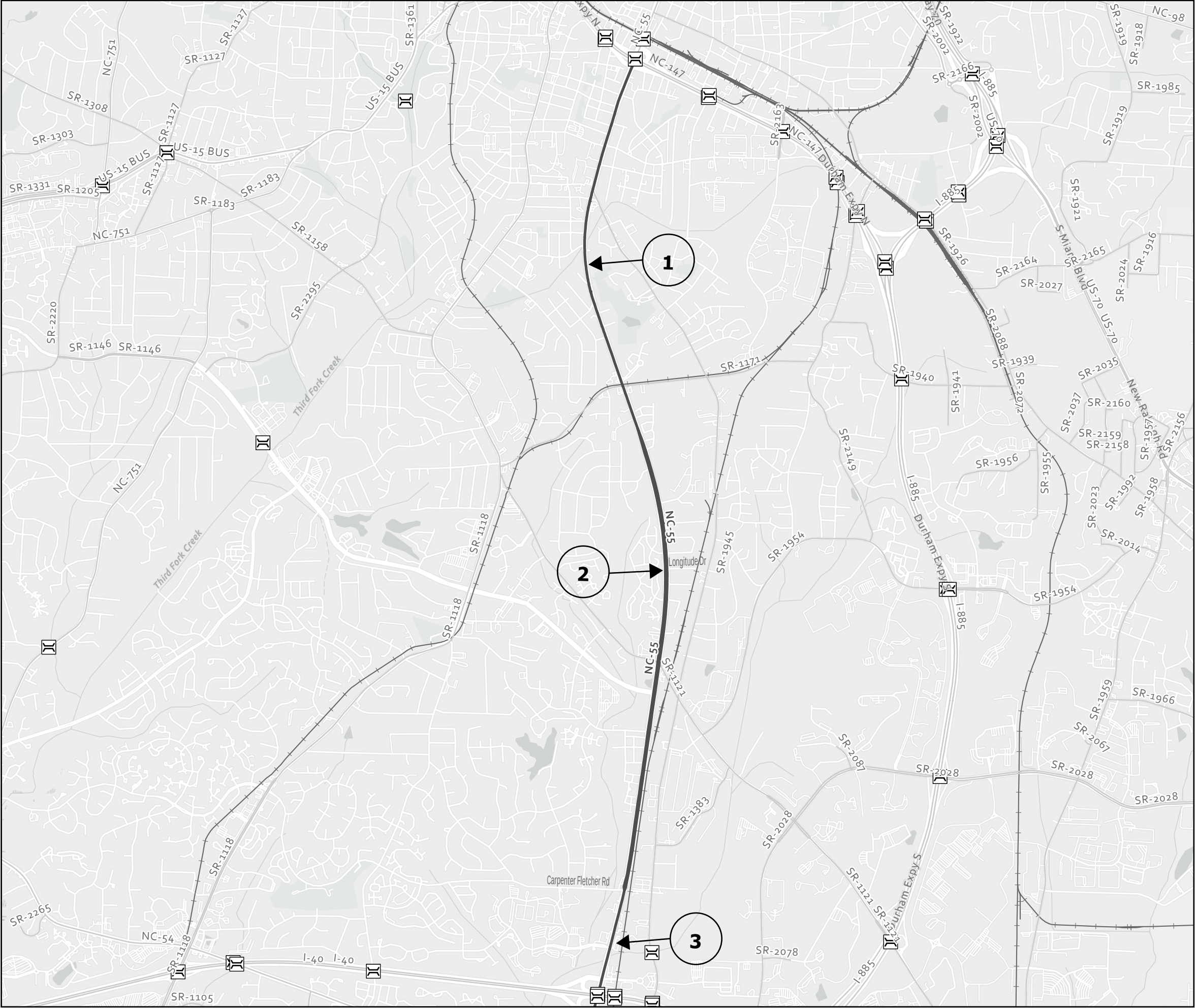




2027 NC 55 - Durham County	
PROJECT REFERENCE NO.	SHEET NO.
2026CPT.05.05.10321.1	1

Map 1: NC 55
Northbound Lane Only from Carpenter Fletcher Rd to Longitude Dr and North and Southbound Lanes from Longitude Dr to NC 147 Bridge

Map 2: NC 55
Southbound Lane Only From Longitude Dr to Carpenter Fletcher Rd

Map 3: NC 55
North and Southbound Lanes From TW Alexander Dr to Carpenter Fletcher Rd

* Railroad Crossing Shown on Map 1 is an Inactive American Tobacco Trail *



PAVEMENT SCHEDULE

DURHAM COUNTY RESURFACING

PROJECT REFERENCE NO.

2026CPT.05.05.10321.1

SHEET NO.

3

Prepared in the Office of:

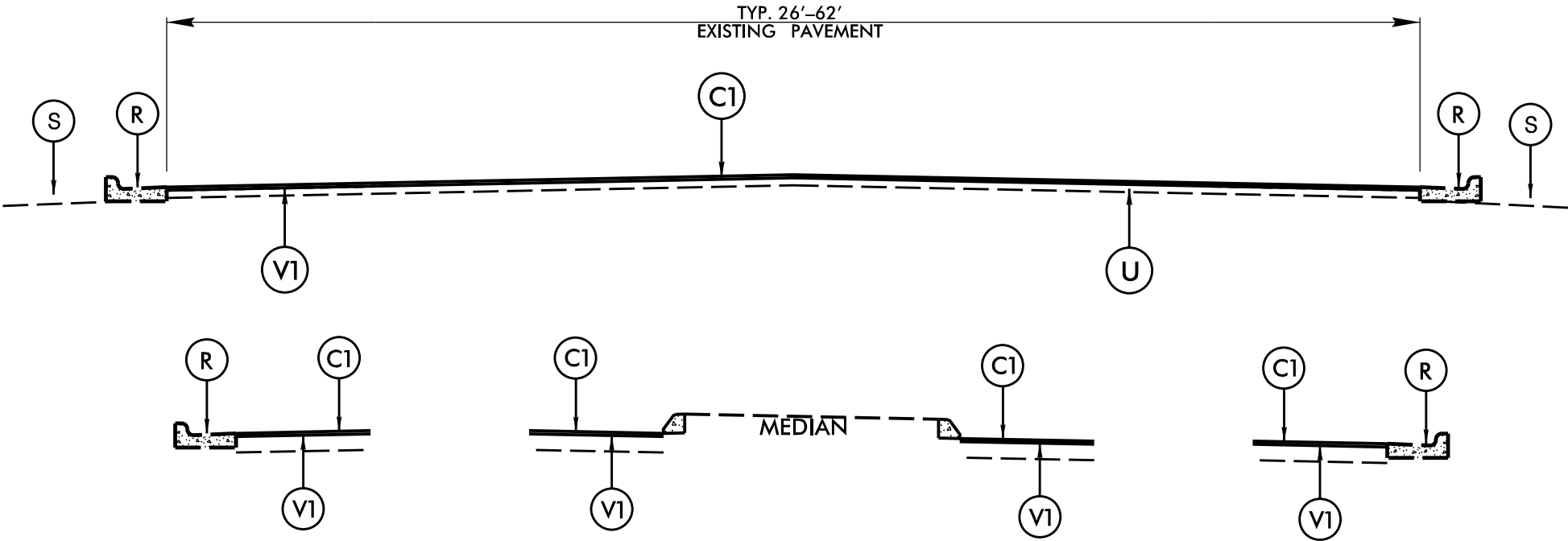
SUMMIT

1000 12th Street, Suite 100
Durham, NC 27601
919.286.1234

NC 100 LICENSE No. P-01199

322 Locust Street, Suite 100
Durham, NC 27601
919.286.1234

C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	U	EXISTING PAVEMENT
R	EXISTING CURB AND GUTTER	V1	MILL ASPHALT PAVEMENT, 1½" DEPTH
S	SHOULDER RECONSTRUCTION, ASB REQUIRED		



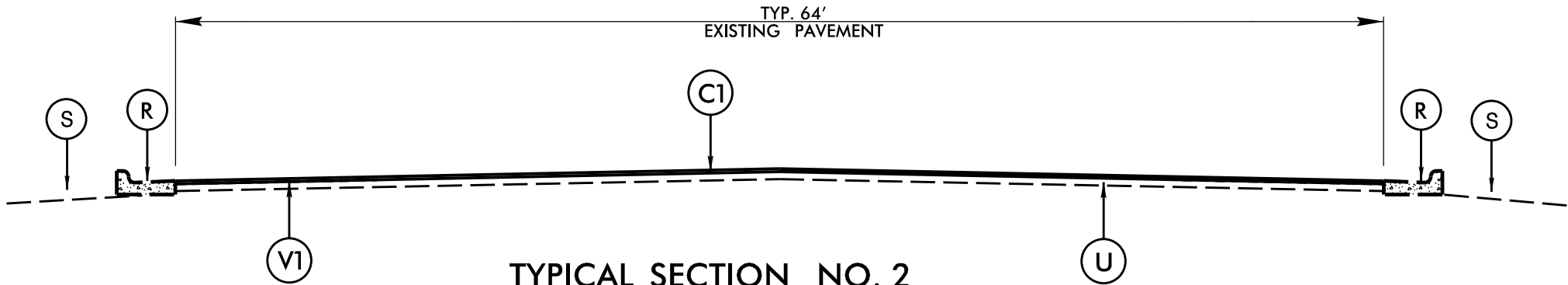
TYPICAL SECTION NO. 1

FULL DEPTH PATCHING, MILL AND RESURFACE S9.5C
MAP NO's. 1 – 2

SHOULDERS TO BE RECONSTRUCTED WHERE CURB AND GUTTER DOES NOT EXIST

SHOULDERS ARE RECONSTRUCTED TO THE SHOULDER POINT/HINGE POST
SEEDING AND MULCHING SHALL BE PERFORMED UPON COMPLETION OF SHOULDER
GRADING WHEN EARTH BORROW IS USED

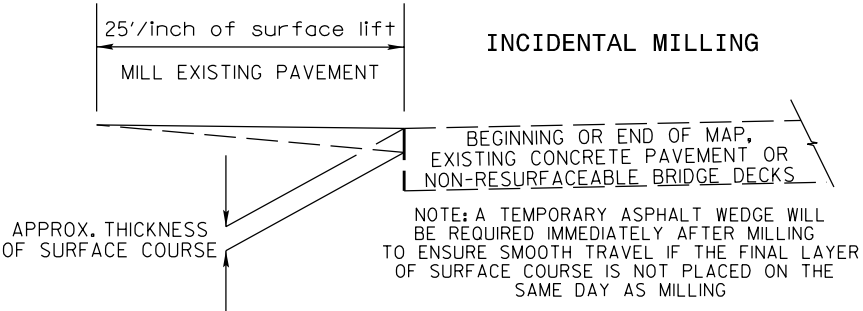
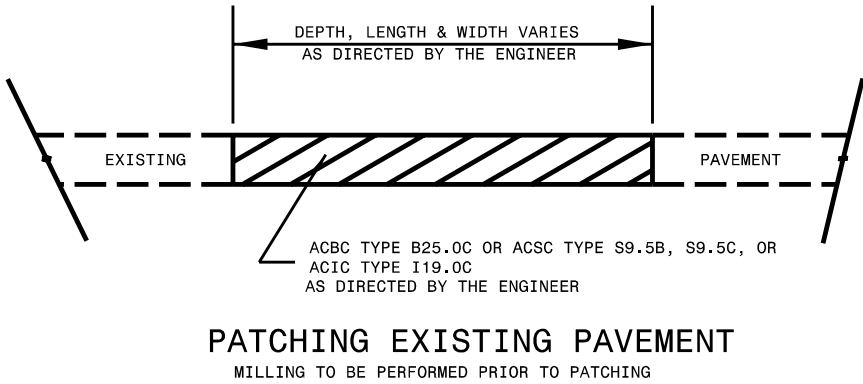
PAVEMENT SCHEDULE	
C1	1 ½" S9.5C
R	EXIST. C&G
U	EXIST. PAVEMENT
V1	1½" MILLING
S	SHLD RECON

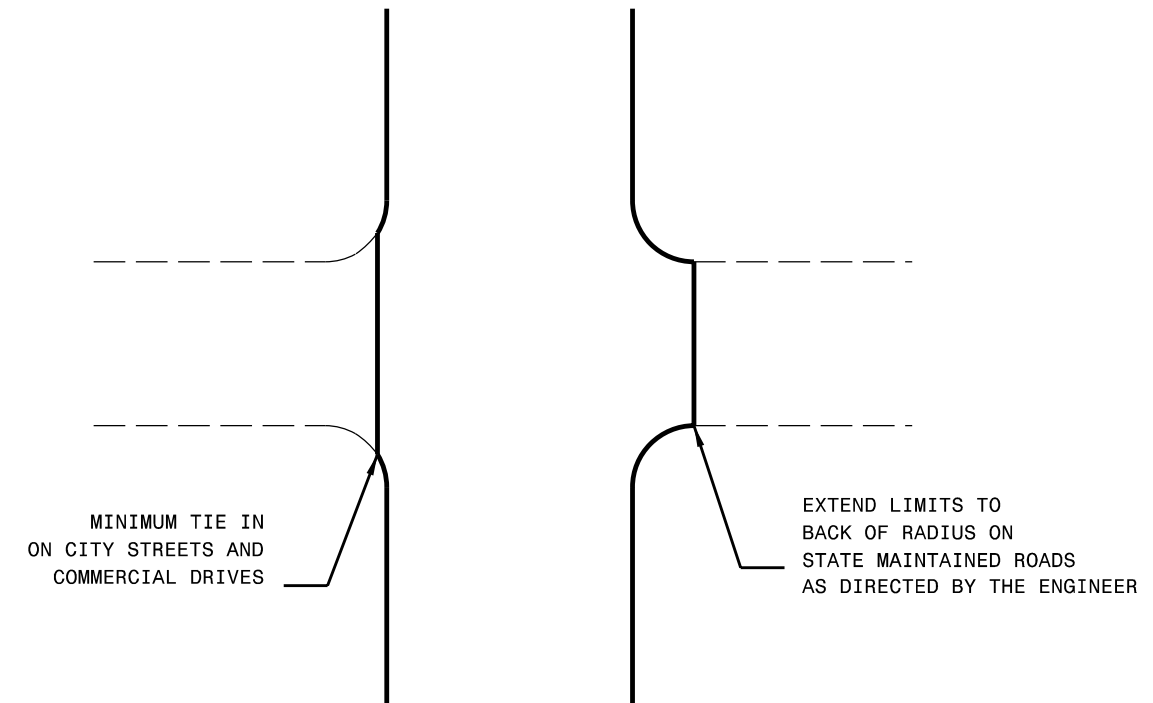


TYPICAL SECTION NO. 2
FULL DEPTH PATCHING, MILL AND RESURFACE S9.5C
MAP NO. 3

SHOULDERS TO BE RECONSTRUCTED WHERE CURB AND GUTTER DOES NOT EXIST

SHOULDERS ARE RECONSTRUCTED TO THE SHOULDER POINT/HINGE POST
SEEDING AND MULCHING SHALL BE PERFORMED UPON COMPLETION OF SHOULDER
GRADING WHEN EARTH BORROW IS USED

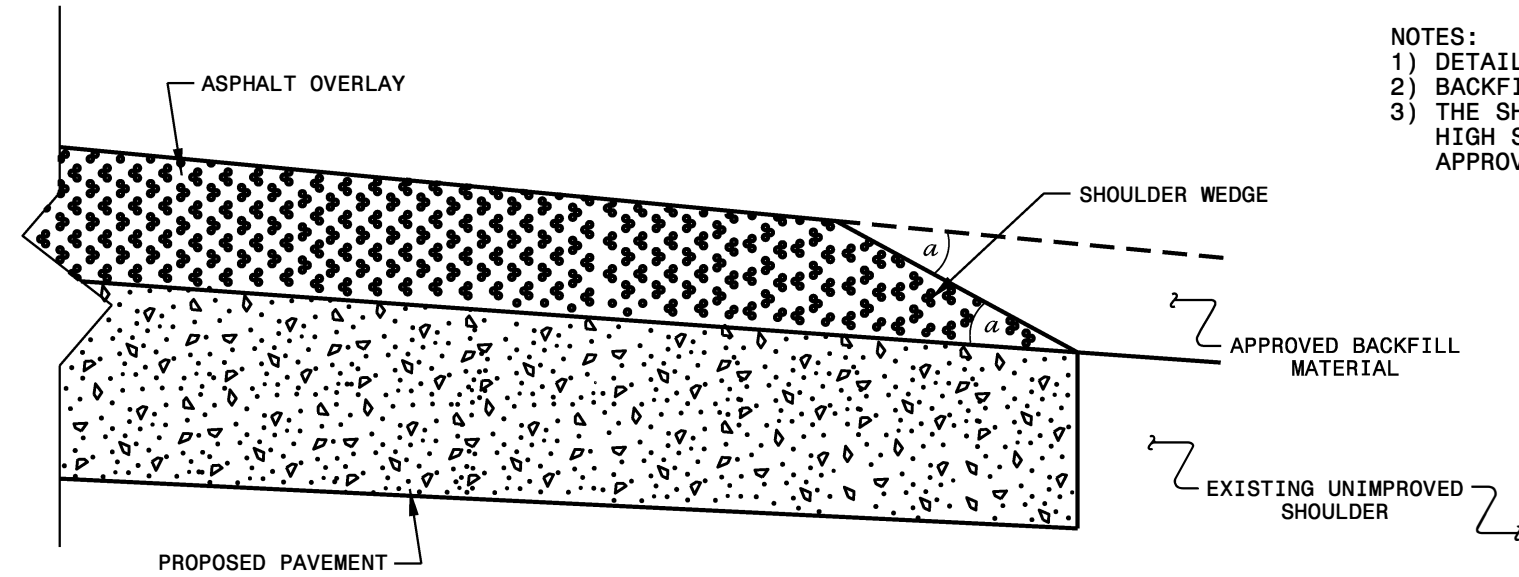




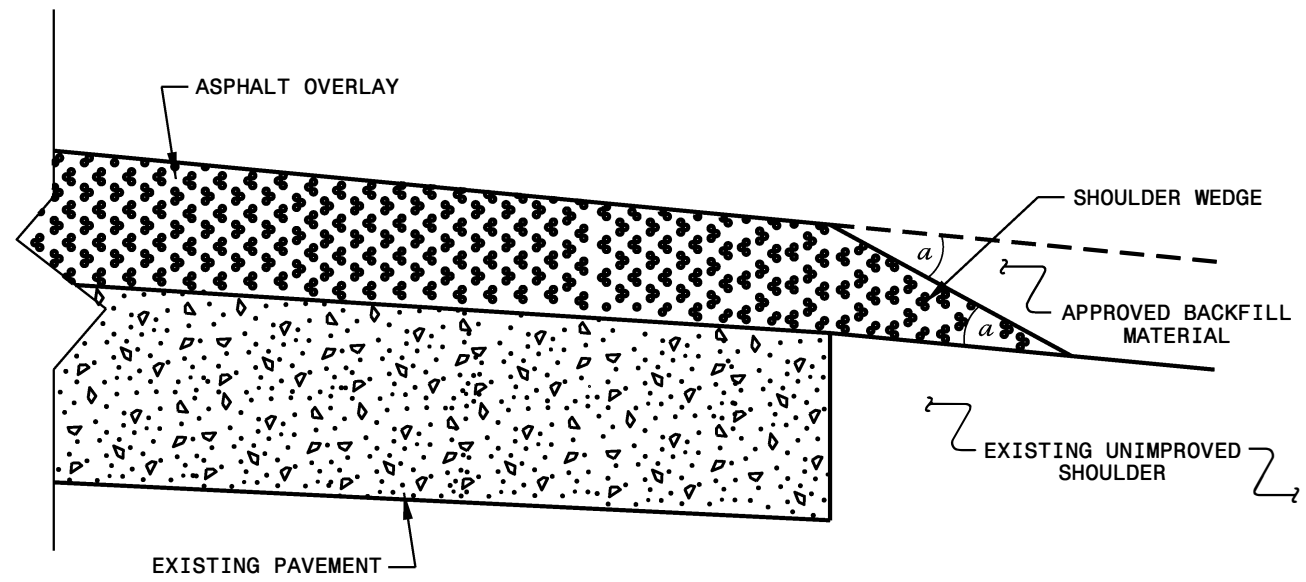
TYPICAL DETAIL OF PROJECT LIMITS AT
UNSIGNALIZED Y LINES

[illegible]

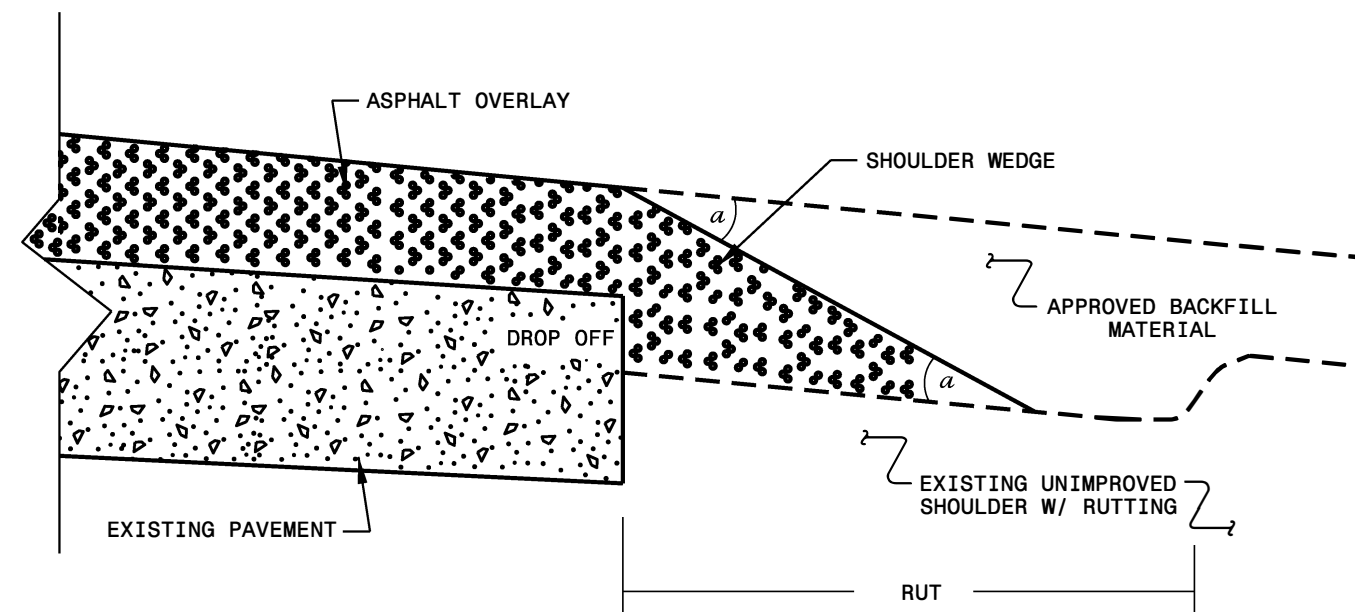
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFC AND ULTRA-THIN BONDED WEARING COURSE.
 - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.



