

Fort Wayne Railroad Historical Society Headwaters Jct. Project Preliminary Economic Impact Analysis

September 2016

EXECUTIVE SUMMARY

Stone Consulting, Inc. was requested to perform an independent analysis of the Fort Wayne Headwaters Jct. project, for attendance, feasibility, and initial economic impacts. This included estimating construction costs, and annual operating budget, and projected visitation.

The Fort Wayne Headwaters Jct. project is similar in many respects to seven existing railroad attractions within the US that have been operating successfully for many years and can offer direct insights to cost, visitation, operating budget, organization, and regional/national prominence. Financial information provided by those institutions, and filed IRS 990 statements, was used to prepare summaries and validate experience with Fort Wayne projections.

With that information, and a review of the projected site development and size, Fort Wayne is projected to be a multimillion dollar construction project within the community – excluding the existing and potential equipment acquisitions. That construction project itself creates substantial local economic impact, but the ongoing impact is formed by the projection of a \$1.6 million per year operating budget for the site – including on-site train operations, museum, and special event costs.

Existing Fort Wayne attractions such as the Zoo and the ballpark were researched to gauge the existing visitor reactions to quality events and attractions; Fort Wayne generally holds a stronger-than-average event attendance to population ratio than many comparable major cities.

Attraction Attendance is considered in two separate approaches – one, where Headwaters Junction is a relatively stand-alone attraction prior to the full development of the entire Headwaters project – and is comparable to existing railroad attractions that have little leverage beyond their doorstep with a likelihood of 60,000 annual visitors. The second projection is with a full build-out of the entire Headwaters project as envisioned, where railroad attraction attendance is just one of many draws of the entire site and can be seen with attendance of 125,000-146,000 annual visitors depending on the ability to capture all potential interest and attendance groups within Ft. Wayne.

The bottom line of this preliminary economic impact projection based on RIMS II EDA analysis standards is for total dollar impact of the Headwaters Junction project –base on attendance – of between \$63.5 and 65.8 million, and job impacts of between 1,855 and 1,939 including construction efforts. This is a significant regional and local impact.



Introduction

Stone Consulting, Inc. was requested to perform an independent analysis of the Fort Wayne Headwaters Jct. project, for attendance, feasibility, and initial economic impacts. This project included review of the suggested site for design criteria / track geometry, projected costs of construction including off-site track improvements. In addition, Stone Consulting performed an in-depth investigation of similar operating railroad attractions nationwide focusing on existing attendance, operating budgets, organizational structure, and financial status.

Visitor and Operating Budget projections.

What's actually comparable to Fort Wayne?

Several key factors identify and distinguish the Fort Wayne proposed site and operation – for what is, and what isn't – comparable – to assist in validating economic projections.

1. Part of a larger downtown project. The attraction is not in an isolated greenfield away from population but is part of an extensive entire downtown redevelopment project, and will benefit from non-related attractions and create its own interest
2. It is more closely related to an operating museum than an excursion railroad site. While some operating track is planned, it is more closely related to a demonstration railroad than an excursion. A train can move a limited distance, but it will be at low speed through a residential/commercial/industrial district with no scenery to speak of.
3. It is new construction rather than an historic restoration. While the site may look historic, it is neither a reconstruction or relocation of an existing building or site that previously existed.
4. It is located on a small, and rather constricted, physical site. Growth of the site is limited by several factors including adjacent property ownership, connecting track ownership, and limitations on remaining areas where track could be rebuilt

What makes Fort Wayne unique is that the central character of the exhibition – NKP 2-8-4 #765 - is as well known a railroad celebrity as currently exists in the United States – having travelled the entire eastern half of the county since the 1980's. Nearly anyone with any interest in steam railroading knows about the locomotive, but at its home base of Fort Wayne, it is essentially in a hermit existence away from the public eye. Glimpses of the locomotive by the majority of the public are first-hand experiences of it passing – usually at speed – a moment not to be repeated again, if ever, in their lifetimes.

The Fort Wayne Market

This project will not operate in a vacuum as a stand-alone attraction. As part of the entire Fort Wayne project, it will compliment, rather than necessarily dominate the experience. Within Fort Wayne, it is not entirely necessary to project attraction volumes as to document some significant existing trends.



The Fort Wayne Children’s Zoo, north of the proposed rail attraction, has outstanding attendance for its size. *“The Fort Wayne Children’s Zoo experienced its third-highest yearly attendance ever in 2014 with a total of 545,563 guests. This figure includes 520,613 people who visited during the regular zoo season of April 26-October 12, and 24,950 who visited during the Wild Zoo Halloween in 2014. Attendance in 2014 was just 337 people shy of the zoo’s second-highest yearly attendance of 545,900 in 2013. The zoo’s all-time attendance record is 614,666, set in 2009 when the African Journey exhibit first opened.”*¹

Primary metro market zoos in the United States often exceed one million annual visits, including Indianapolis.² Fort Wayne’s population of roughly 250,000 and Allen County’s population of 363,000 would indicate that its visitation basis compared against local population is actually significantly higher than Indianapolis, indicating not only quality but the ability to draw beyond the local county boundary. Zoo attendance is a reasonably good leading indicator of railroad attraction interest, as both market to essentially the same group; family groups with children, and depending on events to develop repeat annual visits.

