Proposed Revisions to the MDT Detailed Drawings June 2025 Edition

Detailed Drawing No.	Detailed Drawing Title	Remarks
403-00	CRACK SEALING	New drawing.
607-01	MODIFIED FARM FENCE	New drawing, replaces WILDLIFE FRIENDLY FENCE.
618-21	DIVIDED FOUR-LANE WORK AREAS	Drawing No. change only (formerly 618-24).
618-22	DIVIDED FOUR-LANE EQUIPMENT ENTRANCE	Drawing No. change only (formerly 618-27).
618-23	DIVIDED FOUR-LANE MEDIAN CROSSING	Drawing No. change only (formerly 618-28).
618-24	DIVIDED FOUR-LANE SINGLE LANE CLOSURE LANE SHIFT	Drawing No. change only (formerly 618-33).
618-25	DIVIDED FOUR-LANE LANE SHIFT	New drawing.
618-26	DIVIDED FOUR-LANE SHOULDER MESSAGE SIGN	New drawing.
618-27	TEMPORARY FOUR-LANE TO TWO-LANE MEDIAN CROSSOVER	Drawing No. change only (formerly 618-30).
618-28	TEMPORARY TWO-LANE TO FOUR-LANE MEDIAN CROSSOVER	Drawing No. change only (formerly 618-32).
618-29	TEMPORARY ENTRANCE RAMP MEDIAN CROSSOVER	Drawing No. change (formerly 618-21). Ramp warning sign series revised to add R2-15, R2-1, W3-2, & R1-2. Channelizing Device spacing reduced in merge area.
618-30	TEMPORARY EXIT RAMP MEDIAN CROSSOVER	Drawing No. change only (formerly 618-22).
618-31	DIVIDED FOUR-LANE RAMP MERGE	New drawing.
618-32	DIVIDED FOUR-LANE EXIT RAMP CLOSURE	New drawing.
618-40	SHORT DURATION OR SHORT-TERM STATIONARY CREW SIGNING	Drawing No. change only (formerly 618-34).
619-10	SHEET ALUMINUM OVERLAY	Revised to remove references to plywood sheeting.
619-34	DELINEATOR DETAILS	Revised delineator legend to show Type I and Type II.
619-46	AUTHORIZED VEHICLE CROSSOVER DESIGNATOR	New drawing.

DETAILED DRAWINGS

TABLE OF CONTENTS

STANDARD SPECIFICATION SECTION AND DRAWING TITLE	DRAWING NUMBER
SECTION 101: DEFINITIONS AND TERMS	
ABBREVIATIONS	101-05
ABBREVIATIONS	101-06
ABBREVIATIONS	101-07
ABBREVIATIONS	101-08
SYMBOLS	101-10
SECTION 203: EXCAVATION AND EMBANKMENT	
APPROACHES	203-05
DITCH BLOCKS	203-20
SECTION 301: AGGREGATE SURFACING	
ROADWAY EMBANKMENT AT BRIDGE END	301-00
SECTION 403: CRACK SEALING	
CRACK SEALING	403-00
SECTION 411: COLD MILLING	
SHOULDER RUMBLE STRIPS	411-02
MODIFIED SHOULDER RUMBLE STRIPS	
CENTED INE DUMBLE STRIPS	411.05

W-BEAM METAL GUARDRAIL HARDWARE	606-88
LOW-TENSION CABLE GUARDRAIL HARDWARE	606-94
BOX BEAM GUARDRAIL HARDWARE	606-97
BOX BEAM GUARDRAIL HARDWARE	606-98
BOX BEAM GUARDRAIL HARDWARE	606-99
SECTION 607: FENCES	
FARM FENCE	607-00
WILDLIFE FRIENDLY MODIFIED FARM FENCE 607-01	
FARM ENTRANCE GATES	607-02
FENCE DETAILS	607-05
FENCE DETAILS	607-10
FENCE DETAILS	607-15
FENCE DETAILS	607-17
FENCING AT RIGHT OF WAY BREAKS	607-20
CHAIN LINK FENCE	607-25
8' (2.4 m) WOOD SNOW FENCE W/ ANCHOR SYSTEM #1	607-30
12' (3.6 m) WOOD SNOW FENCE W/ ANCHOR SYSTEM #1	607-35
WOOD SNOW FENCE ANCHOR SYSTEM #3 AND #1 DETAILS.	607-40
WOOD SNOW FENCE ANCHOR SYSTEM #2 DETAILS	607-45
WILDLIFE FENCE.	607-50
JACKLEG WIRE FENCE	607-55
JACKLEG POLE FENCE	607-60
SECTION 608: CONCRETE SIDEWALKS	
CONCRETE SIDEWALK	608-05
NEW CONSTRUCTION PUBLIC SIDEWALK CURB RAMPS.	608-15
PERPENDICULAR PUBLIC SIDEWALK CURB RAMPS	608-25

RIPRAP SLOPE PROTECTION	613-16
DRAINAGE CHUTES	613-18
SECTION 615: IRRIGATION FACILITIES AND HEADWALLS	
TRASHGUARD FOR CONCRETE IRRIGATION INLET AND OUTLET TRANSITION STRUCTURES.	615-02
STANDARD CONCRETE IRRIGATION DIVISION BOXES	615-04
CONCRETE IRRIGATION INLET AND OUTLET TRANSITION FOR RCP AND CSP PIPES	615-06
SECTION 618: TRAFFIC CONTROL	
CHANNELIZING DEVICES AND OBJECT MARKERS	618-00
CONSTRUCTION SIGN DETAILS	618-01
PORTABLE SIGN SUPPORT ASSEMBLY	618-02
BARRICADES	618-03
TWO-LANE CONSTRUCTION PROJECT	618-04
TWO-LANE CONSTRUCTION PROJECT WORK ZONES	618-08
TWO-LANE CONSTRUCTION PROJECT SEAL COAT.	618-10
TWO-LANE CONSTRUCTION PROJECT LANE CLOSURE - FLAGGER CONTROL	LED618-12
TWO-LANE CONSTRUCTION PROJECT LANE CLOSURE - SIGNAL CONTROLLE	ED618-13
TWO-LANE EQUIPMENT ENTRANCES	618-14
TWO-LANE EQUIPMENT ENTRANCES	618-16
TWO-LANE CONSTRUCTION PROJECT DIVERSION	618-18
DIVIDED FOUR-LANE CONSTRUCTION PROJECT	618-20
DIVIDED FOUR-LANE CONSTRUCTION PROJECT WORK ZONES.	618-
24 21	
DIVIDED FOUR-LANE EQUIPMENT ENTRANCE	618-
DIVIDED FOUR-LANE MEDIAN CROSSING	618-

33 24	DIVIDED FOUR-LANE SINGLE LANE CLOSURE LANE SHIFT	618-
	DIVIDED FOUR-LANE LANE SHIFT	618-25
	DIVIDED FOUR-LANE SHOULDER MESSAGE SIGN	618-26
30 27	TEMPORARY FOUR-LANE TO TWO-LANE MEDIAN CROSSOVER	618-
32 28	TEMPORARY TWO-LANE TO FOUR-LANE MEDIAN CROSSOVER	618-
21 29	TEMPORARY ENTRANCE RAMP MEDIAN CROSSOVER	618-
22 30	TEMPORARY EXIT RAMP MEDIAN CROSSING	618-
	DIVIDED FOUR-LANE RAMP MERGE	618-31
	DIVIDED FOUR-LANE EXIT RAMP CLOSURE	618-32
34 40	SHORT DURATION OR SHORT-TERM STATIONARY CREW SIGNING.	618-
	MAINTENANCE GUIDELINE FOR SHORT-TERM TWO-LANE CRACK SEALING WORK ZONE	_618-M1
	MAINTENANCE GUIDELINE FOR SHORT-TERM TWO-LANE CHIP SEAL AND OVERLAY (PILOTED TRAFFIC)	_618-M2
	MAINTENANCE GUIDELINE FOR SHORT-TERM LANE CLOSURE ON INTERSTATE	618-M3
	MOBILE OPERATIONS	618-M4
	LANE CLOSURE - FLAGGER CONTROLLED (URBAN TWO-LANE, TWO-WAY ROAD)	618-U01
	WORK ZONE OCCUPIES ONE HALF OF ROAD (LOW SPEED URBAN TWO-LANE, TWO-WAY ROAD)	618-U02
	WORK ZONE IN CENTER OF ROAD (URBAN TWO-LANE, TWO-WAY ROAD)	618-U03
	SIDEWALK CLOSURES AND BYPASS WALKWAY	618-U05
	LANE CLOSURE (URBAN TWO-LANE, TWO-WAY ROAD WITH TWO-WAY LEFT TURN LANE)	_618-U15
	TURN LANE CLOSURE (URBAN TWO-LANE, TWO-WAY ROAD WITH TWO-WAY LEFT TURN LANE)	_618-U16
	RIGHT LANE CLOSURE (URBAN MULTI-LANE, UNDIVIDED ROAD)	618-U20

