

APPENDIX C:
WHEELS Museum
Background

INTRODUCTION

The WHEELS Museum, Inc. was founded nearly thirteen years ago for the express purpose of saving the former Santa Fe Railway Locomotive Shops in Albuquerque, then owned by the BNSF Railway, from either demolition or sale to a private industrial developer. Over this period of time and through intense efforts, The WHEELS Museum was successful in raising the following funds to operate and ultimately supplement the purchase of the historic Locomotive Shops by the City of Albuquerque:

- **\$ 3,500,000** State of New Mexico capital outlay grants as of April 2007
- **\$ 509,000** (177,000 + 332,000) from HUD
- **\$ 275,000** Albuquerque and Bernalillo County (including annual contract with City for services rendered at \$24,000 per year)
- **\$ 1,100,000** IRS recognized in kind contributions at approximately \$100,000 per year during the course of WHEELS development
- **\$ 800,000** in funds raised for operating and general expenses during the course of Wheels development

\$ 6,185,000 total amount raised by WHEELS over 13 years

It has been the WHEELS' dream and vision to utilize all or a significant portion of the 27 acre site and its vacant historic large buildings for the purpose of creating a world-class transportation museum.



Figure 1 Steam Locomotives Undergoing Major Overhauls in Erecting Shop circa 1953



Figure 2 Vacant Erecting Shop Today – Note Intact 250 Ton Overhead Crane



Figure 3 Artist's Concept with Major Displays in Erecting Shop *Credit North Carolina Transportation Museum*

The WHEELS Museum has had solid support from Albuquerque and New Mexico leaders and leading institutions including:

- Senator Pete V Domenici
- Senator Jeff Bingaman
- Senator Tom Udall
- Representative Heather Wilson
- Federal Department of Housing and Urban Development (HUD)
- Governor Bill Richardson
- New Mexico State Legislature
- Representative Rick Miera
- Senator Jerry Ortiz Y Piño
- Senator Eric Griego
- Mayor Martin Chavez
- City Councilor Isaac Benton
- Albuquerque City Council
- Bernalillo County Commission
- Middle Rio Grande Council of Governments
- State Department of Tourism
- State Historic Preservation
- Richard Romero President Pro Tem Senate
- McCune Charitable Foundation
- The Albuquerque Journal
- Albuquerque Economic Development
- Albuquerque Convention and Visitors Bureau
- Museum Council of Albuquerque

The WHEELS Museum Board sees our mandate first and foremost to provide an appropriate venue to preserve transportation artifacts and educate the residents of New Mexico and the broader community about the importance of transportation, particularly railroads, to the formation and growth of New Mexico.

WHEELS Museum Mission Statement:

To provide current and future generations with an understanding of the impact of transportation on New Mexico and the West with a mandate to:

- Collect and restore permanent artifacts related to transportation
 - Automobiles, planes, streetcars, passenger and freight railroad equipment, etc
 - Santa Fe Trail, Route 66, structures, machines, tools, books, documents, etc
- Assemble and preserve a collection pertaining to transportation and those objects necessary to “tell the story of transportation”
- Display and make the collection available to the public
- Interpret the meaning behind the objects through permanent and temporary exhibitions and educational programming
- Allow the restoration and preservation programs for the collection to become a feature presentation in the overall story
- Provide rail excursion trips within New Mexico visiting railroad towns

Similar transportation museums studied by the WHEELS Museum and used as our model have included:

- St. Louis Museum of Transport – 150 acres
- North Carolina Transportation Museum – 57 acres
- Baltimore & Ohio Museum – 40 acres
- California State Railroad Museum – 28 acres
- Nevada State Railroad Museum – (actually 3 museums)
- Colorado State Railroad Museum – 15 acres
- National Railroad Museum – 32 acres
- Steam Town National Historical Site – 62 acres
- Illinois Railway Museum – 60/150 acres
- Pennsylvania Railroad Museum – 40 acres

Located on twenty-seven acres with intact historic steam locomotive repair shops, the Albuquerque Rail Yards present an opportunity unique in all of North America for WHEELS to Function as a museum *and* able to transform as a space for major events and exhibitions:

- Provides ample and varied space adequate for an interactive museum for all forms of transportation
- Provides space for on-site exhibit preparation, staging and maintenance
- Provides space for necessary offices, restrooms, security and related infrastructure
- Provides space for a living history area for 4-8-4 steam locomotive ex-Santa Fe No. 2926 restoration and maintenance and display and maintenance of operable 4-8-4 steam locomotive such as ex-Santa Fe No. 3751 and others
- Offers private rail car storage and maintenance
- Statewide paid excursions can be operated out of the site
- Rare and unique rail access to the site can be utilized to attract major heavy industrial exhibits/shows
- The transfer table and/or overhead cranes can be used for quick exhibit repositioning

The major assets of the Rail Yards unique to WHEELS becoming a world class transportation Museum include:

- Intact structures (structurally sound)
- Tracks into and inside structures
- Working turntable
- Intact transfer table (main table disabled, but restorable)
- Nearly intact overhead cranes
- Very close access to railroad mainline
- Outside acreage for parking, special events and exhibits
- Outside acreage for rail excursion staging and operation
- Outside acreage for steam locomotive firing, cleaning and maintenance

The WHEELS Museum expects to receive significant artifact donations as space becomes available and restoration efforts proceed with artifacts ranging from historical locomotives to automobiles and to light aircraft. With the residency of the WHEELS Museum at the Rail Yards, the city of Albuquerque will experience tourism activities at all age levels and origins, with families, young and old, local, national and international tourists. The potential varied population visiting the site could spark immediate ancillary businesses in the vicinity. The WHEELS Museum itself will serve to embody historical innovations, including technologies, research and inventions that sprung forth from Albuquerque and New Mexico.



Figure 4 Replica Carreta (Ox Cart) Donated to WHEELS Representing the Earliest Form of Wheeled Transportation in New Mexico

Educational Outreach

The educational goals of The Wheels Museum are to inspire and motivate our children to reach their full potential in the fields of science, technology and engineering. We mean to excite students and empower teachers with innovative programs that provide hands-on learning through our “live” (breathing) exhibits and programs. The WHEELS Museum stands to bridge the gap between theory and practice of mechanical sciences in the Pre-K through 12 educational experiences.



Figure 5 Horse Drawn Milk Delivery Wagon from Corrales, NM under Restoration



Figure 6 1942 Seagrave Fire Truck



Figure 7 Donated Operating 1953 Fairbanks Morse 12-44 Diesel Switcher Locomotive Waiting for Shipment from Ft. Wingate, NM to WHEELS

Impact on Tourism

Studies estimate that no fewer than 600,000 people a year will visit WHEELS, which will mean more people staying longer in Albuquerque. Visitors will be attracted worldwide to a major transportation museum. The “loop” - WHEELS, Rio Grande Zoo, the BioPark, Albuquerque Museum, the National Hispanic Cultural Center and other cultural activities will be a resource to get people to stay longer as it develops tourism exposure. Even a 20 percent increase in visitors that increase their stay by one more night will provide a big economic boost. The WHEELS Museum intends to be a part of a big push in tourism.

Impact on the Neighboring Communities

- As the Barelmas and South Broadway neighborhoods were home to many of the workers during the life of the Rail Yards, WHEELS will be compatible with and an historical bridge to the communities and families of the era
- WHEELS will, in every way, complement the surrounding neighborhoods with the passive use of existing historical space along with the occasional demonstrations of working artifacts and steam powered excursions recreating a major attribute of the prime era
- Provide employment opportunities to community residents as Museum staff and new opportunities for docents and volunteers

IDEAL SITE REQUIREMENTS

Transportation Museums by their very nature deal with large to very large displays. While the WHEELS motto is “We Have Everything Everyone Loves Spinning” the emphasis will be on all forms of transportation, not on any one specific type of transportation. However, the purpose for which the Rail Yards were created and the attraction of historic railroad locomotives and rolling stock will create a natural emphasis within the artifacts we collect, maintain and restore for exhibition. Without doubt, steam and Diesel locomotives and railroad rolling stock will take up the most space, both within and without the historic buildings that make up the WHEELS Museum.

Steam locomotive ex-Santa Fe No. 2926 now undergoing restoration to operating status by the New Mexico Steam Locomotive & Railroad Historical Society will make the WHEELS Museum its home for display and operating base for regular passenger excursions. No. 2926 is over 120 feet long and weighs close to 1 million pounds. The size of No. 2926 is in keeping with other locomotives that will be on display and operation.



Figure 8 Santa Fe No. 2926 in San Diego in 1953 – Now Undergoing Restoration to Operating Condition and to be Based at WHEELS Museum *Photo Courtesy Stan Kistler*

The Rail Yards have as a permanent eastern boundary active railroad tracks that see frequent commuter trains of the New Mexico Rail Runner Express, two Amtrak trains per day, and daily and nightly freight trains operated by the BNSF Railway. The southern boundary is the property of the BNSF Railway is actively used for locomotive and rail car switching and storage.



Figure 9 East Boundary of Rail Yards Consists of Active Tracks for BNSF Freight



Figure 10 East Boundary of Rail Yards is also used by NM Rail Runner Express Commuter Trains



Figure 11 South Boundary of Rail Yards is BNSF Railway Property including Locomotive Storage and Switching



Figure 12 South Boundary of Rail Yards also includes Rail Car Storage and Switching

As the tracks forming the eastern boundary of the Rail Yards are heavily used, it is unlikely they will ever be abandoned. Likewise, it is unlikely the BNSF Railway crew terminal and locomotive switching yard forming the southern boundary of the Rail Yards will ever be abandoned. The WHEELS Museum is in an optimum position to benefit from close proximity to active tracks and ongoing rail activity for several reasons:

- Large railroad exhibits for the WHEELS Museum can be brought on-site by rail
- The adjacency of active tracks and railroad equipment ties in with the historical aspect of the WHEELS mission, that is, demonstrating old to new technology and operations
- Special large exhibits can be brought on-site via rail
- Steam powered excursions can be based at WHEELS
- WHEELS Museum and outside static displays become a buffer between active track/railroad equipment and the rest of the mixed-use site
- Commercial and complementary railroad activity can be accommodated
 - Private passenger rail car storage and maintenance
 - Railcar repair and overhaul

Of the various buildings and structures that exist today on the Rail Yards site, several appear ideally suited to the fulfillment of the Wheels Museum vision and mission, particularly in accurate historic preservation and activity in keeping with the original purpose for which they were designed and used.

Specifically:

- The Old Blacksmith Shop (81' x 307' 21,867 sq. ft.) – home for steam locomotives/excursions
- The Fire Station – a small building to the northwest
- The Assembly Hall – a small building to the northwest
- Remaining structures from and including the Transfer Table to the south boundary of the property
 - Transfer Table (60' x 604' 36,240 sq. ft.) – for moving locomotives and rolling stock
 - Machine Shop and Erecting Shop (239' x 604') – as the major exhibition area
 - Store House (50' x 417' 21,084) – for smaller exhibits, model railroad displays
 - Babbitt Shop – a small building to the south
 - Welding Shop – a small building to the south
 - Lavatory – a small building to the south
 - Easement around the turntable – turntable is property of BNSF Railway
 - Vacant acres to the south of the Machine Shop and Erecting Shop for a rebuilt roundhouse, parking, green areas, etc.

The above list of structures does not indicate a maximum or minimum footprint of The Wheels Museum, but rather is a carefully researched list that seems to appropriately utilize historic space within boundaries that encompass an active railroad mainline, turntable, locomotives, rolling stock and other large pieces of equipment. Yet, smaller spaces are also available for smaller displays, meeting areas, etc.

A critical component of every working rail yard during the age of steam locomotives was the roundhouse which was a structure designed around a turntable for spotting locomotives in stalls for routine maintenance. The rail yards in Albuquerque had a very large roundhouse which the Santa Fe Railway demolished in 1986. However, the turntable still exists and is in frequent use by the BNSF Railway.



Figure 14 The Albuquerque Roundhouse during the peak era of steam locomotive maintenance. The roundhouse was demolished in 1986 but the turntable is still functional and in use by the BNSF Railway.



Figure 15 Working Rail Yards turntable with vacant Erecting/Machine Shop in the background

One of the significant components of The WHEELS Museum is the built from scratch exact replica of the demolished roundhouse located precisely where it stood with the working turntable as the center piece. While the roundhouse exterior would look as it did during the working era, the WHEELS Museum roundhouse would be constructed of all new material, as green as practical, and with a purpose partially fulfilling the need for steam and Diesel locomotive and car maintenance, but primarily as new space for exhibits, classrooms, etc. There are many benefits:

- Worldwide attention would be paid to a complete rebuilt roundhouse
- While a “roundhouse” in form with some historical and practical function, interior spaces can be precisely designed and constructed for museum use
- New construction presents opportunities for “green” and eco-friendly materials and techniques
- A roundhouse can be easily built in phases or “wedges” as each is able to be financed
- New space allows freedom for constructing basements and using fireproof materials
- WHEELS actually becomes even more of a living history museum as the retained turntable is at the core and is in active use
- With a boarding platform on the east next to the mainline for steam-powered excursions the public can easily visit The Wheels Museum then ride the train and vice versa
- The roundhouse can be in an attractive park-like setting rather than the traditional “dirty” environment of a working railroad



Figure 16 Model of Rebuilt Roundhouse as part of WHEELS Museum *Credit VOA Architects*

SUMMARY

The WHEELS Museum is ecstatic to be the launch entity for the Albuquerque Rail Yards. After thirteen years of working to save the property from industrial development, we are eager to work with the Master Developer to create one of the most innovative mixed use properties anywhere and at anytime. The WHEELS Museum is destined to become a cultural icon and significant contributor to the highly prized quality of life in Albuquerque, especially considering the neighboring communities.

The utilization of historic and significant intact structures in keeping with their original design and operation is rare in this day and age. Our mission is to have as many of the intact structures as possible be an actual part of the historical artifacts under roof. The structures lend themselves perfectly to the display of large items, and with the restoration of heavy-duty machines such as the 250 ton over head crane, space can be transformed from a museum setting to that of an exhibition hall for major industrial objects. Access by rail directly into the structures adds a unique degree of flexibility unmatched anywhere in North America. The rebuilding of the roundhouse will draw worldwide attention and create additional space designed specifically to the needs of WHEELS.

As living history museum, the aspect of serving as the home for steam powered rail excursions will further keep The Wheels Museum and the City of Albuquerque firmly on the map for our local residents, and regional, national and international visitors.