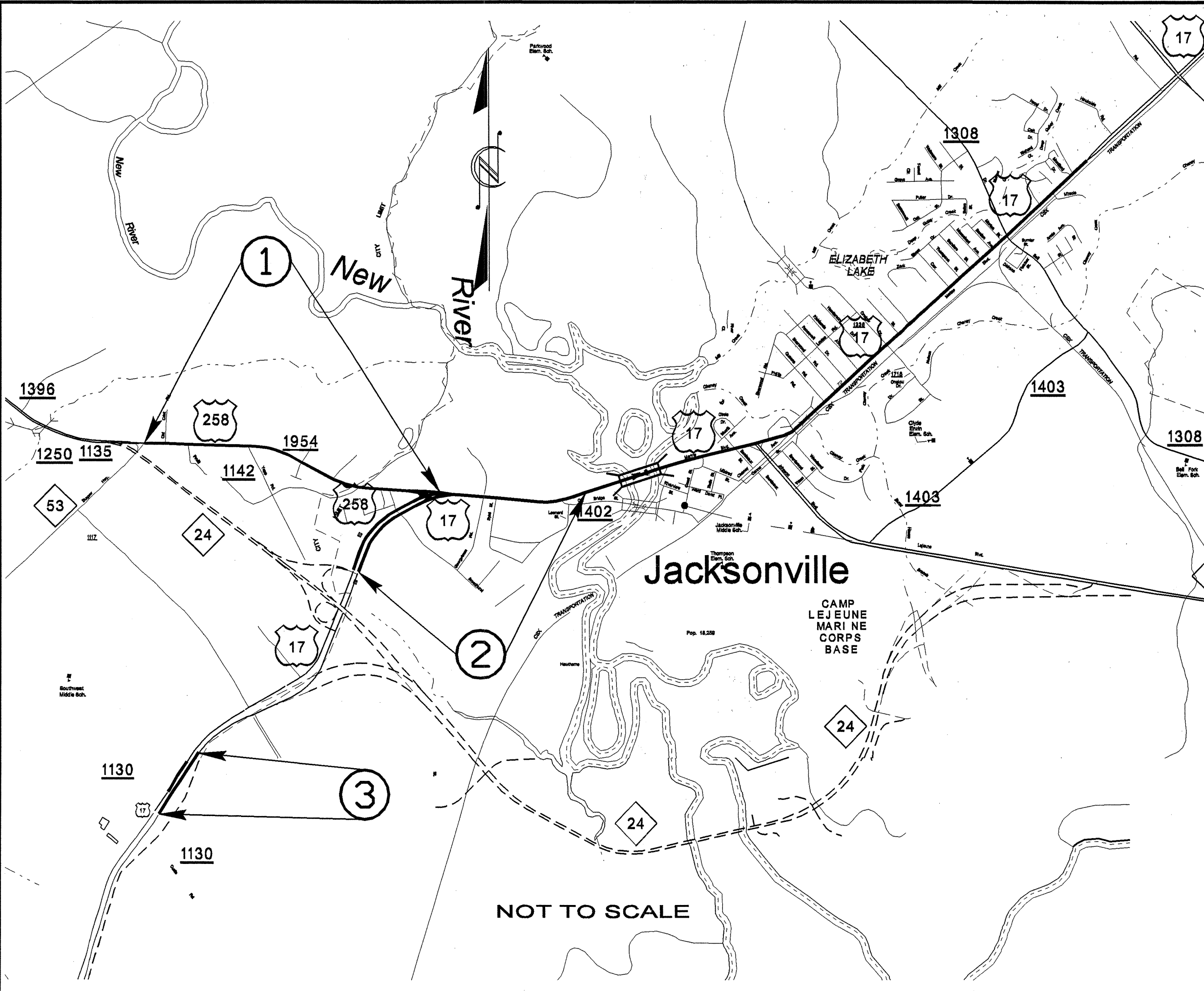


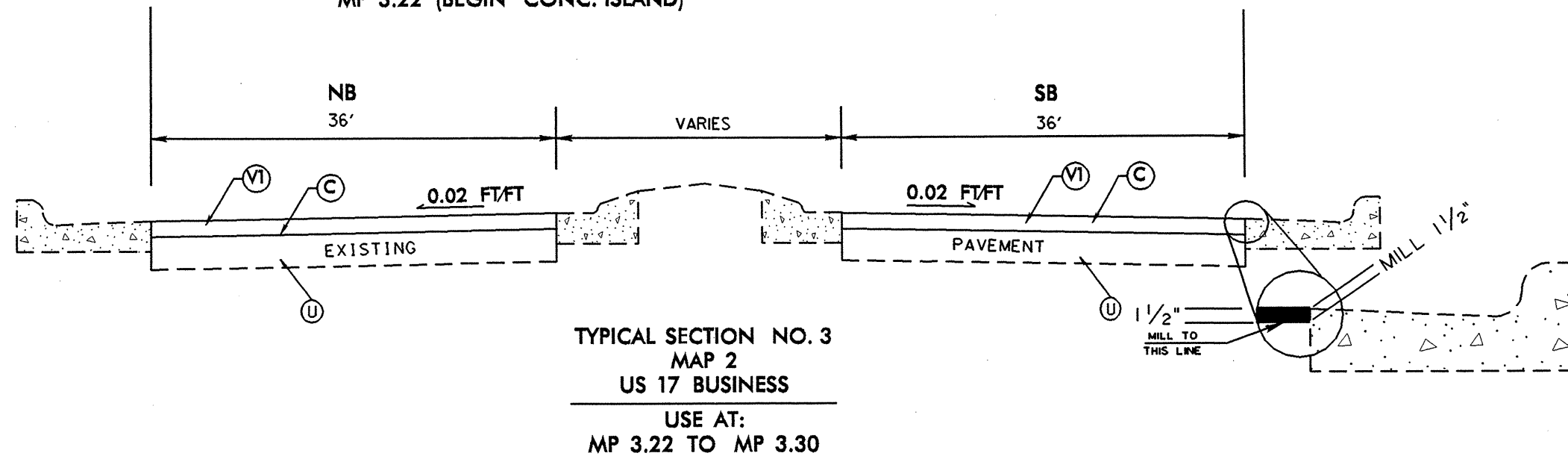
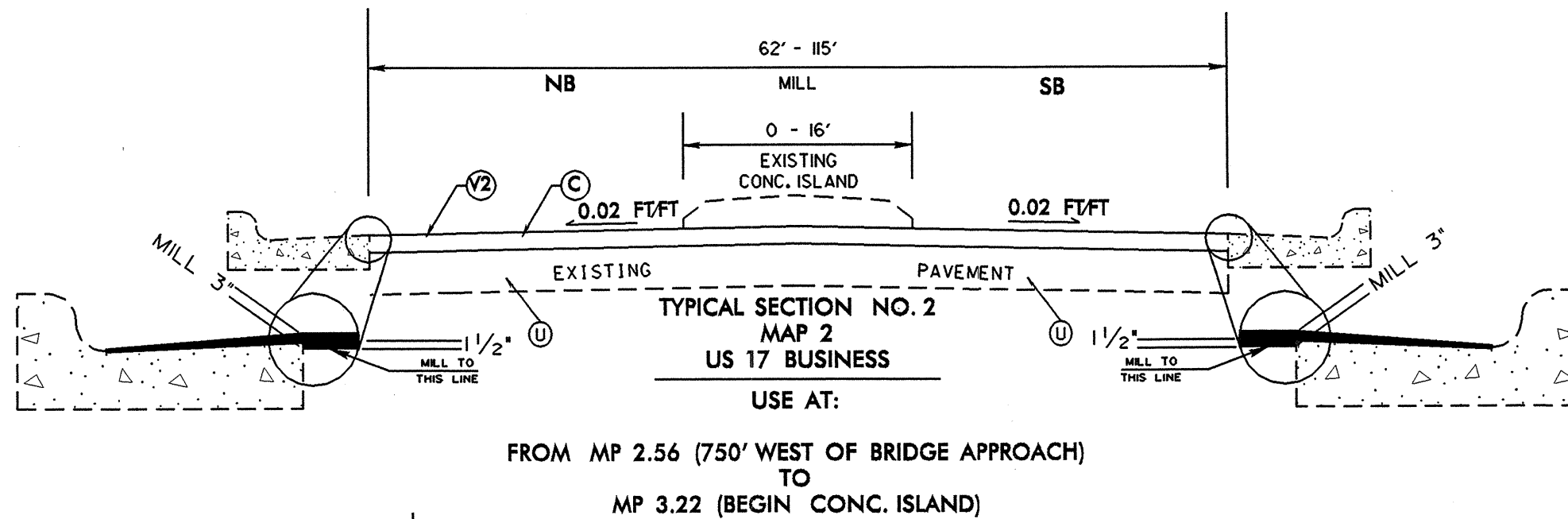
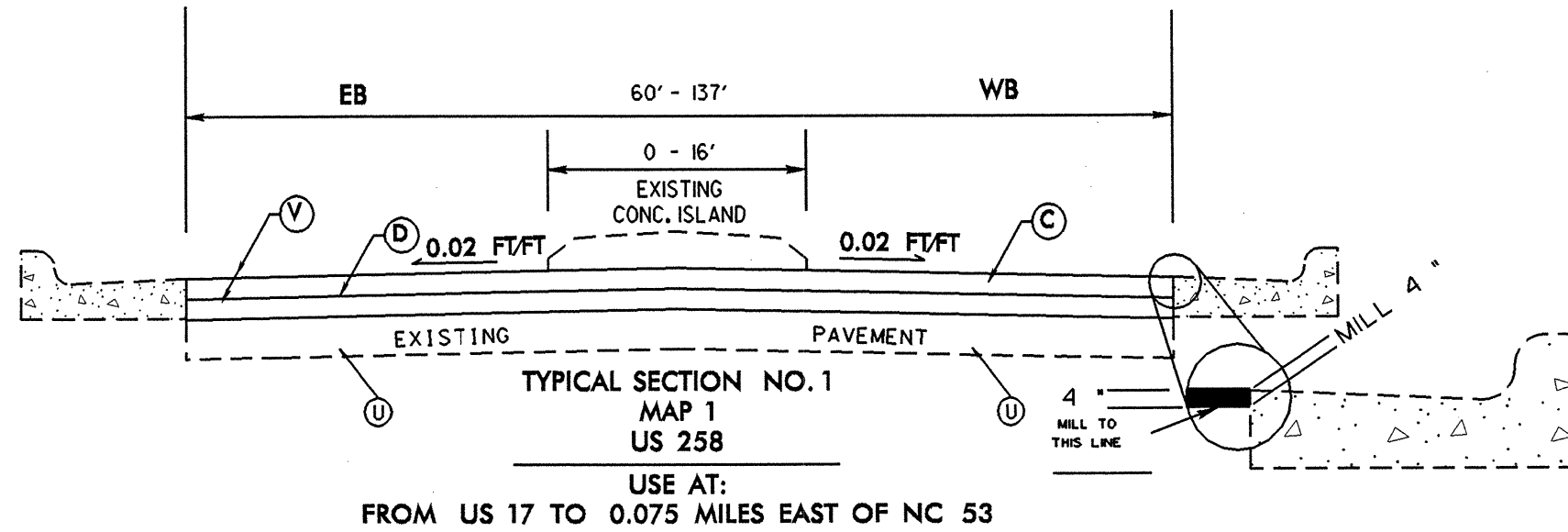
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REVISIONS

PROJECT REFERENCE NO. 3CRJ0671.47	SHEET NO. 7
RW SHEET NO. C201714	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



NOT TO SCALE

PROJECT REFERENCE NO. 3CRJ0671.47	SHEET NO. 2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



PAVEMENT SCHEDULE	
C	PROP. APPROX. 1 1/2" DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE 89.5C, AT AN AVERAGE RATE OF 188 LBS. PER SQ. YD.
