

Freight Program Application  
West Bridge Street Bridge Replacement  
Blackfoot Idaho

August 25, 2017

Applicant: District 5, Idaho Transportation Department

Mailing Address:

5151 S. 5<sup>th</sup> Avenue  
Pocatello, ID 83201

Contact Person:

Dan Harelson  
Engineering Manager  
208-239-3377  
[Dan.Harelson@itd.idaho.gov](mailto:Dan.Harelson@itd.idaho.gov)

Co-Applicant: City of Blackfoot

Mailing Address:

157 N. Broadway  
Blackfoot, ID 83221

Contact Person:

Paul Loomis  
Mayor  
208-785-8600  
[Mayor@CityofBlackfoot.org](mailto:Mayor@CityofBlackfoot.org)

## Project Cost Estimate



This project will replace the West Bridge Street Bridge in Blackfoot at an estimated Fiscal Year (FY) 2021 cost of \$12,000,000. Premier Technology will be a major beneficiary of a new bridge and they are prepared to contribute to its replacement. Premier Technology is a private Southeast Idaho based company established in 1996 that provides engineering, manufacturing and construction management to agricultural, mining, heavy industrial, U.S.

Department of Defense and U.S. Department of Energy customers. Premier operates an existing 210,000 square foot manufacturing facility equipped to produce custom manufactured products with individual pieces weighing up to 60 tons and measuring up to 28 feet in any dimension. Their welders and machinists work with a variety of metals from carbon and stainless steel to exotic metals such as titanium, Hastalloy and Haynes. With these capabilities, Premier has produced a large number of oversize products that cannot be easily shipped from their facility because the existing bridge is height, width and weight restricted.

Replacement of the bridge and improvement of the approaches will be funded through \$8,000,000 from the ITD Freight Program; \$3,000,000 from the LHTAC Urban program; a contribution of \$250,000 from Premier Technology; \$250,000 from Bingham County and \$500,000 from the City of Blackfoot. Letters of commitment from Premier Technology, Bingham County and the City of Blackfoot are attached along with letters of support from the Idaho National Laboratory, the Eastern Idaho Regional Economic Development organization and the Blackfoot Chamber of Commerce. Project development would begin in 2019 to allow time for environmental review and right of way acquisition on each side of the Snake River. Environmental review would involve the Army Corps of Engineers because the project would alter the channel of the Snake River and the State Historic Preservation Office (SHPO) because the existing bridge is probably historically significant. Approximately one acre of right of way will be required on each bank of the Snake River to allow widening of the approaches to the new bridge. Preliminary engineering costs would be approximately 10 percent of the construction costs. Construction in FY 2021 is necessary to meet delivery requirements for the Small Modular Reactor Program described below. A detailed project cost estimate and budget is shown below in Table 1.

Work Item	Quantity	Unit Cost	Units	Item Cost
Remove Existing Bridge (Based on Key 11239)	1	500,000	Each	500,000
New Bridge (ITD LFRD Bridge Design Manual)	34000	180	\$/sq ft	6,120,000
Right of Way (City of Blackfoot)	2	150,000	\$/acre	300,000
Granular Sub-base (ITD 2016 Unit Price Book)	68000	0.77	\$/sq ft	52,000
Base (ITD 2016 Unit Price Book)	68000	1.05	\$/sq ft	71,000
Asphalt Pavement (ITD 2016 Unit Price Book)	58000	2.33	\$/sq ft	135,000
Concrete Sidewalk (ITD 2016 Unit Price Book)	10000	15.81	\$/sq ft	158,000
Construction Total				7,336,000
Preliminary Engineering (10 % of Construction)				734,000
Traffic Control (15 % of Construction)				1,100,000
CE and Contingency (15 % of Construction)				1,100,000
Total 2016 Cost				10,270,000
Total 2021 Cost Escalated at 3% per year				11,906,000

