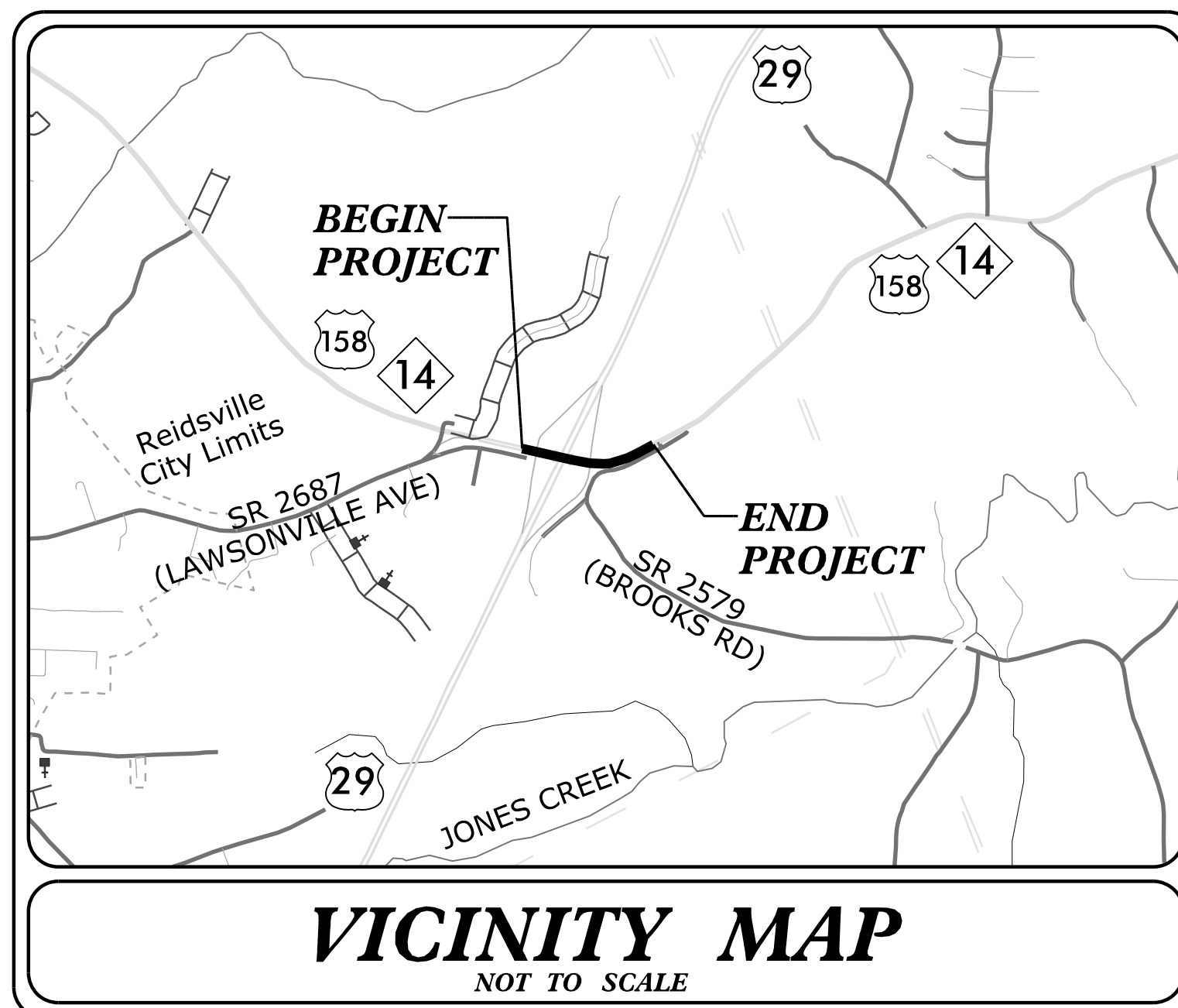
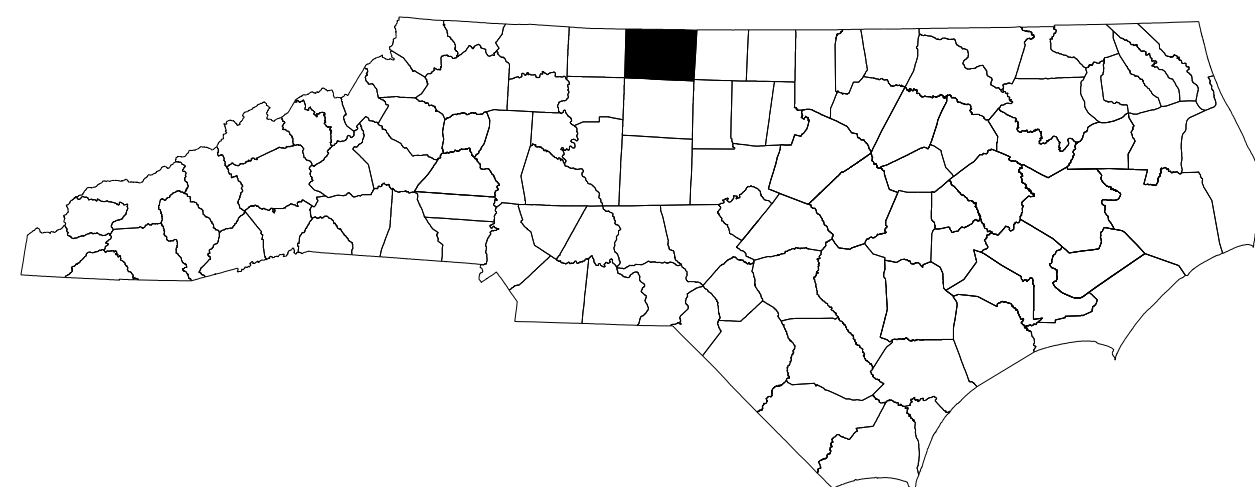


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

ROCKINGHAM COUNTY



LOCATION: REPLACE BRIDGE 780151 ON US 158 /NC 14 OVER US 29

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

INDEX OF SHEETS

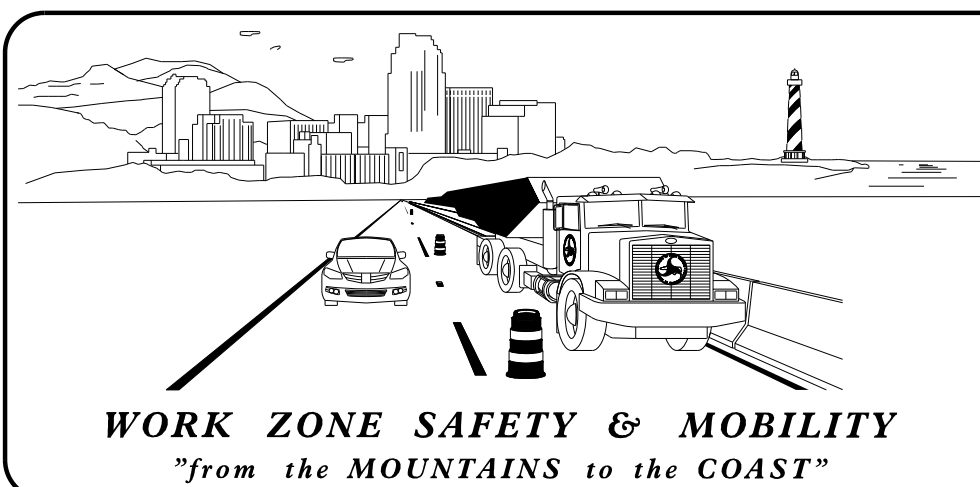
<u>SHEET NO.</u>	<u>TITLE</u>
TMP-1	TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND LEGEND
TMP-2,2A	GENERAL & PROJECT NOTES
TMP-2B	SHORING DETAILS
TMP-2C	TEMPORARY SHORING NOTES
TMP-2D	RAMP CLOSURE & DETOUR DETAIL
TMP-2E	WORK ZONE VARIABLE SPEED LIMIT RESTRICTION
TMP-3 THRU TMP-3A	TRAFFIC CONTROL PHASING
PHASE I	
TMP-4 THRU TMP-6	US 158/NC 14 PHASE I DETAILS
TMP-7	US 29 PHASE I DETAILS
PHASE II	
TMP-08 THRU TMP-10	US 158/NC 14 PHASE II DETAILS
TMP-11 THRU TMP-11B	US 29 PHASE II DETAILS
PHASE III & IV	
TMP-12 THRU TMP-14	US 158/NC 14 PHASE III & IV DETAILS
TMP-15	US 29 PHASE III & IV DETAILS

SHEET NO.
TMP-1

BR-0043

TIP PROJECT:

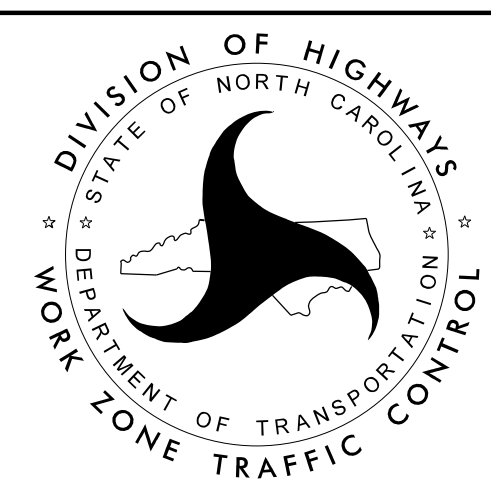
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ROADWAY STANDARD DRAWINGS

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:

<u>STD. NO.</u>	<u>TITLE</u>
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
1101.11	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
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS
1205.03	PAVEMENT MARKINGS - EXITS AND ENTRANCE RAMP
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
1205.12	PAVEMENT MARKINGS - BRIDGES
1205.13	PAVEMENT MARKINGS - LANE REDUCTIONS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - (PERMANENT AND TEMPORARY)
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION

LEGEND

GENERAL

- DIRECTION OF TRAFFIC FLOW
- EXIST. PVMT.
- NORTH ARROW
- PROPOSED PVMT.
- TEMPORARY SHORING

- WORK AREA
- REMOVAL
- TEMP. PAVEMENT

SIGNALS

- EXISTING
- PROPOSED
- TEMPORARY

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

TRAFFIC CONTROL DEVICES

- BARRICADE (TYPE III)
- CONE
- DRUM
- SKINNY DRUM
- 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

TEMPORARY PAVEMENT MARKING

	PAINT		WHITE EDGELINE 6"
	WHITE EDGE LINE 4"		WHITE SOLID LANE LINE 6"
	WHITE LANE LINE 4"		10 FT WHITE SKIP 6"
	10 FT. WHITE SKIP 4"		YELLOW EDGELINE 6"
	3 FT. -9'./SP WHITE MINISKIP 4"		YELLOW DIAGONAL 12"
	2 FT. -6'./SP WHITE MINISKIP 4"		WHITE STOP LINE 24"
	YELLOW EDGE LINE 4"		LEFT TURN ARROW
	YELLOW SINGLE CENTERLINE 4"		RIGHT TURN ARROW
	10 FT. YELLOW SKIP 4"		STRAIGHT ARROW
	YELLOW DOUBLE CENTER 4"		COMBO LT/STRAIGHT ARROW
	2 FT. -6'./SP YELLOW MINISKIP 4"		ALPHANUMERIC CHARACTER
			12" YIELD LINE

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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 - REQUIRES INTERMEDIATE CONTRACT TIME PROJECT SPECIAL PROVISIONS

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

ROAD NAME	DAY AND TIME RESTRICTIONS
US 29 AND US 158/NC 14 AND RAMPS	MONDAY-SUNDAY 6:00 AM - 7:00 PM

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

ROAD NAME
US 29, RAMPS AND US 158/NC 14

HOLIDAY

- FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 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 7:00 P.M. THE FOLLOWING TUESDAY.
- FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 7:00 P.M. MONDAY.
- FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 7:00 P.M. TUESDAY.
- FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE DAY AFTER INDEPENDENCE DAY.

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

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

C) DO NOT STOP TRAFFIC AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS	DURATION AND OPERATION
US 158/NC 14	MONDAY THRU SUNDAY BETWEEN 6:00 AM TO 7:00 PM	15 MINS FOR TRAFFIC SHIFTS

D) DO NOT CLOSE ROAD AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
US 29	MONDAY THRU SUNDAY 5:00 AM TO 1:00 AM
US 29 RAMPS	MONDAY THRU SUNDAY 5:00 AM TO 10:00 PM

E) DO NOT CONDUCT MULTI-VEHICLE HAULING AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
US 29	MONDAY-FRIDAY 6:00 AM-9:00 AM & 4:00 PM-6:00 PM

F) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS THE HAULING OPERATION IS PROTECTED BY BARRIER OR GUARDRAIL OR AS DIRECTED BY THE ENGINEER.

LANE AND SHOULDER CLOSURE REQUIREMENTS

G) 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.

H) 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.

I) 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.

J) 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.

K) 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.

L) PROVIDE TRAFFIC CONTROL FOR APPROPRIATE LANE CLOSURES FOR SURVEYING DONE BY THE DEPARTMENT.

PAVEMENT EDGE DROP OFF REQUIREMENTS

M) 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.

N) 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) 200 FT IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

P) 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.

Q) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS.

R) COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.

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

TRAFFIC BARRIER

T) INSTALL TEMPORARY BARRIER ACCORDING TO THE TRANSPORTATION MANAGEMENT PLANS A MAXIMUM OF TWO (2) WEEKS PRIOR TO BEGINNING WORK IN ANY LOCATION. ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION PROCEED IN A CONTINUOUS MANNER TO COMPLETE THE PROPOSED WORK IN THAT LOCATION UNLESS OTHERWISE STATED IN THE TRANSPORTATION MANAGEMENT PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE.

ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION AND NO WORK IS PERFORMED BEHIND THE TEMPORARY BARRIER FOR A PERIOD LONGER THAN TWO (2) MONTHS, REMOVE / RESET TEMPORARY BARRIER AT NO COST TO THE DEPARTMENT UNLESS OTHERWISE STATED IN THE TRANSPORTATION MANAGEMENT PLANS, TEMPORARY BARRIER IS PROTECTING A HAZARD, OR AS DIRECTED BY THE ENGINEER.

INSTALL TEMPORARY BARRIER WITH THE TRAFFIC FLOW BEGINNING WITH THE UPSTREAM SIDE OF TRAFFIC. REMOVE TEMPORARY BARRIER AGAINST THE TRAFFIC FLOW BEGINNING WITH THE DOWNSTREAM SIDE OF TRAFFIC.

INSTALL AND SPACE DRUMS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH) TO CLOSE OR KEEP THE SECTION OF THE ROADWAY CLOSED UNTIL THE TEMPORARY BARRIER CAN BE PLACED OR AFTER THE TEMPORARY BARRIER IS REMOVED.

U) PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER AT ALL TIMES DURING THE INSTALLATION AND REMOVAL OF THE BARRIER BY EITHER A TRUCK MOUNTED ATTENUATOR (MAXIMUM 72 HOURS) OR A TEMPORARY CRASH CUSHION.

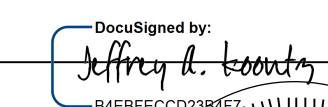
PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER FROM ONCOMING TRAFFIC AT ALL TIMES BY A TEMPORARY CRASH CUSHION UNLESS THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER IS OFFSET FROM ONCOMING TRAFFIC AS FOLLOWS OR AS SHOWN IN THE PLANS: (SEE ALSO 1101.05)

POSTED SPEED LIMIT	MINIMUM OFFSET
40 OR LESS	15 FT
45 - 50	20 FT
55	25 FT
60 MPH OR HIGHER	30 FT

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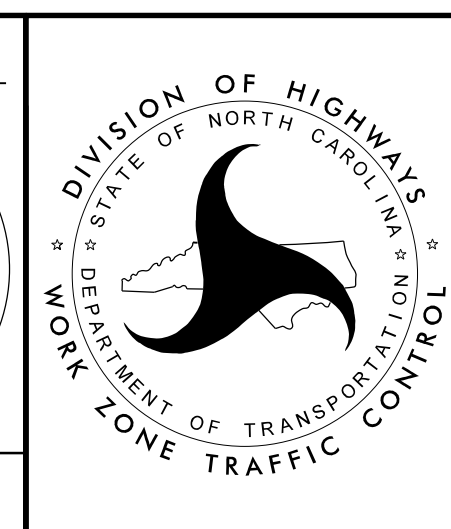


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GENERAL NOTES

GENERAL NOTES (CONTINUED)

TRAFFIC CONTROL DEVICES

V) 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), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.

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

X) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES DRUMS PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME	MARKING	MARKER
US 29 AND US 158/NC 14	PAINT	TEMPORARY RAISED

Z) 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.

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

BB) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

CC) TRACE THE EXISTING AND PROPOSED MONOLITHIC ISLAND LOCATIONS WITH PROPER COLOR PAVEMENT MARKINGS PRIOR TO REMOVAL AND INSTALLATION. PLACE DRUMS TO DELINEATE ANY EXISTING AND PROPOSED MONOLITHIC ISLANDS AFTER REMOVAL AND BEFORE INSTALLATION.

MISCELLANEOUS

DD) 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) 500 FEET AND 250 FEET RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.

EE) SEQUENTIAL FLASHING LIGHTS SHALL BE USED FOR LONG-TERM AND NIGHT TIME TEMPORARY LANE CLOSURES.

LOCAL NOTES

- 1) USE 12" BLACK PAVEMENT MARKING LINES TO COVER EXISTING AND TEMPORARY PAVEMENT MARKINGS ON US 29, AS DIRECTED BY THE ENGINEER.
- 2) USE 12" BLACK PAVEMENT MARKING LINES TO COVER EXISTING AND TEMPORARY PAVEMENT MARKINGS ON US 158/NC 14 PAVEMENT BEYOND THE FINAL PAVING LIMITS, AS DIRECTED BY THE ENGINEER.

TRAFFIC MANAGEMENT PLAN

THE PROPOSED STRUCTURE ON -L- WILL BE CONSTRUCTED IN TWO PHASES WHILE MAINTAINING US 158/NC 14 TRAFFIC IN A TEMPORARY 2-LANE, 2-WAY PATTERN ACROSS THE EXISTING BRIDGE AND PARTIALLY CONSTRUCTED NEW STRUCTURE.

CONSTRUCTION OF -L- US 158/NC 14 WILL BE DONE ONE SIDE AT A TIME USING TRAFFIC SHIFTS, TEMPORARY LANE CLOSURES WITH FLAGGERS. THE EXISTING SIGNAL WILL BE MODIFIED FOR EACH PHASE.

-Y- US 29 WILL BE CONSTRUCTED BEHIND BARRIER IN MULTIPLE STEPS WITH TRAFFIC SHIFTS TO MAINTAIN TWO LANES IN EACH DIRECTION. OVERHEAD WORK WILL BE DONE WITH US 29 TRAFFIC DETOURED TO RAMPS.

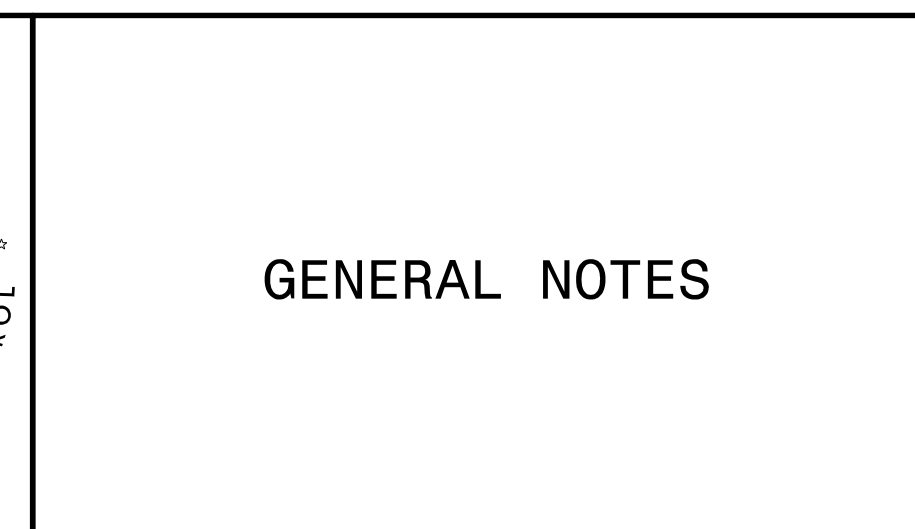
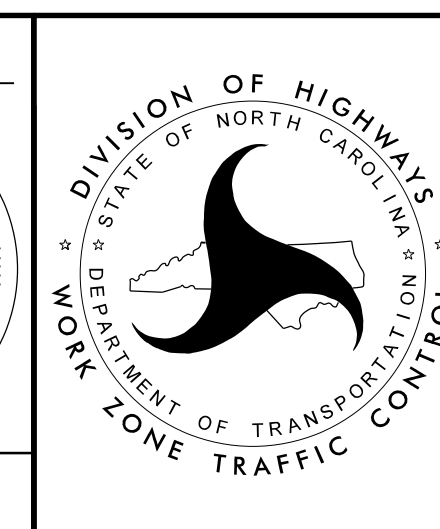
RAMPS WILL BE CONSTRUCTED WITH TEMPORARY CLOSURES WHILE RAMP TRAFFIC USES AN OFF-SITE DETOUR.

