

FEASIBILITY STUDY OF ESTABLISHING A

HERITAGE STEAM RAILWAY AT THE LIBBY HERITAGE MUSEUM





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NOTE: This report was funded in part by an award from the Montana Department of Commerce, Opportunities in Rural Economies Planning Grant Program.

FRONT COVER: A new mural painted by local Libby High School students shows their core artifact, Shay Steam Locomotive No. 4, in all of its glory.

EXECUTIVE SUMMARY

The Libby HERITAGE MUSEUM (“Museum”) is home to priceless artifacts of the region, including a 1906-built Shay-type steam locomotive number 4 (“No. 4”). The all volunteer leadership and all volunteer staff of the Museum has worked for 50 years at the grass roots to protect, interpret, and research the history of the local area. Some of those same volunteers have spent over a decade pursuing the restoration to operation of this historic locomotive. In further pursuit of this goal, the Museum retained FMW SOLUTIONS LLC (“FMW”), a railroad preservation and consulting firm, to undertake an assessment of the locomotive and to develop this Feasibility Study.

The purpose of this Feasibility Study extends beyond restoration; it seeks to build a sustainable heritage exhibit that aligns with the museum’s mission to preserve, interpret and undertake historical research of the region’s industrial and cultural history. The restored Shay will serve as an educational platform for learning, vocational training, and interpretive programming rooted in Libby’s logging heritage using Science, Technology, Engineering, and Mathematics (STEM)—a way of integrating these subjects into a holistic approach to learning and problem-solving. An operational railroad will diversify the Museum’s revenue through ticket sales, events, and merchandise, reducing dependence on fundraising, grants and donations. Community engagement is central—volunteers, former machinists, logging and railroad employees, and students are envisioned to contribute thousands more hours to restoration, operations, and interpretation.



Justin Franz

Market analysis indicates that Libby’s location on U.S. Highway 2, the main tourist corridor between Spokane and Glacier National Park, offers meaningful ridership potential. Capturing even one percent of Glacier’s annual 2.9 million visitors could yield 25,000–35,000 riders annually, generating roughly \$400,000 in revenue and over \$2 million in regional economic impact through ancillary visitor spending. Comparable heritage railroads—



Heritage Museum Collection

such as Oregon’s Sumpter Valley Railroad and Michigan’s Huckleberry Railroad—demonstrate the viability of short-loop operations when combined with strong interpretation and event programming. Libby’s authentic site and highway visibility position it favorably among these peers.

The project’s total capital requirement

is estimated between \$2.6 million and \$3.5 million, covering locomotive restoration, track construction, exhibit site development, and visitor infrastructure (parking/rest rooms). A diversified funding plan combines Montana state tourism and heritage grants, federal programs such as the Transportation Alternatives Program and Economic Development Administration funding, plus support from the BNSF Railway Foundation and other private donors. Two funding scenarios—conservative and ambitious—provide flexible pathways to full implementation while managing financial risk through staged decision gates and clear match strategies.

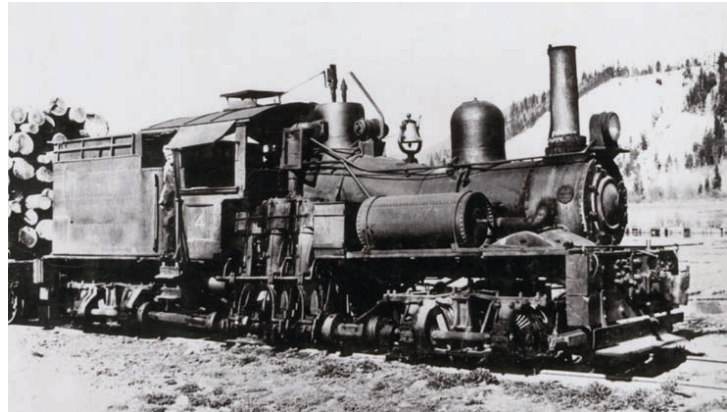
Beyond heritage preservation and educational opportunities for students, the project delivers measurable community and economic benefits. It will create approximately 11 direct FTE positions (14–17 with indirect effects), support local small businesses through increased tourism, and provide hands-on educational programming for more than 2,000 participants annually. Montana Destination Brand Research (2018) found that “history buffs” (over one-third of the overall respondents) are clearly a high-value audience that fits Montana perfectly. The Research found that respondents to the Montana Brand Exploration Survey rated “Historic attractions” and “Extremely important” attribute in selecting travel destinations and represent a large and lucrative “niche” segment. The initiative complements state and regional tourism goals emphasizing authentic, place-based experiences and converting Highway 2 through-traffic into sustained local economic activity. By honoring Libby’s industrial past while fostering a new tourism opportunity, the project offers a compelling model of rural economic diversification through heritage tourism.

1. PROJECT PURPOSE, HISTORY AND SIGNIFICANCE

2.1 WHY SHAY NO. 4 MATTERS TO LIBBY

Shay Steam Locomotive No. 4 represents far more than industrial machinery; it embodies Libby's economic foundation, community identity, and the technological innovation that powered Northwest Montana's timber economy for generations. Built by the Lima Locomotive Works in 1906 as a Class B two-truck Shay, this locomotive served the J. Neils Lumber Company operations in Libby during the peak of the region's logging era. The Shay's distinctive geared drive system was specifically engineered for the steep grades and tight curves of mountain logging railroads, making it an iconic symbol of western timber harvesting technology.

For Libby, the locomotive holds deep cultural resonance. The J. Neils Lumber Company was Lincoln County's largest employer for decades, and many local families have direct ancestral connections to the logging railroad operations.



Libby Pioneer Society Image

The Shay represents:

- **Economic heritage:** Timber harvesting drove Libby's economy from the 1890's through the 1890's.
- **Engineering achievement:** Shay locomotives solved the unique challenges of mountain railroading.
- **Community memory:** Many current residents have descendants that worked for the J. Neils Lumber Company.
- **Tourism differentiation:** An operational steam locomotive creates a unique history exhibit in Northwest Montana, as no other full-size Shay steam locomotive operates in the state at present.

2.2 ALIGNMENT WITH THE HERITAGE MUSEUM'S MISSION

The Heritage Museum's core mission is to preserve and interpret Lincoln County's rich industrial, cultural, and natural history for current and future generations. The restoration and operation of Shay No. 4 directly advances this mission through several strategic pathways:

- **Preservation of Material Culture:** Shay No. 4 is an irreplaceable artifact of early 20th-century industrial technology. Restoration preserves the locomotive's physical integrity while documenting construction techniques, materials, and engineering solutions that would otherwise be lost.
- **Active Interpretation:** Unlike static museum displays, an operational steam locomotive provides immersive, multi-sensory interpretation. Visitors experience the sights, sounds, and physical sensation of steam railroading, creating memorable connections to Libby's logging heritage that passive exhibits cannot achieve.
- **Educational Programming:** The locomotive becomes a teaching platform for STEM education, industrial history, environmental studies, and vocational training.



Libby Pioneer Society Image

ABOVE: Logging railroading at its finest. Here Shay No. 4 is shown hauling a trainload of logs for processing. Lumberjacks and train crew pose for the photo.

- **Community Engagement:** Restoration creates volunteer opportunities, inter-generational knowledge transfer, and community pride. Current and former loggers and railroad workers can contribute oral histories and technical expertise, strengthening the museum's connection to local stakeholders.
- **Economic Sustainability:** An operational heritage railroad generates earned revenue through ticket sales, special events, and ancillary spending. This diversifies the museum's funding base beyond fund-raisers, grants and donations, supporting long-term institutional viability.

2.3 HISTORICAL CONTEXT FOR INTERPRETATION AND GRANT NARRATIVES

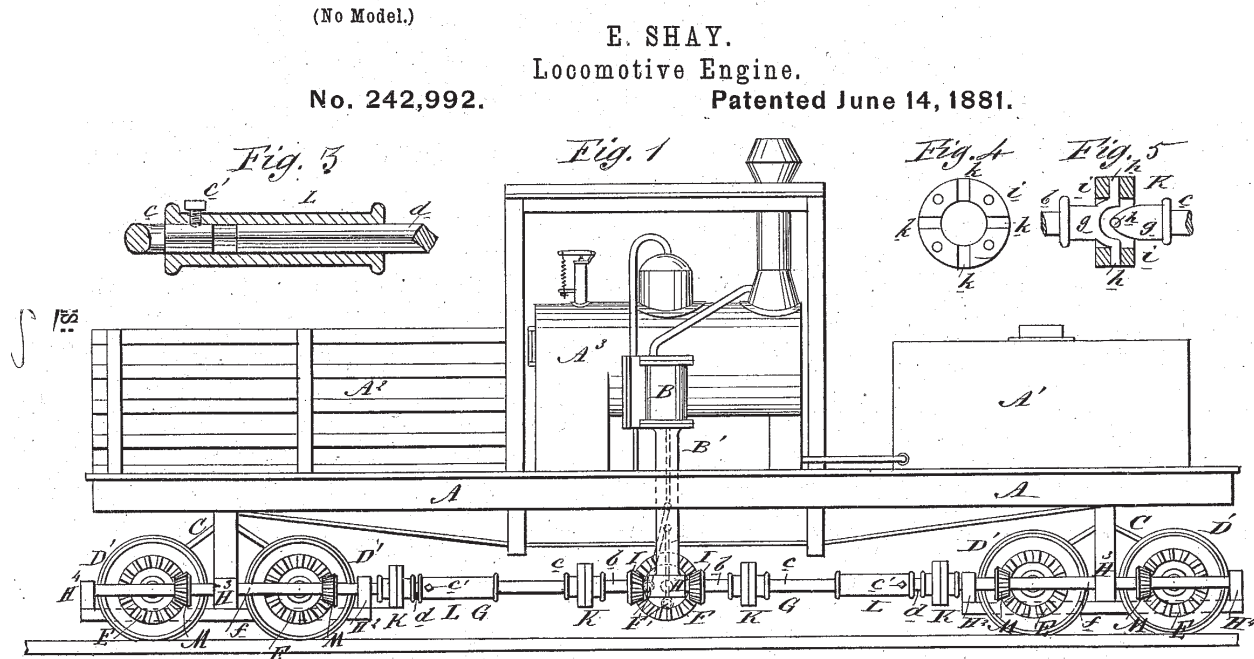
THE J. NEILS LUMBER COMPANY ERA (1911-1963)

The J. Neils Lumber Company was founded in 18951 by Norwegian immigrants. It expanded to Libby, Montana, through the acquisition of the Dawson Lumber Company's Libby Mill in 1911, and it became one of Montana's most significant timber operations by the 1920's. At its peak, the company operated extensive railroad networks throughout the Kootenai National Forest and northwest Montana, employed over 1,000 workers, and harvested millions of board feet of timber annually. The company's operations fundamentally shaped Libby's development, infrastructure, and community character.