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°

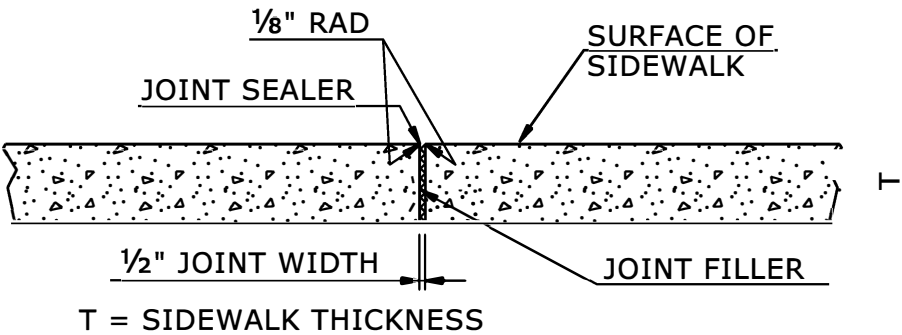
CONTRACT STANDARDS AND DEVELOPMENT UNIT Office 919-707-6950 FAX 919-250-4119			
SHOULDER WEDGE DETAILS			
ORIGINAL BY:	T.SPELL	DATE:	7-19-11
MODIFIED BY:		DATE:	2/2/16
CHECKED BY:		DATE:	
FILE SPEC.:	s:\usr\details\stand\shoulderwedgedetail.dgn		

NOTES:

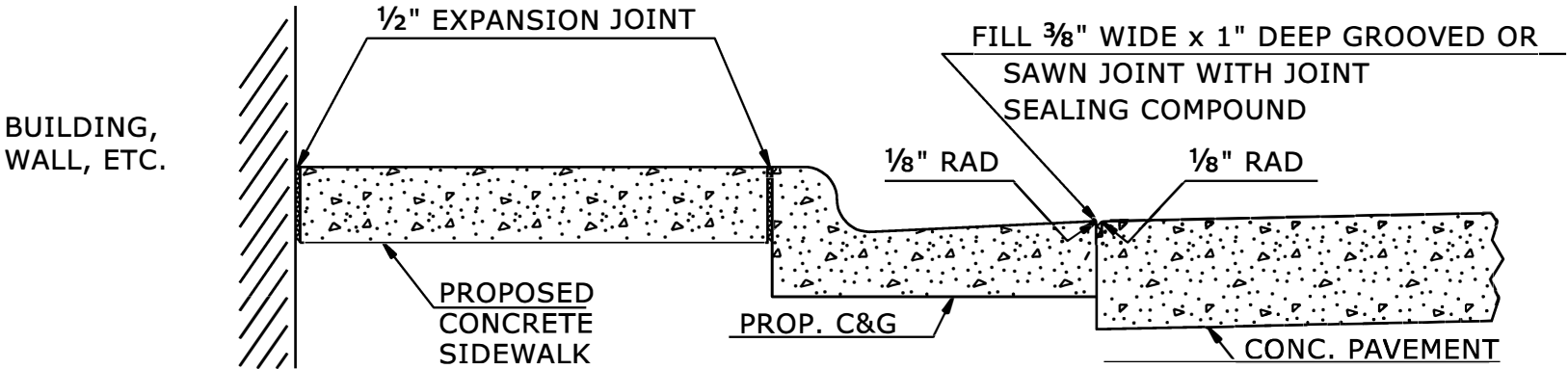
CONSTRUCT STANDARD SIDEWALK 5' WIDE AND 4" THICK UNLESS OTHERWISE DENOTED ON PLANS.

PLACE A GROOVE JOINT 1" DEEP WITH 1/8" RADII IN THE CONCRETE SIDEWALK AT 5' INTERVALS. ONE 1/2" EXPANSION JOINT WILL BE REQUIRED AT 50' INTERVALS. A 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK JOINS ANY RIGID STRUCTURE.

SEE STD. DWG. 848.06 FOR CURB RAMP LOCATION REQUIREMENTS AND CONSTRUCTION GUIDELINES.



TRANSVERSE EXPANSION JOINT
IN SIDEWALK



DETAILS SHOWING JOINTS IN CONCRETE SIDEWALK

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
CONCRETE SIDEWALK



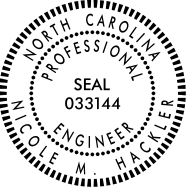
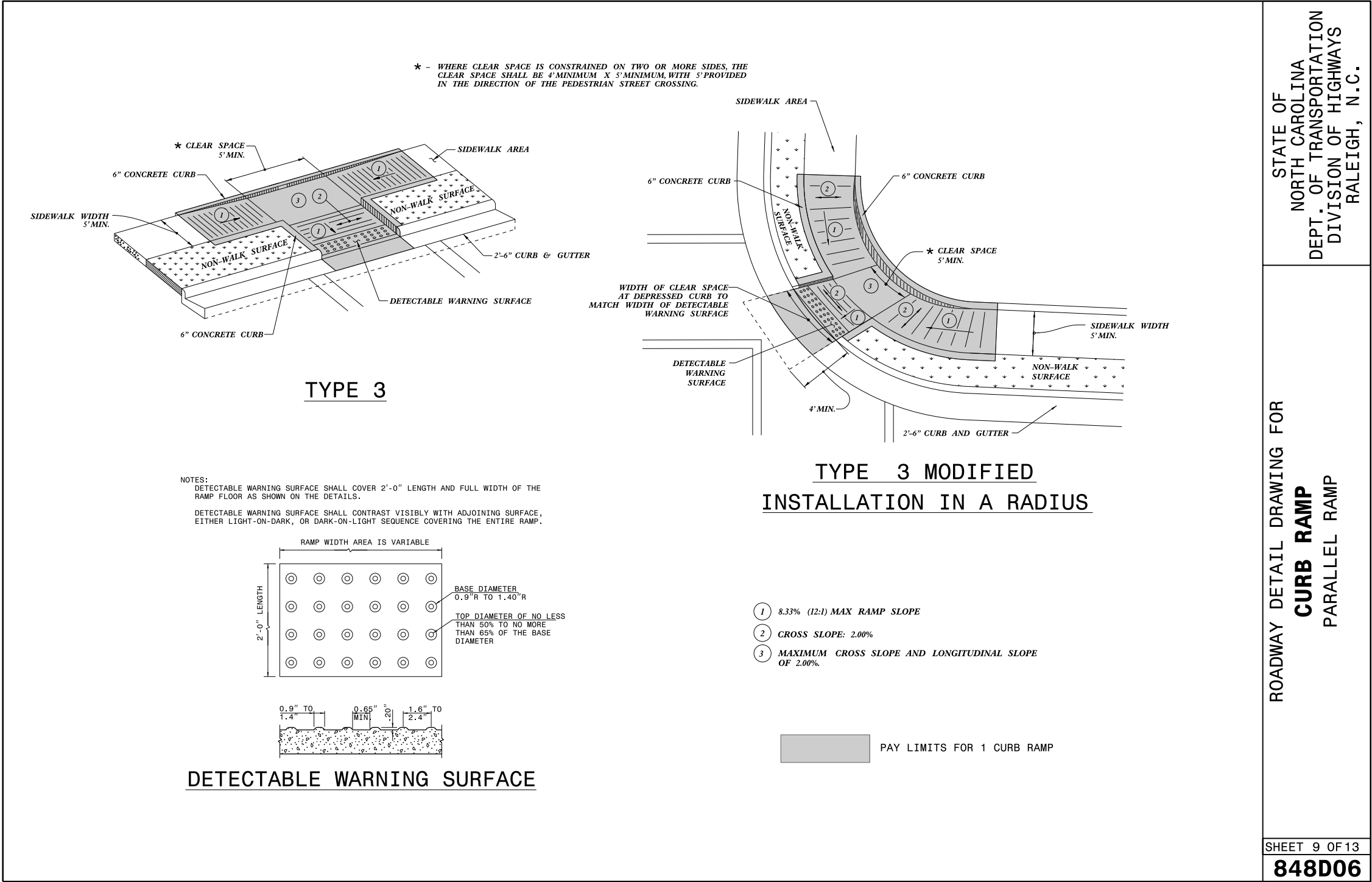
SHEET 1 OF 1
848D01

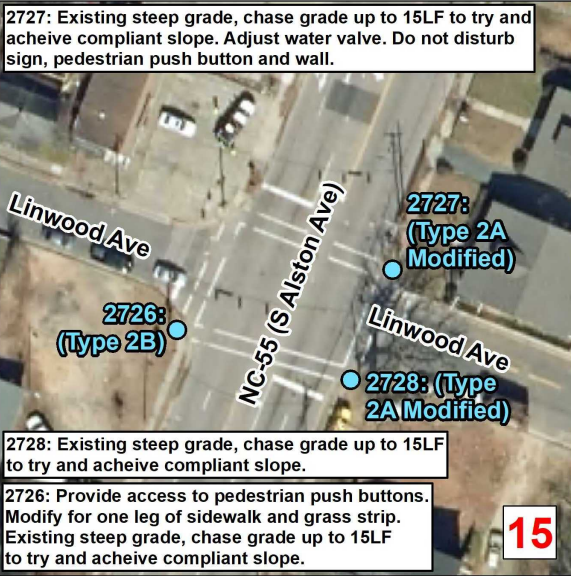
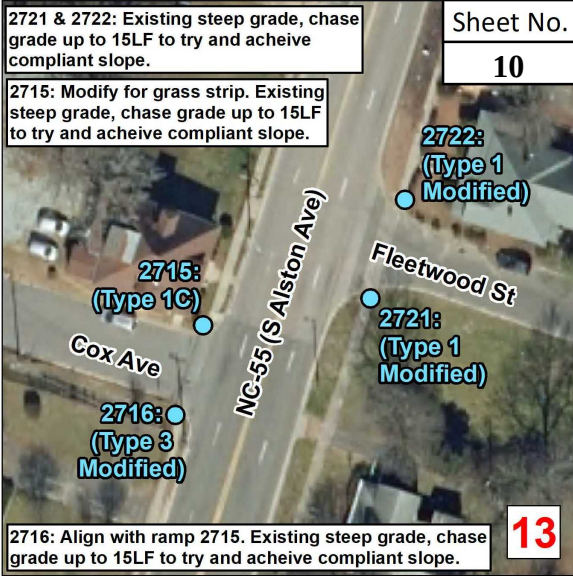
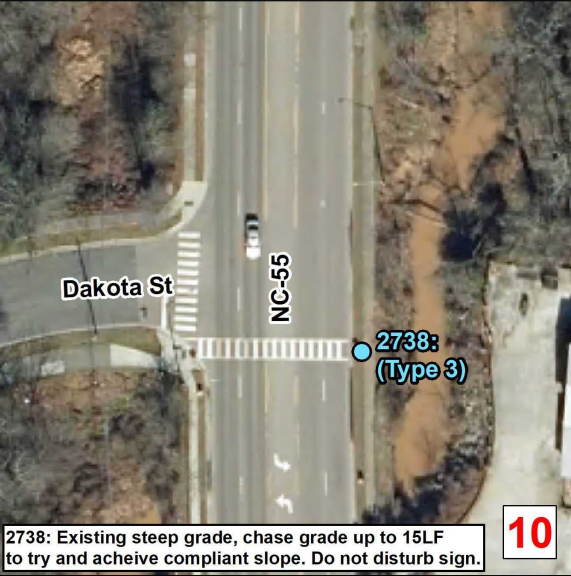
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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

SEE TITLE BLOCK

ORIGINAL BY: S.CALHOUN DATE: 7-25-2024
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC: DATE:





Curb Ramps To Be Repaired

Retrofit

Remove and Replace

New Curb Ramp

Remove Ramp

Other

Municipal Boundary

NCHPO Historic Boundary (NR and LHD)