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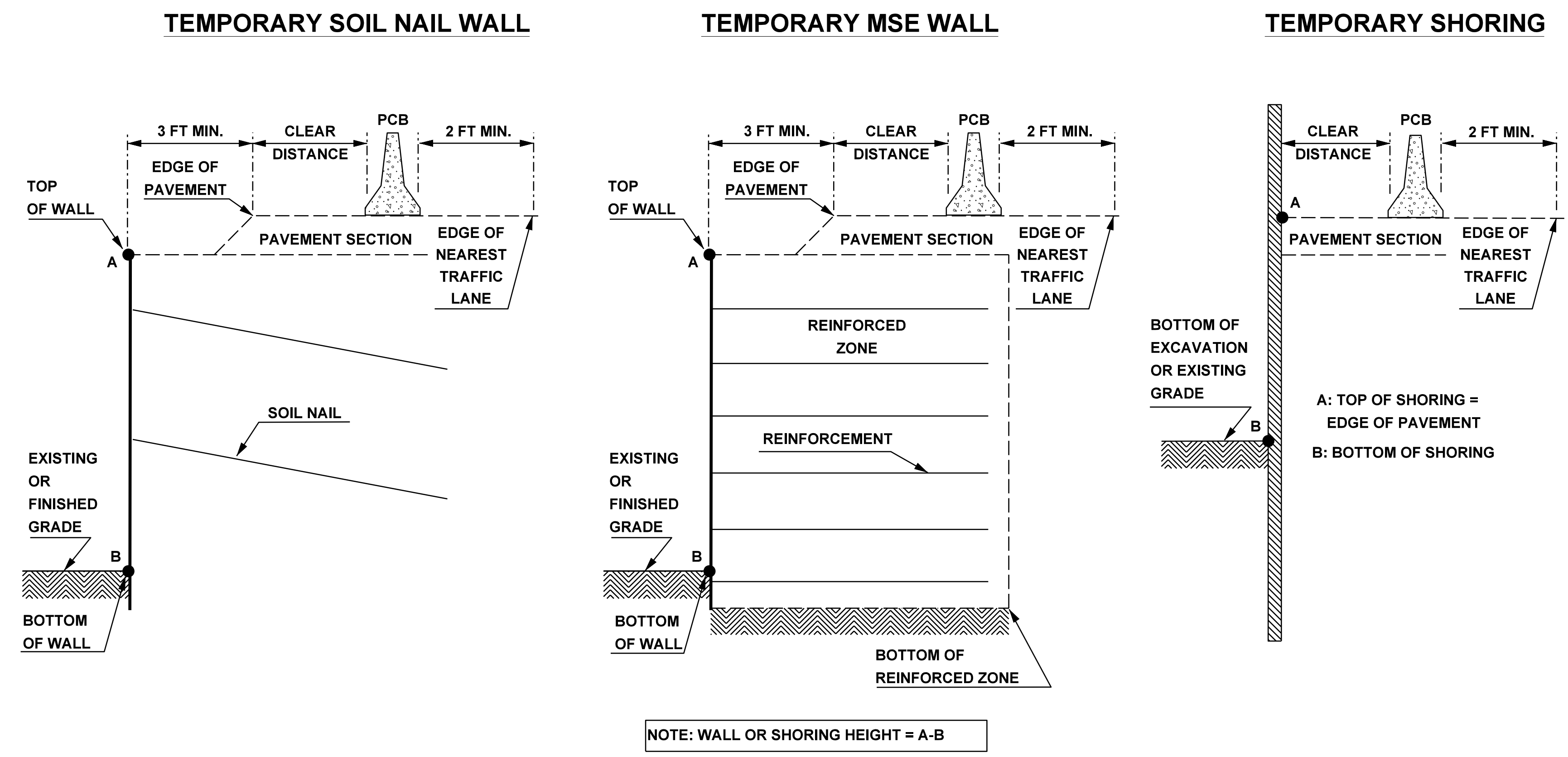
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GENERAL NOTES



NOTE: WALL OR SHORING HEIGHT = A-B

FIGURE A

NOTES

- 1- REFER TO THE TRAFFIC CONTROL PLANS FOR TEMPORARY SHORING LOCATIONS AND NOTES.
- 2- REFER TO THE "TEMPORARY SHORING" STANDARD PROVISION FOR INFORMATION ABOUT TEMPORARY SHORING AND PORTABLE CONCRETE BARRIER (PCB).
- 3- PCB IS REQUIRED IF TEMPORARY SHORING/WALL IS LOCATED WITHIN THE CLEAR ZONE IN ACCORDANCE WITH THE AASHTO ROADSIDE DESIGN GUIDE. DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE. (CONTACT NCDOT PAVEMENT MANAGEMENT FOR APPLICABLE PAVEMENT DESIGN).
- 4- BASED ON THE CLEAR DISTANCE, OFFSET, DESIGN SPEED AND PAVEMENT TYPE, CHOOSE AN UNANCHORED OR ANCHORED PCB FROM THE TABLE SHOWN IN FIGURE B. CLEAR DISTANCE IS DEFINED AS SHOWN IN FIGURE A AND OFFSET IS DEFINED AS SHOWN IN FIGURE B.
- 5- AT THE CONTRACTOR'S OPTION OR IF THE MINIMUM REQUIRED CLEAR DISTANCE IS NOT AVAILABLE, SET PCB NEXT TO AND UP AGAINST THE TRAFFIC SIDE OF THE TEMPORARY SHORING/WALLS EXCEPT FOR BARRIER ABOVE TEMPORARY WALLS. PCB WITH THE MINIMUM REQUIRED CLEAR DISTANCE IS REQUIRED ABOVE TEMPORARY WALLS.
- 6- USE NCDOT PORTABLE CONCRETE BARRIER (PCB) IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1170.01 AND SECTION 1170 OF THE STANDARD SPECIFICATIONS.
- 7- SET PCB WITH A MINIMUM HORIZONTAL DISTANCE OF 2 FT BETWEEN THE FRONT FACE OF THE BARRIER AND THE EDGE OF THE NEAREST TRAFFIC LANE AS SHOWN IN FIGURE A UNLESS OTHERWISE SHOWN IN THE PLANS OR APPROVED BY THE ENGINEER.
- 8- FOR PCB ABOVE AND BEHIND TEMPORARY WALLS, PROVIDE A MINIMUM DISTANCE OF 3 FT BETWEEN THE EDGE OF PAVEMENT AND THE WALL FACE AS SHOWN IN FIGURE A. IF THIS MINIMUM REQUIRED DISTANCE IS NOT AVAILABLE, CONTACT THE ENGINEER.
- 9- TABLE SHOWN IN FIGURE B IS BASED ON NCDOT RESEARCH PROJECT NO. 2005-010 WITH VEHICLE TYPE USED FOR NCHRP 350 CRASH TESTS.

MINIMUM REQUIRED CLEAR DISTANCE, inches

Barrier Type	Pavement Type	Offset * ft	Design Speed, mph					
			<30	31-40	41-50	51-60	61-70	71-80
Unanchored PCB	Asphalt	<8	24	26	29	32	36	40
		8-14	26	28	31	35	38	42
		14-20	27	29	34	36	39	43
		20-26	28	31	35	38	40	44
		26-32	29	32	36	39	42	45
		32-38	30	34	38	41	43	46
		38-44	31	34	41	43	45	48
	44-50	31	35	41	43	46	49	
	50-56	32	36	42	44	47	50	
	>56	32	36	42	45	47	51	
	Concrete	<8	17	18	21	22	25	26
		8-14	19	20	23	25	26	29
		14-20	22	22	24	26	28	31
		20-26	23	24	26	27	30	34
26-32		24	25	27	28	32	35	
32-38		24	26	27	30	33	36	
38-44		25	26	28	30	34	37	
Anchored PCB	Asphalt	All Offsets	24 for All Design Speeds					
		Concrete (including bridge approach slabs)	All Offsets	12 for All Design Speeds				

* See Figure Below

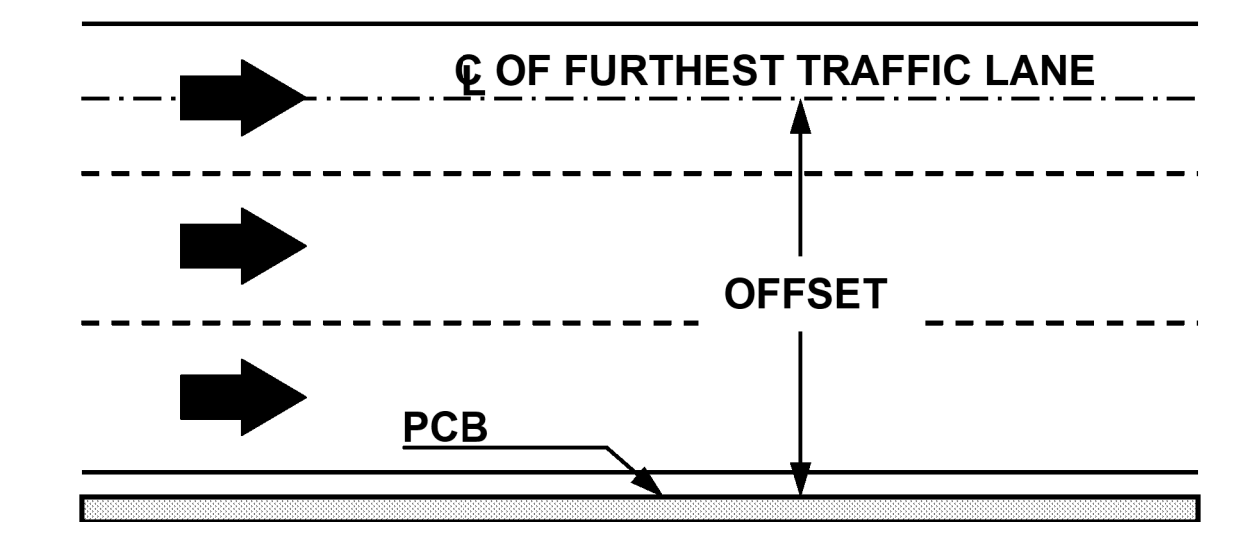
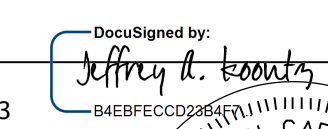
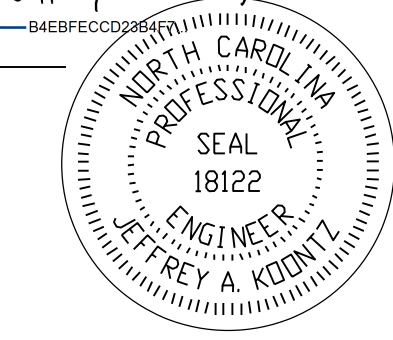
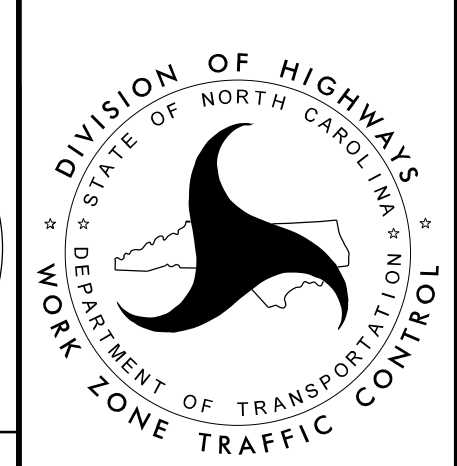


FIGURE B

2/15/2023 BR0043_TC_TMP_03_SHORING_DETAIL.dgn jon.ar.chambault

APPROVED:  DATE: 2/15/2023 SEAL			PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING LOCATIONS
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PROJ. REFERENCE NO.	SHEET NO.
BR-0043	TMP-2C

TEMPORARY SHORING NOTES

TEMPORARY SHORING NO. (2A) (SEE SHEET TMP-05)

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

DESIGN TEMPORARY SHORING FROM STATION 26+58 +/- -L-, 4.2 FT. LT. TO STATION 27+35 +/- -L-, 4.2 LT., FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

- UNIT WEIGHT OF SOIL ABOVE WATER TABLE, $\gamma = 120$ PCF
- UNIT WEIGHT OF SOIL BELOW WATER TABLE, $\gamma' = 60$ PCF
- FRICTION ANGLE, $\phi = 30$
- COHESION, $c = 0$ PSF
- GROUNDWATER ELEVATION = 724 FT

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

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 26+58 +/- -L-, 4.2 FT. LT. TO STATION 27+35 +/- -L-, 4.2 LT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

AT THE CONTRACTOR*S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM 26+58 +/- -L-, 4.2 FT. LT. TO STATION 27+35 +/- -L-, 4.2 LT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALL.

TEMPORARY SHORING NO. (2B) (SEE SHEET TMP-05)

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

DESIGN TEMPORARY SHORING FROM STATION 26+54 +/- -L-, 0.5* LT, TO STATION 27+20 +/- -L-, 0.5* LT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

- UNIT WEIGHT OF SOIL ABOVE WATER TABLE, $\gamma = 120$ PCF
- UNIT WEIGHT OF SOIL BELOW WATER TABLE, $\gamma' = 60$ PCF
- FRICTION ANGLE, $\phi = 30$
- COHESION, $c = 0$ PSF
- GROUNDWATER ELEVATION = 724 FT.

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

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 26+54 +/- -L-, 0.5* LT, TO STATION 27+20 +/- -L-, 0.5* LT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION 26+54 +/- -L-, 0.5* LT, TO STATION 27+20 +/- -L-, 0.5* LT, MAY NOT PENETRATE BELOW ELEVATION 718 FT DUE TO OBSTRUCTIONS, VERY DENSE OR HARD SOIL, BOULDERS OR WEATHERED OR HARD ROCK.

AT THE CONTRACTOR*S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION 26+54 +/- -L-, 0.5* LT, TO STATION 27+20 +/- -L-, 0.5* LT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

TEMPORARY SHORING NO. (1A) (SEE SHEET TMP-05)

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

DESIGN TEMPORARY SHORING FROM STATION 24+25 +/- -L-, 5.0 FT. LT. TO STATION 25+05 +/- -L-, 5.0 LT., FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

- UNIT WEIGHT OF SOIL ABOVE WATER TABLE, $\gamma = 120$ PCF
- UNIT WEIGHT OF SOIL BELOW WATER TABLE, $\gamma' = 60$ PCF
- FRICTION ANGLE, $\phi = 30$
- COHESION, $c = 0$ PSF
- GROUNDWATER ELEVATION = 724 FT

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

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 24+25 +/- -L-, 5.0 FT. LT. TO STATION 25+05 +/- -L-, 5.0 LT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN AS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

AT THE CONTRACTOR*S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM 24+25 +/- -L-, 5.0 FT. LT. TO STATION 25+05 +/- -L-, 5.0 LT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALL.

TEMPORARY SHORING NO. (1B) (SEE SHEET TMP-05)

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

DESIGN TEMPORARY SHORING FROM STATION 24+40 +/- -L-, CL, TO STATION 25+10 +/- -L-, CL, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

- UNIT WEIGHT OF SOIL ABOVE WATER TABLE, $\gamma = 120$ PCF
- UNIT WEIGHT OF SOIL BELOW WATER TABLE, $\gamma' = 60$ PCF
- FRICTION ANGLE, $\phi = 30$
- COHESION, $c = 0$ PSF
- GROUNDWATER ELEVATION = 724 FT.

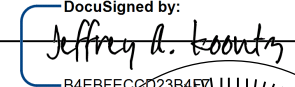
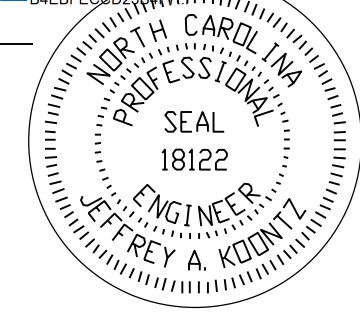

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 24+40 +/- -L-, CL, TO STATION 25+10 +/- -L-, CL. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION 24+40 +/- -L-, CL, TO STATION 25+10 +/- -L-, CL MAY NOT PENETRATE BELOW ELEVATION 715 FT DUE TO OBSTRUCTIONS, VERY DENSE OR HARD SOIL, BOULDERS OR WEATHERED OR HARD ROCK.

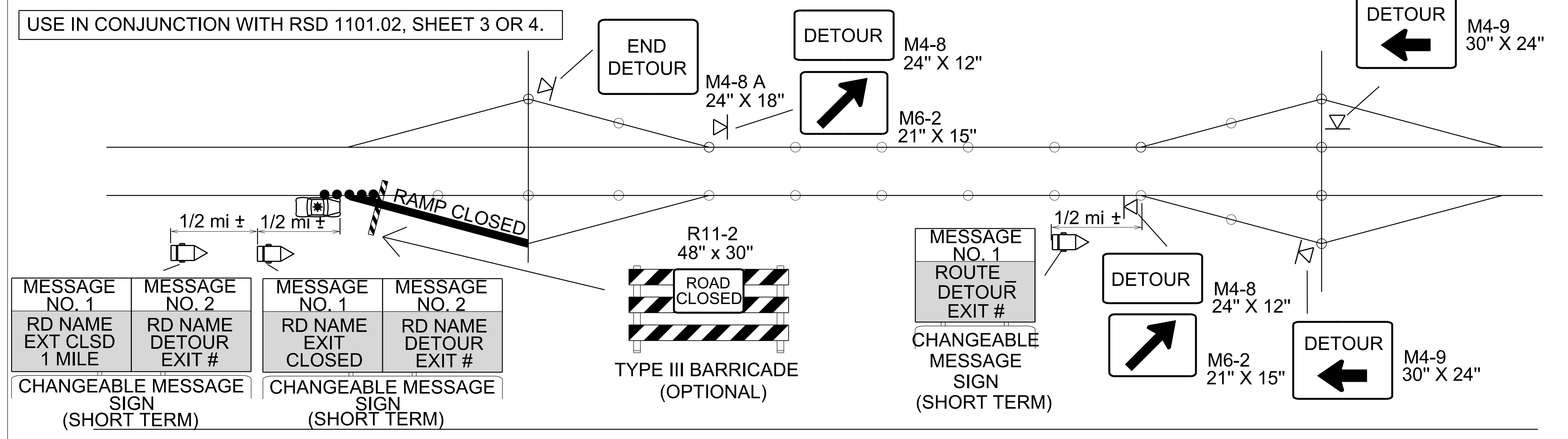
AT THE CONTRACTOR*S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION 24+40 +/- -L-, CL, TO STATION 25+10 +/- -L-, CL. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

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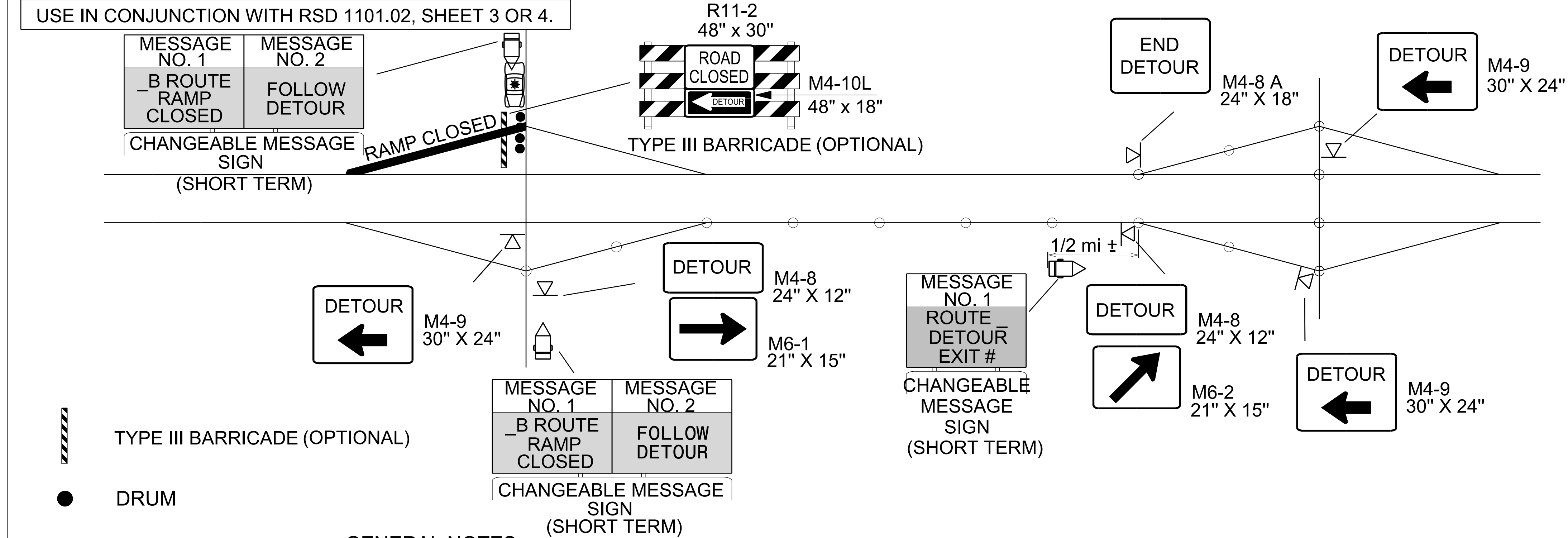
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<p>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</p>			

TYPICAL RAMP DETOURS

SHORT TERM CLOSURE AND DETOUR OF OFF-RAMP TO ADJACENT INTERCHANGE



SHORT TERM CLOSURE AND DETOUR OF ON-RAMP TO ADJACENT INTERCHANGE



GENERAL NOTES

1. THIS DRAWING IS INTENDED FOR USE DURING SHORT TERM CLOSURES OF INTERSTATE AND FREEWAY RAMPS.
2. RAMP CLOSURES SHALL BE APPROVED BY THE ENGINEER.
3. IF RAMP CLOSURE RESTRICTIONS APPLY, SEE SPECIAL PROVISION, "INTERMEDIATE CONTRACT TIMES AND LIQUIDATED DAMAGES".

2/15/2023 BR0043_TC_TMP_02D_RampDetour.dgn jon_ar-chambault

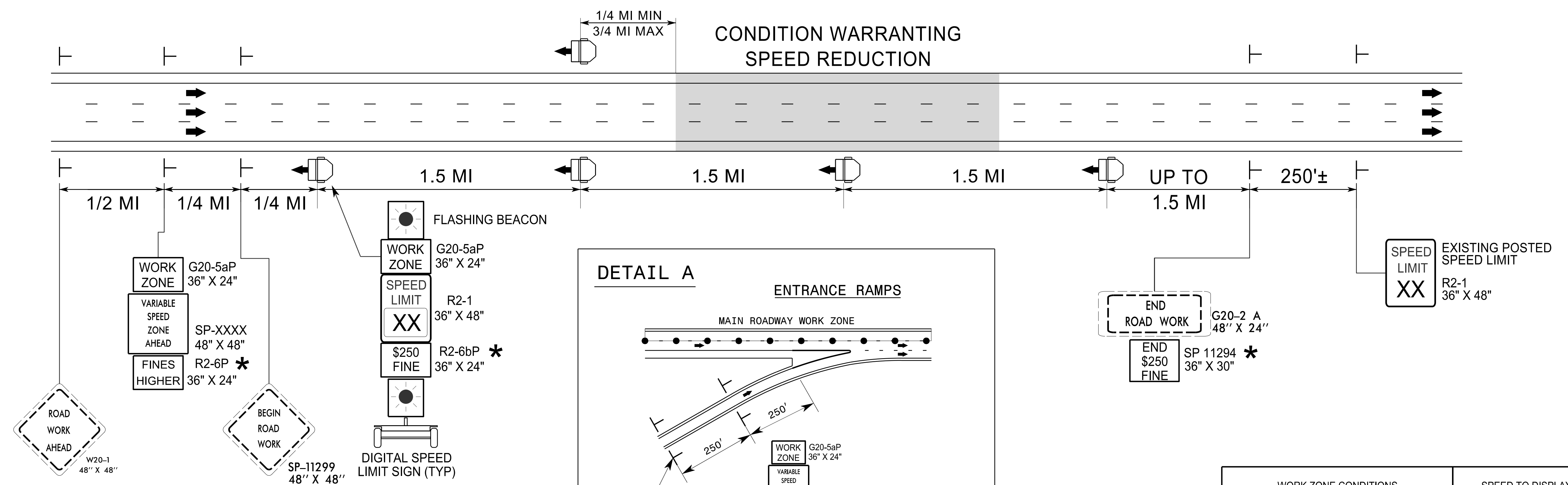
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APPROVED: *Jeffrey A. Koudy*
 DATE: 2/15/2023
 SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 18122
 JEFFREY A. KOUDY

DIVISION OF HIGHWAYS
 NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 WORK ZONE TRAFFIC CONTROL

**RAMP & LOOP
 CLOSURE
 DETOUR DETAIL**

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* USE ONLY IF ORDINANCED. SEE NOTE 5 BELOW.