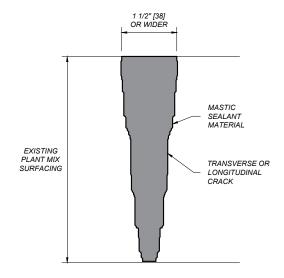
	TREATED WOOD POLE OPTIONAL BACKBRACE.	619-22
	CHEVRON MOUNTING DETAILS	619-24
	SPECIAL DESIGN ROUTE MARKER PANELS AND SHIELDS.	619-26
	SIGN HINGE DETAILS	619-30
	MILEPOST (REFERENCE POST) DETAILS	619-32
	DELINEATOR DETAILS	619-34
	PANEL DELINEATOR DETAIL	619-35
	DELINEATOR PLACEMENT DETAILS	619-36
	OBJECT MARKER DESIGN AND PLACEMENT DETAILS FOR OBSTRUCTIONS ADJACENT TO OR WITHIN HIGHWAYS	619-38
	FLEXIBLE DELINEATORS	
	PERMANENT BARRICADE DESIGN DETAILS	619-42
	INSTALLATION DATE TAGS	619-44
	AUTHORIZED VEHICLE CROSSOVER DESIGNATOR	619-44
SECTIO	ON 620: PAVEMENT MARKING APPLICATION	
	PAVEMENT MARKINGS (LETTERS)	620-00
	PAVEMENT MARKINGS (NUMBERS)	620-05
	PAVEMENT MARKINGS (WORDS)	620-10
	PAVEMENT MARKINGS (ARROWS)	620-15
	PAVEMENT MARKINGS (SYMBOLS)	620-20
	PAVEMENT MARKINGS (SYMBOLS)	620-25
	PAVEMENT MARKINGS (CENTERLINE RUMBLE STRIPING)	620-30
SECTIO	ON 621: REMOVE. RE-SET AND ADJUST FACILITIES	
	MANHOLE AND VALVE BOX ADJUSTMENT DETAILS.	621-00
	OPTIONAL MANHOLE AND VALVE BOX ADJUSTMENT DETAILS.	621-05

CRACKS 1/8" [3] TO 1 1/2" [38] WIDE

LONGITUDINAL CRACK TRANSVERSE CRACK ROUT 3/4" [19] WIDE x 3/4" [19] DEEP PRIOR TO APPLYING SEALANT ROUT 1 1/2" [38] WIDE x 1/2" [13] DEEP PRIOR TO APPLYING SEALANT 3/4" [19] $1\frac{1}{2}$ " [38] ½" [13] ³/₄" [19] SEALANT MATERIAL SEALANT MATERIAL EXISTING PLANT MIX SURFACING TRANSVERSE CRACK LONGITUDINAL CRACK

CRACKS 1 1/2" [38] OR WIDER

MASTIC REQUIRED LEAVE EXISTING CRACK SEAL IN PLACE



DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 403, 707

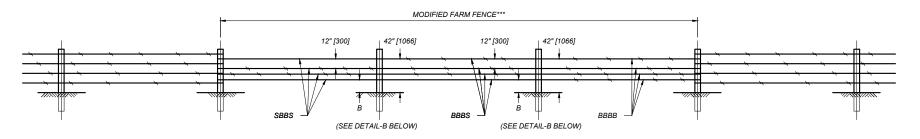
DWG. NO. 403-00

CRACK SEALING

EFFECTIVE: JUN 26, 2025

UNITS SHOWN IN BRACKETS [] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN. MONTANA --REVISED--Department of Transportation

STDDRD403000.DW0



DETAIL-A***

WIRE SPACING DETAIL***				
MODIFIED FARM FENCE TYPE 1 & 4	MODIFIED FARM FENCE TYPE 2 & 5	MODIFIED FARM FENCE TYPE 3 & 6		
42" [1066] FENCE HEIGHT	42" [1066] FENCE HEIGHT	42" [1066] FENCE HEIGHT		
TYPE 1: MFF4-SBBS-18 TYPE 4: MFF4-SBBS-16	TYPE 2: MFF4-3BS-18	TYPE 3: MFF4-4B-18 TYPE 6: MFF4-4B-16		
SMOOTH WIRE (12 1/2 GAUGE) BARBED WIRE (12 1/2 GAUGE) SMOOTH WIRE (12 1/2 GAUGE) B**	BARBED WIRE (12 1/2 GAUGE) SMOOTH WIRE (12 1/2 GAUGE) B**	BARBED WIRE (12 1/2 GAUGE) A* B**		

O DENOTES STAPLE AND/OR TIE LOCATIONS

DETAIL-B***

WIRE SPACING***						
TYPE	1	2	3	4	5	6
A*	6" [150]	6" [150]	6" [150]	7" [180]	7" [180]	7" [180]
B**	18" [450]	18" [450]	18" [450]	16" [400]	16" [400]	16" [400]

^{*} SPACING DISTANCE BETWEEN MIDDLE WIRES

NOTES:

- (1) WOOD OR METAL POSTS MAY BE USED.
- ② SEE DTL. DWG. NO. 607-05, 607-10, AND 607-15 FOR ADDITIONAL FENCING DETAILS.

