DEPARTMENT OF TRANSPORTATION

Division of Secretariat
Office of the Secretary
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Special Transportation Circumstance (STC) Presentations

5a Sisseton Milbank Railroad (SMRR)

5b Ringneck & Western Railroad (RWRR)

5c D&I Railroad (D&I)

5d Belle Fourche Economic Development Corporation (BFEDC)

5e Dakota Missouri Valley & Western Railroad (DMVW)

Twin Cities & Western - Sisseton Milbank Railroad

2022 STC Grant Application

Rail Relay Project

Project Description

This project would replace 2.5 miles of 1880's vintage 60 lb rail on the Sisseton Milbank Railroad from MP 19.5 to 22. This section is just north of Wilmot. This rail is the worst on the rail line. Crews fix broken rail in this area twice a week. The rest of the railroad has train speeds of 7 to 8 mph – in this section train speeds are 4 to 5 mph. Derailments are not uncommon – in 2019 9 cars derailed and tipped over. Below are some photos of this area of the railroad.

2019 Derailment

2017 Broken Rail

Vintage Rail

Project Summary

Location

The location is in Roberts County, South Dakota on the Sisseton Milbank Railroad from MP 19.5 to MP 22 north of Wilmot SD.

Scope

The project is to replace 2.5 miles of 60lb rail with new jointed 115# rail, add 2400 tons of ballast, surface the track. Preliminary engineering and environmental will be part of the scope. If the project is selected we will be requesting pre-award authority for preliminary engineering and environmental.

Schedule

Assuming USDOT award notification in April of 2023, our goal is to construct the project in the summer of 2024. This schedule assumes prompt turnaround times from all parties.

Proposed Funding

Sisseton Milbank Rail Relay

2022 STC Grant

Description	Unit	Quantity	Unit Price $	Total $
New 115# RE 80'	Ton	506	2115.59	1,070,488.54
New 115# bars	Pair	344	154.44	53,165.20
New Bolts	Keg	83	164.51	13,654.33
New Lockwashers	Each	2075	.88	1,826.00
Relay Plates	Each	16,000	9.68	154,880.00
New Track Spikes	Keg	267	97.48	26,027.16
New Anchors	Each	10,700	2.51	26,857.00
Relay Rail	Linear Ft	26400	13.50	356,400.00
Relay Mobilization	Each	1	15,500	15,500.00
Construction Subtotal				1,718,798.23
Design Engineering				50,000
Construction Engineering/Project Administration				50,000
Environmental				40,000
Contingency				250,000
Total				2,108,798.23

The estimated project cost is $2,108,798.23. Sisseton Milbank Railroad will provide 20% match of $421,759.65 and requests the remaining $1,687,038.58 from an STC grant. The project will be competitively bid for both materials and labor. The attached quotes were to demonstrate the basis for the estimate.

Project Readiness

The project is a simple rail replacement. This type of project is well understood from an engineering and contracting standpoint. Sisseton Milbank Railroad will design, bid and build the project as soon as possible.

Environmental Readiness

As a rail replacement project in existing right of way it is very likely this project will qualify for a Categorical Exclusion. If selected by the South Dakota Railroad Board we will request pre-award authority for preliminary engineering and environmental. Pre-award authority allows the grantee's preliminary engineering and environmental costs to be eligible for reimbursement when those costs were incurred prior to the signing of the grant agreement. The result is twofold – some costs that may not have been eligible for reimbursement will be and it allows the grantee to get a head start on the project.

Project Benefit

Currently the railroad repairs broken rail in this area twice a week. Derailments have been increasing in frequency over the past 10 years, currently happening once every year or so in this segment. Repairing this section of rail will nearly eliminate the chance of rail breakage and derailment. Repairing broken rail costs the railroad $1000 per week – this cost would be avoided with new rail.

The railroad currently averages 700 cars (263,000lb gross weight) per year of grain from the Sisseton Elevator. The elevator also acts as a truck elevator and ships grain to a rail served elevator in Graceville – 37 miles away. When the rail gets so bad that grain cannot be safely transported over this section, the elevator will ship these 700 cars per year to Graceville by truck. Because of the reduced capacity in the rail cars due to rail condition it takes four truck loads to make up for one railcar. 2800 trucks per year driving 74 miles per round trip is 207,200 extra miles per year. USDOT says truck driver time is valued at $32.00 per hour. 207,200 miles at 50mph is 4,144 hours. 4144 hours at $30.80 is $132,608 per year. Once at Graceville the truck must weigh and dump the load. Phil Deal, Wheaton Dumont Elevator manager and the overall manager of the Sisseton Elevator reports that it can take between one and four hours per truckload to unload. If we assume a 2 hour wait, that is an additional 5600 (2800 truckloads x 2 hours) hours at $32.00 per hour for wasted truck driver time for additional $179,200 per year. This cost is in addition to the driving time from Sisseton to Graceville. USDOT has a standard truck operating cost of $.94 per mile. Using that value, $194,768 is saved by not trucking this grain to Graceville. The total benefit of keeping the line in service vs allowing it to go out of service for grain movements is $506,576 per year. The railroads cost of repairing rail breaks would be eliminated - $12,000 per year. Total benefit per year is $518,576. Over 30 years the

savings would be $15.56 million less than the cost of the rail move that is being replaced – the cost of the rail move is assumed to be 25% of the savings for an adjusted benefit of $11.67 million. There are other benefits such as reduced emissions, less truck crashes, less wear on the roadways.

There are other shippers on the line. A plastic film manufacturing business owned by the Sisseton-Wahpeton Oyate of the Lake Traverse Reservation receives 6 to 12 cars per month of plastic pellets. This business is located north of the proposed project. A smaller elevator in Wilmot ships a few cars per year by rail. These businesses will benefit by a project to rebuild the line to keep it open. If the project is not funded and constructed, it is likely the rail line will eventually go out of service. If the rail line ceases operation, the plastic film manufacturing business owned by the tribe will likely go out of business as well.

The benefit of $11.67 million exceeds the cost of the project of $2.1 million for a benefit cost ratio exceeding 5:1. This benefit cost ratio is an approximation as it does not quantify many other benefits and does not discount benefits and costs over time.

Proposed Responsible Party Tasked with Developing the Application

If selected Sisseton Milbank Railroad will develop the federal application in a format acceptable to SDDOT.

Proposed Funding for Creating the Federal Application

If selected Sisseton Milbank Railroad will fund the development of the federal application.

State Rail Plan Goals

Support Economic Growth and Development

This project will maintain rail traffic to the Sisseton Elevator and the Sisseton-Wahpeton Oyate. If this project is not completed the Sisseton-Wahpeton Oyate's plastic film business is in real jeopardy. The Sisseton Elevator will become a truck only elevator.

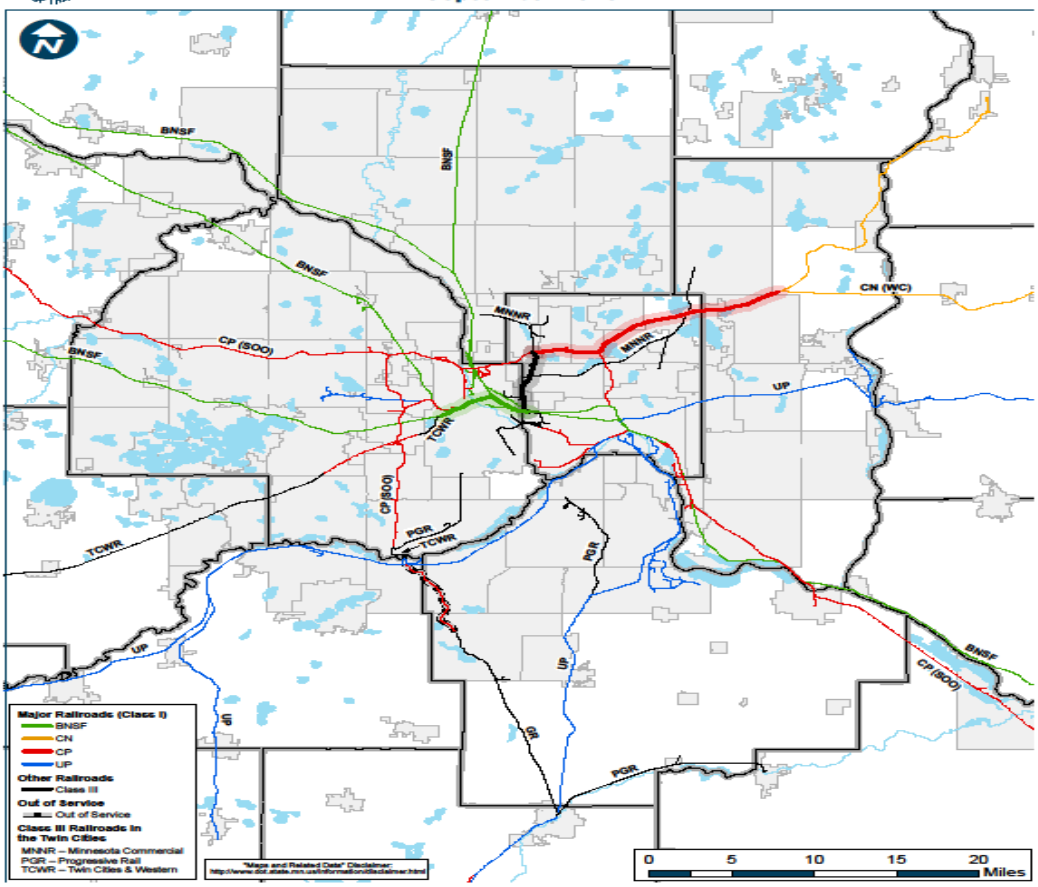
Ensure Connectivity for Critical Industries

The Sisseton Milbank can interchange with BNSF and TCWR at Milbank. The TCWR has trackage rights into the Minneapolis-St. Paul area where it can interchange with the BNSF, the Minnesota Commercial Railway, the Canadian National, the Canadian Pacific and the Union Pacific. Such interchange capability greatly expands the possible markets for shippers located on the SMRR. Below are maps of the Twin Cities & Western Railroad and the railroads in the Minneapolis-St Paul area. Agriculture is the largest industry in South Dakota and the plastic film business is very important to the SWO.

