

## SteelStacks Arts & Cultural Campus

Bethlehem, Pennsylvania

Transformation of a former steel plant into a mixed-use cultural and entertainment district

# Investing in Urban Infrastructure The 2017 Rudy Bruner Award for Urban Excellence



BRUNER FOUNDATION, INC.

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Library of Congress Control Number: 2018949532

ISBN: 978-0-692955-73-4

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## Overview

Submitted by: Bethlehem Redevelopment Authority

Completed: 2016

Total Development Cost: \$93.5 million

SteelStacks Arts & Cultural Campus transformed the most historic section of a former steel mill into a mixed-use cultural and entertainment district in Bethlehem, Pennsylvania. The mill's iconic blast furnaces now anchor a civic commons that honors the city's steelmaking legacy and symbolizes the rebirth of a region devastated by its closure.

The 9.5-acre SteelStacks campus occupies the western portion of the sprawling Bethlehem Steel Company site. Established as the Saucona Iron Company in 1857, it ultimately stretched more than four miles along the Lehigh River. The 1,760-acre mill long dominated the community physically and economically, employing 31,000 people in Bethlehem alone at its height and supplying steel for such storied structures as the Chrysler and Empire State Buildings, the Golden Gate and Verrazano-Narrows Bridges, and World War II battleships.

After steelmaking operations ceased in 1995, Bethlehem Steel initiated brownfield remediation and planning for redevelopment of the site. The master plan, created in partnership with the community, incorporated an industrial park on 1,600 acres and a proposed mixed-use district including

# "STEELSTACKS ARTS & CULTURAL CAMPUS PRESERVES THE REMNANTS OF INDUSTRIAL HISTORY, DEMONSTRATING TO PEOPLE THAT THEIR LIVES AND WORK MATTER."

- 2017 Selection Committee

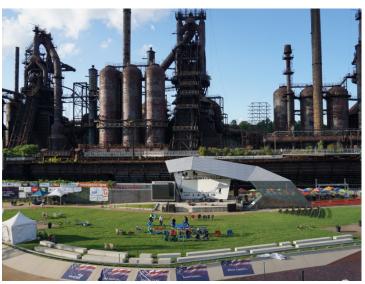
housing, museums, and retail on the remaining portion, which contained the majority of the mill's historic structures.

The idea for an arts and entertainment district was inspired by civic leader visits to repurposed industrial sites in Germany. The resulting campus plan, designed by WRT of Philadelphia and developed by a consortium led by the Bethlehem Redevelopment Authority, was envisioned as a "twenty-first century town square," a free outdoor public plaza intended to both reference the past and suggest the future. The space is defined by the blast furnaces and the Levitt Pavilion outdoor performance area as well as the Bethlehem Visitor Center, the ArtsQuest Center, the PPL Public Media Center at PBS39, and the Hoover-Mason Trestle Park.

The visitor center, located in the 1863 Stock House, presents the history of the site and steelmaking in the Lehigh Valley. Just outside the center, stairs lead up to the 46-foot-high Hoover-Mason Trestle. Constructed in 1907 to enhance steel production and reopened as an elevated pedestrian walkway in 2015, the trestle offers close-up views of the blast furnaces and panoramic views of surrounding structures and nearby neighborhoods. Interpretive signage and an interactive website and mobile app provide additional insight into the site's history and heritage. Across the street, the new ArtsQuest Center and PBS39 buildings offer broadcasting, education, event, and performance venues.

Funding for the \$93.5 million development came from a variety of public and private sources. A 20-year Tax Increment Financing District and revenue generated by the Sands Casino Resort, located to the east of the SteelStacks campus, created the municipal capacity to implement the project.

Long off-limits to all except those who worked there, the former mill has become a local and regional destination. SteelStacks hosts 1.5 million visitors annually, offering events including free outdoor concerts and ArtsQuest's annual Musikfest. The campus is sparking nearby investment as well, including the new Lehigh Valley Charter High School for the Arts and the National Museum of Industrial History. As Kassie Hilgert, ArtsQuest president and CEO, observed, "With Bethlehem's major industry closing 20 years ago, this city could have gone in an entirely different direction; however, thanks to incredible leadership and vision, it continues to reinvent itself, and the city's future is incredibly bright."



Historic blast furnaces (opposite and above) anchor the SteelStacks campus.



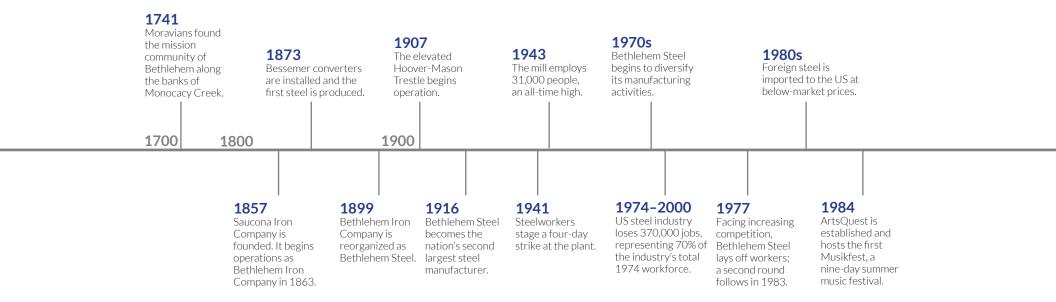
## Project at a Glance

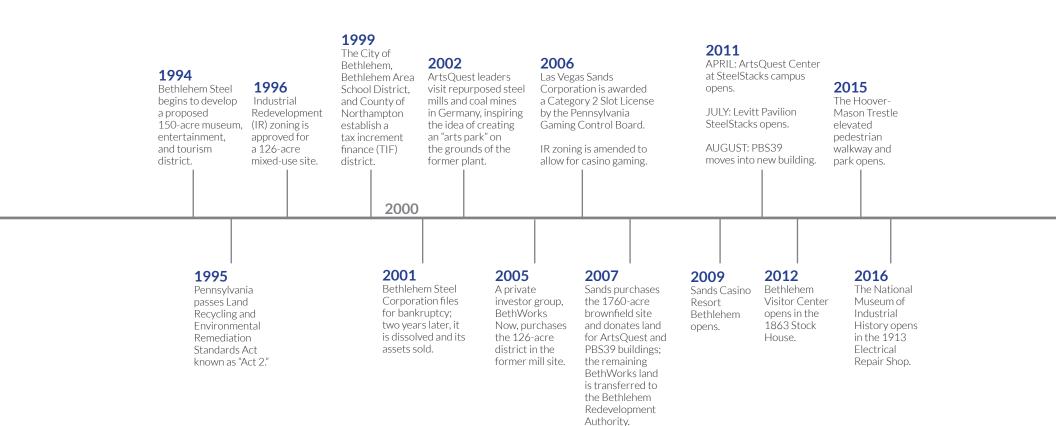
- A 9.5-acre arts and cultural campus within a 126-acre district on a former 1.760-acre steel mill site.
- Venues for a wide variety of performances, classes, and other events and attractions that draw 1.5 million visitors per year.
- An elevated pedestrian walkway and park featuring close-up views of the blast furnaces and offering cultural, historical, and industrial interpretation of the site; flexible outdoor public spaces; and performance venues in a mix of new and historic buildings.
- Preservation of five 20-story blast furnaces that form part of the northern border of the district and serve as an iconic backdrop for performance venues, arts and cultural activities, and public programming.
- Home to arts and cultural organizations and programs including Arts-Quest, PBS39, the Bethlehem Visitor Center, and the Levitt Pavilion SteelStacks.
- New arts and cultural programs intended to make the region more competitive in attracting talent to support local workforce needs.

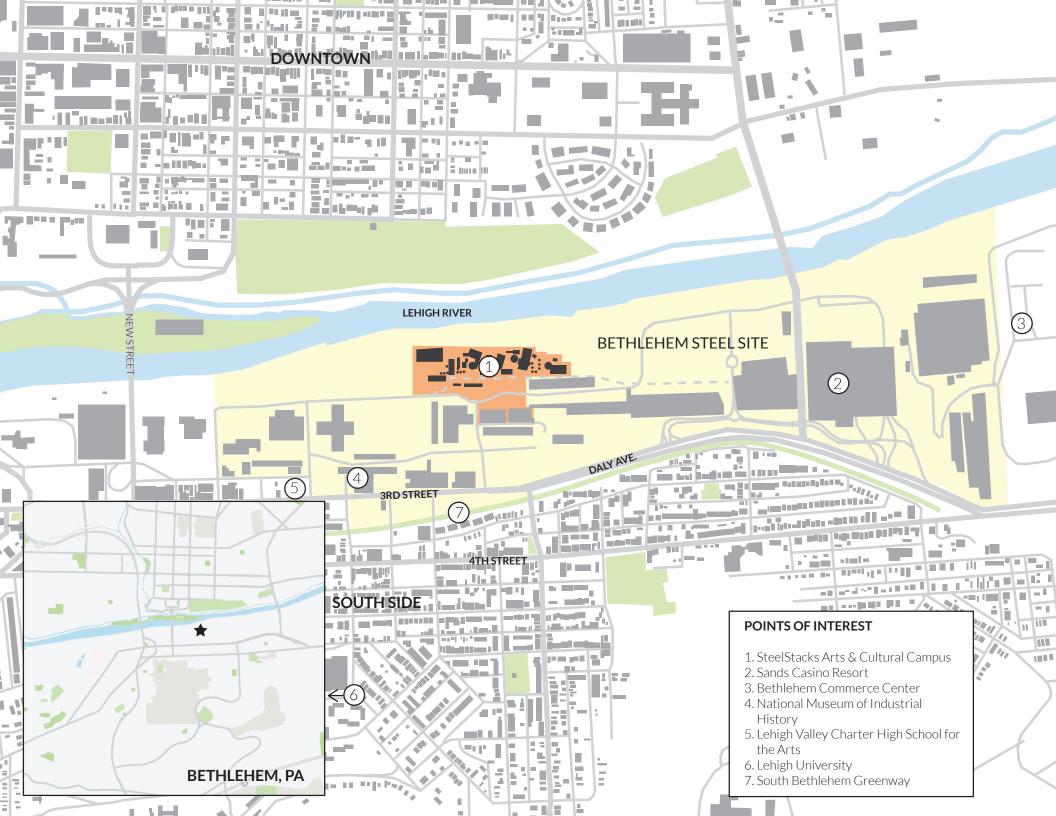
## **Project Goals**

- Create a welcoming, well-designed, public arts and cultural campus for the neighborhood, city, and region.
- Preserve, restore, and adaptively reuse the historic fabric of the former steel mill site.
- Use the site to tell the story of steelmaking and steelworkers in Bethlehem.
- Serve as a catalyst for the development of the larger 126-acre brownfield district.
- Develop the project in a transparent and inclusive way to assure a shared vision.

## Chronology







## **Project Description**

#### INTRODUCTION

SteelStacks Arts and Cultural Campus (SteelStacks) in the South Side of Bethlehem, Pennsylvania, is the product of over two decades of planning and development facilitated by well-crafted alliances between state, regional, and city political leaders: Bethlehem Steel Corporation; Sands Casino and Resort (Sands) interests; and nonprofit arts and culture institutions. The overall site can be thought of as a large, linear outdoor room bordered by the ArtsQuest Center and PPL Public Media Center at PBS39 on the south side of First Street; the Visitors Center, Hoover-Mason Trestle (HMT) and linear park with the blast furnaces to the north; and the Levitt Pavilion and plazas fronting the ArtsQuest and PBS39 buildings in the middle. A large parking and event space is to the immediate west of the site.

The 9.5-acre campus hosts 1.5 million visitors who attend a wide variety of presentations and performances each year. The preserved blast furnaces form a striking backdrop for many of those performances, and interpretative exhibits on the HMT and at the Bethlehem Visitor Center in the adjacent 1863 Stock House offer insight into the history of steelmaking and the surrounding community.

The success of the campus is the result of a public and private sector commitment to both interpret and celebrate the region's industrial heritage. It demonstrates how the city found ways to use its culture of arts and entertainment to assert its strength in tough times. The project reclaims brownfields left in the wake of Bethlehem Steel's bankruptcy and shows how investments in the planning and design for a new public realm and arts and cultural venues are helping to revitalize adjacent neighborhoods and the economy of the City of Bethlehem and the Lehigh Valley region.

#### **CONTEXT**

#### Lehigh Valley

The rise and fall of Bethlehem Steel from its founding as Saucona Iron Company in 1857 to its closing in 1995 and bankruptcy in 2003 establish the context for SteelStacks, which is 90 miles from New York City and just 60 miles from Philadelphia. The Lehigh Valley forms the larger regional context, spanning Lehigh and Northampton counties in eastern Pennsylvania.

The strategic geography of the region includes its proximity to mines for anthracite, coals of lesser density, iron ore, timber, and other natural resources shipped first on the Lehigh Coal & Navigation Company's Lehigh Canal and later on railroads. The region was well positioned to take a leadership role in the US Industrial Revolution, given its proximity to East Coast markets and Atlantic shipping, as well as the natural resources needed to make steel, including Western Pennsylvania coal and iron ore from the Bethlehem Steel mines in Reading, Pennsylvania, and other sites southwest of Bethlehem. These local resources led to the growth and subsequent stability of the region the Federal Reserve Bank of Philadelphia refers to as the "Shadow of Philadelphia."