DETAILED DRAWINGS DWG. NO. REFERENCE

STANDARD SPEC. SECTION 607

607-01

MODIFIED FARM FENCE

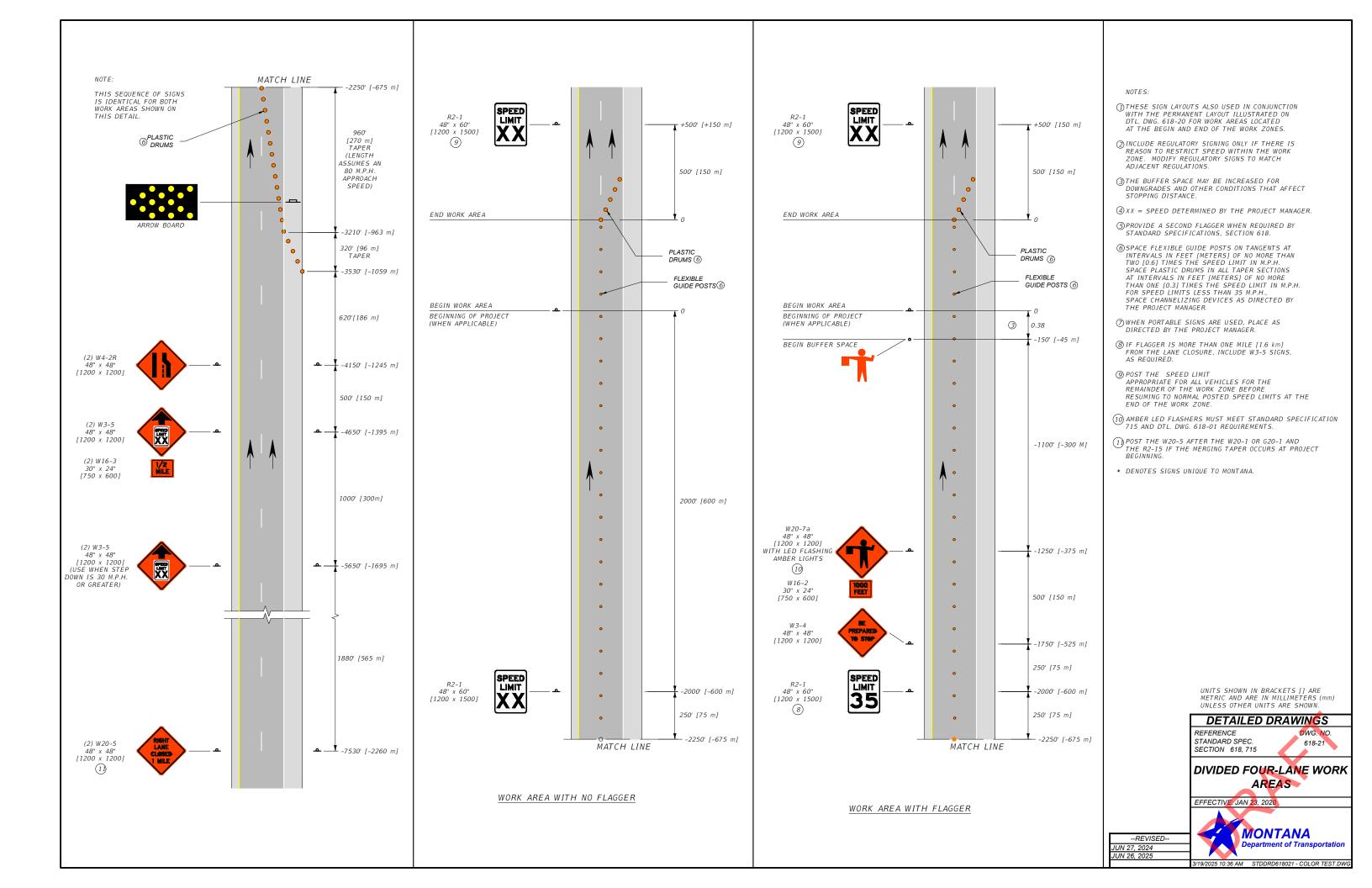
EFFECTIVE: JUN 26, 2025

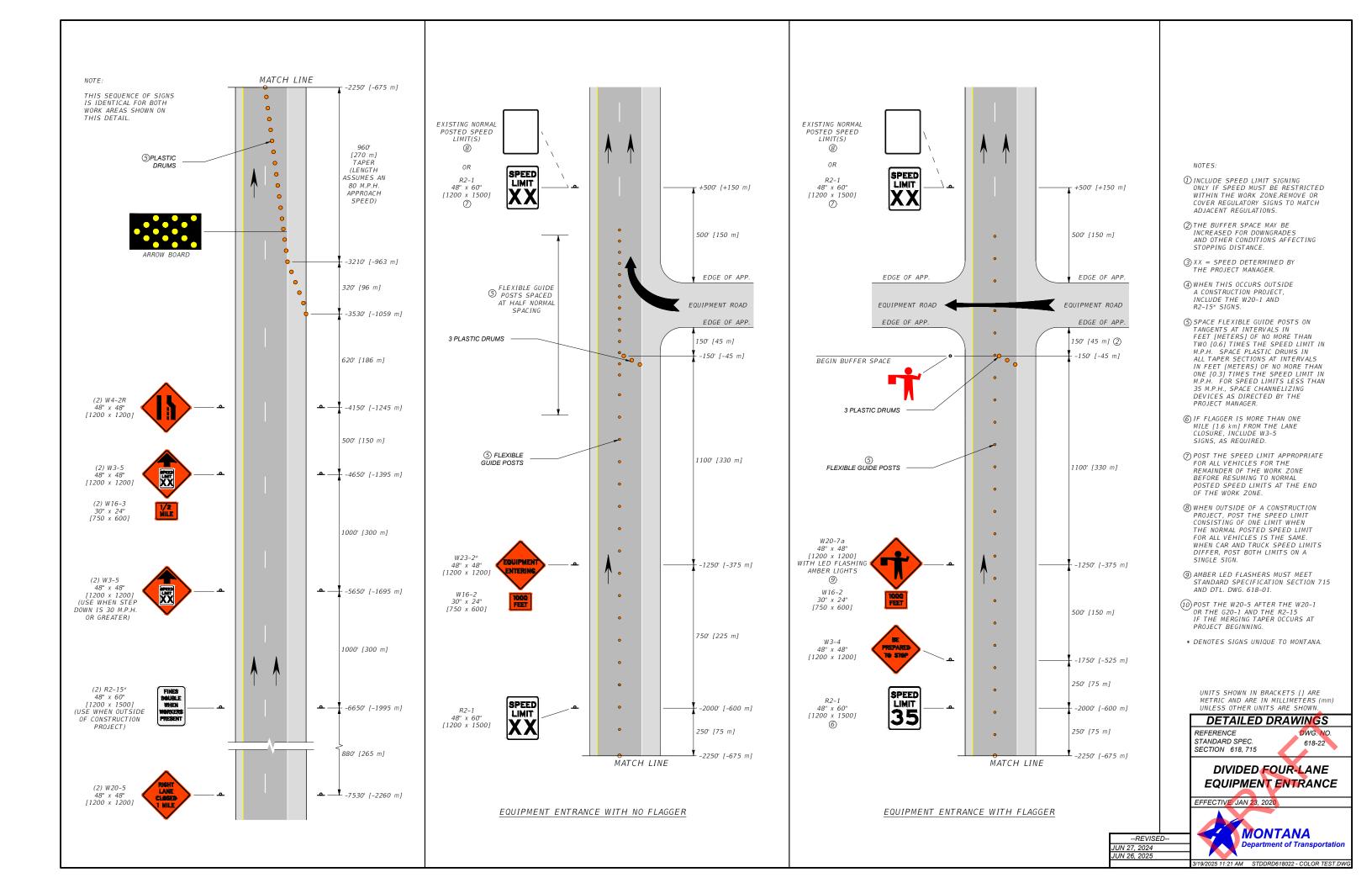


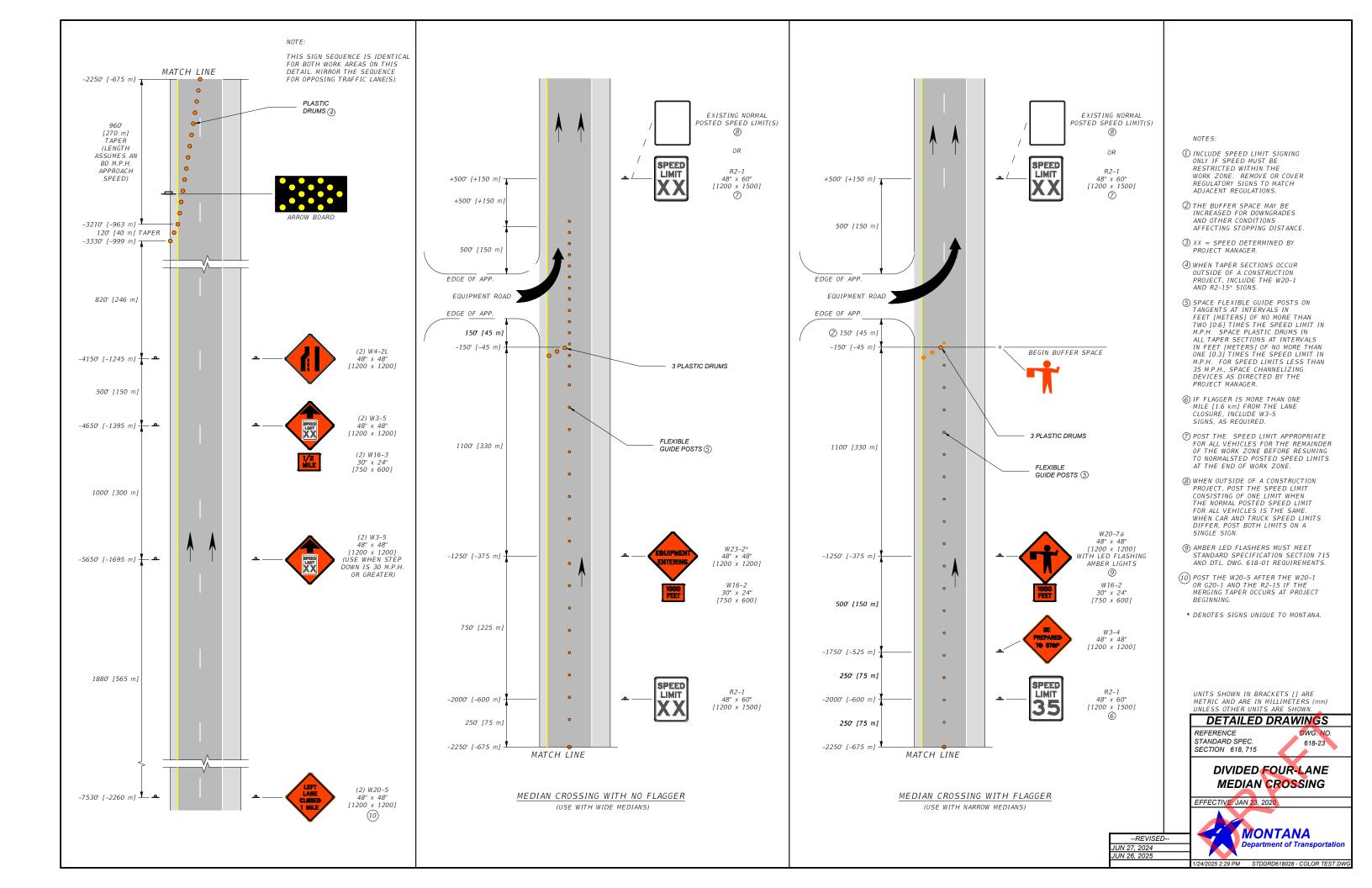
UNITS SHOWN IN BRACKETS [] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.

