

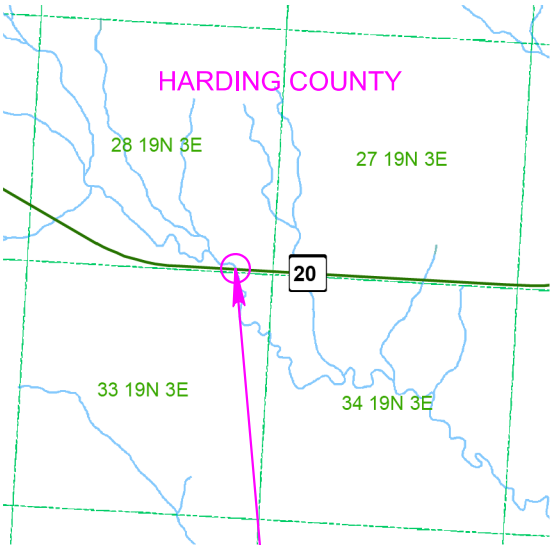
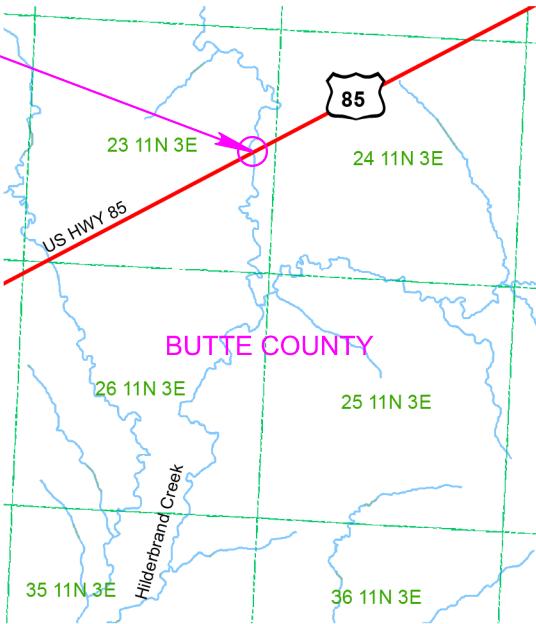
SECTION C: TRAFFIC CONTROL PLANS

 Plotting Date: 09/17/2024	PROJECT	SECTION	SHEET
	NH-P 0042(89)	C	1/8

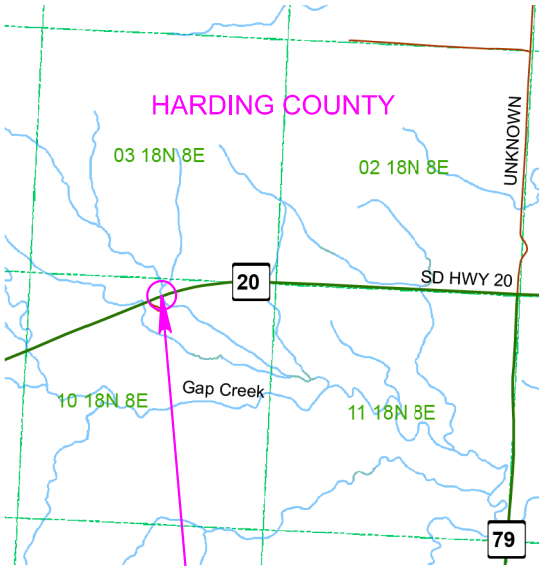
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Sheets 4-8: Standard Plates

NH-P 0042(89)
US 85 MRM 75.00+0.286



NH-P 0042(89)
SD 20 MRM 16.00+0.803



NH-P 0042(89)
SD 20 MRM 50.00+0.248



SECTION C ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
205E0010	Dust Control Chloride	7,100	Lb
634E0010	Flagging	300.0	Hour
634E0020	Pilot Car	150.0	Hour
634E0110	Traffic Control Signs	1,042.4	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0275	Type 3 Barricade	6	Each
634E0560	Remove Pavement Marking, 4" or Equivalent	680	Ft
634E0640	Temporary Pavement Marking	3,180	Ft

SEQUENCE OF OPERATIONS

The Contractor will submit a sequence of operations for approval two weeks prior to the preconstruction meeting. If changes to the sequence of operations are proposed during the project, these must be submitted for review a minimum of one week prior to potential implementation. Approval for changes to the sequence of operations will only be allowed when the proposed changes meet with the Department’s intent for traffic control and sequencing of the work.

MAINTENANCE OF TRAFFIC (SD 20 MRM 50.00+0.248)

Two-way traffic must be maintained throughout the entire project when work is not in progress. A 24-foot minimum width driving surface will be required for two-way traffic. The Contractor must maintain a smooth and passable roadway for traffic as determined by the Engineer.