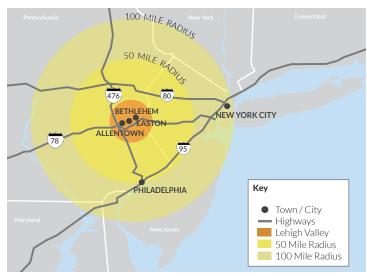
The 2010 US Census counted the population of the region at 821,623, making it the third largest metropolitan statistical area (MSA) in Pennsylvania, behind Philadelphia and Pittsburgh. The MSA includes Carbon, Lehigh, and Northampton counties in Pennsylvania as well as Warren County in New Jersey. All of the counties in the MSA have grown every decade since 1970, making it the 64th most populated MSA in the nation. The largely stable population in the MSA is not remarkable; many so-called

rust belt communities likewise experienced significant out-migration to their suburbs in the aftermath of the collapse of their economies. But in this MSA, many of the cities also grew. In 1950, Allentown, Bethlehem's largest neighbor, had a population of 106,757, and by the 2010 census, it had increased to 118,000. Bethlehem's population grew 13% over the same time period, from 66,340 to 74,982.

#### Bethlehem

Bethlehem's resilience and prosperity are rooted deep in its founding by the Moravians on Christmas Eve, 1741, and perhaps deeper still in the Moravian experience of persecution during the Czech reformation a hundred years before Martin Luther's campaign. The Moravian Church was originally known since 1457 as the Unitas Fratrum (Unity of Brethren). It was this same Moravian Church that formed a permanent presence in Pennsylvania in the communities of Bethlehem and Nazareth. A young John Wesley, the founder of the Methodist Church, recounts a perilous journey across the Atlantic where he traveled with "six and twenty" Moravian settlers from Gravesend, England, to the new world in 1735. Biographer Robert Southey reports that Wesley "admired the impassable tranquility to which the Moravians had attained." Wesley witnessed this tranquility in the face of the many near-death experiences and general misery they experienced on their journey. It is perhaps not surprising, then, that the rise and fall of Bethlehem Steel were met with a similar tranquility in an area rooted in this Moravian sensibility.

Even more significant to Bethlehem's resilience is a culture that values well-educated citizens. Moravian College was founded in 1742 with a belief that every human soul was a potential candidate for salvation; therefore, every human being ought to be educated. It is the sixth-oldest college in the United States. Music is one of the college's major programs, rooted in the early traditions of worship that have contributed to a community-wide affection for musical performances. Lehigh University was founded in Bethlehem in 1865 by Asa Packer, a carpenter and farmer who went on to build the Lehigh Valley Railroad. Packer endowed the university, then subsidized costs to allow free tuition for 20 years. The city's tradition of philanthropy and public support for educational opportunity continues today; 90% of Bethlehem's



Bethlehem and the Lehigh Valley (Allentown-Bethlehem-Easton, PA-NJ MSA) benefit from proximity to major East Coast markets.



Bethlehem's early manufacturing roots are preserved in the Colonial Industrial Ouarter in the Moravian section.

residents have a high school degree or higher, topping the national average of 87% and well over neighboring cities of Allentown (78%) and Philadelphia (83%), according to CivicDashboards data.

It is difficult to know how much of this level of education is grounded in tradition and how much should be attributed to decades of well-educated people moving into the region due to the economics of steel, the quality of life in the region, and the expansion of opportunity in the mills. In any case, the result is a well-educated public.

Bethlehem's first public waterworks, constructed in 1762, demonstrated an excellence in manufacturing rooted in the same Moravian heritage. The early settlers took great pride in craft and carpentry in their preindustrial lifestyle. This culture made the site all the more desirable for the original Saucona Iron Company in the mid-nineteenth century and helped lay the foundation for the role the city would play in the coming Industrial Revolution.

In a 2016 speech devoted to the 275th anniversary of the founding of the community, Bethlehem Mayor Robert Donchez highlighted the city's recovery from the loss of Bethlehem Steel. He reminded his audience that Bethlehem is one of only 12 cities in Pennsylvania with a population of over 40,000 people in a state with over 13 million residents. Of those 12 cities, Donchez noted, Bethlehem ranks first in median household income, has the lowest percentage of residents living below poverty level, ranks first in residential property value (higher even than the statewide average), and has the lowest residential property vacancy rate.

The city ranks third behind Pittsburgh and Philadelphia for residents between the ages of 25-34 with a college degree (39%), with the highest percentage of residents in that age group in the labor force and the lowest unemployment rate. Since 1980, eight of the 12 cities lost residents; Bethlehem's population grew, in large part due to the immigration of Latinos, especially to the South Side. Indeed, in 2016, Bethlehem's population was 76% White, 24% Latino or Hispanic, and 6% Black.



The South Side was historically the second commercial district in the city.



The community was home to families of Bethlehem Steel mill workers.



The steel mill has been a dominant presence on the city's South Side for more than a century.

Bethlehem is a city doing well economically by most accounts but with some of the problems experienced by many rust belt cities such as high levels of poverty. In 2016, just under 20% of the residents (19.2%) lived below the poverty line in a state where the average was 17%. Nearly a third (29.8%) of those residents below the poverty line were Black, with another 25.9% of those below the poverty line Hispanic or Latino.

#### The South Side

The South Side was historically the second commercial district for the City of Bethlehem, with the original being in the Moravian section of town on the north side. The South Side was home to the working families of Bethlehem Steel and, as such, has declined in the wake of the disinvestment and ultimate collapse of the company. The five census tracts neighboring SteelStacks that comprise the South Side are the poorest in the city. At the Donegan Elementary School on East 4th Street, for example, within walking distance of the campus, 92% of students qualify for the federal free lunch program. It is an area of high unemployment and low median income.

Physical constraints in the South Side identified in 2012 redevelopment plans for the areas bordering the SteelStacks campus include understated and unattractive entryways that don't project an adequate welcome or identity, insufficient parking, several poorly maintained buildings, and streets that are not pedestrian friendly with sidewalks in disrepair. Southside Vision 2014, produced by the nonprofit Community Action Development Corporation of Bethlehem working with the City of Bethlehem, gives additional emphasis to these issues in its plan to address aging housing stock, the lack of gateway features, street lighting, youth opportunities, and open space as well as inadequate commercial districts and insufficient parking. Between 2001 and 2014, public funding to work on these problems totaled just over \$2 million, leveraging about \$6 million more in private investment. Lehigh University has added to this effort by better integrating its campus masterplan with the South Side community through new student housing options and by encouraging local businesses to leverage about \$20 million in untapped local and university retail and services potential.

Bethlehem Steel occupied about 20% of the 19.39-square-mile city, including about 50% of the city's South Side, stretching along four miles of the Lehigh River. Since deindustrialization, Bethlehem's economy has diversified significantly, yielding a \$45,631 median income and engaging multiple market sectors in the city and region to include an increasingly robust Lehigh Valley Industrial Park system. Key sectors listed by the mayor in his 2016 speech included manufacturing, technology, transportation and warehousing, hospitality, finance, insurance, real estate, healthcare, education, and arts and entertainment.

#### Bethlehem Steel

Bethlehem Steel was originally founded in 1857 as the Saucona Iron Company, changing its name to the Bethlehem Iron Company in 1863. Just 10 years later, the installation of the innovative Bessemer converters enabled the production of steel. In 1899, the company became the Bethlehem Steel Corporation. The rise and fall of Bethlehem Steel and a city working through the loss of its major industry is an essential component of the SteelStacks story.

Residents of many post-industrial cities like Bethlehem—including Buffalo, New York; Detroit; and Pittsburgh—experienced stress, anger, and grief as they lost jobs and pensions in the wake of dramatic economic restructuring. Bethlehem was no different, except, perhaps, in that there was an extraordinary pride in what had been built by the "arsenal of democracy" and the steel manufactured for the Golden Gate Bridge in San Francisco, the Chrysler Building in New York, and the Hoover Dam at Lake Mead, Nevada, to name a few.

A number of factors led to Bethlehem Steel's rapid growth. Steel for munitions and vehicles was needed during World War I, and the 1907 installation of the elevated Hoover-Mason Trestle (HMT) conveyance, named for the New York engineering firm that designed it, increased production efficiency. By 1916, the plant was the nation's number two steel producer (US Steel was number one). The company continued to expand, establishing its world headquarters in Bethlehem as it acquired other steel-producing plants across the country. It rode out the Great

Depression and increased production during the ramp-up to World War II, employing 31,000 people by 1943.

Along the way there were some serious challenges; perhaps the most significant is also a point of pride in steelworker history. In 1941, there was a four-day strike calling attention to conditions in the plant, which significantly improved in the years that followed. While the issues leading up to the strike had been in play for decades, the spark that lit the fuse was when the Steel Worker's Organizing Committee (SWOC) protested the process of union representative elections on March 25, 1941. Two thousand workers walked off the job, overturned 50 cars, and were eventually met with intervention by the governor, which included the shutdown of bars and liquor stores as well as 125 state troopers being dispatched to the scene. The SWOC had led a 1937 nationwide strike when "big steel," the US Steel Corporation empire (about twice the size of Bethlehem Steel). signed a contract with an independent union while "small steel," like the entire Bethlehem Steel enterprise in 1937, stayed with company unions. That strike in 1937 led Bethlehem Steel to hire security guards armed with tear gas, shotguns, and machine guns as well as people to spy on union organizers. It also led to a filing with the newly formed National Labor Relations Board (NLRB) by the local SWOC, charging the company with intimidation tactics against those workers who wished to join a union. Two years later, the NLRB ordered Bethlehem Steel to break up the company union, ultimately leading the workers to form agreements with the United Steelworkers of America.

In the second half of the century, competition from foreign steel producers with more modern manufacturing systems began to take its toll as Bethlehem Steel started to diversify, but not to modernize, its plants. Between 1974 and 2000, US steel manufacturing employment loss nationwide totaled 370,000 jobs or 70% of all those employed by the industry. Within this period of decline, during the 1980s, foreign steel was imported at belowmarket cost. Workers who were eligible retired and took their pensions; some were forced to move to other Bethlehem Steel sites to get in the remaining years needed to qualify for a pension; others just moved on. In



The company employed 31,000 people at its peak in 1943.



The plant manufactured steel for New York City's Chrysler Building.

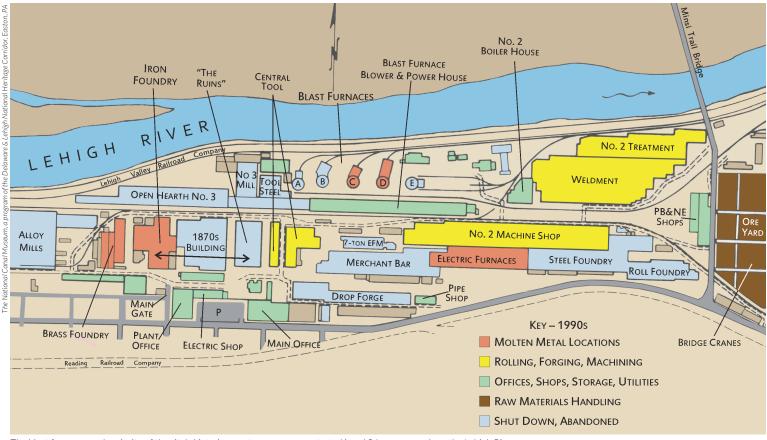
the end, the pension burden was huge in contrast to the workforce that supported it, leading to Bethlehem Steel's closure and bankruptcy in 2003.

The strategy of leaders seeking to address the looming business failure in the mid-1960s was to fix, sell, or close troubled profit centers. Fixing often seemed untenable given the way the plant had evolved, leaving little room for the insertion of new technology. Selling units required finding responsible buyers and, while there were some sales over the years, that strategy

ultimately failed as well. Plant closures occurred in parallel with efforts to sell and to expand into new markets as the company began to invest in more research. In the end, it was too little too late.

#### **PROJECT HISTORY AND LEADERSHIP**

SteelStacks' history weaves together threads from four distinct narratives: the Bethlehem Steel story; the community's history of innovation in arts and culture; a legacy of responsible risk-taking by city leaders and admin-

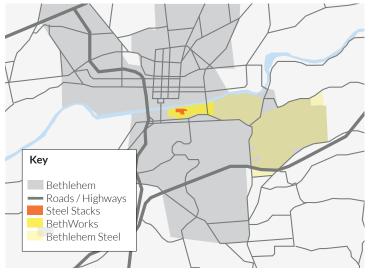


The blast furnaces and majority of the site's historic structures are concentrated in a 126-acre area along the Lehigh River.

istrators, including inviting casino gaming to the community; and the evolution of planning, site design, and architecture at SteelStacks. The resulting tapestry includes the development of a public, nonprofit venture that created this arts and cultural campus. It draws on ArtsQuest's 30-year history of presenting Musikfest and the more recent addition of the Banana Factory complex of art studios, galleries, and classrooms. It was also made possible by public broadcaster PBS39's decision to build new facilities to support its public education mission, and it was fueled by the community's eventual embrace of the Sands Casino and Resort (Sands).

The place, still in the making, includes the Sands and SteelStacks campuses connected by the HMT Park, which serves as an armature for presentation venues and a locus for interpretation of the steel manufacturing and steelworkers' stories. The trestle cohesively ties together the Levitt Pavilion, a visitor center, and a public realm significantly enhanced by the ArtsQuest and PBS39 buildings. All of this contributes in dramatic ways to the quality of life in Bethlehem, the reuse of the 1,760-acre brownfield, and the emerging revitalization of Bethlehem's South Side neighborhood. Each of the organizations and individuals involved were essential to the realization of the project, each element built on what came before it, and all participants stayed open to the possibilities and uncertainties that followed. Their vision for the SteelStacks campus was constantly adjusting to the unpredictable dynamics of contingent real estate transactions, public processes, and state and local politics.

