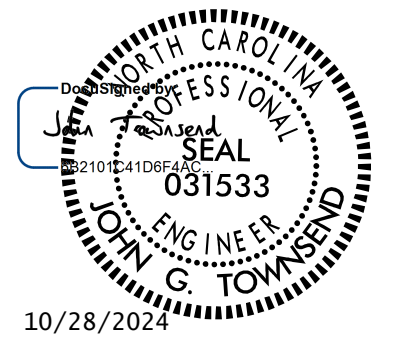


TIP NO.	SHEET NO.
I - 5979	PMP - 1
APPROVED: _____	
DATE: _____	
SEAL	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

**STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN
RICHMOND COUNTY**

**LOCATION: US 74 (FUTURE I-74) /US 1 (EXIT 311).
INTERCHANGE IMPROVEMENTS AT US 1
FROM JUST WEST OF THE EASTBOUND US 74 RAMP
TO SR 1187 (SPRINGDALE DR.)**

T.I.P.: I-5979

INDEX

SHEET NO.	DESCRIPTION
PMP-1	PAVEMENT MARKING PLAN TITLE SHEET
PMP-1A-1D	REVISED ROADWAY STANDARD DRAWINGS AND PAVEMENT MARKER DETAILS
PMP-2-5	PAVEMENT MARKING DETAIL

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 |
|----------------------|----------------------|-----------------------------|
| -L- (US 1) | THERMOPLASTIC | SNOWPLOWABLE, NON-CAST IRON |
| US 74 & RAMPS | THERMOPLASTIC | SNOWPLOWABLE, NON-CAST IRON |
| CONCRETE BRIDGE DECK | COLD APPLIED PLASTIC | PERMANENT |
| -RAB1-, -RAB2- | THERMOPLASTIC | NONE |
- B) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- C) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.
- D) STOP BAR LOCATION AT NON-SIGNALIZED INTERSECTIONS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.
- E) REMOVE ALL RESIDUE AND SURFACE LAITANCE BY ACCEPTABLE METHODS ON CONCRETE BRIDGE DECKS PRIOR TO PLACING COLD APPLIED PLASTIC PAVEMENT MARKING MATERIAL.
- F) 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.
- G) UNLESS OTHERWISE SPECIFIED, HEATED-IN-PLACE THERMOPLASTIC MAY BE USED IN LIEU OF COLD APPLIED PLASTIC FOR STOP BARS, SYMBOLS, CHARACTERS AND DIAGONALS ON ASPHALT OR CONCRETE ROADWAYS. IF HEATED-IN-PLACE IS USED, IT SHALL BE PAID FOR USING THE COLD APPLIED PAY ITEM.
- H) TYPE III COLD APPLIED PLASTIC MAY BE USED IN LIEU OF TYPE II COLD APPLIED PLASTIC. IF TYPE III COLD APPLIED PLASTIC IS USED, IT SHALL BE PAID FOR USING THE TYPE II COLD APPLIED PLASTIC PAY ITEM.

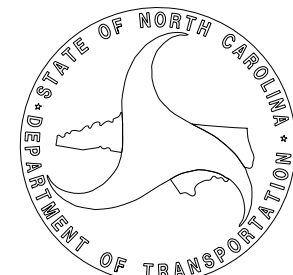
ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2024 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 MULTILANE ROADWAYS
1205.03	PAVEMENT MARKINGS - EXIT AND ENTRANCE RAMPS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
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
1205.14	PAVEMENT MARKINGS - ROUNDABOUTS
1205.15	PAVEMENT MARKINGS - REDUCED CONFLICT INTERSECTIONS
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
1264.01	OBJECT MARKERS - TYPES
1264.02	OBJECT MARKERS - INSTALLATION
1267.01	FLEXIBLE DELINEATORS - INSTALLATION
1267.02	FLEXIBLE DELINEATORS - SPACING TABLES
1267.03	FLEXIBLE DELINEATORS - INTERCHANGE PLACEMENT

PLAN SUBMITTED TO:

Greg Davis, PE; Project Engineer



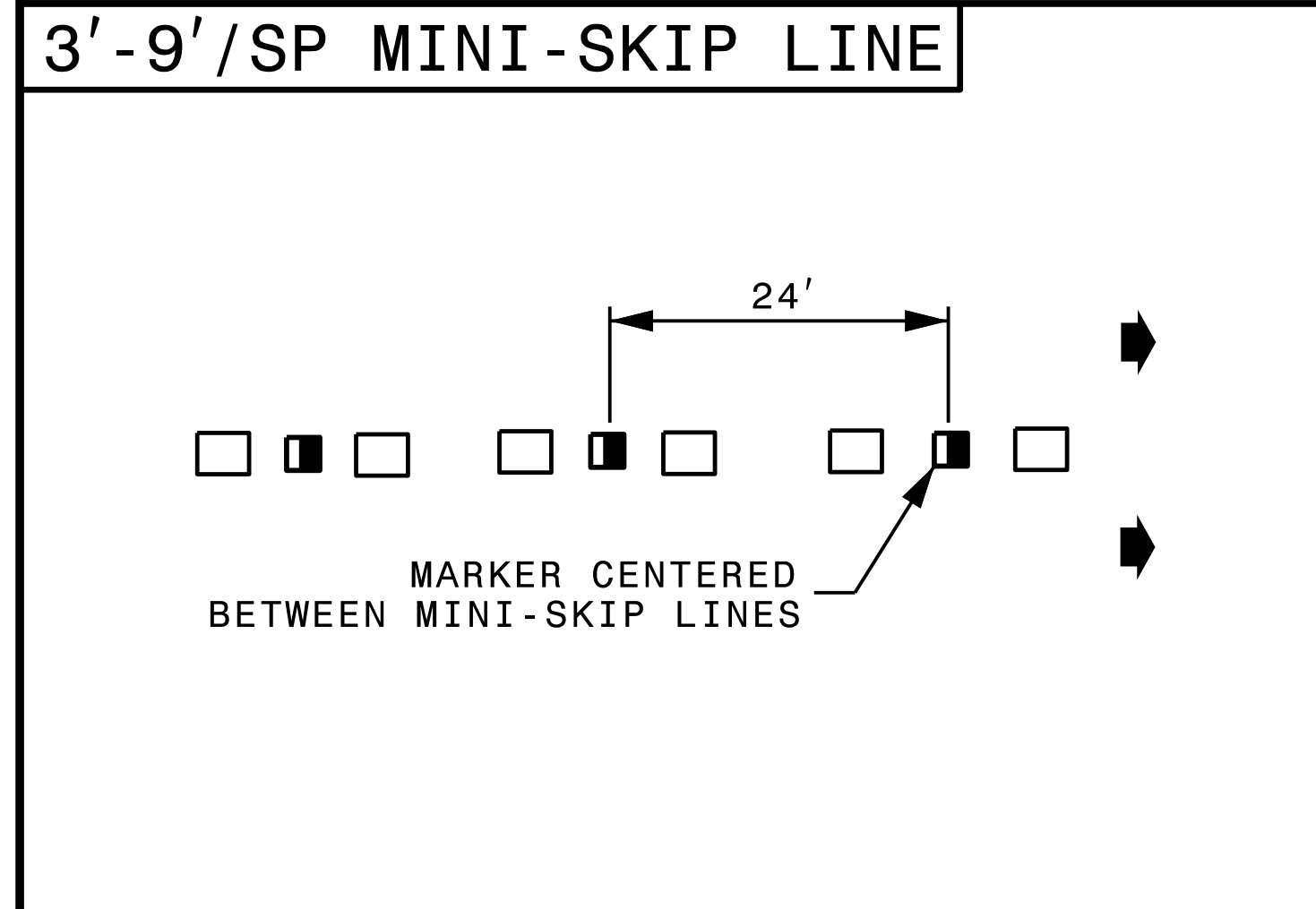
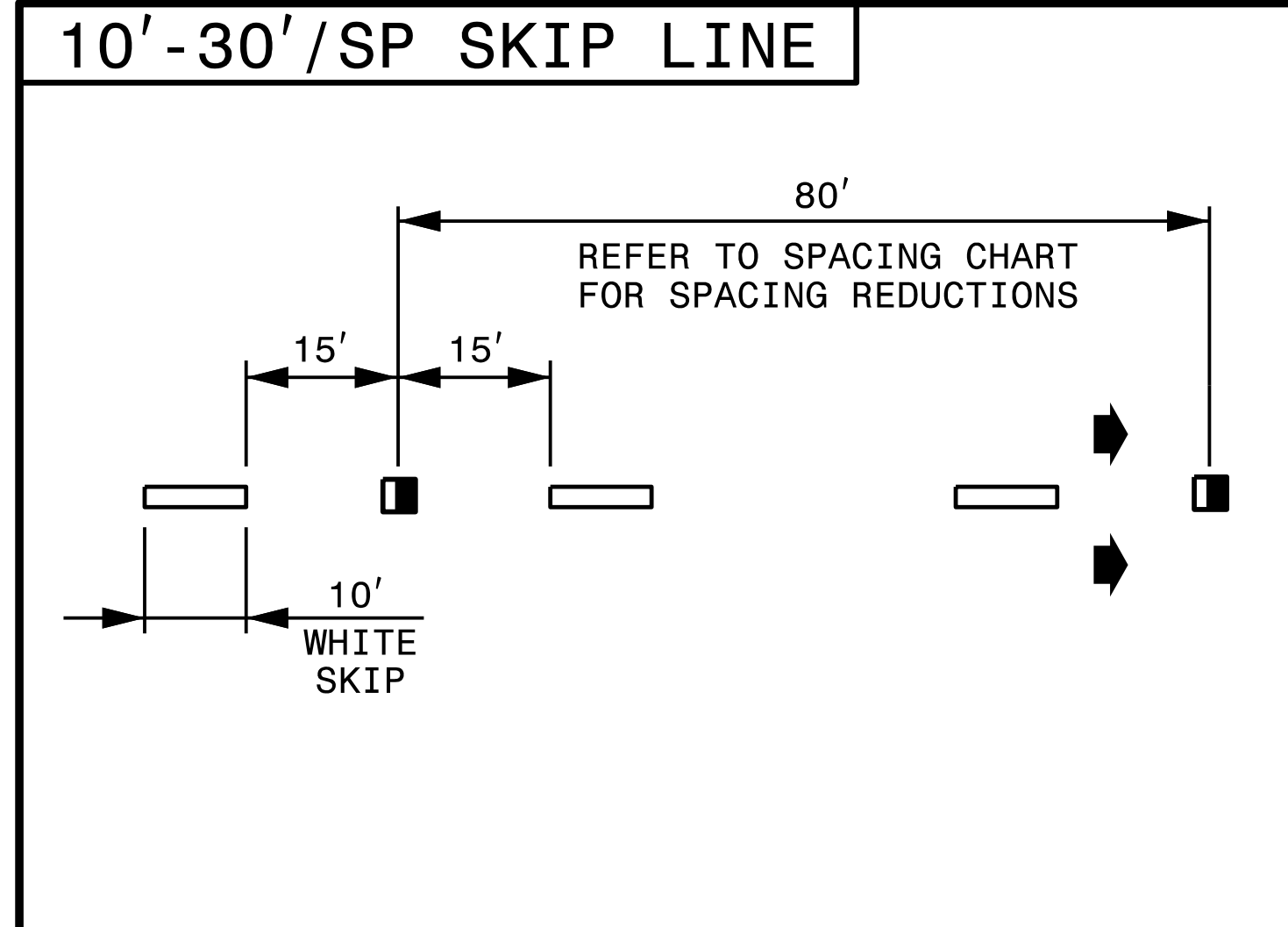
PLAN PREPARED BY: VHB Engineering NC, P.C.

