

**Map 1**  
 Bus 40/US 421/NC 150 East Bound  
 Mill 2" Depth only on Right and Left Shoulders.  
 Pave back SHOULDERS ONLY 2" S9.5C.  
 Replace Milled Rumble Strips.  
 Mill and Pave back same day.

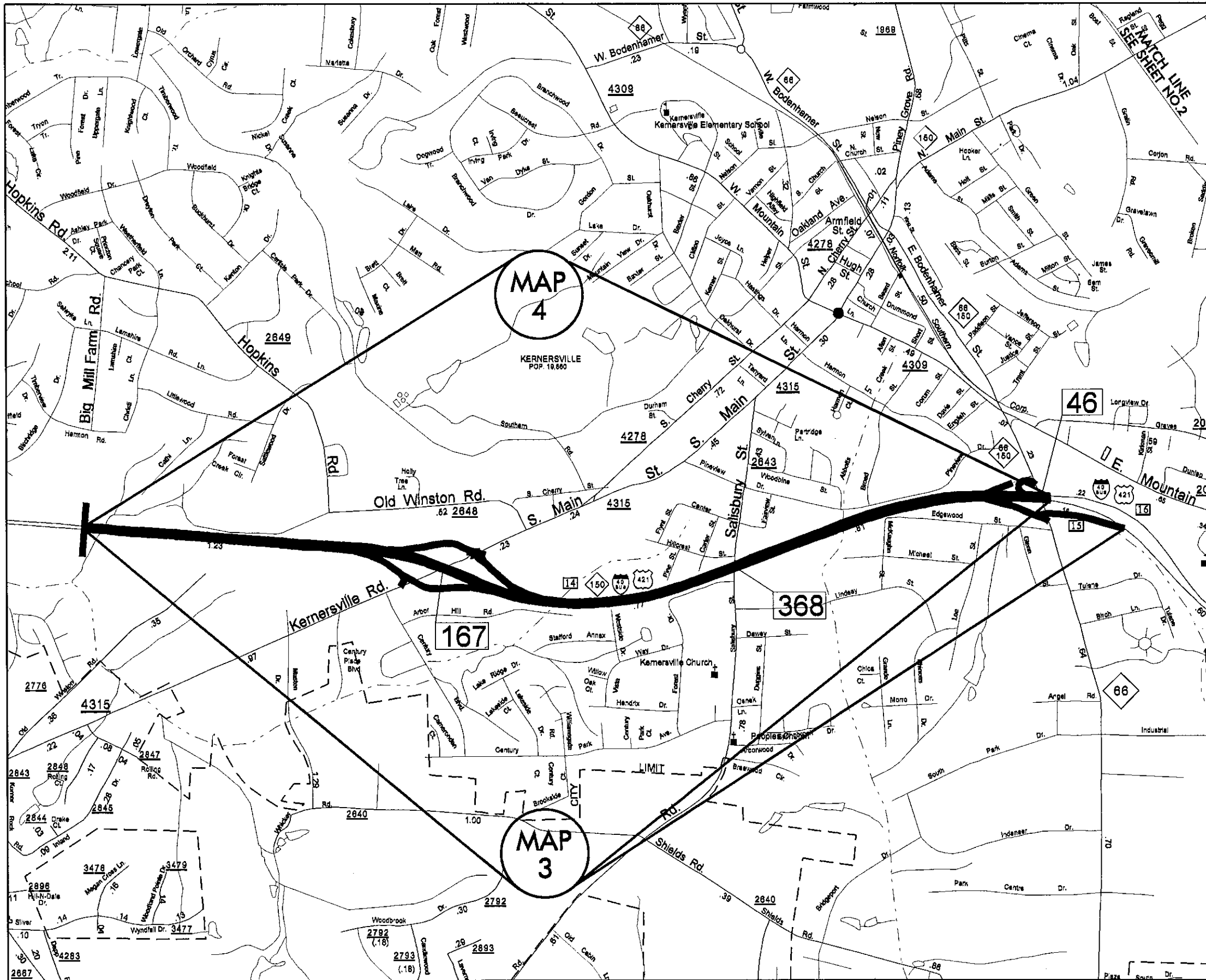
**Map 2**  
 Bus 40/US 421/NC 150 East Bound  
 Fine Mill Travel lanes and exit lanes  
 approximately 5/8" depth.  
 DO NOT MILL INTO EXISTING RUMBLE STRIPS,  
 Pave Back with Ultra-thin Bonded Wearing Course.  
 RAMPS - Mill 1 1/2" depth in existing asphalt lane  
 from end of ultra thin overlay to edge  
 of pavement at Linville Rd/Old Greensboro Rd.  
 Pave back 1 1/2" S9.5C, ASPHALT LANE SURFACE  
 SHOULD BE FLUSH WITH CONCRETE PAVEMENT.  
 Mill Ramp and Pave back same day.

**Map 5**  
 Bus 40/US 421/NC 150 West Bound  
 Fine Mill Travel lanes only approximately 5/8" depth.  
 DO NOT MILL INTO EXISTING RUMBLE STRIPS,  
 Pave Back with Ultra-thin Bonded Wearing Course.  
 RAMPS - Mill 1 1/2" depth from end of ultra thin  
 overlay to end of existing asphalt.  
 Pave back 1 1/2" S9.5C, ASPHALT LANE SURFACE  
 SHOULD BE FLUSH WITH CONCRETE PAVEMENT.  
 Mill Ramp and Pave back same day.

