913 Typical Sections

913.1 General

The primary purpose of Typical Section sheets is to provide sectional depictions of the roadway, bridge, and toll site elements that illustrate "typical" conditions found between specified station or milepost limits. Typical Section sheets also provide traffic data and pavement design associated with the typical section being displayed.

The typical section design files used to create the Typical Section Package (see *FDM 120*) should be used to prepare the Typical Section sheets.

This sheet is produced on a standard-format sheet (11"x17") provided in the FDOT CADD Software. For illustrations of various typical sections, see *Exhibits* 913-1 to 913-13.

913.2 Typical Sections

Typical sections must cover the entire project limits; i.e., omit only Project Exceptions. Include the limits of typical section transitions with the typical section that begins the transition. Conditions that occur for short distances should not be shown as a separate typical section, such as turn lanes.

Include typical sections for each proposed toll site. These typical sections must represent the required 100 feet of loop pavement underneath the toll gantry, tolling equipment building, gantry, and foundation outlines.

To aid in the development of typical section depictions, the FDOT CADD Software contains templates for generic typical sections that can be modified to reflect project conditions.

Typical Section sheets should contain only one typical section. Place Typical Section sheets in the plans in the following order:

- (1) Roadway mainline
- (2) Bridges for projects including bridges (new or widened)
- (3) Toll Sites
- (4) Ramps and service roads for projects which include an interchange
- (5) Intersecting roadways when significant work length is required
- (6) Sideroads or streets when significant work length is required

913.2.1 Required Information

Show the road name and station (or milepost) limits below the TYPICAL SECTION header.

Typical Sections are typically not drawn to scale, but horizontal distances and slope angles shown must be proportionate. Existing typical section elements are shown as dashed lines and proposed as solid lines. Typical sections must label and dimension the following information, as applicable:

- (1) Centerline or Baseline of Construction.
- (2) Natural ground.
- (3) Profile grade point.
- (4) R/W or easements, and limits of Construction.
- (5) Limits of Clearing and Grubbing (Standard and Selective).
- (6) Limits of sod and turf.
- (7) Total shoulder width and paved shoulder width. Label shoulder treatment on RRR projects.
- (8) Travel lane width (total and individual lanes), and limits of friction course.
- (9) Show median or roadside barrier when continuous (or mostly continuous) through the typical section limits.
- (10) Bicycle lanes.
- (11) Indicate width of existing pavement and proposed pavement on widening projects.
- (12) Curb location and type (show Type E or F Curb, not the dimension).
- (13) Sidewalk location and width.
- (14) Cross slopes of roadway pavement, shoulder surfaces, sidewalks, and bridge decks as a decimal part of a foot vertical per foot horizontal. These cross slopes should be rounded to two decimal places, i.e., 0.02, 0.06. Three decimal places may be required for pavement cross slope.
- (15) Median width and type, show slopes by ratio, vertical to horizontal, i.e., 1:4, 1:2.

- (16) Roadside slopes and ditches, show slopes by ratio, vertical to horizontal.
- (17) Depict pavement construction by indicating the LBR requirement and the thickness of the subgrade stabilization, subbase, or base, as well as thickness for structural course, friction course and shoulder pavement. Use 4 inches for both base extension on rural sections and for stabilization extension on curbed sections.
- (18) Toll equipment building, gantry and foundation outlines.
- (19) For Turnpike projects only, show and label Florida Gas Transmission (FGT). Dimension location to center of utility from the Construction Centerline or Baseline.

913.2.2 Required Notes and Details

Show the following notes and details on Typical Section sheets as applicable:

(1) For projects using Selective Clearing and Grubbing include the following note:

See Selective Clearing and Grubbing sheets for details and limits of selective clearing and grubbing.

(2) For new construction flush shoulder projects, include a Shoulder Pavement Detail (shown on *Exhibit 913-1*) with the following note:

This area may be constructed of base material (granular only) at no additional compensation.

(3) For widening projects include the following note:

Actual width of base widening may vary due to actual existing pavement width. A uniform width base widening strip may be constructed at no additional compensation.

(4) For projects constructing ditches include the following note:

Depth and bottom width of ditch may vary.

- (5) For new construction curbed roadway projects with Asphalt Base, Type B-12.5 only, indicate the asphalt curb pad on the typical section and include an Asphalt Base Curb Pad Detail.
- (6) For resurfacing projects on curbed roadways where the milling depth is less than the overlay thickness, include a feathering detail with notes.

^{913 -} Typical Sections

913.2.3 Partial Sections

Partial sections are used to illustrate a changed condition (e.g., ditch or drainage features, bicycle or pedestrian features, longitudinal barriers) that occur for significant limits with the typical section being shown. *Exhibit 913-4* demonstrates the use of a partial section.

Place partial sections on the same sheet as the typical section to which they apply.

913.3 Traffic Data

Traffic data is required only for mainline roadways and bridges, and ramps. Show the following traffic data (consistent with the data used for pavement design) below and to the left of the typical section:

- (1) Current Year and AADT
- (2) Estimated Opening Year and AADT (not required for skid hazard projects)
- (3) Estimated Design Year and AADT (not required for skid hazard projects)
- (4) K, D, T (24 hour) and T (Design Hour) factors
- (5) Design Speed (do not show Posted Speed or Target Speed)
- (6) Context Classification

913.4 Pavement Design

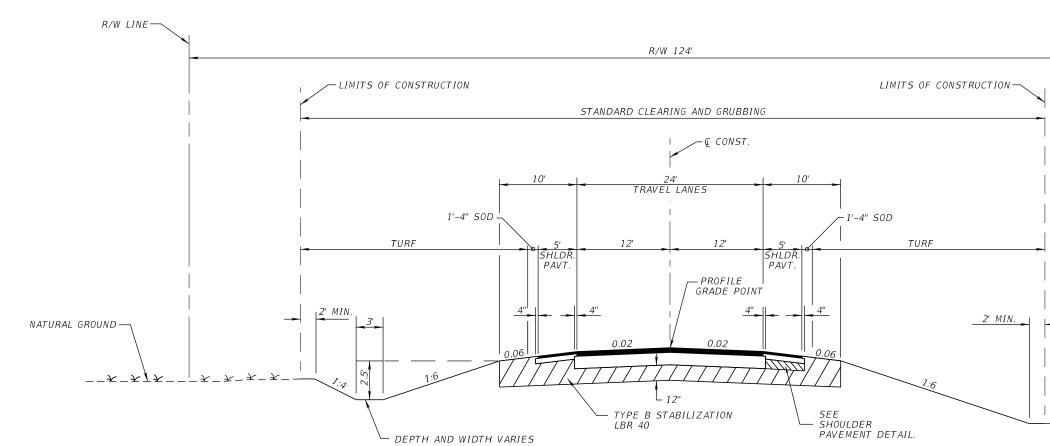
Show the approved pavement design directly below the typical section described in the order of construction as follows:

- For new construction start with Option Base Group and end with friction course.
- For resurfacing projects start with milling depth, then list the structural courses and end with friction course.

913.5 Cross Slope Correction Details

When cross slope correction is necessary, include special milling and layering details showing the method of correction in the plans.

Exhibit 913-13 provides an example of overbuild details.



