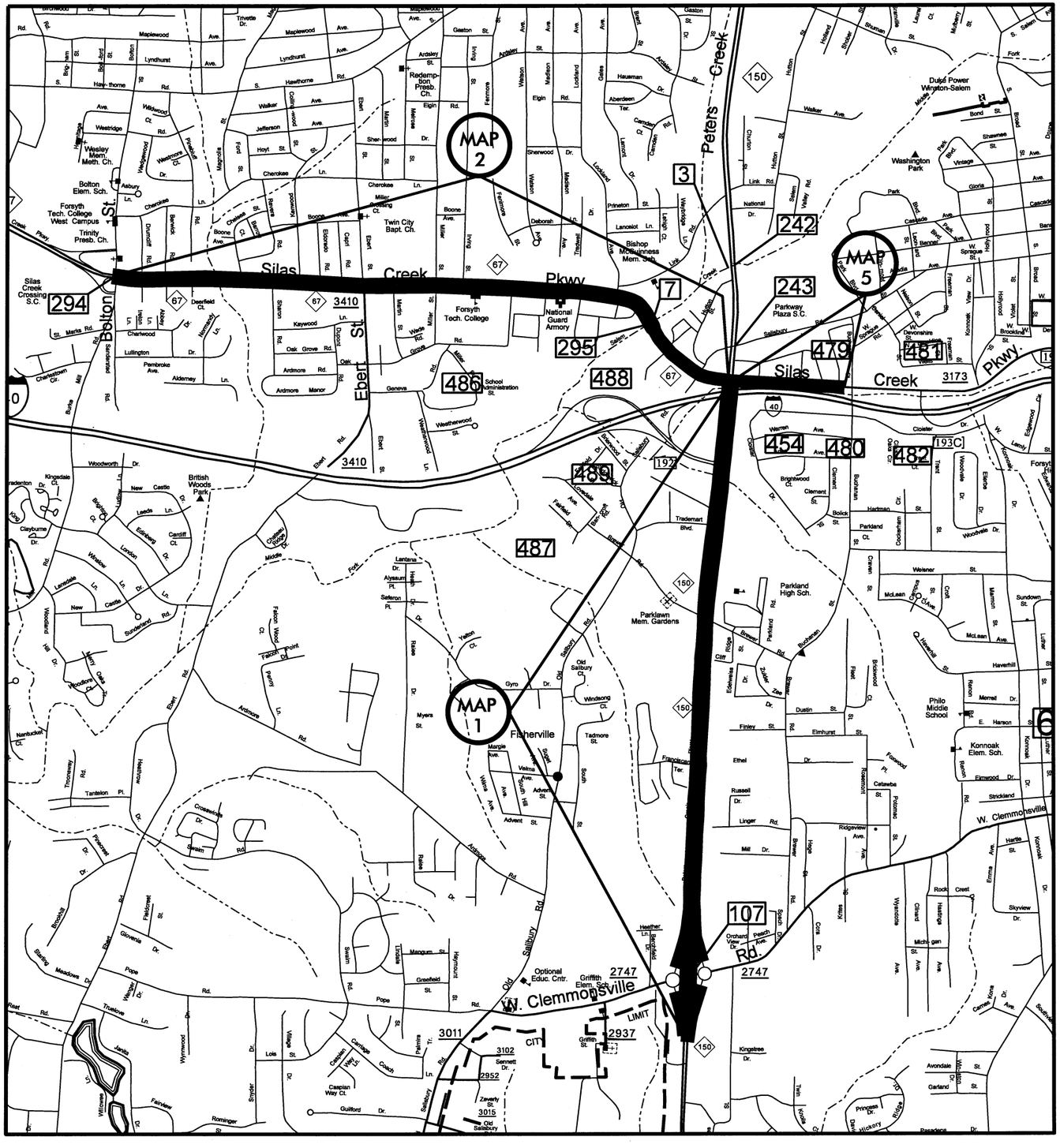
This electronic collection of documents is provided for the convenience of the user and is Not a Certified Document –

The documents contained herein were originally issued 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.

PROJECT REFERENCE NO.	SHEET NO.
9CR.10341.160, 9CR.20341.160	1



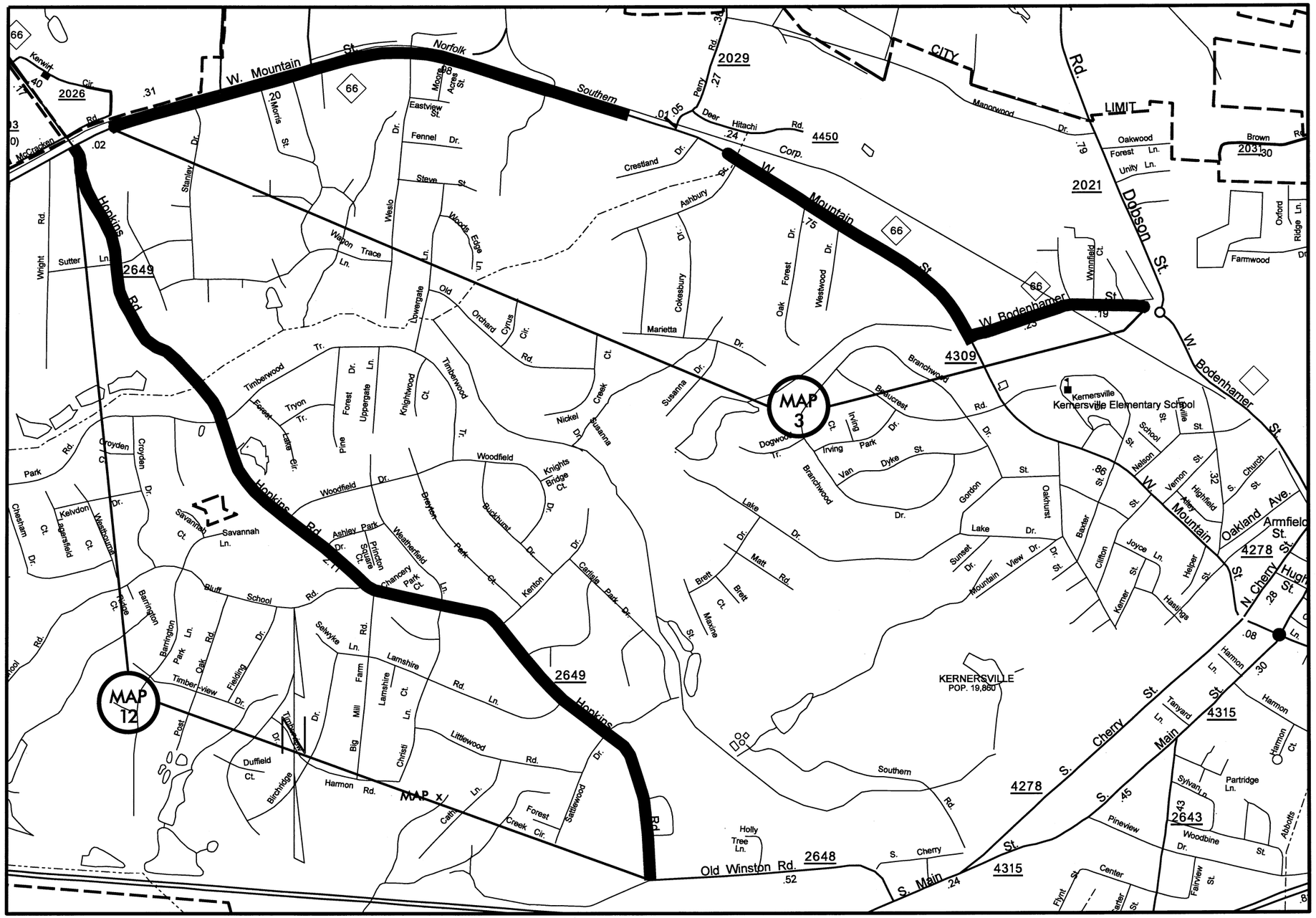
Map 1
NC 150 Peters Creek Parkway
ALL WORK ON THIS MAP TO BE
NIGHT TIME ONLY 7 P.M. TO 6 A.M., Monday–Sunday.
Mill entire Map both directions 1½" Depth.

Map 2
NC 67 Silas Creek Pkwy.
ALL WORK ON THIS MAP TO BE
NIGHT TIME ONLY 7 P.M. TO 6 A.M., Monday–Sunday.
Mill entire Map both directions 1½" Depth.

Map 5
SR 3173 Silas Creek Pkwy.
ALL WORK ON THIS MAP TO BE
NIGHT TIME ONLY 7 P.M. TO 6 A.M., Monday–Sunday.
Mill entire Map both directions 1½" Depth.

FORSYTH COUNTY
NORTH CAROLINA

PROJECT REFERENCE NO.	SHEET NO.
9CR.10341.160, 9CR.20341.160	2

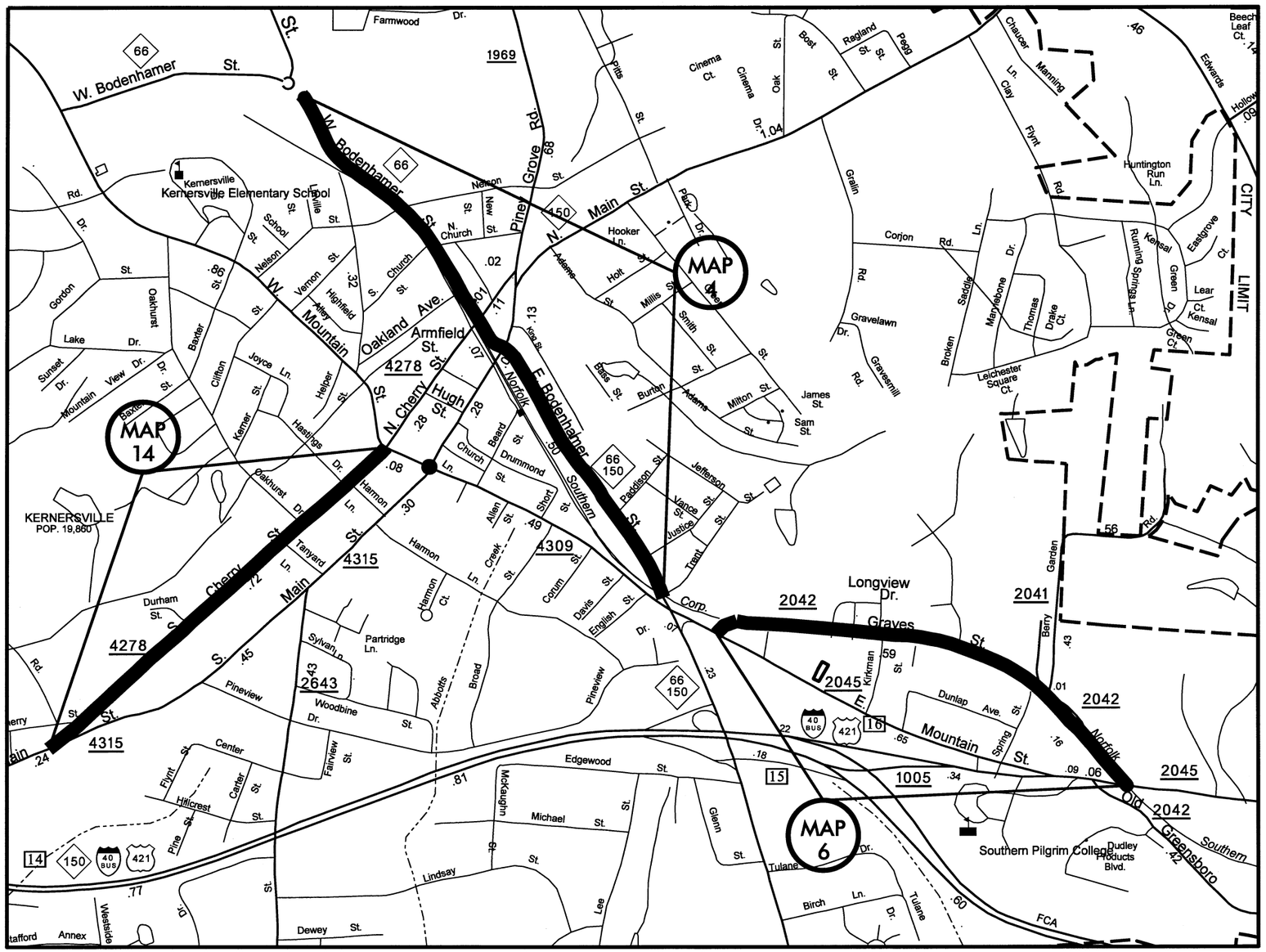


MAP 3
NC 66
W.Mountain St./
W. Bodenhamer St.
Mill to tie into Pavement Joints each side of Deere Hitachi Entrance at Perry Rd. DO NOT Pave through intersection.
Mill to tie into pavement jt. at W. Mountain St.
Curb Mill 0–1½" a 12 foot width.
Mill to tie into pavement jt. at Round About on W. Bodenhamer St.

MAP 12
Hopkins Rd SR 2649
Mill at curb 0–1½" a 12 foot width.

FORSYTH COUNTY
NORTH CAROLINA

PROJECT REFERENCE NO.	SHEET NO.
9CR.10341.160, 9CR.20341.160	3



MAP 4
NC 66 W. Bodenhamer St
ALL WORK ON THIS MAP TO BE NIGHT TIME ONLY 7 P.M. TO 6 A.M., Monday–Sunday.
Curb Mill 0–1½" a 12 foot width from pavement joint at round about to NC 150 edge of pavement.
Pave back with 1½" S9.5B.

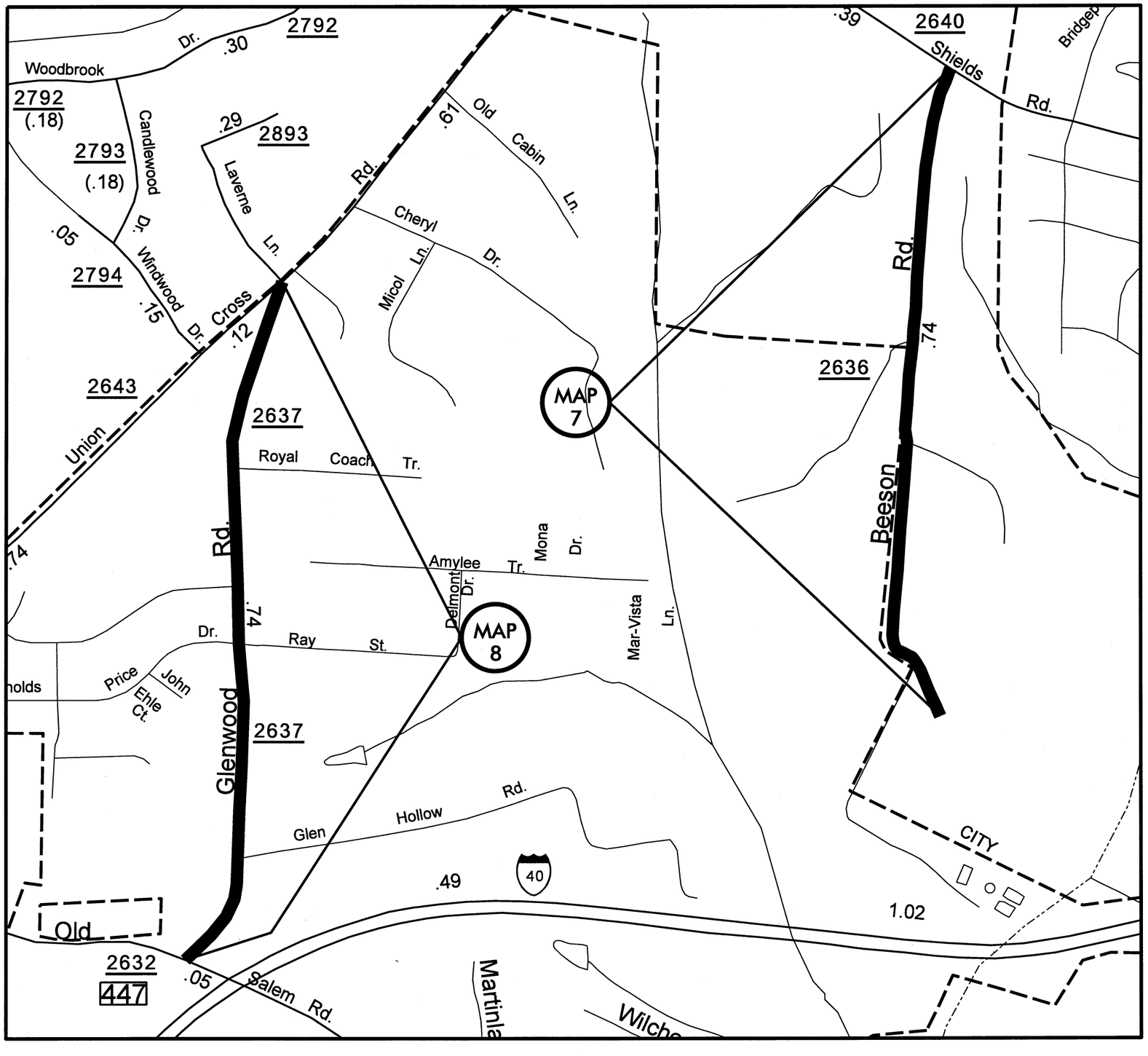
MAP 4
NC 66/NC 150 E. Bodenhamer St
ALL WORK ON THIS MAP TO BE NIGHT TIME ONLY 7 P.M. TO 6 A.M., Monday–Sunday.
Mill a 6 inch depth from RxR Approach through Intersection of Main St./NC150 removing bump in intersection where trucks drag bottom.
Pave back with 4" of B25.0B and 2" of S9.5B.

MAP 6
Graves St. SR 2042
Pave from end of curb near Round about through intersection at Gralin St. to end of curb at East Mountain St.

MAP 14
Cherry St. SR 4278
Mill entire Map 1½" Depth

FORSYTH COUNTY
NORTH CAROLINA

PROJECT REFERENCE NO.	SHEET NO.
9CR.10341.160, 9CR.20341.160	4



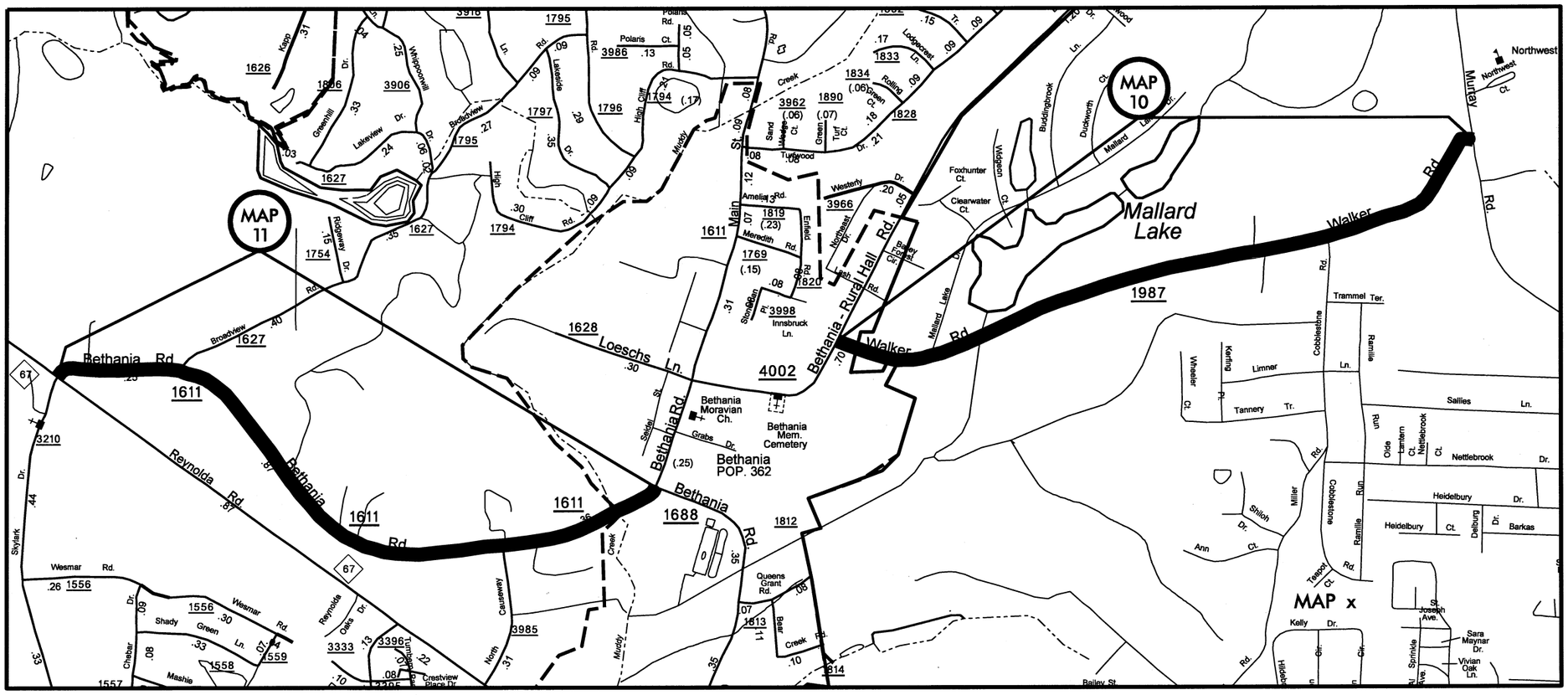
N

MAP 7
Beeson Rd. SR 2636
Pave from edge of pavement at Sheilds Rd. (SR 2640) to end of pavement.

MAP 8
Glenwood Rd. SR 2637
Re-establish Crown, leveling as needed to be determined by Engineer

FORSYTH COUNTY
NORTH CAROLINA

PROJECT REFERENCE NO.	SHEET NO.
9CR.10341.160, 9CR.20341.160	5

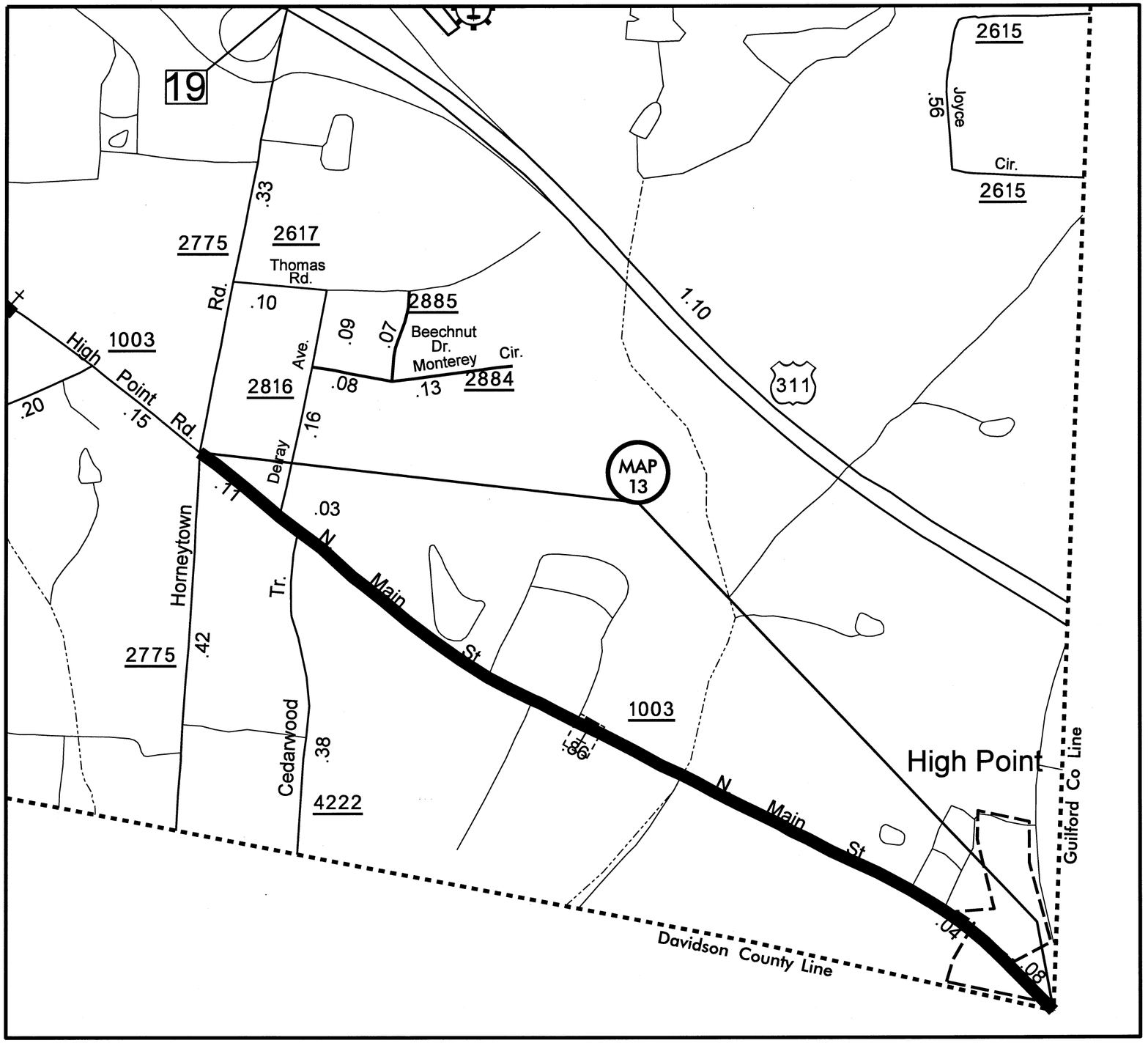


MAP 10
Walker Rd. SR 1987

MAP 11
Bethania Rd. SR 1611
STOP before street printed intersection.

FORSYTH COUNTY
NORTH CAROLINA

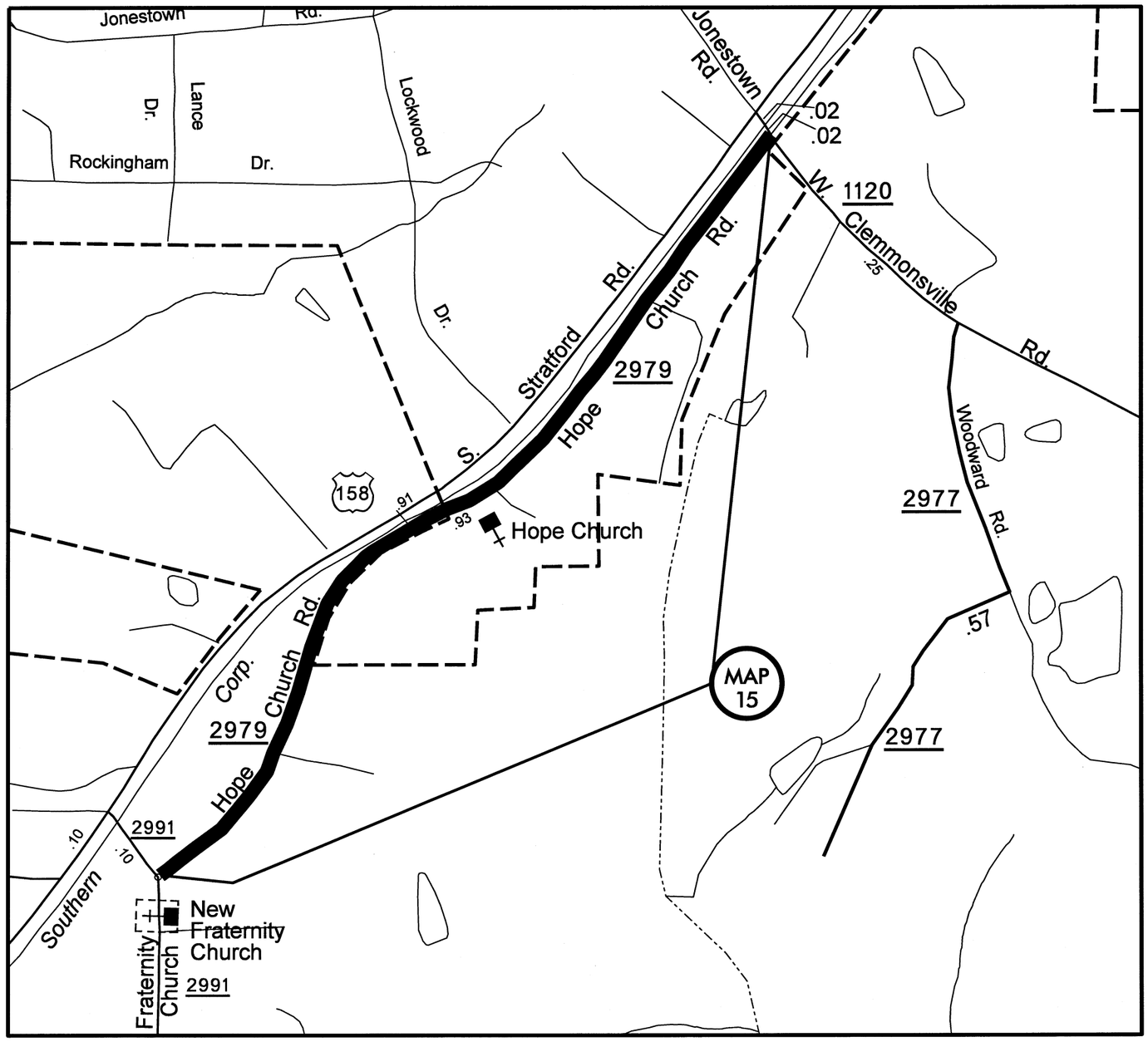
PROJECT REFERENCE NO.	SHEET NO.
9CR.10341.160, 9CR.20341.160	6



MAP 13
N. Main St. SR 1003

FORSYTH COUNTY
NORTH CAROLINA

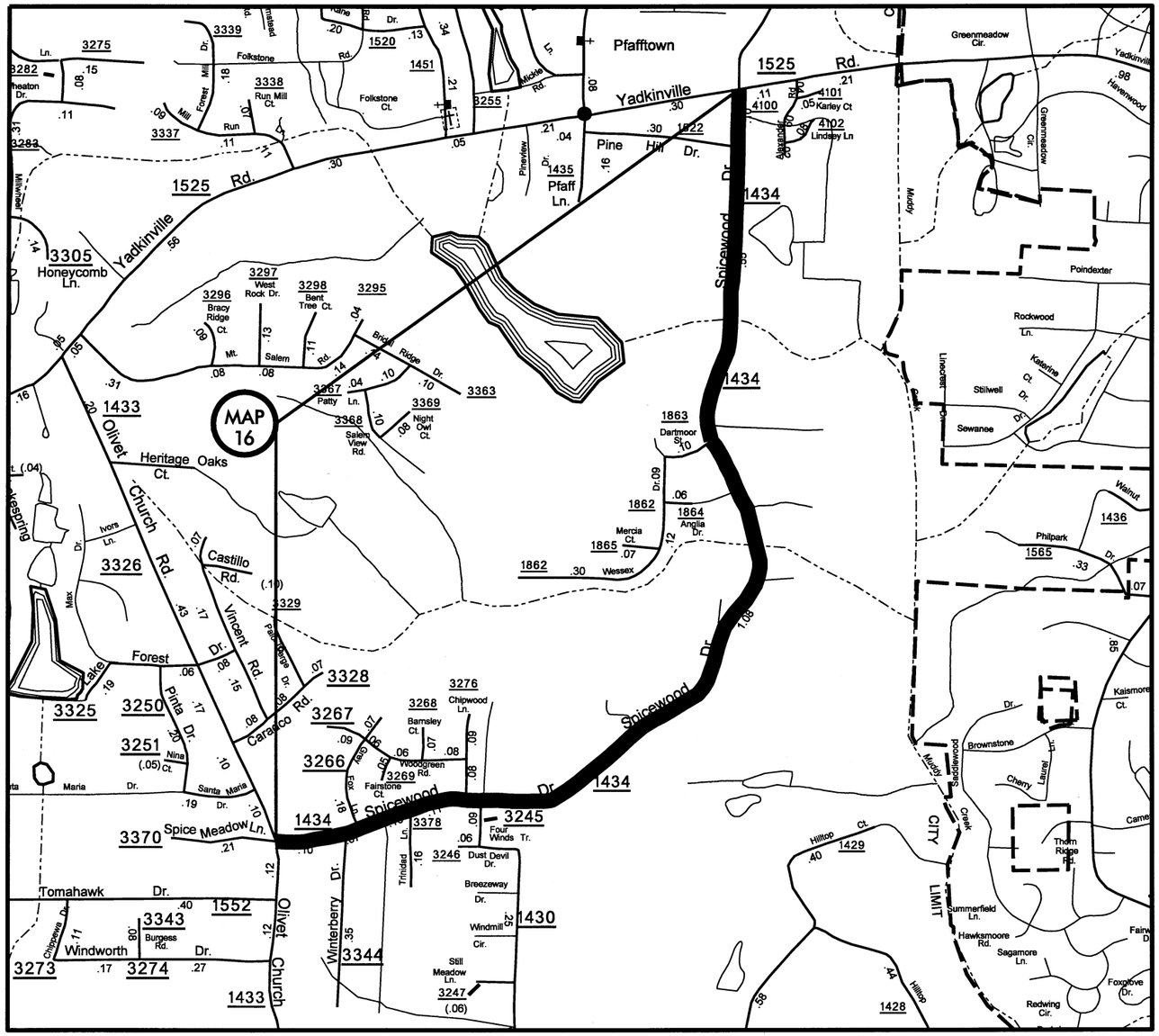
PROJECT REFERENCE NO.	SHEET NO.
9CR.10341.160, 9CR.20341.160	7



MAP 15
Hope Church Road SR 2979
Pave from Edge of Pavement at W. Clemmonsville Rd. SR 1120 to nose of median at round about at Fraternity Church Rd. SR 2991.

FORSYTH COUNTY
NORTH CAROLINA

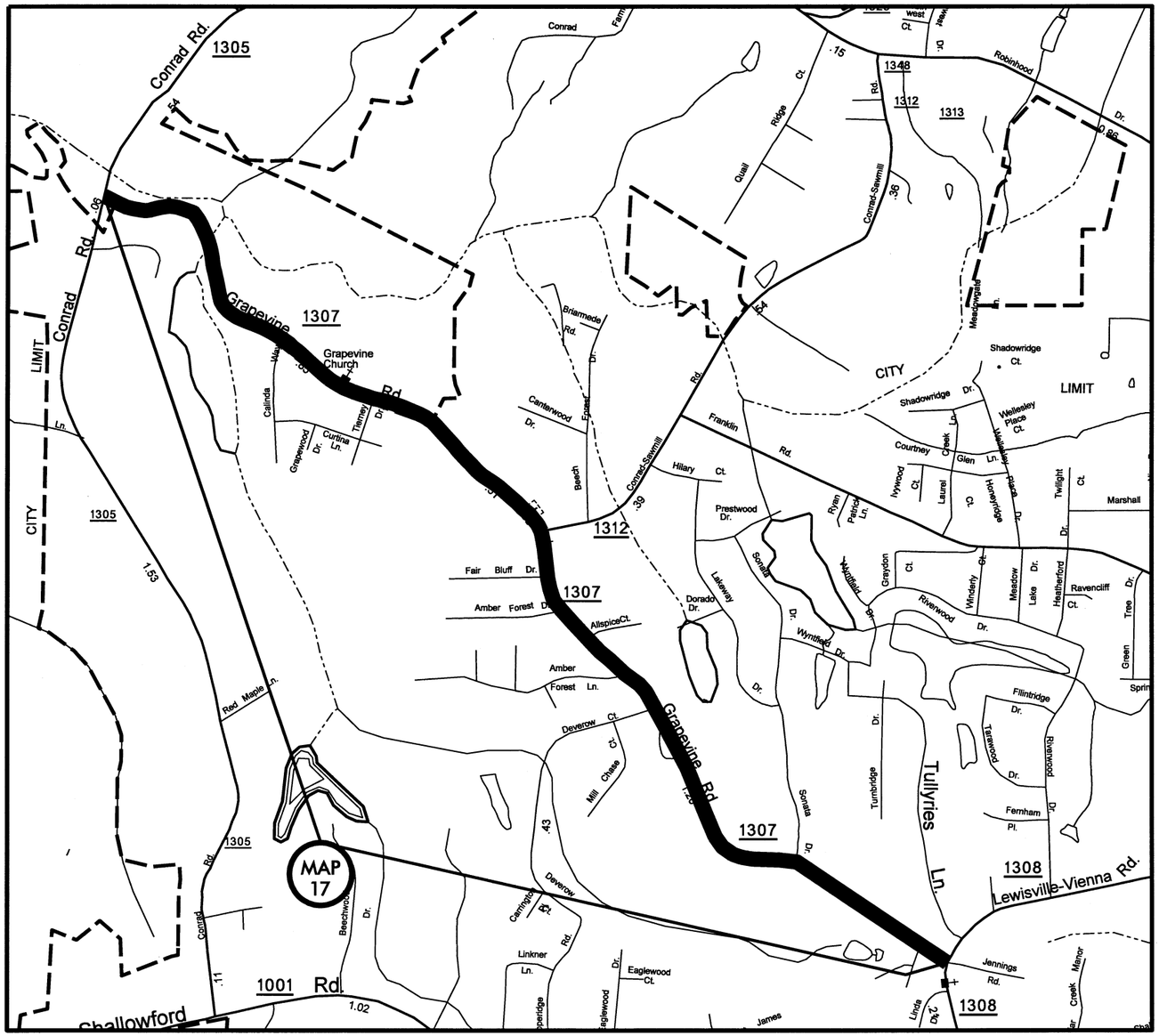
PROJECT REFERENCE NO.	SHEET NO.
9CR.10341.160, 9CR.20341.160	8



MAP 16
Spicewood Dr. SR 1434

FORSYTH COUNTY
NORTH CAROLINA

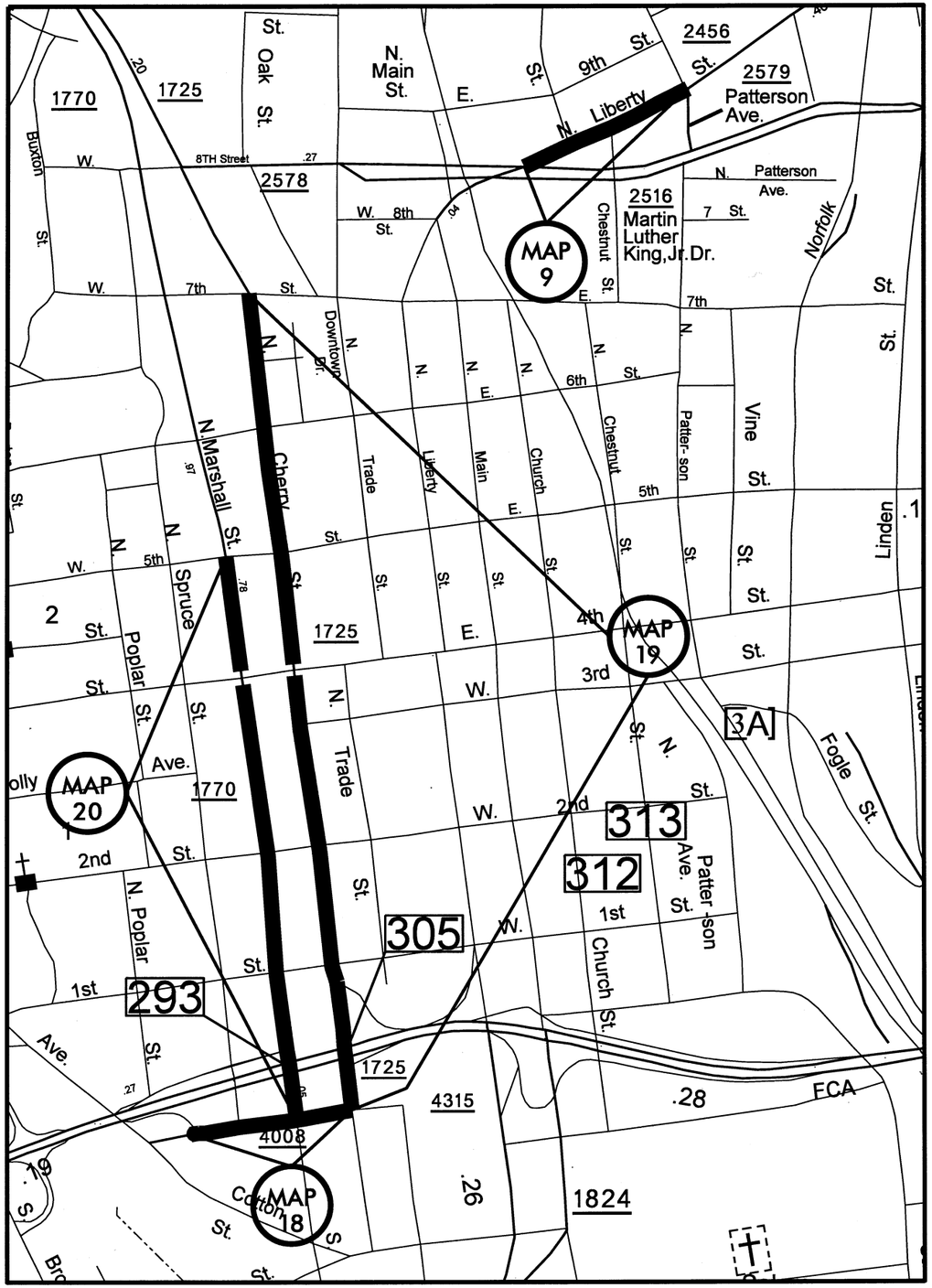
PROJECT REFERENCE NO.	SHEET NO.
9CR.10341.160, 9CR.20341.160	9



MAP 17
Grapevine Rd SR 1307

FORSYTH COUNTY
NORTH CAROLINA

PROJECT REFERENCE NO.	SHEET NO.
9CR.10341.160, 9CR.20341.160	10



N

MAP 9
Liberty St. SR 2456
Mill entire Map 1½" Depth

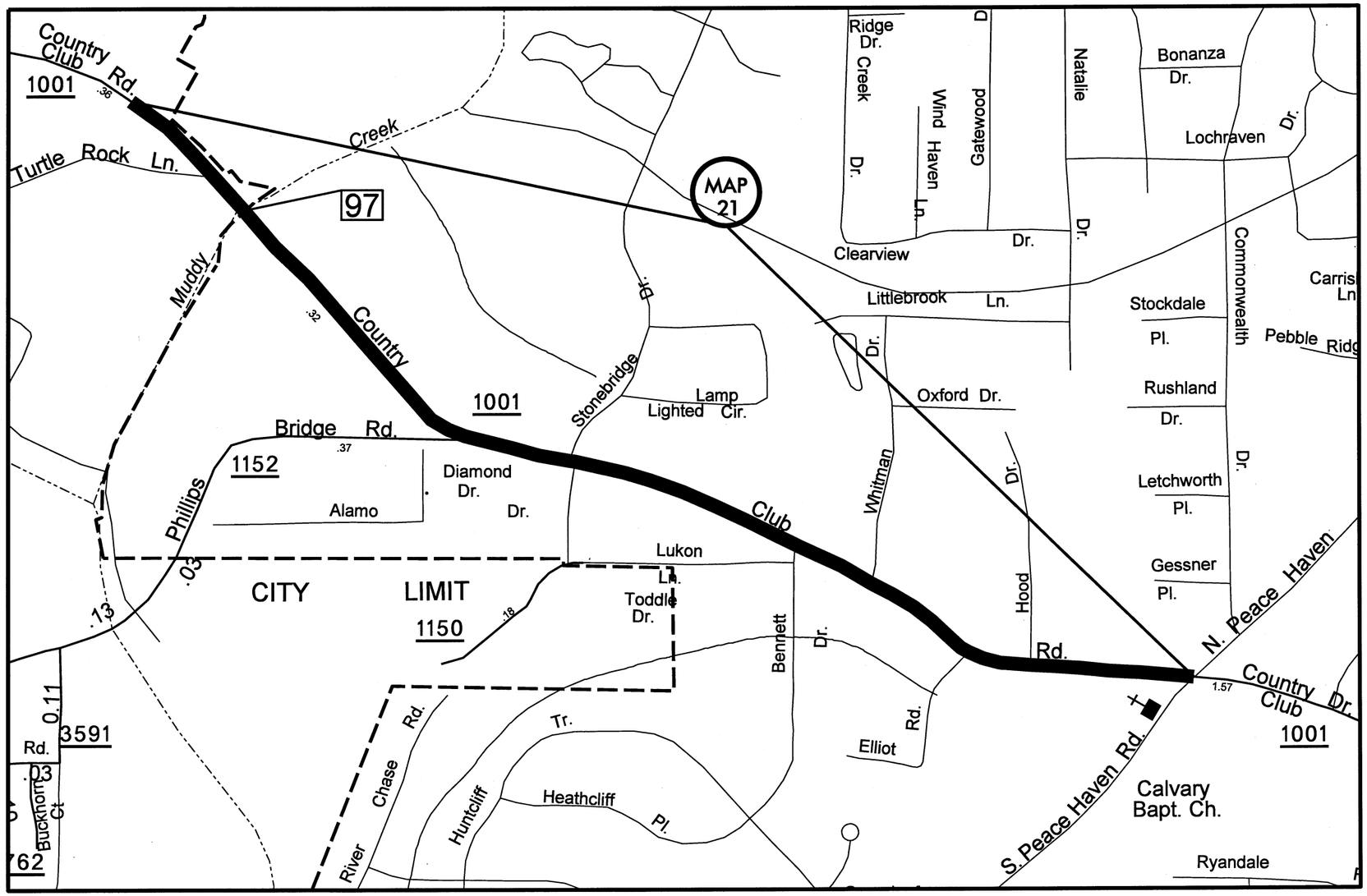
MAP 18
High St. SR4008
ALL WORK ON THIS MAP TO BE
NIGHT TIME ONLY 9 P.M. TO 6 A.M., Monday–Sunday.
Mill entire Map 1½" Depth

MAP 19
Cherry St. SR 1725
ALL WORK ON THIS MAP TO BE
NIGHT TIME ONLY 9 P.M. TO 6 A.M., Monday–Sunday.
DO NOT MILL AND PAVE
through decorated intersection at 4th St.
Mill entire Map 1½" Depth, except at 4th street.

