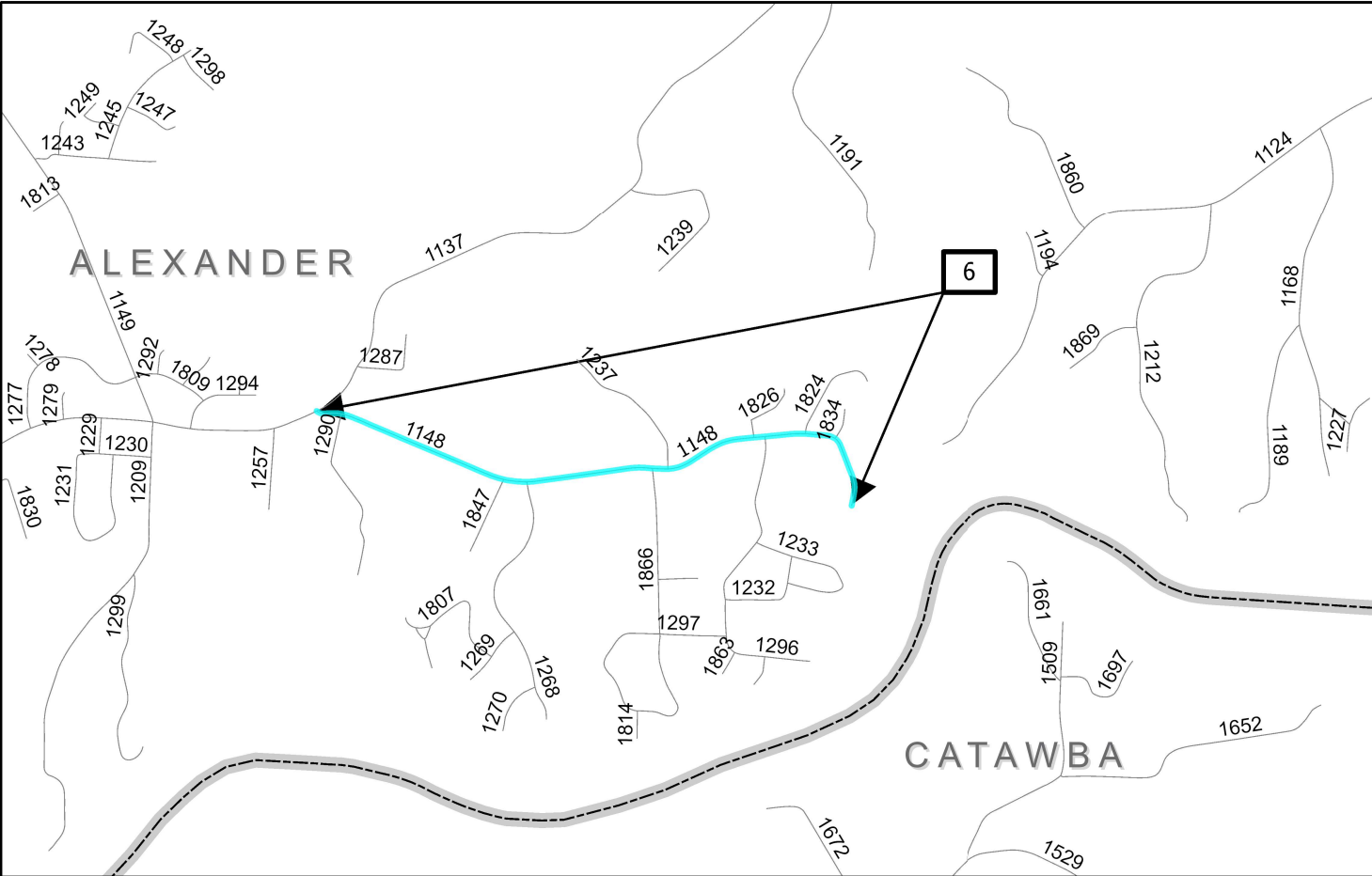
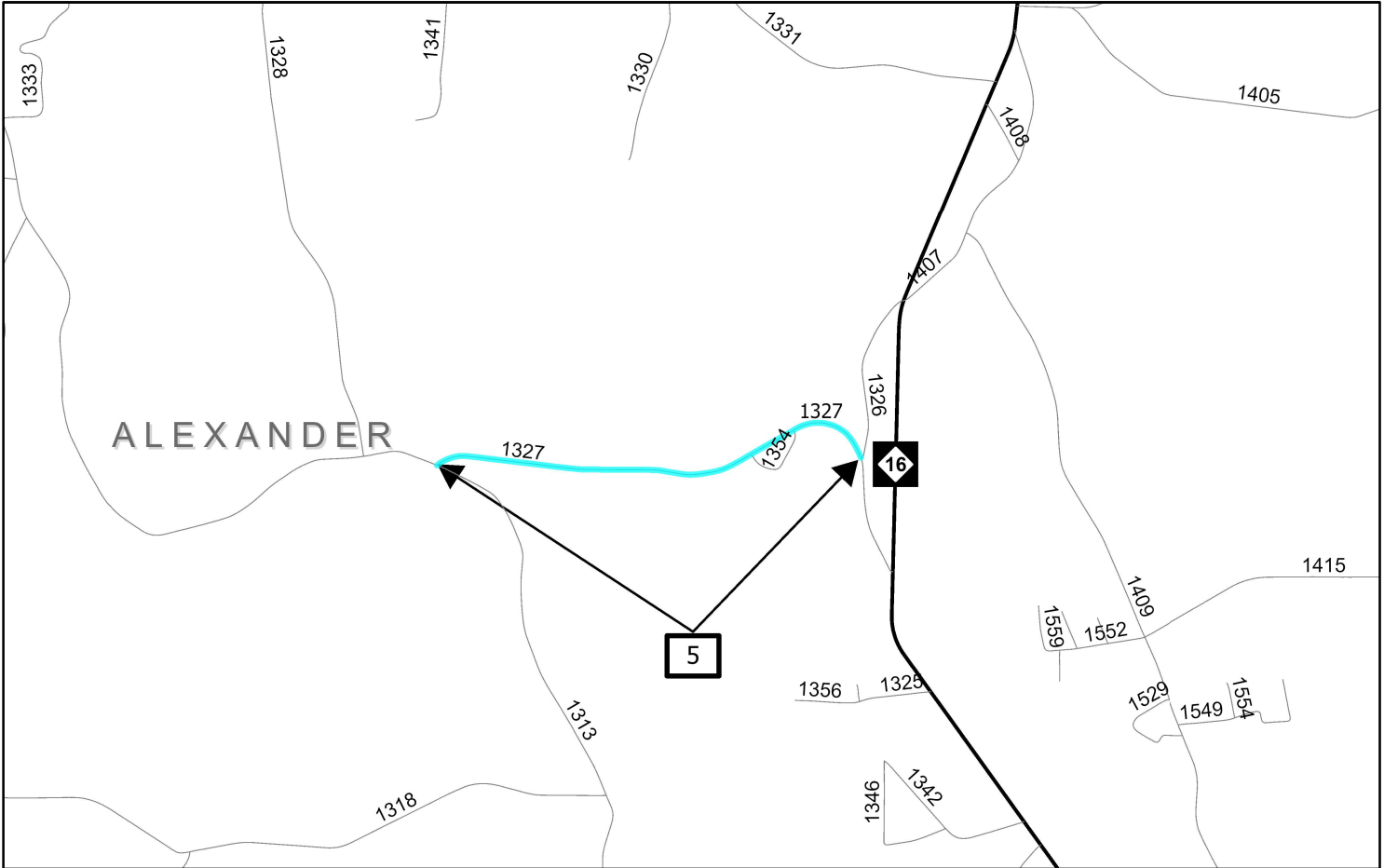
