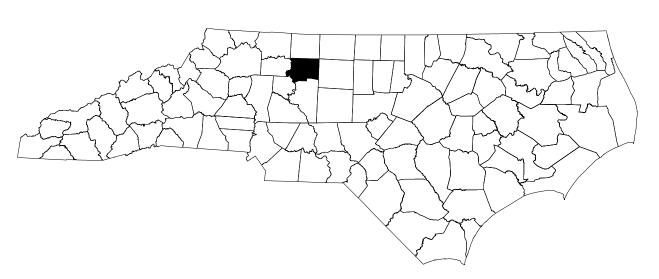
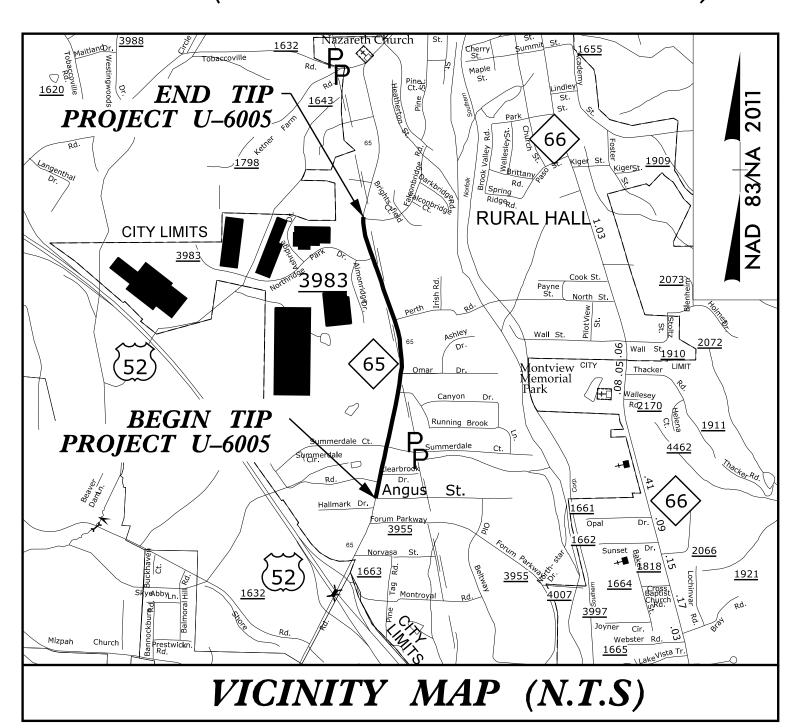
TRANSPORTATION MANAGEMENT PLAN

FORSYTH COUNTY



LOCATION: NC 65 (BETHANIA RURAL HALL RD.) FROM US 52 TO SR 3983 (NORTHRIDGE PARK DRIVE) IN RURAL HALL



SHEET NO. TITLE TMP - 1

TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS

LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND LEGEND TMP-1A

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

SPECIAL SIGN DESIGNS TMP-2

TMP-2A THRU TMP-2B OFF SITE DETOURS

TEMPORARY TRAFFIC CONTROL PHASING NOTES TMP-3 THRU TMP-3A

TMP-4

TMP - 10

TMP-5 THRU TMP-8

TEMPORARY TRAFFIC CONTROL PHASE I DETAILS TEMPORARY TRAFFIC CONTROL PHASE II DETAILS

TEMPORARY TRAFFIC CONTROL PHASE IIA DETAILS

TMP-11 THRU TMP-12 TEMPORARY TRAFFIC CONTROL PHASE III DETAILS

TEMPORARY TRAFFIC CONTROL PHASE IIB DETAILS

TEMPORARY TRAFFIC CONTROL PHASE IIIA DETAILS TMP-13 THRU TMP-16

TEMPORARY TRAFFIC CONTROL PHASE IV DETAILS TMP-17 THRU TMP-19

TMP-20 THRU TMP-21 TEMPORARY TRAFFIC CONTROL PHASE V DETAILS

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



Prepared in the Office of: JOHNSON, MIRMIRAN, & THOMPSON, INC. 1318 Patton Avenue, Suite F, Asheville NC, 28806

APPROVED: **DATE:** 5/6/2025

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

PLANS PREPARED BY:

LLOYD DEWAYNE BROWN, PE, PLS PROJECT ENGINEER

COLTON M. RIDDLE PROJECT DESIGN ENGINEER NCDOT CONTACTS:

RYAN C. NEWCOMB, PE PROJECT MANAGER

TMP-1

PROJ. REFERENCE NO. SHEET NO. TMP-1A U-6005

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
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGERS
1160.01	TEMPORARY CRASH CUSHION
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
1205.06	PAVEMENT MARKINGS - LANE DROPS
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.14	PAVEMENT MARKINGS - ROUNDABOUTS
1205.15	PAVEMENT MARKINGS - REDUCED CONFLICT INTERSECTIONS
1205.16	PAVEMENT MARKINGS - BICYCLE FACILITIES
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY
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

REMOVAL

TEMPORARY PAVEMENT

WEDGING

SIGNALS

EXISTING

PROPOSED

PAVEMENT MARKINGS

Р1

——EXISTING LINES ——TEMPORARY LINES

TRAFFIC CONTROL DEVICES

BARRICADE (TYPE III)

DRUM SKINNY DRUM O TUBULAR MARKER

TEMPORARY CRASH CUSHION FLASHING ARROW BOARD

FLAGGER

LAW ENFORCEMENT

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

PAVEMENT MARKING SYMBOLS

PAVEMENT MARKING SYMBOLS

TEMPORARY PAVEMENT MARKING

SYMBOL DESCRIPTION PAVEMENT MARKING LINES

4" PAINT

WHITE EDGELINE WHITE SOLID LANE LINE

3 FT. - 9 FT./SP WHITE MINISKIP 2 FT. - 6 FT./SP WHITE MINISKIP

YELLOW EDGELINE P10 P13 YELLOW DOUBLE CENTER

8" PAINT

P40 WHITE GORELINE P42 YELLOW DIAGONAL

P45 3 FT. - 3 FT./SP WHITE MINISKIP P46 WHITE CROSSWALK LINE

WHITE CROSSWALK LINE

24" PAINT P61 WHITE STOPBAR SYMBOL

DESCRIPTION

PAVEMENT MARKING SYMBOLS

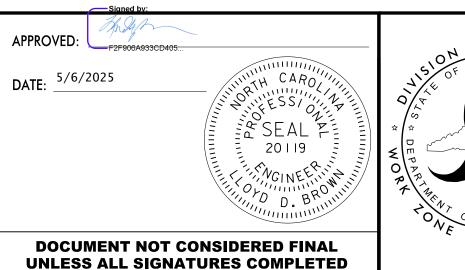
LEFT TURN ARROW RIGHT TURN ARROW STRAIGHT ARROW 24" YIELD LINE TRIANGLE

FOR EACH PAINT PAVEMENT MARKING ITEM, REFER TO GENERAL NOTES FOR NUMBER OF

APPLICATIONS.



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ROADWAY STANDARD DRAWINGS & LEGEND

MANAGEMENT STRATEGIES

CONSTRUCTION

UPGRADE INTERSECTION OF NC 65 BETHANIA RURAL HALL RD. AND RUNNINGBROOK LN. TO A ROUNDABOUT; AND ADD BIKE LANES, CURB & GUTTER, AND SIDEWALKS THE ENTIRE LENGTH OF THE PROJECT.

TMP DESIGN PARAMETERS

THIS PROJECT CONTAINS DAILY LANE. HOLIDAY. AND SPECIAL EVENTS RESTRICTIONS.

GENERAL SEQUENCE OF CONSTRUCTION

THIS PROJECT CONSIST OF LANE CLOSURES WITH FLAGGING OPERATIONS AND/OR OFF-SITE DETOURS TO CONSTRUCT PROPOSED WIDENING OF NC 65 BETHANIA RURAL HALL RD., PROPOSED -Y- LINES, PROPOSED DRAINAGE, AND PROPOSED ROUNDABOUT.

TRAFFIC MANAGEMENT STRATEGIES

FULL ROADWAY CLOSURES LANE SHIFTS OR CLOSURES ONE-LANE, TWO WAY OPERATION (FLAGGING) NIGHTWORK WEEKEND WORK WORK HOUR RESTRICTIONS FOR PEAK TRAVEL PEDESTRIAN / BICYCLE ACCOMMODATIONS OFF-SITE DETOURS / USE OF ALTERNATIVE ROUTES

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

TIME RESTRICTIONS

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

ROAD NAME

DAY AND TIME RESTRICTIONS

ALL ROADS

MONDAY THRU FRIDAY, 6:00 AM TO 9:00 AM 4:00 PM TO 7:00 PM

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

ROAD NAME

ALL ROADS

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 6:00 A.M. DECEMBER 31st TO 7:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 7:00 P.M. THE FOLLOWING TUESDAY.
- 3. FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 7:00 P.M. MONDAY.
- 4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 7:00 P.M. TUESDAY.

5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE DAY AFTER INDEPENDENCE DAY.

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

- 6. FOR LABOR DAY. BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 7:00 P.M. TUESDAY.
- 7. FOR THANKSGIVING DAY. BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 7:00 P.M. MONDAY.
- 8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.
- C) DO NOT STOP TRAFFIC AS FOLLOWS:

DAY AND TIME DURATION AND RESTRICTIONS OPERATION ROAD NAME 10 MIN., TIE-INS, MARKING PLACEMENT, ALL ROADS MONDAY THRU SUNDAY,

TRAFFIC SHIFTS

LANE AND SHOULDER CLOSURE REQUIREMENTS

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.

6:00AM TO 7:00PM

- 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.
- WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 5 FT OF AN OPEN TRAVEL LANE ON AN UNDIVIDED FACILITY, CLOSE THE NEAREST 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 WITHIN 10 FT OF AN OPEN TRAVEL LANE ON A DIVIDED FACILITY. 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 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.
- H) 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.

PAVEMENT EDGE DROP OFF REQUIREMENTS

I) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT 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.

J) 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) 200 FT IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

PROJ. REFERENCE NO. SHEET NO. U-6005 TMP-1B

- L) 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.
- 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.

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

AND

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

- O) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- P) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 200 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC BARRIER

Q) INSTALL TEMPORARY BARRIER ACCORDING TO THE TRANSPORTATION MANAGEMENT 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 TRANSPORTATION MANAGEMENT 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 TRANSPORTATION MANAGEMENT PLANS, TEMPORARY BARRIER IS PROTECTING A HAZZARD, 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.

R) 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 ATTENUATOR (MAXIMUM 72 HOURS) OR A TEMPORARY CRASH CUSHION.

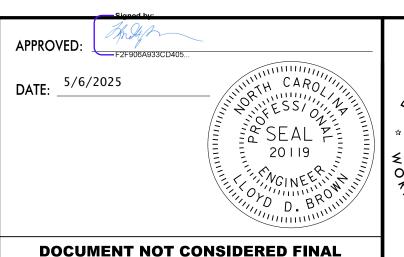
PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER FROM ONCOMING TRAFFIC AT ALL TIMES BY A TEMPORARY CRASH CUSHION UNLESS THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER IS OFFSET FROM ONCOMING TRAFFIC AS FOLLOWS OR AS SHOWN IN THE PLANS: (SEE ALSO 1101.05)

POSTED SPEED LIMIT 40 OR LESS 45 - 50 60 MPH OR HIGHER

MINIMUM OFFSET 15 FT

20 FT 25 FT 30 FT

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UNLESS ALL SIGNATURES COMPLETED



TRANSPORTATION **OPERATIONS** PLAN

GENERAL NOTES CONT.

TRAFFIC CONTROL DEVICES

- S) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER THAN 40 FEET FOR POSTED SPEED LIMITS LESS THAN 45 (MPH) AND NO GREATER THAN 80 FEET FOR POSTED SPEED LIMITS GREATER THAN OR EQUAL TO 45 (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.
- T) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.

PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME MARKING MARKER

ALL ROADS PAINT NONE

- V) 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.
- W) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- X) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.
- Y) TRACE THE EXISTING AND PROPOSED MONOLITHIC ISLAND LOCATIONS WITH PROPER COLOR PAVEMENT MARKINGS PRIOR TO REMOVAL AND INSTALLATION.

 PLACE SKINNY DRUMS TO DELINEATE ANY EXISTING AND PROPOSED MONOLITHIC ISLANDS AFTER REMOVAL AND BEFORE INSTALLATION.

MISCELLANEOUS

- Z) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.
- AA) 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) 350 FT/MI AND 350 FT/MI RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG PAVED AREAS.
- BB) 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.
- CC) 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.).

