WBS: 2027CPT.03.02.10311

CONTRACT: DC00513

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

DUPLIN COUNTY

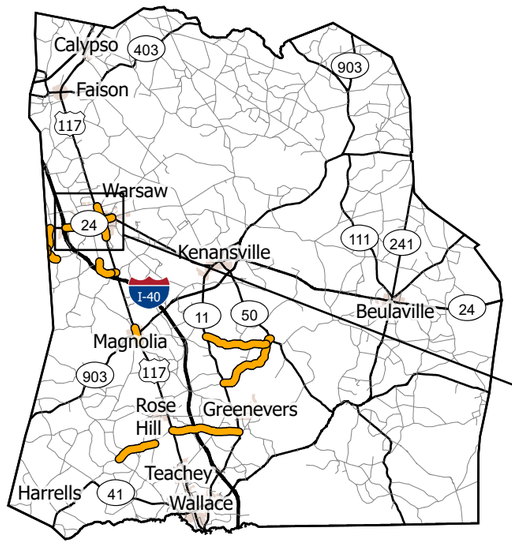
TYPE OF WORK: Resurfacing

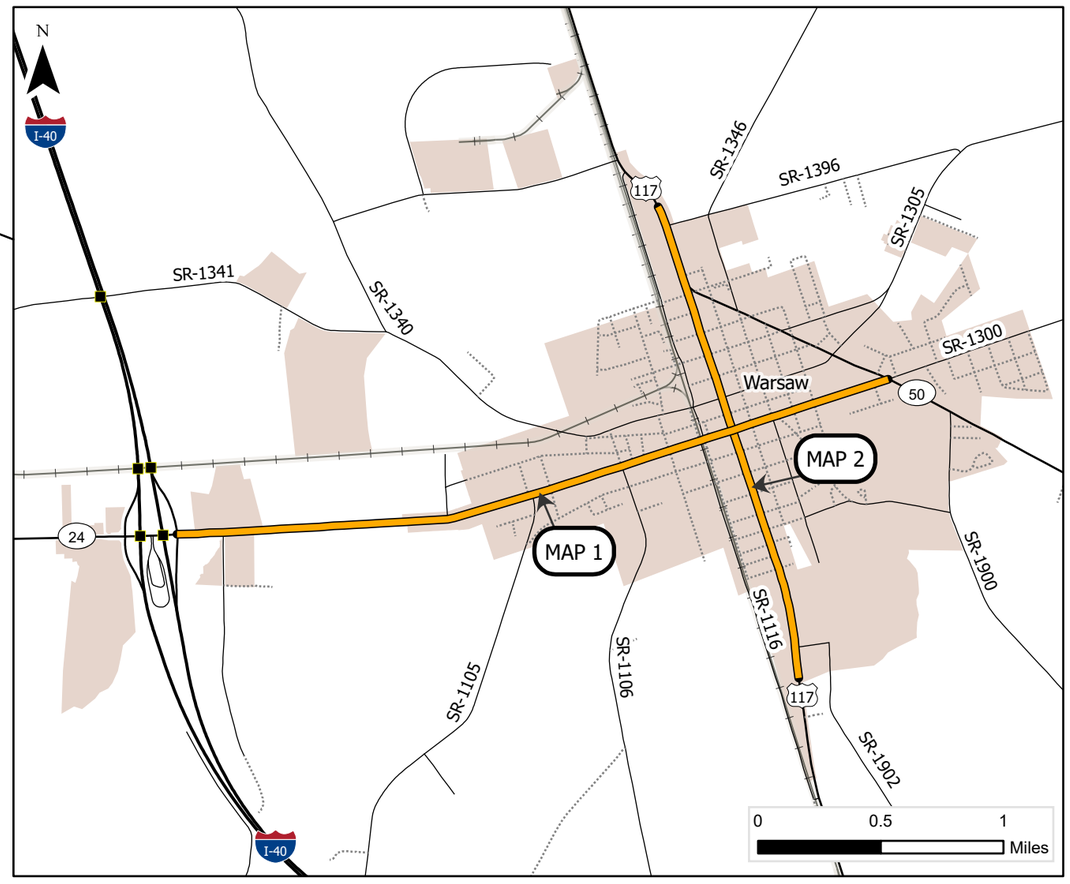
STATE	STATE PROJECT REFERENCE NUMBER	SHEET NO.
NC	2027CPT.03.02.10311	1

STATE PROJECT NUMBER	DESCRIPTION

Resurfacing

Division 3 Bridges





MAP	ROUTE	DESCRIPTION	TYPE
1	NC 24 BUS / W COLLEGE ST / E COLLEGE ST	FROM I-40 WB RAMP TO NC HWY 50 (MEMORIAL DR / KENANSVILLE HWY) [MP 0.15 - MP 3.15]	Resurfacing
2	US 117 / N PINE ST / S PINE ST	FROM 0.13 MILE S OF SR 1902 (CARTER BEST RD) TO 0.08 MILE N OF SR 1396 (WATER TANK RD) [MP 19.61 - MP 21.62]	Resurfacing

PROJECT LENGTH

MAP	MILES
1	3.00
2	2.01

Prepared in the Office of:

DIVISION OF HIGHWAYS

5501 BARBADOS BLVD., CASTLE HAYNE, NC, 28429

This exhibit does not meet NC 47-30 requirements and therefore is not intended for design, construction, or recording or transfer of title.

WBS: 2027CPT.03.02.10311

CONTRACT: DC00513

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

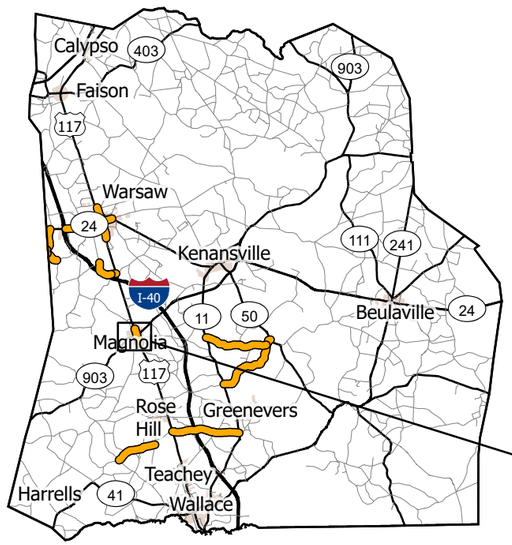
DUPLIN COUNTY

TYPE OF WORK: Resurfacing

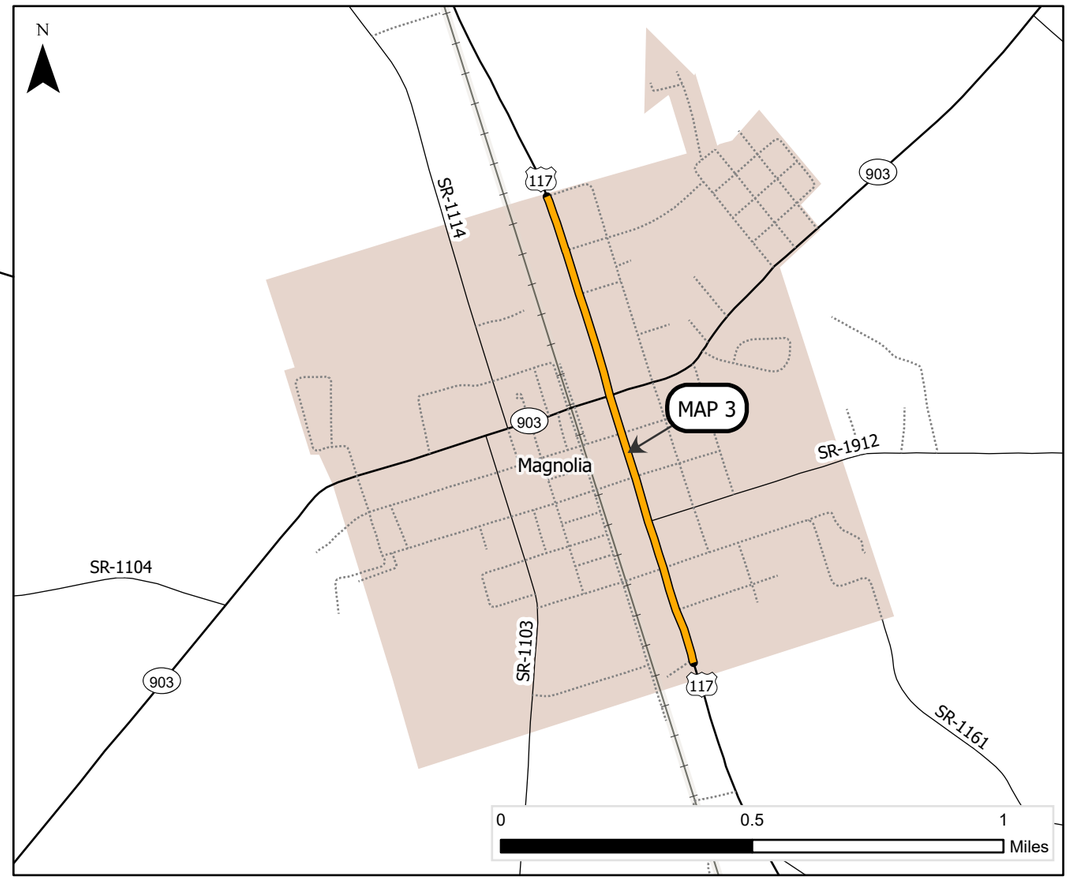
STATE	STATE PROJECT REFERENCE NUMBER	SHEET NO.
NC	2027CPT.03.02.10311	2

STATE PROJECT NUMBER	DESCRIPTION

Resurfacing



MAP	ROUTE	DESCRIPTION	TYPE
3	US 117 / N MONK ST / S MONK ST	FROM POWELL ST TO N PETERSON ST [MP 12.70 - MP 13.67]	Resurfacing



