

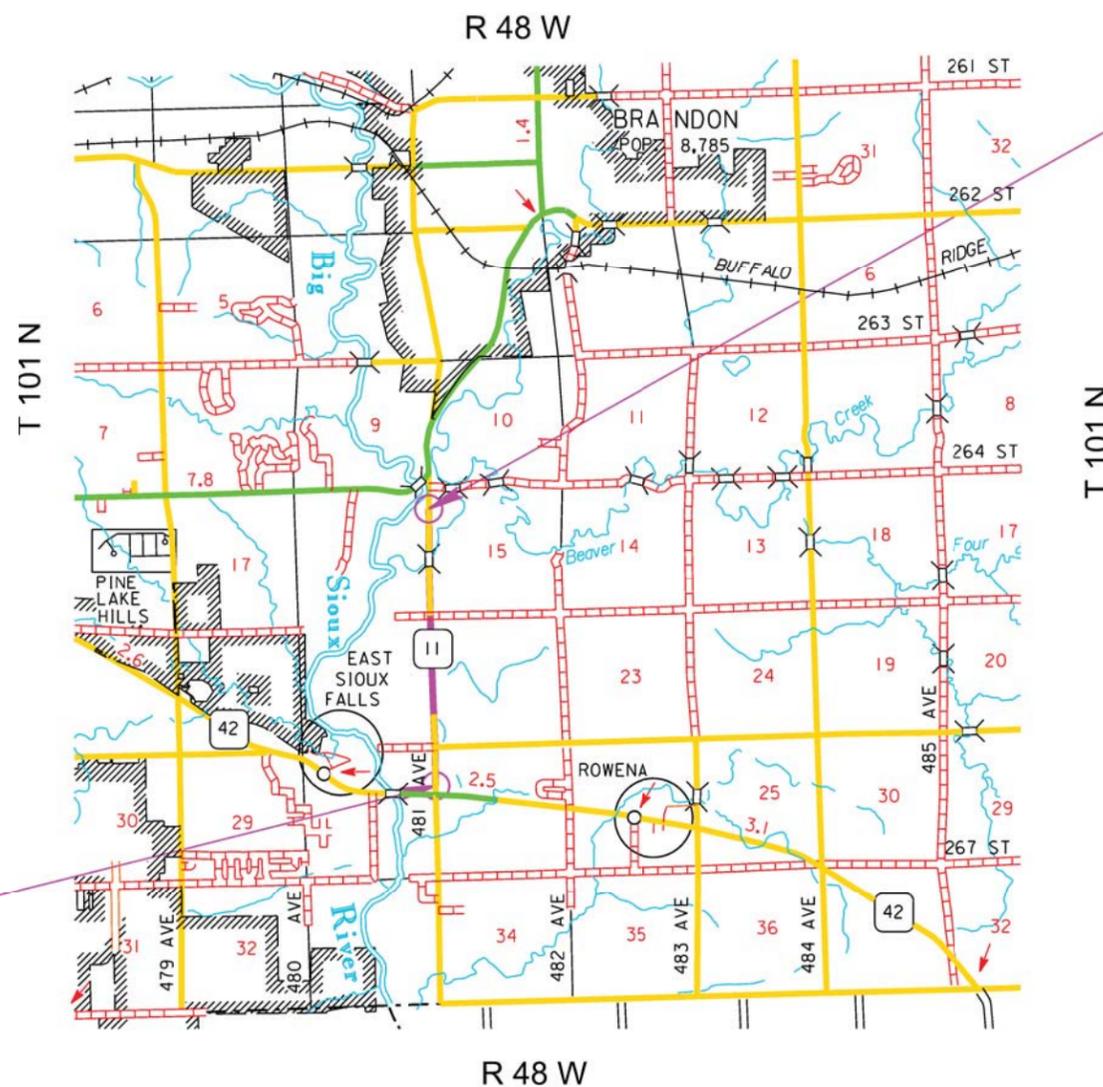
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P-PH 0011(74)74	C1	C17

Plotting Date: 12/02/2014

Section C: Traffic Control Plans

INDEX OF SHEETS

- C1 General Layout W/Index
- C2-C5 Notes
- C6 Fixed Location Signing
- C7 Detour Detail
- C8 Modify Existing Sign Details
- C9 Temporary Signing Table
- C10 Begin/End Project Closure Detail
- C11 Itemized List Of Traffic Control
- C12-C17 Standard Plates



Begin PH 0011(74)74
Station 15+05.62

End PH 0011(74)74
Station 130+46.64

PLOT SCALE - 1:202.391

PLOTTED FROM - IRSE12114

PLOT NAME - 1

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SECTION C: ESTIMATE OF QUANTITIES

Bid Item Number	Item	Quantity	Unit
110E7150	Remove Sign for Reset	2	Each
632E3500	Reset Sign	2	Each
632E3600	Temporary Signing	512.0	SqFt
634E0010	Flagging	750	Hour
634E0020	Pilot Car	375	Hour
634E0100	Traffic Control	3,914	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0600	4" Temporary Pavement Marking Tape Type 1	4,544	Ft
634E0630	Temporary Pavement Marking	7.0	Mile
634E0896	Portable Temporary Traffic Signal System	1	Each
634E1220	Solar Powered Portable Changeable Message Sign	3	Each

SCOPE OF WORK

Work on this project includes, but is not limited to Cold Milling Asphalt Concrete, Grading, Shoulder Widening, Asphalt Concrete Resurfacing/Surfacing, Culvert Installation, Placing Contractor Furnished Borrow, Removing/Placing Topsoil, Placing Granular Material, Erosion Control, Bridge Rail Replacement, Epoxy Deck Seal, Bridge Joint Modification, Permanent Signing & Guardrail.

SEQUENCE OF OPERATIONS

1. Install Fixed Location Signing Prior To Start Of Work
2. Install Detour Signing
3. Complete Work in Regraded Section from Station 15+05.62 to 36+98.54 as the Per Special Provision for Contract Time
4. Complete Bridge Rail Replacement and Bridge Joint Modification on Structure 50-270-205 as per the Special Provision for Contract Time
5. Remove Detour Signing
6. Complete Shoulder Widening from Station 36+98.54 to 130+46.64
7. Complete Cold Milling Operations
8. Excavate Dugouts and Complete Backfill Operations
9. Complete All Asphalt Concrete Shoulder Construction (1st lift)
10. Complete All Asphalt Concrete Strengthening and Leveling
11. Complete Asphalt Concrete Mainline and Auxiliary Asphalt Paving
12. Complete Gravel Placement Operations to Entrances & Intersecting Roads
13. Install Permanent Signing & Delineators
14. Complete Epoxy Deck Seal and Related Work
15. Place Flush Seal If Required
16. Install Permanent Pavement Markings
17. Open Project to Traffic

The Contractor will be allowed to work on the shoulder widening portion of the project concurrently with the grading section when the project is open to local traffic only. The Contractor will still be required to maintain their work zone in the shoulder widening portion during this period as per the TRAFFIC CONTROL notes (i.e. flaggers, drop-offs, & work zone length). The Contractor will also be allowed to work on shoulder widening operations prior to the closure for the full regrade as approved by the Engineer.

SEQUENCE OF OPERATIONS (CONTINUED)

The epoxy deck seal shall be completed after the joint modification work, however the prep work (grinding & concrete repair) may be completed at an earlier time including when the project is closed to through traffic and local traffic only is allowed.

In the event the Contractor can furnish to the Engineer an alternate sequence of operations or traffic control plan which meets the approval of all parties involved, the sequence may be changed. An alternate sequence of operations or traffic control plan must be submitted to the Engineer a minimum of two (2) weeks prior to the Preconstruction Meeting. It is understood that, if the sequence as provided in these plans is used, approved changes may be made due to unforeseen conditions.

SPECIAL CONDITIONS

Access must be maintained at all times during construction to the following entrances/intersections in the regrading portion of the project from station 15+05.62 to 36+98.54:

- 1) 3 Homes Located Along SD Hwy 11 (20+43 Rt, 23+62 Rt, & 26+37 Rt)
- 2) Interstate Veterinary Clinic (16+71 Rt)
- 3) 266th St Intersection

If at any point during construction, the intersection at 266th St does need to be closed for a short duration (as approved by the Engineer); local traffic must have access to SD Hwy 42 from Portage St.

A minimum of 2 weeks prior to closing the project through traffic, the Contractor shall notify all residents along the project of the upcoming construction, the anticipated delays to traffic, the work schedule, the plan for maintaining access to their homes, contact information, and any other pertinent information. This also includes the residents in developments located on the southwest portion of the project along Tucker Dr, Portage St, Caley Cir, and 266th St. The method of delivering this information shall be approved by the Engineer at the pre-construction meeting.

Access to residences and fields in the shoulder widening portion shall also be maintained at all times or as directed by the Engineer. The Contractor shall notify residents/land owners a minimum of 72 hours prior to any construction activities that will conflict with access to their property to make appropriate arrangements. Intersecting streets are to remain open unless as directed by the Engineer.

Included in the Estimate of Quantities in Section F is 200 tons of Base Course material for the purpose of maintaining accesses throughout the project and other miscellaneous traffic control activities.

The Contractor is advised Huset's Speedway is located north of the project and on days with scheduled racing, traffic during this period will be greatly increased compared to the listed ADT. The majority of races are typically scheduled for Sunday. The Contractor shall schedule work and traffic control that will minimize the disturbance to the traveling public during these periods.

MAINTENANCE OF TRAFFIC

The Contractor will be required to maintain all traffic throughout the shoulder widening portion of the project during construction except when the Special Provision for Contract Time is in effect and then it will be local traffic only.

Removing, relocating, covering, salvaging and resetting of existing traffic control devices, including delineation, shall be the responsibility of the Contractor. Cost of this work shall be incidental to the various contract items unless otherwise specified in the plans. Delineators and signs damaged or lost shall be replaced by the Contractor at no cost to the State.

Storage of vehicles and equipment shall be as near the right-of-way line as possible. Contractor's employees should mobilize at a location off the right-of-way and arrive at the work sites in a minimum number of vehicles necessary to perform the work.

Indiscriminate driving and parking of vehicles within the right-of-way will not be permitted. Any damage to the vegetation, surfacing, embankment, delineators and existing signs resulting from such indiscriminate use shall be repaired and/or restored by the Contractor, at no expense to the State, and to the satisfaction of the Engineer.

Work activities during non-daylight hours are subject to prior approval.

The Contractor shall provide documentation that all breakaway sign supports comply with FHWA NCHRP Report 350 or MASH crash-worthy requirements. The Contractor shall provide installation details at the preconstruction meeting for all breakaway sign support assemblies.

Flaggers and FLAGGER symbol signs shall be in place when hauling material from one side of the roadway to the other. These shall also be provided when work activities or equipment present a hazard to workers, through traffic, or encroaches into driving lanes open to traffic.

The Contractor shall protect pedestrians from work areas with snow fencing or other approved devices. Where pedestrian walkways are adjacent to work areas, a continuously detectable edging should be provided. This edging should protrude at least 6 inches above the surface of the walkway, with the bottom of the edging a maximum of 2.5 inches above the surface. Examples of detectable edging for pedestrians are given in Section 6F.74 of the MUTCD.

In lieu of standard plate 634.26 (Lane Closure Using Traffic Signals) traffic channelizing devices shall be spaced at 25 ft when the existing bridge rail is not in place. Also during non-daylight hours double sided type III barricades shall also be spaced every 100 ft in the lane that is closed during this period.

During working hours the Contractor shall use a pilot car and flaggers to direct traffic throughout the work zones as directed by the Engineer.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P-PH 0011(74)74	C3	C17

Plotting Date: 12/02/2014

PLOT SCALE - 1:200

PLOT NAME - 3

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MAINTENANCE OF TRAFFIC (CONTINUED)

During nonworking hours the Contractor shall provide a stable and passable roadway with a minimum width of 24'. Vertical drop-offs and or inslopes steeper than 4:1 will not be allowed during nonworking hours adjacent to the 24' roadway used to carry traffic. The outside edges of the driving lanes shall be marked with traffic control 42" cones or tubular markers at a 200 foot spacing. Cost of these traffic control cones or tubular markers shall be incidental to the contract lump sum price for "Traffic Control, Miscellaneous."

The maximum length of the work zone for the shoulders widening operation shall be 2000 ft but may be extended by the Engineer depending on the speed of construction.

The maximum work zone for the asphalt concrete milling operation in the shoulder widening section shall be 1/2 of the section but may be extended by the Engineer depending on the speed of construction.

The maximum work zone for the asphalt concrete paving operation in the shoulder widening section shall be from station 36+98.54 to 130+46.64.

The Contractor shall conduct shoulder widening operations in a manner which will minimize the length of unsurfaced grade. Gravel Surfacing shall follow the completion of the subgrade as is feasible and as determined by the Engineer. Gravel surfacing will need to be sluffed adjacent the in-place asphalt concrete to prevent a drop-off prior to milling and paving operations. Cost for placing and removing/reshaping of the gravel sluff shall be incidental to the price per ton of the material used to construct it.

DETOUR SIGNING

The Contractor shall furnish and install the detour signing as illustrated in the details within this plan set and as required by the Engineer. The posts used for installing the signs shall yield upon impact.

When the detour is not required, the installed signs shall be covered or deactivated by an alternate method approved by the Engineer. If the signs are covered, the covering shall completely prevent viewing of the sign.

Upon completion of the work the signs, posts, and hardware shall remain the property of the Contractor.

All costs associated with furnishing, installing, covering, maintaining, and removing the signs shall be incidental to the contract unit price per square foot for TEMPORARY SIGNING.

SOLAR POWERED PORTABLE CHANGEABLE MESSAGE SIGN

Solar Powered Portable Changeable Message Signs shall be utilized on this project to advise the traveling public of project conditions. The Contractor shall furnish, position, and maintain the message signs at locations as directed by the Engineer.

Each message sign shall be in a new or nearly new condition and consist of a message board, power supply, and a message control system, all mounted on a heavy duty trailer. The message signs shall remain the property of the Contractor upon completion of the project.

Addco Manufacturing, Precision Solar Controls Inc., Winkomatic Signal Company, and American Signal Company are manufactures of acceptable Solar Powered Portable Changeable Message Signs.

The overall dimensions of the message board shall be a minimum of 108" wide x 72" high. The message board shall be enclosed in a rigidly framed, weather tight housing.

The message board shall contain a minimum of three message lines. Each message line shall be capable of displaying a minimum of 8 characters. Each character shall be approximately 18" high and shall be formed by 35 dots in a 5 x 7 matrix. The message boards shall be capable of changing the entire message content in not more than 100 milliseconds. No more than 2 displays shall be used within any message cycle.

All costs associated with obtaining, positioning, re-positioning, programming, maintaining, and removing the message signs shall be incidental to the contract unit price per each for Solar Powered Portable Changeable Message Sign.

REMOVE SIGN FOR RESET AND RESET SIGNS

Some of the existing signs planned to be removed and reset as per the MODIFY EXISTING SIGNS detail are part of a larger sign grouping located on the same post. Only the signs and brackets as shown on the detail shall be removed and reset. All signs to be removed and reset that are part of a group of signs on 1 post shall be considered as one and be included in the contract unit prices per each for Remove Sign For Reset and Reset Sign.

Any signs or brackets damaged during removal, storage, or resetting shall be replaced by the Contractor at no cost to the State.

BRIDGE DECK GRINDING

Traffic may be maintained on the ground bridge deck surface prior to the epoxy deck seal. The Contractor shall be responsible for maintaining the surface of the ground bridge deck such that it is free of potholes or other hazards to the traveling public. Any repairs or maintenance required to maintain traffic on the ground bridge deck surface shall be at done to the satisfaction of the Engineer at the Contractor's expense.

PORTABLE TEMPORARY TRAFFIC SIGNAL SYSTEM

A portable temporary traffic signal system shall be used for the bridge rail replacement, bridge joint modification, and the epoxy deck seal (including related work) when two-way traffic cannot be maintained on the bridge overnight. The Contractor shall sequence the construction so that the portable temporary traffic systems are not in use within a flagger/pilot car zone.

The Portable Temporary Traffic Signal System shall consist of a minimum of two portable trailer-mounted traffic signal units (One Master and One Slave unit) with the necessary traffic signal Controller. The Portable Temporary Traffic Signal System shall be in conformance with the Federal Manual on Uniform Traffic Control Devices.

All traffic signal heads shall be equipped with back plates and cutaway visors for expanded signal indication visibility. Back plates and cutaway visors shall have a dull black finish.

Microwave motion sensors or video detection shall be used for signal actuation.

A minimum clear zone distance of 2', 6' preferred, shall be maintained from the edge of the traveled way to the edge of the traffic signal trailer. Any temporary signal trailer parked within the roadway or adjacent to lanes open to traffic, shall be marked with a minimum of two reflectorized drums or Type II barricades.

The Portable Traffic Signal System shall be capable of a minimum of two phase operation and shall be utilized on the project according to these plans or as directed by the Engineer.

The trailer mounted temporary traffic signals shall be equipped with safety features that prevent conflicting indications. The operating system should be capable of operating pre-timed, actuated or by manual control.

The operating system shall have the ability to control green times from 3 seconds to 250 seconds and red times from 1 second to 250 seconds in 1 second increments. The operating system shall have the ability to facilitate minimum/maximum green time programming in the traffic actuation mode in a manner that will extend the green times in predetermined programmable segments as required. The operating system shall have the capability of facilitating standby modes of red, red flash and yellow flash mode.

The operating system shall be equipped with diagnostic capabilities in the event of a system default. The system shall have the capability of identifying the default in a manner that will expedite the return to full operational mode.

The traffic signal shall be actuated and rest on green indication for the open lane of traffic.

The Contractor shall be responsible to program, operate and maintain the portable temporary traffic signal during the work required for this project.

The Contractor shall provide sufficient staff for maintenance and adjustments of the Portable Temporary Traffic Signal Systems as necessary. The individual responsible for setup and maintenance of traffic signals shall have experience with, be knowledgeable and trained with respect to installation, setup, and maintenance of the traffic signal.

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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P-PH 0011(74)74	C5	C17

Plotting Date: 12/02/2014

4" TEMPORARY PAVEMENT MARKING TAPE TYPE 1

All temporary pavement markings as shown on standard plate 634.26 shall be 4" Temporary Pavement Marking Tape Type 1. The 24" white stop bars shall be paid for at the equivalent rate per foot for the item 4" Temporary Pavement Marking Tape Type 1 (144 feet included for two 12' stop bars).

BUMP SIGNS

An Advisory Speed Plaque (W13-1P) displaying 25 M.P.H. shall be attached to all BUMP signs (W8-1) used on the project. These speed plaques are included in the itemized list of traffic control.

INCIDENTS

An incident is an emergency road user occurrence, a natural disaster, or other unplanned event that affects or impedes the normal flow of traffic such as an accident, hazardous materials spill, or similar event.

The Contractor shall set up a meeting prior to start of work to plan and coordinate responses to an incident. The Contractor will invite the Department of Transportation, the South Dakota Highway Patrol, and local emergency response entities to the meeting.

The Contractor will assist to maintain traffic as required by these plan notes and as agreed to at the meeting.

Emergency vehicle access through the project to the lanes where head-to-head traffic is maintained shall be considered and discussed at the meeting.

The Contractor will be required to modify messages on portable changeable message signs or relocate portable changeable message signs. The Contractor may be asked to provide flaggers to direct or detour of traffic. The Contractor should be prepared to relocate advance warning signs if determined to be necessary for a major traffic incident lasting for more than two hours. Ground mounted advance warning signs may be covered and additional portable warning signs provided.

No additional payment will be made for the modification of portable changeable message sign messages or the relocation of portable changeable message signs. Cost for flagging shall be paid at the contract unit price per hour for Flagging. Cost for the relocation of an advanced warning sign due to an incident shall be 50% of the designated sign rate as per section 634.5 Basis of Payment in the Specifications. Cost for additional signs shall be included at the contract unit price per unit for Traffic Control

PLOT SCALE - 1:200

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PLOT NAME - 5

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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P-PH 0011(74)74	C6	C17

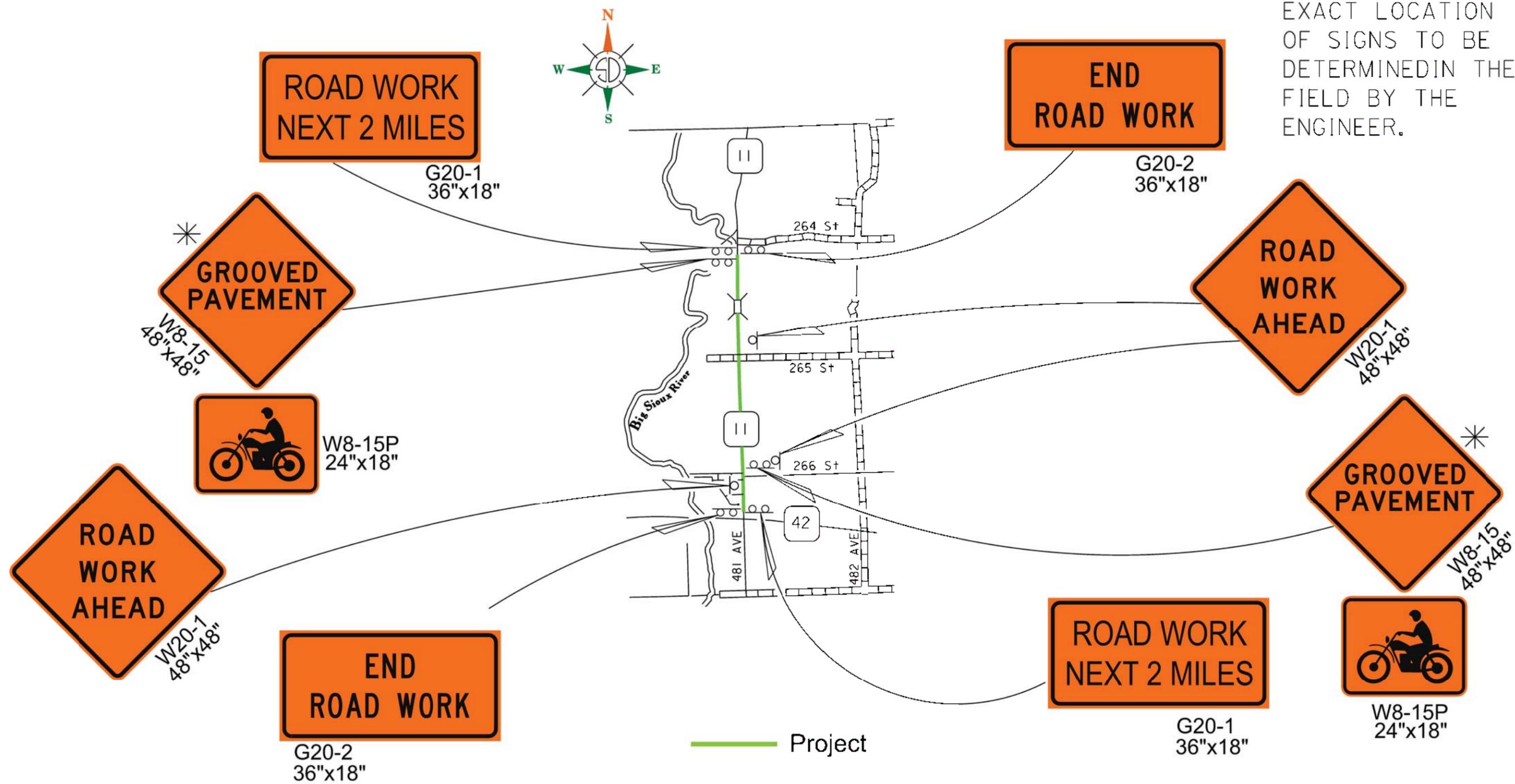
Revised: 12/02/2014

FIXED LOCATION SIGNS GROUND MOUNTED, BREAKAWAY SUPPORTS

PLOT SCALE - 1:36883.3

PLOT NAME - 6

EXACT LOCATION OF SIGNS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.



