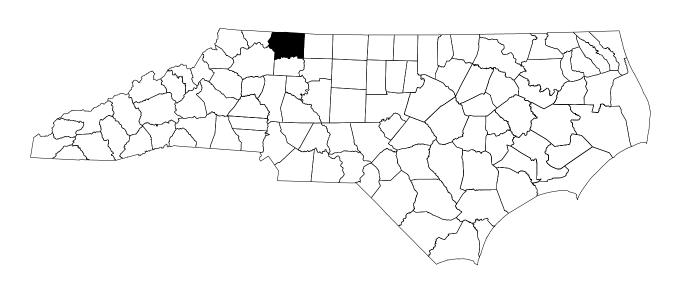
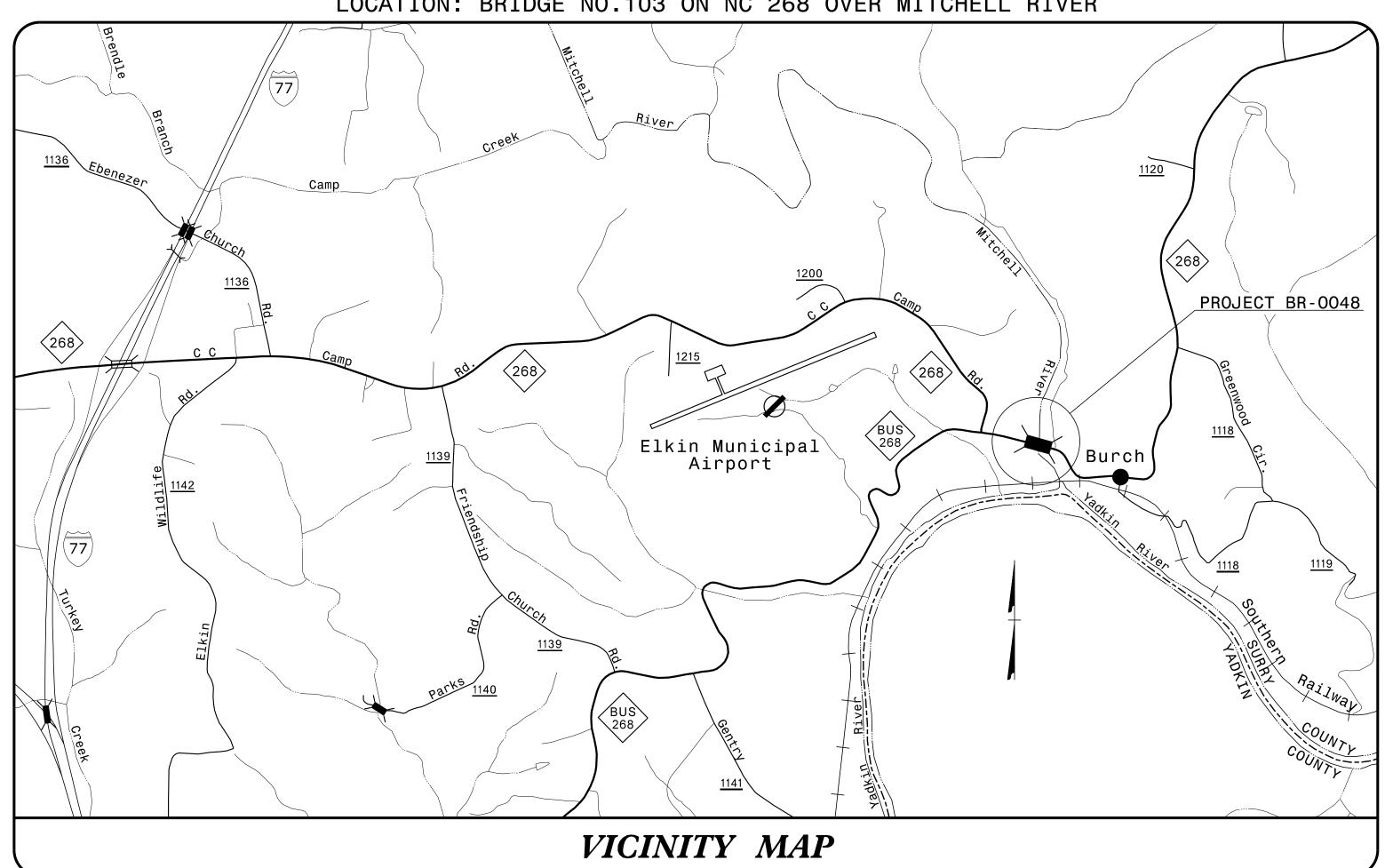
STATE OF NORTH CAROLINA

TRANSPORTATION MANAGEMENT PLAN

SURRY COUNTY



LOCATION: BRIDGE NO.103 ON NC 268 OVER MITCHELL RIVER



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

PLANS PREPARED BY: D. A. PARKER, P.E.