Because there are a number of entities with similar names, it will be helpful to define them here. The master plan initially created by Bethlehem Steel, and now largely realized, divided the entire 1,760-acre site into two development zones: a 1,610-acre parcel named the Bethlehem Commerce Center, an industrial park with an intermodal transportation focus, and Bethlehem Works Redevelopment Area (BWRA), a 150-acre education and entertainment venue located where the plant's most historic structures sit. Currently, BethWorks refers to the 126-acre district purchased by local investors who later entered into a development partnership with Sands to form BethWorks Casino Gaming LLC and BethWorks Retail LLC. This allows us to track the reduction from a 150-acre BWRA education



The SteelStacks campus lies within the BethWorks district on the former Bethlehem Steel mill site.



Goals included creating a reuse strategy for the property and its 32 historic structures.

and entertainment site where casinos were not permitted when developers conceived the first plan to one that is 126 acres and now contains both the 9.5-acre SteelStacks campus and the remaining 116.5-acres including the Sands campus and the properties BethWorks Retail LLC intends to redevelop.

The prevailing tactic employed by many of the organizations cooperating in the development of SteelStacks was to use arts and cultural venues as a driver for economic development. The local arts leadership saw this development process as a way to build social capital through arts and cultural venues while developing Bethlehem's brand. This work included a focus on the history of steel manufacturing and went well beyond that to include the possibility of a mix of uses and venues like the Sands enterprise with casino, hotel, retail mall, restaurants, and performance venues of its own.

Incorporating all of this on the 126-acre site without overpowering its history required careful master planning and design. The pressure to bring this history forward was certainly local but also national, as following the completion of the Bethlehem Steel bankruptcy proceedings, the site made the 2004 National Trust for Historic Preservation list of threatened properties.

#### Vision

Planning for the site began with Bethlehem Steel forecasting its closing in the early 1990s. In 1992, Curtis "Hank" Barnette, formerly the company's chief counsel, became chairman after the company had survived a cash flow crisis that almost ended in bankruptcy and then experienced five years of consecutive losses ending in 1991. ArtsQuest founder Jeff Parks recounts interviews with Barnette where the chairman demonstrated that he understood very well what the implications would be for the city if Bethlehem Steel closed. Parks asserts that Barnette approached the pending changes in the company he directed by respecting a company mandate to be a good corporate citizen to the city that hosted it. That meant planning for the closeout and reuse of the 1,760-acre site that would address brownfield issues, zoning constraints to redevelopment, and infrastructure needs and include a plan to sell the real estate to responsible buyers. It also meant

attending to other assets including the company headquarters, the Homer Research Laboratories (once the largest steel testing facility in the world), and over 20 other properties on the city's tax rolls. Managing the transition involved understanding and navigating complexities of land-use policy and legal and real estate transactions that required the resources and leadership Barnette provided.

Barnette's approach involved four parallel tracks of action: (1) relief from the onerous conditions attached to transferring liability associated with the sale of brownfield sites; (2) a robust vision for how the former steel plant lands could be reused and create significant employment opportunities, recouping some of the job loss from the plant closing; (3) rezoning that would allow for new uses emerging with the vision; and (4) a vehicle to finance redevelopment. All four proved to be challenging but had an enormous impact on the overall success of both SteelStacks and the related Bethlehem Works development and reflect the depth of Bethlehem Steel's and Barnette's commitment to Bethlehem and the company's legacy.

Without enlightened legislation enabling the sale and reuse of what was then the largest brownfield in the United States, the Bethlehem Steel site would have been unsalable because of the liabilities that transfer to new owners. Barnette believed that failure in this effort would result in the parcel only being cleaned up to a certain extent, perhaps planted with grass, and surrounded by a tall fence prohibiting access. This was the fate of many brownfields in the US until Bethlehem Steel, working with then Pennsylvania Governor Tom Ridge, developed the Land Recycling and Environmental Remediation Standards Act or Pennsylvania Act 2. Approved in 1995, Act 2 provided the legal framework, incentives for remediation, and funding for studies that allowed Bethlehem Steel to create and fulfill a two-part vision that became the foundation for the redevelopment of the site. Act 2's success led to its receipt of the Ford Foundation's award for Innovations in American Government in 1997.

#### Planning

Prior to Act 2, in June of 1994, Barnette and Bethlehem Steel began working with former Disney "Imagineers" and a consultant, Ralph Schwartz, who



 $Former\ Bethlehem\ Steel\ CEO\ Hank\ Barnette\ (left)\ initiated\ planning\ for\ redevelopment\ of\ the\ mill\ site.$ 

was also an advisor to the nonprofit Historic Bethlehem. This team proposed a "high-tech theme park with high-quality museology." By June of 1995, the Disney organization had agreed to take on the project, which included two components. Part one was to use the BWRA's 150 acres as a museum, entertainment, and tourism district. At this stage, part one also included a 275,000-square-foot structure that it was hoped would become a Smithsonian Institute affiliate to be called the National Museum of Industrial History. Part two became the Bethlehem Commerce Park, involving the rest of the former plant site. It was originally envisioned as at least two large industrial parks. Bethlehem Steel officials report that the Disney organization pulled out when it saw it wouldn't get a return on its money in the first five years (Bethlehem Steel estimated the group would not see returns until 12 years into operation). And, as it turned out, it would be years until the museum would be realized in a more modest version. While SteelStacks and its context of the surrounding Bethlehem Steel lands today are very different from this early planning vision, it remains grounded in the mix of education and entertainment that was rooted in this early work led by Bethlehem Steel.

Both parts of the 1994 proposal also included a clear understanding of the regional transportation access and infrastructure needed to support the planned uses. The realignment and completion of I-78 in the 1980s improved access to New York City and was seen as an important benefit. Bethlehem Steel sought to complement this advantage as it lobbied the state to redesign neighboring Route 412 into a four-lane boulevard that would eventually provide direct access to the casino, the Bethlehem Commerce Center, and the Steel Stacks site.

#### Zoning

Barnette also addressed the need to rezone the property, working with his legal team to craft special zoning that would enable Bethlehem Steel to take advantage of Act 2 and implement the emerging vision. Here the grief and anger of the community became evident and the lack of trust in the company created difficult hurdles. It was a time of leadership transition for many local institutions, and there was less company presence in the civic organizations and governance structures than in the past. Still, the remaining contingent of the old guard made it possible to pass a broad, mixed-use, Industrial Redevelopment (IR) zoning option with few constraints, even over the objections of angry citizens who felt that the city was giving up control over what would happen on the site. Others were more inclined to believe the vision could actually become a reality more or less as outlined by Bethlehem Steel. The two negative votes, cast April 2, 1996, in a five-for and two-against decision by the Bethlehem City Council, came from future mayors Don Cunningham and Robert Donchez. Eight years later, following the 2004 gaming legislation in the state, the original zoning required a revision that would enable the casino use. This move, in turn, allowed revenues from the casino to contribute to a tax increment financing proposal that would facilitate redevelopment of the full site. Both Cunningham and Donchez supported this zoning change.

#### Tax Increment Financing

Barnette retired as chairman of Bethlehem Steel in April of 2000, just prior to the 2001 bankruptcy filing, but not before working with Tony Hanna, the city's director of community and economic development at the time, to negotiate an agreement for the Bethlehem Works Tax Increment

### **TABLE 1: MAJOR PLANS AND STUDIES**

YEAR*	TITLE	AUTHOR/ SPONSOR/ PARNTERS	DESIGN CONSULTANT	SITE	DESCRIPTION
1995 - 1996	Bethlehem Works	Bethlehem Steel	Bob Weis Design Island Associates and David Scott Parker, Architects with Ralph Schwartz	1760 acres	Provides a foundation for the redevelopment of the site and rezoning. Includes the planning for a smaller district (described below) and the foundation for the initial Industrial Redevelopment zoning passed in 1999.
1995 - 1996	Bethlehem Works Redevelop- ment Area (BWRA)	Bethlehem Steel	Bob Weis Design Island Associates and David Scott Parker, Architects with Ralph Schwartz	150 acres	Introduces the idea that a section of the entire Bethlehem Steel site should become an entertainment and education venue and includes the possibility of a Smithsonian Insti- tute venue for the National Museum of Industrial History.
2002	City Plan/ South Side	City of Bethlehem	Sasaki Associates		Forecasts an arts and cultural venue for the SteelStacks site.
2002	SteelStacks	ArtsQuest/ Jeff Parks	n/a	30 acres	Proposes campus siting for ArtsQuest and PBS39.
2003 - 2005	BethWorks	BethWorks Now	With support from HOK Architects Inc. and RTKL Associates	126 acres	Derived from the 1995/6 BWRA Bethlehem Steel proposal; builds upon the 2002 SteelStacks proposal by ArtsQuest.
2005 - 2007	SteelStacks Master Plan	Bethlehem Redevelopment Authority	WRT Design 9.5 acres		Includes the final open space system, siting the Levitt Pavilion, audience area, and Hoover-Mason Trestle with plazas for ArtsQuest, PBS39, and the Bethlehem Visitor Center.
2011 - 2012	Lehigh University Master Plan	Lehigh University	Beyer Blinder Belle Architects and Planners and Grain Collective, Landscape Architecture/Urban Design		Campus plan proposing housing and enhanced retail; supports encouraging more spending on the South Side.
2011 - 2014	Vision 2014	HUD Sustainable Communities Grant	Lehigh University and Project for Public Spaces		Open space network plan and Eastern Gateway plus a focus on housing, open space, a commercial district, youth services, and capacity building for community organizations.

Financing District (TIF). The agreement established a low initial property value so that any development would increase the tax payments, creating a fund to invest in the infrastructure improvements required to achieve the Bethlehem Steel vision. The initial drafts of the agreement called for a TIF lasting 10 years, but doing the math and controlling for some of the unpredictable timelines for development led the team to recommend a 20-year term. The TIF agreement called for specific publicly-funded infrastructure investments intended to attract developers, such as extending the city street grid, adding water and sewer lines, and expanding Route 412 into a four-lane boulevard. It did not originally envision a casino resort on the property, but it did help make one feasible.

The initial investments represented a very big risk for a city that was already seeing the slide of Bethlehem Steel into bankruptcy; however, it was also one of the more important ingredients in the success of both SteelStacks and the Sands Casino Resort. Adding 10 more years to the TIF later that same year was also critical as it enabled the casino contributions to the municipalities supporting SteelStacks in the last decade of the TIF.

Clearly Barnette took Bethlehem Steel's commitment to the city and region seriously. He remains involved to this day as part of the leadership for the emergent National Museum of Industrial History and speaks with pride about the foundation he laid to help reduce the stress in the community caused by the closing of the plant.

#### Arts and Cultural Campus

Bethlehem Steel's bankruptcy, filed in 2001 and concluded in 2003 with the sale of the property to International Steel Group (ISG), introduced a great deal of uncertainty about the capacity to deliver on the ambitious vision, zoning, and TIF work initiated by the company. ArtsQuest founder Jeffrey Parks, with investors like Mike Perrucci and other colleagues interested in the adaptive re-use of historic property, began working with ISG to acquire the site.

The Perrucci group ultimately bought the property and created a modified plan for a 30-acre arts campus, scaled back from the 150 BWRA acres that

were part of Barnette's vision but still without expectation of a casino. The plan involved dozens of Bethlehem arts and cultural organizations, and ultimately, as Sands began to express interest in a casino resort, the work of ArtsQuest and investors yielded 52 letters of support for Sands in its bid for the gaming license. This contributed to the initial ideas for repurposing a portion of the former steel plant by the Sands organization. As partners with less financial capacity or tolerance for risk dropped out, and as the casino absorbed much of the adjacent land, the proposal shrank to the 9.5-acre SteelStacks campus that we see today.

ArtsQuest leadership and the City of Bethlehem felt that returning to the roots of successful cultural and arts activity in the community—and building on them—was more realistic than both the original Disney experience proposed by Bethlehem Steel and the Smithsonian Institute's proposal to bring an ambitious 275,000-square-foot industrial history museum to the site. Both of those earlier efforts were stalled even after almost a decade of successful work by Barnette and his team to lay their foundation.

Parks has played a large role in the cultural life of Bethlehem as the founder of ArtsQuest, a community-based nonprofit providing arts, cultural, and educational programming and hosting Musikfest, an annual summer music festival. The Bethlehem Musikfest Association was established in 1984, and the first Musikfest was held that same year, drawing 180,000 people to the free event. Parks became full-time CEO of Musikfest in 1993. Later that same year, the organization borrowed another festival idea from Germany: Christkindlmarkt, an annual event held weekends throughout the Christmas season with an outdoor market offering craft wares and "Gluhwein," a traditional hot beverage consisting of mulled red wine.

Parks saw potential in departing from the Disney and Smithsonian visions and creating a more authentic, rooted-in-Bethlehem home for arts and culture. A survey conducted by ArtsQuest following the Perrucci team's acquisition of the site focused on the idea of an "art park" but also sought support for an approach that would pave the way for a Sands Casino Resort.

Earlier proposals for the Disney approach without a casino resort had also resulted in two rounds of intense discussions. All of this led to framing a potential project for consideration without, as of yet, full ownership in the property identified as the location of the proposed art park.

Parks believed in drawing on precedents and sought out experiences in other places around the world featuring festivals, industrial ruins, and specifically German traditions. He toured multiple sites with colleagues interested in the art park idea. These included a transformative visit to the Emscher Landscape Park in Germany's Ruhr Valley and to the Old Ironworks in Völklingen in the Saar Valley near the French border. These sites used their industrial heritage for both historical interpretation and performance art, including concerts in the mouth of blast furnaces with elegant lighting to reveal the scale and detail of the technology, attracting tourists from around the world. But even with the conviction that they had the right precedent and a new name—SteelStax, inspired by the stacks of blast furnaces—the group still did not have site control. That would have to wait for the complex transactions that followed Bethlehem Steel's bankruptcy when the entire 1,760-acre site was acquired by ISG for \$1.5 billion.

ISG worked with Jeff Feather, the Lehigh Valley Industrial Park (LVIP) board chair, to facilitate the sale of 450 acres of former Bethlehem Steel property to Majestic Realty for the first of several transactions that did not involve the 9.5 acres of the future SteelStacks. Conditions of the initial sale to Majestic required LVIP to manage the Act 2 clearance on the 450 acres, construct a new intermodal (rail to freight) service, and build a road (Commerce Center Boulevard). In all this entailed \$33 million in public investment with \$13 million funneled from Northampton County to the City of Bethlehem and the remaining \$20 million from the state coffers. Ultimately, 1,100 acres of the former steel plant were conveyed to LVIP in June of 2004. Following the sale of the first lot from LVIP to US Cold Storage, part of the Bethlehem Steel property was back on city and regional tax rolls and housing a business that employed people.

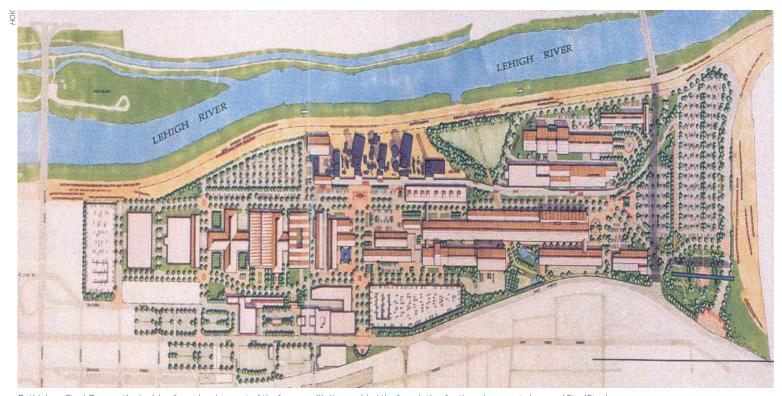
John B. Callahan was already well-versed in the art park concept when he was elected mayor in November of 2003. He also did a pilgrimage to the



ArtsQuest founder Jeffrey Parks (center) advocated for development of the arts and cultural campus.



Precedents like Emscher Landscape Park in Germany's Ruhr Valley provided inspiration.



Bethlehem Steel Corporation's vision for redevelopment of the former mill site provided the foundation for the subsequent plans and SteelStacks campus.

Ruhr Valley early in his term and was likewise especially impressed with the Emscher Landscape Park and Völklingen's Old Ironworks, two public parks (the latter a UNESCO World Heritage Site) incorporating historic iron and steel production facilities. This trip and a Mayors' Institute on City Design session, where Charleston Mayor Joe Riley reinforced the importance of industrial heritage, helped to set the stage for the final act that enabled the development of SteelStacks.

#### Sands Casino and Resort

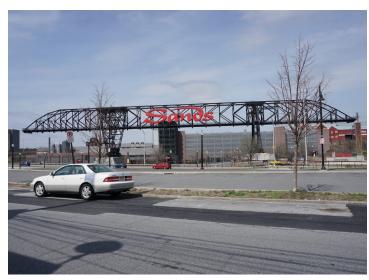
Parks writes in the draft of his book *Stronger than Steel* that "Casinos in the Quaker State" legislation allowing slots gaming in July of 2004 led to "Las

Vegas Sands coming to the Christmas City" and to very unlikely partner-ships between Sands and nonprofits, municipalities at the city and county level, and the state. The casino was not part of the vision of Bethlehem Steel, the art community, or the city. No one saw it coming. But Parks had seen a precedent for it on a trip he took in 2000 to Melbourne, Australia, where he visited the South Bank Promenade, home to the Australian Broadcasting Company headquarters, a performing arts center, restaurants, shops, apartments, and condominiums anchored by a large hotel and casino—all on the grounds of a former industrial site.

In 2003, Michael Perrucci stepped away from his successful law practice in New Jersey, taking up residence in Bethlehem. Perrucci had been following the Bethlehem Steel bankruptcy and understood that the ISG acquisition of Bethlehem Steel was motivated by still-functioning plant operations. He also understood that ISG was forced to take the entire property in order to get what still worked and was interested in selling off the surplus. This led Perrucci to organize a group of investors he named "BethWorks Now" that began to explore ways to acquire other Bethlehem Steel property to assure a productive reuse. After the initial surprise of the slots legislation and the potential for one of two casinos licensed by the state to be located in the Lehigh Valley, Perrucci and his partners started a campaign, developing relations with the Sands organization, preparing for community debate on gaming, and working with public sector stakeholders. In their outreach, they discovered the ambitious 30-acre scope evolving through the efforts of ArtsQuest and others. Working with Parks and ArtsQuest, they eventually reduced the scope to the current 9.5-acre location and program for SteelStacks.

Then the team needed to address the competition among cities in the Lehigh Valley vying for the casino designation as well as make persuasive proposals to Bethlehem's citizens, its mayor and city council, and the Pennsylvania Gaming Control Board. BethWorks Now joined with Sands to form two entities: Sands BethWorks Gaming for the casino and Sands BethWorks Retail for the non-casino component of the Sands resort. This enabled Sands to include SteelStacks and a partnership with ArtsQuest in its proposal to the gaming commission and to make commitments to preservation, including the agreement to maintain the five blast furnaces. Then Bethlehem, Allentown, Easton, and their associated county governments and school districts agreed on an approach to gaming revenue sharing. All of this took just enough heat out of the discussion to assure success.

In December 2006, Sands won approval for a stand-alone casino license. Between its opening in 2009 and 2017, the company reported paying \$1.34 billion in total gaming taxes, including \$136.8 million to local county, city, and school board recipients, and another \$72.43 million in property taxes, \$43 million in federal payroll taxes, and \$7.1 million in state payroll taxes.



Sands Casino and Resort opened in 2009 just west of the SteelStacks campus.

#### **COMMUNITY PARTNERS**

Several very visible leaders and community partners made SteelStacks a reality. An important part of the project history is clearly centered on the BethWorks Now team with Perrucci and the long history of Parks as founder of Musikfest and ArtsQuest. The role of Barnette as the chairman of Bethlehem Steel from 1986 until just prior to the bankruptcy filing in 2001 is also critical as he steered the transition of the overall site. And the project would not have been possible without the full engagement of Sands Casino. The unlikely story of SteelStacks hinges on a bankrupt steel organization and massive casino gaming enterprise teaming up with an investor group, a nonprofit cultural institution, and the local PBS station to create a highly successful arts and cultural campus.

Tony Hanna, a self-made planner who spent the first decade of the century as Bethlehem's director of economic development and since 2010 has been executive director of the Bethlehem Redevelopment Authority (BRA), has also been a strong voice and strategist throughout the process. Hanna was educated as a civil engineer focused on environmental sciences and

resources at Lehigh University, and he taught there as an adjunct faculty member in the College of Business and Economics. In an article by Nicole Radzievich in Bethlehem's daily paper *The Morning Call* about Hanna's transition from economic developer to the BRA, she praised him for guiding the city through two recessions, the closing of Bethlehem Steel, and the arrival of the Sands casino development. Hanna has been at the table for almost two decades working throughout the process of developing and operating key elements of the SteelStacks campus. Prior to his positions with the city and the BRA, Hanna was a private developer and directed the affairs of the Historic Bethlehem Partnership. He has worked closely now with four mayors from 1999 to date.

The SteelStacks leadership and partnership story is about collectively taking strategic risks. The TIF was approved prior to gaming being on the horizon, but the city took on commitments for financing public infrastructure on the Bethlehem Works site and approved a zoning change for the former steel plant site, knowing that it would not likely generate enough revenue to support its investments and there were no guarantees that the brownfield would or could be substantially reused. In addition, a second zoning variance allowed gaming as a permitted use in Bethlehem, a controversial concept in a place sometimes referred to as the "the Christmas City" (a term adopted by the city's chamber of commerce in 1937). Some early critics of the proposal considered it alien to traditional Moravian values and worried that the leadership of both the advocates for what became SteelStacks and for casino gaming were literally gambling with the Christmas City's culture and future.

There was likewise no small amount of risk to ArtsQuest itself as it supported the casino, relied on casino sponsorship for Musikfest, and worked with Sands at all levels of government to establish the conditions for the success of the casino and resort enterprise. Still others viewed fundraising for ArtsQuest and the campus by Parks as a waste of money. Parks describes a particularly graphic lawn sign with a real toilet that had the seat up with a message inviting "donations for Jeff Parks." ArtsQuest had been raising money for a new facility since 2008 when the recession hit, and it is a testament to the strength of its community support that it reached the

\$26 million mark for its new building in 2009, just prior to the start of construction. While Parks was characterized by some members of the community as a bulldozer, he was also praised as a visionary who brought many partners to the table.

Part of the fundraising for the new ArtsQuest Center involved the refinancing of one of the first arts facilities to open in Bethlehem's South Side community, ArtsQuest's Banana Factory. This well-established facility delivering solid programs to the South Side was refinanced to raise \$3.5 million for the new ArtsQuest Center to be built in SteelStacks.

The transfer of property by Sands BethWorks to the BRA and to both PBS39 and ArtsQuest was also risky. A dust-up involving approval of the transfer of land occurred when it was made public that the transfer included a deed restriction by Sands that forbid any mention on the land of unions or the difficult labor-management disputes that would be seen as offensive by "any reasonable casino owner." While this provision still stands today, it was approved by the mayor and city council at the time with their full understanding that it would not (and could not) be enforced because it is unconstitutional. They allowed it to stand because they did not want to disrupt the land transfer and were willing to risk court involvement should they ever be pressed to enforce it. The risk, of course, is that court interpretations of free speech are not always predictable, and there was considerable pressure from citizen protesters, who had discovered the wording in the deal just three weeks prior to a council vote. It is instructive to note that Sands CEO Sheldon Adelson took culinary workers all the way to the Supreme Court for picketing on the sidewalk that he said he owned. He lost that case.

These risks were tempered by solid planning, strategic engagement of constituencies, and cooperation—especially among regional players in the effort to bring gaming to Bethlehem, providing the partners with the TIF and tax revenues needed to make the SteelStacks campus a reality. The TIF has five more years to run and there is talk of allocating a share of the proceeds for a maintenance endowment for SteelStacks. The risks were also mitigated by the prospect of a very large brownfield

left empty and abandoned with a decaying steel mill in the heart of Bethlehem's South Side.

An open workshop-based collaboration among several groups also helped counter the risks shared by, and build trust among, the various SteelStacks partners and kept the dialogue open about possibilities for the site. The South Side Initiative of Lehigh University and the nonprofit Heritage Partners both hosted community forums on the development of SteelStacks and planning for the South Side neighborhood. Workshops on the South Side vision begun in 2001 and led by Sasaki Associates focused on improving the South Side community in the hope that the Bethlehem Steel site would be redeveloped. PBS39 and ArtsQuest partnered to share and coordinate programming in side-by-side facilities across from the blast furnaces even when the technology requirements of public television seemed to preclude their sharing the same building. The cooperation among citizens, anchor institutions, and city government was strong throughout the process.

#### **DESIGN AND DEVELOPMENT**

Respect for SteelStacks' origin story and the growth and eventual decline of Bethlehem Steel was a primary programmatic imperative guiding all of the planning and design on the campus. It became an explicit intention to respect and showcase the historic site in the new campus program. The early visions for the site by Bethlehem Steel that imagined a potential Disney theme park were ultimately replaced by a less heroic approach to architecture and landscape that was steeped in respect for the industrial archeology and cultural history of the site.

The two areas of redevelopment (Sands and SteelStacks) were connected by a new road, the reconstructed First Street and, later, the 1,650-foot Hoover-Mason Trestle (HMT). After the initial street infrastructure was completed, the first projects to occupy the SteelStacks campus were the two new buildings housing ArtsQuest and PBS39. These structures were planned prior to the master planning, and they established early design principles that drew upon previous planning work by Bethlehem Steel and ArtsQuest that separated the arts campus from the industrial park and eventually the casino.



Bethlehem Redevelopment Authority executive director Tony Hanna has been a strong voice during the development process.

The Philadelphia-based firm Wallace Roberts and Todd (WRT) planned and designed the new HMT elevated pedestrian walkway, the Levitt Pavilion, parking that would also support very large festival or performance events, and the public realm of SteelStacks. They spoke of their work as a kind of dance between design, management, finance, and stakeholder coordination with multiple construction managers and interested parties working through brutal winters. There were many public meetings that led to what the team described as a "charrette syndrome," where participants with different points of view expressed their aspirations for the site. Historic Bethlehem Partnership alone organized three public meetings engaging over 20 local and regional heritage organizations. The South Side Initiative of Lehigh University sought to inspire democratic discussion and university-community collaboration, organizing multiple classes and community programs that also generated food for thought for the consultant team. ArtsQuest partner organizations had already learned from collaboration on the Banana Factory and performing arts center and used that to inform the master

plan. For the WRT design team, it became a question of how to edit the broad and divergent range of issues revealed in the ground-up discussion: "How do we get to the essence and curate the site with a light touch?"

Tony Hanna and his team at the BRA encouraged those working on Steel-Stacks to see the site as an extension of a living neighborhood from which they had previously been denied access. Until the mill closed in 1995, the entire enterprise was walled off from the community and separated residents from the river. The extension of the city street grid into new roads and walkways within the campus was an important initial step. Satellite and bus parking was needed. New homes, restaurants, and pedestrian access would add life to the context of SteelStacks.

A South Side plan produced by Sasaki in 2001 for the city inspired Steel-Stacks' infrastructure, including pedestrian connections to and through the former mill site and adding a greenway along former rail lines. Work by city agencies and the Community Action Development Corporation of Bethlehem with the Project for Public Spaces on South Side Vision 2014 emphasized a greenway and walkable neighborhoods. Initial planning and design drew on a largely top-down process by Bethlehem Steel and later by Sands Casino, supported by design firms HOK and RTKL dating back to 1997. This early work also called on the city to bring the neighborhood grid into the site and to provide for a dynamic mix of uses including entertainment and the National Museum of Industrial History, together with a viable mix of other commercial and industrial park uses.

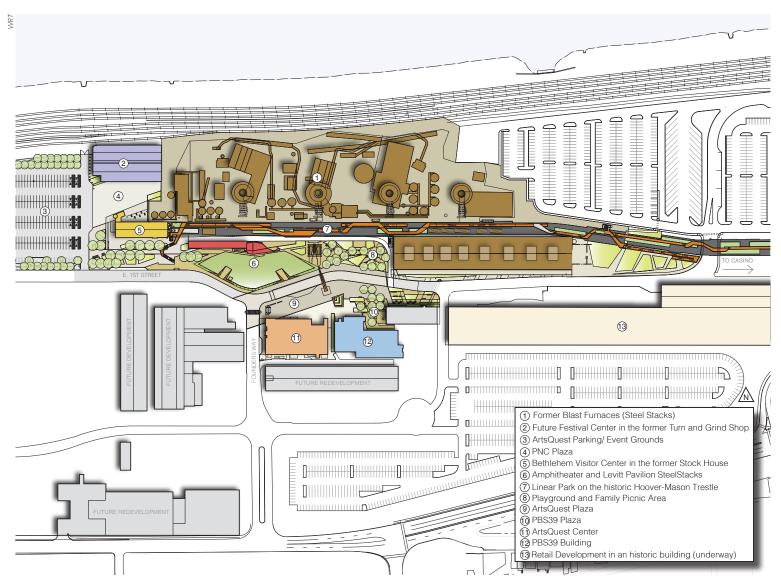
In the initial infrastructure constructed by the city, artifacts of industrial production were used to line the streets. But the WRT team wanted to avoid treating the artifacts as disembodied elements. Rather, they sought to interpret them in context, recognizing that steelmaking was in the relationships among processes, and they wanted to tell that story in light of the people who made it possible. They hoped to find subtle ways to embed interpretation without attracting too much attention while at the same time creating a space that visitors found powerful under any condition, quiet or crowded, a place that humbled visitors with its history even as they enjoyed active social and cultural programming. It was an ambitious goal.

The WRT team worked to create an unfinished, even simple aesthetic, one that needed to feel like a work in progress, always inviting the next iteration or interpretation. They believed that the town square as a general concept could be the biggest threat to place making because it offers a single vision in lieu of the potential to be an organic framework that sets the tone and inspires future direction. They wanted nothing extra, choosing instead to keep buildings, lighting, and street furniture as unobtrusive as possible.

#### ArtsQuest Center

The ArtsQuest Center is a simple 67,000-square-foot building designed by Joseph Biondo, principal and lead architect at the local firm Spillman Farmer Architects. The structure's four-story glass façade faces the Levitt Pavilion and historic blast furnaces (the Stacks). Biondo says that his design intent was to go "toe-to-toe" with the blast furnaces. For a Bethlehem native, that was taking on a lot. As became clear in the design development, "toe-to-toe" was simultaneously an aspirational statement to keep from being lost in the presence of the massive blast furnaces and an intent to respect their importance to the entire concept of SteelStacks and the history of the site. The glass façade provides views from all floors of the spectacular backdrop.

Biondo's design is a rectangular box that contains offices; a restaurant; and special event, performance, and exhibition venues bringing year-round activity to the site. There is a two-screen cinema and a large area for live performances with a second-floor loft that hosts visual art displays. A soundproofed room accommodates more intimate music, dance, and spoken word programs. A small café/bar called The Mike and Ike Bistro is also part of the first floor. The third and fourth floors offer cabaret-style performance venues, seating about 450 people or 1,000 in standing-room-only events, with no fixed seating or proscenium stage, enabling a great deal of flexibility in their use. WRT designed the landscape of the plaza, including the ArtsQuest Center outdoor patio and the public realm between the facility and the Levitt Pavilion.



The SteelStacks campus is centered on the twenty-first-century town square and anchored by the historic blast furnace.

## A WALK ON THE TRESTLE 1000' The Hoover Mason Trestle was both the literal and metaphorical backbone of the Bethlehem Steel plant. Transporting the raw materials used to produce steel in the blast furnaces, the Trestle carried the weight of a complex system of parts. Materials carried in the rail cars were released into large bins below the tracks, where they were weighed, then lifted into the blast furnaces; an elaborate process of interaction between tectonic parts. ACCESS POINTS MOLTEN STEEL FORMS EXISTING RAIL CAR STEELWORKER NAMES STEEL STACKS OVERHEAD BINS BELOW RAIL TRACKS BLOWER HOUSE + STACKS KETTLE CAR ARTIFACT EAST-END OF TRESTLE

The historic Hoover-Mason Trestle has been converted into a park which provides an armature for the campus.



The ArtsQuest Center features a four-story glass façade facing the plaza.



Performance and special events spaces overlook the blast furnaces and Levitt Pavilion.

The ArtsQuest facility also features a Steel Tribute Wall, described on the ArtsQuest website as "the perfect venue (at the base of the blast furnaces) to permanently list the names of employees who gave their time, talent and heart to the Bethlehem Steel Corporation, the City of Bethlehem and the entire nation." The wall is glass over blond wood with the employee names framing a photograph of a single steelworker. On Father's Day each year, there is a ceremonial reading of the names that celebrate as many as five generations of families who worked in the mill.

ArtsQuest also enriched the overall experience of the SteelStacks public realm by hosting a public art competition sponsored in part by the National Endowment for the Arts. The program called for a fire sculpture for the site. Elena Columbo, an artist from Scranton, Pennsylvania, won the competition. She created a 72-foot-long Corten steel arc with a 37-foot-long flame on its top as a reference to the fire-based blast furnaces celebrated on the site. The arc, known as The Bridge, extends from its base in the plaza in front of the ArtsQuest Center over Founders Way toward the blast furnaces. The names of the most famous projects constructed with Bethlehem Steel are inscribed at the base of the sculpture.

#### PPL Public Media Center at PBS39

PBS39 is the Lehigh Valley's public broadcasting station, though it reaches a worldwide audience of 12 million people via satellite. It provides national and local programming with an emphasis on geographic, ethnic, and age diversity. The station offers regular opportunities for about 500 students a year to record programs and works with literacy volunteers and emerging leaders in the community.

The new headquarters for PBS39 carries the tagline "Convening the Community" and includes space for 33 full-time staff, one studio with 150 audience seats, and a similarly sized, fully-equipped studio available to rent. It replaces a facility that was over 40 years old and in a location that rendered the organization invisible to the community. With its new location at SteelStacks, PBS39 moved to an almost center-stage position as part of an international destination offering state-of-the-art facilities where free workshops and community meetings of all kinds can be held. The

station has hosted programs with the United Way, the Orchid Club, the NAACP, the Boy Scouts, Lafayette College, Lehigh University, Northampton County high schools, the Lehigh Valley Dual Language Charter School, and dozens of others, many with a specific focus on the changing demographics in the South Side of Bethlehem.

The two-story, 29,000-square-foot, \$14 million building, designed by the architecture and engineering firm URS (now AECOM), works well with its ArtsQuest neighbor in both form and simplicity even while being half its size. It does not compete for attention with the blast furnaces. Like its neighbor, it also has large glass areas in its façade facing the stacks, First Street, and the Levitt Pavilion. Additional seating and performance areas fill the space between its building and the street.

#### Levitt Pavilion

The program for the Levitt Pavilion, designed by WRT, called for the ability to host 50 free family-friendly concerts a year with lawn seating for 2,500 attendees. It needed to avoid obstructing the blast furnaces behind it and to provide ample support for back-of-house and green room functions. In addition to the performance aspects of the pavilion, WRT was tasked with designing the public realm connecting the ArtsQuest and PBS39 buildings facing the blast furnaces, the Bethlehem Visitor Center in the renovated historic Stock House, and the HMT.

The charge given by the BRA was to place this pavilion in a "21st century plaza." They used this phrase to free the planners from conventional ideas of a plaza or town square and to invent a place that would work for contemporary events and tie in with the HMT and blast furnace geometries. The plan had to "shoehorn" in the audience space between the fixed elements of the blast furnaces and HMT to the north and the ArtsQuest and PBS39 buildings to the south. The design team believed these fixed features required First Street, the new road to the south of the furnaces, to curve farther away from them in order to accommodate the pavilion, 2,500 people, and vistas of the furnaces while maintaining connectivity to the neighboring street grid. The suggestion of moving a road that was brand new may have been vexing to Hanna, but the concept presented a solid



PPL Public Media Center at PBS 39 houses the local public broadcasting station.



The building includes a broadcasting studio overlooking the plaza.



The blast furnaces provide a striking backdrop for the Levitt Pavilion.



The stone Stock House was renovated into the Bethlehem Visitor Center.

solution to a lot of problems and ultimately won the day. Given the curved area for the audience and pavilion, the WRT design team led by Antonio Fiol-Silva set about fitting the program of performance, green room, bathroom, concession, and equipment facilities to one side of, rather than more traditionally behind, the stage.

The pavilion's asymmetrical canopy challenges the rhythm and geometry of the five blast furnaces and the rectangular forms of the two new structures on the other side of the street. The canopy is constructed of 240 metal panels with  $\frac{1}{2}$ -inch perforations with staggered centers on 11-gauge steel. It is 37 feet tall and projects 35 feet over the stage but does not interrupt the datum line of the trestle behind it. The green room, bathrooms, and concession areas are all low and stage right in what appears to be a large truck—including its cab and front tires—in deference to the Mack Truck sponsorship that helped finance the pavilion. Construction cost \$7.5 million.

The whole pavilion, with its clean lines and metal skin, was designed to pay its respects to fabrication. It is no wonder that the trade magazine *Metal Architecture* gave it a 2012 design award. The perforations, depending on lighting and the viewer's position, render the skin translucent or opaque, and from certain angles, the outline of the furnaces behind the canopy is visible. The American Institute of Architects also gave the pavilion a national small projects award in 2015.

#### Bethlehem Visitor Center

USA Architects received the commission to design the reuse of the historic 1863 Stock House, the oldest remaining building on the site. Their design for the rubble masonry structure required adaptive use of the building while retaining key historical features and details and providing the needed programmatic flexibility, including adding a full second floor inside a building that never had one.

The program for the \$6.5 million, 14,000-square-foot building is simple. It includes a visitor center on the ground floor that opens to a plaza and offers ample restroom facilities to support the large events that take place

at SteelStacks. Visitors have the usual opportunity to browse brochures on area attractions but can also learn from electronic displays with information on the history of the area and map-based data on where to eat, play, or stay. The second floor houses administrative offices for ArtsQuest employees, rented to the nonprofit in exchange for its administration of the visitor center. All of this is produced in accordance with the National Park Service Secretary of the Interior's Standards for Historic Rehabilitation.

#### Hoover-Mason Trestle

The most recent structure added to the campus, the HMT is an elevated pedestrian walkway that stretches above the SteelStacks plaza and Levitt Pavilion along the path where 90 tons of ore a day were delivered on a dual-gauge rail system to the blast furnaces where they were then heated to over 3,000 degrees Fahrenheit to make the pig iron ready for steel production. The WRT-designed walkway honors steelmaking history by following the original track line, interrupting it only to offer better viewing angles of the stacks and the surroundings, create opportunities to screen mechanical equipment, and provide space for interpretative plaques.

The simplicity of the design elements avoids distracting visitors from the furnaces and surrounds. Sidewalk downlights on the plaza below leading to the trestle elevator or stairs, for example, are non-ornamental galvanized frames that can also hold banners or signs announcing events on the plaza. The elevator itself was originally designed to be transparent, but during the value engineering process, the design team switched to metal, believing it made the solution stronger and more consistent with the place. There was also a lot of discussion of the broad, angular staircase and walkway leading to and along the trestle. Should they be painted or left as bare metal? Ultimately the designers went with bare metal, allowing the weathering to increase its visual consistency with the context. Its simplicity makes for a more striking entrance to the HMT, especially when lit at night.

Precast, canted planters were placed on the trestle to suggest the bins that delivered their payload to the furnace. The design team retained the consulting services of Patrick Cullina with PC Horticultural Design, who



The Hoover-Mason Trestle walkway offers views of the campus and surrounding area.



Interpretive signage along the elevated walkway tells the story of steelmaking, mill workers, and the community.

began with an exploration of the ruderal landscape that grew during the period following the abandonment of the blast furnaces and HMT. These pioneer plant species, some exotic and some indigenous, were inventoried, and policies were established to preserve them in place when possible or transplant them to the planters.

Perhaps the most dramatic element of the HMT is the lighting, inspired by a similar approach used on blast furnaces in the Ruhr. Programmable LEDs (sometimes in bright red and blue) illuminate the furnaces and emphasize their size, allowing viewers to experience their full scale and power at night. The lighting also animates the plaza and trestle, frames the experience of performances in the Levitt Pavilion, and reinforces the views from the ArtsQuest and PBS39 buildings.

The HMT plays a critical role in one of the goals of SteelStacks: to chronicle "the story of a towering industrial monument and the community that grew around it." The narrative of steelmaking and the story of the steelworkers in the community is captured by the visitor center and the HMT. The Bethlehem Heritage Coalition, a group of local historical organizations tasked by the city with developing an interpretative strategy for the trestle, recommended addressing all of the following themes:

- the technology;
- the steelworker's work life, culture of the plant, and relation of the site to national, regional and global events;
- relations between the plant, the city, and the region;
- the story of the ongoing transformation of the site.

These themes were further developed in conversations with former steel-workers and from the publications of the Steelworkers Archives now housed in the mall adjacent to the Sands Casino. The mission of the organization, according to its website, "is to preserve the history of our steelworkers, their rich heritage and diverse cultures, their struggles and accomplishments." Ultimately, the themes were incorporated into an award-winning web-based platform produced by the digital media consultant Bluecadet. The platform offers a guided tour, complete with videos showing the plant in action. The digital tour is supplemented by 25 stations

along the trestle that also display metal plaques with text and photos covering topics such as "Visions for an Iron Rail Mill," which includes a quote from Robert Sayre when he was chief engineer of the Lehigh Valley Railroad and was forming Bethlehem Iron in 1863. Sayer, writing to Ironmaster John Fritz, said, "The establishment of a good mill at this place, producing a first-rate quality of rails, will establish your reputation in a section of the country that is destined to be, in my opinion, the most populous and wealthy in this or any other state... I predict a growth for it that will surprise its most sanguine citizens."

#### **ACTIVITIES AND PROGRAMS**

Perhaps the best measure of site activation is the listing of almost 5,000 ArtsQuest activities and events on the campus in 2016 alone. The festivals listed in Table 2 involve a March through December array, sometimes sharing venues with several sites across the city of Bethlehem. These activities include:

- A high school jazz showcase competition bringing in 20 bands from the region. Last year's winner opened for a name act in the concert series and was subsequently invited to perform at the New Orleans Jazz and Heritage Festival.
- The TD Bank-sponsored Community Stage with 100 free performances by local and regional artists.
- The free family-based Saturday morning arts program Peas & Qs (music, art and storytelling) and Step Outdoors festival offerings for urban hiking, fishing, and observation tours of the Peregrine falcons nesting on the site.
- The Levitt Pavilion program (over 50 performances a year), which draws 80,000 patrons annually.

Two examples serve to illustrate the evolution of activities and programs based on changing demographics on the South Side. This community used to be home to many western and eastern European settlers who came to work at Bethlehem Steel. Today it is home to a large contingent of Latin Americans, leading SteelStacks to offer a three-day, free "Sabor" ("taste") festival each June, as well as a January festival called the Three Kings Day Celebration. In addition, according to ArtsQuest, 2014's inaugural FIFA

### TABLE 2: ARTSQUEST 2016 PROGRAMMING SYNOPSIS

Musikfest	472	B-Smart	88	
Creativity Commons/Town Square	117	Faces of the SouthSide	32	
Musikfest Café concerts	91	Visual Literacy	15	
Christkindlmarkt	64	Holy Infancy 5		
Levitt Pavilion	52	ArtSmart		
Peas & Qs	47			
Oktoberfest	38	OTHER PROGRAMS AND ACTIVITIES		
Blues Fest	23			
Patriotic holidays	17	Field trips	2077	
Peepsfest	17	Festivals	13	
Sabor	14	Ticketed shows - comedy		
Blast Furnace Room	13	Classes and workshops - comedy		
Yuengling Summer Concert Series	3	- Classes and Workshops Com	edy 24 2354	
ruenging summer concert series	968		2034	
VISUAL ARTS PROGRAMS	700	OTHER LARGE EVENTS (N	OT INCLUDED ABOVE)	
SteelStacks classes and workshops	26	Three Kings	Members 4th of July Party	
SteelStacks exhibits	6	Souper Bowl	Members Musikfest Party	
Banana Factory classes and workshops	1281	GS Cookie Crunch	Yuengling, Bacon and Brats	
	1313	Grilled Cheese	A Taste of the Wild	
VISUAL ARTS ACTIVITIES AT EVENTS (FREE)		Easter Brunch	SangriaFest	
SouthSide Arts Festival	4	Mother's Day Brunch	Breakfast with St. Nicholas (4x)	
Musikfest	30	Border Brawl	The Linny Awards	
First Fridays	11	Glass Blast	PA Taste of Elegance	
First Friday art activities	22		19	



SteelStacks honors Bethlehem's industrial heritage while offering a contemporary venue for art and performance.



The dramatically lit blast furnaces animate the skyline.

World Cup SoccerFest and Viewing Party brought over 35,000 soccer fans from all across the city to SteelStacks to view the games. This demonstration of the city's passion for soccer attracted a league team—the Bethlehem Steel—to the city.

Like casinos everywhere, Sands also has a set of performance venues as well as several restaurant options, a hotel, and retail mall. Casino staff report eight million visitors a year, the majority coming from within a 100-mile radius. This is well above the original estimate of five million when the Casino opened. The hotel is holding at the county average of 75% occupancy, though Sands did not share statistics on the success of the retail mall. With the addition of table games to slots, the profitability of the casino has swelled.

#### **FINANCING**

#### SteelStacks Capital Costs

The total estimated cost for the SteelStacks Arts and Cultural Campus was \$93.5 million. This was allocated, in round numbers, as follows: \$45 million to the Bethlehem Redevelopment Authority (BRA), \$34 million to ArtsQuest for its building and \$14 million to PBS39 for its building.

Actual costs for the PPL Public Media Center at PBS39 came in \$3 million higher, bringing its total to \$17 million. The ArtsQuest Center, by contrast, came in almost \$4 million lower at \$30 million. The net increase came to about \$700,000, making the total cost for the campus approximately \$94.2 million. In terms of the city's share, the Sands Casino Resort contributed a total of over \$69 million to the city between 2010 and 2016, which more than repaid the \$45 million contributed by BRA to the project.

The SteelStacks campus is not income-generating, although event fees, grants, sponsorships, and philanthropy cover its operating expenses. All campus tenants and activities are nonprofit.

PBS39 and ArtsQuest report receiving a total of \$12.74 million in Pennsylvania Redevelopment Assistance Capital Program (RACP) grant funds towards the \$48.5 million capital improvements by ArtsQuest and PBS39.

In addition, the \$45 million in other improvements and public spaces and buildings were financed through TIF funds by the BRA. This \$93.5 million investment also includes the Visitor Center, Levitt Pavilion, and HMT, as well as public plazas, roads, and other related infrastructure.

Altogether, the total cost of the HMT and lighting was \$16 million. Another phase of the HMT is planned that will link the blast furnaces with the Sands campus, completing the armature that connects Sands and SteelStacks.

The listing of ArtsQuest sources and uses reveals \$30.2 million received from the Northampton County hotel tax, HUD block grant funds, proceeds from refinancing other assets including the Banana Factory, donations, and a bridge loan, plus \$7.6 million from the RACP. The PBS39 building sources include \$17.1 million from the TIF, the Commonwealth of Pennsylvania, Northampton County, private funds, foundations, a bridge loan, and New Market Tax Credits.

All of the land for the 9.5-acre campus was donated to the city by the Sands BethWorks partners except for the footprints of the ArtsQuest and PBS39 buildings, which were donated directly to the respective nonprofits.

Sands has expressed a desire to sell the Sands Casino Resort and all its property in Bethlehem, introducing some uncertainty and making future planning and financing for the Sands holdings more unpredictable. That said, all indications are that Sands has been a beneficial addition to Bethlehem, its neighboring cities, and the Commonwealth of Pennsylvania.

Planning to create a maintenance endowment for the SteelStacks campus has begun. The property transfer agreement with Sands assures continued maintenance for the blast furnaces, although no data from Sands are available that speak to how much is currently being spent on their maintenance or what will be required in the future. An independent assessment has been done by The Stone House Group for the BRA using rules of thumb, but the complex relationships between partners has not been fully negotiated. The operating budgets for the ArtsQuest Center and SteelStacks reveal healthy cash flows for both with modest surpluses to carry forward.

# TABLE 3: STEELSTACKS CAPITAL COST SUMMARY\*

Streets, utilities, parking, and related infrastructure	\$8,000,000
Open space (plazas, parks, amphitheater lawn, etc.)	\$7,000,000
Bethlehem Visitor Center	\$6,500,000
Levitt Pavilion	\$7,500,000
Hoover-Mason Trestle (includes blast furnace lighting)	\$16,000,000
Subtot	al \$45,000,000
INSTITUTIONAL INVESTMENT	
1.0.10.1	\$34,500,000
ArtsQuest Center	\$14,000,000
PPL Public Media Center at PBS39	
`	\$48,500,000

# TABLE 4: ARTSQUEST CENTER AND PPL CENTER FOR PUBLIC MEDIA AT PBS39 DEVELOPMENT SOURCES AND USES

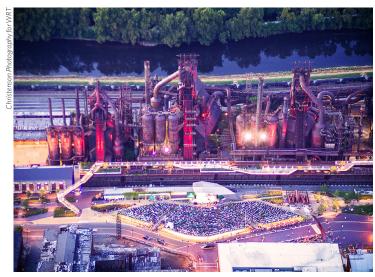
SOURCES		SOURCES	
PA Redevelopment Assistance Capital Program	\$5,125,000	PA Redevelopment Assistance Capital Program	\$7,625,000
New Market Tax Credits	\$3,530,000	New Market Tax Credits	\$7,098,000
Leadership campaign	\$2,015,863	Bridge loan	\$4,000,000
Bridge loan	\$2,000,000	Cash	\$3,890,000
PA Neighborhood Assistance Program	\$1,700,000	Banana Factory refinancing proceeds	\$3,500,000
Northampton County	\$1,000,000	Balance of Capital Campaign and Pennsylvania	\$2,886,000
Endowment	\$1,000,000	Redevelopment Assistance Capital Program	
Pennsylvania earmarks	\$250,000	Northampton County Hotel Tax	\$1,000,000
Foundations	\$215,000	US HUD Community Development Block Grant	\$245,000
Private funds	\$161,000	Total	\$30,244,000
Board campaign	\$50,500		
Rider pool	\$1,000		
Tota	1 \$17,048,363		
USES		USES	
Design and engineering	\$1,185,357	Construction	\$15,825,000
Construction and landscaping	\$7,128,954	Equipment and furnishings	\$4,485,434
Integrator and equipment	\$2,813,922	Design and engineering	\$2,359,833
Other soft costs	\$1,878,764	Other soft costs	\$2,256,403
Interest on bridge loan and related Tax	\$1,378,215	Construction management	\$1,320,000
Increment Financing expenditures		Demolition	\$413,918
Facilities and formaticities and	\$877,500	Sculpture/public art	\$400,500
Equipment and turnishings	± 4 0 7 5 0 0	Other hard costs for site improvements	\$162,400
Equipment and furnishings Other, including New Market Tax Credits costs	\$697,500		
	\$697,500	Underground utilities	\$24,000

# TABLE 5: ARTSQUEST AND FRIENDS OF THE LEVITT PAVILION 2016 OPERATING BUDGETS

FRIENDS OF THE LEVITT PAVILION		ARTSQUEST		
REVENUE		REVENUE		
Board contributions	\$28,000	Musikfest Café		\$1,071,591
Levitt Foundation	\$77,000	Visual arts		\$539,055
Sponsorships	\$62,132	Cinema		\$365,046
Grants	\$161,128	Creativity Commons/Town Square		\$323,363
PA Neighborhood Assistance Program	\$50,000	Comedy		\$75,706
Special events	\$7,048	Education and outreach		\$0
Earned (tickets, merchandise, commissions)	\$7,459		Total	\$2,374,761
Total	\$392,767			
EXPENSES		EXPENSES		
Programs	\$191,859	Visual arts		\$638,749
Support services (including personnel)	\$185,512	Musikfest Café		\$1,127,888
Capital improvements	\$20,000	Cinema		\$291,392
Total	\$397,371	Creativity Commons/Town Square		\$164,962
		Comedy		\$88,339
		Education and outreach		\$102
			Total	\$2,311,432
Net Loss	(\$4,606)		Net Profit	\$63,329



The former steel mill has been transformed from a symbol of loss into a community amenity.



The campus hosted nearly 5,000 events in 2016 alone.

This puts the burden on the BRA to maintain the rest of the site. Hanna calculates that an endowment of about \$2 million could generate about \$100,000/year, but Hanna and the consultants agree that will not be enough. His plan is to supplement the funds with organizational efforts around a "Friends of the HMT" or other grant or support funding.

#### **PROJECT EVALUATION**

The story of SteelStacks began long before it was even imagined as a project. Individuals with long memories and a deep understanding of the culture of their city leveraged the community's powerful attachment to its steel-making legacy to establish Bethlehem as a destination for tourism. And the continuity of the leadership in the community over decades in the public, private, and nonprofit sectors pulled these threads together to make an active and vital place of arts and cultural performance and education for its citizens and tourists. There was no small amount of luck in this project, given that much of the capital to finance it arrived late in the process and from an unexpected source, the Sands Casino and Resort. And finally, place making is not about design that overpowers a site and its context. In this community and place, it is a more precise and even humble set of gestures that pay their respects to the larger place being made.

#### **IMPACT**

The impact of this project can be felt throughout the Lehigh Valley, measured in pride, economic development, and the initiation of the reclamation of the South Side of Bethlehem. More broadly, the project provides a precedent for brownfield reclamation, historic preservation, and interpretation, having been removed from the National Trust's most endangered list.

The project is supported by a relatively simple and non-heroic architecture and site design that allows the historic fabric to stand out. However, in execution, there was nothing simple about the project. It was the product of extraordinary alliances among city, county, and state governments at just the right time in just the right way in an environment of risk to reputations, tricky politics of development, and deeply rooted cultural norms uncomfortable with gambling or anything that might be seen to denigrate the history and legacy of the city and its steelworkers.

#### Pride

One word often used when describing the impact of SteelStacks is "pride." Bethlehem has become the third largest tourism destination in Pennsylvania behind Philadelphia and Pittsburgh. There is a palpable sense among all sectors of the community that they have done the right thing regarding their 125 years as a steel town while at the same time finding ways to diversify the city's economy and put people to work.

Evidence of long-standing attachment to the site can be found in the Steelworkers Archives, interpretations of the life of the steelworkers on the HMT, and in a recent book of interviews prepared by a former steelworker and chair of the Steelworker Archives, Frank Behum. The annual reading of the names of steelworkers by ArtsQuest at the Steel Tribute Wall brings generations of families to SteelStacks every Father's Day.

Bethlehem Steel was among the most vertically-integrated companies in the world. It owned ships, mines, railroads, and the mills that made the steel. The company touched the lives of hundreds of thousands of people through the course of well over two centuries, and Steel Stacks is a pilgrimage site for former steelworkers and their families.

The long list of design awards already in the SteelStacks portfolio as well as an extensive array of publications on different aspects of the project are another source of pride. The project has established itself as a significant precedent for the reuse of large brownfield sites, the creation of urban arts and cultural venues, and the preservation of industrial heritage.

There was contention about the inclusion of a casino. Putting aside the fact that the project wouldn't have been possible without the TIF and fee revenues, the casino and resort hotel campus is a distinct entity separated from the arts and cultural campus but joined physically through First Street. This connection will be strengthened by the future extension of the HMT. It is not clear that casino clientele are central to the popularity of Steel-Stacks, though they have been observed in the plaza and on the HMT. That said, it seems likely that the casino may gain some benefit from SteelStacks patrons who also visit the casino. The Moravian community and leadership

find the casino offensive, and the choice to bring a casino to Christmas City has created a divide in the otherwise cohesive culture of Bethlehem. But the culturally-inclusive success of SteelStacks appears to have mollified some of the opposition. To a very large extent, all informants from the community—including representatives from the city, arts and cultural organizations, former steelworkers, educational institutions, and the businesses community—expressed enthusiasm for the project.

#### Economic Returns

In the draft of his book, Jeff Parks suggests that sometimes it is the not-for-profit enterprises that test the viability of place making of all kinds. If they succeed, people follow. He draws on the narrative of the "creative class" offered by urban theorist Richard Florida in his book *The Rise of the Creative Class*, and the longstanding success of Musikfest and ArtsQuest are evidence of the wisdom of building on the city's cultural venues. ArtsQuest, with Musikfest and Christkindlmarkt, demonstrated an ability to draw significant crowds to Bethlehem long before SteelStacks, highlighting its ability to offer arts programming in the community year-round, and provided confidence that the investment would ultimately provide a good return.

SteelStacks reports that in 2016, visitors to their programs and campus came from all 50 states, the District of Columbia, and 26 countries. That year, the overall direct economic impact of the programs, excluding Musikfest, measured with InPlan analysis software, approached \$60 million, with Musikfest adding over \$50 million more. SteelStacks was also a significant venue for Musikfest. Christkindlmarkt generated about \$4 million, while programs at the Banana Factory added about \$3.5 million. These include estimates of the money spent by patrons in the broader community, not just direct revenue to the venues. The Levitt Pavilion reports about \$400,000 in direct annual operating expenses. Comparable numbers from the rest of the venues at SteelStacks reveal over \$20 million in annual revenues and expenditures.

Sands employs 2,500 people and claims an additional 4,000 to 8,000 jobs created as secondary impacts of its employment, with many of those at the Lehigh Valley Industrial Park and elsewhere, such as the retail mall.

Reasonably, others see the jobs at the industrial park as independent of Sands and the park as catalyst for job growth.

There was little data available on the success of the retail mall at the casino, but the fact that there are an estimated eight million annual visitors to the casino mostly from within 100 miles suggests that the area is not yet saturated for gaming and retail. That estimate is well over Sands' projected estimate of five million visitors in 2009. The level of taxes and fees paid by the casino and resort hotel also imply a successful commercial venture.

ArtsQuest alone received over six billion impressions in Internet and print media in 2016, equating to \$22 million in brand development for the organization and the city. Discover Lehigh Valley, the agency in charge of tourism promotion, described the prior lack of consistent nighttime entertainment as an obstacle to tourism. The combination of SteelStacks and Sands has helped significantly to fill that gap with the mix of high-quality free and ticketed events.

SteelStacks has a Facebook page with over 125,000 followers. Discover Lehigh Valley is active with East Coast media, attending trade shows and observing how well the festivals draw people to Bethlehem. This creates a repeat-visitor dynamic as first-time visitors discover other venues to explore.

Another significant measure of SteelStack's success is that the hotel occupancies in Northampton County have grown 15% from 2012 through 2014, from 65% occupancy to over 75%.

#### Revitalizing Bethlehem and the South Side

In 2016, Money Magazine described Bethlehem as number one on its "Best Places to Retire" list among northeastern US cities. Both SteelStacks and Musikfest were cited as factors in the award, along with income tax breaks for seniors, low state sales and income taxes, and quality of healthcare. Forbes gave similar recognition in 2017, citing SteelStacks and Musikfest and placing Bethlehem nationally in the top 25 in places to retire. In 2008, already forecasting the success of SteelStacks, CNN Money named the city

in the top 100 best places to live and launch a new business. All recognize the importance of Bethlehem being a university town.

SteelStacks' 2014 SoccerFest and Viewing Party for the 2014 FIFA World Cup tournament brought up to 10,000 fans per match and inspired the minor league soccer team owned by the Philadelphia Union to move from Harrisburg to Bethlehem. The team, now named the Bethlehem Steel Football Club, has its new home field at Lehigh's Goodman Stadium.

In the decade before SteelStacks, Historic Bethlehem listed about 20 sites it included on tours, none of which were in the South Side. Development of the 126 acres of BethWorks added 35 historic structures, including the HMT, which has significantly enriched the ability to tell the Bethlehem Steel story. While the South Side of Bethlehem surrounding SteelStacks remains a work in progress, there is continued interest and new development largely attributable to the fulfilled promise of SteelStacks.

Following Bethlehem Steel's closure, the South Side was perceived to be unsafe and in decline, but with the evolution of SteelStacks, that cloud has been lifted and the community is seeing reinvestment. While crime was high in the 1990s and settled down in the decades after, perceptions lingered and levels of investment stayed flat until people began to believe SteelStacks would become a reality.

Early support for both SteelStacks and Sands was demonstrated by Northampton Community College, which decided in the 1990s to locate adjacent to the forthcoming arts and cultural campus and offer workforce training on hospitality. As plans evolved, the college received a \$1.2 million Economic Development Agency grant for hospitality training and seed money for a fabrication shop, which it has opened to the public. It is also significant that the Charter High School for the Arts relocated within walking distance of SteelStacks and offers a 400-seat auditorium as an additional venue for programming on the arts campus.

Other successes outside of SteelStacks but influenced by Bethlehem Steel efforts to transition the entire expanse of abandoned property include the



The National Museum of Industrial History tells the story of America's industrial heritage.



Volunteers from the Steelworkers Archives provide interpretive tours.

Majestic site, which was the first parcel to be sold after the Bethlehem Steel bankruptcy and was among the first to bring new jobs to the former steel plant site. Off-campus developments are also significant. For example, B. Braun Medical Devices moved to Bethlehem from Southern California, in part attracted to the quality of life and culture, bringing 2,000 jobs. The Sands Casino itself was attracted, in part, by the already-robust tourism industry and saw the promise of further growth.

The City of Bethlehem's 2002 plan for the South Side was already envisioning an arts and cultural venue on what is now the SteelStacks site. Since then, there have been modest investments in new apartments, small businesses, restaurants, home renovations, street lighting and public safety projects. These investments are bolstering a steadily improving open space network called for in subsequent plans commissioned by the city from the New York firm Project for Public Spaces. The network includes a skate park, the rails-to-trails Bethlehem Greenway, a greenway playground, Yosko spray park, and Parham Park installations. Other examples of projects inspired by the promise of the SteelStacks and Sands campuses include the opening of St. Stanislaus Artist Housing Development; the new Social Still micro-distillery and restaurant, the first project completed as part of the Bethlehem Revitalization and Improvement Zone; and the opening of the Lehigh Valley Charter High School for the Arts within walking distance of SteelStacks. City interventions have led to the expenditure of over \$6 million for the Bethlehem Greenway, additional funding of over \$2 million for Southside Vision 2014 projects, and over \$265 million in combined federal, state, and local public investment in South Bethlehem since 2006.

Lehigh University has also turned its attention to the South Side through the creation of the South Side Initiative academic programs as well as its focus on student housing, South Side revitalization, and off-campus investment leveraging Lehigh assets. The university's work includes housing for 300 new beds and the renovation of another 250 beds of existing housing on the South Side. The university has also measured about \$20 million a year spent regionally by students, faculty, and staff and suggests that much of it could be redirected to the South Side if the neighborhood were to offer increased opportunities.

Planning for the National Museum of Industrial History, initiated by Bethlehem Steel, finally led to a formal Smithsonian Institution affiliation, and since 2016, the museum has occupied the first floor of the 1913 Electric Repair Shop adjacent to the Steel Stacks campus. It has about 13,000 square feet of exhibition space with plans to occupy the second floor in the future. Museum leadership suggests that the maturity of Steel Stacks has contributed to its confidence in the future of this enterprise.

#### Impact on Professional Practice and Policy

Bethlehem Steel was once one of the National Trust for Historic Preservation's most endangered sites and was the largest single-owner brownfield in the US. The agreements surrounding the development of Steel Stacks offer a new precedent for preservation practice, as does the potential for a casino resort to anchor large-scale brownfield transformation. The US Environmental Protection Agency has described the Pennsylvania Act 2 brownfield legislation facilitated by Bethlehem Steel as a national model. Recognition as a best practice by the Ford Foundation's Innovations in Government program adds further weight to the significance of Act 2 and its influence on future practice in government. In the case of Bethlehem Steel, a number of public benefits accrued from the casino that complement traditional sources, enabling faster and more economically, socially, and culturally viable transformations of both the brownfield and host neighborhoods.

The commitment to preserve as many as 34 historic structures on the site along with all five blast furnaces has created a set of cultural interpretations and use possibilities that goes well beyond what has been done in Pittsburgh and other communities with large brownfields. SteelStacks offers an impressive precedent in the symbiotic relationships among arts and cultural programming, historic interpretation, and preservation that are revitalizing the economy, creating new jobs, and energizing tourism.

#### **OBSERVATIONS AND LESSONS LEARNED**

#### Risk Taking

This is a project where people risked failure to achieve success. Who would have predicted the success of Jeffrey Parks' Musikfest in its early days in the mid-1980s—that a mid-sized town would attract thousands of visitors for weekends of mostly free music? Or that Parks would preside over 13 years of steady growth of the programs at the Banana Factory in the South Side, to the point where its refinanced equity could contribute significant capital to the new ArtsQuest headquarters? Both of these projects were brought to life by nonprofit boards with no visible means of support, but a firm belief in the potential success of their vision.

Another kind of risk was taken when the city pursued a TIF district on the Bethlehem Steel site prior to the arrival of casino gaming. The administration was also investing public funds in industrial park infrastructure (roads, sewer, and water) for "hoped-for returns" without the certainty those returns would be realized. No market report suggested they would recoup their investments. There was, however, a history of success with bold moves in the world of art and music in the city. Parks and his colleagues in the city administration saw how to take that legacy to a whole new level with SteelStacks.

Perhaps the biggest risk was embracing the casino and resort when they became a possibility. Hanna and the leadership team in the investment group had to win over a reluctant community and demonstrate that this could happen without doing harm to the very traditional culture that made Musikfest and the Banana Factory, for example, as special as they were.

Yet all these risks have paid off substantially in terms of their own success and their contribution to turning around what could have become a moribund former steel town.

#### Continuity of Leadership

The continuity of Parks' decades of leadership in arts and music, coupled with Hanna's decades of leadership both in City Hall and with the BRA in planning and economic development, along with the leadership of Bethlehem

Steel's Hank Barnette, created the kind of long-term institutional memory and staying power that guided the development of SteelStacks. All three remain active and vital partners in the ongoing evolution of the site, and all recognize that any project this complex requires the embrace of a wide range of partners and the coordination of related visions that span decades.