Use of a pilot car and flaggers will be used to maintain traffic during working hours for the grading operations.

GENERAL TRAFFIC CONTROL

Existing guide, route, informational logo, regulatory, and warning signs will be temporarily reset and maintained during construction. Removing, relocating, covering, salvaging, and resetting of existing traffic control devices, including delineation, will be the responsibility of the Contractor. Cost for this work will be incidental to the contract unit prices for the various items unless otherwise specified in the plans. Any delineators and signs damaged or lost will be replaced by the Contractor at no cost to the State.

All temporary traffic control sign locations will be set in the field by the Contractor and verified by the Engineer prior to installation.

If there is a discrepancy between the traffic control plans, standard plates, and the MUTCD, whichever is more stringent will be used, as determined by the Engineer.

Unless otherwise stated in these plans, work will not be allowed during hours of darkness.

Fixed location signing placed more than 4 calendar days prior to the start of construction will be covered or laid down until the time of construction. The covers must be approved by the Engineer prior to installation. The cost of materials, labor, and equipment necessary to complete this work will be incidental to other contract items. No separate payment will be made.

All fixed location signs, sign posts, and breakaway bases will be removed within 7 calendar days following pavement marking.

All haul trucks will be equipped with an additional flashing amber light that is visible from the backside of the haul truck. The costs for the flashing amber lights will be incidental to the various related contract items.

At no time will a vertical drop-off of greater than 3 inches be left overnight adjacent to the traveled way. The Contractor will utilize embankment material to ensure a 3-inch vertical drop-off is not exceeded. The slope of the embankment material will not be steeper than a 3:1 within 30 feet of the traveled way.

Traffic will be maintained on the driving lanes. Use of the shoulder as a driving lane will not be permitted. Any damage to the shoulder due to rerouted traffic or Contractor’s equipment will be repaired at no expense to the Department.

The Contractor will furnish, install, maintain, and remove TRUCK CROSSING (W8-6) signs daily. The TRUCK CROSSING signs will be displayed always when haul vehicles are hauling material. When hauling conditions no longer exist, the signs will be covered or removed from view. The exact number and location will be determined during construction. Payment for additional signs will be based on the contract unit price per square foot for “Traffic Control Signs”.

A mobile work operation will be allowed provided the rumble strip or rumble stripe grooving, flush sealing, and pavement marking can be completed satisfactorily by a continuously moving work operation. A mobile work operation will require approval by the Engineer.

If inappropriate or conflicting pavement markings exist, the markings will be removed and replaced with applicable temporary pavement markings when the work duration is more than 3 days. When the work duration is less than 3 days, the channelizing devices in the area where the pavement markings conflict will be placed at one-half of the normal channelizing device spacing. Pavement marking removals will be incidental to the contract unit price per foot for “Remove Pavement Marking, 4” or equivalent”. Temporary pavement marking will be paid for at the contract unit price per mile/foot for “Temporary Pavement Marking”. The additional channelizing devices will be incidental to the contract lump sum price for “Traffic Control, Miscellaneous”.

A minimum lane width of 12’ will be maintained on the existing roadway through work areas. The Contractor will adjust traffic control items to accommodate over width vehicles when necessary, up to 16’ wide.

Vertical panels spaced at 50 feet will be used to mark edge of roadway along the traffic diversion. The cost of materials, labor, and equipment necessary to complete this work will be incidental to the contract lump sum price for “Traffic Control, Miscellaneous”.

Two applications of Dust Control Chloride are included in the estimate of quantities for the traffic diversion. Dust Control Chloride will be used as directed by the Engineer.

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TRAFFIC CONTROL SIGNS

Traffic control signs have been included in a table for each site. Payment will only be for those signs used on each site.

US 85 MRM 75.00+0.286:

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R11-2	ROAD CLOSED	2	48" x 30"	10.0	20.0
W1-4	REVERSE CURVE (L or R)	4	48" x 48"	16.0	64.0
* W1-6	LARGE ARROW (one direction)	6	48" x 24"	8.0	48.0
W3-4	BE PREPARED TO STOP	2	48" x 48"	16.0	32.0
W8-6	TRUCK CROSSING	2	48" x 48"	16.0	32.0
* W8-7	LOOSE GRAVEL	2	48" x 48"	16.0	32.0
W8-15P	MOTORCYCLE (plaque)	2	24" x 18"	3.0	6.0
W13-1P	ADVISORY SPEED 25MPH(plaque)	4	30" x 30"	6.3	25.2
W13-4P	ADVISORY SPEED 45MPH(plaque)	2	36" x 36"	9.0	18.0
* W20-1	ROAD WORK AHEAD	2	48" x 48"	16.0	32.0
W20-7	FLAGGER (symbol)	2	48" x 48"	16.0	32.0
W21-1	WORKERS (symbol)	2	48" x 48"	16.0	32.0
W21-2	FRESH OIL	2	48" x 48"	16.0	32.0
* W21-5	SHOULDER WORK	2	48" x 48"	16.0	32.0
* G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
* -	TYPE 2 OBJECT MARKER BACK TO BACK	4	6" x 12"	1.0	4.0
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			450.2