LOCAL NOTES

PROJ. REFERENCE NO. SHEET NO. U-6005 TMP-1C

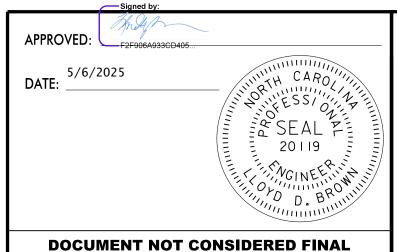
- 1) EMERGENCY VEHICLE ACCESS MUST BE MAINTAINED AT ALL TIMES.
- 2) NOTIFY THE FIRE DEPARTMENT, E.M.S., AND FORSYTH COUNTY SCHOOL BOARD 30 DAYS PRIOR TO ANY MODIFICATION OF TRAFFIC PATTERNS.

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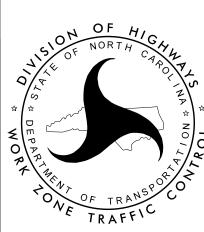
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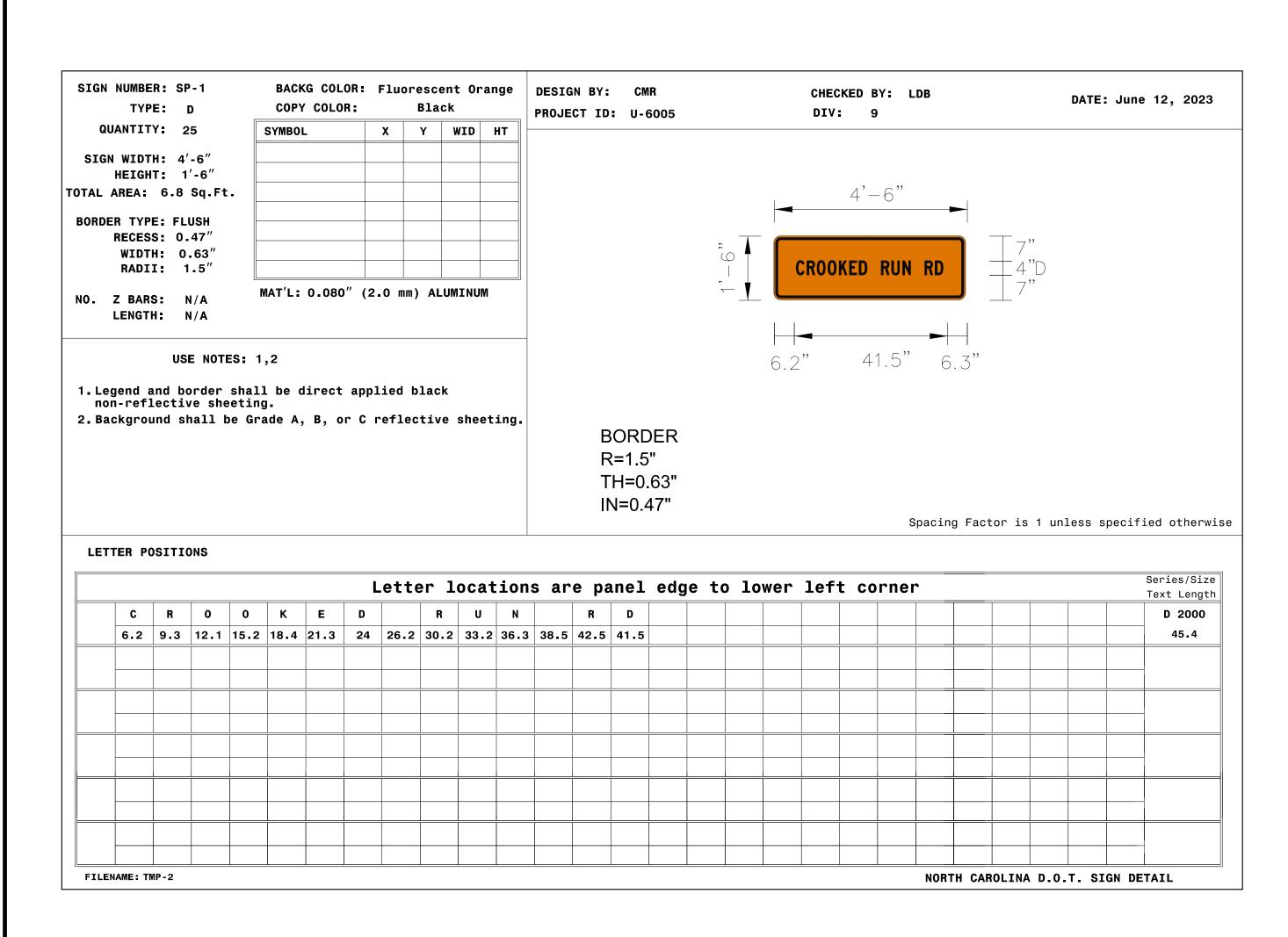


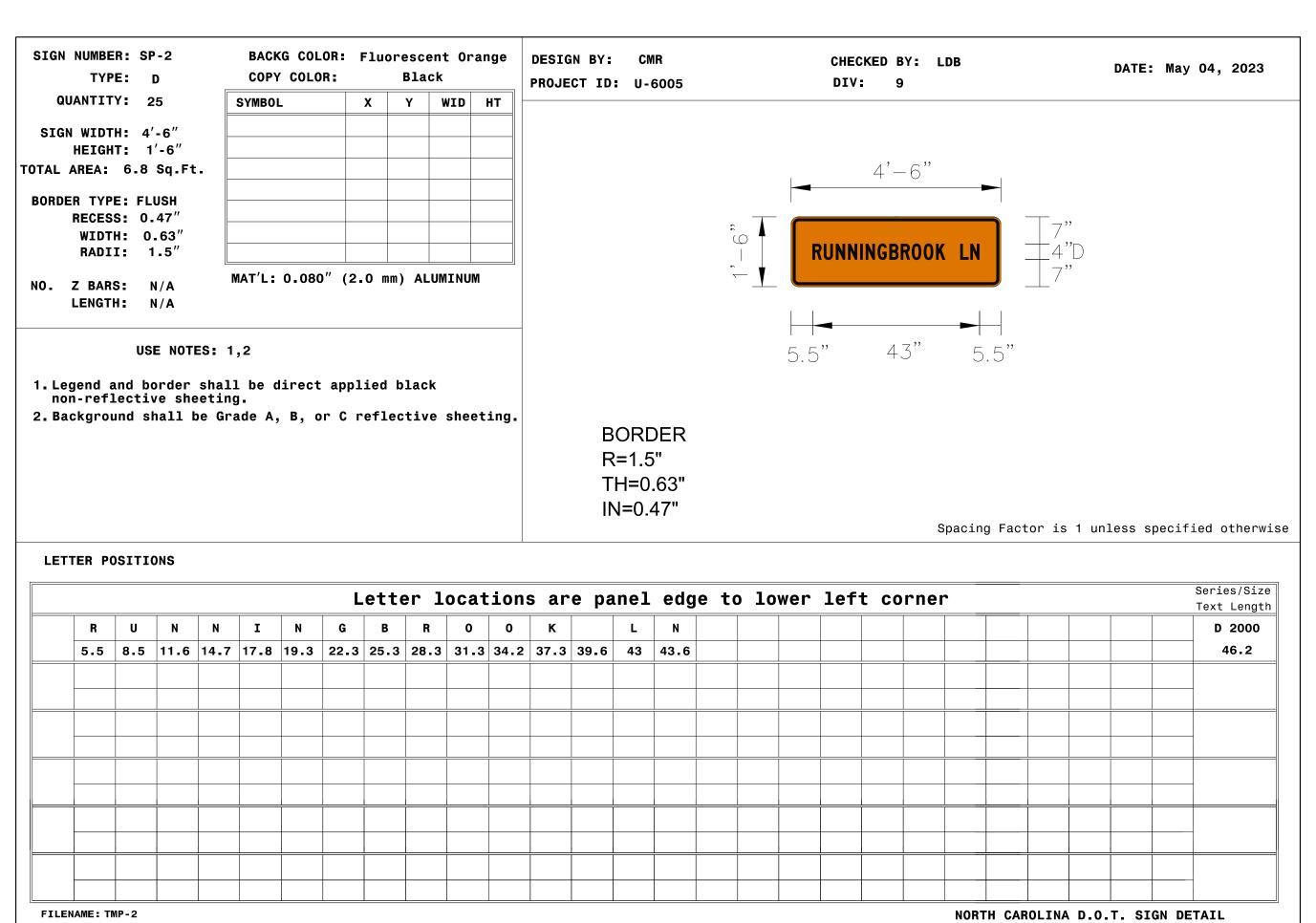
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TRANSPORTATION
OPERATIONS
PLAN

