


| | |
|---|--------------------|
| TIP NO. B-3186/B-5898 | SHEET NO. PMP-1 |
| APPROVED: <i>Ron King</i> | |
| DATE: 3/16/2022 | |
|  | |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | |

T.I.P.: B-3186/B-5898

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN HAYWOOD COUNTY

**LOCATION: US 23 /US 74 /US 19 (GREAT SMOKY MOUNTAIN HWY)
FROM WEST OF NC 209 (CRABTREE RD.) TO EAST OF RUSS AVE.**

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

| STD. NO. | TITLE |
|----------|---|
| 1205.01 | PAVEMENT MARKINGS - LINE TYPES AND OFFSETS |
| 1205.02 | PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS |
| 1205.03 | PAVEMENT MARKINGS - EXIT AND ENTRANCE RAMPS |
| 1205.04 | PAVEMENT MARKINGS - INTERSECTIONS (SHEET 1 OF 2 ONLY. SEE PMP-1B FOR REVISED SHEET 2 OF 2) |
| 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 (SEE PMP-1C FOR REVISED RSD 1205.12) |
| 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 |

INDEX

| SHEET NO. | DESCRIPTION |
|-------------------|---|
| PMP-1 | PAVEMENT MARKING PLAN TITLE, GENERAL NOTES, ROADWAY STANDARD DRAWINGS, INDEX, AND PAVEMENT MARKING SCHEDULE |
| PMP-1A AND PMP-1C | PAVEMENT MARKING STANDARD DETAILS |
| PMP-2 THRU PMP-8 | PAVEMENT MARKING DETAIL SHEETS |

GENERAL NOTES

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.

- A) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:

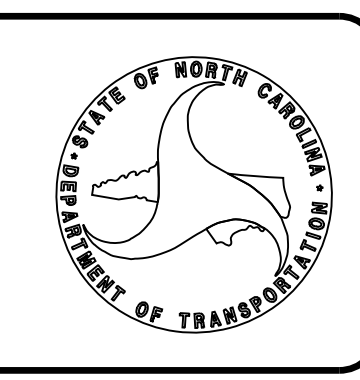
| ROAD NAME | MARKING | MARKER |
|-------------|----------|------------------------------|
| ALL ROADS | POLYUREA | SNOWPLOWABLE (NON-CAST IRON) |
| ALL BRIDGES | POLYUREA | PERMANENT RAISED |
- B) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- C) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.
- D) PASSING ZONES WILL BE DETERMINED IN THE FIELD AND MUST BE APPROVED BY THE ENGINEER.
- E) STOP BAR LOCATION AT NON-SIGNALIZED INTERSECTIONS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.
- F) REMOVE ALL RESIDUE AND SURFACE LAITANCE BY ACCEPTABLE METHODS ON CONCRETE BRIDGE DECKS PRIOR TO PLACING POLYUREA PAVEMENT MARKING MATERIAL.
- G) UNLESS OTHERWISE SPECIFIED, HEATED-IN-PLACE THERMOPLASTIC MAY BE USED IN LIEU OF EXTRUDED THERMOPLASTIC FOR STOP BARS, SYMBOLS, CHARACTERS AND DIAGONALS. IF HEATED-IN-PLACE IS USED, IT SHALL BE PAID FOR USING THE EXTRUDED THERMOPLASTIC PAY ITEM.

PAVEMENT MARKING SCHEDULE

| | |
|---|--|
| T46 THERMOPLASTIC 8" WHITE CROSSWALK LINE (90 MIL) | V13 POLYUREA 4" YELLOW DOUBLE CENTER (20 MIL) |
| T51 THERMOPLASTIC 12" WHITE DIAGONAL (90 MIL) | V20 POLYUREA 6" WHITE EDGELINE (20 MIL) |
| T61 THERMOPLASTIC 24" WHITE STOPBAR (90 MIL) | V21 POLYUREA 6" WHITE SOLID LANE LINE (20 MIL) |
| T62 THERMOPLASTIC 24" WHITE CROSSWALK LINE (90 MIL) | V22 POLYUREA 6" 10' WHITE SKIP (20 MIL) |
| T70 THERMOPLASTIC LEFT TURN ARROW (90 MIL) | V23 POLYUREA 6" 3'-9"/SP. WHITE MINI-SKIP (20 MIL) |
| T71 THERMOPLASTIC RIGHT TURN ARROW (90 MIL) | V24 POLYUREA 6" 2'-6"/SP. WHITE MINI-SKIP (20 MIL) |
| T72 THERMOPLASTIC STRAIGHT ARROW (90 MIL) | V30 POLYUREA 6" YELLOW EDGELINE (20 MIL) |
| T73 THERMOPLASTIC COMBO LEFT-STRAIGHT ARROW (90 MIL) | V33 POLYUREA 6" YELLOW DOUBLE CENTER (20 MIL) |
| T79 THERMOPLASTIC MERGE ARROW (90 MIL) | V50 POLYUREA 12" WHITE GORELINE (20 MIL) |
| T100 THERMOPLASTIC ALPHANUMERIC CHARACTER (90 MIL) | V53 POLYUREA 12" WHITE SOLID LANE LINE (20 MIL) |
| | V54 POLYUREA 12" 3'-9"/SP. WHITE MINI-SKIP (20 MIL) |

PLAN SUBMITTED TO: N.C.D.O.T. SIGNING AND DELINEATION UNIT

| | |
|----------------|---|
| KELVIN JORDAN | SIGNING & DELINEATION STANDARDS ENGINEER |
| WALTER JOHNSON | SIGNING & DELINEATION PROJECT DESIGN ENGINEER |



PLAN PREPARED BY: HDR ENGINEERING, INC. OF THE CAROLINAS

| | |
|----------------|---|
| RON KING, P.E. | SIGNING & DELINEATION PROJECT DESIGN ENGINEER |
| CHRIS HARNDEN | SIGNING & DELINEATION PROJECT DESIGN TECHNICIAN |