In addition to the zoo as a ‘driver’ to document existing activity, attendance at the Science Central museum averages 145,000 per year³, and the Grand Wayne convention center averages 220,000 visitors.⁴ The local minor league ballteam averages over 5,000 attendees per game with an annual attendance of 400,000.⁵

Overall, the existing family attraction/museum market in the Fort Wayne area – compared to other proposed rail theme attractions – is strong on an existing, let alone a projected, basis. The ability of the community to support sufficient interest and visitation for critical mass appears viable when similar visitation and attendance statistics can be contrasted to existing railroad attraction locations.

Comparable Railroad Attractions and Museums

The proposal to relocate and construct the ‘new’ Museum of the American Railroad (MARR) in Frisco, TX was prefaced by a diligent market and feasibility study of its own. The existing, and constricted, site in downtown Dallas (Fairgrounds) out to the suburban city of Frisco required a detailed planning effort for such a costly and risky undertaking, including studying similar sites. That study identified the ‘top 7’ railroad museums that were:

- *Altoona Railroaders Memorial Museum, Altoona, PA*
- *B & O Railroad Museum, Baltimore, MD*
- *California State Railroad Museum, Sacramento, CA*
- *Museum of Transportation, St. Louis, MO*

¹ <http://kidszoo.org/2014-attendance-is-third-highest-ever/>

² <http://wishtv.com/2015/01/07/indianapolis-zoo-breaks-attendance-records-in-2014/>

³ <http://sciencecentral.org/about-us/2013-01-10-13-14-28/fact-sheet>

⁴ <http://www.journalgazette.net/business/Grand-Wayne-30-years-old-4732652>

⁵ http://www.milb.com/news/article.jsp?ymd=20150908&content_id=148076202&fext=.jsp&vkey=news_t584&sid=t584

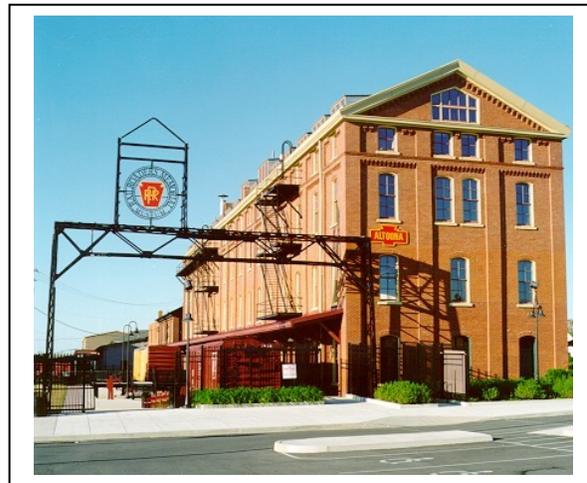


- *North Carolina Transportation Museum, at Historic Spencer Shops, Spencer, NC*
- *Steamtown National Historic Site, National Park Service, Scranton, PA*
- *Virginia Museum of Transportation, Roanoke, VA*
- *National Railroad Museum, Green Bay, WI*

What makes this study worthy of specific comparison to Fort Wayne is that the relocation of the museum from Dallas to Frisco deliberately involved locating the new railroad museum on a site that was not available for on-site excursions, was physically limited in size, and relied on the museum itself to generate visitation. The seven comparables chosen have specific characteristics that are common not only to the MAR's strategic plan, but also to Fort Wayne.

Each of the 'top 7' identified in the MAR report have environmental and market factors that are unique, and certain elements of commonality to Fort Wayne. Taken together, some initial conclusions can be reached about realistic attendance and attraction statistics.

Altoona, PA The Railroader's Memorial Museum was built to capitalize on the existing attraction of the Horseshoe Curve, just west and north of the City, that has been attracting rail tourism by the thousands since it was first constructed in the 1850's. The actual museum was built downtown, on the site of the former master mechanic and test lab site, directly across from the Altoona Amtrak station. After initial construction, the museum and station were connected by a pedestrian footbridge over the active railroad tracks. It is located at the base of the climb to Horseshoe curve, adjacent to a downtown strip mall, and hemmed in on all sides by commercial, industrial, and rail development. The museum itself is a restored, four-story brick PRR structure used for offices, and has displays on three floors and office and meeting space on the fourth. The grounds have sufficient space for equipment storage and display, but not for operations. A turntable has now been constructed on-site, as well as a roundhouse to store and restore some of the vintage PRR equipment stored there. K4s locomotive 1361, now disassembled, was intended to be the 'showpiece locomotive' on-site, but has not yet been restored.



While the current NS main line adjacent to the museum is very active, the excursion operations of the museum are generally limited to a once-a-year fall foliage operation using Amtrak equipment as a special equipment move, operating from the Amtrak station to the top of the hill at Gallitzin, and return. These excursions have been very popular and sold out whenever operated. Amtrak's equipment availability has been an ongoing issue.

Altoona is comparable in that it is a museum site that is leveraged by an existing location, and attempting to build off an existing interest in railroading due to the Curve. The museum's 5-

acre downtown location was intended to assist the economic development of the community, but is even more constricted than the location in Ft. Wayne, and has virtually no potential of off-site excursions other than an annual Amtrak excursion – which is never a guarantee on a year-to-year basis.

