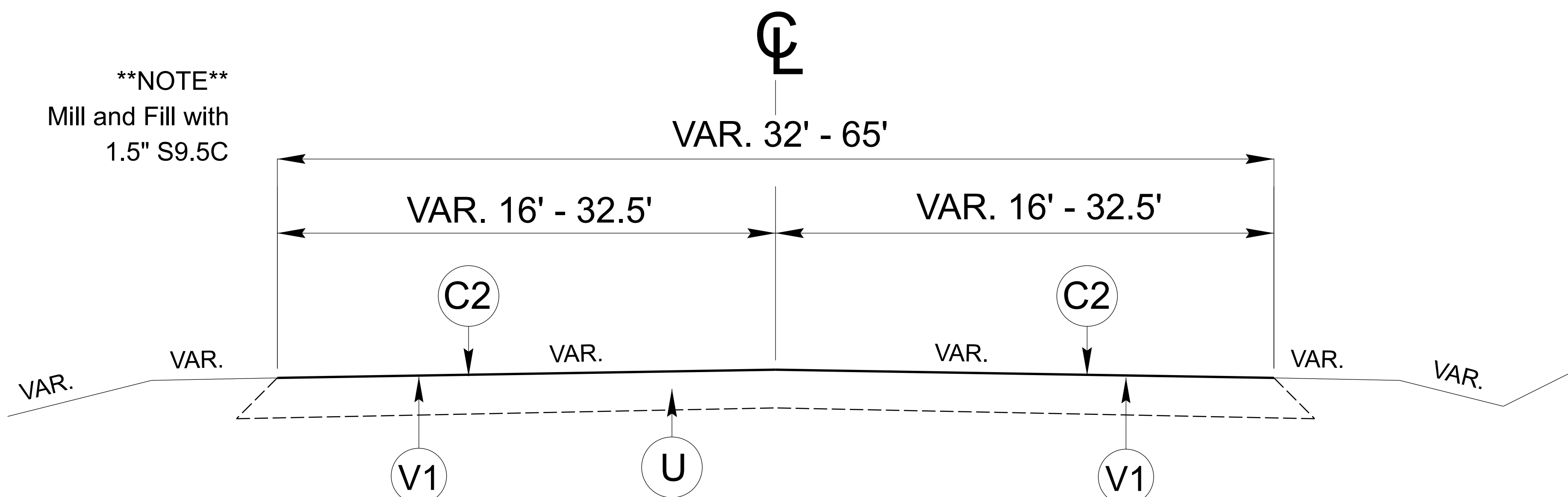


5/26/20

* INCIDENTAL MILLING AT LOCATIONS AS DIRECTED BY THE ENGINEER

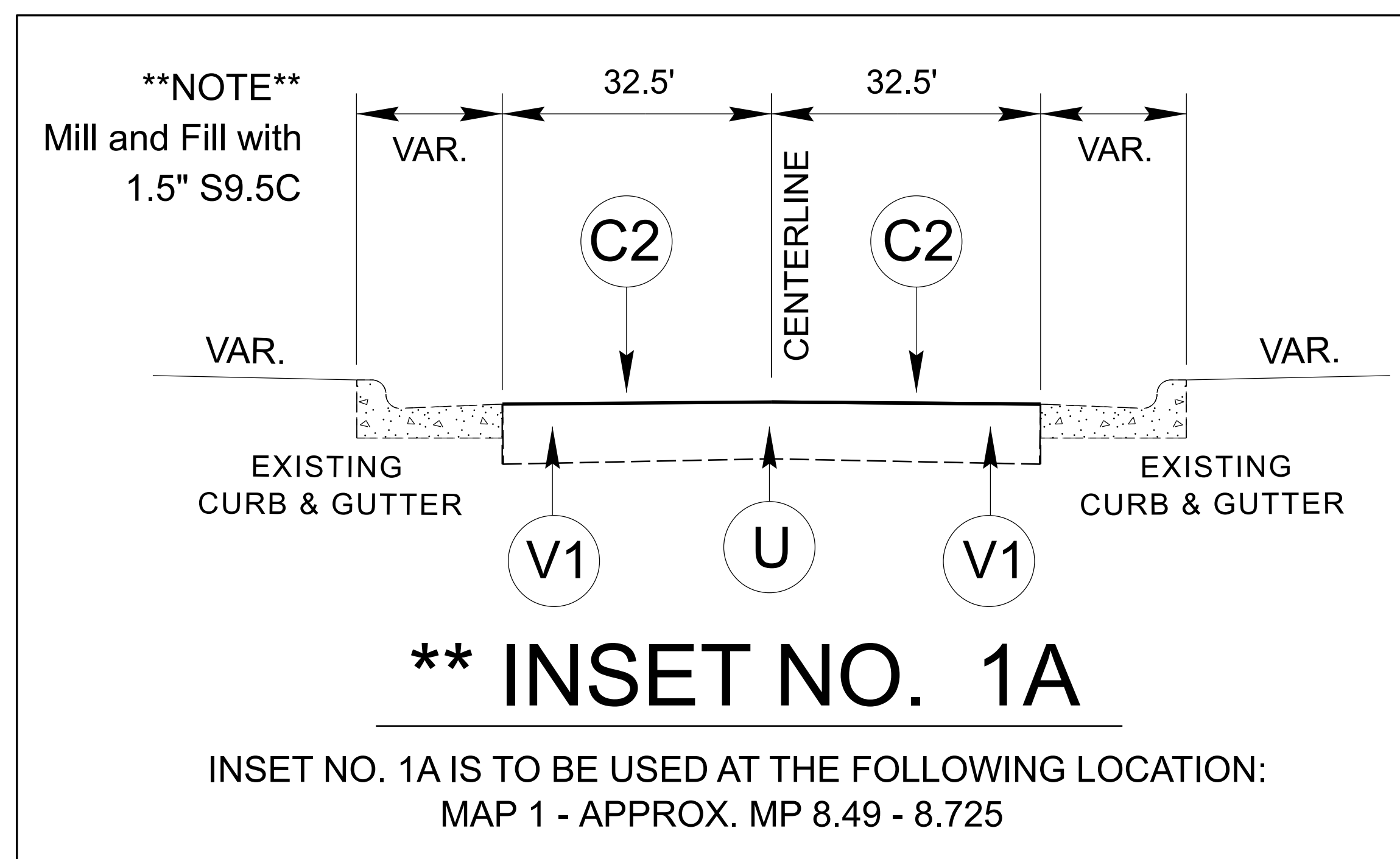


TYPICAL SECTION NO. 1

** MAP 1 - US 64 FROM US 321 TO NC 90

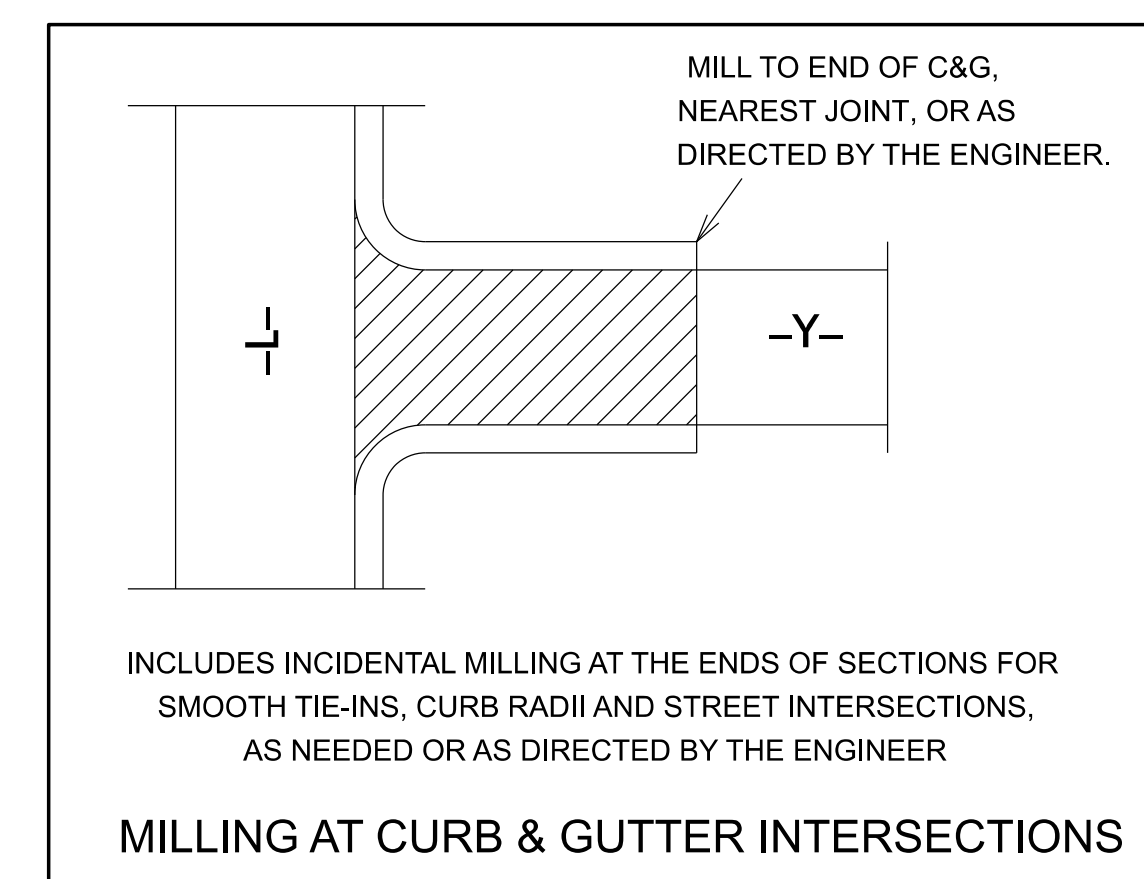
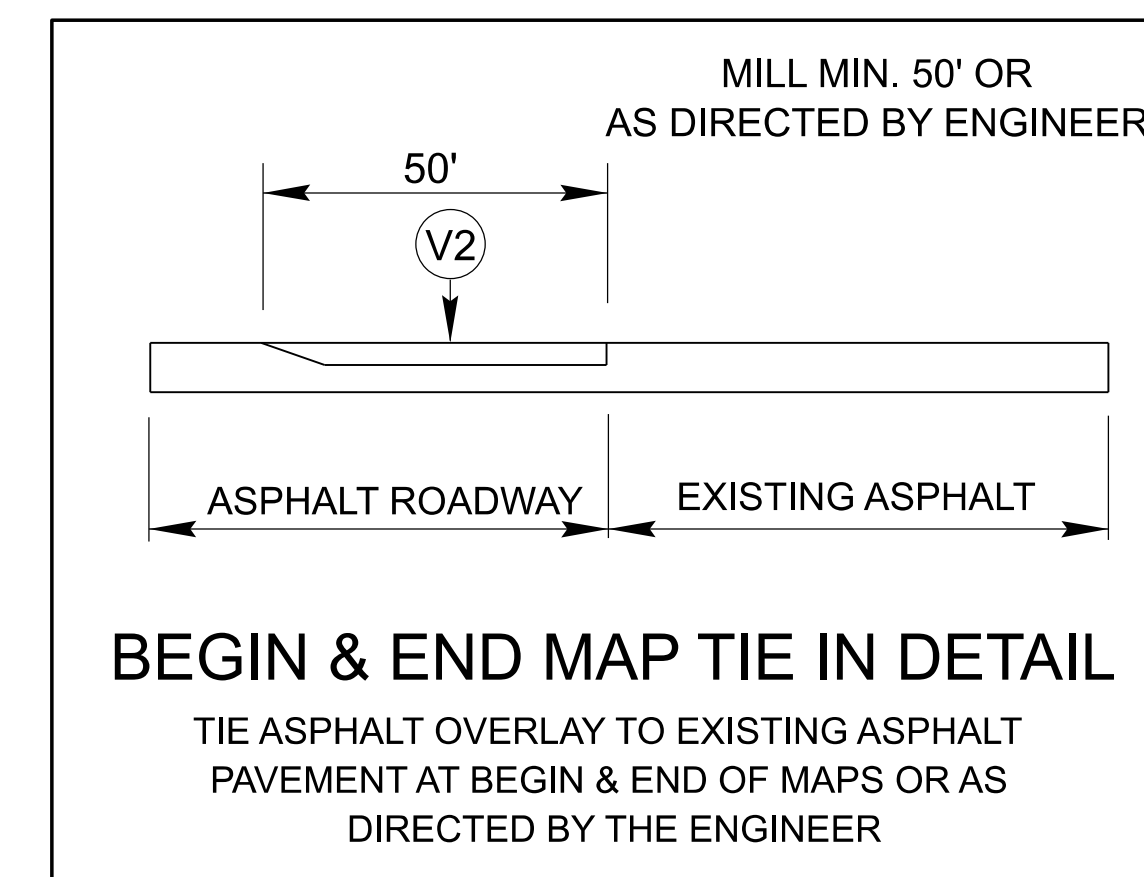
**(See Inset No.1A for additional info)

MAP 2 - US 321 SOUTH FROM BEGIN TAPER (FOR SB OFF RAMP TO SR 1001) TO SR 1160



[NOTE: MP IS REFERENCED FROM GOINC MAPS]

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
T	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT
V1	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 1½"
V2	INCIDENTAL MILLING (See Tie in Detail)

