

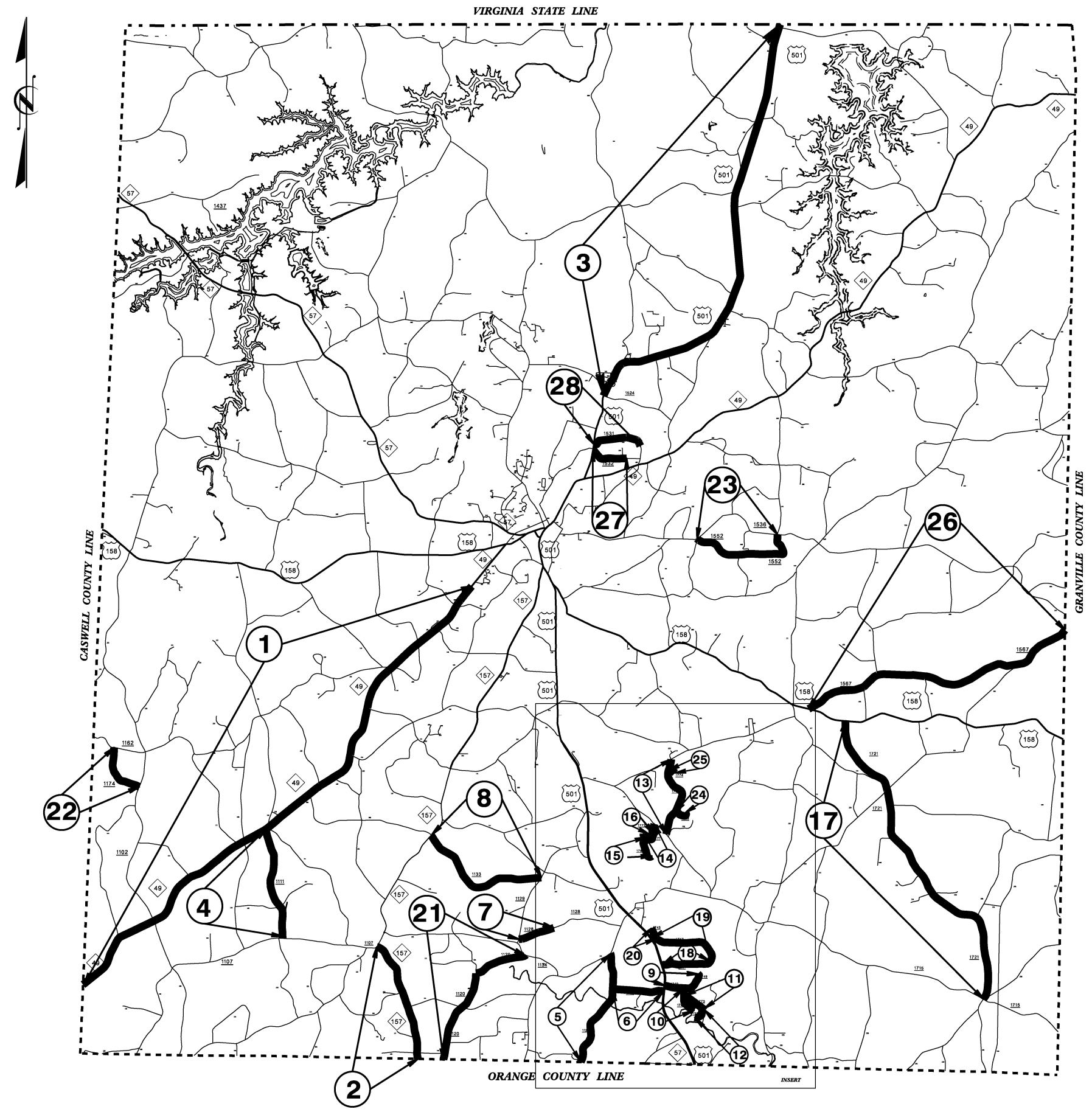
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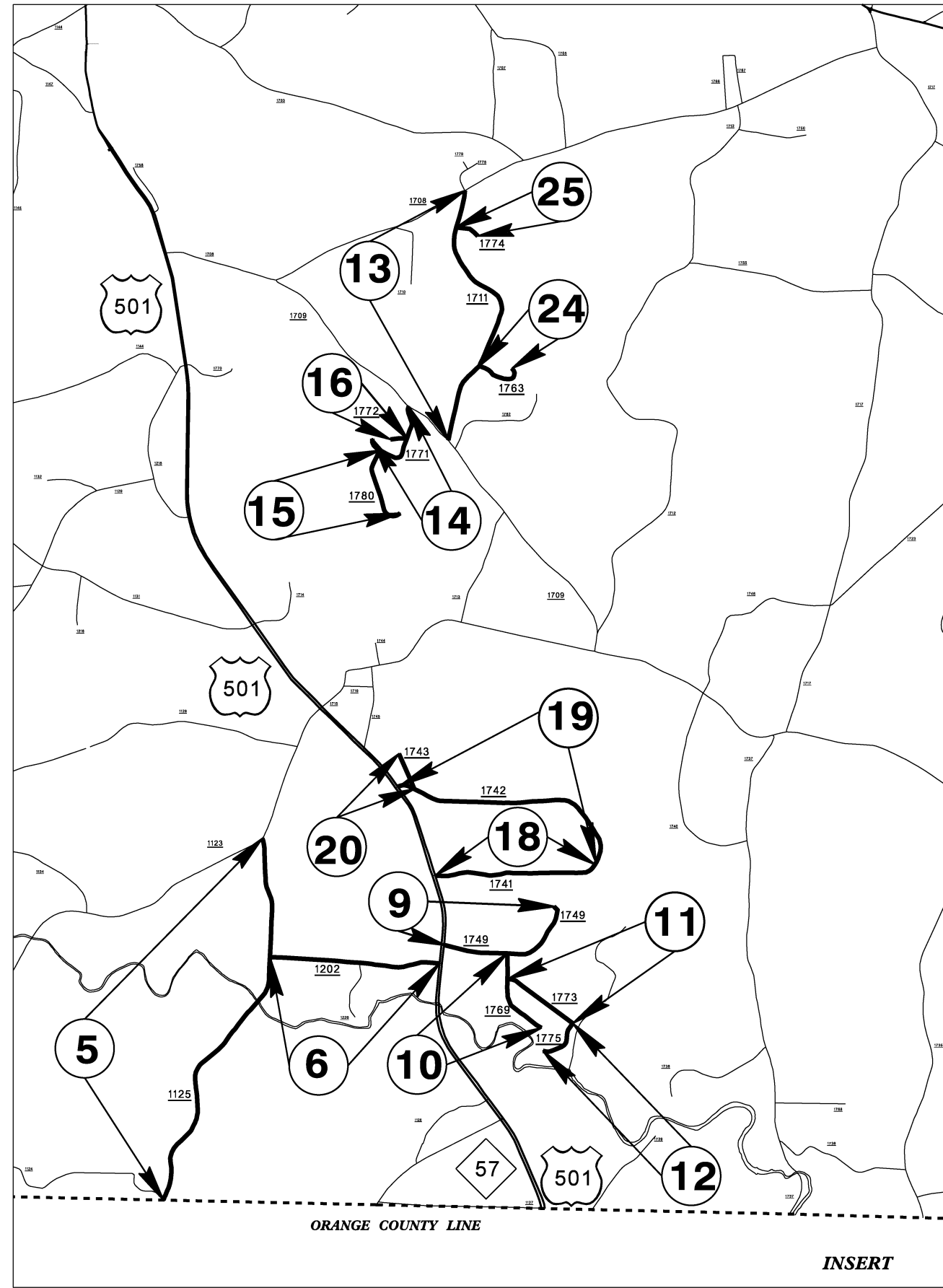
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PROJECT REFERENCE NO.	SHEET NO.
2016CPT.05.08J0731J, etc.	/

**2016 – 2017
PERSON COUNTY
RESURFACING**



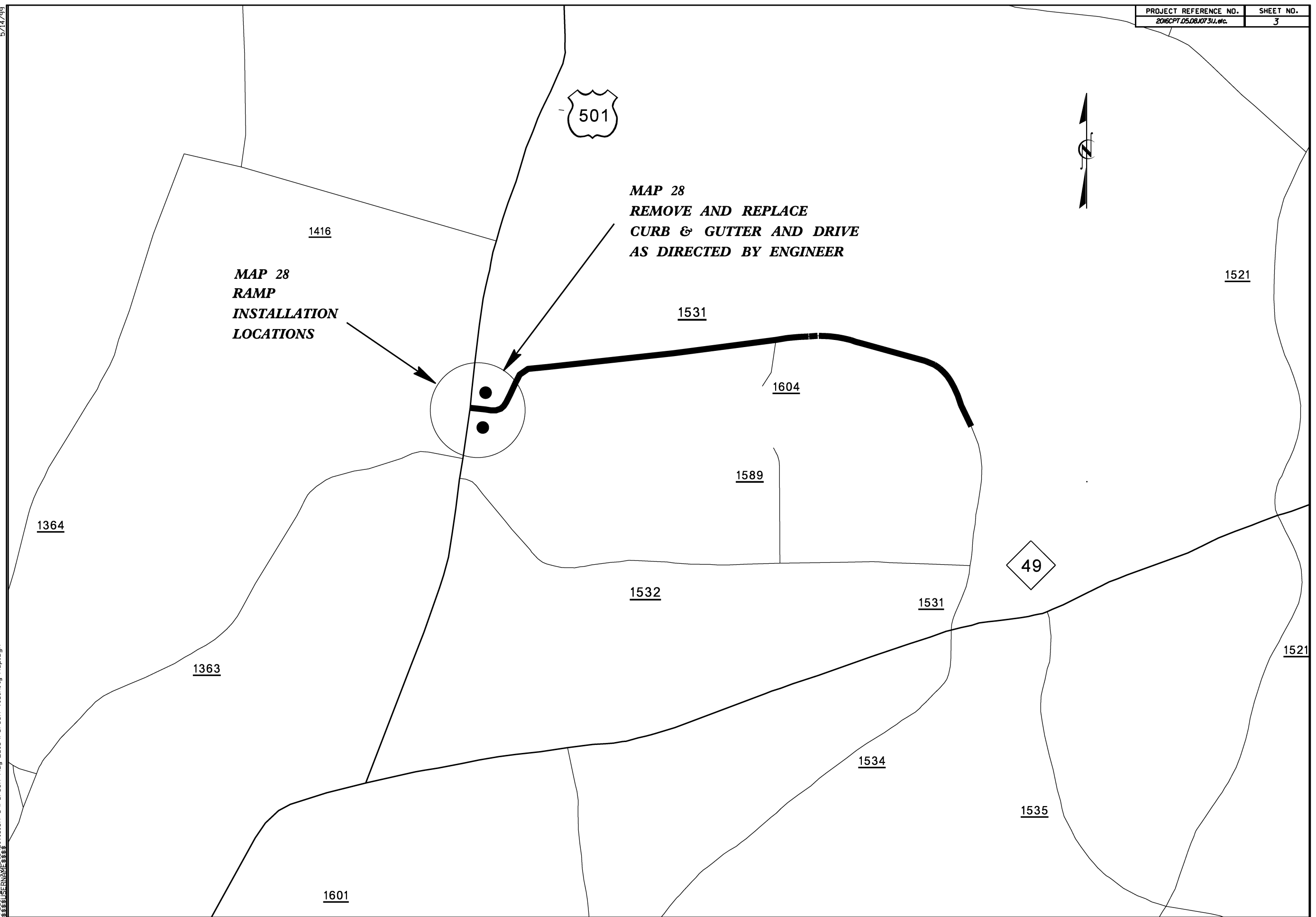


5/14/99
J:\Resurf\25-FEB-2016_07:51\Division 5\Person May 2016\Person Vicinity Map.dgn

