STATE	PROJECT WBS	SHEET NUMBER
NC	12CR.20551.13	1

Drawn by: G. BRITTAIN

Pumpkin Center

Shuford Rd.

Old Mill Rd.

Buffalo Shoals Rd.

Asbury Church Rd.

E Main St

Mill across bridge and approaches

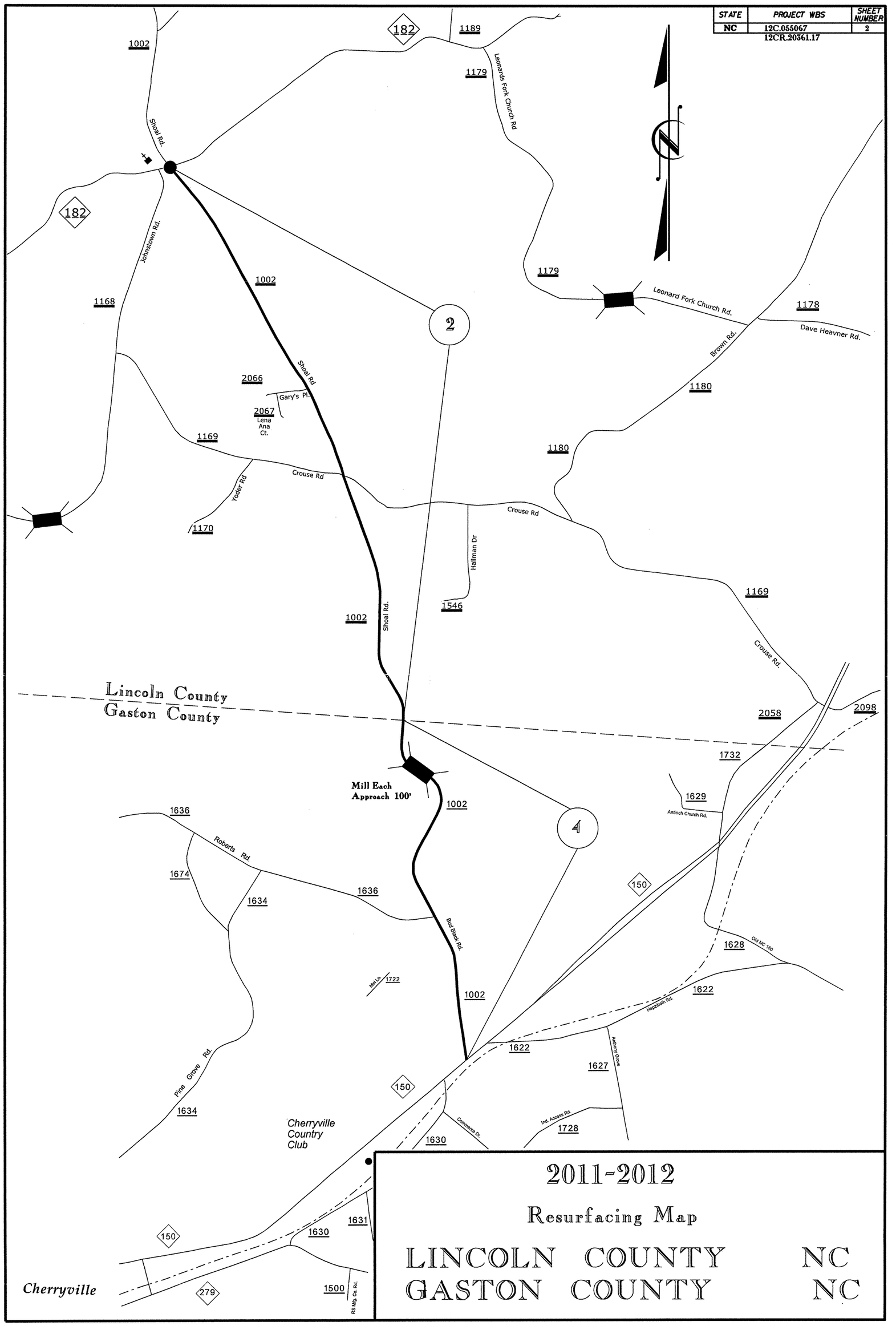
Boger City

Goodsonville

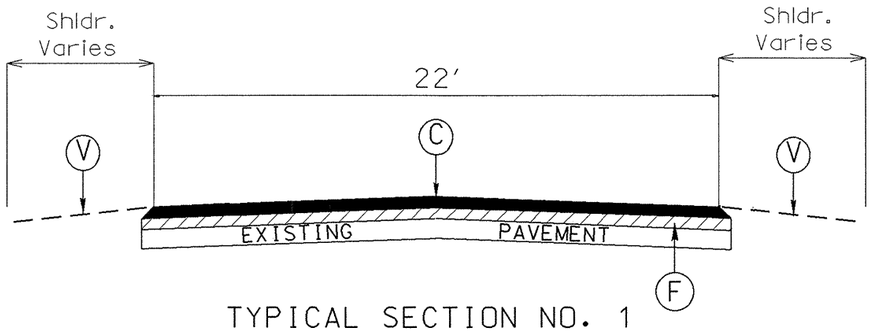
2011-2012

Resurfacing Map

LINCOLN COUNTY NC

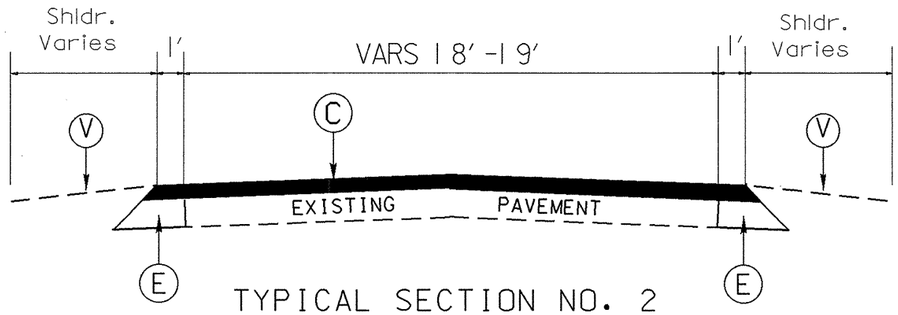

STATE
PROJECT WBS
SHEET NUMBER
NC
12C.055067
12CR.20361.17
2
182
1002
1189
1179
Leonards Fork Church Rd
Shoal Rd.
Johnstown Rd.
1168
1178
Leonard Fork Church Rd.
Dave Heavner Rd.
Brown Rd.
1180
2066
Gary's Pl.
2067
Lena Ana Ct.
1169
Crouse Rd
Yoder Rd
1170
Hallman Dr
1546
Lincoln County
Gaston County
2058
2098
1732
Mill Each Approach 100'
4
1629
Antioch Church Rd.