K. E. DAIS, P.E.

TRAFFIC CONTROL PROJECT
DESIGN ENGINEER

TRAFFIC CONTROL PROJECT ENGINEER

M. A. AKLILU TRAFFIC CONTROL DESIGN ENGINEER NCDOT CONTACTS:

D. A. PARKER, P.E. PROJECT ENGINEER

K. E. DAIS, P.E. PROJECT DESIGN ENGINEER



INDEX OF SHEETS

SHEET NO.	<u>TITLE</u>
TMP - 1	TITLE SHEET, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, AND TEMPORARY PAVEMENT MARKINGS
TMP-1B	TRANSPORTATION OPERATIONS PLAN: (GENERAL NOTES AND PHASING)
TMP-2	TEMPORARY SHORING NOTES
TMP-3-4	PHASE I DETAILS
TMP-5-6	PHASE IA DETAILS
TMP-7-8	PHASE II DETAILS

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

A	APPROVED:	Don A. Parker 4DD48286261841D
1	03/03/2022 DATE:	AU CAROLIA
	SEAL	SEAL 043251

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - 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:

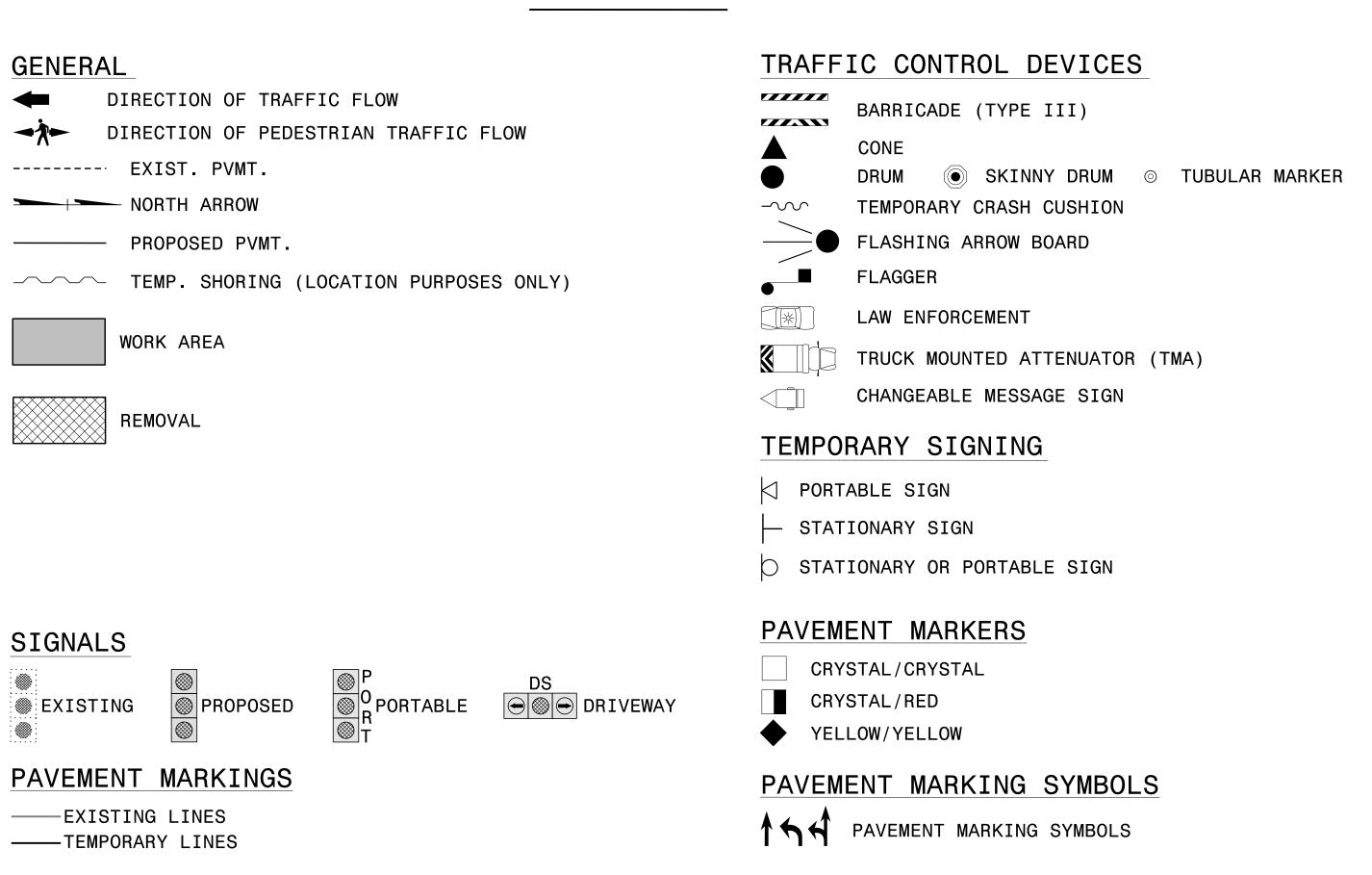
STD. NO.

TITLE

1101.01	WORK ZONE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.06	WARNING SIGNS FOR BLASTING ZONES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1160.01	TEMPORARY CRASH CUSHION
1165.01	TRUCK MOUNTED ATTENUATOR
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
1205.03	PAVEMENT MARKINGS - EXITS AND ENTRANCE RAMPS
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
1205.10	PAVEMENT MARKINGS - SCHOOL AREAS
1205.11	PAVEMENT MARKINGS - RAILROAD CROSSINGS
1205.12	PAVEMENT MARKINGS - BRIDGES
1205.13	PAVEMENT MARKINGS - LANE REDUCTIONS
1205.14	PAVEMENT MARKINGS - ROUNDABOUTS
1205.15	PAVEMENT MARKINGS - SUPERSTREETS
1250.01	
1251.01	,
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
	GUARDRAIL END DELINEATION
	OBJECT MARKERS - TYPES
1264.02	OBJECT MARKERS - INSTALLATION

