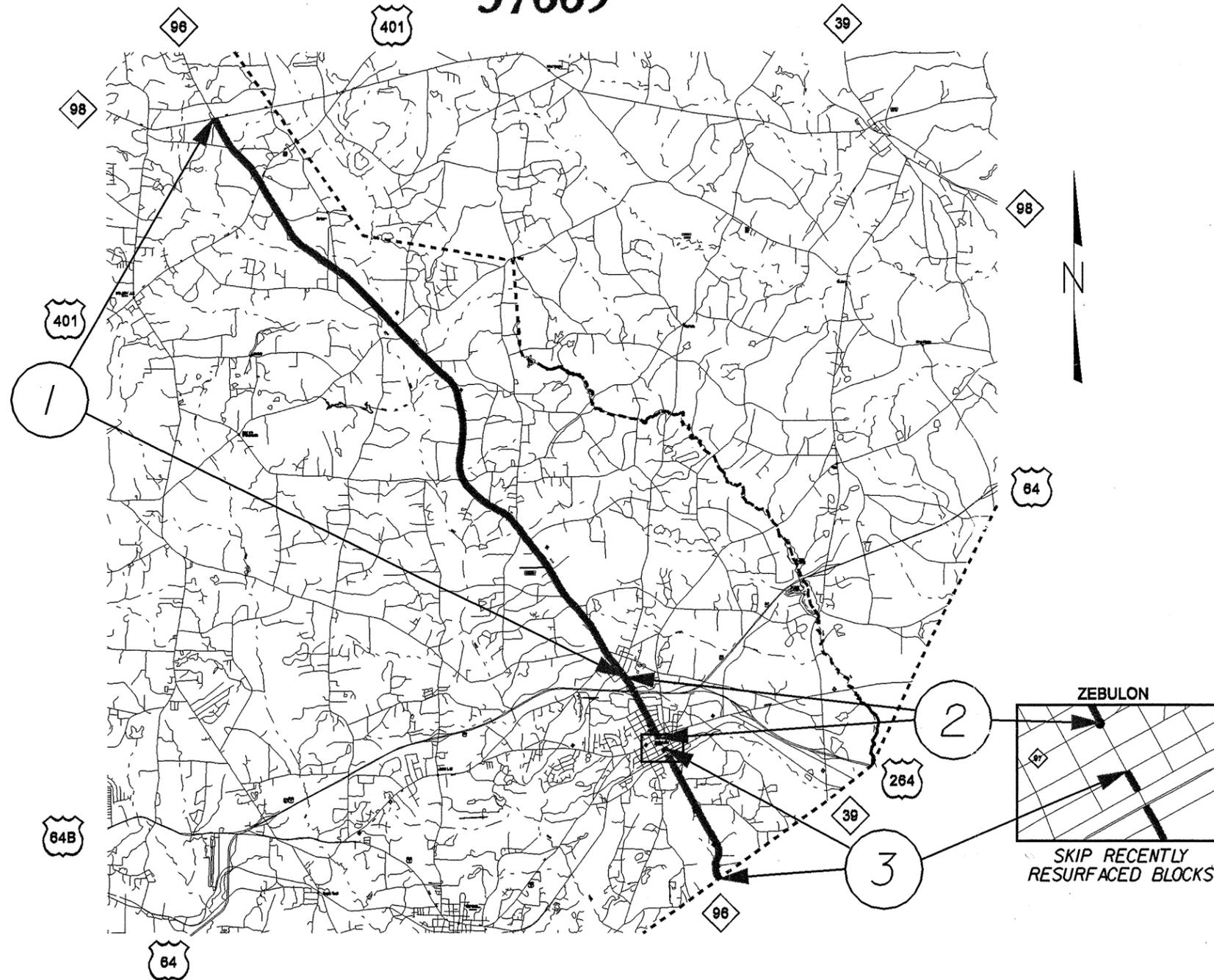


WBS ELEMENT	SHEET NO.	TOTAL SHEETS
37669	1	
STATE PROJ. NO.		
MA05022R		

