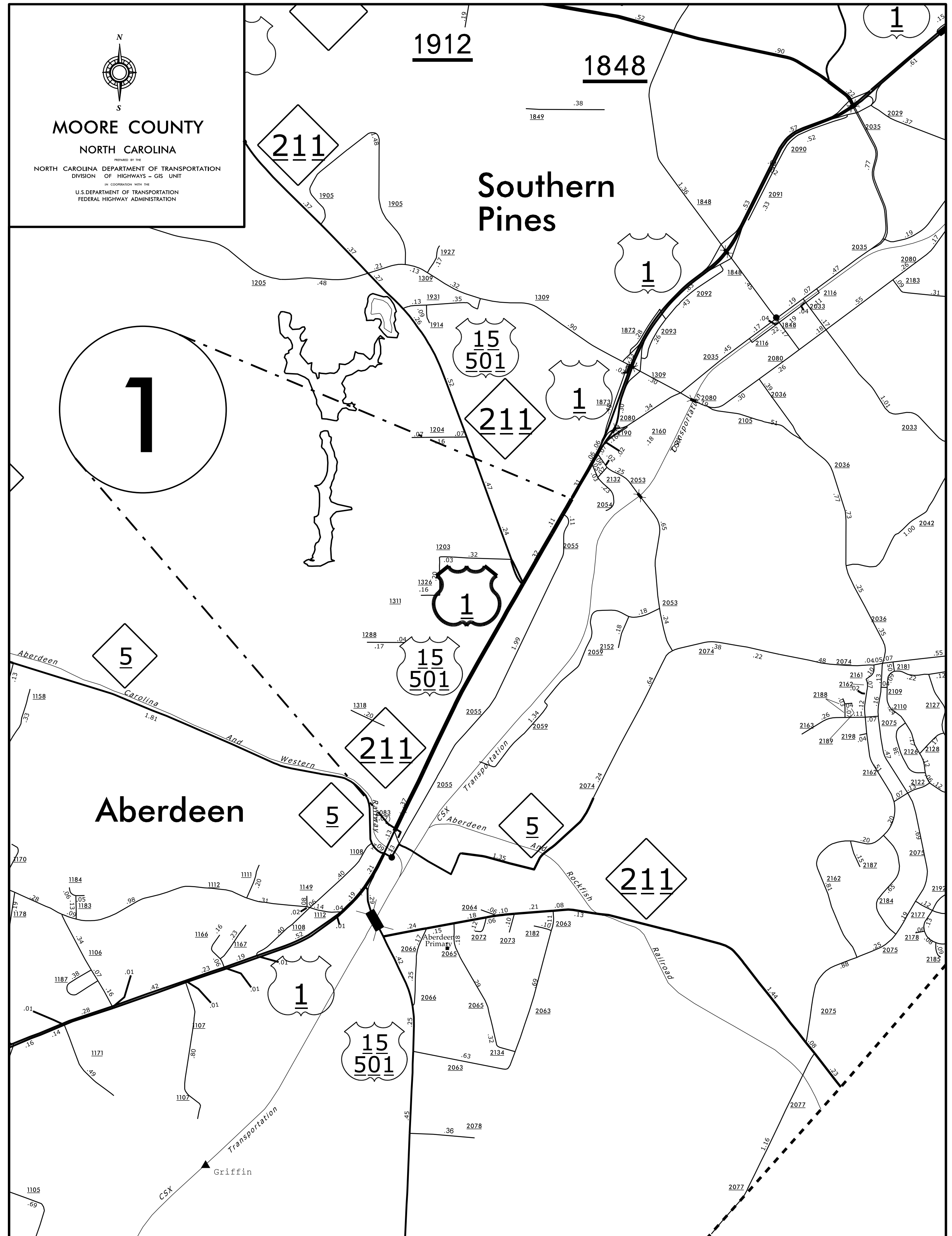
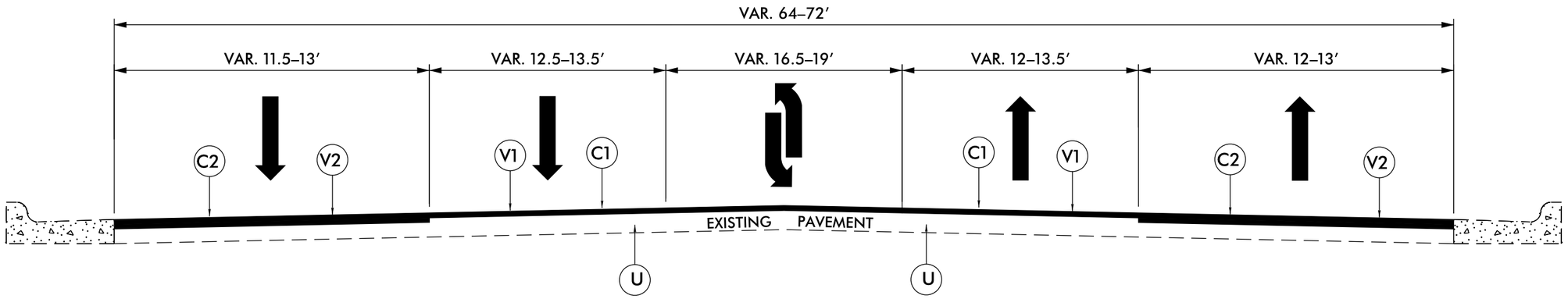
WBS ELEMENT	SHEET NO.
2021CPT.08.06.10631	1