PROJECT LENGTH

MAP	MILES
3	0.97

Prepared in the Office of:

DIVISION OF HIGHWAYS

5501 BARBADOS BLVD., CASTLE HAYNE, NC, 28429

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STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

WBS: 2027CPT.03.02.20311

CONTRACT: DC00513

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

DUPLIN COUNTY

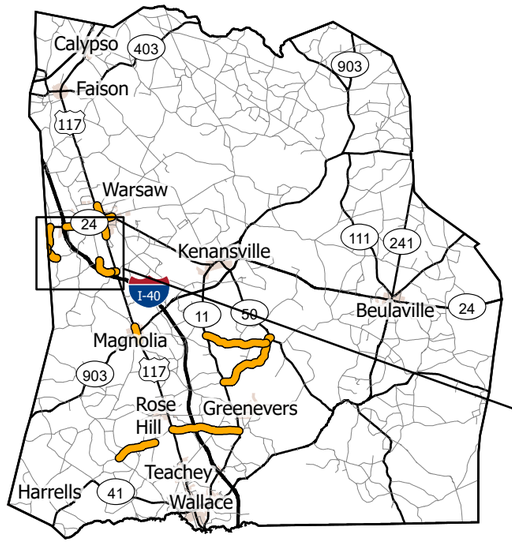
TYPE OF WORK: Resurfacing

STATE	STATE PROJECT REFERENCE NUMBER	SHEET NO.
NC	2027CPT.03.02.20311	3

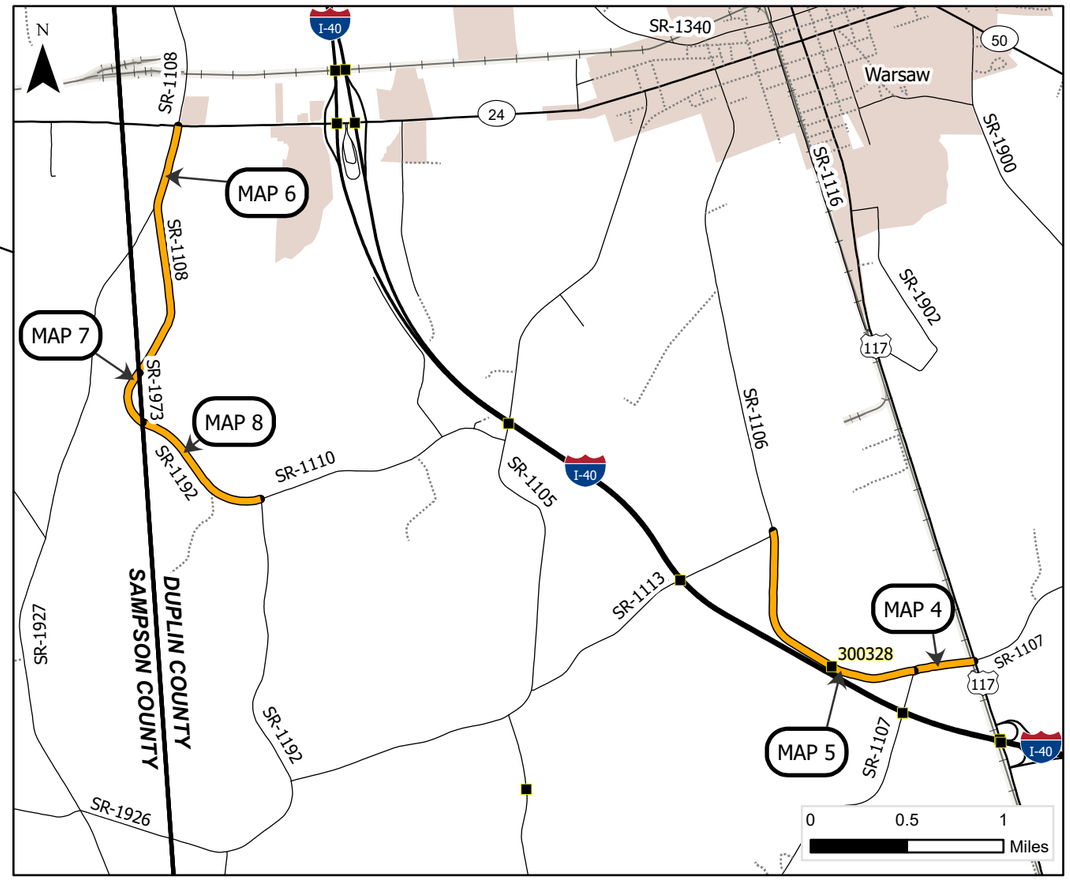
STATE PROJECT NUMBER	DESCRIPTION

Resurfacing

Division 3 Bridges



MAP	ROUTE	DESCRIPTION	TYPE
4	SR-1107 / PERRY RIVENBARK RD	FROM SR 1107 (BEASLEY TORRANS RD) TO S US HWY 117 [MP 3.87 - MP 4.19]	Resurfacing
5	SR-1106 / PERRY RIVENBARK RD	FROM SR 1107 (BEASLEY TORRANS RD) TO 0.02 MI N OF SR 1113 (CHARLIE FREDERICK RD) [MP 0.00 – MP 1.30]	Resurfacing
6	SR-1108 / CARROLLS RD	FROM W NC HWY 24 TO SAMPSON COUNTY LINE [MP 1.84 - MP 3.19]	Resurfacing
7	SR-1973 / CARROLLS RD	FROM DUPLIN COUNTY LINE TO DUPLIN COUNTY LINE [MP 0.00 - MP 0.30]	Resurfacing
8	SR-1192 / CARROLLS RD	FROM SAMPSON COUNTY LINE TO SR 1110 (HENRY BEST RD) [MP 0.00 - MP 0.78]	Resurfacing



PROJECT LENGTH

MAP	MILES
4	0.32
5	1.30
6	1.35

MAP	MILES
7	0.30
8	0.78

Prepared in the Office of:

DIVISION OF HIGHWAYS

5501 BARBADOS BLVD., CASTLE HAYNE, NC, 28429

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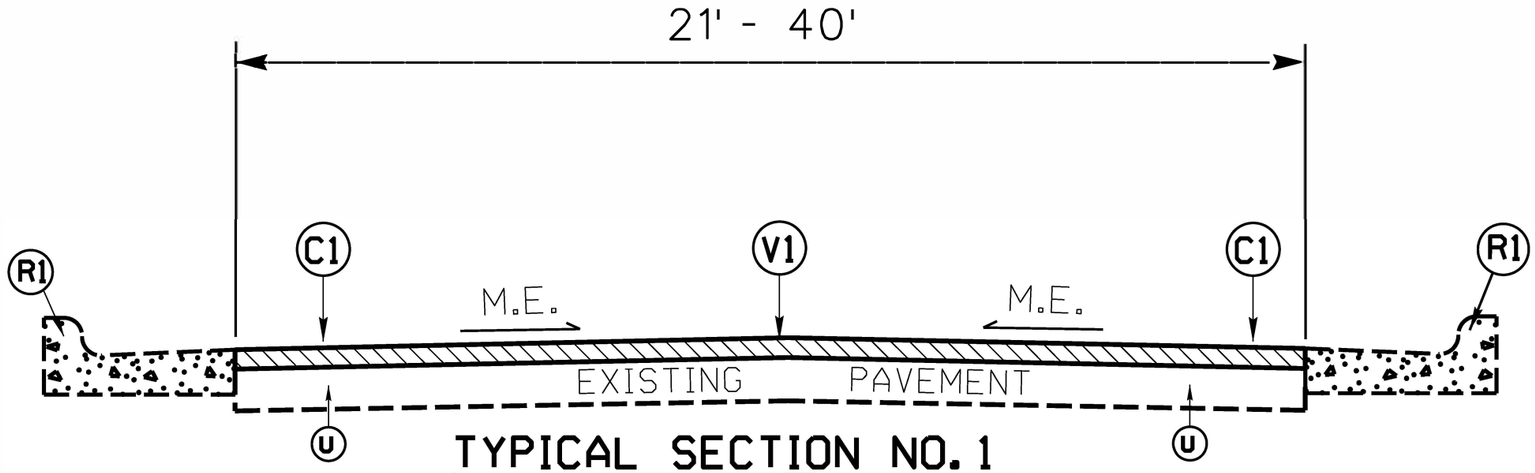
8/17/99