John Townsend, PE Project Engineer



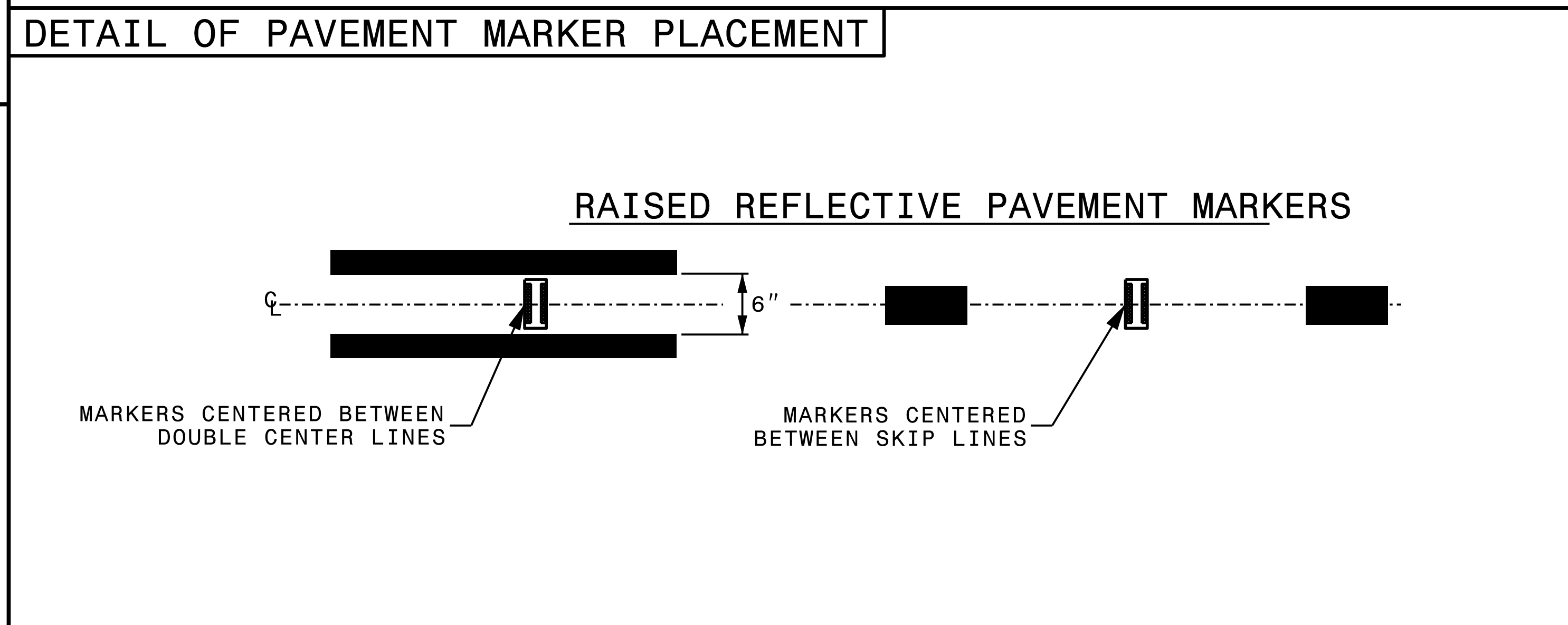
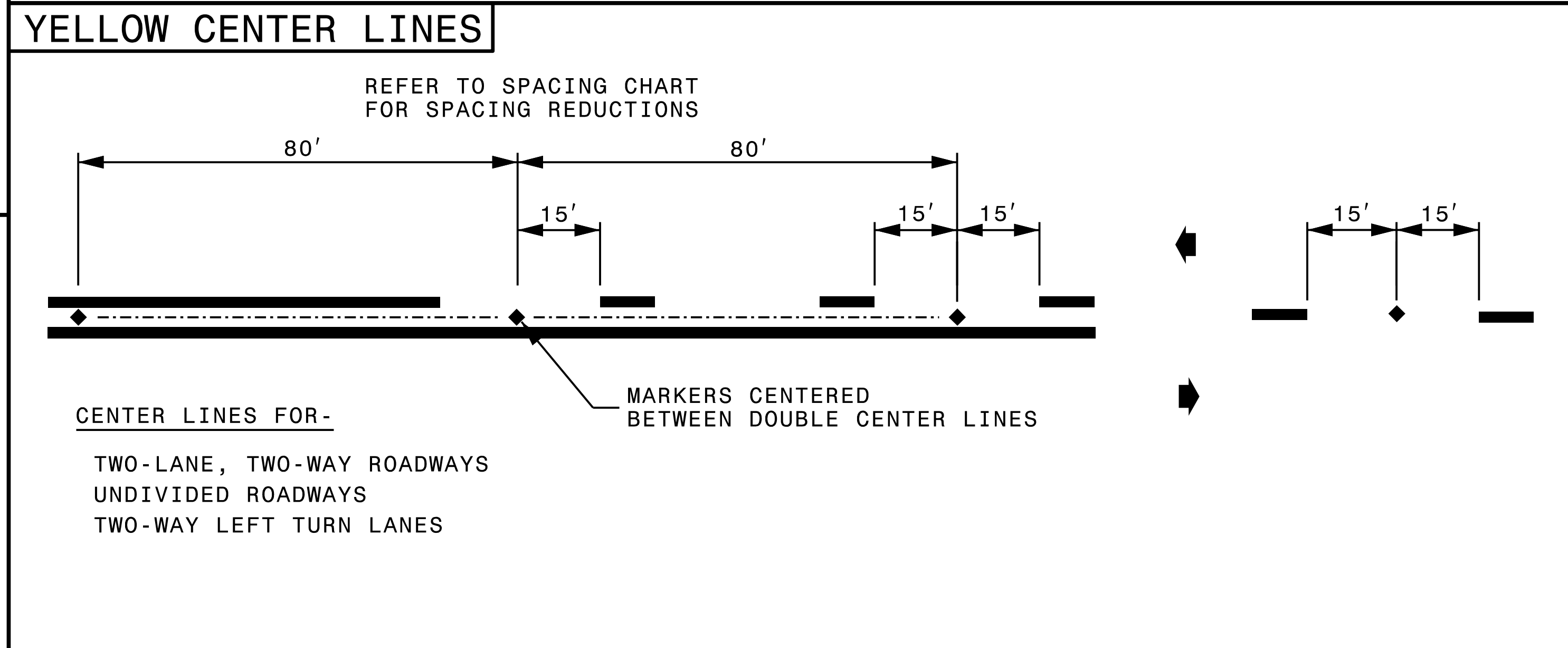
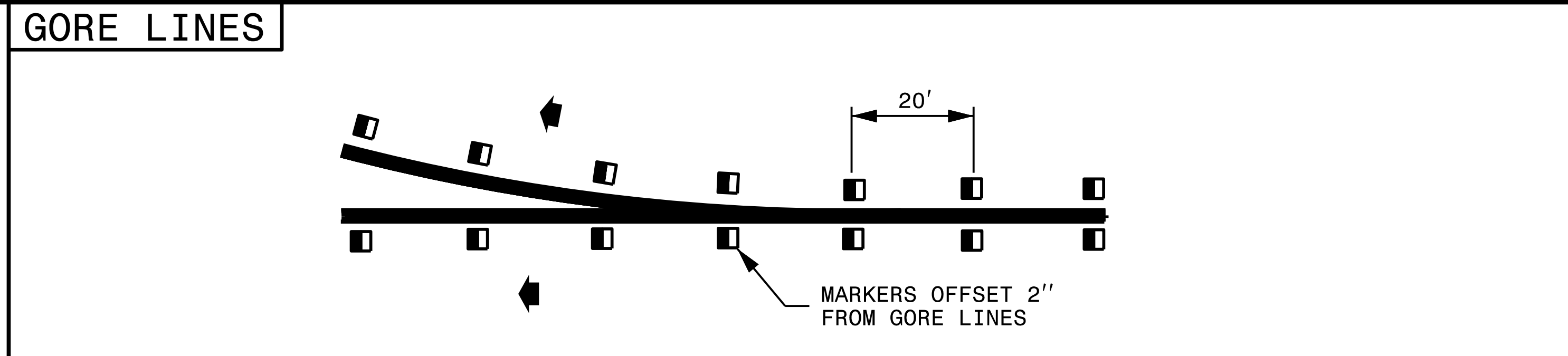
940 Main Campus Drive, Suite 500 Raleigh, NC 27606
NC License No. C-3705

