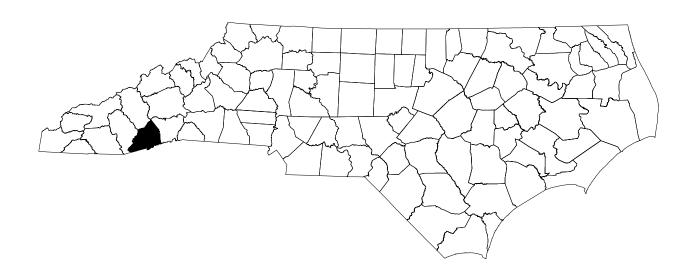
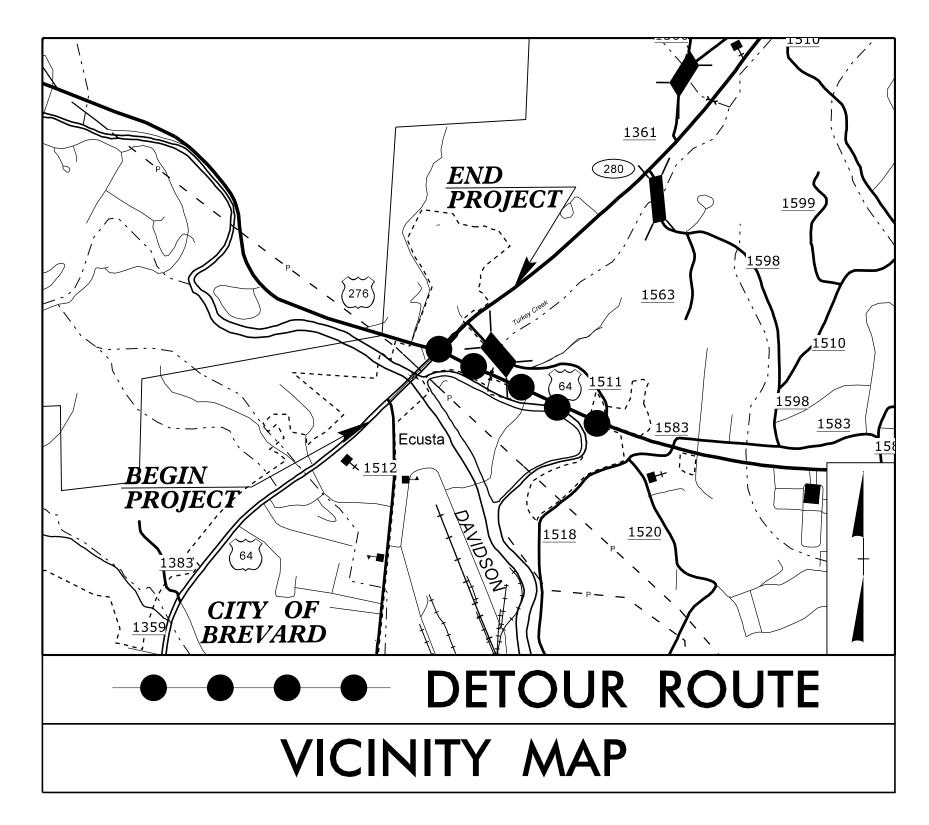
TRANSPORTATION MANAGEMENT PLAN

TRANSYLVANIA COUNTY

LOCATION: INTERSECTIONS OF US 64, US 276 AND NC 280 CONSTRUCT INTERSECTION IMPROVEMENTS TYPE OF WORK: GRADING, PAVING, DRAINAGE, CULVERT, RETAINING WALLS, SIGNALS, AND SIGNING





PLANS PREPARED BY:

ALLISON C. DRAKE, P.E. PROJECT ENGINEER

REBECCA E. MCLAUGHLIN, E.I. PROJECT DESIGN ENGINEER



BARRY MOSTELLER NCDOT PROJECT CONTACT



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TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT TMP-1B THRU 1D STRATEGY, GENERAL NOTES, AND LOCAL NOTES)

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TMP-2B REVISED PAVEMENT MARKING BRIDGES ROADWAY STANDARD DRAWING

TMP-2C TEMPORARY LANE CLOSURES: INSIDE LANE CLOSURE ON TWO-LANE ROUNDABOUT

ROADWAY STANDARD DRAWING

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CHARLOTTE, NC 28203

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TMP-18 THRU 20 PHASE VI STEP 1 DETAILS PHASE VI STEP 2 DETAILS TMP-21 THRU 23

> **DOCUMENT NOT CONSIDERED FINAL** UNLESS ALL SIGNATURES COMPLETED

APPROVED: Mison (. Drake

 $DATE:_{-}$



WORK ZONE SAFETY & MOBILITY "from the MOUNTAINS to the COAST"



SHEET NO.

TMP-1

PROJ. REFERENCE NO. R-5799 TMP-1A

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" -N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	<u>TITLE</u>
1101.01	WORK ZONE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUMS
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1160.01	TEMPORARY CRASH CUSHION
1165.01	TRUCK MOUNTED ATTENUATOR
1170.01	PORTABLE CONCRETE BARRIER
1180.01	SKINNY - DRUMS
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.14	PAVEMENT MARKINGS - ROUNDABOUTS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - (PERMANENT AND TEMPORARY)
1253.01	RAISED PAVEMENT MARKERS - (SNOWPLOWABLE)
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION

LEGEND

GENERAL

DIRECTION OF TRAFFIC FLOW

DIRECTION OF PEDESTRIAN TRAFFIC FLOW

----- EXIST. PVMT.

──────── NORTH ARROW

—— PROPOSED PVMT.

TEMP. SHORING (LOCATION PURPOSES ONLY)

WORK AREA

CONTINUOUS WORK AREA

WEDGING

REMOVAL

TEMPORARY PAVEMENT

SIGNALS

PROPOSED E TEMPORARY EXISTING

PAVEMENT MARKINGS

——TEMPORARY LINES

TRAFFIC CONTROL DEVICES

BARRICADE (TYPE III)

DRUM SKINNY DRUM O TUBULAR MARKER

TEMPORARY CRASH CUSHION

FLASHING ARROW BOARD

LAW ENFORCEMENT

FLAGGER

TRUCK MOUNTED ATTENUATOR (TMA)

CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING

PORTABLE SIGN

── STATIONARY SIGN

STATIONARY OR PORTABLE SIGN

PAVEMENT MARKERS

CRYSTAL/CRYSTAL

CRYSTAL/RED

YELLOW/YELLOW

PROPOSED PAVEMENT MARKING SYMBOLS

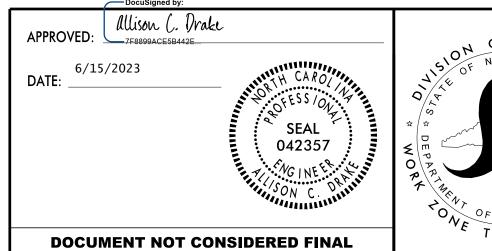
PAVEMENT MARKING SYMBOLS

EXISTING PAVEMENT MARKING SYMBOLS

PAVEMENT MARKING SYMBOLS

TEMPORARY PAVEMENT MARKING

P1	WHITE EDGELINE (4")		
P2	WHITE SOLID LANE LINE (4")	P46	WHITE CROSSWALK LINE (8")
_		P61	WHITE STOPBAR (24")
P3	10FT. WHITE SKIP (4")	P70	LEFT TURN ARROW
P4	3FT9FT./SP WHITE MINISKIP (4")	170	LLI I TORIN ARROW
P5	2FT6FT./SP WHITE MINISKIP (4")	P71	RIGHT TURN ARROW
		P72	STRAIGHT ARROW
P10	YELLOW EDGELINE (4")	P73	COMBO. LEFT/STRAIGHT ARROW
P13	DOUBLE YELLOW CENTERLINE (4")		COMBO: LEFT/OTHAIGHT ARROW
P21	WHITE LANE LINE (6")	P74	COMBO. RIGHT/STRAIGHT ARROW
		P76	COMBO. LEFT/RIGHT/STRAIGHT ARROW
P40	WHITE GORELINE (8")	P100	ALPHANUMERIC CHARACTER
P42	YELLOW DIAGONAL (8")		
		P103	24" YIELD LINE TRIANGLE



UNLESS ALL SIGNATURES COMPLETED

ROADWAY STANDARD DRAWINGS & LEGEND

1520 SOUTH BOULEVARD, SUITE 200 CHARLOTTE, NC 28203 NC FIRM LICENSE No: F-0493

PROJ. REFERENCE NO.	SHEET NO.
R-5799	TMP-1B

MANAGEMENT STRATEGY

PHASE I: USING A COMBINATION OF SHORT TERM LANE CLOSURES, POSITIVE PROTECTION AND TEMPORARY SHORING, CONSTRUCT WEDGING AND WIDENING OF -Y2-(US 64 HENDERSONVILLE HWY).

PHASE II: WITH TRAFFIC IN EXISTING PATTERN, USE SHORT TERM LANE CLOSURES, A TEMPORARY SIGNAL, AND A PEDESTRIAN DETOUR TO CONSTRUCT WEDGING AND WIDENING OF -Y1- (ECUSTA RD), PROPOSED LEFT TURN LANE AND WEDGING ON -L- (US 276/64/NC 280 ASHEVILLE HWY), SIDEWALK ON -Y1- AND -L- (LT), AND PEDESTRIAN REFUGES.

PHASE III: USING SHORT TERM LANE CLOSURES AND A TEMPORARY SIGNAL AT -Y1-, REMOVE EXISTING MEDIANS AND WEDGE ALONG -L-, -Y2-, AND -Y3- (US 276 PISGAH HWY).

PHASE IV: USING A COMBINATION OF SHORT TERM LANE CLOSURES, TEMPORARY SIGNALS, ROAD CLOSURES, AND A DETOUR ALONG -Y2-, CONSTRUCT WEDGING AND WIDENING OF -L- (RT), -Y2-, AND -Y4- (DEAVOR RD).

PHASE V: SHIFT TRAFFIC INTO NEW TRAFFIC PATTERN. USING SHORT TERM LANE CLOSURES, TEMPORARY SIGNALS, AND ROAD CLOSURES, CONSTRUCT WEDGING AND WIDENING OF -L- (LT) , -Y3-, -Y4-, AND -Y5- (FOREST GATE DR).

PHASE VI: USING SHORT TERM LANE CLOSURES, CONSTRUCT PEDESTRIAN REFUGES AND MEDIANS ALONG -L-, -Y2-, -Y3-, -Y4-, -Y5-, -RA1-, AND -RA2-. SHIFT TRAFFIC INTO FINAL PATTERN.

GENERAL NOTES / LOCAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

ROAD NAME DAY AND TIME RESTRICTIONS

- 1. US 64/276/NC 280 M SUN, 7 AM-9 PM
- 2. US 64 M SUN, 7 AM-9 PM
- 3. ECUSTA ROAD M F, 6-9 AM and 2:30-4:30 PM, WHEN SCHOOL IS IN SESSION

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

US 64/276/NC 280, US 64, AND, ECUSTA ROAD

HOLIDAY

- 1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- 2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 9:00 P.M. DECEMBER 31st TO 7:00 A.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 7:00 A.M. THE FOLLOWING TUESDAY.
- 3. FOR EASTER, BETWEEN THE HOURS OF 9:00 P.M. THURSDAY AND 7:00 A.M. MONDAY.
- 4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 9:00 P.M. FRIDAY TO 7:00 A.M. TUESDAY.
- 5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 9:00 P.M. THE DAY BEFORE INDEPENDENCE DAY AND 7:00 A.M. THE DAY AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY

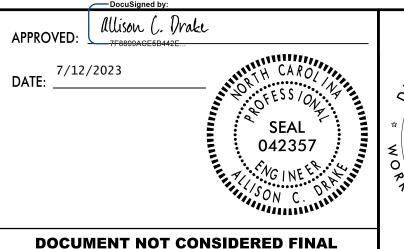
THEN BETWEEN THE HOURS OF 9:00 P.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 7:00 A.M. THE TUESDAY AFTER INDEPENDENCE DAY.

- 6. FOR LABOR DAY, BETWEEN THE HOURS OF 9:00 P.M. FRIDAY AND 7:00 A.M. TUESDAY.
- 7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 9:00 P.M. TUESDAY TO 7:00 A.M. MONDAY.
- 8. FOR CHRISTMAS, BETWEEN THE HOURS OF 9:00 P.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00 A.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.
- 9. FOR AUTUMN LEAF SEASON, OCTOBER THRU NOVEMBER, M-SUN, BETWEEN THE HOURS OF 6:00 A.M. TO 9:00 P.M.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- C) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PREFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.
- D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.





UNLESS ALL SIGNATURES COMPLETED



TRANSPORTATION
OPERATIONS PLAN:
(MANAGEMENT STRATEGY,
GENERAL NOTES,
AND LOCAL NOTES)

PROJ. REFERENCE NO.	SHEET NO.
R-5799	TMP-1C

GENERAL NOTES / LOCAL NOTES

LANE AND SHOULDER CLOSURE REQUIREMENTS

E) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

- F) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- G) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.
- H) DO NOT INSTALL MORE THAN 500 FT OF LANE CLOSURE ON ALL ALIGNMENTS MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.
- I) DO NOT INSTALL MORE THAN ONE SIMULTANEOUS LANE CLOSURES IN ANY ONE DIRECTION ON ALL ALIGNMENTS.
- J) DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION ON ALL ALIGNMENTS.
- K) PROVIDE A MINIMUM OF 500 FT BETWEEN LANE CLOSURES, MEASURED FROM THE END OF ONE CLOSURE TO THE FIRST SIGN OF THE NEXT LANE CLOSURE.
- L) PROVIDE TRAFFIC CONTROL FOR APPROPRIATE LANE CLOSURES FOR SURVEYING DONE BY THE DEPARTMENT.

PAVEMENT EDGE DROP OFF REQUIREMENTS

M) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPEN TRAVEL LANE THAT HAS A DROP- OFF AS FOLLOWS:

BACKFILL DROP- OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER

BACKFILL DROP- OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT

N) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 100 FT IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

O) NOTIFY THE ENGINEER THIRTY (30) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

- P) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAT THREE(3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- Q) CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS.

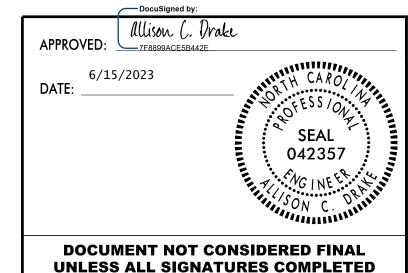
CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING SIGNING REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONTROL PLANS.

R) CONTRACTOR WILL COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.

CONTRACTOR WILL COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.

- S) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- T) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 100 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.







TRANSPORTATION
OPERATIONS PLAN:
(MANAGEMENT STRATEGY,
GENERAL NOTES, AND
LOCAL NOTES)

PROJ. REFERENCE NO. SHEET NO. TMP-1D

GENERAL NOTES / LOCAL NOTES

TRAFFIC BARRIER

U) INSTALL TEMPORARY BARRIER ACCORDING TO THE TRAFFIC CONTROL PLANS A MAXIMUM OF TWO (2) WEEKS PRIOR TO BEGINNING WORK IN ANY LOCATION. ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION PROCEED IN A CONTINUOUS MANNER TO COMPLETE THE PROPOSED WORK IN THAT LOCATION UNLESS OTHERWISE STATED IN THE TRAFFIC CONTROL PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE.

ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION AND NO WORK IS PREFORMED BEHIND THE TEMPORARY BARRIER FOR A PERIOD LONGER THAN TWO (2) MONTHS, REMOVE/RESET TEMPORARY BARRIER AT NO COST TO THE DEPARTMENT UNLESS OTHERWISE STATED IN THE TRAFFIC CONTROL PLANS, TEMPORARY BARRIER IS PROTECTING A HAZARD, OR AS DIRECTED BY THE ENGINEER.

INSTALL TEMPORARY BARRIER WITH THE TRAFFIC FLOW BEGINNING WITH THE UPSTREAM SIDE OF TRAFFIC. REMOVE TEMPORARY BARRIER AGAINST THE TRAFFIC FLOW BEGINNING WITH THE DOWNSTREAM SIDE OF TRAFFIC.

INSTALL AND SPACE DRUMS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH) TO CLOSE OR KEEP THE SECTION OF THE ROADWAY CLOSED UNTIL THE TEMPORARY BARRIER CAN BE PLACED OR AFTER THE TEMPORARY BARRIER IS REMOVED.

V) PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER AT ALL TIMES DURING THE INSTALLATION AND REMOVAL OF THE BARRIER BY EITHER A TRUCK MOUNTED IMPACT ATTENUATOR (MAXIMUM 72 HOURS) OR A TEMPORARY CRASH CUSHION.

PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER FROM ONCOMING TRAFFIC AT ALL TIMES BY A TEMPORARY CRASH CUSHION UNLESS THE APPROACH EACH END OF MOVABLE/PORTABLE CONCRETE BARRIER IS OFFSET FROM ONCOMING TRAFFIC AS FOLLOWS OR AS SHOWN IN THE PLANS:

POSTED SPEED LIMIT	MINIMUM OFFSET
40 OR LESS	15 FT
45 - 50	20 FT
55	25 FT
60 MPH or HIGHER	30 FT

TRAFFIC CONTROL DEVICES

- W) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH), EXCEPT, 10 FT ON- CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.
- X) PLACE TYPE III BARRICADES WITH ROAD CLOSED SIGN R11-2 ATTACHED OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.