N

NC 55 - Durham County

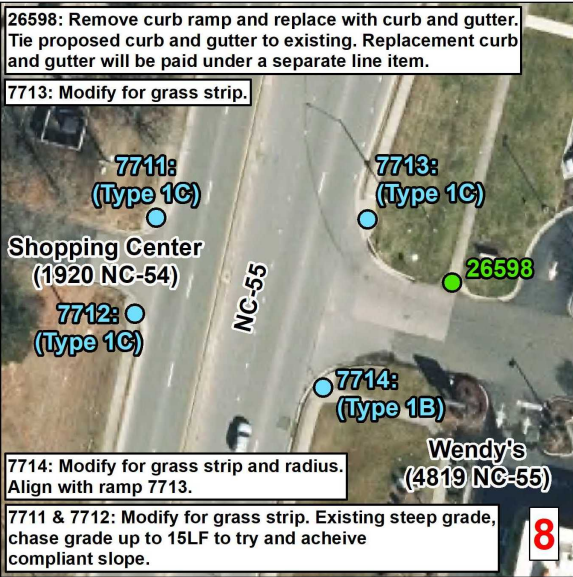
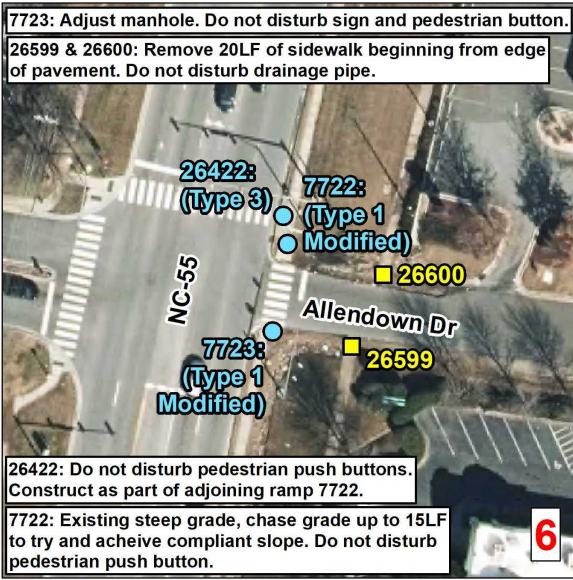
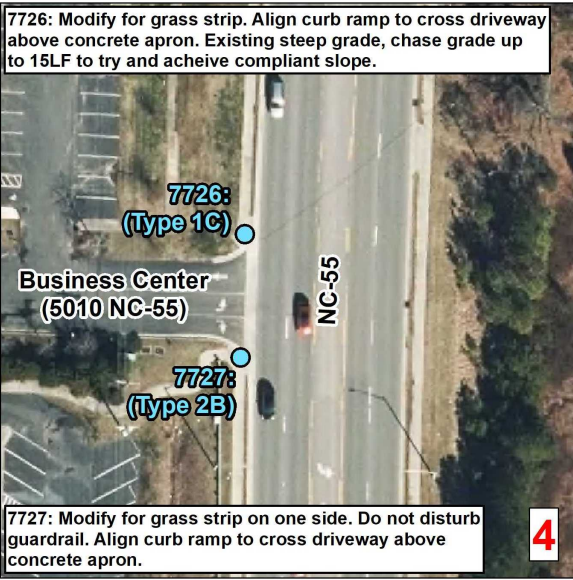
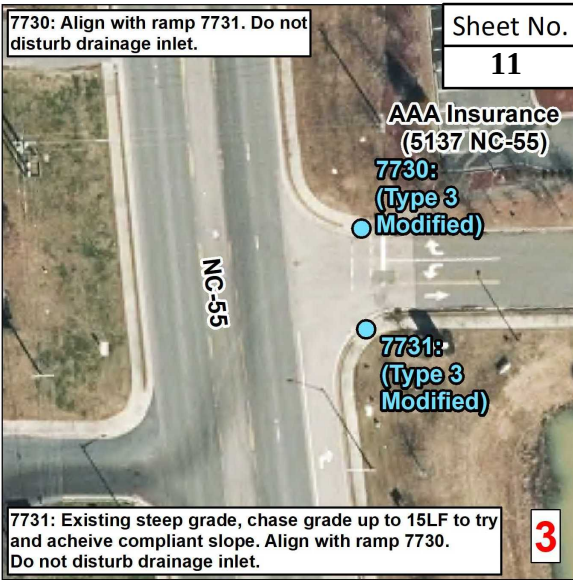
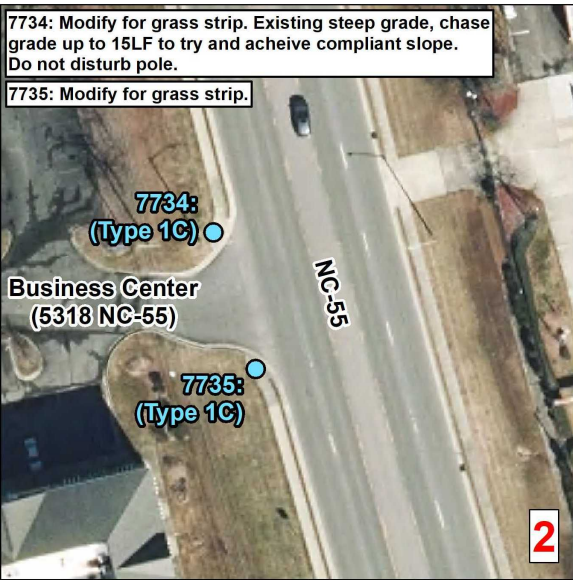
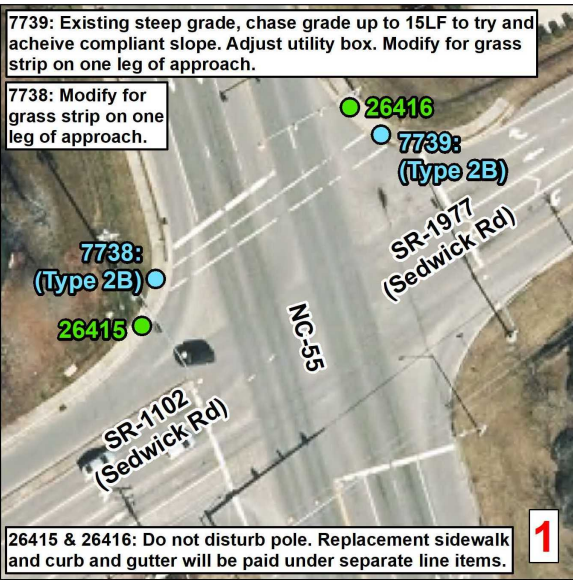
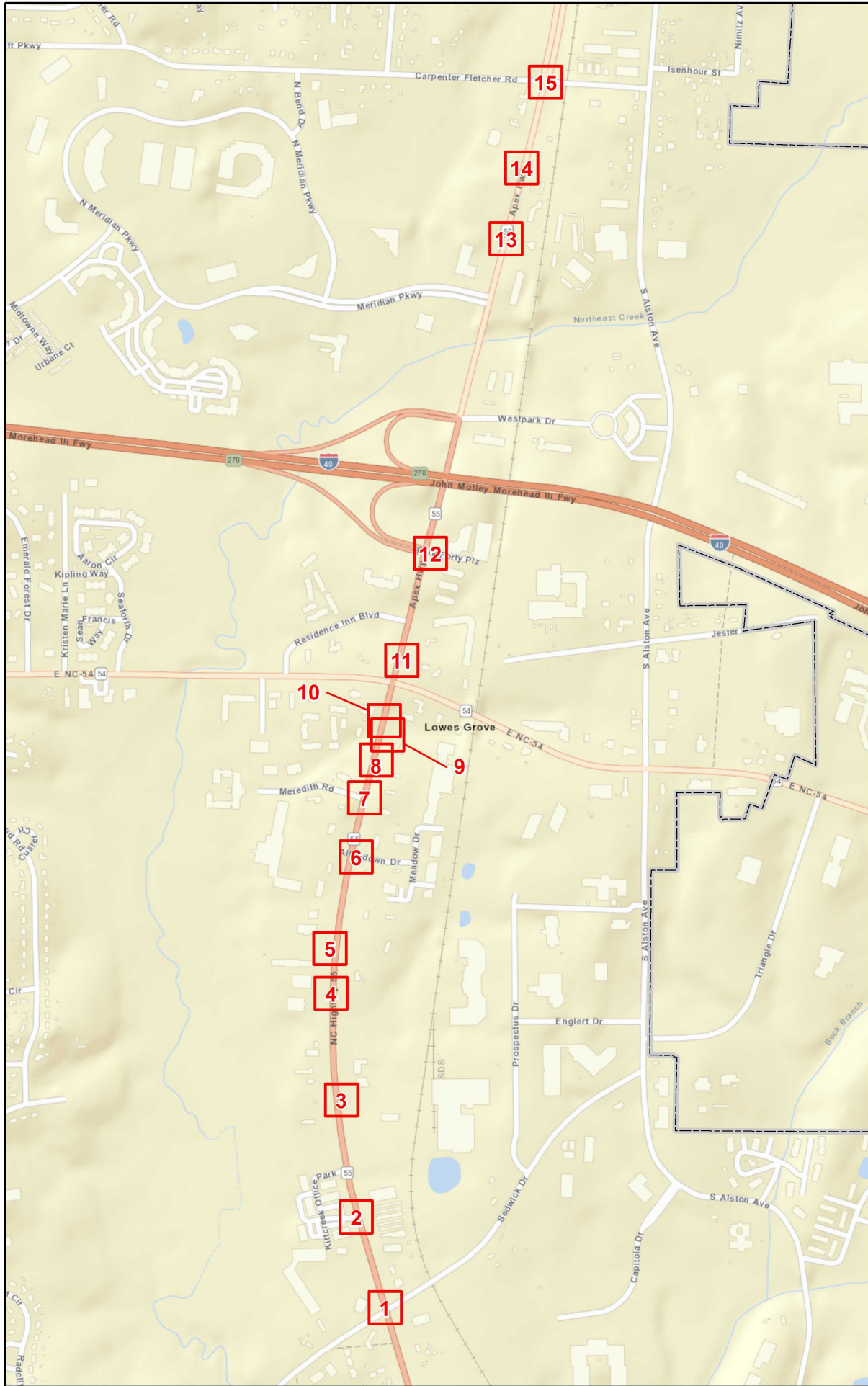
WBS Number: 2026CPT.05.05.10321.1

NC 55 From Carpenter Fletcher Rd To NC 147 Bridge

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

DIVISION 5

Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO



Curb Ramps To Be Repaired

- Retrofit
- Remove and Replace
- New Curb Ramp
- Remove Ramp
- Other

▭ Municipal Boundary

▭ NCHPO Historic Boundary (NR and LHD)

