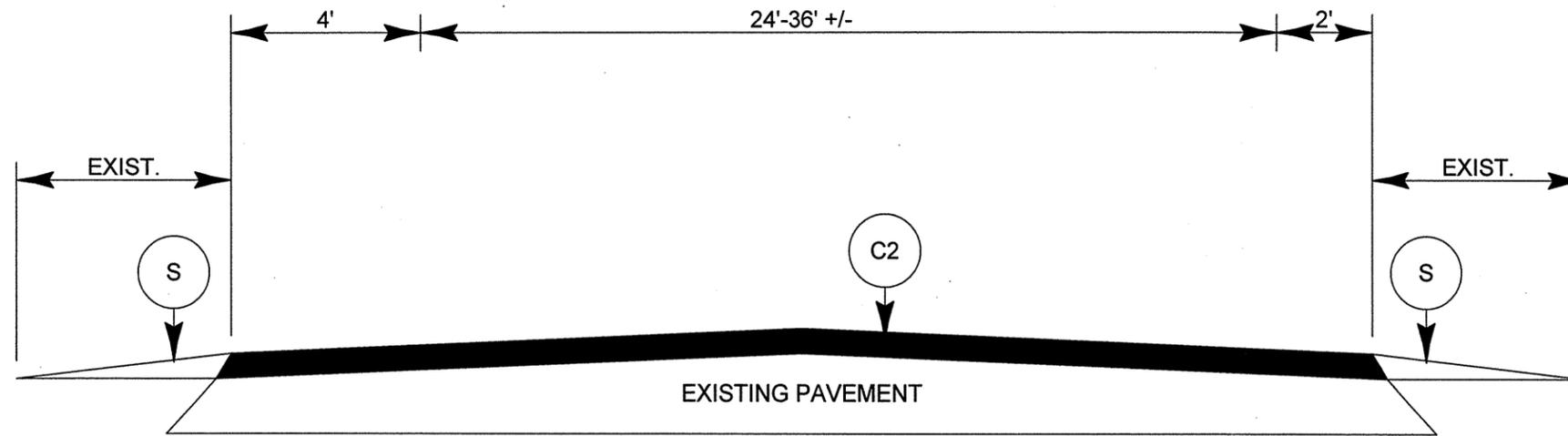
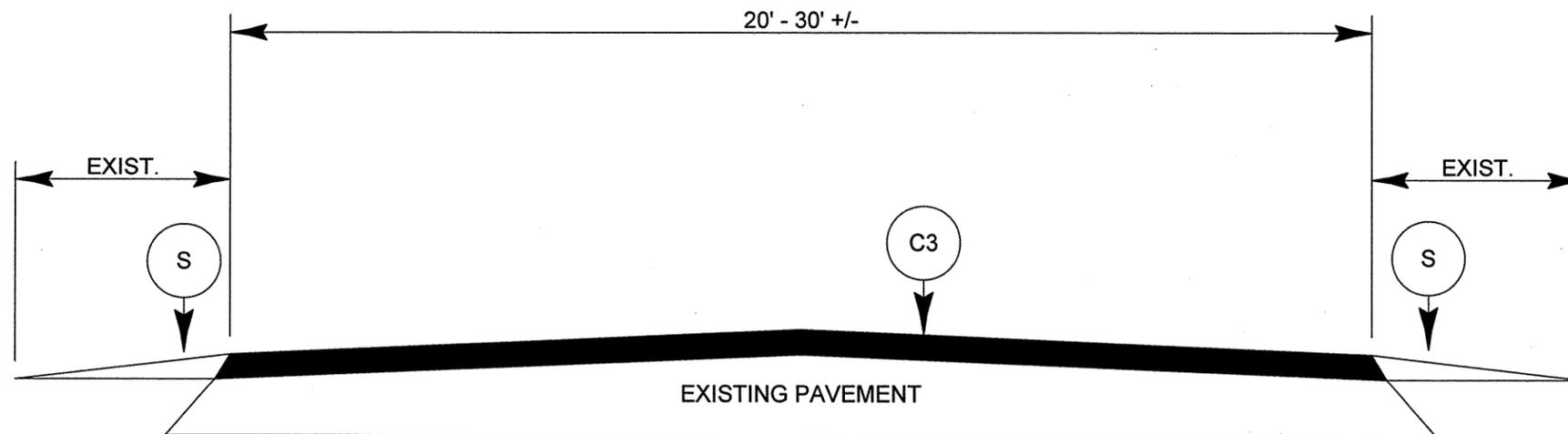


**2007 VANCE COUNTY
RESURFACING**

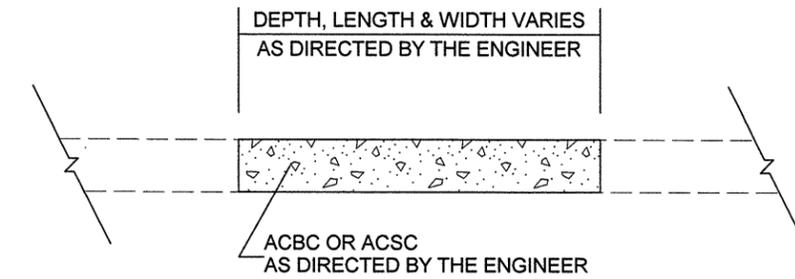
PROJECT NO. 37654, 37671, 5CR.10911.5, ETC.	SHEET NO. 2	TOTAL SHEETS 6
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TYPICAL SECTION NO. 1