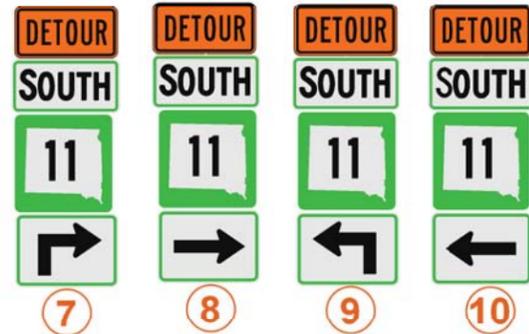
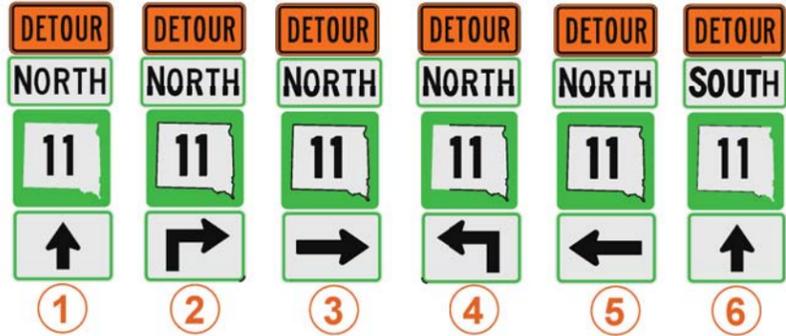
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FILE - ... \0380_DETOURROUTE.DGN

* GROOVED PAVEMENT signs shall only be visible when the condition exists. Signs shall be covered or removed when the grooved road condition is not present.

DETOUR SIGNING DETAIL

Revised: 12/02/2014



POSTED SPEED PRIOR TO WORK (MPH)	Spacing of Advance Warning Signs (Ft)
0 - 30	200
35 - 40	350
45 - 50	500
55	750
60 - 75	1000

NOTES:

Installation and location of detour signs is to be coordinated with fixed location ground mount support and permanent signs placed on detour route.

Signs #1 and #6 to be placed approximately 200 ft from intersections and beginning of detours.

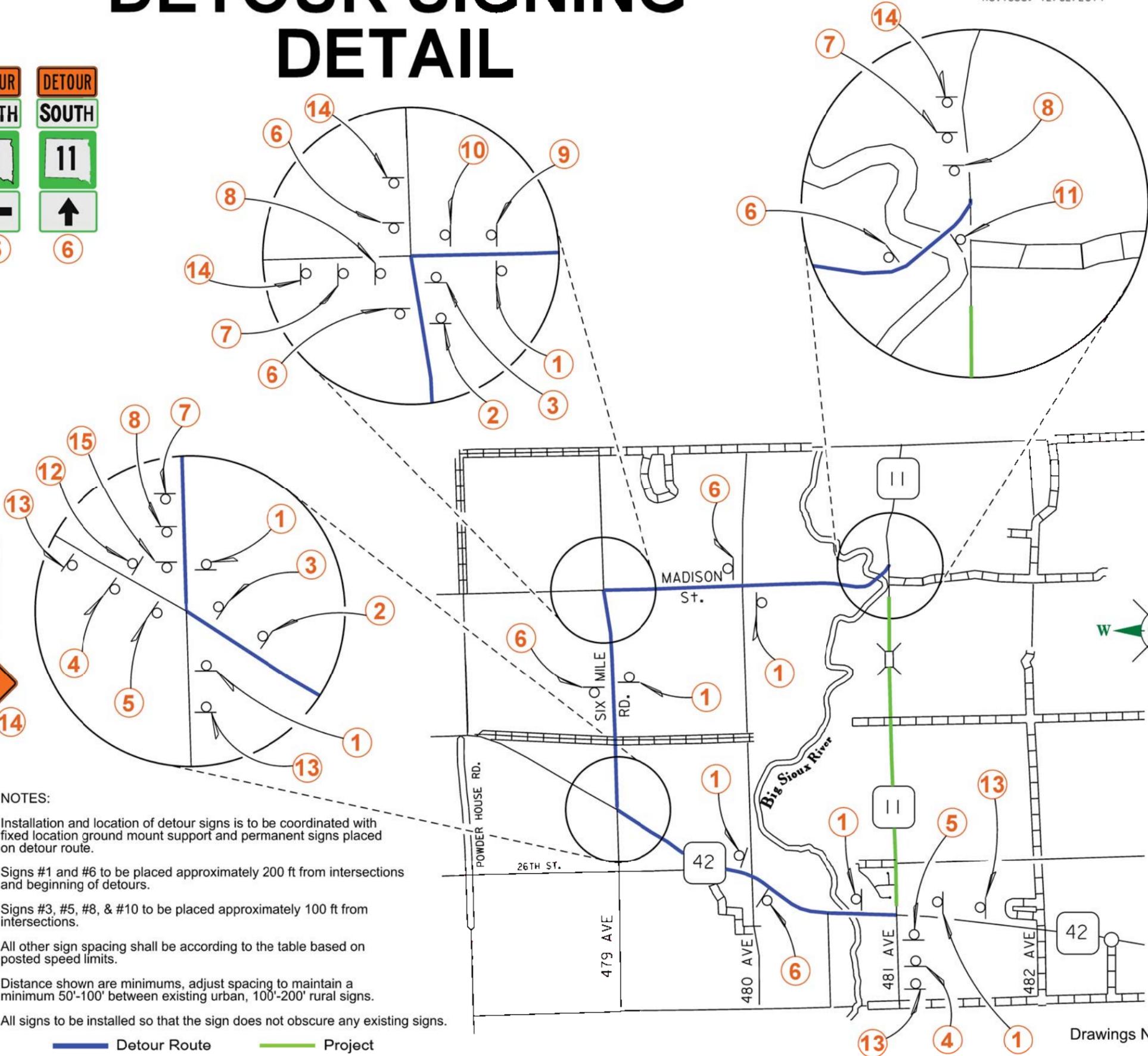
Signs #3, #5, #8, & #10 to be placed approximately 100 ft from intersections.

All other sign spacing shall be according to the table based on posted speed limits.

Distance shown are minimums, adjust spacing to maintain a minimum 50'-100' between existing urban, 100'-200' rural signs.

All signs to be installed so that the sign does not obscure any existing signs.

— Detour Route — Project



Drawings Not to Scale

PLOT SCALE - 1:32485.7

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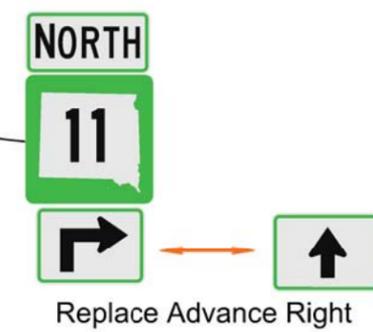
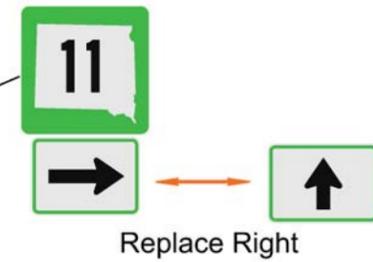
PLOT NAME - 7

FILE - ... \0380-DETOURROUTE.DGN

MODIFY EXISTING SIGNS DETAILS



— Project



Drawings Not to Scale

PLOT SCALE - 1:100000

PLOTTED FROM - IRSE12114

PLOT NAME - 8

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TEMPORARY SIGNING TABLE

DESCRIPTION/ILLUSTRATION	DIMENSIONS (INCHES)	AREA (Sq Ft)	QUANTITY	TOTAL (Sq Ft)	DESCRIPTION/ILLUSTRATION	DIMENSIONS (INCHES)	AREA (Sq Ft)	QUANTITY	TOTAL (Sq Ft)		
DETOUR (M4-8)	24" X 12"	2.0	30	60.0	ADVANCE TURN 90 LEFT (M5-1 SD HWY)	21" X 15"	2.2	3	6.6		
SD HWY 42 ROUTE MARKER (M1-5)	24" X 24"	4.0	2	8.0	ADVANCE TURN 90 RIGHT (M5-1 SD HWY)	21" X 15"	2.2	5	10.9		
SD HWY 11 ROUTE MARKER (M1-5)	24" X 24"	4.0	39	156.0	VERTICAL SINGLE HEAD (M6-3 SD HWY)	21" X 15"	2.2	14	30.6		
DIRECTIONAL MARKER NORTH (M3-1 SD HWY)	24" X 12"	2.0	21	42.0	LEFT SINGLE HEAD (M6-1 SD HWY)	21" X 15"	2.2	4	8.8		
DIRECTIONAL MARKER SOUTH (M3-3 SD HWY)	24" X 12"	2.0	18	36.0	RIGHT SINGLE HEAD (M6-1 SD HWY)	21" X 15"	2.2	6	13.1		
DIRECTIONAL MARKER EAST (M3-2 SD HWY)	24" X 12"	2.0	1	2.0	END DETOUR (M4-8a)	24" X 18"	3.0	2	6.0		
DIRECTIONAL MARKER WEST (M3-4 SD HWY)	24" X 12"	2.0	1	2.0	DETOUR AHEAD (W20-2)	48" X 48"	16.0	7	112.0		
TAB 	108" X 12"	9.0	2	18.0							
				COLUMN TOTAL	324.0					COLUMN TOTAL	188.0
										DETOUR SIGNING TOTAL	512.0