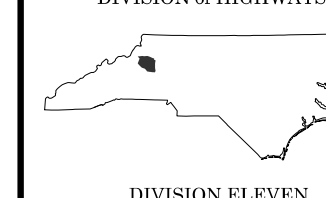


NOTE: TYPICALS ARE NOT TO SCALE

DK00469

001

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

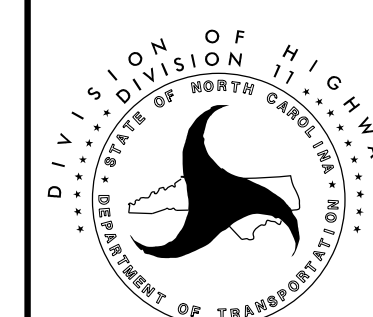


DIVISION ELEVEN

CALDWELL COUNTY

PRIMARY AND
SECONDARY ROADS

2026
ASPHALT
RESURFACING



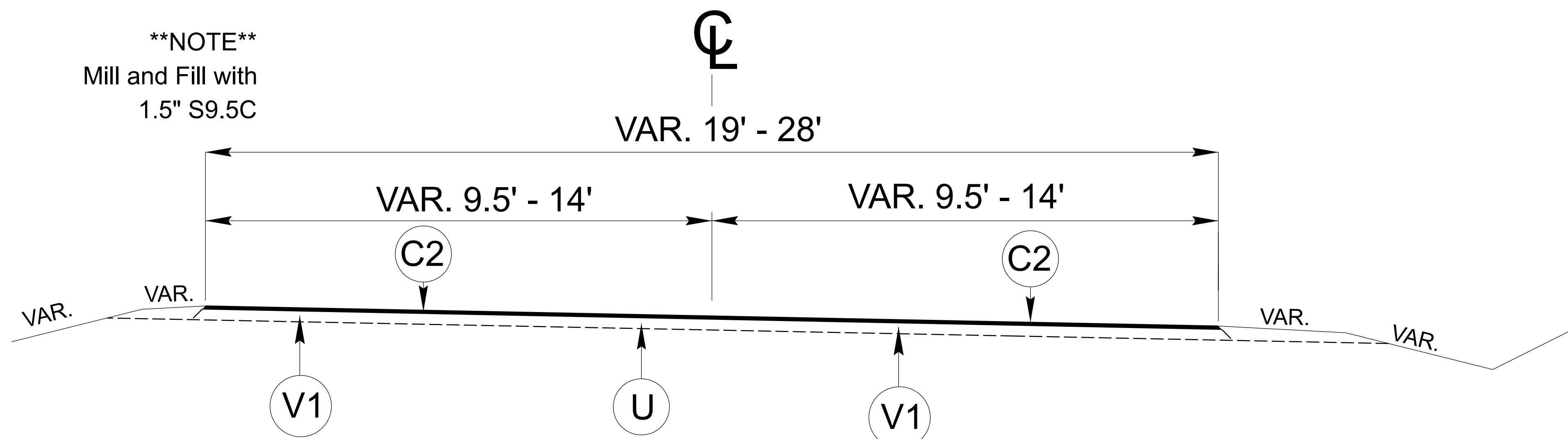
DATE: 2/05/2026

PREPARED BY: DLH

REVISIONS

5/26/20

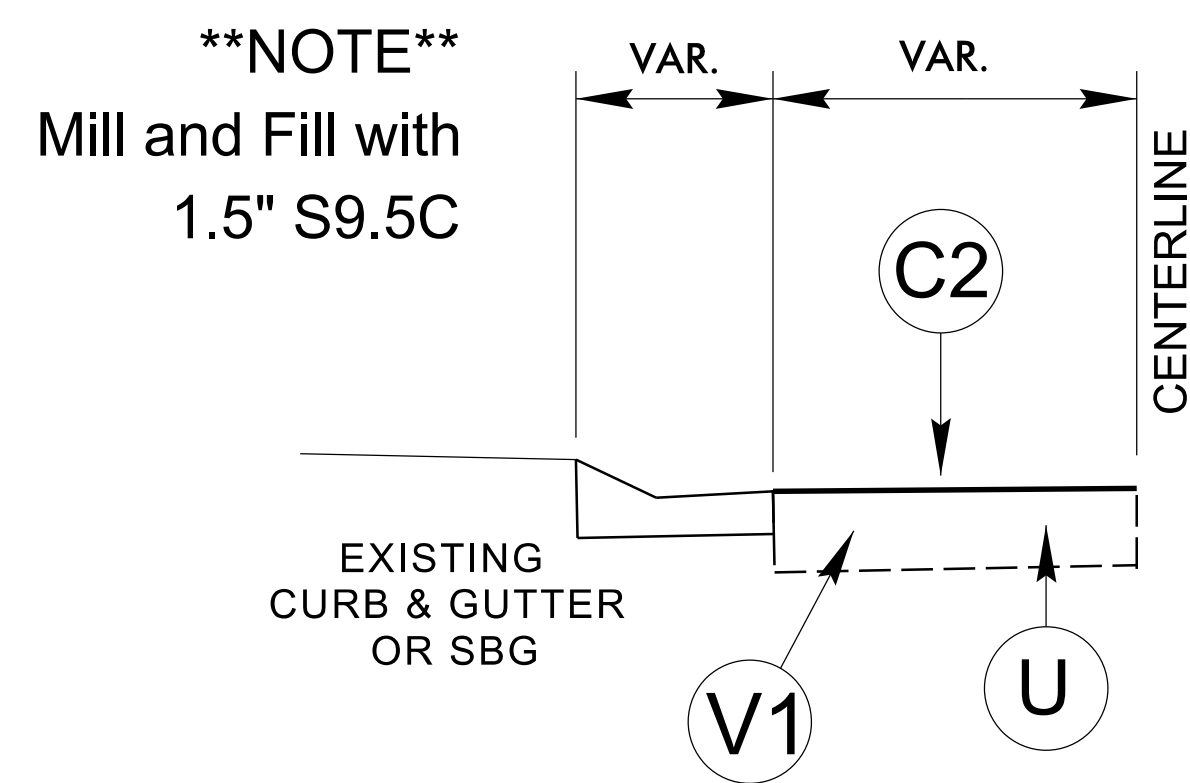
* INCIDENTAL MILLING AT LOCATIONS AS DIRECTED BY THE ENGINEER



TYPICAL SECTION NO. 2

**(See Inset No.2A for additional info)

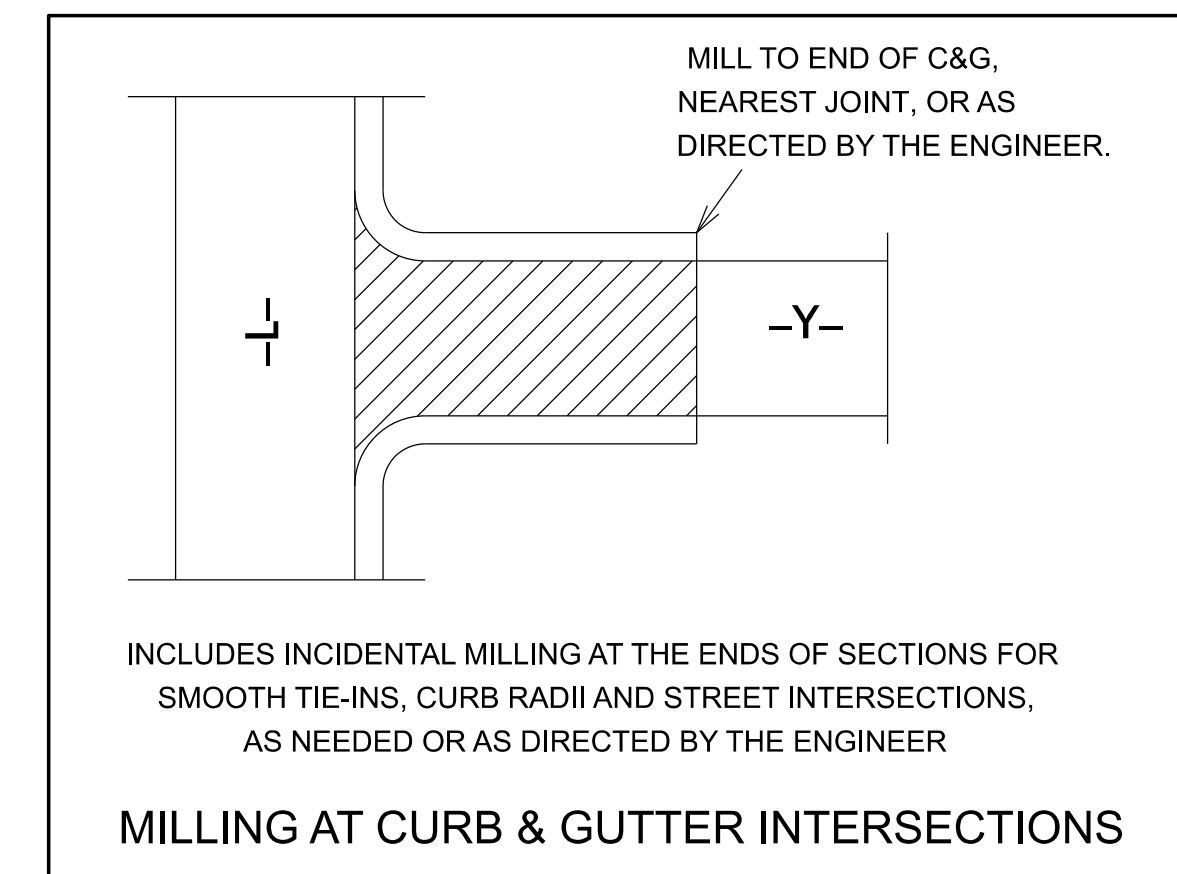
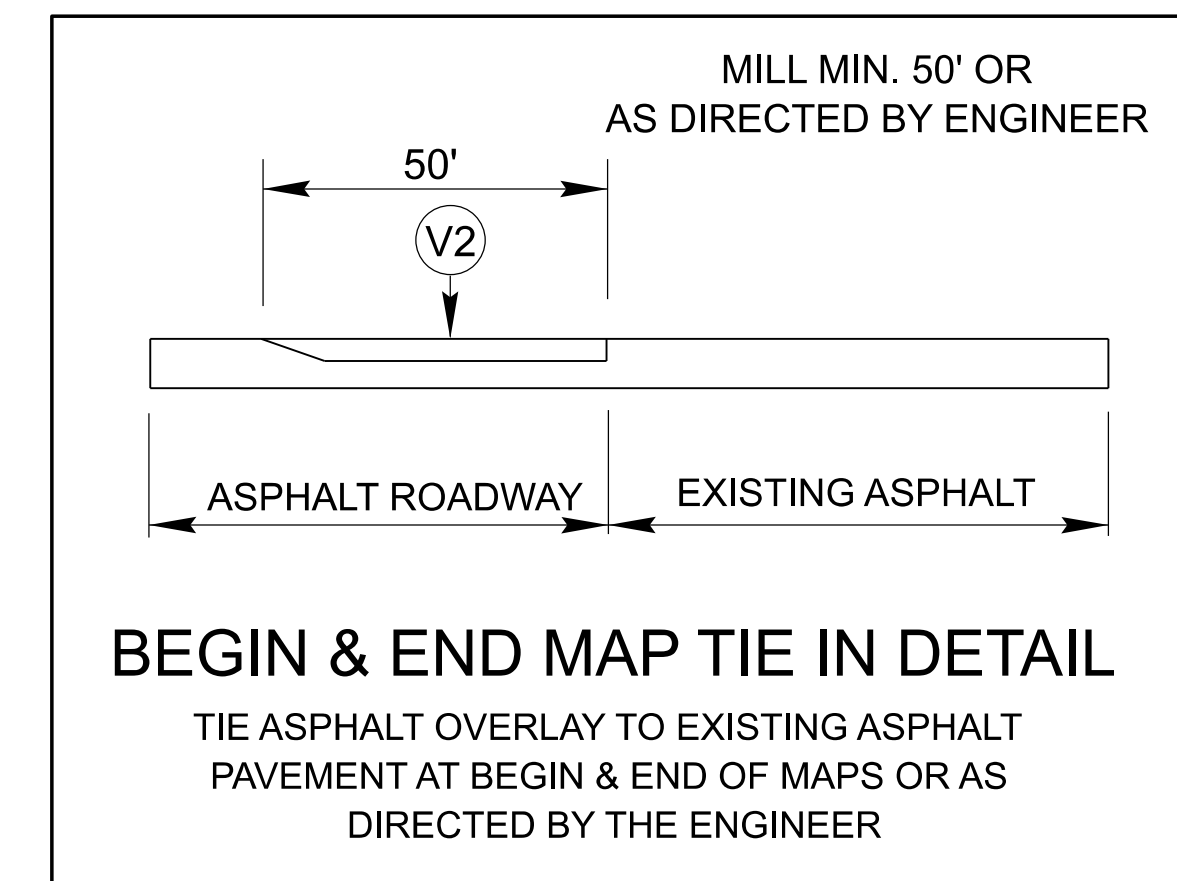
- MAP 3 - RMP-6485 (SB OFF RAMP) FROM US 321 SB TO SR 1001
- MAP 4 - RMP-6484 (SB ON RAMP) FROM SR 1001 TO US 321 SB
- MAP 5 - RMP-2281 (SB OFF RAMP) FROM US 321 SB TO SR 1933 SB
- MAP 6 - RMP-2278 (SB ON RAMP) FROM GORE TO US 321 SB



INSET NO. 2A **

NOTE: INSET NO. 2A IS MIRRORED THE SAME ON LT AND RT SIDES
MAPS 3-6 - VARIOUS LOCATIONS (WHEN EXIST. CURB & GUTTER OR SBG IS PRESENT)

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
T	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT
V1	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 1½"
V2	INCIDENTAL MILLING (See Tie in Detail)

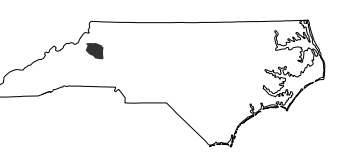


NOTE: TYPICALS ARE NOT TO SCALE

DK00469

002

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

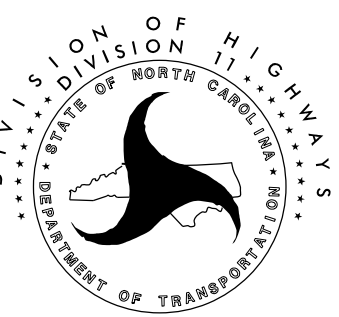


DIVISION ELEVEN

CALDWELL COUNTY

PRIMARY AND
SECONDARY ROADS

2026
ASPHALT
RESURFACING



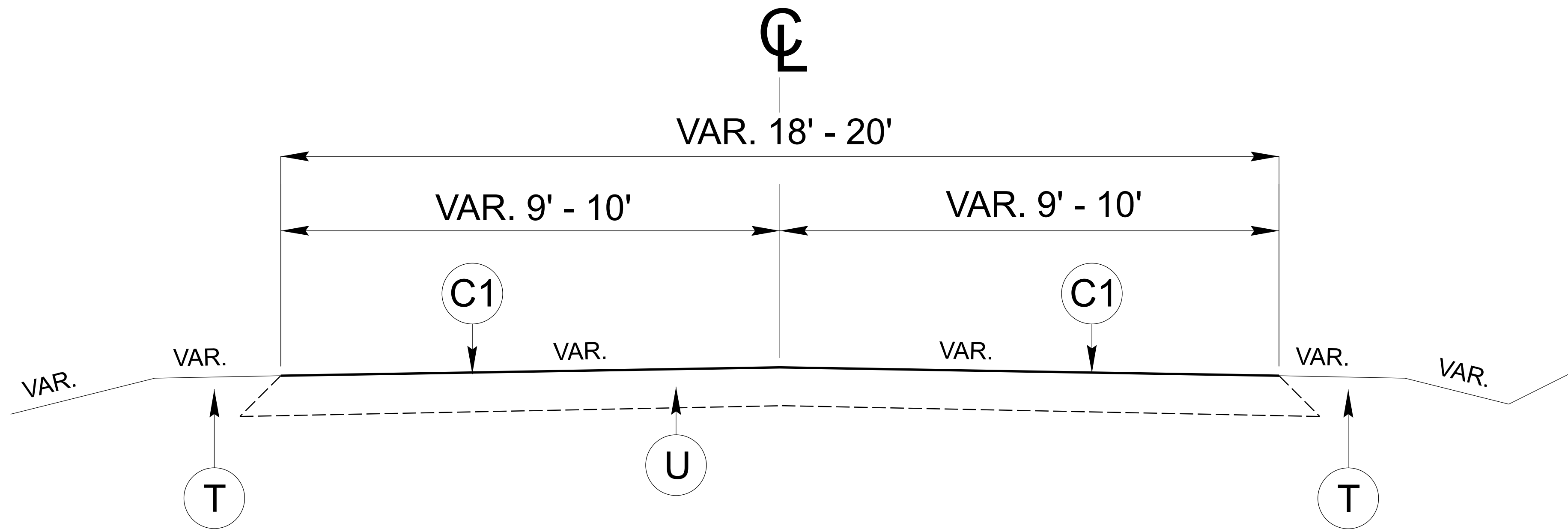
DATE: 2/05/2026

PREPARED BY: DLH

REVISIONS

5/26/20

* INCIDENTAL MILLING AT LOCATIONS AS DIRECTED BY THE ENGINEER



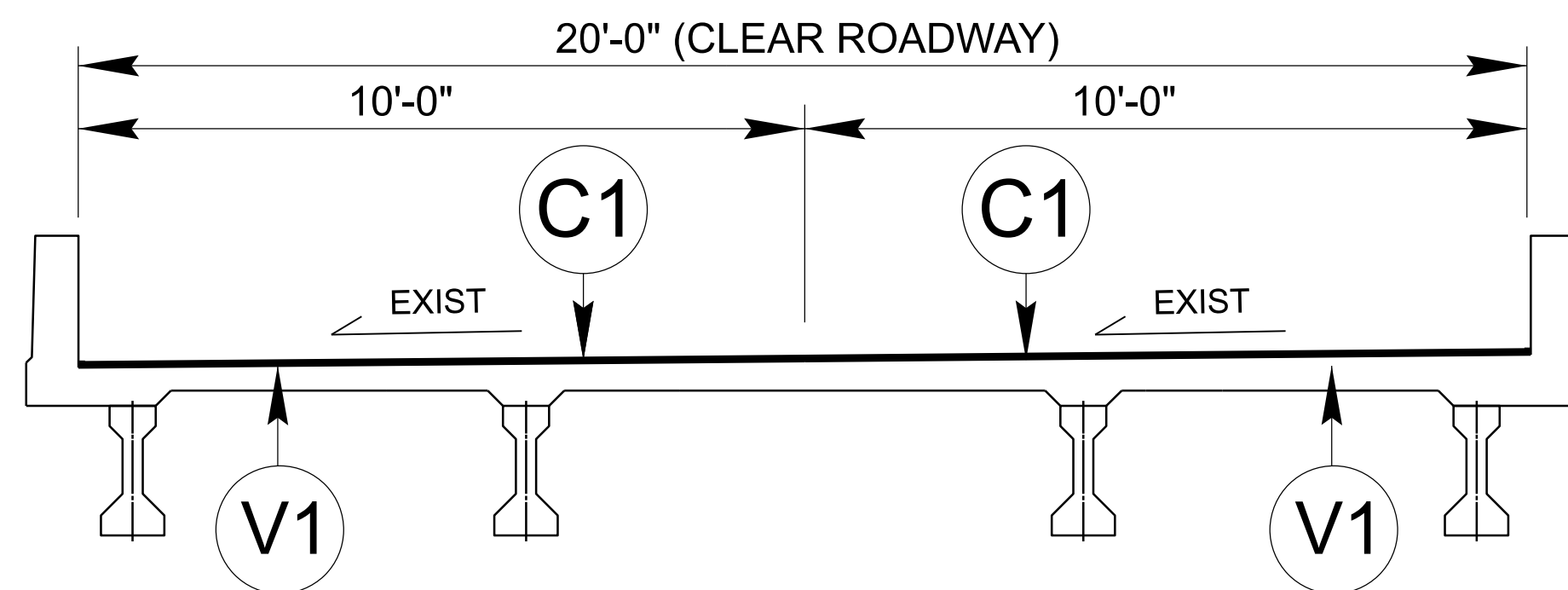
TYPICAL SECTION NO. 3

** MAP 7 - SR 1511 ZACKS FORK RD FROM SR 1551 TO SR 1605

** (See Typical No.4 for bridge overlay location)

MAP 8 - SR 1767 FAIRWOOD DR FROM SR 1160 TO EOM

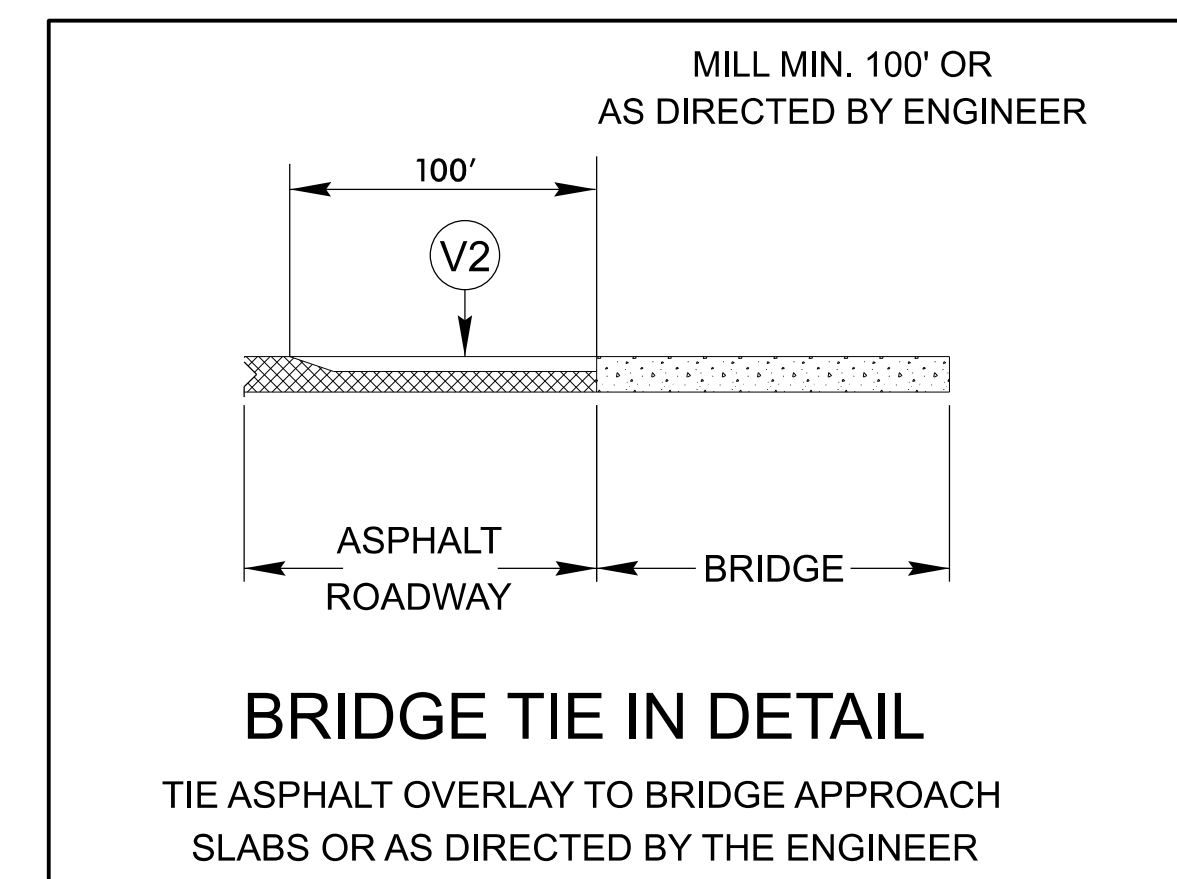
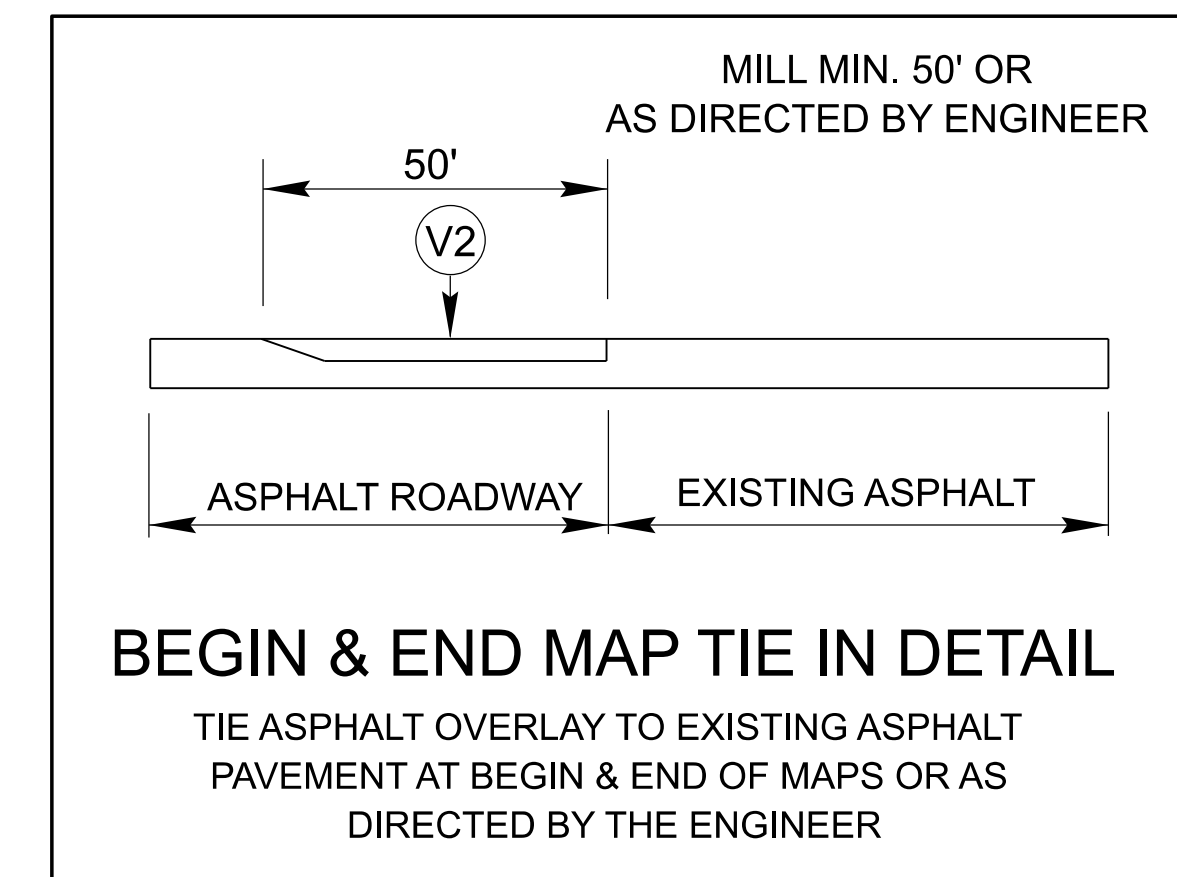
PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
T	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT
V1	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 1½"
V2	INCIDENTAL MILLING (See Tie in Detail)



TYPICAL SECTION NO. 4

MAP 7 - SR 1511 FROM MP 3.535 TO 3.545

****NOTE****
 Mill and Fill with
 1.5" S9.5B
 NOTE: EXISTING BRIDGE SUPERSTRUCTURE
 #43



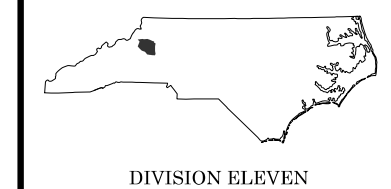
[NOTE: MP IS REFERENCED FROM GOINC MAPS]

NOTE: TYPICALS ARE NOT TO SCALE

DK00469

003

NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

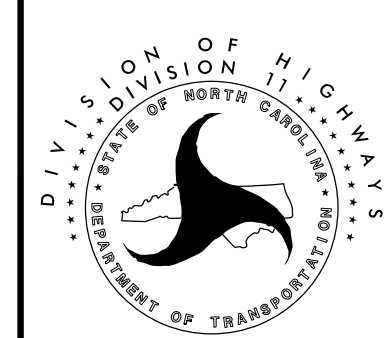


DIVISION ELEVEN

CALDWELL COUNTY

PRIMARY AND
 SECONDARY ROADS

2026
 ASPHALT
 RESURFACING



DATE: 2/05/2026
 PREPARED BY: DLH

REVISIONS

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	BEGIN MP	END MP	1220000000-E	1245000000-E	1260000000-E	1297000000-E	1330000000-E	1519000000-E	1523000000-E	1575000000-E	2830000000-N	2845000000-N	7288000000-E	7300000000-E	7324000000-N	7444000000-E			
												INCIDENTAL STONE BASE	SHOULDER RECONSTRUCTION	AGGREGATE SHOULDER BORROW	1 1/2" MILLING	INCIDENTAL MILLING	SURFACE COURSE, S9.5B	SURFACE COURSE, S9.5C	ASPHALT BINDER FOR PLANT MIX	ADJUST MANHOLES	ADJUST METER OR VALVE BOX	PAVED TRENCHING, (1 CONDUIT, 2")	UNPAVED TRENCHING (1 CONDUIT, 2")	JUNCTION BOX (STANDARD SIZE)	INDUCTIVE LOOP SAWCUT			
												TONS	SMI	TON	SY	SY	TONS	TONS	TON	EA	EA	LF	LF	EA	LF			
2026CPT.11.08.10141	Caldwell	1	US-64	FROM US 321 TO NC 90	1	5	MU	1.340	65	8.490	9.830				52,000	2,000		4,516	266	24	6	40	40	2.00	1,700			
2026CPT.11.08.10141	Caldwell	2	US-321 S	FROM BEGIN TAPER FOR SB OFF RAMP TO SR 1001 TO SR 1160	1	2	2WD	3.160	32	20.150	23.310				63,395	2,500		5,253	310			40	40	1.00	750			
2026CPT.11.08.10141	Caldwell	3	RMP-6485 OI	FROM US 321 SB TO SR 1001	2	1		0.150	28	0.000	0.150				4,341	20		218	13	4								
2026CPT.11.08.10141	Caldwell	4	RMP-6484 OI	FROM SR 1001 TO US 321 SB	2	1		0.220	28	0.000	0.220				4,170	20		320	19									
2026CPT.11.08.10141	Caldwell	5	RMP-2281 OI	FROM US 321 SB TO SR 1933 SB	2	1		0.220	19	0.000	0.220				2,933	20		218	13									
2026CPT.11.08.10141	Caldwell	6	RMP-2278 OI	FROM GORE TO US 321 SB	2	1		0.140	20	0.250	0.390				2,650	20		146	9									
TOTAL FOR PROJ NO. 2026CPT.11.08.10141								5.230							129,489	4,580		10,671	630	28	6	80	80	3.00	2,450			
2026CPT.11.08.20141	Caldwell	7	SR-1511 / ZACKS FORK RD	FROM SR 1551 TO SR 1605	3	2	2WU	4.110	18	3.510	7.620	40	8.2	1,097		30	3,786		246									
2026CPT.11.08.20141	Caldwell	8	SR-1767 / FAIRWOOD DR	FROM SR 1160 TO EOM	3	2	2WU	0.810	18	0.000	0.810	15	1.6	216		20	746		48	4								
TOTAL FOR PROJ NO. 2026CPT.11.08.20141								4.920						55	9.8	1,313		50	4,532		294	4						
GRAND TOTAL								10.150						55	9.8	1,313	129,489	4,630		4,532	10,671	924	32	6	80	80	3.00	2,450

