



Department of Transportation

Division of Secretariat

Office of Air, Rail & Transit

700 East Broadway Avenue

Pierre, South Dakota 57501-2586

OFFICE: 605/773-3574

FAX: 605/773-2804

2020 STC Grant Application

MRC Meet and Pass Siding



Support Economic Growth and Development

The traffic on the MRC line has grown to nearly 10,000 cars per year serving three shuttle elevators at Kimball, Kennebec and Presho. The traffic levels have started to cause congestion problems. These problems have resulted in the elevators and Dakota Southern missing OEP payments. These payments reward the elevator and the Dakota Southern for quickly loading trains, which improve efficiency for the BNSF. The OEP rate is \$100 per car which totals \$11,000 dollars per train. This revenue is lost if the turn times are not met. As traffic increases on the line, excessive delays will continue and potentially increase. The line needs a meet and pass siding to increase capacity and decrease delays.

The State Rail Plan includes a \$1.75 million Meet and Pass siding under the Efficiency/Chokepoint

category. This is documented on page 21, Map ID 3 of the 2014 South Dakota Rail Plan.

Ensure Connectivity for Critical Industries

Agriculture is the largest industry in South Dakota. This project will help ensure continued growth of rail volumes on the MRC as well as increased grain volumes handled by the elevators on the line. The BNSF shuttle program is a very important outlet for grain in the trade area of the MRC.

Maintain State Railroad Assets in a State of Good Repair

The MRC is a state-owned railroad. This project will be an addition to the physical infrastructure owned by the state. The railroad does not currently have any meet and pass sidings that could be used for the passing of a shuttle train.

Reduce Highway Impacts

This project will not change truck traffic levels or impacts to the highway system.

Improve Railroad Safety, Security and Resiliency

This project offers operational flexibility and improves capacity.

Project Summary

This project will construct a new 10,000-foot siding east of Highway 45 near the Gavilon Elevator. The siding will be located south of the track on extra width property half which is currently owned by the State. The other half of the project right of way will need to be acquired.

Proposed Project Funding

Total project costs (including land acquisition) are estimated to be \$2,500,000. The 20% match could be provided by private funds or with State funds.

Project Readiness

A hired consultant has developed preliminary plan set including quantities. The first two pages of the preliminary design are included in the application. Also included is a preliminary layout of the siding.

Plan Readiness

Preliminary plans have been completed.

Environmental Readiness

We anticipate the project will qualify for a Categorical Exclusion. No environmental work has been done.

Overall Benefit

To calculate the benefit of the project it was assumed OEP payments would continue to be missed. It was assumed that as traffic increases over the years the rate of missed OEP payments would increase. When OEP payments are lost it is a direct result of a loss in efficiency. Using the value of the assumed missed payments we calculated a total benefit over 20 years of \$5.5 million. When calculated with a 7% Net Present Value (NPV) the benefit is \$2.6 million over 20 years and when calculated with a 3% NPV the benefit is \$3.9 million. Using a project cost of \$2.5 million the benefit cost ratio at 7% NPV is 1.03:1 at 3% NPV the benefit cost ratio is 1.56:1.

Proposed Party Developing the Application

SDDOT will submit the grant application. SDDOT will submit and manage the project payments.

