

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION 6

PLANS

Letting Date: MARCH 20, 2024

CONTRACT ID: DF00470

TIP NO.: HS-2006H, HS-2006M, HS-2006W, HS-2006Y, SS-6206AH & SS-6006BE

FEDERAL AID NO.: HSIP-0024(093), HSIP-1325(008), HSIP-4931(201), HSIP-4931(203)

WBS ELEMENT NO.: 49312.3.12, 49312.3.17, 49312.3.27, 49312.3.29, 51293, 49817.3.1

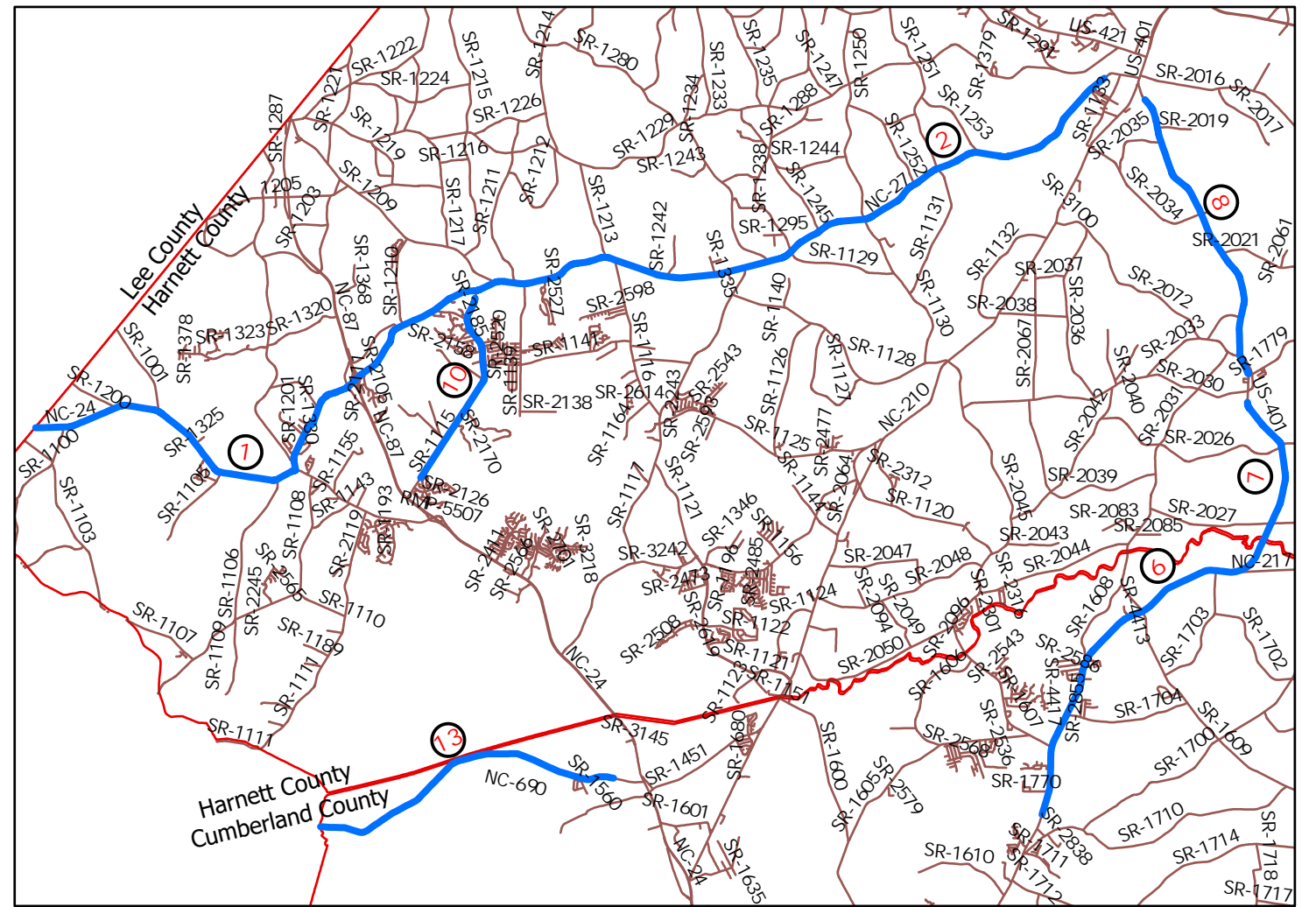
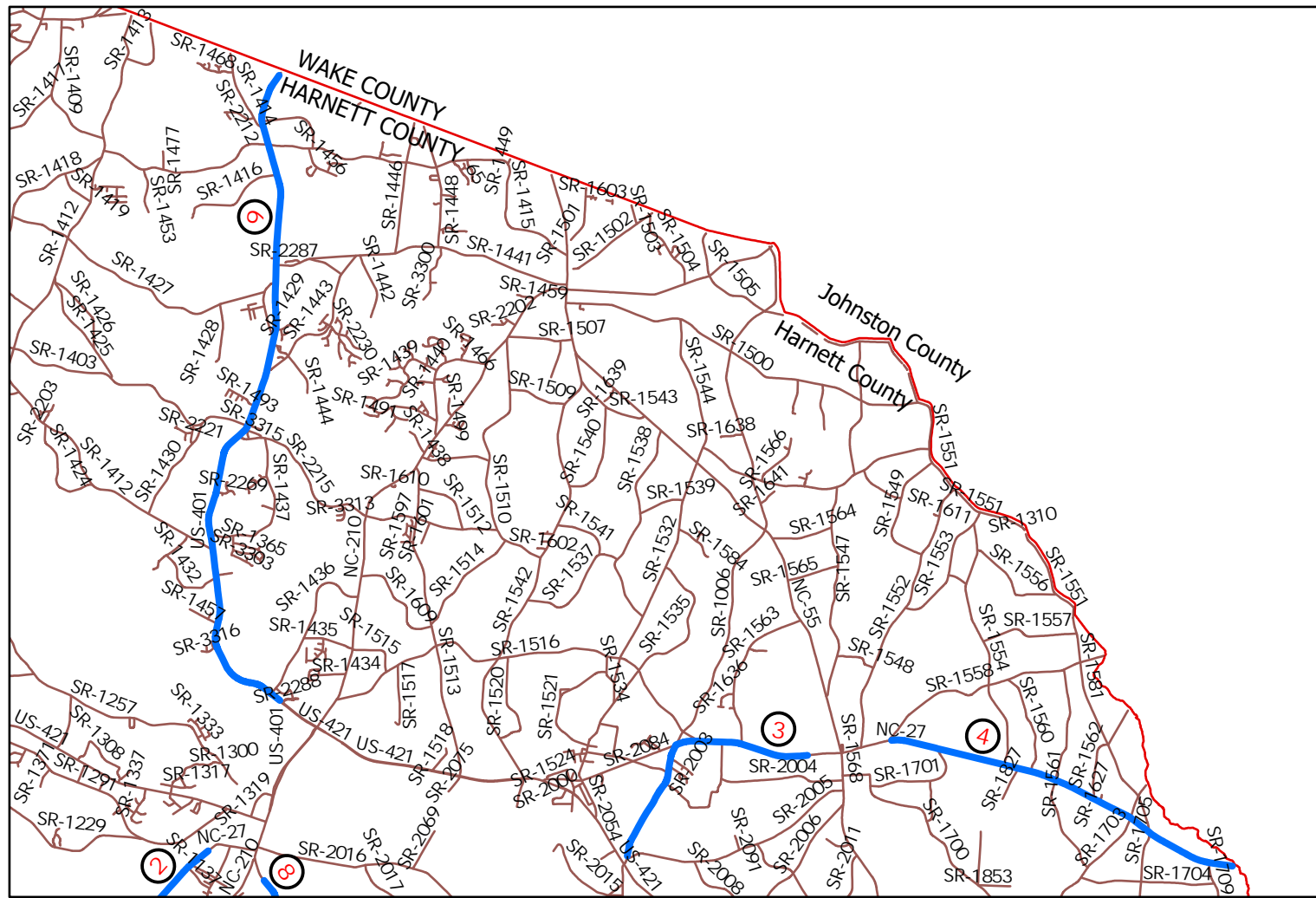
ROUTE NO.: NC 24, NC 27, SR 1325, US 401, SR 1115, NC 690, NC 20