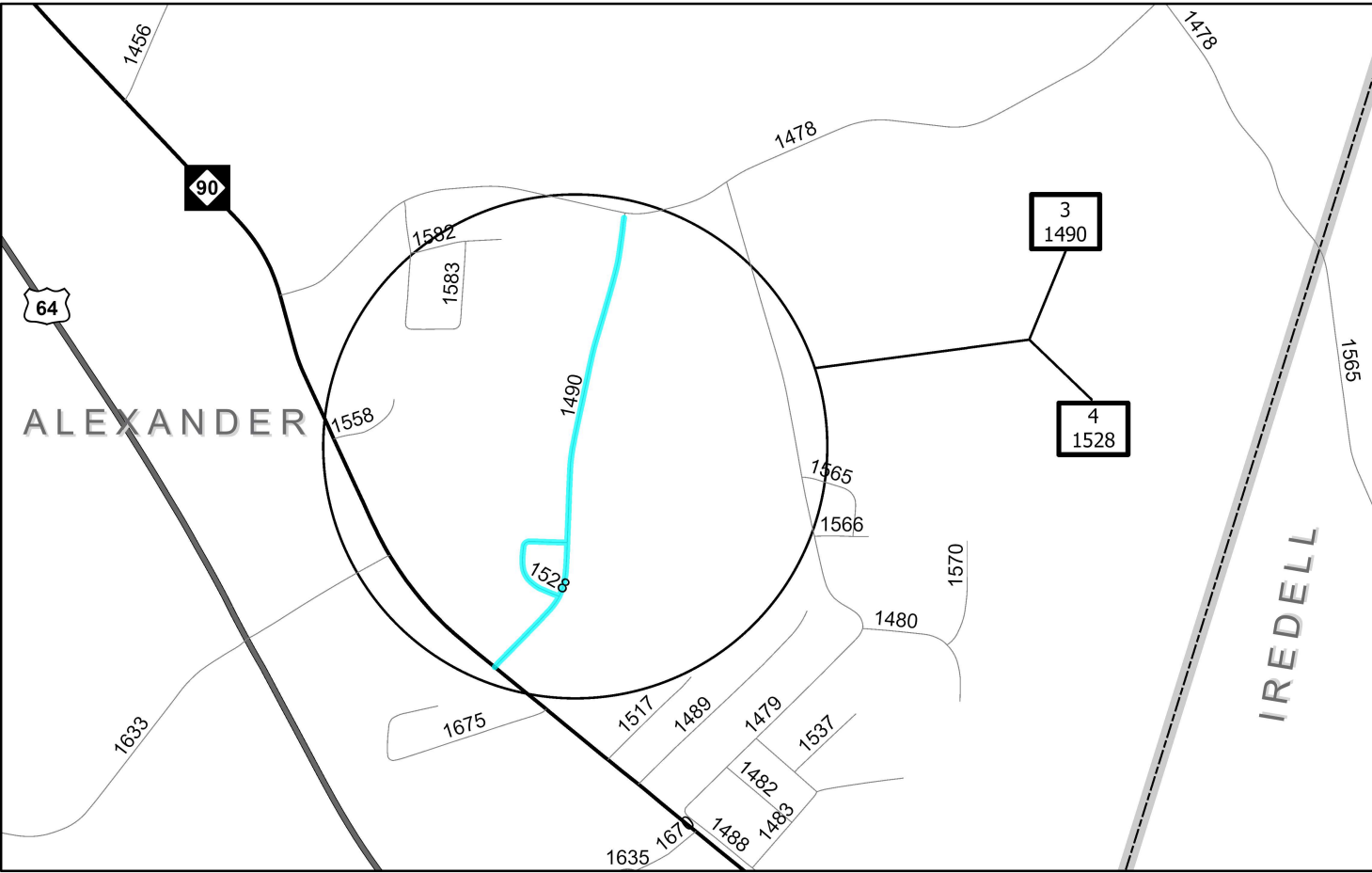
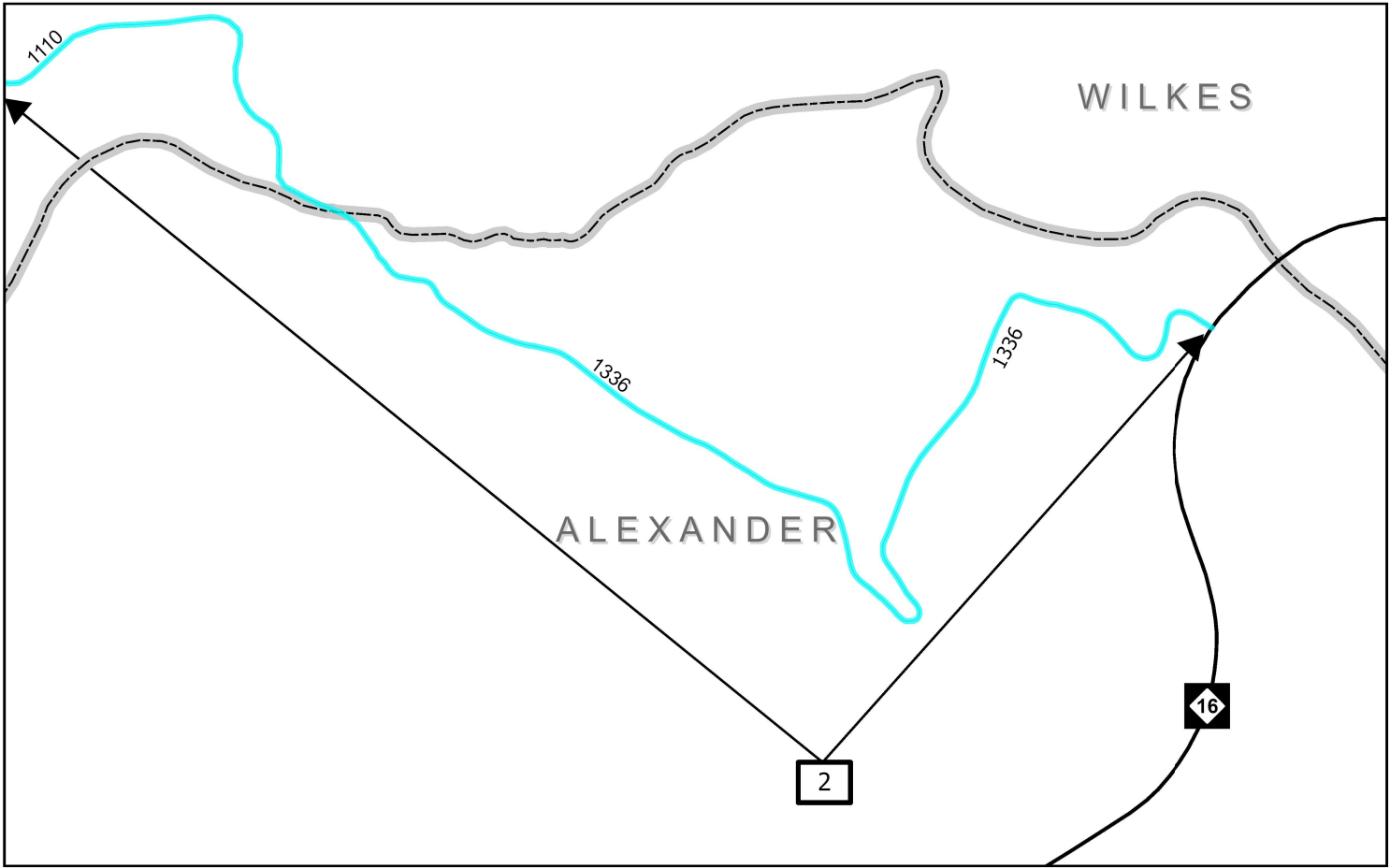


