

Merit Criteria

Provide narrative responses for how the project responds to the merit criteria in Section E.1.b of the NOFO.

See Section A.1 of the NOFO for detailed description of three BIP program goals. This section should elaborate on previously provided information to address the project selection criteria in more detail. If the response is N/A, please include a narrative why the response is not applicable.

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Criterion 1: BIP Program Goals

Please indicate which BIP program goals the proposed project will support? If the response is "N/A" please include a narrative why the response is not applicable.

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Goal 1:

How does this Planning project improve the safety, efficiency, and reliability of the movement of people and freight over bridge?

This planning project aims to transform the way people and freight move over the bridge, focusing on enhancing safety, boosting efficiency, and ensuring reliability. By adopting the latest safety standards, the project promises to significantly reduce risks for all users, integrating features like improved lighting, protective barriers, and safe pathways for pedestrians to prevent accidents. Furthermore, it will scrutinize the bridge's structural integrity to support modern traffic demands and heavy freight loads securely.

To increase efficiency, the project plans to tackle current traffic bottlenecks and patterns, making strategic changes that will smooth out traffic flow and cut down on congestion. This includes potentially widening the bridge or adding lanes to accommodate more vehicles and creating dedicated lanes for bicycles and safe walkways for pedestrians. Such multimodal transportation planning ensures that the bridge serves not just vehicles but also supports sustainable transport options.

The reliability of the bridge is paramount, with the project focusing on using durable materials and designs that can stand the test of time and minimize the need for frequent repairs. It also takes into account the resilience required to withstand local environmental challenges and potential climate change effects, making the bridge a dependable route for the foreseeable future.

The combined effect of these improvements is profound. Safety enhancements will lead to a reduction in accidents and disruptions, creating a smoother and safer experience for commuters and pedestrians alike. Efficiency gains from better traffic management and multimodal transport options will benefit freight carriers by maintaining schedules and reducing operational costs, while also offering individuals less time in traffic and more predictable journeys. The focus on reliability ensures the bridge remains a constant, dependable link in the transportation network, crucial for businesses relying on timely deliveries and individuals who rely on the bridge for daily commutes. Together, these

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Goal 2:

Does this Planning project improve the condition of bridges in the United States by:

ID	BIP Goal
2a	reducing the number of bridges in poor condition or in fair condition and at risk of falling into poor condition within the next 3 years?
2b	reducing the total person miles traveled over bridges in poor condition, or in fair condition and at risk of falling into poor condition within the next 3 years?

2c reducing the number of bridges that do not meet current geometric design standards, or cannot meet the load and traffic requirements typical of the regional transportation network?

2d reducing the total person miles traveled over bridges that do not meet current geometric design standards, or cannot meet the load and traffic requirements typical of the regional transportation network?

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Goal 3:

How does this Planning project provide financial assistance that leverages and encourages non-Federal contributions from sponsors and stakeholders involved in the planning, design, and construction of eligible projects. Otherwise, enter "N/A".

N/A

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Criterion 2: Project Description

Provide a description of the Bridge Project or Large Bridge Project the planning process will evaluate. This should include a discussion about the condition of the bridge(s) supported by documented information available at the time of submission of the application.

The UPRR; BNSF Naples Bridge, located in Boundary County, Idaho, stands as a pivotal infrastructure component, serving as a vital conduit for both local and international traffic. Its significance is underscored by its role as the sole secondary route facilitating north-south movement towards Canada, as well as into Kootenai and Bonner counties down to the Port of Lewiston. Recognizing the critical nature of this structure, there is an initiative to secure a Bridge Investment Program Planning Grant in the amount of \$750,000 in FY 2023. This grant aims to underpin a detailed feasibility analysis and revenue forecasting, essential steps in evaluating the viability and broader implications of replacing the existing Bridge. This bridge not only serves as a critical detour route during closures or maintenance activities on US 95 but also historically functioned as the primary north-south artery before the re-alignment of US 95. Its strategic importance is further magnified by its utility to the local community and the freight industry. It facilitates access to essential services and supports the timber industry's logistics, particularly in transporting timber to mills located on the bridge's northern end. Additionally, its significance is accentuated by its role in the daily routines of the local residences, including serving as a bus route for Naples Elementary School, ensuring the safe and timely delivery of children to their educational institution. Constructed in 1936, the Naples Bridge represents a significant piece of infrastructure history, carrying Old US-95 (Deep Creek Loop) over the terrain of the Union Pacific and BNSF Railroads as well as Deep Creek. This bridge, characterized by an 8-panel, rivet-connected Parker through truss design, complements its structural integrity with fixed and approach spans comprised of concrete curved T-beams. The bridge's main span stretches to 161.0 feet, culminating in a total structure length of 502.0 feet with a roadway width of 24 feet, it includes one main span alongside seven approach spans, identified by the inventory number 30315.

