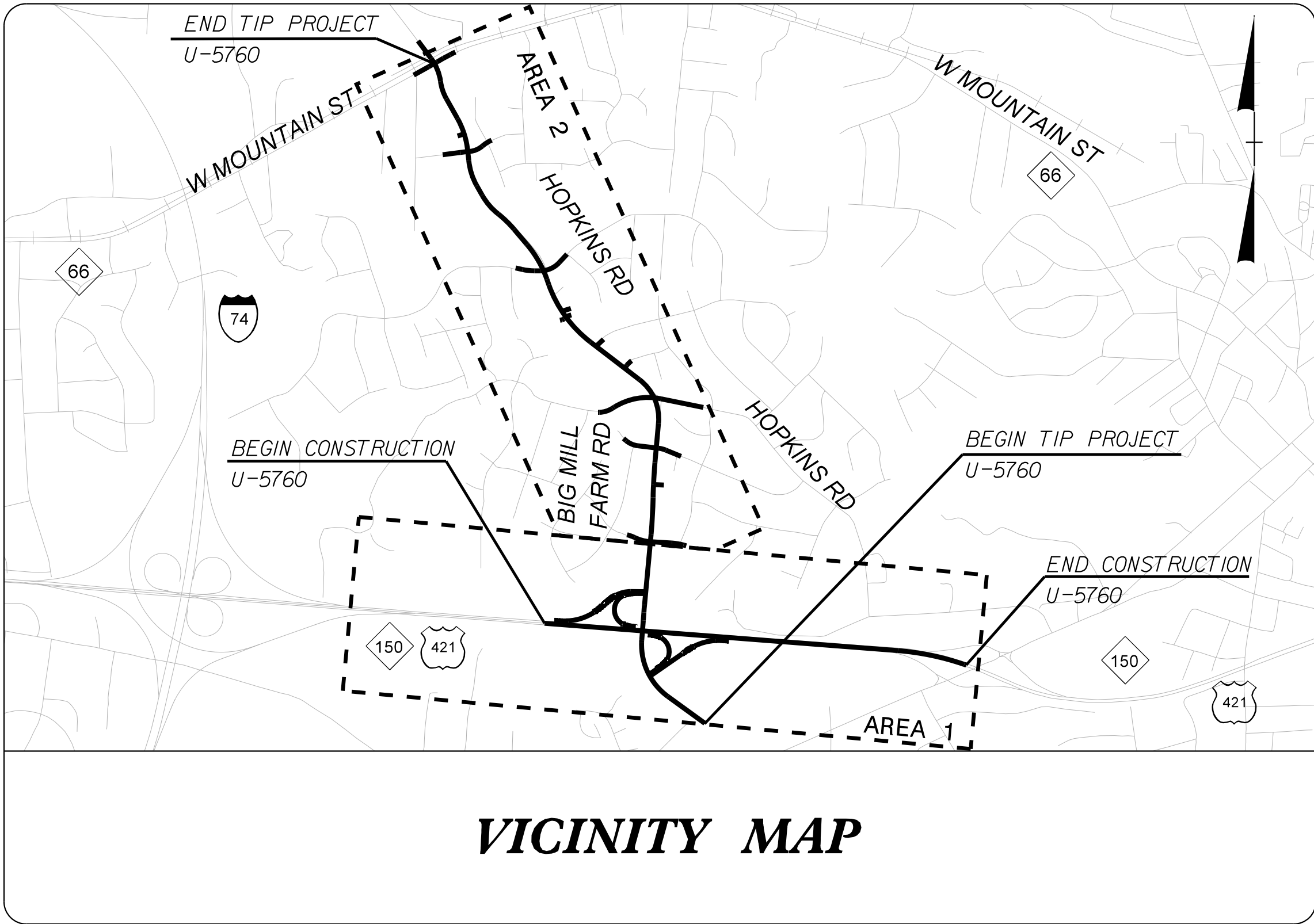
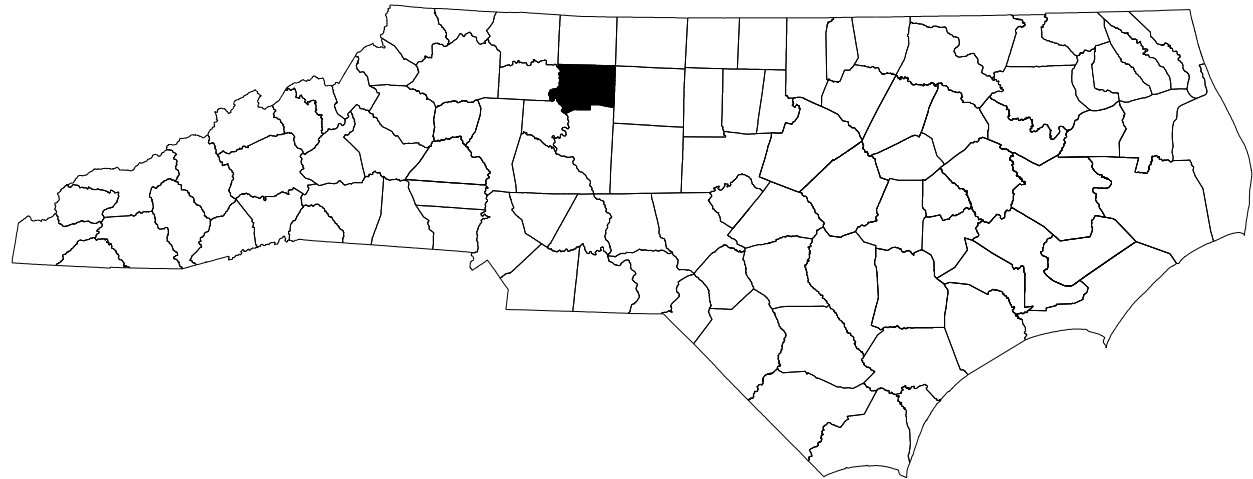


K:\RAL_Roadway\01036312 - U-5760 Big Mill Farm RoadTrafficControl\TCSheets\U5760_top.tshdgn 8/27/2025

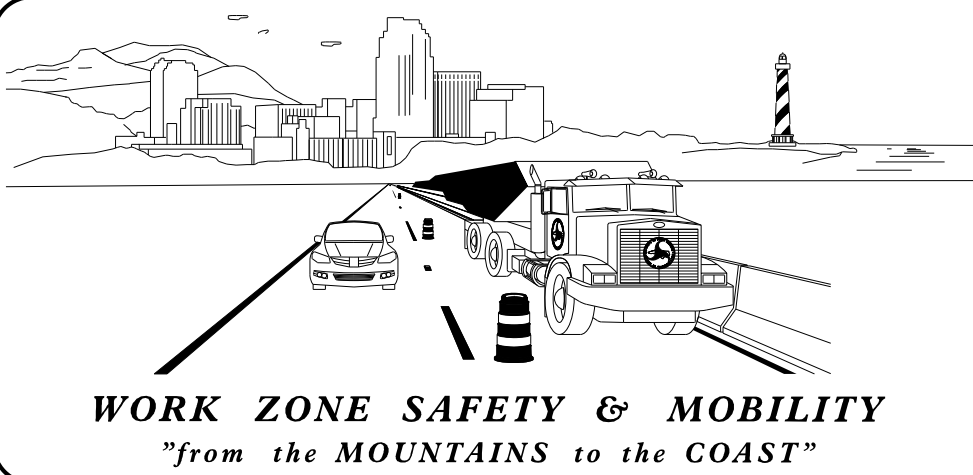
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

FORSYTH COUNTY



VICINITY MAP



PLANS PREPARED BY:

EVAN PARROTT, P.E.

EVERETT LOVING, P.E.

NC LICENSE #P-0193
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27601
PHONE: (919) 677-2000

Kimley»Horn

NCDOT CONTACTS:

AL BLANTON, P.E., PLS
PROJECT DEVELOPMENT TEAM LEAD

CONNIE JAMES, P.E.
PROJECT ENGINEER



INDEX OF SHEETS	
SHEET NO.	TITLE
TMP-1	TITLE SHEET, AND INDEX OF SHEETS
TMP-1A	ROADWAY STANDARD DRAWINGS & LEGEND
TMP-1B THRU TMP-1C	MANAGEMENT STRATEGIES AND GENERAL NOTES
TMP-2	AREAS OVER
TMP-2A THRU TMP-2B	PORTABLE CONCRETE BARRIER DETAILS AT TEMPORARY SHORING LOCATIONS AND TEMPORARY SHORING NOTES
TMP-2C THRU TMP-2G	OFFSITE DETOUR ROUTES
TMP-2H	DYNAMIC ZIPPER MERGE ZIPPER SYSTEM LAYOUT
TMP-3 THRU TMP-3A	PHASING NOTES
TMP-4A THRU TMP-11	PHASE 0 DETAILS (AREA 1)
TMP-12 THRU TMP-24	PHASE I DETAILS (AREA 1 & AREA 2)
TMP-25 THRU TMP-37	PHASE II DETAILS (AREA 2)
TMP-38 THRU TMP-45	PHASE III DETAILS (AREA 2)
SD-1 THRU SD-4	SPECIAL SIGN DESIGNS

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

APPROVED: _____

DATE: _____

9/12/2025

TIP PROJECT: U-5760

K:\RAL_Roadway\01036312 - U-5760 Big Mill Farm RoadTrafficControl\TCPSheets\U5760_Tcp_Tshdgn 8/5/2025

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
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
1135.01	CONES
1145.01	BARRICADES - TYPE III
1150.01	FLAGGERS
1160.01	TEMPORARY CRASH CUSHION - REFLECTIVE END TREATMENT
1165.01	TRUCK MOUNTED ATTENUATOR
1170.01	PORTABLE CONCRETE BARRIER
1180.01	SKINNY DRUMS
1205.01	PAVEMENT MARKINGS - LINE TYPES & OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
1205.03	PAVEMENT MARKINGS - EXIT AND ENTRANCE RAMPS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - LANE DROPS
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.12	PAVEMENT MARKINGS - BRIDGES
1205.16	BICYCLE FACILITIES - GENERAL NOTES
1250.01	PAVEMENT MARKER SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY
1261.01	GUARDRAIL & BARRIER DELINEATOR SPACING
1261.02	GUARDRAIL & BARRIER DELINEATOR TYPES
1262.01	GUARDRAIL END DELINEATION

PROJ. REFERENCE NO.	SHEET NO.
U-5760	TMP-1A

LEGEND

GENERAL

DIRECTION OF TRAFFIC FLOW

DIRECTION OF PEDESTRIAN TRAFFIC FLOW

EXISTING PAVEMENT

NORTH ARROW

PROPOSED PAVEMENT

WORK AREA

WEDGING

REMOVAL

TEMPORARY PAVEMENT

WORK TO BE PERFORMED DURING CLOSURE

TEMPORARY SHORING (LOCATION PURPOSES ONLY)

TEMPORARY PAVEMENT MARKING

PAVEMENT MARKING LINES		
P1	- PAINT (4" WHITE, 2X)	EDGE LINE
P2	- PAINT (4" WHITE, 2X)	SOLID LANE LINE
P3	- PAINT (4" WHITE, 2X)	10' SKIP
P4	- PAINT (4" WHITE, 2X)	3'-9"/SP MINISKIP
P10	- PAINT (4" YELLOW, 2X)	EDGE LINE
P13	- PAINT (4" YELLOW, 2X)	DOUBLE CENTER LINE
P20	- PAINT (6" WHITE, 2X)	EDGE LINE
P21	- PAINT (6" WHITE, 2X)	WHITE SOLID LANE LINE
P22	- PAINT (6" WHITE, 2X)	10' SKIP
P30	- PAINT (6" YELLOW, 2X)	EDGE LINE
P40	- PAINT (8" WHITE, 2X)	GORE LINE
P46	- PAINT (8" WHITE, 2X)	CROSSWALK
P51	- PAINT (12" WHITE, 2X)	DIAGONAL
P52	- PAINT (12" YELLOW, 2X)	DIAGONAL
P54	- PAINT (12" WHITE, 2X)	3'-9"/SP MINISKIP
P61	- PAINT (24" WHITE, 2X)	STOP BAR

TRAFFIC CONTROL DEVICES

BARRICADE (TYPE III)

CONE

DRUM

SKINNY DRUM

TUBULAR MARKER

TEMPORARY CRASH CUSHION

FLASHING ARROW PANEL (TYPE C)

FLAGGER

LAW ENFORCEMENT

TRUCK MOUNTED ATTENUATOR (TMA)

CHANGEABLE MESSAGE SIGN

PAVEMENT MARKING SYMBOLS

P70	- PAINT 2X (LEFT TURN ARROW)
P71	- PAINT 2X (RIGHT TURN ARROW)
P72	- PAINT 2X (STRAIGHT ARROW)
P73	- PAINT 2X (COMBINATION STRAIGHT & LEFT TURN ARROW)
P74	- PAINT 2X (COMBINATION STRAIGHT & RIGHT TURN ARROW)
P79	- PAINT 2X (MERGE ARROW)
P100	- PAINT 2X (ALPHANUMERIC CHAR.)
P103	- PAINT 2X (24" YIELD LINE TRIANGLE)

TEMPORARY SIGNING

PORTABLE SIGN

STATIONARY SIGN

STATIONARY OR PORTABLE SIGN

SIGNALS

EXISTING

PROPOSED

TEMPORARY

PAVEMENT MARKINGS

EXISTING LINES

TEMPORARY LINES

PAVEMENT MARKERS

CRYSTAL / CRYSTAL

CRYSTAL / RED

YELLOW / YELLOW

PAVEMENT MARKING SYMBOLS

PAVEMENT MARKING SYMBOLS

NC LICENSE #F-0102
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27601
PHONE: (919) 877-2000

Kimley»Horn

APPROVED: _____ DATE: _____

9/12/2025

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

ROADWAY STANDARD
DRAWINGS & LEGEND

MANAGEMENT STRATEGIES

THIS PROJECT IS SUBDIVIDED INTO TWO WORK AREAS. AREA 1 CONSISTS OF THE INTERCHANGE AND IMPROVEMENTS ALONG US 421/I-40 NC 150, AND CONSTRUCTION OF NEW LOCATION BIG MILL FARM RD BETWEEN HARMON CREEK RD AND TIMBERVIEW DR. AREA 2 CONSISTS OF WIDENING EXISTING BIG MILL FARM RD AND HOPKINS RD.

AREA 1 CONSTRUCTION WILL UTILIZE LANE CLOSURES AND TEMPORARY TRAFFIC PATTERNS ALONG US 421/NC 150 TO CONSTRUCT THE PROPOSED INTERCHANGE RAMP5 AND LOOPS AND ASSOCIATED WIDENING. TEMPORARY ROLLING ROADBLOCKS IN ACCORDANCE WITH THE STANDARD DRAWINGS WILL BE UTILIZED TO HANG GIRDERS OVER US 421/NC 150 DURING NIGHTTIME HOURS. THE NEW LOCATION ROADWAY WILL BE CONSTRUCTED AWAY FROM TRAFFIC.

AREA 2 CONSTRUCTION WILL UTILIZE TEMPORARY LANE CLOSURES, TEMPORARY TRAFFIC PATTERNS, AND TEMPORARY ROAD CLOSURES AND OFFSITE DETOURS TO CONSTRUCT PROPOSED IMPROVEMENTS ALONG BIG MILL FARM RD/HOPKINS RD.

ACCESS TO DRIVEWAYS WILL BE MAINTAINED DURING CONSTRUCTION FOR THE DURATION OF THE PROJECT.

GENERAL 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
-L- HOPKINS RD -Y2- TIMBERVIEW DR/RAINS DAVIS DR -Y3- LAMSHIRE RD/SELWYCK LN -Y4- HOPKINS RD/BLUFF SCHOOL RD -Y5- ASHLEY PARK DR -Y6- WOODFIELD DR -Y9-NC 66 (WEST MOUNTAIN ST)	MONDAY THRU FRIDAY 6:00 A.M. TO 9:00 A.M. AND 4:00 P.M. TO 7:00 P.M.
-Y1- US 421/NC 150 AND ANY RAMP/LOOP	MONDAY THRU THURSDAY 7:00 A.M. TO 7:00 P.M. AND FRIDAY 7:00 A.M. TO 8:00 P.M. AND SATURDAY THRU SUNDAY 9:00 A.M. TO 8:00 P.M.

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

ROAD NAME
-L- HOPKINS RD -Y1- US 421/NC 150 -Y2- TIMBERVIEW DR/RAINS DAVIS DR -Y3- LAMSHIRE RD/SELWICK LN -Y4- HOPKINS RD/BLUFF SCHOOL RD -Y5- ASHLEY PARK DR -Y6- WOODFIELD DR -Y9- NC 66 (WEST MOUNTAIN ST) -S. MAIN ST. WESTBOUND ON-RAMP

HOLIDAY

- FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- FOR NEW YEAR’S, BETWEEN THE HOURS OF 6:00AM DECEMBER 31st TO 7:00PM JANUARY 2ND. IF NEW YEAR’S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 7:00PM THE FOLLOWING TUESDAY.
- FOR EASTER, BETWEEN THE HOURS OF 6:00AM THURSDAY AND 7:00PM MONDAY.
- FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00AM FRIDAY TO 7:00PM TUESDAY.

TIME RESTRICTIONS (CONT.)

5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00AM THE DAY BEFORE INDEPENDENCE DAY AND 7:00PM THE DAY AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN BETWEEN THE HOURS OF 6:00AM THE THURSDAY BEFORE INDEPENDENCE DAY AND 7:00PM THE TUESDAY AFTER INDEPENDENCE DAY.

6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00AM FRIDAY AND 7:00PM TUESDAY.

7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00AM TUESDAY TO 7:00PM MONDAY.

8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00AM THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00PM THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

C) DO NOT STOP TRAFFIC AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS	DURATION AND OPERATION
-Y1- US 421/NC 150	MONDAY THRU SUNDAY 5:00 A.M. TO 12:00 A.M.	30 MINUTES FOR GIRDER INSTALLATION ON BIG MILL FARM ROAD AND OVERHEAD SIGN INSTALLATION

D) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS THE HAULING OPERATION IS PROTECTED BY BARRIER OR GUARDRAIL OR AS DIRECTED BY THE ENGINEER.

LANE AND SHOULDER CLOSURE REQUIREMENTS

E) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.

F) 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.

G) 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.

H) 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.

I) 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.

J) DO NOT INSTALL MORE THAN 2.5 MILES OF LANE CLOSURE ON -Y1- US 421/NC 150 MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.

K) DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION ON -Y1- US 421/NC 150.

PAVEMENT EDGE DROP OFF REQUIREMENTS

L) 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.

PAVEMENT EDGE DROP OFF REQUIREMENTS (CONT.)

M) 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) 500FT IN ADVANCE AND A MINIMUM OF ONCE EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

O) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

P) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS. AND PROVIDE SIGNING REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONTROL PLANS.

Q) COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION. AND COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.

R) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

S) INSTALL BLACK ON ORANGE *DIP* SIGNS (W8-2) AND/OR *BUMP* SIGNS (W8-1) 500 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC BARRIER

T) 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 PERFORMED 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.

U) 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 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

NC LICENSE #F-0102
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27601
PHONE: (919) 617-2000

Kimley»Horn

TRANSPORTATION OPERATIONS PLAN

APPROVED: _____ DATE: _____

9/12/2025

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

092334

09/12/2025

EVAN

ENGINEER

TRANSPORTATION

DIVISION OF HIGHWAYS

STATE OF NORTH CAROLINA

WORK ZONE TRAFFIC CONTROL

9/12/2025

TRANSPORTATION OPERATIONS PLAN

K:\RAL_Roadway\01036312 - U-5760 Big Mill Farm RoadTrafficTrafficControl\TCS\Sheets\U5760_Tcp_1shdgn

8/5/2025

GENERAL NOTES (CONT.)

TRAFFIC CONTROL DEVICES

- V) 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.
- W) PLACE TYPE III BARRICADES WITH "ROAD CLOSED" SIGN R11-2 ATTACHED OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.
- X) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES (DRUMS, CONES OR SKINNY DRUMS) PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME	MARKING	MARKER
-Y1- US 421/NC 150	PAINT	TEMPORARY RAISED
-L- BIG MILL FARM RD/HOPKINS RD		
-Y2- TIMBERVIEW DR/RAINS DAVIS DR		
-Y3- LAMSHIRE RD/SELWYCK LN		
-Y4- HOPKINS RD/BLUFF SCHOOL RD		
-Y5- ASHLEY PARK DR	PAINT	
-Y6- WOODFIELD DR		
-Y7- TIMBERWOOD TRL/REGENTS PARK RD		
-Y8- SUTTER LN		
-Y9- NC 66 (W. MOUNTAIN ST)		

- 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 THE PROPER COLOR PAVEMENT MARKING PRIOR TO INSTALLATION. PLACE DRUMS OR CONES TO DELINEATE ANY PROPOSED MONOLTHIC ISLANDS BEFORE INSTALLATION.

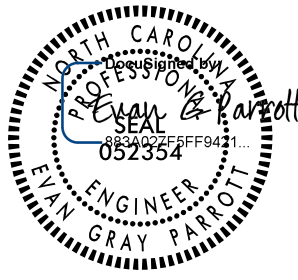
MISCELLANEOUS

- DD) LAW ENFORCEMENT SHALL 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) 500 FT AND 1000 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.).
- HH) ALL DRUMS USED ALONG -Y1- US 421/NC 150 SHALL BE HIGH VISIBILITY.
- II) ALL SIGNS USED ALONG -Y1- US 421/NC 150 SHALL BE HIGH VISIBILITY SIGNS.

NC LICENSE #F-0102
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27601
PHONE: (919) 877-2000

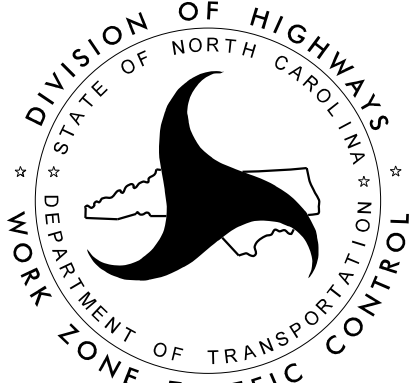
Kimley»Horn

APPROVED:DATE:



9/12/2025

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

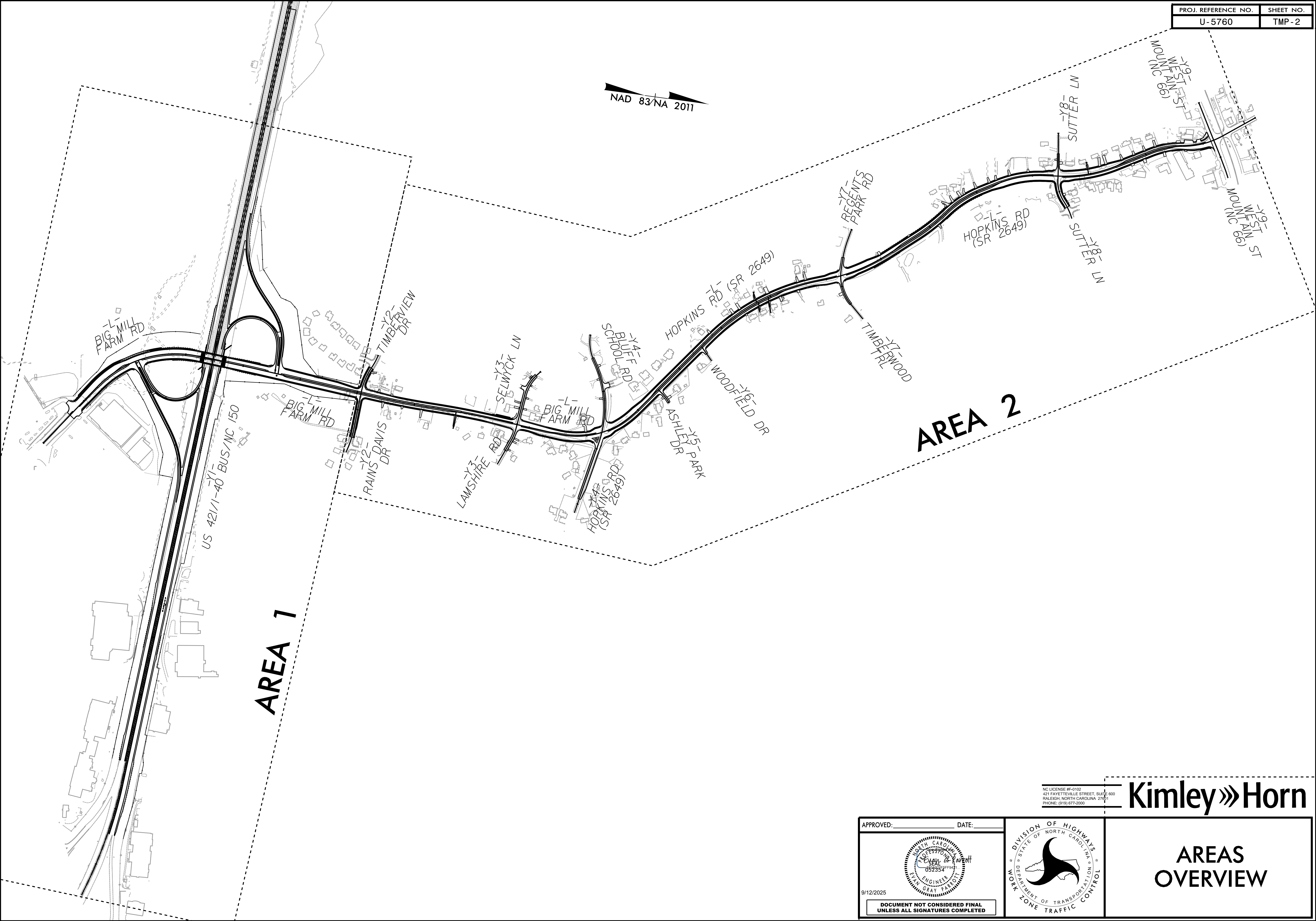


TRANSPORTATION
OPERATIONS
PLAN

K:\RAL_Roadway\01036312 - U-5760 Big Mill Farm RoadTrafficControl\TCPSheets\U5760_Tcp_Tshdgn 8/5/2025

K:\RAL_Roadway\01036312 - U-5760 Big Mill Farm Road\TrafficControl\TCP\Sheets\U5760_top_2.dgn

8/5/2025

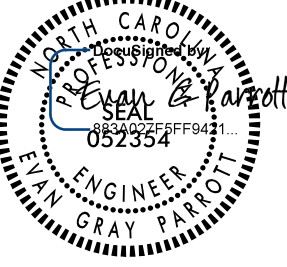


PROJ. REFERENCE NO.	SHEET NO.
U-5760	TMP-2

NC LICENSE #P-0102
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27601
PHONE: (919) 877-2000

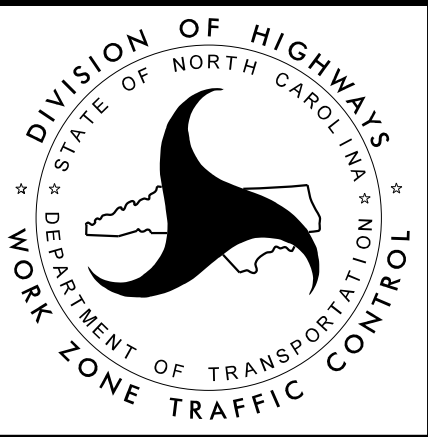
Kimley»Horn

APPROVED: _____ DATE: _____



9/12/2025

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



AREAS
OVERVIEW

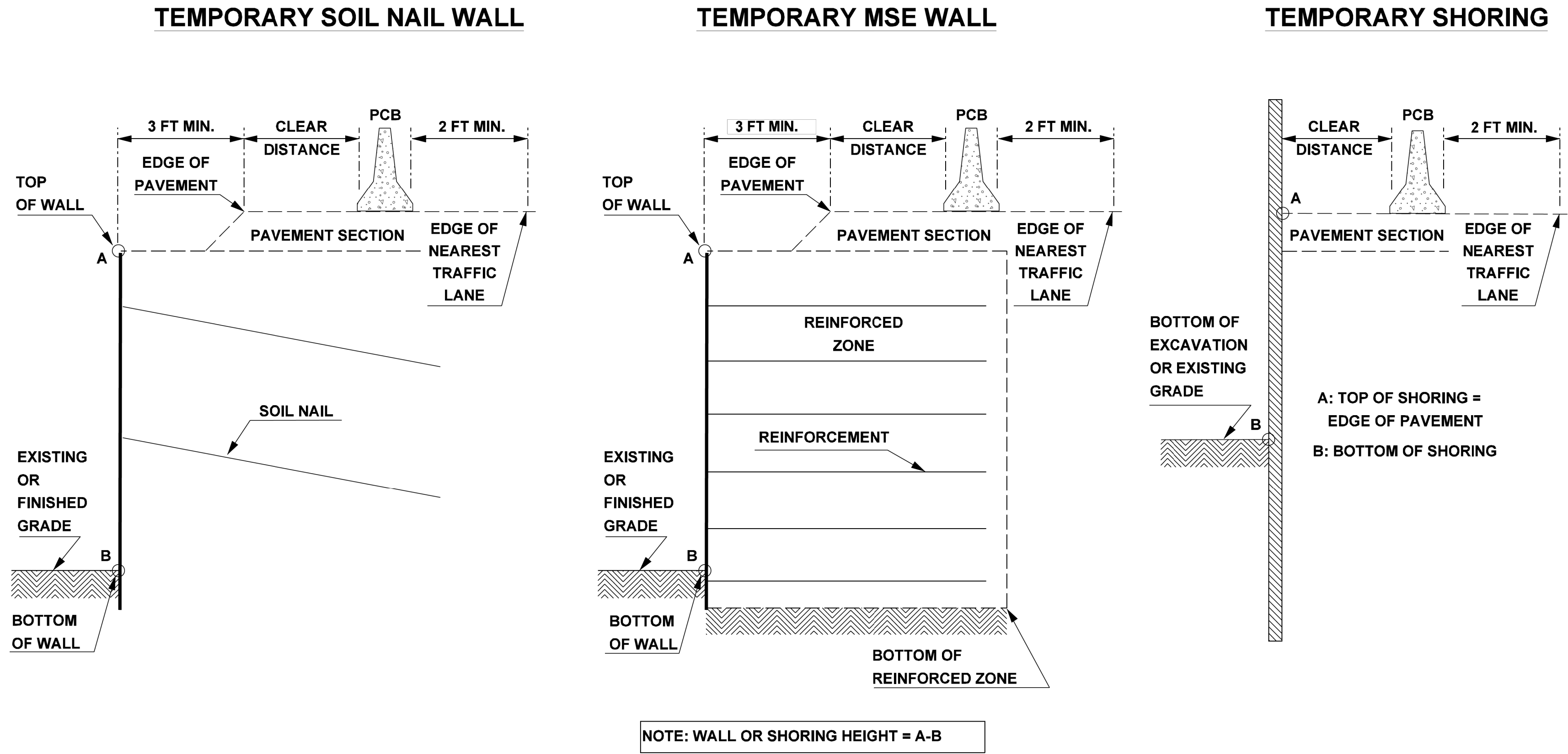


FIGURE A

NOTES

- 1- REFER TO THE TRAFFIC CONTROL PLANS FOR TEMPORARY SHORING LOCATIONS AND NOTES.
- 2- REFER TO THE "TEMPORARY SHORING" STANDARD PROVISION FOR INFORMATION ABOUT TEMPORARY SHORING AND PORTABLE CONCRETE BARRIER (PCB).
- 3- PCB IS REQUIRED IF TEMPORARY SHORING/WALL 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 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/WALLS 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- 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 OR APPROVED BY THE ENGINEER.
- 8- 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 THIS MINIMUM REQUIRED DISTANCE IS NOT AVAILABLE, CONTACT THE ENGINEER.
- 9- TABLE SHOWN IN FIGURE B IS BASED ON NCDOT RESEARCH PROJECT NO. 2005-010 WITH VEHICLE TYPE USED FOR NCHRP 350 CRASH TESTS.

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

* See Figure Below

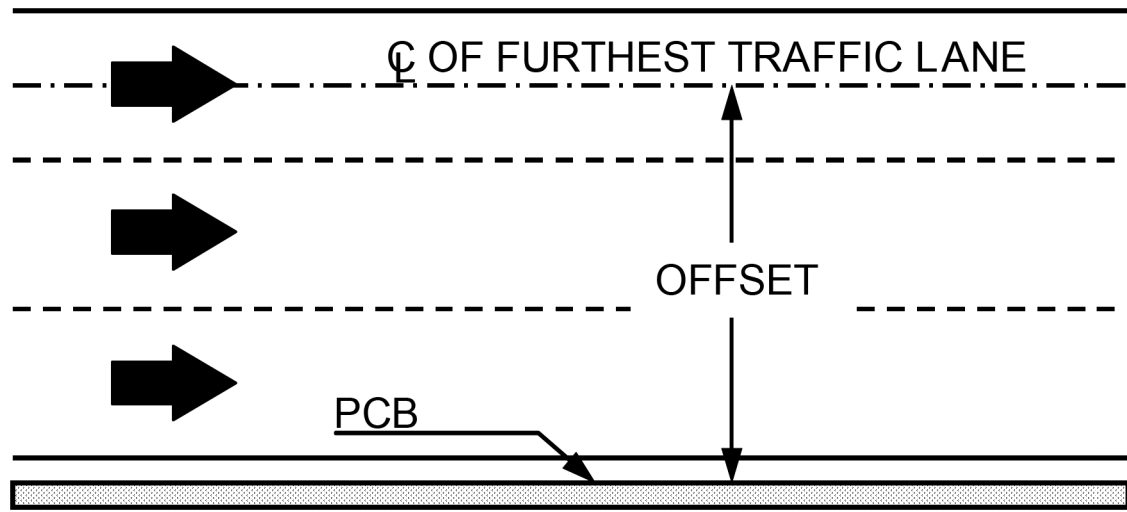
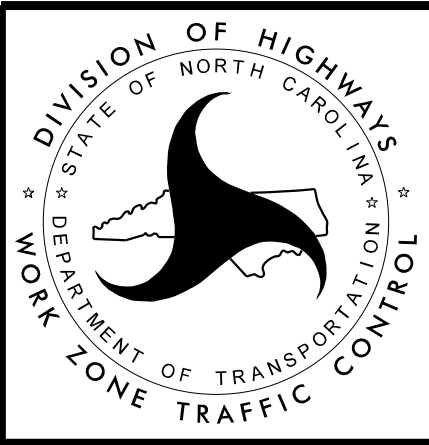


FIGURE B

Kimley»Horn



PORTABLE CONCRETE BARRIER
AT
TEMPORARY SHORING LOCATIONS

TEMPORARY SHORING NOTES

TEMPORARY SHORING RECOMMENDATIONS
DATED DECEMBER 5, 2019
FROM NCDOT GEOTECHNICAL ENGINEER

TEMPORARY SHORING NO. 1 (SEE TMP-18)

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

TEMPORARY SHORING IS REQUIRED FOR THE CULVERT INSTALLATION FROM STATION 90+50 +/- -L-, 11.94ft RT, TO STATION 91+35 +/- -L-, 10.77ft RT.

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 90+50 +/- -L-, 11.94ft RT, TO STATION 91+35 +/- -L-, 10.77ft RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

- UNIT WEIGHT (GAMMA) = 120 LB/CF
- FRICTION ANGLE (f) = 30 DEGREES
- COHESION (c) = 0 LB/SF
- GROUNDWATER ELEVATION = 860 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 90+50 +/- -L-, 11.94ft RT, TO STATION 91+35 +/- -L-, 10.77ft RT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION 90+50 +/- -L-, 11.94ft RT, TO STATION 91+35 +/- -L-, 10.77ft RT MAY NOT PENETRATE BELOW ELEVATION 845 FT DUE TO OBSTRUCTIONS, VERY DENSE OR HARD SOIL, BOULDERS OR WEATHERED OR HARD ROCK.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 90+50 +/- -L-, 11.94ft RT, TO STATION 91+35 +/- -L-, 10.77ft RT.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION 90+50 +/- -L-, 11.94ft RT, TO STATION 91+35 +/- -L-, 10.77ft RT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

TEMPORARY SHORING NO. 2 (SEE TMP-18 AND TMP-31)

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

TEMPORARY SHORING IS REQUIRED FOR THE CULVERT INSTALLATION FROM STATION 90+50 +/- -L-, 2.22ft RT, TO STATION 91+35 +/- -L-, 2.00ft RT.