MILE POST MAPS

PROJECT NO.	SHEET NO.
DK00469	5

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	BEGIN MP	END MP	4413000000-E	4709000000-E	4725000000-E					4890000000-E		4895000000-N	
												WORK ZONE ADVANCE/GENERAL WARNING SIGNING	THERMOPLASTIC PAVEMENT MARKING LINES, 24", 90 MIL	THERMOPLASTIC LEFT ARROW 90 MIL	THERMOPLASTIC RIGHT ARROW 90 MIL	THERMOPLASTIC STRAIGHT ARROW 90 MIL	THERMOPLASTIC STRAIGHT & RIGHTT ARROW 90 MIL	THERMOPLASTIC STRAIGHT & LEFT ARROW 90 MIL	GENERIC MARKING ITEM HOT SPRAY THERMOPLASTIC PAVEMENT MARKING LINES, 4", 65 MIL	GENERIC MARKING ITEM HOT SPRAY THERMOPLASTIC PAVEMENT MARKING LINES, 8", 65 MIL	GENERIC PAVEMENT MARKING ITEM, POLYCARBONATE H-SHAPED MARKER	
												SF	LF	EA	EA	EA	EA	EA	LF	LF	EA	
2026CPT.11.08.10141	Caldwell	1	US-64	FROM US 321 TO NC 90	1	5	MU	1.34	65	8.49	9.83	176	270	30	18	18	10	1	32,000	380	90	
2026CPT.11.08.10141	Caldwell	2	US-321 S	FROM BEGIN TAPER FOR SB OFF RAMP TO SR 1001 TO SR 1160	1	2	2WD	3.16	32	20.15	23.31	232	70	15	5	15			41,000	1,230	370	
2026CPT.11.08.10141	Caldwell	3	RMP-6485 OI	FROM US 321 SB TO SR 1001	2	1		0.15	28	0	0.15	48	62	3	3				2,355	375	15	
2026CPT.11.08.10141	Caldwell	4	RMP-6484 OI	FROM SR 1001 TO US 321 SB	2	1		0.22	28	0	0.22	48				3			3,000	280	16	
2026CPT.11.08.10141	Caldwell	5	RMP-2281 OI	FROM US 321 SB TO SR 1933 SB	2	1		0.22	19	0	0.22	48			2				2,400	360	15	
2026CPT.11.08.10141	Caldwell	6	RMP-2278 OI	FROM GORE TO US 321 SB	2	1		0.14	20	0.25	0.39	48				3			2,100	330	12	
TOTAL FOR PROJ NO. 2026CPT.11.08.10141								5.23				600	402	48	28	39	10	1	82,855	2,955	518	
												126					85,810					
2026CPT.11.08.20141	Caldwell	7	SR-1511 / ZACKS FORK RD	FROM SR 1551 TO SR 1605	3	2	2WU	4.11	18	3.51	7.62								86,800			
2026CPT.11.08.20141	Caldwell	8	SR-1767 / FAIRWOOD DR	FROM SR 1160 TO EOM	3	2	2WU	0.81	18	0	0.81								16,800			
TOTAL FOR PROJ NO. 2026CPT.11.08.20141								4.92												103,600		
												126					103,600					
GRAND TOTAL								10.15				600		48	28	39	10	1	186,455	2,955	518	
												126					189,410					