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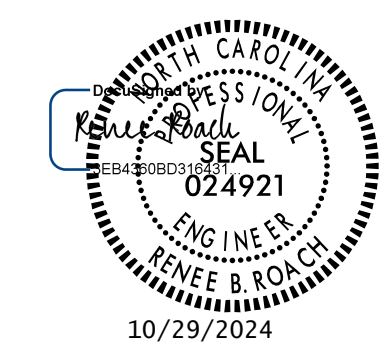
LEGEND

	CRYSTAL/RED PAVEMENT MARKER
	YELLOW/YELLOW PAVEMENT MARKER
	DIRECTION OF TRAFFIC FLOW



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

ROADWAY DETAIL DRAWING FOR
RAISED PAVEMENT MARKERS
INSTALLATION SPACING

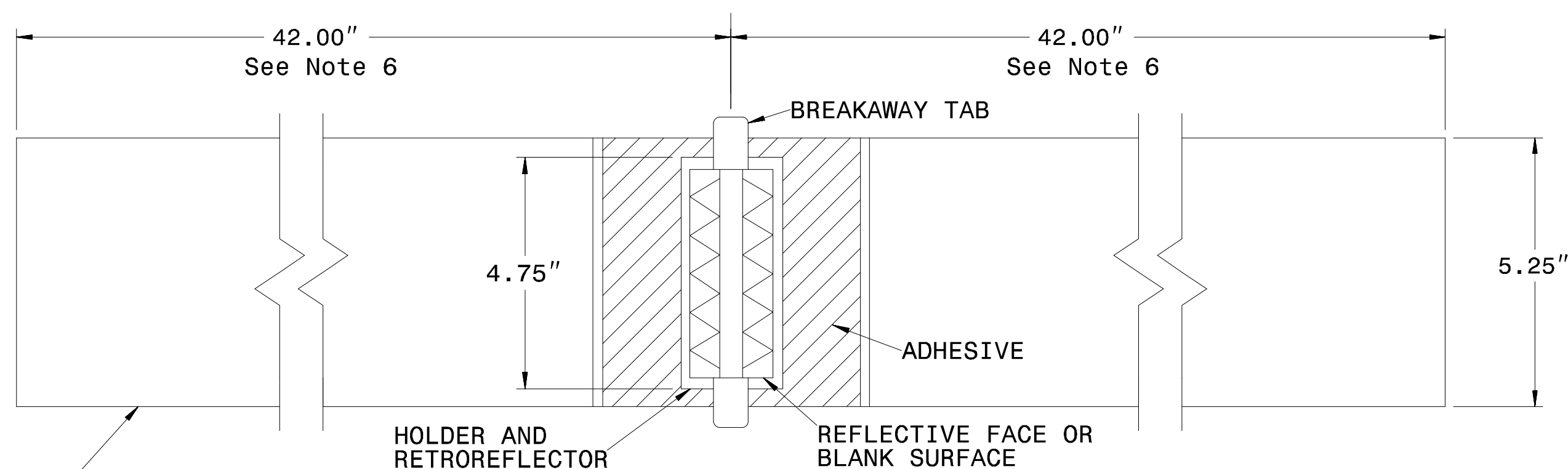


SHEET 2 OF 3
1250D01

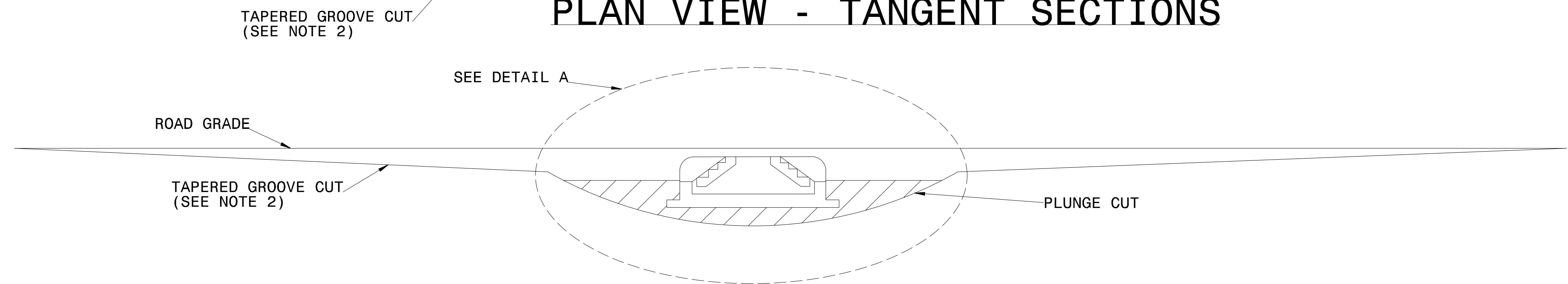
CONTRACTS STANDARDS AND DEVELOPMENT UNIT
Office 919-707-8950 FAX 919-250-4119

SEE TITLE BLOCK

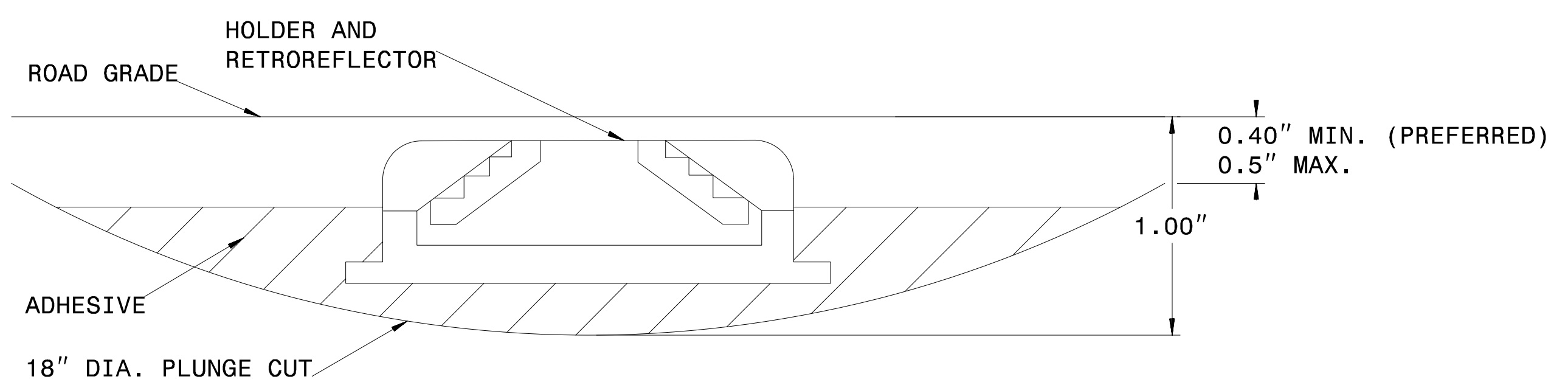
ORIGINAL BY: M.V. SPRINGER DATE: 2-15-24
 MODIFIED BY: _____ DATE: _____
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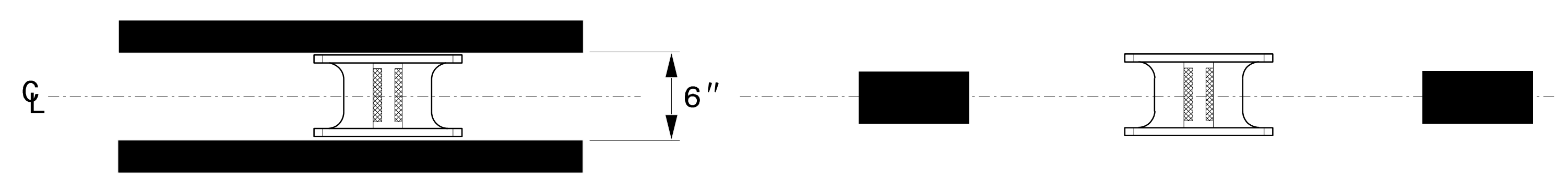
PLAN VIEW - TANGENT SECTIONS



PROFILE VIEW



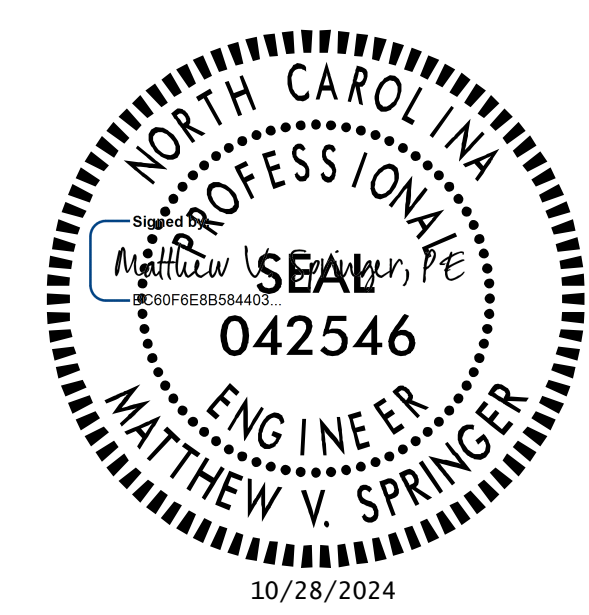
DETAIL A



MARKER SPACING

NOTES:

1. ALL GROOVE EDGES SHALL BE AT LEAST 2 INCHES FROM ANY SEAM OR PAVEMENT JOINT
2. GROOVE CUTS MAY BE TAPERED OR BEVELED. TAPERED CUTS SHALL START AT ROAD LEVEL ON EACH END AND TAPER AT A FIXED RATE AS SHOWN ON THE PROFILE VIEW. BEVELED GROOVE CUTS SHALL BE 0.5" MAXIMUM DEPTH (0.4" PREFERRED), AND SHALL BE 0.4" MINIMUM DEPTH AT BOTH ENDS OF THE PLUNGE CUT.
3. GROOVE AND PLUNGE CUT SHALL BE CLEAN AND DRY PRIOR TO PLACEMENT OF ADHESIVE.
4. THE EPOXY ADHESIVE SHALL BE THOROUGHLY MIXED UNTIL IT IS UNIFORM IN COLOR, AND APPLIED IN COLOR, AND APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
5. MARKER SHALL BE INSTALLED AS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS WITH THE BREAKWAY TABS RESTING ON THE PAVEMENT SURFACE. THE EPOXY SHALL BE FILLED TO THE LEVEL OF THE TOP OF THE MARKER HOLDER. EPOXY SHALL NOT TOUCH THE RETROREFLECTOR.
6. TOTAL GROOVE LENGTH MAY BE SHORTENED TO 54" ON SHARP CURVES IF APPROVED BY THE ENGINEER. GROOVES SHALL NOT OVERLAP WITH LOOP DETECTOR WIRES.

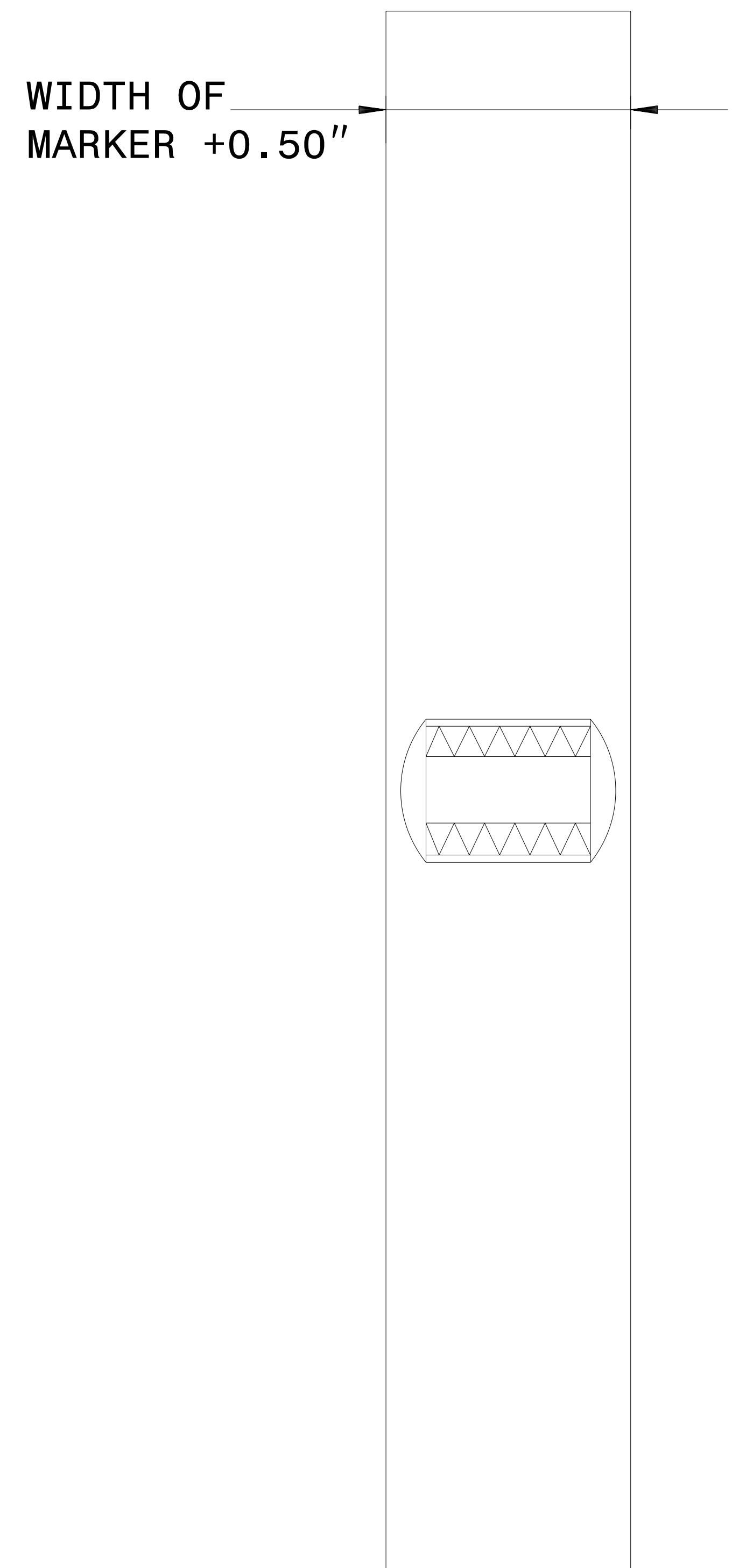


CONTRACTS STANDARDS AND DEVELOPMENT UNIT
Office 919-707-8950 FAX 919-250-4119

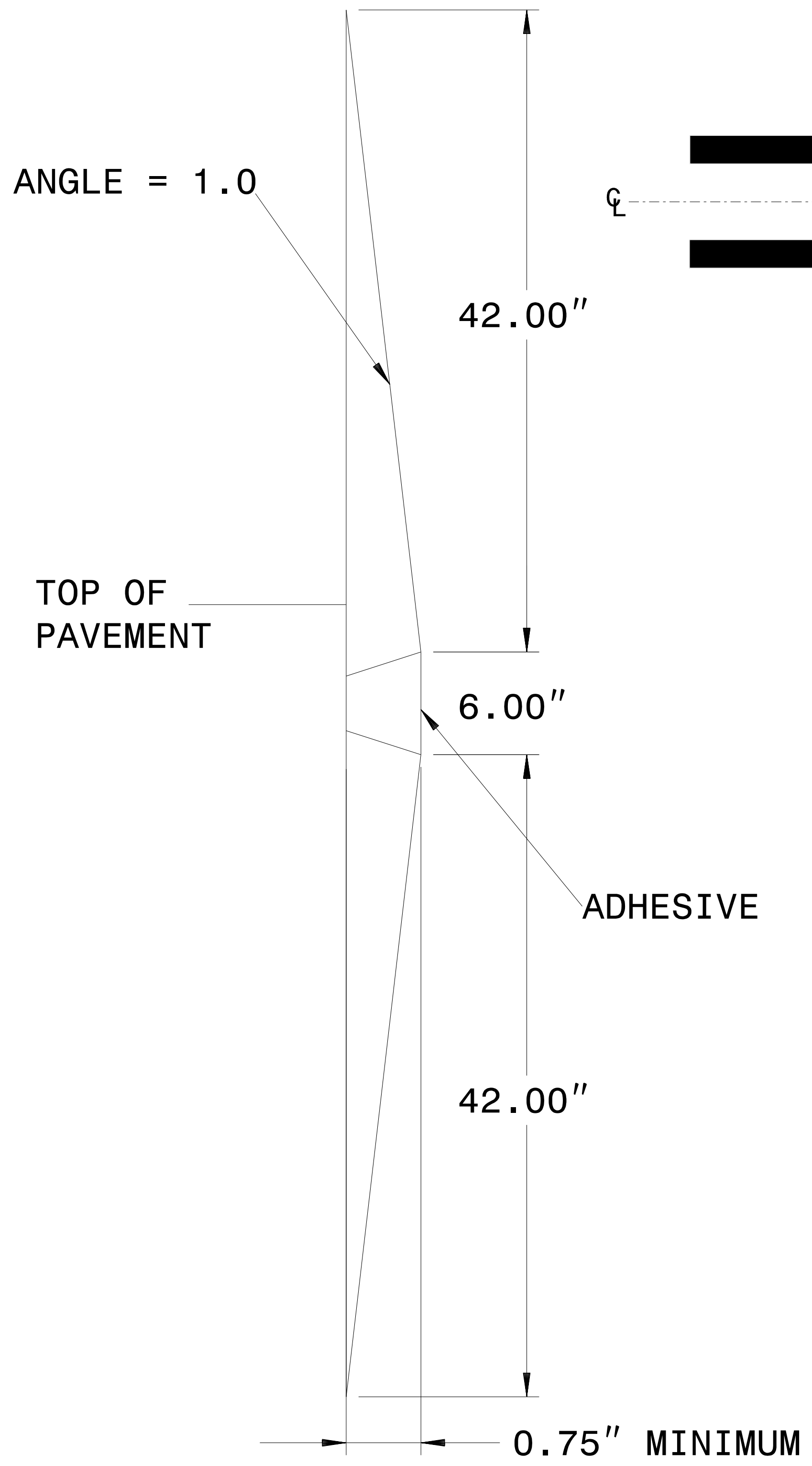
DETAIL OF INLAID CRADLE MARKER

ORIGINAL BY: rgwatson DATE: 02-06-2024
 MODIFIED BY: DATE:
 CHECKED BY: DATE:
 FILE SPEC.: DATE:

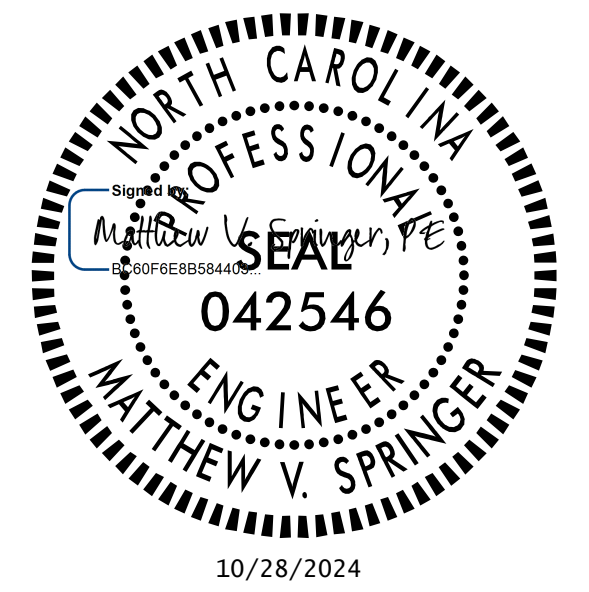
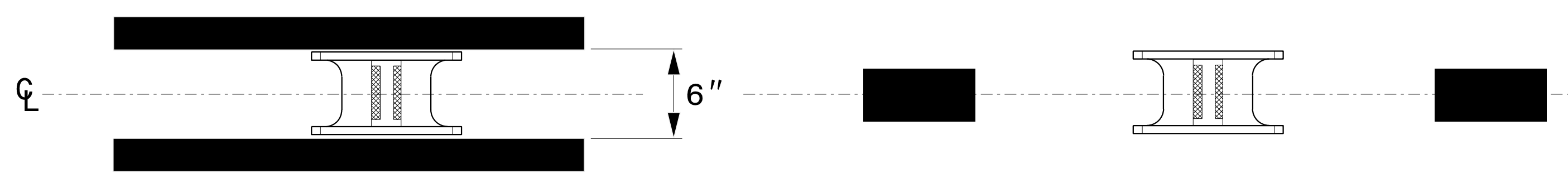
PLAN VIEW



SECTION VIEW



MARKER SPACING



NOTES:

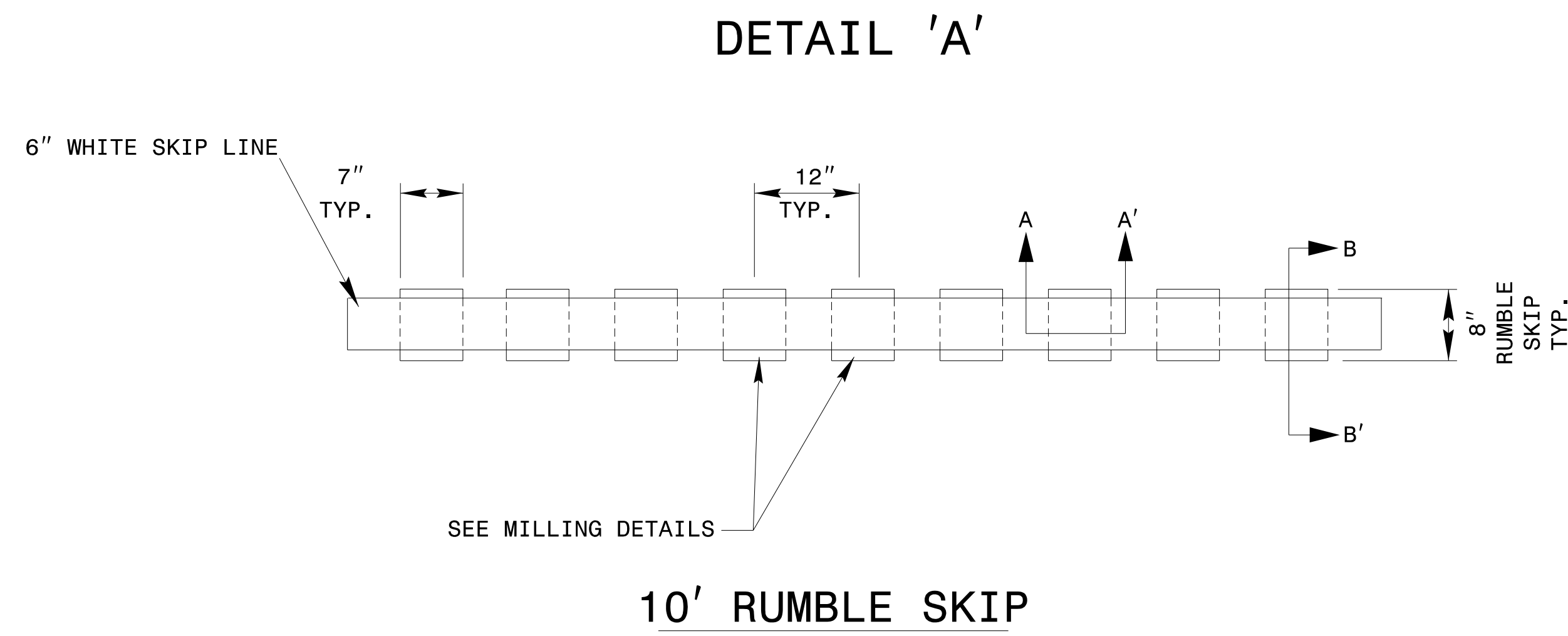
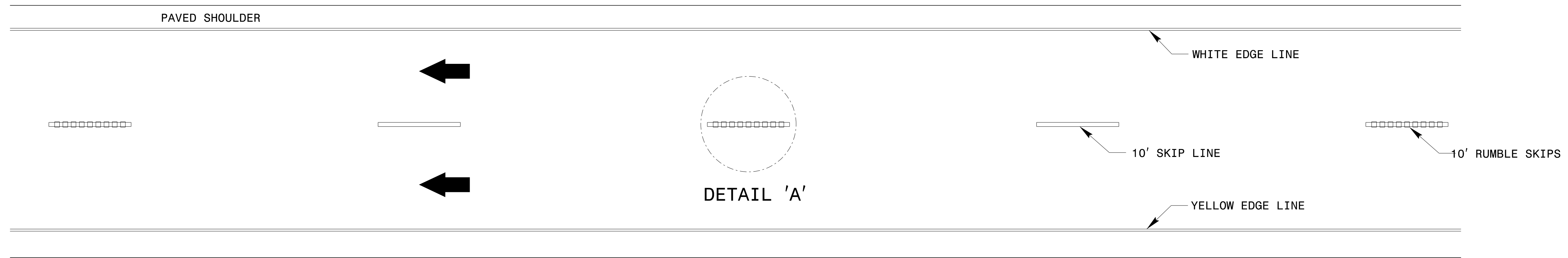
1. THE PAVEMENT SHALL BE SAW CUT TO THE DIMENSIONS SHOWN.
2. THE SAW CUT AREA MUST BE DRY AND FREE OF DUST. DIRT OR ANY MATERIAL WHICH WILL ADVERSELY AFFECT THE BOND OF THE ADHESIVE.
3. INSTALL MARKERS WITH APPROVED ADHESIVE. ADHESIVE SHOULD NOT BE ALLOWED TO BUILD UP IN FRONT OF MARKER LENS.
4. THE MARKER AND THE ADHESIVE PAD SHALL NOT EXCEED THE TOP OF THE PAVEMENT SURFACE. DEPTH = 0.75" MINIMUM.
5. RECESSED MARKERS INSTALLED ON CONCRETE PAVEMENT SHOULD BE INSTALLED A MINIMUM OF 2" FROM THE PAVEMENT JOINT OR EDGE