Attachment #5a

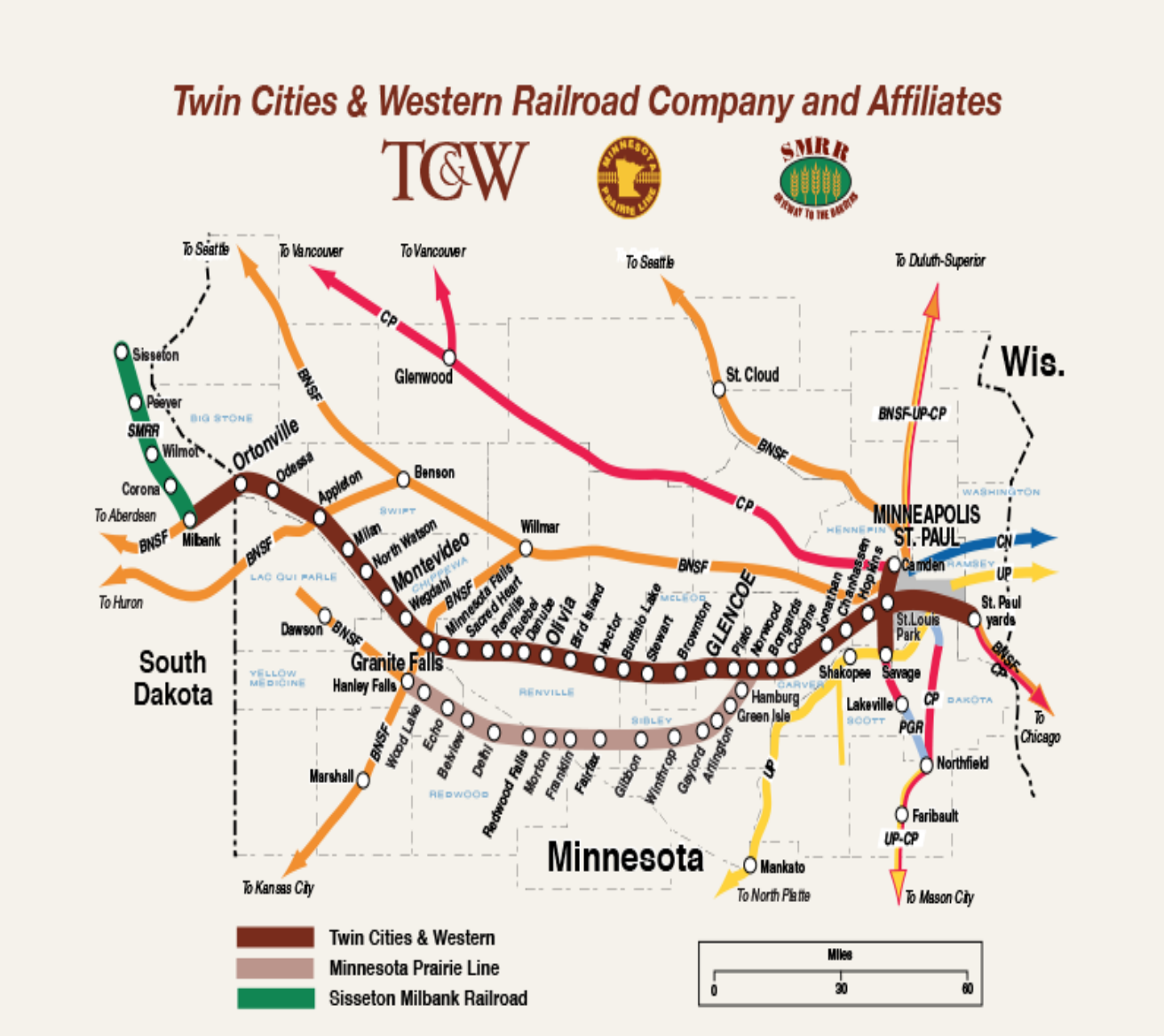
TWIN CITIES AREA FREIGHT RAILROAD MAP

Office of Freight and Commercial Vehicle Operations
September 2015



Where We Move

Customers of Twin Cities & Western Railroad Company, Minnesota Prairie Line, and Sisseton Milbank Railroad Company can connect with all Class 1 railroads serving the Twin Cities of Minneapolis and St. Paul, providing a gateway to world markets for all customers in our service territory.



Maintain State Railroad Assets in a State of Good Repair

In a previous round of STC grants the SD Railroad Board awarded the SMRR a grant to replace the Lake Farley Bridge. The replacement of this bridge was necessary to keep this line open. Likewise, this project is also necessary to keep the line open – it is the worst section of the line and continues to cause maintenance and reliability problems. If this section of the line can be replaced with this grant, it buys the railroad time to seek other grants and funding sources to upgrade the entire line.

Reduce Highway Impacts

If the project is not completed the grain now moving by rail will end up moving by truck. These additional 2800 trips and 207,200 truck miles cause additional wear on the roads and the additional miles increase the possibility of a crash.

Improve Railroad Safety, Security and Resiliency

The rail on this railroad, and in this section, is in very poor condition. It is well past its useful life – it was rolled in 1884 – it is now 138 years old. Despite having new ties installed and good surfacing and ballast the rail simply can no longer handle traffic loads. It is just old. New rail will significantly improve safety and resiliency. Because the rail is old and brittle the environmental stresses from heat and cold make it more likely to break. New rail would be far more resilient in extreme temperatures.

Material and Labor Quotes

Quotation

A&K Railroad Materials, Inc.

Phone Fax Email

Quotation ID QS-22-08959-6
Date quoted 10/12/2022
Your reference
Customer account 000313

Buyer SISSETON MILLBANKS RAILROAD*
405 W Milbank Ave
Milbank, SD 57252 1114
USA

Ship to **SISSETON MILLBANKS RAILROAD***
405 W Milbank Ave
Milbank, SD 57252 1114
USA

Requested by RALPH SCHMIDT Phone 605-432-6912 Cell phone 605-880-4005
Email rschmidt@tcwr.net Fax 605-432-9318

WE THANK YOU FOR YOUR INQUIRY AND ARE PLEASED TO QUOTE AS FOLLOWS:

Quantity	Unit	Description	Price unit	AMOUNT	Ship via
506.00	NT	NEW DOMESTIC 115RE AREMA RAIL IN 78-80' LENGTHS DRILLED 3-1/2X6X6, WITH 10% SHORTS	2,115.59	1,070,488.54	89 Foot Flat Car
		--ALTERNATE--			
570.00	NT	NEW DOMESTIC 115RE AREMA RAIL IN 78-80' LENGTHS DRILLED 3-1/2X6X6, WITH 10% SHORTS --FULL RAIL CARS--	2,104.29	1,199,445.30	89 Foot Flat Car
344.00	PR	NEW DOMESTIC 115RE TL BARS DRILLED 3-1/2X6X6 1" BOLT HOLE	154.55	53,165.20	FB-TRUCK
83.00	KG	NEW DOMESTIC 1X6X50 BHON TRACK BOLTS WITH NUTS (25 PER KEG)	164.51	13,654.33	LTL
2,075.00	EA	NEW DOMESTIC 1" 8SQ LOCK WASHER	0.88	1,826.00	FB-TRUCK
16,000.00	EA	RELAY 5-1/2" BASE DSTP 11" PLATES	9.68	154,880.00	Gondola
267.00	KG	NEW DOMESTIC 5/8X6X100 AREMA TRACK SPIKE (120 PER KEG)	97.48	26,027.16	FB-TRUCK

PAYMENT TERMS 1/2% 10 Days, Net 30
AVAILABILITY All in stock unless noted
SHIPPING TERMS DAP (Buyer's Final Destination)

TERMS AND CONDITIONS. This Quote is issued subject to and will be governed by the A&K Railroad Materials, Inc. Sales Order Terms and Conditions that are in effect on the date of this Quote and that can be found at www.akrailroad.com. Buyer is considered to have received and agreed to be bound by the Terms and Conditions. Please contact the Sales Person listed on this Quote if you require another copy of the Terms and Conditions.

THE OPPORTUNITY OF QUOTING IS APPRECIATED AND WE HOPE THAT WE MAY BE FAVORED WITH YOUR ORDER

PLEASE VISIT OUR WEBSITE AT WWW.AKRAILROAD.COM

Attachment #5a

MGA Railroad Construction, Inc.
47429 210th St
Aurora, SD 57002
(p) 605-690-4754, (f) 605-693-1349
mgarailroad@gmail.com

October 11, 2022

Sisseton & Milbank Railroad
Attn: Ralph Schmidt
405 W Milbank Ave
Milbank, SD 57252

2024 RAIL REPLACEMENT

Quantity	Description	Unit	Unit Cost	Subtotal
26400	RELAY OWNER FURNISHED 115 LB RAIL	PER LINEAR FT.	$ 13.50	$ 356,400.00
1	MOBILIZATION	LOT PRICE	$ 15,500.00	$ 15,500.00
			Subtotal	$ 371,900.00
			2% Excise Tax	$ 7,590.48
			TOTAL	$ 379,490.48

Brett Yoshida
President
MGA Railroad Construction, Inc.
Cell: 605-690-4754
Email: brett.mgarr@gmail.com

Ringneck & Western Railroad
Special Transportation Circumstance Grant Proposal:
Ringneck and Western Grade Stabilization Project

The Ringneck & Western Railroad (RWRR), which began operations in May 2021, is a newly acquired rail line purchased by Watco from the State of South Dakota. The line stretches 108 miles from west of Presho east to Mitchell, where the RWRR interchanges with BNSF Railway. The primary commodities hauled by the RWRR are grain and fertilizer. Customers served on the line are located across the entire railroad from Mitchell west to Presho.

The RWRR respectfully submits the following application to the South Dakota Railroad Board's call for Special Transportation Circumstance (STC) projects under the Federal Railroad Administration's Consolidated Rail Infrastructure and Safety Improvements (CRISI) program.

Project Summary, Scope and Need

The RWRR experienced significant grade failures due to wet subgrade and erosion due to the close proximity of American Creek (east river) and American Crow Creek (west river). A June 2021 derailment of a loaded train occurred just west of Reliance. After the train was rerailed, when the train was moved offline serious problems with subgrade were noted in the area of the gorge. The derailment itself cost over $1 million dollars, plus Watco spent $884,738 to repair drainage issues noted in the gorge. Once all the contractor costs are added, the total cost of repairs is expected to exceed $1.2 million.

The nature of the soils and the proximity of the two creeks causes the ground to constantly be eroded underneath the surface. Because of this, washouts, hill slides, and sink holes can exist undetected until the weight of a train runs over them, causing the ground to break loose and reveal eroded sections.

The project consists of purchasing and installing 11,600 ties, 8,200 tons of ballast, 21 miles of surfacing, 1,000 ft of undercutting and the purchase and placement of 3,500 tons of rip rap.