The plan of the museum was to focus on the life of the railroader within the historic community rather than an equipment and hardware display. Interior to the museum itself, the displays tend to be permanent in nature and the displays are relatively fixed. While the displays are very good in quality, the museums' reputation as 'saw it once, don't need to go there again' resulted in high initial visitation and has greatly reduced since initial opening. In response to that, the museum has rented out their grounds for a wide variety of central-city activities including music concerts. These non-rail activities have kept the museum solvent but also questioned the mission. Recent construction of the roundhouse and turntable, along with the relocation of PRR K4s 4-6-2 #1361 back to the city, set the path toward a more conventional rail equipment focus, but there will be no opportunity to show it or anything similar under steam on the existing site.

Admissions to the related – but not adjacent – Horseshoe Curve site remain significantly higher than actual museum site attendance and revenue figures (IRS 990 for 2014: \$144,500 vs. \$58,927). On-site activities such as concerts continue to be conducted to help raise revenue. The 2015 schedule showed six music concerts on the site; one of which was a benefit for the local hospital and the remaining five for the museum.⁶ As such, the 'attendance' numbers on the museum may be significantly inflated due to these non-museum concert activities on the site.

Altoona declares a \$1.1 million operating budget, but that includes two disconnected sites in Altoona under one common management team. While generally comparable, Altoona has no operating rail group or on-site operations. Excursion operations are on an annual charter basis with Amtrak, when equipment can be located and a contract negotiated.



B&O Railroad Museum, Baltimore, MD

The B&O museum was likely the first 'railroad museum' in the US, and originally started by the railroad itself in 1953 to preserve and showcase the collection of historic equipment preserved in the original Mt. Clair roundhouse near the

original start of the railroad on the downtown Baltimore waterfront. The B&O collection includes some of the very oldest remaining rail equipment in the US, on an historic original site.

The Baltimore & Ohio Railroad opened their private collection to the public in 1953, but successor CSX donated the museum and endowment to a nonprofit corporation in 1990. Since then the B&O railroad museum has associated itself with the Smithsonian Museum as of 1999.

The museum has transitioned itself from a static display site to a moving attraction operation, with a one-mile demonstration track in operation for special events. That has allowed the museum to host “Day out with Thomas”, and in 2015, a limited “Polar Express” event. The museum claims attendance of 200,000 per year; ‘ridership’ was not reported to the FRA.

The filed 990 indicated that significant revenue was due to Thomas events as they are a prime contractor being paid \$228,000 in 2014 against admissions fees (likely including Thomas) of \$715,460. Total revenue for the Museum of \$1.76 million was reported against operating budget expenses of \$2.1 million; this was a significant decrease in net income from the previous year due to changes in program activities. Asset fund balances of over \$24 million remain to support such wide fluctuations in activity levels.

B&O is one of a handful of museums on a significant original railroad historical site and in the center of the historic city. In that regard, it is comparable to Fort Wayne in that it is a part of the fabric of the inner city rather than a self-standing attraction, and it is also limited in operations by the lack of options to have an excursion beyond limited in-city trackage. B&O’s primary success, as in others, is linking itself to both education and special events. The operating part of the museum is primarily for equipment demonstration purposes, although it is just barely long enough to host a “Day out with Thomas” event. HIT entertainment reports to Stone Consulting that Baltimore remains one of their largest sites for hosting events.

B&O has not done any publicized economic impact reports in summary or detail form.

California State Railroad Museum, Sacramento, CA

The California State Railroad Museum (CSRM) in Sacramento is arguably the highest attendance railroad attractions in the United States, and is frequently referred to in any studies that involve railroad attraction feasibility purely due to that visitation factor. It is located in the heart of Old Town Sacramento, in a district that has been substantially preserved as a State Historic Park and partially recreated, going back to the original formation of the City. Sacramento was originally an early terminal of the Transcontinental Railroad due to its ability to link to river passenger and freight traffic.





The Railroad Museum, while one of the premier attractions in the district, is just one of many attractions within walking distance of an area that encompasses approximately 14 acres. This area includes historic buildings dating back to the founding of Sacramento, as well as historic waterfront property. The railroad museum is a major, but not overriding, feature of the site. Southeast of the railroad museum is another landmark attraction – the original erecting shops of the Central Pacific

Railroad dating back to 1869, and while used by the museum, are not open to the public but used as a storage facility for the museum.

The equipment displays, and the quality of the restorations, are ‘jeweler quality’ and have few equals in the world.

CSRM’s similarities include the overall community site with the railroad attraction as a component, but not a focus. Geographically, and from the air, the site similarity to the Fort Wayne concept is equally similar, particularly considering the riverfront. Sacramento has similar population, and also a zoo rather similar to Fort Wayne in size and market. Sacramento’s status as a state capitol is also important, because it creates an educational destination beyond Old Town. The combination of the state capitol, railroad museum, and old town area creates a destination attraction for school trips not just from the city region, but across the entire State. CSRM’s very high attendance leverages this fact, and CSRM has also done an exemplary job of creating target educational programs and paid staff that develop curriculum-based presentations that fit neatly into the required state educational goals by grade level.



Although Sacramento has attendance and operating budget figures that are likely higher than any other similar site examined, no conclusive reports were found that identify the existing or potential economic impacts of the museum on the community and the state. Despite ongoing budget and funding issues within the state, the Museum has generally been considered one of the showpieces and has evaded much of the public-sector cutbacks that have closed other state park facilities in California.

Steamtown – Scranton, PA

Steamtown, for better or worse, has become a symbol for the deliberate attempt to place an operating railroad attraction in a downtown city primarily for perceived economic impact benefits – and to have it administered and funded by the National Park Service. As such, it is somewhat unique, as well as non-comparable, but the on-site mix of destination excursions and site shuttles does make it similar to the Fort Wayne project in terms of attendance. The

administration and management concept, however, not only make it unique, but far more difficult to compare and evaluate.