LOCATION: VARIOUS

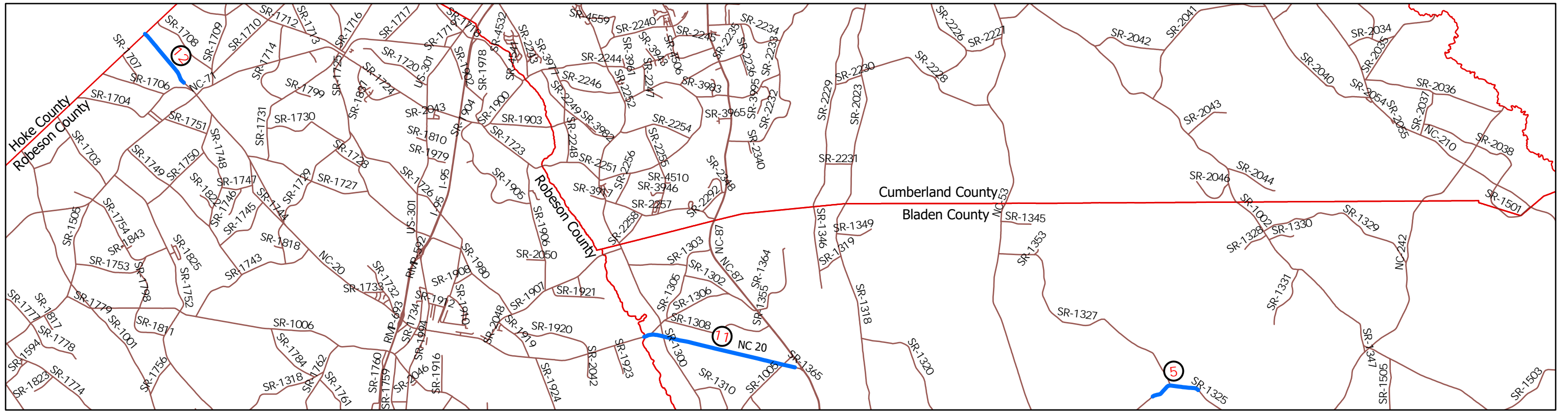
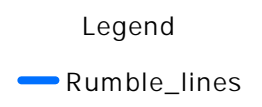
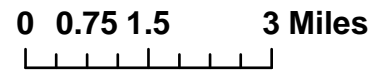
COUNTY: CUMBERLAND, HARNETT, ROBESON & BLADEN