**Map 6**  
 Bus 40/US 421/NC 150 West Bound  
 Mill 2" Depth only on Right and Left Shoulders.  
 Pave back SHOULDERS ONLY 2" S9.5C.  
 Replace Milled Rumble Strips.  
 Mill and Pave back same day.

ALL WORK ON THESE MAPS TO BE  
 NIGHT TIME ONLY 7 P.M. TO 6 A.M.,  
 Monday-Sunday.

**FORSYTH COUNTY**  
 NORTH CAROLINA

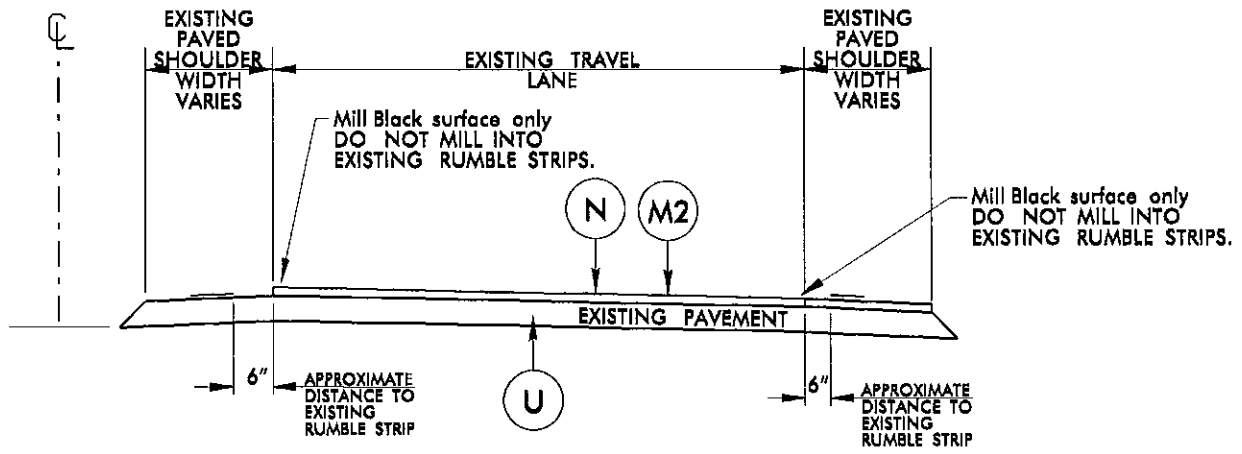


Map 3  
 Bus 40/US 421/NC 150 East Bound  
 Fine Mill Travel lanes and exit lanes  
 approximately 5/8" depth.  
**DO NOT MILL INTO EXISTING RUMBLE STRIPS,**  
 Pave Back with Ultra-thin Bonded Wearing Course.  
**RAMPS - Mill 1 1/2" depth.**  
 Pave back 1 1/2" S9.5C.  
 Mill Ramps and Pave back same day.

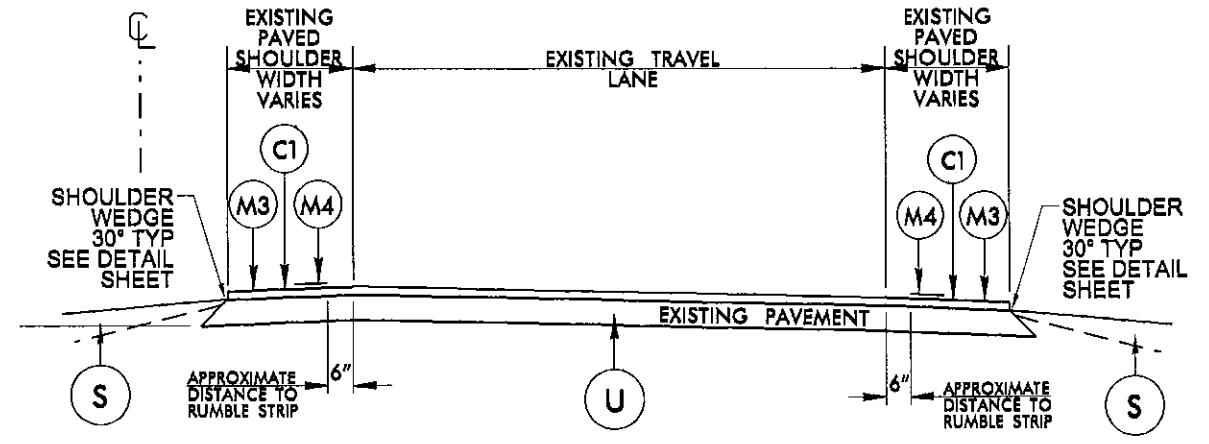
Map 4  
 Bus 40/US 421/NC 150 West Bound  
 Fine Mill Travel lanes and exit lanes  
 approximately 5/8" depth.  
**DO NOT MILL INTO EXISTING RUMBLE STRIPS,**  
 Pave Back with Ultra-thin Bonded Wearing Course.  
**RAMPS - Mill 1 1/2" depth.**  
 Pave back 1 1/2" S9.5C.  
 Mill Ramps and Pave back same day.