PAVEMENT MARKINGS AND MARKERS

Y) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

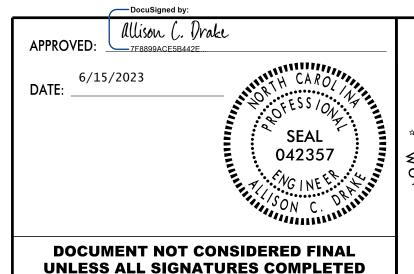
ROAD NAME MARKING MARKER ALL ROADS PAINT NONE

- Z) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS.
 PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL
 APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.
- AA) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- BB) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.
- CC) TRACE THE PROPOSED MONOLITHIC ISLAND LOCATIONS WITH PROPER COLOR PAVEMENT MARKINGS PRIOR TO INSTALLATION. PLACE DRUMS TO DELINEATE ANY PROPOSED MONOLITHIC ISLANDS BEFORE INSTALLATION

MISCELLANEOUS

- DD) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.
- EE) IN THE EVENT A TIE-IN CANNOT BE MADE IN ONE DAY'S TIME, BRING THE TIE-IN AREA TO AN APPROPRIATE ROADWAY ELEVATION AS DETERMINED BY THE ENGINEER. PLACE BLACK ON ORANGE "LOOSE GRAVEL" SIGNS (W8-7) AND BLACK ON ORANGE "PAVEMENT ENDS" SIGNS (W8-3) 100 FT AND 100 FT RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.
- FF) ALL CURB RAMP LOCATIONS SHALL BE DERIVED FROM STATIONING SHOWN ON PAVEMENT MARKING PLANS OR AS DIRECTED BY THE ENGINEER IN COORDINATION WITH THE SIGNING AND DELINEATION UNIT.
- GG) CONTRACTOR SHALL MAINTAIN SIDEWALK ACCESS AT ALL TIMES AS STATED IN THE PHASING. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TEMPORARY SIDEWALKS (CONCRETE, ASPHALT, OR OTHER SUITABLE MATERIAL AS APPROVED BY THE ENGINEER) AT ALL LOCATIONS WHERE THE OPEN PEDESTRIAN TRAVELWAY HAS BEEN REMOVED FOR CONSTRUCTION OPERATIONS (UTILITIES, DRAINAGE, ETC.).



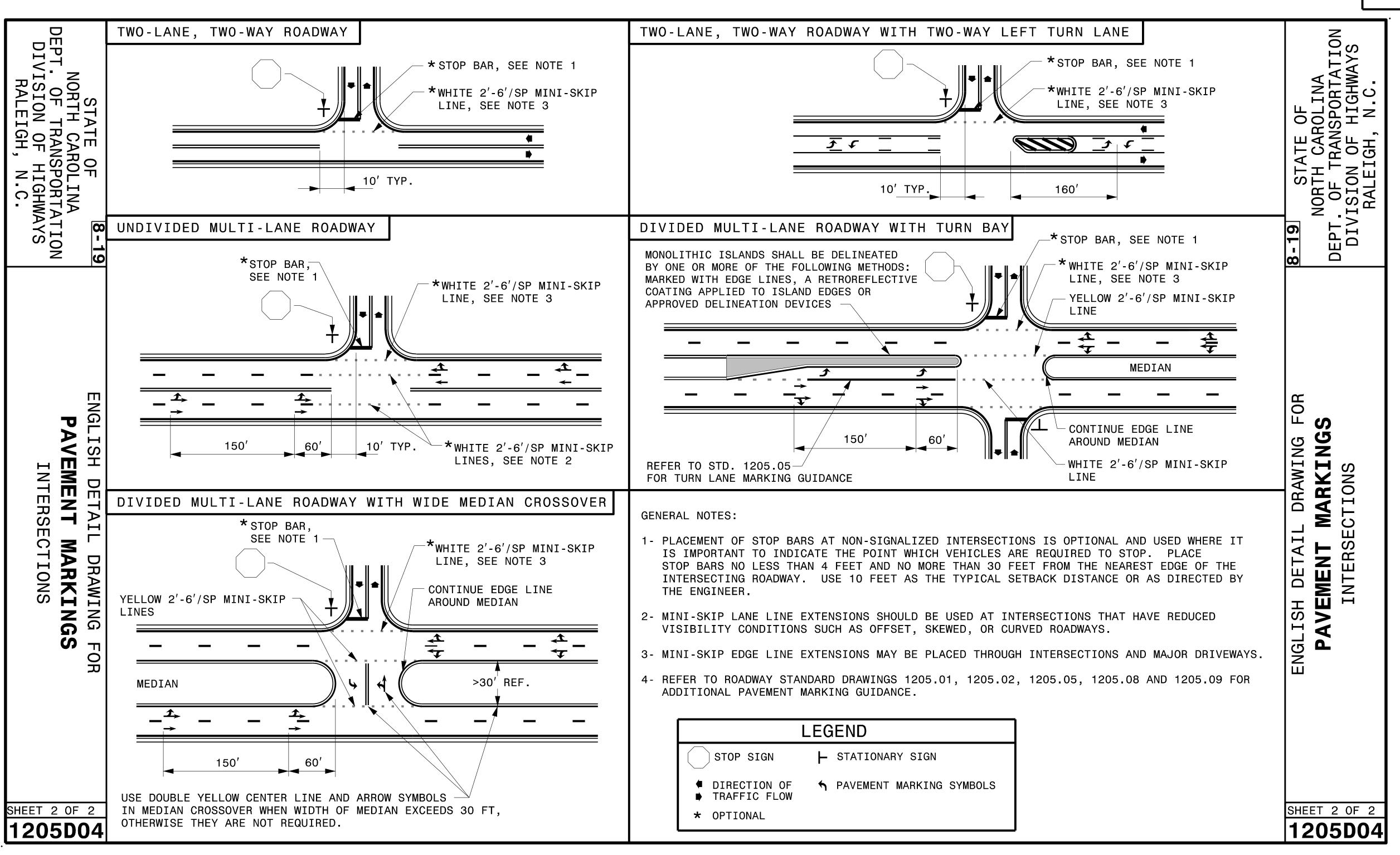




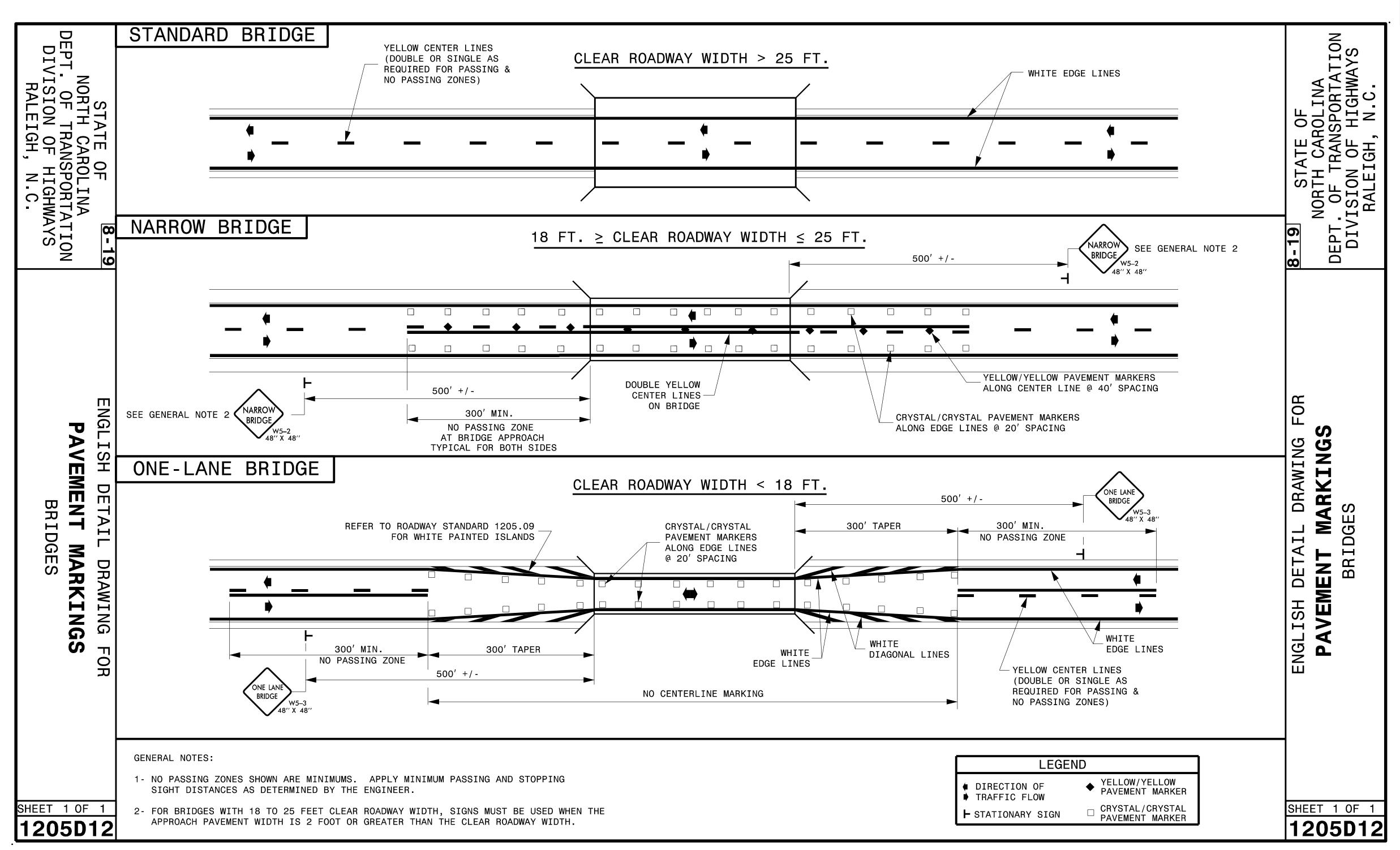
TRANSPORTATION
OPERATIONS PLAN:
(MANAGEMENT STRATEGY,
GENERAL NOTES, AND
LOCAL NOTES)

APPROVED:

Notther U. Springer



REVISED PAVEMENT MARKING ROADWAY STANDARD DRAWING



REVISED PAVEMENT MARKING ROADWAY STANDARD DRAWING

PROJ. REFERENCE NO. SHEET NO. TMP-20 R-5799 ROUNDABOUT FOR DRAWING 0ML ANE STANDARD NO CLOSURE ANE

WORK AREA

DRUM

W20-1 48"X48"

SHEET 17 OF 20

1101.02

G20-2a 48"X24" (Minimum) ROAD WORK SIGN LAYOUT SEE BOTTOM RIGHT ILLUMINATED FLASHING ILLUMINATED FLASHING AMBER ARROW AMBER ARROW TYPE C TYPE C BUFFER SIGN LAYOUT BUFFER SEE BOTTOM RIGHT G20-2a 48"X24" (Minimum) + + + +**1** G20-2a 48"X24" (Minimum) WORK AREA BUFFER SIGN LAYOUT SEE BOTTOM RIGHT ••• BUFFER **TEMPORARY** ILLUMINATED FLASHING ILLUMINATED FLASHING AMBER ARROW AMBER ARROW TYPE C TYPE C (A)ROADWAY (B)PREPARED TO STOP INSIDE *REFERENCE GENERAL NOTES **LEGEND** - STATIONARY SIGN C W20-4 48" X 48" **←** DIRECTION OF TRAFFIC FLOW G20-2a 48"X24" (Minimum) WORK ■ FLAGGER STATION

END

DEP D INSIDE

TEMP ROADWAY ORARY OSURI STANDARD П ANE DRAWING **OSURES**

SHEET 17 OF 20

ROUNDABOUT

FOR

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PROJ. REFERENCE NO. SHEET NO. R-5799 TMP-2C

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ROUNDABOUT RES ANE

FOR OSOI RAWING ANE STANDARD O **OSURE** ROADWAY TEMP0

SNI

SHEET 18 OF 20

1101.02

GENERAL NOTES

EACH ROUNDABOUT IS UNIQUE AND THE TRAFFIC CONTROL MUST BE DEVELOPED TO MEET THE SPECIFIC CONDITIONS OF THE LOCATION AND THE WORK OPERATION. A DETOUR COULD POSSIBLY BETTER SERVE TRAFFIC MOVEMENT AND MUST BE CONSIDERED AS AN ALTERNATIVE TO A FLAGGING OPERATION.

PLACE ARROW BOARDS ON THE SHOULDER (PAVED OR UNPAVED). PLACE ARROW BOARDS WITHIN THE TAPER IF SHOULDERS DO NOT EXIST. MEET THE REQUIREMENTS FOR STOPPING SIGHT DISTANCE AT THE ARROW BOARD LOCATION. IF NEEDED, EXTEND LANE CLOSURES AT THE BUFFER SPACE, SUCH THAT STOPPING SIGHT DISTANCE TO THE ARROW BOARD IS MET (REFER TO RSD 1101.11, SHEET 2 OF 4).

PLACE DRUMS IN TAPERS AT THE MAXIMUM SPACING EQUAL IN FEET TO THE POSTED SPEED LIMIT. PLACE DRUMS ALONG THE WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.

REFER TO RSD 1101.11, SHEET 1 & 4, FOR "L" DISTANCE AND SIGN SPACING.

INSTALL LANE CLOSURES WITH THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE UPSTREAM SIDE OF TRAFFIC. REMOVE LANE CLOSURES AGAINST THE FLOW OF TRAFFIC, BEGINNING WITH DEVICES ON THE DOWNSTREAM SIDE OF TRAFFIC.

FLASHING WARNING LIGHTS MAY BE USED TO CALL ATTENTION TO THE ADVANCE WARNING SIGNS IN ACCORDANCE WITH MUTCD (6), STATE OR LOCAL STANDARDS OR GUIDELINES.

A PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) SHOULD BE CONSIDERED AS PART OF THE TRAFFIC CONTROL PLAN TO PROVIDE CLEAR GUIDANCE TO MOTORIST ON ALL APPROACHES OF THE ROUNDABOUT, ESPECIALLY APPROACHES THAT MUST REVERSE TRAFFIC FLOW.

VEHICLE HAZARD WARNING SIGNALS SHALL NOT BE USED INSTEAD OF THE VEHICLE'S HIGH INTENSITY AMBER ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS. VEHICLE HAZARD WARNING SIGNALS CAN BE USED TO SUPPLEMENT HIGH INTENSITY AMBER ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS.

PERIODIC ADJUSTMENTS TO THE CHANNELIZING DEVICES MAY BE ALLOWED IN AN ACTIVE WORK ZONE TO ACCOMMODATE THE TURNING MOVEMENTS OF TRACTOR TRAILER VEHICLES AND OTHER LARGE VEHICLES.

REFER TO RSD 1205.14, SHEET 2 OF 2, FOR PAVEMENT MARKINGS ON ROUNDABOUTS.

IN CASES WHERE PAVEMENT MARKINGS ARE NO LONGER APPLICABLE TO THE TRAFFIC PATTERN, CONSIDER REMOVING OR COVERING THE MARKINGS AT THE DISCRETION OF THE ENGINEER.

DO NOT INSTALL ADVANCE WARNING SIGNS MORE THAN 3 DAYS PRIOR TO BEGINNING OF WORK UNLESS COVERED.

COVER EXISTING SIGNS THAT CONFLICT WITH WORK ZONE TRAFFIC PATTERN DURING ACTIVE WORK HOURS. UNCOVER SIGNS WHENEVER WORK IS NOT TAKING PLACE

PROVIDE PEDESTRIAN ACCOMMODATIONS WHEN CLOSING OFF CROSSWALKS.

SHEET 18 OF 20

ROUNDABOUT

1101.02

FIGURE A

NOTE: WALL OR SHORING HEIGHT = A - B

NOTES

- 1- REFER TO THE TRAFFIC CONTROL PLANS FOR TEMPORARY SHORING LOCATIONS AND NOTES.
- 2- REFER TO THE "TEMPORARY SHORING" PROJECT SPECIAL PROVISION FOR INFORMATION ABOUT TEMPORARY SHORING AND PORTABLE CONCRETE BARRIER (PCB).
- 3- PCB IS REQUIRED IF TEMPORARY SHORING IS LOCATED WITHIN THE CLEAR ZONE IN ACCORDANCE WITH THE AASHTO ROADSIDE DESIGN GUIDE. DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE.

 (CONTACT NCDOT PAVEMENT MANAGEMENT UNIT FOR APPLICABLE PAVEMENT DESIGN).
- 4- BASED ON THE CLEAR DISTANCE, OFFSET, DESIGN SPEED AND PAVEMENT TYPE, CHOOSE AN UNANCHORED OR ANCHORED PCB FROM THE TABLE SHOWN IN FIGURE B. CLEAR DISTANCE IS DEFINED AS SHOWN IN FIGURE A AND OFFSET IS DEFINED AS SHOWN IN FIGURE B.
- 5- AT THE CONTRACTOR'S OPTION OR IF THE MINIMUM REQUIRED CLEAR DISTANCE IS NOT AVAILABLE, SET PCB NEXT TO AND UP AGAINST THE TRAFFIC SIDE OF THE TEMPORARY SHORING EXCEPT FOR BARRIER ABOVE TEMPORARY WALLS. PCB WITH THE MINIMUM REQUIRED CLEAR DISTANCE IS REQUIRED ABOVE TEMPORARY WALLS.
- 6- USE NCDOT PORTABLE CONCRETE BARRIER (PCB) IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1170.01 AND SECTION 1170 OF THE STANDARD SPECIFICATIONS.
- 7- PCB REQUIREMENTS FOR TEMPORARY WALLS APPLY TO TEMPORARY MECHANICALLY STABILIZED EARTH (MSE) WALLS AND TEMPORARY SOIL NAIL WALLS.
- 8- SET PCB WITH A MINIMUM HORIZONTAL DISTANCE OF 2 FT BETWEEN THE FRONT FACE OF THE BARRIER AND THE EDGE OF THE NEAREST TRAFFIC LANE AS SHOWN IN FIGURE A UNLESS OTHERWISE SHOWN IN THE PLANS AND OR AS APPROVED BY THE ENGINEER.
- 9- FOR PCB ABOVE AND BEHIND TEMPORARY WALLS, PROVIDE A MINIMUM DISTANCE OF 3 FT BETWEEN THE EDGE OF PAVEMENT AND THE WALL FACE AS SHOWN IN FIGURE A. IF THESE MINIMUM REQUIRED DISTANCES ARE NOT AVAILABLE, CONTACT THE ENGINEER.
- 10- TABLE SHOWN IN FIGURE B IS BASED ON NCDOT RESEARCH PROJECT NO. 2005-010 WITH VEHICLE TYPE USED FOR NCHRP 350 CRASH TESTS. BARRIER DEFLECTIONS AND RESULTING MINIMUM REQUIRED CLEAR DISTANCES MIGHT VARY SIGNIFICANTLY FOR LARGER HEAVIER VEHICLES, RUNS OF BARRIER LESS THAN 200 FT IN LENGTH AND WET OR DRY PAVEMENT.

MINIMUM	REQUIRED	CLEAR	DISTANCE.	inches
	KEQUIKED	CLLIM	DIBIANCE,	Inches

Barrier	Pavement	Offset *	Design Speed, mph					
Type	Type	ft	<30	31-40	41-50	51-60	61-70	71-80
		<8	24	26	29	32	36	40
		8-14	26	28	31	35	38	42
		14-20	27	29	34	36	39	43
		20-26	28	31	35	38	40	44
	Asphalt	26-32	29	32	36	39	42	45
		32-38	30	34	38	41	43	46
9		38-44	31	34	41	43	45	48
PCB		44-50	31	35	41	43	46	49
		50-56	32	36	42	44	47	50
Unanchored		>56	32	36	42	45	47	51
h 0		<8	17	18	21	22	25	26
n c		8-14	19	20	23	25	26	29
n a		14-20	22	22	24	26	28	31
n		20-26	23	24	26	27	30	34
	Concrete	26-32	24	25	27	28	32	35
		32-38	24	26	27	30	33	36
		38-44	25	26	28	30	34	37
		44-50	26	26	28	32	35	37
		50-56	26	26	28	32	35	38
		>56	26	27	29	32	36	38
Anchored PCB	Asphalt	All Offsets	24 for All Design Speeds					
Anchored PCB	Concrete (including bridge approach slabs)	All Offsets	12 for All Design Speeds					

^{*} See Figure Below

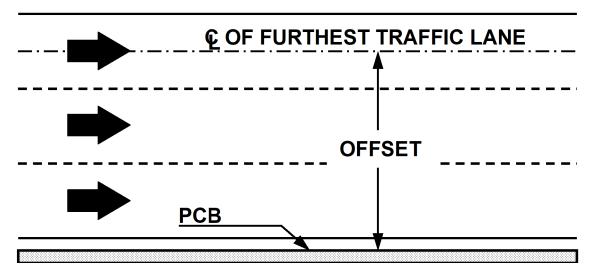
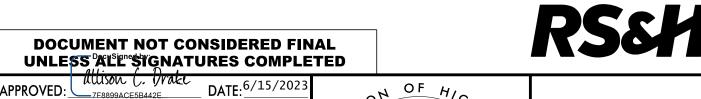


FIGURE B



SEAL

042357

NG INE ENCLOSE

OF HIGH

OF NORTH CAPO

OF TRANSPORT

ON OF TRANSPO

PORTABLE CONCRETE BARRIER
AT
TEMPORARY SHORING LOCATIONS

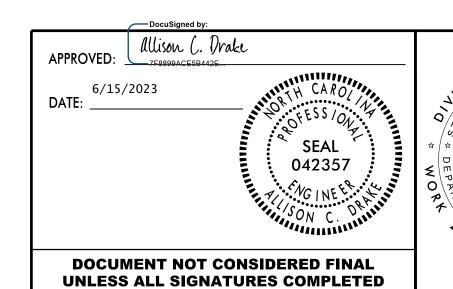
PROJ. REFERENCE NO.	SHEET NO.
R-5799	TMP-2F

TEMPORARY SHORING NOTES

SHORING LOCATION NO. (1) FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION. BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS. DESIGN TEMPORARY SHORING FROM STATION -Y2- 17+00±, 32.9' LT, TO STATION -Y2- 18+06±, 34.4' LT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION: UNIT WEIGHT = 120 LB/CF FRICTION ANGLE = 30 DEGREES COHESION = O LB/SFGROUNDWATER ELEVATION = $7.5 \text{ FT } \pm$ DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -Y2- 17+00±, 32.9' LT, TO STATION -Y2- 18+06±, 34.4' LT. IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -Y2- STA. 17+00 +/-, 32.9' LT, TO STATION -Y2- STA. 18+06 +/-, 34.4' LT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

SHORING LOCATION NO. (2) FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION. BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS. DESIGN TEMPORARY SHORING FROM STATION -Y2- 17+00±, 36.2' RT, TO STATION -Y2- 18+00±, 34.8' RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION: UNIT WEIGHT = 120 LB/CF FRICTION ANGLE = 30 DEGREES COHESION = 0 LB/SF GROUNDWATER ELEVATION = $7.5 \text{ FT} \pm$ DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION --Y2- 17+00±, 36.2' RT, TO STATION -Y2- 18+00±, 34.8' RT. IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -Y2- STA. 17+00 +/-, 36.2' RT, TO STATION -Y2- STA. 18+00 +/-, 34.8' RT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL



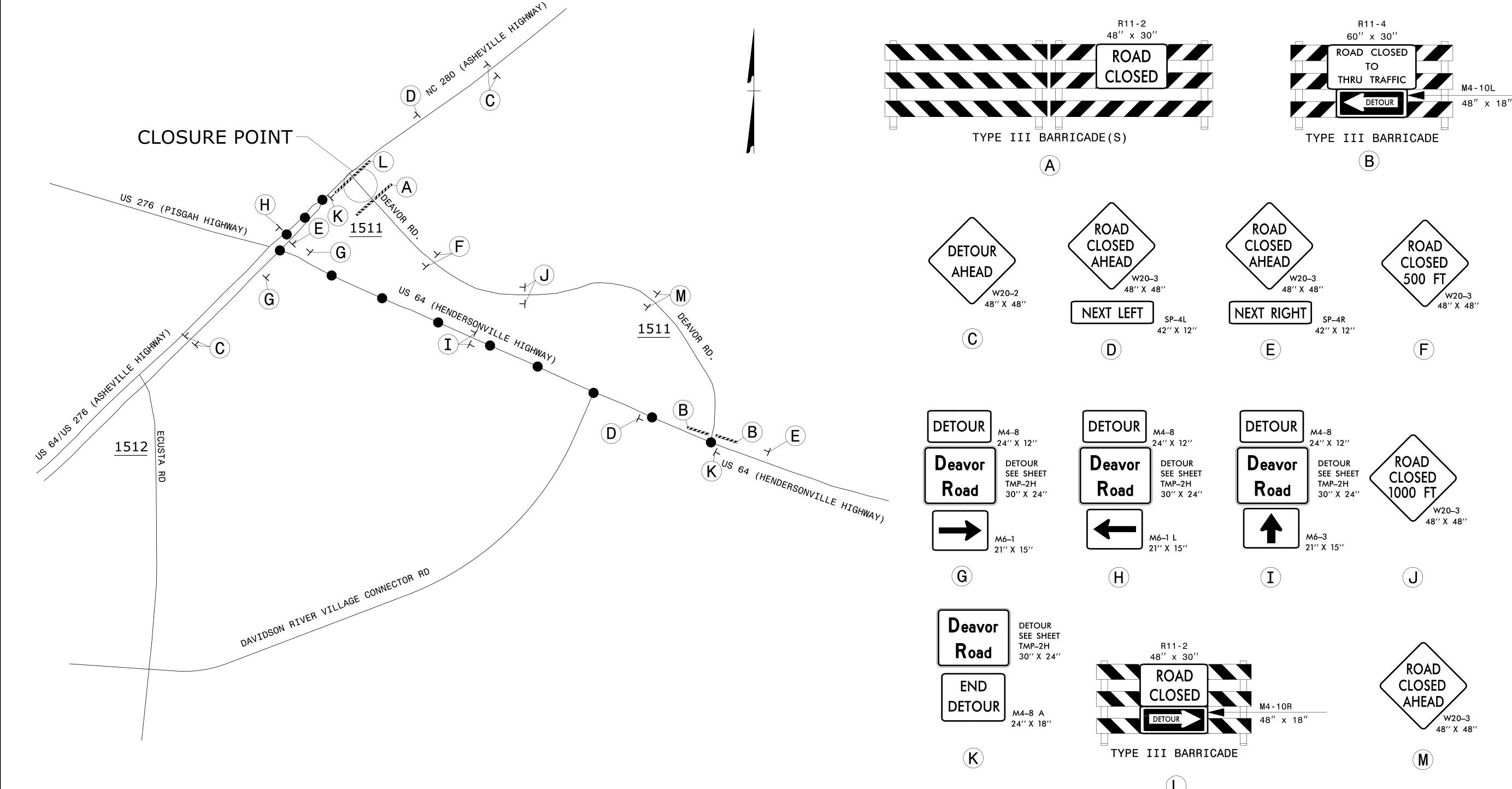


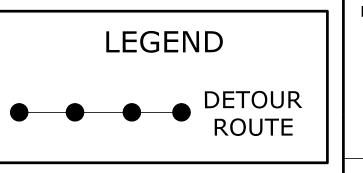
NAIL WALLS PROVISION.

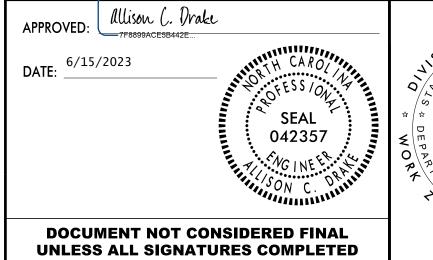


TEMPORARY SHORING NOTES

PROJ. REFERENCE NO. R-5799 TMP-2G R11-4 60" x 30" TYPE III BARRICADE CLOSED 42" X 12" F DETOUR SEE SHEET TMP-2H 30" X 24" CLOSED 1000 FT/ W20-3 48" X 48" **CLOSED** AHEAD W20-3 48'' X 48'' 1520 SOUTH BOULEVARD, SUITE 200 CHARLOTTE, NC 28203 NC FIRM LICENSE No: F-0493







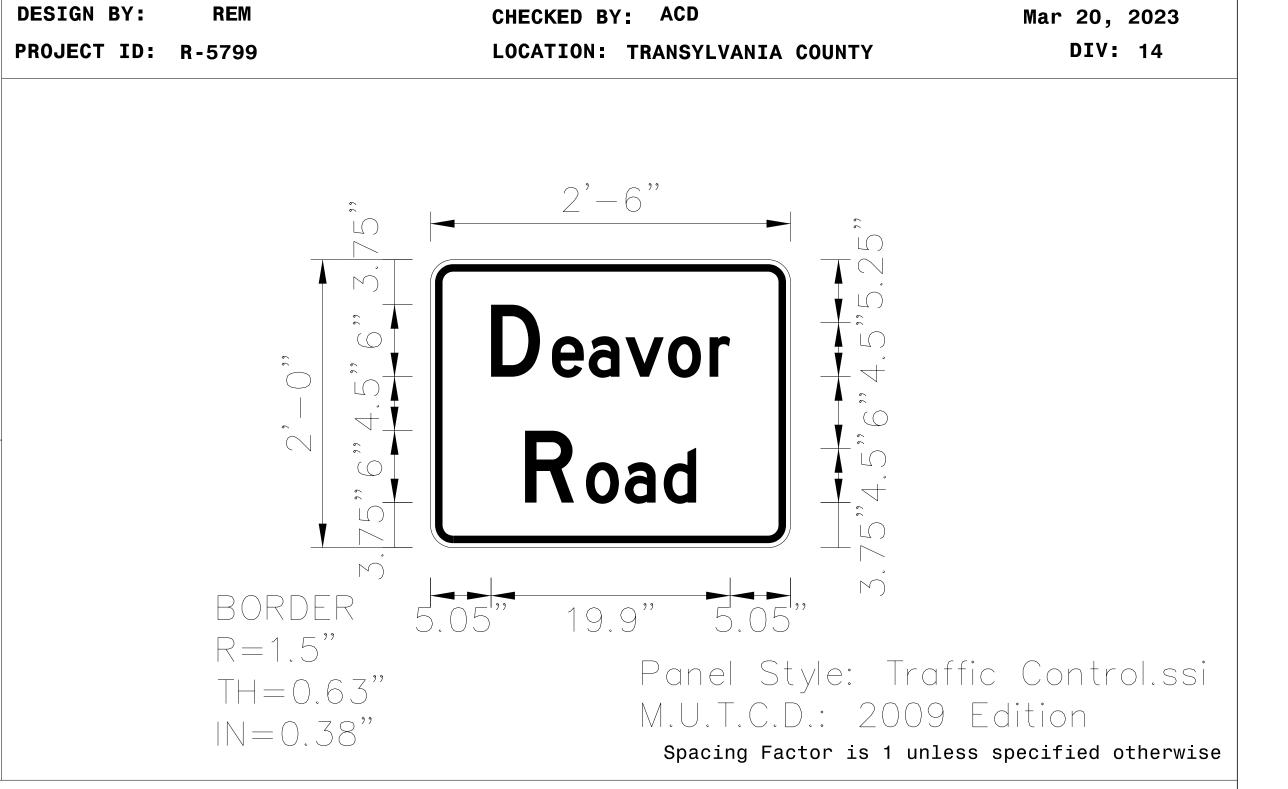


PROJ. REFERENCE NO.	SHEET NO.
R-5799	TMP-2H

BACKG COLOR: Orange SIGN NUMBER: DETOUR COPY COLOR: Black TYPE: D QUANTITY: 4 WID HT SYMBOL SIGN WIDTH: 2'-6" **HEIGHT:** 2'-0" TOTAL AREA: 5.0 Sq.Ft. **BORDER TYPE: FLUSH RECESS:** 0.38" WIDTH: 0.63" **RADII:** 1.5" MAT'L: 0.063" (1.6 mm) ALUMINUM NO. Z BARS: 0.080" (2.0 mm) ALUMINUM 0.125" (3.2 mm) ALUMINUM LENGTH:

USE NOTES:

- Legend and border(except those that are colored black) shall be direct applied Grade C sheeting.
- 2. Background shall be Grade A, B, or C reflective sheeting.
- 3. Shields; A, B, and C type arrows shall be on 0.032" (0.8mm) aluminum with Grade C reflective sheeting and demountable.

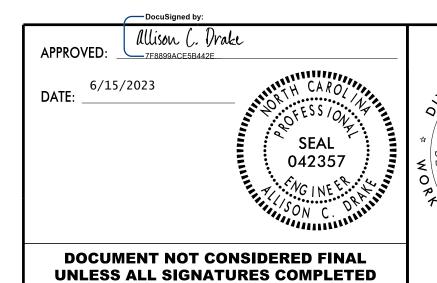


LETTER POSITIONS

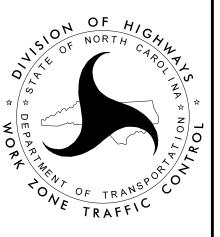
FILENAME: R5799_TC_TMP_detour sign

	Letter locations are panel edge to lower left corner	Series/Size Text Length
D e a v o r		D 2000
5 10.1 13.2 16.2 19.8 23.3		19.9
R o a d		D 2000
7.9 13 16.2 19.4		14.3

1520 SOUTH BOULEVARD, SUITE 200 CHARLOTTE, NC 28203 NC FIRM LICENSE No: F-0493



NORTH CAROLINA D.O.T. SIGN DETAIL



DEAVOR ROAD DETOUR SIGN DESIGN

:LaughR

R:\Traffic\TrafficControl\TCP\R5799 User:McLaughR

PROJ. REFERENCE NO.	SHEET NO.
R-5799	TMP-3

PHASING NOTES

NOTE:

'RSD' REFERS TO NCDOT ROADWAY STANDARD DRAWINGS.

COMPLETE ANY PROPOSED OR TEMPORARY WIDENING IN SUCH A MATTER THAT PONDING OF WATER WILL NOT OCCUR IN THE TRAVEL LANE.

ALL PROPOSED ASPHALT ROADWAY CONSTRUCTION IS UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE UNLESS OTHERWISE NOTED.

PHASE I

STEP 1:

USING RSD 1101.01 (SHEETS 2 AND 3 OF 3) PLACE ALL ADVANCE WARNING SIGNS.

STEP 2:

USING A TRAFFIC SHIFT AND RSD 1101.02 (SHEETS 2 AND 3 OF 14), RSD 1101.04, SHORT TERM LANE CLOSURES, INSTALL POSITIVE PROTECTION, TEMPORARY DRAINAGE, TEMPORARY PAVEMENT, AND TEMPORARY SHORING (SEE TMP-2F), AND CONSTRUCT WEDGING THEN WIDENING OF THE FOLLOWING (SEE SHEETS TMP-4 AND TMP-5):

-Y2- (US 64 HENDERSONVILLE HWY) LT STA 11+99± TO -Y2- LT STA 18+56±

- -Y2- LT STA 19+29± TO -Y2- LT STA 27+30±
- -Y2- LT STA 19+06± (TEMPORARY DRIVEWAY)
- -Y2- RT STA 12+25± TO -Y2- RT STA 15+19±
- -Y2- RT STA 16+62± TO -Y2- RT STA 27+14±

COMPLETE CULVERT CONSTRUCTION, THEN FINISH CURB AND GUTTER AT -Y2- LT STA 18+56± TO -Y2- LT STA 19+29±, AND -Y2- RT STA 15+19± TO -Y2- RT STA 16+62±, AND REMOVE TEMPORARY DRIVEWAY AND TEMPORARY PAVEMENT.

PHASE II

STEP 1:

USE RSD 1101.02 (SHEETS 1 AND 2 OF 14), RSD 1101.04, SHORT TERM LANE CLOSURES, RIGHT LANE CLOSURE AT -L- (US 64/US 276/NC 280 ASHEVILLE HWY) LT STA. 14+47±, WEDGING, A TEMPORARY SIGNAL AT -Y1- (ECUSTA RD), AND A PEDESTRIAN DETOUR ALONG -Y1- LT, CONSTRUCT THE FOLLOWING (SEE SHEET TMP-6):

- -L- STA 9+33± TO -L- STA 13+42±
- -L- STA 12+95± LT TO -L- STA 13+55± LT (SIDEWALK, CURB AND GUTTER)
- -L- STA 13+90± LT TO -L- STA 14+31± LT (SIDEWALK, CURB AND GUTTER)
- -L- STA 13+08± RT TO -L- STA 13+56± RT (PEDESTRIAN REFUGE)
- -Y1- STA 10+49± TO -Y1- STA 11+31± (EXIST. ISLAND REMOVAL)
- -Y1- STA 11+10± RT TO -Y1- STA 16+61± RT WEDGING AND WIDENING

PHASE II:

STEP 2:

USING RSD 1101.02 (SHEETS 1 AND 2 OF 14), RSD 1101.04, LANE CLOSURES, WEDGING, A TEMPORARY SIGNAL AT -Y1- (ECUSTA RD), AND A PEDESTRIAN DETOUR ALONG -Y1- RT, CONSTRUCT THE FOLLOWING (SEE SHEET TMP-7):

- -L- (US 64/US 276/NC 280 ASHEVILLE HWY) STA 14+29± LT TO -L- STA 14+89± LT (SIDEWALK, CURB AND GUTTER)
- -L- STA 14+25± TO -L- STA 14+49± (EXIST. ISLAND REMOVAL)
- -Y1- (ECUSTA RD) STA 10+82± TO -L- STA 14+74± (PEDESTRIAN REFUGE)
- -L- STA 15+15± TO -Y1- STA 16+35± (LT)

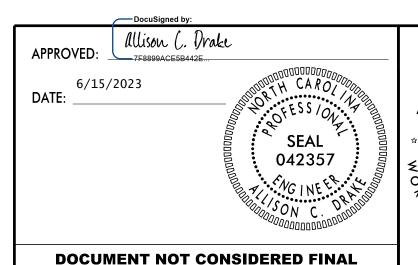
PHASE III:

WITH TRAFFIC IN EXISTING PATTERN, USE RSD 1101.02 (SHEETS 1 AND 3 OF 14), SHORT TERM LANE CLOSURES, AND A TEMPORARY SIGNAL AT -Y1- (ECUSTA RD), REMOVE EXISTING MONOLITHIC ISLANDS ALONG -L- (US 276/US 64/NC 280 ASHEVILLE HWY), -Y2- (US 64 HENDERSONVILLE HWY), AND -Y3- (US 276 PISGAH HWY), AND BEGIN WEDGING AND MEDIAN CONSTRUCTION UP TO, BUT NOT INCLUDING, THE FINAL LAYER OF PAVEMENT (SEE SHEETS TMP-8 THRU TMP-10):

-L- STA 7+00± TO -L- STA 12+88±

- -L- STA 14+50± TO -L- STA 18+06±
- -L- STA 19+24± TO -L- STA 22+65±
- -L- STA 23+82± TO -L- STA 28+27±
- -Y2- STA 10+14± TO -Y2- STA 11+25±
- -Y2- STA 10+79± TO -Y2- STA 11+06±
- -Y3- STA 10+50± TO -Y3- STA 11+69±
- -Y3- STA 10+14± TO -Y3- STA 10+76±
- -Y3- STA 11+13 ± TO -Y3- STA 11+85±

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UNLESS ALL SIGNATURES COMPLETED



PHASING NOTES

PROJ. REFERENCE NO.	SHEET NO.
R-5799	TMP-3A

PHASING NOTES CONTINUED

PHASE IV

USING RSD 1101.03 (SHEETS 1 AND 2 OF 9) AND AN OFF-SITE DETOUR (SEE SHEET TMP-2G), BEGIN CONSTRUCTION OF -Y4- (DEAVOR RD) (SEE SHEET TMP-13).

USING RSD 1101.02 (SHEETS 1 AND 3 OF 14), PLACE TEMPORARY PAVEMENT MARKINGS. USING TEMPORARY SIGNALS AT -Y1-, -Y2-/-Y3-, AND -Y4-, SHIFT TRAFFIC INTO NEW PATTERN ALONG -L- (US 276/US 64/NC 280 ASHEVILLE HWY). THEN CONSTRUCT WIDENING AND WEDGING OF THE FOLLOWING (SEE SHEET TMP-11 THRU TMP-13):

- -L- STA 7+00± (RT) TO -L- STA 12+91± (RT)
- -L- STA 14+99± (RT) TO -L- STA 18+21± (RT)
- -L- STA 19+55± (RT) TO -Y2- (US 64 HENDERSONVILLE HWY) STA 11+73± (RT)
- -Y2- STA 11+99± (LT) TO -L- STA 32+66± (RT)

PHASE V

INTERMEDIATE CONTRACT TIME (ICT): COMPLETE THE WORK REQUIRED IN PHASE V, STEP 1 IN FOURTEEN (14) CONSECUTIVE DAYS. SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.

STEP 1:

USING A LONG TERM LANE CLOSURE, A TEMPORARY SIGNAL, AND RSD 1101.02 (SHEET 3 OF 14) CONSTRUCT -L- (US 64/US 276/NC 280 ASHEVILLE HWY) STA 7+00± (LT) TO -L- STA 12+95± (LT) (SEE SHEET TMP-14).

STEP 2:

WITH THE OFF-SITE DETOUR STILL IN PLACE (SEE SHEET TMP-2G), WORKING IN A CONTINUOUS MANNER, AND USING RSD 1101.02 (SHEETS 1 AND 3 OF 14), INSTALL TEMPORARY SIGNAL AT FOREST GATE CIR (BAG UNTIL READY TO SHIFT), PLACE TEMPORARY PAVEMENT MARKINGS, AND REMOVE EXISTING BOLLARDS AT FOREST GATE CIR. REMOVE SIGNAL AT -Y5- (FOREST GATE DR). CLOSE ROADWAY AND SHIFT TRAFFIC INTO TEMP. PATTERN ALONG -L- (US 64/US 276/NC 280 ASHEVILLE HWY) AND USE SHORT TERM LANE CLOSURES TO CONSTRUCT THE FOLLOWING (SEE SHEETS TMP-14 THRU TMP-17):

- -L- STA 14+89± (LT) TO -L- STA 17+77± (LT)
- -L- STA 19+10± (LT) TO -Y3- (US 276 PISGAH HWY) TIE-IN (LT)
- -Y3- STA 17+20± (LT) TO -L- TIE-IN (LT)
- -Y3- STA 17+20± (RT) TO -L- TIE-IN (LT)
- -Y3- TIE-IN (LT) TO -L- STA 32+66± (LT)
- -L- TIE-IN (LT) TO -Y5- STA. 12+75±

STEP 3:

USING RSD 1101.03 (SHEETS 1 AND 2 OF 9) AND THE OFF-SITE DETOUR (SEE SHEET TMP-2G), CONTINUE CONSTRUCTION OF -Y4- (DEAVOR RD) FROM STA 10+25± TO -Y4- STA 12+85± (SEE SHEET TMP-16).

PHASE VI

INTERMEDIATE CONTRACT TIME (ICT): COMPLETE THE WORK REQUIRED IN PHASE VI, STEP 1 C IN 5 CONSECUTIVE DAYS. SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.

STEP 1:

- A) USING RSD 1101.02 (SHEET 3 OF 14), A TEMPORARY SIGNAL AT -Y1- (ECUSTA RD), AND A PEDESTRIAN DETOUR, CONSTRUCT THE PEDESTRIAN REFUGE FROM -L- (US 64/US 276/NC 280 ASHEVILLE HWY) STA 12+88± TO -L- STA 13+38± (SEE SHEET TMP-18).
- B) REMOVE TEMP. SIGNALS AT -Y2-(US 64 HENERSONVILLE HWY)/-Y3- (US 276 PISGAH HWY), AND -Y4- (DEAVOR RD).
- C) USE RSD 1101.02 (SHEETS 17 AND 18 OF 20) TO SWITCH TRAFFIC TO ONE LANE ROUNDABOUT CONTROL WITH TEMPORARY CHANNELIZING DRUMS DEFINING ISLANDS AND PLACE PAVEMENT MARKINGS. ADJUST CHANNELIZING DRUMS AROUND INTERIOR CIRCLE AS NECESSARY TO ALLOW TRUCKS TO MAKE LEFT TURNS (SEE SHEETS TMP-19 THRU TMP-20).

STEP 2:

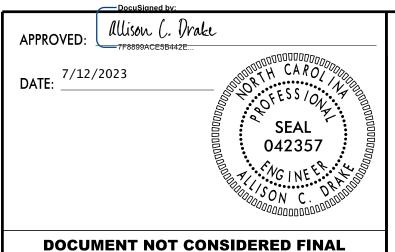
USING RSD 1101.02 (SHEET 3 OF 14), SHORT TERM LANE CLOSURES, TEMP. SIGNAL, AND A PEDESTRIAN DETOUR, CONSTRUCT THE PEDESTRIAN REFUGE ON -L- (US 64/US 276/NC 280 ASHEVILLE HWY) FROM STA 14+33± TO -L- STA 15+50± (SEE SHEET TMP-21).

USING RSD 1101.02 (SHEET 3 OF 14), RSD 1101.02 (SHEETS 17 AND 18 OF 20), AND SHORT TERM LANE CLOSURES, CONSTRUCT THE PROP. MEDIANS AND MONOLITHIC ISLANDS ALONG -L-, -Y2- (US 64 HENERSONVILLE HWY), -Y3- (US 276 PISGAH HWY), -RA1-, AND -RA2- (SEE SHEETS TMP-22 THRU TMP-23). DURING ROUNDABOUT CENTER ISLAND CONCRETE CONSTRUCTION, ACCOMMODATE TRUCK TURNS.

STEP 3:

USING RSD 1101.02 (SHEET 3 OF 14) AND RSD 1101.02 (SHEETS 17 AND 18 OF 20) AND SHORT TERM LANE CLOSURES, PLACE FINAL LAYER OF SURFACE COURSE, FINAL PAVEMENT MARKINGS AND MARKERS, REMOVE TRAFFIC CONTROL DEVICES, AND OPEN TRAFFIC TO FINAL PATTERN.