040397

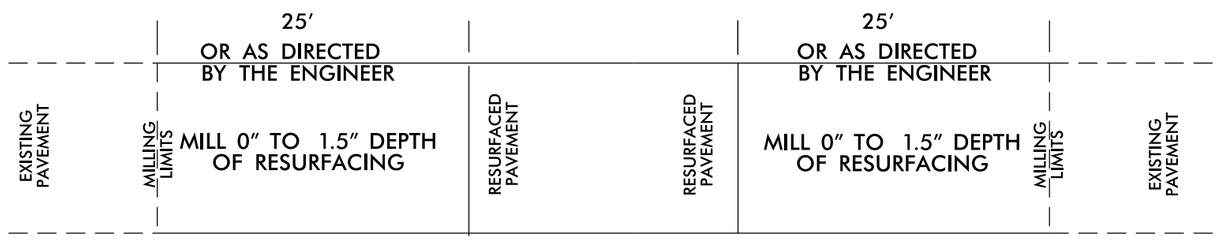
WBS ELEMENT	SHEET NO.
2021CPT.08.06.10631	2



TYPICAL SECTION NO. 1

PAVEMENT SCHEDULE

C1	PROPOSED APPROX. 1.5″ ASPHALT CONC. SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROPOSED APPROX. 3″ ASPHALT CONC. SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD, IN EACH OF TWO LAYERS.
U	EXISTING PAVEMENT
V1	1.5″ MILLING
V2	3″ MILLING



** MILLING TO BE PAID FOR AS INCIDENTAL MILLING

PAVEMENT TIE-IN DETAIL

PROJECT NO.	SHEET NO.
2021CPT.08.06.10631	3

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	3" MILLING	1.5" MILLING	INC. MILLING	SURFACE COURSE, S9.5C	ASPHALT BINDER FOR PLANT MIX	ADJ. OF MAN-HOLES	ADJ. OF METER OR VALVE BOX	PORTABLE LIGHTING	INDUCTIVE LOOP SAWCUT	LEAD-IN CABLE (14-2 PAIR)
										MI	FT	SY	SY	SY	TONS	TONS	EA	EA	LS	LF	LF
2021CPT.	Moore	1	US 1	FROM PVMT JT @ W MAIN ST TO PVMT JT @ SMITHFIELDS	1	5	MU	NO	NO	2.248	68	34,296	55,402	5,200	11,755	705	21	18	*	4,200	4,200
GRAND TOTAL FOR PROJ NO. 2021CPT.08.06.10631										**2.248**		**34,296**	**55,402**	**5,200**	**11,755**	**705**	**21**	**18**	**1**	**4,200**	**4,200**