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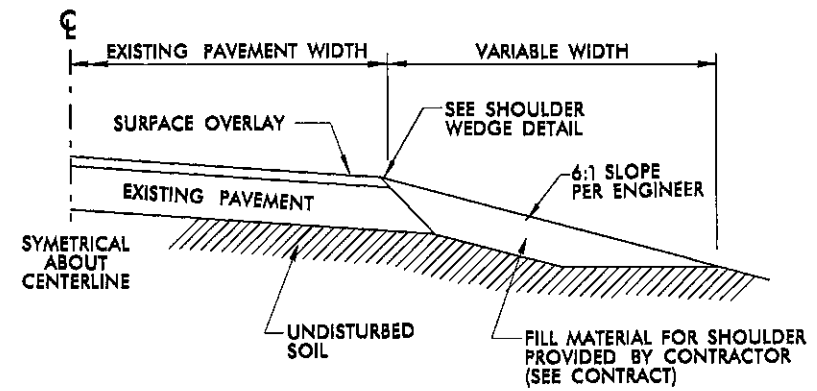
**FORSYTH COUNTY**  
 NORTH CAROLINA



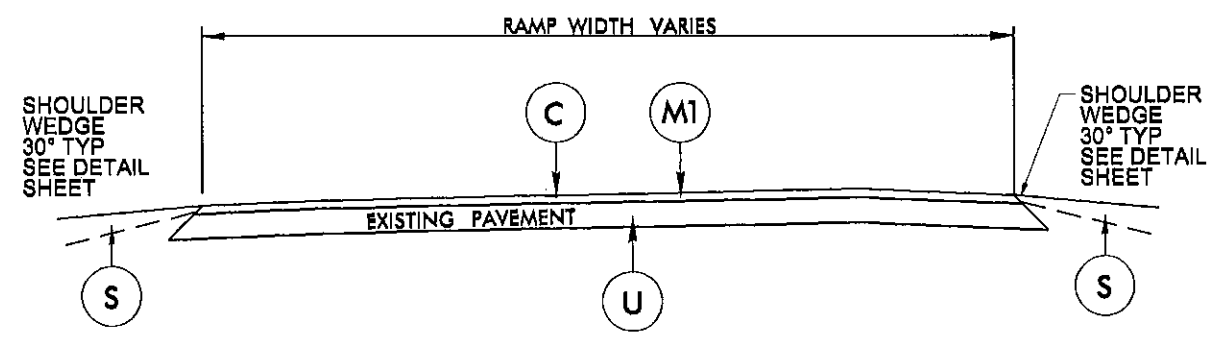
**TYPICAL SECTION NO.1**  
 MAP 2 Bus 40/US 421/NC 150  
 MAP 3 Bus 40/US 421/NC 150  
 MAP 4 Bus 40/US 421/NC 150  
 MAP 5 Bus 40/US 421/NC 150



**TYPICAL SECTION NO.2**  
 MAP 1 Bus 40/US 421/NC 150  
 MAP 6 Bus 40/US 421/NC 150  
 \*SHOULDER WORK ONLY THESE MAPS



**SHOULDER RECONSTRUCTION**  
 \* MAP 1 SHOULDERS ONLY  
 MAP 6 SHOULDERS ONLY  
 RAMP SHOULDERS ONLY



**TYPICAL SECTION NO. 3**  
 RAMPS ONLY

PAVEMENT SCHEDULE	
N	PROP. APPROX. 5/8" ULTRATHIN HOT MIX BONDED WEARING SURFACE COURSE, TYPE B, AT AN AVERAGE RATE OF 70 LBS. PER SQ. YD.
C	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, TO BE APPLIED AT AN AVERAGE RATE OF 168 LBS PER SQ. YD.
C1	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, TO BE APPLIED AT AN AVERAGE RATE OF 224 LBS PER SQ. YD.
M1	MILL ASPHALT PAVEMENT, 1 1/2" DEPTH
M2	FINE MILLING, 5/8" DEPTH
M3	MILL ASPHALT PAVEMENT, 2" DEPTH
M4	MILLED RUMBLE STRIP
S	SHOULDER RECONSTRUCTION (SEE DETAIL)
U	EXISTING PAVEMENT

