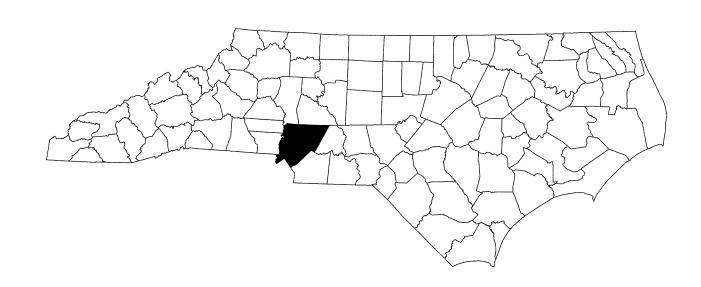
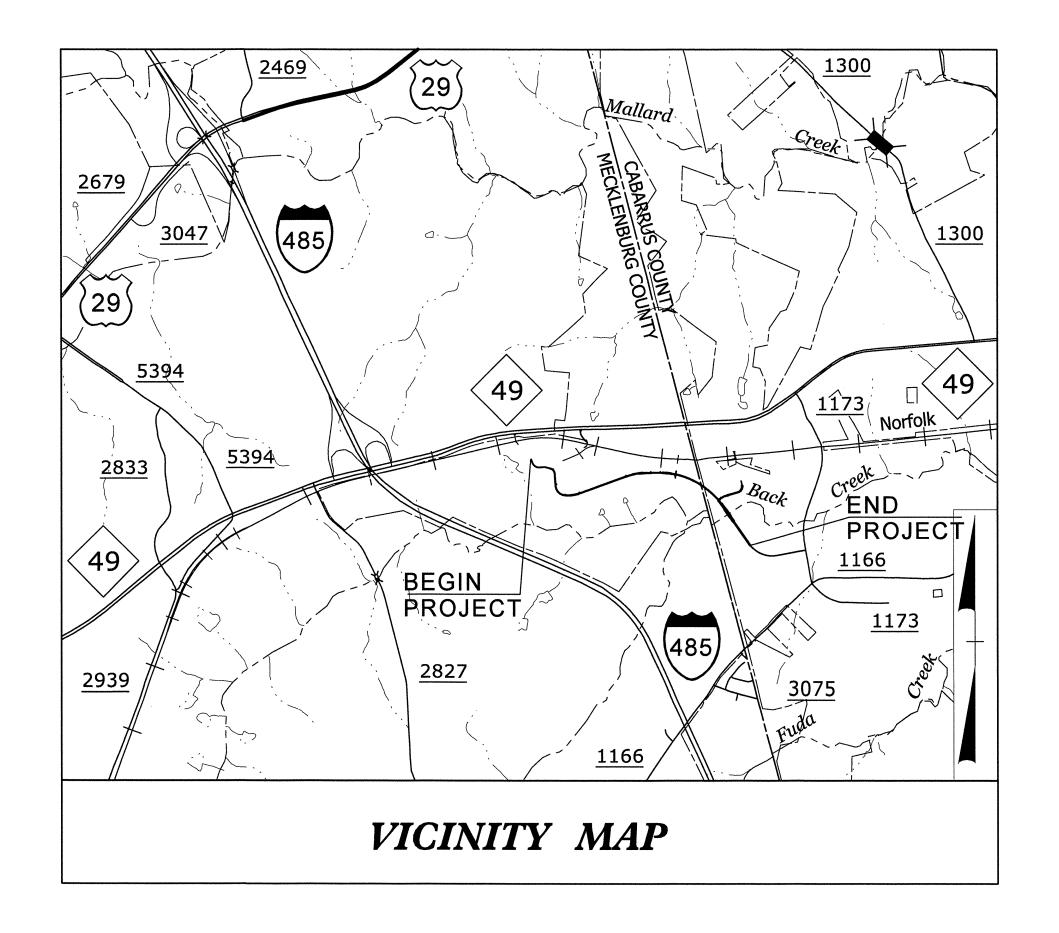
# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS



# TRANSPORTATION MANAGEMENT PLAN

# MECKLENBURG & CABARRUS COUNTIES





SHEET NO.