PLOT SCALE - 1:200

PLOT NAME - 9

PLOTTED FROM - IRSE12114

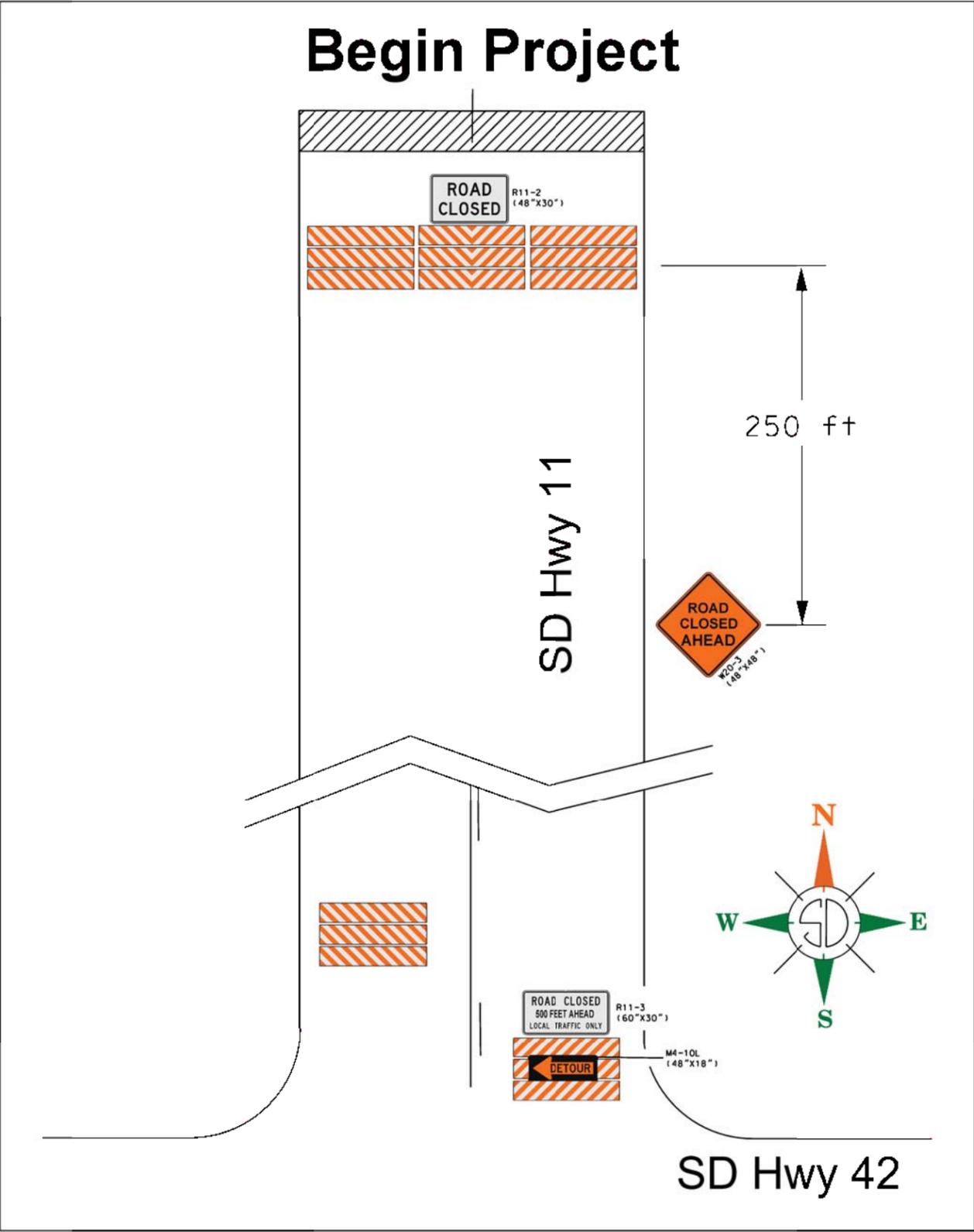
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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P-PH 0011(74)74	C10	C17

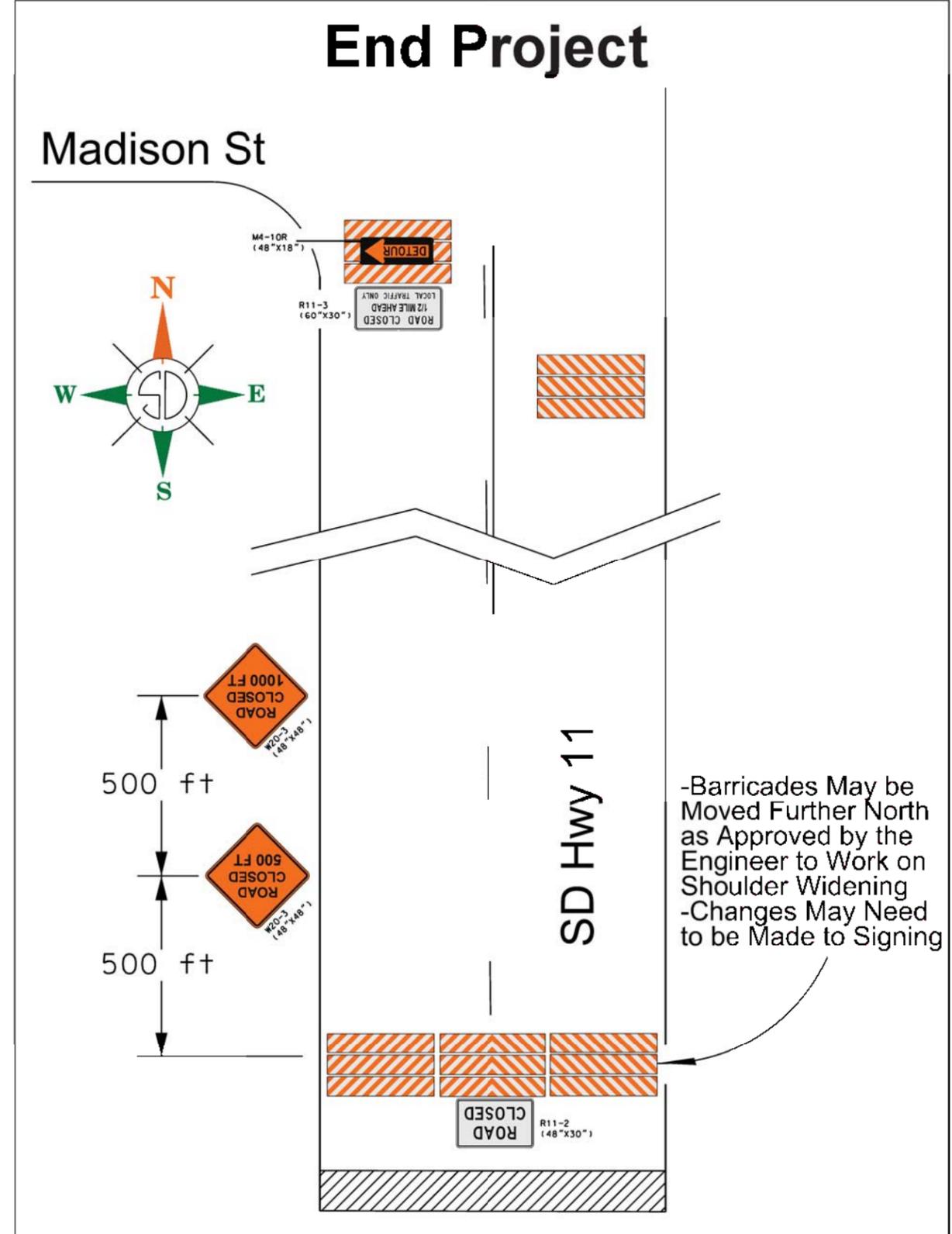
Plotting Date: 12/02/2014

BEGIN/END PROJECT DETAILS FOR SPECIAL PROVISION FOR CONTRACT TIME

Begin Project



End Project



All Barricades to be Type III 8 Ft Double Sided

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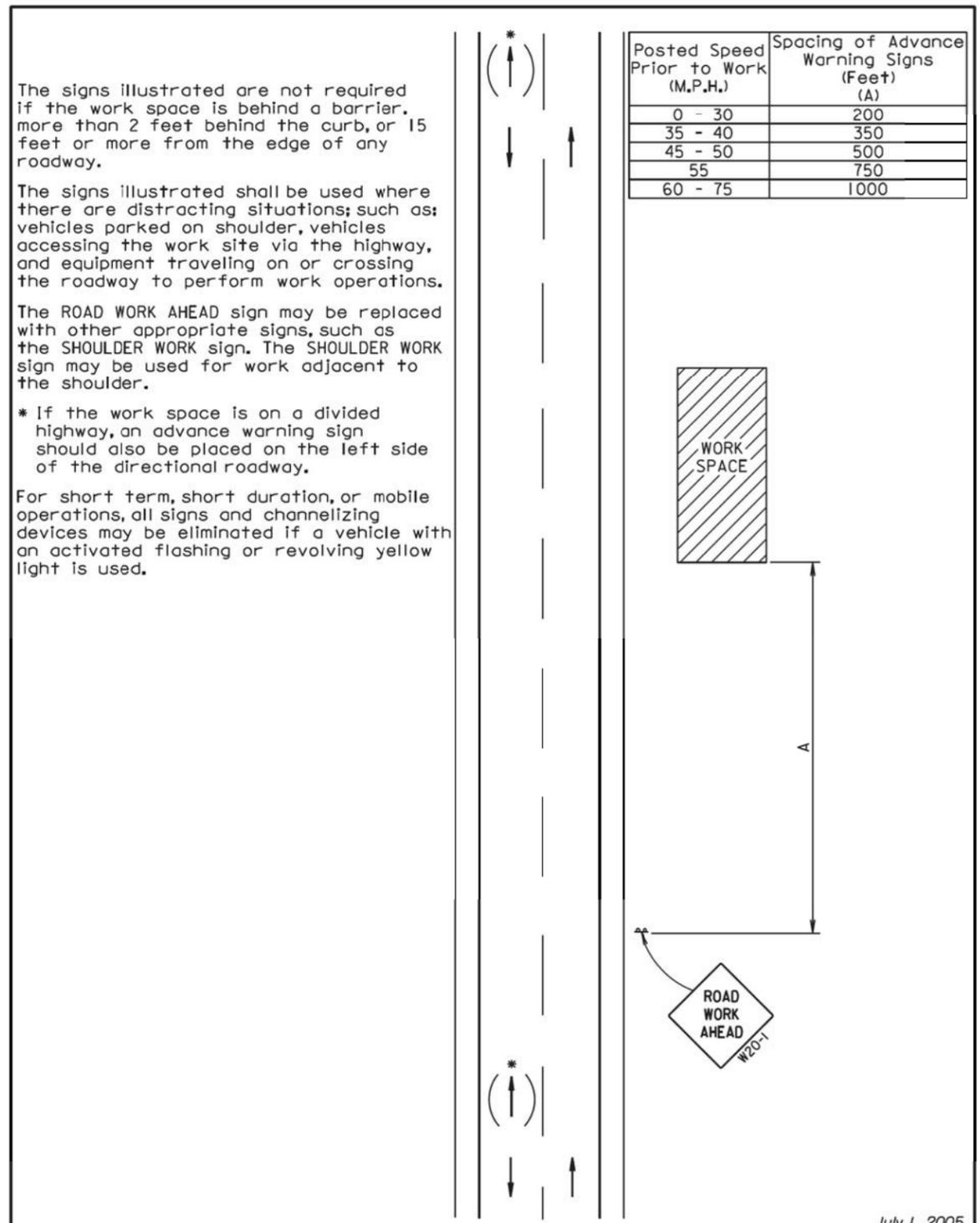
PLOT NAME - 10

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ITEMIZED LIST FOR TRAFFIC CONTROL