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The application should demonstrate how the proposed project would meet the six Merit Criteria for a Bridge Project or Large Bridge Project as noted in Section E.1.b of the NOFO. Provide details how the planning project will evaluate a bridge project that would meet these six criteria:

ID	Criterion
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1 State of Good Repair

2 Safety and Mobility

3 Economic Competitiveness and Opportunity

4 Climate Change, Sustainability, Resiliency, and the Environment

5 Equity and Quality of Life

Criterion 3: Project Schedule

Provide a detailed description of the current status of the planning process, including all activities either completed or underway at the time of the submission of the BIP Planning grant application. All major activities intended to be funded under a BIP Planning grant should be described in detail with anticipated start and end dates for each activity. Applications should also include a post-Planning grant schedule, with the planned start and end dates of all major activities that will need to be completed from the end of the BIP Planning grant through the completion of a BIP Bridge Project or Large Bridge Project, including but not limited to environmental review, design, and construction.

1. Phase 1 - Pre-Planning (Month 1-2):

- Initiate project team and partnerships.
- Conduct initial stakeholder meetings.
- Gather existing data and documentation.
- Coordination with Railroad

2. Phase 2 - Planning Feasibility Analysis (Month 3-12):

- Complete risk assessment and vulnerability analysis.
- Develop climate resilience strategies.
- Identify Alternatives.
- Engage Tribes, Federal Land managers, and local governments.
- Finalize bridge design alternatives.
- Geotech exploitation/analysis.

3. Phase 3 – Revenue Forecasting (Month 13-14):

- Draft Estimates for Alternatives
- Identify Potential Development/Design Funding Alternatives

Criterion 4: Project Budget

Provide a detailed project budget with the total project cost. The budget should identify all funding sources and amounts, including an estimated BIP grant request amount. Other funding sources, as appropriate, include Other Federal funds; State funds; Tribal funds; Local funds; and other funds such as private funds. Applications should include information about all sources of Federal funds that have been requested for the project, information about the amount requested, and whether or not the requested funding was received. If the funding request was not granted, please include a discussion of any documented basis for the denial of the funding. If the funding was received, please provide the date of award and how the funds have been or are expected to be used on the project.

Pre-Planning: \$85,000

Feasibility Study: \$600,000

Revenue Forecasting: \$65,000

Total Project Budget: \$750,000

The budget includes allocations for Planning and feasibility Analysis and Revenue Forecasting. It ensures the project's successful execution while adhering to fiscal responsibility. The schedule and budget reflect LHTAC's commitment to delivering a resilient and sustainable bridge solution for the community.

Other

Please use this space to respond to any questions that could not be accommodated by the previous input spaces or their formats. Otherwise, enter "N/A".

N/A

Narrative Response

While this planning project is specific to the Naples Bridge, it can contribute to improving the overall condition of bridges in the United States in a more localized manner. By upgrading this particular bridge, the project directly reduces the number of bridges in poor or fair condition in its area, potentially setting a standard for similar projects elsewhere.

The effort to replace or rehabilitate the Naples Bridge means one less bridge that's at risk of falling into poor condition within the next three years. While a single project may not drastically change national statistics, it's part of a collective effort. If similar planning projects are undertaken across the country, focusing on bridges that are in poor or fair condition, they can collectively result in a significant improvement in the nation's bridge infrastructure.

The planning stage is crucial for identifying specific issues and solutions that can prevent further deterioration, ensuring that the bridge not only remains functional but also safe for public use. In the broader scope, such proactive planning and subsequent action can help shift the statistics over time, contributing to the goal of reducing the number of bridges at risk.

The Naples Bridge project aims to directly improve the condition of a specific bridge, which, by extension, can contribute to reducing the total person miles traveled over bridges in poor or fair condition. When this bridge is upgraded or replaced, it will no longer be classified as in poor or fair condition, thereby reducing the mileage traveled on substandard bridges. While the immediate impact is localized, the project's approach and improvements could serve as a model that, if replicated across other bridges, could significantly reduce the nationwide total of person miles traveled on deficient bridges within the next three years. By improving this single bridge's condition, the project makes a contribution to the broader goal of enhancing the overall quality of bridge infrastructure in the United States.

Yes, the Naples Bridge project aims to specifically address and rectify the issues with a bridge that does not meet current geometric design standards or the load and traffic requirements typical of the regional transportation network. By focusing on updating this bridge, the project will directly reduce the number of bridges that are below current standards.

The project's success in bringing the Naples Bridge up to par would mean one less bridge on the list of deficient structures in terms of design and capacity. This improvement, though localized, contributes to the overall enhancement of the nation's bridge infrastructure by ensuring that this particular bridge can safely and efficiently handle the demands of modern traffic and the expected loads. Each bridge that is upgraded as such is a step forward in improving the broader network's reliability and safety.

The Naples Bridge project directly improves the condition by upgrading it to meet current geometric design standards and the load and traffic requirements of the regional transportation network. Although this project is localized, by upgrading this bridge, the project contributes to a reduction in the total person miles traveled over bridges that are below standards in the United States.

Each bridge that is brought up to current standards decreases the overall mileage that vehicles travel on outdated or insufficient infrastructure. While the project's immediate impact is localized to the Naples Bridge, it does add to the cumulative efforts to upgrade infrastructure across the country. If similar projects are adopted for other bridges that are currently deficient, the collective impact will lead to a significant decrease in the distance people travel over bridges that are not up to modern standards, thereby improving the overall state of bridges nationwide.

Narrative Response

The Idaho Transportation Department's latest bridge inspection report highlights several significant concerns regarding the structural integrity of a 337-foot steel through truss bridge. The bridge, showing signs of poor condition, has nonstructural steel plates welded to the bottom flange of the bottom chord directly beneath where railroad tracks pass. A notable issue is the failure of the steel protective coating along the bottom chord and on the top surfaces of the top chord, with the deterioration beginning to spread to other areas. Corrosion is evident between the web plates and bottom chord channels, and the portals and sway braces lack coating, exhibiting minor corrosion throughout.

Further complications include bottom chords L1E-L4E and L3W-L6W suffering from 1/16 inch thick pack rust, leading to out-of-plane bending between the bottom chord and the stiffener plates. The bottom chord members have 1/4 inch diameter pitting nodules up to 1/16 inch deep. Vertical supports L5E-U5E and L5W-U5W are compromised with cracks extending from rivets to the channel edges on the northwest and northeast flanges, respectively. Additionally, vertical L2E-U2E displays impact damage on the southwest flange, bending 1.5 inches out of plane over a 5-inch length with a 2-inch tear. There's also minor out-of-plane bending in L4E-U4E, and L6E-U6E shows a 6 inch high x 2 inch wide area of out-of-plane bending located 3 feet above the deck.

The structure has sustained further damage from impact, notably to the L5-U

5 sway brace, causing slight inward buckling of the verticals on both trusses and making the vertical L5-U5 on both trusses out of plumb by

The Naples Bridge project will be designed to meet the criteria for safety and mobility, ensuring that it not only addresses current infrastructure challenges but also anticipates future demands. For safety, the project will adhere to the highest engineering standards, incorporating resilient design features that can withstand natural disasters, including floods and earthquakes, thus ensuring the bridge's structural integrity over its lifespan. Advanced materials and construction techniques will be employed to enhance durability and reduce maintenance needs. The design will also include modern safety features, such as pedestrian pathways, secure railings, and efficient lighting, to ensure user safety at all times. From a mobility perspective, the project aims to significantly improve traffic flow and accessibility for both vehicular and pedestrian traffic. This includes designing the bridge to accommodate future traffic increases, integrating it seamlessly with existing transportation networks, and ensuring smooth transitions for all modes of transport. The project will also explore innovative traffic management technologies to minimize congestion and enhance the user experience. By focusing on these aspects, the Naples Bridge project is set to provide a safe, reliable, and efficient transportation solution that supports the community's needs and fosters regional connectivity.