MAP 20
Marshall St. SR1770
ALL WORK ON THIS MAP TO BE
NIGHT TIME ONLY 9 P.M. TO 6 A.M., Monday–Sunday.
DO NOT MILL AND PAVE
through decorated intersection at 4th St.
Mill entire Map 1–1/2" Depth, except at 4th street.

FORSYTH COUNTY
NORTH CAROLINA

PROJECT REFERENCE NO.	SHEET NO.
9CR.10341.160, 9CR.20341.160	11



MAP 21

Country Club Road SR 1001
Mill to expose gutters approximately 3½" at edges to 1½" in middle of road only where curb is on both sides of the road from Peace Haven Rd. to near Quail Lakes sign.

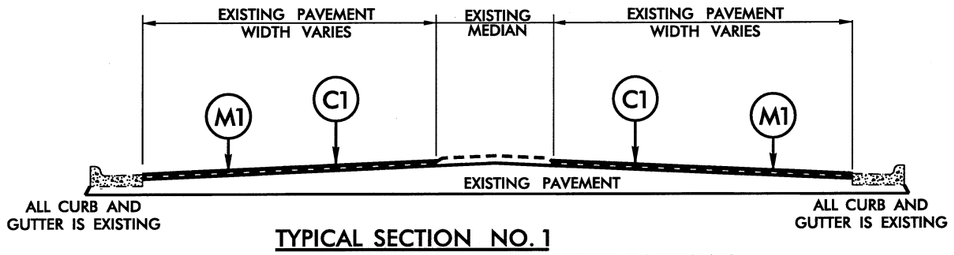
Adjust Manholes up or down as neccesary.

Mill 0–1½", a 12 foot width at Curb from Quail Lakes sign to bridge, and from bridge to end of Project near Brookberry Dr. both sides of the road.

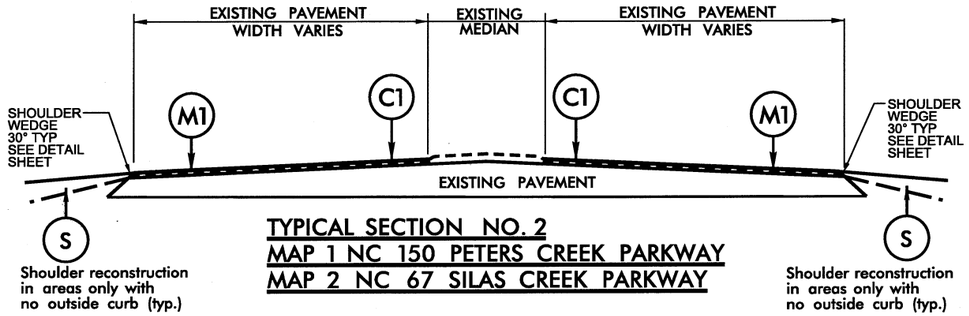
Pave from Edge of Pavement at Peace Haven Rd. to nose of median at Brookberry Dr.

FORSYTH COUNTY
NORTH CAROLINA

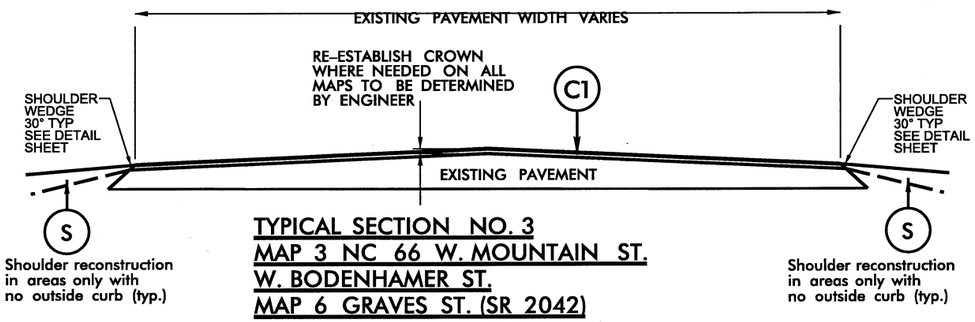
PROJECT REFERENCE NO.	SHEET NO.
9CR.10341.160, ETC	12



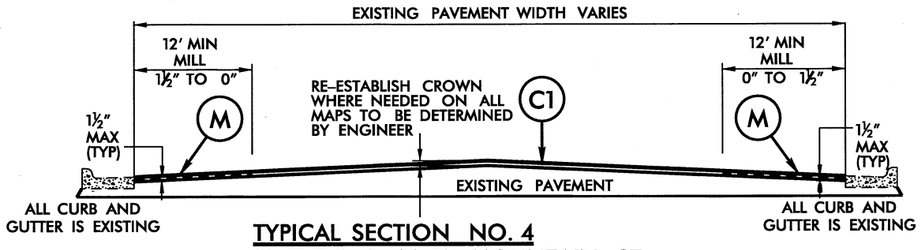
TYPICAL SECTION NO. 1
MAP 1 NC 150 PETERS CREEK PARKWAY
MAP 2 NC 67 SILAS CREEK PARKWAY
MAP 5 SILAS CREEK PARKWAY (SR 3173)



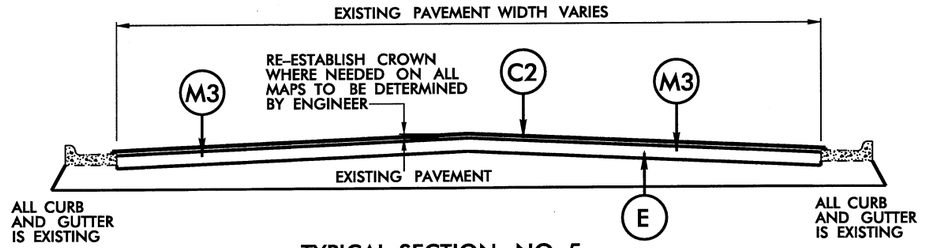
TYPICAL SECTION NO. 2
MAP 1 NC 150 PETERS CREEK PARKWAY
MAP 2 NC 67 SILAS CREEK PARKWAY



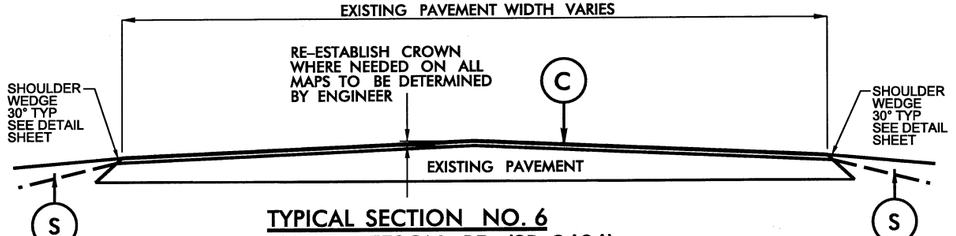
TYPICAL SECTION NO. 3
MAP 3 NC 66 W. MOUNTAIN ST.
W. BODENHAMER ST.
MAP 6 GRAVES ST. (SR 2042)
MAP 13 N. MAIN ST. (SR 1003)



TYPICAL SECTION NO. 4
MAP 3 NC 66 W. MOUNTAIN ST.
W. BODENHAMER ST.
MAP 4 NC 66 W. BODENHAMER ST.
MAP 21 COUNTRY CLUB RD. (SR 1001)



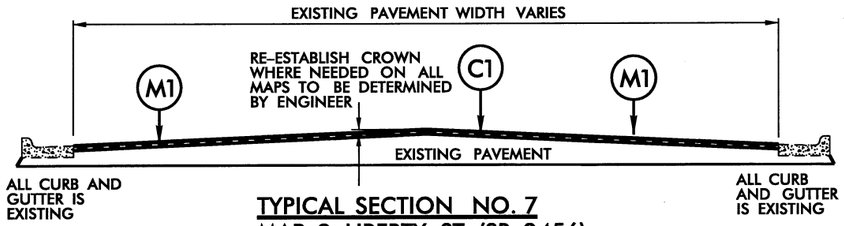
TYPICAL SECTION NO. 5
MAP 4 NC 66 NC 150 E. BODENHAMER ST.



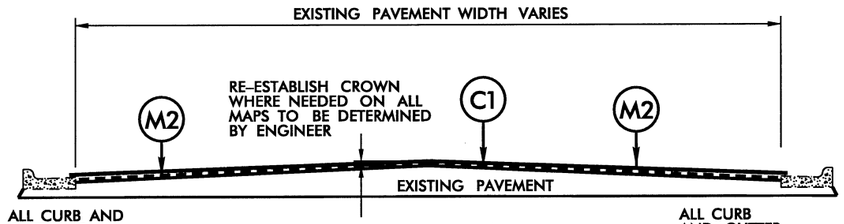
TYPICAL SECTION NO. 6
MAP 7 BEESON RD. (SR 2636)
MAP 8 GLENWOOD RD. (SR 2637)
MAP 10 WALKER RD. (SR 1987)
MAP 11 BETHANIA RD. (SR 1611)
MAP 12 HOPKINS RD. (SR 2649)
MAP 15 HOPE CHURCH RD. (SR 2979)
MAP 16 SPICEWOOD DR. (SR 1434)
MAP 17 GRAPEVINE RD. (SR 1307)

PAVEMENT SCHEDULE	
C	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, TO BE APPLIED AT AN AVERAGE RATE OF 165 LBS PER SQ YD.
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, TO BE APPLIED AT AN AVERAGE RATE OF 168 LBS PER SQ YD.
C2	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, TO BE APPLIED AT AN AVERAGE RATE OF 224 LBS PER SQ YD.
E	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, TO BE APPLIED AT AN AVERAGE RATE OF 456 LBS PER SQ YD.
M	MILL ASPHALT PAVEMENT, 0" TO 1½"
M1	MILL ASPHALT PAVEMENT, 1½" DEPTH
M2	MILL ASPHALT PAVEMENT, 1½" TO 3½"
M3	MILL ASPHALT PAVEMENT, 6" DEPTH
S	SHOULDER RECONSTRUCTION (SEE DETAIL)
U	EXISTING PAVEMENT

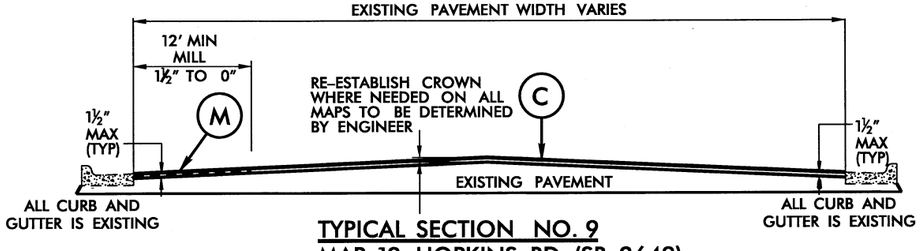
PROJECT REFERENCE NO.	SHEET NO.
9CR.10341.160, ETC	13



TYPICAL SECTION NO. 7
MAP 9 LIBERTY ST. (SR 2456)
MAP 14 CHERRY ST. (SR 4278)
MAP 18 HIGH ST. (SR 4008)
MAP 19 CHERRY ST. (SR 1725)
MAP 20 MARSHALL ST. (SR 1770)



TYPICAL SECTION NO. 8
MAP 21 COUNTRY CLUB RD. (SR 1001)

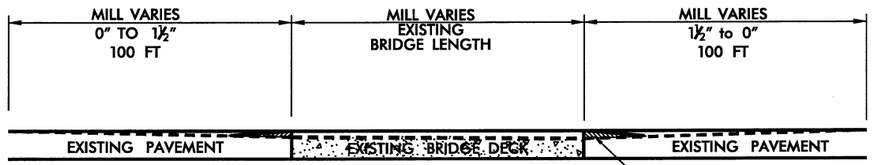


TYPICAL SECTION NO. 9
MAP 12 HOPKINS RD. (SR 2649)

PAVEMENT SCHEDULE

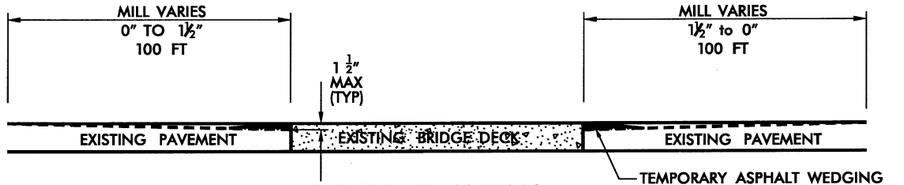
C	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, TO BE APPLIED AT AN AVERAGE RATE OF 165 LBS PER SQ YD.
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, TO BE APPLIED AT AN AVERAGE RATE OF 168 LBS PER SQ YD.
C2	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, TO BE APPLIED AT AN AVERAGE RATE OF 224 LBS PER SQ YD.
E	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, TO BE APPLIED AT AN AVERAGE RATE OF 456 LBS PER SQ YD.
M	MILL ASPHALT PAVEMENT, 0" TO 1½"
M1	MILL ASPHALT PAVEMENT, 1½" DEPTH
M2	MILL ASPHALT PAVEMENT, 1½" TO 3½"
M3	MILL ASPHALT PAVEMENT, 6" DEPTH
S	SHOULDER RECONSTRUCTION (SEE DETAIL)
U	EXISTING PAVEMENT