D	PROP. APPROX. 2 1/2" DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I10.0C, AT AN AVERAGE RATE OF 288 LBS. PER SQ. YD.
T	EARTH MATERIAL
U	EXISTING PAVEMENT.
V	MILLING BITUMINOUS PAVEMENT. 4" DEPTH.
V1	MILLING BITUMINOUS PAVEMENT. 1 1/2" DEPTH.
V2	MILLING BITUMINOUS PAVEMENT. 3" DEPTH.

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.
SEE STD. DRAWING 1206.01, SHEET 2 OF 2, TABLE 1 FOR EDGE LINE OFFSETS.

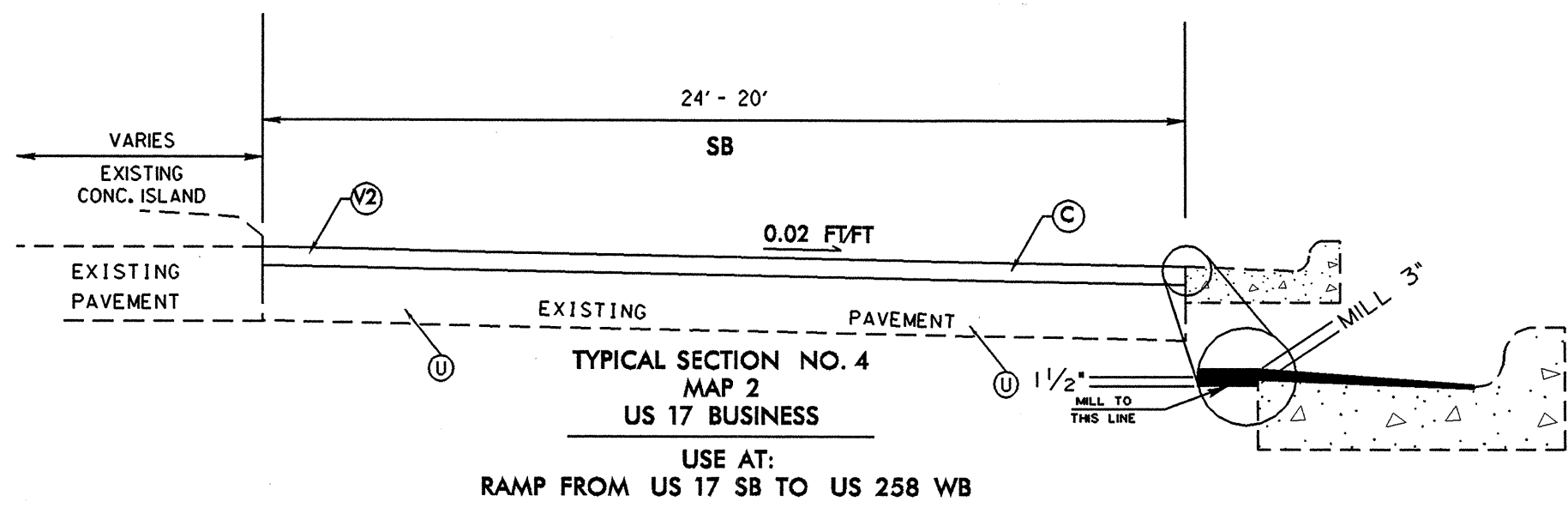
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REVISIONS

