

STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION  
PLANS FOR PROPOSED

PROJECT PS 0085(118)55  
US HIGHWAY 85  
BUTTE COUNTY

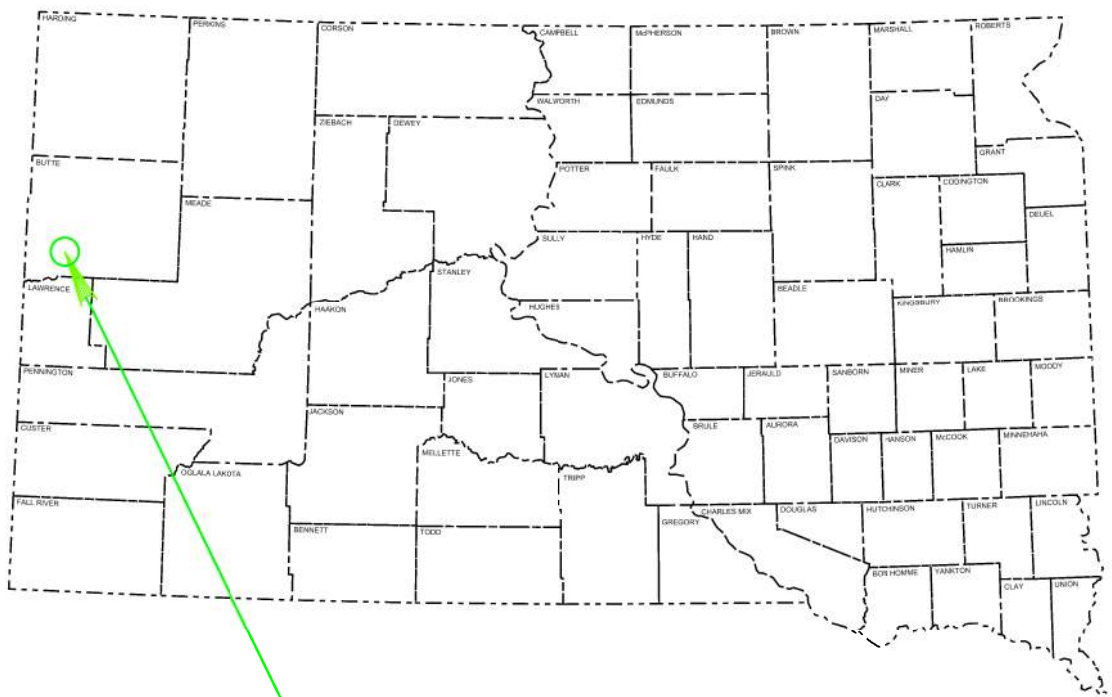
TRAFFIC CONTROL FOR RR CROSSING REPAIR  
PCN 08V3

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	PS 0085(118)55	1	14

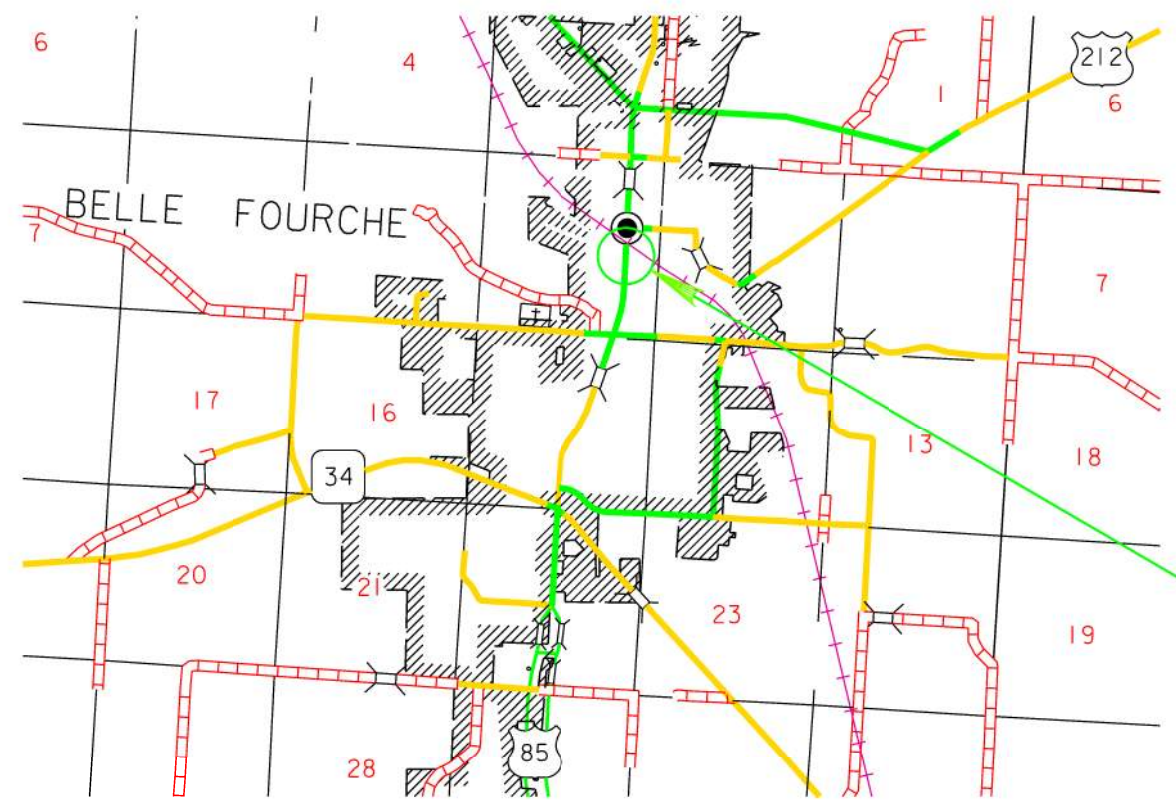
Plotting Date: 11/08/2022

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2	Estimate with General Notes & Tables
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PROJECT



RR CROSSING REPAIR  
MRM 55.87

DESIGN DESIGNATION

AADT (2021)	10818
AADT (2041)	15523
DHV	2043
D	50%
DHV T%	4.2%
AADT T%	9.3%
V	25 mph

Gross Length	1584 Feet	0.3 Miles
Length of Exceptions	0 Feet	0 Miles
Net Length	1584 Feet	0.3 Miles

ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
110E7150	Remove Sign for Reset	6	Each
110E7200	Remove Luminaire Pole for Reset	1	Each
632E3500	Reset Sign	6	Each
634E0010	Flagging	250.0	Hour
634E0110	Traffic Control Signs	331.5	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0275	Type 3 Barricade	22	Each
634E0420	Type C Advance Warning Arrow Board	3	Each
634E1002	Detour and Restriction Signing	1,325.8	SqFt
634E1215	Contractor Furnished Portable Changeable Message Sign	9	Each
635E7505	Reset Luminaire Pole	1	Each

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R1-1	STOP	1	30"	5.2	5.2
W1-4	REVERSE CURVE (L or R)	1	48" x 48"	16.0	16.0
W4-2	LEFT or RIGHT LANE ENDS (symbol)	3	48" x 48"	16.0	48.0
W13-1P	ADVISORY SPEED (plaque) 15 MPH	1	30" x 30"	6.3	6.3
W20-1	ROAD WORK AHEAD	9	48" x 48"	16.0	144.0
W20-5	LEFT or RIGHT LANE CLOSED AHEAD	3	48" x 48"	16.0	48.0
W20-7	FLAGGER (symbol)	4	48" x 48"	16.0	64.0
CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT					331.5

SEQUENCE OF OPERATIONS

The intent of these plans is to provide temporary traffic control for the RR crossing repair work on US 85 in Belle Fourche. The RR crossing repair work will be performed by the RR. The RR will provide 3 weeks notice prior to starting work.

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. Box skids will be allowed for the detour signing.

Portable sign supports will not be located on sidewalks, bicycle facilities, or other areas designated for pedestrian or bicycle traffic.

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.

GENERAL TRAFFIC CONTROL (CONTINUED)

All signing related to the detour routes will be covered or laid down until the detour route is opened to traffic. 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.

TRAFFIC CONTROL, MISCELLANEOUS

In addition to the lane closures, barrels or 42-inch cones will be required to delineate the no parking areas along the detour routes.

Stop signs and Cross Traffic signs will require flashing warning lights as determined by the engineer.

All costs for the deployment of these additional barrels, flags and flashing warning lights on signs will be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".

ITEMIZED LIST OF FLASHING WARNING LIGHTS

LOCATION	SIGN DESCRIPTION	Flashing Warning Lights
SE CORNER OF INDIAN ST & US 85	Stop Sign	1
SE CORNER OF INDIAN ST & 6TH AVE	Stop Sign/Cross Traffic Sign	1
NE CORNER OF ROUNDUP ST & 6th Ave	Stop Sign/Cross Traffic Sign	1
NE Corner of Railroad St & 6th Ave	Stop Sign/Cross Traffic Sign	1
SW Corner of State St & 6th Ave	Stop Sign/Cross Traffic Sign	1
NE Corner of State St & 6th Ave	Stop Sign/Cross Traffic Sign	1
NE Corner of Grant St & 6th Ave	Stop Sign/Cross Traffic Sign	1
SE Corner of Roundup St & US 85	Stop Sign	1
SW Corner of Roundup St & US 85	Stop Sign/Cross Traffic Sign	1
NE Corner of State St & US 85	Stop Sign/Cross Traffic Sign	1
SW Corner of State St & US 85	Stop Sign/Cross Traffic Sign	1
SE Corner of Grant St & US 85	Stop Sign/Cross Traffic Sign	1
SW Corner of Grant St & US 85	Stop Sign/Cross Traffic Sign	1
Total		13

OVERWIDTH RESTRICTION AND DETOUR SIGNING

The Contractor will furnish and install the overwidth restriction and detour signs as shown in these plans. Prior to installing the signs, the Contractor will mark the sign locations and review them with the Engineer. Overwidth restriction and detour signs will be installed on fixed location, ground mounted, breakaway supports. Box skids will be allowed for the detour signing. It will be the responsibility of the Contractor to maintain and reinstall these signs during the project as required by the construction progress. Upon completion of the project, the Contractor will remove the overwidth restriction and detour signs.

All costs for furnishing the signs, posts, and mounting hardware, and for installing, maintaining, covering, and removing the overwidth restriction and detour signs will be incidental to the contract unit price per square foot for "Detour and Restriction Signing".

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	PS 0085(118)55	2	14

Revised 11/29/2022

ITEMIZED LIST FOR DETOUR AND RESTRICTION SIGNING

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R1-1	STOP	4	30"	5.2	20.8
R1-2	YIELD	1	36"	3.9	3.9
R3-1	RIGHT TURN PROHIBITION (symbol)	6	24" x 24"	4.0	24.0
R3-2	LEFT TURN PROHIBITION (symbol)	10	24" x 24"	4.0	40.0
R7-1	No Parking (with arrow)	10	12" x 18"	1.5	15.0
R4-7	KEEP RIGHT (symbol)	1	24" x 30"	5.0	5.0
R5-1	DO NOT ENTER	5	30" x 30"	6.3	31.5
R8-3	NO PARKING (symbol)	20	24" x 24"	4.0	80.0
R6-1	ONE WAY	20	36" x 12"	3.0	60.0
R11-2	ROAD CLOSED	3	48" x 30"	10.0	30.0
R11-3a	ROAD CLOSED 0.2 MILES AHEAD LOCAL TRAFFIC ONLY	1	60" x 30"	12.5	12.5
R11-4	ROAD CLOSED TO THRU TRAFFIC	1	60" x 30"	12.5	12.5
W20-2	DETOUR AHEAD	2	48" x 48"	16.0	32.0
W20-3	ROAD CLOSED AHEAD	2	48" x 48"	16.0	32.0
W4-4P	CROSS TRAFFIC DOES NOT STOP	7	24" x 12"	2.0	14.0
W4-4aP	CROSS TRAFFIC FROM LEFT DOES NOT STOP	1	24" x 12"	2.0	2.0
W4-4bP	ONCOMING TRAFFIC DOES NOT STOP	2	24" x 12"	2.0	4.0
W4-4aP	CROSS TRAFFIC FROM RIGHT DOES NOT STOP	1	42" x 36"	10.5	10.5
M1-4	US ROUTE MARKER (2 digits)	18	24" x 24"	4.0	72.0
M4-8	DETOUR	18	24" x 12"	2.0	36.0
M4-10	DETOUR ARROW (L or R)	6	48" x 18"	6.0	36.0
M5-1	ADVANCE TURN ARROW 90° (L or R)	4	21" x 15"	2.2	8.8
M6-1	DIRECTION ARROW - Horizontal Single Head (L or R)	8	21" x 15"	2.2	17.6
M6-3	DIRECTION ARROW - Vertical Single Head	6	21" x 15"	2.2	13.2
SPECIAL	NO VEHICLES OVER 12 FT WIDE	2	30" x 78"	16.3	32.6
SPECIAL	WIDTH RESTRICTION 12 FT WIDE (AT BELLE FOURCHE)	13	66" x 114"	52.3	679.9
CONVENTIONAL ROAD DETOUR AND RESTRICTION SIGNING SQFT					1325.8

FLAGGING

Additional flagger warning signs and flagger hours have been included in the Estimate of Quantities for use at the intersection of US 85/212 and US 85/34. These flaggers will be used as directed by the Engineer to intercept oversize vehicles before they enter the detour route. These flaggers will be used primarily during daytime hours; however, nighttime flagging may also be needed. All costs associated with this will be incidental to the contract unit price per hour for "Flagging".

REMOVE AND RESET LUMINAIRE POLE

Remove and reset the luminaire pole at the SE corner of Indian St and US 85. The luminaire pole may be stored in the boulevard. The Contractor will be responsible to protect the existing in place anchor rods. Luminaire poles and luminaires damaged during removal or resetting will be repaired or replaced by the Contractor at no cost to the State.

All costs involved with removing and resetting the existing luminaire poles including associated hardware will be incidental to the contract unit price per each for "Remove Luminaire Pole for Reset" and "Reset Luminaire Pole".

CONTACTOR FURNISHED PORTABLE CHANGEABLE MESSAGE SIGN

One week prior to starting work affecting the traveling public, portable changeable message signs (PCMS) will be installed at locations detailed in the plans to notify drivers of the upcoming construction. The Contractor will program the portable changeable message signs with the following message:

Revised 11/29/2022

HWY 85            BEGINS  
DETOUR        (Date to be determined)  
IN BELLE

When work begins that will affect traffic patterns, the Contractor will re-program the PCMS with the messages as detailed in the plans.

MAX            THRU  
WIDTH 12      BELLE  
LNGTH 80      FOURCHE

REMOVE SIGN FOR RESET AND RESET SIGN

Signs that are scheduled for remove and reset are listed in the table below. The existing posts and bases are not to be removed. Signs will be handled with care so that the existing signs, posts, and bases are not damaged. The Contractor will replace and pay for any signs damaged in their care.

All costs for removing of signs will be incidental to the contract unit price per each for "Remove Sign for Reset". All costs for resetting the existing signs will be incidental to the contract unit price per each for "Reset Sign". All quantities for Remove Sign for Reset and Reset Sign will be per sign at the contract unit price per each.

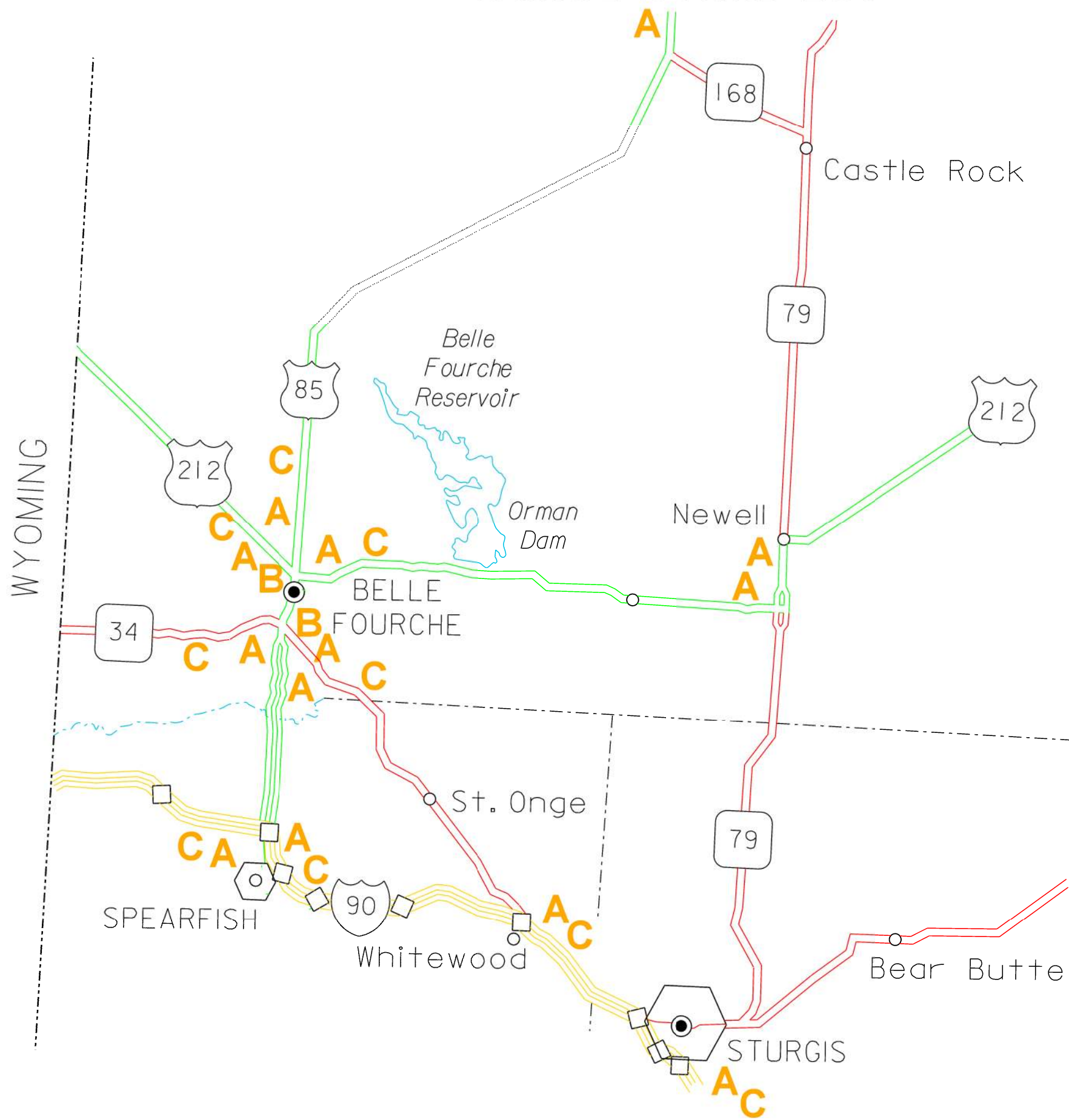
ITEMIZED LIST FOR REMOVE AND RESET SIGN

LOCATION	SIGN DESCRIPTION	WORK TO BE DONE
SE CORNER OF INDIAN ST & US 85	25 MPH	REMOVE & RESET
SW CORNER OF INDIAN ST & 6TH AVE	STOP	REMOVE & RESET
NE CORNER OF ROUNDUP ST & US 85	STOP	REMOVE & RESET
SE CORNER OF GRANT & US 85	STOP	REMOVE & RESET
SW CORNER OF RAILROAD ST & 6TH AVE	STOP	REMOVE & RESET
SW CORNER OF RAILROAD ST & 6TH AVE	YIELD	REMOVE & RESET



# OVERWIDTH SIGNING & MESSAGE BOARD LOCATIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	PS 0085(118)55	4	14
Plotting Date: 11/08/2022			



**A**

**WIDTH RESTRICTION**  
**12 FT MAX**  
**XX AT TOWN NAME**  
**USE ALT ROUTE**  
(66" x 114")

**B**

**NO VEHICLES  
OVER 12 FT WIDE**  
(30" x 78")

**C**

**Message  
Board**

Plot Scale - 1:200

Plotted From - TRBE-INT-18

File - ...IOW-MB Layout.dgn

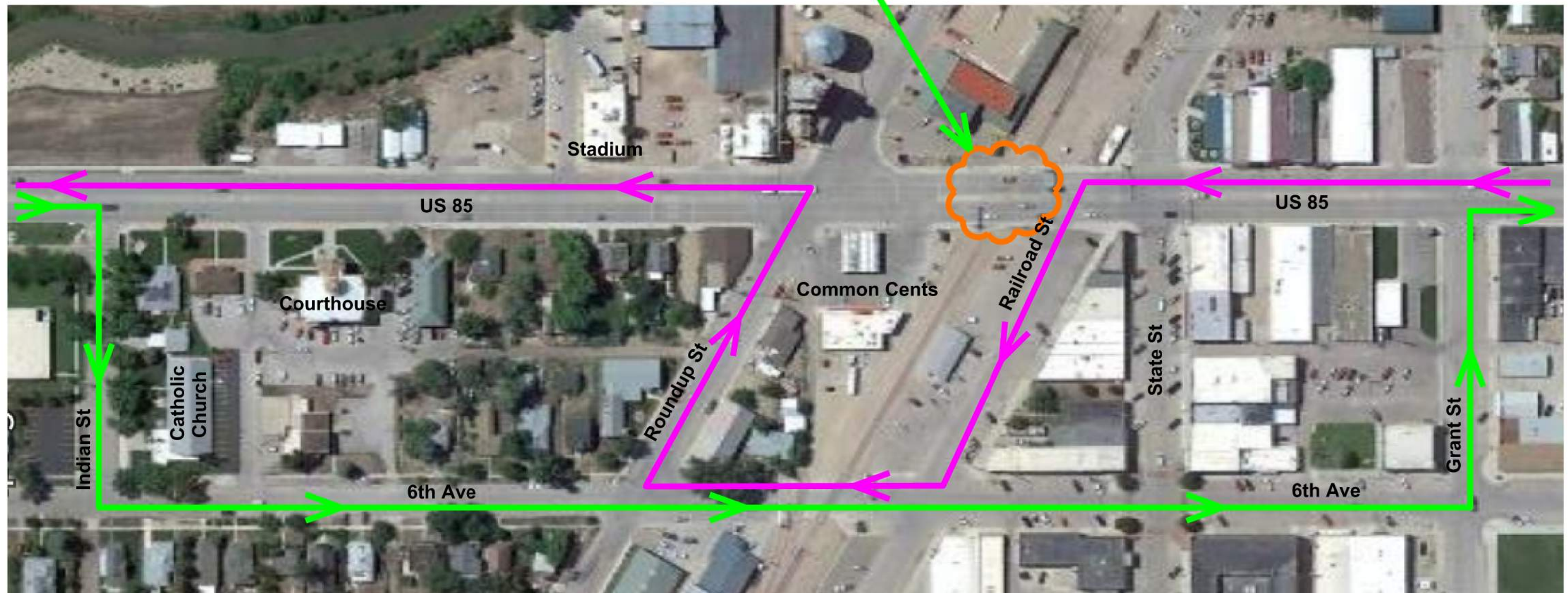


# DETOUR ROUTES

Southbound  
Northbound



RR Repair Site









US 85, INDIAN ST & 6TH AVE



STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	PS 0085(118)55	7	14

Plotting Date: 11/08/2022





STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	PS 0085(118)55	8	14

Plotting Date: 11/08/2022

INDIAN ST & 6TH AVE







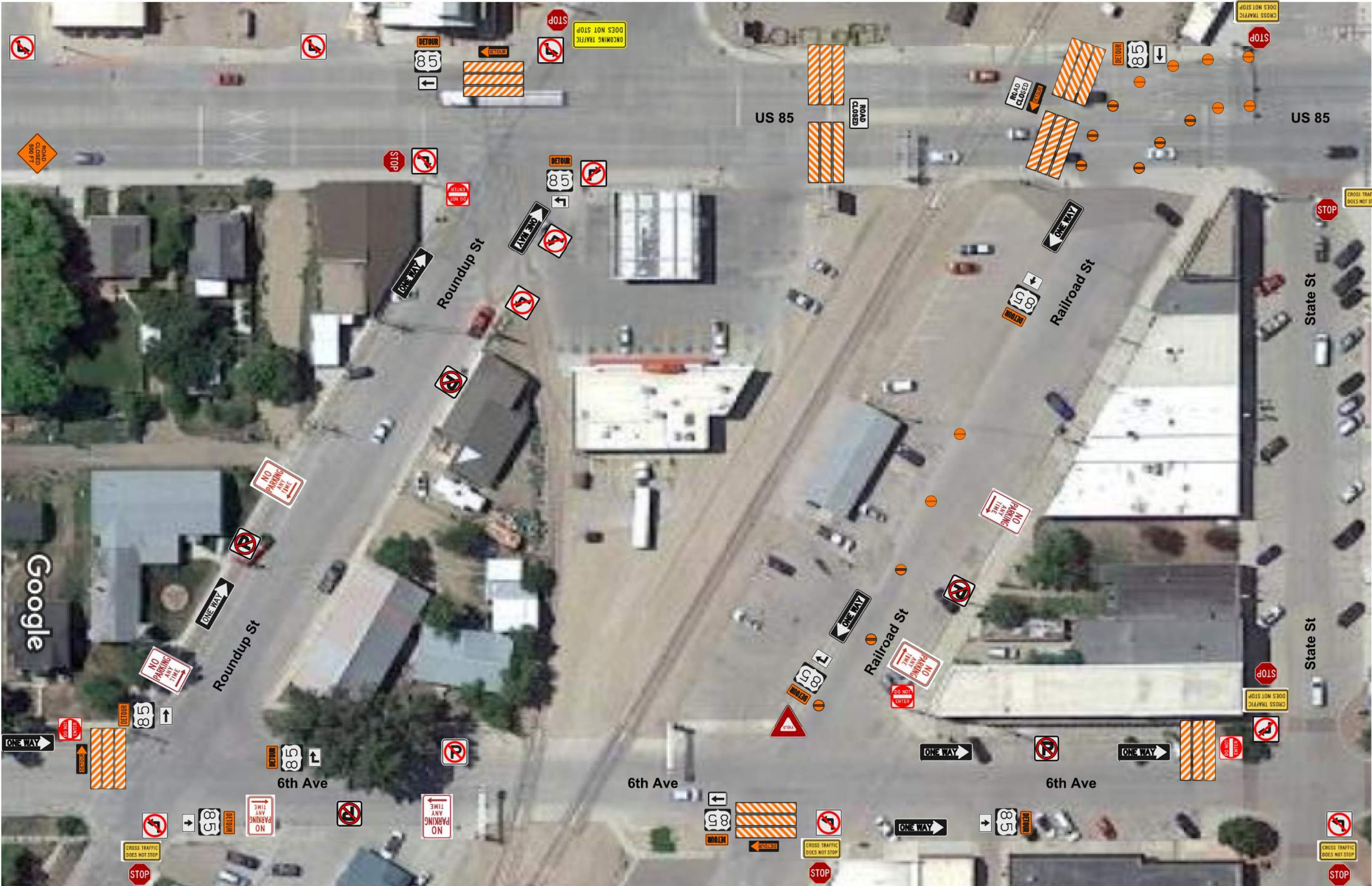


ROUNDUP ST, 6TH AVE & RAILROAD ST



STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	PS 0085(118)55	10	14

Plotting Date: 11/08/2022





# 6TH AVE & GRANT ST

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	PS 0085(118)55	11	14

Plotting Date: 11/08/2022





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	500	25
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) will 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 will 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.

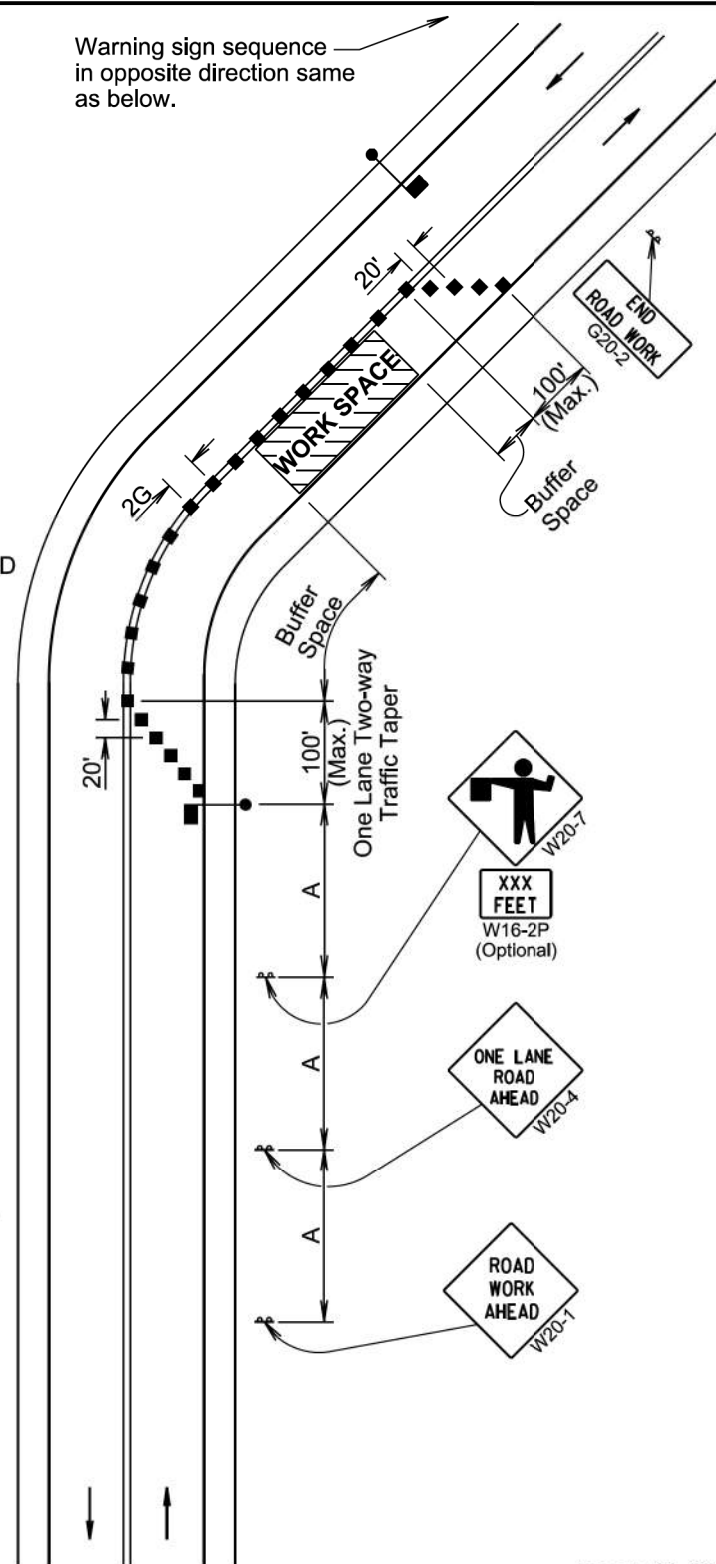
END ROAD WORK G20-2

Channelizing devices and flaggers will 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.

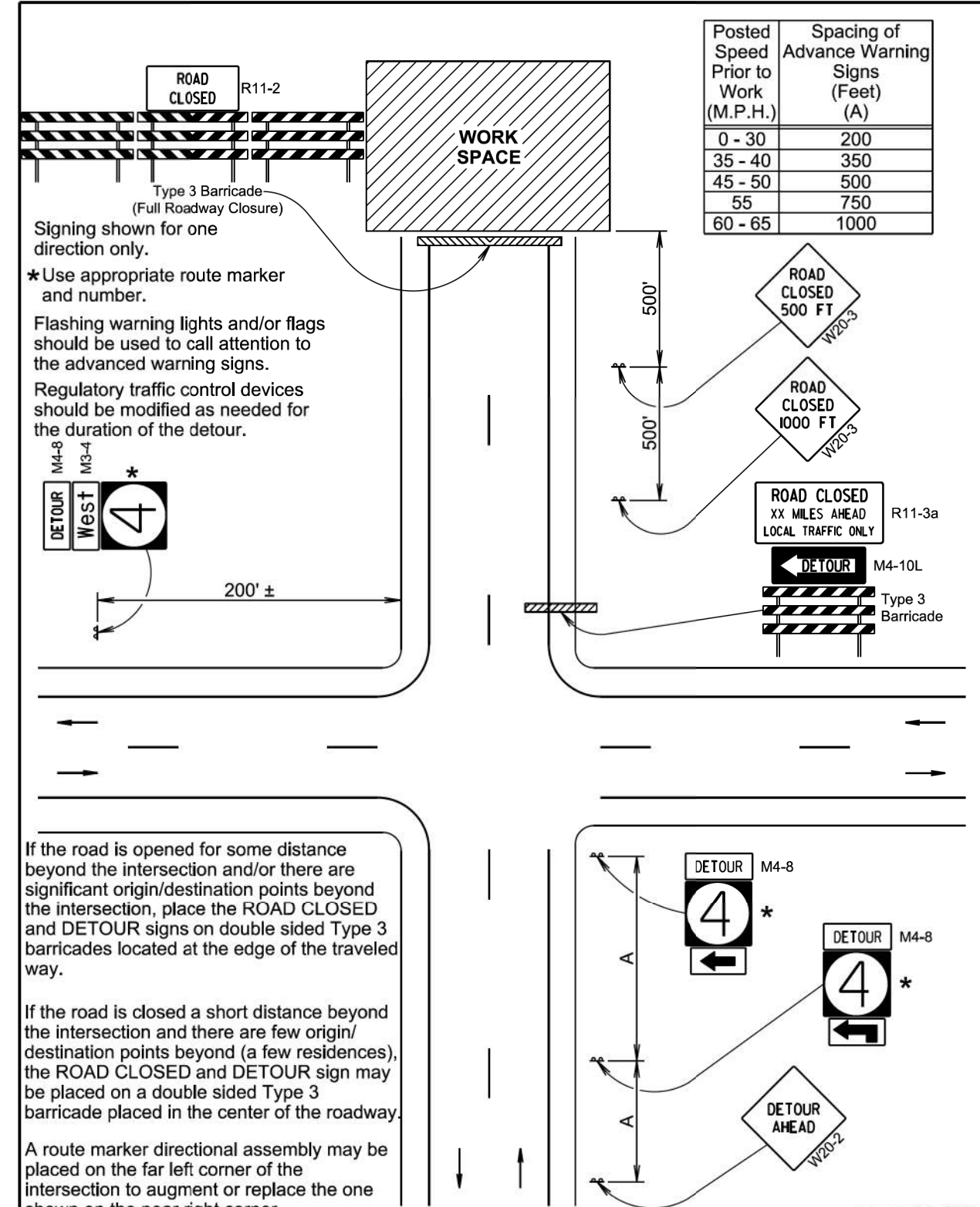
The length of A may be adjusted to fit field conditions.

Warning sign sequence in opposite direction same as below.



January 22, 2021

Published Date: 4th Qtr. 2022	S D D O T	LANE CLOSURE WITH FLAGGER PROVIDED	PLATE NUMBER 634.23
			Sheet 1 of 1



January 22, 2021

Published Date: 4th Qtr. 2022	S D D O T	ROAD CLOSED WITH OFF-SITE DETOUR	PLATE NUMBER 634.29
			Sheet 1 of 1



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