1636
Roberts Rd.
1674
1634
150
Bud Black Rd.
Old NC 150
1628
Mill Ln.
1722
1622
Hepzibah Rd.
Anthony Grove
1627
Pine Grove Rd.
Cherryville Country Club
Commerce Dr.
Ind. Access Rd.
1728
1630
1631
1500
RS Mfg. Co. Rd.
279
Cherryville
2011-2012
Resurfacing Map
LINCOLN COUNTY NC
GASTON COUNTY NC

STATE	PROJECT WBS	SHEET NUMBER
NC	12CR.20551.13	3
	12C.055087	
	12CR.20361.17	



TYPICAL SECTION NO. 1

MAP # 1 - (entire map)

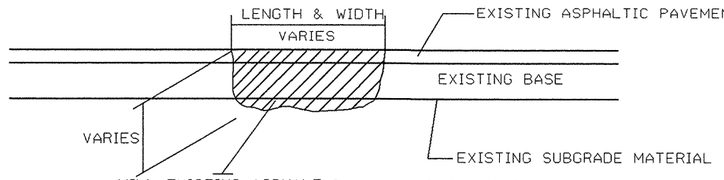


TYPICAL SECTION NO. 2

Map # 2 - (entire map)
Map # 3 - (entire map)

DETAIL A

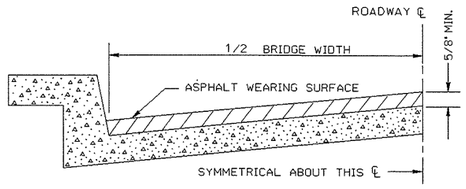
PATCHING EXISTING PAVEMENT



MILL EXISTING ASPHALT PAVEMENT AND REMOVE
EXISTING LOOSE BASE AND/OR SUBGRADE MATERIAL AND REPLACE WITH ACBC
OR ACSC AS DIRECTED BY THE ENGINEER