PROJ. REFERENCE NO.	SHEET NO.
U-6005	TMP-2





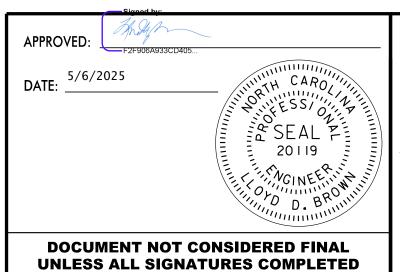


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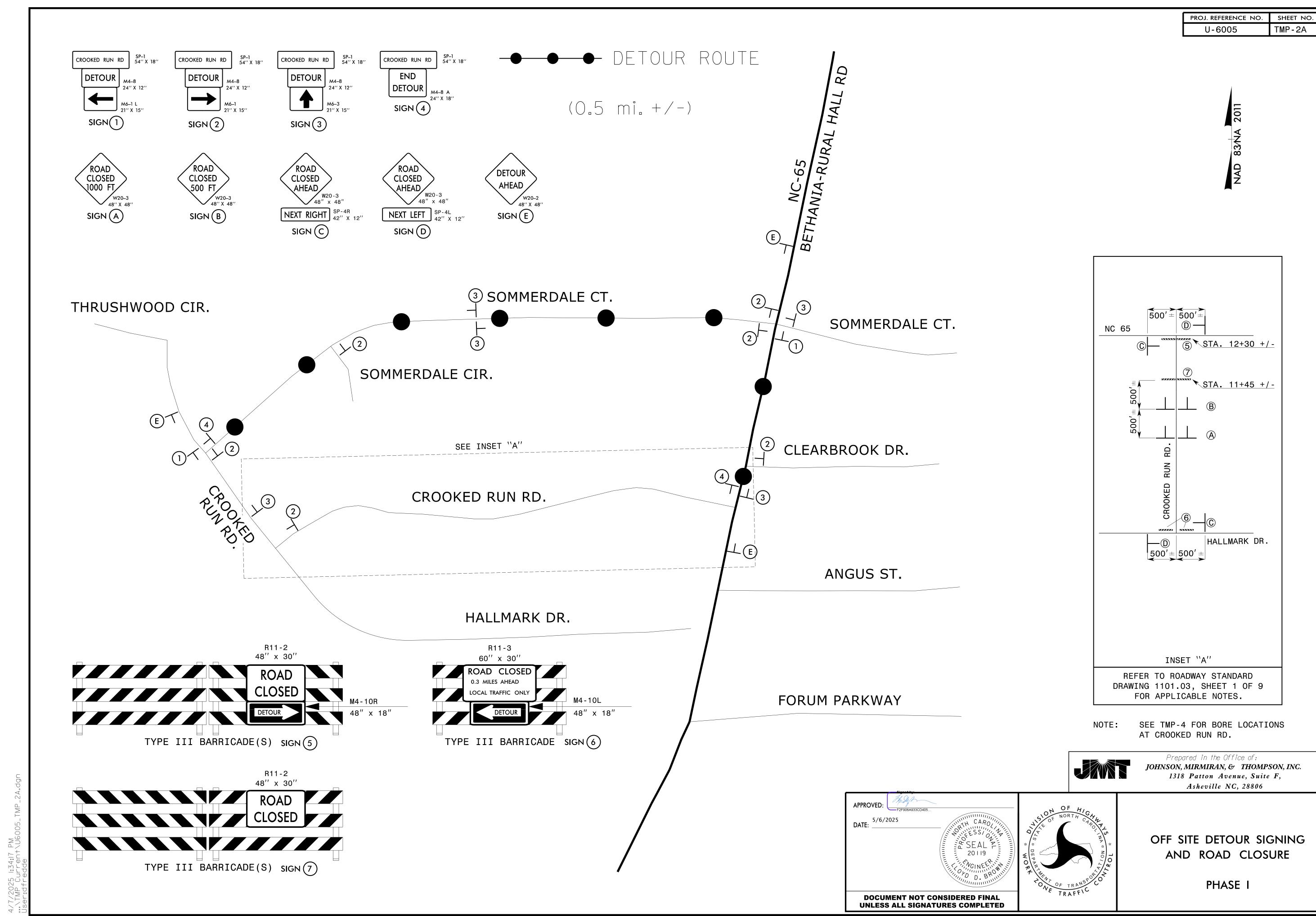
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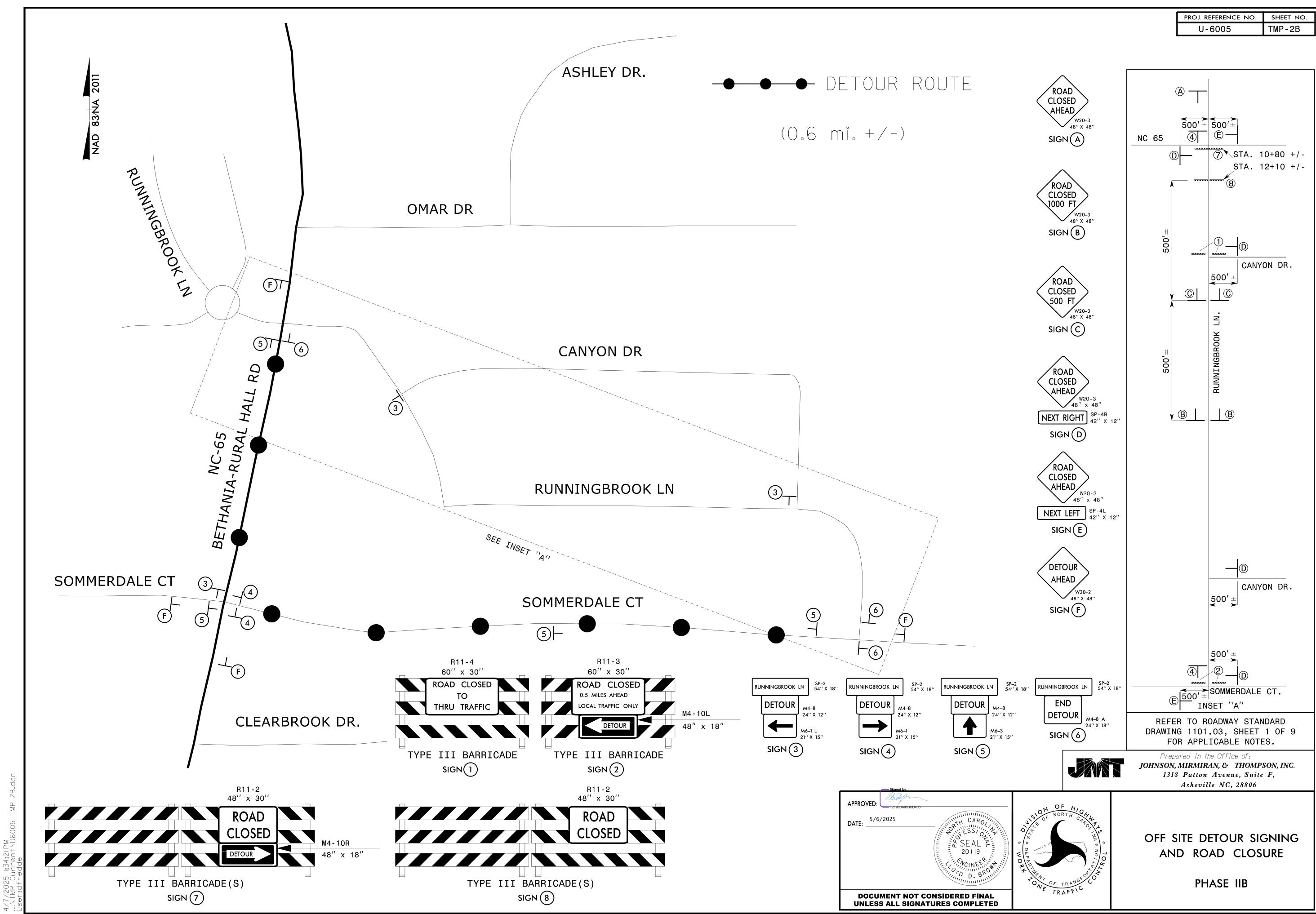
Asheville NC, 28806





SPECIAL SIGN DESIGN





PHASING

PROJ. REFERENCE NO. SHEET NO. U-6005 TMP-3

PHASE I

STEP 1:	-	ERECT WORK ZONE ADVANCED WARNING SIGNS USING ROADWAY STANDARD DRAWING (RSD) NO. 1101.01, SHEET 3 OF 3.
		COMPLETE THE WORK OF PHASE I, STEPS 2 THROUGH 6 IN 10 CONSECUTIVE CALENDAR DAYS. SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.
STEP 2:	-	USING RSD 1101.03, SHEET 2 OF 9, AND FLAGGERS AS NECESSARY, INSTALL OFF-SITE DETOUR AND CLOSE -Y2- (CROOKED RUN RD.) FROM -Y2- STA. 11+45 +/- TO -Y2- STA. 12+35 +/- TO ALL TRAFFIC (SEE SHEET TMP-2A).
	-	USING FLAGGERS, CLOSE AND BARRICADE NORTH END OF CIRCULAR DRIVEWAY AT BORE PIT #2 (SEE SHEET TMP-4).
STEP 3:	-	BORE SEWERLINE AND WATERLINE UNDER -L- (BETHANIA RURAL HALL RD.) AT -L- STA. 14+57 +/- AND -L- STA. 14+67 +/- (SEE SHEET TMP-4).
STEP 4:	-	FILL BOTH BORE PITS MEETING PROPER COMPACTION STANDARDS.
STEP 5:	-	PAVE OVER BORE PIT #1.
	-	RESTORE STONE ON CIRCULAR DRIVE
STEP 6:	-	USING FLAGGERS AS NECESSARY, REMOVE DETOUR AND OPEN -Y2-(CROOKED RUN RD.) AND CIRCULAR DRIVEWAY TO THRU TRAFFIC.

PHASE II

STEP 1:	-	USING RSD 1101.02, SHEETS 1 AND 2 OF 19, AND FLAGGERS AS NECESSARY, COMPLETE THE FOLLOWING IN A CONTINUOUS OPERATION:
	-	REMOVE, AS NECESSARY, EXISTING PAVEMENT MARKINGS, PLACE TEMPORARY PAVEMENT MARKINGS (PAINT), AND PLACE TRAFFIC CONTROL DEVICES (SEE SHEETS TMP-5 THRU TMP-8).

STEP 2: - PLACE TEMPORARY CROSS WALKS (PAINT), AND INSTALL PROPOSED PORTABLE WATER FILLED BARRIERS FROM -L- STA. 35+25 +/- TO -L- STA. 50+75 +/- (SEE SHEETS TMP-6 THRU TMP-8).

STEP 3:

- SHIFT PEDESTRIANS TO NEW PATTERN (SEE SHEETS TMP-6 THRU TMP-8).

SHIFT TRAFFIC TO NEW PATTERN (SEE SHEETS TMP-5 THRU TMP-8).

USING RSD NO. 1101.02, SHEETS 1 AND 2 OF 19, AND FLAGGERS AS NECESSARY, REMOVE EXISTING PAVEMENT WHERE APPLICABLE, AND CONSTRUCT THE FOLLOWING UP TO, BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE, WEDGING ABOVE THE EXISTING PAVEMENT AS NEEDED.

PROPOSED ROADWAY, AND SIDEWALKS FROM -L- STA. 12+49 +/-TO -L- STA. 34+82 +/- (LT) (SEE SHEETS TMP-5 AND TMP-6).

TEMPORARY PAVEMENT AND PROPOSED ROADWAY FROM STA. 28+36 +/- TO STA. 30+56 +/- (RT)(SEE TMP-6).

- PROPOSED ROADWAY, AND SIDEWALKS ON -Y2-, -Y4-, -Y9- AND -Y11- (SEE SHEETS TMP-5 THRU TMP-8).

- PROPOSED ROADWAY, AND SIDEWALKS ON -Y6Rev1- (RT), (SEE SHEET TMP-6).

- PROPOSED ROADWAY, AND SIDEWALKS ON -Y8- (LT), (SEE SHEET TMP-6).

- PROPOSED ROADWAY, AND SIDEWALKS FROM -L- STA. 35+08 +/- TO -L- STA. 50+72 +/- (RT) (SEE SHEETS TMP-6 THRU TMP-8).

- PROPOSED SPLITTER ISLAND FROM -L- STA. 44+62 +/- TO -L- STA. 46+56 +/- AND -L- STA. 51+73 +/- TO -L- STA. 55+51 +/- (SEE SHEETS TMP-7 AND TMP-8).

- PROPOSED ROADWAY, AND SIDEWALKS FROM -L- STA. 49+06 +/- TO -L- STA. 61+25 +/- (LT) (SEE SHEETS TMP-7 AND TMP-8).

- PROPOSED ROADWAY, SIDEWALK, AND TEMPORARY CURB RAMP ON -Y10- (RT) (SEE SHEET TMP-8).

PROPOSED SPLITTER ISLANDS AND CURBING (LT CENTER ISLAND)
 FROM -L- STA. 56+44 +/- TO -L- STA. 59+27 +/- (SEE SHEET TMP-8)

PHASE IIA

STEP 1:	_	USING RSD 1101.02, SHEETS 1 AND 2 OF 19, AND FLAGGERS AS
		NECESSARY, COMPLETE THE FOLLOWING IN A CONTINUOUS
		OPERATION:

- REMOVE, AS NECESSARY, EXISTING PAVEMENT MARKINGS, PLACE TEMPORARY PAVEMENT MARKINGS (PAINT), AND PLACE TRAFFIC CONTROL DEVICES (SEE SHEET TMP-9).

SHIFT TRAFFIC TO NEW PATTERN (SEE SHEET TMP-9).

SHIFT PEDESTRIAN TRAFFIC TO NEWLY CONSTRUCTED SIDEWALK (SEE SHEET TMP-9).

STEP 2: - USING RSD 1101.02, SHEETS 1 AND 2 OF 19, AND FLAGGERS AS NECESSARY, REMOVE EXISTING PAVEMENT WHERE APPLICABLE, AND CONSTRUCT THE FOLLOWING:

PROPOSED ROADWAY, AND SIDEWALK ON -Y6Rev1- (RT), INCLUDING WEDGING, AND SPLITTER ISLANDS, BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE (SEE SHEET TMP-9).

STEP3: - PROPOSED ROUNDABOUT FROM -RAB- STA. 10+60 +/- TO -RAB- STA. 11+92 +/- (SEE SHEET TMP-9).

PHASE IIB

STEP 1: - USING FLAGGERS AS NECESSARY, IN A CONTINUOUS OPERATION, CONSTRUCT TEMPORARY CURB RAMP, PLACE TEMPORARY CROSSWALK (PAINT), SHIFT PEDESTRIANS TO NEW PATTERN, AND CLOSE EXISTING SIDEWALK (SEE SHEET TMP-10).

COMPLETE THE WORK OF PHASE IIB, STEPS 2 AND 3, AND PHASE III, STEP 1 IN 15 CONSECUTIVE CALENDAR DAYS. SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.

STEP 2: - USING RSD 1101.03, SHEET 2 OF 9, AND FLAGGERS AS NECESSARY, INSTALL OFF-SITE DETOUR AND CLOSE -Y7Rev- (RUNNING BROOK LN.) FROM -Y7Rev- STA. 10+76 +/- TO -Y7Rev- STA. 12+10 +/- TO ALL TRAFFIC (SEE SHEETS TMP-2B AND TMP-10).

STEP 3: - USING RSD 1101.02, SHEETS 1 AND 2 OF 19, AND FLAGGERS AS NECESSARY, REMOVE EXISTING PAVEMENT WHERE APPLICABLE, AND CONSTRUCT THE FOLLOWING UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE, WEDGING ABOVE EXISTING PAVEMENT AS NEEDED.

TEMPORARY PAVEMENT AND PROPOSED ROADWAY FROM -L- STA. 28+80 +/- TO -L- STA. 31+53 +/- (RT)(SEE TMP-10).

PROPOSED ROADWAY, AND SIDEWALKS FROM -L- STA. 31+80 +/- TO -L- STA. 34+87 +/- (RT) (SEE SHEET TMP-10).

- PROPOSED ROADWAY ON -Y7Rev- (SEE SHEET TMP-10).

PROPOSED ROADWAY, AND SIDEWALKS ON -Y8- (RT) (SEE SHEET TMP-10)

PHASE III

STEP 1:	-	USING RSD NO. 1101.02, SHEETS 1 AND 2 OF 19, AND FLAGGERS AS
		NECESSARY, COMPLETE THE FOLLOWING IN A CONTINUOUS
		OPERATION:

- REMOVE EXISTING CROSSWALKS, PLACE TEMPORARY CROSSWALKS (PAINT), AND SHIFT PEDESTRIANS TO NEW PATTERN (SEE SHEET TMP-12).