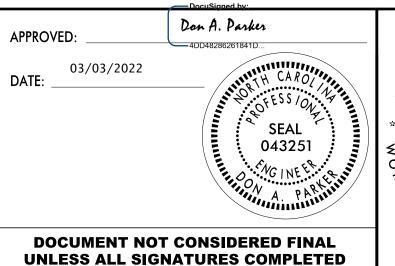
PROJ. REFERENCE NO.	SHEET NO.
BR-0048	TMP-1A

LEGEND



TEMPORARY PAVEMENT MARKING

C1(IV) - WHITE EDGELINE (COLD APPLIED PLASTIC) - 4"
C13(IV) - YELLOW DOUBLE CENTER (COLD APPLIED PLASTIC) - 4"
P1 - WHITE EDGELINE (PAINT) - 4"
P13 - YELLOW DOUBLE CENTER (PAINT) - 4"
P61 - WHITE STOPBAR (PAINT) - 24"
MH - MARKER - TEMPORARY RAISED (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.

TIME RESTRICTIONS

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

ROAD NAME	DAY & TIME RESTRICTIONS	
-L- (NC 268)	MONDAY THRU FRIDAY 6:00 AM - 9:00 AM &	NOTE: TIME RESTRICTIONS DO NOT APPLY TO PHASE 1A
	4:00 PM - 7:00 PM	

B) DO NOT STOP TRAFFIC AS FOLLOWS:

ROAD NAME	DAY & TIME RESTRICTIONS	DURATION & OPERATION
-L- (NC 268)	MONDAY THRU FRIDAY 6:00 AM - 9:00 AM	30 MIN CLOSURE FOR GIRDER INSTALLATION
	&	

C) DO NOT CLOSE OR NARROW TRAVEL LANES DURING THE FOLLOWING SPECIAL EVENT:

4:00 PM - 7:00 PM

ROAD NAME

-L- (NC 268)

SPECIAL EVENTS

1. FOR THE YADKIN VALLEY PUMPKIN FESTIVAL, BETWEEN THE HOURS OF 7:00 PM THE FRIDAY BEFORE THE FESTIVAL TO 9:00 AM THE MONDAY AFTER THE FESTIVAL.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- D) 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.
- E) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN 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.
- F) 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.
- G) 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 TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 350 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

- 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.

TRAFFIC CONTROL DEVICES

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

PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME	<u>MARKING</u>	<u>MARKER</u>
NC 268 (BRIDGE)	COLD APPLIED PLASTIC	TEMPORARY RAISED
NC 268 (-L-)	PAINT	TEMPORARY RAISED

- P) 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.
- Q) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- R) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.
- S) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS SHOWN IN FINAL PAVEMENT MARKING PLAN.

LOCAL NOTES

- 1. PRIOR TO ANY BRIDGE DEMOLITION OR CONSTRUCTION ACTIVITIES, COORDINATE WITH SURRY COUNTY PARKS AND RECREATION AND THE NORTH CAROLINA WILDLIFE RESOURCES COMMISSION TO PLACE ADVANCE WARNING SIGNS AT THE MOUNTAIN PARK ACCESS AND THE BURCH STATION ACCESS.
- 2. THE CONTRACTOR SHALL BE AWARE OF PADDLERS USING THE RIVER AND WILL HALT WORK IF SOMEONE IS SEEN APPROACHING THE BRIDGE AND SUSPEND ALL OVERHEAD WORK UNTIL RIVER USERS SAFELY LEAVE THE AREA.

PHASING

NOTE: PRIOR TO CONSTRUCTION, INSTALL ADVANCE WARNING SIGNS ON NC 268 AND SR 1138 (CC CAMP RD) PER RSD 1101.01, SHEET 3

PHASE I

STEP 1 -- USING RSD. 1101.02, SHEET 1, INSTALL TEMPORARY GUARDRAIL IN THE FOLLOWING LOCATIONS:

> -L- STA. 15+21 +/- TO STA. 17+33 +/--L- STA. 19+43 +/- TO STA. 21+06 +/-

STEP 2 -- USING RSD 1101.02, SHEET 1, AND LOCAL NOTES 1 & 2 AS NECESSARY, CONSTRUCT PROPOSED -L- INCLUDING TEMPORARY SHORING, BRIDGE AND APPROACHES UP TO, BUT NOT INCLUDING, THE FINAL LAYER OF SURFACE COURSE AS FOLLOWS (SEE TMP-3 & 4):

-L- STA. 10+50 +/- TO STA. 24+25 +/-

-- FOR TEMPORARY SHORING NOTES, SEE TMP-2.

- -- COMPLETE GIRDER DELIVERY AND INSTALLATION USING RSD 1101.03, SHEET 8, AND CHANGEABLE MESSAGE SIGNS AS SHOWN ON TMP-3 & 4. STOP TRÁFFIC IN 30 MINUTE INTERVALS BETWEEN THE HOURS OF 9:00 AM AND 4:00 PM. AFTER 30 MINUTES, USE FLAGGER CONTROL TO DEPLETE THE TRAFFIC QUEUE. SEE INTERMEDIATE CONTRACT TIMES AND LIQUIDATED DAMAGES.
- -- CONSTRUCT -DR1- AND -DR2-.
- STEP 3 -- USING 1101.02, SHEET 1, AND RSD 1101.03, SHEET 8, AS NECESSARY, INSTALL TEMPORARY STOP BARS, TEMPORARY PORTABLE TRAFFIC SIGNAL SYSTEM AND SHIFT TRAFFIC TO ONE-LANE / TWO-WAY OPERATION AS SHOWN ON TMP-5 & 6.

COMPLETE THE WORK OF PHASE IA IN THIRTY CALENDAR DAYS (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES)

PHASE IA

STEP 1 -- USING RSD. 1101.03, SHEET 8, AS NECESSARY, INSTALL PORTABLE CONCRETE BARRIER ON EXISTING NC 268 PER TMP-5 & 6.

-- REMOVE TEMPORARY GUARDRAIL FROM:

-L- STA. 15+21 +/- TO STA. 17+33 +/-.

STEP 2 -- BEHIND BARRIER. COMPLETE SHOULDER CONSTRUCTION OF -L- FROM STA. 13+70 +/- TO STA. 17+28 +/-.

-- INSTALL PROPOSED GUARDRAIL.

STEP 3 -- INSTALL TEMPORARY PAVEMENT MARKINGS AND MARKERS PER TMP-7 & 8 ON -L-.

STEP 4 -- REMOVE PORTABLE CONCRETE BARRIER, TEMPORARY PORTABLE TRAFFIC SIGNAL SYSTEM, TEMPORARY STOP BARS AND APPLICABLE SIGNS AND SHIFT TRAFFIC TO TWO-LANE / TWO-WAY OPERATION IN THE PHASE II TRAFFIC PATTERN ON -L-.

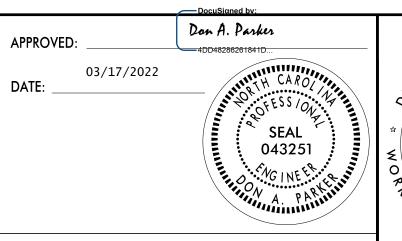
PHASE II

STEP 1 -- USING RSD 1101.02, SHEET 1, REMOVE EXISTING BRIDGE AND ROADWAY PER ROADWAY PLANS AND COMPLETE FINAL GRADING AND DRAINAGE.

STEP 2 -- USING RSD. 1101.02, SHEET 1, COMPLETE PAVED SHOULDERS UP TO, BUT NOT INCLUDING, THE FINAL LAYER OF SURFACE COURSE.

STEP 3 -- USING RSD. 1101.02, SHEET 1, PLACE FINAL LAYER OF SURFACE COURSE AND FINAL PAVEMENT MARKINGS AND MARKERS PER PAVEMENT MARKING PLAN.

STEP 4 -- REMOVE ALL TRAFFIC CONTROL DEVICES.





TRANSPORTATION **OPERATIONS PLAN**

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

PROJ. REFERENCE NO.	SHEET NO.
BR-0048	TMP-2

SHORING LOCATION NO. 1

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

TEMPORARY SHORING IS REQUIRED FOR THE BRIDGE END BENT CONSTRUCTION FROM STATION 17+24 ±-L-, 24' RT, TO STATION 17+45 ±-L-, 24' RT.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM STATION 17+24 ±-L-, 24' RT, TO STATION 17+45 ±-L-, 24' RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (\mathscr{Y}) = 120 LB/CF FRICTION ANGLE (ϕ) = 30 DEGREES COHESION (C) = 0 LB/SF GROUNDWATER ELEVATION = 870 FT

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 17+24 ±-L-, 24' RT, TO STATION 17+45 ±-L-, 24' RT.

AT THE CONTRACTOR*S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION 17+24 ±-L-, 24' RT, TO STATION 17+45 ±-L-, 24' RT. SEE STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION 17+24 ±-L-, 24' RT, TO STATION 17+45 ±-L-, 24' RT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

SHORING LOCATION NO. 2

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

TEMPORARY SHORING IS REQUIRED FOR THE BRIDGE END BENT CONSTRUCTION FROM STATION 19+39 ±-L-, 24' RT, TO STATION 19+60 ±-L-, 24' RT.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

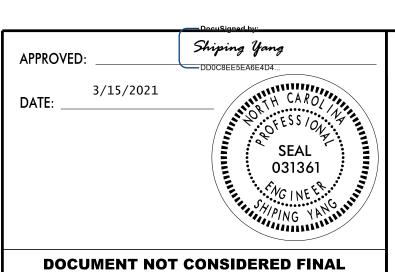
DESIGN TEMPORARY SHORING FROM STATION 19+39 \pm -L-, 24' RT, TO STATION 19+60 \pm -L-, 24' RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (\mathscr{V}) = 120 LB/CF FRICTION ANGLE (ϕ) = 30 DEGREES COHESION (C) = 0 LB/SF GROUNDWATER ELEVATION = 870 FT

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 19+39 ±-L-, 24' RT, TO STATION 19+60 ±-L-, 24' RT.

AT THE CONTRACTOR*S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION 19+39 ±-L-, 24' RT, TO STATION 19+60 ±-L-, 24' RT. SEE STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION 19+39 ±-L-, 24' RT, TO STATION 19+60 ±-L-, 24' RT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