SIGN CODE	DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	UNITS PER SIGN	UNITS
R4-7	KEEP RIGHT (symbol)	4	24" x 30"	18	72
R10-6	STOP HERE ON RED	2	24" x 36"	20	40
R11-2	ROAD CLOSED	6	48" x 30"	27	162
R11-3a	ROAD CLOSED 1/2 MILE AHEAD LOCAL TRAFFIC ONLY	1	60" x 30"	30	30
R11-3a	ROAD CLOSED 500 FEET AHEAD LOCAL TRAFFIC ONLY	1	60" x 30"	30	30
W1-3	REVERSE TURN (L or R)	2	48" x 48"	34	68
W3-3	SIGNAL AHEAD (symbol)	2	48" x 48"	34	68
W3-4	BE PREPARED TO STOP	2	48" x 48"	34	68
W8-1	BUMP	6	48" x 48"	34	204
W8-6	TRUCK CROSSING	4	48" x 48"	34	136
W8-7	LOOSE GRAVEL	2	48" x 48"	34	68
SPECIAL	WINDROW	2	48" x 48"	34	68
W8-11	UNEVEN LANES	2	48" x 48"	34	68
W8-15	GROOVED PAVEMENT	2	48" x 48"	34	68
W8-15P	MOTORCYCLE (PLAQUE)	2	24" x 18"	15	30
W8-17	SHOULDER DROP-OFF (symbol)	4	48" x 48"	34	136
W13-1P	ADVISORY SPEED (plaque)	8	30" x 30"	21	168
W20-1	ROAD WORK AHEAD	7	48" x 48"	34	238
W20-3	ROAD CLOSED AHEAD	1	48" x 48"	34	34
W20-3	ROAD CLOSED 500 FT AHEAD	1	48" x 48"	34	34
W20-3	ROAD CLOSED 1000 FT AHEAD	1	48" x 48"	34	34
W20-4	ONE LANE ROAD AHEAD	5	48" x 48"	34	170
W20-7	FLAGGER (symbol)	3	48" x 48"	34	102
W21-2	FRESH OIL	4	48" x 48"	34	136
W21-3	ROAD MACHINERY AHEAD	2	48" x 48"	34	68
W21-5	SHOULDER WORK	2	48" x 48"	34	68
G20-1	ROAD WORK NEXT 2 MILES	2	36" x 18"	17	34
G20-2	END ROAD WORK	4	36" x 18"	17	68
M4-10	DETOUR ARROW (L or R)	2	48" x 18"	22	44
-	TYPE 3 BARRICADE - 8' double sided	25		56	1400
TOTAL UNITS		3914			

PLOT SCALE - 1:10-0856704



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 shall 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.

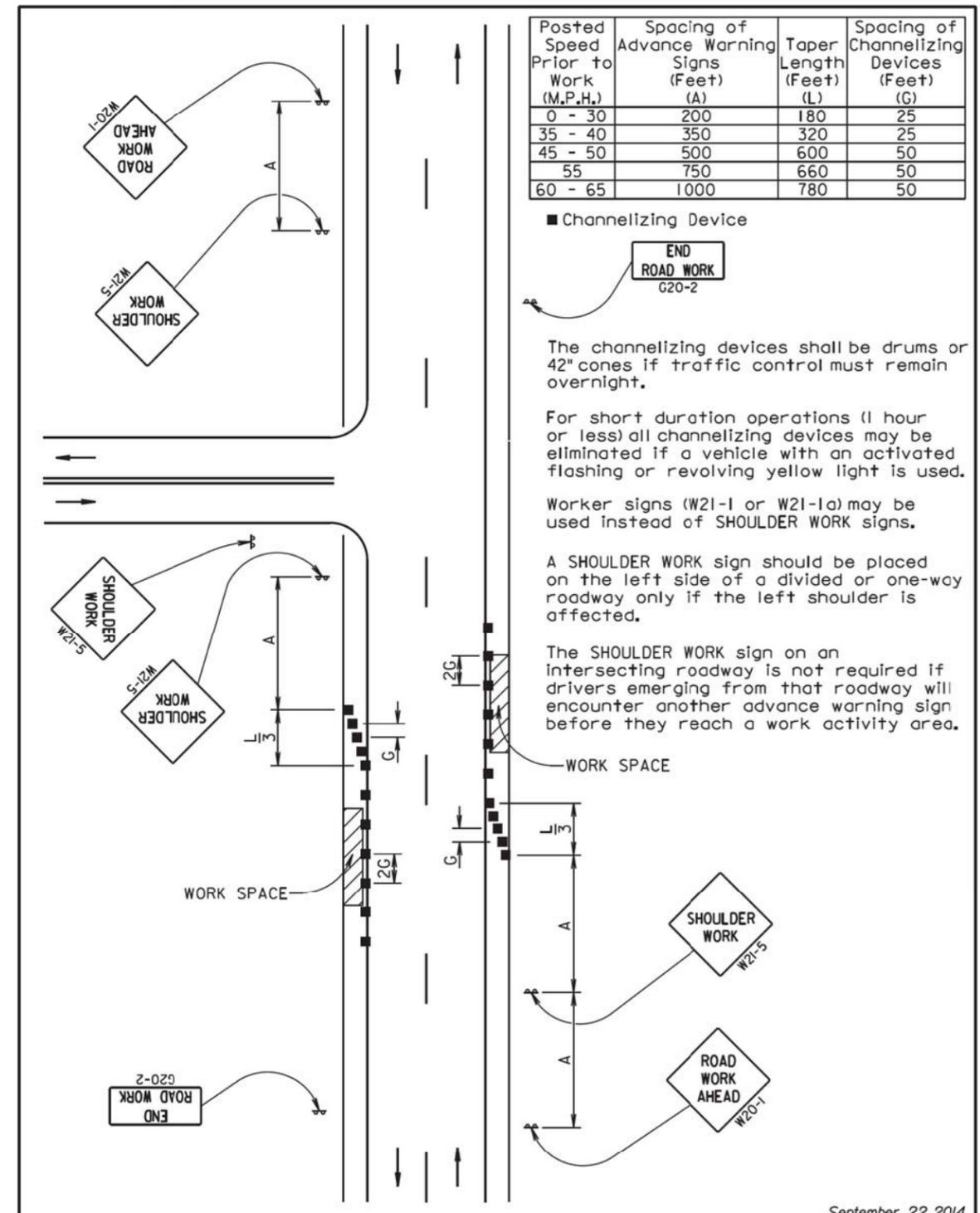
* If the work space is on a divided highway, an advance warning sign should also be placed on the left side of the directional roadway.

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.

July 1, 2005

Published Date: 4th Qtr. 2014	S D D O T	GUIDES FOR TRAFFIC CONTROL DEVICES WORK BEYOND THE SHOULDER	PLATE NUMBER 634.01
			Sheet 1 of 1

PLOTTED FROM - IRSE12114



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 - 50	500	600	50
55	750	660	50
60 - 65	1000	780	50

Channelizing Device

END ROAD WORK G20-2

The channelizing devices shall 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.

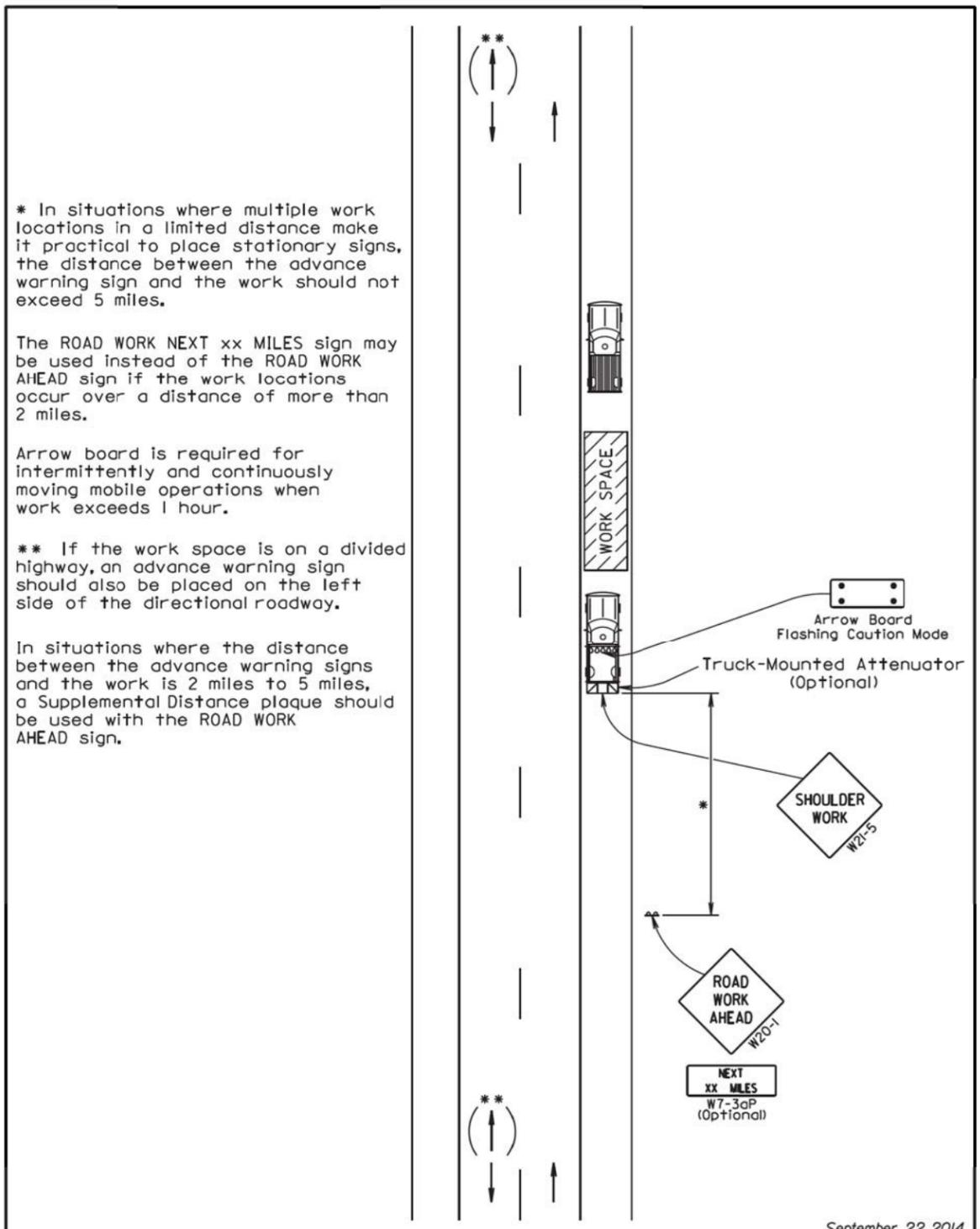
September 22, 2014

Published Date: 4th Qtr. 2014	S D D O T	GUIDES FOR TRAFFIC CONTROL DEVICES WORK ON SHOULDERS	PLATE NUMBER 634.03
			Sheet 1 of 1

PLOT NAME - 12

FILE - ... \TRAFFIC CONTROL PLATES.DGN

PLOT SCALE - 1:10.0856704



* In situations where multiple work locations in a limited distance make it practical to place stationary signs, the distance between the advance warning sign and the work should not exceed 5 miles.

The ROAD WORK NEXT xx MILES sign may be used instead of the ROAD WORK AHEAD sign if the work locations occur over a distance of more than 2 miles.

Arrow board is required for intermittently and continuously moving mobile operations when work exceeds 1 hour.