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 90+50 +/- -L-, 2.22ft RT, TO STATION 91+35 +/- -L-, 2.00ft RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

- UNIT WEIGHT (GAMMA) = 120 LB/CF
- FRICTION ANGLE (f) = 30 DEGREES
- COHESION (c) = 0 LB/SF
- GROUNDWATER ELEVATION = 860 FT

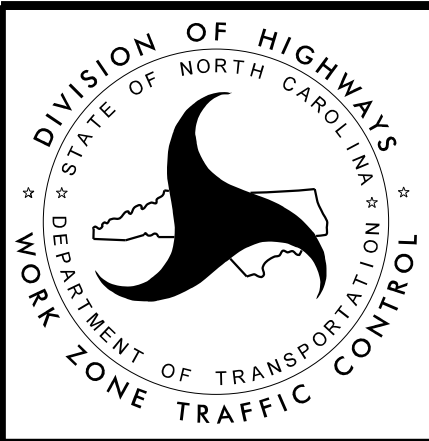
LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 90+50 +/- -L-, 2.22ft RT, TO STATION 91+35 +/- -L-, 2.00ft RT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION 90+50 +/- -L-, 2.22ft RT, TO STATION 91+35 +/- -L-, 2.00ft RT MAY NOT PENETRATE BELOW ELEVATION 845 FT DUE TO OBSTRUCTIONS, VERY DENSE OR HARD SOIL, BOULDERS OR WEATHERED OR HARD ROCK.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 90+50 +/- -L-, 2.22ft RT, TO STATION 91+35 +/- -L-, 2.00ft RT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

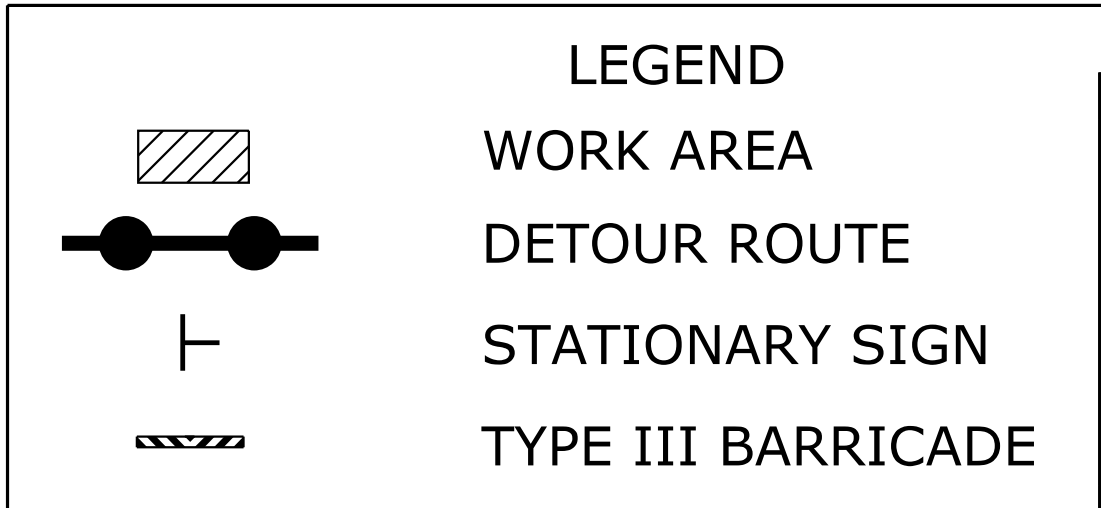
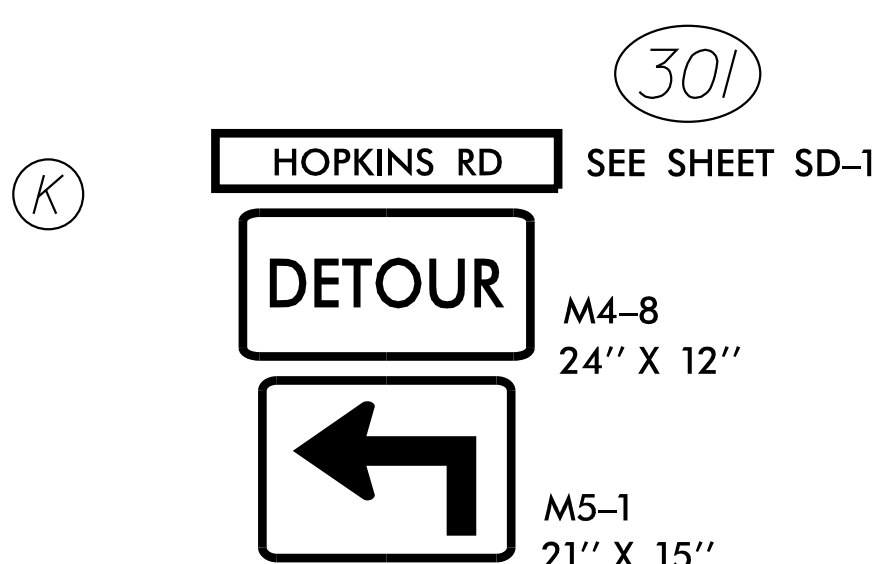
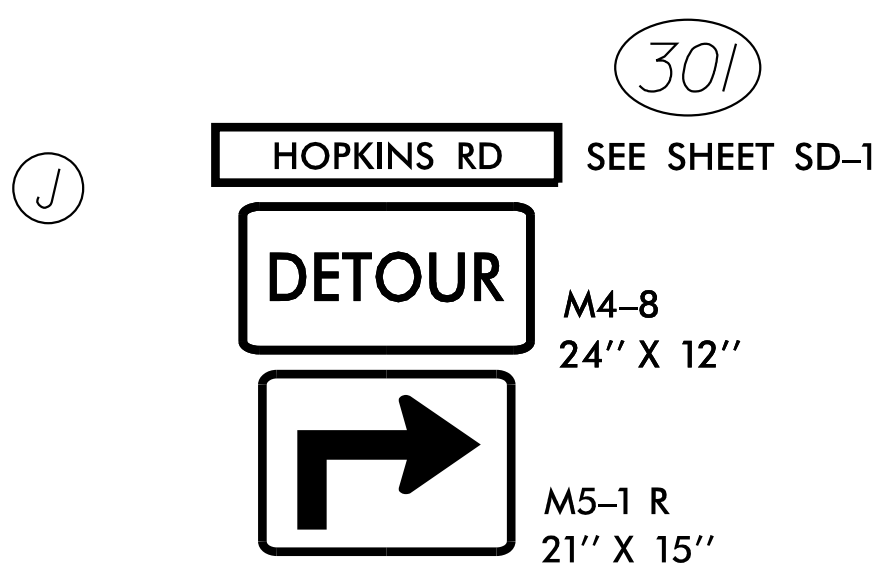
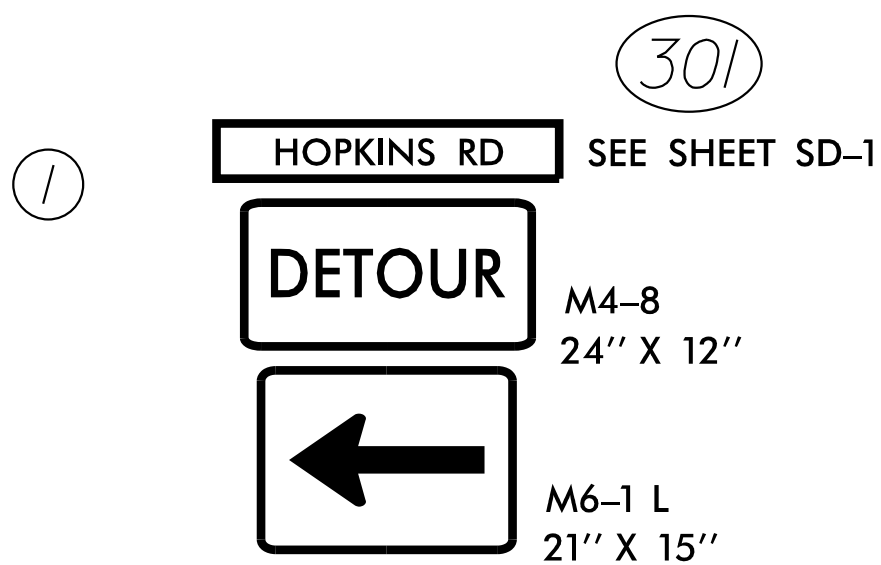
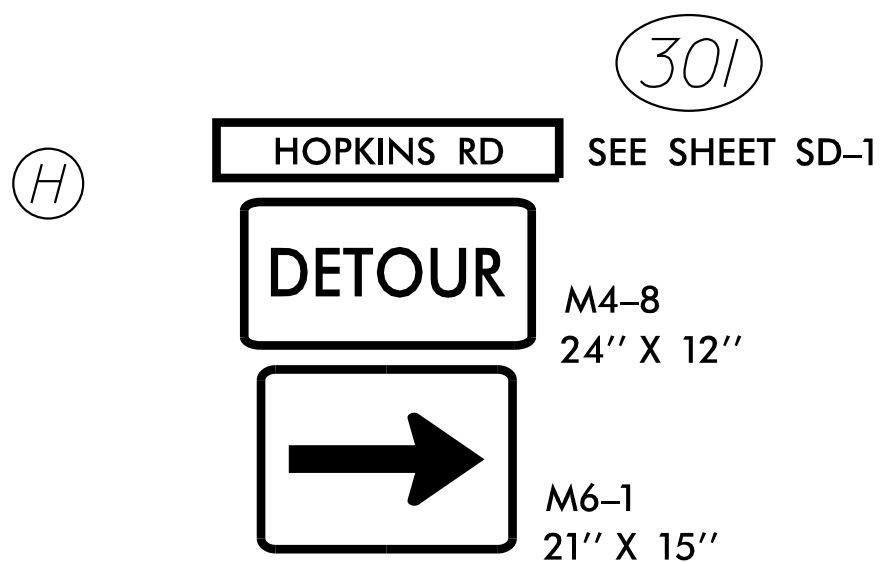
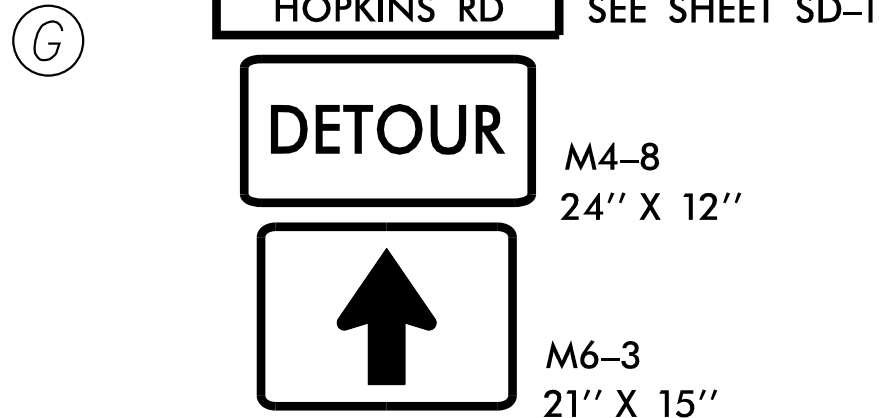
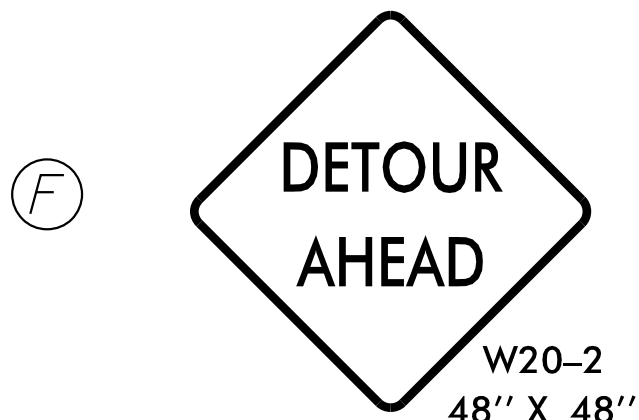
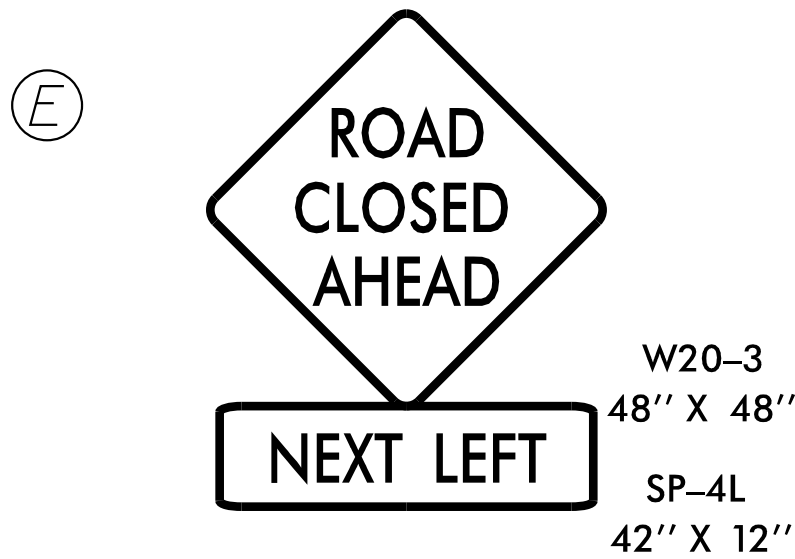
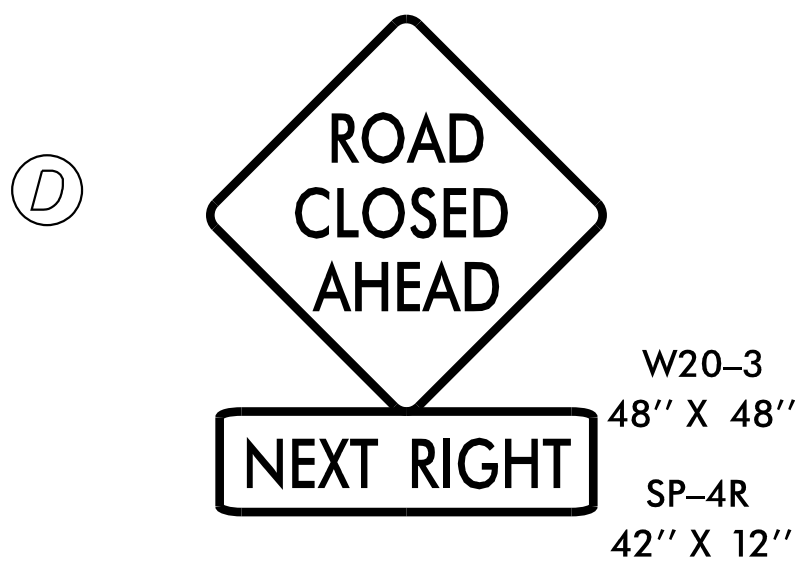
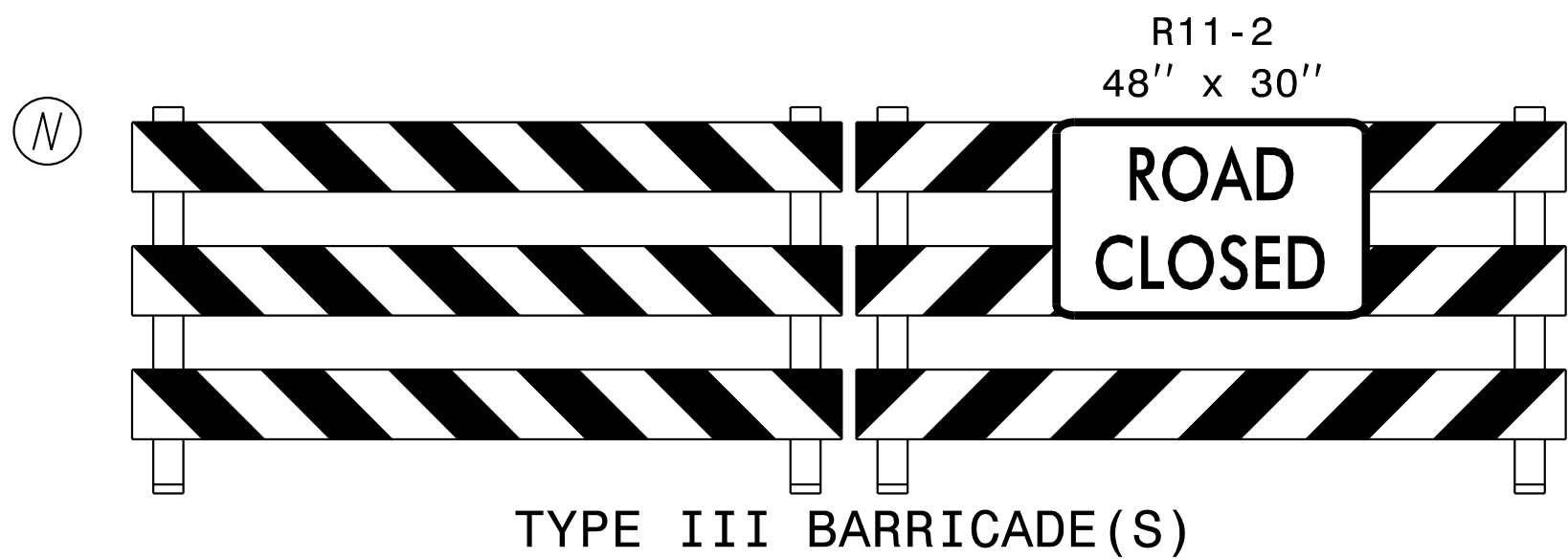
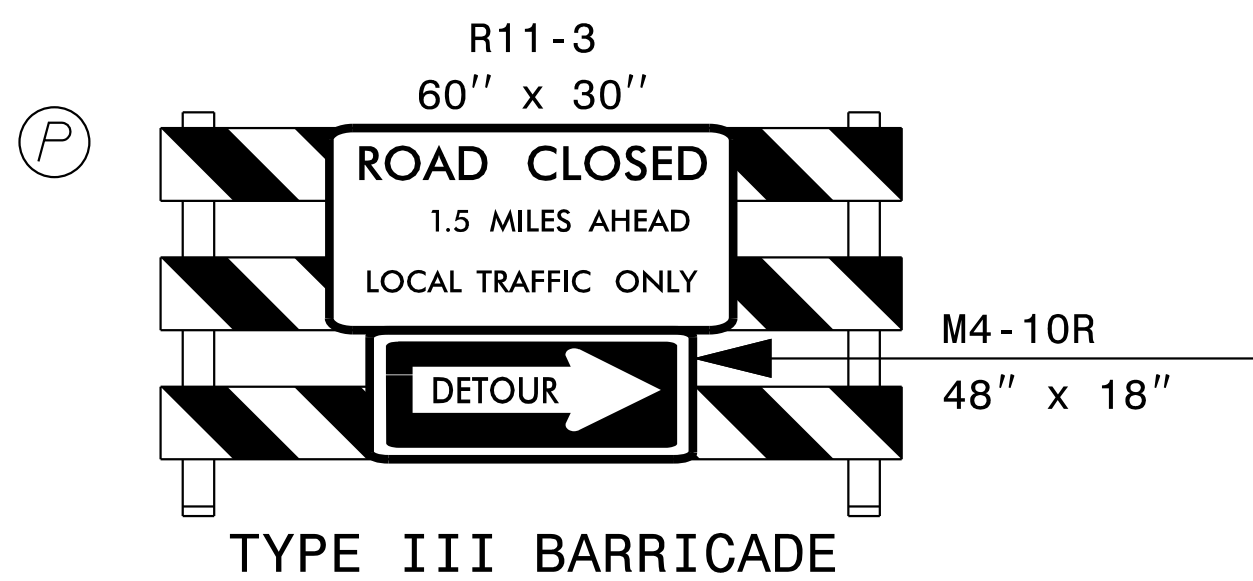
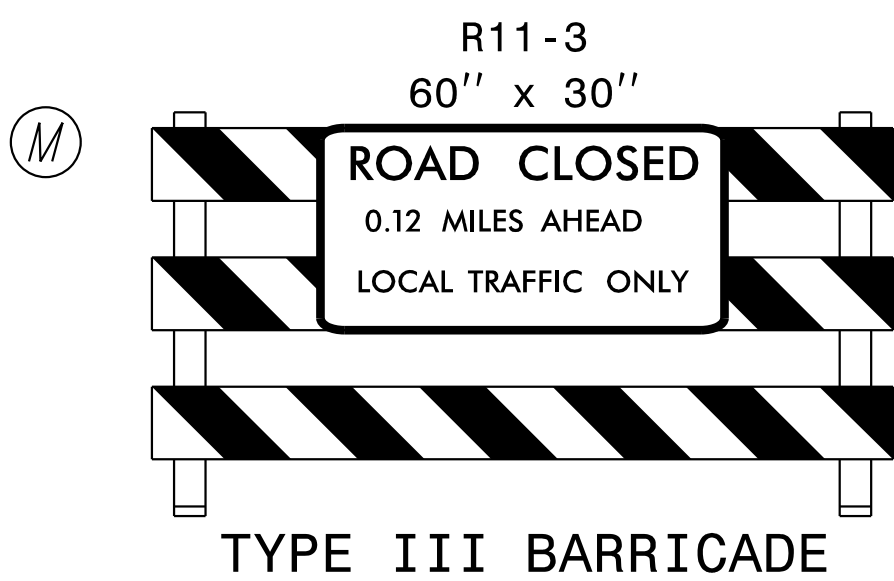
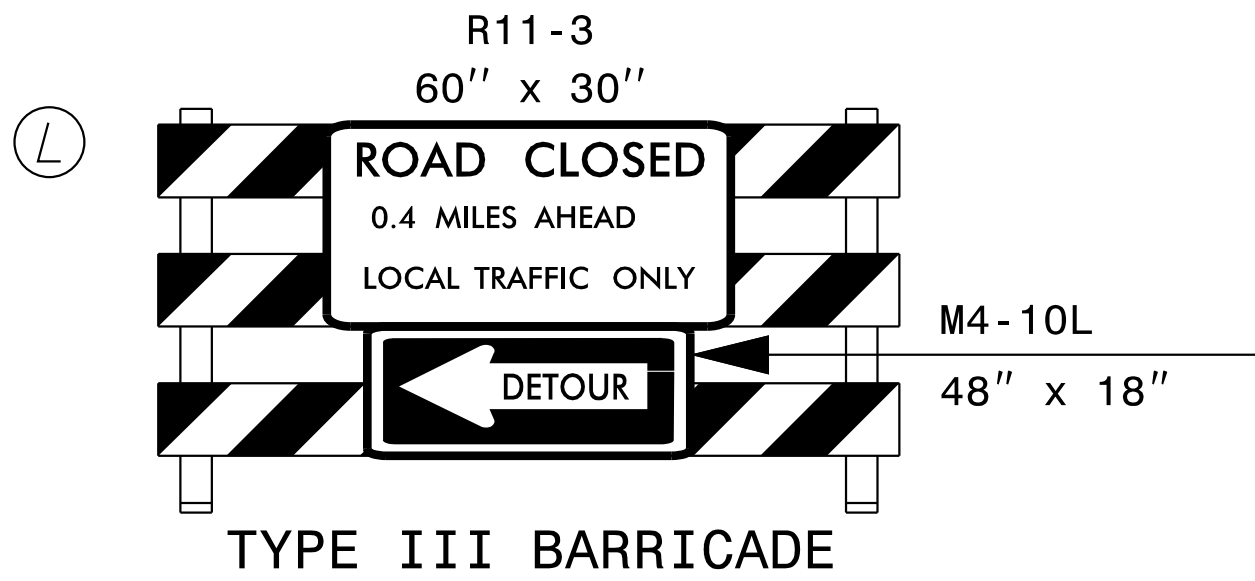
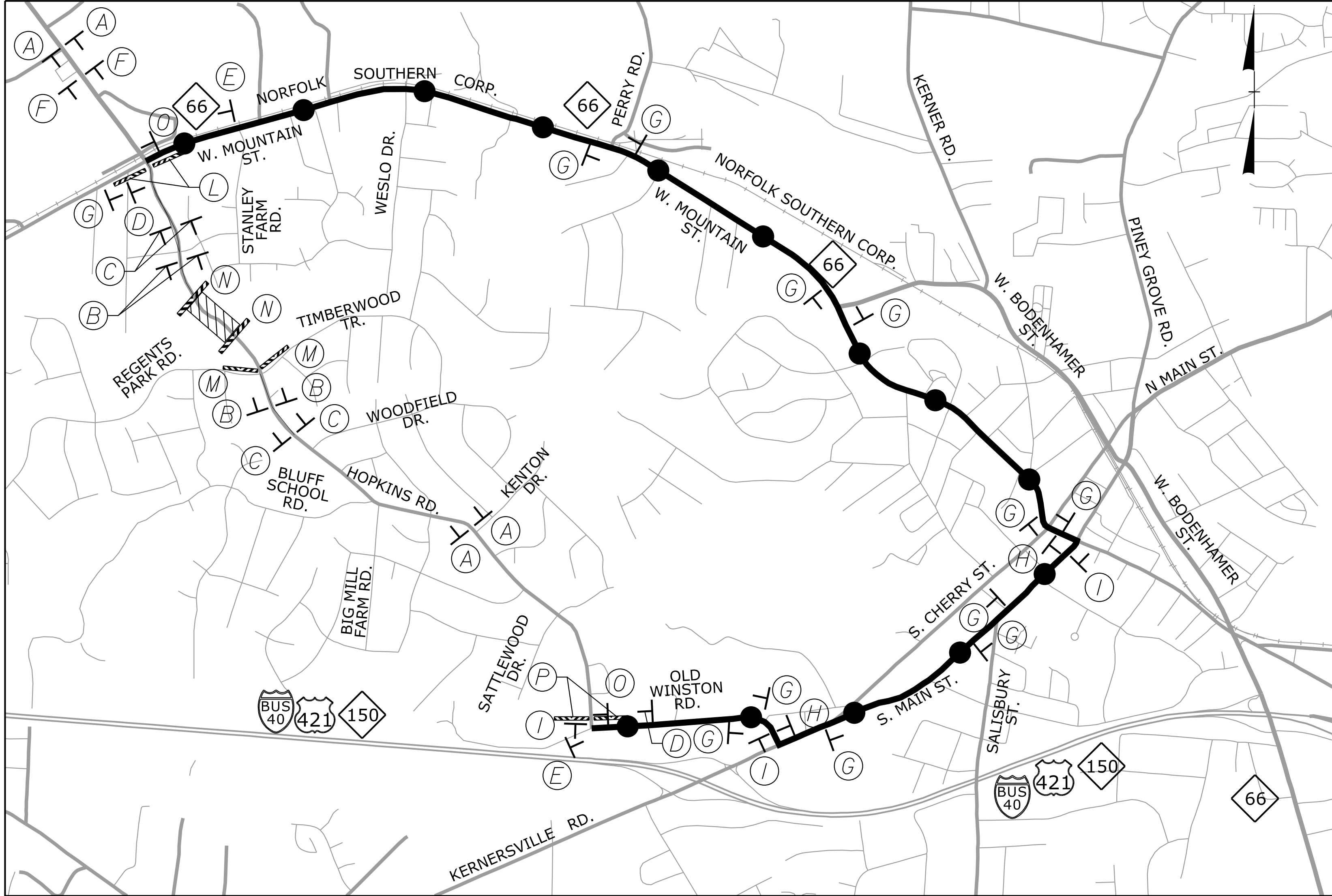
NC LICENSE WF-0102
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27601
PHONE: (919) 677-2000

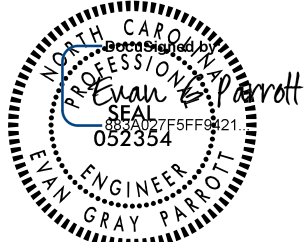
Kimley»Horn



TEMPORARY
SHORING NOTES

K:\RAL_Roadway\01036312 - U-5760 Big Mill Farm RoadTrafficControl\TCPSheets\U5760_Top_2C.dgn 8/5/2025