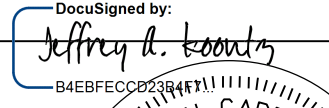
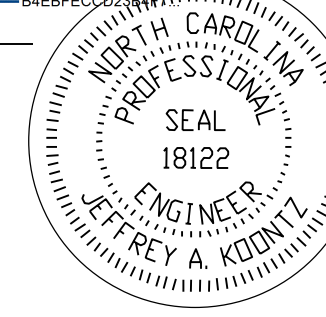
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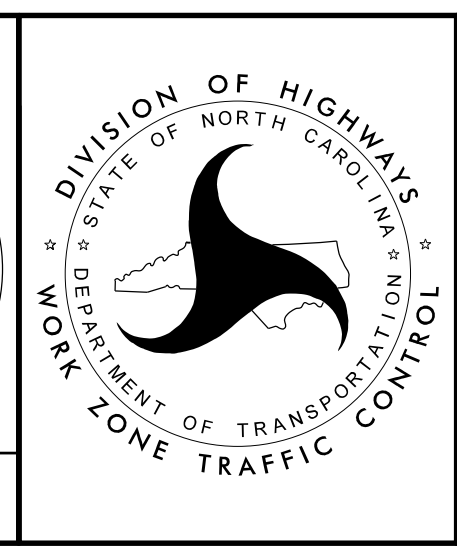
1. THE DIGITAL SPEED LIMITS SIGNS WILL BE INSTALLED (TRAILER MOUNTED OR STATIONARY MOUNTED) IN ADVANCE OF AND SPACED APPROXIMATELY 1.5 MILES THROUGHOUT THE THE PROJECT LIMITS, UNLESS DIRECTED OTHERWISE.
2. WITHIN 1/4 TO 3/4 MILE UPSTREAM OF CONDITION WARRANTING A SPEED REDUCTION, PLACE A DIGITAL SPEED LIMIT SIGN ON BOTH THE INSIDE AND OUTSIDE SHOULDERS, UNLESS DIRECTED OTHERWISE BY THE ENGINEER. AT ALL OTHER LOCATIONS DOWNSTREAM, PLACE A SINGLE DIGITAL SPEED LIMIT SIGN ON THE OUTSIDE SHOULDER.

IF SIGNS ARE NOT HIGHLY VISIBLE TO ALL MOTORISTS, SUPPLEMENTAL DIGITAL SPEED LIMIT SIGNS ARE PERMITTED ON THE MEDIAN SHOULDER.
3. THE DIGITAL SPEED LIMIT SIGNS TAKE PRECEDENCE OVER EXISTING SPEED LIMIT SIGNS AND SHOULD REMAIN UPRIGHT AND VISIBLE AT ALL TIMES. ALL EXISTING SPEED LIMIT SIGNS SHALL BE COVERED OR REMOVED FOR DURATION OF THE PROJECT.
4. NCDOT HAS SOLE AUTHORITY OF THE SPEED LIMITS DISPLAYED ON THE DIGITAL SPEED LIMIT SIGNS.
5. THE WORK ZONE VARIABLE SPEED LIMIT AND THE \$250 SPEEDING PENALTY ARE SEPARATE ORDINANCES THAT MUST BE SIGNED BY THE STATE TRAFFIC ENGINEER TO BE VALID AND ENFORCEABLE. WITHOUT SIGNED ORDINANCES, THE SPEED LIMIT ON A FACILITY SHALL REMAIN UNCHANGED AND/OR HIGHER FINES SIGNS SHALL NOT BE USED.
6. THE REDUCED SPEED SHALL BE DISPLAYED A MINIMUM OF 1/4 MILE AND A MAXIMUM OF 3/4 MILE IN ADVANCE OF AND THROUGHOUT THE AREA MEETING CONDITIONS LISTED IN THE CHART. THE EXISTING SPEED LIMIT SHALL BE DISPLAYED ON ALL OTHER DIGITAL SPEED LIMIT SIGNS.
7. THE SPEED DISPLAYED SHALL BE THE LOWER OF THE EXISTING SPEED LIMIT OR THE SPEED IN THE WORK ZONE CONDITION CHART.
8. THE BEACONS ON THE DIGITAL SPEED LIMIT SIGNS SHALL ONLY FLASH DURING TIMES THE SPEED IS REDUCED, AND REMAIN OFF AT ALL OTHER TIMES.

	WORK ZONE CONDITIONS	SPEED TO DISPLAY (SEE NOTE 6 & 7)
LANE CLOSURES	2 LANES REDUCED TO 1 LANE	55
	3 LANES REDUCED TO 1 LANE	55
	3 LANES REDUCED TO 2 LANES	60
	4 LANES REDUCED TO 1 LANE	55
	4 LANES REDUCED TO 2 LANES	60
	4 LANES REDUCED TO 3 LANES	65
CONTINUOUS BARRIER (LENGTH OF BARRIER GREATER THAN 1 MILE)	1 OPEN LANE WITH CONTINUOUS BARRIER ON BOTH SHOULDERS	55
	1 OPEN LANE WITH CONTINUOUS BARRIER ON 1 SHOULDER	60
	3 OR 2 OPEN LANES WITH CONTINUOUS BARRIER ON BOTH SHOULDERS	60
	3 OR 2 OPEN LANES WITH CONTINUOUS BARRIER ON 1 SHOULDER	65
	4 OPEN LANES WITH BARRIER CONTINUOUS ON BOTH SHOULDERS	65
	4 OPEN LANES WITH BARRIER CONTINUOUS ON 1 SHOULDER	EXISTING
	UNEVEN LANES	60

2/15/2023 BR0043_TC_TMP_2E_WZVarSpeedLimitReduction_DetailSheet.dgn ion_ar-chambault

APPROVED: 
 DATE: 2/15/2023
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WORK ZONE VARIABLE SPEED LIMIT REDUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJ. REFERENCE NO.	SHEET NO.
BR-0043	TMP - 3

PHASE I

STEP 1) PRIOR TO ANY CONSTRUCTION ACTIVITY, INSTALL WORK ZONE ADVANCE WARNING SIGNS ON ALL ROADS INVOLVED: US 158 / NC 14 AND US 29 ACCORDING TO THE ROADWAY STANDARD DRAWING (RSD) 1101.01 AND THE WORK ZONE VARIABLE SPEED LIMIT REDUCTION SIGNS ON US 29 ACCORDING TO THE DETAIL ON TMP-2E.

STEP 2) USE RSD 1101.02 (SHT 3 OF 14) FOR TEMPORARY LANE CLOSURES ON US 158/NC 14 AND REMOVE EXISTING MONOLITHIC CONCRETE ISLANDS AND REPAIR PAVEMENT UP TO EXISTING EDGE AND ELEVATION ACCORDING TO THE LOCATIONS SHOWN ON ROADWAY PLAN SHEETS 2B-3 AND 2B-4.

DELINEATE ISLANDS WITH TEMPORARY PAVEMENT MARKING (PAINT) AND DRUMS AND MAINTAIN TRAFFIC IN ORIGINAL PATTERN.

STEP 3) USE RSD 1101.02 (SHEET 1 OF 14) AND FLAGGERS FOR TEMPORARY LANE CLOSURES AND ALTERNATING TRAFFIC TO MAINTAIN AT LEAST ONE LANE THROUGH THE WORK ZONE, CONSTRUCT THE PROPOSED PIPE CULVERT AND INLET AT STA 30+25. AT THE END OF EACH NIGHT, COVER OPEN TRENCH WITH TRAFFIC BEARING PLATES AS NEEDED TO MAINTAIN TWO LANES OF TRAFFIC IN EACH DIRECTION. CONSTRUCT STR 418 BELOW FINAL GRADE, CAP AND PAVE OVER UNTIL PHASE II. (SEE INSET ON TMP-5)

STEP 4) USE RSD 1101.02 (SHEET 1 OF 14) AND FLAGGERS FOR TEMPORARY LANE CLOSURES AS NEEDED TO INSTALL AND COVER TEMPORARY SIGNAL AT THE -RPC-/RPD- INTERSECTION OF -L- (US 158/NC 14). MAINTAIN EXISTING SIGNAL.

USE RSD 1101.02 (SHEET 3 OF 14) FOR TEMPORARY LANE CLOSURES AND REMOVE EXISTING MONOLITHIC ISLAND ACCORDING TO THE FOLLOWING STATIONS: (SEE TMP-5)

-L- STA. 22+67 +/- TO STA. 24+69 +/-

AND PLACE DRUMS TO DEFINE ISLAND UNTIL PCB IS PLACED.

STEP 5) PLACE DRUMS WITH SEQUENTIAL FLASHING LIGHTS TO CLOSE THE INSIDE EASTBOUND LANE OF US 158/NC 14 IN ADVANCE OF WORK ZONE. (SEE TMP-4)

USE RSD 1101.02 (SHEET 1 AND 3 OF 14) AND FLAGGERS AS NEEDED FOR TEMPORARY LANE CLOSURES AND INSTALL TEMPORARY PAVEMENT MARKINGS (PAINT) AND MARKERS (RAISED) AND PLACE DRUMS IN TEMPORARY PATTERN ACCORDING TO THE FOLLOWING STATIONS: (SEE TMP-4 THRU TMP-6)

START OF MERGE TAPER (TMP-4) TO -L- STA. 39+07 +/-

UNCOVER AND ACTIVATE TEMPORARY SIGNAL AND SHIFT TRAFFIC INTO NEW 2-LANE, 2-WAY -LDET1- PATTERN ACROSS THE SOUTH SIDE OF THE BRIDGE. (SEE TMP-4 THRU TMP-6)

STEP 6) USE RSD 1101.02 (SHT 1 OF 14) AND FLAGGERS FOR TEMPORARY LANE CLOSURES ON US 158 AND PLACE PCB ACCORDING TO THE FOLLOWING STATIONS (SEE TMP-5):

-L- STA. 22+83 TO STA. 28+33

STEP 7) WORK BEHIND BARRIER, AWAY FROM TRAFFIC OR WITH RSD 1101.02 (SHT 1 OF 14) AND FLAGGERS FOR ALTERNATING LANE CLOSURES, INSTALL TEMPORARY SHORING AND WALLS AND BEGIN CONSTRUCTION OF -L- US 158 UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE ACCORDING TO THE FOLLOWING STATIONS: (SEE TMP-5 THRU TMP-6)

-L- STA. 20+50 +/- TO STA. 24+97 +/- (BRIDGE) LT
 -L- STA. 26+64 (BRIDGE) +/- TO STA. 29+90 +/- LT
 -L- STA. 33+00 +/- TO STA. 39+07 +/- LT

USE DETAIL ON TMP-2D TO CLOSE THE US 29 RAMP AND DETOUR RAMP TRAFFIC TO THE ADJACENT INTERCHANGE AND CONSTRUCT RAMP A AND RAMP D UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE ACCORDING TO THE FOLLOWING STATIONS: (SEE TMP-5)

-RPA- STA. 16+65 +/- TO STA. 18+04 +/-
 -RPD- STA. 18+75 +/- TO STA. 22+18 +/-

COVER DETOUR SIGNS AND OPEN RAMPS TO TRAFFIC AT THE END OF EACH NIGHT.

STEP 8) USE RSD 1101.02 (SHEET 4 OF 14) FOR TEMPORARY LANE CLOSURES ON US 29 FOR THE FOLLOWING:

MILL AND OVERLAY EXISTING RUMBLE STRIPS AND PLACE TEMPORARY INSIDE SHOULDER WIDENING PAVEMENT ON -Y- (US 29) UP TO EXISTING EDGE AND ELEVATION ACCORDING TO THE FOLLOWING STATIONS: (SEE TMP-7):

-L- STA. 19+00 +/- TO STA. 23+00 +/- MEDIAN LT
 -L- STA. 20+00 +/- TO STA. 23+00 +/- MEDIAN RT
 -L- STA. 37+00 +/- TO STA. 40+50 +/- MEDIAN LT
 -L- STA. 37+00 +/- TO STA. 40+00 +/- MEDIAN RT

USE TRENCHLESS INSTALLATION WORKING AWAY FROM TRAFFIC TO INSTALL PROPOSED DRAINAGE UNDER US 29 AND RAMP D (SEE TMP-7)

COVER INSIDE EDGELINE WITH 12" BLACK PAVEMENT MARKING LINES (SEE LOCAL NOTE) AND PLACE TEMPORARY PAVEMENT MARKING (PAINT) ACCORDING TO THE FOLLOWING STATIONS:

-Y- STA. 27+00 +/- TO STA. 34+00 +/- SBL
 -Y- STA. 26+00 +/- TO STA. 33+50 +/- NBL

AND SHIFT INSIDE LANES OF US 29 TRAFFIC INTO NEW PATTERN.

STEP 9) USE RSD 1101.02 (SHT 4 OF 14) FOR TEMPORARY LANE CLOSURES AND INSTALL PCB ON THE INSIDE AND OUTSIDE SHOULDERS OF US 29 (-Y-) SBL & NBL ACCORDING TO THE FOLLOWING STATIONS: (SEE TMP-7)

-Y- STA. 28+00 +/- TO STA. 32+00 +/- SBL LT & RT
 -Y- STA. 28+00 +/- TO STA. 32+00 +/- NBL LT & RT

US 158 BRIDGE & RETAINING WALLS – STAGE I

STEP 10) WORK BEHIND BARRIER OR AWAY FROM TRAFFIC AND DEMOLISH THE WESTBOUND PORTION OF THE EXISTING STRUCTURE ACCORDING TO THE FOLLOWING:

GIRDER REMOVAL AND INSTALLATION OVER US 29

STEP 10A) WORK OVER CONSECUTIVE NIGHTS DURING THE ALLOWABLE CLOSURE HOURS, REMOVE EXISTING GIRDERS OF US 158/NC 14 BRIDGE (STAGE 1) OVER NORTHBOUND US 29 AS FOLLOWS: USE RSD 1101.03 (SHEET 7 OF 9) FOR TEMPORARY CLOSURE OF US 29 WITH NORTHBOUND TRAFFIC DETOURED VIA INTERCHANGE RAMPS. AT THE END OF EACH NIGHT, OPEN ALL LANES TO TRAFFIC.

USE THE SAME STEPS FOR TEMPORARY ROAD CLOSURES TO INSTALL GIRDERS OVER NORTHBOUND US 29 IN STEP 11.

STEP 10B) WORK OVER CONSECUTIVE NIGHTS DURING THE ALLOWABLE CLOSURE HOURS, REMOVE EXISTING GIRDERS OF US 158/NC 14 BRIDGE (STAGE 1) OVER SOUTHBOUND US 29 AS FOLLOWS: USE RSD 1101.03 (SHEET 7 OF 9) FOR TEMPORARY CLOSURE OF SOUTHBOUND US 29 WITH TRAFFIC DETOURED VIA INTERCHANGE RAMPS. AT THE END OF EACH NIGHT, OPEN ALL LANES TO TRAFFIC.

USE THE SAME STEPS FOR TEMPORARY ROAD CLOSURES TO INSTALL GIRDERS OVER SOUTHBOUND US 29 IN STEP 11.

STEP 11) WORKING BEHIND BARRIER, CONSTRUCT STAGE I OF THE BRIDGE AND RETAINING WALLS ACCORDING TO THE FOLLOWING STATIONS (SEE TMP-5):

-L- STA. 24+97 +/- TO STA. 26+64 +/- BRIDGE

AND COMPLETE STEP 7 CONSTRUCTION OF -L- (US 158/NC 14)

PHASE II

STEP 1) WORK BEHIND BARRIER AND AWAY FROM TRAFFIC TO PLACE TEMPORARY PAVEMENT MARKINGS (PAINT) AND MARKERS (RAISED) ACCORDING TO THE FOLLOWING STATIONS: (SEE TMP-9)

-L- STA. 22+32 +/- TO STA. 28+85 +/-

AND PLACE PCB ACCORDING TO THE FOLLOWING STATIONS: (SEE TMP-9)

-L- STA. 22+80 TO STA. 28+60

STEP 2) USE RSD 1101.02 (SHEET 1 OF 14) AND FLAGGERS FOR TEMPORARY LANE CLOSURES AS NEEDED, MODIFY AND COVER THE TEMPORARY SIGNAL AT THE RAMP C/RAMP D INTERSECTION OF -L- (US 158/NC 14).

STEP 3) USE RSD 1101.02 (SHEET 1 AND 3 OF 14) AND FLAGGERS AS NEEDED FOR TEMPORARY US 158 LANE CLOSURES AND COVER TEMPORARY PAVEMENT MARKINGS FROM EASTBOUND ADVANCE LANE CLOSURE BY PLACING 12" BLACK MARKING LINES (SEE LOCAL NOTES) AND PLACE TEMPORARY MARKINGS (PAINT) BACK TO ORIGINAL TRAFFIC PATTERN AND PLACE TEMPORARY PAVEMENT MARKINGS (PAINT) AND MARKERS (RAISED) ACCORDING TO THE FOLLOWING STATIONS: (SEE TMP-8 THRU TMP-10)

-L- STA. 12+00 +/- TO STA. 22+32 +/-
 -L- STA. 28+85 +/- TO STA. 39+07 +/-

AND PLACE DRUMS AND BARRICADES TO CLOSE THE EASTBOUND US 158 AT BRIDGE, UNCOVER AND ACTIVATE THE TEMPORARY SIGNAL, AND SHIFT US 158 TRAFFIC INTO TEMPORARY -LDET2- PATTERN. (SEE TMP-8 THRU TMP-10)

STEP 4) WORK BEHIND BARRIER, AWAY FROM TRAFFIC OR WITH RSD 1101.02 (SHEETS 1 AND 3 OF 14) AND FLAGGERS, CONSTRUCT -L- (US 158/NC14) UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE ACCORDING TO THE FOLLOWING STATIONS: (SEE TMP-9 AND TMP-10)

-L- STA. 20+50 +/- TO STA. 24+97 (BRIDGE) +/- RT
 -L- STA. 26+64 (BRIDGE) +/- TO STA. 39+07 +/- RT
 -L- STA. 29+90 +/- TO STA. 33+00 +/- LT

USE DETAIL ON TMP-2D TO CLOSE US 29 RAMP AND DETOUR RAMP TRAFFIC TO THE ADJACENT INTERCHANGE AND CONSTRUCT RAMP

2/15/2023
BR0043_TC_TMP_03
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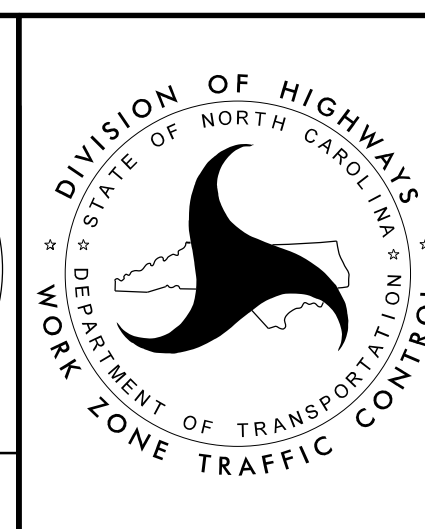


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PROJECT PHASING

B AND RAMP C UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE ACCORDING TO THE FOLLOWING STATIONS: (SEE TMP-9)

- RPB- STA. 20+90 +/- TO STA. 22+73 +/-
- RPC- STA. 17+00 +/- TO STA. 20+16 +/-

COVER DETOUR SIGNS AND OPEN RAMPS TO TRAFFIC AT THE END OF EACH NIGHT.

US 158 BRIDGE & RETAINING WALLS – STAGE 2

STEP 5) WORK BEHIND BARRIER OR AWAY FROM TRAFFIC AND DEMOLISH THE EASTBOUND PORTION OF THE EXISTING STRUCTURE ACCORDING TO THE FOLLOWING

GIRDER REMOVAL AND INSTALLATION OVER US 29

STEP 5A) WORK OVER CONSECUTIVE NIGHTS DURING THE ALLOWABLE CLOSURE HOURS, REMOVE EXISTING GIRDERS OF US 158/NC 14 BRIDGE (STAGE 1) OVER NORTHBOUND US 29 AS FOLLOWS: USE RSD 1101.03 (SHEET 7 OF 9) FOR TEMPORARY CLOSURE OF US 29 WITH NORTHBOUND TRAFFIC DETOURED VIA INTERCHANGE RAMP. AT THE END OF EACH NIGHT, OPEN ALL LANES TO TRAFFIC.

USE THE SAME STEPS FOR TEMPORARY ROAD CLOSURES TO INSTALL GIRDERS OVER NORTHBOUND US 29 IN STEP 6.

STEP 5B) WORK OVER CONSECUTIVE NIGHTS DURING THE ALLOWABLE CLOSURE HOURS, REMOVE EXISTING GIRDERS OF US 158/NC 14 BRIDGE (STAGE 1) OVER SOUTHBOUND US 29 AS FOLLOWS: USE RSD 1101.03 (SHEET 7 OF 9) FOR TEMPORARY CLOSURE OF SOUTHBOUND US 29 WITH TRAFFIC DETOURED VIA INTERCHANGE RAMP. AT THE END OF EACH NIGHT, OPEN ALL LANES TO TRAFFIC.

USE THE SAME STEPS FOR TEMPORARY ROAD CLOSURES TO INSTALL GIRDERS OVER SOUTHBOUND US 29 IN STEP 6.