This work is to repair currently identified problem areas. RWRR will also continue focusing resources on the railroad related to subgrade problems. While the level of work depends on what kind of problems arise – RWRR expects annual maintenance and repairs in this area to exceed $1 million per year.

Location and Scope of Work

The project area is located from MP 445 to MP 457 west of the Missouri River Bridge and MP 434 to MP 441 east of the Missouri River Bridge. The rip rap and undercutting will be on the east side of the river, with ties and ballast being installed on both sides of the river.

Mile	Ties	Ballast	Rip Rap	Undercutting	Notes
434	600	450	1500		
435	600	450	1500		
436	600	450			
437	600	450			
438	600	450			
439	600	450	250		
440	600	450	250	1000	
441	600	450			
442	*Skip Approaches & Missouri River Bridge*				
443					
444					
445	400	200			
446	400	200			
447	400	200			
448	400	200			
449	400	200			
450	600	450			
451	600	450			
452	600	450			
453	600	450			
454	600	450			
455	600	450			
456	600	450			
457	600	450			Reliance Hwy 47 end point

Project Location and scope

Rip rap locations along American Creek

Schedule

Assuming federal grant award by April 2023, the RWRR anticipates construction the summer of 2024 and project completion by the fall of 2024. The schedule depends upon the award date and the environmental process time length. If reviews and response times are longer than anticipated the project may end up being constructed in 2025.

Administration Goals for the Infrastructure Investment & Jobs Act (IIJA)

The project to repair the subgrade, railbed, and rail infrastructure aligns with all four primary goals of the IIJA; the funding mechanism for STC/CRISI. his project addresses a changing climate, sustainability, and resiliency on the plains of South Dakota by improving the historic railbed to ensure compatibility with emergent environmental conditions. Second, this project builds upon equity and community connections by ensuring access to markets for agricultural producers and other commodity owners. Third, there is a direct and immediate improvement to safety and efficiency as discussed throughout this application. Finally, improved operation of the RWRR provides access to good jobs and investment opportunities to further utilize and invest in the RWRR infrastructure.

State Rail Plan Goals
Support Economic Growth and Development

The railroad provides transportation in this area for elevators in Chamberlain, Kimball, Kennebec and Presho. The railroad provides competitive transportation costs for agricultural inputs and direct access to the BNSF shuttle program, benefitting agricultural producers. This results in stabilizing the economy in rural areas along the railroad. By helping keep this line open with is project, the local economy will continue to benefit from the railroad.

Ensure Connectivity for Critical Industries

Agriculture is the biggest industry in the state, and grain elevators are the RWRR's largest customers. This project will help the railroad ensure that it can maintain service to customers. This project will allow the railroad to be more resilient in the event of weather or climate related service disruptions. The ability to respond quickly is a benefit to this critical industry. The railroad was out of service for two months this summer, causing increased costs for west river shippers .

Maintain State Railroad Assets in a State of Good Repair

The subgrade west river and east river along American Creek and American Crow Creek is unstable, causing constant problems.

Drainage issues along American Creek – project area to be undercut

Embankment failure west river

Sheet pile and embankment repair 8-10-22

Mp 448.5 French drain installation 8-25-22

Reduce Highway Impacts

Prior to the restoration of the RWRR line, the grain grown along the line was trucked east to Mitchell, north to the RCPE or south into Nebraska. With the addition of elevators in Kimball, Kennebec and Presho, the line has greatly reduced trucking miles in south central South Dakota. This project will help maintain that positive impact.

Improve Railroad Safety, Security and Resiliency

RWRR experienced two main line outages, due to the subsurface conditions, that greatly affected both the railroad and customers. This project will directly help the railroad become safer. Currently the railroad is vulnerable to weather events such as heavy rains that can cause washouts or contribute to soft subgrade areas. The project will help the track structure resist such damage.

Project Costs & Local Match

Total project costs are $2,993,156.76. RWRR will provide 20 percent local match of $598,631.35 and requests a STC grant in the amount of $2,394,525.41. The cost breakdown is below.

Ringneck & Western 2022 STC Project

	Quantity	Unit	Unit Cost	Total Budget
Mobilization	1	LS	$200,000.00	$200,000.00
Ties	11600	Ea	$70.00	$812,000.00
Tie Install Labor	11600	Ea	$32.00	$371,200.00
Spikes (4.1 per tie)	47560	Ea	$0.61	$29,011.60
Plates (5%)	580	Ea	$8.00	$4,640.00
Disposal	11600	Ea	$7.00	$81,200.00
Total Tie Installation				**$1,498,051.60**
Ballast Delivered	8200	Tons	$80.00	$656,000.00
Surface labor/equipment(miles)	21	Miles	$9,000.00	$189,000.00
Undercutting	1000	Feet	$100.00	$100,000.00
Rip Rap (8-12" shoulder rock)	3500	Tons	$58.00	$203,000.00
Total Surface				**$1,148,000.00**
Project Management	**1**		**$75,000.00**	**$75,000.00**
Administration	**1**		**$7,500.00**	**$7,500.00**
Contingency	**10%**			**$264,605.16**
Total Estimate				**$2,993,156.76**

Project Readiness

The project is a standard railroad project and is well understood from an engineering and construction standpoint. RWRR requests that preliminary and final engineering expenses be eligible for reimbursement under pre-award authority.

Environmental Readiness

Environmental work will begin upon notice of award by USDOT. RWRR requests that environmental expenses be eligible for reimbursement under pre-award authority. We believe this project may qualify for a categorical exclusion.

Overall Project Benefits

The project will benefit the railroad and the shippers by helping to eliminate railroad damage and service interruptions related to weather impacts. The benefits related to the costs depend on possible future derailments and service interruptions that may be prevented because of the project. This summer's two-month service outage caused a revenue decrease for the railroad, and an increase in shipping costs for the elevator's west river since they could not ship shuttle trains and had to truck grain to other locations. Had the service outage occurred during harvest – the revenue losses for shippers, the railroads and farmers could be devastating.

Benefit Cost Ratio

If a washout causes several months of service disruption or a derailment costs a million dollars or more – and this project will prevent those from happening – then the project will have positive benefit cost ratio over the 30-year life of the project.

Proposed Responsible Party Tasked with Developing the Application

RWRR will develop the STC application for submittal to USDOT. RWRR will work with SDDOT to develop the application in a format that meets the needs of SDDOT.

Proposed Funding for Creating the Application

RWRR will be responsible for funding the federal project application if selected.

RWRR Point of Contact:

Ryan Yanez
General Manager
316-932-5068
Ryan.yanez@watco.com

Attachment #5c

D & I Railroad

Hudson, SD Area

Main Line Rail Replacement Project

October, 2022

CONTENTS

EXECUTIVE SUMMARY

Figure 1: D & I Ethanol Train at Hawarden, Iowa

The D & I Railroad Hudson, SD Area Main Line Rail Replacement Project (the Project) will improve railroad **safety, efficiency, capacity, and reliability** on a railroad line that is critical to the success of local economies and the national and global reach and competitiveness of communities in rural eastern South Dakota and northwestern Iowa. Significant freight shipments originate or terminate on this rural railroad line, and consist of aggregates, ethanol, corn oil, cement, chemicals, agricultural products, construction materials, and plastics. 85% of the annual carloads on this line originate/terminate in South Dakota. ***The majority of this vital railroad line includes several miles of legacy jointed rail on the main line that is approaching 100 years of age.*** The safety, efficiency, capacity, and reliability of present-day railroad operations on the line are affected by the timeworn main line rail nearing the end of its useful life. These impacts have caused temporary speed restrictions (slow orders) to appear more frequently, despite recent concerted maintenance and capital investment by the D & I Railroad. Safety improvements at 6 grade crossings are included in the project.

The State of South Dakota is an eligible recipient for STC grant funds. The State will serve as the lead applicant for the grant funding and the South Dakota Department of Transportation (SDDOT) will be the agency managing any grant funds received from the Federal Railroad Administration (FRA). The project's Applicant is the D & I Railroad (D & I) along with support from shippers on the line. These parties are also contributing time and resources towards the development of this STC grant application. Public-private partnerships, such as this one, demonstrate an innovative approach that allows multiple stakeholders to cooperate on and deliver projects more efficiently, cost effectively, and with less federal funding required. The above-named parties are committed to delivering the Project and will contribute toward the Project as detailed in Section 2.0

The primary purpose of the Project is to enhance freight railroad infrastructure to maintain the rural economy of a large geographic area in eastern South Dakota and northwest Iowa. Ancillary benefits generated by the Project are improved railroad operation from the replacement of legacy main track rail as well as a reduction in derailment exposure and likelihood by providing safer and more reliable railroad infrastructure. This railroad line is vital to the operation and future growth for many rural shippers.

1.0 PROJECT SUMMARY

The proposed project will replace 5.80 miles of existing 100 lb/yd jointed rail with 115 lb/yd ribbon rail located in South Dakota on the D & I Hawarden Subdivision from MP 29.86 to MP 35.66.

The jointed rail to be replaced is nearing the end of its useful life and is on a track segment that is integral to the hazmat shipments on the lines. The rail line serves an aggregate producer, two ethanol shippers, a cement terminal, and several transload customers and facilities. Current economics and high fuel prices have 3 potential shippers looking at developing facilities along the rail line as well. Continued degradation or loss of railroad service will be detrimental to current shippers, and attracting new business. These improvements are also needed to solve lingering legacy infrastructure issues, to preserve and enhance

capacity, rail access, multimodal connectivity, and interchange connections with three Class I railroads (BNSF Railway, Canadian National Railway, and Union Pacific Railroad), and to accommodate future growth in economic and industrial development in the rural Siouxland region.

Assuming approval of the STC grant in midyear 2023, construction of the Project will begin in the spring of 2024 and be completed by the end of 2024. Overall, the Project will have an immediate positive impact on this rural area and the industries that rely on this vital link to the national freight rail network and global marketplace.

1.1 Challenges Addressed by the Project

The Project will improve railroad **safety, efficiency, capacity, and reliability** of the railroad line in rural south eastern South Dakota and northwestern Iowa. Most of the carloads originate on the railroad line, and consist of unit volumes of aggregate and ethanol, and carload volumes of chemicals, agricultural products, construction materials, and plastics. ***The majority of the infrastructure on this railroad line is a relic of the past, including several miles of existing main line jointed rail that is nearing 100 years of age and the end of its useful life.*** Temporary speed restrictions (slow orders) appear more frequently, despite the continued maintenance and capital investment made by D & I.

The purpose of the Project is to maintain freight railroad access to this robust, rural economy located in eastern South Dakota and northwestern Iowa. **Reliability** is key to the industries, businesses, and customers utilizing this railroad line. Maintaining the existing railroad line to a state of good repair is paramount to preserving and achieving economic and industrial growth in this rural area. The proposed Project improvements will enhance overall service reliability, safety and operational efficiencies.

The track segment in this proposed Project is subject to all Hazardous Material carloads on the line. The aging and worn-out main line rail also increases potential derailment exposure, further putting the railroad, its users, and communities at risk. The proposed Project improvements will replace some of the railroad line's oldest and most worn-out sections of main line rail, which will allow for **safer** railroad operations due to reductions in potential derailment exposure.

1.2 Grade Crossing Improvements and Information

The D & I Project includes upgrades to grade crossing components. Six rural crossings will receive plank and hardware improvements in the rail relay project element.

1.3 Performance Measures

As the applicant for and potential recipient of STC funds, SDDOT understands that the USDOT may establish performance measures for the D & I Hudson, SD Area Main Line Rail Replacement Project in order to assess progress in achieving strategic goals and objectives. The D & I understands that USDOT, through the SDDOT, may require it to periodically report information related to such performance measures. Potential performance measures for the Project would be confirmed through coordination with USDOT after award of STC funds to SDDOT.

2.0 PROJECT FUNDING

2.1 Main Line Rail Replacement

The Project represents a significant transportation infrastructure investment to provide enhanced service performance and reliability for this rural freight railroad line primarily serving SD originations and terminations. $5,530,616 is the total project cost estimate. The D & I will contribute $1.11 million toward the $5.531 million construction cost for the Project. The $4.43 million request for STC funds would provide the remaining project funding needed to construct the Project. Project funding sources are presented in the following table.

Task No.	Task Name/ Project Component	Cost	Percentage of Total Cost
1	**South Dakota Main Line Track Rail Replacement (5.80 miles)**	**$5,530,616**	**100%**
	Total Project Cost	**$5,530,616**	**100%**
Federal Funds Received from Previous Grant		$0	N/A
STC Federal Funding Request		$4,424,492.80	*80%*
Non-Federal Funding/Match		$1,106,123.20 *Cash: $1,106,123.20* *In-Kind: $0*	*20%*
Portion of Non-Federal Funding from the Private Sector		$1,106,123.20	*20%*
Portion of Total Project Costs Spent in a Rural Area		$5,530,616	*100%*
Pending Federal Funding Request		$0	N/A

The funding breakdown consists of an "80/20" funding package for the $5.531 million project as supported by the following public-private partnership:

- $4.43 million STC Grant by the Federal Railroad Administration (FRA)
- $1.11 million from D & I Railroad

2.2 Preliminary Opinion of Probable Cost

Materials Only

Item	Description	Unit	Quantity	Unit Price	Total
1	115lb CWR	Tons	1,230	$ 2,250.00	$ 2,767,500.00
2	Tie Plates	Each	38,000	$ 16.00	$ 608,000.00
3	Anchors (115 Lb)	Each	40,000	$ 2.00	$ 80,000.00
4	Anchors (10035)	Each	500	$ 2.00	$ 1,000.00
5	Rail Spikes - 50Lb Kegs	Kegs	1,500	$ 80.00	$ 120,000.00
6	6"x8"x8'-6" Grade 3 Ties	Each	2,500	$ 75.00	$ 187,500.00
7	7"x9"x10'-0" Grade Ties	Each	175	$ 120.00	$ 21,000.00
8	Timber Crossing Planks	Tr-Ft	168	$ 225.00	$ 37,800.00
11	Weld Kits (115Lb)	Each	55	$ 200.00	$ 11,000.00
				Total Materials:	$ 3,833,800.00

Labor Only

Item	Description	Unit	Quantity	Unit Price	Total
1	Mobilization	LS	1	$ 50,000.00	$ 50,000.00
2	Rail Relay	Tr-Ft	30,624	$ 20.00	$ 612,480.00
3	Skew Tie Correction	Tr-Ft	30,624	$ 1.50	$ 45,936.00
4	Tie Replacement	Each	2,500	$ 25.00	$ 62,500.00
5	Ballast	Ton	1,800	$ 30.00	$ 54,000.00
6	Surfacing	Tr-Mi	5.8	$ 5,000.00	$ 29,000.00
7	Timber Crossing Reconstruction	Tr-Ft	16	$ 350.00	$ 5,600.00
9	Traffic Control	LS	1	$ 5,000.00	$ 5,000.00
10	Rail Train Unloading	LS	1	$ 10,000.00	$ 10,000.00
11	Bonding	LS	1	$ 10,000.00	$ 10,000.00
12	Railroad Protective Insurance	LS	1	$ 4,000.00	$ 4,000.00
				Total Labor:	$ 888,516.00

Total Construction:	$ 4,722,316.00
15% Contingency:	$ 708,300.00
Engineering:	$ 100,000.00
Environmental:	$ 30,000.00
Construction Administration:	$ 100,000.00
Total Project Cost:	$ 5,530,616.00

3.0 BENEFIT COST ANALYSIS

The cost effectiveness of the Project's proposed improvements was measured by conducting a Benefit-Cost Analysis (BCA). The main line rail improvements constructed under the Project will provide many quantifiable benefits to railroad operations, rail shippers, and the public. Non-quantifiable benefits of the grade crossing improvements, increased safety and reliability to users, patrons and public along the rail line are not included in the monetized benefits explained below:

- **Annual avoided train crew costs and train delay due to improved running times - $83.4 thousand per year**
  - Due to existing temporary slow orders, the main line within the Project Area has been operating at a slower track speed temporarily. The Project would eliminate these temporary slow orders and return the main track back to its original timetable speed.
- **Annual reduction in maintenance costs – $101 thousand per year**
  - Due to the current condition of the track, significant time and resources are used to keep the rail in usable condition. Completion of the Project would allow maintenance crews to return to a less intense maintenance schedule

- **Annual avoided costly derailments - $143 thousand per year**
    - Completion of the project is assumed to save one derailment per year. The average cost of a derailment has been $143 thousand.
- **Total Annual Project Benefits - $326.6 thousand per year.**
- **Cost Benefit Ratio is $1.79 in public benefits for every dollar spent.**

Figure 2: D & I at Poet Ethanol Products. Located at Hudson, SD

- **Some of the track assets installed during the construction of the Project maintain residual value since their useful life is greater than the 30-year analysis period.**

4.0 PROJECT ELIGIBILITY

The D & I Railroad Hudson, SD Area Main Line Rail Project is requesting STC funding for Project Track 3 Final Design/Construction for the South Dakota located project. Pending publication of the STC Notice of Funding Opportunity (NOFO), it is anticipated that the Project is eligible for STC funding.

The D & I Railroad (D & I) is a short line railroad that is owned by L.G. Everist, Inc. (LGE), and operates approximately 138 route-miles of rail lines in the states of South Dakota and Iowa. From north to south, the D & I operates from:

- Dell Rapids, South Dakota to Sioux Falls, South Dakota (on trackage owned by D & I)
- Sioux Falls, South Dakota to Canton, South Dakota (via operating rights over BNSF Railway trackage)
- Canton, South Dakota to Elk Point, South Dakota (on trackage owned by D & I)
- Hawarden, Iowa to Beresford, South Dakota (on trackage owned by D & I)
- Elk Point, South Dakota to Sioux City, Iowa (via operating rights over BNSF Railway trackage)

The D & I interchanges unit train and carload rail traffic with three Class I railroads in Sioux City, Iowa (BNSF Railway, Canadian National Railway, and Union Pacific Railroad). This competitive access is critical to the ongoing success of the D & I and its shippers.

The D & I Railroad Hudson, SD Area Main Line Rail Replacement Project is a capital project that will:

- Improve short line railroad infrastructure and operations
- Address congestion challenges affecting rail service, and will increase rail capacity and upgrade the condition and capacity of railroad main lines
- Improve track conditions on a railroad line, helping to alleviate rail service interruptions and lift permanent speed restrictions

4.1 Expected Users and Beneficiaries of the Project

Expected users and beneficiaries of the Project include:

- **Public** – The rail upgrade will improve the health of the corridor and will decrease the potential likelihood of track-caused derailments – a livability benefit for the public. In addition, the rail

upgrade component of the project will help lift several speed restrictions resulting in faster and more efficient train operations and less overall train occupancy times at highway-rail grade crossings. Improvements at grade crossings will enhance safety to the residents along the line.

- **Industries** – Shippers and receivers of raw materials and goods entrust their businesses to the reliability of this supply chain component. Being able to ship and receive bulk materials by rail is also advantageous as it reduces input costs for the producer, as well as overall price for the end user. D & I shippers on the railroad line and their commodities include:
    - ***L.G. Everist***, aggregates used in construction
    - ***BX Civil & Construction***, magnesium chloride for roadway dust control and de-icing
    - ***Poet Bio-Refining***, ethanol and dried distiller's grains (DDG)
    - ***Siouxland Energy Cooperative***, ethanol
    - ***Poet Nutrition***, corn oil
    - ***GCC Dacotah Cement***, raw cement
    - ***Prinsco***, plastic pellets for the manufacture of agricultural drain tiles
    - ***EnviroTech Services,*** road surface products
    - ***Valero***, corn oil
    - ***Vollan Oil Co.,*** diesel fuel and denaturant
    - ***Purina Animal Nutrition***, DDG
    - ***The Andersons Inc.,*** corn oil
    - ***Millborn Seeds,*** rye, oats
- **D & I Railroad** – Railroad operator

5.0 PROJECT LOCATION

The Project is located fully within rural South Dakota, and within the following congressional district:

- South Dakota – At Large

The nearest Urban Area is the City of Sioux Falls, which is nearly 20 miles away from the northern end of the Project Area (Hudson, South Dakota). The Project's southern end is located just north of the South Dakota/Iowa border and is not within the urban area.

The Project's location (geospatial data) is in proximity to:

- Latitude and Longitude: 43°08'31.89"N - 96°27'12.94"W

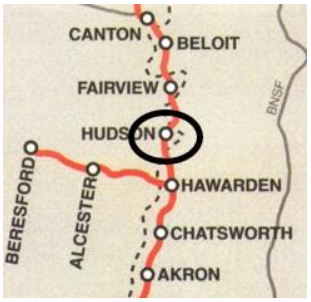


Figure 3: Map location of proposed Project

6.0 PROJECT ADHERENCE TO STATE RAIL PLAN GOALS

1) **Economic Support, Growth, and Development.** The Project will promote continued safe and reliable rail service for the shippers on the D & I Dell Rapids Subdivision, and will provide additional operational flexibility that will increase track capacity and create transportation efficiencies, all while increasing the ability to accommodate the shipments of new customers on the line. At present, nearly 75 percent

of all existing D & I rail traffic originating or terminating on the rail line traverses the Project Limits, meaning most future traffic will benefit from this Project's proposed improvements.

Over the past 10 years, freight shipments on the D & I have averaged between 17,000 and 20,000 carloads annually. New shippers to the railroad line show great potential for more growth in the transloading business, with products arriving from a four-state area, encompassing South Dakota, Minnesota, Iowa, and Nebraska. After the completion of the Project, D & I will be able to attract more business opportunities for further economic and industrial growth and development within the region.

Figure 4: D & I at Siouxland Energy Cooperative located at Hudson, South

2) **Ensuring Enhanced Competitive Access and Maximum Connectivity for Critical Industries.** Often over looked, short line railroads fill a critical role within the U.S. freight network as they provide bulk freight service transportation for the "first or last mile" connections between farmers, manufacturers, and the end consumer. Industries along the D & I rail line rely on D & I to transport bulk quantities of rock, sand, agricultural products, construction materials, and ethanol by rail to customers outside of the eastern South Dakota and northwestern Iowa region. These commodities have significance to the regional, national, and global economies. The D & I connects to and interchanges with three Class I railroads in Sioux City (BNSF Railway, Canadian National Railway, and Union Pacific Railroad), and thus provides local businesses and industries with broad competitive access to the national freight railroad system, global marketplace, and the opportunity to grow their market share.

Local industries are also leading the source of inquiries for new business on all South Dakota railroad lines, and continually look to expand their operations, leading to economic growth within this rural area. With strong growth and new business opportunities present along the D & I rail line there is an overwhelming need to maintain freight railroad access to this rural area in order to preserve existing businesses and industries, and their ability to attract new business. The D & I Railroad Hudson, SD Area Main Line Rail Replacement Project will help to maintain the reliability of existing freight rail service and to improve future rail service on the line.

Figure 5: Existing D & I Track Condition with Bent Rail Ends and Rail Warp

3) **Maintaining State Railroad Assets in Good Repair.** The D & I Railroad has a long history of maintaining this rail line to an acceptable standard. The rail replacement component of this Project is a much-needed improvement since the existing rail is or nearly is 100 years old. The rail has served its useful life and needs to be replaced due to its worn condition, which was caused by heavy impacts to the rail joints, leading to excessive rail end batter and warp conditions. Further rail degradation could potentially result in added maintenance for D & I, loss of the ability to

accommodate rail cars with a maximum allowable gross weight of 286,000 lbs., or an increase in service failures and a marked reduction in operating velocity and efficiency, including an enhanced risk of train derailments and other incidents. The rail renewal proposed in the Project will allow the D & I to remain competitively connected with three Class I railroads and its transload facility in Sioux City, Iowa. It will also allow D & I to confidently maintain consistent service over the line.

Since 1981 D & I has worked diligently with ongoing public-private partnerships to invest in numerous capital projects involving bridge replacements, new rail, and track and tie maintenance, ensuring that this railroad line continues to provide reliable, safe, and fully accessible service to the states and region. Shippers, their employees, their customers, and surrounding communities all rely on this vital rural railroad connection. The capital improvement proposed in the D & I Hudson, SD Area Main Line Rail Replacement Project will greatly reduce the risk for rail traffic interruption and any negative impacts this could potentially have on existing rural-area businesses (and their ability to attract new business) on the railroad line.

4) **Reducing Highway Impacts.** Previous capital improvements to the D & I Sioux Valley Subdivision by the D & I have allowed for the upgrades to accommodate 286,000 lb. heavy-axle load rail cars on the railroad line, further reducing impact to local roads and the highway system. This improvement has allowed existing shippers to ship more weight per carload, thus avoiding extra shipment of smaller carloads or diverting excess shipments from freight rail to trucks during peak times. Further investment in the D & I line will continue to encourage local, regional, and state-wide growth opportunities and reduce the impact on state highways and local roads.

   In addition, the local rail service that many short line railroads offer, like D & I, have helped to attract local truck-haul service for end point or origin points of shipments (or for transload from truck to rail or vice versa). The trucking companies that serve new transload customers are realizing the importance of short-haul in the freight rail system, which was previously known for long-haul shipping only. These trucking companies prefer to ship manageable distances that allow their drivers to maximize their time in the seat. In last 5 years, seven additional transload customers located their operations on the railroad line. With the Project's improvements, D & I will be better positioned to handle more of these short-haul moves in the future since the Project will improve overall capacity and reliability of the railroad line, and help to remove more long-haul trucks from local roadways and state highways (which will reduce pavement damage, air emissions, etc.).

5) **Improving Railroad Safety, Security, and Resiliency.** Improving railroad safety, security, and resiliency is one of the key goals identified in the South Dakota State Rail Plan (2014). The Project will provide much needed rail infrastructure and will aid in lowering potential derailment exposure caused by track defects on the D & I Hawarden Subdivision. This capital improvement project will help to improve the overall safety and reliability of this railroad line and sustain the continued operation of the D & I. For D & I, the capital improvement project will reduce the overall potential risk to train operations.
   A recent FRA geometry inspection shows rail in the project area contains permanent bent rail ends, which leads to track warp, a permanent condition where track surfacing is unattainable.

7.0 PLANNING READINESS

For Tracks 3 (FD/Construction) Projects:

The Project's component is supported in the South Dakota State Rail Plan (2014). Table 1 summarizes the planning document coverage.

Table 1: State Planning Documents Identifying the Importance of the Project

Planning Document	Sponsor	Relevant Pages	Web Location
South Dakota State Rail Plan (2014)	SDDOT	41, 42, 43	Link

This Project demonstrates the State of South Dakota's intent and commitment to finding long-term improvements that:

- Support economic growth and development
- Ensure connectivity for critical industries
- Maintain railroad assets in a state of good repair
- Reduce highway impacts
- Improve railroad safety, security, and resiliency

The D & I Railroad will assist the SDDOT with preparation of the STC application. This document may serve as a template for the application.

8.0 ENVIRONMENTAL READINESS

The National Environmental Policy Act (NEPA) requires consideration of environmental impacts for federal actions. The level of analysis and documentation required to comply with NEPA depends on the scope of the project. This Project is categorically excluded under the categories of Maintenance of Existing Track (main line replacement) [64 Federal Register 28548(4)(c)].

9.0 SUMMARY OF NON-QUALITATIVE BENEFITS

- ***A more reliable railroad system helps control supply chain cost variability, which is beneficial to the shippers.*** Local businesses also thrive when the shippers on the railroad line are productive and profitable.
- Maintaining the freight railroad system in southeast South Dakota and northwest Iowa is crucial to the economies of the counties and rural communities along the railroad line.
- Shippers and employees of surrounding businesses that support these local shippers rely on a reliable local rail system to transport products via the D & I Railroad.
- The recently completed 2019 STC grant funded project demonstrates that the SD DOT and D & I are a productive team.

Belle Fourche Economic Development Corporation Rail Park Improvements

2022 STC Grant Application

Project Overview and Need

The BFEDC STC grant request includes three options. The first (Option 1) is a 1494' lead into the existing rail park for future development. This project is to construct a track lead into the BFEDC rail park. This rail will open the remaining area in the industrial park for rail served businesses. The second option (Option 2) includes the scope of work of Option 1 and adds a planning to project to have a high-level evaluation five locations (for a new rail park), a more in-depth analysis of two locations, then selection of the preferred location, preliminary design and environmental of the selected location for a new rail park. The third option (Option 3) includes the scope of work of Option 2 and adds security cameras and the purchase of a Trackmobile to move cars around in the industrial park.

State Rail Plan Goals

Support Economic Growth and Development

The Albany Farms project currently employs 75 people and will be expanding to 300 within the year. Please see the Oct 7, 2022 Black Hills Pioneer article at: First truck-full of noodles departs Albany Farms | Local News | bhpioneer.com . 300 jobs in western South Dakota are significant and will greatly stabilize and grow the economy of the area in and around Belle Fourche. This project represents real growth for Belle Fourche and the region.

As stated in the article, Albany Farms plans to mill South Dakota wheat and to obtain as much wheat locally as possible. It is likely that much of the wheat will come from the

Pierre/Onida/Midland areas, offering those elevators and producers an additional market. The wheat will be shipped by rail on the RCP&E to Belle Fourche.

By any measure the BFEDC rail park is a success for the community, providing economic growth and development. The rail park is also an asset for the railroad, providing carloads and revenue that would otherwise not be there. BFEDC responds to inquiries on a regular basis regarding the industrial park. The availability of rail can make or break the decision of a prospective business as they are evaluating their location options. The success of landing Albany Farms demonstrates the good practice of having infrastructure available on the ground when companies are evaluating sites to locate at. Simply put – it is difficult to assure a business that the needed infrastructure will be built if they locate at a site if that infrastructure is currently no in place. Simply put – no one believes rail will be laid unless it is already on the ground.

This industrial park provides a benefit to other shippers located on the RCPE railroad by providing additional traffic on the line. This additional traffic provides RCPE with revenue that helps make it a more financially stable and resilient railroad. A more stable railroad is a benefit to all shippers.

If Option 1 is approved , the industrial park will be at capacity regarding rail infrastructure. BFEDC is requesting Option 2 be approved so that there is not a gap in time where there is no lack of rail served industrial locations available in the Belle Fourche area.

Ensure Connectivity for Critical Industries

Rural South Dakota industries have traditionally been related to agriculture and the extractive industries (mining and logging) and these industries are still important today. However, expanding upon those traditional industries provides for economic stability and growth. The rail to the BFEDC facility provides support to a traditional major industry in South Dakota (agriculture) and provides significant added value to the wheat grown in South Dakota.

The State of South Dakota established the Sanford Underground Laboratory and owns the facility. The cutting-edge experiments taking place in the former Homestake Mine are not a traditional industry in South Dakota but represent an effort to expand the state's economy into a different direction. It's fitting that the supporting facilities are in South Dakota for South Dakotans to take advantage of the work going on in Lead. It remains likely that the BFEDC industrial park will play an important role in receiving the equipment needed for the experiments.

Maintain State RR Assets in a State of Good Repair

The tracks proposed for the Belle Fourche Rail Park does not directly maintain existing mainline track. However, the additional rail traffic provides RCP&E with additional revenue to maintain the track and additional car counts support the viability of the line.

Currently the rail park has received between 100 and 200 cars per year for local and regional customers – many that unload the cars in the industrial park. The number has been artificially held down as rail construction at the park has resulted in BFEDC not marketing the property and

the availability of rail. BFEDC anticipates the car count to increase to 200 to 400 cars per year in the next two to three years for local and regional customers. As Albany Farms begins to ship wheat into the facility, car counts will expand beyond the 300 or 400 per year projected for other local and regional customers. These cars not only represent economic activity, but also are traffic that RCPE would not have had if the rail park was not there. The increased traffic is a benefit to the railroad – providing revenue and decreasing per unit costs. Once wheat begins to be shipped in by rail the railroad will see increased traffic and benefits.

Reduce Highway Impacts

A business locates in the rail park to send and/or receive goods by rail. They do so to decrease shipping cost of input or final products. There is not an identified shipper for the project rail in this application. As Albany Farms continues to build their business, and begins to bring in wheat by rail, the existing rail and this project rail will be used to a greater extent. If the wheat is not shipped by rail, it will be trucked in – likely from the Pierre/Onida/Midland area. The trucking of wheat will have an impact on state highways.

Improve RR Safety, Security and Resiliency

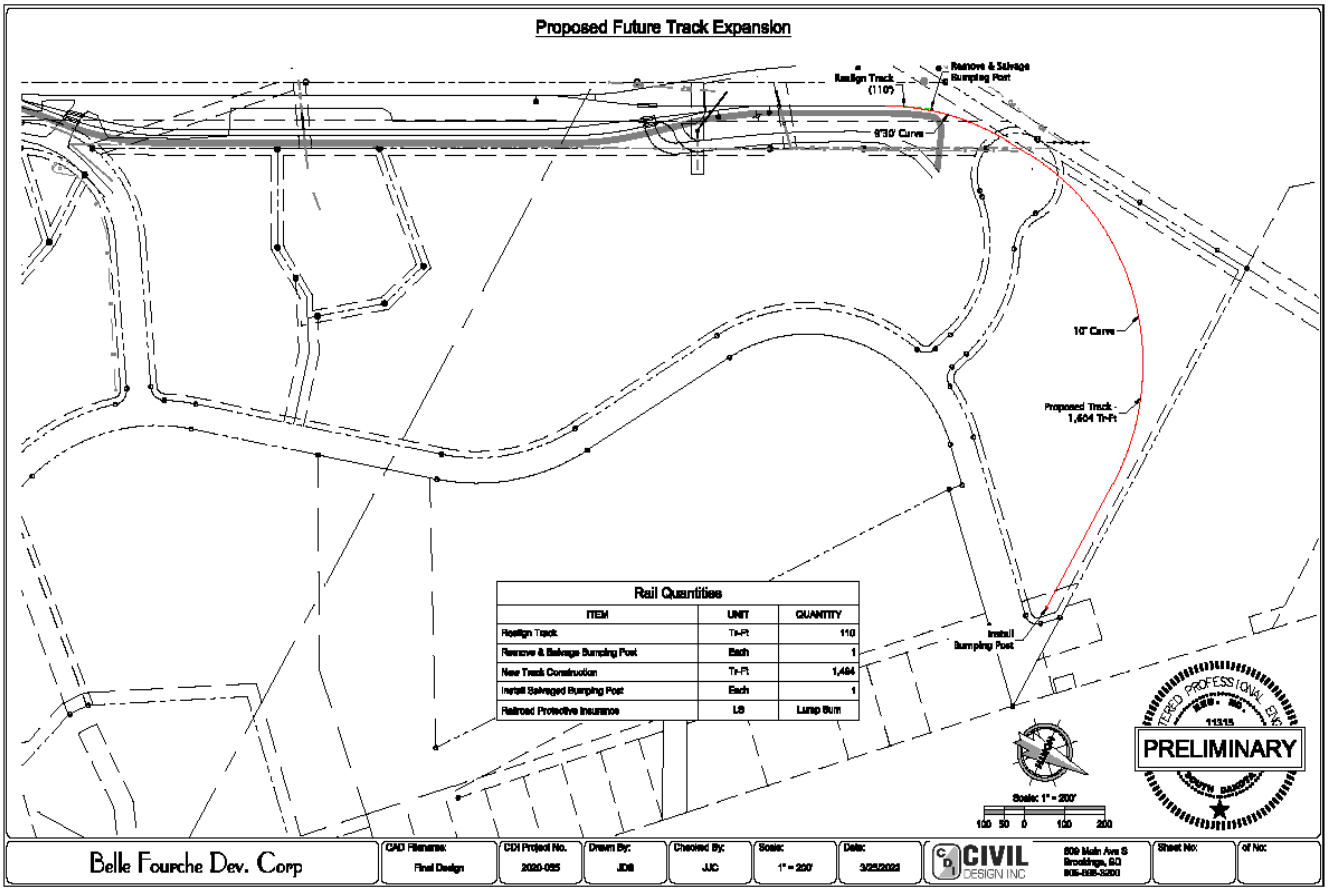
The project will help the RCP&E in terms of Safety, Security and Resiliency by providing additional traffic and therefore revenue that helps the railroad become more economically stable and more able to weather economic downturns that may occur. Option 3 adds security cameras and a Trackmobile.

The rail park is visited every day to make sure there is not a problem on the property. Despite having signs restricting access to authorized personnel there are often people driving around the property. While there have not been incidences of vandalism to this point – there easily could be. The cameras (along with signs stating there are cameras present as a deterrence) provide a level of security beyond what is present now. As the rail park becomes busier, with rail, truck and passenger vehicle traffic it becomes more important to control the unauthorized access of the public. It is much safer for the public to not be in the rail park.

The rail park currently has no way to move rail cars once placed by RCPE. It would be advantageous to be able to move cars that were placed in an inconvenient or inaccessible location. Recently a rail car of road salt was placed in a location where the adjacent access road was wet and soft. The truck that came to remove the salt got stuck on the access road. It would have been far more efficient and safer to have been able to move the rail car of salt to a better location.

Project Summary (Location, Scope, Schedule)

The project is located at the Belle Fourche Economic Development Rail Park in Belle Fourche, South Dakota.


Proposed Future Track Expansion
Realign Track (110')
Remove & Salvage Bumping Post
9°30' Curve
10° Curve
Proposed Track - 1,494 Tr-Ft
Install Bumping Post
Rail Quantities
ITEM | UNIT | QUANTITY
Realign Track | Tr-Ft | 110
Remove & Salvage Bumping Post | Each | 1
New Track Construction | Tr-Ft | 1,484
Install Salvaged Bumping Post | Each | 1
Railroad Protective Insurance | LS | Lump Sum
Scale: 1" = 200'
100 50 0 100 200
PRELIMINARY
Belle Fourche Dev. Corp
CAD Filename: Final Design
CDI Project No. 2020-055
Drawn By: JDB
Checked By: JJC
Scale: 1" = 200'
Date: 3/25/2022
CIVIL DESIGN INC
209 Main Ave S Brookings, SD 605-692-5200
Sheet No:
of No:

Option 1 Cost

Belle Fourche Development Corp.
Proposed Future Track Expansion
Preliminary Opinion of Probable Cost

10/4/2022

Labor Only					
Item	Description	Unit	Quantity	Unit Price	Total
1	Mobilization	LS	1	$ 50,000.00	$ 50,000.00
2	Realign Track	Tr-Ft	110	$ 20.00	$ 2,200.00
3	Grading	Tr-Ft	1,494	$ 100.00	$ 149,400.00
4	Remove & Salvage Bumping Post	Each	1	$ 100.00	$ 100.00
5	New Track Construction	Tr-Ft	1,494	$ 180.00	$ 268,920.00
6	Install Salvaged Bumping Post	Each	1	$ 250.00	$ 250.00
7	Railroad Protective Insurance	LS	1	$ 4,000.00	$ 4,000.00
				Subtotal:	$ 474,870.00
				15% Contingency:	$ 71,230.50
				Design Engineering:	$ 50,000.00
				Environmental:	$ 15,000.00
				Construction Admin:	$ 50,000.00
				Total Project Cost:	**$ 661,100.50**

CIVIL DESIGN INC

Option 2 Cost Site Selection Costs

Description	Unit	Quantity	Unit Price	Total
High Level Evaluation	Per Site	5	$5000	$25,000
Detailed Evaluation	Per Site	2	$10,000	$20,000
Preliminary Engineering	Selected Site	1	$20,000	$20,000
Environmental	Selected Site	1	$50,000	$50,000
Total				$115,000

Option 3 Cost

Description	Unit	Quantity	Unit Price	Total
Security Cameras	each	5	$2,000	$10,000
Installation, electrical, storage	Lump sum	1	$10,000	$10,000
Trackmobile	each	1	$400,000	$400,000
Total				$420,000

Scope

The scope of the Option 1 project is to construct a rail lead into the Belle Fourche Industrial and Rail Park. The project will include 1,494 feet of track construction, realign 110 ft of existing track, grading, ballast, and other miscellaneous work. Option 2 adds planning activities to select a site for a new rail served industrial park. Option 3 adds security cameras and a Trackmobile.

Schedule

Upon confirmation of award by USDOT, BFEDC will commence the environmental work and preliminary engineering. Assuming grant awards are announced by May of 2023 BFEDC will begin the environmental work and preliminary engineering right away. BFEDC believes time is of an essence for this project and will request pre-award authority for the environmental and preliminary engineering. BFEDC will consider requesting pre-award authority for material

purchases and final engineering to speed up the project delivery time. Anticipated construction will be during the 2024 season.

Funding

Total project cost (Option 1) is estimated to be $661,100.50. BFEDC is requesting approval of a STC grant of 80% ($528,880.40). BFEDC will provide the 20% match ($132,220.10).

For Option 2 (Option 1 plus selection of a new rail served industrial park) total project cost is $776,100.50. BFEDC is requesting of a STC Grant of 80% ($620,880.40). BFEDC will provide the 20% match ($155,220.10).

For Option 3 (Option 2 plus cameras and Trackmobile) total project cost is $1,216,100.50. BFEDC is requesting a STC Grant of 80% ($972,880.40). BFEDC will provide the 20% match ($243,220.10)

Project Readiness

Option 1 is in a purpose-built Rail Park. The engineering and construction of this project is well understood, and the project will be constructed to RCP&E standards in accordance with AREMA standards. Because the planning project included in Option 2and Option 3 are not a construction projects, and do not require any preliminary engineering or environmental work. The project is listed in the 2014 State Rail plan in the Executive Summary page 22, #27 as "Belle Fourche Transloading Facility".