# MA05022R

## 37669

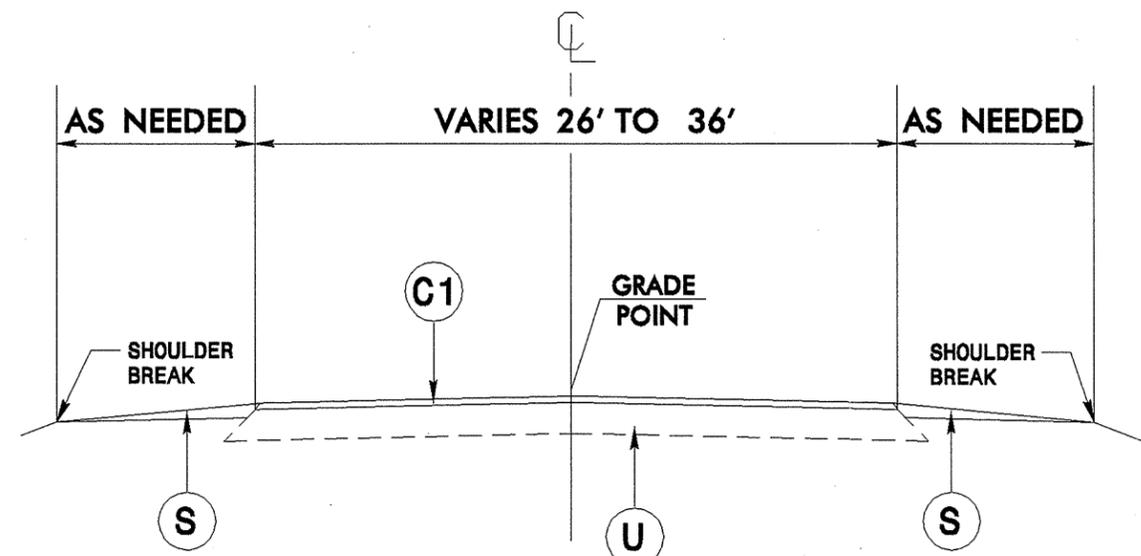
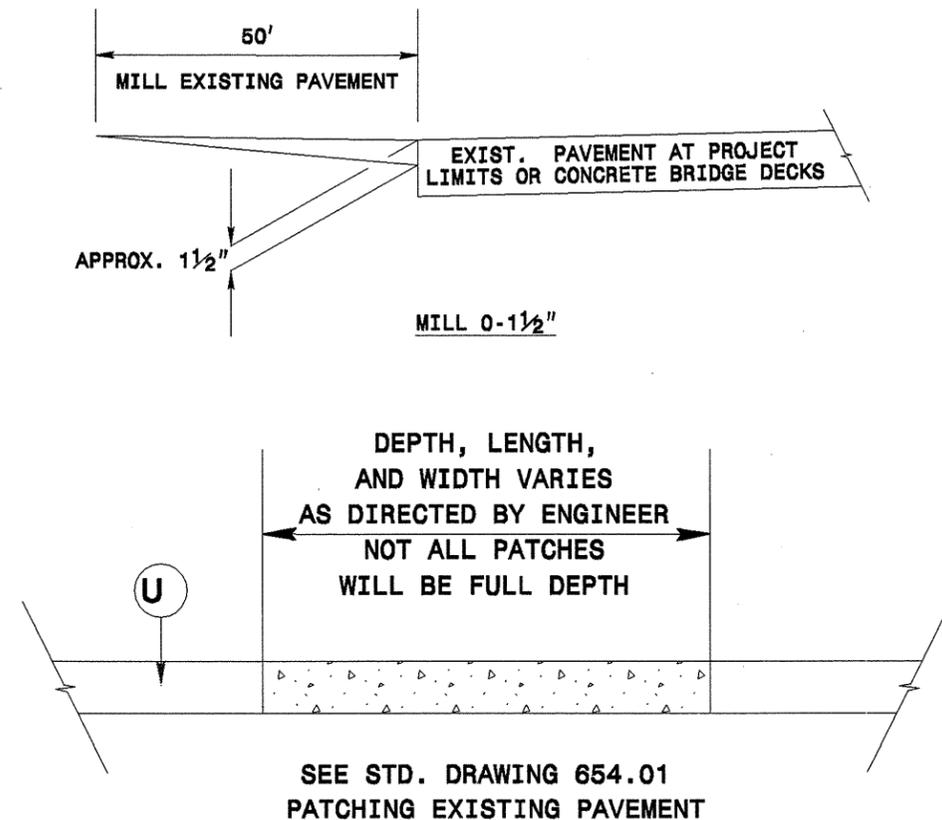