What economic impact does Steamtown and the park's visitors have on the Northeast PA region?

We recently received our economic impact figures for 2013. We had 81,176 visitors in 2013, and it is estimated that those visitors spent over \$4 million in the area while at the park. This spending led to the creation of roughly 59 jobs in the area. Overall, the National Park Service estimates that for every \$1 spent on national parks, there is a \$10 return on that investment in the surrounding communities. As part of the National Park Service, our operating budget is appropriated by Congress. Obviously 2013 was a difficult year in the federal government. We had sequestration in the spring, which cut our budget by over 5 percent, and then in October we had the government shutdown which reduced our visitation at a key point during the fall color season. Both of these things had an impact on our operation

Debbie Conway, Superintendent

The late US Senator McDade campaigned hard to relocate the extensive steam locomotive collection of the last Nelson F. Blount from Vermont (where anti-smoke and development ordinances effectively stopped excursion operations) to Scranton, PA, on the site of the ex-Delaware, Lackawanna & Western locomotive terminal adjacent to the historic headquarters of the Railroad - now a downtown hotel.

The remaining fabric of the Scranton site as a locomotive terminal was minimal, and the combined environmental remediation of the site and partial reconstruction of the roundhouse made for an expensive, and controversial, project that still has critics long after construction finished.

Despite its critics, and the innate difficulty of a federally-managed park attraction that cannot legally advertise as an attraction, Steamtown continues to have significant attendance averaging at least 80-90,000 annually. It's most popular features – the

long-distance excursions – have been greatly reduced over the last decade, and the difficulty of steam locomotive restoration under NPS management left the park without an operating major steam locomotive for two years. Steamtown is actually not unique within NPS as a railroad site – Promontory Utah (Golden Spike) also exists, as well as the Cuyahoga Valley National Recreational Area under NPS management, but the Cuyahoga railroad is operated by a separate nonprofit organization within that location.

The deliberate location of the railroad site within the downtown was leveraged by building the “Mall at Steamtown” along with an 1100’ elevated pedestrian walkway to connect it to the roundhouse and interpretive buildings. Steamtown’s irregular steam excursion schedule, lack of on-site steam shuttles for several years, and institutional lack of promotion did not



directly assist the downtown connected mall as intended; it went into foreclosure and sheriffs sale in 2013-14. The mall was purchased by John Basalyga for \$5,5 million in 2015 and now is known as Steamtown 300 LLC. The mall is again operating and is actively promoting itself aggressively with a new 2015 pre-Christmas program and appears to be on the rebound.⁷

As a federally-funded park, annual capital budgets are generally lumped in with operating costs, and Steamtown has multiple on-site steam locomotive restoration projects over multi-year periods. As such, the operating vs. capital costs are relatively impossible to discern without an on-site investigation.

Despite all this, the 90,000 attendance as a downtown attraction away from any other tourist destination area with irregular diesel-only excursions does provide a valuable number, as this is achieved with little or no national and regional advertising, as National Park Service is prohibited from advertising parks as that is perceived as competing with the private sector. Associated contractors (as the Cuyahoga Valley Scenic Railroad) are not similarly restricted, but finding an all-color glossy brochure of Steamtown, or a current web page with current attractions and online ticket purchase, are equally difficult to locate. Steamtown is promoting the existence of “steam” on the site as of 2016.

⁷ <http://thetimes-tribune.com/news/business/decor-events-to-reintroduce-shoppers-to-mall-at-steamtown-1.1972054>





Comparable Railroad Museum Statistics

Stone Consulting, Inc.
Rev 2/2016

Name	Status	Location	Accepted Museum Attendance	Paid Museum Admissions	FRA reported Ridership	Excursion notes	Operating Budget	Information Source	Notes	Financial Assets	Liabilities
Railroaders Memorial Museum	Independent museum Nonprofit	Altoona, PA	60,000 <i>RR museum</i>	\$ 58,000 <i>(not curve)</i>	N/A	Fall excursions on NS only; no demo	1.1M	Guidestar Museum staff	6 large music concerts in 2015 No on-site train operation	14.6M	1.9M
B&O Railroad Museum	Independent museum Nonprofit	Baltimore	200,000	\$ 715,460	DNR	Thomas, Polar (2015) 1 mile demo track	2.1M	Guidestar	\$228,000 to HIT for Thomas Operating diesel	25M	538K
Cal State RR museum	State park system	Sacramento	500,000 <i>heavy education component</i>		77,945	3 mile demo track along riverbank	3.2m (2002)	Press releases	Common-carrier status; for-profit subsidiary Operating diesel		
Museum of Transportation St. Louis	County park (St. Louis)	St. Louis, MO			N/A	On site demonstration track only 1800'		Web	County park Operating trolley only		
National Railroad Museum	Independent museum Nonprofit	Green Bay, WI	75,000	\$ 182,000	N/A	On site demonstration track only 3900'	1.3M	Guidestar	Warehouse space rental \$340K Thomas event annual	9M	1.9M
North Carolina Trans. Museum (Spencer Shops)	State museum (unsupport) with Nonprofit foundation	Spencer, NC	75,000 <i>(2012)</i>		N/A	On site demonstration 1.1 mile on-site	1.2M	State releases Guidestar	Thomas event heavily promoted Self supporting basis now Operating train	6.4M	160K Foundation only
Savannah Roundhouse Museum	Independent museum Nonprofit Coastal Heritage Soc.	Savannah, GA	45,000 <i>RR museum only</i>	<i>combined across sites</i>	N/A	On site demonstration track only 1000'	300K	Web Museum staff	Multiple sites under CHS RR museum only Operating steam		
Steamtown	National Park Service 51 acres	Scranton, PA	90,000 <i>irma.nps.gov</i>		27,973	Multiple long distance excursions + on-site shuttle trips & trolley	5.6M Note 1	NPS visitation stats 46 employees		n/a	n/a
Virginia Museum of Transportation	Independent museum Nonprofit	Roanoke, VA	46,400 <i>(2014)</i>	\$ 181,600		** none*** Track purchasase pending Approx 1 mile	1.3M	Guidestar Press releases	Rapid recent growth	8.5M	191K

Note 1: https://www.doi.gov/sites/doi.gov/files/migrated/budget/appropriations/2016/upload/FY2016_NPS_Greenbook.pdf
Likely includes capital & rehab programs of equipment on-site

Economic Impact Modeling

Input-output analysis is a key component of most regional economic modeling of the employment, output, and income impacts of transportation infrastructure investments. Input-output analysis quantifies the multiple economic effects resulting from a change in the final demand for a specific product or service. For example, a person being paid to work on a transportation project will spend some of those wages to buy goods and services. The money he or she spends shows up as sales and wages to other parties, who spend the money elsewhere, and so on. This chain of effects, known as the "multiplier," captures the distributive effects of transportation capital spending and operating benefits across a broad range of industries. Typically, the input-output multipliers are driven by the initial, direct benefits and costs of the project as determined during engineering and/or feasibility analysis. In this analysis, this is an operating entity over several years, and input numbers are developed from actual expenditures, budgets, and attendance.

The simplest regional economic models are direct applications of input-output models. These applications are "static" in the sense that they provide an all-at-once view of economic effects, without a time component that is necessary for understanding when the effects will be realized. More sophisticated applications of regional economic models supplement input-output relationships with simulation techniques to forecast the year-to-year effects of projects on economic and demographic patterns. The most complex EIA models are those that integrate travel demand models, land use models, dynamic simulation economic models, and input-output models.

RIMS II Economic Analysis Methods

The standard method for determining the total economic impact a project or program will have on state and local levels is known as the RIMS II (Regional Input-Output Modeling System) multipliers. The original RIMS method for estimating impacts was developed in the mid-1970s by the U.S. Department of Commerce's Bureau of Economic Analysis. It has since been updated and refined and is now known as RIMS II.

RIMS II is based on an accounting framework called an I-O table. For each industry, an I-O table shows the distribution of the inputs purchased and the outputs sold. A typical I-O table in RIMS II is derived mainly from two data sources: US Bureau of Economic Analysis (BEA) national I-O table, which shows the input and output structure of nearly 500 U.S. industries, and BEA's regional economic accounts, which are used to adjust the national I-O table in order to reflect a region's industrial structure and trading patterns.

Using RIMS II for impact analyses has several advantages. RIMS II multipliers can be estimated for any region composed of one or more counties and for any industry or group of industries in the national I-O table. The cost of estimating regional multipliers is relatively low because of the accessibility of the main data sources for RIMS II. According to empirical tests, the estimates based on RIMS II are similar in magnitude to the estimates based on relatively expensive surveys.

To effectively use the multipliers for impact analysis, geographically and industrially detailed information is entered for the initial direct changes in output, earnings, or employment that



are associated with the project or program under study. The multipliers can then be used to estimate the total impact of the project or program on regional output, earnings, or employment.

Because of the widespread and recommended use of RIMS modeling methods, comparative projects can often be compared for relative economic impacts, as a standard measurement framework has been used. RIMS II multipliers are used extensively by the federal government, most states and counties.

Fort Wayne Input Data

There are four basic input groups to determine economic impact.

- Projected capital budget for track, equipment, and structures
- Projected operating budget to determine payrolls, purchasing, and local spending
- Ridership data, including overnight stay impacts from specific programs such as Polar Express. In this case, develop two scenarios based on attendance
- Visitor spending statistics

The Capital budget included a site rendering of the roundhouse area provided by Fort Wayne that was used as a general conceptual guide to establishing potential site costs. While it included ‘inside the fence’ building concepts, it did not include the additional and necessary functional track to actually bring a train into the site from the existing NS connection to the west. These were scaled out and estimated for track component costs. As a major construction project, a significant part of the Economic Impact is generated from the estimated construction budget. This entire budget was reviewed by Stone Consulting.

The Economic Impact Analysis was performed using the Capital Budget estimates of the project based on the Roundhouse site construction, as well as rehabilitation of track to the NS connection, and sufficient track to the north to allow loading and run-around of a full-length trainset on the site, as well as the roundhouse. The site plan, and capital budget began with this conceptual rendering, redrawn to a more precise planning model to check track geometry and linear distances for feasibility..

Our experience is that one of the key issues on such a capital estimate is verifying that switches can actually fit, curves are wide enough to actually operate a large steam locomotive on, track centers are wide enough, and there is sufficient linear distance to actually handle a normal-sized train of 85’ passenger cars brought onto the site.





Note that our rendering extends well beyond the proposed site, to include the turnouts and additional trackage necessary to access the site with a full train. Curvature was generally feasible, except for the placement of a curved switch onto the site in what was essentially the middle of a grade crossing. Our design moves this turnout further west; it was also discussed if this turnout could be relocated to the northeast side to reduce moves across high-traffic streets to a lower-traffic street.

One of the most difficult costs to accurately predict is the turntable. As turntables are no longer built, the most likely source is to relocate or reinstall an existing one; this has been the standard methodology for museum and excursion railroad sites for the last 40 years. We verified that such bridges still exist and are available; the primary cost is then for foundation, pit excavation and construction, and installation of the used materials.

Construction costs for shops, outbuildings and visitor space was estimated from standard construction guidelines (Means Construction Guides) using calculated square footage obtained from the sketch. This also includes the various cost factors for parking, site improvements, etc.

**FORT WAYNE RAILROAD HISTORICAL SOCIETY
Headwaters Junction Roundhouse Project**

COST ESTIMATE

Date: 2/3/2016

Item No.	Description	Qty.	Unit	Unit Cost	Total
Track					
1	Install New Track	7,837	Track Feet	\$250.00	\$1,959,250
2	Install New Grade Crossing - Asphalt & Rubber rail seal	727	Track Feet	\$955.00	\$694,285
3	Install New Turnout - Arema #10	3	Each	\$95,000.00	\$285,000
4	Install New Crossties	280	Each	\$115.00	\$32,255
5	Raise Algin & Surface	1,110	Track Feet	\$18.00	\$19,980
6	Install Embedded Track - Concrete & Rubber Rail Seal	3,057	Track Feet	\$635.00	\$1,941,195
7	120' Turntable	1	Each	\$575,000.00	\$575,000
Sub Total for Track					\$5,506,965
Buildings					
1	Shop	13,720	Square Foot	\$200.00	\$2,744,000
2	Roundhouse	33,000	Square Foot	\$225.00	\$7,425,000
3	Pavilion	14,525	Square Foot	\$175.00	\$2,541,875
4	Depot - Renovations	4,400	Square Foot	\$90.00	\$396,000
Sub Total for Buildings					\$13,106,875
Site					
1	Utilities	1	Lump Sum	\$275,000.00	\$275,000
2	Parking Area	128	Per Space	\$1,850.00	\$236,800
3	General Site Lighting	190,000	Square Foot	\$1.60	\$304,000
4	Landscaping	66,050	Square Foot	\$1.55	\$102,378
5	Sidewalks - pavers	49,500	Square Foot	\$15.00	\$742,500
6	Driveway	780	Foot	\$125.00	\$97,500
Sub Total for Site					\$1,758,178
Total Track, Buildings, and Site					\$20,372,018
Architectural Fees				6%	\$1,222,321
Engineering & Surveying Fees				10%	\$2,037,202
Construction Management Fees				4%	\$814,881
Contingency				15%	\$3,055,803
TOTAL ESTIMATE					\$27,502,224



The second major input to economic impact is the projected operating budget of the site. For this, we used projected operating budgets by the Ft. Wayne organization, and compared those operating budgets against the same comparable attractions as were used in the ridership/visitation analysis.

Operating budgets do vary wildly between the reported \$300,000/yr for the Savannah Roundhouse Museum, and the \$5.6 million/yr for Steamtown in Scranton (which on a funding basis, does not distinguish between capital and operating expenses for annual budget amounts). Median operating budgets of \$1.1 million to \$2.1 million were reported for the other five railroad museums studied in this project.

The Fort Wayne organization projection of a \$1.6 million/year site and excursion operating budget falls in the averages of similar operating attractions today and can be used as a valid first effort toward estimating the local impacts. A railroad attraction on the site is actually a business buying services with the operating budget just as any other organization would. The significance of an annual operating budget toward economic impact projection for a railroad attraction is not to be understated, and the ability to charge and receive revenue for excursions, admissions, special events, and site demonstrations ripples through the entire local economy. This is typically in direct contrast to other public investments in parks, etc., where the annual operating budget is for maintenance only and no admissions are charged.

One of the most significant statistics of any excursion railroad is the impact of the overall program on creating a destination attraction, producing a measurable effect on local businesses through the generation of overnight stays. That is most significant when the overnight stay involved hotel or motel lodging, generating additional business in food, secondary attractions, and support services for the region. This impact creates the most identifiable, and most visible, result of the excursion railroad concept.

This project, as currently envisioned, is a mix of a display-only railroad attraction with an on-site locomotive operating component somewhat similar to Savannah, GA. It can become a destination terminal for longer distance excursions reaching out over the NS system either originating or terminating at Fort Wayne, and a public event site that can also work for community, private, and regional events using the on-site facilities available for rental. Within that mix is also the ability to host rail-based special events such as Day out with Thomas, Polar Express, and other licensed theme events that contribute substantially to both visitation and overnight stays.

The on-site day excursion program would not necessarily be considered as a destination attraction during the summer season, but licensed special events draw from a much wider range – typically as far as 200 miles. That distance, combined with a destination-attraction quality of the event itself - has the potential of attracting overnight visitors. Because the Polar markets depart late, and the illuminated “North Pole” is the destination in darkness, a visitor coming from any distance is much more likely to stay over in the area rather than drive a significant distance home. The target market is the 200-250 mile radius that Rail Events considers their market, which on an evening event, produces an overnight stay in relatively

high percentages. For the Polar and special events market, a near 50% overnight stay basis is forecast – which makes a large economic impact to the local and regional markets.