TITLE

TMP - 1

TMP-1A

TITLE SHEET, AND INDEX OF SHEETS

LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, AND TEMPORARY PAVEMENT MARKING

GENERAL NOTES

TMP-3

TMP-2

PHASE I

TMP-4

PHASE II

PROJECT:

.5208E

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

N.C.D.O.T. WORK ZONE TRAFFIC CONTROL

1561 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1561

750 N. GREENFIELD PARKWAY, GARNER, NC 27529 (DELIVERY)

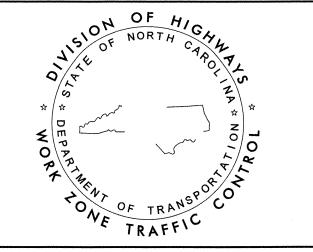
PHONE: (919) 773-2800 FAX: (919) 771-2745

J. S. BOURNE, P.E. STATE TRAFFIC MANAGEMENT ENGINEER

G. L. GETTIER, P.E. TRAFFIC CONTROL PROJECT ENGINEER

J. W. GILSTRAP TRAFFIC CONTROL PROJECT DESIGN ENGINEER

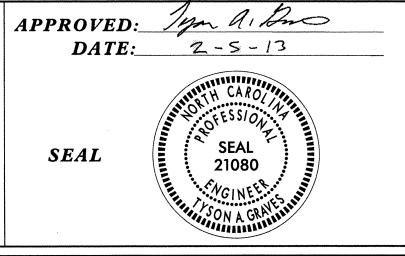
TRAFFIC CONTROL DESIGN ENGINEER





Florence & Hutcheson

CONSULTING ENGINEERS
5121 Kingdom Way, Suite 100 Raleigh, NC 27607



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Florence & Hutcheson

PROJ. REFERENCE NO. SHEET NO. P-5208E TMP-1A

Consulting Engineers 5121 Kingdom Way, Suite 100 Raleigh, NC 27607

## ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" -PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2012 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	FLAGGING DEVICES
1180.01	SKINNY-DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES & OFFSETS
1205.02	PAVEMENT MARKINGS - 2 LANE & MULTILANE ROADWAYS
1205.12	PAVEMENT MARKINGS - BRIDGES
1250.01	PAVEMENT MARKER SPACING
1251.01	RAISED PAVEMENT MARKERS - (TEMPORARY)

## **LEGEND**

DIRECTION OF PEDESTRIAN TRAFFIC FLOW

DIRECTION OF TRAFFIC FLOW

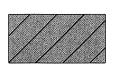
---- EXIST. PVMT.

NORTH ARROW

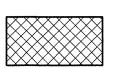
----- PROPOSED PVMT.

**GENERAL** 

WORK AREA



WORK CONTINUED



REMOVAL

#### TRAFFIC CONTROL DEVICES

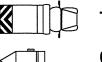
BARRICADE (TYPE III)

DRUM SKINNY DRUM O TUBULAR MARKER

TEMPORARY CRASH CUSHION FLASHING ARROW PANEL (TYPE C)



LAW ENFORCEMENT



TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)

CHANGEABLE MESSAGE SIGN

#### TEMPORARY SIGNING

O PORTABLE SIGN

— STATIONARY SIGN

STATIONARY OR PORTABLE SIGN

#### SIGNALS

EXISTING

#### PAVEMENT MARKINGS

----EXISTING LINES ----TEMPORARY LINES

#### PAVEMENT MARKERS

CRYSTAL/CRYSTAL

CRYSTAL/RED YELLOW/YELLOW

## PAVEMENT MARKING SYMBOLS

PAVEMENT MARKING SYMBOLS

# TEMPORARY PAVEMENT MARKING

**DESCRIPTION** 

PAINT (4")

WHITE EDGELINE

DOUBLE YELLOW CENTERLINE 2' - 6' WHITE MINISKIP

PAINT (24")