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

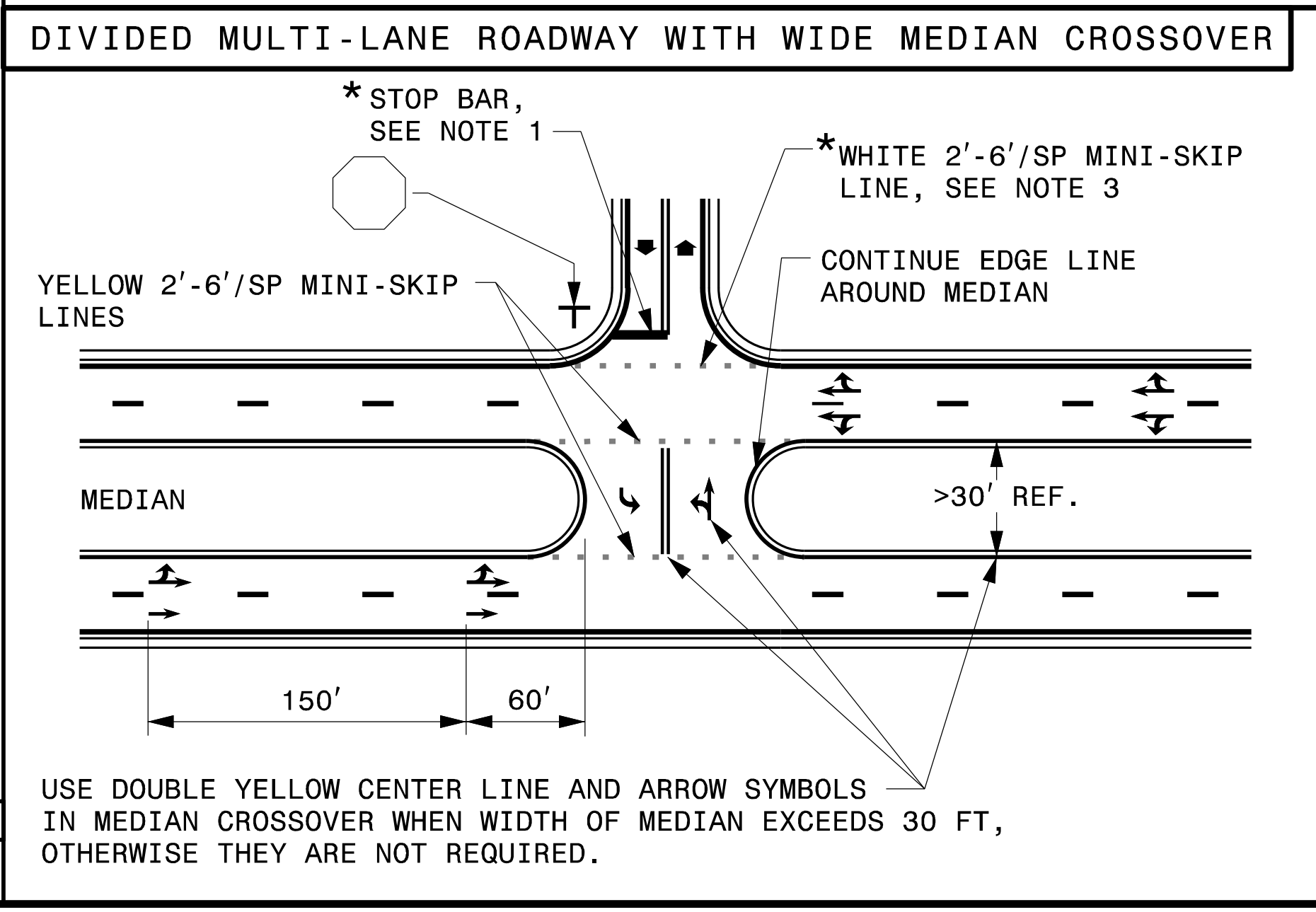
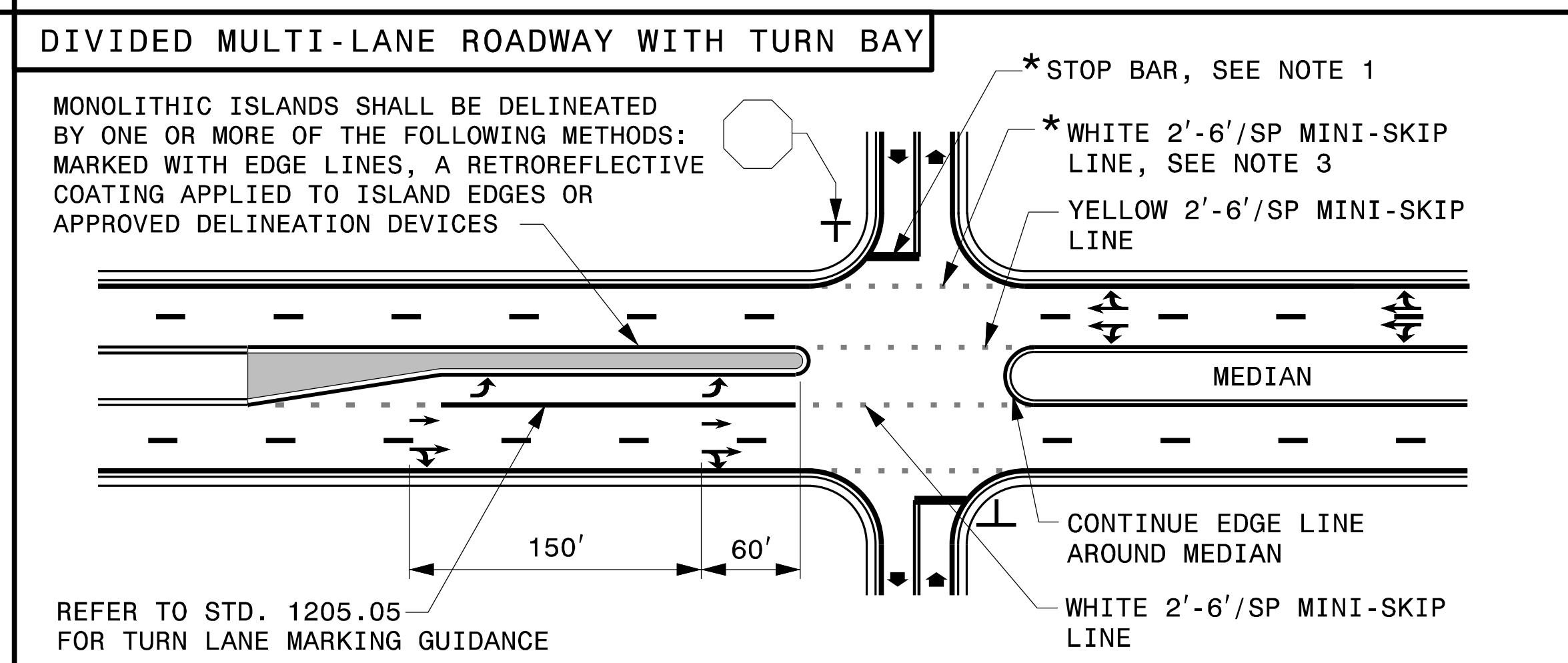
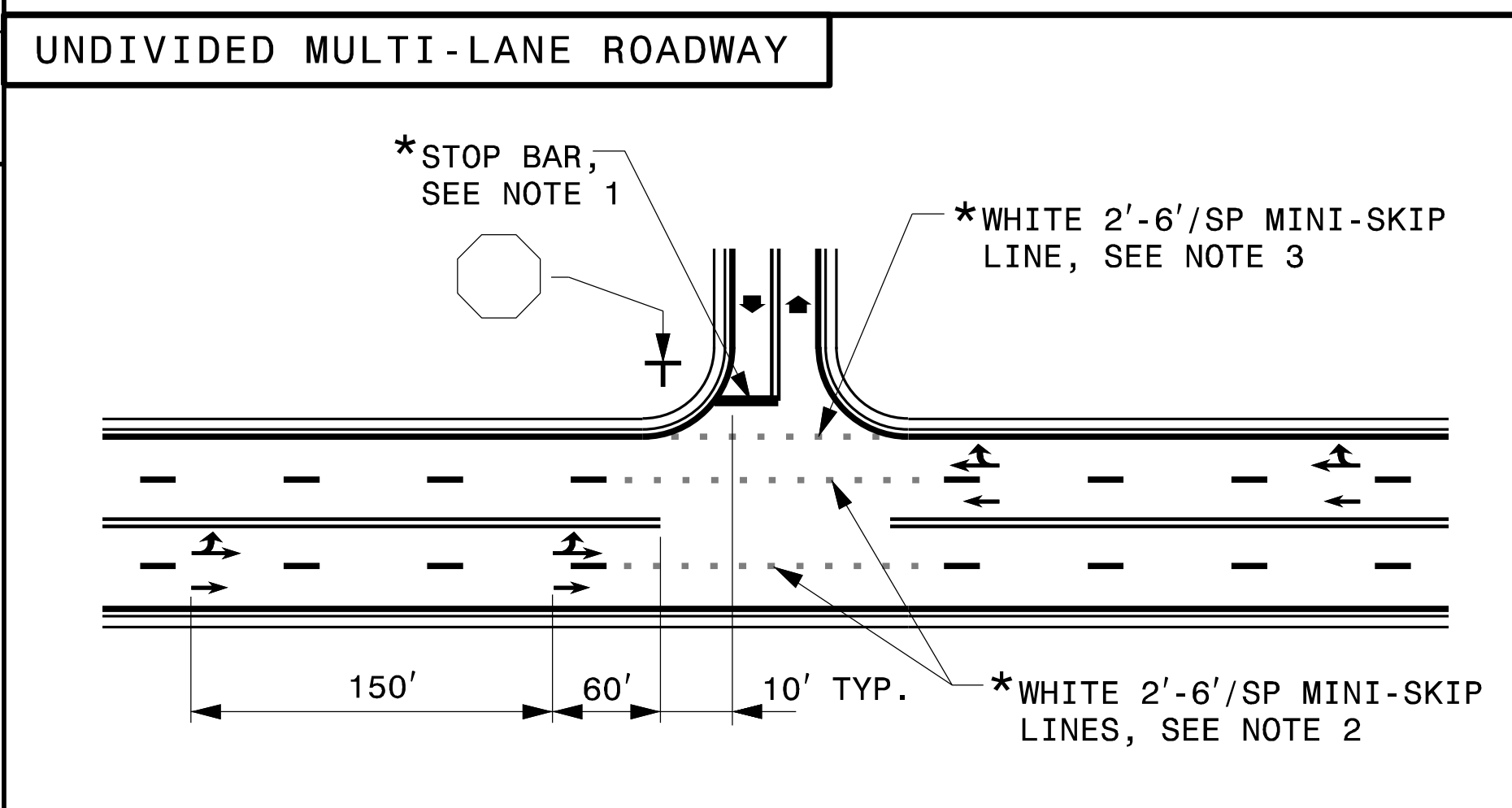
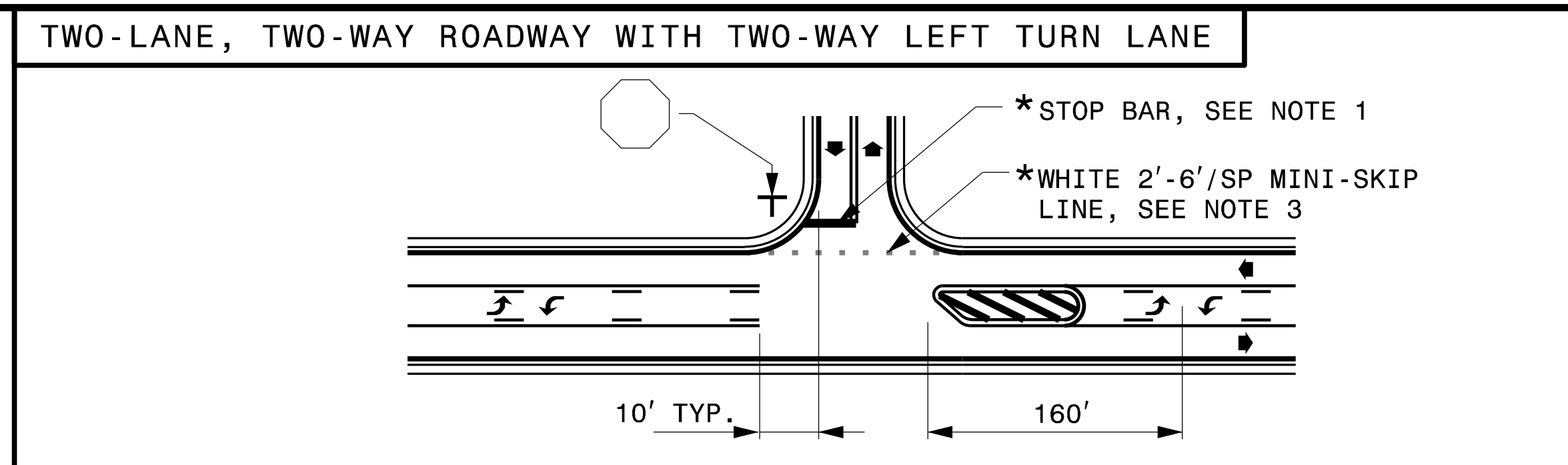
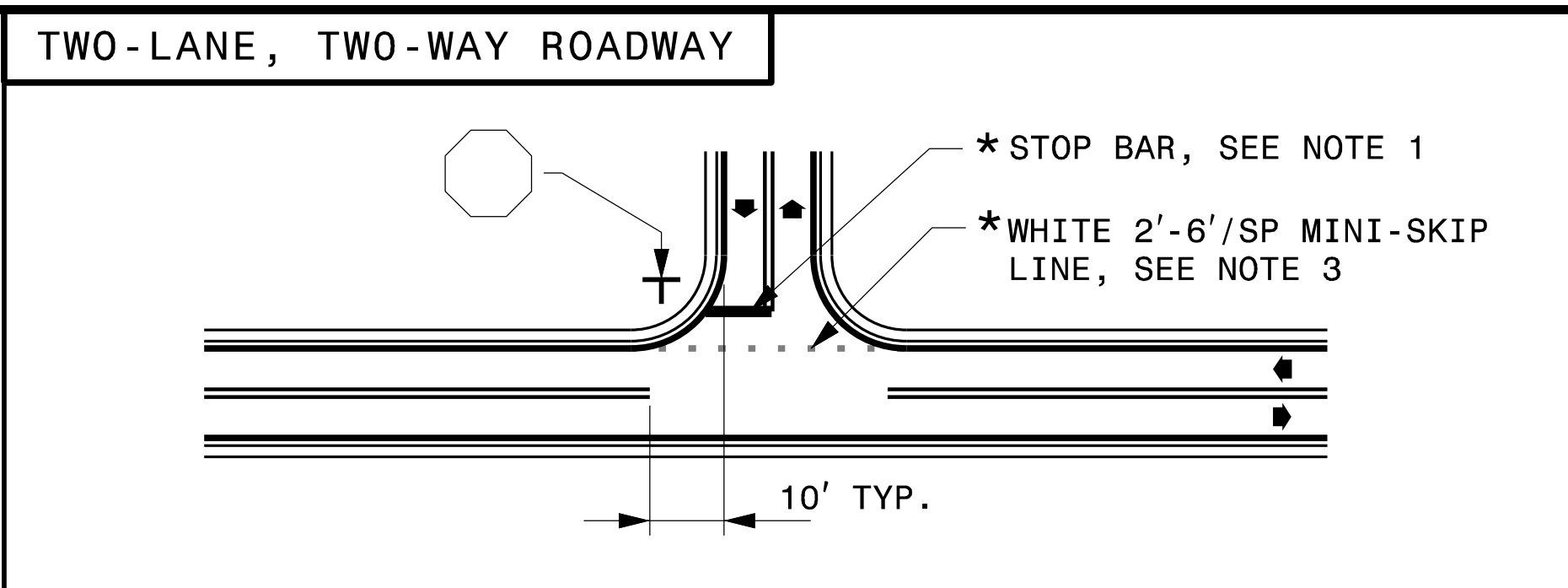
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| | |
|---------------|----------------------------|
| TIP NO. | SHEET NO. |
| B-3186/B-5898 | RMP-1A |
| APPROVED: | <i>Matthew V. Springer</i> |
| DATE: | 8/13/2019 |
| SEAL | |

