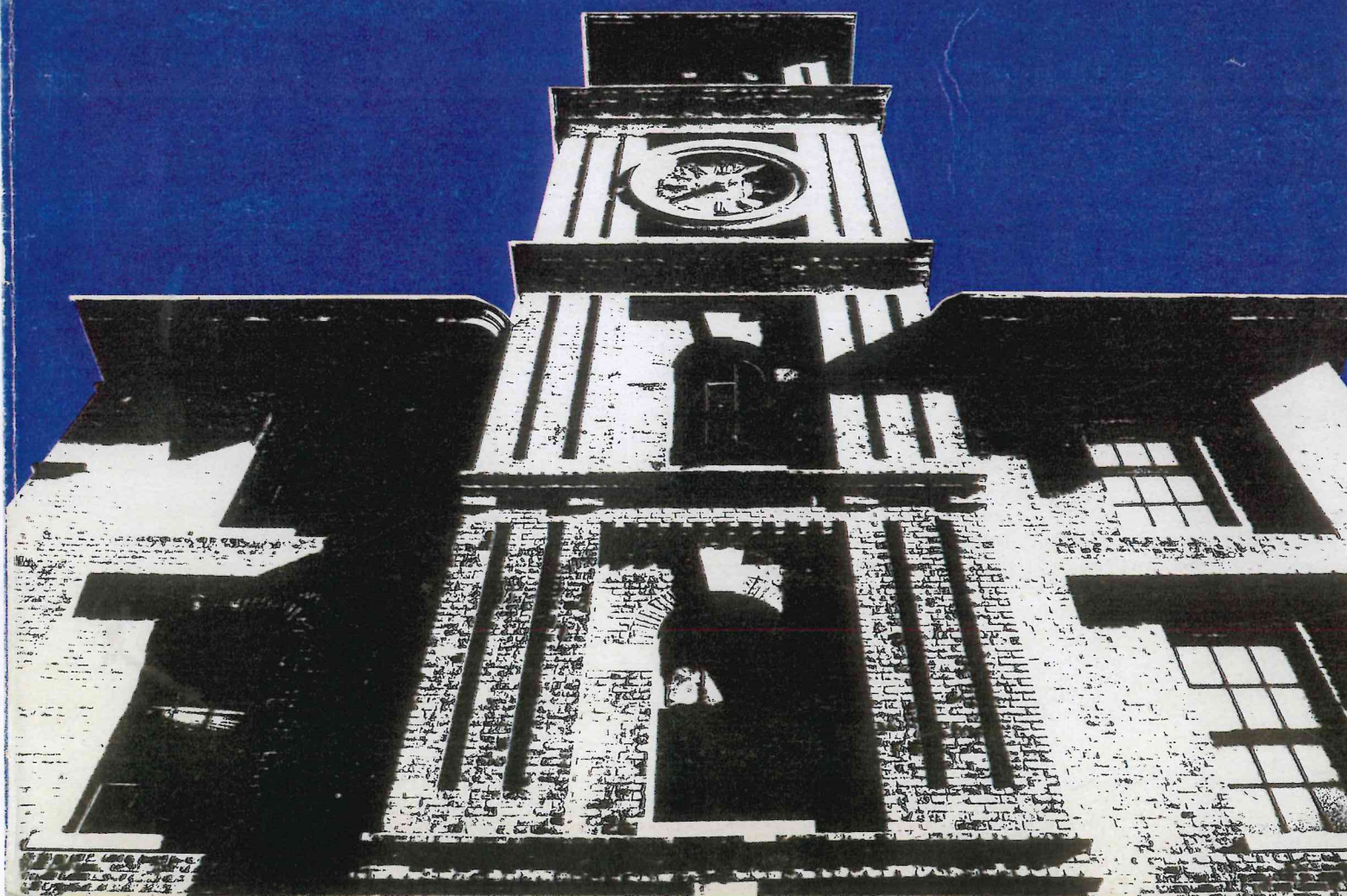
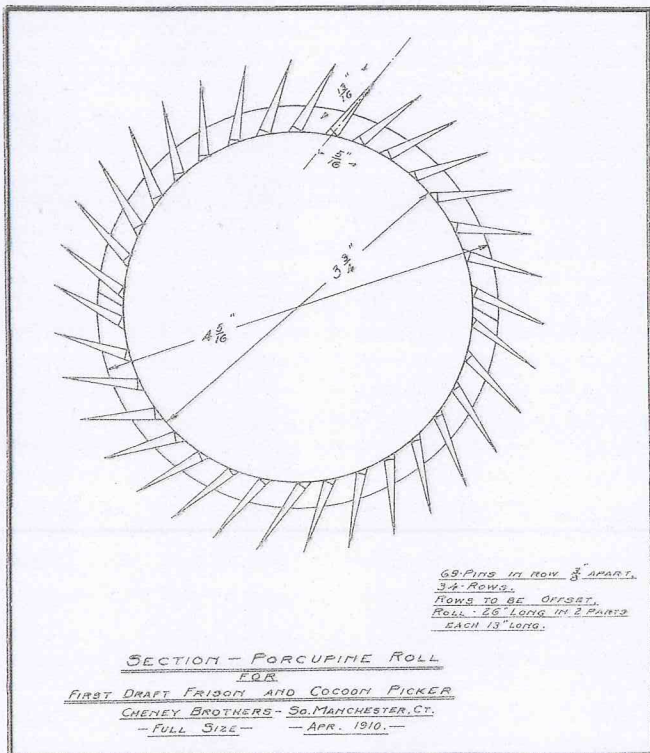


Preservation and Development Plan
for the
Cheney Brothers
National Historic Landmark District
Manchester, Connecticut





Commission for the Cheney Brothers
National Historic District and the
Rehabilitation of the Cheney Mill Complex

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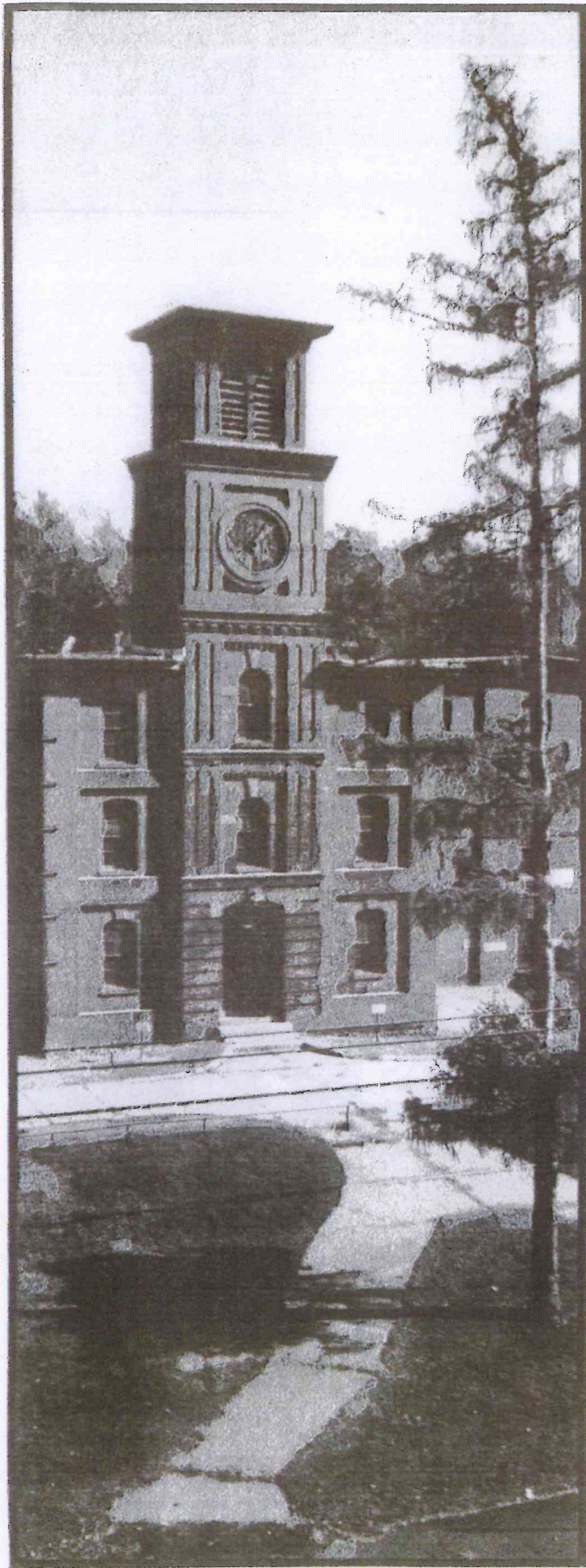
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Preservation and Development Plan
for the
Cheney Brothers
National Historic Landmark District

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April, 1980

The preparation of the Preservation and Development Plan was financed by a private donation and a matching grant from the Department of the Interior, Heritage Conservation and Recreation Service through the Connecticut Historical Commission.



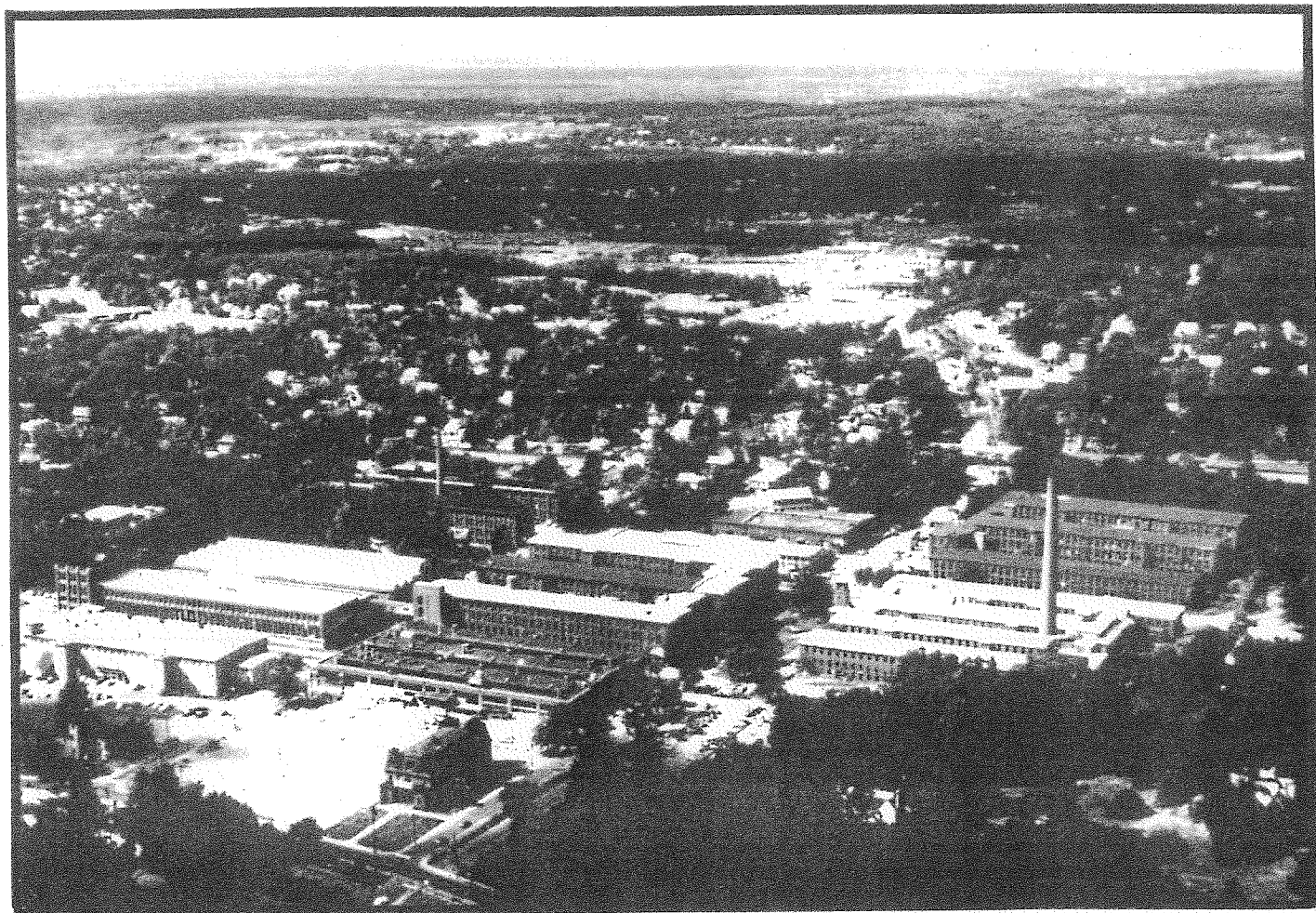
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Introduction

The Cheney Brothers National Historic Landmark District was established in 1978 through a designation by the U.S. Department of Interior and is listed in the National Register of Historic Places. The district includes approximately 175 acres encompassing all of the existing Cheney Brothers Silk Mills, the 18th century Cheney Family Homestead, several 19th century mansions built for the Cheney family, the schools, churches and halls built by the Cheneys for their employees, and over 275 residential structures built for company workers and their families.

The National Historic Landmark designation is an important first step in the preservation and rebirth of this unique industrial community. The designation provides national recognition to the district and makes property owners eligible to apply for federal matching grants for rehabilitation activities. No property owner is forced in any way to take part, but those who do, need only agree to maintain their property in an historically sensitive manner. Substantial income tax benefits are also available for rehabilitation of income-producing properties. This historical designation, by itself, does not guarantee a bright future for the Cheney District, but when combined with appropriate funding programs and sensitive preservation planning, the designation can be a crucial factor in creating positive momentum for development.



In 1978, the Town of Manchester established The Commission for the Cheney Brothers National Historic District and for the Rehabilitation of the Cheney Mill Complex. The Commission is comprised of local businessmen, residents of the district and other interested citizens. It was charged with the responsibility of initiating a feasibility study for rehabilitation of the Mill Complex as its primary assignment. Anderson Notter Finegold Inc. along with Russell Wright, AIA, AICP, as historic preservation consultant and Economics Research Associates as marketing and economics consultant were selected to perform the study. The six month study commenced in August 1979 and has developed with the direct involvement of the Town and the Commission. Monthly meetings were held in which the Commission made comments, responded to proposals, and offered invaluable advice. Brainstorming sessions were also held with mill owners, town officials, district residents and local interest groups. Many points of view from these meetings have been incorporated into the final recommendations.



This study was initiated primarily to find appropriate new uses for the outmoded and under-utilized silk mills, and ancillary nonresidential structures in the center of the district. This involved in-depth architectural analysis of the structural and design capabilities of each building along with the suitability of their layout for new and different types of uses. It also involved an extensive economic analysis of the market factors in Manchester and in the greater Hartford region to determine what uses would have the most possibility of success. A secondary objective of the study was to identify and document all the historic residential structures surrounding the mills in order to increase the level of community awareness about the history and development of the original industrial village.

The proposals in this report offer the Town of Manchester and the Commission sound recommendations for strengthening the economic base of the district and enhancing its exceptional architectural heritage for the mutual benefit of the Town and its citizens. Preservation and economic development are compatible and complimentary elements of this plan. Revitalization will bring revenue producing ventures into the area that will contribute to the local tax base. Preservation will insure that responsible and historically sensitive redevelopment occurs in which increased amenities and property values can reasonably be expected to result. Adoption of this report as a District Development Plan will carry on the momentum established during this study. The Commission's enthusiasm, energy and focus will continue to be a key element in the realization of this plan.



AERO VIEW OF
MANCHESTER
CONNECTICUT
1914

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The Historic District

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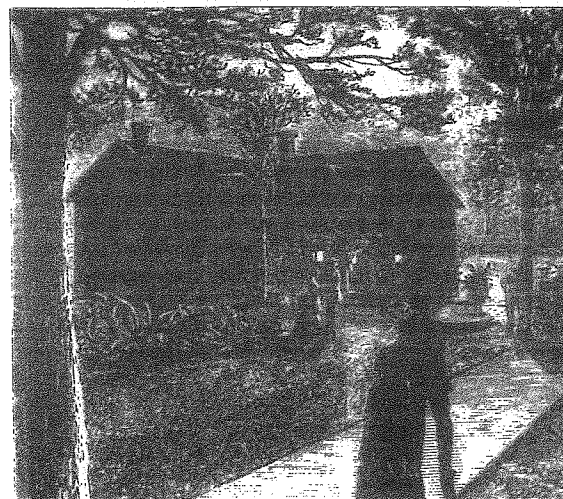
Early Years:

1780 - 1860

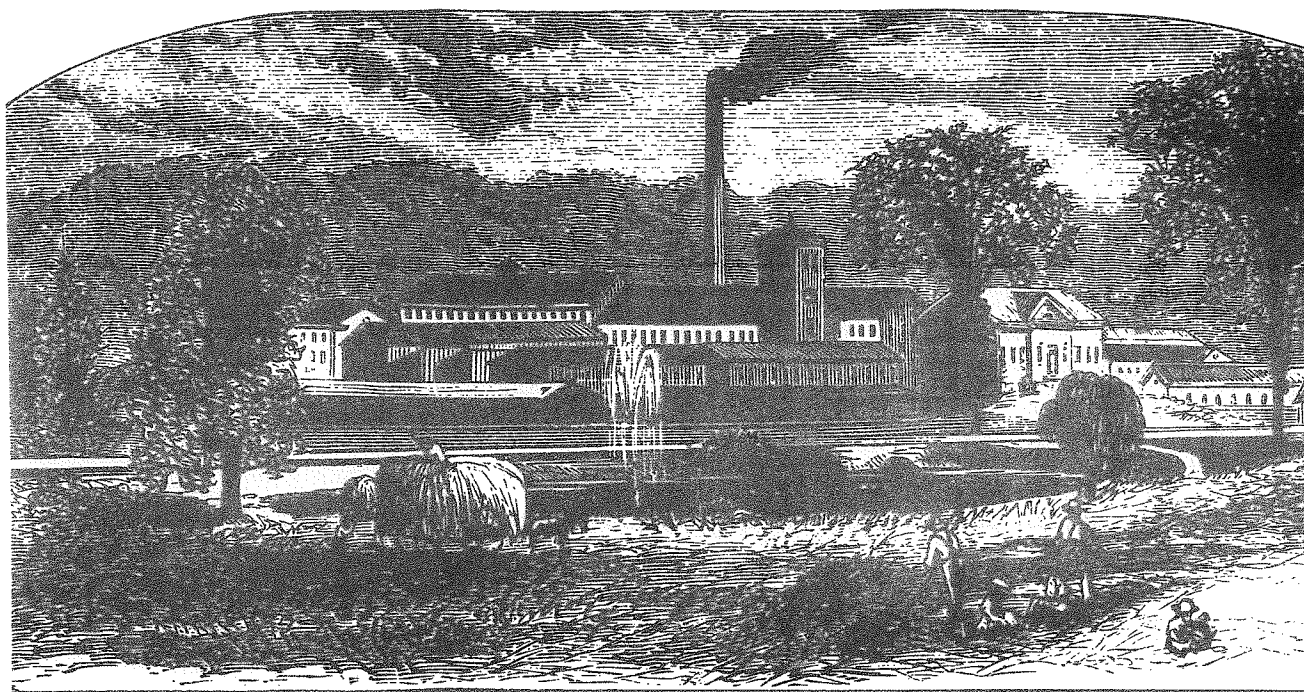
"The silk mills are located in a beautiful park. Nearby in the same park are the residences of the owners of the mills. Well kept lawns, adorned with fine trees and shrubbery, surround the mills and form a pleasing view from the large mill windows. Smooth, winding drives and walks lead from the mill entrances to the residence sections. Even outside the parked grounds, the shaded streets, the smooth sidewalks and the pleasant homes of the workers, ornamented with vines and shrubbery, give the entire community an air of comfort and prosperity rarely found in an industrial town."

The Miracle Workers

An American Textile
Manufacturers Assoc. brochure



THE FAVORITE WALK.



