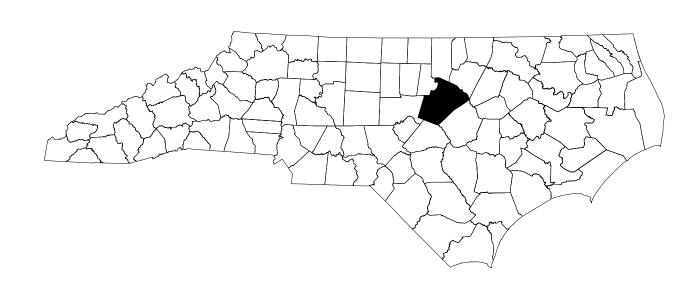
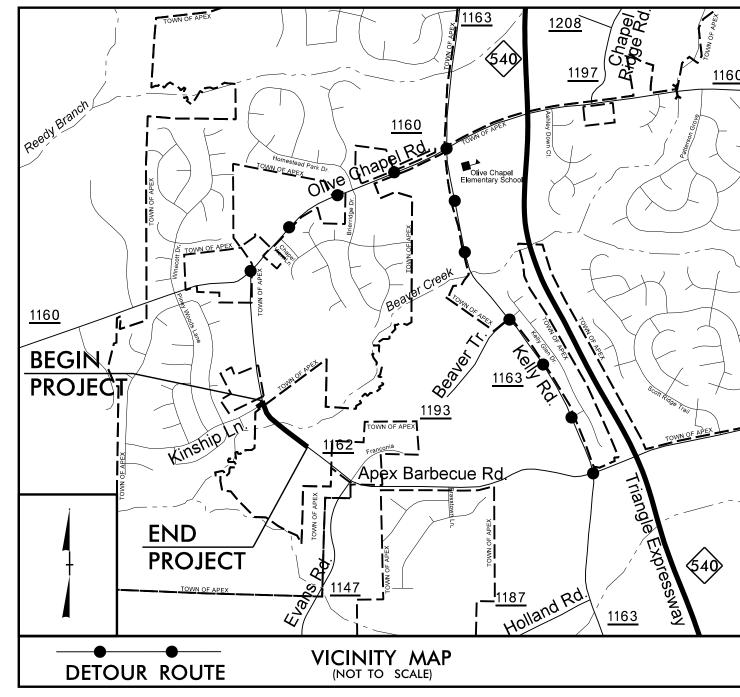
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LOCATION: BRIDGE NO. 362 OVER BEAVER CREEK ON SR 1162

TYPE OF WORK: GRADING, PAVING, DRAINAGE, AND **STRUCTURE** 

# INDEX OF SHEETS

SHEET NO. <u>TITLE</u> TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS TMP - 1

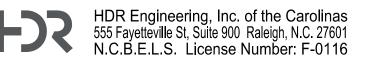
LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND LEGEND TMP-1A

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

SPECIAL SIGN DESIGN TMP-2

TMP-3 OFF-SITE DETOUR ROUTE DETAILS

TMP-4 SIGN LEGEND



MICHELLE WARD, P.E. TRAFFIC CONTROL PROJECT ENGINEER

TRAFFIC CONTROL PROJECT DESIGN ENGINEER

JOHN WILES, P.E. TRAFFIC CONTROL DESIGN ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

APPROVED: Michelle Ward  $DATE: \frac{2/22/2018}{}$ 

SEAL

SHEET NO.

2

"from the MOUNTAINS to the COAST"

WORK ZONE SAFETY & MOBILITY

J. HUMMER, P.E.

A. LYUDMIRSKAYA

STATE TRAFFIC MANAGEMENT ENGINEER

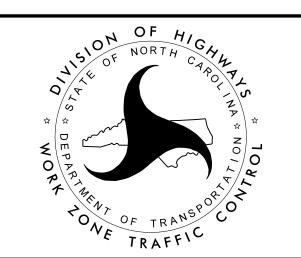
N.C.D.O.T. WORK ZONE TRAFFIC CONTROL

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

TRAFFIC CONTROL PROJECT ENGINEER

TRAFFIC CONTROL PROJECT DESIGN ENGINEER

TRAFFIC CONTROL DESIGN ENGINEER



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 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

#### STD. NO.

1101.01 1101.03

1101.11

1110.01

1130.01

1145.01

#### TITLE

WORK ZONE ADVANCE WARNING SIGNS
TEMPORARY ROAD CLOSURES
TRAFFIC CONTROL DESIGN TABLES
STATIONARY WORK ZONE SIGNS
DRUMS
BARRICADES

PROJ. REFERENCE NO. SHEET NO. TMP-1A B-5161

HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116

# **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

# SIGNALS







#### PAVEMENT MARKINGS

——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

APPROVED: Midulle Ward
F8385756B926486. DATE: 3/12/2018 DOCUMENT NOT CONSIDERED FINAL **UNLESS ALL SIGNATURES COMPLETED** 

ROADWAY STANDARD DRAWINGS & LEGEND

PROJ. REFERENCE NO. SHEET NO. TMP-1B B-5161 HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116

# **MANAGEMENT STRATEGIES**

-THE PROPOSED ROADWAY AND STRUCTURE WILL BE CONSTRUCTED USING A SIGNED OFF-SITE DETOUR ROUTE USING KELLY ROAD AND OLIVE CHAPEL ROAD. LOCAL STAKEHOLDERS INCLUDING THE WAKE COUNTY ENGINEER, WAKE COUNTY SCHOOLS, AND WAKE COUNTY EMERGENCY SERVICES WILL BE NOTIFIED PRIOR TO THE ROAD CLOSURE TAKING EFFECT.

## 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.

#### TRAFFIC PATTERN ALTERATIONS

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

#### SIGNING

- B) 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.
- C) 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.

D) 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.

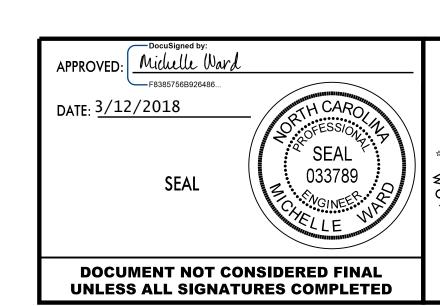
E) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

#### TRAFFIC CONTROL DEVICES

F) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.

#### **PHASING**

- STEP 1: PLACE CHANGEABLE MESSAGE SIGNS ON SR 1162 (APEX BARBEQUE RD.), AS DIRECTED BY THE ENGINEER, 14 DAYS PRIOR TO ROAD CLOSURE FOR ADVANCE WARNING.
- STEP 2: USING ROADWAY STANDARD DRAWING (RSD) 1101.03 SHEET 1 OF 9 CLOSE SR 1162 (APEX BARBEQUE RD.) TO TRAFFIC AND DETOUR TRAFFIC AS SHOWN ON SHEET TMP-3.
- STEP 3: REMOVE THE EXISTING STRUCTURE AND CONSTRUCT THE PROPOSED ROADWAY AND STRUCTURE ACCORDING TO THE ROADWAY AND STRUCTURE PLANS.
- STEP 4: PLACE FINAL PAVEMENT MARKINGS ACCORDING THE PAVEMENT MARKING PLANS.
- STEP 5: REMOVE ALL WORK ZONE TRAFFIC CONTROL DEVICES AND OPEN SR 1162 (APEX BARBEQUE RD.) TO TRAFFIC





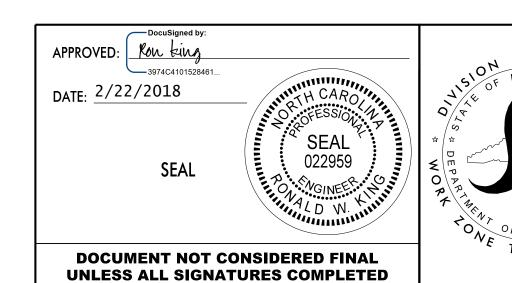
TRANSPORTATION **OPERATIONS** PLAN

TMP-2 B-5161 HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116

SIGN NUMBER: SP-01 BACKG COLOR: Fluorescent Orange **DESIGN BY:** none CHECKED BY:Ron King Feb 22, 2018 COPY COLOR: **Black** TYPE: STATIONARY PROJECT ID: B-5161 DIV: 5 QUANTITY: SEE PLANS WID HT SYMBOL Υ SIGN WIDTH: 4'-0" **HEIGHT:** 3'-0" 48" TOTAL AREA: 12.0 Sq.Ft. **BORDER TYPE: INSET** 4.5" **RECESS:** 0.63" **APEX** WIDTH: 0.88" RADII: 2.25" 4.5" MAT'L: 0.080" (2.0 mm) ALUMINUM NO. Z BARS: BARBEQUE 36" 6"C LENGTH: 4.5" USE NOTES: 1,2 ROAD 6"C Legend and border shall be direct applied black non-reflective sheeting. 4.5" 2. Background shall be NC GRADE B fluorescent orange retroreflective sheeting. **BORDER** 33.8" R=2.25" TH=0.88" IN=0.63" Spacing Factor is 1 unless specified otherwise

#### LETTER POSITIONS

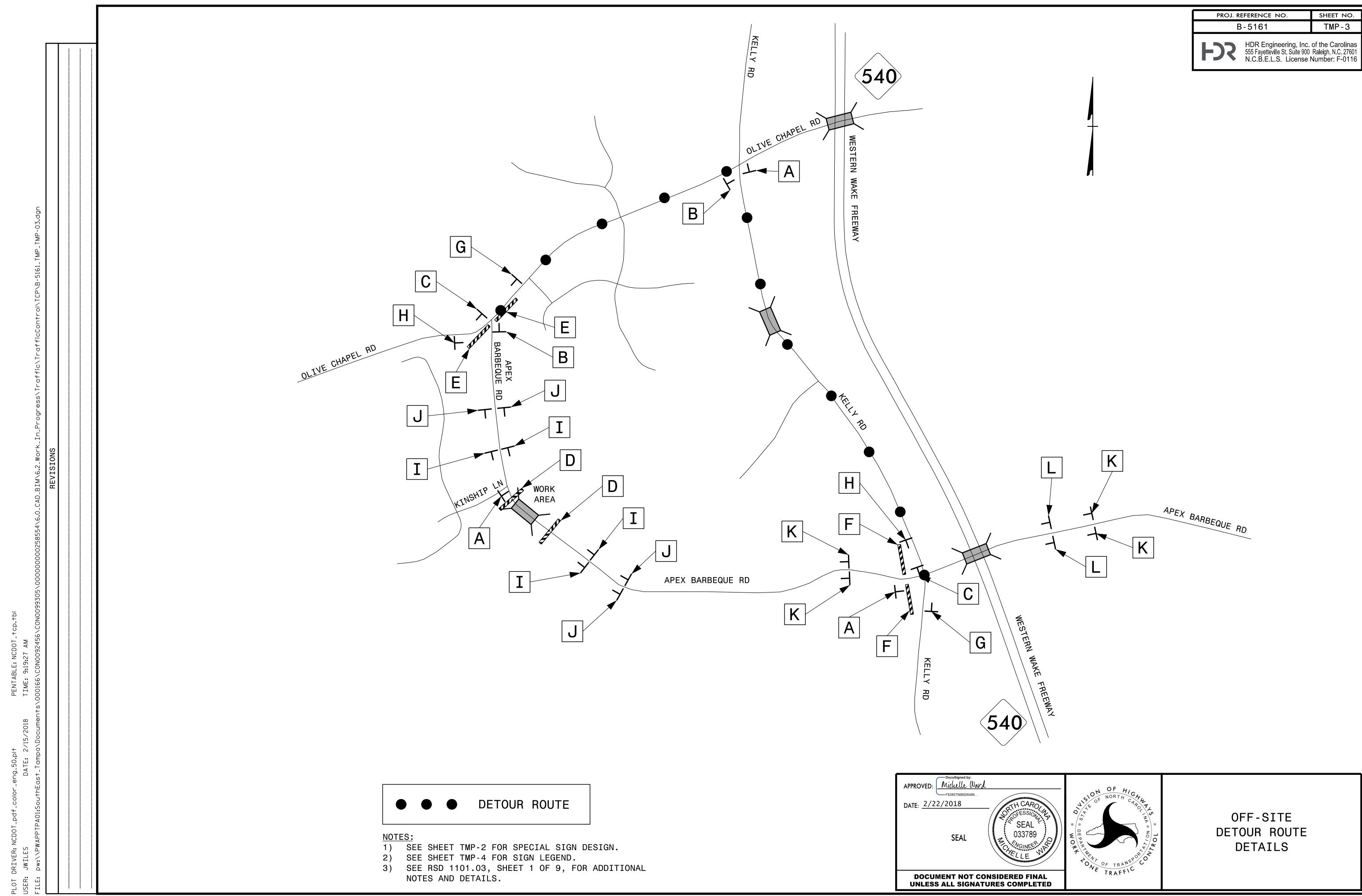
							I 6+	tor	ena/	cinae s		Series/Siz						
	Letter spacings are to start of next letter													Text Lengtl				
A	Р	E	X															C 2000
15.8 4.7	4.6	3.6	3.5	15.8														16.4
В	Α	R	В	E	Q	U	E											C 2000
7.1 3.9	4.7	4.4	4.4	4	4.7	4.7	3.1	7.1										33.8
R	0	A	D															C 2000
15.7 4.3	4.3	4.7	3.4	15.7														16.6
  AME: B-5161_																		



SPECIAL SIGN DESIGN

PROJ. REFERENCE NO.

SHEET NO.



Ε C D В  $|\mathsf{A}|$ Apex Apex Apex R11-4 R11-2 Barbeque Barbeque Barbeque 60" x 30" 48" x 30" Road Road Road ROAD CLOSED CLOSED THRU TRAFFIC END DETOUR | M4-8 DETOUR DETOUR M4-8 A 24'' X 12'' 24" X 12" 24" X 18" TYPE III BARRICADE TYPE III BARRICADE <sup>丿</sup> 21′′ X 15′′ <sup>J</sup> 21′′ X 15′′ G H Ι J **ROAD ROAD** ROAD R11-4 CLOSED 60" x 30" **CLOSED CLOSED** ROAD CLOSED AHEAD 500 FT AHEAD W20-3 48" X 48" ∕ W20–3 THRU TRAFFIC 48′′ X 48′′ ′ 48′′ X 48′′ **NEXT LEFT** NEXT RIGHT SP-4L 42'' X 12'' 42" X 12" TYPE III BARRICADE K ROAD **DETOUR** CLOSED AHEAD AHEAD W20\_3 W20-2 48'' X 48'' 48'' X 48''

PROJ. REFERENCE NO.

B-5161

TMP-4

HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116

APPROVED:

Middle Ward

F83857568926486...

DATE: 2/22/2018

SEAL

O33789

OF HIGH CAROL

NORTH CAROL

NORTH

 $\mathsf{ROAD}$ 

CLOSED

1000 FT/

W20-3

48'' X 48''

SIGN LEGEND