LENGTH OF PROJECT: 76.05 MILES

TYPE OF WORK: WIDENING, SINUSOIDAL MILLED RUMBLE STRIPES & PAVEMENT MARKINGS



Rumble Limits Map

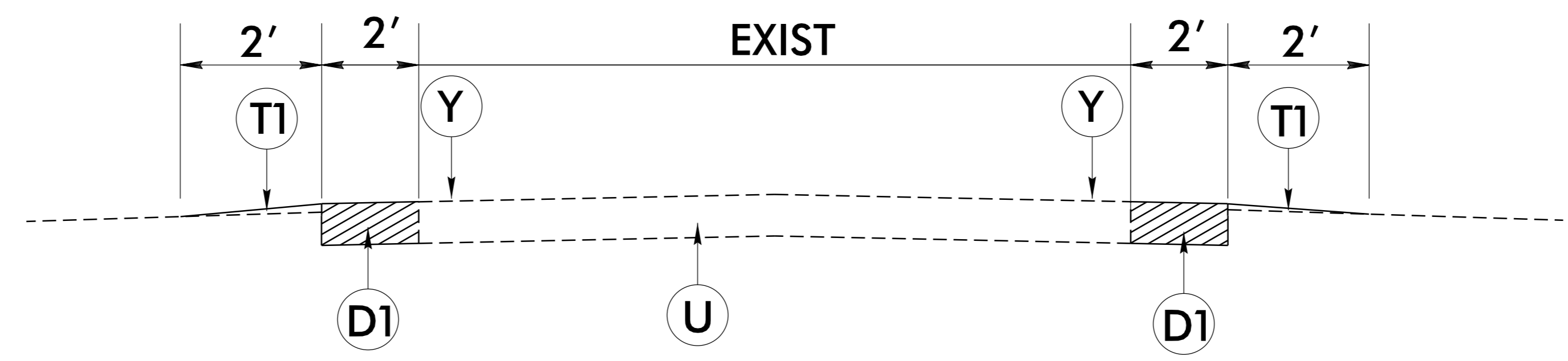


County	Map_Number	Route_ID	Description	From	To	WBS	TIP
Harnett	1	30000024043	NC 24/27 Center and Edge Line Rumbles with 6" Thermo from Moore County to where routes split	0	5.67	49312.3.12	HS-2006H
Harnett	2	30000027043	NC 27 Center and Edge Line Rumbles with 6" Thermo from NC 24 to Lillington	5.67	24.64	49312.3.12	HS-2006H
Harnett	3	30000027043	NC 27 Center and Edge Line Rumbles with 6" Thermo from US 421 to Coats	32.5	36.12	49312.3.12	HS-2006H
Harnett	4	30000027043	NC 27 Center and Edge Line Rumbles with 6" Thermo from Coats to Johnston County	37.33	42.51	49312.3.12	HS-2006H
Bladen	5	40001325009	SR 1325 (Gum Springs Rd) Widen to 4' Paved Shoulders. Edge Line Rumbles with 4" Thermo	3.2	4.4	49312.3.17	HS-2006M
Cumberland	6	20000401026	US 401 Center and Edge Line Rumbles with 6" Thermo from Fayetteville to Harnett County	20.2	27.7	49312.3.27	HS-2006W
Harnett	7	20000401043	US 401 Center and Edge Line Rumbles with 6" Thermo from Cumberland County to Bunn Level	0	3	49312.3.27	HS-2006W
Harnett	8	20000401043	US 401 Center and Edge Line Rumbles with 6" Thermo from Bunn Level to Lillington	3.55	9.43	49312.3.27	HS-2006W
Harnett	9	20000401043	US 401 Center and Edge Line Rumbles with 6" Thermo from Lillington to Wake County	12.5	22.1	49312.3.27	HS-2006W
Harnett	10	40001115043	SR 1115 (Buffalo Lake Rd) Center and Edge Line Rumbles with 6" Thermo from NC 27 to NC 87	0.15	4.1	49312.3.29	HS-2006Y
Bladen	11	30000020009	NC 20 Edge Line Rumbles with 4" Thermo from Robeson County to NC 87	0	3.7	49817.3.1	SS-6006BE
Robeson	12	30000020078	NC 20 Edge Line Rumbles with 4" Thermo from Hoke County to Lumber Bridge	0	1.5	49817.3.1	SS-6006BE
Cumberland	13	30000690026	NC 690 (Vass Rd) Center and Edge Line Rumbles with 6" Thermo from Moore County to NC 24/87	0	6.28	51293	SS-6206AH

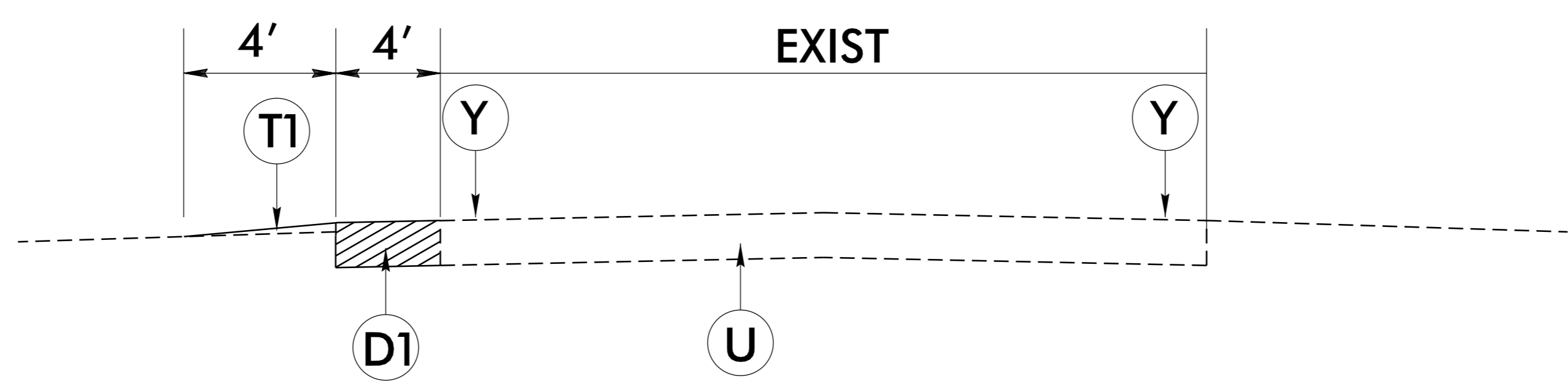
PAVEMENT SCHEDULE

D1	4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION WITH AGGREGATE SHOULDER BORROW
U	EXISTING ASPHALT PAVEMENT
Y	RUMBLE STRIPES (SEE DETAIL IN PLANS)

