After 19 years, National Museum of Industrial History is poised to make its debut.

BETHLEHEM — A casino, theaters, outlet shops, restaurants, concert halls. The former Bethlehem Steel plant has been redeveloped as many things over the last decade, but this week it will welcome an attraction that celebrates what it actually was — a pivotal player in the Industrial Revolution.

The National Museum of Industrial History, first proposed when grunge and "Friends" were in vogue, is scheduled to open to the public Tuesday after 19 years of fundraising challenges and, two years ago, a grand jury investigation.
The $7.5 million museum tells the story of the nation's transformation from an agrarian economy to a mechanized powerhouse, laying the foundation for America's future as a superpower. Steelmaking is featured prominently, but just as much attention is given to silk-making, the propane industry and other massive machines that helped build skylines and transform how wars are fought.

"I don't think there's a better place than Bethlehem, Pa., to tell the story of the American Industrial Revolution," said Don Cunningham, former mayor of Bethlehem and current president and CEO of the Lehigh Valley Economic Development Corp.

The story is told in a former Steel shop overlooking the towering blast furnaces that once powered the company's 1,800-acre flagship plant. With an overhead crane hanging just inside the entrance, visitors are reminded that even the museum — built from the bones of Steel's 1913 Electric Repair Shop — is an artifact.

In the 18,000-square-foot first floor, a section pays homage to the 1876 World's Fair. On loan from the Smithsonian Institution's National Museum of American History, it includes actual pieces from the Centennial International Exposition in Philadelphia and patented machines typical of what was on display.

Other exhibits are from the museum's own collection, private individuals and other institutions, such as the National Canal Museum. The more than 200 artifacts explain everything from the secrets of the silkworm to the making of iron in a blast furnace.

"Among them are some that are the first made, the longest operating or the last produced. These objects are gateways to bigger stories," said Amy Hollander, the museum's executive director. "They help us to preserve memory but they also help us to raise questions about where we came from and where we are going."

The artifacts include the first piece of steel rolled in Bethlehem (an 1873 commemorative anvil) and the last piece of Class A armor rolled in the United States (made in 1953 in Bethlehem).

There's a 37 mm anti-tank field cannon from World War I, a 115-ton Corliss steam engine that once pumped water in York and a silk loom that made White House curtains for presidents Herbert Hoover through Bill Clinton. One artifact — a 19th-century metal lathe salvaged from a Pen Argyl company — got its 10 minutes of fame in 2009 when it was used in "Transformers 2: Revenge of the Fallen" in a scene with actor Shia LaBeouf.

Several miniature models of the Steel plant, once used to train employees and craft capital plans, hammer home the grand scale of industry. Visitors can compare the tiny tops of blast furnaces with an actual wooden pattern of a blast furnace cone hanging overhead.

Interactive displays give visitors insight into what it was like to work in a factory. Visitors can hold a 20-pound tray of bobbins that children once carried nine hours a day at the silk factory. Patrons can turn a flywheel to test how much horsepower they can generate, and take a virtual ride in a hot air balloon.

The museum provides another perspective on machines and the society they created in a state that is flush with industrial heritage. From the Lumber Museum in Potter County to the National Canal Museum in Easton, about
a fifth of Pennsylvania's museums explore some aspect of industry, according to Rusty Baker, executive director of PA Museums, a Harrisburg trade association.

Northeastern Pennsylvania is rich with anthracite, which helped fuel industrialization and development of the Lehigh and Delaware canals. Industries ranging from steel to silk factories sprang up along the canals that carried coal from the mines to ports.

Joseph Garrera, executive director of the Lehigh Valley Heritage Museum in Allentown, said many local museums touch on industrial history, but can't go into as much depth as the Bethlehem museum can. That will draw a new type of visitor to town and possibly pique their curiosity, sending them to discover other museums and attractions in the Valley.

"The National Museum of Industrial History is a specialist," Garrera said. "The beauty of it is they are going to give recognition, a voice to areas of the Industrial Revolution and the many great achievements of the Lehigh Valley, the state of Pennsylvania and even the country that has been resting in obscurity because no one can get to all of it. The subject is so large and enormous that it deserves its own museum."

**Two decades later**

The idea for the museum began on a much grander scale nearly 20 years ago as operations at Bethlehem Steel's home plant wound down. The Steel drew up plans for how the plant would be redeveloped. In a news conference in 1997, Steel officials held up an ambitious museum proposal that would include hundreds of Smithsonian artifacts. Some reports indicated that the artifacts would be displayed in as many as three old Steel buildings and cost up to $80 million.

They said it would draw up to 3 million visitors annually. The expectation was double the number of people at the time visiting the Henry Ford Museum and Greenfield Village in Dearborn, Mich., and the Bethlehem museum was among the first Smithsonian affiliates, a designation created in 1996 to get artifacts out of storage and into public viewing.

It was part of a Valley-wide vision in which museums were the centerpiece of urban redevelopment as Easton landed the Crayola Factory (now called the Crayola Experience) in 1996 and Allentown was laying plans for America on Wheels at Lehigh Landing, which opened in 2008.