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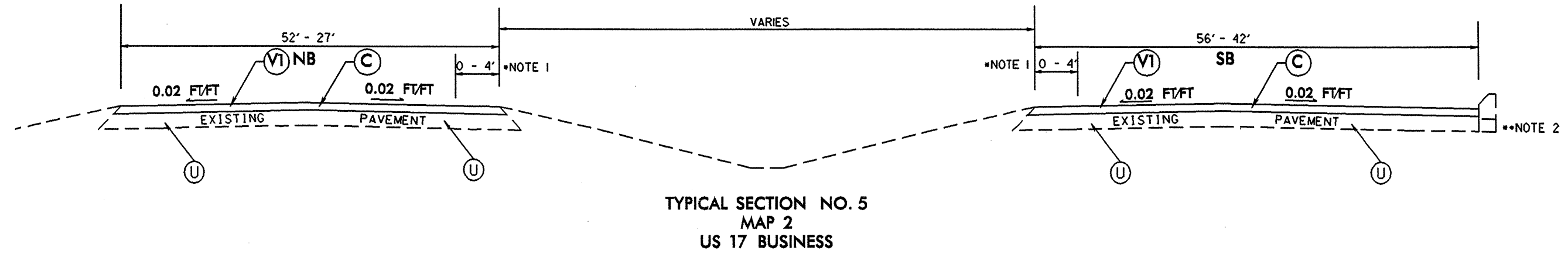
8/17/99

PROJECT REFERENCE NO. 3CRJ0671.47		SHEET NO. 3
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	



PAVEMENT SCHEDULE	
C	PROP. APPROX. 1 1/2" DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE 89.8C, AT AN AVERAGE RATE OF 188 LBS. PER SQ. YD.
D	PROP. APPROX. 2 1/2" DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
T	EARTH MATERIAL
U	EXISTING PAVEMENT.
V	MILLING BITUMINOUS PAVEMENT. 4" DEPTH.
V1	MILLING BITUMINOUS PAVEMENT. 1 1/2" DEPTH.
V2	MILLING BITUMINOUS PAVEMENT. 3" DEPTH.

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.
SEE STD. DRAWING 1206.01, SHEET 2 OF 2, TABLE 1 FOR EDGE LINE OFFSETS.



USE AT:
FROM MP 3.30
TO
MP 3.69

*NOTE 1 - 4' PAVED SHOULDER MP 3.32 TO MP 3.43
**NOTE 2 - 8" X 18" CONC. CURB ENDS AT MP 3.57

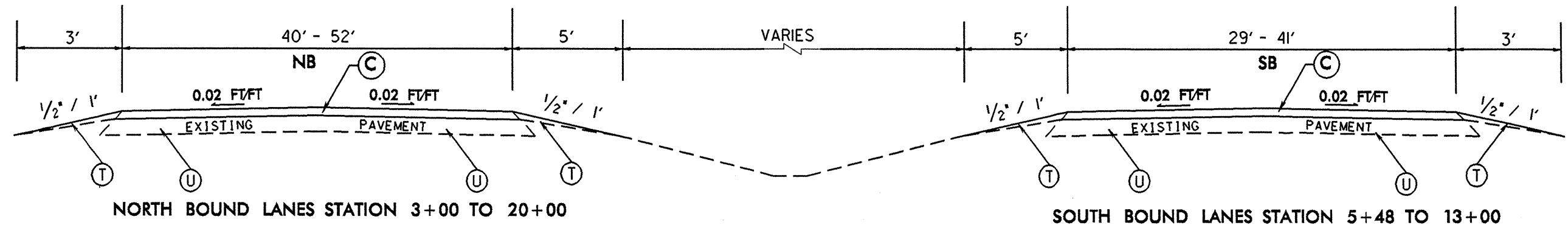
REVISIONS

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8/17/99

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PROJECT REFERENCE NO. 3CRJ0671.47	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



TYPICAL SECTION NO. 6
 MAP 3
 US 17

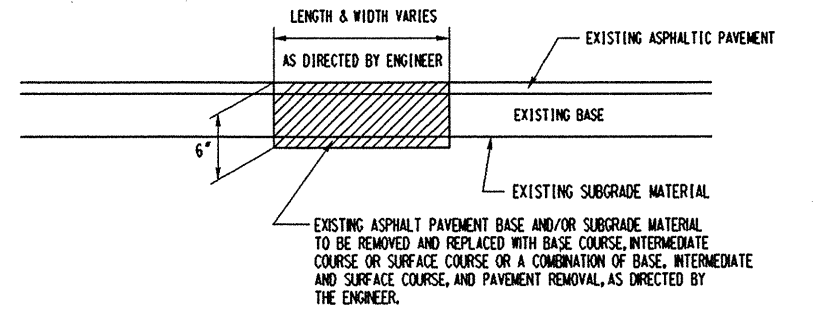
PAVEMENT SCHEDULE	
C	PROP. APPROX. 1 1/2" DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE 89.5C, AT AN AVERAGE RATE OF 188 LBS. PER SQ. YD.
D	PROP. APPROX. 2 1/2" DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 110.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
T	EARTH MATERIAL
U	EXISTING PAVEMENT.
V	MILLING BITUMINOUS PAVEMENT. 4" DEPTH.
V1	MILLING BITUMINOUS PAVEMENT. 1 1/2" DEPTH.
V2	MILLING BITUMINOUS PAVEMENT. 3" DEPTH.

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.
 SEE STD. DRAWING 1205.01, SHEET 2 OF 2, TABLE 1 FOR EDGE LINE OFFSETS.