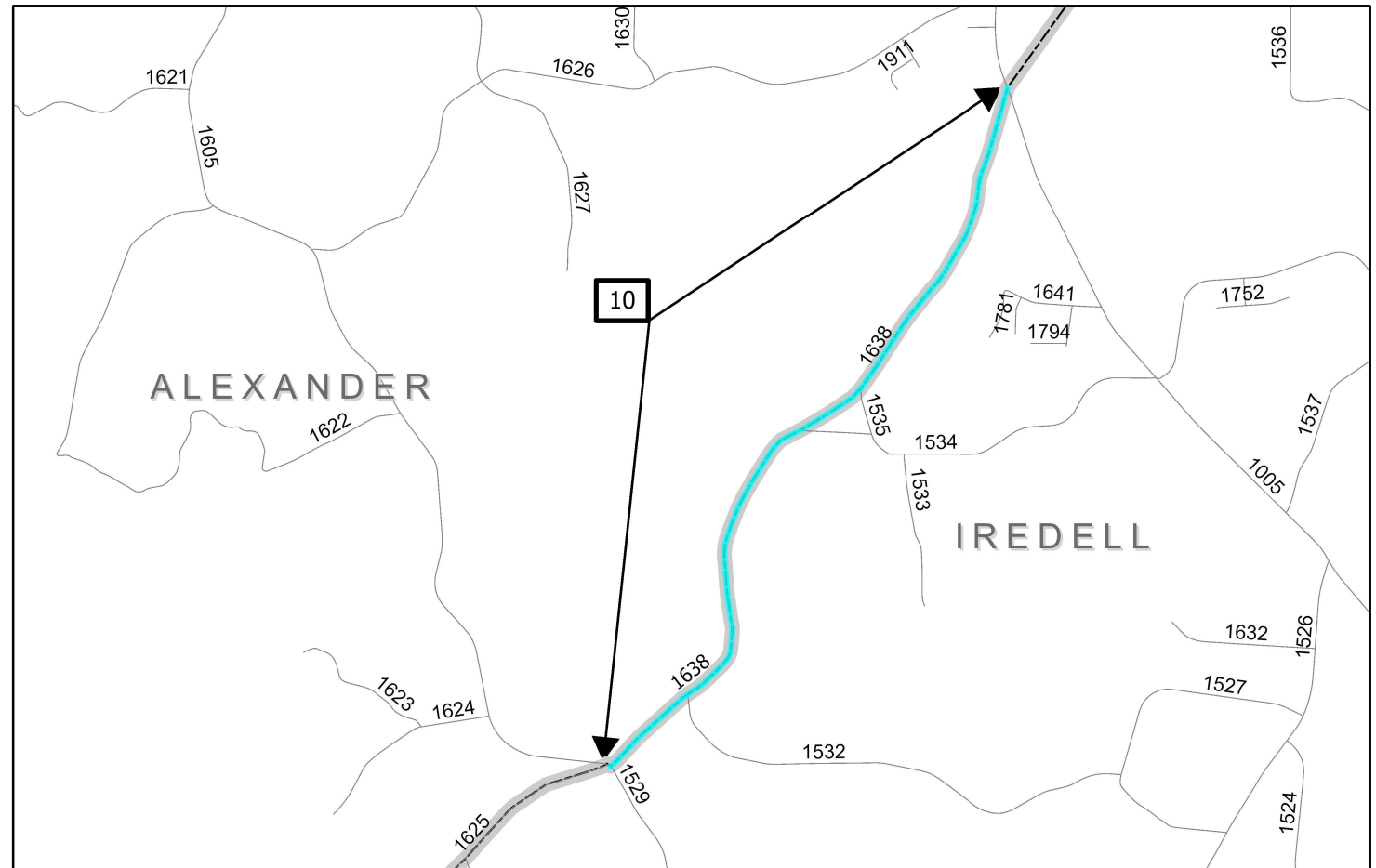
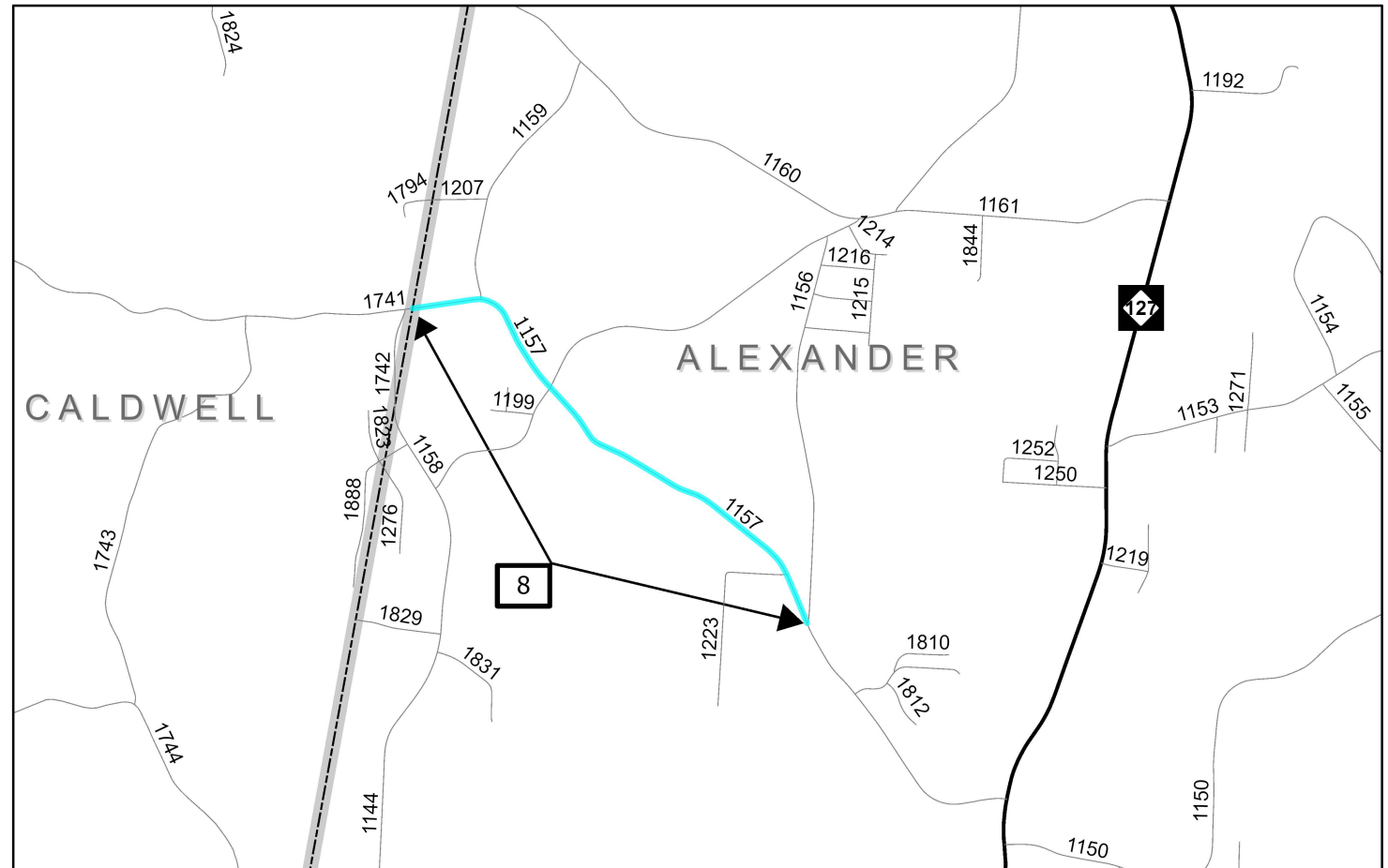
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for the convenience of the user
and is Not a Certified Document –**