* These signs are fixed

SD 20 MRM 16.00+0.803:

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W3-4	BE PREPARED TO STOP	2	48" x 48"	16.0	32.0
* W20-1	ROAD WORK AHEAD	2	48" x 48"	16.0	32.0
W20-7	FLAGGER (symbol)	2	48" x 48"	16.0	32.0
* W21-5	SHOULDER WORK	2	48" x 48"	16.0	32.0
* G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			137.0

* These signs are fixed

SD 20 MRM 50.00+0.248:

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W3-4	BE PREPARED TO STOP	2	48" x 48"	16.0	32.0
* W8-1	BUMP	4	48" x 48"	16.0	64.0
W8-6	TRUCK CROSSING	2	48" x 48"	16.0	32.0
W8-11	UNEVEN LANES	2	48" x 48"	16.0	32.0
* W8-3	PAVEMENT ENDS	2	48" x 48"	16.0	32.0
W8-15P	MOTORCYCLE (plaque)	2	24" x 18"	3.0	6.0
W13-1P	ADVISORY SPEED 25MPH(plaque)	2	30" x 30"	6.3	12.6
W13-4P	ADVISORY SPEED 45MPH(plaque)	4	30" x 30"	6.3	25.2
* W20-1	ROAD WORK AHEAD	2	48" x 48"	16.0	32.0
W20-4	ONE LANE ROAD AHEAD	2	48" x 48"	16.0	32.0
W20-7	FLAGGER (symbol)	2	48" x 48"	16.0	32.0
W21-1	WORKERS (symbol)	2	48" x 48"	16.0	32.0
W21-2	FRESH OIL	2	48" x 48"	16.0	32.0
* W21-5	SHOULDER WORK	2	48" x 48"	16.0	32.0
* G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
* -	TYPE 1 ORANGE OBJECT MARKER	8	18" x 18"	2.3	18.4
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			455.2

* These signs are fixed

FLAGGING

Operations will be conducted so that the traveling public will not have to wait longer than 15 minutes at the flagger station.

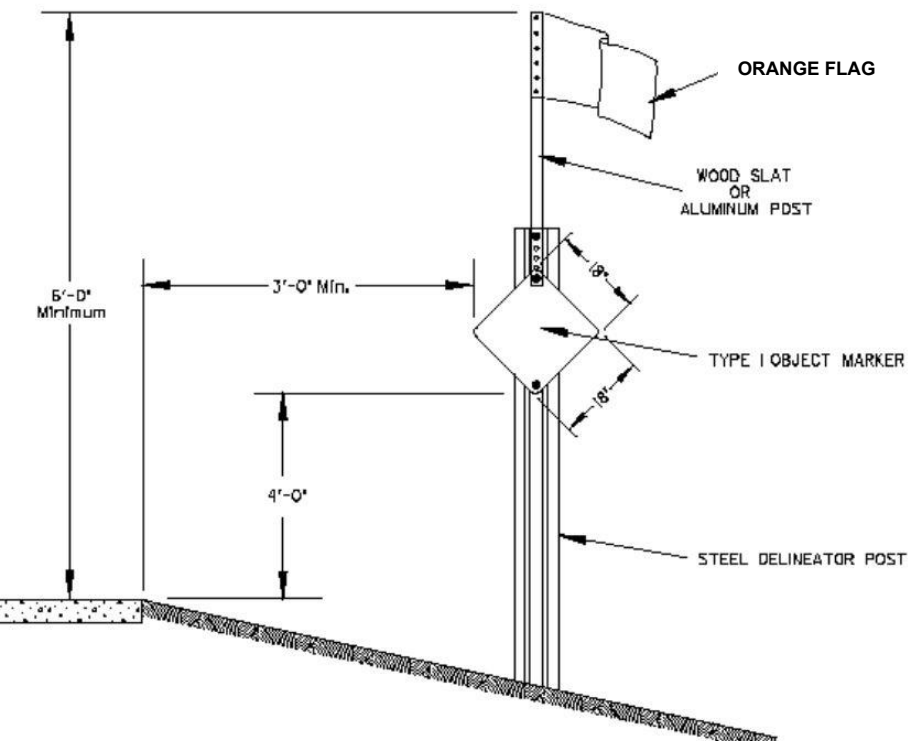
It is required that the flaggers and pilot car operators be able to communicate with one another. If an emergency vehicle needs to pass through the project, the Contractor will be required to expedite traffic movement. All costs associated with this will be incidental to the contract unit price per hour for “Flagging”.

BUMP MARKERS

Orange bump markers will be placed adjacent to the bump location. The bump marker details are shown in the following drawing. The steel delineator post will be a 1.12 lb/ft flanged channel steel post for ground mounted installation. If the duration is less than 3 days, the Type 1 Object Marker can be installed on temporary supports.

BUMP (W8-1) signs with appropriate ADVISORY SPEED (W13-1P) plaques will be placed 500 feet in advance of the bump or as approved by the Engineer for adequate sight distance.

All costs for bump markers, bump signs, and advisory speed plaques will be incidental to the contract unit price per square foot for “Traffic Control Signs”.



TEMPORARY PAVEMENT MARKING (SD 20 MRM 50.00+0.248):

Temporary flexible vertical markers (tabs) will be required on the top lift of asphalt concrete surfacing.

Temporary pavement marking paint will not be allowed on the final lift of asphalt surfacing. Temporary pavement marking paint will not be allowed on the chip seal, fog seal, or flush seal. Temporary flexible vertical markers (tabs) must be used on the final lift of asphalt surfacing. The Contractor may use tabs with covers, uncovering them for the chip seal, fog seal, or flush seal. As an alternative, the Contractor may install new tabs for the fog seal or flush seal.

Covers on the tabs will be sufficiently secured to prevent traffic from dislodging the cover and when removed, the covers will be properly disposed of. The Contractor will remove and properly dispose of the tabs after permanent pavement marking is applied. Method of removal will be nondestructive to the road surface and will be accomplished within one week of completion of the permanent pavement marking.

Full reflectivity of all temporary flexible vertical markers (tabs) is required at all times. The Contractor will be required to replace any missing or non-reflective tabs after each installation as detailed below at no additional cost to the State.

Quantities of Temporary Pavement Markings consist of:

- One pass on the first lift of asphalt concrete (Temporary Paint)
- One pass on top of the final lift of asphalt concrete (Tabs)
- One pass after the flush seal (Remove tab covers)

If the Engineer determines that an additional pass prior to the flush seal is not required, this application of the temporary pavement marking will be eliminated. If the flush seal is eliminated for the project, the application of the temporary pavement marking on top of the flush seal as well as the additional pass prior to the flush seal will be eliminated.

No adjustment in the contract unit price for “Temporary Pavement Marking” will be made because of a variation in quantities.

In the absence of a signed lane closure or pilot car operation, FLAGGER (W20-7) symbol signs and flaggers, or a shadow vehicle with rotating yellow lights or strobe lights will be positioned on the shoulder in advance of workers for both directions of traffic during the installation and removal of the temporary flexible vertical markers (tabs). The traffic control device used will be moved intermittently to provide proper warning of the work operation. A ROAD WORK AHEAD (W20-1) sign, a WORKER (W21-1) symbol sign or a BE PREPARED TO STOP (W3-4) sign will be mounted on the rear of the shadow vehicle. The method of traffic control used by the Contractor for this work must be approved by the Engineer.

Prior to nightfall, tabs will be required to mark centerline on segments of roadway where existing centerline markings have been removed and new markings have not been installed.

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The signs illustrated are not required if the work space is behind a barrier, more than 2 feet behind the curb, or 15 feet or more from the edge of any roadway.

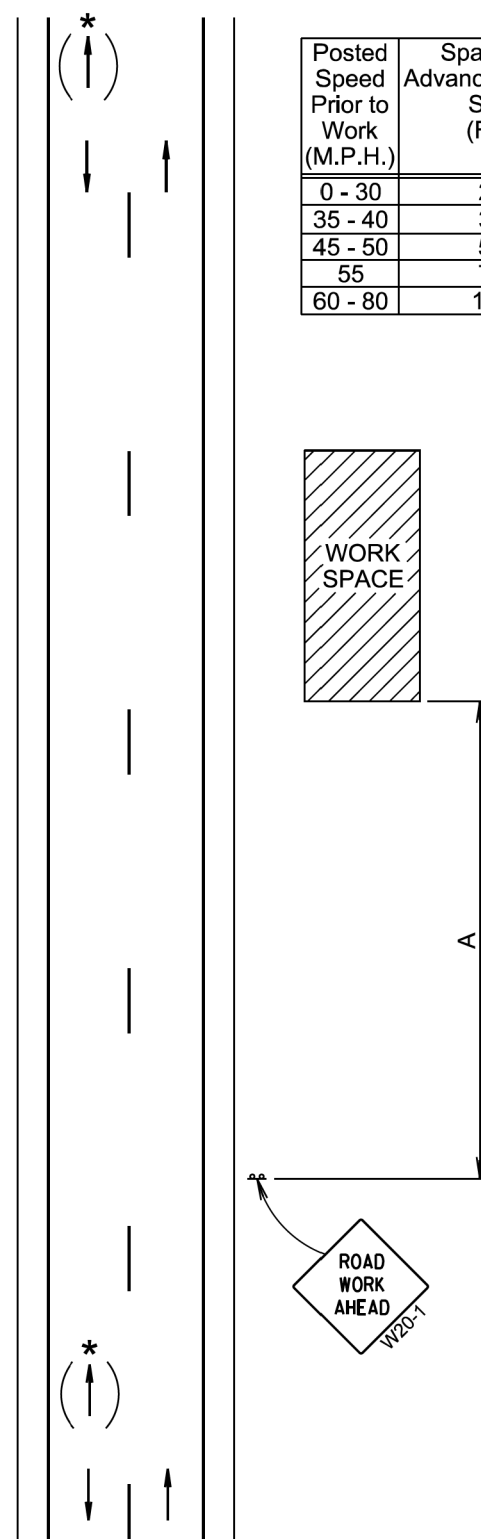
The signs illustrated will be used where there are distracting situations; such as: vehicles parked on shoulder, vehicles accessing the work site via the highway, and equipment traveling on or crossing the roadway to perform work operations.

The ROAD WORK AHEAD sign may be replaced with other appropriate signs, such as the SHOULDER WORK sign. The SHOULDER WORK sign may be used for work adjacent to the shoulder.

* If the work space is on a divided highway, an advance warning sign should also be placed on the left side of the directional roadway.

For short term, short duration, or mobile operations, all signs and channelizing devices may be eliminated if a vehicle with an activated flashing or revolving yellow light is used.

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)
0 - 30	200
35 - 40	350
45 - 50	500
55	750
60 - 80	1000



January 22, 2021

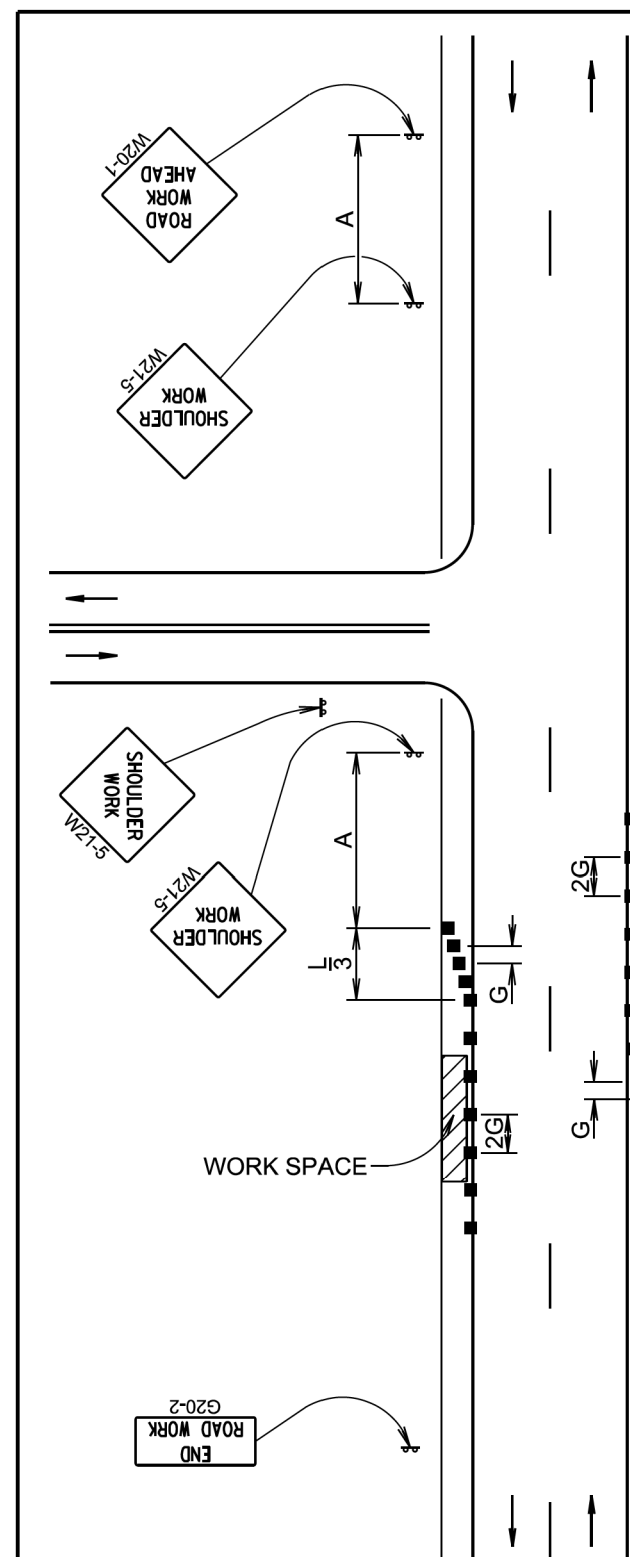
Published Date: 2026

SDDOT

WORK BEYOND THE SHOULDER

PLATE NUMBER
634.01

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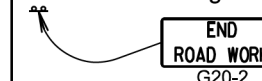
WORK ON SHOULDERS

PLATE NUMBER
634.03

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Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)	Taper Length (Feet) (L)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	200	180	25
35 - 40	350	320	25
45	500	600	25
50	500	600	50
55	750	660	50
60 - 65	1000	780	50

- Channelizing Device



The channelizing devices will be drums or 42" cones if traffic control must remain overnight.

