

FOR INFORMATIONAL USE ONLY-DO NOT USE TO BID

DO NOT REMOVE THIS PAGE FROM BOOK

Nassau County DPW

Page 63 of 769

Contract No. H62153-13GR
Pavement Marking Improvements-Pin 13-PIN 0761.23

SCHEDULE OF PRICES						
ITEM NO.	ESTIMATED QUANTITIES	DESCRIPTION	UNIT	PRICE	TOTAL	TAXES
619.01	1 LS	Basic Work Zone Traffic Control FOR: _____				
619.24	1 LS	Nighttime Operations FOR: _____				
635.0103	860,640 LF	Remove Existing Pavement Marking Striping FOR: _____				
635.0203	227 EA	Remove Existing Pavement Marking Letters FOR: _____				
635.0303	515 EA	Remove Existing Pavement Marking Symbols FOR: _____				
685.07200110	371,600 LF	White Epoxy Reflectorized Pavement Stripes - 20 MILS (Wet Night Visibility Spheres) FOR: _____				
685.07200210	227 EA	White Epoxy Reflectorized Pavement Letters:20 MILS (Wet Night Visibility Spheres) FOR: _____				

DO NOT REMOVE THIS PAGE FROM BOOK

Nassau County DPW

Page 65 of 769

Contract No. H62153-13GR
Pavement Marking Improvements-PH 13-PIN 0761.23

SCHEDULE OF PRICES						
ITEM NO.	ESTIMATED QUANTITIES					
685.07200310	508 EA	White Epoxy ReflectORIZED Pavement Symbols: 20 MILS (Wet Night Visibility Spheres) FOR: _____				
685.07200410	39,970 LF	White Epoxy ReflectORIZED Pavement Stripes - 20 MILS Cross Hatching (Wet Night Visibility Spheres) FOR: _____				
685.07200510	121,060 LF	White Epoxy ReflectORIZED Pavement Stripes - 20 MILS Special Markings (Wet Night Visibility Spheres) FOR: _____				
685.07200610	318,630 LF	Yellow Epoxy ReflectORIZED Pavement Stripes - 20 MILS (Wet Night Visibility Spheres) FOR: _____				
685.07200710	9,230 LF	Yellow Epoxy ReflectORIZED Pavement Stripes - 20 MILS Cross Hatching (Wet Night Visibility Spheres) FOR: _____				
685.07200810	0 EA	White Epoxy ReflectORIZED Pavement Markings - 20 MILS Yield Line Symbol – Small - (Wet Night Visibility Spheres) FOR: _____				

DO NOT REMOVE THIS PAGE FROM BOOK

Nassau County DPW

SCHEDULE OF PRICES					
ITEM NO.	ESTIMATED QUANTITIES				

685.07200910	0 EA	White Epoxy ReflectORIZED Pavement Markings - 20 MILS Yield Line Symbol – Large - (Wet Night Visibility Spheres) FOR: _____			
699.040001	1 LS	Mobilization FOR: _____			

Page 67 of 769

Contract No. H62153-13GR
Pavement Marking Improvements-Ph 13-PIN 0761.23

ESTIMATE OF QUANTITIES FOR NASSAU COUNTY PAVEMENT MARKING PHASE 13 MARCH 2022		COUNTY OF NASSSAU DEPARTMENT OF PUBLIC WORKS 1194 PROSPECT AVENUE WESTBURY, NY 11590-2723	
ITEM NO.	GENERAL DESCRIPTION OF WORK	UNIT	QUANTITY
619.01	Work Zone Traffic Control	LS	1
619.24	Nighttime Operations	LS	1
635.0103	Cleaning And Preparation Of Pavement for Pavement Marking - Stripes	LF	860,640
635.0203	Cleaning And Preparation Of Pavement for Pavement Marking - Letters	EA	227
635.0303	Cleaning And Preparation Of Pavement for Pavement Marking - Symbols	EA	515
685.07200110	White Epoxy ReflectORIZED Pavement Stripes -20 mils (Wet Night Visibility Spheres)	LF	371,600
685.07200210	White Epoxy ReflectORIZED Pavement Letters -20 mils (Wet Night Visibility Spheres)	EA	227
685.07200310	White Epoxy ReflectORIZED Pavement Symbols -20 mils (Wet Night Visibility Spheres)	EA	508
685.07200410	White Epoxy ReflectORIZED Pavement Stripes -20 mils Cross Hatching (Wet Night Visibility Spheres) <i>(Parking Deliniation and Restiction, Chevron Markings)</i>	LF	39,970
685.07200510	White Epoxy ReflectORIZED Pavement Stripes -20 mils Special Markings (Wet Night Visibility Spheres) <i>(Crosswalk, Stop Lines, Grid Box, RXR)</i>	LF	121,060
685.07200610	Yellow Epoxy ReflectORIZED Pavement Stripes -20 mils (Wet Night Visibility Spheres)	LF	318,630
685.07200710	Yellow Epoxy ReflectORIZED Pavement Stripes -20 mils Cross Hatching (Wet Night Visibility Spheres)	LF	9,230
685.07200810	White Epoxy ReflectORIZED Pavement Markings Yield Line Symbols - Small - 20 mils (Wet Night Visibility Spheres)	EA	0
685.07200910	White Epoxy ReflectORIZED Pavement Markings Yield Line Symbols - Large - 20 mils (Wet Night Visibility Spheres)	EA	0
699.040001	Mobilization	LS	1

BABYLON TURNPIKE - Minor Arterial, FC #16			
START	END	ITEM 685.07200XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS - 20 MILS (WET NIGHT VISIBILITY SPHERES)	QUANTITY
MP 0.00 Nassau Road Roosevelt	MP 2.61 Merrick Road Merrick	685.07200110 - White Epoxy ReflectORIZED Pavement Stripes	30,280
		685.07200210 - White Epoxy ReflectORIZED Pavement Stripes - Letters	0
		685.07200310 - White Epoxy ReflectORIZED Pavement Stripes - Symbols	23
		685.07200410 - White Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	2,860
		685.07200510 - White Epoxy ReflectORIZED Pavement Stripes - Special Markings	6,570
Length (Miles):	2.61 Miles	685.07200610 - Yellow Epoxy ReflectORIZED Pavement Stripes - Stripes	28,370
		685.07200710 - Yellow Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	180
		685.07200810 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Small	0
		685.07200910 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Large	0

BELLMORE AVENUE - Minor Arterial, FC #16			
START	END	ITEM 685.07200XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS - 20 MILS (WET NIGHT VISIBILITY SPHERES)	QUANTITY
MP 0.34 NY 27 Bellmore	MP 2.31 Jerusalem Avenue Bellmore	685.07200110 - White Epoxy ReflectORIZED Pavement Stripes	27,150
		685.07200210 - White Epoxy ReflectORIZED Pavement Stripes - Letters	0
		685.07200310 - White Epoxy ReflectORIZED Pavement Stripes - Symbols	0
		685.07200410 - White Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	950
		685.07200510 - White Epoxy ReflectORIZED Pavement Stripes - Special Markings	5,940
Length (Miles):	1.97 Miles	685.07200610 - Yellow Epoxy ReflectORIZED Pavement Stripes - Stripes	21,500
		685.07200710 - Yellow Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	0
		685.07200810 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Small	0
		685.07200910 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Large	0

BROADWAY - Minor Arterial, FC #16			
START	END	ITEM 685.07200XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS - 20 MILS (WET NIGHT VISIBILITY SPHERES)	QUANTITY
MP 2.37 Woodmere Boulevard Woodmere	MP 3.21 West Broadway Hewlett	685.07200110 - White Epoxy ReflectORIZED Pavement Stripes	9,370
		685.07200210 - White Epoxy ReflectORIZED Pavement Stripes - Letters	0
		685.07200310 - White Epoxy ReflectORIZED Pavement Stripes - Symbols	10
		685.07200410 - White Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	1,130
		685.07200510 - White Epoxy ReflectORIZED Pavement Stripes - Special Markings	5,530
Length (Miles):	0.84 Miles	685.07200610 - Yellow Epoxy ReflectORIZED Pavement Stripes - Stripes	9,490
		685.07200710 - Yellow Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	0
		685.07200810 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Small	0
		685.07200910 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Large	0

BURNSIDE AVENUE - Minor Arterial, FC #16			
START	END	ITEM 685.07200XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS - 20 MILS (WET NIGHT VISIBILITY SPHERES)	QUANTITY
MP 0.32 Nassau Expressway Lawrence	MP 0.62 Rockaway Turnpike Lawrence	685.07200110 - White Epoxy ReflectORIZED Pavement Stripes	4,480
		685.07200210 - White Epoxy ReflectORIZED Pavement Stripes - Letters	0
		685.07200310 - White Epoxy ReflectORIZED Pavement Stripes - Symbols	12
		685.07200410 - White Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	0
		685.07200510 - White Epoxy ReflectORIZED Pavement Stripes - Special Markings	940
Length (Miles):	0.30 Miles	685.07200610 - Yellow Epoxy ReflectORIZED Pavement Stripes - Stripes	3,160
		685.07200710 - Yellow Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	0
		685.07200810 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Small	0
		685.07200910 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Large	0

EARL OVINGTON BOULEVARD - Minor Arterial, FC #16			
START	END	ITEM 685.07200XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS - 20 MILS (WET NIGHT VISIBILITY SPHERES)	QUANTITY
MP 0.00 NY 24 Uniondale	MP 0.24 Charles Lindbergh Boulevard Uniondale	685.07200110 - White Epoxy ReflectORIZED Pavement Stripes	6,570
		685.07200210 - White Epoxy ReflectORIZED Pavement Stripes - Letters	8
		685.07200310 - White Epoxy ReflectORIZED Pavement Stripes - Symbols	34
		685.07200410 - White Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	510
		685.07200510 - White Epoxy ReflectORIZED Pavement Stripes - Special Markings	4,390
Length (Miles):	0.24 Miles	685.07200610 - Yellow Epoxy ReflectORIZED Pavement Stripes - Stripes	2,730
		685.07200710 - Yellow Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	0
		685.07200810 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Small	0
		685.07200910 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Large	0

EAST MARIE STREET - Minor Arterial, FC #16			
START	END	ITEM 685.07200XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS - 20 MILS (WET NIGHT VISIBILITY SPHERES)	QUANTITY
MP 0.00 LIRR Overpass Hicksville	MP 0.26 Park Avenue Hicksville	685.07200110 - White Epoxy ReflectORIZED Pavement Stripes	2,930
		685.07200210 - White Epoxy ReflectORIZED Pavement Stripes - Letters	0
		685.07200310 - White Epoxy ReflectORIZED Pavement Stripes - Symbols	4
		685.07200410 - White Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	500
		685.07200510 - White Epoxy ReflectORIZED Pavement Stripes - Special Markings	1,760
		685.07200610 - Yellow Epoxy ReflectORIZED Pavement Stripes - Stripes	3,000
Length (Miles):	0.26 Miles	685.07200710 - Yellow Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	50
		685.07200810 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Small	0
		685.07200910 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Large	0

EAST SHORE ROAD - Minor Arterial, FC #16			
START	END	ITEM 685.07200XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS - 20 MILS (WET NIGHT VISIBILITY SPHERES)	QUANTITY
MP 0.00 NY 25A Manhasset	MP 1.64 Station Road Great Neck	685.07200110 - White Epoxy ReflectORIZED Pavement Stripes	23,520
		685.07200210 - White Epoxy ReflectORIZED Pavement Stripes - Letters	12
		685.07200310 - White Epoxy ReflectORIZED Pavement Stripes - Symbols	37
		685.07200410 - White Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	650
		685.07200510 - White Epoxy ReflectORIZED Pavement Stripes - Special Markings	5,250
		685.07200610 - Yellow Epoxy ReflectORIZED Pavement Stripes - Stripes	18,010
Length (Miles):	1.64 Miles	685.07200710 - Yellow Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	410
		685.07200810 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Small	0
		685.07200910 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Large	0

FOREST AVENUE - Minor Arterial, FC #16			
START	END	ITEM 685.07200XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS - 20 MILS (WET NIGHT VISIBILITY SPHERES)	QUANTITY
MP 1.76 Weir Lane Locust Valley	MP 2.06 Buckram Road Locust Valley	685.07200110 - White Epoxy ReflectORIZED Pavement Stripes	3,670
		685.07200210 - White Epoxy ReflectORIZED Pavement Stripes - Letters	7
		685.07200310 - White Epoxy ReflectORIZED Pavement Stripes - Symbols	0
		685.07200410 - White Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	490
		685.07200510 - White Epoxy ReflectORIZED Pavement Stripes - Special Markings	2,720
		685.07200610 - Yellow Epoxy ReflectORIZED Pavement Stripes - Stripes	3,570
Length (Miles):	0.30 Miles	685.07200710 - Yellow Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	80
		685.07200810 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Small	0
		685.07200910 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Large	0

GARDINERS AVENUE - Minor Arterial, FC #16			
START	END	ITEM 685.07200XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS - 20 MILS (WET NIGHT VISIBILITY SPHERES)	QUANTITY
MP 0.00 North Jerusalem Avenue Levittown	MP 0.85 Halter Lane Levittown	685.07200110 - White Epoxy ReflectORIZED Pavement Stripes	10,770
		685.07200210 - White Epoxy ReflectORIZED Pavement Stripes - Letters	33
		685.07200310 - White Epoxy ReflectORIZED Pavement Stripes - Symbols	27
		685.07200410 - White Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	1,370
		685.07200510 - White Epoxy ReflectORIZED Pavement Stripes - Special Markings	3,080
		685.07200610 - Yellow Epoxy ReflectORIZED Pavement Stripes - Stripes	15,570
Length (Miles):	0.85 Miles	685.07200710 - Yellow Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	1,550
		685.07200810 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Small	0
		685.07200910 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Large	0

HEMPSTEAD AVENUE - Minor Arterial, FC #16			
START	END	ITEM 685.07200XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS - 20 MILS (WET NIGHT VISIBILITY SPHERES)	QUANTITY
MP 2.30 Carolina Avenue/Dietz Street Hempstead	MP 3.41 Peninsula Boulevard Hempstead	685.07200110 - White Epoxy ReflectORIZED Pavement Stripes	15,750
		685.07200210 - White Epoxy ReflectORIZED Pavement Stripes - Letters	0
		685.07200310 - White Epoxy ReflectORIZED Pavement Stripes - Symbols	4
		685.07200410 - White Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	650
		685.07200510 - White Epoxy ReflectORIZED Pavement Stripes - Special Markings	5,420
		685.07200610 - Yellow Epoxy ReflectORIZED Pavement Stripes - Stripes	12,520
Length (Miles):	1.11 Miles	685.07200710 - Yellow Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	60
		685.07200810 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Small	0
		685.07200910 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Large	0

HICKSVILLE-PLAINVIEW ROAD - Minor Arterial, FC #16			
START	END	ITEM 685.07200XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS - 20 MILS (WET NIGHT VISIBILITY SPHERES)	QUANTITY
MP 0.26 Park Avenue Hicksville	MP 1.09 South Oyster Bay Road Plainview	685.07200110 - White Epoxy ReflectORIZED Pavement Stripes	9,390
		685.07200210 - White Epoxy ReflectORIZED Pavement Stripes - Letters	0
		685.07200310 - White Epoxy ReflectORIZED Pavement Stripes - Symbols	13
		685.07200410 - White Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	700
		685.07200510 - White Epoxy ReflectORIZED Pavement Stripes - Special Markings	1,110
		685.07200610 - Yellow Epoxy ReflectORIZED Pavement Stripes - Stripes	8,960
Length (Miles):	0.83 Miles	685.07200710 - Yellow Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	270
		685.07200810 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Small	0
		685.07200910 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Large	0

MEACHAM AVENUE - Minor Arterial, FC #16			
START	END	ITEM 685.07200XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS - 20 MILS (WET NIGHT VISIBILITY SPHERES)	QUANTITY
MP 0.00 Dutch Broadway Elmont	MP 1.53 NY 24 Elmont	685.07200110 - White Epoxy ReflectORIZED Pavement Stripes	16,190
		685.07200210 - White Epoxy ReflectORIZED Pavement Stripes - Letters	0
		685.07200310 - White Epoxy ReflectORIZED Pavement Stripes - Symbols	1
		685.07200410 - White Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	4,500
		685.07200510 - White Epoxy ReflectORIZED Pavement Stripes - Special Markings	2,100
		685.07200610 - Yellow Epoxy ReflectORIZED Pavement Stripes - Stripes	16,560
Length (Miles):	1.53 Miles	685.07200710 - Yellow Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	0
		685.07200810 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Small	0
		685.07200910 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Large	0

NASSAU BOULEVARD - Minor Arterial, FC #16			
START	END	ITEM 685.07200XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS - 20 MILS (WET NIGHT VISIBILITY SPHERES)	QUANTITY
MP 1.40 Greenway Street East Garden City South	MP 2.16 Cambridge Avenue Garden City South	685.07200110 - White Epoxy ReflectORIZED Pavement Stripes	8,550
		685.07200210 - White Epoxy ReflectORIZED Pavement Stripes - Letters	10
		685.07200310 - White Epoxy ReflectORIZED Pavement Stripes - Symbols	0
		685.07200410 - White Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	600
		685.07200510 - White Epoxy ReflectORIZED Pavement Stripes - Special Markings	1,340
		685.07200610 - Yellow Epoxy ReflectORIZED Pavement Stripes - Stripes	8,500
Length (Miles):	0.76 Miles	685.07200710 - Yellow Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	100
		685.07200810 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Small	0
		685.07200910 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Large	0

NASSAU BOULEVARD - Minor Arterial, FC #16			
START	END	ITEM 685.07200XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS - 20 MILS (WET NIGHT VISIBILITY SPHERES)	QUANTITY
MP 2.62 Stewart Avenue Garden City	MP 3.34 Merillion Avenue Garden City	685.07200110 - White Epoxy ReflectORIZED Pavement Stripes	10,830
		685.07200210 - White Epoxy ReflectORIZED Pavement Stripes - Letters	0
		685.07200310 - White Epoxy ReflectORIZED Pavement Stripes - Symbols	16
		685.07200410 - White Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	0
		685.07200510 - White Epoxy ReflectORIZED Pavement Stripes - Special Markings	4,400
		685.07200610 - Yellow Epoxy ReflectORIZED Pavement Stripes - Stripes	7,610
Length (Miles):	0.72 Miles	685.07200710 - Yellow Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	0
		685.07200810 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Small	0
		685.07200910 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Large	0

NORTH CENTRAL AVENUE - Minor Arterial, FC #16			
START	END	ITEM 685.07200XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS - 20 MILS (WET NIGHT VISIBILITY SPHERES)	QUANTITY
MP 0.38 Merrick Road Valley Stream	MP 1.01 Hendrickson Avenue Valley Stream	685.07200110 - White Epoxy ReflectORIZED Pavement Stripes	6,990
		685.07200210 - White Epoxy ReflectORIZED Pavement Stripes - Letters	0
		685.07200310 - White Epoxy ReflectORIZED Pavement Stripes - Symbols	7
		685.07200410 - White Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	1,900
		685.07200510 - White Epoxy ReflectORIZED Pavement Stripes - Special Markings	3,120
		685.07200610 - Yellow Epoxy ReflectORIZED Pavement Stripes - Stripes	7,350
Length (Miles):	0.63 Miles	685.07200710 - Yellow Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	90
		685.07200810 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Small	0
		685.07200910 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Large	0

NORTH JERUSALEM ROAD - Minor Arterial, FC #16			
START	END	ITEM 685.07200XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS - 20 MILS (WET NIGHT VISIBILITY SPHERES)	QUANTITY
MP 0.00 Jerusalem Avenue Merrick	MP 3.53 Sand Hill Road Levittown	685.07200110 - White Epoxy ReflectORIZED Pavement Stripes	52,160
		685.07200210 - White Epoxy ReflectORIZED Pavement Stripes - Letters	0
		685.07200310 - White Epoxy ReflectORIZED Pavement Stripes - Symbols	30
		685.07200410 - White Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	6,350
		685.07200510 - White Epoxy ReflectORIZED Pavement Stripes - Special Markings	9,070
Length (Miles):	3.53 Miles	685.07200610 - Yellow Epoxy ReflectORIZED Pavement Stripes - Stripes	39,670
		685.07200710 - Yellow Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	130
		685.07200810 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Small	0
		685.07200910 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Large	0

PENINSULA BOULEVARD - Principal Arterial-Other, FC #14			
START	END	ITEM 685.07200XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS - 20 MILS (WET NIGHT VISIBILITY SPHERES)	QUANTITY
MP 0.00 Rockaway Turnpike Lawrence	MP 2.94 Rockaway Avenue Hewlett	685.07200110 - White Epoxy ReflectORIZED Pavement Stripes	46,170
		685.07200210 - White Epoxy ReflectORIZED Pavement Stripes - Letters	88
		685.07200310 - White Epoxy ReflectORIZED Pavement Stripes - Symbols	102
		685.07200410 - White Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	11,660
		685.07200510 - White Epoxy ReflectORIZED Pavement Stripes - Special Markings	17,910
Length (Miles):	2.94 Miles	685.07200610 - Yellow Epoxy ReflectORIZED Pavement Stripes - Stripes	34,840
		685.07200710 - Yellow Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	1,400
		685.07200810 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Small	0
		685.07200910 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Large	0

POST AVENUE - Minor Arterial, FC #16			
START	END	ITEM 685.07200XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS - 20 MILS (WET NIGHT VISIBILITY SPHERES)	QUANTITY
MP 6.99 LIRR Overpass Westbury	MP 7.72 Northern State Parkway WB Entrance/Exit Westbury	685.07200110 - White Epoxy ReflectORIZED Pavement Stripes	8,400
		685.07200210 - White Epoxy ReflectORIZED Pavement Stripes - Letters	30
		685.07200310 - White Epoxy ReflectORIZED Pavement Stripes - Symbols	18
		685.07200410 - White Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	2,020
		685.07200510 - White Epoxy ReflectORIZED Pavement Stripes - Special Markings	16,730
Length (Miles):	0.73 Miles	685.07200610 - Yellow Epoxy ReflectORIZED Pavement Stripes - Stripes	7,700
		685.07200710 - Yellow Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	990
		685.07200810 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Small	0
		685.07200910 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Large	0

ROCKAWAY TURNPIKE - Minor Arterial, FC #16			
START	END	ITEM 685.07200XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS - 20 MILS (WET NIGHT VISIBILITY SPHERES)	QUANTITY
MP 0.63 West Broadway Lawrence	MP 0.95 Peninsula Boulevard Lawrence	685.07200110 - White Epoxy ReflectORIZED Pavement Stripes	5,520
		685.07200210 - White Epoxy ReflectORIZED Pavement Stripes - Letters	16
		685.07200310 - White Epoxy ReflectORIZED Pavement Stripes - Symbols	31
		685.07200410 - White Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	0
		685.07200510 - White Epoxy ReflectORIZED Pavement Stripes - Special Markings	2,310
Length (Miles):	0.32 Miles	685.07200610 - Yellow Epoxy ReflectORIZED Pavement Stripes - Stripes	3,570
		685.07200710 - Yellow Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	50
		685.07200810 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Small	0
		685.07200910 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Large	0

SEAMANS NECK ROAD - Major Collector, FC #17			
START	END	ITEM 685.07200XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS - 20 MILS (WET NIGHT VISIBILITY SPHERES)	QUANTITY
MP 0.14 New Place Seaford	MP 1.71 NY 107 Seaford	685.07200110 - White Epoxy ReflectORIZED Pavement Stripes	19,290
		685.07200210 - White Epoxy ReflectORIZED Pavement Stripes - Letters	15
		685.07200310 - White Epoxy ReflectORIZED Pavement Stripes - Symbols	15
		685.07200410 - White Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	530
		685.07200510 - White Epoxy ReflectORIZED Pavement Stripes - Special Markings	2,180
Length (Miles):	1.57 Miles	685.07200610 - Yellow Epoxy ReflectORIZED Pavement Stripes - Stripes	26,160
		685.07200710 - Yellow Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	1,500
		685.07200810 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Small	0
		685.07200910 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Large	0

STEWART AVENUE - Minor Arterial, FC #16			
START	END	ITEM 685.07200XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS - 20 MILS (WET NIGHT VISIBILITY SPHERES)	QUANTITY
MP 1.50 Central Avenue Bethpage	MP 3.78 South Oyster Bay Road Hicksville	685.07200110 - White Epoxy ReflectORIZED Pavement Stripes	33,820
		685.07200210 - White Epoxy ReflectORIZED Pavement Stripes - Letters	8
		685.07200310 - White Epoxy ReflectORIZED Pavement Stripes - Symbols	76
		685.07200410 - White Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	2,200
		685.07200510 - White Epoxy ReflectORIZED Pavement Stripes - Special Markings	13,260
Length (Miles):	2.28 Miles	685.07200610 - Yellow Epoxy ReflectORIZED Pavement Stripes - Stripes	25,160
		685.07200710 - Yellow Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	1,840
		685.07200810 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Small	0
		685.07200910 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Large	0

WOODBURY ROAD - Minor Arterial, FC #16			
START	END	ITEM 685.07200XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS - 20 MILS (WET NIGHT VISIBILITY SPHERES)	QUANTITY
MP 2.85 Bay Avenue Hicksville	MP 4.16 South Oyster Bay Road Plainview	685.07200110 - White Epoxy ReflectORIZED Pavement Stripes	19,800
		685.07200210 - White Epoxy ReflectORIZED Pavement Stripes - Letters	0
		685.07200310 - White Epoxy ReflectORIZED Pavement Stripes - Symbols	48
		685.07200410 - White Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	400
		685.07200510 - White Epoxy ReflectORIZED Pavement Stripes - Special Markings	5,930
Length (Miles):	1.31 Miles	685.07200610 - Yellow Epoxy ReflectORIZED Pavement Stripes - Stripes	14,630
		685.07200710 - Yellow Epoxy ReflectORIZED Pavement Stripes - Cross Hatching	530
		685.07200810 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Small	0
		685.07200910 - White Epoxy ReflectORIZED Pavement Stripes - Yield Line Symbols - Large	0

PAVEMENT MARKING IMPROVEMENTS PHASE 13
PIN 0761.23
VARIOUS LOCATIONS
NASSAU COUNTY, NEW YORK
CONTRACT NO. H62153-13GR

General Notes

1) Specifications and Standards

All work included in the contract shall be in accordance with the MUTCD and with the latest NYSDOT Standards Specifications (US Customary Units), except as modified on the plans and in the itemized proposal.

2) Scope of Work

- a. At all times during the life of this contract, the Contractor shall maintain safe vehicular traffic and access to adjacent private properties located throughout the entire length of the contract.
- b. The work covered in this contract includes the furnishing of labor and material to:
 - Remove existing pavement markings
 - Cleaning and preparation of pavement surfaces *from face of curb to face of curb* for the installation of new pavement markings
 - Furnish and installing epoxy markings
- c. No work outside the highway boundary will be permitted under any circumstances unless property and/or easement rights are obtained by Nassau County and approved by NYSDOT.

3) Maintenance and Protection of Traffic

This project is intended to be a Short-Term Stationary Operations. Contractor shall maintain work area in accordance with NYSDOT WORK ZONE TRAFFIC CONTROL provisions. See "Work Zone Traffic Control Plans" at end of section.

Existing pavement markings shall be removed prior to placement of new markings. No more than a two (2) weeks time period shall separate removal and replacement of new pavement markings.

The Contractor shall refer to section 619-3.19 of the NYSDOT Standard Specifications for nighttime operations.

4) Supervision

The Contractor shall have a full-time supervisor on the project at all times.

5) Surface Cleaning and Preparation of Pavement

- a. The Contractor shall be responsible for cleaning the pavement surface to the satisfaction of the Engineer.
- b. Surface cleaning and preparation work shall be performed only in the area of the pavement markings.
- c. At the time of application, all pavement shall be free of oil, dirt, dust, grease and similar foreign materials. The cost of cleaning these contaminants shall be included in the various bid items(s).

6) Equipment

The Contractor shall supply two (2) new measuring wheels (Great Northern Supply Co. Model 415 or approved equal) at the start of the contract for the use of the inspection force assigned to the project. At the completion of project, the measuring wheels shall become the property of Nassau County. The cost of the measuring wheels shall be included in the cost of the various bid items.

7) Clean Up

- a. In all cases the Contractor will be required to clean up all disturbed areas and restored to the condition existing prior to the commencement of the work
- b. Clean-up shall be as defined herein above, but if in the opinion of the Engineer, the Contractor has exercised carelessness or disregard to private property in the conduct of his work, then restorative measures required thereto shall be included in this procedure.
- c. No separate payment will be made for any of this clean up and restoration work, but the cost thereof shall be included in the unit prices bid for the various items.

8) Job Site Safety

The Contractor shall exercise precaution at all times for the protection of all personnel. The safety provisions of applicable laws shall be observed, but job site safety is the sole responsibility of the Contractor and his subcontractors and cannot be assumed by the County or its agents.

9) Rubbish and Debris

The Contractor shall legally dispose of all unsuitable material, rubbish, and debris at some separate location, not in the vicinity of the site.

10) Protection of Facilities

The Contractor shall protect all work done under this contract from possible damage for the duration of the contract. He shall be responsible for the repair or replacement, to the satisfaction of the Engineer, of any material, structure, or property on or adjacent to the site and damaged by him or his employees through the construction openings up to the time of acceptance by the County.

11) Construction Site

The Contractor shall obtain permission from the owner of a property before entering that property for any reason whatsoever. No work outside the highway boundary will be permitted under any circumstances unless property and/or easement rights are obtained by Nassau County Department of Public Works and approved by NYSDOT. Minor restoration outside the highway boundary is only permitted after a signed release from the property owner has been secured. This shall include any work in areas beyond the right of way and working easement lines to allow for grade revisions to driveways and walks on private property.

12) Sales Tax Exemptions

Nassau County is exempt from the payment of New York State Sales Tax and Compensating Use Taxes under Section 1116 of Article 28 of the Tax Law of the State of New York, and is exempt from the payment of Nassau County Sales and Uses Taxes under Section 7, Ordinance 404-C-1968, enacted pursuant to Section 1210 of Article 29 of the Tax Law of the State of New York. However, it is not

to be construed by bidders as relieving them from any obligation to pay sales tax on applicable items pursuant to the terms of the present sales tax laws.

13) Requirements of Other Municipal Departments

The Contractor shall give all necessary notices, obtain all permits, and pay all fees in connection with the work under this contract. He shall comply with all laws, ordinances, rules, and regulations of Nassau County and Municipal Departments having jurisdiction over work of this character. These shall take precedence over any requirements of these specifications where and if a conflict occurs. This however, shall not be interpreted as permitting the use of materials and equipment inferior to these specified.

Any work in New York State Right-of-Way will require a permit from NYSDOT.

14) Special O.S.H.A. Notes

- a. The Safety Provisions in the Specification are primarily to protect County property and the public against unsafe acts of the Contractor. The Occupational Safety and Health Act (OSHA) of 1970 requires that “Each Employer (1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or likely to cause death or serious physical harm to his employees; (2) shall comply with the occupational safety and health standards promulgated under this act”. All workers on the project site must have successfully passed OSHA 10 Hour Training Safety Class and the certificates should be part of the project records subject to review by the FHWA and NYSDOT.
- b. The regulations in the act may be more stringent than are required by the Plans and/or Specifications. The Contractor however must conform to the O.S.H.A. Regulations and such conformance shall not be reason to demand additional payment or claim extra work.

15) Contact Numbers

The Contractor shall notify the Nassau County Police Department, local fire departments, and local transportation authorities in writing as to the conditions prevailing on the construction site and detours in use. Duplicate copies of such notices shall be filed with the Engineer.

SPECIAL PROVISIONS

1) Purpose

The purpose of this specification is to set fourth the minimum requirements for this contract. The work covered by this contract involves the furnishing of labor, materials, and components as specified, for the:

- Removal of existing pavement markings.
- Cleaning and preparation of area from face of curb to face of curb for the installation of new pavement markings.
- Installation of new epoxy pavement markings

2) Location of Work

Throughout Nassau County roadways at various locations

3) Schedule

The contract shall be completed within twelve (12) months from the commencement of work date unless the County exceeds the original scope of work. In that event, the contract shall be extended to allow for completion of additional work. The length of the extension shall be in proportion to the amount of work added. The length of the extension shall be the sole discretion of the County. Nassau County will not allow any pavement marking installation from December 1 through March 31 unless prior approval is granted by the engineer. The request for a time extension by the contractor shall also be submitted to NYSDOT Construction for their concurrence.

4) Contractor Experience and Requirements

- a. The nature of the work involved in this contract requires the Contractor to possess prior satisfactory experience in the removal and installation of pavement markings.
- b. Prospective bidders must have at least three (3) years of satisfactory experience in the actual installation and maintenance of various types of pavement markings.
- c. Prospective bidders must be trained by the material manufacturer or have experience in the handling and the installation of specific pavement markings proposed in this contract.

- d. In addition to the requirements outlined in “Instruction to Bidders” of this contract, the low bidder shall be required to fill out an experience questionnaire by the County that will include the following questions:
- A list of all pavement markings contracts completed within the past three years.
 - A list of sources of supply to secure the necessary materials
 - A list of technical personnel who will be doing the necessary work

5) Standards

Standards and Specifications as defined in the 2009 edition of the *National Manual of Uniform Traffic Control Devices (National MUTCD)*, the *New York State Supplement to the National MUTCD*, and the latest revised edition of New York State Department of Transportation Standards and Specifications are made part of this contract.

6) Recourse

This contract does not imply that the low bidder, following the award of this contract, has exclusive right or legal recourse to the County of Nassau for any other similar type contract, or any other contract that may be awarded during the life of this contract.

7) Maintenance and Protection of Traffic

- a. Where work is being constructed on streets, sidewalks, easements or other locations normally used by the public, the Contractor shall conduct his work so as to minimize the interference with the safe and direct movement of pedestrian and vehicular travel. The Contractor shall provide all necessary construction signs, flagmen, arrow boards, cones, barricades, lighting, and their placement as required by the Short-Term Stationary operation as laid-out in NYSDOT Work Zone Traffic Control. The Contractor shall conform to directives by the County of Nassau. The Prime Contractor, through the Sponsor, shall submit to NYSDOT Construction for a review, the type of mounted light tower or its supplement (along with relevant specs) it proposes to use. This work is covered under item 619.24 – Nighttime Operations.

- b. Accessibility to fire hydrants, police and fire call boxes, and provision for the ingress and egress of emergency vehicles including police, fire, and ambulance vehicles shall be required at all times. Notification shall be made to the Police and local Fire Department should any road be closed.
- c. Maintenance and Protection of Traffic shall be paid for under a separate contract item.
- d. The Contractor is responsible for any and all claims made by the general public related to the process of removing and installing pavement markings under this contract.

8) Cleanliness

Upon completion of the work at each location or work order, the Contractor shall remove all remaining materials and shall leave the area, which may have been affected by his operation, in a neat and orderly condition.

9) Hold Harmless

The obligation of the contractor to hold harmless and indemnify the County is absolute and shall not be dependent on the Contractor having received any actual notice from the County.

10) Engineer's Estimate

The quantities included on the Engineer's Estimate are intended to provide a general guide as to the work expected in this contract. The County reserves the right to increase, decrease or eliminate the quantity of each item actually provided under this contract (including transportation item).

11) Additional Work – Extension of Contract

The County of Nassau reserves the right to extend the terms of this contract at the accepted bid prices for either furnishing only or furnishing and installing when the successful bidder is notified within ninety (90) days of the date of approval of the catalog cuts. The extension shall not exceed 50% of the total price bid.

12) Contract Administration and Inspection

The Department of Public works through the Division of Engineering, Traffic Engineering Unit will be the administrator of this contract and shall approve all

material to be installed, verify and approve all claim vouchers, and be responsible for providing all necessary inspections to verify compliance with the contract.

13) Funding

This Contract is funded under Capital Project 62153 and is eligible for Federal Aid reimbursement.

14) Payment

Payments of this contract will be made on a monthly basis for work completed during the preceding calendar month. No partial payments shall be made for material on hand and not installed.

15) Notification

The Project Engineer, Mr. Richard Iadevaio, shall be notified by the Contractor at (516) 571-6824 at least 48 hours prior to start of work, in order that adequate arrangements can be made to insure the presence of a Nassau County inspector during the striping operation. No work shall be performed without the presence of a Nassau County representative and /or without the coordination of the project manager in special circumstances.

17) Working Hours

The Contractor shall be advised that the normal working hours for Nassau County Field Personnel is based on a eight (8) hour shift, 8am to 4:30pm. Any change in time shift must meet with the Department approval.

18) Federal Funding Eligible

The Contractor should be aware that this project is eligible for Federal Aid Reimbursement and that there are specific Federal and State requirements detailed in this contract text that must be adhered to. Therefore, procedures will conform to all Federal requirements for local Federal Aid projects, as well as New York State administered requirements to local governments.

**ITEM 685.0715XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS 15 MILS THICK
(WET NIGHT VISIBILITY SPHERES)**

**ITEM 685.0720XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS 20 MILS THICK
(WET NIGHT VISIBILITY SPHERES)**

DESCRIPTION:

Under this work the contractor shall furnish and apply epoxy reflectorized pavement markings in accordance with these specifications, the Contract Documents, the NYSMUTCD, or as ordered by the Engineer. Items for Special Markings include stop bars and crosswalks.

Yield line symbols are isosceles triangles with height equaling 1.5 times the base dimension:

A small yield line symbol shall have a base dimension of one foot.

A large yield line symbol shall have a base dimension of two feet.

Yield line symbols are to be installed with the Apex of the triangle oriented towards oncoming traffic.

The epoxy marking material shall be hot-applied by spray methods onto bituminous and portland cement concrete pavement surfaces at the thickness and width shown on the Contract Documents. Following a simultaneous application of Standard Glass Beads (Type 2) and Wet/Night Visibility Beads (Type 1), the cured epoxy marking shall be an adherent reflectorized stripe that will provide wet night retro-reflectivity.

MATERIALS REQUIREMENTS:

Epoxy Paint	727-03
Glass Beads for Pavement Markings	727-05

Reflective Glass Spheres

Retro-reflective beads shall be a double drop system of glass spheres consisting of Standard Beads (Type 2) and Wet/Night Visibility Beads (Type 1) as defined in §727-05 Glass Beads for Pavement Markings.

EPOXY APPLICATING EQUIPMENT

In general, a mobile applicator shall be a truck mounted, self-contained pavement marking machine, specifically designed to apply epoxy resin materials and reflective glass spheres in continuous line patterns. The applying equipment shall be maneuverable to the extent that straight lines can be followed and normal curves can be made in a true arc. In addition, the truck mounted unit shall be provided with accessories to allow for the marking of cross hatching and other special patterns as directed by the Engineer.

At any time throughout the duration of the project, the Contractor shall provide free access to his epoxy applying equipment for inspection by the Engineer or his authorized representative.

The Engineer may approve the use of a portable applicator in lieu of mobile truck mounted accessories for use in applying special markings only, provided such equipment can demonstrate satisfactory application of reflectorized epoxy markings in accordance with these specifications.

**ITEM 685.0715XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS 15 MILS THICK
(WET NIGHT VISIBILITY SPHERES)**

**ITEM 685.0720XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS 20 MILS THICK
(WET NIGHT VISIBILITY SPHERES)**

Mobile applying equipment shall be capable of installing up to 19 miles of epoxy reflectorized pavement markings in an eight hour day and shall include the following features:

1. Individual tanks for the storage of Part A and Part B of the epoxy resin.
2. Individual tanks for the storage of Standard (Type 2) and Wet/Night Visibility (Type 1) glass spheres. Each tank shall have a minimum capacity of 3000 lbs.
3. Heating equipment of sufficient capacity to maintain the individual epoxy resin components at the manufacturer's recommended temperature for spray application.
4. Individual dispensers for the simultaneous application of Standard (Type 2) and Wet/Night Visibility (Type 1) glass spheres. Each dispenser shall be capable of applying spheres at a minimum rate of 10 lbs/gal of epoxy resin composition.
5. Metering devices or pressure gauges on the proportioning pumps, positioned to be readily visible to the Engineer.
6. All necessary spray equipment, mixers, compressors, and other appurtenances for the placement of epoxy reflectorized pavement markings in a simultaneous sequence of operations as described in Construction Details, D. Application of Epoxy ReflectORIZED Pavement Markings.

CONSTRUCTION DETAILS

A. General

All pavement markings shall be placed as shown on the Contract Documents and in accordance with the New York State, Manual of Uniform Traffic Control Devices (MUTCD).

Before any pavement marking work is begun, a schedule of operations shall be submitted for the approval of the Engineer.

At least five (5) days prior to starting striping, the Contractor shall provide the Engineer with the epoxy manufacturer's written instructions for use. These instructions shall include, but not be limited to, material mixing ratios and application temperatures.

When pavement markings are applied under traffic, the Contractor shall provide all necessary flags, markers, signs, etc. in accordance with the MUTCD to maintain and protect traffic, and to protect marking operations and the markings until thoroughly set.

The application of pavement markings shall be done in the general direction of traffic. Striping against the direction of traffic flow shall not be allowed.

**ITEM 685.0715XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS 15 MILS THICK
(WET NIGHT VISIBILITY SPHERES)**

**ITEM 685.0720XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS 20 MILS THICK
(WET NIGHT VISIBILITY SPHERES)**

The Contractor shall be responsible for removing, to the satisfaction of the Engineer, all tracking marks, spilled epoxy, and epoxy markings applied in unauthorized areas.

When necessary the Contractor shall establish marking line points at 30 foot intervals throughout the length of the pavement or as directed by the Engineer.

B. Atmospheric Conditions

Epoxy pavement markings shall only be applied during conditions of dry weather and on substantially dry pavement surfaces. At the time of installation the pavement surface temperature shall be a minimum of 50°F and the ambient temperature shall be a minimum of 50°F and rising. The Engineer shall be the sole determiner as to when atmospheric conditions and pavement surface conditions are such to produce satisfactory results.

C. Surface Preparation

The Contractor shall clean the pavement and existing durable markings to the satisfaction of the Engineer.

Surface cleaning and preparation work shall be performed only in the area of the epoxy markings application.

At the time of application all pavement surfaces and existing durable markings shall be free of oil, dirt, dust, grease and similar foreign materials. The cost of cleaning these contaminants shall be included in the bid price of this item.

In addition, concrete curing compounds on new portland cement concrete surfaces and existing painted pavement markings on both concrete and bituminous pavement surfaces shall be cleaned and paid for in accordance with §635 Cleaning and Preparation of Pavement Surfaces for Pavement Markings.

D. Application of Epoxy ReflectORIZED Pavement Markings

Epoxy reflectORIZED pavement markings shall be placed at the width, thickness, and pattern designated in the Contract Documents.

Marking operations shall not begin until applicable surface preparation work is completed and approved by the Engineer, and the atmospheric conditions are acceptable to the Engineer.

Pavement markings shall be applied by the following simultaneous operation:

1. The pavement surface is air-blasted to remove dirt and residues.
2. The epoxy resin, mixed and heated in accordance with the manufacturer's

**ITEM 685.0715XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS 15 MILS THICK
(WET NIGHT VISIBILITY SPHERES)**

**ITEM 685.0720XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS 20 MILS THICK
(WET NIGHT VISIBILITY SPHERES)**

recommendations, is uniformly hot-sprayed onto the pavement surface at the minimum specified thickness.

3. Standard (Type 2) and Wet/Night Visibility (Type 1) reflective glass spheres are injected into or dropped onto the liquid epoxy marking. Standard beads (Type 2) shall be applied first immediately followed by the application of Wet/Night Visibility beads (Type 1). Each type shall be applied at a minimum rate of 10 lbs/gal of epoxy resin (minimum total application = 20 lbs/gal).

E. Defective Epoxy Pavement Markings

Epoxy reflectORIZED pavement markings, which after application and curing are determined by the Engineer to be defective and not in conformance with this specification, shall be repaired. Repair of defective markings shall be the responsibility of the Contractor and shall be performed to the satisfaction of the Engineer as follows:

1. Insufficient film thickness and line width; insufficient glass bead coverage or inadequate glass bead retention.

Repair Method. Prepare the surface of the defective epoxy marking by grinding or blast cleaning. No other cleaning methods will be allowed. Surface preparation shall be performed to the extent that a substantial amount of the reflective glass spheres are removed and a roughened epoxy marking surface remains.

Immediately after surface preparation remove loose particles and foreign debris by brooming or blasting with compressed air.

Repair shall be made by restriping over the cleaned surface in accordance with the requirements of this specification and at the full thickness indicated on the Contract Documents.

2. Uncured or discolored epoxy*; insufficient bond (to pavement surface or existing durable marking).

Repair Method. The defective epoxy marking shall be completely removed and cleaned to the underlying pavement surface in accordance with the requirements of Section 635 - Cleaning and Preparation of Pavement Surfaces, at the Contractor's expense.

The extent of removal shall be the defective area plus any adjacent epoxy pavement marking material extending three feet in any direction.

After surface preparation work is complete, repair shall be made by reapplying epoxy over the cleaned pavement surface in accordance with the requirements of this specification.

**ITEM 685.0715XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS 15 MILS THICK
(WET NIGHT VISIBILITY SPHERES)**

**ITEM 685.0720XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS 20 MILS THICK
(WET NIGHT VISIBILITY SPHERES)**

*Uncured epoxy shall be defined as applied material that fails to cure (dry) in accordance with the requirements of §727-03 Epoxy Paint; or applied material that fails to cure (dry) within a reasonable time period under actual field conditions, as defined by the Engineer.

Discoloration shall be defined as localized areas or patches of brown, grayish or black colored epoxy marking material. These areas often occur in a cyclic pattern and often are not visible until several days or weeks after markings are applied.

Other defects not noted above, but determined by the Engineer to need repair, shall be repaired or replaced as directed by and to the satisfaction of the Engineer.

All work in conjunction with the repair or replacement of defective epoxy reflectorized pavement markings shall be performed by the Contractor at no additional cost to the State.

METHOD OF MEASUREMENT

Pavement striping (regular lines, cross hatching and special markings) will be measured in feet along the centerline of the pavement stripe and will be based on a 4 inch wide stripe. Measurement for striping with a width greater than the basic 4 inches, as shown on the plans or directed by the Engineer, will be made by the following method:

$$\frac{\text{Plan Width of Striping (inches) X Feet}}{4 \text{ inches}}$$

BASIS OF PAYMENT

The accepted quantities of markings will be paid for at the contract unit price, which shall include the cost of furnishing all labor, materials and equipment to satisfactorily complete the work. The cost for maintaining and protecting traffic during the marking operations shall be included in the price bid. The cost of removal of concrete curing compounds and existing pavement markings will be paid under separate items and are not included in this item.

No payment will be made for the repair or replacement of defective epoxy reflectorized pavement markings.