STATE OF NORTH CAROLINA
 DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR
PAVEMENT MARKINGS
 INTERSECTIONS

SHEET 2 OF 2
1205D04



GENERAL NOTES:

- 1- PLACEMENT OF STOP BARS AT NON-SIGNALIZED INTERSECTIONS IS OPTIONAL AND USED WHERE IT IS IMPORTANT TO INDICATE THE POINT WHICH VEHICLES ARE REQUIRED TO STOP. PLACE STOP BARS NO LESS THAN 4 FEET AND NO MORE THAN 30 FEET FROM THE NEAREST EDGE OF THE INTERSECTING ROADWAY. USE 10 FEET AS THE TYPICAL SETBACK DISTANCE OR AS DIRECTED BY THE ENGINEER.
- 2- MINI-SKIP LANE LINE EXTENSIONS SHOULD BE USED AT INTERSECTIONS THAT HAVE REDUCED VISIBILITY CONDITIONS SUCH AS OFFSET, SKEWED, OR CURVED ROADWAYS.
- 3- MINI-SKIP EDGE LINE EXTENSIONS MAY BE PLACED THROUGH INTERSECTIONS AND MAJOR DRIVEWAYS.
- 4- REFER TO ROADWAY STANDARD DRAWINGS 1205.01, 1205.02, 1205.05, 1205.08 AND 1205.09 FOR ADDITIONAL PAVEMENT MARKING GUIDANCE.

LEGEND

| | | | |
|---|---------------------------|--|--------------------------|
| | STOP SIGN | | STATIONARY SIGN |
| | DIRECTION OF TRAFFIC FLOW | | PAVEMENT MARKING SYMBOLS |
| * | OPTIONAL | | |


SHEET 2 OF 2
1205D04

STATE OF NORTH CAROLINA
 DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 RALEIGH, N.C.

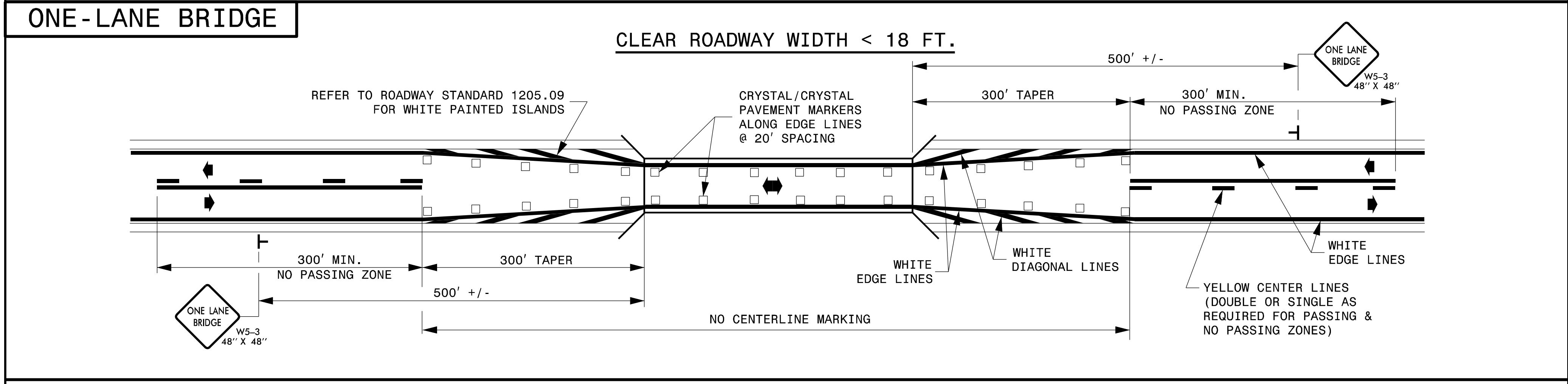
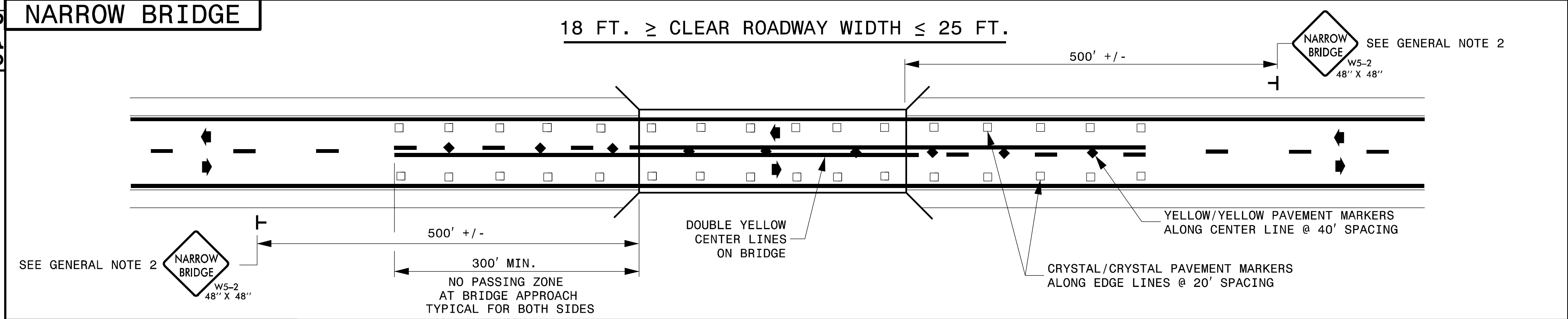
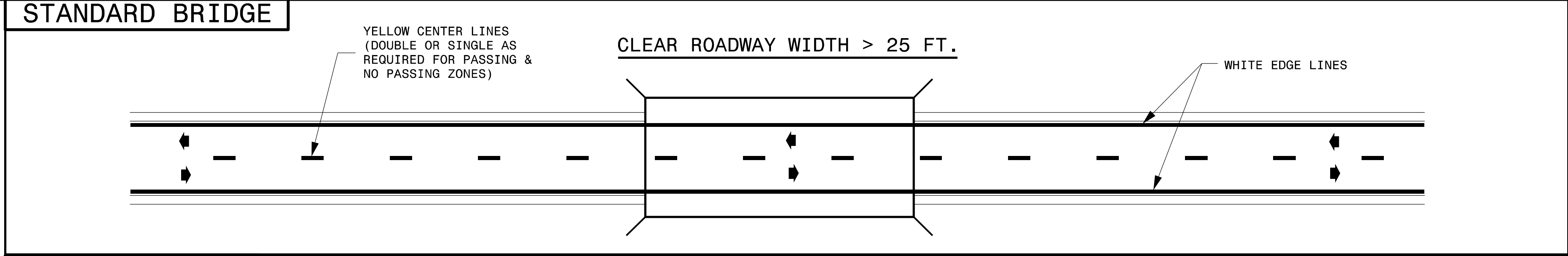
ENGLISH DETAIL DRAWING FOR
PAVEMENT MARKINGS
 INTERSECTIONS

SHEET 2 OF 2
1205D04

REVISED PAVEMENT MARKING ROADWAY STANDARD DRAWING

| | |
|---|-----------|
| TIP NO. | SHEET NO. |
| B-3186/B-5898 | RMP-1B |
| APPROVED: <i>Matthew V. Springer</i> | |
| DATE: 8/30/2019 | |
| SEAL | |
|  | |

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.