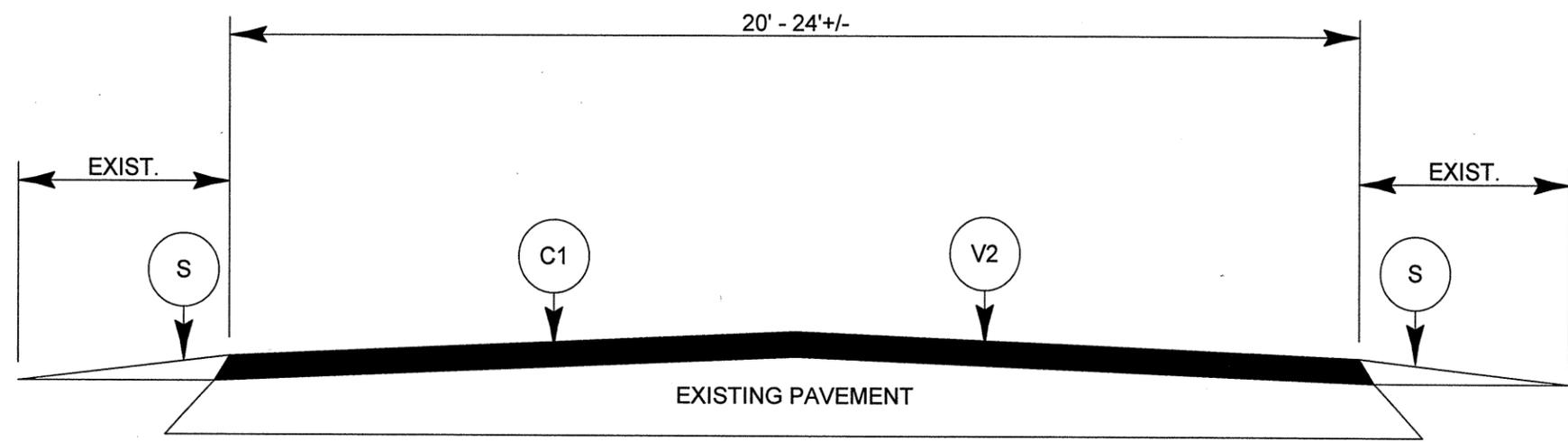
TYPICAL SECTION NO. 2



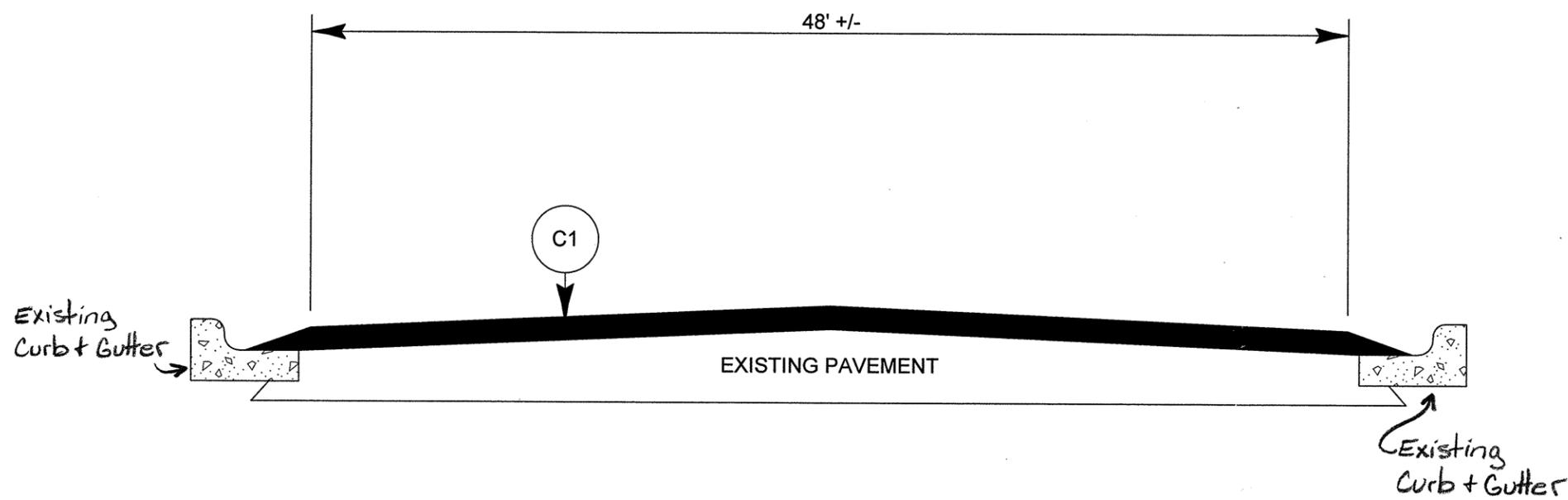
PATCHING EXISTING PAVEMENT

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" BITUMINOUS CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 168 LBS. PER SQUARE YARD
C2	PROP. APPROX. 1.5" BITUMINOUS CONCRETE SURFACE COURSE, TYPE S9.5C AT AN AVERAGE RATE OF 168 LBS. PER SQUARE YARD
C3	PROP. APPROX. 1.5" BITUMINOUS CONCRETE SURFACE COURSE, TYPE SF9.5A AT AN AVERAGE RATE OF 165 LBS. PER SQUARE YARD
D	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQUARE YARD AS DIRECTED BY ENGINEER.
S	SHOULDER RECONSTRUCTION BY CONTRACTOR/ SEEDING AND MULCHING BY STATE FORCES
V1	2.5" MILLING, FOR WHEELPATH RUTTING AND OTHER DISTRESSED PAVEMENT AREAS AS DIRECTED BY ENGINEER.
V2	1.5" MILLING. FOR USE ON MAP 9 UNDER THE I-85 BRIDGES ONLY.

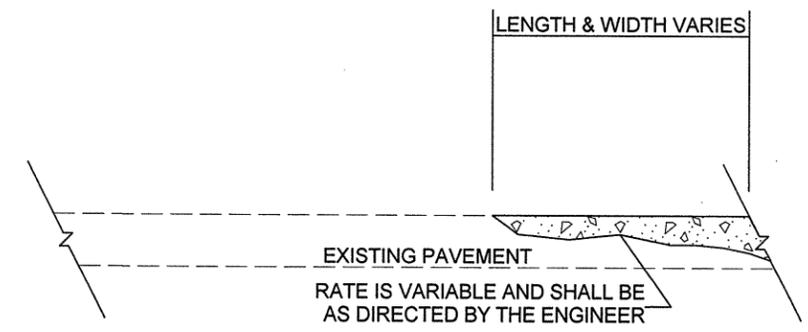
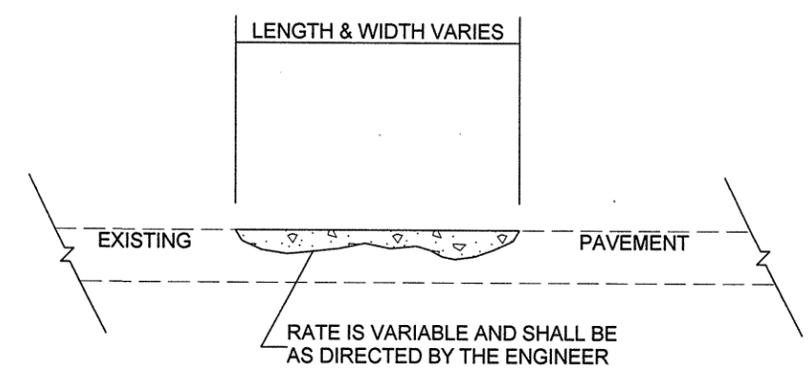
PROJECT NO. 37654, 37671, 5CR.10911.5, ETC.	SHEET NO. 3	TOTAL SHEETS 6
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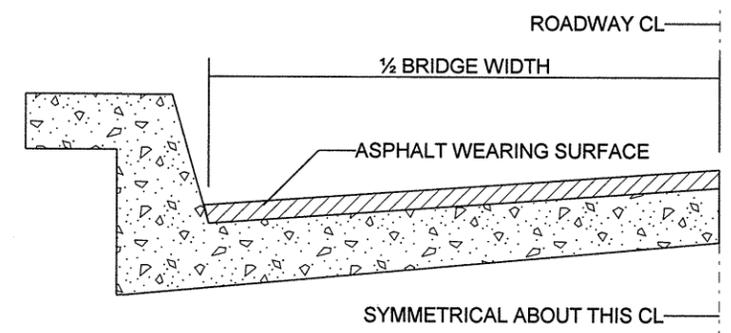
TYPICAL SECTION NO. 3



TYPICAL SECTION NO. 4



ASPHALT CONCRETE SURFACE COURSE (LEVELING COURSE)



BRIDGE HALF TYPICAL SECTION

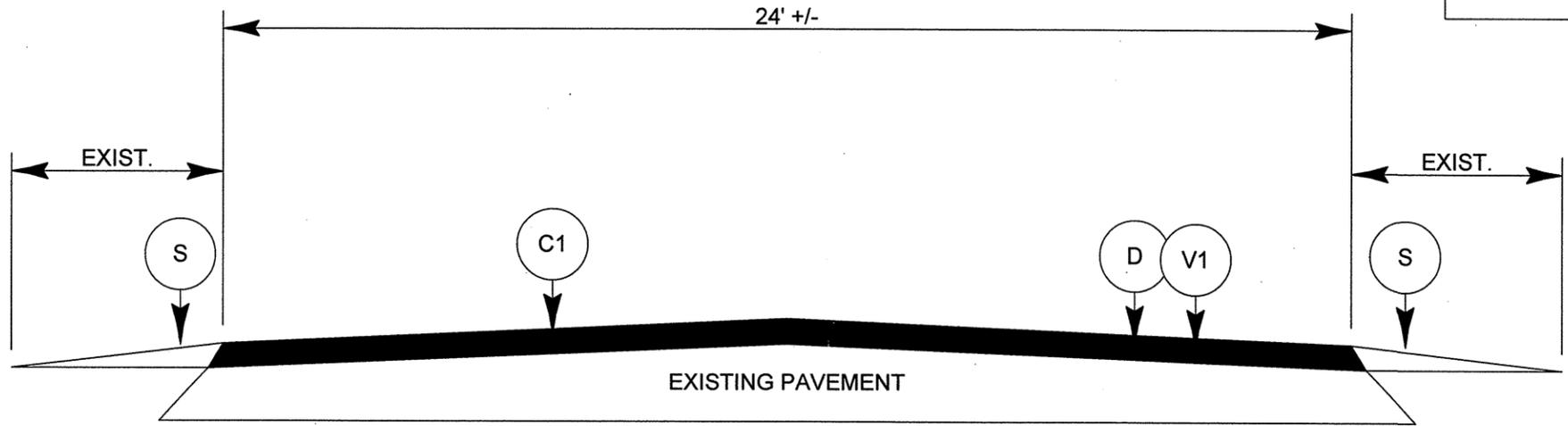
FOR BRIDGES WITH FLOOR DRAINS, CARE SHALL BE EXERCISED IN PLACING THE WEARING SURFACE AROUND FLOOR DRAINS SO AS NOT TO HINDER EFFECTIVE DRAINAGE. ALL DRAINS SHALL BE LEFT OPEN

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 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 QUANTITIES.
- SHOULDERS AND DITCHES ARE TO BE CONSTRUCTED BY OTHERS UNLESS OTHERWISE INDICATED.
- BRIDGES ARE TO BE RESURFACED AT LOCATIONS AND TO DEPTH AS DIRECTED BY THE ENGINEER.

PROJECT NO.	SHEET NO.	TOTAL SHEETS
37654, 37671, 5CR.10911.5, ETC.	4	6



TYPICAL SECTION NO. 5

PROJECT NO.	SHEET NO.	TOTAL NO.
37654, 37671	5	6
5CR.10911.5, ETC.		

SUMMARY OF QUANTITIES

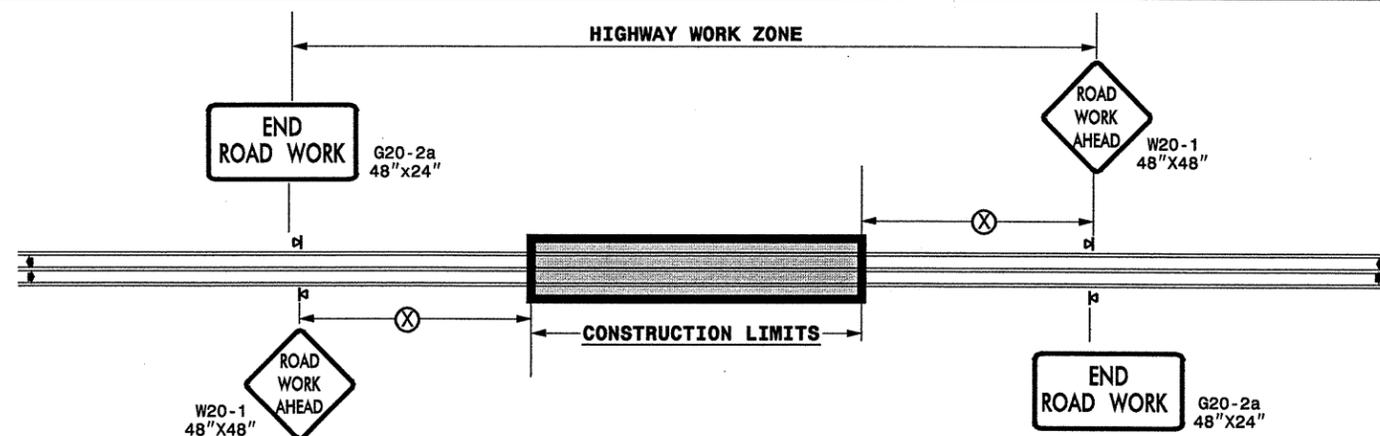
PROJECT NO.	COUNTY	MAP NO.	ROUTE	DESCRIPTION	TYP NO.	LENGTH MI.	WIDTH FT.	INCIDENTAL STONE BASE TONS	SHOULDER RECONSTRUCTION SMI	2.5" MILLING SY	1 1/2" MILLING SY	INCIDENTAL MILLING SY	INTERMEDIATE COURSE, I19.0B TONS	SURFACE COURSE, S9.5B TONS	SURFACE COURSE, S9.5C TONS	SURFACE COURSE, SF9.5A TONS	PG 64-22 PLANT MIX TONS	PG 70-22 PLANT MIX TONS	PATCHING EXISTING PAVEMENT TONS	LEVELING COURSE, TYPE SF9.5A TONS	ADJ. OF METER OR VALVE BOX EA	INDUCTIVE LOOP LF	LEAD-IN CABLE LF	
37654	Vance	1	SR 1533 (VICKSBORO ROAD)	FROM NC 39 TO WARREN COUNTY LINE	3	5.86	24	141	11.72			800		7,382			443		200		2			
		2	SR 1524 (VICKSBORO ROAD)	FROM 1533 (VICKSBORO RD) TO WARREN COUNTY LINE	3	0.9	24	22	1.8			100		1,102			66		40					
TOTAL FOR PROJ NO. 37654						6.76		163	13.52			900		8,484			509		240		2			
37671	Franklin	3	NC 39	FROM C&G SOUTH OF EPSON TO VANCE COUNTY LINE	4	0.35	52					60		999			60							
	Vance	"	"	FROM FRANKLIN COUNTY LINE TO END OF C&G	4	0.35	52					60		926			56							
TOTAL FOR MAP NO. 3						0.7		0	0			120		1,925			116							
		4	NC 39	FROM CURB AND GUTTER NORTH OF EPSON TO BEGIN CURB AND GUTTER SOUTH OF HENDERSON	5	5.3	24	127	10.6	3000			420	7,101			446				2	500	500	
TOTAL FOR PROJ NO. 37671						6		127	10.6	3000		120	420	9,026			562				2	500	500	
5CR.10911.5	Vance	5	US 1	FROM BRIGE OVER TAR RIVER TO END MEDIAN SOUTH OF KITTRELL	1	3.3	60	33	13.2			4500			11,978									
TOTAL FOR PROJ NO. 5CR.10911.5						3.3		33	13.2	0		4500	0		11,978									
5CR.20911.5	Vance	6	SR 1284 (HARRISON)	FROM SR 1165 (BECKFORD TO END STATE MAINTENANCE	2	0.05	30		0.1							75	5							
		7	SR 1329 (STAGECOACH RD)	FROM NC 39 TO SR 1303	2	3.9	20	94	7.8			100				3,913	258			50				
		8	SR 1374 (ANDERSON CREEK)	FROM SR 1319 TO SR 1371	2	1.34	20	32	2.68							1,344	81							
		9	SR 1371 (FLEMING TOWN ROAD)	FROM US 158 TO END OF MAINTENANCE	3	3.3	20	79	6.6	2000		300		3,371										
TOTAL FOR PROJ NO. 5CR.20911.5						8.59		205	17.18	0	2000	400	0	3,371			5,332	546			50			
GRAND TOTAL						24.65		528	54.5	3000	2000	5920	420	20,881	11,978	5,332	1,617	719	240	50	4	500	500	