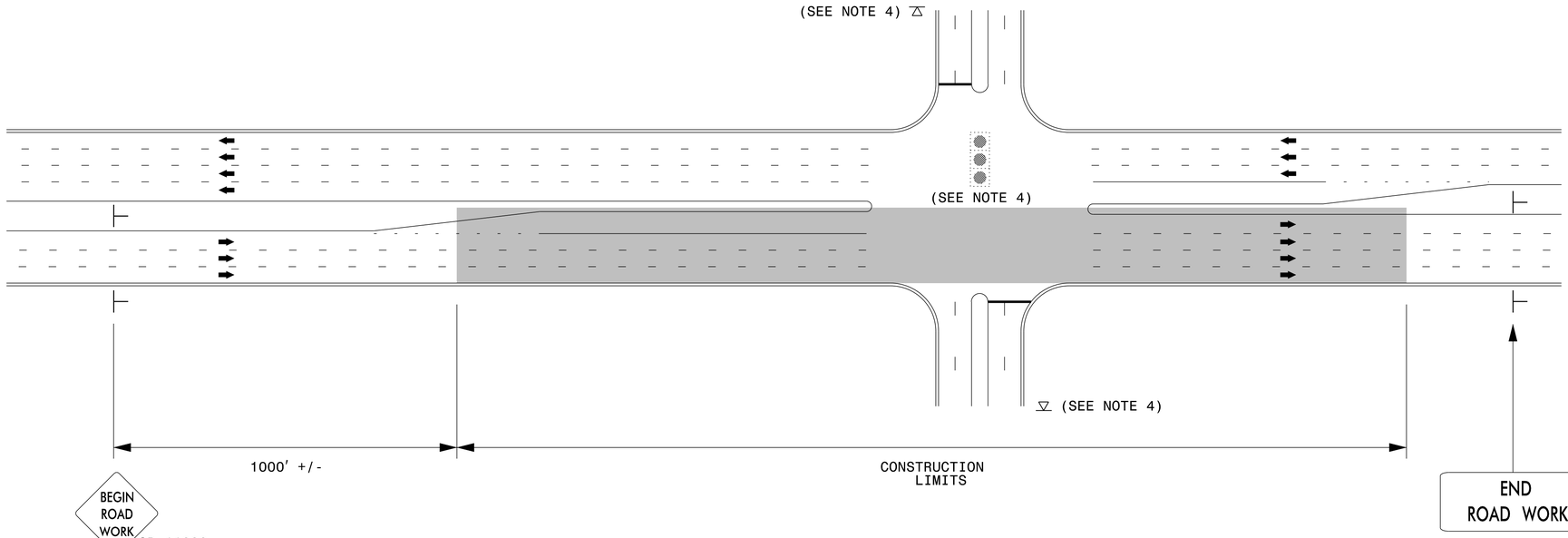
THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	44130000 WZ ADV/ GEN. WARN. SIGNING	44570000 TEMP. TRAFFIC CONTROL	45100000 LAW ENFORCEMENT	4685000000-E 4" X 90 M WHITE THERMO	4" X 90 M YELLOW THERMO	470000000 12" X 90 M YELLOW THERMO	472000000 THERMO MSG SCHOOL 90 M	4725000000-E THERM O LT ARROW 90 M	THERMO RT ARROW 90 M	THERMO STR & RT ARROW 90 M	THERMO STR ARROW 90 M
								MI	FT	SF	LS	HR	LF	LF	LF	EA	EA	EA	EA	EA
2021CPT.	Moore	1	US 1	FROM PVMT JT @ W MAIN ST TO PVMT JT @ SMITHFIELDS	1	5	MU	2.248	68	126	*	160	5,936	25,938	450	72	81	9	14	21
GRAND TOTAL FOR PROJ NO. 2021CPT.08.06.10631								**2.248**		**126**	**1**	**160**	**5,936**	**25,938**	**450**	**72**	**81**	**9**	**14**	**21**
													31,874				**125**			

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	4810000000-E 4" WHITE PAINT	4" YELLOW PAINT	48250000 12" YELLOW PAINT	48350000 24" WHITE PAINT	840000000 PAINT MSG SCHOOL	4845000000-N PAINT LT ARROW	PAINT RT ARROW	PAINT STR & RT ARROW	PAINT STR ARROW	489100000 24" X 90 M WHITE THERMO	4905000000-N SNOW PLOWABLE MARKERS C & R MARKERS	SNOW PLOWABLE MARKERS Y & Y MARKERS
								MI	FT	LF	LF	LF	LF	EA	EA	EA	EA	EA	LF	EA	EA
2021CPT.	Moore	1	US 1	FROM PVMT JT @ W MAIN ST TO PVMT JT @ SMITHFIELDS	1	5	MU	2.248	68	5,936	25,938	450	515	72	81	9	14	21	515	325	325
GRAND TOTAL FOR PROJ NO. 2021CPT.08.06.10631								**2.248**		**5,936**	**25,938**	**450**	**515**	**72**	**81**	**9**	**14**	**21**	**515**	**325**	**325**
										31,874					**125**					**650**	

