

PROJ. REFERENCE NO.	SHEET NO.
BR -0029	TMP -3A

# PHASING

ACCESS TO ALL RESIDENCES AND BUSINESSES WITHIN THE PROJECT LIMITS MUST BE MAINTAINED AT ALL TIMES.

MAINTAIN POSITIVE DRAINAGE DURING CONSTRUCTION.

USE CMS DURING ALL FLAGGING AND PORTABLE SIGNAL OPERATIONS ON NC 106, EASTBOUND CMS ~5,000 feet (0.9 MILES) WEST OF -Y1- AND WESTBOUND CMS ~4,850 FEET (0.9 MILES) EAST OF -Y2- SEE INSET 3 CMS ON TMP-5.

FLAGGERS MAY BE USED IN LIEU OF THE PORTABLE SIGNAL OPERATION, WHEN APPROPRIATE AND WITH APPROVAL OF THE ENGINEER. USE FLAGGERS IN ACCORDANCE RSD 1101.02 SHEET 1 OF 14.

AS NECESSARY, USE RSD 1101.06 (SHEET 1 OF 1) FOR PLACEMENT OF ADVANCED WARNING SIGNS FOR BLASTING ZONE.

## PHASE I

STEP 1:  
INSTALL CHANGEABLE MESSAGE SIGNS ON NC 106 AS SHOWN ON TMP-5 OF THE PLANS. OPERATE FOR TWO WEEKS MINIMUM PRIOR TO BEGINNING CONSTRUCTION. SEE INSET 1 ON TMP-5.

STEP 2:  
INSTALL WORK ZONE ADVANCE WARNING SIGNS. SEE RSD 1101.01, SHEET 3 OF 3.

INSTALL PORTABLE TRAFFIC SIGNAL WITH DRIVEWAY ASSISTANCE AS SHOWN ON TMP-4. SIGNAL SHALL BE PROGRAMMED TO OPERATE IN YELLOW FLASH DURING NORMAL TWO-WAY, TWO-LANE OPERATION AND RYG WHEN A LANE CLOSURE IS NEEDED, FOLLOWING PROJECT TIME RESTRICTIONS. PROGRAM THE CMS AS SHOWN ON TMP-5, INSET 3 WHEN THE PORTABLE SIGNAL IS IN RYG OPERATION OR IF FLAGGING IS NECESSARY WITHIN THE WORK ZONE.

STEP 3:  
AWAY FROM TRAFFIC AND USING RSD 1101.02, SHEET 14 (FOR PORTABLE SIGNALS) OF 14 AS NECESSARY, CONSTRUCT:

- L- STA 15+90 +/- TO STA 17+10 +/-, INSTALL MINIMUM OF 2' TEMPORARY PAVEMENT FOR BARRIER. SEE INSET 2 ON TMP-5.
- Y1- STA 10+94 +/- TO STA 13+42 +/-, COMPLETE CONSTRUCTION UP TO BUT NOT INCLUDING THE FINAL SURFACE IN THE FOLLOWING MANNER (SEE TMP-6):
  - Y1- STA 10+94 +/- TO STA 12+85 +/-, CONSTRUCT ON NEW ALIGNMENT, SEE -Y1- SUB-STEP 1.
  - Y1- STA 12+85 +/- TO STA 13+42 +/-, CONSTRUCT TIE-IN TO EXISTING -Y1- AND CONSTRUCT 12' TEMPORARY TIE TO EXISTING -Y1- ADJACENT TO -Y1- STA 11+14 +/- SEE -Y1- SUB-STEP 2.
  - SHIFT TRAFFIC TO THE NEW ALIGNMENT VIA TEMPORARY TIE AS SHOWN ON THE PLANS. INSTALL ALL APPROPRIATE TRAFFIC CONTROL DEVICES. SEE TMP-6, -Y1- SUB-STEP 3.

AWAY FROM TRAFFIC BEGIN CONSTRUCTION UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE OF THE FOLLOWING:

- L- STA 10+00 +/- TO STA 22+00 +/-, LEFT SIDE (TMP-5)
- Y1- STA 10+66 +/- TO STA 10+94 +/-, SEE TMP-6, -Y1- SUB-STEP 3.