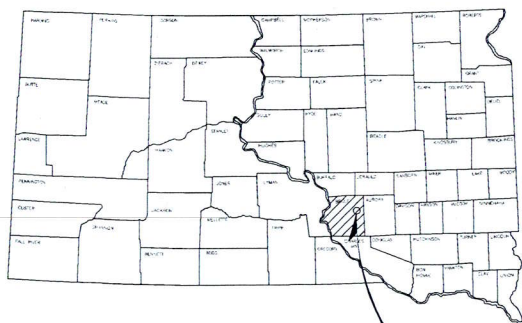
BCA

Year	Calendar Year	OEP Payment missed	7% NPV benefits	3%NPV benefits
1	2021	\$132,000	\$123,364	\$128,155
2	2022	\$132,000	\$115,294	\$124,423
3	2023	\$132,000	\$107,751	\$120,799
4	2024	\$132,000	\$100,702	\$117,280
5	2025	\$264,000	\$188,228	\$227,729
6	2026	\$264,000	\$175,914	\$221,096
7	2027	\$264,000	\$164,406	\$214,656
8	2028	\$264,000	\$153,650	\$208,404
9	2029	\$264,000	\$143,599	\$202,334
10	2030	\$264,000	\$134,204	\$196,441
11	2031	\$264,000	\$125,424	\$190,719
12	2032	\$264,000	\$117,219	\$185,164
13	2033	\$264,000	\$109,551	\$179,771
14	2034	\$264,000	\$102,384	\$174,535
15	2035	\$396,000	\$143,529	\$254,177
16	2036	\$396,000	\$134,139	\$246,774
17	2037	\$396,000	\$125,363	\$239,587
18	2038	\$396,000	\$117,162	\$232,608
19	2039	\$396,000	\$109,497	\$225,833
20	2040	\$396,000	\$102,334	\$219,256
		\$5,544,000	\$2,593,716	\$3,909,741

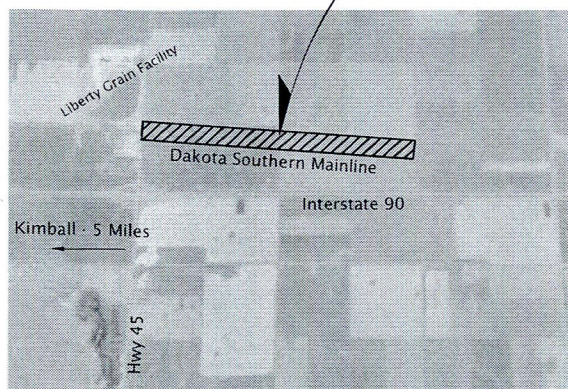
STATE OF SOUTH DAKOTA
RAIL EXPANSION

PLANS FOR PROPOSED
MRC-MEET&PASSING SIDING
TRACK CONSTRUCTION

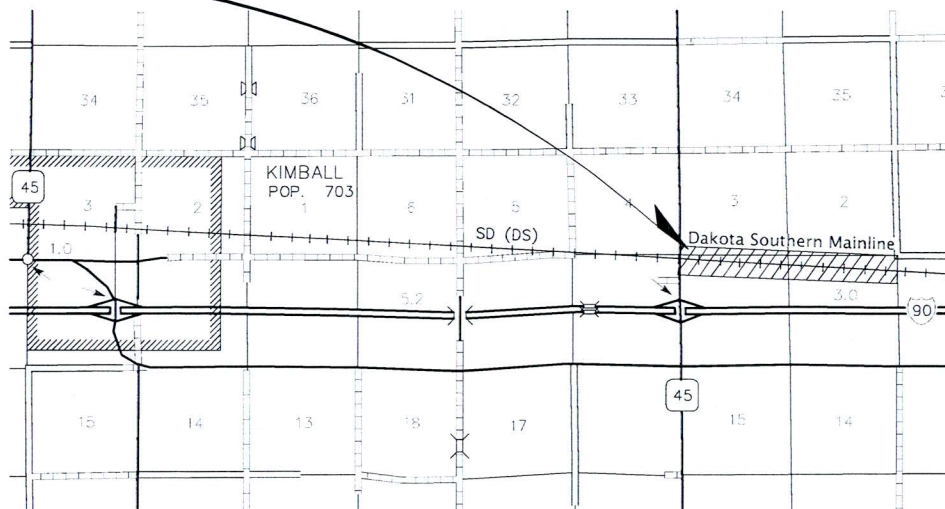
GRADING AND RAILROAD CONSTRUCTION
DAKOTA SOUTHERN MAINLINE - KIMBALL



PROJECT LOCATION
Rail Expansion
Kimball, South Dakota

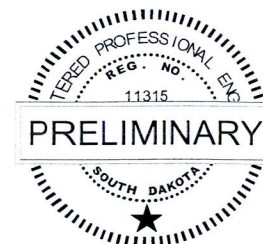


STORM WATER PERMIT
Project Area= X Acres
Disturbed Area= X Acres
Major Stream: Unknown Slough