## 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.

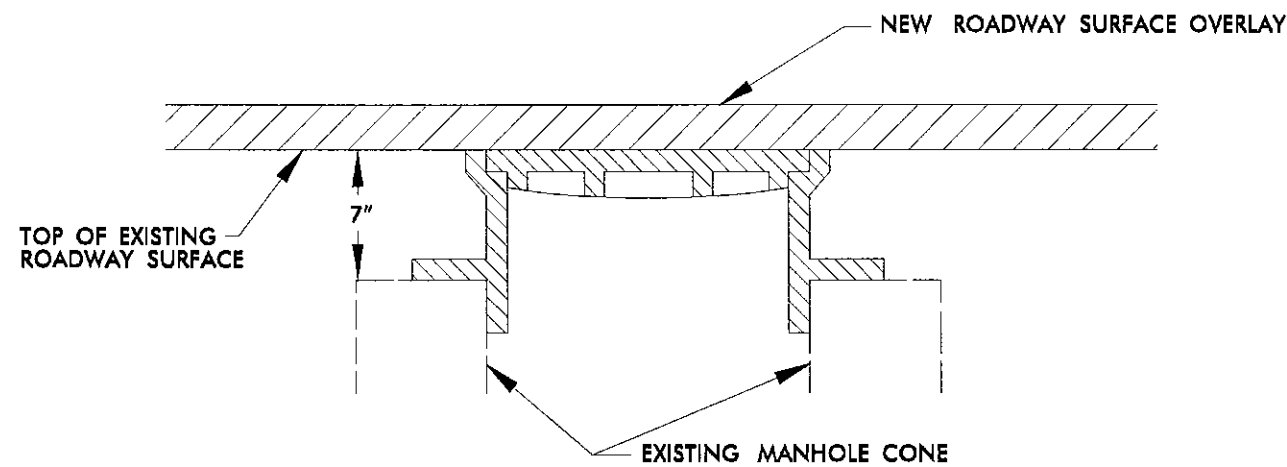
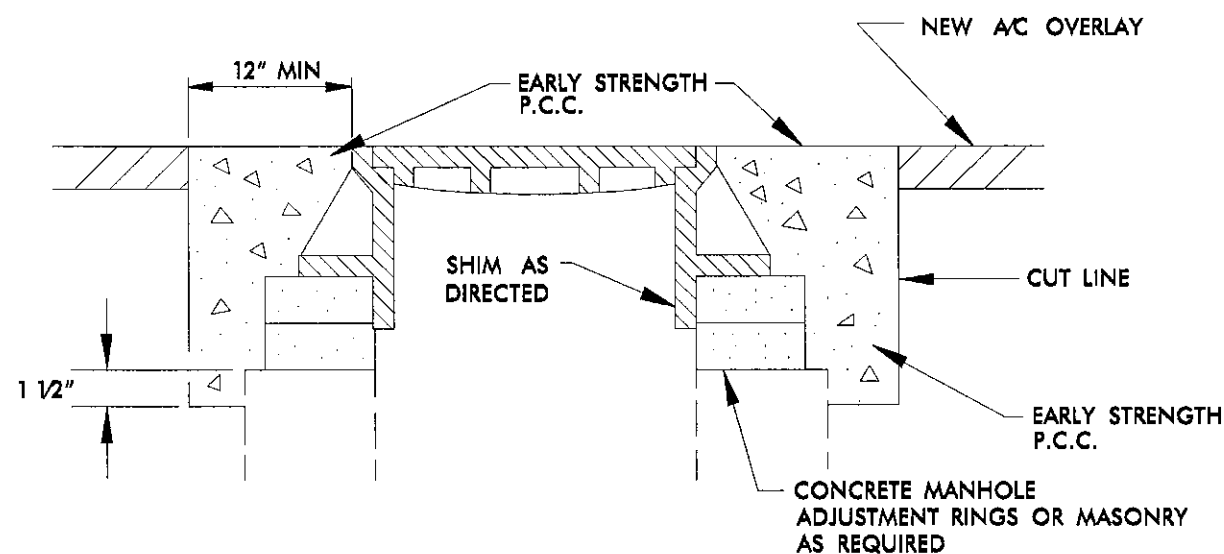
4. TEMPORARY ASPHALT WEDGING SHALL BE PLACED ON THE SAME DAY THAT BRIDGE AND/OR RAILROAD APPROACHES ARE MILLED (AND IF APPROACHES ARE MILLED PRIOR TO BRIDGE DECK).

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

**STEP 1****STEPS 2,3, & 4**

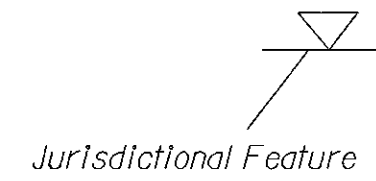
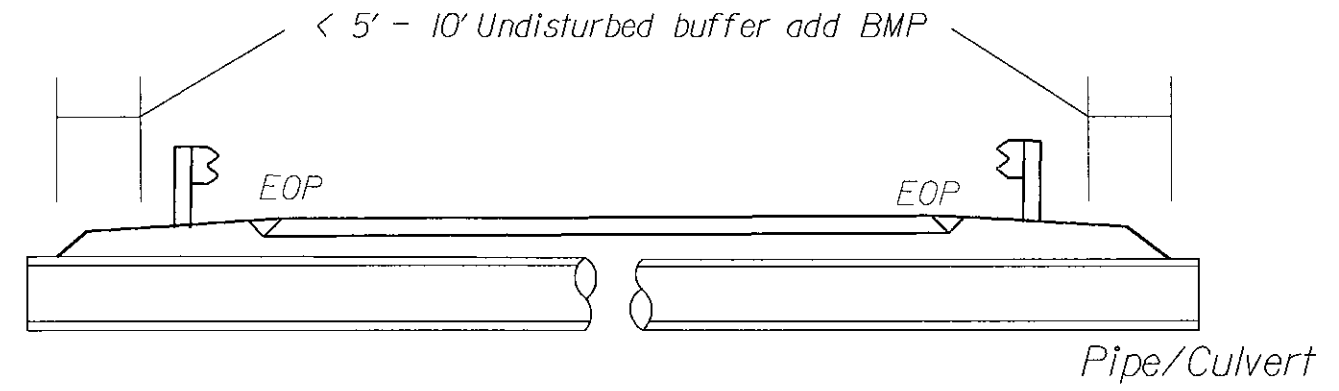
- STEP 1 COVER EXISTING MANHOLE WITH APPROVED MATERIAL AND CONSTRUCT OVERLAY ACROSS TOP OF MANHOLE
- STEP 2 SAW CUT EXCAVATION AROUND MANHOLE 12" MIN. FROM MANHOLE FRAME.
- STEP 3 RAISE MANHOLE FRAME RINGS TO FINISH PAVEMENT PROFILE AND CROSS SLOPE.
- STEP 4 BACKFILL WITH EARLY STRENGTH P.C.C. TO DEPTHS AS DIRECTED.