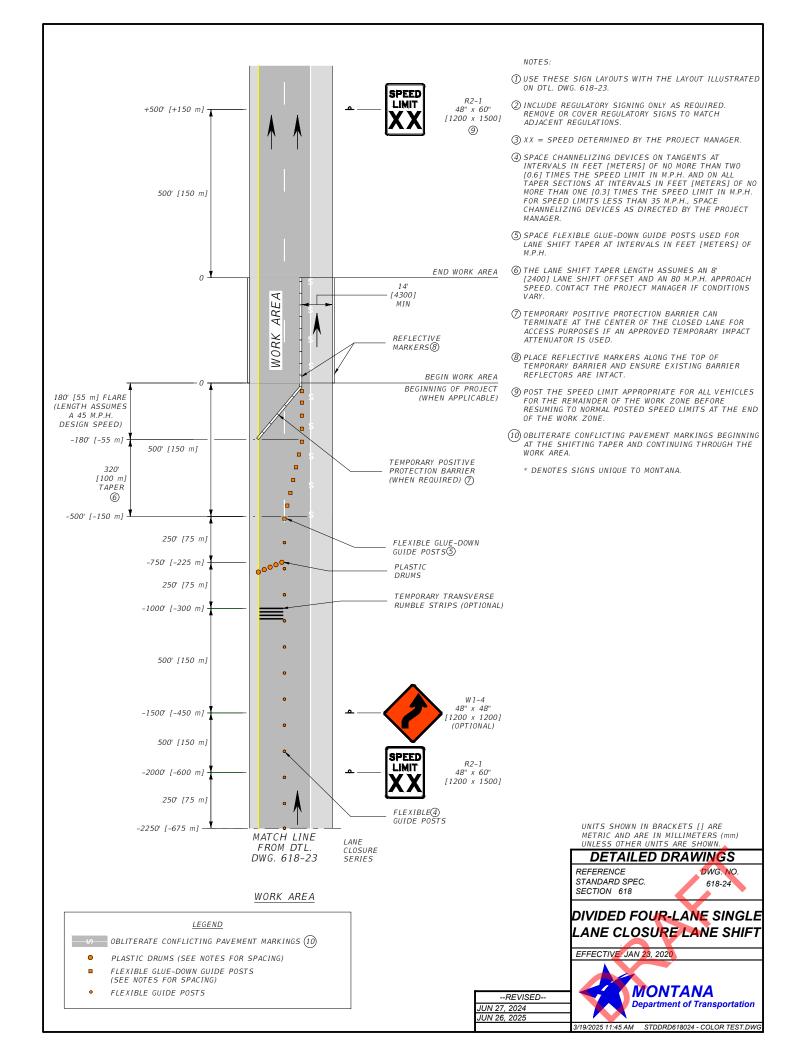
3/19/2025 10:18 AM STDDRD607001.DWG

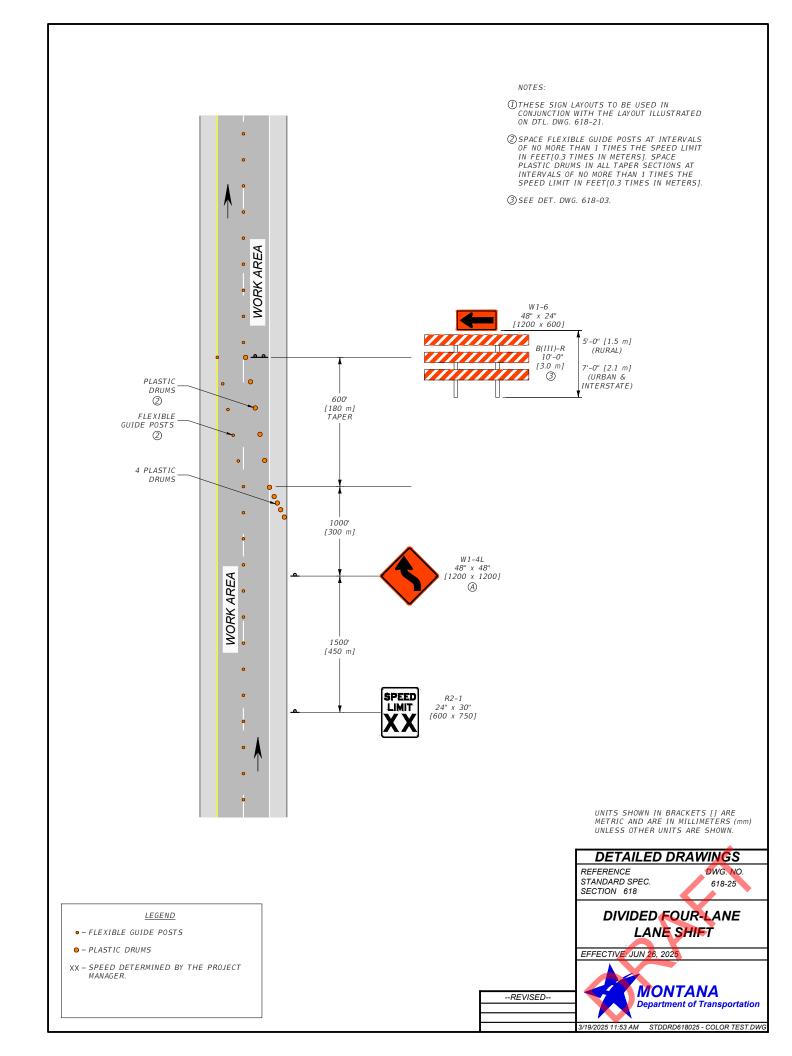
^{**} DESIGNATES THE HEIGHT OF THE BOTTOM WIRE OFF THE GROUND
*** COORDINATE ANY LANDOWNER REQUESTED MODIFICATIONS WITH THE MDT DISTRICT BIOLOGIST