INDEX OF SHEETS

Sheet No.	Description
1	Title Sheet
2	Estimate of Quantities
3-6	Notes
7-9	Storm Water Pollution Prevention Plan (SWPPP)
10	Typical Sections
11-14	Erosion Control Plan
15-16	Erosion Control Details
17	Existing Site
18	Boundary Exhibit
19-22	Existing Conditions & Removals
23-29	Plan & Profile
30	Clearance Sign Details
31	Derail Details
32	Mainline Switch Pad Details
33	Timber Crossing Details
34-37	Turnout Details
38-64	Cross Sections
65	Pipe Sections
66-69	Standard Plates



MRC - Meet & Passing Siding

CAD Filename:
Title Sheet

CDI Project No.
2018-086

Drawn By:
TG

Checked By:
JJC

Scale:
No Scale

Date:
9/5/2018

CIVIL
DESIGN INC

609 Main Ave. S
Brookings, SD 57006
605-696-3200

Sheet No:
1

of No:
69

Estimate of Quantities

SCHEDULE A - GRADING AND SUBBALLAST

BID ITEM NUMBER	DESCRIPTION	UNIT	QUANTITIES
A-1	Mobilization	LS	Lump Sum
A-2	Removals	LS	Lump Sum
A-3	Remove & Reset Sign	LS	Lump Sum
A-4	Unclassified Excavation	CuYd	46,694
A-5	Placing Topsoil	CuYd	5,413
A-6	Waste	CuYd	19,953
A-7	Undercut	CuYd	9,004
A-8	Subballast	Ton	24,647
A-9	Geogrid	SqYd	36,971
A-14	20" CMP Flared End - Furnish & Install	Each	1
A-15	30" CMP Flared End - Furnish & Install	Each	1
A-17	Type A Permanent Seed Mixture	Lb	61
A-18	Mulching	Ton	6.7
A-19	High Flow Silt Fence	Ft	160
A-20	Erosion Control Wattle	Ft	800
A-21	Railroad Protective Insurance	LS	Lump Sum
A-22	Right of Entry Permit	LS	Lump Sum
A-23	Flagging	LS	Lump Sum

SCHEDULE B - TRACK CONSTRUCTION

BID ITEM NUMBER	DESCRIPTION	UNIT	QUANTITIES
B-1	Mobilization	LS	Lump Sum
B-2	# 11 Mainline Switch & Turnout, Install	Each	2
B-3	Track Construction	Tr-Ft	10,162
B-4	Timber Crossing	Ft	24
B-5	Double Switch Point Derail (DSPD)	Each	2
B-6	Clearance Point Sign	Each	4
B-7	Derail Target	Each	2
B-8	Railroad Protective Insurance	LS	Lump Sum
B-9	Right of Entry Permit	LS	Lump Sum
B-10	Flagging	LS	Lump Sum