The following tables calculate the impact in two distinct sections:

- Direct economic impact of the operating and capital budgets of the railroad.
- Secondary economic impact of the customers of the railroad based upon overnight stays including lodging, food, and other regional impacts.

Third-level impacts, such as the service industries that supply the suppliers, are not included. While many economic impact analysis studies may choose to include and estimate this third-stage employment impact level, it is generally considered to be speculative at best. This is an important element when examining comparative economic impact analysis calculations.

IMPACT OF FT. WAYNE OPERATION ON TOTAL REGIONAL BUSINESS

TABLE 1: OUTPUT – CAPITAL BUDGET

Category of Expenditure	Direct Expenditures	Output Multiplier a/	Impact on Total Output
EXPENDITURES			
Track Installation, Turnout, Grade Crossing, Turntable	\$5,506,965	2.4836	\$13,677,098
Buildings – Shop, Roundhouse, Pavilion, Depot Renovations	\$13,106,875	2.4836	\$32,552,234
Site – Utilities, Parking Area, Site Lighting, etc..	\$1,758,178	2.3034	\$4,049,787
Professional Services – CM, Architectural, Engineering	\$4,074,404	2.0588	\$8,388,383
Contingency	(\$3,055,803) b	---	
TOTAL	\$24,446,421		\$58,667,502

a/ Each entry represents the total dollar change in output from all industries for each dollar of output delivered to final demand.

b/ Does not figure in final calculations since expenditures are conditional.

IMPACT OF FORT WAYNE HEADWATERS RAIL OPERATION ON TOTAL REGIONAL BUSINESS

TABLE 2: OUTPUT – OPERATING BUDGET

Category of Expenditure	Direct Expenditures	Output Multiplier a/	Impact on Total Output b/
EXPENDITURES			
Wages/Payroll Overhead	\$316,000	1.3056	\$412,570
Utilities	\$115,000	1.9537	\$224,676
Maintenance	\$90,000	2.4389	\$219,501
Purchases (Parts, Pieces)	\$25,000	2.3034	\$57,585
Fuel	\$108,000	1.5197	\$164,277
Supplies	\$50,000	2.4389	\$129,945
Printing	\$40,000	1.9511	\$78,044
Advertising/Marketing	\$60,000	2.0588	\$123,528
Postage/Shipping	\$15,000	2.3224	\$34,836
Contract Services	\$100,000	2.1554	\$215,540
Misc. Costs	\$40,000	2.3019	\$92,076
Insurance	\$55,000	2.4076	\$132,418

Depreciation	\$266,667	-----	
Business Development – Startup	\$23,000	2.0588	\$47,352
Business Development – Freight Traffic	\$280,000	2.0588	\$576,464
TOTAL	\$1,583,667		\$2,508,812

a/ Each entry represents the total dollar change in output from all industries for each dollar of output delivered to final demand.

NON-RAIL ACTIVITIES

In projecting the economic impact of those who come to see or experience a particular rail project (categorized as “non-rail activities”) we must identify those who are in attendance specifically for the rail related facility/activity. In short, they are there because the train is there and for no other reason. These are considered strictly ‘additional visitors’ due to this project.

Establishing the projected visitation of The Headwaters Junction project poses a challenge in that it is an attraction that does not yet exist in a linear park that does not yet exist. The length of time it will take for the site to reach its full potential (which is substantial) will depend to a significant degree on the speed to which the park around it develops.

Experience has shown that visitors to San Antonio’s famed RiverWalk generally do not go there for one specific shop or destination (even event) but rather visit the Walk for the overall experience and sample two to five different offerings during their time there. Based on the San Antonio experience it is safe to project that Headwaters Jct. will be a major player/contributor to overall Riverfront draw, but neither dominating it as ‘the’ destination or separated from the entire visitor experience. Much as Savannah, the presence of a ‘live’ locomotive with sight and sound on-site produces its own draw.



In developing the most accurate picture possible of the non-rail economic impact of the attraction and the city we separated riders into three distinct categories – local (or trail proximity), day trippers and overnighers. Each has a quite distinct spending pattern.

We present two possible scenarios – the Headwaters Jct. site develops before the proposed park develops (Scenario 1) and the Site and the Park develop simultaneously (Scenario 2). In addition, we are using the current standard “family unit” representing 3.1 individuals (two adults and 1.1 children). Dinner Train participants are figured at two per party.

We place no dollar value against locals since it is probable that those funds would be spent in pursuit of some other activity within the immediate area. Ticket expenditures for all three category riders show up elsewhere.

Estimated non-rail related tourism expenditures by visitors:

Scenario 1 – 60,000 total visitors/users

Polar Express -- 25,000

Overnight – 2,500 (807 family units) - \$313 per party/day	\$252,591
Day – 22,500 – 5,625 non-local (1,815 family) units - \$82.50 per party/day	\$149,737

Day out with Thomas – 15,000

Overnight – 450 (145 family units) -- \$313 per party/day	\$45,385
Day – 14,550 -- non-local (1,877 family units – 82.50 per party/day	\$387,255

Dinner Trains –1,000 .

Overnight – 500 (250 family units) -- \$313 per party/day	\$78,250
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Site Destination Visitors – 19,000

Day/non-local – 9,500 (3,065 family units) – 82.50 per party/day	\$252,863
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Total Estimated Economic Impact – Visitors

\$1,166,081	x	1.9940 multiplier	\$2,325,166
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Scenario 2 -- 125,000 total visitors/users

Polar Express -- 30,000

Overnight – 3,600 (1,161 family units) - \$313 per party/day \$363,393

Day – 26,400 – 13,200 non-local (4,258 family) units - \$82.50 per
party/day \$351,285

Thomas – 20,000

Overnight – 1,000 (323 family units) -- \$313 per party/day \$101,099

Day – 19,000 -- non-local (3,984 family units) – 82.50 per
party/day \$328,680

Dinner Trains –2,000 .

Overnight – 1,000 (500 family units) -- \$313 per party/day \$155,500

Site Destination Visitors – 63,000

Day/non-local – 37,800 (12,194 family units) – 82.50 per
party/day \$1,006,005

Total Estimated Economic Impact – Visitors

\$2,305,962 x 1.9940 multiplier **\$4,598,088**



Table 3: Total Economic Impact – Summary

TOTAL ECONOMIC IMPACT – Scenario 1 –

Stand-Alone Basis @60K visitors

	\$ IMPACT ON TOTAL OUTPUT	INCREMENTAL JOB CREATION x
OPERATING BUDGET (Table 1)	\$2,508,812	92.9/a
CAPITAL BUDGET (Table 2)	\$58,667,502	1,676.13/b
TOTAL ECONOMIC IMPACT – RAILROAD OPERATION	\$61,176,314	1,769
TOTAL ECONOMIC IMPACT – VISITORS (Table 3)	\$2,325,166	86.1
TOTAL PROJECT IMPACT	\$63,501,480	1855.1

a/ Equivalent full-year jobs. Estimated at 37.03 per \$ million.

b/ Equivalent full-year jobs only during the construction phase. Estimated at 28.57 per \$ million.

x/ Projection of jobs supported is based on the RIMS II models for the State of Indiana. The actual number of jobs supported may be higher, but the numbers shown here are equivalent of full-time employment. Job creation for the railroad operation does not necessarily mean employment with the railroad, but rather employment with those firms servicing and selling goods and services to the railroad operation.

Regional Input-Output Modeling System (RIMS II)



TOTAL ECONOMIC IMPACT – Scenario 2 –

Integrated w/Headwaters Project @125 K visitors

	\$ IMPACT ON TOTAL OUTPUT	INCREMENTAL JOB CREATION x
OPERATING BUDGET (Table 1)	\$2,508,812	92.9/a
CAPITAL BUDGET (Table 2)	\$58,667,502	1,676.13/b
TOTAL ECONOMIC IMPACT – RAILROAD OPERATION	\$61,176,314	1,769
TOTAL ECONOMIC IMPACT – VISITORS (Table 3)	\$4,598,088	170.3
TOTAL PROJECT IMPACT	\$65,774,402	1939.3

a/ Equivalent full-year jobs. Estimated at 37.03 per \$ million.

b/ Equivalent full-year jobs only during the construction phase. Estimated at 28.57 per \$ million.

x/ Projection of jobs supported is based on the RIMS II models for the State of Indiana. The actual number of jobs supported may be higher, but the numbers shown here are equivalent of full-time employment. Job creation for the railroad operation does not necessarily mean employment with the railroad, but rather employment with those firms servicing and selling goods and services to the railroad operation.

Regional Input-Output Modeling System (RIMS II)



CONCLUSIONS AND RECOMMENDATIONS

The basic market and environment for the Headwaters Jct. as part of the overall Fort Wayne Headwaters project has a better market and attendance potential than similarly-sized attractions in larger metropolitan areas. Fort Wayne's demonstrated capability to produce attendance in quality attractions is behind that statement.

Despite a better-than-average market and likely attendance, the sustainability of the effort will be based not upon conventional 'gate attendance', but the ability for the project to generate on-site event income through community and self-generating events, community participation, and as a venue for private, educational, and business to feel that it is their site in their town, and want to showcase themselves by identifying with it.

Today, a "railroad attraction" cannot be self-sustaining without major events and on-site rentals/events – comparable sites that are not just surviving but thriving have developed approaches well beyond simply opening a railroad museum by any other name. Moving train operations of some kind are critical – something must be running on the site even if it is a single locomotive with a passenger car or even a single streetcar – but something must be functioning as a demonstration of the transportation concept rather than static equipment and glassed-in displays.

The alternative recommendation for failure is a pure, static, railroad museum with nothing moving and no public-usage rental space, and a vague educational mission more important to the IRS status than to the museum board itself. From that standpoint, there are virtually no survivors as a pure railroad museum is a non-sustainable model today. No matter the size or exhibit quality, static railroad museums as large as the Smithsonian scaled back their display-only approach. Lack of site operations or full community integration has led to financial and mission upheavals at museums that have not adapted or responded to this fundamental change.

Sustainability is best driven by an event-and-community site model than by either reliance on a massive endowment, as investment yields for operating budgets are increasingly low. Simple gate admissions help, but never carry the operational budget to the level of sustainability by themselves. Public tax support may be used, but cannot be the sustainability core, and are best considered as a reaction to the effectiveness of the public concept and education mission than a necessity. Grants are best for capital projects.

What does critically matter is the management flexibility (and the mission statement) to be able to involve the community, provide entertainment, develop locally-focused curriculum-based education programs about the railroad's role in history as well as today, provide a quality site for private and public services, and, yes, have a collection of historic equipment and memorabilia to examine. Fort Wayne's Headwaters Jct. has this potential.