*Wake County*

WBS ELEMENT	SHEET NO.	TOTAL SHEETS
37669	2	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
MA05022R		

**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 QUANTITIES.

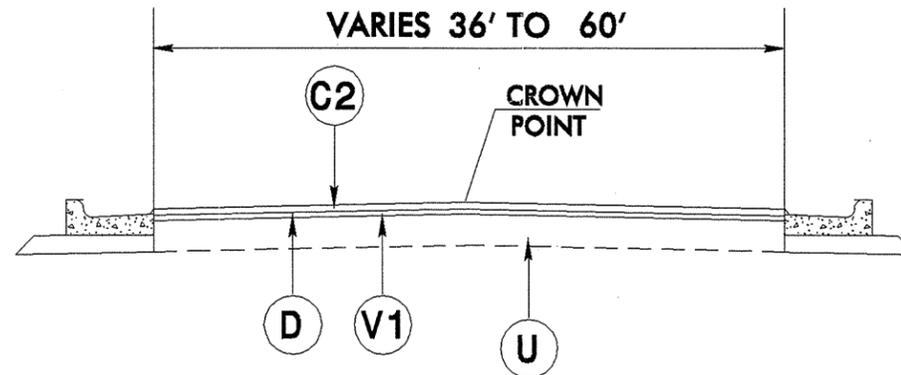


**TYPICAL NO. 1**

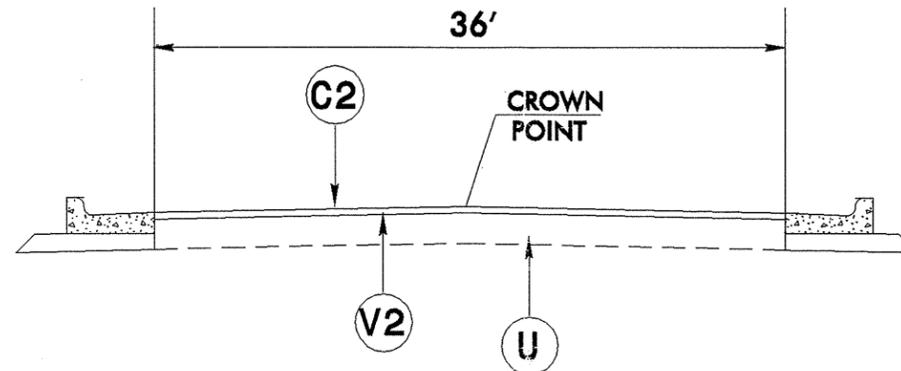
**PAVEMENT SCHEDULE**

C1	PROP. APPROX. 3.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
D	PROP. APPROX. 2.5" ASPHALT CONG. INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
U	EXISTING PAVEMENT.
V1	MILLING 3"
V2	MILLING 1.5"
S	SHOULDER RECONSTRUCTION.