DETAIL B

BRIDGE HALF TYPICAL SECTION



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

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

NOTES

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

PAVEMENT SCHEDULE	
C	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 188 LBS. PER SQ. YD.
V	AGGREGATE SHOULDER BORROW (SHOULDER RECONSTRUCTION)
E	PROP. APPROX. 8" OF ASPHALT BASE COURSE, TYPE B 25.0B, AT AN AVERAGE RATE OF 456 LBS PER SQ. YD. IN EACH OF TWO LIFTS
F	ASPAHLT SURFACE TREATMENT TYPE, MATCOAT #6

General Notes:

* Pavement edge slopes are 1:1 unless specified otherwise.
* Mill bridge approaches 100' to provide a smooth transition or as directed by the Engineer.

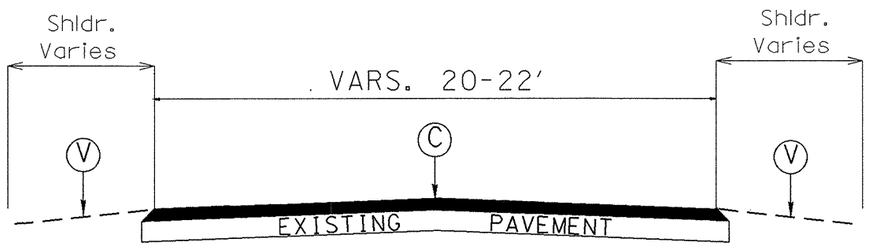
2011 - 2012
Resurfacing Program
Typical Sections
Lincoln & Gaston County NC

Drawn by: G.Britain
Checked by:

STATE	PROJECT WBS	SHEET NUMBER
NC	12CR.20551.13	4
	12C.055067	
	12CR.20361.17	

Checked by:

Drawn by: G.Brittain

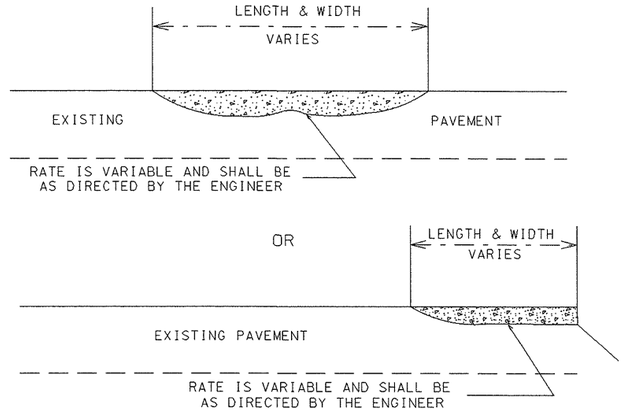


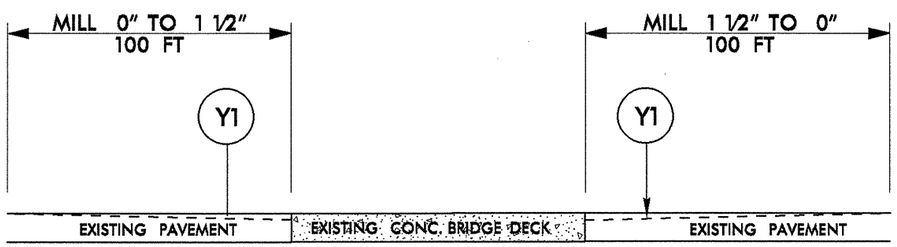
TYPICAL SECTION NO. 3

MAP # 4 - (entire map)

DETAIL C

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





DETAIL D
MILLING BRIDGE APPROACHES

PAVEMENT SCHEDULE	
C	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
V	AGGREGATE SHOULDER BORROW (SHOULDER RECONSTRUCTION)
Y1	PROP. APPROX. 0 - 1.5" OF INCIDENTAL MILLING

General Notes:

* Pavement edge slopes are 1:1 unless specified otherwise.
* Mill bridge approaches 100' to provide a smooth transition or as directed by the Engineer.