But funding for the National Museum of Industrial History stagnated, forcing Steel officials to reconfigure plans so it would open in phases, the first an $8 million "preview center" by 1999.

Gov. Tom Ridge dropped off a $4.5 million check, which he described as a down payment on the project. But Bethlehem Steel, which had been shepherding the museum, slid into bankruptcy and ultimately sold the shuttered plant. The museum's opening date was repeatedly pushed back as organizers tried to raise more money to finish the job.
Plans were revamped and donors continued to contribute just enough to keep the project alive. But behind the scenes, officials privately questioned the viability of a museum. By 2005, another project had captured the imagination of the community eager to transform the idle plant into a tourist destination: the Las Vegas Sands Corp.

The Sands eventually landed a license for a casino, jump-starting development of an entertainment and cultural attraction at the old plant between the Fahy and Minsi Trail bridges. Sands, which now attracts millions of visitors a year, donated the land around the old blast furnaces to nonprofits, which quickly turned it into the SteelStacks complex, featuring PBS studios, an outdoor stage and ArtsQuest Center. Some space in the Bethlehem Landing visitors center was set aside to tell the tale of Steel, and steelworkers hopped on the old Hoover-Mason Trestle, an elevated walkway over an old Steel rail, to provide intimate tours of the plant.

Without counting Musikfest, 800,000 people a year walk past the empty building on their way to concerts, movies and festivals at SteelStacks.

The length of time it was taking to open the museum caught the attention of Northampton County District Attorney John Morganelli, who put the question before a grand jury two years ago. The jury concluded there was no criminal wrongdoing but museum leaders squandered $18 million in donations in nearly as many years.

The investigation ultimately ended with the retirement of the museum head, Stephen Donches, a former Steel executive, and an ultimatum from Attorney General Kathleen Kane to either open in two years, partner with another nonprofit or dissolve.

The year the grand jury report came out, the museum credited Donches with landing a large donation. 2014 tax returns show the museum turned its $939,000 deficit to a surplus of nearly $3 million, bringing the museum's assets to $7.4 million.

The museum board turned to Brent Glass, once the head of a Smithsonian museum, to put together an operations plan and search for a new leader. Meanwhile, the museum negotiated a settlement with Lehigh University over a Steel endowment that gave it enough money to operate the museum.

Last year, Hollander was hired to head the museum and she began building a staff of eight full-time and up to five part-time employees to finish and eventually run the museum. The museum has an operating budget of $1.26 million and enough cash in the bank to get through the first year of operation.

The $9-$12 ticket prices will fund only 21 percent of the museum's operations, even if it hits projections. But, like most museums, Hollander said, the industrial history museum will rely on grants and donors to continue funding the museum.

**Sustaining support**

It's a challenging environment for any museum, said Baker, of PA Museums.
He pointed to a 2015 Philadelphia Cultural Alliance report that shows cultural attendance increased by 3 percent from 2009-2012 across 11 major metropolitan areas, leading to a 5 percent jump in admission and ticket sales.

But contributed revenue from individuals, government and corporations declined 3.5 percent during that same time period, according to the alliance. That's a critical part of museum funding, which is just starting to rebound from the Great Recession, the report says.

"The challenge of any museum has become the operating costs. Oftentimes, you could raise money for capital, acquire items because folks don't want or can't house them," Cunningham said. "The challenge for the board going forward will be how to sustain it in a relevant way, changing the displays [and programming] so that it keeps people coming back."

Hollander said her team has a plan to do that as it prepares for its grand opening Tuesday. The museum will debut in time for Musikfest, when it hopes to whet the appetites of a million visitors expected to filter into Bethlehem during the 10-day festival with programs and special tours.

She's in talks with school districts about field trips. And the museum was among the lures for the Pennsylvania Labor History Society to host its conference in Bethlehem in September, Tom Sedor of Steelworkers Archives said.

Sedor plans to visit the museum — built in the building where he worked as an electrician during his 29 years at Bethlehem Steel. He also worked outside the building on motors that were a couple of stories high.

He said he hopes the museum can convey that sense of scale to a new generation that has no memory of the blast furnaces being hot.

"I wish the museum would have moved a little quicker, but it's here," Sedor said. "It's not like other places where everything was leveled out. We have something that was worth saving."

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IF YOU GO

• **Ribbon cutting ceremony**: 10 a.m. Tuesday

• **What you get if you attend ribbon cutting**: First 200 visitors will receive a special, limited-edition commemorative gift.
• **Hours during Musikfest:** 10 a.m. to 5 p.m. Aug. 5-14. Timed tickets available at the front desk, www.nmih.org

• **Regular hours:** 10 a.m. to 5 p.m. Wednesday through Sunday

• **Cost:** $12 for adults; $11 for seniors, students and veterans with a valid identification; $9 for children 7-17; free for children younger than 6

• **Where:** 602 E. Second St., Bethlehem

*Source: National Museum of Industrial History*

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