SHAY LOCOMOTIVE TECHNOLOGY AND INNOVATION

Ephraim Shay's geared locomotive design (patented 1881) revolutionized logging railroads in forested mountainous terrain in the U.S. and the world. Traditional rod-driven locomotives struggled with steep grades and sharp curves common in western forests. Shay's vertical cylinder arrangement and bevel-gear drive system distributed power to all wheels, providing superior tractive effort and maneuverability. Class B two-truck Shays like No. 4 represented the sweet spot of power and versatility—capable of hauling substantial loads while navigating temporary track laid quickly through rugged country. These locomotives literally ran off of the abundance around them – their fuel was often the very wood

E. Shay



they hauled, and the water they boiled for steam was drawn straight out of local rivers and streams.

RARITY AND PRESERVATION VALUE

The Lima Locomotive Works produced approximately 2,761 Shays between 1880 and 1945². Of these, fewer than 110 survive today², and only a fraction remain in operational condition. Shay No. 4's preservation status makes it one of the rarest surviving examples of Pacific Northwest logging railroad technology.

GRANT NARRATIVE STRENGTHS

This historical context positions the project favorably for multiple grant categories with specific, quantifiable outcomes:

- **Heritage Preservation:** Saving a rare, locally significant artifact. Fewer than 110 Shays survive worldwide, with Shay No. 4 representing irreplaceable Pacific Northwest logging technology. Project aligns with National Register criteria and Montana Heritage Preservation Grant Program priorities. A priority of the Museum should be to place No. 4 on the National Register of Historic Places, which may position its restoration to be eligible for a "Save Americas Treasures" grant, as discussed later in this Study.
- **Economic Development:** Creating a tourism anchor history exhibit that will attract an estimated 25,000 annual visitors and generate \$850,000 in direct and indirect economic impact to Lincoln County. The project fills a geographic gap in Montana's heritage railroad tourism offerings, as no other operational Shay steam locomotive currently operates in the state. This positions Libby as a unique destination along the Highway 2 corridor between Spokane and Glacier National Park.
- **Education:** Building STEM/vocational programming around restoration and operation. The locomotive provides hands-on learning opportunities in mechanical engineering, thermodynamics, metallurgy, and industrial history. Partnership opportunities with Lincoln County schools, Montana Tech, and regional community colleges support workforce development in skilled trades. The restoration phase alone offers 500+ hours of documented apprenticeship opportunities in boiler-making, machining, and railroad crafts.

- **Community Development:** Engaging volunteers and preserving inter-generational knowledge transfer. Logging industry veterans possess irreplaceable technical expertise and oral histories. The project creates structured pathways to document and transmit this knowledge to younger generations while providing meaningful volunteer engagement opportunities. Estimated volunteer contribution: 2,000-3,000 hours annually across restoration, operations, and interpretation roles.
- **Cultural Tourism:** Diversifying Montana's heritage tourism portfolio in alignment with the Montana Office of Tourism's 2024-2028 strategic plan emphasis on authentic, place-based experiences. Montana's Destination Brand Research Study conducted in 2016, found that "history buffs" (over one-third of the overall respondents) are clearly a high-value audience that fits Montana perfectly. The Researchers found that respondents to their survey rated "Historic attractions" as an "Extremely important" attribute in selecting travel destinations and represent a large and lucrative "niche" segment. The project complements rather than competes with Glacier National Park tourism, offering a distinct attraction that encourages extended stays in Lincoln County. Integration with Glacier Country Tourism regional marketing initiatives amplifies visitor reach.
- **Regional Economic Impact:** The heritage railroad addresses Lincoln County's economic transition challenges following the decline of extractive industries. By converting historical logging heritage into sustainable tourism revenue, the project supports economic diversification goals identified in Lincoln County's comprehensive planning documents. The estimated 8-12 direct jobs created represent meaningful employment in a county with limited economic opportunities.
- **Federal Funding Alignment:** The project advances multiple federal grant priorities simultaneously. U.S. Economic Development Administration criteria emphasize job creation in economically distressed areas (Lincoln County qualifies). Transportation Alternatives Program funding targets heritage transportation projects with tourism functions. Save America's Treasures grants prioritize nationally significant historic properties and collections. The multifaceted nature of this project makes it competitive across diverse federal funding streams.



Heritage Museum Collection

ABOVE: The Heritage Museum fosters volunteers - such as high schoolers painting the "Shay No. 4" mural in June 2025

COMPETITIVE DIFFERENTIATION:

Unlike many heritage railroad proposals that involve relocating equipment to new sites or creating artificial historical contexts, Shay No. 4 restoration maintains authentic place-based connections. The locomotive operated in Libby, served the local economy, and remains embedded in community memory. This authenticity strengthens interpretive programming, community engagement, and grant narratives centered on preserving genuine local heritage rather than assembling generalized railroad history.

The combination of rarity (fewer than 110 surviving Shays globally), authenticity (original J. Neils provenance), economic impact (\$850,000+ annually), educational mission (STEM and vocational training), and community connection positions the Libby Heritage Museum's Shay No. 4 project as exceptionally competitive for blended funding from Montana state tourism grants, federal historic preservation programs, economic development initiatives, and private foundation support.

2. MARKET DEMAND ASSESSMENT

2.1 REGIONAL TOURISM PROFILE AND DRIVE-TIME MARKETS

Libby is positioned along U.S. Highway 2³³, the primary east-west tourist corridor across northern Montana, and benefits from through-traffic to and from Glacier National Park (~2.9 million visitors in 2023). More than 1.4 million of those visits occurred in the June–August peak months alone, creating a significant seasonal audience that can be converted into stop-over experiences.

TABLE 2.1: PRIMARY DRIVE-TIME MARKETS

| MARKET | DISTANCE | DRIVE TIME | POPULATION |
|---|--------------|-------------|------------|
| Kalispell/Evergreen Columbia Falls, MT | 92-105 miles | 1.5-2 hours | 47,700 |
| Whitefish, MT | 100 miles | 1.75 hours | 9,600 |
| Polson, MT | 140 miles | 2.25 hours | 5,700 |
| Sandpoint, ID | 86 miles | 1.5 hours | 9,000 |
| Coeur d’Alene, ID | 132 miles | 2.5 hours | 56,700 |
| Spokane/Spokane Valley, WA | 160 miles | 3 hours | 556,000 |
| Missoula, MT | 194 miles | 3.5 hours | 79,000 |
| TOTAL: | | | 763,700 |

SEASONALITY AND VISITOR FLOWS

Northwest Montana experiences pronounced tourism seasonality, with implications for heritage railroad operations:

- **Peak Season (June–August):** Highest tourist volumes on Highway 2; ideal for daily service. Museum Opening (June 1-day show); July 4 Troy Parade, show, fireworks; July PRCA Rodeo 3-day show; Ignite the Nites (3-day car show); Chainsaw Carving Contest (September 4-day show); Harvest Festival (September 1-day show). Cabinet View Golf Course sponsors 12 Golf Tournaments May–Sept.
- **Shoulder Seasons (May, September):** Reduced Glacier crowds but many are retirees and favorable weather for outdoor activities. Heritage railroad could capture weekend scenic train ride demand.
- **Winter (October–April):** Limited operations window as weather allows special events (Thanksgiving, Christmas, Easter trains, winter festivals) justify operation costs.

2.2 AUDIENCE SEGMENTS AND ATTENDANCE PROJECTIONS

TABLE 2.2: TARGET AUDIENCE SEGMENTS

| SEGMENT | CHARACTERISTICS | VISIT MOTIVATION | EST. ANNUAL VOL- UME |
|----------------------|--|-------------------------------------|-------------------------|
| Through-Tourists | Families, couples, friends en route to/from Glacier NP | Break in journey, unique experience | 8,000-15,000 |
| Regional Residents | Flathead Valley, Sandpoint, local counties | Day trip, family outing | 5,000-10,000 |
| MT, ID School Groups | K-12 field trips (2 hrs ea way) , STEM programs | Educational programming | 2,000-4,000 |
| Railroad Enthusiasts | Rail fans, heritage tourism specialists | Rare steam locomotive | 1,000-2,000 |
| Event Attendees | Special events, private charters | Unique venue experience | 4,000-9,000 |
| TOTAL | | | 20,000-40,000 |

2.3 COMPARABLE HERITAGE RAILROAD OPERATIONS

To calibrate realistic expectations for Libby's heritage railroad, we analyzed operating data from comparable institutions. The following table summarizes key metrics from heritage steam railroads with similar scale, geography, and market positioning:

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TABLE 2.3: COMPARABLE HERITAGE RAILROAD OPERATIONS

| RAILROAD | LOCATION | TRACK LENGTH | ANNUAL RIDERS | TICKET PRICE |
|---------------------|------------------|--------------|---------------|---------------|
| Sumpter Valley RR | Sumpter, OR | 5 miles | ~12,000 | \$20 - \$30 |
| Midwest Central RR | Mt. Pleasant, IA | 1.25 miles | ~35,000 | \$15 - \$35 |
| Huckleberry RR | Flint, MI | 8 Miles | ~60,000 | \$12 - \$18 |
| Roaring Camp | Felton, CA | 3.25 Miles | ~200,000 | \$28 - \$44 |
| Nevada State RR | Carson City, NV | 5.5 miles | ~28,000 | \$18 - \$28 |
| Black Hills Central | Hill City, SD | 10 miles | ~110,000 | \$32 - \$49 |
| Laona & Northern | Laona, WI | 1.24 miles | ~15,000 | \$10 - \$22 |
| Cumbres & Toltec | Chama, NM | 64 miles | ~40,000 | \$125 - \$165 |

KEY INSIGHTS FROM COMPARABLE OPERATIONS:

Among the analyzed comparable operations, Libby's planned 1-mile demonstration loop positions it closest in scale to the Nevada State Railroad Museum (1.5 miles) and the Sumpter Valley Railroad's demonstration operations (5-mile mainline with shorter public excursion routes). This scale category represents entry-level



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ABOVE: The Laona Northern Railroad in Wisconsin operates an old logging locomotive on a 1.25 mile trip through the former logging forests of the region.

heritage railroad operations focused on interpretive demonstration rather than extended scenic excursions. The Nevada State Railroad Museum's success with short-loop operations (10,000-15,000 annual visitors despite Carson City's smaller population and less prominent tourist corridor) demonstrates that 1-mile tracks can sustain viable operations when coupled with strong interpretive programming and museum integration.