<u>PAY ITEM NO.</u>	<u>DESCRIPTION</u>	<u>PAY UNIT</u>
685.07150110	White Epoxy Reflectorized Pavement Stripes – 15 mils	Foot

**ITEM 685.0715XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS 15 MILS THICK
(WET NIGHT VISIBILITY SPHERES)**

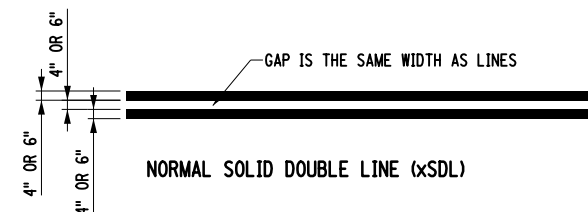
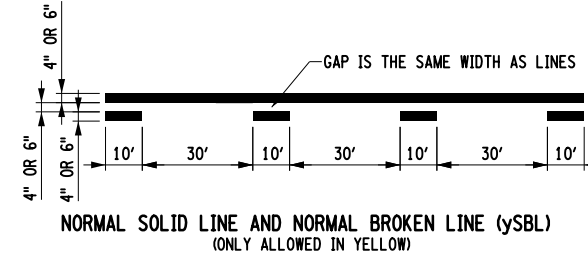
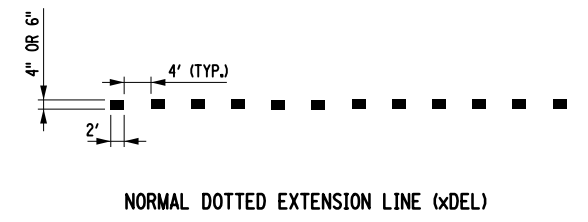
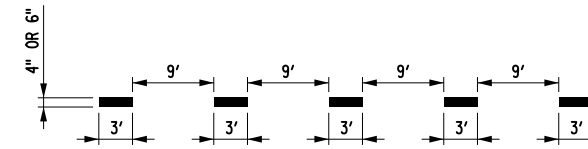
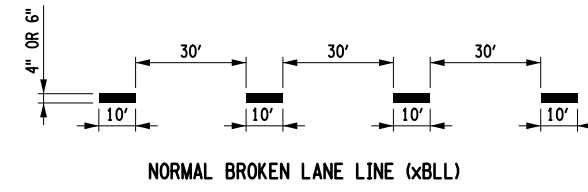
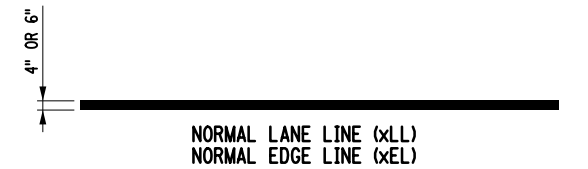
**ITEM 685.0720XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS 20 MILS THICK
(WET NIGHT VISIBILITY SPHERES)**

685.07150210	(Wet Night Visibility Spheres) White Epoxy ReflectORIZED Pavement Letters - 15 mils	Each
685.07150310	(Wet Night Visibility Spheres) White Epoxy ReflectORIZED Pavement Symbols – 15 mils	Each
685.07150410	(Wet Night Visibility Spheres) White Epoxy ReflectORIZED Cross Hatching -15 mils Thick	Foot
685.07150510	(Wet Night Visibility Spheres) White Epoxy ReflectORIZED Pavement Stripes (Special Markings) 15 mils Thick (Wet Night Visibility Spheres)	Foot
685.07150610	(Wet Night Visibility Spheres) Yellow Epoxy ReflectORIZED Pavement Stripes – 15 mils	Foot
685.07150710	(Wet Night Visibility Spheres) Yellow Epoxy ReflectORIZED Pavement Stripes (Cross Hatching) 15 mils Thick (Wet Night Visibility Spheres)	Foot
685.07150810	(Wet Night Visibility Spheres) White Epoxy ReflectORIZED Pavement Yield Line Symbols - Small - 15 mils	Each
685.07150910	(Wet Night Visibility Spheres) White Epoxy ReflectORIZED Pavement Yield Line Symbols - Large - 15 mils (Wet Night Visibility Spheres)	Each
685.07200110	(Wet Night Visibility Spheres) White Epoxy ReflectORIZED Pavement Stripes – 20 mils	Foot
685.07200210	(Wet Night Visibility Spheres) White Epoxy ReflectORIZED Pavement Letters – 20 mils	Each
685.07200310	(Wet Night Visibility Spheres) White Epoxy ReflectORIZED Pavement Symbols – 20 mils	Each
685.07200410	(Wet Night Visibility Spheres) White Epoxy ReflectORIZED Pavement Stripes (Cross Hatching) 20 mils Thick (Wet Night Visibility Spheres)	Foot
685.07200510	(Wet Night Visibility Spheres) White Epoxy ReflectORIZED Pavement Stripes (Special Markings) 20 mils Thick (Wet Night Visibility Spheres)	Foot

**ITEM 685.0715XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS 15 MILS THICK
(WET NIGHT VISIBILITY SPHERES)**

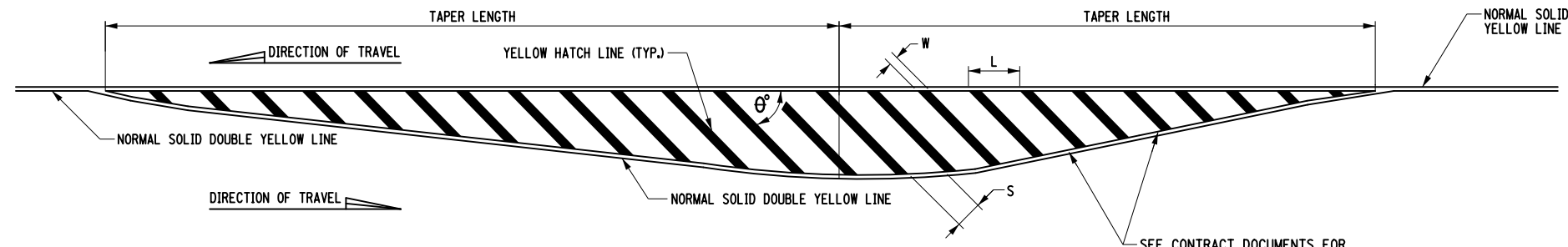
**ITEM 685.0720XX10 - EPOXY REFLECTORIZED PAVEMENT MARKINGS 20 MILS THICK
(WET NIGHT VISIBILITY SPHERES)**

685.07200610	Yellow Epoxy ReflectORIZED Pavement Stripes – 20 mils (Wet Night Visibility Spheres)	Foot
685.07200710	Yellow Epoxy ReflectORIZED Pavement Stripes (Cross Hatching) 20 mils Thick (Wet Night Visibility Spheres)	Foot
685.07200810	White Epoxy ReflectORIZED Pavement Yield Line Symbols - Small - 20 mils (Wet Night Visibility Spheres)	Each
685.07200910	White Epoxy ReflectORIZED Pavement Yield Line Symbols - Large - 20 mils (Wet Night Visibility Spheres)	Each



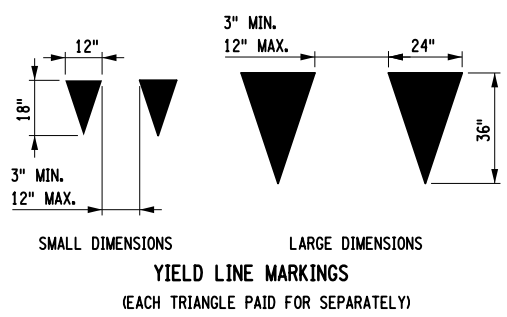
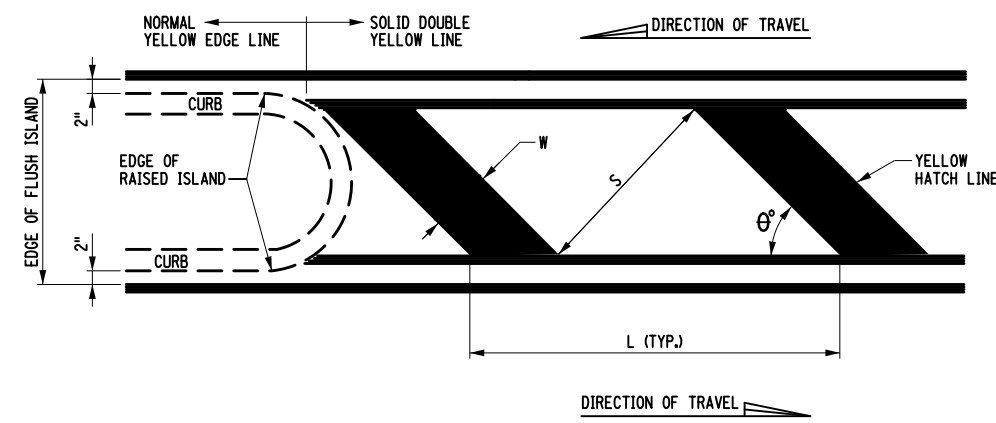
PAVEMENT MARKING LINE NOTES:

- L1. EDGE LINES ON ALL RURAL, HIGH SPEED HIGHWAY SEGMENTS WITH POSTED SPEEDS OF 45 MPH OR MORE SHALL BE 6". ALSO, NORMAL PAVEMENT MARKING LINES SHALL BE 6" ON FREEWAYS AND EXPRESSWAYS AND ON RAMPS TO AND FROM FREEWAYS AND EXPRESSWAYS, AND WHERE SPECIFIED IN THE CONTRACT DOCUMENTS. AT ALL OTHER LOCATIONS NORMAL PAVEMENT MARKING LINES SHALL BE 4". WIDE PAVEMENT MARKING LINES SHALL BE TWICE AS WIDE AS NORMAL LINES ON THE SAME HIGHWAY. CHANNELIZING LINES ARE THE SAME WIDTH AS WIDE LINES.
- L2. PAVEMENT MARKING LINE CODES MAY BE SHOWN ON THE PLANS.
DESIGNATIONS:
"W"=WHITE "Y"=YELLOW "WIDE"=WIDE



POSTED SPEED ≥ 45 MPH					POSTED SPEED < 45 MPH				
TYPE	W	θ°	S	L	TYPE	W	θ°	S	L
A	1'	30°	3'	8'	A	8"	30°	2'	5'-4"
B	1'	35°	3'	7'	B	1'	35°	3'	7'
C	2'	45°	6'	11'-4"	C	2'	45°	6'	11'-4"

CROSS HATCH LINE DIMENSIONS
 NOTE: TYPE SHALL BE AS PER PLAN. DEFAULT VALUE IS TYPE C UNLESS OTHERWISE SHOWN.

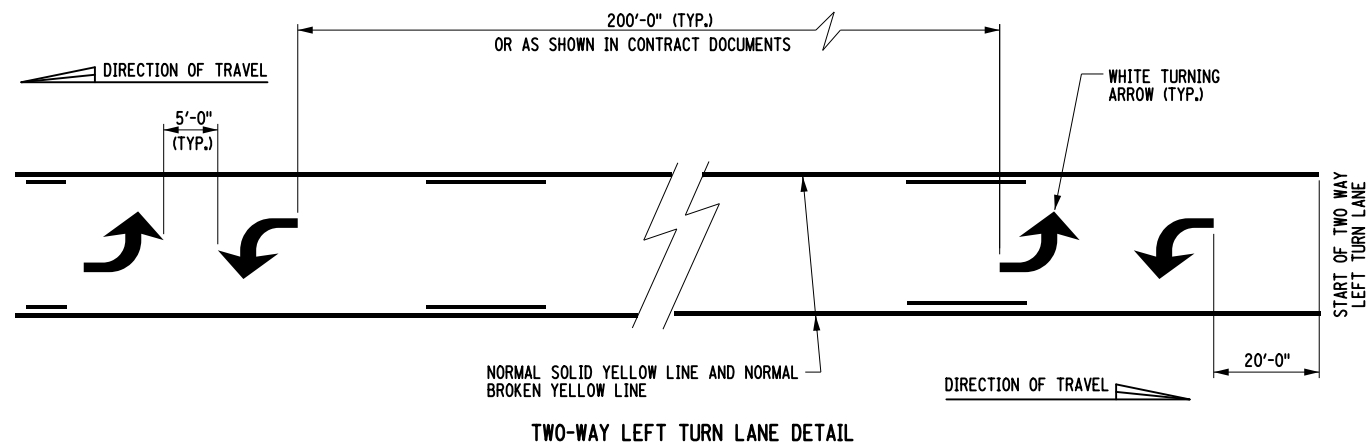


GENERAL PAVEMENT MARKING NOTES:

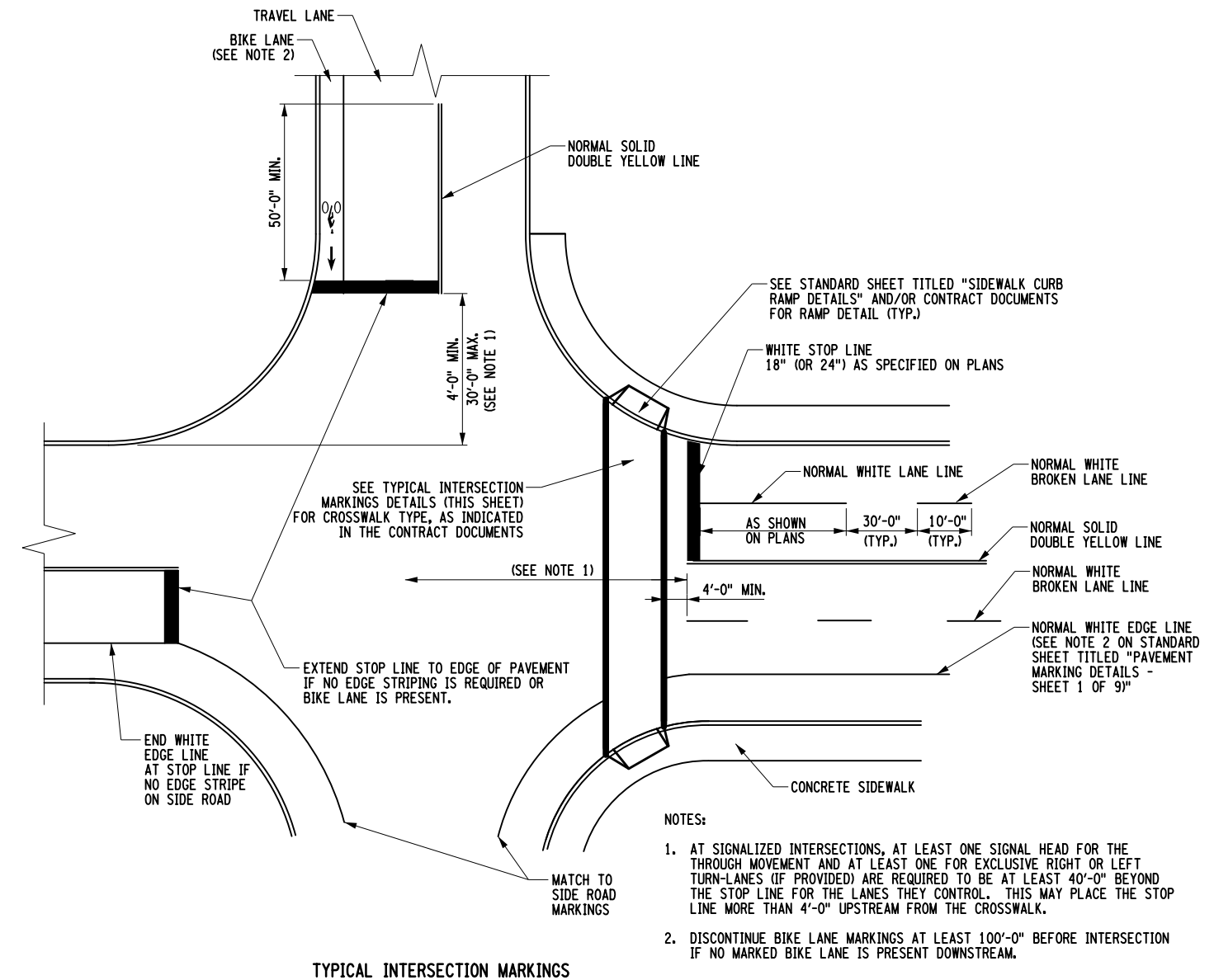
1. ALL PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH THE MUTCD AND NYS SUPPLEMENT.
2. EDGE LINES SHALL BE YELLOW ON THE LEFT SIDE AND WHITE ON THE RIGHT SIDE IN THE DIRECTION OF TRAVEL UNLESS OTHERWISE SHOWN ON THE PLANS. IF THE CURB OFFSET IS LESS THAN 2'-0", NO EDGE LINE SHALL BE APPLIED ADJACENT TO CURBS UNLESS OTHERWISE SHOWN ON THE PLANS. EDGE LINES SHALL BE PROVIDED AT THE CURB ADJACENT TO RAISED ISLANDS (SEE DETAIL).
3. WHERE MARKINGS NORMALLY FOLLOW A PAVEMENT JOINT, SINGLE LINE MARKINGS SHALL BE PLACED ALONG ONE SIDE OF THE JOINT. DOUBLE LINE MARKINGS SHALL STRADDLE THE JOINT. LANE LINES ON ROADWAYS WHICH ARE MORE THAN TWO LANES WIDE AND HAVE LONGITUDINAL JOINTS BETWEEN ADJACENT LANES, SHALL BE PLACED ON THE SIDE OF THE JOINT WHICH WILL OBTAIN OPTIMUM LANE WIDTHS.

AT THE JUNCTION OF SINGLE AND DOUBLE LINE MARKINGS WHICH FOLLOW A PAVEMENT JOINT, THE SINGLE LINE SHALL BE AN EXTENSION OF EITHER OF THE DOUBLE LINES AND NOT THE SPACE BETWEEN THEM. AT THE JUNCTION OF SINGLE AND DOUBLE LINE MARKINGS WHICH DO NOT FOLLOW A PAVEMENT JOINT, THE SINGLE LINE MAY BE ALIGNED WITH THE CENTER OF THE DOUBLE LINE MARKING OR WITH EITHER LINE OF THE DOUBLE LINE.
4. ALL DIMENSIONS AND THE PLACEMENT OF ARROWS, SYMBOLS, AND TEXT SHOWN ARE TYPICAL AND SHALL APPLY UNLESS OTHERWISE INDICATED IN THE CONTRACT DOCUMENTS.
5. THE REGIONAL TRAFFIC ENGINEER WILL REVIEW AND APPROVE ANY CHANGES TO THE PAVEMENT MARKING PLANS PRIOR TO FINAL INSTALLATION. CHANGES SHALL BE SUBMITTED TWO WEEKS PRIOR TO INSTALLATION.

Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET	
PAVEMENT MARKING DETAILS (SHEET 1 OF 9)	
APPROVED AUGUST 21, 2018 /S/ ROBERT LIMOGES P.E. DIRECTOR, OFFICE OF TRAFFIC SAFETY AND MOBILITY	ISSUED UNDER EI 18-008 685-01

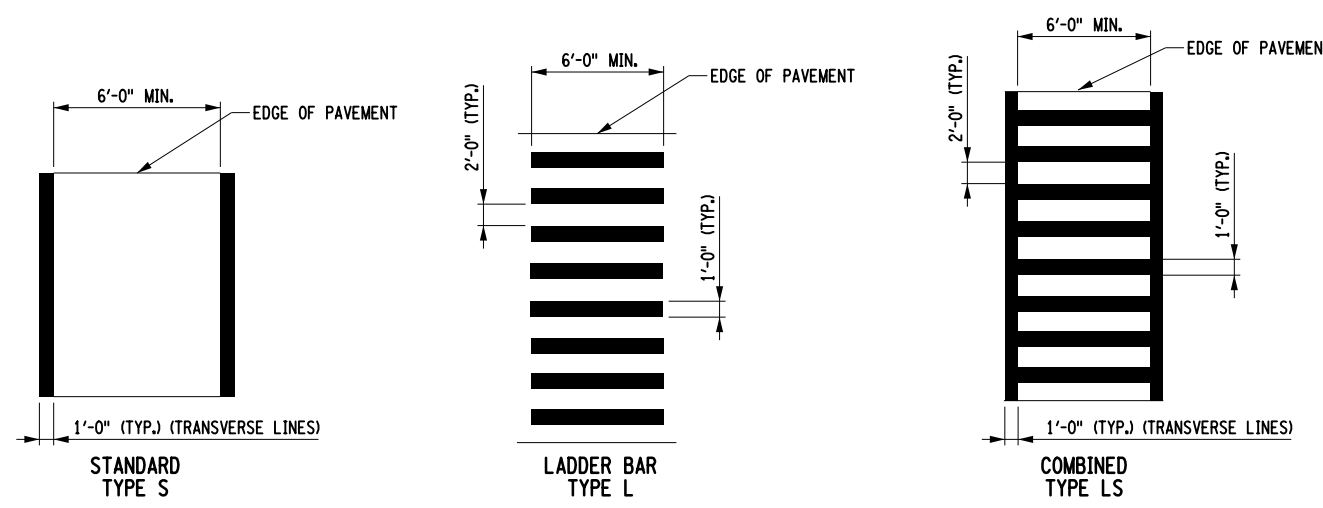


TWO-WAY LEFT TURN LANE DETAIL



TYPICAL INTERSECTION MARKINGS

- NOTES:
1. AT SIGNALIZED INTERSECTIONS, AT LEAST ONE SIGNAL HEAD FOR THE THROUGH MOVEMENT AND AT LEAST ONE FOR EXCLUSIVE RIGHT OR LEFT TURN-LANES (IF PROVIDED) ARE REQUIRED TO BE AT LEAST 40'-0" BEYOND THE STOP LINE FOR THE LANES THEY CONTROL. THIS MAY PLACE THE STOP LINE MORE THAN 4'-0" UPSTREAM FROM THE CROSSWALK.
 2. DISCONTINUE BIKE LANE MARKINGS AT LEAST 100'-0" BEFORE INTERSECTION IF NO MARKED BIKE LANE IS PRESENT DOWNSTREAM.

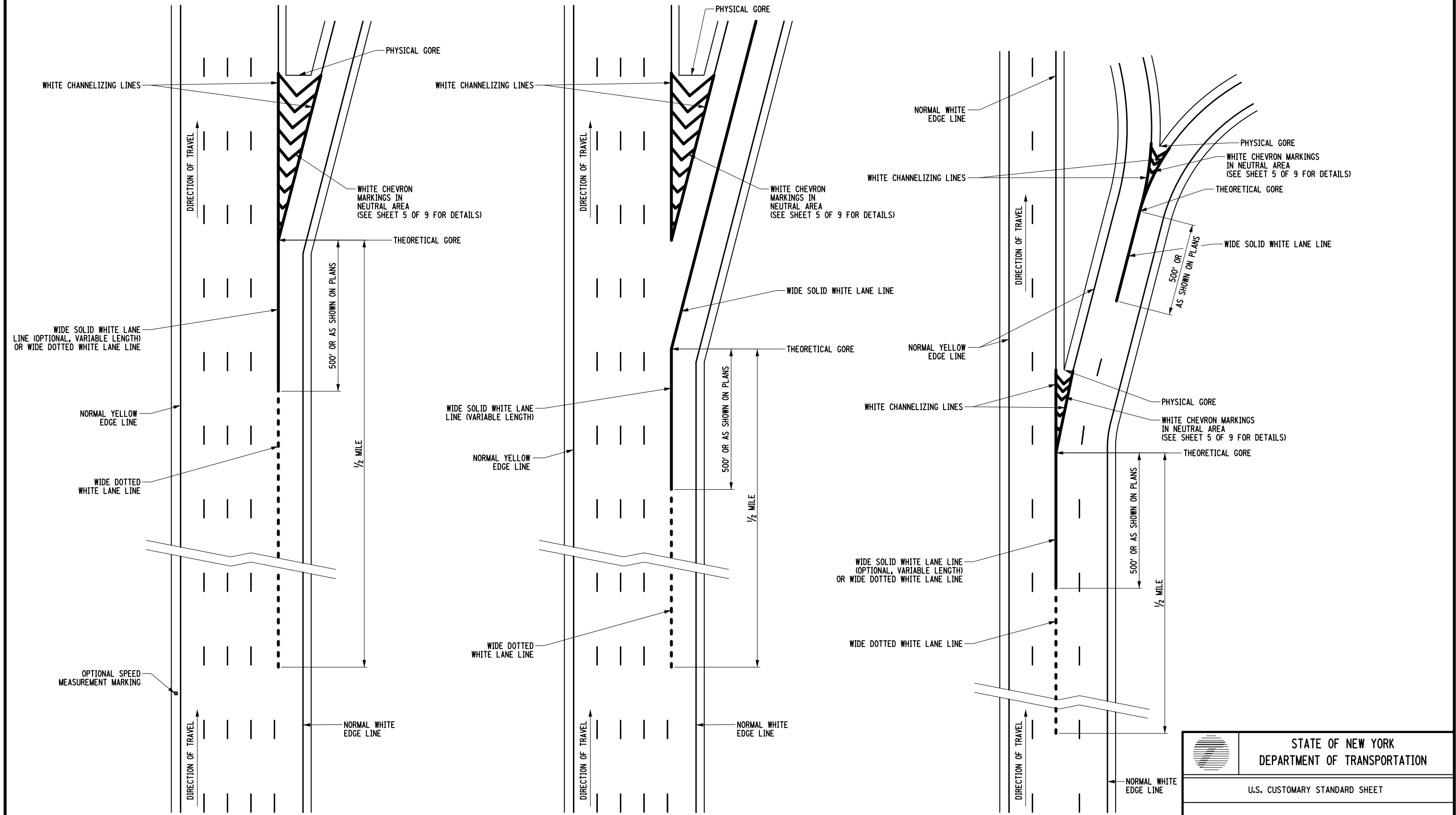


TYPICAL CROSSWALK DETAILS

- NOTES:
1. ALL CROSSWALK MARKINGS SHALL BE WHITE.
 2. TYPE "L" AND TYPE "LS" CROSSWALKS SHALL HAVE THE LONGITUDINAL LINES PARALLEL TO THE LANE LINES.

1. SEE STANDARD SHEET 685-01 (SHEET 1 OF 9) FOR LINE LAYOUT AND DIMENSIONS (EXCEPT AS NOTED).
2. REFER TO STANDARD SHEET 685-01 (SHEET 1 OF 9) FOR GENERAL NOTES.


		Department of Transportation
U.S. CUSTOMARY STANDARD SHEET		
PAVEMENT MARKING DETAILS (SHEET 2 OF 9)		
APPROVED SEPTEMBER 24, 2012	ISSUED UNDER EB 12-036	
/S/ TODD B. WESTHUIS, P.E.	ACTING DIRECTOR, OFFICE OF TRAFFIC SAFETY AND MOBILITY	
ERRATA 1 EFF. 05-01-2021 ISSUED WITH EB 21-006	H62153-13GR	685-01

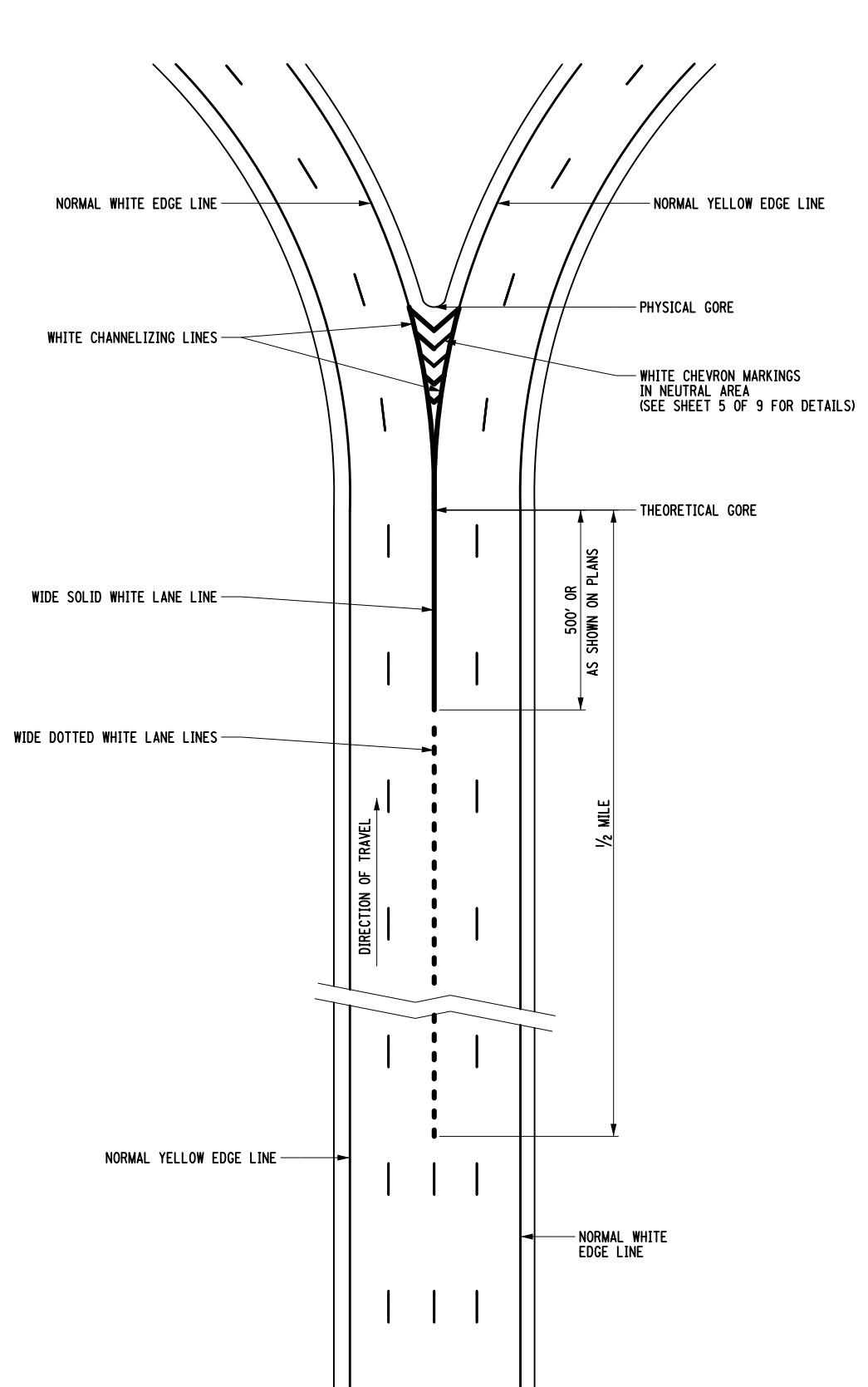


LANE DROP AT A SINGLE LANE EXIT RAMP

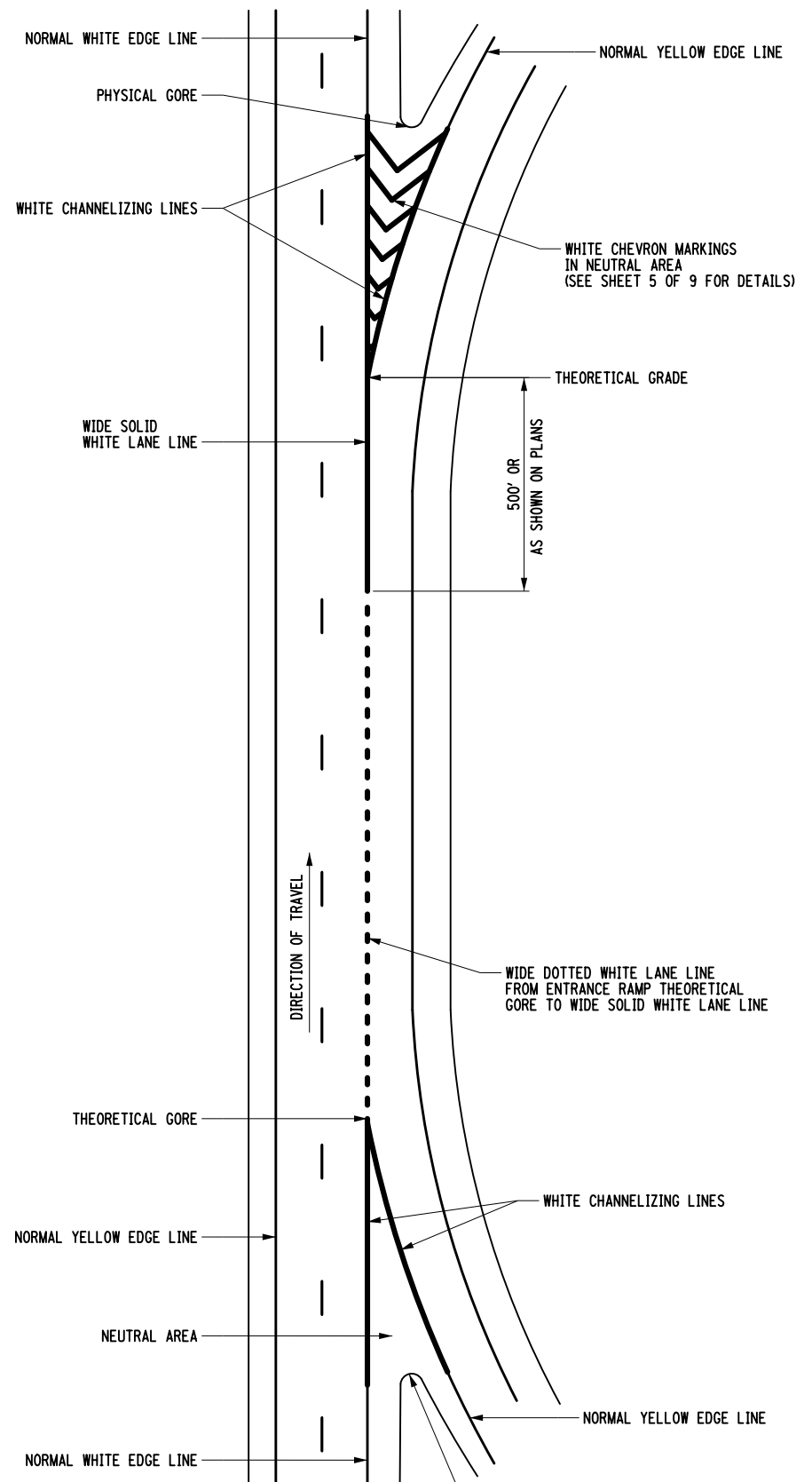
LANE DROP AT A MULTI-LANE EXIT RAMP WITH OPTION LANE

TWO-LANE DROP AT AN EXIT RAMP

	STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION
	U.S. CUSTOMARY STANDARD SHEET
PAVEMENT MARKING DETAILS (SHEET 3 OF 9)	
APPROVED SEPTEMBER 24, 2012 /S/ TODD B. WESTHUIS, P.E. ACTING DIRECTOR, OFFICE OF TRAFFIC SAFETY AND MOBILITY	ISSUED UNDER EB 12-036 685-01 H62153-13GR Pavement Marking Improvements Ph 13 PIN 0761.23



ROUTE SPLIT WITH DEDICATED LANES

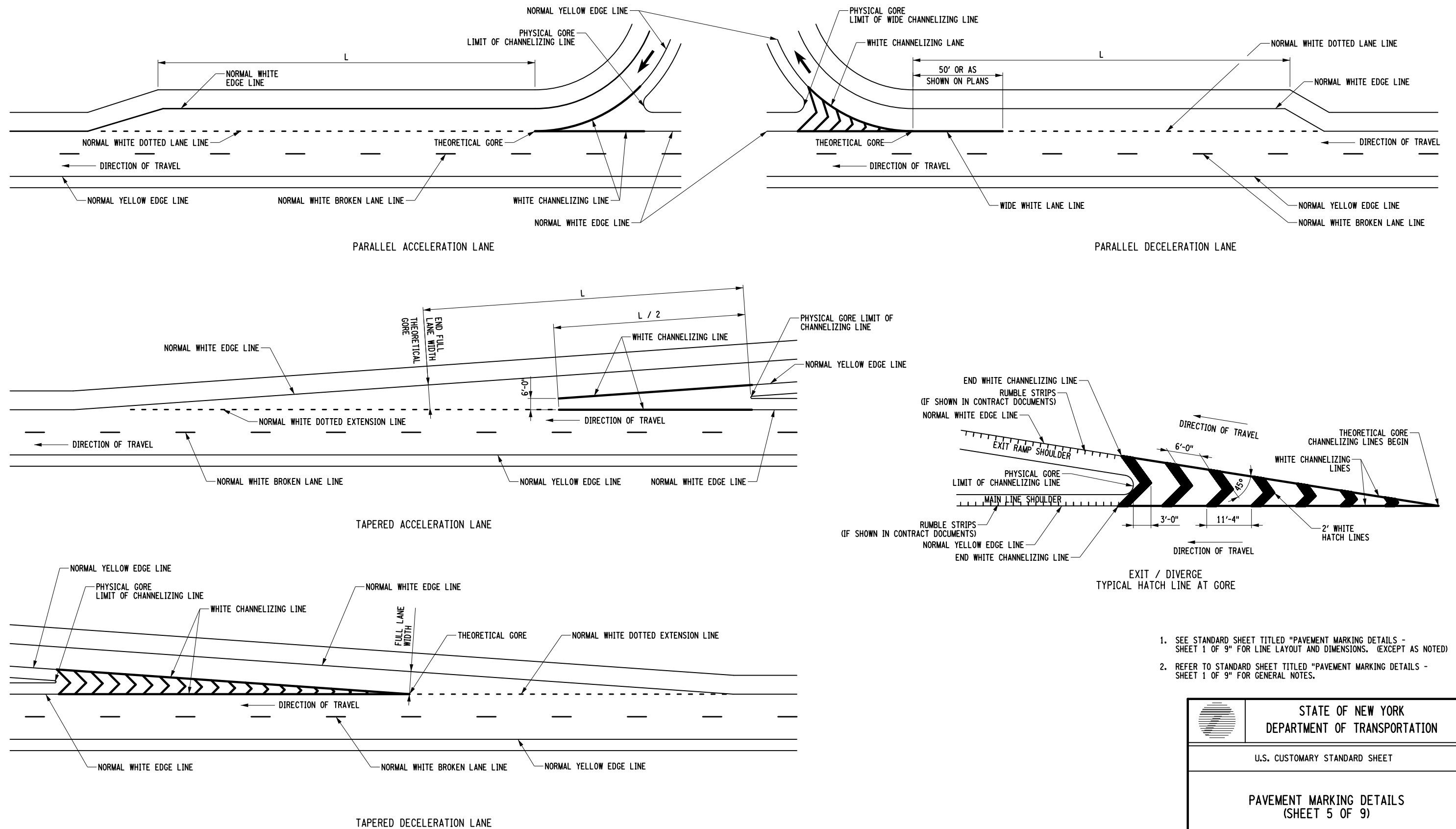


AUXILIARY LANE AT CLOSELY SPACED RAMPS

NOTE: USE THIS DETAIL WHERE DISTANCE FROM THEORETICAL GORE OF ENTRANCE RAMP TO THEORETICAL GORE OF EXIT RAMP IS LESS THAN OR EQUAL TO 1/4 MILE.

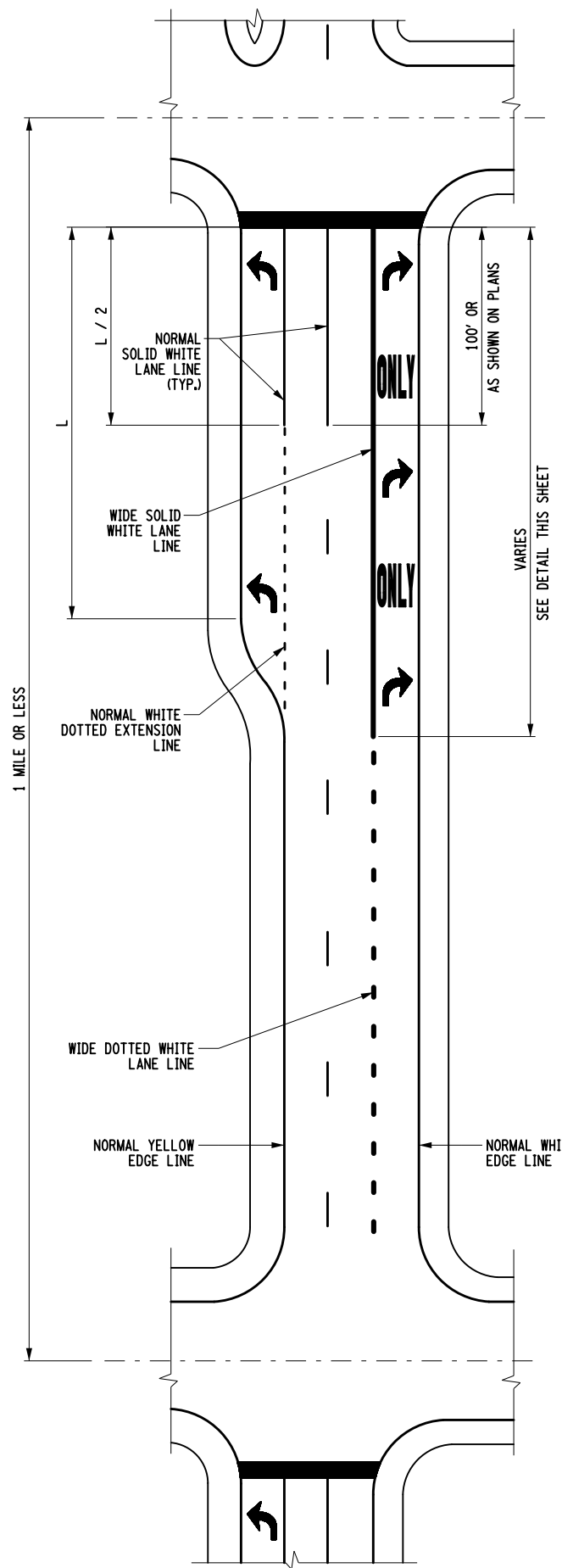
	STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION	
	U.S. CUSTOMARY STANDARD SHEET	
PAVEMENT MARKING DETAILS (SHEET 4 OF 9)		
APPROVED SEPTEMBER 24, 2012 /S/ TODD B. WESTHUIS, P.E.	ISSUED UNDER EB 12-036	685-01
ACTING DIRECTOR, OFFICE OF TRAFFIC SAFETY AND MOBILITY		

FILE NAME = 685-0104_050213.dgn
 DATE/TIME = 27-SEP-2012 10:05
 USER = jturley

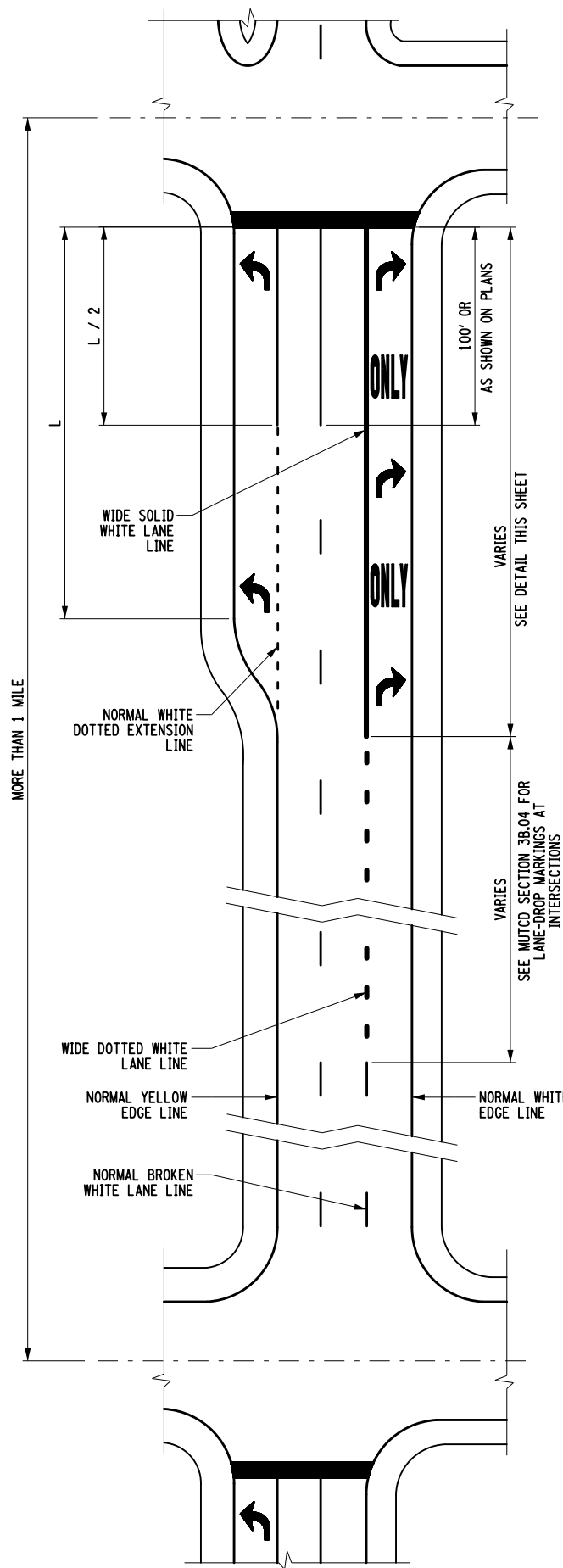


1. SEE STANDARD SHEET TITLED "PAVEMENT MARKING DETAILS - SHEET 1 OF 9" FOR LINE LAYOUT AND DIMENSIONS. (EXCEPT AS NOTED)
2. REFER TO STANDARD SHEET TITLED "PAVEMENT MARKING DETAILS - SHEET 1 OF 9" FOR GENERAL NOTES.