2011 - 2012
Resurfacing Program
Typical Sections
Lincoln & Gaston County NC

PROJECT NO.	SHEET NO.	TOTAL NO.
12CR.20551.13, 12C.055067 12CR.20361.17	5	

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	FINAL SURFACE TESTING REQUIRED	LENGTH MI	WIDTH FT	AGGREGATE SHOULDER BORROW TON	INCIDENTAL STONE BASE TONS	SHOULDER RECONSTRUCTION SMI	INCIDENTAL MILLING SY	BASE COURSE, B25.0B TONS	SURFACE COURSE, S9.5B TONS	LEVELING COURSE, S9.5B TONS	ASPHALT BINDER FOR PLANT MIX TONS	PATCHING EXISTING PAVEMENT TONS	AST MAT COAT #6 SY	ADJ. OF METER OR VALVE BOX EA
12CR.20551.13	Lincoln	1	SR 1003 (BUFFALO SHOALS RD)	FROM NC 27 TO SR 1339	1	NO	2.52	22	190	100	5.04			3,053	150	193	200	32,525	4
	Lincoln	3	SR 1354 (ASBURY CH. RD)	FROM NC 27 TO SR 1351	2	NO	1.90	21	144	100	3.80	525	1,650	2,176	400	229	500		
TOTAL FOR PROJ NO. 12CR.20551.13							**4.42**		**334**	**200**	**8.84**	**525**	**1,650**	**5,229**	**550**	**422**	**700**	**32,525**	**4**
12C.055067	Lincoln	2	SR 1002 (SHOAL RD)	FROM NC 182 TO GASTON CO.	2	NO	2.47	21	187	100	4.94		1,950	2,829	400	282	300		
TOTAL FOR PROJ NO. 12C.055067							**2.47**		**187**	**100**	**4.94**		**1,950**	**2,829**	**400**	**282**	**300**		
12CR.20361.17	Gaston	4	SR 1002 (BUD BLACK RD)	FROM NC 150 TO LINCOLN CO.	3	NO	1.41	Vars. 20-22	106	40	2.82	500		1,606	80	102	325		
TOTAL FOR PROJ NO. 12CR.20361.17							**1.41**		**106**	**40**	**2.82**	**500**		**1,606**	**80**	**102**	**325**		
TOTAL FOR PROJ NO. 12CR.20551.13, 12C.055067, 12CR.20361.17							**8.30**		**627**	**340**	**16.60**	**1,025**	**3,600**	**9,664**	**1,030**	**806**	**1,325**	**32,525**	**4**
GRAND TOTAL							**8.30**		**627**	**340**	**16.60**	**1,025**	**3,600**	**9,664**	**1,030**	**806**	**1,325**	**32,525**	**4**

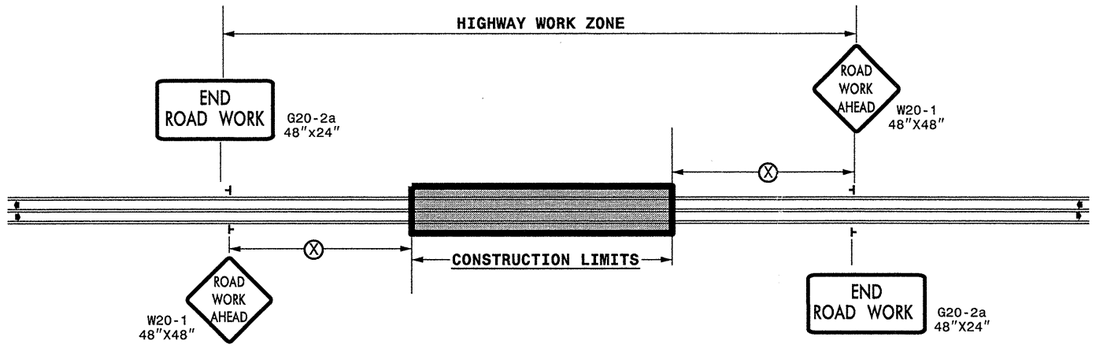
THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	LENGTH	WIDTH	4685000000-E 4" X 90 M WHITE THERMO LF	4686000000-E 4" X 120 M YELLOW THERMO LF	4686000000-E 4" X 120 M WHITE THERMO LF	4710000000-E 24" X 120 M WHITE THERMO LF	4725000000-E THERMO STR & LT ARROW 90 M EA	4725000000-E THERMO RT ARROW 90 M EA	4810000000-E 4" WHITE PAINT LF	4810000000-E 4" YELLOW PAINT LF	4905000000-N SNOW PLOWABLE MARKERS EA
12CR.20551.13	Lincoln	1	SR 1003 (BUFFALO SHOALS RD)	FROM NC 27 TO SR 1339	2.52	22	26,750	26,500	150	26	2	2			175
12CR.20551.13	Lincoln	3	SR 1354 (ASBURY CH. RD)	FROM NC 27 TO SR 1351	1.90	21				12			40,200	40,000	
TOTAL FOR PROJ NO. 12CR.20551.13					**4.42**		**26,750**	**26,500**	**150**	**38**	**2**	**2**	**40,200**	**40,000**	**175**
								26,650			**4**		**80,200**		
12C.055067	Lincoln	2	SR 1002 (SHOAL RD)	FROM NC 182 TO GASTON CO.	2.47	21				12			52,500	52,300	
TOTAL FOR PROJ NO. 12C.055067					**2.47**					**12**			**52,500**	**52,300**	
													104,800		
12CR.20361.17	Gaston	4	SR 1002 (BUD BLACK RD)	FROM NC 150 TO LINCOLN CO.	1.41	Vars. 20-22				16			30,000	29,750	
TOTAL FOR PROJ NO. 12CR.20361.17					**1.41**					**16**			**30,000**	**29,750**	
													59,750		
TOTAL FOR PROJ NO. 12CR.20551.13, 12C.055067, 12CR.20361.17					**8.30**		**26,750**	**26,500**	**150**	**66**	**2**	**2**	**122,700**	**122,050**	**175**
								26,650			**4**		**244,750**		
GRAND TOTAL					**8.30**		**26,750**	**26,500**	**150**	**66**	**2**	**2**	**122,700**	**122,050**	**175**
								26,650			**4**		**244,750**		

