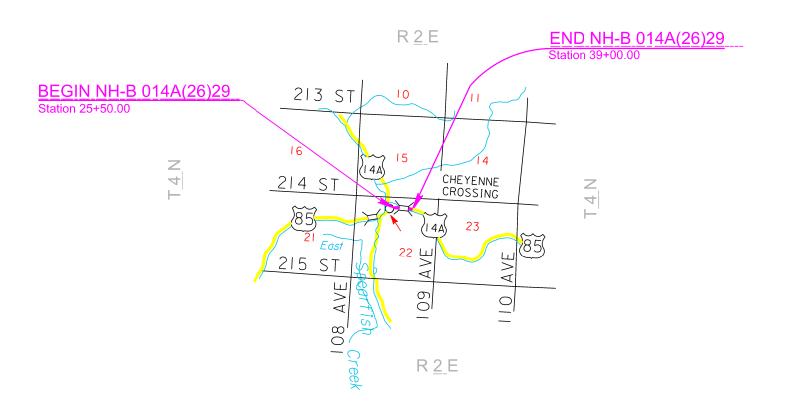


SECTION C: TRAFFIC CONTROL PLANS

## INDEX OF SHEETS

C1 C2-3 C4 C5-7 C7-12 General Layout with Index Estimate with General Notes & Tables Overwidth Signing Layout Phase Configuration and Barrier Layouts Standard Plates





## SECTION C ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
634E0010	Flagging	2,000.0	Hour
634E0020	Pilot Car	1,000.0	Hour
634E0110	Traffic Control Signs	299.2	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0275	Type 3 Barricade	4	Each
634E0310	Temporary Flexible Vertical Markers (Tabs)	5,390	Ft
634E0525	Linear Delineation System Panel, Barrier Mounted	44	Each
634E0600	4" Temporary Pavement Marking Tape Type I	216	Ft
634E0700	Traffic Control Movable Concrete Barrier	88	Each
634E0900	Portable Temporary Traffic Control Signal	2	Unit
634E1002	Detour and Restriction Signing	276.0	SqFt

## **SEQUENCE OF OPERATIONS**

### Phase 1A

- Utilizing standard plate number 634.03, install necessary erosion and sediment control and remove wingwall of existing box.
- Using standard plate number 634.53 close the outside eastbound lane.
- Complete eastbound shoulder temporary widening.

#### Phase 1B

- Using standard plate number 634.26, shift traffic to the south and install moveable concrete barriers on westbound side. Install temporary traffic signal and provide one 12' travel lane.
- Construct sections 1 4 of proposed box culvert.
- Utilize existing box culvert for Temporary Diversion for Fish passage.
- Backfill outlet phase and provide temporary gravel surfacing.
- Complete westbound shoulder temporary widening.
- Remove outlet half of existing CMP and install outlet half of proposed RCP/CMP at 33+17. Provide temporary connection to existing pipe.
- Remove outlet half of existing CMP and install outlet half of proposed RCP at 36+67. Provide temporary connection to existing pipe.

### Phase 2

- Using standard plate number 634.26, shift traffic to the north and install moveable concrete barriers and temporary guardrail on eastbound side. Install temporary traffic signal and provide one 12' lane travel lane.
- Install necessary erosion and sediment control.
- Construct sections 5 9 of proposed box culvert.
- Utilize proposed box culvert for Temporary Diversion for Fish passage.
- Remove inlet phase of existing box culvert.
- Backfill inlet phase and provide temporary gravel surfacing.
- Remove inlet half of CMP and temporary connection and install new RCP/CMP at 33+17.
- Remove inlet half of CMP and temporary connection and install new RCP at 36+67.

### Phase 3

• Using standard plate number 634.26, shift traffic to the south and provide 12' of width. Install temporary traffic control signal.

- Remove outlet phase of existing box culvert.
- Backfill excavation area and install temporary surfacing on westbound and middle lanes
- Remove temporary widening and guardrail on north side.
- Install permanent asphalt surfacing on westbound and center lanes

#### Phase 4

- Remove temporary concrete barriers
- Using standard plate number 634.53 close the outside eastbound lane.
- Complete permanent asphalt surfacing and removing temporary widening
- Remove eastbound temporary widening.

#### Phase 5

- Using standard plates 634.52 & 634.53 complete permanent pavement marking and rumble strips.
- Install permanent seeding, fertilizer.

Contractor requests to deviate from the sequence of operations will 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 will be submitted for review a minimum of one week prior to potential implementation.

## **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.

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.

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, signposts, and breakaway bases will be removed within 7 calendar days following pavement marking.

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SOUTH DAKOTA	NH-B 014A(26)29	C2	C12

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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.

A Type 3 Barricade will be installed at the end of a lane closure taper as detailed in these plans.

## **OVERWIDTH RESTRICTION AND DETOUR SIGNING**

The Contractor will furnish and install the overwidth restriction and detour signs at the following locations:

WYO 585 & US 85 I-90 Exit 10 & US 85 I-90 Exit 17 & US 85 I-90 Exit 30 & US 14 US 385 & US 14

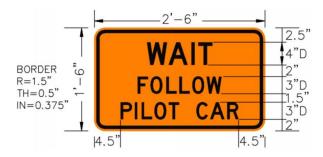
Prior to installing the signs, the Contractor will mark the sign locations and review them with the Engineer. Overwidth restriction and detour signs will be installed on fixed location, ground mounted, breakaway supports. It will be the responsibility of the Contractor to maintain and reinstall these signs during the project as required by the construction prpogress. 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".

#### **FLAGGING**

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

Additional flagger warning signs and flagger hours have been included in the Estimate of Quantities for use on intersecting roads. These flaggers will be used as directed by the Engineer and will be used primarily during daytime hours. Also included in the Estimate of Quantities are WAIT FOLLOW PILOT CAR signs for use on low volume intersecting roads as determined by the Engineer. WAIT FOLLOW PILOT CAR signs will not block the view of the stop sign.



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".

#### PORTABLE TEMPORARY TRAFFIC CONTROL SIGNAL

The Contractor will furnish, install, operate, and maintain a portable temporary traffic control signal during construction phases as determined by the Engineer. There will be one controller and one slave unit per location.

The portable temporary traffic control signal will be set up to dwell in red. Detection will be video, microwave, or radar. The green time may be adjusted as needed. The Engineer will contact the Region Traffic Engineer one week prior to activation to obtain the appropriate signal timings.

All vehicle signal heads will have backplates with retroreflective border. The vehicle signal head backplates will have a factory applied 3-inch wide yellow retroreflective border. Sheeting for the border will be Type IX or Type XI in conformance with ASTM D4956.

Signal backplates will be polycarbonate, aluminum, or aluminum-composite. Minimum material thicknesses are:

Polycarbonate, 0.10-inch Aluminum, 0.06-inch Aluminum-Composite, 0.08-inch

Signal backplates will extend not less than 5 inches from the edge of the signal head at the top, bottom, and sides.

All traffic signal equipment and materials will meet the requirements of Sections 635 and 985 of the Specifications except the controller requirements.

All costs involved with constructing the portable temporary traffic control signal as specified above and on the plans, will be included in the contract unit price per unit for "Portable Temporary Traffic Control Signal".

## **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 a crash, hazardous materials spill, or other event.

The Contractor will 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, the Lawrence County Sheriff 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 that meeting.

Emergency vehicle access through the project will be considered and discussed at the meeting.

The Contractor may be required to modify messages on portable changeable message signs or relocate portable changeable message signs, and to provide flaggers to direct or detour traffic. The Contractor should be prepared to relocate advance warning signs if determined to be necessary for a major traffic incident lasting more than two hours. Fixed location ground mounted signs may be covered and additional portable 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 the relocation of an advance warning sign due to an incident will be 50% of the designated sign rate. Flaggers will be paid for at the contract unit price per hour for "Flagging".

## 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 will provide the Engineer with pertinent information 7 days prior to any phase change or any other major change that affects traffic flow.

#### TRAFFIC CONTROL MOVEABLE CONCRETE BARRIERS

Concrete barriers will be provided by the State and are available for pickup from the SDDOT Maintenance Yard located adjacent to Hwy 79 approximately two miles south of Rapid City. The barriers will be hauled back to the same SDDOT maintenance yard.

- Phase 1: 85 barriers (83 interior sections and 2 end sections)
- Phase 2: 88 barriers (84 interior sections and 4 end sections)
- Phase 3: 85 barriers (83 interior sections and 2 end sections)

Concrete barriers that need to be moved from one phase to another, shall be done the same day as traffic is to be switched for that phase.

## BARRIER MOUNTED LINEAR DELINEATION SYSTEM PANELS

A linear delineation system (LDS) panel will be attached to each barrier section. The color will be the same as the nearest pavement marking, white along outside edgelines or yellow for the left side on one way traffic sections. The LDS will be 34 inches long and 6 inches in height and be constructed of aluminum formed into a shape to provide retroreflective properties across a wide range of angles. It will be sheeted with sheeting meeting the requirements of ASTM D4956 Type XI. The panels will be evenly spaced, with the top of the panel 4 inches below the top of the barrier. Installation will be as per the manufacturer's recommendations. This will allow for easy removal for replacement of damaged panels or to replace with an alternate color. The Contractor will furnish and install one panel along each side of the barrier if any panels are missing from the barriers. Replacement of damaged linear delineation system panels will be furnished and replaced by the Contractor. All costs associated with furnishing, installing, and replacing, if needed, will be incidental to the contract unit price per each for Linear Delineation System Panel, Barrier Mounted.

All LDS panels will remain attached to the barrier sections and will become the property of the State of South Dakota upon completion of the project.

The Contractor will verify the number of LDS panels that will need to be installed or replaced on the Traffic Control Movable Concrete Barriers. The contract amount of LDS panels is an estimate, and the full contract amount may not be needed.

Maintaining the linear delineation system, including moving LDS panels from one side of the barrier to the other side of the barrier to match the applicable color of the nearest pavement marking will be incidental to the contract lump sum price for Traffic Control, Miscellaneous.

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## TEMPORARY PAVEMENT MARKING

Temporary flexible vertical markers (tabs) will be used to mark dashed centerline, No Passing Zones, and applicable lane lines. Paint will not be allowed for temporary pavement marking on the asphalt concrete wear course or after application of the flush seal.

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:

Table of Pavement Marking Quantities						
	24" White Stop Bar Temporary Tape (LF)	Temporary Marking Tabs Yellow (LF)	Temporary Marking Tabs White (LF)			
Phase 1	24		230			
Phase 2	24		780			
Phase 3	24		780			
Phase 4		1100	150			
Phase 5		1100	1250			
Total 72		2200	3190			

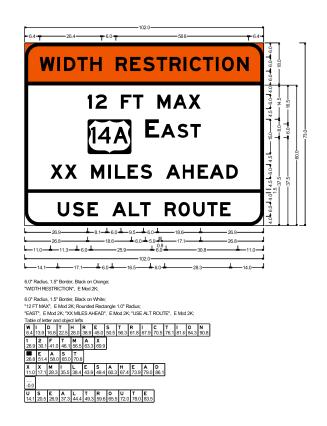
## TRAFFIC CONTROL SIGNS

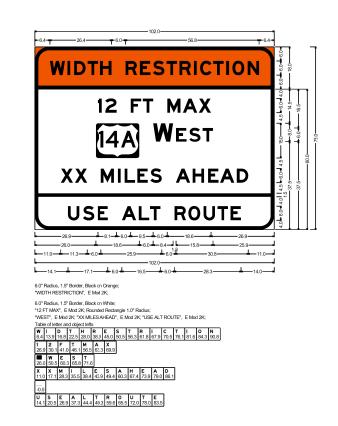
#### ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

		CONVENTIONAL ROAD			
SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R1-1	STOP	1	30"	5.2	5.2
R2-1	SPEED LIMIT 35 MPH	2	24" x 30"	5.0	10.0
R3-1	RIGHT TURN PROHIBITION (symbol)	1	24" x 24"	4.0	4.0
R3-2	LEFT TURN PROHIBITION (symbol)	1	24" x 24"	4.0	4.0
R10-6	STOP HERE ON RED	2	24" x 36"	6.0	12.0
W1-4	REVERSE CURVE (L or R)	2	48" x 48"	16.0	32.0
W3-3	SIGNAL AHEAD (symbol)	2	48" x 48"	16.0	32.0
W9-3	CENTER LANE CLOSED AHEAD	1	48" x 48"	16.0	16.0
W13-1P	ADVISORY SPEED (plaque)	3	30" x 30"	6.3	18.9
W20-1	ROAD WORK AHEAD	3	48" x 48"	16.0	48.0
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
W21-5	SHOULDER WORK	2	48" x 48"	16.0	32.0
SPECIAL	WAIT FOLLOW PILOT CAR	2	30" x 18"	3.8	7.6
G20-2	END ROAD WORK	3	36" x 18"	4.5	13.5
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT 299.2			299.2



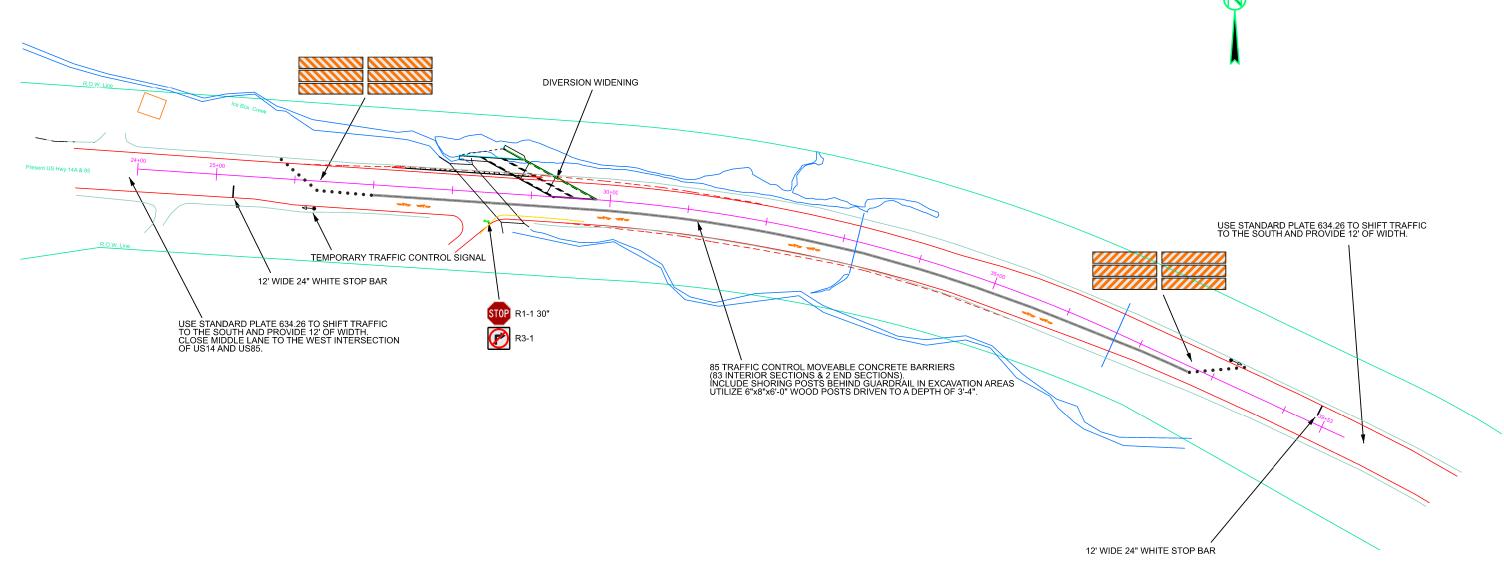
## WIDTH RESTRICTION SIGN DETAILS





# TRAFFIC CONTROL PHASE 1





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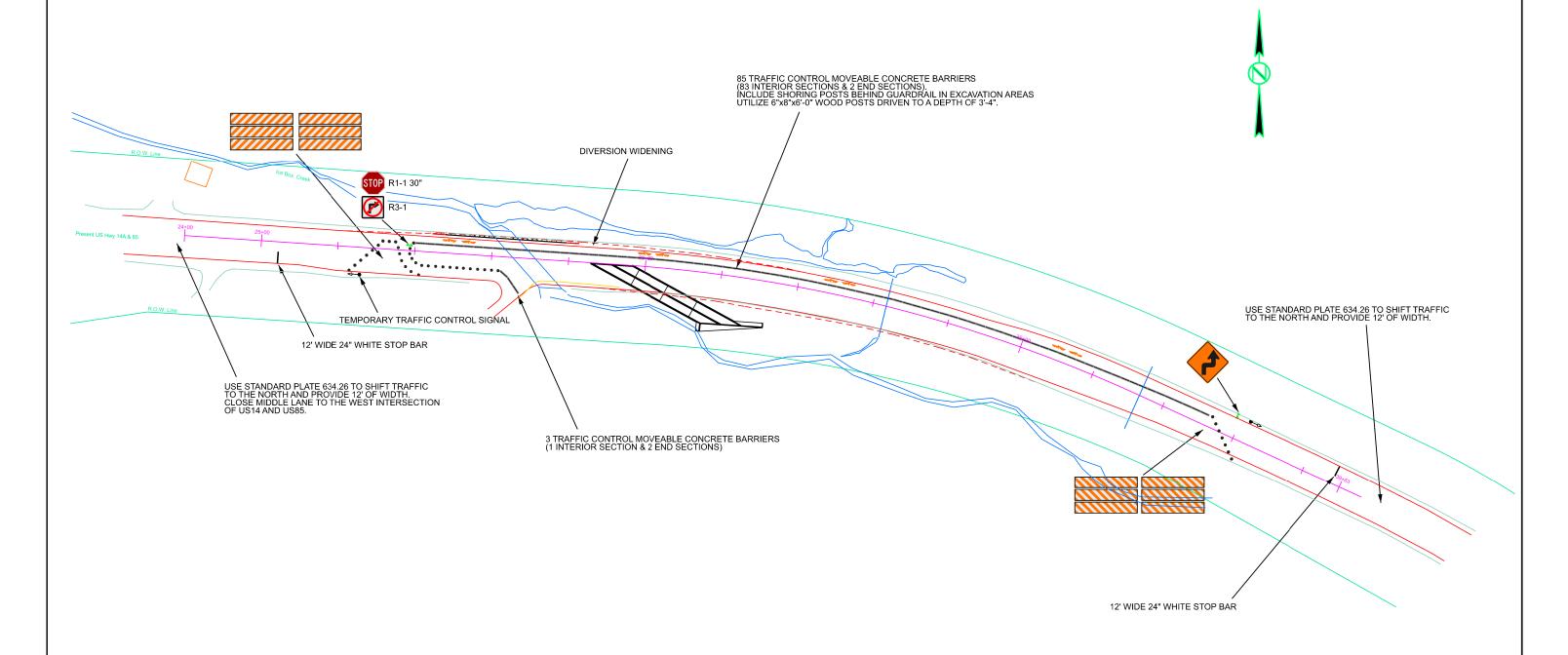
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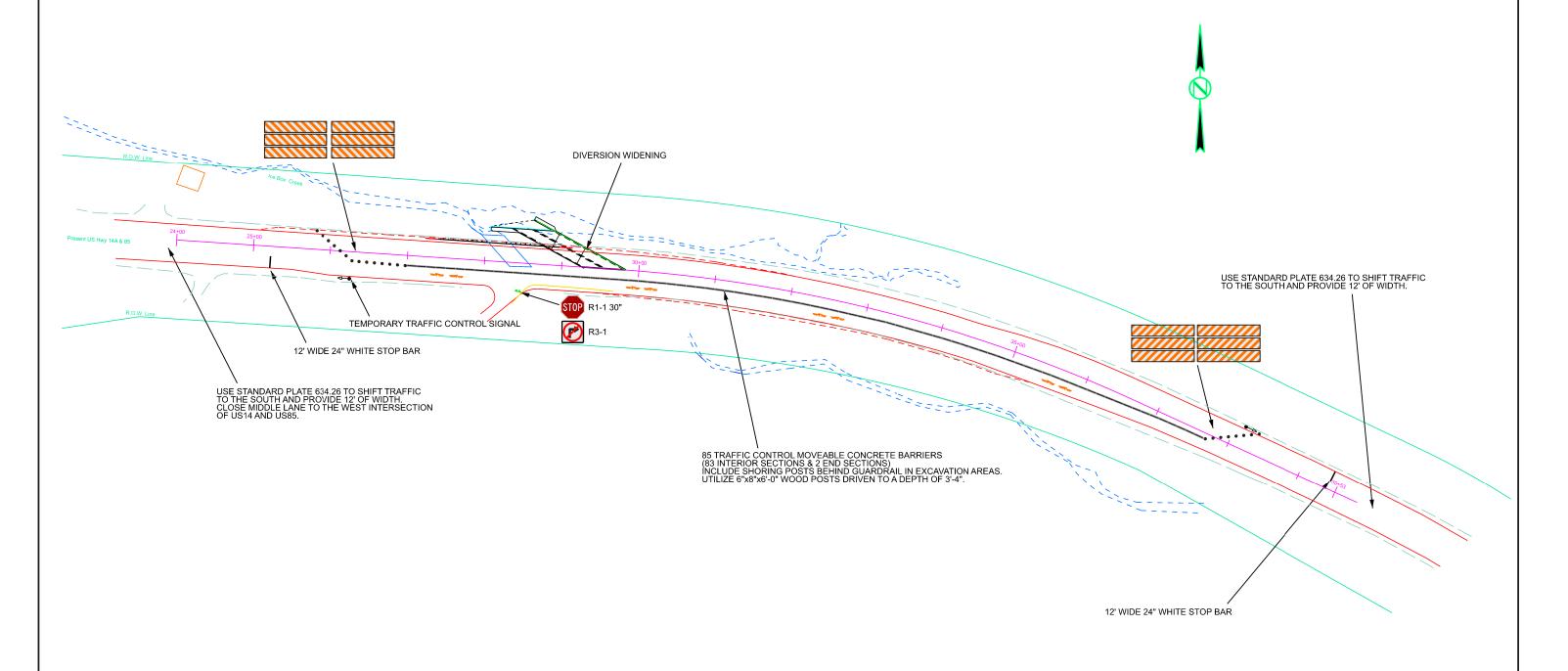
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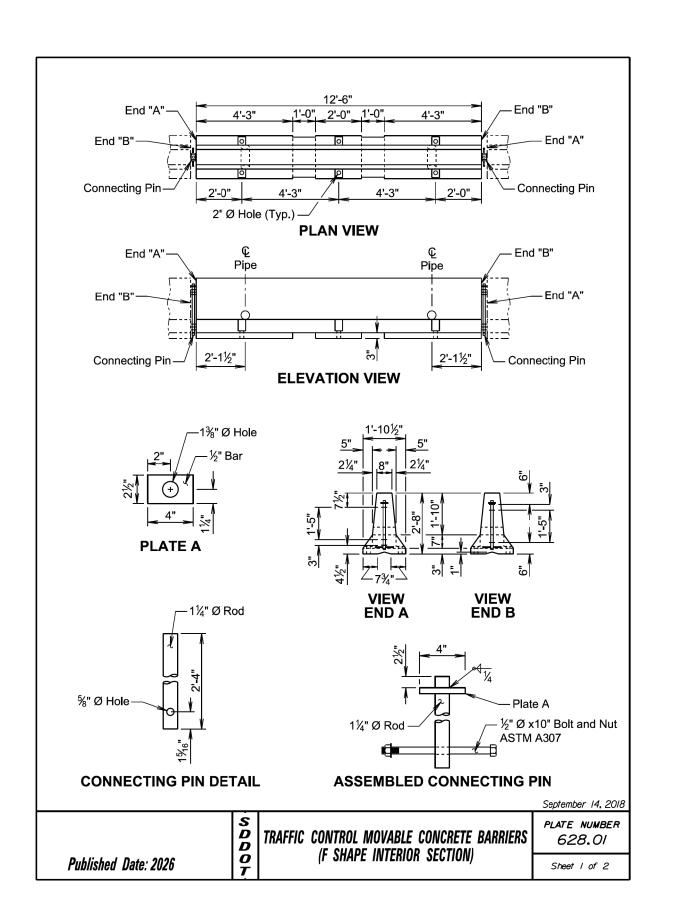
Rev 7/03/25 CR

## TRAFFIC CONTROL PHASE 2



# TRAFFIC CONTROL PHASE 3







#### **GENERAL NOTES:**

Published Date: 2026

The detailed drawings are for illustrative purpose and depicts the current version of the F shape concrete barrier. If new movable concrete barriers are requested on a project, they will be constructed according to the F shape movable concrete barrier details on standard plate 628.10.

Each movable concrete barrier section weighs 5030 ± pounds.

Each movable concrete barrier section is detailed to provide end "A" to end "B" connection by insertion of a pin through steel loops.

The Jersey shape or any version of the F shape traffic control movable concrete barriers may be used on a project, however, only the same type or version will be used for each run of barriers.

Movable concrete barrier sections will be placed to provide uniform bearing of the sections with the paved surface as approved by the Engineer.

Movable concrete barrier sections will never be moved or lifted using the end loops.

Movable concrete barrier sections that have been damaged will not be used. Barrier sections are considered damaged if the loops are end welded onto existing damaged loops, loops are fractured, or there is exposed rebar from fractured concrete.

All cost for transporting the barriers from the specified location to the project site, installing, and returning the barriers to the specified location will be incidental to the contract unit price per each for "Traffic Control Movable Concrete Barrier".

If the concrete barriers need to be moved and reset on the project, requiring the barriers to be transported by truck, all cost for removing, transporting, and resetting the barriers will be incidental to the contract unit price per each for "Remove and Reset Traffic Control Movable Concrete Barrier". All cost for small shifts in alignment of the barriers, not requiring the barriers to be transported by truck, will be incidental to various contract items.

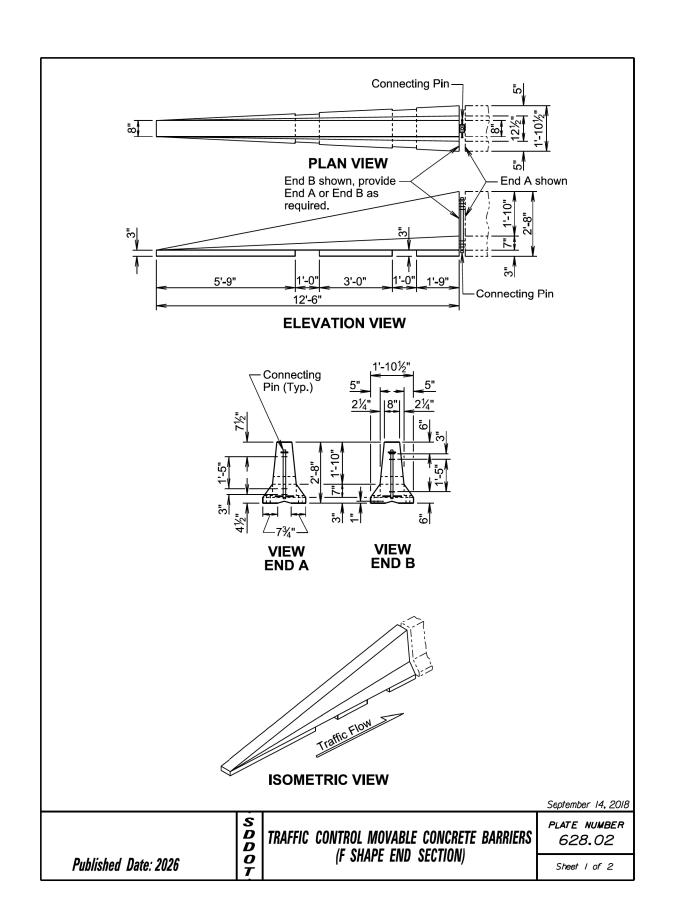
September 14, 2018

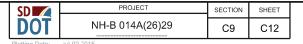
TRAFFIC CONTROL MOVABLE CONCRETE BARRIERS
(F SHAPE INTERIOR SECTION)

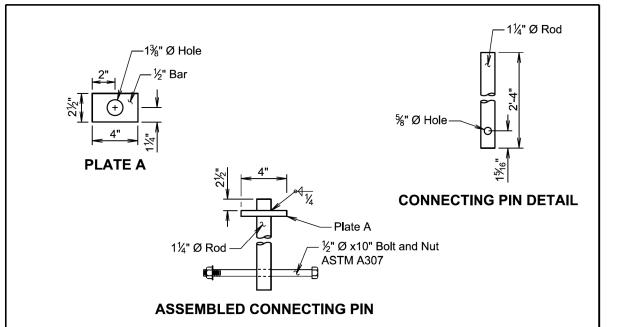
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628.01

Sheet 2 of 2

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#### **GENERAL NOTES:**

The detailed drawings are for illustrative purpose and depicts the current version of the F shape concrete barrier end section. If new concrete barrier end sections are requested on a project, they will be constructed according to the F shape movable concrete barrier end section details on standard plate 628.11.

Each movable concrete barrier end section weighs 2450  $\pm$  pounds.

Each movable concrete barrier end section is detailed to provide end "A" to end "B" connection by insertion of a pin through steel loops.

The Jersey shape or any version of the F shape traffic control movable concrete barriers may be used on a project, however, only the same type or version will be used for each run of barriers.

Movable concrete barrier sections will be placed to provide uniform bearing of the sections with the paved surface as approved by the Engineer.

Movable concrete barrier end sections will never be moved or lifted using the end loops.

Movable concrete barrier end sections that have been damaged will not be used. Barrier sections are considered damaged if the loops are end welded onto existing damaged loops, loops are fractured, or there is exposed rebar from fractured concrete.

All cost for transporting the barriers from the specified location to the project site, installing, and returning the barriers to the specified location will be incidental to the contract unit price per each for "Traffic Control Movable Concrete Barrier".

If the concrete barriers need to be moved and reset on the project, requiring the barriers to be transported by truck, all cost for removing, transporting, and resetting the barriers will be incidental to the contract unit price per each for "Remove and Reset Traffic Control Movable Concrete Barrier". All cost for small shifts in alignment of the barriers, not requiring the barriers to be transported by truck, will be incidental to various contract items.

September 14, 2018

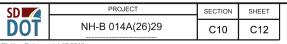
Published Date: 2026

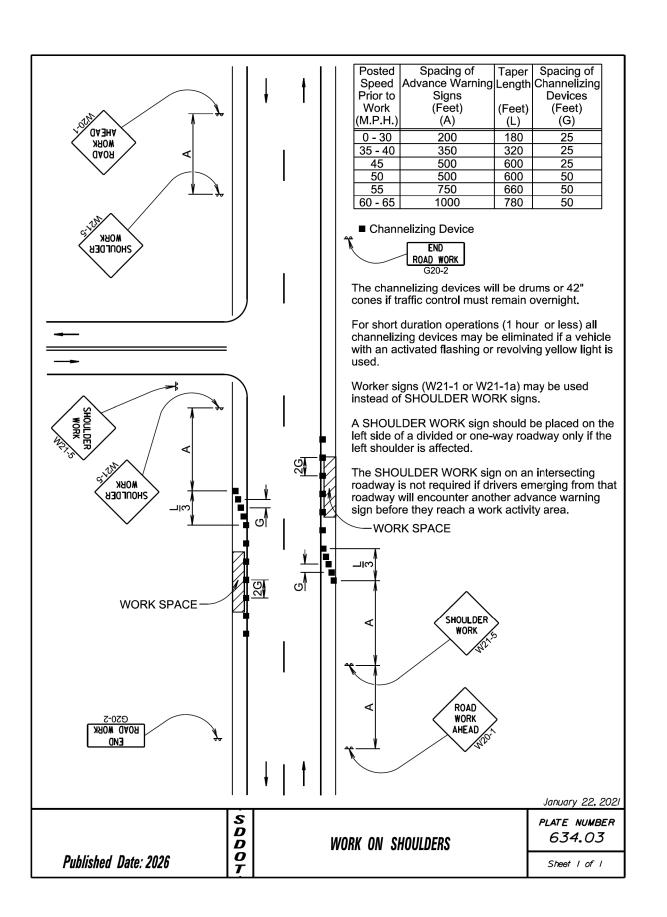
TRAFFIC CONTROL MOVABLE CONCRETE BARRIERS

(F SHAPE END SECTION)

PLATE NUMBER 628.02

Sheet 2 of 2





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