STEP 4:  
AWAY FROM TRAFFIC AND USING RSD 1101.02, SHEET 14 (FOR PORTABLE SIGNALS) OF 14 AS NECESSARY, PERFORM THE FOLLOWING WORK:

- L- STA 10+50 +/- TO STA 14+70 +/-, RIGHT SIDE, CLEAR AND GRADE HILLSIDE TO FINAL GRADE WEST OF EXISTING -Y1-.

AWAY FROM TRAFFIC CONTINUE CONSTRUCTION UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE OF THE FOLLOWING:

- L- STA 10+00 +/- TO STA 22+00 +/-, LEFT SIDE (SEE TMP-5)
- Y1- STA 10+66 +/- TO STA 10+94 +/-, SEE TMP-6, -Y1- SUB-STEP 3.

STEP 5:  
USING RSD 1101.02, SHEET 14 (FOR PORTABLE SIGNALS) OF 14 AS NECESSARY, PERFORM THE FOLLOWING WORK:

- INSTALL ANCHORED PORTABLE CONCRETE BARRIER (PCB) FROM -L- STA 13+90 +/- TO STA 15+05 +/- AND ATTACH PCB TO EXISTING BRIDGE RAIL. SEE SPECIAL DETAIL ON TMP-2C AND SECTION A-A ON TMP-5.
- INSTALL ANCHORED PCB FROM -L- STA 15+90 +/- TO STA 16+90 +/- AND ATTACH PCB TO EXISTING BRIDGE RAIL, SEE SPECIAL DETAIL ON TMP-2C AND SECTIONS B-B AND C-C ON TMP-5.

AWAY FROM TRAFFIC CONTINUE CONSTRUCTION UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE OF THE FOLLOWING:

- L- STA 10+00 +/- TO STA 22+00 +/-, LEFT SIDE (SEE TMP-5)
- Y1- STA 10+66 +/- TO STA 10+94 +/-, SEE TMP-5, -Y1- SUB-STEP 3.

## PHASE I CONT.

STEP 6:  
USING RSD 1101.02, SHEET 14 (FOR PORTABLE SIGNALS) OF 14 AS NECESSARY, CONSTRUCT THE FOLLOWING:

- TEMPORARY SHORING
  - LOCATION 1 FROM -L- STA 14+70 +/-, 9.75' RT TO STA 15+25 +/-, 9.75' RT.
  - LOCATION 2 FROM -L- STA 15+78 +/-, 9.24' RT TO STA 16+41 +/-, 9.24' RT (SEE SECTION B-B ON TMP-5)

AWAY FROM TRAFFIC CONTINUE CONSTRUCTION UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE OF THE FOLLOWING:

- L- STA 10+00 +/- TO STA 22+00 +/-, LEFT SIDE (SEE TMP-5)
- Y1- STA 10+66 +/- TO STA 10+90 +/-, SEE TMP-6, -Y1- SUB-STEP 3.

STEP 7:  
AWAY FROM TRAFFIC AND USING RSD 1101.02, SHEETS 11 AND 14 (FOR PORTABLE SIGNALS) OF 14 AS NECESSARY, BEGIN/CONTINUE CONSTRUCTION UP TO BUT NOT INCLUDING FINAL SURFACE COURSE (UNLESS OTHERWISE NOTED) OF THE FOLLOWING:

- L- STA 10+00 +/- TO STA 13+40 +/-, CONSTRUCT LEFT SIDE WIDENING TO EXISTING EDGE OF PAVEMENT. ENSURE THAT THE ELEVATION AT THE EXISTING EDGE OF PAVEMENT IS WITHIN 2" OF THE EXISTING ROADWAY ELEVATION.
- L- STA 13+40 +/- TO STA 14+74.61 +/-, CONSTRUCT LEFT SIDE WIDENING OF -L- TO THE MINIMUM DIMENSION FROM THE PROPOSED LEFT SIDE EDGE OF PAVEMENT (EOP) AS LISTED BELOW AND AS SHOWN ON PLANS.
  - L- STA 13+40 +/- CONSTRUCT TO EXISTING EOP
  - L- STA 13+40 +/- TO STA 13+50 +/-, TAPER TO MINIMUM WIDTH OF 20.9'
  - L- STA 13+50 +/- TO STA 14+00 +/- TAPER TO MINIMUM WIDTH OF 25.45'
  - L- STA 14+00 +/- TO STA 14+41 +/- TAPER TO MINIMUM WIDTH OF 26.5'
  - L- STA 14+41 +/- TO STA 14+70 +/- MAINTAIN MINIMUM WIDTH OF 26.5'. SEE SECTION A-A ON TMP-5.
  - L- STA 14+70 +/- TO STA 14+74.61 +/- MAINTAIN MINIMUM WIDTH OF 24.6'
- L- STA 14+74.61 +/- TO STA 16+29.53 +/-, CONSTRUCT MINIMUM WIDTH OF 26.4' FOR BRIDGE WITH APPROACH SLABS. SEE SECTION B-B ON TMP-5.
- L- STA 16+29.53 +/- TO STA 17+03 +/-, CONSTRUCT LEFT SIDE WIDENING OF -L- TO THE MINIMUM DIMENSION FROM THE PROPOSED LEFT SIDE EOP AS LISTED BELOW AND AS SHOWN ON PLANS.
  - L- STA 16+29.53 +/- CONSTRUCT MINIMUM WIDTH OF 24.8'
  - L- STA 16+29.53 +/- TO STA 16+41 +/-, TAPER TO MINIMUM WIDTH OF 27.5'
  - L- STA 16+41 +/- TO STA 17+03 +/-, MAINTAIN MINIMUM WIDTH OF 27.5'. SEE SECTION C-C ON TMP-5.
- L- STA 17+78 +/- TO STA 20+00 +/-, CONSTRUCT LEFT SIDE WIDENING OF -L- TO THE MINIMUM DIMENSION FROM THE PROPOSED LEFT SIDE EOP AS LISTED BELOW AND AS SHOWN ON PLANS. ALSO CONSTRUCT TEMPORARY PAVEMENT TO LEFT SIDE OF PROPOSED EOP AT CROSS SLOPE OF PROPOSED FINAL CONSTRUCTION.
  - L- STA 17+78 +/- TO STA 18+50 +/- CONSTRUCT MINIMUM WIDTH OF 21.5' AND CONSTRUCT A MINIMUM OF 8' TEMPORARY PAVEMENT.
  - L- STA 18+50 +/- TO STA 19+00 +/- -TAPER TO MINIMUM WIDTH OF 17' AND CONSTRUCT A MINIMUM OF 8' TEMPORARY PAVEMENT. SEE SECTION D-D ON TMP-5.
  - L- STA 19+00 +/- TO STA 19+50 +/- TAPER TO MINIMUM WIDTH OF 14' AND CONSTRUCT A MINIMUM OF 8' TEMPORARY PAVEMENT.
  - L- STA 19+50 +/- TO STA 20+00 +/- TAPER TO MEET EXISTING EOP AND CONSTRUCT A MINIMUM OF 8' TEMPORARY PAVEMENT.

## PHASE 1 CONT.

STEP 7 CONT:

- L- STA 20+00 +/- TO STA 22+00 +/-, CONSTRUCT LEFT SIDE WIDENING TO EXISTING EDGE OF PAVEMENT. ENSURE THAT THE ELEVATION AT THE EXISTING EDGE OF PAVEMENT IS WITHIN 2" OF THE EXISTING ROADWAY ELEVATION. ALSO CONSTRUCT TEMPORARY PAVEMENT TO LEFT SIDE OF PROPOSED EOP AT CROSS SLOPE OF PROPOSED FINAL CONSTRUCTION AS LISTED BELOW AND AS SHOWN ON PLANS.
  - L- STA 20+00 +/- TO STA 20+47 +/-, CONSTRUCT A MINIMUM OF 8'
  - L- STA 20+47 +/- TO STA 20+85 +/-, TAPER TO MINIMUM WIDTH OF 6.93'
  - L- STA 20+85 +/- TO STA 21+20 +/-, WEDGE ACROSS ENOUGH OF EXISTING LANE TO MAINTAIN POSITIVE DRAINAGE, TAPER TO MINIMUM WIDTH OF 4'
  - L- STA 21+20 +/- TO STA 21+68 +/-, WEDGE ACROSS ENOUGH OF EXISTING LANE TO MAINTAIN POSITIVE DRAINAGE, MAINTAIN MINIMUM WIDTH OF 4'
  - L- STA 21+68 +/- TO STA 22+00 +/-, WEDGE ACROSS ENOUGH OF EXISTING LANE TO MAINTAIN POSITIVE DRAINAGE
- Y1- CONSTRUCTION:
  - Y1- FROM EXISTING -L- TO -Y1- STA 10+66 +/-, CONSTRUCT -Y1- IN FINAL ALIGNMENT BUT AT TEMPORARY GRADE. SEE SECTION A-A ON TMP-5 AND -Y1- STEP 7 ON TMP-6. ANY WORK ON -Y1- WITHIN THESE LIMITS WILL REQUIRE A FLAGGING OPERATION DUE TO SIGHT DISTANCE LIMITATIONS DUE TO CONSTRUCTION EQUIPMENT. ENSURE THAT TRAFFIC ON EXISTING -Y1- CAN SAFELY EXIT -Y1- ONTO NC 106.
  - Y1- STA 10+66 +/- TO STA 10+94 +/-, SEE -Y1- SUB-STEP 3 ON TMP-6.
  - BEGIN REMOVAL OF EXISTING ROADWAY ALONG RT SIDE OF -Y1-, SEE -Y1- STEP 7 ON TMP-6.

## WORK UNDER STEP 8 TO BE DONE DURING ONE WEEK ICT

STEP 8:  
AWAY FROM TRAFFIC AND USING RSD 1101.02, SHEET 14 (FOR PORTABLE SIGNALS) OF 14 AS NECESSARY, CONSTRUCT -Y2- AS SHOWN ON TMP-6 IN THE FOLLOWING MANNER:

- USING RSD 1101.03, SHEET 2 OF 9, DETOUR -Y2- AS SHOWN ON TMP-9 AND TMP-10.
- CONSTRUCT UP TO BUT NOT INCLUDING FINAL LAYER OF THE FOLLOWING:
  - L- STA 17+03 +/- TO -Y2-, CONSTRUCT LEFT SIDE WIDENING OF -L- 27.5' FROM THE PROPOSED LEFT SIDE EOP
  - L- FROM -Y2- TO STA 17+78 +/-, CONSTRUCT LEFT SIDE WIDENING OF -L- 21.5' FROM THE PROPOSED LEFT SIDE EOP AND CONSTRUCT 8' TEMPORARY PAVEMENT TO LEFT SIDE OF PROPOSED EOP AT CROSS SLOPE OF PROPOSED FINAL CONSTRUCTION.
  - Y2- FROM RIGHT SIDE OF -L- AT 7.5' OFFSET, TO -Y2- STA 10+76 +/-
  - CONSTRUCT TEMPORARY TIE TO EXISTING ROADWAY AS SHOWN ON THE PLANS.
- END DETOUR AND OPEN -Y2- BACK TO TRAFFIC.

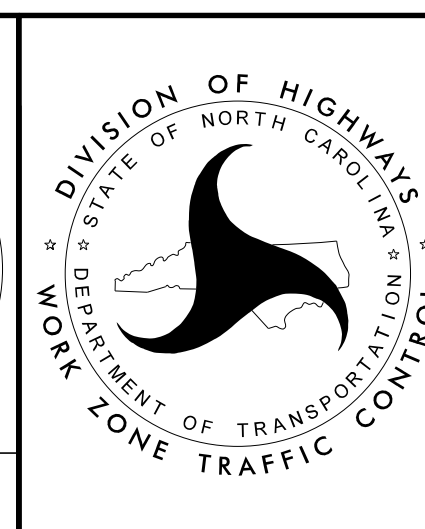
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SEAL

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



PHASING OPERATIONS PLAN