**MANHOLE ADJUSTMENT DETAIL**

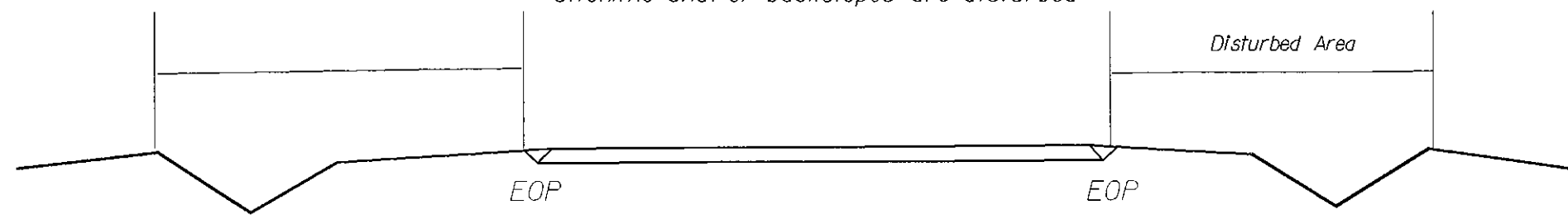
# EROSION CONTROL DETAIL

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

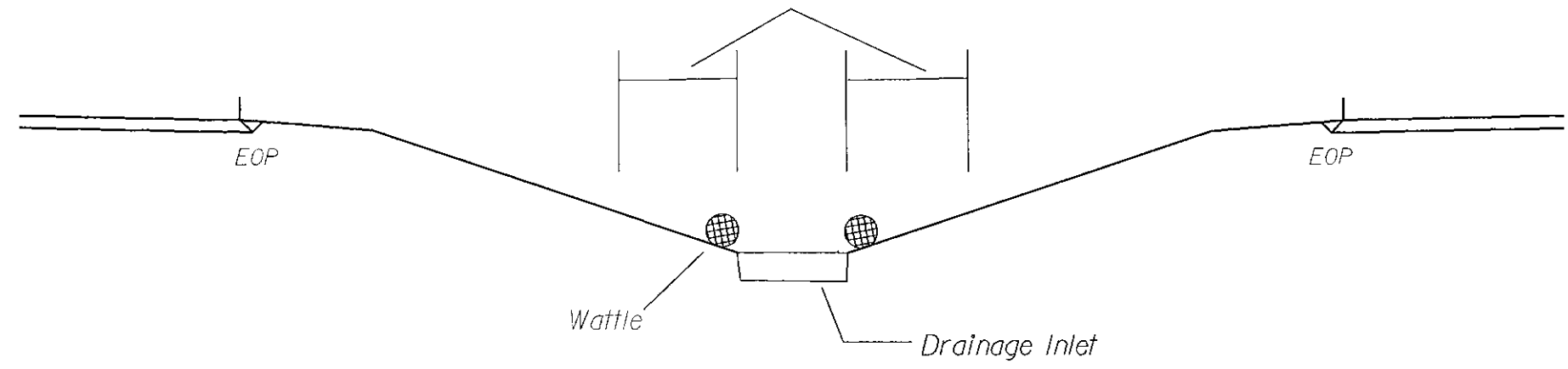
BMP Options: Wattle or Silt Fence



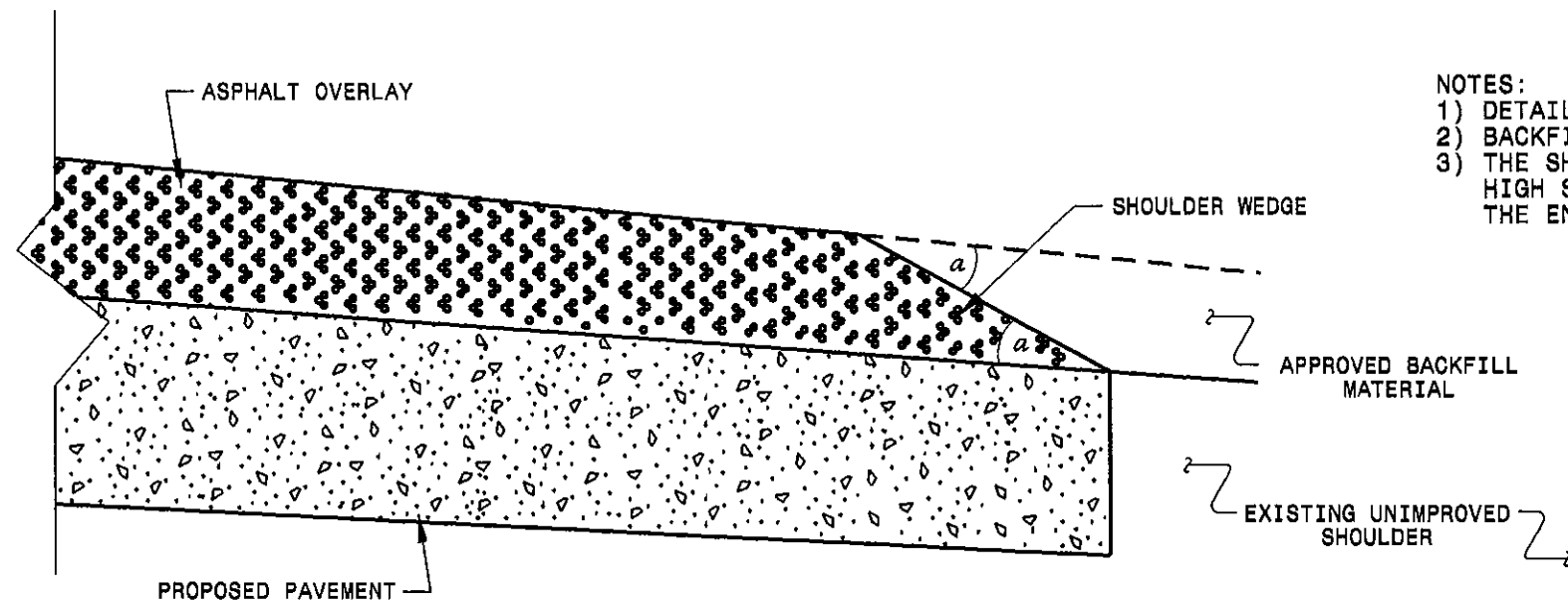
Use BMP's if shoulders and/or front slopes and/or ditchline and/or back slopes are disturbed