 REMOVE, AS NECESSARY, TEMPORARY PAVEMENT MARKINGS, PLACE NEW TEMPORARY PAVEMENT MARKINGS (PAINT), AND PLACE TRAFFIC CONTROL DEVICES (SEE SHEETS TMP-11 AND TMP-12).

- SHIFT TRAFFIC TO NEW PATTERN (SEE SHEETS TMP-11 AND TMP-12).

REMOVE DETOUR PLACED IN PHASE IIB, STEP 2 AND OPEN -Y7Rev-(RUNNING BROOK LN.) TO THROUGH TRAFFIC.

STEP 2: - USING RSD 1101.02, SHEETS 1 AND 2 OF 19, AND FLAGGERS AS NECESSARY, REMOVE EXISTING PAVEMENT WHERE APPLICABLE, AND CONSTRUCT THE FOLLOWING UP TO, BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE, WEDGING ABOVE EXISTING PAVEMENT AS NEEDED.

PROPOSED ROADWAY, AND SIDEWALKS FROM -L- STA. 11+61 +/- TO -L- STA. 28+80 +/- (RT), AND ROUNDABOUT FROM -RAB- STA. 11+92 +/- TO -RAB- STA. 10+60 +/- (SEE SHEETS TMP-11 AND TMP-12).

PROPOSED ROADWAY, AND SIDEWALKS ON -Y1-, -Y3-, AND -Y5- (SEE SHEET TMP-11).

PHASE IIIA

STEP 1: - USING RSD NO. 1101.02, SHEETS 1 AND 2 OF 19, AND FLAGGERS AS NECESSARY, COMPLETE THE FOLLOWING IN A CONTINUOUS OPERATION:

REMOVE EXISTING CROSSWALKS; PLACE TEMPORARY CROSSWALKS (PAINT AND TAPE), AND TEMPORARY CURB RAMPS; AND SHIFT PEDESTRIANS TO NEW PATTERN (SEE SHEETS TMP-14 THRU TMP-16).

- INSTALL PERMANENT ROUNDABOUT SIGNAGE (SEE SIGNAGE PLANS).

- REMOVE, AS NECESSARY, EXISTING PAVEMENT MARKINGS, PLACE TEMPORARY PAVEMENT MARKINGS (PAINT), AND RESET TRAFFIC CONTROL DEVICES (SEE SHEETS TMP-13 THRU TMP-16).

SHIFT TRAFFIC TO NEW PATTERN (SEE SHEETS TMP-13 THRU TMP-16).

STEP2: - USING RSD 1101.02, SHEETS 1 AND 2 OF 19, AND FLAGGERS AS NECESSARY, REMOVE EXISTING PAVEMENT WHERE APPLICABLE, AND CONSTRUCT THE FOLLOWING UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE, WEDGING ABOVE EXISTING PAVEMENT AS NEEDED.

- PROPOSED ROADWAY, AND SIDEWALKS FROM -L- STA. 34+82 +/- TO -L- STA. 49+82 +/- (LT) (SEE SHEETS TMP-14 AND TMP-15).

PROPOSED SPLITTER ISLAND AND CURBING (RT CENTER ISLAND) FROM -L- STA. 35+44 +/- TO -L- STA. 43+88 +/- (SEE SHEETS TMP-14 AND TMP-15).

PROPOSED SPLITTER ISLAND AND CURBING (RT CENTER ISLAND) FROM -L- STA. 46+56 +/- TO -L- STA. 49+70 +/- (SEE SHEET TMP-15).

PROPOSED ROADWAY, AND SIDEWALK ON -Y10- (LT) (SEE SHEET TMP-16).

PROPOSED ROADWAY, AND SIDEWALKS, FROM -L- STA. 50+98 +/-TO -L- STA. 60+50 +/- (RT) (SEE SHEET TMP-16).

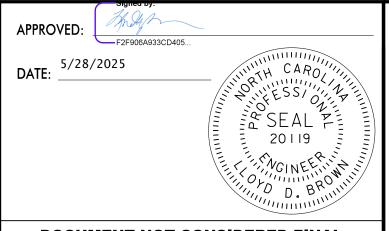


Prepared in the Office of:

JOHNSON, MIRMIRAN, & THOMPSON, INC.

1318 Patton Avenue, Suite F,

Asheville NC, 28806





PHASING NOTES

PHASING

PROJ. REFERENCE NO.	SHEET NO.
U-6005	TMP-3A

PHASE IV

STEP 1:	-	NECESSARY, COMPLETE THE FOLLOWING IN A CONTINUOUS	
		OPERATION:	

- REMOVE, AS NECESSARY, EXISTING PAVEMENT MARKINGS, PLACE TEMPORARY PAVEMENT MARKINGS (PAINT), AND RESET TRAFFIC CONTROL DEVICES (SEE SHEETS TMP-17 THRU TMP-19).
- REMOVE TEMPORARY CURB RAMP AND REPLACE SIDEWALK, -Y10-STA. 10+90 +/- (LT) (SEE SHEET TMP-19).
- SHIFT TRAFFIC AND PEDESTRIANS TO NEW PATTERN (SEE SHEETS TMP-17 THRU TMP-19).
- STEP 2: USING RSD 1101.02, SHEETS 1 AND 2 OF 19, AND FLAGGERS AS NECESSARY, REMOVE EXISTING PAVEMENT WHERE APPLICABLE, AND CONSTRUCT THE FOLLOWING:
 - PROPOSED CURB AND GUTTER, AND SIDEWALKS FROM -L- STA. 28+70 +/- TO -L- STA. 31+80 +/- (RT) (SEE SHEET TMP-17).
 - PROPOSED CURB AND GUTTER FROM -L- STA. 37+41 +/- TO -L- STA. 43+88 +/- (LT CENTER ISLAND) (SEE SHEETS TMP-17 AND TMP-18).
 - PROPOSED CURB AND GUTTER FROM -L- STA. 47+13 +/- TO -L-STA. 50+58 +/- (CENTER ISLAND) (SEE SHEETS TMP-18 AND TMP-19).
 - PROPOSED SPLITTER ISLAND FROM -L- STA. 51+21 +/- TO -L- STA. 51+73 +/- (SEE SHEET TMP-19).
 - PROPOSED CURB AND GUTTER FROM -L- STA. 56+71 +/- TO -L- STA. 58+90 +/- (RT CENTER ISLAND) (SEE SHEET TMP-19).

PHASE V

- STEP 1: USING RSD 1101.02, SHEETS 1 AND 2 OF 19, AND FLAGGERS AS NECESSARY, COMPLETE THE FOLLOWING IN A CONTINUOUS OPERATION:
 - REMOVE, AS NECESSARY, EXISTING PAVEMENT MARKINGS, PLACE TEMPORARY PAVEMENT MARKINGS (PAINT), AND RESET TRAFFIC CONTROL DEVICES (SEE SHEETS TMP-20 AND TMP-21).
 - SHIFT TRAFFIC TO NEW PATTERN (SEE SHEETS TMP-20 AND TMP-21).
- STEP 2: USING RSD 1101.02, SHEETS 1 AND 2 OF 19, AND FLAGGERS AS NECESSARY, REMOVE EXISTING PAVEMENT WHERE APPLICABLE, AND CONSTRUCT THE FOLLOWING:
 - PROPOSED SPLITTER ISLAND AND CURBING FROM -L- STA. 21+45 +/- TO -L- STA. 29+91 +/- (CENTER ISLAND) (SEE SHEETS TMP-20 AND TMP-21).
 - PROPOSED SPLITTER ISLAND AND CURBING FROM -L- STA. 31+13 +/- TO -L- STA. 34+56 +/- (CENTER ISLAND) (SEE SHEET TMP-21).
 - PROPOSED SPLITTER ISLAND ON -Y7Rev- (SEE SHEET TMP-21).

PHASE VI

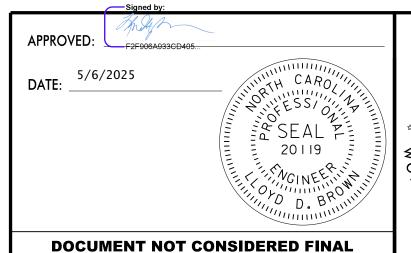
- STEP 1: USING ROADWAY STANDARD DRAWINGS NO. 1101.02, SHEETS 1 AND 2 OF 19, AND FLAGGERS AS NECESSARY, PLACE FINAL LAYER OF SURFACE COURSE.
- STEP 2: USING ROADWAY STANDARD DRAWINGS NO. 1101.02, SHEET 14
 OF 19, PLACE FINAL PAVEMENT MARKINGS (THERMOPLASTIC) AND
 MARKERS (SNOWPLOWABLE) ON ENTIRE PROJECT (SEE PMP
 PLANS).
- STEP 3: USING FLAGGERS AS NECESSARY, REMOVE ALL TEMPORARY TRAFFIC CONTROL DEVICES, AND PLACE TRAFFIC IN ITS FINAL TRAFFIC PATTERN.

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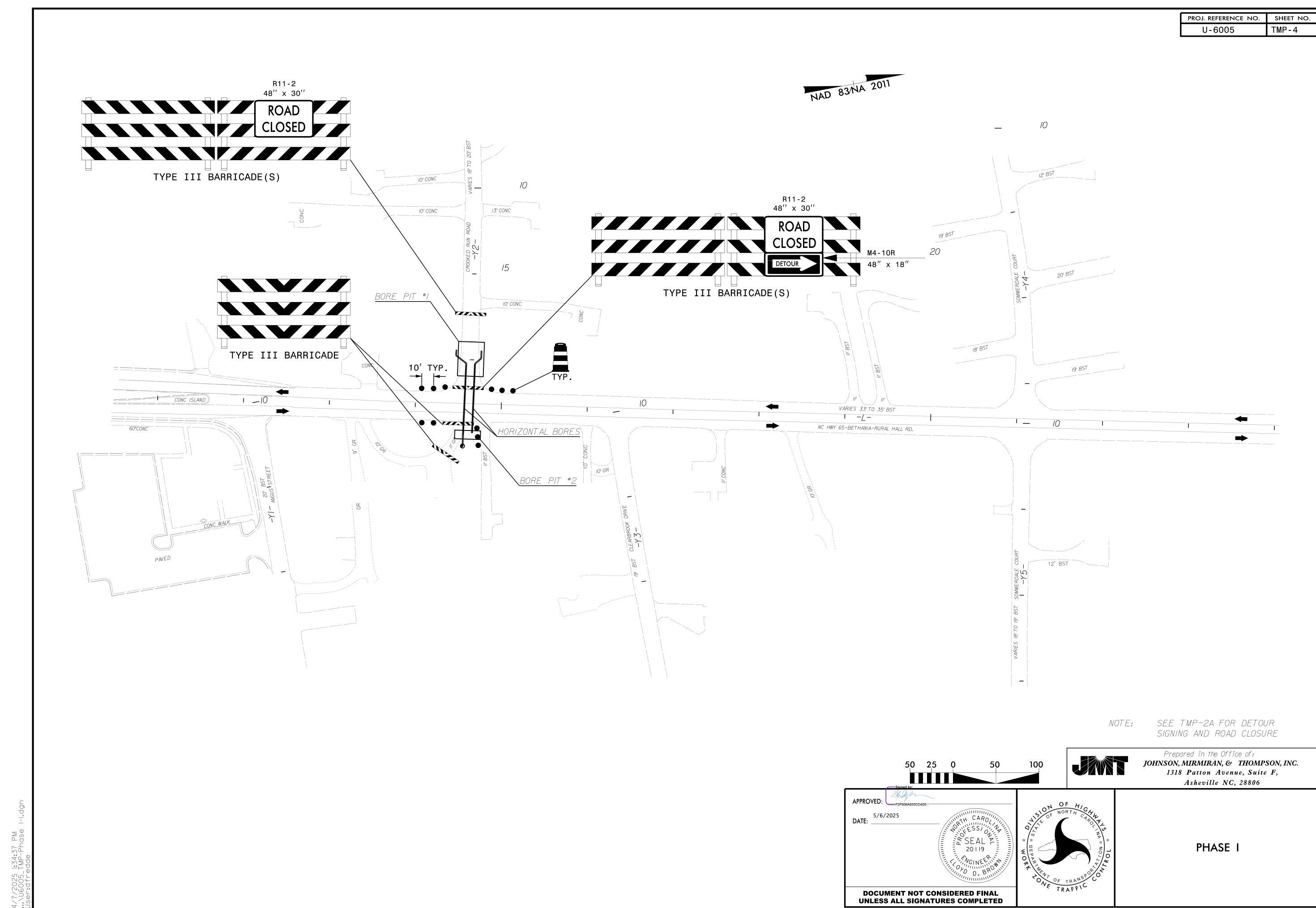
Asheville NC, 28806