APPROVED:  DATE: 9/12/2025

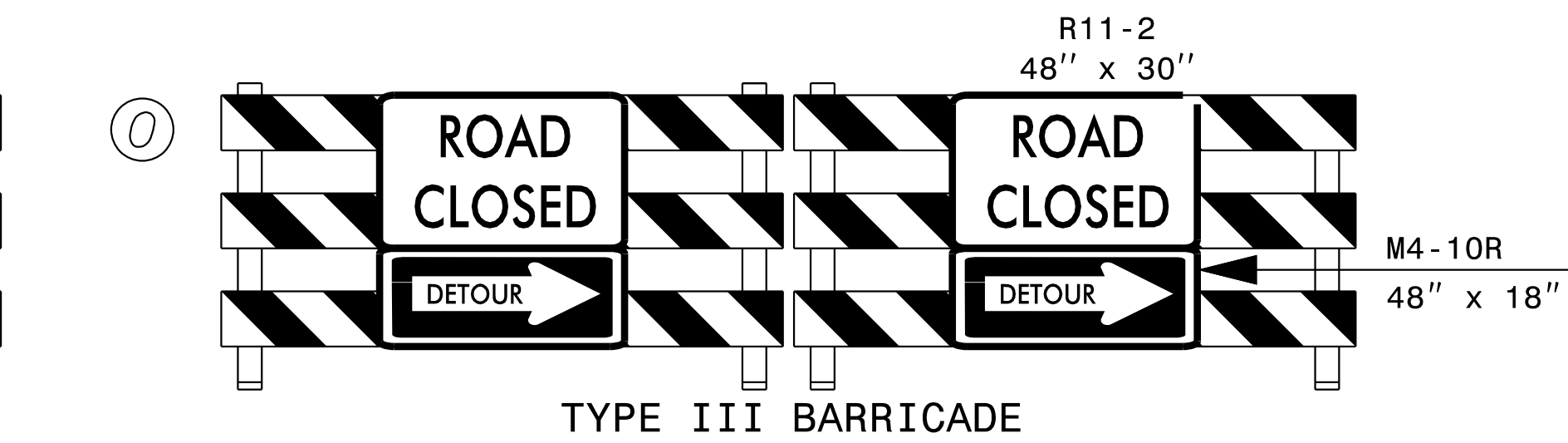
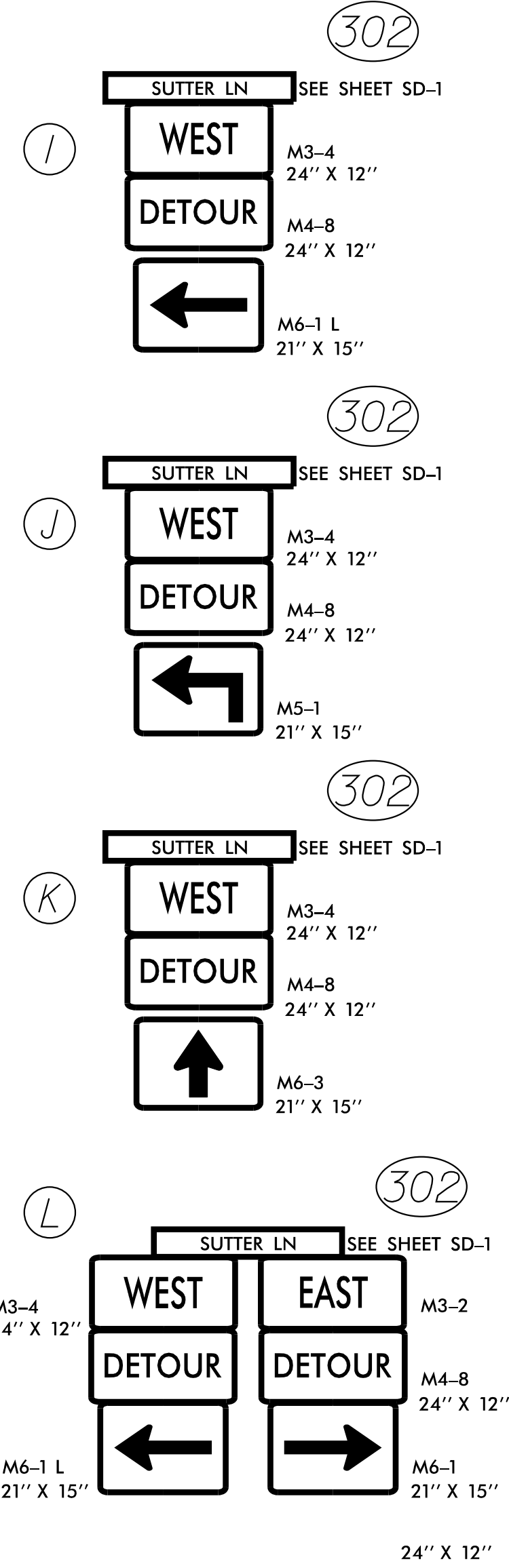
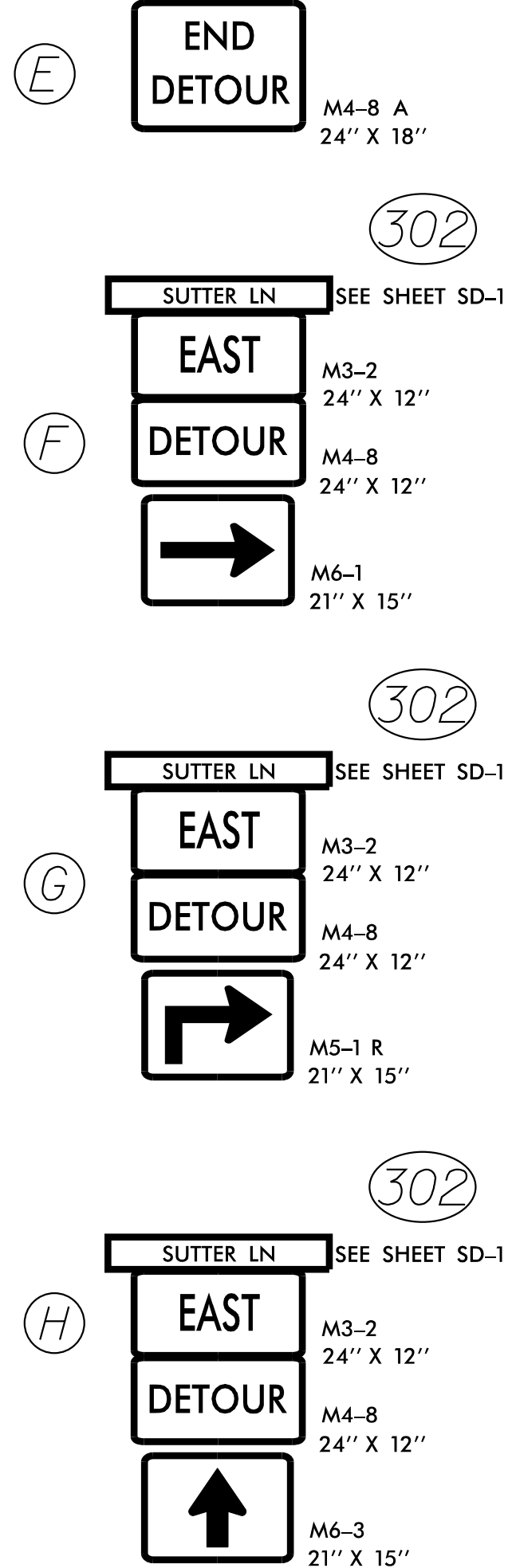
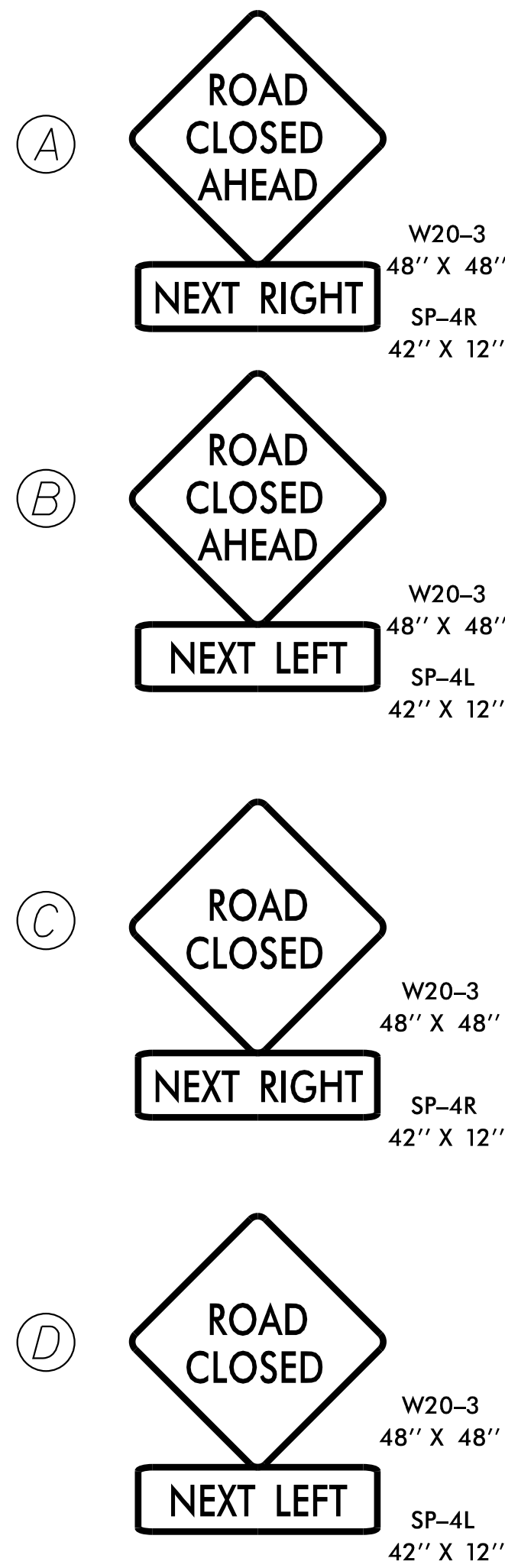
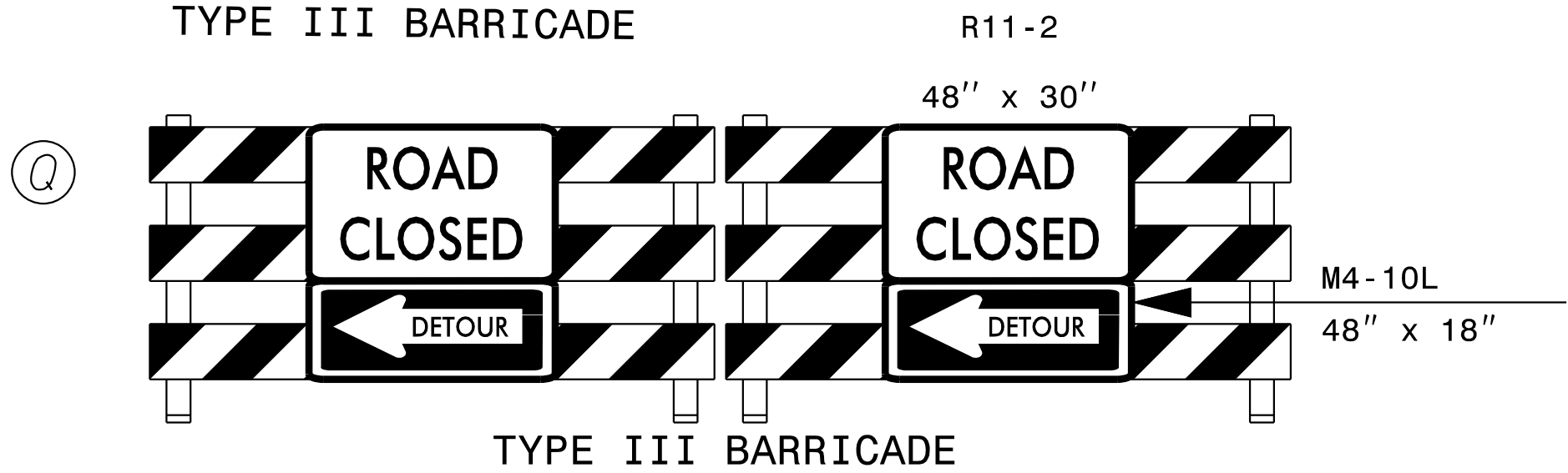
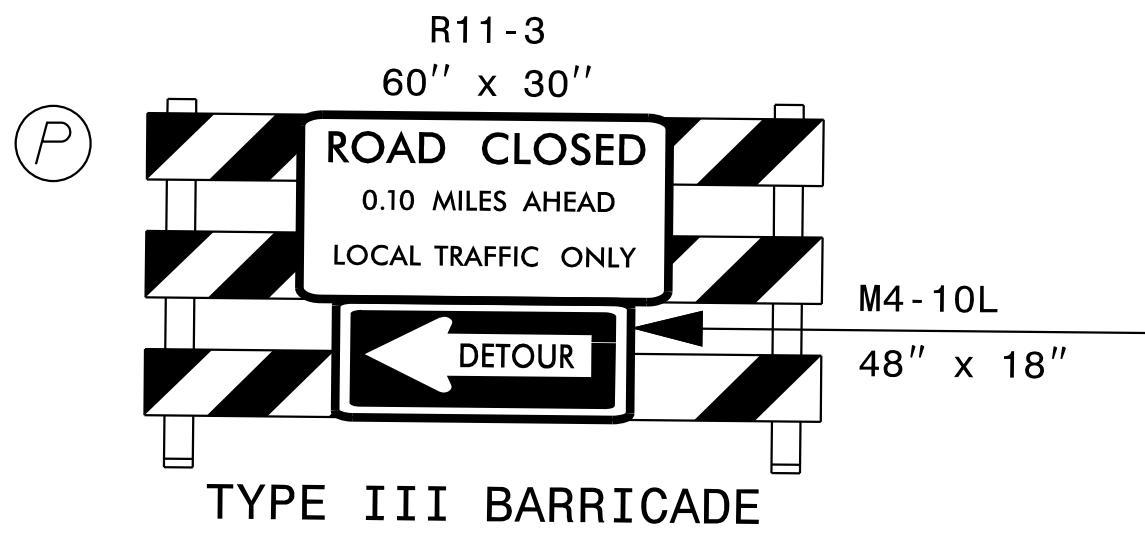
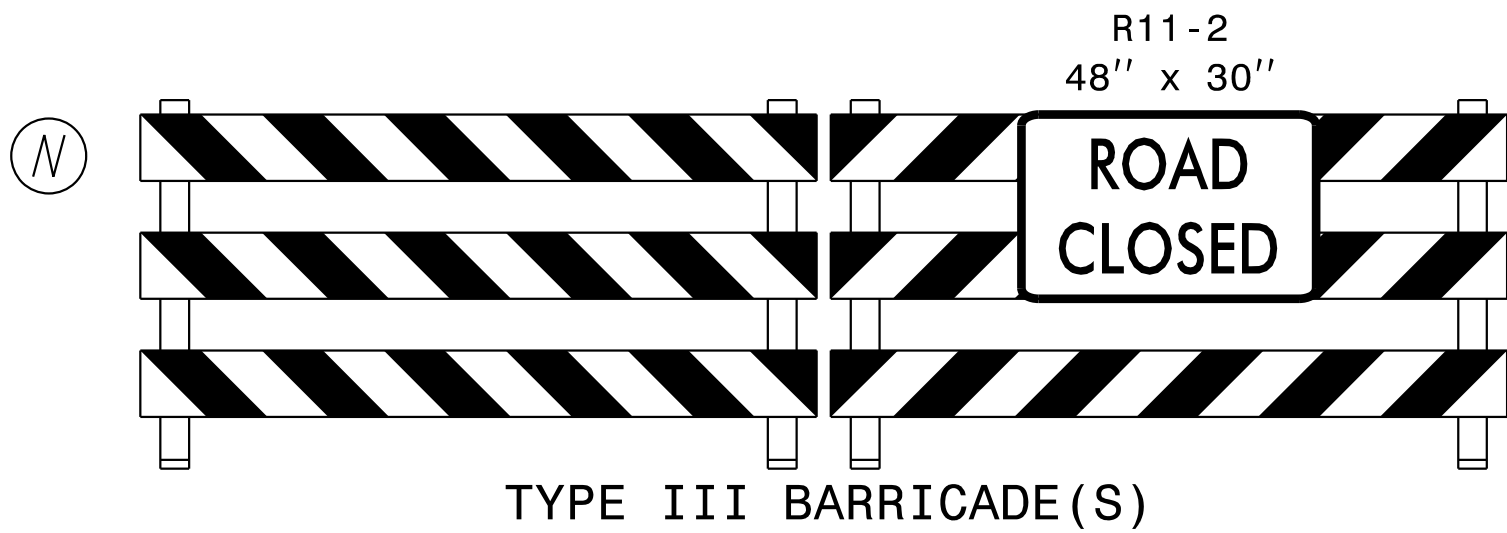
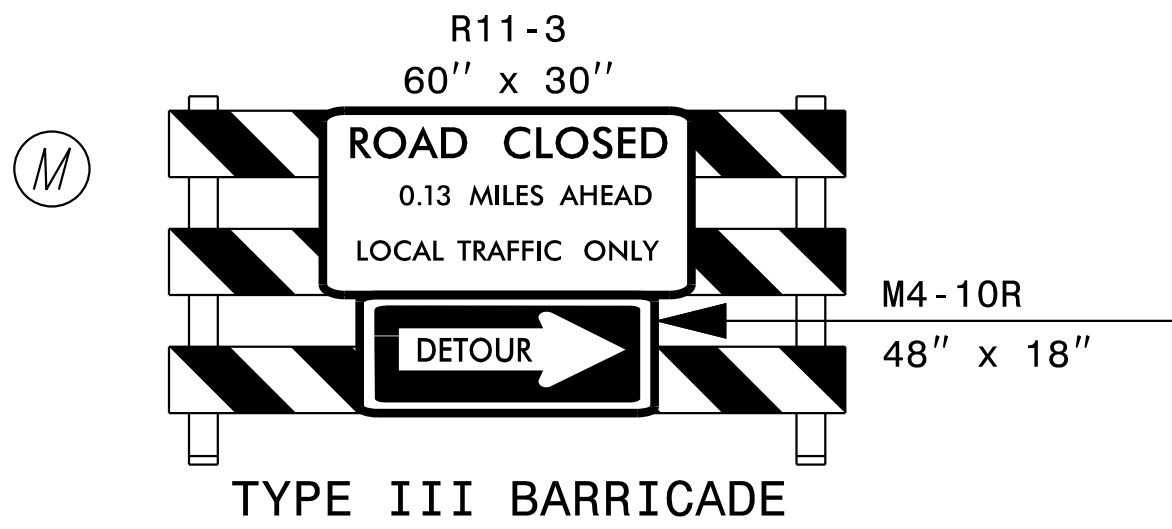
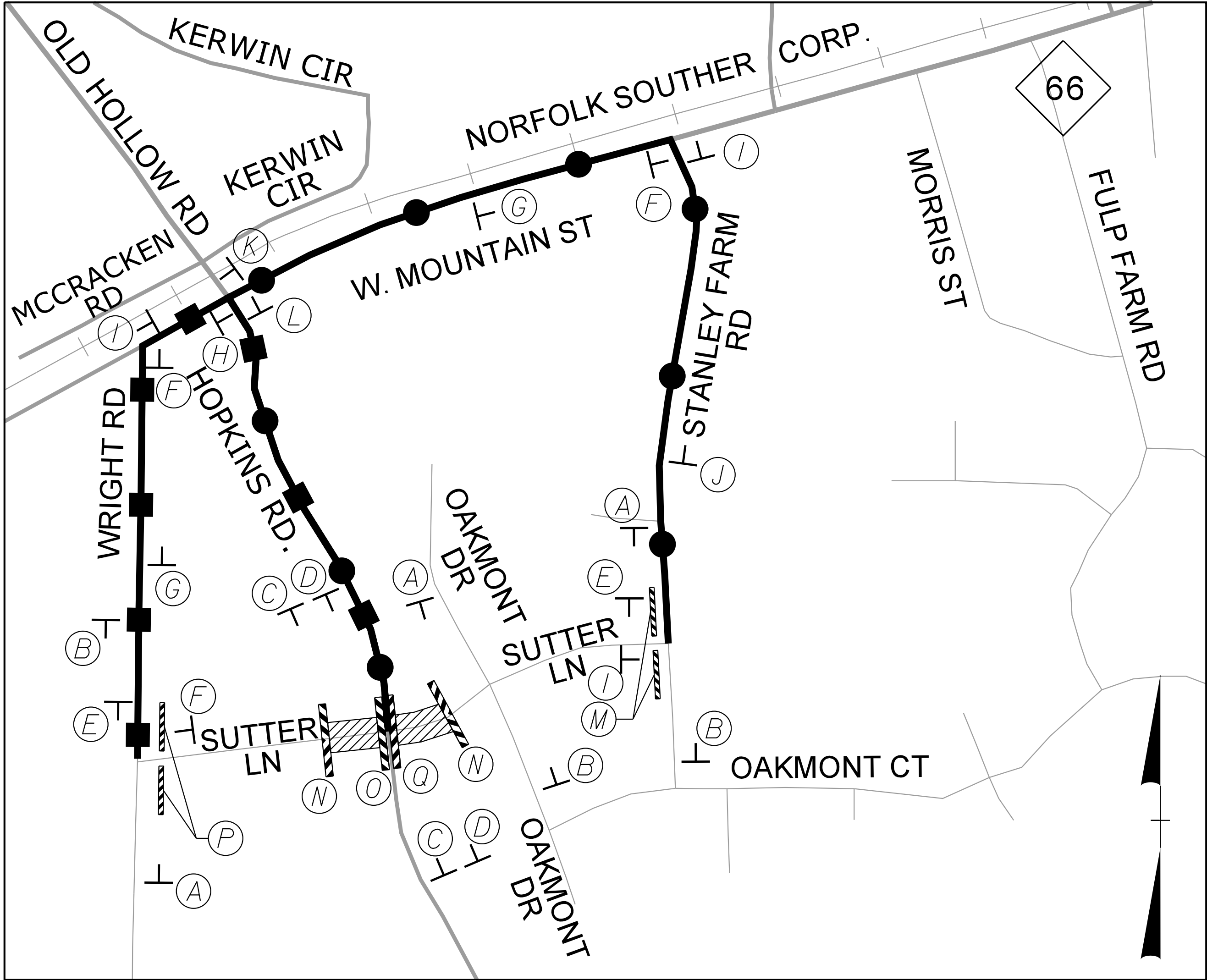
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

NC LICENSE WF-0102
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27601
PHONE: (919) 677-2000

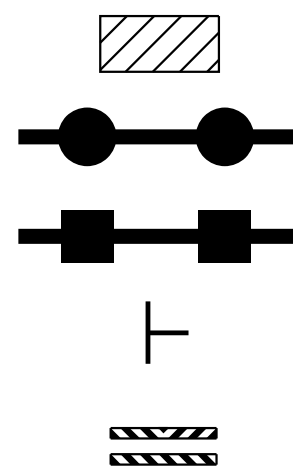

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

HOPKINS RD
OFFSITE DETOUR
ROUTE

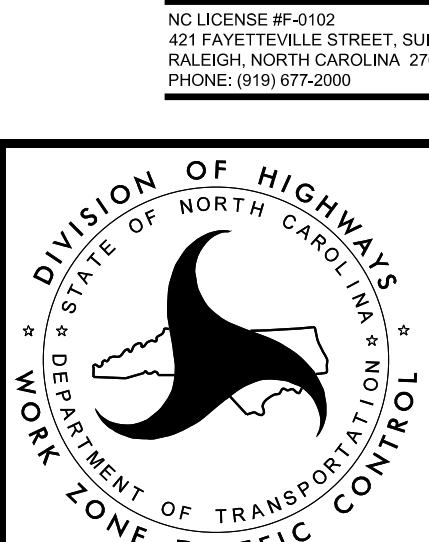
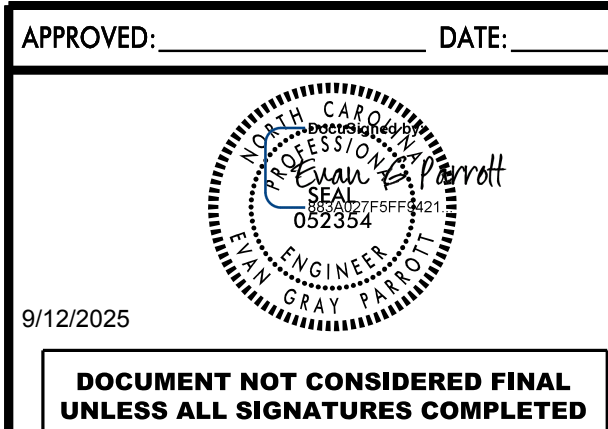
K:\RAL_Roadway\01036312 - U-5760 Big Mill Farm RoadTrafficControl\TCPSheets\U5760_Tcp_2D.dgn 8/5/2025



LEGEND



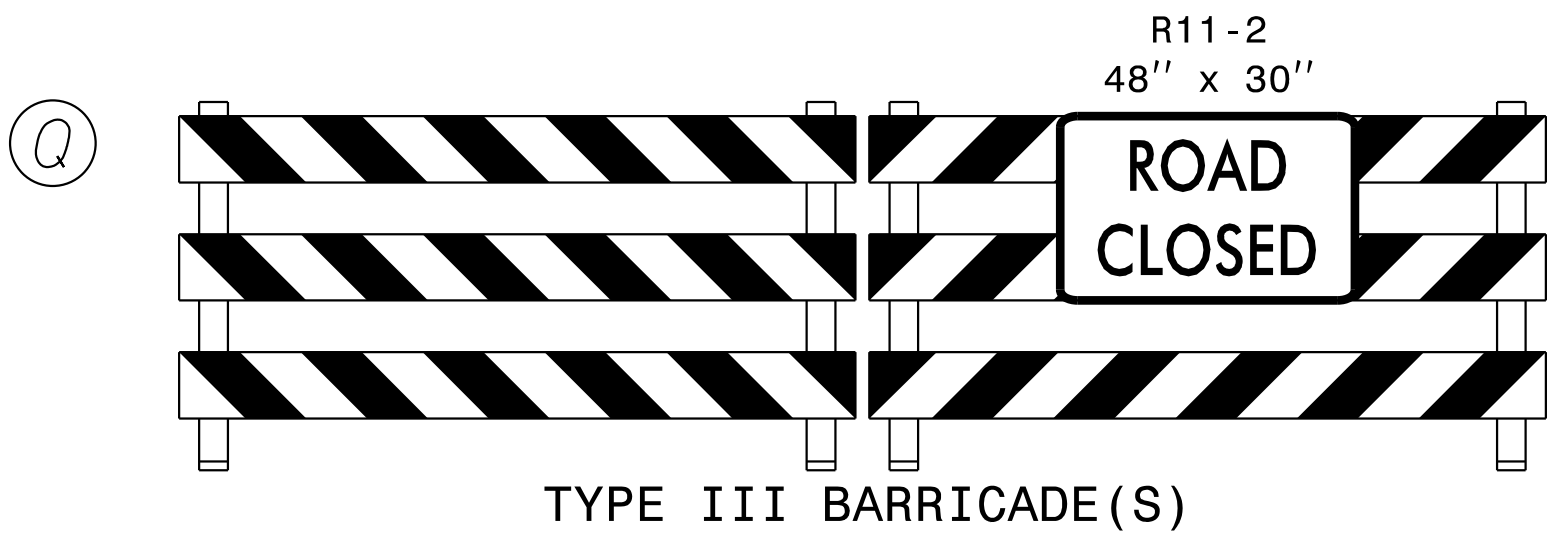
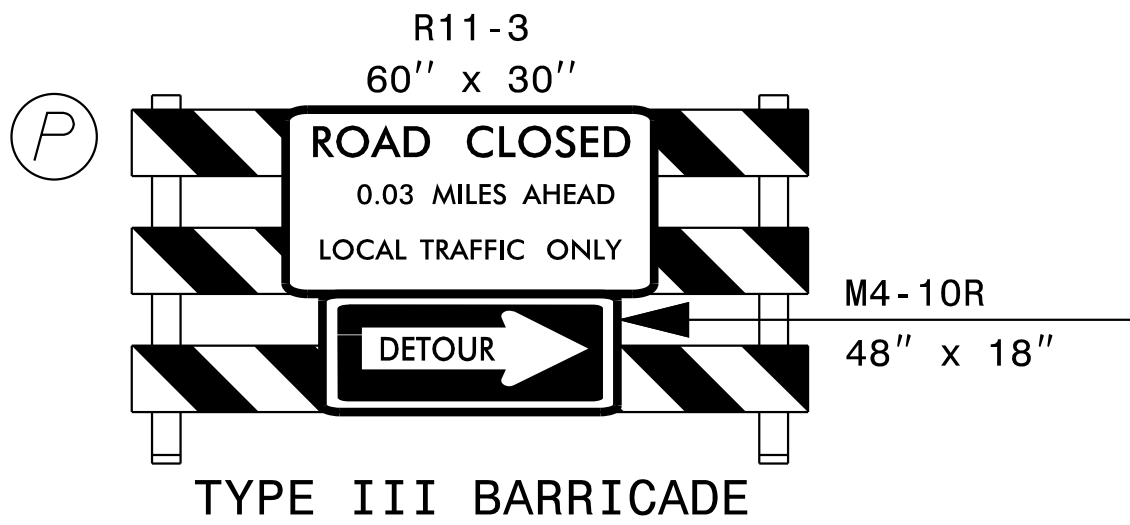
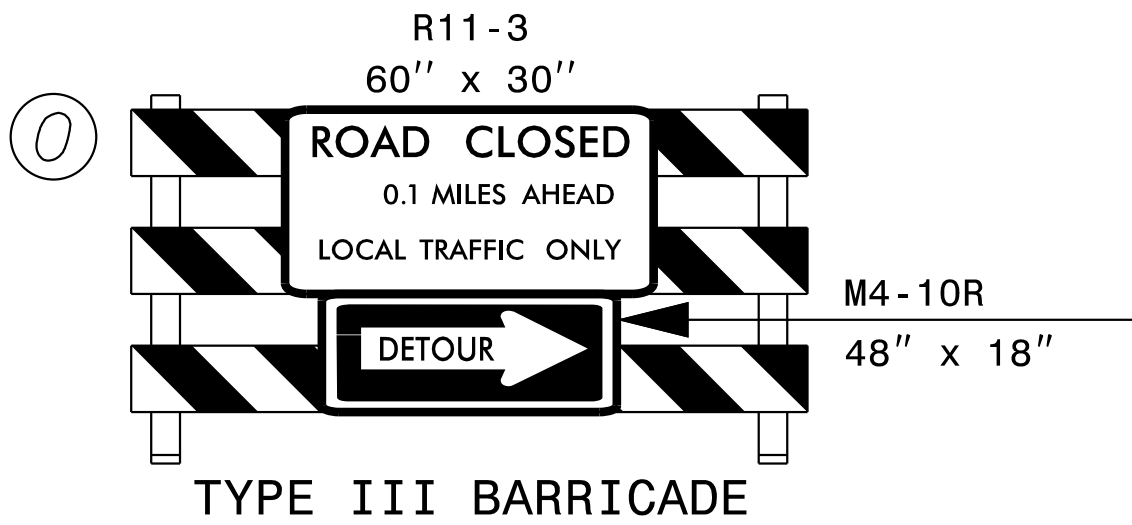
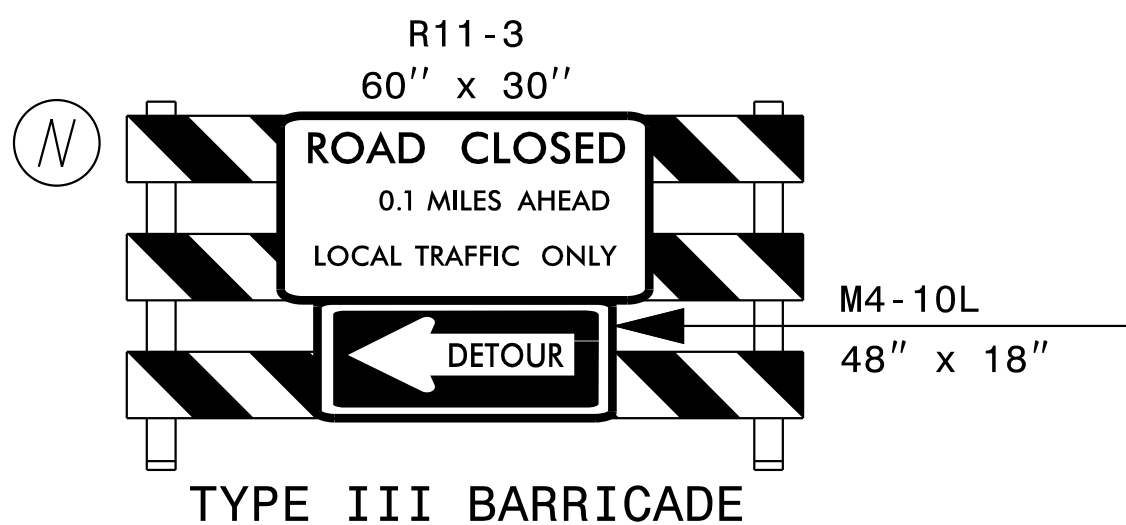
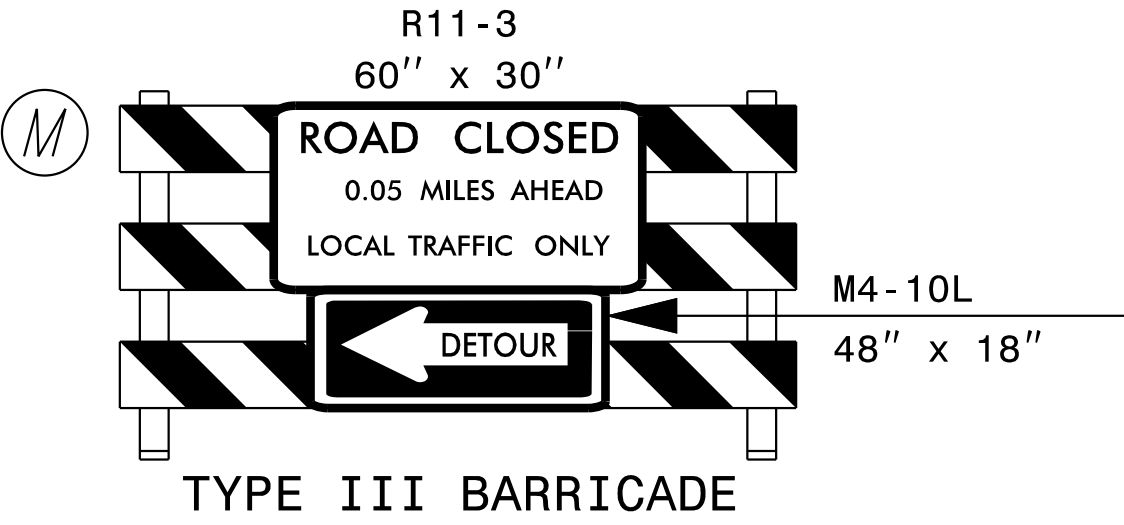
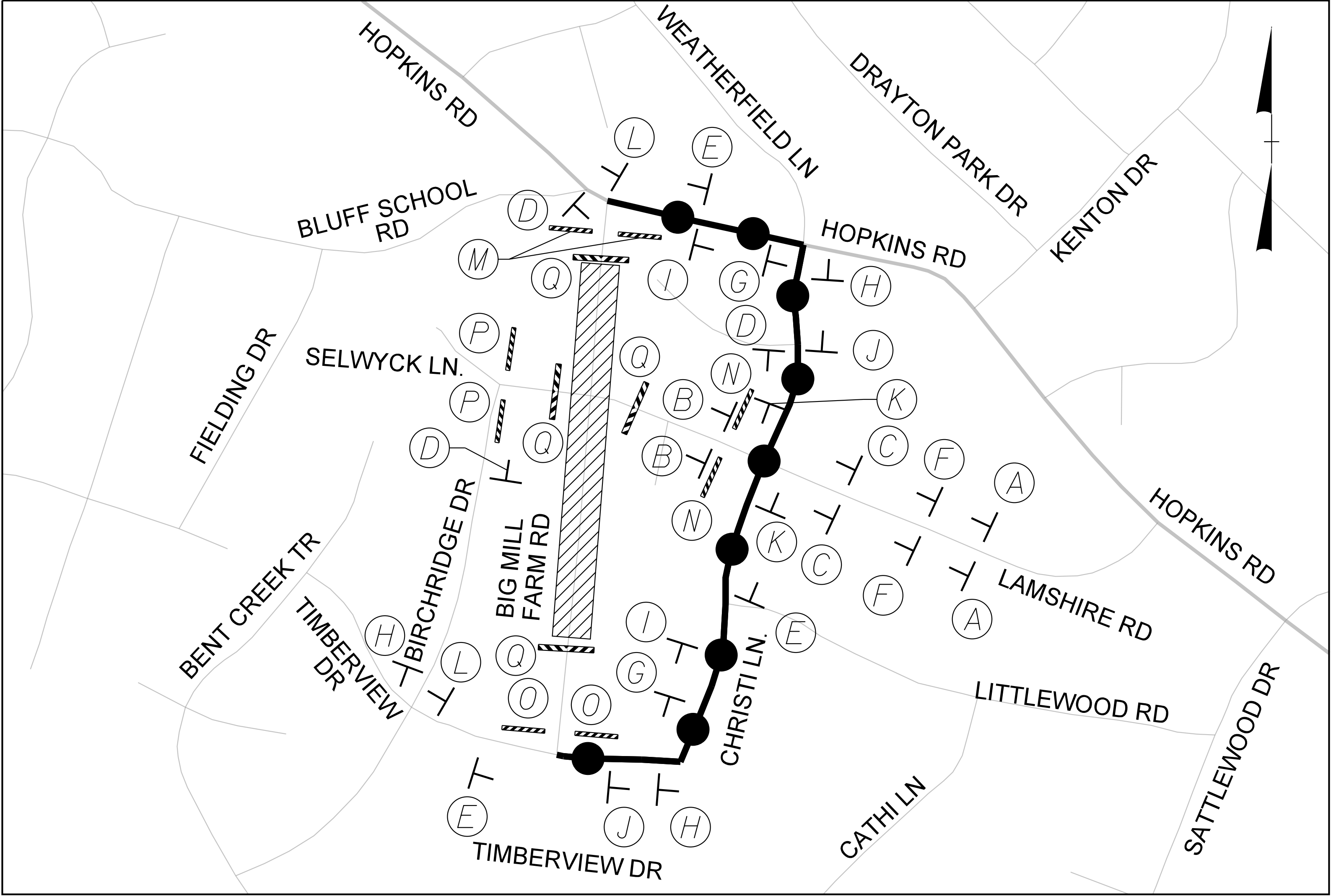
WORK AREA
EAST DETOUR ROUTE
WEST DETOUR ROUTE
STATIONARY SIGN
TYPE III BARRICADE



Kimley»Horn

SUTTER LN
OFFSITE DETOUR
ROUTE

K:\RAL_Roadway\01036312 - U-5760 Big Mill Farm RoadTrafficControl\TCPSheets\U5760_Tcp_2E.dgn 8/5/2025



LEGEND

WORK AREA

DETOUR ROUTE

STATIONARY SIGN

TYPE III BARRICADE

(A) ROAD CLOSED AHEAD
W20-3
48" X 48"

0.3 MILES
W16-3P
24" X 24"

(B) ROAD CLOSED 500 FT
W20-3
48" X 48"

(C) ROAD CLOSED 1000 FT
W20-3
48" X 48"

(D) ROAD CLOSED AHEAD
W20-3
48" X 48"

NEXT RIGHT
SP-4R
42" X 12"

(E) ROAD CLOSED AHEAD
W20-3
48" X 48"

NEXT LEFT
W20-3
48" X 48"

(F) DETOUR AHEAD
W20-2
48" X 48"

(G) BIG MILL FARM RD
SEE SHEET SD-2

DETOUR
M4-8
24" X 12"

M6-1
21" X 15"

(H) BIG MILL FARM RD
SEE SHEET SD-2

DETOUR
M4-8
24" X 12"

M6-1 L
21" X 15"

(I) BIG MILL FARM RD
SEE SHEET SD-2

DETOUR
M4-8
24" X 12"

M5-1 R
21" X 15"

(J) BIG MILL FARM RD
SEE SHEET SD-2

DETOUR
M4-8
24" X 12"

M5-1
21" X 15"

(K) BIG MILL FARM RD
SEE SHEET SD-2

DETOUR
M4-8
24" X 12"

M6-3
21" X 15"

(L) END DETOUR
M4-8 A
24" X 18"

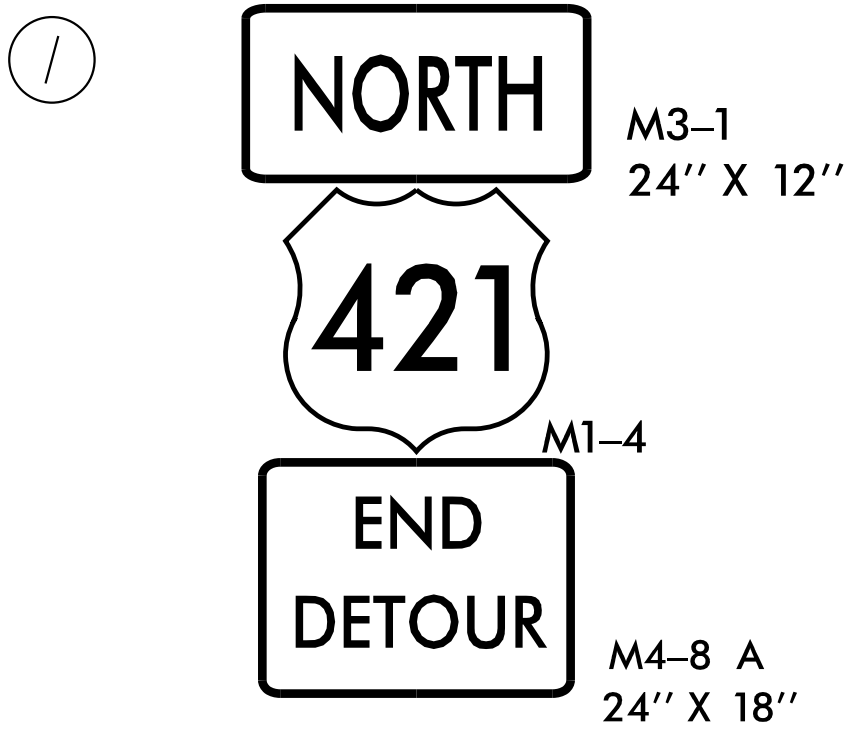
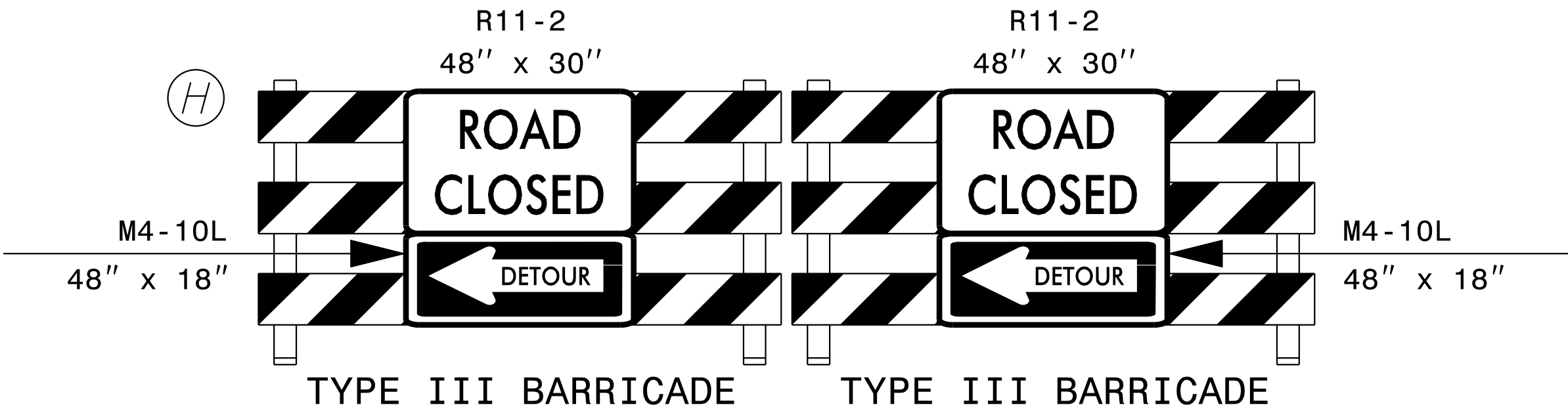
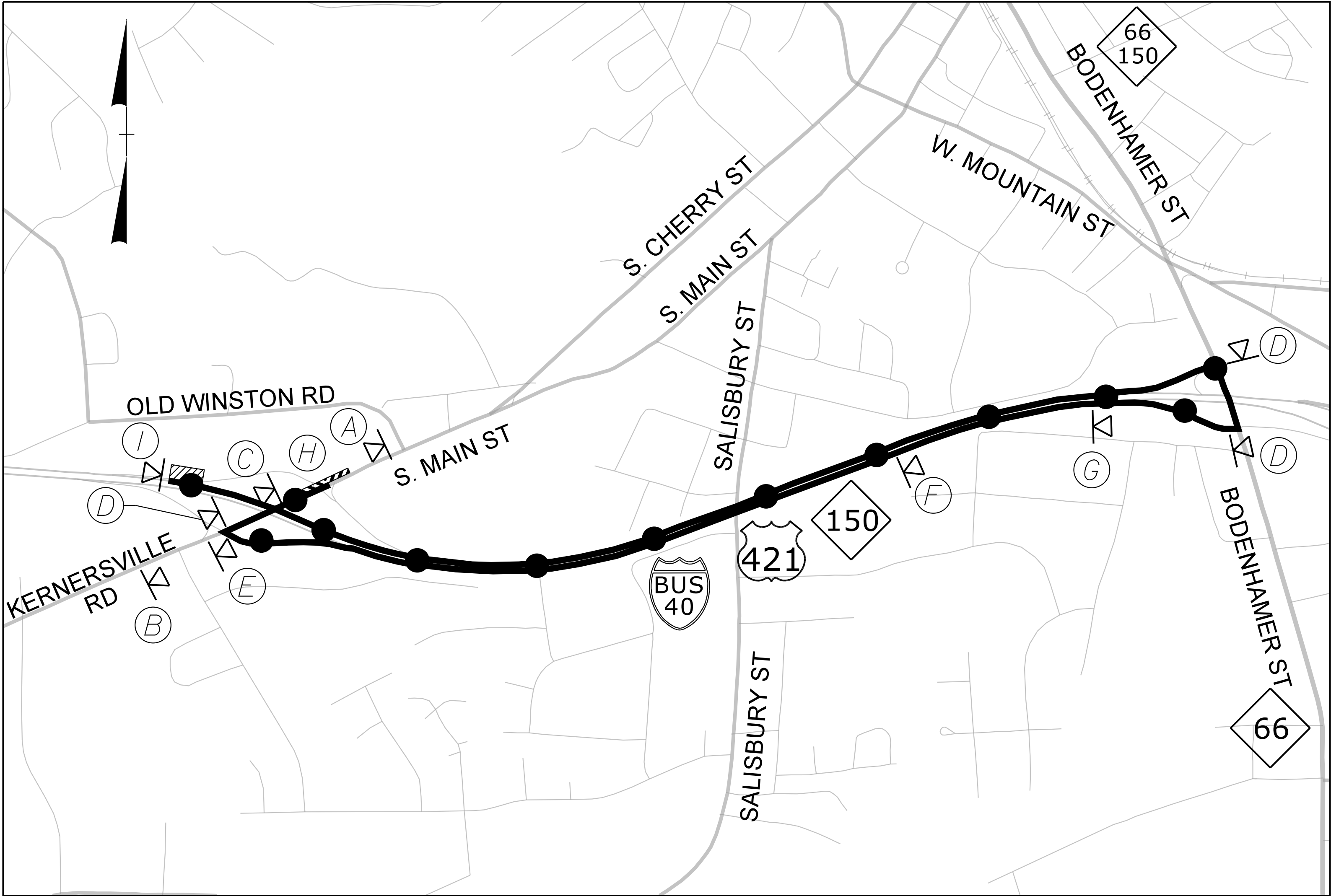
APPROVED: DATE: 9/12/2025