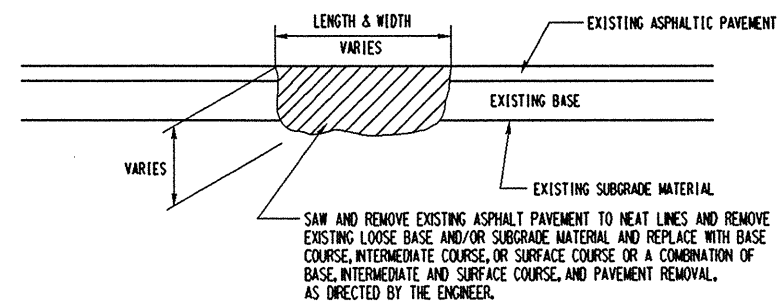
REVISIONS

PROJECT REFERENCE NO. 3CRJ0671.47	SHEET NO. 5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

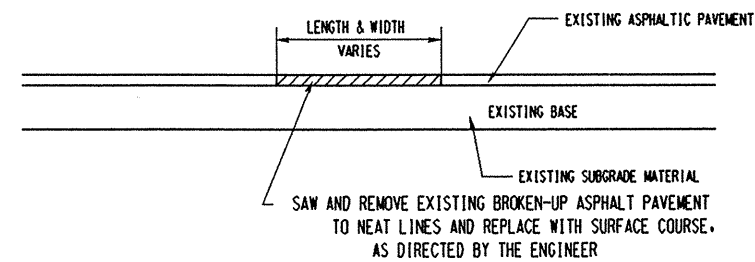
DETAILS OF REPAIRING EXISTING PAVEMENT PRIOR TO RESURFACING FOR FULL DEPTH AND MILLING



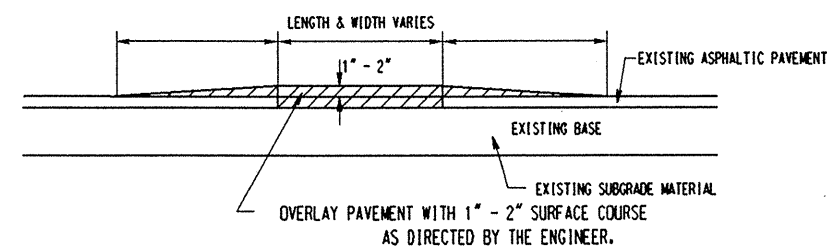
DETAIL NO. 1



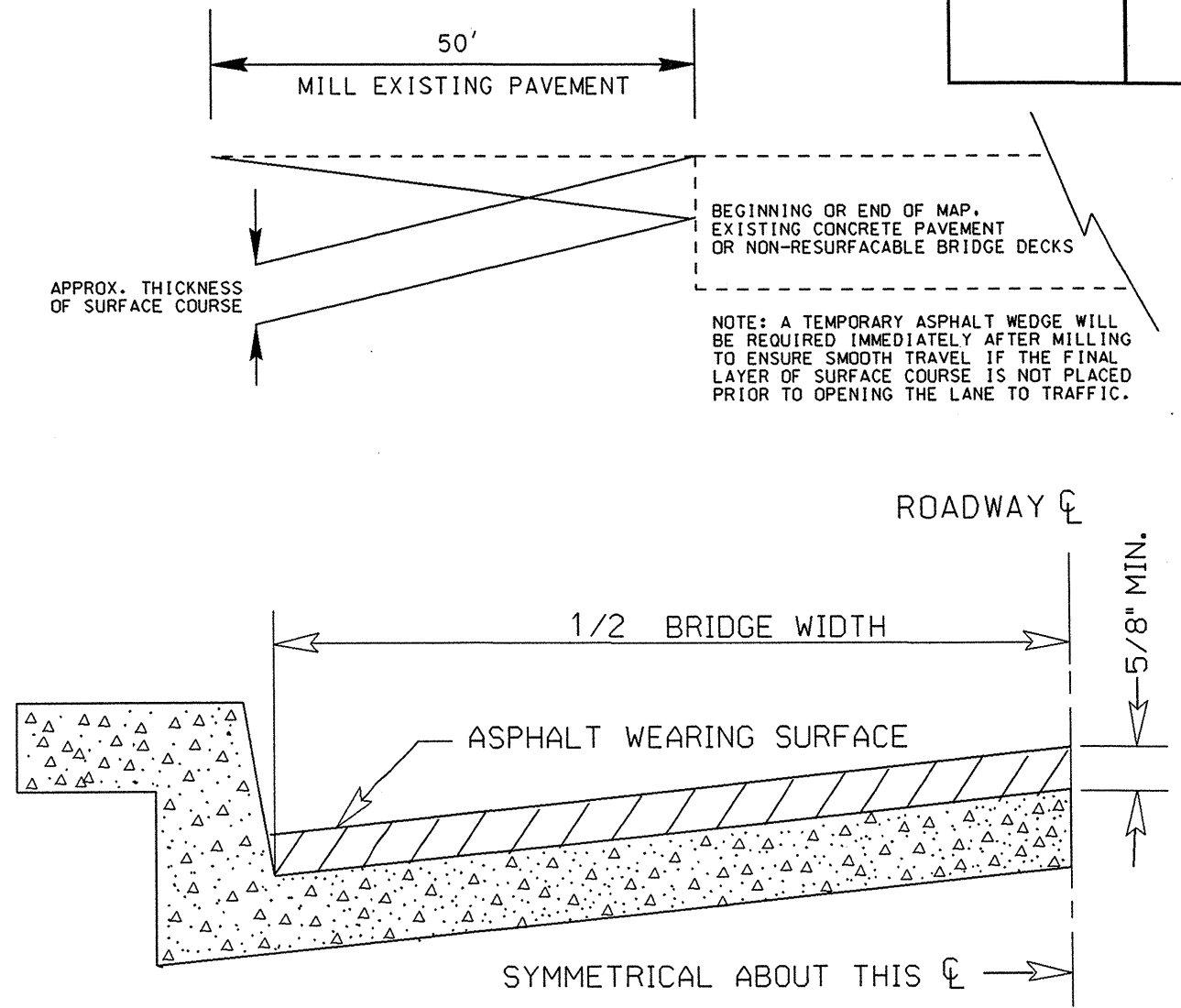
DETAIL NO. 2



DETAIL NO. 3



DETAIL NO. 4



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.

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REVISIONS

PROJECT REFERENCE NO. 3CRJ0671.47	SHEET NO. 6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

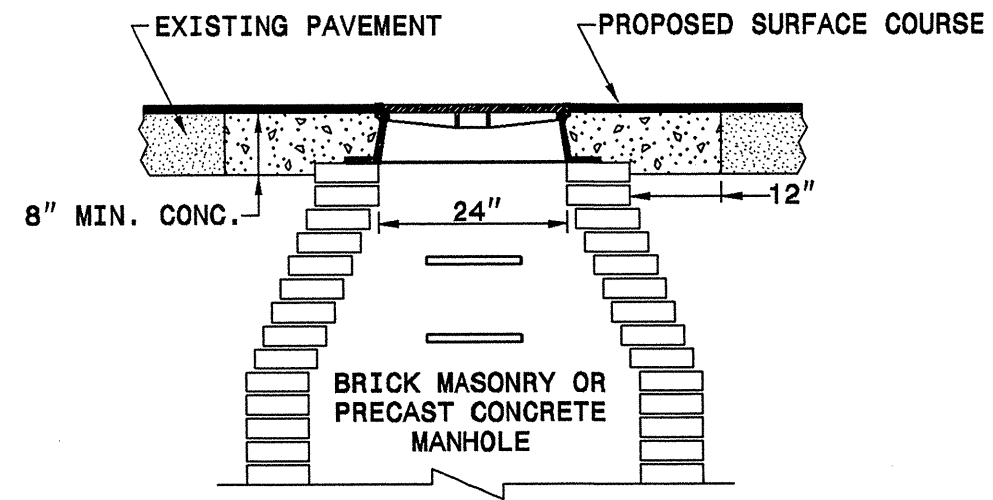
STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR
MANHOLE AND VALVE BOX ADJUSTMENTS