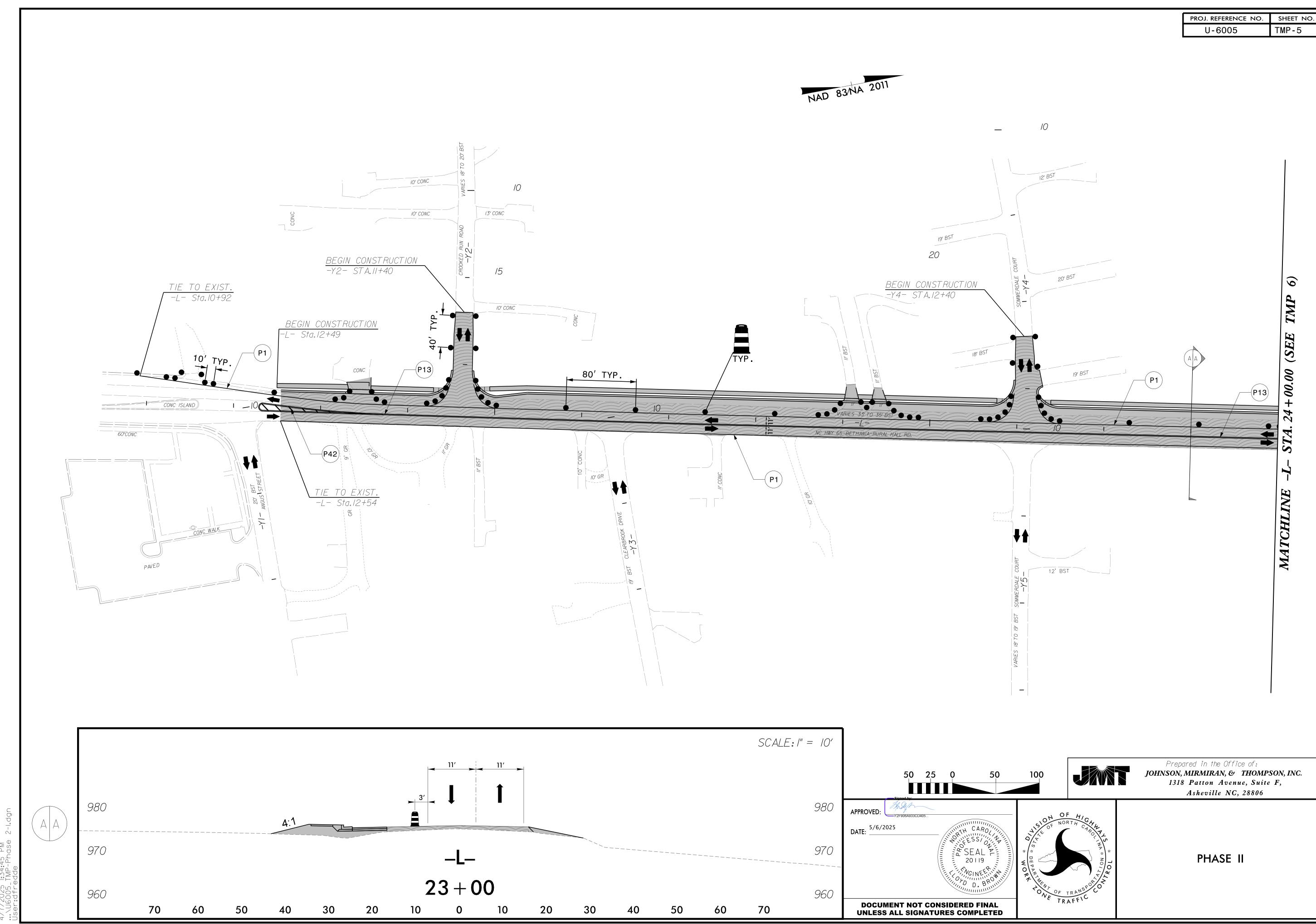


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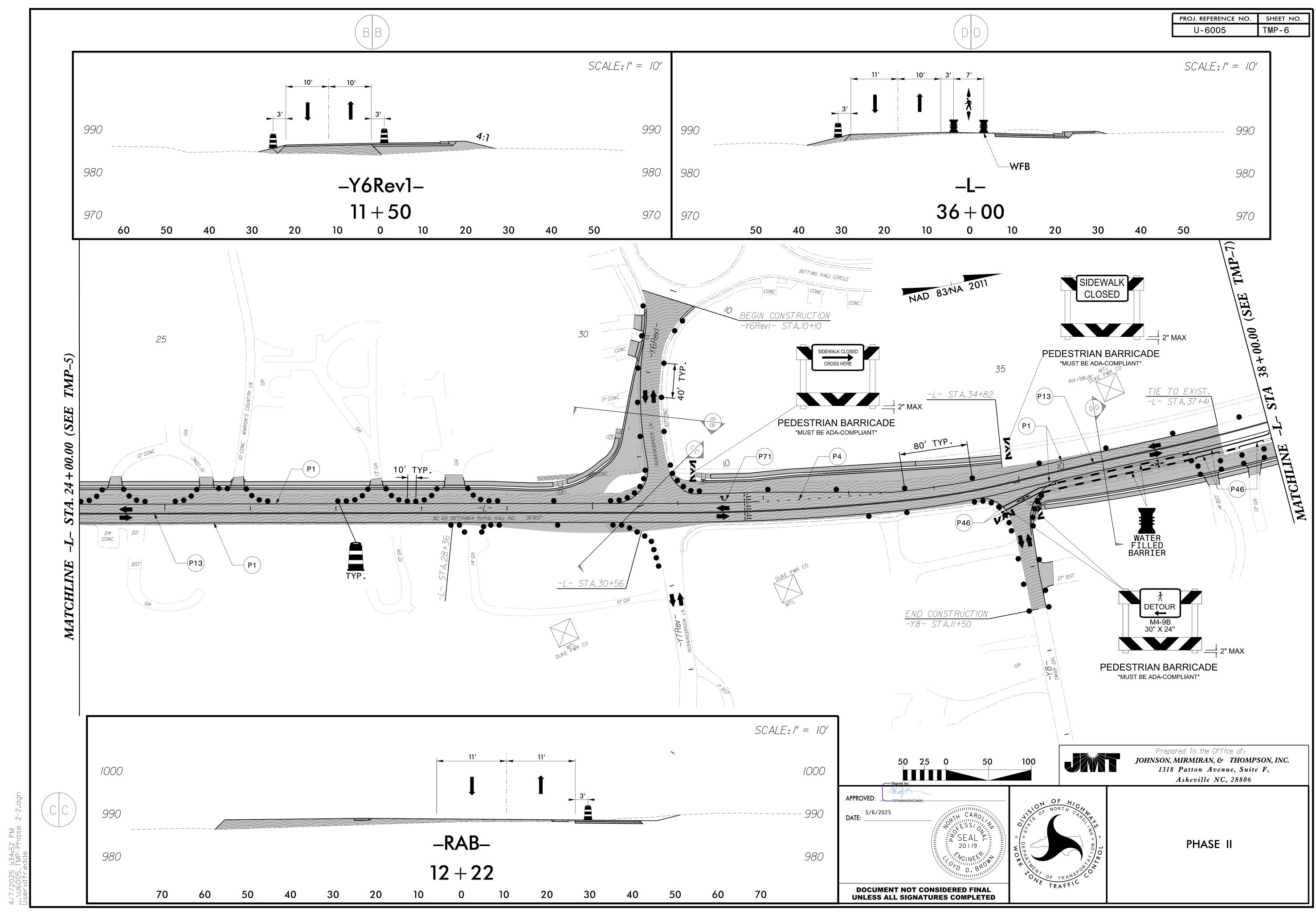