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and sealed by the individuals whose names and license
numbers appear on each page, on the dates appearing
with their signature on that page.**

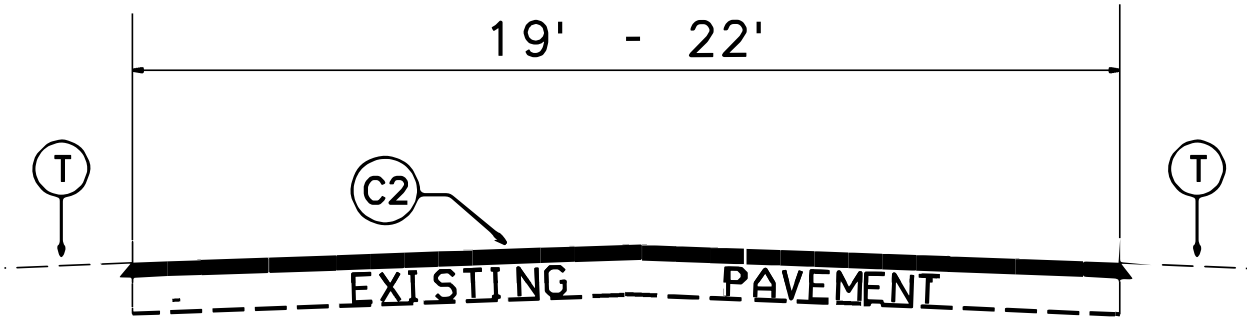
**This file or an individual page
shall not be considered a certified document.**





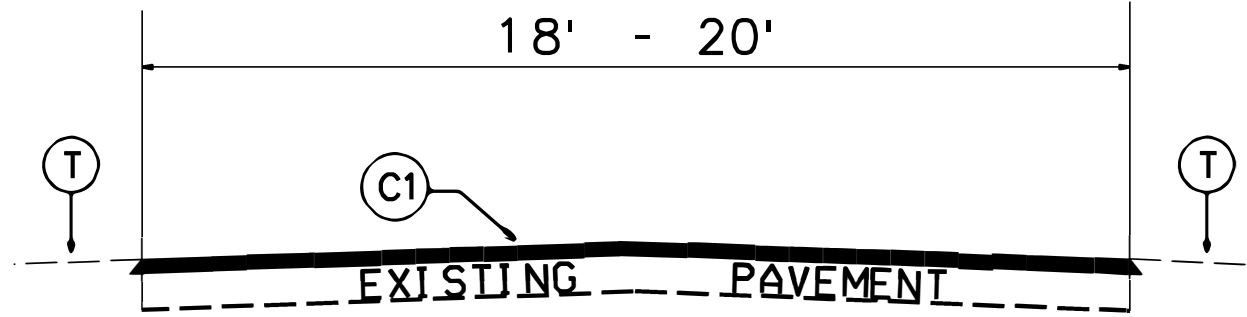


PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
ALEXANDER CO.	2	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
2027CPT.12.01.20021		SECONDARY RESURFACING



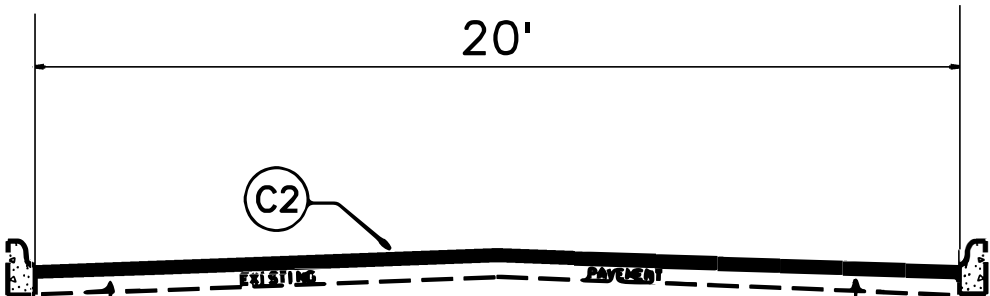
TYPICAL SECTION NO. 1

Maps 1, 5, 6, 7, 8, 10: (ALL)
Map 2: Sta. (61+77 - 83+95)



TYPICAL SECTION NO. 2

Maps 3, 4, 9: (ALL)



TYPICAL SECTION NO. 3

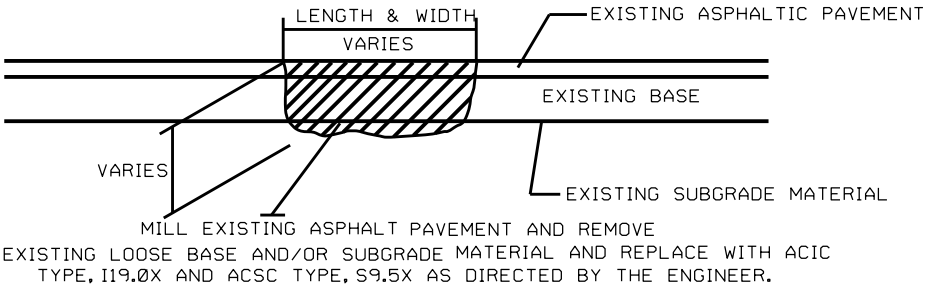
Map 2: Sta. (0+00 - 61+77)

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
T	AGGREGATE SHOULDER BORROW (SHOULDER RECONSTRUCTION)
V2	MILL EXISTING ASPHALT PAVEMENT APPROX. 1.5" IN DEPTH

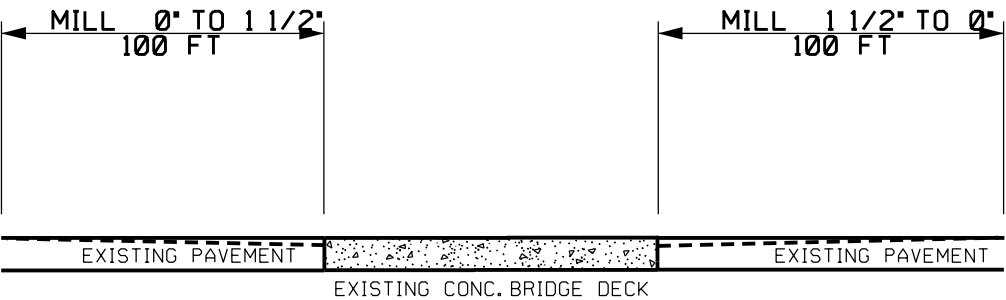
2027
Resurfacing Program
Typical Sections
Alexander County

PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
ALEXANDER COUNTY	2	12
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
2027CPT.12.01.20021		SECONDARY RESURFACING