MRC - Meet & Passing Siding

CAD Filename:
Estimate of Quantities

CDI Project No.
2018-086

Drawn By:
TG

Checked By:
JJC

Scale:
No Scale

Date:
9/5/2018

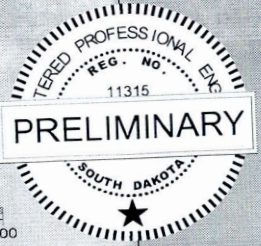
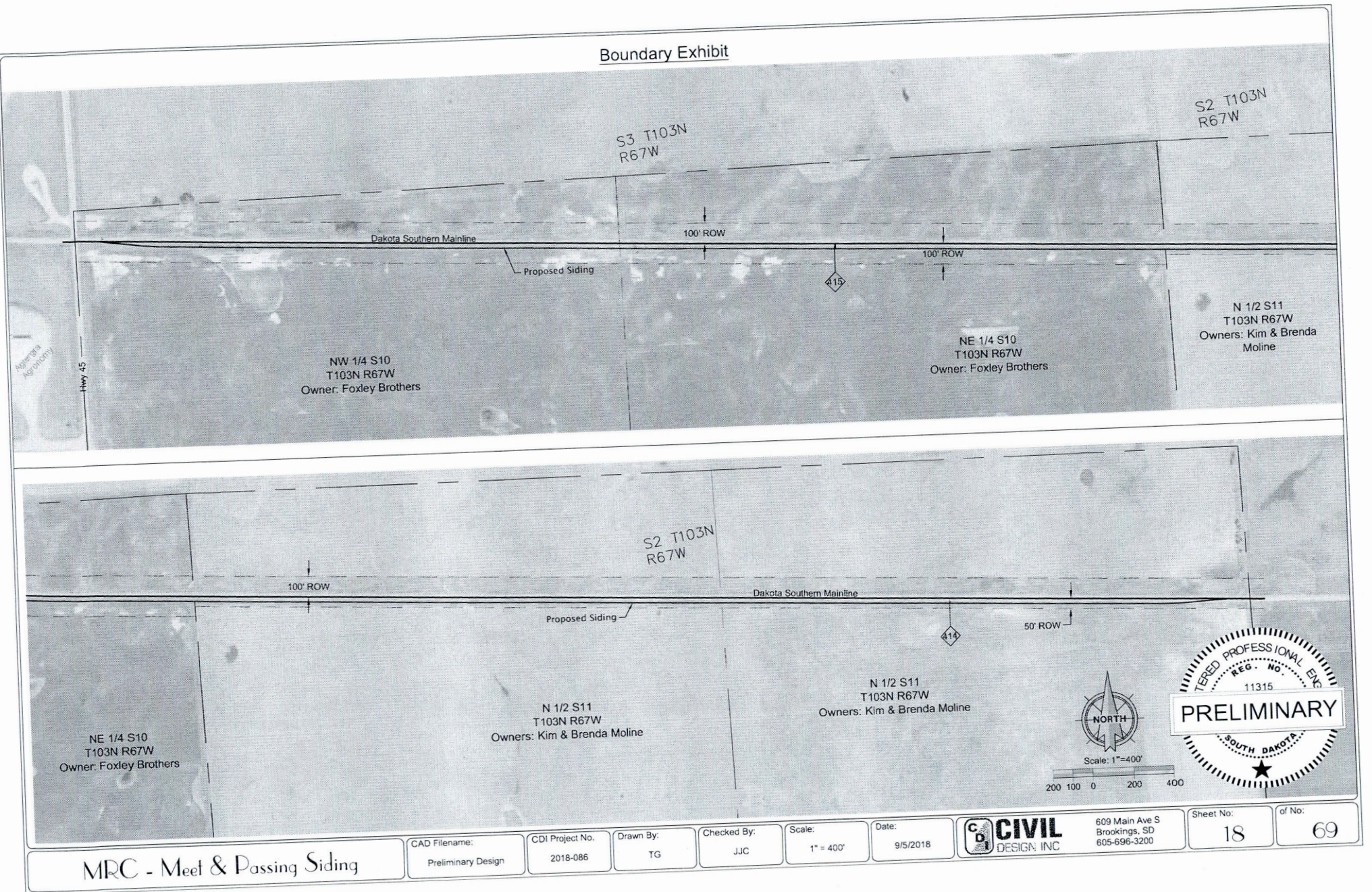


609 Main Ave. S
Brookings, SD 57006
605-696-3200

Sheet No:
2

of No:
69

Boundary Exhibit



MRC - Meet & Passing Siding

CAD Filename:
Preliminary Design

CDI Project No.
2018-086

Drawn By:
TG

Checked By:
JJC

Scale:
1" = 400'

Date:
9/5/2018

CIVIL
DESIGN, INC

609 Main Ave S
Brookings, SD
605-696-3200

Sheet No:
18

of No:
69