FOR USE WITH MAP 5
SR 1325 (GUM SPRINGS ROAD)



TYPICAL SECTION NO. 1
MILE POST 3.2 to 3.44
MILE POST 4.27 to 4.4



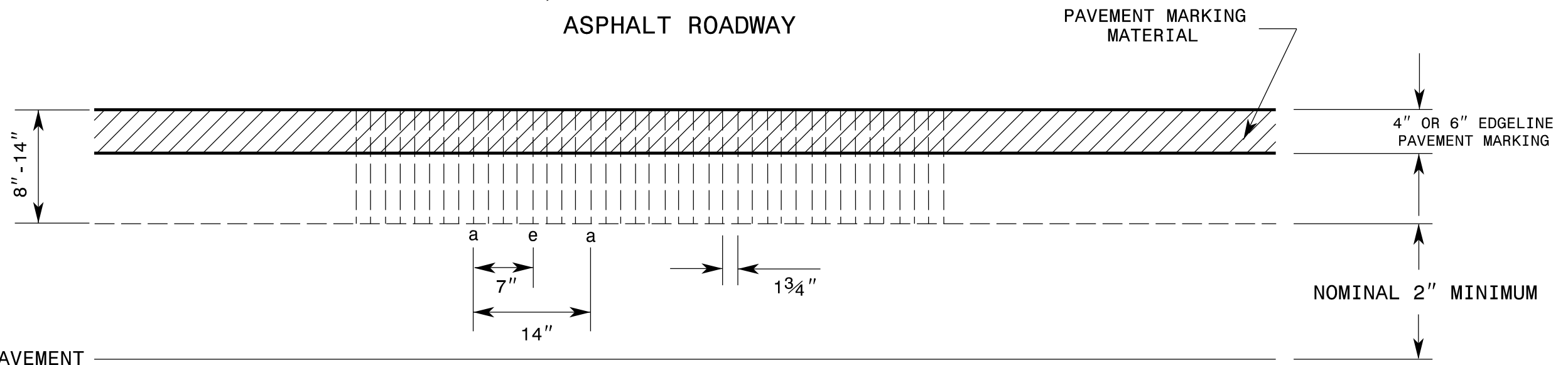
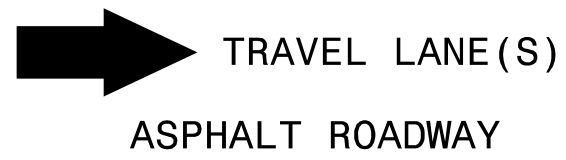
TYPICAL SECTION NO. 2
MILE POST 3.55 to 3.72

6/2/99

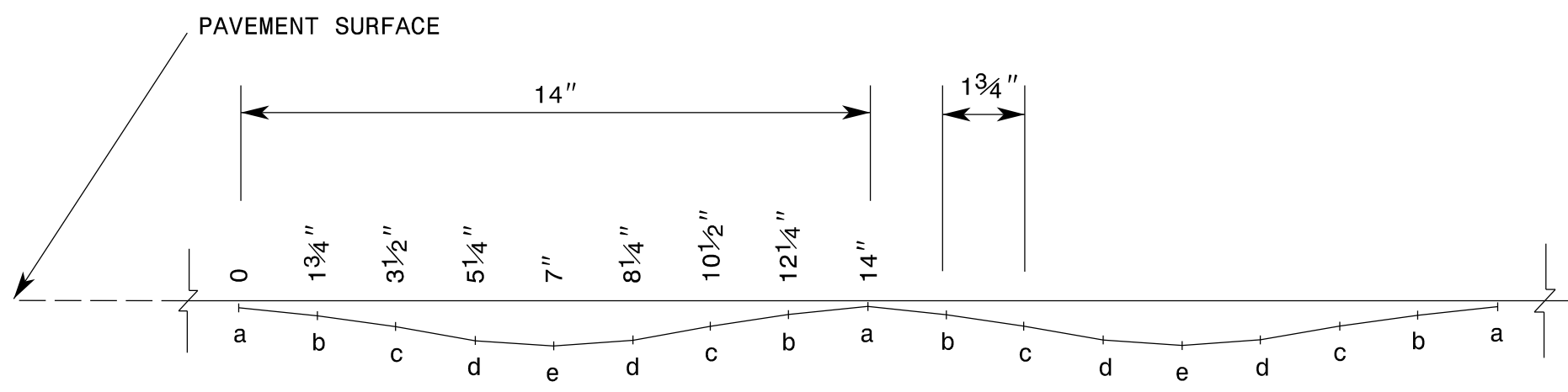
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See Table 1 within Rumble Strip Policy for Design Guidance