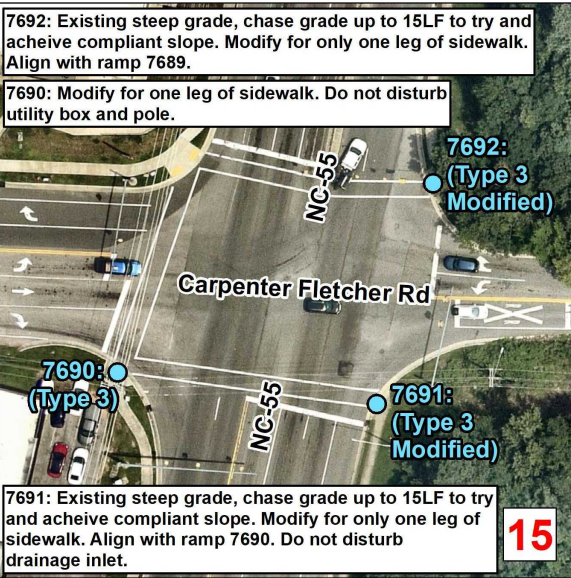
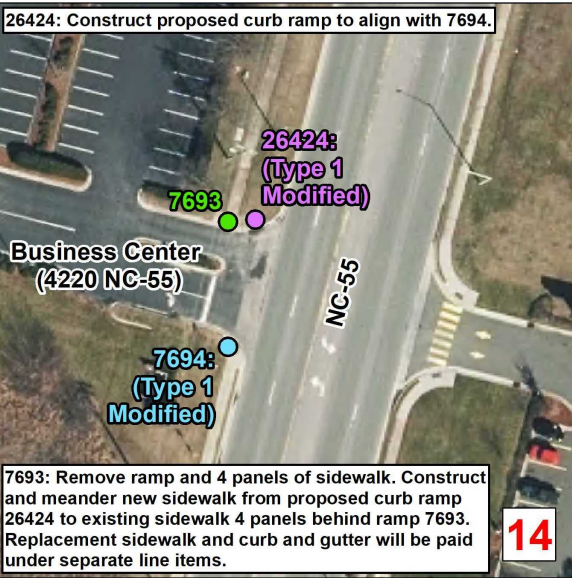
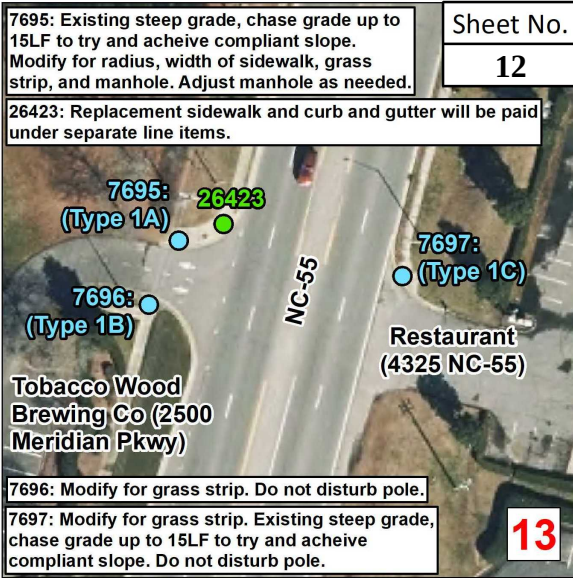
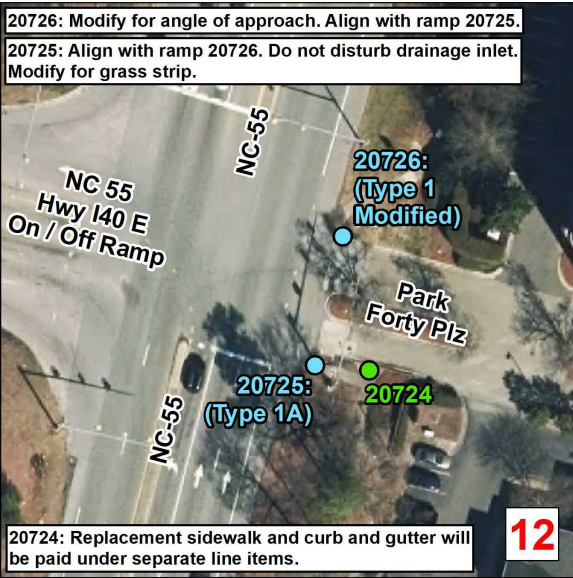
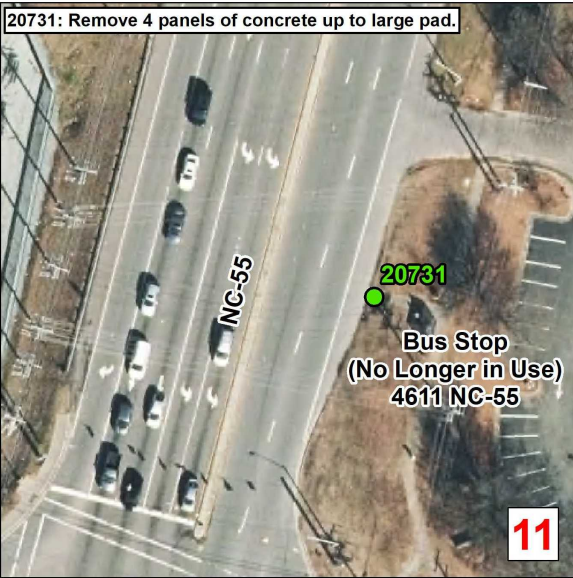
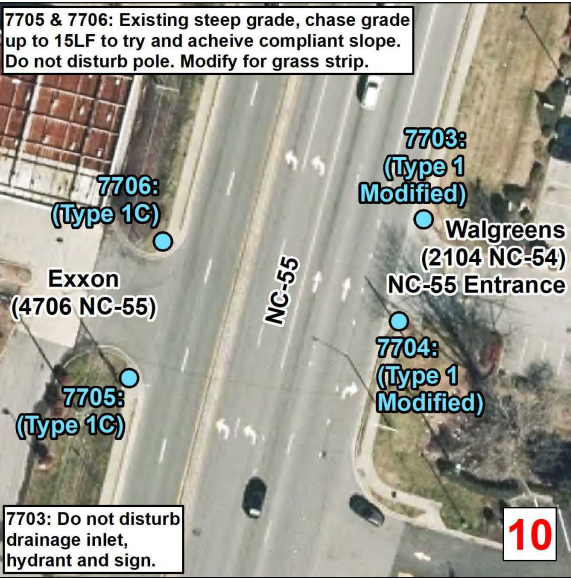
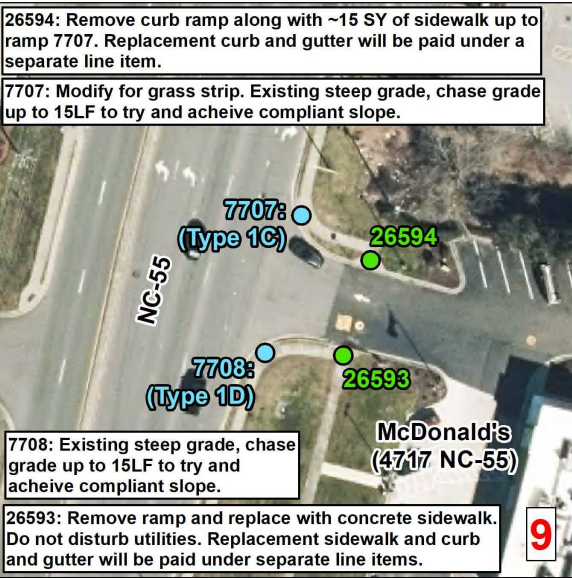
NC 55 - Durham County

WBS Number: 2026CPT.05.05.10321.1

NC 55 From TW Alexander Dr To Carpenter Fletcher Rd

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION 5

Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO



Curb Ramps To Be Repaired

Retrofit

Remove and Replace

New Curb Ramp

Remove Ramp

Other

Municipal Boundary

NCHPO Historic Boundary (NR and LHD)

N

NC 55 - Durham County

WBS Number: 2026CPT.05.05.10321.1

NC 55 From TW Alexander Dr
To Carpenter Fletcher Rd

NORTH CAROLINA DEPARTMENT
OF TRANSPORTATION
DIVISION 5

Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO

ADA SUMMARY OF QUANTITIES - NC 55 FROM CARPENTER FLETCHER RD TO NC 147 BRIDGE

Municipality:	Durham
WBS Number:	2026CPT.05.05.10321.1
County:	Durham

Sheet No.
13

Ramp ID	Inset Map Number	Route 1	Route 2	0156000000-E (SY) Removal of Existing Asphalt Pavement	1704000000-E (TON) Patching Existing Pavement	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove And Replace 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	2738000000-E (SY) Remove 4" Concrete Sidewalk	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	2655000000-E (SY) 5" Monolithic Concrete Island (Keyed In)	2738000000-E (SY) Remove 5" Monolithic Concrete Islands (Keyed In)	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2605000000-N (EA) Concrete Curb Ramps	2759000000-N (EA) Remove Concrete Curb Ramps	Improvement Type
7686	1	NC-55	Odyssey Dr			15			9									1	Remove Ramp
7678	2	NC-55	Martin Luther King Jr Pkwy			15			9									1	Remove Ramp
7679	2	NC-55	Martin Luther King Jr Pkwy													1			Type 3 - 848D0609
7680	2	NC-55	Martin Luther King Jr Pkwy			15			9									1	Remove Ramp
7681	2	NC-55	Martin Luther King Jr Pkwy							6						1			Type 3 - 848D0609
7682	2	NC-55	Martin Luther King Jr Pkwy			15			6									1	Remove Ramp
7683	2	NC-55	Martin Luther King Jr Pkwy													1			Standard - 848.06
7684	2	NC-55	Martin Luther King Jr Pkwy													1			Type 8 - 848.06
26425	2	NC-55	Martin Luther King Jr Pkwy													1			Type 8 - 848.06
26596	2	NC-55	Martin Luther King Jr Pkwy		1									2	5				Other
7676	3	NC-55	Exxon (3321 NC-55) South Entrance							6						1			Type 1C - 848.06
7677	3	NC-55	Exxon (3321 NC-55) South Entrance							6						1			Type 1C - 848.06
7672	4	NC-55	Exxon (3321 NC-55) North Entrance							6						1			Type 1C - 848.06
7673	4	NC-55	Exxon (3321 NC-55) North Entrance													1			Type 1C - 848.06
7674	4	NC-55	Circle K (3308 NC-55)							6						1			Type 1 Modified - 848.06
7675	4	NC-55	Circle K (3308 NC-55)													1			Type 1 Modified - 848.06
24368	5	NC-55	SR-1121 (E Cornwallis Rd)			15					20							1	Remove Ramp
7669	6	NC-55	Courtney Creek Blvd													1			Type 1 Modified - 848.06
7667	7	NC-55	Contravest Pkwy													1			Type 1 Modified - 848.06
7668	7	NC-55	Contravest Pkwy								9					1			Type 1B - 848.06
7666	8	NC-55	Peace Missionary Baptist Church (2608 NC-55)			18				6								1	Remove Ramp
26427	8	NC-55	Peace Missionary Baptist Church (2608 NC-55)			15				17								1	Remove Ramp
26432	9	NC-55	Corona St							3						1			Type 1 Modified - 848.06
26433	9	NC-55	Corona St							3						1			Type 1 Modified - 848.06
2738	10	NC-55	Dakota St							6						1			Type 3 - 848D0609
22927	11	NC-55	Exxon Gas Station (1603 S Alston Ave) NC-55 Entrance													1			Type 1 Modified - 848.06
22928	11	NC-55	Exxon Gas Station (1603 S Alston Ave) NC-55 Entrance													1			Standard - 848.06
2706	12	NC-55 (S Alston Ave)	E Lawson St							3						1			Standard - 848.06
2707	12	NC-55 (S Alston Ave)	E Lawson St													1			Type 2B - 848.06
2710	12	NC-55 (S Alston Ave)	E Lawson St													1			Standard - 848.06
2711	12	NC-55 (S Alston Ave)	E Lawson St							3						1			Standard - 848.06
2713	12	NC-55 (S Alston Ave)	E Lawson St	4												1			Type 6 - 848.06
2714	12	NC-55 (S Alston Ave)	E Lawson St	4												1			Type 6 - 848.06
2717	12	NC-55 (S Alston Ave)	E Lawson St	4												1			Type 6 - 848.06
2715	13	NC-55 (S Alston Ave)	Cox Ave							9						1			Type 1C - 848.06
Sub-Total				12	1	108	0	0	33	51	58	0	0	2	5	27	0	7	

Note: ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page.

ADA SUMMARY OF QUANTITIES - NC 55 FROM CARPENTER FLETCHER RD TO NC 147 BRIDGE

Municipality:	Durham
WBS Number:	2026CPT.05.05.10321.1
County:	Durham

Sheet No.
14

Ramp ID	Inset Map Number	Route 1	Route 2	0156000000-E (SY) Removal of Existing Asphalt Pavement	1704000000-E (TON) Patching Existing Pavement	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove And Replace 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	2738000000-E (SY) Remove 4" Concrete Sidewalk	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	2655000000-E (SY) 5" Monolithic Concrete Island (Keyed In)	2738000000-E (SY) Remove 5" Monolithic Concrete Islands (Keyed In)	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2605000000-N (EA) Concrete Curb Ramps	2759000000-N (EA) Remove Concrete Curb Ramps	Improvement Type
2716	13	NC-55 (S Alston Ave)	Cox Ave							6						1			Type 3 Modified - 848D0609
2721	13	NC-55 (S Alston Ave)	Fleetwood St							6						1			Type 1 Modified - 848.06
2722	13	NC-55 (S Alston Ave)	Fleetwood St							6						1			Type 1 Modified - 848.06
2723	14	NC-55 (S Alston Ave)	Massey Ave													1			Type 1C - 848.06
2725	14	NC-55 (S Alston Ave)	Massey Ave													1			Type 2B - 848.06
2726	15	NC-55 (S Alston Ave)	Linwood Ave						3	3						1			Type 2B - 848.06
2727	15	NC-55 (S Alston Ave)	Linwood Ave							6			1			1			Type 2A Modified - 848.06
2728	15	NC-55 (S Alston Ave)	Linwood Ave							6						1			Type 2A Modified - 848.06
-	-	-	-	-	-	-	140*	-	-	-	-	-	-	-	-	-	-	-	
Sub-Total				0	0	0	140	0	3	33	0	0	1	0	0	8	0	0	
Sub-Total for NC 55 From Carpenter Fletcher Rd To NC 147 Bridge				12	1	108	140	0	36	84	58	0	1	2	5	35	0	7	

Notes: (1) ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page. (2) *Contingency line item amount provided for adjustments outside of curb ramp pay limits.