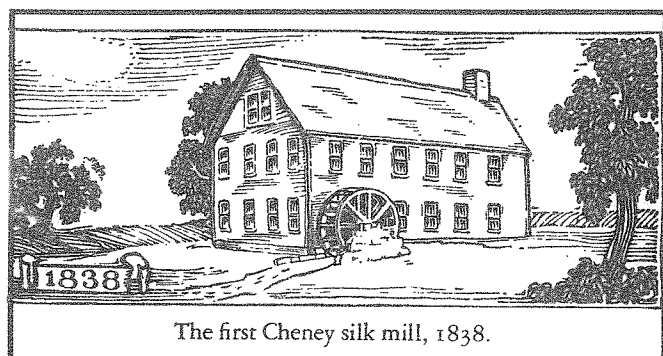
THE SILK WORKS.

Timothy Cheney, a farmer, miller, and famous clockmaker built the original gristmill along the Hop Brook when he was sent back to Connecticut during the Revolutionary War to make gunpowder for the Colonies. His father, Benjamin, had originally settled in the area in 1724, when it was still largely inhabited by Passamaquoddy Indians and the only roads were the east/west Indian trails leading to the Connecticut River. By the time of the American Revolution, South Manchester had developed into a sleepy agricultural settlement. Center Street, Main Street, and Hartford Road were the only roads in existence, and they were barely passable in foul weather. Small farms and water powered mills were the only sources of employment.

The first silk was produced in South Manchester in 1838, when six of Timothy Cheney's grandsons banded together to form the Mt. Nebo Silk Manufacturing Company in the old family gristmill in back of the Cheney Homestead. Mulberry trees, which are necessary for the cultivation of silk worms, had been imported into this country for the first time in the 1830's. At the time, there had been much enthusiasm for eliminating the middleman by cultivating and producing high quality silk in one integrated

process, without the need for importing raw silk cocoons from abroad. The trees, however, proved unable to withstand the harsh Atlantic coast winters and the speculative bubble burst in 1840. Most silk producers were driven out of business, but Cheney Brothers persevered through this crisis by accepting imported raw silk from Japan while concentrating their energies on streamlining the spinning, weaving, and dying processes that went into the production of the finished fabric. They adopted the family name for the company in 1843, and by 1847 had developed a power silk spinning operation that greatly improved both the quality and quantity of their production. By 1855 the Cheneys had developed a process for spinning silk from imperfect cocoons that further speeded production and lowered costs.

Company employment rose from 18 workers in 1843 to 110 by 1850. At the start of the Civil War in 1860, this number had risen to 600 workers and Cheney Brothers had become the largest and most profitable of all the 500 silk manufacturers in the United States. What had started as a small grist mill in what was known as Five Mile Tract or Orford Parish, was now the largest employer in the region and was transforming South Manchester into an industrial village.



Cheney Homestead

The Historic District

Period of Major Growth: 1860 - 1920

The years following the Civil War brought increased expansion and prosperity to Cheney Brothers. Between 1860, when the firm employed 600 workers, and 1920 when employment peaked at 4,700, all of the existing silk mills, worker housing, and transportation network was built. The South Manchester Railroad, the South Manchester Water Company, the Manchester Electric Company, the Manchester Gas Company, the Manchester Sanitary and Sewer District, and the Manchester Country Club were all constructed as Cheney-owned subsidiaries.

Prior to 1867, the Cheneys had built only four dwelling houses on Elm Street and none of the currently existing mill structures. Their entire operation had been contained within a small triangle of land between Hartford Road and the Hop Brook, just to the west of the Cheney Homestead. By 1872, however, the company had found it necessary to expand across Hartford Road and

northward along Elm Street. Steam power freed the mills from the Hop Brook as a source of power and the railroad (opened in 1869) overcame the disadvantage of being located upon a non-navigable waterway. The two major district landmarks; Cheney Hall and the Clocktower Mill were constructed at this time. The Clocktower Mill, in addition to its five-story central clocktower, features a tremendous steam-powered plant that was a model of industrial technology for its day. As well as supplying all of the power for the mill operations, it heated the family mansions, office buildings, and many worker houses as well.

Cheney Hall was built as a meeting facility and social hall, and was but the first of many social facilities including churches, schools and libraries that were built either by, or with the direct support of the Cheney family. The company erected two boarding houses for newly arriving

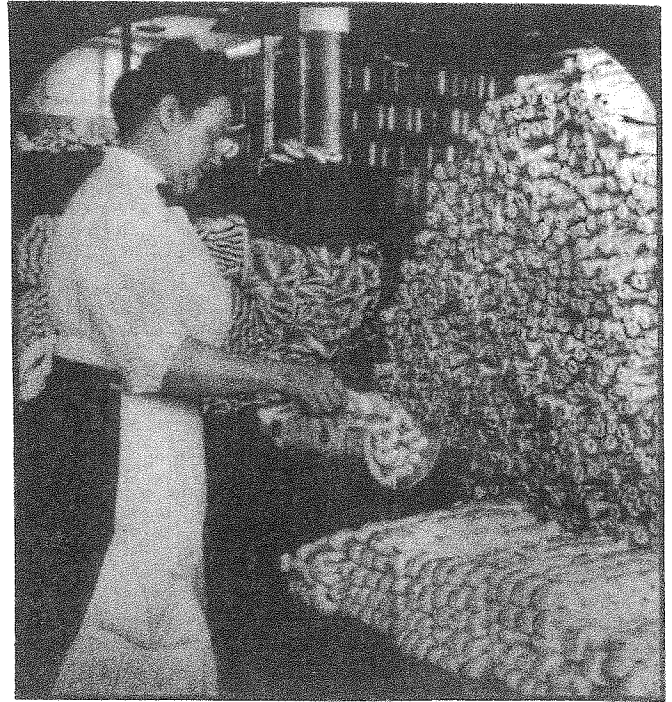


THE HALL, DÉPÔT, AND HOUSES OF EMPLOYERS.

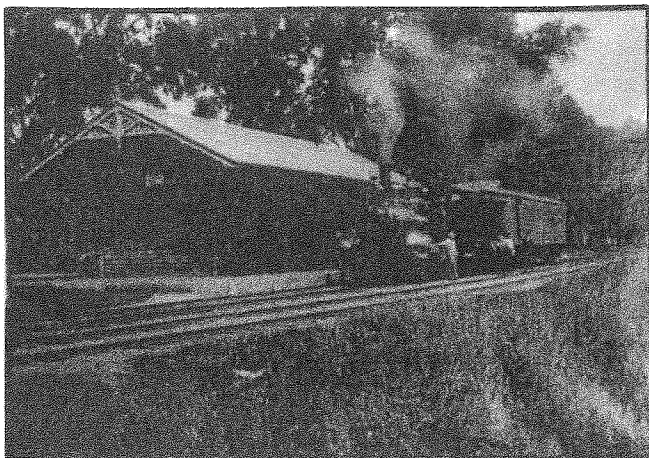
textile workers and either acquired or built a considerable number of new single-family residences.

Historian John Sutherland characterizes the Cheney's during this period as not just the largest employer in the area, "but the baronial lord and benefactor as well." "Benefit associations, accident and health insurance plans, on-site medical care, death benefits, and relatively good wages set the Cheney Mills apart from the grimmer history of early American industry." The company actively encouraged immigration of foreign born textile workers because of the expertise they brought with them from European production experience. The new immigrants, in turn, found Manchester to be a desirable place to live and work and in many cases encouraged friends and relatives to settle in the area as well. Recruiting brochures such as "The Miracle Workers" published by the American Textile Manufacturers Association painted glowing pictures of life in South Manchester:

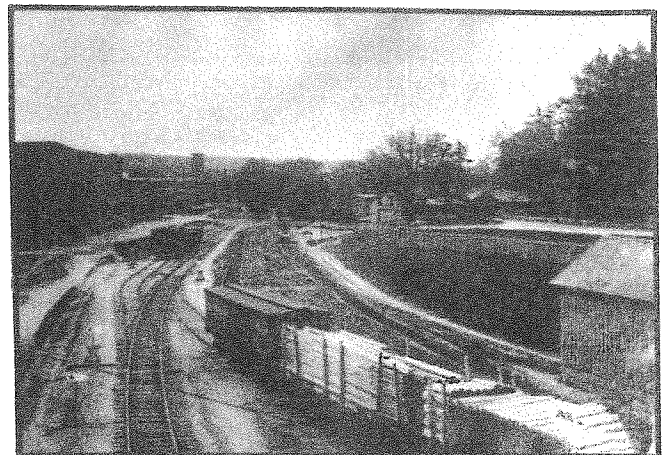
"There are no tenement blocks in Manchester. Everybody lives in a house with a nice yard on a pleasant street. Many of the houses are single cottages but most of them are double houses with separate entrances. These double houses have six to eight rooms on a side. The owner usually lives in one side and rents the other side for \$15 to \$22 a month. Almost all the houses have bathrooms, electric lights, and furnace heat, and many have gas ranges in the kitchen."



Consequently, workers from France, Germany, and Switzerland came to the town during the decade 1870-1880. They were followed by Scandinavians in 1880-1889, and by a large influx from the textile manufacturing regions of northern Italy around 1900.



"Cheney's Goat"



The Historic District

By 1896, Cheney Brothers owned approximately 200 rental units with steam heat, gas and electricity provided to tenants at low company rates. In addition to the earliest worker housing east of Main Street, most of this newer construction took place just north of the mills around Laurel and Chestnut Streets and further west, around Cooper, Cedar, Pleasant, and High Streets.

For themselves, the Cheneys began the construction of 13 Victorian family mansions encircling a great lawn just north of the Homestead on Hartford Road.

The Weaving Mills were completed in 1898 at the corner of Elm and Forest Streets and the Velvet Mills on the west side of Elm Street in 1902. John Sutherland describes the scene:

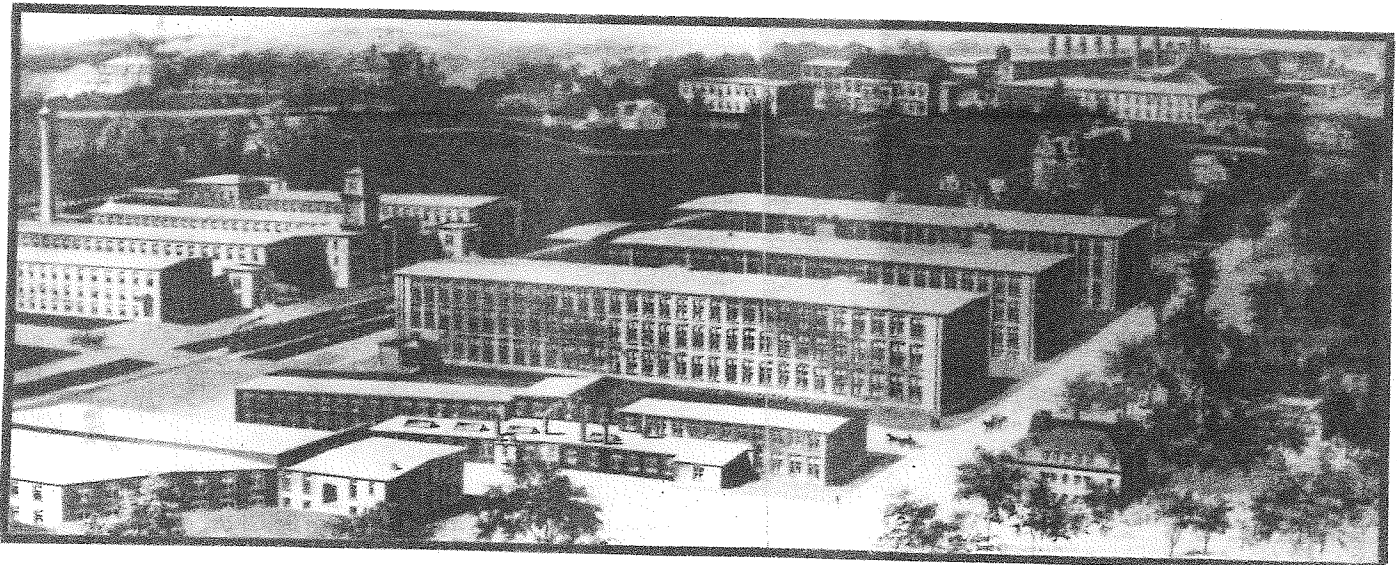
"The mills, mansions, and houses stood apart from each other; however, they were not segregated by fences, walls, or gates. Shaded trees connected the sections with one another."

"The mill complex, covering thirty-six acres, formed the focal point of the area. Fields and lawns were interspersed among the buildings."

"'A Model Community;' 'a grand industrial organization;' 'social harmony;' 'a college campus'---these were the phrases employed by residents and observers to describe South Manchester."

"Both contemporary and recent observers have most frequently referred to the area as a park."

With the advent of electrical power, the Cheneys were able to complete their mill complex along Pine Street with the construction of the Ribbon Mills in 1908 (now Manchester Modes), the Yarn Mill in 1911, and the Velvet Weave Shed and Yarn Dye House in 1914. By the start of World War I, Cheney Brothers had built additional worker housing to the west of the mill complex around Fairfield and West Streets, bringing the total of company owned housing to 275 structures. 25% of the town's population at this time was directly employed in the Cheney Mills.



Silk Mills circa 1910

Decline of Silk/Suburbanization: 1920 - 1980

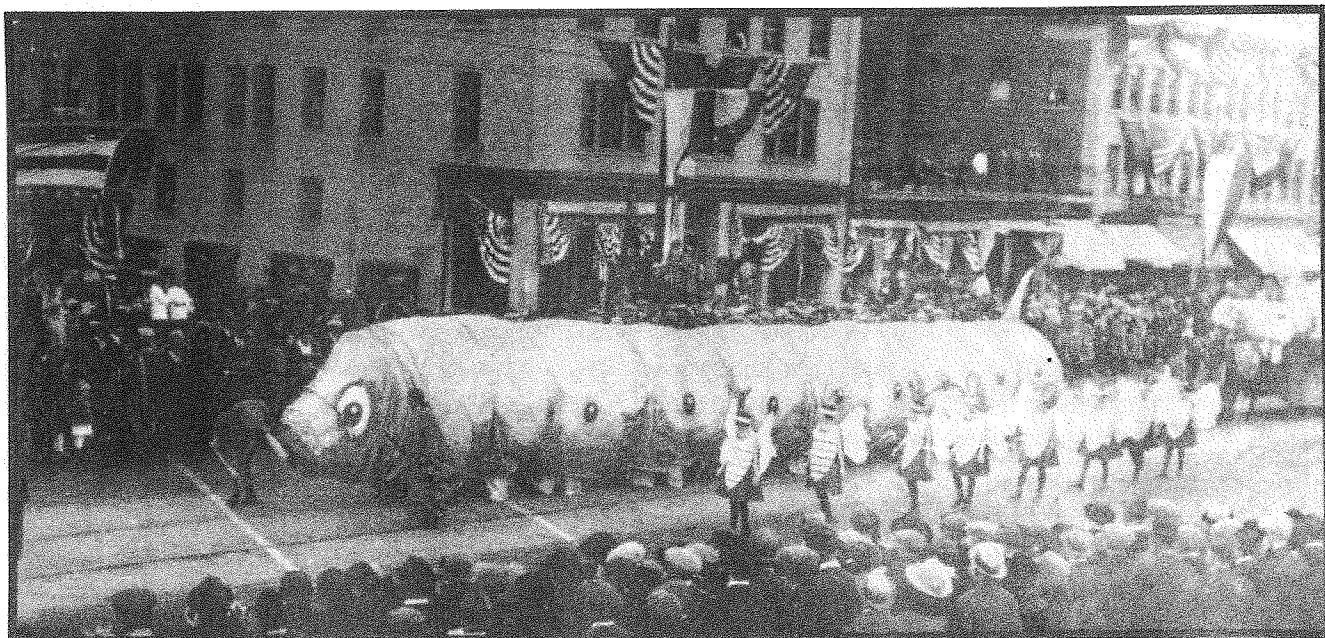
Cheney Brothers reached the peak of economic prosperity in 1923, with sales totaling \$23 million. The silk mill area had grown to encompass over sixteen structures of red brick and green trim. Workers housing and Cheney family residences completely surrounded the mill complex and many workers rode "Cheney's Goat" (the South Manchester Railroad) to work from the northern part of the town. Main Street had developed into a major shopping area with trolley service connecting it to the rest of the town. Coincident with this expansion, however, were ominous signs that growth could not maintain itself at former levels.

Synthetic materials such as rayon and nylon had been introduced that undercut the market for silk. Over production, in turn, led to cut throat competition from firms with fewer services and less overhead to maintain. Finally, in 1929, when the United States imported 100 million pounds of raw silk making that product first among imports, the depression hit. Demand for silk which had become by this time a luxury commodity, fell precipitously. Serious deficits were first experienced in 1929, and in 1932 the company was forced to borrow heavily from the Reconstruction Finance Corporation.

In 1933 the New York, New Haven, and Hartford Railroad purchased the South Manchester Railroad while private power companies bought the gas and electric facilities. Responsibility for schools and recreation facilities was turned over to the town. In addition, the town took over water, sewer, and garbage collection activities. Finally, the company filed for reorganization under provisions of the Federal Bankruptcy Act of 1935. The Reconstruction Finance Corporation ordered Cheney Brothers to dispose of most of its residences. On September 12, 1937, 248 residential parcels with a total of 747 dwelling units were sold at auction. John Sutherland recounts:

"Unemployment was a harsh reality for some workers whose connection with the mills sometimes spanned generations. Orders arrived sporadically, and those who could at least maintain a reduced work week considered themselves lucky."

The Cheney's policy was to try to give every family some income even if it was only two or three days work every second week. When it became necessary, the Cheney's even retired several of their own family members without pension.



1923 Centennial Day

The Historic District

A slight boom occurred during World War II when, after years of readjustment and intensive research, the firm embarked on the manufacture of nylon, rayon, cotton, wool, and combinations of both natural and synthetic yarns. The Pioneer Parachute Company was organized as a subsidiary firm that became the largest supplier to the war effort. The company was able to employ 2,484 workers at the height of its production. In 1946 a new printing and finishing building was completed that is today a research facility for Pratt & Whitney Aircraft. This boom was short lived however. Much of the textile industry of New England migrated to the South after the war in order to take advantage of low-cost labor and power. Space in which to operate was cheaper and more readily available, permitting the construction of more modern and efficient physical plants that were less costly to operate. Thomas Lewis recounts:

"In February, 1955, the 2,000 remaining employees of the firm were told that the mills would be sold. The news hit them and the other people of Manchester like a bomb-shell. The end of an era was at hand."

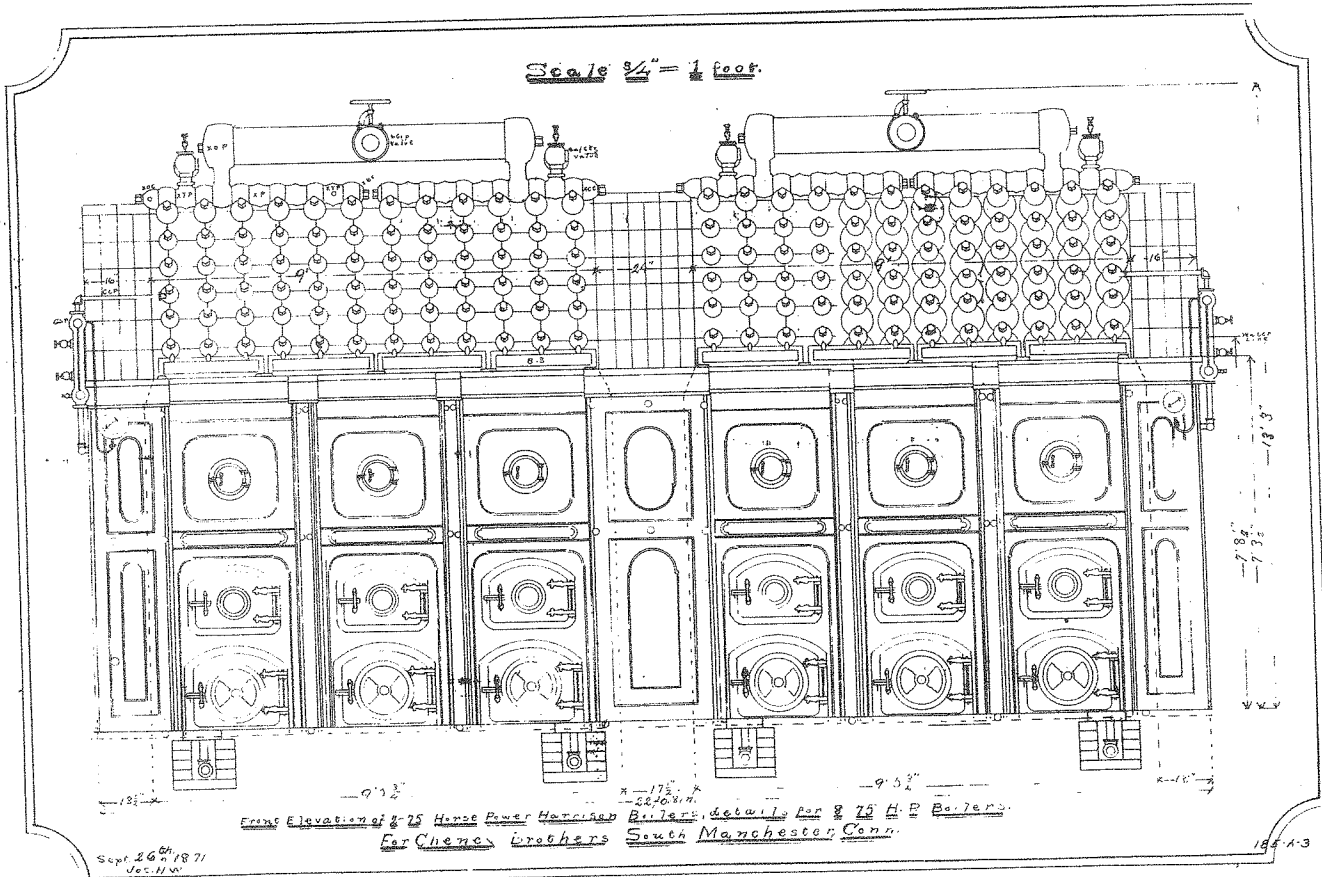
Today, Cheney Brothers is owned and operated as a subsidiary of Gerli, Inc., in buildings owned by Northern Star Textile Corporation. Employment is less than 300 employees who are engaged in the manufacture of velvet cloth. There are no longer any Cheney's involved in the company. Manchester Modes, Inc., occupying the old Ribbon Mills, is the second largest employer with approximately 240 workers, while Pratt & Whitney employ approximately 50 engineers and support personnel. In total, there are about 1,000 employees in all of the buildings that formerly constituted the Cheney Mills. While this decline might have been disastrous for the Town of Manchester, its overall impact was abated somewhat by the simultaneous growth of the aircraft and insurance industries in the greater Hartford region. John Sutherland summarizes:

"In 1979 Manchester is a suburban community of approximately 50,000 inhabitants. With its greatly diversified employment patterns, the town bears little resemblance to the industrial village of the years when silk was king. Almost all of the Cheney's have left town; not one of them lives in a Hartford Road mansion. Businessmen, politicians, and professionals now inhabit the stately homes. The west side homes are in good repair, and the area remains a stable neighborhood. The east side, however, is showing some decay, partially because of the decline of the Main Street shopping district which has fallen prey to peripheral shopping centers. The mills are occupied by small machine shops or are used as warehouses; several buildings are empty and show the ravages of vandalism and uselessness. Cheney Hall, until recently a fabric showroom, now stands empty and is the subject of much citizen concern but little action."



Main Street

Scale $\frac{3}{4}'' = 1'$ foot.



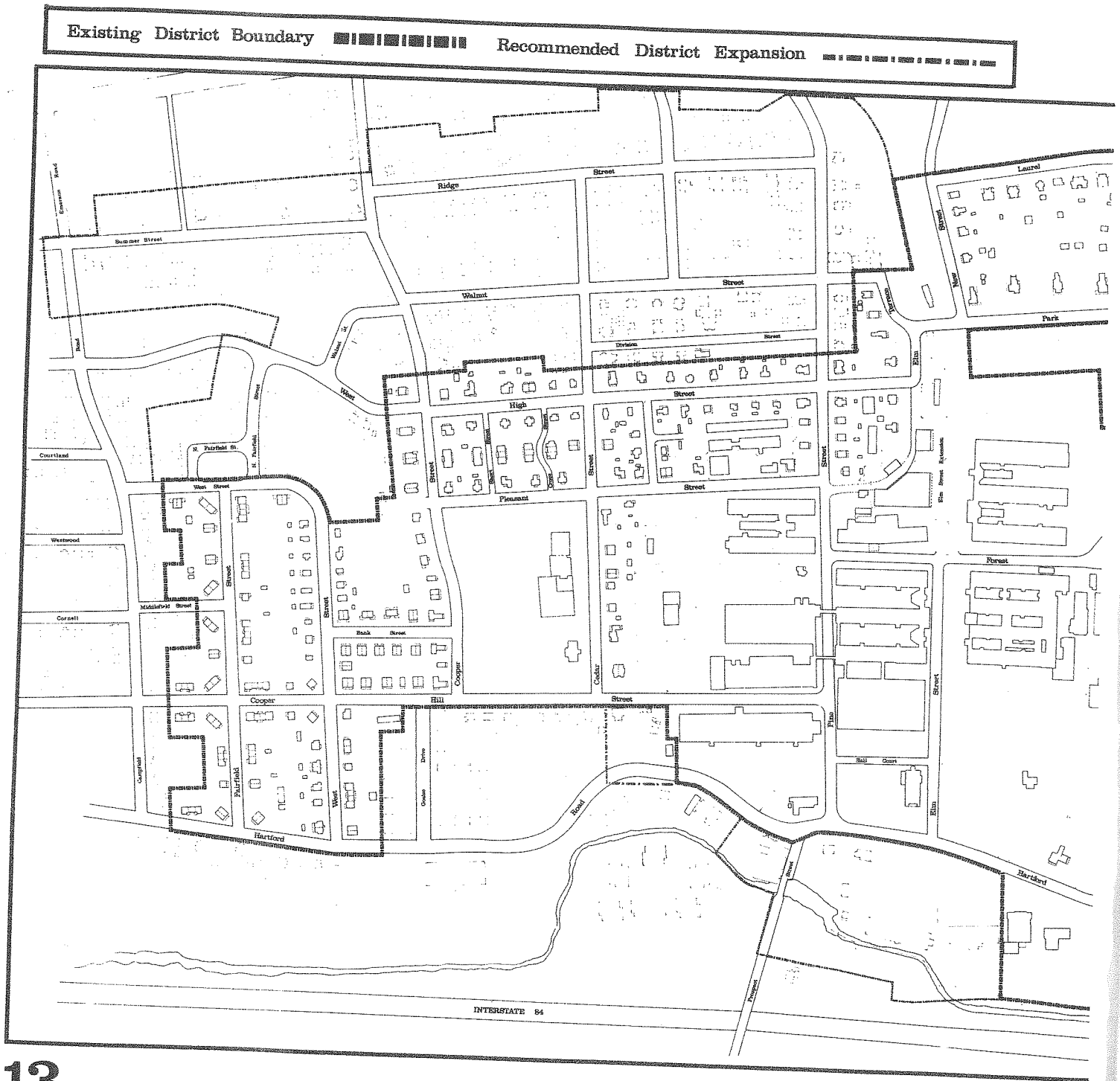
Front Elevation of 75 Horse Power Horizontal Boiler. Details for 75 H.P. Boilers.
For Cheney Brothers South Manchester, Conn.

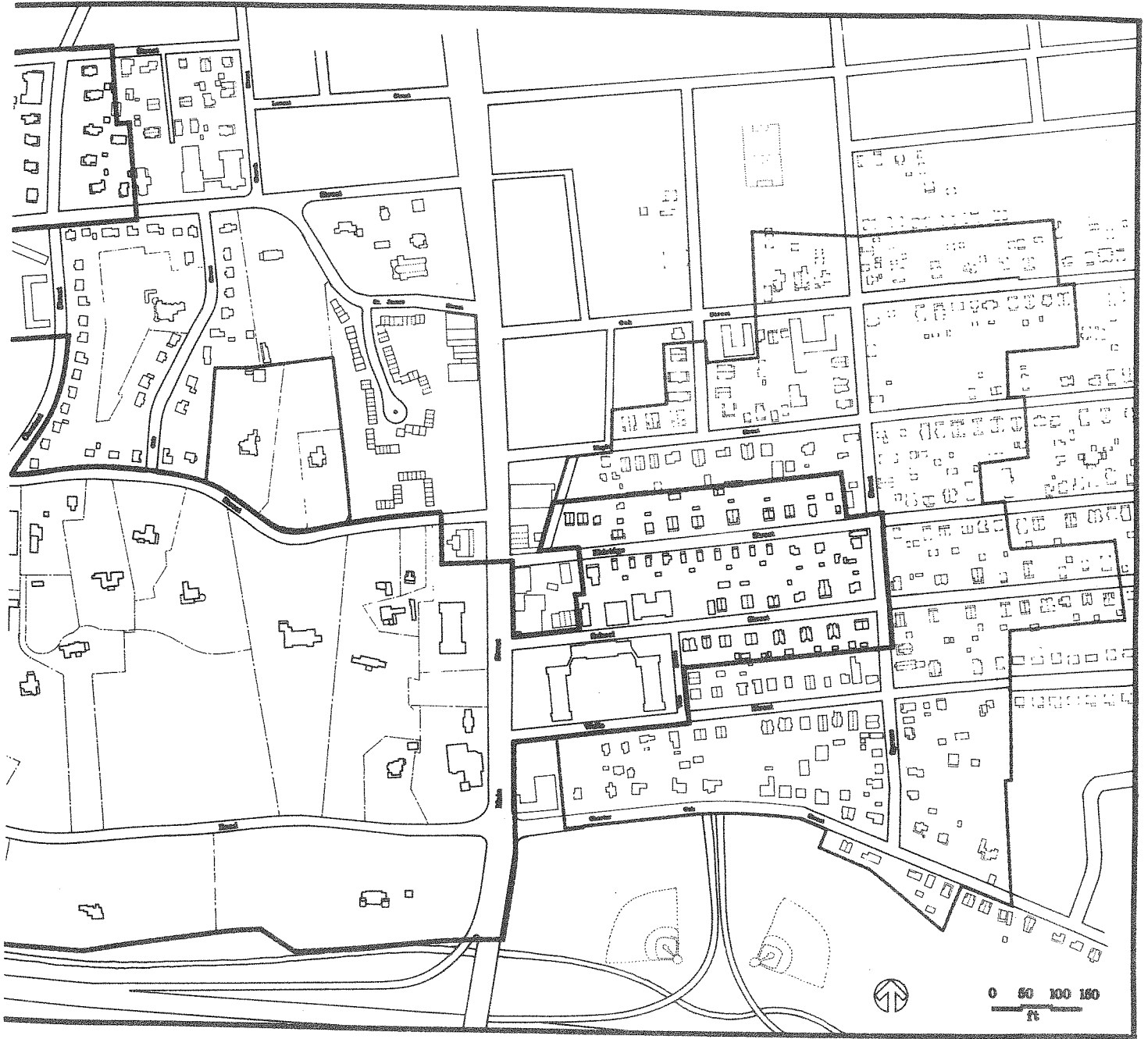
Sept. 26th 1871
Joc. 11/11

18-A-3

Preservation Inventory

Historic District Base Map





Preservation Inventory

Introduction

Prior to beginning work on a Development Plan, Anderson Notter Finegold and Russell Wright conducted a thorough preservation inventory of the Cheney Brothers Historic District. Every mill structure, Cheney family mansion, and residential structure in the District was photographed and catalogued.

Maps of the district recording the following data have been prepared:

- Map #1 Existing Building Use
- Map 2 Building Height
- Map 3 Facade Materials
- Map 4 Architectural Period
- Map 5 Residential Ownership (as of 9/78)
- Map 6 Building Condition
- Map 7 Architectural Value
- Map 8 Composite Preservation Index

Also, loose leaf binders containing a card for every district structure have been prepared showing the following information:

- Address
- Photo
- Present Owner
- Zoning
- Date of Construction
- Architectural Style
- Condition of Structure
- Condition of Lot

All of these materials are available and open to public viewing in the Town Planning Department. The following chapter gives a summary of conclusions reached as a result of this exhaustive process.

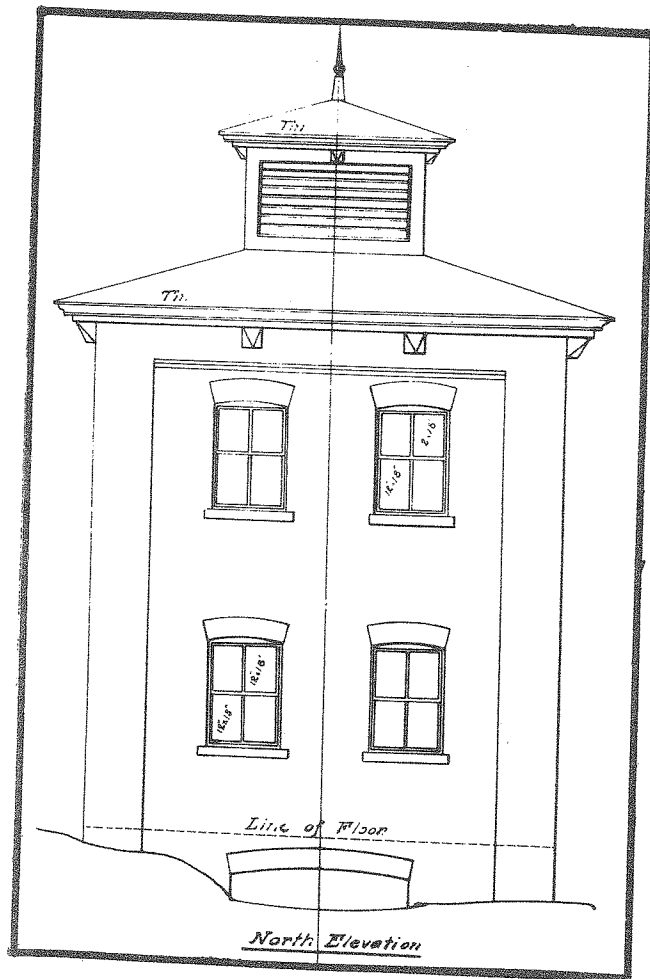
SWITCH BOARD BUILDING

SO. MANCHESTER, CT.

SCALE - $\frac{1}{4}$ " = 1 FT.

CHENEY BROTHERS.

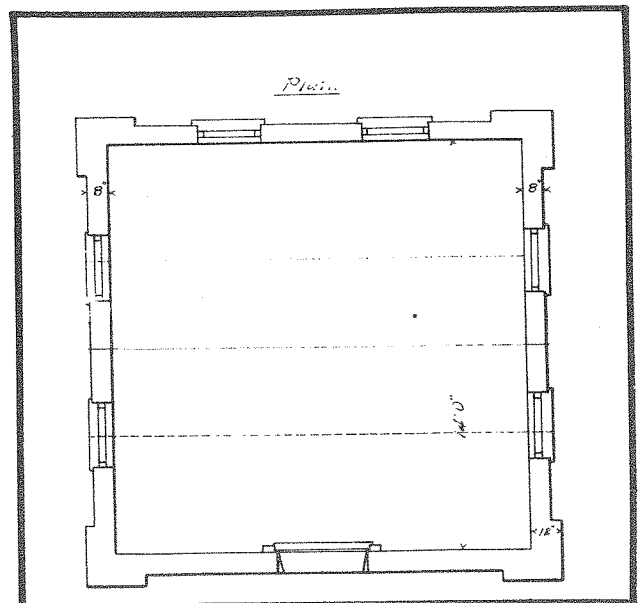
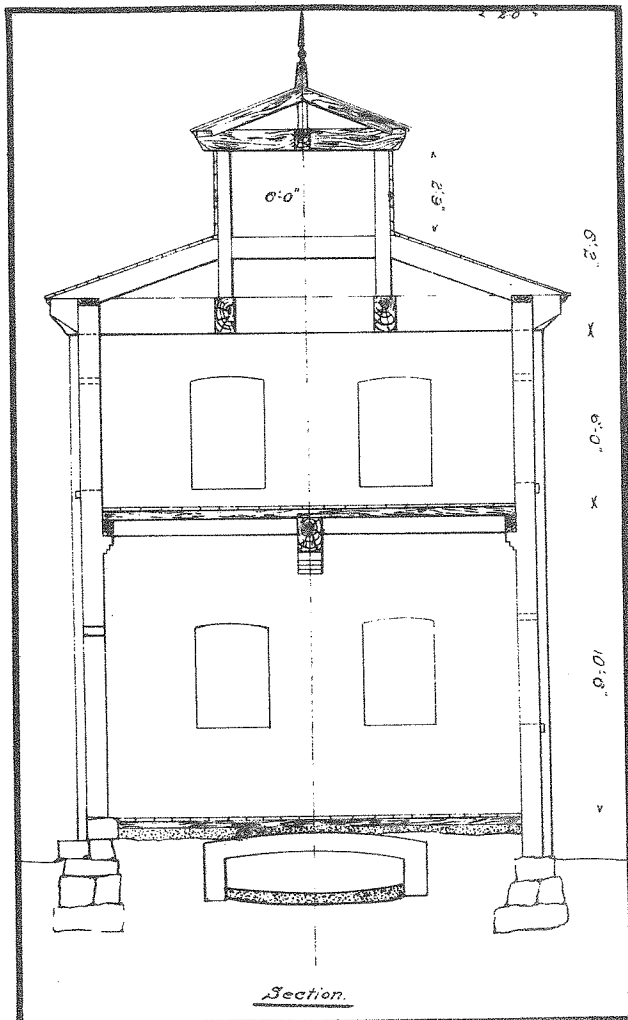
OCTOBER 1903.



Silk Mill Area

The majority of the mill structures associated with the Cheney Brothers were constructed between 1893 and 1917, and all are of standard timber and brick mill construction. Reflecting the need for open floor plans of the greatest possible width and strength to accommodate the heavier and larger textile machinery in use at that time, mill construction was more an engineering concern than an architectural one.

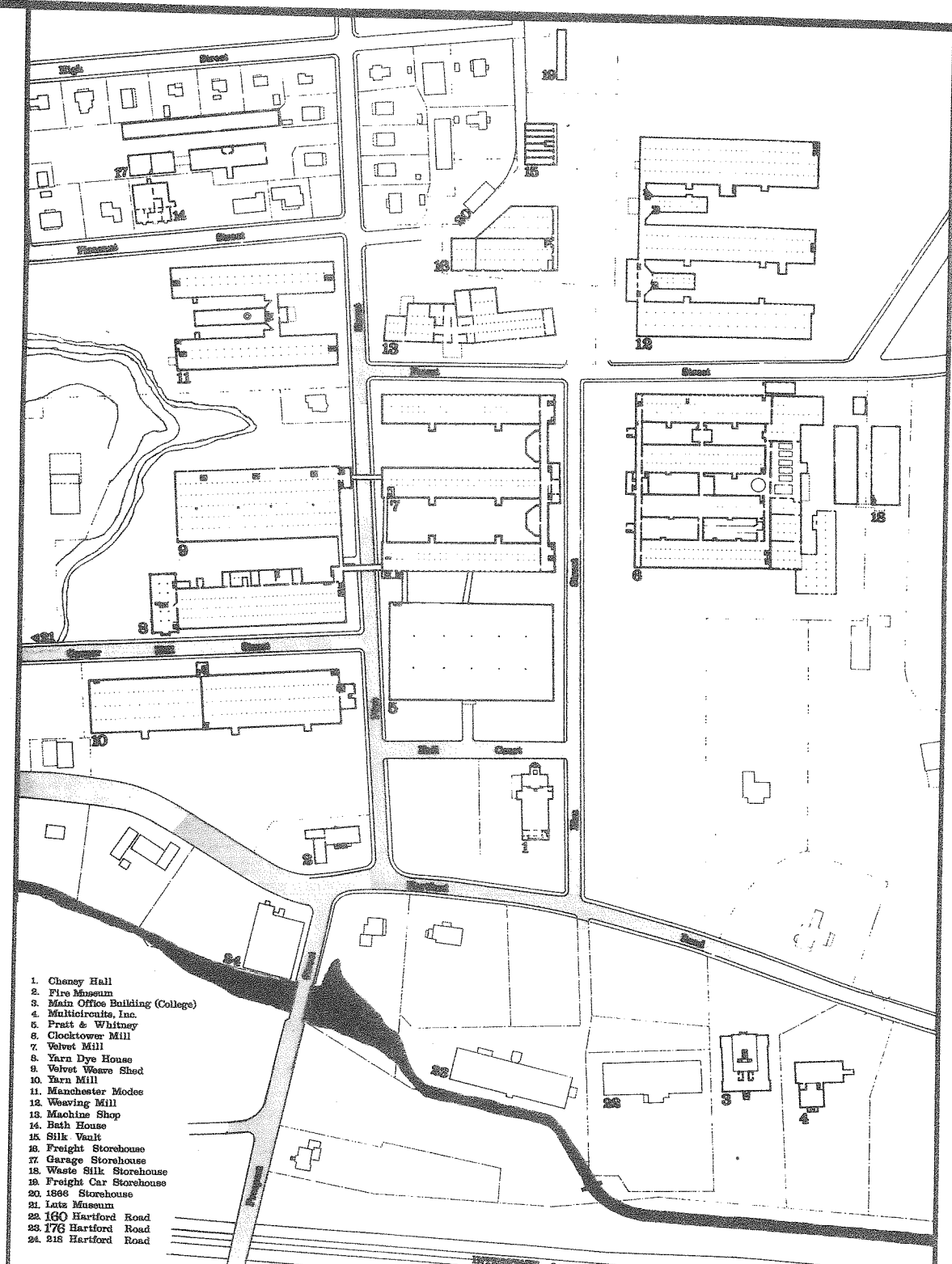
Efficiency and costs were the prime considerations, with design limited to the size of the timber beams and trusses that would carry the loads to the exterior masonry bearing walls. The walls were usually provided with ribbons of double hung windows which created a regular pattern of solids and voids with little interruption except for doors in the lower floor. With the exception of the Clock Tower at the Spinning Mill, there is little architectural embellishment to these functional structures other than corbelling at the cornice lines and occasional well-designed entrance pavilions. The conscious expression of structural components such as piers and corner pilasters along the otherwise austere brick and glass facades of the Cheney Brothers Mills makes them all the more significant as examples of this important building form. With the exceptions of the unfortunate loss of most of the great elms that once lined the streets in the mill area, and the informal use of some of the once spacious and well-kept lawns for parking, the Cheney Brothers Mills have changed little in overall appearance since 1917.



Preservation Inventory

Silk Mill Area

	BUILDING NAME	TOTAL SQUARE FOOTAGE	USABLE FOR CONVERSION	DUPLEX FACTOR	NET SQUARE FOOTAGE
1	Cheney Hall	12,500	12,500	-	12,500
2	Pine Street Firehouse	6,300	6,300	-	6,300
3	Main Office Building Manchester Community College	26,500	26,500	-	26,500
4	Multicircuits, Inc.	8,500	-	-	8,500
5	Pratt & Whitney Aircraft Co.	67,000	56,000	+1/2	84,000
6	Clocktower Spinning Mill	208,000	160,000	-	160,000
7	Cheney Brothers Velvet Mill	207,000	207,000	+1/3	275,000
8	Cheney Brothers Yarn Dye House	78,000	78,000	+1/2	117,000
9	Cheney Brothers Velvet Weave Shed	89,000	60,000	+1/3	80,000
10	Yarn Mill	135,000	135,000	+1/3	180,000
11	Manchester Modes	130,000	106,000	+1/3	140,000
12	Weaving Mill	215,000	190,000	+1/3	250,000
13	Machine Shop	42,000	33,000	+1/2	44,000
14	Bath House	6,300	6,300	-	6,300
15	Silk Vault	12,000	-	-	12,000
16	Freight Storehouse	36,000	28,000	-	28,000
17	Garage Storehouse	17,000	-	-	17,000
18	Waste Silk Storehouse	15,200	-	-	15,200
19	Freight Car Storehouse	1,700	-	-	1,700
20	1866 Storehouse	4,500	4,500	-	4,500
21	Lutz Junior Museum	5,000	5,000	-	5,000
22	160 Hartford Road	30,000	30,000	+1/3	40,000
23	176 Hartford Road	27,000	27,000	+1/3	36,000
24	218 Hartford Road	23,000	23,000	-	23,000
TOTALS		1,322,900			1,572,500



- 1. Cheney Hall
- 2. Fire Museum
- 3. Main Office Building (College)
- 4. Multiconite, Inc.
- 5. Frost & Whitney
- 6. Clocktower Mill
- 7. Velvet Mill
- 8. Yarn Dye House
- 9. Velvet Weave Shed
- 10. Yarn Mill
- 11. Manchester Modes
- 12. Weaving Mill
- 13. Machine Shop
- 14. Bath House
- 15. Silk Vault
- 16. Freight Storehouse
- 17. Garage Storehouse
- 18. Waste Silk Storehouse
- 19. Freight Car Storehouse
- 20. 1866 Storehouse
- 21. Lutz Museum
- 22. 160 Hartford Road
- 23. 176 Hartford Road
- 24. 218 Hartford Road

THE CHENEY BROTHERS NATIONAL HISTORIC LANDMARK DISTRICT
SILK MILL AREA



Commission for the Cheney Brothers National Historic Landmark District
 Town of Manchester, Connecticut
 Anderson Notter Finegold Inc.
 Russell Wright A.I.A. A.I.C.P.

Architects and Preservation Planners
 Preservation Consultant

Preservation Inventory

Silk Mill Area

MILL STRUCTURE #1
CHENEY HALL
177 HARTFORD ROAD
12,500 SQ.FT. ON TWO LEVELS
VACANT

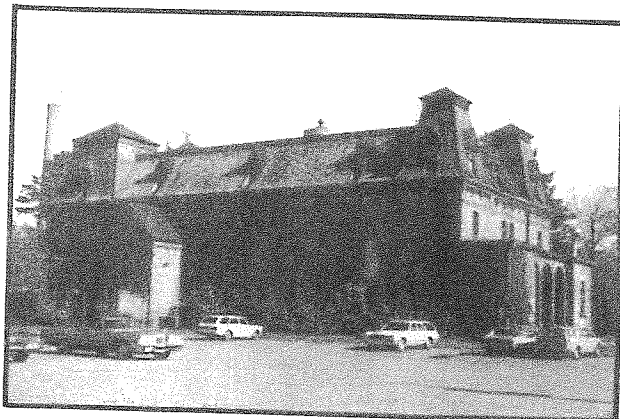
Cheney Hall was designed by the Boston architect Hammar Billings and was dedicated by Horace Greeley in 1867 as a meeting hall for employees of Cheney Brothers. It was also used at various times throughout its history as a library, church, political hall, school, theater, concert hall, armory, ballroom, basketball arena, hospital, and home for the county fair. Most recently it was used as a fabric showroom for silk and other textile products before being vacated.

With the exception of two one-story additions on either side of the entrance porch, the building remains practically unchanged in appearance from when it was completed over a century ago. The red brick structure has limestone trim and a wood shingle Mansard roof with pyramidal caps on three bell cast towers. The brick facades are detailed with limestone weathering at the water table, a paneled belt course at the ceiling line of the upper floor, and a corbelled brick roof cornice with carved and chiseled brackets under the eaves. The windows in the lower floor are round headed 2-over-2 sash set in pointed drop arches. At the upper level, the windows are segmental 2-over-2 set below brick arches that have limestone skewbacks. The one story porch on the front facade of the building has two pairs of double doors with round-headed transoms on either side of a central window. The porch roof is supported by square brick columns with limestone Doric

capitals. Elaborate wood sawn knees form rounded arch openings between the columns and sawn and chiseled brackets support a deep dentil cornice.

On the interior, the entrance vestibule and major assembly space on the first floor are detailed in elaborate sawn and chiseled golden oak. This includes the shuttered arched window openings, stage area with pipe organ, and stairwells. The floor is parquet laid in a herringbone pattern that was noted for its resilience and "springiness" as a dance surface. The assembly hall at present has a dropped acoustical ceiling that can easily be removed to reveal the rear balcony and upper detailed portions of the space. In addition to the elaborate Victorian style woodwork were original golden window hangings and heavy stage curtains in red-wine velvet. Upstairs and downstairs from the main level are lesser assembly spaces that were designed to be more functional than ornamental in nature. The principal use of the downstairs space was as a library and reading room for company employees, although it was also used as a smaller meeting room and occasionally as a school room.

The building was landscaped in a park like setting of great elms and lawns. Unfortunately, the elms have been lost and much of the lawns have been paved over for parking lots. This



Cheney Hall - Today



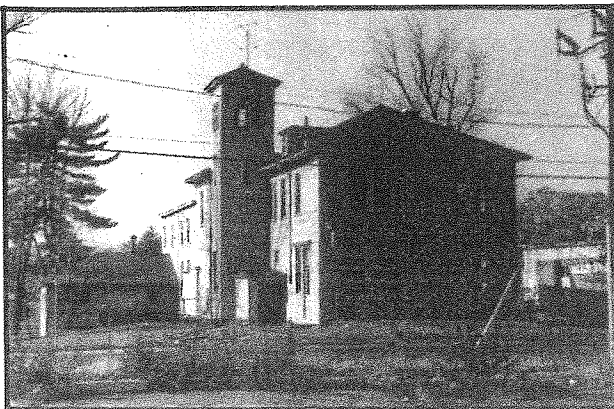
Cheney Hall - 1901

MILL STRUCTURE #2
PINE STREET FIRE HOUSE
230 PINE STREET
6,300 SQ.FT. ON TWO LEVELS & BASEMENT
VACANT - IN PROCESS OF RESTORATION

building deserves the highest priority for quality redevelopment within the historic district. A certain amount of subsidy will be required, but this should more than make up for itself, in terms of long term benefits to the silk mill area. Cheney Hall can set a standard of quality for subsequent renovations.

The building has been vacant for several years now and is beginning to suffer from neglect. Water penetration is eroding the internal structure of the walls and many of the interior spaces are deteriorating from lack of heating and ventilation. The wood shingle roof has been patched with other materials and is showing signs of leakage.

Estimates made in 1973 by a local contractor provided "guesstimates" of around \$250,000 to renovate the building for use as a state Circuit Court. The actual figure in today's dollars is probably much higher. It is felt, however, that the highest priority for renovation should be given to Cheney Hall over all the other structures in the Historic District. Its architectural distinction, its location at the center of the district, and the fact that it is the oldest major public building to be built by the Cheney's, make this building key to the success of revitalization efforts throughout the rest of the district.



Pine Street Firehouse

The old Cheney Brothers Firehouse sat vacant for many years before being leased recently by the Connecticut State Firemen's Historical Society for use as a State Fire Museum. Renovation is currently underway to restore the building to its original appearance when built in 1897.

The building is a two story frame structure with apparatus room on the main level and firemen's quarters above. A three story hose drying tower is attached to the rear of the south facade of the original structure. Over the years, a series of one story additions were made to the rear and the sides of the building that are quite sympathetic in style and design to the main structure. A curiosity of the building is a two lane bowling alley in the basement and a turn-of-the-century communications room for a fire alarm system on the upper floor.

Architecturally, the wood frame structure is sheathed in novelty siding with flat sill and corner boards. A deep overhanging hip roof sits on a wide cornice consisting of a crown mold, dentils, flat frieze and bed mold. Upper floor windows in the front facade (east) are paired, 4-over-1 double hung sash on either side of a smaller central window. The tower has paired, round-headed 1-over-1 windows in the top floor, and a centered tall 1-over-1 window in the second story. The front facade has two sets of large double doors under flat projecting hoods which are supported by sawn and chiseled brackets.

The Firemen's Association has access to a very extensive collection of historic fire apparatus and memorabilia that could fill this structure many times over were it all to be assembled. Consideration should be given within the district, therefore, for eventual additional space requirements of the fire museum, possibly in cooperation with the development of a silk museum, gun museum, and possible expanded programs of the Lutz Museum.

Preservation Inventory

Silk Mill Area

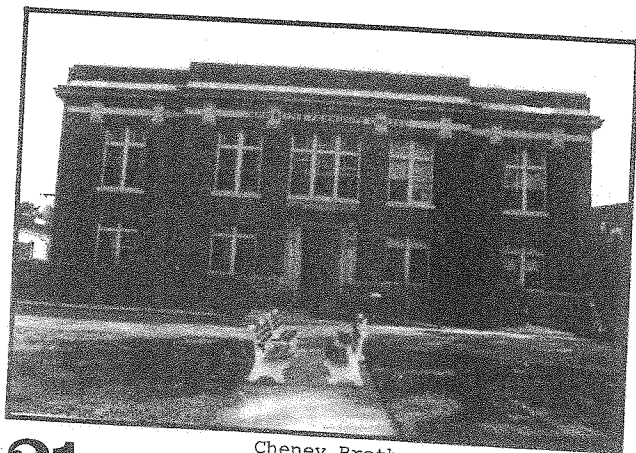
MILL STRUCTURE #3
CHENEY BROTHERS MAIN OFFICE BUILDING
146 HARTFORD ROAD
26,500 SQ.FT. ON THREE LEVELS
LEASED TO MANCHESTER COMMUNITY COLLEGE UNTIL
1981
-SUBSEQUENT USE UNDETERMINED

Built in 1910, the building that is now the temporary home of Manchester Community College, was built as a showpiece for company visitors housing the offices of the Company Board of Directors, management personnel and record storage vaults. The two story on raised basement brick structure has a skylit atrium lobby enclosing a grand central staircase.

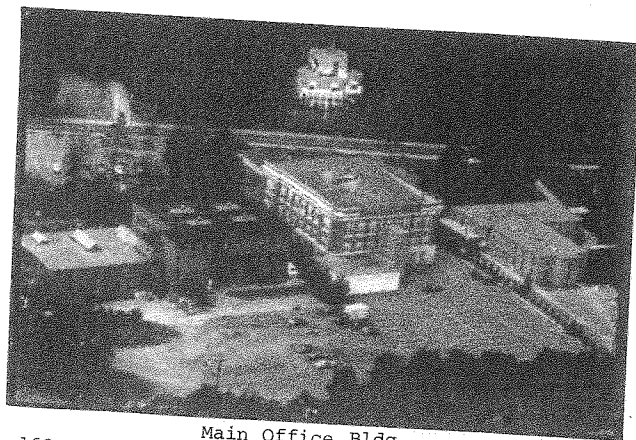
The five bay front facade of the building has a three-bay-wide projecting pavillion incorporating paired double-hung transom lit windows on either side of the central entrance. The entrance has double doors with a full width rectangular transom above and is enclosed by limestone engaged pilasters and projecting hood supported by carved consoles.

The second floor center bay has triple windows, flanked by paired windows of the same design, including transoms, but taller. The same window treatment is repeated in the end bays of the front facade and in the six bay long side elevations. The first and last bays along the sides project slightly from the body of the structure. The entire building has a limestone base, a limestone string course at the upper ceiling line and a deep molded cornice with a high brick parapet wall enclosing the roof.

Under current ownership the building is held with two other parcels that include over two-hundred parking spaces for the Community College's use. When the building is vacated in 1981, the building with surrounding parking would be a prime candidate for public use by groups such as the Shelter Workshop, Arts Council, Manchester Historical Society, Community College Adult Education programs, and possible expanded programs of the Lutz Museum. Sensitive redevelopment of the building and site should include landscaping to reclaim the Hop Brook in a park-like setting.



Cheney Brothers Main Offices

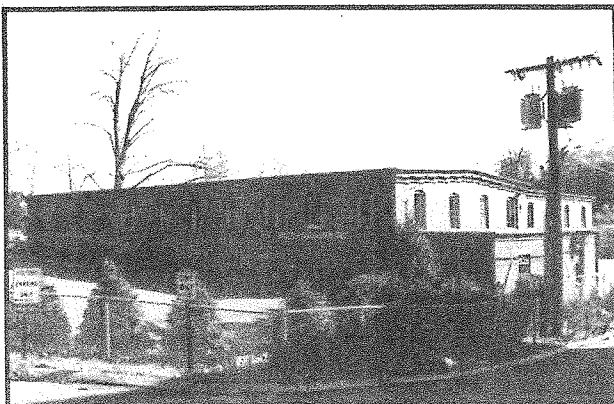


Main Office Bldg.
160 Hartford Road
Multicircuits Inc.

MILL STRUCTURE #4
MULTICIRCUITS, INC.
130 HARTFORD ROAD
APPROX. 8,500 SQ.FT. ON TWO LEVELS
RENOVATED CHENEY BROTHERS OFFICE ANNEX

This 4-by-11 bay one-story brick structure was originally built in 1890 as part of the Cheney Brothers plant located south of Hartford Road. As the land slopes down to the Hop Brook the basement level at the front of the structure became a ground level floor at the rear of the structure. When Multicircuits, Inc. renovated the building in 1977 for office use, they added a sympathetic two-story wing perpendicular to the original rectangular building on the south facade. Along with landscaping and attractively arranged parking, the building can be considered a sensitive and worthwhile recycling project within the envelope of the historic district.

A sign of warning should be sounded at the practice of sandblasting the brick work on the exterior of the structure. Such a practice removes the protective glazing on the brick and allows pock-marking and deterioration to occur. The fine corbeled brick work at the sill and eave line, therefore, will lose its fine crisp line and water penetration can be expected to erode the brick in a few years time. Steam cleaning and washing is a preferred method of cleaning and should be required in subsequent recycling projects within the historic district.



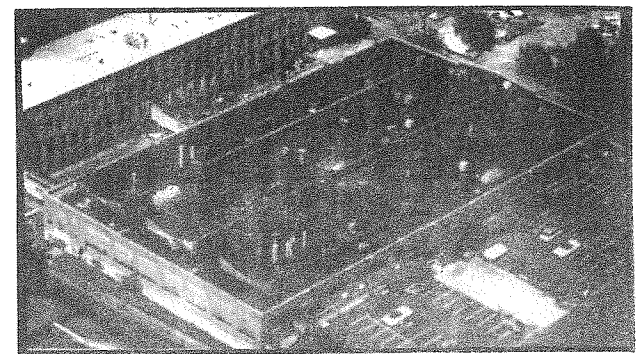
Multicircuits, Inc.

MILL STRUCTURE #5
FINISHING PLANT
15 HALL COURT
67,000 SQ.FT. ON ONE LEVEL AND PARTIAL BASEMENT

Built in 1946, this modern industrial structure was the last building constructed by Cheney Brothers. Its one-story layout reflects the shift from rail to truck transport and its high skylit open-plan space allows for change and variation in use. Initially used as a finishing plant by Cheney Brothers, the large rectangular structure is divided into 7-by-9 bays. The northern bay in the west facade has a slightly projecting central pavilion with an entrance door and flanking windows in the lower floor with three windows above. All sash is steel industrial casement, arranged in groups of three, 12-over-9-over 9. Two bridges (no longer in use) connect the rear of the structure to the main floor of the Velvet Mills to the north.

Currently leased by Pratt & Whitney Aircraft of East Hartford, the building is used for scientific research and employs approximately 40 engineers and scientific support personnel. With the exception of some noisy air handling exhaust equipment, the building can be considered to be a good neighbor for residential and office uses in surrounding buildings and for that reason has not been considered for reuse.

Planting of street trees along Hall Court and a more suitable parking layout in front of this structure would create a more pleasing backdrop for Cheney Hall which is just to the south.



Pratt & Whitney Aircraft

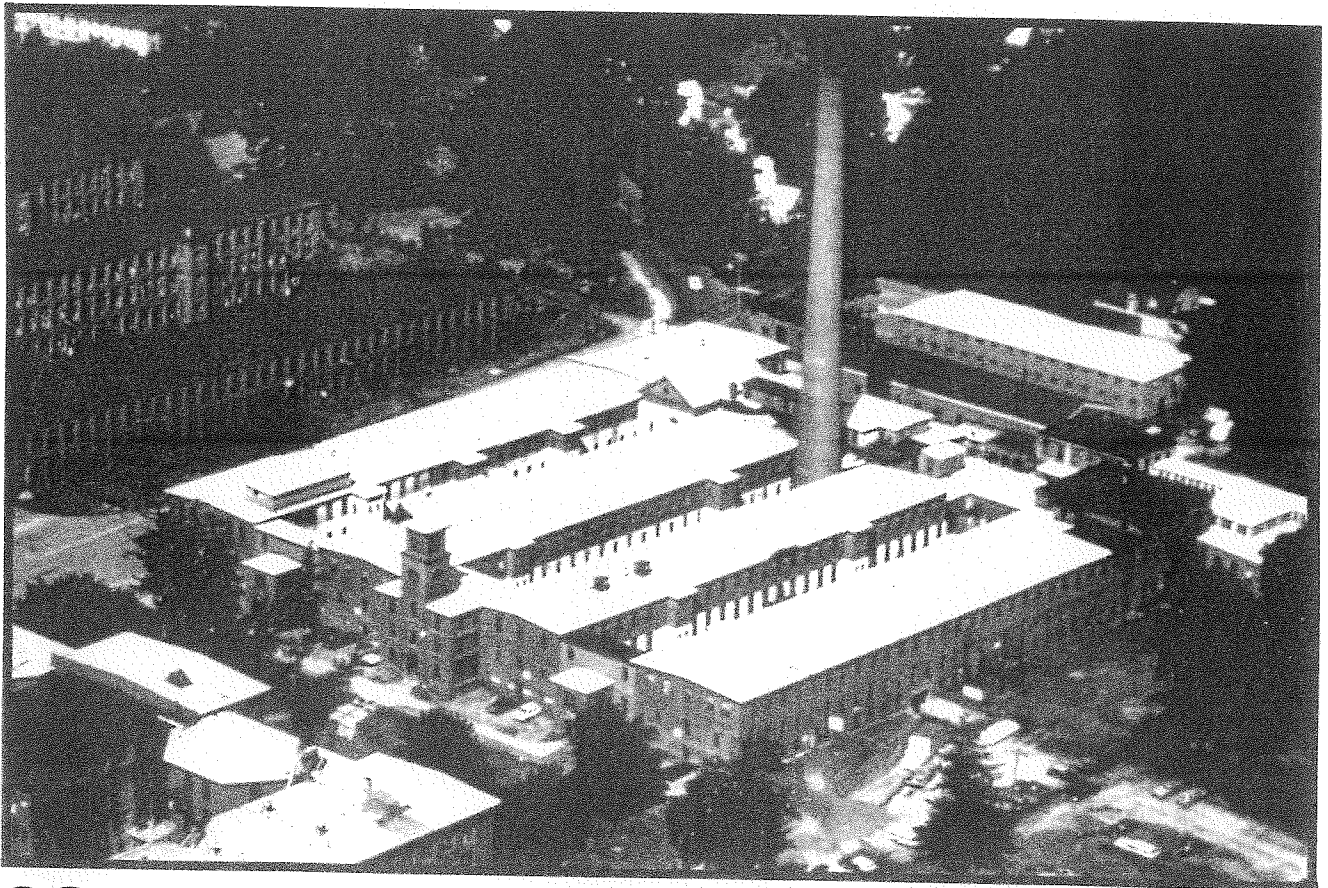
Preservation Inventory

Silk Mill Area

MILL STRUCTURE #6
CLOCKTOWER SPINNING MILL
63 ELM STREET
208,100 SQ.FT. ON THREE LEVELS AND BASEMENT AND
SUPPORT STRUCTURES

The Clocktower Mill was begun in 1870 shortly after the completion of Cheney Hall and was the first silk mill to be constructed north of Hartford Road. It was laid out along the South Manchester Railroad track bed as were all the subsequent mills clustered on Elm Street. The unique features of this particular structure are the 4-story clock tower at the center of the west facade and the classically inspired steam power plant at the rear of the structure.

Architecturally, the complex is composed of four east-west wings that are two stories in height above a raised basement. The northernmost two wings along with the southernmost wing are 5-by-28 bays in dimension. The remaining wing is 3-by-28 bays in dimension. These wings are connected along their west facade by a three-story wing with four-story clocktower centrally placed. Three interior courtyards are created by the bays and are enclosed by a steam and boiler plant at the eastern end of the complex.



Much of this structure was built in stages after 1870. Major alterations and additions were made in 1896 and the structure was not completed until 1900. Materials are red brick walls with wood double-hung window sash set in segmental arched openings with sandstone sills. Timber roof trusses extend through the exterior wall into the eaves of the overhanging roof. Sash in the second floor is 9-over-9 and on the first floor is 12-over-12.

The four story square clocktower with belfry projects slightly from a three-bay pavilion. The elaborate tower is framed with rusticated brick panels at the entrance level that change into paneled pilasters above. The recessed double entrance is enclosed by a segmental arched opening with granite skewbacks and keystone. The second and third levels of the tower, which are separated by corbeled and dentiled belt courses, have single round arched openings with brick and granite detailing. The clock level terminates in a corbeled classical cornice and incorporates the original round-faced clock which is still in operating condition. The enclosed belfry above the clock level has paired, round arch louvered openings in each facade with molded granite imposts and keys connecting the openings all set in a recessed panel below a heavy overhanging cornice. The flanking windows of the entrance pavilion have single segmental arched openings in recessed panels formed by pilaster strips and deep string course, capped with a molded wood cornice.

The connecting hyphens on the front facade were originally two stories in height but were enlarged to three floors around 1900. Each hyphen is three bays wide, with a two story projecting entrance porch in the central bay.

This mill structure currently is highly underutilized. Over 90,000 square feet are vacant and the remainder is subleased to seven small industrial tenants who employ under 100 employees. Cheney Brothers maintains the building because its steam-powered plant supplies power to the rest of their physical plant, but they themselves only utilize the building for storage and warehousing purposes.

Because of its architectural detailing and central location within the mill complex, this building should receive a high priority in redevelopment efforts.

Preservation Inventory

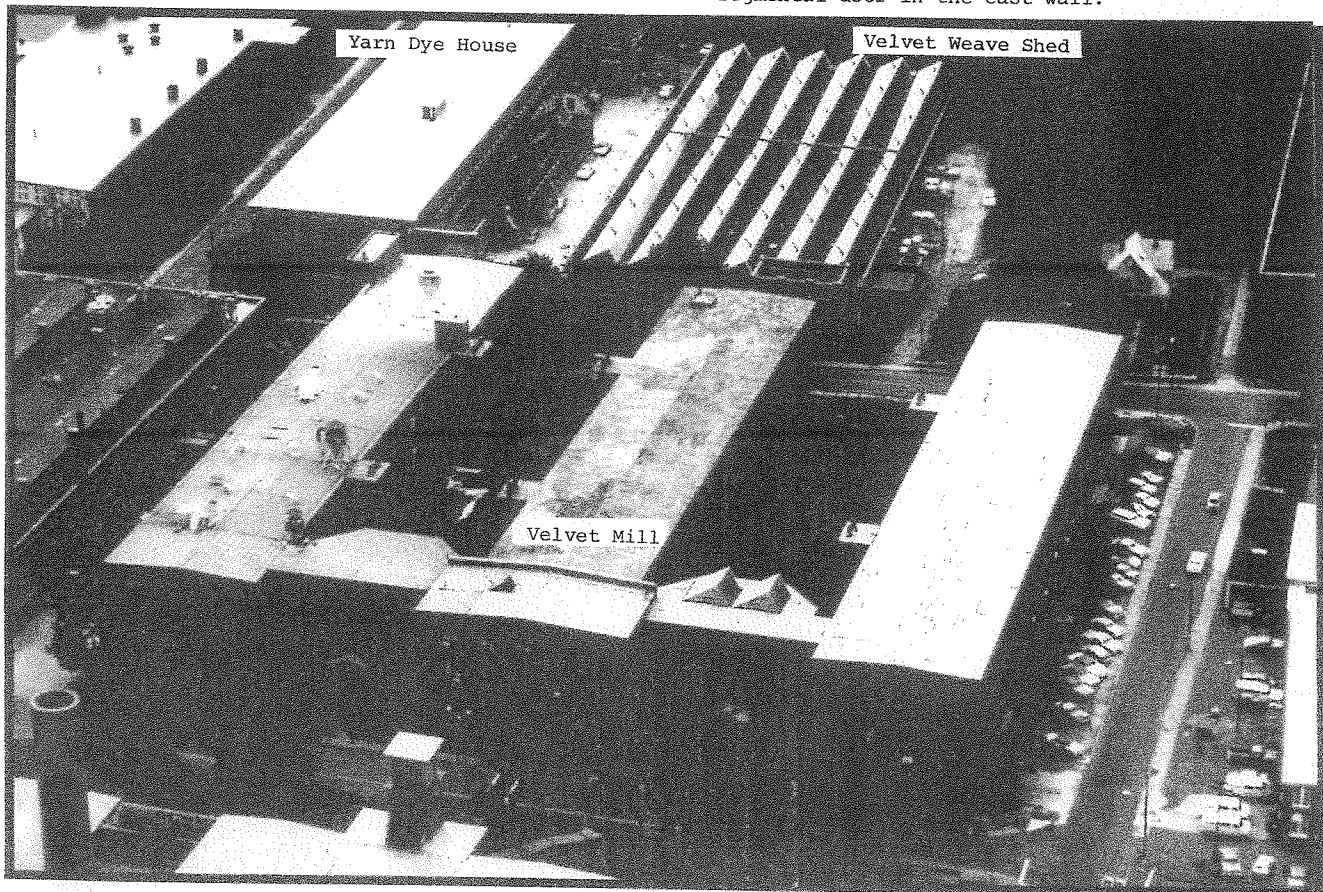
Silk Mill Area

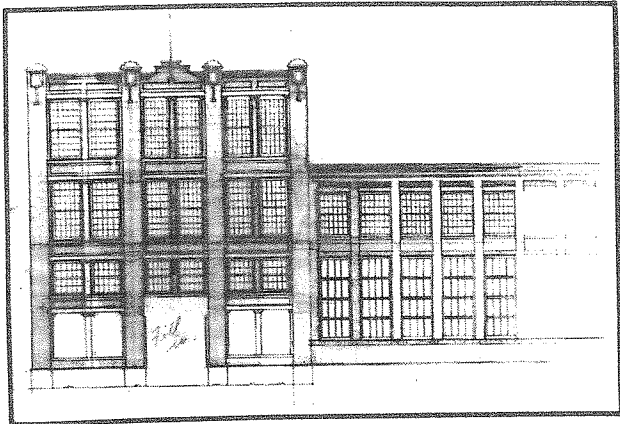
MILL STRUCTURE #7
CHENEY BROTHERS VELVET MILL
60 ELM STREET
207,000 SQUARE FEET ON 3 LEVELS AND BASEMENT

The Cheney Brothers Velvet Mills, constructed in 1901-1902 consist of three 30 bay long, low gabled roof structures on an east-west axis connected at the east end wall by a one bay deep passage hyphen. All three east end walls extend one bay beyond the hyphen, with stairs in the outer bays of the north and south parts, and an elaborate entrance pavilion in the middle part. All sections, including the passage and the semi-octagonal wings behind the hyphens that project into the open courtyards, are three stories in height on a partially raised basement. All are of brick, with paneled pilasters, segmental double-hung 16/16 sash and a corbeled cornice with stepped consoles

between each bay. Each section is five bays wide and has mechanical equipment shafts at the third points of longitudinal walls in the hyphens.

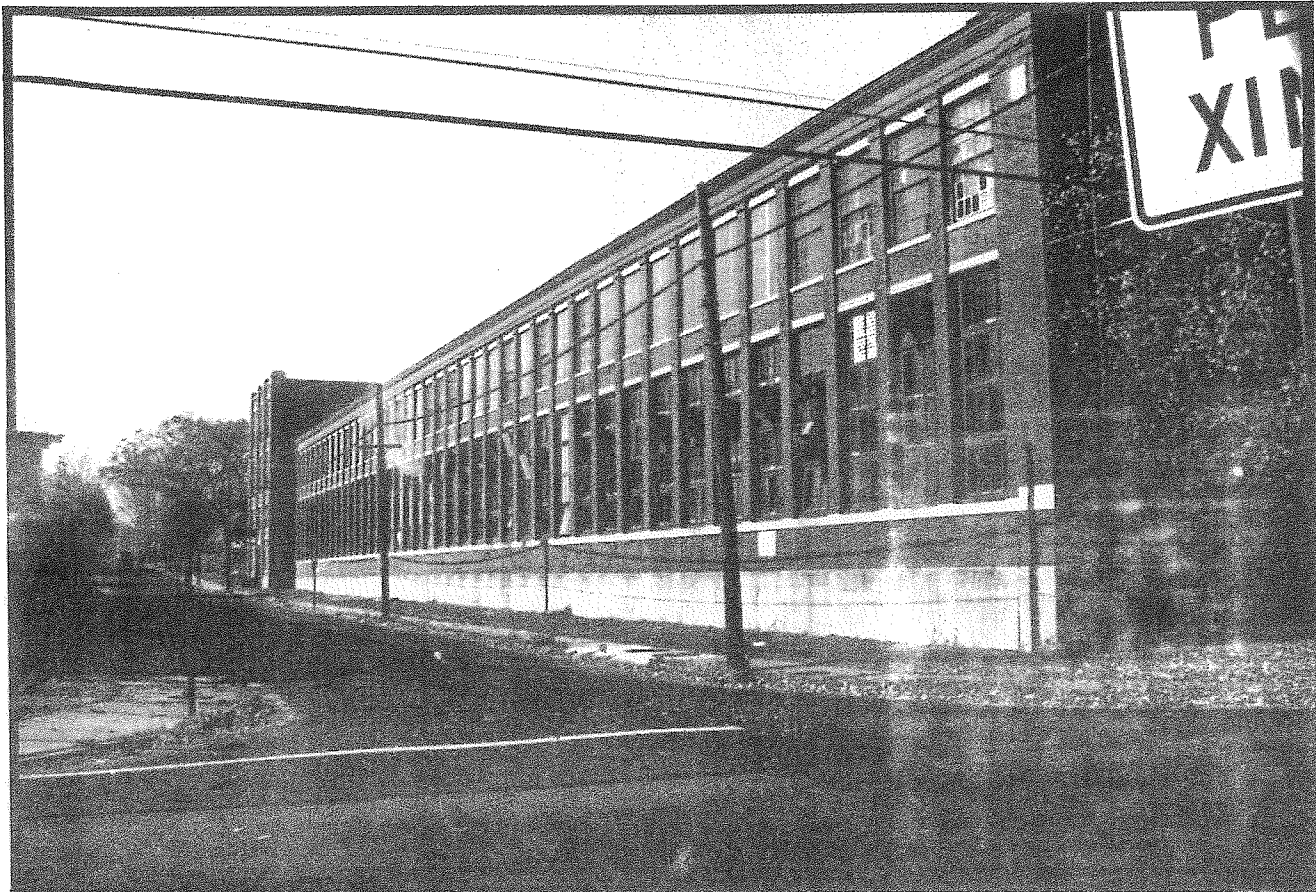
The south wing has a three story stair tower at the southwest corner and is linked to the central section and to the Velvet Weave Shed across the street by overhead walkways. This section is also connected to the building to the south occupied by Pratt and Whitney. The five bay entrance pavilion in the middle of the east facade has a low gable roof, higher than the main structures, with a fan-lit double door with sidelights. The double door is recessed in a compound round arch opening with rusticated sandstone haunches, imposts and molded raking cornice. There is a dateblock which reads 1901. The hyphens flanking the entrance porch are 1 bay wide by 1 bay deep, with a segmental window in the north and south walls and a segmental door in the east wall.





MILL STRUCTURE #8
CHENEY BROTHERS YARN-DYE HOUSE
31 COOPER HILL STREET
56,000 SQUARE FEET IN 2 LEVEL INDUSTRIAL WING
22,000 SQUARE FEET IN 4 LEVEL OFFICE BLOCK

The brick Yarn Dye House constructed in 1914 is four stories in height, appearing as two floors in the long south elevation, and has a low gable and flat roof. Rectangular in plan, 40 by 9 bays, there is a two story 2 by 19 bay addition centered along the north wall and a two story stair wing at the northeast corner that also accommodates the elevated walkway from the Velvet Mills opposite. This structure is also connected at ground level to the Velvet Weave Shed to the north, and the present office of Cheney Brothers is contiguous to the west end



Yarn Dye House from Cooper Hill Street

Preservation Inventory

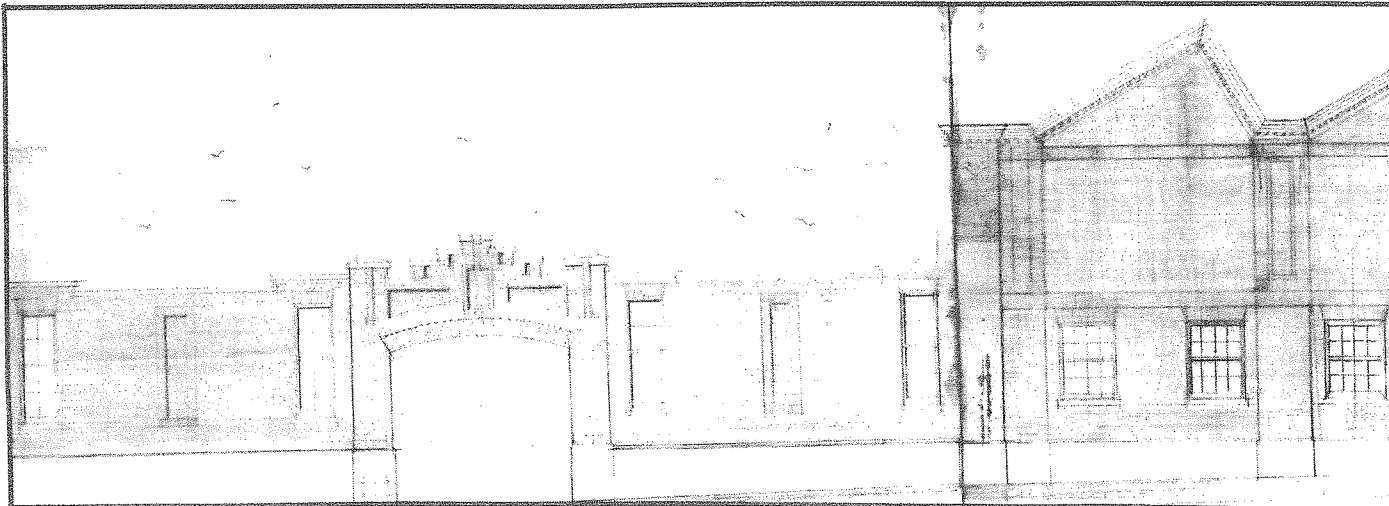
Silk Mill Area

MILL STRUCTURE #9
CHENEY BROTHERS VELVET WEAVE SHED
182 PINE STREET
89,000 SQUARE FEET ON 2 LEVELS

wall. The brick walls feature a partially stuccoed water table with a limestone weathering which serves as the sill for the lower windows, a dentiled brick cornice, and flat arched window openings faced with rusticated granite. The bays are separated by narrow brick paneled pilasters with molded brick capitals. The pilasters originate at the top of the water table and continue full height, creating recessed brick spandrels below each window unit. Sash is 4/8/4 casements in the lower units and 15/15 double hung in the upper.

The Cheney Brothers Office is housed in a four story on partially raised basement, 3 by 6 bay brick, flat roof rectangular structure built in 1914. The front six bays are divided into three sections by brick pilaster strips and there is a castellated, limestone capped, brick corbeled cornice that has coats of arms cast in the frieze. The lintels, sills and water table are limestone. All windows are steel industrial casements, 2/2 in the first floor, 10/10 in the second and 20/15 in the third and fourth floors.

The two-story brick rectangular plan Velvet Weave Shed was constructed in 1914 and is 12 by 31 bays, with a low sawtooth roof. Only the lower story of the main structure is fenestrated with 8/8 double hung wood sash in rectangular openings spanned by brick jack arches. The two story section has a projecting watertable, belt course and frieze with brick raking cornices in the gable ends of the sawtooth roof. The paired bays are divided by paneled pilasters with drop-chevron capstones of brick at the outer bays. A three bay, three story entrance pavilion is appended to the northeast corner of the Weave Shed. The central bay of the pavilion is occupied by double doors at grade, a row of four small rectangular sash in ribbon-like fashion above the doors and, originally, a large window opening in the third level, now given over to the overhead passageway linking this building with the Velvet Mills. The outer bays have paired double hung windows at each floor. The Classic Revival facade is accented by engaged brick pilasters, a paneled frieze band, dentiled cornice and a low parapet surrounding a low hip roof. The Weave Shed is linked to the Yarn Dye House along the east elevation by a one-story one-bay deep passageway of Classic aspirations, featuring a segmental arched service entrance capped by a stepped, paneled pediment, and is lighted by tall rectangular windows below a high limestone capped parapet wall.



All three of these Cheney Brothers Mill complexes are currently well utilized for manufacturing purposes. An elevated enclosed bridge network connects the structures with one another and on-grade parking for the 280 employees is provided adjacent to the Clocktower Mill. These structures could be renovated to office or residential purposes if that should become necessary in 1988 when Cheney Brothers' current lease expires, but it is hoped that the company will choose to remain in the area to maintain a tradition

spanning the past 142 years. Conversion of surrounding mill structures that are vacant or underutilized would not be hampered by the continued industrial presence of Cheney Brothers. On the contrary, it is felt that a mixed land use scheme, in which textile manufacturing is still taking place, is a preferable solution and a more accurate reflection of the historical composition of the Cheney District than could be reflected by strictly a residential and/or office neighborhood.

VELVET WEAVE S&CO



Preservation Inventory

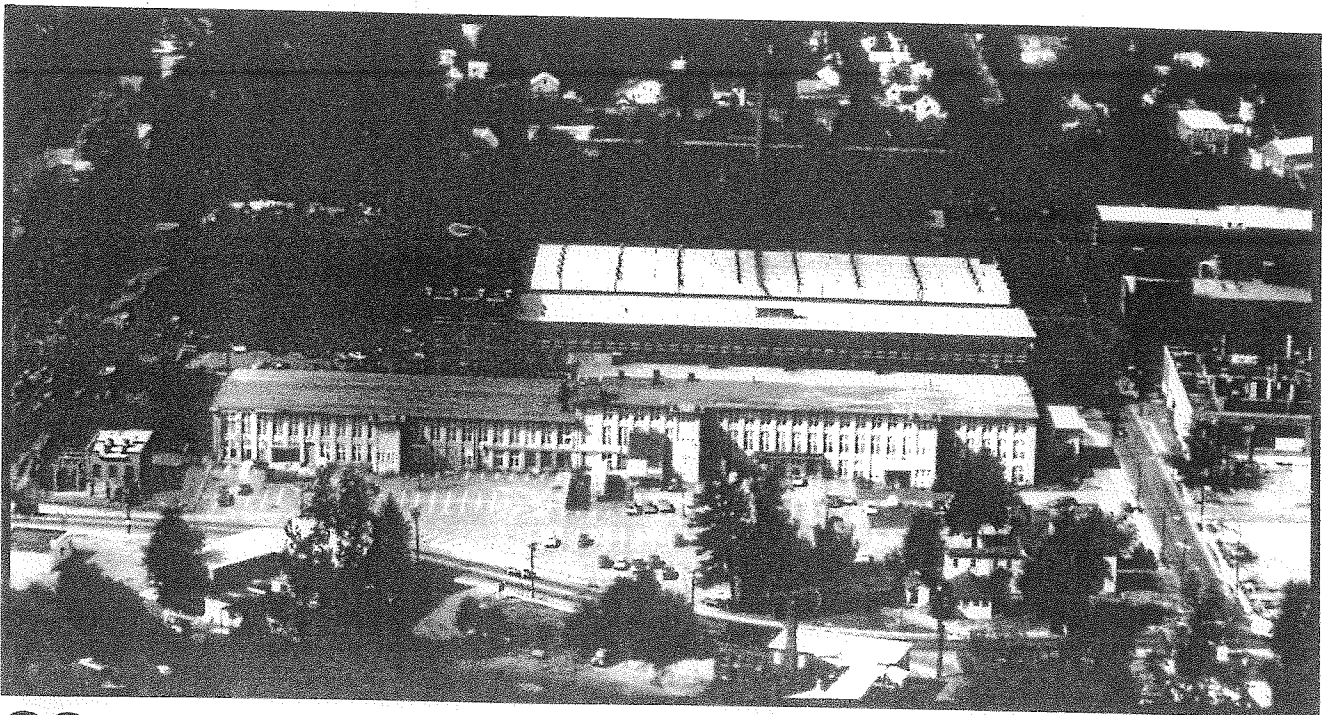
Silk Mill Area

MILL STRUCTURE #10
YARN MILL
210 PINE STREET
135,000 SQUARE FEET ON 3 LEVELS

Constructed in 1911, the Yarn Mill is of two parts; the western section is two stories in height, 22 by 8 bays, and the eastern section is three stories and 26 by 8 bays, both under low gable roofs. There is a single three-story stair tower in the north elevation, at the junction of the two parts, and three projecting square towers in the south facade. All windows are paired and have 12 light transoms under the segmental openings with 6-over-6 sash in the third floor and 6-over-9 in both the first and second floors. The brick walls have paneled pilasters, stepped consoles between each bay and a brick corbeled cornice. The upper chords of the roof trusses project beyond the wall surface and support the wide overhanging eaves. A two-story pedimented brick entrance pavilion is affixed to the east end wall, with a large compound round arch opening similar to the entrance at the Velvet Mills, and flanked by paired segmental windows.

This structure currently supports seven small industrial and retail tenants, practically all of whom are located on the ground floor. Much of the structure is vacant and unheated and the firms that are in the building only employ about 40 persons.

Highly underutilized at present, this structure deserves a high priority ranking for redevelopment. Its location on Hartford Road next to the Fire Museum and Cheney Hall make it imperative that an attractive reuse be found for this structure. Such a use would make it possible to restore the face brick to its original color and restore the original bay system and window openings. Attractive landscaping in the parking area would also help visually improve the western access to the silk mill area.

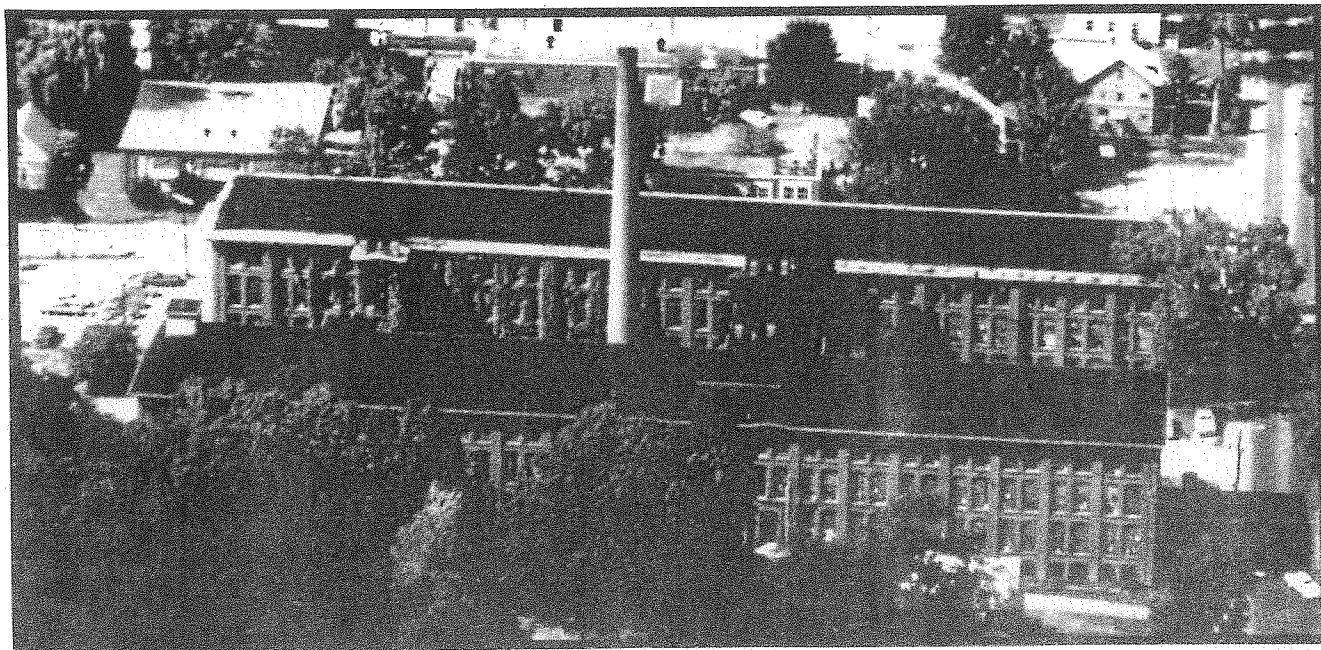


MILL STRUCTURE #11
MANCHESTER MODES
162 PINE STREET
130,300 SQUARE FEET ON 3 LEVELS AND PARTIAL
BASEMENT

The former Cheney Brothers Ribbon Mill was built in two sections, the north part in 1907, the south part in 1909. Both sections are three stories with very low pitched gable roofs sitting on slightly projecting corbeled brick cornices pierced by the extended lower chords of the roof trusses. The east-west facades are divided into 20 recessed segmental arched bays, each of which has two segmental headed windows of 20-over-20 wood sash. The seven bay end walls of both parts incorporate three segmental headed windows in either recessed segmental arched end panel, flanking a single central window bay. The pilaster strips are corbeled at the roof line and have recessed center panels. All sills are sandstone. The two long sections are connected at the midpoint by a two by nine bay hyphen with a projecting entrance porch in the east facade.

Manchester Modes, which took occupancy of the building from Cheney Brothers, employs approximately 240 persons. Many of these workers arrive by bus, thereby reducing the burden on available parking.

The structure appears to be well utilized and well maintained by its present occupant.



Manchester Modes

Preservation Inventory

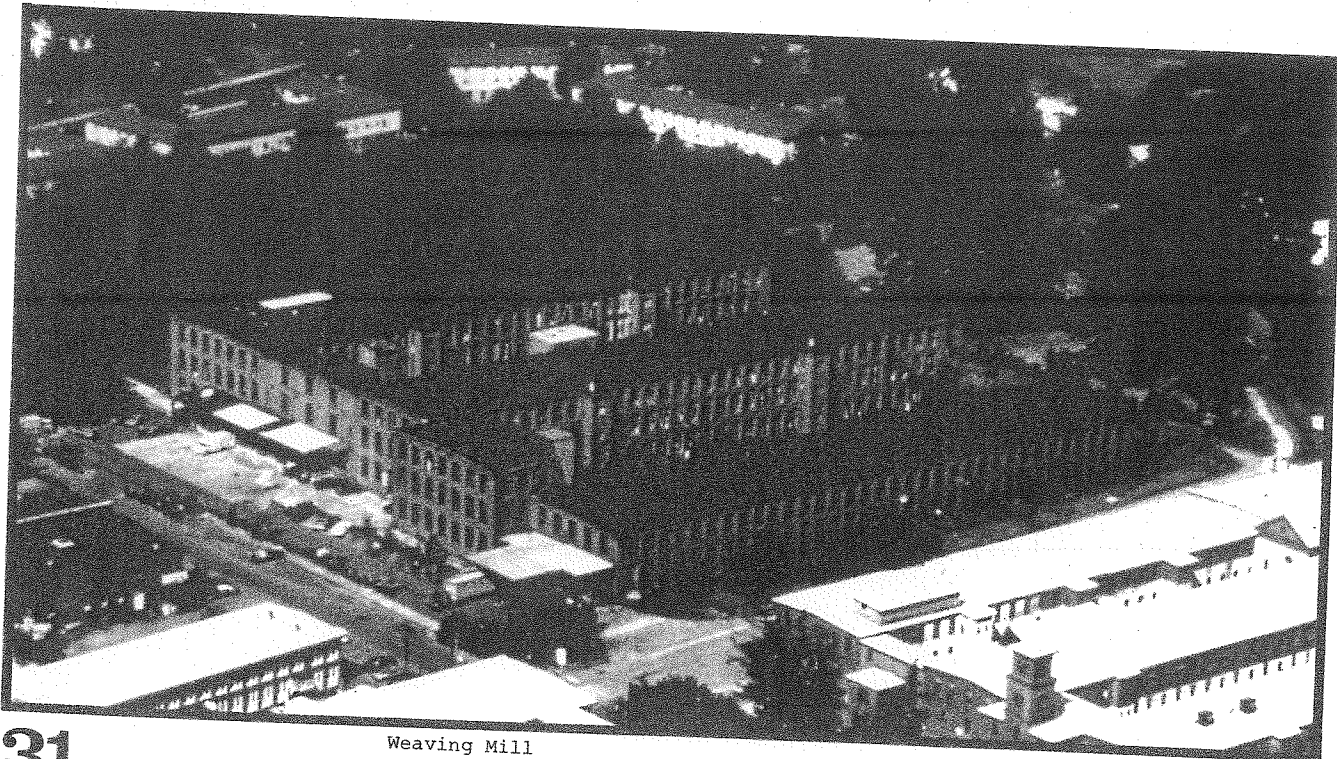
Silk Mill Area

MILL STRUCTURE #12
WEAVING MILLS
91 ELM STREET
215,000 SQUARE FEET ON 3 LEVELS AND BASEMENT

The Weaving Mills were constructed in three phases, 1886, 1897, and 1898 and consist of three long parallel brick structures running on an east-west axis connected by hyphens at the west end to create an "E" plan similar to that found at the Clocktower Spinning Mills and at the Velvet Mills. The north and central sections are three stories on a raised basement, while the south section is two stories. The north section measures 32 by 8 bays, the central section is 31 by 6 and the south section is 34 by 5 bays. All are capped by low pitched gable roofs. The segmental windows have 12-over-12 double hung sash, the openings spanned by triple row lock arches and sandstone sills. The brick facades are accentuated by a sandstone water table, brick corner pilasters and a brick cornice with dentils and houndstooth corbeled consoles between each bay. The west bay in the first floor of the south elevation is an entrance door, and some of the windows in this facade have been enclosed.

The three story north hyphen is three bays wide with loading doors and a platform at the lower level. The south hyphen projects three bays as a pavilion and is seven bays wide. Both hyphens have low hip roofs and extend three bays wide, one-story high for seven bays into the open courtyards.

The structure currently supports five tenants in warehousing and light industrial production that employ approximately 100 workers. The building is highly underutilized and deserves a high priority for reuse after Cheney Hall and the Clocktower Mill. It is the largest of the mill structures and has enough land surrounding it to support on site parking for potential new users. The floor plan is one of the most readily adaptable to housing conversion of all the mills in the area.

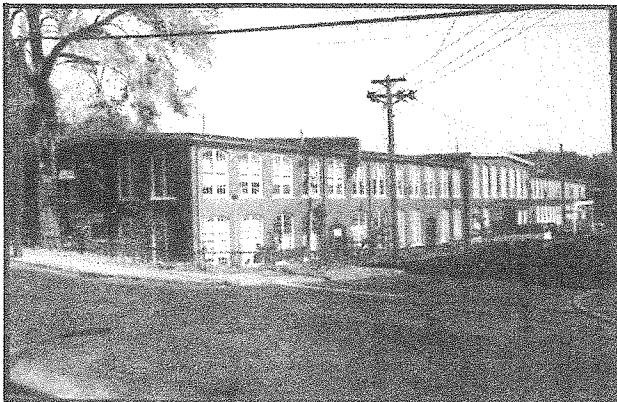


MILL STRUCTURE #13
MACHINE SHOP
175 PINE STREET-OR-199 FOREST STREET
41,700 SQUARE FEET ON 2 LEVELS

The brick two story Machine Shop was built in two phases, 1903 and 1909, resulting in a curious V-shaped plan with two sawtooth-roof rear additions, one of 2 by 7 bays, the other 5 by 9 in plan. The main structure has a low hip roof and is 17 bays long in the west part and 20 bays in the east section. Both sections are five bays in depth. A seven bay wide projecting pavilion centered in the south facade has a low cross gable roof and a flat roof one story port cochere protecting the service entrances, supported by square wood columns. All windows are segmental with paired double hung sash, 9-over-12 in the first floor, 9-over-9 in the second. The overhanging roof is supported by extended rafters, and there is a wood crown mold and cornice board.

This small structure is fully occupied by 7 small industrial firms that employ about 60 workers. The building is well suited to its present purpose as a location for "incubator industries" that will over time outgrow their present surroundings and move on. Evidence of this is given by Holts, Inc., which until recently occupied 7,500 sq.ft. on the second floor and employed 18 workers before moving to the Buckland Industrial Park.

This building does not require a high priority for reuse within the district because of the high suitability of the structure to its present use. It may require reorganization of parking along Forest and Elm Streets however as these



Machine Shop

streets become more heavily used. Planting of street trees would also restore the setting in which this building was historically placed as well as screening industrial activities from the views of potential residential uses in the Weaving and Clocktower Mills.

MILL STRUCTURE #14
BATH HOUSE
27-29 PLEASANT STREET
6,300 SQUARE FEET ON 1 LEVEL

The Bath House was built by Cheney Brothers in 1913 and is one story brick structure with a flat roof. Almost square in plan, the structure is 7 by 8 bays and is surrounded by a corbeled cornice with brick dentils and a stuccoed water table. Brick pilasters frame the facades, the front facade consisting of windows in the first, third, fifth, and seventh bays, a later overhead door in the central bay (4th) and segmental doors in the second and sixth bays. The entrances are protected by flat roof Classic porches supported on turned Doric columns and incorporating a dentiled cornice. The fourth bay of the east side wall has a separate entrance with segmental door. Windows in this wall are paired with 12/12 sash south of the entrance and 18/18 to the north.

The building is presently occupied by one light industrial tenant, and as can be expected from the building's original use, many alterations have been made to the interior. The exterior, however, remains architecturally intact and this building deserves consideration for use as a community or recreational facility should it be vacated by its present user.



Bath House

Preservation Inventory

Silk Mill Area

MILL STRUCTURE #15
SILK VAULT
110 ELM STREET
12,000 SQUARE FEET ON 3 LEVELS

This curious structure consists of seven vaults on each of three floors arranged in six bays (the central vault is only one third of the depth of the others). The vaults were constructed of brick in 1919, with a low gable roof, a corbeled cornice, flat pilaster strips and frieze band, with pilaster strips dividing the blank end walls into two sections. Each vault has a heavy plate iron door with a concrete walkway and pipe railing at each level.

This building was erected along with mill structure #19, after a robbery of a trainload of raw silk was attempted. An incoming freight car was rolled into the Freight Car Storehouse and when time permitted, rolled in front of the Silk Vault to be unloaded. The raw silk could then be stored until it was ready for the production process.