MILE POST MAPS

321

SR-1545
SR-1548

130259

Map # 1
US-64
FROM US 321
TO NC 90

18

90

64

90

130016

18

54

130005

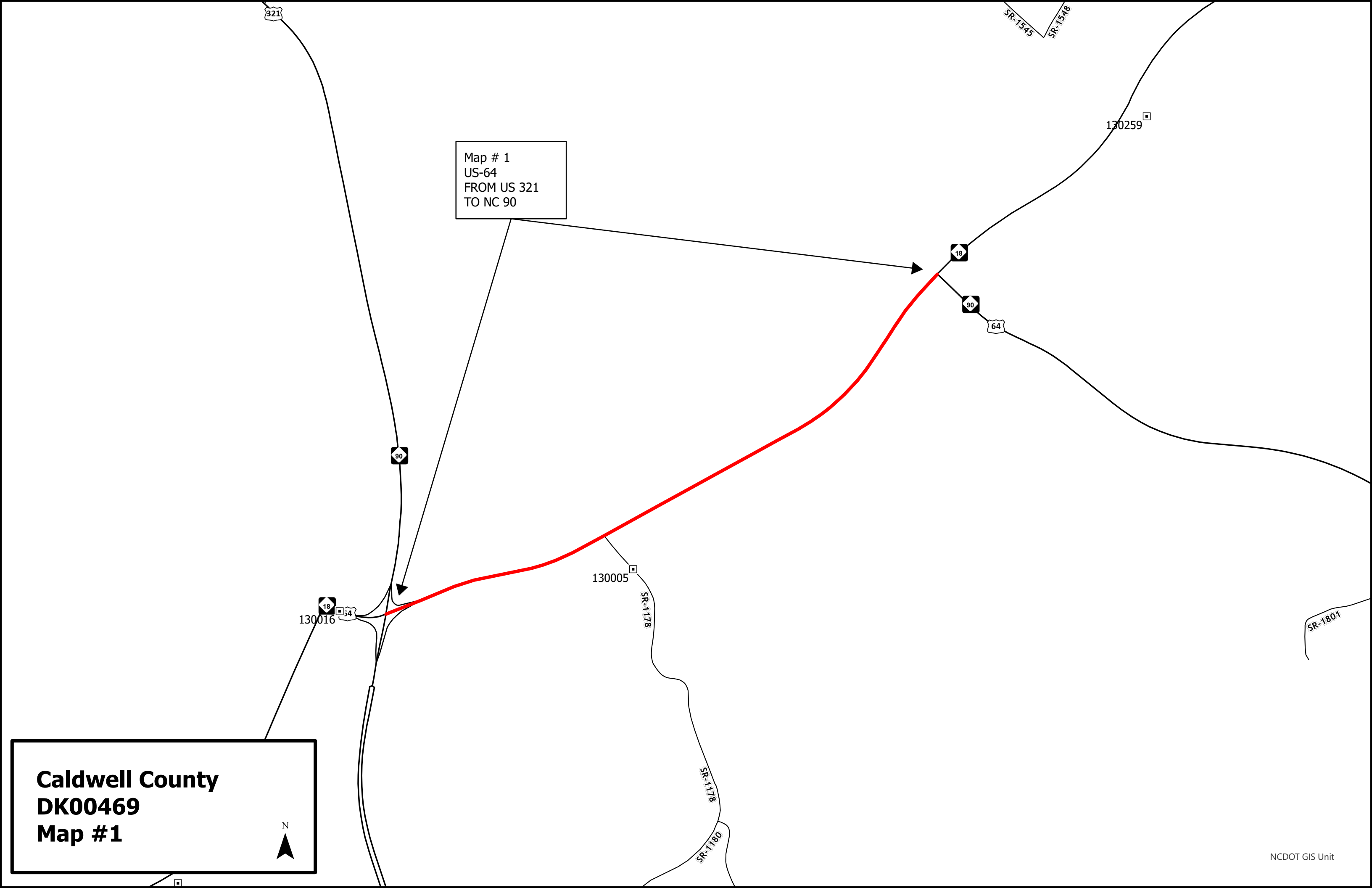
SR-1178

SR-1178

SR-1180

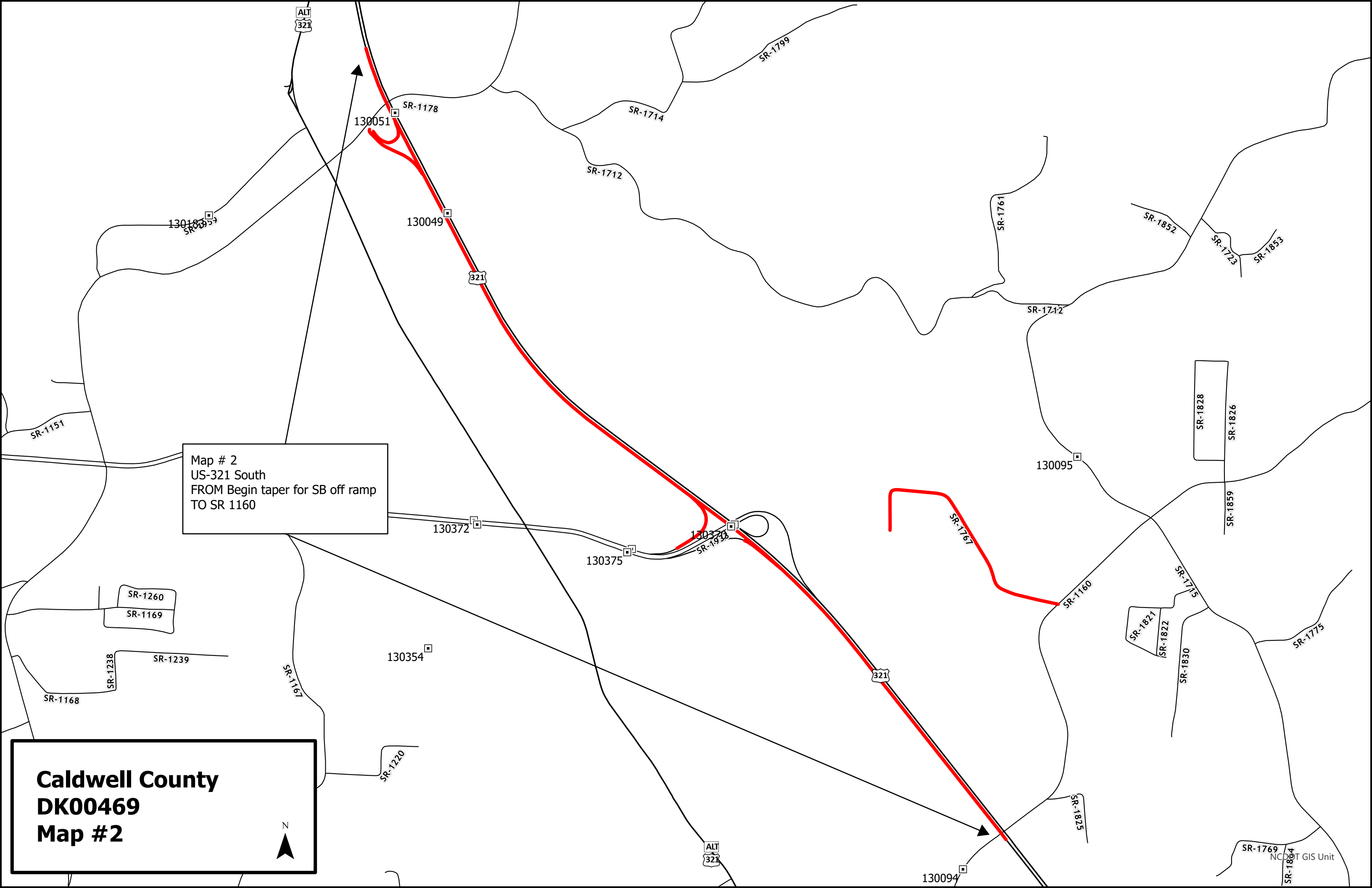
SR-1801

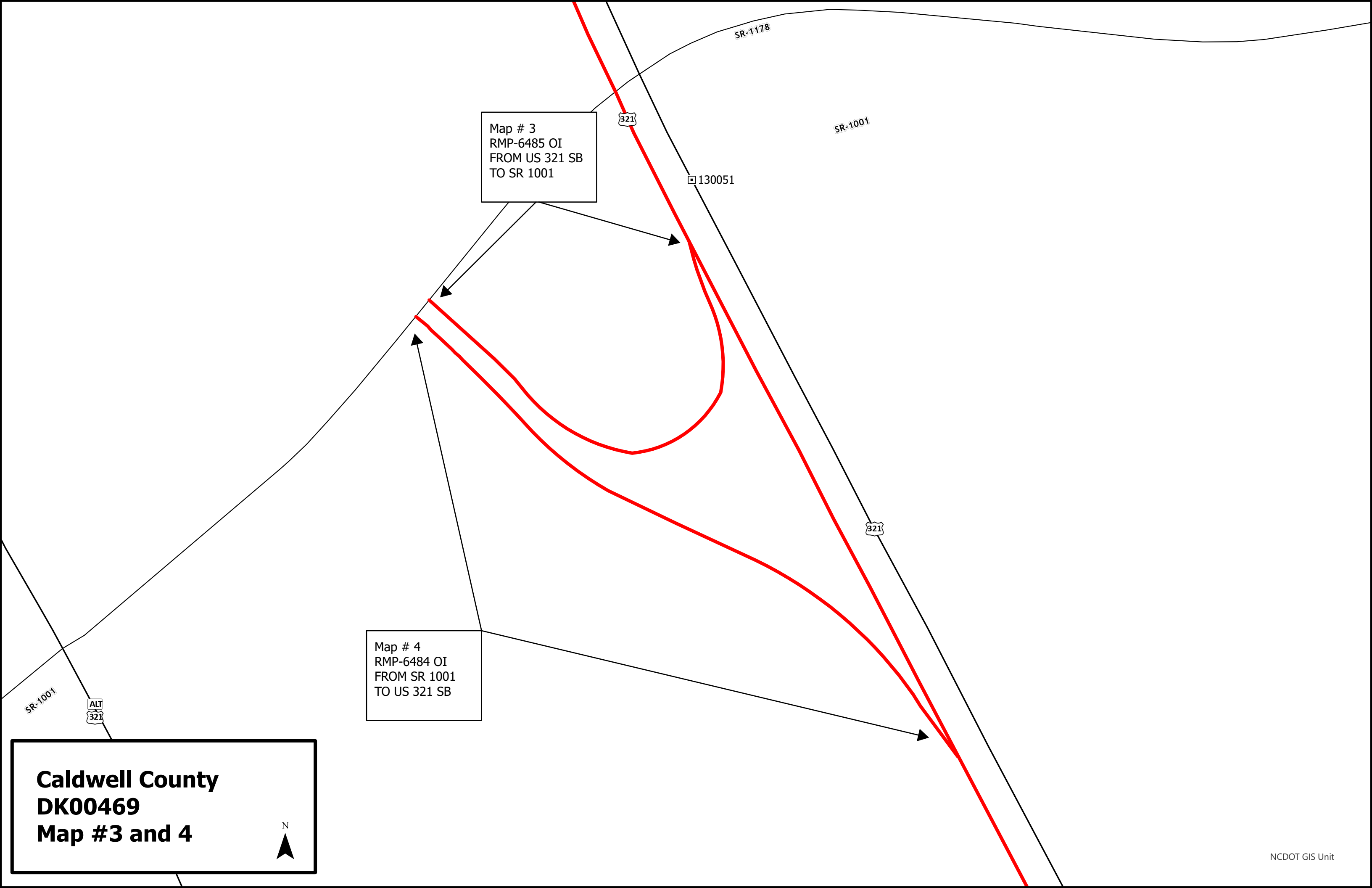
Caldwell County
DK00469
Map #1



Map # 2
US-321 South
FROM Begin taper for SB off ramp
TO SR 1160

Caldwell County
DK00469
Map #2





Map # 3
RMP-6485 OI
FROM US 321 SB
TO SR 1001

Map # 4
RMP-6484 OI
FROM SR 1001
TO US 321 SB

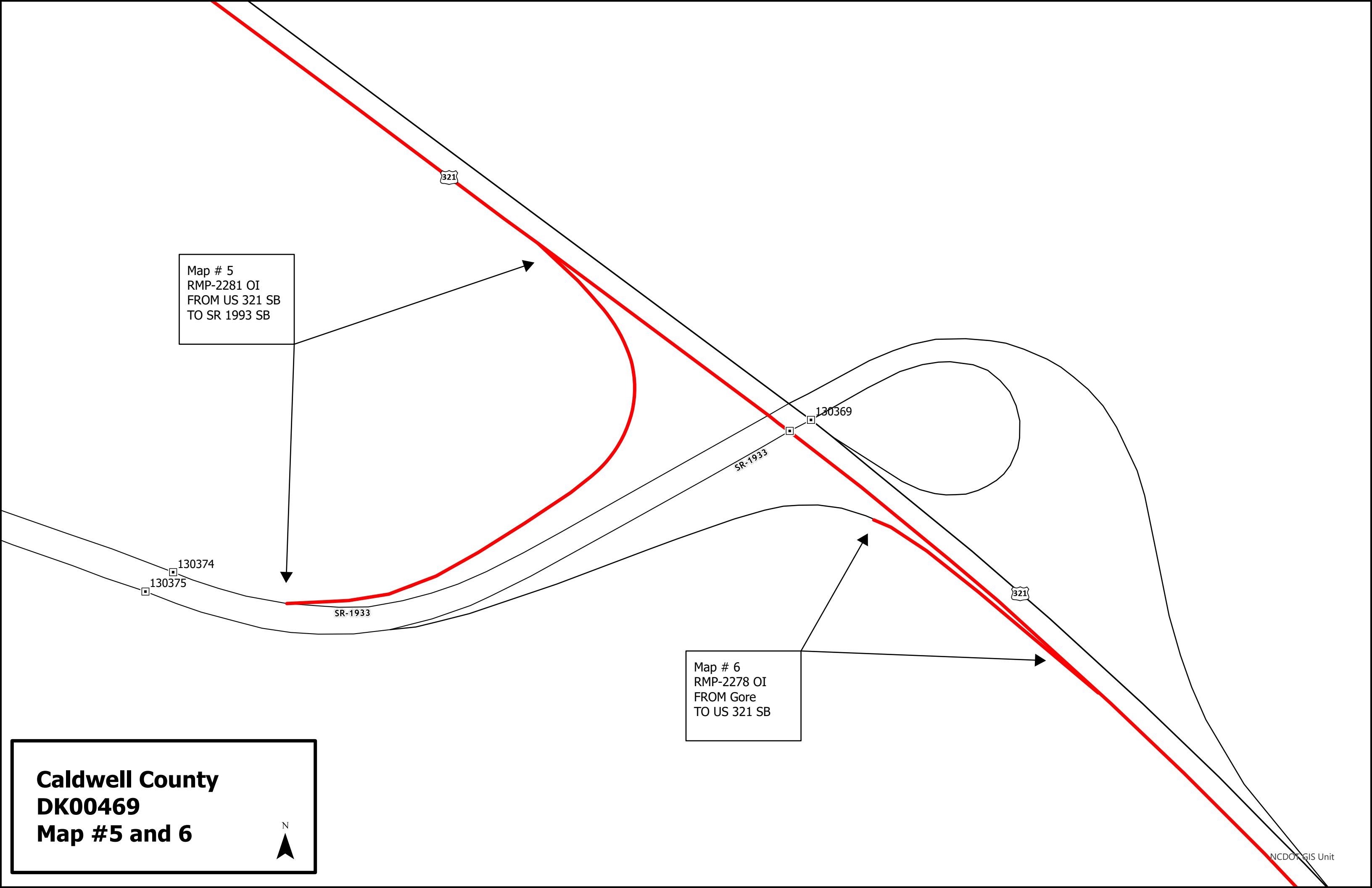

Caldwell County
DK00469
Map #3 and 4

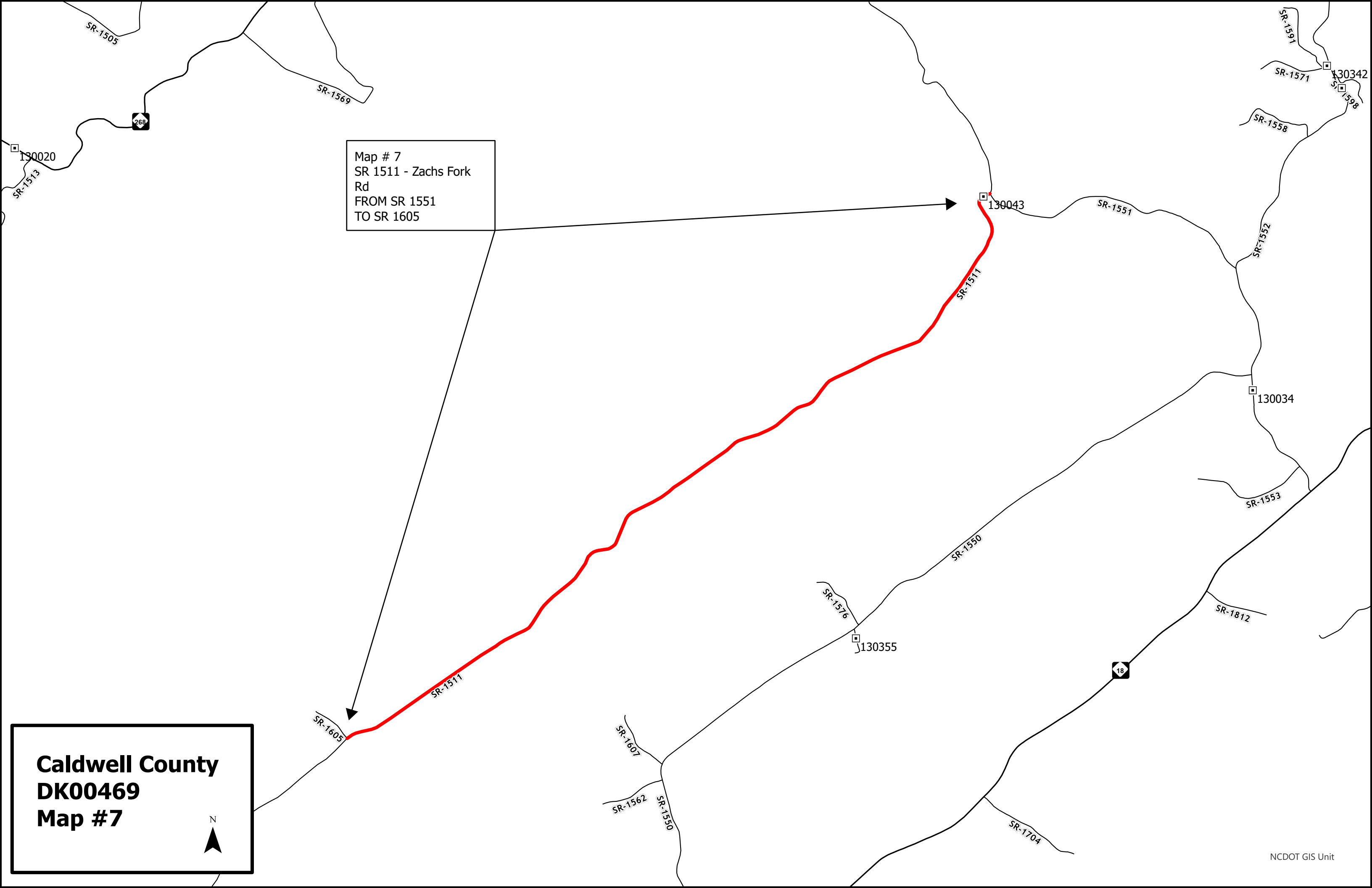


Map # 5
RMP-2281 OI
FROM US 321 SB
TO SR 1993 SB

Map # 6
RMP-2278 OI
FROM Gore
TO US 321 SB

Caldwell County
DK00469
Map #5 and 6

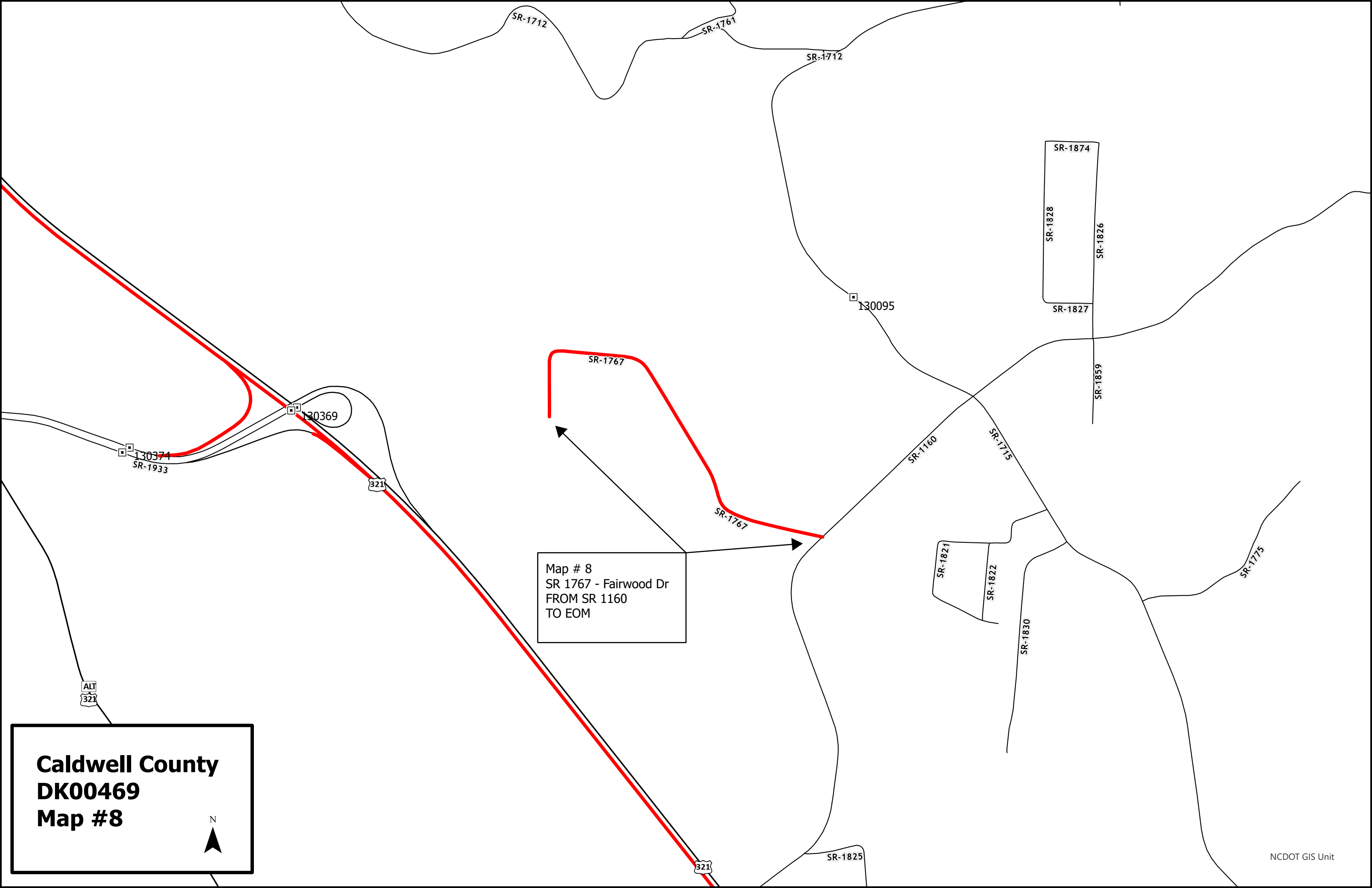




Map # 7
SR 1511 - Zachs Fork
Rd
FROM SR 1551
TO SR 1605

Caldwell County
DK00469
Map #7



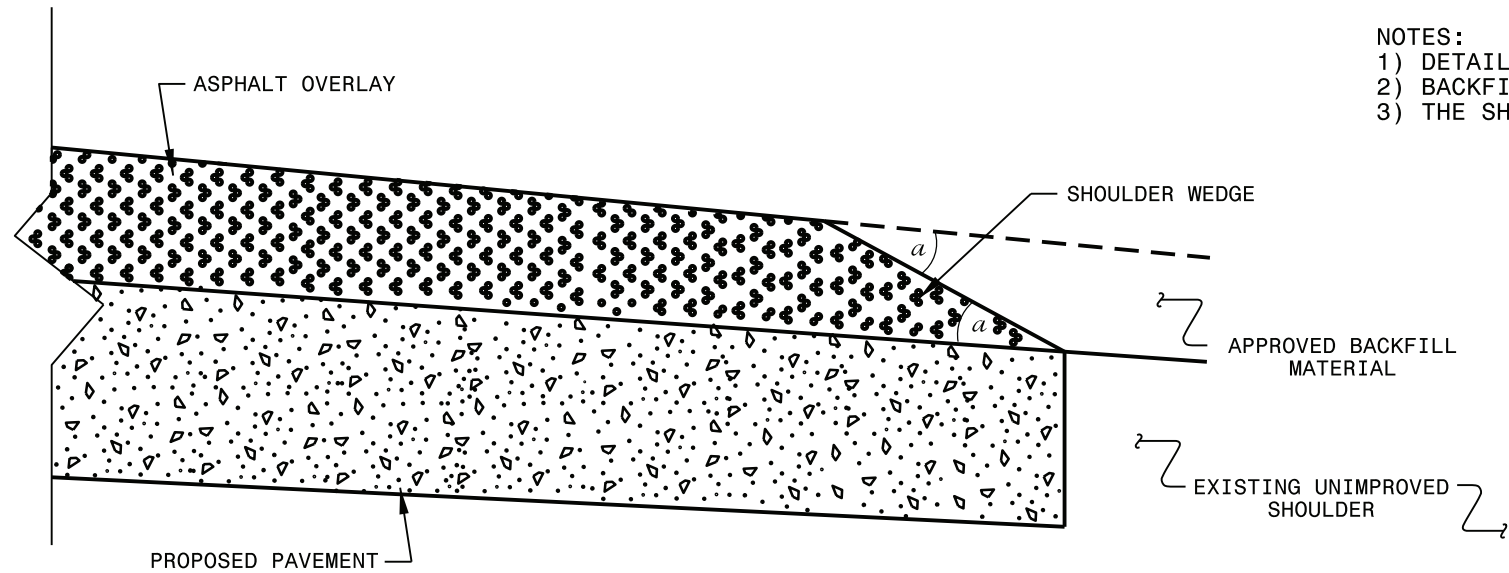


Map # 8
SR 1767 - Fairwood Dr
FROM SR 1160
TO EOM

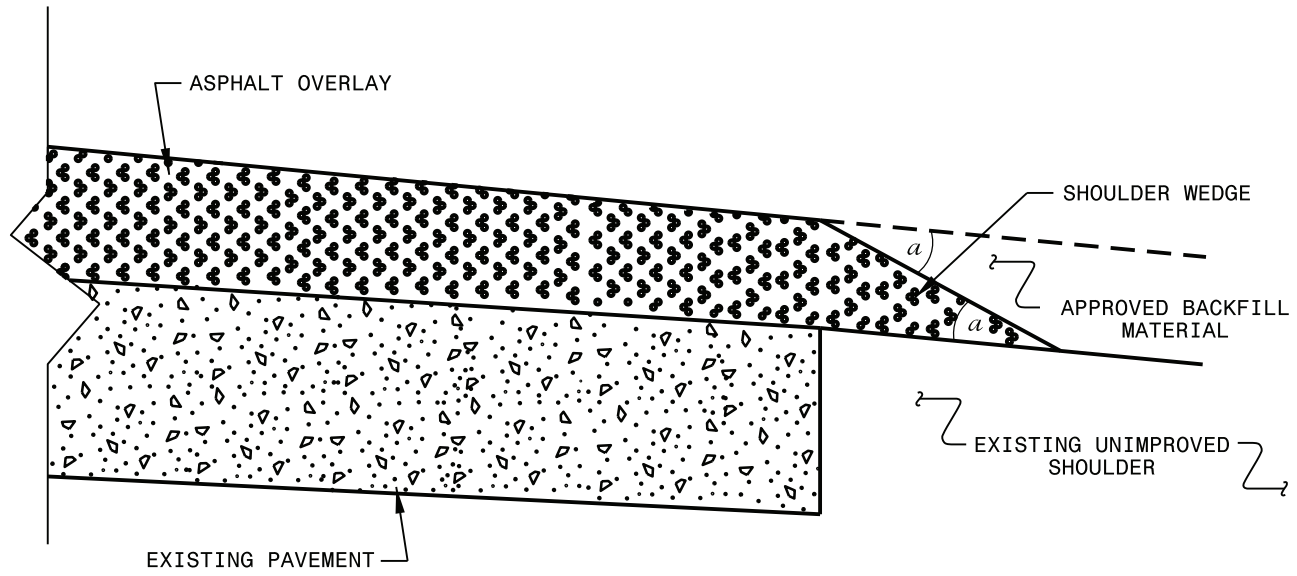
Caldwell County
DK00469
Map #8



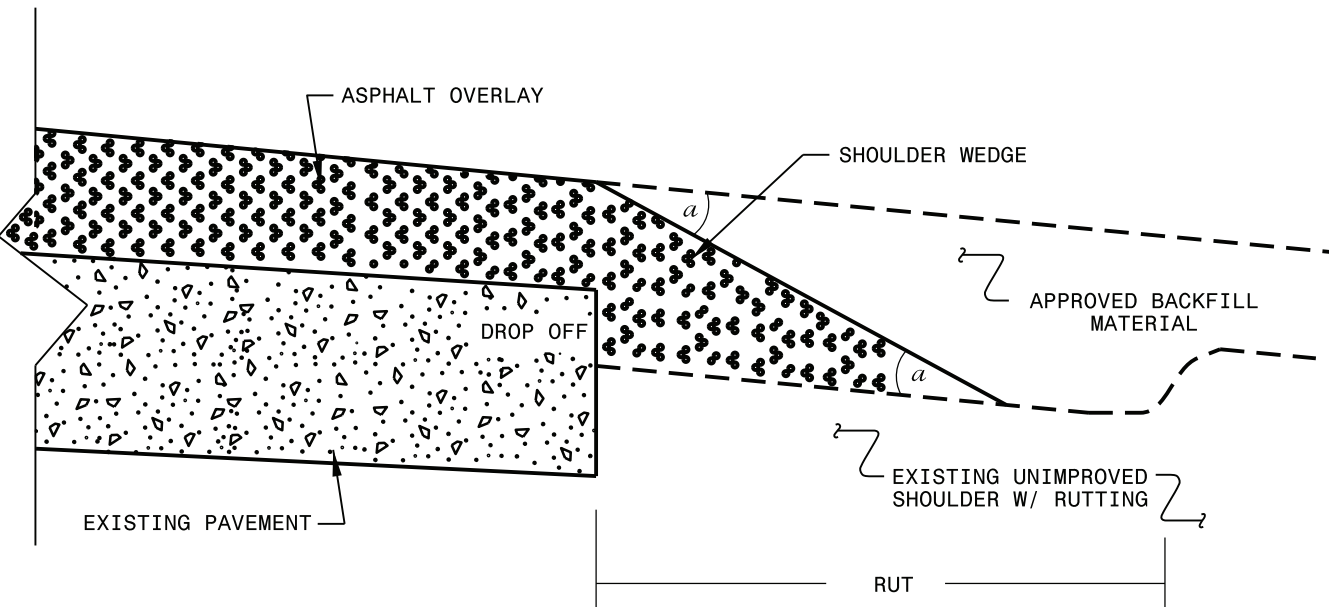
- NOTES:
 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



SHOULDER WEDGE DETAIL
 (Resurfacing Projects w/ Widening or
 with Existing Paved Shoulder having no dropoffs)



SHOULDER WEDGE DETAIL
 (Resurfacing Projects w/ NO Widening)



SHOULDER WEDGE DETAIL
 (Resurfacing Adjacent to
 Rutted Shoulder)

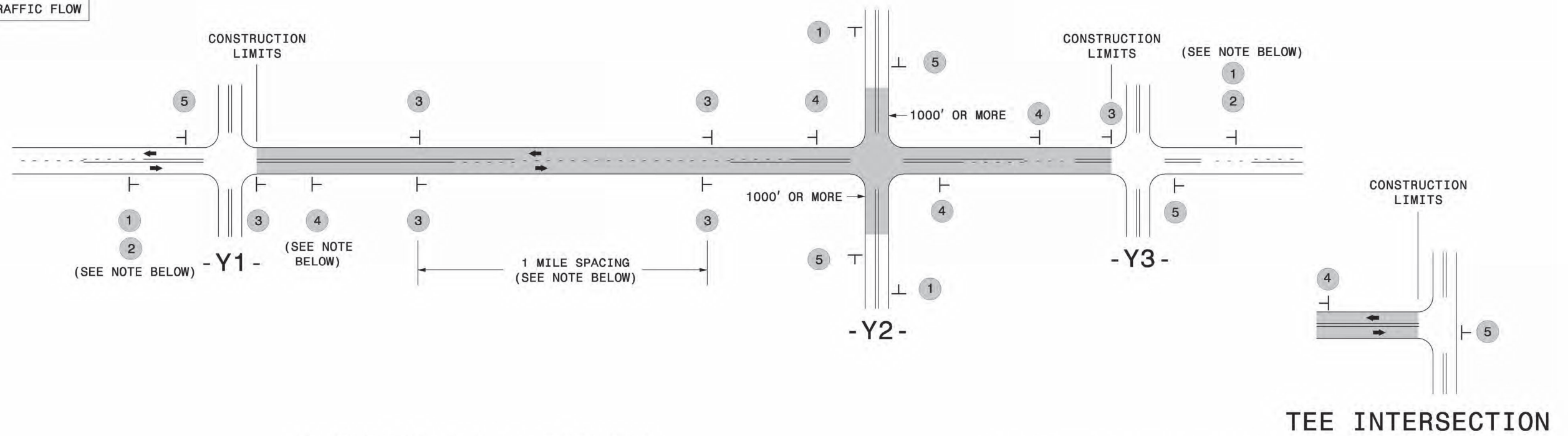
- SHOULDER WEDGE ANGLE = 30°

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
SHOULDER WEDGE DETAILS	
ORIGINAL BY: T.SPELL	DATE: 7-19-11
MODIFIED BY:	DATE: 10/16/12
CHECKED BY:	DATE:
FILE SPEC.: susr/details/stand/shoulderwedgedetail.dgn	

SYSTEMS DESIGN USER NAME

SIGNING FOR RESURFACING PROJECTS

LEGEND
 ┆ STATIONARY SIGN
 ← DIRECTION OF TRAFFIC FLOW



MAINLINE (-L-) SIGNING

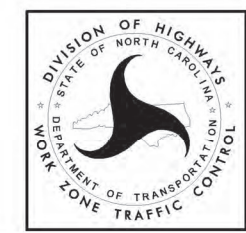