TYPICAL SECTION SR 22 STA. 10+00.00 TO STA. 98+40.00

TRAFFIC DATA

CURRENT YEAR = 2018 AADT = 6800ESTIMATED OPENING YEAR = 2020 AADT = 7600ESTIMATED DESIGN YEAR = 2040 AADT = 12000K = 6% D = 55% T = 2% (24 HOUR)DESIGN HOUR T = 1%DESIGN SPEED = 55 MPHCONTEXT CLASSIFICATION = C2

TRAVEL LANES

OPTIONAL BASE GROUP 8 TYPE SP STRUCTURAL COURSE (TRAFFIC C) (2") FRICTION COURSE FC-12.5 (TRAFFIC C) $(1 \frac{1}{2})$ (PG 76-22)

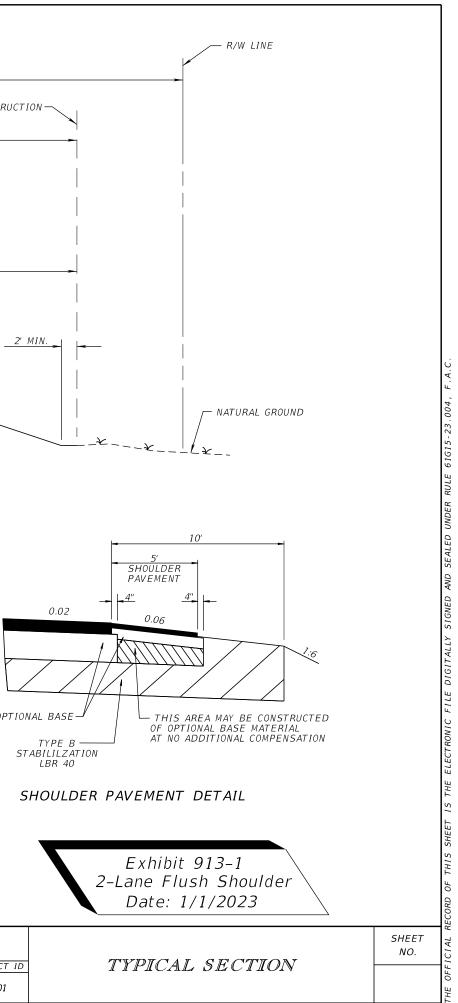
OPTIONAL BASE -

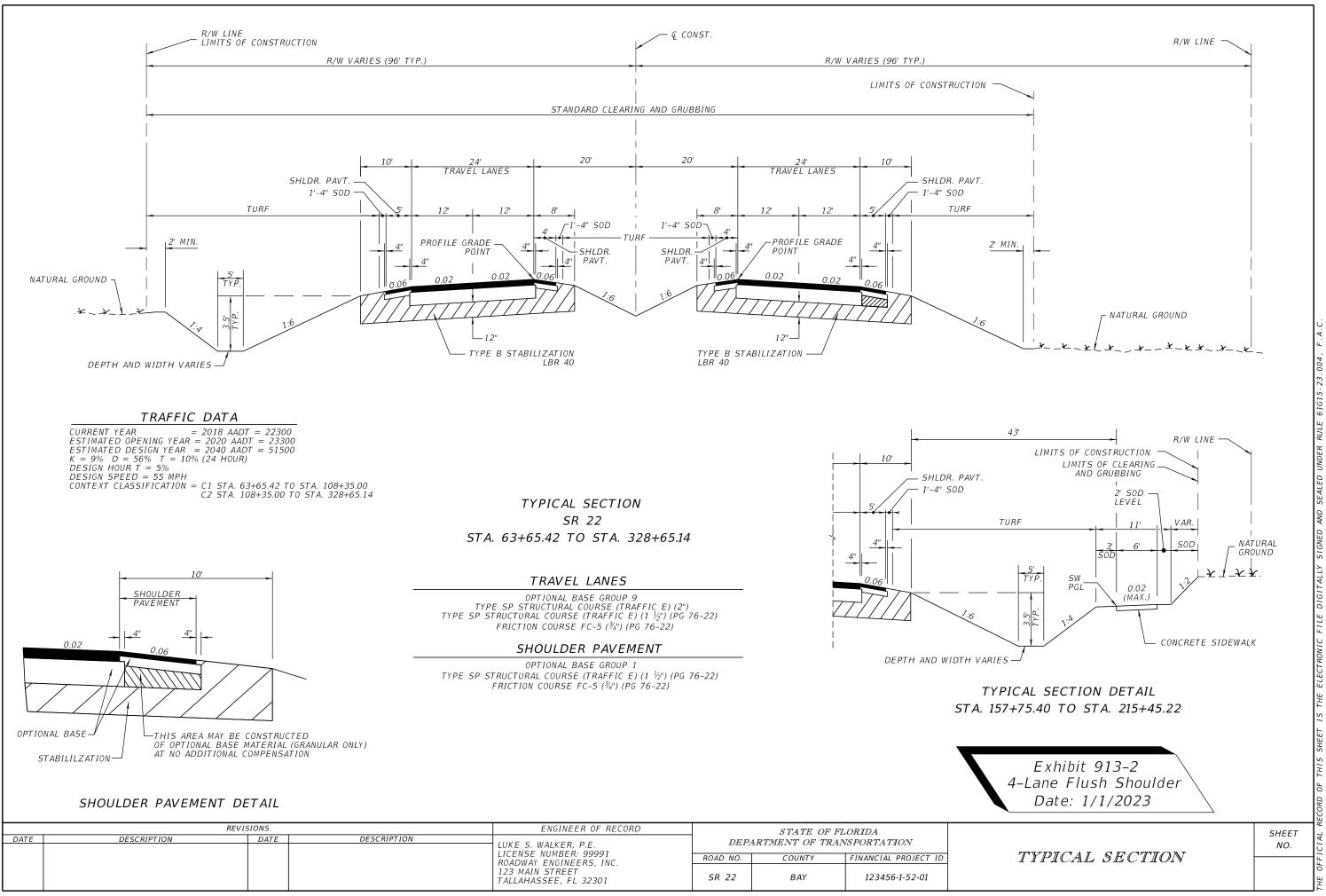
TYPE B

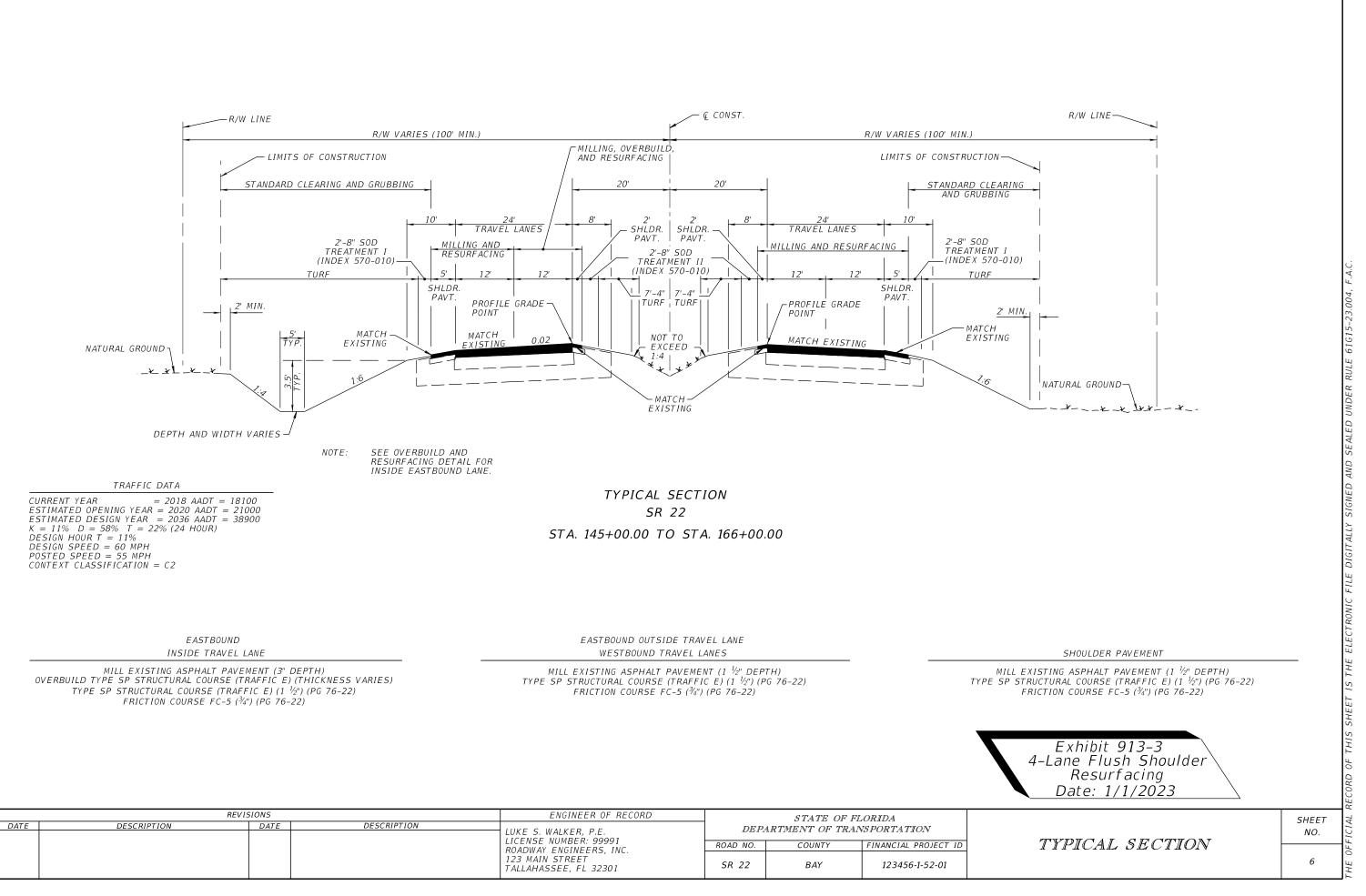
SHOULDER PAVEMENT

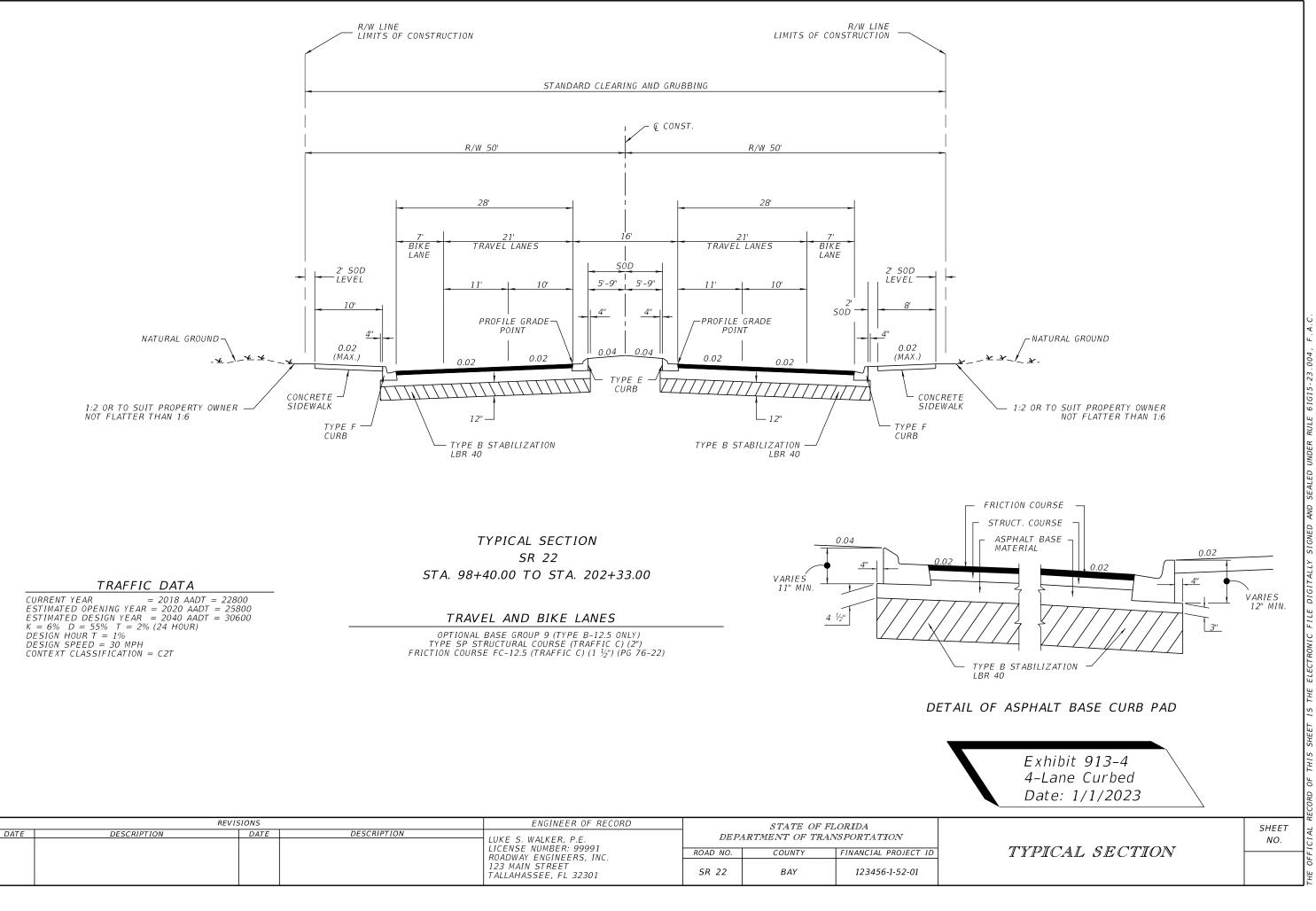
OPTIONAL BASE GROUP 1 FRICTION COURSE FC-12.5 (TRAFFIC C) (1 ¹/₂") (PG 76-22)

	REVI	SIONS		ENGINEER OF RECORD	STATE OF FLORIDA			
	DESCRIPTION	DATE	DESCRIPTION	LUKE S. WALKER, P.E.	DEPARTMENT OF TRANSPORTATION			
201				LICENSE NUMBER: 99991 ROADWAY ENGINEERS, INC.	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
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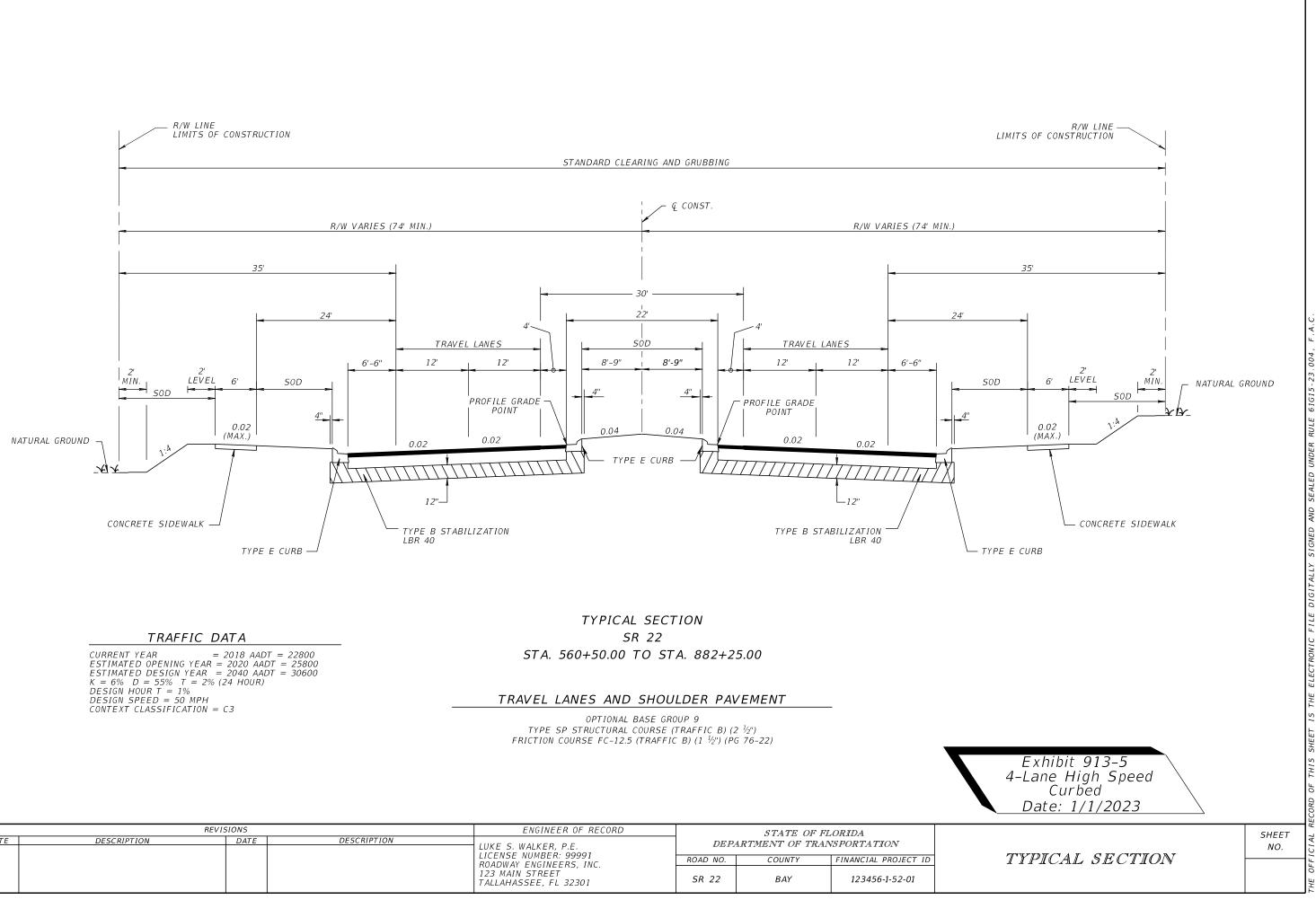




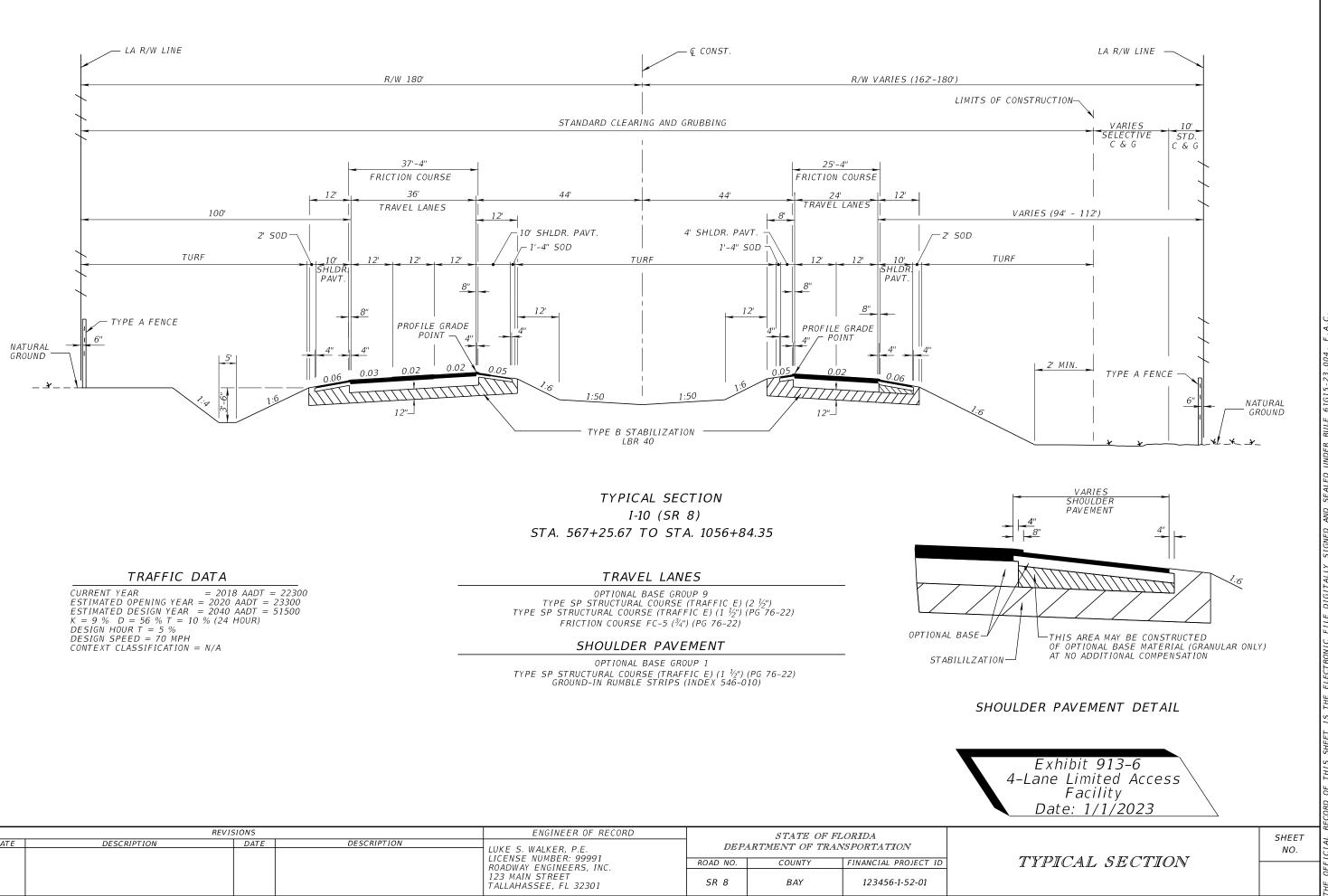


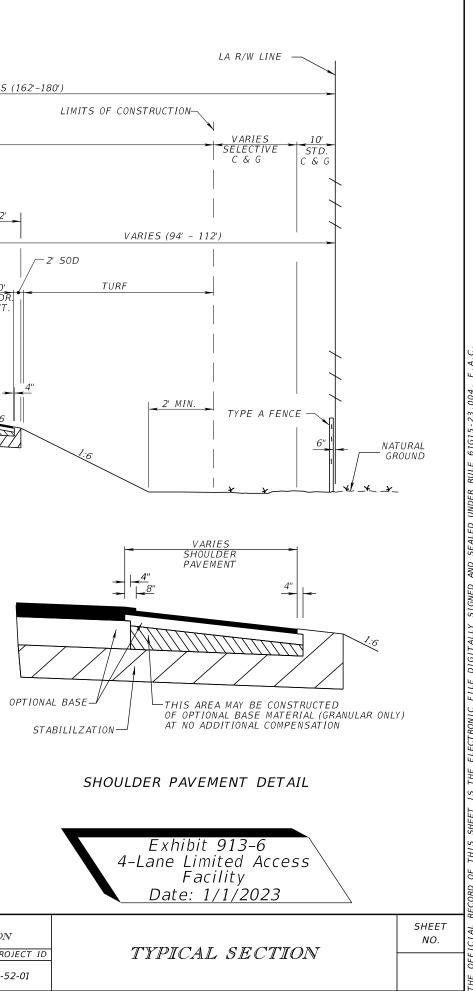


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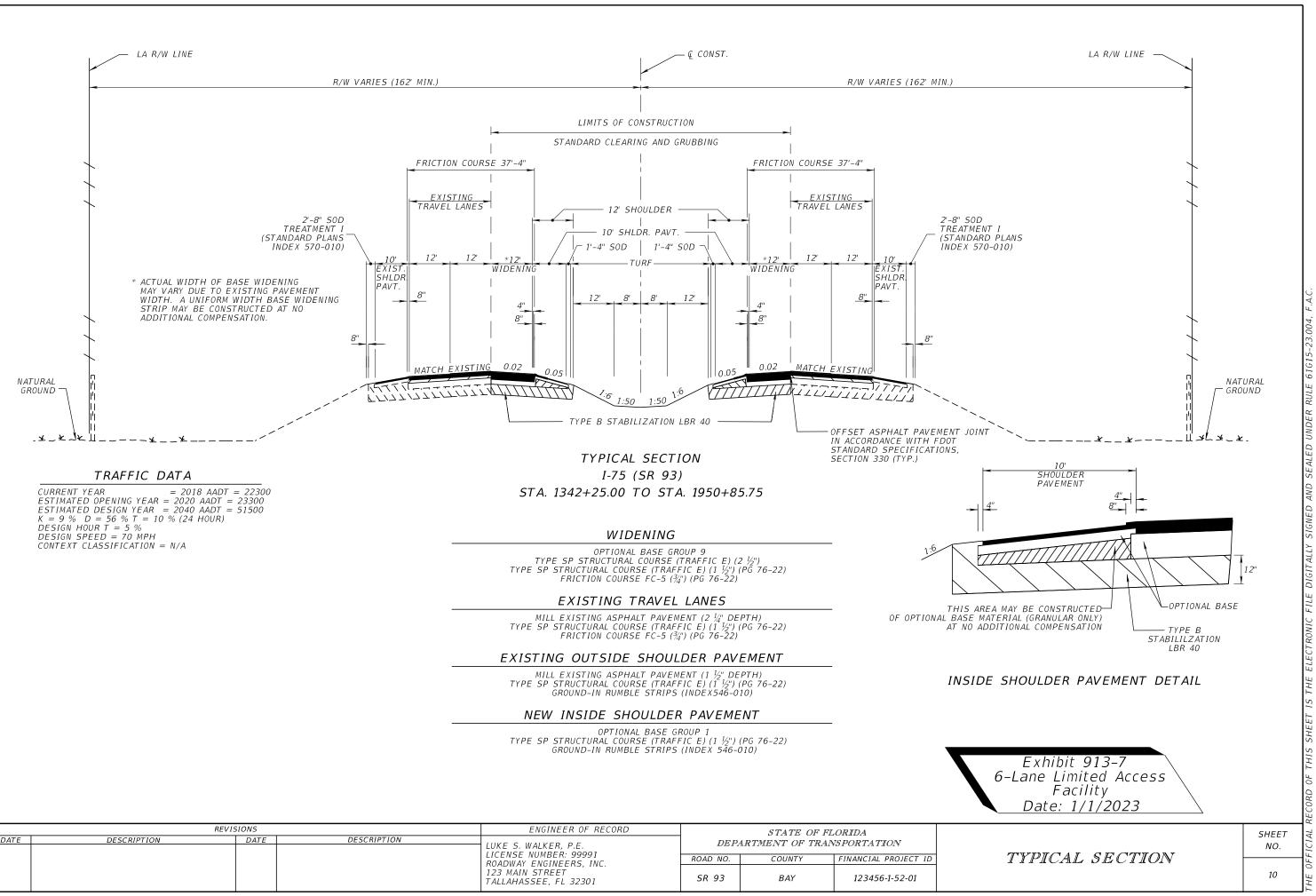


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				123 MAIN STREET TALLAHASSEE, FL 32301	SR 22	BAY	123456-1-52-01	