An interesting comparable, given its logging heritage, is the Laona & Northern Railroad in northern Wisconsin, which operates roughly 1.25 miles with a steam locomotive between its boarding area and an old logging camp. They reportedly haul between 15,000 and 20,000 passengers per year with adult ticket prices of \$22 per person. This operation is in an equally-rural area, but one that features fewer tourists than those which traverse Highway 2.

However, Libby's Highway 2 location provides a competitive advantage over other interior locations like Nevada State Railroad Museum or Sumpter Valley. With approximately 1.4 million Glacier National Park visitors traveling Highway 2 during peak summer months, Libby benefits from established tourist traffic flow that neither Nevada (off interstate corridors) nor Sumpter Valley (remote Eastern Oregon) can match. The Black Hills Central Railroad provides the most relevant parallel: a heritage steam operation on a major tourist corridor (Highway 16/385 to Mount Rushmore) that captures overflow traffic from a nearby national attraction. Black Hills' 100,000+ annual attendance demonstrates the ridership potential when heritage railroads are positioned on high-volume tourist routes.

Libby's 1-mile track length will constrain ticket pricing to the \$10-20 range (comparable to Nevada State Railroad Museum's \$8-12 pricing), significantly below the \$30-50 tickets commanded by longer scenic routes like Cumbres & Toltec (64 miles) or Black Hills Central (40 miles round-trip). This pricing reality underscores the importance of revenue diversification through special events, merchandise sales, and ancillary partnerships, as demonstrated by the Huckleberry Railroad's \$75,000 annual merchandise budget and extensive special event calendar.

- **Track Length and Pricing:** Short loops (1-2 miles) typically support \$8 - \$20 tickets, while longer scenic routes command premium pricing (\$30-50+). Libby's 1-mile options position it in the lower price tier unless combined with special event programming. The like-sized Midwest Central Railroad gets the majority of its ridership during the "Midwest Old Thresher's Reunion," a five-day festival that features steam traction engines, old farm equipment, and related heritage items.
- **Visitation Ranges:** Small-scale heritage railroads in Western rural markets typically attract 10,000-30,000 annual visitors. Mid-scale operations with strong institutional support and complementary attractions, such as Michigan's Huckleberry Railroad (100,000+ annual visitors) demonstrate that museum-based railroads can achieve substantial ridership. Operations near major tourist corridors (Black Hills is adjacent to Mount Rushmore) can reach similar or higher attendance levels. Libby's Highway 2 location suggests potential for 20,000-35,000 visitors with effective marketing. Capturing just 1% of Glacier visitors would yield ~30,000 riders. Montana Department of Transportation statistics for 2024 show that Hwy 2 averages 3,819 vehicles per day (at the Bull Lake Road intersection) through Libby May1-Sept. 30. The Museum would be open 152 days May1-Sept. 30. Therefore, 3,819 vehicles/day x 152 open days = 580,518 vehicles through Libby during the Museum season. Just 1% of 580,518 vehicles = 58,052 riders. See [ATRBOOK24](#) then "find" W-147 chart/graph.
- **Revenue Diversification:** Successful operations supplement ticket sales with special events (wine trains, murder mysteries, holiday themes), private charters, merchandise, and ancillary partnerships (restaurants, lodging packages).
- **Operating Seasons:** Most comparable railroads operate 4-6 months annually (May-October), with some extending seasons through winter holiday programming.

Mid-Scale Integrated Operations: The Huckleberry Railroad in Flint, Michigan, provides an important benchmark for heritage railroads integrated with larger historical attractions. Operating as part of the Crossroads Village & Huckleberry Railroad complex managed by Genesee County Parks & Recreation, the railroad generates approximately \$603,000 in annual revenue (FY 2023-24 budgeted) and attracts over 100,000 visitors annually. The operation demonstrates the value of integration with complementary attractions, special event programming (including licensed events like Day Out With Thomas), and merchandise sales budgeted at \$75,000 annually. A 2021-22 economic impact analysis found the combined complex generates \$4.7 million in regional economic impact and supports approximately 126 jobs. The railroad's capital investment profile includes major equipment upgrades (\$98,633 for roller-bearing trucks), ongoing track maintenance (\$2 million mainline tie replacement program), and new rolling stock (\$700,000-\$1.8 million for accessible passenger cars). This scale of operation suggests that heritage railroads can achieve substantial revenue generation when supported by adequate capital investment, professional management within a county parks system, and integration with broader heritage tourism offerings.

The Huckleberry Railroad's five-year capital plan includes \$100,000 annually for culvert reconstruction, \$2 million



ABOVE: Huckleberry Railroad steam locomotive No. 152 awaits its next trip.

Aaron Headley - CC2.0



ABOVE: *Midwest Central Railroad's shay locomotive is shown making the "loop" on the railroad's 1.5 mile "mainline."*

for mainline tie replacement, \$700,000 for an accessible passenger car, and \$1.8 million for passenger car trucks. This level of ongoing capital investment (averaging \$400,000-\$500,000 annually) reflects the long-term financial commitment required to maintain a heritage railroad operation at professional standards. Such figures provide context for Libby's projected restoration costs and emphasize the importance of establishing dedicated capital reserve funding.

Analysis of publicly available financial data reveals significant variation in operating sustainability across comparable heritage railroads, with implications for Libby's business planning. The Huckleberry Railroad's \$603,000 budgeted revenue supports operations within a larger county parks system that can absorb losses and provides administrative infrastructure (accounting, marketing, maintenance facilities) without charging full cost recovery to the railroad operation. This institutional support model differs fundamentally from standalone operations like the Sumpter Valley Railroad Restoration, Inc., a nonprofit that must achieve operational break-even to remain viable.

Among smaller operations more comparable to Libby's projected scale, the Nevada State Railroad Museum operates within the Nevada Department of Tourism and Cultural Affairs, benefiting from state funding that supplements earned revenue. The Midwest Central Railroad, operating in conjunction with the Old Thresher's Association, concentrates operations during the five-day annual festival, achieving high utilization during a compressed season that minimizes ongoing operational costs. This festival-focused model generates sufficient revenue during peak days to offset the railroad's seasonal dormancy.

For Libby, the financial sustainability question centers on whether 25,000 annual visitors generating \$300,000

in ticket revenue (at \$12 average pricing) plus ancillary revenue streams can cover estimated annual operating expenses of \$320,000-\$380,000 (per Section 7.2 projections). The comparable operations analysis suggests three critical success factors:

First, integration with existing museum operations provides administrative efficiencies and shared costs. The Huckleberry Railroad benefits from county parks infrastructure; Libby Heritage Museum can similarly leverage existing museum volunteer staff, facilities, and donor base rather than building standalone capacity.

Second, special events and themed programming significantly boost revenue per operating day. Operations that rely solely on basic train rides struggle to achieve financial sustainability, while those offering murder mystery trains, wine tastings, holiday programs, and private charters can double or triple per-capita revenue. The Huckleberry Railroad's success with licensed events (Day Out With Thomas) demonstrates the revenue potential of branded programming.

Third, volunteer labor provides essential cost containment. Heritage railroads staffed entirely by paid employees face labor costs that consume 60-75% of operating revenue. Operations like Sumpter Valley that utilize volunteer engineers, firemen, conductors, and maintenance crews can allocate more revenue to capital reserves and program development. Libby's business model assumes hybrid staffing with paid seasonal positions supplemented by trained volunteers, following the proven model of most small-scale heritage railroads.

The comparable operations analysis indicates that Libby's projected attendance (25,000 visitors) and revenue targets (\$300,000-\$450,000 total operating revenue) position it between small demonstration operations (10,000-15,000 visitors) and mid-scale integrated attractions (100,000+ visitors). This intermediate positioning suggests cautious optimism: the project can achieve operational sustainability if it executes effective marketing to Highway 2 travelers, develops robust special event programming, and maintains disciplined expense management.

Data Limitations: While publicly available financial data for the Huckleberry Railroad includes budgeted revenue figures, detailed operating expense breakdowns (staffing, fuel, maintenance, insurance) are not publicly reported, as the railroad is operated within Genesee County's consolidated parks enterprise fund. The revenue figure demonstrates the scale of earned income achievable by a well-established heritage railroad but does not permit net profitability analysis without corresponding expense data.



Steve VanCannon - CC 2.0

ABOVE: Huckleberry Railroad locomotive No. 464 hauls an excursion

3. SITE & EXHIBIT PLANNING

3.1 GENERAL APPROACH TO SITE DESIGN + TRACK LAYOUT

Conveniently, logging railroads in the U.S. were traditionally built as inexpensively as possible, with little regard for refined civil engineering or land grading. Instead, they often laid tracks directly on the ground. This means that, with a bit of modest modern engineering, a prototypical logging railroad can be developed in the vicinity of the Museum, including tight curves, some steep grades, and a reasonable replication of what the J. Neils Logging Company railroad might have represented in the early part of the 20th century.