Environmental Readiness

Another STC project at the BFEDC was recently approved. The environmental work done for that project can be used as supplemental information for this new project. We anticipate this project (Option 1) will qualify for a Categorical Exclusion.

Project benefits

The benefit as normally considered in USDOT discretionary grants is usually found in the cost savings related to the modal diversion from truck to rail. These costs are truck operating cost savings, emissions cost avoidance, safety improvements related to less miles of trucking, and avoided wear and tear on the highways. The existing industrial park as it continues to receive freight by rail will begin to see more benefits as traffic increases – and as Albany Farms begins to produce flour and receive wheat by rail.

This project will provide benefits that will be quantifiable once the project is constructed, and a business makes use of the new track.

Cameras will reduce the amount of unauthorized people on the property and provide a way to identify trespassers and vandals. The less unauthorized people there are on the site the safer it is for those people.

A Trackmobile will make it easier, safer, and more convenient to move cars around on the site. As the rail park gets busier the need for a way to move cars has become more important. The

Trackmobile not only allows for operational efficiencies in the park but is safer than trying to transload onto or off a rail in a sub-optimal location.

Proposed Responsible Party Tasked with Developing the Application

Belle Fourche Economic Development Corporation will be responsible for developing the application to be submitted to the USDOT.

Proposed Funding for Creating the Application

Belle Fourche Development Corporation will fund the development of the application to be submitted to USDOT

2022 Special Transportation Circumstances Grant Application For South Dakota Railroad Board Approval

The Dakota, Missouri Valley & Western Railroad Inc. (DMVW), is the operator on a state-owned line from Aberdeen, SD to Geneseo Jct. in North Dakota. The DMVW interchanges with the Burlington Northern Santa Fe (BNSF) in Aberdeen, SD and the Canadian Pacific (CP) in Hankinson, ND. The DMVW also performs intraline moves of soybeans from Britton, SD to the AGP facility in Aberdeen, SD. The primary commodities hauled by the DMVW are grain, fertilizer, and lumber products. Customers served on the line are located primarily in Britton and Aberdeen.

The DMVW respectfully submits the following application to the South Dakota Railroad Board's call for Special Transportation Circumstance projects under the Federal Railroad Administration's Consolidated Rail Infrastructure and Safety Improvements program.

This project is listed in the 2014 South Dakota State Rail Plan, Volume 1, Table 3, project #15, pg. 21. The Rail Plan is located at Simplified_1 (sd.gov).

State Rail Plan Goals

Support Economic Growth and Development

In 2020 the DMVW moved a total of 2,424 cars, in 2021 the DMVW moved 3,541 cars, so far in 2022 the DMVW has moved 3,028 cars. The movements can be to the north to the CP, or to the south to the BNSF, or an intraline move from elevators in Britton to AGP in Aberdeen.

The railroad serves Full Circle Ag, Wheaton Dumont Britton, and Truss Pro in Britton. The railroad also serves AGP in Aberdeen for inbound soybeans and outbound products via the CP. Truss Pro receives lumber from both Canadian origins via the CP and domestic suppliers via the BNSF. Wheaton Dumont ships to both the CP and BNSF.

The connection to two mainline railroads is important and provides shippers with additional markets and suppliers.

Ensure Connectivity for Critical Industries

Agriculture is South Dakotas' largest industry. The DMVW connections with the BNSF and CP ensure access to domestic, Asian, and Canadian markets. This connectivity allows ag producers and marketers to sell ag products to the market that maximizes the value of South Dakotas products.

Truss Pro is an important industry and major employer in Britton – bringing in lumber by rail and shipping out completed trusses and wall units by truck to a large regional area. The ability

to economically source lumber from both Canadian and domestic sources is important for Truss Pro to not only have more control over costs, but also to be less reliant on a single source for their lumber.

Maintain State Railroad Assets in a State of Good Repair

The state acquired the 4.4 Jarrett Jct. to Britton with the rest of the assets of the Milwaukee Road in the early 1980's. In the early 2000's the BNSF had embargoed the line due to flooding and poor subsurface conditions. Portions of the line were very soft due to high surface water and burrowing animals. The state purchased the line in 2002. Over the years the state and the regional railroad authority improved bridges, raised track in low areas, placed rip rap, placed ballast, replaced ties, reconfigured Jarrett Jct., and replaced rail in an effort to bring the rail up to modern standards for weight, speed and reliability. The railroad still needs additional work. To operate trains over the soft subgrade good ties and additional ballast are needed.

The photos below show a 2020 derailment. The subgrade is soft here – the embankment failed causing the cars to lean then tip. Some of the ties failed as the cross level increased. Additional ballast and stronger new ties will help distribute the load evenly to the subgrade to prevent future failures at this and other similar areas.

2020 Derailment – soft subgrade/poor tie condition

2020 Derailment – soft subgrade/poor tie condition

2018 Derailment

The 2018 Derailment was a result of thermal stress in the rail that was not able to be constrained by spikes due to poor tie condition.

Reduce Highway Impacts

Wheaton Dumont ships 2.5 million bushels of soybeans by rail to AGP on an annual basis. Without the railroad those 2.5 million bushels would take 2,777 truckloads from Britton to AGP at Aberdeen (a 108-mile round trip) adding 300,000 truck miles per year on South Dakota roads.

Assuming 3,300 bushels per rail car 757 rail cars per year are the intraline move from Wheaton Dumont in Britton to AGP in Aberdeen.

In 2021 the railroad moved a total of 3,541 cars – less the 757 for the intraline move is 2,783 cars. Of those 2,783, 75 were lumber cars for a total of 2,708 export grain cars. If the railroad did not move these cars, the grain would be trucked to the nearest elevator. The closest elevators from Britton are Andover, SD, Fredrick, SD, Forman, ND, Sisseton, SD. Each of these elevators is approximately 40 miles from Britton. Farmers currently are choosing Wheaton Dumont – Britton in part due to the proximity to their farm. If Wheaton Dumont was unable to ship by rail, or did not exist, farmers would likely choose the next closest elevator. The next closest elevator would be some additional distance than they travel now when delivering their grain. To estimate the trucking miles saved by the railroad, we can assume that without the Wheaton Dumont elevator, farmers will need to truck (on average) an additional 20 miles (40 miles round trip). Those 10,832 truckloads result in an additional 433,280 truck miles annually.

If 75 carloads of lumber were not moved in by rail – Truss Pro would truck in 300 truckloads. While it's difficult to say where the lumber would come from, we can assume it would be at least 600 miles away – with the truck finding a back haul – so the railroad would save at least 180,000 truck miles per year.

Total truck miles saved between the outbound grain from Wheaton Dumont – Britton, the lumber inbound to Britton and the intraline move to AGP is 913,000 miles per year.

Improve Railroad Safety, Security and Resiliency

The project will improve railroad safety by decreasing the likelihood of derailments. As noted above, the railroad has experienced derailments in the recent past, and without improvements additional derailments are possible.

By improving the railroad with this project, the railroad will become more resilient and more likely to remain open for traffic during wet times of the year.

Project Summary
Location and Scope

The DMVW would like to present two possible projects, Plan A and Plan B.

Both Plan A and Plan B would have the same project area. The project area being between MP 115.4-74.2 and between Jarret Junction and Britton, SD (4.40 Miles)

Plan A is a more comprehensive project that includes installing 24,300 new ties (500 ties per mile), skew tie straightening, crossing improvements, 57,000 tons of ballast (12 cars per mile), surfacing, rail anchors, Rehab four bridges (MP 104.5, MP 106.6, MP 107.9, MP 105.4) and surfacing. The bridge rehab is limited to superstructure elements (stringers, ties, caps, and ballast along with other miscellaneous work.). There will be no undercutting into the subgrade.

Plan B is installing 20,520 (450 ties per mile) new ties, skew tie straightening, 45,600 tons of ballast (10 cars per mile), surfacing, anchors. There will be no undercutting into the subgrade. The scope of work and line-item costs for each Plan are presented below.

DMVW Railroad
2022 STC Grant
Preliminary Opinion of Probable Cost - Plan A

Materials Only

Item	Description	Unit	Quantity	Unit Price	Total
2	7"x8"x8'6" Grade 4 Ties	Each	24,300	$ 100.00	$ 2,430,000.00
3	7"x9"x10'0" Grade Ties	Each	500	$ 120.00	$ 60,000.00
6	Anchors - Existing Rail (110Lb)	Each	121,000	$ 2.00	$ 242,000.00
7	Anchors - Existing Rail (90Lb)	Each	40,000	$ 2.00	$ 80,000.00
8	Track Spikes - 50Lb Kegs	Kegs	3,000	$ 45.00	$ 135,000.00
9	Timber Crossing Planks	Tr-Ft	1,500	$ 200.00	$ 300,000.00
10	Concrete Crossing Panels	Tr-Ft	352	$ 400.00	$ 140,800.00
11	Sales Tax	LS	1	$ 177,580.00	$ 177,580.00
				Total Materials:	$ 3,565,380.00

Labor Only

Item	Description	Unit	Quantity	Unit Price	Total
1	Mobilization	LS	1	$ 200,000.00	$ 200,000.00
2	Anchoring Existing Rail	Tr-Miles	36.3	$ 20,000.00	$ 726,000.00
3	Skew Tie Correction	Tr-Ft	240,768	$ 2.00	$ 481,536.00
4	Tie Replacement	Each	24,800	$ 50.00	$ 1,240,000.00
5	Ballast	Ton	57,000	$ 60.00	$ 3,420,000.00
6	Surfacing	Tr-Ft	240,768	$ 4.00	$ 963,072.00
7	Timber Crossing Rehabilitation	Tr-Ft	1,500	$ 300.00	$ 450,000.00
8	Concrete Crossing Rehabilitation	Tr-Ft	352	$ 850.00	$ 299,200.00
9	Bridge Rehabilitation	LS	1	$ 650,000.00	$ 650,000.00
10	Bonding	LS	1	$ 10,000.00	$ 10,000.00
11	Railroad Protective Insurance	LS	1	$ 5,000.00	$ 5,000.00
				Total Labor:	$ 8,444,808.00

Total Construction	$ 12,010,188.00
Contingency	$ 1,801,500.00
Design Engineering	$ 75,000.00
Construction Administration	$ 100,000.00
Total Budget	**$ 13,986,688.00**