PROJECT REFERENCE NO.	SHEET NO.
9CR.10341.160, 9CR.20341.160	14



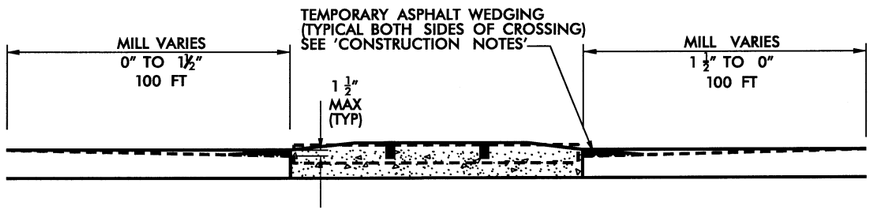
MILLING BRIDGE DECK AND APPROACHES

(SEE BRIDGE DATA SHEET)

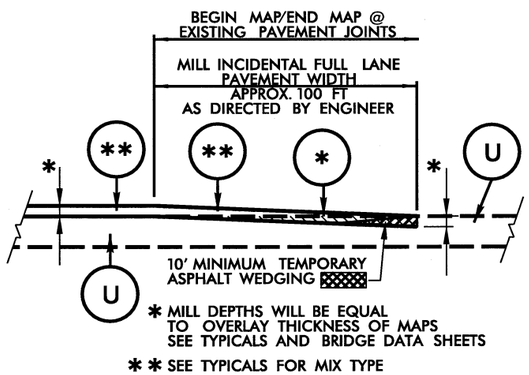


INCIDENTAL MILLING BRIDGE APPROACHES

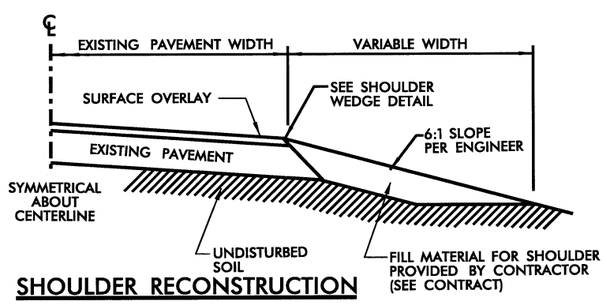
(SEE BRIDGE DATA SHEET)



INCIDENTAL MILLING RAILROAD CROSSING APPROACHES



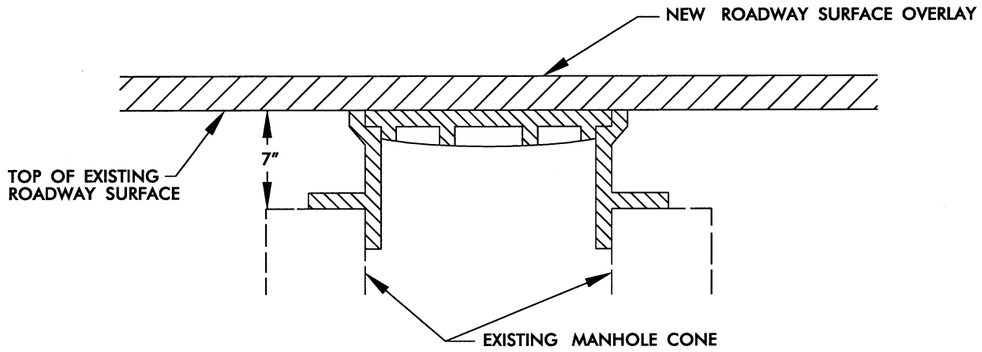
INCIDENTAL MILLING AT TIE–IN DETAIL



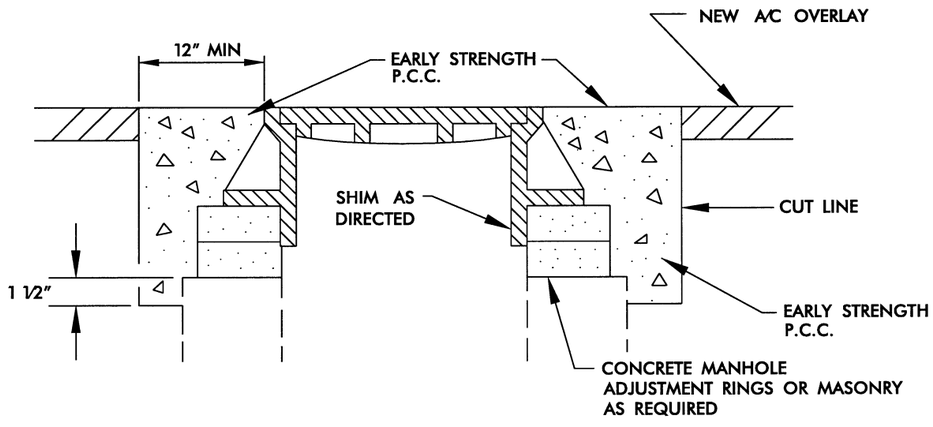
SHOULDER RECONSTRUCTION

PAVEMENT SCHEDULE	
C	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, TO BE APPLIED AT AN AVERAGE RATE OF 165 LBS PER SQ YD.
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, TO BE APPLIED AT AN AVERAGE RATE OF 168 LBS PER SQ YD.
C2	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, TO BE APPLIED AT AN AVERAGE RATE OF 224 LBS PER SQ YD.
E	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, TO BE APPLIED AT AN AVERAGE RATE OF 456 LBS PER SQ YD.
M	MILL ASPHALT PAVEMENT, 0" TO 1½"
M1	MILL ASPHALT PAVEMENT, 1½" DEPTH
M2	MILL ASPHALT PAVEMENT, 1½" TO 3½"
M3	MILL ASPHALT PAVEMENT, 6" DEPTH
S	SHOULDER RECONSTRUCTION (SEE DETAIL)
U	EXISTING PAVEMENT

PROJECT REFERENCE NO.	SHEET NO.
9CR.10341.160, 9CR.20341.160	15



STEP 1



STEPS 2,3, & 4

STEP 1 COVER EXISTING MANHOLE WITH APPROVED MATERIAL AND CONSTRUCT OVERLAY ACROSS TOP OF MANHOLE

STEP 2 SAW CUT EXCAVATION AROUND MANHOLE 12" MIN. FROM MANHOLE FRAME.

STEP 3 RAISE MANHOLE FRAME RINGS TO FINISH PAVEMENT PROFILE AND CROSS SLOPE.

STEP 4 BACKFILL WITH EARLY STRENGTH P.C.C. TO DEPTHS AS DIRECTED.

MANHOLE ADJUSTMENT DETAIL

CONSTRUCTION NOTES:

1. ALL QUANTITIES ARE "ESTIMATED" AS INDICATED IN THE "SUMMARY OF QUANTITIES".

2. CONSTRUCTION SHALL PROGRESS IN PHASES, IN THE ORDER INDICATED BELOW:

   PHASE 1 – MILLING AND PATCHING (WHEN REQUIRED)
   PHASE 2 – SURFACE OVERLAY
   PHASE 3 – SHOULDER DROP–OFF REPAIR (AS NEEDED AND DIRECTED BY ENGINEER)
   PHASE 4 – UTILITY ADJUSTMENTS (MANHOLE RING/COVER, VALVE/METER BOX RING/COVER, CATCH BASIN GRATE/COVER, DROP INLET GRATE/COVER, ETC.) WHEN REQUIRED.

3. BRIDGES THAT HAVE FLOOR DRAINS, SHALL HAVE ALL FLOOR DRAINS LEFT OPEN. EXTRA CARE SHALL BE EXERCISED IN MILLING (IF REQUIRED) AND IN PLACING THE WEARING SURFACE AROUND FLOOR DRAINS SO AS NOT TO HINDER EFFECTIVE DRAINAGE.

4. TEMPORARY ASPHALT WEDGING SHALL BE PLACED ON THE SAME DAY THAT BRIDGE AND/OR RAILROAD APPROACHES ARE MILLED (AND IF APPROACHES ARE MILLED PRIOR TO BRIDGE DECK).

5. FOR TWO–LANE ROADWAYS – IT SHALL BE UNDERSTOOD THAT TYPICALLY ON A ROADWAY MEASURING 20 FEET OR LESS IN WIDTH, THE CENTER OF THE WHITE EDGELINE SHALL BE LOCATED SIX INCHES FROM THE EDGE OF PAVEMENT ON EITHER SIDE OF THE ROADWAY; ON A ROADWAY MEASURING 22 FEET IN WIDTH, TRAVEL LANES SHALL MEASURE 10 FEET AND THE WHITE EDGELINE SHALL BE LOCATED ONE FOOT FROM THE EDGE OF PAVEMENT ON EITHER SIDE; ON A ROADWAY MEASURING 24 FEET IN WIDTH, TRAVEL LANES SHALL MEASURE 11 FEET AND THE WHITE EDGELINE SHALL BE LOCATED ONE FOOT FROM THE EDGE OF PAVEMENT ON EITHER SIDE; ON A ROADWAY MEASURING 26 FEET OR MORE IN WIDTH, TRAVEL LANES SHALL MEASURE 12 FEET AND THE WHITE EDGELINE SHALL BE LOCATED NO LESS THAN ONE FOOT FROM THE EDGE OF PAVEMENT ON EITHER SIDE. THIS SHALL BE STANDARD PRACTICE UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

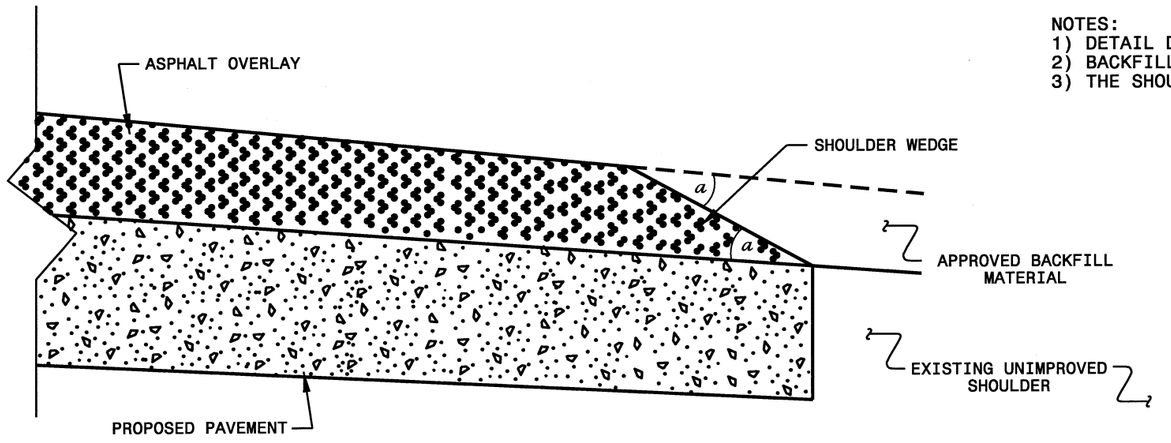
6. PAPER JOINTS ARE TO BE PLACED BETWEEN DAYS OF PAVING OPERATIONS AS SPECIFIED IN THE STANDARD SPECIFICATIONS SECTION 610–11.

7. ALL MILLED AREAS WILL BE PAVED WITHIN 72 HOURS UNLESS APPROVED BY THE ENGINEER.

9. REPLACE ANY PORTION OF STOP BARS AND OTHER PAVEMENT MARKINGS AT ANY INTERSECTION INCLUDING Y–LINES NOT ACTUALLY BEING PAVED OVER, THAT ARE OBLITERATED BY THE PAVING OPERATION EITHER BY HAULING WHEEL TRACKS OR TACK TRUCK BY THE END OF EACH RESURFACING OPERATION

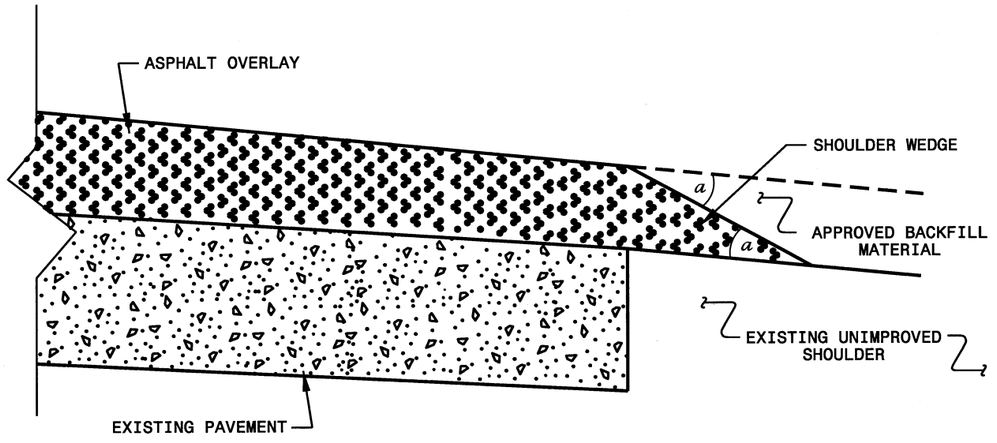
PROJECT REFERENCE NO.	SHEET NO.
9CR.10341.160, ETC	16

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 AND SIDE STREETS.