PROJECT NO. 37654, 37671 5CR.10911.5, ETC.	SHEET NO. 6	TOTAL NO. 6
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THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	4685000000-E		4686000000-E		4695000000-E		4710000000-E	4721000000-E			4725000000-E			4810000000-E		4845000000-N		4900000000-N		4905000000-N	
					4" X 90 M WHITE THERMO	4" X 90 M YELLOW THERMO	4" X 120 M YELLOW THERMO	4" X 120 M WHITE THERMO	8" X 90 M YELLOW THERMO	8" X 90 M WHITE THERMO	24" X 120 M WHITE THERMO	THERMO MSG ONLY 120 M	THERMO MSG STOP 120 M	THERMO MSG AHEAD 120 M	THERMO RT ARROW 90 M	THERMO LT ARROW 90 M	THERMO STR & RT ARROW 90 M EA	THERMO STR ARROW 90 M	4" WHITE PAINT	4" YELLOW PAINT	PAINT STR & LT ARROW	PAINT RT ARROW	YELLOW & YELLOW MARKERS	CRYSTAL & RED MARKERS	SNOW PLOWABLE MARKERS
37654	Vance	1	SR 1533 (VICKSBORO ROAD)	FROM NC 39 TO WARREN COUNTY LINE	63,054		55,670																		
		2	SR 1524 (VICKSBORO ROAD)	FROM 1533 (VICKSBORO RD) TO WARREN COUNTY LINE	9,684		8,550																		
TOTAL FOR PROJ NO. 37654					72,738		64,220																		
37671	Franklin	3	NC 39	FROM C&G SOUTH OF EPSON TO VANCE COUNTY LINE			3,696	924				8				2	1							23	46
	Vance	"	"	FROM FRANKLIN COUNTY LINE TO END OF C&G			3,696	924							1	1								23	46
TOTAL FOR MAP NO. 3							7,392	1,848				8			3	2							46	92	
		4	NC 39	FROM CURB AND GUTTER NORTH OF EPSON TO BEGIN CURB AND GUTTER SOUTH OF HENDERSON	57,028		34,980	6,996	400		400						6	4						350	40
TOTAL FOR PROJ NO. 37671					57,028		42,372	8,844	400		400		8		8		15	4						396	132
5CR.10911.5	Vance	5	US 1	FROM BRIGE OVER TAR RIVER TO END MEDIAN SOUTH OF KITTRELL	37,264	35,000		8,712		100						3	40	10	30						400
TOTAL FOR PROJ NO. 5CR.10911.5					37,264	35,000		8,712		100						3	40	10	30						400
5CR.20911.5	Vance	6	SR 1284 (HARRISON)	FROM SR 1165 (BECKFORD TO END STATE MAINTENANCE																					
		7	SR 1329 (STAGECOACH RD)	FROM NC 39 TO SR 1303	41,964		37,050					4	5												
		8	SR 1374 (ANDERSON CREEK)	FROM SR 1319 TO SR 1371	14,418		12,730																		
		9	SR 1371 (FLEMING TOWN ROAD)	FROM US 158 TO END OF MAINTENANCE	35,508		31,350																		
TOTAL FOR PROJ NO. 5CR.20911.5					91,890		81,130					4	5												
GRAND TOTAL					258,920	35,000	187,722	17,556	400	100	400	8	4	5	6	48	14	30	538	475	1	1	842	132	400
					293,920		205,278		500			17			98			1,013	475	2	1	974			

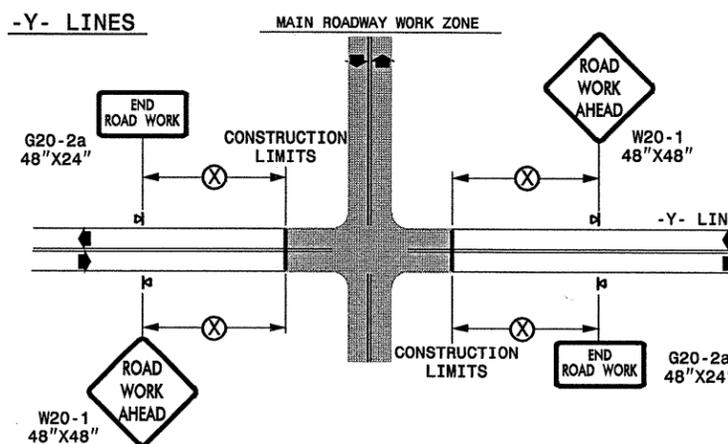
TWO-WAY UNDIVIDED ** (L-LINES)