PROJ. REFERENCE NO.	SHEET NO.
2021CPT.08.06.10631	TMP-1

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

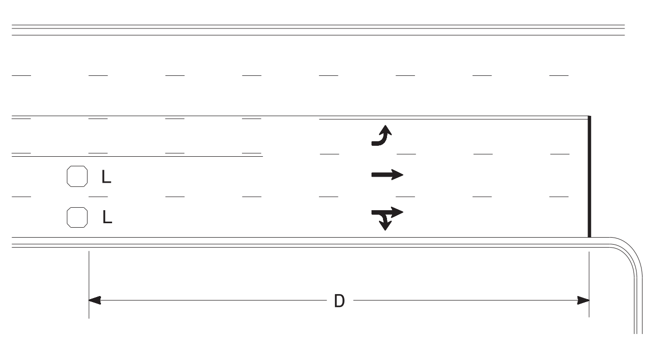
DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

RESURFACING ADVANCE WARNING SIGNS FOR URBAN / SUBURBAN FACILITIES

4/8/2015
C:\Users\rmgarrett\Downloads\Resurfacing_AdvWarn_UrSu (2).dgn
User:rmgarrett

PROJECT REFERENCE NO.	SHEET NO.
2021CPT.08.06.10631	SIG-1

High Speed Detection
(≥40 mph)



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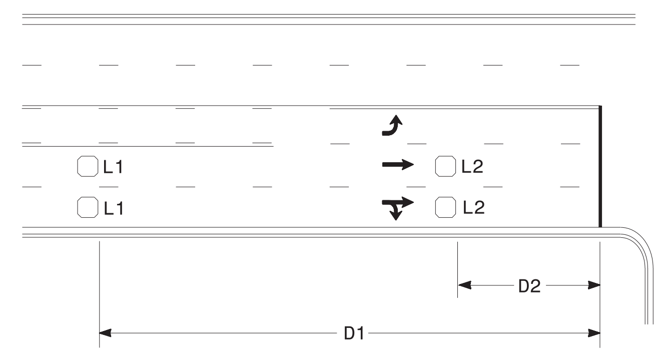


Speed Limit mph	D ft
40	250
45	300
50	355
55	420

L = 6ft X 6ft
Wired separately

Volume Density Operation

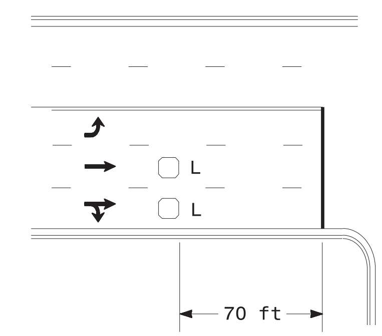
Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110

L1 = 6ft X 6ft
Wired in series

L2 = 6ft X 6ft
Wired in series

"Stretch" Operation

Low Speed Detection
(≤35 mph)



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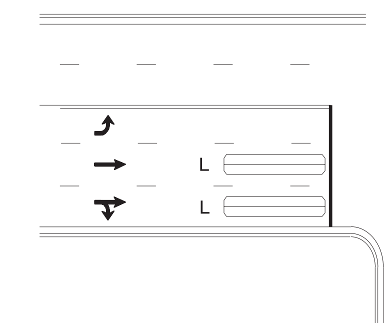
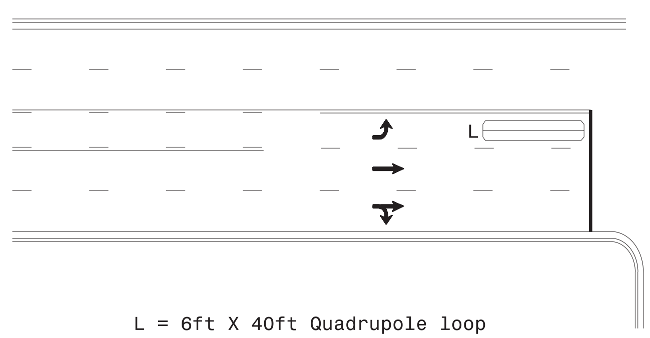