The following were key considerations to the preliminary site design:

- **Existing Structures:** The layout of the track infrastructure could not impact any existing structures. Rather, the goal is to leverage existing railroad buildings (e.g., Shay Shed & Railroad Office) as the nexus of the operation.
- **Land Use:** The route of the rail line can utilize both the museum grounds and grounds of the Lincoln County Port Authority. The latter land provides variation in grade and an opportunity to show off one of the Shay's great strengths – climbing steep hills.
- **General Design Limitations:** The rail line layout features curves up-to a 30 degree radius, which is roughly 2/3 of the minimum radius a Shay locomotive, coupled to log cars, could traverse. The maximum grade of the rail line is no more than 7%. Furthermore, the rail line features a reversing track such that the entire train can be turned, which will enable the operation to limit overall wear on the wheels due to the normal “loop-type” proposed operation.



ABOVE: Logging railroads all across the Mountain West were built inexpensively and with the materials at hand. This massive curved timber trestle on Idaho's Blackwell Lumber Company railroad holds a three-truck Shay and its log train in this 1910 postcard.

3.2 PROPOSED SITE DESIGN AND LAYOUT

The proposed site design is a loop-style layout of roughly 5,000 foot length, with a reversing track of an additional 740 feet in length [REFER TO THE NEXT TWO PAGES]. The maximum grade of the route is approximately 7%, though the majority of the route is at a more limited gradient. As this will be a featured attraction of the park, the alignment has been laid out to go as close to the main museum building as possible, weaving between existing historic structures.

At 5,000 feet in length, a transit of one revolution of the loop will take an estimated 10-15 minutes to complete. One approach to lengthening the “ride” would be to undertake two loops and/or transit through the reversing loop to experience the ride in two directions which, with throwing switches, would result in a roughly 30-40 minute-long train ride. The ride could also conceivably feature the addition of a remote exhibit elsewhere on the Lincoln County Port Authority land that replicates a logging camp, or other such feature.

For the laying of the railroad, we propose utilizing as much used track material as possible to keep costs to a minimum. The original logging railroads were typically laid with 60 pound-per-yard (“60#”) rail, but the proposed recreation railroad here would be easier to relay with slightly heavier, used rail (e.g., 80# - 90#). Furthermore, the relay railroad ties have been specified, which will provide sufficient utility to get the railroad running, with further operating costs covering replacement of roughly every fourth tie every five years. The capital costs are summarized below:

TABLE 4.1: CAPITAL COSTS OF TRACK CONSTRUCTION

| TASK | LOW EST. | HIGH EST. | NOTES |
|-------------------------------|-------------|-------------|-----------------------------------|
| Rail (90 lb/yd, new or used) | \$170,000 | \$205,000 | ~ 10,500 linear feet, varies |
| Other Track Material | \$90,000 | \$110,000 | Spikes, plates, bolts, joint bars |
| Ties (hardwood, treated) | \$85,000 | \$125,000 | ~ 3,500 ties @ \$25 each relay |
| Ballast & Base Material | \$100,000 | \$135,000 | 1/2 ton per foot x \$12 per ton |
| Turnouts/Switches (if needed) | \$240,000 | \$300,000 | three turn outs |
| Site Grading & Earthwork | \$80,000 | \$140,000 | Excavation, fill, compaction |
| Labor & Installation | \$400,000 | \$431,200 | Track Install Cost = \$77/foot |
| Total Track Construction | \$1,165,000 | \$1,446,200 | |

Total Length of Track = 5,600 feet

 .3963" = 100'





4. OPERATING SCENARIOS & REGULATORY PATHWAYS

4.1 FEDERAL RAILROAD ADMINISTRATION REGULATORY FRAMEWORK

Operating a heritage steam railroad on museum property requires navigating a complex regulatory landscape, typically governed by the Federal Railroad Administration (“FRA”). The regulatory pathway depends critically on the operational classification chosen:

OPTION 1: TOURIST RAILROAD / EXCURSION SERVICE

If operations involve carrying fare-paying passengers on a defined loop or route that crosses a public road or navigable waterway, the railroad falls under FRA tourist railroad regulations (49 CFR Part 209)⁴. This classification triggers comprehensive requirements:

- **Track Safety Standards:** Compliance with 49 CFR Part 213 (Track Safety Standards)⁴. For Class I track (maximum 15 mph), this includes regular inspections, documented maintenance, and specific construction standards for rails, ties, ballast, and drainage.
- **Locomotive Inspection:** 49 CFR Part 230⁵ governs steam locomotive boiler inspections, safety appliances, and operational testing. Shay No. 4 will require FRA Form 4 hydro static testing every 1,472 service days (approximately 5 years for seasonal operation).
- **Operating Rules:** Development of an Operations Rule Book (49 CFR Part 217⁶) covering train movements, signal systems, crew qualifications, and emergency procedures.
- **Employee Qualifications:** Engineer and conductor certification (49 CFR Part 240, Part 242⁷), including written examinations, operational testing, and ongoing training requirements.
- **Passenger Equipment:** If using restored vintage coaches, compliance with 49 CFR Part 238 (Passenger Equipment Safety Standards)⁸ including structural integrity, emergency exits, and interior materials.
- **Insurance and Liability:** Minimum insurance requirements and accident/incident reporting protocols.



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ABOVE: When former Rio Grande Southern 2-8-0 No. 41 was returned to service for use at Knotts Berry Farm in California, it was rebuilt to both the state and FRA standards. This allows it to be used at the amusement park and on FRA-governed properties.

OPTION 2: PRIVATE OPERATION ON MUSEUM GROUNDS

Alternatively, if the railroad operates exclusively on private museum property as a closed-loop demonstration facility, with no public grade crossings and no connection to the general railroad system, the operation should qualify for exemption from comprehensive FRA oversight. This classification offers significant operational and cost advantages while still allowing rigorous safety standards:

- **FRA Exemption Potential:** Demonstration railroads confined to private property with no public crossings may petition the FRA for exemption from Part 209 tourist railroad regulations. The Laona & Northern Railroad in Wisconsin provides a direct precedent: operating on a 1.25-mile line. It secured FRA exemption while maintaining professional safety protocols. Exemption applications require documentation of operational scope, property boundaries, absence of public crossings, and commitment to safety management systems.
- **State Oversight:** Even if the operation is FRA-exempt, Montana Public Service Commission oversight may apply. Montana has historically delegated railroad safety jurisdiction to FRA, but it retains authority over intrastate commerce.
- **Voluntary Standards:** Best practice suggests adopting FRA-equivalent standards even if technically exempt, to ensure safety, maintain insurance eligibility, and facilitate potential future expansion.



FMW Collection

ABOVE: Laona & Northern Railroad excursion train

4.2 MONTANA STATE REQUIREMENTS

Beyond federal regulations, Montana imposes state-level requirements:

- **Public Service Commission:** If operations fall under common carrier definition, Montana PSC oversight applies (MCA Title 69, Chapter 14⁹). Tourist railroads typically receive exemptions or streamlined treatment.
- **Environmental Review:** Montana Environmental Policy Act (MEPA)¹⁰ review may be required if project involves state funding, permits, or significant environmental impacts. For a 1-mile track loop on existing museum property, environmental impacts are likely minimal, but formal review determines necessity.
- **Building and Safety Codes:** Any structures (stations, maintenance facilities) must comply with Montana Building Code and local Lincoln County ordinances. Fire marshal inspection and approval will be required.

4.3 PROPOSED PATHWAY: PRIVATE OPERATION UNDER STATE OVERSIGHT

Given Libby's specific circumstances, a 1-mile closed loop on museum property and Lincoln County Port Authority rail easement with no connection to the general railroad system, we recommend pursuing a demonstration railroad model with voluntary adoption of FRA-equivalent safety standards. This approach balances operational flexibility with rigorous safety protocols:

TABLE 4.1: RECOMMENDED REGULATORY COMPLIANCE PATHWAY

| REGULATORY ELEMENT | REQUIREMENT STATUS | IMPLEMENTATION STRATEGY |
|------------------------------|---|--|
| Track Construction Standards | Voluntary FRA Class I equivalent | Use FRA-compliant rail (80-115 lb), hardwood ties, drainage per 49 CFR 213 |
| Locomotive Boiler Inspection | Montana state annual inspection (MCA 50-74-209) | Annual Montana Department of Labor & Industry inspection, ASME Section I compliance. |
| Operating Rules Book | Highly recommended | Develop museum-specific rules based on FRA Part 217 template |
| Crew Qualifications | Voluntary training program | Structured engineer/conductor training, written/practical exams |
| Insurance | Mandatory (market-driven) | General liability \$2-5M, property, workers' comp |

4.4 IMPLEMENTATION TIMELINE AND APPROVAL PROCESS

Based on comparable heritage railroad projects, the regulatory approval and implementation process typically unfolds over 18-24 months:

TABLE 4.2: REGULATORY AND CONSTRUCTION TIMELINE

| PHASE | TIMEFRAME | KEY ACTIVITIES |
|-------------------------|--------------|---|
| Pre-Planning | Months 0-3 | Feasibility study, site selection, FRA consultation, attorney review |
| Engineering & Design | Months 3-6 | Track design, grading plans, environmental assessment, building permits |
| Track Construction | Months 6-12 | Site clearing, roadbed preparation, track laying, ballasting |
| Locomotive Restoration | Months 12-24 | Complete mechanical restoration per FMW proposal (parallel to track work) |
| Testing & Certification | Months 24-26 | Boiler inspection, track testing, crew training, insurance finalization |
| Soft Opening | Month 27 | Limited operations, invited guests, operational refinement |
| Full Operations | Month 28+ | Public operations, marketing launch, event programming |

5. PRELIMINARY MECHANICAL RESTORATION

5.1 RESTORATION OF SHAY NO. 4

FMW worked closely with Museum leadership to review past work completed on Shay No. 4 as well as conduct a digital walk-around of the Shay to develop a scope of work to complete its restoration to operation. A variety of other volunteers and contractors have been working towards its completion over the past decade, and the primary goal of this effort is to see its restoration completed and the locomotive utilized as a living piece of history.

The following are the specific tasks FMW believes will be required to return it to operational condition.