** 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.

In situations where the distance between the advance warning signs and the work is 2 miles to 5 miles, a Supplemental Distance plaque should be used with the ROAD WORK AHEAD sign.

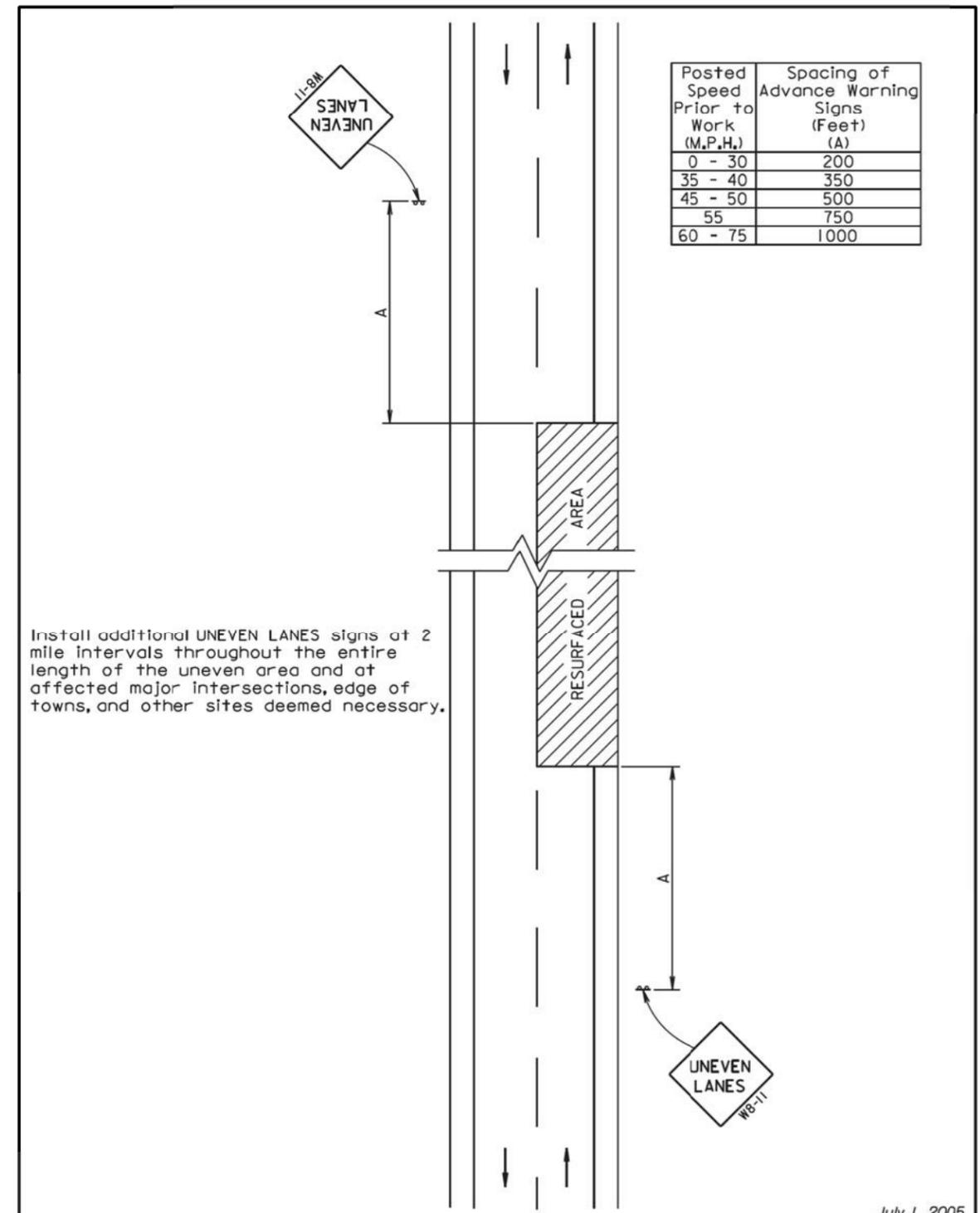
September 22, 2014

Published Date: 4th Qtr. 2014	S D D O T	GUIDES FOR TRAFFIC CONTROL DEVICES MOBILE OPERATIONS ON SHOULDER	PLATE NUMBER 634.04
			Sheet 1 of 1

PLOTTED FROM - IRSE12114

PLOT NAME - 13

FILE - ... \TRAFFICCONTROL\PLATES.DGN



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 - 75	1000

Install additional UNEVEN LANES signs at 2 mile intervals throughout the entire length of the uneven area and at affected major intersections, edge of towns, and other sites deemed necessary.

July 1, 2005

Published Date: 4th Qtr. 2014	S D D O T	GUIDES FOR TRAFFIC CONTROL DEVICES UNEVEN ROAD SURFACE	PLATE NUMBER 634.22
			Sheet 1 of 1

PLOT SCALE - 1:10.0856704

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

- Flagger
- Channelizing Device

For low-volume traffic situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger may be used.

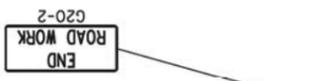
The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short duration operations (1 hour or less).

For tack and/or flush seal operations, when flaggers are not being used, the FRESH OIL sign (W21-2) shall be displayed in advance of the liquid asphalt areas.

Flashing warning lights and/or flags may be used to call attention to the advance warning signs.

The channelizing devices shall be drums or 42" cones.

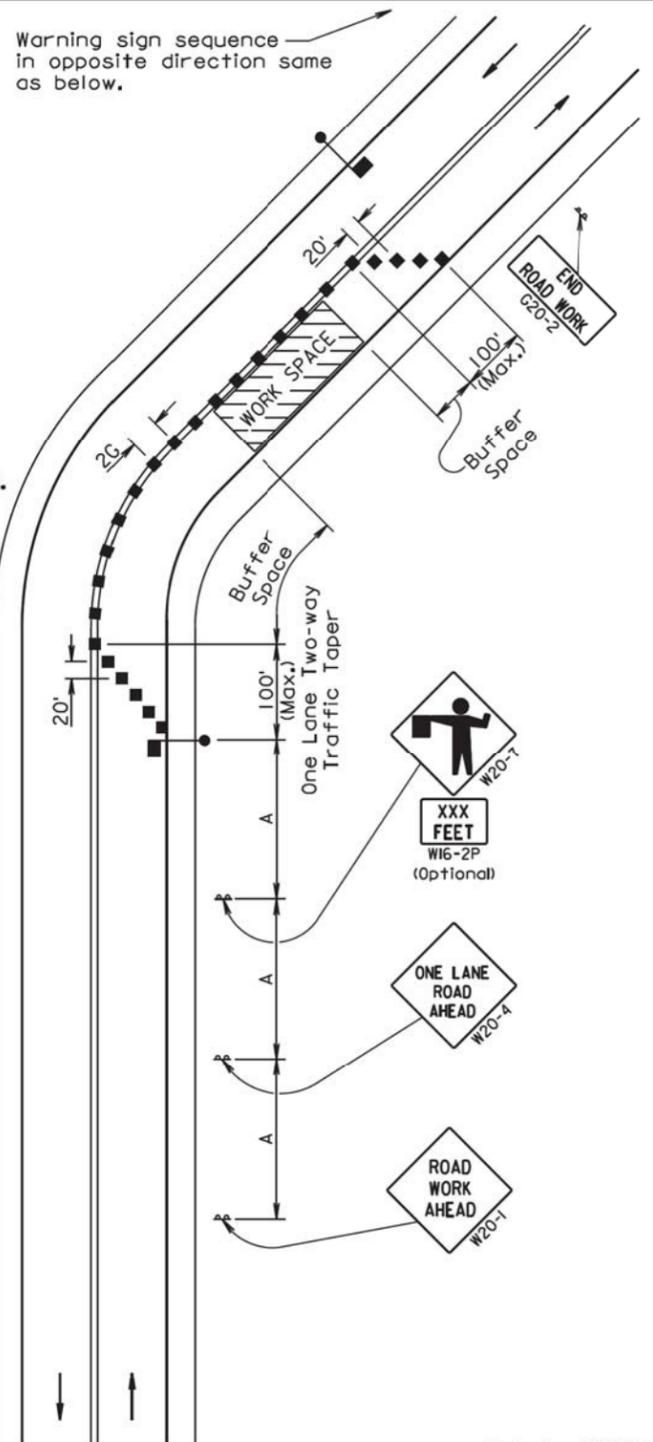
Channelizing devices are not required along the centerline adjacent to work area when pilot cars are utilized for escorting traffic through the work area.



Channelizing devices and flaggers shall be used at intersecting roads to control intersecting road traffic as required.

The buffer space should be extended so that the two-way traffic taper is placed before a horizontal or vertical curve to provide adequate sight distance for the flagger and queue of stopped vehicles.

The length of A may be adjusted to fit field conditions.



Warning sign sequence in opposite direction same as below.

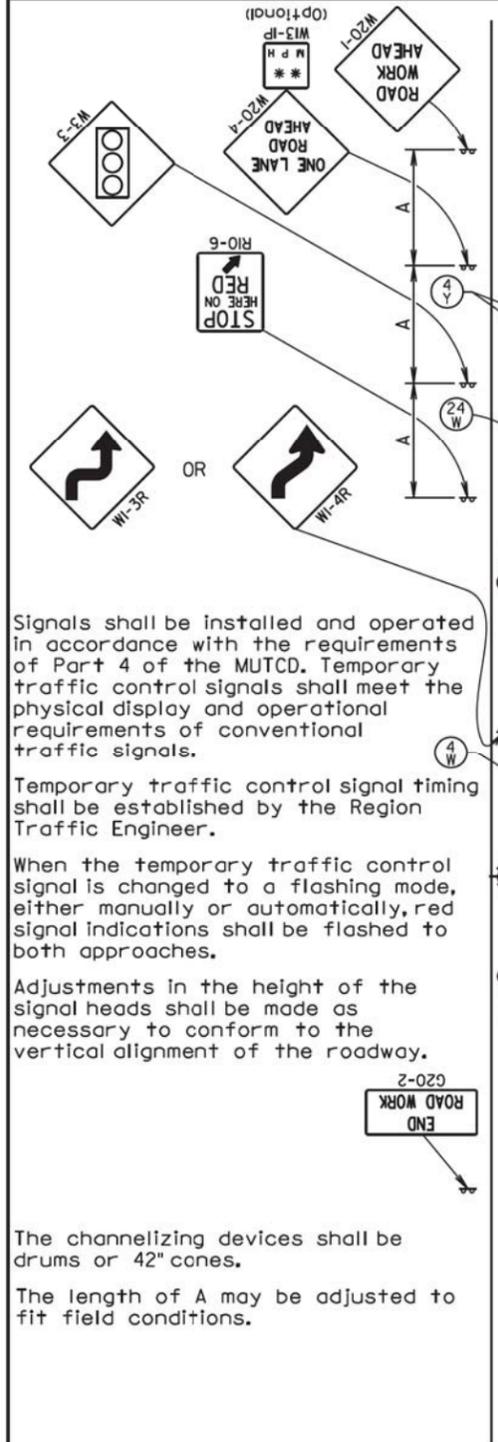
September 22, 2014

Published Date: 4th Qtr. 2014	S D D O T	GUIDES FOR TRAFFIC CONTROL DEVICES	PLATE NUMBER
		LANE CLOSURE WITH FLAGGER PROVIDED	634.23
		Sheet 1 of 1	

PLOTTED FROM - IRSE12114

PLOT NAME - 14

FILE - ... \TRAFFIC CONTROL PLATES.DGN



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

- END ROAD WORK G20-2
- 24" White Temporary Pavement Marking (24 W)
- 4" White Temporary Pavement Marking (4 W)
- 4" Yellow Temporary Pavement Marking (4 Y)
- Channelizing Device
- Traffic Signal
- Lighting (Optional)
- ** Need and safe speed to be determined at the site by the Engineer.

Signals shall be installed and operated in accordance with the requirements of Part 4 of the MUTCD. Temporary traffic control signals shall meet the physical display and operational requirements of conventional traffic signals.

Temporary traffic control signal timing shall be established by the Region Traffic Engineer.

When the temporary traffic control signal is changed to a flashing mode, either manually or automatically, red signal indications shall be flashed to both approaches.

Adjustments in the height of the signal heads shall be made as necessary to conform to the vertical alignment of the roadway.

The channelizing devices shall be drums or 42" cones.

The length of A may be adjusted to fit field conditions.

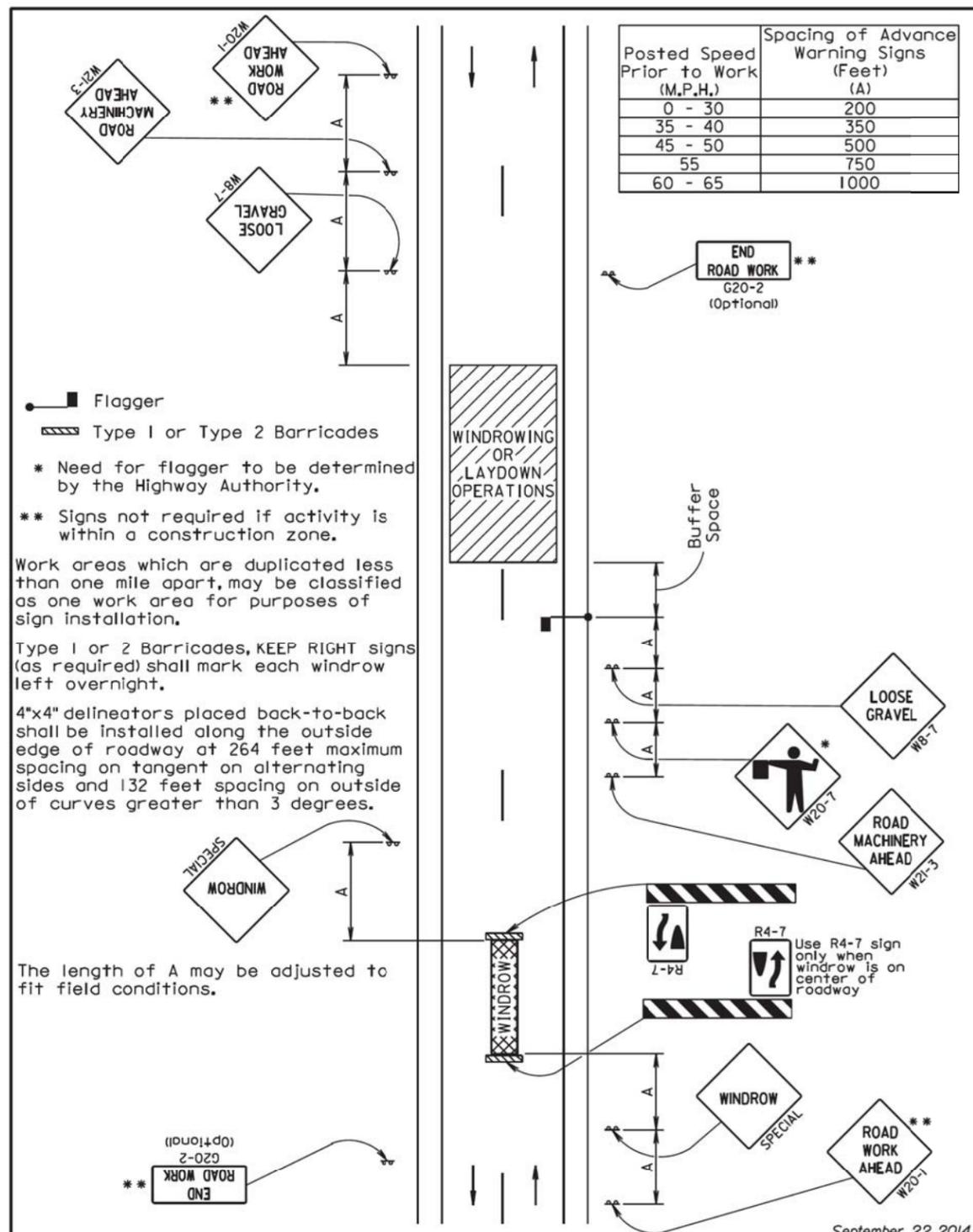
September 22, 2014

Published Date: 4th Qtr. 2014	S D D O T	GUIDES FOR TRAFFIC CONTROL DEVICES	PLATE NUMBER
		LANE CLOSURE USING TRAFFIC SIGNALS	634.26
		Sheet 1 of 1	

PLOT SCALE - 1:10.0856704

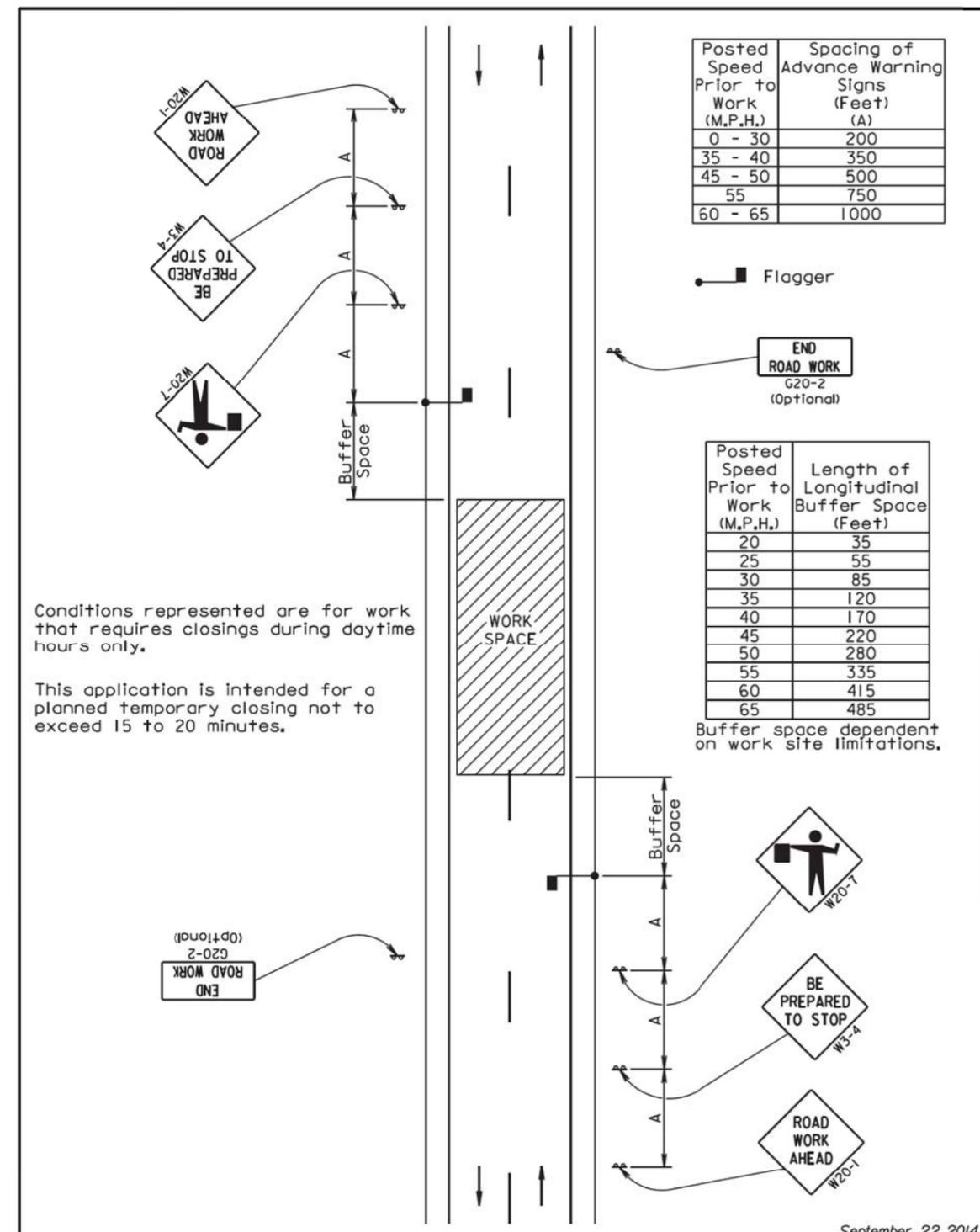
PLOT NAME - 15

FILE - ... \TRAFFICCONTROL\PLATES.DGN



September 22, 2014

Published Date: 4th Qtr. 2014	S D D O T	GUIDES FOR TRAFFIC CONTROL DEVICES WINDROWING OR LAYDOWN OPERATION	PLATE NUMBER 634.27
			Sheet 1 of 1