27-SEP-2011 14:24
\\DOT_DFSROOT01\GROUPS-WZTCC\TMUWZTC\Resurfacing\2011Resurfacing\2011Western\2011_Div2\C202869A-C_12C.055067x3_Lincoln-Gaston_2way_Undiv_&_Urban_Frwys_stationar
sngreen AT TE244733

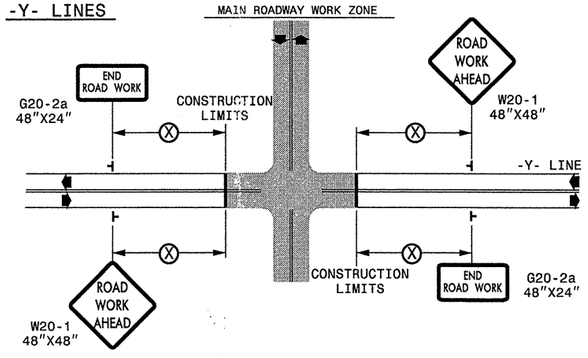
PROJ. REFERENCE NO.	SHEET NO.
12C.055067 12CR.20361.17 12CR.20551.13	TCP-1

TWO-WAY UNDIVIDED ** (L-LINES)



POSTED SPEED LIMIT (M.P.H.)	RECOMMENDED MINIMUM SIGN SPACING Ⓧ
≤ 50	500′
≥ 55	1000′

ROADWAYS INTERSECTING ALONG 2 WAY UNDIVIDED WORK ZONE (Y-LINES)



GENERAL NOTES

- USE FLUORESCENT ORANGE SHEETING (TYPE VII OR HIGHER) ON ALL ADVANCED WORK ZONE SIGNS.
- DO NOT INSTALL ADVANCE WARNING SIGNS MORE THAN 3 DAYS PRIOR TO BEGINNING OF WORK.
- SIGNS SHOWN ARE REQUIRED FOR WORK ZONES THAT WILL REMAIN IN EFFECT OVERNIGHT. FOR SHORT-TERM DAILY MAINTENANCE TYPE OPERATIONS, THIS SIGNING APPLICATION IS OPTIONAL; MAY USE ONLY APPLICABLE ROADWAY STANDARD DRAWINGS INSTEAD. HOWEVER, IF THIS SIGNING APPLICATION IS USED, SIGNS MAY BE PORTABLE MOUNTED.
- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.
- USE 3LB STEEL U-CHANNEL POST OR 4" X 4" WOOD POST FOR ALL WORK ZONE SIGNS. 3LB STEEL U-CHANNEL POSTS MUST MEET THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 1094-1(B), MAY BE GALVANIZED STEEL, OR MAY BE PAINTED GREEN BY THE POST MANUFACTURER. SQUARE STEEL TUBING POSTS HAVING EQUIVALENT STRENGTH OF THE 3 LB STEEL U-CHANNEL POST ARE ALSO ACCEPTABLE FOR USE. ERECT SIGNS PER ROADWAY STANDARD DRAWING 1110.01. PAYMENT FOR WOOD POSTS, 3LB STEEL U-CHANNEL AND SQUARE STEEL TUBING POSTS WITH SIGNS WILL BE MADE ACCORDING TO STANDARD SPECIFICATION "WORK ZONE SIGNS" SECTION 1110.
- WHEN NECESSARY, USE SPLICING IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1110.01. REMOVE ENTIRE POST WHEN REMOVING SIGNS WITH SPLICED POSTS.
- DO NOT BACK BRACE SIGN SUPPORTS.
- ** TWO-WAY UNDIVIDED ADVANCE WARNING SIGN CONFIGURATION MAY BE USED ON URBAN MULTI-LANE FACILITIES WHERE CONDITIONS LIMIT THE USE OF DUAL MOUNTED SIGNS AS DETERMINED BY THE ENGINEER.