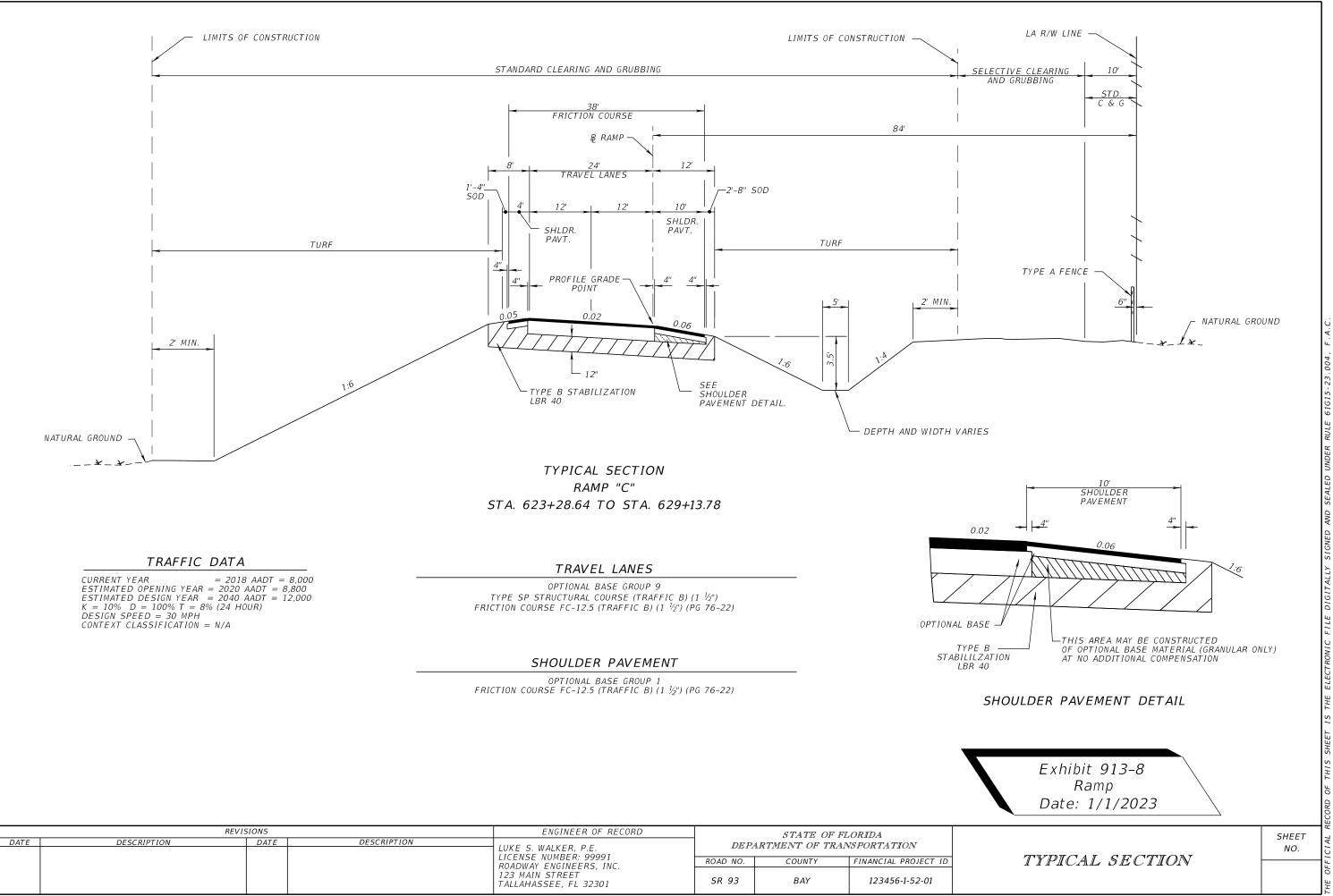


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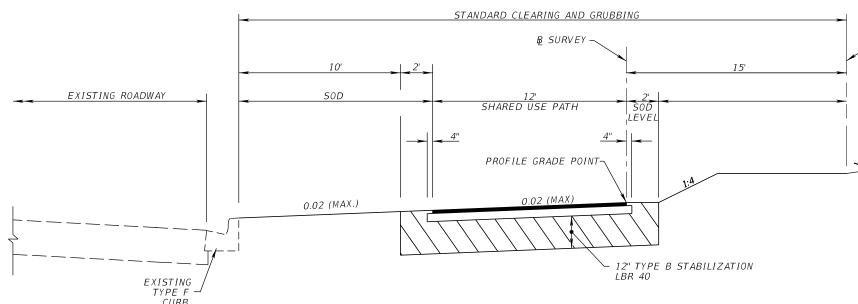
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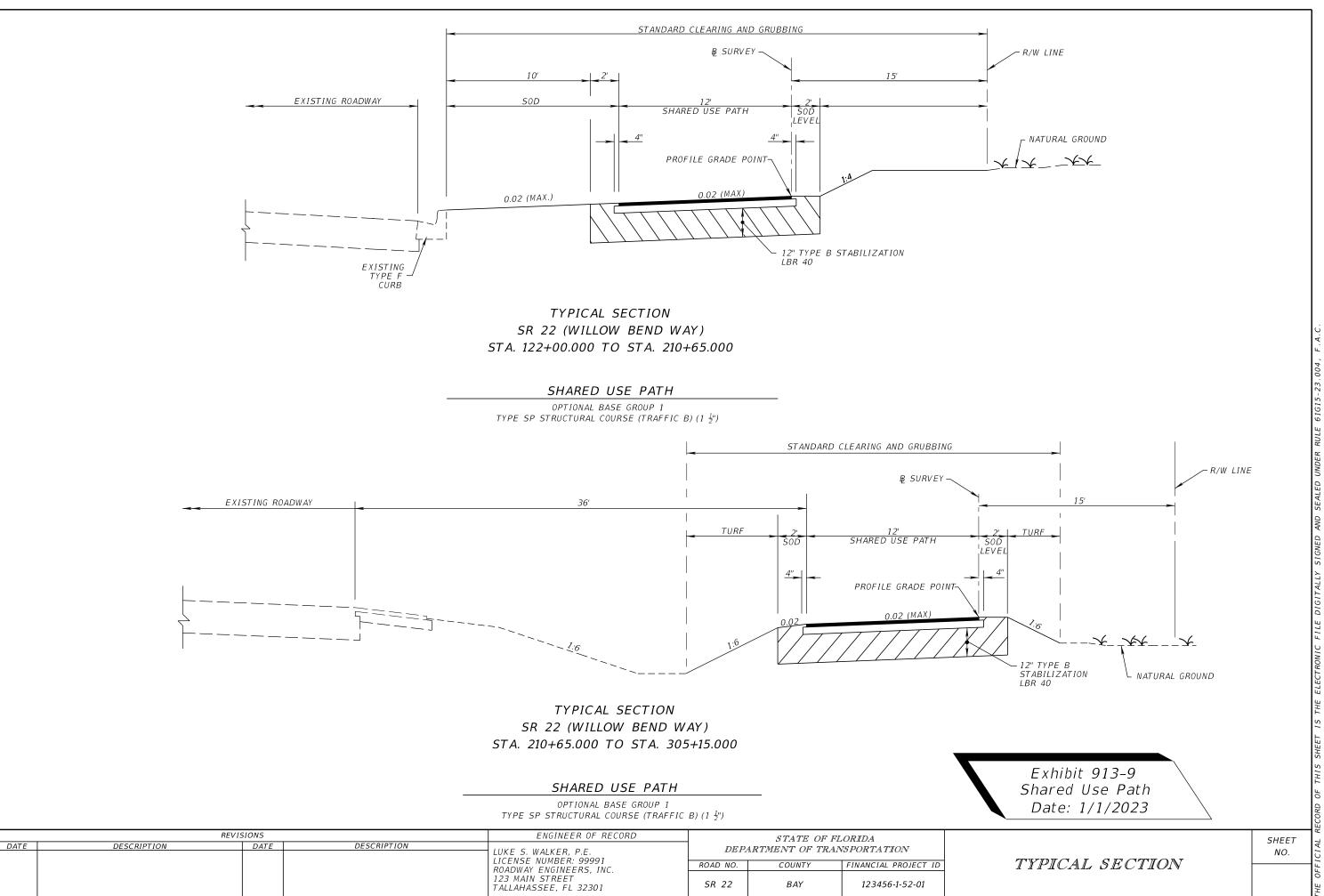