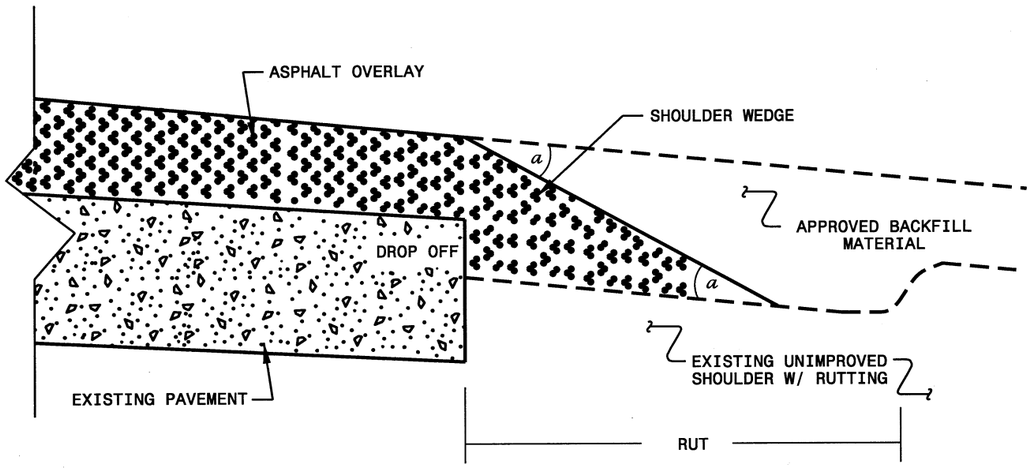
SHOULDER WEDGE DETAIL

(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		

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

2016_Resurfacing_FORSYTH

PROJECT NO.	SHEET NO.
9CR.10341.160, 9CR.20341.160	17

Map No.	Route No.	Route Name	Bridge No.	Feature Intersected	Floor Construction	Clear Roadway Width (Ft)	Horizontal Clearance Under (Ft.)	Vertical Clearance Under	Length (Ft)	Posting	Recommended Treatment, From Bridge Maintenance
1	NC 150	NC 150	454	I40	8 1/2 RC SLAB	124	NA	NA	199	NA	Do Not Pave on Bridge
1	SR 2747	E.CLEMMONSVILLE RD.	107	NC 150	7 RC, 3.5 AWS	28.1	NA	14FT 05 IN NBL 14FT 09 IN SBL	185	NA	MILL UNDER MAINTAIN CLEARANCE
2	BOLTON ST.	BOLTON ST.	294	NC 67 SILAS CREEK PARKWAY	7 5/8 RC SLAB	40	NA	14FT 09 IN SBL 14FT 09 IN NBL	149	NA	MILL UNDER MAINTAIN CLEARANCE
2	NC 67 SBL	SILAS CREEK PARKWAY EAST BOUND	295	SALEM CREEK	7 7/8 RC SLAB	34	NA	NA	149	NA	Do Not Pave on Bridge
2	NC 67 NBL	SILAS CREEK PARKWAY WEST BOUND	7	SALEM CREEK	6 1/2 RC SLAB	28	NA	NA	120	NA	Do Not Pave on Bridge
19	SR 1725	CHERRY ST.	305	I-40 BUS.	11" RC SLAB	36	NA	NA	135	NA	Do Not Pave on Bridge
20	SR 1770	MARSHALL ST.	293	I-40 BUS.	7 RC SLAB	40	NA	NA	88	NA	Do Not Pave on Bridge
21	SR 1001	COUNTRYCLUB RD.	97	MUDDY CREEK	8 RC SLAB	52	NA	NA	225	NA	Do Not Pave on Bridge

PROJECT NO.	SHEET NO.	TOTAL NO.
9CR.10341.160, 9CR.20341.160	18	

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO		DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	BORROW EXCAVATION CY	INCIDENTAL STONE BASE TONS	SHOULDER RECONSTRUCTION SMI	MILLING ASPHALT PAVEMENT, 1-1/2"DEPTH SY	MILLING ASPHALT PAVEMENT, 6"DEPTH SY	MILLING ASPHALT PAVEMENT, 0"TO 1-1/2" DEPTH SY	MILLING ASPHALT PAVEMENT, 1-1/2"TO 3 1/2" DEPTH SY	INCIDENTAL MILLING SY	BASE COURSE, B25.0B TONS	SURFACE COURSE, S9.5B TONS	SURFACE COURSE, SF9.5A TONS	ASPHALT CONC SURFACE COURSE, TYPE SF9.5A (LEVELING COURSE) TONS	ASPHALT BINDER FOR PLANT MIX TONS	PATCHING EXISTING PAVEMENT TONS	ADJ. OF DROP INLETS EA	ADJ. OF MAN-HOLES EA	ADJ. OF METER OR VALVE BOXES EA	TEMP. SILT FENCE LF	WATTLE LF	PORTABLE LIGHTING LS
9CR.10341.160	Forsyth	1	NC 150 PETERS CREEK PARKWAY-SOUTH BOUND LANE	FROM PVMT JT AT EDGE OF PAVEMENT AT SILAS CREEK PARKWAY TO PAVT. JT SOUTH OF CLEMMONSVILLE RD (SR 2747) OVERPASS INCLUDE RAMPS AT CLEMMONSVILLE RD.	1,2	2	MD	NO	NO	2.043	26-60	152		1.26	58,410						5,411			325	15		1	2	504	50	*
		1	NC 150 PETERS CREEK PARKWAY-NORTH BOUND LANE	FROM PAVEMENT JT SOUTH OF CLEMMONSVILLE RD (SR 2747) OVERPASS TO PVMT JT AT EDGE OF PAVEMENT AT SILAS CREEK PARKWAY INCLUDE RAMPS AT CLEMMONSVILLE RD.	1,2	2	MD	NO	NO	2.039	26-60	152		1.27	59,964						5,554			333	15		2	4	508	51	
TOTAL FOR MAP NO. 1										2.043		304		2.53	118,374						10,965			658	30		3	6	1,012	101	
9CR.10341.160	Forsyth	2	NC 67 SILAS CREEK PARKWAY-WEST BOUND	FROM EDGE OF PVMT AT NC 150 TO PAVEMENT JOINT NEAR BOLTON ST. OFF RAMP	1,2	2	MD	NO	NO	1.899	24-60	64		0.53	34,082						3,162			190	15		12	10	212	21	*
		2	NC 67 SILAS CREEK PARKWAY-EAST BOUND	FROM PAVEMENT JOINT NEAR BOLTON ST. OFF RAMP TO EDGE OF PVMT AT NC 150	1,2	2	MD	NO	NO	1.895	24-60	62		0.53	38,003						3,524			211	15		15	4	208	21	
TOTAL FOR MAP NO. 2										1.899		126		1.06	72,085						6,686			401	30		27	14	420	42	
9CR.10341.160	Forsyth	3	NC 66/W. MOUNTAIN ST./W. BODENHAMER ST.	FROM PAVEMENT JT. NEAR HOPKINS RD. TO PAVEMENT JT. AT ROUND ABOUT NEAR DOBSON ST.	3,4	2	MU	NO	NO	2.08	24-47	344	150	2.87			9,085		2,857		3,441			206	15		5	12	2,296	115	
9CR.10341.160	Forsyth	4	NC 66/W. BODENHAMER ST./ NC 66/NC 150 E. BODENHAMER ST.	FROM PAVEMENT JT. NEAR ROUND ABOUT NEAR DOBSON ST. TO RXR CROSSING AT E. MOUNTAIN ST.	4,5	3	MU	NO	NO	1.07	31-55					13,303	7,828		400	3,344	2,838			317		1	21	22			*
TOTAL FOR PROJ NO. 9CR.10341.160										**7.092**		**774**	**150**	**6.46**	**190,459**	**13,303**	**16,913**		**3,257**	**3,344**	**23,930**			**1,582**	**75**	**1**	**56**	**54**	**3,728**	**258**	**1**
9CR.20341.160	Forsyth	5	SR 3173 SILAS CREEK PARKWAY-WEST BOUND	FROM PAVEMENT JOINT WEST OF STOP BAR AT BUCHANAN ST. (NS) TO EDGE OF PAVEMENT AT NC 150 PETERS CREEK PARKWAY	1	3	MD	NO	NO	0.28	36-55				7,405				1,022		686			41			1	4			*
		5	SR 3173 SILAS CREEK PARKWAY-EAST BOUND	FROM EDGE OF PAVEMENT AT NC 150 PETERS CREEK PARKWAY TO PAVEMENT JOINT WEST OF STOP BAR AT BUCHANAN ST. (NS)	1	3	MD	NO	NO	0.28	36-55				5,914				1,156		548			33							
TOTAL FOR MAP NO. 5										**0.56**					**13,319**				**2,178**		**1,234**			**74**			**1**	**4**			
9CR.20341.160	Forsyth	6	SR 2042 GRAVES ST.	FROM END OF CURB NEAR ROUND ABOUT AT EAST MOUNTAIN ST. (SR 2045) TO END OF CURB AT EAST MOUNTAIN ST. (SR 2045)	3	2	2WU	NO	NO	0.706	20-22	85	84	1.41					1,427		770			46	15		1	6	282	28	
9CR.20341.160	Forsyth	7	SR 2636 BEESON ROAD	FROM EDGE OF PAVEMANT AT SHEILDS RD. (SR2640) TO END OF MAINTENANCE	6	2	2WU	NO	NO	0.708	18-21	85	45	1.42								762		51	15				28	283	
9CR.20341.160	Forsyth	8	SR 2637 GLENWOOD RD.	FROM OLD SALEM RD. (SR 2632) TO UNION CROSS RD. (SR 2643)	6	2	2WU	NO	NO	0.739	19	89	69	1.48					422			752	254	66	15				296	30	
9CR.20341.160	Forsyth	9	SR 2456 LIBERTY ST.	FROM PAVEMENT JOINT ON EAST SIDE OF N. PATTERSON AVE. (SR 2579) TO DEAD END	7	2	MU	NO	NO	0.139	40				3,343						310			19	15		18	10			
9CR.20341.160	Forsyth	10	SR 1987 WALKER RD.	FROM BETHANIA-RURAL HALL RD. (SR 4002) TO MURRAY RD. (NS)	6	2	2WU	NO	NO	1.45	22	174	63	2.90					489			1,831		123	15			7	580	58	
9CR.20341.160	Forsyth	11	SR 1611 BETHANIA RD.	FROM NC 67 TO BETHANIA RD. (SR 1688) 3-WAY STOP	6	2	2WU	NO	NO	1.44	22	173	90	2.88			580		489			1,844		124	15				576	58	
9CR.20341.160	Forsyth	12	SR 2649 HOPKINS RD.	FROM PAVEMENT JT. AT NC 66/W.MOUNTAIN ST. TO PAVEMENT JT. AT OLD WINSTON RD. (SR 2648)	6, 9	2	2WU	NO	NO	2.054	24-35	202	90	3.36			5,208		1,545			3,055		205	15		2	7	672	67	
9CR.20341.160	Forsyth	13	SR 1003 N. MAIN ST.	FROM EDGE OF PAVEMENT AT NC 66/HORNEYTOWN RD. (SR 2775) TO PAVEMENT JOINT AT COUNTY LINE	3	2	2WU	NO	NO	1.103	21-34	132	255	2.21					934		1,352			81	15				441	44	
9CR.20341.160	Forsyth	14	SR 4278 CHERRY ST.	FROM S. MAIN ST. (SR 4315) TO W. MOUNTAIN ST. (SR4309)	7	2	M2	NO	NO	0.75	26-36				12,723						1,181			71			15	12			
9CR.20341.160	Forsyth	15	SR 2979 HOPE CHURCH RD.	FROM FRATERNITY CHURCH RD. (SR 2991) TO W. CLEMMONSVILLE RD. (SR 1120)	6	2	2WU	NO	NO	0.911	20	109	60	1.82					444			976		65	15				364	36	
9CR.20341.160	Forsyth	16	SR 1434 SPICEWOOD DR.	FROM YADKINVILLE RD. (SR 1525) TO OLIVET CHURCH RD. (SR 1433)	6	2	2WU	NO	NO	2.127	22	255	69	4.25					489			2,505		168	15				851	85	
9CR.20341.160	Forsyth	17	SR 1307 GRAPEVINE RD.	FROM CONRAD RD. (SR 1305) TO EDGE OF PAVEMENT AT LEWISVILLE-VIENNA RD. (SR 1308)	6	2	2WU	NO	NO	2.361	18-23	283	108	4.72					743			2,728		183	15				944	94	
9CR.20341.160	Forsyth	18	SR 4008 HIGH ST.	FROM PAVEMENT JT. AT BUS 40 RAMP TO PAVEMENT JT. AT CHERRY ST. (SR 1725)	7	2	MU	NO	NO	0.132	24				1,859						173			10		2	1	3			*
9CR.20341.160	Forsyth	19	SR 1725 CHERRY ST.	FROM PAVEMENT JT. NEAR HIGH ST. TO PAVEMENT JT AT CONCRETE PAVEMENT AT 7TH ST.	7	2	MU	NO	NO	0.709	32-46				13,310						1,412			85			49	36			*
9CR.20341.160	Forsyth	20	SR 1770 MARSHALL ST.	FROM PAVEMENT JT AT 5TH ST. TO EDGE OF PAVEMENT AT HIGH ST. (SR 4008)	7	2	MU	NO	NO	0.514	36-40				11,578						1,073			64			33	31			*
9CR.20341.160	Forsyth	21	SR 1001 COUNTRY CLUB RD.	FROM EDGE OF PAVEMENT EAST SIDE OF PEACE HAVEN RD. (SR 1891) TO PAVEMENT JT. AT BROOKBERRY DR. (NS)	4, 8	3	MU	NO	NO	1.208	28-52	13		0.13			2,426	16,210	2,667		2,475			149	15		24	8	44	4	
TOTAL FOR PROJ NO. 9CR.20341.160										**17.331**		**1,600**	**933**	**26.58**	**56,132**		**8,214**	**16,210**	**11,827**		**9,980**	**14,453**	**254**	**1,584**	**180**	**2**	**144**	**124**	**5,078**	**787**	**1**
GRAND TOTAL										**24.423**		**2,374**	**1,083**	**33.04**	**246,591**	**13,303**	**25,127**	**16,210**	**15,084**	**3,344**	**33,910**	**14,453**	**254**	**3,166**	**255**	**3**	**200**	**178**	**8,806**	**1,045**	**1**

NOTE: All Quantities listed include turn lanes and are estimates; Payment will be based on actual field measurements and quantities received.