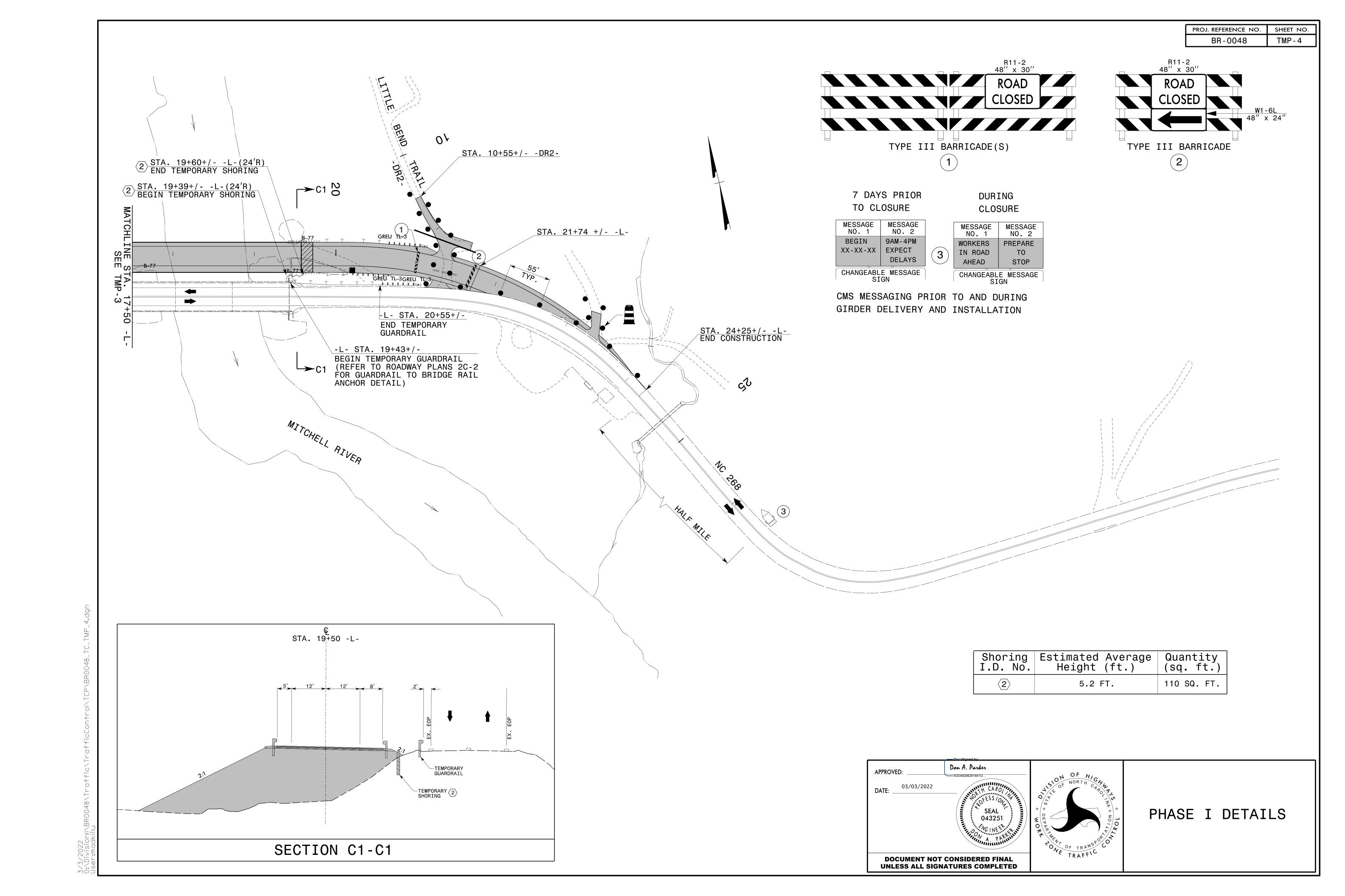


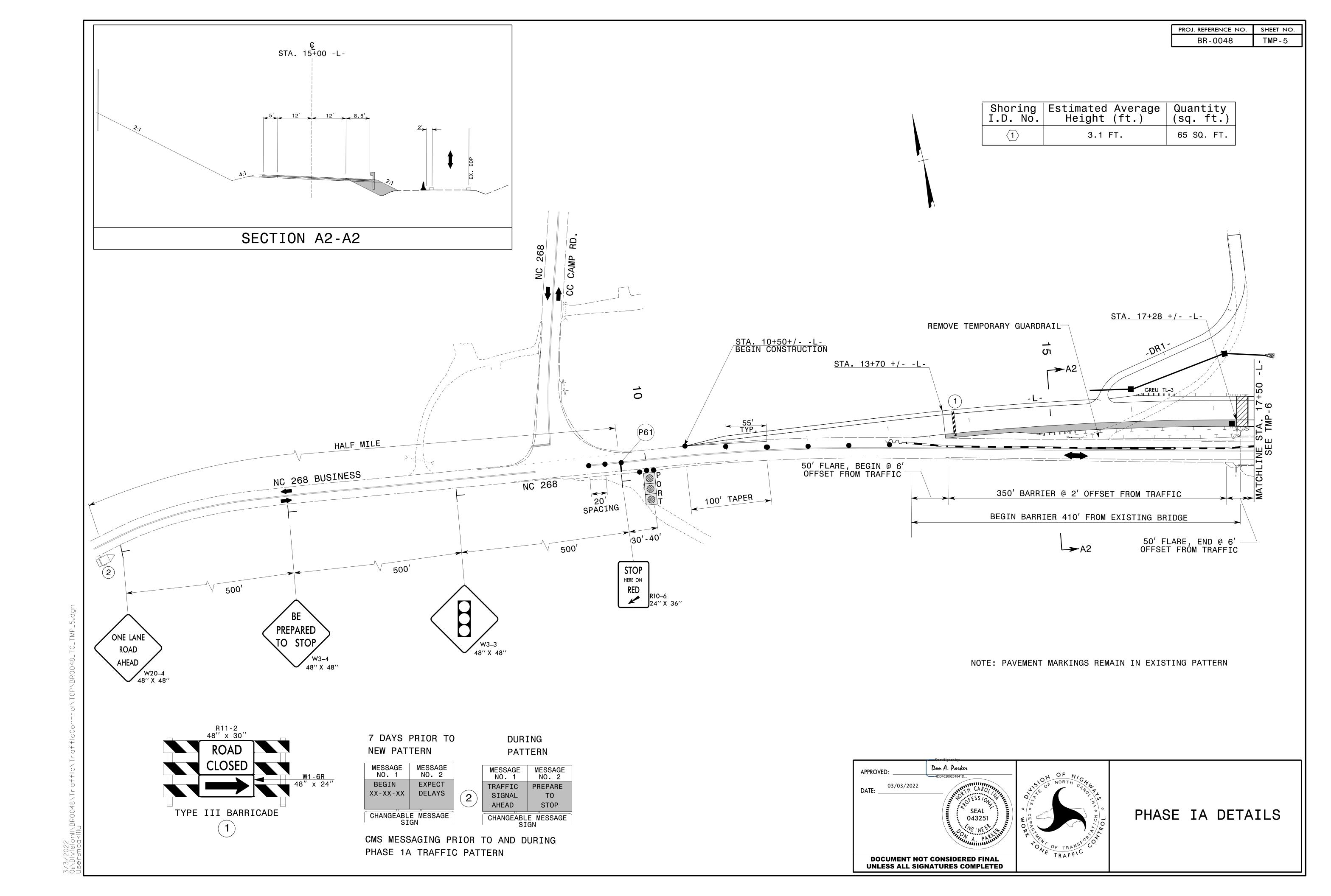
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