

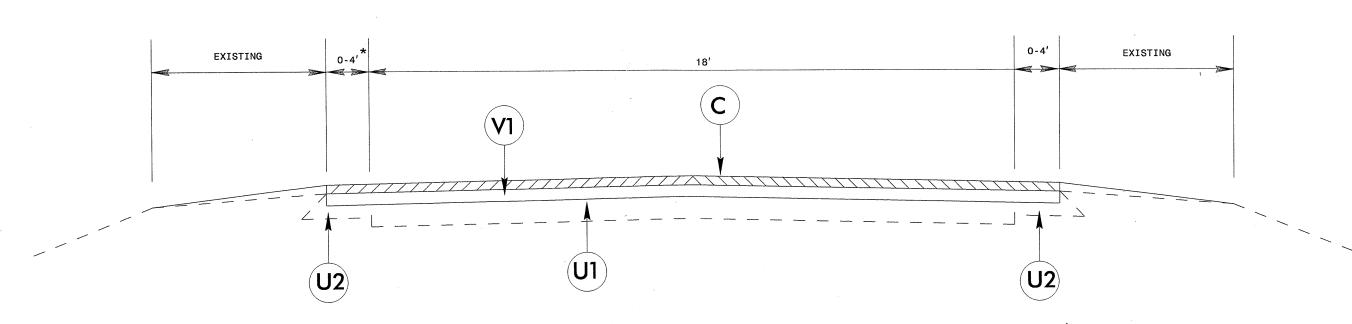
	PAVEMENT SCHEDULE
С	3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF 2 LIFTS
U1	EXISTING ASPHALT PAVEMENT OVER EXISTING CONCRETE PAVEMENT
U2	EXISTING FULL DEPTH ASPHALT PAVEMENT
V1	PROP. 1½" MILLING EXISTING ASPHALT PAVEMENT

25'/inch of surface lift	
MILL EXISTING PAVEMENT	
	BEGINNING OR END OF MAP, EXISTING CONCRETE PAVEMENT OR NON-RESURFACEABLE BRIDGE DECKS NOTE: A TEMPORARY ASPHALT WEDGE WILL BE REQUIRED IMMEDIATELY AFTER MILLING ENSURE SMOOTH TRAVEL IF THE FINAL LAYER F SURFACE COURSE IS NOT PLACED ON THE SAME DAY AS MILLING

PROJECT REFERENCE NO. SHEET NO. 5CR.10391.12 2

NOTES

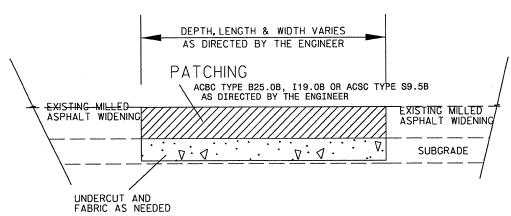
ALL UNPAVED S.R. ROADS TO BE RESURFACED 50' FROM EDGE OF PAVEMENT OF MAIN PROJECT ALL PAVED S.R. ROADS TO BE RESURFACED TO THE ENDS OF THE RADII, OR AS DIRECTED BY THE ENGINEER. EDGES, PAVEMENT WIDENING, INTERSECTIONS AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF OUANTITIES. BRIDGES TO BE RESURFACED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



* Please note that the majority of existing asphalt widening has been performed as 4' widening on the western side of the road. Limited areas have transitional widening on both sides or on the eastern side.

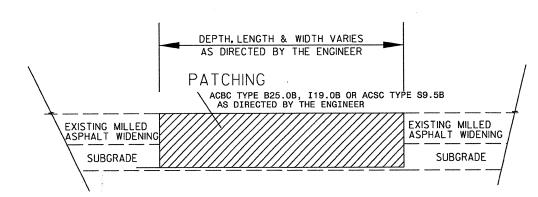
TYPICAL SECTION NO. 1

AFTER MILLING OPERATION, PERFORM PATCHING IN EXISTING ASPHALT SHOULDER, CRACK SEAKING (LATERAL AND LONGITUDINAL) (HOTPOUR AND POLYMER) AND PERFORM FULL DEPTH REPAIRS IN CONCRETE PAVEMENT, AS DIRECTED BY THE ENGINEER



IF SUBGRADE MATERIAL IS DETERMINED BY
THE ENGINEER TO BE UNSUITABLE REMOVE UP
TO 12" AND REPLACE WITH SOIL STABILIZATION
FABRIC AND ABC. PLACE ABC IN LIFTS OF 6" OR LESS