PLAN VIEW



PROFILE VIEW



LOCATION	DEPTH	
	MIL	INCHES
a	62.5	1/16"
b	125	1/8"
c	219	7/32"
d	344	11/32"
e	375	3/8"

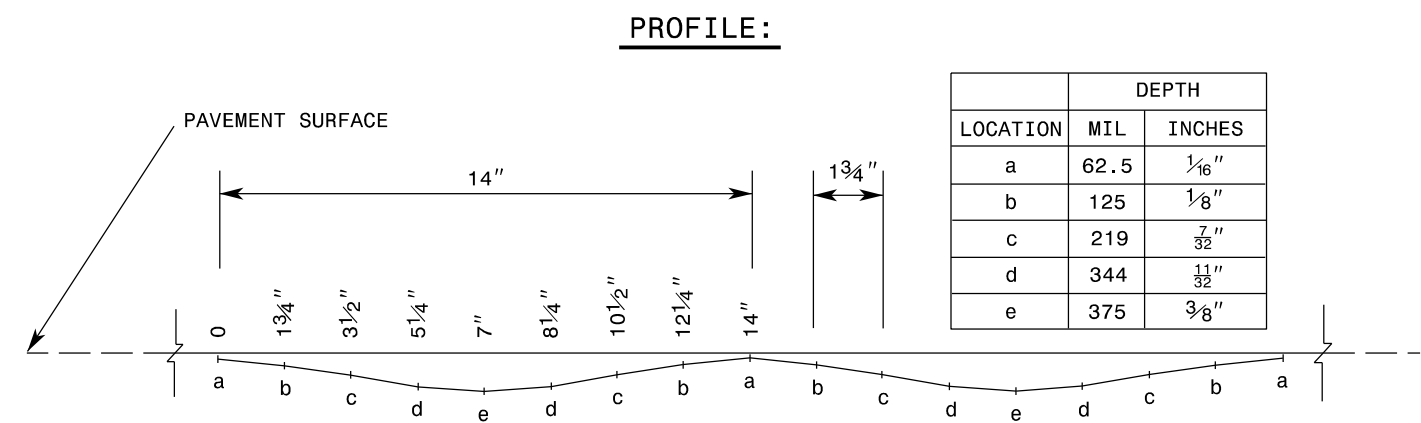
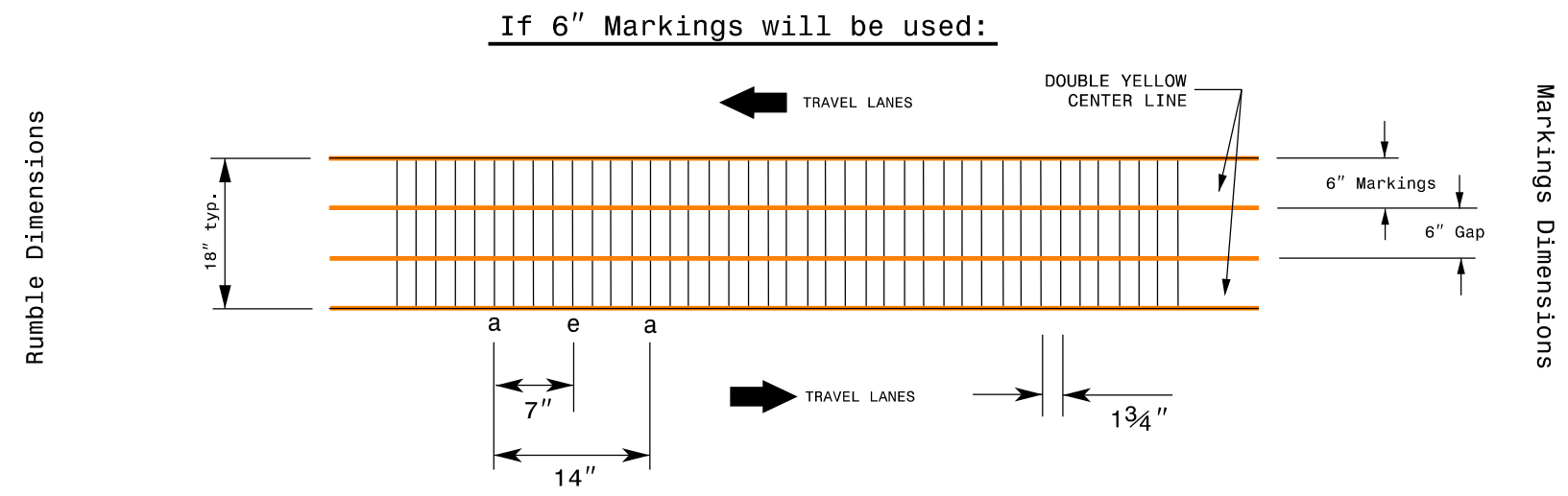
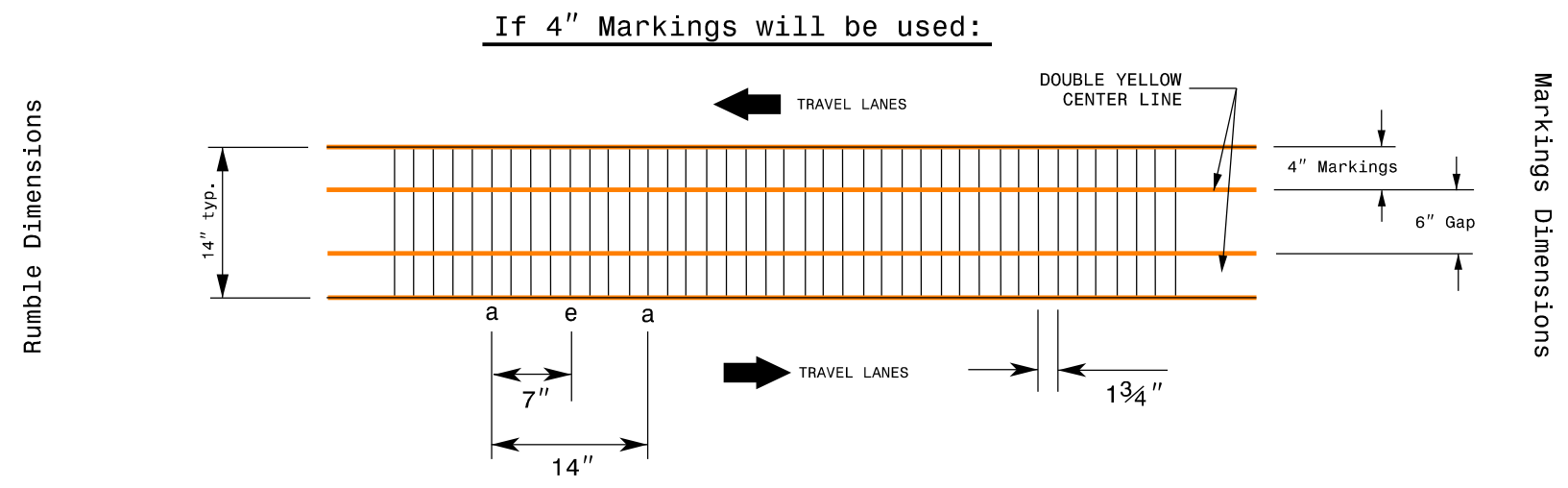
REFERENCE DRAWING ID: Sin.Stripe

DRAFT REFERENCE DRAWING: FEBRUARY 2023

NOTES:

- 1) Specification in table taken from MNDOT Research Project Final Report 2016-23: *Sinusoidal Rumble Strip Design Optimization Study By: Terhaar et. al, June 2016*
- 2) USING A VACUUM, REMOVE ALL DEBRIS FROM THE MILLINGS JUST PRIOR TO PLACING ANY PAVEMENT MARKINGS.
- 3) ENSURE GLASS BEADS ARE SPREAD UNIFORMLY OVER THE ENTIRE SURFACE OF THE PAVEMENT MARKING MATERIAL.

See Table 2 within Rumble Strip Policy for Design Guidance



REFERENCE DRAWING ID: Sin.CL

DRAFT REFERENCE DRAWING: FEBRUARY 2023

NOTES:

- 1) Specification in table taken from MNDOT Research Project Final Report 2016-23: *Sinusoidal Rumble Strip Design Optimization Study By: Terhaar et. al, June 2016*
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