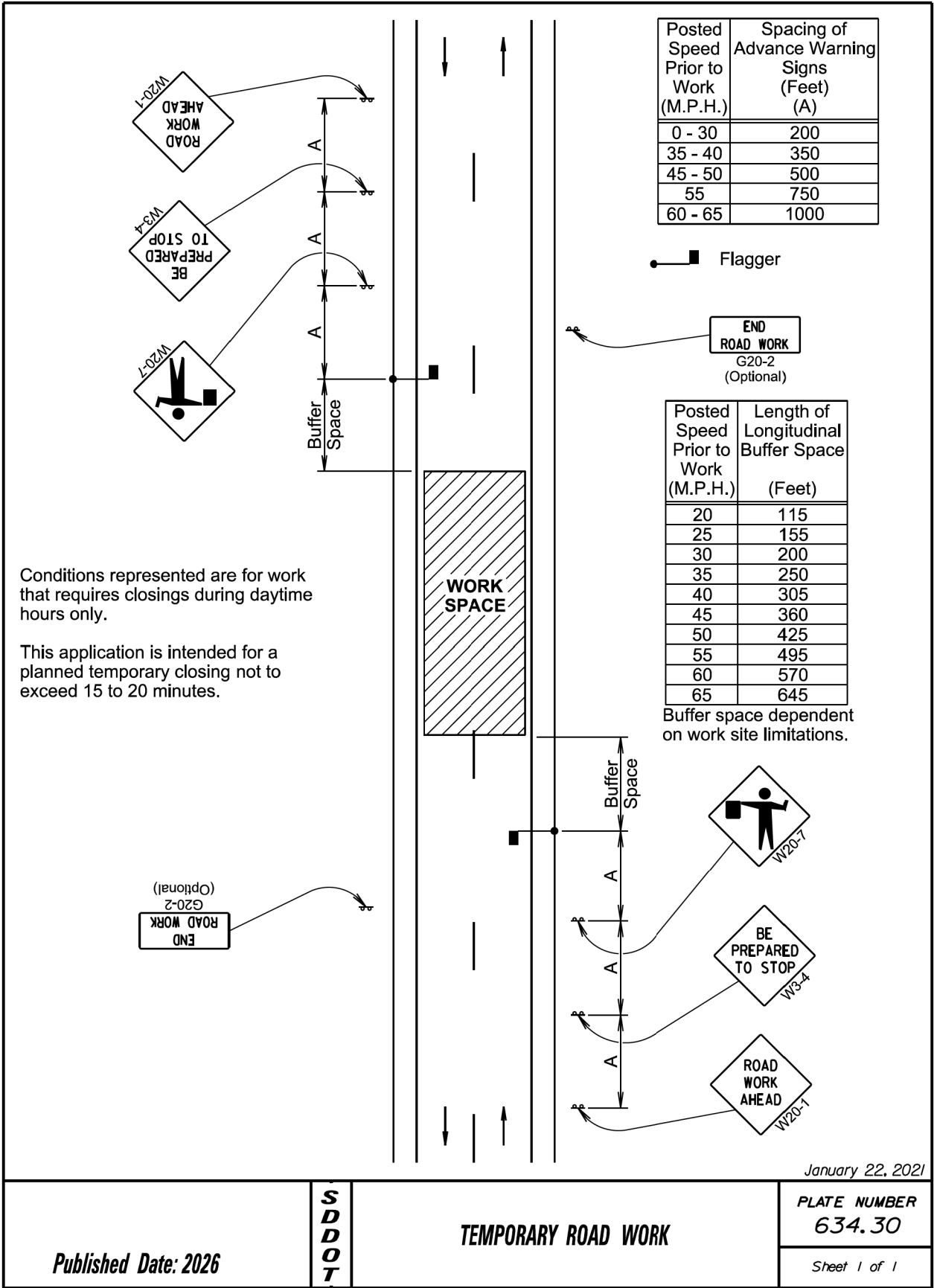
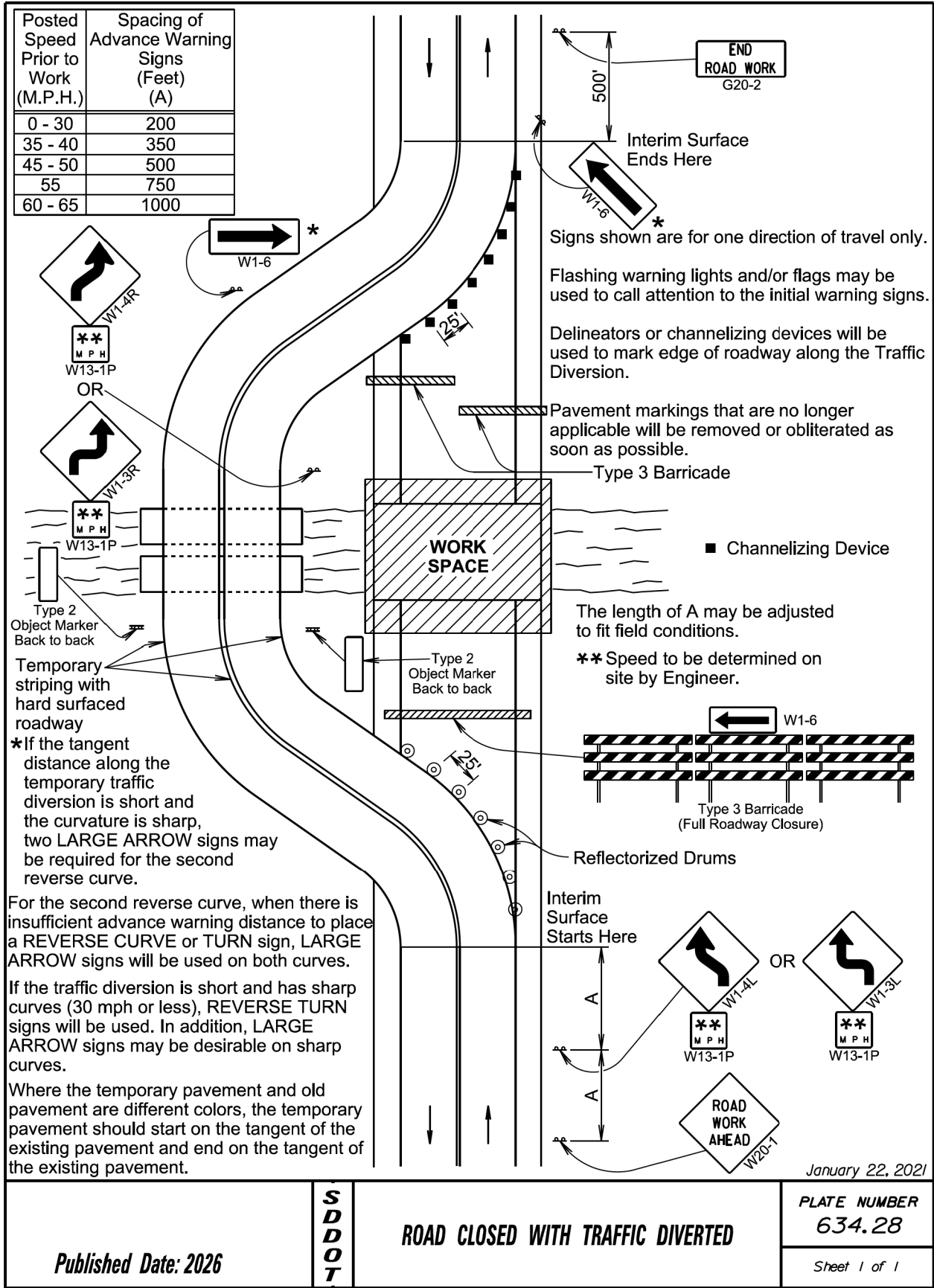
For short duration operations (1 hour or less) all channelizing devices may be eliminated if a vehicle with an activated flashing or revolving yellow light is used.