PROJECT NO.	SHEET NO.	TOTAL NO.
9CR.10341.160, 9CR.20341.160	19	

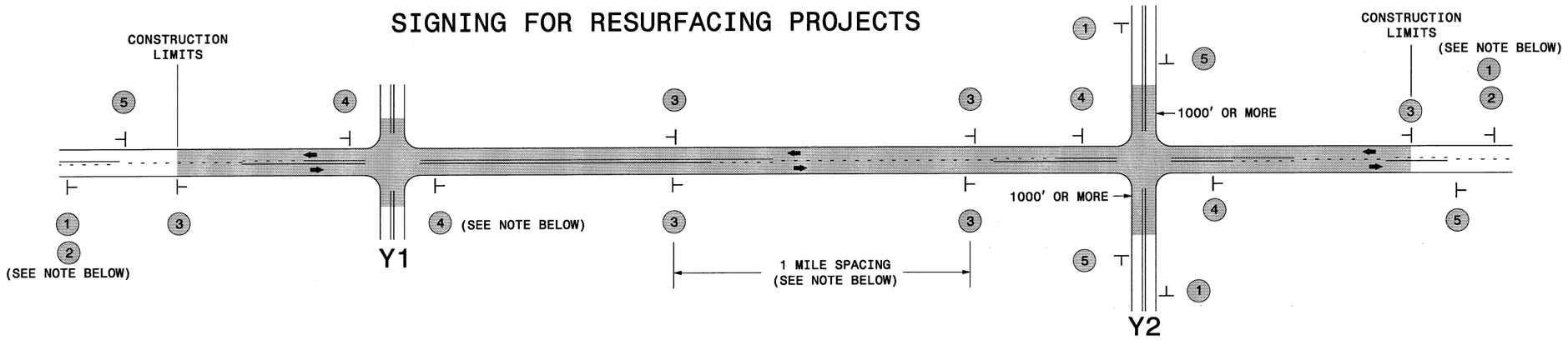
THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	4413000-E WORK ZONE ADVANCE/GENERAL WARNING SIGNING SF	4457000-E TEMPORARY TRAFFIC CONTROL LS	4510000-E LAW ENFORCEMENT HR	4685000-E 4" X 90 M WHITE THERMO LF	4685000-E 4" X 90 M YELLOW THERMO LF	4686000-E 4" X 120 M WHITE THERMO LF	4686000-E 4" X 120 M YELLOW THERMO LF	4687000-E THERMO LINES (4", 240 MILS) LF	4695000-E 8" X 90 M YELLOW THERMO LF	4695000-E 8" X 90 M WHITE THERMO LF	4697000-E 8" X 120 M WHITE THERMO LF	4697000-E 8" X 120 M YELLOW THERMO LF	4705000-E 16" X 120 M WHITE THERMO LF	4710000-E 24" X 120 M WHITE THERMO LF	4721000000-E THERMO MSG ONLY 120 M EA	4721000000-E THERMO MSG SCHOOL 120 M EA	4721000000-E THERMO RXR 120 M EA	4721000000-E THERMO MSG STOP 120 M EA	4721000000-E THERMO MSG AHEAD 120 M EA	4725000000-E THERMO LT ARROW 90 M EA	4725000000-E THERMO STR ARROW 90 M EA	4725000000-E THERMO STR & RT ARROW 90 M EA	4725000000-E THERMO RT ARROW 90 M EA	4725000000-E THERMO MERGE ARROW 90 M EA	4725000000-E THERMO LT & RT ARROW 90 M EA	4725000000-E THERMO STR & LT ARROW 90 M EA	4810000000-E 4" WHITE PAINT LF	4" YELLOW PAINT LF	4835000 24" WHITE PAINT LF	4840000000 PAINT MSG SCHOOL EA	4845000000-N PAINT LT ARROW EA	PAINT STR ARROW EA	PAINT RT ARROW EA
9CR.10341.160	Forsyth	1	NC 150 PETERS CREEK PARKWAY-SOUTH BOUND LANE	FROM PVMT JT AT EDGE OF PAVEMENT AT SILAS CREEK PARKWAY TO PAVT. JT SOUTH OF CLEMMONSVILLE RD (SR 2747) OVERPASS INCLUDE RAMPS AT CLEMMONSVILLE RD.	1,2	2	MD	2.043	26-60	206		200	6,840	8,192	6,475					1,879			278	4					14	22	2	19	3			120	199	278				
		1	NC 150 PETERS CREEK PARKWAY-NORTH BOUND LANE	FROM PAVEMENT JT SOUTH OF CLEMMONSVILLE RD (SR 2747) OVERPASS TO PVMT JT AT EDGE OF PAVEMENT AT SILAS CREEK PARKWAY INCLUDE RAMPS AT CLEMMONSVILLE RD.	1,2	2	MD	2.039	26-60	206		200	6,545	8,114	6,390					1,048			234						9	20	4	3				250	199	234		2	3	1
TOTAL FOR MAP NO. 1								2.043		412		400	13,385	16,306	12,865					2,927			512	4					23	42	6	22	3			370	398	512		2	3	1
9CR.10341.160	Forsyth	2	NC 67 SILAS CREEK PARKWAY-WEST BOUND	FROM EDGE OF PVMT AT NC 150 TO PAVEMENT JOINT NEAR BOLTON ST. OFF RAMP	1,2	2	MD	1.899	24-60	206	*	160	4,337	931	3,766	1,365				160			185		6				13	12		3				30		50	6			
		2	NC 67 SILAS CREEK PARKWAY-EAST BOUND	FROM PAVEMENT JOINT NEAR BOLTON ST. OFF RAMP TO EDGE OF PVMT AT NC 150	1,2	2	MD	1.895	24-60	206		160	3,378	875	5,159	1,411				56	37		310	16					17	12		15				30						
TOTAL FOR MAP NO. 2								1.899		412		320	7,715	1,806	8,925	2,776				216	37		495	16	6				30	24		18				60		50	6			
9CR.10341.160	Forsyth	3	NC 66/W. MOUNTAIN ST./W.	FROM PAVEMENT JT. NEAR HOPKINS RD. TO PAVEMENT JT. AT ROUND ABOUT NEAR DOBSON ST.	3,4	2	MU	2.08	24-47	319			15,151		1,154	26,495		301				150	108			6			7			2									
9CR.10341.160	Forsyth	4	NC 66/W. BODENHAMER ST./ NC 66/NC 150 E. BODENHAMER ST.	FROM PAVEMENT JT. NEAR ROUND ABOUT NEAR DOBSON ST. TO RXR CROSSING AT E. MOUNTAIN ST.	4,5	3	MU	1.07	31-55	126		80			1,826	12,012				540		200	512	8		8			27	5	9	5									
TOTAL FOR PROJ NO. 9CR.10341.160								7.092		1,269	1	800	36,251	18,112	24,770	41,283		301		3,683	37	350	1,627	28	6	14			87	71	15	47	3			430	398	562	6	2	3	1
													54,363		66,053			301		3,720				48					223						828			6	
9CR.20341.160	Forsyth	5	SR 3173 SILAS CREEK PARKWAY-WEST BOUND	FROM PAVEMENT JOINT WEST OF STOP BAR AT BUCHANAN ST. (NS) TO EDGE OF PAVEMENT AT NC 150 PETERS CREEK PARKWAY	1	3	MD	0.28	36-55	126		80		1,442	1,131								125	4					6	6		2									
		5	SR 3173 SILAS CREEK PARKWAY-EAST BOUND	FROM EDGE OF PAVEMENT AT NC 150 PETERS CREEK PARKWAY TO PAVEMENT JOINT WEST OF STOP BAR AT BUCHANAN ST. (NS)	1	3	MD	0.28	36-55	126		80		1,455	935								118						2												
TOTAL FOR MAP NO. 5								0.56		252		160		2,897	2,066								243	4					8	6		2										
9CR.20341.160	Forsyth	6	SR 2042 GRAVES ST.	FROM END OF CURB NEAR ROUND ABOUT AT EAST MOUNTAIN ST. (SR 2045) TO END OF CURB AT EAST MOUNTAIN ST. (SR 2045)	3	2	2WU	0.706	20-22	79			7,597	7,455								50	25			2															
9CR.20341.160	Forsyth	7	SR 2636 BEESON ROAD	FROM EDGE OF PAVEMENT AT SHEILDS RD. (SR2640) TO END OF MAINTENANCE	6	2	2WU	0.708	18-21	79																														
9CR.20341.160	Forsyth	8	SR 2637 GLENWOOD RD.	FROM OLD SALEM RD. (SR 2632) TO UNION CROSS RD. (SR 2643)	6	2	2WU	0.739	19	83			7,952		44	7,804																								
9CR.20341.160	Forsyth	9	SR 2456 LIBERTY ST.	FROM PAVEMENT JOINT ON EAST SIDE OF N. PATTERSON AVE. (SR 2579) TO DEAD END	7	2	MU	0.139	40	126					370	1,210							32						3		3									
9CR.20341.160	Forsyth	10	SR 1987 WALKER RD.	FROM BETHANIA-RURAL HALL RD. (SR 4002) TO MURRAY RD. (NS)	6	2	2WU	1.45	22	162			15,597		326	16,423							100		12				2	4		2								
9CR.20341.160	Forsyth	11	SR 1611 BETHANIA RD.	FROM NC 67 TO BETHANIA RD. (SR 1688) 3-WAY STOP	6	2	2WU	1.44	22	162			15,494		278	16,796							35				4	5				1								
9CR.20341.160	Forsyth	12	SR 2649 HOPKINS RD.	FROM PAVEMENT JT. AT NC 66/W.MOUNTAIN ST. TO PAVEMENT JT. AT OLD WINSTON RD. (SR 2648)	6, 9	2	2WU	2.054	24-35	230	*		17,780		1,089	25,737		983					35						18	1		4								
9CR.20341.160	Forsyth	13	SR 1003 N. MAIN ST.	FROM EDGE OF PAVEMENT AT NC 66/HORNEYTOWN RD. (SR 2775) TO PAVEMENT JOINT AT COUNTY LINE	3	2	2WU	1.103	21-34	123			11,863		52	12,462	80	169					15				4	5	4											
9CR.20341.160	Forsyth	14	SR 4278 CHERRY ST.	FROM S. MAIN ST. (SR 4315) TO W. MOUNTAIN ST. (SR4309)	7	2	M2	0.75	26-36	84					517	8,976		90		291			85						12	2	4	1								
9CR.20341.160	Forsyth	15	SR 2979 HOPE CHURCH RD.	FROM FRATERNITY CHURCH RD. (SR 2991) TO W. CLEMMONSVILLE RD. (SR 1120)	6	2	2WU	0.911	20	102			9,802			9,620																								
9CR.20341.160	Forsyth	16	SR 1434 SPICEWOOD DR.	FROM YADKINVILLE RD. (SR 1525) TO OLIVET CHURCH RD. (SR 1433)	6	2	2WU	2.127	22	238			22,887		482	23,709		44					40						5			2								
9CR.20341.160	Forsyth	17	SR 1307 GRAPEVINE RD.	FROM CONRAD RD. (SR 1305) TO EDGE OF PAVEMENT AT LEWISVILLE-VIENNA RD. (SR 1308)	6	2	2WU	2.361	18-23	264			25,404		82	24,932																								
9CR.20341.160	Forsyth	18	SR 4008 HIGH ST.	FROM PAVEMENT JT. AT BUS 40 RAMP TO PAVEMENT JT. AT CHERRY ST. (SR 1725)	7	2	MU	0.132	24	126		40			195					116			48						2	3	1			2						
9CR.20341.160	Forsyth	19	SR 1725 CHERRY ST.	FROM PAVEMENT JT. NEAR HIGH ST. TO PAVEMENT JT AT CONCRETE PAVEMENT AT 7TH ST.	7	2	MU	0.709	32-46	126		280			2,708	99				935			396		18				1	21	9	3		1	9	80				
9CR.20341.160	Forsyth	20	SR 1770 MARSHALL ST.	FROM PAVEMENT JT AT 5TH ST. TO EDGE OF PAVEMENT AT HIGH ST. (SR 4008)	7	2	MU	0.514	36-40	126		160	90	86	2,721	84			149	731			143	4					8	14	3	4	1		3	90				
9CR.20341.160	Forsyth	21	SR 1001 COUNTRY CLUB RD.	FROM EDGE OF PAVEMENT EAST SIDE OF PEACE HAVEN RD. (SR 1891) TO PAVEMENT JT. AT BROOKBERRY DR. (NS)	4, 8	3	MU	1.208	28-52	126		40	2,165		2,637	12,990		352					181		12				31	2		5					590	100	12	2	
TOTAL FOR PROJ NO. 9CR.20341.160								17.331		2,488	1	680	136,631	10,438	13,567	160,842	80	1,638	149	2,073		50	1,378	8	42	2	8	10	94	53	20	24	1	3	12	170	590	100	12	2	
													147,069		174,409			1,787		2,073				70					207						760			2	
GRAND TOTAL								24.423		3,757	1	1,480	172,882	28,550	38,337	202,125	80	1,939	149	5,756	37	400	3,005	36	48	16	8	10	181	124	35	71	4	3	12	600	988	662	18	4	3	1
													201,432		240,462			2,088		5,793				118					430						1,588			8	

NOTE: All Quantities listed include turn lanes and are estimates; Payment will be based on actual field measurements and quantities received.

PROJ. REFERENCE NO.	SHEET NO.
9CR.10341.160,ETC	TMP-1

SIGNING FOR RESURFACING PROJECTS



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.

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

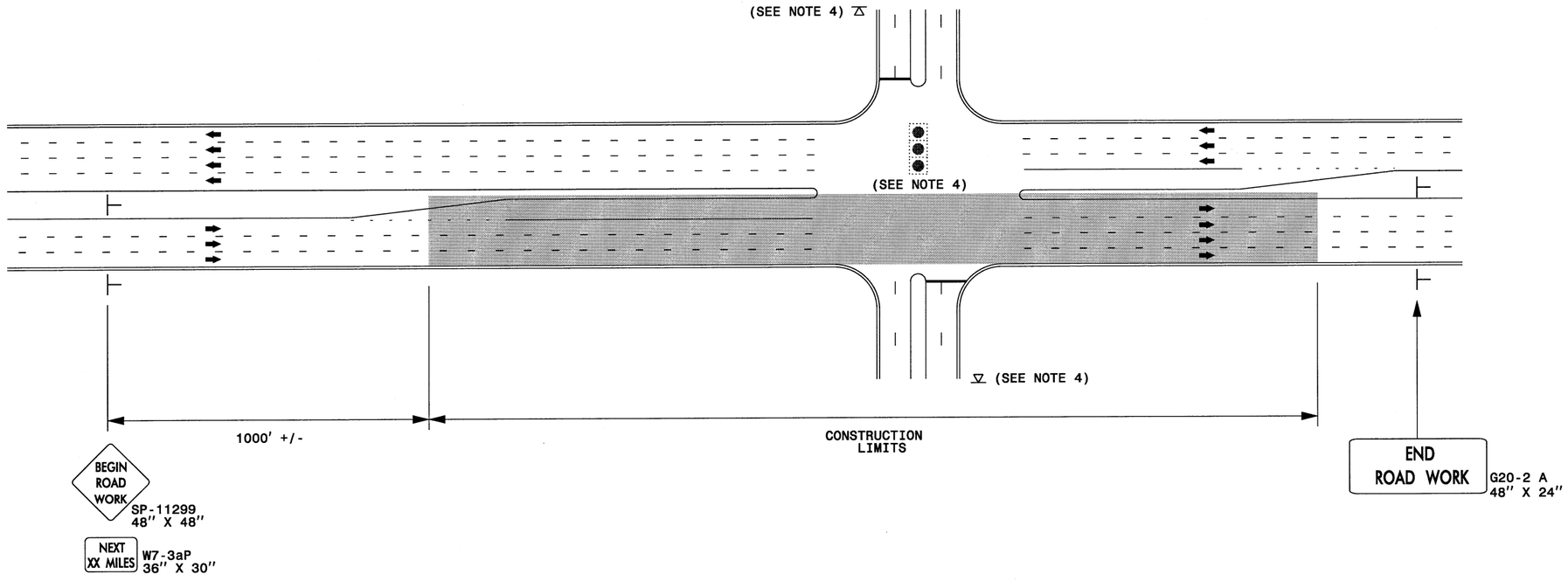
RESURFACING ADVANCE WARNING SIGNS FOR RURAL AND SUBURBAN 2 LANE ROADWAYS

3/19/2015
C:\Users\rmgarrett\Downloads\Resurfacing_AdvWarn_2Ln (2).dgn
User:rmgarrett

PROJ. REFERENCE NO.	SHEET NO.
~~XXXXXXXXRW~~ ~~XXXXXXXXRW~~	TMP-2

9CR.10341.160, ETC

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

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

RESURFACING ADVANCE WARNING SIGNS FOR URBAN / SUBURBAN FACILITIES

3/23/2015
C:\Users\rmgarrett\Downloads\Resurfacing_AdvWarn_UrSu.dgn
User:rmgarrett

Notes on Moving Operation Caravan for Placing Pavement Marking or Markers on Four Lanes or More of a Multi-Lane Roadway

(1) The following options may be used as the first advance warning the motorists see:
   a. Truck mounted advance warning signs
   b. Truck mounted changeable message sign (CMS)
   c. Ground mounted advance warning signs (Must circle to pick up signs)
   d. Ground mounted changeable message sign (CMS) (Must circle to pick up signs)

(2) All advance warning signs must be 48" x 48" with fluorescent orange type VII, VIII, or IX sheeting. If space limitations on shoulder prohibit a 48" x 48" sign, a smaller sign can be used with approval from engineer.