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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

BIG MILL FARM RD
OFFSITE DETOUR
ROUTE

Kimley»Horn



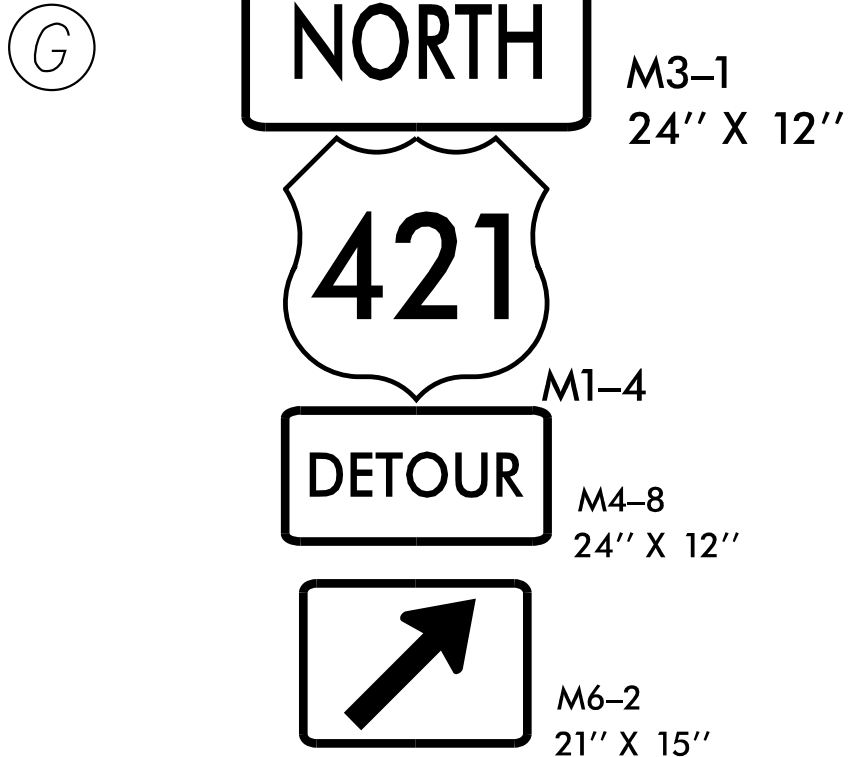
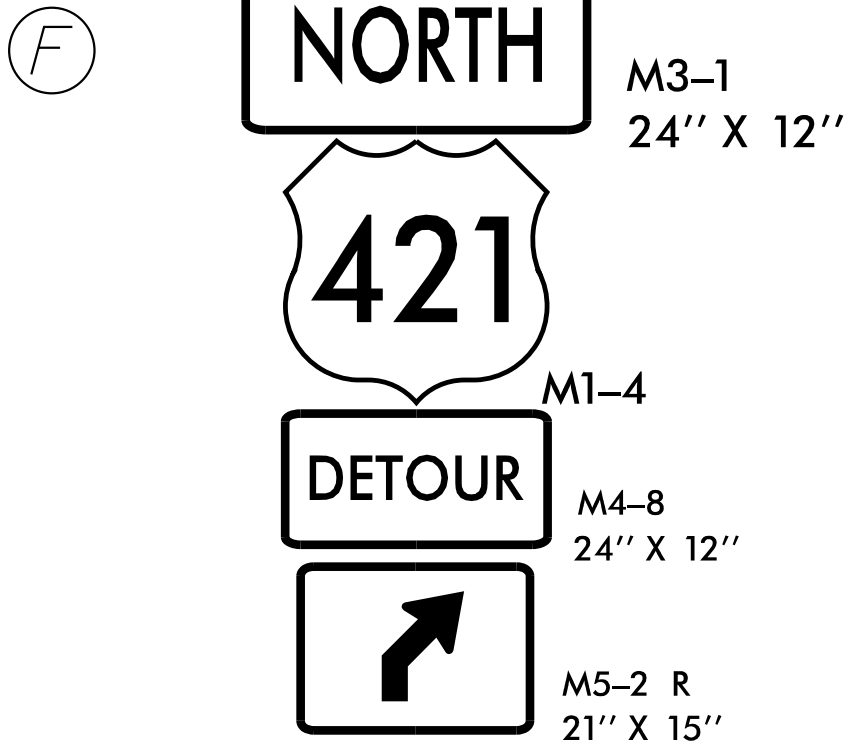
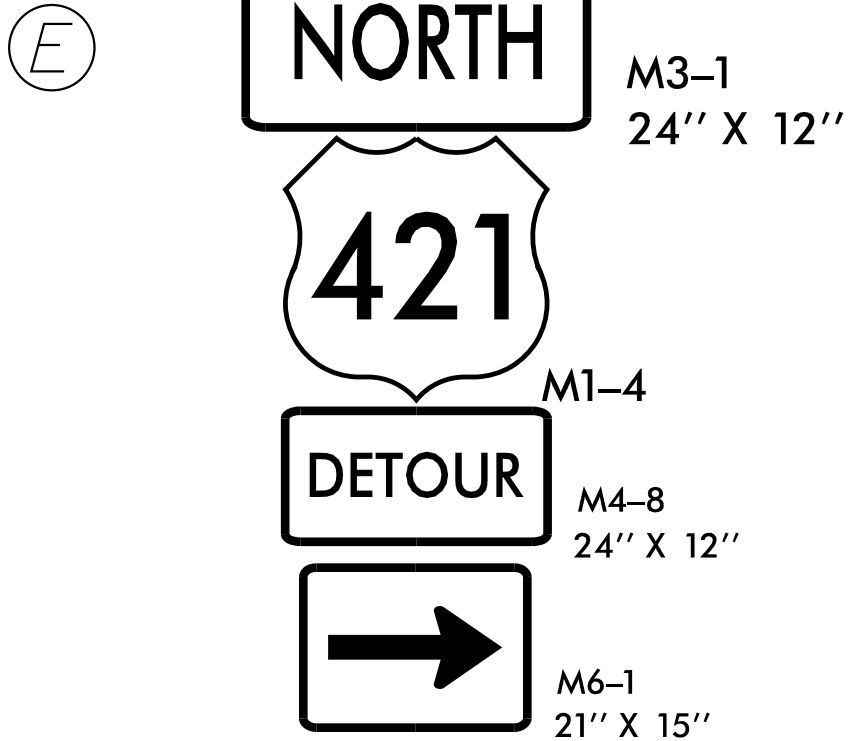
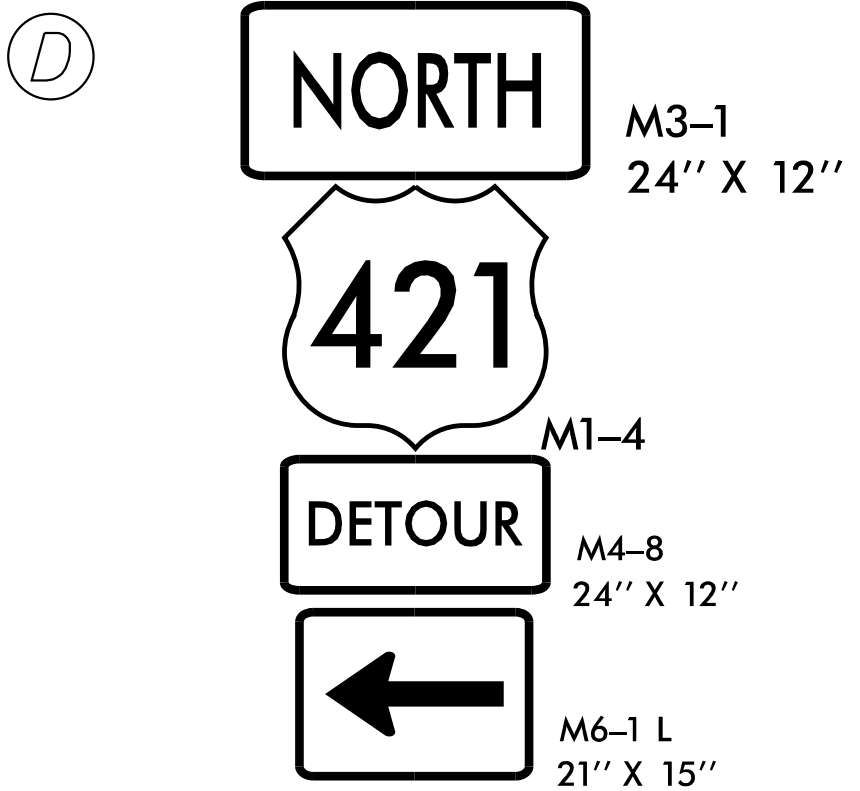
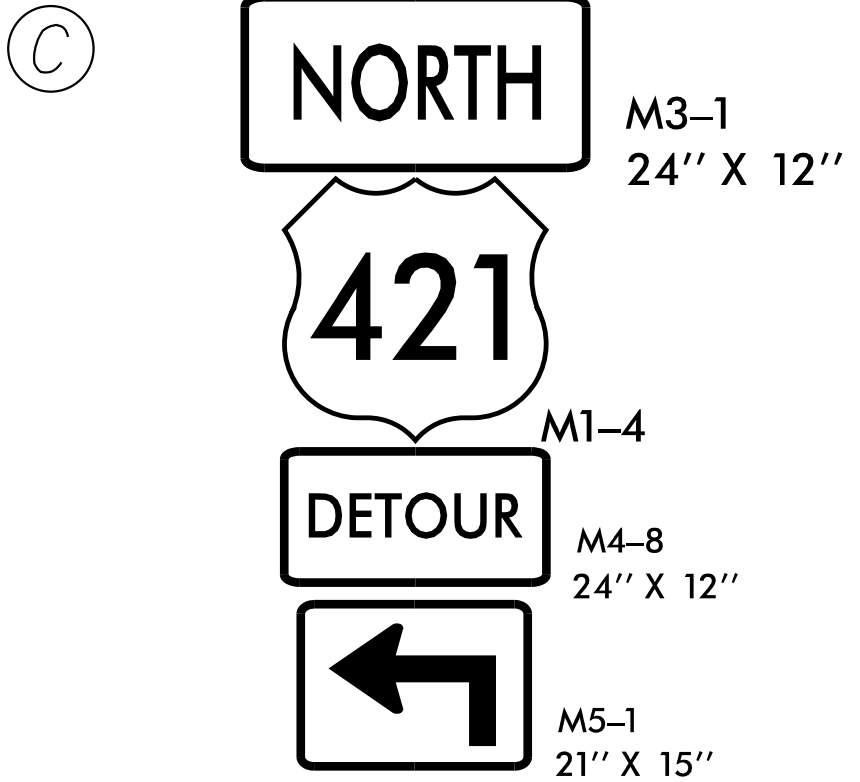
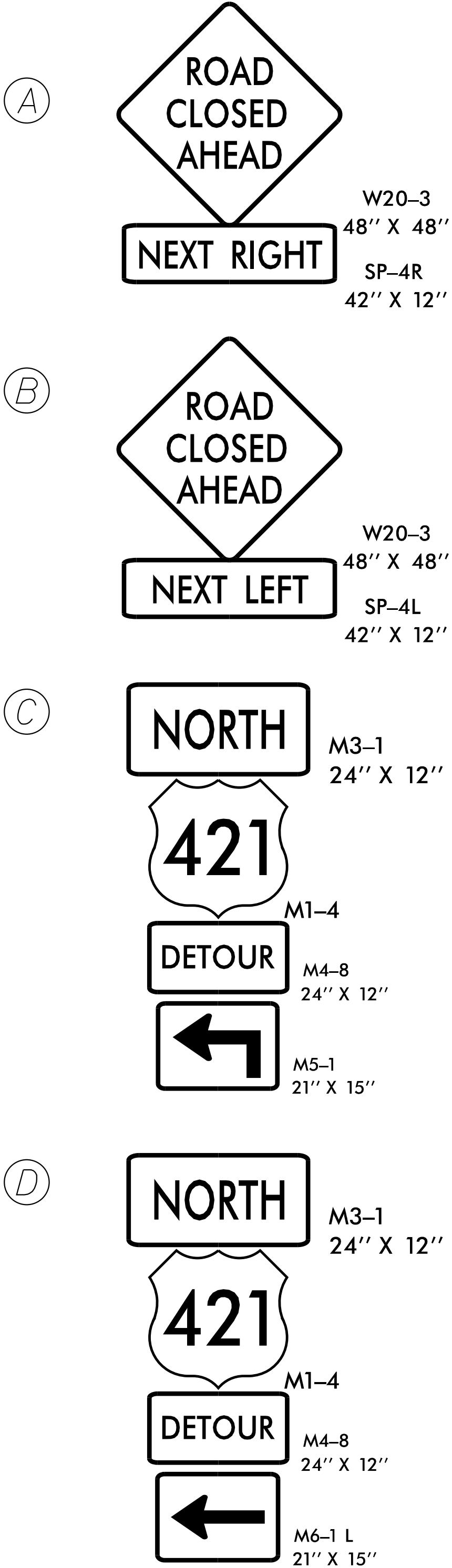
LEGEND

WORK AREA

DETOUR ROUTE

PORTABLE SIGN

TYPE III BARRICADE



NC LICENSE WF-0102
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27601
PHONE: (919) 677-2000

Kimley»Horn

APPROVED: DATE:

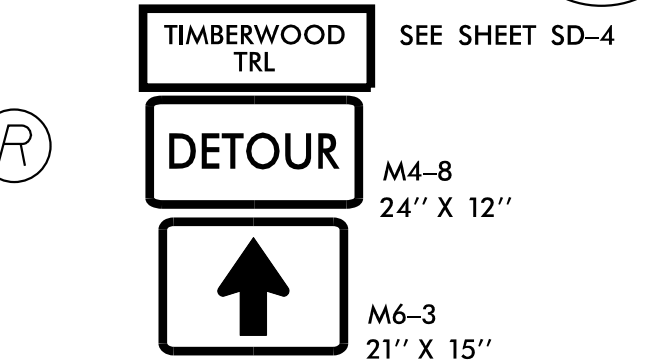
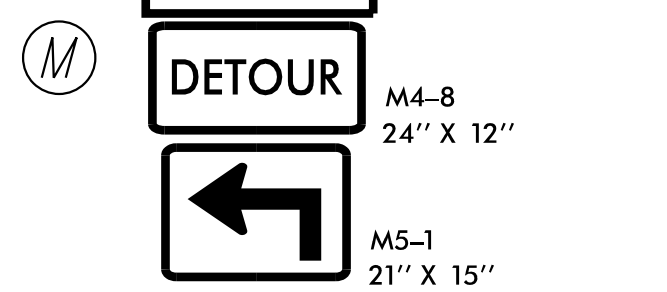
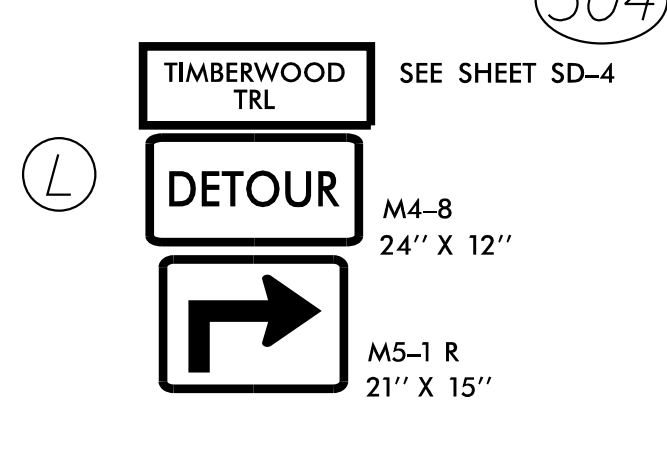
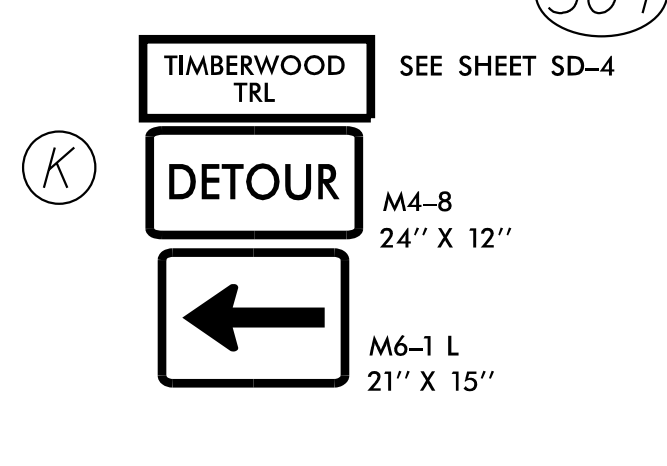
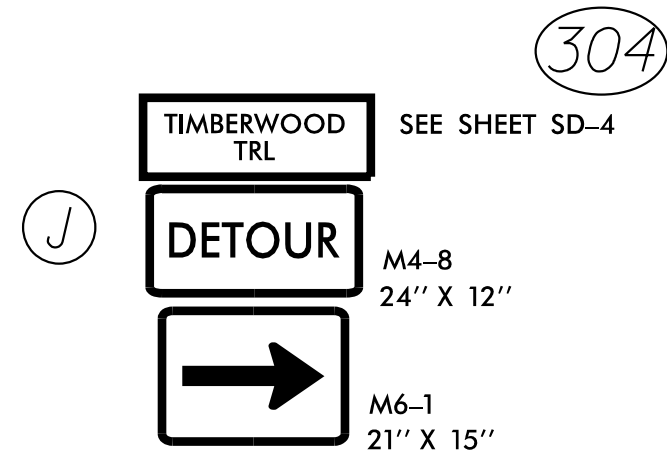
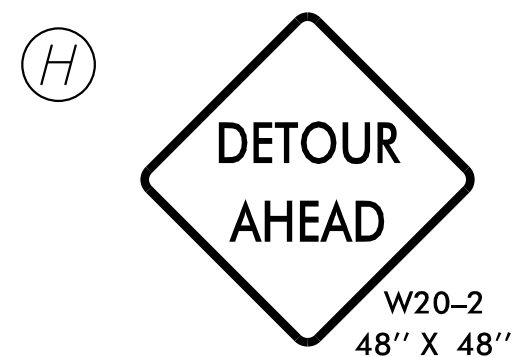
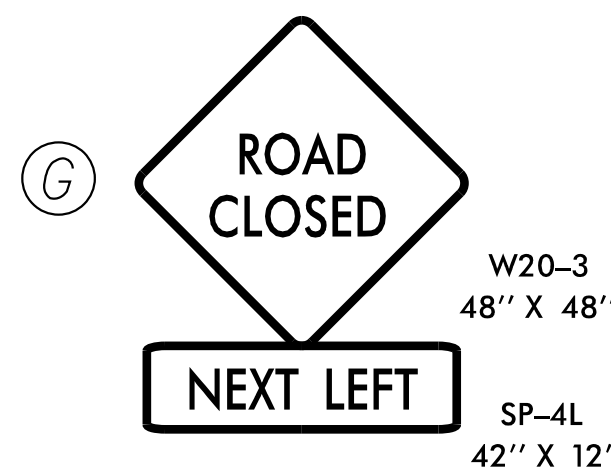
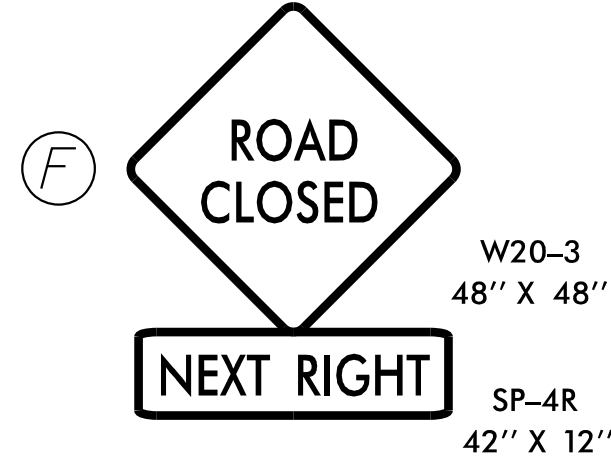
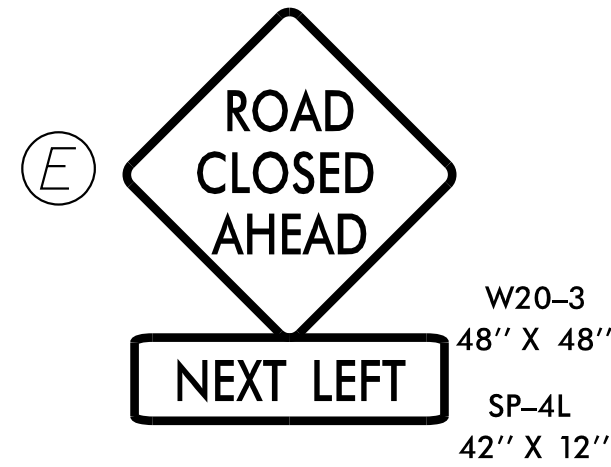
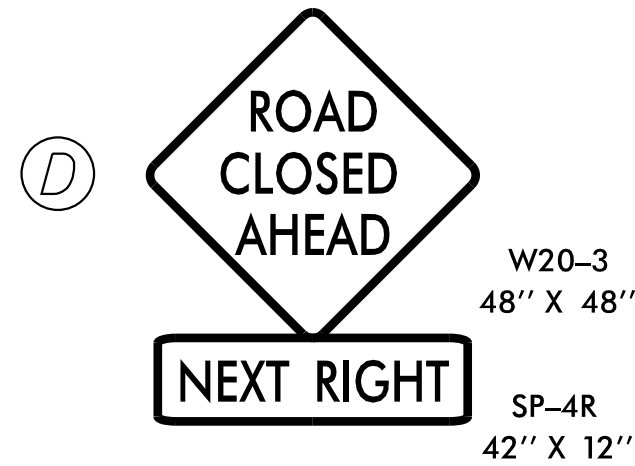
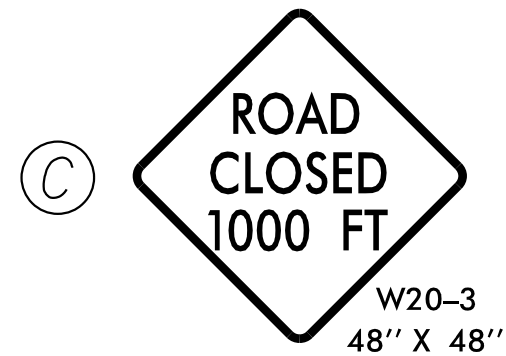
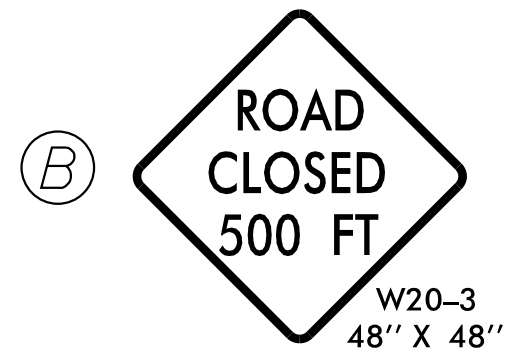
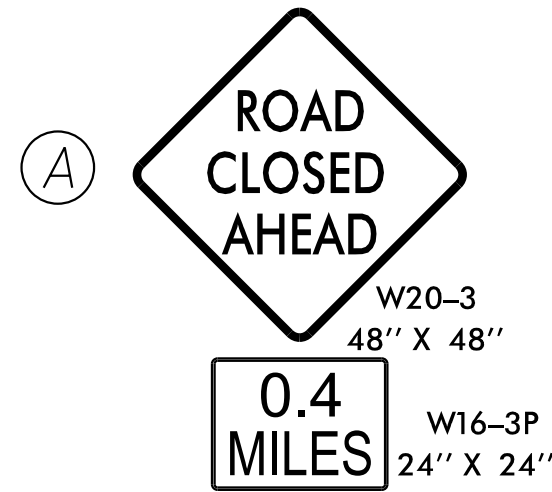
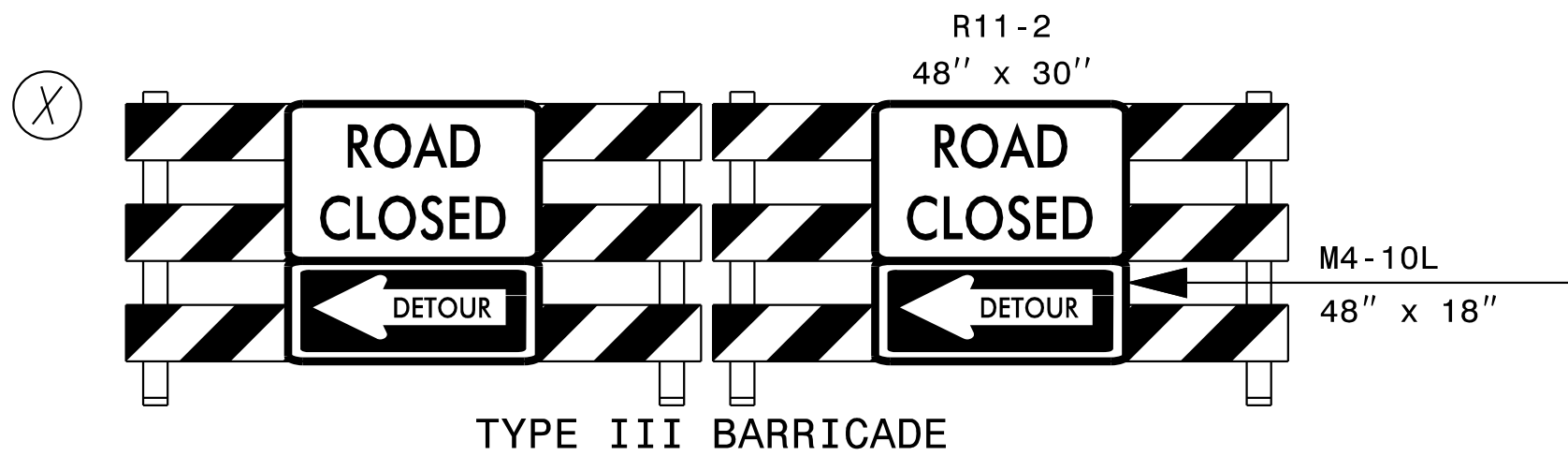
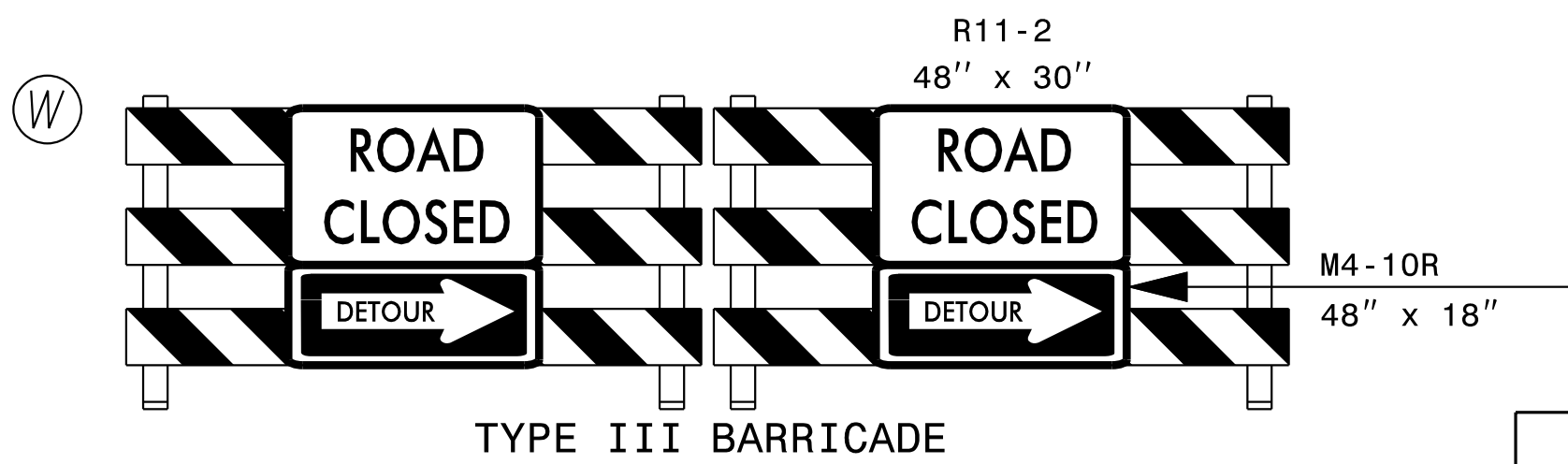
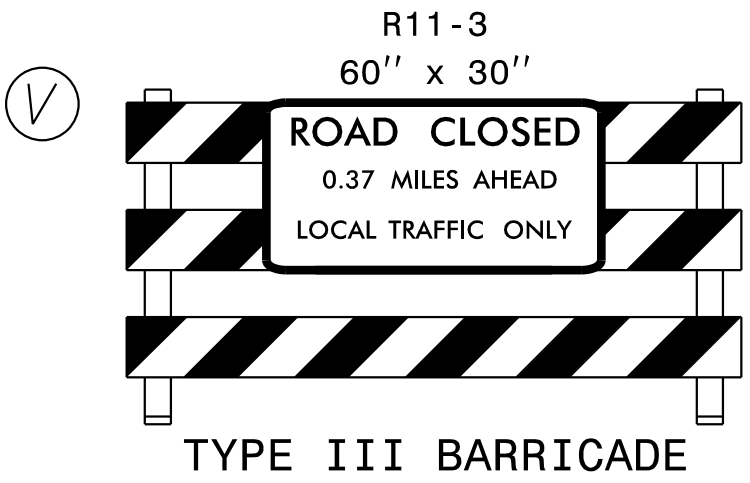
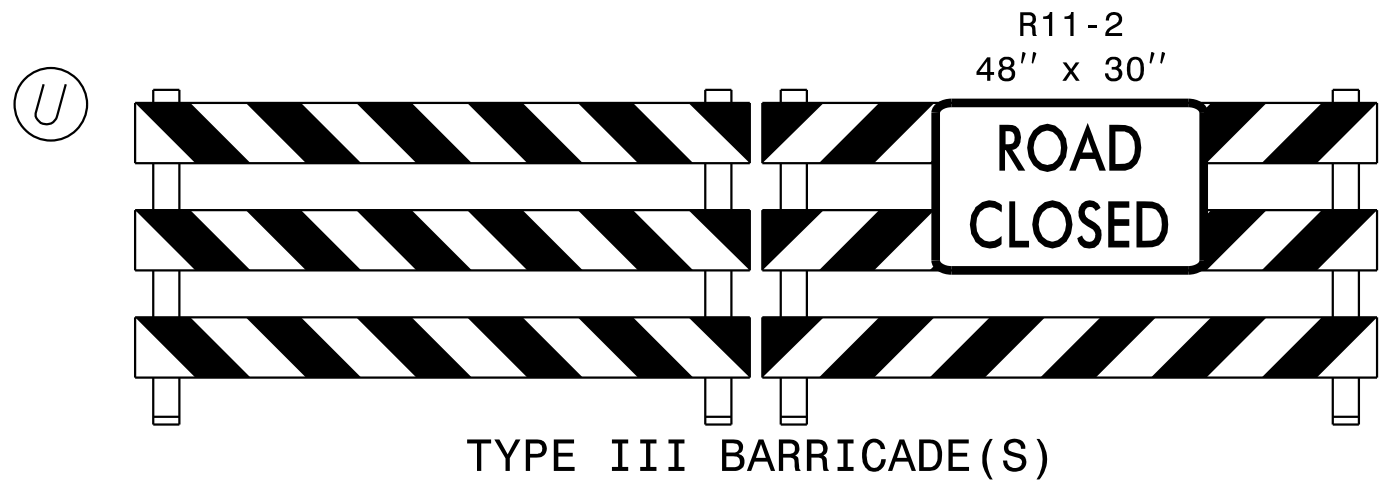
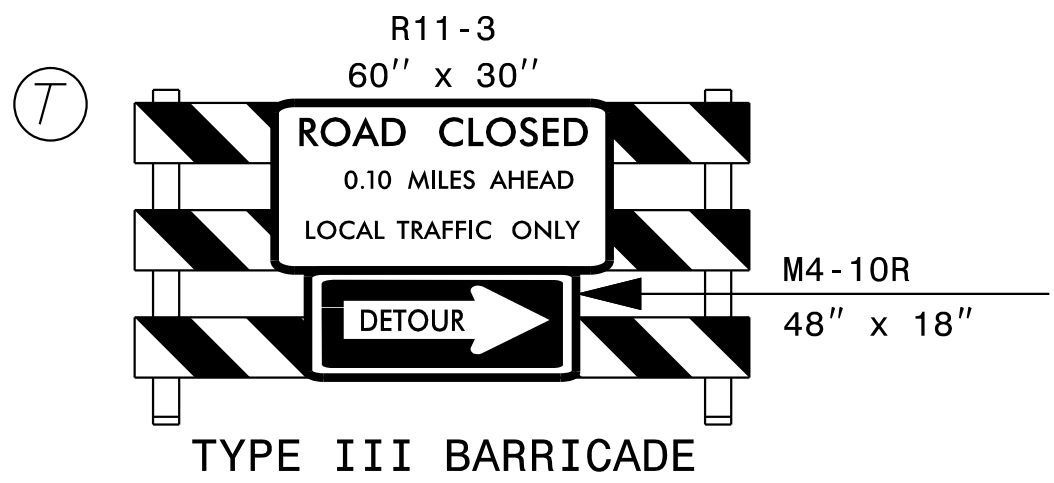
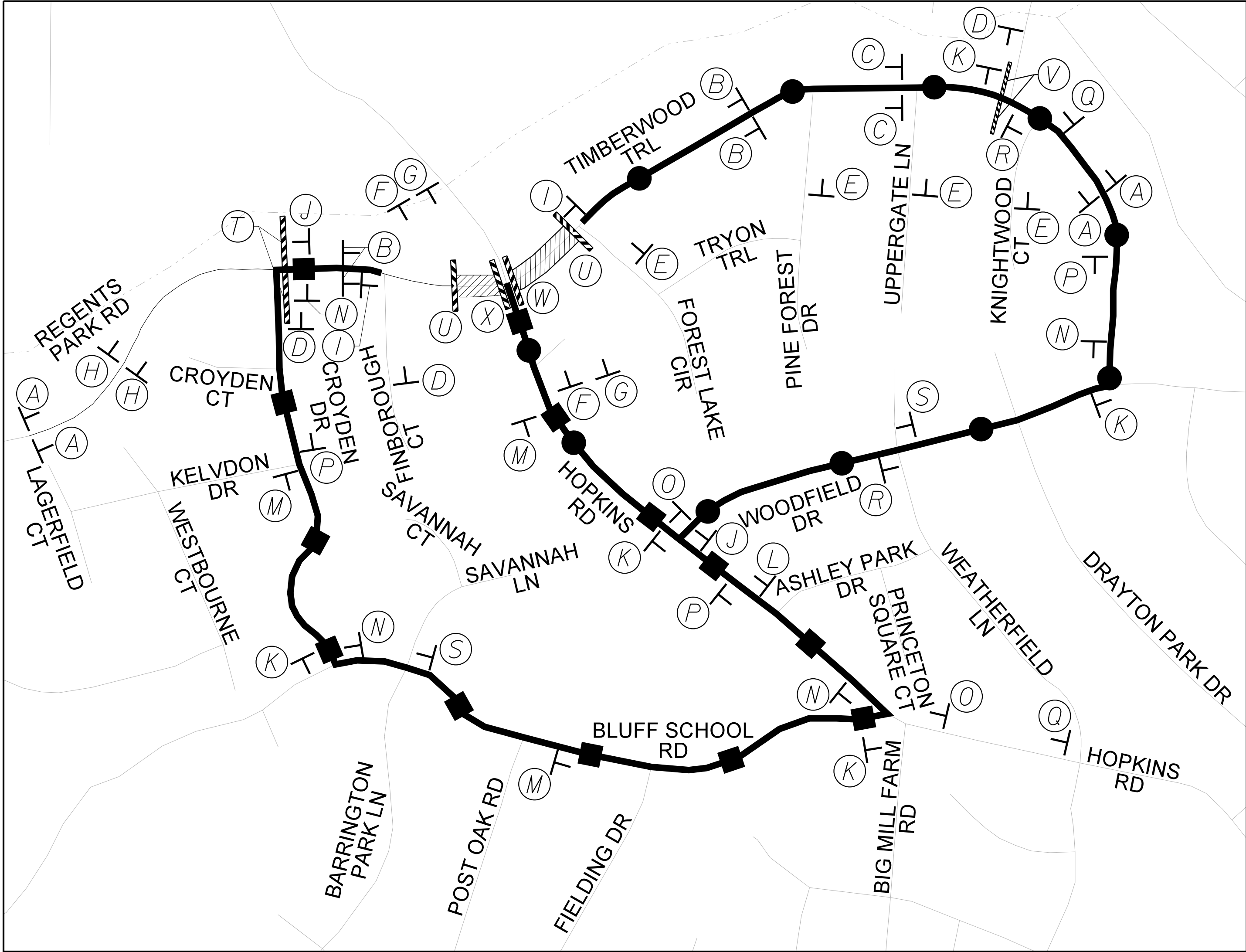
9/12/2025