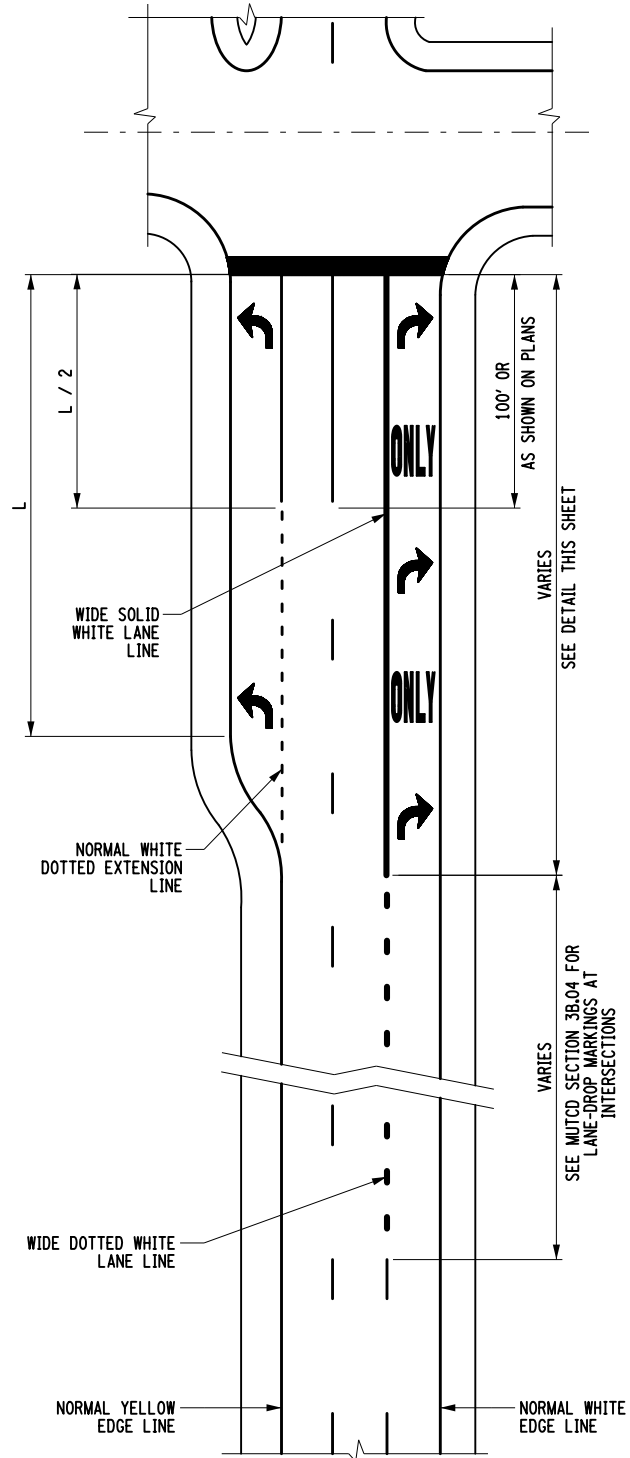
	STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION	
	U.S. CUSTOMARY STANDARD SHEET	
PAVEMENT MARKING DETAILS (SHEET 5 OF 9)		
APPROVED SEPTEMBER 24, 2012 /S/ TODD B. WESTHUIS, P.E. ACTING DIRECTOR, OFFICE OF TRAFFIC SAFETY AND MOBILITY	ISSUED UNDER EB 12-036 H62153-13GR Contract No.	685-01 Pavement Marking Improvements PH 13 PIN 0761.23



AUXILIARY LANE BETWEEN INTERSECTIONS
 LESS THAN OR EQUAL TO 1 MILE APART

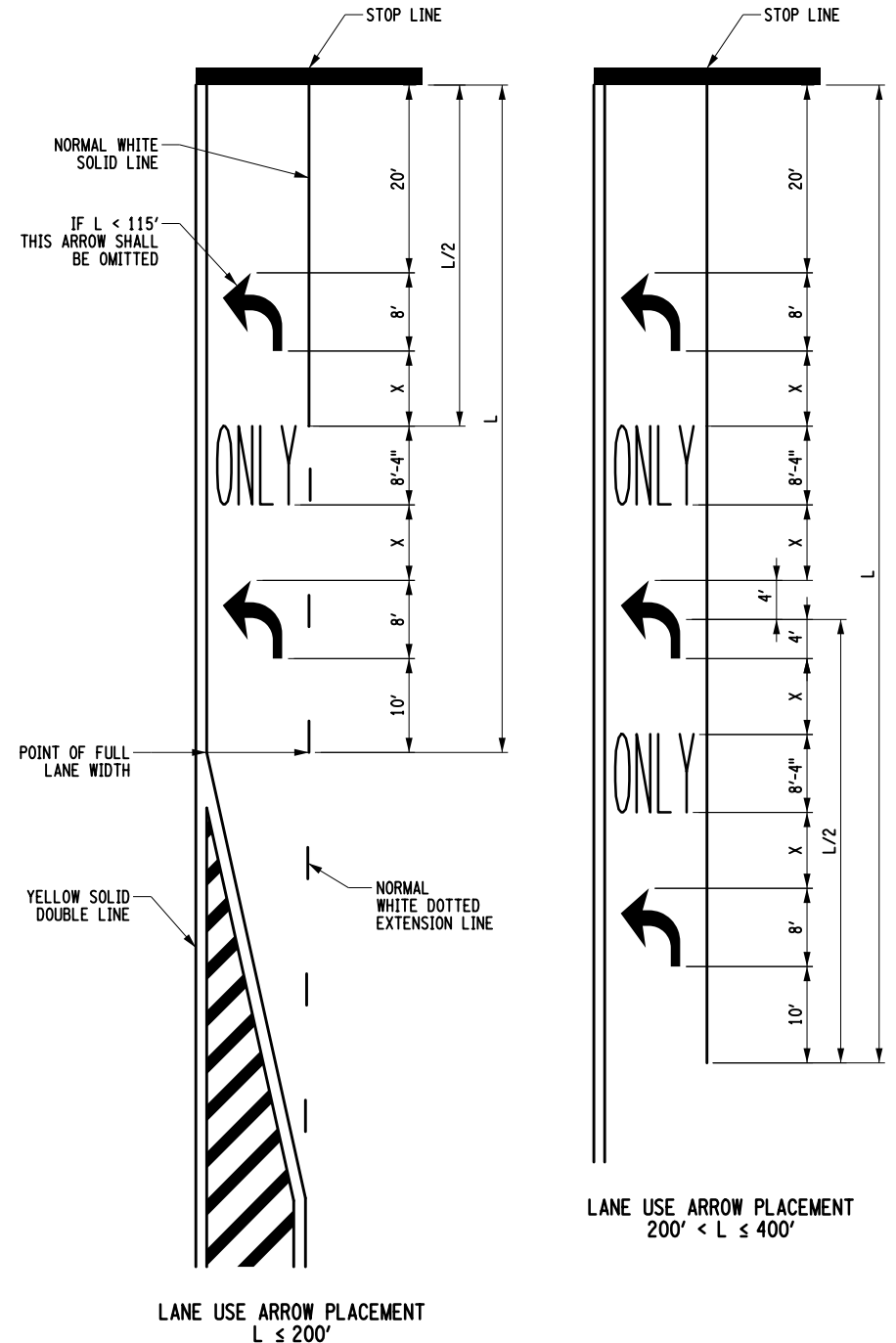


AUXILIARY LANE BETWEEN INTERSECTIONS
 GREATER THAN 1 MILE APART



LANE DROP AT INTERSECTION

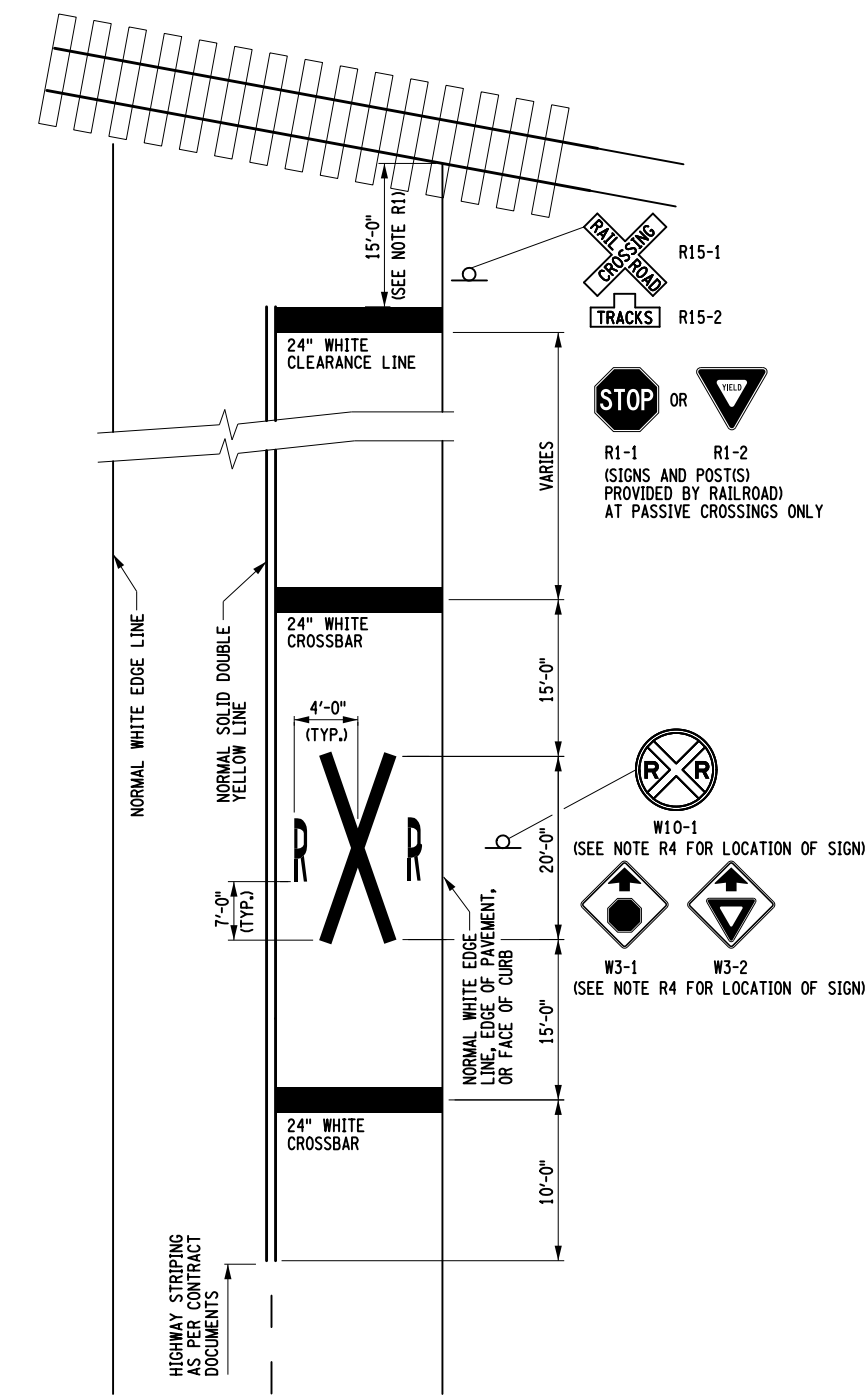
- SYMBOL SPACING NOTES:
- SPACING BETWEEN ARROWS AND "ONLY" (X) IS 32' MIN. AND 80' MAX. LOWER SPEED ROADS SHOULD HAVE CLOSER SPACING THAN HIGHER SPEED ROADS.
 - IF $L < 75'$ OR $L > 400'$, REFER TO CONTRACT DOCUMENTS OR REGIONAL TRAFFIC SAFETY AND MOBILITY GROUP FOR GUIDANCE ON SPACING OF ARROWS AND "ONLY".
 - ON AN UNCONTROLLED APPROACH (NO STOP SIGN, YIELD SIGN, OR TRAFFIC SIGNAL) OMIT STOP LINE.
 - IF INTERSECTION LANE CONTROL SIGNS (EG. R3-5) ARE NOT PROVIDED FOR THE LANE, THE "ONLY" MARKINGS SHALL BE DELETED.
 - ARROWS AND "ONLY" TO BE CENTERED IN THE LANE.



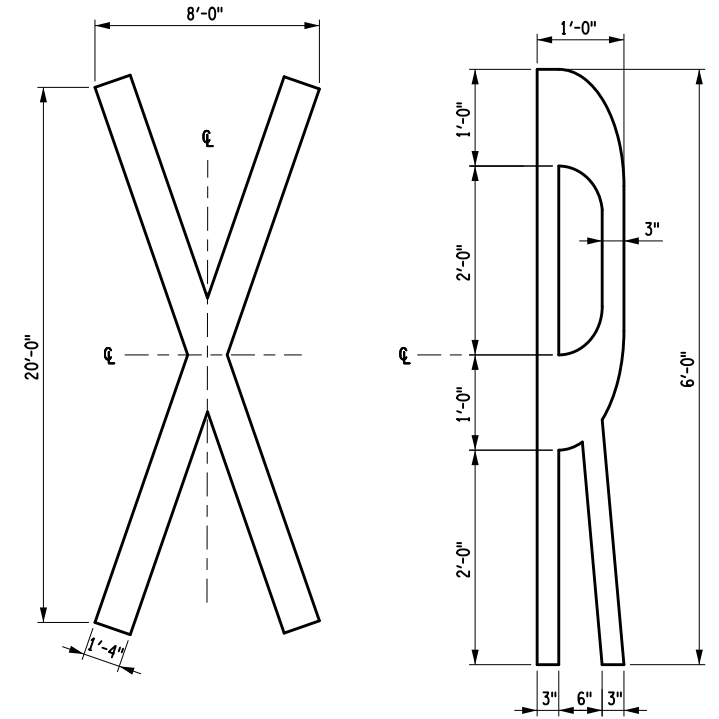
LANE USE ARROW PLACEMENT
 $L \leq 200'$

LANE USE ARROW PLACEMENT
 $200' < L \leq 400'$

	STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION	
	U.S. CUSTOMARY STANDARD SHEET	
PAVEMENT MARKING DETAILS (SHEET 6 OF 9)		
ERRATA 1 EFF. 01/09/2014 ISSUED WITH EB 13-042	APPROVED: OCTOBER 23, 2013 /S/ TODD B. WESTHUIS, P.E. DEPUTY CHIEF ENGINEER, TRAFFIC SAFETY AND MOBILITY ACTING	ISSUED UNDER EB 12-036 H62153-13GR 685-01
EFFECTIVE DATE: 05/02/2013	Pavement Marking Improvements PH 13 PIN 0761.23	

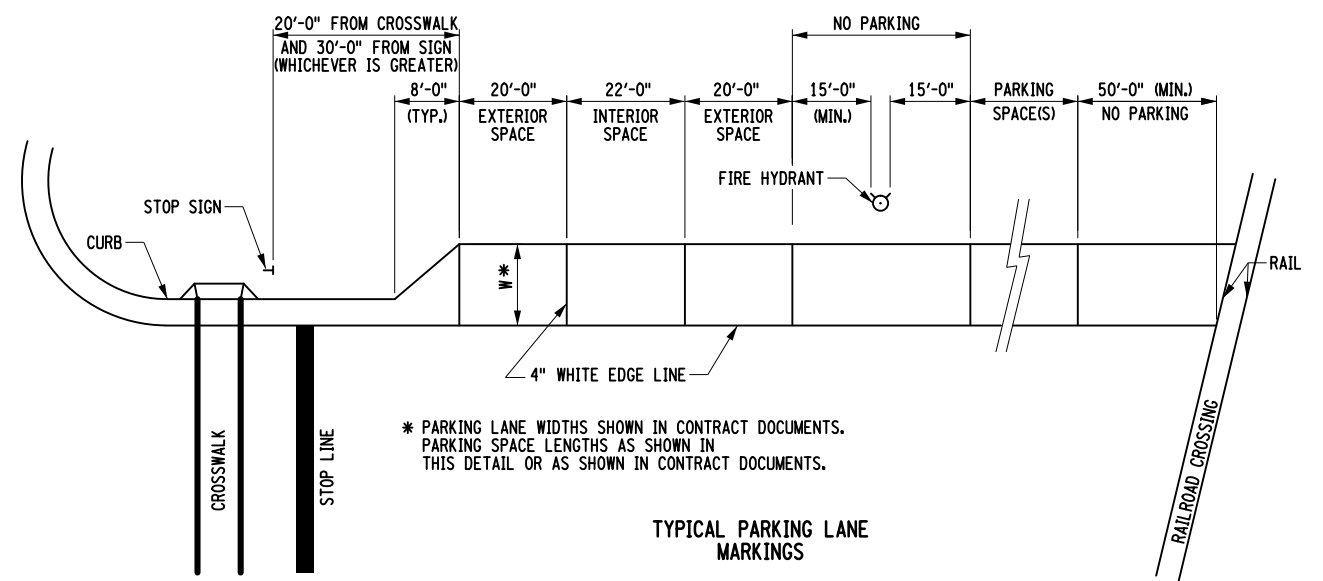


RAILROAD GRADE CROSSING MARKINGS AND LAYOUT PLAN



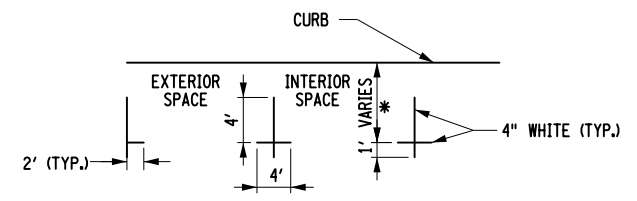
(PAID AS 159' LINAR FEET) (PAID AS ONE SYMBOL)

RAILROAD GRADE CROSSING



* PARKING LANE WIDTHS SHOWN IN CONTRACT DOCUMENTS. PARKING SPACE LENGTHS AS SHOWN IN THIS DETAIL OR AS SHOWN IN CONTRACT DOCUMENTS.

TYPICAL PARKING LANE MARKINGS



ALTERNATE PARKING LANE MARKINGS (NO EDGE LINE) (NOT TO SCALE)

RAILROAD GRADE CROSSING NOTES:

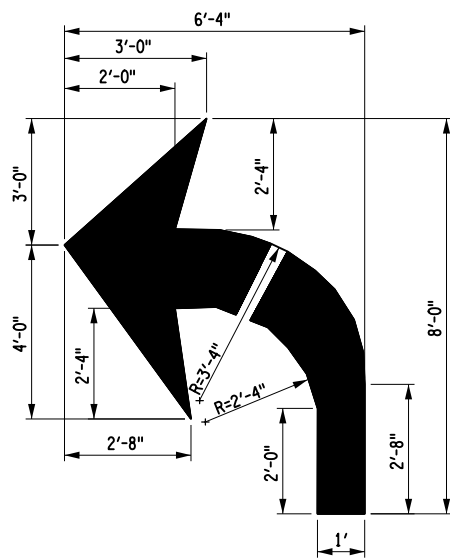
- R1. WHERE THERE IS NO RAILROAD CROSSING GATE, THE CLEARANCE LINE SHOULD BE PERPENDICULAR TO THE ROADWAY, AND 15'-0" FROM THE NEAREST RAIL AT ITS CLOSEST POINT. WHERE THERE IS A GATE, THE CLEARANCE LINE SHOULD BE PARALLEL TO THE GATE IN ITS LOWERED POSITION, AND EITHER 15'-0" FROM THE NEAREST RAIL OR 8'-0" FROM THE GATE, WHICHEVER PLACES THE LINE FURTHER FROM THE CROSSING.
- R2. ON A MULTI-LANE APPROACH, THE CLEARANCE LINE AND CROSSBARS SHALL EXTEND ACROSS ALL LANES, AND A "RXR" SYMBOL SHALL BE PLACED IN EACH LANE.
- R3. REFER TO STANDARD SHEET TITLED "PAVEMENT MARKING DETAILS - SHEET 1 OF 9" FOR GENERAL NOTES.
- R4. IF A W3-1 OR W3-2 SIGN IS NOT REQUIRED IN ADVANCE OF THE GRADE CROSSING, THE W10-1 SHALL BE LOCATED IN ACCORDANCE WITH TABLE NY2C-4. IF A W3-1 OR W3-2 SIGN IS REQUIRED IN ADVANCE OF A GRADE CROSSING, IT SHALL BE LOCATED IN ACCORDANCE WITH TABLE NY2C-4 AND THE W10-1 SIGN SHALL BE LOCATED APPROXIMATELY 200'-0" IN ADVANCE OF THE W3-1 OR W3-2 SIGN.
- R5. A PORTION OF THE "RXR" MARKING MUST BE OPPOSITE THE W10-1 SIGN. 24" WHITE CROSS BARS ARE PLACED IN RELATION TO "RXR" MARKING. THE DISTANCE TO CLEARANCE LINE WILL VARY.
- R6. NORMAL SOLID DOUBLE YELLOW LINE TO BEGIN A MINIMUM OF 10'-0" UPSTREAM OF FIRST 24" WHITE CROSS BAR.

NEW YORK
STATE OF OPPORTUNITY. | **Department of Transportation**

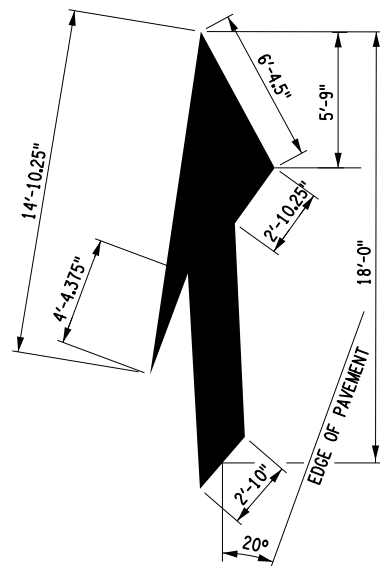
U.S. CUSTOMARY STANDARD SHEET

PAVEMENT MARKING DETAILS
(SHEET 7 OF 9)

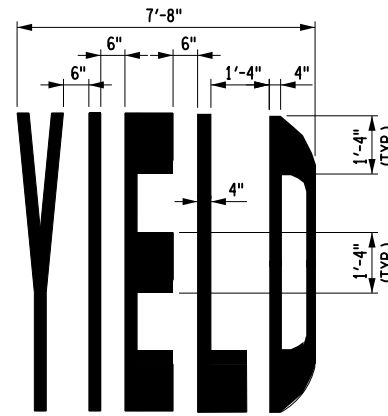
ERRATA 3 EFF. 05/01/2021 ISSUED WITH EB 21-006	APPROVED SEPTEMBER 24, 2012	ISSUED UNDER EB 12-036
ERRATA 2 EFF. 01/01/2020 ISSUED WITH EB 19-041	/S/ TODD B. WESTHUIS, P.E.	685-01
ERRATA 1 EFF. 01/01/2018 ISSUED WITH EB 17-041	ACTING DIRECTOR, OFFICE OF TRAFFIC SAFETY AND MOBILITY	H62153-13GR Pavement Marking Improvements PI 13 PIN 0761.23



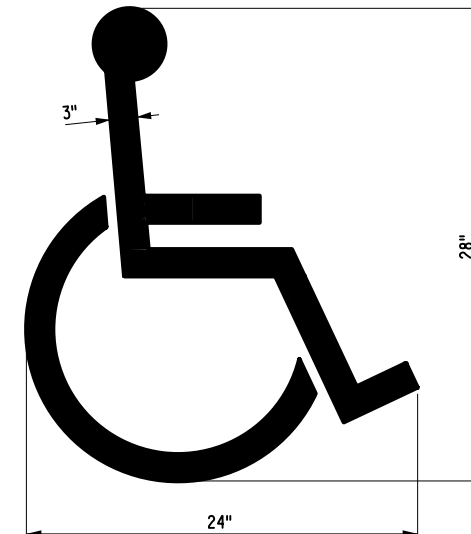
TURNING ARROW
(PAID AS ONE SYMBOL)



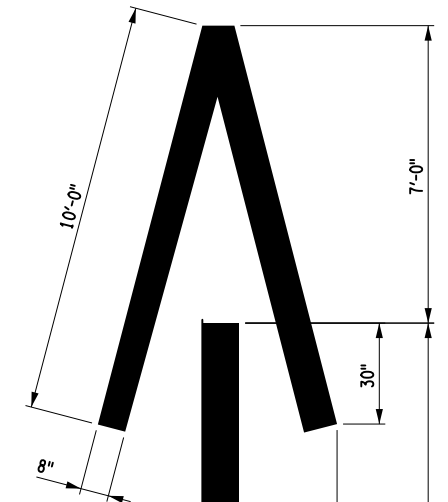
LANE REDUCTION ARROW
(PAID AS ONE SYMBOL)



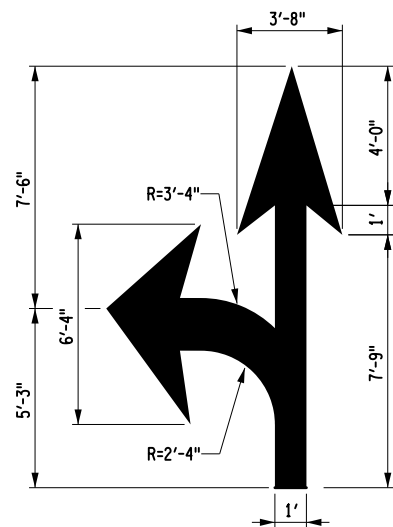
"YIELD" LETTERS
SEE NOTE
(PAID AS FIVE LETTERS)



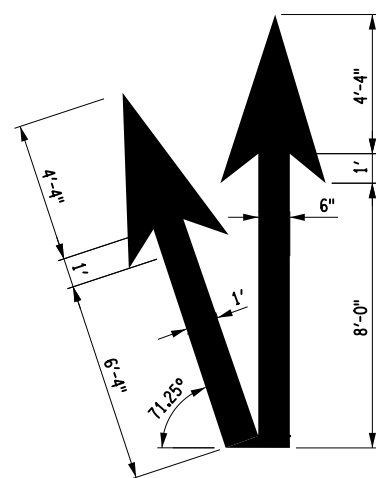
HANDICAPPED PARKING SYMBOL
(PAID AS ONE SYMBOL)



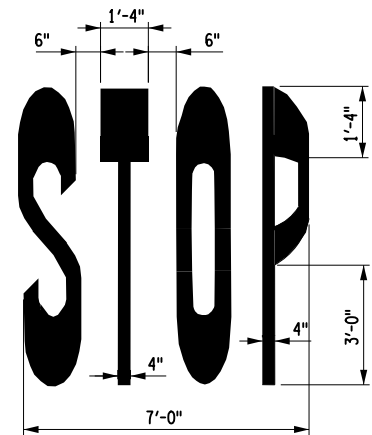
RAMP ARROW
(PAID AS 74 LINEAR FEET)



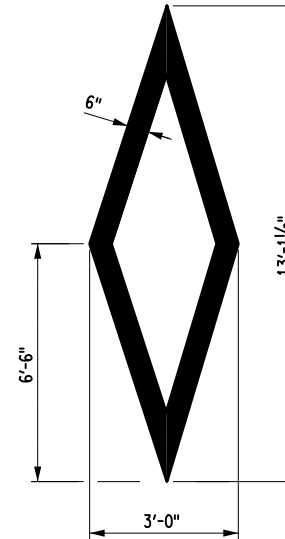
TURNING/STRAIGHT ARROW
FOR SHARED LANE
(PAID AS ONE SYMBOL)



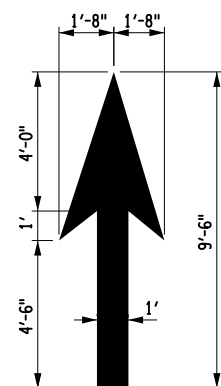
DIVERGE ARROW
(PAID AS ONE SYMBOL)



"STOP" LETTERS
SEE NOTE
(PAID AS FOUR LETTERS)



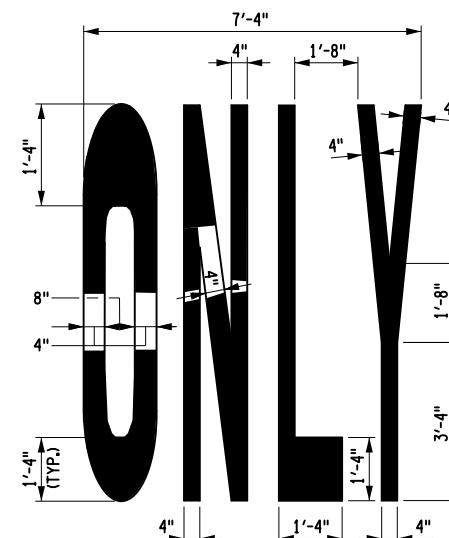
PREFERENTIAL LANE SYMBOL
(PAID AS 33 LINEAR FEET)



STRAIGHT ARROW
(PAID AS ONE SYMBOL)



"SCHOOL" LETTERS
SEE NOTE
(PAID AS SIX LETTERS)

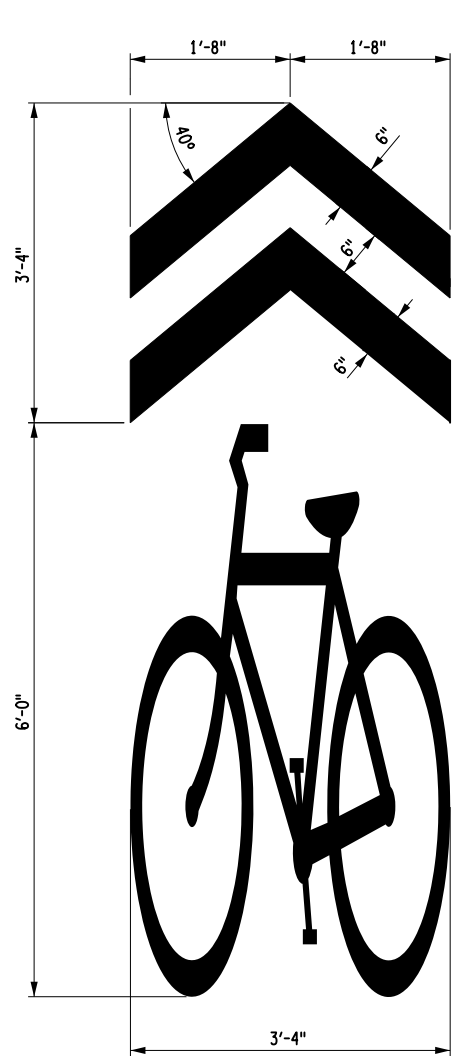


"ONLY" LETTERS
SEE NOTE
(PAID AS FOUR LETTERS)

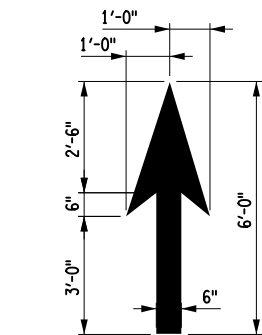
NOTES:

UNLESS OTHERWISE SHOWN:
LETTER HEIGHT = 8'-4"
LETTER WIDTH = 1'-4"
SPACING = 8"
(USE EQUAL SPACING BETWEEN LETTERS AND CENTER ENTIRE SYMBOL IN LANE)

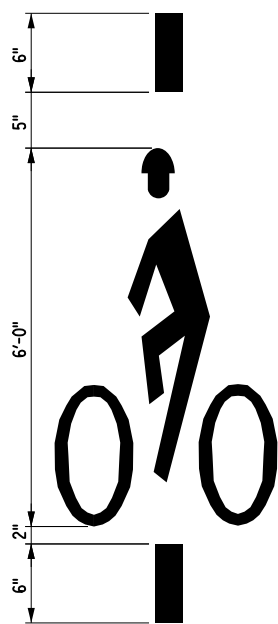
		Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET			
PAVEMENT MARKING DETAILS (SHEET 8 OF 9)			
ERRATA 3 EFF. 05/01/2021 ISSUED WITH EB 21-006	APPROVED SEPTEMBER 24, 2012 /S/ TODD B. WESTHUIS, P.E.	ISSUED UNDER EB 12-036	
ERRATA 2 EFF. 01/01/2020 ISSUED WITH EB 19-041	ACTING DIRECTOR, OFFICE OF TRAFFIC SAFETY AND MOBILITY	H62153-13GR	
ERRATA 1 EFF. 01/01/2018 ISSUED WITH EB 17-041	Pavement Marking Improvements Ph 13 PIN 0761.23	685-01	



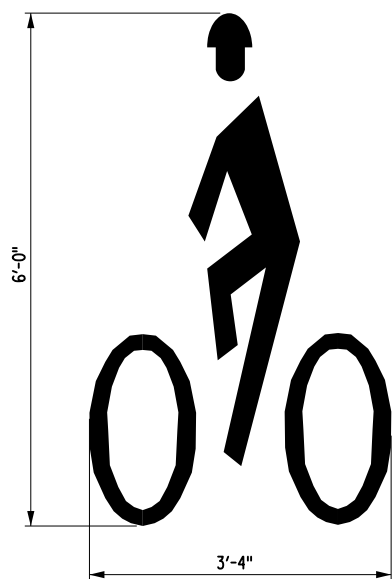
SHARED LANE USE MARKING DETAIL
(CHEVRON PAID AS 14 LINEAR FEET)
(BICYCLE PAID AS ONE SYMBOL)



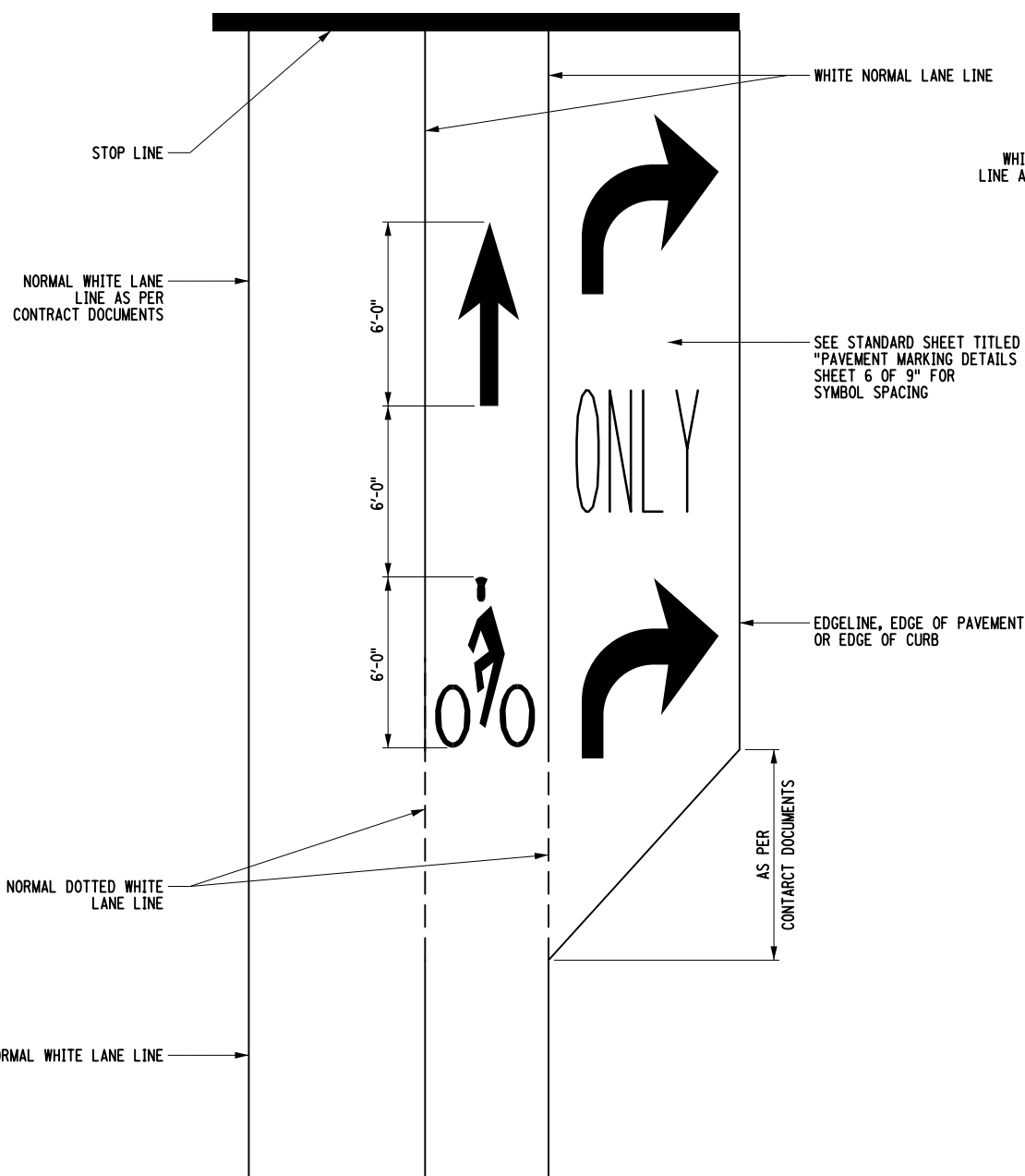
BICYCLE ARROW



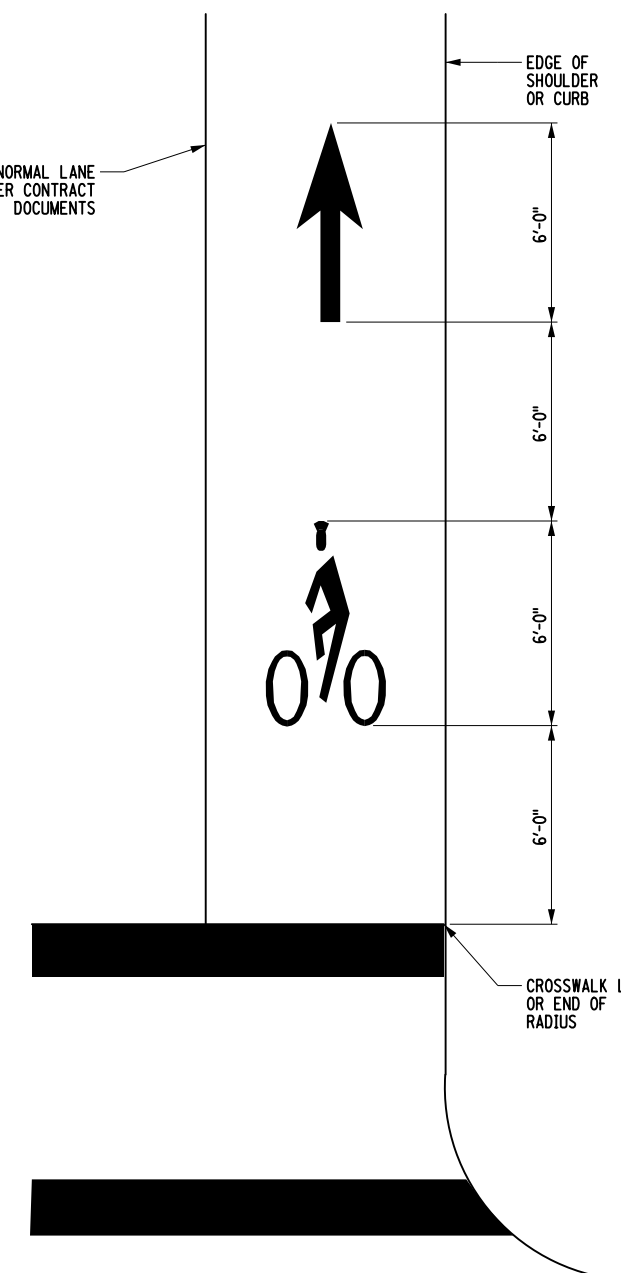
BICYCLE DETECTOR MARKER
(BICYCLE AND ARROW COMBINATION PAID AS ONE SYMBOL)



BICYCLE SYMBOL
(PAID AS ONE SYMBOL)



**BICYCLE LANE MARKING
ADJACENT TO RIGHT TURN LANE**



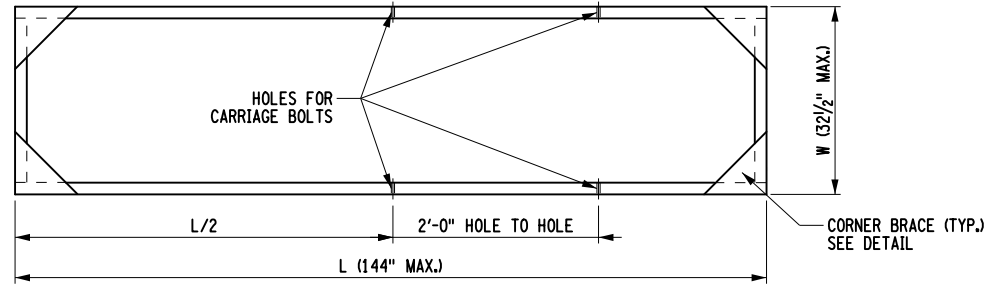
BICYCLE LANE MARKING

BICYCLE LANE MARKING NOTES:

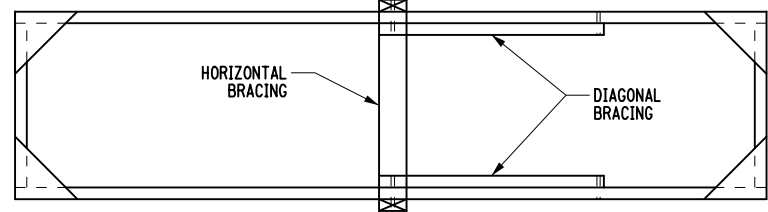
- B1. CENTER SYMBOL IN BICYCLE LANE OR SHOULDER.
- B2. PLACE BICYCLE LANE ARROW AND SYMBOL DOWNSTREAM OF MAJOR OR SIGNALIZED INTERSECTIONS.
 - PLACE BICYCLE SYMBOL AT 1320'-0" SPACING ALONG BICYCLE LANE OR AS INDICATED IN THE CONTRACT DOCUMENTS.
 - PLACE BICYCLE LANE ARROW AND SYMBOL 200'-0" UPSTREAM OF MAJOR OR SIGNALIZED INTERSECTIONS.
- B3. MARKINGS AS PER THE DIRECTIONS OF THE REGIONAL OFFICE OF TRAFFIC SAFETY AND MOBILITY GROUP OR AS PER PLAN. SIGNS SHALL BE USED WITH THE BICYCLE LANE.

ERRATA 4 EFF. 09-01-2022 ISSUED WITH EB 22-037
ERRATA 3 EFF. 05-01-2021 ISSUED WITH EB 21-006
ERRATA 2 EFF. 01-01-2020 ISSUED WITH EB 19-041
ERRATA 1 EFF. 01-01-2018 ISSUED WITH EB 17-041

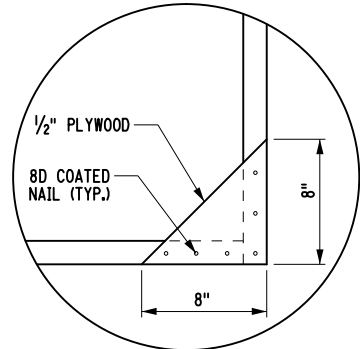
Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET	
PAVEMENT_MARKING_DETAILS (SHEET 9 OF 9)	
APPROVED SEPTEMBER 24, 2012	ISSUED UNDER EB 12-036
/S/ TODD B. WESTHUIS, P.E.	
ACTING DIRECTOR, OFFICE OF TRAFFIC SAFETY AND MOBILITY	685-01
Pavement Marking Improvements Ph 13 PIN 0761.23	



BOTTOM FRAME
TOP VIEW



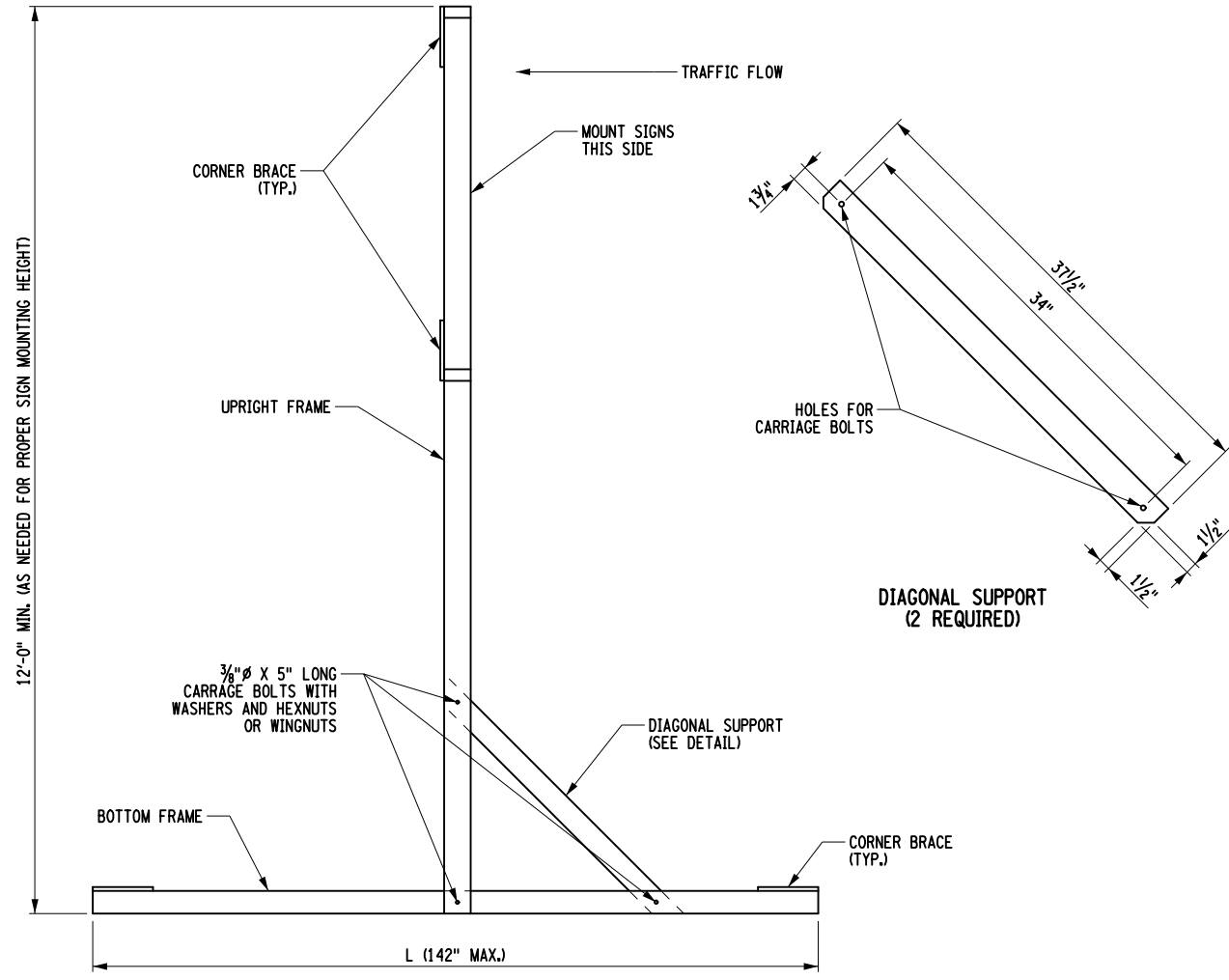
TEMPORARY WOODEN SIGN STAND
TOP VIEW



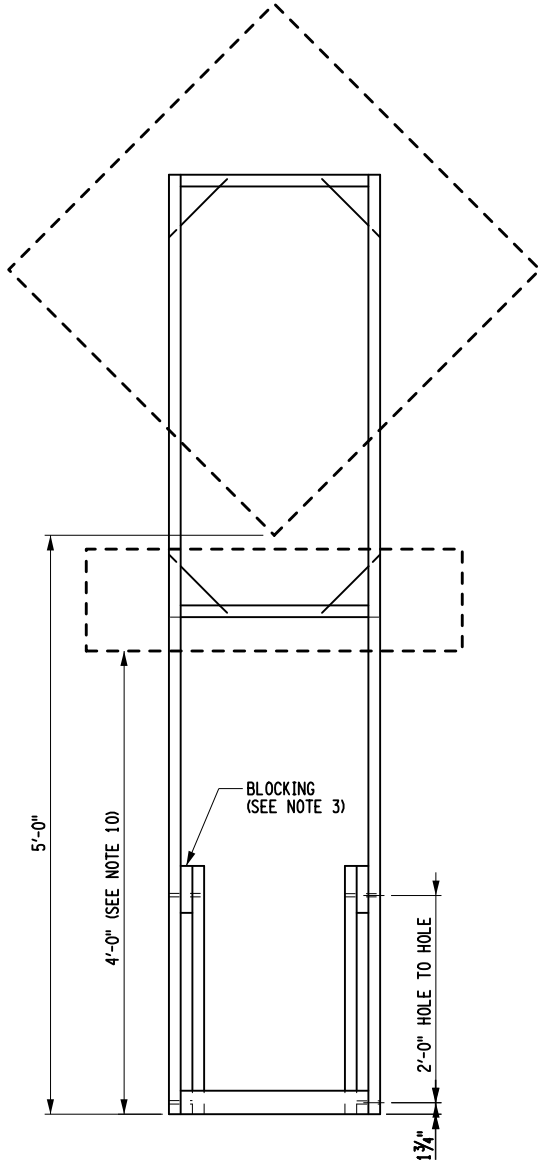
CORNER BRACE DETAIL
(TO BE USED ON UPRIGHT AND BOTTOM FRAMES)

NOTES:

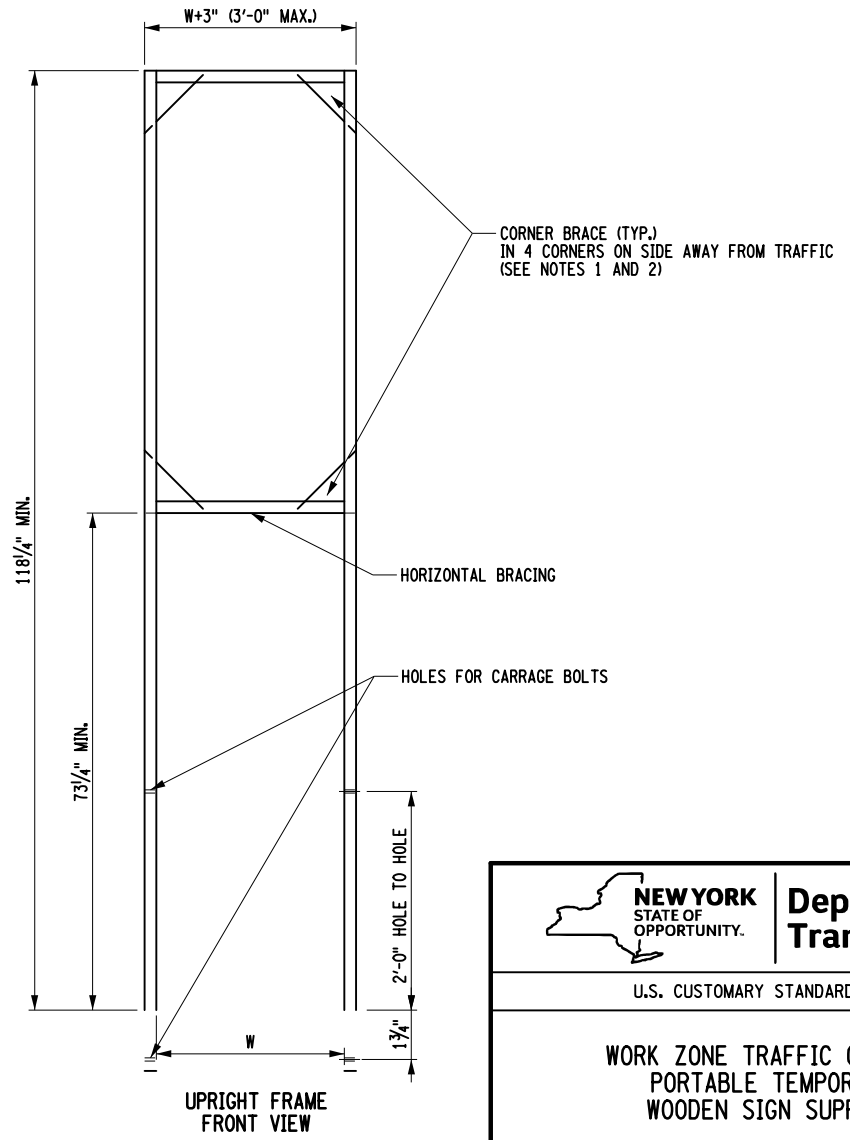
1. ALL LUMBER SHALL BE 2 X 4 DIMENSIONAL LUMBER. CONNECT FRAME MEMBERS WITH 2 EACH 12D COATED NAILS.
2. ALL HOLES SHALL BE DRILLED IN CENTERLINE OF FRAME MEMBERS AND DIAGONAL BRACES.
3. 6" BLOCK SPACER MAY BE USED BETWEEN DIAGONAL BRACE AND VERTICAL SUPPORT.
4. CONNECT FRAME CORNER BRACES TO FRAME MEMBERS WITH 6 EACH - 8D COATED NAILS. (3 NAILS INTO EACH FRAME MEMBER).
5. UPRIGHT FRAME MOUNTS ON THE OUTSIDE OF THE BOTTOM FRAME.
6. PAINT SIGN SUPPORT WITH 2 COATS OF WHITE PAINT.
7. DIAGONAL SUPPORTS MOUNT INSIDE BOTH UPRIGHT AND BOTTOM FRAMES. ALL UPRIGHT DIAGONAL BRACING SHALL BE SLOPED SUCH THAT BRACING COLLAPSES DOWNWARD UPON IMPACT BY A VEHICLE.
8. A SINGLE LAYER OF BALLAST PLACED ON THE BOTTOM FRAME MAY BE USED TO PREVENT SIGNS FROM TIPPING OVER FROM WIND AND VEHICLE GUSTS.
9. NO HORIZONTAL BRACING ALLOWED BETWEEN 2' AND 5' ON UPRIGHT VERTICALS, MEASURED FROM THE BOTTOM OF THE SKID BASE.
10. 5' MINIMUM SIGN MOUNTING HEIGHT, MEASURED FROM THE BOTTOM OF THE SKID BASE TO THE BOTTOM OF THE SIGN. VERTICAL SUPPORTS SHALL BE TALL ENOUGH TO ALLOW FOR HIGHER MOUNTING HEIGHTS FOR THOSE LOCATIONS REQUIRED BY THE MUTCD (I.E. SIDEWALKS, ROADSIDE PARKING AND EMBANKMENTS).
11. CONNECTIONS ALLOW FOR THE FOLDING, TRANSPORT AND STORAGE OF THE SUPPORT. WHEN FOLDED IN THE DOWN POSITION WITHIN THE CLEAR ZONE, THE MAXIMUM ASSEMBLY HEIGHT SHALL NOT EXCEED 4". SIMILAR NON-FOLDING SUPPORTS SHALL BE STORED OUTSIDE THE CLEAR ZONE OR BEHIND A BARRIER.
12. L = LENGTH OF BOTTOM FRAME.
W = WIDTH OF BOTTOM FRAME.