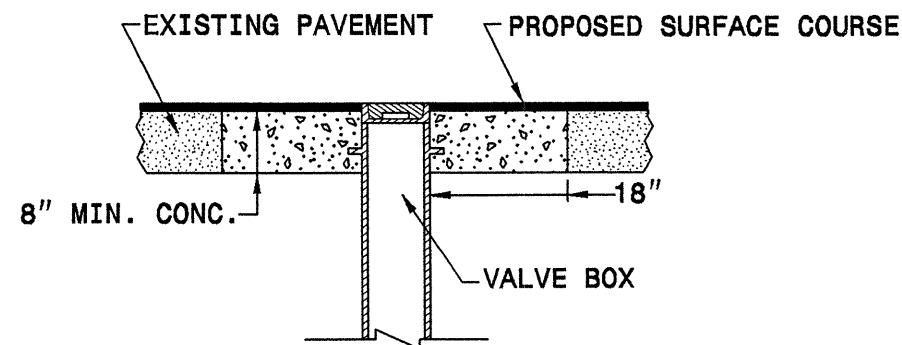
SHEET 1 OF 1
840D55

GENERAL NOTES:

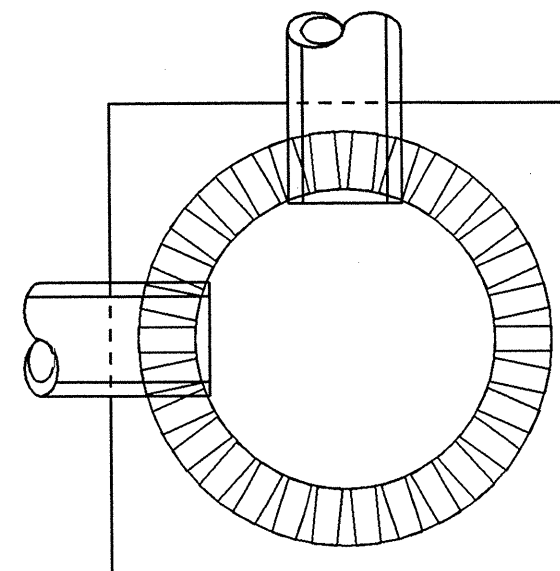
1. RAPID SET GROUT, MORTAR, OR CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI.
2. ALL FAULTY EXISTING BRICKWORK TO BE REMOVED AND REPLACED WITH NEW BRICK MASONRY.
3. EXCAVATION FOR THE ADJUSTMENT SHALL BE SHEER CUT ON ALL SIDES.
4. AREA BELOW 8" DEPTH CAN BE FILLED WITH 78M OR NO. 57 CLEAN STONE.
5. MORTAR SHALL BE MIXED TO NCDOT SPECIFICATIONS.
6. MORTAR JOINTS $\frac{1}{2}$ " \pm $\frac{1}{8}$ "



MANHOLE CONCRETE ENCASEMENT



VALVE BOX CONCRETE ENCASEMENT



ELEVATION VIEW

PLACE BRICK ACCORDING TO ELEVATION VIEW

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

ENGLISH DETAIL DRAWING FOR
MANHOLE AND VALVE BOX ADJUSTMENTS

SHEET 1 OF 1
840D55

8/12/07

REVISIONS

26-JUN-2007 15:09
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11:45:46

PROJECT NO.	SHEET NO.	TOTAL NO.
3CR.10671.47	7	

SUMMARY OF QUANTITIES

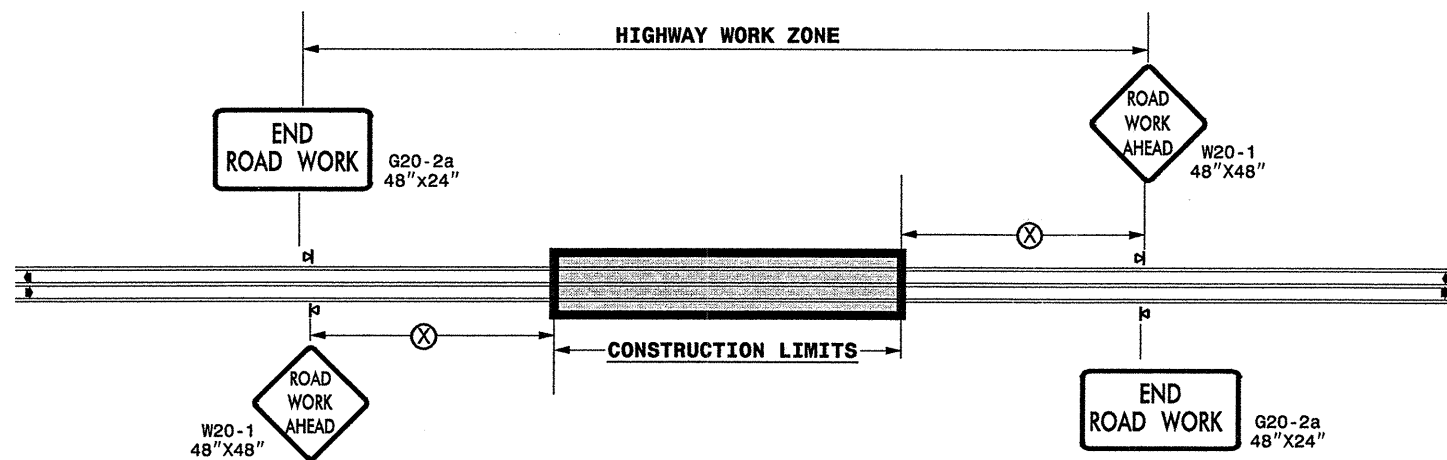
PROJECT NO.	COUNTY	MAP NO.	ROUTE	DESCRIPTION	TYP	LENGTH MI	WIDTH FT	BORROW EXCAVATION CY	INCIDENTAL STONE BASE TONS	SHOULDER RECONSTRUCTION SMI	4" MILLING SY	3" MILLING SY	MILLING ASPHALT PAVEMENT, 1 1/2" DEPTH SY	INCIDENTAL MILLING SY	INTERMEDIATE COURSE, I19.0C TONS	SURFACE COURSE, S9.5C TONS	PG 64-22 PLANT MIX TONS	PG 70-22 PLANT MIX TONS	PATCHING EXISTING PAVEMENT (FULL DEPTH) TONS	WHEEL CHAIR RAMPS EA	2'-6" CURB & GUTTER, REMOVE AND REPLACE LF	6" CONCRETE DRIVEWAY SY	ADJ. OF CATCH BASIN EA	ADJ. OF MANHOLES EA	PORTABLE LIGHTING LS	TEMPORARY SILT FENCE LF	SEED & MULCHING AC	PULL BOX	INDUCTIVE LOOP SAWCUT LF	LEAD-IN CABLE LF
3CR.10671.47	Onslow	1	US 258	FROM US 17 TO 0.075 MILES EAST OF NC 53	1	1.174	60		1		43367			1350	6205	3,652	292	219	90						1			8	1,200	1,200
		2	US 17 BUS	MP 2.56 (750' FROM BRIDGE APPROACH) TO MP 3.22	2	0.66	73.5		20			29404				2,717		163	270	2	400	1,520	4	2					2,700	100
		"	"	RAMP FROM US 17 SB TO US 258 WB	4	0.047	22					738			68		4													
		"	"	MP 3.30 TO MP 3.69	5	0.39	92		20				23500	900		2,200		132	265										1,585	100
		"	"	MP 3.22 TO MP 3.30	3	0.08	72		20				4500	550		550		33	50										1,486	
TOTAL FOR MAP NO. 2						1.177			60			30142	28000	1450	0	5,535		332	585	2	400	1,520	4	2				5,771	200	
		3	US 17	0.035 MILES NORTH OF CURTIS RD. TO 0.32 MILES SOUTHERLY	6	0.32	72	25	5	1.64						970		58								50	1			
TOTAL FOR PROJ NO. 3CR.10671.47						2.671		25	66	1.64	43367	30142	28000	2800	6205	10,157	292	609	675	2	400	1,520	4	2	1	50	1	8	6,971	1,400
GRAND TOTAL						2.671		25	66	1.64	43367	30142	28000	2800	6205	10,157	292	609	675	2	400	1,520	4	2	1	50	1	8	6,971	1,400