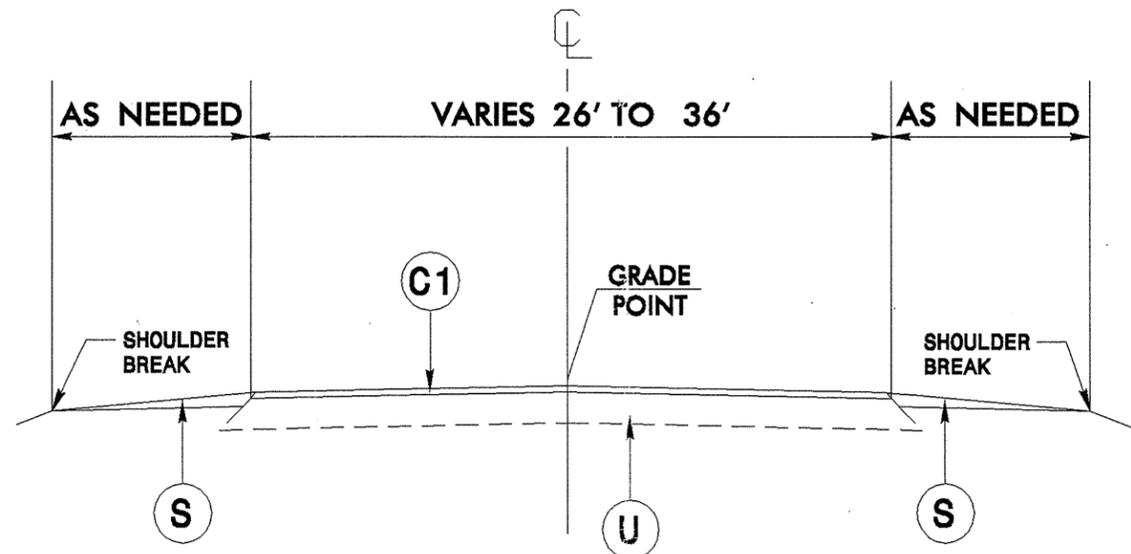
WBS ELEMENT	SHEET NO.	TOTAL SHEETS
37669	3	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
MA05022R		



TYPICAL NO. 2



TYPICAL NO. 3



TYPICAL NO. 4

WBS ELEMENT	SHEET NO.	TOTAL NO.
37669	4	
MA05022R		

### SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LENGTH MI	WIDTH FT	INCIDENTAL STONE BASE TONS	SHOULDER RECONSTRUCTION SMI	3" MILLING SY	1 1/2" MILLING SY	INCIDENTAL MILLING SY	INTERMEDIATE COURSE, 119.0B TONS	SURFACE COURSE, S9.5B TONS	PG 64-22 PLANT MIX TONS	PATCHING EXISTING PAVEMENT TONS	MANHOLES EA	METER OR VALVE BOX EA	SEED & MULCHING AC
37669	Wake	1	NC 96	FROM NC 98 TO BEGIN C&G NORTH OF US 64	1	11	26	550	22			4,000		29,882	1,793	1,000			22.00
		2	NC 96	FROM BEGIN C&G NORTH OF US 64 TO JUST SOUTH OF NC 97	2	1	50			29,333			4,197	2,470	345		7	12	
		3	NC 96	FROM RR CROSSING IN ZEBULON TO JOHNSTON CO LINE	3, 4	1	28	30	1.8		3,733	1,000		1,455	87	75			1.00
<b>TOTAL FOR PROJ NO. 37669</b>						<b>13</b>		<b>580</b>	<b>23.8</b>	<b>29,333</b>	<b>3,733</b>	<b>5,000</b>	<b>4,197</b>	<b>33,807</b>	<b>2,225</b>	<b>1,075</b>	<b>7</b>	<b>12</b>	<b>23.00</b>
<b>GRAND TOTAL</b>						<b>13</b>		<b>580</b>	<b>23.8</b>	<b>29,333</b>	<b>3,733</b>	<b>5,000</b>	<b>4,197</b>	<b>33,807</b>	<b>2,225</b>	<b>1,075</b>	<b>7</b>	<b>12</b>	<b>23.00</b>

### THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	4685000000-E	4686000000-E	4705000000-E	4710000000-E	4721000000-E	4725000000-E			4810000000-E		4900000000-N	4900000000-N	
					4" X 90 M WHITE THERMO LF	4" X 120 M YELLOW THERMO LF	4" X 120 M WHITE THERMO LF	16" X 120 M WHITE THERMO LF	24" X 120 M WHITE THERMO LF	THERMO RXR 120 M EA	THERMO STR & RT ARROW 90 M EA	THERMO LT ARROW 90 M EA	THERMO STR ARROW 90 M EA	4" YELLOW PAINT LF	4" WHITE PAINT LF	YELLOW & YELLOW MARKERS EA	CRYSTAL & RED MARKERS EA
37669	Wake	1	NC 96	FROM NC 98 TO BEGIN C&G NORTH OF US 64	118,360	116,160	300			4	4				726	30	
		2	NC 96	FROM BEGIN C&G NORTH OF US 64 TO JUST SOUTH OF NC 97		13,200	2,500		60	4	30	15	13,200	2,500	132	100	
		3	NC 96	FROM RR CROSSING IN ZEBULON TO JOHNSTON CO LINE	10,760	10,560		100	75	2					66		
<b>TOTAL FOR PROJ NO. 37669</b>					<b>129,120</b>	<b>139,920</b>	<b>2,800</b>	<b>100</b>	<b>135</b>	<b>8</b>	<b>34</b>	<b>15</b>	<b>13,200</b>	<b>2,500</b>	<b>924</b>	<b>130</b>	
<b>GRAND TOTAL</b>					<b>129,120</b>	<b>139,920</b>	<b>2,800</b>	<b>100</b>	<b>135</b>	<b>2</b>	<b>8</b>	<b>34</b>	<b>15</b>	<b>13,200</b>	<b>2,500</b>	<b>924</b>	<b>130</b>



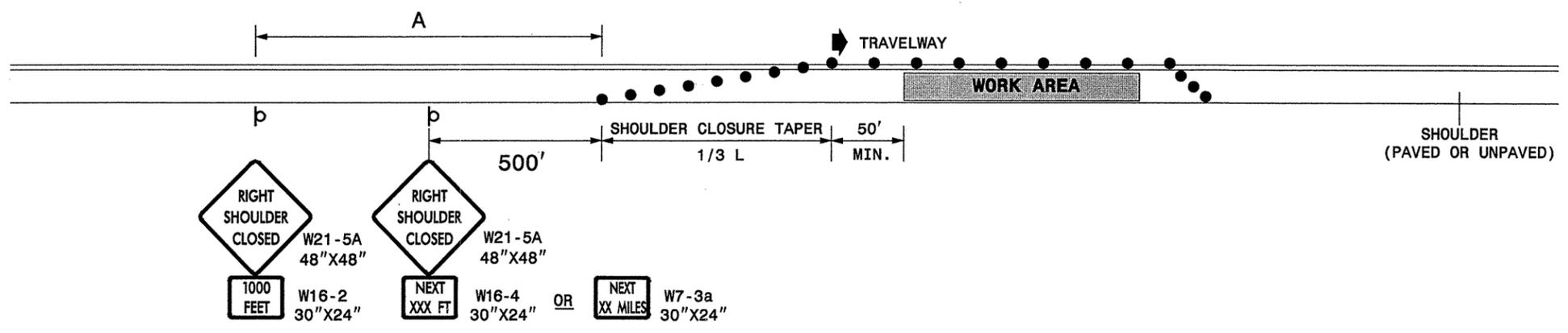
STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