Table 1. Project Cost Estimate

## Project Details

This application addresses the replacement of the West Bridge Street Bridge, also known as the West Collins Siding Road Bridge, over the Snake River in Blackfoot because the existing West Bridge Street structure, 97611A, does not serve the needs of Bingham County, the City of Blackfoot or various industrial interests including Premier Technology. The existing bridge, built in 1936, is a steel truss bridge located on the west side of Blackfoot between State Highway 39 and the Snake River as shown in Figure 1. The bridge has significant vehicular damage to the steel truss superstructure, large areas of delaminated and spalled concrete and settlement and twisting of piers. When the bridge was inspected by the ITD bridge inspection team in 2015, the bridge was given a sufficiency rating of 30.5 and the team recommended that it be replaced. The ITD Bridge Inspection Report states that the substructure is in “serious” condition; the structure condition and deck geometry are “intolerable” and the bridge rail, transition, approach rail and approach rail ends are “substandard”. Representative photographs of the condition of the existing bridge are shown below in Figures 2, 3 and 4.



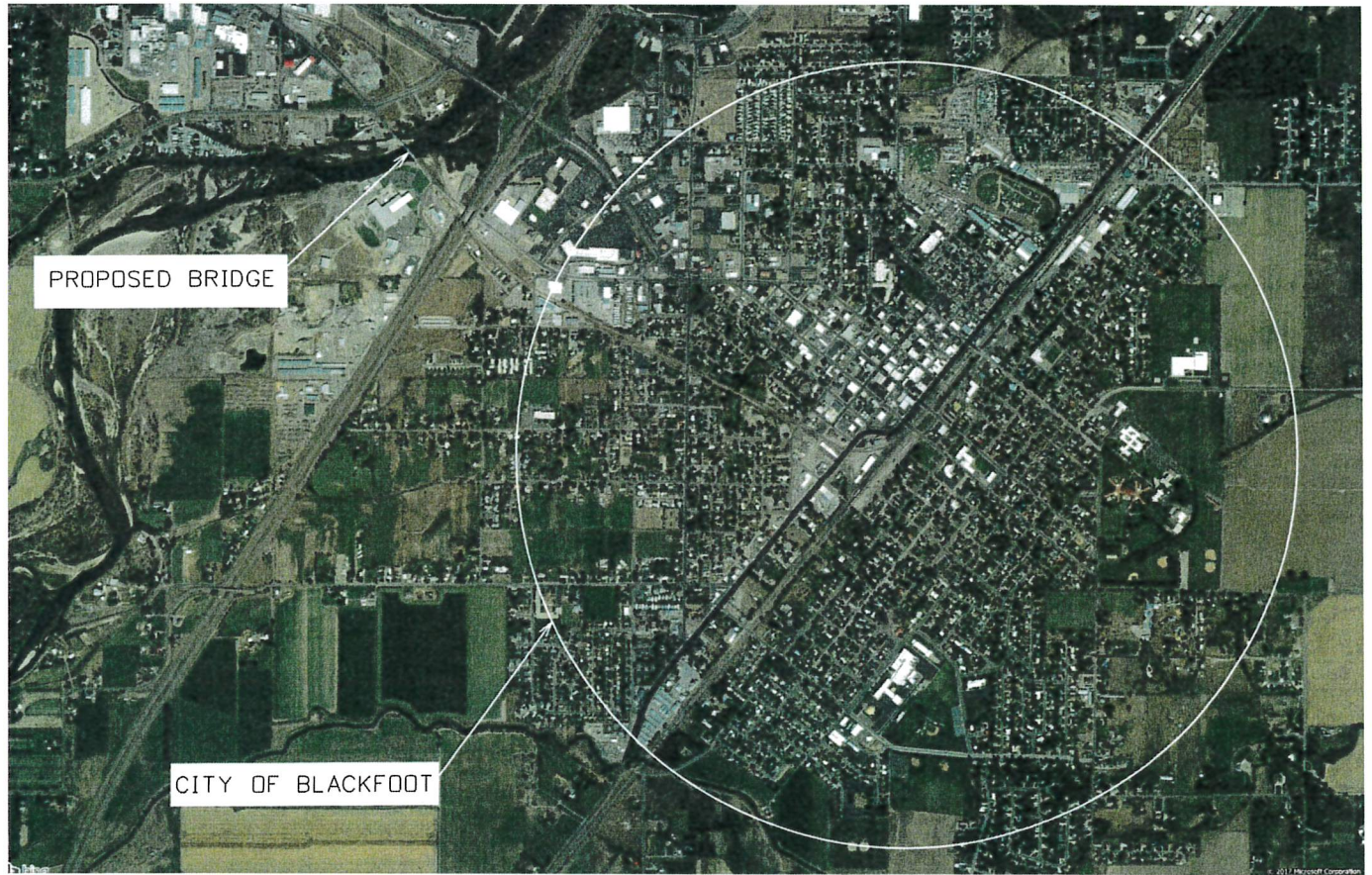


Figure 1. Blackfoot and the West Bridge Street Bridge



Figure 2. Narrow Snake River Bridge



Figure 3. Example Girder Damage





Figure 4. Deteriorated Concrete and Paint

Replacement of this bridge could be accomplished by removing the existing bridge and replacing it through staged construction or by preserving the existing bridge in place and routing the new bridge next to it. Removal of the existing bridge is presented in this application however a preferred alternative would be selected through ITD's public involvement and environmental process when the project is funded. Removal and replacement of the existing bridge would be accomplished by building a

new bridge in two stages that would involve constructing the first half of a new bridge adjacent to the old bridge while traffic utilizes the existing bridge. When the first stage is complete, traffic would be moved to the newly constructed bridge, the old bridge would be removed and the second half of the new bridge would be constructed in its place. An alternative that includes staged construction and removal of the existing bridge is shown in Figure 5.



Figure 5. Remove Existing Bridge and Replace

## Economic and Mobility Improvement Details

Replacement of the existing bridge will allow Premier Technology to take advantage of a significant economic opportunity and improve mobility for Bingham County, the City of Blackfoot and industrial users. With a new bridge, Premier Technology will be able to secure a contract that will grow the economy of southeast Idaho by 57 million dollars annually through the production of Small Modular Reactors, SMRs, in collaboration with NuScale Power. NuScale Power is working in a public/private partnership with the U.S. Department of Energy to design, license, manufacture and commission SMRs by 2026. Modules that are 57 feet long, 18 feet in diameter and weigh 570 tons will be fabricated at the Premier Technology Plant in Blackfoot and shipped to the Idaho National Laboratory so that the first commercial 12 module power plant can be built. Shipments of the first reactor modules will begin in 2024. After the first power plant is constructed additional modules will be fabricated in Blackfoot and shipped to the INL, Payette, Idaho and other destinations. The contract with NuScale to produce SMRs will have a

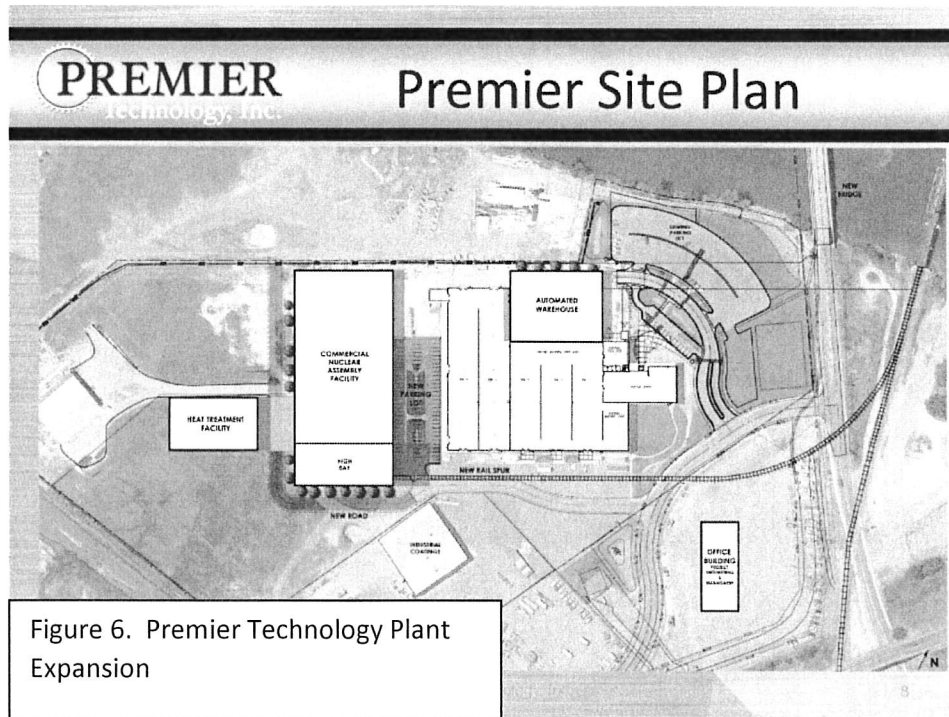


Figure 6. Premier Technology Plant Expansion

value approaching one billion dollars and will require Premier Technology to expand their existing facilities with an investment of approximately 50 million dollars to build the Commercial Nuclear Assembly Facility; High Bay; Heat Treatment and Automated Warehouse Facilities shown in Figures 6 and 7.

Expansion of Premier Technology to produce SMRs will result in 250 full time permanent jobs for project managers and engineers, welders, machinists, electricians, quality control inspectors and other high skill occupations with salaries that range from 50 to 100 thousand dollars per year. Simulation of the expansion using the Transportation Economic Development Impact System (TREDIS) model found that, including the 250 jobs created at Premier Technology, production of SMRs will result in a total of 546 additional jobs and an annual increase in the Gross State Product of 57 million dollars. Manufacture of SMR modules beyond the initial 12 modules is anticipated so these economic benefits will extend into the future beyond 2026.



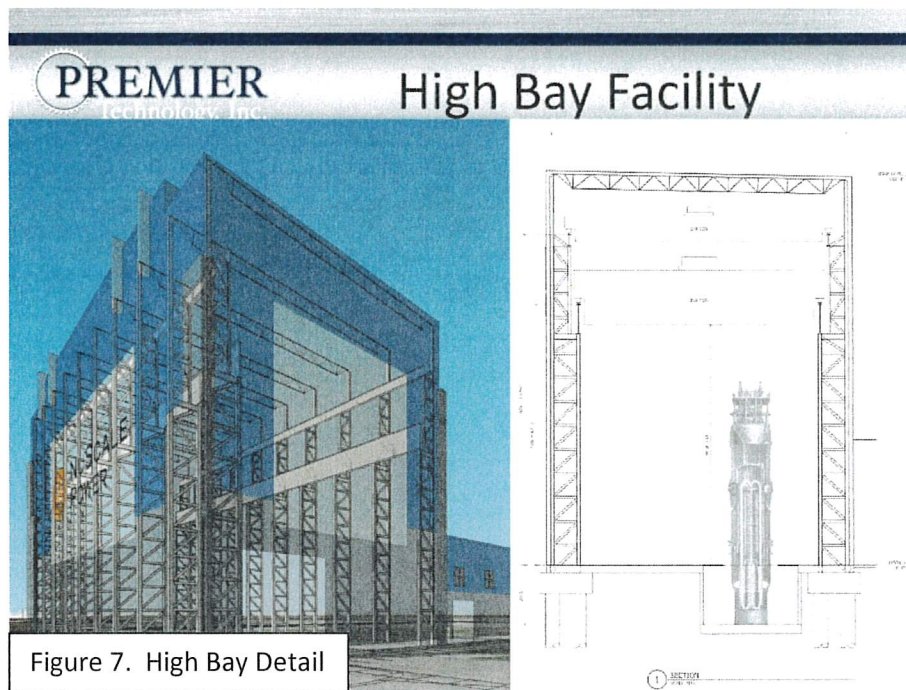


Figure 7. High Bay Detail

Additionally, expansion of the Premier Technology facilities will allow the company to pursue other customers in other markets such that require the fabrication of very large metal components.

Replacing the existing bridge will provide a direct route to the INL

that is 33 miles long while the best potential alternate route from Premier Technology is 61 miles long and will require additional analysis and numerous improvements to the existing infrastructure that will have limited benefit to other transportation system users. A detailed analysis of the bridge over the Snake River at Firth will be required to ensure that it is sufficient to handle SMR modules and that it is a viable alternate route. If the bridge at Firth is adequate, required improvements to the route include widening of five intersections at an estimated cost of 1.5 million dollars and the widening of narrow rural roads at an estimated cost of 1.0 million dollars. Premier Technology is prepared to contribute to the cost of replacing the existing bridge because it recognizes that the company will need to bear some costs for transporting SMRs over a less direct route and for improving the alternate route if the bridge is not replaced. Few if any other improvements to the existing infrastructure will be required to ship SMRs to the INL when the existing bridge at Blackfoot is replaced.

Not only is the existing bridge in Blackfoot inadequate for the shipment of SMRs, it does not meet the current needs of Premier Technology. Premier Technology currently ships about one load each month that is too large to ship across the existing bridge. For example, Premier Technology has fabricated large stainless steel process equipment for the INL that was routed south from Blackfoot to the American Falls Reservoir Dam to cross the Snake River before it could be delivered to the INL facility in the Arco Desert. This route is approximately 50 miles longer than a 33 mile long direct route across the Snake River that will be available when the existing bridge is replaced.

Bingham County and the City of Blackfoot will benefit economically beyond the creation of 546 jobs because replacement of the bridge will facilitate commercial development along the West

Bridge Street Corridor. West Bridge Street and Collins Siding Road from Premier Technology to State Highway 39 has been proposed as a critical urban freight corridor because it serves a major freight generator, Premier Technology, and because it provides an alternative highway option important to the movement of goods. The area served by the bridge is zoned light industrial and a replacement bridge would also benefit John E. Elison Construction; Cannon Structures; Trestle Wood; Trigger Incorporated; Hall Enterprises; Horrocks Ready Mix; Sheppard Truss and Schwan's Frozen Foods. The existing bridge provides a parallel route to US-26 which is a designated Rural Critical Freight Corridor and with replacement of the bridge it could provide some redundancy to the freight network. Average Annual Daily Traffic (AADT) on the West Bridge Street Bridge is 6000 vehicles. Commercial vehicles were not counted separately. Traffic on the parallel US-26 route is 14,000 AADT with an average of 360 commercial vehicles per day. The Comprehensive plan for the City of Blackfoot targets the area for light manufacturing and the City markets the area's unique combination of access to water, power, rail and highways to businesses interested in relocating to the area. Replacement of the existing bridge will enhance marketing efforts of the City and add to the area's potential for economic development.

Replacing the West Bridge Street Bridge will improve safety by providing a wider structure that will improve clearance between opposing traffic. The bridge is narrow and standard snow removal equipment encroaches on the opposing lane and oversize equipment, such as road graders, cannot be used. There has been one injury crash in the last five years on the bridge and it can be partially attributed to the width of the bridge and icy conditions. In November of 2016, a vehicle lost control on an icy road and crossed into the oncoming lane where it struck another vehicle head on. A third vehicle could not stop and rear-ended the second vehicle. This crash resulted in a probable injury ("B") according to the crash report. The existing bridge has no shoulders and two 12 foot travel lanes between the curbs for a total width of 24 feet. A new bridge will be built with four 12 foot travel lanes and two five foot bike lanes for a total width of 58 feet and this will allow vehicles more space to avoid crashes and will allow easy maintenance by County snow removal equipment.

Replacing the West Bridge Street Bridge is essential to the safe movement of freight and to the continued economic development of Blackfoot and Southeast Idaho. Replacement of the bridge will remove weight, height and width restrictions on this route so that Premier Technology can expand their facility and produce Small Modular Reactor components that will employ 250 high paid professional directly and 246 other people indirectly. Other commercial and industrial users will benefit from the replacement of the bridge and the improvement of this principal arterial that carries about 6000 vehicles per day because it will provide an alternate route across the Snake River and it will allow them to avoid the relatively high volume US-26. Improvement of West Bridge Street will improve safety by making the bridge wide enough for effective winter maintenance; adding a center turn lane so that turning vehicles are out of the flow of traffic and adding facilities to safely accommodate bicycles and pedestrians.





1858 West Bridge Street \* Blackfoot ID 83221  
Ph: (208) 785-2274 \* Fax: (208) 782-9001

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August 18, 2017

Mr. Jeff Marker  
Freight Program Manager  
Idaho Transportation Department

Dear Mr. Marker,

Premier Technology, Inc. is committed to provide 1.8% (not to exceed \$250,000.00) in matching funds for the Freight Program application to replace the old bridge located on West Bridge Street, Blackfoot, Idaho 83221 by the end of calendar year 2021.

This project will have a significant impact on our ability to deliver large small modular reactor components from our location to the Intersections of Highways 26 and 20 on the INL site in a cost effective manner. Additionally, the bridge will provide the necessary flexibility to grow Premier Technology, Inc.'s fabrication portfolio in the commercial nuclear and other business units for years to come.

Very Respectfully,

A handwritten signature in blue ink, appearing to read "Doug Sayer", followed by a long horizontal flourish.

Doug Sayer  
Chief Business Officer

# BINGHAM COUNTY COMMISSIONERS

A. Ladd Carter, Chairman

Whitney Manwaring

Mark R. Bair



Jessica Lewis, Commission Clerk  
501 N. Maple #204  
Blackfoot, ID 83221  
Phone: 782-3013  
Fax: 785-4131

August 18, 2017

Jeff Marker, Freight Program Manager  
ITD Freight Program Office  
3311 W. State Street  
P.O. Box 7129  
Boise, ID 83707-1129

Dear Mr. Marker,

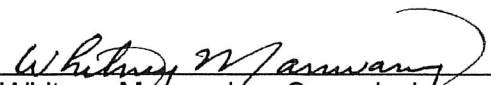
The City of Blackfoot is working to replace the West Bridge Street Bridge which is currently extremely deficient in providing a critical route over the Snake River that meets the needs of our growing community. Bingham County is pleased to support this project which will improve mobility and the economic vitality of the area by agreeing to provide 25 % of the grant match up to \$250,000 until 2021.

The output capacity of existing businesses in the county are severely limited due to the height, weight and width restrictions of the current bridge. Several companies currently located in the area have the capacity and ability to increase production if improvements were made to the route used to ship their products. Replacement of the West Bridge Street Bridge would allow immediate increase in the fabrication done locally. Such improvements would also provide the community the opportunity to attract additional business that relies on freight routes that are not restricted by the limitations of the current bridge. This predictable increase in economic generation would have a very beneficial outcome not only in our community but throughout the state.

With the replacement of the limiting structure, traffic will be able to flow more freely without endangering people using other alternative forms of transportation. The two existing traffic lanes are 12 feet wide with virtually no shoulder. The proposed structure will allow for four, twelve foot vehicle traffic lanes and two, five foot bike and pedestrian lanes so that the safety of all users of the route will be immensely improved. We ask that you give close consideration of this project and the value that it will add to area.

Sincerely,

  
A. Ladd Carter, Chairman

  
Whitney Manwaring, Commissioner

"Potato Capital"





City of

**Blackfoot**

**Idaho**

**Paul M. Loomis**, Mayor

157 North Broadway  
Blackfoot, Idaho 83221  
(208) 785-8600  
[www.cityofblackfoot.org](http://www.cityofblackfoot.org)

August 21, 2017

Jeff Marker,  
Freight Program Manager  
Idaho Transportation Department

Dear Mr. Marker:

The City of Blackfoot is committed to providing the following matching funds for the Freight Program application to replace the Old Bridge located on West Bridge Street, Blackfoot, Idaho 83221.