DETAIL A
PATCHING EXISTING PAVEMENT

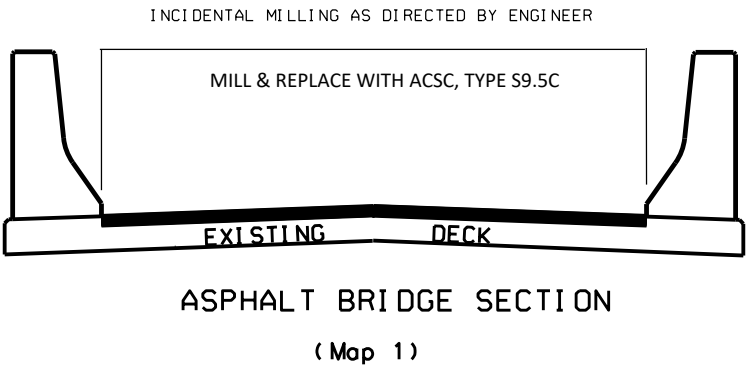
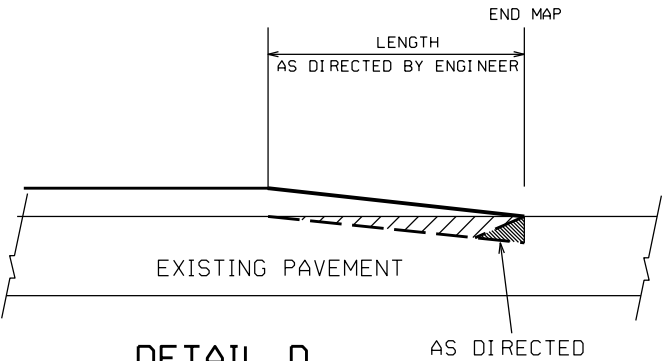
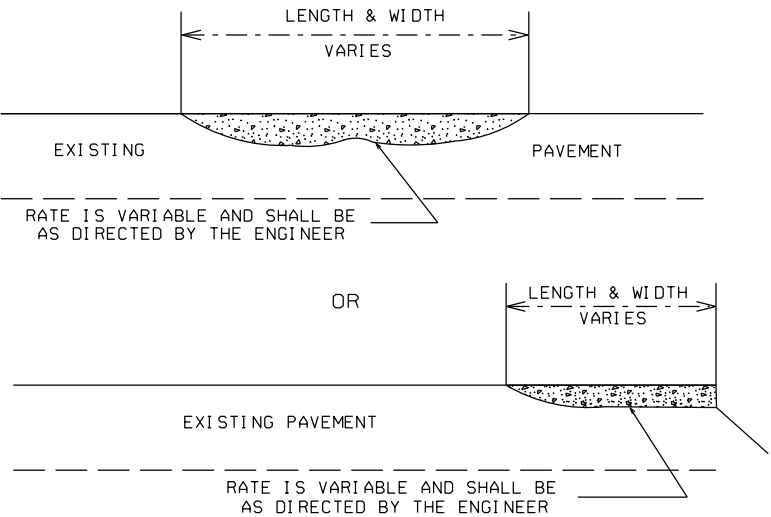


DETAIL C
MILLING BRIDGE APPROACHES

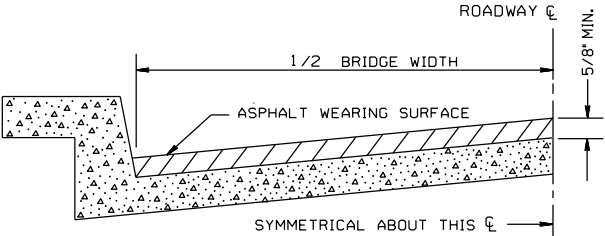


** TO BE PAID FOR AS INCIDENTAL MILLING

DETAIL B
ASPHALT CONCRETE SURFACE COURSE
TYPE S9.5X (LEVELING COURSE)



DETAIL E
BRIDGE HALF TYPICAL SECTION



FOR BRIDGES WITH FLOOR DRAINS, CARE SHALL BE EXERCISED IN PLACING THE WEARING SURFACE AROUND FLOOR DRAINS SO AS NOT TO HINDER EFFECTIVE DRAINAGE. ALL DRAINS SHALL BE LEFT OPEN.

THE PROPOSED WEARING SURFACE SHALL VARY IN THICKNESS AS NECESSARY TO PROVIDE A SMOOTH RIDING SURFACE. A THICKNESS OF NOT LESS THAN 5/8" SHALL BE PROVIDED. THE MAXIMUM THICKNESS SHALL PREFERABLY BE 1-1/2" UNLESS IT IS IMPRACTICAL TO PROVIDE A SMOOTH RIDING SURFACE OTHERWISE.

NOTES

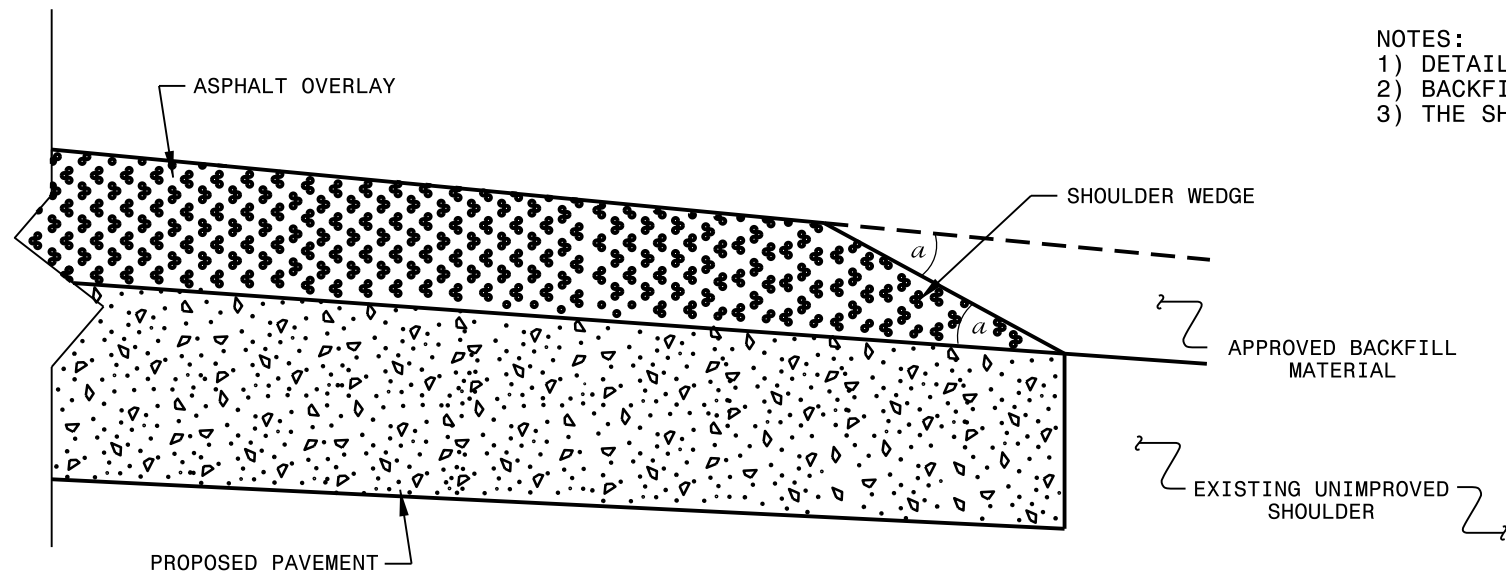
ALL UNPAVED S.R. ROADS TO BE SURFACED 50' FROM EDGE OF PAVEMENT OF MAIN PROJECT.
ALL PAVED S.R. ROADS TO BE RESURFACED TO THE ENDS OF THE RADII, OR AS DIRECTED BY THE ENGINEER.
EDGES, PAVEMENT WIDENING, INTERSECTIONS AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF QUANTITIES.
SHOULDERS AND DITCHES ARE TO BE CONSTRUCTED BY OTHERS UNLESS OTHERWISE NOTED.
BRIDGES TO BE RESURFACED AT LOCATIONS AND TO DEPTH AS DIRECTED BY THE ENGINEER.