1-05

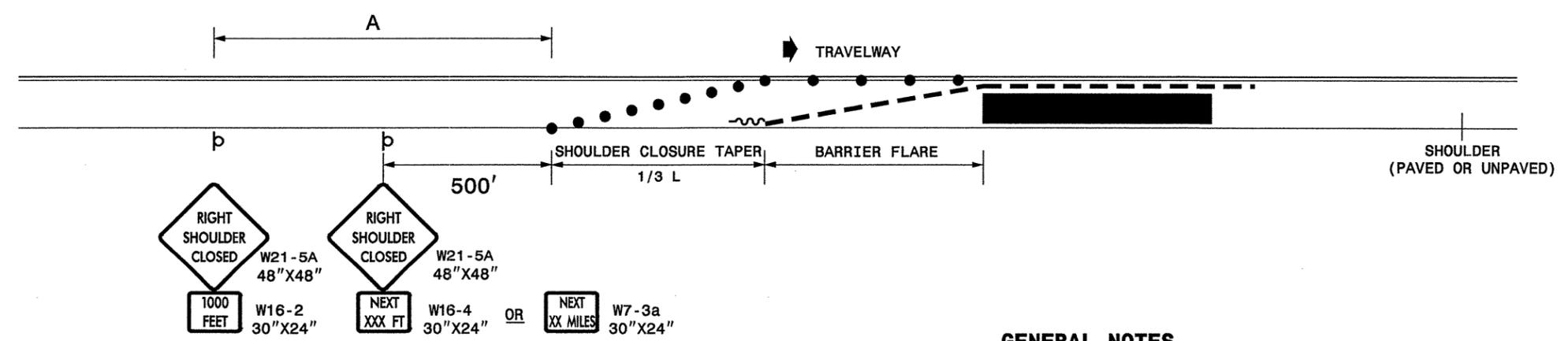
ENGLISH STANDARD DRAWING FOR  
TEMPORARY SHOULDER CLOSURES

SHEET 1 OF 1  
**1101D04**

**SHOULDER CLOSURES UTILIZING DRUMS**



**SHOULDER CLOSURES UTILIZING TEMPORARY BARRIER**



**GENERAL NOTES**

- PLACE SHOULDER CLOSURE SIGNS ON THE SAME SIDE AS THE SHOULDER THAT IS CLOSED.
- PLACE DRUMS IN THE SHOULDER TAPER AT THE MAXIMUM SPACING EQUAL IN FEET TO THE POSTED SPEED LIMIT. THE MAXIMUM SPACING OF DRUMS ALONG THE WORK AREA AND BARRIER FLARE IS EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- FLARE THE APPROACH END OF PORTABLE CONCRETE BARRIER BEYOND THE SHOULDER AND USE A CRASH CUSHION FOR PROTECTION IF THE EXPOSED END OF THE BARRIER IS WITHIN THE "CLEAR ZONE".
- USE STATIONARY SIGNS FOR LONG TERM OPERATIONS (LONGER THAN 3 DAYS).
- REFER TO STD. 1101.11 SHEETS 1, 3, & 4, FOR "L" DISTANCE, BARRIER FLARE RATES, AND SIGN SPACING.

**LEGEND**

- ~ TEMPORARY CRASH CUSHION
- - - PORTABLE CONCRETE BARRIER
- DRUM
- ▭ STATIONARY OR PORTABLE SIGN
- ➔ DIRECTION OF TRAFFIC FLOW