STEP 6) WORK BEHIND BARRIER TO CONSTRUCT STAGE 2 OF THE BRIDGE AND RETAINING WALLS ACCORDING TO THE FOLLOWING STATIONS (SEE TMP-9):

- L- STA. 24+97 +/- TO STA. 26+64 +/- BRIDGE

US 29 (-Y-) ROADWAY

STEP 7) USE RSD 1101.02 (SHEET 4 OF 14) FOR TEMPORARY LANE CLOSURES FOR THE FOLLOWING: (SEE TMP-11)

MILL AND OVERLAY RUMBLE STRIPS ALONG OUTSIDE SHOULDERS OF US 29 ACCORDING TO THE FOLLOWING STATIONS:

- Y- STA. 19+00 +/- TO STA. 40+00 +/- NBL
- Y- STA. 19+75 +/- TO STA. 39+75 +/- SBL

COVER EXISTING PAVEMENT MARKINGS WITH 12" BLACK MARKING LINES (SEE LOCAL NOTES) ACCORDING TO THE FOLLOWING STATIONS:

- Y- STA. 19+00 +/- TO STA. 23+00 +/- NBL
- Y- STA. 18+50 +/- TO STA. 23+00 +/- SBL
- Y- STA. 37+00 +/- TO STA. 40+50 +/- NBL
- Y- STA. 37+00 +/- TO STA. 42+00 +/- SBL

AND PLACE TEMPORARY PAVEMENT MARKINGS (PAINT) AND MARKERS (RAISED) ON US 29 (-Y-) ACCORDING TO THE FOLLOWING STATIONS:

- Y- STA. 18+50 +/- TO STA. 42+00 +/- SBL
- Y- STA. 19+00 +/- TO STA. 40+50 +/- NBL

AND SHIFT US 29 TRAFFIC INTO TEMPORARY PATTERN.

STEP 8) PLACE ANCHORED PCB OR RESET AND ANCHOR PCB IN -Y- US 29 MEDIAN ACCORDING TO THE FOLLOWING STATIONS:

- Y- STA. 22+50 +/- TO STA. 28+00 +/- SBL RT (PLACE)
- Y- STA. 28+00 +/- TO STA. 32+00 +/- SBL RT (RESET & ANCHOR)
- Y- STA. 32+00 +/- TO STA. 38+00 +/- SBL RT (PLACE)
- Y- STA. 22+00 +/- TO STA. 28+00 +/- NBL LT (PLACE)
- Y- STA. 28+00 +/- TO STA. 32+00 +/- NBL LT (RESET & ANCHOR)
- Y- STA. 32+00 +/- TO STA. 37+50 +/- NBL LT (PLACE)

STEP 9) WORK BEHIND BARRIER AND CONSTRUCT -Y- (US 29) MEDIAN WIDENING UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE ACCORDING TO THE FOLLOWING STATIONS: (SEE TMP-11):

- Y- STA. 23+00 +/- TO STA. 37+00 +/- MEDIAN LT & RT

STEP 10) USE RSD 1101.02 (SHT 4 OF 14) FOR TEMPORARY LANE CLOSURES FOR THE FOLLOWING (SEE TMP-11A)

REMOVE US 29 MEDIAN PCB PLACED IN STEP 8 AND REPLACE WITH DRUMS

WEDGE OVER US 29 PAVEMENT UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE ACCORDING TO THE FOLLOWING STATIONS:

- Y- STA. 23+00 +/- TO STA. 37+00 +/-

COVER EXISTING AND TEMPORARY PAVEMENT MARKING LINES WITH 12" BLACK MARKING LINES (SEE LOCAL NOTES) ACCORDING TO THE FOLLOWING STATIONS:

- Y- STA. 18+00 +/- TO STA. 23+00 +/- SBL & NBL
- Y- STA. 37+00 +/- TO STA. 42+00 +/- SBL & NBL

AND PLACE TEMPORARY PAVEMENT MARKINGS ACCORDING TO THE FOLLOWING STATIONS:

- Y- STA. 18+00 +/- TO STA. 42+00 +/- SBL & NBL

AND SHIFT US 29 TRAFFIC INTO NEW TEMPORARY PATTERN.

STEP 11) USING RSD 1101.02 (SHT 4 OF 14) FOR TEMPORARY LANE CLOSURES, RESET AND ANCHOR PCB ON OUTSIDE SHOULDERS OF -Y- (US 29) ACCORDING TO THE FOLLOWING STATIONS: (SEE TMP-11B)

- Y- STA. 22+00 +/- TO STA. 38+00 +/- SBL LT
- Y- STA. 22+00 +/- TO STA. 37+50 +/- NBL RT

STEP 12) WORKING BEHIND BARRIER, CONSTRUCTION OUTSIDE WIDENING OF US 29 (-Y-) UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE, ACCORDING TO THE FOLLOWING STATIONS: (SEE TMP-11B)

- Y- STA. 23+00 +/- TO STA. 37+00 +/- NBL & SBL

STEP 13) COMPLETE PHASE I AND II WORK ON US 29 (-Y-) AND USE RSD 1101.02 (SHT 4 OF 14) FOR TEMPORARY LANE CLOSURES TO REMOVE PCB FROM OUTSIDE SHOULDER AND PLACE DRUMS ALONG US 29.

PHASE III

STEP 1) USE RSD 1101.02 (SHEET 1 OF 14) AND FLAGGERS FOR TEMPORARY LANE CLOSURES, INSTALL AND COVER THE TEMPORARY SIGNAL AT THE RAMP C/RAMP D INTERSECTION OF -L- (US 158).

STEP 2) USE RSD 1101.02 (SHEETS 1 AND 3 OF 14) AND FLAGGERS FOR TEMPORARY LANE CLOSURES ON -L- (US 158/NC 14) FOR THE FOLLOWING: (SEE TMP-12 THRU TMP-15)

CLOSE INSIDE EASTBOUND LANE OF US 158/NC 14 IN ADVANCE OF WORK ZONE (SEE TMP-12)

COVER EXISTING TEMPORARY MARKINGS ON EASTBOUND US 158/NC 14 PLACED IN PHASE II WITH 12" BLACK MARKING LINES (SEE LOCAL NOTES) AND PLACE PERMANENT MARKINGS (POLYUREA) IN ORIGINAL PATTERN ACCORDING TO THE FOLLOWING STATIONS:

- L- STA. 12+00 +/- TO STA. 18+18 +/- EBL

PLACE TEMPORARY PAVEMENT MARKING (PAINT) ACCORDING TO THE FOLLOWING STATIONS:

- L- STA. 18+18 +/- TO STA. 39+07 +/-

ACTIVATE SIGNAL, RESET DRUMS AND SHIFT US 158 TRAFFIC INTO TEMPORARY PATTERN.

STEP 3) USE RSD 1101.02 (SHEETS 1, 3 AND 4 OF 14) AND FLAGGERS FOR TEMPORARY LANE CLOSURES ON US 158 (-L-) AND US 29 (-Y-), TO INSTALL AND COVER THE FINAL SIGNAL, CONSTRUCT THE MONOLITHIC ISLANDS, AND PLACE THE FINAL LAYER OF SURFACE COURSE AND FINAL PAVEMENT MARKINGS (POLYUREA) AND MARKERS (SNOWPLOWABLE) ACCORDING TO THE FOLLOWING STATIONS: (SEE FINAL PAVEMENT MARKING PLANS)

- L- STA. 18+18 +/- TO STA. 20+50 +/- RECONSTRUCT MED ISLAND
- L- STA. 20+50 +/- TO STA. 39+07 +/-
- Y- STA. 23+00 +/- TO STA. 37+00 +/- NBL & SBL

AND USE DETAIL ON TMP-2D TO CLOSE RAMP AND DETOUR RAMP TRAFFIC TO THE ADJACENT INTERCHANGE FOR FINAL RAMP PAVING AND PAVEMENT MARKINGS ACCORDING TO THE FOLLOWING STATIONS:

- RPA- STA. 16+65 +/- TO STA. 18+04 +/-
- RPB- STA. 20+90 +/- TO STA. 22+73 +/-
- RPC- STA. 17+00 +/- TO STA. 20+16 +/-
- RPD- STA. 18+75 +/- TO STA. 22+18 +/-

FOR ANY REMAINING PAVEMENT MARKINGS OUTSIDE PAVING LIMITS, COVER WITH 12" BLACK MARKING LINES (SEE LOCAL NOTES) OR REMOVE AS DIRECTED BY THE ENGINEER AND PLACE FINAL MARKINGS IN ORIGINAL PATTERN.

STEP 4), ACTIVATE FINAL SIGNAL, PLACE TRAFFIC IN FINAL PATTERN, REMOVE ALL TRAFFIC CONTROL DEVICES AND OPEN ALL ROADS FULLY TO TRAFFIC.

2/15/2023 BR0043_TC_TMP_03A.dgn jon.ar-chambault

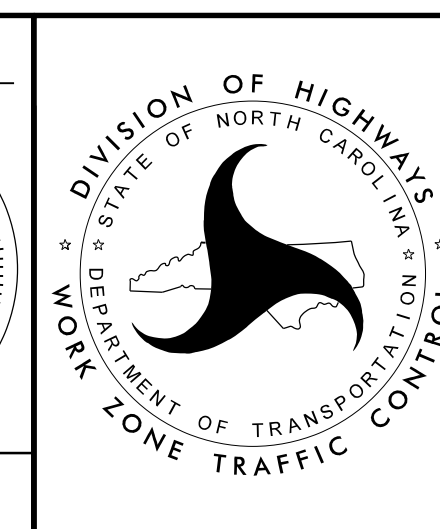
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 NC Firm License No.: F-0342
 5438 Wade Park Boulevard
 Suite 200 Raleigh, NC 27607
 Phone: 919-461-1100

APPROVED: _____
 DATE: 2/15/2023

DocuSigned by:
 Jeffrey A. Kodyntz
 2/15/2023

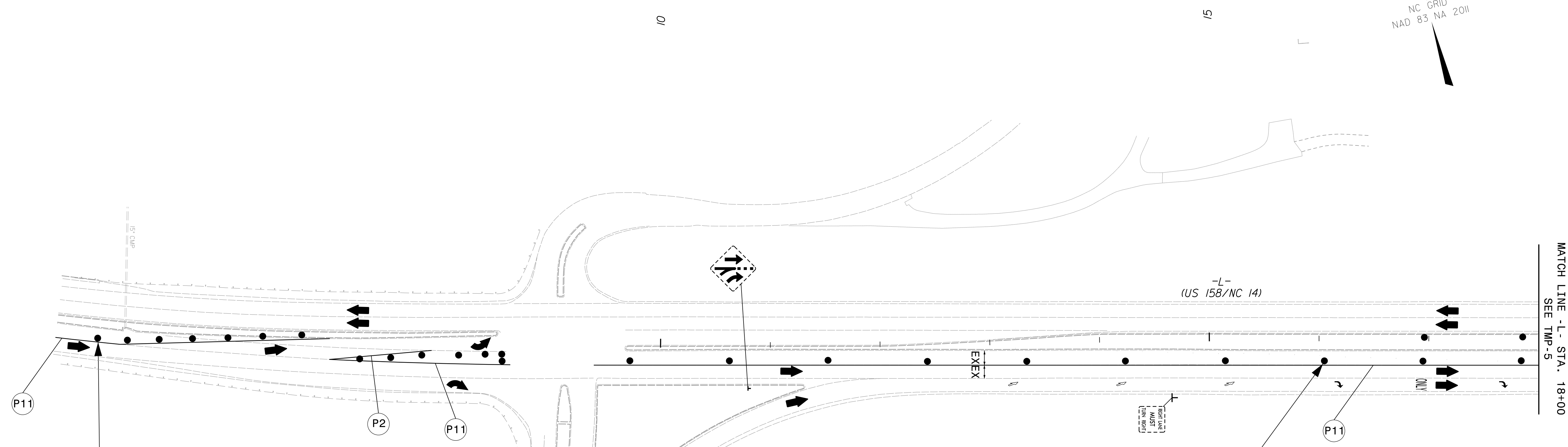
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PROJECT PHASING

PROJ. REFERENCE NO.	SHEET NO.
BR - 0043	TMP - 4



P11

P2

P11

P11

540 FT LANE DROP IN ADVANCE OF LEFT TURN LANE
 45 FT DRUM SPACING IN CLOSURE TAPER WITH
 SEQUENTIAL FLASHING LIGHTS
 SEE RSD 1101.02 SHEET 3 OF 14 FOR SIGNS & DEVICES

BEGIN TEMPORARY PAVEMENT MARKING EDGE LINE AT MERGE TAPER

DRUMS AT 90' SPACING
 (TYP.)