PROJECT NO.	SHEET NO.	TOTAL NO.
3CR.10671.47	8	

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		4820000000-E	4835000000-E	4840000000-N	4845000000-N				4905000000-N	
					4" X 90 M WHITE THERMO	4" X 90 M YELLOW THERMO	4" X 120 M WHITE THERMO	4" X 120 M YELLOW THERMO	8" X 90 M WHITE THERMO	24" X 120 M WHITE THERMO	THERMO MSG ONLY 120 M	THERMO LT ARROW 90 M	THERMO STR & RT ARROW 90 M	THERMO STR ARROW 90 M	THERMO RT ARROW 90 M	4" WHITE PAINT	4" YELLOW PAINT	8" WHITE PAINT	24" WHITE PAINT	PAINT MSG ONLY	PAINT LT ARROW	PAINT STR ARROW	PAINT STR & RT ARROW	PAINT RT ARROW	SNOW PLOWABLE MARKERS (C/R) EA	SNOW PLOWABLE MARKERS (Y/Y) EA
3CR.10671.47	Onslow	1	US 258	FROM US 17 TO 0.075 MILES EAST OF NC 53	200	200	4,625	17,312	200	200		39	9	12		4,825	17,512	200	200		39	12	9		245	330
		2	US 17 BUS	MP 2.56 (750' FROM BRIDGE APPROACH) TO MP 3.22			2,790	8,750	350	250	4	28	4	19	2	2,790	8,750	350	250	16	28	19	4	2		342
		"	"	RAMP FROM US 17 SB TO US 258 WB					250								250									
		"	"	MP 3.30 TO MP 3.69	1,732	3,160	4,439	1,950	265	100		17	2	31	2	6,171	5,110	265	100		17	31	2	2	210	2
		"	"	MP 3.22 TO MP 3.30		125	550		435	100				6		550	125	435	100			6			47	
TOTAL FOR MAP NO. 2					1,732	3,285	7,779	10,700	1,300	450	4	45	6	56	4	9,511	13,985	1,300	450	16	45	56	6	4	257	344
		3	US 17	0.035 MILES NORTH OF CURTIS RD. TO 0.32 MILES SOUTHERLY	920		2,757	2,861	150	50		2		6											78	3
TOTAL FOR PROJ NO. 3CR.10671.47					2,852	3,485	15,161	30,873	1,650	700	4	86	15	74	4	14,336	31,497	1,500	650	16	84	68	15	4	580	677
					6,337		46,034						179		45,833						171					
GRAND TOTAL					2,852	3,485	15,161	30,873	1,650	700	4	86	15	74	4	14,336	31,497	1,500	650	16	84	68	15	4	580	677
					6,337		46,034						179		45,833						171					1,257

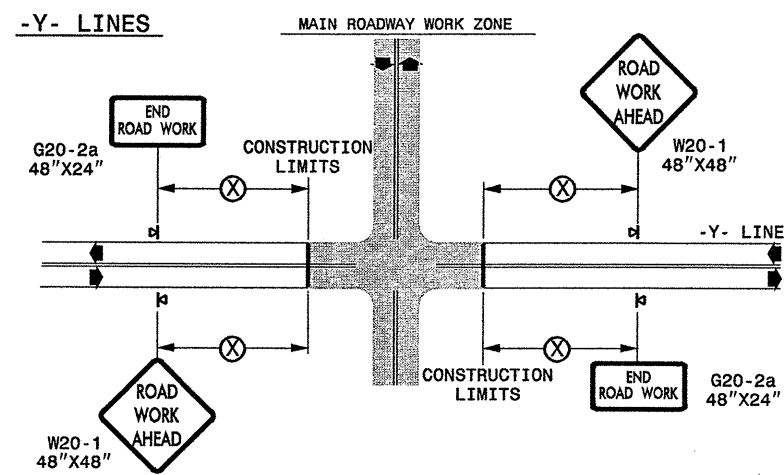
TWO-WAY UNDIVIDED ** (L-LINES)



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.