- GENERAL NOTES:
- 1- NO PASSING ZONES SHOWN ARE MINIMUMS. APPLY MINIMUM PASSING AND STOPPING SIGHT DISTANCES AS DETERMINED BY THE ENGINEER.
 - 2- FOR BRIDGES WITH 18 TO 25 FEET CLEAR ROADWAY WIDTH, SIGNS MUST BE USED WHEN THE APPROACH PAVEMENT WIDTH IS 2 FOOT OR GREATER THAN THE CLEAR ROADWAY WIDTH.

| LEGEND | |
|--------|---------------------------------|
| ← | DIRECTION OF TRAFFIC FLOW |
| ◆ | YELLOW/YELLOW PAVEMENT MARKER |
| ⊥ | STATIONARY SIGN |
| □ | CRYSTAL/CRYSTAL PAVEMENT MARKER |

SHEET 1 OF 1
1205D12

SHEET 1 OF 1
1205D12

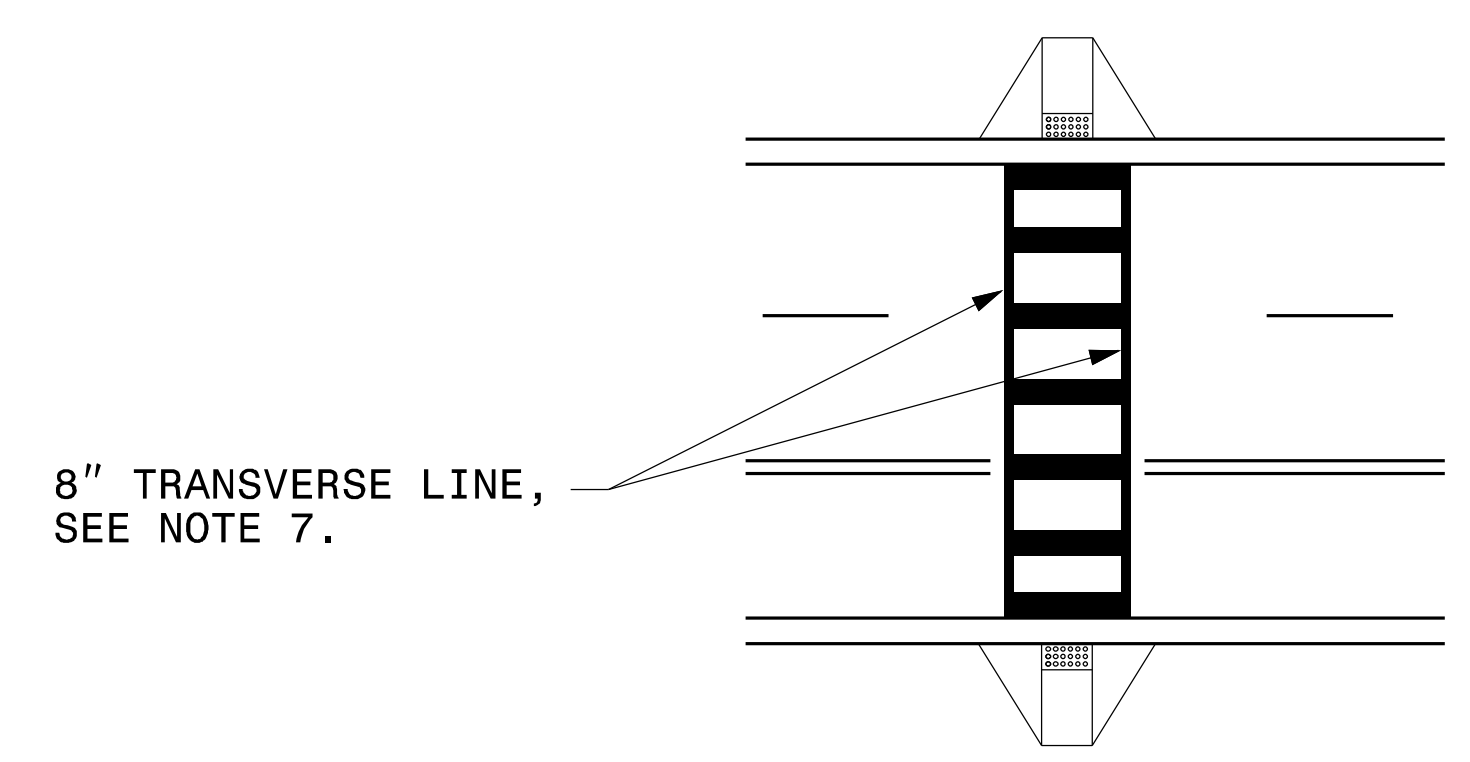
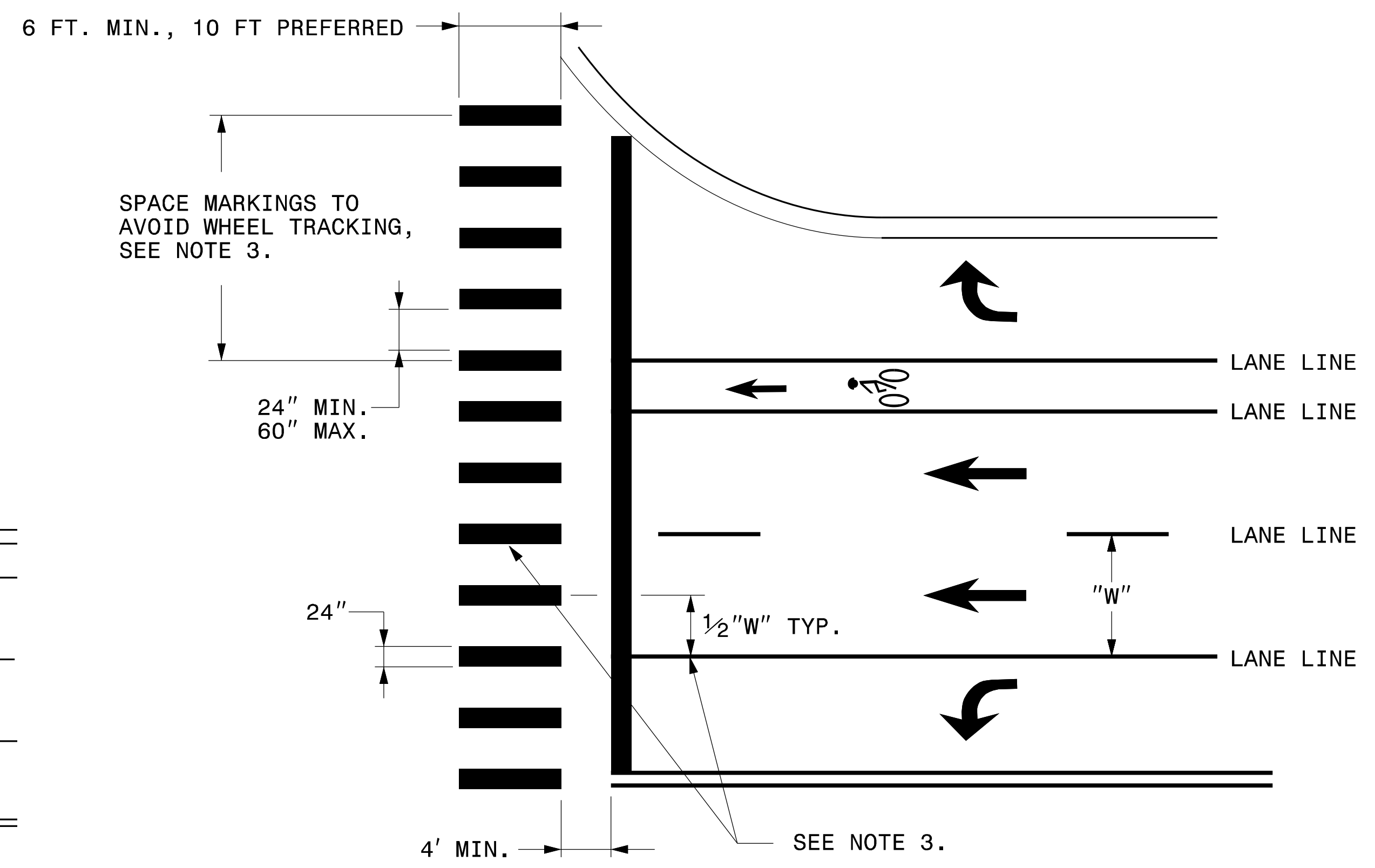
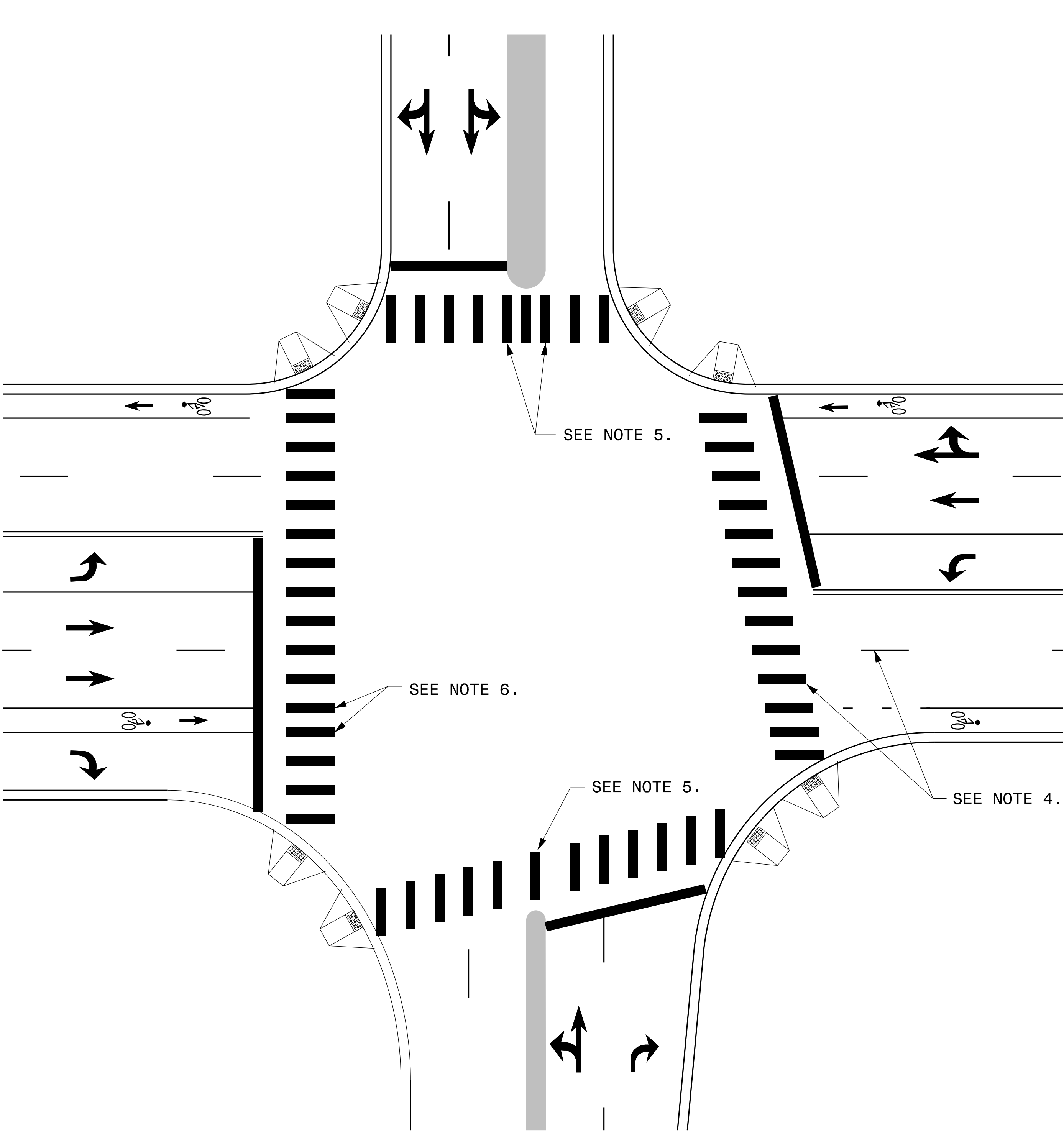
REVISED PAVEMENT MARKING ROADWAY STANDARD DRAWING

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STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

2-19

ENGLISH TYPICAL DRAWING FOR
PAVEMENT MARKINGS
HI-VISIBILITY CROSSWALKS
NO-TRACK MARKING GUIDANCE



GENERAL NOTES:

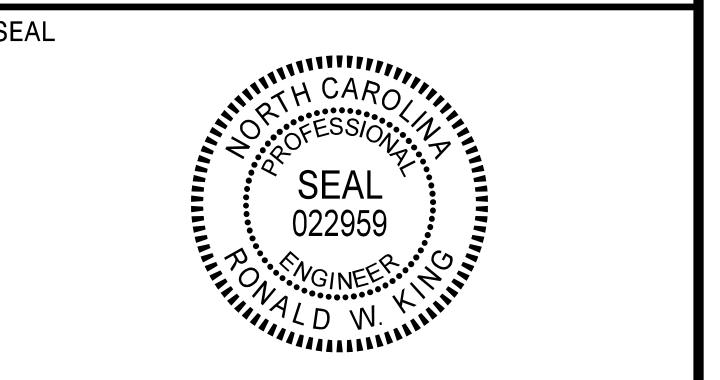
- 1- THE GUIDANCE IN THIS DETAIL IS TO BE USED WHEN NO-TRACK SPACING OF HI-VISIBILITY MARKINGS IS REQUESTED.
- 2- USE THE GUIDANCE SHOWN ON THE ABOVE DETAILS IN CONJUNCTION WITH PAVEMENT MARKING GUIDANCE SHOWN ON ROADWAY STANDARD DRAWINGS 1205.01 AND 1205.07.
- 3- PLACE MARKINGS TO AVOID WHEELPATH OF VEHICLES. MARKINGS TYPICALLY WILL BE LOCATED CENTERED AT THE LANE LINES AND EDGE LINES WITH ONE ADDITIONAL MARKING CENTERED IN THE MIDDLE OF THE LANE. AT WIDE LANE WIDTHS DUE TO TAPERS AND LARGE RADII, LOCATE MARKINGS AT BEST SPACING TO AVOID WHEEL TRACKING. THE SPACE BETWEEN MARKINGS SHALL NOT BE LESS THAN 24 INCHES OR GREATER THAN 60 INCHES.

- 4- WHERE THE CROSSWALK IS SKEWED TO THE LANE LINES, THE MARKINGS SHOULD BE PARALLEL TO THE LANE LINES.
- 5- PLACE MARKINGS ON BOTH EDGES OF THE NOSE OF A MEDIAN. FOR NARROW MEDIANS LESS THAN 4 FEET, A SINGLE MARKING MAY BE USED. FOR WIDE MEDIANS, INSTALL ADDITIONAL MARKINGS IN THE MEDIAN AREA. THE SPACE BETWEEN THE MARKINGS SHALL NOT TO BE LESS THAN 24 INCHES OR GREATER THAN 60 INCHES.
- 6- LOCATE MARKINGS CENTERED ON BICYCLE LANE LINES. MARKINGS SHALL NOT BE LOCATED IN THE CENTER OF THE BICYCLE PATH.
- 7- INCLUDE 8" TRANSVERSE LINES WITH 24" LONGITUDINAL MARKINGS AT MID-BLOCK CROSSINGS.

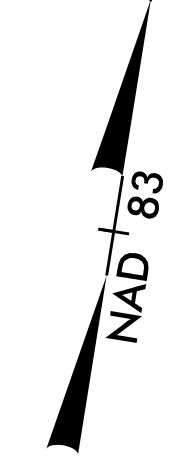
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

2-19

ENGLISH TYPICAL DRAWING FOR
PAVEMENT MARKINGS
HI-VISIBILITY CROSSWALKS
NO-TRACK MARKING GUIDANCE

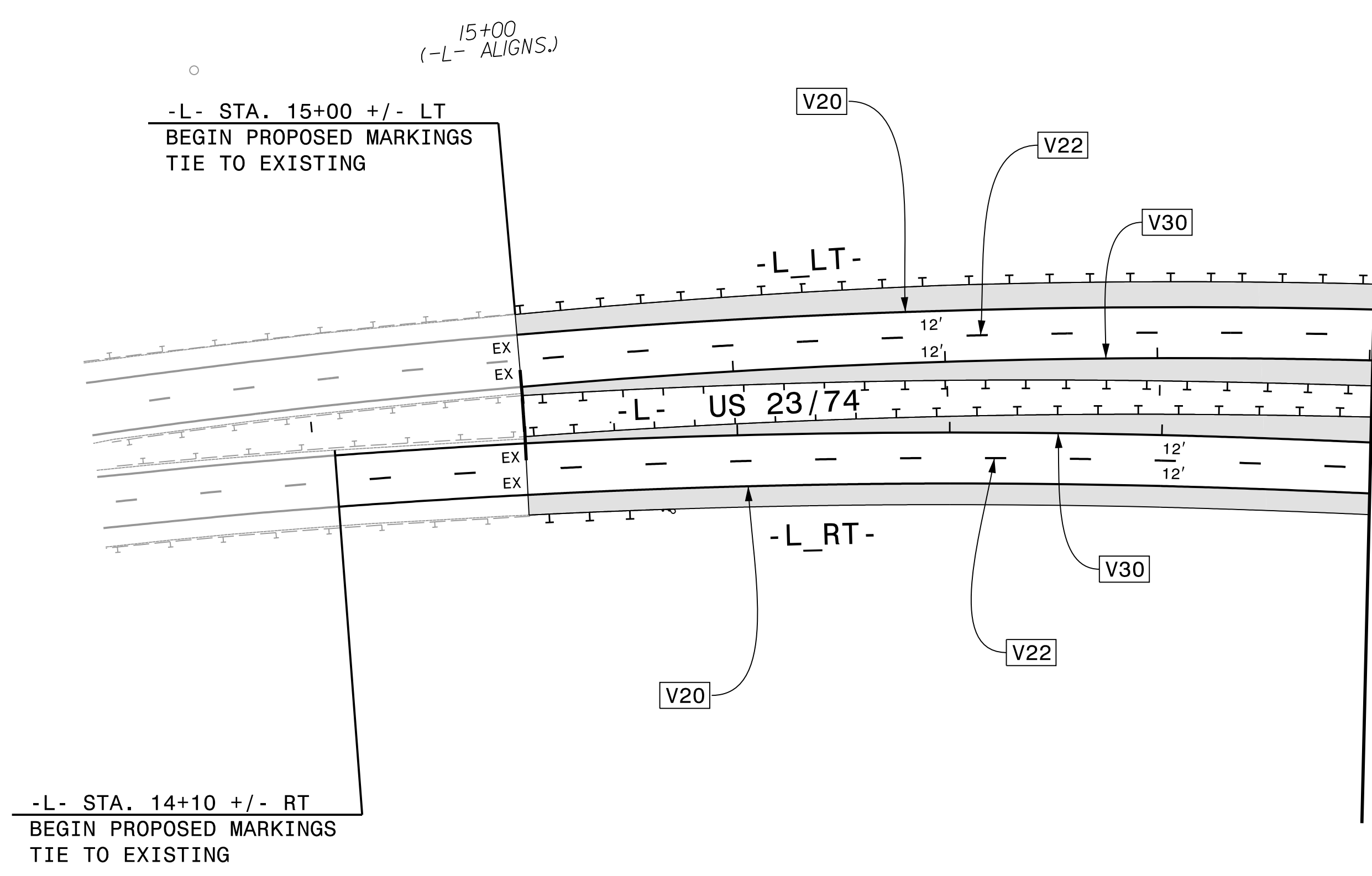


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 UNLESS ALL SIGNATURES COMPLETED**



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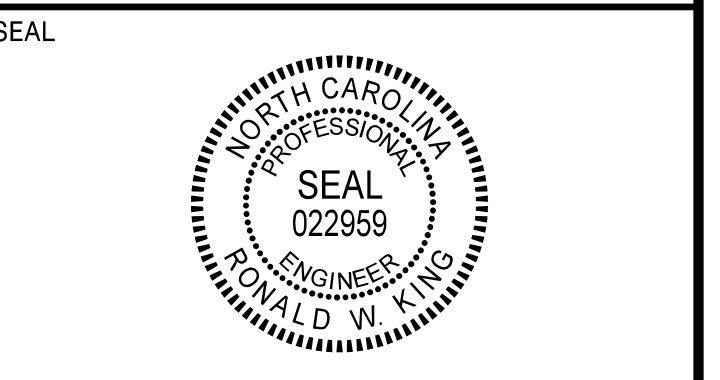
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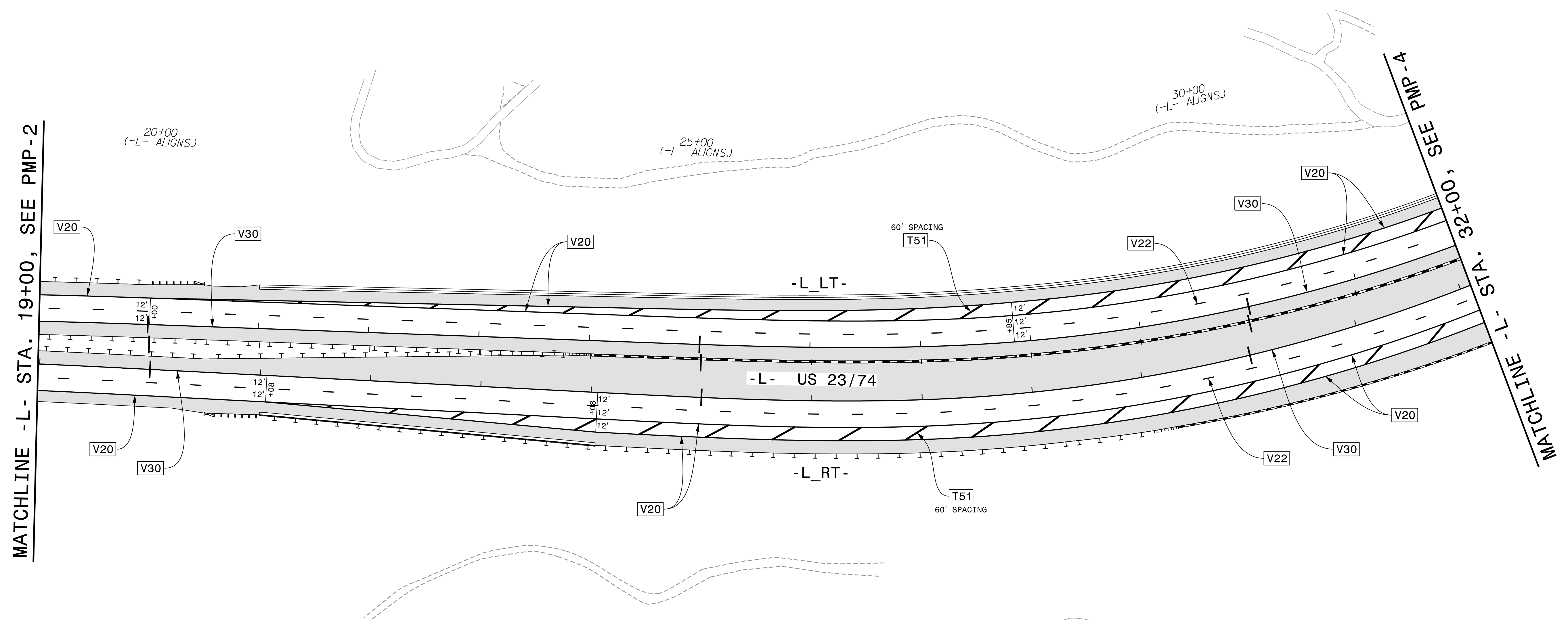
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ALL LANES ARE 12' WIDTH UNLESS NOTED

PAVEMENT MARKING DETAIL



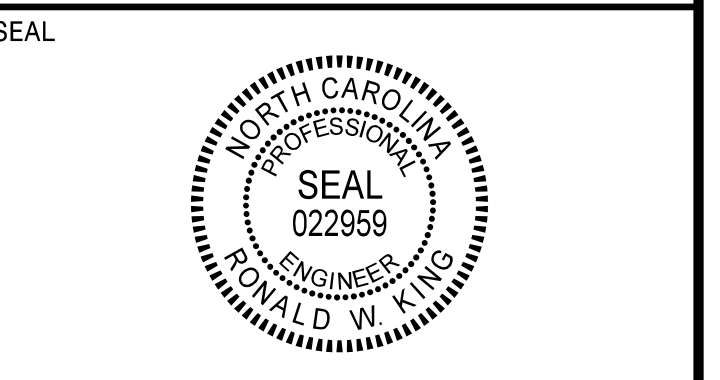
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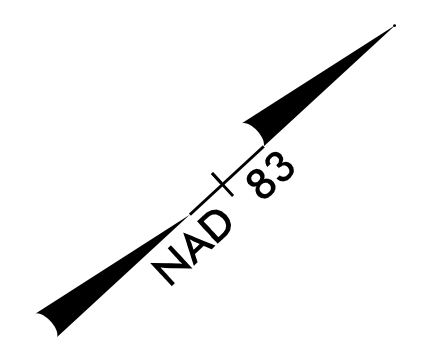
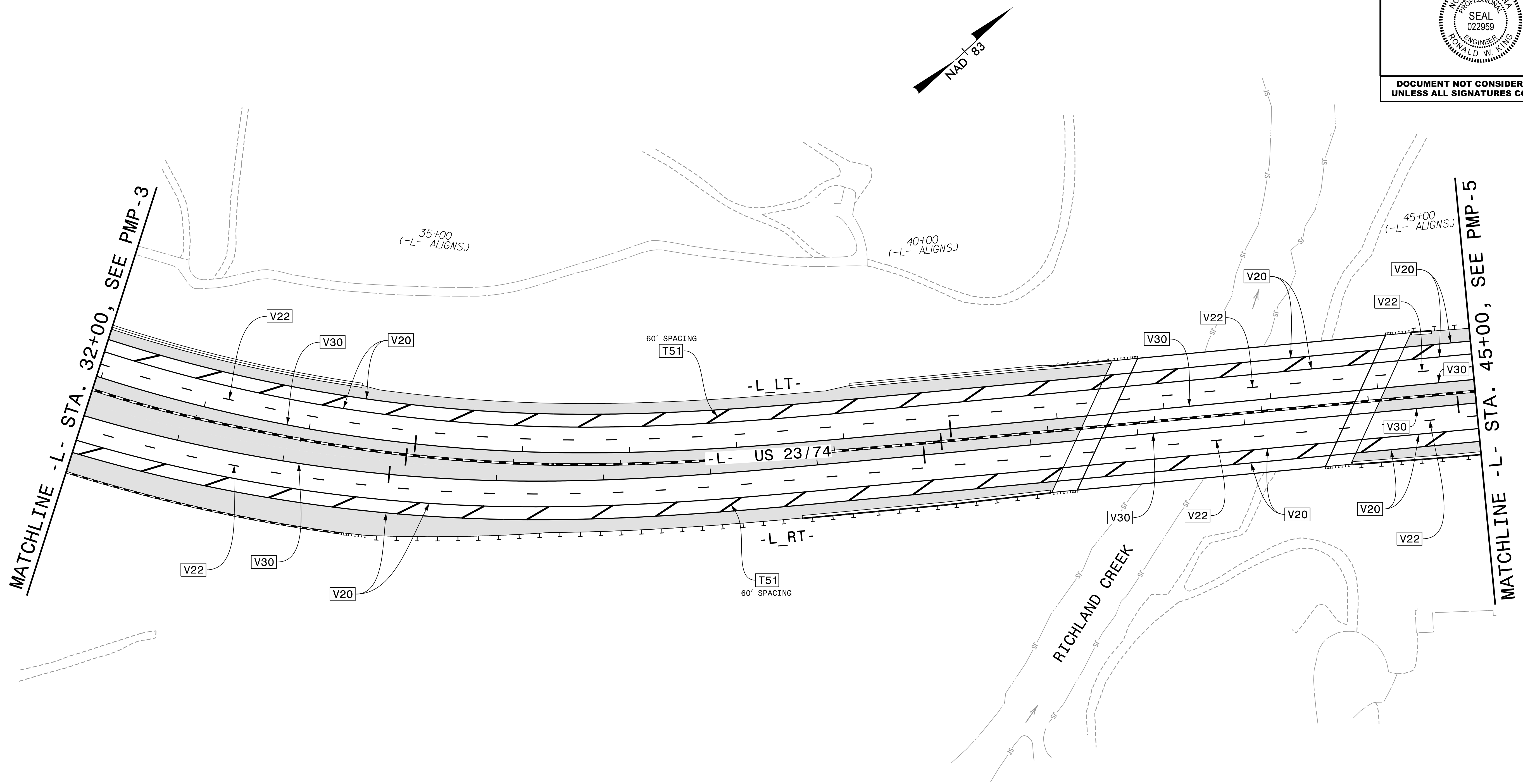
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PAVEMENT MARKING DETAIL



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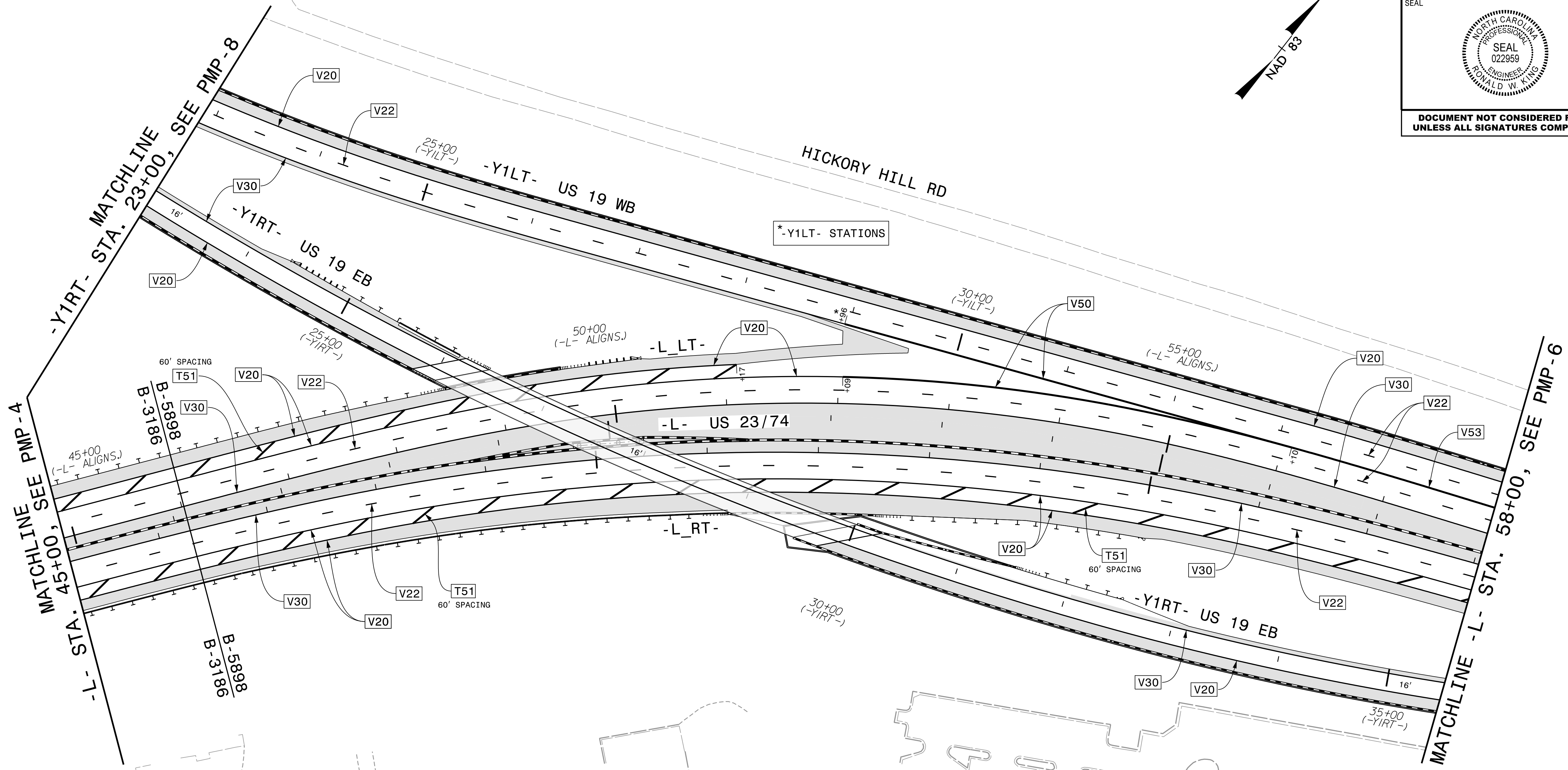
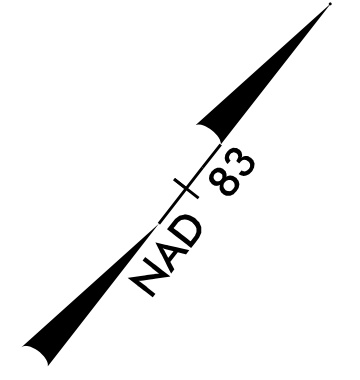
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PAVEMENT MARKING DETAIL