P4 WHITE STOP BAR

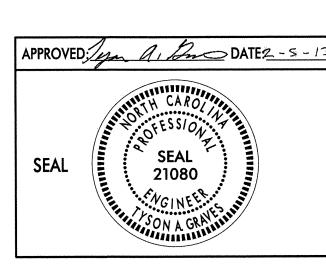
REMOVABLE TAPE (4")

WHITE EDGELINE

DOUBLE YELLOW CENTERLINE

TEMPORARY RAISED MARKERS

YELLOW/YELLOW





ROADWAY STANDARD DRAWINGS & LEGEND

## 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.

#### LANE AND SHOULDER CLOSURE REQUIREMENTS

- A) 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.
- B) 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.
- C) 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.
- ) 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.

#### TRAFFIC PATTERN ALTERATIONS

E) NOTIFY THE ENGINEER TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

#### SIGNING

- F) 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.
  - PROVIDE SIGNING REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONTROL PLANS.
- ) COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.

  COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE

DETOUR WHEN THE DETOUR IS NOT IN OPERATION.

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

#### TRAFFIC CONTROL DEVICES

- J) 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), 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.
- K) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.

#### PAVEMENT MARKINGS AND MARKERS

- L) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS SHOWN IN THE PAVEMENT MARKING PLAN.
- M) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME

MARKING

MARKER

ALL ROADS BRIDGES

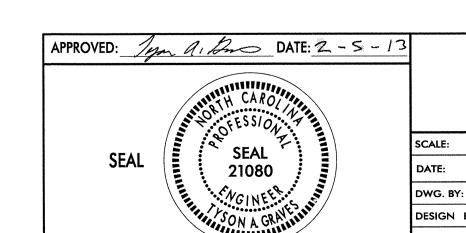
PAINT REMOVABLE TAPE TEMPORARY RAISED TEMPORARY RAISED

- N) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- O) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.





PROJ. REFERENCE NO. SHEET NO. TMP-2



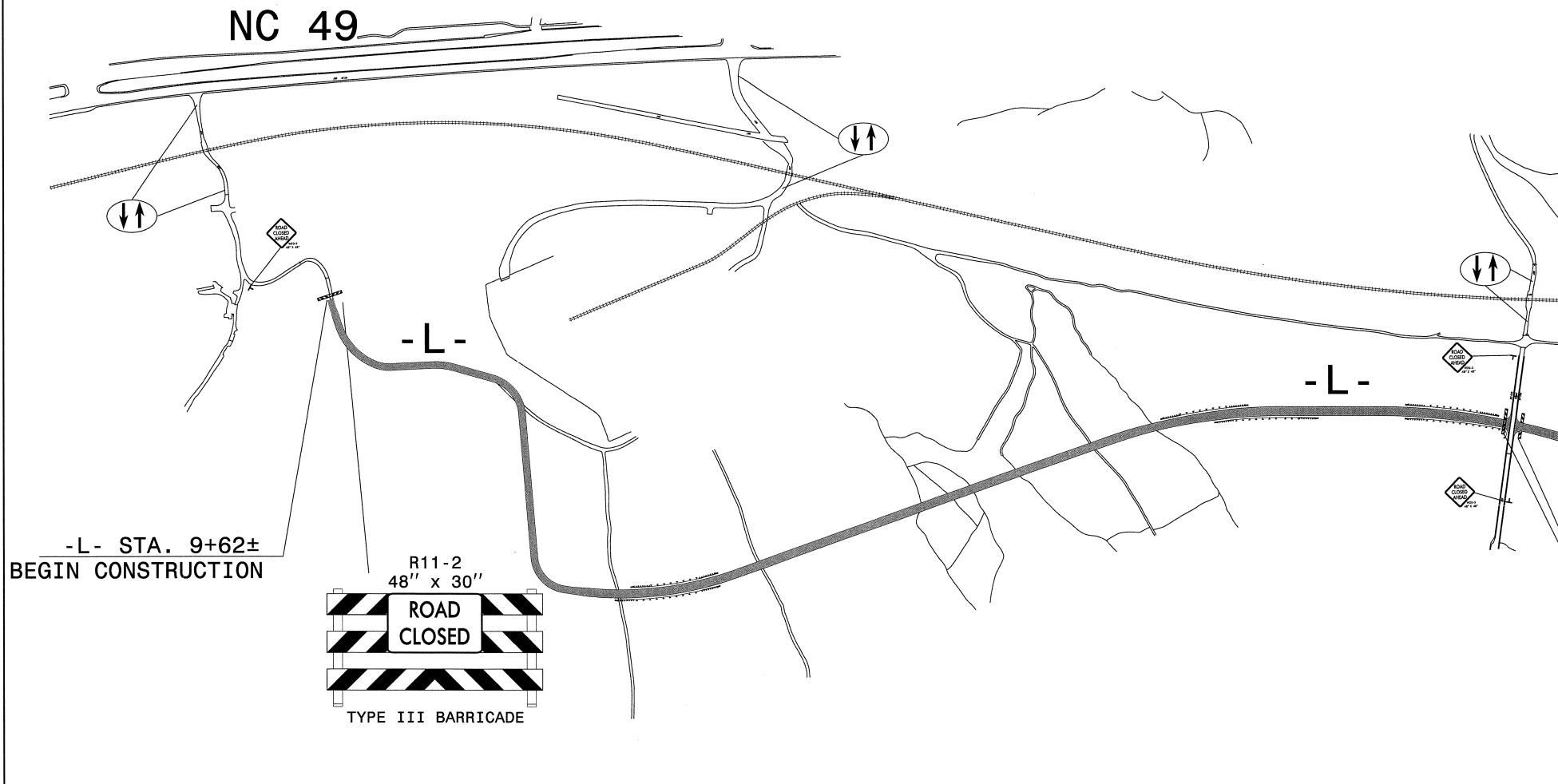
GENERAL NOTES

NONE	OHOF
JAN-13	S C NGINEER NORTH
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A CHANGE			
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PROJ. REFERENCE NO. P-5208E TMP-3



#### PHASE I

USING ROADWAY STANDARD DRAWING NUMBER 1101.01, INSTALL ADVANCE WARNING SIGNS ON -L- AND ALL -Y- LINES.

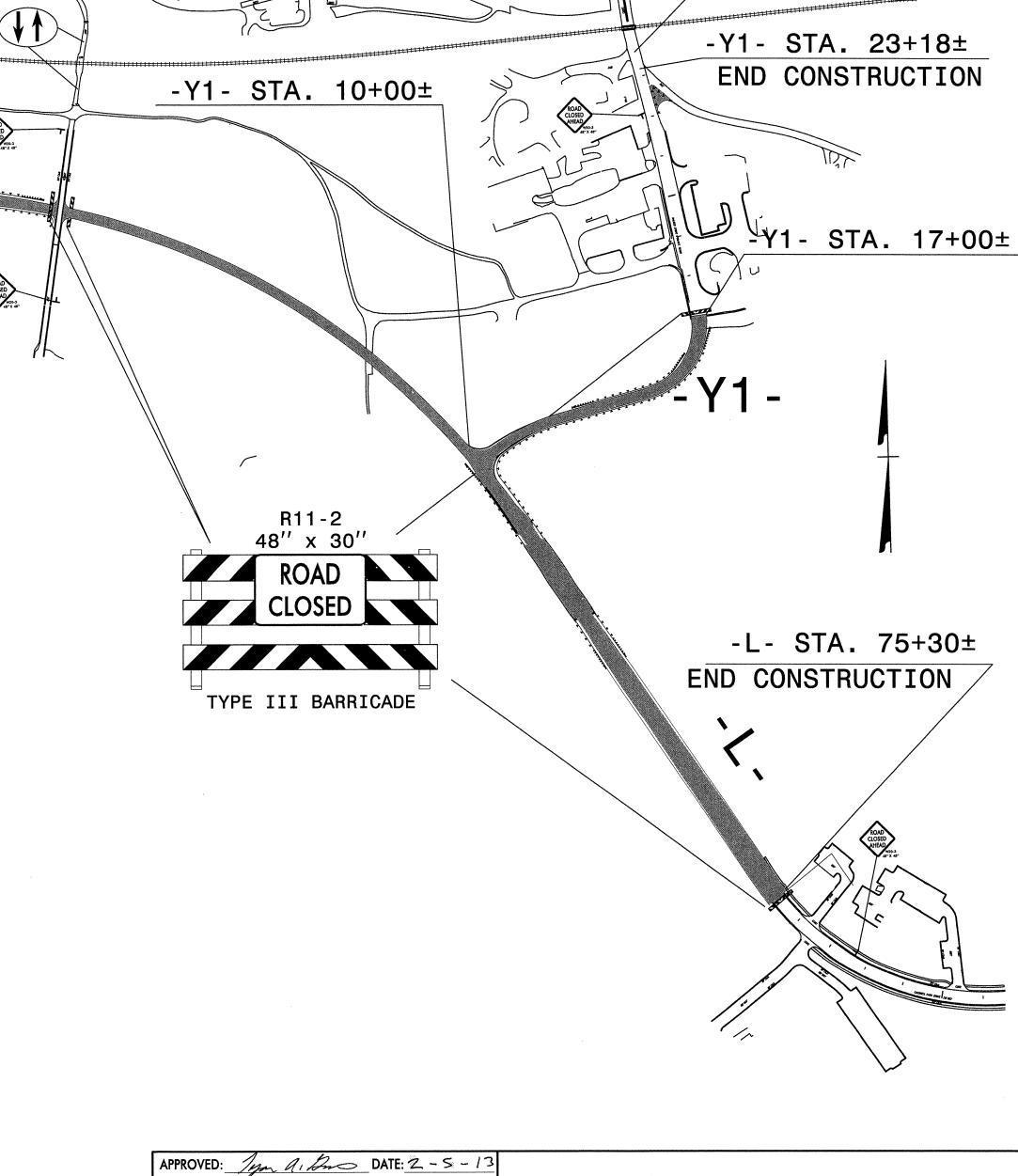
### STEP 1

USING ROADWAY STANDARD DRAWING 1101.03 (SHEETS 1 AND 2 OF 9), INSTALL ROADWAY CLOSURE SIGNS.

#### STEP 2

AWAY FROM TRAFFIC, CONSTRUCT BRIDGE AND ROADWAY UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE FROM:

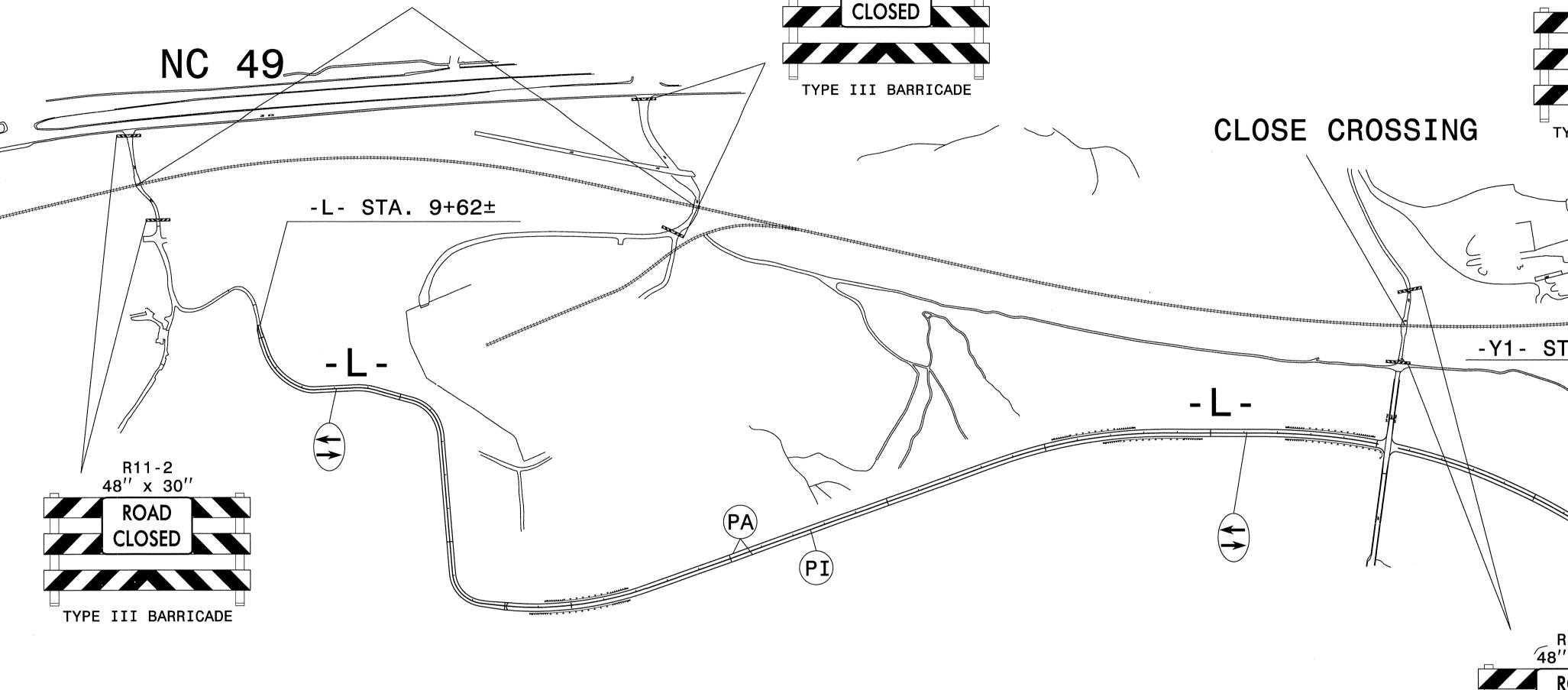
-L- STA. 9+62± TO -L- STA. 75+30± -Y1- STA. 10+00± TO -Y1- STA. 17+00± Driveway near -Y1- STA. 22+00±



PHASE I OVERVIEW

JAN-13

DWG. BY: TAG DESIGN BY: TAG



R11-2 48" x 30"

PHASE II

CLOSE CROSSINGS

### STEP 1

AWAY FROM TRAFFIC, INSTALL TEMPORARY PAVEMENT MARKINGS AND MARKERS, AND PERMANENT SIGNING.

### STEP 2

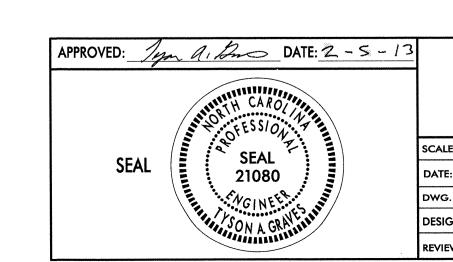
OPEN TRAFFIC ONTO PROPOSED ROADWAY AND BRIDGES AS SHOWN ON SHEET TMP-4. USING ROADWAY STANDARD DRAWING 1101.03 (SHEETS 1 AND 2), CLOSE CROSSINGS USING BARRICADES.

#### STEP 3

USING ROADWAY STANDARD DRAWING 1101.02 (SHEET 1 OF 15), PAVE THE FINAL LAYER OF SURFACE COURSE ON -L- AND ALL -Y- LINES, AND INSTALL FINAL PAVEMENT MARKINGS AND MARKERS (SEE FINAL PAVEMENT MARKING PLANS).

### STEP 4

REMOVE TEMPORARY DEVICES AS DIRECTED BY THE ENGINEER, AND OPEN TO TRAFFIC.



TYPE III BARRICADE

# PHASE II OVERVIEW

-L- STA. 75+30±

END CONSTRUCTION /

**JAN-13** DWG. BY: TAG