



### 3. Background

#### HISTORY

New Bedford's history is closely associated with its affiliation as the "whaling capital of the world." However with the decline of whaling in the 1880s, profits from the whaling industry were used to finance the cotton textile industry that had already established itself in places like Lowell and Pawtucket. As the labor-intensive textile industry expanded, New Bedford's population increased dramatically as thousands of immigrants came to work in the mills. At the end of the 19<sup>th</sup> century New Bedford became one of the largest producers of cotton yarns and textiles in the country and experienced the largest growth of any city on the east coast.

Textile's bulking brick mill complexes were built along the waterfront on the relatively cheap wetlands north and south of the central business district, and also at the head of Clarks Cove. The Municipal Water Works, which opened in New Bedford in 1869, insured a good supply of water and made expansion of the textile industry possible. By 1900, the sewer system in New Bedford had been extended north, west, and south of the original system.

The establishment of a horse-drawn street railway in 1872 was followed by the improvement and construction of roadways throughout the city. The horse-drawn cars were replaced with electric cars in 1890 and new streets were laid out to keep up with the demand for housing. The north

and south ends of the city became densely populated almost overnight as mill owners built villages of mill-owned tenements for its workers surrounding their mills (Heath, 2001).

The Wamsutta Mill was the first cotton textile mill established in 1847 on Front Street, just north of the central part of the city. New Bedford's second textile mill, built in 1871, was the Potomska Mill located in the southern part of the city. At the end of the 19<sup>th</sup> century, textile mill construction moved northward along the Acushnet River. The Coggeshall Street Bridge was built in 1892 and development began to expand into this area. A wall of mills was built upon the Acushnet River along Belleville and Riverside Avenues. Several mills were also built west of the river at the turn of the century.

In the early 1920's, at the height of prosperity, there were twenty-eight cotton establishments, operating seventy mills and employing 41,380 workers. At this time one out of every two people were employed in a mill and immigrants held nine out of ten of these jobs. A newly industrialized city transformed the once pastoral farmlands of the north and south ends into a landscape of densely packed worker housing adjacent to textile mills (Heath, 2001).

## LOCATION

One hundred and one mill buildings were surveyed as part of this inventory, although several other smaller mill buildings currently exist in the city. While several stand as individual structures, most are clustered, remnants of the great complexes that once employed thousands of workers. The majority of New Bedford's mills are situated along its waterways. Clusters of mills are located close to the outer harbor, Clark's Cove or the upper harbor of the Acushnet River. The water views that many of these mills offer along with their proximity to the water's edge can be considered a significant asset for new mixed-use development. Historically 2-3 decker housing was purposefully developed within walking distance of the mills for the textile workers, and as such many of the current mills are adjacent to dense residential neighborhoods and along main thoroughfares. Mill clusters in the north and south ends of the city also have good highway access and visibility.

## ADAPTIVE REUSE OF INDUSTRIAL MILL BUILDINGS

Over the last century industry has shifted globally and textile and other manufacturing industries no longer dominate the local economic landscape. In the mid 20<sup>th</sup> century as the textile industry moved to other regions and countries, the city found other uses for its mill buildings.

Electronic circuitry production, needle trade and other types of manufacturing reclaimed these industrial buildings, and kept their industrial use intact. Manufacturers such as Cornell Dubilier, Aerovox, Cliftex and Chamberlain are examples of the types of businesses that recognized the value of the city's vast supply of mill space. These companies initiated the first instance of adaptive reuse of the city's industrial mill building that thrived until the 1980s.

In the recent past, unconverted mill spaces were commonly



housing a wide variety of uses such as light manufacturing, small businesses, professional offices and residential use. While these activities are still in existence, currently, sectors of the creative workforce such as artists, furniture builders and graphic screen-printers have begun to adapt these structures for their needs.

Since 2000, the trend for redevelopment and adaptive reuse of the city's larger mills has been concentrated in the area of residential living, whether it is affordable senior/assisted living housing, market rate housing, or artist live-work space.

The redevelopment and adaptive reuse of historic industrial mills into functional space that can house multiple uses and tenants is often challenging. Despite the complexities, rehabilitating historic industrial neighborhoods and structures is at the forefront of contemporary urban development in the United States.

The benefits of adapting industrial mill structures into productive use are compelling and projects in all regions of the country have resulted in:

- New job creation
- Unique space that is attractive to emerging business sectors
- Increased tax revenue
- Catalysts for investment in adjacent areas
- Development adhering to smart growth initiatives.
- Improvements in the environmental quality of the site and adjacent waterways
- Removal of blight from the neighborhoods
- Improvement to scenic vistas and waterfront access
- Retention of a community's unique heritage and culture (Smart Growth/Smart Energy Toolkit 2008)

Utilizing the city's vast inventory of industrial mill buildings as part of a comprehensive revitalization strategy can serve to preserve and maintain the unique historic industrial character of New Bedford. Perhaps more importantly, successful adaptive reuse projects often serve as catalysts for job creation, heritage tourism, and stronger and safer neighborhoods.