PAVEMENT SCHEDULE

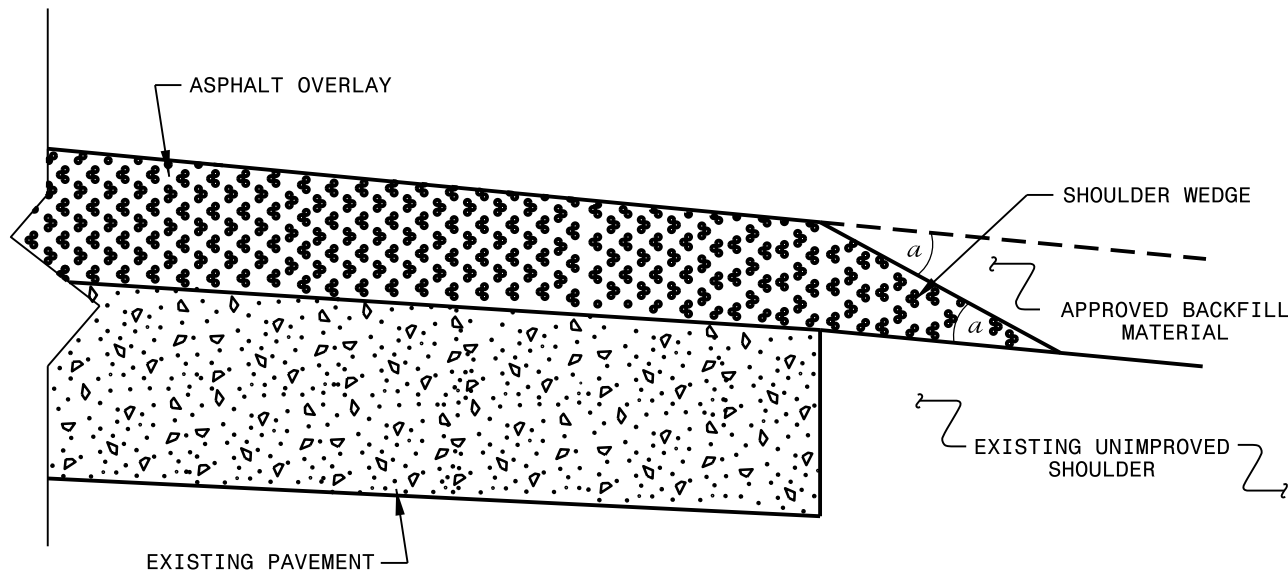
C1	PROP. APPROX. 1" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B. AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C. AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
T	AGGREGATE SHOULDER BORROW (SHOULDER RECONSTRUCTION)
V2	MILL EXISTING ASPHALT PAVEMENT APPROX. 1.5" IN DEPTH

2027
Resurfacing Program
Detail Sheet
Alexander County

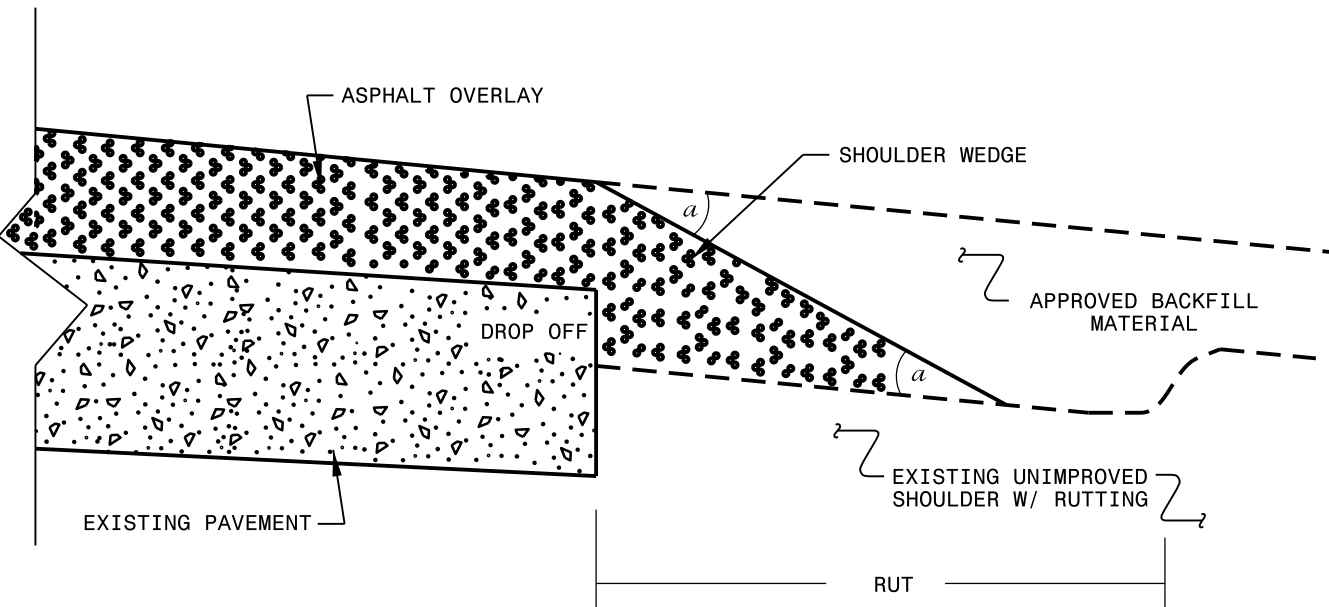
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
 - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



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



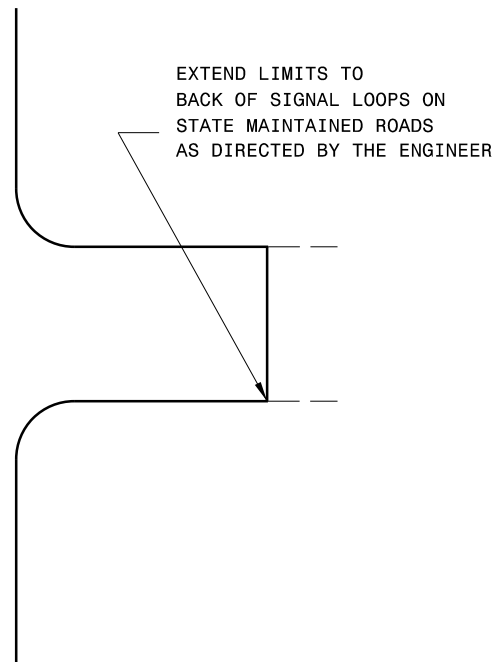
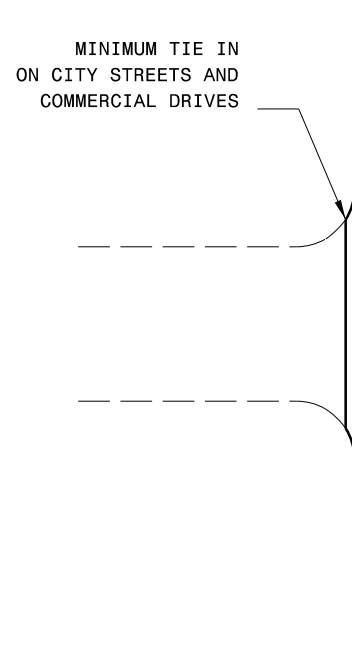
SHOULDER WEDGE DETAIL
(Resurfacing Projects w/ NO Widening)