- TRUCKS
 - Refurbish bolsters and center bowl castings (both trucks)
 - Replace bolster springs (front and rear sets)
 - Refurbish four journal boxes and four gear drive journal boxes, assuming the existing boxes are repairable and will not need to be made new
 - Overhaul the drive shaft, bearings, journals, gears, and retainers
 - Renew the truck frames, pedestals, binders, and other truck components
 - Repair brake rigging



Justin Franz

ABOVE: J. Neils Lumber Company Shay No. 4 has been worked on at the Museum by a combination of volunteers and contractors for some years. The restoration is well underway, though much remains to be completed to return it to a safe and suitable condition.

- FRAME, CAB, TANK, AND OIL TANK
 - Repair the frame, including buildup, replacement of bent and heavily corroded areas, and replacement of bent plates at side bearings
 - Refurbish center castings
 - Replace both end beams
 - Renew coupler pockets, couplers, and mounting hardware
 - Inspect replacement water tank and oil tank, repair if needed
 - Repair cab floor and refurbish cab
 - Source new drilled and stamped air tank
 - Renew brake cylinder and frame attachment
- STEAM ENGINE
 - Abate the asbestos insulation
 - Rebuild cylinders and valves, including machining, with the assumption that the cylinders can be bored and will not require new liners necessary and studs or heads
 - Refurbish the existing pistons, piston rods, valves, and valve rods
 - Renew crossheads, guides, and pins
 - Overhaul valve gear rods and pins
 - Rebuild cranks, crank bushings, rod bushings, and bearing caps, including boring true the engines
 - Overhaul reverse gear
 - Re-manufacture engine brackets and hardware
 - Design and fabricate new rod packing
 - Repair crack in rear cylinder casting
 - Complete miscellaneous piping, insulation, jacketing and parts
- BOILER AND SMOKE BOX
 - Verify the engineering and Form 4 package
 - Radiograph inspection of weld repairs completed thus far
 - Complete installation of new front and rear tube sheets
 - Complete repair to firebox
 - Complete miscellaneous rivet repair
 - Fabricate and replace boiler studs
 - Refurbish turret
 - Repair and install stop cocks
 - Rebuild throttle valve
 - Address crack at feedwater inlet
 - Renew throttle linkage, quadrant, lever, etc.
 - Source and install water sight glasses
 - Complete miscellaneous piping and fittings
 - Source and install boiler tubes
 - Refurbish smokebox front door stud ring
 - Design and fabricate new smokestack and petticoat

- APPLIANCES, AIR BRAKES, PIPING, INSULATION, JACKET AND PAINT
 - Rebuild one (1) single stage air pumps
 - Rebuild dynamo
 - Complete electrical wiring and lighting
 - Fabricate and install air brake stand, valves, etc.
 - Complete all new air and other steam piping
 - Install rock wool and calcium silicate insulation
 - Fabricate and install new jacket
 - Fabricate and install new running board
 - Repair / reinstall handrails

The estimates provided in Table 5.1 do not include transportation / crane costs to relocate No. 4. FMW estimates transportation costs to be roughly \$12,000 - \$15,000 each way, excluding loading / unloading expenses.

TABLE 5.1: ESTIMATED CAPITAL INVESTMENT TO REBUILD NO. 4

| TASK | EST. COST |
|--|-----------|
| Trucks | \$98,000 |
| Frame, Cab, Tank and Oil Bunker | \$113,000 |
| Engines | \$159,000 |
| Boiler and Smokebox | \$255,000 |
| Appliances, Air Brakes, Fit and Finish | \$134,000 |
| Estimated Cost: | \$759,000 |

5.2 SOURCING ROLLING STOCK

Normal passenger cars, which are typically 72- to 85-feet in length, would not be able to operate on this logging railroad behind No. 4 due to the sharp curvature along the proposed route. Instead, a combination of converted, open-air flatcars (40-feet in length) and/or cabooses would be well suited to the operation. These would be similar in size to the railcar used by the Roaring Camp Railroad [AS SHOWN ON THE FOLLOWING PAGE] and would harken back to the logging railroad era of the historic Libby train operation. Typically, older standard-gauge flatcars can be acquired for \$8,000 - \$15,000 apiece and shipped relatively easily via roll-on/roll-off flatbed trucks. The cars could then be modified for operation on-site with ease at Libby. Table 5.2 provides the capital cost estimates required.

TABLE 5.2: ESTIMATED CAPITAL INVESTMENT TO SOURCE "PASSENGER" CARS

| INVESTMENT CATEGORY | LOW ESTIMATE | HIGH ESTIMATE |
|--|--------------|---------------|
| Number of Passenger Cars | 2 | 3 |
| Cost per Car (acquisition + restoration) | \$45,000 | \$75,000 |
| Total Passenger Car Investment | \$90,000 | \$225,000 |



FMW Collection

ABOVE: The Roaring Camp and Big Trees Railroad utilizes very old freight cars that have been converted into passenger cars. A simple arrangement of canopies provides cover during inclement weather. Shown hauling the train is two-truck Shay "Dixiana."

BELOW: The Georgetown Loop Railroad (Colorado) utilizes a combination of enclosed and open former freight cars on its very popular tourist railroad. This line falls under FRA jurisdiction.



FMW Collection

6. BUSINESS PLAN

The following subsections and their affiliated tables summarize the capital investments required to realize the project outlined in this Feasibility Study. They are based upon industry-best estimates at the time this report was drafted. An analysis of each is provided in section 6.3.

6.1 CAPITAL INVESTMENT SUMMARY

TABLE 6.1: ESTIMATED CAPITAL INVESTMENT

| INVESTMENT CATEGORY | LOW ESTIMATE | HIGH ESTIMATE |
|---|--------------|---------------|
| Locomotive Restoration (per FMW proposal) | \$783,000 | \$789,000 |
| Track Construction (1 mile, materials & labor) | \$1,165,000 | \$1,446,200 |
| Passenger Cars (Flat car, coach, caboose) | \$90,000 | \$225,000 |
| Site Development (grading, drainage, platforms) | \$125,000 | \$250,000 |
| Maintenance Facility (basic shelter, tools) | \$30,000 | \$55,000 |
| Interpretive Signage & Exhibits | \$30,000 | \$60,000 |
| Safety Equipment & Insurance Setup | \$30,000 | \$52,000 |
| Professional Services & Soft Costs | \$83,000 | \$155,000 |
| Contingency (10-15%) | \$238,600 | \$454,830 |
| TOTAL CAPITAL INVESTMENT | \$2,569,600 | \$3,487,030 |

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6.2 ANNUAL OPERATING BUDGET

TABLE 6.2: PROJECTED ANNUAL OPERATING BUDGET (YEAR 1-3 AVERAGE)

| REVENUE CATEGORY | ANNUAL AMOUNT |
|---|---------------|
| REVENUES | |
| Ticket Sales (25,000 visitors @ \$12 avg) | \$300,000 |
| Gift Shop & Merchandise | \$45,000 |
| Special Events & Private Charters | \$40,000 |
| Concessions & Partnerships | \$15,000 |
| Total Operating Revenue | \$400,000 |
| EXPENSES | |
| Personnel (engineer, conductor, maintenance, ticketing) | \$136,000 |
| Fuel & Consumables (recycled oil, water, lubricants) | \$24,000 |
| Maintenance & Repairs | \$70,000 |
| Insurance (liability, property, workers' comp) | \$25,000 |
| Marketing & Advertising | \$30,000 |
| Utilities & Facility Costs | \$12,000 |
| Administration & Professional Services | \$20,000 |
| Total Operating Expenses | \$317,000 |
| Contingency 5% | \$15,850 |
| NET OPERATING RESULT | \$67,150 |

6.3 BUSINESS PLAN ANALYSIS

The proposed Museum heritage railroad would be a museum-based tourism enterprise with a balance between capital investment and ongoing operating sustainability. Total start-up requirements range from \$2.6 million to \$3.5 million, and they cover both the mechanical restoration of Shay No. 4 and the infrastructure needed for reliable passenger operations. The largest shares of the budget—approximately 45–55 percent—are allocated to locomotive restoration and track construction. Ancillary investments in site development, passenger rolling stock, maintenance facilities, signage, and professional services round out the capital plan. A 10–15 percent contingency ensures resiliency against inflation or material-cost fluctuations—an essential safeguard in rail infrastructure projects.

Operationally, the pro-forma in Table 6.2 projects a self-supporting financial model once service begins. With an estimated 25,000 annual visitors paying an average \$12 ticket, the railroad would generate roughly \$300,000 in fare revenue, complemented by an additional \$100,000 from merchandise, events, and concessions. This totals \$400,000 in gross revenue, exceeding projected expenses of \$317,000–\$335,000, and producing a positive net operating margin near \$65,000 annually (~15% profit margin). Key expense drivers—personnel, fuel, and maintenance—mirror industry norms for small heritage railways and are moderated through planned volunteer

participation and seasonal staffing. Insurance, marketing, and professional services budgets are proportionate to similar operations and allow for both safety compliance and visitor-growth initiatives.

The plan's economics assume a hybrid operating model typical of successful U.S. heritage railroads: limited-length demonstration service integrated with a museum campus, volunteer labor supplementing paid staff, and diversified earned income streams through special events, group charters, and retail sales. This design limits exposure to cyclical tourism downturns while building community ownership in the operation. Importantly, the positive net result forecast in Table 6.2 is achievable at modest attendance levels—meaning the project's financial viability does not depend on unrealistic visitor growth. Sensitivity analysis indicates break-even occurs near 20,000 riders per year, which is below the 25,000–35,000 range projected in the market study. Likewise, in comparison to the Laona Northern, there is still the opportunity to raise ticket prices to an average of \$16 per passenger at 20,000 riders per year would still yield a profitable operation.

Taken together, the data in Tables 6.1 and 6.2 portray a responsibly scaled, grant-ready tourism investment: large enough to deliver regional economic impact, yet sufficiently contained to remain manageable for a nonprofit museum. The capital budget provides a credible framework for grantors seeking assurance of professional cost estimation and fiscal prudence, while the operating budget demonstrates that once built, the attraction can sustain itself through earned revenue.

In short, the financial tables confirm that the Shay No. 4 heritage railroad can evolve from restoration concept to enduring economic engine, preserving Libby's industrial legacy while generating steady community and visitor returns.

7. FUNDING STRATEGY & GRANT-READY MATERIALS

The restoration and operation of Shay No. 4 requires total capital investment ranging from \$2.6 to \$3.5 million, as detailed in Table 7.1. Successfully assembling this funding requires a sophisticated, diversified approach that leverages multiple grant programs, private philanthropy, and strategic partnerships. This section outlines Montana state and federal grant opportunities, private foundation support, and a phased funding strategy designed to maximize competitiveness across diverse funding streams while managing financial risk through milestone-based decision gates.

7.1 MONTANA TOURISM & ECONOMIC DEVELOPMENT GRANTS

Montana offers several state-administered grant programs well-suited to heritage tourism infrastructure. These programs recognize the economic development potential of cultural attractions and provide competitive funding for projects that enhance Montana's tourism economy:

TABLE 7.1: MONTANA STATE GRANT OPPORTUNITIES

| PROGRAM | GRANT RANGE | MATCH REQ'D | ELIGIBLE USES |
|---|--|-------------|---|
| Montana Tourism Infrastructure Grant (TIIP) | \$50,000-\$150,000 (Larger multi-year possible) | 25-50% | Site improvements, track, visitor facilities, signage |
| Montana Heritage Preservation Grant (MHPG) | Up to \$500,000 (Most awards \$50,000-\$300,000) | 20-40% | Locomotive and rolling stock restoration |
| Community Development Block Grant (CDBG) | \$300,000-\$750,000 | Varies | Economic development projects |

The Shay No. 4 restoration aligns most closely with Montana Heritage Preservation Grant (MHPG) program priorities, which specifically support preservation of rare and historically significant artifacts. The track construction and site development components align with Tourism Infrastructure Investment Program (TIIP) objectives. Community Development Block Grant (CDBG) funding supports the project's economic development mission, particularly job creation in an economically distressed county.

Montana Tourism Infrastructure Grant Partnership: The Heritage Museum has committed to serving as the lead applicant for a five-year, \$2.75 million Montana Tourism Infrastructure Grant, with Lincoln County project partners. This partnership structure strengthens the application by demonstrating broad community support and leveraging economic development. The museum's initial projected allocation of \$550,000 from this comprehensive tourism infrastructure initiative represents the single largest anticipated funding component and serves as the foundation for the overall funding strategy.

7.2 FEDERAL GRANT PROGRAMS

Several federal programs provide capital funding for heritage tourism, historic preservation, and economic development projects. The Shay No. 4 project's combination of heritage preservation, transportation history,

economic impact, and educational programming positions it competitively across multiple federal funding streams:

Transportation Alternatives Program (TAP): Federal Highway Administration program supporting non-traditional transportation projects, including heritage railroads with transportation and tourism functions. TAP awards typically range from \$200,000 to \$1,000,000 with 20% local match requirement. The program prioritizes projects that preserve transportation heritage while serving active tourism and educational functions. Shay No. 4's authentic logging railroad history and location along the Highway 2 corridor align with TAP's emphasis on heritage transportation infrastructure that enhances community connectivity and economic development.

EDA Public Works & Economic Adjustment: U.S. Economic Development Administration funding for projects creating jobs in economically distressed areas. Lincoln County's economic indicators qualify under EDA distressed area criteria. Awards range from \$500,000 to \$1,000,000 with varying match requirements based on county economic status. The program emphasizes measurable job creation, with the Shay project's estimated 11 direct full-time equivalent positions and additional indirect employment meeting EDA performance benchmarks. Project applications must demonstrate sustainable economic impact, community engagement, and alignment with regional comprehensive economic development strategies.

USDA Rural Business Development Grants: Support for rural business enterprises promoting economic development in communities under 50,000 population. Awards range from \$10,000 to \$500,000 depending on project scope and match availability. Libby's population of approximately 2,900 residents positions it favorably for rural development funding. The program supports feasibility studies, business planning, technical assistance, and capital improvements that enhance rural business capacity and create employment opportunities in under served rural regions.

7.3 PRIVATE FOUNDATION AND CORPORATE SUPPORT

National and regional foundations with heritage tourism, STEM education, railroad preservation, or Western history missions represent additional critical funding pathways that complement government grants:

Burlington Northern Santa Fe (BNSF) Foundation: BNSF Railway's charitable foundation invests in railroad heritage preservation and community economic growth initiatives. The foundation has already expressed interest in the Shay project through preliminary discussions regarding potential equipment donation (flatcar for passenger service conversion) and a \$20,000 grant toward project development. Typical BNSF Foundation awards range from \$10,000 to \$100,000, with larger investments possible for transformational projects. The foundation prioritizes projects in communities served by BNSF rail lines (Libby qualifies) and initiatives that celebrate railroad history while generating measurable community benefit.

Regional Foundations: Montana-based foundations including the Dennis and Phyllis Washington Foundation, Montana Community Foundation, and Treacy Foundation support tourism development, trades education, and community heritage projects aligned with their respective program priorities. These foundations typically award grants ranging from \$25,000 to \$250,000 for well-documented projects demonstrating strong community support, professional management capacity, and sustainable operational plans. Regional foundation applications benefit from emphasizing local economic impact, workforce development, and authentic place-based heritage preservation.

Rail Preservation Organizations: National Railway Historical Society (NRHS), North American Railway Foundation, Foundation for Montana History, the Emery Rail Heritage Trust, and specialized preservation trusts offer smaller but strategically valuable grants suited for discrete restoration phases. Typical awards range from \$5,000 to \$50,000 for specific technical components such as boiler work, running gear restoration, or specialized machining. These grants often serve as matching funds for larger federal or state applications and provide credibility through endorsement from respected preservation organizations.

7.4 RECOMMENDED FUNDING STRATEGY

To assemble the capital requirement of \$2,624,600 to \$3,487,030 identified in Table 7.1, we recommend a phased, diversified funding approach structured around two distinct scenarios. The Conservative Scenario targets the low estimate (\$2,624,600) with high-probability funding sources, providing a foundation for project launch with minimal financial risk. The Ambitious Scenario targets the high estimate (\$3,487,030), incorporating additional federal programs and expanded private fundraising to support comprehensive project scope including enhanced visitor facilities, additional rolling stock, and robust contingency reserves.

CONSERVATIVE FUNDING SCENARIO

TABLE 7.2: CONSERVATIVE FUNDING MIX (TARGET: \$3,019,100)

| FUNDING SOURCE | TARGET AMOUNT | % OF TOTAL | PROBABILITY | NOTES |
|--------------------------------------|---------------|------------|-------------|--|
| Montana Tourism Infrastructure Grant | \$550,000 | 18% | High | 5-year allocation from \$2.75M grant opportunity (led by the Heritage Museum) |
| Save America's Treasures | \$394,500 | 13% | Medium | 50/50 match for historic treasures on the Register of National Historic Places |
| Federal Historic Preservation Fund | \$300,000 | 10% | Medium | Competitive grant, requires 1:1 match |
| BNSF Railway Foundation Grant | \$20,000 | <1% | High | Recently identified opportunity, includes equipment donation value |
| Transportation Alternatives Program | \$350,000 | 12% | Medium | Federal highway heritage transportation funding |
| Private Donations & Capital Campaign | \$400,000 | 13% | High | Multi-year campaign targeting regional donors |
| Museum Operating Reserves | \$200,000 | 7% | High | Committed internal funds, provides match flexibility |
| Foundation & Corporate Grants | \$300,000 | 10% | Medium | Regional and national heritage/tourism foundations |
| Montana Heritage Preservation Grant | \$250,000 | 8% | Medium | Locomotive restoration focus |
| Additional State/Local Sources | \$254,600 | 8% | Medium | CDBG, local economic development, other |
| TOTAL IDENTIFIED FUNDING | \$2,624,600 | 100% | | Fully funded at low estimate |

AMBITIOUS FUNDING SCENARIO

TABLE 8.3: AMBITIOUS FUNDING MIX (TARGET: \$3,881,530)

| FUNDING SOURCE | TARGET AMOUNT | % OF TOTAL | PROBABILITY | NOTES |
|--|---------------|------------|-------------|--|
| Montana Tourism Infrastructure Grant | \$550,000 | 16% | High | 5-year allocation from \$2.75M opportunity |
| Save America's Treasures | \$394,500 | 13% | Medium | 50/50 match for historic treasures on the Register of National Historic Places |
| Federal Historic Preservation Fund | \$400,000 | 11% | Medium | Competitive grant, 1:1 match required |
| Transportation Alternatives Program | \$500,000 | 14% | Medium | Federal highway heritage transportation |
| EDA Public Works & Economic Adjustment | \$350,000 | 10% | Medium | Job creation in economically distressed area |
| Montana Heritage Preservation Grant | \$350,000 | 10% | Medium | Locomotive and rolling stock restoration |
| BNSF Railway Foundation Grant | \$50,000 | 1% | High | Equipment donation value + grant |
| Private Donations & Capital Campaign | \$500,000 | 14% | High | Extended 3-year campaign |
| Museum Operating Reserves | \$200,000 | 6% | High | Committed match funds |
| Foundation & Corporate Grants | \$350,000 | 10% | Medium | Regional and national sources |
| Additional State/Local Sources | \$237,030 | 7% | Medium | CDBG, Montana Main Street, local |
| TOTAL IDENTIFIED FUNDING | \$3,881,530 | 100% | | Fully funded at high estimate |

FUNDING STRATEGY ANALYSIS

The Conservative Scenario provides a realistic, achievable funding pathway targeting the low capital estimate of \$3,019,100. This scenario prioritizes high-probability funding sources with established track records and strong institutional relationships. The Montana Tourism Infrastructure Grant (\$550,000) serves as the anchor, supported by Save Americas Treasures* and funding (\$394,500), substantial private fundraising (\$400,000), and museum reserves (\$200,000) that provide matching fund flexibility. Additional federal, state, and foundation grants fill remaining gaps. This conservative approach minimizes financial risk while enabling full project implementation at the baseline scope defined in the low estimate.