-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	1		PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.	<p>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <ol style="list-style-type: none"> LESS THAN 1000' OF RESURFACING ALONG -Y- LINE SUBDIVISION ROADS DEAD END ROADS <p>WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, PORTABLE ADVANCE WARNING SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> PLACED 500' IN ADVANCE OF FLAGGER. </div> <div style="text-align: center;"> PLACED 250' IN ADVANCE OF FLAGGER. </div> </div>
	2		#2 SIGN ONLY USED WHEN CONSTRUCTION LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER. (NO FRACTIONAL OR DECIMAL NUMBERS)	
	3		- PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER. - AT TEE INTERSECTIONS INSTALL INITIALLY 1/2 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.	
	4		- THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. - DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS. - INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE. - FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL WITHIN 500' OF EACH APPROACH. - A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN. - FOR TEE INTERSECTIONS, INSTALL WITHIN 500' +/- OF THE INTERSECTION ALONG -L- LINE.	
	5		PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.	

THE ABOVE SIGNS ARE ALL THAT ARE REQUIRED FOR A CONTRACTOR TO BEGIN A RESURFACING CONTRACT. ANY ADDITIONAL SIGNS REQUESTED BY NCDOT DIVISIONS SHALL BE INSTALLED WITHIN 7 BUSINESS DAYS OF THE START OF CONTRACT WORK.

MAPS LESS THAN 2 MILES

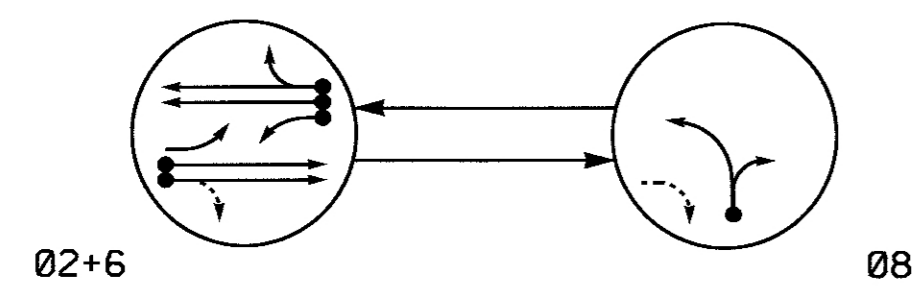
FOR RESURFACING MAPS WITH CONSTRUCTION LIMITS LESS THAN 2 MILES IN LENGTH, NO STATIONARY SIGNS ARE REQUIRED. USE PORTABLE "ROAD UNDER CONSTRUCTION" OR "ROAD WORK AHEAD" SIGNS IN LIEU OF STATIONARY ADVANCE WARNINGS SIGNS.



ADVANCE WARNING SIGNS FOR RURAL AND SUBURBAN 2-LANE ROADWAY RESURFACING

5/15/2017 5:11:00 PM WZTC\Resurfacing\2L2W & AST Resurfacing Details\Resurfacing_AdvWarn_2Ln.dgn User:keads

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

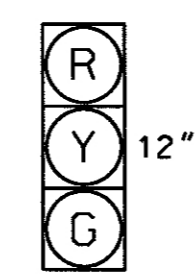
- ◄●◄ DETECTED MOVEMENT
- ◄◄◄ UNDETECTED MOVEMENT (OVERLAP)
- ◄- - - UNSIGNALIZED MOVEMENT
- ◄- - - PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE		
	02+6	08	FLASH
21,22	G	R	Y
61,62	G	R	Y
81,82	R	G	R

SIGNAL FACE I.D.

All Heads L.E.D.