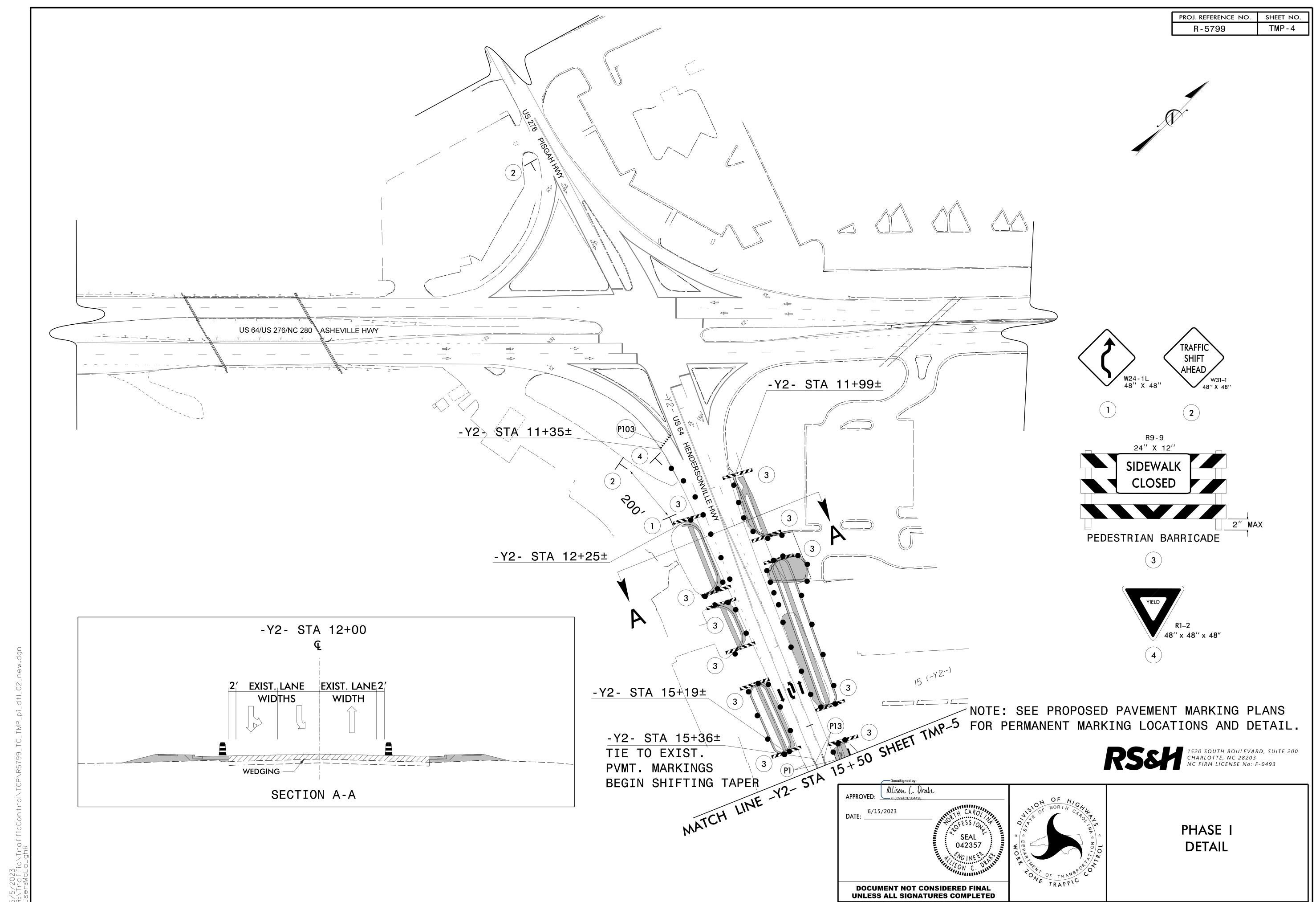


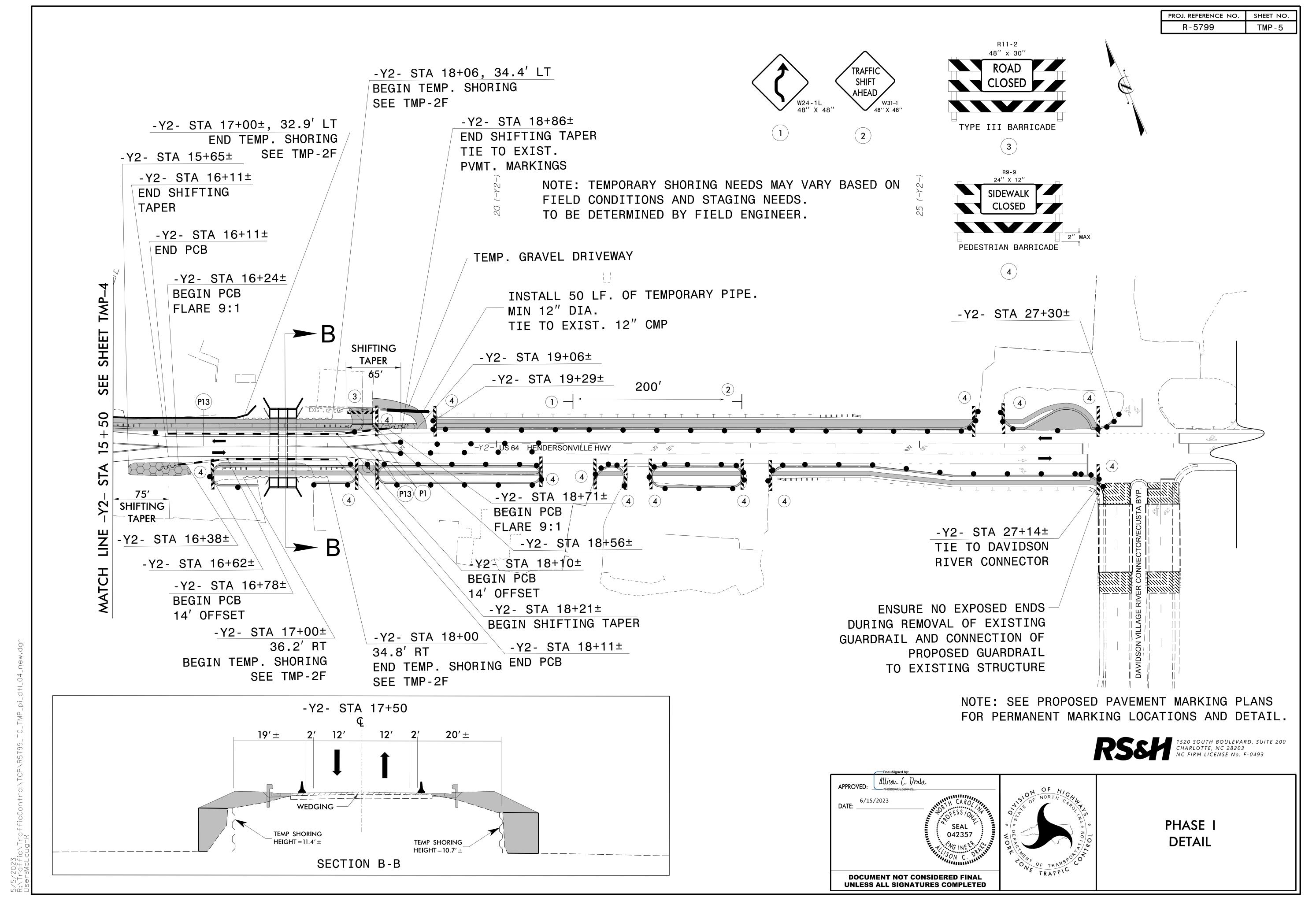


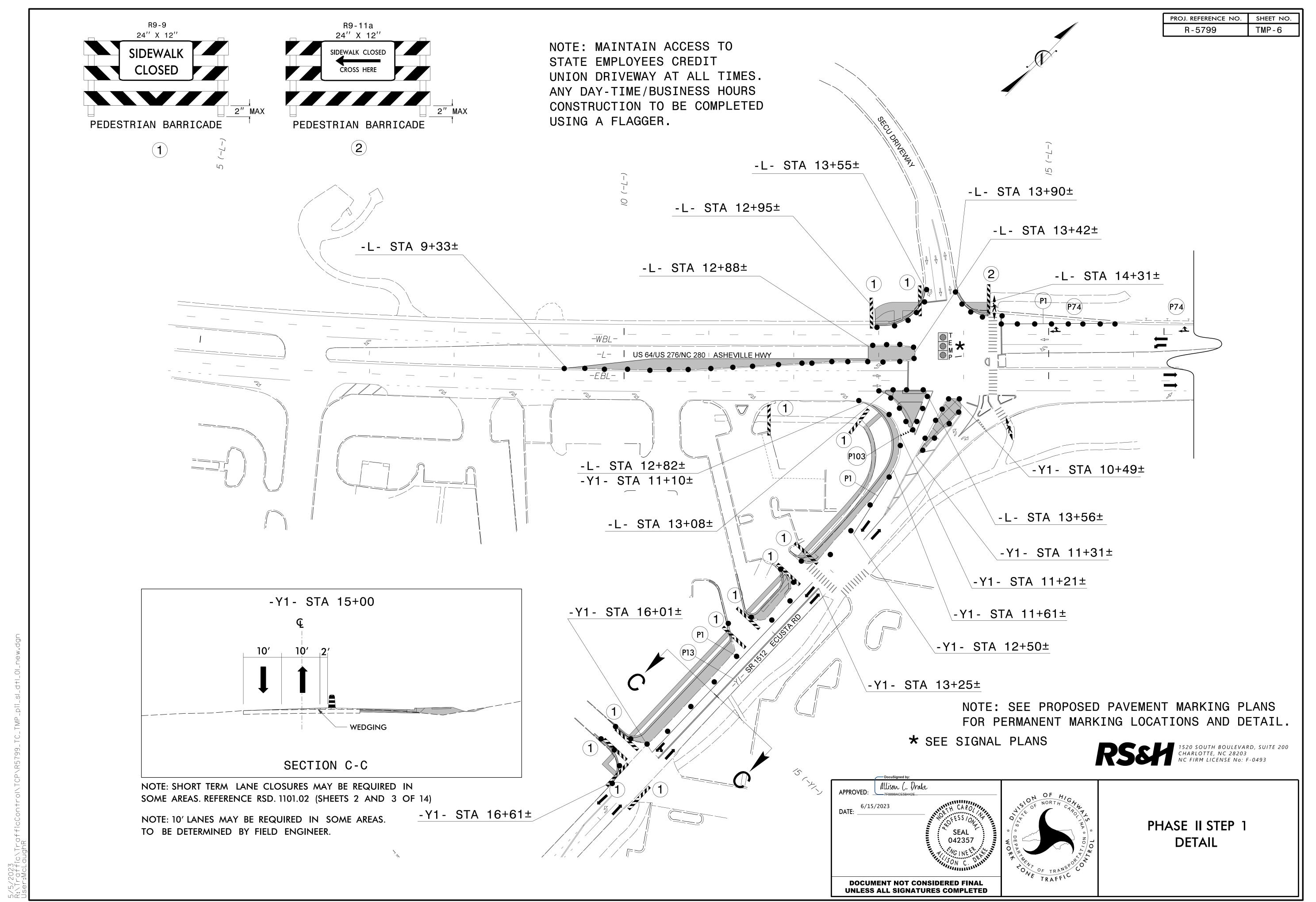
UNLESS ALL SIGNATURES COMPLETED

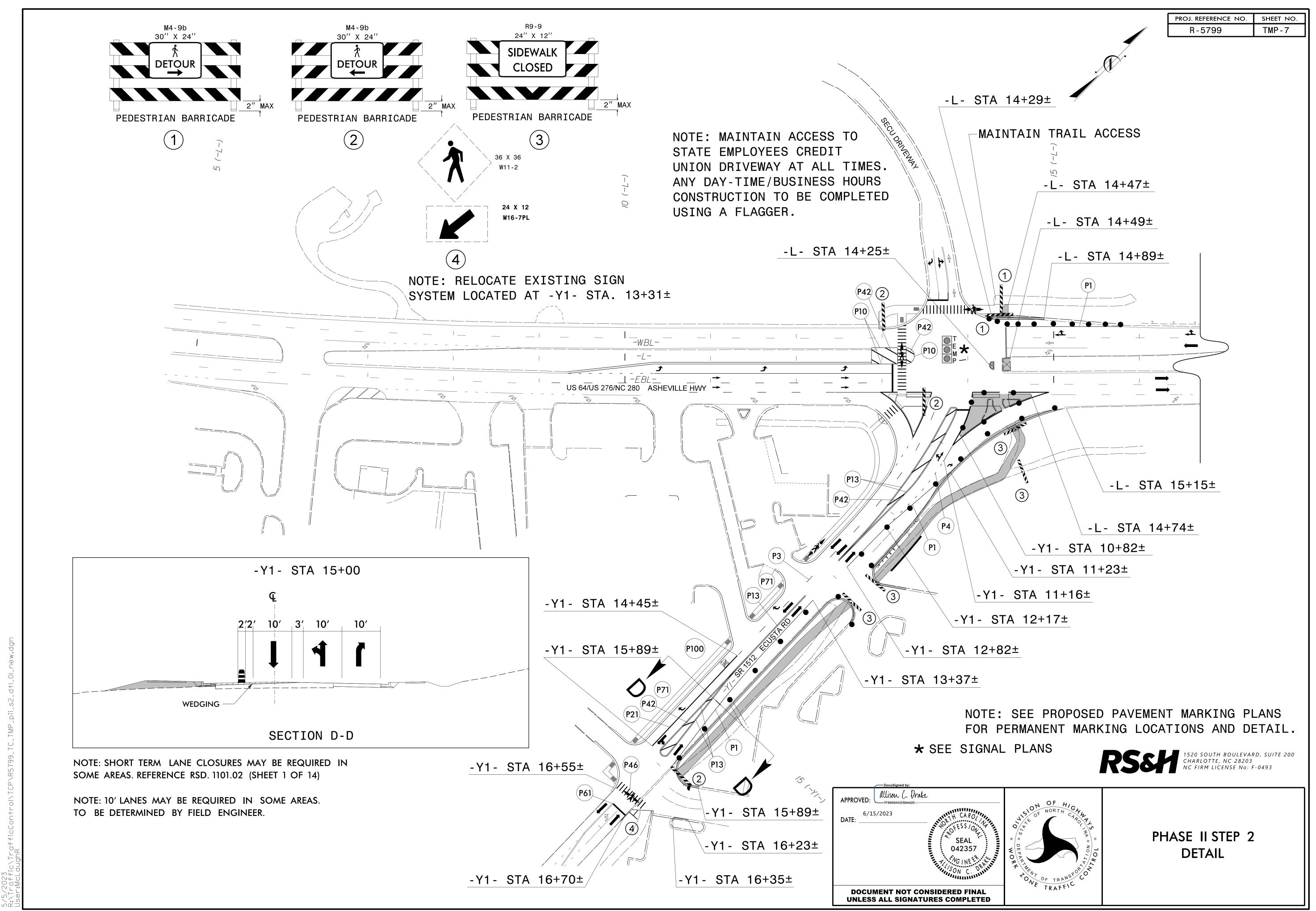


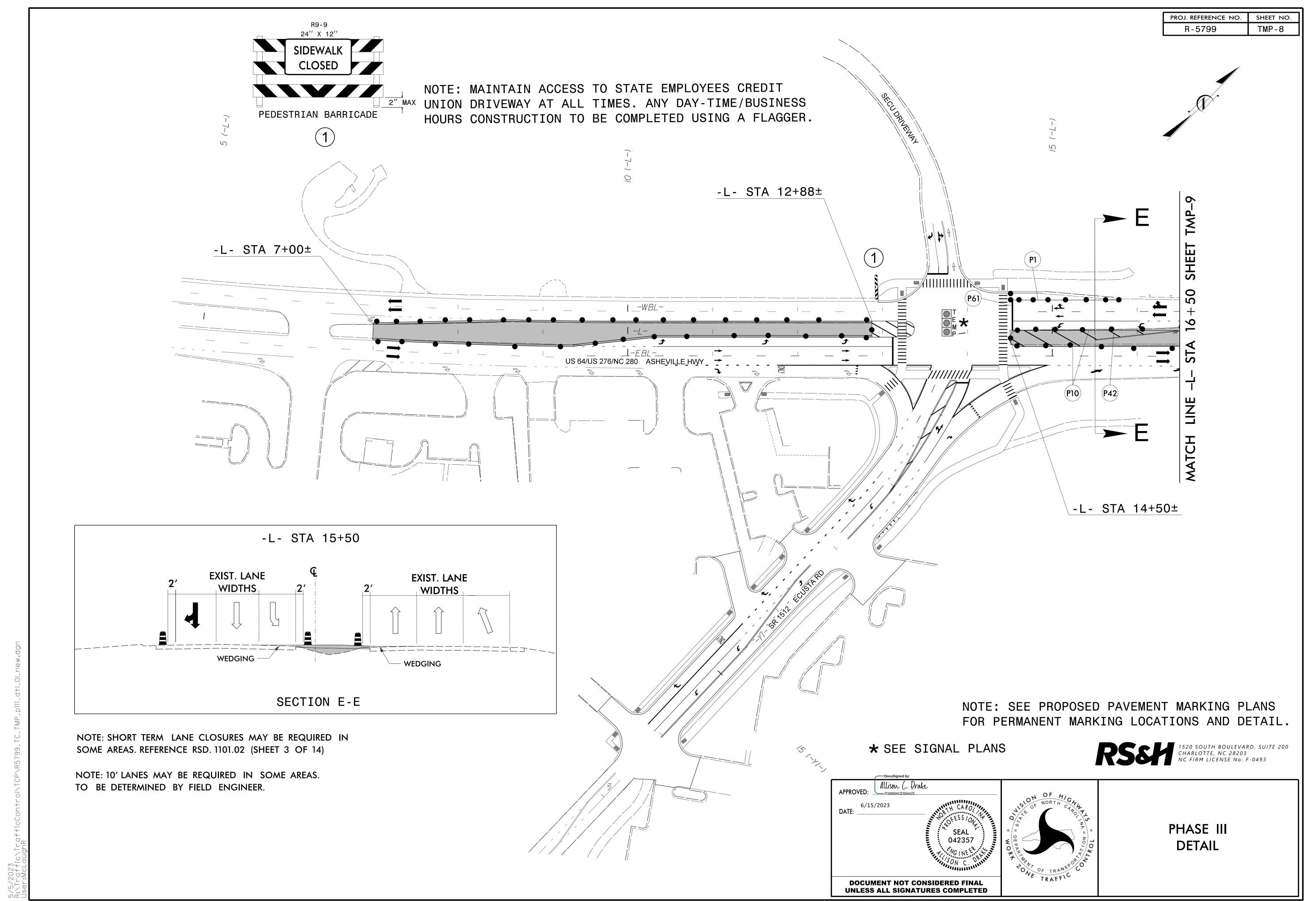
PHASING NOTES

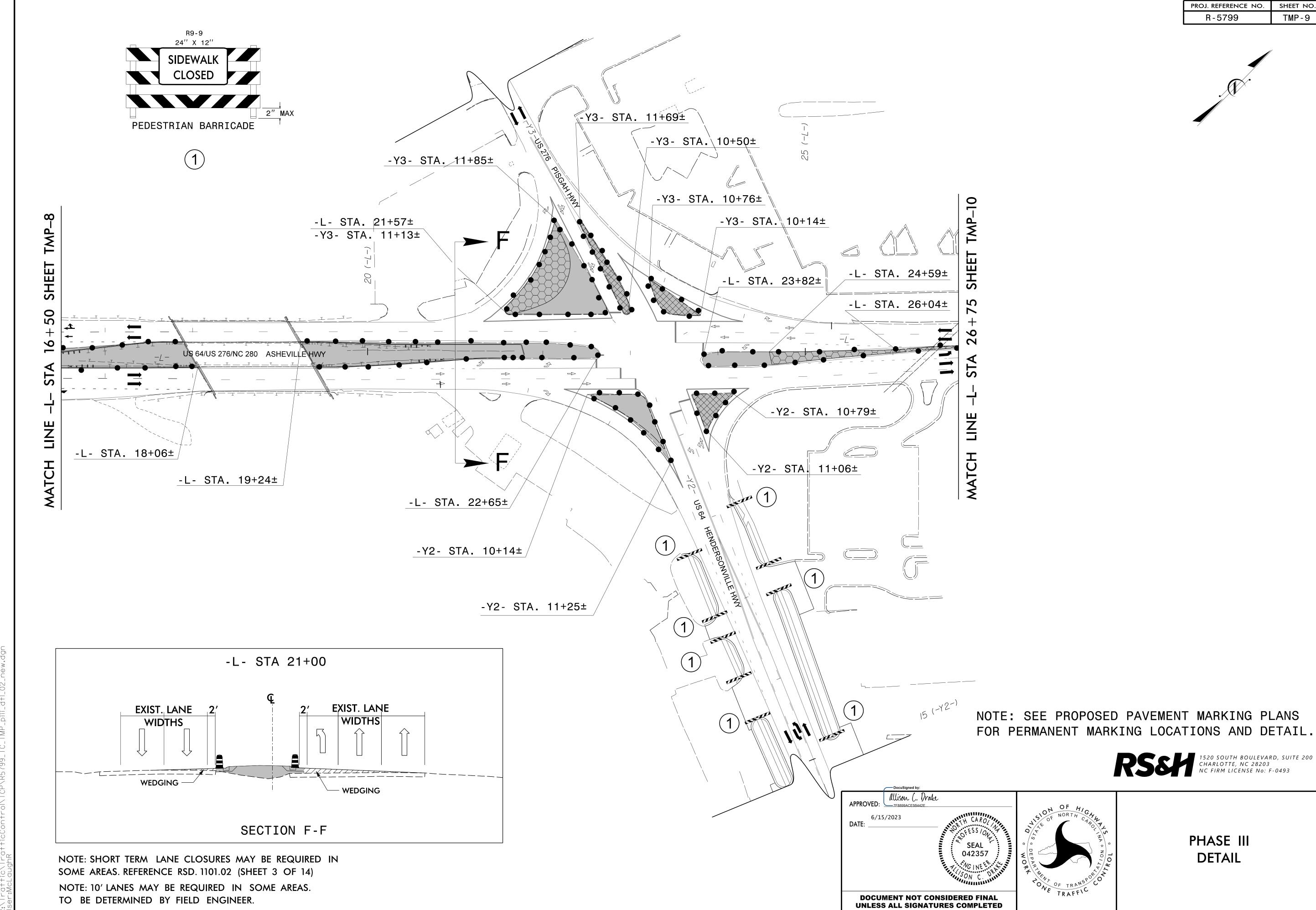






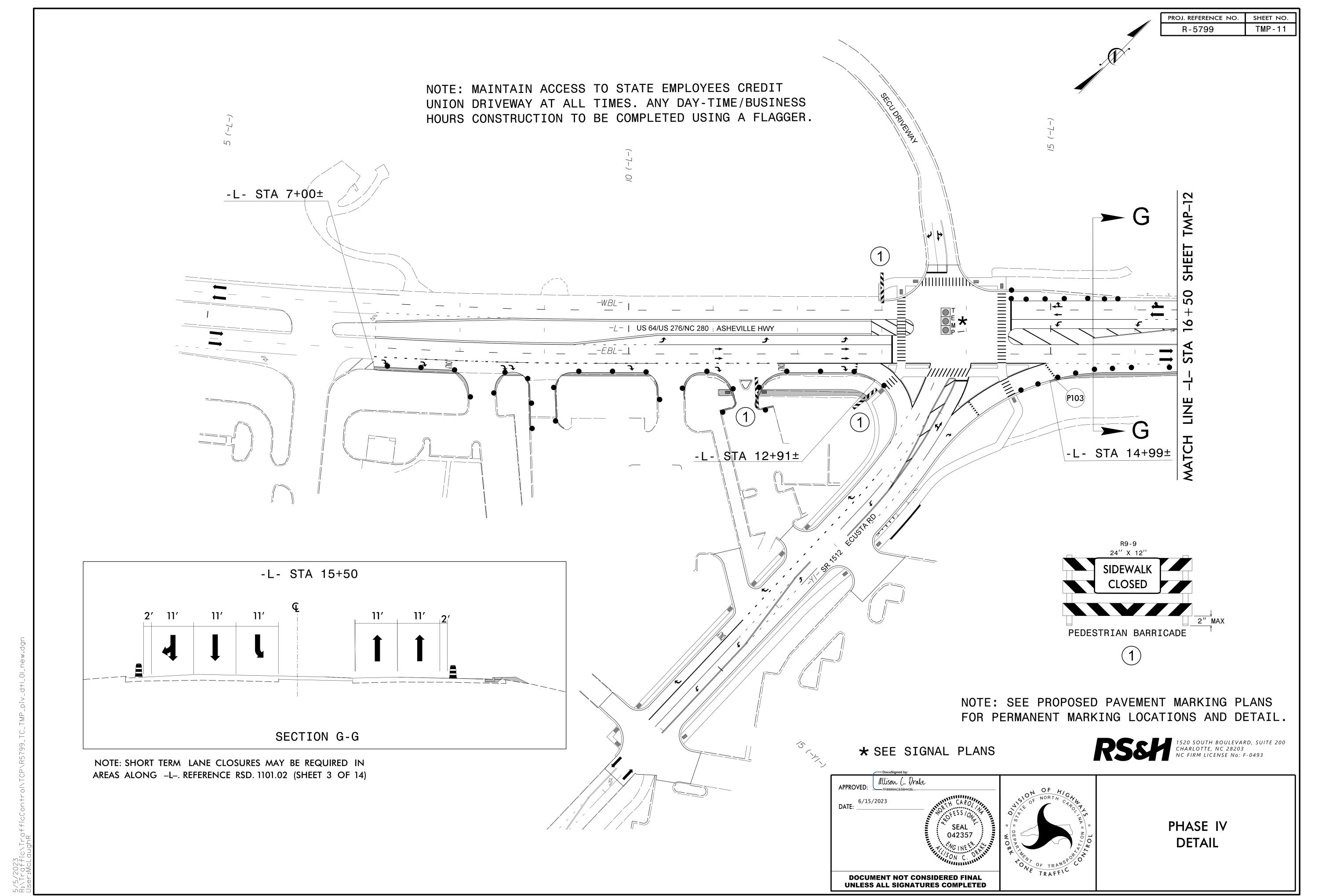


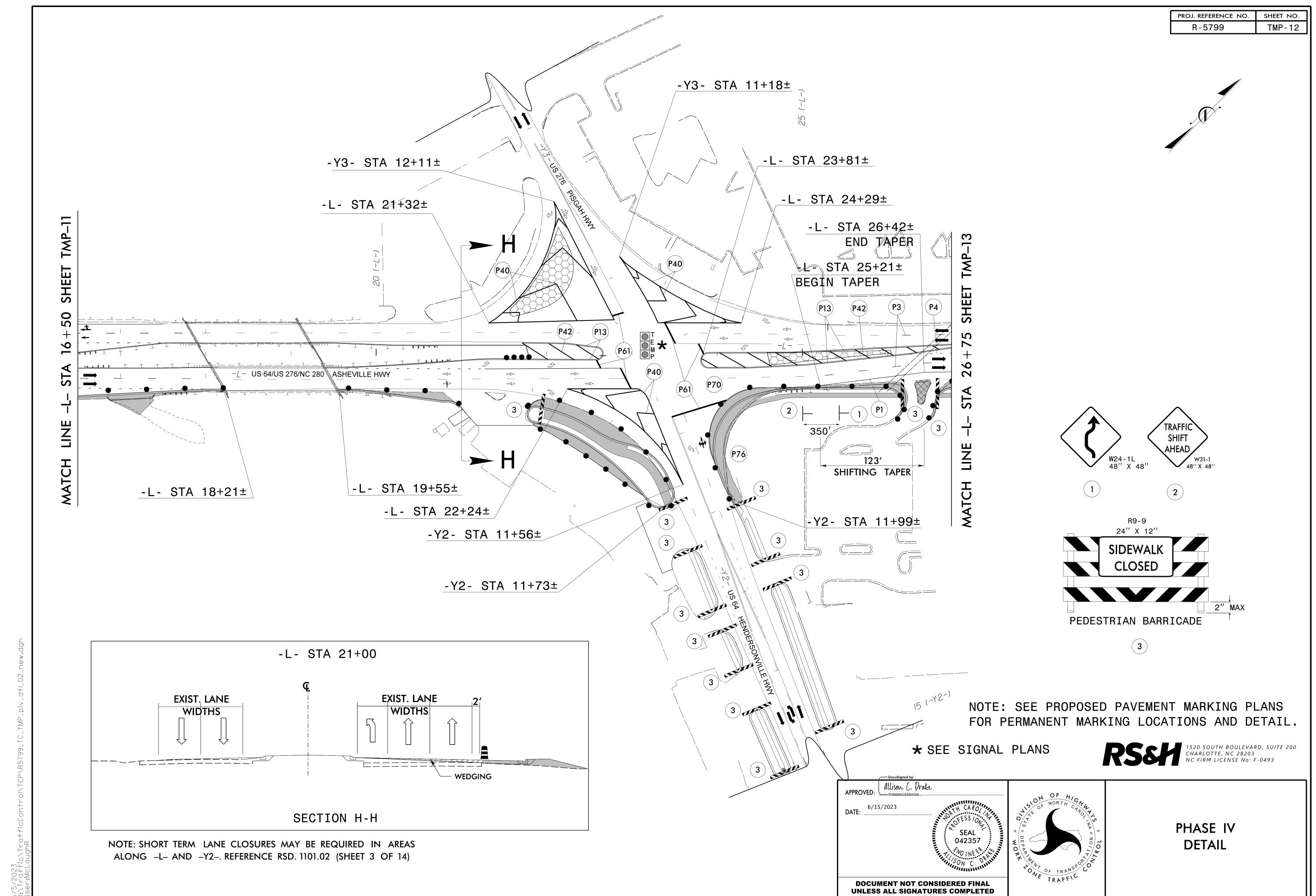


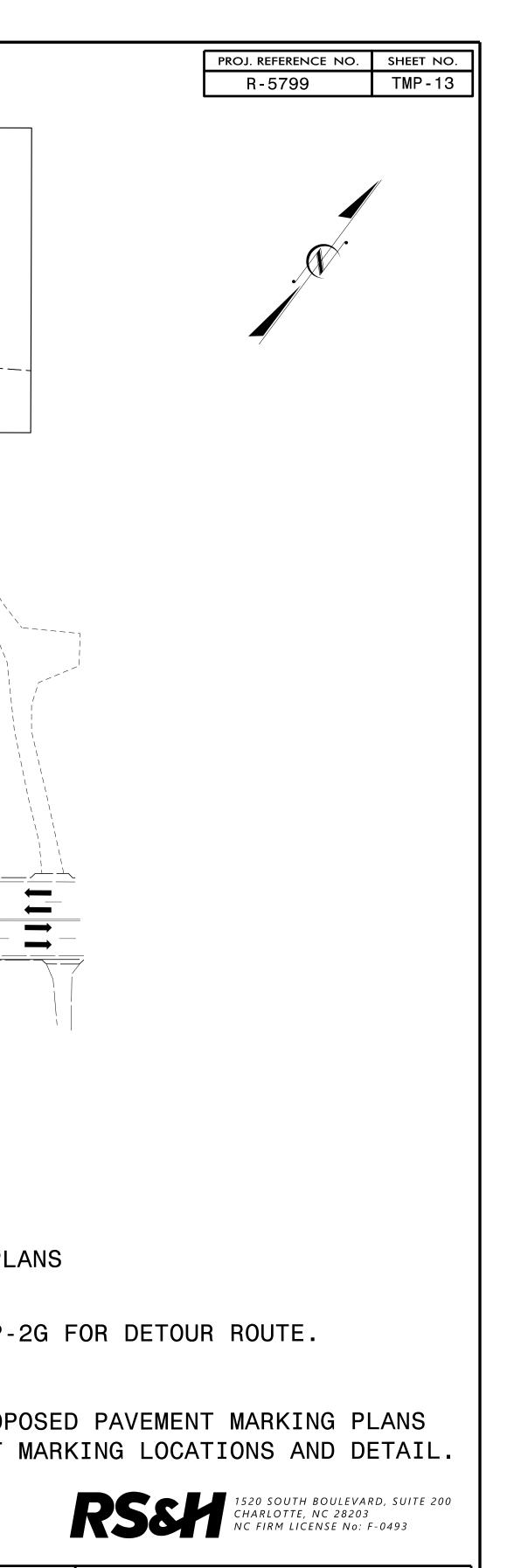


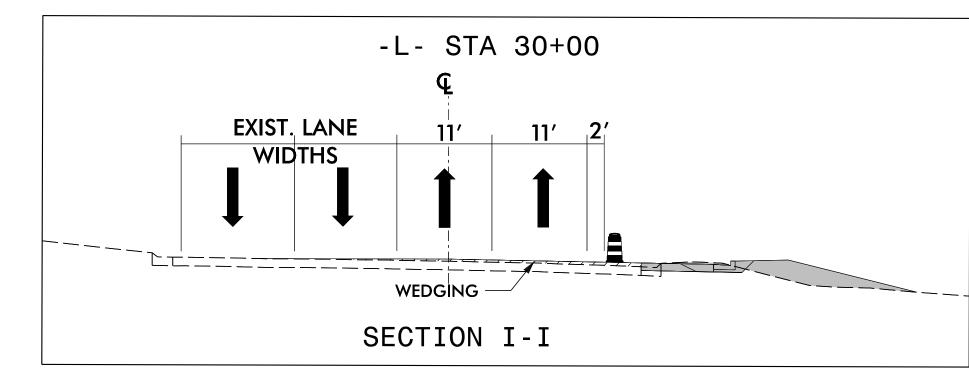