## ENVIRONMENTAL CHALLENGES AND LIMITATIONS

Decades of industrial activity have left many of New Bedford's mill properties with hazardous materials in soils or within the structures themselves and the location of contaminants and hazardous materials in historic industrial buildings can be predicted to some degree by their previous uses. The interiors of most historic industrial buildings will commonly contain asbestos, lead based paint, and other heavy metals.

Although beyond the scope of this inventory, environmental assessments should be conducted for each individual property prior to redevelopment. The level of assessment and mitigation is generally dependent on the specific conditions of each site, and the type of redevelopment proposed.

The presence of contaminants may be perceived as a potential challenge, however numerous successful mill redevelopments throughout the region and in New Bedford exist on what were previously documented Brownfield sites.

## DESIGN CHALLENGES

New Bedford's industrial complexes and buildings are impressive architecturally, both in their massive scale and restrained ornamentation. Constructed primarily of brick and mortar, they were built with practicality, production and efficiency in mind.

As a result of their lack of famous associations and their functional design, during the past decades most of New Bedford's industrial buildings have been overlooked as historic resources, unlike the whaling era mansions early preservationists valued for their associations with famous individuals and a romanticized whaling industry.

Incorporating new uses within historic textile mill structures can be complex. For example, the column spacing of many mills constructed in the late nineteenth century are arranged for the placement and weight of looms, creating space challenges for many new industrial uses. Also, the large window openings of many mill buildings were altered in the 1950s when windows were bricked in and air conditioning installed in an effort to control separation and shrinkage of textile thread due to humidity and dryness.

Despite the spatial and structural conditions, historic mill buildings are highly adaptable and past projects have proven there are many design opportunities associated with their adaptive reuse. These structures offer short framing spans, masonry construction, architectural detailing, large windows, and high ceilings. Rehabilitation projects, such as the Howland Mills in New Bedford's south end, often boast naturally lit interiors with unique architectural features.

Overall, the vernacular craftsmanship of historic industrial buildings is of a high quality and due to the large machinery in the buildings, the floors were designed to withhold loads of up to 200 pounds per square foot. In many cases brick wall and wood flooring are exposed, which often becomes a key component of the design aesthetic of new adaptive reuse projects.

While rehabilitating these mill structures often presents challenges, there are many examples in New Bedford and throughout the region of successful adaptive reuse projects. These projects are marketable historic resources that utilize historic structures and authentic materials in a manner that add measurable value to the final product.

## **ECONOMIC VIABILITY**

Throughout the United States, the preservation and redevelopment of historic mills has proven to be an economic stimulus for redevelopment in urban centers. In the northeast specifically cities such as Lowell, Providence, North Adams, and New Bedford are home to many successful adaptive reuse projects focused on textile mills.

As an example, Struever Bros. Eccles & Rouse Inc., leaders in the redevelopment and revitalization of urban areas, undertook the restoration of the Rising Sun Mills in Providence, RI. This project includes 175 acres connecting Providence Place Mall to Olneyville Square, of which there is 80 acres of new green space, a 73 acre riverfront park, two new business parks, 2.2 million square feet of office space, 400,000 square feet of retail space, more than 600 residential units, over 2,000 new residents and \$20 million in new taxes and 10,000 new jobs expected (NALGEP; Smart Growth Institute, 2004).

In New Bedford, although on a smaller scale, the renovation of the Ropeworks building on Sawyer Street into an artist condominium live/work space has resulted in attracting new creative residents to the city, but more importantly has increased the property value from \$274,600 to \$2,720,600. This increase in value generates current tax revenue of \$28,700, an increase of 4 times the tax revenue prior to its rehabilitation.

Other recent examples in New Bedford include Whaler's Place and Whaler's Cove. The combined increase in value of these projects generates current tax revenue of \$89,112 dollars, an increase of 4 times the tax revenue prior to the completion of the rehabilitation projects.

Financial incentives are frequently required to redevelop industrial buildings, many of which have sat vacant or underutilized for several decades. Since adaptive reuse projects often acts as catalysts for future redevelopment—encouraging both financial and social investment—there is an incentive for state and local governments to provide incentives such projects.

Incentive programs that are typically used for mill conversion projects include:

- Federal Historic Preservation Tax Credit Program
- State Historic Rehabilitation Tax Credit Program
- Low-Income Housing Tax Credit Program
- New Market Tax Credit Program
- Tax Increment Financing (state & local)
- HOME funding
- CDBG funding

In addition to these programs state grant sources are also available for related infrastructure improvements associated with the new development. The Public Works Economic Development grant and the Massachusetts Opportunity Relocation and Expansion Jobs Capitol program are two examples.

Financial incentives are a wise financial investment for a community because industrial mill rehabilitation produces sizable property-tax revenue for its own building, increases the values of neighboring properties and acts as a catalyst for new growth and investment for the city.