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

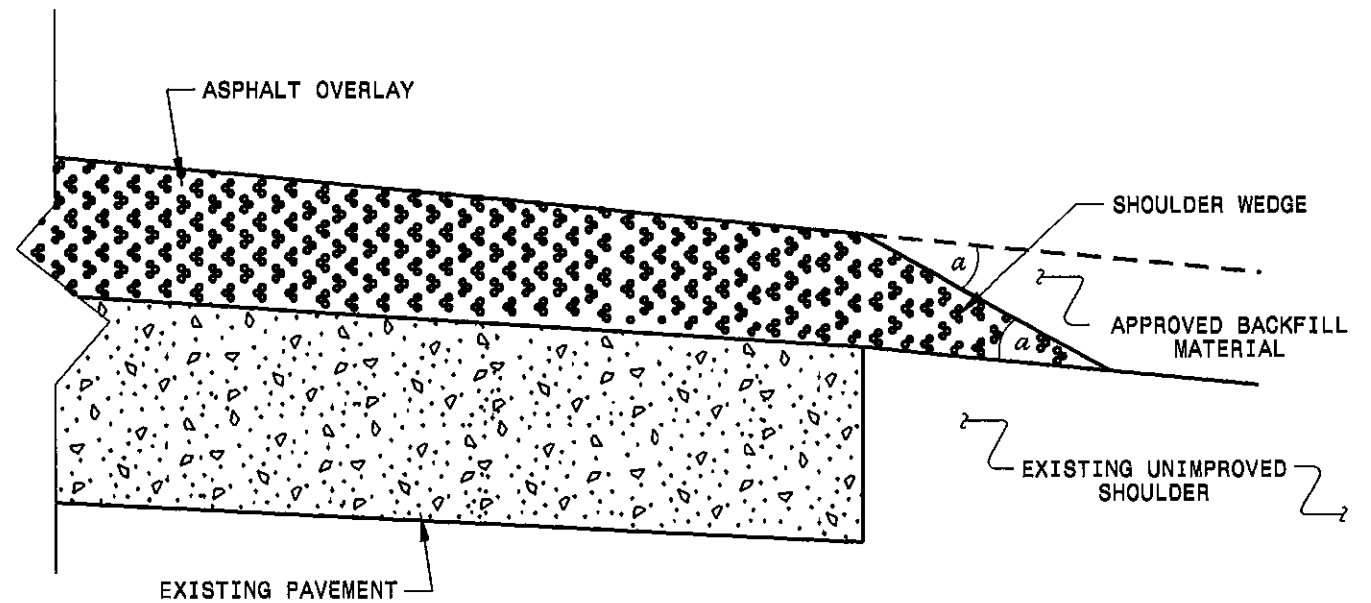


NOT TO SCALE

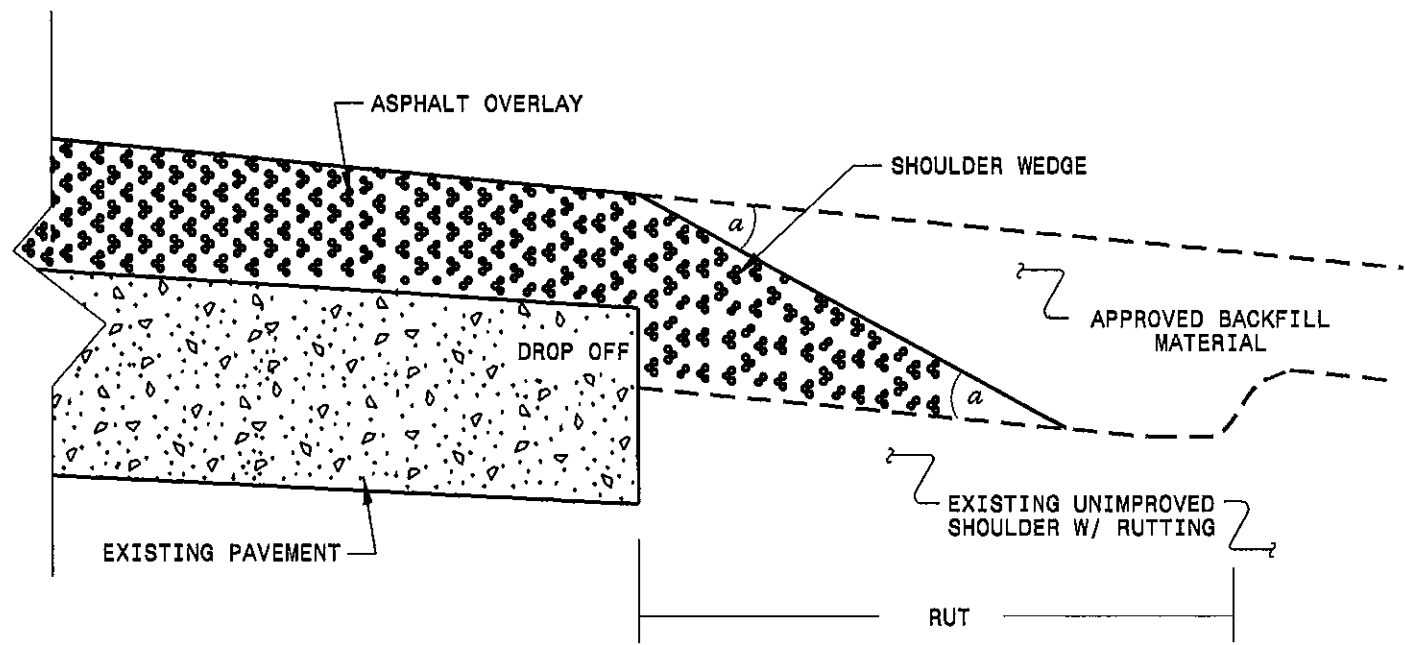


NOTES:  
 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.  
 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.  
 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS DIRECTED BY THE ENGINEER.

**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 919-260-4119
<b>SHOULDER WEDGE DETAILS</b>	
ORIGINAL BY: T. SPELL	DATE: 7-18-11
MODIFIED BY:	DATE: 10/18/12
CHECKED BY:	DATE:
FILE SPEC.:	shwldr/wdgge/stand/shwldr/wdgge/detail.dwg

## BRIDGE DATA

									PROJECT NO.	SHEET NO.	
									2018CPT.09.05.10341.1	7	
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	I40 BUS EBL	I40 BUS EBL	360	SALEM LAKE	8.5 RC SLAB	54.8	NA	NA	393	NA	DO NOT PAVE DO NOT MILL
1	I40 BUS EBL	I40 BUS EBL	362	SOUTHERN RAILWAY	8 7/16 RC SLAB	55	NA	NA	240	NA	DO NOT PAVE DO NOT MILL
