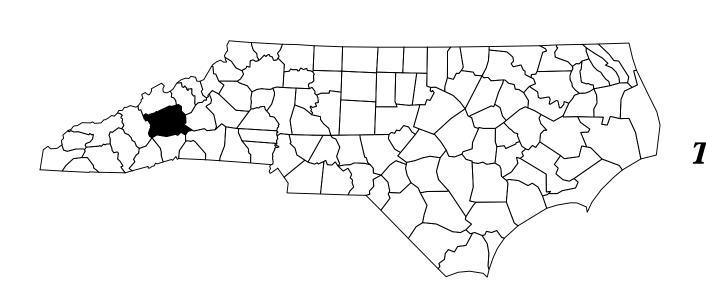
## STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

# TRANSPORTATION MANAGEMENT PLAN

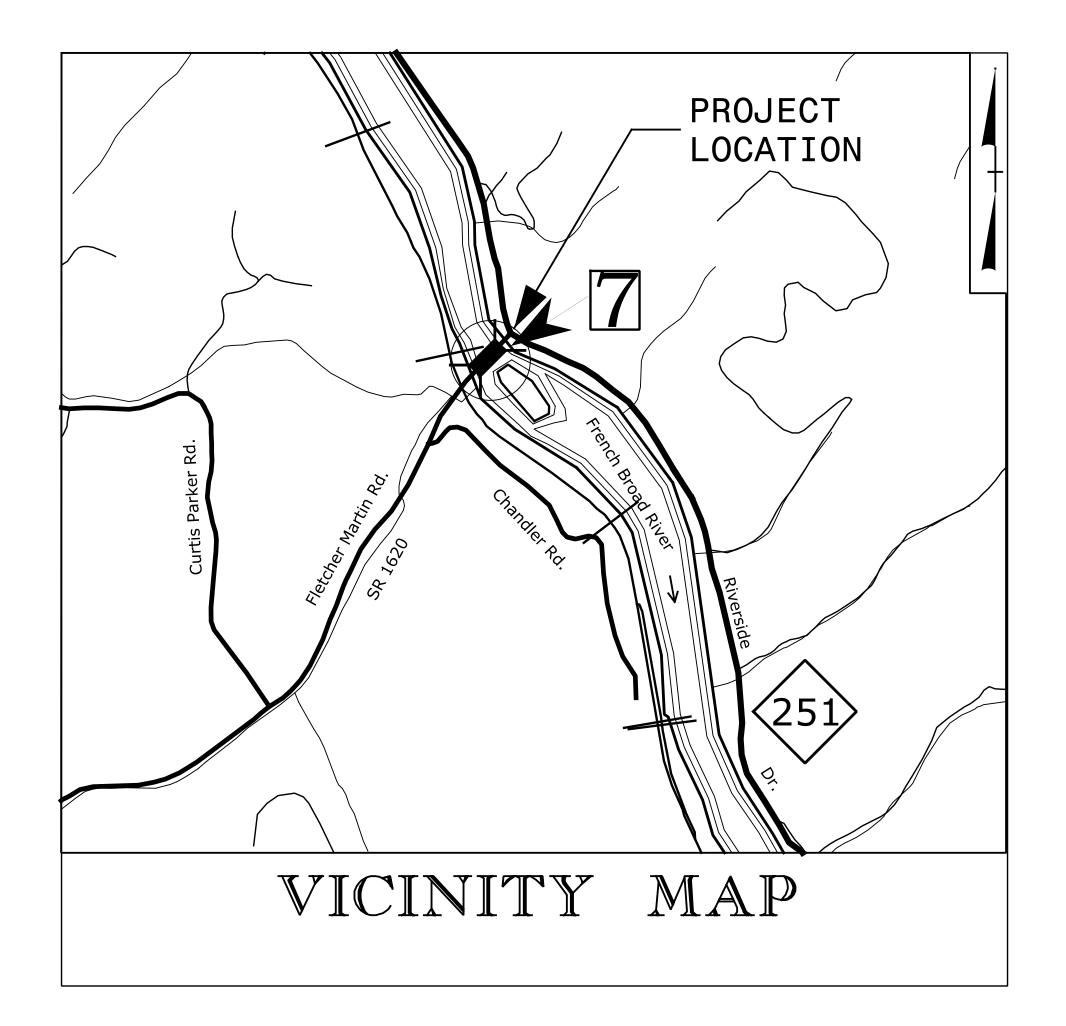
# BUNCOMBE COUNTY



LOCATION: BRIDGE #100007 ON SR 1620 (FLETCHER MARTIN RD.) OVER FRENCH BROAD

RIVER

TYPE OF WORK: BRIDGE PRESERVATION



## INDEX OF SHEETS

SHEET NO. TITLE TMP - 1

TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND LEGEND

SHEET NO.

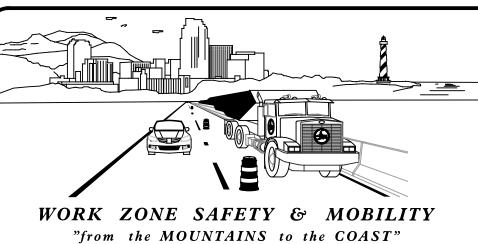
TMP-1

TMP-1A

TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES, GENERAL NOTES, AND LOCAL NOTES) TMP-2

PHASING TMP-3 PHASE I TMP-4

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



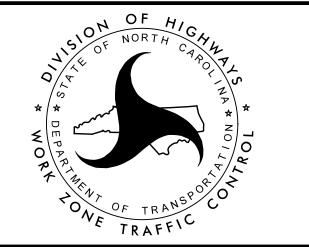
PLANS PREPARED BY:

JOHN BAUMAN, PE

STEVE MILLER, PE PROJECT ENGINEER NCDOT CONTACTS:

COLT JACKSON TRAFFIC SERVICES

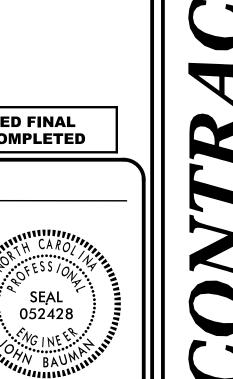
DIVISON BRIDGE MAINTENANCE



1 Glenwood Avenue Raleigh, NC 27603 Tel:919.789.9977 Fax:919.789.9591 License: F-0453

APPROVED: John Bauman DATE: 8/18/2025

SEAL



PROJECT DESIGN ENGINEER

JONATHAN PHILLIPS, PLS

## 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 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
1101.04	TEMPORARY SHOULDER CLOSURES
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 - TYPE III
1150.01	FLAGGING DEVICES
1180.01	SKINNY DRUMS
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS
1205.12	PAVEMENT MARKINGS - BRIDGES

## **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

USER DEFINED (IF NEEDED)

USER DEFINED (IF NEEDED)

#### SIGNALS









## PAVEMENT MARKINGS

——EXISTING LINES ——TEMPORARY LINES

#### TRAFFIC CONTROL DEVICES

BARRICADE (TYPE III) 

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

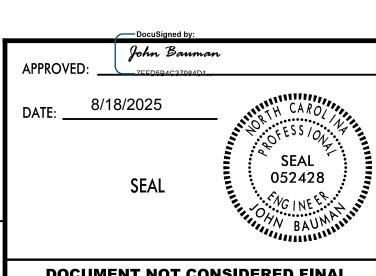
PAINT (4")

WHITE EDGELINE

YELLOW DOUBLE CENTER

PAINT (24")

P61 WHITE STOPBAR





ROADWAY STANDARD DRAWINGS & LEGEND

Raleigh, NC 27603 Tel:919.789.9977

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

SHEET NO. PROJ. REFERENCE NO. TMP-2 15BPR.122.3

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 NC 251 MONDAY-FRIDAY 7:00 A.M. - 9:00 A.M. 4:00 P.M. - 6:00 P.M.

SR 1620(FLETCHER MARTIN RD.) MONDAY-FRIDAY 7:00 A.M. - 9:00 A.M. 4:00 P.M. - 6:00 P.M.

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS: ROAD NAME: NC 251, SR 1620(FLETCHER MARTIN RD.)

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

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

- 6. FOR LABOR DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY AND 6:00 P.M. TUESDAY.
- 7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 7:00 A.M. TUESDAY TO 6:00 P.M. MONDAY.
- 8. FOR CHRISTMAS, BETWEEN THE HOURS OF 7:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 6:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

#### LANE AND SHOULDER CLOSURE REQUIREMENTS

- C) 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.
- D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.

E) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 5 FT OF AN OPEN O) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN TRAVEL LANE ON AN UNDIVIDED 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 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 P) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES (DRUMS, CONES IS PROTECTED BY BARRIER OR GUARDRAIL.

- F) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- G) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.
- H) USE SEQUENTIAL FLASHING WARNING LIGHTS ON DRUMS USED FOR THE MERGING TAPERS OF NIGHTTIME LANE CLOSURES IN ACCORDANCE WITH SECTION 1140 IN THE STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.

#### 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) (350 FEET) 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

- 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.
- M) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- N) 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.

WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (35 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.

OR SKINNY DRUMS PERPENDICULAR TO THE EDGE OF TRAVELWAY ON (500 FT) CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

#### PAVEMENT MARKINGS AND MARKERS

Q) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS: ROAD NAME MARKING MARKER SR 1620 PAINT NONE

R) 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.

S) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

T) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

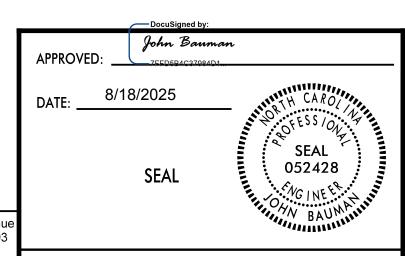
#### **MISCELLANEOUS**

- U) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.
- V) 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) (200 FT) AND (400 FT) RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.
- W) USE TASK LIGHTING FOR ANY NECESSARY NIGHTTIME FLAGGING THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.

## **MANAGEMENT STRATEGIES**

- LOCAL ACCESS TO ALL RESIDENCES AND BUSINESSES WILL BE MAINTAINED BETWEEN CLOSURE POINTS AT ALL TIMES DURING CONSTRUCTION
- PROVIDE ONE MONTH NOTICE TO THE ENGINEER, BUNCOMBE COUNTY EMERGENCY SERVICES, AND BUNCOMBE COUNTY SCHOOL OFFICIALS PRIOR TO ROAD CLOSURE

TRAFFIC CONTROL DEVICES APPROVED:





TRANSPORTATION OPERATIONS PLAN

1 Glenwood Avenu TRANSYSTEMS

Raleigh, NC 27603 Tel:919.789.9977 Fax:919.789.9591

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

PROJ. REFERENCE NO. SHEET NO. 15BPR.122.3 TMP-3

## **PHASING**

#### PHASE I

- STEP 1: USING ROADWAY STANDARD DRAWING (RSD) 1101.01 SHEET 3 OF 3, PLACE ADVANCE WARNING SIGNS ON SR 1620(FLETCHER MARTIN RD.) AND NC 251.
- STEP 2: USING ROADWAY STANDARD DRAWING (RSD) 1101.02 SHEET 1 OF 19 AND RSD 1101.04 SHEET 1 OF 2, PLACE TRAFFIC CONTROL DEVICES AND CONSTRUCT NECESSARY BRIDGE AND ROADWAY WORK (UP TO, BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE) UNDER FLAGGERS, PLACE ANY TEMPORARY PAVEMENT MARKINGS AS NEEDED AND PRIOR TO THE FINAL LAYER.
- STEP 3: USING ROADWAY STANDARD DRAWING (RSD) 1101.02 SHEET 1, OF 19, PLACE THE FINAL LAYER OF SURFACE COURSE AND FINAL PAVEMENT MARKINGS AS SHOWN ON THE PAVEMENT MARKING PLANS.
- STEP 4: REMOVE ALL TRAFFIC CONTROL DEVICES AND OPEN SR 1620 (FLETCHER MARTIN RD.) TO TRAFFIC.

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PHASING

1 Glenwood Avenue Raleigh, NC 27603 Tel:919.789.9977 Fax:919.789.9591 License: F-0453

PROJ. REFERENCE NO. 15BPR.122.3 REPLACE EXISTING MARKINGS WITHIN TIE TO EXISTING PAVEMENT MILLING LIMITS WITH TEMPORARY MARKINGS 50' FROM END OF BRIDGE MARKINGS IN EXISTING LOCATIONS AT LIMITS OF MILLING USE TASK LIGHTING FOR ANY NECESSARY NIGHTTIME FLAGGING END CONSTRUCTION 50' PAST BRIDGE LIMITS SR 1620 (FLETCHER MARTIN RD.) BEGIN CONSTRUCTION
50' PRIOR TO BRIDGE LIMITS APPROVED: . PHASE I SEAL 1 Glenwood Avenue Raleigh, NC 27603 Tel:919.789.9977 Fax:919.789.9591 License: F-0453 DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED