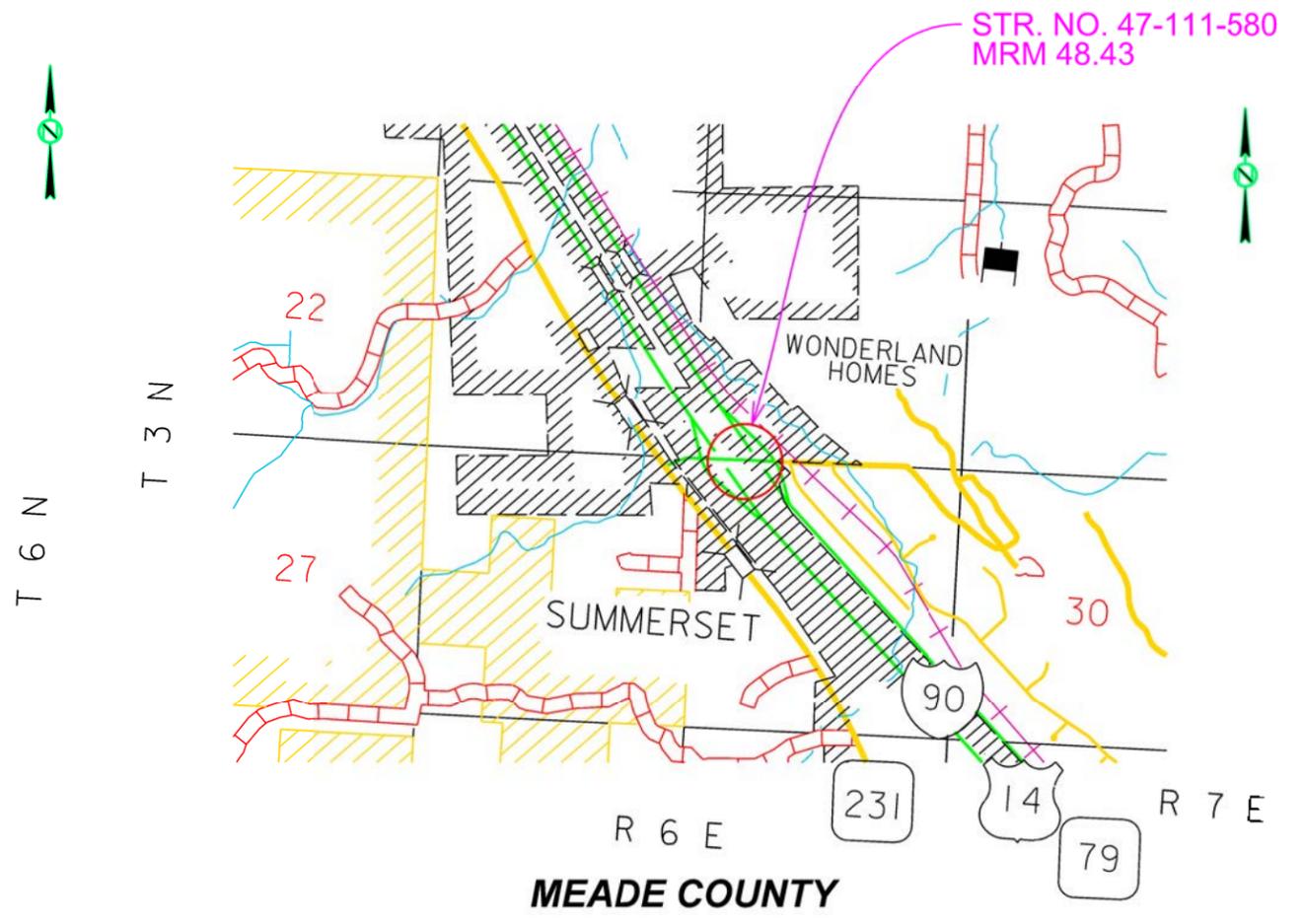
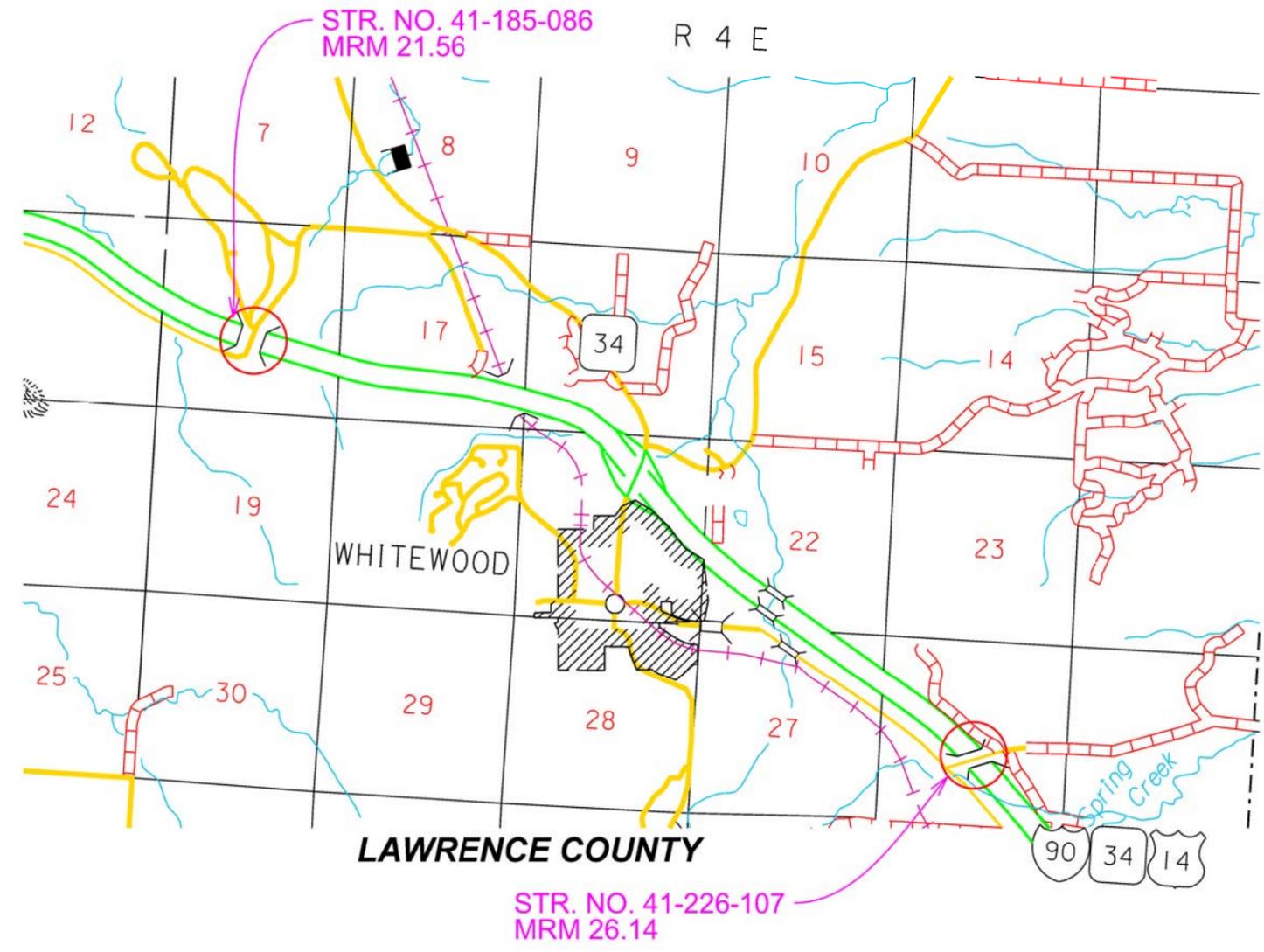
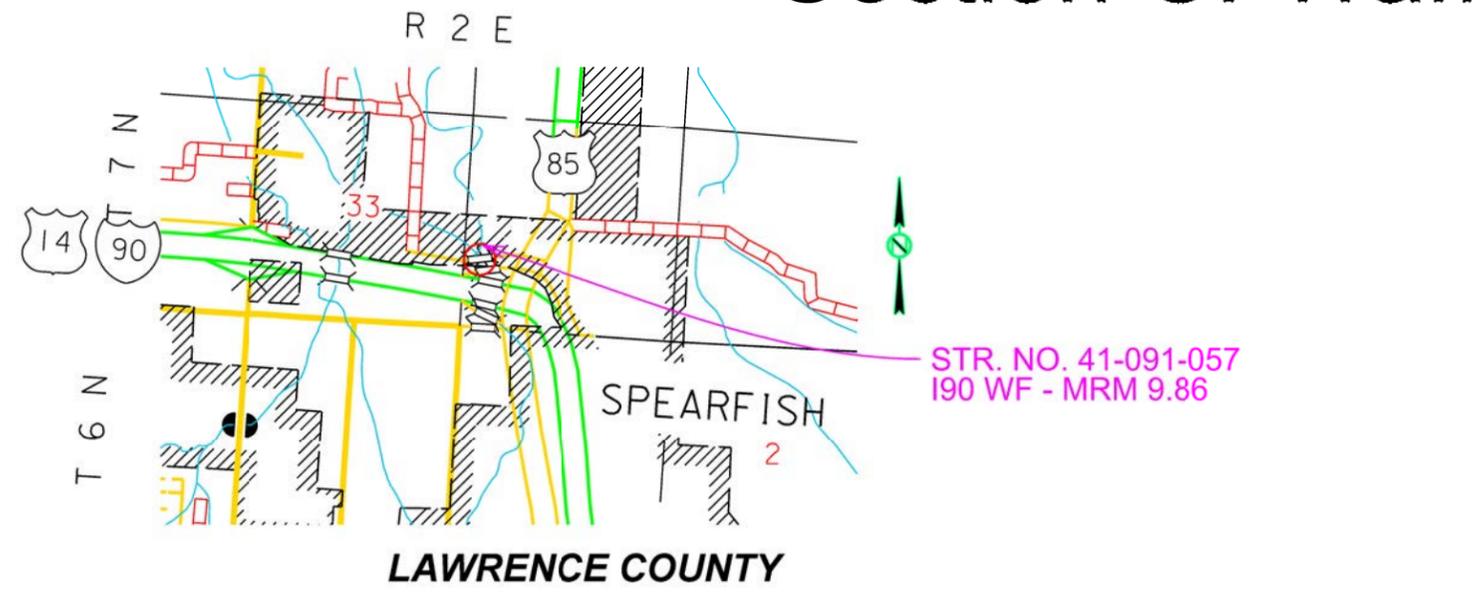


Section C: Traffic Control Plans

INDEX OF SHEETS

- C1 - C2 General Layout W/Index
- C3 - C5 Estimate With General Notes & Tables
- C6 154th Ave. Closure
- C7 - C10 Standard Plates



Plot Scale: 1:200

Plotted From: Irrc169688

File: ...Traffic Control\TitleC.dgn

SECTION C ESTIMATE OF QUANTITIES

Bid Item Number	Item	Quantity	Unit
110E1400	Remove Pavement Marking, 4" or Equivalent	6,000	Ft
634E0010	Flagging	100	Hour
634E0100	Traffic Control	8,509	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Panel	8	Each
634E0610	4" Temporary Pavement Marking Tape Type 2	864	Ft
634E0640	Temporary Pavement Marking	12,000	Ft
634E0896	Portable Temporary Traffic Signal System	1	Each
634E1215	Contractor Furnished Portable Changeable Message Sign	6	Each

TRAFFIC CONTROL – GENERAL NOTES

- Requests to deviate from the sequence of operations shall be submitted in writing to the Engineer for review. Approval of an alternate 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. An alternate sequence shall be submitted for review a minimum of two week prior to potential implementation.
- Unless otherwise stated in these plans, no work will be allowed during hours of darkness. Hours of darkness are defined as ½ hour after sunset until ½ hour before sunrise.
- Storage of vehicles and equipment shall be as near the right-of-way 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 of 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.
- Existing guide, route, informational logo, regulatory, and warning signs shall be temporarily reset and maintained during construction. Removing, relocating, covering, salvaging and resetting of existing traffic control devices, including but not limited to, traffic signal heads, delineation, and signing shall be the responsibility of the Contractor. Non-applicable signing and all traffic control devices shall be covered or removed during periods of inactivity. Periods of inactivity shall be defined as no work taking place for a period of more than 48 hours. The cost of removing or covering non-applicable signs shall be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".
- Construction signing mounted on portable supports shall not be used for a duration of more than 3 days, unless approved by the Engineer. Construction signing that remains in the same location for more than 3 days shall be mounted on fixed location, ground mounted, breakaway supports.
- The quantity of traffic control units paid for will be for the greatest number of installations per sign per structure site in place at any one time regardless of the number of set-ups at the structure site.
- Any delineators and signs damaged or lost shall be replaced by the Contractor at no cost to the State.

- All materials and equipment shall be stored a minimum distance of 30' from the traveled way during nonworking hours.
- The Contractor shall provide documentation that all breakaway sign supports comply with FHWA NCHRP 350 or MASH crash-worthy requirements. The Contractor shall provide installation details at the preconstruction meeting for all breakaway sign support assemblies.
- The Contractor shall be required to have a person available 24 hour/day, 7 days/week to maintain traffic control devices. The name and cellular telephone number of this individual shall be given to the Engineer at the preconstruction meeting.
- The Contractor or designated traffic control subcontractor shall make night inspections at the initial set up of traffic control and every week thereafter to ensure the adequacy, legibility and reflectivity of each sign and device. A written summary of each inspection shall be given to the Engineer within 24 hours after completion of the inspection. The cost for the nighttime inspection work shall be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".
- Vehicles working in traffic or alongside traffic shall be equipped with a flashing amber light visible from all directions. The amber light shall be mounted on the uppermost part of the Contractor's vehicle. Lights must have peak intensity within the range of 40 to 400 candelas and must flash at 75 ± 15 flashes per minute. Vehicle flasher/hazard lights are not acceptable. All haul trucks shall be equipped with a second flashing amber light that is visible from the backside of the haul truck. The costs for the flashing amber lights shall be incidental to the various related contract bid items.
- All construction operations shall be conducted in the general direction of traffic movement.
- If there is a discrepancy between the traffic control plans, standard plates, and the MUTCD – whichever is more stringent shall be used, as determined by the Engineer.
- Temporary Road Markers (Tabs) shall be used for lane closure tapers or lane shift tapers and shall be installed at 5' spacing. Tabs used for tapers and shifts will not be measured for payment. All costs associated to furnish, install, maintain (including replacement as required by the Engineer at no added cost to the Department), and remove all markers will be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".
- Drums are required in all lane closure tapers.
- When using Standard Plate 634.63, REDUCED SPEED AHEAD(65) with FINES DOUBLE signs shall be installed prior to LEFT/RIGHT LANE CLOSED AHEAD signs at a distance of B, and SPEED LIMIT 65 signs shall be installed prior to LEFT/RIGHT LANE CLOSED AHEAD signs at a distance of B/2.

SEQUENCE OF OPERATIONS

Str. No. 41-091-057 – Over Spearfish Creek - Exit 10 North Service Road

- Use Standard Plate No. 634.25 to complete the work at this location. One lane of traffic shall be maintained at all times.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0901(163)9	C3	C10

Str. No. 41-185-086 – Over I-90 – Acorn Ridge Road

- Use Standard Plate No. 634.25 on Acorn Ridge Road to complete the work at this location. One lane of traffic shall be maintained at all times on the bridge. Use Standard Plate No. 634.63 on I-90 to complete the work beneath the bridge. There are enough traffic units and arrow panels for two lane closures on I-90, one in each direction.

Str. No. 41-226-107 – Over I-90 – Eden Road

- Use Standard Plate No. 634.25 on Eden Road to complete the work at this location. One lane of traffic shall be maintained at all times on the bridge. Use Standard Plate No. 634.63 on I-90 to complete the bridge berm repair work.

Str. No. 41-111-580 – Over I-90 – Exit 48

- Use Standard Plate No. 634.26 on Exit 48 crossroad to complete the work at this location. One lane of traffic shall be maintained at all times. Use Standard Plate No. 634.63 on I-90 to complete full depth bridge deck repairs. There are enough traffic units and arrow panels for two lane closures on I-90, one in each direction. I-90 westbound lane closures shall be removed before 3pm each day and can be setup at sunrise. I-90 eastbound lanes closures shall not be setup before 9am and shall be removed by nightfall. Two Contractor Furnished Portable Changeable Message Signs will be required for use on I-90 to warn motorists of heavy traffic at Exit 48.

Str. No. 52-390-278 – Over I-90 – Exit 55

- Use Standard Plate No.'s 634.52 and 634.53 to complete the work at this location (the W1-6 sign shall not be utilized). Two way traffic shall be maintained at all times. Two Contractor Furnished Portable Changeable Message Signs will be required for use on I-90 to warn motorists of heavy traffic at Exit 55.

Str. No. 52-540-275 – Over I-90 – 154th Avenue

- See traffic control sheet for details on the 154th Avenue bridge closure. Two Contractor Furnished Portable Changeable Message Signs will be required to notify motorists of the bridge closure 2 weeks prior to closing. Use Standard Plate No. 634.03 on I-90 to close the eastbound and westbound wide shoulder while removing and replacing Bent#2 and Bent#4 bridge deck joints, and bearing repair at abutments. Use Standard Plate No. 634.63 on I-90 to complete the fatigue retrofit and the bridge berm repair work. There are enough traffic units and arrow panels for two shoulder closures and two lane closures on I-90, one in each direction.

Str. No. 52-670-285 – Over I-90 – Exit 84

- Use Standard Plate No. 634.25 to complete the work at this location. One lane of traffic shall be maintained at all times.

SEQUENCE OF OPERATIONS (continued)

Str. No. 52-830-310 – Over I-90 – Exit 101

- No work may take place on this structure until the girder repair project, SDDOT Project No. 090 W-468, PCN I39V is completed on this structure. The completion date for the project is July 10, 2015.
- Use Standard Plate No. 634.25 to complete the work at this location. One lane of traffic shall be maintained at all times.

REMOVE PAVEMENT MARKING 4", OR EQUIVALENT

All pavement marking paint removals shall be done as directed by the Engineer. Existing pavement marking tape shall be removed by the heat and remove method.

TEMPORARY PAVEMENT MARKING

Temporary Pavement Marking (Tabs) shall be used for all markings as shown in the plans other than the temporary stop bars, or as directed by the Engineer.

All costs to furnish, install, maintain (including replacement as required by the Engineer at no added cost to the Department), and remove the temporary pavement markings shall be included in the contract price per foot per 4" line or equivalent for Temporary Pavement Marking.

TEMPORARY PAVEMENT MARKING TAPE TYPE 2

Temporary pavement marking tape type 2 shall be used for the 24" white stop bars.

Any temporary pavement marking arrows that are needed will be paid for as 250' of 4" Temporary Pavement Marking Tape Type 2.

All costs to furnish, install, maintain (including replacement as required by the Engineer at no added cost to the Department), and remove the temporary pavement marking tape type 2 shall be included in the contract price per foot per 4" line or equivalent for 4" Temporary Pavement Marking Tape Type 2.

TYPE C ADVANCE WARNING ARROW PANEL

The quantity of Type C Advance Warning Arrow Panels paid for will be the most installations in place per structure site at any one time regardless of the number of set-ups at the structure site.

PORTABLE TEMPORARY TRAFFIC SIGNAL SYSTEM

Portable Traffic Signal System will be paid for at the contract unit price per each. Each is defined as a site. One site will be considered to be two portable signal units (master and slave unit) with the necessary controller unit.

CONTRACTOR FURNISHED PORTABLE CHANGEABLE MESSAGE SIGN

The Contractor shall furnish portable changeable message signs to be used for the duration of the project. Message signs shall be installed to inform the traveling public of when construction will begin for each phase (2 week advance notice), advising the general public of the conditions ahead, and as directed by the Engineer. The changeable message signs shall be furnished, programmed, and maintained for the entire project duration. The Engineer will assist in determining the location and messages to be programmed into the message sign. The message boards shall be clearly visible from a minimum of 900 feet and shall be solar powered or wired directly to a power source. Diesel and gas powered message panels will not be allowed. The portable message panels will be paid for at the contract unit price per each for "Contractor Furnished Portable Changeable Message Sign". The quantity of portable message panels paid for will be the most installations in place per structure site at any one time regardless of the number of set-ups at the structure site. Payment will be full compensation for furnishing, maintaining, and relocating as many times as required by the Engineer and the Contractor's operations.

PRESS RELEASE ANNOUNCEMENTS

The SDDOT will prepare a Press Release to be released 5 days prior to any phase change or any other major change that affects traffic flow. The SDDOT will be responsible to keep law enforcement, emergency services, and the traveling public notified of changes in project access. The Contractor shall provide the Engineer with pertinent information 7 days prior to any phase change or any other major changes that affect traffic flow.

CONTRACTOR FURNISHED PROGRESS SCHEDULES

The Contractor shall furnish the Engineer two copies of a bar chart method progress schedule at the preconstruction meeting. The schedule shall consist of a construction schedule and brief written narrative. The schedule shall contain the following information:

- A time scale to graphically show percentage of work scheduled for completion within the contract completion requirements.
- Definition and relation of work activities to contract pay items.
- Work activities (prime contractor and all subcontractor activities) in the order they will be performed including submittals, approvals, deliveries, temporary traffic control, and permanent signing/stripping.
- All major work activities that are controlling factors in the completion of the work.
- The time required for each activity and its relationship in time to other activities.
- The total expected time to complete all work.
- The expected work shifts in days per week and hours per day and the days when work is not expected to be performed.
- Expected adverse weather delays.

The schedule shall be updated, revised and resubmitted on a bi-weekly interval until the project is substantially complete. There will be no direct payment for the contractor furnished schedule. All costs associated with the schedule shall be incidental to the related items. Failure to properly submit the required construction schedules will result in the withholding of progress payments until an approved schedule is received.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0901(163)9	C4	C10

INVENTORY OF TRAFFIC CONTROL DEVICES

Str. No. 41-091-057 – Over Spearfish Creek - Exit 10 North Service Road

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
G20-2	36" x 18"	END ROAD WORK	2	17	34
R1-1	30" x 30"	STOP	2	21	42
W1-3	48" x 48"	REVERSE TURN SIGN (LEFT OR RIGHT)	1	34	34
W3-1	48" x 48"	STOP AHEAD (SYMBOL)	2	34	68
W20-1	48" x 48"	ROAD WORK ##### FT. OR AHEAD	2	34	68
W20-4	48" x 48"	ONE LANE ROAD ##### FT. OR AHEAD	2	34	68
*****		TYPE 3 BARRICADE - 8 FT. DOUBLE SIDED	1	56	56
TOTAL UNITS					370

Str. No. 41-185-086 – Over I-90 – Acorn Ridge Road

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
G20-2	36" x 18"	END ROAD WORK	4	17	68
R1-1	30" x 30"	STOP	2	21	42
R2-1	36" x 48"	SPEED LIMIT ##	10	29	290
R2-6aP	36" x 24"	FINES DOUBLE	8	20	160
W1-3	48" x 48"	REVERSE TURN SIGN (LEFT OR RIGHT)	1	34	34
W3-1	48" x 48"	STOP AHEAD (SYMBOL)	2	34	68
W3-5	48" x 48"	REDUCED SPEED LIMIT AHEAD	8	34	272
W4-2	48" x 48"	LEFT OR RIGHT LANE ENDS (SYMBOL)	4	34	136
W20-1	48" x 48"	ROAD WORK ##### FT. OR AHEAD	6	34	204
W20-4	48" x 48"	ONE LANE ROAD ##### FT. OR AHEAD	2	34	68
W20-5	48" x 48"	LT. OR RT. LANE CLOSED ##### FT. OR AHEAD	4	34	136
W20-7	48" x 48"	FLAGGER (SYMBOL)	2	34	68
*****		TYPE 3 BARRICADE - 8 FT. DOUBLE SIDED	3	56	168
TOTAL UNITS					1714

Str. No. 41-226-107 – Over I-90 – Eden Road

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
G20-2	36" x 18"	END ROAD WORK	4	17	68
R1-1	30" x 30"	STOP	2	21	42
R2-1	36" x 48"	SPEED LIMIT ##	5	29	145
R2-6aP	36" x 24"	FINES DOUBLE	4	20	80
W1-3	48" x 48"	REVERSE TURN SIGN (LEFT OR RIGHT)	1	34	34
W3-1	48" x 48"	STOP AHEAD (SYMBOL)	2	34	68
W3-5	48" x 48"	REDUCED SPEED LIMIT AHEAD	4	34	136
W4-2	48" x 48"	LEFT OR RIGHT LANE ENDS (SYMBOL)	2	34	68
W20-1	48" x 48"	ROAD WORK ##### FT. OR AHEAD	5	34	170
W20-4	48" x 48"	ONE LANE ROAD ##### FT. OR AHEAD	2	34	68
W20-5	48" x 48"	LT. OR RT. LANE CLOSED ##### FT. OR AHEAD	2	34	68
W20-7	48" x 48"	FLAGGER (SYMBOL)	1	34	34
*****		TYPE 3 BARRICADE - 8 FT. DOUBLE SIDED	2	56	112
TOTAL UNITS					1093

Str. No. 41-111-580 – Over I-90 – Exit 48

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
G20-2	36" x 18"	END ROAD WORK	6	17	102
R2-1	36" x 48"	SPEED LIMIT ##	10	29	290
R2-6aP	36" x 24"	FINES DOUBLE	8	20	160
R10-6	36" x 24"	STOP HERE ON RED	2	20	40
W1-3	48" x 48"	REVERSE TURN SIGN (LEFT OR RIGHT)	1	34	34
W3-3	48" x 48"	SIGNAL AHEAD (SYMBOL)	2	34	68
W3-5	48" x 48"	REDUCED SPEED LIMIT AHEAD	8	34	272
W4-2	48" x 48"	LEFT OR RIGHT LANE ENDS (SYMBOL)	4	34	136
W20-1	48" x 48"	ROAD WORK ##### FT. OR AHEAD	8	34	272
W20-4	48" x 48"	ONE LANE ROAD ##### FT. OR AHEAD	2	34	68
W20-5	48" x 48"	LT. OR RT. LANE CLOSED ##### FT. OR AHEAD	4	34	136
W20-7	48" x 48"	FLAGGER (SYMBOL)	2	34	68
*****		TYPE 3 BARRICADE - 8 FT. DOUBLE SIDED	2	56	112
TOTAL UNITS					1758

INVENTORY OF TRAFFIC CONTROL DEVICES (continued)

Str. No. 52-390-278 – Over I-90 – Exit 55

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
G20-2	36" x 18"	END ROAD WORK	4	17	68
W4-2	48" x 48"	LEFT OR RIGHT LANE ENDS (SYMBOL)	1	34	34
W9-3	48" x 48"	CENTER LANE CLOSED AHEAD	2	34	68
W20-1	48" x 48"	ROAD WORK #### FT. OR AHEAD	4	34	136
W20-5	48" x 48"	LT. OR RT. OR CENTER LANE CLOSED #### FT. OR AHEAD	3	34	102
*****		TYPE 3 BARRICADE - 8 FT. DOUBLE SIDED	2	56	112
TOTAL UNITS					520

Str. No. 52-540-275 – Over I-90 – 154th Avenue

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
G20-2	36" x 18"	END ROAD WORK	2	17	34
R2-1	36" x 48"	SPEED LIMIT ##	10	29	290
R2-6aP	36" x 24"	FINES DOUBLE	8	20	160
R11-2	48" x 30"	ROAD CLOSED	2	27	54
R11-3	60" x 30"	ROAD CLOSED ## MILES AHEAD LOCAL TRAFFIC ONLY	2	30	60
W3-5	48" x 48"	REDUCED SPEED LIMIT AHEAD	8	34	272
W4-2	48" x 48"	LEFT OR RIGHT LANE ENDS (SYMBOL)	4	34	136
W20-1	48" x 48"	ROAD WORK #### FT. OR AHEAD	4	34	136
W20-3	48" x 48"	ROAD CLOSED #### FT. OR AHEAD	4	34	136
W20-5	48" x 48"	LT. OR RT. LANE CLOSED #### FT. OR AHEAD	4	34	136
W20-7	48" x 48"	FLAGGER (SYMBOL)	2	34	68
SPECIAL	48" x 48"	154th AVE NORTH CLOSED	2	34	68
*****		TYPE 3 BARRICADE - 8 FT. DOUBLE SIDED	10	56	560
TOTAL UNITS					2110

Str. No. 52-670-285 – Over I-90 – Exit 84

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
G20-2	36" x 18"	END ROAD WORK	4	17	68
R1-1	30" x 30"	STOP	2	21	42
W1-3	48" x 48"	REVERSE TURN SIGN (LEFT OR RIGHT)	1	34	34
W3-1	48" x 48"	STOP AHEAD (SYMBOL)	2	34	68
W20-1	48" x 48"	ROAD WORK #### FT. OR AHEAD	4	34	136
W20-4	48" x 48"	ONE LANE ROAD #### FT. OR AHEAD	2	34	68
*****		TYPE 3 BARRICADE - 8 FT. DOUBLE SIDED	1	56	56
TOTAL UNITS					472

Str. No. 52-830-310 – Over I-90 – Exit 101

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
G20-2	36" x 18"	END ROAD WORK	4	17	68
R1-1	30" x 30"	STOP	2	21	42
W1-3	48" x 48"	REVERSE TURN SIGN (LEFT OR RIGHT)	1	34	34
W3-1	48" x 48"	STOP AHEAD (SYMBOL)	2	34	68
W20-1	48" x 48"	ROAD WORK #### FT. OR AHEAD	4	34	136
W20-4	48" x 48"	ONE LANE ROAD #### FT. OR AHEAD	2	34	68
*****		TYPE 3 BARRICADE - 8 FT. DOUBLE SIDED	1	56	56
TOTAL UNITS					472