ADA SUMMARY OF QUANTITIES - NC 55 FROM TW ALEXANDER DR TO CARPENTER FLETCHER RD

Municipality:	Durham
WBS Number:	2026CPT.05.05.10321.1
County:	Durham

Sheet No.
15

Ramp ID	Inset Map Number	Route 1	Route 2	0156000000-E (SY) Removal of Existing Asphalt Pavement	1704000000-E (TON) Patching Existing Pavement	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove And Replace 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	2738000000-E (SY) Remove 4" Concrete Sidewalk	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	2655000000-E (SY) 5" Monolithic Concrete Island (Keyed In)	2738000000-E (SY) Remove 5" Monolithic Concrete Islands (Keyed In)	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2605000000-N (EA) Concrete Curb Ramps	2759000000-N (EA) Remove Concrete Curb Ramps	Improvement Type
7738	1	NC-55	SR-1102 (Sedwick Rd)												1				Type 2B - 848.06
7739	1	NC-55	SR-1977 (Sedwick Rd)							6			1		1				Type 2B - 848.06
26415	1	NC-55	SR-1102 (Sedwick Rd)			15			9									1	Remove Ramp
26416	1	NC-55	SR-1977 (Sedwick Rd)			15			9									1	Remove Ramp
7734	2	NC-55	Business Center (5318 NC-55)							6					1				Type 1C - 848.06
7735	2	NC-55	Business Center (5318 NC-55)												1				Type 1C - 848.06
7731	3	NC-55	AAA Insurance (5137 NC-55)							6					1				Type 3 Modified - 848D0609
7730	3	NC-55	AAA Insurance (5137 NC-55)												1				Type 3 Modified - 848D0609
7726	4	NC-55	Business Center (5010 NC-55)							6					1				Type 1C - 848.06
7727	4	NC-55	Business Center (5010 NC-55)												1				Type 2B - 848.06
26417	5	NC-55	Golden Corral (5006 NC-55)			15			15									1	Remove Ramp
26601	5	NC-55	Golden Corral (5006 NC-55)												1				Type 1B - 848.06
26602	5	NC-55	Golden Corral (5006 NC-55)												1				Type 1 Modified - 848.06
7722	6	NC-55	Allendown Dr							3					1				Type 1 Modified - 848.06
7723	6	NC-55	Allendown Dr							6		1			1				Type 1 Modified - 848.06
26422	6	NC-55	Allendown Dr												1				Type 3 - 848D0609
26599	6	NC-55	Allendown Dr								12								Other
26600	6	NC-55	Allendown Dr								12								Other
7716	7	NC-55	Meredith Dr												1				Type 1B - 848.06
7717	7	NC-55	Bojangles (4831 NC-55)												1				Type 1C - 848.06
7718	7	NC-55	Bojangles (4831 NC-55)												1				Type 1D - 848.06
7711	8	NC-55	Shopping Center (1920 NC-54)							12					1				Type 1C - 848.06
7712	8	NC-55	Shopping Center (1920 NC-54)							6					1				Type 1C - 848.06
7713	8	NC-55	Wendy's (4819 NC-55)												1				Type 1C - 848.06
7714	8	NC-55	Wendy's (4819 NC-55)												1				Type 1B - 848.06
26598	8	NC-55	Wendy's (4819 NC-55)	6		21												1	Remove Ramp
7707	9	NC-55	McDonald's (4717 NC-55)							6					1				Type 1C - 848.06
7708	9	NC-55	McDonald's (4717 NC-55)							6					1				Type 1D - 848.06
26593	9	NC-55	McDonald's (4717 NC-55)			15			9									1	Remove Ramp
26594	9	NC-55	McDonald's (4717 NC-55)			15					15							1	Remove Ramp
7703	10	NC-55	Walgreens (2104 NC-54) NC-55 Entrance												1				Type 1 Modified - 848.06
7704	10	NC-55	Walgreens (2104 NC-54) NC-55 Entrance												1				Type 1 Modified - 848.06
7705	10	NC-55	Exxon (4706 NC-55)							6					1				Type 1C - 848.06
7706	10	NC-55	Exxon (4706 NC-55)							9					1				Type 1C - 848.06
20731	11	NC-55	Bus Stop (No Longer in Use) 4611 NC-55								12							1	Remove Ramp
20724	12	NC-55	Park Forty Plz			15			3	6								1	Remove Ramp
Sub-Total				6	0	111	0	0	45	84	51	1	1	0	0	26	0	8	

Notes: (1) ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page. (2) *Contingency line item amount provided for adjustments outside of curb ramp pay limits.

ADA SUMMARY OF QUANTITIES - NC 55 FROM TW ALEXANDER DR TO CARPENTER FLETCHER RD

Municipality:	Durham
WBS Number:	2026CPT.05.05.10321.1
County:	Durham

Sheet No.
16

Ramp ID	Inset Map Number	Route 1	Route 2	0156000000-E (SY) Removal of Existing Asphalt Pavement	1704000000-E (TON) Patching Existing Pavement	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove And Replace 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	2738000000-E (SY) Remove 4" Concrete Sidewalk	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	2655000000-E (SY) 5" Monolithic Concrete Island (Keyed In)	2738000000-E (SY) Remove 5" Monolithic Concrete Islands (Keyed In)	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2605000000-N (EA) Concrete Curb Ramps	2759000000-N (EA) Remove Concrete Curb Ramps	Improvement Type
20725	12	NC-55	Park Forty Plz													1			Type 1A - 848.06
20726	12	NC-55	Park Forty Plz													1			Type 1 Modified - 848.06
7695	13	NC-55	Tobacco Wood Brewing Co (2500 Meridian Pkwy)							9		1				1			Type 1A - 848.06
7696	13	NC-55	Tobacco Wood Brewing Co (2500 Meridian Pkwy)													1			Type 1B - 848.06
7697	13	NC-55	Restaurant (4325 NC-55)							6						1			Type 1C - 848.06
26423	13	NC-55	Tobacco Wood Brewing Co (2500 Meridian Pkwy)			15			9									1	Remove Ramp
7693	14	NC-55	Business Center (4220 NC-55)			15				12								1	Remove Ramp
7694	14	NC-55	Business Center (4220 NC-55)													1			Type 1 Modified - 848.06
26424	14	NC-55	Business Center (4220 NC-55)					15	12								1		Type 1 Modified - 848.06
7691	15	NC-55	Carpenter Fletcher Rd							6						1			Type 3 Modified - 848D0609
7692	15	NC-55	Carpenter Fletcher Rd							6						1			Type 3 Modified - 848D0609
7690	15	NC-55	Carpenter Fletcher Rd							6						1			Type 3 - 848D0609
-	-	-	-	-	-	-	140*	-	-	-	-	-	-	-	-	-	-	-	
Sub-Total				0	0	30	140	15	21	45	0	1	0	0	0	9	1	2	
Sub-Total for NC 55 From TW Alexander Dr To Carpenter Fletcher Rd				6	0	141	140	15	66	129	51	2	1	0	0	35	1	10	

Notes: (1) ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page. (2) *Contingency line item amount provided for adjustments outside of curb ramp pay limits.

ADA SUMMARY OF QUANTITIES - TOTALS

WBS	2026CPT.05.05.10321.1
Number:	
County:	Durham

Sheet No.
17

WBS Number	County	Municipality	Resurfacing Route	4447000000-E (LF) Pedestrian Channelizing Devices	4600000000-N (EA) Generic Traffic Control Item - Pedestrian Transport Service (Per Trip)	4600000000-N (EA) Generic Traffic Control Item - Audible Warning Devices	0156000000-E (SY) Removal of Existing Asphalt Pavement	1704000000-E (TON) Patching Existing Pavement	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove And Replace 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	2738000000-E (SY) Remove 4" Concrete Sidewalk	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	2655000000-E (SY) 5" Monolithic Concrete Island (Keyed In)	2738000000-E (SY) Remove 5" Monolithic Concrete Islands (Keyed In)	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2605000000-N (EA) Concrete Curb Ramps	2759000000-N (EA) Remove Concrete Curb Ramps
2026CPT.05.05.10321.1	Durham	Durham	NC 55 From TW Alexander Dr To Carpenter Fletcher Rd	120	20	12	6	0	141	140	15	66	129	51	2	1	0	0	35	1	10
2026CPT.05.05.10321.1	Durham	Durham	NC 55 From Carpenter Fletcher Rd To NC 147 Bridge				12	1	108	140	0	36	84	58	0	1	2	5	35	0	7
GRAND TOTAL				120	20	12	18	1	249	280	15	102	213	109	2	2	2	5	70	1	17

PROJECT NO.	SHEET NO.	TOTAL NO.
2026CPT.05.05.10321.1	18	

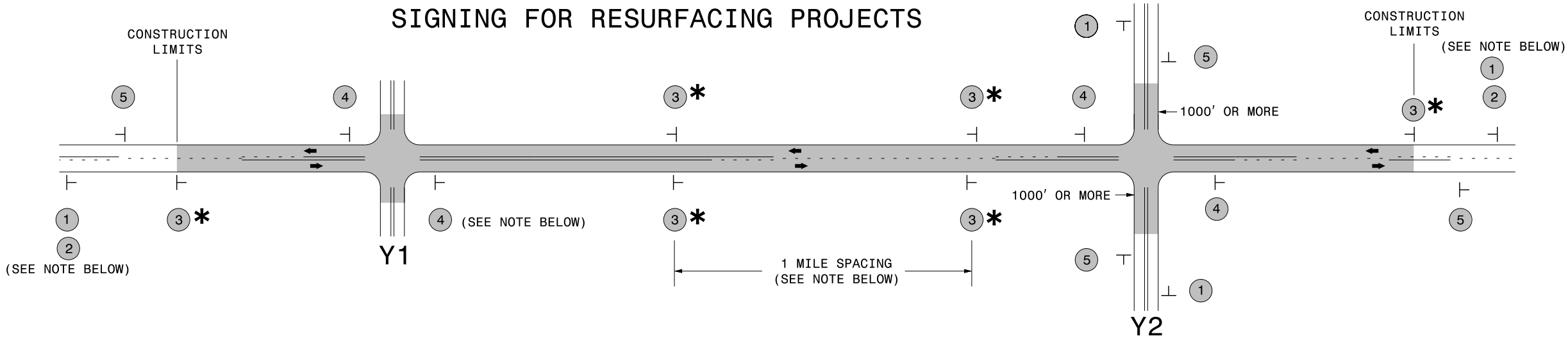
SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LENGTH	WIDTH	0156000000-E	1220000000-E	1245000000-E	1260000000-E	1297000000-E	1330000000-E	1523000000-E	1575000000-E	1704000000-E	2549000000-E	2591000000-E	2605000000-N	2612500000-N	2655000000-E	2738000000-E			2752000000-E		2759000000-N	2830000000-N	2845000000-N	4600000000-N		6084000000-E	7444000000-E	
								REMOVAL OF EXISTING ASPHALT PAVEMENT	INCIDENTAL STONE BASE	SHOULDER RECONSTRUC TION	AGGREGATE SHOULDER BORROW	1½" MILLING	INCIDENTAL MILLING	SURFACE COURSE, S9.5C	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT	2'-6" CONCRETE CURB & GUTTER	4" CONCRETE SIDEWALK	CONCRETE CURB RAMPS	REMOVE AND REPLACE CONCRETE CURB RAMPS	5" MONOLITHIC CONCRETE ISLANDS	REMOVE AND REPLACE 4" CONCRETE SIDEWALK	REMOVE 4" CONCRETE SIDEWALK	REMOVE 5" MONOLITHIC CONCRETE ISLANDS	REMOVE AND REPLACE 2' 6" CONCRETE CURB & GUTTER	REMOVE 2' 6" CONCRETE CURB & GUTTER	REMOVE CONCRETE CURB RAMPS	ADJUSTMENT OF MANHOLES	ADJUSTMENT OF METER BOXES OR VALVE BOXES	GENERIC TRAFFIC CONTROL ITEM PEDESTRIAN TRANSPORT SERVICE (PER TRIP)	GENERIC TRAFFIC CONTROL ITEM AUDIBLE WARNING DEVICES	SEED & MULCHING	INDUCTIVE LOOP SAWCUT	
						MI	FT	SY	TONS	SMI	TON	SY	SY	TONS	TON	TONS	LF	SY	EA	EA	SY	SY	SY	SY	LF	LF	EA	EA	EA	EA	EA	EA	AC	LF
2026CPT.05.05.10321.1	Durham	1	NC-55	FROM CARPENTER FLETCHER RD TO NC 147 BRIDGE	1	4.703	60	12.0	57	2.28	436	119,115	2,367	11,007	653	79	108	36			35.0	2	84	58	5	140		7	10	6			1.77	5,616
				FROM LONGITUDE DR TO CARPENTER FLETCHER RD (SOUTHBOUND)	2	2.572	30		57	2.28	231	42,669	3,435	3,943	235	45												4					0.83	1,176
				FROM TW ALEXANDER DR TO CARPENTER FLETCHER RD																														
		3			3	2.499	64	6.0	60	2.38	231	110,242	2,302	10,187	603	45	141	66	1	35.0		129	51		140	15	10	4	2	20	12	0.83	6,396	
TOTAL FOR PROJ NO. 2026CPT.05.05.10321						9.774		18.0	174	6.94	898	272,026	8,104	25,137	1,491	169	249	102	1	70.0	2	213	109	5	280	15	17	18	8	20	12	3.43	13,188	
GRAND TOTAL																																		
						9.774		18.0	174	6.94	898	272,026	8,104	25,137	1,491	169	249	102	1	70.0	2	213	109	5	280	15	17	18	8	20	12	3.43	13,188	