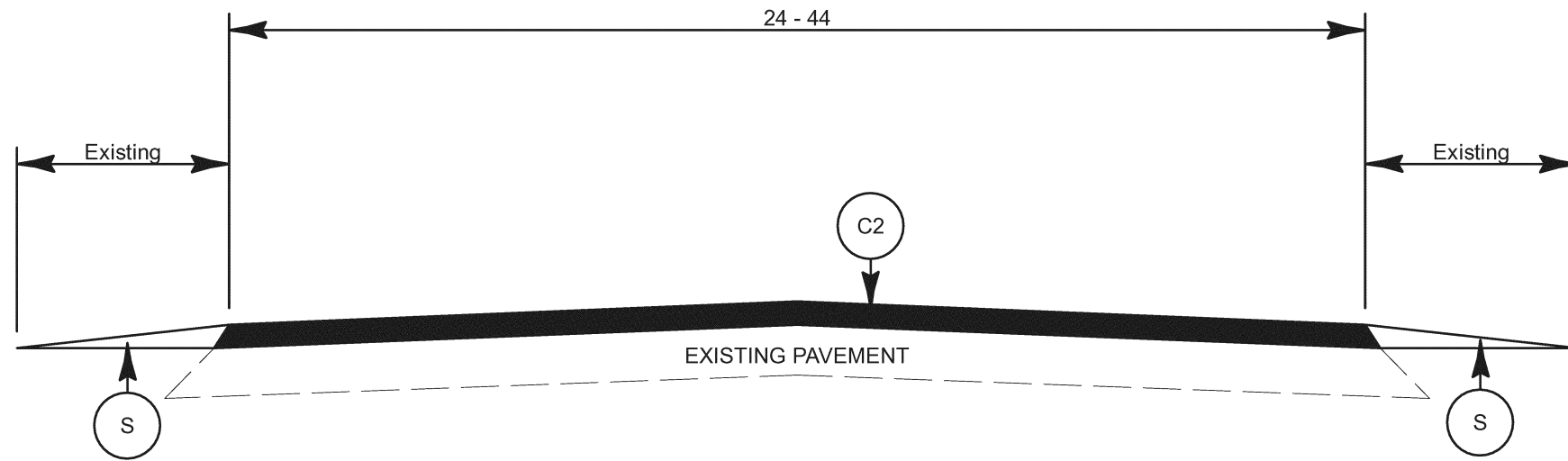


**MAP 28
REMOVE AND REPLACE
CURB & GUTTER AND DRIVE
AS DIRECTED BY ENGINEER**

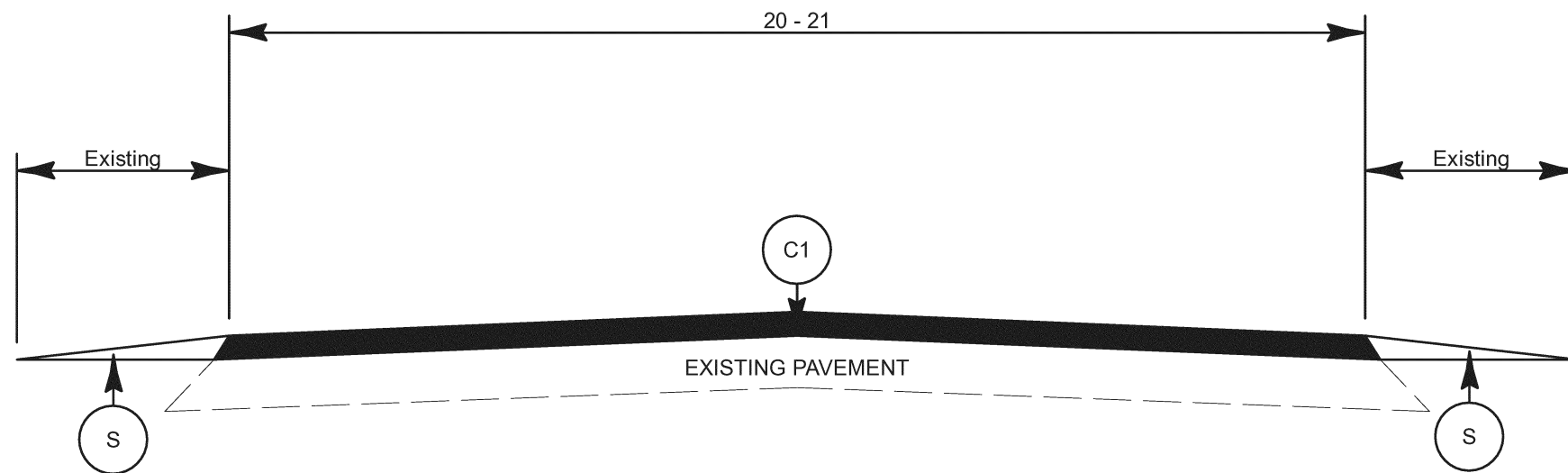
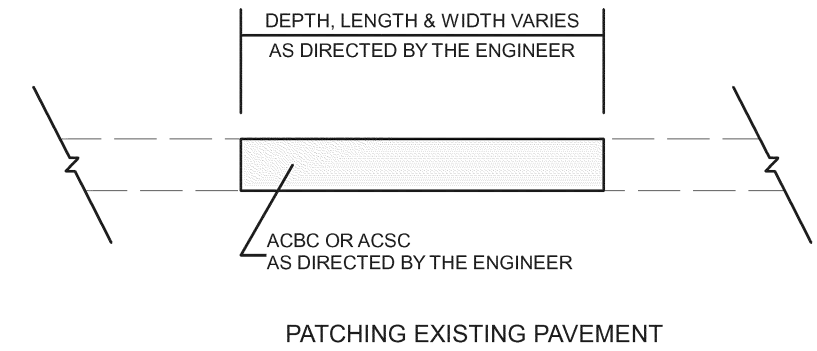
**MAP 28
RAMP
INSTALLATION
LOCATIONS**



PROJECT NO.	SHEET NO.	TOTAL SHEETS
2016CPT.05.08.10731.1, 2016CPT.05.08.20731.1	4	



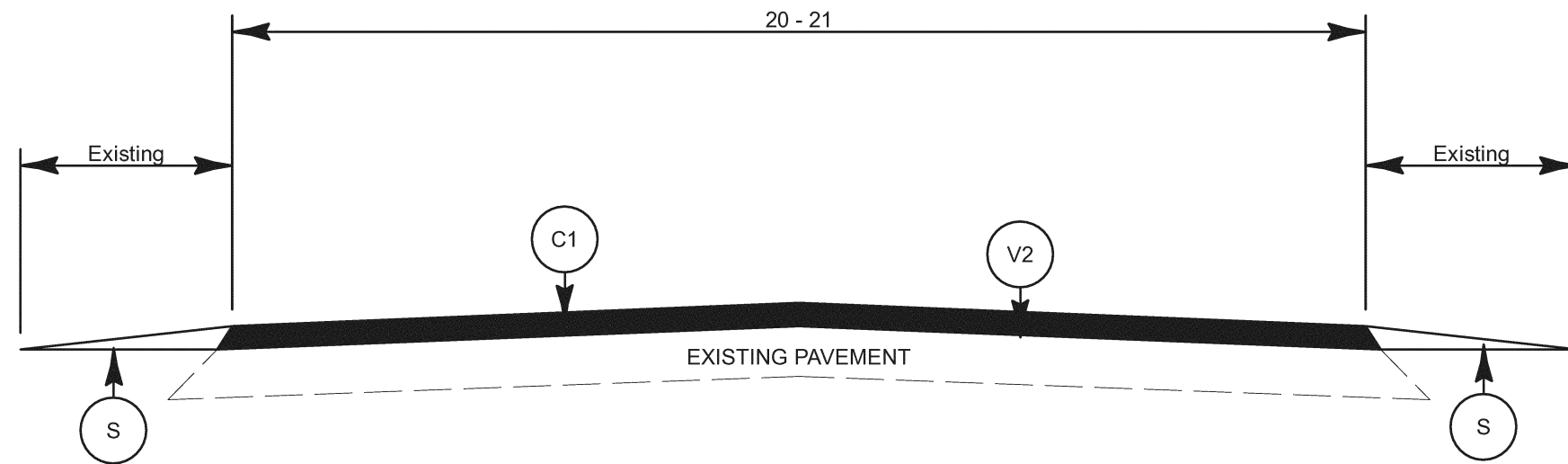
TYPICAL SECTION NO. 1



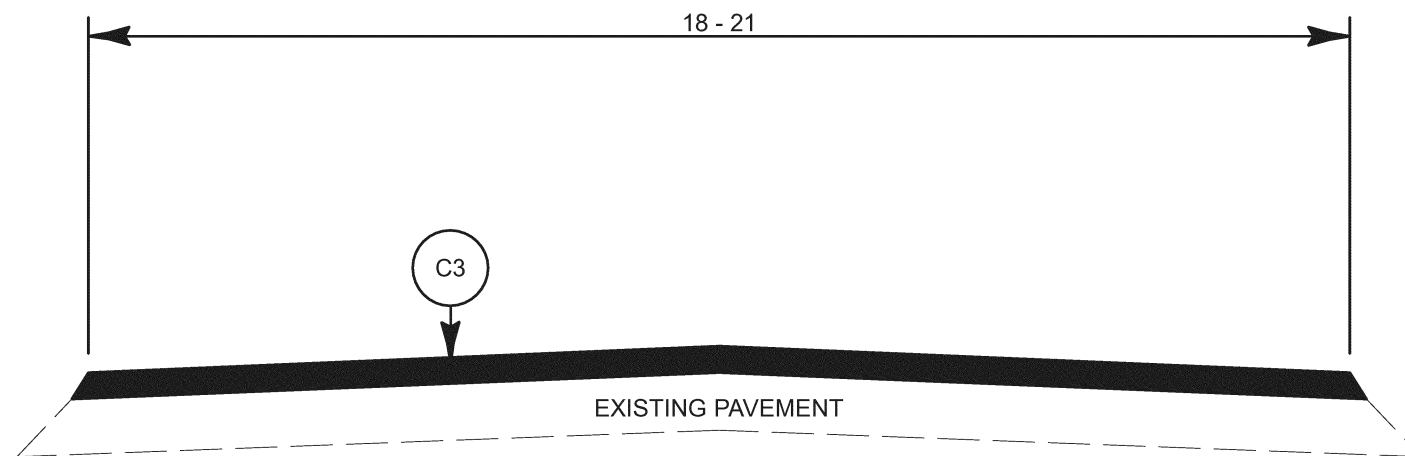
TYPICAL SECTION NO. 2

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER S.Y.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER S.Y.
C3	PROP. APPROX. 0.75" ASPHALT SURFACE COURSE, TYPE S4.75A, AT AN AVERAGE RATE OF 82 LBS. PER S. Y.
S	SHOULDER RECONSTRUCTION
V1	PROP. 1.5" MILLING EXISTING PAVEMENT
V2	PROP. 0.75" MILLING EXISTING PAVEMENT