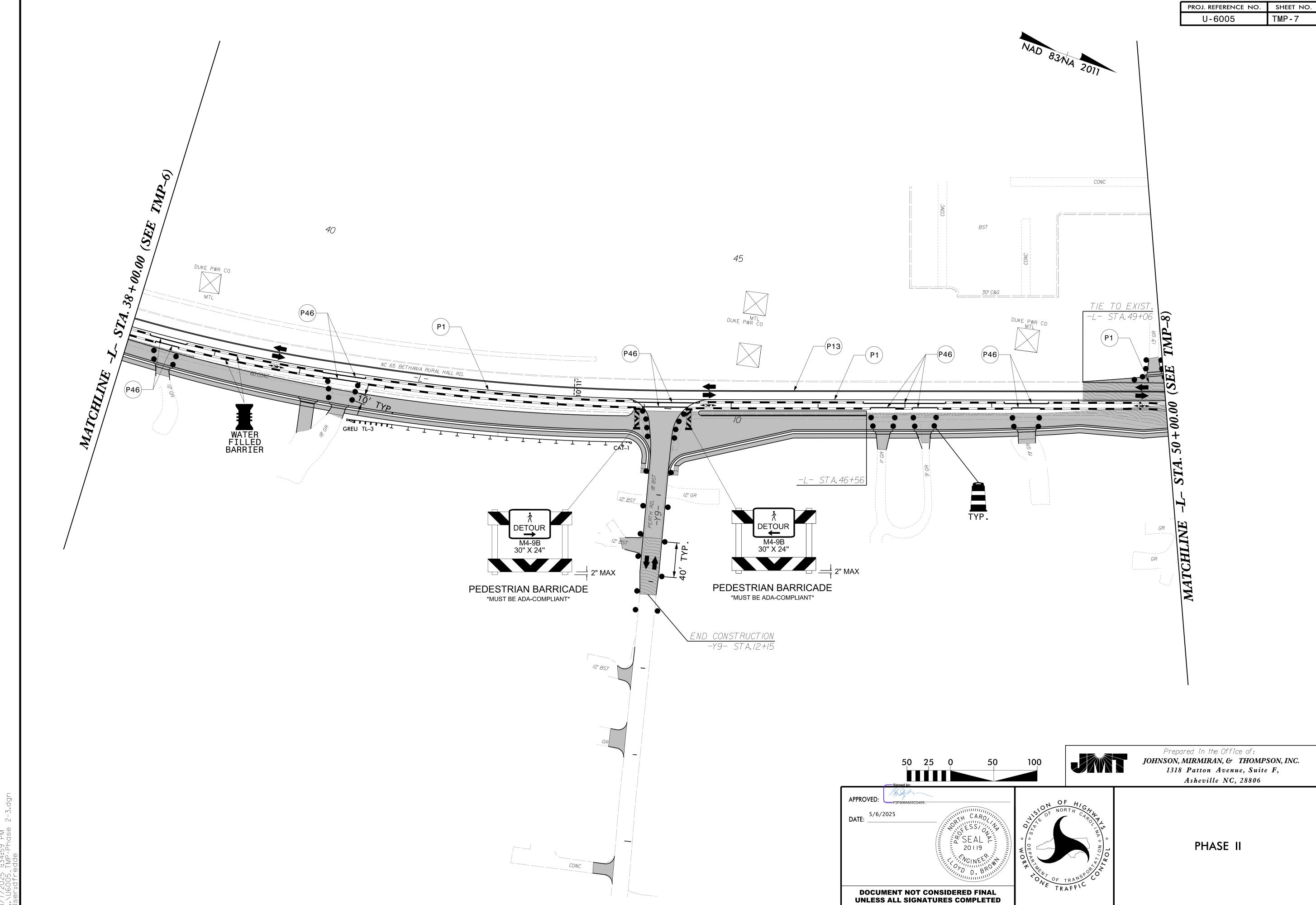
PHASING NOTES



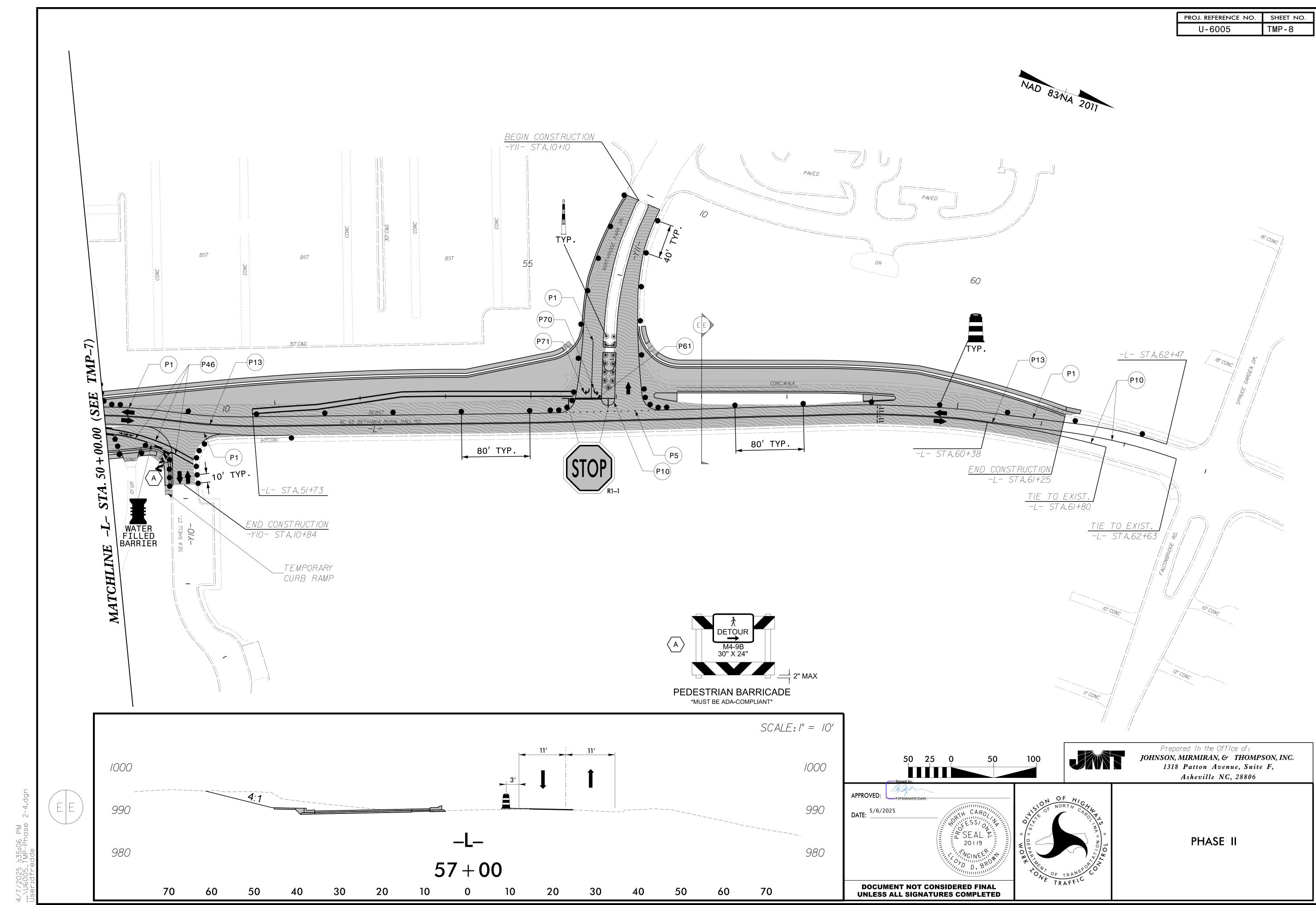


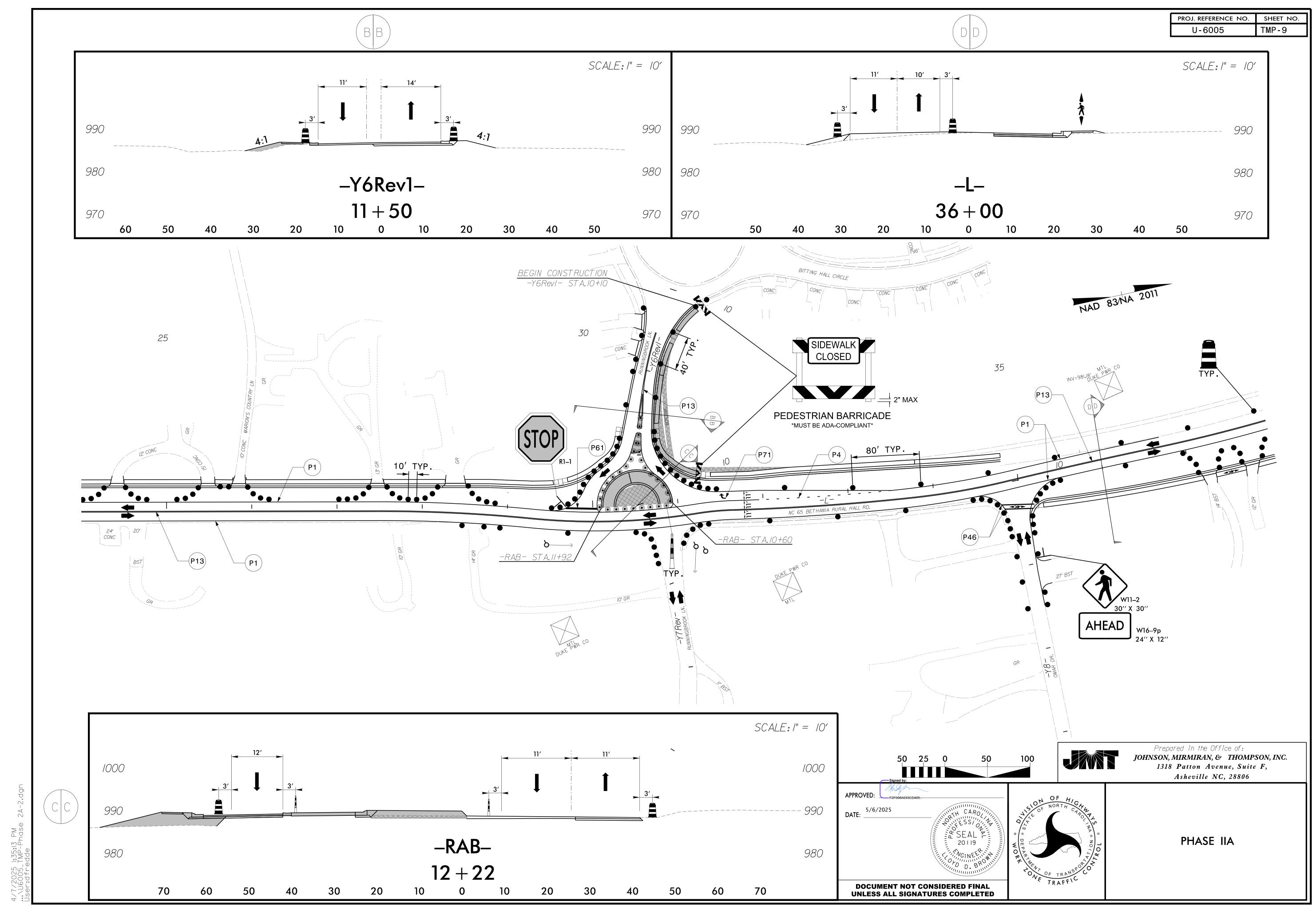
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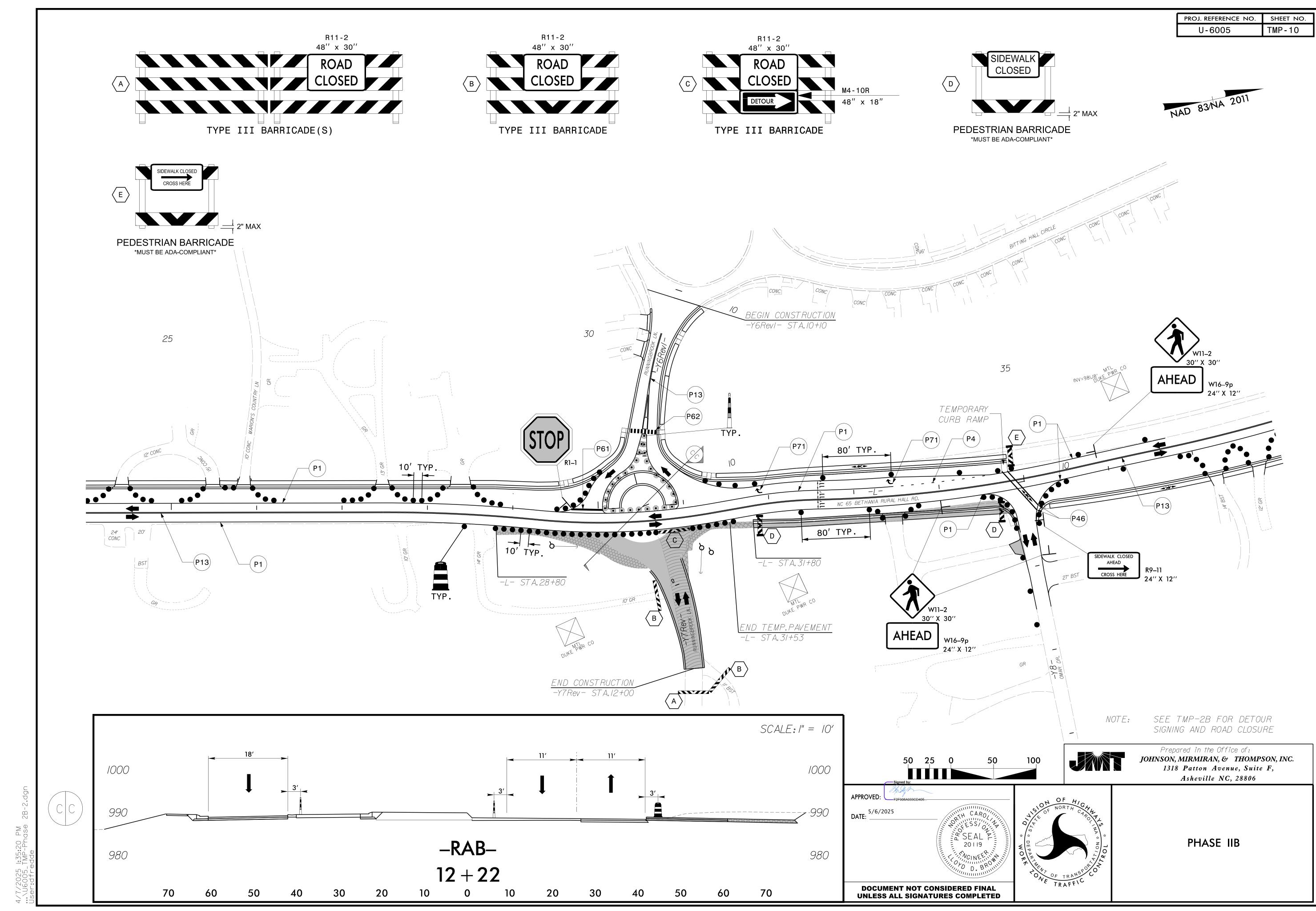