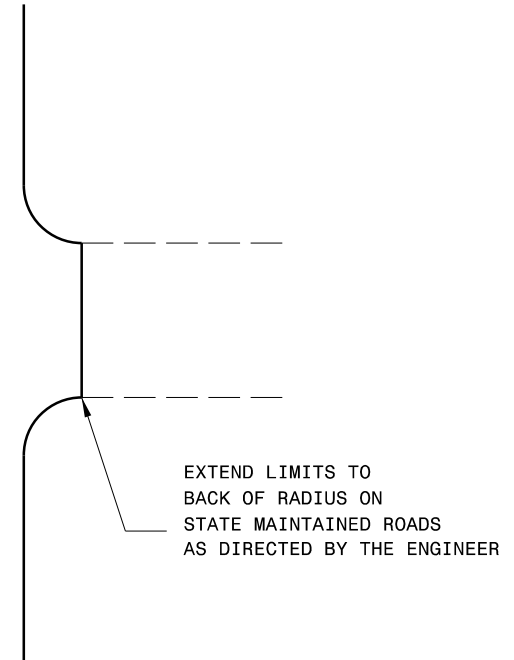
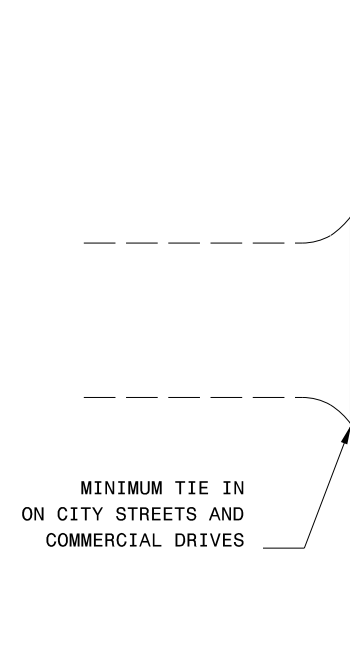
SHOULDER WEDGE DETAIL
(Resurfacing Adjacent to
Rutted Shoulder)

- 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:	10/16/12
CHECKED BY:		DATE:	
FILE SPEC.:	s:\usr\details\stand\shoulderwedgedetail.dgn		



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:

[illegible]

PROJECT NO.	SHEET NO.	TOTAL NO.
2027CPT.12.01.20021		

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	BEGI N MP	END MP	0255000000-E	1220000000-E	1245000000-E	1297000000-E	1330000000-E	1519000000-E	1520000000-E	1523000000-E	1524000000-E	1575000000-E	1704000000-E	2830000000-N	2845000000-N
												AGGREGATE SHOULDER BORROW	INCIDENTAL STONE BASE	SHOULDER RECONSTRUCTI ON	1½" MILLING	INCIDENTAL MILLING	SURFACE COURSE, \$9.5B	LEVELING COURSE, \$9.5B	SURFACE COURSE, \$9.5C	LEVELING COURSE, \$9.5C	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT	ADJ. OF MANHOLES	ADJ. OF METER OR VALVE BOX
								MI	FT			TON	TONS	SMI	SY	SY	TONS	TONS	TONS	TONS	TONS	TONS	EA	EA
2027CPT.12.01.20021	Alexander	1	SR-1605 / PAUL PAYNE STORE RD	FROM IREDELL COUNTY TO SR 1600 (POP DAVIS RD)	1	2		10.390	20	0.000	10.390	3,430	60	20.78		850			11,260	1,700	780	330	1	1
TOTAL FOR MAP NO. 1								10.390				3,430	60	20.78		850			11,260	1,700	780	330	1	1
2027CPT.12.01.20021	Alexander / Wilkes	2	SR-1336 / MOORE MOUNTAIN RD	FROM NC 16 TO WILKES COUNTY/EOM	1, 3	2		1.590	20	0.000	1.590	525	10	0.84	13,728	50			1,725	260	120	50		
TOTAL FOR MAP NO. 2								1.590				525	10	0.84	13,728	50			1,725	260	120	50		
2027CPT.12.01.20021	Alexander	3	SR-1490 / MOOSE DR	FROM NC 90 TO SR 1478 (YORK RD)	2	2		0.780	19	0.000	0.780	260	10	1.56		100	530	120			43	25		
TOTAL FOR MAP NO. 3								0.780				260	10	1.56		100	530	120			43	25		
2027CPT.12.01.20021	Alexander	4	SR-1528 / CIRCLE LOOP	FROM SR 1490 (MOOSE DR) TO SR 1490 (MOOSE DR)	2	2		0.186	18	0.000	0.186	60	5	0.37			120	30			10	5		
TOTAL FOR MAP NO. 4								0.186				60	5	0.37			120	30			10	5		
2027CPT.12.01.20021	Alexander	5	SR-1327 / PINEY GROVE RD	FROM SR 1313 (THREE FORKS CHURCH RD) TO SR 1326 (WALKER FOUNDRY LOOP)	1	2		1.300	19	0.000	1.300	430	15	2.60		120			1,338	150	89	25		
TOTAL FOR MAP NO. 5								1.300				430	15	2.60		120			1,338	150	89	25		
2027CPT.12.01.20021	Alexander	6	SR-1148 / RIVER HILLS CT	FROM SR 1137 (RINK DAM RD) TO EOM/LAKE PT CIRCLE	1	2		1.500	20	0.000	1.500	500	20	3.00		300			1,626	150	108	60		3
TOTAL FOR MAP NO. 6								1.500				500	20	3.00		300			1,626	150	108	60		3
2027CPT.12.01.20021	Alexander	7	SR-1156 / RICHEY RD	FROM SR 1157 (SAM HEFNER RD) TO NC 127	1	2		0.736	22	0.984	1.720	240	10	1.46		100			791	70	52	35		
TOTAL FOR MAP NO. 7								0.736				240	10	1.46		100			791	70	52	35		
2027CPT.12.01.20021	Alexander	8	SR-1157 / SAM HEFNER RD	FROM SR 1156 (RICHEY RD) TO CALDWELL COUNTY	1	2		1.360	20	0.000	1.360	450	10	2.72		180			1,475	150	98	50		
TOTAL FOR MAP NO. 8								1.360				450	10	2.72		180			1,475	150	98	50		
2027CPT.12.01.20021	Alexander	9	SR-1154 / FRIENDLY CHURCH RD	FROM SR 1153 (DEVIL TRACK RD) TO SR 1153 (DEVIL TRACK RD)	2	2		0.890	20	0.000	0.890	290	15	1.78		60	631	130			53	80		
TOTAL FOR MAP NO. 9								0.890				290	15	1.78		60	631	130			53	80		
2027CPT.12.01.20021	Alexander	10	SR-1638 / COUNTY LINE RD	FROM SR 1005 (OLD MOUNTAIN RD) TO SR 1605 (PAUL PAYNE STORE RD)	1	2		3.190	19	0.000	3.190	1,050	25	6.38		150			3,286	315	215	60	1	1
TOTAL FOR MAP NO. 10								3.190				1,050	25	6.38		150			3,286	315	215	60	1	1
TOTAL FOR PROJ NO. 2027CPT.12.01.20021								21.922				7,235	180	41.49	13,728	1,910	1,281	280	21,501	2,795	1,568	720	2	5
GRAND TOTAL								21.922				7,235	180	41.49	13,728	1,910	1,281	280	21,501	2,795	1,568	720	2	5