6	I40 BUS WBL	I40 BUS WBL	361	SALEM LAKE	8 7/16 RC SLAB	55.3	NA	NA	393	NA	DO NOT PAVE DO NOT MILL
6	I40 BUS WBL	I40 BUS WBL	363	SOUTHERN RAILWAY	8 7/16 RC SLAB	54.8	NA	NA	205	NA	DO NOT PAVE DO NOT MILL
1,2,5,6	SR 2662	OLD GREENSBORO RD. LINVILLE RD.	364	I-40 BUS	7 RC SLAB, 2 AWS	NA	51	16FT 05 IN EBL 17FT 06 IN WBL	304	NA	MAINTAIN CLEARANCE
2,5	SR 2667	HASTINGS HILL RD.	366	I-40 BUS	8.5" RC Deck	NA	49.16 EB 63.17 WB	19.58 FT in EB Direction 18.83 FT in WB Direction	217	NA	INFORMATION ONLY
3,4	SR 4315	MAIN ST.	167	I-40 BUS & US 421	8 3/4 RC SLAB	NA	48.5	17FT 02 IN EBL 17FT 10 IN WBL	271	NA	MAINTAIN CLEARANCE
3,4	SR 2643	SALISBURY ST.	368	I-40 BUS & US 421	8 3/4 RC SLAB	NA	56.04' EB 55.68' WB	16.94' EBL 17.14' WBL	203	NA	MAINTAIN CLEARANCE
3,4	NC66, NC150	NC 66	46	I-40 BUS & US 421	8 3/4 RC SLAB	NA	63.2	18FT 05 IN EBL 17FT 02 WBL	212	NA	MAINTAIN CLEARANCE