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

1-05

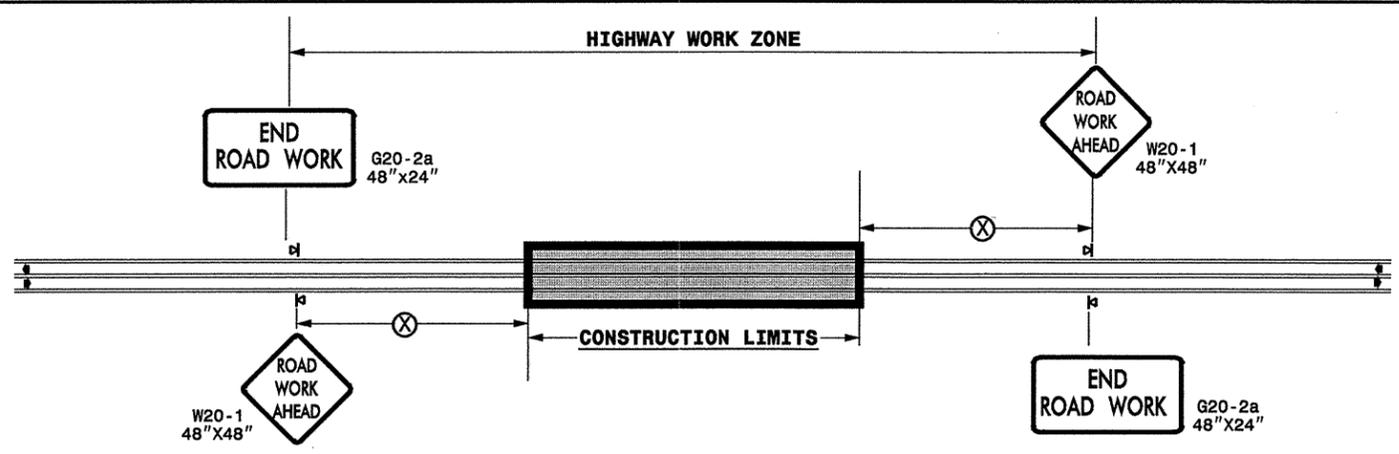
ENGLISH STANDARD DRAWING FOR  
TEMPORARY SHOULDER CLOSURES

SHEET 1 OF 1  
**1101D04**

APPROVED:	DATE:	<b>REPLACEMENT DETAIL FOR RSD 1101.04</b>	
SCALE:	NONE		REVISIONS
DATE:	11/04		08/05
DWG. BY:	PS		
DESIGN BY:	JPG		
REVIEWED BY:	MMM		CADD

07-APR-2006 09:27  
\\DOT\DFS\RD01\GROUPS-WZ\TCCC\desig\group4\squad4a\resurfacing\div05\37669par\1101\1101D04\1101D04.dgn  
pseymore AT WZTC206427

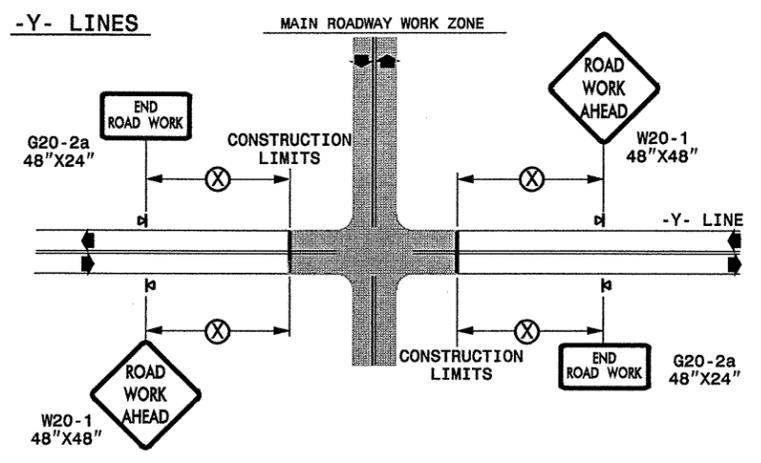
**TWO-WAY UNDIVIDED \*\* (L-LINES)**



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

DETAIL DRAWING  
FOR TWO-WAY UNDIVIDED  
WORK ZONE WARNING SIGNS

SHEET 1 OF 1

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

07\_APR\_2006\_09:29  
 \\S001\UP\SRD01\DWG\TCCC\design\group4\squad4a\resurfacing\div05\37669\etw\cwkfranklin\37669part1\2wayundivurbf\wysrev05.dgn  
 pesymore AT WZTC06427

# TWO LANE, TWO WAY WORK ZONE (L-LINES)

FURNISHED BY THE DEPARTMENT

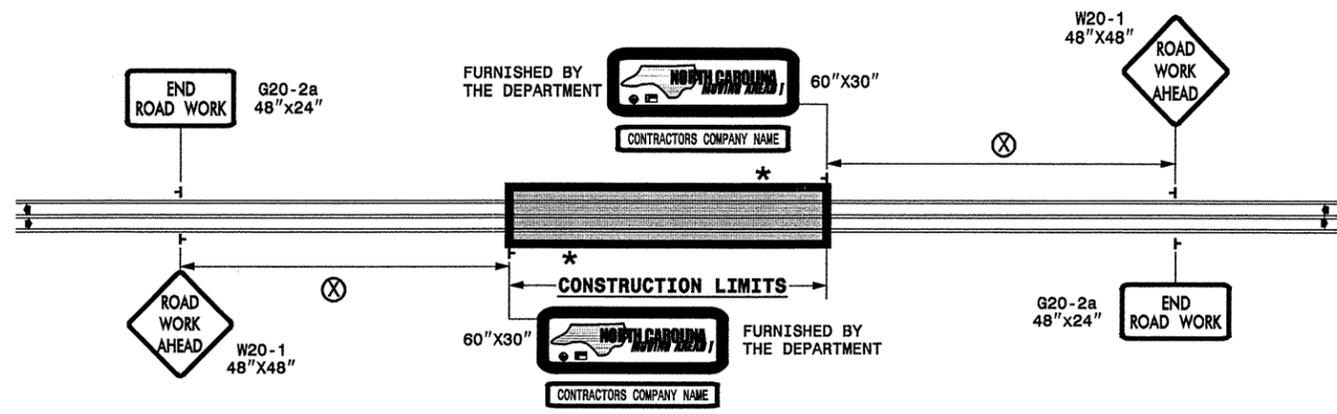


60"X30"