#### Luck Is Riding the Tide of Circumstance and Opportunity

The narrative provided here makes it clear that something was likely to happen on or near the SteelStacks site. What it actually became, however, would not have been possible were it not for the arrival of Sands generating significant capital through the TIF and in taxes and fees, enabling city support for SteelStacks investments. The leadership team anticipated the bankruptcy sale; saw the potential of new gaming licenses becoming available; and did the institutional, government, and community engagement work needed to prepare the citizens of Bethlehem to accept the good luck this represented.

#### Quality Architecture and Place Making are Sometimes in the Background

"Design matters" is a truism that seems almost trite, but really good design requires creatively identifying and then solving the right problems. Sometimes that means a strong, clear, and powerful statement to help create identity, build culture, and advance the art. These are often the buildings that gain a lot of attention. SteelStacks, by contrast, is appropriately designed to feature the blast furnaces and make visitors feel that the place is about them and that their experience is central to the place. Care was taken by the WRT team as well as URS and Spillman and Farmer to understate the form of the new structures and site features and facilitate the experience of place and performance. Metaphorically, they sought to not be the museum whose architecture competes with the art. Rather, they not-so-simply made the right place for it.

#### **MEETING PROJECT GOALS**

GOAL: Create a welcoming, well-designed, public arts and cultural campus for the neighborhood, city, and region.

Modest architecture and a creative bend in the otherwise rectilinear street grid connecting the steel plant to the neighborhood have established a

large but intimate public area framed by the five historic blast furnaces and the new ArtsQuest and PBS39 buildings. The program is simple in concept, creating a linear open space network including a large parking lot, plazas, the outdoor performance venue, and gateway sculpture. In 2016, programming by ArtsQuest alone offered a total of 968 music performances, of which only 211 required paid admission. Visual arts programs included 23 workshops and three exhibitions that were all free, as were 67 visual arts activities at events and 193 outreach programs. There were 19 very large events all open to the public where, in several cases, food or beverage charges were applied. There is a visitor center, ample parking, and public transportation. All told, it is a very open and public place.

# GOAL: Preserve, restore, and adaptively reuse the historic built fabric of the former steel mill site.

The blast furnaces are preserved and maintained by Sands through an agreement that will transfer if there is new ownership. The Stock House has been converted into a visitor center, and other historic mill buildings around the SteelStacks campus are being or are hoped to be restored. The plans produced by WRT forecast additional preservation and mixed use, but those proposals appear to be waiting for the market to catch up with the ambitiousness of the vision for financing and next steps in preservation. There is a lot more to do, but there appears to be the energy and focus to take on additional buildings as programs and resources emerge. To the credit of the design and planning teams, the project feels whole as a place even as it is unfinished.

#### GOAL: Use the site to tell the story of steelmaking and steelworkers in Bethlehem.

The interpretative plaques on the HMT elevated walkway and related website and app are award-winning devices used both informally and through scheduled docent-led tours offered by former steelworkers who are stewards of the Steelworkers Archive. The addition of the National Museum of Industrial History, which plans to double its size, adds to the educational and storytelling opportunities on the site.



Outdoor concerts at the Levitt Pavilion draw audiences from throughout the region.

# GOAL: Serve as a catalyst for the development of the larger 126-acre brownfield district.

The project is part of a larger set of catalysts that invite arts and cultural programming to Bethlehem as well as new employment opportunities to the site. The TIF has, so far, successfully financed the public infrastructure throughout much of the 126-acre district, and Sands has completed the resort hotel and retail mall components of its program.

The aspiration to complete the HMT by connecting it to the casino and resort are on hold pending the outcome of considerations for the sale of the Sands campus. The BRA reports that development of the rest of the historic stock of buildings is moving slowly with a few significant projects being viewed as almost ready to go, most prominently including the Graham, Burnham and Company Bethlehem Steel headquarters building originally built in 1916 with additions by McKim Mead and White Architects in 1951. The BRA envisions a conversion to residential apartments with some mixed-use retail and commercial space.

# GOAL: Develop the project in a transparent and inclusive way to assure a shared vision.

The planning for SteelStacks has been very inclusive in a bottoms-up way with multiple opportunities for engagement by stakeholders of every stripe in the big-picture infrastructure and public-realm work as well as with each of the individual projects.

#### **SELECTION COMMITTEE DISCUSSION**

Many factors contributed to the selection of SteelStacks Arts & Cultural Campus as the 2017 Rudy Bruner Award Gold Medalist. The Selection Committee acknowledged that it is an unusual and compelling project—a "place to go see" that members were eager to visit and experience firsthand. They noted that it offers an instructive and powerful story about the role of vision in successful contextual placemaking. The developers undertook an enormously complex and difficult challenge in redeveloping the mill site and succeeded in transforming it from a symbol of tremendous loss into a contemporary community amenity while highlighting its history and economic and social legacy.

With its success, SteelStacks offers inspiration for cities struggling to repurpose former industrial sites while acknowledging the people who helped to build them. The committee noted the prevalence of post-industrial buildings and sites across the country, especially in the Rust Belt, and the restorative effect that a project like SteelStacks can have on its community. Another factor in SteelStacks' elevation to Gold Medalist was the degree of difficulty and "lift" required to realize the unusual project given its complexity and financing, especially for a small city like Bethlehem. The committee was impressed by the effort on the part of community leaders to visit and learn from German examples and their ability to figure out how to make it happen in the United States, including overcoming liability concerns about potential risks to visitors at an industrial site.

The committee praised SteelStacks for its role in saving and repurposing remnants of industrial heritage to tell its story and those of the people who worked there. The project preserves the monumental scale and historic presence of the mill in the community while integrating contemporary uses

# THE PROJECT PRESERVES THE MONUMENTAL SCALE AND HISTORIC PRESENCE OF THE MILL IN THE COMMUNITY WHILE INTEGRATING CONTEMPORARY USES AND TECHNOLOGIES.

and technologies. The committee commended the use of innovative components such as the dramatic lighting of the blast furnaces as a backdrop for the new campus and digital interpretive tools. The website and app tell the story of steelmaking and the community and complement signage and tours. The committee also appreciated the way the blast furnaces, important industrial relics that long dominated the city skyline, were transformed into positive attributes, forming a dramatic backdrop for performances. There was considerable discussion about the challenge of maintaining the blast furnaces over time, especially the "frozen in time" look that makes them so hauntingly appealing.

Although a key consideration in the selection of SteelStacks as the Gold Medalist was its ability to inspire other post-industrial communities, the committee acknowledged that the project was unique in many ways and would be difficult to replicate. These include the very factors that made the project possible: funding from the casino as well as the sense of stewardship of Bethlehem Steel's CEO that led to participation in the creation of brownfields legislation in Pennsylvania, together with rezoning and preliminary planning that facilitated redevelopment of the abandoned and contaminated mill site. Even so, the committee agreed that sharing its story was important so that other communities would benefit from "seeing something positive come out of loss."

#### **RELATED RBA WINNERS**

While many RBA winners employ creative arts and cultural programming to support economic development and enhance quality of life, few take on the task within the challenging context of redeveloping a former brownfield or industrial site. Like SteelStacks, the following projects transformed abandoned industrial land into new public spaces, using the arts to attract residents and visitors and spur economic development.



THE STEEL YARD in Providence, Rhode Island (2013 Silver Medalist) is the renovation of a historic steel fabrication facility into a campus for arts education, job training, and small-scale manufacturing. The design incorporates extensive environmental remediation while maintaining the site's distinctive gritty, "urban wild" character and offering space for classes, industrial arts, and community gatherings.



SANTA FE RAILYARD REDEVELOPMENT in Santa Fe, New Mexico (2011 Silver Medalist) is the redevelopment of a historic rail yard that integrates commuter rail; parkland; a public market; and art, commercial, and live/work space. A collaboration between the city and community activists and nonprofit organizations, the project celebrates local history and culture while retaining the site's rugged industrial look.



LOUISVILLE WATERFRONT PARK in Louisville, Kentucky (2013 Silver Medalist) is the redevelopment of former industrial land along the Ohio River into an 85-acre park that's become a gateway and gathering space for the city. Developed with significant input from the community, the park offers a variety of linked open spaces with public art and amenities along with concerts, festivals, and special events.

Other RBA winners that redeveloped former industrial sites into places for creative and public use include Brooklyn Bridge Park (2011 Silver Medalist), Cleveland Historic Warehouse District (1997 Silver Medalist), and Greenpoint Manufacturing & Design Center in Brooklyn (1995 Silver Medalist).

More information about these and other RBA winners can be found at www.rudybruneraward.org.

# Resources

This case study was compiled from information gathered from the project application; an extensive site visit by Jay Farbstein, Robert Shibley (lead author), and Anne-Marie Lubenau in March 2017; and research and interviews conducted during those processes and throughout the writing and editing of this report. Titles and positions of interviewees and URLs listed below were effective as of the site visit unless otherwise noted.

#### **INTERVIEWS**

#### City of Bethlehem

John Callahan, former Mayor of Bethlehem

Robert J. Donchez, Mayor

Tony Hanna, Executive Director, Bethlehem

Redevelopment Authority

Darlene Heller, Director, Bureau of Planning and Zoning

Alicia Miller Karner, Director, Community and

**Economic Development** 

#### **SteelStacks Campus**

Julie Benjamin, Vice President of Community Partnerships, ArtsQuest

Kassie Hilgert, President and CEO, ArtsQuest

**Jeffrey Parks**, Executive Director, ArtsQuest Foundation

(former President and CEO of ArtsQuest)

Tim Fallon, President and CEO, PBS39

Michael Stershic, President, Discover Lehigh Valley

(Bethlehem Visitor Center)

 $\textbf{Amy Hollander,} \ \mathsf{President} \ \mathsf{and} \ \mathsf{CEO}, \mathsf{National} \ \mathsf{Museum} \ \mathsf{of}$ 

Industrial History

Julia Corwin, Executive Director of Brand Marketing,

Sands Resort Casino Bethlehem

Kathy McCraken, Vice President of Casino Marketing,

Sands Resort Casino

Curtis "Hank" Barnette, Chairman Emeritus, Bethlehem

Steel Corporation

#### **Project Consultants**

Karen Blanchard, Principal, SITIO (formerly with WRT)
Ignacio Bunster-Ossa, Vice President, AECOM (formerly with WRT)
Antonio Fiol-Silva, Founding Principal, SITIO (formerly with WRT)
Keiko Tsuruta Cramer, Principal and Landscape Architect, WRT
Lawrence B. Eighmy, Managing Principal, Stone House Group
Darl Rastorfer, Owner, Darl Rastorfer Communications

#### History

**Frank Behum Sr.**, President, Bethlehem Steelworkers Archives **Pete Brekus**, Bethlehem Steelworkers Archives **Julia Maserjian**, Lehigh Digital History Project Manager, Bethlehem

**Charlene Donchez Mowers,** President, Historic Bethlehem Museums and Historic Sites

#### Community

Mary Foltz, Associate Professor, Lehigh University

South Side Initiative

Heritage Coalition

**Seth Moglen,** Director and Associate Professor, Lehigh University South Side Initiative

Diane LaBelle, Charter High School for the Arts

Paul Pierpoint, Northampton Community College

Edwin Kay, Bethlehem resident

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## **OTHER AWARDS**

The project has been recognized with other design and construction awards including the following:

#### SteelStacks

2017	American Society of Landscape Architects PA-DE Award
	of Excellence
2016	Architects Newspaper Best of Design Award in
	Architectural Lighting
2014	Urban Land Institute Philadelphia Willard G. Rouse III
	Award for Excellence
2014	Urban Land Institute Global Award of Excellence

#### Hoover-Mason Trestle

Hoover-	Mason Trestie
2017	American Alliance of Museums MUSE Award Bronze Award,
	Mobile Applications
2016	Urban Land Institute Philadelphia Willard G. Rouse III
	Award for Excellence
2016	Engineering News Record Best of the Best Landscape/
	Urban Development
2016	W3 Awards Best in Show, Website Category
2016	PRINT East Coast Regional Design Award
2016	Pixel Awards Best Responsive Design Finalist
2015	Mid-Atlantic Construction Management Association of
	America Project of the Year Award
2015	AIA Philadelphia Merit Award
2015	AIA Pennsylvania Merit Award
2015	Lehigh Valley Planning Commission Award, Environmental
	or Revitalization Project or Initiative
2015	Engineering News Record Mid-Atlantic Region Best Project,
	Landscape/Hardscape/Urban Development
2015	Architizer A+ Award Finalist
2014	AIA Pennsylvania Citation of Merit

## **The Levitt Pavilion**

2015	AIA National Small Project Award
2013	Architizer A+ Award, Special Mention
2013	American Council of Engineering Excellence of
	Massachusetts Silver Award
2012	Metal Architecture Design Award, Judges Award
2012	Greater Lehigh Valley Chamber of Commerce Award for
	New Construction
2011	AIA Philadelphia Merit Award
2011	AIA Tri-State NJ, NY, PA Honor Award
2011	AIA Pennsylvania Citation of Merit
2011	Engineering News Record Best Small Project Award

## ArtsQuest Center

2013	Architizer A+ Award, Urban Transformation
2012	AIA Pennsylvania Silver Medal Award

## **Bethlehem Visitors Center**

2013	Preservation Pennsylvania Historic Preservation Award
2012	Masonry Construction Masonry Construction Project of
	the Year Award