TMP - 10 ST -L- STA 28+27± MATCH NOTE: SEE PROPOSED PAVEMENT MARKING PLANS FOR PERMANENT MARKING LOCATIONS AND DETAIL. 1520 SOUTH BOULEVARD, SUITE 200 CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493 APPROVED: Allison C. Drake 6/15/2023 DATE: PHASE III DETAIL DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

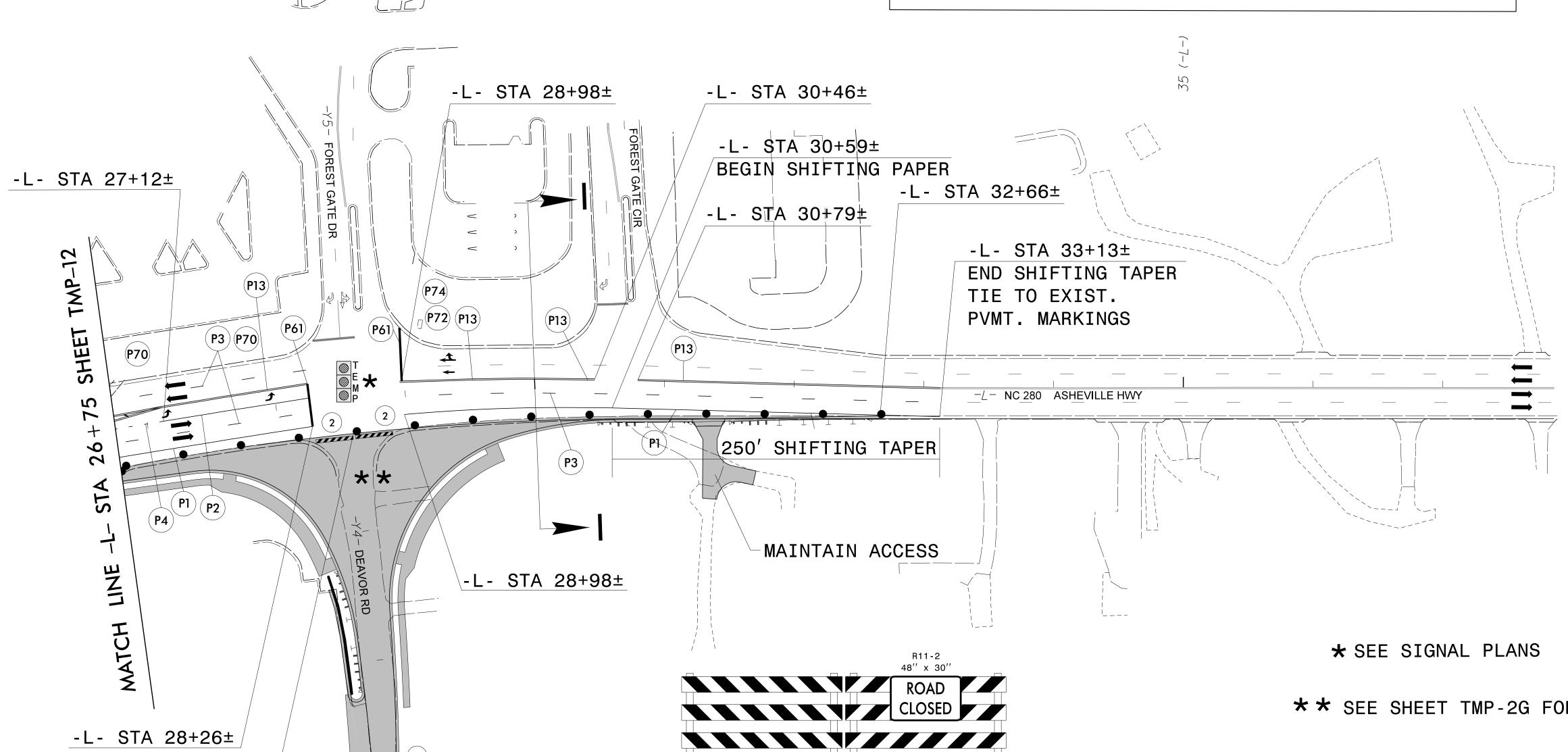
PROJ. REFERENCE NO.











TYPE III BARRICADE(S)

TYPE III BARRICADE

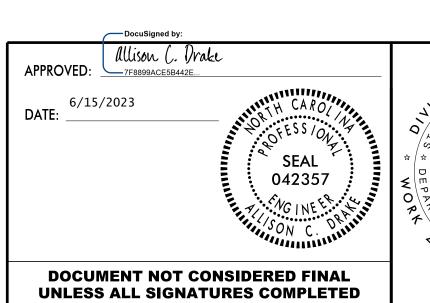
2

-Y4- STA 12+85±

-Y4- STA 10+25±

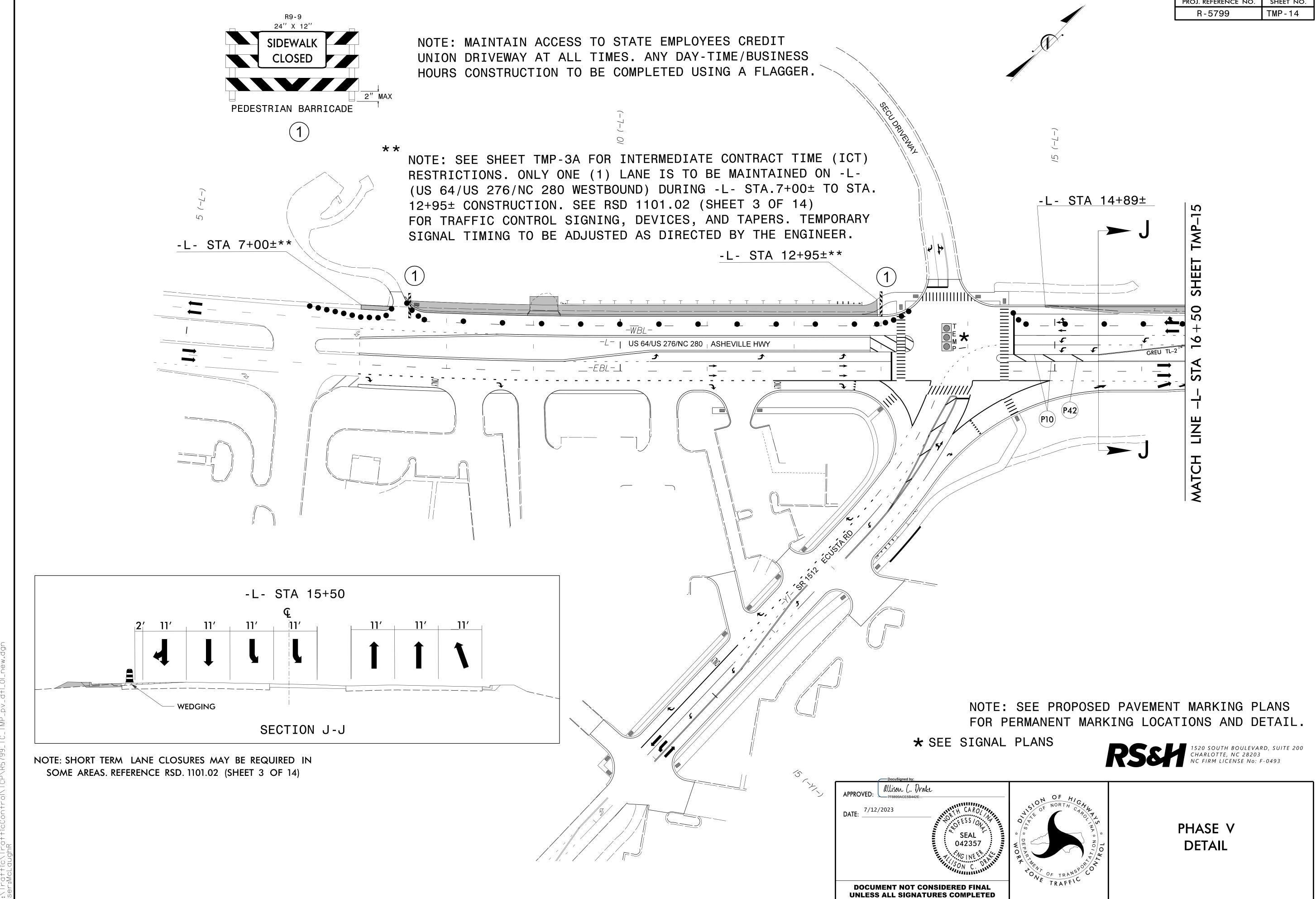
* * SEE SHEET TMP-2G FOR DETOUR ROUTE.