The Naples Bridge project is more than an infrastructure update; it's a key element for community improvement. It's about connecting people, making travel easier and safer, and supporting the local economy. The project will widen and enhance the bridge, benefiting businesses, boosting tourism, and attracting new opportunities.

The bridge is a vital link in the community. Its renovation will create jobs and foster economic growth. Safety improvements mean less worry for commuters, and with lower maintenance costs, funds can be allocated to other community needs.

Additionally, the project aligns with environmental sustainability, symbolizing our commitment to a greener future. Essentially, the Naples Bridge is not just a physical structure, but a step towards a more connected and prosperous community.

The Naples Bridge project addresses climate change, sustainability, resiliency, and environmental considerations in several meaningful ways. Firstly, by incorporating sustainable design elements and materials, the project will actively contribute to reducing the environmental impact of construction and long-term operation. These features ensure that the bridge not only meets current needs but also remains viable and efficient in the face of changing climate conditions. Additionally, the project focuses on resilience, meaning that the bridge is designed to withstand extreme weather events and other environmental challenges, reducing the need for frequent repairs and maintenance. This resilience is crucial in the context of increasing climate unpredictability. Moreover, the project's emphasis on multimodal transportation, including provisions for bicycles and pedestrians, encourages more environmentally friendly travel options, thereby reducing carbon emissions associated with vehicle traffic. Overall, by integrating these elements of sustainability and resilience, the project not only addresses immediate transportation needs but also aligns with broader environmental goals, contributing positively to the fight against climate change and promoting a sustainable future.

The planning project for the Naples Bridge will address equity and quality of life by ensuring that the redesigned infrastructure serves the diverse needs of the entire community. Key to this approach is creating a bridge that is accessible and safe for all users, regardless of their mode of transportation. This inclusivity means that pedestrians, cyclists, and motorists alike will benefit from improved safety features and design. By catering to a wide range of users, the project inherently supports equitable access to transportation, an essential aspect of community life.

Additionally, the project aims to enhance the overall quality of life for local residents. Improved traffic flow and reduced congestion will lead to shorter travel times and less stress for commuters, contributing to a more pleasant daily experience. The safer, more efficient bridge will also facilitate easier access to local amenities, employment opportunities, and essential services, which is particularly beneficial for those who might currently find transportation challenging.

Furthermore, the project's commitment to environmental sustainability resonates with the community's quality of life. By using sustainable materials and practices, the project contributes to a healthier environment, which is a fundamental component of overall well-being. In essence, through its focus on accessibility, safety, efficiency, and environmental responsibility, the Naples Bridge planning project is poised to enhance both equity and the quality of life for the residents it serves.

The Naples Bridge planning project will address several innovative components, reflecting a modern approach to infrastructure development. A key aspect of innovation is its focus on multimodal transportation design, ensuring the bridge efficiently serves vehicles, pedestrians, and cyclists. This holistic approach promotes sustainable travel and caters to a diverse range of users. In terms of construction, the use of sustainable and resilient materials stands out. These advanced materials are environmentally friendly and adaptable to climate change, enhancing the bridge's durability and reducing its ecological footprint.

Another innovative element is the integration of smart traffic management technologies. These might include real-time traffic monitoring and adaptive lighting systems, which improve safety, reduce congestion, and enhance the overall user experience. The project also shows innovation in its approach to mitigating environmental impact, with measures for water quality protection, habitat conservation, and noise reduction during construction and operation.

Engaging the community through advanced tools and platforms for feedback and incorporating this input into the project's design and execution is an innovative approach to ensuring the bridge meets the community's needs and expectations. Additionally, the aesthetic design of the bridge, including how it fits into the area's cultural and historical context, is considered, potentially through unique architectural features or public art installations.

Lastly, planning for future adaptability, such as the capacity to expand or modify the bridge for emerging transportation trends like autonomous vehicles, demonstrates a forward-thinking and adaptable approach. Each