1. Cash in the amount of \$500,000, which we will provide during the project period of performance. The City's matching funds can be used for any of the following project efforts, design, engineering, and construction of the new bridge. We will provide funds as agreed when the State and Local contract agreement is coordinated and signed. The funds are currently secured in the City capital improvement accounts of our Street, Water and Wastewater Departments.
2. If needed the City will provide "In-Kind" contributions as required in the final State and Local agreement.

This project is sorely needed to improve the economic development and well-being of our community. We need the support of this grant to continue the revitalization of the Greater Blackfoot Area, which includes agriculture production and processing, industry, and the movement of goods and services. Without the support of this grant the prosperity of this area will be stifled for years to come. We need your help!

Very Respectfully,



Paul M. Loomis

Mayor  
City of Blackfoot

August 24, 2017

Mr. Jeff Marker  
Idaho Transportation Department  
Freight Program Manager  
3311 W. State Street  
Boise, ID 83707

SUBJECT: Blackfoot West Bridge

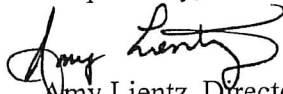
Dear Mr. Marker:

As the largest employer in eastern Idaho, Idaho National Laboratory has many employees and subcontractors who live in Blackfoot, Idaho. These employees and subcontractors commute to work using private transportation or INL's bus and shuttle transportation services. For decades INL has provided daily safe and reliable transportation for employees to and from the 890-square mile remote location located about 50 miles West of Blackfoot, to support and conduct research in nuclear energy, national and homeland security, and clean energy including small modular reactors.

With approximately eighteen small modular reactor (SMR) design groups interested in building a first-of-its-kind reactors at the desert site, the need to build and improve Idaho's infrastructure including bridges to support the safe movement of people and freight is a key element to accelerate the economic growth of the SMR industry.

Specifically the West Bridge Street, Bridge Replacement is essential to the safe and reliable transportation of our employees, subcontractors, and SMR components. We support the efforts of Blackfoot to review and improve transportation safety and infrastructure for their citizens, including the West Bridge, Bridge Replacement project.

Respectfully,

A handwritten signature in black ink, appearing to read "Amy Lientz", is written over the typed name.

Amy Lientz, Director  
Partnerships, Engagement and Technology Deployment

AL:KB

cc: Jan Rogers, CEO - REDI  
Mayor Paul Loomis, City of Blackfoot  
S.T. Cook, MS 3805





August 17, 2017

Mr. Jeff Marker  
Freight Program Manager  
ITD Freight Program Office  
3311 W. State Street  
P. O Box 7129  
Boise, ID 83707-1129

Dear Mr. Marker,

As the lead regional economic development organization that represents the 14-county area of Eastern Idaho, Regional Economic Development - Eastern Idaho (REDI) fully supports the City of Blackfoot, Bingham County, Premier Technology, and local business in their efforts to replace the West Bridge Street Bridge which provides a critical route for both business and community. From an economic development standpoint, infrastructure is a critical element for the successful recruitment and expansion of business opportunities within the county and municipal boundaries.

REDI has partnered with the City of Blackfoot and Bingham County on several community projects, including both business expansion and new attraction projects. Without the West Bridge Street Bridge's ability to provide a convenient route over the Snake River, Blackfoot and Bingham County, there will be a disadvantage to business growth.

Replacing the West Bridge Street Bridge will provide new job growth and new capital investment opportunities that will generate additional tax revenues, expand the tax base and increase property values.

We are confident that this much needed West Bridge Street Bridge replacement project is viable and necessary for development and future commerce in Bingham County.

REDI also supports the efforts of Premier Technology in this vital bridge replacement. We urge you to give strong consideration to this West Bridge Street Bridge replacement effort and the economic opportunities it will afford to local businesses and communities.

Thank you in advance for your kind consideration.

A handwritten signature in black ink, reading "Jan Rogers".