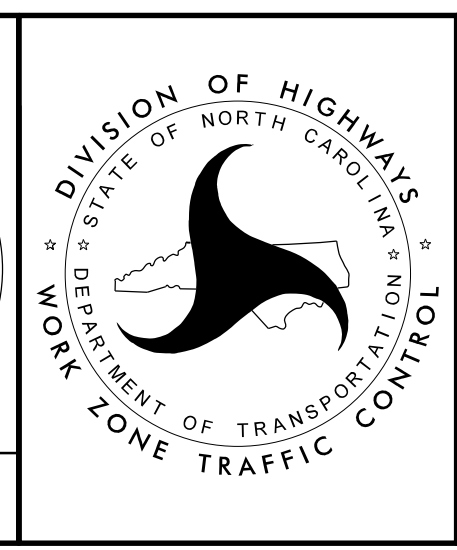
MATCH LINE - L - STA. 18+00
 SEE TMP-5

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 jon.ar.chambault

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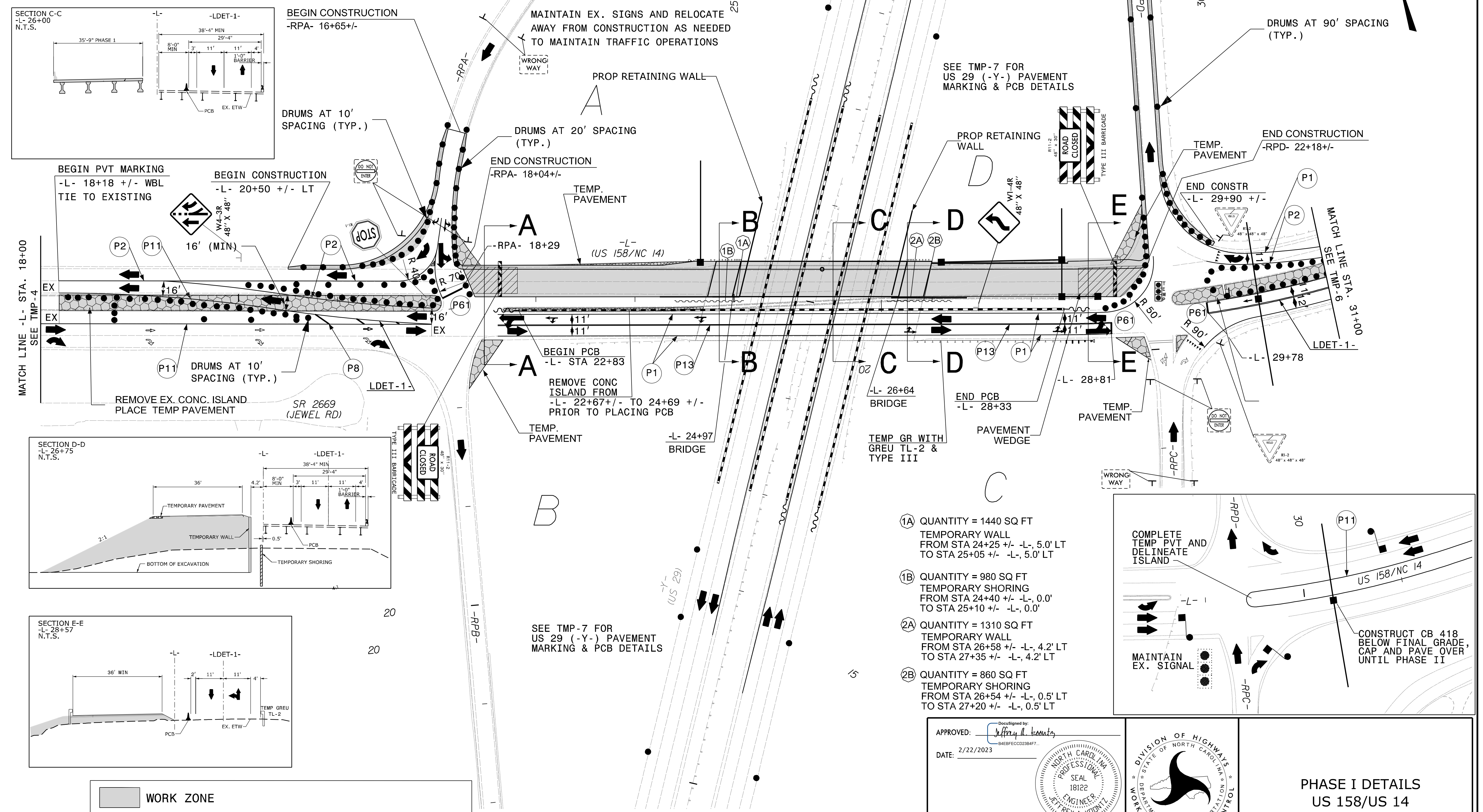
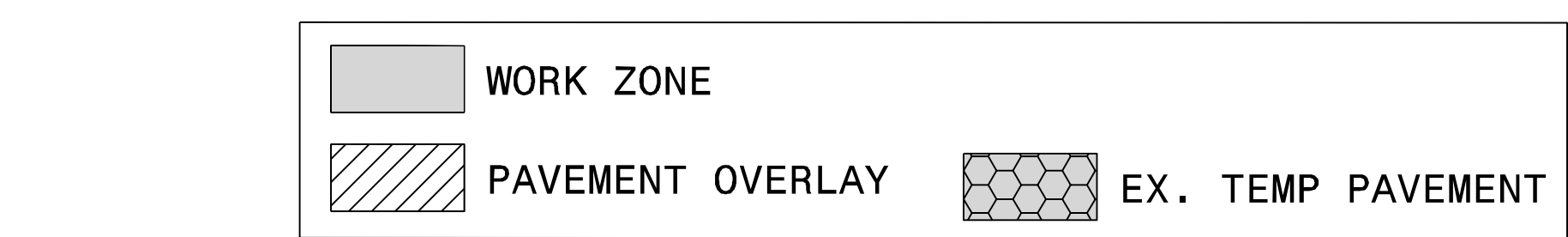
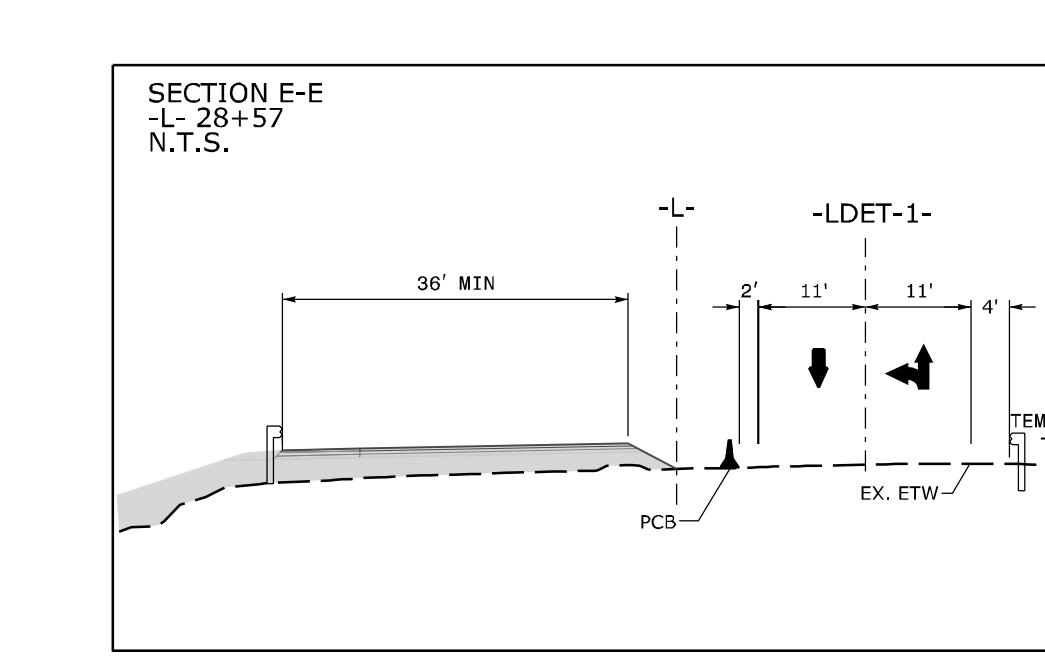
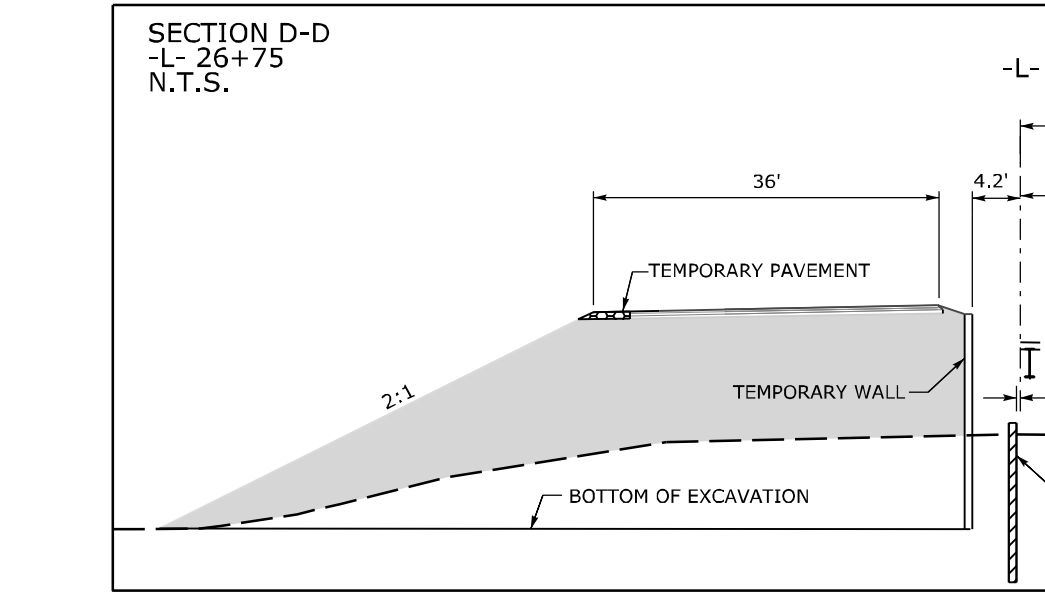
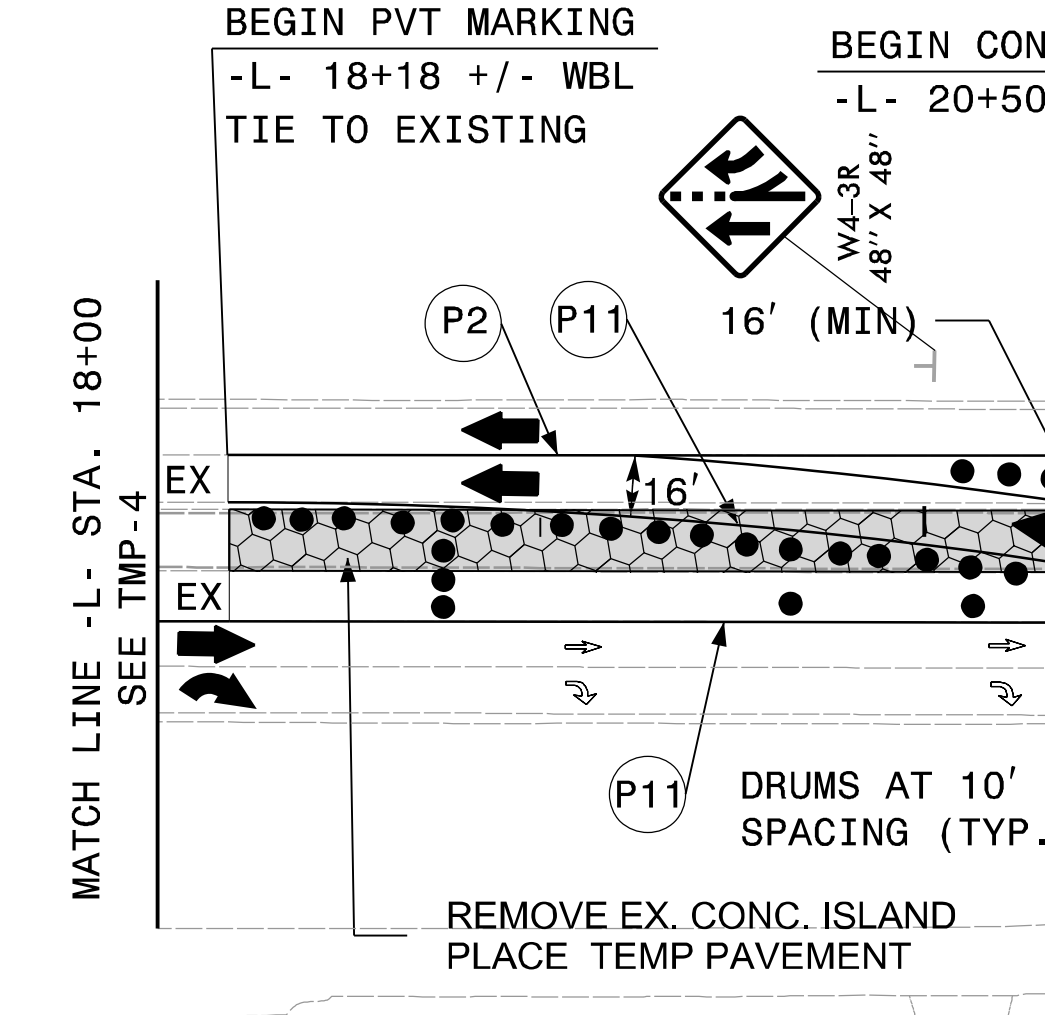
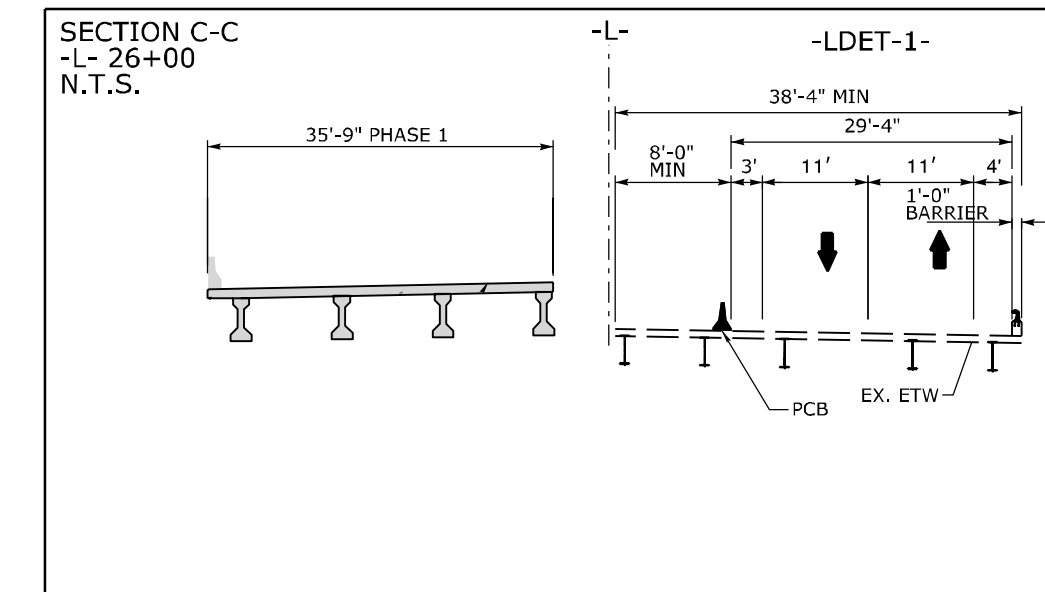
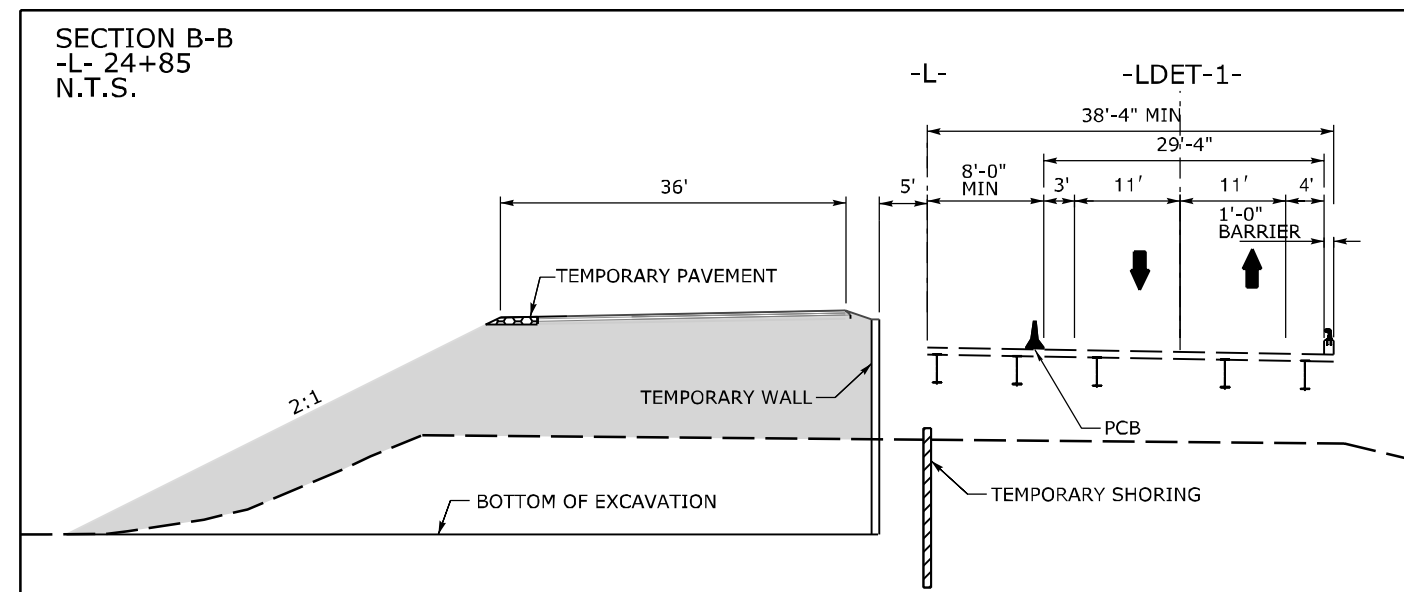
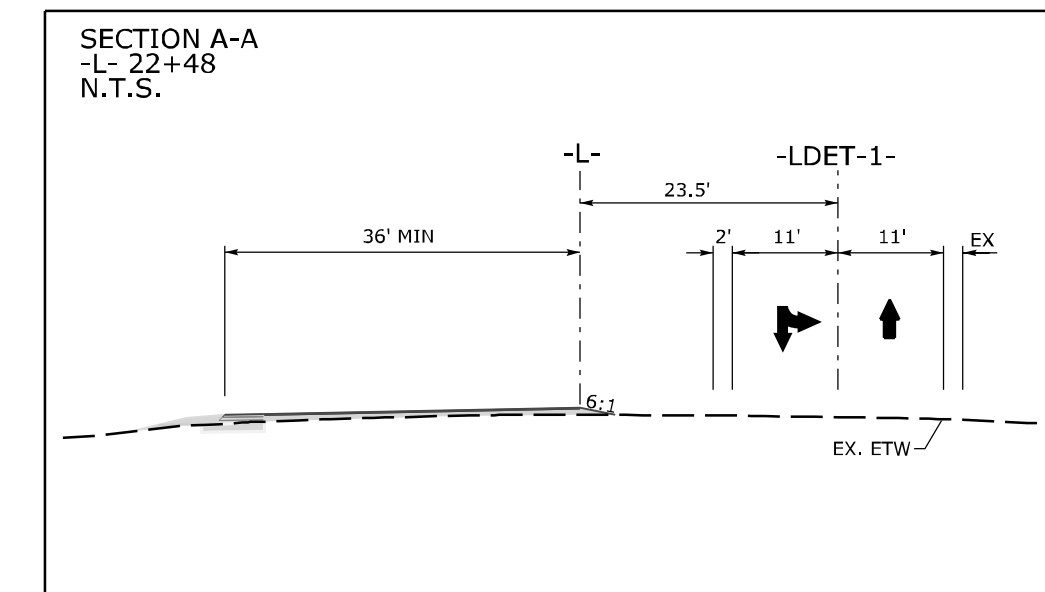
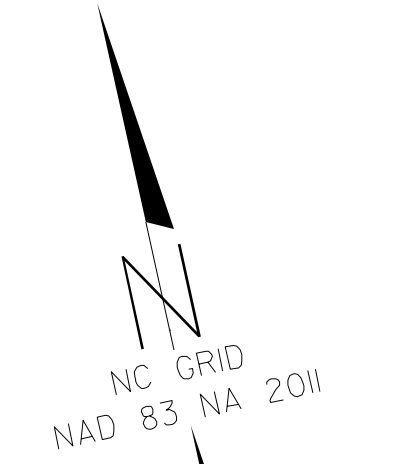
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 Jeffrey A. Kozintz



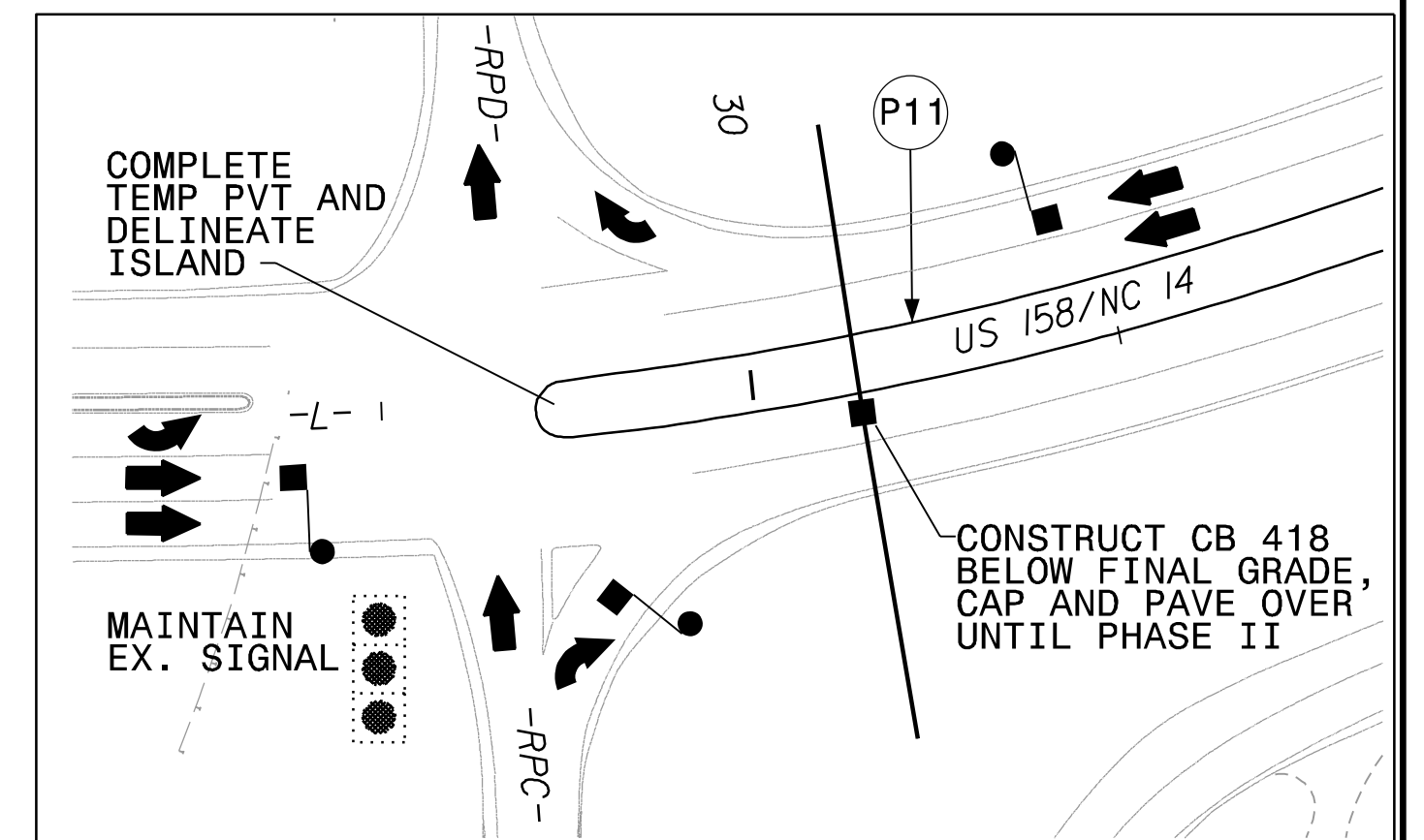
PHASE I DETAILS
 US 158/US 14

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SEE ROADWAY PLAN SHEETS 2B-1, 2B-2 FOR -LDET-1 ALIGNMENT AND 2B-3, 2B-4 FOR TEMP PAVEMENT

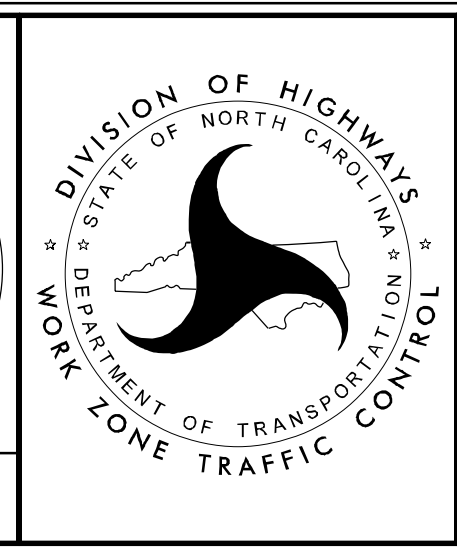


- ①A QUANTITY = 1440 SQ FT
TEMPORARY WALL
FROM STA 24+25 +/- -L-, 5.0' LT
TO STA 25+05 +/- -L-, 5.0' LT
- ①B QUANTITY = 980 SQ FT
TEMPORARY SHORING
FROM STA 24+40 +/- -L-, 0.0'
TO STA 25+10 +/- -L-, 0.0'
- ②A QUANTITY = 1310 SQ FT
TEMPORARY WALL
FROM STA 26+58 +/- -L-, 4.2' LT
TO STA 27+35 +/- -L-, 4.2' LT
- ②B QUANTITY = 860 SQ FT
TEMPORARY SHORING
FROM STA 26+54 +/- -L-, 0.5' LT
TO STA 27+20 +/- -L-, 0.5' LT



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DATE: 2/22/2023

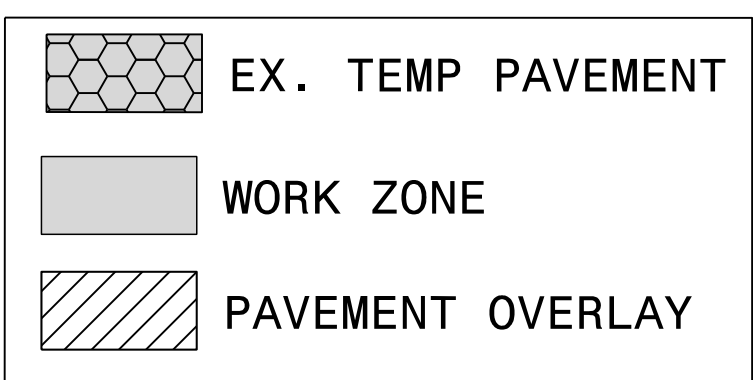
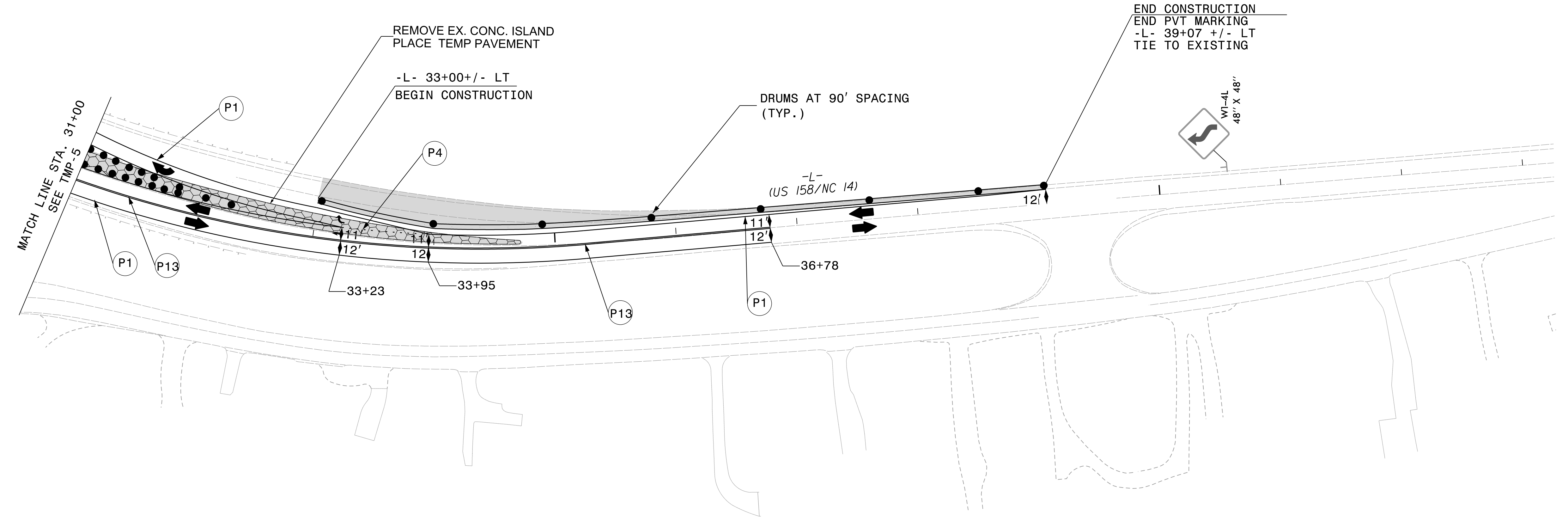
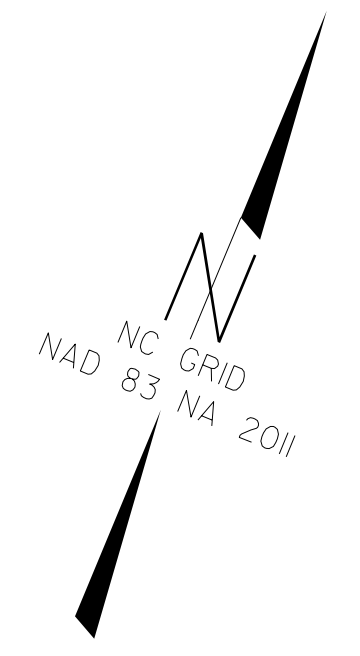
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Jeffrey A. Koontz
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PHASE I DETAILS
US 158/US 14

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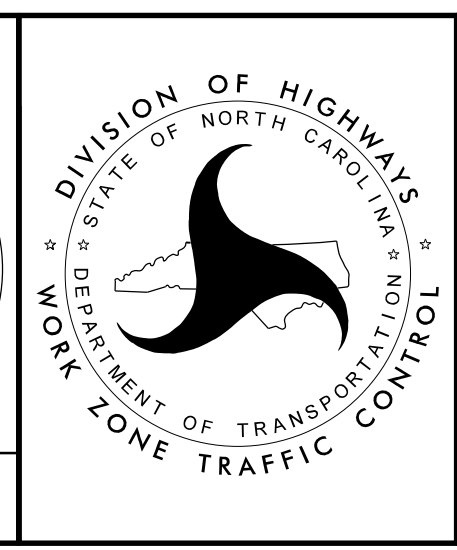
SEE ROADWAY PLAN SHEETS 2B-1 & 2B-2
FOR -LDET-1 ALIGNMENT AND
2B-3 & 2B-4 FOR TEMP PAVEMENT



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DATE: 2/15/2023

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Jeffrey A. Kidd
JEFFREY A. KIDD
NORTH CAROLINA
PROFESSIONAL
ENGINEER
SEAL
18122

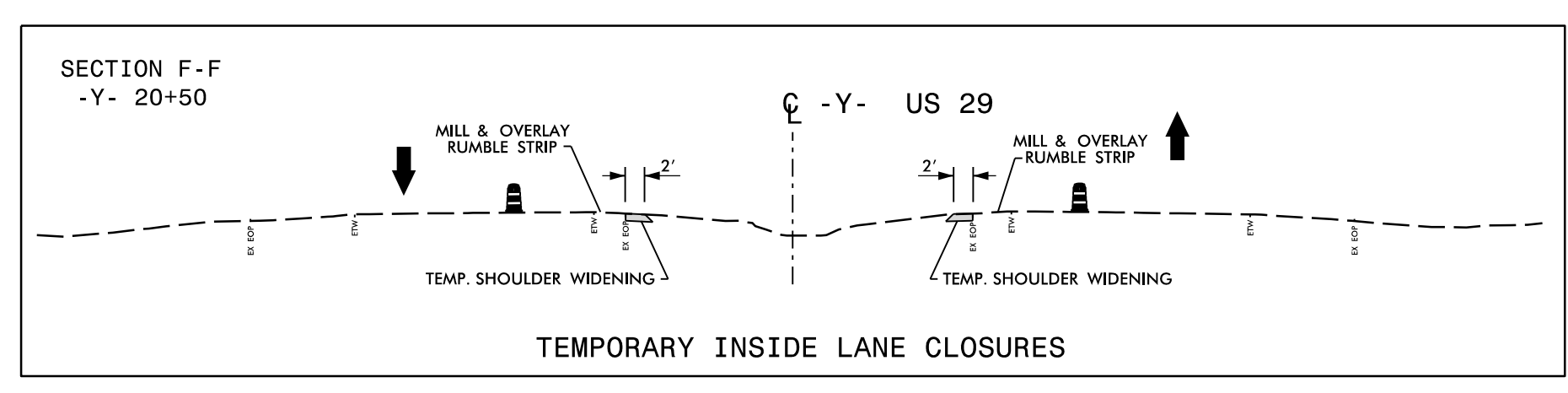
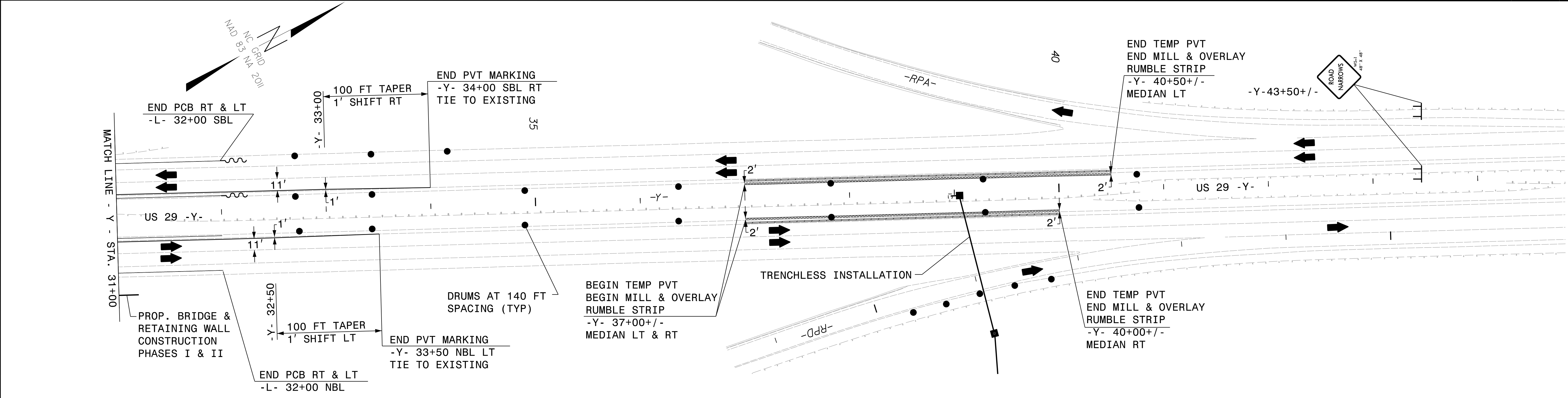
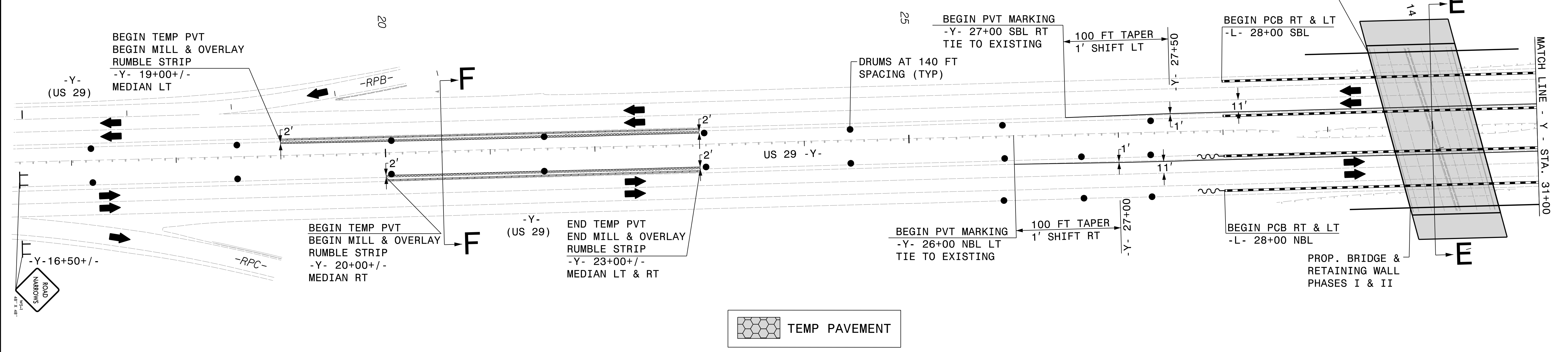
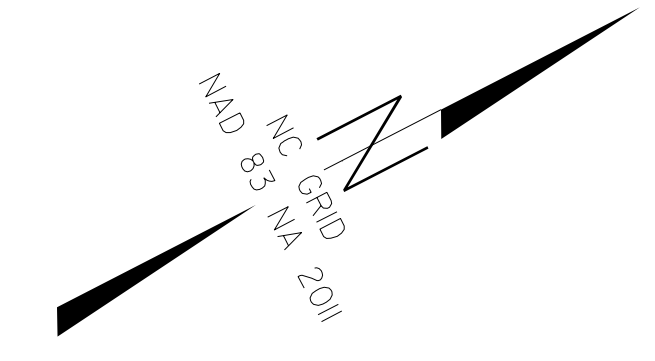
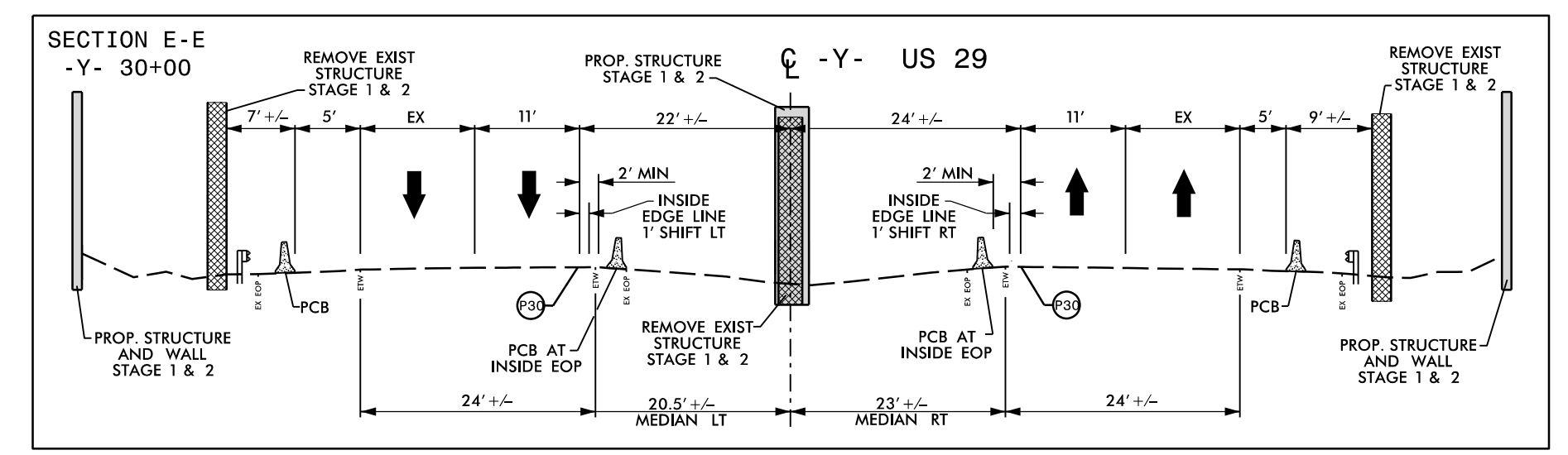
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PHASE I DETAILS
US 158/US 14

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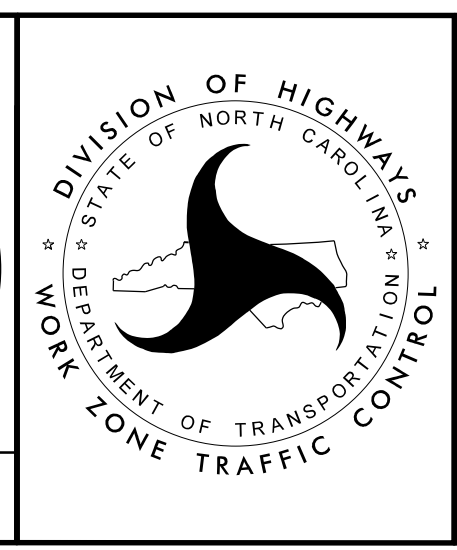
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 NC Firm License No.: F-0342
 5438 Wade Park Boulevard
 Suite 200 Raleigh, NC 27607
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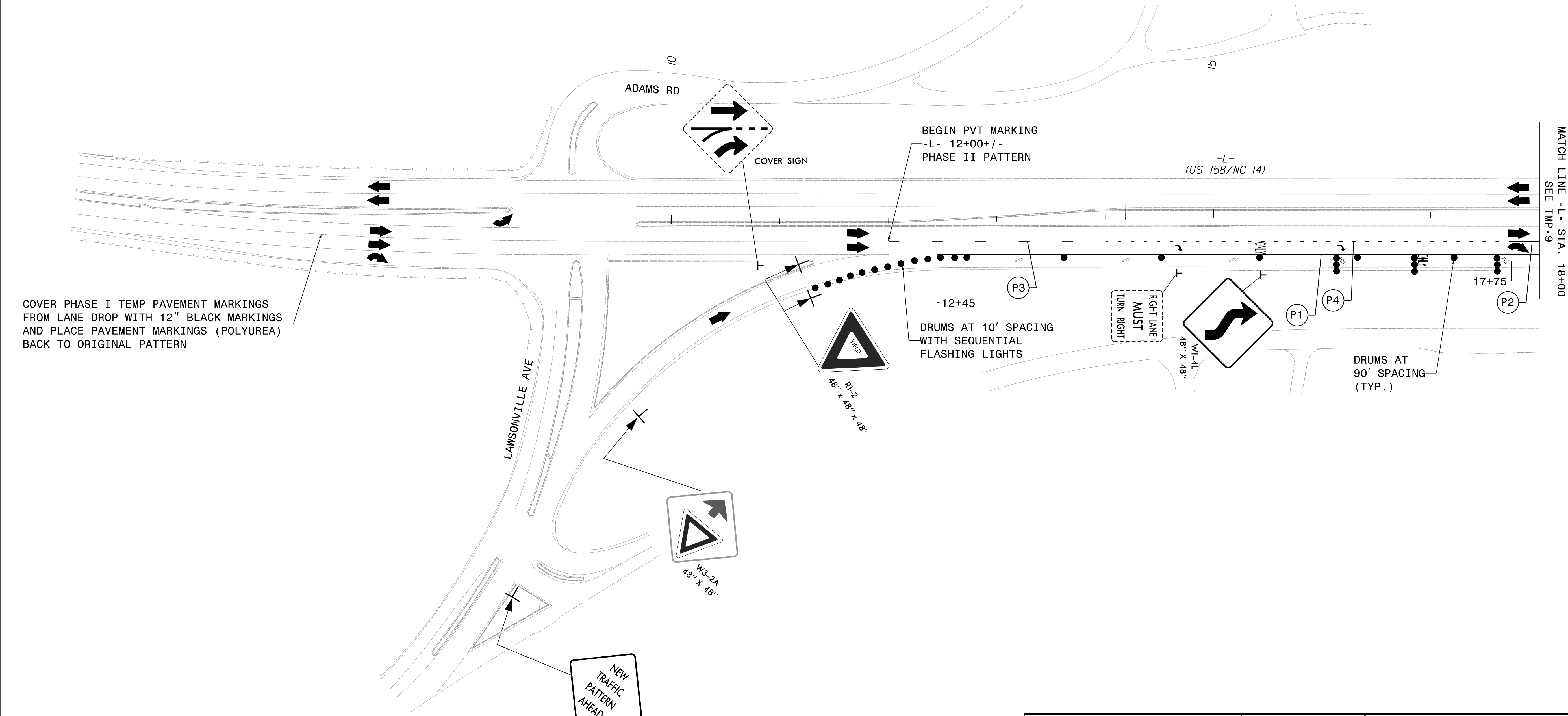
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PROFESSIONAL ENGINEER
 JEFFREY A. KOWITZ
 18122



PHASE I DETAILS
 US 29

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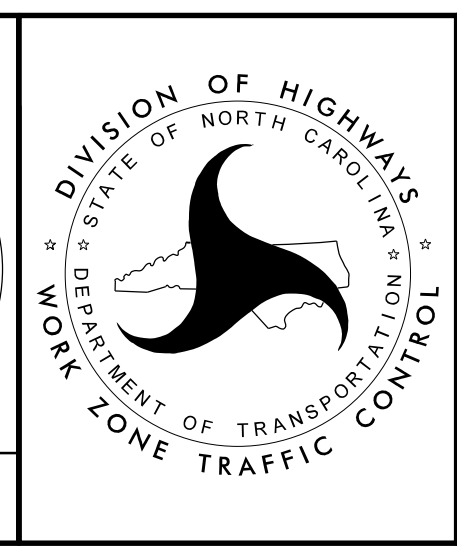
COVER PHASE I TEMP PAVEMENT MARKINGS FROM LANE DROP WITH 12" BLACK MARKINGS AND PLACE PAVEMENT MARKINGS (POLYUREA) BACK TO ORIGINAL PATTERN

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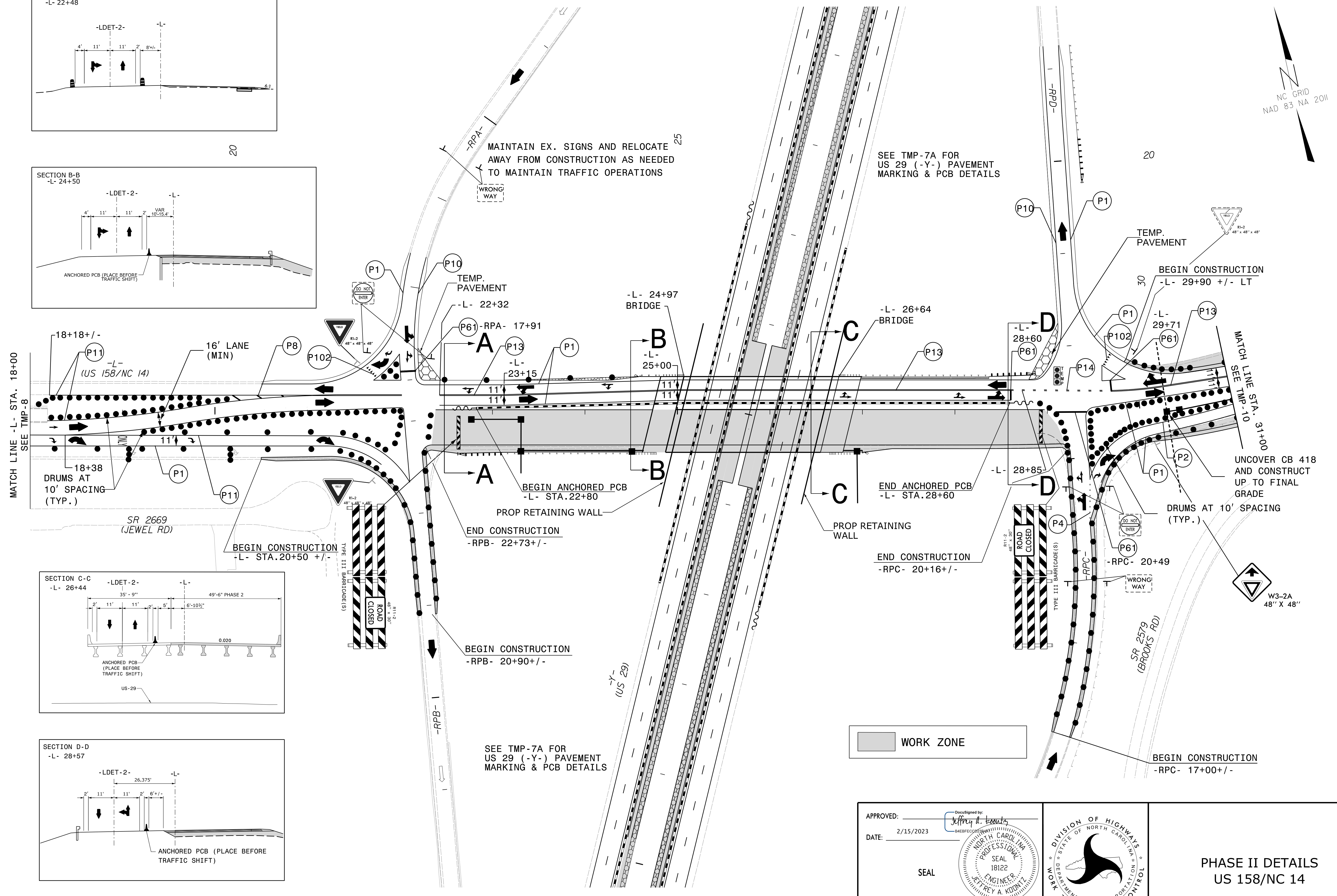
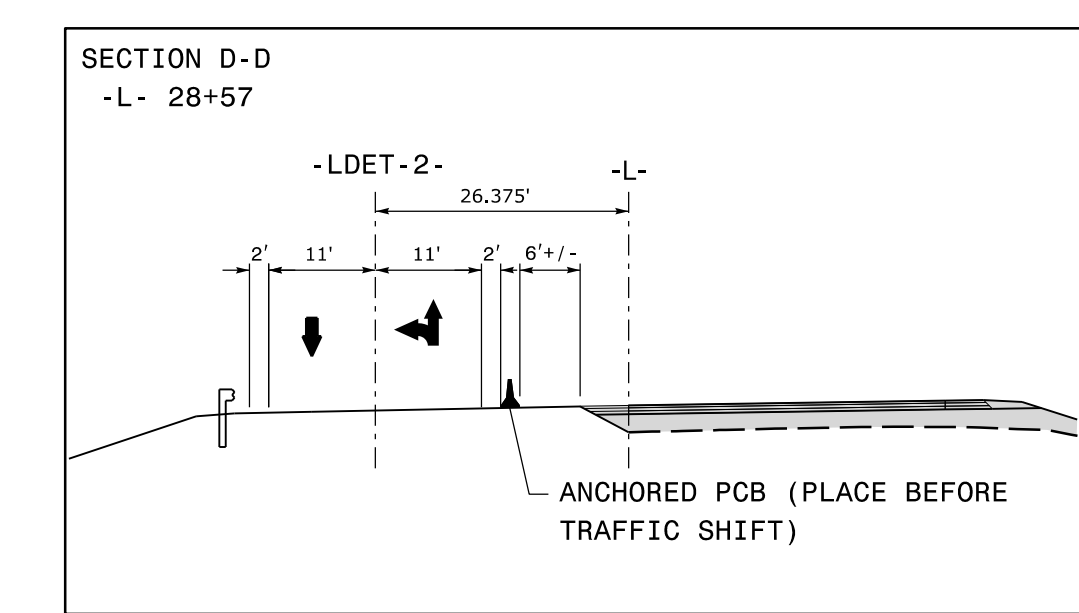
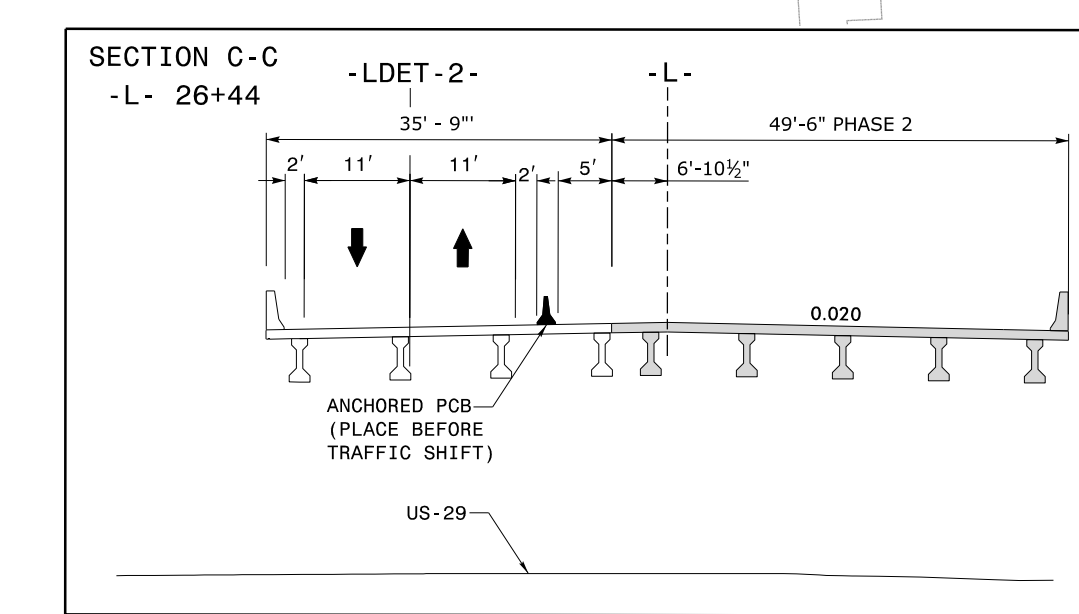
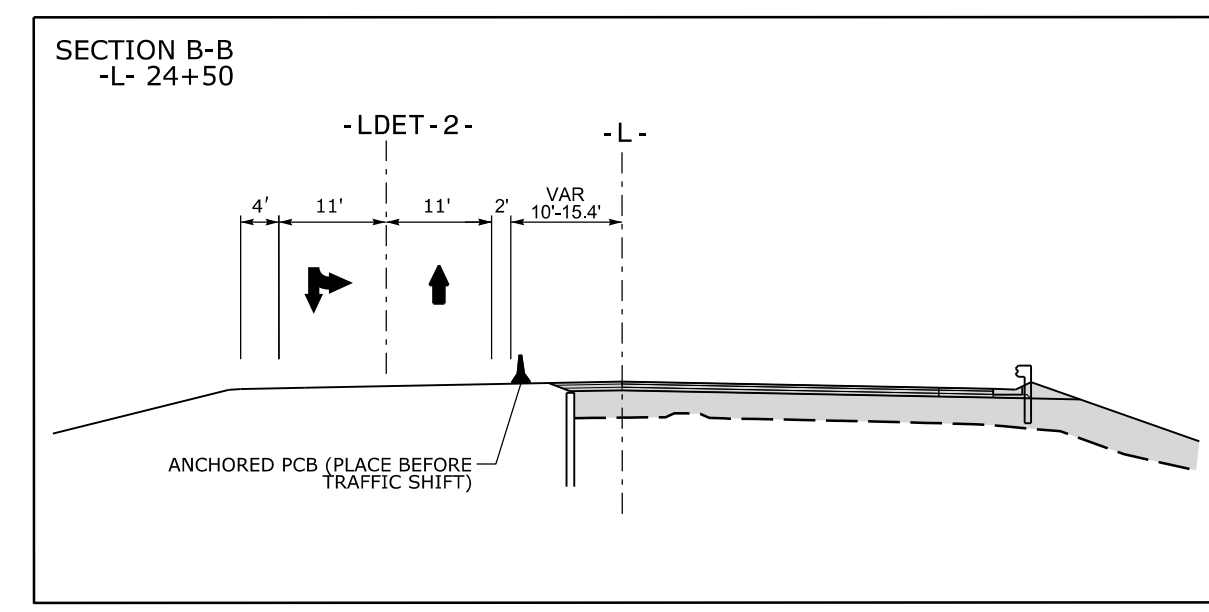
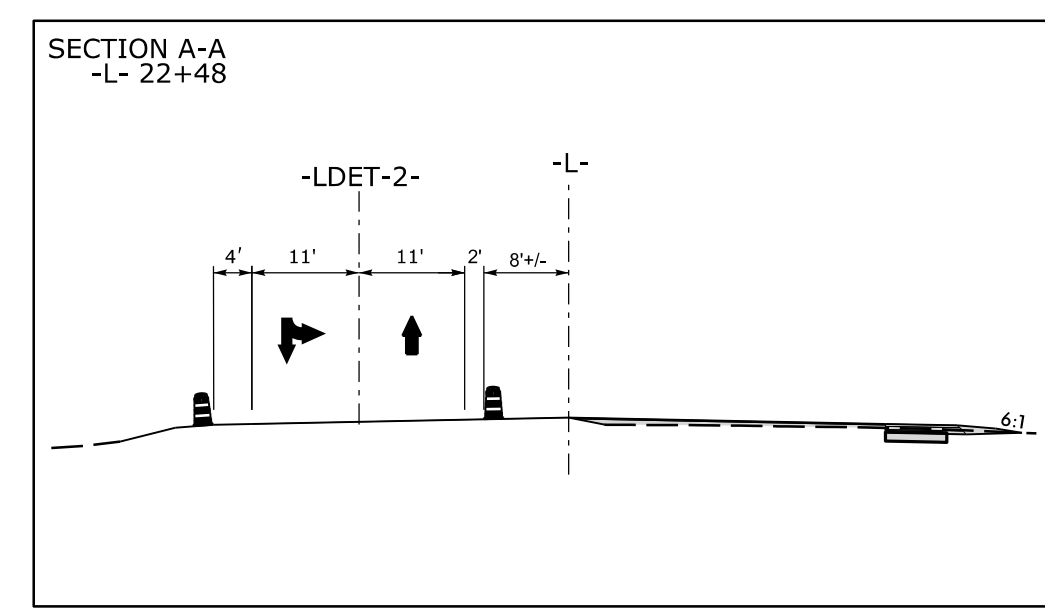
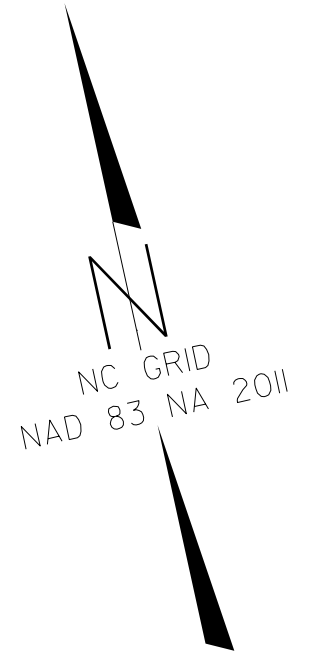
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JEFFREY A. KOWITZ
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18122