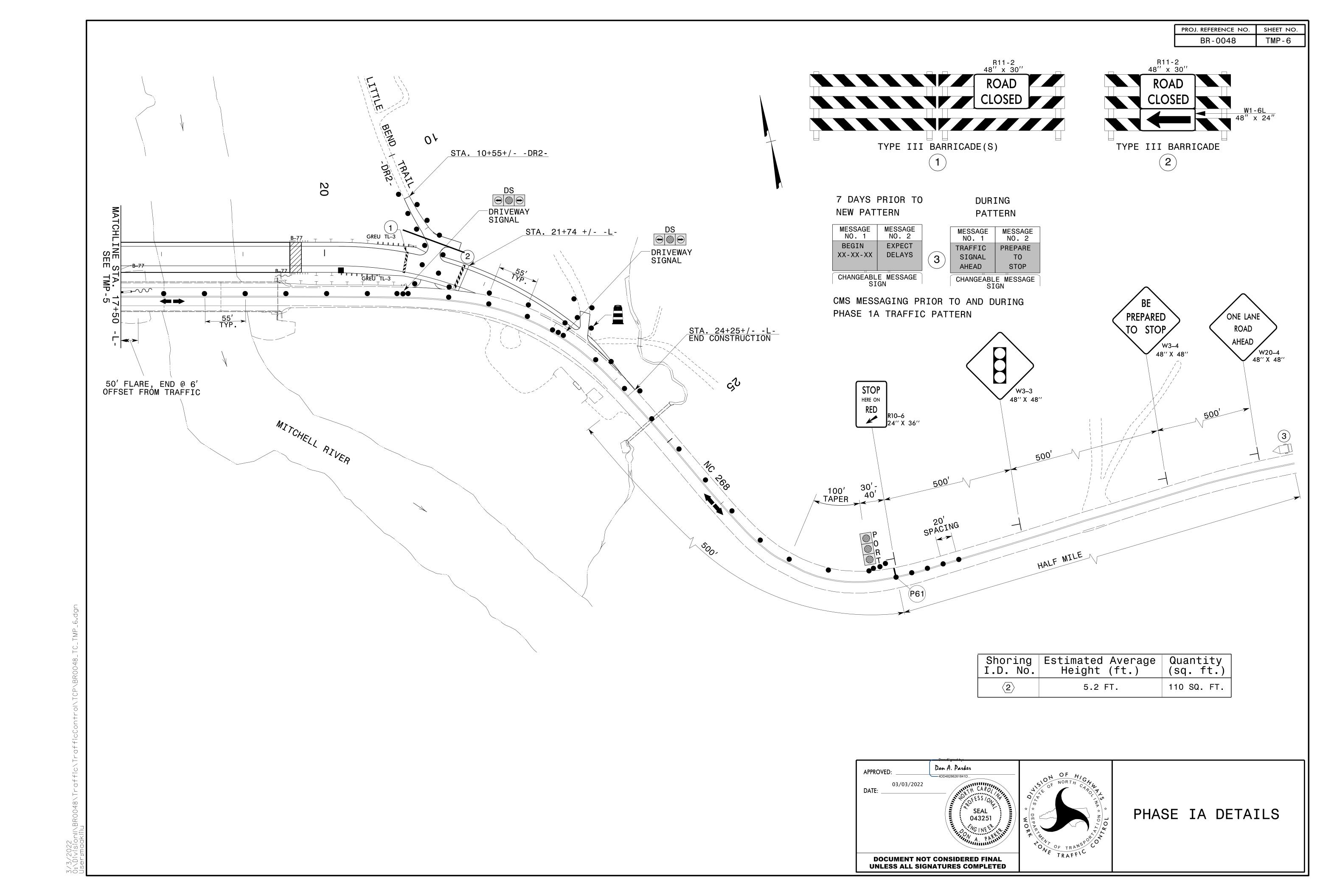
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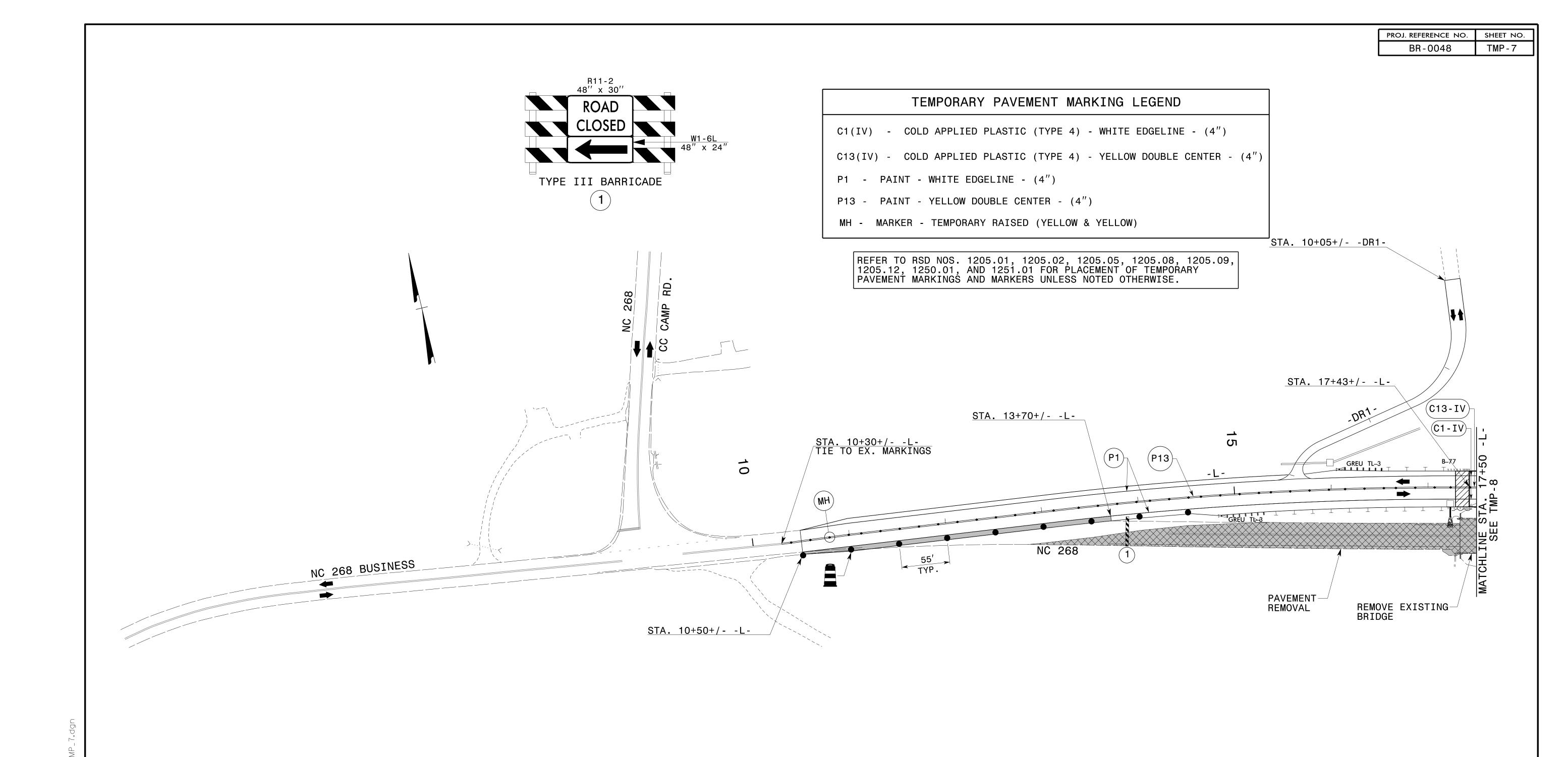
TEMPORARY SHORING NOTES

