

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					
443					<i>Skip Approaches & Missouri River</i>
444					<i>Bridge</i>
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. This 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