

COLUMBIA COUNTY BOARD OF COUNTY COMMISSIONERS

CONTRACT PLANS

SW MAULDIN AVENUE AND SW KING STREET

FINANCIAL PROJECT I.D. = 434566-1-54-01

COLUMBIA COUNTY PROJECT NO. 2018-03

GOVERNING STANDARDS AND SPECIFICATIONS

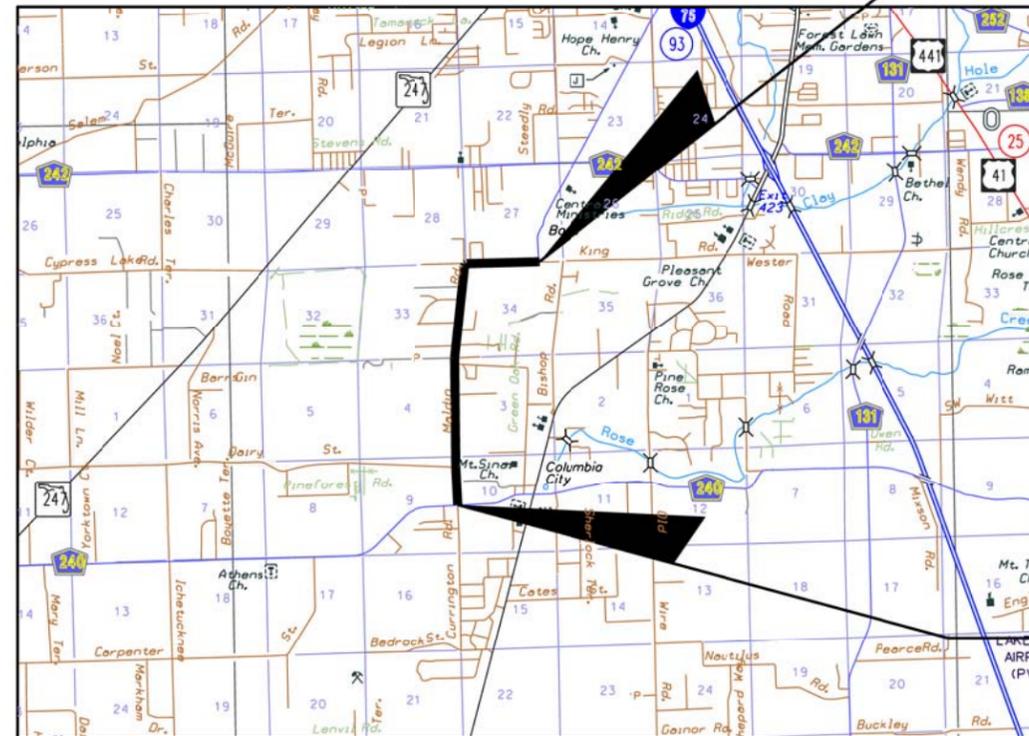
Florida Department of Transportation, 2015 Design Standards and revised Index Drawings as appended herein, and July 2015 Standard Specifications for Road and Bridge Construction, as amended by contract documents.

Design Standards can be downloaded at <http://www.dot.state.fl.us/rddesign/>

Standard Specifications can be downloaded at <http://dot.state.fl.us/specificationsoffice/>

END PROJECT
STA 273 + 31.69

SHEET NO.	SHEET DESCRIPTION
1	Cover Sheet
2	Site Plan/Key Sheet
3-6	Box Culvert
7	Typical Section and Notes



LENGTH OF PROJECT = 17,332 LF = 3.283 Miles

BEGIN PROJECT
STA 100 + 00

Roadway Plans Engineer of Record

Chadwick W. Williams, P.E.
P.E. No.: 63144

2015-12-04 1ST SUBMITTAL

REVISIONS	
DATE	DESCRIPTION

COLUMBIA COUNTY
BOARD OF COUNTY
COMMISSIONERS

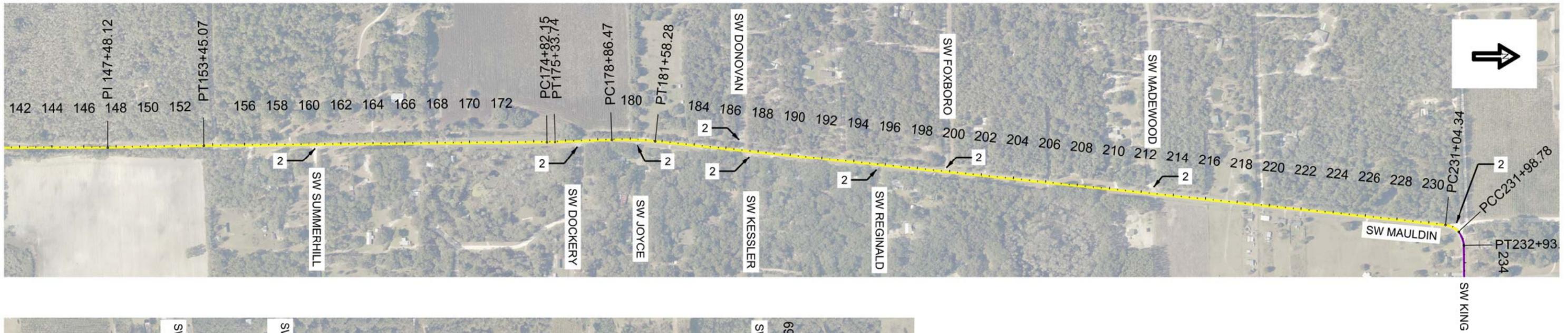


SW MAULDIN AVE
AND SW KING ST

COVER SHEET

SHEET NO.

1



- 1 - REMOVE CMP AND CONSTRUCT 72 LF OF 18" RCP WITH MES
- 2 - RESURFACE DRIVEWAY TURNOUT, 165 LBS/SY
- 3 - REMOVE AND REPLACE 2 M.E.S. AND CONSTRUCT 16 LF OF 18" RCP



REVISIONS	
DATE	DESCRIPTION

COLUMBIA COUNTY
BOARD OF COUNTY
COMMISSIONERS

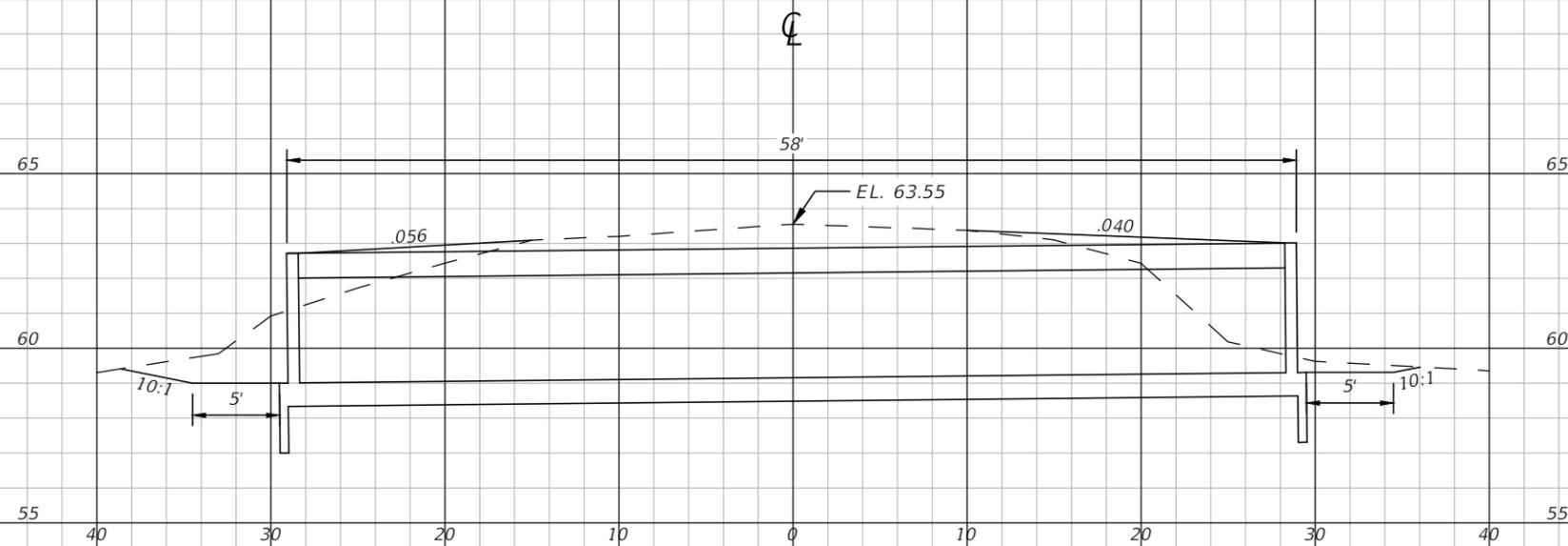


SW MAULDIN AVE
SW KING ST

OVERALL SITE PLAN

SHEET NO.

2



**BC-1
STA 271+10**

CONSTRUCT TRIPLE 5' X 3' CONCRETE BOX CULVERT
 FL LT 59.0 FL RT 59.3
 DESIGN STANDARD 289

1" = 10' Horizontal
 1" = 5' Vertical

REVISIONS				JAMES H. PITMAN P.E. LICENSE NUMBER 42035 NFPS P.O. BOX 3823 LAKE CITY, FLORIDA 32056 CERTIFICATE OF AUTHORIZATION 29011	KING ROAD RESURFACING			DRAINAGE STRUCTURE SHEET NO. 3
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					COLUMBIA			

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

BOX CULVERT DATA TABLES

BOX, HEADWALL AND CUTOFF WALL DATA TABLE (inches unless shown otherwise)																			Table Date 7-01-09	
LOCATION	STRUCTURE /BRIDGE NUMBER	BOX									HEADWALL AND CUTOFF WALL									
		Wc(ft)	Hc(ft)	Tt	Tw	Tb	Ti	#cells	Lc(ft)	Cover	Blhw	Hlhw	Brhw	Hrhw	Blcw	Hlcw	Brcw	Hrcw	SL(deg)	SR(deg)
KING RD	BC-1	5	3	8.5	8	8	8	3	58	2	12	24.3	12	20.5	12	24	12	24	0	0

LEFT SIDE WINGWALLS DATA TABLE (inches unless shown otherwise)																		Table Date 01-01-11	
STRUCTURE /BRIDGE NUMBER	LEFT END WINGWALL									LEFT BEGIN WINGWALL									
	Rt	Rw	Rh	Rd	SW(deg)	β (deg)	He(ft)	Hs(ft)	Lw(ft)	Rt	Rw	Rh	Rd	SW(deg)	β (deg)	He(ft)	Hs(ft)	Lw(ft)	
BC-1	6	8	24	8	90	1.15	5.03	5.03	10	6	8	24	8	90	1.15	5.03	5.03	10	

RIGHT SIDE WINGWALLS DATA TABLE (inches unless shown otherwise)																		Table Date 01-01-11	
STRUCTURE /BRIDGE NUMBER	RIGHT END WINGWALL									RIGHT BEGIN WINGWALL									
	Rt	Rw	Rh	Rd	SW(deg)	β (deg)	He(ft)	Hs(ft)	Lw(ft)	Rt	Rw	Rh	Rd	SW(deg)	β (deg)	He(ft)	Hs(ft)	Lw(ft)	
BC-1	6	8	24	8	90	1.15	4.71	4.71	10	6	8	8	24	90	1.15	4.71	4.71	10	

ESTIMATED CONCRETE QUANTITIES (CY)																					Table Date 7-01-13	
STRUCTURE /BRIDGE NUMBER	BOX								LEFT END WINGWALL			LEFT BEGIN WINGWALL			RIGHT END WINGWALL			RIGHT BEGIN WINGWALL				
	Left Cutoff Wall	Right Cutoff Wall	Bottom Slab	Walls	Top Slab	Left Head Wall	Right Head Wall	Sub Total	Footing	Wall	Sub Total	Footing	Wall	Sub Total	Footing	Wall	Sub Total	Footing	Wall	Sub Total		
BC-1	0.872	0.872	26.6	17.2	26.9	0.863	0.654	74.3	1.28	1.24	2.52	1.28	1.24	2.52	1.28	1.16	2.44	1.28	1.16	2.44		

NOTES:

1. Environmental Class: Slightly Aggressive
2. Reinforcing Steel, Grade 60
3. Concrete Class IV, f'c = 5.5 ksi
4. Soil Properties:
Friction Angle: 34°
Modulus of Subgrade Reaction: 220 pci
Nominal Bearing Resistance: 5400 psf
5. Work this Drawing with Design Standards Index No. 289 and Sheet Nos. 2-3.
6. Precast box culverts shall not be permitted.

MAIN STEEL REINFORCEMENT SPACING (inches)																		Table Date 7-01-09	
STRUCTURE /BRIDGE NUMBER	BOX															HEADWALLS		CUTOFF WALLS	
	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115, 116...	803	806	809	812
BC-1	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	11	11	15	15

WINGWALL STEEL REINFORCEMENT SPACING (inches)																											Table Date 7-01-09	
STRUCTURE /BRIDGE NUMBER	LEFT END WINGWALL							LEFT BEGIN WINGWALL							RIGHT END WINGWALL							RIGHT BEGIN WINGWALL						
	401 (407(8))	402 (403)	404 (405)	406	409	410	411	501 (507(8))	502 (503)	504 (505)	506	509	510	511	601 (607(8))	602 (603)	604 (605)	606	609	610	611	701 (707(8))	702 (703)	704 (705)	706	709	710	711
BC-1	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12

WINGWALL NOTE: Bar designations in "()" are only required for variable height wingwalls.

REVISIONS				Terry T. Hall, Jr., P.E. P.E. NO.: 67099 STV Incorporated 5200 Belfort Road, Suite 400 Jacksonville, Florida 32256 Certificate of Authorization No. 390	ROAD NO.			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		COUNTY		FINANCIAL PROJECT ID	
					KING RD	COLUMBIA	N/A	
							4	

Drawn By : MM 04-17
 Checked By : YT 04-17
 Designed By : MBH 04-17
 Checked By : YT 04-17

MARK	LENGTH	NO	TYP	STY	B	C	D	E	F	H	J	K	N	Ø										
SIZE	DES	FT	IN	BARS	BAR	A	G	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	NO	ANG
LOCATION		MAIN BOX													NO. REQUIRED = 1									
6	101	17- 4		78	1			17- 4																
6	102	17- 4		78	1			17- 4																
6	103	17- 4		82	1			17- 4																
6	104	17- 4		82	1			17- 4																
5	105	4- 8		154	10			1- 9	2-10 ³ / ₄															
5	106	4- 8		154	10			1- 9	2-10 ³ / ₄															
5	107	9- 7		616	10			6- 8	2-10 ³ / ₄															
5	108	4- 1		154	1			4- 0 ¹ / ₂																
4	109	62- 1		25	2			1- 5	60- 8															1
4	110	57- 8		25	1			57- 8																
4	111	57- 1		25	1			57- 0 ¹ / ₄																
4	112	62- 1		25	2			1- 5	60- 8															1
4	113	57- 8		10	1			57- 8																
4	114	57- 8		10	1			57- 8																
4	115	57- 1		20	1			57- 0 ¹ / ₄																
LOCATION		LEFT END WINGWALL													NO. REQUIRED = 1									
3	401	4-10		11	1			4- 9 ¹ / ₄																
3	402	9- 8		6	1			9- 8																
3	404	9- 8		6	1			9- 8																
3	406	4-10		11	1			4- 9 ¹ / ₄																
3	407	2- 8		11	10			0-10	1- 9 ¹ / ₂															
3	409	2-10		11	1			2-10																
3	410	2-10		11	1			2-10																
3	411	9- 8		8	1			9- 8																
5	412	2- 0		9	1			2- 0																
LOCATION		LEFT BEGIN WINGWALL													NO. REQUIRED = 1									
3	501	4-10		11	1			4- 9 ¹ / ₄																
3	502	9- 8		6	1			9- 8																
3	504	9- 8		6	1			9- 8																
3	506	4-10		11	1			4- 9 ¹ / ₄																
3	507	2- 8		11	10			0-10	1- 9 ¹ / ₂															
3	509	2-10		11	1			2-10																
3	510	2-10		11	1			2-10																
3	511	9- 8		8	1			9- 8																
5	512	2- 0		9	1			2- 0																
LOCATION		RIGHT END WINGWALL													NO. REQUIRED = 1									
3	601	4- 6		11	1			4- 5 ¹ / ₂																
3	602	9- 8		6	1			9- 8																
3	604	9- 8		6	1			9- 8																
3	606	4- 6		11	1			4- 5 ¹ / ₂																
3	607	2- 8		11	10			0-10	1- 9 ¹ / ₂															
3	609	2-10		11	1			2-10																
3	610	2-10		11	1			2-10																
3	611	9- 8		8	1			9- 8																
5	612	2- 0		8	1			2- 0																
LOCATION		RIGHT BEGIN WINGWALL													NO. REQUIRED = 1									
3	701	4- 6		11	1			4- 5 ¹ / ₂																
3	702	9- 8		6	1			9- 8																
3	704	9- 8		6	1			9- 8																
3	706	4- 6		11	1			4- 5 ¹ / ₂																
3	707	2- 8		11	10			0-10	1- 9 ¹ / ₂															

NOTES:
1. Work this sheet with Design Standard Index No. 21300.

DATE		DESCRIPTION		REVISIONS		Terry T. Hall, Jr., P.E. P.E. NO.: 67099 STV Incorporated 5200 Belfort Road, Suite 400 Jacksonville, Florida 32256 Certificate of Authorization No. 390		ROAD NO.			COUNTY			FINANCIAL PROJECT ID			REINFORCING BAR LIST (1 OF 2)		SHEET NO.
								KING RD			COLUMBIA			N/A					5

Designed By : MBH 04-17
Checked By : YT 04-17
Drawn By : MM 04-17
Checked By : YT 04-17

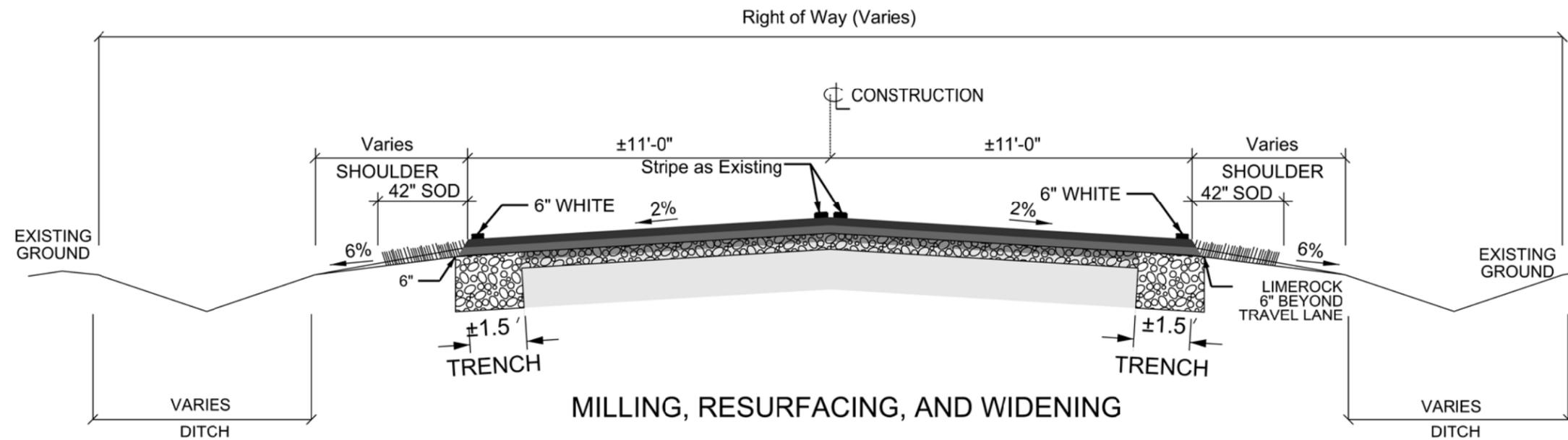
MARK		LENGTH		NO	TYP	STY	B			C			D			E			F			H			J			K			N	Ø	
SIZE	DES	FT	IN	BARS	BAR	A	G	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	NO	ANG			
3	709	2-10		11	1			2-10																									
3	710	2-10		11	1			2-10																									
3	711	9- 8		8	1			9- 8																									
5	712	2- 0		8	1			2- 0																									
LOCATION		LEFT HEADWALL										NO. REQUIRED = 1																					
6	801	17- 4		2	1			17- 4																									
6	802	17- 4		2	1			17- 4																									
5	803	4- 8		20	27			1- 7 ¹ / ₂			0- 6	0- 2	0- 5	1- 2 ¹ / ₂			0- 6	0- 6															
LOCATION		RIGHT HEADWALL										NO. REQUIRED = 1																					
6	804	17- 4		2	1			17- 4																									
6	805	17- 4		2	1			17- 4																									
5	806	4- 1		20	27			1- 3 ³ / ₄			0- 6	0- 2	0- 5	0-10 ³ / ₄			0- 6	0- 6															
LOCATION		LEFT CUTOFF WALL										NO. REQUIRED = 1																					
3	807	17- 4		2	1			17- 4																									
3	808	17- 4		2	1			17- 4																									
3	809	4-11		15	7			1- 7 ¹ / ₄			0- 8	0- 6	0- 6																				
LOCATION		RIGHT CUTOFF WALL										NO. REQUIRED = 1																					
3	810	17- 4		2	1			17- 4																									
3	811	17- 4		2	1			17- 4																									
3	812	4-11		15	7			1- 7 ¹ / ₄			0- 8	0- 6	0- 6																				