LEGEND

⊢ STATIONARY SIGN

◀ DIRECTION OF TRAFFIC FLOW

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

DETAIL DRAWING FOR TWO-WAY UNDIVIDED WORK ZONE WARNING SIGNS

SHEET 1 OF 1

APPROVED:_____ DATE:_____

SEAL

DETAIL DRAWING FOR TWO-WAY UNDIVIDED AND URBAN FREEWAYS ADVANCED WORK ZONE WARNING SIGNS

SCALE:	NONE
DATE:	
DWG. BY:	
DESIGN BY:	
REVIEWED BY:	

REVISIONS	
7-98	10/01
10-98	03/04
01/01	11/04
CADD FILE	

GENERAL NOTES

(1) THE FOLLOWING OPTIONS MAY BE USED FOR ADVANCE WARNING SIGNS:
- A. TRUCK MOUNTED 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 USE 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 (1) FOOT FROM THE GROUND AND SHOULD NOT BLOCK THE MOTORIST'S SIGHT OF THE FLASHING ARROW PANEL AND/OR LIGHTBAR.

(4) GROUND MOUNTED ADVANCED WARNING SIGNS SHOULD BE MOUNTED A MINIMUM OF ONE (1) FOOT FROM THE GROUND TO BOTTOM OF 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 (TMIA'S ARE OPTIONAL ON THESE ADDITIONAL VEHICLES). HOWEVER, THE FIRST VEHICLE MOTORISTS SEE IN THE TRAVEL LANE SHALL HAVE A TMIA.

(7) ADJUST DISTANCE AS NEEDED TO PREVENT MOTORISTS FROM ENTERING SPACE BETWEEN THE APPLICATION AND PROTECTION VEHICLE. DISTANCE CAN BE LENGTHENED TO ACCOMODATE SIGHT DISTANCE NEEDS.

(8) ROUND UP MILEAGE TO NEXT WHOLE MILE. WORK ZONE SHOULD NOT EXCEED FIVE (5) MILES IN LENGTH.

(9) RADIO COMMUNICATION BETWEEN VEHICLES IS REQUIRED.

(10) USE OF A LIGHT BAR ON ALL VEHICLES IS 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 THE ENGINEER.

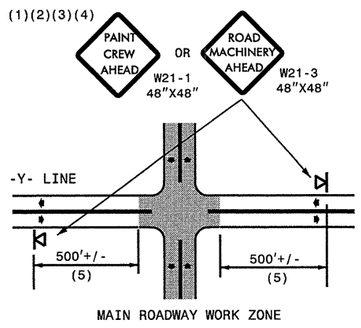
(12) ALL TRAFFIC CONTROL DEVICES WILL BE CONSIDERED INCIDENTAL TO THE PAY ITEMS FOR PAVEMENT MARKING AND MARKERS.

(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 (5) MILES ABOVE POSTED SPEED LIMIT.

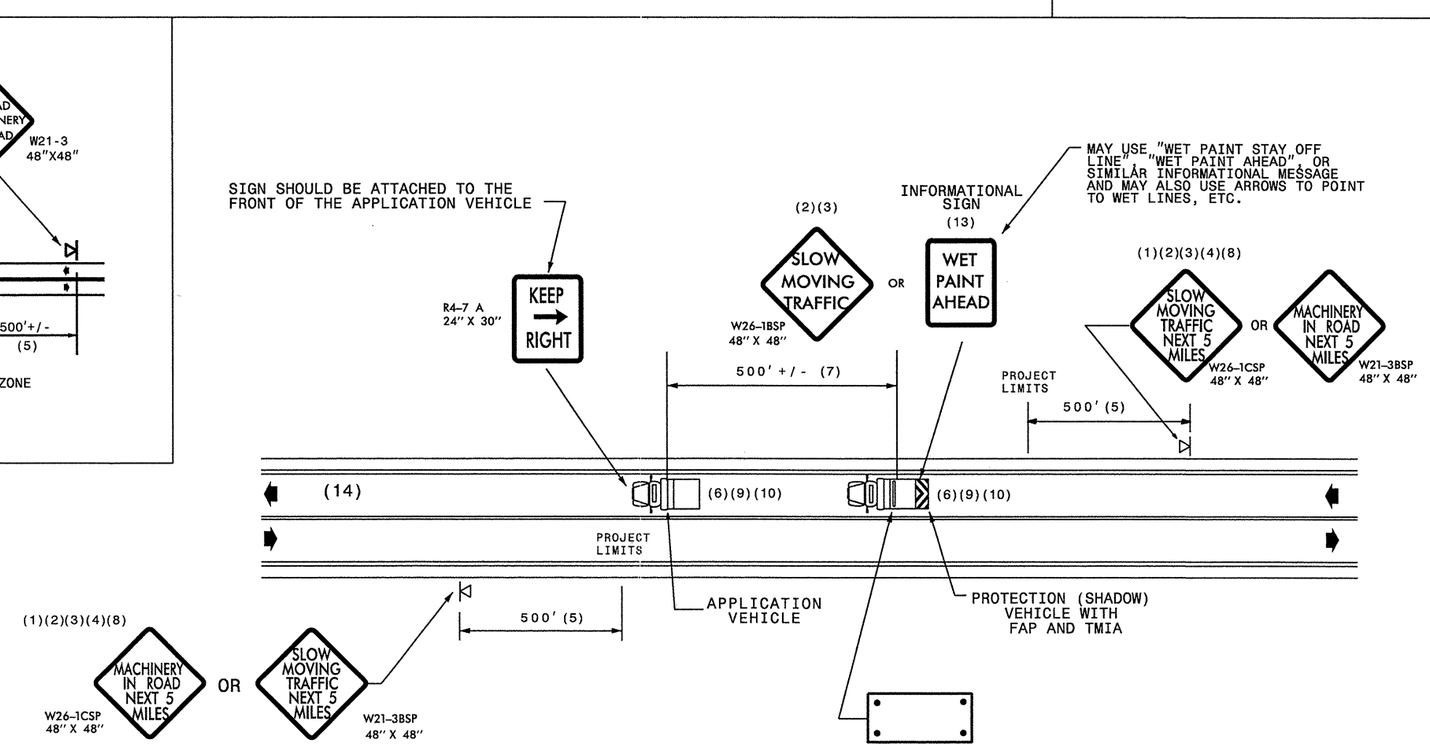
(14) IF A LEAD VEHICLE IS ADDED TO OPERATION, IT SHOULD HAVE THE SAME ADVANCE WARNING SIGNS AS THE APPLICATION VEHICLE SHOWN BELOW.

LEGEND

- PORTABLE SIGN. SIGNS MUST BE NCHRP-350 AND NCDOT APPROVED.
- DIRECTION OF TRAFFIC FLOW
- APPLICATION VEHICLE WITH LIGHT BAR
- PROTECTION VEHICLE WITH TRUCK MOUNTED IMPACT ATTENUATOR (TMIA) AND LIGHT BAR (SEE ROADWAY STANDARD NO. 1165.01). TMIA MUST BE NCHRP-350 TEST LEVEL 3 (60+MPH) APPROVED.
- FLASHING ARROW PANEL, TYPE "B" (60"X30" MIN.), "CAUTION MODE"



-Y- LINES



MOVING OPERATION CARAVAN

(OPERATIONS TRAVELING 3 MPH OR FASTER)
PLACING PAVEMENT MARKING OR MARKERS
ON TWO-LANE TWO-WAY ROADWAYS

DRAWING NUMBER 6
IMPLEMENTATION DATE: 07/01/97
REVISED: 11/03/04