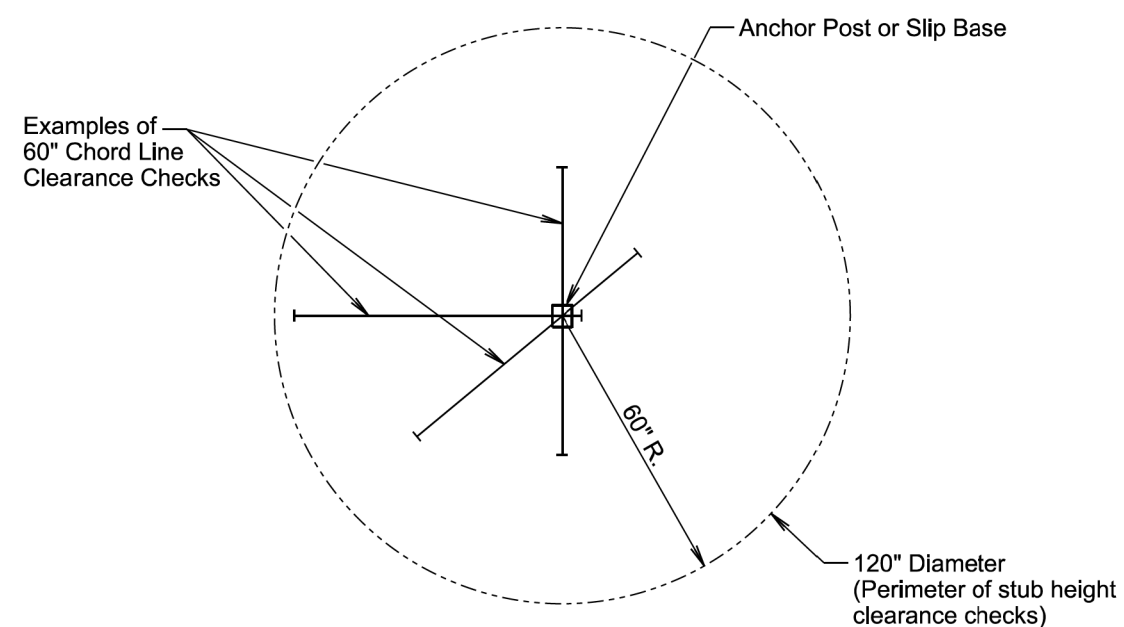
Worker signs (W21-1 or W21-1a) may be used instead of SHOULDER WORK signs.

A SHOULDER WORK sign should be placed on the left side of a divided or one-way roadway only if the left shoulder is affected.

The **SHOULDER WORK** sign on an intersecting roadway is not required if drivers emerging from that roadway will encounter another advance warning sign before they reach a work activity area.

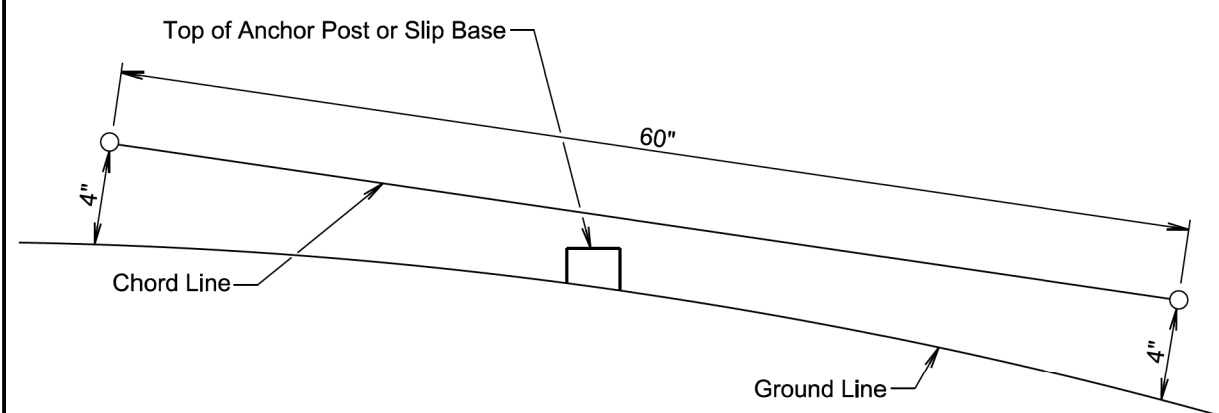
—WORK SPACE





PLAN VIEW

(Examples of stub height clearance checks)



ELEVATION VIEW

GENERAL NOTES:

The top of anchor posts and slip bases WILL NOT extend above a 60" chord line within a 120" diameter circle around the post with ends 4" above the ground.

At locations where there is curb and gutter adjacent to the breakaway sign support, the stub height will be a maximum of 4" above the ground line at the localized area adjacent to the breakaway support stub.

The 4" stub height clearance is not necessary for U-channel lap splices where the support is designed to yield (bend) at the base.

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BREAKAWAY SUPPORT STUB CLEARANCE

PLATE NUMBER
634.99

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