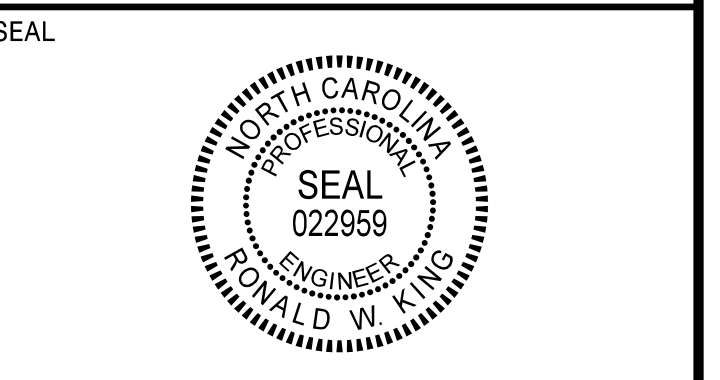
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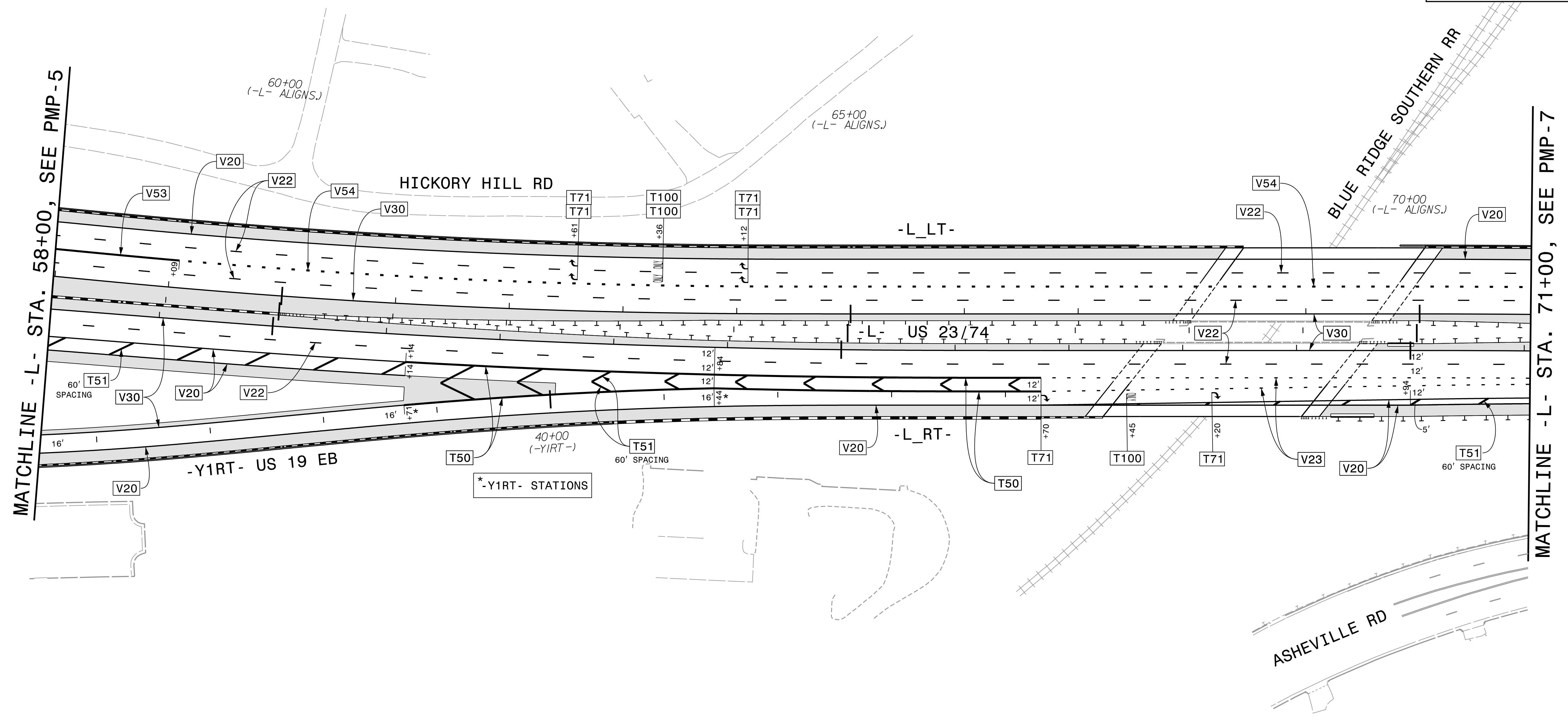
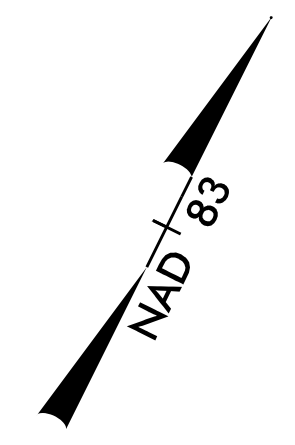
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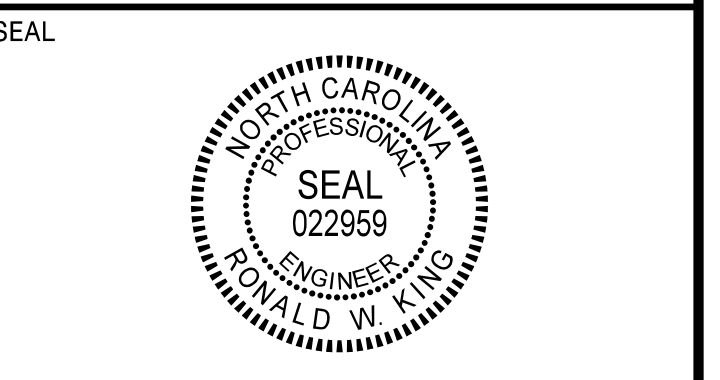
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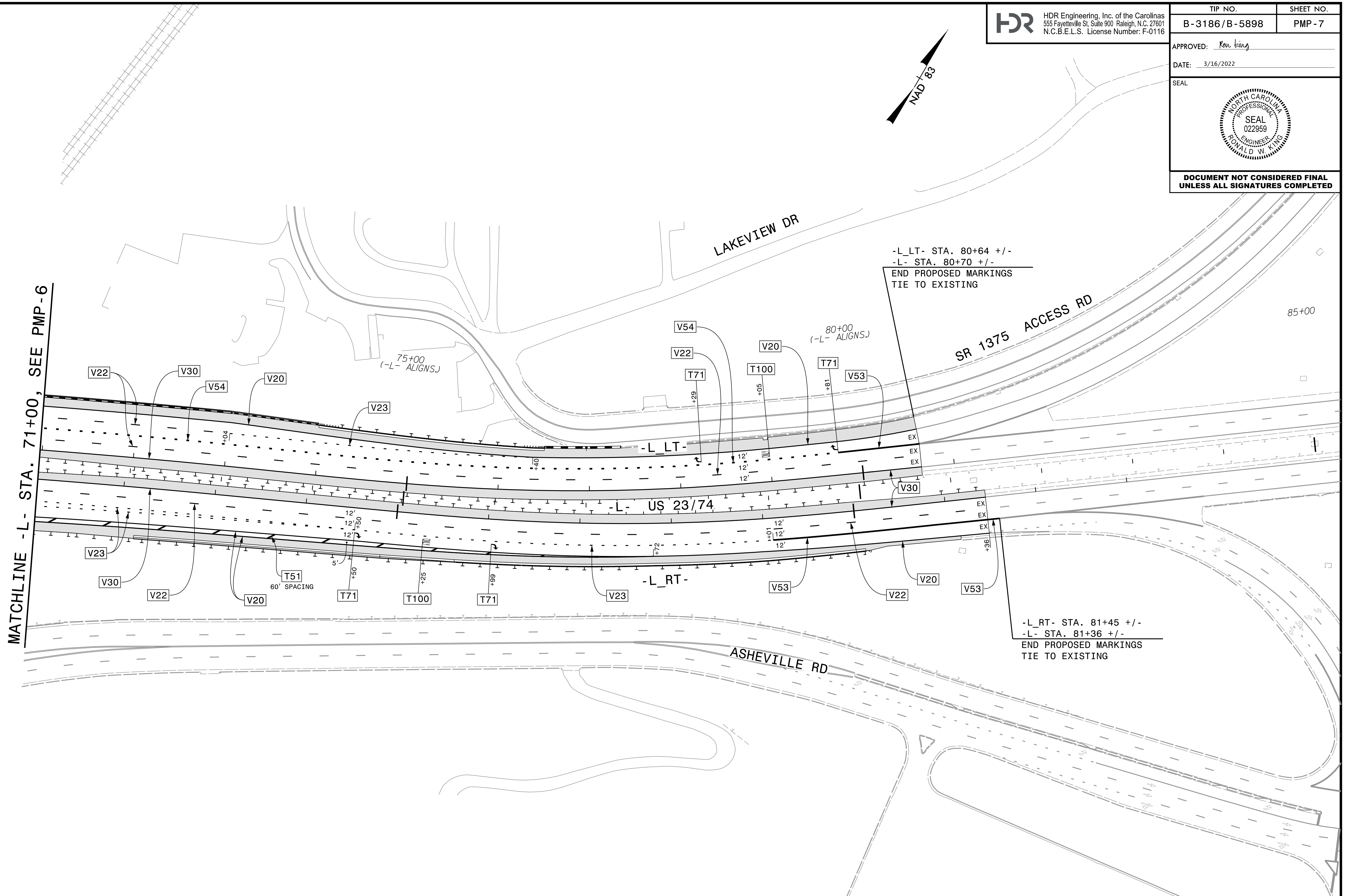
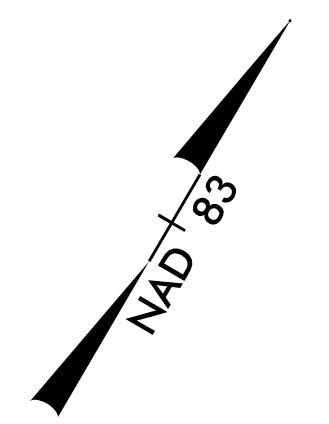
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STATION CALLOUTS ARE BASED OFF
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ALL LANES ARE 12' WIDTH UNLESS NOTED