REVISIONS

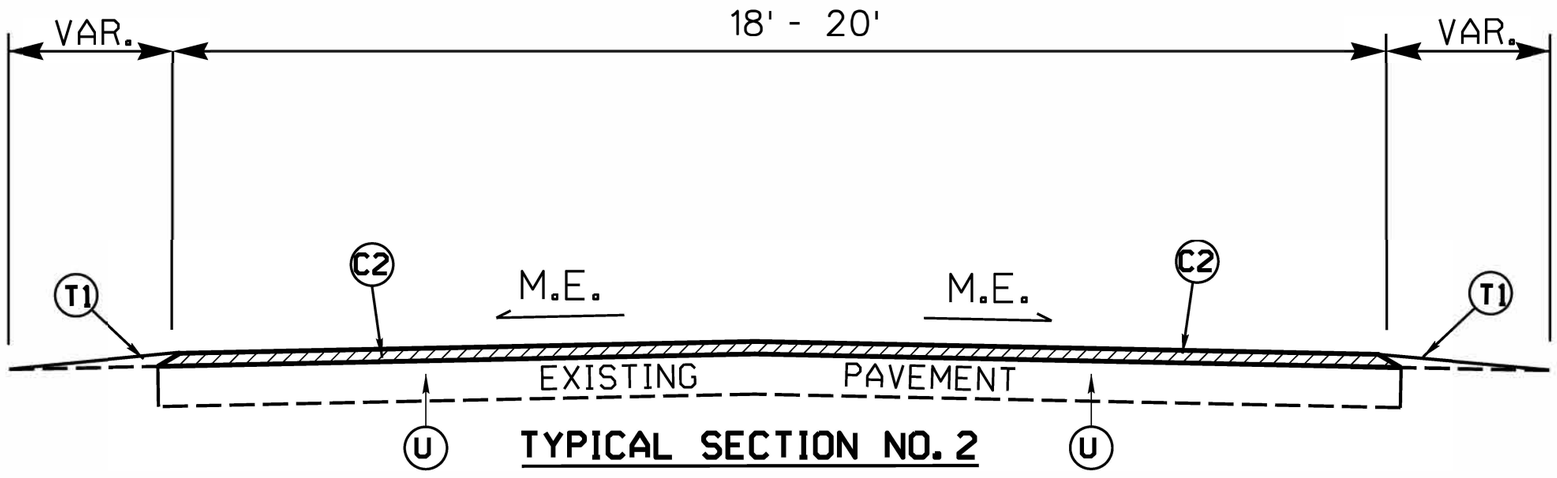


TYPICAL SECTION NO. 1

MAP NO. 1
NC 24 BUS (W COLLEGE ST)
MP 0.15 - MP 3.15

MAP NO. 2
US 117 (S PINE ST)
MP 19.61 - MP 21.62

MAP NO. 3
US 117 (S MONK ST)
MP 12.70 - MP 13.67



TYPICAL SECTION NO. 2

MAP NO. 4
SR 1107 (PERRY RIVENBARK RD)
MP 3.87 - MP 4.19

MAP NO. 5
SR 1106 (PERRY RIVENBARK RD)
MP 0.00 - MP 1.30

MAP NO. 6
SR 1108 (CARROLLS RD)
MP 1.84 - MP 3.19

MAP NO. 7
SR 1973 (CARROLLS RD)
MP 0.00 - MP 0.30

MAP NO. 8
SR 1192 (CARROLLS RD)
MP 0.00 - MP 0.78

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ.YD.
C2	PROP. APPROX. 1.5" DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ.YD.
T1	EARTH MATERIAL (SHOULDER RECONSTRUCTION)
R1	EXISTING CONCRETE CURB AND GUTTER
U	EXISTING PAVEMENT
V1	1.5" MILLING
E1	PROP. APPROX 11" DEPTH ASPHALT CONC. BASE COURSE TYPE B25.0C AT A AVERAGE RATE OF 627 LBS PER SQ.YD IN EACH OF TWO LAYERS

NOTES:

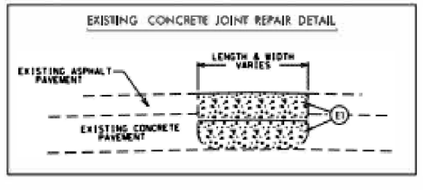
SHOULDER WORK ON MAP NO. 4 - 8 AS NEEDED, TO BE DETERMINED BY ENGINEER.

THE CONTRACTOR SHALL RETAIN EXISTING LANE WIDTHS.

REINSTALL PAVEMENT MARKINGS PER 2024 STANDARDS.

PAVEMENT EDGE SLOPES ARE 1:1, EXCEPT FINAL SURFACE COURSE. SEE SHOULDER WEDGE DETAIL.

CONSTRUCTION SEQUENCE:
REPAIR EXISTING CONCRETE JOINTS
B25.0C (2 LIFTS 5.5" EACH)
MILL EACH LANE 1.5" DEPTH
PLACE PAVEMENT INTERLAYER
RESURFACE S9.5C (2 LIFTS 1.5" EACH)



MAP NO. 3 - US 117 (S MONK ST) / MP 12.70 - MP 13.67

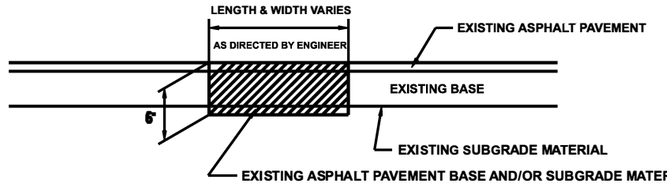
$$$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$$

PROJECT REFERENCE NO.	SHEET NO.
22027CPT.03.02.10311, ETC	5

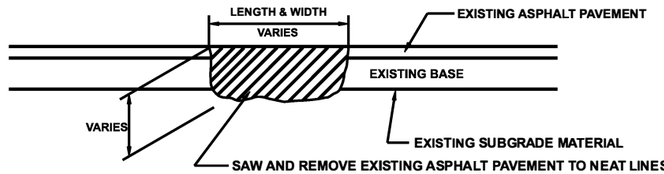
8/17/99

REVISIONS

DETAILS OF REPAIRING EXISTING PAVEMENT PRIOR TO RESURFACING FOR FULL DEPTH AND MILLING



DETAIL NO. 1



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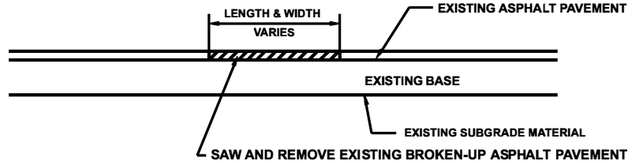
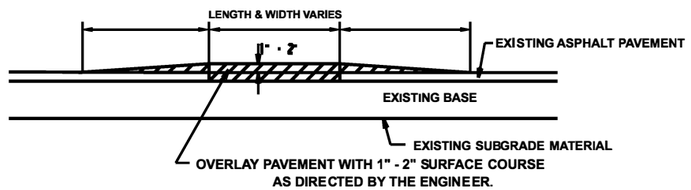
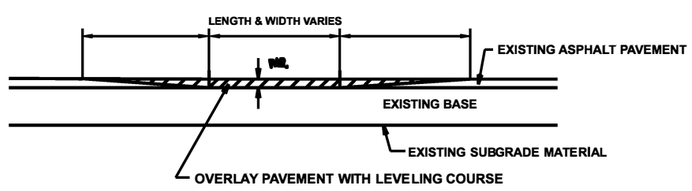


DETAIL NO. 3



DETAIL NO. 4

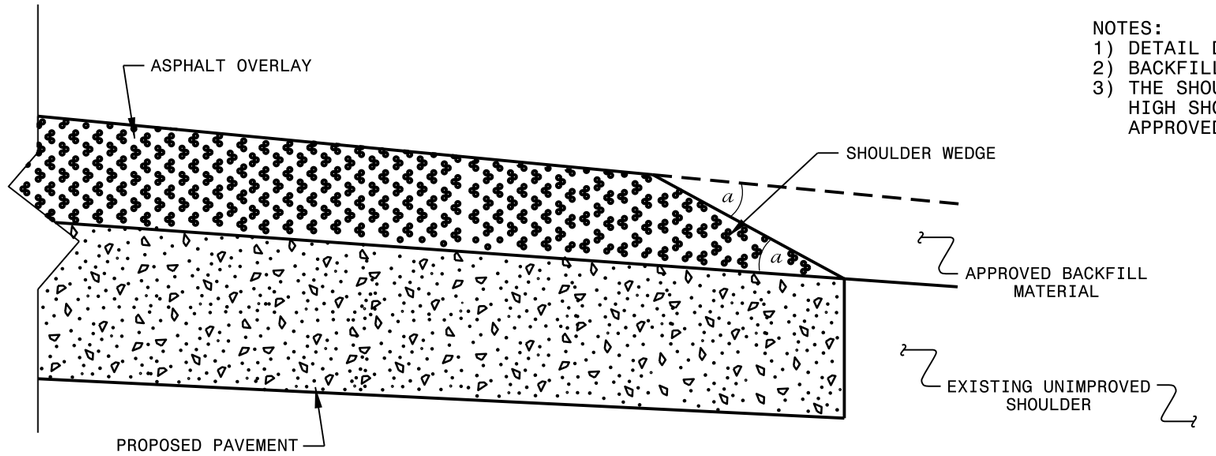


DETAIL NO. 5

$$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$

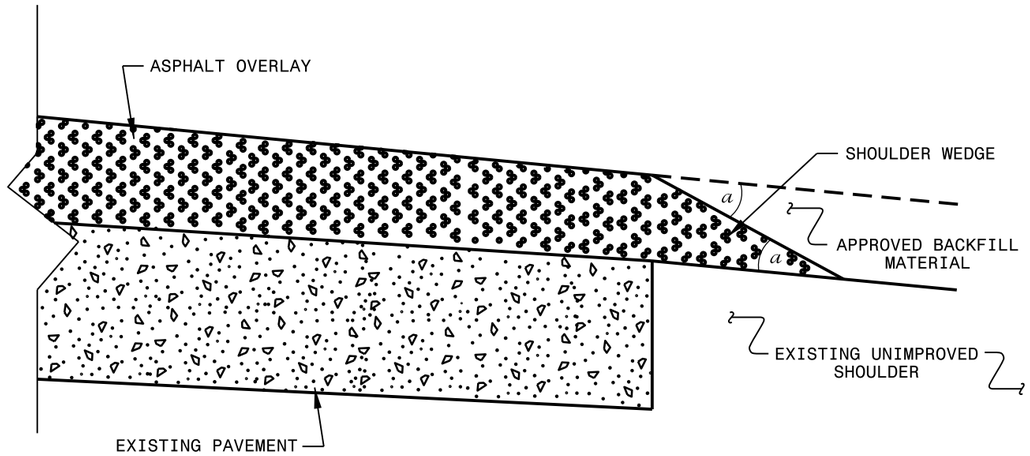
PROJECT REFERENCE NO.	SHEET NO.
2027CPT.03.02.10311, ETC.	6

NOTES:
1) DETAIL DOES NOT APPLY TO OGAFC AND ULTRA-THIN BONDED WEARING COURSE.
2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.