21,22
61,62
81,82

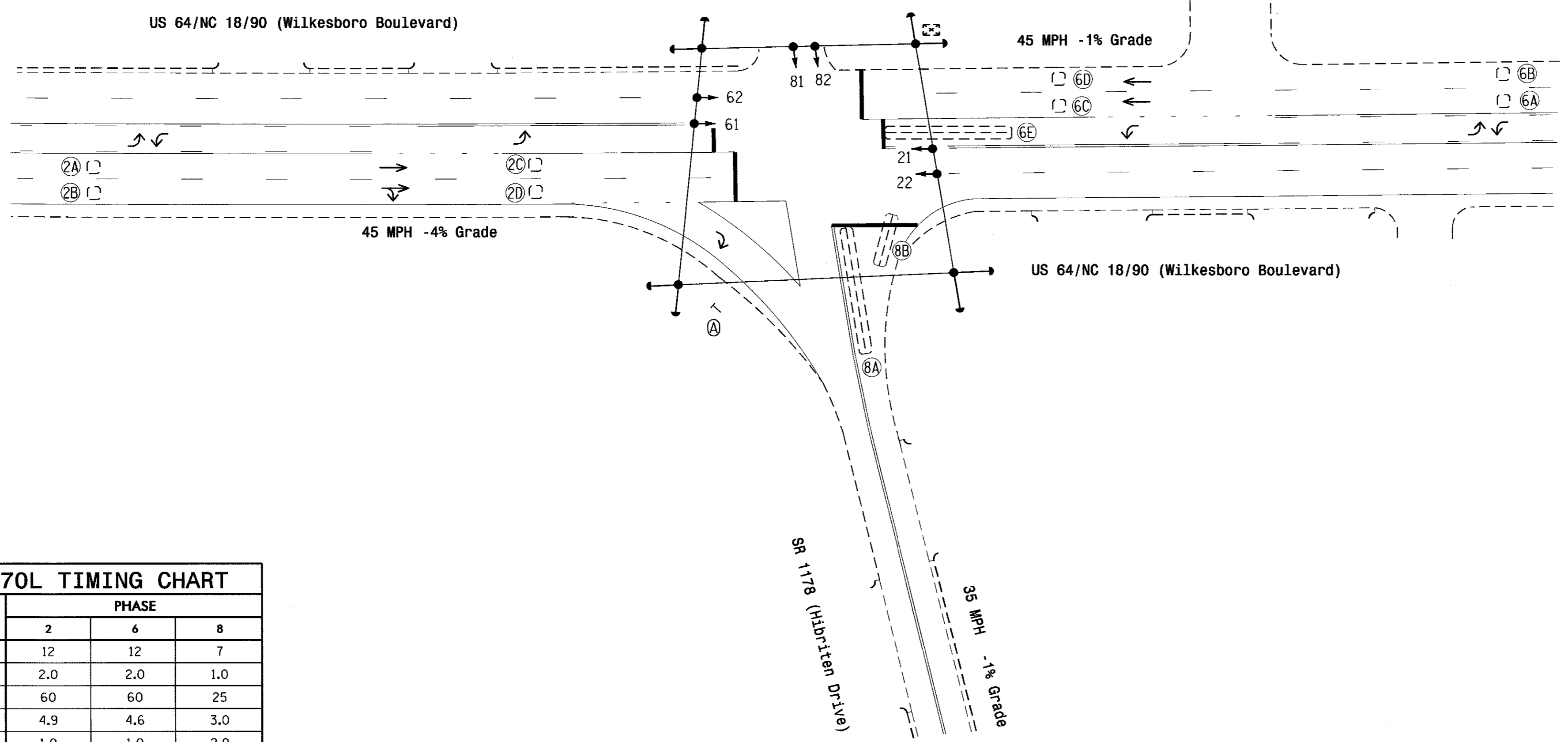
OASIS 2070L LOOP & DETECTOR INSTALLATION CHART

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	DETECTOR PROGRAMMING							
				NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP
2A	6X6	300	EXIST	-	2	Y	Y	-	1.8	-	-
2B	6X6	300	EXIST	-	2	Y	Y	-	1.8	-	-
2C	6X6	90	EXIST	-	2	Y	Y	-	-	-	-
2D	6X6	90	EXIST	-	2	Y	Y	-	-	-	-
6A	6X6	300	EXIST	-	6	Y	Y	-	1.8	-	-
6B	6X6	300	EXIST	-	6	Y	Y	-	1.8	-	-
6C	6X6	90	EXIST	-	6	Y	Y	-	-	-	-
6D	6X6	90	EXIST	-	6	Y	Y	-	-	-	-
6E	6X60	0	EXIST	-	6	Y	Y	-	-	-	-
8A	6X60	0	EXIST	-	8	Y	Y	-	-	3	-
8B	6X25	+5	EXIST	-	8	Y	Y	-	-	15	-

2-Phase Fully Actuated Isolated

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated July 2006 and "Standard Specifications for Roads and Structures" dated July 2006.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Set all detector units to presence mode.
- Pavement Markings are existing.
- In the event of loop replacement, refer to the current ITS and Signals Design Manual and submit a Plan of Record to the Signal Design Section.



OASIS 2070L TIMING CHART

FEATURE	PHASE		
	2	6	8
Min Green 1 *	12	12	7
Extension 1 *	2.0	2.0	1.0
Max Green 1 *	60	60	25
Yellow Clearance	4.9	4.6	3.0
Red Clearance	1.0	1.0	2.9
Walk 1 *	-	-	-
Don't Walk 1	-	-	-
Seconds Per Actuation *	-	-	-
Max Variable Initial *	-	-	-
Time Before Reduction *	-	-	-
Time To Reduce *	-	-	-
Minimum Gap	-	-	-
Recall Mode	MIN RECALL	MIN RECALL	-
Vehicle Call Memory	YELLOW	YELLOW	-
Dual Entry	-	-	-
Simultaneous Gap	ON	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

LEGEND

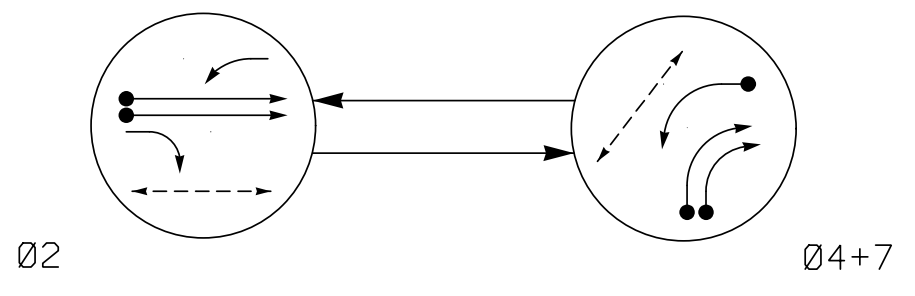
- | | | |
|-----------------|--|-----------------|
| PROPOSED | | EXISTING |
| ○ | Traffic Signal Head | ● |
| ◐ | Modified Signal Head | N/A |
| ◑ | Sign | |
| ◒ | Pedestrian Signal Head With Push Button & Sign | ◒ |
| ◓ | Signal Pole with Guy | ◓ |
| ◔ | Signal Pole with Sidewalk Guy | ◔ |
| ▭ | Inductive Loop Detector | ▭ |
| ⊠ | Controller & Cabinet | ⊠ |
| □ | Junction Box | ■ |
| - - - | 2-in Underground Conduit | - - - |
| N/A | Right of Way | - - - |
| → | Directional Arrow | → |
| Ⓐ | "YIELD" Sign (R1-2) | Ⓐ |

Signal Upgrade

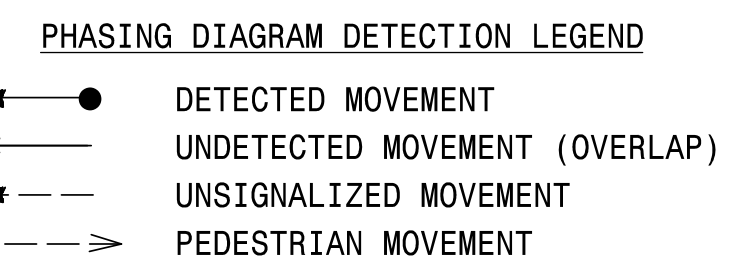
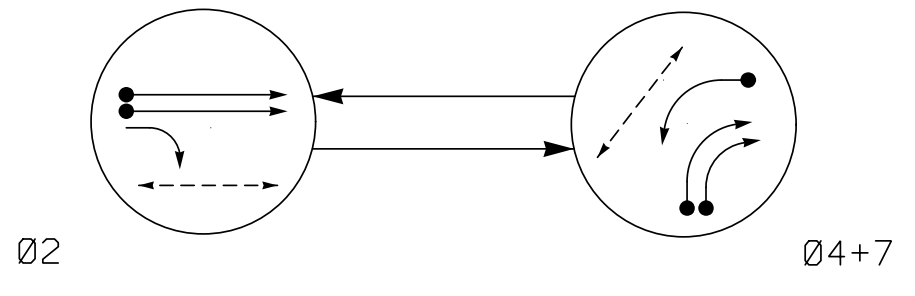
	US 64/NC 18/90 (Wilkesboro Boulevard) At SR 1178 (Hibriten Drive)	
	Division 11 Caldwell County Lenoir PLAN DATE: September 2011 PREPARED BY: Jerry Yaravitz	REVIEWED BY: REVIEWED BY:
SCALE 0 40 1"=40'	REVISIONS INIT. DATE	REVISIONS INIT. DATE
750 N. Greenfield Pkwy, Garner, NC 27529		SIG. INVENTORY NO. 11-1329

02-DEC-2011 07:47
 S:\ITS\ASU\ITS_Sig\asus\signal Design Section\western Region\01-11-1329\111329PDR.sig.dsn_20110127.dgn
 yaravitz

DEFAULT PHASING DIAGRAM



ALTERNATE PHASING DIAGRAM



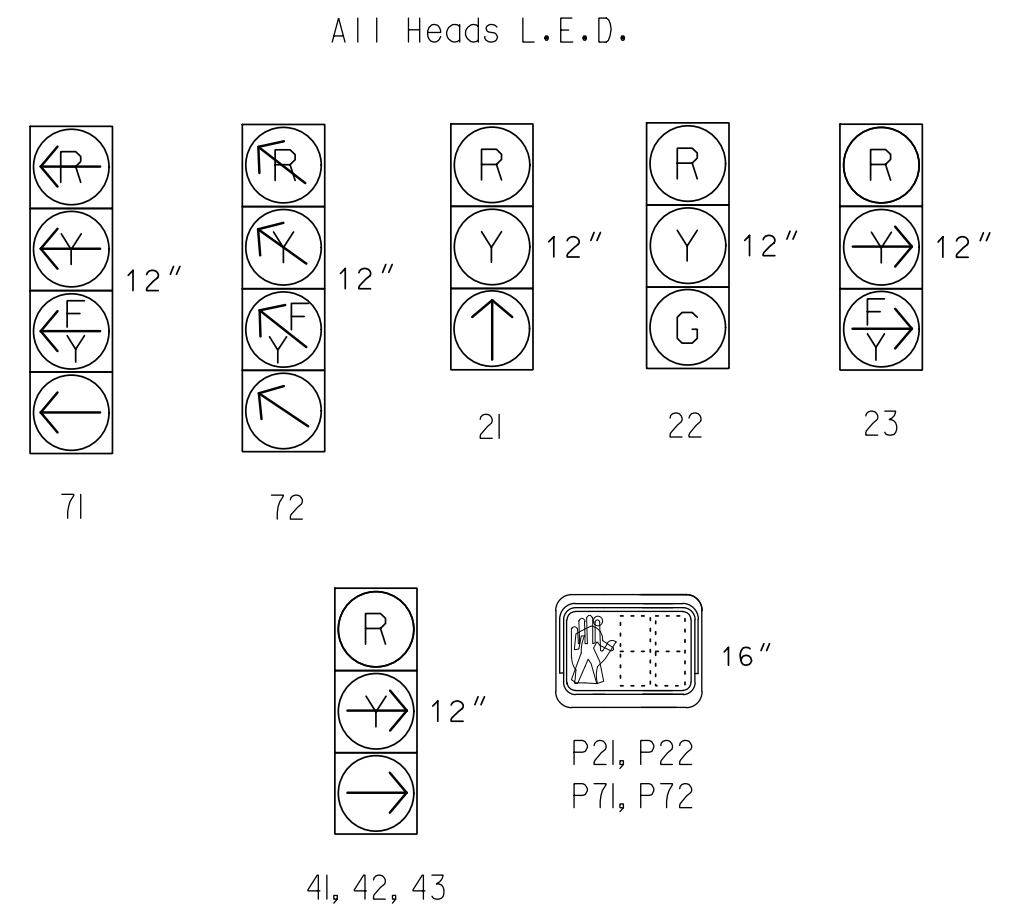
DEFAULT PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE		
	02	04+7	FLASH
21	↑	R Y	
22	G	R Y	
23	↔	R ↔	
41, 42, 43	R	→ R	
71	↔	↔	
72	↔	↔	
P21, P22	W	DW DRK	
P71, P72	DW	W DRK	

ALTERNATE PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE		
	02	04+7	FLASH
21	↑	R Y	
22	G	R Y	
23	↔	R ↔	
41, 42, 43	R	→ R	
71	↔	↔	
72	↔	↔	
P21, P22	W	DW DRK	
P71, P72	DW	W DRK	

SIGNAL FACE I.D.



