP) outlined in the construction plans. Where following the Traffic Control Plan (TCP) outlined in these construction plans, the contractor may chose to accept the following guidelines or modify them in the Section 104 Erosion Control Plan, subject to approval of the Engineer. As work progresses, the contractor shall modify the plan to adapt to seasonal variation, changes in construction activities, and the need for better practices.

For each construction phase, install perimeter controls after clearing and grubbing necessary for installation of controls but before beginning other work for the construction phase. Remove perimeter controls only after all upstream areas are stabilized.

Phase I of Traffic Control Plans.

Roadway, Station 501+10 to 520+40 Right:
Immediately after constructing the temporary pavement, stabilize the entire area between the temporary pavement and the right of way line using temporary sod.

Outfall of Pond 1:
Construct the outfall pipe from S-106 towards the pond. The contractor shall have sandbags available at all times during the pipe construction to substantially block runoff in the trench from entering the pipe. Construct pipe to the pond and construct the outlet structure of the pond.

Pond 1 Construction:
Clear and grub the pond site. Initially excavate the pond only enough to construct Type IV Silt Fence as detailed in the TCP. Then excavate the pond to approximate proposed dimensions. Turf all disturbed areas of the pond site above elevation 51.0. Final grading will be done at the end of phase two of the TCP.

Roadway, Station 510+10 to 523+70 Left:
Construct the storm sewer from the pond to the roadway and then in the upstream direction along the left side of the project. During the subsoil excavation, and construction of the roadway underdrain, storm sewer, and wall, use S-19 as the primary inlet for conveyance to the pond. Stage construct the inlet as detailed in the TCP.

Roadway, Station 501+10 to 510+40 Left:
During the subsoil excavation, and construction of the underdrain, storm sewer, and wall, use S-12 as the primary inlet for conveyance to the Laura Lee pond. S-12 should be constructed before disturbing soil upstream. Stage construct and protect the inlet as detailed in the TCP.

Phase II of the Traffic Control Plan:

Roadway, Station 510+10 to 523+10 Right:
During the subsoil excavation, and construction of the roadway underdrain, and storm sewer, use S-20 as the primary inlet for conveyance to Pond 1. Stage construct and protect the inlet in a manor similar to S-19 in Phase I of the TCP.

Roadway, Station 501+10 to 510+40 Right:
During the subsoil excavation, and construction of the underdrain, storm sewer, and walls, use S-10 as the primary inlet for conveyance to the Laura Lee pond. Stage construct and protect the inlet in a manor similar to S-12 in Phase I of the TCP.

Pond 1 Construction:
After entire basin is permanently stabilized, construct underdrain in the pond bottom.

2.a.1 Stabilization Practices:

In the Section 104 Erosion Control Plan, the contractor shall describe the stabilization practices proposed to control erosion. The contractor shall initiate all stabilization measures as soon as practical, but in no case more than 7 days, in portions of the site where construction activities have temporarily or permanently ceased. The stabilization practices shall include at least the following, unless otherwise approved by the Engineer.

THE PARAGRAPH ABOVE REFERS TO A 7 DAY LIMIT BEFORE INITIATING STABILIZATION. THE DEP GENERIC PERMIT SPECIFIES 7 DAYS, BUT STRICTER REQUIREMENTS FROM OTHER PERMITTING AGENCIES WILL OFTEN APPLY AND SHOULD BE NOTED. FOR EXAMPLE, ST. JOHNS RIVER WATER MANAGEMENT DISTRICT HAS A 7 DAY LIMIT IN 40C-42 F.A.C.

Temporary:
* Artificial coverings in accordance with Specification Section 104.

* Turf and sod in accordance with Specification Section 104.

Permanent:
* Asphalt or concrete surface.

* Sod in accordance with Specification Section 570.

2.a.2 Structural Practices:

In the Section 104 Erosion Control Plan, the contractor shall describe the proposed structural practices to control or trap sediment and otherwise prevent the discharge of pollutants from exposed areas of the site. Sediment controls shall be in place before disturbing soil upstream of the control. The structural practices shall include at least the following, unless otherwise approved by the Engineer.

Temporary:
* Silt fence in accordance with Design Standard 102 and Specification Section 104.

* Synthetic Bales in accordance with Design Standard 102 and Specification Section 104.

* Sandbags to control erosion and trap silt.

* Inlet protection in accordance with Design Standard 102 and special details shown in the TCP.

* Sediment Basin. The permanent stormwater ponds will be temporarily modified according to the details in the TCP.

Permanent:
* Stormwater ponds.

* Sod.

2.b Stormwater Management:

Several storm sewer systems will be constructed to convey runoff to three (3) stormwater retention / detention ponds. The facilities have been permitted by the Florida Department of Environmental Protection (FDEP) and the City of Narcoossee and comply with applicable design standards.

EXHIBIT SWP-2
DATE: 5/11/06

REVISIONS						STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			STORMWATER POLLUTION PREVENTION PLAN	SHEET NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
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