NOTE: SEE PROPOSED PAVEMENT MARKING PLANS FOR PERMANENT MARKING LOCATIONS AND DETAIL.

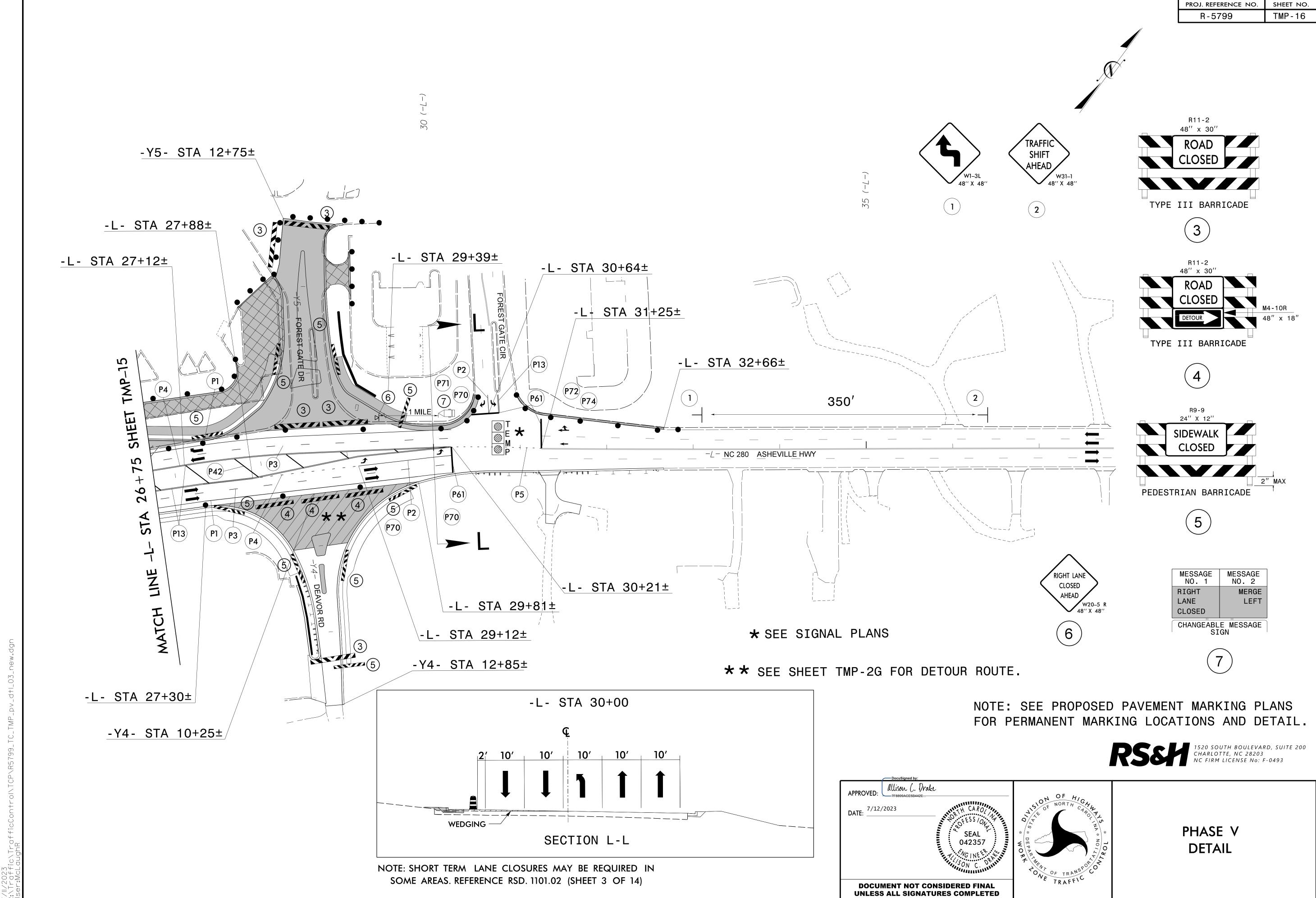




PHASE IV **DETAIL**

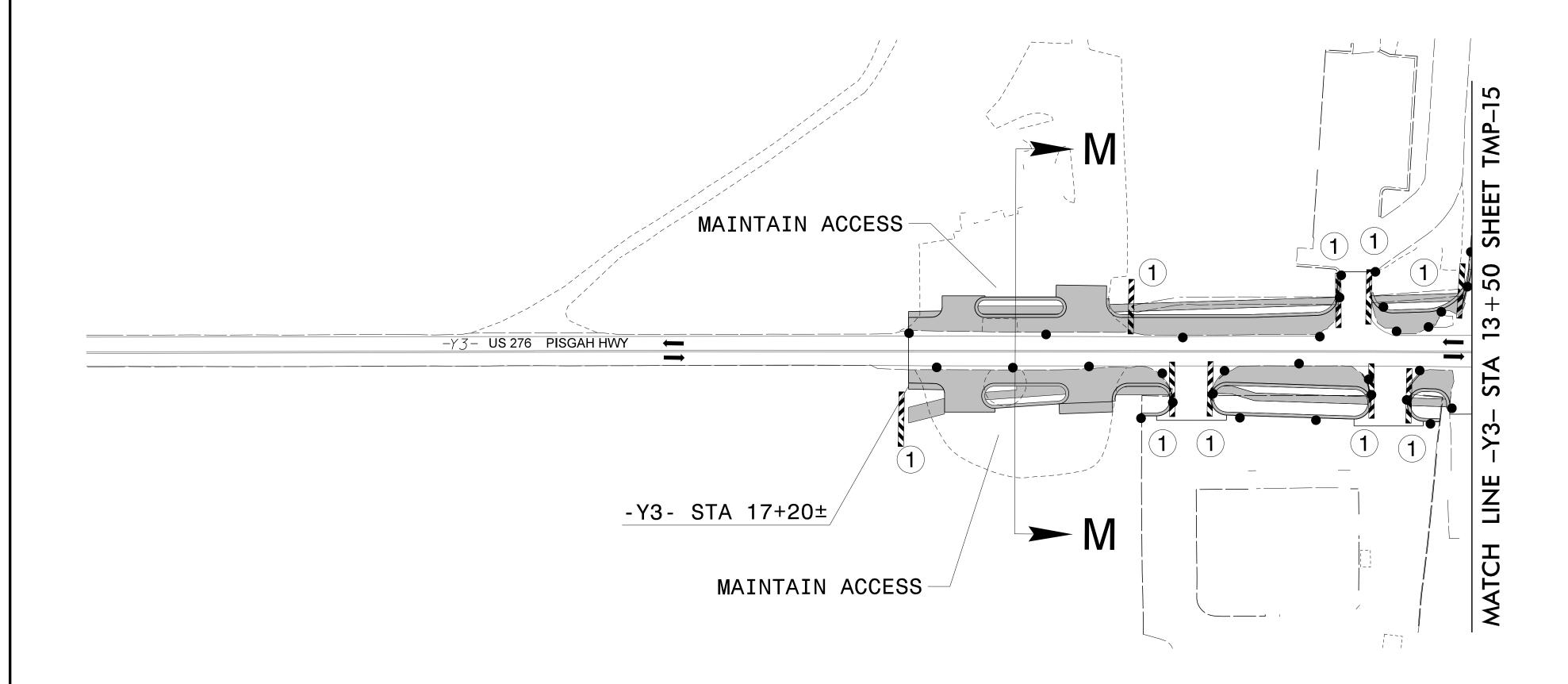


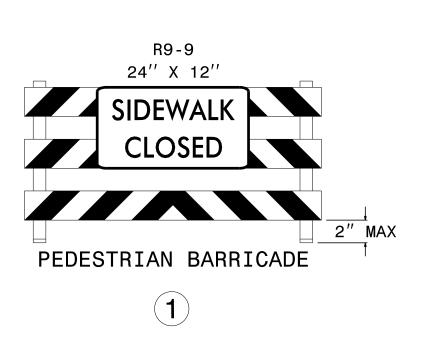
//I//CUZ3 R:\Traffic\Traffi

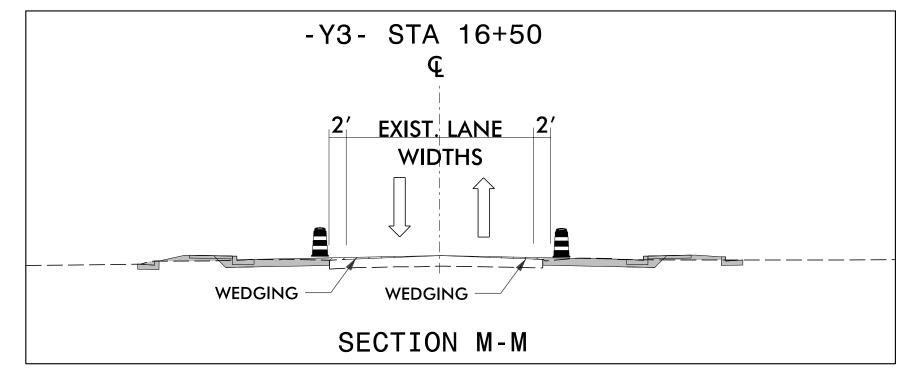


PROJ. REFERENCE NO.	SHEET NO.
R-5799	TMP-17









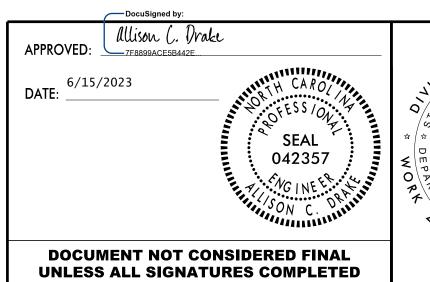
NOTE: SHORT TERM LANE CLOSURES MAY BE REQUIRED IN SOME AREAS. REFERENCE RSD. 1101.02 (SHEET 1 OF 14)

NOTE: 10' LANES MAY BE REQUIRED IN SOME AREAS.

TO BE DETERMINED BY FIELD ENGINEER.

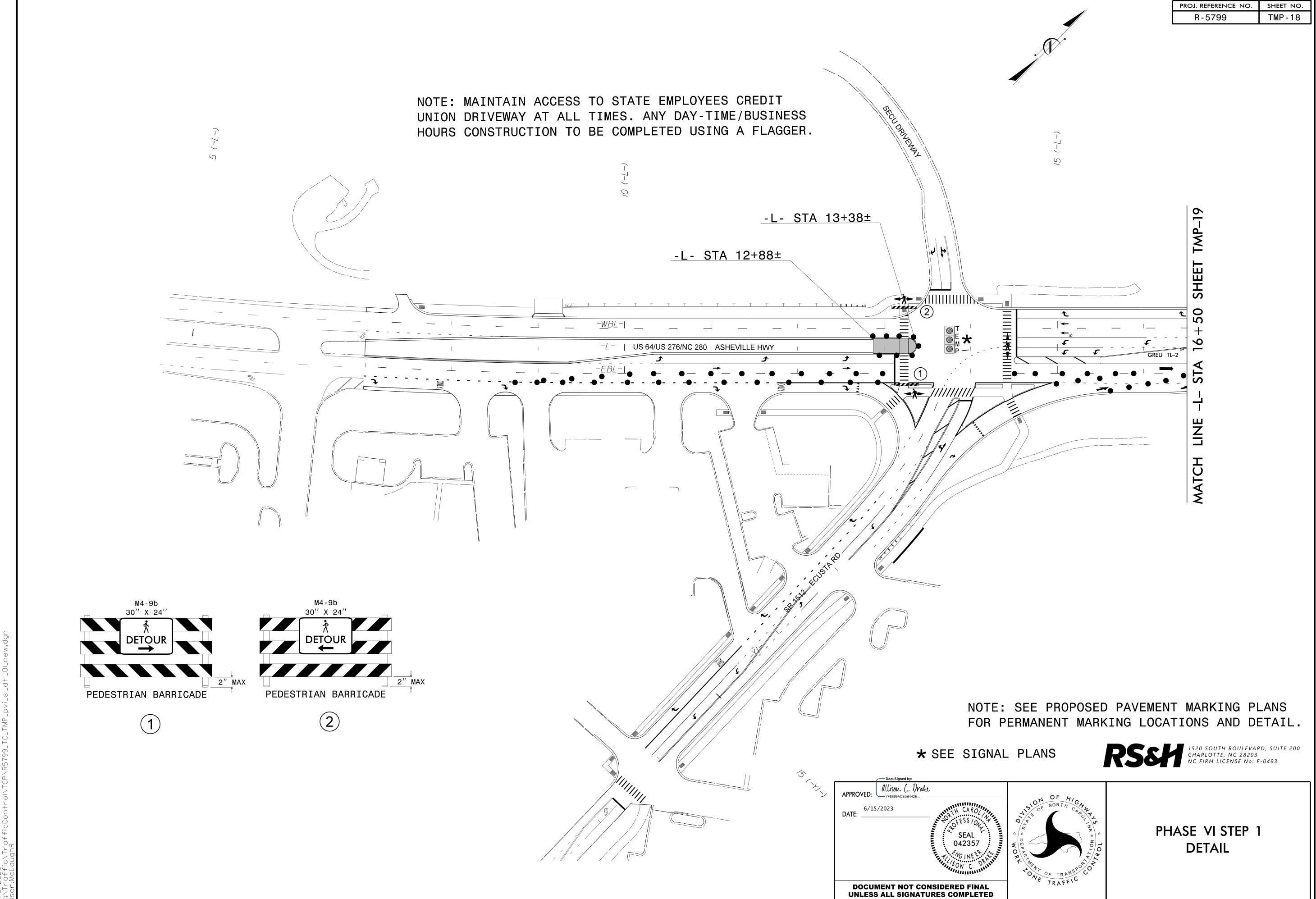
NOTE: SEE PROPOSED PAVEMENT MARKING PLANS FOR PERMANENT MARKING LOCATIONS AND DETAIL.