TEMPORARY WOODEN SIGN STAND
SIDE VIEW



TEMPORARY WOODEN SIGN STAND
FRONT VIEW



UPRIGHT FRAME
FRONT VIEW

 Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL PORTABLE TEMPORARY WOODEN SIGN SUPPORT	
APPROVED DECEMBER 2, 2021	ISSUED UNDER EI 21-028
<i>Robert Limoges</i> ROBERT LIMOGES, P.E. DIRECTOR, OTSM	619-004 Contract No. H62153-13GR PIN 0761 23

GENERAL NOTES

- 1. THE TYPICAL DETAILS DEPICTED ON THE STANDARD SHEETS AND IN THE MUTCD, REFLECT THE MINIMUM REQUIREMENTS.
2. PROPOSED REVISIONS TO THE TRAFFIC CONTROL PLAN SHALL BE PROVIDED, IN WRITING, TO THE DOT ENGINEER FOR REVIEW AND APPROVAL BY THE REGIONAL DIRECTOR OR HIS/HER DESIGNEE FIVE (5) WORK DAYS PRIOR TO THE PLANNED IMPLEMENTATION OF SUCH PROPOSED REVISIONS, EXCEPT FOR CHANGES THAT ALTER THE SCOPE OF THE TRAFFIC CONTROL PLAN. SUCH CHANGES IN SCOPE MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL BY THE REGIONAL DIRECTOR OR HIS/HER DESIGNEE THIRTY (30) WORKING DAYS PRIOR TO IMPLEMENTATION OF SUCH REVISIONS.
3. THE NAMES, ADDRESSES, AND TELEPHONE NUMBERS OF STAFF WHO ARE AUTHORIZED TO SECURE LABOR, MATERIALS, AND EQUIPMENT FOR EMERGENCY REPAIRS OUTSIDE NORMAL WORKING HOURS SHALL BE PROVIDED, IN WRITING, TO THE DOT ENGINEER. THE ENGINEER WILL PROVIDE THE SUBMITTED INFORMATION TO REGIONAL MANAGEMENT, THE NEW YORK STATE POLICE, THE RESIDENT ENGINEER, AND THE LOCAL POLICE.
4. STANDARD SHEET 619-503 MAY BE USED FOR AN OFFSITE DETOUR SETUP FOR BOTH LONG TERM AND SHORT TERM WORK DURATIONS.
5. FOLLOW REGIONAL HIGH-VOLUME RESTRICTIONS. CONSULT WITH DOT ENGINEER IF EXCEPTION NEEDED.
6. PLAN AHEAD TO AVOID CONFLICTING WORK ZONES. CHECK FOR CONSTRUCTION PROJECTS, CLOSURES, & RESTRICTIONS AT WWW.511.NY.ORG, WWW.DOT.NY.GOV/PROJECTS, AND WITH DOT ENGINEER.
7. DOCUMENT AND REPORT WORK ZONE INCIDENTS USING EITHER THE DEPARTMENT'S WORK ZONE INCIDENT FORM, OR THE CONSTRUCTION INCIDENT REPORTING SYSTEM, AS APPROPRIATE.
8. CONSIDER CLOSURE WIDTH & CLEAR WIDTH FOR WIDE VEHICLES ON WIDE LOAD ROUTES.

ACTIVITY AREA

- 1. A 500' MINIMUM LONGITUDINAL DISTANCE SHALL BE MAINTAINED BETWEEN CONSTRUCTION OPERATIONS ON ALTERNATE SIDES OF THE ROADWAY, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. WHEN TWO OR MORE AREAS ARE ADJACENT, OVERLAP, OR ARE IN CLOSE PROXIMITY, THE CONTRACTOR SHALL ENSURE THERE ARE NO CONFLICTING SIGNS AND THAT LANE CONTINUITY IS MAINTAINED THROUGHOUT ALL WORK AREAS.

SIGNS

- 1. THE LOCATIONS OF THE SIGNS SHOWN ON THE WORK ZONE TRAFFIC CONTROL PLANS AND DETAILS MAY BE ADJUSTED BASED ON SIGHT DISTANCE AND OTHER CONSIDERATIONS. THE FINAL LOCATIONS OF SIGNS ARE SUBJECT TO APPROVAL OF THE ENGINEER.
2. FOR LONG TERM WORK DURATIONS, ANY EXISTING SIGNS, INCLUDING OVERHEAD SIGNS, WHICH CONFLICT WITH THE TEMPORARY TRAFFIC CONTROL SIGN LAYOUT SHALL BE COVERED, REMOVED, STORED OR RESET, AS APPROVED BY THE ENGINEER. ALL APPROPRIATE EXISTING SIGNS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AND/OR LOCATION UNLESS OTHERWISE REPLACED IN THIS CONTRACT.
3. SIGNS AT OR NEAR INTERSECTIONS SHALL BE PLACED SO THAT THEY DO NOT OBSTRUCT A MOTORIST'S LINE OF SIGHT.
4. SIGNS MOUNTED ON THE MEDIAN OF DIVIDED HIGHWAYS WHERE MEDIAN BARRIER IS IN PLACE MAY BE MOUNTED ON THE BARRIER WITH A SADDLE TYPE BRACKET OR OMITTED WITH THE APPROVAL OF THE DOT ENGINEER. LAYING THE SIGN DOWN IN A HORIZONTAL POSITION IS NOT PERMITTED.
5. THE DIMENSIONS OF WORK ZONE TRAFFIC CONTROL SIGNS ARE DESCRIBED IN THE MUTCD. ANY CHANGES TO THE DIMENSIONS SHALL BE APPROVED BY THE REGIONAL DIRECTOR OR BY HIS/HER DESIGNEE.
6. NYR9-12 SHALL BE USED IN PLACE OF NYR9-11 WHEN A REDUCED REGULATORY SPEED LIMIT SIGN IS AUTHORIZED.
7. RIGID AND FLEXIBLE "ROLL-UP" SIGNS MAY BE USED FOR MOBILE, SHORT DURATION AND SHORT-TERM STATIONARY WORK. RIGID SIGNS MUST BE MOUNTED AT LEAST 5 FEET ABOVE GRADE (7 FEET WHERE THERE ARE PEDESTRIANS OR PARKED CARS). FLEXIBLE SIGNS SHALL BE MOUNTED AT LEAST ONE FOOT ABOVE GRADE. MESH SIGNS SHALL NOT BE USED. USE RETRO REFLECTORIZED RIGID SIGNS FOR NIGHTTIME WORK.

CHANNELIZING DEVICES

- 1. WHERE POSSIBLE ALL CHANNELIZING AND GUIDING DEVICES ARE TO BE PLACED SO AS TO PROVIDE A MINIMUM 2' LATERAL CLEARANCE TO THE TRAVELED WAY.

PUBLIC ACCESS

- 1. PROPERTY OWNERS WHOSE DRIVEWAYS WILL BE MADE INACCESSIBLE SHALL BE NOTIFIED AT LEAST 24 HOURS PRIOR TO RESTRICTING USE OF THE DRIVEWAY. FOR MULTIPLE ACCESS PROPERTIES, AT LEAST ONE DRIVEWAY SHALL BE OPEN AT ALL TIMES. ACCESS SHALL BE RESTORED TO ALL DRIVEWAYS AS SOON AS POSSIBLE.
2. SUITABLE RAMPS SHALL BE INSTALLED TO MAINTAIN SMOOTH TRANSITIONS FROM RESIDENTIAL AND COMMERCIAL DRIVEWAYS TO AND FROM THE WORK AREA.

LANE CLOSURES

- 1. LANE CLOSURES SHALL BE LOCATED TO PROVIDE OPTIMUM VISIBILITY, I.E. BEFORE CURVES AND CRESTS, TO THE EXTENT CONDITIONS PERMIT.
2. THE ENGINEER MAY REQUIRE THAT ALL LANES BE RE-OPENED AT ANY TIME IF THE ROUTE IS NEEDED FOR EMERGENCY PURPOSES. THIS COULD INCLUDE INCIDENTS AT LOCATIONS OUTSIDE THE CONTRACT LIMITS.
3. ARROW PANELS SHALL BE LEGIBLE CONTINUOUSLY FROM ANY POINT WITHIN THE ROADWAY (INCLUDING OF SHOULDERS) FROM 1,500 FEET IN ADVANCE OF THE LANE CLOSURE TAPER TO THE BEGINNING OF THE LANE CLOSURE TAPER.

LANE WIDTHS

- 1. UNLESS AUTHORIZED BY THE ENGINEER, THE MINIMUM LANE WIDTHS FOR WORK ZONE TRAVEL LANES SHALL BE AS FOLLOWS: FREEWAYS AND/OR EXPRESSWAYS IS 11'. THE MINIMUM LANE WIDTH FOR ALL OTHER TYPES OF ROADWAYS IS 10'.
2. A WRITTEN NOTE SHALL BE PROVIDED TO THE ENGINEER, A MINIMUM OF 21 CALENDAR DAYS IN ADVANCE OF PERFORMING ANY WORK THAT RESULTS IN THE REDUCED WIDTH OF AN EXISTING ROADWAY, SO THAT THE ENGINEER MAY NOTIFY THE REGIONAL PERMIT ENGINEER IN A TIMELY MANNER.

PROTECTIVE VEHICLES

- 1. A PROTECTIVE VEHICLE IS A LARGE DUMP TRUCK, A LARGE RACK TRUCK OR OTHER VEHICLE HAVING A GROSS WEIGHT OF AT LEAST 24,000 POUNDS. IF THE PROTECTIVE VEHICLE ENCROACHES INTO THE TRAVEL LANE, OR IF IT REMAINS ENTIRELY ON THE SHOULDER OF ANY HIGH SPEED ROAD (45 MPH OR HIGHER), IT SHALL BE EQUIPPED WITH A DEPLOYED TRUCK/TRAILER MOUNTED IMPACT ATTENUATOR (TMIA, SEE TABLE 011-01 ON SHEET 619-11). PROTECTIVE VEHICLES MAY BE LOADED WITH SAND, GRAVEL, OR FINE AGGREGATE AS BALLAST TO ENHANCE THE VEHICLE'S GROSS WEIGHT. ANY BALLAST ADDED TO ENHANCE THE VEHICLE'S GROSS WEIGHT SHALL BE SECURED AS NOT TO BECOME DISLODGED IF IMPACTED.
2. A PROTECTIVE VEHICLE USED IN A MOVING OPERATION IS REFERRED TO AS A SHADOW VEHICLE.
3. A PROTECTIVE VEHICLE USED IN A STATIONARY OPERATION IS REFERRED TO AS A BARRIER VEHICLE.
4. IN A MOVING OPERATION OR A STATIONARY OPERATION THAT OCCUPIES A LOCATION FOR UP TO 1 HOUR, THE OPERATOR SHALL REMAIN IN THE PROTECTIVE VEHICLE WITH THE SAFETY BELT AND HEADREST PROPERLY ADJUSTED, MAINTAIN VEHICLE SPACING, AND KEEP THE WHEELS ALIGNED WITH THE LANE STRIPING. TWO-WAY RADIOS SHOULD BE USED TO COMMUNICATE BETWEEN THE OPERATOR AND THE WORK CREW.
5. IN A STATIONARY OPERATION THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR, ONCE THE PROTECTIVE VEHICLE HAS BEEN APPROPRIATELY PLACED, IT SHOULD BE UNOCCUPIED. UNOCCUPIED VEHICLE SHALL BE POSITIONED PARALLEL TO TRAFFIC, PARKING BRAKE SET, PLACED IN 2ND GEAR (MANUAL TRANSMISSIONS /ENGINE OFF) OR PARK / NEUTRAL (AUTOMATIC TRANSMISSIONS) AND HAVE THE FRONT WHEELS ALIGNED WITH THE LANE STRIPING AND LANE TO MAINTAIN LANE DISCIPLINE AND TO STAY IN LANE IF STRUCK.
6. WHEN A PROTECTIVE VEHICLE IS USED IN ADVANCE OF EITHER MOVING OR STATIONARY OPERATIONS TO DISPLAY SIGN MESSAGES, IT IS REFERRED TO AS AN ADVANCE WARNING VEHICLE. ADVANCED WARNING VEHICLES MAY BE OCCUPIED OR UNOCCUPIED. WHEN SIGNS ARE MOUNTED ON AN ADVANCED WARNING VEHICLE, THEY SHALL NOT OBSTRUCT VISIBILITY OF ANY LIGHTS (TAILLIGHTS OR WARNING LIGHTS) OR SIDE-VIEW MIRRORS ON THE VEHICLE.
7. NO WORK ACTIVITY, EQUIPMENT, VEHICLES AND/OR MATERIALS SHALL BE LOCATED BETWEEN THE PROTECTIVE VEHICLE AND THE ACTIVE WORK AREA (ROLL AHEAD DISTANCE).
8. PROTECTIVE VEHICLES MAY BE REQUIRED IN CONJUNCTION WITH POLICE PRESENCE IN THE WORK ZONE, TO BE INCLUDED IN THE UNIT BID PRICE FOR BASIC WORK ZONE TRAFFIC CONTROL, FOR CAPITOL CONSTRUCTION PROJECTS.
9. DIRECT VERBAL COMMUNICATION BETWEEN THE PROTECTIVE VEHICLES AND THE WORK VEHICLE(S) / EQUIPMENT SHALL BE UTILIZED WHERE AVAILABLE.

WORK DURATION DEFINITIONS

- 1. THERE ARE MAINLY FIVE WORK DURATIONS:
A. LONG-TERM IS STATIONARY WORK THAT OCCUPIES A LOCATION MORE THAN 3 CONSECUTIVE DAYS.
B. INTERMEDIATE-TERM IS STATIONARY WORK THAT OCCUPIES A LOCATION MORE THAN ONE DAYLIGHT PERIOD UP TO 3 CONSECUTIVE DAYS, OR NIGHTTIME WORK LASTING MORE THAN 1 HOUR.
C. SHORT-TERM IS STATIONARY DAYTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR WITHIN A SINGLE DAYLIGHT PERIOD.
D. SHORT DURATION IS WORK THAT OCCUPIES A LOCATION UP TO 1 HOUR. IT CAN BE PERFORMED DURING THE DAYTIME OR AT NIGHT IN ACCORDANCE WITH NOTES N1 TO N10 NOTES ON NIGHTTIME WORK.
E. MOBILE IS WORK THAT MOVES INTERMITTENTLY OR CONTINUOUSLY WHERE THE WORK AT ANY SPECIFIC LOCATION COMPLETES WITHIN 15 MINUTES. IT IS USED FOR VEHICLE BASED OPERATIONS AND DOES NOT INVOLVE WORKERS ON FOOT. IT CAN BE PERFORMED DURING THE DAYTIME OR AT NIGHT IN ACCORDANCE WITH NOTES N1 TO N10 NOTES ON NIGHTTIME WORK.
2. SPECIAL OPERATIONS ARE WORK OPERATIONS THAT DO NOT FIT INTO ONE OF THE ABOVE FIVE CATEGORIES. SPECIAL OPERATIONS INCLUDE:
A. STOP AND GO OPERATIONS - WORK THAT COMPLETES WITHIN 5 MINUTES AND ALLOWS WORKERS ON FOOT.
B. OTHER OPERATIONS INCLUDING MOWING, MULCHING/HERBICIDE OPERATIONS, TEMPORARY ROAD/INTERSECTION CLOSURES, ETC.

ROADWAY TYPE DEFINITIONS

- 1. FREEWAY:
A. INTERSTATE: INTERREGIONAL HIGH-SPEED, HIGH-VOLUME, DIVIDED FACILITIES WITH COMPLETE CONTROL OF ACCESS.
B. PARKWAY: DIVIDED HIGHWAYS FOR NON-COMMERCIAL TRAFFIC WITH FULL CONTROL OF ACCESS, GRADE PARKWAY SEPARATIONS, INTERCHANGES, AND OCCASIONAL AT-GRADE INTERSECTIONS. PARKWAYS ARE DESIGNATED BY LAW.

ROADWAY TYPE DEFINITIONS (CONTINUED)

- 2. EXPRESSWAY: DIVIDED HIGHWAYS FOR THROUGH TRAFFIC WITH FULL OR PARTIAL CONTROL OF ACCESS AND GENERALLY WITH GRADE SEPARATIONS AT MAJOR CROSSROADS. ALL FREEWAY STANDARD SHEETS ARE APPLICABLE TO EXPRESSWAY.
3. NON-FREEWAY:
A. MULTILANE DIVIDED HIGHWAY
B. MULTILANE UNDIVIDED HIGHWAY
C. TWO-LANE TWO-WAY ROADWAY

ALL NON-FREEWAYS CAN BE EITHER URBAN OR RURAL:

URBAN: (MEETS MORE THAN 1 OF THE FOLLOWING CRITERIA)

- HIGH DENSITY DEVELOPMENT
•ON-STREET PARKING
•VARIED BUILDING SETBACKS
•MULTI-STORY AND LOW-TO MEDIUM-RISE STRUCTURES FOR RESIDENTIAL
•COMMERCIAL, AND EDUCATIONAL USES, STRUCTURES THAT ACCOMMODATE MIXED USES: COMMERCIAL, RESIDENTIAL, AND PARKING
•LIGHT INDUSTRIAL, AND SOMETIMES HEAVY INDUSTRIAL, LAND USE
•PROMINENT DESTINATIONS WITH SPECIALIZED STRUCTURES, E.G., LARGE THEATERS, SPORTS FACILITIES OR CONFERENCE CENTERS
•HIGH LEVELS OF PEDESTRIAN AND BICYCLIST ACTIVITY, WITH NEARLY CONTINUOUS SIDEWALKS AND MARKED CROSSWALKS
•HIGHER DENSITY OF TRANSIT STOPS AND ROUTES
•DRIVEWAY DENSITIES GREATER THAN 25 DRIVEWAYS/MILE ON EACH SIDE OF THE ROAD
•MINOR COMMERCIAL DRIVEWAY DENSITIES OF 10 DRIVEWAYS/MILE OR GREATER
•MAJOR COMMERCIAL DRIVEWAYS
•HIGH DENSITY OF CROSS STREETS

RURAL: DOES NOT MEET MORE THAN ONE OF THE ABOVE CRITERIA.

NOTES FOR NIGHTTIME OPERATIONS:

- N1. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS.
N2. ALL SIGNS, STOP/SLOW PADDLES AND RED FLAGS USED TO WARN/ALERT/CONTROL TRAFFIC SHALL BE RETROREFLECTIVE.
N3. ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMETS AND NIGHTTIME APPAREL IN ACCORDANCE WITH §107-05A. HIGH VISIBILITY APPAREL AT ALL TIMES.
N4. VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS OR FLASHING LED BEACONS AT ALL TIMES.
N5. LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.
N6. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.
N7. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL EQUIPMENT, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
N8. ALL LIGHTING SHALL BE DESIGNED, INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY.
N9. PRIOR TO THE START OF NIGHTTIME OPERATIONS, A WRITTEN NIGHTTIME OPERATIONS AND LIGHTING PLAN IS REQUIRED FOR APPROVAL FROM THE DOT ENGINEER.
N10. SEE STANDARD SPECIFICATIONS §619 FOR ADDITIONAL REQUIREMENTS AND CONSIDERATIONS.
N11. FLAGGERS SHALL USE A FLASHLIGHT WITH RED GLOW CONE/RED LED BATON FOR FLAGGING IN NON-ILLUMINATED FLAGGER STATIONS DURING NIGHTTIME OPERATIONS.



Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL GENERAL NOTES

APPROVED APRIL 8, 2022

ISSUED UNDER EI 22-008

Robert Limoges

619-010

ROBERT LIMOGES, P.E. CONTRACT NO. H62153-13GR

DIRECTOR, OTSM Pavement Marking Improvements Ph 13 PIN 0761 23

TABLE 011-01: PROTECTIVE VEHICLE REQUIREMENTS

Table with columns for Closure Type, Duration, Road Type & Speed, Exposure Conditions, and Protective Vehicle Requirements (P, TMIA, etc.) for various work durations and road types.

LEGEND: P: PROTECTIVE VEHICLE REQUIRED FOR EACH CLOSED LANE & EACH CLOSED PAVED SHOULDER 8' OR WIDER, IF THE WORK SPACE MOVES WITHIN THE STATIONARY CLOSURE, THE PROTECTIVE VEHICLE SHALL BE REPOSITIONED ACCORDINGLY. TMIA: TRUCK/TRAILER MOUNTED IMPACT ATTENUATOR (TMIA) REQUIRED. NA: NOT APPLICABLE. NOTES: 1. THE EXPOSURE CONDITIONS ASSUMES THERE IS NO POSITIVE PROTECTION PRESENT. 2. EITHER A PROTECTIVE VEHICLE OR THE STANDARD BUFFER SPACE SHALL BE PROVIDED.

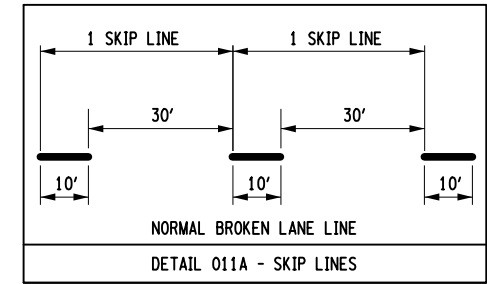


TABLE 011-02: TAPER LENGTHS & NUMBER OF CONES CHART

Table with columns for Preconstruction Posted Speed Limit (MPH) and Taper Length (FT.) / * of Skip Lines / * of Channelizing Devices for various lateral shifts of traffic flow path.

* THIS TABLE WAS CREATED WITH REFERENCE TO MUTCD TABLE 6H-4. ** THE NUMBER OF CHANNELIZING DEVICES SHOWN IS CALCULATED BASED ON A 40FT DEVICE SPACING. THE NUMBER OF CHANNELIZING DEVICES CAN BE ADJUSTED AS NECESSARY.

TABLE 011-03: LONGITUDINAL BUFFER SPACE. Table with columns for Preconstruction Posted Speed Limit (MPH) and Distance (FT.) / * of Skip Lines.

* THIS TABLE IS THE SAME AS MUTCD TABLE 6C-2.

TABLE 011-04: ROLL AHEAD DISTANCE FOR PROTECTIVE VEHICLES. Table with columns for Preconstruction Posted Speed Limit (MPH) and Roll Ahead Distance (FT.) / * of Skip Lines for Moving and Stationary Operations.

* THIS TABLE WAS CREATED WITH REFERENCE TO MUTCD TABLES NY-2 AND NY2-B.

TABLE 011-05: FLARE RATES FOR POSITIVE BARRIER. Table with columns for Type of Positive Barrier and Posted Speed Limit (MPH).

TABLE 011-06: ADVANCE WARNING SIGN SPACING. Table with columns for Road Type, Distance Between Signs (A, B, C in FT.), and Sign Legend (XX, YY).

* PRECONSTRUCTION POSTED SPEED LIMIT. ** THIS TABLE IS THE SAME AS MUTCD TABLE NY6H-3.

TABLE 011-07: TAPER LENGTH FOR TEMPORARY TRAFFIC CONTROL ZONES. Table with columns for Type of Taper and Taper Length (L).

* THIS TABLE IS THE SAME AS MUTCD TABLE 6C-3.

WORK ZONE TRAFFIC CONTROL LEGEND

Table with columns for Symbol and Description for various traffic control devices like Arrow Panel, Changeable Message Sign, Cone, etc.

WORK ZONE TRAFFIC CONTROL LEGEND

Table with columns for Symbol and Description for various traffic control devices like Sign, Spotter, Barrier, Barricade, etc.



U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL GENERAL TABLES AND LEGEND

APPROVED DECEMBER 2, 2021 ISSUED UNDER EI 21-028 Robert Limoges, P.E. 619-011 CONTRACTOR, OTSM Contract No. H62153-13GR

WORK ZONE TRAFFIC CONTROL SIGN TABLE

Table with 6 columns: SIGN, SIGN DESIGNATION, COLOR CODE, NON-FREEWAY, EXPRESSWAY, FREEWAY. Lists various traffic signs like EXIT, ROAD WORK, END ROAD WORK, and their dimensions.

WORK ZONE TRAFFIC CONTROL SIGN TABLE

Table with 6 columns: SIGN, SIGN DESIGNATION, COLOR CODE, NON-FREEWAY, EXPRESSWAY, FREEWAY. Lists signs like STATE LAW, RUMBLE STRIPS, WET PAINT, and their dimensions.

WORK ZONE TRAFFIC CONTROL SIGN TABLE

Table with 6 columns: SIGN, SIGN DESIGNATION, COLOR CODE, NON-FREEWAY, EXPRESSWAY, FREEWAY. Lists signs like ROAD CLOSED, BRIDGE CLOSED, BRIDGE OUT, and their dimensions.

WORK ZONE TRAFFIC CONTROL SIGN TABLE

Table with 6 columns: SIGN, SIGN DESIGNATION, COLOR CODE, NON-FREEWAY, EXPRESSWAY, FREEWAY. Lists signs like SLOW TRAFFIC AHEAD, WORK ZONE, EXIT OPEN, and EXIT CLOSED.

COLOR CODE LEGEND

Table with 2 columns: CODE, DESCRIPTION. Defines color codes A through G for sign legends and borders.

NOTES:

- 1. DIMENSIONS ARE SHOWN AS WIDTH X HEIGHT.
2. FOR SIGNAGE NOT SHOWN ON THESE TABLES REFER TO THE M.U.T.C.D.
3. COLORS FOR DIRECTION PLAQUES, ADVANCE TURN ARROWS, AND DIRECTIONAL ARROWS SHALL MATCH THE ROUTE OR INTERSTATE SIGN THAT THEY SUPPLEMENT AS PER THE M.U.T.C.D.
4. MULTICOLORED SYMBOL IMPOSED ON SIGN WITH BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND.
5. FOR R2-1 SIGN LARGER DIMENSIONS SHALL BE USED WHEN SIGN FACES MULTIPLE LANES ON A CONVENTIONAL ROAD.



U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL SIGN TABLE (SHEET 1 OF 2)

APPROVED DECEMBER 2, 2021 ISSUED UNDER EI 21-028

Robert Limoges, P.E. DIRECTOR, OTSM Contract No. H62153-13GR

619-012

Payment Marking Improvements Ph 13 PIN 0761 23

WORK ZONE TRAFFIC CONTROL SIGN TABLE					
SIGN	SIGN DESIGNATION	COLOR CODE	NON-FREEWAY	EXPRESSWAY	FREEWAY
	W5-1	A	36"X36"	48"X48"	48"X48"
	W5-4	A	36"X36"	48"X48"	48"X48"
	W6-3	A	36"X36"	48"X48"	48"X48"
	W7-3dP	A	24"X18"	36"X30"	36"X30"
	W8-1	A	36"X36"	48"X48"	48"X48"
	W8-3	A	36"X36"	48"X48"	48"X48"
	W8-7	A	36"X36"	48"X48"	48"X48"
	W8-8	A	36"X36"	48"X48"	48"X48"
	W8-9	A	36"X36"	48"X48"	48"X48"
	W8-12	A	36"X36"	-----	-----
	W8-14	A	36"X36"	48"X48"	48"X48"
	W8-15	A	36"X36"	48"X48"	48"X48"
	W8-17	A	36"X36"	48"X48"	48"X48"
	W8-17p	A	24"X18"	30"X24"	30"X24"
	W8-23	A	36"X36"	48"X48"	48"X48"
	W8-24	A	36"X36"	48"X48"	48"X48"
	W9-3	A	36"X36"	48"X48"	48"X48"
	W11-1L W11-1R	A OR F	36"X36"	36"X36"	-----
	W11-2L W11-2R	F	36"X36"	36"X36"	-----
	W11-15L W11-15R	F	36"X36"	36"X36"	-----
	NYW5-32P	A	24"X18"	24"X18"	-----

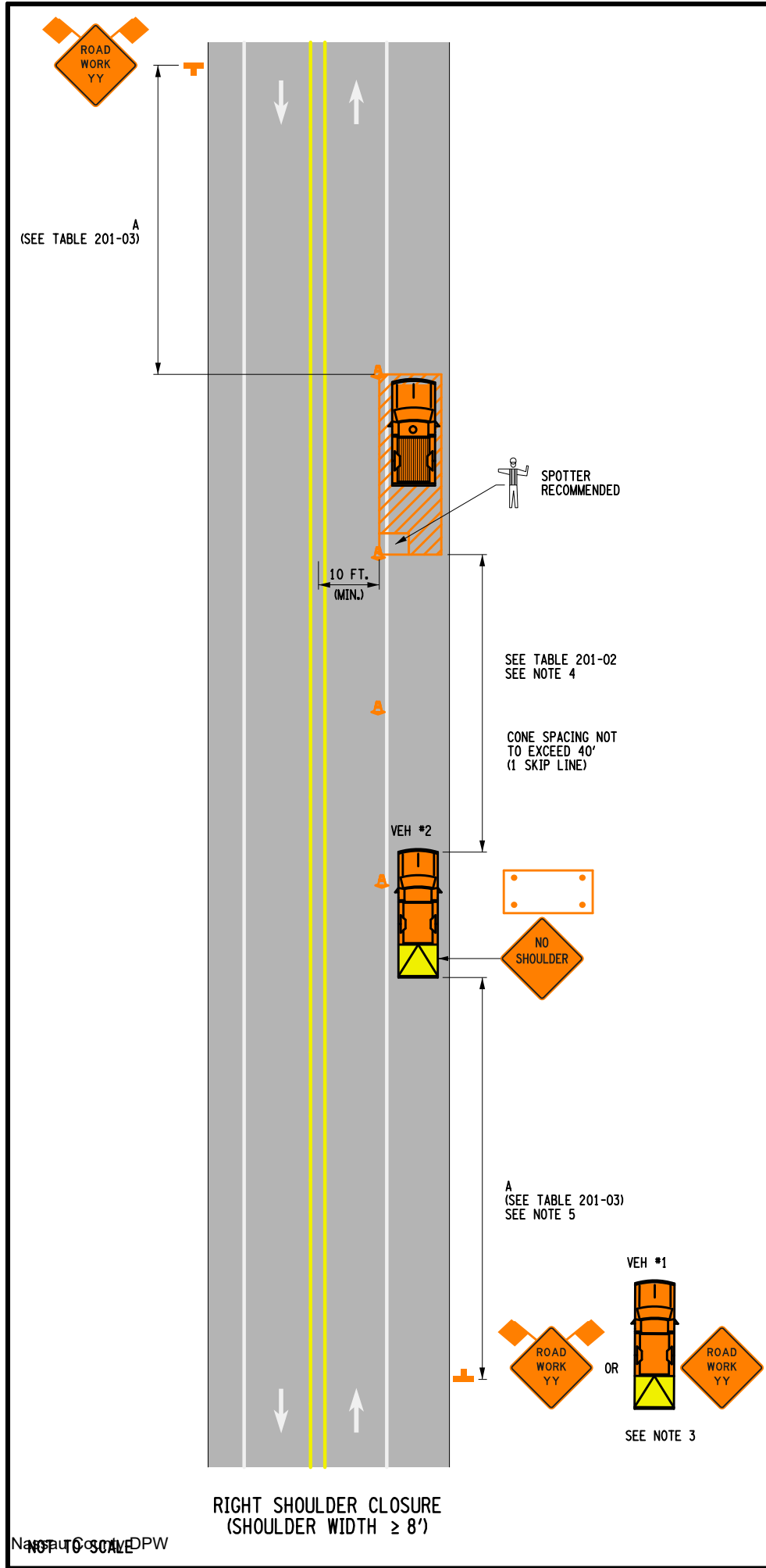
WORK ZONE TRAFFIC CONTROL SIGN TABLE					
SIGN	SIGN DESIGNATION	COLOR CODE	NON-FREEWAY	EXPRESSWAY	FREEWAY
	W13-1P	A	24"X24"	30"X30"	30"X30"
	W13-4	A	36"X36"	36"X36"	36"X36"
	W13-4P	A	48"X48"X36"	-----	-----
	W16-2P	A	24"X18"	30"X24"	-----
	W16-4P	SEE NOTE 3 A OR F	30"X24"	-----	-----
	W16-5PL W16-5PR	A	24"X18"	-----	-----
	W16-7PL W16-7PR	SEE NOTE 3 A OR F	24"X12"	30"X18"	-----
	W16-9P	SEE NOTE 3 A OR F	24"X12"	30"X18"	-----
	W20-1	A	36"X36"	48"X48"	48"X48"
	W20-2	A	36"X36"	48"X48"	48"X48"
	W20-3	A	36"X36"	48"X48"	48"X48"
	W20-4	A	36"X36"	48"X48"	48"X48"
	W20-5	A	36"X36"	48"X48"	48"X48"
	W20-5	A	36"X36"	48"X48"	48"X48"
	W20-5a	A	36"X36"	48"X48"	48"X48"
	W20-5a	A	36"X36"	48"X48"	48"X48"
	W20-7	A	36"X36"	48"X48"	48"X48"

WORK ZONE TRAFFIC CONTROL SIGN TABLE					
SIGN	SIGN DESIGNATION	COLOR CODE	NON-FREEWAY	EXPRESSWAY	FREEWAY
	W21-1	A	36"X36"	48"X48"	48"X48"
	W21-4	A	36"X18"	48"X24"	48"X24"
	W21-5	A	36"X36"	48"X48"	48"X48"
	W21-5dL W21-5dR	A	36"X36"	48"X48"	48"X48"
	W21-5dL W21-5dR	A	36"X36"	48"X48"	48"X48"
	W21-8	A	36"X36"	48"X48"	48"X48"
	W22-1	A	36"X36"	48"X48"	48"X48"
	W22-2	A	42"X36"	42"X36"	42"X36"
	W22-3	A	42"X36"	42"X36"	42"X36"
	W23-1	A	48"X24"	48"X24"	48"X24"
	W23-2	A	36"X36"	48"X48"	48"X48"
	W24-1L W24-1R	A	36"X36"	48"X48"	48"X48"
	W24-1dL W24-1dR	A	36"X36"	48"X48"	48"X48"
	W24-1bL W24-1bR	A	36"X36"	48"X48"	48"X48"

COLOR CODE LEGEND	
CODE	DESCRIPTION
A	BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND
B	BLACK LEGEND AND BORDER ON A WHITE BACKGROUND
C	WHITE LEGEND AND BORDER ON A GREEN BACKGROUND
D	WHITE LEGEND AND BORDER ON A RED BACKGROUND
E	RED LEGEND AND BORDER ON A WHITE BACKGROUND
F	BLACK LEGEND AND BORDER ON A FLOUORESCENT YELLOW GREEN BACKGROUND
G	WHITE LEGEND AND BORDER ON A BLUE AND RED BACKGROUND

- NOTES:
- DIMENSIONS ARE SHOWN AS WIDTH X HEIGHT.
 - FOR SIGNAGE NOT SHOWN ON THESE TABLES REFER TO THE M.U.T.C.D.
 - WHEN USED IN CONJUNCTION WITH A BICYCLE SIGN (W11-1) OR PEDESTRIAN CROSSING (W11-2) COLOR CODE SHALL MATCH.

U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL SIGN TABLE (SHEET 2 OF 2)	
APPROVED DECEMBER 2, 2021	ISSUED UNDER EI 21-028
Robert Limoges DIRECTOR, OTSM	Contract No. H62153-13GR Pavement Marking Improvements Ph 13 PIN 0761 23



NOT TO SCALE

RIGHT SHOULDER CLOSURE
(SHOULDER WIDTH ≥ 8')

CLOSURE TYPE	ROAD TYPE & SPEED	NON-FREEWAY		
		≥ 45 MPH	35 - 40 MPH	≤ 30 MPH
	EXPOSURE CONDITIONS ¹			
LANE CLOSURE OR ENCROACHMENT	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA	P, TMIA	P
	OTHER HAZARDS NO WORKERS EXPOSED	P, TMIA	P	P
SHOULDER CLOSURE OR ENCROACHMENT	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA	P	P
	OTHER HAZARDS NO WORKERS EXPOSED	P, TMIA	P	P

LEGEND

P: PROTECTIVE VEHICLE REQUIRED FOR EACH CLOSED LANE & EACH CLOSED PAVED SHOULDER 8' OR WIDER, IF THE WORK SPACE MOVES WITHIN THE STATIONARY CLOSURE, THE PROTECTIVE VEHICLE SHALL BE REPOSITIONED ACCORDINGLY

TMIA: TMIA REQUIRED

NOTES:
1. THE EXPOSURE CONDITIONS ASSUMES THERE IS NO POSITIVE PROTECTION PRESENT

ROLL AHEAD DISTANCE (FT.)/# OF SKIP LINES FOR VEHICLES		
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	STATIONARY OPERATION	
	MIN	MAX
≥ 55	120/3	200/5
45 - 50	80/2	160/4
≤ 40	40/1	120/3

ROAD TYPE	DISTANCE BETWEEN SIGNS	SIGN LEGEND
	A (FT.)	YY
URBAN (≤ 30 MPH*)	100	AHEAD
URBAN (35-40 MPH*)	200	AHEAD
URBAN (≥ 45 MPH*)	350	AHEAD
RURAL	500	1000 FT.

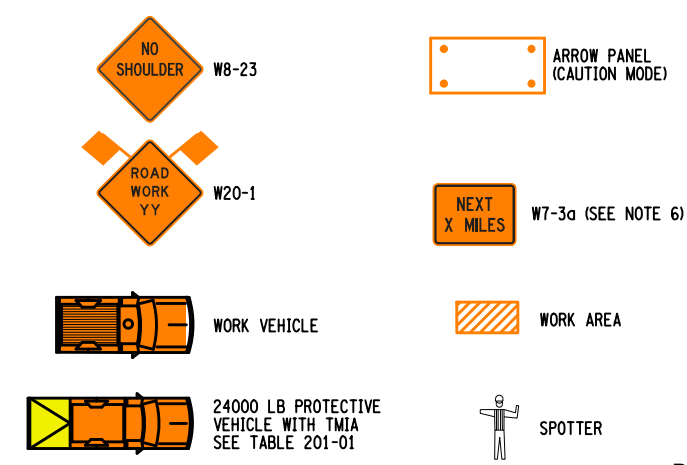
* PRECONSTRUCTION POSTED SPEED LIMIT

SIGN	NON-FREEWAY	FREEWAY
W7-3a	24x18	36x30
W8-23	36x36	48x48
W20-1	36x36	48x48
WARNING FLAG	18x18	18x18

*FREEWAY SIZES MAY BE USED ON NON-FREEWAY, IF SPACE CONSTRAINTS DO NOT EXIST.

NOTES:

- SHORT DURATION IS WORK THAT OCCUPIES A LOCATION FOR UP TO 1 HOUR.
- THE OPERATOR(S) SHALL REMAIN IN THE PROTECTIVE VEHICLE(S) WITH THE SAFETY BELT AND HEADREST PROPERLY ADJUSTED, MAINTAIN VEHICLE SPACING, AND KEEP THE WHEELS ALIGNED WITH THE LANE STRIPING. TWO-WAY RADIOS SHOULD BE USED TO COMMUNICATE BETWEEN THE OPERATOR AND THE WORK CREW.
- IF SHOULDER AREA BECOMES TOO NARROW FOR VEH #1 TO BE COMPLETELY ON THE SHOULDER, THE VEHICLE SHALL STAY ON THE WIDER SHOULDER AREA UNTIL THE OPERATOR CAN SAFELY DRIVE AROUND THE NARROW SHOULDER TO THE NEW SET-UP POINT.
- THERE SHALL BE NO WORKERS, EQUIPMENT OR OTHER VEHICLES IN THE ROLL AHEAD DISTANCE.
- IN URBAN CONDITIONS, ADVANCE WARNING SIGN SPACINGS MAY BE ADJUSTED IN ORDER TO ACCOMMODATE SIDE STREETS AND DRIVEWAYS. IF THERE IS A CONFLICT, MOVE THE SIGN UPSTREAM.
- A SUPPLEMENTAL DISTANCE PLAQUE W7-3a SHALL BE USED WITH SIGN W20-1 WHEN THE DISTANCE BETWEEN THE ADVANCE WARNING SIGNS AND WORK MAY BECOME GREATER THAN 2 MILES AS A RESULT OF THE FOLLOWING SITUATIONS:
 - MULTIPLE WORK LOCATIONS ARE ANTICIPATED WITHIN A MAXIMUM OF 5 MILES FROM THE W20-1 SIGN
 - WORK AREA WILL BE RELOCATED DURING THE DURATION OF THE WORK WITHIN A MAXIMUM OF 5 MILES FROM THE W20-1 SIGN



NEW YORK
STATE OF OPPORTUNITY.