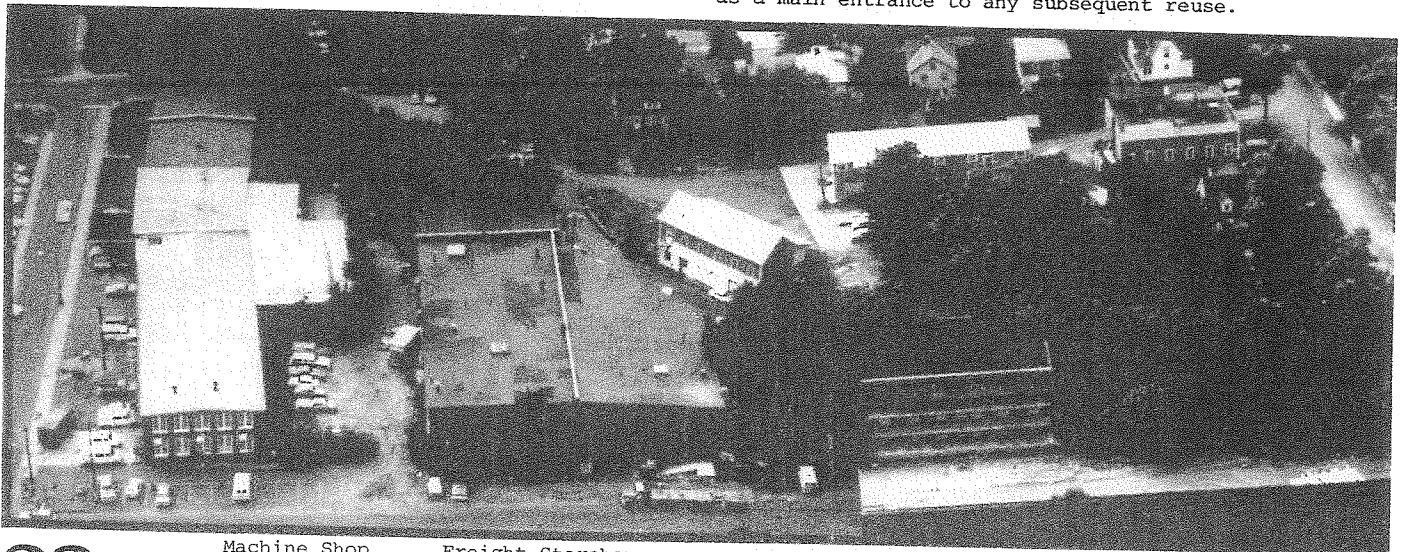
The Silk Vault is now used for rental storage and is being put to good use in that capacity. With renovation of the Weaving Mill across Elm Street, however, better care of the landscaping around the structure would be called for. Also, minor repair of spalling concrete on the exposed portions of the structure would be necessary to retard exposure and rusting of the structural reinforcing steel within the poured concrete.

MILL STRUCTURE #16
FREIGHT STOREHOUSE
96 ELM STREET
36,200 SQUARE FEET ON 2 LEVELS

The Freight Storehouse is two stories in height, of brick construction and built in two fireproof sections in 1904. The plan consists of a long 21 by 6 bay rectangular section on an east-west axis, with a 7 bay wide trapezoidal section appended to the north elevation, flush with the east facade. The two sections, and an interior division of the south section at the 15th bay to the west, are protected by brick fire walls that continue full height through the roof plane and project at the top beyond the wall surfaces. The projecting walls are enriched with rusticated sandstone drip consoles at the bottom edge. All windows are segmental with 6/6 wood sash. The lower floor at the east end wall of both sections has a pent roof over a loading platform, and five of the thirteen openings are loading doors.

The building is fully occupied at present with four industrial tenants and approximately 50 employees.

The structure does not lend itself for conversion to non-industrial use and should not be considered for reuse until such a time that there are surrounding residential mill complexes that would support this building as a community recreational and meeting facility. The loading platform along Elm Street should be maintained and utilized as a main entrance to any subsequent reuse.



Machine Shop

Freight Storehouse

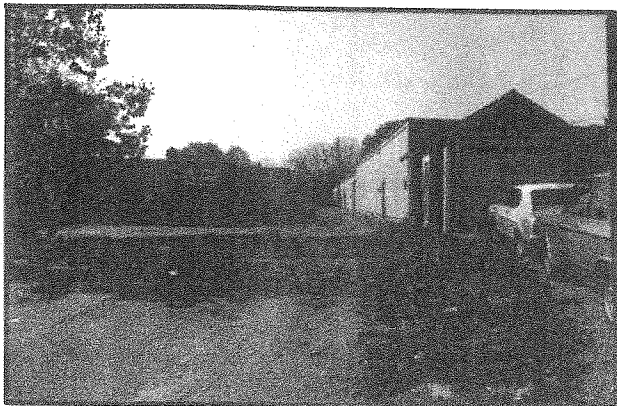
Silk Vault

MILL STRUCTURES #17 - #20

The following structures, while not basic to the silk production process, are none-the-less important for the support role they played. Several of them were built with the same high quality of architectural detailing that is shown in the major mill structures and all of them were blended into the landscaping of the early industrial village in such a way as to make it important that they be maintained and, if necessary, recycled in an historically sensitive manner.

Building #17, the Garage Storehouse, consists of two long one-story parallel structures used first as a supply shed and storehouse and then as a garage. Of minor architectural significance, the structures could be successfully integrated into parking arrangements of potential conversions to residential use of Manchester Modes or the Velvet Mill.

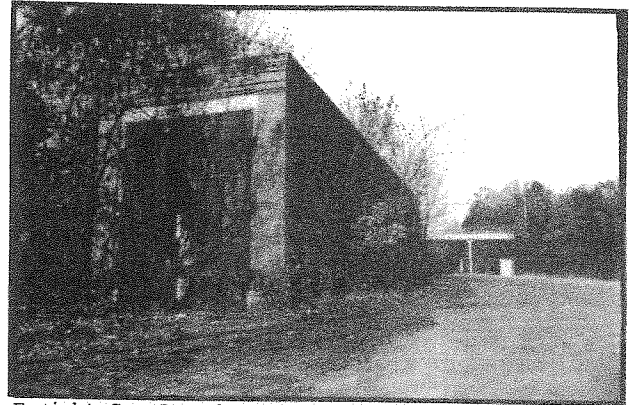
Building #18, the Waste Silk Storehouse at 148 Forest Street, was originally a support building of the Clocktower Mill, but is treated here as a separate structure because it was sold by Cheney Brothers and is now in separate ownership. Currently used by two small industrial tenants, the building is well served in its present use, until a time when conversion of the Clocktower Mill makes it possible to reincorporate this structure into plans for that complex.



Garage Storehouse

Building #19, the Freight Car Storehouse, as previously mentioned in discussion of the Silk Vaults (#15), was used as a storage facility for freight cars loaded with raw silk. Currently used as a warehouse, this structure would make a handsome gatehouse that could be incorporated into plans for conversion of the Weaving Mill across the street.

Building #20, the 1866 Storehouse, is a three-story frame structure of little architectural significance but of importance historically because of its early date of construction, and its similarity in design to the original 1838 silk mill along the Hop Brook. Its diagonal siting against the hillside behind the Freight Storehouse and Silk Vaults makes this building potentially usable for community use and meeting or exhibit space.



Freight Car Storehouse



1866 Storehouse

Preservation Inventory

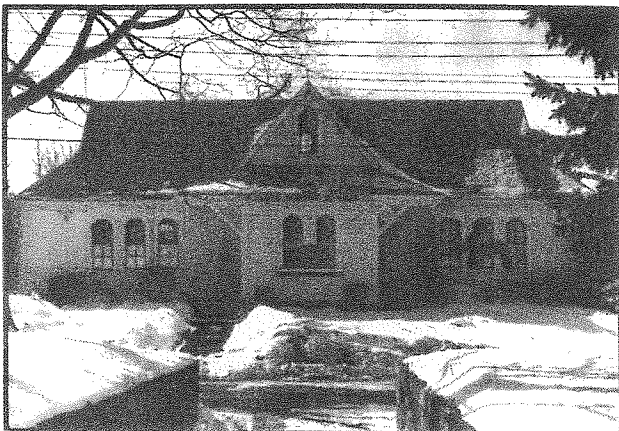
Silk Mill Area

MILL STRUCTURE #21
LUTZ JUNIOR MUSEUM
126 CEDAR STREET
5,000 SQ.FT. ON TWO FLOORS AND ATTIC STORY

Originally built as a two room elementary school for children of the Cheney family and a selected group of the children of the employees, this structure was located on Cooper Hill Street before being moved to its present location to make way for the Yarn Dye House/Velvet Weave Shed Complex, built in 1914.

The building is a one and one-half story, hipped cross gable frame structure built in 1899. The eight bay long Cedar Street facade has three round headed windows on either side of a projecting entrance pavilion. The pavilion is protected by an overhanging pent roof, supported at the outer edge by chamfered diagonal braces, and there is a triangular headed window in the gable end. With turned pendant drops and a bracketed wood cornice, the Lutz Museum is a good example of craftsmen inspired vernacular construction of the period.

Although not strictly a part of the Silk Mill area, the Museum is included in this grouping because of projected expanded programs that could involve the requirement for additional space. Whether this expansion should take place in Cheney Hall, the Community College building, or by adding on to the existing structure, consideration should be given to coordination of efforts with the Fire Museum, Manchester Arts Council and Manchester Historical Society, and possible creation of a silk and/or gun museum. Since the existing museum building has already been moved once in its lifetime, placing the structure next to Cheney Hall should not be excluded from consideration. Originally, residential structures similar to the Lutz did adjoin Cheney Hall, and this would place the museum into the heart of the "Gateway" to the district, with access to potential recreational amenities along the Hop Brook.



Lutz Junior Museum



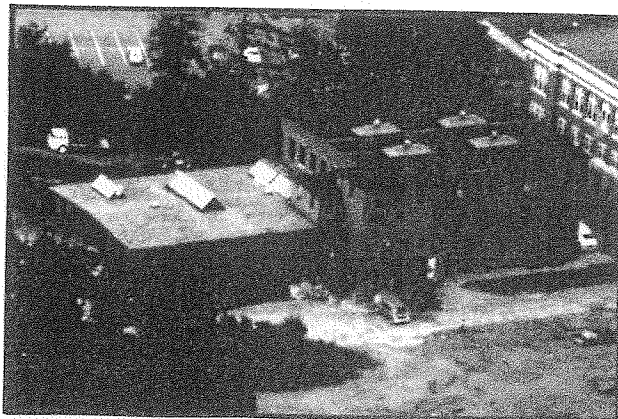
148 Forest Street

MILL STRUCTURE #22/ 160 HARTFORD ROAD
MILL STRUCTURE #23/ 176 HARTFORD ROAD
MILL STRUCTURE #24/ 218 HARTFORD ROAD

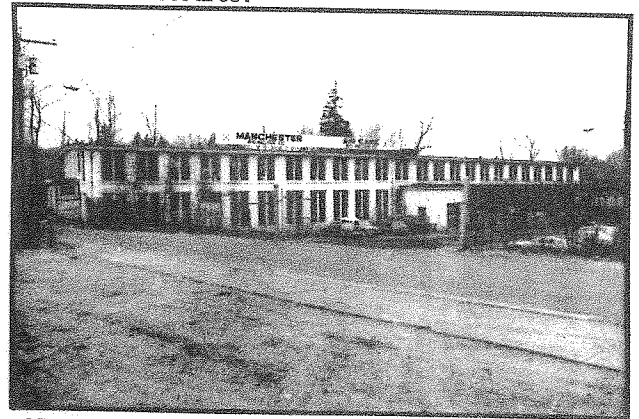
These three mill structures are not currently included in the historic district but are included here because of their architectural quality, their placement along the Hop Brook, and the historical role they played in the development of the district.

The first two structures were originally owned by Cheney Brothers and are the only existent mill structures from the original silk mill complex below Hartford Road along the Hop Brook. They date from 1895 and 1906, respectively, and are consistent in design and detailing to the mill structures of that period north of Hartford Road. Their inclusion in the district is imperative if this oldest portion of the Cheney Silk operations are to be redeveloped in an historically sensitive manner. Currently used for light industrial and warehousing purposes, these buildings are underutilized and poorly landscaped. Finding appropriate new uses for these buildings should be given a high priority and redevelopment should include the alignment and extension of Elm Street south of Hartford Road to the mills, and the appropriate re-landscaping of the Hop Brook as a recreational amenity.

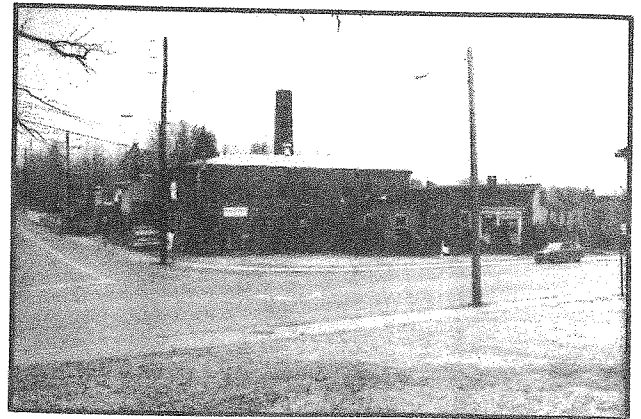
Building #24 was not a Cheney Mill structure but is proposed as an addition to the historic district because of its similar design and detailing, its location on the Hop Brook, and its proximity to Cheney Hall and the Pine Street Fire Museum on Hartford Road. Currently under mixed industrial and commercial use, this building would make a fine compliment to the "gateway area" for use as a restaurant, meeting facility, or museum. It could also accomodate expanded programs of the other cultural institutions such as the Lutz Museum or the Fire Museum. Sited directly overlooking the Hop Brook, the rear of this structure could be sensitively landscaped to utilize the Hop Brook as a recreational resource.



160 Hartford Road



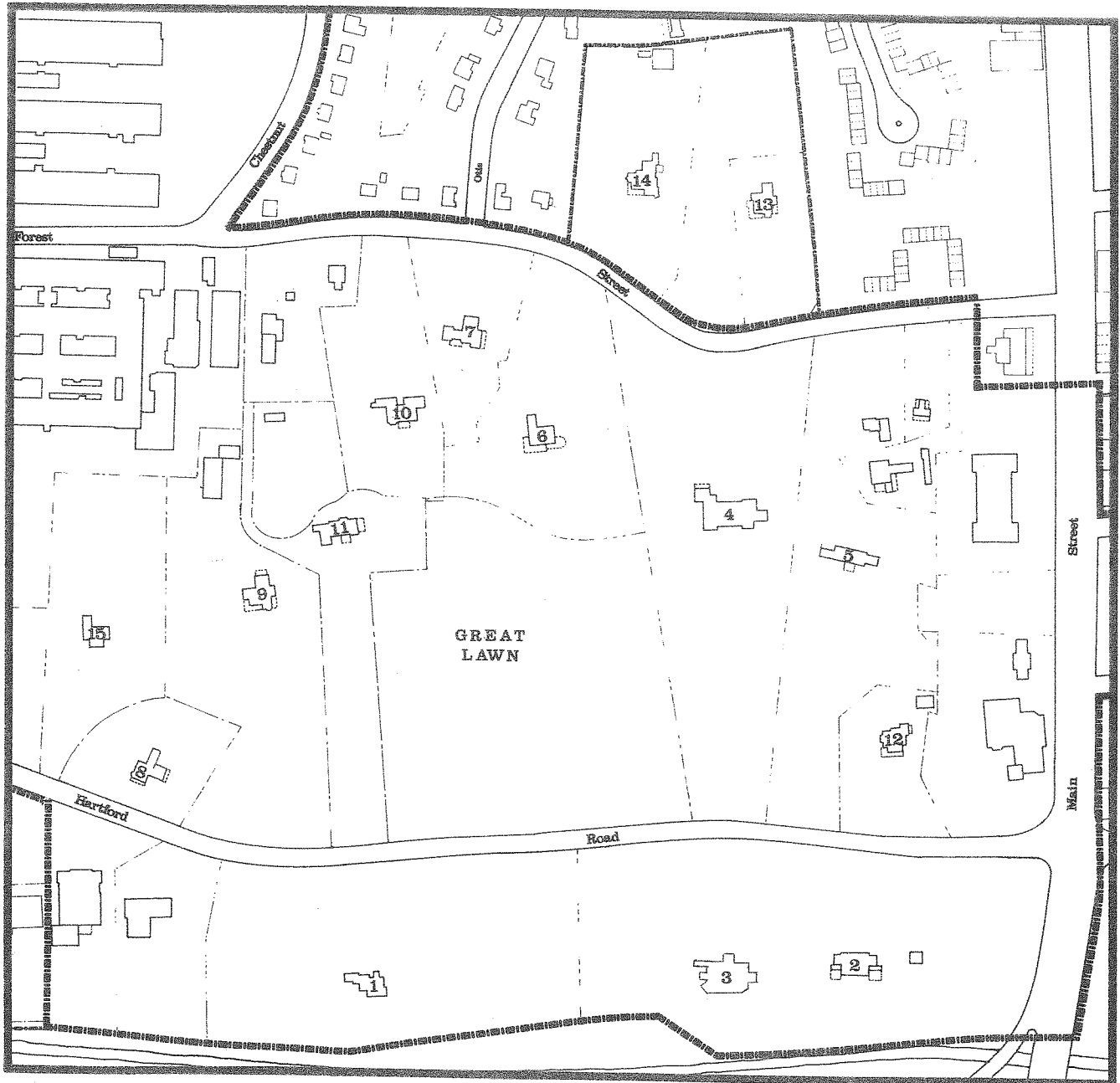
176 Hartford Road



218 Hartford Road

Preservation Inventory

Cheney Family Mansion Area

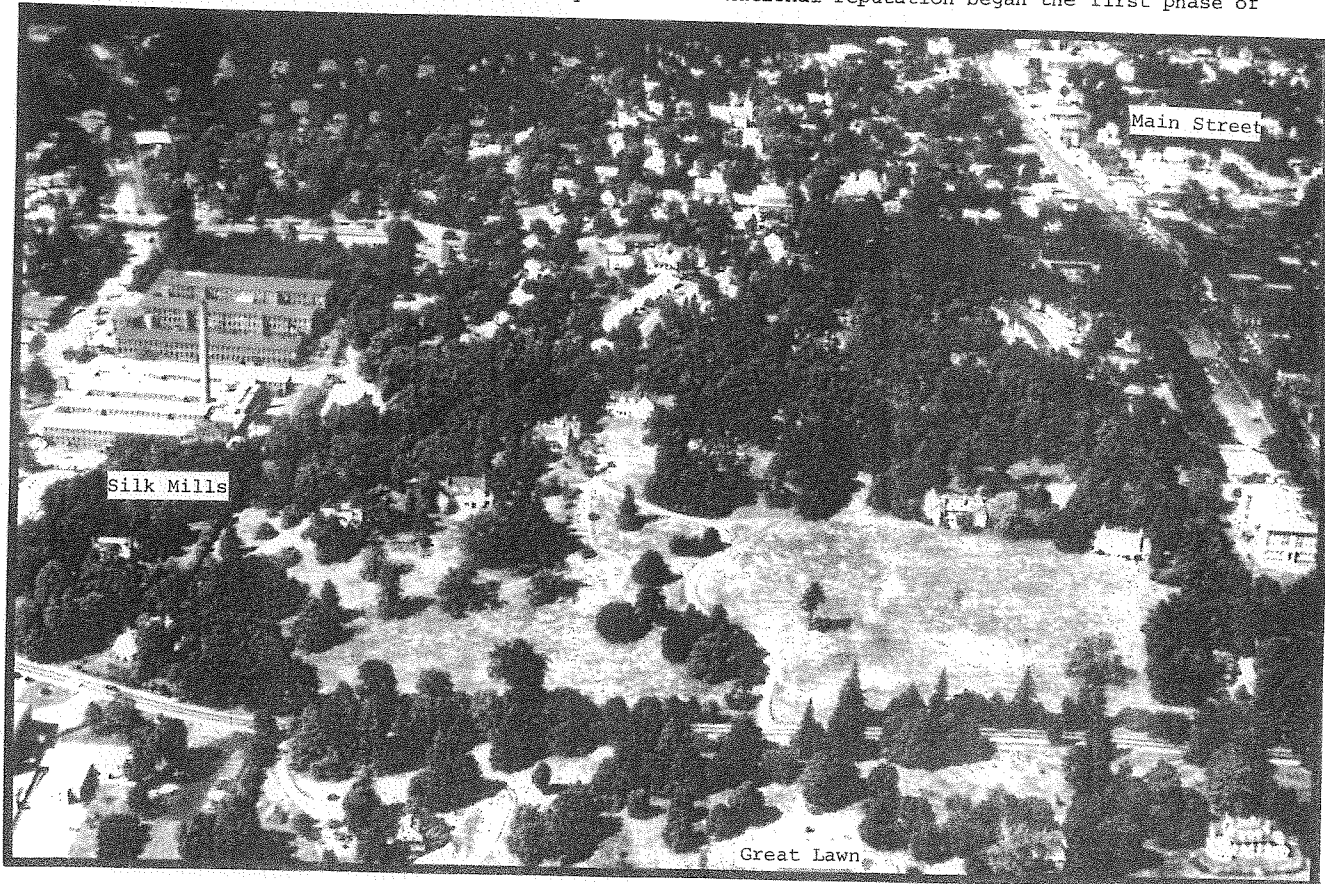


Unlike many other New England mill owners in the 19th century, the Cheney family did not build elaborate estates in places such as Newport or Saratoga, which were far removed from their mills and factories. Instead they chose to build their homes right next to their factories in a park-like setting of trees and lawns that was continuous throughout the mansions, mills, Main Street, and workers housing areas of South Manchester.