PAVEMENT MARKING DETAIL



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



-L_LT- STA. 80+64 +/-
-L- STA. 80+70 +/-
END PROPOSED MARKINGS
TIE TO EXISTING

-L_RT- STA. 81+45 +/-
-L- STA. 81+36 +/-
END PROPOSED MARKINGS
TIE TO EXISTING

MATCHLINE -L- STA. 71+00, SEE PMP-6

STATION CALLOUTS ARE BASED OFF
THE -L- ALIGNMENT, UNLESS NOTED
ALL LANES ARE 12' WIDTH UNLESS NOTED

PAVEMENT MARKING DETAIL

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APPROVED: *Ron King*

DATE: 3/16/2022

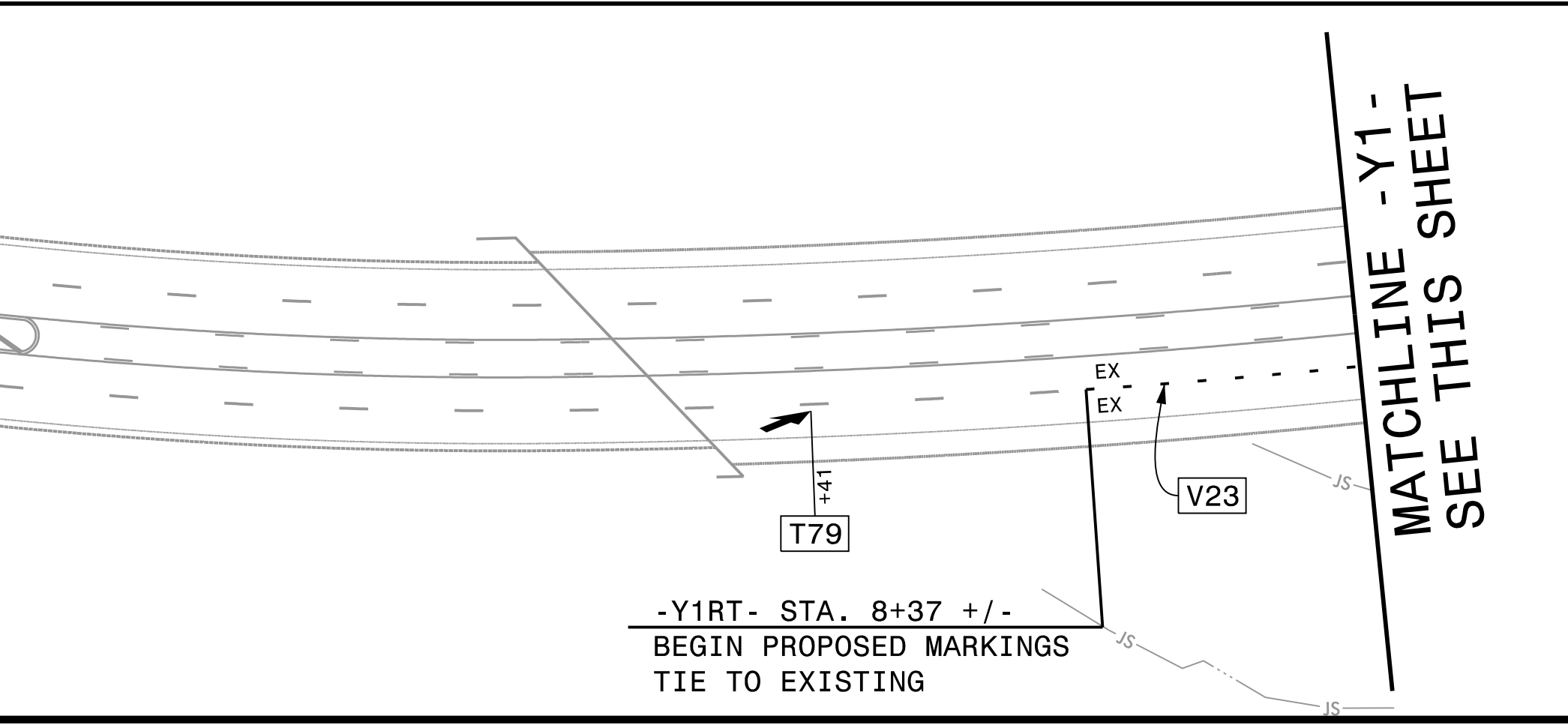
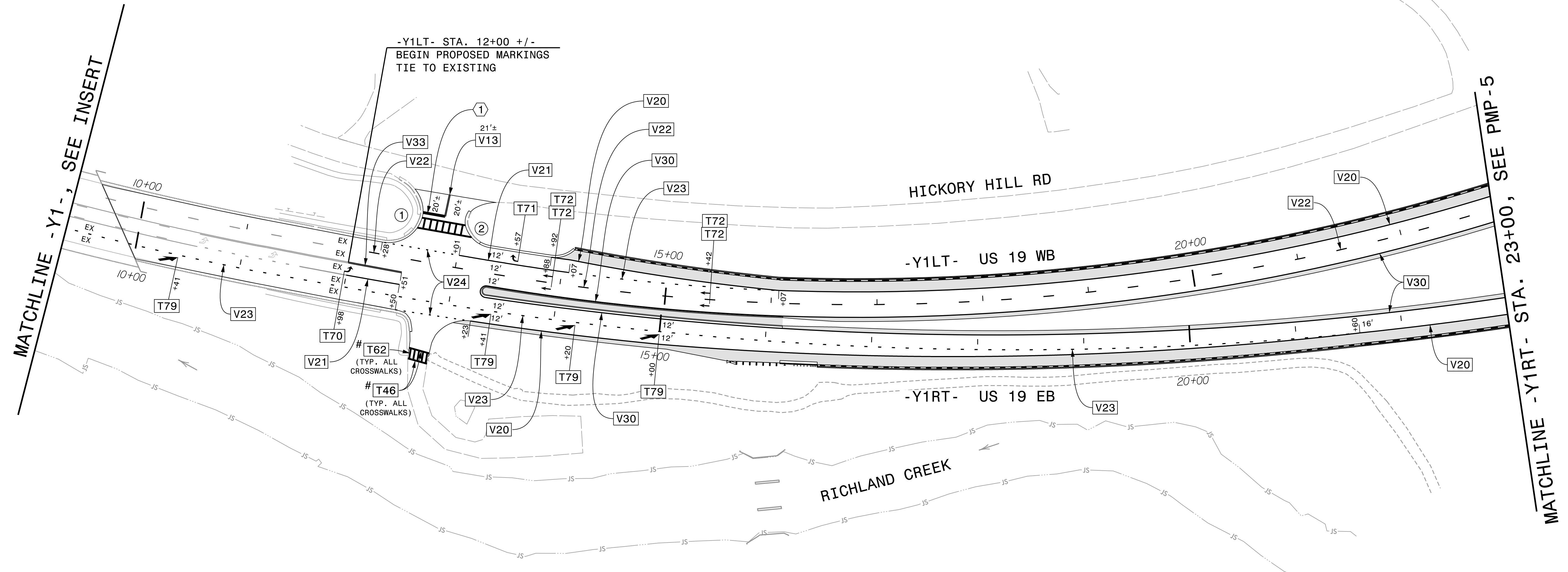
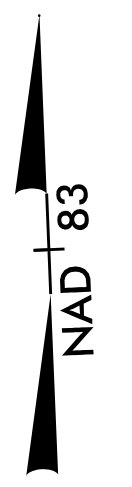


DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

| CENTER OF CROSSWALK AT FACE OF CURB | |
|-------------------------------------|---------------------------------|
| ① | -Y1LT- STA. 12+57.05, 33.71' LT |
| ② | -Y1LT- STA. 13+09.31, 34.42' LT |

| T61 STOPBAR LOCATIONS | |
|-----------------------|------------------------------------|
| ① | -Y1LT- STA. 12+60.80, 45.80' LT to |
| ② | -Y1LT- STA. 12+82.10, 45.86' LT |

SEE PMP-1C FOR CROSSWALK LAYOUT
ALL LANES ARE 12' WIDTH UNLESS NOTED



PAVEMENT MARKING DETAIL

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