**NOTE: Recent changes to the Institute of Museum and Library Sciences funding guidelines may make it difficult to comply with Save Americas Treasures funding. If the Museum is able to put No. 4 on the National Register of Historic Places as at the national level, that would allow it to be eligible for SAT funding under the National Park Service guidelines.*

The Ambitious Scenario targets the high capital estimate of \$3,487,030, supporting comprehensive project scope including enhanced site development, additional passenger rolling stock, expanded visitor facilities, and robust contingency reserves. This scenario incorporates larger awards from federal programs (TAP: \$500,000; Federal Historic Preservation: \$400,000), EDA economic development funding (\$350,000), increased Montana Heritage Preservation Grant support (\$350,000), and expanded private fundraising (\$500,000). The ambitious approach requires aggressive grant pursuit across multiple competitive federal programs but delivers transformational project outcomes with financial reserves adequate for long-term sustainability.

Both scenarios maintain diversification across government, corporate, and philanthropic sources, reducing dependency on any single funder. The funding strategy prioritizes securing anchor grants (Montana Tourism Infrastructure, Federal Historic Preservation) in Year 1, which unlock matching opportunities and demonstrate project momentum to subsequent funders. Museum operating reserves (\$200,000 in both scenarios) provide critical matching fund flexibility required by most federal programs, while the diversified approach builds broad stakeholder buy-in essential for sustainable operations beyond the capital phase.

Match Strategy and Leverage Analysis

Most federal grants require non-federal matching funds, typically 20-50% of project costs. The funding strategy structures matches strategically to maximize federal leverage while maintaining cash flow sustainability. Montana Tourism Infrastructure Grant funds (\$550,000) serve as eligible match for federal programs. Museum operating reserves (\$200,000) provide flexible cash match for competitive opportunities. Private donations and foundation grants satisfy most programs' requirements for diversified match sources. The Conservative Scenario structures matches to require no more than 35% cash contribution at any single decision gate, managing museum financial exposure. The Ambitious Scenario accepts higher match requirements (up to 50% for some federal programs) but delivers substantially enhanced project outcomes and long-term financial reserves.

7.5 CRITICAL FUNDING SEQUENCING

Successful capital assembly requires careful timing and strategic sequencing. The following phased approach manages application deadlines, match requirements, and project momentum:

Phase 1 (Months 0-6): Foundation Building

Submit Montana Tourism Infrastructure application; submit Federal Historic Preservation Fund application; launch private capital campaign targeting early leadership gifts; secure BNSF Foundation commitment and equipment donation agreement; finalize museum board approval for operating reserve commitment (\$200,000). Target Phase 1 outcome: 40-50% of total capital committed or in formal application review.

Phase 2 (Months 6-12): Federal Program Pursuit

Submit Transportation Alternatives Program (TAP) application using Montana Tourism Infrastructure commitment as match; pursue EDA Public Works grant if ambitious scenario is targeted; engage Montana

Heritage Preservation Grant cycle with locomotive restoration as primary focus; continue private fundraising, targeting \$200,000 in commitments; pursue regional foundation grants (Dennis & Phyllis Washington Foundation, Montana Community Foundation); develop letters of support from elected officials, educational institutions, and tourism partners. Target Phase 2 outcome: 70-80% of total capital committed.

Phase 3 (Months 12-18): Gap Closure

Address remaining funding gaps through additional federal/state programs or intensified private fundraising; pursue USDA Rural Business Development Grants if eligible uses align with remaining needs; finalize Community Development Block Grant application if economic development emphasis is needed; secure railroad preservation organization grants for discrete technical components; complete capital campaign with final push toward fundraising target. Target Phase 3 outcome: 100% of capital committed before major construction contracts are executed.

Phase 4 (Month 18+): Grant Management and Reporting

All major funding committed; track construction and locomotive restoration proceed; establish grant compliance systems for financial reporting, performance metrics, and regulatory requirements; maintain regular communication with funders through progress reports and site visits; document project milestones photographically for grant reporting and future fundraising; prepare for operational phase fundraising focused on programming, collections, and endowment building.

7.6 GRANT-READY NARRATIVE STRENGTHS

This project is competitive for blended government, corporate, and philanthropic funding because it delivers on multiple national, state, and local priorities simultaneously:

Heritage Preservation Excellence: Saving one of fewer than 110 surviving Shay locomotives globally, representing irreplaceable Pacific Northwest logging technology. The locomotive's authentic J. Neils Lumber Company provenance, intact mechanical systems, and local historical significance meet Save America's Treasures criteria for nationally significant collections historical grants. Restoration follows professional conservation standards and creates permanent stewardship capacity within an established museum with 50-year operating history.

Economic Development Impact: Creating a tourism anchor attraction projected to attract 25,000 annual visitors and generate \$850,000+ in direct and indirect economic impact to Lincoln County. The project fills a geographic gap in Montana's heritage railroad tourism offerings (no other operational steam locomotive currently operates in the state), positioning Libby as a unique destination along the Highway 2 corridor. Estimated 11 direct full-time equivalent jobs plus 14-17 total jobs when indirect and induced employment effects are included.

Educational Mission Advancement: Building STEM and vocational programming around restoration and operation. The locomotive provides hands-on learning opportunities in mechanical engineering, thermodynamics, metallurgy, and industrial history. Partnership opportunities with Lincoln County schools, Montana Tech, and regional community colleges support workforce development in skilled trades. The restoration phase alone offers 500+ hours of documented apprenticeship opportunities. Projected 2,000+ annual educational program participants including school field trips, technical workshops, and adult learning programs.

Community Engagement and Knowledge Transfer: Engaging volunteers and preserving intergenerational knowledge transfer. Logging industry veterans possess irreplaceable technical expertise and oral histories. The project creates structured pathways to document and transmit this knowledge to younger generations while providing meaningful volunteer engagement opportunities. Estimated 2,000-3,000 volunteer hours annually across restoration, operations, and interpretation roles. Strong letters of support from elected officials, educational institutions, business community, and heritage organizations demonstrate genuine grassroots community investment.

Tourism Development Alignment: Diversifying Montana's heritage tourism portfolio in alignment with Montana Office of Tourism 2024-2028 strategic plan emphasis on authentic, place-based experiences. The project complements rather than competes with Glacier National Park tourism, offering a distinct attraction that encourages extended stays in Lincoln County. Integration with Glacier Country Tourism regional marketing initiatives amplifies visitor reach. The heritage railroad addresses Lincoln County's economic transition challenges following decline of extractive industries, supporting economic diversification goals identified in county and city comprehensive planning documents.

Competitive Differentiation Through Authenticity: Unlike many heritage railroad proposals that involve relocating equipment to new sites or creating artificial historical contexts, Shay No. 4 restoration maintains authentic place-based connections. The locomotive operated in Libby, hauled timber from surrounding forested areas within the Kootenai National Forest, served the local economy for decades, and remains embedded in community memory through thousands of families with direct ancestral connections to J. Neils Lumber Company operations. This authenticity strengthens interpretive programming, community engagement, and grant narratives centered on preserving genuine local heritage rather than assembling generalized railroad history.

Federal Funding Alignment: The project advances multiple federal grant priorities simultaneously. U.S. Economic Development Administration criteria emphasize job creation in economically distressed areas (Lincoln County qualifies under EDA metrics). Transportation Alternatives Program funding targets heritage transportation projects with tourism and educational functions. Save America's Treasures grants prioritize nationally significant historic properties and collections. Federal Historic Preservation Fund supports preservation planning and capital projects for properties listed or eligible for National Register listing. The multifaceted nature of this project makes it competitive across diverse federal funding streams, allowing strategic application to multiple programs with tailored narratives emphasizing different project dimensions.

The combination of rarity (fewer than 110 surviving Shays globally), authenticity (original J. Neils provenance), community economic impact (\$850,000+ annually), educational mission (STEM and vocational training), community connection (volunteer engagement and inter-generational knowledge transfer), and competitive differentiation (place-based authenticity) positions the Libby Heritage Museum's Shay No. 4 project as exceptionally competitive for blended funding from Montana state tourism grants, federal historic preservation programs, economic development initiatives, and private foundation support.

8. COMMUNITY PARTNERSHIP PLAN

8.1 STAKEHOLDER MAP

Successful heritage railroad development requires coordinated engagement across multiple stakeholder categories. The following matrix identifies key partners and their strategic value:

TABLE 8.1: KEY STAKEHOLDERS AND ENGAGEMENT STRATEGIES

| STAKEHOLDER | STRATEGIC VALUE | ENGAGEMENT APPROACH |
|--|--|--|
| Lincoln, Sanders, & Flathead Counties Schools; Bonners Ferry, ID | Lincoln County Grant Partnership, including schools, educational programming, field trips, STEM curriculum integration; Lincoln County permits, infrastructure support, economic development | Teacher workshops, curriculum development partnerships, discounted group rates |
| Kootenai Tribes of Montana & Idaho | Indigenous perspective on logging history, cultural resource consultation | Tribal Historic Preservation Office consultation, joint interpretive programming |
| City of Libby | Grant partnership, economic development alignment | Regular city council presentations, tourism master plan integration |
| Eureka, Troy Chambers of Commerce & Museums | Grant partnership, Marketing coordination, visitor referrals, business partnerships. Expands archives available in Lincoln County | Joint marketing campaigns |
| Lincoln County Port Authority | Grant partnership, easement on 40 acres adjacent to Museum land | Joint planning for train loop and rail installation |
| Lincoln County Parks | Grant Partnership, Coordination and Information Sharing | Attend monthly meetings, present project updates |
| Montana Historical Society | Grant facilitation, technical assistance, statewide network | Letters of support, collections access, preservation consultation |
| Former J. Neils Employees (deceased) | Existing oral histories, technical expertise, community credibility | Documented interviews, volunteer recruitment, advisory committee roles |
| BNSF Railway | Donation of flatcar and BNSF Railway Foundation Grant | Engage in involvement in community appeal of attraction |