CONTRACTS STANDARDS AND DEVELOPMENT UNIT
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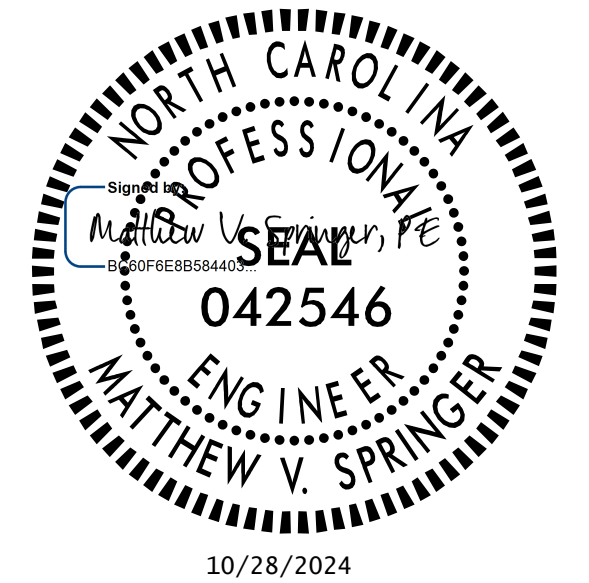
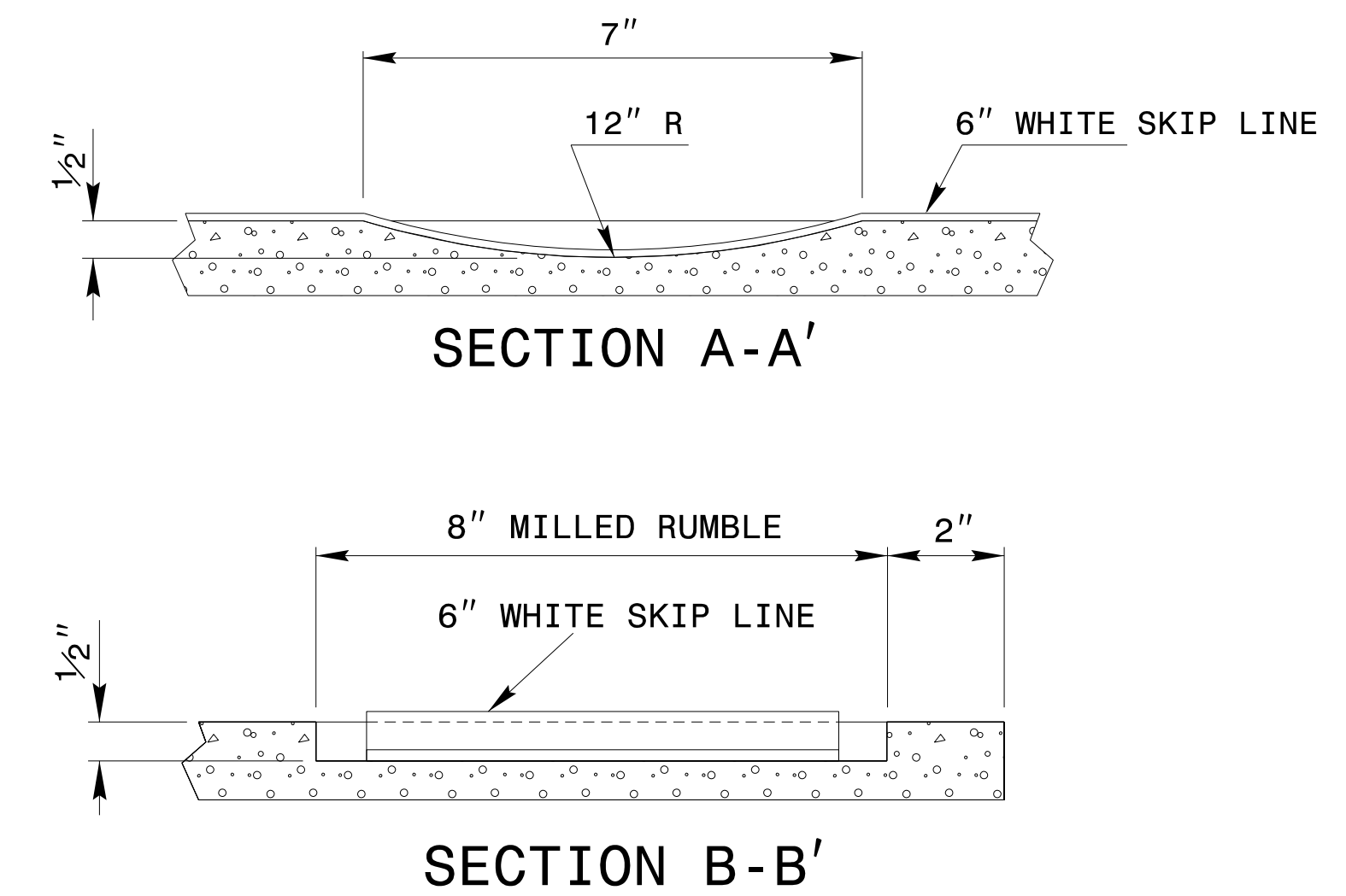
DETAIL OF INLAID RAISED PAVEMENT MARKER

ORIGINAL BY: rgwatson	DATE: 02-06-2024
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC.:	

LANE TREATMENT



MILLING/MARKING DETAILS









NOTES:

- 1) USING A VACUUM IN THE SAME OPERATION, REMOVE ALL DEBRIS FROM THE MILLINGS JUST PRIOR TO PLACING ANY PAVEMENT MARKINGS.
- 2) ENSURE GLASS BEADS ARE SPREAD UNIFORMLY OVER THE ENTIRE SURFACE OF PAVEMENT MARKING.
- 3) MILL RUMBLES EVERY OTHER SKIP AS SHOWN.
- 4) SEE PLANS FOR MARKING THICKNESS

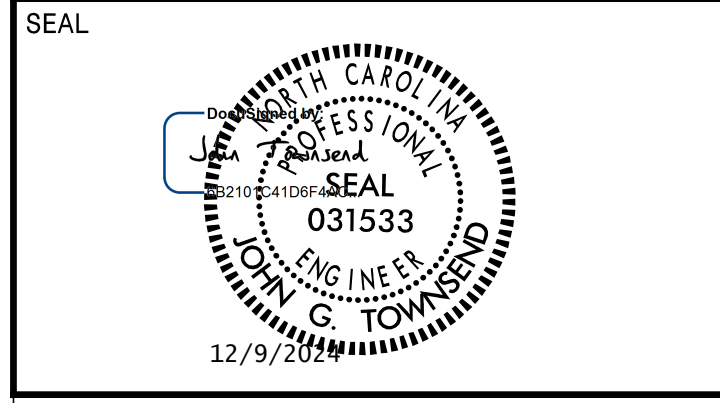
CONTRACTS STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-8950 FAX 919-250-4119	
DETAIL OF MILLED RUMBLE SKIPS	
ORIGINAL BY: rgwatson	DATE: 02-06-2024
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC.:	

PAVEMENT MARKING SCHEDULE

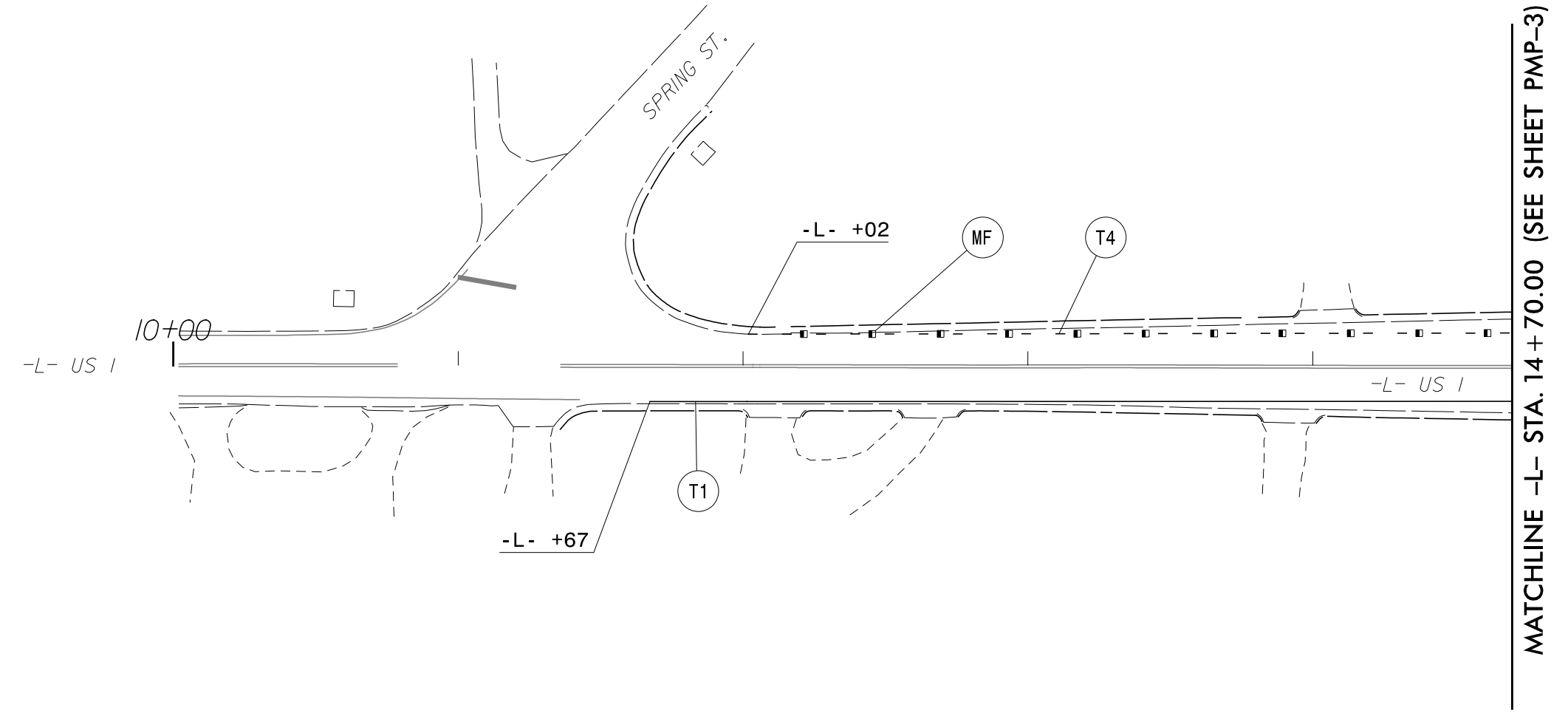
SYMBOL	DESCRIPTION
THERMOPLASTIC	
T1	WHITE EDGELINE (4", 90 MIL)
T2	WHITE SOLID LANE LINE (4", 90 MIL)
T3	10 FT. WHITE SKIP (4", 90 MIL)
T4	3 FT. - 9 FT./SP WHITE MINISKIP (4", 90 MIL)
T5	2 FT. - 6 FT./SP WHITE MINISKIP (4", 90 MIL)
T10	YELLOW EDGELINE (4", 90 MIL)
T11	YELLOW SINGLE CENTER (4", 90 MIL)
T12	10 FT. YELLOW SKIP (4", 90 MIL)
T13	YELLOW DOUBLE CENTER (4", 90 MIL)
T14	2 FT. - 6 FT./SP YELLOW MINISKIP (4", 90 MIL)
T20	WHITE EDGELINE (6", 90 MIL)
T23	3 FT. - 9 FT./SP WHITE MINISKIP (6", 90 MIL)
T30	YELLOW EDGELINE (6", 90 MIL)
T40	WHITE GORELINE (8", 90 MIL)
T45	3 FT. - 3 FT./SP WHITE MINISKIP (8", 90 MIL)
T50	WHITE GORELINE (12", 90 MIL)
T51	WHITE DIAGONAL (12", 90 MIL)
T52	YELLOW DIAGONAL (12", 90 MIL)
T61	WHITE STOPBAR (24", 90 MIL)
	LEFT TURN ARROW (90 MIL)
	RIGHT TURN ARROW (90 MIL)
	U-TURN ARROW (90 MIL)
	MERGE ARROW (90 MIL)
	24" YIELD LINE TRIANGLE (90 MIL)
	FISH-HOOK W/CIRCLE LEFT/STRAIGHT ARROW (90 MIL)
COLD APPLIED PLASTIC, TYPE 2	
C1	WHITE EDGELINE (4")
C10	YELLOW EDGELINE (4")
C51	WHITE DIAGONAL (12")
PAVEMENT MARKERS	
ME	SNOWPLOWABLE MARKER, YELLOW & YELLOW
MF	SNOWPLOWABLE MARKER, CRYSTAL & RED