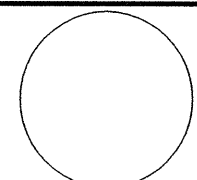
LEGEND

◀ PORTABLE SIGN

◀ DIRECTION OF TRAFFIC FLOW

DETAIL DRAWING
FOR TWO-WAY UNDIVIDED
WORK ZONE WARNING SIGNS

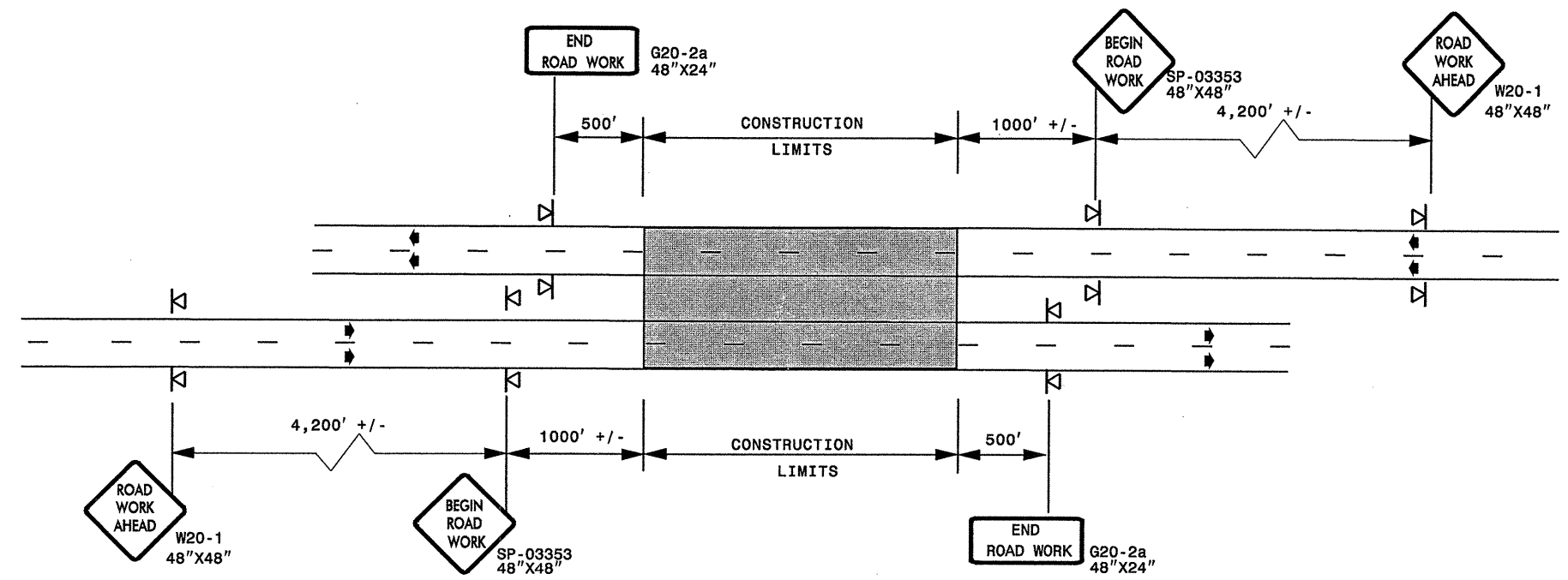
SHEET 1 OF 1

APPROVED: _____ DATE: _____	DETAIL DRAWING FOR TWO-WAY UNDIVIDED ADVANCED WORK ZONE WARNING SIGNS		REVISIONS	
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	DATE:	10-98	03/04	
	DESIGN BY:	01/01	11/04	
	REVIEWED BY:			

12-JUL-2007 18:22
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 pseymore AT WZTCCC

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

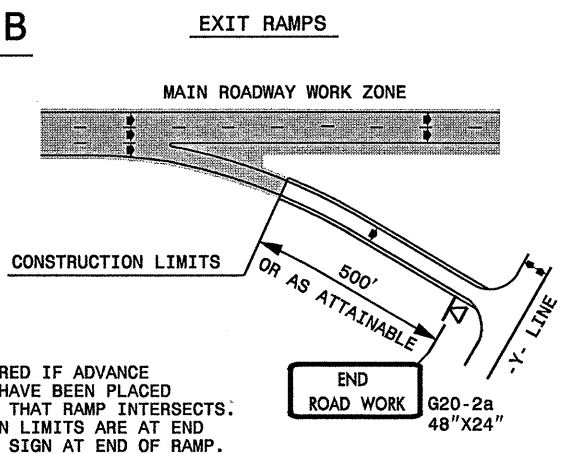
DETAIL A



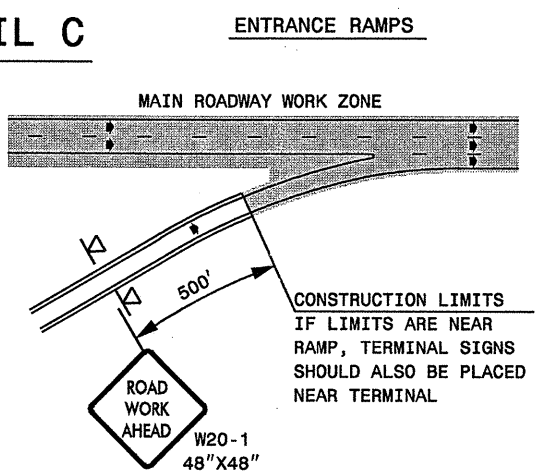
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAYS INTERSECTING ALONG FREEWAY WORK ZONE (Y-LINES)

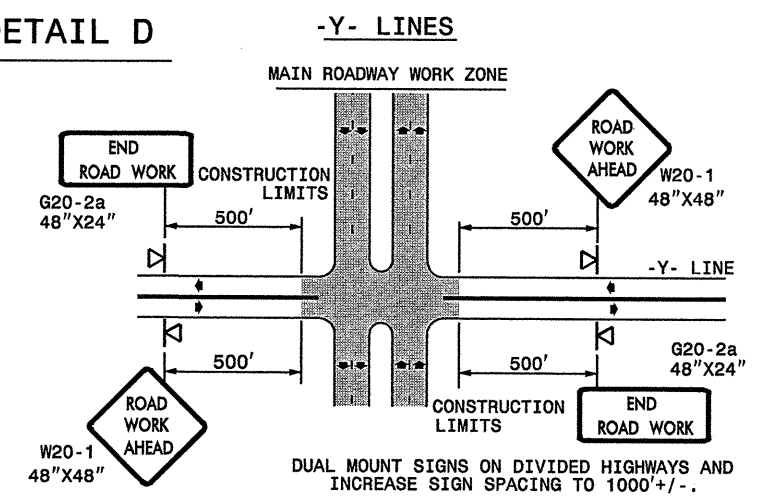
DETAIL B



DETAIL C



DETAIL D



**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	<table border="1"> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <td>7-98</td> <td>10/01</td> </tr> <tr> <td>10-98</td> <td>03/04</td> </tr> <tr> <td>01/01</td> <td>11/04</td> </tr> </table>	REVISIONS		7-98	10/01	10-98	03/04	01/01	11/04
	REVISIONS									
	7-98		10/01							
	10-98		03/04							
01/01	11/04									
DATE: _____										
DWG. BY: _____										
DESIGN BY: _____										
REVIEWED BY: _____	FILE									

12-JUL-2007 18:22 \\DOT\DF-SR00101\GROUPS-WZTCCC\design\group4\resurfacing\resurfacing2006\div03\3cr1067147_onslow_us258us17bus\3CR1067147\Free4lanesgreatJuly2006.dgn pseymore AT WZT206427

SP 03353

SIGN NUMBER: SP-03353 TYPE: A QUANTITY: 1 SIGN WIDTH: 4'-0" HEIGHT: 4'-0" TOTAL AREA: 16.0 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0.59" WIDTH: 0.75" RADII: 1.38" NO. Z BARS: N/A LENGTH: N/A	BACKG COLOR: Fluorescent Orange COPY COLOR: Black SYMBOL <table border="1"> <tr><th>SYMBOL</th><th>X</th><th>Y</th><th>WID</th><th>HT</th></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </table>	SYMBOL	X	Y	WID	HT																																																								DESIGN BY: CL DOWNEY PROJECT ID: ALL PROJECTS CHECKED BY: CHECKED DIV: DIV STD #: W20-1 DATE: Aug 20, 2003
SYMBOL	X	Y	WID	HT																																																										

BORDER
R=1.38"
TH=0.75"
IN=0.59"

LETTER POSITIONS

Letter spacings are to start of next letter

Letter	B	E	G	I	N	Series/Size			
BEGIN	22.4	5.3	4.8	5.4	2.5	3.8	22.4	C7	21.6
ROAD	23.4	5	5.2	5.8	3.8	23.4		C7	19.6
WORK	22.8	6.4	5.8	5.2	4	22.8		C7	21.2

Spacing Factor is 1 unless specified otherwise

FILENAME: SPED25HAK

NORTH CAROLINA D.O.T. SIGN DETAIL

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

DETAIL DRAWING FOR
 WORK ZONE SIGNS
 BEGIN ROAD WORK

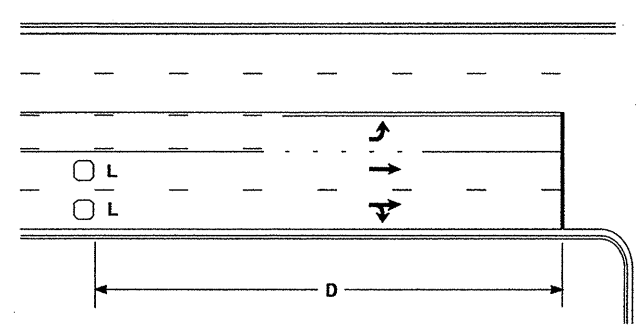
GENERAL NOTES FOR SIGN SP-03353 "BEGIN ROAD WORK"

- SIGN SP-03353 "BEGIN ROAD WORK" ONLY APPLIES TO FULL CONTROL AND PARTIAL CONTROL OF ACCESS ROADWAYS
- WHEN USED, INSTALL SIGN SP-03353 "BEGIN ROAD WORK" ACCORDING TO DETAIL FOR FREEWAY WORK ZONE SIGNS

APPROVED: _____	DATE: _____	DETAIL DRAWING FOR ADVANCED WORK ZONE WARNING SIGN DESIGNS	
SEAL 	SCALE: NONE		REVISIONS
	DATE: 08/03		04/04
	DWG. BY:		11/04
	DESIGN BY:		
REVIEWED BY:			

I2-JUL-2007 18:23
 \\DOT\DFSROOT\GROUPS-WZTCCC\design\group4\resur\facimg\resur\facimg\2006\div03_3cr1067147\sign\sign\July2006.dgn
 pseymore AT WZTCCC206427

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

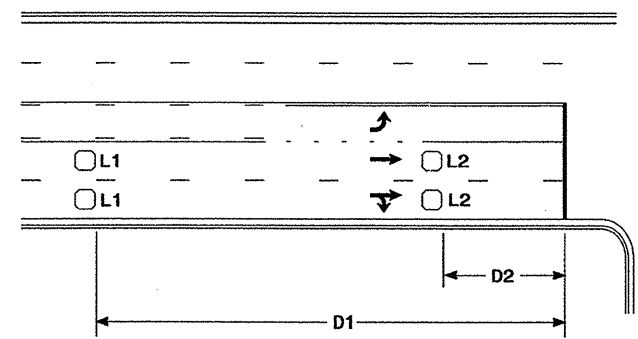


Speed Limit mph (km/hr)	D ft (m)
40 (64)	250 (75)
45 (72)	300 (90)
50 (80)	355 (110)
55 (88)	420 (130)

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

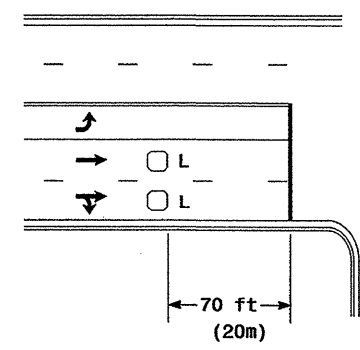


Speed Limit mph (km/hr)	D1 ft (m)	D2 ft (m)
40 (64)	250 (75)	80 (25)
45 (72)	300 (90)	90 (27)
50 (80)	355 (110)	100 (30)
55 (88)	420 (130)	110 (35)

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

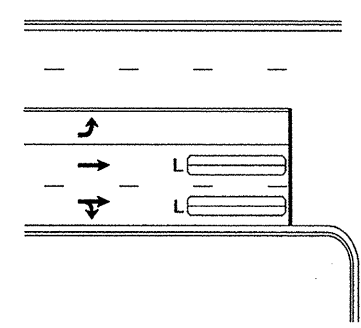
"Stretch" Operation

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



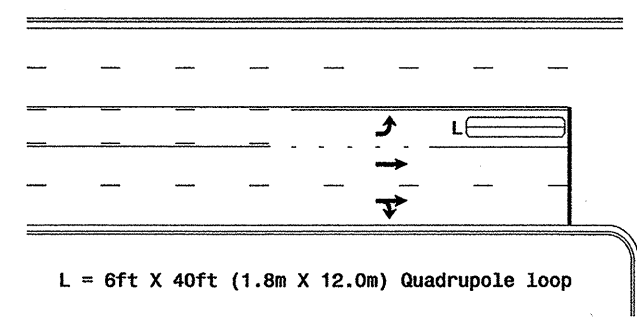
L = 6ft X 6ft (1.8m X 1.8m)
Wired in series

OR



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

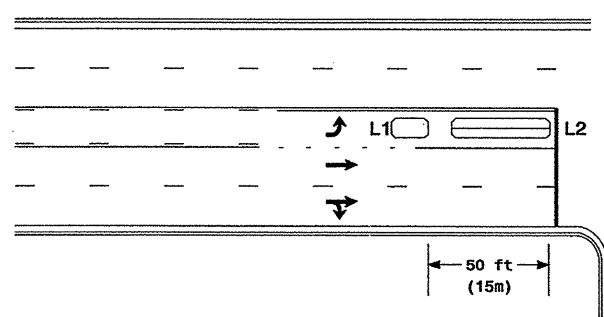
Left Turn Lane Detection



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

Presence Loop Detection

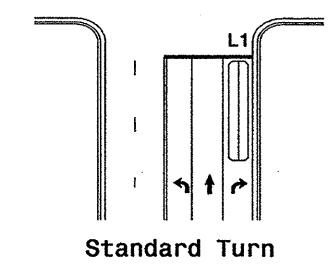
OR



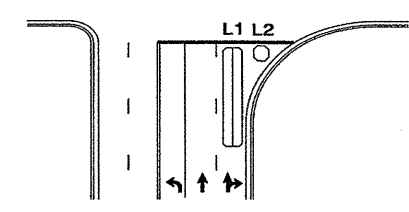
L1 = 6ft X 15ft (1.8m X 4.6m) Queue detector
L2 = 6ft X 40ft (1.8m X 12.0m) Quadrupole loop

Queue Loop Detection

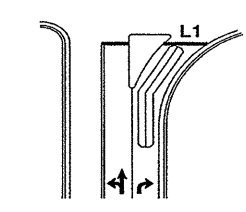
Right Turn Lane Detection



Standard Turn



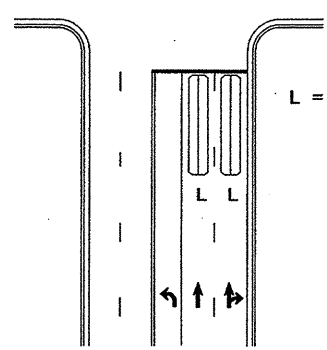
Wide Radius Turn



Channelized Turn

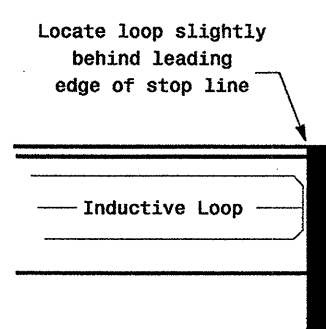
L1 = 6ft X 40ft (1.8m X 12.0m) Quadrupole loop
L2 = 6ft X 6ft (1.8m X 1.8m) [Minimum] Presence loop
Wired separately
L3 = 6ft X 20ft (1.8m X 6.0m) Quadrupole loop
Wired in series

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

	<p>Typical Loop Locations</p>	
	<p>PLAN DATE: June 2006</p> <p>PREPARED BY: P. L. Alexander</p>	<p>REVIEWED BY:</p> <p>REVISIONS</p> <p>INIT. DATE</p> <p>SCALE: N/A</p>
<p>SIGNATURE: P. L. Alexander</p> <p>DATE: 12/1/06</p>		<p>SIG. INVENTORY NO.</p>