WIDENING REPAIR DETAIL I

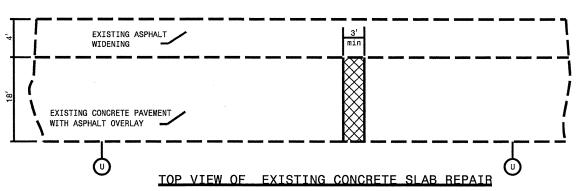


WIDENING REPAIR DETAIL 2

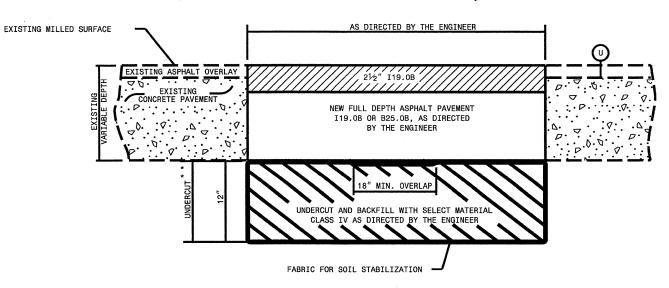
LOCATIONS AS DIRECTED BY THE ENGINEER

PATCHING TO BE PERFORMED AFTER MILLING OPERATION,

AS DIRECTED BY THE ENGINEER



TO BE PERFORMED AFTER MILLING OPERATION, AS DIRECTED BY THE ENGINEER



CROSS SECTION OF EXISTING CONCRETE SLAB REPAIR AFTER MILLING

- * DIMENSIONS ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED
- ** UNDERCUT REQUIRED IN AREAS AS DIRECTED BY THE ENGINEER

DETAIL OF FULL DEPTH REPAIR
IN EXISTING CONCRETE PAVEMENT

PROJECT NO.	SHEET NO.	TOTAL NO.
5CR.10391.12	4	
	1*	

SUMMARY OF QUANTITIES

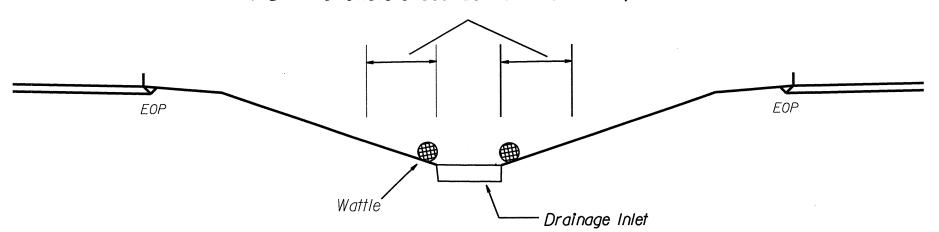
PROJECT	COUNTY	MAP	ROUTE	DESCRIPTION	TYP	FINAL	LENGTH	WIDTH	UNDERCUT	BORROW	REMOVAL OF	FABRIC FOR	SELECT	SEALING	INCIDENTAL	SHOULDER	1½" MILLING	INCIDENTAL	BASE	INTER-	SURFACE	ASPHALT	SEALING	PATCHING	TEMPORARY	SEED &	INDUCTIVE
FROJECT	COUNT		110012			SURFACE			EXCAVATION		EXISTING	SOIL	MATERIAL,	EXIST. PVMT.	STONE BASE	RECON-		MILLING	COURSE,	MEDIATE	COURSE, S9.5B	BINDER FOR	EXISTING	EXISTING	SILT FENCE	MULCHING	LOOP
						TESTING					CONCRETE	STABILIZA-	CLASS IV	CRACKS,		STRUCTION		1 1	B25.0B	COURSE,		PLANT MIX	PAVEMENT	PAVEMENT			
	1					REQUIRED					PAVEMENT	TION		POLYMER						119.0B			CRACKS &				1
		1 1									SLABS			PATCH									JOINTS				1
NO		NO			NO		MI	FT	CY	СУ	SY	SY	TON	LB	TONS	SMI	SY	SY	TONS	TONS	TONS	TON	LB	TONS	LF	AC	LF
				FROM JOINT AT OXFORD LOOP TO													404.550		4 404	286	34.065	2.108	40,000	2,367	50	21.75	576
5CR.10391.1	Granville	el 1	US 15	VIRGINIA STATE LINE	1	NO I	15	22	670	5,867	2,012	2,012.00	1,340	99,412.00	2,250	30.00	194,660	500	1,181	·	 		 		30		370
	AL FOR MA						15		670	5,867	2,012	2,012.00	1,340	99,412.00	2,250	30.00	194,660	500	1,181	286	34,065	2,108	40,000	2,367	50	21.75	576
TOTAL FOI							15		670	5,867	2,012	2,012.00	1,340	99,412.00	2,250	30.00	194,660	500	1,181	286	34,065	2,108	40,000	2,367	50	21.75	576
TOTALTO	(111031101	30111203	7																								1
-			———			1	15	I	670	5.867	2.012	2.012.00	1.340	99.412.00	2.250	30.00	194,660	500	1,181	286	34,065	2,108	40,000	2,367	50	21.75	576
1	GRAND TO	IAL				1 1			1 370	1 2,001					<u> </u>						· ····································						

THERMOPLASTIC AND PAINT QUANTITIES

	1					<u> </u>	4589000000-N	4685000000-E	468600	0000-E	4695000000-E	4697000000-E	4710000000-E	4721000000-E		4725000000-1	•	481000	0000-E	4820000000-E	4835000000-E	4840000000-N		4845000000-1	4	4905000000-
PROJECT	COLINIT	TV M	AP ROUTE	DESCRIPTION	LENGTH	WIDTH	TRAFFIC	4" X 90 M	4" X 120 M	4" X 120 M	8" X 90 M	8" X 120 M	24" X 120 M	THERMO MSG	THERMO STR	THERMO RT	THERMO LT	4" WHITE	4" YELLOW	8" WHITE	24" WHITE	PAINT MSG	PAINT RT	PAINT LT	PAINT STR	SNOW
PROJECT	COOK	11 101	AP ROUTE	DESCRIPTION	LLITOTT	*****	CONTROL	WHITE	YELLOW	WHITE	YELLOW	WHITE	WHITE	SCHOOL 120	ARROW 90	ARROW 90	ARROW 90	PAINT	PAINT	PAINT	PAINT	SCHOOL	ARROW	ARROW	ARROW	PLOWABLE
							CONTINUE	THERMO	THERMO	THERMO	THERMO	THERMO	THERMO	м	М	М	M									MARKERS
NO		N	ю				LS	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	LF	LF	LF	LF	EA	EA	EA	EA	EA
				FROM JOINT AT OXFORD LOOP TO													1								_	
CR.10391.12	2 Granvil	ille :	1 US 15	VIRGINIA STATE LINE	15	22	1.00	161,400	118,800	132	50	44	115	12	3	3	6	323,064	237,600	88	230	24	6	12	6	1,005
	AL FOR M				15		1	161,400	118,800	132	50	44	115	12	3	3	6	323,064	237,600	88	230	24	6	12	6	1,005
					15		1	161,400	118,800	132	50	44	115	12	3	3	6	323,064	237,600	88	230	24	6	12	6	1,005
TOTAL FOR	R PROJ NO	O. 5CR.	10391.12				<u> </u>		118	,932						12		560,	,664		1			24		
			A1																	·		,				·
					15	I	1	161,400	118,800	132	50	44	115	12	3	3	6	323,064	237,600	88	230	24	66	12	6	1,005
	GRAND TO	TOTAL							118	932						12		560	,664					24		

		PROJECT REFERENCE NO.
NOTES: Less than 5' - 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.	EROSION CONTROL DETAIL	5(K, 10391, 12 RW SHEET NO ROADWAY DESIGN ENGINEER
BMP Options: Wattle Silt Fence, or Hardened Aggregate	EOP EOP Pipe/Culvert	
< 5' — IO' Undisturbed buffer from jurisdictional fea	< 5' - 10' Undisturbed	buffer from
Jurisdictional Feature Disturbed	Use BMP's if shoulders and/or frontslopes and/or ditchline and/or backslopes are disturbed Disturbed Area EOP EOP	

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



NOT TO SCALE

PROJ. REFERENCE NO. SHEET NO. 5CR.10391.12 TCP-1

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UNDIVIDED WARNING SIGNS

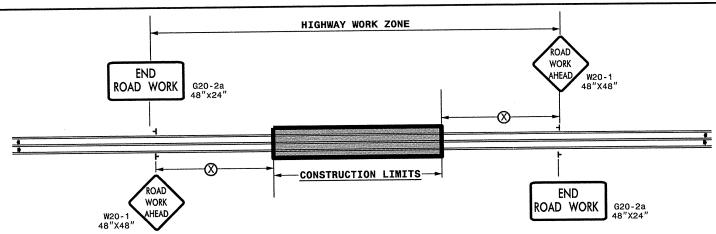
DETAIL C TWO-WAY SK ZONE V

WORK

FOR

DRAWING

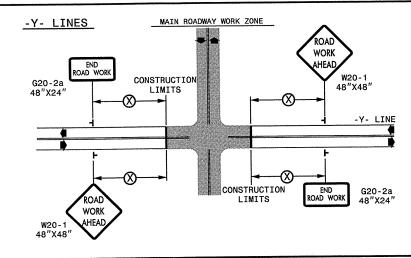




	RECOMMENDED Minimum Sign Spacing
POSTED SPEED LIMIT (M.P.H.)	8
≤ 50	500′
≥ 55	1000′

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS

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



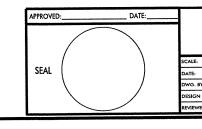
GENERAL NOTES

- 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

SHEET 1 OF 1



DETAIL	DRAWIN	IG FOR	TWO-W	ΙΑΥ
UNDIVIDE	D AND	URBAN	FREE	WAYS
ADVANCED 1	WORK ZC	NE WAF	RNING	SIGNS

NONE	"HOLNESO T
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REVIS	SIONS
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.

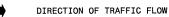
(1)(2)(3)(4)(8)

W26-1CSP 48" X 48"

- (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.

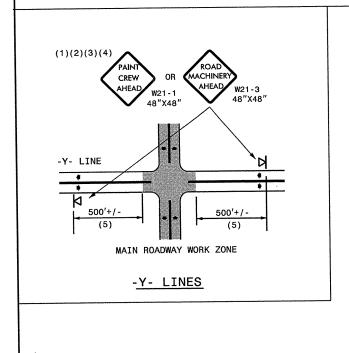


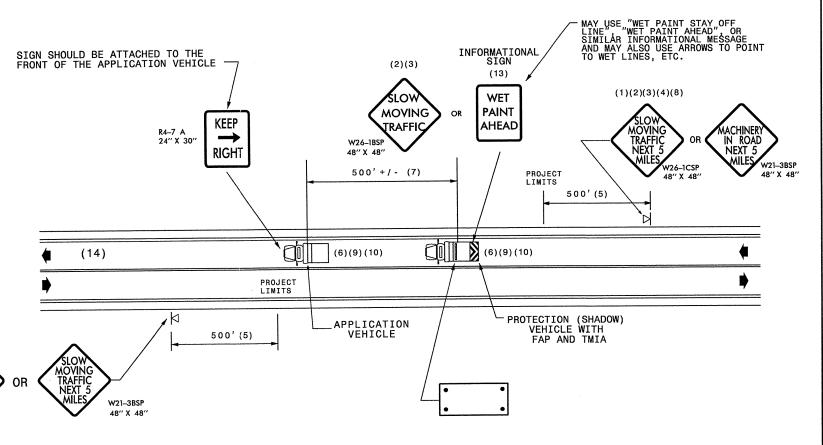
APPLICATION VEHICLE WITH LIGHT BAR

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)

FLASHING ARROW PANEL,
TYPE "B" (60"X30" MIN.),
"CAUTION MODE"

APPROVED.

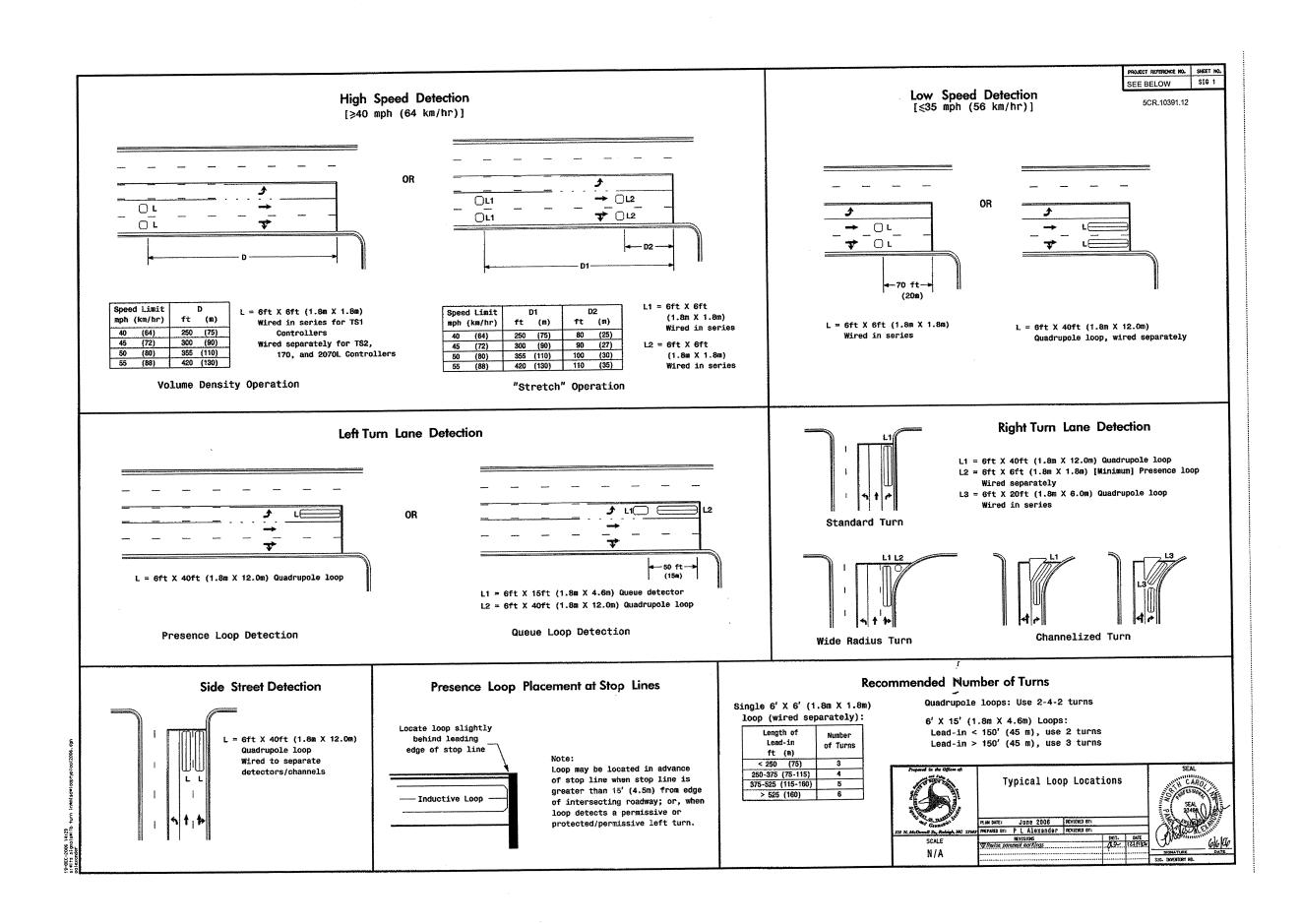


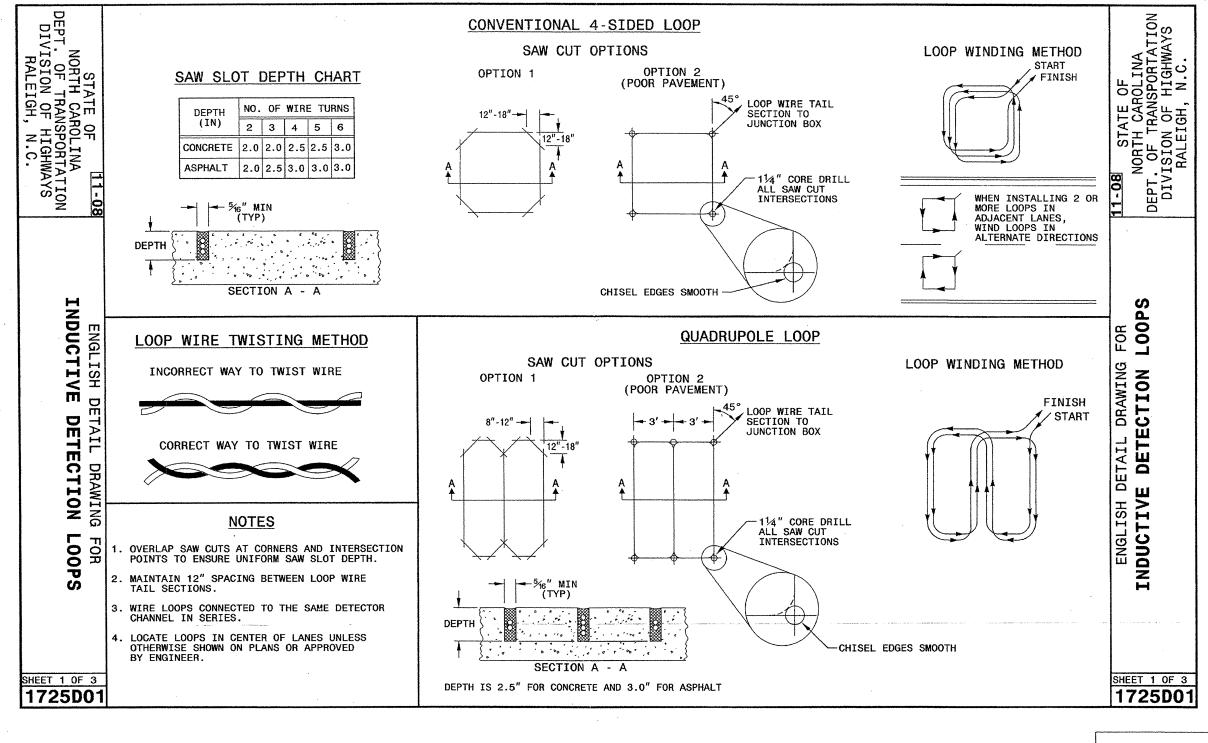


MOVING OPERATION CARAVAN

(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





See Plate for Title

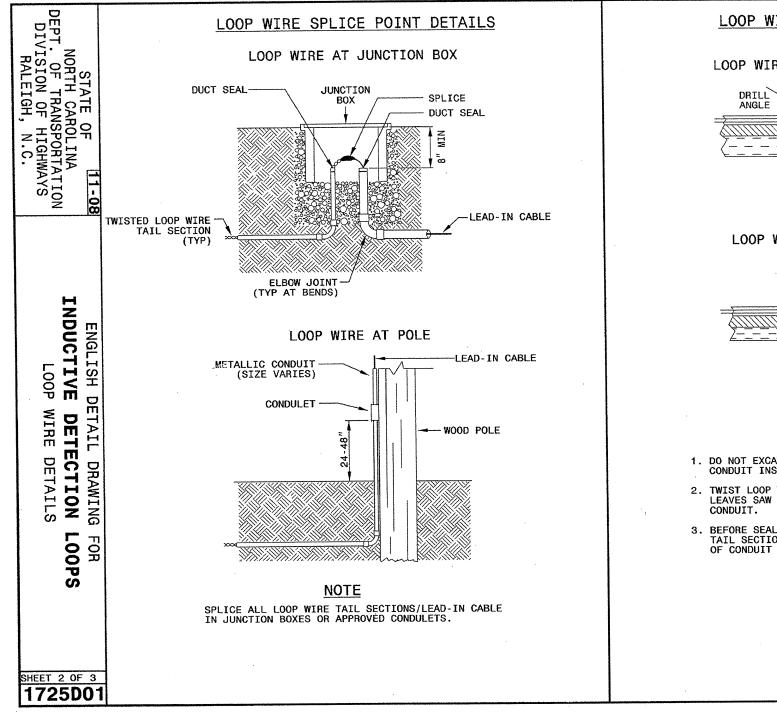


SEAL 16286

SEAL

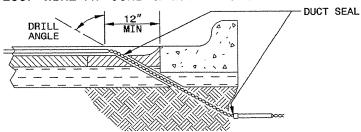
750 N. Greenfield Parkway
Garner, NC 27529

milton I. Dean 11/24/08
SIGNATURE DATE

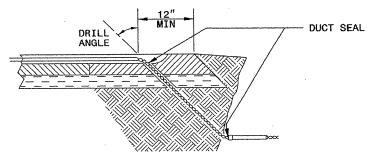


LOOP WIRE PAVEMENT EDGE DETAILS

LOOP WIRE AT CURB & GUTTER SECTION



LOOP WIRE AT PAVEMENT SECTION



NOTES

- 1. DO NOT EXCAVATE UNDER CURB AND GUTTER SECTIONS FOR CONDUIT INSTALLATION.
- 2. TWIST LOOP WIRE TAIL SECTIONS FROM WHERE LOOP WIRE TAIL LEAVES SAW CUT TO JUNCTION BOX, INCLUDING THROUGH CONDUIT.
- 3. BEFORE SEALING LOOPS, INSTALL DUCT SEAL WHERE LOOP WIRE TAIL SECTION LEAVES SAW CUT IN PAVEMENT AND AT ENTRANCE OF CONDUIT TO JUNCTION BOX.

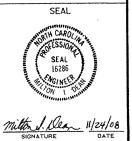
11-08 STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

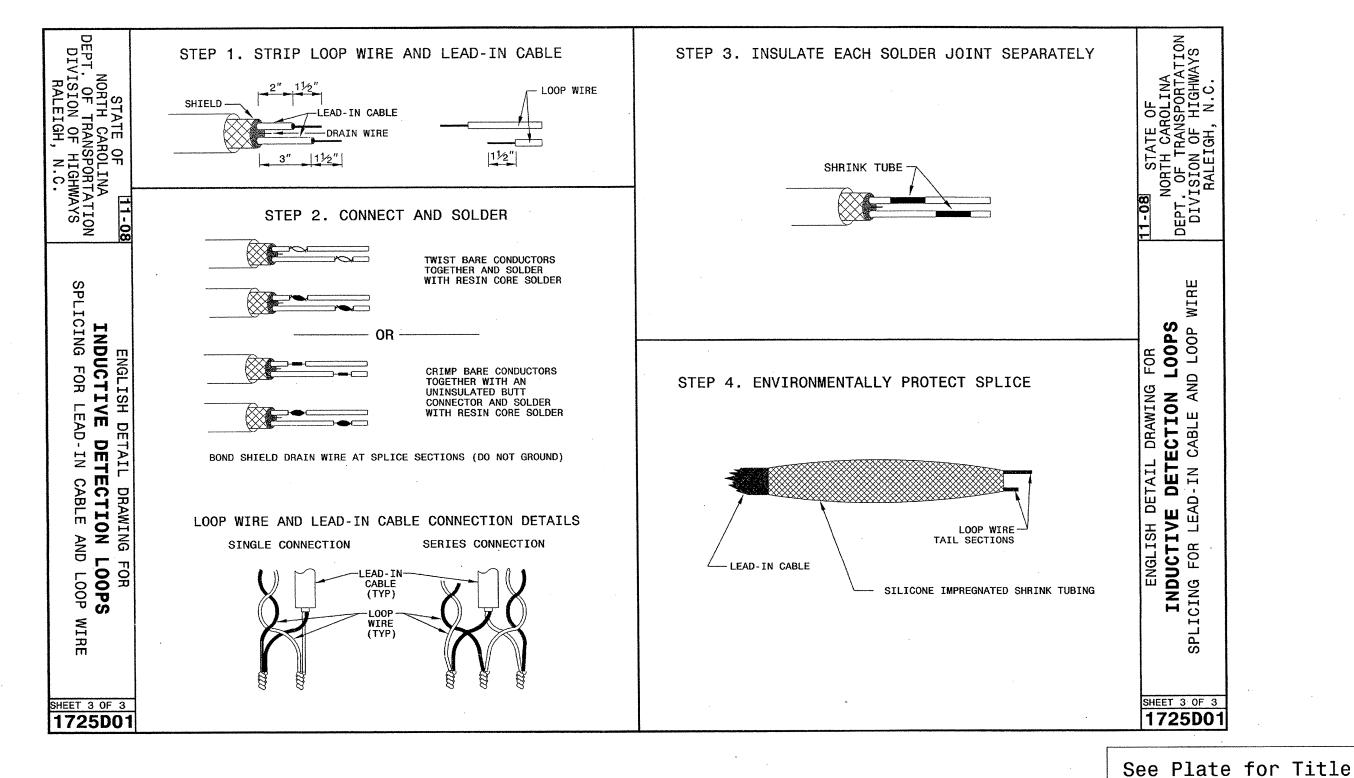
LOOPS ENGLISH DETAIL DRAWING INDUCTIVE DETECTION LOOP WIRE DETAILS

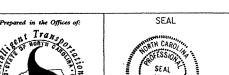
> SHEET 2 OF 3 1725D01

See Plate for Title











Greenfield Parkway

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