MAXTIME DETECTOR INSTALLATION CHART

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PROGRAMMING							
					CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN	NEW CARD
2A	6X6	420	5	X	2	-	-	X	X	X	-	X
2B	6X6	420	5	X	2	-	-	X	X	X	-	X
4A	6X40	0	2-4-2	X	4	15.0	-	X	-	X	-	X
4B	6X40	0	2-4-2	X	4	15.0	-	X	-	X	-	X
7A	6X40	0	2-4-2	X	7	*15.0	-	X	-	X	-	X

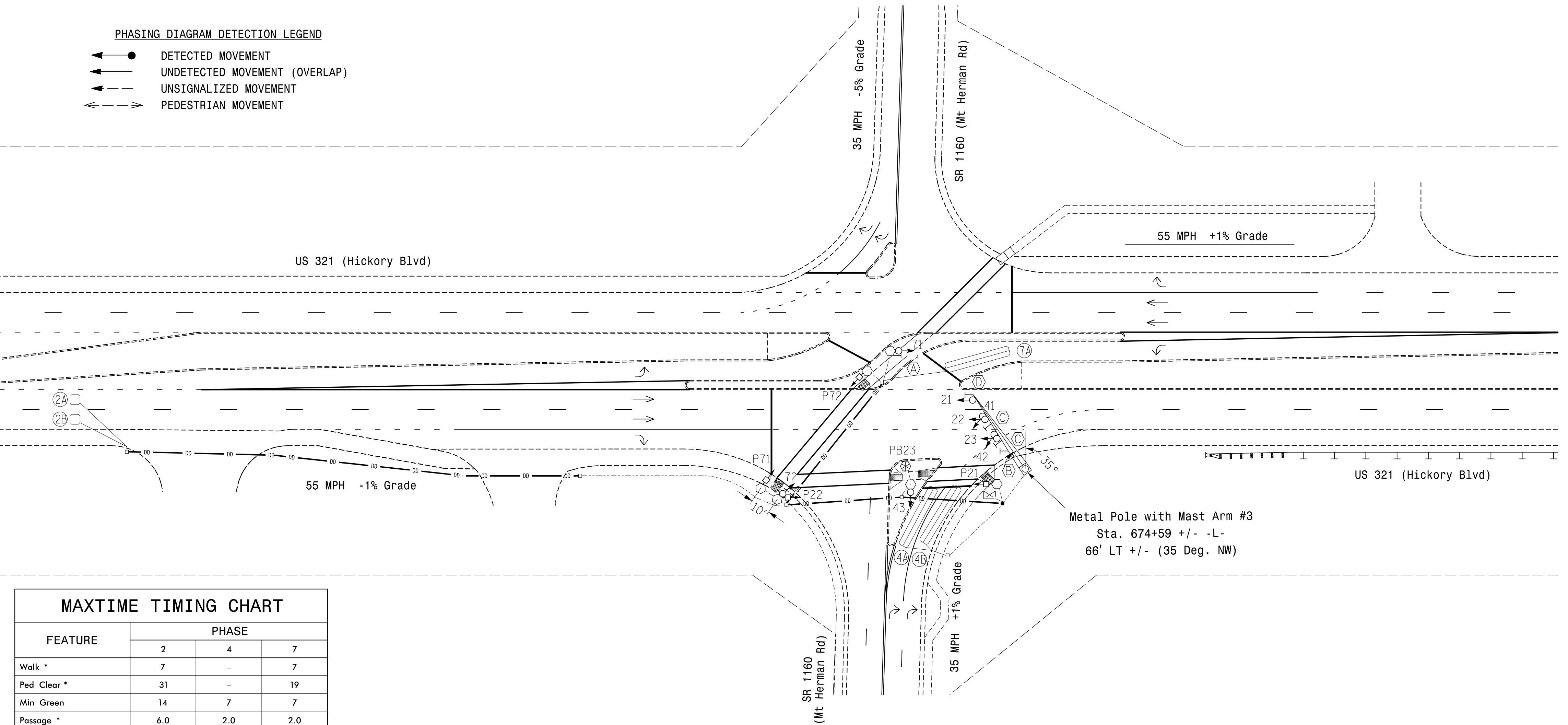
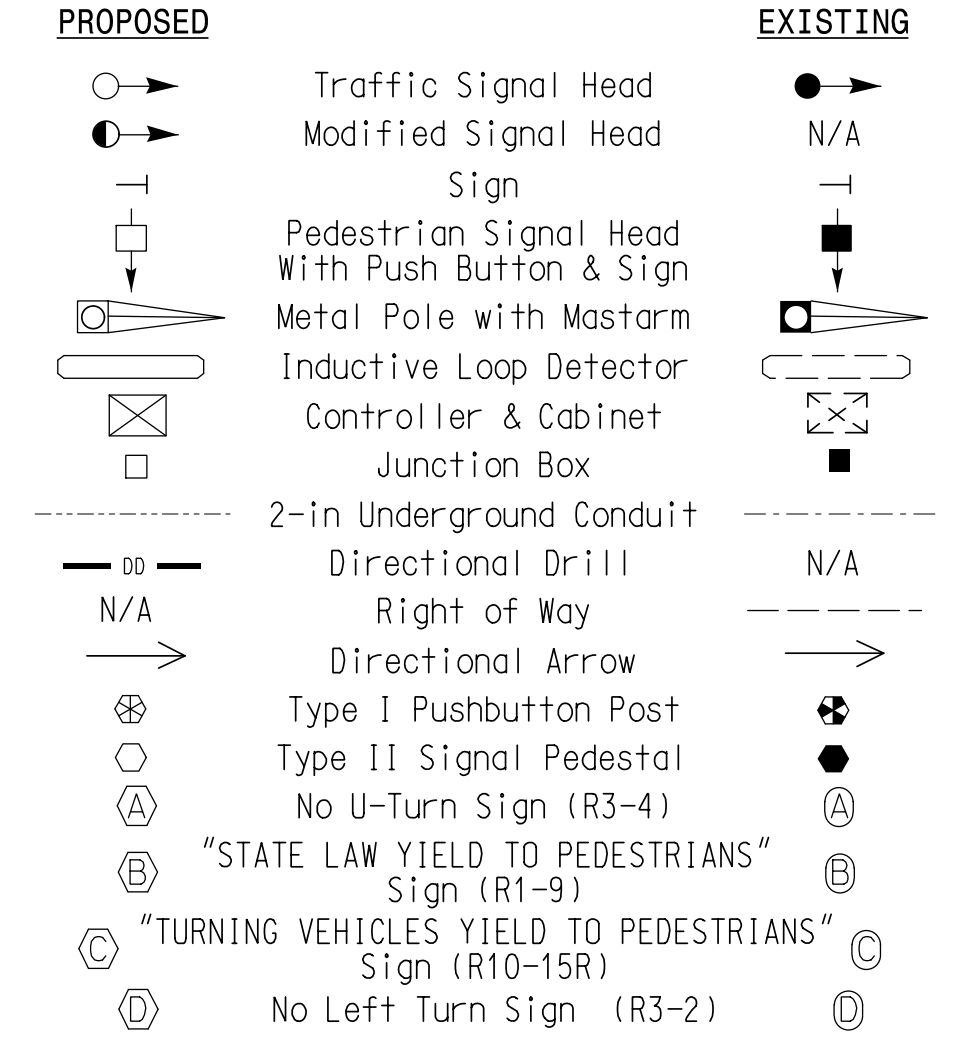
* Disable Delay During Alternate Phasing Operation.

2 Phase Fully Actuated with Alternate Phasing Operation US 321 Closed Loop System

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Set all detector units to presence mode.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- The Division Traffic Engineer will determine the hours of use for each phasing plan.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Pedestal mounted signal heads shall be mounted a minimum of 8' above the high point of the roadway surface elevation.

LEGEND



MAXTIME TIMING CHART

FEATURE	PHASE		
	2	4	7
Walk *	7	-	7
Ped Clear *	31	-	19
Min Green	14	7	7
Passage *	6.0	2.0	2.0
Max 1 *	90	20	30
Yellow Change	5.3	3.0	3.0
Red Clear	1.6	2.3	2.6
Added Initial *	1.5	-	-
Maximum Initial *	46	-	-
Time Before Reduction *	15	-	-
Time To Reduce *	30	-	-
Minimum Gap	3.4	-	-
Advance Walk	-	-	-
Non Lock Detector	-	X	X
Vehicle Recall	MIN RECALL	-	-
Dual Entry	-	X	X

* These values may be field adjusted. Do not adjust Min Green and Extension times for phase 2 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

Signal Upgrade - Final Design

stv
STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
(704) 372-1885
NC License Number F-0991

Prepared For the Offices of:
TRANSPORTATION MOBILITY AND SAFETY DIVISION
DEPARTMENT OF TRANSPORTATION
SIGNAL DESIGN SECTION
750 N. Greenfield Pkwy, Garner, NC 27529

US 321 (Hickory Boulevard) SB at SR 1160 (Mt Herman Road)
Division 11 Caldwell County Hudson
PLAN DATE: December 2022 REVIEWED BY: D.J. Darity
PREPARED BY: J.T. Grimm REVIEWED BY: T.M. Woody

REVISIONS	INIT.	DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
DONALD J. DARITY
4/25/2023
DATE

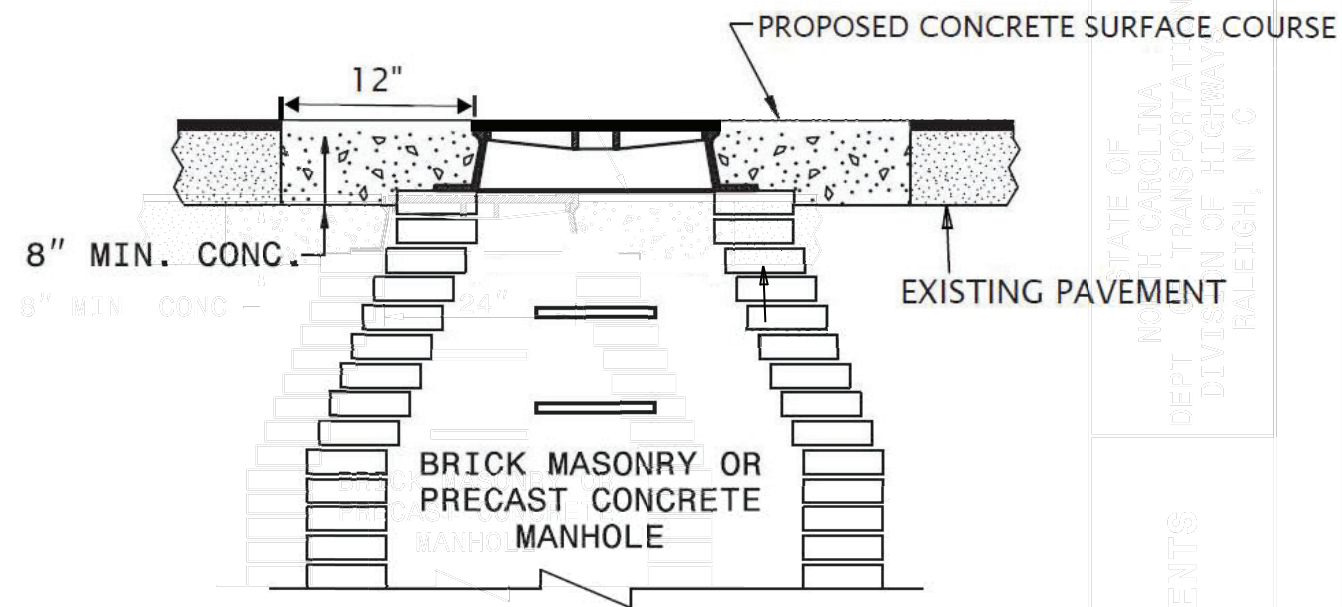
DocuSigned by:
Donald J. Darity
4/25/2023
DATE

SIG. INVENTORY NO. 11-1455

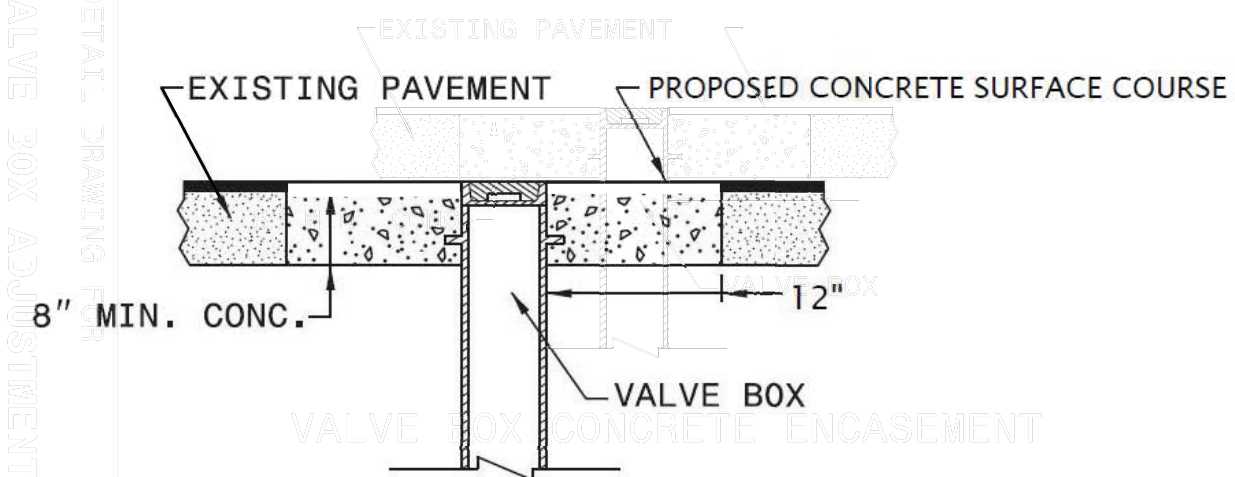
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GENERAL NOTES:

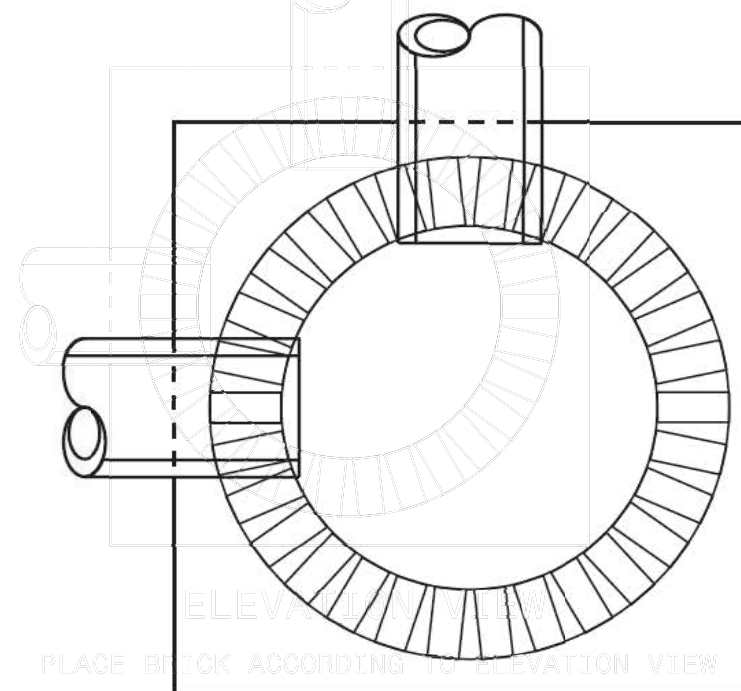
1. USE RAPID SET DYED CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI.
2. REMOVE ALL FAULTY EXISTING BRICKWORK AND REPLACE WITH NEW BRICK MASONRY.
3. SHEER CUT RECTANGULAR EXCAVATION FOR THE ADJUSTMENT ON ALL SIDES. NO OVERSAW CUTS ALLOWED IN CORNERS.
4. FILL AREA BELOW 8" DEPTH WITH 78M OR NO. 57 CLEAN STONE.
5. MIX MORTAR TO NCDOT SPECIFICATIONS.
6. MORTAR JOINTS 1/2" +/- 1/8"



MANHOLE CONCRETE ENCASEMENT



VALVE BOX CONCRETE ENCASEMENT



ELEVATION VIEW

PLACE BRICK ACCORDING TO ELEVATION VIEW

SHEET 1 OF 1
840D55

SHEET 1 OF 1
840D55

REVISIONS

8/17/99

24-JAN-2016 13:31
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\$\$\$\$\$SRNAME\$\$\$\$\$

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

ENGLISH DETAIL DRAWING FOR
 MANHOLE AND VALVE BOX ADJUSTMENTS

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

ENGLISH DETAIL DRAWING FOR
 MANHOLE AND VALVE BOX ADJUSTMENTS