(3) Signs on vehicles should be mounted a minimum of one foot from the ground and should not block the motorist's sight of the flashing arrow board and/or warning lights.

(4) Ground mounted advanced warning signs should be mounted a minimum of five feet from the ground to the bottom of the sign.

(5) Sign spacing should be adjusted for horizontal and vertical curves, etc. to improve sight distances.

(6) Additional vehicles should be used in work caravan to facilitate drying of pavement marking material (TMA's are optional on these additional vehicles). However, the first vehicle motorists see in the travel lane shall have a TMA.

(7) Adjust distances as needed to prevent motorists from entering space between the application and protection vehicle. Distance can be lengthened to accommodate sight distance needs.

(8) Round up mileage to next whole mile. Work zone should not exceed five miles in length.

(9) Radio communication between vehicles is required.

(10) Use of warning lights on all vehicles if preferred, but a rotating beacon may be used instead.

(11) If work is performed at night, the work area must be illuminated with machine and/or tower lights as approved by engineer.

(12) All traffic control devices will be considered incidental to the pay items for pavement marking and markers.

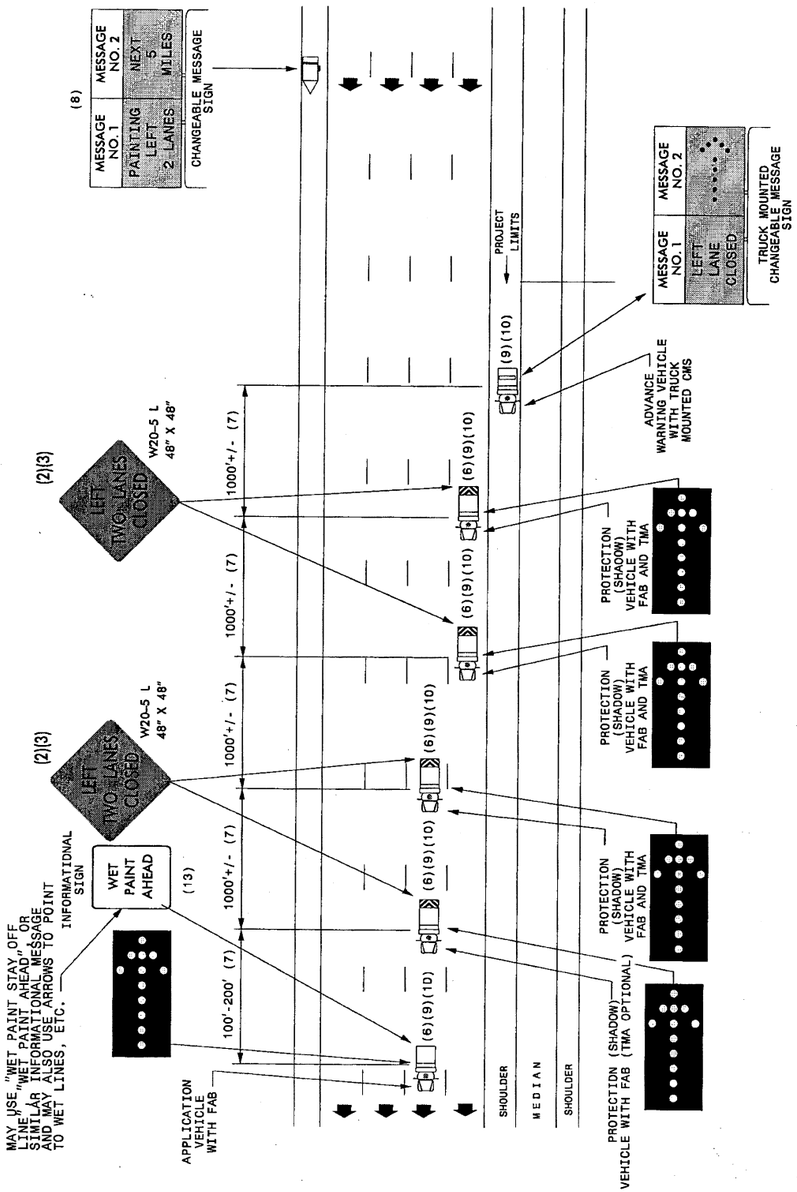
(13) Informational signs should be activity specific, i.e. "Paint Crew in Road". Signs may be rectangular or diamond shape. Sign size should be based on the motorist ability to recognize sign when traveling five miles above posted speed limit.

LEGEND

- DIRECTION OF TRAFFIC FLOW
- APPLICATION VEHICLE WITH WARNING LIGHTS
- FLASHING ARROW BOARD, TYPE "B" "CAUTION MODE"
- PROTECTION VEHICLE WITH TRUCK MOUNTED IMPACT ATTENUATOR (TMIA) AND WARNING LIGHTS (SEE ROADWAY STANDARD NO. 1165.01
- ADVANCE WARNING VEHICLE i.e., PICKUP TRUCK WITH MOUNTED SIGN

Moving Operation Caravan

(Operations Traveling 3 mph or Faster)
Placing Pavement Marking or Markers
On Four Lanes or More of a Multi-Lane Roadway



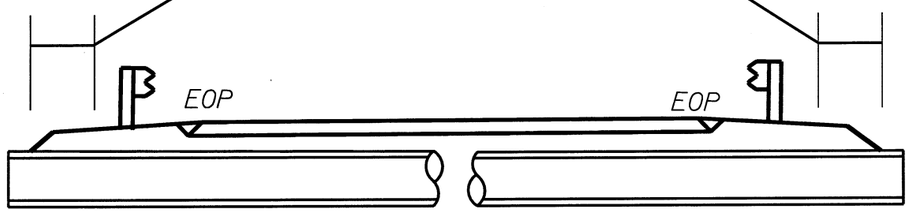
EROSION CONTROL DETAIL

PROJECT REFERENCE NO.	SHEET NO.
9CR.10341.160, 9CR.20341.160	EC-1

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

BMP Options: Wattle or Silt Fence

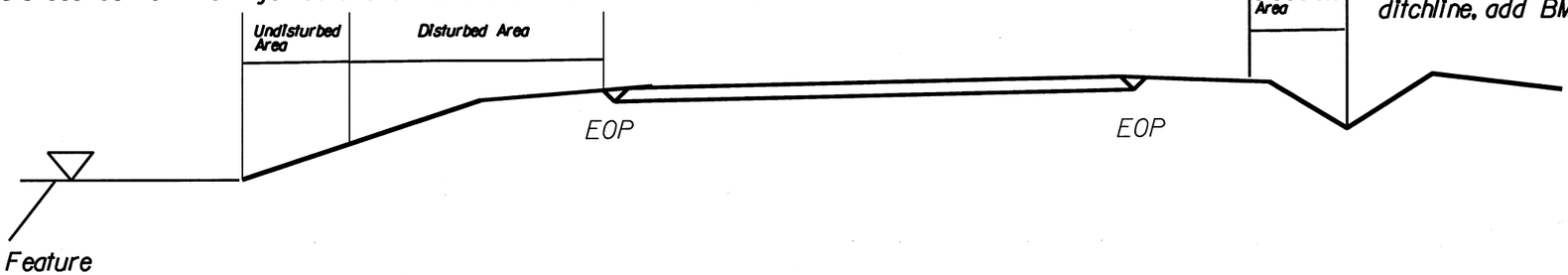
< 5' - 10' Undisturbed buffer add BMP



Pipe/Culvert

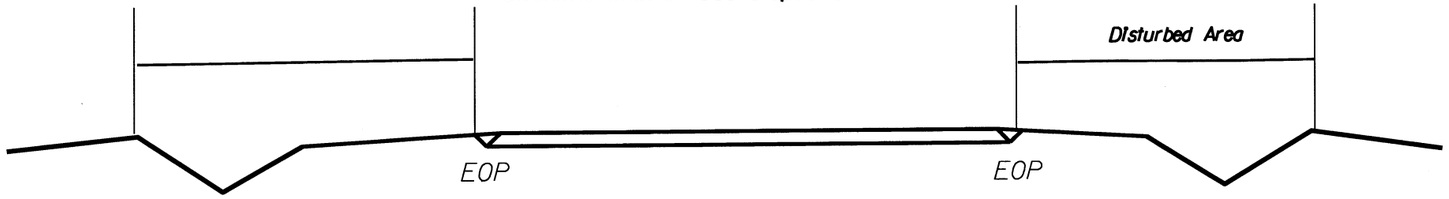
< 5' - 10' Undisturbed buffer from jurisdictional feature add BMP

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

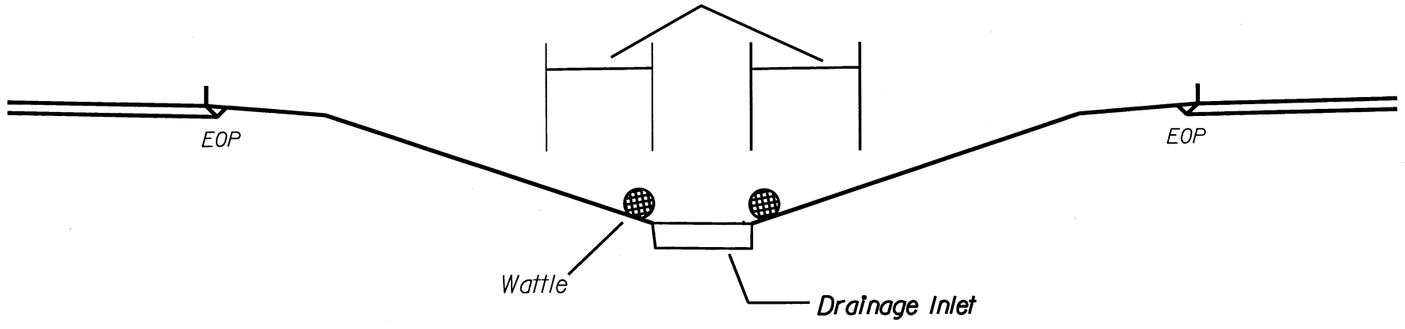


Jurisdictional Feature

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



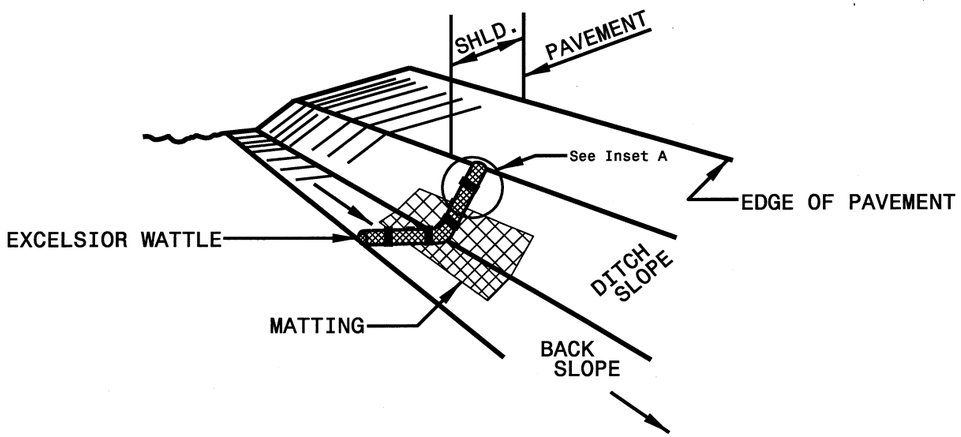
< 5' - 10' Undisturbed buffer from inlet, add wattle



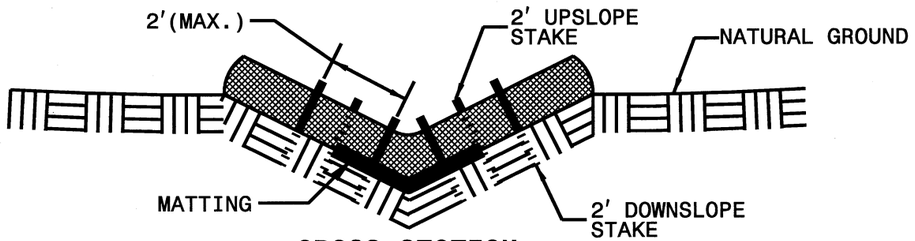
NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
9CR.10341.160, ETC	EC-2

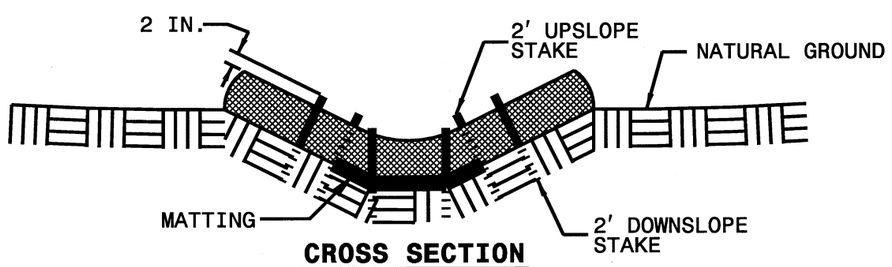
WATTLE DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

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.

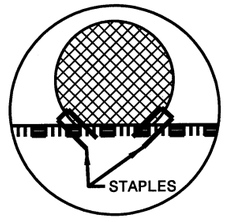
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

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

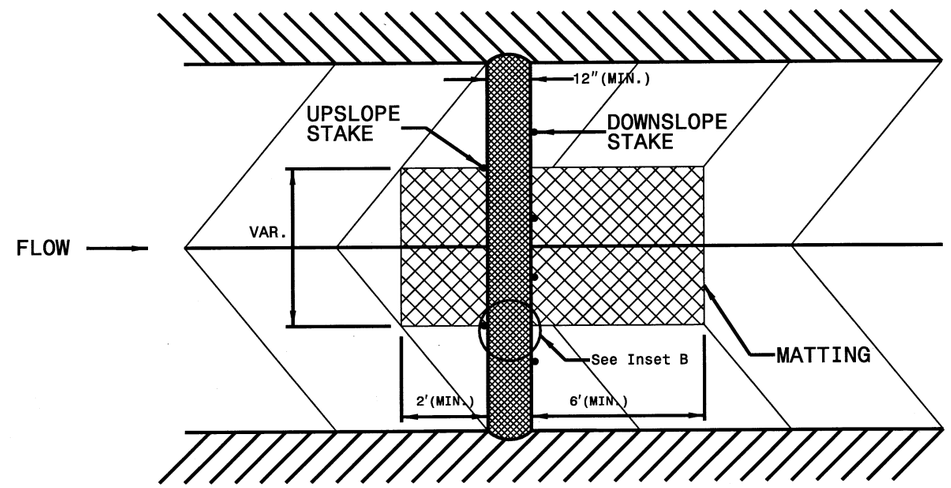
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

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

INSET A



INSET B



TOP VIEW