PROJECT NO.	SHEET NO.	TOTAL NO.
2026CPT.05.05.10321.1	19	

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LENGTH	WIDTH	4413000000-E	4447000000-E	4457000000-N	4510000000-N	4688000000-E		4695000000-E	4709000000-E	4720000000-E			4725000000-E				4815000000-E		4820000000-E	4835000000-E	4840000000-N			4845000000-N				4895000000-N
								WORK ZONE ADVANCE/GENERAL WARNING SIGNING	PEDESTRIAN CHANNELIZING DEVICES	TEMPORARY TRAFFIC CONTROL	LAW ENFORCEMENT	6" X 90 M WHITE THERMO	6" X 90 M YELLOW THERMO	8" X 90 M YELLOW THERMO	24" X 90 M WHITE THERMO	THERMO MSG BUS 90 M	THERMO MSG LANE 90 M	THERMO MSG ONLY 90 M	THERMO STR ARROW 90 M	THERMO LT ARROW 90 M	THERMO RT ARROW 90 M	THERMO STR & RT ARROW 90 M	6" WHITE PAINT	6" YELLOW PAINT	8" YELLOW PAINT	24" WHITE PAINT	PAINT MSG BUS	PAINT MSG LANE	PAINT MSG ONLY	PAINT STR ARROW	PAINT LT ARROW	PAINT RT ARROW	PAINT RT & RT ARROW	POLYCARBON ATE H SHAPE MARKERS
						MI	FT	SF	LF	LS	HR	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	EA
2026CPT.05.10321.1	Durham	1	NC-55	FROM CARPENTER FLETCHER RD TO NC 147 BRIDGE	1	4.703	60	529		*	400	54,652	44,778	198	814	3	4		37	70	5	20	54,652	44,778	198	814	3	4		37	70	5	20	2,546
		2		FROM LONGITUDE DR TO CARPENTER FLETCHER RD (SOUTHBOUND)	2	2.572	30	280			160	25,852	8,597		329			4	16	14	17		25,852	8,597		329			4	16	14	17	921	
		3		FROM TW ALEXANDER DR TO CARPENTER FLETCHER RD	3	2.499	64	280	120		320	55,853	43,799		884			4	56	82	20	4	55,853	43,799		884			4	56	82	20	4	2,602
		TOTAL FOR PROJ NO. 2026CPT.05.05.1032					9.774		1,089	120.000	1.000	880	136,357	97,174	198	2,027	3	4	8	109	166	42	24	136,357	97,174	198	2,027	3	4	8	109	166	42	24
											233,531				15			341				233,531				15			341					
GRAND TOTAL						9.774		1,089	120.000	1.000	880	136,357	97,174	198	2,027	3	4	8	109	166	42	24	136,357	97,174	198	2,027	3	4	8	109	166	42	24	6,069
												233,531				15			341				233,531				15			341				



LEGEND

STATIONARY SIGN

DIRECTION OF TRAFFIC FLOW

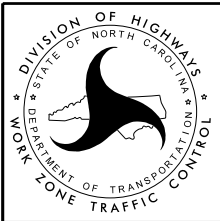
MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	1 2 ROAD WORK AHEAD W20-1 48" X 48" NEXT XX MILES 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 RESURFACING 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, 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" ROAD WORK AHEAD W20-7 A 48" X 48" PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.
	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 1/2 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.	

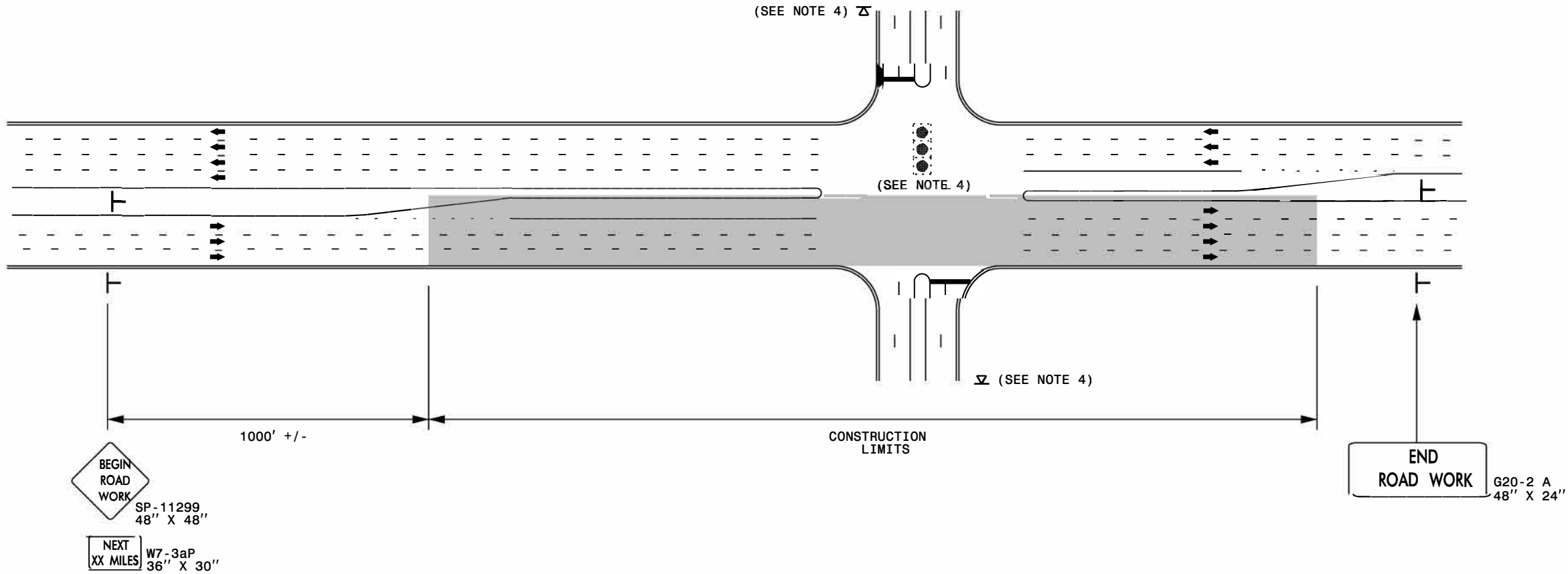
* SIGNING FOR ASPHALT SURFACE TREATMENTS (ONLY)

SUBSTITUTE LOW/SOFT SHOULDER SIGNS BY ALTERNATING THE FOLLOWING TWO SIGNS:
STARTING WITH "UNMARKED PAVEMENT AHEAD" (SP 06026) FOLLOWED BY "LOOSE GRAVEL" (W8-7).



RESURFACING
ADVANCE WARNING SIGNS
FOR
RURAL AND SUBURBAN
2 LANE ROADWAYS

URBAN / SUBURBAN WORKZONES



NOTES:

- 1) 48" x 48" SIZED SIGNS (SP- 11299) MAY BE REDUCED TO 36" X 36" ON ROADWAYS WITH SPEED LIMITS OF 40 MPH OR LESS.
- 2) MOUNT SIGNS THAT ARE LARGER THAN 10 SQUARE FEET IN AREA ON TWO OR MORE WOOD OR U-CHANNEL SUPPORTS. PERFORATED SQUARE TUBING SUPPORT SYSTEMS MAY SUPPORT LARGER AREAS ON A SINGLE SUPPORT. FOLLOW MANUFACTURER'S RECOMMENDATIONS. THESE SYSTEMS SHALL BE NCHRP 350 COMPLIANT AND NCDOT APPROVED.
- 3) ADVANCE WARNING SIGNS NOT REQUIRED ON NON-SIGNALIZED SIDE STREETS.
- 4) 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.
- 5) LATERAL CLEARANCE AT ALL SIGN LOCATIONS SHALL BE 2' AS MEASURED FROM THE EDGE OF PAVEMENT OR THE FACE OF THE CURB. WHEN UNABLE TO OBTAIN THE LATERAL CLEARANCE WITHIN THE MEDIAN AREA USE SHOULDER MOUNTS ONLY.
- 6) SIGN MOUNT LOCATIONS SHALL NOT BLOCK SIDEWALKS OR DRIVEWAYS.
- 7) IF STATIONARY GENERAL WARNING SIGNS ARE USED, THEY WILL BE PAID FOR PER SECTION 104 OF THE NCDOT STANDARD SPECIFICATIONS AS EXTRA WORK.
- 8) IF MILLED AREAS ARE NOT PAVED BACK BY THE END OF THE WORK DAY, PORTABLE SIGNS SHALL BE USED TO WARN DRIVERS OF THE PRESENT CONDITIONS. THESE ARE TO INCLUDE, BUT NOT LIMITED TO "ROUGH ROAD" W8-8, "UNEVEN LANES" W8-11, "GROOVED PAVEMENT" W8-15 w/MOTORCYCLE PLAQUE MOUNTED BELOW. THESE ARE TO BE DOUBLE INDICATED ON MULTI-LANE ROADWAYS WITH SPEED LIMITS 45 MPH AND GREATER WHERE LATERAL CLEARANCE CAN BE OBTAINED WITHIN THE MEDIAN AREAS.THESE PORTABLE SIGNS ARE INCIDENTAL TO THE OTHER ITEMS OF WORK INCLUDED IN THE TEMPORARY TRAFFIC CONTROL (LUMP SUM) PAY ITEM.

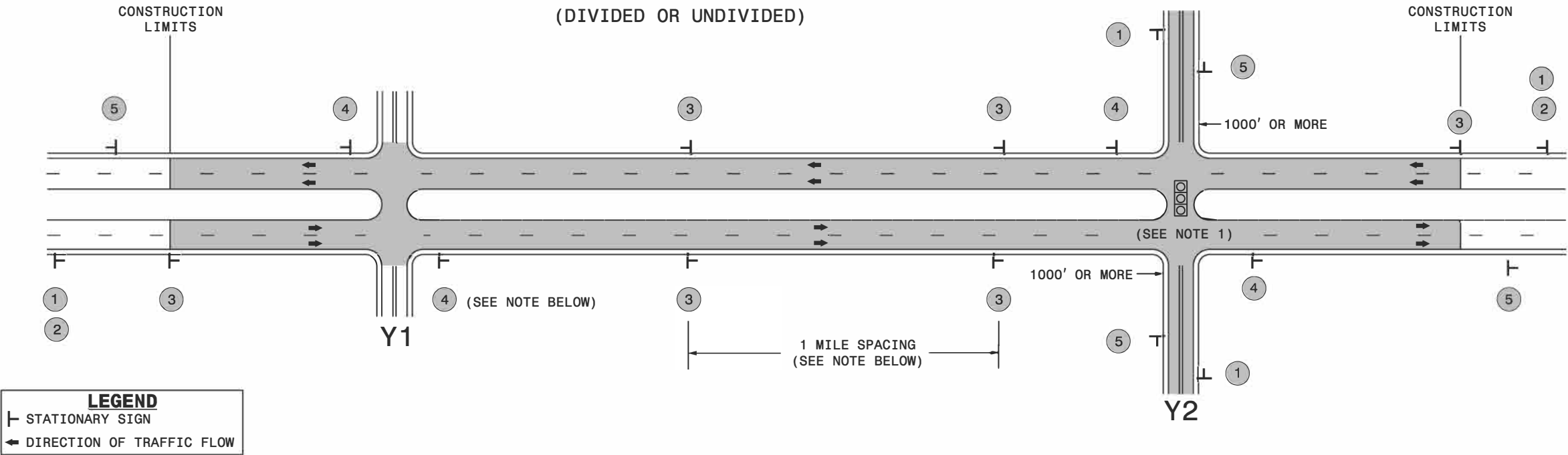
LEGEND

- └ STATIONARY SIGN
- ➔ DIRECTION OF TRAFFIC FLOW



RESURFACING ADVANCE
WARNING SIGNS FOR
URBAN / SUBURBAN
FACILITIES

SIGNING FOR RURAL AND SUBURBAN MULTI-LANE
ROADWAYS WITH SHOULDER SECTIONS
(DIVIDED OR UNDIVIDED)



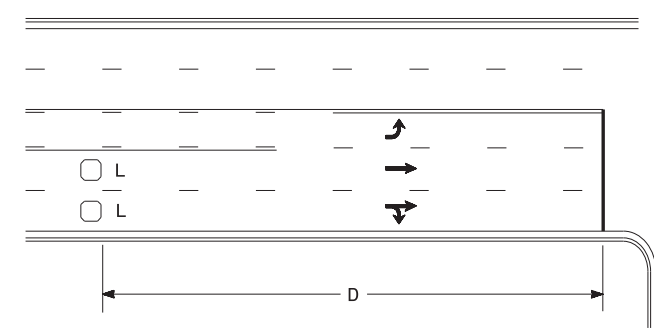
MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	1 2 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 RESURFACING 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: - LESS THAN 1000' OF RESURFACING ALONG -Y- LINE - SUBDIVISION ROADS - 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. PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER. NOTES: - 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.
	3 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 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 PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.	