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CONTRACTORS COMPANY NAME

60" Max. X 12"



POSTED SPEED LIMIT (M.P.H.)	RECOMMENDED MINIMUM SIGN SPACING
P.S.L. ≤ 50	⊗
P.S.L. ≥ 55	350'
	500'

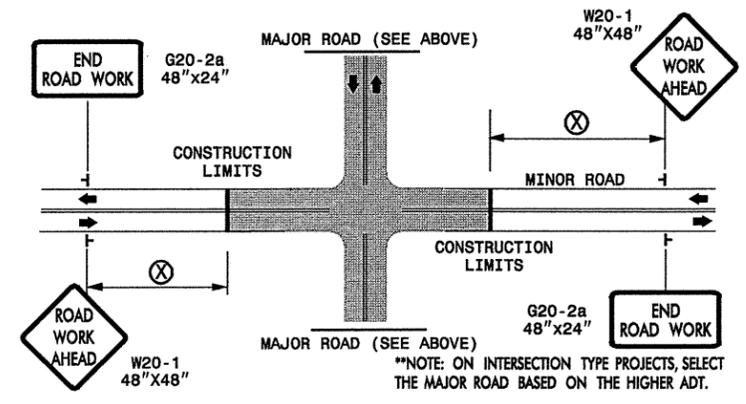
**\* ROAD WORK NEXT XX MILES** G20-1A, 60"x24"

THIS SIGN TO BE USED ON PROJECTS LONGER THAN 2 MILES  
 THE NUMBER DISPLAYED ON THE SIGN IS TO BE A WHOLE NUMBER ROUNDED UP TO THE NEXT MILE  
 IT'S TO BE LOCATED 1,500 FEET INSIDE OF THE CONSTRUCTION LIMITS

PROJ. REFERENCE NO. 37669	SHEET NO. NCMA-1
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STATE OF NORTH CAROLINA  
 DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 RALEIGH, N.C.

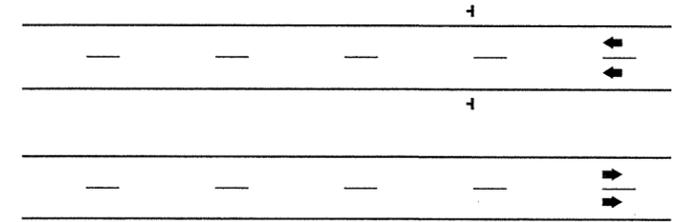
# INTERSECTIONS (-Y- LINES)



# FREEWAYS/INTERSTATES

DUAL MOUNT "ROAD WORK AHEAD" SIGNS 1,000' IN ADVANCE OF PROJECT LIMITS

DUAL MOUNT "MOVING AHEAD" SIGNS 500' IN ADVANCE OF PROJECT LIMITS



## 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. 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.
- 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.

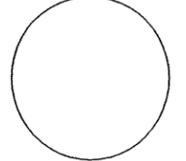
**LEGEND**

└ STATIONARY SIGN

◀ DIRECTION OF TRAFFIC FLOW

DETAIL DRAWING FOR ADVANCE  
 WARNING WORK ZONE SIGNS

SHEET 1 OF 1

APPROVED: _____	DATE: _____	<b>ADVANCE WARNING WORK ZONE SIGNS FOR "MOVING AHEAD"</b>		
SEAL 	SCALE: NONE			
	DATE: 07/03			REVISIONS
	DWG. BY: JSK			11/04
	DESIGN BY: JSK			12/04
REVIEWED BY: SK				