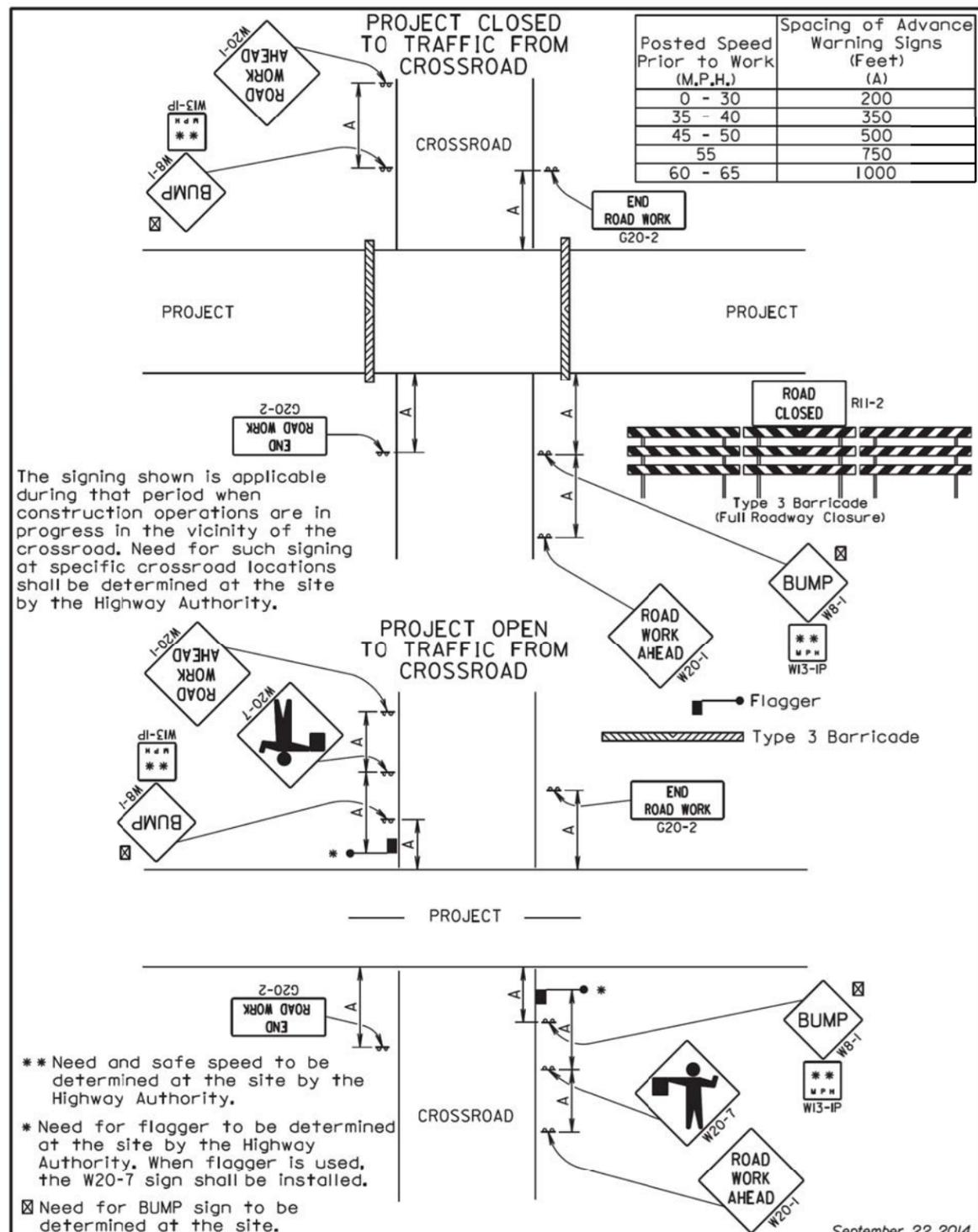


September 22, 2014

Published Date: 4th Qtr. 2014	S D D O T	GUIDES FOR TRAFFIC CONTROL DEVICES TEMPORARY ROAD WORK	PLATE NUMBER 634.30
			Sheet 1 of 1

PLOT SCALE - 1:10 - 0856704

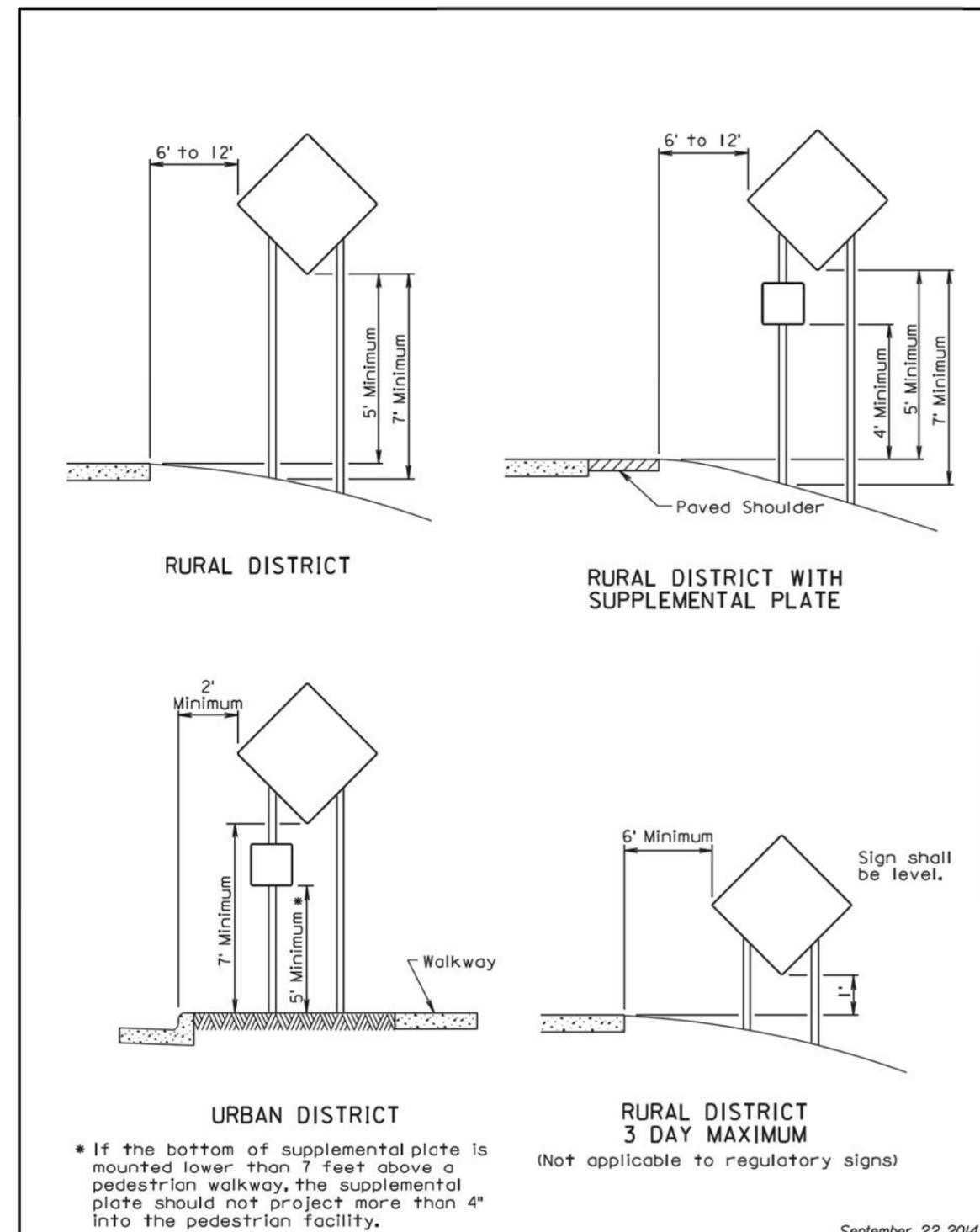
PLOT NAME - 16



- **Need and safe speed to be determined at the site by the Highway Authority.
- *Need for flagger to be determined at the site by the Highway Authority. When flagger is used, the W20-7 sign shall be installed.
- ☒ Need for BUMP sign to be determined at the site.

September 22, 2014

S D D O T	GUIDES FOR TRAFFIC CONTROL DEVICES CROSSROAD SIGNING	PLATE NUMBER 634.32
	Published Date: 4th Qtr. 2014	Sheet 1 of 1



September 22, 2014

S D D O T	CRASHWORTHY SIGN SUPPORTS (Typical Construction Signing)	PLATE NUMBER 634.85
	Published Date: 4th Qtr. 2014	Sheet 1 of 1

PLOTTED FROM - IRSE12114

FILE - ... \TRAFFICCONTROL\PLATES.DGN

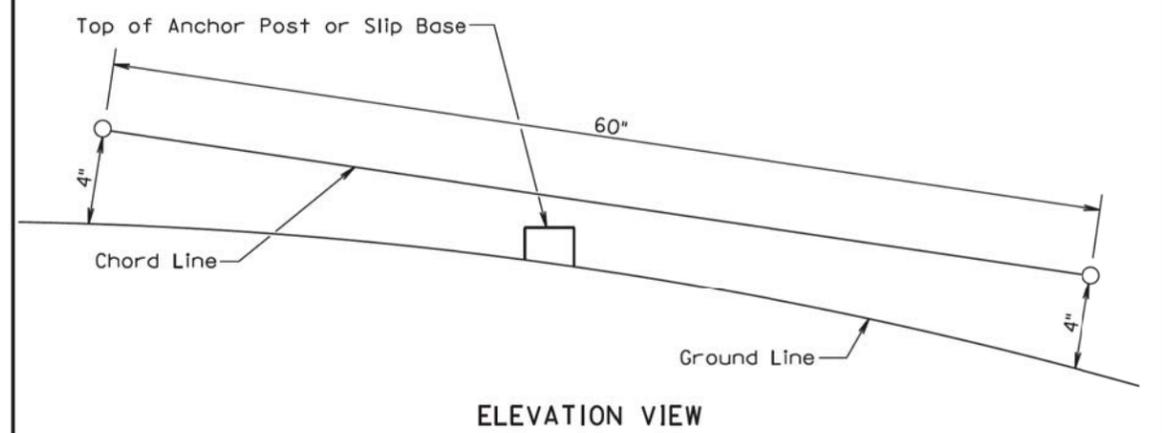
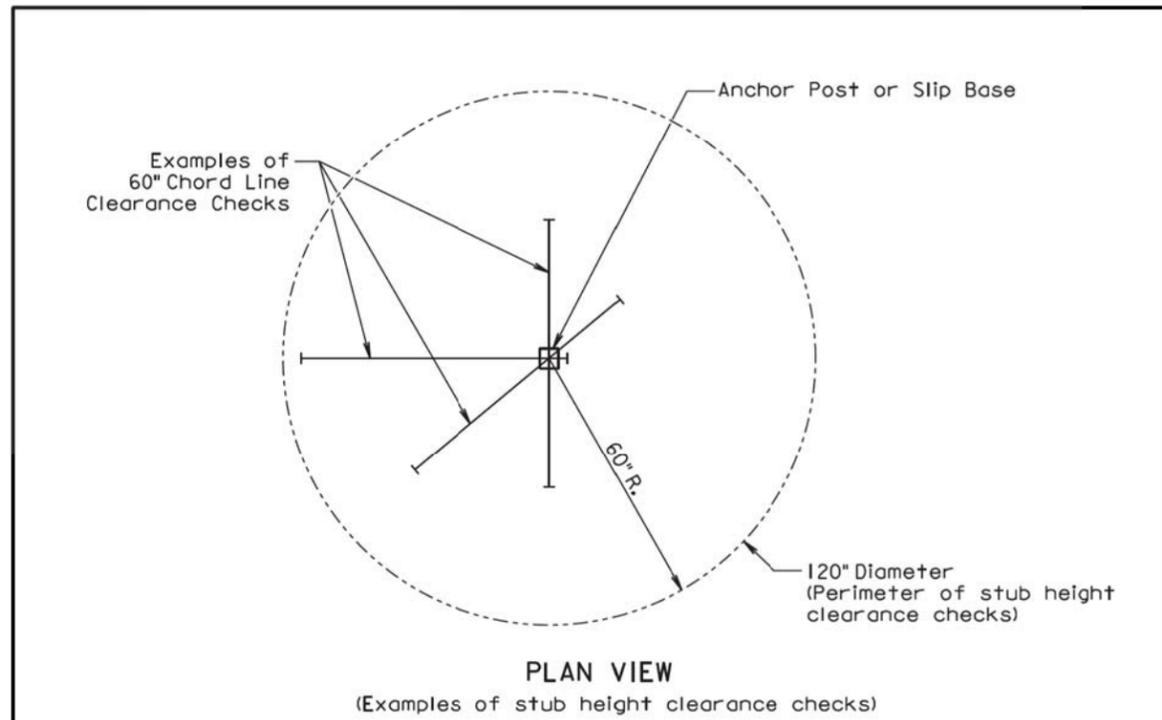
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P-PH 0011(74)74	C17	C17

Plotting Date: 12/02/2014

PLOT SCALE - 1:10.0856704

PLOT NAME - 17

FILE - ... \TRAFFIC CONTROL PLATES.DGN



GENERAL NOTES:
 The top of anchor posts and slip bases SHALL 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 shall 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.

July 1, 2005

Published Date: 4th Qtr. 2014	S D D O T	BREAKAWAY SUPPORT STUB CLEARANCE	PLATE NUMBER 634.99
			Sheet 1 of 1