PROJECT NO.	SHEET NO.	TOTAL NO.
2018CPT.09.05.10341.1	8	

### SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	010600000-E	122000000-E	124500000-E	129700000-E			152300000-E	157500000-E	157700000-E	170400000-E	183914000-E	184000000-E	283000000-N	525500000-N	600000000-E	607101000-E			
												BORROW EXCAVATION	INCIDENTAL STONE BASE	SHOULDER RECONSTRUCTION	MILLING ASPHALT PAVEMENT, 2"DEPTH	MILLING ASPHALT PAVEMENT, 1 1/2"DEPTH	FINE MILLING ASPHALT PAVEMENT, 5/8"DEPTH	SURFACE COURSE, S9.5C	ASPHALT BINDER FOR PLANT MIX	POLYMER MODIFIED ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT	ULTRA-THIN BONDED WEARING COURSE	MILLED RUMBLE STRIPS (ASPHALT CEMENT CONCRETE)	ADJ. OF MANHOLES	PORTABLE LIGHTING	TEMPORARY SILT FENCE	WATTLE			
												MI	FT	CY	TONS	SMI	SY	SY	SY	TONS	TONS	TONS	TONS	TON	LF	EA	LS	LF	LF	
2018CPT.09.05.10341.1	Forsyth	1	I-40 BUS EAST BOUND	BEGIN SHOULDER WORK ONLY BRIDGE 360 OVER SALEM LAKE TO END CONCRETE PVMT JT. NEAR LINVILLE RD.	2	2	MD	NO	NO	1.105	varies 5-23	133		2.21	10,217			1,272	76		20			1	1	442	44			
TOTAL FOR MAP NO. 1												1.105		133		2.21	10,217			1,272	76		20			1	1	442	44	
2018CPT.09.05.10341.1	Forsyth	2	I-40 BUS EAST BOUND	BEGIN AT CONC. PVMT. JT WEST OF BRIDGE # 364 OLD GREENSBORO RD./LINVILLE RD. SR 2662 TO APPROX. 2000' WEST OF HASTINGS HILL RD. SR 2667 BRIDGE #366	1,3	2	MD	NO	NO	0.989	25	17		0.14	870	16,476		81	5	33			634				55	5		
TOTAL FOR MAP NO. 2												0.989		17		0.14	870	16,476		81	5	33			634				55	5
2018CPT.09.05.10341.1	Forsyth	3	I-40 BUS EAST BOUND	BEGIN 2 MILES EAST OF HASTINGS HILL RD. OVERPASS BRIDGE #365 TO PAVEMENT JT. AT BRIDGE #46 AT NC 66	1,3	2	MD	NO	NO	2.507	25	104		0.87	8,980	39,961		834	50	80			1,538				347	35		
TOTAL FOR MAP NO. 3												2.507		104		0.87	8,980	39,961		834	50	80			1,538				347	35
2018CPT.09.05.10341.1	Forsyth	4	I-40 BUS WEST BOUND	BEGIN AT PAVEMENT JT. AT BRIDGE #46 AT NC 66 TO APPROXIMATELY 2 MILES EAST OF HASTINGS HILL RD. BRIDGE #366	1,3	2	MD	NO	NO	2.509	25	84		0.70	8,179	40,592		760	46	81			1,563	5,300	1		279	28		
TOTAL FOR MAP NO. 4												2.509		84		0.70	8,179	40,592		760	46	81			1,563	5,300	1		279	28
2018CPT.09.05.10341.1	Forsyth	5	I-40 BUS WEST BOUND	BEGIN APPROX. 2000' WEST OF HASTINGS HILL RD. SR 2667 BRIDGE #365 TO CONC. PVMT. JT WEST OF BRIDGE # 364 OLD GREENSBORO RD./LINVILLE RD. SR 2662	1,3	2	MD	NO	NO	0.994	25	37		0.31	450	15,319		42	3	31			590				123	12		
TOTAL FOR MAP NO. 5												0.994		37		0.31	450	15,319		42	3	31			590				123	12
2018CPT.09.05.10341.1	Forsyth	6	I-40 BUS WEST BOUND	BEGIN SHOULDER WORK ONLY AT CONCRETE PVMT JT. NEAR LINVILLE RD. TO END AT BRIDGE 360 OVER SALEM LAKE	2	2	MD	NO	NO	1.07	varies 3-15	257		2.14	9,271			1,155	69		20					428	43			
TOTAL FOR MAP NO. 6												1.07		257		2.14	9,271			1,155	69				428	43				
TOTAL FOR PROJ NO. 2018CPT.09.05.10341.1												9.174		632	326	6.36	19,488	18,479	112,348	4,144	249	225	40	4,325	5,300	2	1	1,674	167	
GRAND TOTAL												9.174		632	326	6.36	19,488	18,479	112,348	4,144	249	225	40	4,325	5,300	2	1	1,674	167	

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