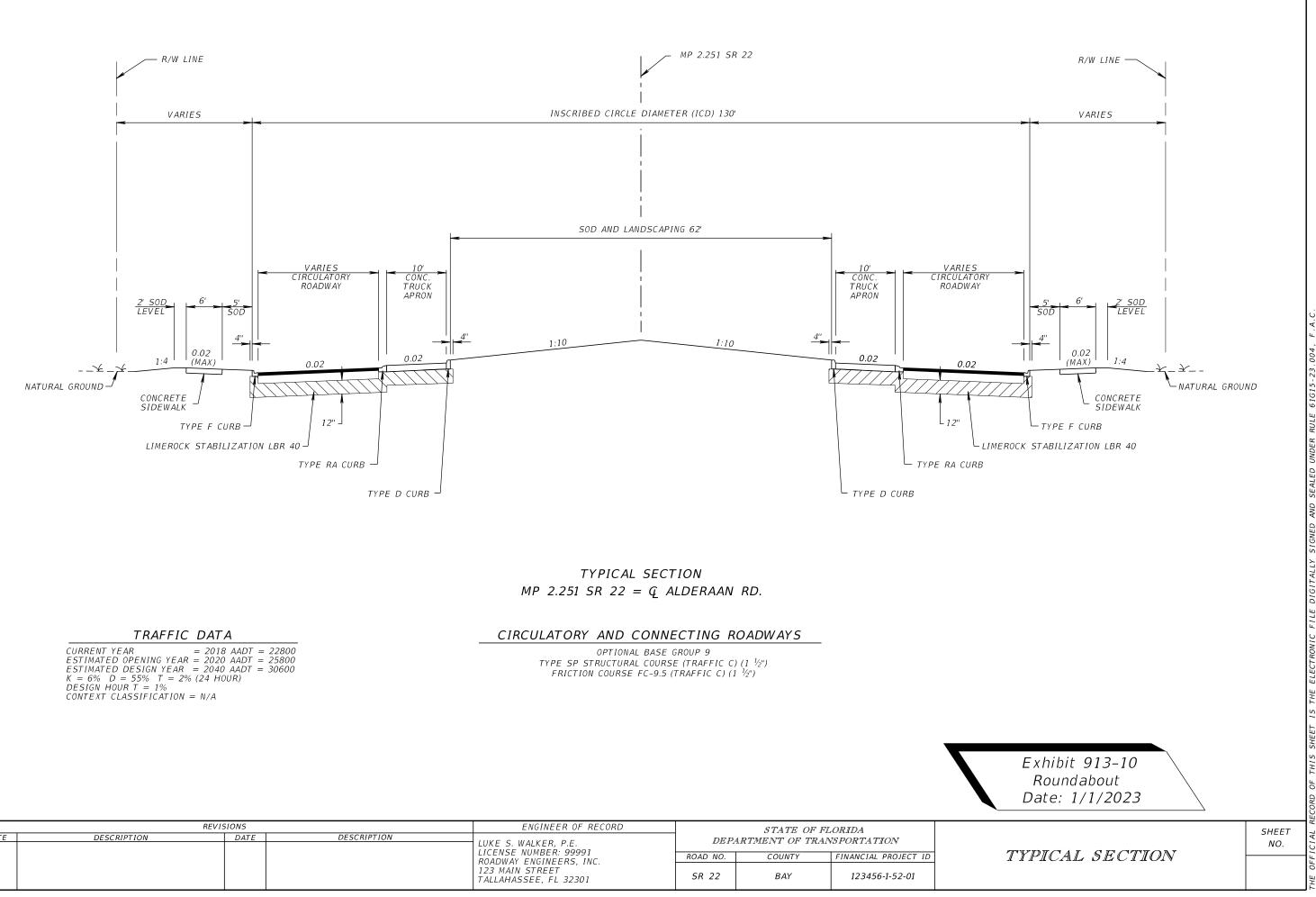
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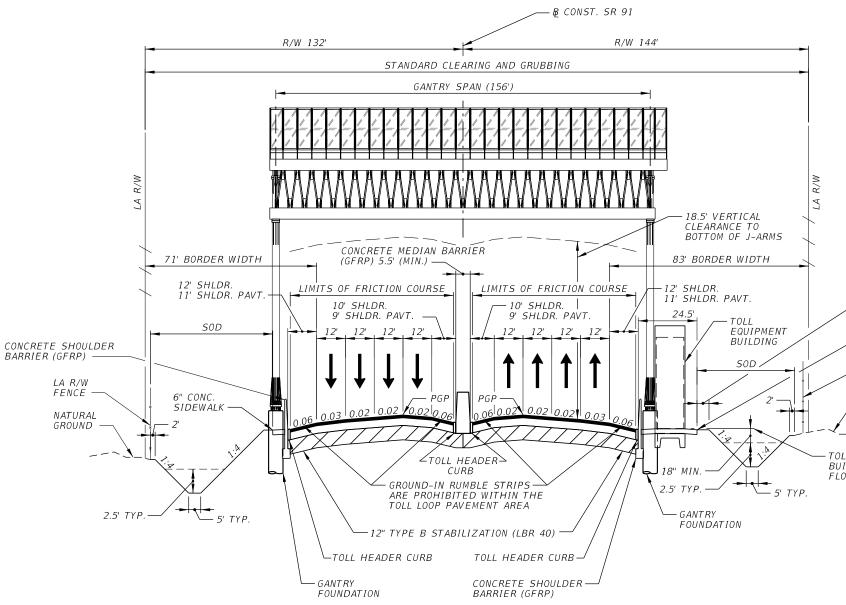
SR 22 (WILLOW BEND WAY)





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TYPICAL SECTION SR 91 - MAINLINE SITE 3 - TES 3M ACCESSIBLE GANTRY

STA. 2677+77.82 TO STA. 2678+77.82

TOLL SITE LANES AND SHOULDERS

OPTIONAL BASE GROUP 11 (TYPE B-12.5) (7") WITH TYPE SP STRUCTURAL COURSE (TRAFFIC D) (2½") TYPE SP STRUCTURAL COURSE (TRAFFIC D) (1½") (PG 76-22) AND FRICTION COURSE FC-12.5 (TRAFFIC D) (1½") (PG 76-22)

TOLL FACILITY MAINTENANCE PULL-OFF AREA

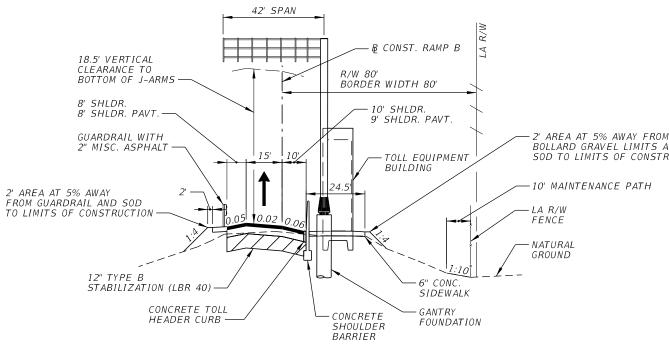
TYPE B STABILIZATION (12") OPTIONAL BASE GROUP 6 (8") WITH TYPE SP STRUCTURAL COURSE (TRAFFIC B) (2")