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

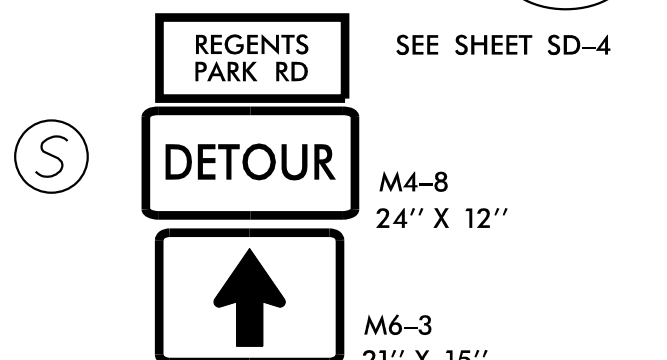
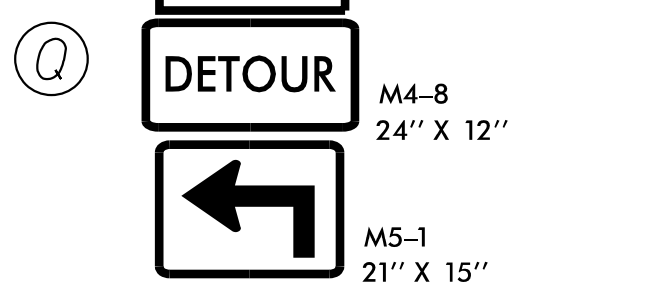
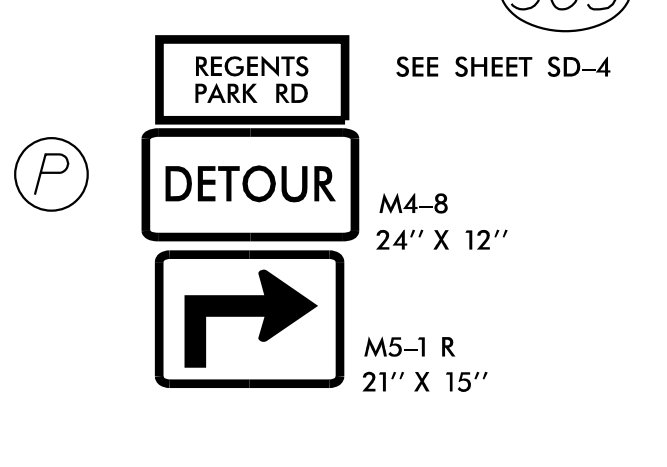
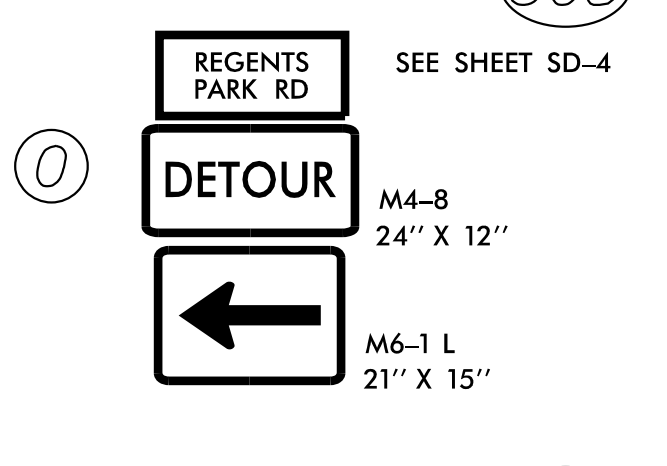
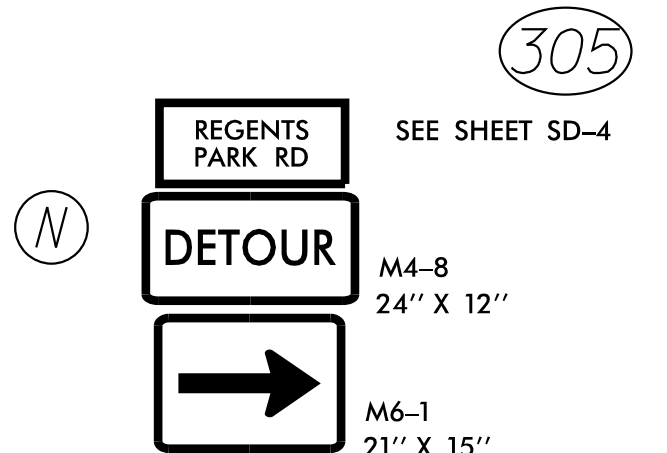
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

S. MAIN ST. ON-RAMP
NIGHTTIME OFFSITE
DETOUR ROUTE

K:\RAL_Roadway\01036312 - U-5760 Big Mill Farm RoadTrafficControl\TCPSheets\U5760_Tcp_26.dgn 8/6/2025



PROJ. REFERENCE NO.	SHEET NO.
U-5760	TMP-2G

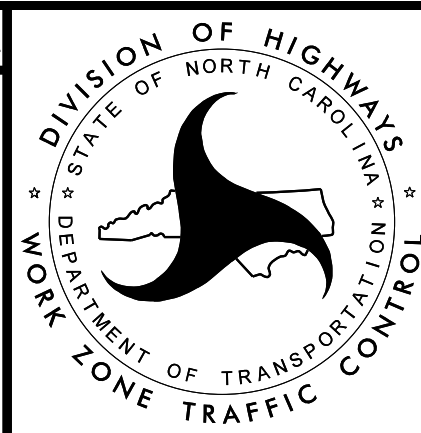


- LEGEND
- WORK AREA
 - EAST DETOUR ROUTE
 - WEST DETOUR ROUTE
 - STATIONARY SIGN
 - TYPE III BARRICADE

APPROVED: DATE:

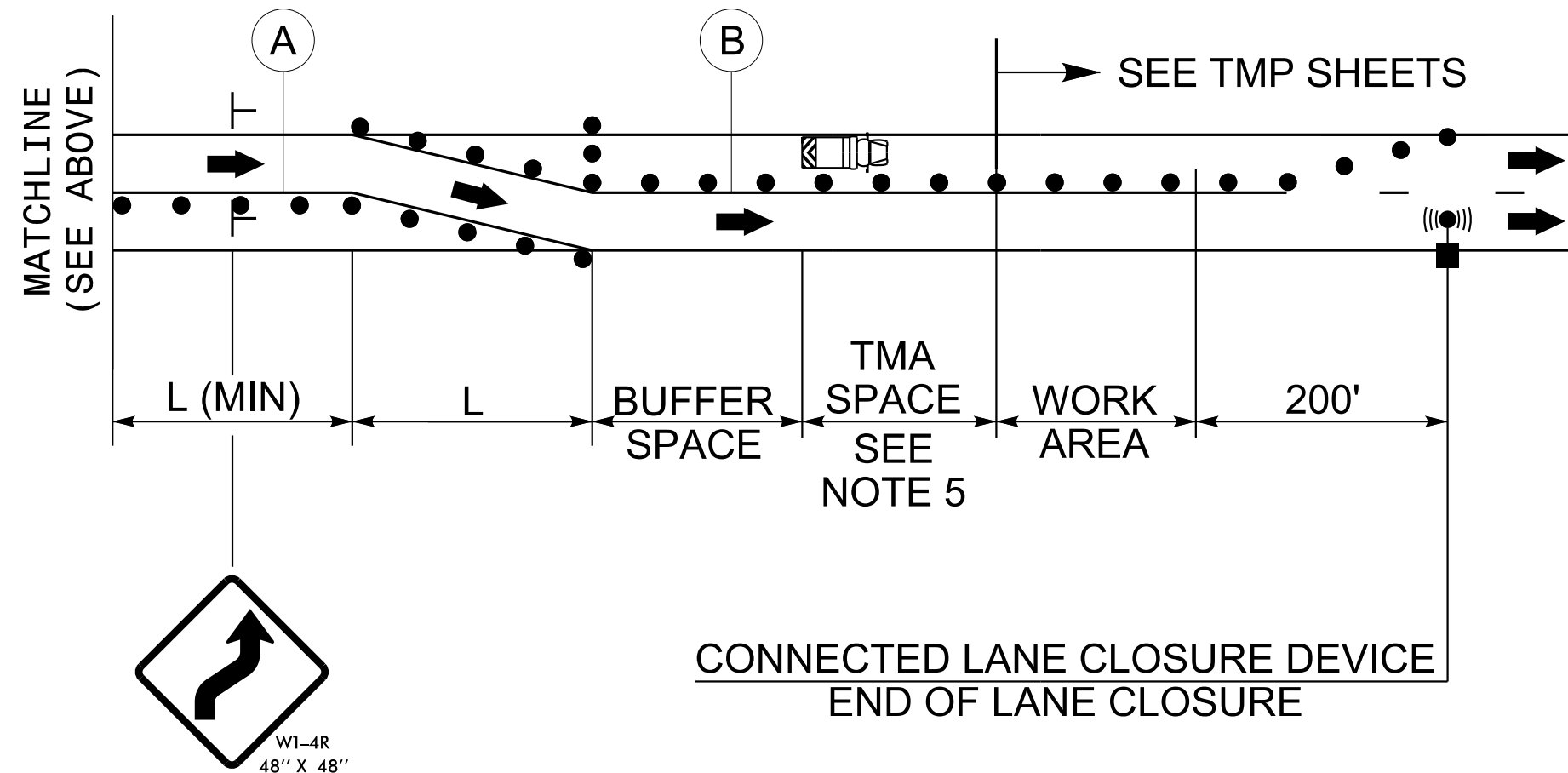
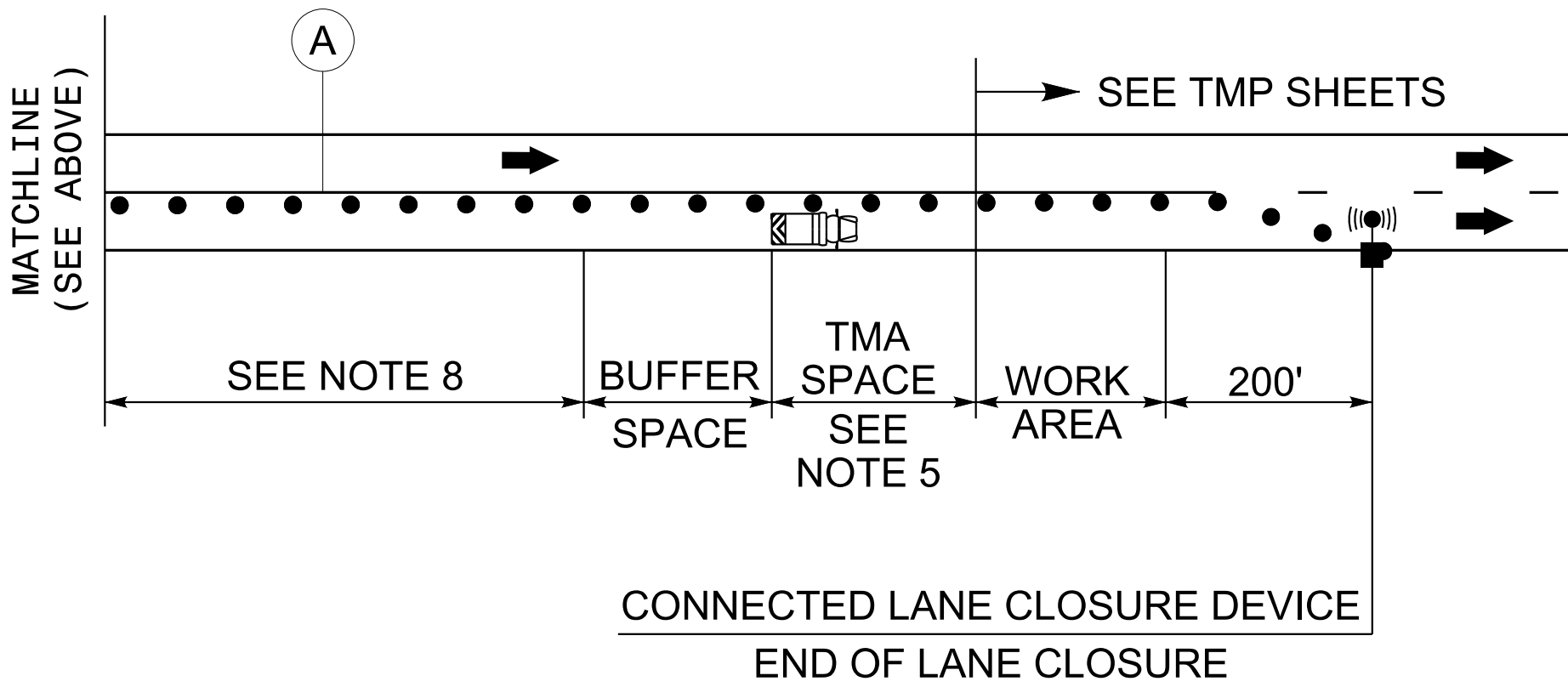
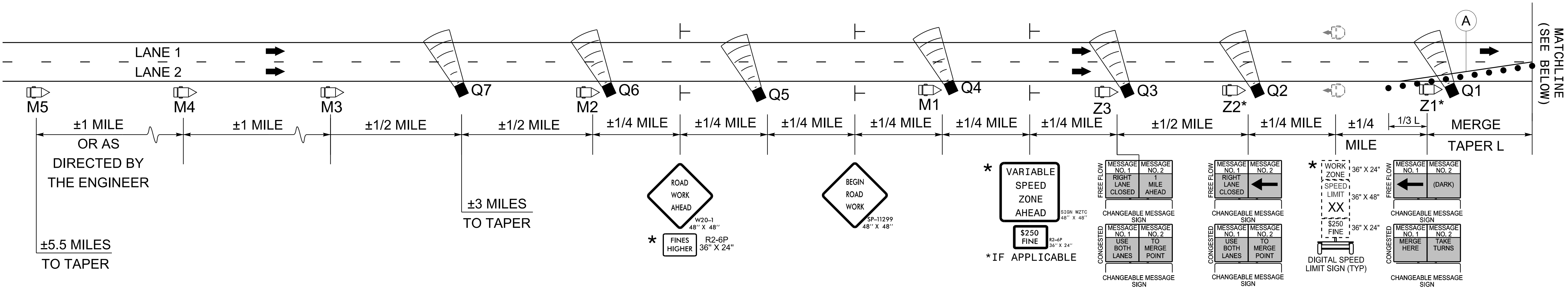
9/12/2025

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



Kimley»Horn

TIMBERWOOD TRL /
REGENTS PARK RD
OFFSITE DETOUR
ROUTE



RIGHT LANE WORK AREA

LEFT LANE WORK AREA *(IF APPLICABLE)

GENERAL NOTES

- 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 TO 2 TIMES THE POSTED SPEED LIMIT.
- REFER TO RSD. 1101.11, SHEETS 1 & 2, FOR "L" DISTANCE AND BUFFER SPACE.
- REFER TO RSD. 1101.02, SHEETS 9 & 10, FOR TREATMENT OF LANE CLOSURES THRU INTERCHANGES.
- INSTALL LANE CLOSURES WITH THE FLOW OF TRAFFIC, 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.
- POSITION THE TMAS TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER AND CONTINUOUSLY ADVANCE TMAS AS WORK PROGRESSES. USE TMAS AS REQUIRED TO SHIELD WORKERS FROM ERRANT VEHICLES AND TRAFFIC FROM POTENTIAL HAZARDS IN THE WORK AREA.
- REMOVE OR COVER EXISTING ADVANCED WARNING SIGNS PREVIOUSLY INSTALLED USING RSD 1101.01, SHEET 2 OF 3.
- IN THE EVENT OF A SYSTEM MALFUNCTION, IMMEDIATELY INSTALL WORK ZONE SIGNS ACCORDING TO RSD 1101.02, SHEET 4. SIGNAGE SHOULD REMAIN IN PLACE UNTIL SYSTEM OPERATION IS FULLY RESTORED.
- IF A LEFT LANE WORK AREA WILL BE NEEDED AT ANY TIME DURING THE PROJECT, USE 2L. IF NO LEFT LANE WORK AREA IS NEEDED, OMIT THIS SPACE.
- REMOVE ANY CONFLICTING PAVEMENT MARKINGS & MARKERS.

LEGEND

SPEED SENSOR Q#(1-7)

PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS)
M#(1-5) = MAINLINE
Z#(1-3) = ZIPPER MERGE
*Z1 & Z2 SHALL BE FULL MATRIX

CONNECTED LANE CLOSURE DEVICE

DRUM

TRUCK MOUNTED ATTENUATOR (TMA)

STATIONARY SIGN

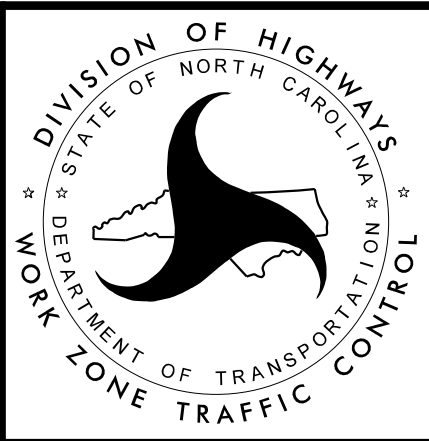
NC LICENSE #F-0102
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27601
PHONE: (919) 977-2000

Kimley»Horn

APPROVED: DATE:

9/12/2025

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



DYNAMIC ZIPPER MERGE
ZIPPER SYSTEM LAYOUT

PROJ. REFERENCE NO.	SHEET NO.
U-5760	TMP-3

PHASING

AREA 1

PHASE 0

PRIOR TO BEGINNING WORK, INSTALL ADVANCE WARNING SIGNS IN ACCORDANCE WITH RSD 1101.01. PERFORM THE FOLLOWING AS SHOWN ON SHEETS TMP-4A THRU TMP-11:

INTERMEDIATE CONTRACT TIME
COMPLETE THE WORK ASSOCIATED WITH AREA 1, PHASE 0, STEP 1 WITHIN 7 CONSECUTIVE CALENDAR DAYS.
REFER TO INTERMEDIATE CONTRACT TIMES AND LIQUIDATED DAMAGES.

STEP 1:
INSTALL PROPOSED QUEUE WARNING SYSTEM/DYNAMIC ZIPPER MERGE ALONG THE EASTBOUND LANES OF -Y1- (US 421/NC 150) AND CLOSE THE LEFT LANE TO TRAFFIC AS SPECIFIED ON SHEET TMP-4A AND IN ACCORDANCE WITH THE DETAIL ON SHEET TMP-2H AND THE PROJECT SPECIAL PROVISIONS.

CONSTRUCT FULL DEPTH INSIDE SHOULDER RECONSTRUCTION, TEMPORARY AND PERMANENT GUARDRAIL INSTALLATION AS SHOWN ON THE PLANS, AND WEDGING AS REQUIRED TO MAINTAIN POSITIVE DRAINAGE BETWEEN -Y1- STA. 53+35.00 TO STA. 90+85.00.

NOTE: UPON COMPLETION OF ALL SHOULDER RECONSTRUCTION BETWEEN THE STATION RANGES SPECIFIED IN STEP 1, RESTORE EASTBOUND TRAFFIC TO THE ORIGINAL PATTERN AND REMOVE TRAFFIC CONTROL DEVICES.

INTERMEDIATE CONTRACT TIME
COMPLETE THE WORK ASSOCIATED WITH AREA 1, PHASE 0, STEP 2 WITHIN 7 CONSECUTIVE CALENDAR DAYS.
REFER TO INTERMEDIATE CONTRACT TIMES AND LIQUIDATED DAMAGES.

STEP 2:
INSTALL PROPOSED QUEUE WARNING SYSTEM/DYNAMIC ZIPPER MERGE ALONG THE WESTBOUND LANES OF -Y1- (US 421/NC 150) AND CLOSE THE LEFT LANE TO TRAFFIC AS SPECIFIED ON SHEET TMP-11 AND IN ACCORDANCE WITH THE DETAIL ON SHEET TMP-2H AND THE PROJECT SPECIAL PROVISIONS.

CONSTRUCT FULL DEPTH INSIDE SHOULDER RECONSTRUCTION, TEMPORARY AND PERMANENT GUARDRAIL INSTALLATION AS SHOWN ON THE PLANS, AND WEDGING AS REQUIRED TO MAINTAIN POSITIVE DRAINAGE BETWEEN -Y1- STA. 53+35.00 TO STA. 97+22.00.

NOTE: UPON COMPLETION OF ALL SHOULDER RECONSTRUCTION BETWEEN THE STATION RANGES SPECIFIED IN STEP 2, RESTORE WESTBOUND TRAFFIC TO THE ORIGINAL PATTERN AND REMOVE TRAFFIC CONTROL DEVICES.

PHASE 1

WHILE MAINTAINING TRAFFIC USING RSD 1101.04 FOR SHOULDER CLOSURES AND RSD 1101.02 FOR LANE CLOSURES AS NECESSARY, PERFORM THE FOLLOWING AS SHOWN ON SHEETS TMP-12 THRU TMP-14 AND TMP-21 THRU TMP-23:

STEP 1:
USING RSD 1101.02 SHEET 4 OF 19 FOR TEMPORARY LANE CLOSURES, INSTALL TEMPORARY PAVEMENT MARKINGS ALONG -Y1- (US 421/NC 150), REMOVE CONFLICTING MARKINGS AND SHIFT EASTBOUND AND WESTBOUND TRAFFIC INTO TEMPORARY PATTERN.

WITH TRAFFIC IN THE TEMPORARY PATTERN, WEDGE THE EXISTING -Y1- (US 421/ NC 150) TRAVEL LANES UP TO BUT NOT INCLUDING THE FINAL ASPHALT SURFACE COURSE USING NCDOT RSD 1101.02 SHEET 4 OF 19 AS NECESSARY.

STEP 2:
ONCE WEDGING OPERATIONS ARE COMPLETE, INSTALL PORTABLE CONCRETE BARRIER AS SHOWN ON SHEETS TMP-12 AND TMP-21 THRU TMP-23.

INSTALL TYPE III BARRICADES AND ADVANCE WARNING SIGNS AS SHOWN ON TMP-12 AND TMP-14.

STEP 3:
BEHIND PORTABLE CONCRETE BARRIER AND AWAY FROM TRAFFIC, BEGIN CONSTRUCTION OF NEW LOCATION -L- HARMON CREEK RD, -L- BIG MILL FARM ROAD AND NEW LOCATION RAMPS AND LOOPS INCLUDING BUT NOT LIMITED TO: CURB AND GUTTER, GUARDRAIL, PAVING, RETAINING WALLS, ASSOCIATED DRAINAGE IMPROVEMENTS, AND TEMPORARY DRAINAGE AS SHOWN ON SHEETS TMP-12 THRU TMP-14.

CONSTRUCT SANITARY SEWER IMPROVEMENTS AS SHOWN ON SHEET TMP-13.

CONSTRUCT FULL DEPTH REPLACEMENT OF OUTSIDE SHOULDER, WIDENING, ACCELERATION AND DECELERATION LANES, GUARDRAIL, ASSOCIATED DRAINAGE IMPROVEMENTS, TEMPORARY DRAINAGE ALONG -Y1- (US 421/NC 150) AND COMPLETE BRIDGE END BENTS AS SHOWN ON SHEET TMP-12 AND SHEETS TMP-21 THRU TMP-23.

INTERMEDIATE CONTRACT TIME
COMPLETE THE WORK ASSOCIATED WITH AREA 1, PHASE 1, STEP 4 BETWEEN THE HOURS OF 8:00PM FRIDAY AND 6:00AM MONDAY.

STEP 4:
INSTALL THE DETOUR ROUTE SHOWN ON SHEET TMP-2F AND CLOSE THE S. MAIN STREET WESTBOUND ON-RAMP. CONSTRUCT FULL DEPTH PAVEMENT FROM -Y1- STA. 90+25 TO 97+22 AS SHOWN IN THE PROJECT TYPICAL SECTIONS AND CROSS SECTIONS.

NOTES:
-MAINTAIN EXISTING GUARDRAIL AND CONCRETE BARRIER IN LOCATIONS NOT PROTECTED BY PORTABLE CONCRETE BARRIER INSTALLED IN AREA 1, PHASE 1, STEP 2 UNTIL GRADING OPERATIONS REQUIRE REMOVAL.

-STEPS 3 & 4 MAY BE PERFORMED CONCURRENTLY AS REQUIRED.

PHASE 2

WHILE MAINTAINING TRAFFIC USING RSD 1101.04 FOR SHOULDER CLOSURES AND RSD 1101.02 FOR LANE CLOSURES AS NECESSARY, PERFORM THE FOLLOWING:

STEP 1:
MAINTAIN TYPE III BARRICADES INSTALLED IN AREA 1, PHASE 1, STEP 2. AWAY FROM TRAFFIC CONTINUE CONSTRUCTION OF NEW LOCATION -L- HARMON CREEK RD, -L- BIG MILL FARM ROAD, NEW LOCATION RAMPS AND LOOPS AND ALL ASSOCIATED DRAINAGE AS DESCRIBED IN PHASE 1 STEP 3 AND AS SHOWN ON SHEETS TMP-25 THRU TMP-27.

STEP 2:
REMOVE PORTABLE CONCRETE BARRIER INSTALLED IN AREA 1, PHASE 1, STEP 2. USING RSD 1101.02 SHEET 4 OF 19 AS NECESSARY, INSTALL ADVANCE WARNING SIGNS, CMS AND TEMPORARY PAVEMENT MARKINGS AS SHOWN ON SHEETS TMP-26 AND TMP-34 THRU TMP-36. REMOVE CONFLICTING MARKINGS AND SHIFT TRAFFIC ONTO THE TEMPORARY PATTERN.

STEP 3:
WITH TRAFFIC IN THE TEMPORARY PATTERN ESTABLISHED IN STEP 2 OF THIS PHASE, USE RSD 1101.02 SHEET 4 OF 19 AS NECESSARY AND INSTALL TRAFFIC CONTROL DEVICES, INSTALL ANCHORED PORTABLE CONCRETE BARRIER, AND RESET TEMPORARY CRASH CUSHIONS AS SHOWN ON SHEETS TMP-26 AND TMP-34 THRU TMP-36.

STEP 4:
BEHIND ANCHORED PORTABLE CONCRETE BARRIER AND AWAY FROM TRAFFIC, REMOVE TEMPORARY GUARDRAIL, CONSTRUCT MEDIAN DRAINAGE, MEDIAN BRIDGE BENT, ANY REMAINING MEDIAN CONSTRUCTION, AND INSTALL FINAL GUARDRAIL IN THE STATION RANGES SHOWN ON SHEETS TMP-26 AND TMP-34 THRU TMP-36.

STEP 5:
USING 15-30 MINUTE NIGHTTIME ROLLING ROADBLOCKS IN ACCORDANCE WITH RSD 1101.03 SHEET 9 OF 9 STOP TRAFFIC ON -Y1- (US 421/NC 150) AND HANG GIRDERS FOR PROPOSED BRIDGE. SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.

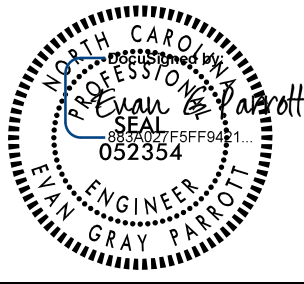
STEP 6:
COMPLETE CONSTRUCTION OF NEW LOCATION -L- HARMON CREEK RD, -L- BIG MILL FARM ROAD, NEW LOCATION RAMPS AND LOOPS, MEDIAN IMPROVEMENTS ON -Y1- US 421 / NC 150, AND ALL ASSOCIATED DRAINAGE AS SHOWN ON SHEETS TMP-25 THRU TMP-27 AND TMP-34 THRU TMP-36.

NOTE:
AREA 1: PHASE 2, STEP 7 TO BE PERFORMED SIMULTANEOUSLY WITH AREA 2: PHASE 3, STEP 3.

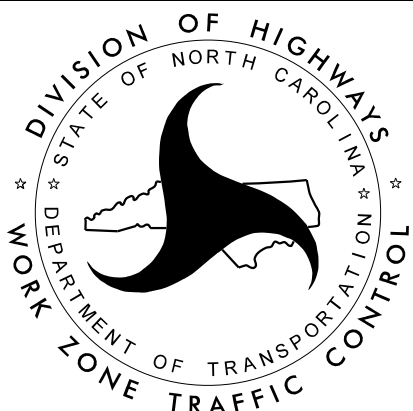
STEP 7:
INSTALL FINAL ASPHALT SURFACE COURSE AND FINAL PAVEMENT MARKINGS, AND FINAL TRAFFIC SIGNALS. REMOVE ALL TRAFFIC CONTROL DEVICES AND OPEN ALL LANES ON -L- HARMON CREEK RD / BIG MILL FARM ROAD, NEW LOCATION RAMPS AND LOOPS, AND Y1- US 421 / NC 150 TO TRAFFIC.

NC LICENSE #F-0102
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27601
PHONE: (919) 677-2000

Kimley»Horn

APPROVED:  DATE:

9/12/2025



PHASING NOTES

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

K:\RAL_Roadway\01036312 - U-5760 Big Mill Farm Road\Traffic\TrafficControl\TCS\Sheets\U5760_Tcp_Tshdgn

8/5/2025

PROJ. REFERENCE NO.	SHEET NO.
U-5760	TMP-3A

PHASING

AREA 2

NOTE: MAINTAIN VEHICULAR ACCESS TO ALL RESIDENCES AND BUSINESSES WITHIN THE PROJECT LIMITS DURING CONSTRUCTION.

PHASE 1

WHILE MAINTAINING TRAFFIC USING RSD 1101.04 FOR SHOULDER CLOSURES AND RSD 1101.02 FOR LANE CLOSURES AS NECESSARY, PERFORM THE FOLLOWING:

STEP 1:
INSTALL ADVANCE WARNING SIGNS IN ACCORDANCE WITH RSD 1101.01.

STEP 2:
INSTALL TRAFFIC CONTROL DEVICES AS SHOWN ON SHEETS TMP-14 THRU TMP-20 AND SHEET TMP-24.

STEP 3:
CONSTRUCT 6’ TEMPORARY WIDENING FROM EXISTING PAVEMENT BETWEEN -L- STA. 88+72 TO -L- STA. 93+40 AND INSTALL PORTABLE CONCRETE BARRIER AND TEMPORARY CRASH CUSHIONS AS SHOWN ON SHEET TMP-18.

STEP 4:
INSTALL TEMPORARY SHORING #1 AND BEGIN CULVERT CONSTRUCTION AS SHOWN ON SHEET TMP-18.

INTERMEDIATE CONTRACT TIME
COMPLETE THE WORK ASSOCIATED WITH AREA 2: PHASE 1, STEP 5 WITHIN 28 CONSECUTIVE CALENDAR DAYS. REFER TO INTERMEDIATE CONTRACT TIMES AND LIQUIDATED DAMAGES.

NOTE: STEP 5 AND STEP 6 MAY BE PERFORMED CONCURRENTLY AS REQUIRED.

STEP 5:
INSTALL THE TEMPORARY OFFSITE DETOUR SHOWN ON TMP-2D AND CLOSE -Y8- (SUTTER LN). CONSTRUCT FINAL ROADWAY AND DRAINAGE IMPROVEMENTS ON -Y8- (SUTTER LN) FROM -Y8- STA. 14+03 TO -Y8- STA. 15+25 UP TO BUT NOT INCLUDING THE FINAL ASPHALT SURFACE COURSE AND COMPLETE JACK AND BORE OPERATIONS FOR WATERLINE CONSTRUCTION WITHIN THE LIMITS OF -Y8- (SUTTER LN) AS SHOWN ON SHEET TMP-19. OPEN -Y8- (SUTTER LN) TO TRAFFIC ONCE WORK IS COMPLETE

STEP 6:
RE-GRADE EXISTING BIG MILL FARM ROAD TO ELIMINATE PONDING FROM -L- STA. 41+00 TO -L- STA 46+50. CONSTRUCT TEMPORARY DITCHES AS REQUIRED TO DIVERT FLOW TO DRAINAGE FEATURES AS SHOWN ON SHEET TMP-14.

AWAY FROM TRAFFIC CONSTRUCT PROPOSED IMPROVEMENTS ALONG -L- (BIG MILL FARM ROAD) / -L- (HOPKINS ROAD) AND ALL ASSOCIATED -Y- LINES INCLUDING BUT NOT LIMITED TO CURB AND GUTTER, SIDEWALK, GUARDRAIL, TEMPORARY PAVEMENT, ALL ASSOCIATED DRAINAGE, TEMPORARY DRAINAGE, AND PAVING UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE AS SHOWN ON SHEETS TMP-14 THRU TMP-20 AND SHEET TMP-24.

INSTALL TEMPORARY SHORING #2 AS REQUIRED TO CONTINUE CULVERT CONSTRUCTION AND CONSTRUCTION OF PROPOSED ROADWAY IMPROVEMENTS AS SHOWN ON SHEET TMP-18.

INTERMEDIATE CONTRACT TIME
COMPLETE THE WORK ASSOCIATED WITH AREA 2: PHASE 1, STEP 7 WITHIN 14 CONSECUTIVE CALENDAR DAYS. REFER TO INTERMEDIATE CONTRACT TIMES AND LIQUIDATED DAMAGES.

NOTE: STEP 6 AND STEP 7 MAY BE PERFORMED CONCURRENTLY AS REQUIRED.

STEP 7:
INSTALL THE TEMPORARY OFFSITE DETOUR SHOWN ON SHEET TMP-2G AND CLOSE -Y7- (REGENTS PARK RD/TIMBERWOOD TRL). PERFORM JACK AND BORE OPERATION FOR WATER MAIN -W8- AND CONSTRUCT WATER MAINS -W7- AND -W8- IN THE LIMITS OF -Y7- AS SHOWN ON SHEET TMP-18. OPEN -Y7- (REGENTS PARK RD/TIMBERWOOD TRL) TO TRAFFIC ONCE WORK IS COMPLETE.

INTERMEDIATE CONTRACT TIME
COMPLETE THE WORK ASSOCIATED WITH AREA 2: PHASE 1, STEP 8 WITHIN 28 CONSECUTIVE CALENDAR DAYS. REFER TO INTERMEDIATE CONTRACT TIMES AND LIQUIDATED DAMAGES.

STEP 8:
USING THE TEMPORARY OFFSITE DETOUR ROUTE SHOWN ON SHEET TMP-2C CLOSE -L- (HOPKINS RD) AND INSTALL PROPOSED 54" RCP-IV CROSS PIPE AND CONSTRUCT PROPOSED ROADWAY IMPROVEMENTS AND PERFORM SANITARY SEWER JACK AND BORE OPERATION BETWEEN -L- STA. 95+00 (APPROX.) TO -L- STA. 98+00 (APPROX.) AS SHOWN ON SHEET TMP-18. OPEN -L- (HOPKINS RD) TO TRAFFIC ONCE WORK IS COMPLETE.

- NOTES:
- DO NOT PERFORM STEP 5 AND STEP 8 CONCURRENTLY.
 - DO NOT PERFORM STEP 7 AND STEP 8 CONCURRENTLY.
 - STEP 6 AND STEP 8 MAY BE PERFORMED CONCURRENTLY AS REQUIRED.
 - PROVIDE WEDGING AS REQUIRED TO MAINTAIN ACCESS TO ALL PROPERTIES AND TO ENSURE SMOOTH TRANSITIONS.

STEP 9:
WHILE MAINTAINING TRAFFIC IN THE EXISTING PATTERN, INSTALL AREA 2: PHASE 2 TEMPORARY PAINT PAVEMENT MARKINGS AGAINST NEWLY CONSTRUCTED CURB AS SHOWN ON SHEETS TMP-27 THRU TMP-33 AND ON SHEET TMP-38.

PHASE 2

WHILE MAINTAINING TRAFFIC USING RSD 1101.04 FOR SHOULDER CLOSURES AND RSD 1101.02 FOR LANE CLOSURES AS NECESSARY, PERFORM THE FOLLOWING:

STEP 1:
INSTALL TRAFFIC CONTROL DEVICES AS SHOWN ON SHEETS TMP-27 THRU TMP-33 AND ON SHEET TMP-38. INSTALL TEMPORARY SIGNAL AT THE INTERSECTION OF -L- (HOPKINS RD) AND -Y9- (WEST MOUNTAIN ST), COVER HEADS AND DO NOT ACTIVATE.

INSTALL ANCHORED PORTABLE CONCRETE BARRIER AND TEMPORARY CRASH CUSHIONS AS SHOWN ON SHEET TMP-31.

ACTIVATE TEMPORARY SIGNAL AND SHIFT TRAFFIC ONTO NEW PATTERN BETWEEN -Y4- (HOPKINS RD/BLUFF SCHOOL RD) AND -Y9- (WEST MOUNTAIN ST) AS SHOWN ON SHEETS TMP-29 THRU TMP-33 AND TMP-37.

STEP 2:
USING THE TEMPORARY OFFSITE DETOUR ROUTE SHOWN ON SHEET TMP-2E, CLOSE -L- (BIG MILL FARM ROAD) BETWEEN -L- STA. 46+00 AND -L- STA. 59+80 AND CLOSE -Y3- (SELWYCK LN / LAMSHIRE RD) BETWEEN -Y3- STA. 12+50 AND -Y3- STA. 16+75. INSTALL TEMPORARY TRAFFIC PATTERN AT THE INTERSECTION OF -Y2- (RAINS DAVIS DR/TIMBERVIEW DR) AND -L- (BIG MILL FARM RD) AS SHOWN ON SHEET TMP-27.

AWAY FROM TRAFFIC CONSTRUCT PROPOSED ROADWAY IMPROVEMENTS INCLUDING ALL ASSOCIATED DRAINAGE AND UTILITY IMPROVEMENTS UP TO BUT NOT INCLUDING THE FINAL ASPHALT SURFACE COURSE AS SHOWN ON SHEETS TMP-27 AND TMP-28.