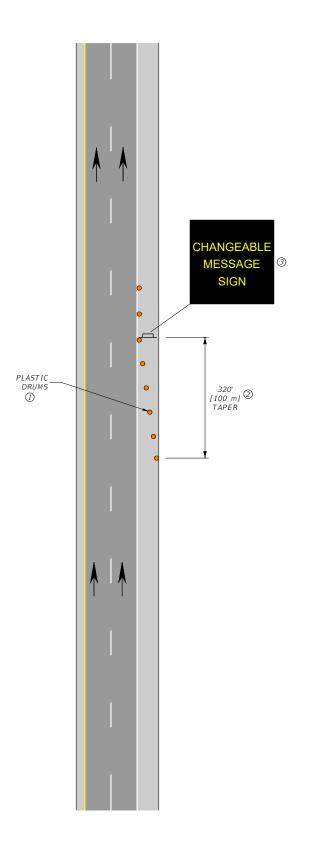


NOTES: ① SPACE PLASTIC DRUMS AT INTERVALS OF NO MORE THAN 1 TIMES THE SPEED LIMIT IN FEET [0.3 TIMES IN METERS]. ② DEVICE SPACINGS ARE MAXIMUMS AND CAN BE REDUCED BUT THE TAPER DISTANCE IS A MINIMUM AND CAN BE INCREASED IF

3 CHANGEABLE MESSAGE SIGN MUST BE CAPABLE

CHANGEABLE MESSAGE SIGN MUST BE CAPABLE
OF PROVIDING 2 PHASES WITH 3 LINES AND 8
CHARACTERS PER LINE. CHARACTERS MUST BE
A MINIMUM OF 18 INCH [450] IN HEIGHT. TWO
LANE ROADS WITH SPEEDS LESS THAN 50
M.P.H. REQUIRE A MINIMUM OF 10 INCH [250]
CHARACTER HEIGHT.

 ${\it CONDITIONS~WARRANT}.$



UNITS SHOWN IN BRACKETS [] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.

DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618

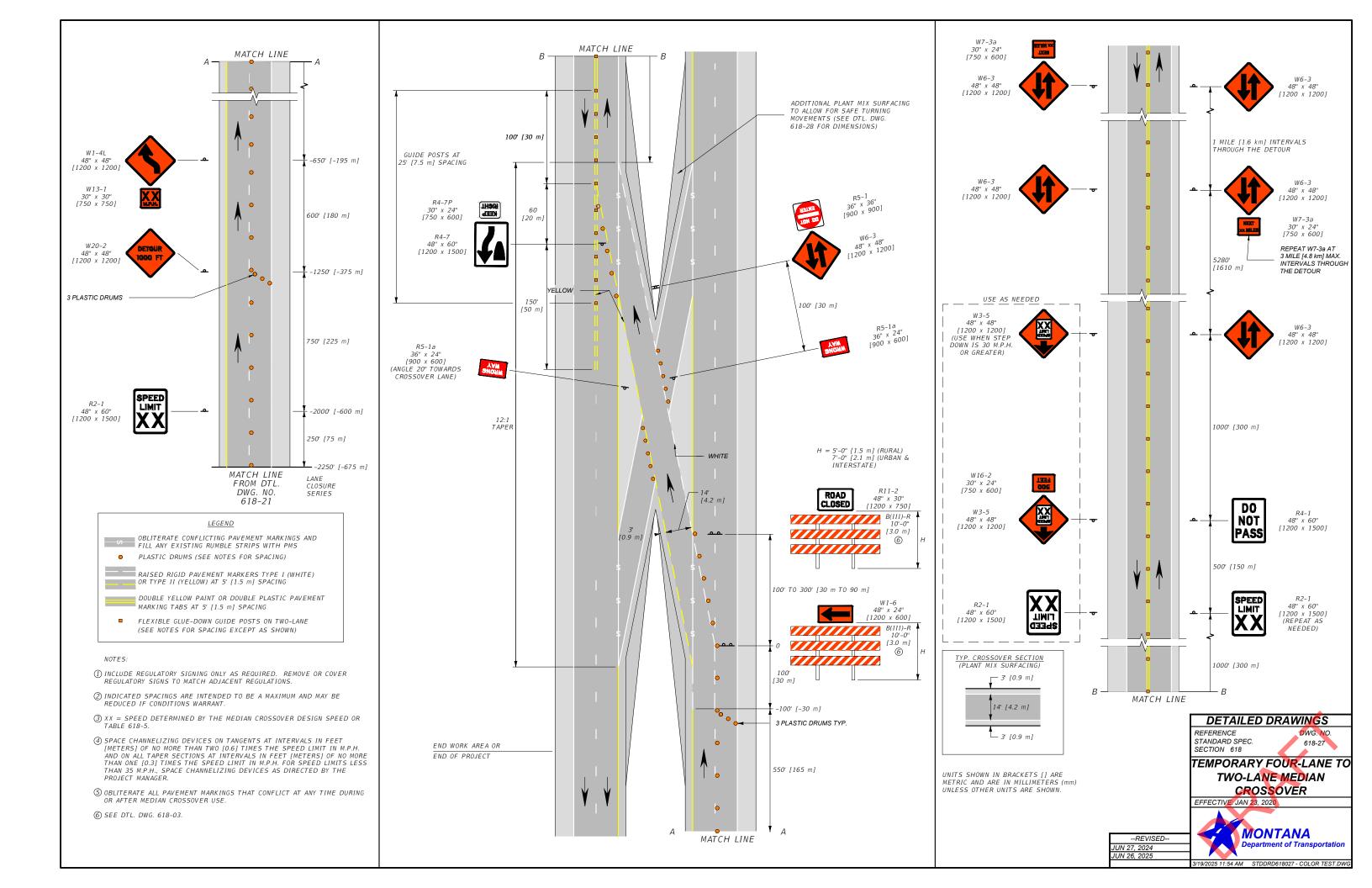
DWG. NO. 618-26

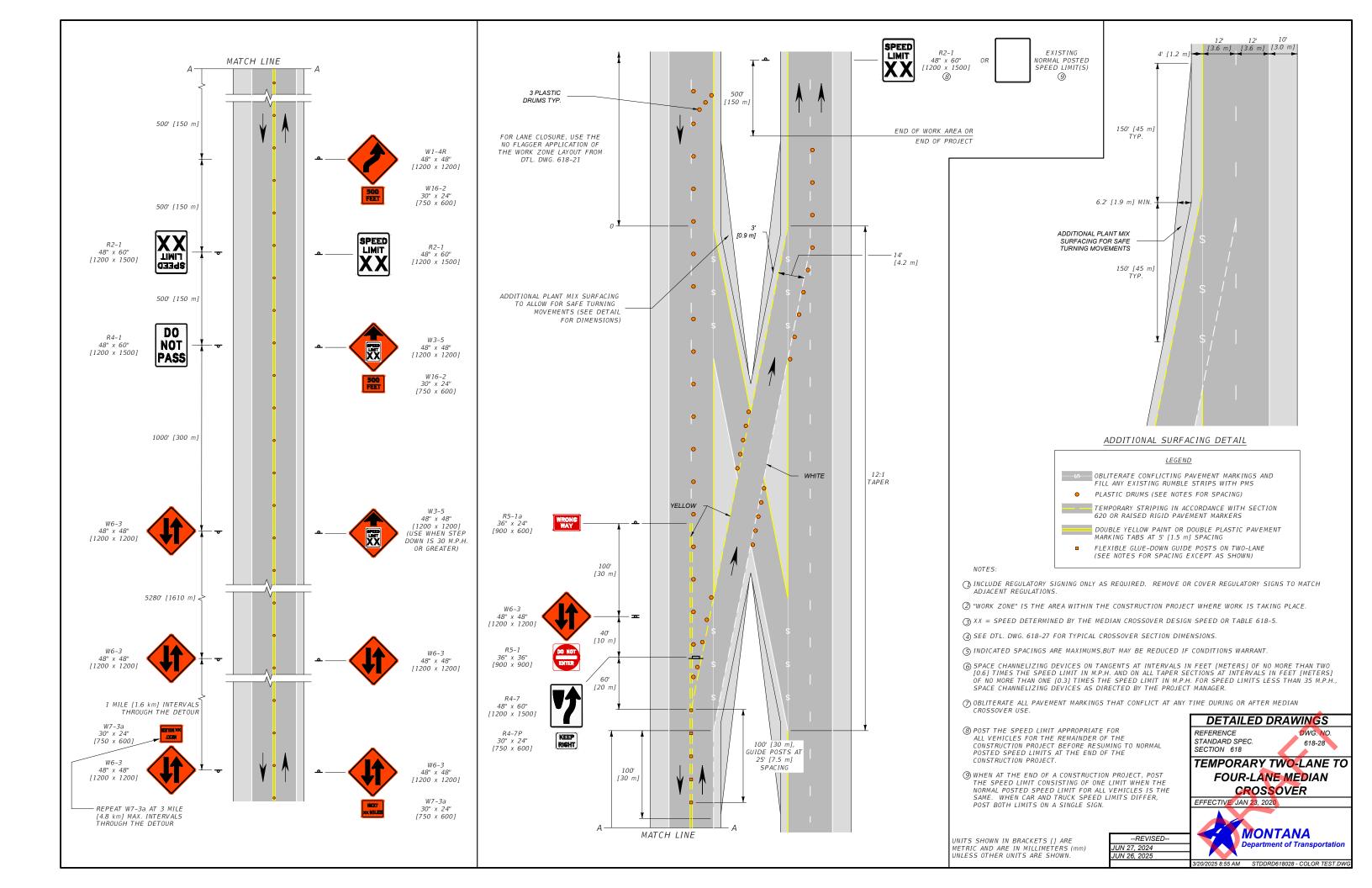
DIVIDED FOUR-LANE SHOULDER MESSAGE SIGN

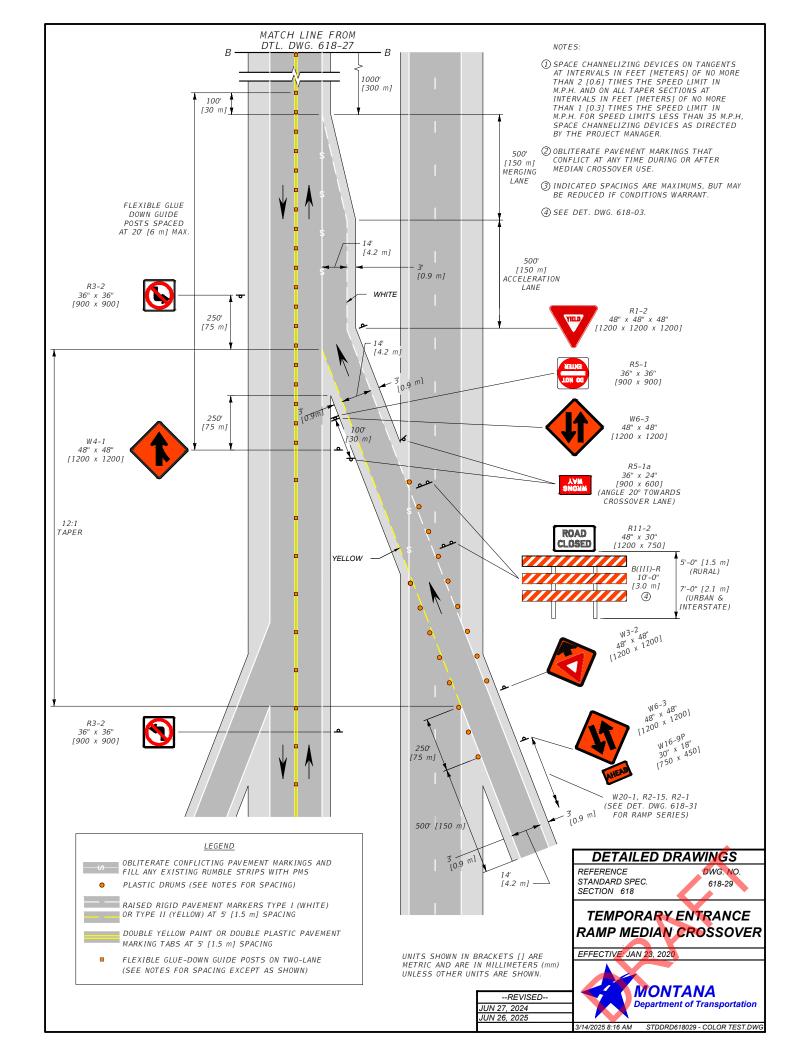
EFFECTIVE: JUN 26, 2024

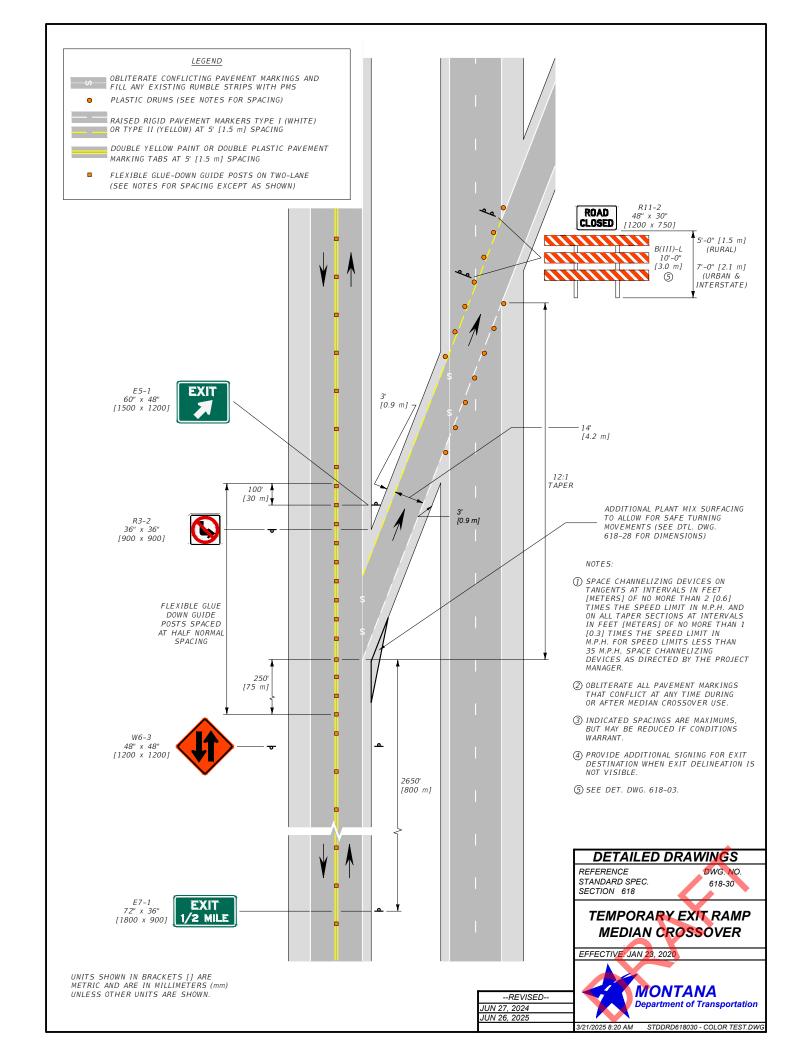
MONTANA --REVISED--Department of Transportation

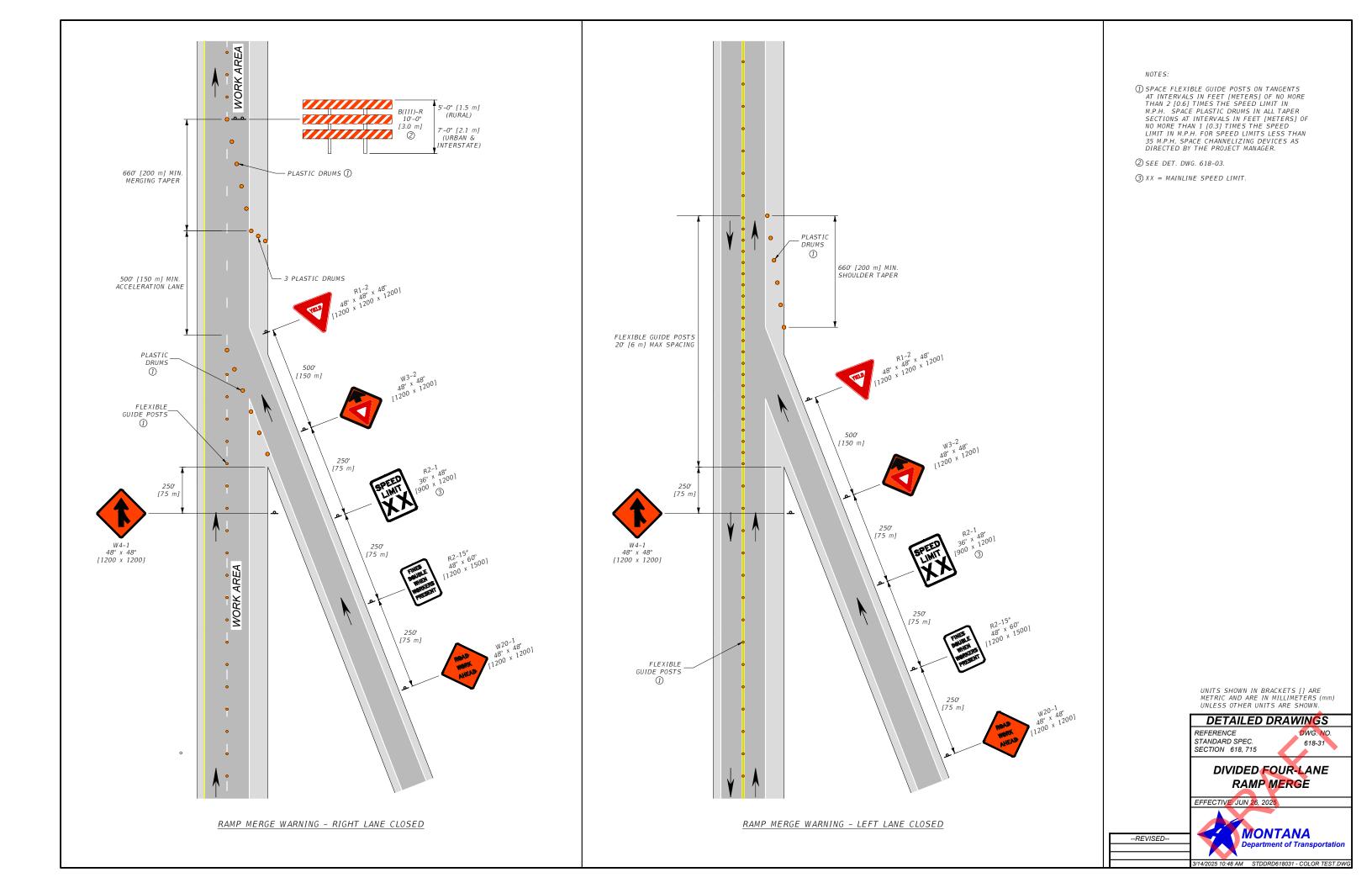
STDDRD618026 - COLOR TEST.DWG

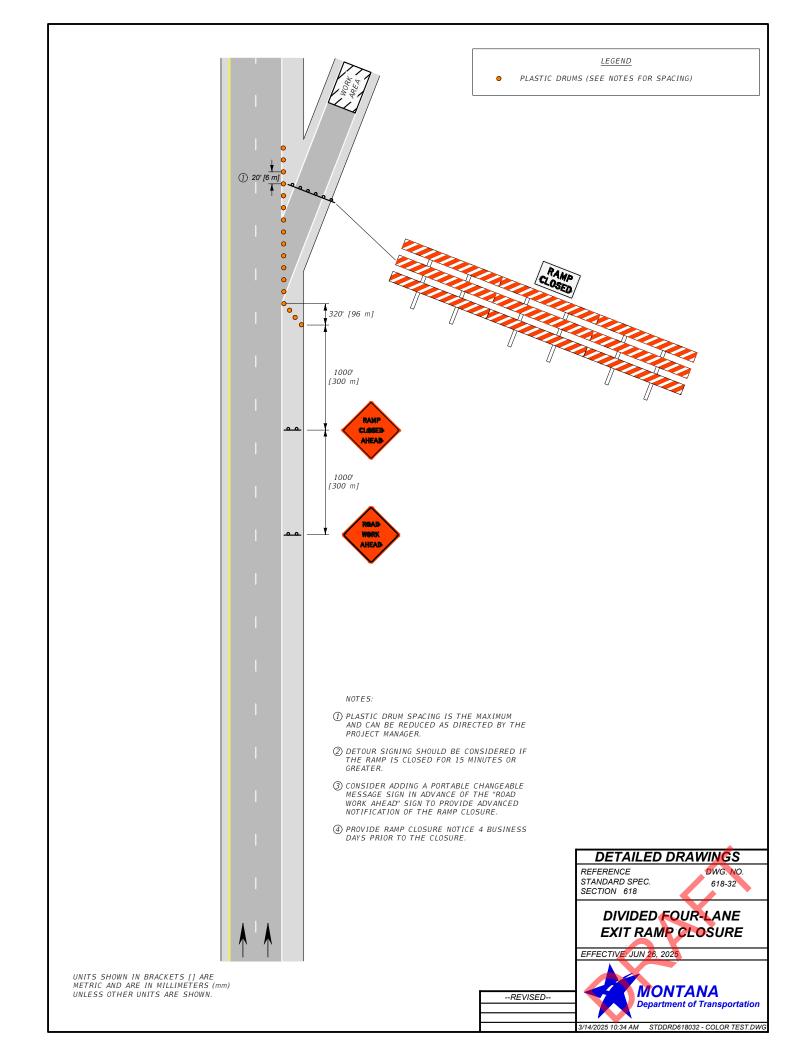


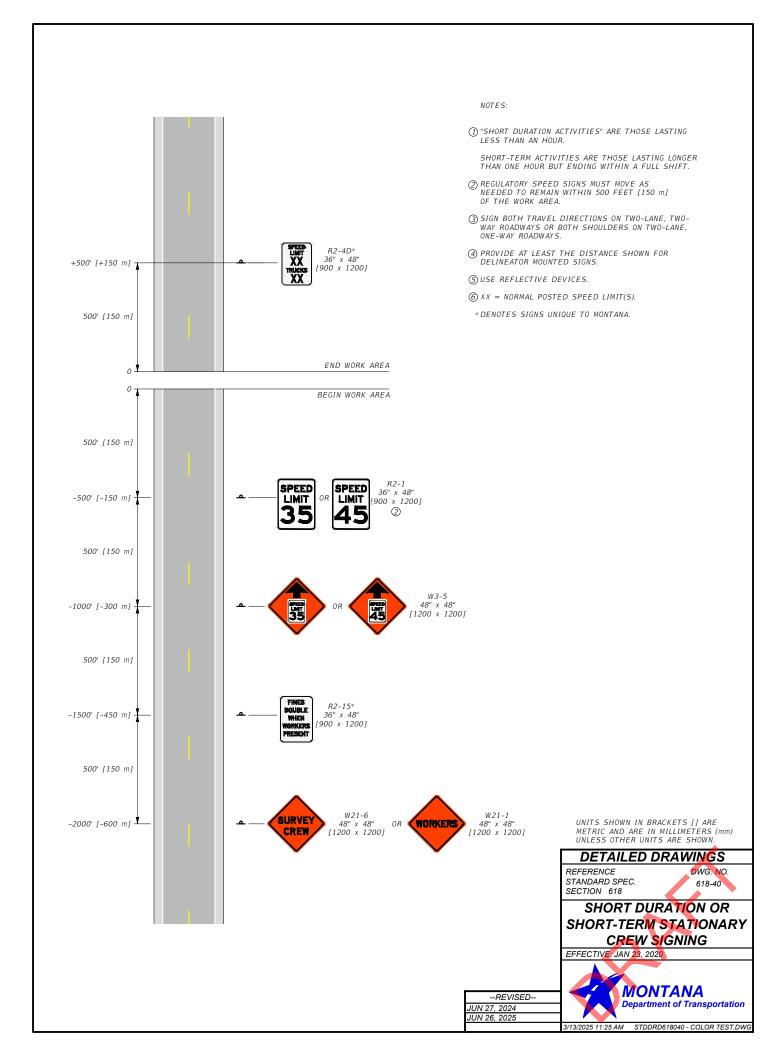


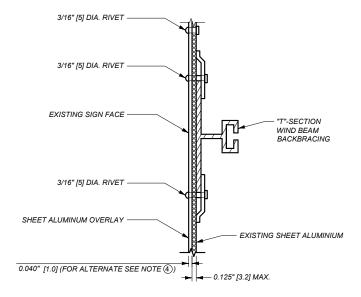




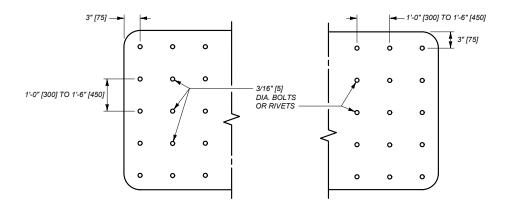








EXISTING ALUMINUM SIGNS



NOTES:

- ① REMOVE ALL RAISED LETTERS, NUMERALS, SYMBOLS, BORDERS AND PREVIOUS SIGN OVERLAYS TO BE REPLACED, AND CLEAN SIGN FACE TO A SMOOTH SURFACE BEFORE OVERLAYING.
- ② ALL LETTERS, NUMERALS, SYMBOLS AND BORDERS ARE TYPE "C" CUTOUT UNLESS OTHERWISE SPECIFIED, AND APPLIED TO THE BACK-GROUND SHEETING PRIOR TO FIELD APPLICATION OF THE SIGN.
- (3) THE SIZE OF ALL GUIDE SIGN OVERLAYS AND LEGENDS MUST BE VERIFIED BY THE PROJECT MANAGER PRIOR TO FABRICATION.
- (4) AN ADHESIVE-BACKED SHEETING MAY BE USED AS AN ALTERNATIVE ON SIGN WIDTHS OF 6'-0" [1800] OR LESS IF IT IS PREFABRICATED TO A MINIMUM THICKNESS OF 0.005" [.13] AND CONSTRUCTED OF PREAPPLIED REFLECTIVE SHEETING ON ADHESIVE-BACKED ALUMINUM. APPLY ADHESIVE-BACKED OVERLAY SHEETING WHEN AIR AND SURFACE TEMPERATURES ARE ABOVE 50°F (10°C). DO NOT USE THIS TYPE OF OVERLAY MATERIAL ON OVERHEAD SIGNS.
- (5) PROVIDE A MINIMUM REFLECTIVE SHEETING INTENSITY OF TYPE 4, MEETING THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS, UNLESS SPECIFIED OTHERWISE.
- ⑥ APPLY ALL MATERIALS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.

FASTENER PATTERN

- ① USE ALUMINUM ALLOY TYPE 6061-T6 OR AA5052-H38. CONVERSION COAT ALL ALUMINUM WITH A PROCESS SUCH AS ALODINE 1200 (OR EQUAL), AND RINSE AND DRY THOROUGHLY. PROTECT IT FROM SOIL BY ACCEPTABLE METHODS.
- (8) SIGN OVERLAYS MAY REQUIRE REMOVAL OF THE SIGN FROM THE POSTS TO AVOID PROJECTING BOLT HEADS. DO NOT LEAVE WARNING AND REGULATORY SIGNS TO BE OVERLAYED UNDISPLAYED FOR MORE THAN ONE (1) HOUR DURING DAYLIGHT. DO NOT LEAVE GUIDE SIGNS UNDISPLAYED FOR MORE THAN TEN (10) HOURS DURING DAYLIGHT. INSURE SIGNS TO BE OVERLAYED ARE OPERATIONAL PRIOR TO DARKNESS.
- OVERLAY SIGNS SMALLER THAN 4'-0" x 6'-0" [1200 x 1800] WITH ONE PANEL OF MATERIAL. FOR SEAMS IN LARGE OVERLAYS, USE RIVETS OR BOLTS SPACED AS SHOWN ON THIS DRAWING AND PLACE PARALLEL TO AND NO MORE THAN 3" [75] LATERALLY FROM THE SEAM.
- 10 USE HARDWARE MEETING THE REQUIREMENTS OF SECTION 704.



DETAILED DRAWINGS

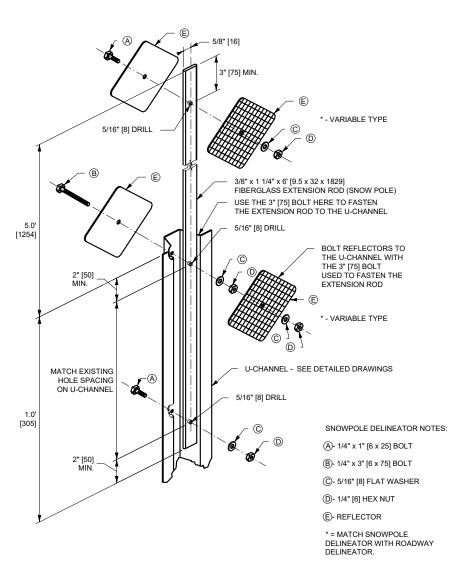
DWG. NO.

STDDRD619010.DV

EFFECTIVE: JAN 23, 2020

REFERENCE

--REVISED--JUN 27, 2024 JUN 26, 2025 MONTANA
Department of Transportation



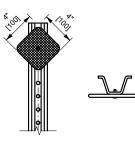
SNOWPOLE DELINEATOR DETAIL

DESIGN A USAGE:

USE FOR CONTINUOUS DELINEATION AND RT. SHOULDER OF ALL

DESIGN H USAGE:

USE ON LT. SHOULDER OF INTERSTATE ROUTES.



DESIGN A (WHITE) DESIGN H (YELLOW)

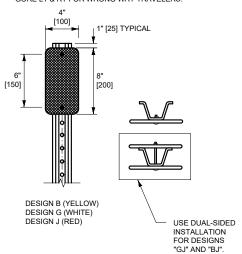
DESIGN B USAGE: USE ON LT. SHOULDER OF INTERSTATE RAMPS AND AUTHORIZED VEHICLE ONLY

DESIGN G USAGE:

USE ON RT. SHOULDER OF INTERSTATE RAMPS.

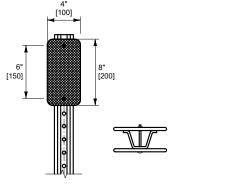
DESIGN J USAGE:

USE FOR TRUCK ESCAPE RAMPS AND INTERCHANGE OFF RAMPS FROM MID-POINT TO GORE LT & RT FOR WRONG WAY TRAVELERS.



DESIGN F USAGE:

USE FOR CURVES WITH RADII GREATER THAN 573' [170 m]; 1433' [450 m] TO 765' [231 m] RADIUS: OUTSIDE ONLY, 764' [230 m] TO 573' [171 m] RADIUS: OUTSIDE AND INSIDE OF CURVE.



DESIGN D (YELLOW)

DESIGN D USAGE:

STOP OR YIELD SIGNS. INTERSTATE ROUTES:

USE AT INTERSECTION OF RAMPS AND CROSSROAD.

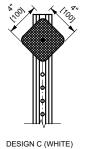
NON-INTERSTATE ROUTES:

USE AT APPROACHES WITH

DESIGN F (WHITE)

DESIGN C USAGE:

USE FOR CURVES WITH RADII 573' [170 m] OR LESS, BOTH OUTSIDE AND INSIDE OF CURVE.





- 1 SOME TYPICAL USES ARE SHOWN FOR EACH DESIGN. REFER TO THE MUTCD FOR SPECIFIC GUIDANCE.
- ② USE HARDWARE MEETING THE REQUIREMENTS OF SECTION 704.

DELINEATOR LEGEND			
TYPE I			
DESIGN "A"	Т		
DESIGN "B"	Ŧ		
DESIGN "D"	\perp		
DESIGN "F"	Ι		
DESIGN "G"	\vdash		
DESIGN "H"	\rightarrow		
DESIGN "J"	\rightarrow		
DESIGN "GJ"	\times		
DESIGN "BJ"	=		
TYPE II			
DESIGN "C"	₩		

DETAILED I	DRAWINGS
REFERENCE	DWG. NO.
STANDARD SPEC.	619-34

UNITS SHOWN IN BRACKETS [] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.

DELINEATOR DETAILS

EFFECTIVE: JAN 23, 2020

SECTION 619, 704

MONTANA --REVISED--Department of Transportation

JUN 26, 2025