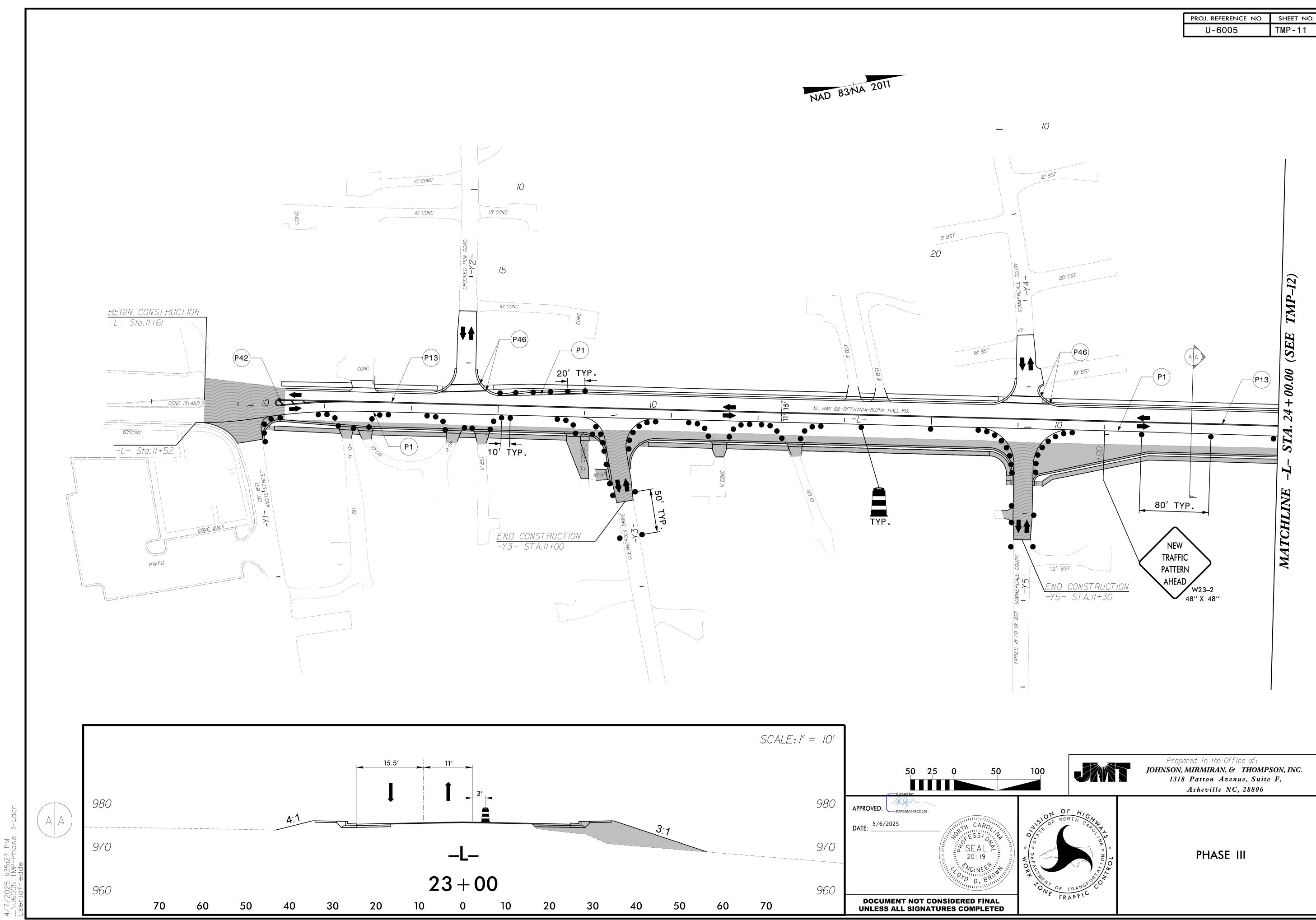


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PROJ. REFERENCE NO. SHEET NO. TMP-12 U-6005 R11-2 48" x 30" (A) CLOSED TYPE III BARRICADE PEDESTRIAN BARRICADE PEDESTRIAN BARRICADE *MUST BE ADA-COMPLIANT* *MUST BE ADA-COMPLIANT* PATTERN W24-1R 48'' X 48'' W23–2 48'' X 48'' 48" X W13-1 24" X 24" -Y6RevI- STA.10+10 25 PORTABLE CONCRETE (P62) BARRIER TEMPORARY_ CURB_RAMP -RAB- STA.10+60 80' TYP. 11.5′ NC HWY 65-BETHANIA-RURAL HALL RD. I —<u>/</u> — 80' TYP. 10' TYP. 80' TYP. <u>-RAB-</u> STA.11+92 (P1) -L- STA.28+80 -L- STA.30+00 AHEAD AHEAD W24-1R 48" X 48" END CONSTRUCTION -Y7Rev- STA.12+00 SCALE: /" = 10' Prepared in the Office of:

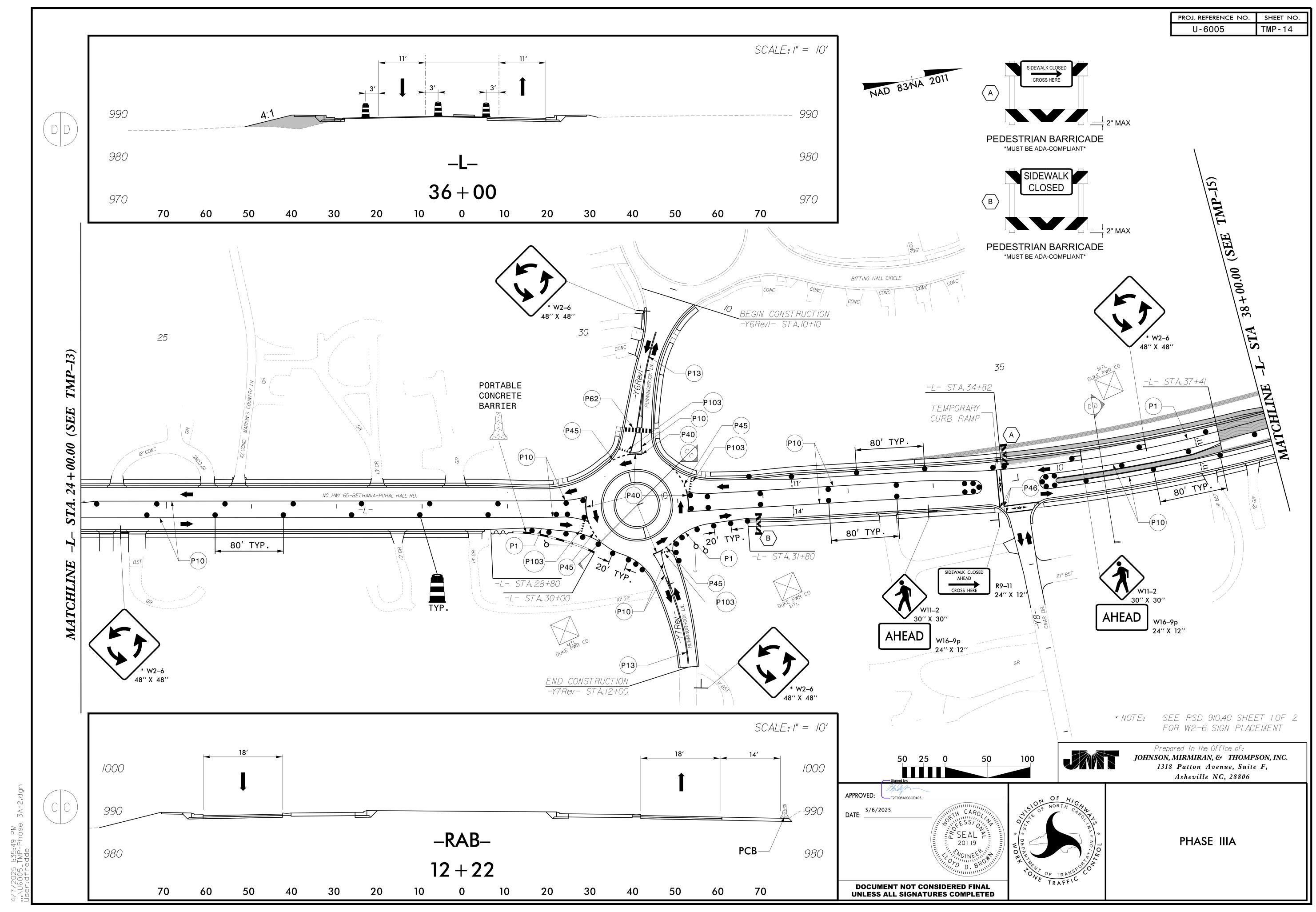
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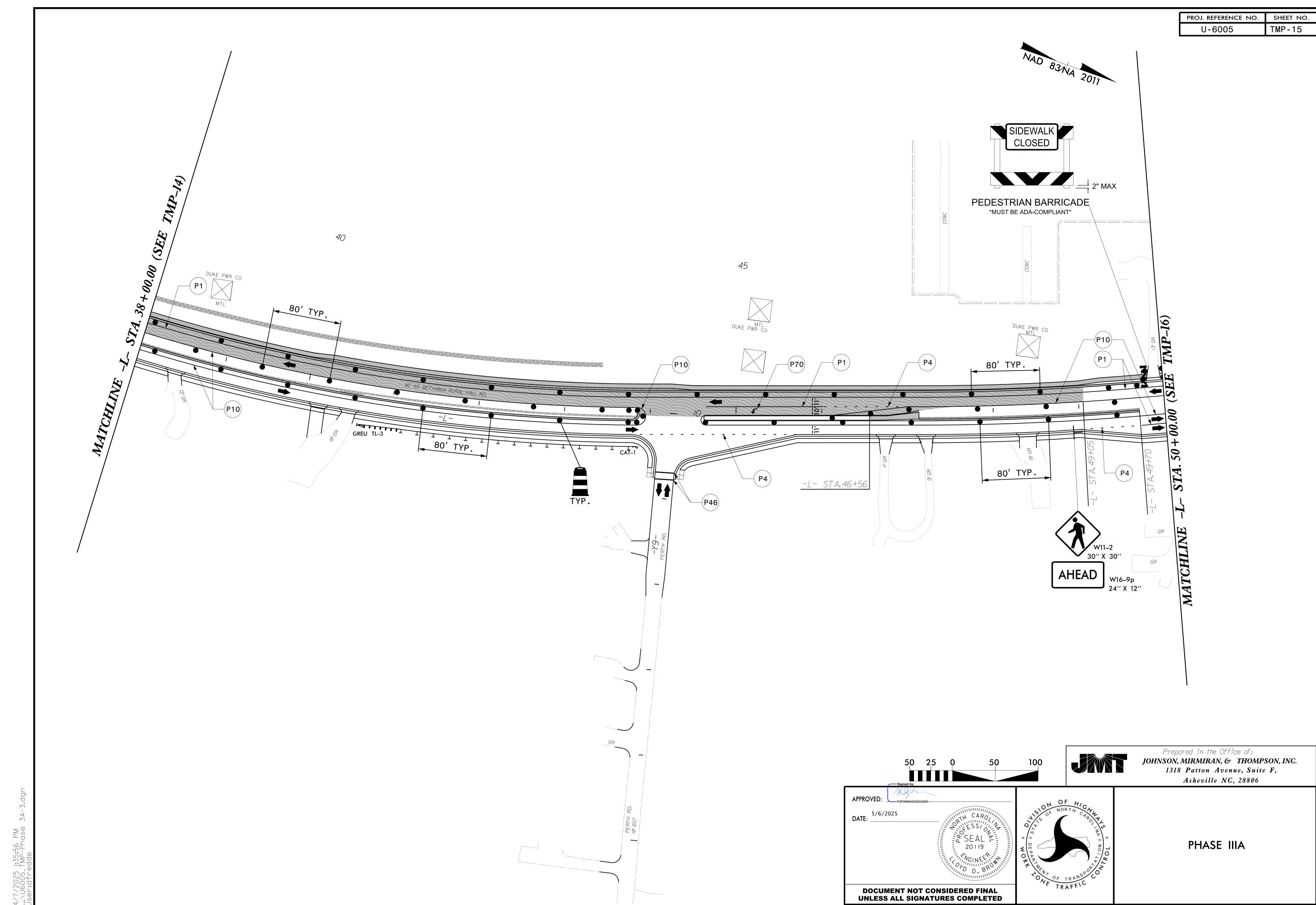
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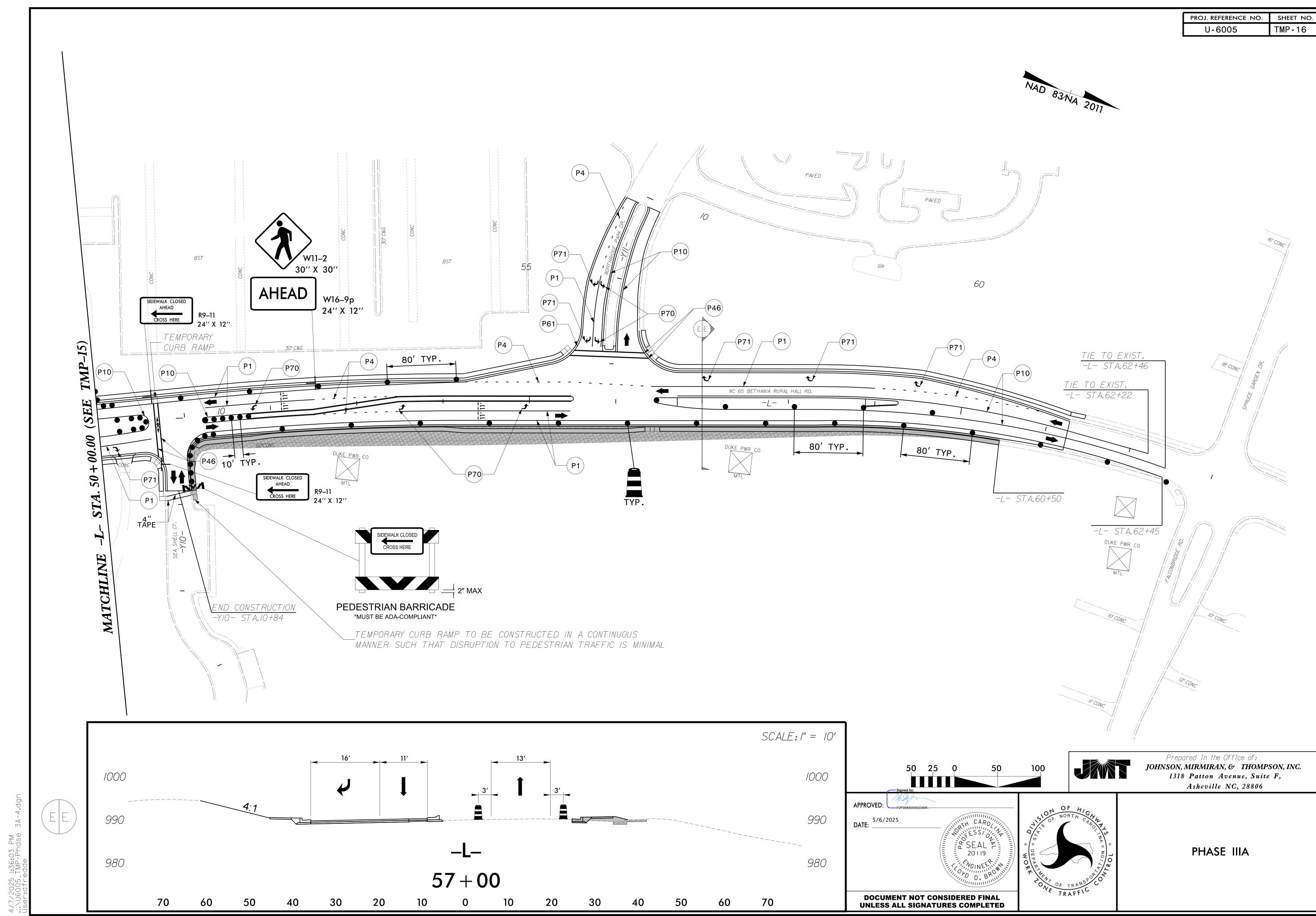
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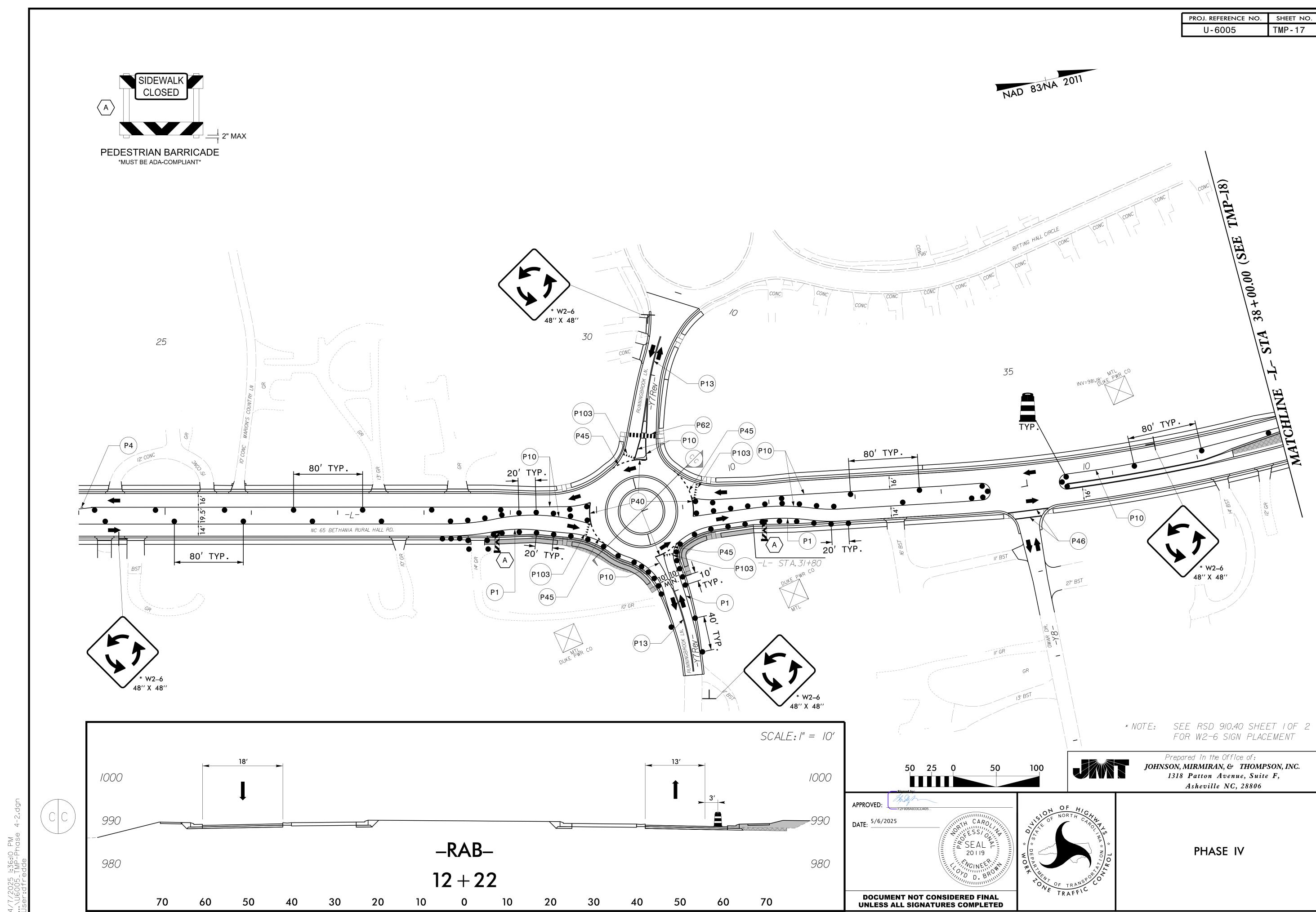
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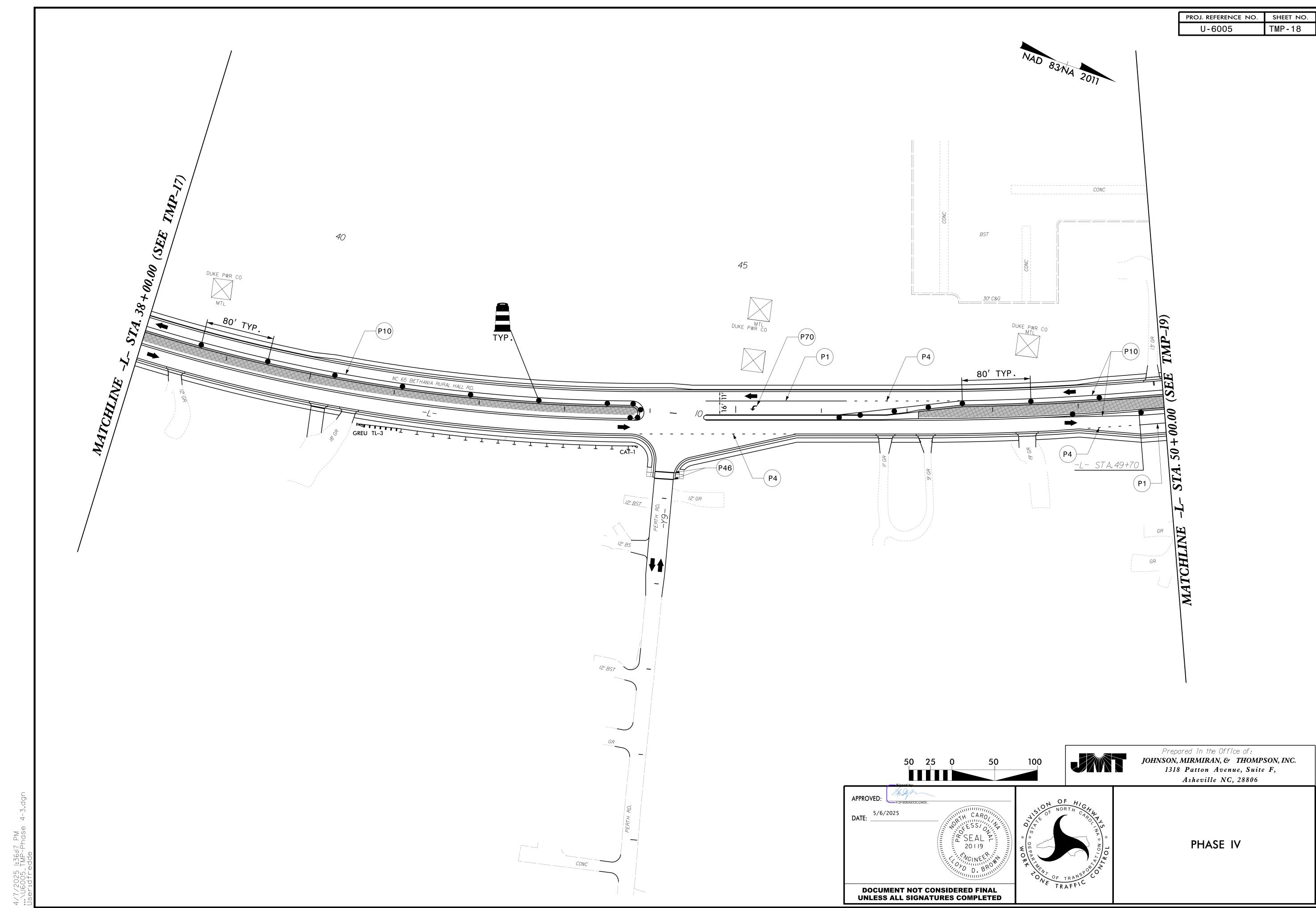