STEP 3:
REMOVE PORTABLE CONCRETE BARRIER AND TEMPORARY SHORING #1 INSTALLED IN AREA 2, PHASE 1, STEP 3 AND COMPLETE CULVERT CONSTRUCTION AS SHOWN ON SHEET TMP-31.

STEP 4:
CONSTRUCT PROPOSED IMPROVEMENTS ALONG -L- (BIG MILL FARM RD/ HOPKINS RD) AND ALL ASSOCIATED -Y- LINES INCLUDING BUT NOT LIMITED TO CURB AND GUTTER, SIDEWALK, GUARDRAIL, TEMPORARY PAVEMENT, ALL ASSOCIATED DRAINAGE AND UTILITIES, AND PAVING UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE AS SHOWN ON SHEETS TMP-29 THRU TMP-33 AND TMP-37.

NOTE: STEPS 2 THRU 4 MAY BE PERFORMED CONCURRENTLY AS REQUIRED.

PHASE 3

WHILE MAINTAINING TRAFFIC USING RSD 1101.04 FOR SHOULDER CLOSURES AND RSD 1101.02 FOR LANE CLOSURES AS NECESSARY, PERFORM THE FOLLOWING:

STEP 1:
AWAY FROM TRAFFIC WHILE MAINTAINING TRAFFIC IN THE PHASE 2 PATTERN, INSTALL NEW PAVEMENT MARKINGS AGAINST NEWLY CONSTRUCTED CURB AS SHOWN ON SHEETS TMP-38 THRU TMP-45.

INSTALL TEMPORARY SIGNALS AT THE INTERSECTION OF -L- (BIG MILL FARM RD) AND -Y4- (HOPKINS RD / BLUFF SCHOOL RD) AND AT THE INTERSECTION OF -L- (HOPKINS RD) AND -Y9- (WEST MOUNTAIN ST). COVER HEADS AND DO NOT ACTIVATE.

INSTALL TRAFFIC CONTROL DEVICES AS SHOWN ON SHEETS TMP-38 THRU TMP-45. REMOVE CONFLICTING PAVEMENT MARKINGS, ACTIVATE TEMPORARY SIGNALS AND SHIFT TRAFFIC ONTO NEW PATTERN.

STEP 2:
REMOVE TEMPORARY PAVEMENT AND TEMPORARY DRAINAGE INSTALLED IN PREVIOUS PHASES AND CONSTRUCT PROPOSED RAISED MEDIAN, PROPOSED MONOLITHIC ISLANDS AND ALL ASSOCIATED DRAINAGE AS SHOWN ON SHEETS TMP-38 THRU TMP-45.

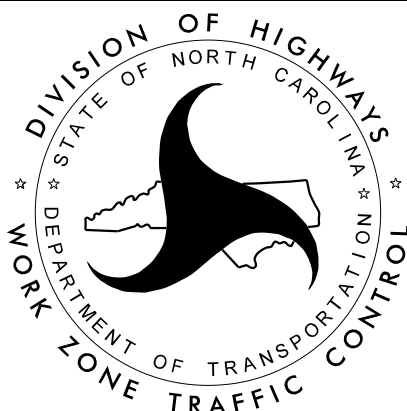
NOTE
AREA 2: PHASE 3, STEP 3 TO BE PERFORMED SIMULTANEOUSLY WITH AREA 1: PHASE 2, STEP 7.

STEP 3:
INSTALL FINAL ASPHALT SURFACE COURSE, FINAL PAVEMENT MARKINGS AND FINAL TRAFFIC SIGNALS, REMOVE ALL TRAFFIC CONTROL DEVICES AND OPEN ALL LANES TO TRAFFIC.

MILL AND RESURFACE HOPKINS RD AND OLD WINSTON RD FROM -Y4- STA. 24+05.00 TO 900FT WEST OF THE OLD WINSTON RD/MARKET VILLAGE DR ROUNDABOUT.

NC LICENSE #F-0102
401 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27601
PHONE: (919) 677-2000

Kimley»Horn

APPROVED: _____ DATE: _____		PHASING NOTES (CONTINUED)
9/12/2025 DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

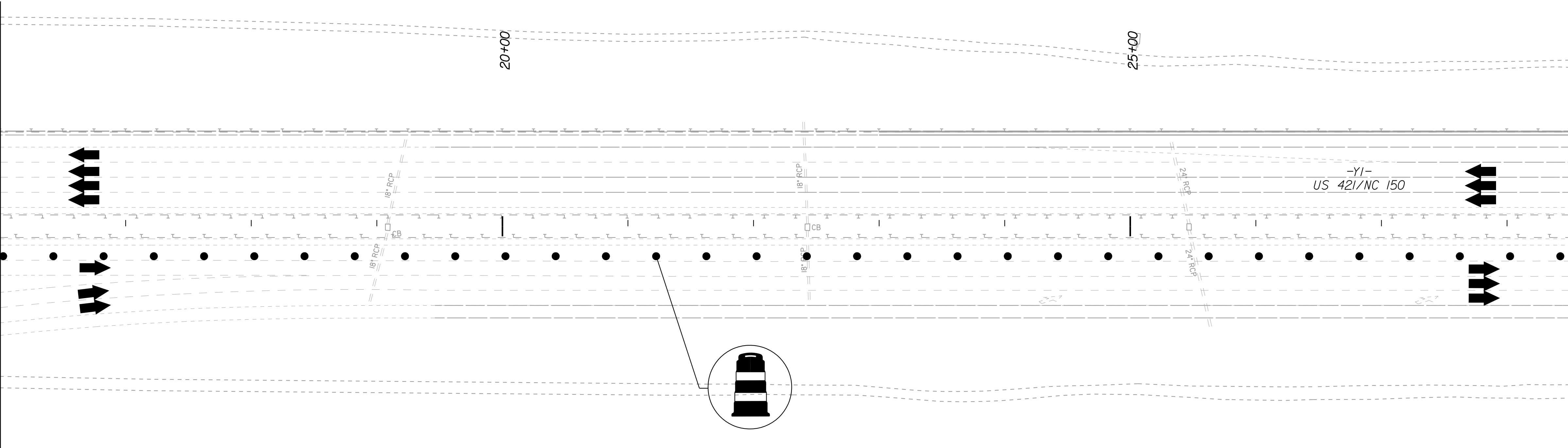
K:\RAL_Roadway\01036312 - U-5760 Big Mill Farm Road\TrafficControl\TCPSheets\U5760_Tcp_1shdgn

8/5/2025

PROJ. REFERENCE NO.	SHEET NO.
U-5760	TMP-4A

INSTALL QUEUE WARNING SYSTEM/DYNAMIC ZIPPER MERGE IN ADVANCE OF -YI- STA.16+00. SEE SHEET TMP-2H FOR DYNAMIC ZIPPER MERGE ZIPPER SYSTEM LAYOUT.

NOTE: DYNAMIC ZIPPER MERGE SYSTEM SHOULD BE INSTALLED SO THAT THE RIGHT LANE MERGE TAPER AND THE TRAFFIC SHIFT REQUIRED FOR A LEFT LANE WORK AREA AS SHOWN ON SHEET TMP-2H OCCUR AFTER THE WINSTON SALEM BELTWAY LOOP.



NAD 83/NA 2011

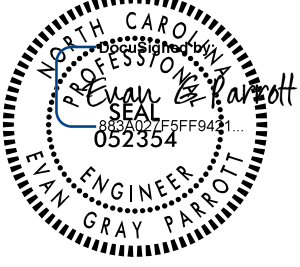
K:\RAL_Roadway\01036312 - U-5760 Big Mill Farm Road\Traffic\TrafficControl\Sheet\Phase 0\U5760_Tcp.ps\04Adgn

8/5/2025

NC LICENSE #F-0102
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27601
PHONE: (919) 677-2000

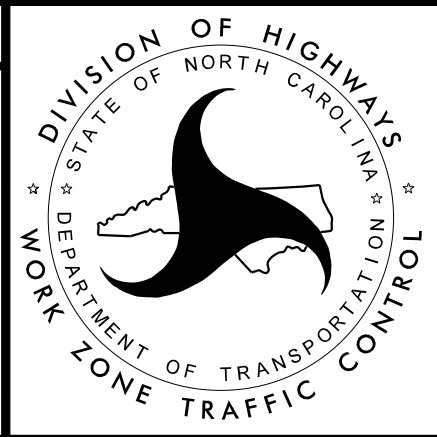
Kimley»Horn

APPROVED: _____ DATE: _____



9/12/2025

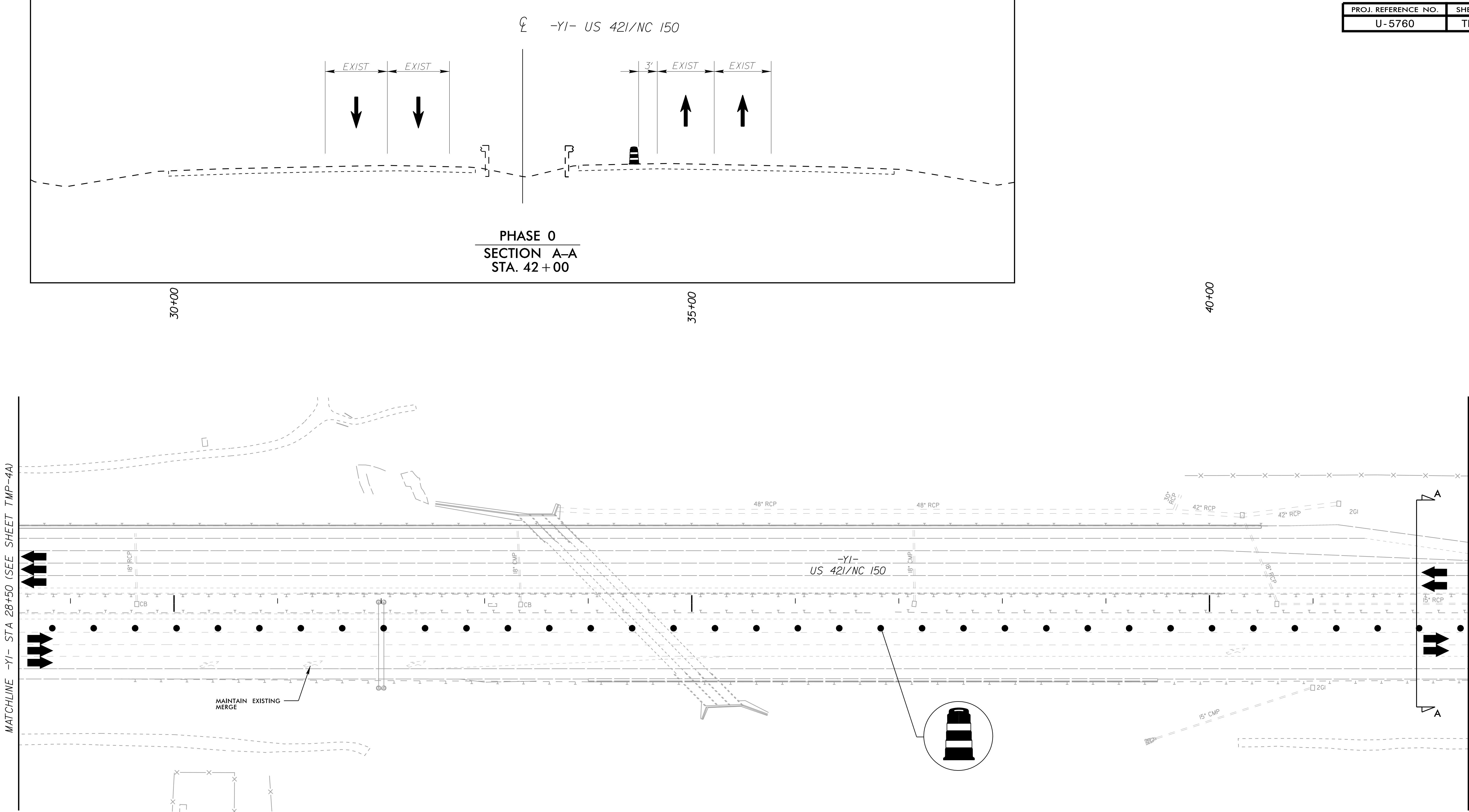
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



AREA 1
TRAFFIC CONTROL
PHASE 0, STEP 1

K:\RAL_Roadway\01036312 - U-5760 Big Mill Farm Road\TrafficControl\Phase 0\U5760_top_pst04.dgn

8/5/2025



PROJ. REFERENCE NO.	SHEET NO.
U-5760	TMP-4

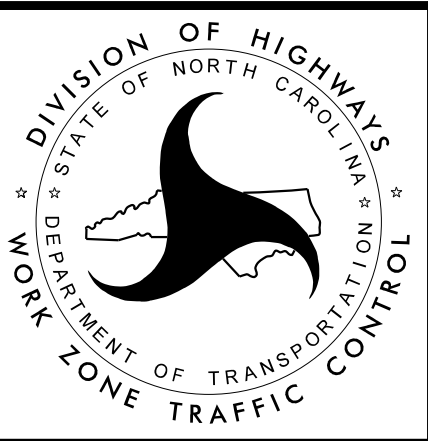
NAD 83/NA 2011

- WORK AREA
- WEDGING

APPROVED: _____ DATE: _____

9/12/2025

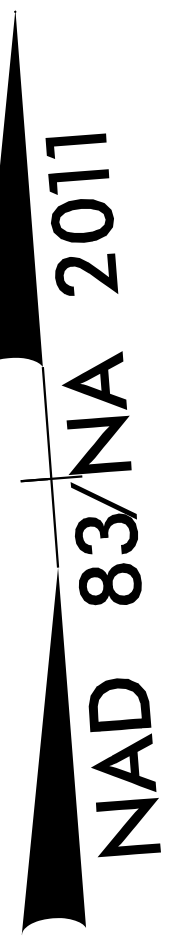
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



Kimley»Horn

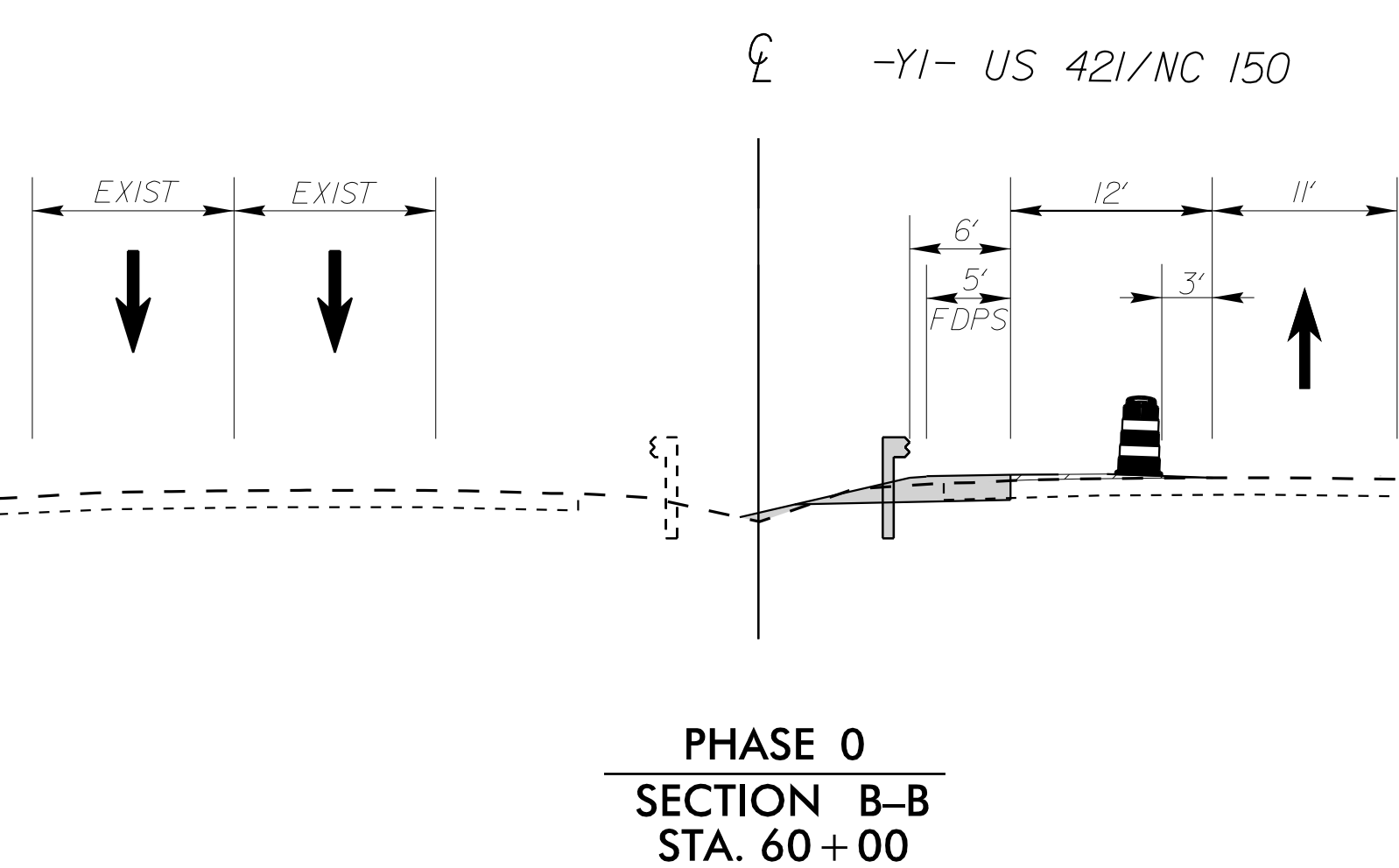
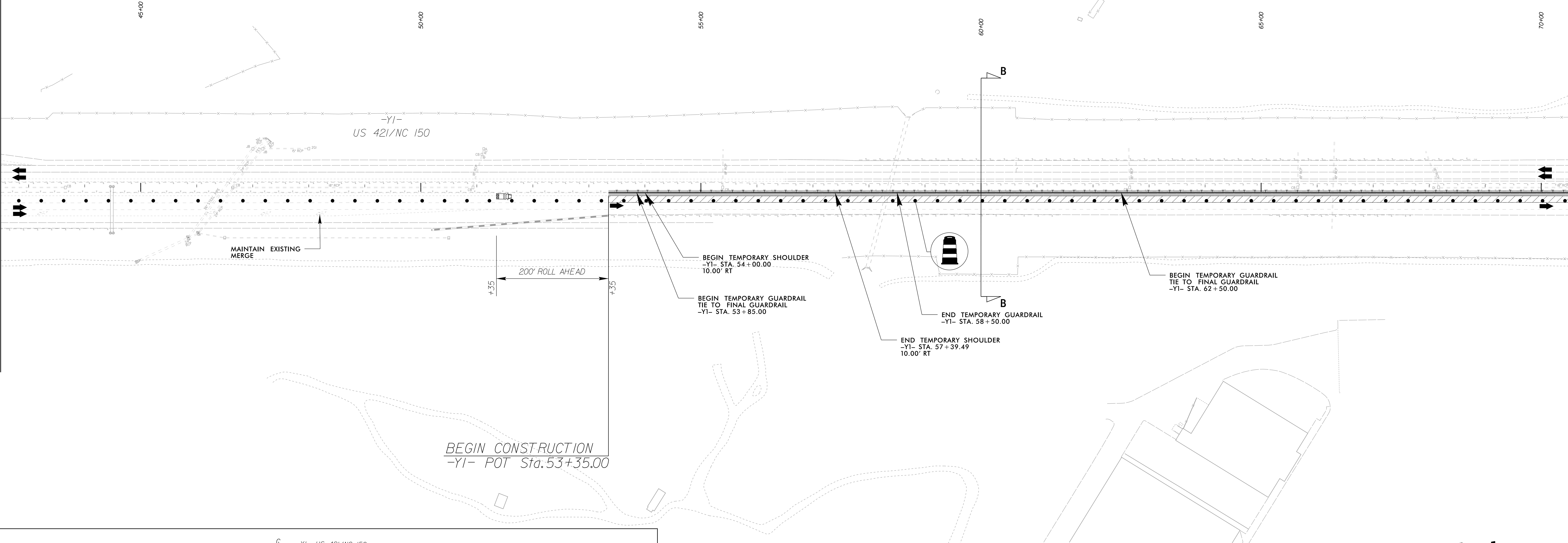
AREA 1
TRAFFIC CONTROL
PHASE 0, STEP 1

NC LICENSE #P-0102
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NORTH CAROLINA, 27601
PHONE: (919) 677-2000



MATCHLINE -YI- STA 42+50 (SEE SHEET TMP-4)

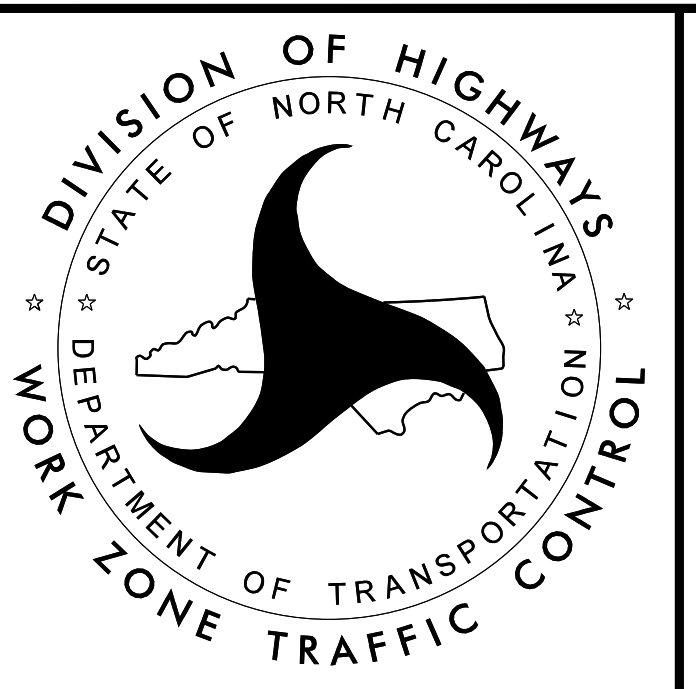
MATCHLINE -YI- STA 70+50 (SEE SHEET TMP-6)



NC LICENSE #F-0102
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27601
PHONE: (919) 677-2000

Kimley»Horn

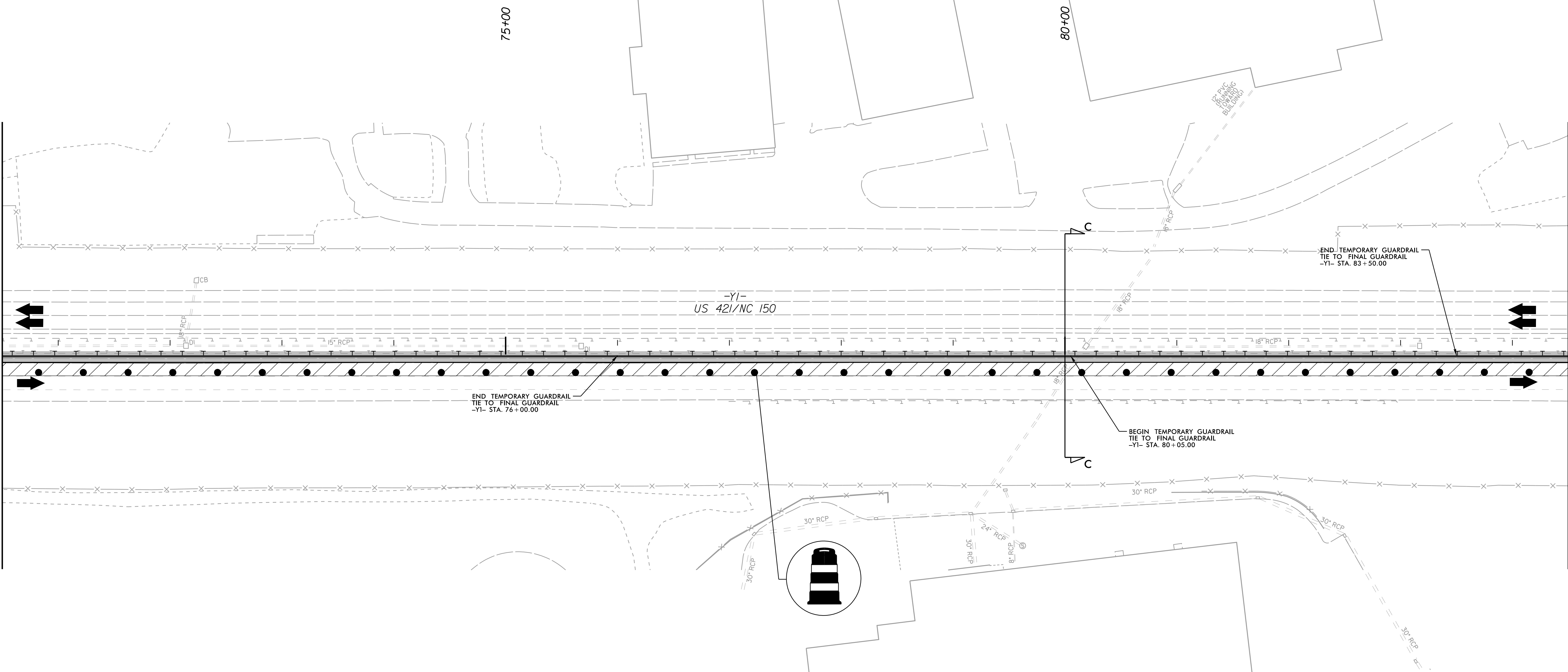
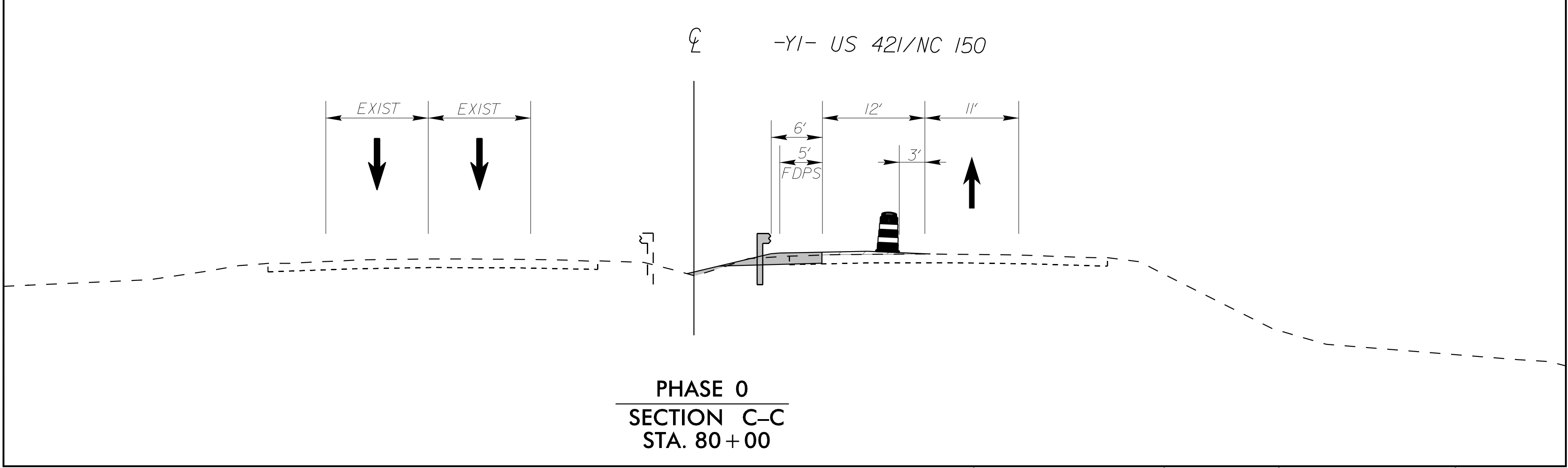
APPROVED:	DATE:
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



AREA 1
TRAFFIC CONTROL
PHASE 0, STEP 1

K:\RAL_Roadway\01036312 - U-5760 Big Mill Farm Road\TrafficControl\Phase 0\U5760_tcp_pst06.dgn

8/5/2025

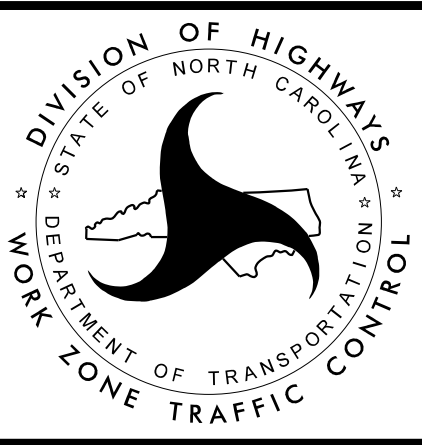


WORK AREA
WEDGING

APPROVED: _____ DATE: _____

9/12/2025

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



Kimley»Horn

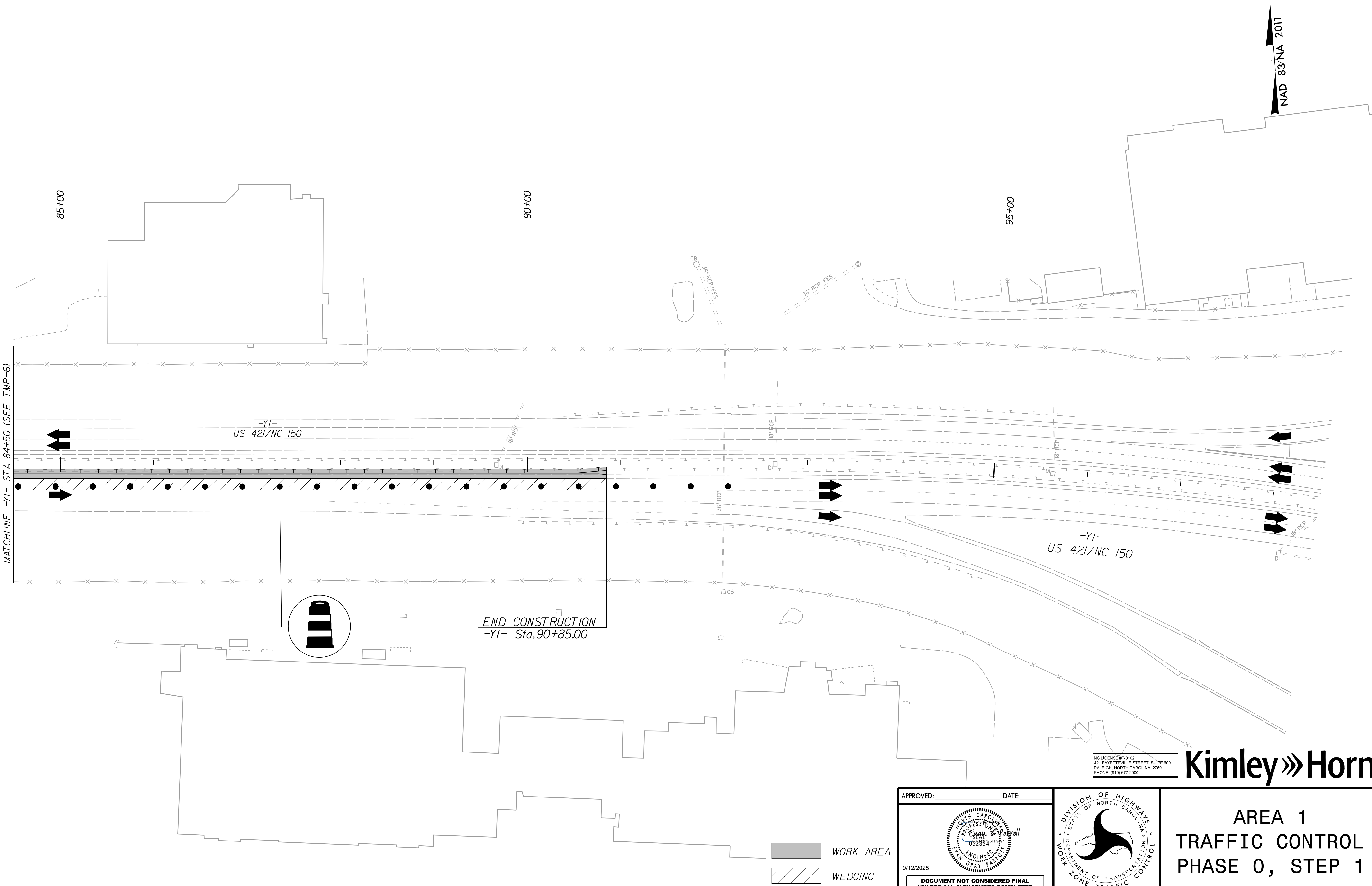
AREA 1
TRAFFIC CONTROL
PHASE 0, STEP 1

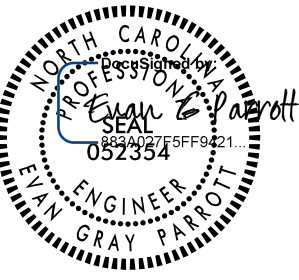
NC LICENSE #P-0102
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NORTH CAROLINA, 27601
PHONE: (919) 877-2000

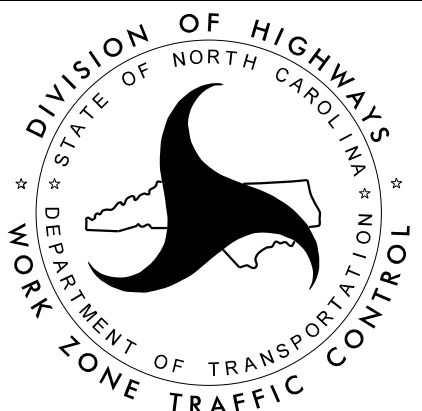
K:\RAL_Roadway\01036312 - U-5760 Big Mill Farm Road\TrafficControl\TCS\Sheets\Phase 0\U5760_top.pst07.dgn

8/5/2025

PROJ. REFERENCE NO.	SHEET NO.
U-5760	TMP-7



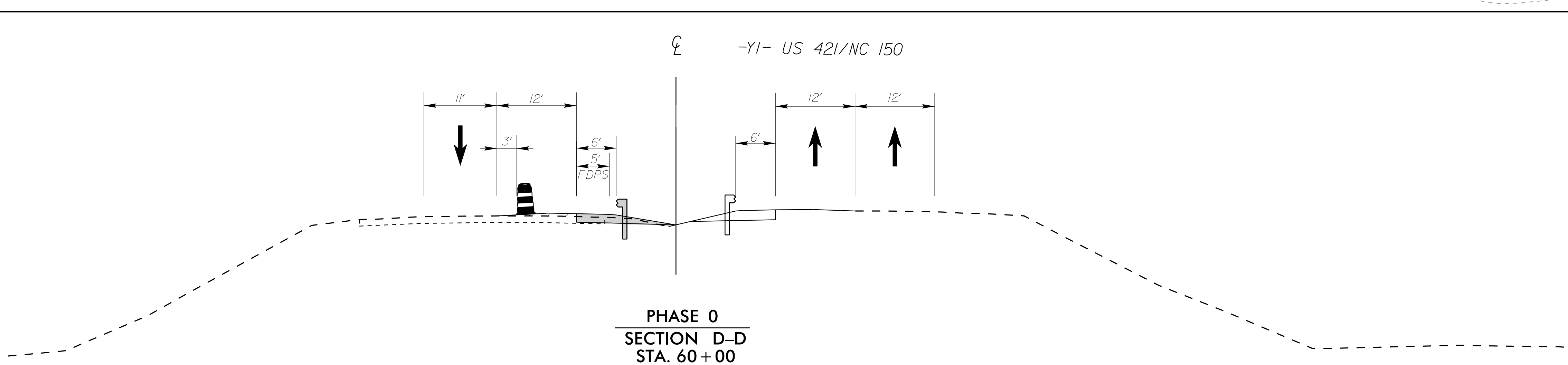
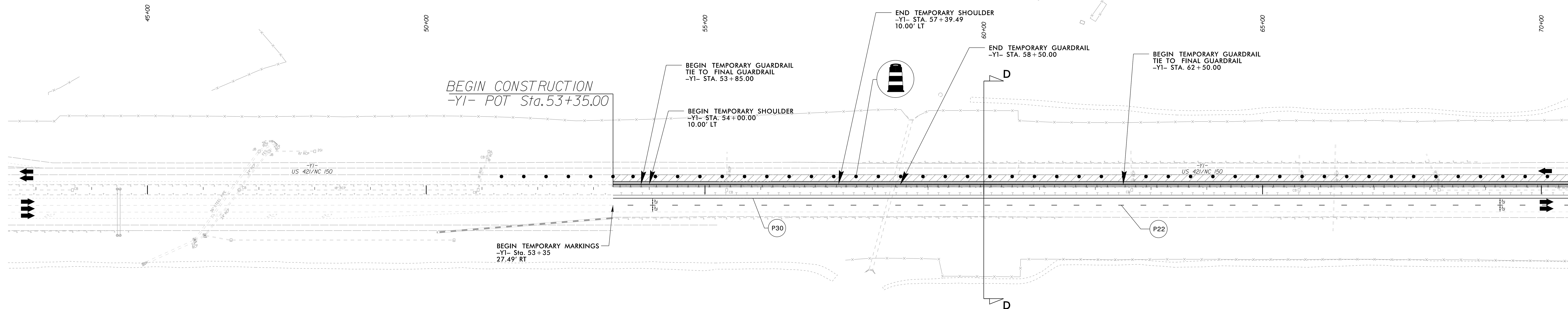
APPROVED:  DATE: 9/12/2025