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0901(163)9	C6	C10

Plotting Date: 06/26/2014

TRAFFIC CONTROL

154th AVENUE BRIDGE CLOSURE



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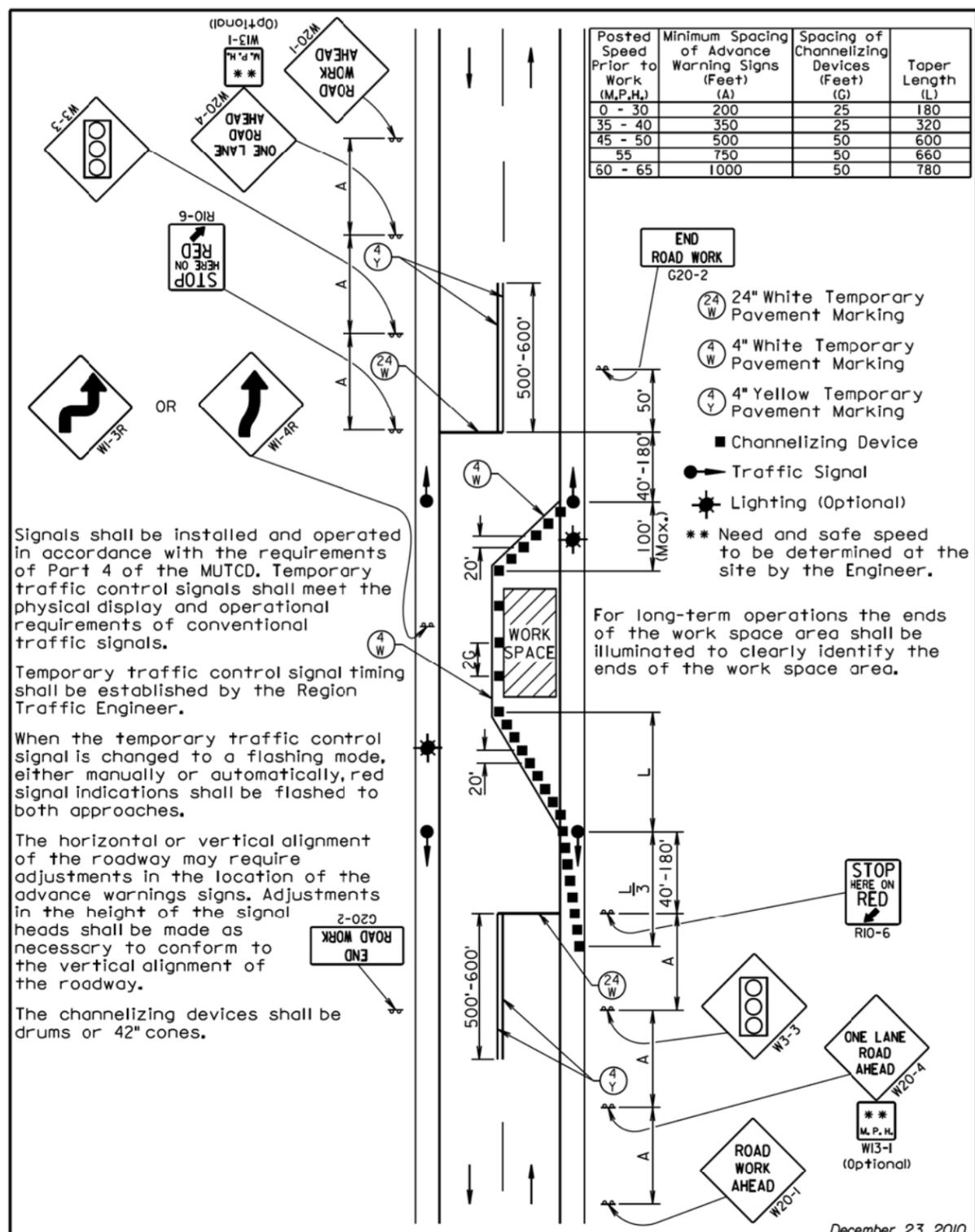
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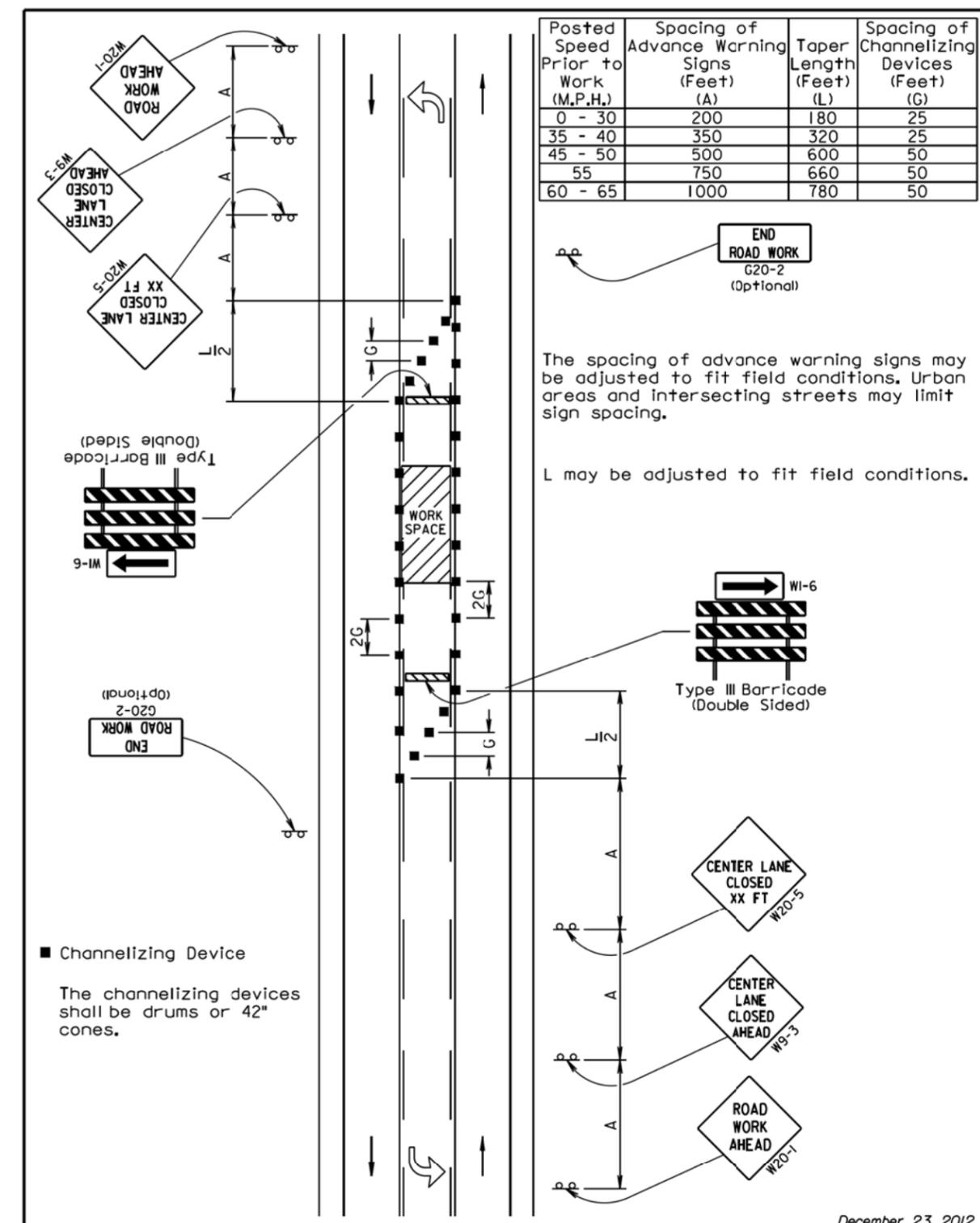
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December 23, 2010