Department of Transportation

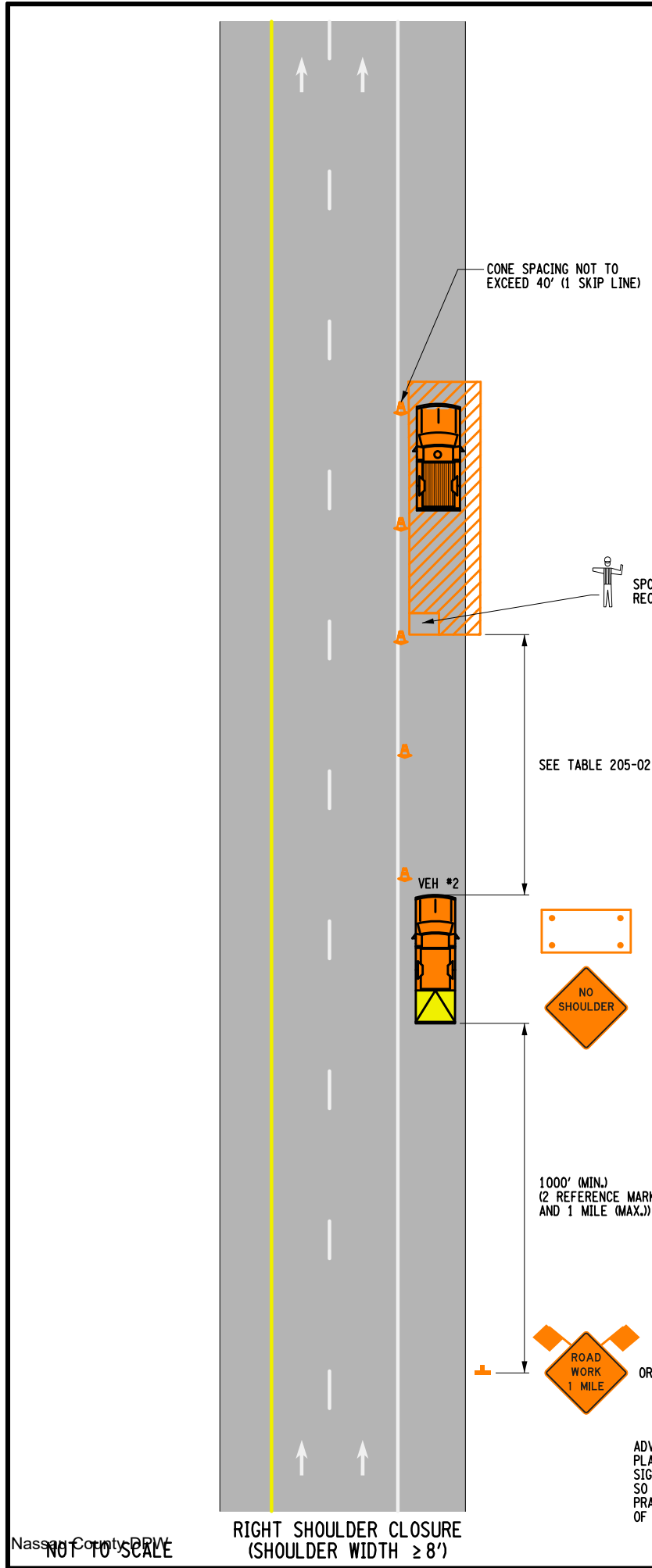
U.S. CUSTOMARY STANDARD SHEET

**WORK ZONE TRAFFIC CONTROL
NON-FREEWAY
RIGHT SHOULDER CLOSURE/LANE ENCROACHMENT
SHORT DURATION OPERATION**

APPROVED DECEMBER 2, 2021 | ISSUED UNDER EI 21-028

Robert Limoges
ROBERT LIMOGES, P.E.
DIRECTOR, OTSM

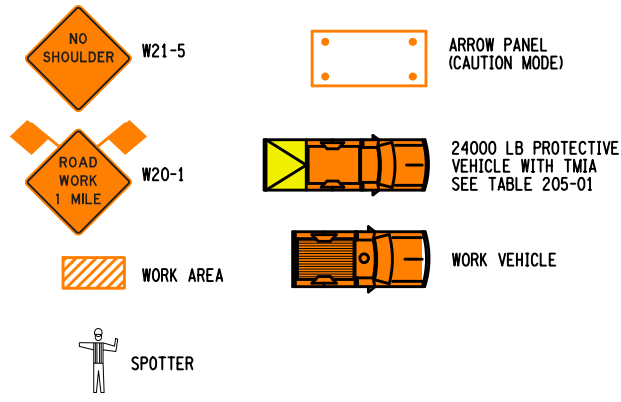
619-201
Contract No. H62153-13GR
Pavement Marking Improvements Ph 13 PIN 0761 23



RIGHT SHOULDER CLOSURE
 (SHOULDER WIDTH ≥ 8')

ADVANCED WARNING SIGNS SHALL BE PLACED ON A TEMPORARY SIGN STAND. SIGN SHALL BE MOVED PERIODICALLY SO THAT IT IS KEPT AS CLOSE AS PRACTICAL TO THE ACTUAL LOCATION OF THE WORK VEHICLE.

- NOTES:
1. SHORT DURATION IS WORK THAT OCCUPIES A LOCATION FOR UP TO 1 HOUR.
 2. THE OPERATOR(S) SHALL REMAIN IN THE PROTECTIVE VEHICLE(S) WITH THE SAFETY BELT AND HEADREST PROPERLY ADJUSTED, MAINTAIN VEHICLE SPACING, AND KEEP THE WHEELS ALIGNED WITH THE LANE STRIPING. TWO-WAY RADIOS SHOULD BE USED TO COMMUNICATE BETWEEN THE OPERATOR AND THE WORK CREW.
 3. THERE SHALL BE NO WORKERS, EQUIPMENT, OR OTHER VEHICLES IN THE ROLL AHEAD DISTANCE.



CLOSURE TYPE	ROAD TYPE & SPEED	FREEWAY
	EXPOSURE CONDITIONS [†]	
LANE CLOSURE OR ENCROACHMENT	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA
	OTHER HAZARDS NO WORKERS EXPOSED	P, TMIA
SHOULDER CLOSURE OR ENCROACHMENT	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA
	OTHER HAZARDS NO WORKERS EXPOSED	P, TMIA

LEGEND

P: PROTECTIVE VEHICLE REQUIRED FOR EACH CLOSED LANE & EACH CLOSED PAVED SHOULDER 8' OR WIDER, IF THE WORK SPACE MOVES WITHIN THE STATIONARY CLOSURE, THE PROTECTIVE VEHICLE SHALL BE REPOSITIONED ACCORDINGLY

TMIA: TMIA REQUIRED

NOTES:

1. THE EXPOSURE CONDITIONS ASSUMES THERE IS NO POSITIVE PROTECTION PRESENT

PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	STATIONARY OPERATION	
	MIN	MAX
≥ 55	120/3	200/5
45 - 50	80/2	160/4

SIGN	FREEWAY
W20-1	48x48
W21-5	48x48
WARNING FLAG	18x18

NEW YORK
STATE OF OPPORTUNITY.

Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

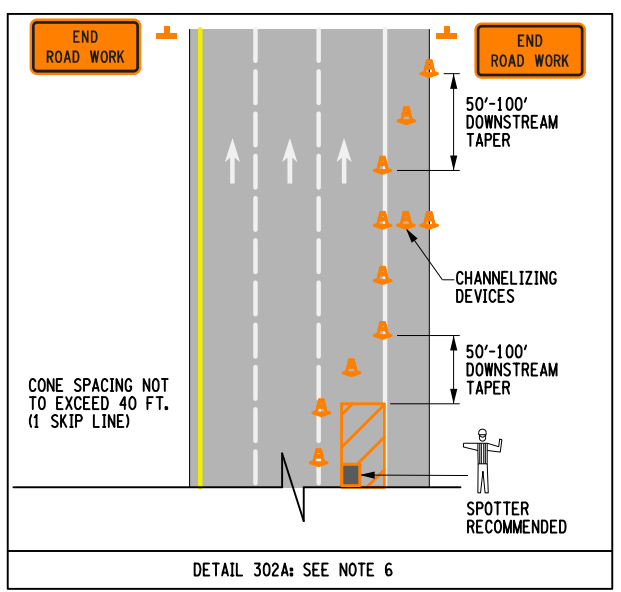
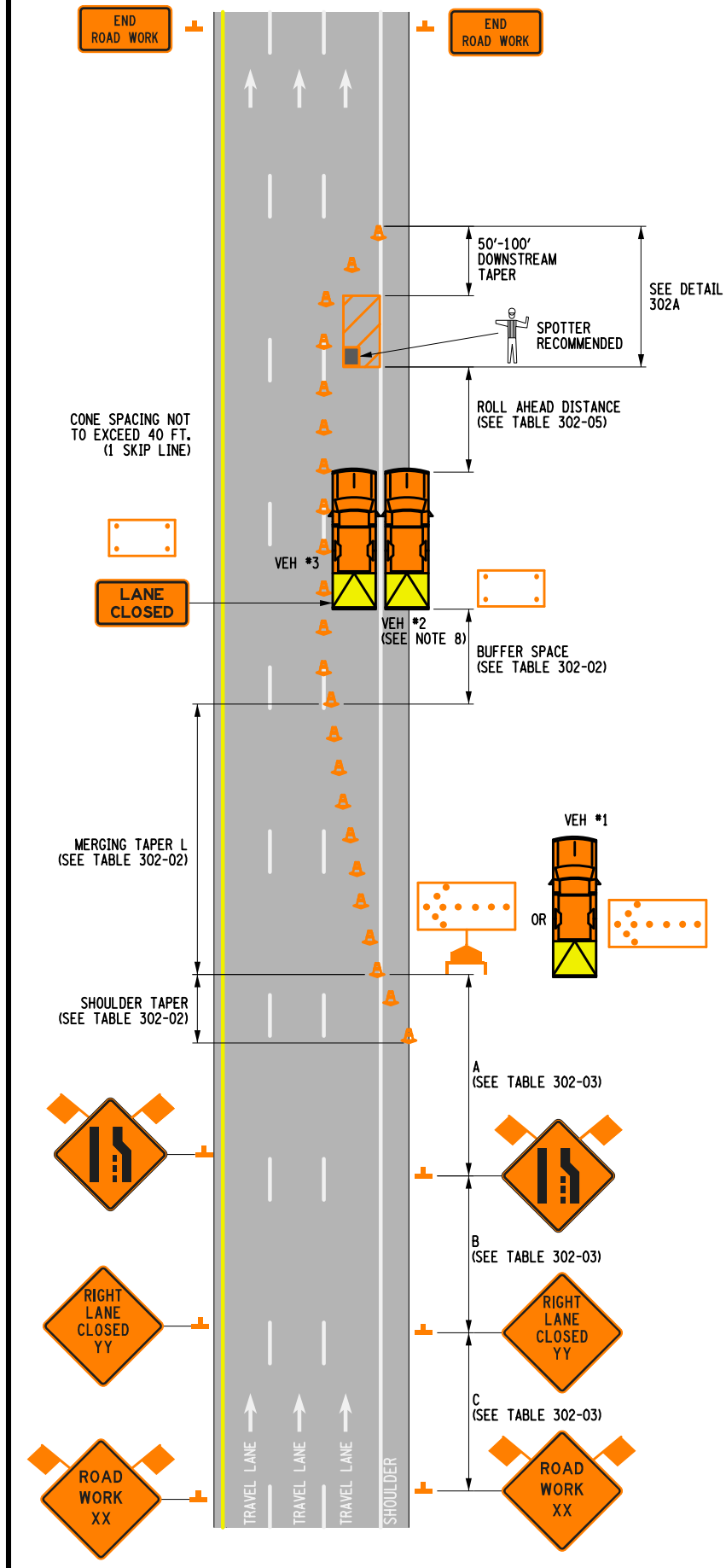
**WORK ZONE TRAFFIC CONTROL
 FREEWAY
 RIGHT SHOULDER CLOSURE
 SHORT DURATION OPERATION**

APPROVED DECEMBER 2, 2021

ISSUED UNDER EI 21-028

Robert Limoges
 ROBERT LIMOGES, P.E.
 DIRECTOR, OTSM

619-205
 Contract No. H62153-13GR
 Pavement Marking Improvements Ph 13 PIN 0761 23



- NOTES:**
1. SHORT-TERM STATIONARY IS DAYTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR WITHIN A SINGLE DAYLIGHT PERIOD.
 2. IN URBAN CONDITIONS, ADVANCE WARNING SIGN SPACINGS MAY BE ADJUSTED IN ORDER TO ACCOMMODATE SIDE STREETS AND DRIVEWAYS. IF THERE IS A CONFLICT, MOVE THE SIGN UPSTREAM.
 3. THERE SHALL BE NO WORKERS, EQUIPMENT OR OTHER VEHICLES IN THE BUFFER SPACE OR THE ROLL AHEAD DISTANCE.
 4. THE PROTECTIVE VEHICLE(S) SHALL MAINTAIN THE APPROPRIATE ROLL AHEAD DISTANCE, BE AN UNOCCUPIED TRUCK POSITIONED PARALLEL TO TRAFFIC, PARKING BRAKE SET, PLACED IN 2ND GEAR (MANUAL TRANSMISSIONS /ENGINE OFF) OR PARK / NEUTRAL (AUTOMATIC TRANSMISSIONS) AND HAVE THE FRONT WHEELS ALIGNED WITH THE LANE STRIPING.
 5. LEFT LANE CLOSURES ARE SYMMETRICAL TO RIGHT LANE CLOSURES. SUBSTITUTE LEFT LANE CLOSED SIGN (W20-5) AND THE CORRESPONDING LANE ENDS SIGN (W4-2L).
 6. CHANNELIZING DEVICES SHALL BE PLACED TRANSVERSELY A MINIMUM OF EVERY 800' AS SHOWN WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 800'.
 7. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORK SPACE.
 8. VEH #2 IS ONLY NEEDED WHEN THE SHOULDER WIDTH IS ≥ 8'.

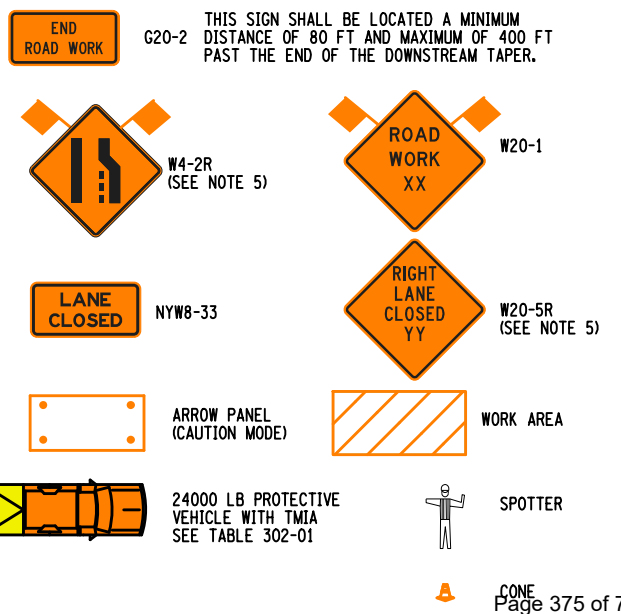


TABLE 302-01: PROTECTIVE VEHICLE REQUIREMENTS

CLOSURE TYPE	ROAD TYPE & SPEED	FREEWAY	NON-FREEWAY		
			≥ 45 MPH	35 - 40 MPH	≤ 30 MPH
LANE CLOSURE OR ENCROACHMENT	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA	P, TMIA	P, TMIA	P
	OTHER HAZARDS NO WORKERS EXPOSED	P, TMIA	P, TMIA	P	SEE NOTE 2
SHOULDER CLOSURE OR ENCROACHMENT	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA	P, TMIA	P	P
	OTHER HAZARDS NO WORKERS EXPOSED	P, TMIA	P, TMIA	P	SEE NOTE 2

LEGEND
P: PROTECTIVE VEHICLE REQUIRED FOR EACH CLOSED LANE & EACH CLOSED PAVED SHOULDER 8' OR WIDER, IF THE WORK SPACE MOVES WITHIN THE STATIONARY CLOSURE, THE PROTECTIVE VEHICLE SHALL BE REPOSITIONED ACCORDINGLY
TMIA: TMIA REQUIRED

NOTES:
1. THE EXPOSURE CONDITIONS ASSUMES THERE IS NO POSITIVE PROTECTION PRESENT
2. EITHER A PROTECTIVE VEHICLE OR THE STANDARD BUFFER SPACE SHALL BE PROVIDED

TABLE 302-02: LONGITUDINAL BUFFER SPACE AND TAPER LENGTHS

PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE DISTANCE (FT.) / * OF SKIP LINES	TAPER LENGTH: L (FT.) / * OF SKIP LINES / * OF CHANNELIZING DEVICES			SHOULDER TAPER LENGTH: L/3 (FT.) / * OF SKIP LINES / * OF CHANNELIZING DEVICES		
		FOR LANE WIDTH IN FT. (LATERAL SHIFT OF TRAFFIC FLOW PATH)			FOR SHOULDER WIDTH		
		10	11	12	≤ 4 FT.	5 - 7 FT.	≥ 8 FT.
25	155/4	120/3/4	120/3/4	120/3/4	40/1/2	40/1/2	40/1/2
30	200/5	160/4/5	160/4/5	200/5/6	40/1/2	40/1/2	40/1/2
35	250/6	200/5/6	240/6/7	240/6/7	40/1/2	40/1/2	80/2/3
40	305/8	280/7/8	320/8/9	320/8/9	40/1/2	80/2/3	80/2/3
45	360/9	440/11/12	520/13/14	560/14/15	80/2/3	80/2/3	120/3/4
50	425/11	520/13/14	560/14/15	600/15/16	80/2/3	120/3/4	160/4/5
55	495/13	560/14/15	600/15/16	680/17/18	80/2/3	120/3/4	160/4/5
65	645/16	640/16/17	720/18/19	800/20/21	80/2/3	160/4/5	200/5/6

TABLE 302-03: ADVANCE WARNING SIGN SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS			SIGN LEGEND	
	A (FT.)	B (FT.)	C (FT.)	XX	YY
URBAN (≤ 30 MPH*)	100	100	100	AHEAD	AHEAD
URBAN (35-40 MPH*)	200	200	200	AHEAD	AHEAD
URBAN (≥ 45 MPH*)	350	350	350	1000 FT.	AHEAD
RURAL	500	500	500	1500 FT.	1000 FT.
FREEWAY	1000	1500	2640	1 MILE	½ MILE

* PRECONSTRUCTION POSTED SPEED LIMIT

TABLE 302-05: ROLL AHEAD DISTANCE

PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	ROLL AHEAD DISTANCE (FT.) / * OF SKIP LINES FOR VEHICLES	
	MIN	MAX
≥ 55	120/3	200/5
45 - 50	80/2	160/4
≤ 40	40/1	120/3

TABLE 302-04: REQUIRED SIGN SIZES*

SIGN	NON-FREEWAY	FREEWAY
G20-2	36x18	48x24
NYW8-33	48x24	48x24
W4-2R	36x36	48x48
W20-1	36x36	48x48
W20-5R	36x36	48x48
WARNING FLAG	18x18	18x18

*FREEWAY SIZES MAY BE USED ON NON-FREEWAY, IF SPACE CONSTRAINTS DO NOT EXIST.

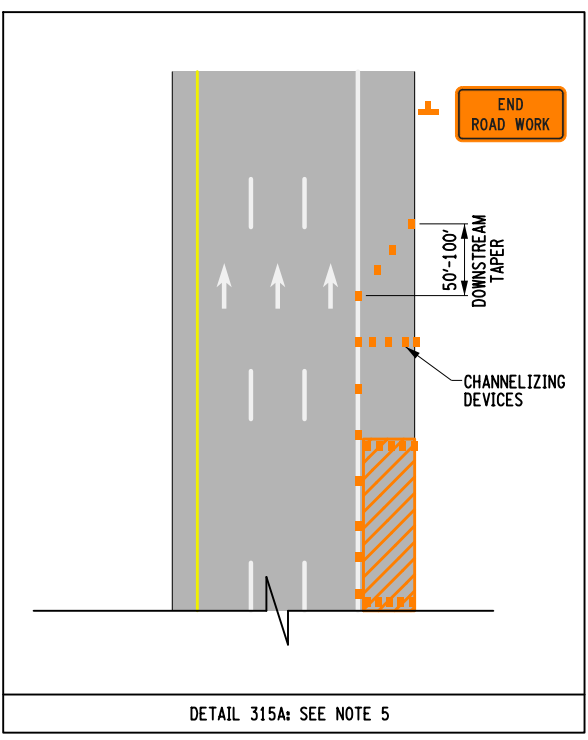
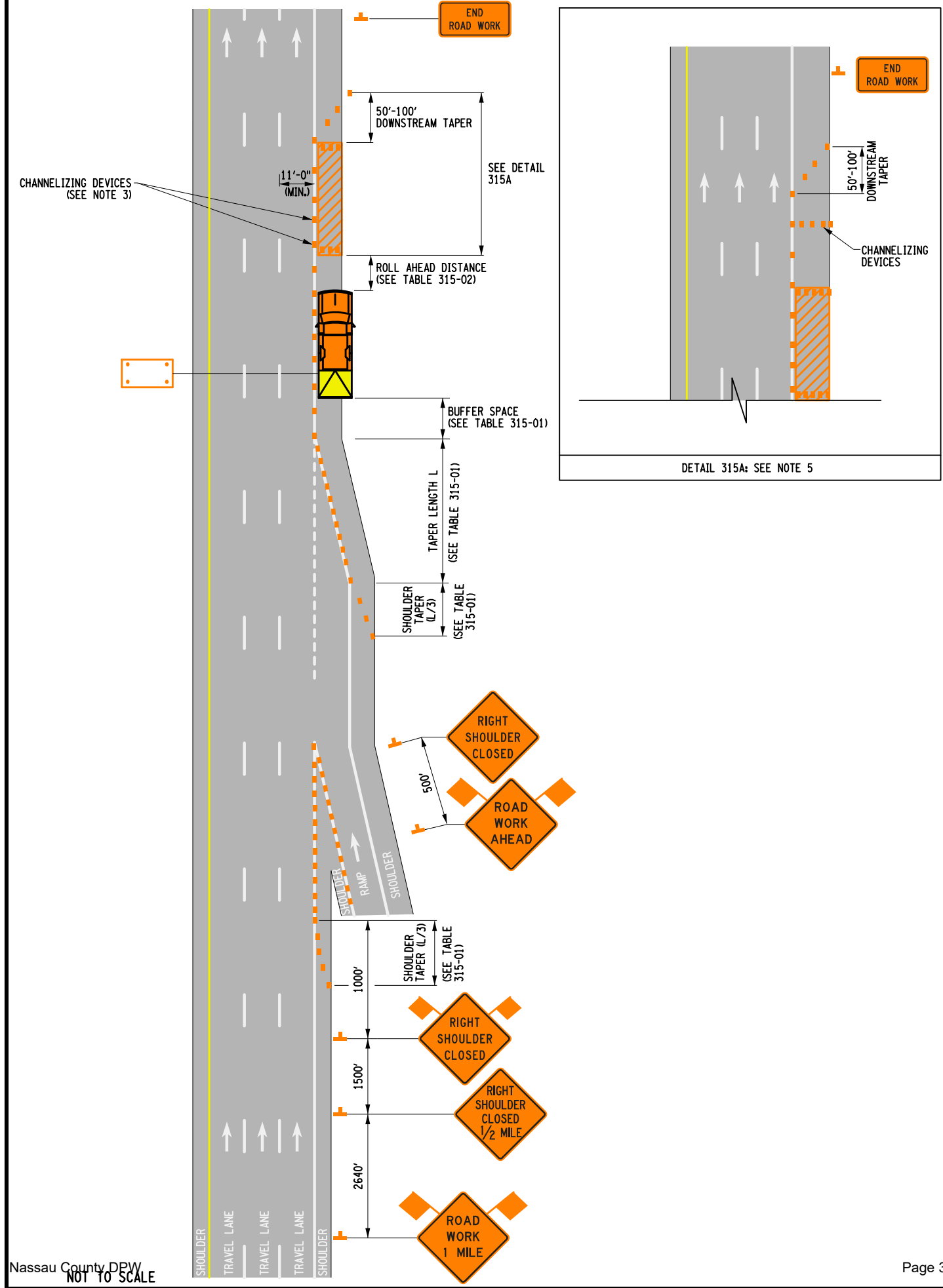
NEW YORK STATE OF OPPORTUNITY
Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

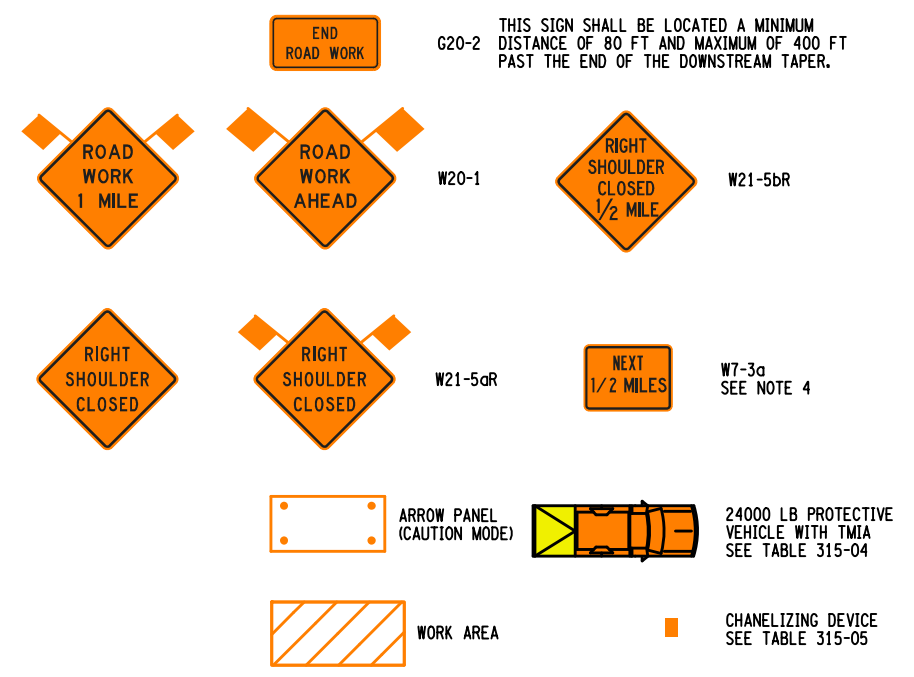
**WORK ZONE TRAFFIC CONTROL
MULTILANE DIVIDED ROADWAY AND FREEWAY
RIGHT LANE CLOSURE
SHORT TERM OPERATION**

APPROVED DECEMBER 2, 2021 | ISSUED UNDER EI 21-028

Robert Limoges
ROBERT LIMOGES, P.E.
DIRECTOR, OTSM | Contract No. H62153-13GR
619-302



- NOTES:
1. SHORT-TERM STATIONARY IS DAYTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR WITHIN A SINGLE DAYLIGHT PERIOD.
 2. NO WORK ACTIVITY OR STORAGE OF EQUIPMENT, VEHICLES, OR MATERIAL SHOULD OCCUR WITHIN A BUFFER SPACE.
 3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORK SPACE.
 4. XX IS THE EXPECTED OVERALL LENGTH OF THE OPERATION TO BE COMPLETED WITHIN THE WORK DAY. A SUPPLEMENTAL DISTANCE PLAQUE W7-3a SHALL BE USED WITH W20-1 SIGN WHEN THE DISTANCE BETWEEN THE ADVANCE WARNING SIGNS AND WORK MAY BECOME GREATER THAN 2 MILES AS A RESULT OF THE FOLLOWING SITUATIONS:
 - *MULTIPLE WORK LOCATIONS ARE ANTICIPATED WITHIN XX MILES FROM THE W20-1 SIGN
 - *WORK AREA WILL BE RELOCATED DURING THE DURATION OF THE WORK WITHIN XX MILES FROM THE W20-1 SIGN
 THE SUPPLEMENT SIGN W3-7a SHALL INDICATE THE MAXIMUM ANTICIPATED DISTANCE BETWEEN THE W20-1 SIGN AND THE FARTHEST WORK LOCATION.
 5. CHANNELIZING DEVICES SHALL BE PLACED TRANSVERSELY A MINIMUM OF EVERY 800' AS SHOWN WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 800'.
 6. THE PROTECTIVE VEHICLE(S) SHALL MAINTAIN THE APPROPRIATE ROLL AHEAD DISTANCE, BE AN UNOCCUPIED TRUCK POSITIONED PARALLEL TO TRAFFIC, PARKING BRAKE SET, PLACED IN 2ND GEAR (MANUAL TRANSMISSIONS /ENGINE OFF) OR PARK / NEUTRAL (AUTOMATIC TRANSMISSIONS) AND HAVE THE FRONT WHEELS ALIGNED WITH THE LANE STRIPING.



REFER TO SHEET 2 OF 2 FOR ALL TABLES

NEW YORK STATE OF OPPORTUNITY.		Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET			
WORK ZONE TRAFFIC CONTROL FREEWAY SHOULDER CLOSURE AT RAMP APPROACH SHORT TERM OPERATION (SHEET 1 OF 2)			
APPROVED DECEMBER 2, 2021		ISSUED UNDER EI 21-028	
Robert Limoges ROBERT LIMOGES, P.E. DIRECTOR, OTSM		619-315 Contract No. H62153-13GR Pavement Marking Improvements Ph 13 PIN 0761 23	

TABLE 315-01: LONGITUDINAL BUFFER SPACE AND TAPER LENGTHS

PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE DISTANCE (FT.) / * OF SKIP LINES	TAPER LENGTH: L (FT.) / * OF SKIP LINES / * OF CHANNELIZING DEVICES			SHOULDER TAPER LENGTH: L/3 (FT.) / * OF SKIP LINES / * OF CHANNELIZING DEVICES		
		FOR LANE WIDTH IN FT. (LATERAL SHIFT OF TRAFFIC FLOW PATH)			FOR SHOULDER WIDTH		
		10	11	12	≤ 4 FT.	5 - 7 FT.	≥ 8 FT.
45	360/9	440/11/12	520/13/14	560/14/15	80/2/3	80/2/3	120/3/4
50	425/11	520/13/14	560/14/15	600/15/16	80/2/3	120/3/4	160/4/5
55	495/13	560/14/15	600/15/16	680/17/18	80/2/3	120/3/4	160/4/5
65	645/16	640/16/17	720/18/19	800/20/21	80/2/3	160/4/5	200/5/6

TABLE 315-02: ROLL AHEAD DISTANCE

ROLL AHEAD DISTANCE (FT.)/ * OF SKIP LINES FOR VEHICLES		
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	STATIONARY OPERATION	
	MIN	MAX
≥ 55	120/3	200/5
45 - 50	80/2	160/4

TABLE 315-03: REQUIRED SIGN SIZES

SIGN	FREEWAY
G20-2	48x24
W7-3a	36x30
W20-1	48x48
W21-5aR	48x48
W21-5bR	48x48
WARNING FLAG	18x18

TABLE 315-04: PROTECTIVE VEHICLE REQUIREMENTS

CLOSURE TYPE	ROAD TYPE & SPEED	FREEWAY
	EXPOSURE CONDITIONS ¹	
LANE CLOSURE OR ENCROACHMENT	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA
	OTHER HAZARDS NO WORKERS EXPOSED	P, TMIA
SHOULDER CLOSURE OR ENCROACHMENT	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA
	OTHER HAZARDS NO WORKERS EXPOSED	P, TMIA


LEGEND
P: PROTECTIVE VEHICLE REQUIRED FOR EACH CLOSED LANE & EACH CLOSED PAVED SHOULDER 8' OR WIDER, IF THE WORK SPACE MOVES WITHIN THE STATIONARY CLOSURE, THE PROTECTIVE VEHICLE SHALL BE REPOSITIONED ACCORDINGLY
TMIA: TMIA REQUIRED

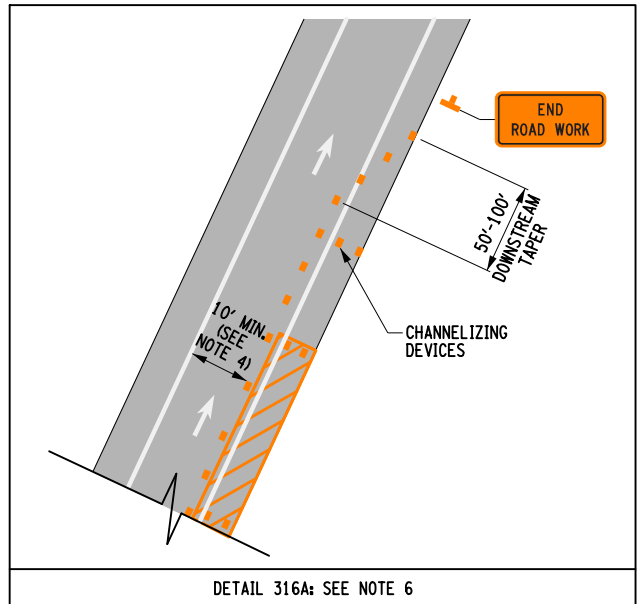
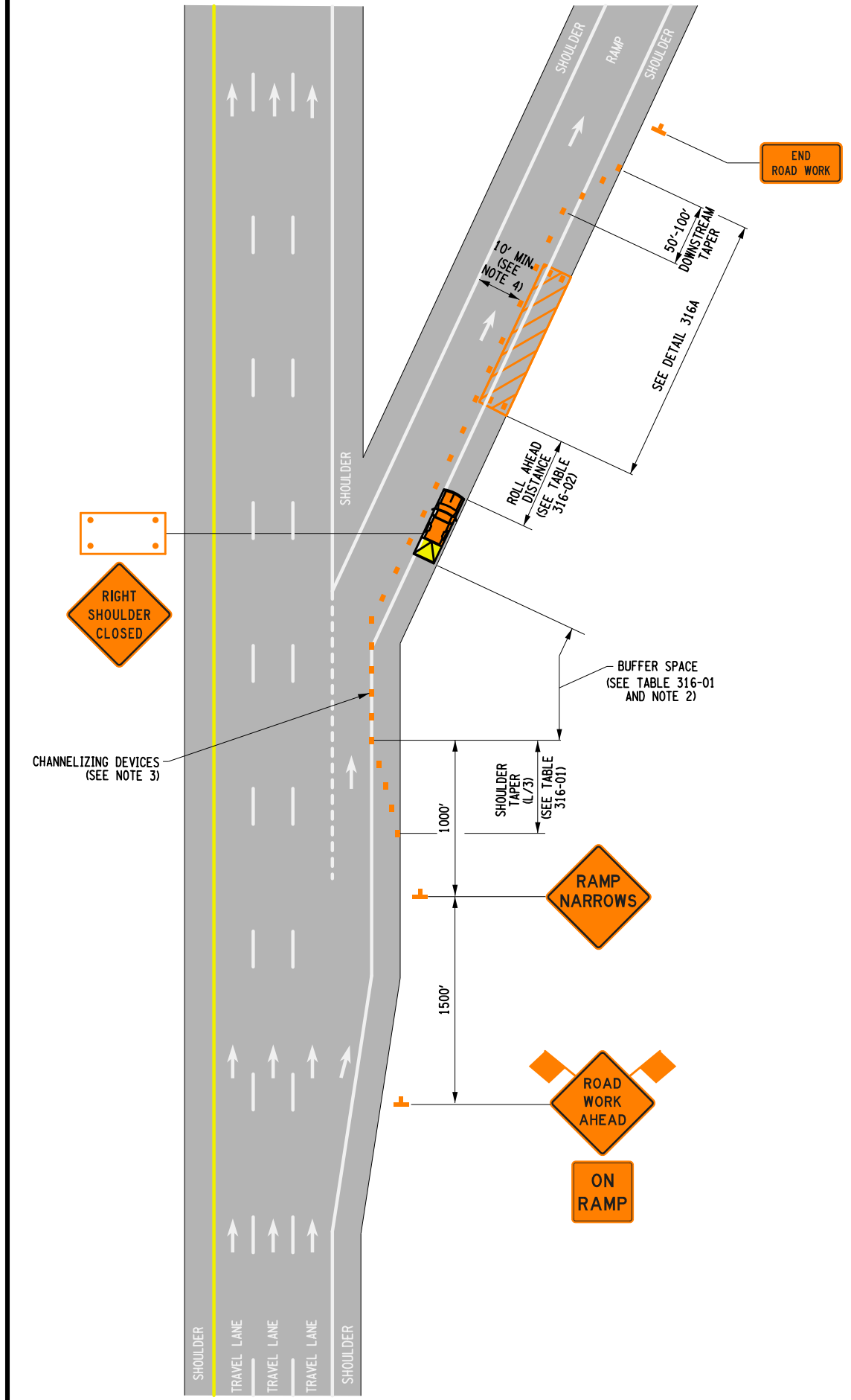
NOTES:
1. THE EXPOSURE CONDITIONS ASSUME THERE IS NO POSITIVE PROTECTION PRESENT

TABLE 315-05: CHANNELIZING DEVICE APPLICATION FOR SHORT-TERM STATIONARY WORK ZONES

WORK ZONE PROVISIONS	MAXIMUM DEVICE SPACING (CENTER TO CENTER)	MUTCD COMPLIANT CHANNELIZING DEVICE								
		DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE III BARRICADES
SHORT-TERM STATIONARY WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR WITHIN A SINGLE DAYLIGHT PERIOD.										
SHOULDER/MERGING/SHIFTING TAPERS	20 FT.	X	X	X	X			X	X	
	40 FT.	X	X	X	X			X	X	
MARKING FOR TRANSVERSE BUMPS ¹	N/A	X ²			X ²				X ²	
LONGITUDINAL LANE OR SHOULDER CLOSURE W/NO WORKERS PRESENT	80 F.	X	X	X	X			X	X	
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER	800 FT.	X	X	X	X			X	X	0
REMOVAL OF EXISTING GUIDE RAIL	80 FT.			X	X	X		X	X	0
	40 FT.	X		X	X	X		X	X	0

NOTES: X= ALLOWED, BLANK = NOT ALLOWED, 0 = OPTIONAL
1. - A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE.
2. - CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.

 NEW YORK STATE OF OPPORTUNITY.		Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET			
WORK ZONE TRAFFIC CONTROL FREEWAY SHOULDER CLOSURE AT RAMP APPROACH SHORT TERM OPERATION (SHEET 2 OF 2)			
APPROVED APRIL 8, 2022		ISSUED UNDER EI 22-008	
<i>Robert Limoges</i> ROBERT LIMOGES, P.E. DIRECTOR, OTSM		619-315 Contract No. H62153-13GR Pavement Marking Improvements Ph 13 PIN 0761 23	



- NOTES:
1. SHORT-TERM STATIONARY IS DAYTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR WITHIN A SINGLE DAYLIGHT PERIOD.
 2. NO WORK ACTIVITY OR STORAGE OF EQUIPMENT, VEHICLES, OR MATERIAL SHOULD OCCUR WITHIN A BUFFER SPACE.
 3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORK SPACE.
 4. TRUCK OFF-TRACKING SHOULD BE CONSIDERED WHEN DETERMINING WHETHER THE MINIMAL LANE WIDTH OF 10' IS ADEQUATE.
 5. THE ENGINEER MAY REQUIRE THE USE OF AN ADVISORY SPEED PLAQUE (W13-1) TO SUPPLEMENT A WARNING SIGN. THE PLAQUE WILL BE USED TO INDICATE AN ADVISORY SPEED FOR THE WORK ZONE CONDITION. (IE. NARROW LANES, BUMPS, POOR ROADWAY SURFACE, LOW OR NO SHOULDER, DROP-OFFS, GEOMETRIC CONSTRAINTS, AND/OR POOR SIGHT CONDITIONS).
 6. CHANNELIZING DEVICES SHALL BE PLACED TRANSVERSELY A MINIMUM OF EVERY 800' AS SHOWN WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 800'.
 7. THE PROTECTIVE VEHICLE(S) SHALL MAINTAIN THE APPROPRIATE ROLL AHEAD DISTANCE, BE AN UNOCCUPIED TRUCK POSITIONED PARALLEL TO TRAFFIC, PARKING BRAKE SET, PLACED IN 2ND GEAR (MANUAL TRANSMISSIONS /ENGINE OFF) OR PARK / NEUTRAL (AUTOMATIC TRANSMISSIONS) AND HAVE THE FRONT WHEELS ALIGNED WITH THE LANE STRIPING.

	G20-2	THIS SIGN SHALL BE LOCATED A MINIMUM DISTANCE OF 80 FT AND MAXIMUM OF 400 FT PAST THE END OF THE DOWNSTREAM TAPER.
	W20-1	
	W5-4	
	W21-5aR	
	W13-4	
		24000 LB PROTECTIVE VEHICLE WITH TMIA SEE TABLE 316-03
		CHANNELIZING DEVICE SEE TABLE 316-04

REFER TO SHEET 2 OF 2 FOR ALL TABLES

Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL FREEWAY PARTIAL EXIT RAMP CLOSURE SHORT TERM OPERATION (SHEET 1 OF 2)	
APPROVED DECEMBER 2, 2021	ISSUED UNDER EI 21-028
Robert Limoges ROBERT LIMOGES, P.E. DIRECTOR, OTSM	Contract No. H62153-13GR 619-316 PIN 0761 23

PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE DISTANCE (FT.) / * OF SKIP LINES	TAPER LENGTH: L (FT.) / * OF SKIP LINES / * OF CHANNELIZING DEVICES			SHOULDER TAPER LENGTH: L/3 (FT.) / * OF SKIP LINES / * OF CHANNELIZING DEVICES		
		FOR LANE WIDTH IN FT. (LATERAL SHIFT OF TRAFFIC FLOW PATH)			FOR SHOULDER WIDTH		
		10	11	12	≤ 4 FT.	5 - 7 FT.	≥ 8 FT.
45	360/9	440/11/12	520/13/14	560/14/15	80/2/3	80/2/3	120/3/4
50	425/11	520/13/14	560/14/15	600/15/16	80/2/3	120/3/4	160/4/5
55	495/13	560/14/15	600/15/16	680/17/18	80/2/3	120/3/4	160/4/5
65	645/16	640/16/17	720/18/19	800/20/21	80/2/3	160/4/5	200/5/6

ROLL AHEAD DISTANCE (FT.) / * OF SKIP LINES FOR VEHICLES		
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	STATIONARY OPERATION	
	MIN	MAX
≥ 55	120/3	200/5
45 - 50	80/2	160/4

CLOSURE TYPE	ROAD TYPE & SPEED	FREEWAY
	EXPOSURE CONDITIONS ¹	
LANE CLOSURE OR ENCROACHMENT	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA
	OTHER HAZARDS NO WORKERS EXPOSED	P, TMIA
SHOULDER CLOSURE OR ENCROACHMENT	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA
	OTHER HAZARDS NO WORKERS EXPOSED	P, TMIA


LEGEND
P: PROTECTIVE VEHICLE REQUIRED FOR EACH CLOSED LANE & EACH CLOSED PAVED SHOULDER 8' OR WIDER, IF THE WORK SPACE MOVES WITHIN THE STATIONARY CLOSURE, THE PROTECTIVE VEHICLE SHALL BE REPOSITIONED ACCORDINGLY
TMIA: TMIA REQUIRED

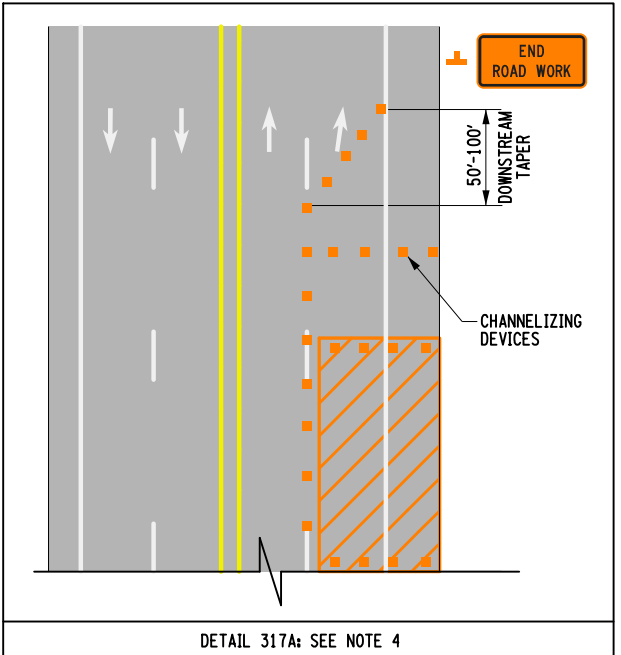
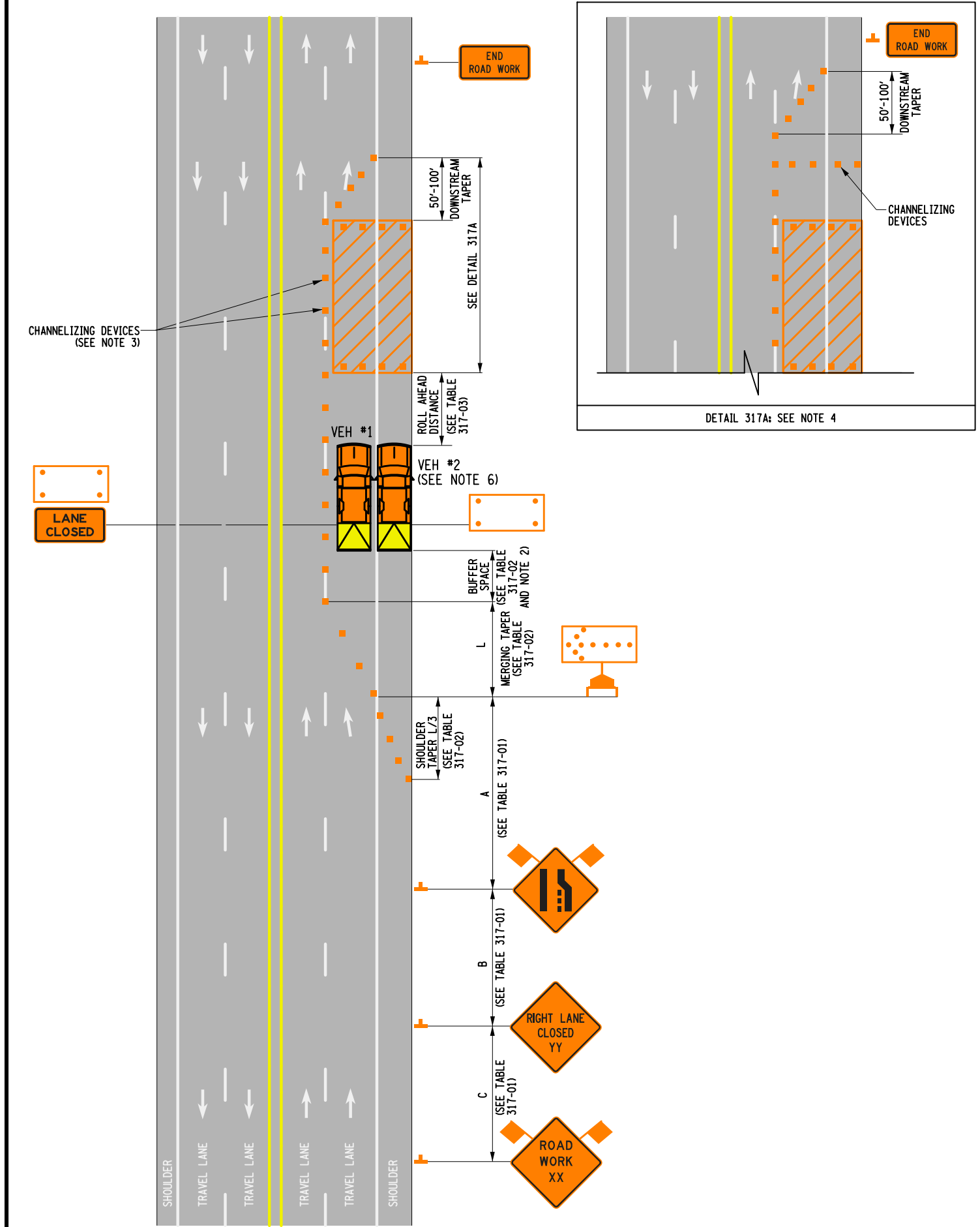
NOTES:
1. THE EXPOSURE CONDITIONS ASSUME THERE IS NO POSITIVE PROTECTION PRESENT

WORK ZONE PROVISIONS	MAXIMUM DEVICE SPACING (CENTER TO CENTER)	MUTCD COMPLIANT CHANNELIZING DEVICE								
		DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE III BARRICADES
SHORT-TERM STATIONARY WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR WITHIN A SINGLE DAYLIGHT PERIOD.										
SHOULDER/MERGING/SHIFTING TAPERS	20 FT.	X	X	X	X			X	X	
	40 FT.	X	X	X	X			X	X	
MARKING FOR TRANSVERSE BUMPS ¹	N/A	X ²			X ²				X ²	
LONGITUDINAL LANE OR SHOULDER CLOSURE W/NO WORKERS PRESENT	80 F.	X	X	X	X			X	X	
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER	800 FT.	X	X	X	X			X	X	0
REMOVAL OF EXISTING GUIDE RAIL	80 FT.	X		X	X	X		X	X	0
	40 FT.									