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

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

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.
- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.
- USE PORTABLE WORK ZONE SIGNS ONLY WITH PORTABLE WORK ZONE SIGN STANDS SPECIFICALLY DESIGNED FOR ONE ANOTHER. PORTABLE WORK ZONE SIGNS MAY BE ROLL UP OR APPROVED COMPOSITE.
- PROVIDE PORTABLE WORK ZONE SIGN STANDS, PORTABLE SIGNS AND SIGN SHEETING WHICH ARE LISTED ON THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION'S APPROVED PRODUCT LIST OR ACCEPTED AS TRAFFIC QUALIFIED BY THE TRAFFIC CONTROL UNIT.
- ** 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

- ▢ PORTABLE SIGN
- ← DIRECTION OF TRAFFIC FLOW

SHEET 1 OF 1

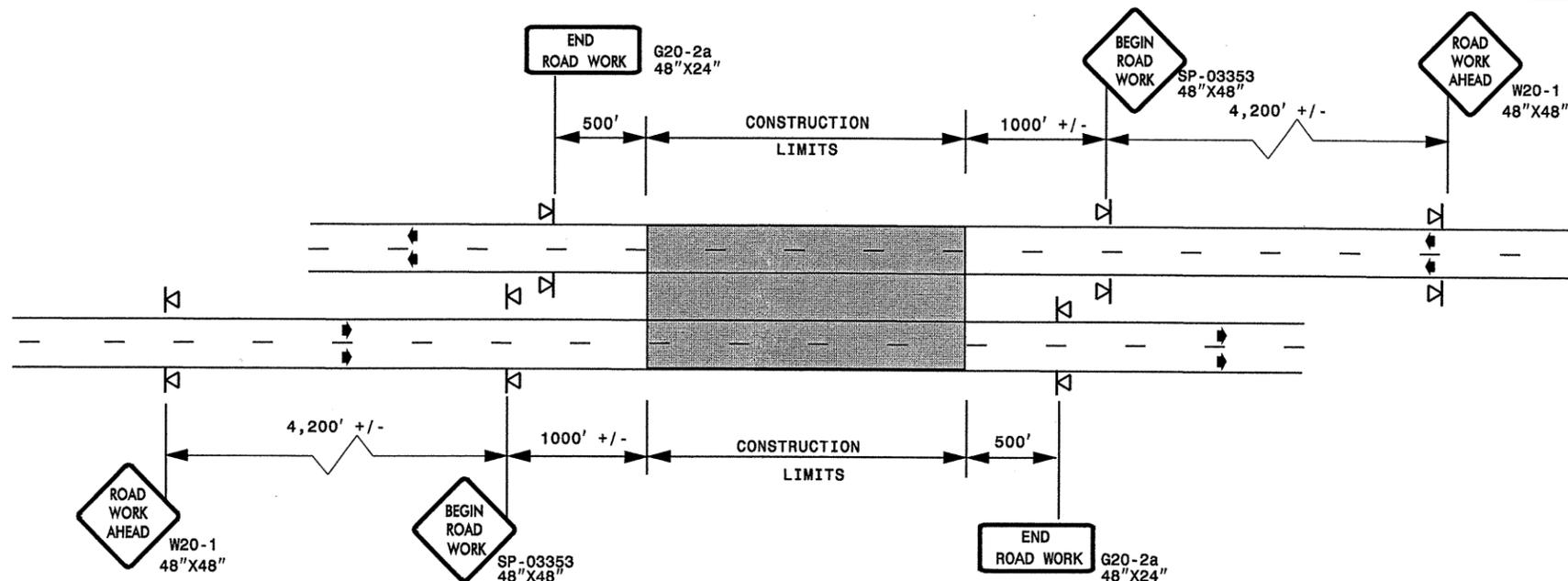
DETAIL DRAWING
FOR TWO-WAY UNDIVIDED
WORK ZONE WARNING SIGNS

APPROVED: _____	DATE: _____	DETAIL DRAWING FOR TWO-WAY UNDIVIDED ADVANCED WORK ZONE WARNING SIGNS		
SEAL 	SCALE: NONE			
	DATE: _____			REVISIONS
	DESIGN BY: _____			7-98 10/01
	REVIEWED BY: _____			10-98 03/04
		01/01 11/04	CAPO FILE	

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ADVANCED WORK ZONE WARNING SIGNING FOR FREEWAYS (4 LANES OR GREATER)

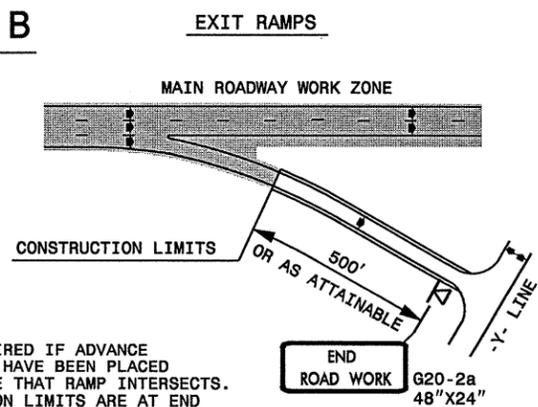
DETAIL A



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

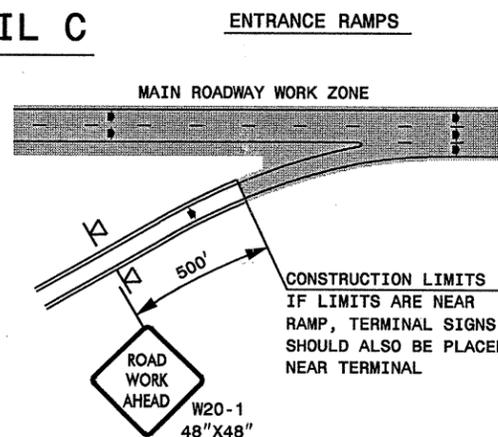
ROADWAYS INTERSECTING ALONG FREEWAY WORK ZONE (Y-LINES)

DETAIL B



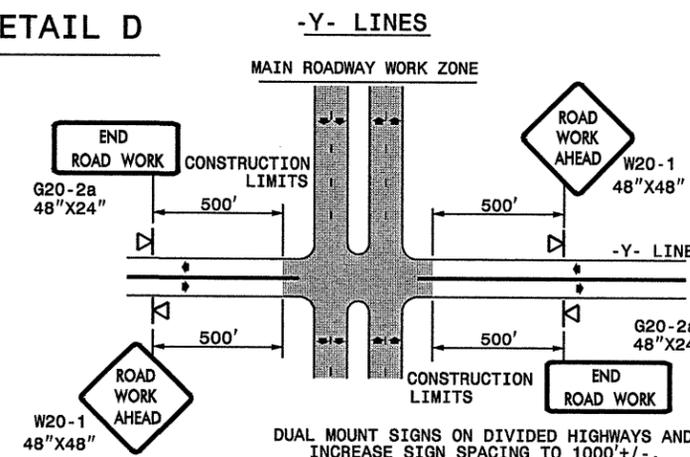
NOTE:
SIGN NOT REQUIRED IF ADVANCE WARNING SIGNS HAVE BEEN PLACED ALONG -Y- LINE THAT RAMP INTERSECTS. IF CONSTRUCTION LIMITS ARE AT END OF RAMP, PLACE SIGN AT END OF RAMP.

DETAIL C



CONSTRUCTION LIMITS IF LIMITS ARE NEAR RAMP, TERMINAL SIGNS SHOULD ALSO BE PLACED NEAR TERMINAL

DETAIL D



DUAL MOUNT SIGNS ON DIVIDED HIGHWAYS AND INCREASE SIGN SPACING TO 1000' +/-.

DETAIL DRAWING
FOR FREEWAYS
WORK ZONE WARNING SIGNS
(SHORT-DURATION LANE CLOSURES)

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.
- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.
- USE PORTABLE WORK ZONE SIGNS ONLY WITH PORTABLE WORK ZONE SIGN STANDS SPECIFICALLY DESIGNED FOR ONE ANOTHER. PORTABLE WORK ZONE SIGNS MAY BE ROLL UP OR APPROVED COMPOSITE.
- PROVIDE PORTABLE WORK ZONE SIGN STANDS, PORTABLE SIGNS AND SIGN SHEETING WHICH ARE LISTED ON THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION'S APPROVED PRODUCT LIST OR ACCEPTED AS TRAFFIC QUALIFIED BY THE TRAFFIC CONTROL UNIT.
- ** TWO-WAY UNDIVIDED ADVANCE WARNING SIGN CONFIGURATION MAY BE USED ON MULTI-LANE FACILITIES WHERE CONDITIONS LIMIT THE USE OF DUAL MOUNTED SIGNS AS DETERMINED BY THE ENGINEER.

LEGEND

◀ PORTABLE SIGN

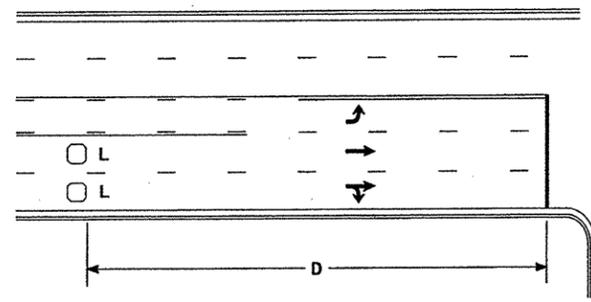
➔ DIRECTION OF TRAFFIC FLOW

SHEET 1 OF 1

APPROVED: _____	DATE: _____	DETAIL DRAWING FOR FREEWAYS WORK ZONE WARNING SIGNS	
SEAL			
SCALE: NONE		REVISIONS	
DATE: _____		7-98	10/01
DWG. BY: _____		10-98	03/04
DESIGN BY: _____		01/01	11/04
REVIEWED BY: _____	CADD	FILE	

26-OCT-2006 15:54
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 psey@more AT WZTCCC

High Speed Detection [≥40 mph (64 km/hr)]

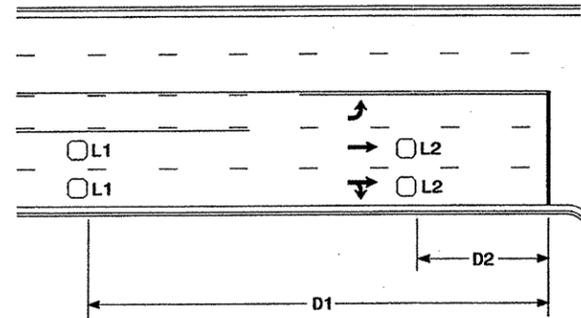


Speed Limit mph (km/hr)	D ft (m)
40 (64)	250 (75)
45 (72)	300 (90)
50 (80)	355 (110)
55 (88)	420 (130)

L = 6ft X 6ft (1.8m X 1.8m)
Wired in series for TS1
Controllers
Wired separately for TS2,
170, and 2070L Controllers

Volume Density Operation

OR

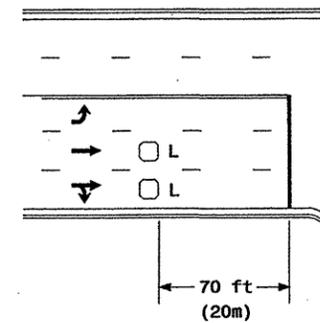


Speed Limit mph (km/hr)	D1 ft (m)	D2 ft (m)
40 (64)	250 (75)	80 (25)
45 (72)	300 (90)	90 (27)
50 (80)	355 (110)	100 (30)
55 (88)	420 (130)	110 (35)

L1 = 6ft X 6ft
(1.8m X 1.8m)
Wired in series
L2 = 6ft X 6ft
(1.8m X 1.8m)
Wired in series

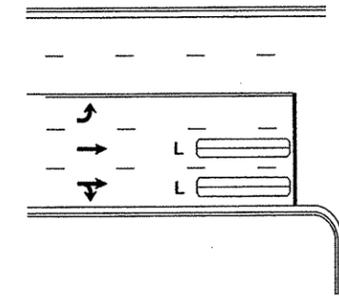
"Stretch" Operation

Low Speed Detection [≤35 mph (56 km/hr)]



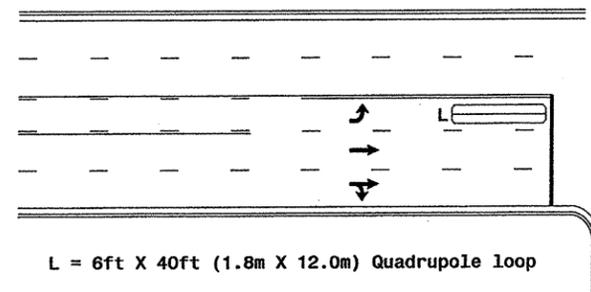
L = 6ft X 6ft (1.8m X 1.8m)
Wired in series

OR



L = 6ft X 40ft (1.8m X 12.0m)
Quadrupole loop, wired separately

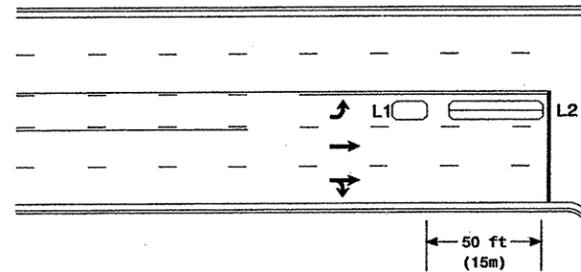
Left Turn Lane Detection



L = 6ft X 40ft (1.8m X 12.0m) Quadrupole loop

Presence Loop Detection

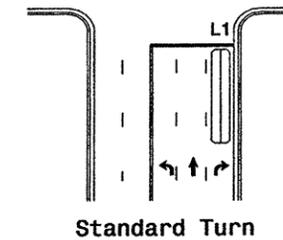
OR



L1 = 6ft X 15ft (1.8m X 4.6m) Queue detector
L2 = 6ft X 40ft (1.8m X 12.0m) Quadrupole loop

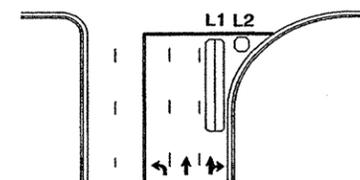
Queue Loop Detection

Right Turn Lane Detection

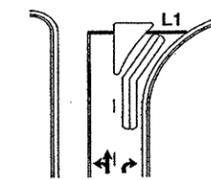


Standard Turn

L1 = 6ft X 40ft (1.8m X 12.0m) Quadrupole loop
L2 = 6ft X 6ft (1.8m X 1.8m) [Minimum] Presence loop
Wired separately
L3 = 6ft X 20ft (1.8m X 6.0m) Quadrupole loop
Wired in series

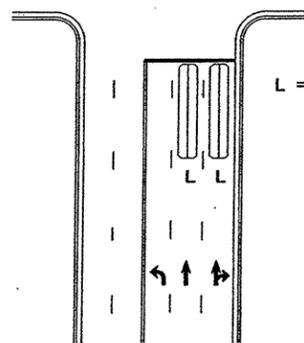


Wide Radius Turn



Channelized Turn

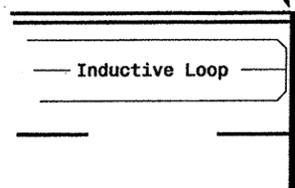
Side Street Detection



L = 6ft X 40ft (1.8m X 12.0m)
Quadrupole loop
Wired to separate
detectors/channels

Presence Loop Placement at Stop Lines

Locate loop slightly
behind leading
edge of stop line



Note:
Loop may be located in advance
of stop line when stop line is
greater than 15' (4.5m) from edge
of intersecting roadway; or, when
loop detects a permissive or
protected/permissive left turn.

Recommended Number of Turns

Single 6' X 6' (1.8m X 1.8m)
loop (wired separately):

Length of Lead-in ft (m)	Number of Turns
< 250 (75)	3
250-375 (75-115)	4
375-525 (115-160)	5
> 525 (160)	6

Quadrupole loops: Use 2-4-2 turns

6' X 15' (1.8m X 4.6m) Loops:
Lead-in < 150' (45 m), use 2 turns
Lead-in > 150' (45 m), use 3 turns

	Typical Loop Locations		
	PLAN DATE: June 2006 PREPARED BY: P. L. Alexander	REVIEWED BY: REVIEWED BY:	
122 N. McDowell St., Raleigh, NC 27603		REVISIONS:	INET. DATE:
SIGNATURE:		DATE:	SIG. INVENTORY NO.: