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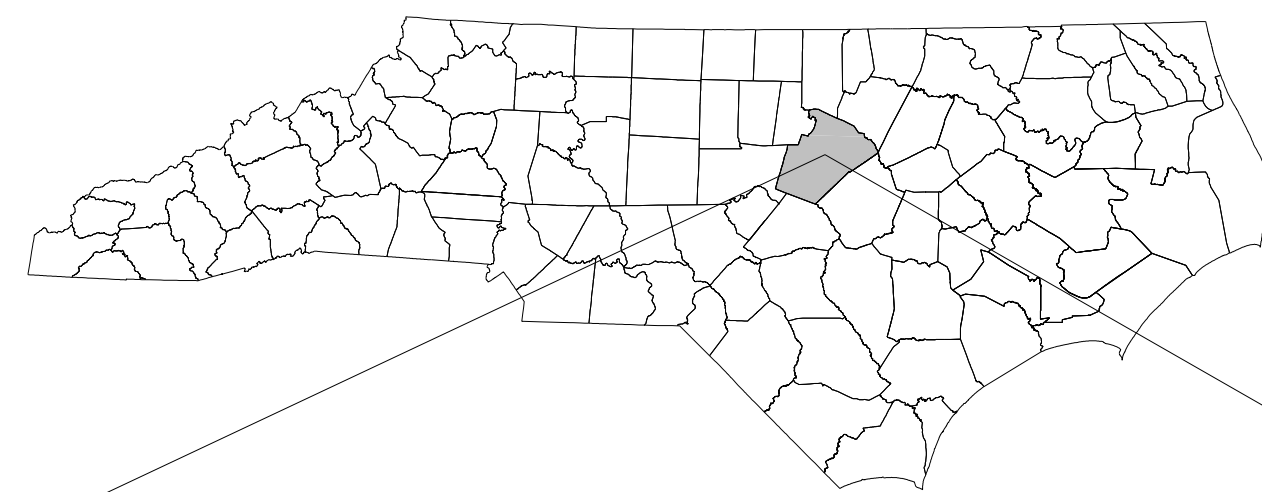
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

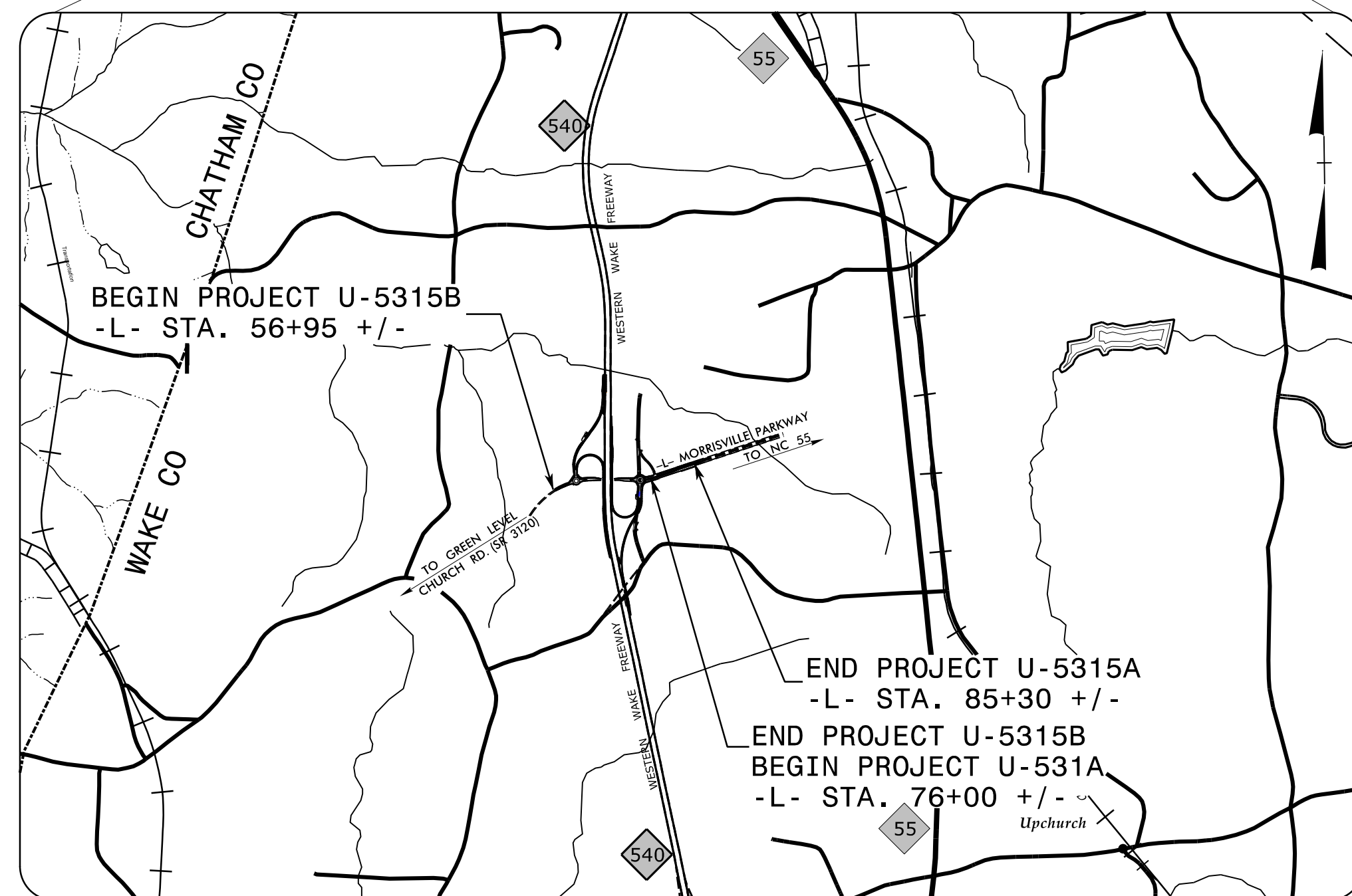
WAKE COUNTY

**LOCATION: MORRISVILLE PARKWAY EXTENSION AND NC 540 INTERCHANGE
FROM SR 1625 (GREEN LEVEL CHURCH RD) TO NC 55**

**TYPE OF WORK: GRADING, DRAINAGE, PAVING, STRUCTURES, SIGNING,
LIGHTING, AND TOLL INFRASTRUCTURE**

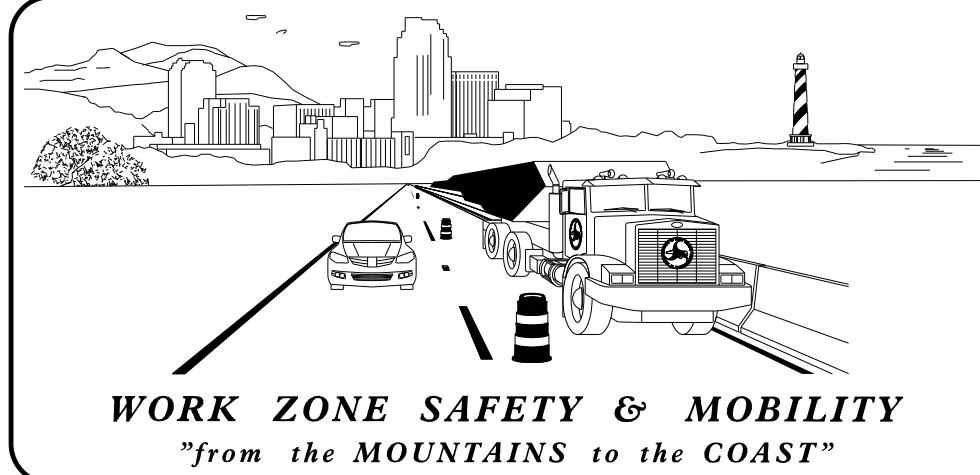


VICINITY MAP



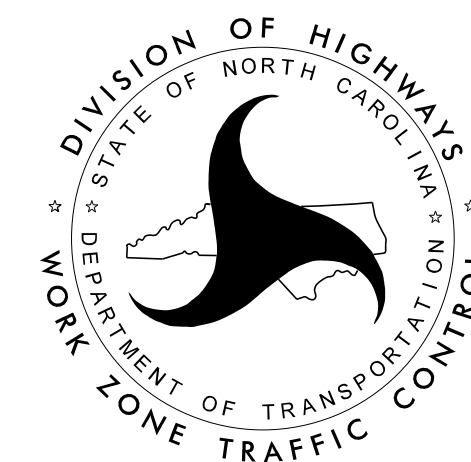
INDEX OF SHEETS	
<u>SHEET NO.</u>	<u>TITLE</u>
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TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, AND TEMPORARY PAVEMENT MARKING SCHEDULE
TMP-1B and 1C	TRANSPORTATION OPERATIONS PLAN: (GENERAL NOTES)
TMP-2	MANAGEMENT STRATEGIES AND TRAFFIC CONTROL PHASING
TMP-3 - TMP-9	PHASE I DETAILS
TMP-10 - TMP-20	PHASE II DETAILS
TMP-21 - TMP-26	PHASE III DETAILS

SHEET NO. TMP-1
U-5315 A & B
TIP PROJECT:



N.C.D.O.T. WORK ZONE TRAFFIC CONTROL
1561 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1561
750 N. GREENFIELD PARKWAY, GARNER, NC 27529 (DELIVERY)
PHONE: (919) 773-2800 FAX: (919) 771-2745

J. E. HUMMER, P.E. STATE TRAFFIC MANAGEMENT ENGINEER
M. STEELMAN TRAFFIC CONTROL PROJECT DESIGN ENGINEER

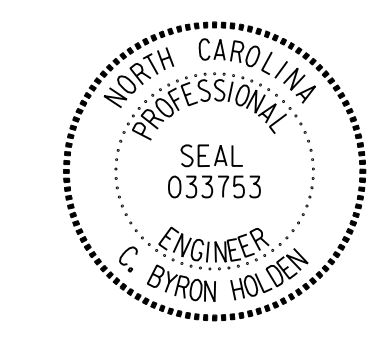


PLANS PREPARED BY:
RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE, SUITE 350
RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO. F-0112
1-888-521-4455 OR 919-878-9560

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DATE: 11/19/2017

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ds@rsk


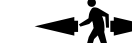




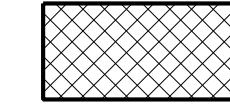
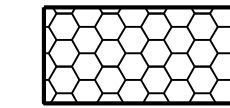
ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:







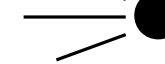



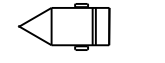
<u>STD. NO.</u>	<u>TITLE</u>
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.06	WARNING SIGNS FOR BLASTING ZONES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUM
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1160.01	TEMPORARY CRASH CUSHION
1165.01	WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION
1170.01	POSITIVE PROTECTION
1180.01	SKINNY-DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE 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
1205.08	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
1253.01	RAISED PAVEMENT MARKERS - SNOWPLOWABLE
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION
1264.01	OBJECT MARKERS - TYPES
1264.02	OBJECT MARKERS - INSTALLATION

LEGEND

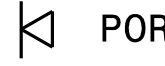
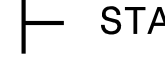
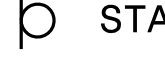
GENERAL

-  DIRECTION OF TRAFFIC FLOW
-  DIRECTION OF PEDESTRIAN TRAFFIC FLOW
-  EXIST. PVMT.
-  NORTH ARROW
-  PROPOSED PVMT.
-  WORK AREA
-  PAVEMENT REMOVAL
-  TEMP. PAVEMENT

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 MARKINGS

-  EXISTING LINES
-  TEMPORARY LINES

TEMPORARY PAVEMENT MARKING SCHEDULE

COLD APPLIED PLASTIC - TYPE 4

- C6 WHITE EDGELINE (6")
- C7 YELLOW EDGELINE (6")
- CA WHITE EDGELINE (4")
- CJ YELLOW DOUBLE CENTER LINE (4")
- CJ 10 FT. WHITE SKIP (6")


PAINT

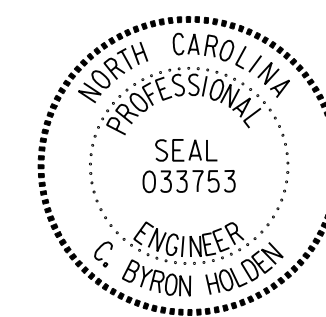
- P2 WHITE STOPBAR (24")
- P3 WHITE CROSSWALK LINE (24")
- P6 WHITE EDGELINE (6")
- P7 YELLOW EDGELINE (6")
- P8 2 FT.-6 FT./SP WHITE MINISKIP (4")
- P17 3 FT.-3 FT./SP WHITE MINISKIP (8")
- PA WHITE EDGELINE (4")
- PB YELLOW EDGELINE (4")
- PC 10 FT. WHITE SKIP (4")
- PD 3 FT.-9 FT./SP WHITE MINISKIP (4")
- PE WHITE SOLID LANE LINE (4")
- PI YELLOW DOUBLE CENTER LINE (4")
- PK 3 FT.-9 FT./SP WHITE MINISKIP (6")
- PL WHITE SOLID LANE LINE (6")
- PN WHITE GORELINE (8")
- PP YELLOW DIAGONAL (8")
- PR WHITE SOLID LANE LINE (8")
- PS WHITE GORELINE
- QA LEFT TURN ARROW
- QB RIGHT TURN ARROW
- QC STRAIGHT ARROW
- QD COMBO. LEFT/STRAIGHT ARROW
- QN 24" YIELD LINE TRIANGLE
- QP MERGE ARROW
- QU FISH-HOOK STRAIGHT ARROW
- QZ FISH-HOOK W/CIRCLE STRAIGHT ARROW
- RA FISH-HOOK W/CIRCLE LEFT ARROW

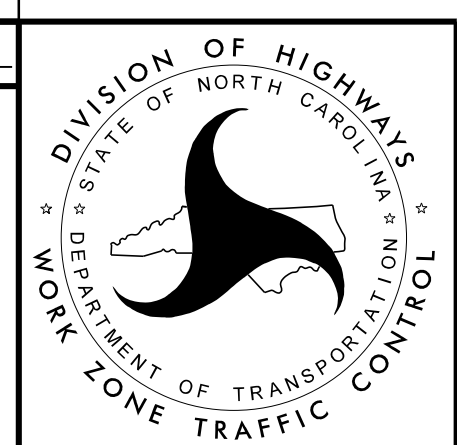
PAVEMENT MARKERS

- MH TEMPORARY RAISED, YELLOW/YELLOW
- MI TEMPORARY RAISED, CRYSTAL/RED
- MJ TEMPORARY RAISED, YELLOW/RED

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APPROVED:  DATE: 11/11/2017





**ROADWAY STANDARD
DRAWINGS, LEGEND AND
TEMPORARY PAVEMENT
MARKING SCHEDULE**

GENERAL NOTES

PROJ. REFERENCE NO.	SHEET NO.
U-5315 A & B	TMP-1B

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

TIME RESTRICTIONS

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

ROAD NAME	DAY AND TIME RESTRICTIONS
NC 540 RAMPS & LOOPS	SUNDAY THRU SATURDAY, BETWEEN 6:00 AM TO 9:00 AM AND 4:00 PM TO 7:00 PM

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

ROAD NAME

NC 540
RAMPS & LOOPS

HOLIDAY

1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 AM DECEMBER 31ST TO 7:00 PM JANUARY 3RD. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY, THEN UNTIL 6:00 AM THE FOLLOWING TUESDAY.
3. FOR EASTER, BETWEEN THE HOURS OF 6:00 AM THURSDAY AND 7:00 PM MONDAY.
4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 AM FRIDAY TO 7:00 PM TUESDAY.
5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 AM THE DAY BEFORE INDEPENDENCE DAY AND 7:00 PM THE DAY AFTER INDEPENDENCE DAY. IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY, THEN BETWEEN THE HOURS OF 6:00 AM THE THURSDAY BEFORE INDEPENDENCE DAY AND 7:00 PM THE TUESDAY AFTER INDEPENDENCE DAY.
6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 AM FRIDAY TO 7:00 PM TUESDAY.
7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 AM TUESDAY AND 7:00 PM MONDAY.
8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 AM THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00 PM THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

AS A MINIMUM, MAINTAIN THREE LANES IN EACH DIRECTION ON NC 540. WHEN A ROAD CLOSURE IS USED, THE DESIGN-BUILD TEAM SHALL REOPEN THE TRAVEL LANES BY THE END OF THE ROAD CLOSURE DURATION TO ALLOW THE TRAFFIC QUEUE TO DEplete BEFORE RE-CLOSING THE ROADWAY.

C) DO NOT STOP TRAFFIC AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS	DURATION AND OPERATION
NC 540	SUNDAY THRU SATURDAY, BETWEEN 4:00 AM TO 12:01 AM	INSTALLATION OF OVERHEAD SIGN STRUCTURES

D) DO NOT CONDUCT SINGLE VEHICLE HAULING AS FOLLOWS; INGRESS AND EGRESS FROM RAMPS WILL BE ALLOWED:

ROAD NAME	DAY AND TIME RESTRICTIONS
NC 540	SUNDAY THRU SATURDAY, BETWEEN 6:00 AM TO 9:00 AM AND 4:00 PM TO 7:00 PM

E) DO NOT CONDUCT MULTI-VEHICLE HAULING AS FOLLOWS; INGRESS AND EGRESS FROM RAMPS WILL BE ALLOWED:

ROAD NAME	DAY AND TIME RESTRICTIONS
NC 540	SUNDAY THRU SATURDAY, BETWEEN 6:00 AM TO 9:00 AM AND 4:00 PM TO 7:00 PM

F) DO NOT CONDUCT ANY HAULING OPERATION AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVEL WAY 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 OR EQUIPMENT ARE WORKING WITHIN 15 FT. OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING RDWY. STD. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL, OR A LANE CLOSURE IS INSTALLED.
- I) WHEN PERSONNEL 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 LAND USING RDWY. STD. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

WHEN PERSONNEL 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 LAND USING RDWY. STD. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

J) WHEN PERSONNEL OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED 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 EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.

PAVEMENT EDGE DROP-OFF REQUIREMENTS

K) 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.

L) 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) (1000') IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

SIGNING

M) 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.

TRAFFIC BARRIER

N) 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.

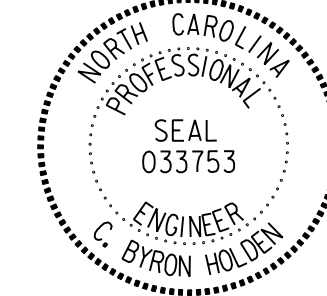
DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE.

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.

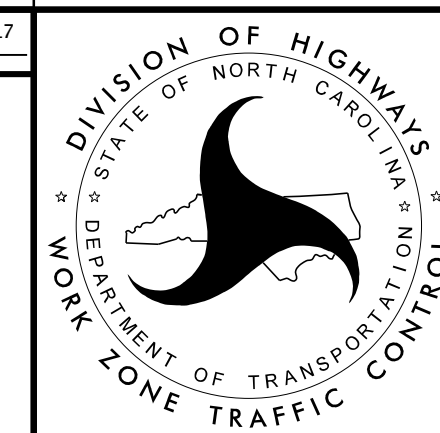
INSTALL TEMPORARY BARRIER WITH THE TRAFFIC FLOW BEGINNING WITH THE UPSTREAM SIDE OF TRAFFIC. REMOVE TEMPORARY BARRIER AGAINST THE TRAFFIC FLOW BEGINNING WITH THE DOWNSTREAM SIDE OF TRAFFIC.

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SEAL



**TRANSPORTATION
OPERATIONS
PLAN**

GENERAL NOTES

PROJ. REFERENCE NO.	SHEET NO.
U-5315 A & B	TMP-1C

TRAFFIC BARRIER, (CONTINUED)

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.

- O) 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 (mph)	MINIMUM OFFSET (ft.)
< 40	15
45 – 50	20
55	25
> 60	30

TRAFFIC CONTROL DEVICES

- P) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREA 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 TRAVEL WAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTION 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.
- Q) PLACE TYPE III BARRICADES WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE THE ENTIRE ROADWAY.

PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME	MARKING	MARKER
-NC540-	COLD APPLIED PLASTIC TYPE IV	TEMPORARY RAISED
LOOPS & RAMPS	PAINT	TEMPORARY RAISED
-L- MORRISVILLE PARKWAY	PAINT	TEMPORARY RAISED

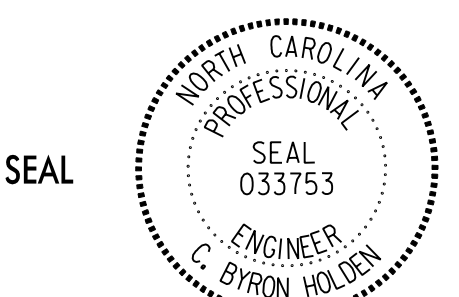
- S) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.

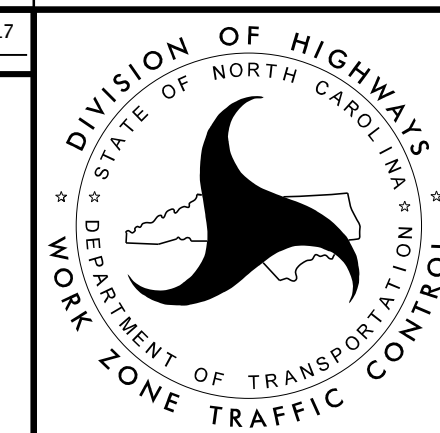
- T) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- U) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.
- V) REMOVE EXISTING CRYSTAL LENS FROM SNOWPLOWABLE RAISED PAVEMENT MARKERS PRIOR TO SHIFTING NC 540 NORTHBOUND AND SOUTHBOUND TO ITS TEMPORARY TRAFFIC PATTERN.

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APPROVED: [Signature] DATE: 11/11/2017





TRANSPORTATION OPERATIONS PLAN

PROJ. REFERENCE NO.	SHEET NO.
U-5315 A & B	TMP-2

MANAGEMENT STRATEGIES

PHASE I

- CONSTRUCT PROPOSED NC 540 LOOPS AND RAMPS.
- MAINTAINING EXISTING TRAFFIC, CONSTRUCT -L-.
- MAINTAINING EXISTING TRAFFIC, CONSTRUCT -Y1- AND -DR2-.

PHASE II

- ALTERNATING LANE CLOSURES, TIE IN -Y1- AND -DR2-, PLACE PAVEMENT MARKINGS, AND OPEN TO TRAFFIC. PERMANENTLY CLOSE TWYLA RD SOUTH OF MORRISVILLE PKWY AND CONSTRUCT CUL-DE-SAC.
- SHIFT THE NORTHBOUND LANES OF NC 540 TO THE MEDIAN SHOULDER IN 3 - 11' LANES. PLACE PORTABLE CONCRETE BARRIER ALONG THE OUTSIDE TRAVEL LANE AND CONSTRUCT NORTHBOUND NC 540 WIDENING.
- SHIFT THE SOUTHBOUND LANES OF NC 540 TO THE MEDIAN SHOULDER IN 3 - 11' LANES. RESET THE PORTABLE CONCRETE BARRIER FROM NORTHBOUND NC 540 ALONG THE OUTSIDE TRAVEL LANE AND CONSTRUCT SOUTHBOUND NC 540 WIDENING.
- REMOVE THE PORTABLE CONCRETE FROM NC 540 AND CONSTRUCT THE REMAINING SECTIONS OF THE NC 540 LOOPS AND RAMPS.

PHASE III

- REMOVE PAVEMENT PER THE ROADWAY PLAN.
- PLACE FINAL LAYER OF SURFACE COURSE, FINAL PAVEMENT MARKINGS, AND OPEN ALL ROADS TO TRAFFIC IN THE FINAL PATTERN.

TRAFFIC CONTROL PHASING

PHASE I

STEP 1:

ERECT ADVANCE WORK ZONE WARNING SIGNS IN ACCORDANCE WITH RDWY STD 1101.01 ON -L- MORRISVILLE PARKWAY, NC 540 AND -Y1- TWYLA RD.

STEP 2:

AWAY FROM TRAFFIC **BEGIN** CONSTRUCTION EXCLUDING THE FINAL LAYER OF SURFACE COURSE AS FOLLOWS: (SEE TMP-3 THROUGH TMP-9)

- -L- STA 56+95 TO STA 66+26
- -L- STA 68+77 TO STA 72+00
- -L- STA 75+28 TO STA 85+00 INCLUDING TEMPORARY PAVEMENT IN THE MEDIAN FROM -L- STA 76+70 TO STA 77+35
- -RPD- STA 14+47 TO STA 22+00
- -LPD- STA 12+25 TO STA 16+00
- -LPB- STA 12+20 TO STA 22+06
- -RPB- STA 14+64 TO STA 30+37

STEP 3:

USING RDWY STD 1101.02 CONSTRUCT EXCLUDING THE FINAL LAYER OF SURFACE COURSE AS FOLLOWS: (SEE TMP-4 AND TMP-9)

- -Y1- STA 10+00 TO STA 18+86
- -DR2- STA 10+00 TO STA 11+00

PHASE II

STEP 1:

USING RDWY STD 1101.02 CLOSE THE MEDIAN AND MIDDLE LANES OF NB NC 540 AND FILL THE EXISTING RUMBLE STRIPS AS DIRECTED BY THE ENGINEER.

COMPLETE PHASE II STEPS 2 AND 3 IN 120 CALENDAR DAYS

STEP 2:

USING RDWY STD 1101.02 CLOSE THE MEDIAN AND MIDDLE TRAVEL LANES OF NB NC 540 AND REMOVE THE EXISTING PAVEMENT MARKINGS AND REPLACE WITH TEMPORARY MARKINGS AND MARKERS IN 11' TRAVEL LANES. SHIFT NB 540 INTO ITS TEMPORARY PATTERN TO THE MEDIAN AND MIDDLE TRAVEL LANES. CLOSE THE MIDDLE AND OUTSIDE TRAVEL LANES OF NB NC 540 AND PLACE PORTABLE CONCRETE BARRIER AS SHOWN, (SEE TMP-10 AND TMP-12 THRU TMP-14).

BEHIND BARRIER CONSTRUCT EXCLUDING THE FINAL LAYER OF SURFACE COURSE AS FOLLOWS, (SEE TMP-10 AND TMP-12 THRU TMP-14):

- NB -NC540- STA 545+66 TO STA 557+36
- -RPD- STA 10+00 TO STA 14+47
- NB -NC540- STA 566+52 TO STA 585+29
- -LPD- STA 10+00 TO STA 12+25

STEP 3:

USING RDWY STD 1101.02 CLOSE THE MIDDLE AND OUTSIDE TRAVEL LANES OF NB NC 540 AND REMOVE THE PORTABLE CONCRETE BARRIER FROM NB NC 540. REMOVE THE TEMPORARY PAVEMENT MARKINGS AND MARKERS AND REPLACE WITH FINAL MARKINGS AND MARKERS IN ITS PROPOSED TRAFFIC PATTERN. REMOVE THE REMAINING TEMPORARY PAVEMENT MARKINGS FROM THE MEDIAN LANE AND MEDIAN SHOULDER. PLACE THE REMAINING FINAL MARKINGS ON NB NC 540 AND OPEN THE NB NC 540 TRAVEL LANES. THE NEWLY CONSTRUCTED AUXILIARY LANES SHALL REMAIN CLOSED AND DELINEATED WITH DRUMS, (SEE TMP-16 THROUGH TMP-19, AND PAVEMENT MARKING PLANS).

STEP 4:

USING ALTERNATING LANE CLOSURES TIE IN -Y1- AND -DR2-, PLACE PAVEMENT MARKINGS, AND OPEN THE ROADWAYS TO TRAFFIC. UPON COMPLETION, CLOSE EXISTING TWYLA RD. AND CONSTRUCT THE PROPOSED "T" TURN-AROUND, CUL-DE-SAC, AND -DR1- ON TWYLA RD. (SEE TMP-11, TMP-13 AND TMP-15).

STEP 5:

CONSTRUCT EXCLUDING THE FINAL LAYER OF SURFACE COURSE AS FOLLOWS (SEE TMP-11 AND TMP-13):

- -RPD- STA 22+00 TO STA 31+02
- -LPD- STA 16+00 TO STA 23+54
- -L- STA 72+00 TO STA 75+28

STEP 6A:

USING RDWY STD 1101.02 CLOSE THE MEDIAN AND MIDDLE LANES OF SB NC 540 AND FILL THE EXISTING RUMBLE STRIPS AS DIRECTED BY THE ENGINEER.

TRAFFIC CONTROL PHASING, CONTINUED

COMPLETE PHASE II STEPS 6 AND 7 IN 120 CALENDAR DAYS

STEP 6:

UPON COMPLETION OF STEP 3 AND USING RDWY STD 1101.02 CLOSE THE MEDIAN AND MIDDLE TRAVEL LANES OF SB NC 540 AND REMOVE THE EXISTING PAVEMENT MARKINGS AND REPLACE WITH TEMPORARY MARKINGS AND MARKERS IN 11' TRAVEL LANES. SHIFT SB 540 INTO ITS TEMPORARY PATTERN TO THE MEDIAN AND MIDDLE TRAVEL LANES. CLOSE THE MIDDLE AND OUTSIDE TRAVEL LANES OF SB NC 540 AND PLACE PORTABLE CONCRETE BARRIER AS SHOWN, (SEE TMP-16 THRU TMP-20).

BEHIND BARRIER CONSTRUCT EXCLUDING THE FINAL LAYER OF SURFACE COURSE AS FOLLOWS, (SEE TMP-16 THRU TMP-20):

- SB -NC540- STA 557+49 TO STA 576+18
- -LPB- STA 10+00 TO STA 12+20
- SB -NC540- STA 585+59 TO STA 593+31
- -RPB- STA 10+00 TO STA 14+64

STEP 7:

USING RDWY STD 1101.02 CLOSE THE MIDDLE AND OUTSIDE TRAVEL LANES OF SB NC 540 AND REMOVE THE PORTABLE CONCRETE BARRIER FROM SB NC 540. REMOVE THE TEMPORARY PAVEMENT MARKINGS AND MARKERS AND REPLACE WITH FINAL MARKINGS AND MARKERS IN ITS PROPOSED TRAFFIC PATTERN. REMOVE THE REMAINING TEMPORARY PAVEMENT MARKINGS FROM THE MEDIAN LANE AND MEDIAN SHOULDER. PLACE THE REMAINING FINAL MARKINGS ON SB NC 540 AND OPEN THE SB NC 540 TRAVEL LANES. THE NEWLY CONSTRUCTED AUXILIARY LANES SHALL REMAIN CLOSED AND DELINEATED WITH DRUMS (SEE TMP-16 THROUGH TMP-20).

STEP 8:

COMPLETE ALL REMAINING CONSTRUCTION AS BEGUN IN PHASE I.

PHASE III

STEP 1:

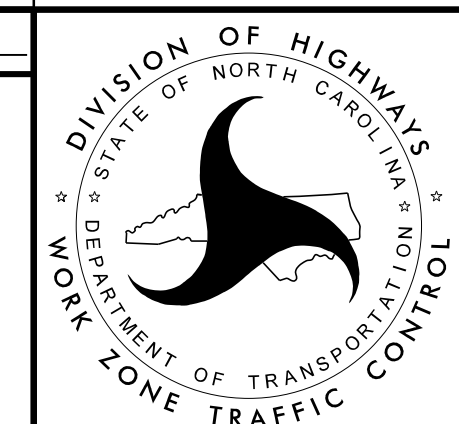
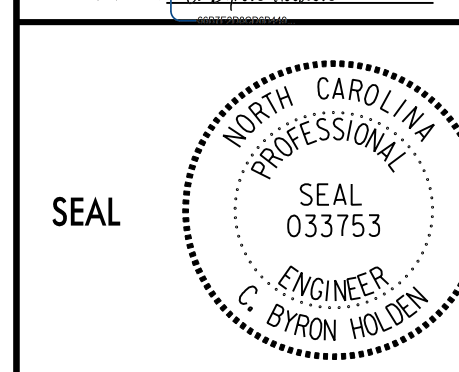
USING RDWY STD 1101.02 AS NEEDED, REMOVE EXISTING AND TEMPORARY PAVEMENT. CONSTRUCT REMAINING MEDIAN CURB AND GUTTER ON -L- MORRISVILLE PKWY.

STEP 2:

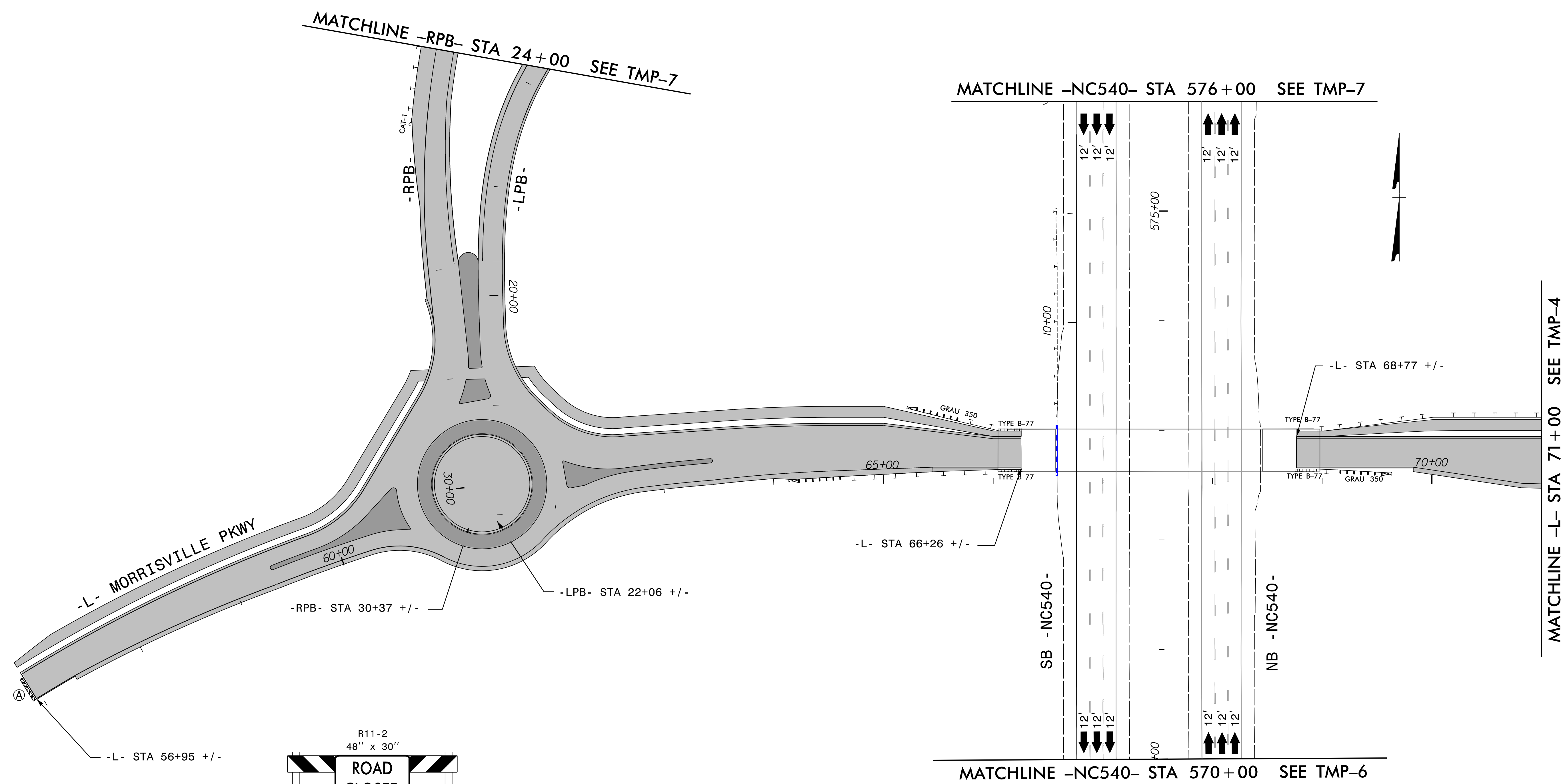
USING LANE CLOSURES AND FLAGGERS AS NEEDED, PLACE THE FINAL LAYER OF SURFACE COURSE AND FINAL PAVEMENT MARKINGS ON -L- MORRISVILLE PARKWAY. REMOVE ALL TRAFFIC CONTROL DEVICES AND OPEN ALL LANES TO TRAFFIC IN THE FINAL PATTERN, (SEE TMP-21 THRU TMP-26).

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TRAFFIC
CONTROL
PHASING

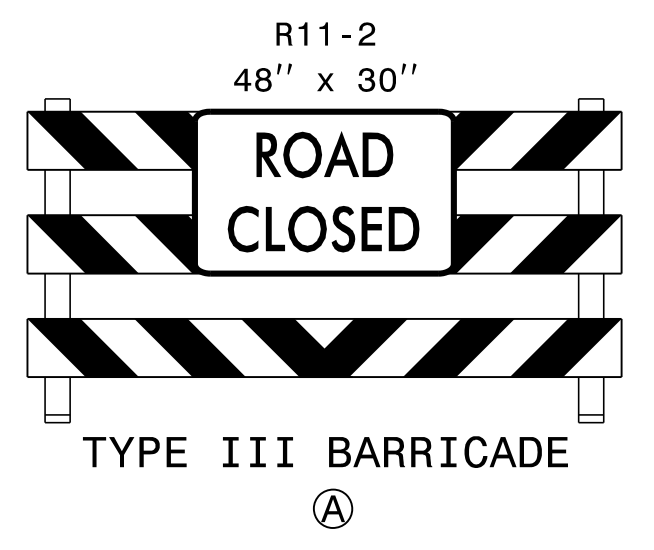


-L- MORRISVILLE PKWY

-RPB- STA 30+37 +/-

-LPB- STA 22+06 +/-

-L- STA 56+95 +/-



MATCHLINE -NC540- STA 576+00 SEE TMP-7

MATCHLINE -NC540- STA 570+00 SEE TMP-6

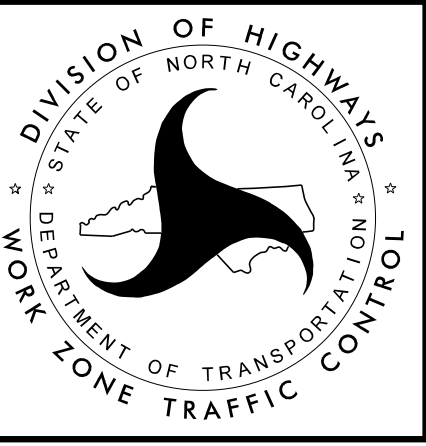
MATCHLINE -L- STA 71+00 SEE TMP-4

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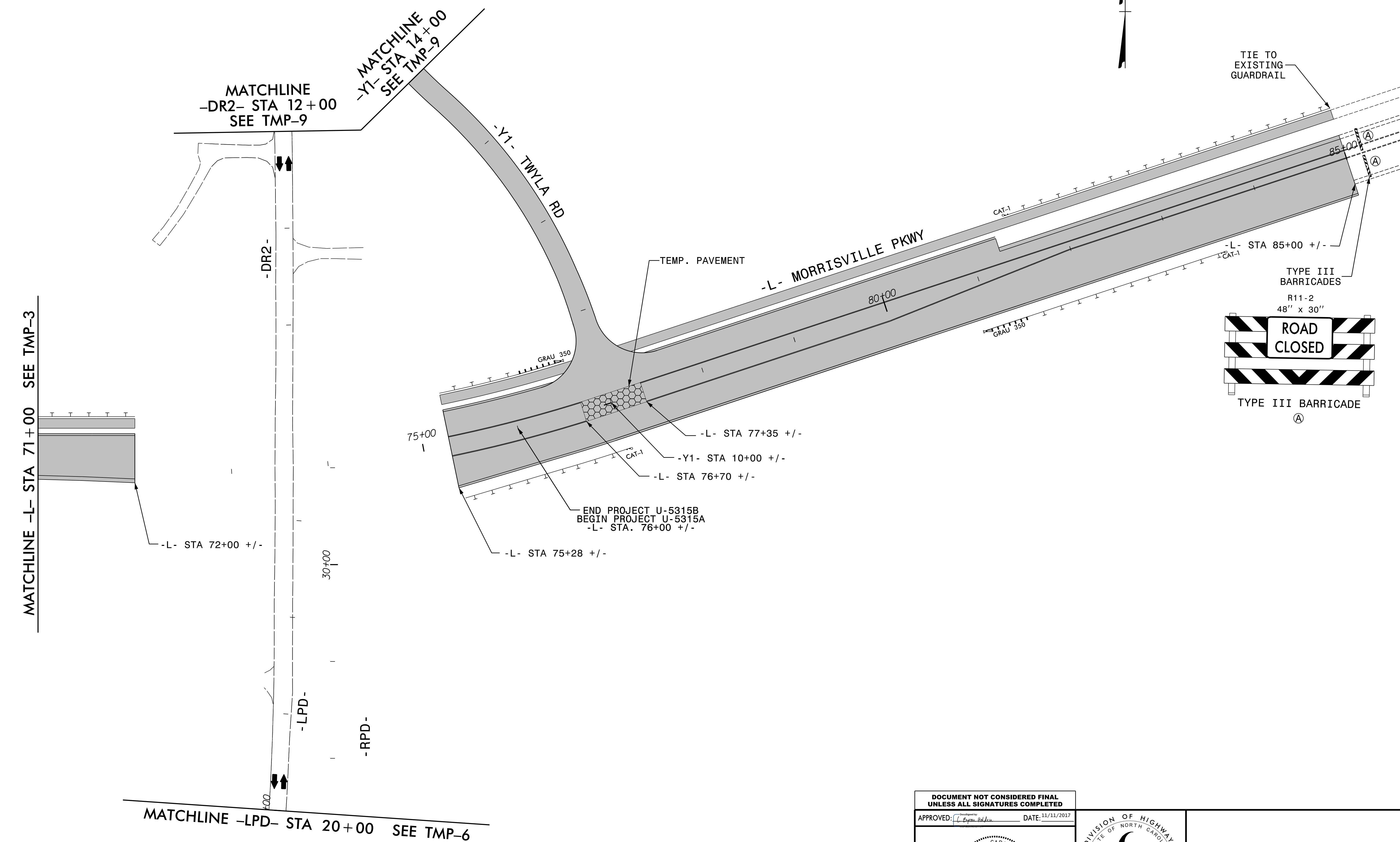
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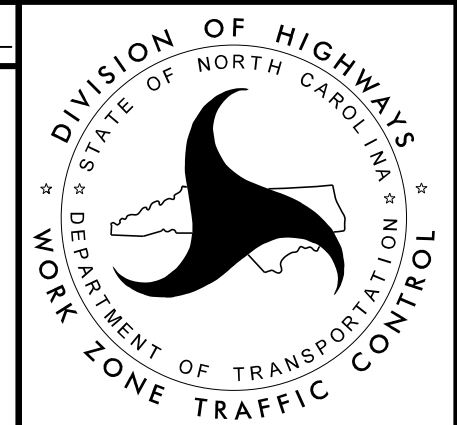
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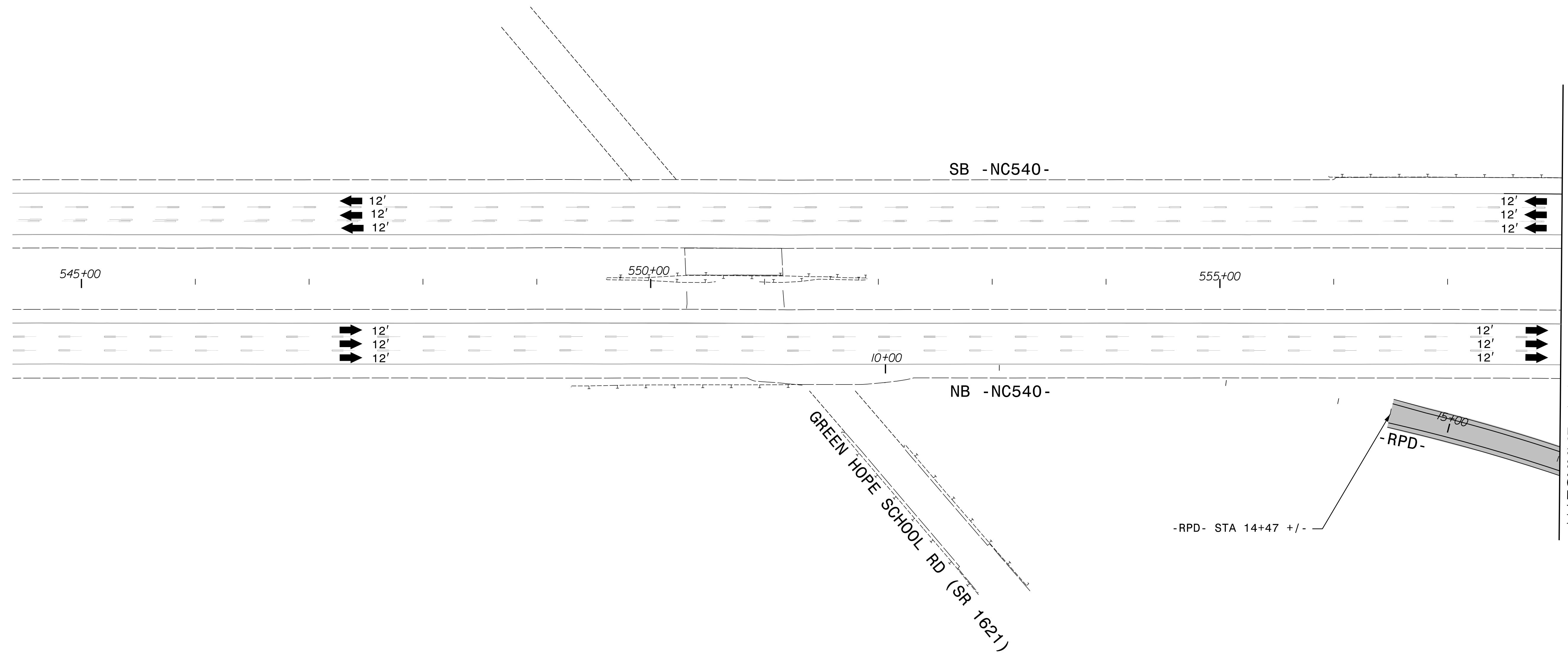
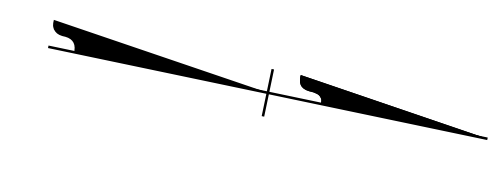
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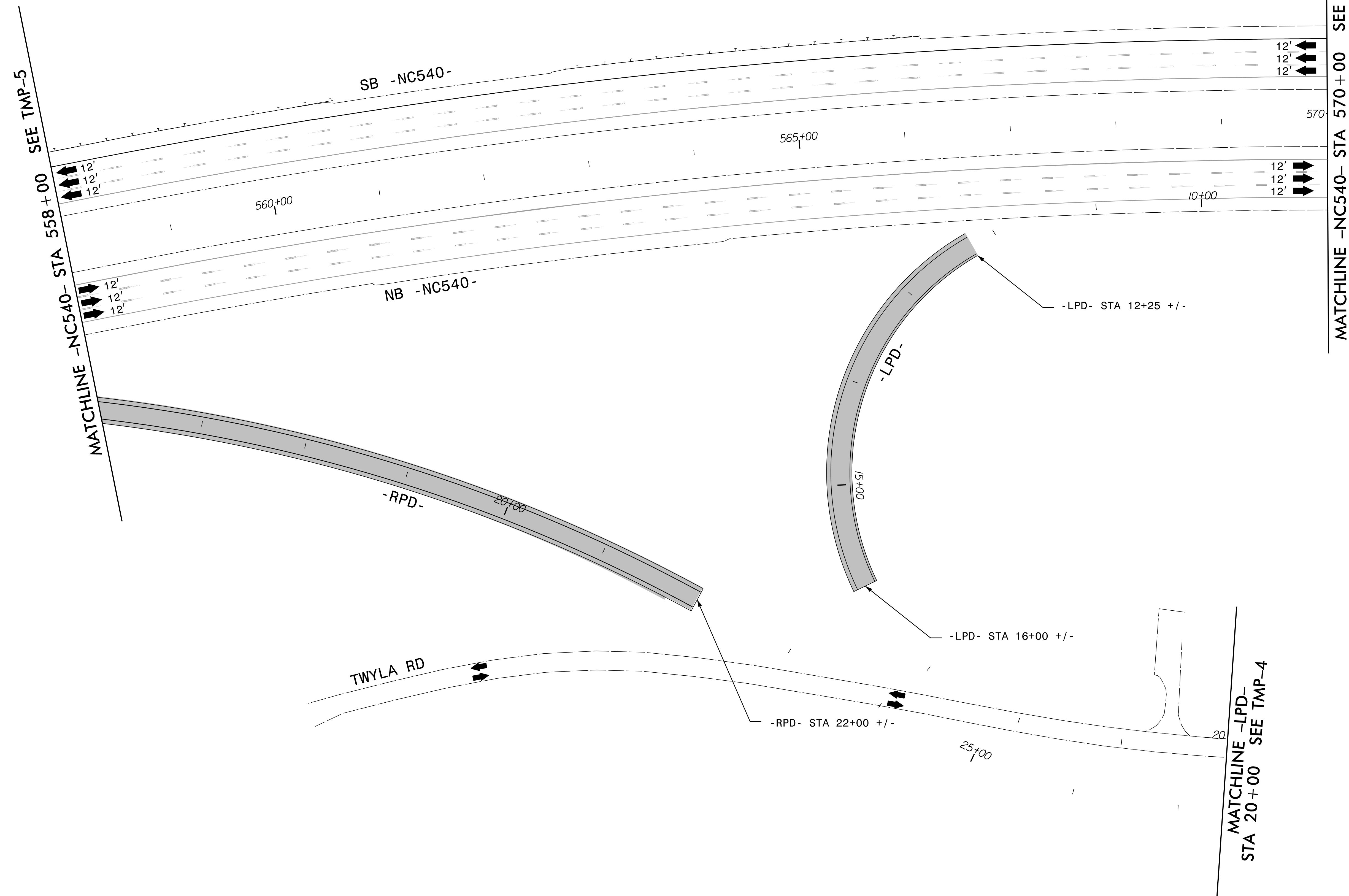
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 C. BYRON HOLDEN

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

PHASE I DETAIL

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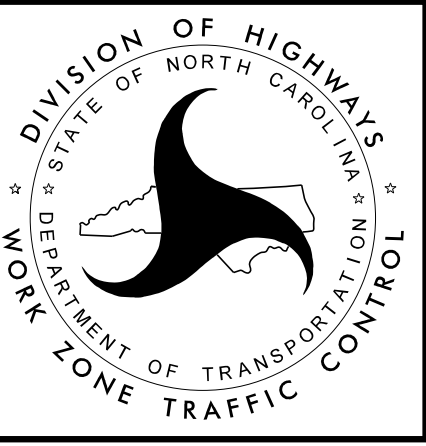
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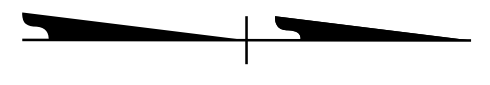
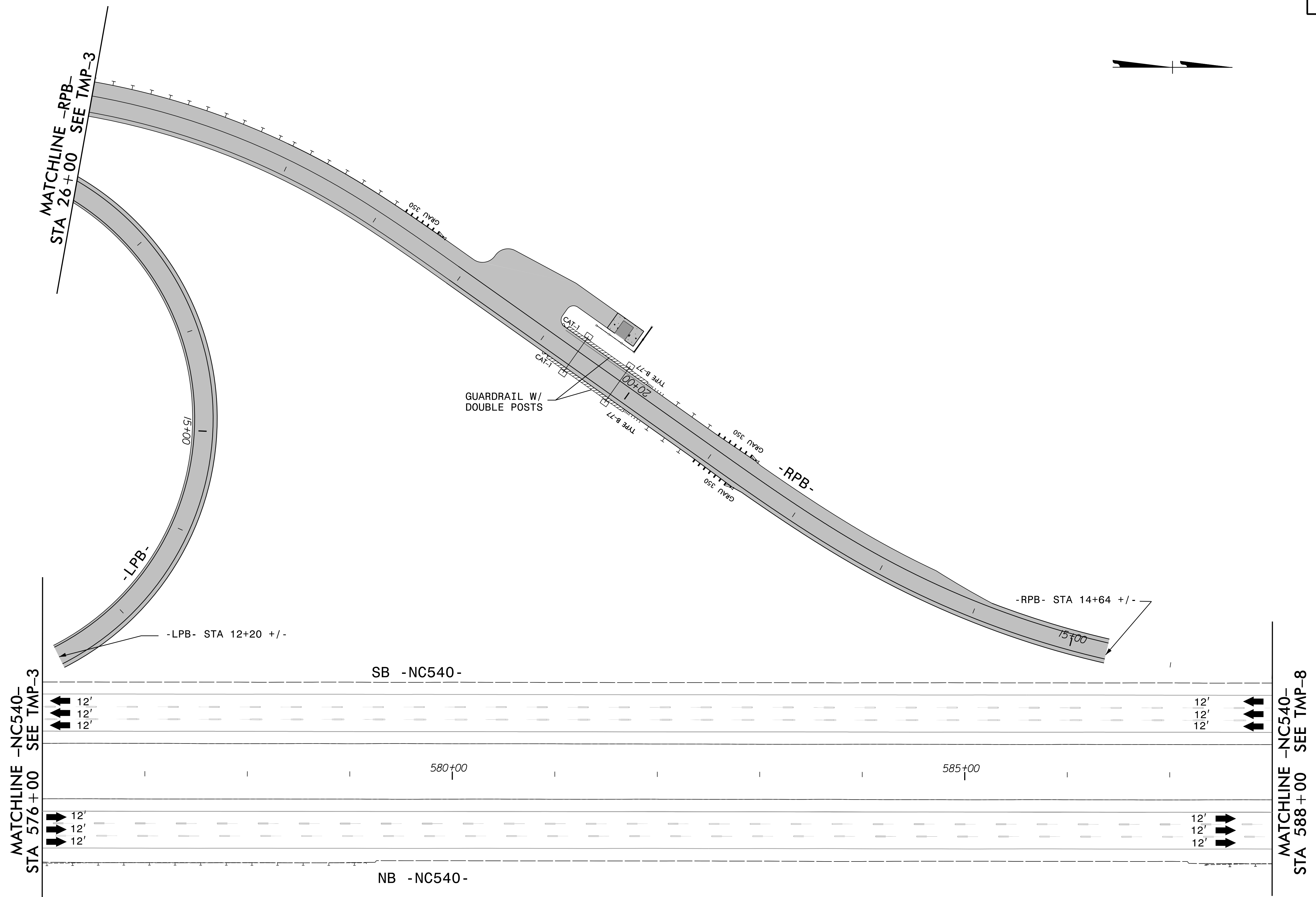
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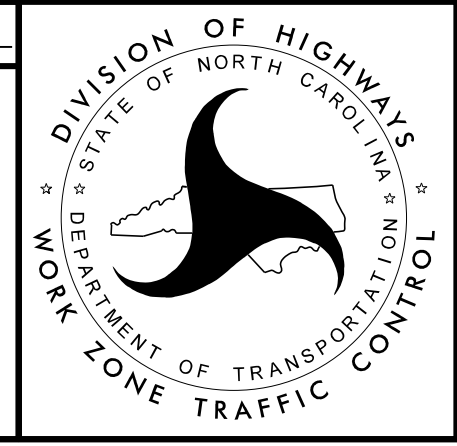
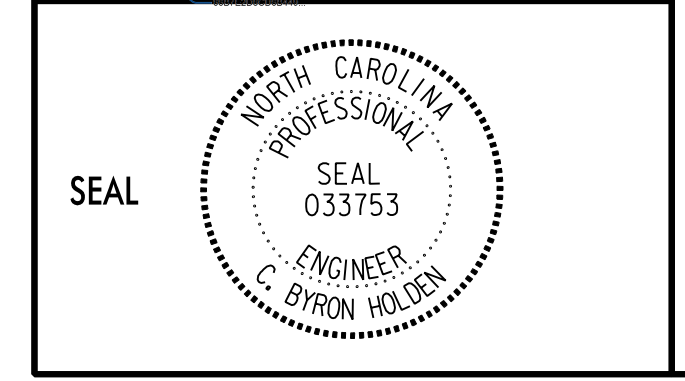
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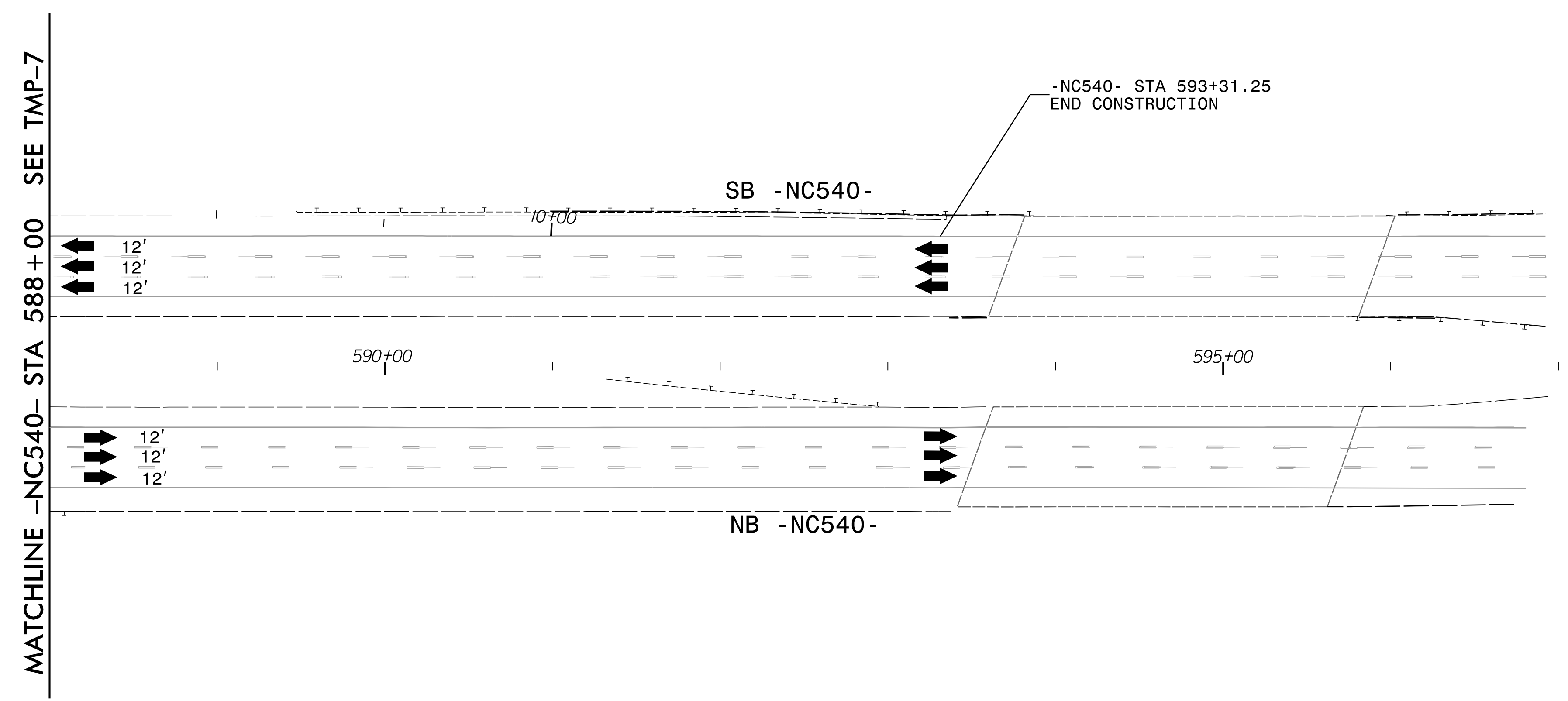
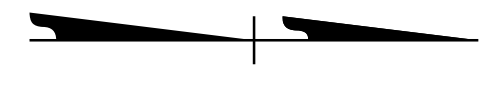
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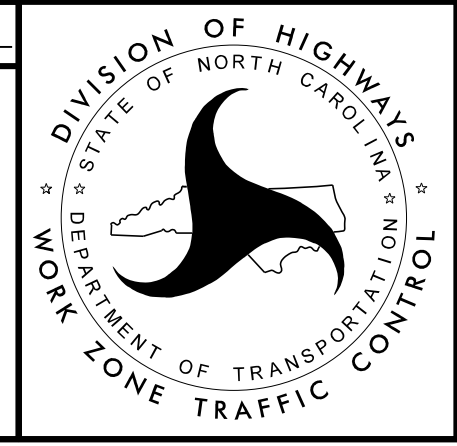


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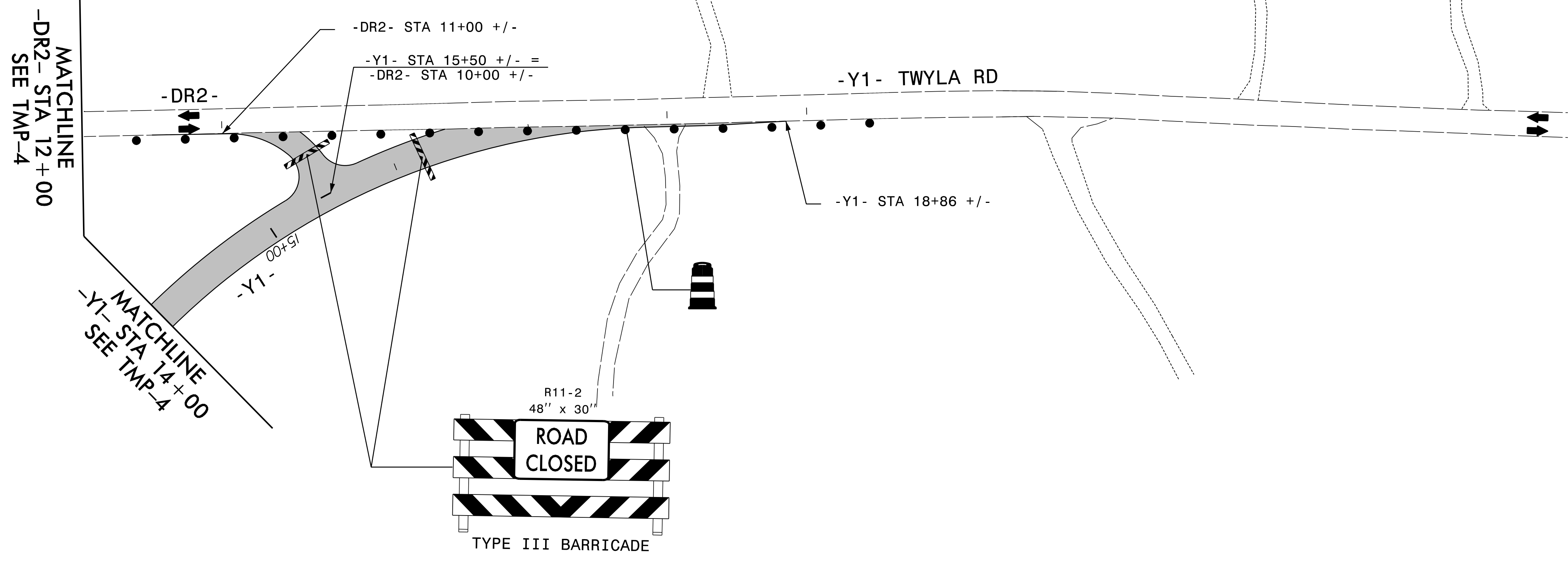
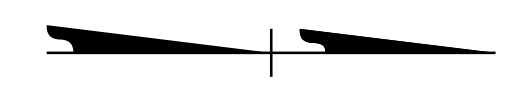
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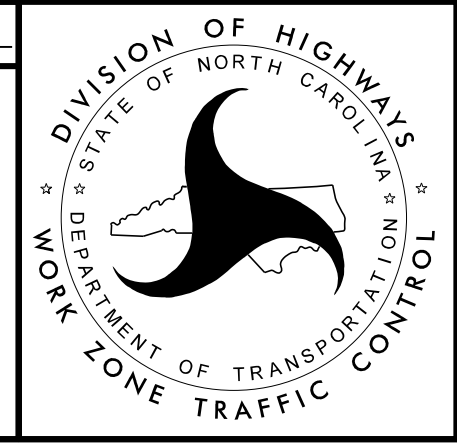
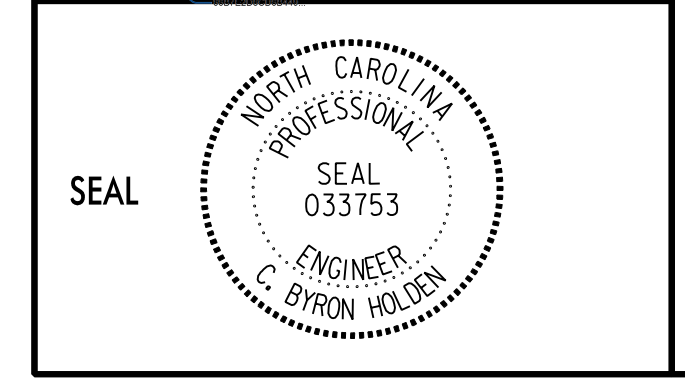
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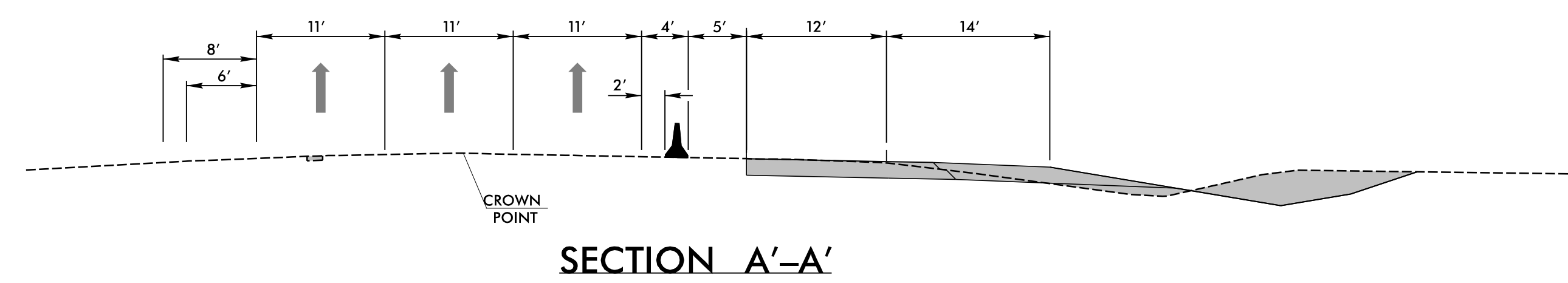
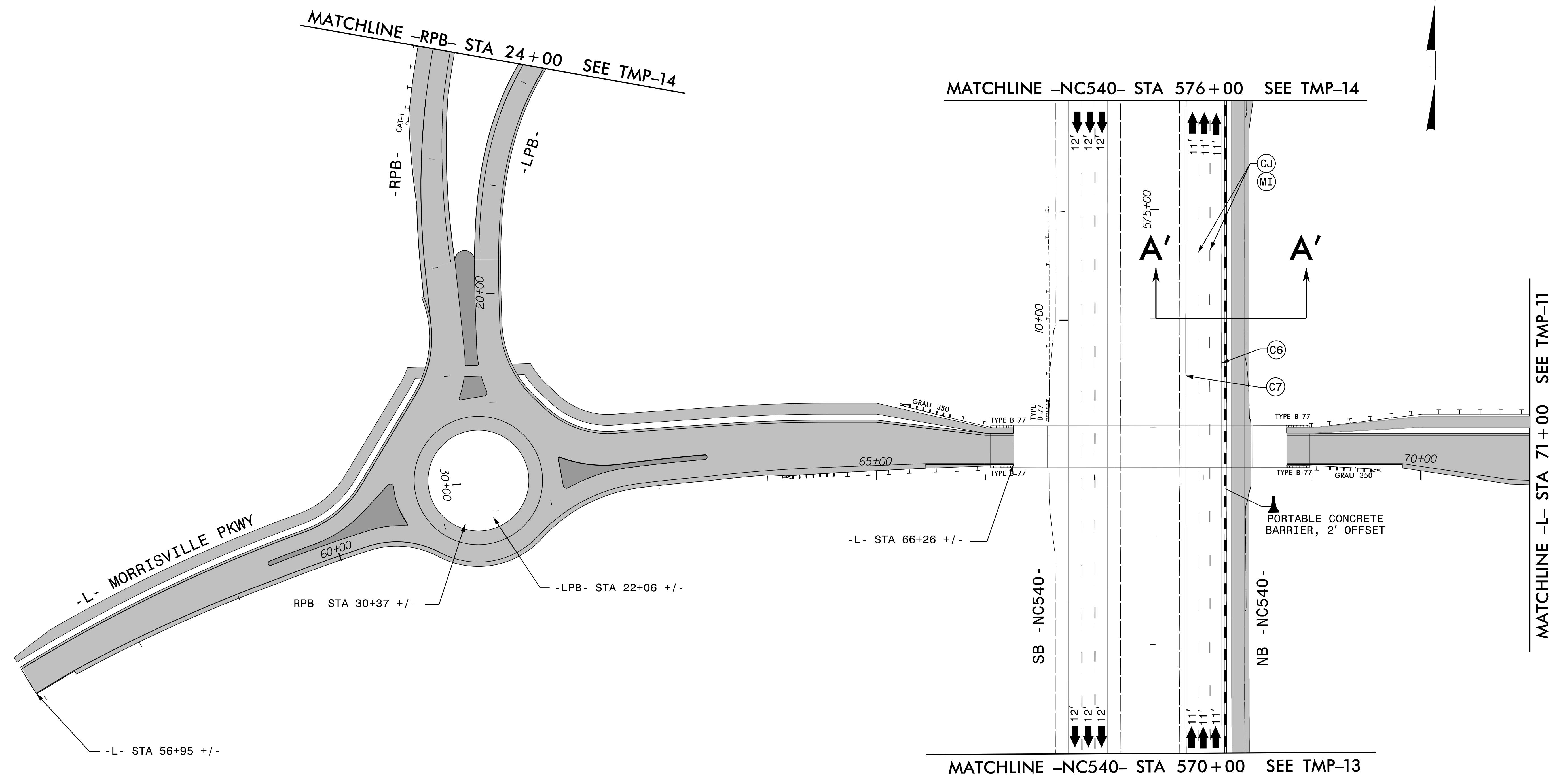
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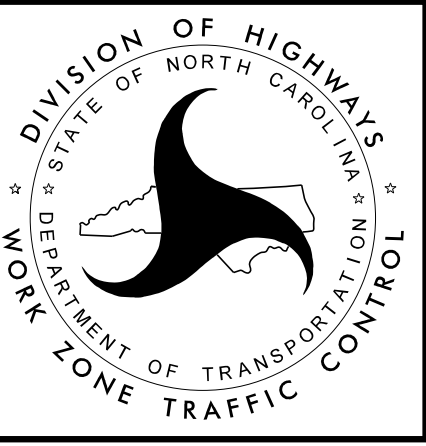
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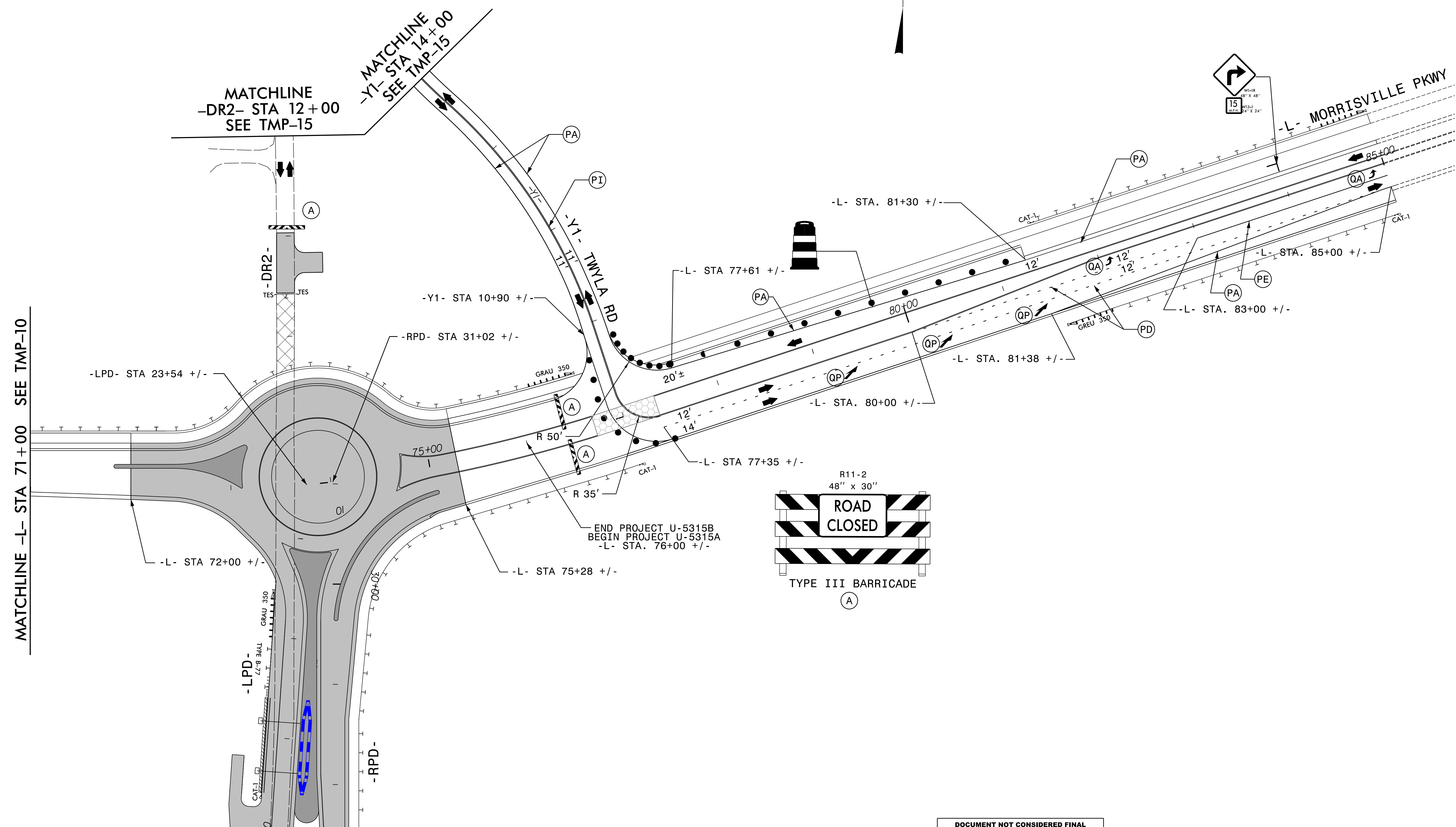
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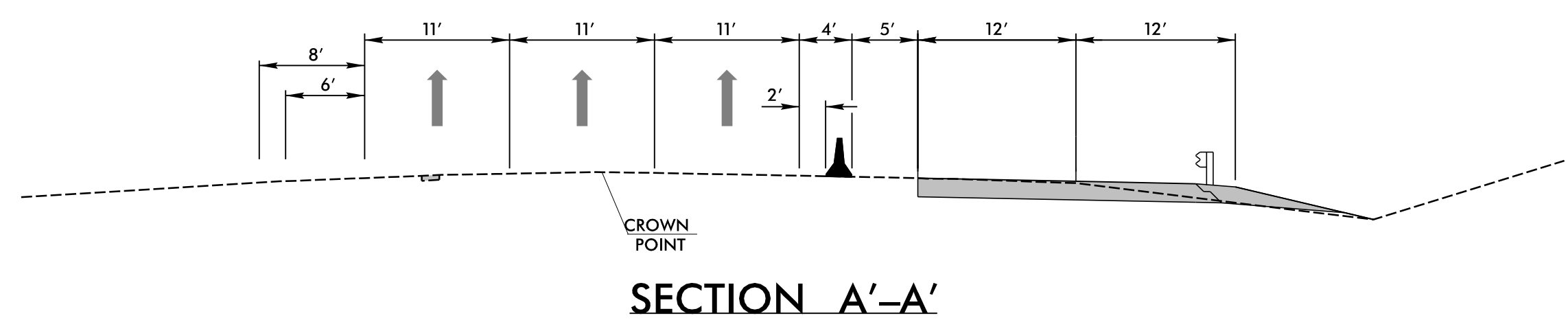
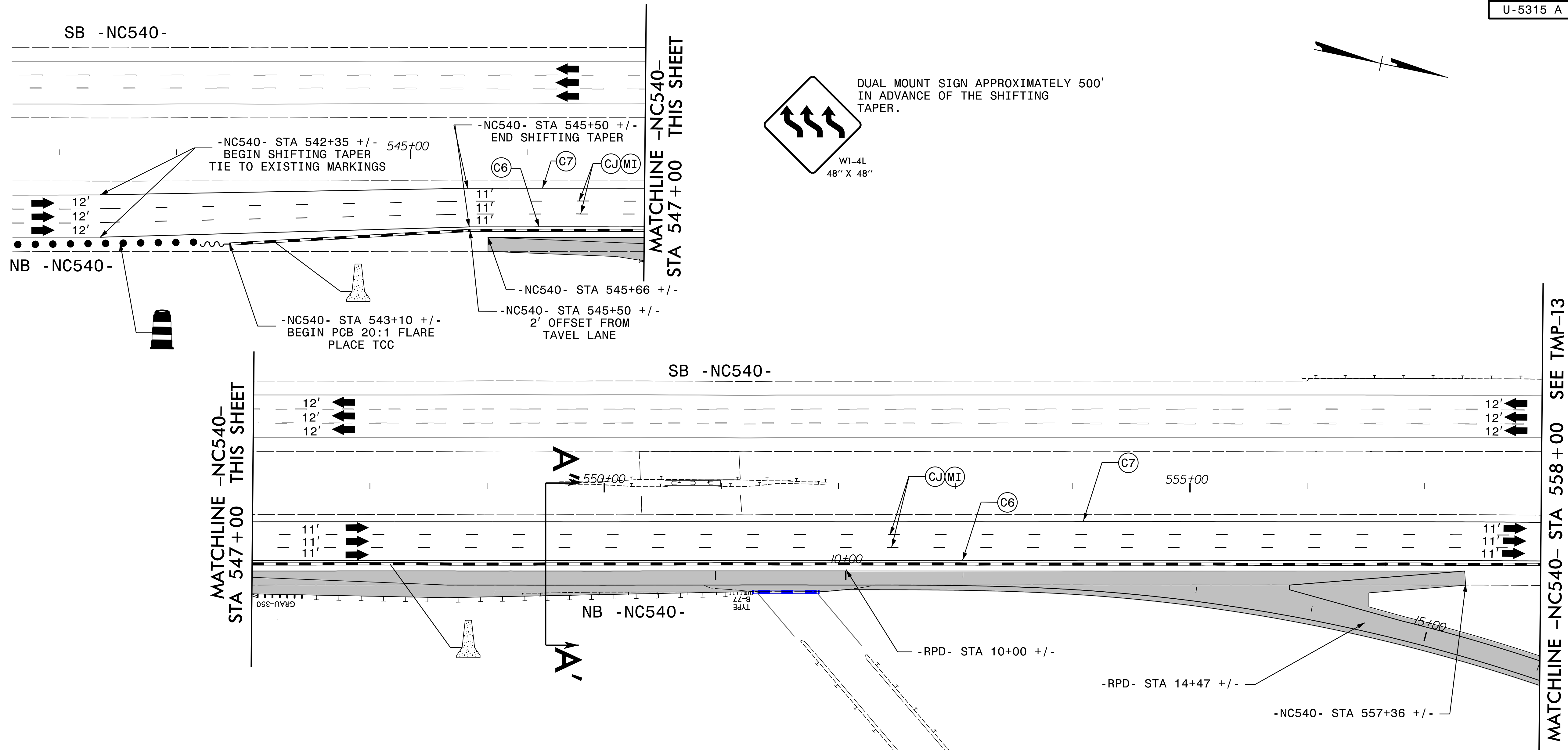
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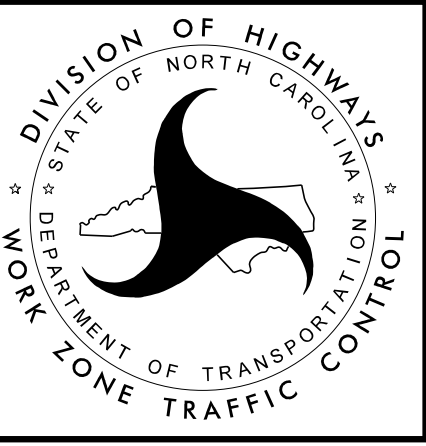
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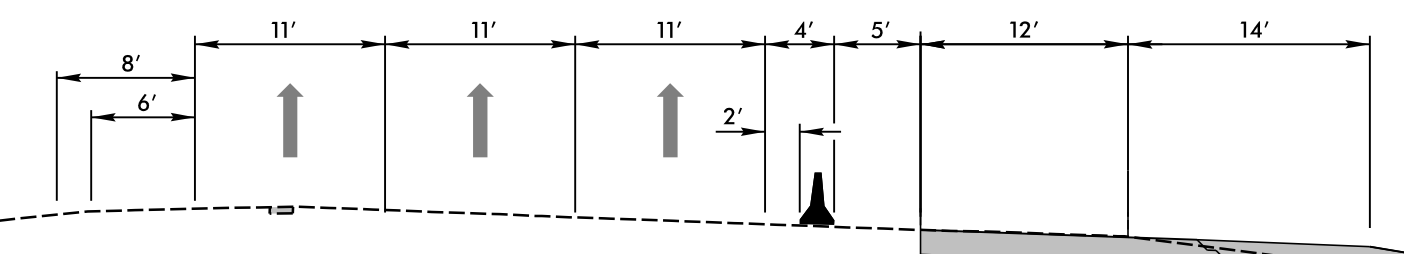
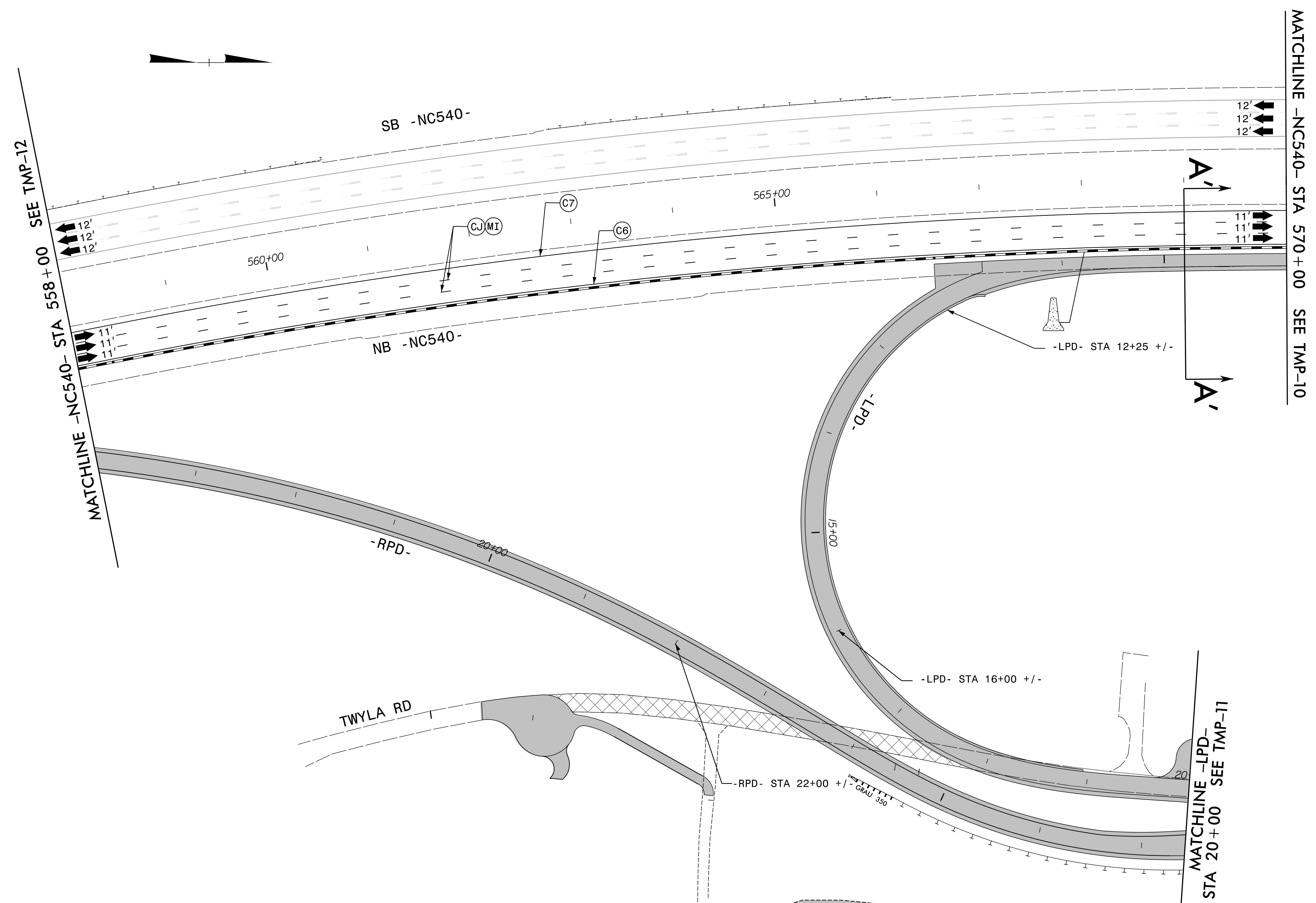
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SECTION A'-A'

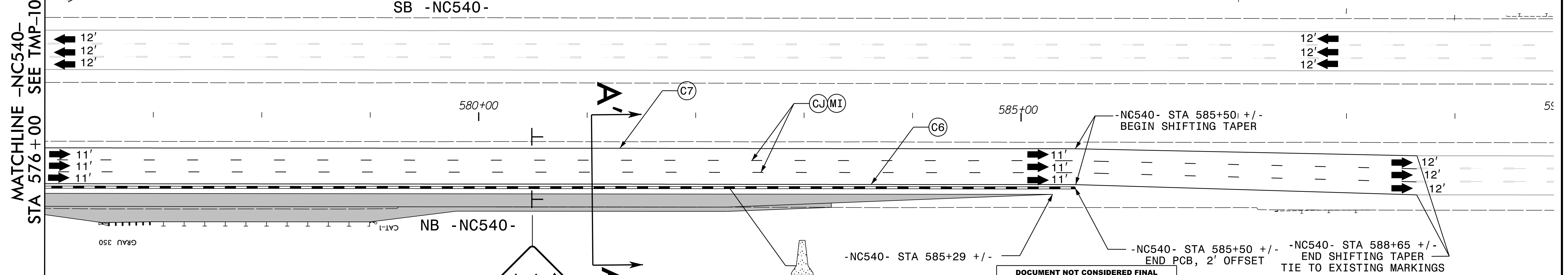
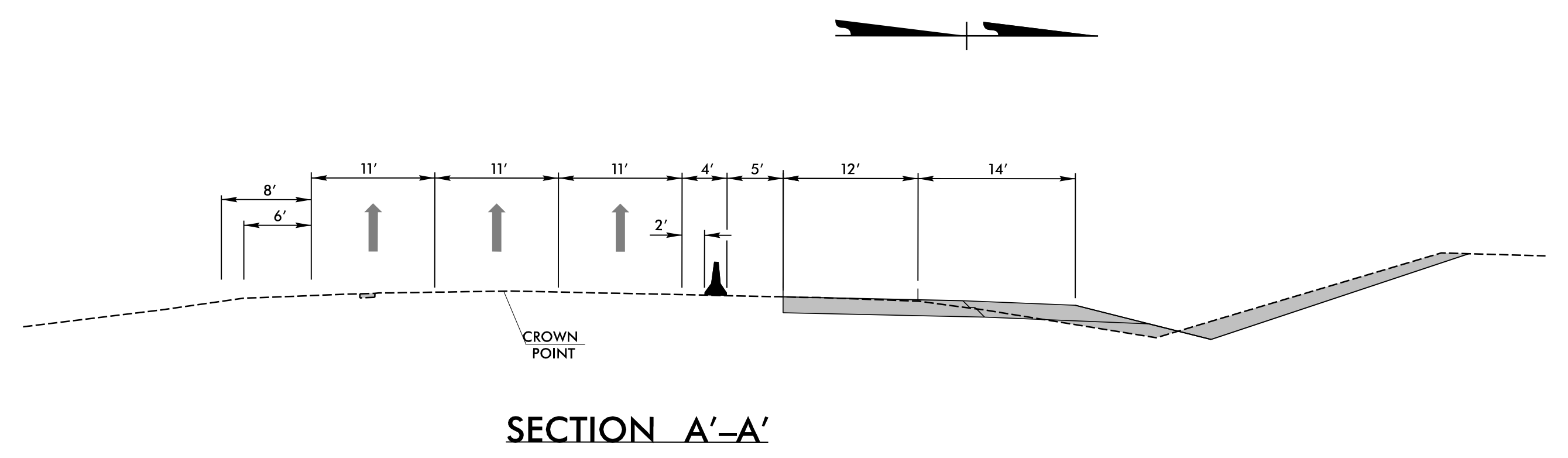
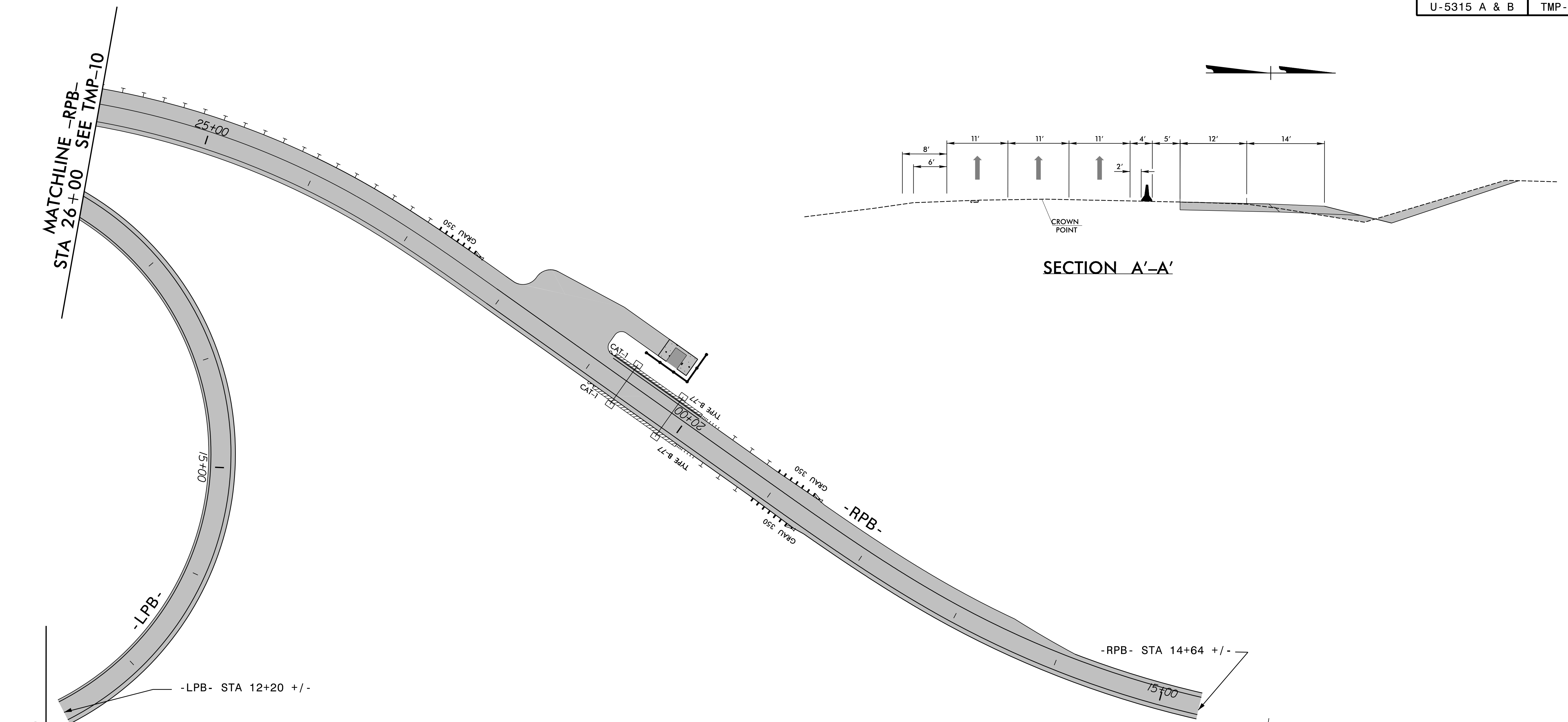
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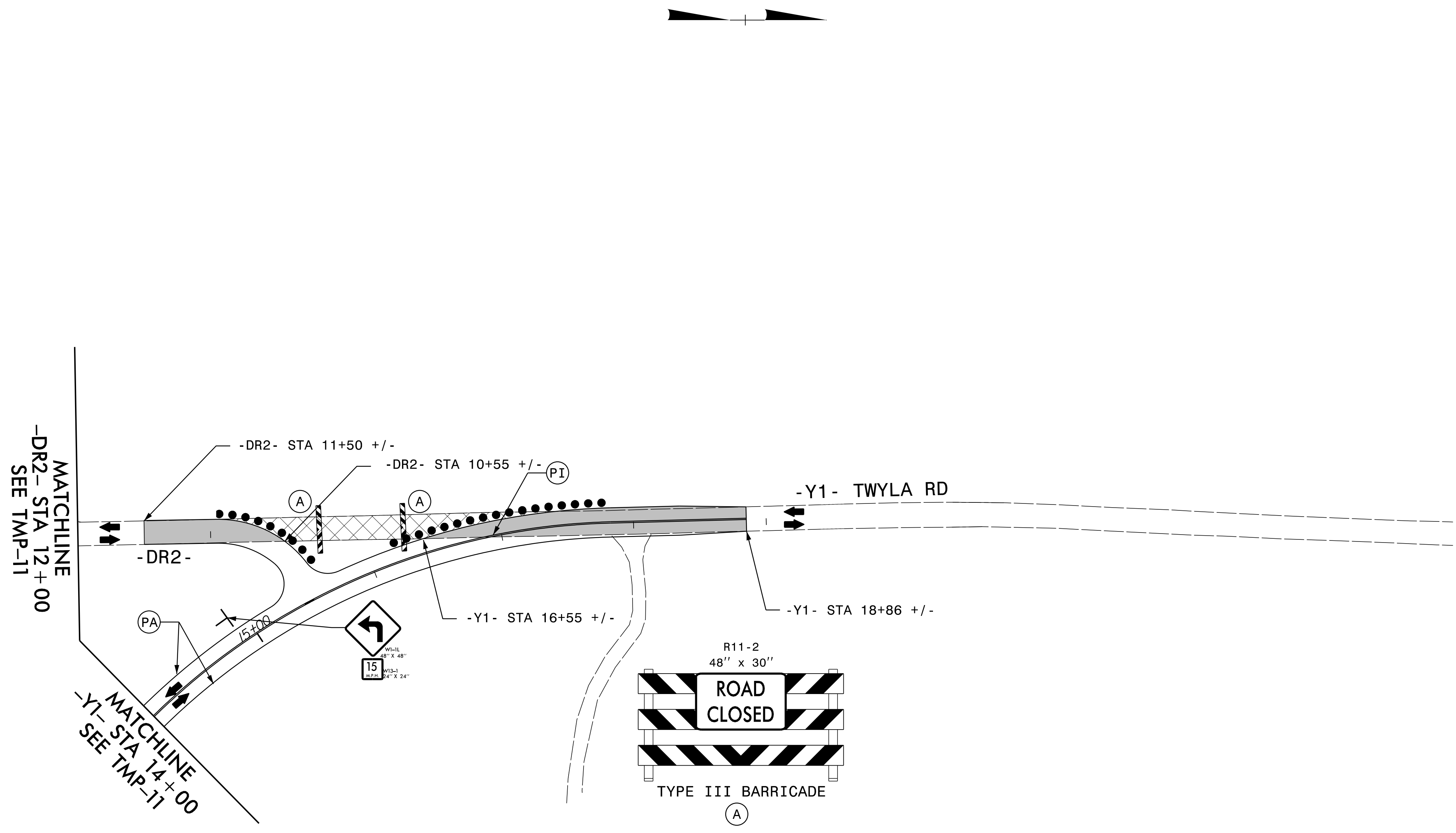
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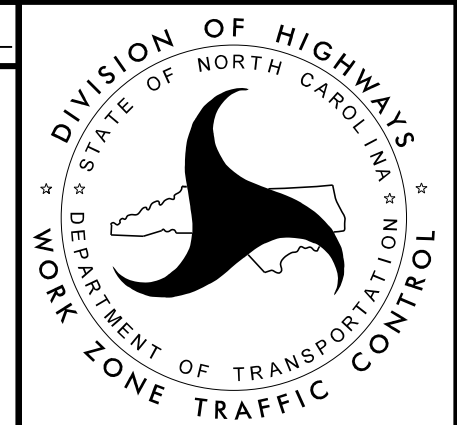
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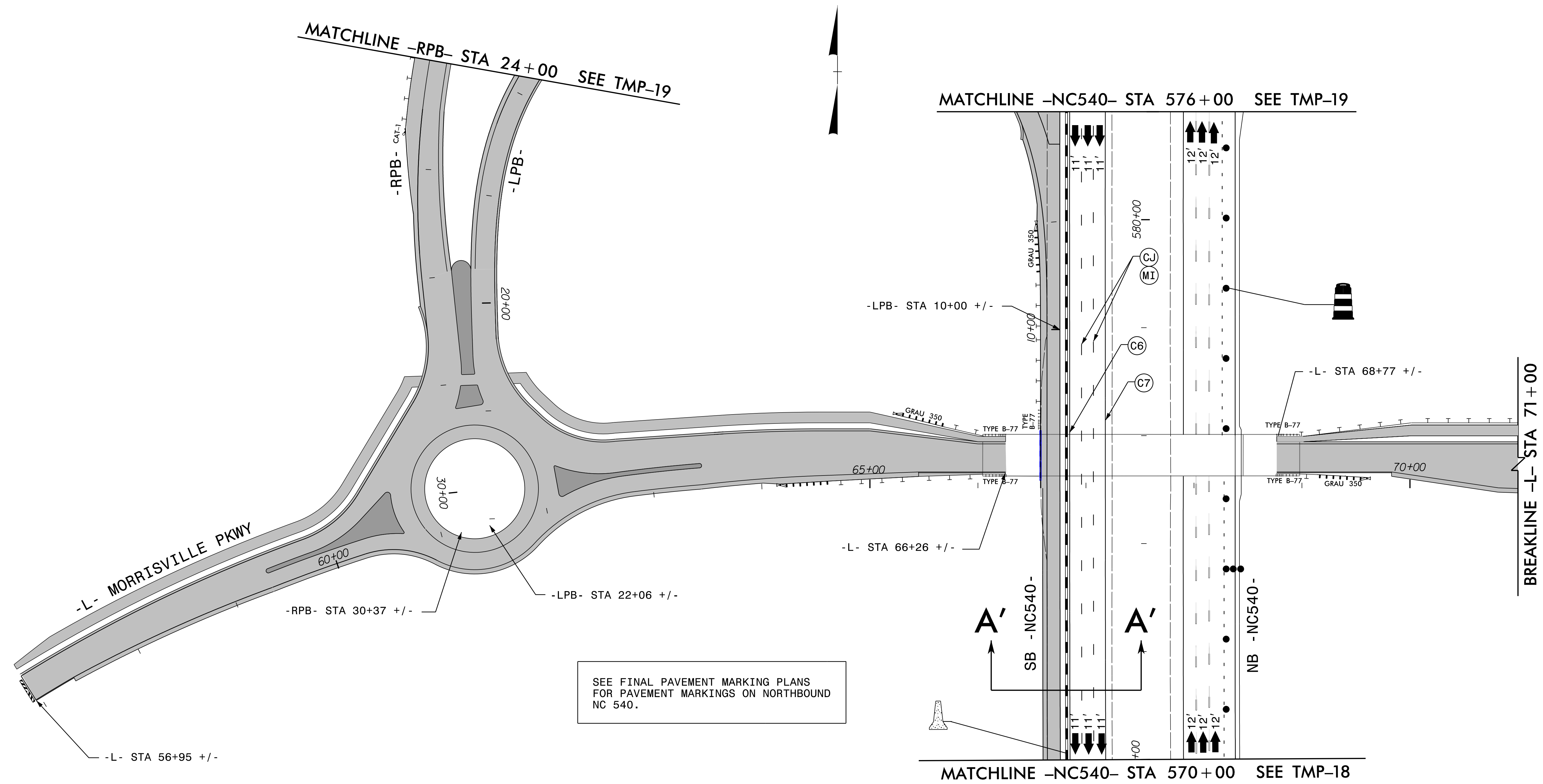
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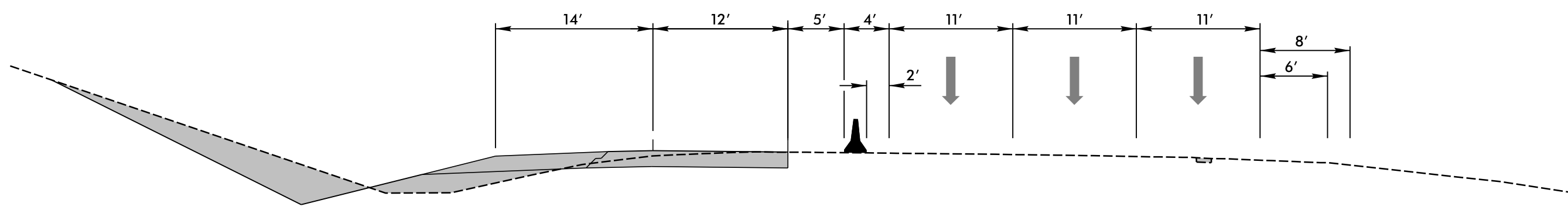
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PHASE II DETAIL



SEE FINAL PAVEMENT MARKING PLANS FOR PAVEMENT MARKINGS ON NORTHBOUND NC 540.



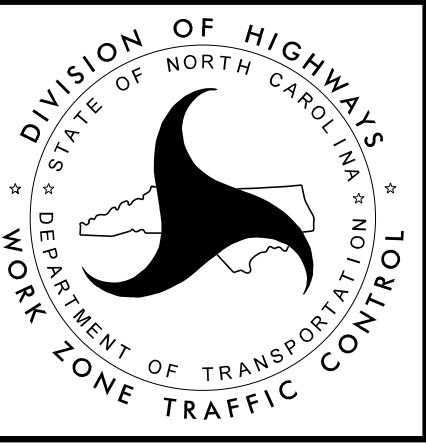
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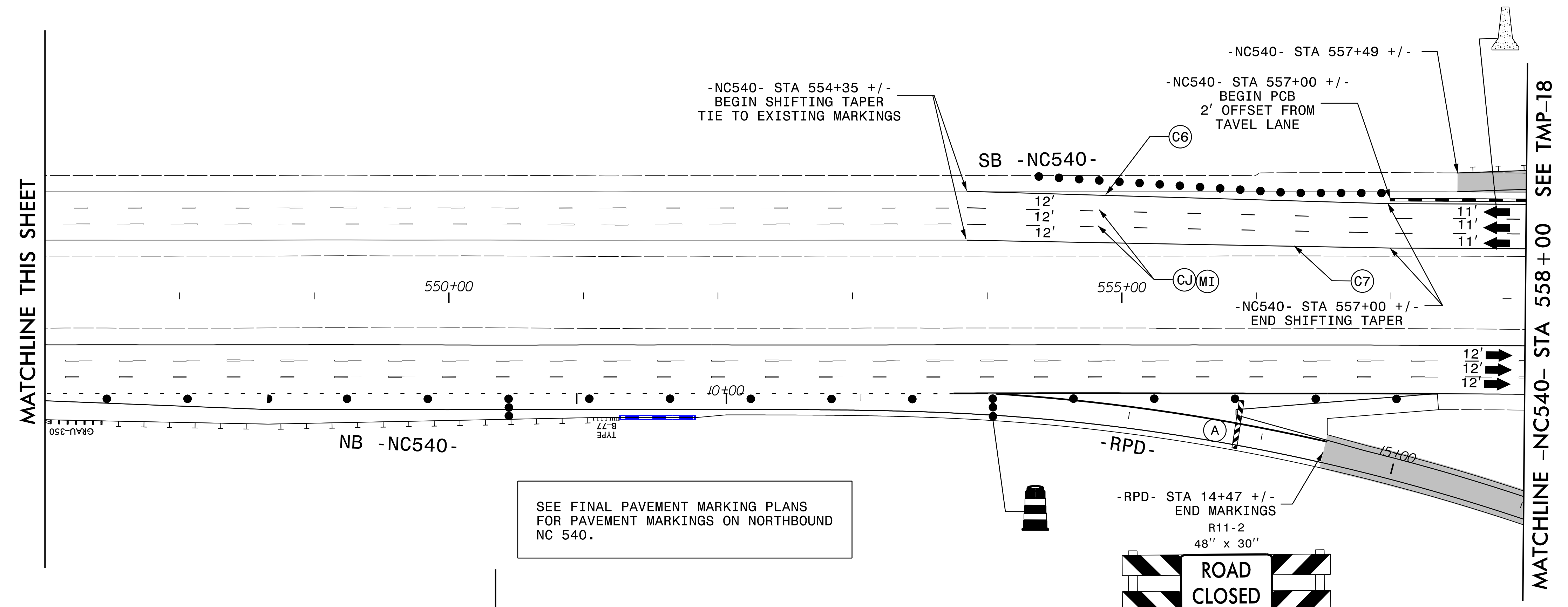
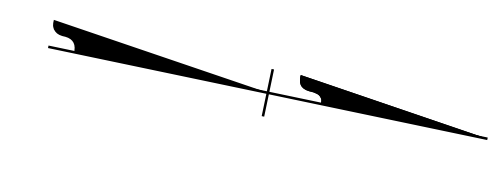
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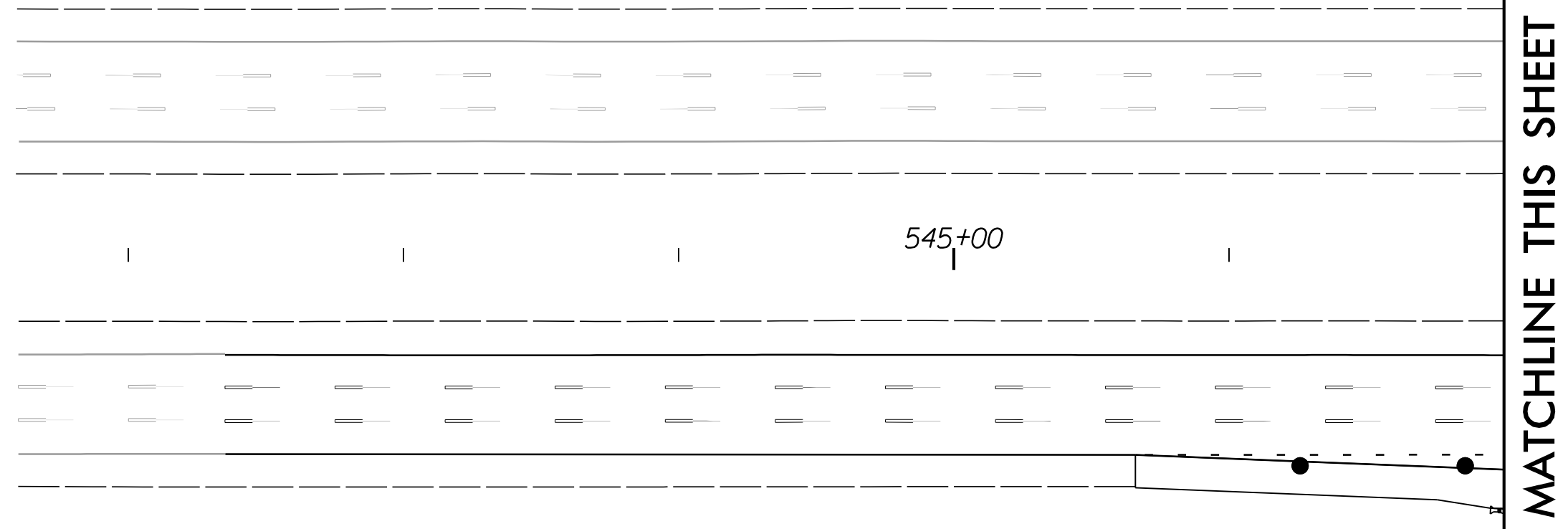
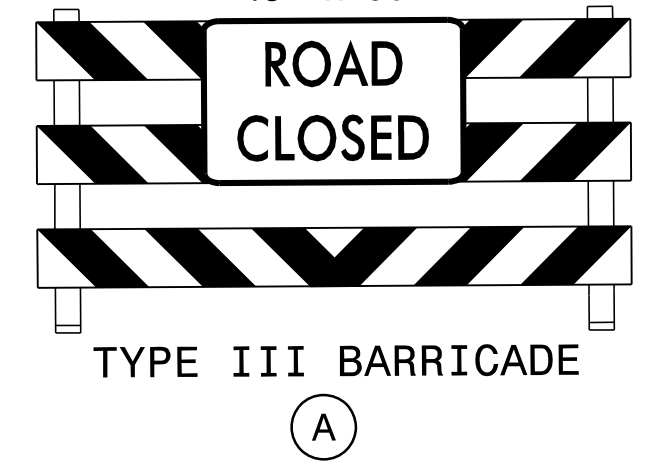


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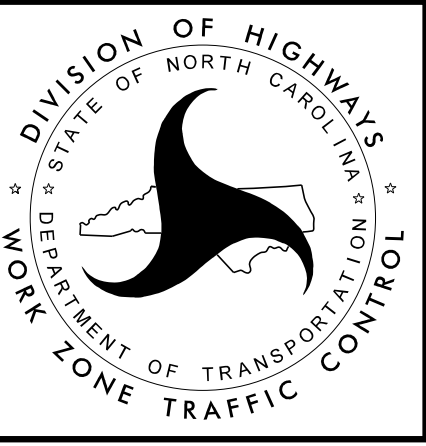
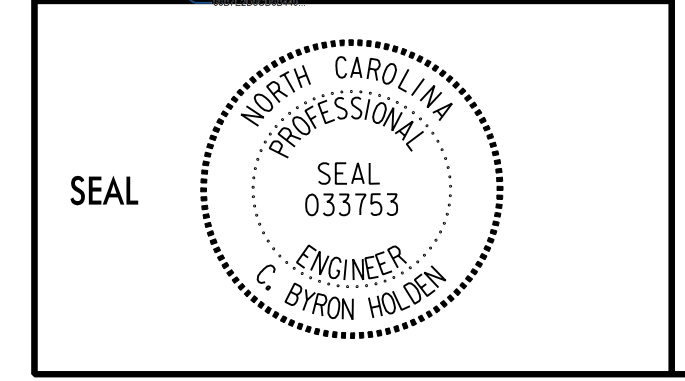


SEE FINAL PAVEMENT MARKING PLANS FOR PAVEMENT MARKINGS ON NORTHBOUND NC 540.



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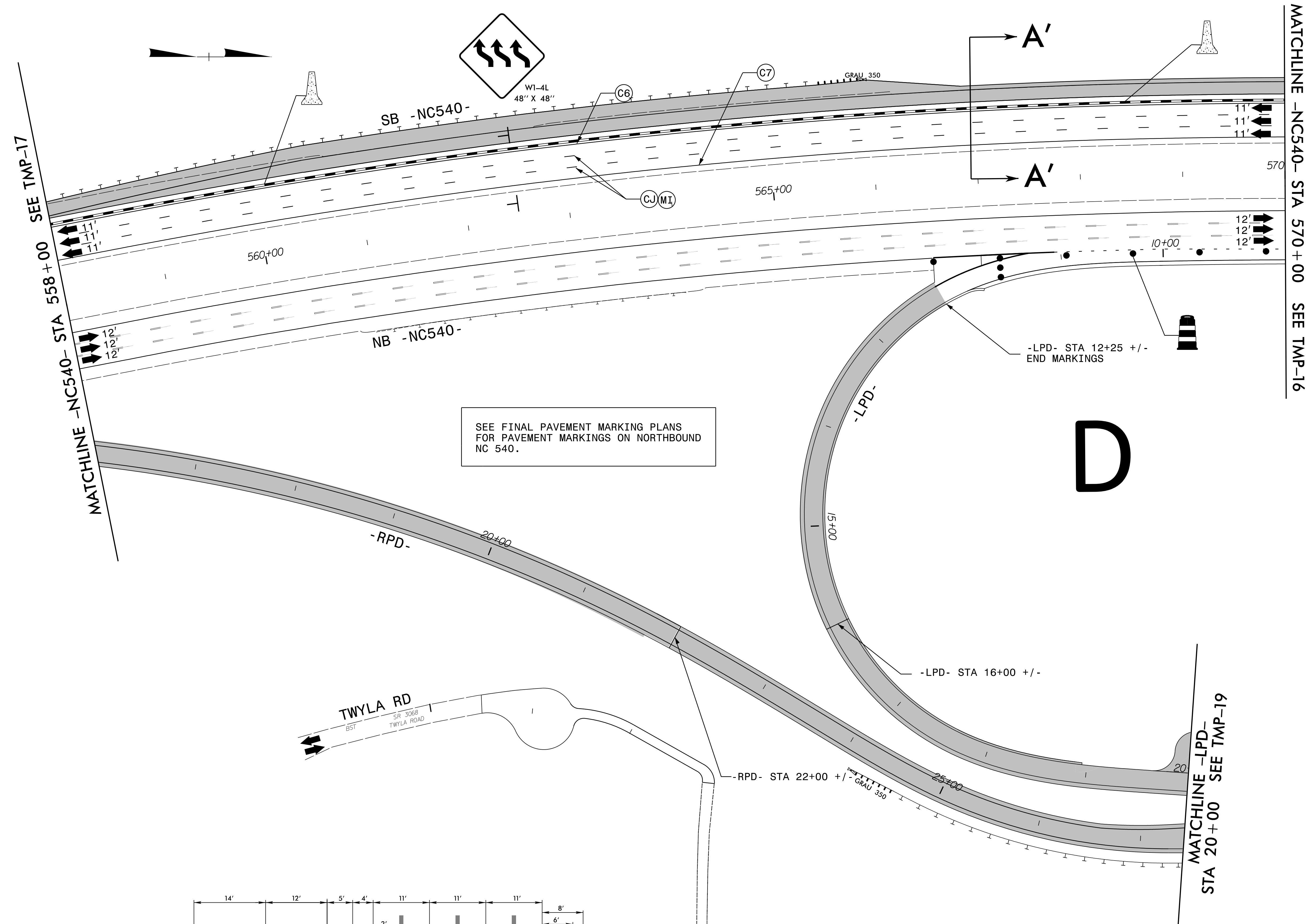
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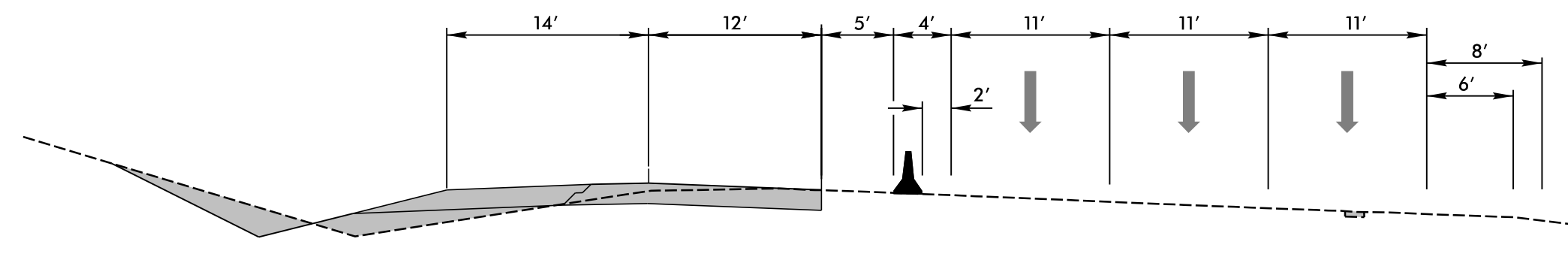
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SEE FINAL PAVEMENT MARKING PLANS FOR PAVEMENT MARKINGS ON NORTHBOUND NC 540.

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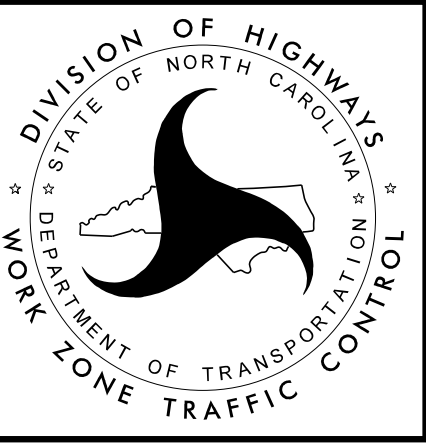


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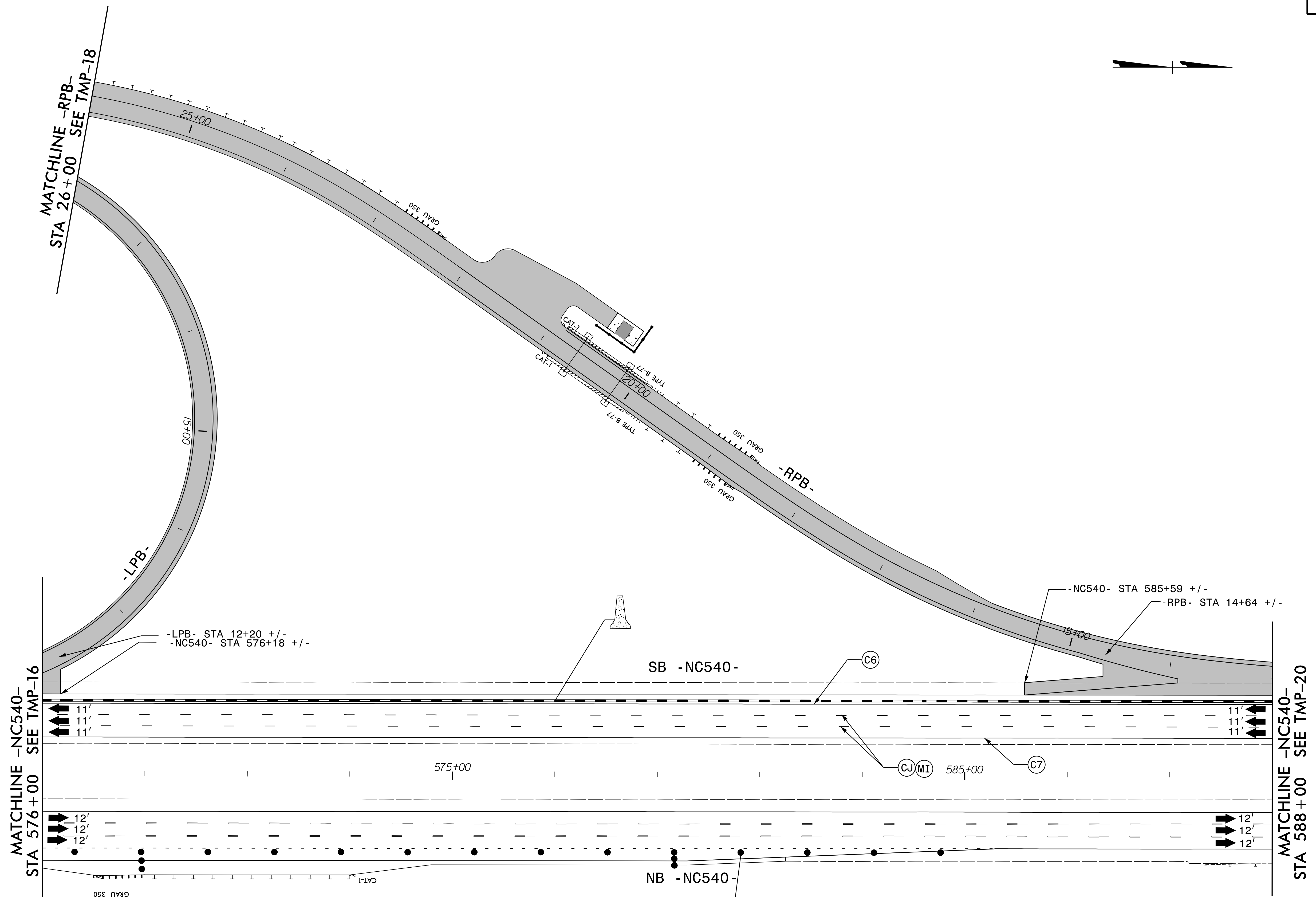
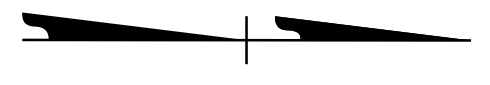
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PHASE II DETAIL

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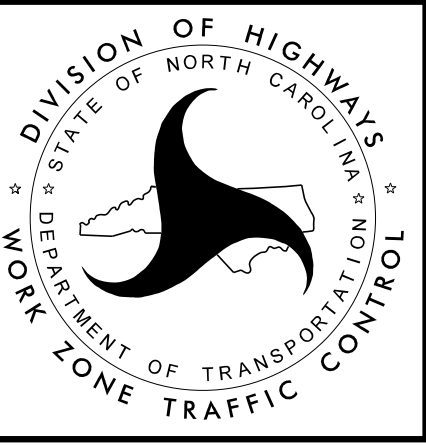
SEE FINAL PAVEMENT MARKING PLANS FOR PAVEMENT MARKINGS ON NORTHBOUND NC 540.

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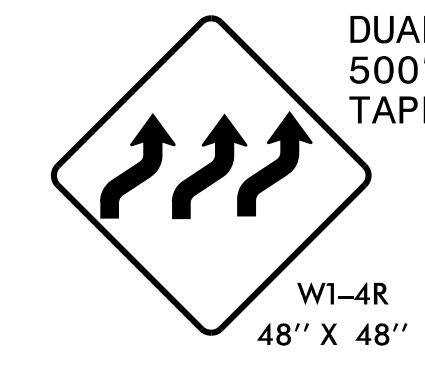
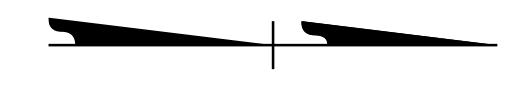
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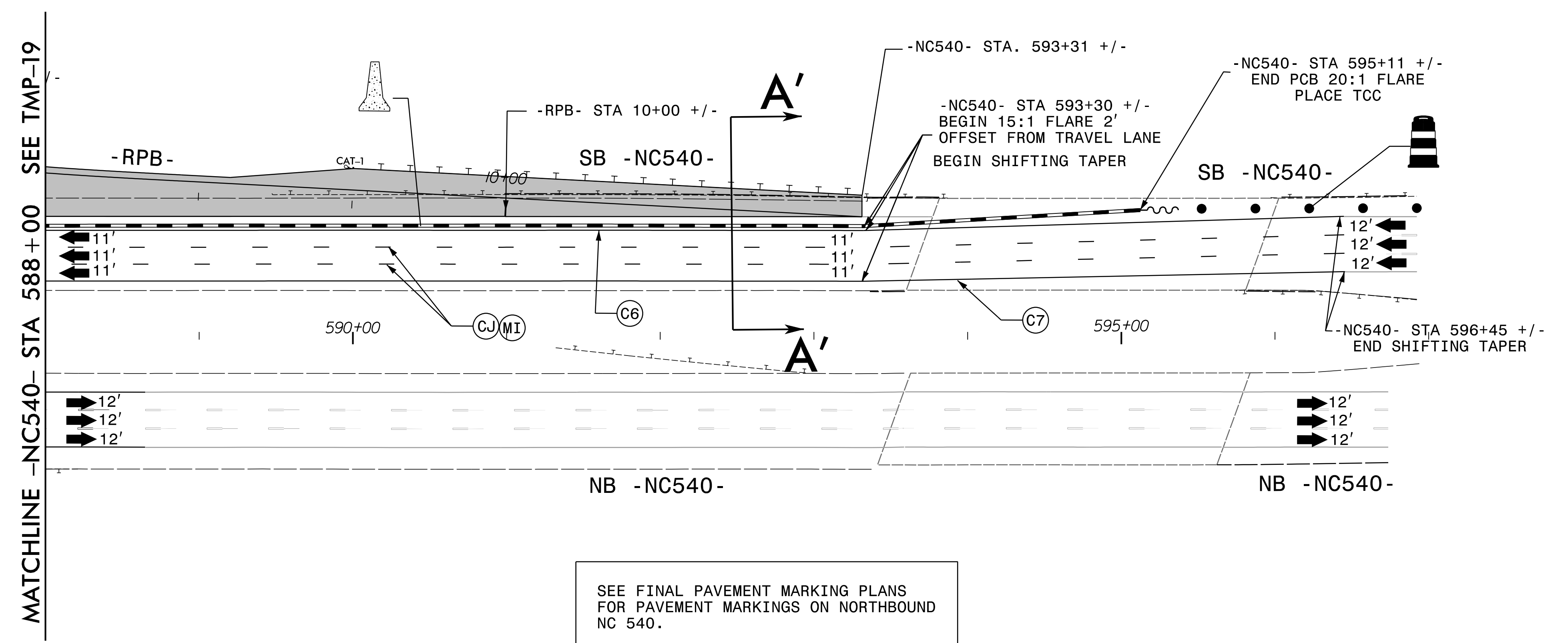
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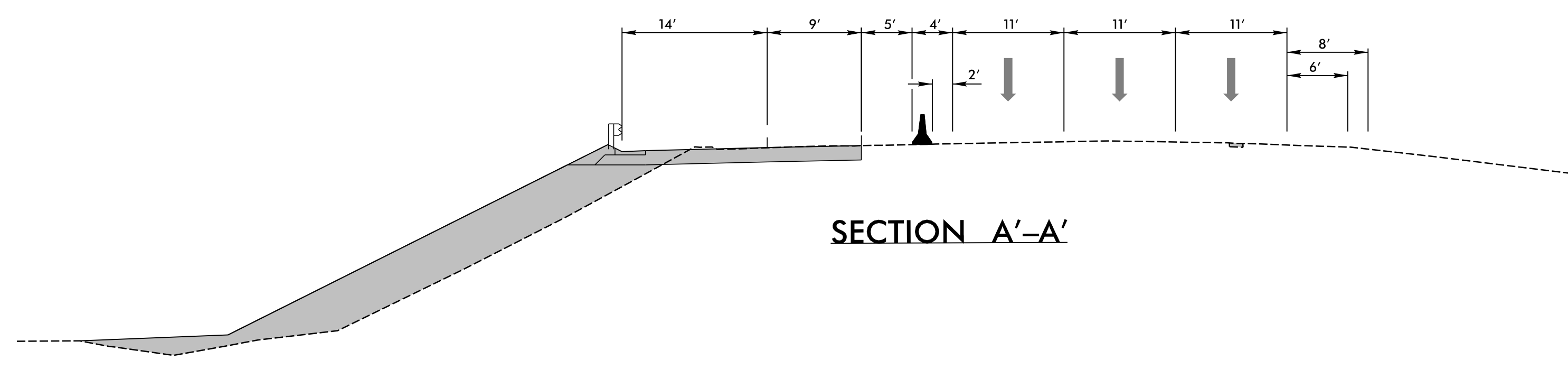
PHASE II DETAIL



DUAL MOUNT SIGN APPROXI
500' IN ADVANCE OF THE
TAPER



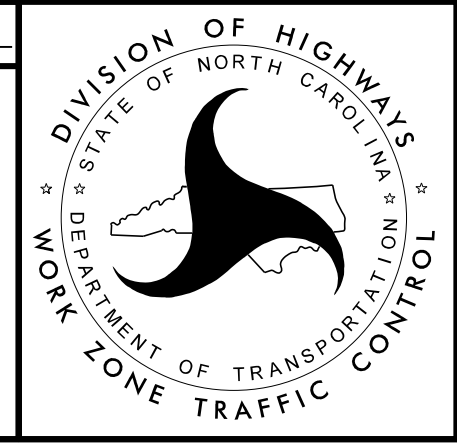
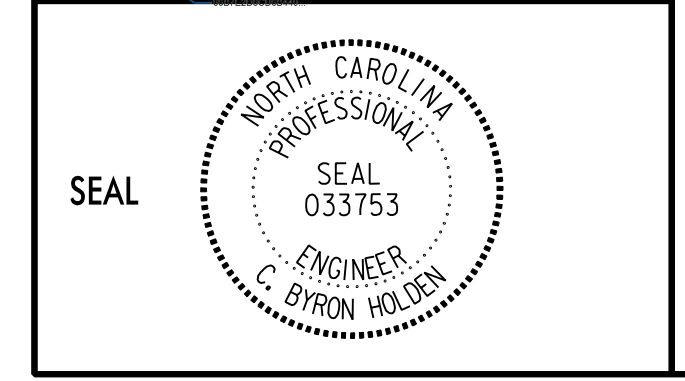
SEE FINAL PAVEMENT MARKING PLANS
FOR PAVEMENT MARKINGS ON NORTHBOUND
NC 540.



SECTION A'-A'

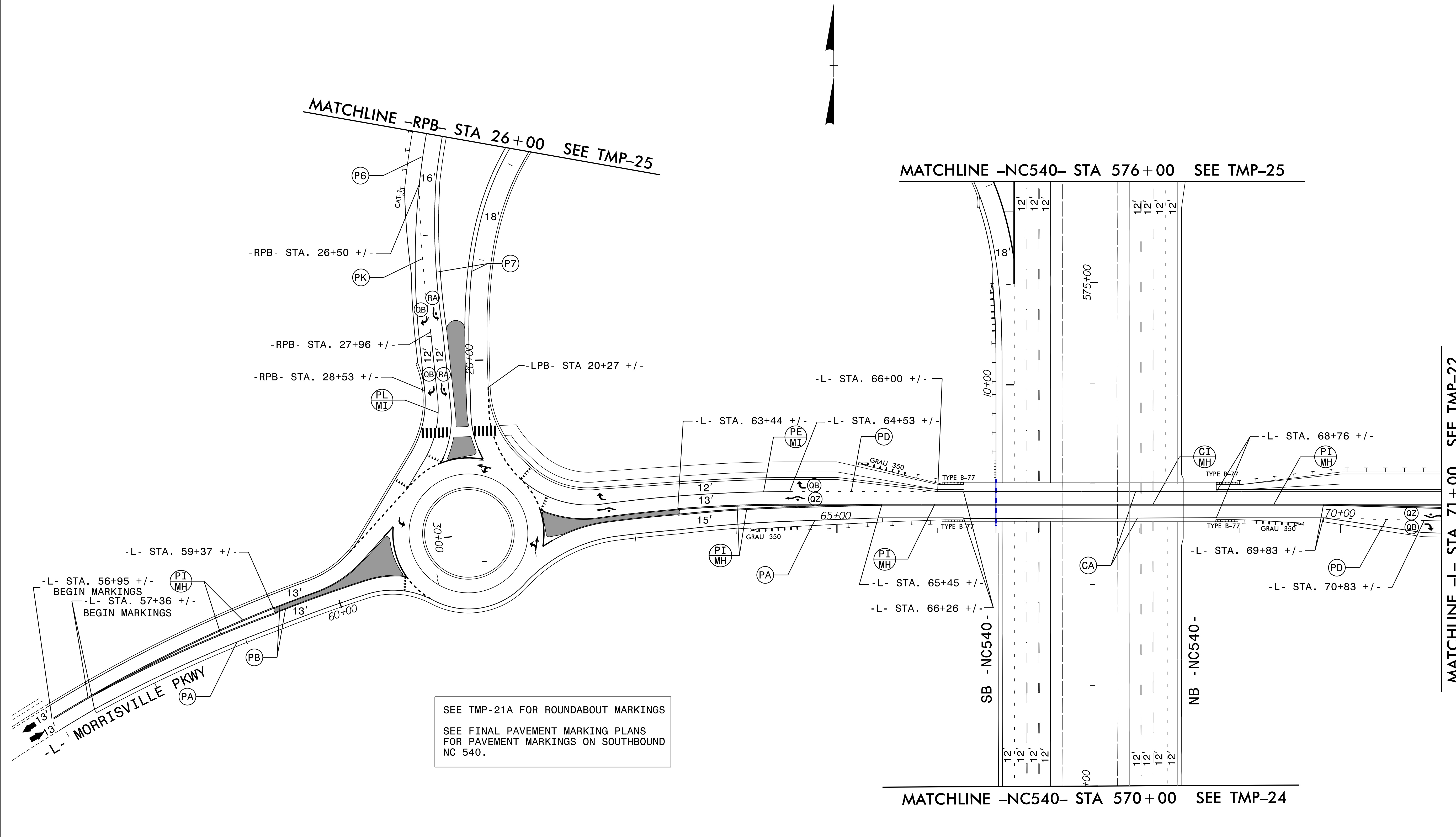
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

APPROVED: *[Signature]* DATE: 11/11/2017



PHASE II DETAIL

11/29/2017
U5315_Tmp_P2_psh20.dgn
ds@ars



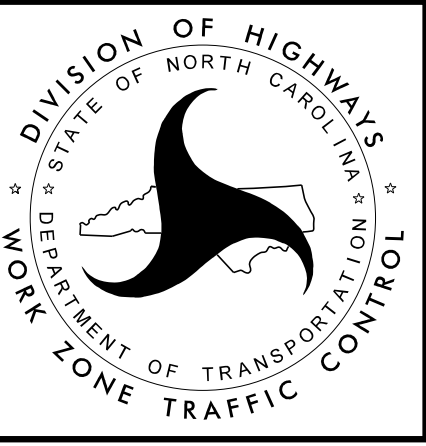
SEE TMP-21A FOR ROUNDABOUT MARKINGS
 SEE FINAL PAVEMENT MARKING PLANS
 FOR PAVEMENT MARKINGS ON SOUTHBOUND
 NC 540.

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APPROVED: *[Signature]* DATE: 11/11/2017

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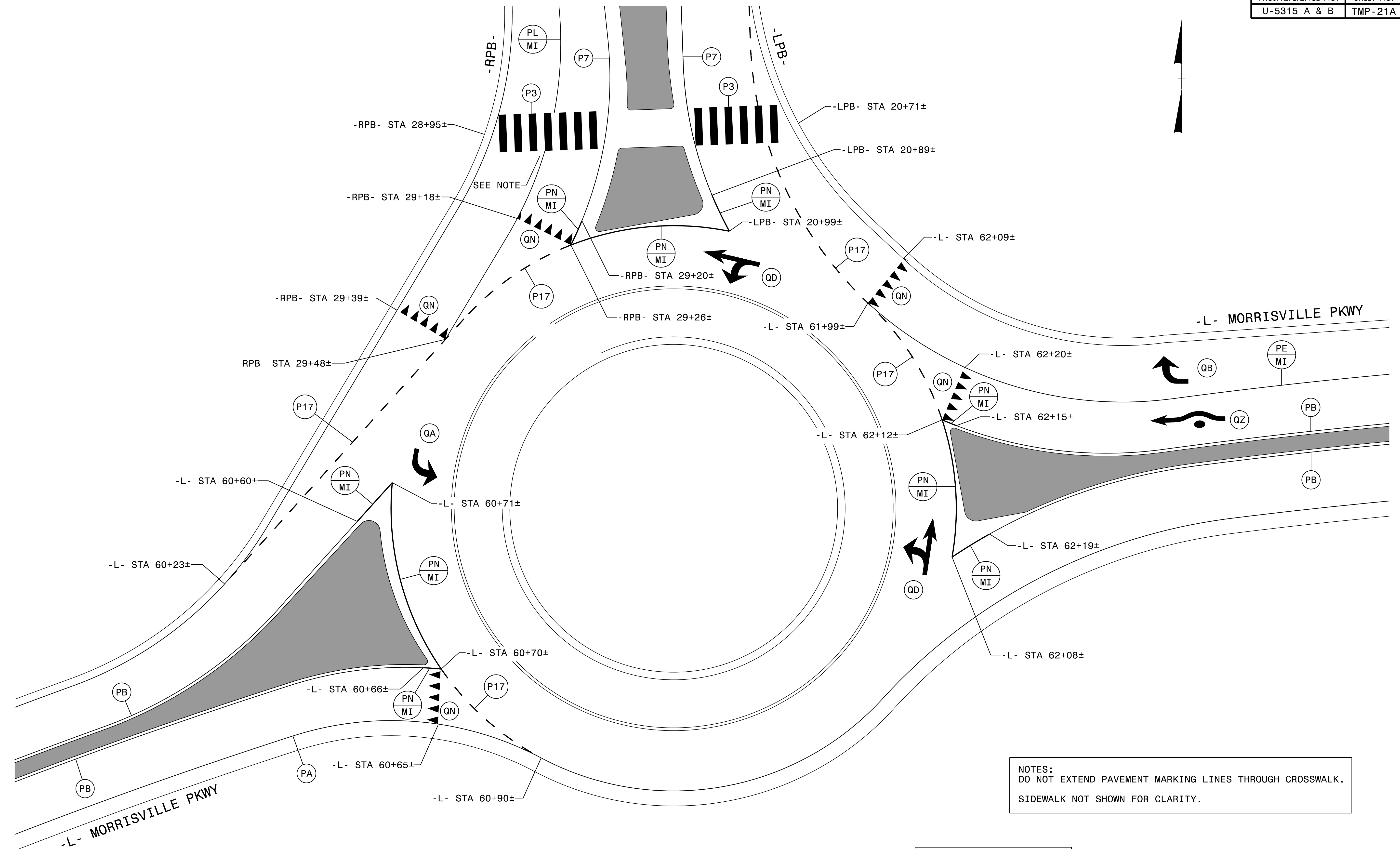
NORTH CAROLINA
 PROFESSIONAL
 SEAL
 033753
 ENGINEER
 C. BYRON HOLDEN



PHASE III DETAIL

11/29/2017
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 ds@eas

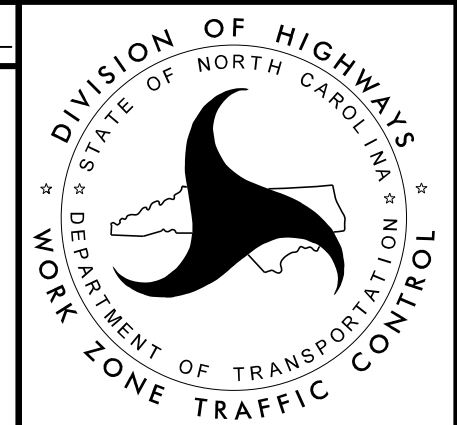
MATCHLINE -L- STA 71+00 SEE TMP-22



11/29/2017
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 dsgrs

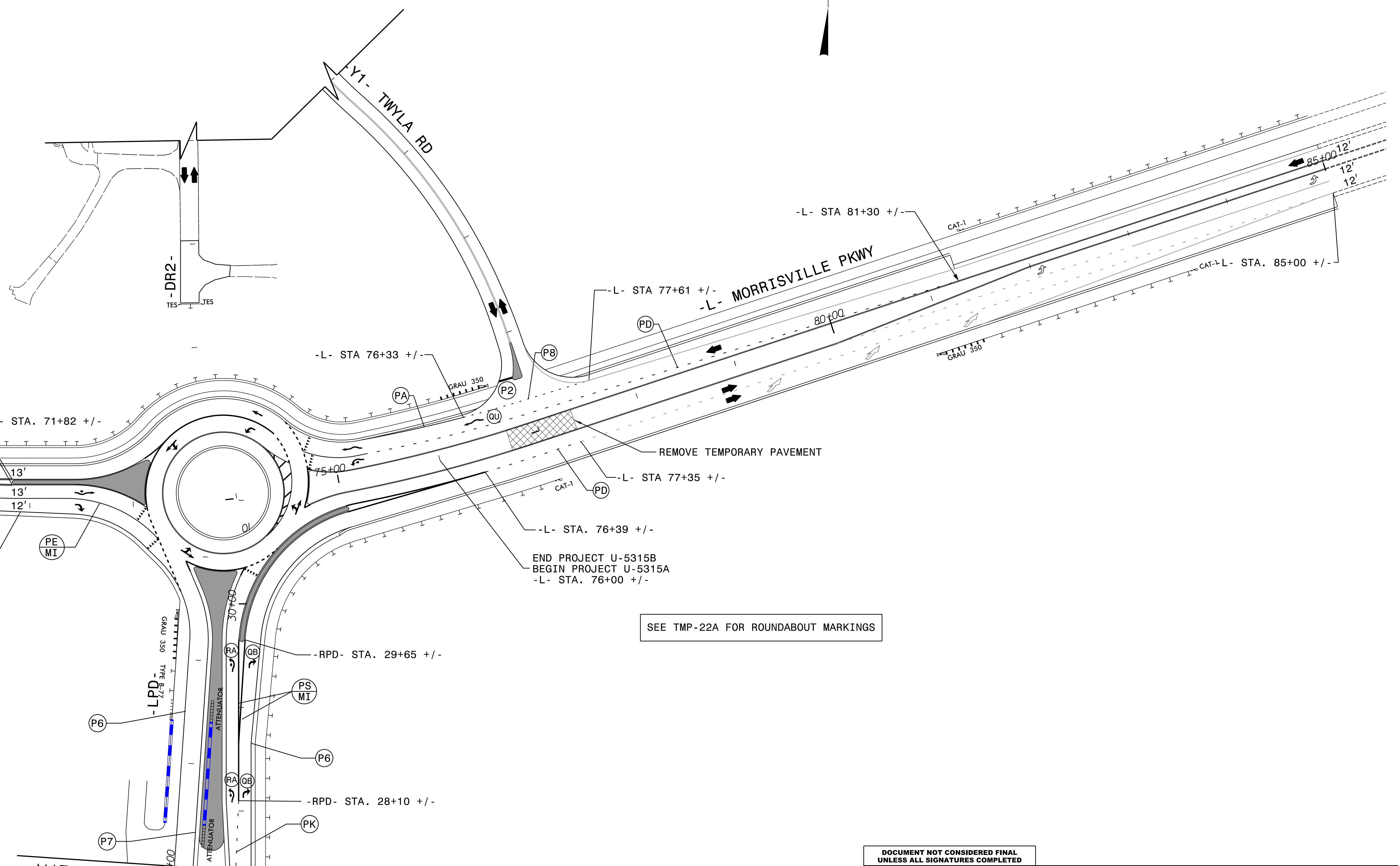
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

APPROVED: *[Signature]* DATE: 11/11/2017



PHASE III DETAIL

MATCHLINE -L- STA 71+00 SEE TMP-21



MATCHLINE -LPD- STA 20+00 SEE TMP-24

SEE TMP-22A FOR ROUNDABOUT MARKINGS

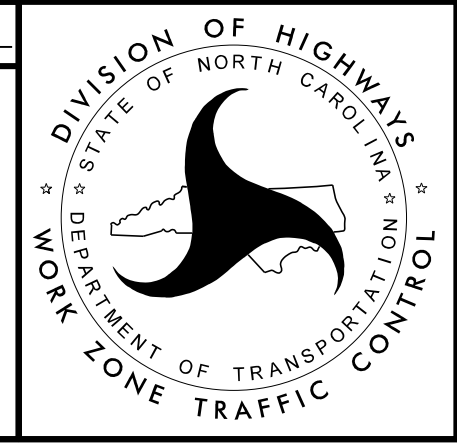
END PROJECT U-5315B
BEGIN PROJECT U-5315A
-L- STA. 76+00 +/-

REMOVE TEMPORARY PAVEMENT

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

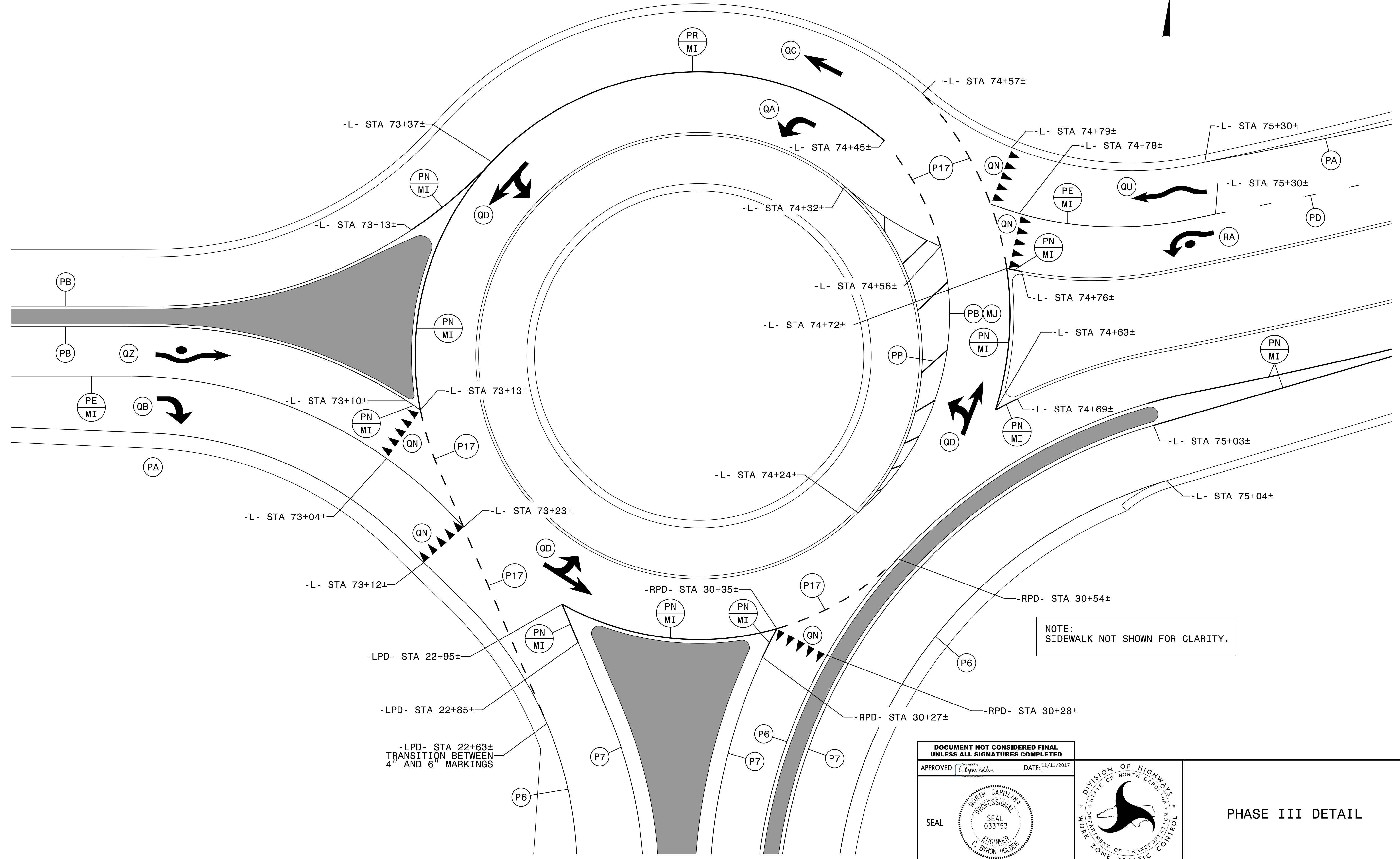
APPROVED: *[Signature]* DATE: 11/11/2017

SEAL



PHASE III DETAIL

11/29/2017
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ds@eas

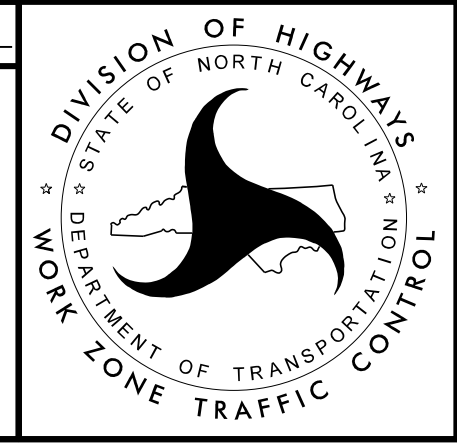
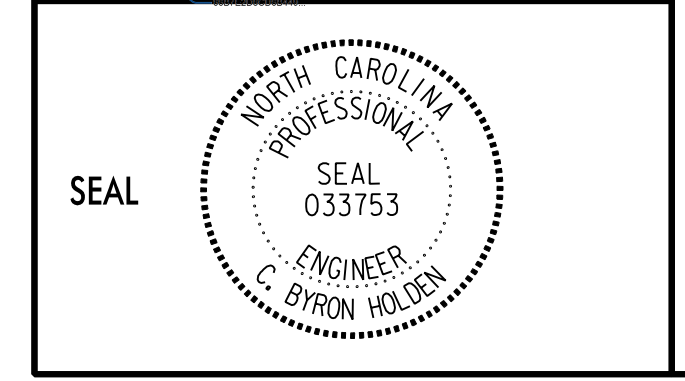


-LPD- STA 22+63±
TRANSITION BETWEEN
4" AND 6" MARKINGS

NOTE:
SIDEWALK NOT SHOWN FOR CLARITY.

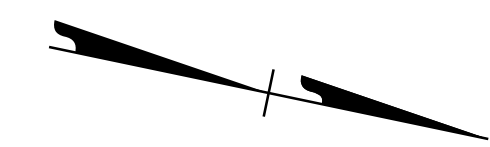
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UNLESS ALL SIGNATURES COMPLETED

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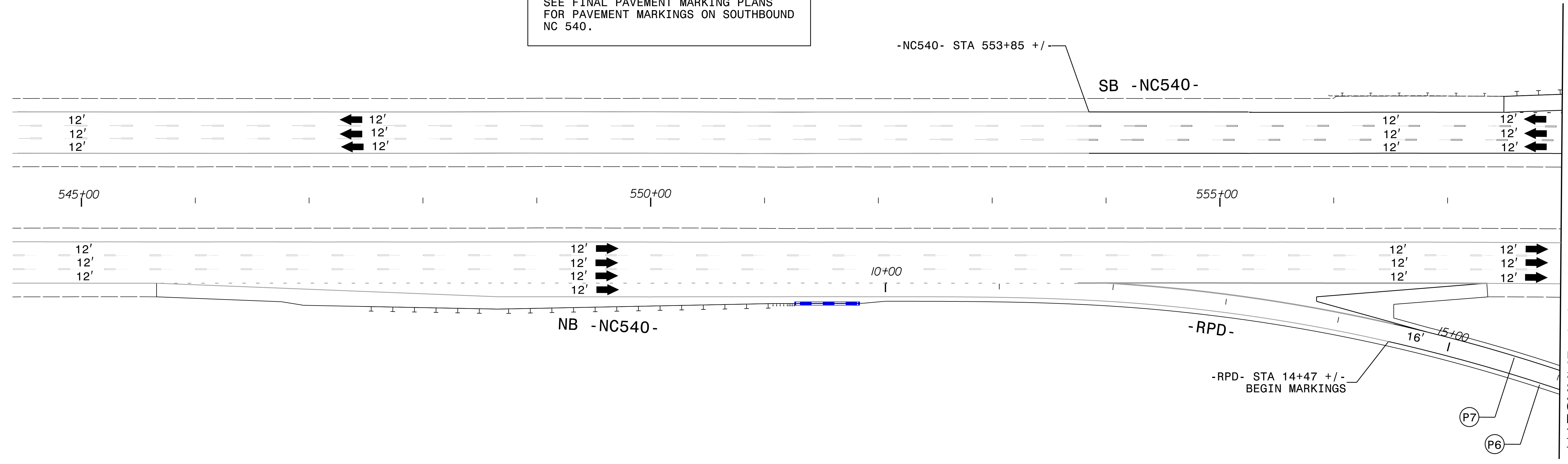


PHASE III DETAIL

11/29/2017
U5315_Tmp_P3_psh22A.dgn
dsear's



SEE FINAL PAVEMENT MARKING PLANS FOR PAVEMENT MARKINGS ON SOUTHBOUND NC 540.



MATCHLINE - NC540- STA 558 + 00 SEE TMP-24

11/29/2017
U5315_Tmp_P3_psh23.dgn
dsear's

DOCUMENT NOT CONSIDERED FINAL
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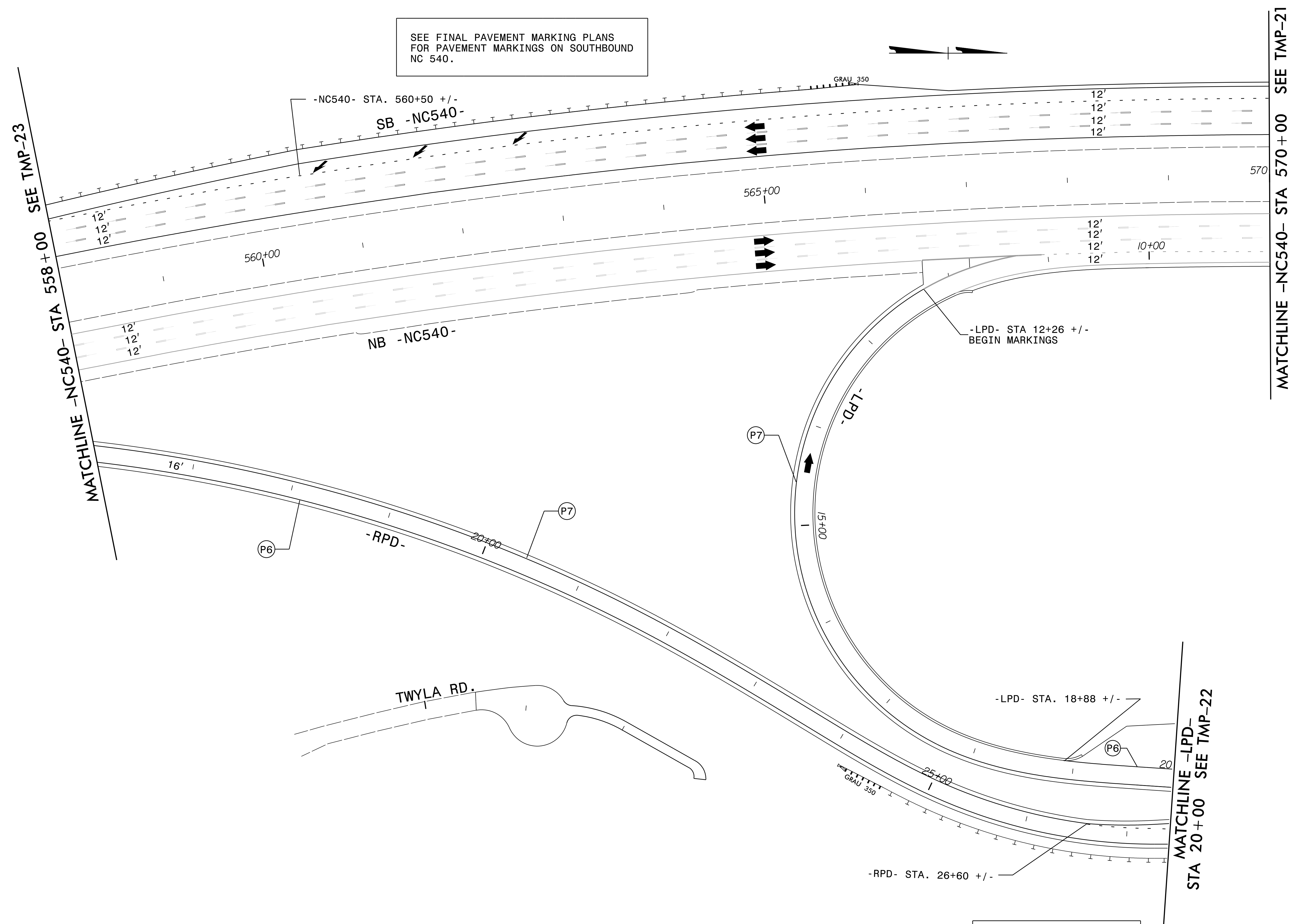
APPROVED: *[Signature]* DATE: 11/11/2017

SEAL

PHASE III DETAIL

PROJ. REFERENCE NO.	SHEET NO.
U-5315 A & B	TMP-24

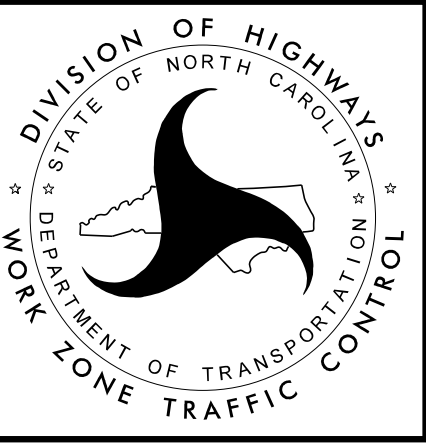
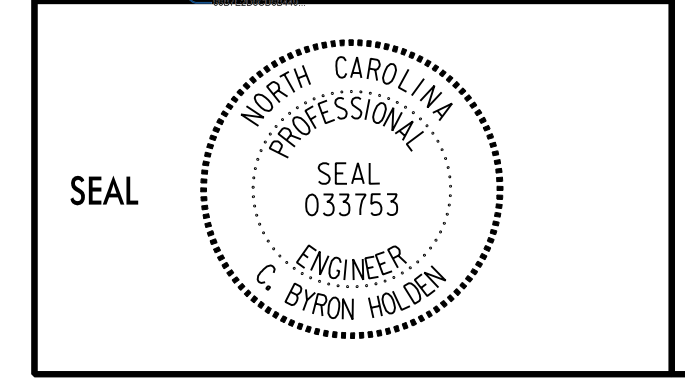
SEE FINAL PAVEMENT MARKING PLANS
FOR PAVEMENT MARKINGS ON SOUTHBOUND
NC 540.



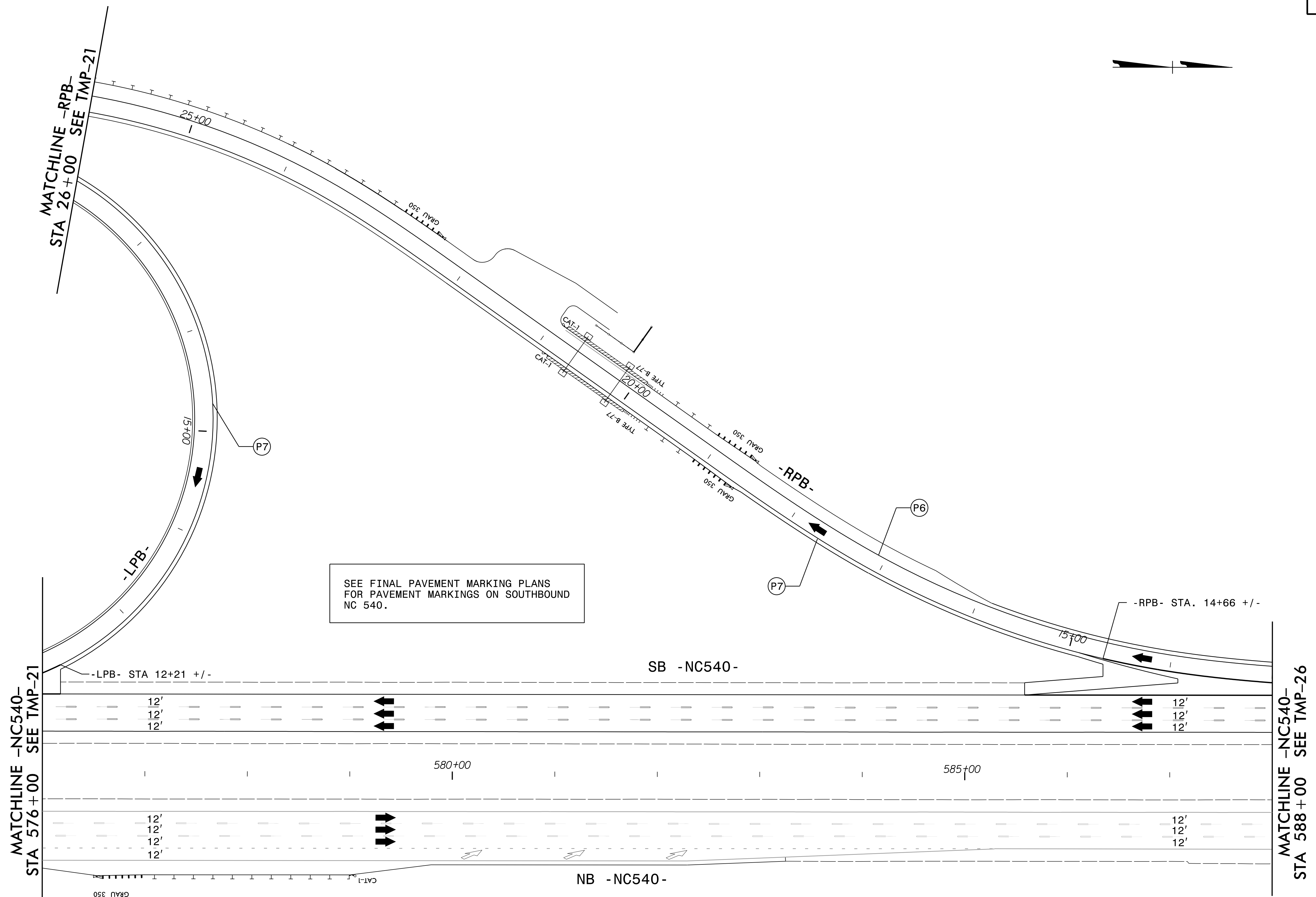
11/29/2017
U5315_Tmp_P3_psh24.dgn
dsgrs

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

APPROVED: *[Signature]* DATE: 11/11/2017



PHASE III DETAIL



SEE FINAL PAVEMENT MARKING PLANS FOR PAVEMENT MARKINGS ON SOUTHBOUND NC 540.

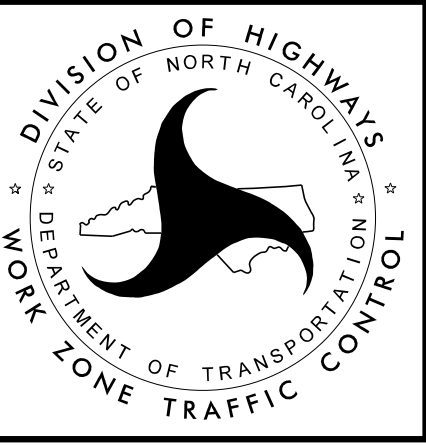


11/29/2017
U5315_top_P3_psh25.dgn
dsgr/s

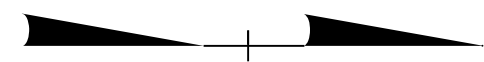
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

APPROVED: *[Signature]* DATE: 11/11/2017

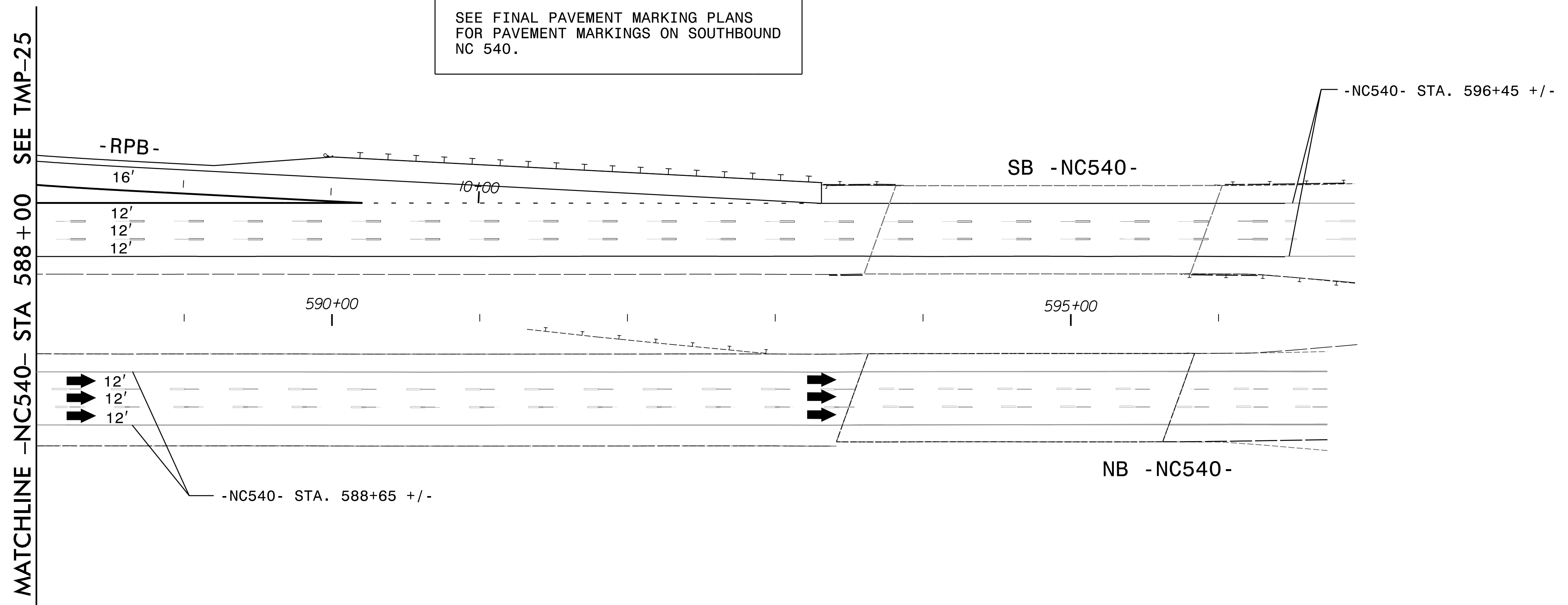
SEAL



PHASE III DETAIL



SEE FINAL PAVEMENT MARKING PLANS
FOR PAVEMENT MARKINGS ON SOUTHBOUND
NC 540.

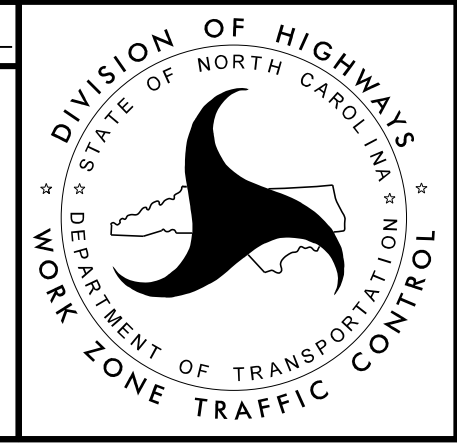


11/29/2017
U5315_Tmp_P3_psh26.dgn
ds@ars

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

APPROVED: *[Signature]* DATE: 11/11/2017

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PHASE III DETAIL