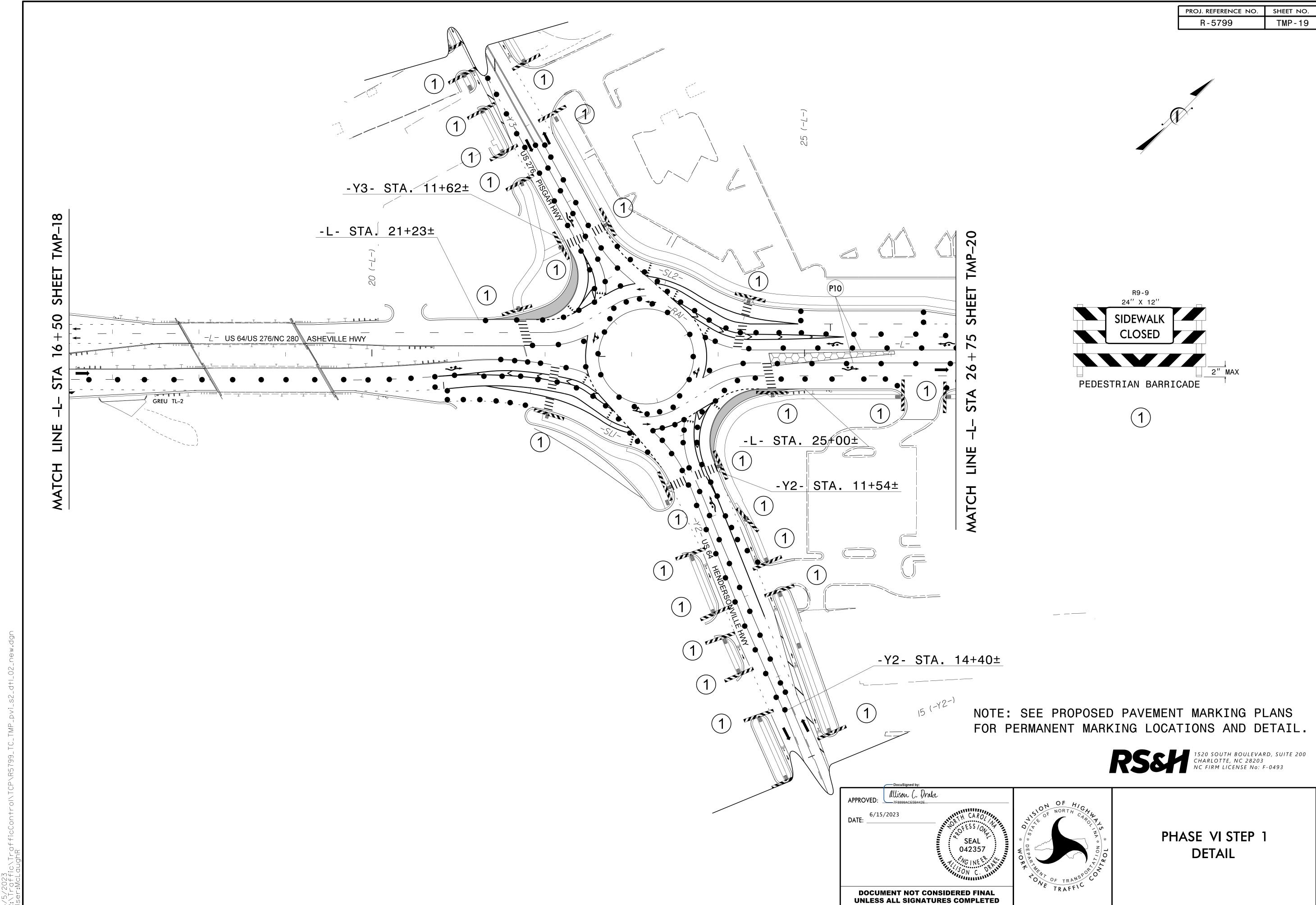


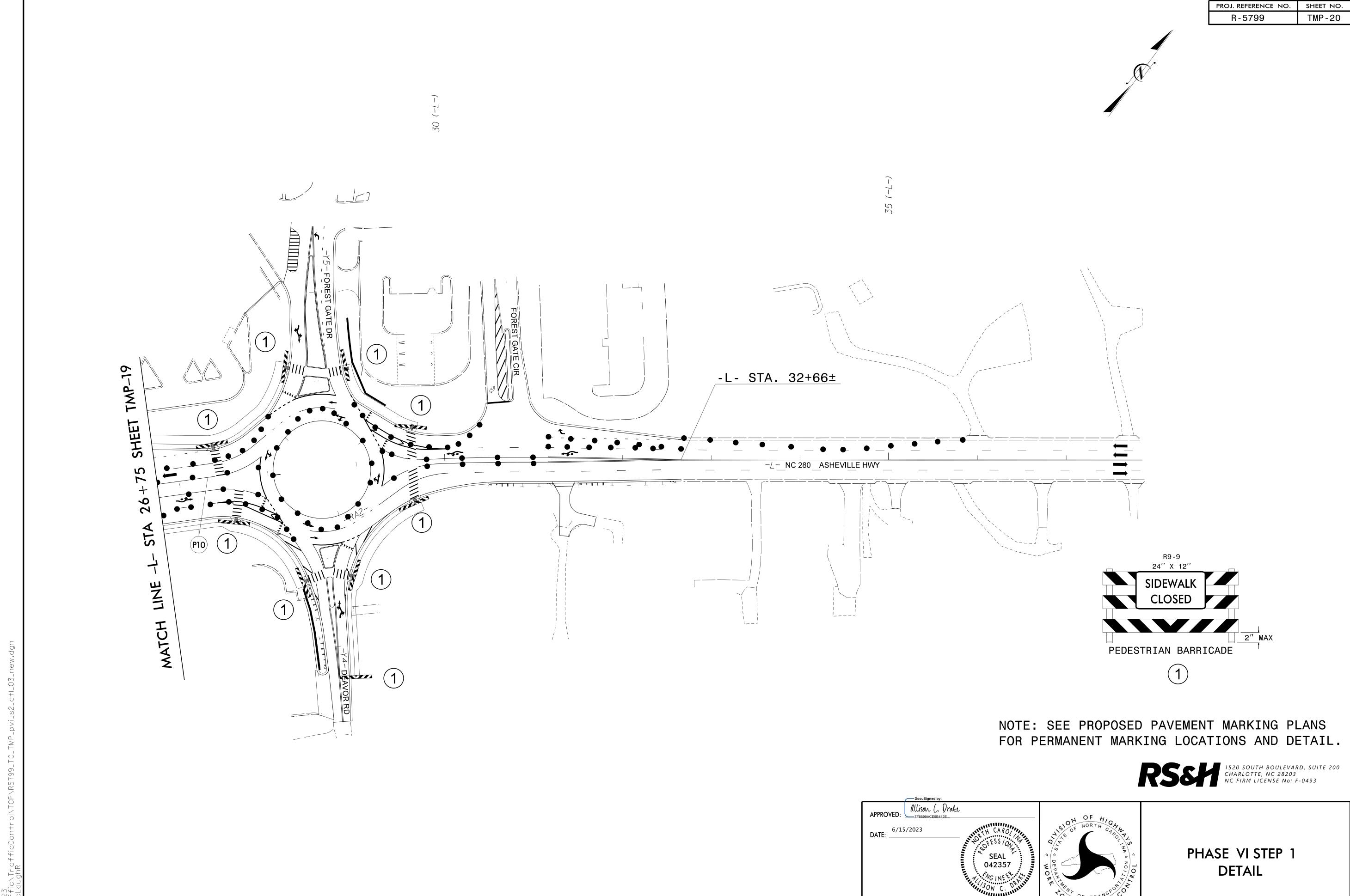


PHASE V DETAIL



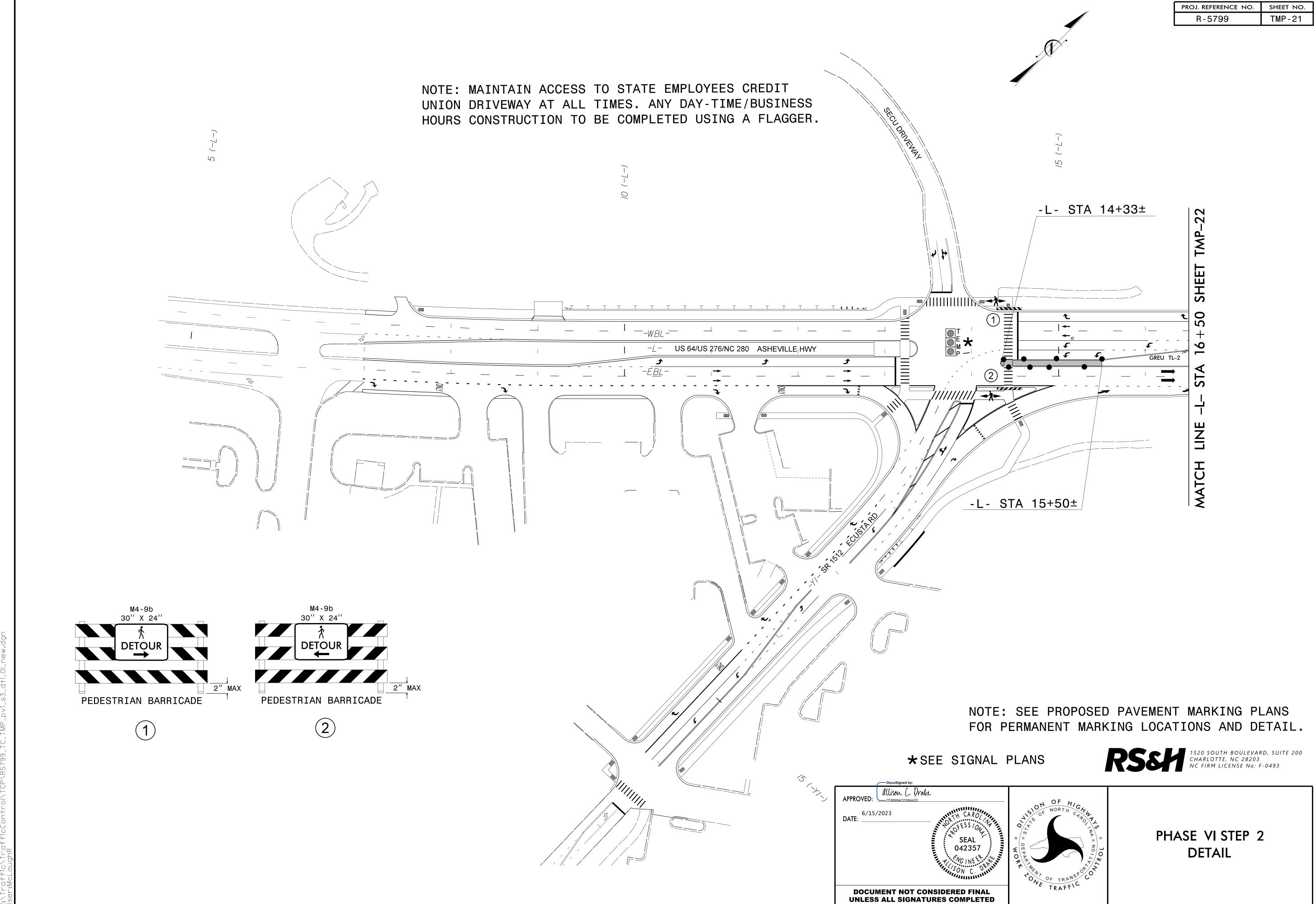
5/5/2023



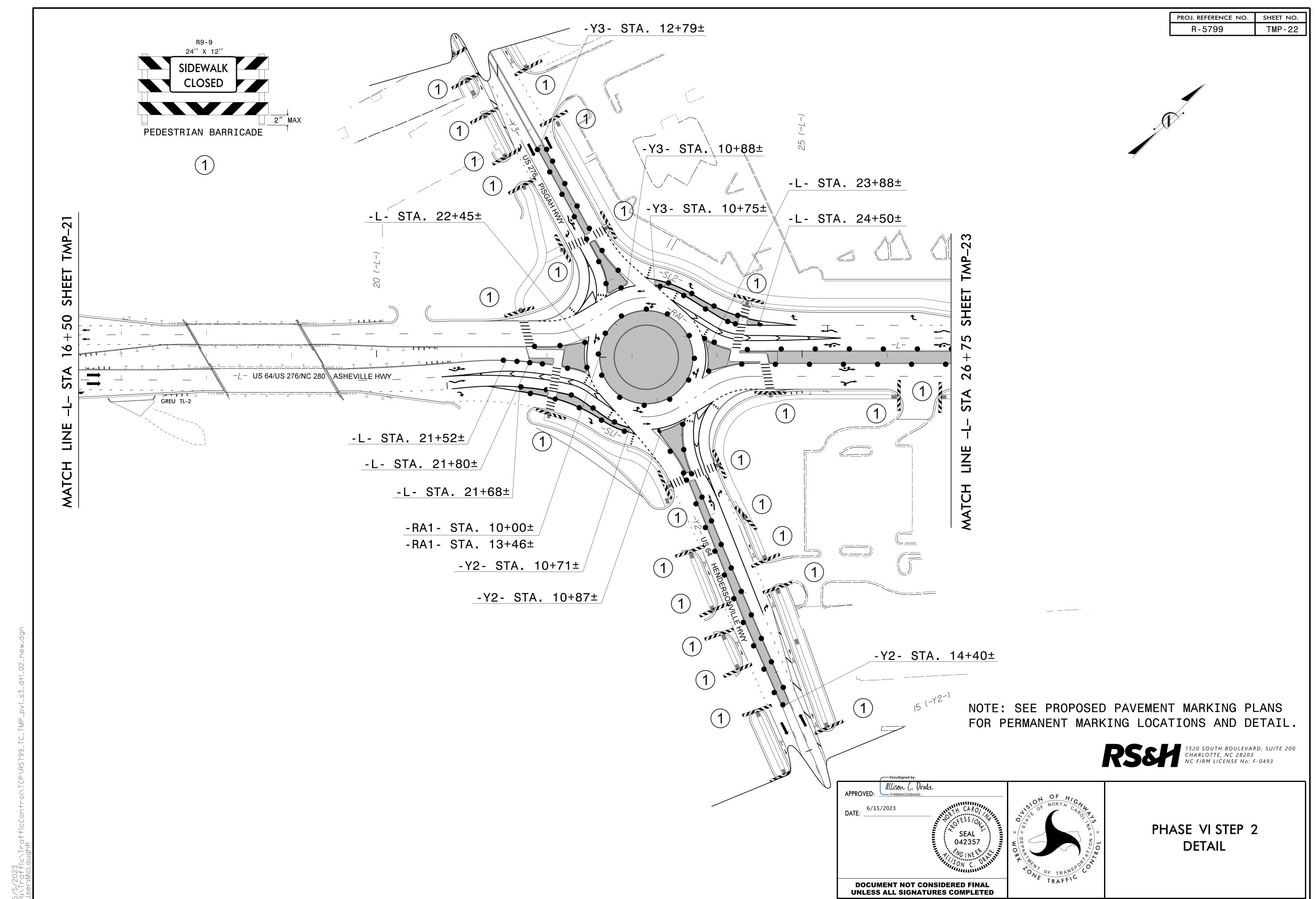


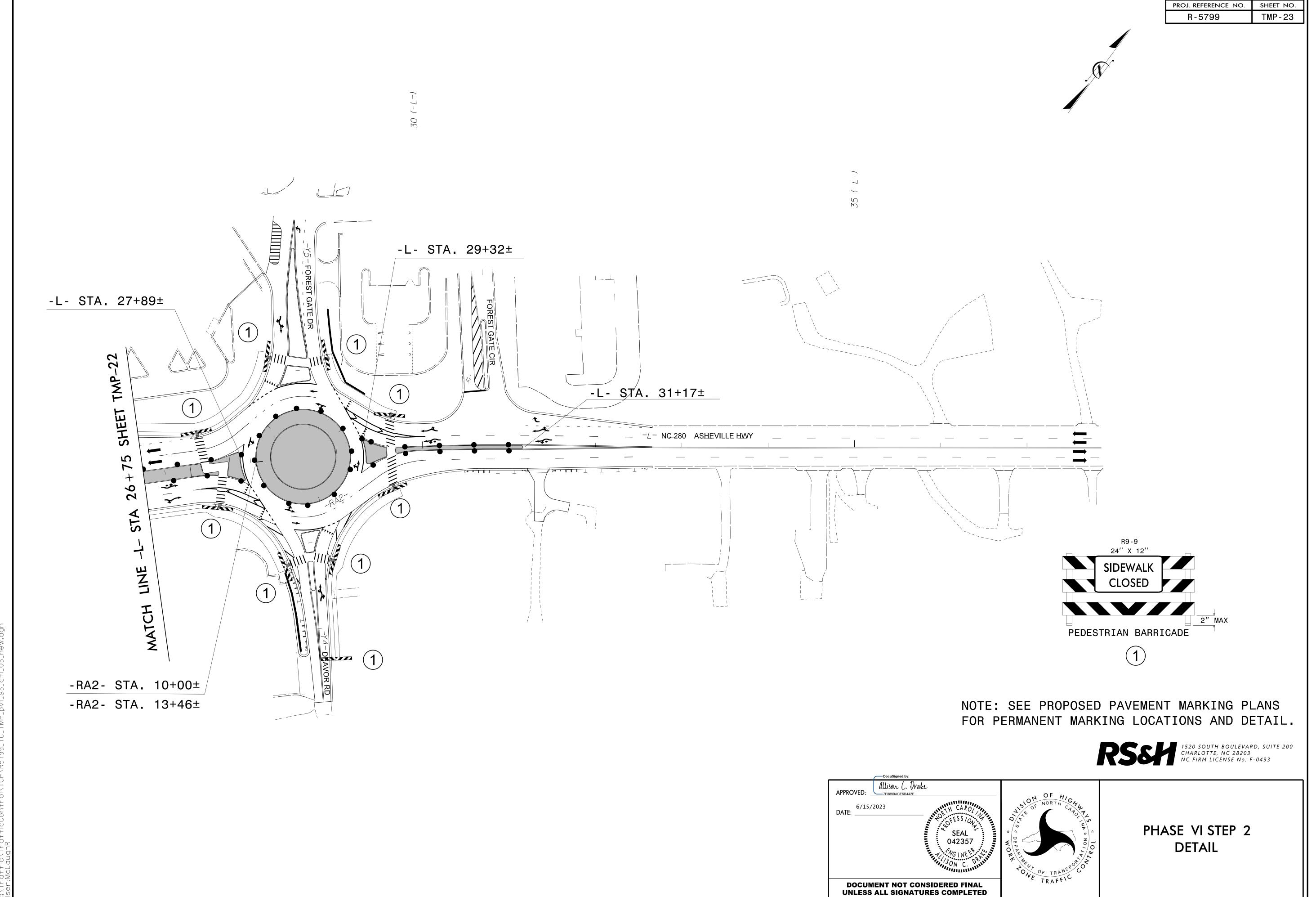
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5/5/2023





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