NOTES: X= ALLOWED, BLANK = NOT ALLOWED, 0 = OPTIONAL
1. - A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE.
2. - CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.

SIGN	FREEWAY
G20-2	48x24
W5-4	48x48
W13-4	36x36
W20-1	48x48
W21-5	48x48
WARNING FLAG	18x18

 NEW YORK STATE OF OPPORTUNITY.	Department of Transportation
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL FREEWAY PARTIAL EXIT RAMP CLOSURE SHORT TERM OPERATION (SHEET 2 OF 2)	
APPROVED APRIL 8, 2022	ISSUED UNDER EI 22-008
<i>Robert Limoges</i> ROBERT LIMOGES, P.E. DIRECTOR, OTSM	619-316 Contract No. H62153-13GR PIN 0761 23

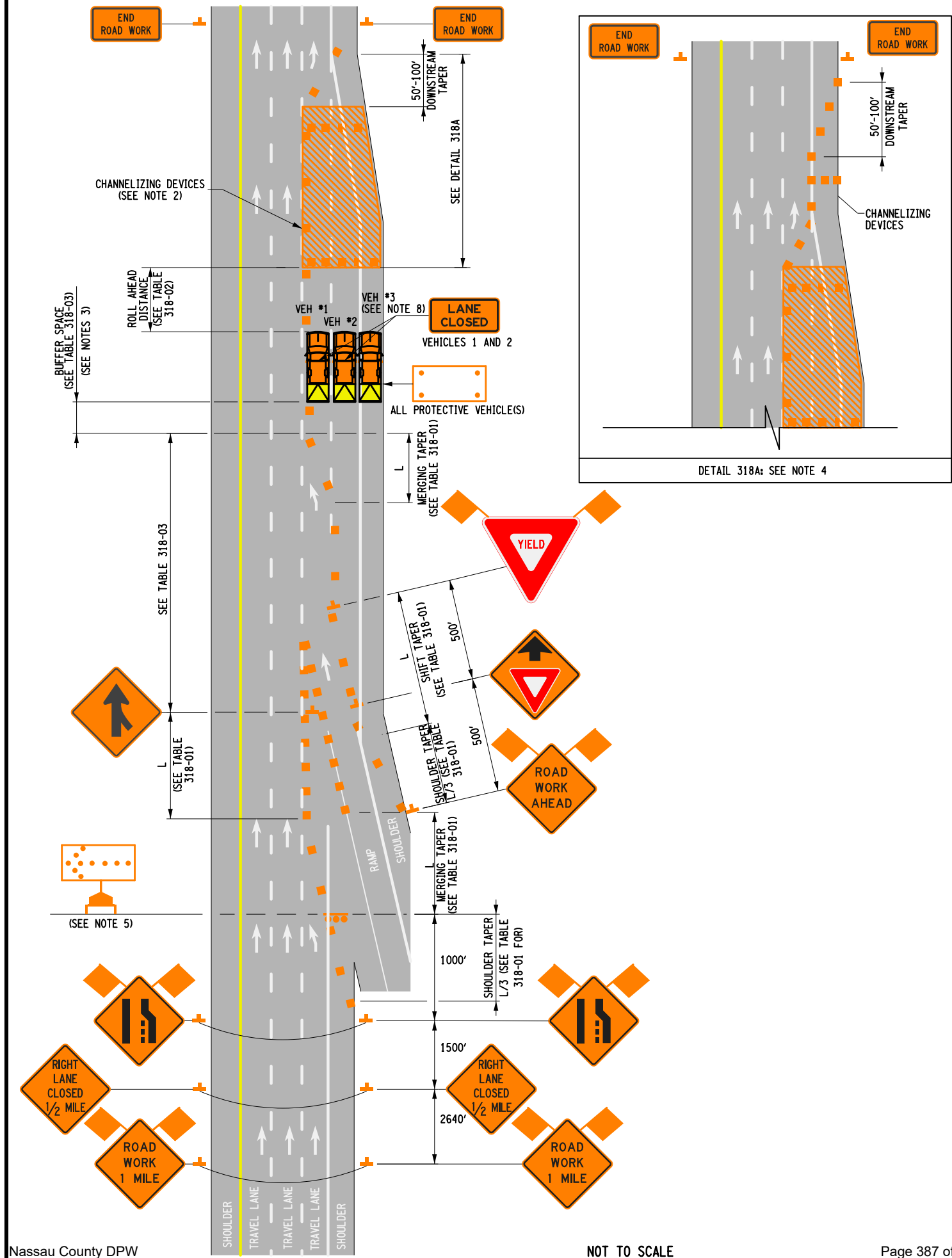


- NOTES:**
1. SHORT-TERM STATIONARY IS DAYTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR WITHIN A SINGLE DAYLIGHT PERIOD.
 2. NO WORK ACTIVITY, EQUIPMENT, OR STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BUFFER SPACE AT ANY TIME.
 3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORK SPACE.
 4. CHANNELIZING DEVICES SHALL BE PLACED TRANSVERSELY A MINIMUM OF EVERY 800' AS SHOWN WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 800'.
 5. THE PROTECTIVE VEHICLE(S) SHALL BE MAINTAIN THE APPROPRIATE ROLL AHEAD DISTANCE, BE AN UNOCCUPIED TRUCK POSITIONED PARALLEL TO TRAFFIC, PARKING BRAKE SET, PLACED IN 2ND GEAR (MANUAL TRANSMISSIONS/ENGINE OFF) OR PARK/NEUTRAL (AUTOMATIC TRANSMISSIONS) AND HAVE THE FRONT WHEELS ALIGNED WITH THE LANE STRIPING.
 6. VEH # 2 IS ONLY NEEDED WHEN THE SHOULDER WIDTH IS \geq 8'.

	W20-1		W20-1
	NYW8-33		W20-5
	G20-2	THIS SIGN SHALL BE LOCATED A MINIMUM DISTANCE OF 80 FT AND MAXIMUM OF 400 FT PAST THE END OF THE DOWNSTREAM TAPER.	
	ARROW PANEL (CAUTION MODE)		ARROW PANEL
	24000 LB PROTECTIVE VEHICLE WITH TMIA SEE TABLE 317-04		
	WORK AREA		CHANNELIZING DEVICE SEE TABLE 317-05

REFER TO SHEET 2 OF 2 FOR ALL TABLES

NEW YORK STATE OF OPPORTUNITY.		Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET			
WORK ZONE TRAFFIC CONTROL MULTI LANE UNDIVIDED ROADWAY SINGLE LANE CLOSURE SHORT TERM OPERATION (SHEET 1 OF 2)			
APPROVED DECEMBER 2, 2021		ISSUED UNDER EI 21-028	
Robert Limoges ROBERT LIMOGES, P.E. DIRECTOR, OTSM		Contract No. H62153-13GR 619-317 PIN 0761 23	



Nassau County DPW

NOT TO SCALE

1. SHORT-TERM STATIONARY IS DAYTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR WITHIN A SINGLE DAYLIGHT PERIOD.
2. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORK SPACE.
3. NO WORK ACTIVITY, EQUIPMENT, OR STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BUFFER SPACE AT ANY TIME.
4. CHANNELIZING DEVICES SHALL BE PLACED TRANSVERSELY A MINIMUM OF EVERY 800' AS SHOWN WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 800'.
5. MAINLINE MERGING TAPER WITH THE ARROW PANEL AT ITS STARTING POINT SHALL BE LOCATED SUFFICIENTLY IN ADVANCE SO THAT THE ARROW PANEL IS NOT VISIBLE TO DRIVERS ON THE ENTRANCE RAMP, AND SO THAT THE MAINLINE MERGING TRAFFIC FROM THE LANE CLOSURE HAS THE OPPORTUNITY TO STABILIZE BEFORE ENCOUNTERING THE VEHICULAR TRAFFIC MERGING FROM THE RAMP.
6. IF THE RAMP CURVES SHARPLY TO THE RIGHT, WARNING SIGNS LOCATED IN ADVANCE OF THE ENTRANCE TERMINAL SHALL BE PLACED IN PAIRS (ONE ON EACH SIDE OF THE RAMP).
7. THE PROTECTIVE VEHICLE(S) SHALL MAINTAIN THE APPROPRIATE ROLL AHEAD DISTANCE, BE AN UNOCCUPIED TRUCK POSITIONED PARALLEL TO TRAFFIC, PARKING BRAKE SET, PLACED IN 2ND GEAR (MANUAL TRANSMISSIONS/ENGINE OFF) OR PARK/NEUTRAL (AUTOMATIC TRANSMISSION) AND HAVE THE FRONT WHEELS ALIGNED WITH THE LANE STRIPING.
8. VEH # 3 IS ONLY NEEDED WHEN THE SHOULDER WIDTH IS $\geq 8'$.

END ROAD WORK G20-2 THIS SIGN SHALL BE LOCATED A MINIMUM DISTANCE OF 80 FT AND MAXIMUM OF 400 FT PAST THE END OF THE DOWNSTREAM TAPER.

YIELD R1-2 (SEE NOTE 7)

ROAD WORK AHEAD W20-1 SEE NOTE 7

ROAD WORK 1 MILE W20-1

ROAD WORK AHEAD W4-2R

RIGHT LANE CLOSED 1/2 MILE W20-5

LANE CLOSED NYW8-33

ARROW PANEL (CAUTION MODE)

24000 LB PROTECTIVE VEHICLE WITH TMIA SEE TABLE 318-04

WORK AREA

CHANNELIZING DEVICE SEE TABLE 318-05

RIGHT LANE CLOSED 1/2 MILE W3-2 (SEE NOTE 7)

ROAD WORK AHEAD W4-1R

REFER TO SHEET 2 OF 2 FOR ALL TABLES

NEW YORK STATE OF OPPORTUNITY.		Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET			
WORK ZONE TRAFFIC CONTROL FREEWAY SINGLE LANE CLOSURE NEAR ENTRANCE RAMP SHORT TERM OPERATION (SHEET 1 OF 2)			
APPROVED DECEMBER 2, 2021		ISSUED UNDER EI 21-028	
Robert Limoges ROBERT LIMOGES, P.E. DIRECTOR, OTSM		Contract No. H62153-13GR 619-318 Pavement Marking Improvements Ph 13 PIN 0761 23	

TABLE 318-01: LONGITUDINAL BUFFER SPACE AND TAPER LENGTHS

PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE DISTANCE (FT.) / * OF SKIP LINES	TAPER LENGTH: L (FT.) / * OF SKIP LINES / * OF CHANNELIZING DEVICES			SHOULDER TAPER LENGTH: L/3 (FT.) / * OF SKIP LINES / * OF CHANNELIZING DEVICES		
		FOR LANE WIDTH IN FT. (LATERAL SHIFT OF TRAFFIC FLOW PATH)			FOR SHOULDER WIDTH		
		10	11	12	≤ 4 FT.	5 - 7 FT.	≥ 8 FT.
45	360/9	440/11/12	520/13/14	560/14/15	80/2/3	80/2/3	120/3/4
50	425/11	520/13/14	560/14/15	600/15/16	80/2/3	120/3/4	160/4/5
55	495/13	560/14/15	600/15/16	680/17/18	80/2/3	120/3/4	160/4/5
65	645/16	640/16/17	720/18/19	800/20/21	80/2/3	160/4/5	200/5/6

TABLE 318-02: ROLL AHEAD DISTANCE

ROLL AHEAD DISTANCE (FT.) / * OF SKIP LINES FOR VEHICLES		
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	STATIONARY OPERATION	
	MIN	MAX
≥ 55	120/3	200/5
45 - 50	80/2	160/4

TABLE 318-03: ADVANCE PLACEMENT OF WARNING SIGN

PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	ADVANCE PLACEMENT DISTANCE IN FT.
45	930
50	1030
55	1135
60	1280
65	1365

1. BASED ON TABLE NY2C-4 OF NYS SUPPLEMENT TO THE 2009 MUTCD

TABLE 318-04: PROTECTIVE VEHICLE REQUIREMENTS

CLOSURE TYPE	ROAD TYPE & SPEED	FREEWAY
	EXPOSURE CONDITIONS ¹	
LANE CLOSURE OR ENCROACHMENT	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA
	OTHER HAZARDS NO WORKERS EXPOSED	P, TMIA
SHOULDER CLOSURE OR ENCROACHMENT	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA
	OTHER HAZARDS NO WORKERS EXPOSED	P, TMIA

LEGEND
P: PROTECTIVE VEHICLE REQUIRED FOR EACH CLOSED LANE & EACH CLOSED PAVED SHOULDER 8' OR WIDER, IF THE WORK SPACE MOVES WITHIN THE STATIONARY CLOSURE, THE PROTECTIVE VEHICLE SHALL BE REPOSITIONED ACCORDINGLY
TMIA: TMIA REQUIRED

NOTES:
1. THE EXPOSURE CONDITIONS ASSUME THERE IS NO POSITIVE PROTECTION PRESENT

TABLE 318-05: CHANNELIZING DEVICE APPLICATION FOR SHORT-TERM STATIONARY WORK ZONES

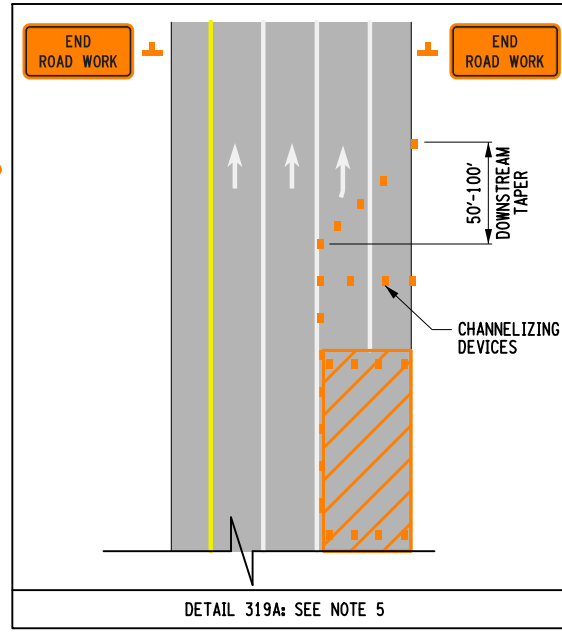
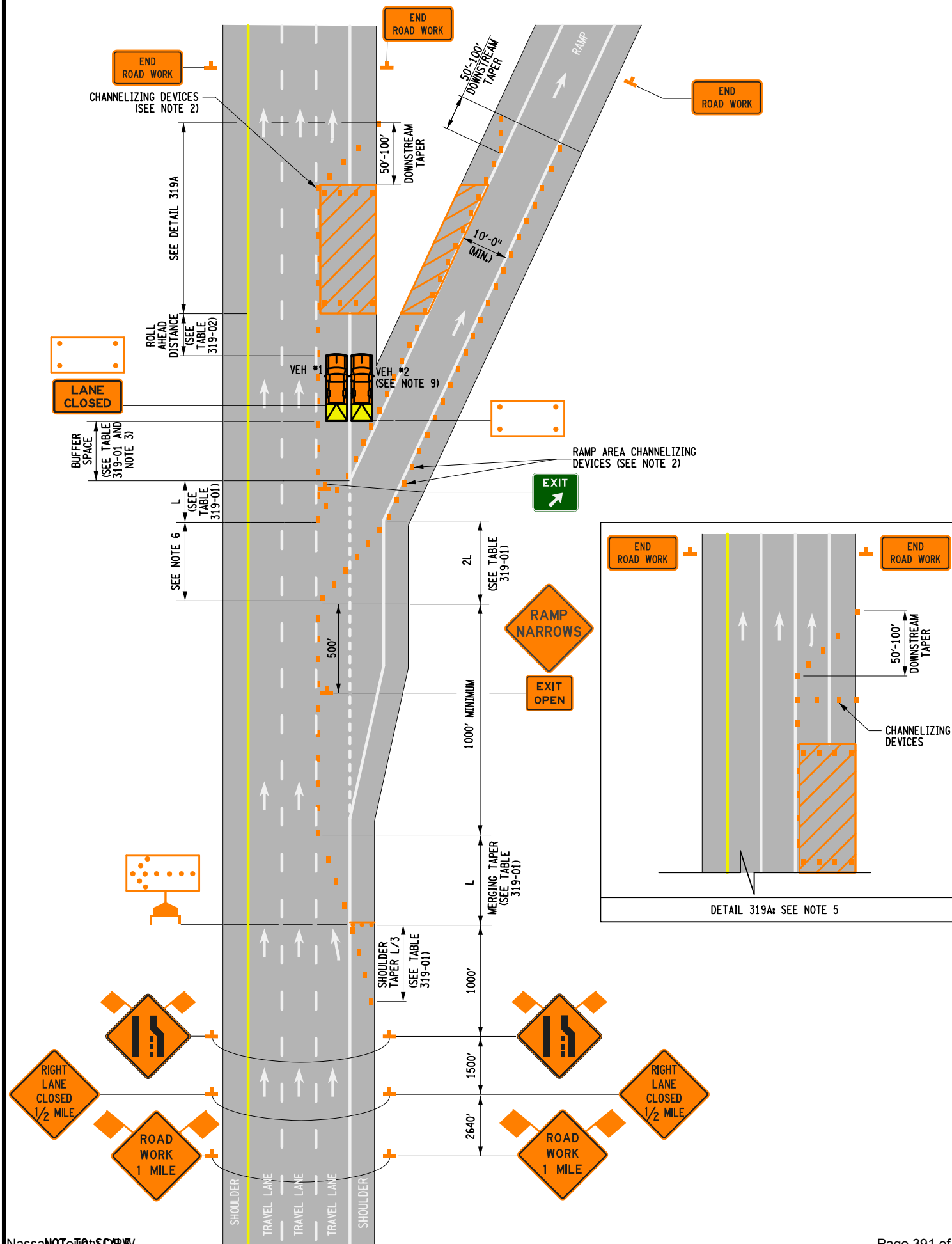
WORK ZONE PROVISIONS	MAXIMUM DEVICE SPACING (CENTER TO CENTER)	MUTCD COMPLIANT CHANNELIZING DEVICE								
		DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE III BARRICADES
SHORT-TERM STATIONARY WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR WITHIN A SINGLE DAYLIGHT PERIOD.	20 FT.	X	X	X	X			X	X	
	40 FT.	X	X	X	X			X	X	
MARKING FOR TRANSVERSE BUMPS ¹	N/A	X ²			X ²				X ²	
LONGITUDINAL LANE OR SHOULDER CLOSURE W/NO WORKERS PRESENT	80 F.	X	X	X	X			X	X	
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER	800 FT.	X	X	X	X			X	X	0
REMOVAL OF EXISTING GUIDE RAIL	80 FT.	X		X	X	X		X	X	0
	40 FT.									

NOTES: X= ALLOWED, BLANK = NOT ALLOWED, 0 = OPTIONAL
1. - A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE.
2. - CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.

TABLE 318-06: REQUIRED SIGN SIZES

SIGN	FREEWAY
G20-2	48x24
NYW8-33	48x24
R1-2	48x48
W3-2	48x48
W4-1R	48x48
W4-2R	48x48
W20-1	48x48
W20-5	48x48
WARNING FLAG	18x18

NEW YORK STATE OF OPPORTUNITY.		Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET			
WORK ZONE TRAFFIC CONTROL FREEWAY SINGLE LANE CLOSURE NEAR ENTRANCE RAMP SHORT TERM OPERATION (SHEET 2 OF 2)			
APPROVED APRIL 8, 2022		ISSUED UNDER EI 22-008	
<i>Robert Limoges</i> ROBERT LIMOGES, P.E. DIRECTOR, OTSM		Contract No. H62153-13GR 619-318 PIN 0761 23	



- NOTES:
1. SHORT-TERM STATIONARY IS DAYTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR WITHIN A SINGLE DAYLIGHT PERIOD.
 2. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 20' IN THE ACTIVE WORK SPACE.
 3. NO WORK ACTIVITY, EQUIPMENT, OR STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BUFFER SPACE AT ANY TIME.
 4. IF WORK ACTIVITY PERMITS, A MOVABLE BARRIER MAY BE USED AND RELOCATED TO THE SHOULDER.
 5. CHANNELIZING DEVICES SHALL BE PLACED TRANSVERSELY A MINIMUM OF EVERY 800' AS SHOWN WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 800'.
 6. THE TEMPORARY RAMP OPENING SHALL MATCH THE OPENING OF THE EXISTING RAMP.
 7. TRUCK OFF-TRACKING SHOULD BE CONSIDERED WHEN DETERMINING WHETHER THE MINIMAL LANE WIDTH OF 10' IS ADEQUATE.
 8. THE PROTECTIVE VEHICLE(S) SHALL MAINTAIN THE APPROPRIATE ROLL AHEAD DISTANCE, BE AN UNOCCUPIED TRUCK POSITIONED PARALLEL TO TRAFFIC, PARKING BRAKE SET, PLACED IN 2ND GEAR (MANUAL TRANSMISSIONS/ENGINE OFF) OR PARK/NEUTRAL (AUTOMATIC TRANSMISSIONS) AND HAVE THE FRONT WHEELS ALIGNED WITH THE LANE STRIPING.
 9. VEH # 2 IS ONLY NEEDED WHEN THE SHOULDER WIDTH IS $\geq 8'$.

	W20-1		W20-5
	W4-2R		E5-1
	ARROW PANEL (CAUTION MODE)		ARROW PANEL
	G20-2	THIS SIGN SHALL BE LOCATED A MINIMUM DISTANCE OF 80 FT AND MAXIMUM OF 400 FT PAST THE END OF THE DOWNSTREAM TAPER.	
	WORK AREA		NYW8-33
	24000 LB PROTECTIVE VEHICLE WITH TMA SEE TABLE 319-03		E5-2
	CHANNELIZING DEVICE SEE TABLE 319-04		W5-4

REFER TO SHEET 2 OF 2 FOR ALL TABLES

		Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET			
WORK ZONE TRAFFIC CONTROL FREEWAY SINGLE LANE CLOSURE NEAR EXIT RAMP SHORT TERM OPERATION (SHEET 1 OF 2)			
APPROVED DECEMBER 2, 2021	ISSUED UNDER EI 21-028		
<i>Robert Limoges</i> ROBERT LIMOGES, P.E. DIRECTOR, OTSM	619-319 Contract No. H62153-13GR Pavement Marking Improvements Ph 13 PIN 0761 23		

PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE DISTANCE (FT.) / * OF SKIP LINES	TAPER LENGTH: L (FT.) / * OF SKIP LINES / * OF CHANNELIZING DEVICES			SHOULDER TAPER LENGTH: L/3 (FT.) / * OF SKIP LINES / * OF CHANNELIZING DEVICES		
		FOR LANE WIDTH IN FT. (LATERAL SHIFT OF TRAFFIC FLOW PATH)			FOR SHOULDER WIDTH		
		10	11	12	≤ 4 FT.	5 - 7 FT.	≥ 8 FT.
45	360/9	440/11/12	520/13/14	560/14/15	80/2/3	80/2/3	120/3/4
50	425/11	520/13/14	560/14/15	600/15/16	80/2/3	120/3/4	160/4/5
55	495/13	560/14/15	600/15/16	680/17/18	80/2/3	120/3/4	160/4/5
65	645/16	640/16/17	720/18/19	800/20/21	80/2/3	160/4/5	200/5/6

ROLL AHEAD DISTANCE (FT.) / * OF SKIP LINES FOR VEHICLES		
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	STATIONARY OPERATION	
	MIN	MAX
≥ 55	120/3	200/5
45 - 50	80/2	160/4

CLOSURE TYPE	ROAD TYPE & SPEED	FREEWAY
	EXPOSURE CONDITIONS ¹	
LANE CLOSURE OR ENCROACHMENT	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA
	OTHER HAZARDS NO WORKERS EXPOSED	P, TMIA
SHOULDER CLOSURE OR ENCROACHMENT	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA
	OTHER HAZARDS NO WORKERS EXPOSED	P, TMIA

LEGEND
P: PROTECTIVE VEHICLE REQUIRED FOR EACH CLOSED LANE & EACH CLOSED PAVED SHOULDER 8' OR WIDER, IF THE WORK SPACE MOVES WITHIN THE STATIONARY CLOSURE, THE PROTECTIVE VEHICLE SHALL BE REPOSITIONED ACCORDINGLY
TMIA: TMIA REQUIRED
NOTES:
1. THE EXPOSURE CONDITIONS ASSUME THERE IS NO POSITIVE PROTECTION PRESENT

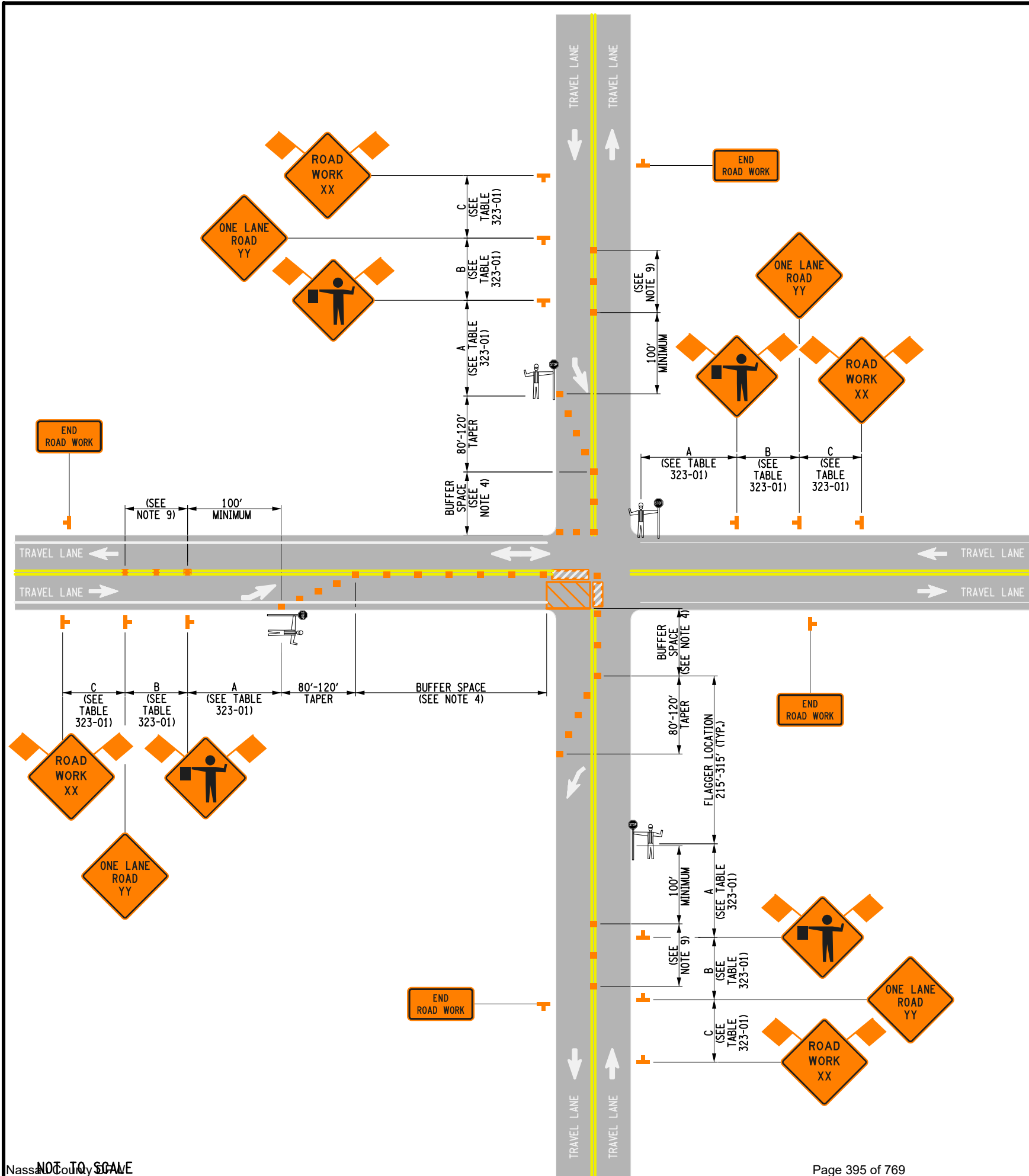
WORK ZONE PROVISIONS	MAXIMUM DEVICE SPACING (CENTER TO CENTER)	MUTCD COMPLIANT CHANNELIZING DEVICE								
		DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE III BARRICADES
SHORT-TERM STATIONARY WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR WITHIN A SINGLE DAYLIGHT PERIOD.										
SHOULDER/MERGING/SHIFTING TAPERS	20 FT.	X	X	X	X			X	X	
	40 FT.	X	X	X	X			X	X	
MARKING FOR TRANSVERSE BUMPS ¹	N/A	X ²			X ²				X ²	
LONGITUDINAL LANE OR SHOULDER CLOSURE W/NO WORKERS PRESENT	80 FT.	X	X	X	X			X	X	
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER	800 FT.	X	X	X	X			X	X	0
REMOVAL OF EXISTING GUIDE RAIL	80 FT.	X		X	X	X		X	X	0
	40 FT.									

NOTES: X= ALLOWED, BLANK = NOT ALLOWED, 0 = OPTIONAL
1. - A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE.
2. - CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.

SIGN	NON-FREEWAY	FREEWAY
E5-1	----	72x60
E5-2	48x36	48x36
G20-2	36x18	48x24
NYW8-33	48x24	48x24
W4-2R	36x36	48x48
W5-4	36x36	48x48
W20-1	36x36	48x48
W20-5	36x36	48x48
WARNING FLAG	18x18	18x18

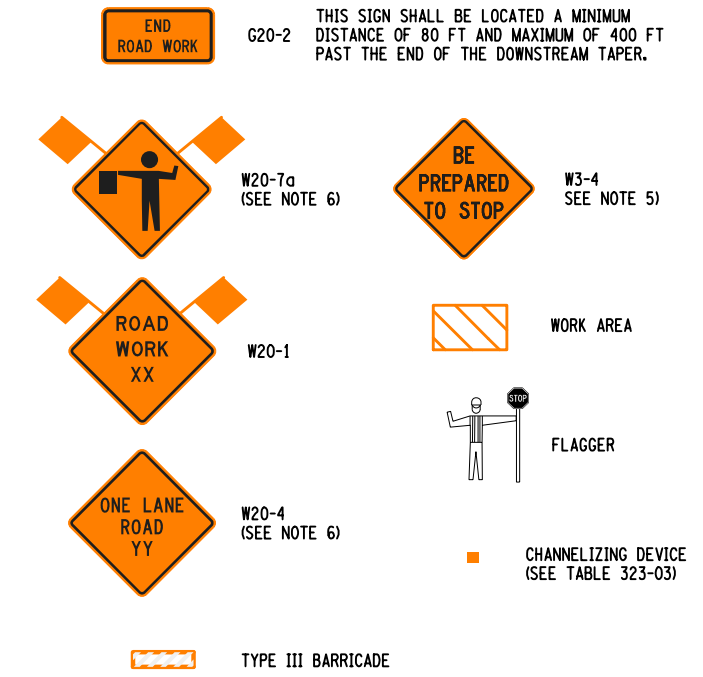
*FREEWAY SIZES MAY BE USED ON NON-FREEWAY, IF SPACE CONSTRAINTS DO NOT EXIST.

 NEW YORK STATE OF OPPORTUNITY.	Department of Transportation
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL FREEWAY SINGLE LANE CLOSURE NEAR EXIT RAMP SHORT TERM OPERATION (SHEET 2 OF 2)	
APPROVED APRIL 8, 2022 <i>Robert Limoges</i> ROBERT LIMOGES, P.E. DIRECTOR, OTSM	ISSUED UNDER EI 22-008 619-319 Contract No. H62153-13GR PIN 0761 23



NOTES:

1. SHORT-TERM STATIONARY IS DAYTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR WITHIN A SINGLE DAYLIGHT PERIOD.
2. AT SIGNALIZED INTERSECTIONS, SIGNALS SHALL BE TURNED OFF FOR ANY FLAGGING OPERATIONS, UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORK SPACE.
4. WHERE DIRECTED BY THE ENGINEER, A BUFFER SPACE SHALL BE PROVIDED IN ORDER TO LOCATE THE ONE-LANE, TWO-WAY TRAFFIC TAPER PRIOR TO ANY HORIZONTAL OR VERTICAL CURVE, IN ORDER TO PROVIDE ADEQUATE SIGHT DISTANCE FOR THE FLAGGERS AND/OR A QUEUE OF STOPPED VEHICLES.
5. IF THE TRAFFIC IS EXPECTED TO QUEUE PAST THE W20-4 SIGN, A W3-4 SIGN SHOULD BE ADDED HALFWAY BETWEEN THE W20-4 AND W20-1 SIGNS.
6. FLAGGER SIGN (W20-7a) AND ONE LANE ROAD AHEAD SIGN (W20-4) SHALL BE REMOVED, COVERED OR TURNED AWAY FROM ROAD USERS WHEN FLAGGING OPERATIONS ARE NOT OCCURRING.
7. ALL FLAGGERS SHALL USE 24" (MIN.) OCTAGON SHAPED STOP/SLOW PADDLES HAVING 6' STAFF. THE PADDLE IS THE PREFERRED DEVICE, BUT THE FLAG MAY BE USED AT INTERSECTIONS WHERE THE STOP/SLOW PADDLE WOULD OFFER CONTRADICTING INFORMATION TO DRIVERS TRAVELING IN OPPOSITE DIRECTIONS/LEGS OF THE INTERSECTION OR DURING INCIDENT MANAGEMENT SITUATIONS.
8. ADDITIONAL FLAGGERS SHALL BE LOCATED AT ALL INTERSECTIONS AND COMMERCIAL DRIVEWAYS LOCATED WITHIN OR NEAR THE ACTIVE WORK AREA.
9. CENTERLINE CONES MAY BE ADDED TO ENHANCE THE VISIBILITY OF THE FLAGGER STATION. IF CONES ARE USED, PLACE THEM 100 FT. (MINIMUM) FROM FLAGGER.
10. NO WORK ACTIVITY, EQUIPMENT, OR STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BUFFER SPACE AT ANY TIME.



REFER TO SHEET 2 OF 2 FOR ALL TABLES

NEW YORK STATE OF OPPORTUNITY.		Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET			
WORK ZONE TRAFFIC CONTROL TWO-LANE TWO-WAY ROADWAY FLAGGING OPERATION AT INTERSECTION SHORT TERM OPERATION (SHEET 1 OF 2)			
APPROVED DECEMBER 2, 2021	ISSUED UNDER EI 21-028		
<i>Robert Limoges</i> ROBERT LIMOGES, P.E. DIRECTOR, OTSM	Contract No. H62153-13GR PIN 0761 23		

TABLE 323-01: ADVANCE WARNING SIGN SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS			SIGN LEGEND	
	A (FT.)	B (FT.)	C (FT.)	XX	YY
URBAN (≤ 30 MPH*)	100	100	100	AHEAD	AHEAD
URBAN (35-40 MPH*)	200	200	200	AHEAD	AHEAD
URBAN (≥ 45 MPH*)	350	350	350	1000 FT.	AHEAD
RURAL	500	500	500	1500 FT.	1000 FT.

* PRECONSTRUCTION POSTED SPEED LIMIT

TABLE 323-02: REQUIRED SIGN SIZES*

SIGN	NON-FREEWAY	FREEWAY
G20-2	36x18	48x24
W3-4	36x36	48x48
W20-1	36x36	48x48
W20-4	36x36	48x48
W20-7a	36x36	48x48
WARNING FLAG	18x18	18x18

*FREEWAY SIZES MAY BE USED ON NON-FREEWAY, IF SPACE CONSTRAINTS DO NOT EXIST.

TABLE 323-03: CHANNELIZING DEVICE APPLICATION FOR SHORT-TERM STATIONARY WORK ZONES

WORK ZONE PROVISIONS	MAXIMUM DEVICE SPACING (CENTER TO CENTER)	MUTCD COMPLIANT CHANNELIZING DEVICE								
		DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE III BARRICADES
SHORT-TERM STATIONARY WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR WITHIN A SINGLE DAYLIGHT PERIOD.	20 FT.	X	X	X	X			X	X	
	40 FT.	X	X	X	X			X	X	
MARKING FOR TRANSVERSE BUMPS ¹	N/A	X ²			X ²				X ²	
LONGITUDINAL LANE OR SHOULDER CLOSURE W/NO WORKERS PRESENT	80 F.	X	X	X	X			X	X	
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER	800 FT.	X	X	X	X			X	X	0
REMOVAL OF EXISTING GUIDE RAIL	80 FT.			X	X	X		X	X	0
	40 FT.	X		X	X	X		X	X	0

NOTES: X= ALLOWED, BLANK = NOT ALLOWED, 0 = OPTIONAL
 1. - A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE.
 2. - CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.



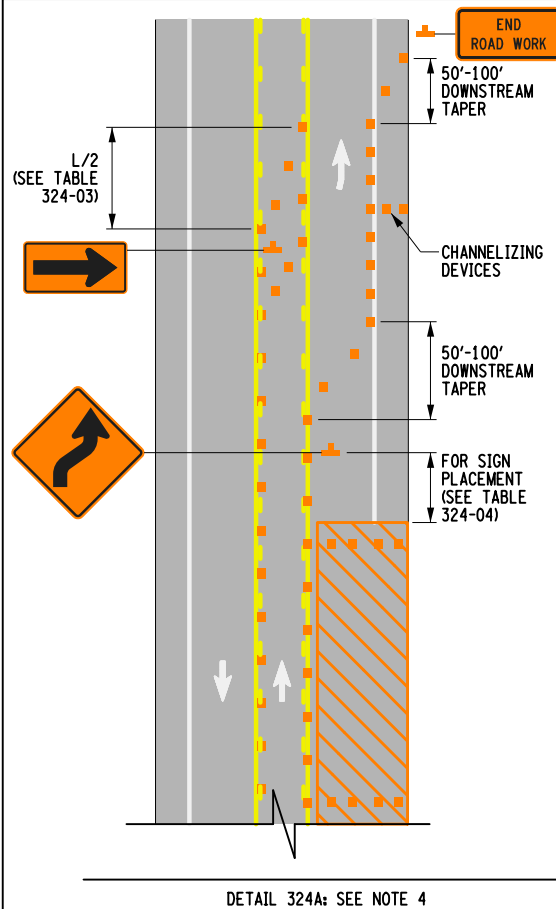
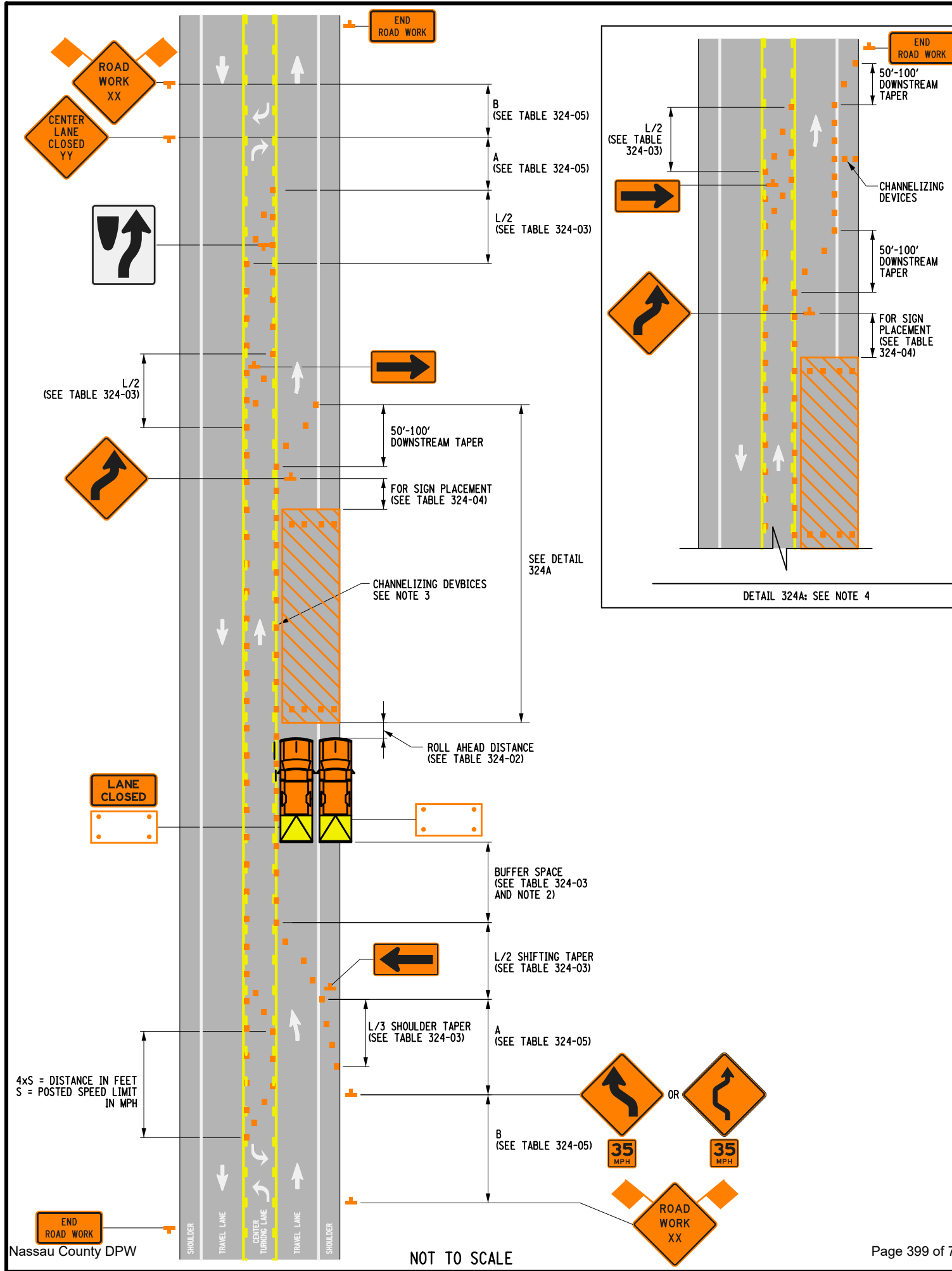
U.S. CUSTOMARY STANDARD SHEET

**WORK ZONE TRAFFIC CONTROL
TWO-LANE TWO-WAY ROADWAY
FLAGGING OPERATION AT INTERSECTION
SHORT TERM OPERATION
(SHEET 2 OF 2)**

APPROVED APRIL 8, 2022 ISSUED UNDER EI 22-008

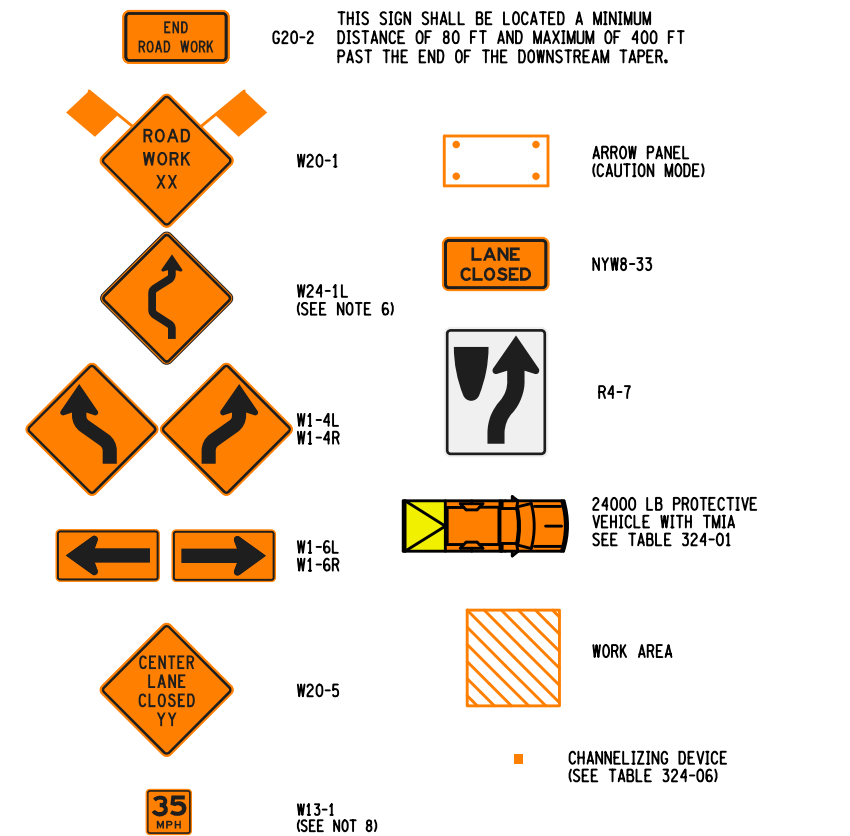
Robert Limoges
ROBERT LIMOGES, P.E.
DIRECTOR, OTSM Contract No. H62153-13GR

619-323



NOTES:

1. SHORT-TERM STATIONARY IS DAYTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR WITHIN A SINGLE DAYLIGHT PERIOD.
2. NO WORK ACTIVITY, EQUIPMENT, OR STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BUFFER SPACE AT ANY TIME.
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORK SPACE, AND 20' IN THE TURN LANE TAPER SPACE.
4. CHANNELIZING DEVICES SHALL BE PLACED TRANSVERSELY A MINIMUM OF EVERY 800' AS SHOWN WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 800'.
5. WHERE THE SHIFTED SECTION IS LONGER THAN 600', ONE REVERSE CURVE SIGN SHOULD BE USED TO SHOW THE INITIAL SHIFT AND A SECOND SIGN SHOULD BE USED TO SHOW THE RETURN TO THE NORMAL ALIGNMENT. IF THE TANGENT DISTANCE ALONG THE TEMPORARY DIVERSION IS LESS THAN 600', THE DOUBLE REVERSE CURVE SIGN (W24-1L) SHOULD BE USED INSTEAD OF THE FIRST REVERSE CURVE SIGN (W1-4L) AND THE SECOND REVERSE CURVE SIGN (W1-4L) SHOULD BE OMITTED.
6. THE ENGINEER MAY REQUIRE THE USE OF AN ADVISORY SPEED PLAQUE (W13-1) TO SUPPLEMENT A WARNING SIGN. THE PLAQUE WILL BE USED TO INDICATE AN ADVISORY SPEED FOR THE WORK ZONE CONDITION. (IE. NARROW LANES, BUMPS, POOR ROADWAY SURFACE, LOW OR NO SHOULDER, DROP-OFFS, GEOMETRIC CONSTRAINTS, AND/OR POOR SIGHT CONDITIONS).
7. THE PROTECTIVE VEHICLE(S) SHALL MAINTAIN THE APPROPRIATE ROLL AHEAD DISTANCE, BE AN UNOCCUPIED TRUCK POSITIONED PARALLEL TO TRAFFIC. PARKING BRAKE SET, PLACED IN 2ND GEAR (MANUAL TRANSMISSIONS/ENGINE OFF) OR PARK/NEUTRAL (AUTOMATIC TRANSMISSIONS) AND HAVE THE FRONT WHEELS ALIGNED WITH THE LANE STRIPING.
8. AN ADVISORY SPEED PLAQUE (W13-1) IS RECOMMENDED TO SUPPLEMENT A WARNING SIGN IN ORDER TO INDICATE AN ADVISORY SPEED FOR THE WORK ZONE CONDITION (IE. NARROW LANES, BUMPS, POOR ROADWAY SURFACE, LOW OR NO SHOULDER, DROP-OFFS, GEOMETRIC CONSTRAINTS, AND/OR POOR SIGHT CONDITIONS).