S D D O T	GUIDES FOR TRAFFIC CONTROL DEVICES LANE CLOSURE USING TRAFFIC SIGNALS	PLATE NUMBER 634.26
	Published Date: 2nd Qtr. 2014	Sheet 1 of 1



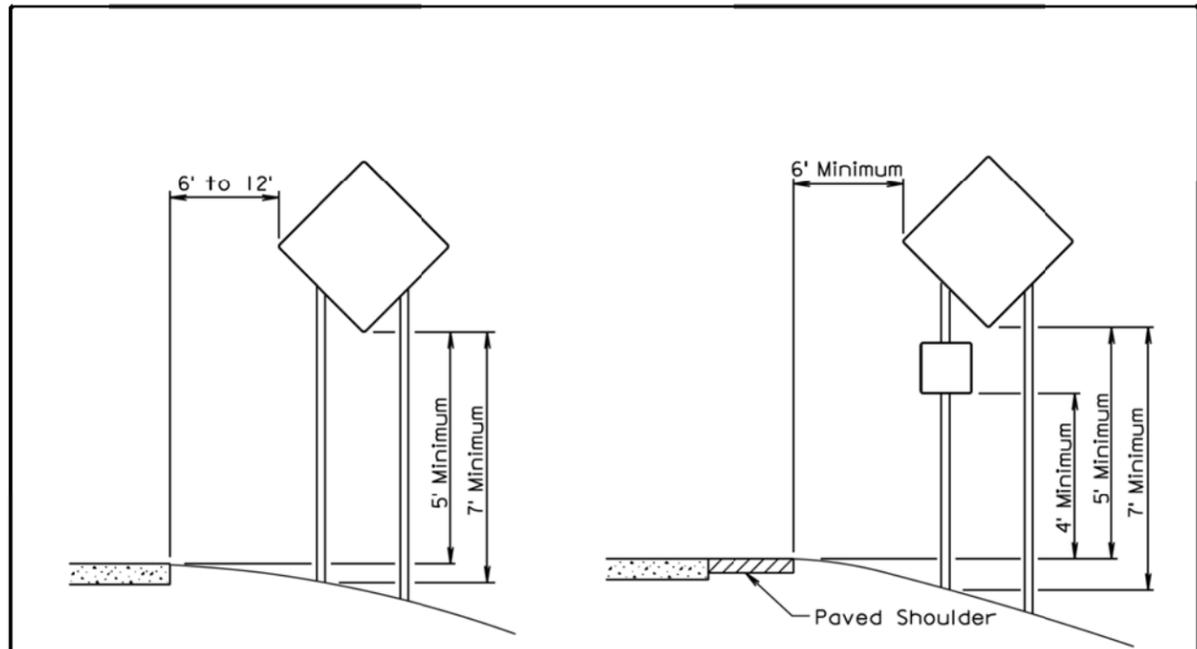
December 23, 2012

S D D O T	GUIDES FOR TRAFFIC CONTROL DEVICES 3-LANE, CENTER LANE CLOSED	PLATE NUMBER 634.52
	Published Date: 2nd Qtr. 2014	Sheet 1 of 1