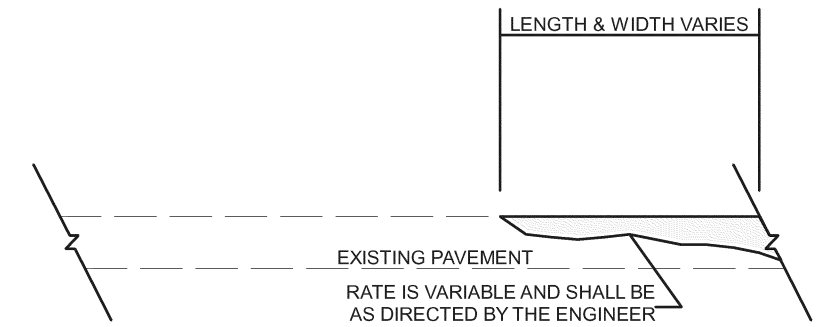
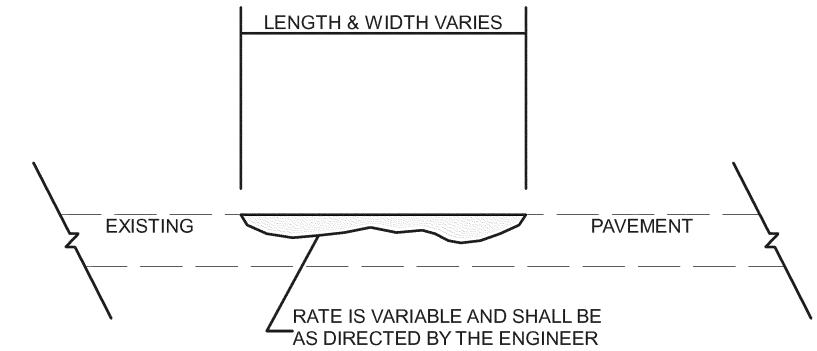
PROJECT NO.	SHEET NO.	TOTAL SHEETS
2016CPT.05.08.10731.1, 2016CPT.05.08.20731.1	5	



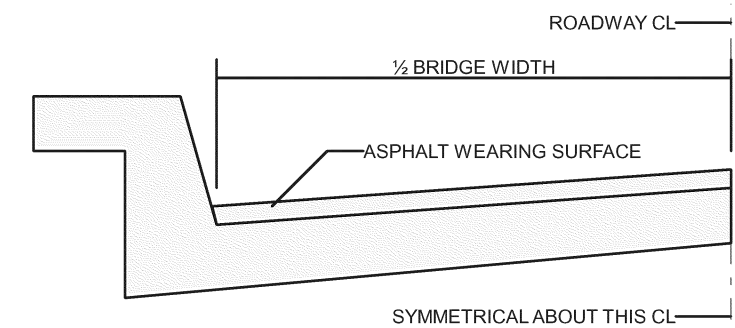
TYPICAL SECTION NO. 3



TYPICAL SECTION NO. 4



ASPHALT CONCRETE SURFACE COURSE (LEVELING COURSE)



BRIDGE HALF TYPICAL SECTION

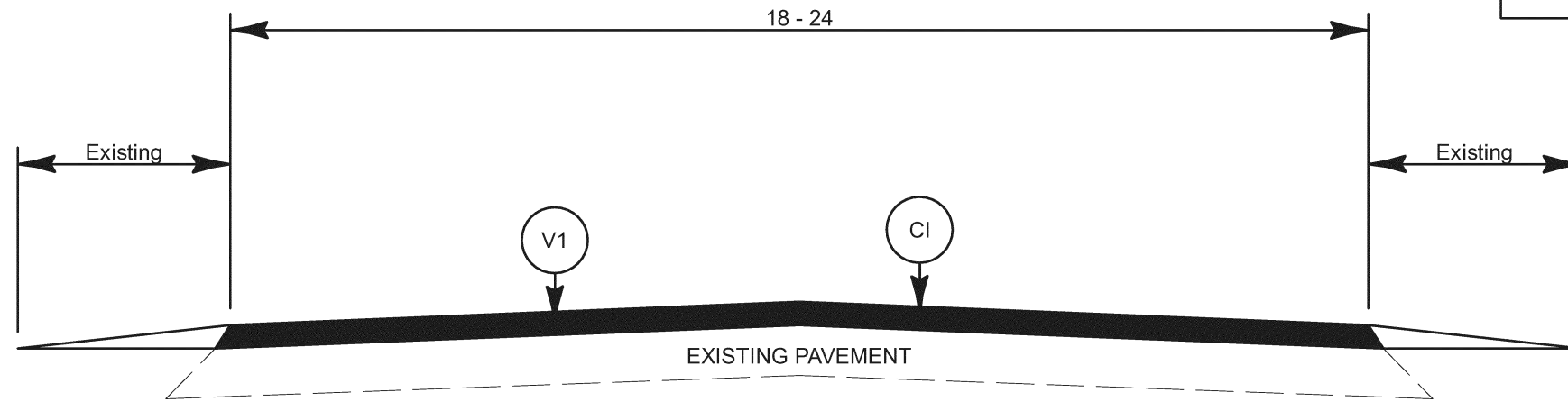
FOR BRIDGES WITH FLOOR DRAINS, CARE SHALL BE EXERCISED IN PLACING THE WEARING SURFACE AROUND FLOOR DRAINS SO AS NOT TO HINDER EFFECTIVE DRAINAGE. ALL DRAINS SHALL BE LEFT OPEN

THE PROPOSED WEARING SURFACE SHALL VARY IN THICKNESS AS NECESSARY TO PROVIDE A SMOOTH RIDING SURFACE. THE MINIMUM THICKNESS SHOULD DEPEND ON PAVEMENT TYPE AS FOLLOWS: S4.75A 1/2", SF9.5A 1.0", S9.5X 1.5", S12.5X 2.0", ULTRATHIN HOT MIX ASPHALT-TYPE A 3/4", ULTRATHIN HOT MIX ASPHALT-TYPE B 5/8", ULTRATHIN HOT MIX ASPHALT-TYPE C 1/2". THE MAXIMUM THICKNESS SHOULD DEPEND ON PAVEMENT TYPE AS FOLLOWS: S4.75A 1.0", SF9.5A 1.5", S9.5X 2.0", S12.5X 2.0", ULTRATHIN HOT MIX ASPHALT-TYPE A 3/4", ULTRATHIN HOT MIX ASPHALT-TYPE B 5/8", ULTRATHIN HOT MIX ASPHALT-TYPE C 1/2".

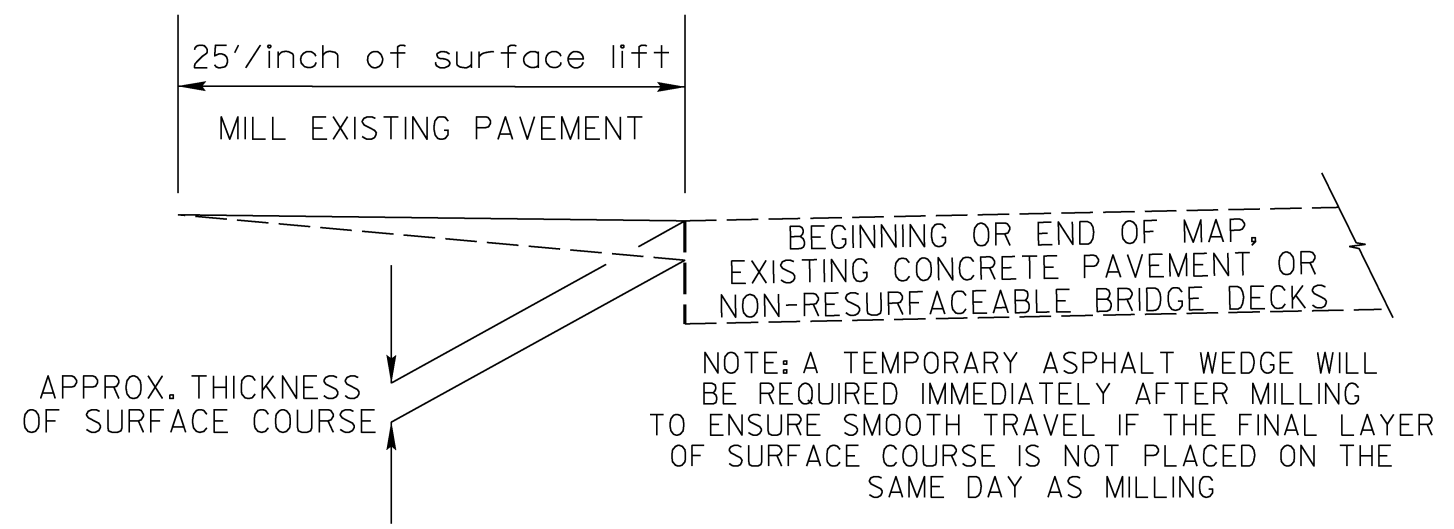
NOTES

ALL UNPAVED ROADS TO BE RESURFACED 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 INDICATED.
BRIDGES ARE TO BE RESURFACED AT LOCATIONS AND TO DEPTH AS DIRECTED BY THE ENGINEER.

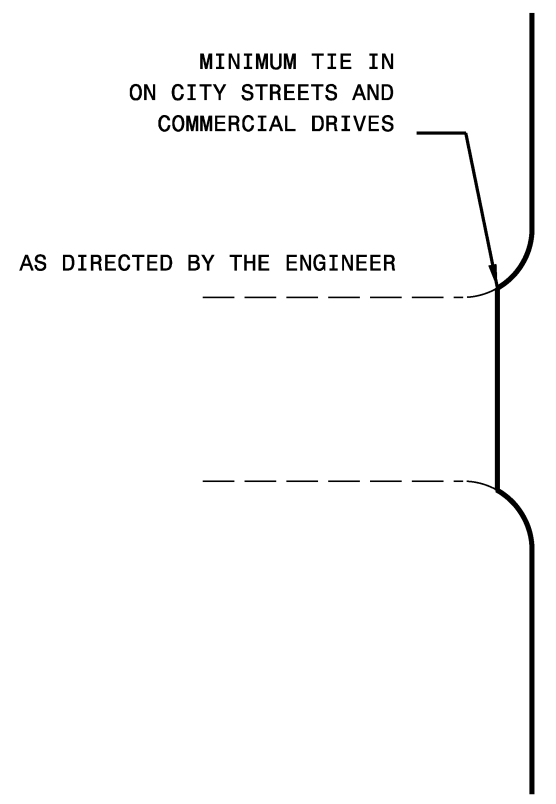
PROJECT NO.	SHEET NO.	TOTAL SHEETS
2016CPT.05.08.10731.1, 2016CPT.05.08.20731.1	6	



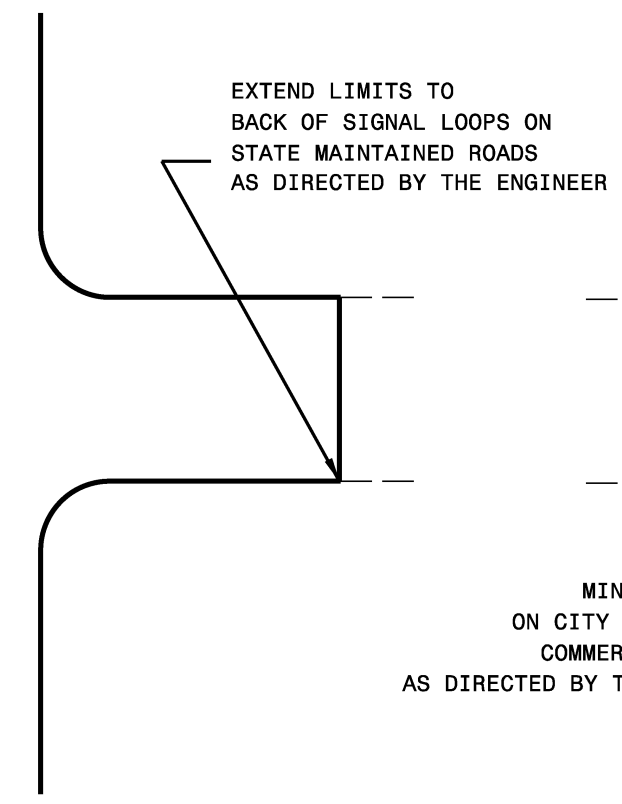
TYPICAL SECTION NO. 5



DETAIL OF INCIDENTAL MILLING

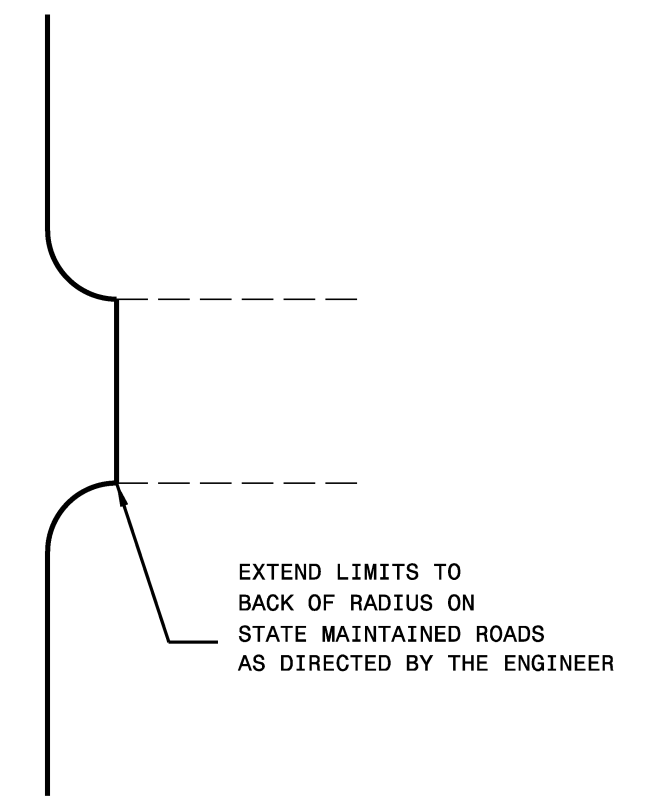


DETAIL OF PROJECT LIMITS AT SIGNALIZED Y LINES



MINIMUM TIE IN
ON CITY STREETS AND
COMMERCIAL DRIVES
AS DIRECTED BY THE ENGINEER

DETAIL OF PROJECT LIMITS AT UNSIGNALIZED Y LINES



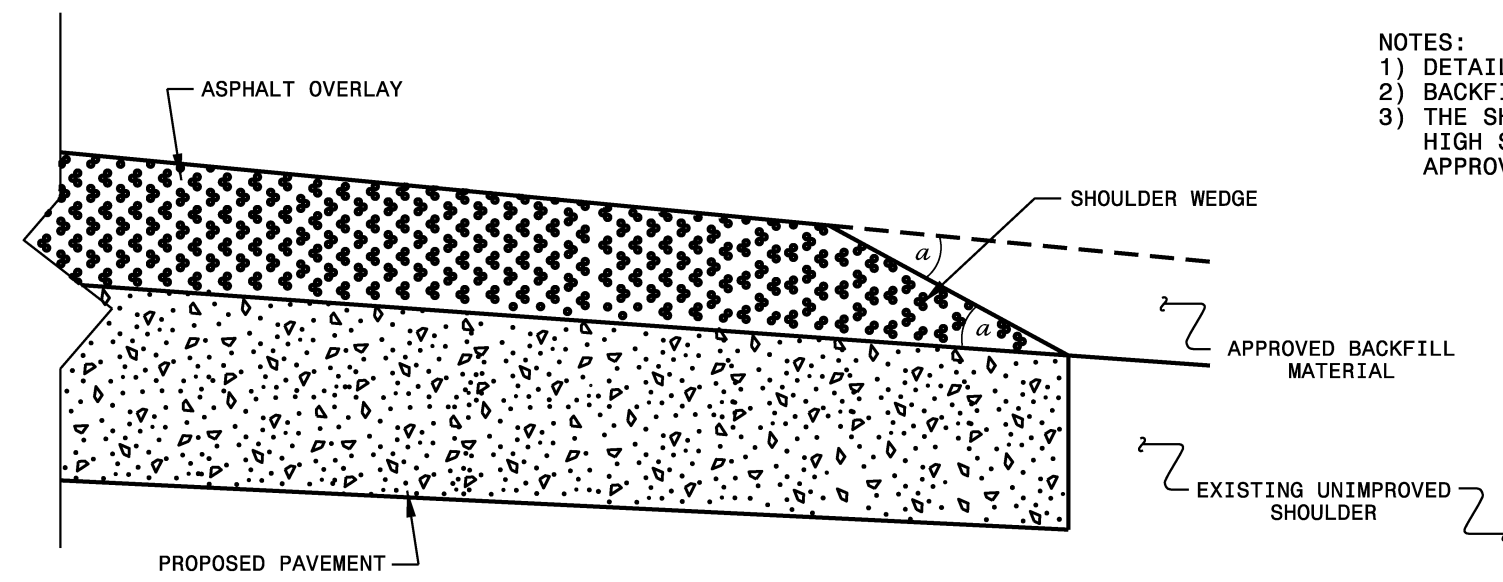
EXTEND LIMITS TO
BACK OF RADIUS ON
STATE MAINTAINED ROADS
AS DIRECTED BY THE ENGINEER

**DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA**

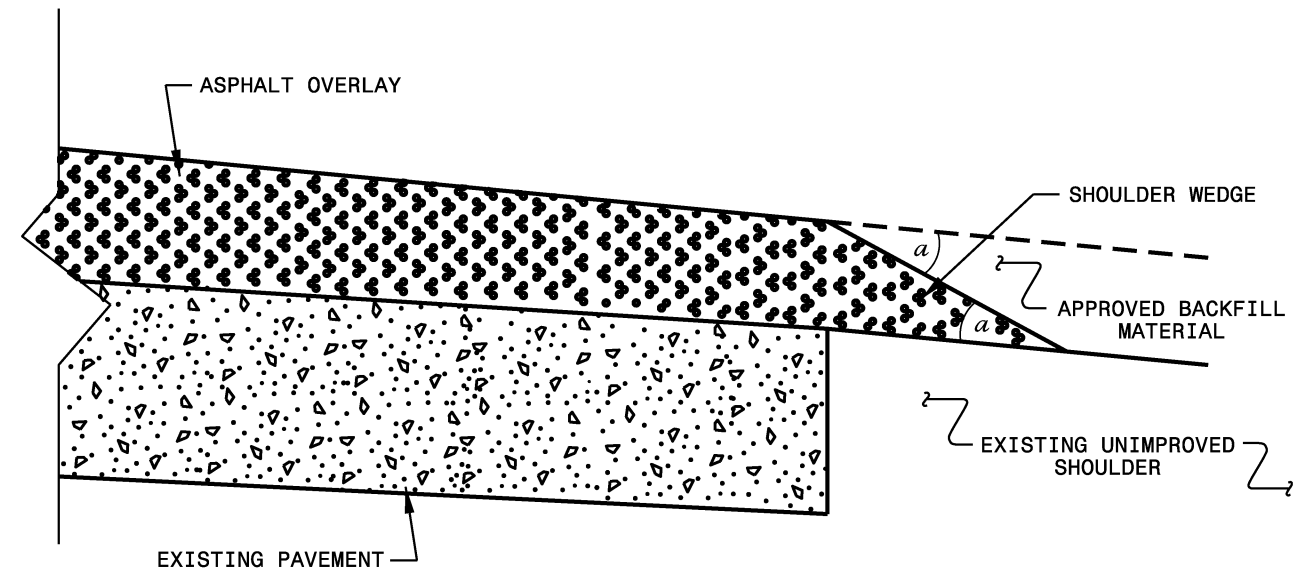
SOIL STABILIZATION TIMEFRAMES

<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW) 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 HOW ZONES.

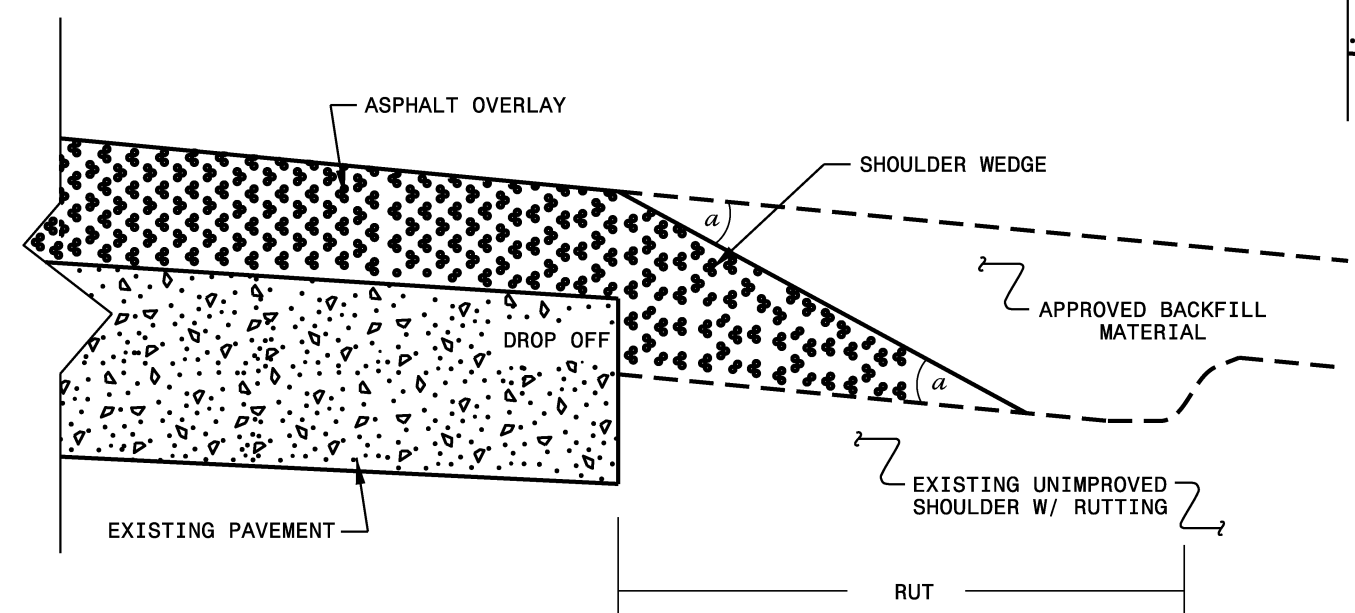
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
 - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.



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	

01-MAR-2016 09:27
 S:\CONTRACTS\Resurfacing Projects\Shoulder Wedge Details\Revised Shoulder Wedge Detail.dgn
 *****USER NAME*****

PROJECT NO.	SHEET NO.	TOTAL NO.
2016CPT.05.08.10731.1, 2016CPT.05.08.20731.1	10	

SUMMARY OF QUANTITIES

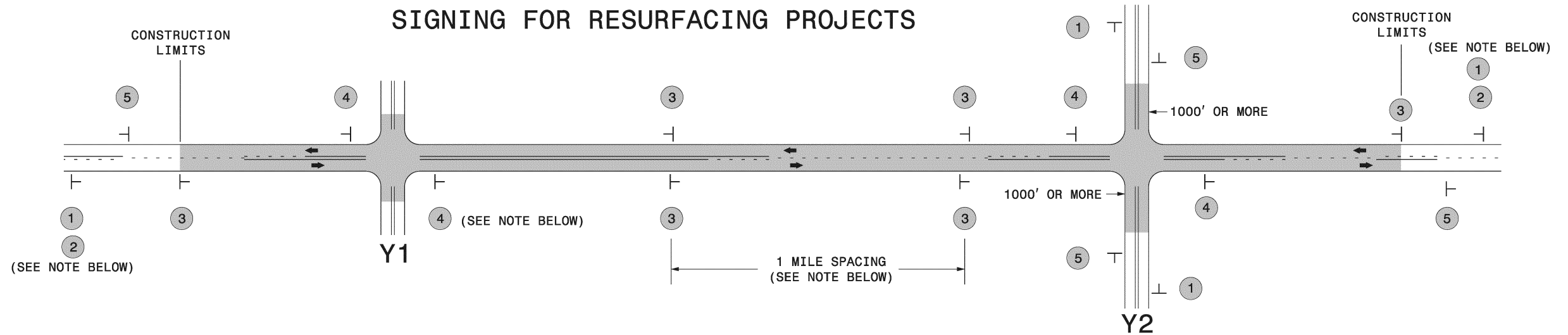
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	BORROW	INCIDENTAL STONE BASE	SHOULDER RECONSTRUCTION	1 1/2" MILLING	.75" MILLING	INCIDENTAL MILLING	SURFACE COURSE, SF9.5B	SURFACE COURSE, SF9.5A	LEVELING COURSE, TYPE SF9.5A	SURFACE COURSE, S4.75A	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT	CONCRETE CURB RAMP (Std. 848.05)	REMOVE AND REPLACE 6" CONCRETE DRIVEWAY	REMOVE AND REPLACE 2' - 6" CURB AND GUTTER	TEMPORARY SILT FENCE	WATTLE	SEED & MULCHING	INDUCTIVE LOOP	
NO		NO			NO					MI	FT	CY	TONS	SMI	SY	SY	SY	TONS	TON	TONS	TONS	TON	TONS	EA	SY	LF	LF	AC	LF		
2016CPT.05.08.10731.1	Person	1	NC 49	CASWELL CO TO BEGIN C&G	1	2	2WU	NO	YES	11.55	32-44	3,465	300	23.10			1,500	20,328				1,220	2,000				500	100	16.50		
TOTAL FOR MAP NO. 1										11.55		3,465	300	23.10			1,500	20,328				1,220	2,000			500	100	16.50			
2016CPT.05.08.10731.1	Person	2	NC 157 GUESS RD	ORANGE CO TO SR 1107 (HURDLE MILLS RD)	1	2	2WU	NO	YES	2.5	24-25	750	60	5.00	304		550	3,221				193	500				400	100	3.60		
TOTAL FOR MAP NO. 2										2.5		750	60	5.00	304		550	3,221				193	500			400	100	3.60			
2016CPT.05.08.10731.1	Person	3	US 501	SR 1524 ALLIE CLAY RD. TO VIRGINA	1	2	2WU	NO	YES	9	24-42	2,700	260	18.00			2,000	12,478				749	900				2,000	500	13.10		
TOTAL FOR MAP NO. 3										9		2,700	260	18.00			2,000	12,478				749	900			2,000	500	13.10			
TOTAL FOR PROJ NO. 2016CPT.05.08.10731.1										23.05		6,915	620	46.10	304		4,050	36,027				2,162	3,400			2,900	700	33.20			
2016CPT.05.08.20731.1	Person	4	SR 1111 ROBERT WHITFIELD RD	NC 49 TO SR 1107 UNION GROVE CHURCH RD.	2	2	2WU	NO	NO	2.25	20-21	675	100	4.50	90		500		2,330	150			165	500			400	100	3.20		
TOTAL FOR MAP NO. 4										2.25		675	100	4.50	90		500		2,330	150		165	500			400	100	3.20			
2016CPT.05.08.20731.1	Person	5	SR 1125 NED MOORE RD	SR 1123 DICK HOLEMAN RD TO ORANGE COUNTY	3	2	2WU	NO	NO	2.4	20-21	360	130	4.80		29,079			2,534			170	300				400	100	3.50		
TOTAL FOR MAP NO. 5										2.4		360	130	4.80		29,079			2,534			170	300			400	100	3.50			
2016CPT.05.08.20731.1	Person	6	SR 1202 CC ANDREWS RD	US 501 TO SR 1125 NED MOORE RD	3	2	2WU	NO	NO	1	20-21	150	60	2.00		11,921			1,039			70	150							1.50	
TOTAL FOR MAP NO. 6										1		150	60	2.00		11,921			1,039			70	150						1.50		
2016CPT.05.08.20731.1	Person	7	SR 1128 TOM OAKLEY RD	SR 1129 FRANK TIMBERLAKE RD TO PAVEMENT CHANGE	2	2	2WU	NO	NO	0.7	20	210	30	1.40			400		716			48	300				400	100	1.00		
TOTAL FOR MAP NO. 7										0.7		210	30	1.40			400		716			48	300			400	100	1.00			
2016CPT.05.08.20731.1	Person	8	SR 1133 CLAY LONG RD	NC 157 TO SR 1129 FRANK TIMBERLAKE RD	2	2	2WU	NO	NO	2.75	20	825	100	5.40			400		2,813			188	300				400	100	3.90		
TOTAL FOR MAP NO. 8										2.75		825	100	5.40			400		2,813			188	300			400	100	3.90			
2016CPT.05.08.20731.1	Person	9	SR 1749 WELDON PAINTER RD	US 501 TO DEAD END	2	2	2WU	NO	NO	0.6	20-21	180	40	1.20			200		626			42	200				400	100	0.90		
TOTAL FOR MAP NO. 9										0.6		180	40	1.20			200		626			42	200			400	100	0.90			
2016CPT.05.08.20731.1	Person	10	SR 1769 WOODY DR	SR 1749 TO CUL-DE-SAC	4	2	2WU	NO	NO	0.5	20-21	25									270	18	50								
TOTAL FOR MAP NO. 10										0.5		25								270	18	50									
2016CPT.05.08.20731.1	Person	11	SR 1773 ANN DRIVE	SR 1769 TO CUL-DE-SAC	4	2	2WU	NO	NO	0.4	20-21	20									211	14	50								
TOTAL FOR MAP NO. 11										0.4		20								211	14	50									
2016CPT.05.08.20731.1	Person	12	SR 1775 FORK JUNCTION	SR 1773 TO DEAD END	4	2	2WU	NO	NO	0.3	18-19	20									144	10	10								
TOTAL FOR MAP NO. 12										0.3		20								144	10	10									
2016CPT.05.08.20731.1	Person	13	SR 1711 KERMIT DUNCAN RD	SR 1708 ANTIOCH CHURCH RD TO SR 1709 DINK ASHLEY RD	2	2	2WU	NO	NO	1.7	20-21	510	90	3.40			400		1,766			118	300				400	100	2.50		
TOTAL FOR MAP NO. 13										1.7		510	90	3.40			400		1,766			118	300			400	100	2.50			
2016CPT.05.08.20731.1	Person	14	SR 1771 RIVER OAKS DRIVE	SR 1709 DINK ASHLEY ROAD TO DEAD END	4	2	2WU	NO	NO	0.5	18-19	25									249	17	75								
TOTAL FOR MAP NO. 14										0.5		25								249	17	75									
2016CPT.05.08.20731.1	Person	15	SR 1780 OAKS LANE	SR 1771 TO END STATE MAINTENANCE	4	2	2WU	NO	NO	0.5	18	20									219	15	50								
TOTAL FOR MAP NO. 15										0.5		20								219	15	50									
2016CPT.05.08.20731.1	Person	16	SR 1772 SCENIC DRIVE	SR 1771 TO DEAD END	4	2	2WU	NO	NO	0.1	18-19	5									57	4	10								
TOTAL FOR MAP NO. 16										0.1		5								57	4	10									
2016CPT.05.08.20731.1	Person	17	SR 1721 MT HARMONY CH RD	US 158 TO SR 1715 (HELENA MORIAH RD)	5	2	2WU	NO	NO	7	20-21	240			84,945				7,403			496	500								
TOTAL FOR MAP NO. 17										7		240			84,945			7,403			496	500									
2016CPT.05.08.20731.1	Person	18	SR 1741 CHAMBERS LOOP RD	FROM US 501 TO SR 1742	2	2	2WU	NO	NO	1	20	300	60	2.00			250		1,023	50		72	200							1.40	
TOTAL FOR MAP NO. 18										1		300	60	2.00			250		1,023	50		72	200					1.40			
2016CPT.05.08.20731.1	Person	19	SR 1742 CHAMBERS LOOP RD	SR 1741 TO US 501	2	2		NO	NO	1.5	20	450	64	3.00			250		1,534	50		106	100							2.20	
TOTAL FOR MAP NO. 19										1.5		450	64	3.00			250		1,534	50		106	100					2.20			
2016CPT.05.08.20731.1	Person	20	SR 1743 HOWARD CLAYTON RD	SR 1742 TO DEAD END	2	2	2WU	NO	NO	0.2	20	60	8	0.40					205			14	75							0.20	
TOTAL FOR MAP NO. 20										0.2		60	8	0.40					205			14	75						0.20		
2016CPT.05.08.20731.1	Person	21	SR 1120 BERRY PIERCE RD	OCL TO SR 1134 (SATTERFIELD RD)	2	2	2WU	NO	NO	3	20-21	900	84	6.00			900		3,238	30		219	350				800	200	4.00		
TOTAL FOR MAP NO. 21										3		900	84	6.00			900		3,238	30		219	350			800	200	4.00			
2016CPT.05.08.20731.1	Person	22	SR 1174 AUBREY CLAYTON RD	SR 1102 GORDONTON RD TO SR 1162 WILSON RD	2	2	2WU	NO	NO	1.1	20	330	52	2.20			400		1,125	100		81	150							1.60	
TOTAL FOR MAP NO. 22										1.1		330	52	2.20			400		1,125	100		81	150						1.60		
2016CPT.05.08.20731.1	Person	23	SR 1552 CEDAR GROVE CHURCH RD	SR 1536 TO SR 1536	2	2	2WU	NO	NO	2.3	20-21	690	100	4.50			800		2,484			166	300							3.00	
TOTAL FOR MAP NO. 23										2.3		690	100	4.50			800		2,484			166	300						3.00		
2016CPT.05.08.20731.1	Person	24	SR 1763 WOODROW ASHLEY RD	SR 1711 TO DEAD END	4	2	2WU	NO	NO	0.3	18	20									131	9	100								
TOTAL FOR MAP NO. 24										0.3		20								131	9	100									
2016CPT.05.08.20731.1	Person	25	SR 1774 CRYSTAL LAKE RD	SR 1711 TO DEAD END	4	2	2WU	NO	NO	0.1	18-19	15									56	4	20								
TOTAL FOR MAP NO. 25										0.1		15								56	4	20									
2016CPT.05.08.20731.1	Person	26	SR 1567 PIXLEY PRITCHARD RD	US 158 TO GRANVILLE COUNTY	2	2	2WU	NO	NO	5.7	20-21	5,130	300	11.40	450		600		5,967	1,000		460	1,000				800	80	8.30		
TOTAL FOR MAP NO. 26										5.7		5,130	300	11.40	450		600		5,967	1,000		460	1,000			800	80	8.30			
2016CPT.05.08.20731.1	Person	27</																													

PROJECT NO.	SHEET NO.	TOTAL NO.
2016CPT.05.08.10731.1, 2016CPT.05.08.20731.1	11	

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	LENGTH	WIDTH	441300000-E	445700000-N	468500000-E	468600000-E			470000000-E	470500000-E	471000000-E	472500000-E				477000000-E		485000000-E	490000000-N	490500000-N
										WORK ZONE ADVANCE/GENERAL WARNING SIGNING	TEMPORARY TRAFFIC CONTROL	4" X 90 M WHITE THERMO	4" X 120 M YELLOW THERMO	4" X 120 M WHITE THERMO	12" X 90 M YELLOW THERMO	16" X 120 M WHITE THERMO	24" X 120 M WHITE THERMO	THERMO RXR 120 M	THERMO STR ARROW 90 M	THERMO RT ARROW 90 M	THERMO LT ARROW 90 M	4" YELLOW COLD APPLIED PLASTIC, TYPE II	4" WHITE COLD APPLIED PLASTIC, TYPE II	4" LINE REMOVAL	YELLOW & YELLOW MARKERS	SNOW PLOWABLE MARKERS	
										SF	LS	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	LF	LF	LF	EA	EA	
2016CPT.05.08.10731.1	Person	1	NC 49	CASWELL CO TO BEGIN C&G	1	2	2WU	11.55	32-44	1,294	0.24	124,278	104,038	990	124		68		2	1	4					762	
TOTAL FOR MAP NO. 1										1,294	0.24	124,278	104,038	990	124		68		2	1	4					762	
2016CPT.05.08.10731.1	Person	2	NC 157 GUESS RD	ORANGE CO TO SR 1107 (HURDLE MILLS RD)	1	2	2WU	2.5	24-25	280	0.04	26,900	16,500	115					2	1	4					165	
TOTAL FOR MAP NO. 2										280	0.04	26,900	16,500	115					2	1	4					165	
2016CPT.05.08.10731.1	Person	3	US 501	SR 1524 ALLIE CLAY RD. TO VIRGINA	1	2	2WU	9	24-42	1,008	0.14	96,840	81,615	1,790	800						12	780	780	1,560	8	594	
TOTAL FOR MAP NO. 3										1,008	0.14	96,840	81,615	1,790	800						12	780	780	1,560	8	594	
TOTAL FOR PROJ NO. 2016CPT.05.08.10731.1										2,582	0.42	248,018	202,153	2,895	924			68	2	1	16	780	780	1,560	8	1,521	
										205,048										19				1,560			
2016CPT.05.08.20731.1	Person	4	SR 1111 ROBERT WHITFIELD RD	NC 49 TO SR 1107 UNION GROVE CHURCH RD.	2	2	2WU	2.25	20-21	252	0.04	24,210	14,850	33													
TOTAL FOR MAP NO. 4										252	0.04	24,210	14,850	33													
2016CPT.05.08.20731.1	Person	5	SR 1125 NED MOORE RD	SR 1123 DICK HOLEMAN RD TO ORANGE COUNTY	3	2	2WU	2.4	20-21	269	0.04	25,824	15,840	68													
TOTAL FOR MAP NO. 5										269	0.04	25,824	15,840	68													
2016CPT.05.08.20731.1	Person	6	SR 1202 CC ANDREWS RD	US 501 TO SR 1125 NED MOORE RD	3	2	2WU	1	20-21	112	0.01	10,760	6,600	24													
TOTAL FOR MAP NO. 6										112	0.01	10,760	6,600	24													
2016CPT.05.08.20731.1	Person	7	SR 1128 TOM OAKLEY RD	SR 1129 FRANK TIMBERLAKE RD TO PAVEMENT CHANGE	2	2	2WU	0.7	20	78	0.01	7,532	4,620														
TOTAL FOR MAP NO. 7										78	0.01	7,532	4,620														
2016CPT.05.08.20731.1	Person	8	SR 1133 CLAY LONG RD	NC 157 TO SR 1129 FRANK TIMBERLAKE RD	2	2	2WU	2.75	20	308	0.04	29,590	18,150														
TOTAL FOR MAP NO. 8										308	0.04	29,590	18,150														
2016CPT.05.08.20731.1	Person	9	SR 1749 WELDON PAINTER RD	US 501 TO DEAD END	2	2	2WU	0.6	20-21	67	0.01	6,456	3,960	16													
TOTAL FOR MAP NO. 9										67	0.01	6,456	3,960	16													
2016CPT.05.08.20731.1	Person	10	SR 1769 WOODY DR	SR 1749 TO CUL-DE-SAC	4	2	2WU	0.5	20-21	56	0.01																
TOTAL FOR MAP NO. 10										56	0.01																
2016CPT.05.08.20731.1	Person	11	SR 1773 ANN DRIVE	SR 1769 TO CUL-DE-SAC	4	2	2WU	0.4	20-21	45	0.01																
TOTAL FOR MAP NO. 11										45	0.01																
2016CPT.05.08.20731.1	Person	12	SR 1775 FORK JUNCTION	SR 1773 TO DEAD END	4	2	2WU	0.3	18-19	34	0.01																
TOTAL FOR MAP NO. 12										34	0.01																
2016CPT.05.08.20731.1	Person	13	SR 1711 KERMIT DUNCAN RD	SR 1708 ANTIOCH CHURCH RD TO SR 1709 DINK ASHLEY RD	2	2	2WU	1.7	20-21	190	0.03	18,292	11,220	108													
TOTAL FOR MAP NO. 13										190	0.03	18,292	11,220	108													
2016CPT.05.08.20731.1	Person	14	SR 1771 RIVER OAKS DRIVE	SR 1709 DINK ASHLEY ROAD TO DEAD END	4	2	2WU	0.5	18-19	56	0.01																
TOTAL FOR MAP NO. 14										56	0.01																
2016CPT.05.08.20731.1	Person	15	SR 1780 OAKS LANE	SR 1771 TO END STATE MAINTENANCE	4	2	2WU	0.5	18	56	0.01																
TOTAL FOR MAP NO. 15										56	0.01																
2016CPT.05.08.20731.1	Person	16	SR 1772 SCENIC DRIVE	SR 1771 TO DEAD END	4	2	2WU	0.1	18-19	11	0.01																
TOTAL FOR MAP NO. 16										11	0.01																
2016CPT.05.08.20731.1	Person	17	SR 1721 MT HARMONY CH RD	US 158 TO SR 1715 (HELENA MORIAH RD)	5	2	2WU	7	20-21	784	0.10	75,320	46,200	260													
TOTAL FOR MAP NO. 17										784	0.10	75,320	46,200	260													
2016CPT.05.08.20731.1	Person	18	SR 1741 CHAMBERS LOOP RD	FROM US 501 TO SR 1742	2	2	2WU	1	20	112	0.03	10,760	6,600														
TOTAL FOR MAP NO. 18										112	0.03	10,760	6,600														
2016CPT.05.08.20731.1	Person	19	SR 1742 CHAMBERS LOOP RD	SR 1741 TO US 501	2	2		1.5	20	168	0.01	16,140	9,900	35													
TOTAL FOR MAP NO. 19										168	0.01	16,140	9,900	35													
2016CPT.05.08.20731.1	Person	20	SR 1743 HOWARD CLAYTON RD	SR 1742 TO DEAD END	2	2	2WU	0.2	20	22	0.01																
TOTAL FOR MAP NO. 20										22	0.01																
2016CPT.05.08.20731.1	Person	21	SR 1120 BERRY PIERCE RD	OCL TO SR 1134 (SATTERFIELD RD)	2	2	2WU	3	20-21	336	0.04	32,280	19,800	185													
TOTAL FOR MAP NO. 21										336	0.04	32,280	19,800	185													
2016CPT.05.08.20731.1	Person	22	SR 1174 AUBREY CLAYTON RD	SR 1102 GORDONTON RD TO SR 1162 WILSON RD	2	2	2WU	1.1	20	123	0.02	11,836	10,888														
TOTAL FOR MAP NO. 22										123	0.02	11,836	10,888														
2016CPT.05.08.20731.1	Person	23	SR 1552 CEDAR GROVE CHURCH RD	SR 1536 TO SR 1536	2	2	2WU	2.3	20-21	258	0.03	24,748	15,180	130													
TOTAL FOR MAP NO. 23										258	0.03	24,748	15,180	130													
2016CPT.05.08.20731.1	Person	24	SR 1763 WOODROW ASHLEY RD	SR 1711 TO DEAD END	4	2	2WU	0.3	18	34	0.01																
TOTAL FOR MAP NO. 24										34	0.01																
2016CPT.05.08.20731.1	Person	25	SR 1774 CRYSTAL LAKE RD	SR 1711 TO DEAD END	4	2	2WU	0.1	18-19	11	0.01																
TOTAL FOR MAP NO. 25										11	0.01																
2016CPT.05.08.20731.1	Person	26	SR 1567 PIXLEY PRITCHARD RD	US 158 TO GRANVILLE COUNTY	2	2	2WU	5.7	20-21	638	0.10	61,332	59,015	157													
TOTAL FOR MAP NO. 26										638	0.10	61,332	59,015	157													
2016CPT.05.08.20731.1	Person	27	SR 1532 THAXTON RD	US 501 TO PAVEMENT CHANGE	5	2	2WU	0.75	18-24	84	0.01	8,070	4,950	16													
TOTAL FOR MAP NO. 27										84	0.01	8,070	4,950	16													
2016CPT.05.08.20731.1	Person	28	SR 1531 PROVIDENCE RD	US 501 TO PAVEMENT CHANGE	5	2	2WU	1	20	112	0.01	10,760	6,600	110													
TOTAL FOR MAP NO. 28										112	0.01	10,760	6,600	110													
TOTAL FOR PROJ NO. 2016CPT.05.08.20731.1										4,216	0.58	373,910	254,373	1,142	200	208	8	2	1	16	780	780	1,560	8	1,521		
										255,515										19</							

SIGNING FOR RESURFACING PROJECTS

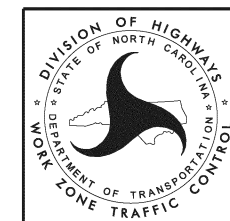


LEGEND	
┆	STATIONARY SIGN
←	DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	MAINLINE (-L-) SIGNING		-Y- LINE SIGNING	
	1	 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.	<p>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <ol style="list-style-type: none"> 1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE 2) SUBDIVISION ROADS 3) DEAD END ROADS <p>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.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> W20-1 48" X 48" </div> <div style="text-align: center;"> W20-7 A 48" X 48" </div> </div> <p>PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p>
	2	 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	 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 1/2 MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE 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.	
5	 G20-2 A 48" X 24"	PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.		

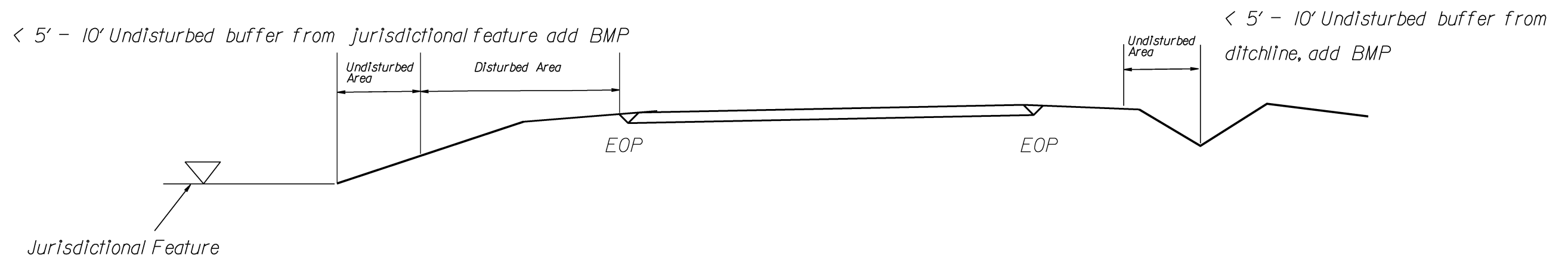
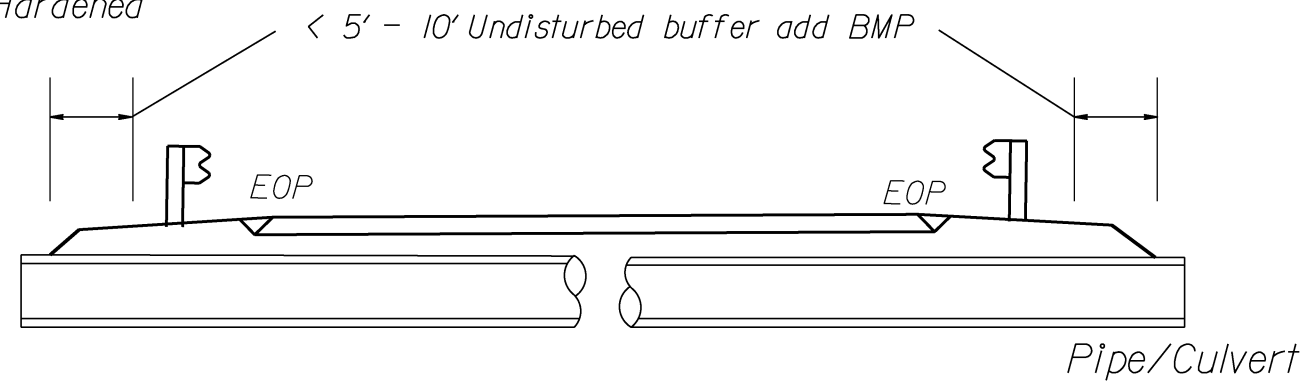


RESURFACING
 ADVANCE WARNING SIGNS
 FOR
 RURAL AND SUBURBAN
 2 LANE ROADWAYS

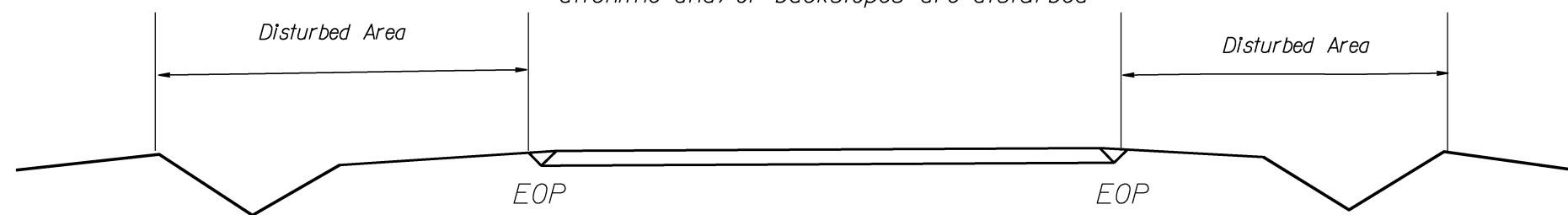
NOTES: Less than 5' - 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.

BMP Options: Wattle, Silt Fence or Hardened Aggregate.

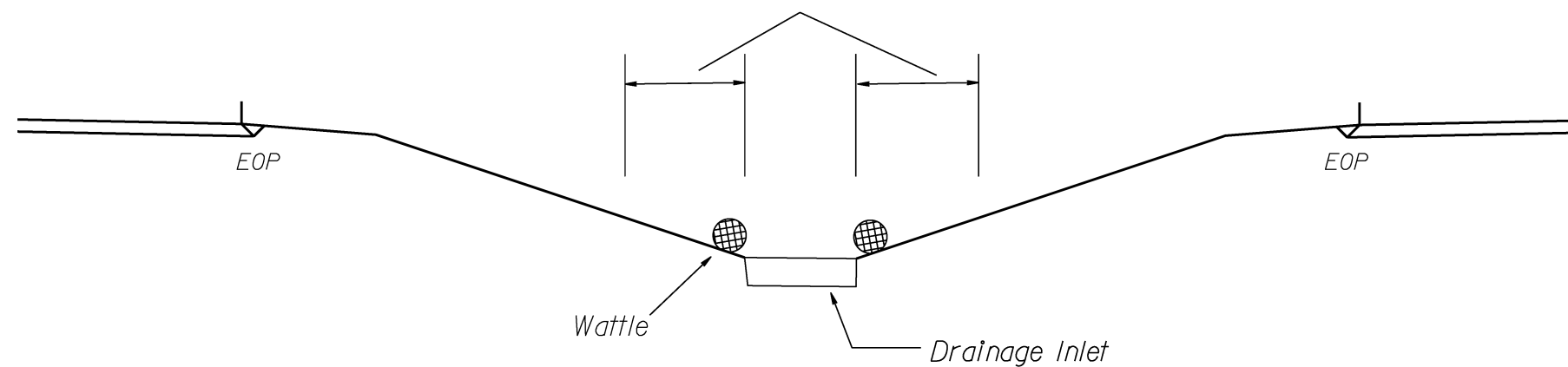
EROSION CONTROL DETAIL



Use BMP's if shoulders and/or front slopes and/or ditchline and/or back slopes are disturbed

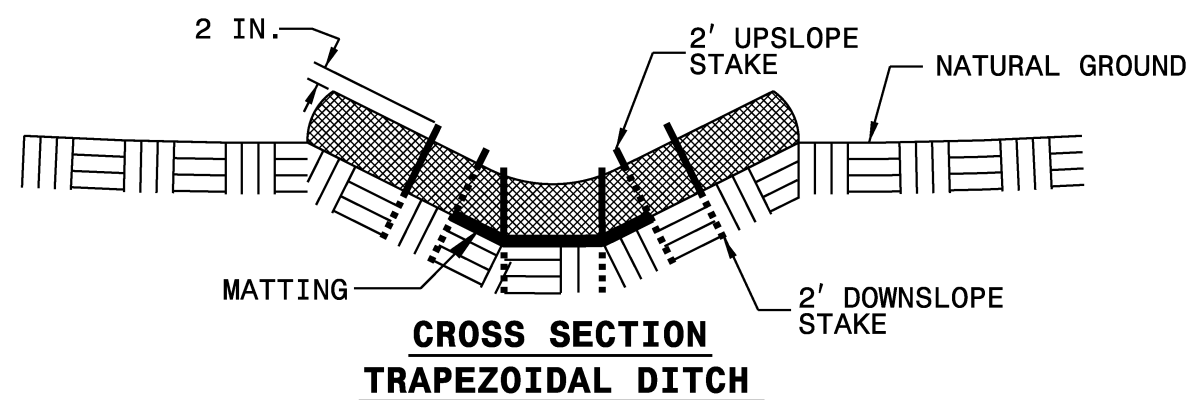
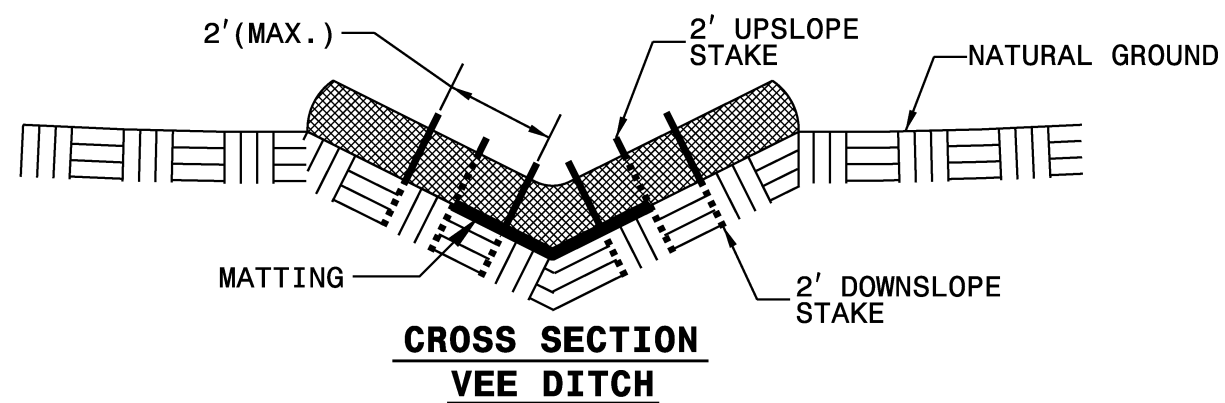
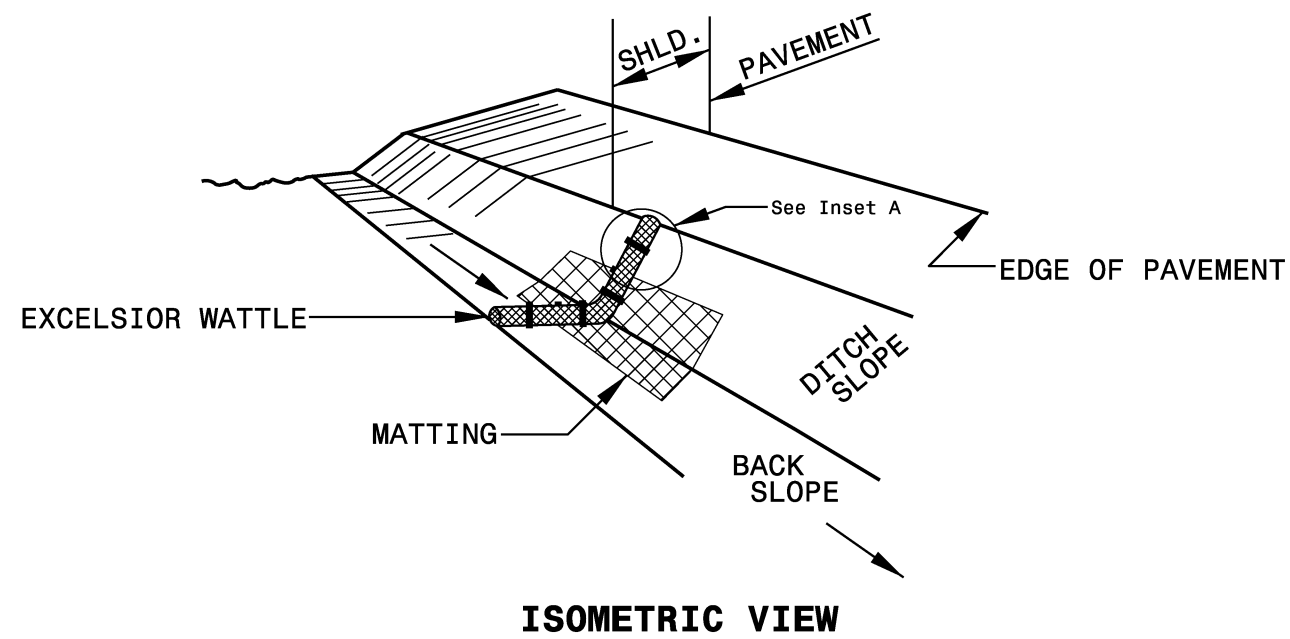


< 5' - 10' Undisturbed buffer from inlet, add wattle



NOT TO SCALE

WATTLE DETAIL



NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

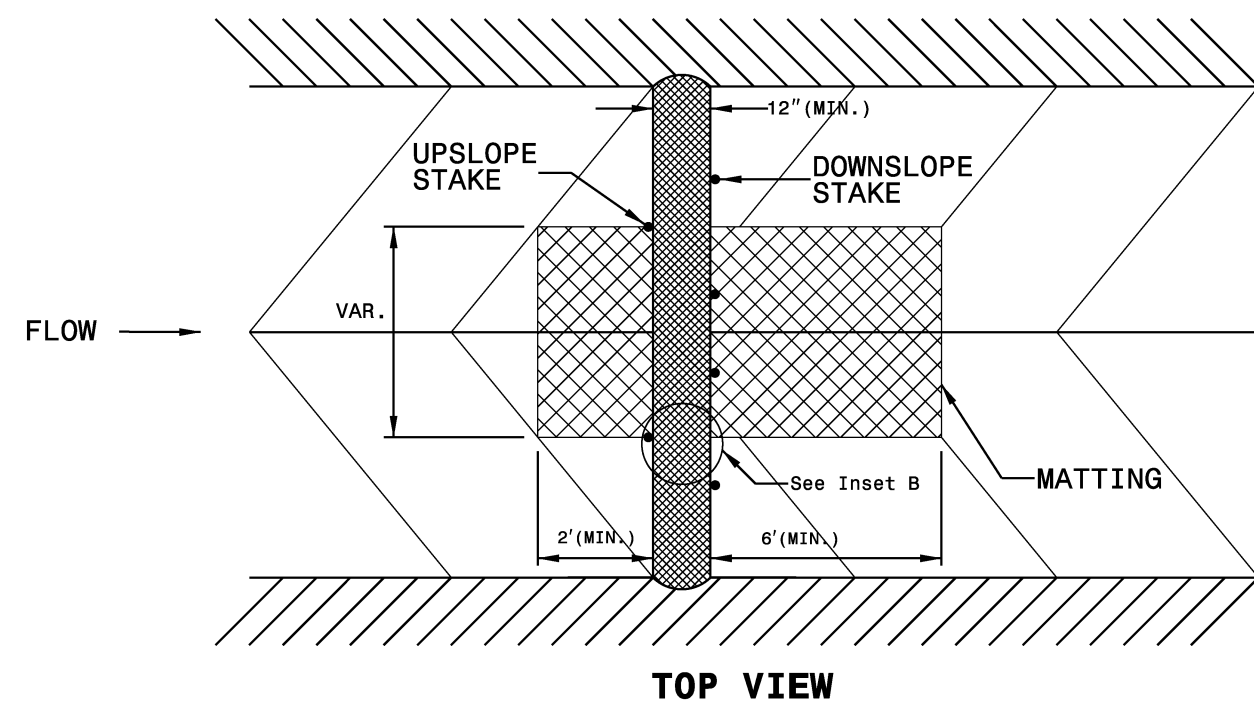
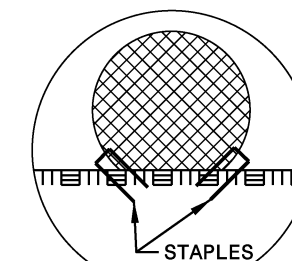
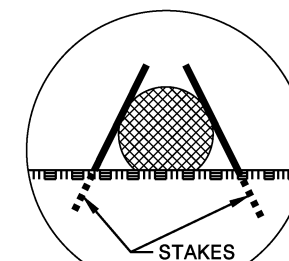
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

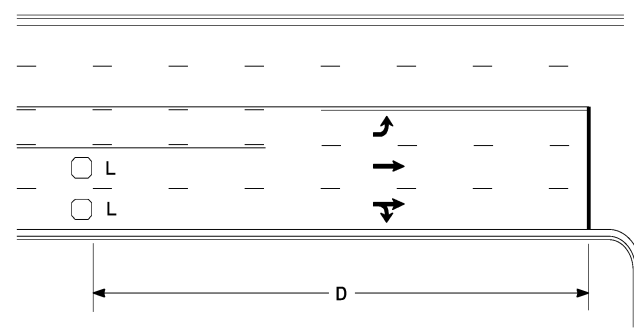
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.



High Speed Detection (≥40 mph)

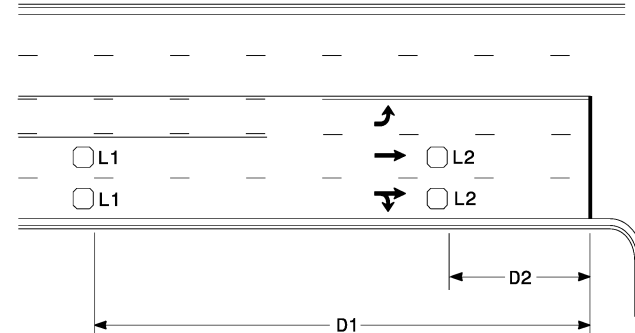


Speed Limit mph	D ft
40	250
45	300
50	355
55	420

L = 6ft X 6ft
Wired in series for TS1
Controllers
Wired separately for TS2,
170, and 2070L Controllers

Volume Density Operation

OR

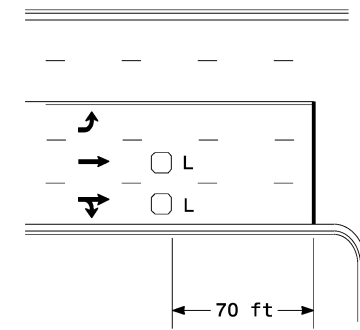


Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110

L1 = 6ft X 6ft
Wired in series
L2 = 6ft X 6ft
Wired in series

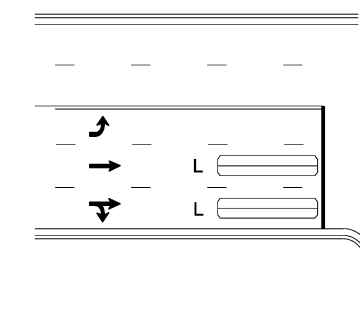
"Stretch" Operation

Low Speed Detection (≤35 mph)



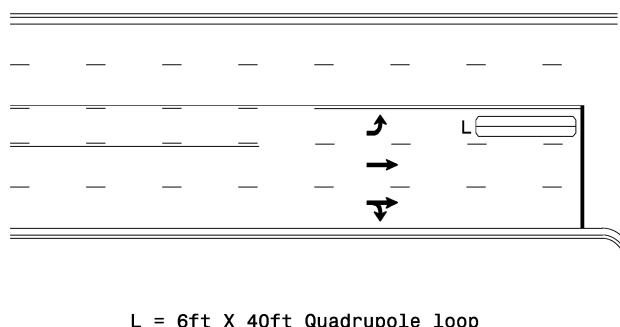
L = 6ft X 6ft
Wired in series

OR



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

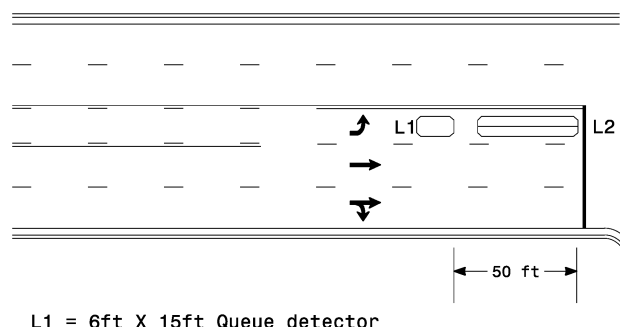
Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

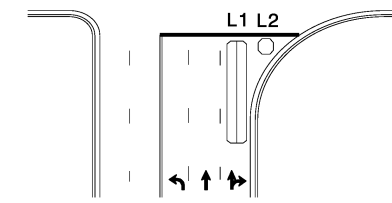
OR



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

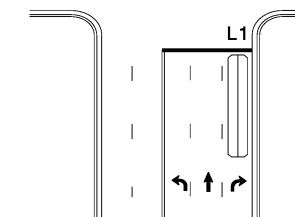
Queue Loop Detection

Right Turn Lane Detection

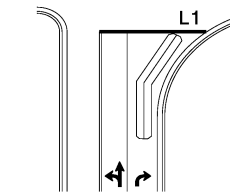


Shared Lane/
Wide Radius Turn

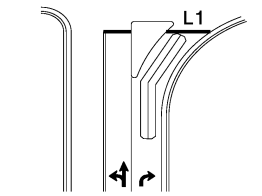
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

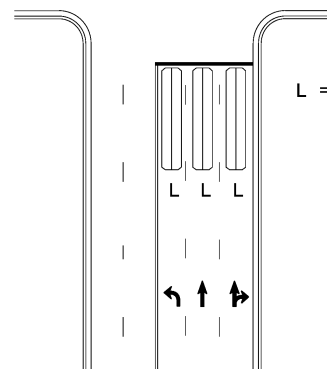


Wide Radius Turn



Channelized Turn

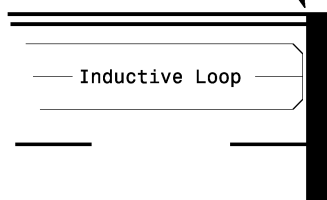
Side Street Detection



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

Presence Loop Placement at Stop Lines

Locate loop slightly
behind leading
edge of stop line



- 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:

750 N. Greenfield Pkwy, Garner, NC 27529

Typical Signal Loop Locations

PLAN DATE: January 2015	REVIEWED BY: JPG
PREPARED BY: PLA	REVIEWED BY:

SCALE: N/A

SEAL

1/30/2015