REFER TO SHEET 2 OF 2 FOR ALL TABLES

NEW YORK STATE OF OPPORTUNITY | **Department of Transportation**

U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL
TWO-LANE TWO-WAY ROADWAY
SINGLE LANE SHIFT WITH TWO-WAY
LEFT TURN LANE SHORT TERM OPERATION
(SHEET 1 OF 2)

APPROVED DECEMBER 2, 2021 | ISSUED UNDER EI 21-028

Robert Limoges
ROBERT LIMOGES, P.E.
DIRECTOR, OTSM | Contract No. H62153-13GR

619-324

Revised Marking Improvements Ph 13 PIN 0761 23

TABLE 324-01: PROTECTIVE VEHICLE REQUIREMENTS				
CLOSURE TYPE	ROAD TYPE & SPEED	NON-FREEWAY		
		≥ 45 MPH	35 - 40 MPH	≤ 30 MPH
EXPOSURE CONDITIONS ¹				
LANE CLOSURE OR ENCROACHMENT	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMA	P, TMA	P
	OTHER HAZARDS NO WORKERS EXPOSED	P, TMA	P	SEE NOTE 2
SHOULDER CLOSURE OR ENCROACHMENT	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMA	P	P
	OTHER HAZARDS NO WORKERS EXPOSED	P, TMA	P	SEE NOTE 2

LEGEND
P: PROTECTIVE VEHICLE REQUIRED FOR EACH CLOSED LANE & EACH CLOSED PAVED SHOULDER 8' OR WIDER, IF THE WORK SPACE MOVES WITHIN THE STATIONARY CLOSURE, THE PROTECTIVE VEHICLE SHALL BE REPOSITIONED ACCORDINGLY
TMA: TMA REQUIRED

NOTES:
1. THE EXPOSURE CONDITIONS ASSUME THERE IS NO POSITIVE PROTECTION PRESENT
2. EITHER A PROTECTIVE VEHICLE OR THE STANDARD BUFFER SPACE SHALL BE PROVIDED

TABLE 324-02: ROLL AHEAD DISTANCE		
ROLL AHEAD DISTANCE (FT.)/ * OF SKIP LINES FOR VEHICLES		
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	STATIONARY OPERATION	
	MIN	MAX
≥ 55	120/3	200/5
45 - 50	80/2	160/4
≤ 40	40/1	120/3

TABLE 324-03: LONGITUDINAL BUFFER SPACE AND TAPER LENGTHS							
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE DISTANCE (FT.)/ * OF SKIP LINES	TAPER LENGTH: L (FT.) / * OF SKIP LINES / * OF CHANNELIZING DEVICES			SHOULDER TAPER LENGTH: L/3 (FT.) / * OF SKIP LINES / * OF CHANNELIZING DEVICES		
		FOR LANE WIDTH IN FT. (LATERAL SHIFT OF TRAFFIC FLOW PATH)			FOR SHOULDER WIDTH		
		10	11	12	≤ 4 FT.	5 - 7 FT.	≥ 8 FT.
25	155/4	120/3/4	120/3/4	120/3/4	40/1/2	40/1/2	40/1/2
30	200/5	160/4/5	160/4/5	200/5/6	40/1/2	40/1/2	40/1/2
35	250/6	200/5/6	240/6/7	240/6/7	40/1/2	40/1/2	80/2/3
40	305/8	280/7/8	320/8/9	320/8/9	40/1/2	80/2/3	80/2/3
45	360/9	440/11/12	520/13/14	560/14/15	80/2/3	80/2/3	120/3/4
50	425/11	520/13/14	560/14/15	600/15/16	80/2/3	120/3/4	160/4/5
55	495/13	560/14/15	600/15/16	680/17/18	80/2/3	120/3/4	160/4/5

TABLE 324-05: ADVANCE WARNING SIGN SPACING					
ROAD TYPE	DISTANCE BETWEEN SIGNS			SIGN LEGEND	
	A (FT.)	B (FT.)	C (FT.)	XX	YY
URBAN (≤ 30 MPH*)	100	100	100	AHEAD	AHEAD
URBAN (35-40 MPH*)	200	200	200	AHEAD	AHEAD
URBAN (≥ 45 MPH*)	350	350	350	1000 FT.	AHEAD
RURAL	500	500	500	1500 FT.	1000 FT.

* PRECONSTRUCTION POSTED SPEED LIMIT

TABLE 324-06: CHANNELIZING DEVICE APPLICATION FOR SHORT-TERM STATIONARY WORK ZONES										
WORK ZONE PROVISIONS	MAXIMUM DEVICE SPACING (CENTER TO CENTER)	MUTCD COMPLIANT CHANNELIZING DEVICE								
		DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE III BARRICADES
SHORT-TERM STATIONARY WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR WITHIN A SINGLE DAYLIGHT PERIOD.	20 FT.	X	X	X	X			X	X	
	40 FT.	X	X	X	X			X	X	
SHOULDER/MERGING/ SHIFTING TAPERS										
MARKING FOR TRANSVERSE BUMPS ¹	N/A	X ²			X ²				X ²	
LONGITUDINAL LANE OR SHOULDER CLOSURE W/NO WORKERS PRESENT	80 F.	X	X	X	X			X	X	
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER	800 FT.	X	X	X	X			X	X	0
REMOVAL OF EXISTING GUIDE RAIL	80 FT.									
	40 FT.	X		X	X	X		X	X	0

NOTES: X= ALLOWED, BLANK = NOT ALLOWED, 0 = OPTIONAL
1. - A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE.
2. - CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.

TABLE 324-04: GUIDELINES FOR ADVANCE PLACEMENT OF WARNING SIGNS													
POSTED OR 85 TH PERCENTILE SPEED (MPH)	ADVANCE PLACEMENT DISTANCE (FT.) ¹												
	CONDITION A: SPEED REDUCTION AND LANE CHANGING IN HEAVY TRAFFIC ²	CONDITION B: DECELERATION TO THE LISTED ADVISORY SPEED (MPH) FOR THE CONDITION ⁴											
		CONDITION C: NO SPEED REDUCTION NECESSARY ⁵											
	0 ³	5	10	15	20	25	30	35	40	45	50	55	
20	410	115	110	105	90	75	-	-	-	-	-	-	-
25	515	155	160	150	135	120	95	-	-	-	-	-	-
30	620	200	205	195	185	165	140	110	-	-	-	-	-
35	720	250	255	245	235	215	190	160	130	-	-	-	-
40	825	305	320	310	295	280	255	225	190	150	-	-	-
45	930	360	380	370	360	340	315	285	255	210	165	-	-
50	1030	425	455	450	435	415	390	360	330	285	240	185	-
55	1135	495	530	520	505	490	460	435	400	355	315	255	205

NOTES:
1. THE DISTANCES HAVE NOT BEEN MODIFIED TO ACCOUNT FOR SIGN LEGIBILITY.
2. TYPICAL CONDITIONS ARE LOCATIONS WHERE THE ROAD USER MUST USE EXTRA TIME TO ADJUST SPEED AND CHANGE LANES IN HEAVY TRAFFIC BECAUSE OF A COMPLEX DRIVING SITUATION. TYPICAL SIGNS ARE MERGE AND RIGHT LAND ENDS. THE DISTANCES ARE TAKEN FROM THE 2004 AASHTO POLICY, EXHIBIT 3-3, DECISION SIGHT DISTANCE, AVOIDANCE MANEUVER E.
3. TYPICAL CONDITION IS THE WARNING OF A POTENTIAL STOP SITUATION. TYPICAL SIGNS ARE STOP AHEAD, YIELD AHEAD, SIGNAL AHEAD, AND INTERSECTION WARNING SIGNS. THE DISTANCES ARE TAKEN FROM THE 2004 AASHTO POLICY, STOPPING SIGHT DISTANCE, EXHIBIT 3-1.
4. TYPICAL CONDITIONS ARE LOCATIONS WHERE THE ROAD USER MUST DECREASE SPEED TO MANEUVER THROUGH THE WARNED CONDITION. TYPICAL SIGNS ARE TURN, CURVE, REVERSE TURN, OR REVERSE CURVE. THE DISTANCES ARE DETERMINED BY PROVIDING A 2.5 SECOND PRT AND A VEHICLE DECELERATION RATE OF 10 FT./SECOND.²
5. TYPICAL SIGNS ARE ADDED LANE, ROAD NARROWS, DIVIDED HIGHWAY, AND CONDITION B SIGNS DISPLAYED WITHOUT AN ADVISORY SPEED.

TABLE 324-07: REQUIRED SIGN SIZES*		
SIGN	NON-FREEWAY	FREEWAY
G20-2	36x18	48x24
NYW8-33	48x24	48x24
R4-7	24x30	36x48
W1-4L/W1-4R	36x36	48x48
W1-6L/W1-6R	48x24	60x30
W9-3	36x36	48x48
W13-1	36x36	48x48
W20-1	24x24	30x30
W20-4	36x36	48x48
W20-5	36x36	48x48
W24-1L	36x36	48x48
WARNING FLAG	18x18	18x18

*FREEWAY SIZES MAY BE USED ON NON-FREEWAY, IF SPACE CONSTRAINTS DO NOT EXIST.

Department of Transportation

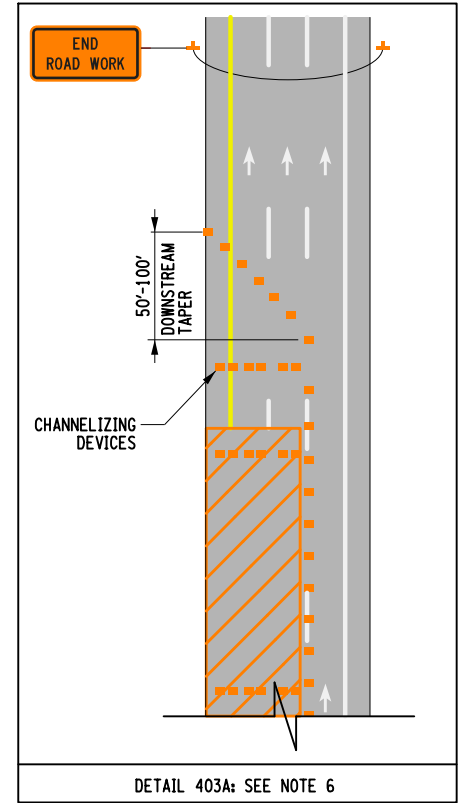
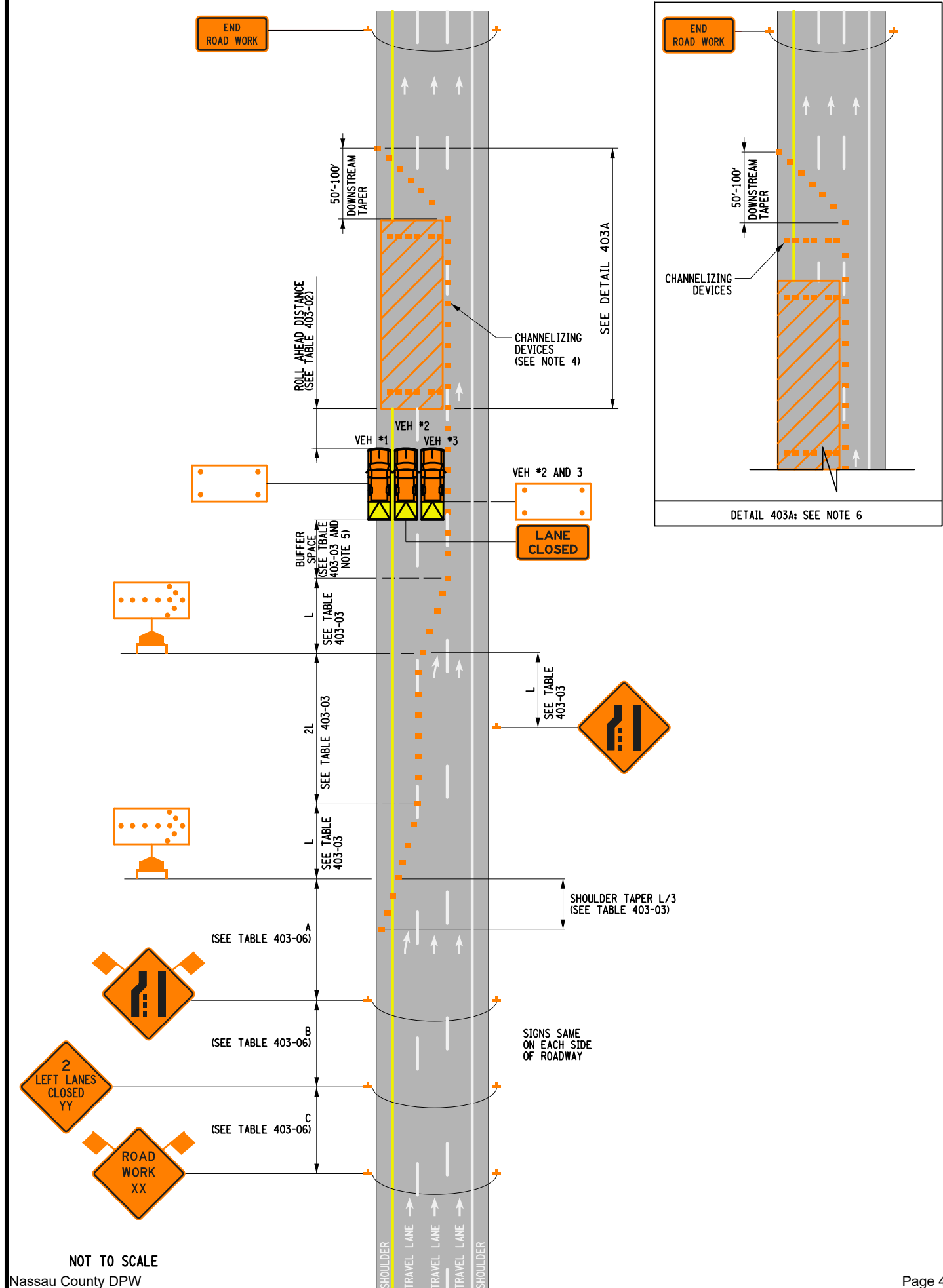
U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL
TWO-LANE TWO-WAY ROADWAY
SINGLE LANE SHIFT WITH TWO-WAY
LEFT TURN LANE SHORT TERM OPERATION
(SHEET 2 OF 2)

APPROVED APRIL 8, 2022
ISSUED UNDER EI 22-008

619-324

ROBERT LIMOGES, P.E.
DIRECTOR, OTSM Contract No. H62153-13GR
Payment Marking Improvements Ph 13 PIN 0761 23

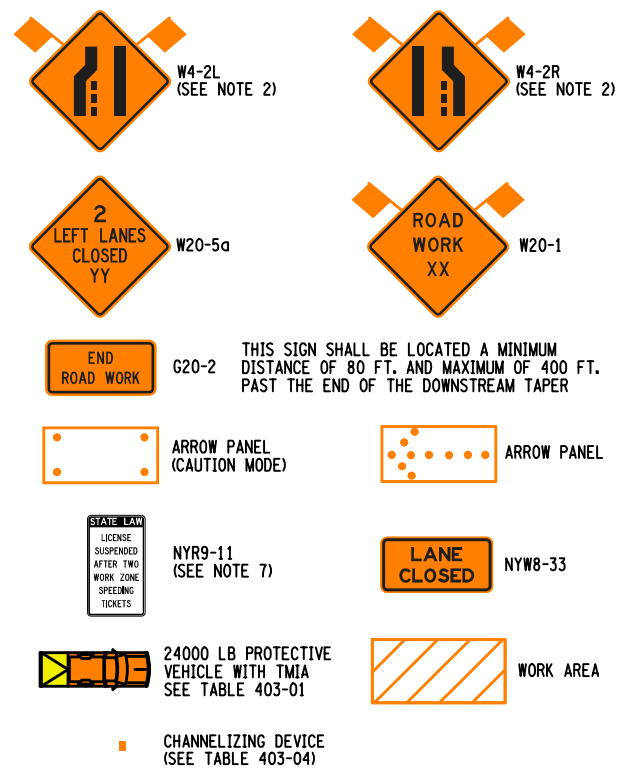


NOTES:

1. INTERMEDIATE-TERM IS STATIONARY WORK THAT OCCUPIES A LOCATION MORE THAN ONE DAYLIGHT PERIOD UP TO 3 CONSECUTIVE DAYS, OR NIGHTTIME WORK LASTING MORE THAN 1 HOUR.
2. RIGHT LANE CLOSURES ARE SYMMETRICAL TO LEFT LANE CLOSURES. SUBSTITUTE RIGHT TWO LANES CLOSED 1/2 MILE SIGN (W20-5a) AND THE CORRESPONDING LANE ENDS SIGN (W4-2R).
3. THE PROTECTIVE VEHICLE(S) SHALL MAINTAIN THE APPROPRIATE ROLL AHEAD DISTANCE, BE AN UNOCCUPIED TRUCK POSITIONED PARALLEL TO TRAFFIC, PARKING BRAKE SET, PLACED IN 2ND GEAR (MANUAL TRANSMISSIONS /ENGINE OFF) OR PARK / NEUTRAL (AUTOMATIC TRANSMISSIONS) AND HAVE THE FRONT WHEELS ALIGNED WITH THE LANE STRIPING.
4. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 20' IN THE ACTIVE WORK SPACE.
5. NO WORK ACTIVITY, EQUIPMENT, OR STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BUFFER SPACE AT ANY TIME.
6. CHANNELIZING DEVICES SHALL BE PLACED TRANSVERSELY A MINIMUM OF EVERY 800' AS SHOWN WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 800'.
7. THE NY9-11 SIGN IS RECOMMENDED. WHEN USED, IT SHALL BE PLACED IN ADVANCE OF THE FIRST ADVANCE WARNING SIGN. THE PLACEMENT DISTANCE SHALL BE 1000' FOR POSTED SPEED LIMITS OF 45 MPH OR HIGHER, AND 300' - 500' FOR POSTED SPEED LIMITS OF LESS THAN 45 MPH.

NOTES ON NIGHTTIME WORK:

- N1. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS.
- N2. ALL SIGNS, STOP/SLOW PADDLES AND RED FLAGS USED TO WARN/ALERT/CONTROL TRAFFIC SHALL BE RETROREFLECTIVE.
- N3. ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMETS AND NIGHTTIME APPAREL IN ACCORDANCE WITH §107-05A. HIGH VISIBILITY APPAREL AT ALL TIMES.
- N4. VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS OR FLASHING LED BEACONS AT ALL TIMES.
- N5. LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.
- N6. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.
- N7. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL EQUIPMENT, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
- N8. ALL LIGHTING SHALL BE DESIGNED, INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY.
- N9. PRIOR TO THE START OF NIGHTTIME OPERATIONS, A WRITTEN NIGHTTIME OPERATIONS AND LIGHTING PLAN IS REQUIRED FOR APPROVAL.
- N10. SEE NIGHTTIME SAFETY BULLETIN, HDM §16.5.7, & STANDARD SPECIFICATIONS §619 FOR ADDITIONAL REQUIREMENTS AND CONSIDERATIONS.



REFER TO SHEET 2 OF 2 FOR ALL TABLES

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL
 MULTI-LANE DIVIDED ROADWAY AND FREEWAY
 LEFT (OR RIGHT) TWO LANE CLOSURE
 INTERMEDIATE TERM
 (SHEET 1 OF 2)

APPROVED DECEMBER 2, 2021 ISSUED UNDER EI 21-028

Robert Limoges
 ROBERT LIMOGES, P.E.
 DIRECTOR, OTSM Contract No. H62153-13GR
 Pavement Marking Improvements Ph 13 PIN 0761 23

619-403

CLOSURE TYPE	ROAD TYPE & SPEED	FREEWAY	NON-FREEWAY		
			≥ 45 MPH	35 - 40 MPH	≤ 30 MPH
LANE CLOSURE OR ENCROACHMENT	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA	P, TMIA	P, TMIA	SEE NOTE 2
	OTHER HAZARDS NO WORKERS EXPOSED	P, TMIA	P, TMIA	SEE NOTE 2	SEE NOTE 2
SHOULDER CLOSURE OR ENCROACHMENT	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA	P, TMIA	SEE NOTE 2	SEE NOTE 2
	OTHER HAZARDS NO WORKERS EXPOSED	P, TMIA	SEE NOTE 2	SEE NOTE 2	SEE NOTE 2

LEGEND
P: PROTECTIVE VEHICLE REQUIRED FOR EACH CLOSED LANE & EACH CLOSED PAVED SHOULDER 8' OR WIDER, IF THE WORK SPACE MOVES WITHIN THE STATIONARY CLOSURE, THE PROTECTIVE VEHICLE SHALL BE REPOSITIONED ACCORDINGLY
TMIA: TMIA REQUIRED

NOTES:
1. THE EXPOSURE CONDITIONS ASSUME THERE IS NO POSITIVE PROTECTION PRESENT
2. EITHER A PROTECTIVE VEHICLE OR THE STANDARD BUFFER SPACE SHALL BE PROVIDED

ROLL AHEAD DISTANCE (FT.)/# OF SKIP LINES FOR VEHICLES		
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	STATIONARY OPERATION	
	MIN	MAX
≥ 55	120/3	200/5
45 - 50	80/2	160/4
≤ 40	40/1	120/3

PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE DISTANCE (FT.) / # OF SKIP LINES	TAPER LENGTH: L (FT.) / # OF SKIP LINES / # OF CHANNELIZING DEVICES			SHOULDER TAPER LENGTH: L/3 (FT.) / # OF SKIP LINES / # OF CHANNELIZING DEVICES		
		FOR LANE WIDTH IN FT. (LATERAL SHIFT OF TRAFFIC FLOW PATH)			FOR SHOULDER WIDTH		
		10	11	12	≤ 4 FT.	5 - 7 FT.	≥ 8 FT.
25	155/4	120/3/4	120/3/4	120/3/4	40/1/2	40/1/2	40/1/2
30	200/5	160/4/5	160/4/5	200/5/6	40/1/2	40/1/2	40/1/2
35	250/6	200/5/6	240/6/7	240/6/7	40/1/2	40/1/2	80/2/3
40	305/8	280/7/8	320/8/9	320/8/9	40/1/2	80/2/3	80/2/3
45	360/9	440/11/12	520/13/14	560/14/15	80/2/3	80/2/3	120/3/4
50	425/11	520/13/14	560/14/15	600/15/16	80/2/3	120/3/4	160/4/5
55	495/13	560/14/15	600/15/16	680/17/18	80/2/3	120/3/4	160/4/5
65	645/16	640/16/17	720/18/19	800/20/21	80/2/3	160/4/5	200/5/6

WORK ZONE PROVISIONS	MAXIMUM DEVICE SPACING (CENTER TO CENTER)	MUTCD COMPLIANT CHANNELIZING DEVICE								
		DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE III BARRICADES
INTERMEDIATE-TERM STATIONARY WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 DAYLIGHT PERIOD UP TO 3 CONSECUTIVE DAYS, OR NIGHTTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR	20 FT. *	X							X	
	40 FT.	X							X	
MARKING FOR TRANSVERSE BUMPS ¹	N/A	X ²			X ²				X ²	
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER	800 FT.	X		X	X			X	X	0
REMOVAL OF EXISTING GUIDE RAIL	80 FT.	X		X	X	X		X	X	0
	40 FT.									

NOTES: X= ALLOWED, BLANK = NOT ALLOWED, 0 = OPTIONAL
1. - A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE.
2. - CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.
* SEE NOTE 4 ON SHEET 1 OF 2.

SIGN	NON-FREEWAY	FREEWAY
G20-2	36x18	48x24
NYW8-33	48x24	48x24
W4-2L	36x36	48x48
W4-2R	36x36	48x48
W20-1	36x36	48x48
W20-5a	36x36	48x48
NYR9-11	24x42	48x84
WARNING FLAG	18x18	18x18

*FREEWAY SIZES MAY BE USED ON NON-FREEWAY, IF SPACE CONSTRAINTS DO NOT EXIST.

ROAD TYPE	DISTANCE BETWEEN SIGNS			SIGN LEGEND	
	A (FT.)	B (FT.)	C (FT.)	XX	YY
URBAN (≤ 30 MPH*)	100	100	100	AHEAD	AHEAD
URBAN (35-40 MPH*)	200	200	200	AHEAD	AHEAD
URBAN (≥ 45 MPH*)	350	350	350	1000 FT.	AHEAD
RURAL	500	500	500	1500 FT.	1000 FT.

* PRECONSTRUCTION POSTED SPEED LIMIT

NEW YORK
STATE OF OPPORTUNITY.

Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

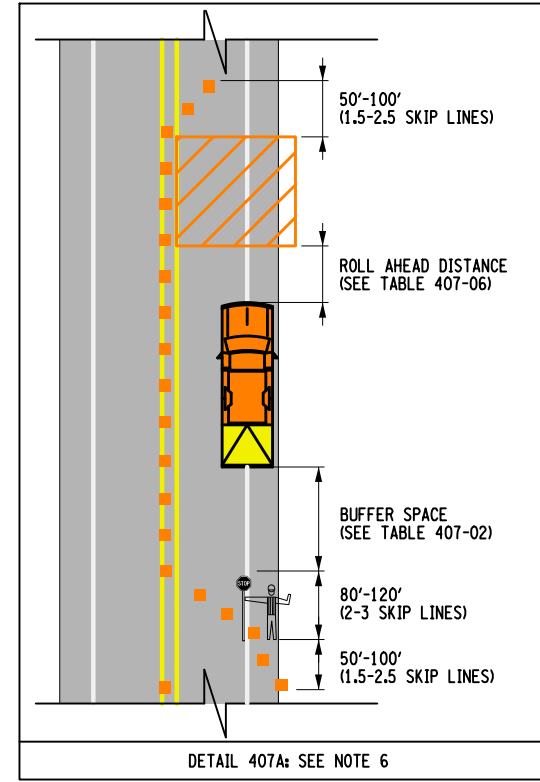
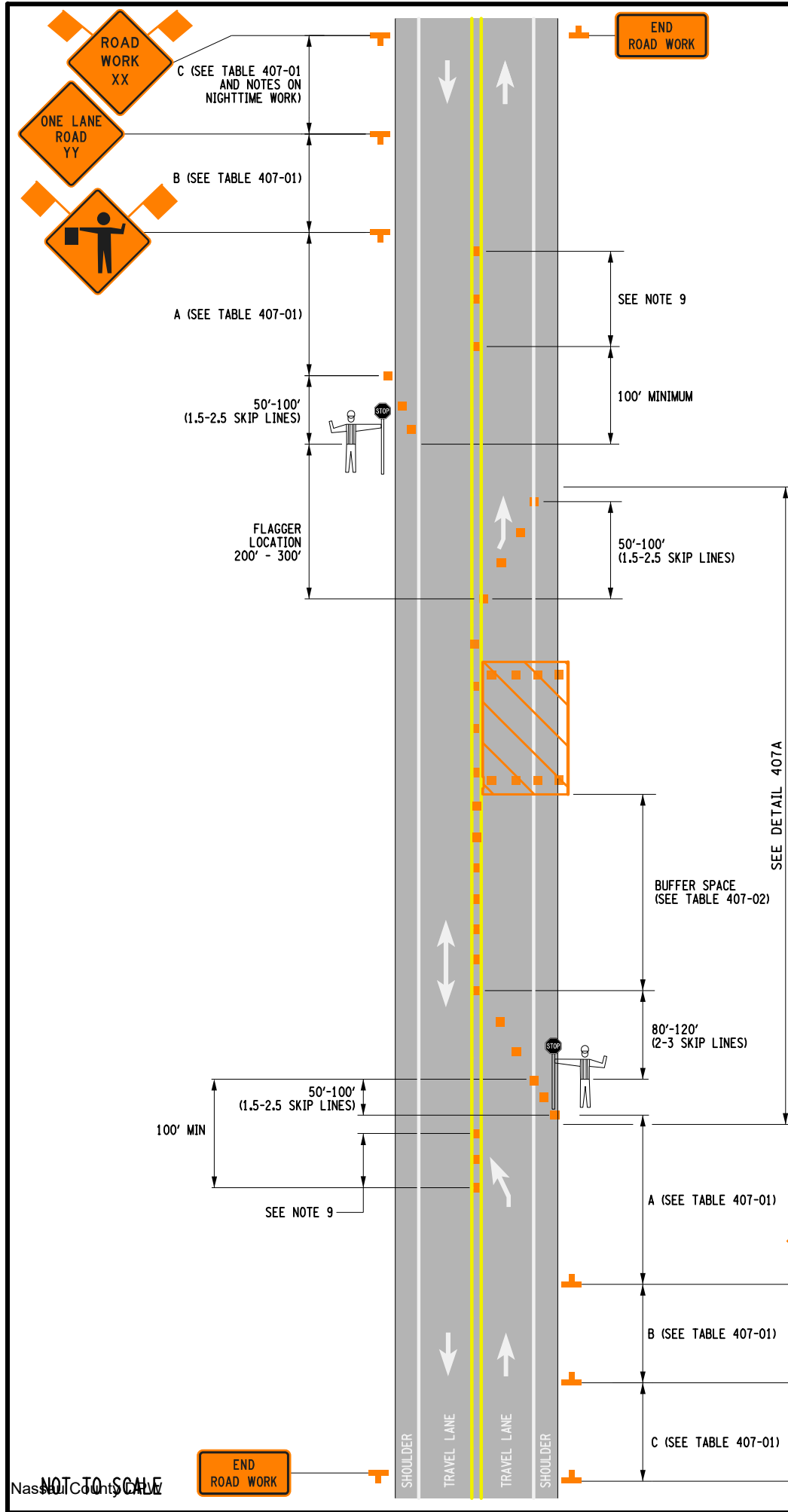
**WORK ZONE TRAFFIC CONTROL
MULTI-LANE DIVIDED ROADWAY AND FREEWAY
LEFT (OR RIGHT) TWO LANE CLOSURE
INTERMEDIATE TERM
(SHEET 2 OF 2)**

APPROVED APRIL 8, 2022

ISSUED UNDER EI 22-008

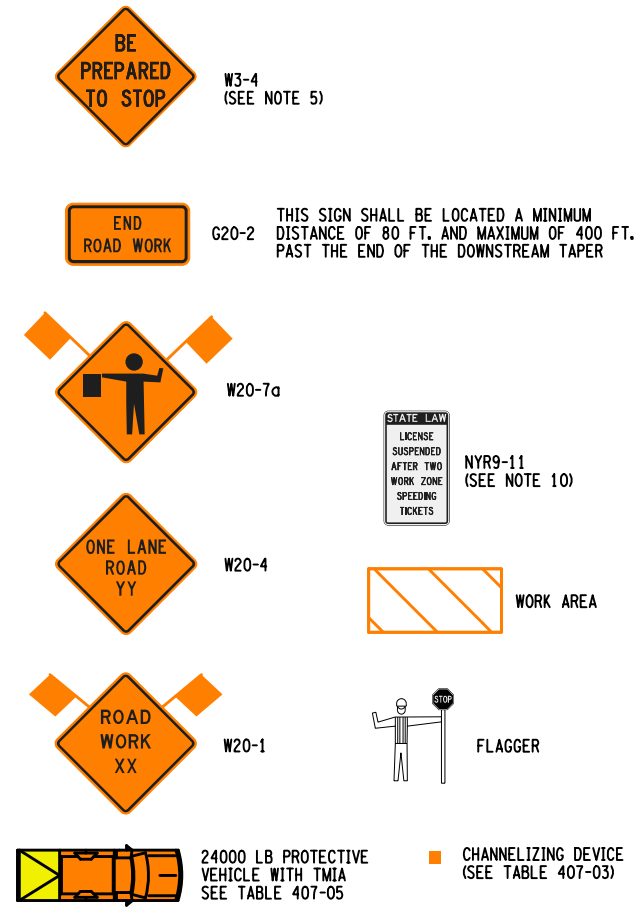
Robert Limoges
ROBERT LIMOGES, P.E.
DIRECTOR, OTSM

619-403
Contract No. H62153-13GR
Pavement Marking Improvements Ph 13 PIN 0761 23



- NOTES:
- INTERMEDIATE-TERM IS STATIONARY WORK THAT OCCUPIES A LOCATION MORE THAN ONE DAYLIGHT PERIOD UP TO 3 CONSECUTIVE DAYS, OR NIGHTTIME WORK LASTING MORE THAN 1 HOUR.
 - WHEN A SIDE ROAD OR DRIVEWAY INTERSECTS THE ROADWAY WITHIN A WORK ZONE TRAFFIC CONTROL AREA, ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES AND/OR FLAGGERS SHALL BE PLACED AS NEEDED. ADDITIONAL FLAGGERS SHALL BE LOCATED AT ALL INTERSECTIONS AND COMMERCIAL DRIVEWAYS LOCATED WITHIN OR NEAR THE ACTIVE WORK SPACE. NO WORK ACTIVITY, EQUIPMENT, OR STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BUFFER SPACE AT ANY TIME.
 - CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 20' IN THE ACTIVE WORK SPACE.
 - CHANNELIZING DEVICES SHALL BE PLACED TRANSVERSELY A MINIMUM OF EVERY 800' AS SHOWN WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 800'.
 - IF THE TRAFFIC IS EXPECTED TO QUEUE PAST THE W20-4 SIGN, A W3-4 SIGN SHOULD BE ADDED HALFWAY BETWEEN THE W20-4 AND W20-1 SIGNS.
 - IF CONDITION WARRANTS, PROTECTIVE VEHICLE WITH APPROPRIATE ROLL AHEAD DISTANCE MAY BE USED IN ADVANCE OF THE WORK AREA. TO USE PROTECTIVE VEHICLE, BUFFER SPACE SHALL BE PROVIDED ACCORDINGLY, AND THE WHEELS SHALL BE ALIGNED WITH THE LANE STRIPING.
 - FLAGGER SIGN (W20-7a) AND ONE LANE ROAD AHEAD SIGN (W20-4) SHALL BE REMOVED, COVERED OR TURNED AWAY FROM ROAD USERS WHEN FLAGGING OPERATIONS ARE NOT OCCURRING.
 - ALL FLAGGERS SHALL USE 24" (MIN.) OCTAGON SHAPED STOP/SLOW PADDLES HAVING 6" STAFF. THE PADDLE IS THE PREFERRED DEVICE, BUT THE FLAG MAY BE USED AT INTERSECTIONS WHERE THE STOP/SLOW PADDLE WOULD OFFER CONTRADICTING INFORMATION TO DRIVERS TRAVELING IN OPPOSITE DIRECTIONS/LEGS OF THE INTERSECTION OR DURING INCIDENT MANAGEMENT SITUATIONS.
 - CENTERLINE CONES MAY BE ADDED TO ENHANCE THE VISIBILITY OF THE FLAGGER STATION. IF CONES ARE USED, PLACE THEM 100 FT. (MINIMUM) FROM FLAGGER.
 - THE NY9-11 SIGN IS RECOMMENDED. WHEN USED, IT SHALL BE PLACED IN ADVANCE OF THE FIRST ADVANCE WARNING SIGN. THE PLACEMENT DISTANCE SHALL BE 1000' FOR POSTED SPEED LIMITS OF 45 MPH OR HIGHER, AND 300' - 500' FOR POSTED SPEED LIMITS OF LESS THAN 45 MPH.

- NOTES ON NIGHTTIME WORK:
- WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS.
 - ALL SIGNS, STOP / SLOW PADDLES AND RED FLAGS USED TO WARN / ALERT / CONTROL TRAFFIC SHALL BE RETROREFLECTIVE.
 - ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMET AND NIGHTTIME APPAREL IN ACCORDANCE WITH §107-05A. HIGH VISIBILITY APPAREL AT ALL TIMES.
 - VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS AT ALL TIMES.
 - LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.
 - LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.
 - LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
 - ALL LIGHTING SHALL BE DESIGNED, INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY.
 - PRIOR TO THE START OF NIGHTTIME OPERATIONS, A WRITTEN NIGHTTIME OPERATIONS AND LIGHTING PLAN IS REQUIRED FOR APPROVAL.
 - SEE NIGHTTIME SAFETY BULLETIN, HDM §16.5.7, & STANDARD SPECIFICATIONS §619 FOR ADDITIONAL REQUIREMENTS AND CONSIDERATIONS.



REFER TO SHEET 2 OF 2 FOR ALL TABLES

Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL TWO-LANE TWO-WAY ROADWAY LANE CLOSURE WITH FLAGGERS INTERMEDIATE TERM OPERATIONS (SHEET 1 OF 2)	
APPROVED DECEMBER 2, 2021	ISSUED UNDER EI 21-028
Robert Limoges ROBERT LIMOGES, P.E. DIRECTOR, OTSM	Contract No. H62153-13GR Pavement Marking Improvements Ph 13 PIN 0761 23

NOT TO SCALE

TABLE 407-01: ADVANCE WARNING SIGN SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS			SIGN LEGEND	
	A (FT.)	B (FT.)	C (FT.)	XX	YY
URBAN (≤ 30 MPH*)	100	100	100	AHEAD	AHEAD
URBAN (35-40 MPH*)	200	200	200	AHEAD	AHEAD
URBAN (≥ 45 MPH*)	350	350	350	1000 FT.	AHEAD
RURAL	500	500	500	1500 FT.	1000 FT.

* PRECONSTRUCTION POSTED SPEED LIMIT

TABLE 407-02: LONGITUDINAL BUFFER SPACE

PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE DISTANCE (FT.)/* OF SKIP LINES
45	360/9
50	425/11
55	495/13
65	645/16

TABLE 407-03: CHANNELIZING DEVICE APPLICATION FOR INTERMEDIATE-TERM STATIONARY WORK ZONES

WORK ZONE PROVISIONS	MAXIMUM DEVICE SPACING (CENTER TO CENTER)	MUTCD COMPLIANT CHANNELIZING DEVICE								
		DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE III BARRICADES
SHOULDER/MERGING/ SHIFTING TAPERS	20 FT. *	X							X	
	40 FT.	X							X	
MARKING FOR TRANSVERSE BUMPS ¹	N/A	X ²			X ²				X ²	
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER	800 FT.	X		X	X			X	X	0
REMOVAL OF EXISTING GUIDE RAIL	80 FT.	X		X	X	X		X	X	0
	40 FT.									

NOTES: X= ALLOWED, BLANK = NOT ALLOWED, 0 = OPTIONAL
 1. - A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE.
 2. - CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.

* SEE NOTE 3 ON SHEET 1 OF 2.

TABLE 407-04: REQUIRED SIGN SIZES*

SIGN	NON-FREEWAY	FREEWAY
G20-2	36x18	48x24
W3-4	36x36	48x48
W20-1	36x36	48x48
W20-4	36x36	48x48
W20-7a	36x36	48x48
WARNING FLAG	18x18	18x18

*FREEWAY SIZES MAY BE USED ON NON-FREEWAY, IF SPACE CONSTRAINTS DO NOT EXIST.

TABLE 407-05: PROTECTIVE VEHICLE REQUIREMENTS


CLOSURE TYPE	ROAD TYPE & SPEED	NON-FREEWAY		
		≥ 45 MPH	35 - 40 MPH	≤ 30 MPH
		EXPOSURE CONDITIONS ¹		
LANE CLOSURE OR ENCROACHMENT	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA	P, TMIA	SEE NOTE 2
	OTHER HAZARDS NO WORKERS EXPOSED	P, TMIA	SEE NOTE 2	SEE NOTE 2
SHOULDER CLOSURE OR ENCROACHMENT	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA	SEE NOTE 2	SEE NOTE 2
	OTHER HAZARDS NO WORKERS EXPOSED	SEE NOTE 2	SEE NOTE 2	SEE NOTE 2

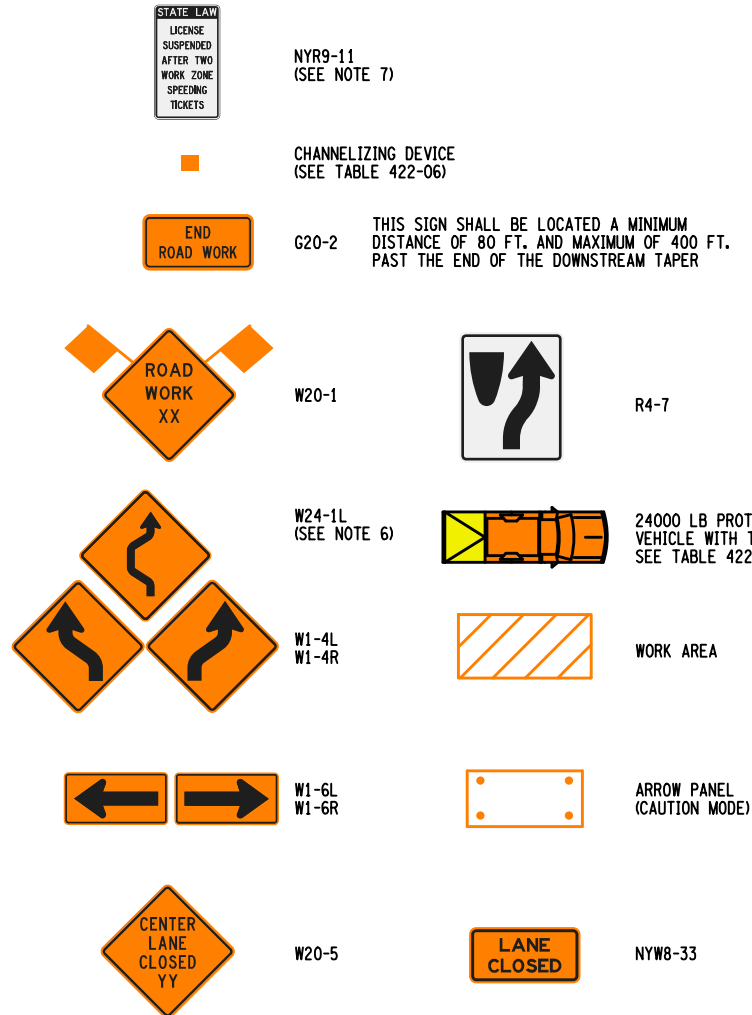
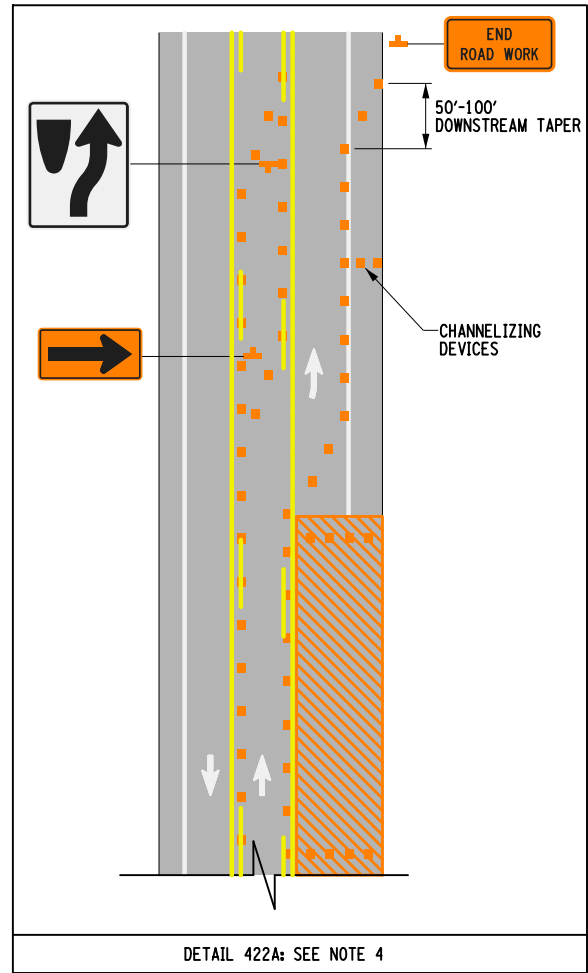
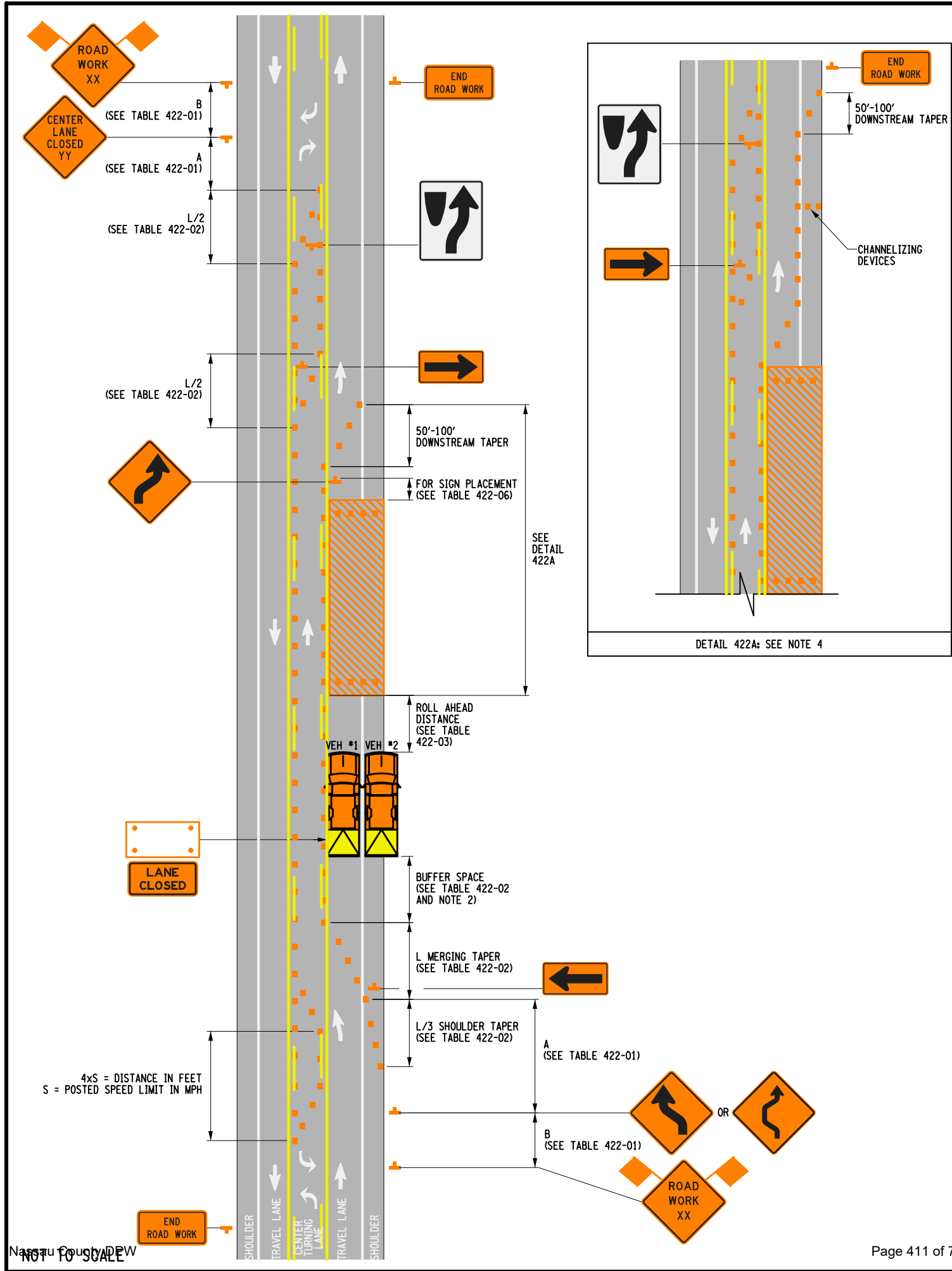
LEGEND
 P: PROTECTIVE VEHICLE REQUIRED FOR EACH CLOSED LANE & EACH CLOSED PAVED SHOULDER 8' OR WIDER. IF THE WORK SPACE MOVES WITHIN THE STATIONARY CLOSURE, THE PROTECTIVE VEHICLE SHALL BE REPOSITIONED ACCORDINGLY
 TMIA: TMIA REQUIRED

NOTES:
 1. THE EXPOSURE CONDITIONS ASSUME THERE IS NO POSITIVE PROTECTION PRESENT
 2. EITHER A PROTECTIVE VEHICLE OR THE STANDARD BUFFER SPACE SHALL BE PROVIDED

TABLE 407-06: ROLL AHEAD DISTANCE

PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	ROLL AHEAD DISTANCE (FT.)/* OF SKIP LINES FOR VEHICLES	
	STATIONARY OPERATION	
	MIN	MAX
≥ 55	120/3	200/5
45 - 50	80/2	160/4
≤ 40	40/1	120/3

 NEW YORK STATE OF OPPORTUNITY.		Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET			
WORK ZONE TRAFFIC CONTROL TWO-LANE TWO-WAY ROADWAY LANE CLOSURE WITH FLAGGERS INTERMEDIATE TERM OPERATION (SHEET 2 OF 2)			
APPROVED APRIL 8, 2022		ISSUED UNDER EI 22-008	
Robert Limoges ROBERT LIMOGES, P.E. DIRECTOR, OTSM		Contract No. H62153-13GR 619-407 Pavement Marking Improvements Ph 13 PIN 0761 23	



- NOTES:
- INTERMEDIATE-TERM IS STATIONARY WORK THAT OCCUPIES A LOCATION MORE THAN ONE DAYLIGHT PERIOD UP TO 3 CONSECUTIVE DAYS, OR NIGHTTIME WORK LASTING MORE THAN 1 HOUR.
 - NO WORK ACTIVITY, EQUIPMENT, OR STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BUFFER SPACE AT ANY TIME.
 - CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 20' IN THE ACTIVE WORK SPACE AND THE TURN LANE TAPER SPACE.
 - CHANNELIZING DEVICES SHALL BE PLACED TRANSVERSELY A MINIMUM OF EVERY 800' AS SHOWN WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 800'.
 - WHERE THE SHIFTED SECTION IS LONGER THAN 600', ONE REVERSE CURVE SIGN SHOULD BE USED TO SHOW THE INITIAL SHIFT AND A SECOND SIGN SHOULD BE USED TO SHOW THE RETURN TO THE NORMAL ALIGNMENT. IF THE TANGENT DISTANCE ALONG THE TEMPORARY DIVERSION IS LESS THAN 600', THE DOUBLE REVERSE CURVE SIGN (W24-1L) SHOULD BE USED INSTEAD OF THE FIRST REVERSE CURVE SIGN (W1-4L) AND THE SECOND REVERSE CURVE SIGN (W1-4L) SHOULD BE OMITTED.
 - THE ENGINEER MAY REQUIRE THE USE OF AN ADVISORY SPEED PLAQUE (W13-1) TO SUPPLEMENT A WARNING SIGN. THE PLAQUE WILL BE USED TO INDICATE AN ADVISORY SPEED FOR THE WORK ZONE CONDITION. (E. NARROW LANES, BUMPS, POOR ROADWAY SURFACE, LOW OR NO SHOULDER, DROP-OFFS, GEOMETRIC CONSTRAINTS, AND/OR POOR SIGHT CONDITIONS).
 - THE NYR9-11 SIGN IS RECOMMENDED. WHEN USED, IT SHALL BE PLACED IN ADVANCE OF THE FIRST ADVANCE WARNING SIGN. THE PLACEMENT DISTANCE SHALL BE 1000' FOR POSTED SPEED LIMITS OF 45 MPH OR HIGHER, AND 300' - 500' FOR POSTED SPEED LIMITS OF LESS THAN 45 MPH.
 - THE PROTECTIVE VEHICLE(S) SHALL MAINTAIN THE APPROPRIATE ROLL AHEAD DISTANCE, BE AN UNOCCUPIED TRUCK POSITIONED PARALLEL TO TRAFFIC, PARKING BRAKE SET, PLACED IN 2ND GEAR (MANUAL TRANSMISSIONS /ENGINE OFF) OR PARK / NEUTRAL (AUTOMATIC TRANSMISSIONS) AND HAVE THE FRONT WHEELS ALIGNED WITH THE LANE STRIPING.
- NOTES ON NIGHTTIME WORK:
- WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS.
 - ALL SIGNS, STOP/SLOW PADDLES AND RED FLAGS USED TO WARN/ALERT/CONTROL TRAFFIC SHALL BE RETROREFLECTIVE.
 - ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMET AND NIGHTTIME APPAREL IN ACCORDANCE WITH §107-05A. HIGH VISIBILITY APPAREL AT ALL TIMES.
 - VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS OR FLASHING LED BEACONS AT ALL TIMES.
 - LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.
 - LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.
 - LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
 - ALL LIGHTING SHALL BE DESIGNED, INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY.
 - PRIOR TO THE START OF NIGHTTIME OPERATIONS, A WRITTEN NIGHTTIME OPERATIONS AND LIGHTING PLAN IS REQUIRED FOR APPROVAL.
 - SEE NIGHTTIME SAFETY BULLETIN, HDM §16.5.7, & STANDARD SPECIFICATIONS §619 FOR ADDITIONAL REQUIREMENTS AND CONSIDERATIONS.