8.2 LETTERS OF SUPPORT STRATEGY

Grant applications are significantly strengthened by letters of support from diverse stakeholders demonstrating broad community investment. We recommend soliciting letters from the following entities, each emphasizing

specific project dimensions:

- **Elected Officials:** Montana Governor, U.S. Senators, Representative—emphasizing economic development and tourism growth
- **Educational Institutions:** Lincoln County Superintendent, Montana Tech—highlighting STEM education and workforce development
- **Tourism Partners:** Glacier Country Tourism³³, Montana Office of Tourism—emphasizing visitor attraction and regional marketing
- **Business Community:** Lodging properties, restaurants—documenting anticipated economic benefit
- **Heritage Organizations:** National Railway Historical Society, Western Forest Industries Museum—validating preservation significance

8.3 VOLUNTEER PIPELINE AND TRAINING FRAMEWORK

Heritage railroad operations typically rely heavily on volunteer labor. Successful volunteer programs require structured recruitment, training, and retention systems:

Recruitment Channels:

- Railroad enthusiast organizations (NRHS chapters, model railroad clubs)
- Retired professionals with mechanical/engineering backgrounds
- High school and college student internships (STEM credit opportunities)
- Former logging/railroad industry workers from J. Neils era
- General museum volunteer base seeking new engagement opportunities

Training Program Structure:

- **Entry Level (10-15 hours):** Safety orientation, railroad history, visitor services, track inspection basics
- **Technical Track (40-60 hours):** Locomotive systems, maintenance procedures, mechanical troubleshooting
- **Operations Track (60-100 hours):** Fireman training, engineer qualification, conductor certification
- **Interpretive Track (20-30 hours):** Logging history, J. Neils operations, public speaking, guided tours

9. ECONOMIC & COMMUNITY IMPACT SNAPSHOT

9.1 VISITOR SPENDING AND DIRECT ECONOMIC IMPACT

Heritage tourism generates economic impact through visitor spending in multiple categories beyond ticket sales. Using the Institute of Museum and Library Services (IMLS)¹⁷ economic impact methodologies and Montana-specific tourism data, we project the following annual economic contributions:

TABLE 10.1: PROJECTED ANNUAL ECONOMIC IMPACT

| CATEGORY | PER-VISITOR AVG | ANNUAL TOTAL |
|---|-----------------------|--------------|
| Direct Ticket Revenue | Museum \$12 | \$300,000 |
| On-Site Spending (gift shop, concessions) | Museum \$20 | \$500,000 |
| Local Dining (50% of visitors) | Libby businesses \$35 | \$437,500 |
| Lodging (20% overnight visitors) | Libby businesses \$95 | \$475,000 |
| Fuel & Incidentals | Libby businesses \$15 | \$375,000 |
| TOTAL DIRECT IMPACT | | \$2,087,500 |

Methodology Notes:

- Per-visitor spending estimates derived from Montana Office of Tourism 2023 Nonresident Visitor Study¹⁸
- 50% dining assumption reflects mix of through-travelers and day-trippers
- 20% lodging assumption reflects proportion likely to overnight in Libby
- Does not include indirect/induced multiplier effects (estimated 1.3-1.5x for rural Montana)³⁴

9.2 EMPLOYMENT IMPACT

Heritage railroad operations generate direct employment across multiple job categories:

TABLE 9.2: PROJECTED DIRECT EMPLOYMENT

| Position | FTE Count | Type |
|-----------------------------------|-----------|--------------------|
| Railroad Operations Manager | 1.0 | Full-time |
| Engineers (2 qualified, rotating) | 1.5 | Seasonal/Part-time |
| Firemen (2-3 crew rotation) | 1.5 | Seasonal/Part-time |
| Conductors/Train Staff | 2.0 | Seasonal |
| Maintenance Technicians | 1.5 | Full/Part-time mix |
| Ticketing & Guest Services | 2.0 | Seasonal |
| Gift Shop/Concessions | 1.5 | Seasonal/Part-time |
| TOTAL DIRECT EMPLOYMENT | 11.0 FTE | |

Additionally, indirect employment effects include vendor supply relationships (reclaimed oil) delivery, parts suppliers, insurance agents), hospitality sector growth (restaurants, lodging), and induced spending by railroad employees in the local economy. Economic multiplier models suggest 1.3-1.5 indirect/induced jobs per direct job in rural Montana tourism, translating to approximately 14-17 total FTE jobs attributable to the heritage railroad.

9.3 ALIGNMENT WITH LOCAL DEVELOPMENT GOALS

The heritage railroad project directly advances multiple Lincoln County and City of Libby strategic priorities:

- **Economic Diversification:** Reduces dependence on traditional extractive industries by developing heritage tourism sector
- **Downtown Revitalization:** Increases foot traffic and visitor spending in Libby's commercial core
- **Workforce Development:** Creates skilled trades positions and hospitality jobs for local residents
- **Youth Engagement:** Provides vocational training pathways and STEM education opportunities
- **Downtown Revitalization:** Increases visitor foot traffic, restaurant occupancy, and lodging utilization
- **Tourism Capture & Retention:** Converts Highway 2 through-traffic into local economic activity

Together, these impacts strengthen the museum's case for state, federal, and private investment.



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10. IMPLEMENTATION ROAD-MAP

10.1 PHASED IMPLEMENTATION TIMELINE

The following 28-month road map sequences project activities to manage capital deployment, minimize operational risk, and maintain momentum through milestone achievements:

TABLE 10.1: PHASED IMPLEMENTATION TIMELINE

| PHASE | MONTHS | KEY MILESTONES | CRITICAL PATH ITEMS |
|---------|--------|--|--|
| Phase 0 | 0-6 | Planning & Design: Grant applications, regulatory consultation, engineering design, community engagement | Secure lead grant funding, finalize track layout, FRA consultation outcome |
| Phase 1 | 6-12 | Infrastructure Development: Track construction begins, Shay restoration continues at FMW (parallel), permits finalized | Track roadbed complete, 50% of rail laid, boiler tear down complete |
| Phase 2 | 12-24 | Concurrent Construction: Track completion, locomotive restoration finalization, facility construction, staff recruitment begins | Track 100% complete, Shay arrives from FMW, maintenance facility operational |
| Phase 3 | 24-27 | Testing & Commissioning: FRA boiler inspection, track certification, crew training, insurance finalization, soft opening planning | FRA Form 4 approved, 2+ qualified engineers certified, test runs complete |
| Phase 4 | 27-28+ | Launch & Operations: Soft opening (invited guests), public operations begin, marketing campaign launch, continuous improvement cycle | Grand opening event executed, operations stabilized, Year 1 attendance goals set |

10.2 DECISION GATES AND GO/NO-GO CRITERIA

To manage risk and maintain project discipline, we recommend establishing formal decision gates at key milestones. Each gate requires specific criteria to be met before proceeding to the next phase:

TABLE 10.2: CRITICAL DECISION GATES

| GATE | GO CRITERIA | NO-GO IMPLICATIONS |
|-------------------|---|--|
| Gate 1 (Month 6) | ≥60% capital funding secured, regulatory pathway clarified, engineering design complete | Defer project 12 months, pursue additional grant cycles |
| Gate 2 (Month 12) | Track construction on schedule, Shay restoration 50% complete, ≥80% funding committed | Scale back to static display + partial track demo |
| Gate 3 (Month 24) | Shay delivered and operational, track certified, insurance secured, 2+ qualified crews | Delay opening, complete crew training, address certification issues |

11. EVALUATION AND KPI PLAN

11.1 PERFORMANCE INDICATORS AND SUCCESS METRICS

Ongoing evaluation requires tracking quantitative metrics across operational, financial, safety, and mission dimensions. The following KPI framework supports data-driven management and grant reporting requirements:

TABLE 12.1: KEY PERFORMANCE INDICATORS

| METRIC | MEASUREMENT METHOD | TARGET (YEAR 1) | FREQUENCY |
|----------------------------------|-------------------------------------|-----------------|--|
| Annual Attendance | Ticket sales database | 20,000+ | Monthly |
| Revenue Per Visitor | Total revenue ÷ attendance | \$35 | Quarterly |
| Earned Income Ratio | Operating revenue ÷ total budget | ≥60% | Annual |
| Guest Satisfaction Score | Post-visit survey (5-point scale) | 4.3/5.0 | Continuous |
| Safety Incidents | Incident reports (FRA categories) | Zero | Real-time |
| Operating Days Per Season | Scheduled vs. actual operations | 100-120 days | 2-3 times/day Wednesday-Saturday weekly |
| Mechanical Reliability | % of scheduled runs completed | 95% | Monthly |
| Educational Program Participants | School groups + workshop attendance | 2,000 | Annual |

11.2 REPORTING CADENCE AND CONTINUOUS IMPROVEMENT

Effective performance monitoring requires structured reporting cycles that inform operational adjustments and stakeholder communication:

- **Monthly Operations Reports:** Attendance, revenue, safety incidents, mechanical reliability. Distributed to museum board and operations team.
- **Quarterly Strategic Reviews:** Comprehensive KPI dashboard, budget variance analysis, marketing effectiveness, visitor satisfaction trends. Full board review with recommendations for adjustments.
- **Annual Impact Assessment:** Complete economic impact calculation, grant reporting compliance, community stakeholder report, strategic planning updates for following year.
- **Three-Year Evaluation:** Comprehensive project retrospective, mission alignment assessment, capital investment ROI analysis, long-term sustainability modeling.

This evaluation framework ensures the heritage railroad remains accountable to its mission, responsive to visitor needs, and positioned for long-term operational and financial sustainability.

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Note: This feasibility study incorporates data from multiple web searches conducted in October 2025 across federal regulatory databases, state tourism offices, comparable heritage railroad operations, grant program websites, economic development resources, and historical archives. All web-based sources were accessed and verified during October 2025. URLs provided represent the most stable and authoritative sources for each reference category.

For specific numerical data, projections, and operational benchmarks presented in tables throughout the feasibility study, sources include aggregated industry surveys, comparable institution operational reports, and economic multiplier models from the Institute for Tourism and Recreation Research at the University of Montana and the Institute of Museum and Library Services.