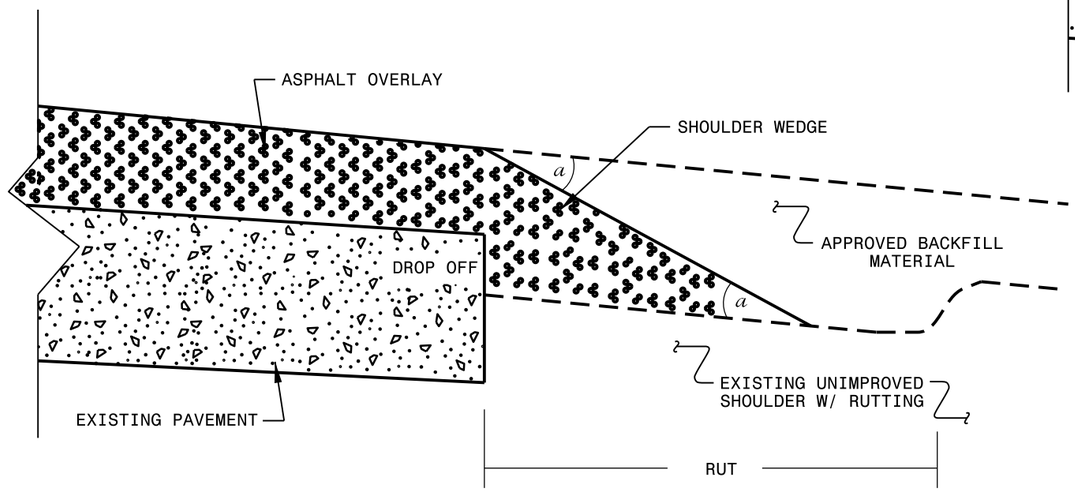
SHOULDER WEDGE DETAIL

(Resurfacing Projects w/ Widening or with Existing Paved Shoulder having no dropoffs)



SHOULDER WEDGE DETAIL

(Resurfacing Projects w/ NO Widening)



SHOULDER WEDGE DETAIL

(Resurfacing Adjacent to Rutted Shoulder)

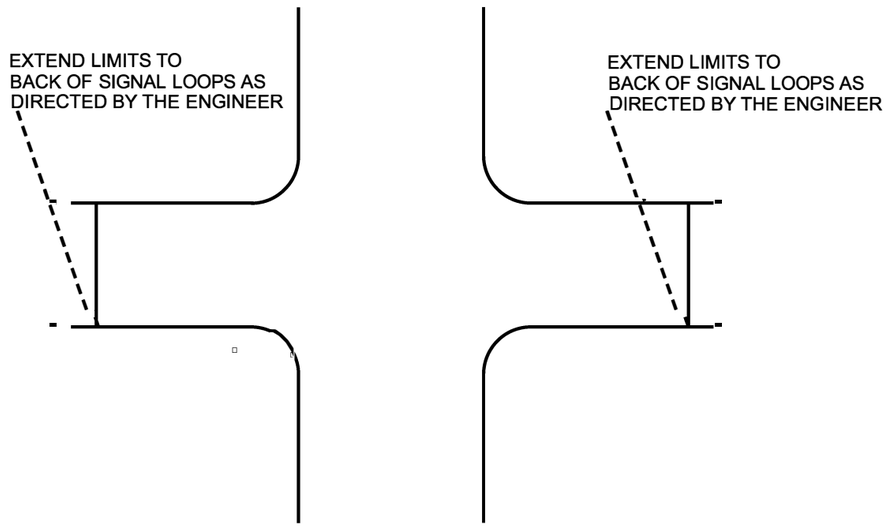
- SHOULDER WEDGE ANGLE = 30°

CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

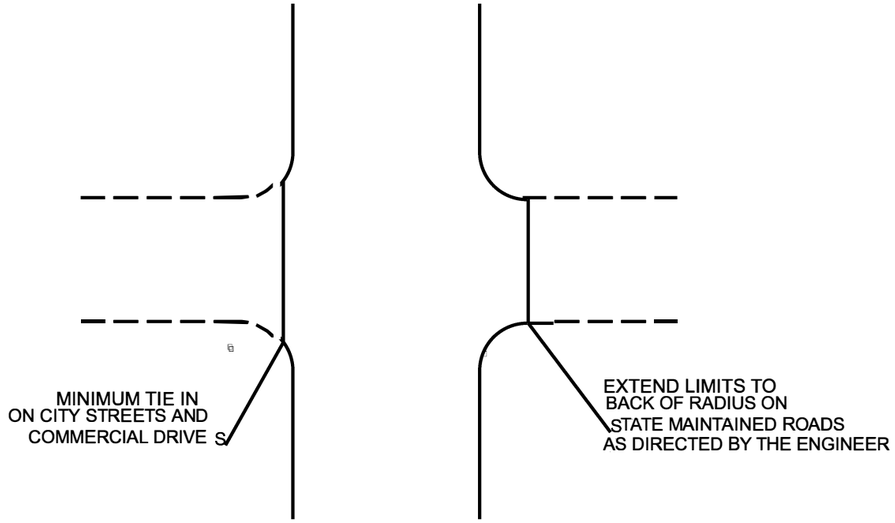
SHOULDER WEDGE DETAILS

ORIGINAL BY: T.SPELL DATE: 7-19-11
MODIFIED BY: DATE: 2/2/16
CHECKED BY: DATE:
FILE SPEC.: s:usr/details/stand/shoulderwedgedetail.dgn

27-JUN-2018 13:52
S:\Contracts\Contracts\Resurfacing Projects\Division 3\Sampson August 2018\Revised Shoulder Wedge Detail.dgn
pjporter AT CSD-292592



TYPICAL DETAIL OF PROJECT LIMITS AT SIGNALIZED Y LINES



TYPICAL DETAIL OF PROJECT LIMITS AT UNSIGNALIZED Y LINES

ADDITIONAL INTERSECTIONS (NON-TYPICAL)

Extend paving limits to back of radius
or loop on the following Intersections:

MAP#	STREET NAME	COMMENTS

PROJECT NO.	SHEET NO.
2027CPT.03.02.10311, ETC	8

SUMMARY OF QUANTITIES

												0234000000-E	1220000000-E	0264000000-E	1297000000-E	1330000000-E	1519000000-E	
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	BEGIN MP	END MP	STATE FURNISHED BORROW EXCAVATION	INCIDENTAL STONE BASE	SHOULDER RECONSTRUCTION STATE FURNISHED BORROW	1.5" MILLING	INCIDENTAL MILLING	SURFACE COURSE S9.5B	SURFACE COURSE S9.5B SHORT OVERLAY
								MI	FT			CY	TON	SMI	SY	SY	TON	TON
2027CPT.03.02.10311	Duplin	1	NC-24 BUS / W COLLEGE ST	FROM I-40 WB RAMP TO NC HWY 50 (MEMORIAL DR/KENANSVILLE HWY) [MP 0.15 - MP 3.15]	1	2	MU	3.00	25	0.15	3.15		4		74,729	1,914		
TOTAL FOR MAP NO. 1								**3.00**					**4**		**74,729**	**1,914**		
2027CPT.03.02.10311	Duplin	2	US-117 / S PINE ST	FROM 0.13 MILE S OF SR 1902 (CARTER BEST RD) TO 0.08 MILE N OF SR 1396 (WATER TANK RD) [MP 19.61 - MP 21.62]	1	2	MU	2.01	23	19.61	21.62	100	124	1.40	38,347	2,088		
TOTAL FOR MAP NO. 2								**2.01**				**100**	**124**	**1.40**	**38,347**	**2,088**		
2027CPT.03.02.10311	Duplin	3	US-117 / S MONK ST	FROM POWELL ST TO N PETERSON ST [MP 12.70 - MP 13.67]	1	2	MU	0.97	40	12.70	13.67				6,913	888		
TOTAL FOR MAP NO. 3								**0.97**							**6,913**	**888**		
TOTAL FOR PROJ NO. 2027CPT.03.02.10311								**5.98**				**100**	**128**	**1.40**	**119,989**	**4,890**		
2027CPT.03.02.20311	Duplin	4	SR-1107 / PERRY RIVENBARK RD	FROM SR 1107 (BEASLEY TORRANS RD) TO S US HWY 117 [MP 3.87 - MP 4.19]	3	2	2WU	0.32	18	3.87	4.19	40	6	0.66		300	330	54
TOTAL FOR MAP NO. 4								**0.32**				**40**	**6**	**0.66**		**300**	**330**	**54**
2027CPT.03.02.20311	Duplin	5	SR-1106 / PERRY RIVENBARK RD	FROM SR 1107 (BEASLEY TORRANS RD) TO 0.02 N OF SR 1113 (CHARLIE FREDERICK RD) [MP 0.00 - MP 1.30]	3	2	2WU	1.30	18	0.00	1.30	159	36	2.60		260	1,370	75
TOTAL FOR MAP NO. 5								**1.30**				**159**	**36**	**2.60**		**260**	**1,370**	**75**
2027CPT.03.02.20311	Duplin	6	SR-1108 / CARROLLS RD	FROM W NC HWY 24 TO SAMPSON COUNTY LINE [MP 1.84 - MP 3.19]	3	2	2WU	1.35	20	1.84	3.19	160	44	2.62		333	1,400	100
TOTAL FOR MAP NO. 6								**1.35**				**160**	**44**	**2.62**		**333**	**1,400**	**100**
2027CPT.03.02.20311	Sampson	7	SR-1973 / CARROLLS RD	FROM DUPLIN COUNTY LINE TO DUPLIN COUNTY LINE [MP 0.00 - MP 0.30]	3	2	2WU	0.30	20	0.00	0.30	43	12	0.03			362	25
TOTAL FOR MAP NO. 7								**0.30**				**43**	**12**	**0.03**			**362**	**25**
2027CPT.03.02.20311	Duplin	8	SR-1192 / CARROLLS RD	FROM SAMPSON COUNTY LINE TO SR 1110 (HENRY BEST RD) [MP 0.00 - MP 0.78]	3	2	2WU	0.78	20	0.00	0.78	93	124	1.52		111	786	121
TOTAL FOR MAP NO. 8								**0.78**				**93**	**124**	**1.52**		**111**	**786**	**121**
TOTAL FOR PROJ NO. 2027CPT.03.02.20311								**4.05**				**495**	**222**	**7.43**		**1,004**	**4,248**	**375**
																	4,623	
GRAND TOTAL								**10.03**				**595**	**350**	**8.83**	**119,989**	**5,894**	**4,248**	**375**
																	4,623	

PROJECT NO.	SHEET NO.
2027CPT.03.02.10311, ETC.	9

SUMMARY OF QUANTITIES

												1523000000-E	1575000000-E	1705500000-E	1705000000-E	1880000000-E	2830000000-N	2845000000-N
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	BEGIN MP	END MP	SURFACE COURSE S9.5C	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT (MILL)	PATCHING EXISTING PAVEMENT I19.OC (FULL DEPTH)	CONCRETE JOINT REPAIR	ADJUSTMENT OF MANHOLES	ADJUSTMENT OF METER OR VALVE BOX
								MI	FT			TON	TON	TON	TONS	TON	EA	EA
2027CPT.03.02.10311	Duplin	1	NC-24 BUS / W COLLEGE ST	FROM I-40 WB RAMP TO NC HWY 50 (MEMORIAL DR/KENANSVILLE HWY) [MP 0.15 - MP 3.15]	1	2	MU	3.00	25	0.15	3.15	6,692	413	389	1		28	5
TOTAL FOR MAP NO. 1								**3.00**				**6,692**	**413**	**389**	**1**		**28**	**5**
2027CPT.03.02.10311	Duplin	2	US-117 / S PINE ST	FROM 0.13 MILE S OF SR 1902 (CARTER BEST RD) TO 0.08 MILE N OF SR 1396 (WATER TANK RD) [MP 19.61 - MP 21.62]	1	2	MU	2.01	23	19.61	21.62	3,462	229	520			16	6
TOTAL FOR MAP NO. 2								**2.01**				**3,462**	**229**	**520**			**16**	**6**
2027CPT.03.02.10311	Duplin	3	US-117 / S MONK ST	FROM POWELL ST TO N PETERSON ST [MP 12.70 - MP 13.67]	1	2	MU	0.97	40	12.70	13.67	1,976	117			500	7	3
TOTAL FOR MAP NO. 3								**0.97**				**1,976**	**117**			**500**	**7**	**3**
TOTAL FOR PROJ NO. 2027CPT.03.02.10311								**5.98**				**12,130**	**759**	**909**	**1**	**500**	**51**	**14**
2027CPT.03.02.20311	Duplin	4	SR-1107 / PERRY RIVENBARK RD	FROM SR 1107 (BEASLEY TORRANS RD) TO S US HWY 117 [MP 3.87 - MP 4.19]	3	2	2WU	0.32	18	3.87	4.19		25					
TOTAL FOR MAP NO. 4								**0.32**					**25**					
2027CPT.03.02.20311	Duplin	5	SR-1106 / PERRY RIVENBARK RD	FROM SR 1107 (BEASLEY TORRANS RD) TO 0.02 N OF SR 1113 (CHARLIE FREDERICK RD) [MP 0.00 - MP 1.30]	3	2	2WU	1.30	18	0.00	1.30		94					
TOTAL FOR MAP NO. 5								**1.30**					**94**					
2027CPT.03.02.20311	Duplin	6	SR-1108 / CARROLLS RD	FROM W NC HWY 24 TO SAMPSON COUNTY LINE [MP 1.84 - MP 3.19]	3	2	2WU	1.35	20	1.84	3.19		97					
TOTAL FOR MAP NO. 6								**1.35**					**97**					
2027CPT.03.02.20311	Sampson	7	SR-1973 / CARROLLS RD	FROM DUPLIN COUNTY LINE TO DUPLIN COUNTY LINE [MP 0.00 - MP 0.30]	3	2	2WU	0.30	20	0.00	0.30		25	1				
TOTAL FOR MAP NO. 7								**0.30**					**25**	**1**				
2027CPT.03.02.20311	Duplin	8	SR-1192 / CARROLLS RD	FROM SAMPSON COUNTY LINE TO SR 1110 (HENRY BEST RD) [MP 0.00 - MP 0.78]	3	2	2WU	0.78	20	0.00	0.78		59					
TOTAL FOR MAP NO. 8								**0.78**					**59**					
TOTAL FOR PROJ NO. 2027CPT.03.02.20311								**4.05**					**300**	**1**				
GRAND TOTAL								**10.03**				**12,130**	**1,059**	**910**	**1**	**500.0**	**51**	**14**

PROJECT NO.	SHEET NO.
2027CPT.03.02.10311, ETC.	10

SUMMARY OF QUANTITIES

												6000000000-E	6036000000-E	6071010000-E	6084000000-E	6117000000-N	7444000000-E
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	BEGIN MP	END MP	TEMPORARY SILT FENCE	MATTING FOR EROSION CONTROL	WATTLE	SEED & MULCHING	RESPONSE FOR EROSION CONTROL	INDUCTIVE LOOP SAWCUT
								MI	FT			LF	SY	LF	AC	EA	LF
2027CPT.03.02.10311	Duplin	1	NC-24 BUS / W COLLEGE ST	FROM I-40 WB RAMP TO NC HWY 50 (MEMORIAL DR/KENANSVILLE HWY) [MP 0.15 - MP 3.15]	1	2	MU	3.00	25	0.15	3.15						600
TOTAL FOR MAP NO. 1								**3.00**									**600**
2027CPT.03.02.10311	Duplin	2	US-117 / S PINE ST	FROM 0.13 MILE S OF SR 1902 (CARTER BEST RD) TO 0.08 MILE N OF SR 1396 (WATER TANK RD) [MP 19.61 - MP 21.62]	1	2	MU	2.01	23	19.61	21.62						1,350
TOTAL FOR MAP NO. 2								**2.01**									**1,350**
2027CPT.03.02.10311	Duplin	3	US-117 / S MONK ST	FROM POWELL ST TO N PETERSON ST [MP 12.70 - MP 13.67]	1	2	MU	0.97	40	12.70	13.67						750
TOTAL FOR MAP NO. 3								**0.97**									**750**
TOTAL FOR PROJ NO. 2027CPT.03.02.10311								**5.98**									**2,700**
2027CPT.03.02.20311	Duplin	4	SR-1107 / PERRY RIVENBARK RD	FROM SR 1107 (BEASLEY TORRANS RD) TO S US HWY 117 [MP 3.87 - MP 4.19]	3	2	2WU	0.32	18	3.87	4.19	32	10	10	0.62	1	
TOTAL FOR MAP NO. 4								**0.32**				**32**	**10**	**10**	**0.62**	**1**	
2027CPT.03.02.20311	Duplin	5	SR-1106 / PERRY RIVENBARK RD	FROM SR 1107 (BEASLEY TORRANS RD) TO 0.02 N OF SR 1113 (CHARLIE FREDERICK RD) [MP 0.00 - MP 1.30]	3	2	2WU	1.30	18	0.00	1.30				1.26		
TOTAL FOR MAP NO. 5								**1.30**							**1.26**		
2027CPT.03.02.20311	Duplin	6	SR-1108 / CARROLLS RD	FROM W NC HWY 24 TO SAMPSON COUNTY LINE [MP 1.84 - MP 3.19]	3	2	2WU	1.35	20	1.84	3.19				1.31		
TOTAL FOR MAP NO. 6								**1.35**							**1.31**		
2027CPT.03.02.20311	Sampson	7	SR-1973 / CARROLLS RD	FROM DUPLIN COUNTY LINE TO DUPLIN COUNTY LINE [MP 0.00 - MP 0.30]	3	2	2WU	0.30	20	0.00	0.30				0.29		
TOTAL FOR MAP NO. 7								**0.30**							**0.29**		
2027CPT.03.02.20311	Duplin	8	SR-1192 / CARROLLS RD	FROM SAMPSON COUNTY LINE TO SR 1110 (HENRY BEST RD) [MP 0.00 - MP 0.78]	3	2	2WU	0.78	20	0.00	0.78				0.76		
TOTAL FOR MAP NO. 8								**0.78**							**0.76**		
TOTAL FOR PROJ NO. 2027CPT.03.02.20311								**4.05**				**32**	**10**	**10**	**4.24**	**1**	
GRAND TOTAL								**10.03**				**32**	**10**	**10**	**4.24**	**1**	**2,700**

PROJECT NO.	SHEET NO.
2027CPT.03.02.10311, ETC	11

THERMOPLASTIC AND PAINT QUANTITIES

													4413000000-E	4457000000-N	4685000000-E		4695000000-E	4700000000-E		4709000000-E	4720000000-E
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	BEGIN MP	END MP		WORK ZONE ADVANCE GENERAL WARNING SIGNING	TEMPORARY TRAFFIC CONTROL	4" X 90 M YELLOW THERMO	4" X 90 M WHITE THERMO	8" X 90 M YELLOW THERMO	12" X 90 M WHITE THERMO	12" X 90 M YELLOW THERMO	THERMOPLASTIC PAVEMENT MARKING LINES (24" X 90 MILS)	THERMO RXR (90 MIL)
								MI	FT				SF	LS	LF	LF	LF	LF	LF	LF	EA
2027CPT.03.02.10311	Duplin	1	NC-24 BUS / W COLLEGE ST	FROM I-40 WB RAMP TO NC HWY 50 (MEMORIAL DR/KENANSVILLE HWY) [MP 0.15 - MP 3.15]	1	2	MU	3	25	0.15	3.15		336	0.39	31,285	13,044		140	200	430	16
TOTAL FOR MAP NO. 1								**3**					**336**	**0.39**	**31,285**	**13,044**		**140**	**200**	**430**	**16**
2027CPT.03.02.10311	Duplin	2	US-117 / S PINE ST	FROM 0.13 MILE S OF SR 1902 (CARTER BEST RD) TO 0.08 MILE N OF SR 1396 (WATER TANK RD) [MP 19.61 - MP 21.62]	1	2	MU	2.01	23	19.61	21.62		240	0.22	21,578	2,693	80		100	192	
TOTAL FOR MAP NO. 2								**2.01**					**240**	**0.22**	**21,578**	**2,693**	**80**		**100**	**192**	
2027CPT.03.02.10311	Duplin	3	US-117 / S MONK ST	FROM POWELL ST TO N PETERSON ST [MP 12.70 - MP 13.67]	1	2	MU	0.97	40	12.7	13.67		112	0.11	10,370	2,386				40	
TOTAL FOR MAP NO. 3								**0.97**					**112**	**0.11**	**10,370**	**2,386**				**40**	
TOTAL FOR PROJ NO. 2027CPT.03.02.10311								**5.98**					**688**	**0.72**	**63,233**	**18,123**	**80**	**140**	**300**	**662**	**16**
															81,356			**440**			
2027CPT.03.02.20311	Duplin	4	SR-1107 / PERRY RIVENBARK RD	FROM SR 1107 (BEASLEY TORRANS RD) TO S US HWY 117 [MP 3.87 - MP 4.19]	3	2	2WU	0.32	18	3.87	4.19			0.02	1,518	3,454		80		50	8
TOTAL FOR MAP NO. 4								**0.32**						**0.02**	**1,518**	**3,454**		**80**		**50**	**8**
2027CPT.03.02.20311	Duplin	5	SR-1106 / PERRY RIVENBARK RD	FROM SR 1107 (BEASLEY TORRANS RD) TO 0.02 N OF SR 1113 (CHARLIE FREDERICK RD) [MP 0.00 - MP 1.30]	3	2	2WU	1.3	18	0	1.3			0.09	9,045	13,751					
TOTAL FOR MAP NO. 5								**1.3**						**0.09**	**9,045**	**13,751**					
2027CPT.03.02.20311	Duplin	6	SR-1108 / CARROLLS RD	FROM W NC HWY 24 TO SAMPSON COUNTY LINE [MP 1.84 - MP 3.19]	3	2	2WU	1.35	20	1.84	3.19		100	0.09	7,454	13,836					
TOTAL FOR MAP NO. 6								**1.35**					**100**	**0.09**	**7,454**	**13,836**					
2027CPT.03.02.20311	Sampson	7	SR-1973 / CARROLLS RD	FROM DUPLIN COUNTY LINE TO DUPLIN COUNTY LINE [MP 0.00 - MP 0.30]	3	2	2WU	0.3	20	0	0.3		88	0.02	3,696	3,696					
TOTAL FOR MAP NO. 7								**0.3**					**88**	**0.02**	**3,696**	**3,696**					
2027CPT.03.02.20311	Duplin	8	SR-1192 / CARROLLS RD	FROM SAMPSON COUNTY LINE TO SR 1110 (HENRY BEST RD) [MP 0.00 - MP 0.78]	3	2	2WU	0.78	20	0	0.78		100	0.06	7,161	8,104					
TOTAL FOR MAP NO. 8								**0.78**					**100**	**0.060**	**7,161**	**8,104**					
TOTAL FOR PROJ NO. 2027CPT.03.02.20311								**4.05**					**288**	**0.280**	**28,874**	**42,841**		**80**		**50**	**8**
															71,715			**80**			
GRAND TOTAL								**10.03**					**976**	**1.000**	**92,107**	**60,964**	**80**	**220**	**300**	**712**	**24**
															153,071			**520**			

PROJECT NO.	SHEET NO.
2027CPT.03.02.10311, ETC	12

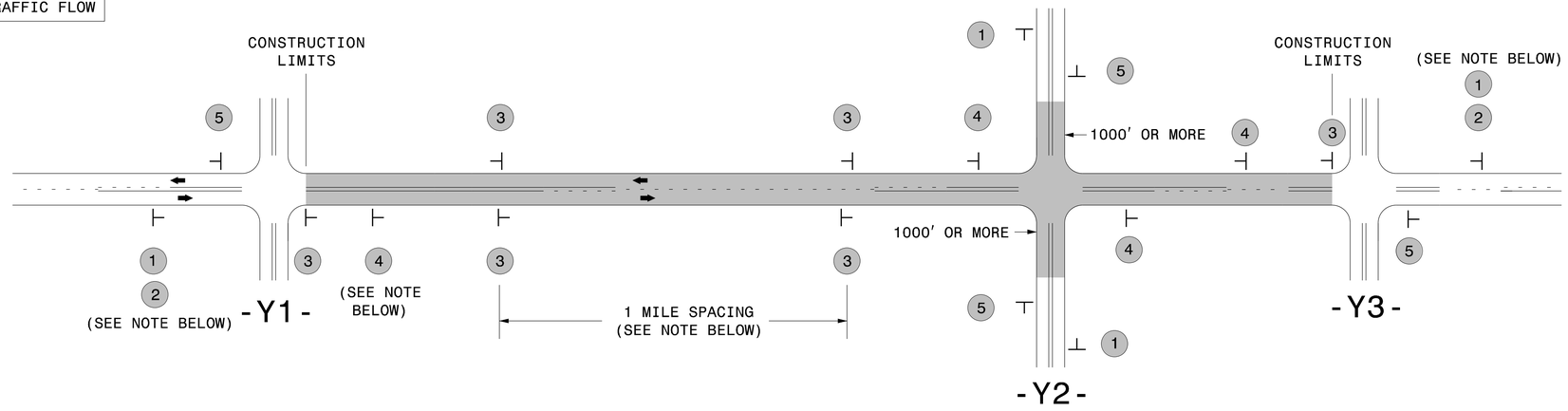
THERMOPLASTIC AND PAINT QUANTITIES

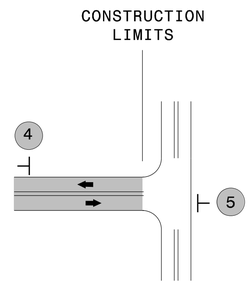
													4725000000-E				4895000000-N		4900000000-N
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	BEGIN MP	END MP	THERMO STR ARROW (90 MIL)	THERMO RT ARROW (90 MIL)	THERMO LT ARROW (90 MIL)	THERMO STR & RT ARROW (90 MIL)	POLYCARBANATE H-SHAPED MARKER C/R	POLYCARBANATE H-SHAPED MARKER Y/Y	YELLOW & YELLOW MARKERS
								MI	FT			EA	EA	EA	EA	EA	EA	EA
2027CPT.03.02.10311	Duplin	1	NC-24 BUS / W COLLEGE ST	FROM I-40 WB RAMP TO NC HWY 50 (MEMORIAL DR/KENANSVILLE HWY) [MP 0.15 - MP 3.15]	1	2	MU	3	25	0.15	3.15	3	11	6	9	390	137	
TOTAL FOR MAP NO. 1								**3**				**3**	**11**	**6**	**9**	**390**	**137**	
2027CPT.03.02.10311	Duplin	2	US-117 / S PINE ST	FROM 0.13 MILE S OF SR 1902 (CARTER BEST RD) TO 0.08 MILE N OF SR 1396 (WATER TANK RD) [MP 19.61 - MP 21.62]	1	2	MU	2.01	23	19.61	21.62		2	7	5	64	135	
TOTAL FOR MAP NO. 2								**2.01**					**2**	**7**	**5**	**64**	**135**	
2027CPT.03.02.10311	Duplin	3	US-117 / S MONK ST	FROM POWELL ST TO N PETERSON ST [MP 12.70 - MP 13.67]	1	2	MU	0.97	40	12.7	13.67		1	1	9	70	65	
TOTAL FOR MAP NO. 3								**0.97**					**1**	**1**	**9**	**70**	**65**	
TOTAL FOR PROJ NO. 2027CPT.03.02.10311								**5.98**				**3**	**14**	**14**	**23**	**524**	**337**	
												54				**861**		
2027CPT.03.02.20311	Duplin	4	SR-1107 / PERRY RIVENBARK RD	FROM SR 1107 (BEASLEY TORRANS RD) TO S US HWY 117 [MP 3.87 - MP 4.19]	3	2	2WU	0.32	18	3.87	4.19							22
TOTAL FOR MAP NO. 4								**0.32**										**22**
2027CPT.03.02.20311	Duplin	5	SR-1106 / PERRY RIVENBARK RD	FROM SR 1107 (BEASLEY TORRANS RD) TO 0.02 N OF SR 1113 (CHARLIE FREDERICK RD) [MP 0.00 - MP 1.30]	3	2	2WU	1.3	18	0	1.3							86
TOTAL FOR MAP NO. 5								**1.3**										**86**
2027CPT.03.02.20311	Duplin	6	SR-1108 / CARROLLS RD	FROM W NC HWY 24 TO SAMPSON COUNTY LINE [MP 1.84 - MP 3.19]	3	2	2WU	1.35	20	1.84	3.19							87
TOTAL FOR MAP NO. 6								**1.35**										**87**
2027CPT.03.02.20311	Sampson	7	SR-1973 / CARROLLS RD	FROM DUPLIN COUNTY LINE TO DUPLIN COUNTY LINE [MP 0.00 - MP 0.30]	3	2	2WU	0.3	20	0	0.3							23
TOTAL FOR MAP NO. 7								**0.3**										**23**
2027CPT.03.02.20311	Duplin	8	SR-1192 / CARROLLS RD	FROM SAMPSON COUNTY LINE TO SR 1110 (HENRY BEST RD) [MP 0.00 - MP 0.78]	3	2	2WU	0.78	20	0	0.78							50
TOTAL FOR MAP NO. 8								**0.78**										**50**
TOTAL FOR PROJ NO. 2027CPT.03.02.20311								**4.05**										**268**
GRAND TOTAL								**10.03**				**3**	**14**	**14**	**23**	**524**	**337**	**268**
												54				**861**		

PROJ. REFERENCE NO.	SHEET NO.
2027CPT.03.02.10311, ETC.	TCP-1

SIGNING FOR RESURFACING PROJECTS

LEGEND
- ⊢ STATIONARY SIGN
- ← DIRECTION OF TRAFFIC FLOW





TEE INTERSECTION

MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION

1	ROAD WORK AHEAD W20-1 48" X 48"	PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.
2	NEXT XX MILES W7-3aP 24" X 18"	#2 SIGN ONLY USED WHEN CONSTRUCTION LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER.(NO FRACTIONAL OR DECIMAL NUMBERS)
3	LOW/SOFT SHOULDER SP 13107 48" X 48"	- PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER. - AT TEE INTERSECTIONS INSTALL INITIALLY ½ MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.
4	ROAD UNDER CONST SP 13106 48" X 48"	- THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. - DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS. - INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE. - FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL WITHIN 500' OF EACH APPROACH. - A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN. - FOR TEE INTERSECTIONS, INSTALL WITHIN 500' +/- OF THE INTERSECTION ALONG -L- LINE.
5	END ROAD WORK G20-2 A 48" X 24"	PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.

THE ABOVE SIGNS ARE ALL THAT ARE REQUIRED FOR A CONTRACTOR TO BEGIN A RESURFACING CONTRACT. ANY ADDITIONAL SIGNS REQUESTED BY NCDOT DIVISIONS SHALL BE INSTALLED WITHIN 7 BUSINESS DAYS OF THE START OF CONTRACT WORK.

MAPS LESS THAN 2 MILES

FOR RESURFACING MAPS WITH CONSTRUCTION LIMITS LESS THAN 2 MILES IN LENGTH, NO STATIONARY SIGNS ARE REQUIRED. USE PORTABLE "ROAD UNDER CONSTRUCTION" OR "ROAD WORK AHEAD" SIGNS IN LIEU OF STATIONARY ADVANCE WARNINGS SIGNS.

-Y- LINE SIGNING

NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:

1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE
2) SUBDIVISION ROADS
3) DEAD END ROADS

WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, PORTABLE ADVANCE WARNING SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.

ROAD WORK AHEAD W20-1 48" X 48"
PLACED 500' IN ADVANCE OF FLAGGER.

W20-7 A 48" X 48"
PLACED 250' IN ADVANCE OF FLAGGER.

DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

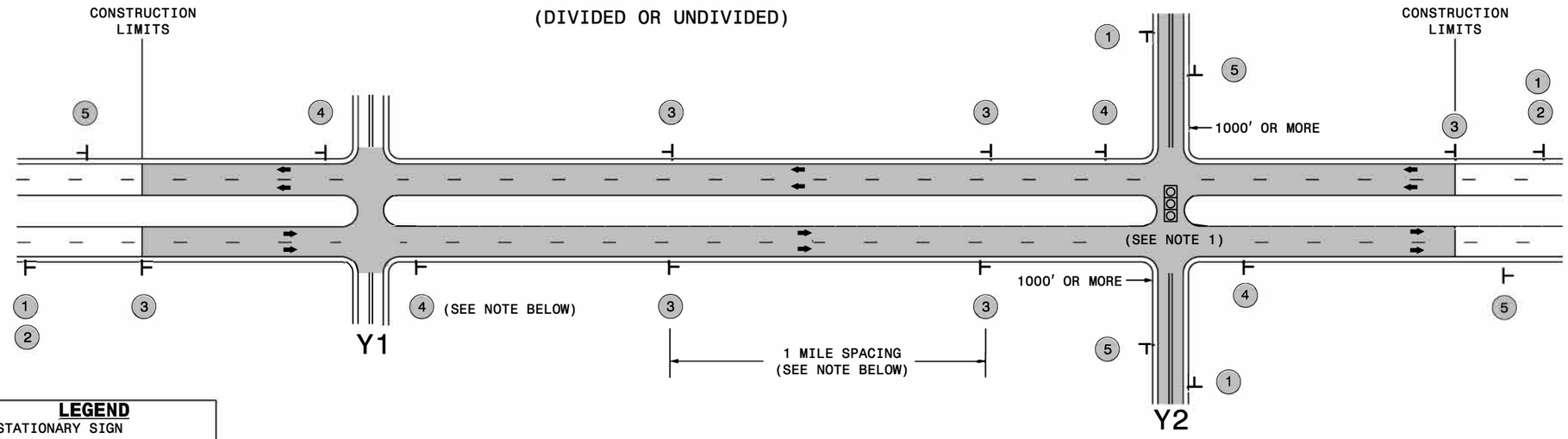
ADVANCE WARNING SIGNS FOR RURAL AND SUBURBAN 2-LANE ROADWAY RESURFACING

5/15/2017
S:\TMU\WZTC\Resurfacing\2L2W & AST Resurfacing Details\Resurfacing_AdvWarn_2Ln.dgn
User:kedais

PROJ. REFERENCE NO.	SHEET NO.
2027CPT.03.02.10311,,ETC.	TCP-2

SIGNING FOR RURAL AND SUBURBAN MULTI-LANE ROADWAYS WITH SHOULDER SECTIONS

(DIVIDED OR UNDIVIDED)



LEGEND

⊢ STATIONARY SIGN

⬅ DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION

1	ROAD WORK AHEAD W20-1 48" X 48"	PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.
2	NEXT XX MILES W7-3aP 24" X 18"	#2 SIGN ONLY USED WHEN RESURFACING LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER.(NO FRACTIONAL OR DECIMAL NUMBERS)
3	LOW/SOFT SHOULDER SP 13107 48" X 48"	PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET ½ MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.
4	ROAD UNDER CONST SP 13106 48" X 48"	THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS. INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE. FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL WITHIN 500' OF EACH APPROACH. A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.
5	END ROAD WORK G20-2 A 48" X 24"	PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.

-Y- LINE SIGNING

NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:

1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE
2) SUBDIVISION ROADS
3) DEAD END ROADS

WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, ADVANCE WARNING PORTABLE SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.

ROAD WORK AHEAD W20-1 48" X 48"

PLACED 500' IN ADVANCE OF FLAGGER.

W20-7 A 48" X 48"

PLACED 250' IN ADVANCE OF FLAGGER.

NOTES:

1) MAY USE LAW ENFORCEMENT TO CONTROL TRAFFIC AT SIGNALIZED INTERSECTIONS AS DIRECTED BY THE ENGINEER. PROVIDE PORTABLE "ROAD WORK AHEAD" (W20-1) SIGNS 500' IN ADVANCE ALONG BOTH APPROACHES FROM THE SIDE STREETS WHEN PAVING PROCEEDS THROUGH THE INTERSECTION.

DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

RESURFACING ADVANCE WARNING SIGNS FOR RURAL AND SUBURBAN MULTI-LANE ROADWAYS W/ SHOULDER SECTIONS (DIVIDED OR UNDIVIDED)

2/24/2014
S:\TMU\WZTC\Resurfacing\2013Resurfacing\2013Documents\New_Procedures_05_09_2013\Resurfacing_AdvWarn_UrSu_Shldr.dgn
User:rmggarrett

PROJECT REFERENCE NO.	SHEET NO.
2027CPT.03.02.10311, ETC.	EC-1

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

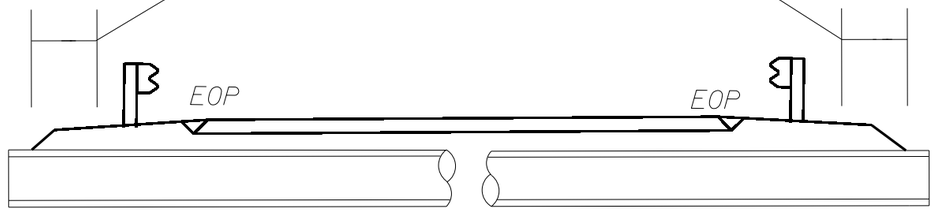
PROJECT REFERENCE NO.	SHEET NO.
2027CPT.03.02.10311, ETC.	EC-2

NOTES: Less than 5' – 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.

BMP Options: Wattle or Silt Fence

EROSION CONTROL DETAIL

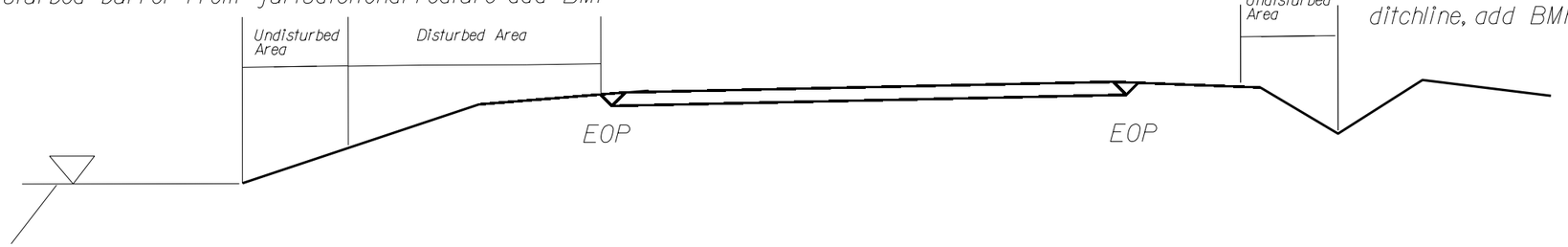
< 5' – 10' Undisturbed buffer add BMP



Pipe/Culvert

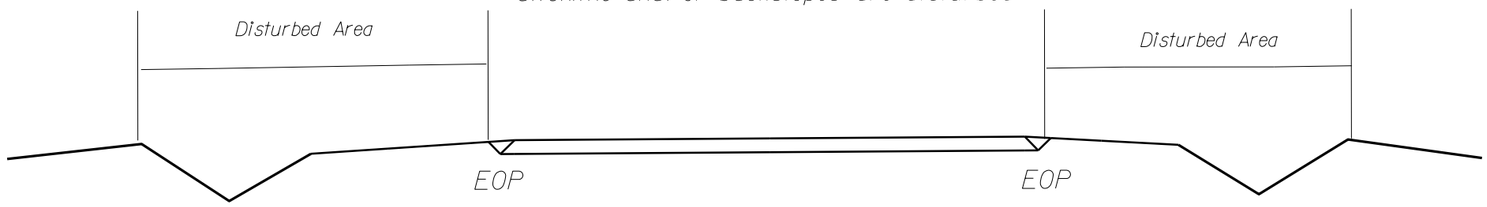
< 5' – 10' Undisturbed buffer from jurisdictional feature add BMP

< 5' – 10' Undisturbed buffer from ditchline, add BMP

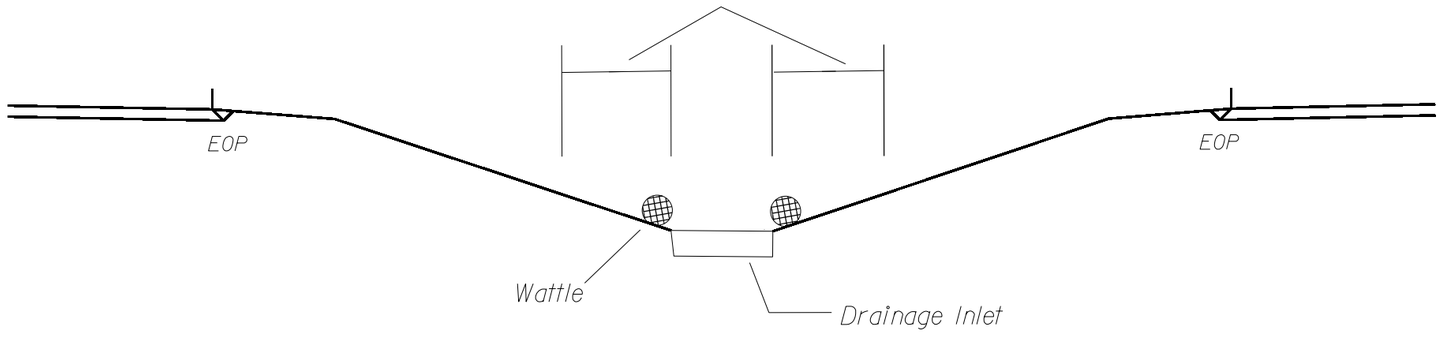


Jurisdictional Feature

Use BMP's if shoulders and/or frontslopes and/or ditchline and/or backslopes are disturbed



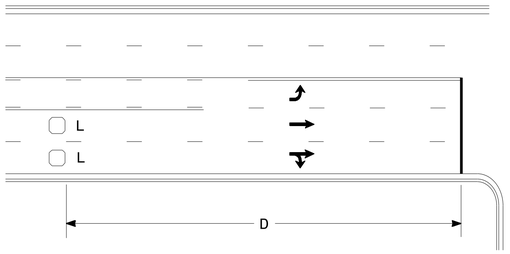
< 5' – 10' Undisturbed buffer from inlet, add wattle



NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
2027CPT.03.02.10311, ETC..	SIG1

High Speed Detection
(≥35 mph)

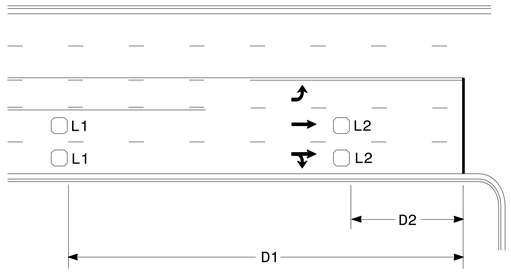


Speed Limit mph	D ft
35	200
40	250
45	300
50	355
55	420
60	475
65	550

L = 6ft X 6ft
Wired separately

Volume Density Operation

OR



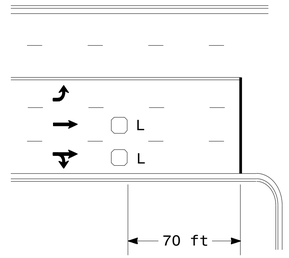
Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110
60	475	120
65	550	130

L1 = 6ft X 6ft
Wired in series

L2 = 6ft X 6ft
Wired in series

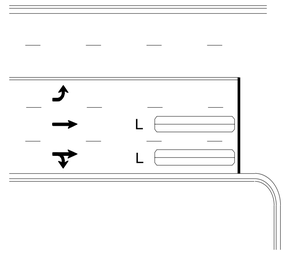
"Stretch" Operation

Low Speed Detection
(≤35 mph)



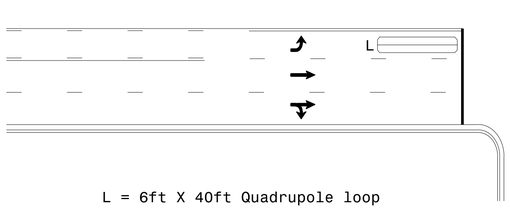
L = 6ft X 6ft
Wired in series

OR



L = 6ft X 40ft
Quadrupole loop, wired separately

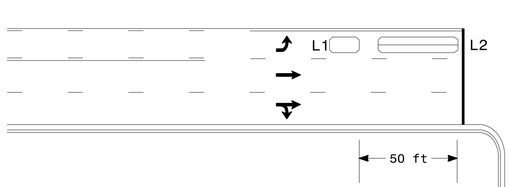
Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

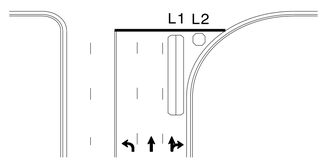
OR



L1 = 6ft X 15ft Queue detector
L2 = 6ft X 40ft Quadrupole loop

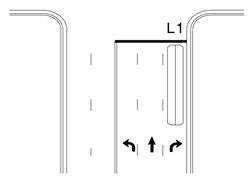
Queue Loop Detection

Right Turn Lane Detection

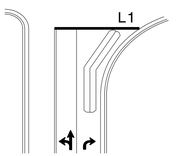


Shared Lane/
Wide Radius Turn

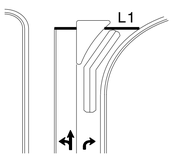
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

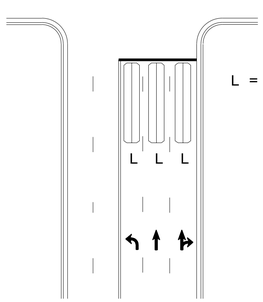


Wide Radius Turn



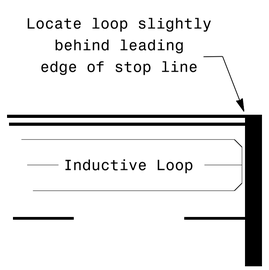
Channelized Turn

Side Street Detection



L = 6ft X 40ft
Quadrupole loop
Wired to separate
detectors/channels

Presence Loop Placement at Stop Lines



Note:
Loop may be located in advance of stop line under any of the following conditions:
1) stop line is greater than 15′ from edge of intersecting roadway
2) loop detects a permissive or protected/permissive left turn
3) for an exclusive right turn lane

Recommended Number of Turns

Single 6′ X 6′ loop
(when wired separately):

Length of Lead-in ft	Number of Turns
< 250	3
250-375	4
375-525	5
> 525	6

Quadrupole loops: Use 2-4-2 turns

6′ X 15′ Loops:
Lead-in < 150′, use 2 turns
Lead-in > 150′, use 3 turns

Prepared In the Offices of:
Transportation Mobility and Safety Division
Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

Typical Signal Loop Locations

PLAN DATE: September 2025 | REVIEWED BY:
PREPARED BY: J.A. Lohr | REVIEWED BY:

SCALE
N/A

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA
PROFESSIONAL
SEAL 026486
ENGINEER
ROBERT J. ZIEMBA
DocuSigned by:
11/25/2025
DATE

SIG. INVENTORY NO.

17-NOV-2025 07:35
S:\TSG\Traffic Signals\Signal Design Section\Eastern Region\Loop Typical\Loop_Typical_2025.dgn
jalohr