REFER TO SHEET 2 OF 2 FOR ALL TABLES

Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL TWO-LANE TWO-WAY ROADWAY SINGLE LANE SHIFT WITH TWO-WAY LEFT TURN LANE INTERMEDIATE TERM OPERATION (SHEET 1 OF 2)	
APPROVED DECEMBER 2, 2021	ISSUED UNDER EI 21-028
Robert Limoges ROBERT LIMOGES, P.E. DIRECTOR, OTSM	Contract No. H62153-13GR Pavement Marking Improvements Ph 13 PIN 0761 23
619-422	

ROAD TYPE	DISTANCE BETWEEN SIGNS			SIGN LEGEND	
	A (FT.)	B (FT.)	C (FT.)	XX	YY
URBAN (≤ 30 MPH*)	100	100	100	AHEAD	AHEAD
URBAN (35-40 MPH*)	200	200	200	AHEAD	AHEAD
URBAN (≥ 45 MPH*)	350	350	350	1000 FT.	AHEAD
RURAL	500	500	500	1500 FT.	1000 FT.

* PRECONSTRUCTION POSTED SPEED LIMIT

PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE DISTANCE (FT.) / * OF SKIP LINES	TAPER LENGTH: L (FT.) / * OF SKIP LINES / * OF CHANNELIZING DEVICES			SHOULDER TAPER LENGTH: L/3 (FT.) / * OF SKIP LINES / * OF CHANNELIZING DEVICES		
		FOR LANE WIDTH IN FT. (LATERAL SHIFT OF TRAFFIC FLOW PATH)			FOR SHOULDER WIDTH		
		10	11	12	≤ 4 FT.	5 - 7 FT.	≥ 8 FT.
25	155/4	120/3/4	120/3/4	120/3/4	40/1/2	40/1/2	40/1/2
30	200/5	160/4/5	160/4/5	200/5/6	40/1/2	40/1/2	40/1/2
35	250/6	200/5/6	240/6/7	240/6/7	40/1/2	40/1/2	80/2/3
40	305/8	280/7/8	320/8/9	320/8/9	40/1/2	80/2/3	80/2/3
45	360/9	440/11/12	520/13/14	560/14/15	80/2/3	80/2/3	120/3/4
50	425/11	520/13/14	560/14/15	600/15/16	80/2/3	120/3/4	160/4/5
55	495/13	560/14/15	600/15/16	680/17/18	80/2/3	120/3/4	160/4/5

ROLL AHEAD DISTANCE (FT.) / * OF SKIP LINES FOR VEHICLES		
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	STATIONARY OPERATION	
	MIN	MAX
≥ 55	120/3	200/5
45 - 50	80/2	160/4
≤ 40	40/1	120/3

CLOSURE TYPE	ROAD TYPE & SPEED	NON-FREEWAY		
		≥ 45 MPH	35 - 40 MPH	≤ 30 MPH
LANE CLOSURE OR ENCROACHMENT	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA	P, TMIA	SEE NOTE 2
	OTHER HAZARDS NO WORKERS EXPOSED	P, TMIA	SEE NOTE 2	SEE NOTE 2
SHOULDER CLOSURE OR ENCROACHMENT	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA	SEE NOTE 2	SEE NOTE 2
	OTHER HAZARDS NO WORKERS EXPOSED	SEE NOTE 2	SEE NOTE 2	SEE NOTE 2

LEGEND
P: PROTECTIVE VEHICLE REQUIRED FOR EACH CLOSED LANE & EACH CLOSED PAVED SHOULDER 8' OR WIDER, IF THE WORK SPACE MOVES WITHIN THE STATIONARY CLOSURE, THE PROTECTIVE VEHICLE SHALL BE REPOSITIONED ACCORDINGLY
TMIA: TMIA REQUIRED

NOTES:
1. THE EXPOSURE CONDITIONS ASSUME THERE IS NO POSITIVE PROTECTION PRESENT
2. EITHER A PROTECTIVE VEHICLE OR THE STANDARD BUFFER SPACE SHALL BE PROVIDED

WORK ZONE PROVISIONS	MAXIMUM DEVICE SPACING (CENTER TO CENTER)	MUTCD COMPLIANT CHANNELIZING DEVICE								
		DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE III BARRICADES
INTERMEDIATE-TERM STATIONARY WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 DAYLIGHT PERIOD UP TO 3 CONSECUTIVE DAYS, OR NIGHTTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR	20 FT. *	X								X
	40 FT.	X								X
MARKING FOR TRANSVERSE BUMPS ¹	N/A	X ²			X ²					X ²
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER	800 FT.	X		X	X			X	X	0
REMOVAL OF EXISTING GUIDE RAIL	80 FT.	X		X	X	X		X	X	0
	40 FT.	X		X	X	X		X	X	0

NOTES: X= ALLOWED, BLANK = NOT ALLOWED, 0 = OPTIONAL
1. - A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE.
2. - CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.

* SEE NOTE 3 ON SHEET 1 OF 2.

POSTED OR 85 th -PERCENTILE SPEED (MPH)	ADVANCE PLACEMENT DISTANCE (FT.) ¹												
	CONDITION A: SPEED REDUCTION AND LANE CHANGING IN HEAVY TRAFFIC ²	CONDITION B: DECELERATION TO THE LISTED ADVISORY SPEED (MPH) FOR THE CONDITION ⁴											
		0 ³	5	10	15	20	25	30	35	40	45	50	55
20	410	115	110	105	90	75	-	-	-	-	-	-	-
25	515	155	160	150	135	120	95	-	-	-	-	-	-
30	620	200	205	195	185	165	140	110	-	-	-	-	-
35	720	250	255	245	235	215	190	160	130	-	-	-	-
40	825	305	320	310	295	280	255	225	190	150	-	-	-
45	930	360	380	370	360	340	315	285	255	210	165	-	-
50	1030	425	455	450	435	415	390	360	330	285	240	185	-
55	1135	495	530	520	505	490	460	435	400	355	315	255	205

- NOTES:
- THE DISTANCES HAVE NOT BEEN MODIFIED TO ACCOUNT FOR SIGN LEGIBILITY.
 - TYPICAL CONDITIONS ARE LOCATIONS WHERE THE ROAD USER MUST USE EXTRA TIME TO ADJUST SPEED AND CHANGE LANES IN HEAVY TRAFFIC BECAUSE OF A COMPLEX DRIVING SITUATION. TYPICAL SIGNS ARE MERGE AND RIGHT HAND ENDS. THE DISTANCES ARE TAKEN FROM THE 2004 AASHTO POLICY, EXHIBIT 3-3, DECISION SIGHT DISTANCE, AVOIDANCE MANEUVER E.
 - TYPICAL CONDITION IS THE WARNING OF A POTENTIAL STOP SITUATION. TYPICAL SIGNS ARE STOP AHEAD, YIELD AHEAD, SIGNAL AHEAD, AND INTERSECTION WARNING SIGNS. THE DISTANCES ARE TAKEN FROM THE 2004 AASHTO POLICY, STOPPING SIGHT DISTANCE, EXHIBIT 3-1.
 - TYPICAL CONDITIONS ARE LOCATIONS WHERE THE ROAD USER MUST DECREASE SPEED TO MANEUVER THROUGH THE WARNED CONDITION. TYPICAL SIGNS ARE TURN, CURVE, REVERSE TURN, OR REVERSE CURVE. THE DISTANCES ARE DETERMINED BY PROVIDING A 2.5 SECOND PRT AND A VEHICLE DECELERATION RATE OF 10 FT/SECOND.²
 - TYPICAL SIGNS ARE ADDED LANE, ROAD NARROWS, DIVIDED HIGHWAY, AND CONDITION B SIGNS DISPLAYED WITHOUT AN ADVISORY SPEED.

SIGN	NON-FREEWAY	FREEWAY
NYR9-11	24x42	48x84
W1-4L/W1-4R	36x36	48x48
W1-6L/W1-6R	48x24	60x30
W9-3	36x36	48x48
W20-1	36x36	48x48
W20-4	36x36	48x48
W20-5	36x36	48x48
W24-1L	36x36	48x48
R4-7	24x30	36x48
NYW8-33	48x24	48x24
G20-2	36x18	48x24
WARNING FLAG	18x18	18x18

*FREEWAY SIZES MAY BE USED ON NON-FREEWAY, IF SPACE CONSTRAINTS DO NOT EXIST.

Department of Transportation

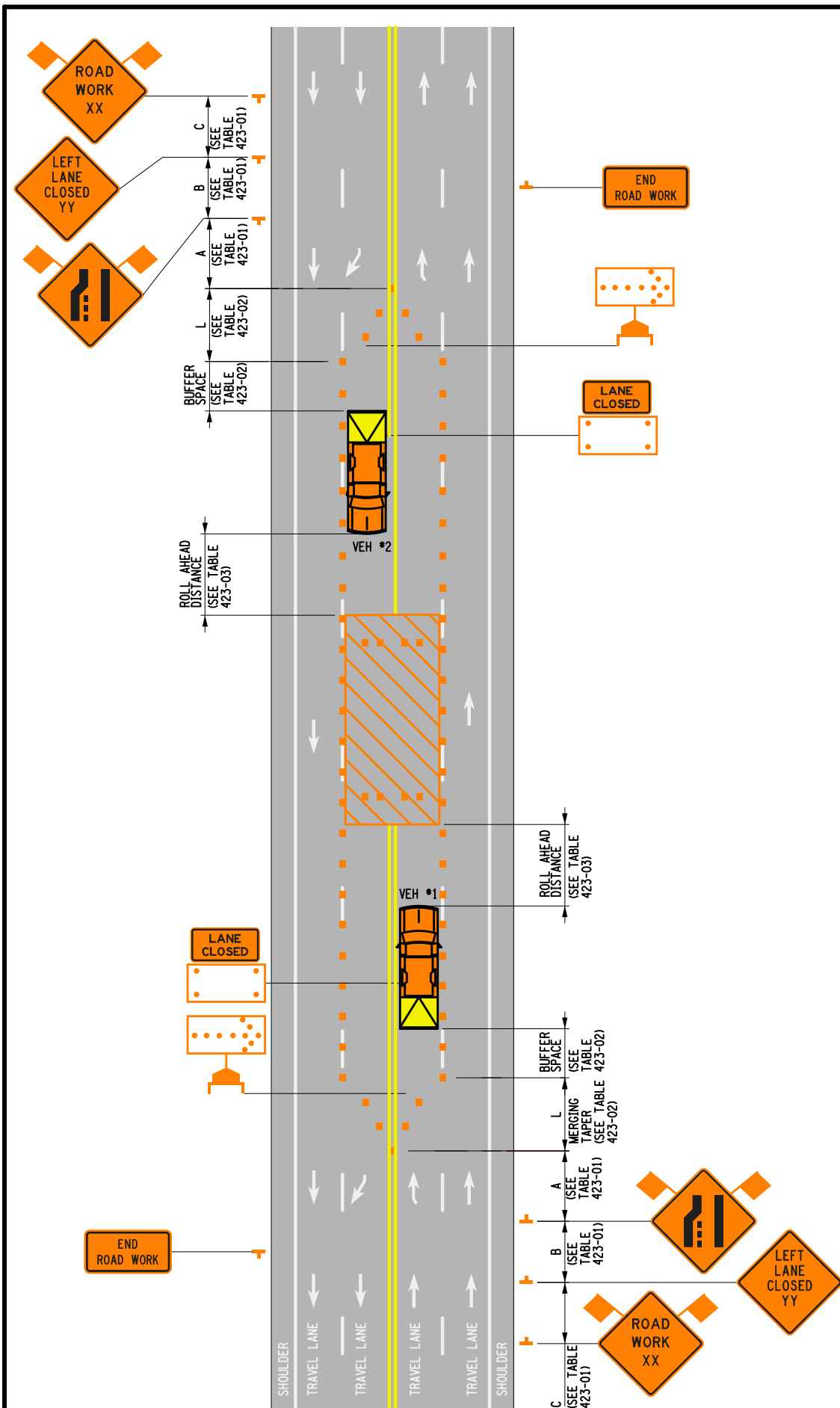
U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL
TWO-LANE TWO-WAY ROADWAY
SINGLE LANE SHIFT WITH TWO-WAY LEFT
TURN LANE INTERMEDIATE TERM OPERATION
(SHEET 2 OF 2)

APPROVED APRIL 8, 2022
ISSUED UNDER EI 22-008

619-422

ROBERT LIMOGES, P.E.
 DIRECTOR, OTSM Contract No. H62153-13GR
 Pavement Marking Improvements Ph 13 PIN 0761 23



NOT TO SCALE

Nassau County DPW

NOTES:

1. INTERMEDIATE-TERM IS STATIONARY WORK THAT OCCUPIES A LOCATION MORE THAN ONE DAYLIGHT PERIOD UP TO 3 CONSECUTIVE DAYS, OR NIGHTTIME WORK LASTING MORE THAN 1 HOUR.
2. NO WORK ACTIVITY, EQUIPMENT, OR STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BUFFER SPACE AT ANY TIME.
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 20' IN THE ACTIVE WORK SPACE.
4. THE PROTECTIVE VEHICLE SHALL BE UNOCCUPIED AND SHALL BE POSITIONED PARALLEL TO TRAFFIC AND HAVE THE WHEELS ALIGNED WITH THE LANE STRIPING; IT MUST BE PLACED IN NEUTRAL WITH THE PARKING BRAKE SET (PARK / 2ND GEAR FOR ENGINE OFF CONDITIONS).
5. FOR LOW SPEED (< 45 MPH), LOW VOLUME URBAN STREETS, THE W20-5 SIGN MAY BE OMITTED AND THE W20-1 SIGN RELOCATED TO THAT LOCATION.
6. THE PROTECTIVE VEHICLE(S) SHALL MAINTAIN THE APPROPRIATE ROLL AHEAD DISTANCE, BE AN UNOCCUPIED TRUCK POSITIONED PARALLEL TO TRAFFIC, PARKING BRAKE SET, PLACED IN 2ND GEAR (MANUAL TRANSMISSIONS / ENGINE OFF) OR PARK / NEUTRAL (AUTOMATIC TRANSMISSIONS) AND HAVE THE FRONT WHEELS ALIGNED WITH THE LANE STRIPING.
7. THE NYR9-11 SIGN IS RECOMMENDED. WHEN USED, IT SHALL BE PLACED IN ADVANCE OF THE FIRST ADVANCE WARNING SIGN. THE PLACEMENT DISTANCE SHALL BE 1000' FOR POSTED SPEED LIMITS OF 45 MPH OR HIGHER, AND 300' - 500' FOR POSTED SPEED LIMITS OF LESS THAN 45 MPH.

NOTES ON NIGHTTIME WORK:

- N1. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS.
- N2. ALL SIGNS, STOP / SLOW PADDLES AND RED FLAGS USED TO WARN / ALERT / CONTROL TRAFFIC SHALL BE RETROREFLECTIVE.
- N3. ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMETS AND NIGHTTIME APPAREL IN ACCORDANCE WITH §107-05A. HIGH VISIBILITY APPAREL AT ALL TIMES.
- N4. VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS OR FLASHING LED BEACONS AT ALL TIMES.
- N5. LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.
- N6. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.
- N7. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL EQUIPMENT, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
- N8. ALL LIGHTING SHALL BE DESIGNED, INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY.
- N9. PRIOR TO THE START OF NIGHTTIME OPERATIONS, A WRITTEN NIGHTTIME OPERATIONS AND LIGHTING PLAN IS REQUIRED FOR APPROVAL.
- N10. SEE NIGHTTIME SAFETY BULLETIN, HDM §16.5.7, & STANDARD SPECIFICATIONS §619 FOR ADDITIONAL REQUIREMENTS AND CONSIDERATIONS.

	W4-2L		G20-2	THIS SIGN SHALL BE LOCATED A MINIMUM DISTANCE OF 80 FT. AND MAXIMUM OF 400 FT. PAST THE END OF THE DOWNSTREAM TAPER
	W20-1 (SEE NOTE 5)		NYW8-33	
	ARROW PANEL (CAUTION MODE)		W20-5L (SEE NOTE 5)	
	CHANNELIZING DEVICE (SEE TABLE 423-05)		ARROW PANEL	
	24000 LB PROTECTIVE VEHICLE WITH TMIA SEE TABLE 423-04		WORK AREA	

REFER TO SHEET 2 OF 2 FOR ALL TABLES

NEW YORK STATE OF OPPORTUNITY.		Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET			
WORK ZONE TRAFFIC CONTROL MULTI-LANE TWO-WAY ROADWAY DOUBLE INTERIOR LANE CLOSURE INTERMEDIATE TERM OPERATION (SHEET 1 OF 2)			
APPROVED DECEMBER 2, 2021		ISSUED UNDER EI 21-028	
Robert Limoges ROBERT LIMOGES, P.E. DIRECTOR, OTSM		Contract No. H62153-13GR Pavement Marking Improvements Ph 13 PIN 0761 23	
		619-423	

TABLE 423-01: ADVANCE WARNING SIGN SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS			SIGN LEGEND	
	A (FT.)	B (FT.)	C (FT.)	XX	YY
URBAN (≤ 30 MPH*)	100	100	100	AHEAD	AHEAD
URBAN (35-40 MPH*)	200	200	200	AHEAD	AHEAD
URBAN (≥ 45 MPH*)	350	350	350	1000 FT.	AHEAD
RURAL	500	500	500	1500 FT.	1000 FT.

* PRECONSTRUCTION POSTED SPEED LIMIT

TABLE 423-02: LONGITUDINAL BUFFER SPACE AND TAPER LENGTHS

PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE DISTANCE (FT.) / * OF SKIP LINES	TAPER LENGTH: L (FT.) / * OF SKIP LINES / * OF CHANNELIZING DEVICES			SHOULDER TAPER LENGTH: L/3 (FT.) / * OF SKIP LINES / * OF CHANNELIZING DEVICES		
		FOR LANE WIDTH IN FT. (LATERAL SHIFT OF TRAFFIC FLOW PATH)			FOR SHOULDER WIDTH		
		10	11	12	≤ 4 FT.	5 - 7 FT.	≥ 8 FT.
25	155/4	120/3/4	120/3/4	120/3/4	40/1/2	40/1/2	40/1/2
30	200/5	160/4/5	160/4/5	200/5/6	40/1/2	40/1/2	40/1/2
35	250/6	200/5/6	240/6/7	240/6/7	40/1/2	40/1/2	80/2/3
40	305/8	280/7/8	320/8/9	320/8/9	40/1/2	80/2/3	80/2/3
45	360/9	440/11/12	520/13/14	560/14/15	80/2/3	80/2/3	120/3/4
50	425/11	520/13/14	560/14/15	600/15/16	80/2/3	120/3/4	160/4/5
55	495/13	560/14/15	600/15/16	680/17/18	80/2/3	120/3/4	160/4/5

TABLE 423-03: ROLL AHEAD DISTANCE

PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	STATIONARY OPERATION	
	MIN	MAX
≥ 55	120/3	200/5
45 - 50	80/2	160/4
≤ 40	40/1	120/3

TABLE 423-04: PROTECTIVE VEHICLE REQUIREMENTS

CLOSURE TYPE	ROAD TYPE & SPEED	NON-FREEWAY		
		≥ 45 MPH	35 - 40 MPH	≤ 30 MPH
LANE CLOSURE OR ENCROACHMENT	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA	P, TMIA	SEE NOTE 2
	OTHER HAZARDS NO WORKERS EXPOSED	P, TMIA	SEE NOTE 2	SEE NOTE 2

LEGEND
P: PROTECTIVE VEHICLE REQUIRED FOR EACH CLOSED LANE & EACH CLOSED PAVED SHOULDER 8' OR WIDER, IF THE WORK SPACE MOVES WITHIN THE STATIONARY CLOSURE, THE PROTECTIVE VEHICLE SHALL BE REPOSITIONED ACCORDINGLY
TMIA: TMIA REQUIRED

NOTES:
1. THE EXPOSURE CONDITIONS ASSUME THERE IS NO POSITIVE PROTECTION PRESENT
2. EITHER A PROTECTIVE VEHICLE OR THE STANDARD BUFFER SPACE SHALL BE PROVIDED

TABLE 423-05: CHANNELIZING DEVICE APPLICATION FOR INTERMEDIATE-TERM STATIONARY WORK ZONES

WORK ZONE PROVISIONS	MAXIMUM DEVICE SPACING (CENTER TO CENTER)	MUTCD COMPLIANT CHANNELIZING DEVICE								
		DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE III BARRICADES
INTERMEDIATE-TERM STATIONARY WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 DAYLIGHT PERIOD UP TO 3 CONSECUTIVE DAYS, OR NIGHTTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR										
SHOULDER/MERGING/SHIFTING TAPERS	20 FT. * 40 FT.	X X							X X	
MARKING FOR TRANSVERSE BUMPS ¹	N/A	X ²			X ²				X ²	
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER	800 FT.	X		X	X			X	X	0
REMOVAL OF EXISTING GUIDE RAIL	80 FT. 40 FT.	X X		X	X	X		X	X	0

NOTES: X= ALLOWED, BLANK = NOT ALLOWED, 0 = OPTIONAL
1. - A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE.
2. - CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.
* SEE NOTE 3 ON SHEET 1 OF 2.

TABLE 423-06: REQUIRED SIGN SIZES*

SIGN	NON-FREEWAY	FREEWAY
W4-2L	36x36	48x48
W20-1	36x36	48x48
W20-5	36x36	48x48
NYW8-33	48x24	48x24
G20-2	36x18	48x24
WARNING FLAG	18x18	18x18

*FREEWAY SIZES MAY BE USED ON NON-FREEWAY, IF SPACE CONSTRAINTS DO NOT EXIST.

NEW YORK
STATE OF OPPORTUNITY.

Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

**WORK ZONE TRAFFIC CONTROL
MULTI-LANE TWO-WAY ROADWAY
DOUBLE INTERIOR LANE CLOSURE
INTERMEDIATE TERM OPERATION
(SHEET 2 OF 2)**

APPROVED APRIL 8, 2022

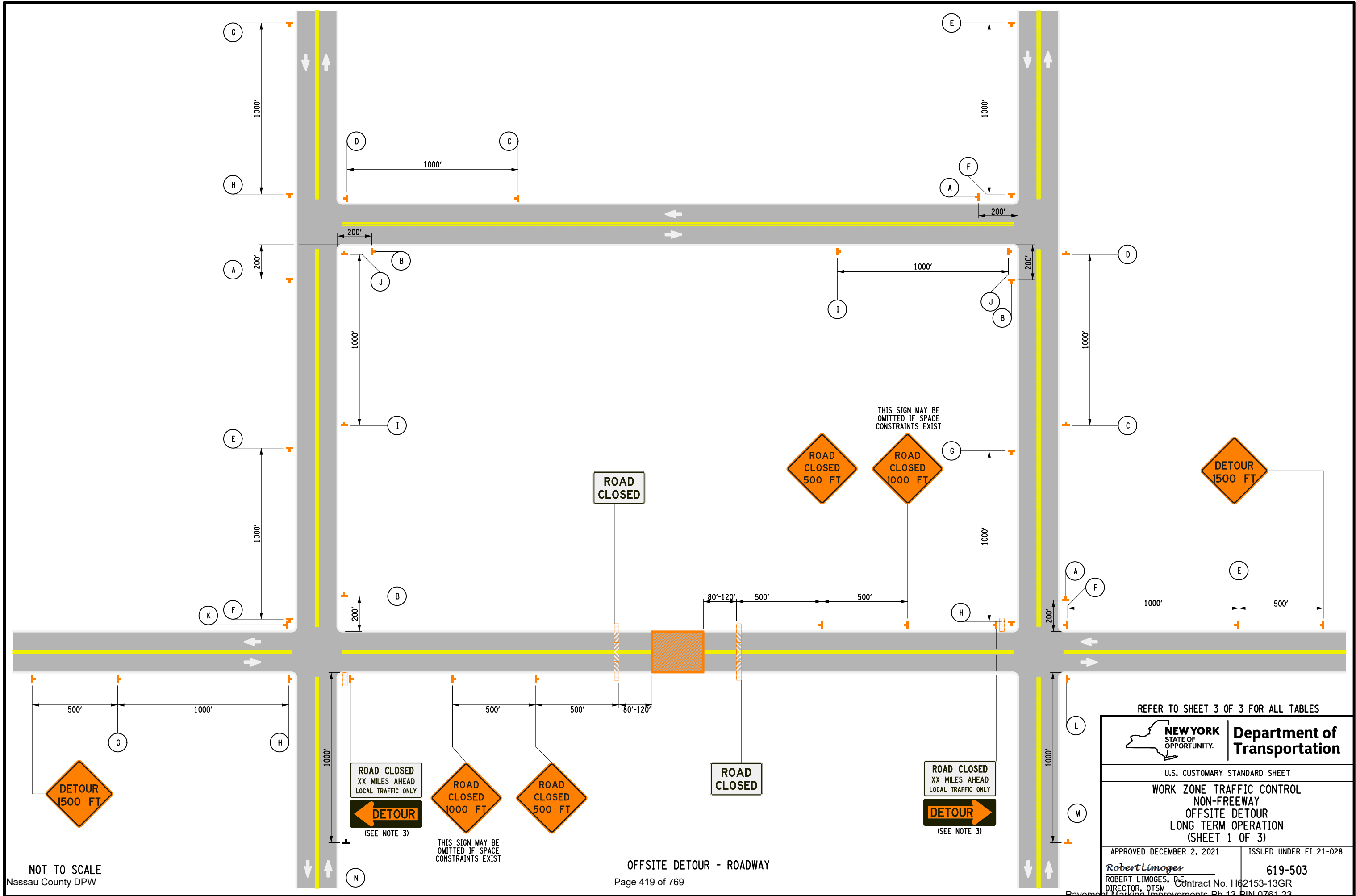
ISSUED UNDER EI 22-008

Robert Limoges

ROBERT LIMOGES, P.E.
DIRECTOR, OTSM

619-423


Contract No. H62153-13GR
Payment Marking Improvements Ph 13 PIN 0761 23



NOT TO SCALE
Nassau County DPW

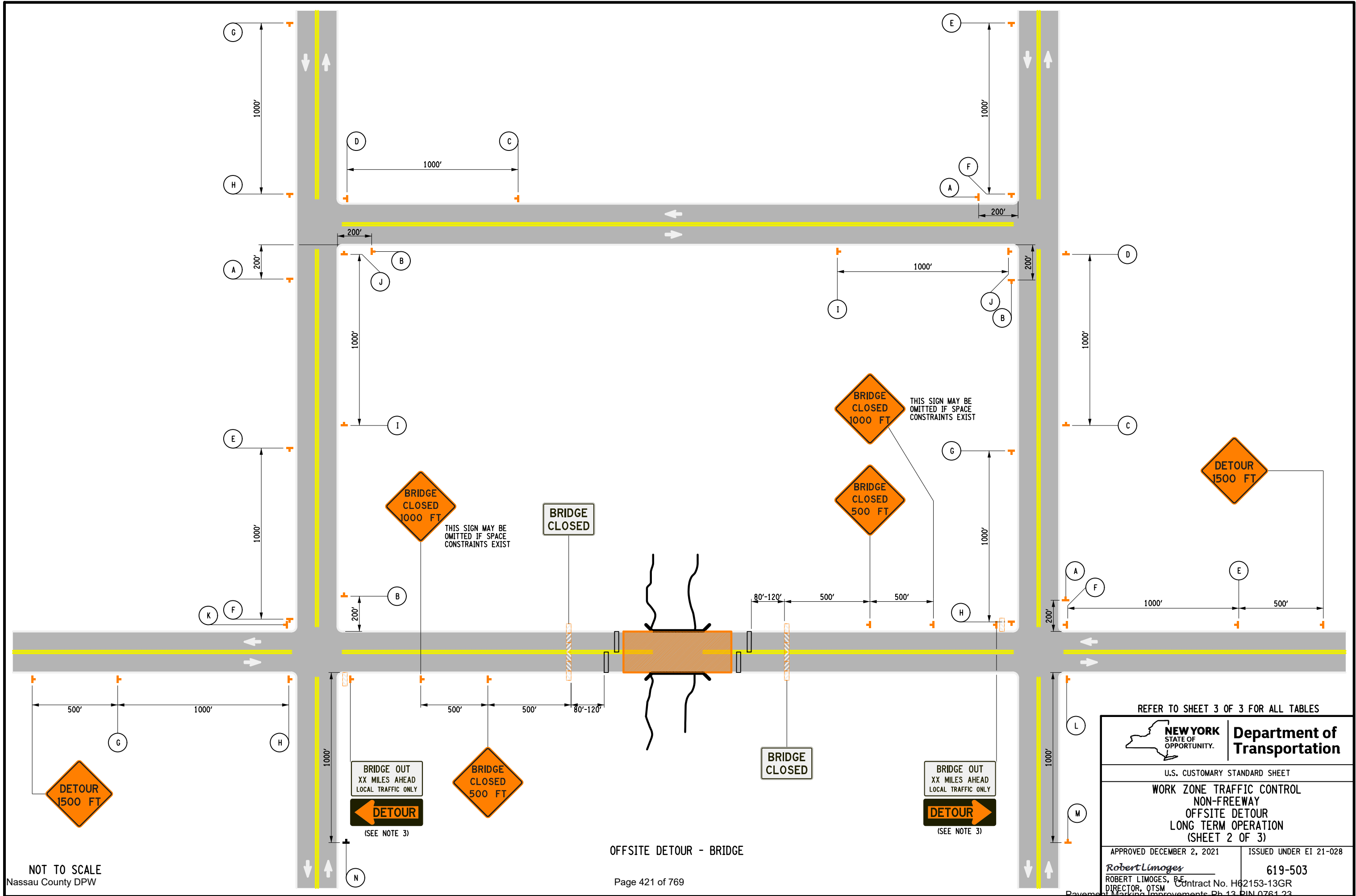
OFFSITE DETOUR - ROADWAY
Page 419 of 769

REFER TO SHEET 3 OF 3 FOR ALL TABLES

 NEW YORK STATE OF OPPORTUNITY.		Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET			
WORK ZONE TRAFFIC CONTROL NON-FREEWAY OFFSITE DETOUR LONG TERM OPERATION (SHEET 1 OF 3)			
APPROVED DECEMBER 2, 2021		ISSUED UNDER EI 21-028	
Robert Limoges ROBERT LIMOGES, P.E. DIRECTOR, OTSM		619-503 Contract No. H62153-13GR Pavement Marking Improvements Ph 13 PIN 0761 23	

USC SEPTEMBER 01, 2022

FILE NAME = 619-503-2.dgn
DATE/TIME = 06-DEC-2021 14:54
USER = wcheron



NOT TO SCALE
Nassau County DPW

OFFSITE DETOUR - BRIDGE

REFER TO SHEET 3 OF 3 FOR ALL TABLES

NEW YORK
STATE OF OPPORTUNITY.

Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

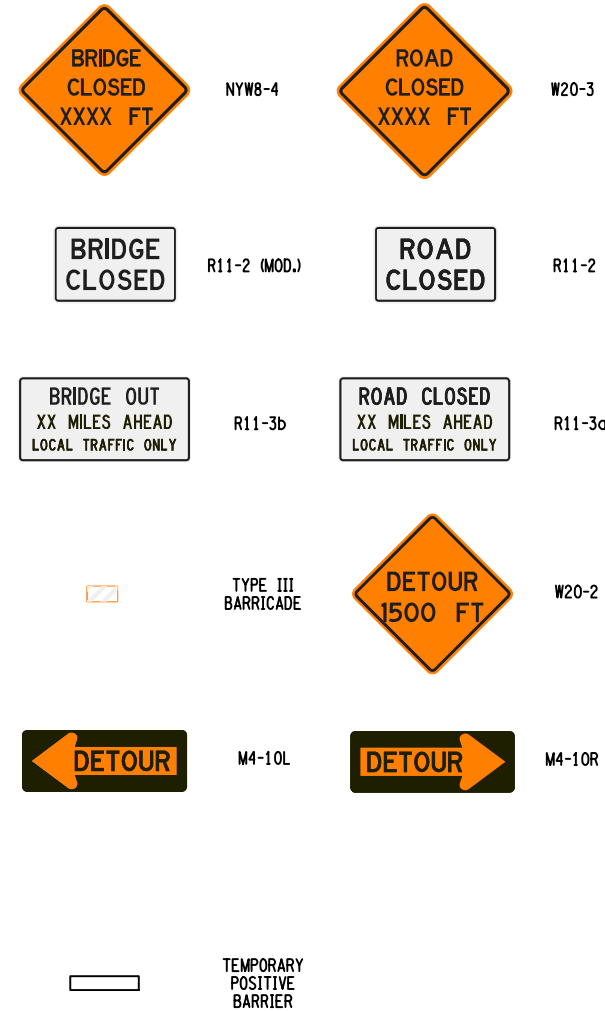
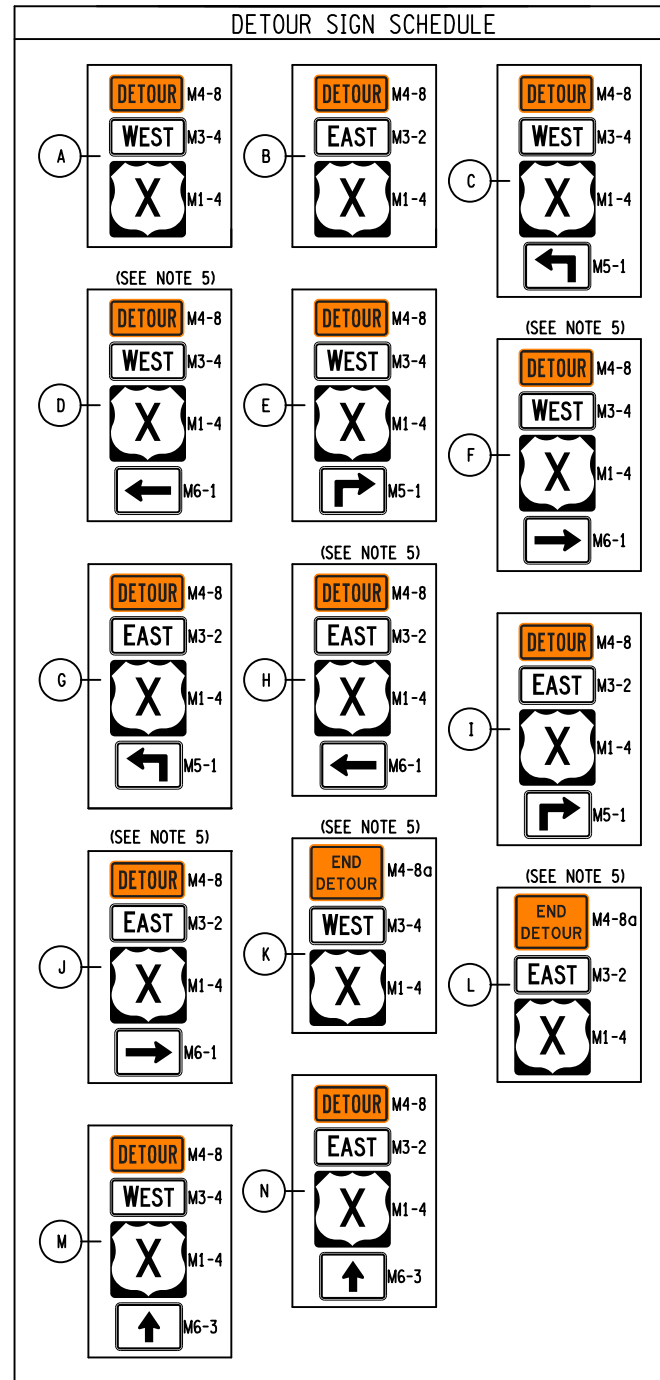
**WORK ZONE TRAFFIC CONTROL
NON-FREEWAY
OFFSITE DETOUR
LONG TERM OPERATION
(SHEET 2 OF 3)**

APPROVED DECEMBER 2, 2021 ISSUED UNDER EI 21-028

Robert Limoges
ROBERT LIMOGES, P.E.
DIRECTOR, OTSM Contract No. H62153-13GR

619-503

Pavement Marking Improvements Ph 13 PIN 0761 23



NOTES:

1. LONG-TERM IS STATIONARY WORK THAT OCCUPIES A LOCATION MORE THAN 3 CONSECUTIVE DAYS. THIS SETUP MAY ALSO BE USED FOR A SHORT TERM OFFSITE DETOUR IN WHICH CASE NOTES N1 TO N9 WILL NOT APPLY.
 2. CONFIRMATION SIGNING (A) AND (B) SHALL BE REPEATED A MAXIMUM DISTANCE OF EVERY 1/2 MILE.
 3. IF THE ROAD IS OPENED FOR SOME DISTANCE BEYOND THE INTERSECTION AND/OR THERE ARE SIGNIFICANT ORIGIN/DESTINATION POINTS BEYOND THE INTERSECTION, THE R11-3a/R11-3b ROAD CLOSED SIGN AND THE M4-10L/R) SIGN ON TYPE III BARRICADES MAY BE LOCATED AT THE EDGE OF THE TRAVELED WAY.
 4. ANY EXISTING SIGN, INCLUDING OVERHEAD SIGNS, WHICH CONFLICT WITH THE TEMPORARY TRAFFIC CONTROL SIGN LAYOUT SHALL BE COVERED, REMOVED, STORED OR RESET ABOVE. BLANK COVERS USED TO COVER PORTIONS OF EXISTING SIGNS SHALL BE OF A COLOR AND REFLECTORIZED MATERIAL MATCHING THAT OF THE SIGN BEING PARTIALLY COVERED. THE CONTRACTOR SHALL BE LIABLE FOR ANY DAMAGE TO SIGNS CAUSED BY THE METHODS USED TO TEMPORARILY REMOVE, REPLACE, RELOCATE OR COVER SIGN PANELS OR SIGN TEXT, AT NO ADDITIONAL COST TO THE STATE. ALL APPROPRIATE EXISTING SIGNS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AND/OR LOCATION UNLESS OTHERWISE REPLACED IN THE CONTACT DOCUMENTS.
 5. SIGN GROUPINGS (D), (E), (H), (J), (K), AND (L) SHALL ALWAYS BE POSTED A MAXIMUM OF 50' FROM AN INTERSECTION.
 6. FOR LOCAL AND/OR COUNTY ROAD DETOUR SIGNAGE DETAILS REFER TO MUTCD WITH NEW YORK STATE SUPPLEMENT FOR GUIDANCE.
- NOTES ON NIGHTTIME WORK:**
- N1. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS.
 - N2. ALL SIGNS, STOP/SLOW PADDLES AND RED FLAGS USED TO WARN/ALERT/CONTROL TRAFFIC SHALL BE RETROREFLECTIVE.
 - N3. ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMET AND NIGHTTIME APPAREL IN ACCORDANCE WITH §107-05A. HIGH VISIBILITY APPAREL AT ALL TIMES.
 - N4. VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS OR FLASHING LED BEACONS AT ALL TIMES.
 - N5. LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.
 - N6. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.
 - N7. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
 - N8. ALL LIGHTING SHALL BE DESIGNED, INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY.
 - N9. PRIOR TO THE START OF NIGHTTIME OPERATIONS, A WRITTEN NIGHTTIME OPERATIONS AND LIGHTING PLAN IS REQUIRED FOR APPROVAL.
 - N10. SEE NIGHTTIME SAFETY BULLETIN, HDM §16.5.7, & STANDARD SPECIFICATIONS §619 FOR ADDITIONAL REQUIREMENTS AND CONSIDERATIONS.

TABLE 519-01: REQUIRED SIGN SIZES*

SIGN	NON-FREEWAY	FREEWAY
NYW8-4	36x36	48x48
M4-10L/M4-10R	48x18	48x18
R11-2	48x30	48x30
R11-3a**/R11-3b**	60x30	60x30
W20-2	36x36	48x48
W20-3	36x36	48x48

*FREEWAY SIZES MAY BE USED ON NON-FREEWAY, IF SPACE CONSTRAINTS DO NOT EXIST.
**SIGNS NOT FOR FREEWAY USE.

NEW YORK
STATE OF OPPORTUNITY.

Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

**WORK ZONE TRAFFIC CONTROL
NON-FREEWAY
OFFSITE DETOUR
LONG TERM OPERATION
(SHEET 3 OF 3)**

APPROVED DECEMBER 2, 2021	ISSUED UNDER EI 21-028
<i>Robert Limoges</i> ROBERT LIMOGES, P.E. DIRECTOR, OTSM	619-503 Contract No. H62153-13GR Pavement Marking Improvements Ph 13 PIN 0761 23

NO TEXT ON THIS PAGE

H62153-13GR: Pavement Marking Improvements Phase 13

PIN 0761.23

CONTRACTOR: _____

BY: _____

TITLE: _____

SIGNATURE: _____

DATE: _____