CDI CIVIL DESIGN INC

DMVW Railroad
2022 STC Grant
Preliminary Opinion of Probable Cost - Plan B

Materials Only

Item	Description	Unit	Quantity	Unit Price	Total
2	7"x8"x8'6" Grade 4 Ties	Each	20,520	$ 100.00	$ 2,052,000.00
6	Anchors - Existing Rail (110Lb)	Each	121,000	$ 2.00	$ 242,000.00
7	Anchors - Existing Rail (90Lb)	Each	40,000	$ 2.00	$ 80,000.00
8	Track Spikes - 50Lb Kegs	Kegs	3,000	$ 45.00	$ 135,000.00
11	Sales Tax	LS	1	$ 163,085.00	$ 163,085.00
				Total Materials:	$ 2,672,085.00

Labor Only

Item	Description	Unit	Quantity	Unit Price	Total
1	Mobilization	LS	1	$ 200,000.00	$ 200,000.00
2	Anchoring Existing Rail	Tr-Miles	36.3	$ 20,000.00	$ 726,000.00
3	Skew Tie Correction	Tr-Ft	240,768	$ 2.00	$ 481,536.00
4	Tie Replacement	Each	20,520	$ 50.00	$ 1,026,000.00
5	Ballast	Ton	45,600	$ 60.00	$ 2,736,000.00
6	Surfacing	Tr-Ft	240,768	$ 4.00	$ 963,072.00
10	Bonding	LS	1	$ 10,000.00	$ 10,000.00
11	Railroad Protective Insurance	LS	1	$ 5,000.00	$ 5,000.00
				Total Labor:	$ 6,147,608.00

Total Construction	$ 8,819,693.00
Contingency	$ 1,323,000.00
Design Engineering	$ 75,000.00
Construction Administration	$ 100,000.00
Total Budget	**$ 10,317,693.00**

CDI CIVIL DESIGN INC

Plan A Crossing locations and scope

Crossing Information-Aberdeen Division(Geneseo Jct. to Aberdeen)

Mile Post	DOT Numbers	Pavement/Gravel Field or Private	HWY/Street/Town	Crossbuck/ Signals	County	Comments-Length/type(plank ect.)	Rail Size
			Jct Switch/Britton Spur				
31.34	394621H	Gravel	107th St	Crossbuck	Marshall	24 ft Plank	
30.31	394620B	Gravel	108th St	Crossbuck	Marshall	36ft Plank	
			Jct Switch to Aberdeen				
75.02	067503F	Gravel	422nd Ave	Crossbuck	Marshall	32ft Plank	9020
75.36	067504M	Field	107th St	Crossbuck	Marshall	16ft Plank	80GN
76.44	067505U	Gravel	421st St	Crossbuck	Marshall	32 Plank	9020
76.76	067506B	Gravel	108th St	Crossbuck	Marshall	45 Asphalt	90GN
78.19	067508P	Gravel	109th St	Crossbuck	Marshall	32ft Plank	9020
79.24	067510R	Gravel	419th Ave	Crossbuck	Marshall	32ft Plank	9020
81.77	101662E	Private	check on number ??		Marshall	16ft Plank	9020
82.52	067397A	Gravel	112th St	Crossbuck	Marshall	24ft Plank	9020
83.42	067395L	Gravel	416th Ave	Crossbuck	Marshall	32ft Plank	110GN
83.89	067394E	Gravel	113th St	Crossbuck	Marshall	32ft Plank	110GN
84.83	067392R	Pavement	415th Ave/Amherst	Crossbuck	Marshall	40ft Asphalt	115RE
85.31	067391J	Pavement	114th St/Amherst	Crossbuck	Marshall	40ft Asphalt	115RE
86.25	067390C	Gravel	414th Ave	Crossbuck	Marshall	32ft Plank	110GN
86.74	067389H	Gravel	115th St	Crossbuck	Marshall	32ft Plank	110GN
87.02	067388B	Private			Marshall	16ft Plank	110GN
87.67	067386M	Gravel	413th Ave	Crossbuck	Marshall	32ft Plank	110GN
88.17	067385F	Gravel	116th St	Crossbuck	Marshall	32ft Plank	110GN
89.1	067383S	Gravel	412th Ave/County Line	Crossbuck	Brown	32ft Plank	110GN
89.6	067382K	Gravel	117th St	Crossbuck	Brown	32ft Plank	110GN
90.52	067381D	Field	411th Ave	Crossbuck	Brown	16ft Plank	110GN
91.01	067380W	Pavement	118th St	Crossbuck	Brown	48ft Plank	115RE
91.27	067379C	Gravel	Claremont/3rd St.	Crossbuck	Brown	16ft Plank	110GN
91.47	067378V	Pavement	Claremont/6th St.	Crossbuck	Brown	32ft Plank	115RE
91.87	067377N	Pavement	410th Ave/County Rd 20	Crossbuck	Brown	40ft Asphalt	115RE
93.31	067626S	Field	409th Ave	Crossbuck	Brown	32ft Plank	110GN
93.83	067625K	Field	120th St	Crossbuck	Brown	16ft Plank	110GN
94.72	067624D	Gravel	408th Ave	Crossbuck	Brown	32ft Plank	110GN
95.25	067623W	Gravel	121st St	Crossbuck	Brown	32ft Plank	110GN
95.71	067622P	Field		Crossbuck	Brown	16ft Plank	110GN
96.62	067620B	Pavement	Hufton	Crossbuck	Brown	48ft Asphalt	115RE
98.97	067618A	Private	405th ave	Crossbuck	Brown	32ft Plank	110GN
99.51	067617T	Gravel	124th st	Crossbuck	Brown	32ft Plank	110GN
100.19	067616L	Gravel	404th ave	Crossbuck	Brown	32ft Plank	110GN
100.99	067615E	Gravel	125th st	Crossbuck	Brown	32ft Plank	110GN
101.61	067614X	Gravel	403rd ave	Crossbuck	Brown	32ft Plank	110GN
102.43	067612J	Gravel	Putney	Crossbuck	Brown	32ft Plank	115RE
103.03	067611C	Gravel	402nd ave	Crossbuck	Brown	32ft Plank	110GN
103.9	067610V	Pavement	County Hwy 13	Crossbuck	Brown	48ft Plank	115RE
105.33	067608U	Gravel	400th ave	Crossbuck	Brown	24ft Plank	115RE
106.13	067607M	Private		Missing	Brown	24ft Plank	110GN
106.31	067606F	Private	Tacoma Loop	Crossbuck	**Brown**	24ft Plank	110GN
107.15	067604S	Field	private	Missing	Brown	24ft Plank	110GN
108.17	067603K	Private/Gravel	private	Crossbuck	Brown	32ft Plank	110GN
108.82	067601W	Gravel	397th ave	Crossbuck	Brown	32ft Plank	110GN
109.75	067600P	Gravel	396th ave	Crossbuck	Brown	32ft Plank	110GN
110.48	067599X	Gravel	129th street	Crossbuck	Brown	48ft Plank	110GN
110.91	067598R	Pavement	County Hwy 16/ 395th Ave	Crossbuck	Brown	48ft Plank	115RE
113.21	067595V	Private	393rd Ave	Crossbuck	Brown	32ft Plank	115RE
114.31	067594N	Gravel	392nd Ave	Crossbuck	Brown	32ft Plank	115RE
115.2	067593G	Gravel	131st Street	Crossbuck	Brown	64ft Plank	115RE

Schedule

If notice of the federal award notice is by April 2023, the project construction can be accomplished in the construction year of 2024, with the project being completed in 2024. If

award notice is later, or if environmental approvals take longer than anticipated the project may be constructed in 2025.

Proposed Project Funding

Total Project cost for Plan B is $10,317,693. DMVW proposes a federal share of 80% of the total or $8,254,154.40 and a local share (to be paid by The State of South Dakota) of $2,063,538.60. Total Project cost for Plan A is $13,986,688. DMVW proposes a federal share of 80% of the project total or $11,189,350.40 and a local share (to be paid by The State of South Dakota) of $2,797,337.60.

Project and Plans Readiness

The project is a standard railroad project and is well understood from an engineering and construction standpoint. No pre-award authority for this project.

Environmental Readiness

Plan A may require more environmental work than Plan B due to the bridge rehabilitation. It is likely that both projects will qualify for a Categorical Exclusion. Environmental work will begin upon project approval by the South Dakota Railroad Board. Environmental costs will be paid by DMVW.

Overall Benefit

The railroad is plagued with soft subgrade and poor tie condition. The soft subgrade has resulted in derailments in May 2018 and April 2020. The benefit of this project is to reduce the chances of derailments and eliminate slow orders on the railroad. The project will allow the railroad to be more resilient in the face of possible climate change related weather changes. If this project is not completed, the railroad will continue to have derailments and costs associated.

The overall benefit of the project is to maintain the presence of the railroad and the benefits it provides in the way of reduced truck miles (913,000 miles per year) with the fuel, emissions, and reduced crashes. USDOT provides and operating cost of $0.94 per mile for commercial trucks. If all the rail traffic was converted to truck – the operating cost of trucking would be $858,220 per year. Trains have operating costs too – assuming those costs are a quarter of the operating costs of trucks the net additional cost of trucking is $643,665.

USDOT says truck driver time is valued at $32.00 per hour. 913,000 miles at 50mph is 18,260 hours. 18,260 hours at $32.00 is $584,320 per year.

Between fuel costs and driver time the railroad saves $1,227,985 annually. Over the course of 30 years the savings is over $36.8 million.

Plan A will result in reduced annual maintenance costs of $350,000 per year. Plan B will reduce annual maintenance cost $250,000 per year. Over 30 years Plan A will save $10,500,000, and plan B will save $7,500,000.

Overall benefit of Plan A (adding modal shift and maintenance cost savings) over the 30-year project life is $47.3 million, Plan B is $44.3 million. This calculation does not consider the discounting of costs and benefits, the benefits of reduced emissions, the benefits of reduced vehicle crashes, and the benefit of reduced wear and tear on the roadways.

The Benefit Cost Ratio for Plan A is 3.38:1, for Plan B is 4.3:1.

This benefit cost ratio is an approximation as it does not quantify many other benefits such as reduced emissions, less truck crashes, less wear on the roadways and does not discount benefits and costs over time.

Proposed Responsible Party Tasked with Developing the Application

If selected DMVW will develop the federal grant application in a format ready for submission. DMVW will also pay for preliminary engineering and environmental costs if the project is selected.

Proposed Funding for Creating the Application

If selected DMVW will pay for the development of the federal grant application.