Kimley»Horn

AREA 1
TRAFFIC CONTROL
PHASE 0, STEP 1

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

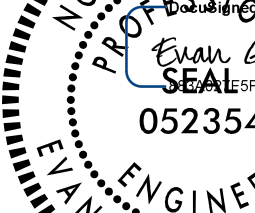


NC LICENSE #F-0102
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27601
PHONE: (919) 677-2000

Kimley»»Horn

AREA 1
TRAFFIC CONTROL
PHASE 0, STEP 2

APPROVED: _____ DATE: _____



10/15/2025

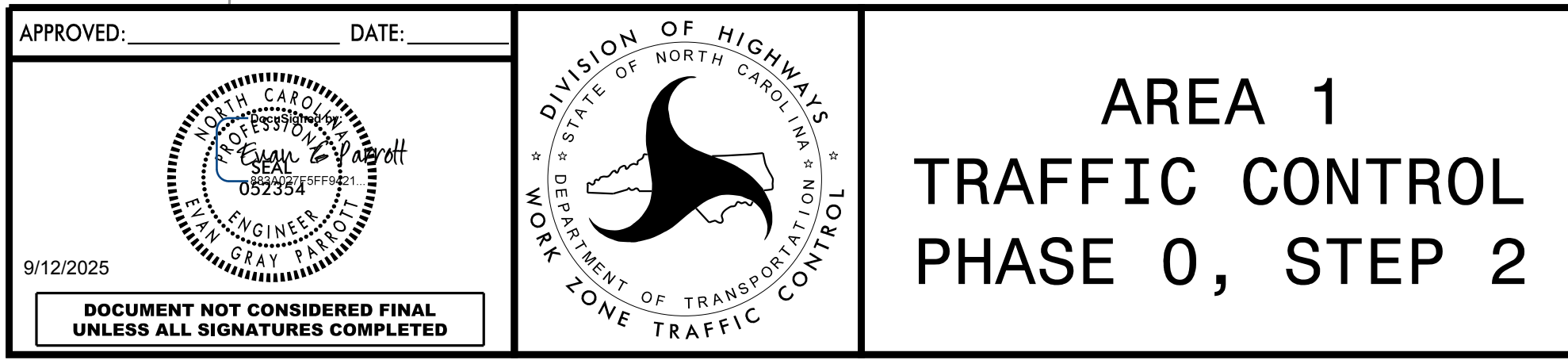
**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

 WORK AREA

 WEDGING



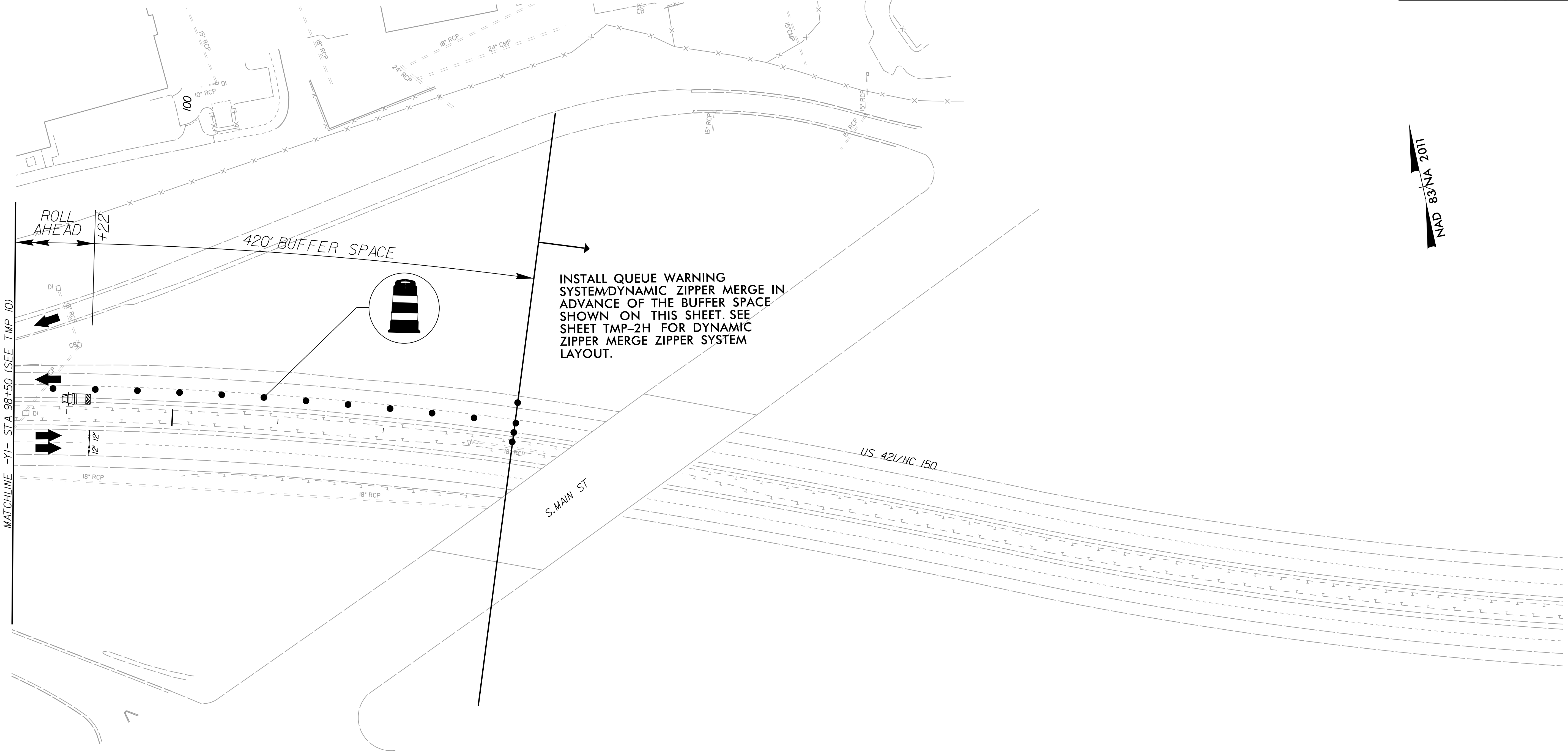
Kimley»»Horn



PROJ. REFERENCE NO.	SHEET NO.
U-5760	TMP-11

K:\RAL_Roadway\01036312 - U-5760 Big Mill Farm Road\TrafficControl\TCPSheets\Phase 0\U5760_top_psh1.dgn

8/5/2025



WORK AREA
WEDGING

APPROVED: _____ DATE: _____

9/12/2025

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

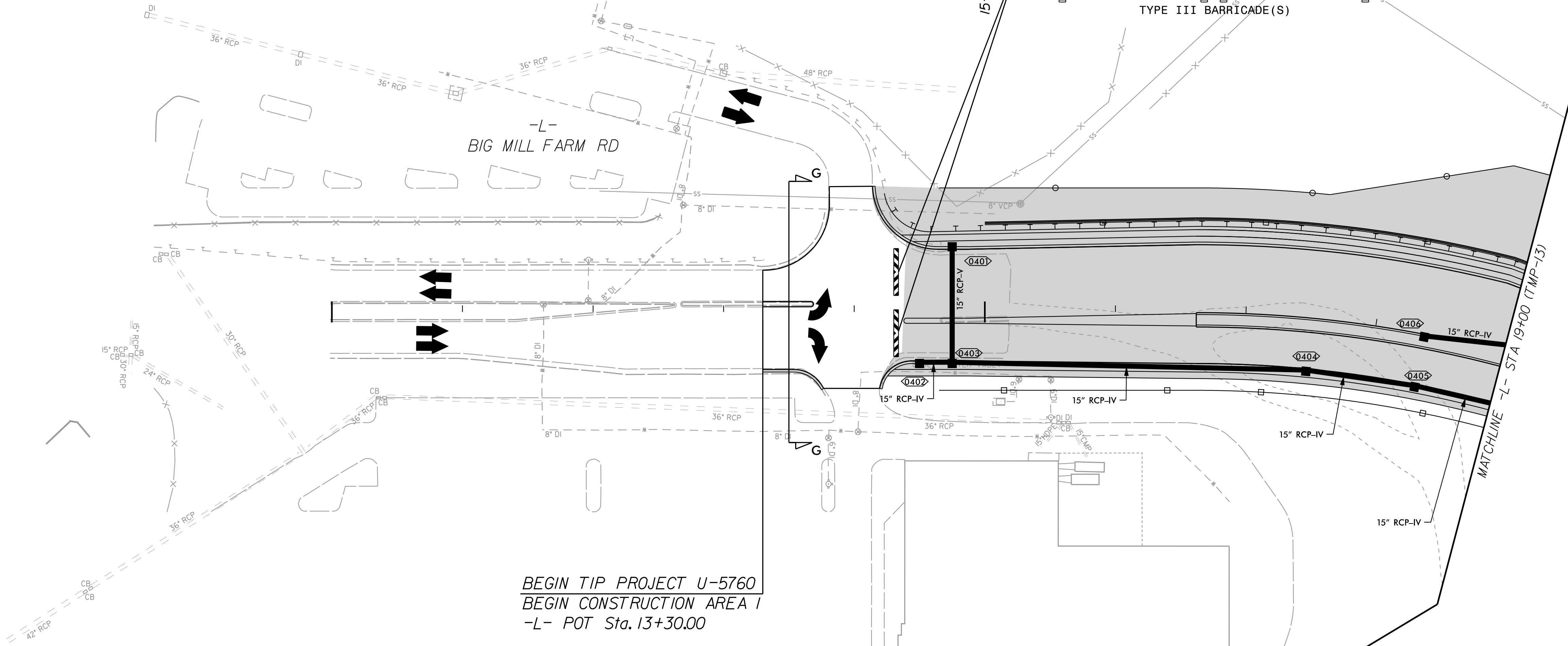
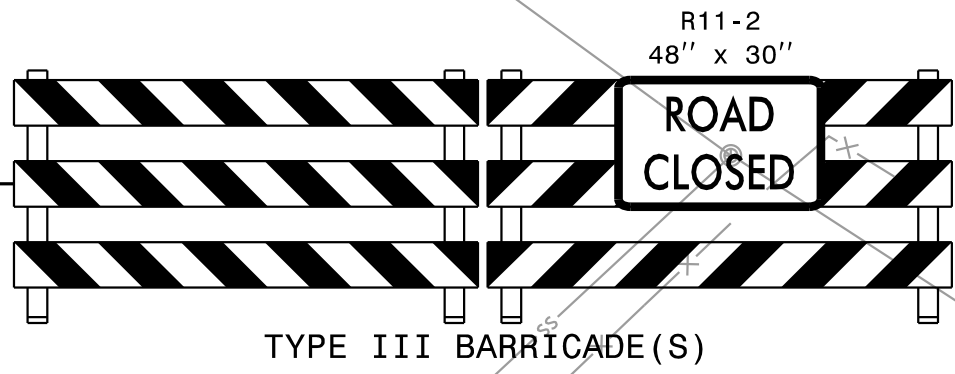
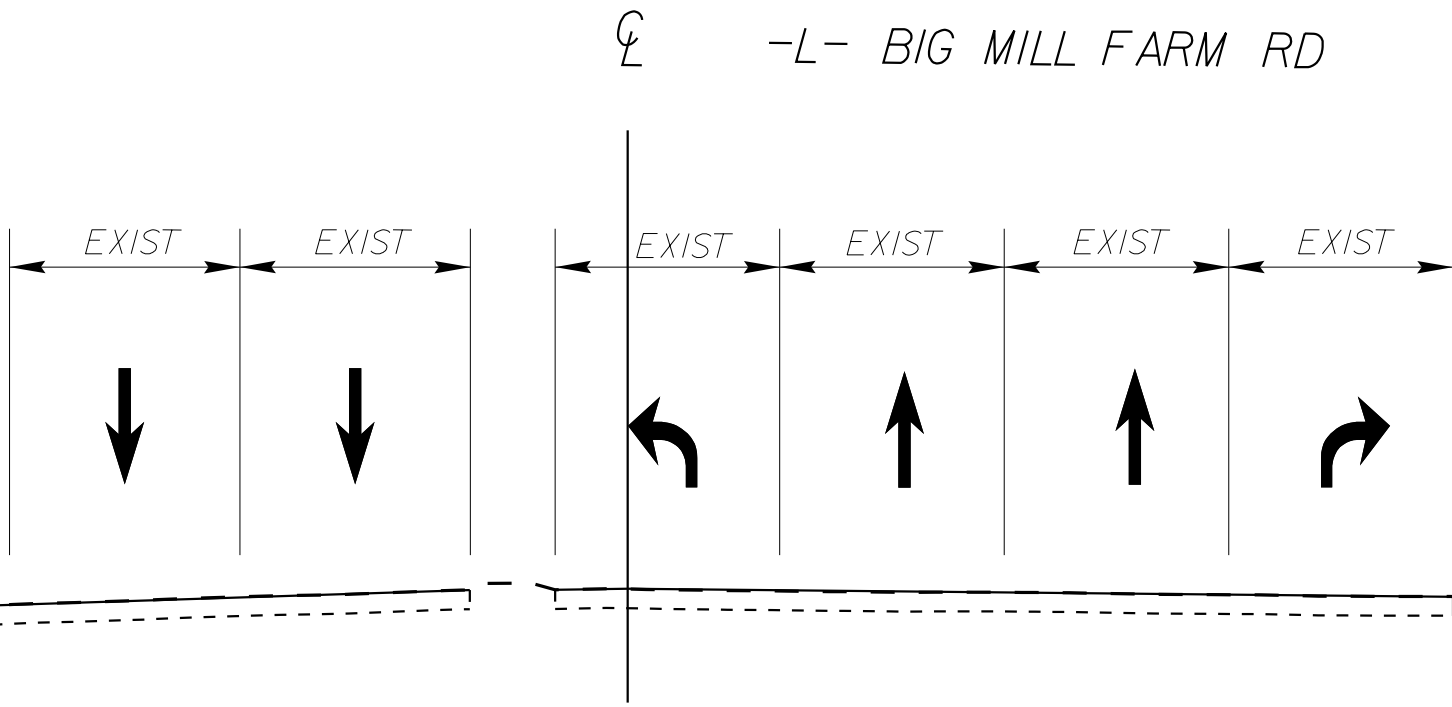
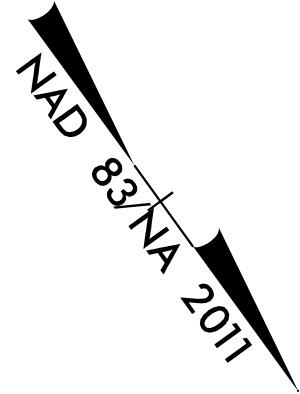


Kimley»Horn

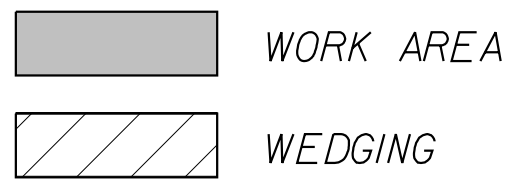
AREA 1
TRAFFIC CONTROL
PHASE 0, STEP 2

NC LICENSE #P-0102
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NORTH CAROLINA, 27601
PHONE: (919) 877-2000

PROJ. REFERENCE NO.	SHEET NO.
U-5760	TMP-12



MATCHLINE (SEE TMP-13)



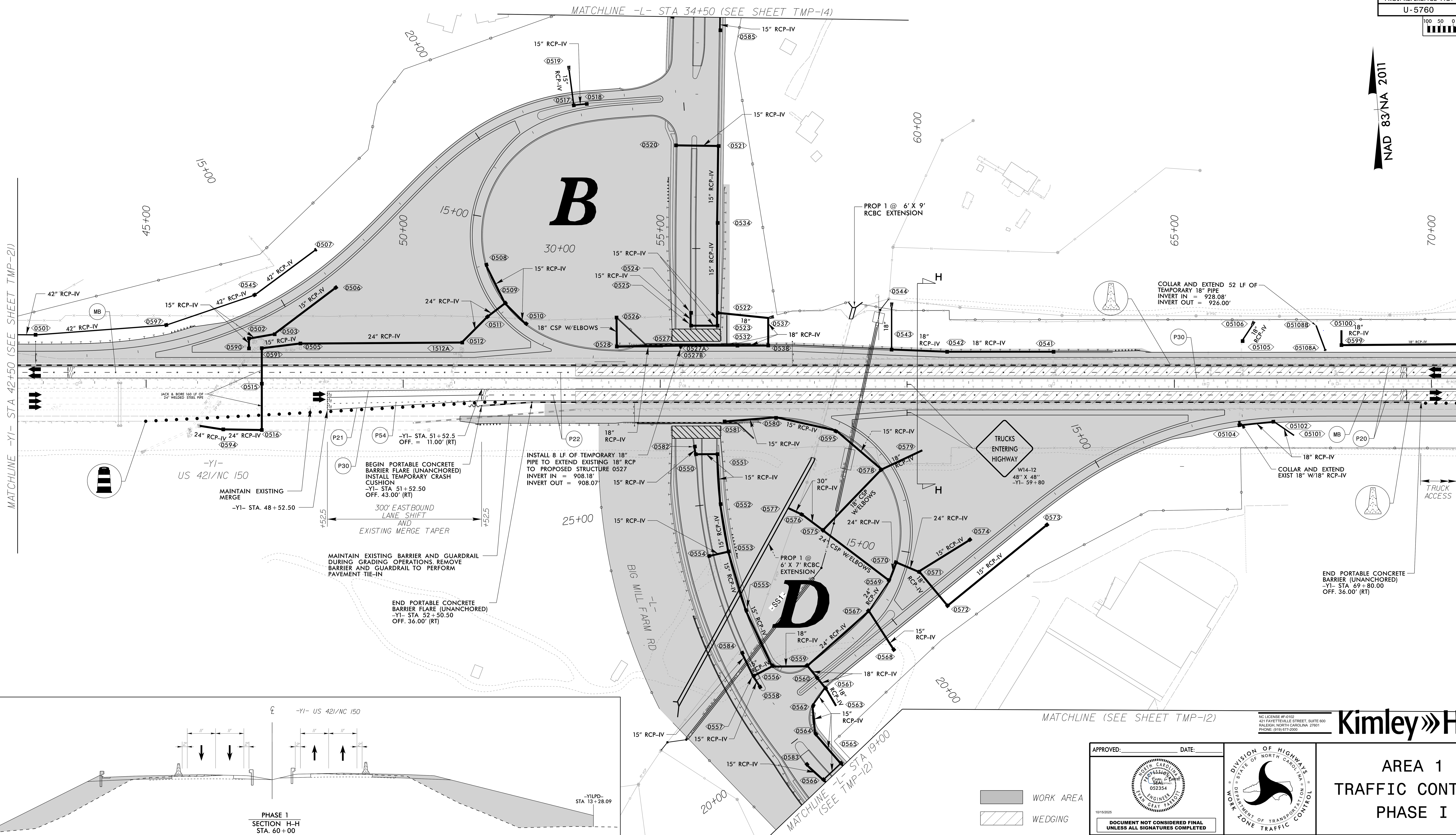
APPROVED:	DATE:
9/12/2025	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



Kimley»Horn

**AREA 1
TRAFFIC CONTROL
PHASE I**

NAD 83/NA 2011



K:\RAL_Roadway\01036312 - U-5760 Big Mill Farm Road\TrafficControl\CP\Sheets\Phase N\5760_tcp_pshl3.dgn

10/14/2025

Kimley»»Horn

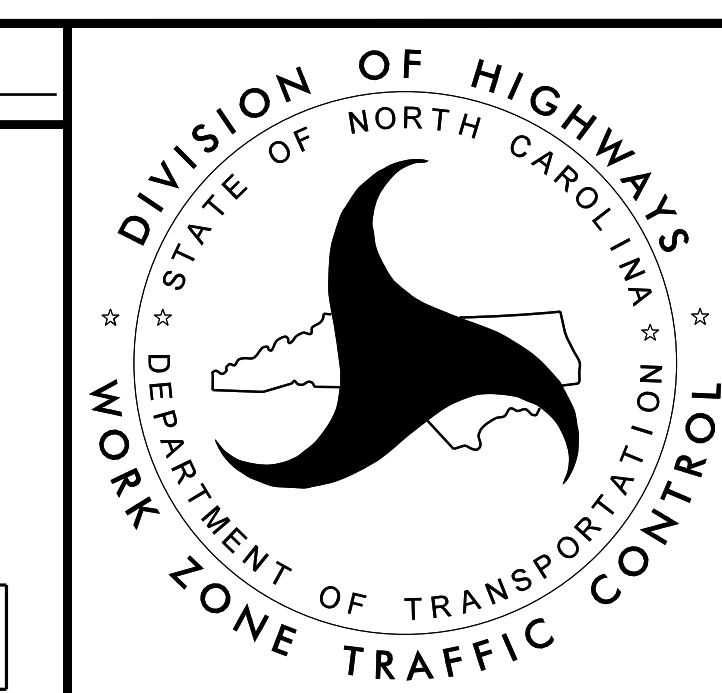
AREA 1
TRAFFIC CONTROL
PHASE I

APPROVED: _____ DATE: _____

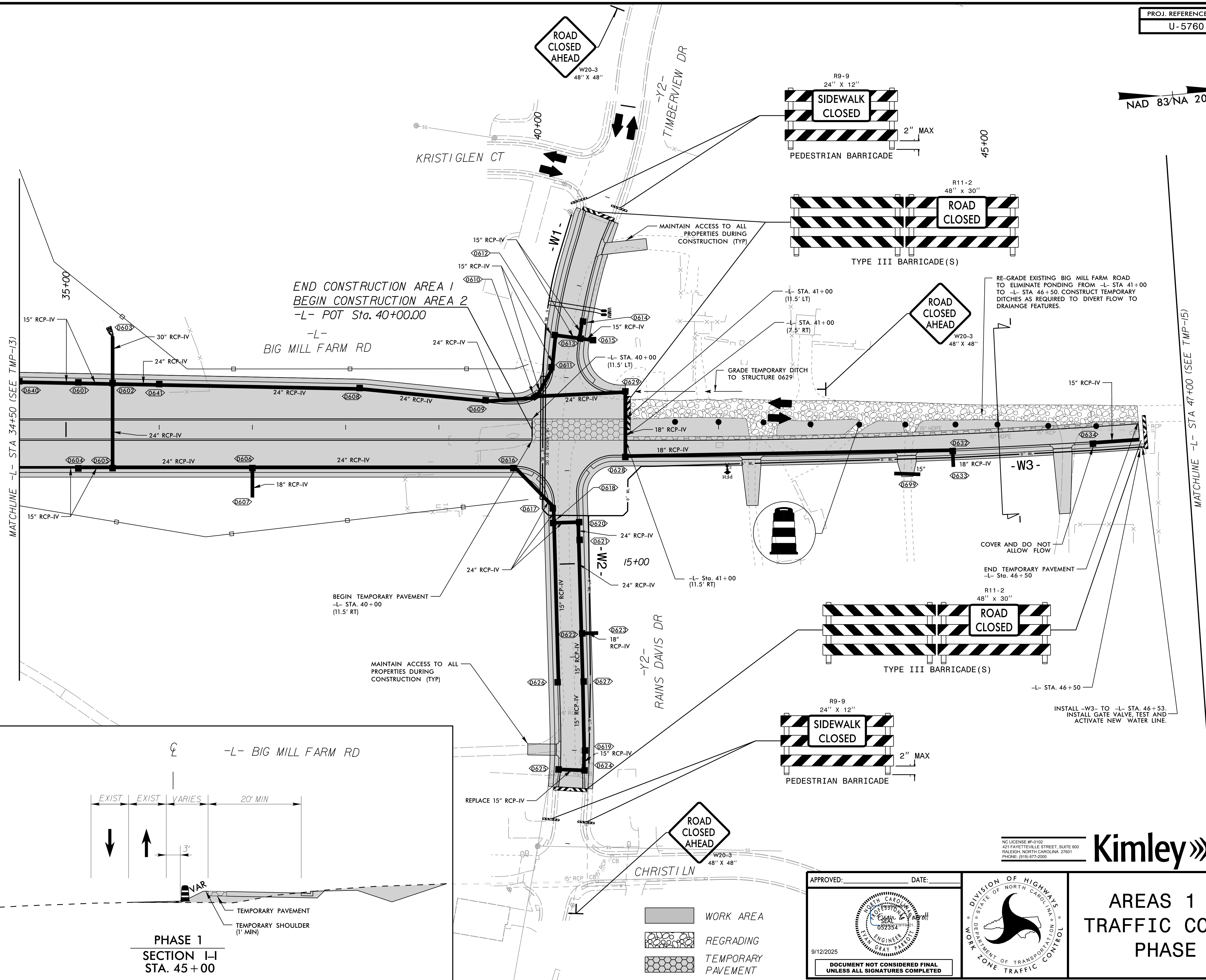
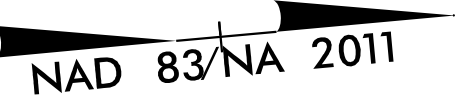


10/15/2025

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



NC LICENSE #F-0102
421 FAYETTEVILLE STREET, SUITE 100
RALEIGH, NORTH CAROLINA 27601
PHONE: (919) 677-2000



NC LICENSE #F-0102
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27601
PHONE: (919) 677-2000

Kimley»»Horn

AREAS 1 & 2
TRAFFIC CONTROL
PHASE I

K:\RAL_Roadway\011036312 - U-5760 Big Mill Farm Road\Traffic\TrafficControl\TCP\Sheets\Phase 1\U5760_tcp_pshl4.dgn

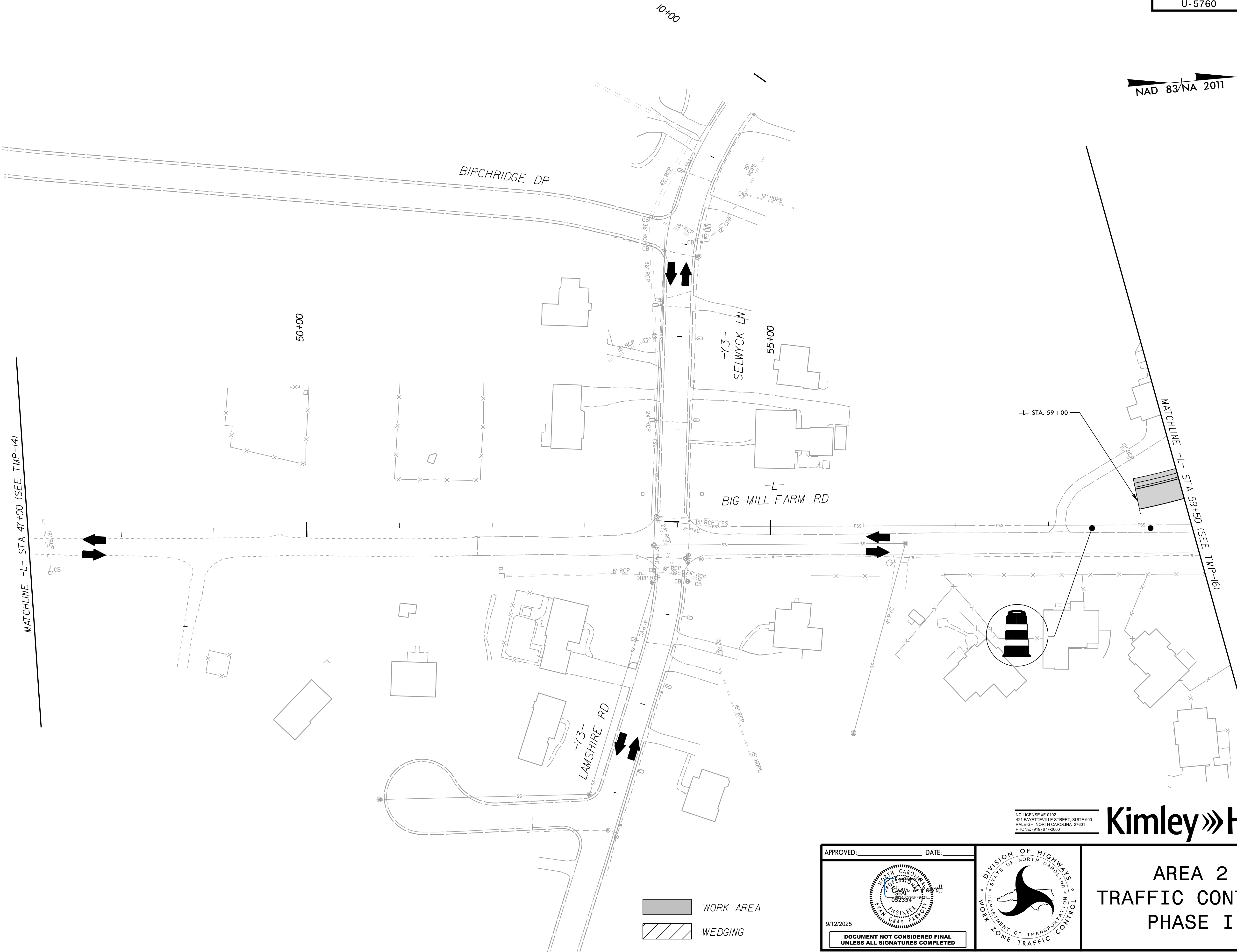
8/5/2025

K:\RAL_Roadway\01036312 - U-5760 Big Mill Farm Road\TrafficControl\CP\Sheets\Phase U5760_top_psh15.dgn

8/5/2025

PROJ. REFERENCE NO.	SHEET NO.
U-5760	TMP-15

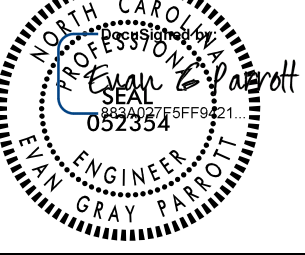
NAD 83/NA 2011



NC LICENSE #P-0102
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NORTH CAROLINA, 27601
PHONE: (919) 877-2000

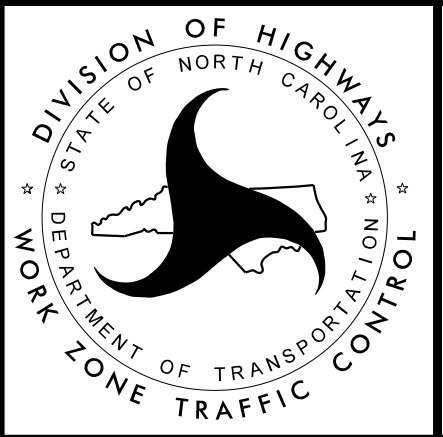
Kimley»Horn

APPROVED: _____ DATE: _____



9/12/2025

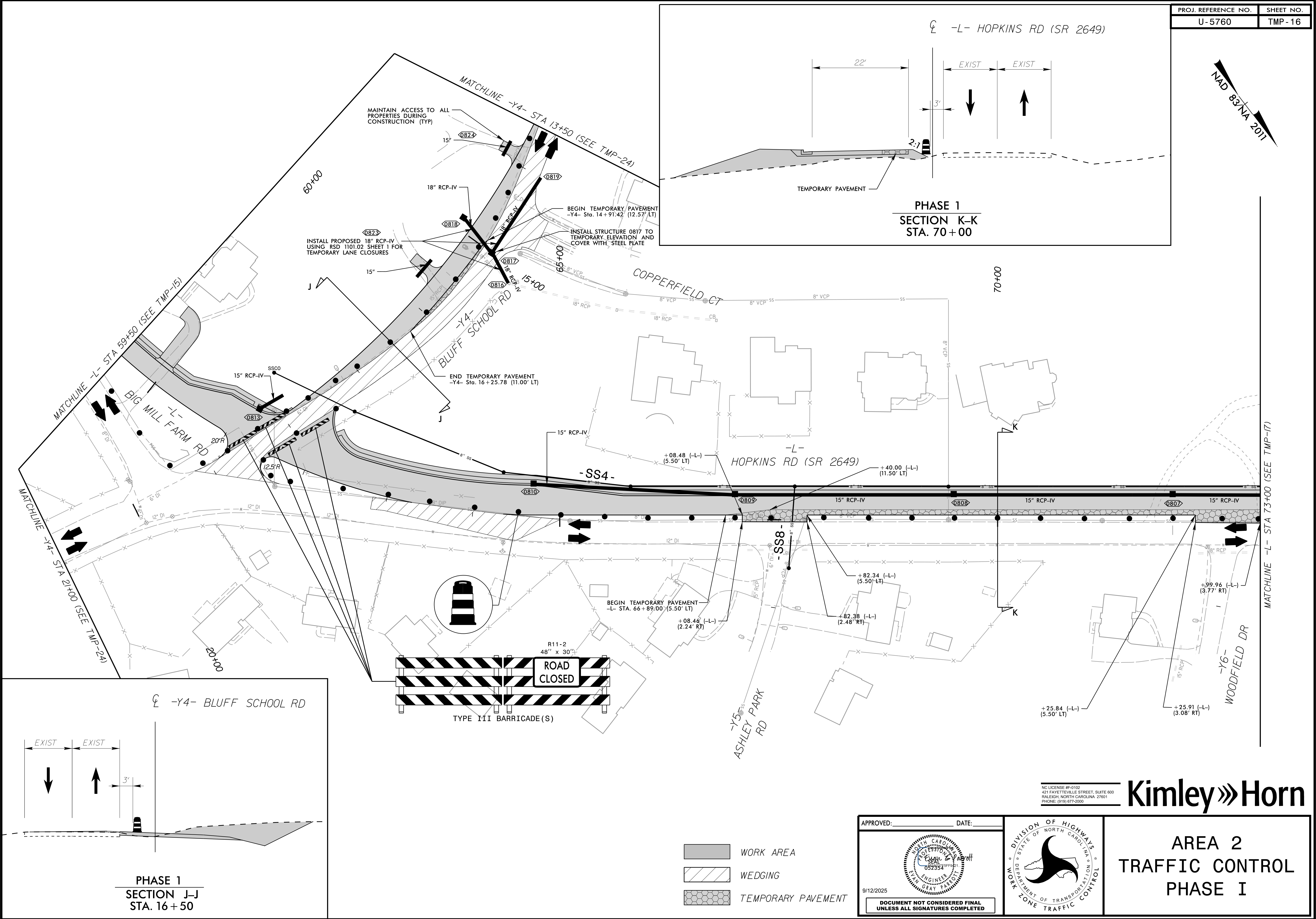
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

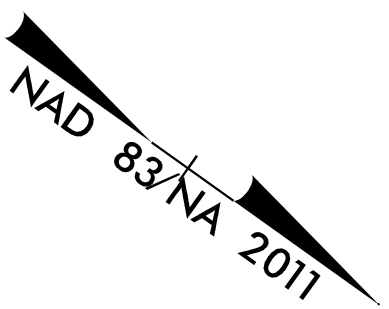


AREA 2
TRAFFIC CONTROL
PHASE I

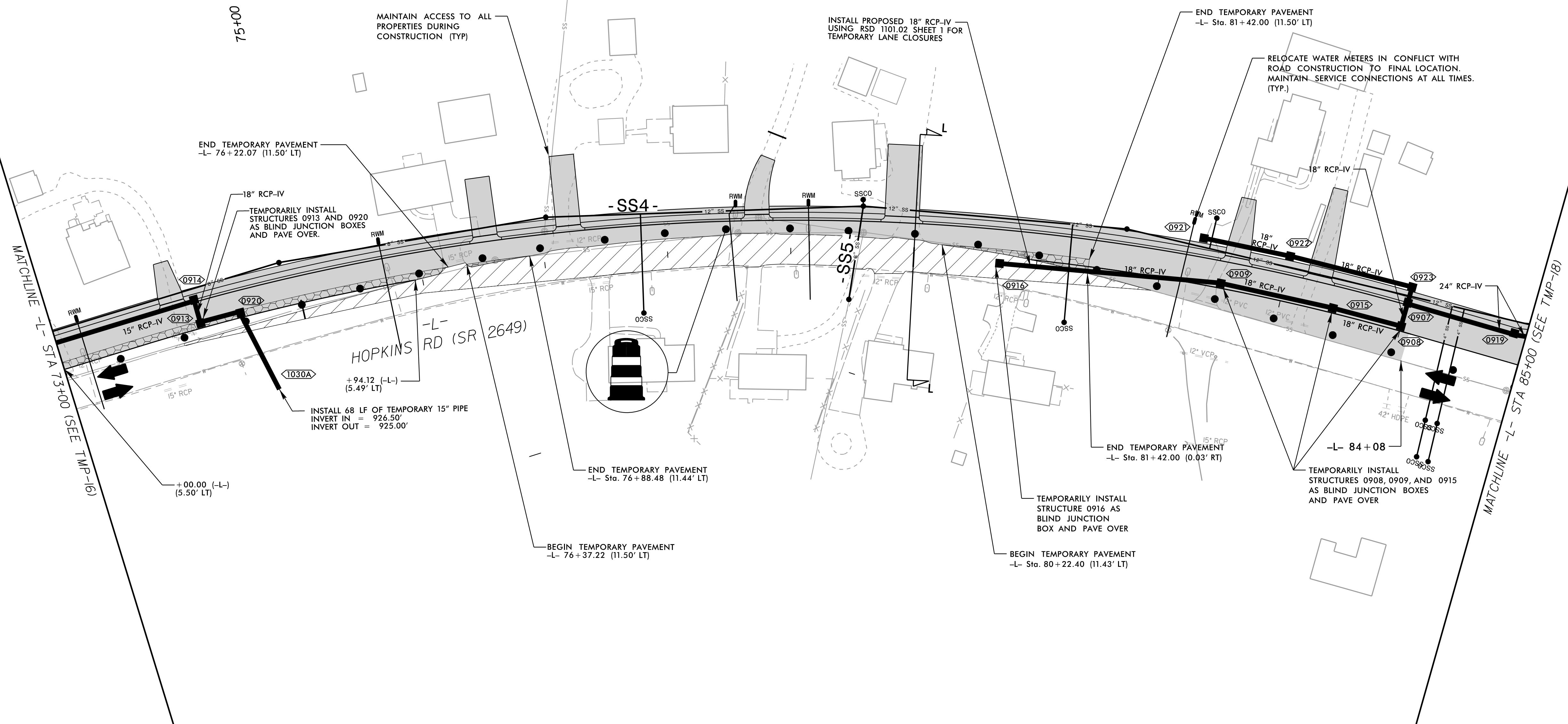
K:\RAL_Roadway\01036312 - U-5760 Big Mill Farm Road\TrafficControl\TPC\Sheets\Phase U5760_tcp_psh6.dgn