L = 6ft X 6ft
Wired in series

L = 6ft X 40ft
Quadrupole loop, wired separately

Left Turn Lane Detection



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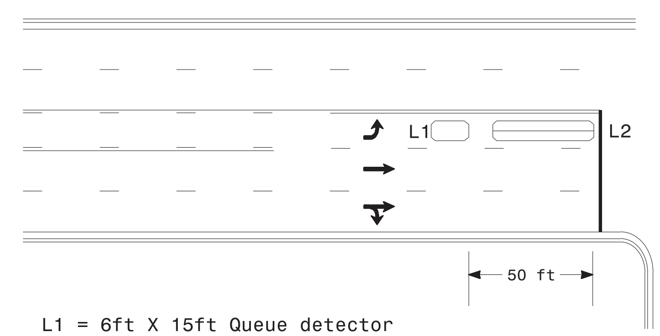


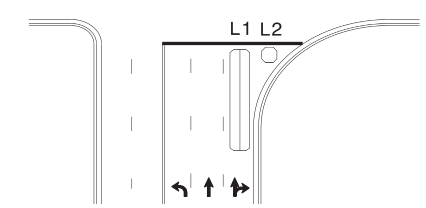
L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

L1 = 6ft X 15ft Queue detector
L2 = 6ft X 40ft Quadrupole loop

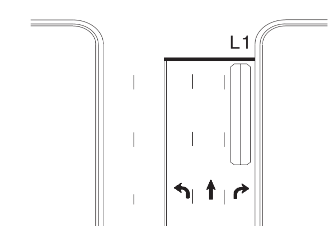
Queue Loop Detection

Right Turn Lane Detection

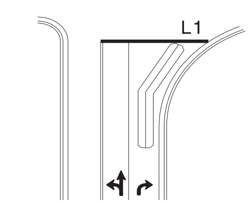


Shared Lane/
Wide Radius Turn

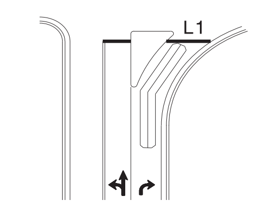
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

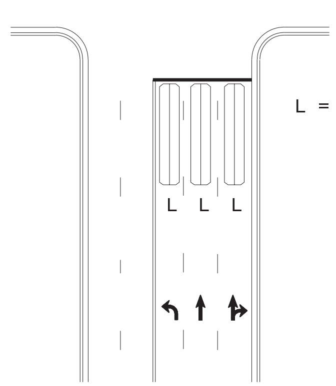


Wide Radius Turn



Channelized Turn

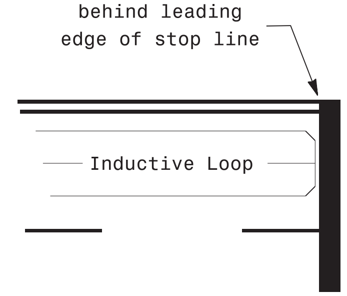
Side Street Detection



L = 6ft X 40ft
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 under any of the following conditions:
1) stop line is greater than 15′ from edge of intersecting roadway
2) loop detects a permissive or protected/permissive left turn
3) for an exclusive right turn lane

Recommended Number of Turns

Single 6′ X 6′ loop
(when wired separately):

Length of Lead-in ft	Number of Turns
< 250	3
250-375	4
375-525	5
> 525	6

Quadrupole loops: Use 2-4-2 turns

6′ X 15′ Loops:
Lead-in < 150′, use 2 turns
Lead-in > 150′, use 3 turns

Prepared in the Offices of: Transportation Mobility and Safety Division, Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

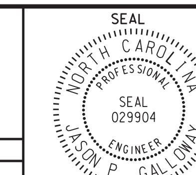
Typical Signal Loop Locations

PLAN DATE: September 2020	REVIEWED BY: JPG
PREPARED BY: PLA	REVIEWED BY:

SCALE
N/A

REVISIONS	INIT.	DATE

SEAL



9/8/2020
DATE

SIG. INVENTORY NO.

08-SEP-2020 11:54
S:\ITS&SU\ITS Signals\Signal Design Section\Eastern Region\Loop Typical\looptypical2015.dgn
jgalloway