PROJECT NO.	SHEET NO.	TOTAL NO.
2027CPT.12.01.20021		

THERMOPLASTIC AND PAINT QUANTITIES

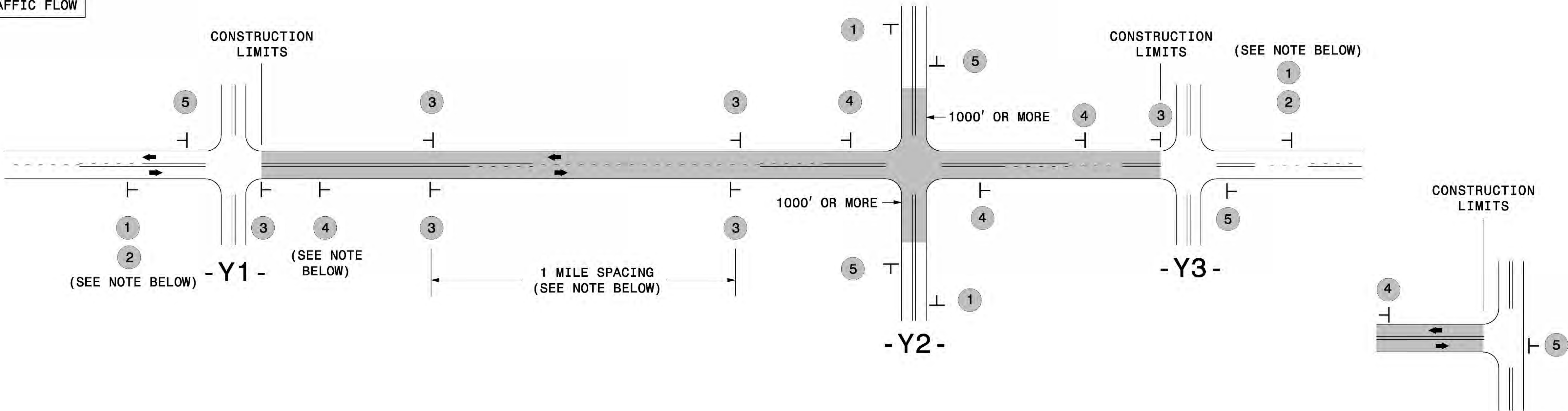
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	BEGIN MP	END MP	4400000000-E WORK ZONE ADVANCE/GE NERAL WARNING SIGNING	4457000000-N TEMPORARY TRAFFIC CONTROL	4810000000-E 4" WHITE PAINT	4810000000-E 4" YELLOW PAINT
								MI	FT			SF		LF	LF
2027CPT.12.01.20021	Alexander	1	SR-1605 / PAUL PAYNE STORE RD	FROM IREDELL COUNTY TO SR 1600 (POP DAVIS RD)	1	2		10.39	20	0	10.39	1,163	*	220,000	220,000
TOTAL FOR MAP NO. 1								10.39				1,163		220,000	220,000
2027CPT.12.01.20021	Alexander / WILKES	2	SR-1336 / MOORE MOUNTAIN RD	FROM NC 16 TO WILKES COUNTY/EOM	1, 3	2		1.59	20	0	1.59	178		34,000	34,000
TOTAL FOR MAP NO. 2								1.59				178		34,000	34,000
2027CPT.12.01.20021	Alexander	3	SR-1490 / MOOSE DR	FROM NC 90 TO SR 1478 (YORK RD)	2	2		0.78	19	0	0.78	87		16,500	16,500
TOTAL FOR MAP NO. 3								0.78				87		16,500	16,500
2027CPT.12.01.20021	Alexander	4	SR-1528 / CIRCLE LOOP	FROM SR 1490 (MOOSE DR) TO SR 1490 (MOOSE DR)	2	2		0.186	18	0	0.186	20			
TOTAL FOR MAP NO. 4								0.186				20			
2027CPT.12.01.20021	Alexander	5	SR-1327 / PINEY GROVE RD	FROM SR 1313 (THREE FORKS CHURCH RD) TO SR 1326 (WALKER FOUNDRY LOOP)	1	2		1.3	19	0	1.3	145		27,500	27,500
TOTAL FOR MAP NO. 5								1.3				145		27,500	27,500
2027CPT.12.01.20021	Alexander	6	SR-1148 / RIVER HILLS CT	FROM SR 1137 (RINK DAM RD) TO EOM/LAKE PT CIRCLE	1	2		1.5	20	0	1.5	168		32,000	32,000
TOTAL FOR MAP NO. 6								1.5				168		32,000	32,000
2027CPT.12.01.20021	Alexander	7	SR-1156 / RICHEY RD	FROM SR 1157 (SAM HEFNER RD) TO NC 127	1	2		0.736	22	0.984	1.72	80		15,500	15,500
TOTAL FOR MAP NO. 7								0.736				80		15,500	15,500
2027CPT.12.01.20021	Alexander	8	SR-1157 / SAM HEFNER RD	FROM SR 1156 (RICHEY RD) TO CALDWELL COUNTY	1	2		1.36	20	0	1.36	152		29,000	29,000
TOTAL FOR MAP NO. 8								1.36				152		29,000	29,000
2027CPT.12.01.20021	Alexander	9	SR-1154 / FRIENDLY CHURCH RD	FROM SR 1153 (DEVIL TRACK RD) TO SR 1153 (DEVIL TRACK RD)	2	2		0.89	20	0	0.89	100		19,000	19,000
TOTAL FOR MAP NO. 9								0.89				100		19,000	19,000
2027CPT.12.01.20021	Alexander	10	SR-1638 / COUNTY LINE RD	FROM SR 1005 (OLD MOUNTAIN RD) TO SR 1605 (PAUL PAYNE STORE RD)	1	2		3.19	19	0	3.19	360		67,500	67,500
TOTAL FOR MAP NO. 10								3.19				360		67,500	67,500
TOTAL FOR PROJ NO. 2027CPT.12.01.20021								21.922				2,453	1	461,000	461,000
GRAND TOTAL								21.922				2,453	1	922,000	

SIGNING FOR RESURFACING PROJECTS

LEGEND

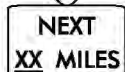
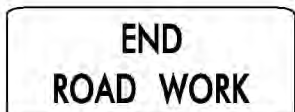
STATIONARY SIGN

DIRECTION OF TRAFFIC FLOW



MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	1  W20-1 48" X 48" 2  W7-3aP 24" X 18" PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE. #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)	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.	
	3  SP 13107 48" X 48" - PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER. - AT TEE INTERSECTIONS INSTALL INITIALLY 1/2 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.		
	4  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.		 W20-1 48" X 48" PLACED 500' IN ADVANCE OF FLAGGER.  W20-7 A 48" X 48" PLACED 250' IN ADVANCE OF FLAGGER.
	5  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.		

LESS 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.
-----------------	--



AD



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