END OF LIST

NOTES:

1. Work this sheet with Design Standard Index No. 21300.

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DATE	DESCRIPTION	DATE	DESCRIPTION		COUNTY			
					FINANCIAL PROJECT ID			
					KING RD	COLUMBIA	N/A	REINFORCING BAR LIST (2 OF 2)



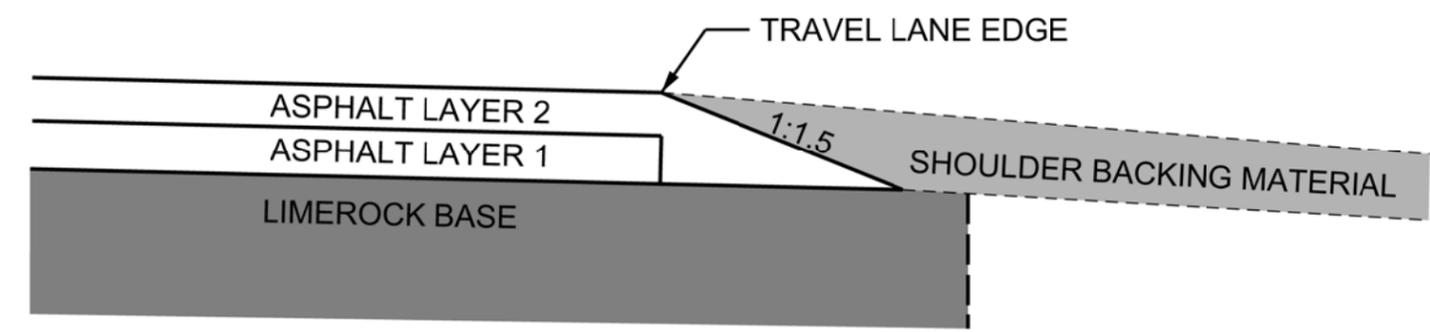
MILLING, RESURFACING, AND WIDENING

NOTE:
 STATIONING IS ESTIMATED. EXACT LOCATIONS WILL BE DETERMINED BY THE COUNTY ENGINEER DURING CONSTRUCTION
 SOD AS DIRECTED BY ENGINEER
 SEED AND MULCH ALL DISTURBED AREAS NOT SODDED

TYPICAL ROAD SECTION - N.T.S.

-  Milling +/- 1.75" depth
-  Super Pave 9.5 Surface Course (135 lbs/sy)
-  Super Pave 12.5 Structural Course (165 lbs/sy)
-  Existing Roadway Section
-  Limerock Placement/Widening

Existing Limerock to be scarified before placement of additional limerock. Special attention shall be made to blend existing limerock base with newly constructed widened limerock base.



Construct a pavement safety edge by attaching a device to the screed of the paver to confine and extrude the asphalt material at the end gate to create a compacted wedge shape pavement edge as detailed.

SAFETY EDGE (SM)

REVISIONS		COLUMBIA COUNTY BOARD OF COUNTY COMMISSIONERS		SW MAULDIN AVE AND SW KING ST	TYPICAL SECTION	SHEET NO.
DATE	DESCRIPTION					7