ENGINEER OF RECORD REVISIONS STATE OF FLORIDA DESCRIPTION DESCRIPTION DATE DATE DEPARTMENT OF TRANSPORTATION LUKE S. WALKER, P.E. LICENSE NUMBER: 99991 ROAD NO. COUNTY FINANCIAL PROJECT ID ROADWAY ENGINEERS, INC. 123 MAIN STREET TALLAHASSEE, FL 32301 SR 91 ORANGE 123456-1-52-01

TRAFFIC DATA

CURRENT YEAR = 2015 AADT = 69,200 ESTIMATED OPENING YEAR = 2022 AADT = 83,300 ESTIMATED DESIGN YEAR = 2042 AADT = 126,900 K = 9.50% D = 52% T = 12.8% (24 HOUR) DESIGN HOUR T = 6.5% DESIGN SPEED = 70 MPH

- 5' MIN. FROM THE TOLL SITE ENVELOPE		
		, F.A.C.
/ NATURAL GROUND		5-23.004
 LL EQUIPMENT FLDING FINISH DOR ELEVATION		THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61615-23.004, F.A.C.
Exhibit 913–11 Mainline Toll Gantry Date: 1/1/2023		CORD OF THIS SH
TYPICAL SECTION	SHEET NO.	HE OFFICIAL RE
	1	F



TYPICAL SECTION RAMP B - TOLL SITE STA. 2033+50.00 TO STA. 2034+00.00

TOLL SITE LANES AND SHOULDERS

OPTIONAL BASE GROUP 11 WITH TYPE SP STRUCTURAL COURSE (TRAFFIC D) $(2^{1/2"})$ TYPE SP STRUCTURAL COURSE (TRAFFIC D) $(1^{1/2"})$ (PG 76-22) AND FRICTION COURSE FC-12.5 (TRAFFIC D) $(1\frac{1}{2})$ (PG 76-22)

TOLL FACILITY MAINTENANCE PULL-OFF AREA

TYPE B STABILIZATION (12") OPTIONAL BASE GROUP 6 (8") WITH TYPE SP STRUCTURAL COURSE (TRAFFIC B) (2")

TRAFFIC DATA - RAMP B

CURRENT YEAR = 2016 AADT = 37,100 ESTIMATED OPENING YEAR = 2025 AADT = 36,200 ESTIMATED DESIGN YEAR = 2045 AADT = 50,000 K = 10% D = 61% T = 15.7% (24 HOUR) DESIGN HOUR T = 8% DESIGN SPEED = 45 MPH

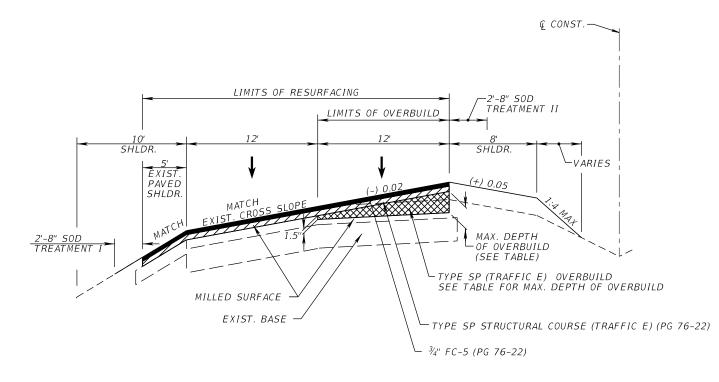
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Exhibit 913-12 Ramp Toll Gantry Date: 1/1/2023	
TYPICAL SECTION	SHEET NO.

61615-RULE



			OV	'ER	BU	ILD		
	AND RESURFACING DETAIL							
				٨	ITS			
ST	⁻ A.	145	5+00.0	0 7	ΤО	ST A.	166+00.	00

SR 22 EASTBOUND LANES

	OVERBUILD			DETAILS	
LC	DCATION	EXIST.	PROPOSED		
STATION	LANE	SLOPE (%)	SLOPE (%)		
145+00.00	EASTBOUND - INSIDE	(+) 1.6	EXIST.		
146+00.00	EASTBOUND - INSIDE	(+) 1.0	(-) 2.0		
147+00.00	EASTBOUND - INSIDE	(+) 1.6	(-) 2.0		
148+00.00	EASTBOUND - INSIDE	(+) 0.9	(-) 2.0		
149+00.00	EASTBOUND - INSIDE	(+) 0.4	(-) 2.0		
150+00.00	EASTBOUND - INSIDE	(+) 0.9	(-) 2.0		
151+00.00	EASTBOUND - INSIDE	(+) 0.4	(-) 2.0		
152+00.00	EASTBOUND - INSIDE	(+) 0.3	(-) 2.0		
153+00.00	EASTBOUND - INSIDE	(+) 0.0	(-) 2.0		
154+00.00	EASTBOUND - INSIDE	(+) 0.6	(-) 2.0		
155+00.00	EASTBOUND - INSIDE	(+) 1.2	(-) 2.0		
156+00.00	EASTBOUND - INSIDE	(+) 1.4	(-) 2.0		
157+00.00	EASTBOUND - INSIDE	(+) 0.8	(-) 2.0		
158+00.00	EASTBOUND - INSIDE	(+) 1.1	(-) 2.0		
159+00.00	EASTBOUND - INSIDE	(+) 1.0	(-) 2.0		
160+00.00	EASTBOUND - INSIDE	(+) 1.2	(-) 2.0		
161+00.00	EASTBOUND - INSIDE	(+) 2.2	(-) 2.0	ĺ	
162+00.00	EASTBOUND - INSIDE	(+) 2.2	(-) 2.0	ĺ	
163+00.00	EASTBOUND - INSIDE	(+) 1.2	(-) 2.0		
164+00.00	EASTBOUND - INSIDE	(+) 0.8	(-) 2.0	ĺ	
165+00.00	EASTBOUND - INSIDE	(+) 0.6	(-) 2.0		
166+00.00	EASTBOUND - INSIDE	(+) 1.5	EXIST.	ĺ	

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2:: 17/1		REVISIONS		ENGINEER OF RECORD	STATE OF FLORIDA		LORIDA	
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5					
	MAX. DEPTH	WIDTH			
	OF OVERBUILD (IN.)	OF OVERBUILD (FT.)	AREA OF OVERBUILD (SQ. FT.)		
	0.0	12.0	0.0		
	5.1	12.0	2.8		
	5.8	12.0	3.1		
	4.7	12.0	2.5		
	3.9	12.0	2.2		
	4.5	12.0	2.5		
	3.5	12.0	1.9		
	3.8	12.0	2.1		
	3.4	12.0	1.9		
	4.2	12.0	2.3		
	5.2	12.0	2.8		
	5.6	12.0	3.0		
_	4.7 5.6	12.0	2.9		
	5.6 4.9	12.0 12.0	3.0 2.6		
	4.9 5.4	12.0	2.0		
_	7.5	12.0	4.1		
	7.1	12.0	3.8		
	5.4	12.0	2.9		
	4.7	12.0	2.5		
	4.6	12.0	2.4		
	0.0	12.0	0.0		
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	Dat	e: 1/1/2	023		
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TYPICAL SECTION					NO.