TIP NO.	SHEET NO.
I-5979	PMP-2

APPROVED: _____
 DATE: _____



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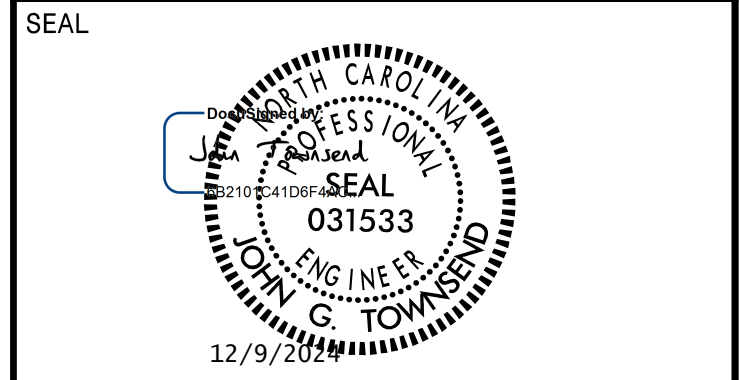
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PAVEMENT MARKING DETAIL

MATCHLINE -L- STA. 14 + 70.00 (SEE SHEET PMP-3)

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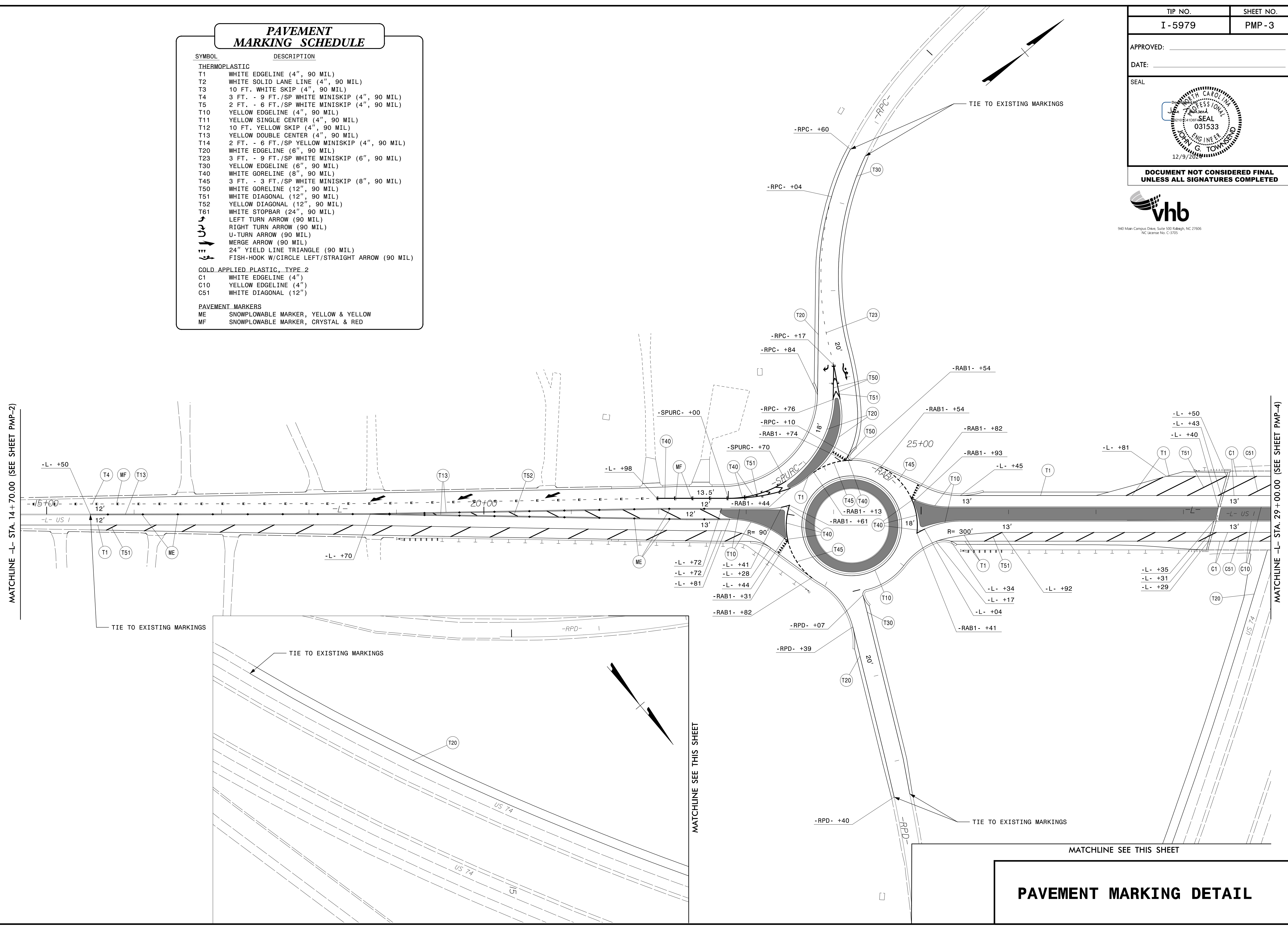
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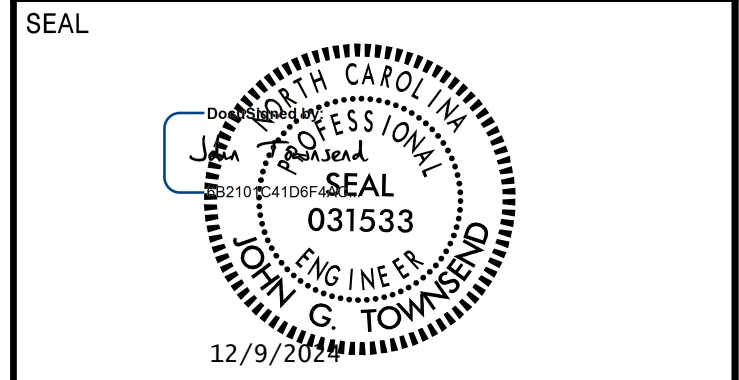
PAVEMENT MARKING SCHEDULE	
SYMBOL	DESCRIPTION
THERMOPLASTIC	
T1	WHITE EDGELINE (4", 90 MIL)
T2	WHITE SOLID LANE LINE (4", 90 MIL)
T3	10 FT. WHITE SKIP (4", 90 MIL)
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T10	YELLOW EDGELINE (4", 90 MIL)
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T12	10 FT. YELLOW SKIP (4", 90 MIL)
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	LEFT TURN ARROW (90 MIL)
	RIGHT TURN ARROW (90 MIL)
	U-TURN ARROW (90 MIL)
	MERGE ARROW (90 MIL)
	24" YIELD LINE TRIANGLE (90 MIL)
	FISH-HOOK W/CIRCLE LEFT/STRAIGHT ARROW (90 MIL)
COLD APPLIED PLASTIC, TYPE 2	
C1	WHITE EDGELINE (4")
C10	YELLOW EDGELINE (4")
C51	WHITE DIAGONAL (12")
PAVEMENT MARKERS	
ME	SNOWPLOWABLE MARKER, YELLOW & YELLOW
MF	SNOWPLOWABLE MARKER, CRYSTAL & RED