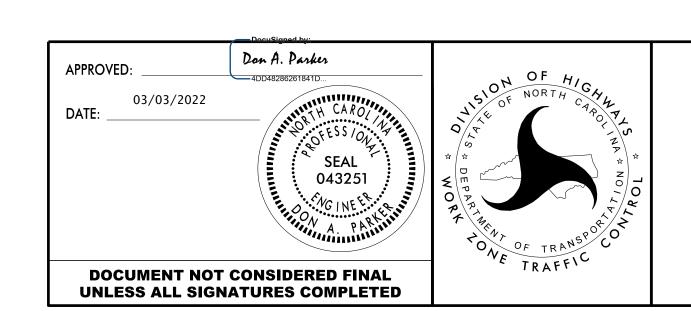
PROJ. REFERENCE NO. SHEET NO. TMP-3 BR-0048 7 DAYS PRIOR DURING TO CLOSURE CLOSURE MESSAGE NO. 1 MESSAGE NO. 2 MESSAGE NO. 2 MESSAGE NO. 1 Shoring Estimated Average Quantity I.D. No. Height (ft.) (sq. ft.) BEGIN 9AM-4PM PREPARE WORKERS XX-XX-XX EXPECT IN ROAD TO 3.1 FT. 65 SQ. FT. DELAYS STOP TYPE III BARRICADE CHANGEABLE MESSAGE SIGN CHANGEABLE MESSAGE SIGN CMS MESSAGING PRIOR TO AND DURING GIRDER DELIVERY AND INSTALLATION STA. 17+45+/- -L-(24'R) END TEMPORARY SHORING STA. 10+50+/- -L-BEGIN CONSTRUCTION STA. 13+70 +/- -L-10 NC 268 NC 268 BUSINESS The STA. 17+24+/- -L-(24'R) BEGIN TEMPORARY SHORING -L- STA. 15+71+/ BEGIN TEMPORARY GUARDRAIL HALF MILE -L- STA. 17+33+/-END TEMPORARY GUARDRAIL (REFER TO ROADWAY PLANS 2C-2 FOR GUARDRAIL TO BRIDGE RAIL ANCHOR DETAIL) ւ STA. 17+00 -L-5' 12' 12' © STA. 15+00 -L-5' 12' 12' SECTION B1-B1 Don A. Parker APPROVED: 03/03/2022 DATE: PHASE I DETAILS SECTION A1-A1 DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED





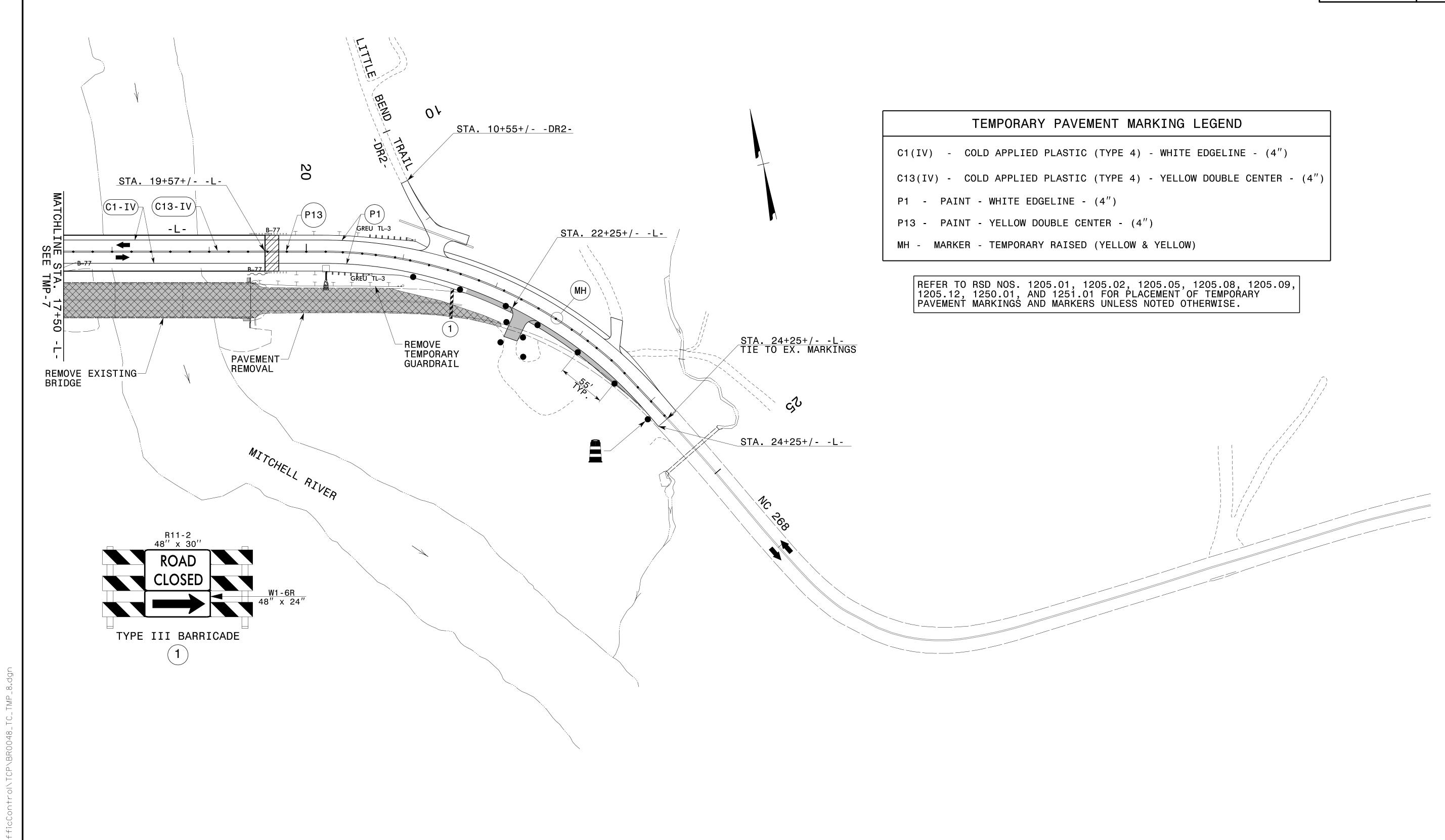


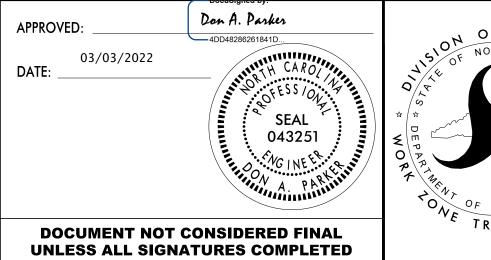


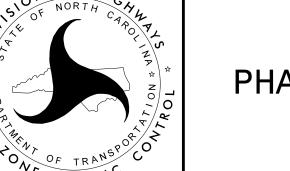


PHASE II DETAILS

PROJ. REFERENCE NO. SHEET NO. BR-0048 TMP-8







PHASE II DETAILS