- Plotted From - Ircr:16988

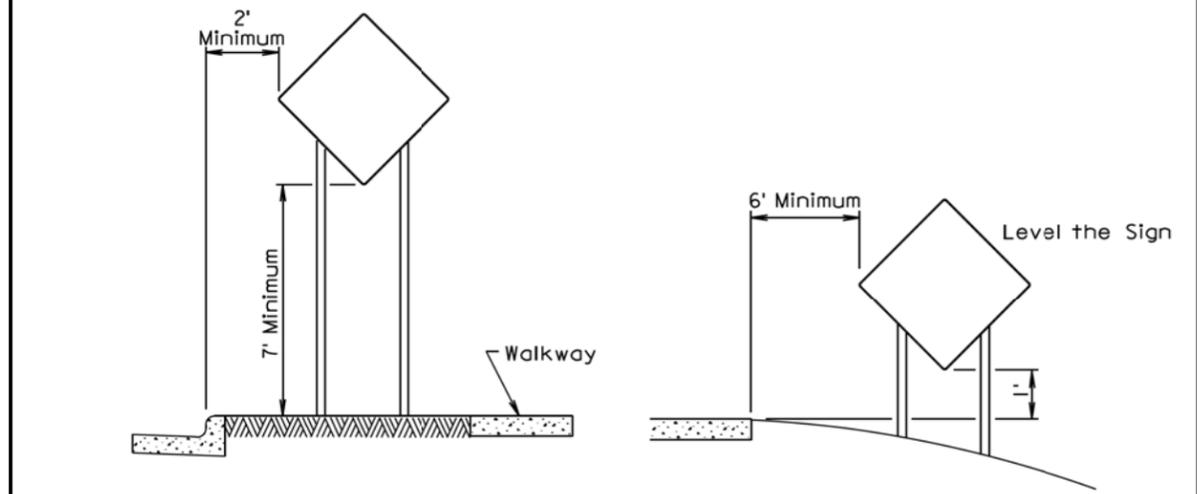
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Plot Scale - 1:200



RURAL DISTRICT

RURAL DISTRICT WITH SUPPLEMENTAL PLATE

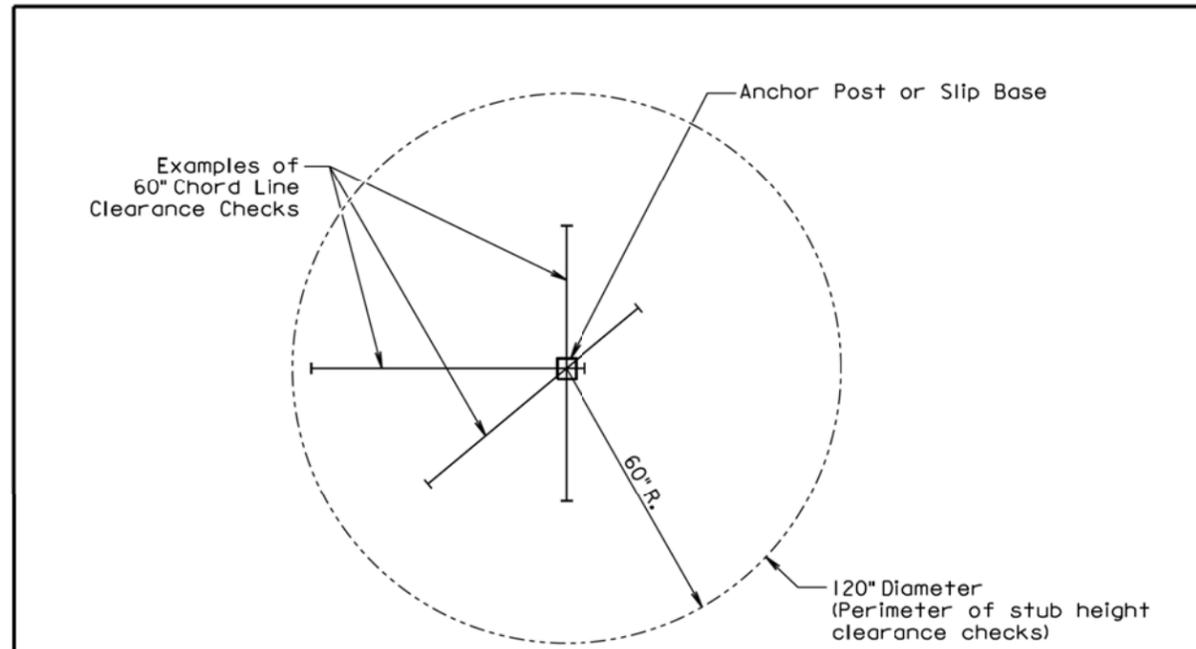


URBAN DISTRICT

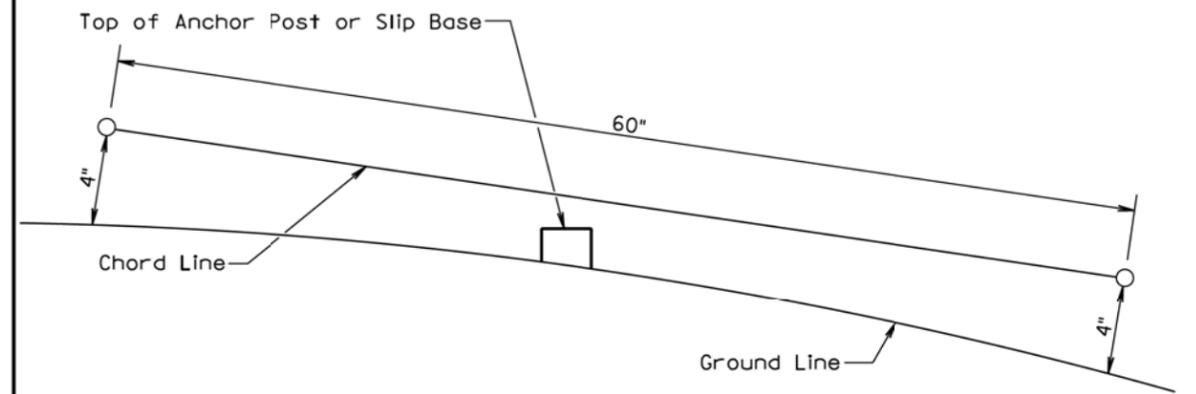
RURAL DISTRICT 3 DAY MAXIMUM

February 14, 2011

Published Date: 2nd Qtr. 2014	S D D O T	CRASHWORTHY SIGN SUPPORTS (Typical Construction Signing)	PLATE NUMBER 634.85
			Sheet 1 of 1



PLAN VIEW
(Examples of stub height clearance checks)



ELEVATION VIEW

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: 2nd Qtr. 2014	S D D O T	BREAKAWAY SUPPORT STUB CLEARANCE	PLATE NUMBER 634.99
			Sheet 1 of 1

- Plotted From - Irrc:16988

File - ...Standard Plates.dgn