2/24/2014
C:\TMD\WZTC\Resurfacing\2013Documents\New_Procedures_05_09_2013\Resurfacing_AdvWarn_Ur-Su_Shdr.dgn
User:mgdrr

High Speed Detection
(≥40 mph)

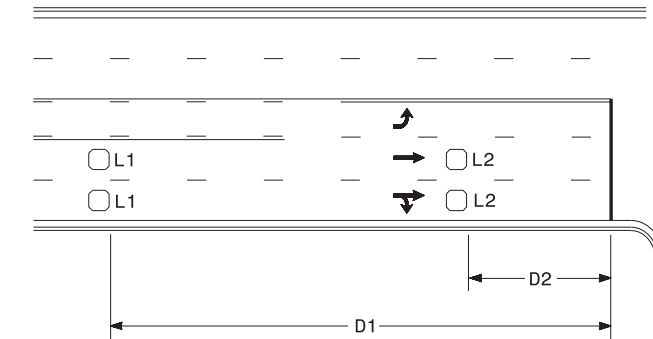


Speed Limit mph	D ft
40	250
45	300
50	355
55	420

L = 6ft X 6ft
Wired separately

Volume Density Operation

OR



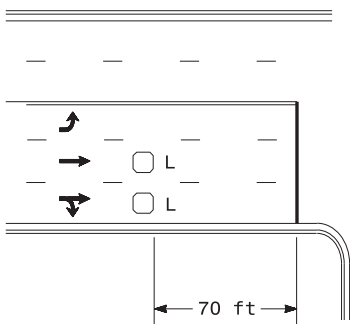
Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110

L1 = 6ft X 6ft
Wired in series

L2 = 6ft X 6ft
Wired in series

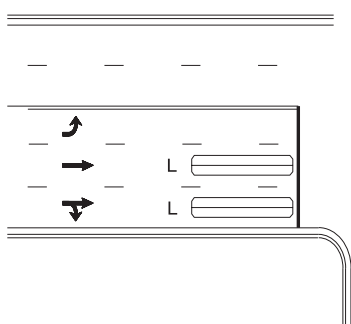
"Stretch" Operation

Low Speed Detection
(≤35 mph)



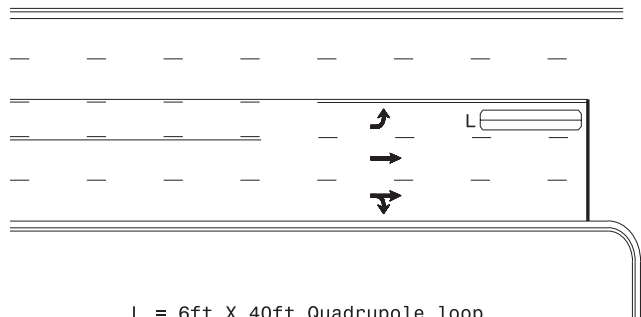
L = 6ft X 6ft
Wired in series

OR



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

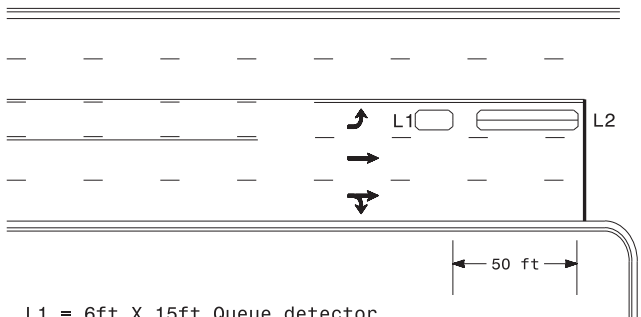
Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

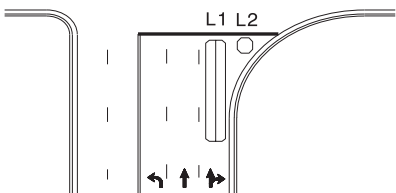
OR



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

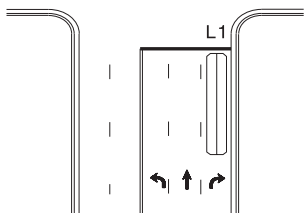
Queue Loop Detection

Right Turn Lane Detection

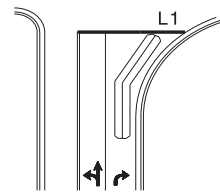


Shared Lane/
Wide Radius Turn

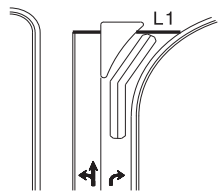
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

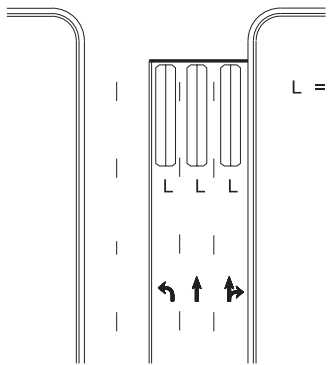


Wide Radius Turn



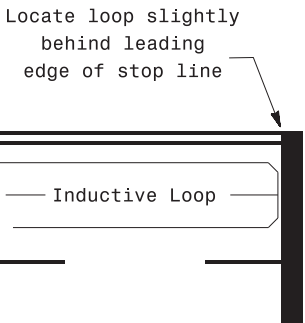
Channelized Turn

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:
- stop line is greater than 15' from edge of intersecting roadway
 - loop detects a permissive or protected/permissive left turn
 - 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

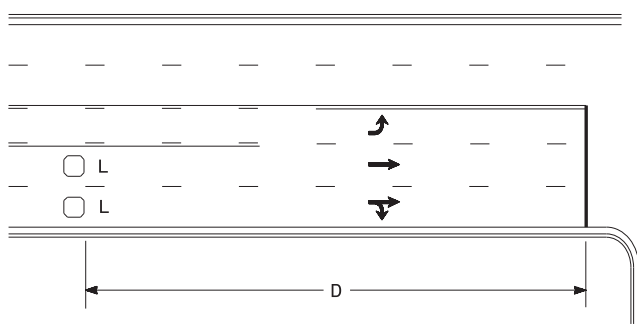
Prepared In the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

Typical Signal Loop Locations
PLAN DATE: September 2020
PREPARED BY: PLA
REVIEWED BY: JPG
REVISIONS
INIT. DATE
SCALE
N/A

SEAL
NORTH CAROLINA
PROFESSIONAL ENGINEER
JASON P. GALLAGHER
029904
9/8/2020
DATE
SIG. INVENTORY NO.

High Speed Detection (≥40 mph)

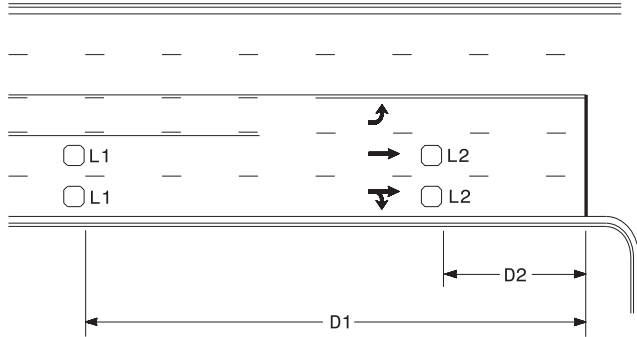


Speed Limit mph	D ft
40	250
45	300
50	355
55	420

L = 6ft X 6ft
Wired separately

Volume Density Operation

OR



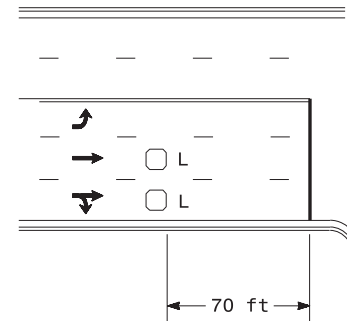
Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110

L1 = 6ft X 6ft
Wired in series

L2 = 6ft X 6ft
Wired in series

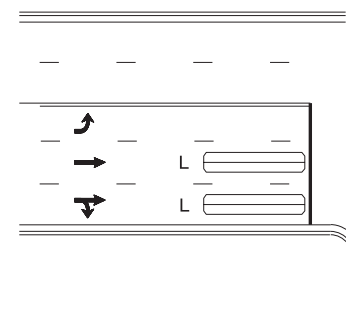
"Stretch" Operation

Low Speed Detection (≤35 mph)



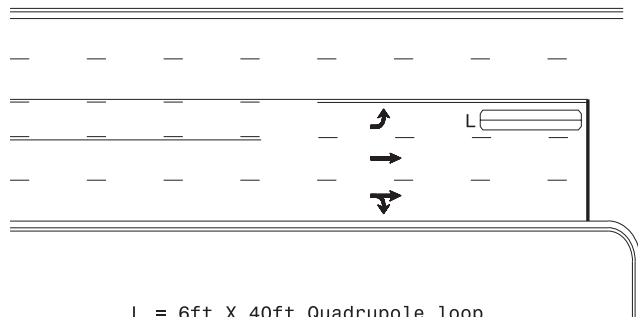
L = 6ft X 6ft
Wired in series

OR



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

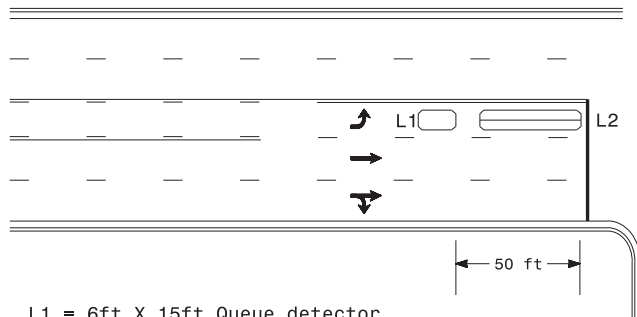
Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

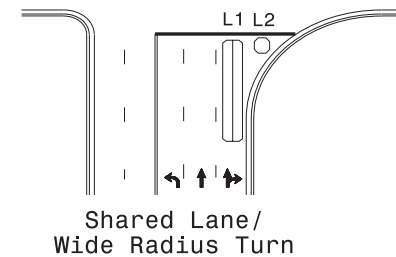
OR



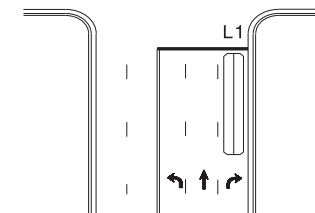
L1 = 6ft X 15ft Queue detector
L2 = 6ft X 40ft Quadrupole loop

Queue Loop Detection

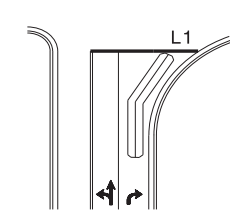
Right Turn Lane Detection



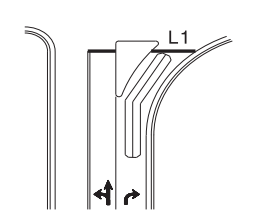
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

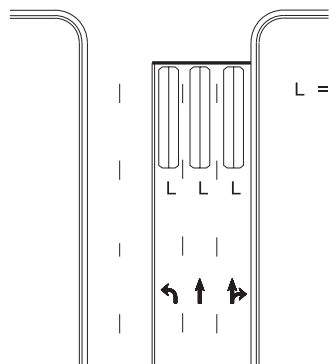


Wide Radius Turn



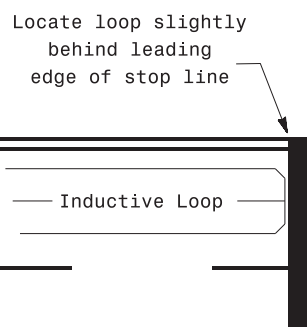
Channelized Turn

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

Inductive Loop

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

	Typical Signal Loop Locations		
	PLAN DATE: September 2020	REVIEWED BY: JPG	
	PREPARED BY: PLA	REVIEWED BY:	
	REVISIONS	INIT. DATE	
SCALE N/A			