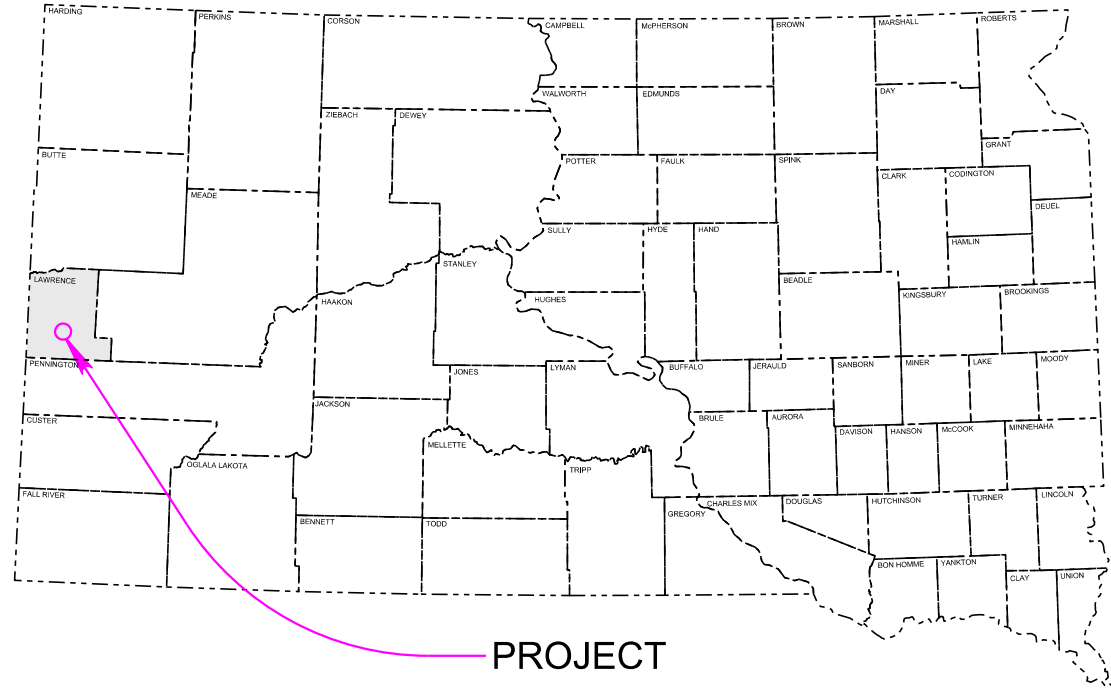


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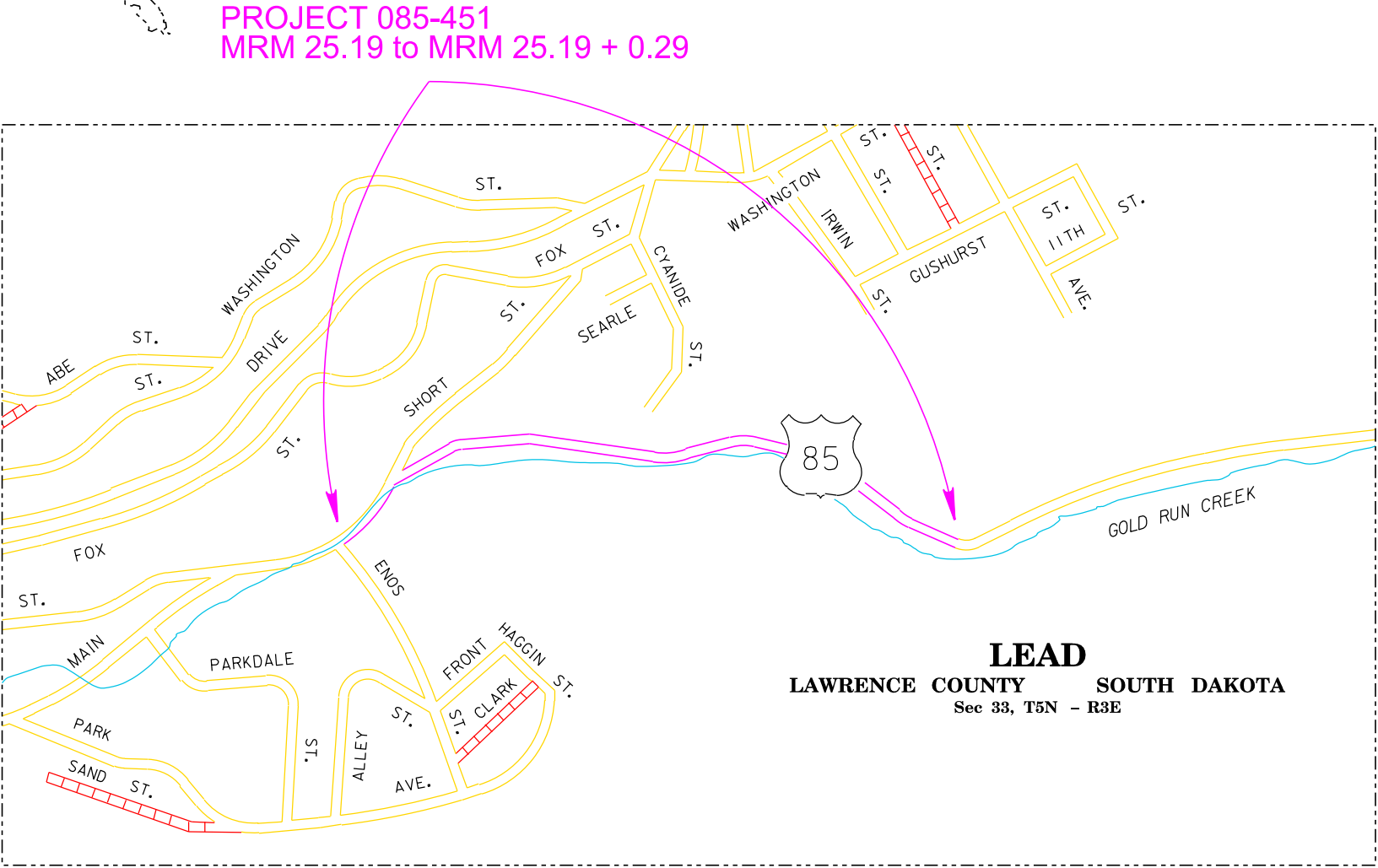


STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION  
PLANS FOR PROPOSED  
**PROJECT 085-451**  
**US HIGHWAY 85**  
**LAWRENCE COUNTY**  
Remove and Replace Wood Fence  
PCN i6lt

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	085-451	1	7
Plotting Date: 01/28/2022			

INDEX OF SHEETS

Sheet 1:	Title Sheet
Sheet 2 - 3:	Estimate of Quantities and Plan Notes
Sheet 4:	Plan Sheet
Sheet 5:	Fence Details
Sheet 6 - 7:	Standard Plates



STORM WATER PERMIT  
None Required

Gross Length	1531 Feet	0.290 Miles
Length of Exceptions	0 Feet	0.000 Miles
Net Length	1531 Feet	0.290 Miles

**LEAD**  
**LAWRENCE COUNTY SOUTH DAKOTA**  
Sec 33, T5N - R3E

ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
110E0600	Remove Fence	1,862	Ft
621E0244	Special 4' Fence	1,862	Ft
634E0110	Traffic Control Signs	32.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS

SPECIFICATIONS

Standard Specifications for Roads and Bridges, 2015 Edition and Required Provisions, Supplemental Specifications, and Special Provisions as included in the Proposal.

ENVIRONMENTAL COMMITMENTS

The SDDOT is committed to protecting the environment and uses Environmental Commitments as a communication tool for the Engineer and Contractor to ensure that attention is given to avoid, minimize, and/or mitigate an environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency with permitting authority can delay a project if identified environmental impacts have not been adequately addressed. Unless otherwise designated, the Contractor's primary contact regarding matters associated with these commitments will be the Project Engineer. During construction, the Project Engineer will verify that the Contractor has met Environmental Commitment requirements. These environmental commitments are not subject to change without prior written approval from the SDDOT Environmental Office.

Additional guidance on SDDOT's Environmental Commitments can be accessed through the Environmental Procedures Manual found at: <<https://dot.sd.gov/media/documents/EnvironmentalProceduresManual.pdf>>

For questions regarding change orders in the field that may have an effect on an Environmental Commitment, the Project Engineer will contact the Environmental Engineer at 605-773-3180 or 605-773-4336 to determine whether an environmental analysis and/or resource agency coordination is necessary.

Once construction is complete, the Project Engineer will review all environmental commitments for the project and document their completion.

COMMITMENT B: FEDERALLY THREATENED, ENDANGERED, AND PROTECTED SPECIES

COMMITMENT B2: WHOOPING CRANE

The Whooping Crane is a spring and fall migratory bird in South Dakota that is about 5 feet tall and typically stops on wetlands, rivers, and agricultural lands along their migration route. An adult Whooping Crane is white with a red crown and a long, dark, pointed bill. Immature Whooping Cranes are cinnamon brown. While in flight, their long necks are kept straight and their long dark legs trail behind. Adult Whooping Cranes' black wing tips are visible during flight.

Action Taken/Required:

Harassment or other measures to cause the Whooping Crane to leave the site is a violation of the Endangered Species Act. If a Whooping Crane is sighted roosting in the vicinity of the project, borrow pits, or staging areas associated with the project, cease construction activities in the affected area until the Whooping Crane departs and immediately contact the Project Engineer. The Project Engineer will contact the Environmental Office so that the sighting can be reported to USFWS.

COMMITMENT E: STORM WATER

Construction activities constitute less than 1 acre of disturbance.

Action Taken/Required:

At a minimum and regardless of project size, appropriate erosion and sediment control measures must be installed to control the discharge of pollutants from the construction site.

COMMITMENT H: WASTE DISPOSAL SITE

The Contractor will furnish a site(s) for the disposal of construction and/or demolition debris generated by this project.

Action Taken/Required:

Construction and/or demolition debris may not be disposed of within the Public ROW.

The waste disposal site(s) will be managed and reclaimed in accordance with the following from the General Permit for Construction/Demolition Debris Disposal Under the South Dakota Waste Management Program issued by the Department of Environment and Natural Resources.

The waste disposal site(s) will not be located in a wetland, within 200 feet of surface water, or in an area that adversely affects wildlife, recreation, aesthetic value of an area, or any threatened or endangered species, as approved by the Environmental Office and the Project Engineer.

If the waste disposal site(s) is located such that it is within view of any ROW, the following additional requirements will apply:

- Construction and/or demolition debris consisting of concrete, asphalt concrete, or other similar materials will be buried in a trench separate from wood debris. The final cover over the construction and/or demolition debris will consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the Public ROW will be seeded in accordance with Natural Resources Conservation Service recommendations. The seeding recommendations may be obtained through the appropriate County NRCS Office. The Contractor will control the access to waste disposal sites not within the Public ROW with fences, gates, and placement of a sign or signs at the entrance to the site stating, "No Dumping Allowed".
- Concrete and asphalt concrete debris may be stockpiled within view of the ROW for a period not to exceed the duration of the project. Prior to project completion, the waste will be removed from view of the ROW or buried, and the waste disposal site reclaimed as noted above.

The above requirements will not apply to waste disposal sites that are covered by an individual solid waste permit as specified in SDCL 34A-6-58, SDCL 34A-6-1.13, and ARSD 74:27:10:06.

Failure to comply with the requirements stated above may result in civil penalties in accordance with South Dakota Solid Waste Law, SDCL 34A-6-1.31.

All costs associated with furnishing waste disposal site(s), disposing of waste, maintaining control of access (fence, gates, and signs), and reclamation of the waste disposal site(s) will be incidental to the various contract items.

COMMITMENT I: HISTORIC PRESERVATION OFFICE CLEARANCES

The SDDOT has obtained concurrence with the State Historic Preservation Office (SHPO or THPO) for all work included within the project limits and all department designated sources and designated option material sources, stockpile sites, storage areas, and waste sites provided within the plans.

Action Taken/Required:

All earth disturbing activities not designated within the plans require a cultural resource review prior to scheduling the pre-construction meeting. This work includes but is not limited to: Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas.

The Contractor will arrange and pay for a record search and when necessary, a cultural resource survey. The Contractor has the option to contact the state Archaeological Research Center (ARC) at 605-394-1936 or another qualified archaeologist, to obtain either a records search or a cultural resources survey. A record search might be sufficient for review if the site was previously surveyed; however, a cultural resources survey may need to be conducted by a qualified archaeologist.

The Contractor will provide ARC with the following: a topographical map or aerial view in which the site is clearly outlined, site dimensions, project number, and PCN. If applicable, provide evidence that the site has been previously disturbed by farming, mining, or construction activities with a landowner statement that artifacts have not been found on the site.

The Contractor will submit the cultural resources survey report to SDDOT Environmental Office, 700 East Broadway Avenue, Pierre, SD 57501-2586. SDDOT will submit the information to the appropriate SHPO/THPO. Allow **30 Days** from the date this information is submitted to the Environmental Engineer for SHPO/THPO review.

In the event of an inadvertent discovery of human remains, funerary objects, or if evidence of cultural resources is identified during project construction activities, then such activities within 100 feet of the inadvertent discovery will immediately cease and the Project Engineer will be immediately notified. The Project Engineer will contact the SDDOT Environmental Office, who will contact the appropriate SHPO/THPO within 48 hours of the discovery to determine an appropriate course of action.

**COMMITMENT I: HISTORIC PRESERVATION OFFICE CLEARANCES**  
**(continued)**

SHPO/THPO review does not relieve the Contractor of the responsibility for obtaining any additional permits and clearances for Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas that affect wetlands, threatened and endangered species, or waterways. The Contractor will not utilize a site known or suspected of having contaminated soil or water. The Contractor will provide the required permits and clearances to the Project Engineer at the preconstruction meeting.

**UTILITIES**

The Contractor will contact the involved utility companies through South Dakota One Call (1-800-781-7474) prior to starting work. It will be the responsibility of the Contractor to coordinate work with the utility owners to avoid damage to existing facilities.

Utilities are not planned to be affected on this project. If utilities are identified near the improvement area through the SD One Call Process as required by South Dakota Codified Law 49-7A and Administrative Rule Article 20:25, the Contractor will contact the project engineer to determine modifications that will be necessary to avoid utility impacts.

**REMOVE FENCE**

The Contractor will remove the existing wood fence. It is estimated there is 1862 feet of fence to remove. The wire mesh that is attached to the existing fence will also be removed. Existing signs will be removed for reset on the new fence.

The steel gate with wood posts located along Enos St. will remain. A new post will be placed 4” to 6” offset from existing wood posts for steel gate to start the new fence installation. The anchor bolts for the steel fence may need to be cut some to achieve the 4” to 6” offset.

The Project Engineer and the Contractor will coordinate fence removal and replacement work with Homestake Mining Company. Their point of contact is Mark Zwaschka, Project Manager, 605-722-4783 (office) or 605-641-2095. A two week notice will be given to Homestake Mining Company prior to any removal and replacement of fence.

Fence removed will become the property of the contractor.

All costs associated with this work will be incidental to the contract unit price per foot for Remove Fence.

**FENCE ALIGNMENT**

The fence will be installed along the existing alignment.

**SPECIAL 4’ FENCE**

The Contractor will furnish and install Special 4’ Fence at the locations shown in these plans.

Signs that are attached to the existing fence will be reset on the fence. All costs associated with this work will be incidental to the contract unit price per foot for Special 4’ Fence.

Special 4’ Fence will be measured and paid for at the contract unit price per foot. Payment will be full compensation for furnishing materials, labor, equipment, backfilling holes from wood post removal, backfilling posts and all incidentals required.

**TABLE OF FENCE**

Location	MRM to		MRM		Remove Fence and Install Special 4’ Fence (ft)
US85	25.19+	0.008	25.19+	0.279	1,700
Enos Street					162
			Total		1,862

**RESTORATION OF SLOPES**

Any highway slopes rutted or disturbed due to construction equipment will be restored and seeded by the Contractor, at no additional cost to the State.

**SEQUENCE OF OPERATIONS**

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

**GENERAL TRAFFIC CONTROL**

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

All construction operations will be conducted in the general direction of traffic movement.

All work will be performed from behind the curb and gutter. Lane closures on US85 will not be required.

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.

**ITEMIZED LIST OF TRAFFIC CONTROL DEVICES**

SIGN CODE	SIGN DESCRIPTION	EXPRESSWAY / INTERSTATE			
		NUMBER	SIGN SIZE	SQFT PER	SQFT
W20-1	ROAD WORK AHEAD	2	48" x 48"	16.0	32.0
EXPRESSWAY / INTERSTATE TRAFFIC CONTROL SIGNS SQFT					32.0

Plot Scale - 1:100

Plotted From - TRR011951

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	085-451	4	7

Plotting Date: 01/28/2022

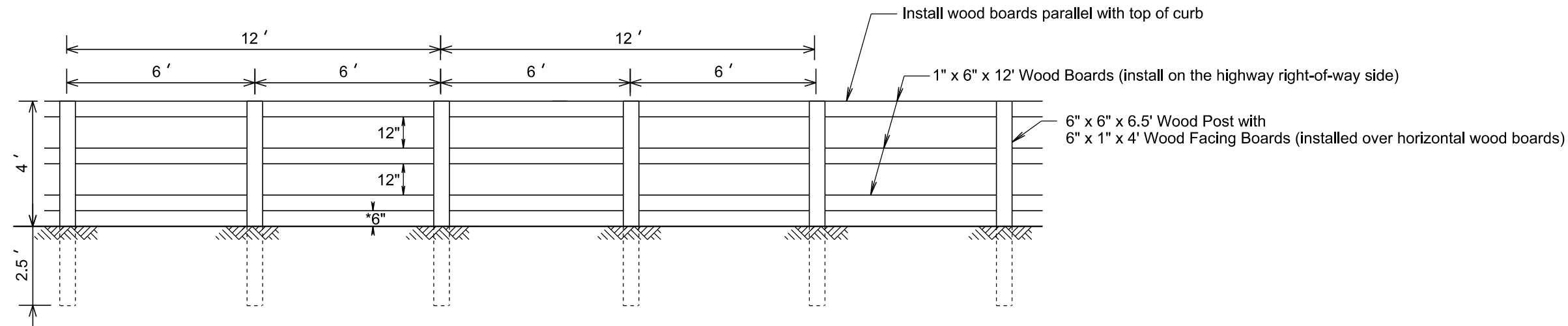


Sec. 33 - T5N - R3E

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	085-451	5	7

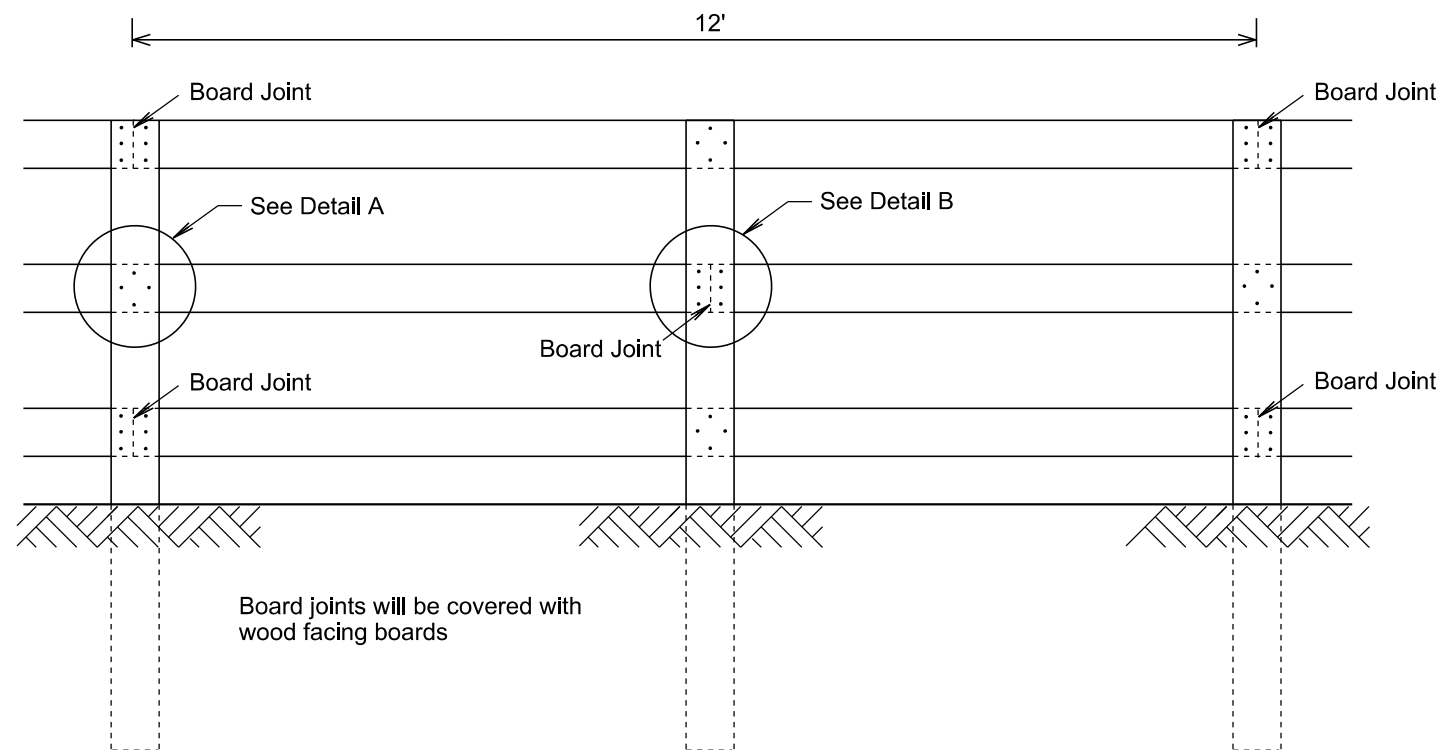
Plotting Date: 02/16/2022

### Special 4' Fence

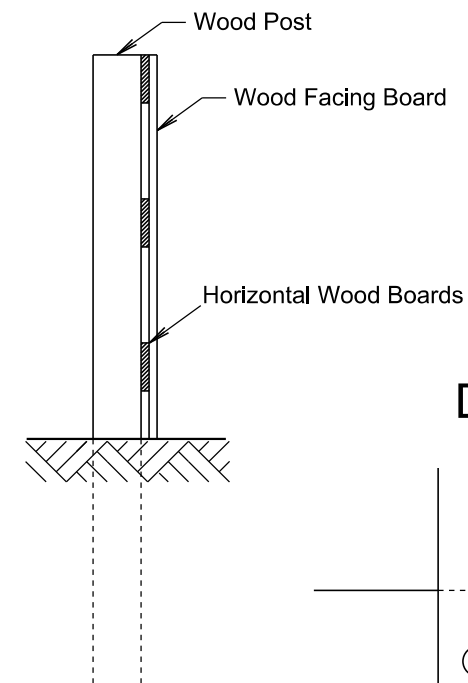


\* Over uneven ground the 6" clearance will vary. In low areas backfill and tamp around posts to meet the 2.5' post embedment depth.

### Nailing Pattern and Board Joint Pattern



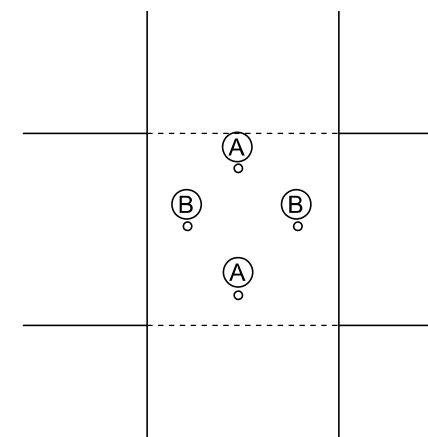
### Cross Section



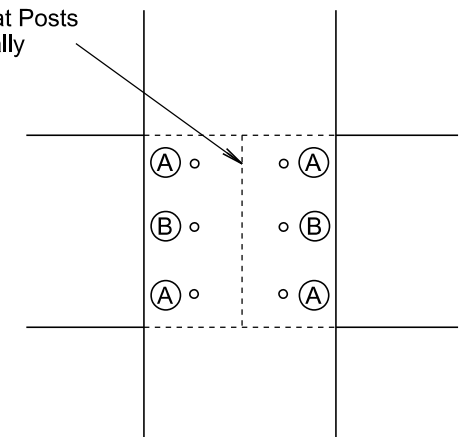
**General Notes:**

- The use of nail guns are acceptable.
- 1" Wood Boards WWPA (Western Wood Products Association) #3 or better.
- Wood posts will be furnished and installed in accordance with Section 620
- All boards and posts will be treated in accordance with Section 950
- Excess material from post hole excavation will be used to fill old post holes. Any remaining material will be used to bury the bottom of the wood facing boards 1" to 2" deep. Any remaining material may be placed around each post or disposed of at locations approved by the Engineer.

### Detail A



### Detail B



### Alternate Board Joints at Posts Vertically and Horizontally

- Ⓐ 10D (3") ring shank or screw shank nails for attaching horizontal boards to posts
- Ⓑ 20D (4") ring shank or screw shank nails for attaching batten boards (installed after horizontal wood boards)

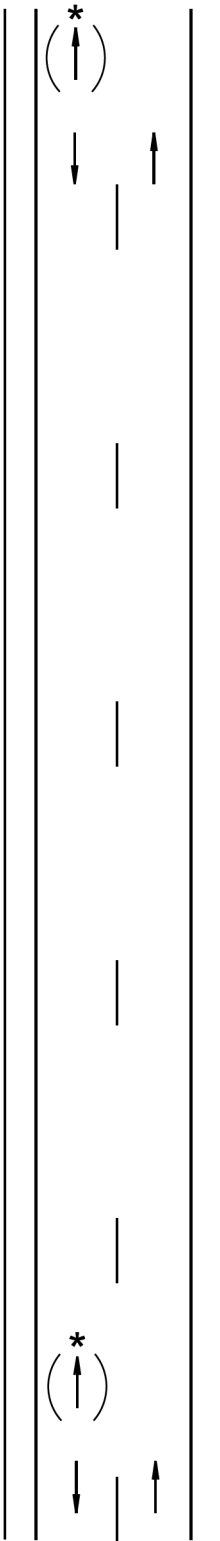
The signs illustrated are not required if the work space is behind a barrier, more than 2 feet behind the curb, or 15 feet or more from the edge of any roadway.

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

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

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

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

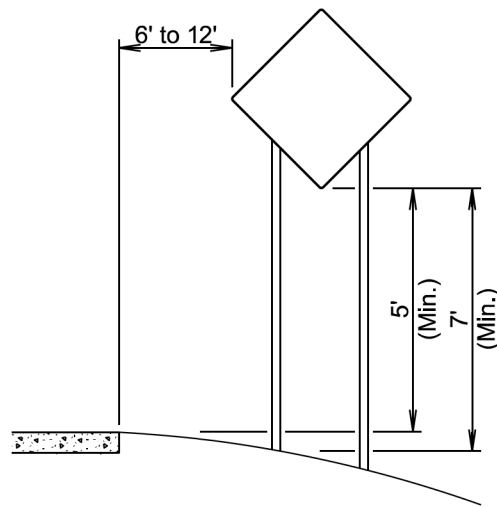


Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)
0 - 30	200
35 - 40	350
45 - 50	500
55	750
60 - 80	1000

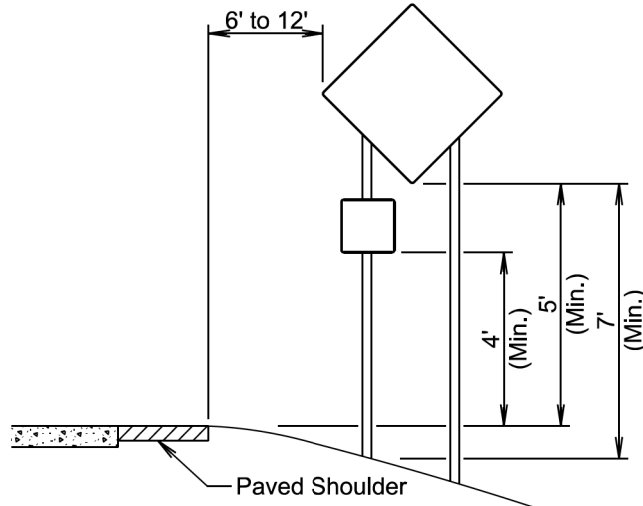


January 22, 2021

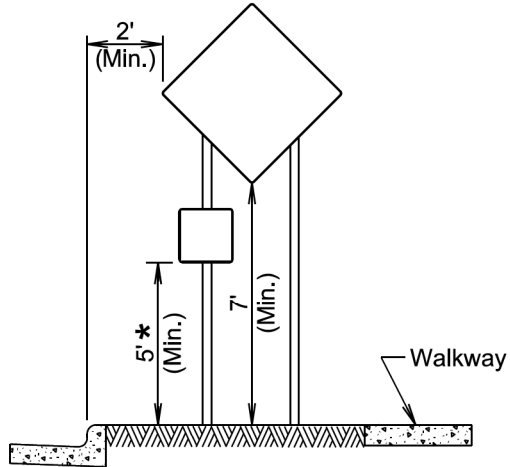
Published Date: 4th Qtr. 2021	S D D O T	WORK BEYOND THE SHOULDER	PLATE NUMBER 634.01
			Sheet 1 of 1



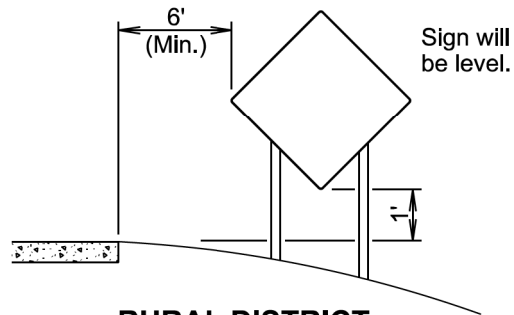
RURAL DISTRICT



RURAL DISTRICT WITH  
SUPPLEMENTAL PLATE



URBAN DISTRICT



RURAL DISTRICT  
3 DAY MAXIMUM

(Not applicable to regulatory signs)

\* If the bottom of supplemental plate is mounted lower than 7 feet above a pedestrian walkway, the supplemental plate should not project more than 4" into the pedestrian facility.

January 22, 2021

Published Date: 4th Qtr. 2021	S D D O T	CRASHWORTHY SIGN SUPPORTS (Typical Construction Signing)	PLATE NUMBER 634.85
			Sheet 1 of 1

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	085-451	7	7

Plotting Date: 01/06/2022