12/9/2024
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User:jtrownsend

PAVEMENT MARKING DETAIL

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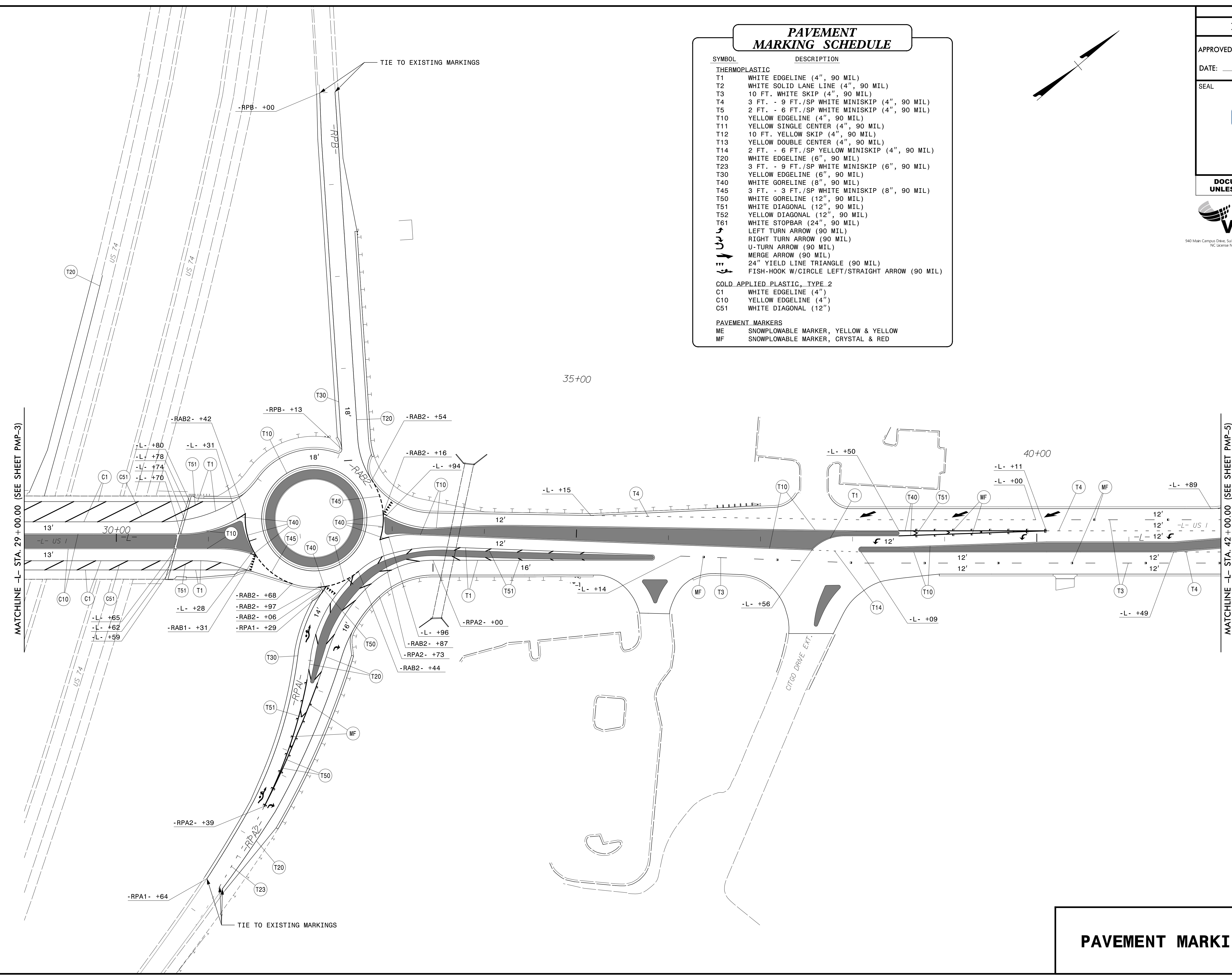
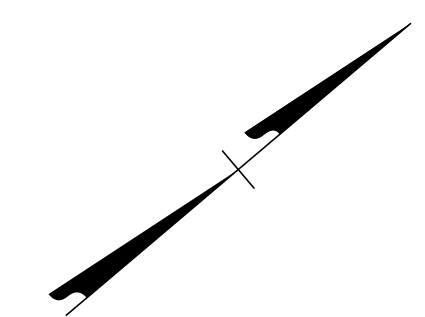


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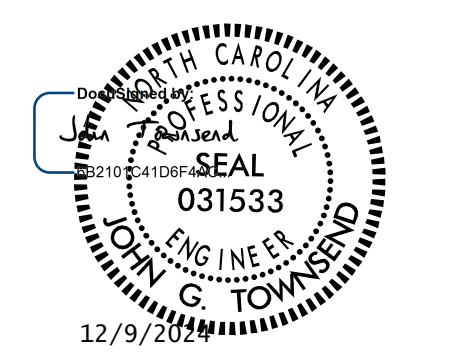
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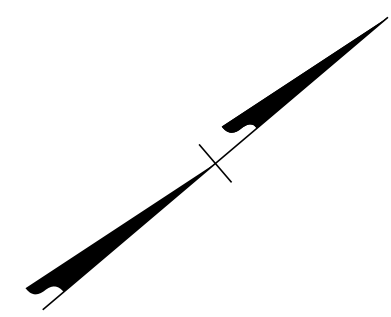
SYMBOL	DESCRIPTION
THERMOPLASTIC	
T1	WHITE EDGELINE (4", 90 MIL)
T2	WHITE SOLID LANE LINE (4", 90 MIL)
T3	10 FT. WHITE SKIP (4", 90 MIL)
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	MERGE ARROW (90 MIL)
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	FISH-HOOK W/CIRCLE LEFT/STRAIGHT ARROW (90 MIL)
COLD APPLIED PLASTIC, TYPE 2	
C1	WHITE EDGELINE (4")
C10	YELLOW EDGELINE (4")
C51	WHITE DIAGONAL (12")
PAVEMENT MARKERS	
ME	SNOWPLOWABLE MARKER, YELLOW & YELLOW
MF	SNOWPLOWABLE MARKER, CRYSTAL & RED



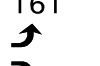




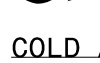
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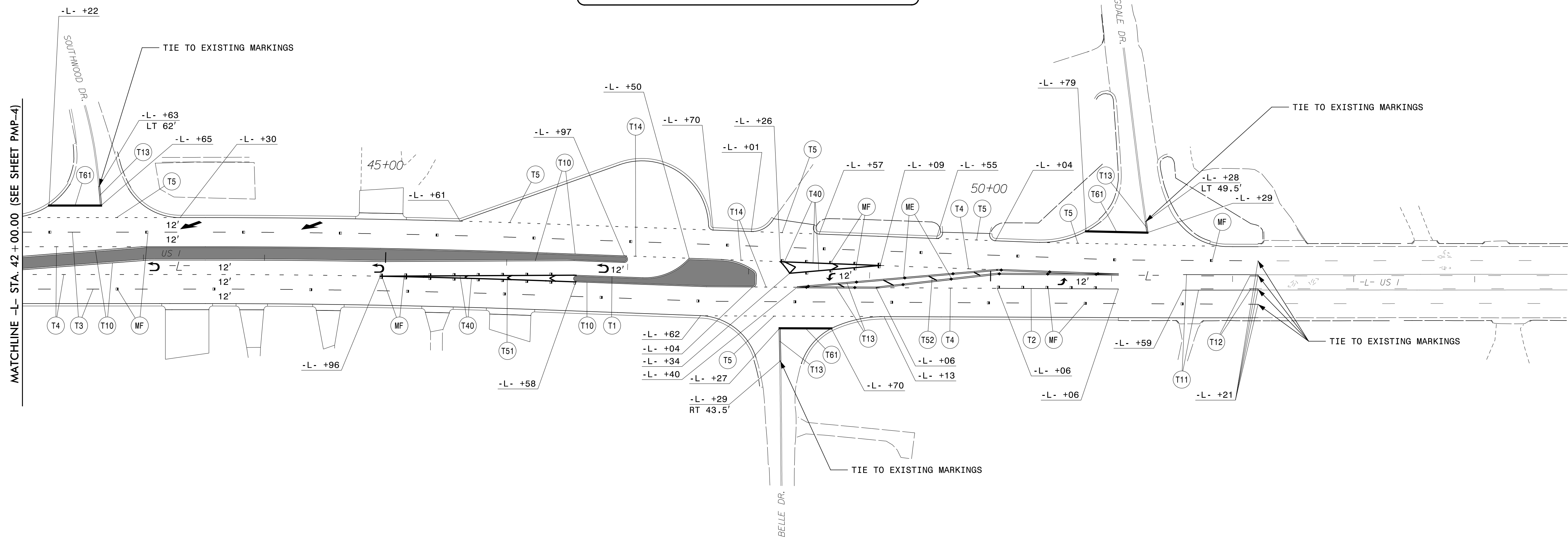
PAVEMENT MARKING DETAIL

TIP NO. I-5979	SHEET NO. PMP-5
APPROVED: _____	
DATE: _____	
SEAL 	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



PAVEMENT MARKING SCHEDULE

SYMBOL	DESCRIPTION
THERMOPLASTIC	
T1	WHITE EDGELINE (4", 90 MIL)
T2	WHITE SOLID LANE LINE (4", 90 MIL)
T3	10 FT. WHITE SKIP (4", 90 MIL)
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T51	WHITE DIAGONAL (12", 90 MIL)
T52	YELLOW DIAGONAL (12", 90 MIL)
T61	WHITE STOPBAR (24", 90 MIL)
	LEFT TURN ARROW (90 MIL)
	RIGHT TURN ARROW (90 MIL)
	U-TURN ARROW (90 MIL)
	MERGE ARROW (90 MIL)
	24" YIELD LINE TRIANGLE (90 MIL)
	FISH-HOOK W/CIRCLE LEFT/STRAIGHT ARROW (90 MIL)
GOLD APPLIED PLASTIC, TYPE 2	
C1	WHITE EDGELINE (4")
C10	YELLOW EDGELINE (4")
C51	WHITE DIAGONAL (12")
PAVEMENT MARKERS	
ME	SNOWPLOWABLE MARKER, YELLOW & YELLOW
MF	SNOWPLOWABLE MARKER, CRYSTAL & RED



12/9/2024
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User:jtrownsend

PAVEMENT MARKING DETAIL