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PHASE II DETAILS
US 158/NC 14

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MATCH LINE -L- STA. 18+00
SEE TMP-8

MATCH LINE STA. 31+00
SEE TMP-10

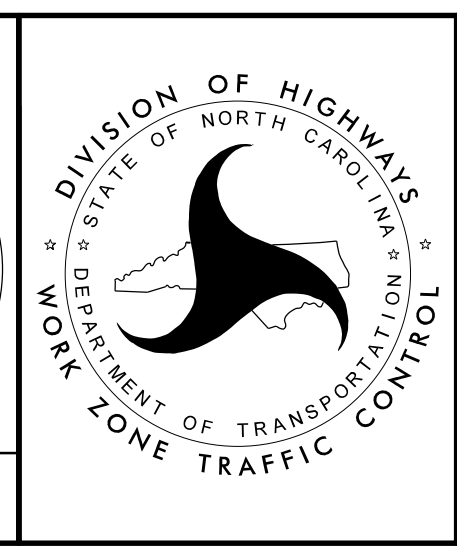
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SR 2579 (BROOKS RD)

(US 29)

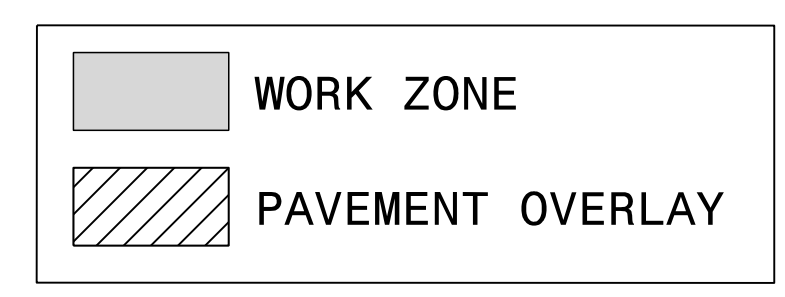
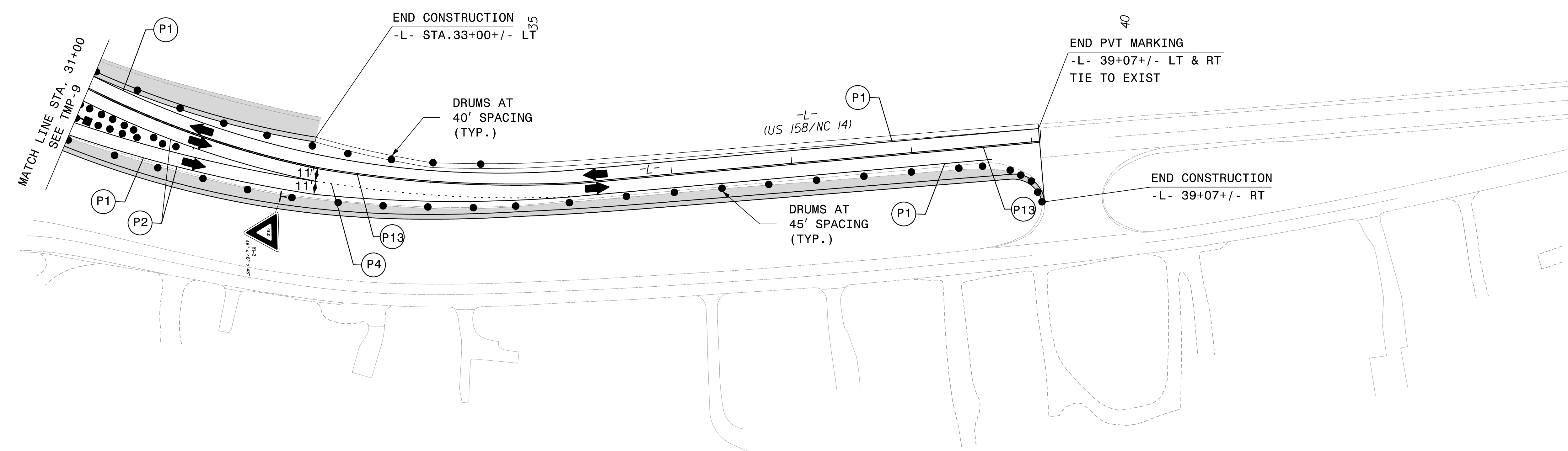
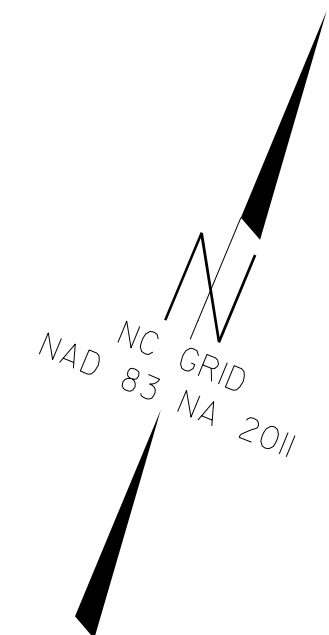
WORK ZONE

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DATE: 2/15/2023
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PHASE II DETAILS
US 158/NC 14

2/15/2023
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jon.ar.chambault



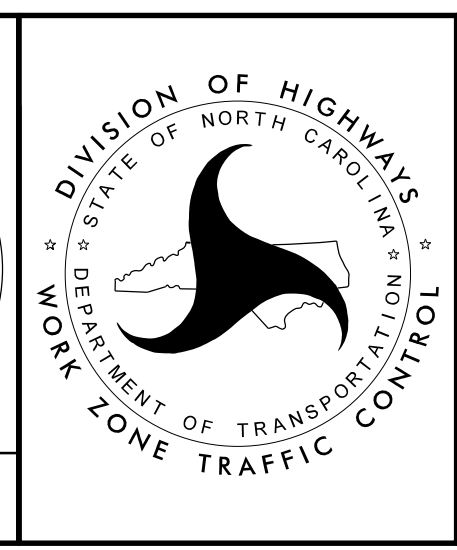
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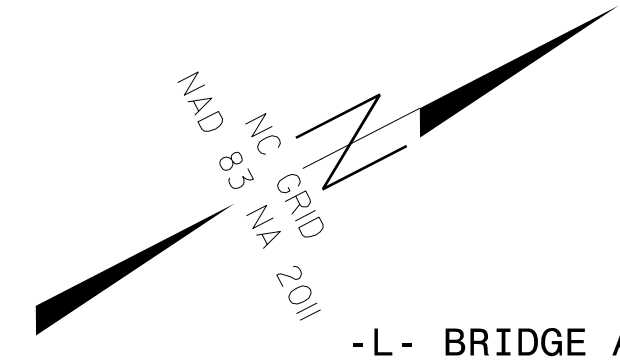
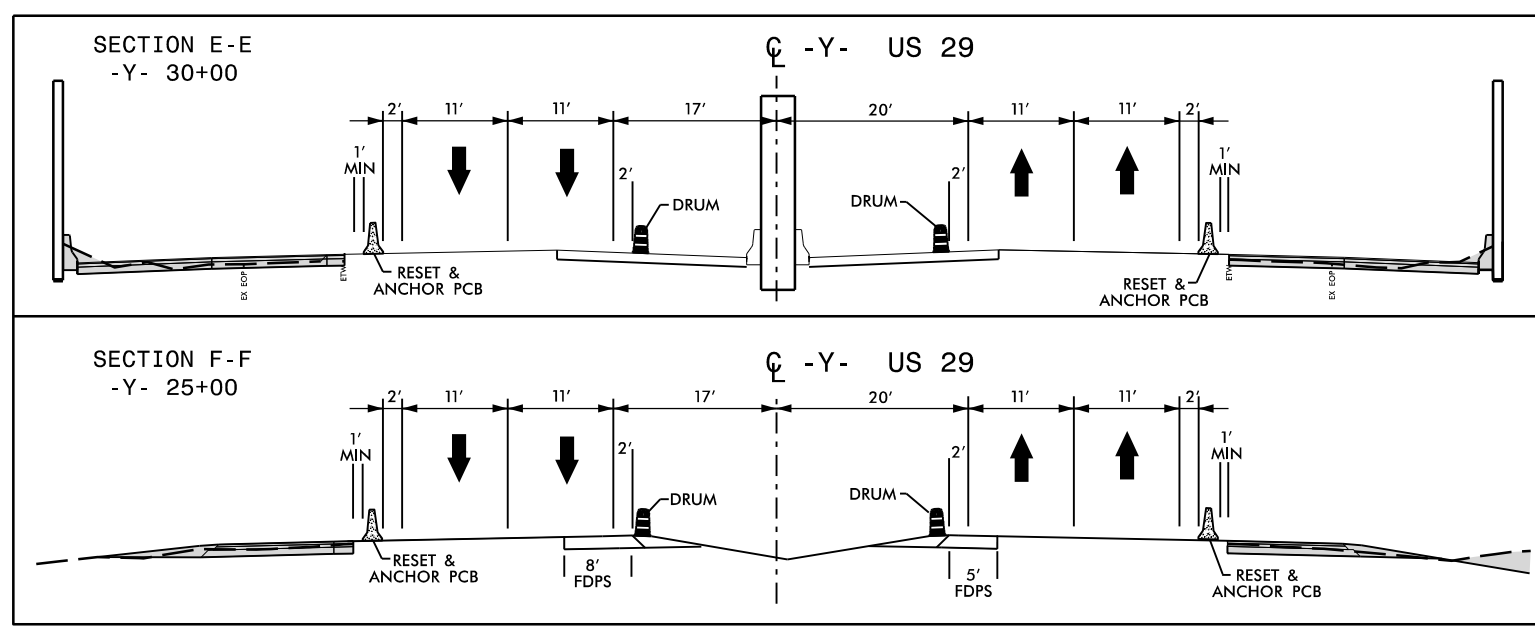
Digitally signed by:
 Jeffrey A. Koontz
 DN: cn=Jeffrey A. Koontz, o=North Carolina Department of Transportation, ou=North Carolina Department of Transportation, email=Jeffrey.Koontz@dot.nc.gov

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 PROFESSIONAL
 SEAL
 18122
 JEFFREY A. KOONTZ
 ENGINEER

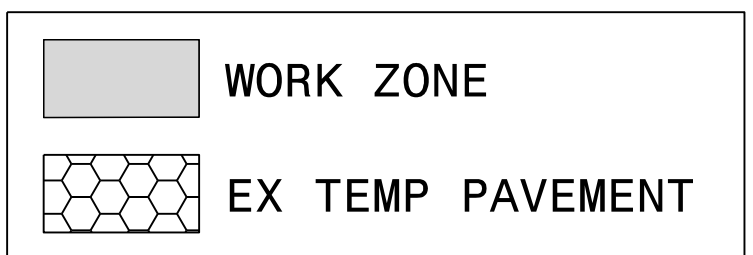
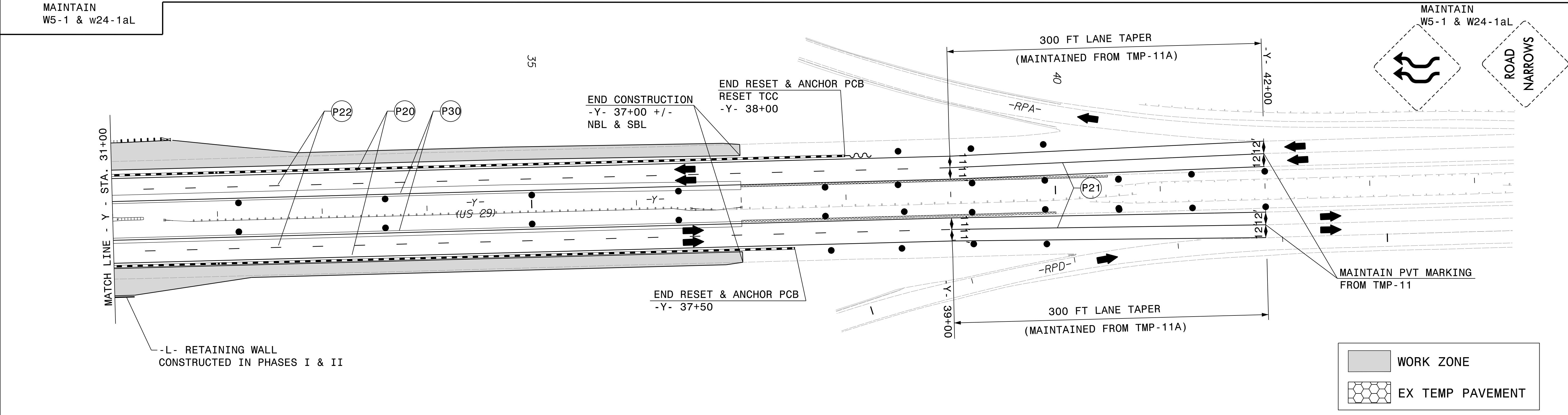
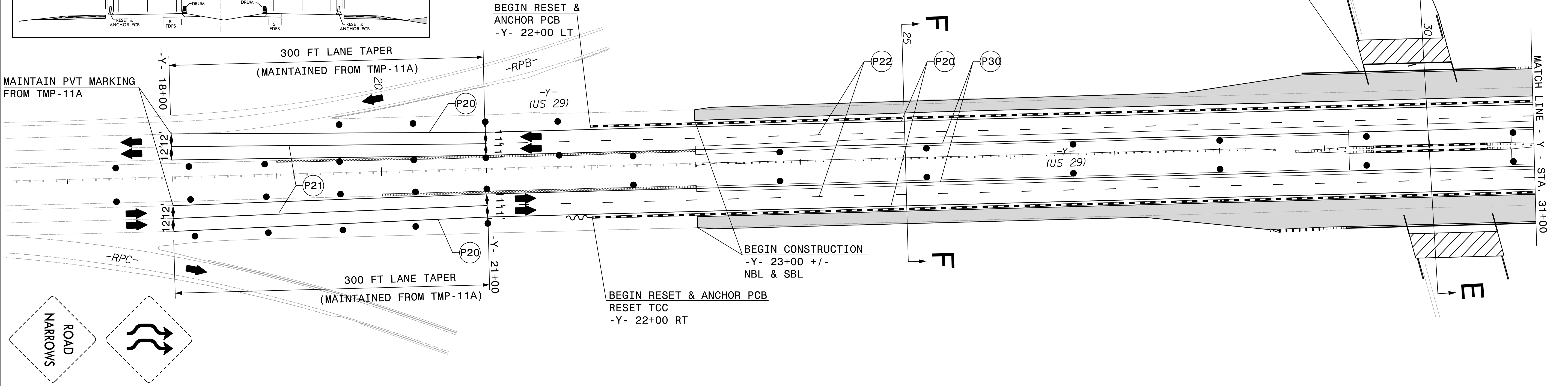


PHASE II DETAILS
US 158/NC 14

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-L- BRIDGE AND RETAINING WALLS
CONSTRUCTED IN PHASES I & II

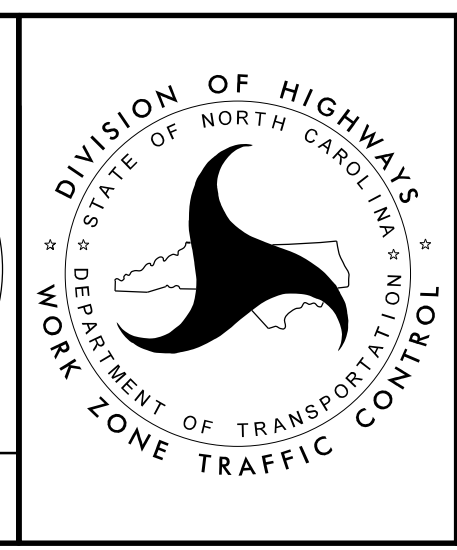


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jon.ar.chambault

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DATE: 2/15/2023

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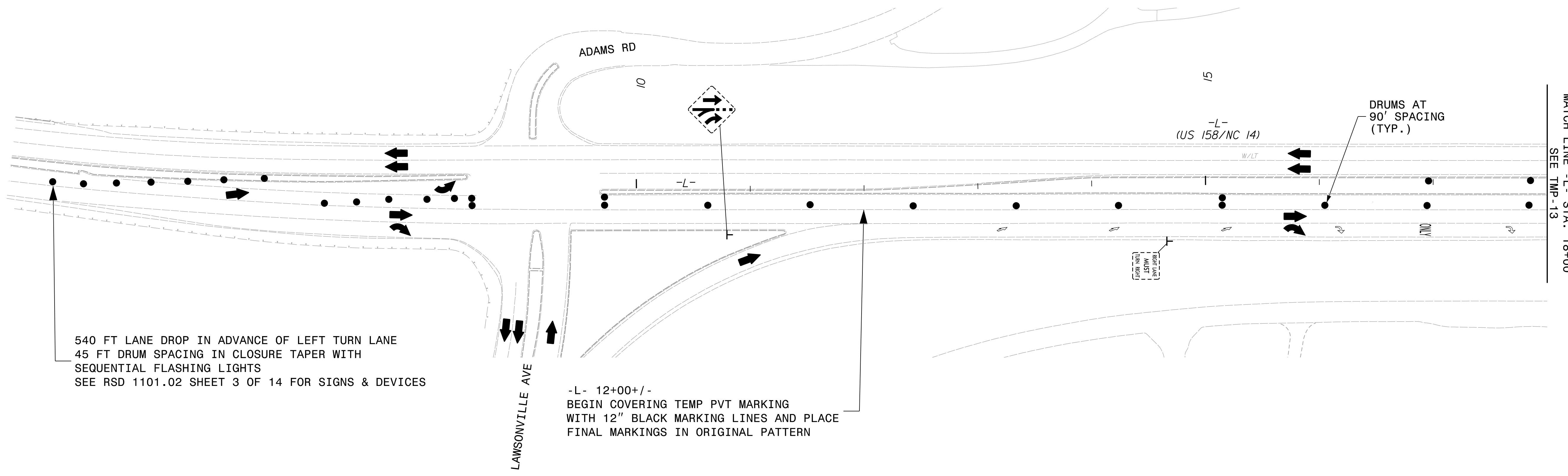
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PHASE II DETAILS
US 29

Division of Highways
Department of Transportation
Work Zone Traffic Control

PROJ. REFERENCE NO.	SHEET NO.
BR - 0043	TMP - 12



540 FT LANE DROP IN ADVANCE OF LEFT TURN LANE
 45 FT DRUM SPACING IN CLOSURE TAPER WITH
 SEQUENTIAL FLASHING LIGHTS
 SEE RSD 1101.02 SHEET 3 OF 14 FOR SIGNS & DEVICES

-L- 12+00+/-
 BEGIN COVERING TEMP PVT MARKING
 WITH 12" BLACK MARKING LINES AND PLACE
 FINAL MARKINGS IN ORIGINAL PATTERN

DRUMS AT
 90' SPACING
 (TYP.)