Jan Rogers  
CEO - REDI



## GREATER BLACKFOOT AREA CHAMBER OF COMMERCE

JEFF MARKER, FREIGHT PROGRAM MNGR

ITD FREIGHT PROGRAM OFFICE

3311 W. STATE STREET/PO BOX 7129

BOISE, IDAHO 83707-1129

DEAR MR MARKER;

I AM WRITING THIS LETTER IN SUPPORT OF THE CITY OF BLACKFOOT PROJECT TO REPLACE THE WEST BRIDGE STREET BRIDGE. IF ITD HAS SURVEYED THE AREA AND SPOKEN WITH LOCAL BUSINESSES THAT UTILIZE THIS ROUTE, YOU ARE AWARE OF THE BRIDGE AND THE SHORTCOMINGS IT PRESENTS FOR OUR EXPANDING COMMUNITY. DUE TO THE HEIGHT, WEIGHT AND WIDTH RESTRICTIONS, OF THE CURRENT BRIDGE, IT IS CURRENTLY UNACCEPTABLE FOR INCREASED OUTPUT FOR NOT ONLY OUR LOCAL PRODUCTION CAPABILITIES BUT OUR AG COMMUNITY AS IT CONTINUES TO GROW.

I ENCOURAGE YOU TO GIVE SERIOUS CONSIDERATIONS TO THIS PROJECT WITH THE REALIZATION OF THE IMMENSE IMPACT IT WILL HAVE FOR OUR COMMUNITY, BUSINESS DEVELOPMENT- LONG TERM AS WELL AS LOCAL PRODUCTION NEEDS FOR OUR BUSINESSES LOCATED ADJACENT TO THE BRIDGE FOR SHIPPING NEEDS. OUR COMMUNITY IS SEEING GREAT GROWTH AND NEW BUSINESS INTEREST AND I BELIEVE IT WOULD ONLY CONTINUE TO DEVELOP FURTHER SHOULD WE BE ABLE TO COMPLETE THIS PROJECT WITH ITD FREIGHT PROGRAM ASSISTANCE. SHOULD YOU HAVE ANY FURTHER QUESTIONS OR CONCERNS, PLEASE FEEL FREE TO CONTACT ME.

SINCERELY,



JULIE ANN GOODRICH

EXECUTIVE DIRECTOR



70 West Judicial Ave  
Blackfoot, Idaho  
83221

PHONE (208) 785-0510  
EMAIL [chamber@blackfootchamber.org](mailto:chamber@blackfootchamber.org)  
WEBSITE <http://blackfootchamber.org>





February 14, 2022

Scott Luekenga  
Freight Program Manager  
Idaho Transportation Department

Dear Mr. Luekenga,

The City of Blackfoot is still committed to providing the following matching funds for the Freight Program application to replace the West Bridge Street Bridge, sometimes known as the Old Bridge, located on West Bridge Street in Blackfoot, Idaho.

The City has cash in the amount of \$500,000, which has been identified to be provided during the construction project. The City's matching funds can be used for any of the project efforts, including design, engineering, and the construction phases of the project. We will provide funds as agreed when the State and Local contract agreement is coordinated and signed. The funds are currently secured in the City's capital improvement accounts of our Water, Wastewater, and Street Departments.

This project is needed to improve the economic development posture of our regional interests. The bridge sees significant use by our manufacturing entities, the agriculture community, and for City and County movement of large industrial equipment. This grant is necessary to continue the revitalization of the Greater Blackfoot area. The current bridge, built in 1936, is inspected annually by Idaho Transportation Department. The inspection reports of each successive year indicate more deterioration of structural members. The last report, dated April 2021, indicates a rating of FAIR for the superstructure and SERIOUS for the substructure of the bridge.

Without the support of the grant from the Freight Program, we fear that the bridge will one day fail the ITD bridge inspection process. This would have a devastating effect on the efficient movement of agricultural and manufactured goods across our area.

Please contact me at 208 785-2756 if you have questions.

Sincerely,

Marc Carroll  
Mayor

**MARC CARROLL**  
Mayor, City of Blackfoot

157 N Broadway • Blackfoot, Idaho 83221  
Office 208-785-2756 • Email [mayor@cityofblackfoot.org](mailto:mayor@cityofblackfoot.org)

[www.cityofblackfoot.org](http://www.cityofblackfoot.org)