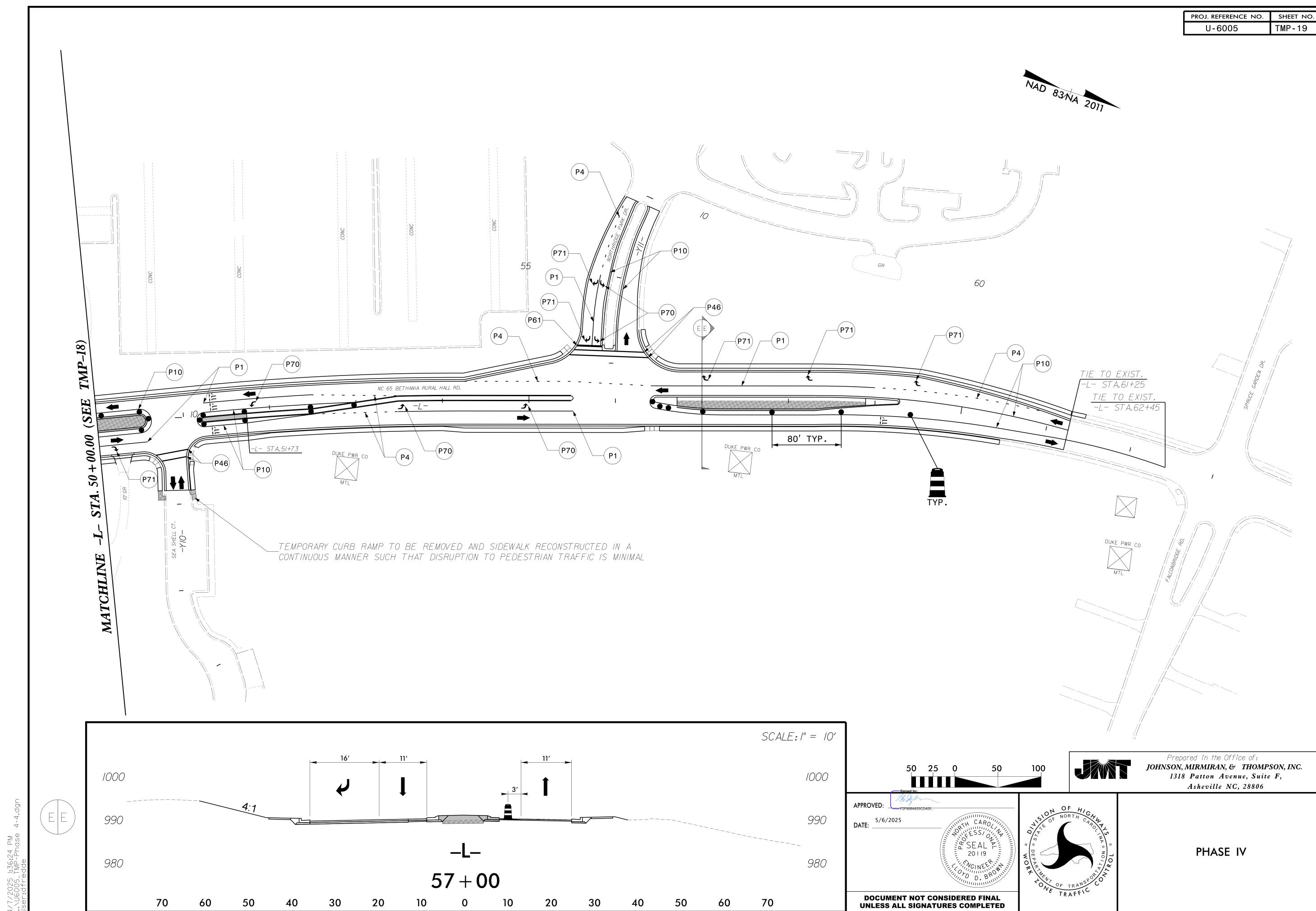






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