8/5/2025





PHASE 1
SECTION L-L
STA. 80+00



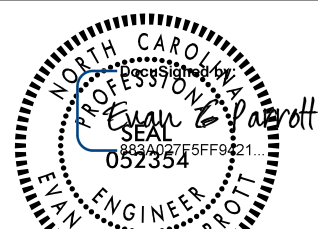
NC LICENSE #F-0102
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27601
PHONE: (919) 677-2000

Kimley»»Horn

AREA 2
TRAFFIC CONTROL
PHASE I

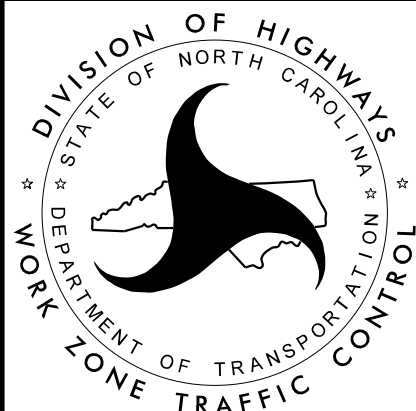
APPROVED:

DATE:

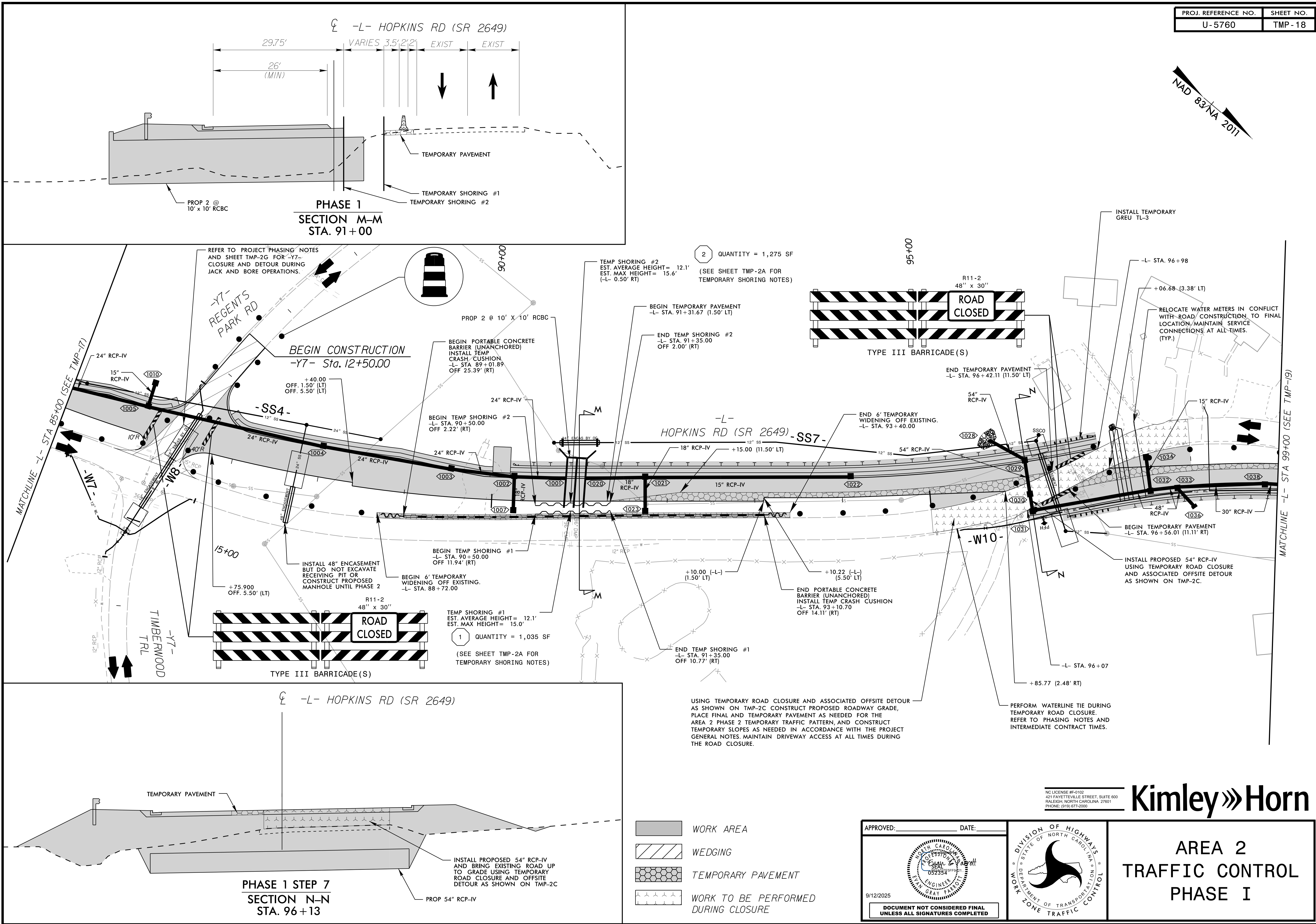


9/12/2025

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



 WORK AREA
 WEDGING
 TEMPORARY PAVEMENT



PROJ. REFERENCE NO.	SHEET NO.
U-5760	TMP-19

NAD 83/NA 2011

PHASE 1
SECTION O-O
STA. 105+00

CLOSE ADJACENT TRAVEL LANE USING
RSD 1101.02 SHEET 1 OF 14 DURING
ACTIVE JACK AND BORE OPERATIONS.
PROVIDE POSITIVE PROTECTION WHEN
WORK IS NOT ACTIVELY OCCURRING

REFER TO PROJECT PHASING NOTES
AND SHEET TMP-2D FOR
-Y8- SUTTER LANE CLOSURE AND
DETOUR DURING JACK AND BORE
OPERATIONS.

CONSTRUCT ROADWAY IMPROVEMENTS
AND JACK AND BORE OPERATIONS USING
TEMPORARY ROAD CLOSURE AND
ASSOCIATED OFFSITE
DETOUR AS SHOWN ON TMP-2D

ROAD
CLOSED

ROAD
CLOSED

ROAD
CLOSED
AHEAD

END CONSTRUCTION
-Y8- STA. 16+50.00

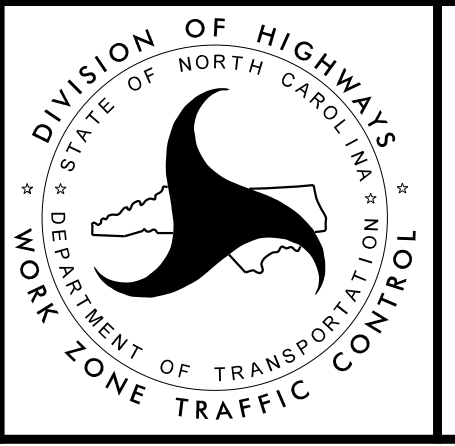
PHASE 1
SECTION P-P
STA. 16+00

- WORK AREA
- WEDGING
- TEMPORARY PAVEMENT

APPROVED: DATE:

9/12/2025

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



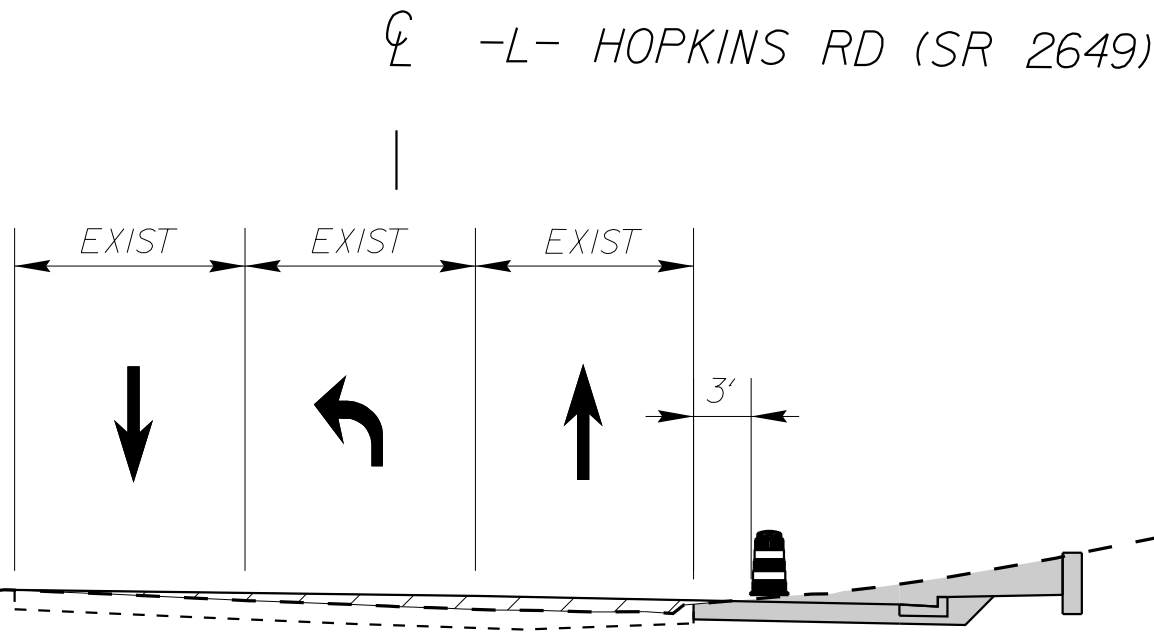
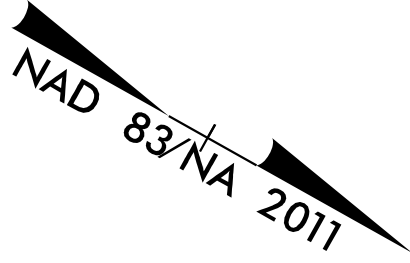
Kimley»Horn

AREA 2
TRAFFIC CONTROL
PHASE I

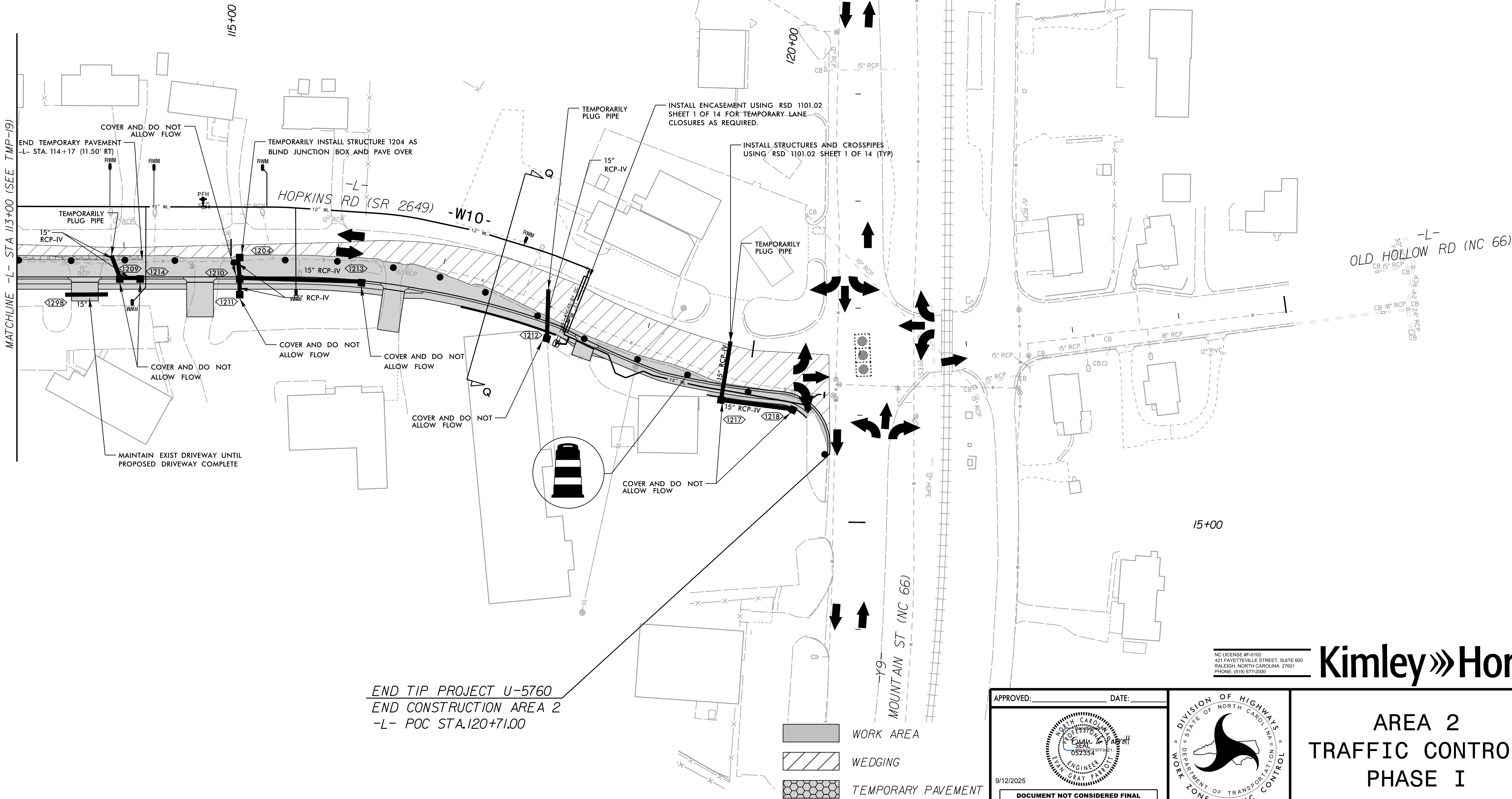
K:\RAL_Roadway\011036312 - U-5760 Big Mill Farm RoadTrafficControl\CP\Sheets\Phase NU5760_tcp_psh19.dgn

8/5/2025

PROJ. REFERENCE NO.	SHEET NO.
U-5760	TMP-20



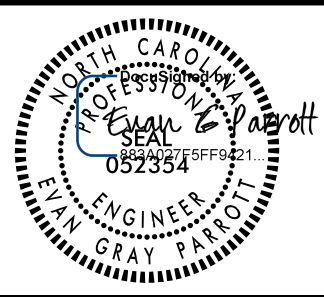
PHASE 1
SECTION Q-Q
STA. 117 + 50



END TIP PROJECT U-5760
END CONSTRUCTION AREA 2
-L- POC STA.120+71.00

NC LICENSE #P-0102
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NORTH CAROLINA, 27601
PHONE: (919) 877-2000

Kimley»Horn

APPROVED:  DATE:

9/12/2025
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



AREA 2
TRAFFIC CONTROL
PHASE I

K:\RAL_Roadway\01036312 - U-5760 Big Mill Farm Road\TrafficControl\Phase 1\U5760_tcp_psh20.dgn

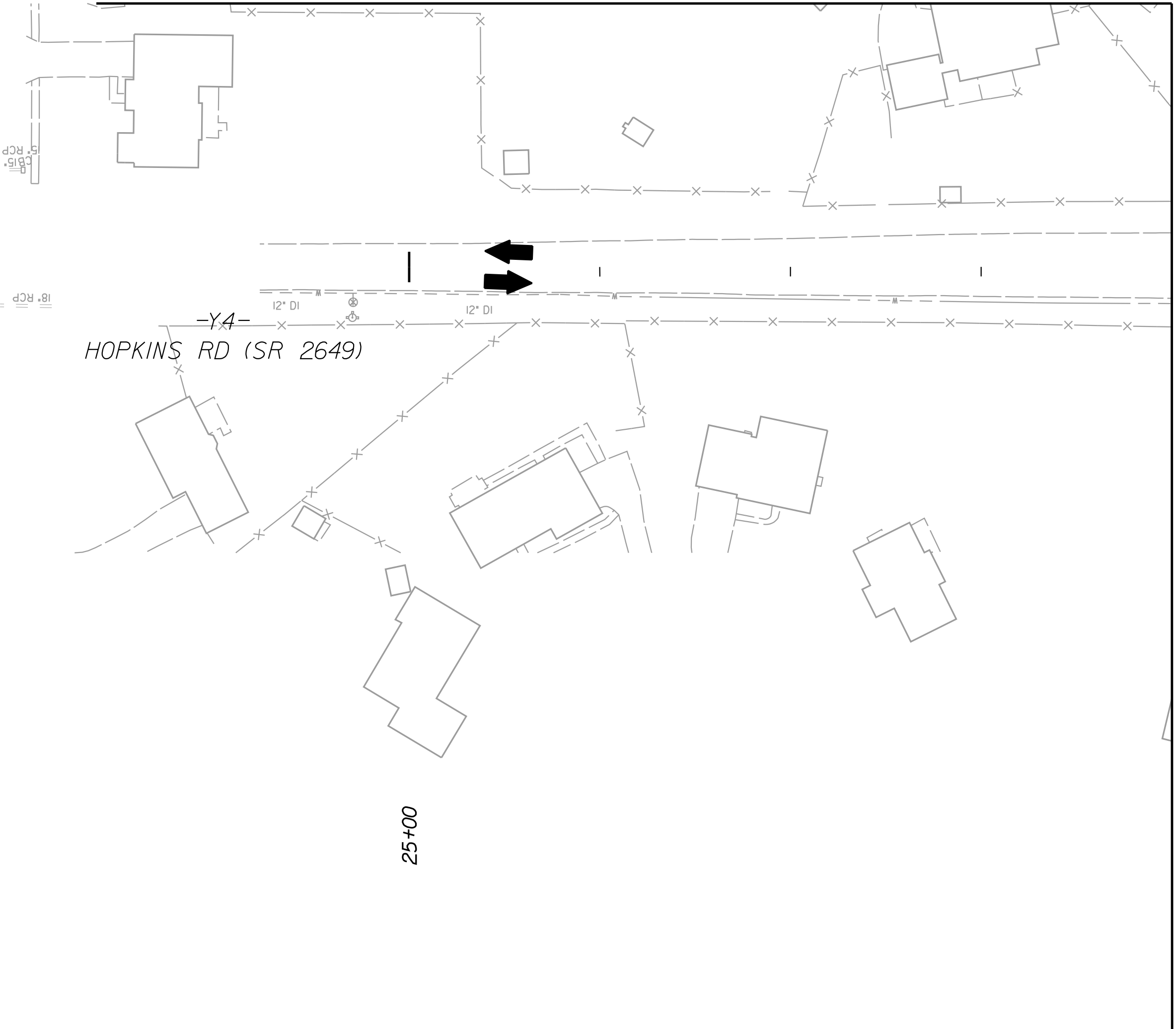
8/5/2025



APPROVED: _____	DATE: _____	  AREA 1 TRAFFIC CONTROL PHASE I
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

K:\RAL_Roadway\01036312 - U-5760 Big Mill Farm Road\TrafficControl\NCP\Sheets\Phase U5760_top_psh24.dgn

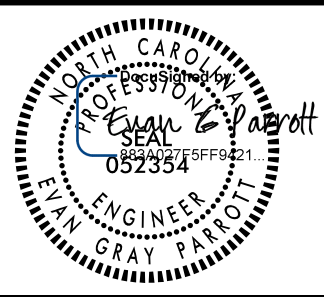
8/5/2025



NAD 83/NA 2011

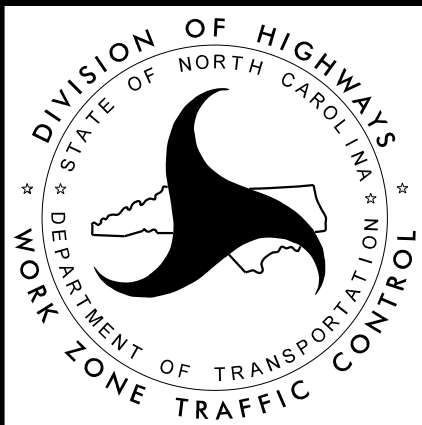
WORK AREA
WEDGING

APPROVED: _____ DATE: _____



9/12/2025

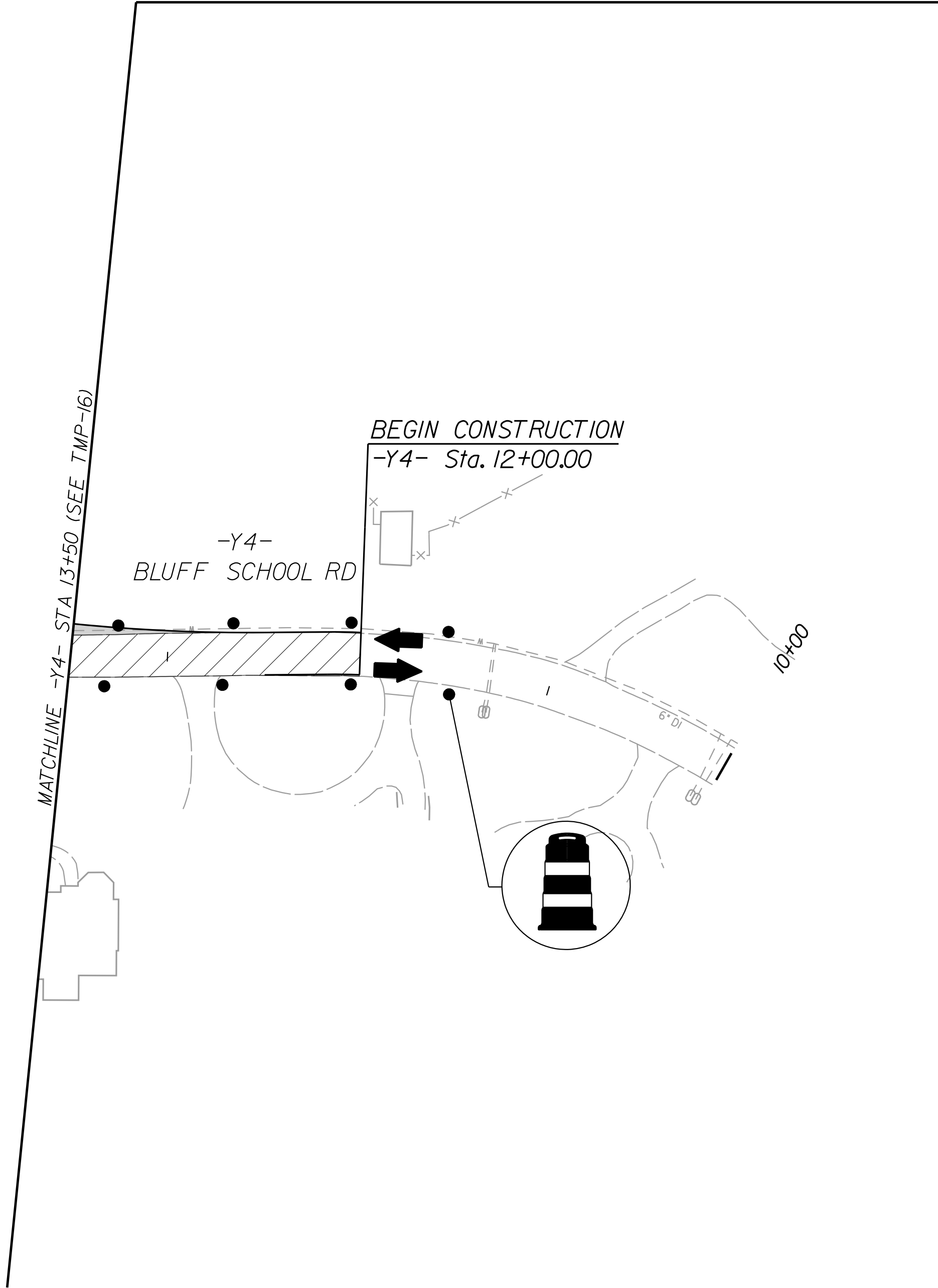
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



Kimley»Horn

AREA 2
TRAFFIC CONTROL
PHASE I

PROJ. REFERENCE NO.	SHEET NO.
U-5760	TMP-24



NAD 83/NA 2011

Kimley»Horn

AREA 1
TRAFFIC CONTROL
PHASE II

NAD 83/NA 2011

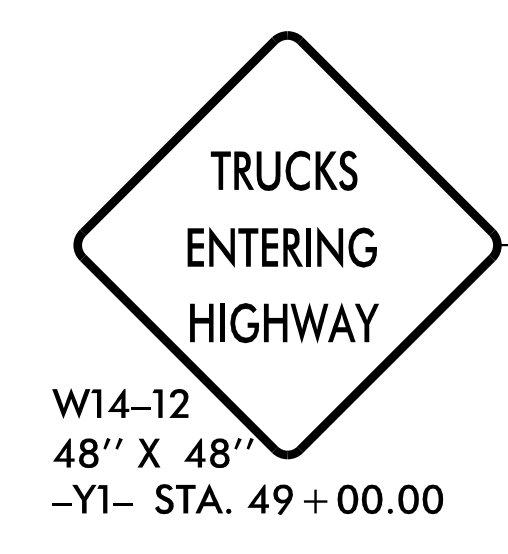


BEGIN CONSTRUCTION
-YIRPB- POT Sta.13+04.85

BEGIN CONSTRUCTION
-YI- POT Sta. 47+27.00

MATCHLINE -YI- STA 42+50 (SEE TMP-34)

MATCHLINE -YI- STA 70+50 (SEE TMP-35)

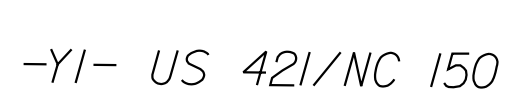


BEGIN PORTABLE CONCRETE BARRIER (ANCHORED) —
 INSTALL TEMPORARY CRASH CUSHION
 -Y1- STA 51+00.00
 OFF. 26.00' (RT)

-Y1- STA. 51+00.00
 OFF. 51.00' (RT)

BEGIN PORTABLE CONCRETE BARRIER (ANCHORED) —
 -Y1- STA 51+50.00
 OFF. 26.00' (LT)

25+00
TIE TO FINAL GUARDRAIL -
INSTALLED IN PHASE 0
-Y1- STA 53+85



PHASE 1
SECTION V-V
STA. 60+00

STA 13+2

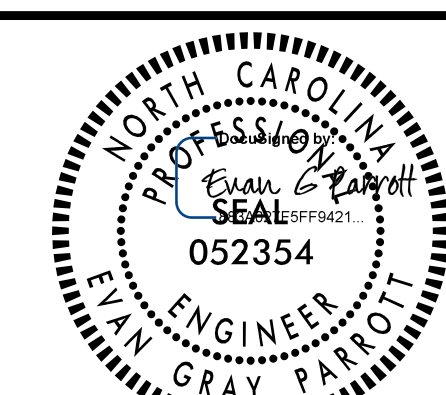
MATCHLINE (SEE TMP-25)

NC LICENSE #F-0102
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27601
PHONE: (919) 677-2000

Kimley»»Horn

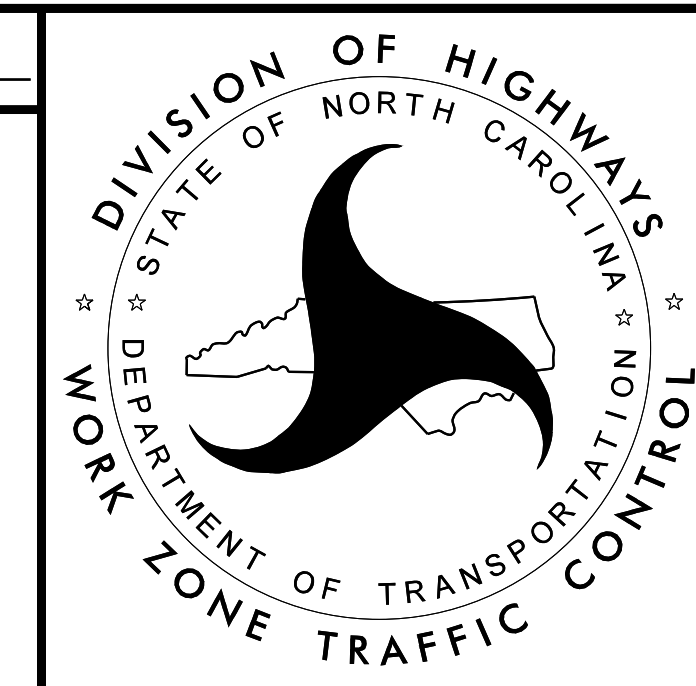
AREA 1
TRAFFIC CONTROL
PHASE II

APPROVED: _____ DATE: _____



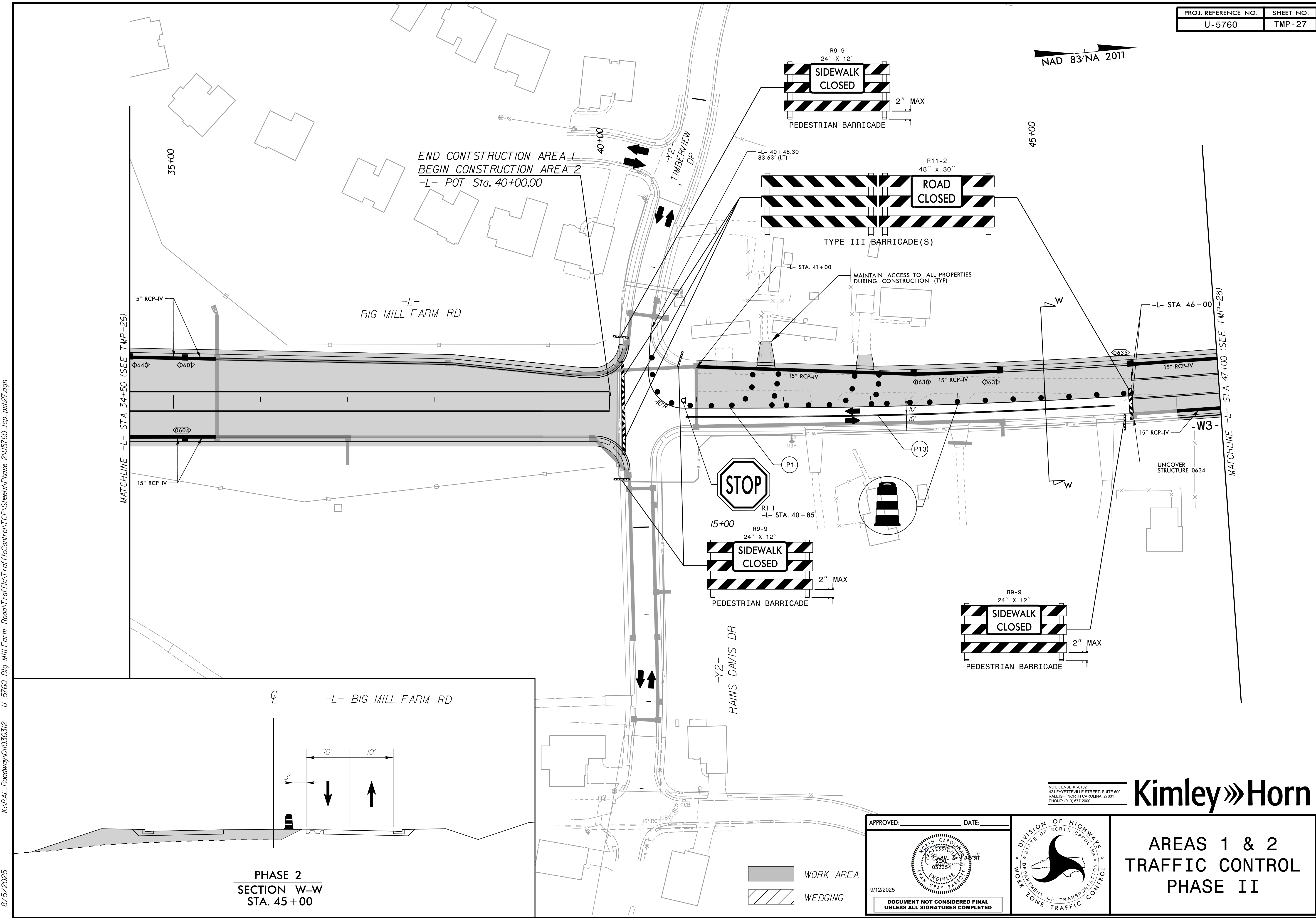
10/15/2025

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



 WORK AREA

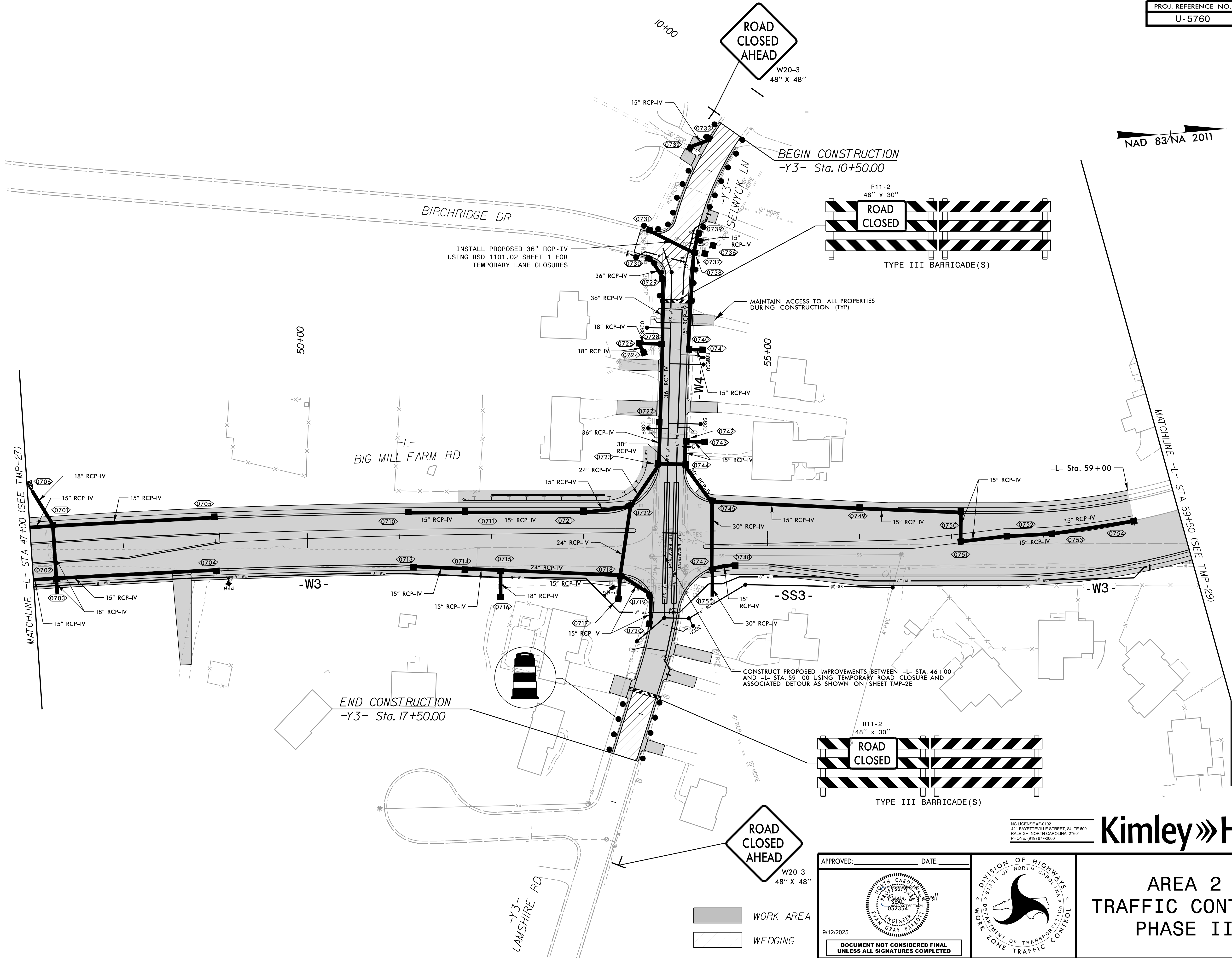
 WEDGING



K:\RAL_Roadway\01036312 - U-5760 Big Mill Farm Road\TrafficControl\Phase 2\U5760_Tcp_psh28.dgn

8/5/2025

PROJ. REFERENCE NO.	SHEET NO.
U-5760	TMP-28



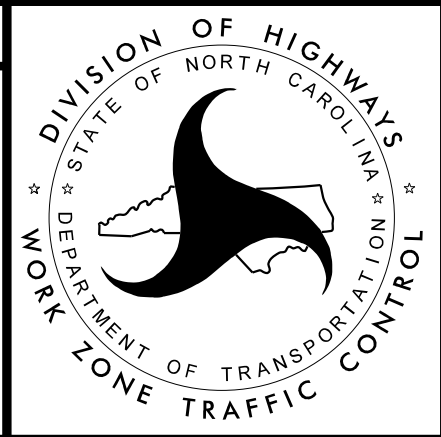
Kimley»Horn

NC LICENSE #P-0102
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NORTH CAROLINA, 27601
PHONE: (919) 677-2000

APPROVED: _____ DATE: _____

9/12/2025

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



**AREA 2
TRAFFIC CONTROL
PHASE II**