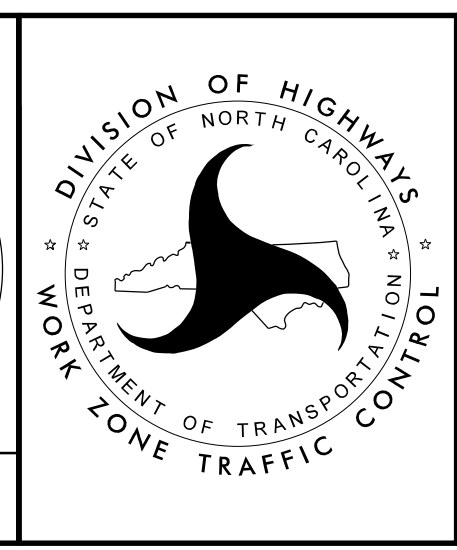
MATCH LINE -L- STA. 18+00
 SEE TMP-13

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 jon.ar.chambault

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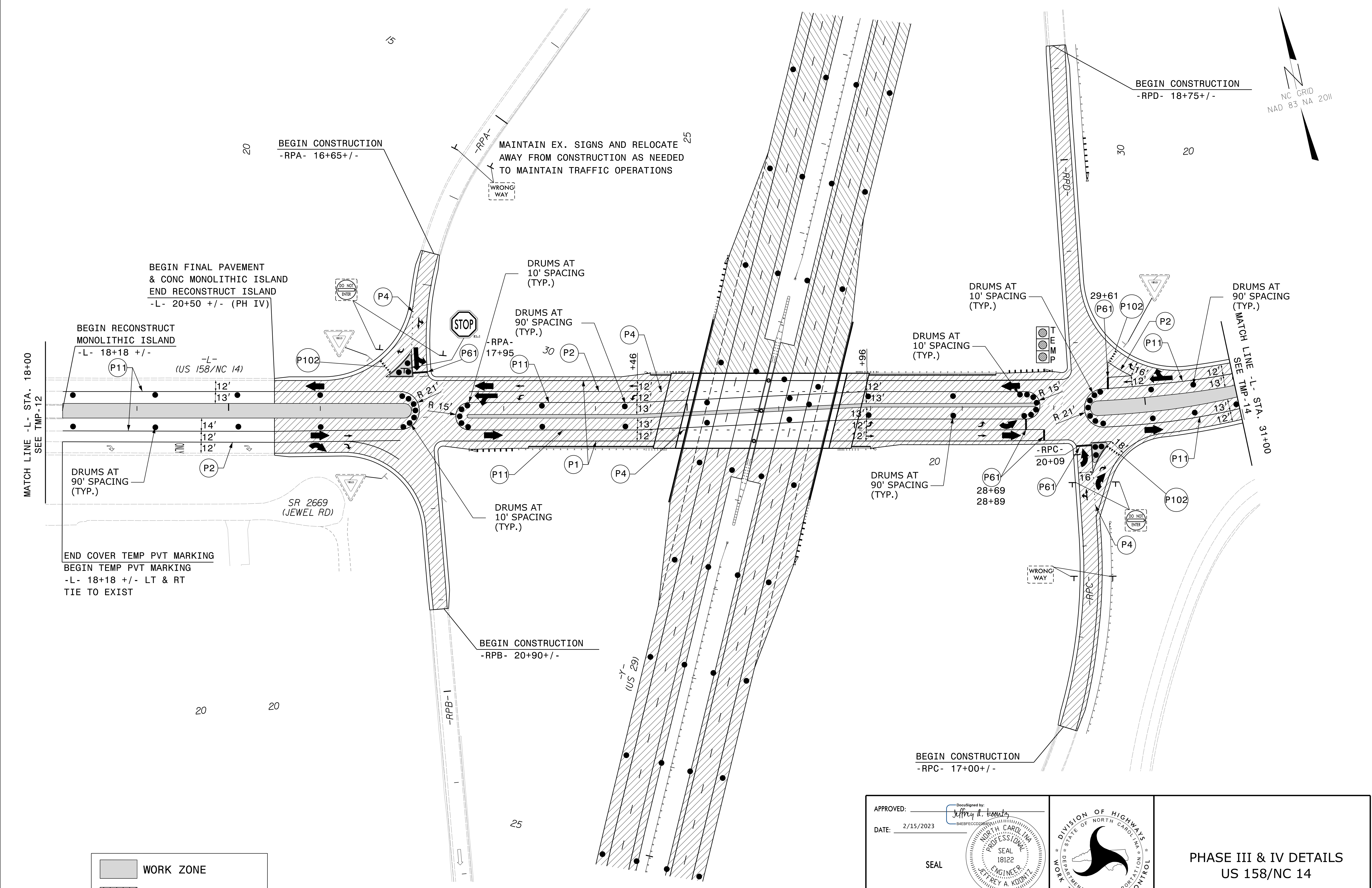
SEAL

DESIGNED BY: *Jeffrey A. Koontz*



PHASE III & IV DETAILS
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BEGIN FINAL PAVEMENT
& CONC MONOLITHIC ISLAND
END RECONSTRUCT ISLAND
-L- 20+50 +/- (PH IV)

BEGIN RECONSTRUCT
MONOLITHIC ISLAND
-L- 18+18 +/-

MATCH LINE -L- STA. 18+00
SEE TMP-12

DRUMS AT
90' SPACING
(TYP.)

END COVER TEMP PVT MARKING
BEGIN TEMP PVT MARKING
-L- 18+18 +/- LT & RT
TIE TO EXIST

SR 2669
(JEWEL RD)

MAINTAIN EX. SIGNS AND RELOCATE
AWAY FROM CONSTRUCTION AS NEEDED
TO MAINTAIN TRAFFIC OPERATIONS

DRUMS AT
10' SPACING
(TYP.)

DRUMS AT
90' SPACING
(TYP.)

DRUMS AT
10' SPACING
(TYP.)

BEGIN CONSTRUCTION
-RPA- 20+90+/-

DRUMS AT
10' SPACING
(TYP.)

DRUMS AT
10' SPACING
(TYP.)

DRUMS AT
90' SPACING
(TYP.)

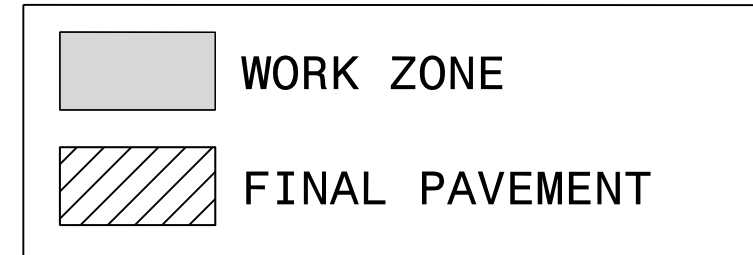
BEGIN CONSTRUCTION
-RPC- 17+00+/-

BEGIN CONSTRUCTION
-RPD- 18+75+/-

DRUMS AT
90' SPACING
(TYP.)

DRUMS AT
90' SPACING
(TYP.)

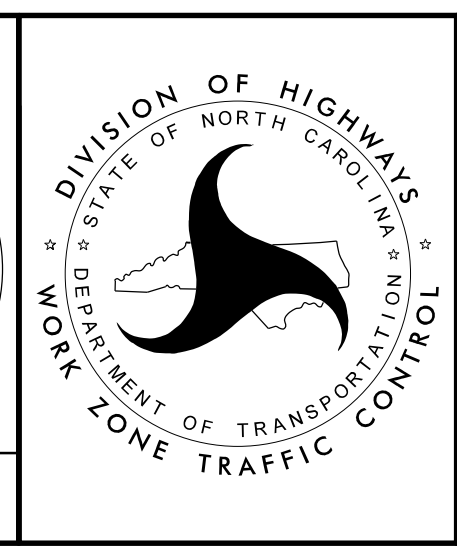
MATCH LINE -L- STA. 31+00
SEE TMP-14



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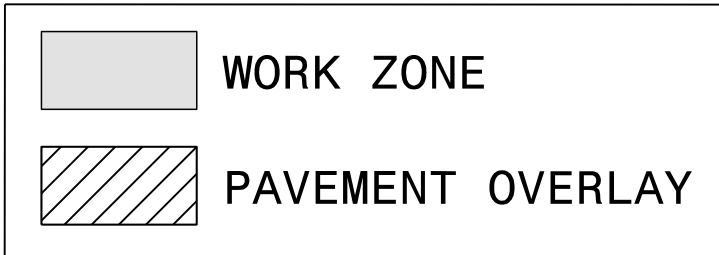
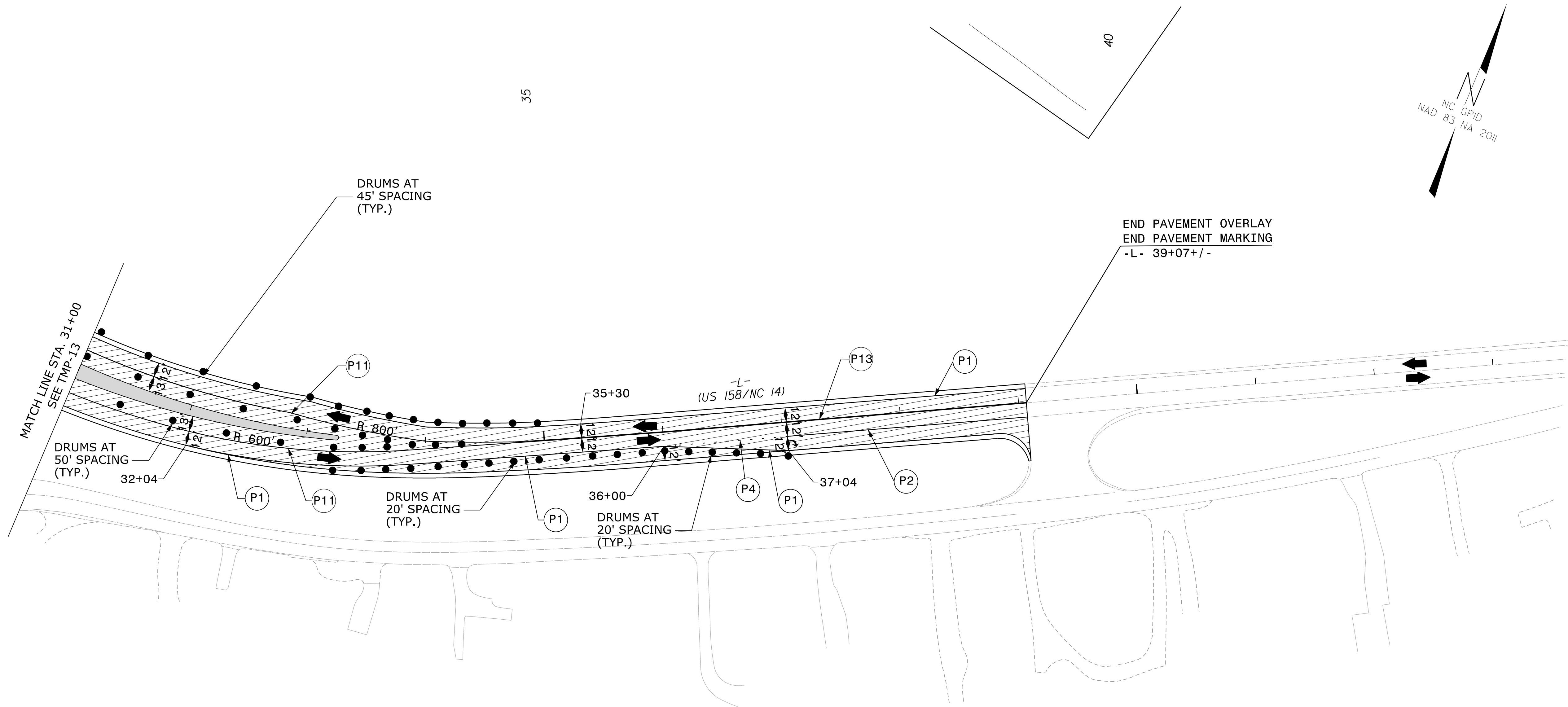
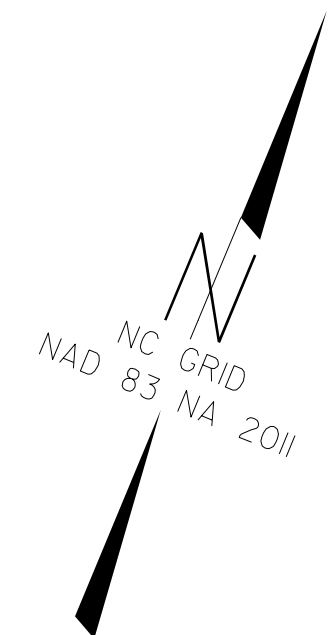
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DEPARTMENT OF TRANSPORTATION & WORK ZONE TRAFFIC CONTROL

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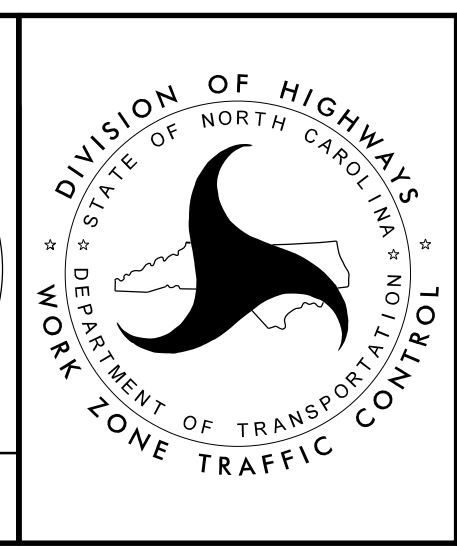


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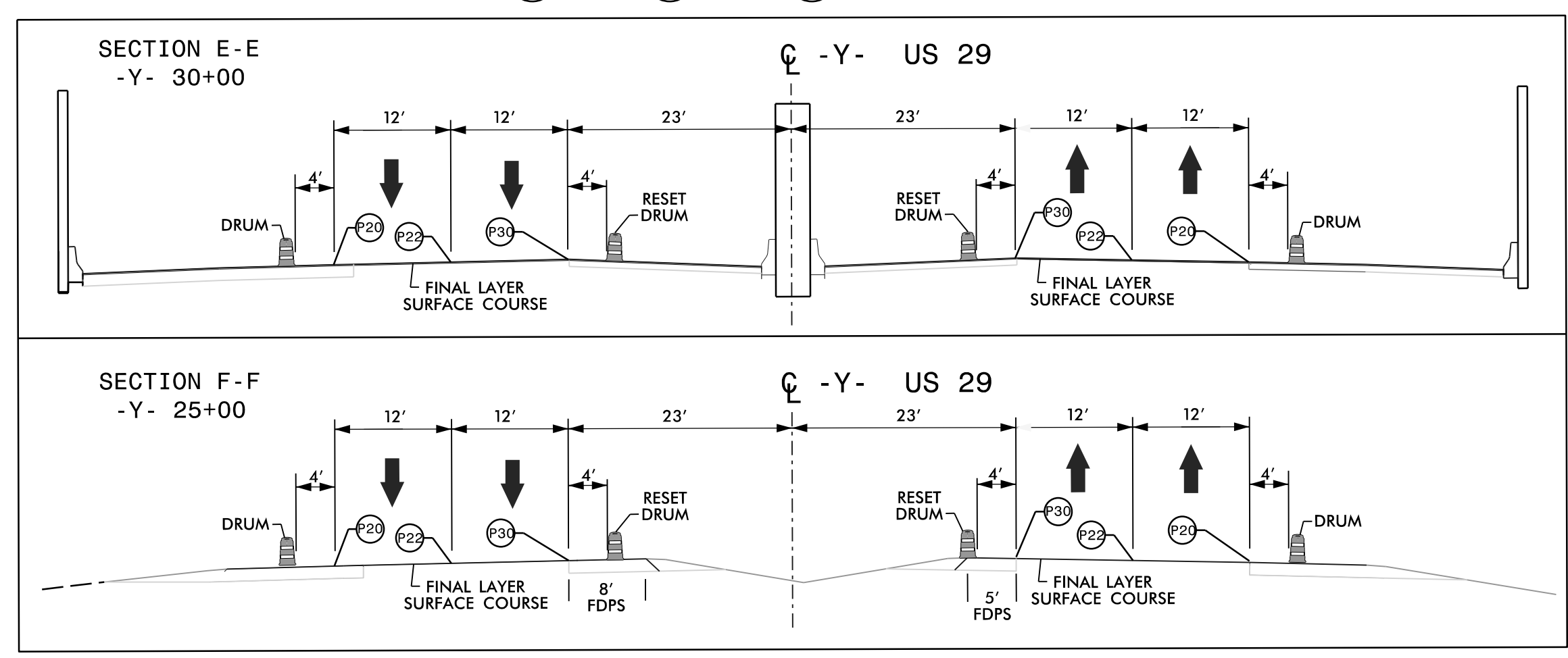
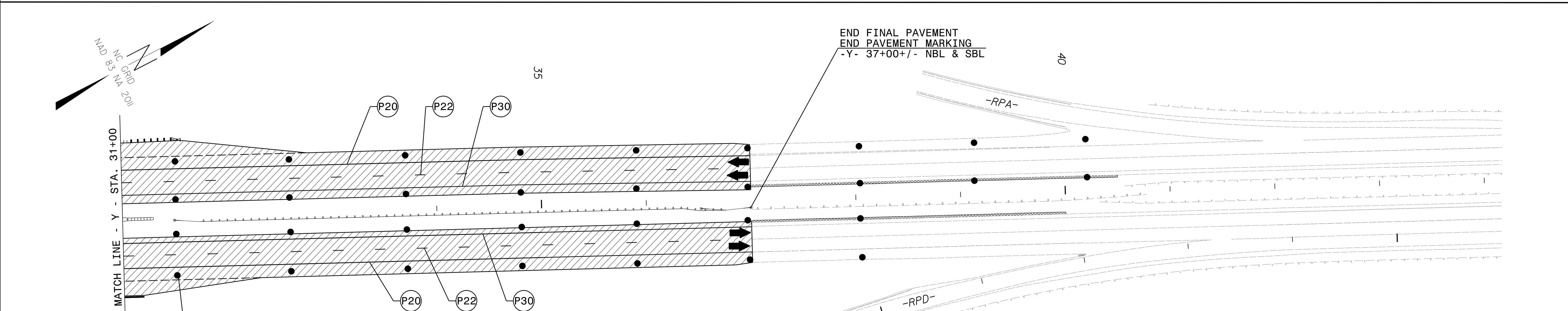
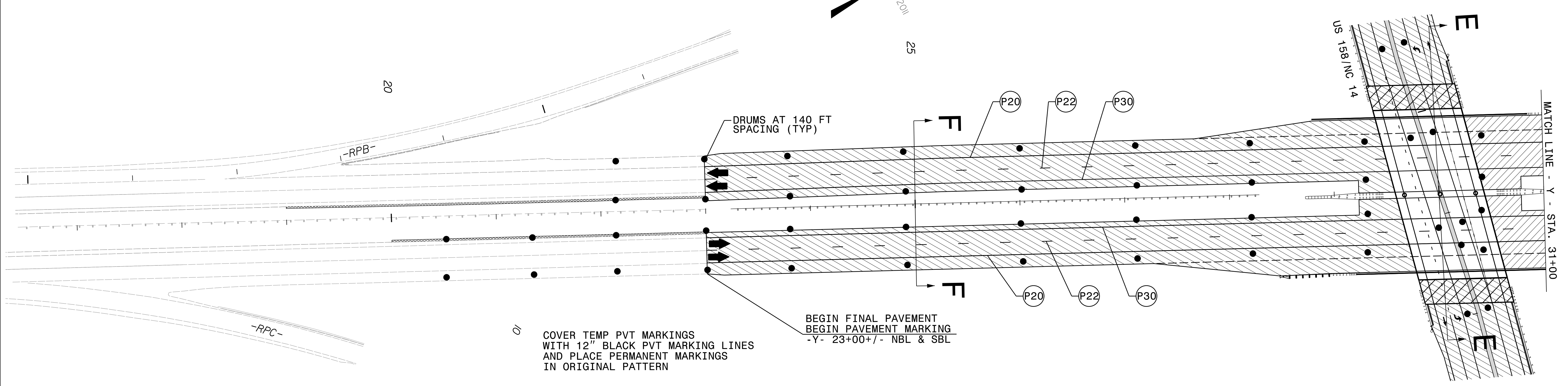
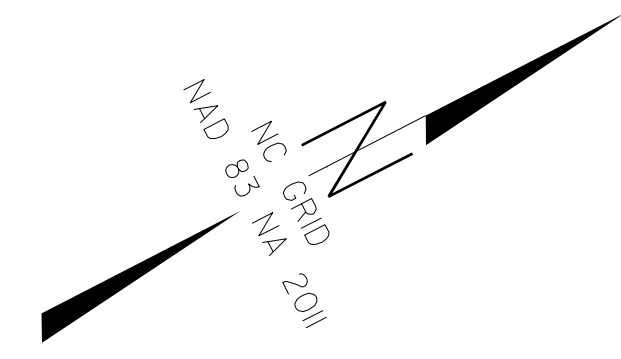
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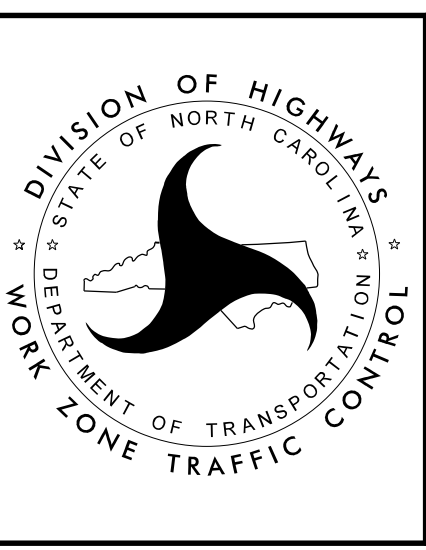
SEE PAVEMENT MARKING PLANS FOR ADDITIONAL DETAILS



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 SEAL

DocuSigned by:
 Jeffrey A. Koenig
 PROFESSIONAL ENGINEER
 SEAL 18122
 JEFFREY A. KOENIG

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