Today, this area is little altered and covers approximately 70 acres along Hartford Road between South Main and Elm Streets on the east and west and Forest Street and Interstate 84 on the north and south. The major landscaping element is a Great Lawn at the center around which the 13 Cheney Family Mansions are placed. The spacious setting distinguishes this area from the remainder of the historic district and the town itself, clearly expressing the singular importance of the family to its community.

The value of the total assemblage is far greater than the sum of the individual components, and it represents what is probably a unique example of the owning-managing family-in-residence concept that contributed to the social as well as financial success of the company. None of the homes are owned by members of the Cheney family but all are in fair to excellent condition and most continue to serve as private residences.

From an architectural point of view, the most important individual Cheney homes have been lost. H.H. Richardson, the architect of Trinity Church in Boston and Union Station in New London, and considered to be perhaps the foremost American Architect of the 19th century, prepared drawings for Rush Cheney's house in 1876, followed by another project for James Cheney in 1878. In 1881, Richardson's protegee, Stanford White, who also became an architect of international reputation began the first phase of



Preservation Inventory

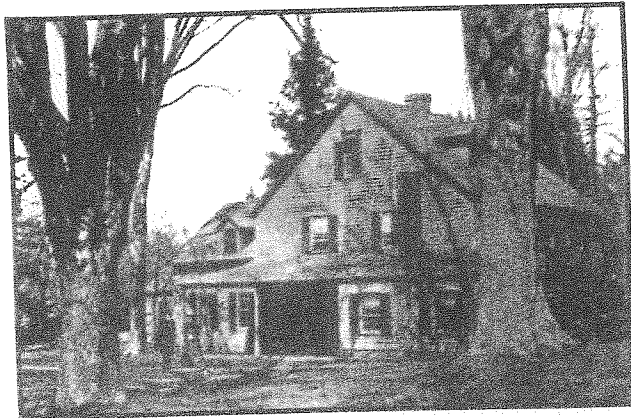
Cheney Family Mansion Area

a house for Anne W. Cheney which was enlarged in 1903. At the same time he completed a house for Henry Cheney, later owned by Robert Cheney. Unfortunately, the first two of these designs were never built, and the second two have been demolished.

Several of the houses designed by Charles Adams Platt do survive, however. Platt was the son of Mary Elizabeth Cheney and became one of the leading American designers of country estates and large houses surrounded by formal gardens in the early part of this century. He is most famous for the Freer Art Gallery in Washington and the new buildings at Deerfield Academy and Phillips Academy in Andover, Massachusetts, but he designed notable homes in the great lawn area that are of equal distinction, notably the Frank Cheney Jr. Residence, and the Philip and Clifford Cheney residences.

#1 Cheney Homestead

The Cheney Homestead at 106 Hartford Road is the most important historically of all the family homes. The house was started by Timothy Cheney in 1780, and continuously added to and expanded as the needs of the family required. Set on a stone foundation, this 2-1/2 story gable roofed, white frame house has a one-story rear wing and two 1/2 story west wings. It has gabled dormers with 12-over-12 and 12-over-8 sash windows flanked by black-painted louvered shutters. A single red brick interior chimney serves the 30-foot-square main block, and two similar stacks rise from the two west wings.



The principal entrance is a single door set under a hip-roofed porch on the south side, but because the house is set into a low hillside, the second floor also contains a ground level entrance on the east side. The residence is owned by the Manchester Historical Society which operates it as a museum along with the restored, one-room Keeney Street School which has been moved to the site.

#2 Frank Cheney, Jr. Residence, 20 Hartford Road

This house is 2-1/2 story, brick Georgian Revival three part house of great distinction designed by Charles Adams Platt and completed in 1900. The center part of the structure has a high hipped roof with segmental dormers flanking a pedimented, projecting entrance pavilion. The pavilion has a semi-circular entrance portico with balustrade, all supported on fluted columns with Scamozzi caps and a full entablature with dentil cornice. A modified Venetian window above the portico extends above the broken pediment, which has a molded raking cornice and returns with scroll brackets. The five bay central block has one bay, hipped roof flanking wings. All windows are rectangular, 6/6 with flat jack arches with limestone-faced flat arches, keys and skewbacks in the first level. Owned by the South Methodist Church and used for both residential and assembly purposes, the house retains much of its original interior decor and charm. The exterior is almost unaltered.



#3 Mary Cheney Residence, 48 Hartford Road

This 2-1/2 story gray brick structure was until very recently the home of "Miss Mary" Cheney, known throughout Manchester for her philanthropic interests in the town, primarily the Mary Cheney Library on Main Street, and segments of the Memorial Hospital.

Her home is now part of the campus of South Methodist Church and is used by the New Hope Drug Treatment Center. Of French "2nd Empire" style, the structure is graced by a full Mansard roof and a one-story conservatory along the south, rear facade which once overlooked a beautiful garden on the slope leading down to the Hop Brook. Throughout her lifetime, Mary Cheney maintained this garden as if it were a public park; open to all who cared to visit.



#4 Philip Cheney Residence, 50 Forest Street

Thought to date from c. 1860, this 2-1/2 story brick residence was redesigned c. 1900 by Charles Adams Platt. The "H" shaped plan has high cross gable roofs with segmental dormers in the roof planes and round headed windows in the gable ends, set above two story semi-octagonal bays. The recessed hyphen has full length, transom-lit paired doors, with single double hung windows flanking a triple unit in the second floor. Of Jacobean Revival aspirations, the house is trimmed in limestone with a continuous string course, a wood cornice in the hyphen part, and copper parapet walls at the gable ends.



Preservation Inventory

Cheney Family Mansion Area

#5 Clifford D. Cheney Residence, 40 Forest Street

This cross gable rectangular plan 2-1/2 story stuccoed residence was designed by Charles Adams Platt and completed in 1904. The center block has a slightly projecting gabled pavilion with a square balustraded portico occupying the middle three bays of the front facade. The portico has Tuscan columns, sawn consoles and a Chippendale-inspired latticework railing. The pavilion has a triple window in the second story and a double window in the gable end with single flanking dormers. Windows in the main block are paired with one unit on either side of the pavilion. A later three bay portecochere with enclosed porch is appended to the east end, a two bay gabled wing to the west.



#6 Horace B. Cheney Residence, 78 Forest Street

This 2-1/2 story shingled frame residence of irregular plan is capped with a high pyramidal roof and was completed in the mid 1890's. The roof has single dormers on either side of a paired dormer, all hipped roof, and heavy end wall chimneys. A one-story porch runs along the south facade, wraps around the east end and returns at the west end wall. A conical roofed porch at the southeast corner has an enclosed sleeping porch above it. The overhanging roof rests on an elaborate, heavily bracketed cornice.



#7 Frank D. Cheney Residence, 98 Forest Street

This large 2-1/2 story stucco over frame residence has an L-shaped plan under cross gable roofs that have doubled pedimented gable roofed dormers. Built in 1902, the house has a one-story open porch along the front, rear and west end walls, and a small one-story addition at the rear. The wooden roof cornice returns across the gables to form pedimented ends.



#8 Seth Cheney Residence, 139 Hartford Road

The Seth Cheney House is a greatly altered 2-1/2 story, clapboard, irregular plan, frame structure thought to date from the mid 1800's but substantially changed and enlarged in 1910. The house has a series of gable roofs with later pedimented dormers and paired sash, and a balustraded porch on heavy turned Tuscan columns across the south facade.



#9 Charles Cheney Residence 131 Hartford Road

With design elements from the Tudor Revival, this 2-1/2 story stucco on frame, stone foundation residence has massive brick paneled chimneys incorporating stone weatherings and arcaded corbeled caps that dominate the cross gable and hip roof. The irregular plan is virtually surrounded by one-story porches, and the stucco facades are accentuated by false half-timbering. Tax records date this house to 1851, but the present structure probably dates from a later period. It has many similar elements to houses designed by H.H. Richardson for Rush Cheney and James Cheney in 1876 and 1878.



Preservation Inventory

Cheney Family Mansion Area

#10 Howell Cheney Residence, 110 Forest Street

Less pretentious than the Jacobean Revival Philip Cheney House, this 2-1/2 story brick U-plan residence has a cross gable roof with tall stepped gable end wall parapets that include round headed windows in the gable and semi-hexagonal bays below. A one-story porte-cochere and one story porches have been placed in the front and rear elevations.



#11 Austin Cheney Residence, 99 Hartford Road

The Austin Cheney Residence is 2-1/2 stories, H-shaped in plan with a steep cross gable roof. It was built in 1911 and altered in 1921. Stucco on frame, the house has hipped dormers, open porches at either end of the south facade of the main block, and a one-story porte-cochere. The gables have exposed purlins, sawn barge boards and pent roof dormers in the receding roof planes.



#13 John S. Cheney Residence, 43 Forest Street

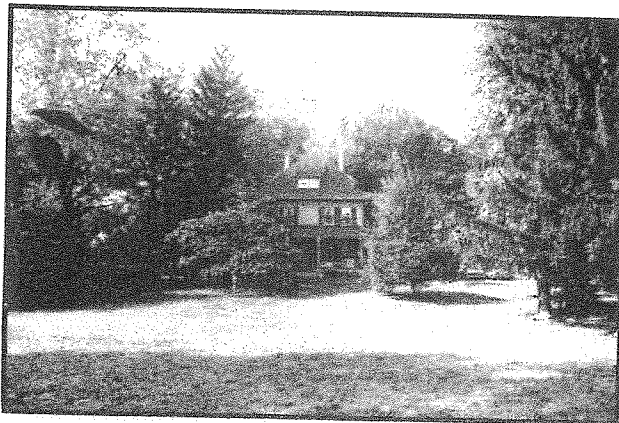
This 24 foot square, two-story frame structure dates from 1869. It has a steep hipped roof with one-story shed roofed porch with balusters. The interior includes five fireplaces and carved wood door and window casings.

#14 Mary Chapman Residence, 75 Forest Street

This 2-1/2 story English Tudor Style home was built originally in 1880 as a wood frame structure painted-bright red. It was remodeled to its present form in the 1900's to display multiple gable roofs and dormers and three red corbelled brick chimneys. The exterior is now stucco on wood frame and there is a one-story shed roofed porch on several sides.

#12 George W. Cheney Residence, 21 Hartford Road

This 2-1/2 story gray painted frame structure is the second oldest of the Cheney family homes after the family Homestead. Dated from 1860 in Town records, the structure has been found to have been in existence as early as 1837 by the Manchester Arts Council. The house has a steep hipped roof with shed dormers, symmetrically placed red brick chimneys, and rising from the east and west sides of the roof, paired windows with 6-over-6 sash and black painted, louvered shutters. The front facade is graced with a one-story shed roofed balustraded porch.



#15 Willard House, 151 Hartford Road

Although this house has not been conclusively linked to the Cheney family, it was probably owned either by a direct relative or by supervisory personnel from the mills. Completed in 1905, it is a 2-1/2 story, gray painted frame structure in an H configuration with gabled roof. Because of its scale, age, and placement within the great lawn area, it deserves inclusion into this grouping of residences.



Preservation Inventory

Workers Housing

Introduction

To make good on their promise of improved if not idyllic working conditions, Cheney Brothers entered into the housing market to provide adequate living quarters for their new employees. By 1867 they had built "four dwelling houses on Elm Street...in South Manchester". (These houses were later replaced by the 20th century mill structures.) By 1872 the company had provided lodging for single women and girls and for single men in two boarding houses. A third boarding house was constructed in 1890 to house 100 teachers attracted to Manchester by a new and improved educational system. In 1875 Cheney Brothers acquired several existing, single-family homes and built a considerable number of new single-family residences on School and Eldridge Streets, east of Main, most of which remain.

Cheney Brothers owned approximately 200 rental units by 1896, with steam heat, gas and electricity provided to tenants at low company rates. Rentals varied from five to twelve dollars a month, depending on location, which Cheney Brothers described as "a satisfactory interest on our investment." Contemporary accounts describe these houses as "built in the cottage style, with neat lawns," with a mix of "aristocratic and plebian workers quarters".

From the beginning of their involvement in the housing industry, Cheney Brothers preferred and encouraged their employees to purchase their rental units "on reasonable terms when they had become established in the mill." The company made long-term mortgage loans for such purchases, primarily with the assistance of the



Workers Housing - 1901

Manchester Savings and Loan Association, which was founded in 1891. (Frank Cheney was elected President the following year.) The company also disposed of vacant house lots at the rate of one to two cents a square foot.

By the start of World War I, Cheney Brothers, owned 275 workers' houses, which were located to the east, north and northwest of the mill complex. Housing became a separate department of the company's operation by 1921, and Cheney Brothers' carpenters, plumbers, electricians and painters maintained all the company-owned residences at no charge to the tenant.

The workers' residences were built in a variety of architectural styles current at the turn of the century. Examples of popular designs included the simple vernacular cottages east of Main Street, the Arts and Crafts Movement and Craftsmen styles north and northwest of the mill complex, and Eclectic cottages and bungalows along Fairfield and West Streets completed in the first quarter of this century. The quality of construction and landscaping remained consistently high throughout the entire fifty years of Cheney Brothers involvement in housing their workers, reflecting the company's desire to create an "efficient, content labor force and a supportive community."

Cheney Brothers role in housing ended with the fall of their silk empire in the late 1920's and early 1930's. On September 12, 1937, 248 residential parcels with a total of 747 dwelling units (not all of which were within the historic district) were sold at auction. A total of 61 parcels were purchased by tenants, and an additional 33 units were acquired by a single buyer who intended to continue the policy established by Cheney Brothers of encouraging tenants to buy their units at favorable mortgage rates. Today, 202 of the 233 residential structures (87%) in the Cheney Brothers National Register Historic District are home-owner occupied.

Survey Methodology and Findings

For the purpose of analyzing the present conditions and character of the Cheney Brothers workers' housing stock, the historic district has been subdivided into four areas, based primarily on the date of construction:

1. East of Main Street, late 19th century workers housing.
2. Northwest of the Mill Complex, turn-of-the-century workers' housing.
3. North of the Mills, supervisors housing.
4. Fairfield and West Streets Area, early 20th century workers' housing.

Collectively, the four worker's housing areas contain 233 residential structures with approximately 380 dwelling units. A total of 89% of the houses are one or two family structures (54% single family, 35% two family), 89% two or two and one-half stories in height. Nearly all buildings are considered to be in good structural condition, with no residential structure requiring more than general maintenance such as painting, porch repair or minor trim work. Only two properties were rated poor with regard to yard maintenance, while an additional 29 yards (for a total of 13%) need minor upkeep. This extremely high level of home maintenance can be attributed to the high percentage of home ownership (87%) versus absentee ownership (13%). This condition bodes well for the continued rehabilitation and pride in these highly desirable and stable residential neighborhoods.

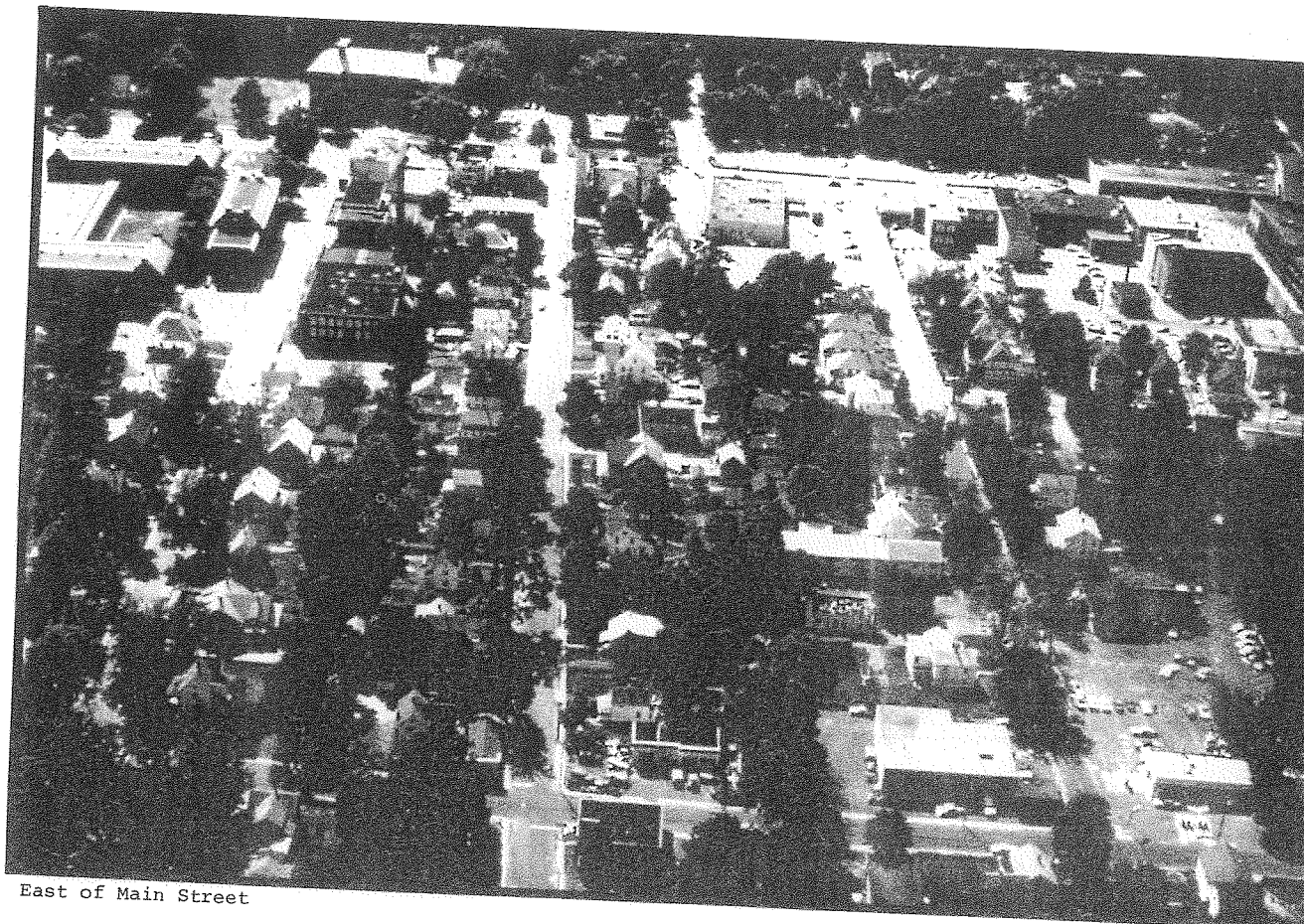
Preservation Inventory

Workers Housing East of Main Street



The east workers' housing area was the first section influenced by Cheney Brothers and consists of 43 residential structures along the parallel paired School and Eldridge Streets, beginning behind Main Street and running to Spruce. The neighborhood contains 18 single family, 20 two-family and 5 apartment structures, all of frame construction. An astonishing number (37 or 86%) have been resided with artificial materials - aluminum, vinyl, asbestos or asphalt. The predominant height (41 or 95%) is two to two and one-half stories, with gable roofs perpendicular

to the street line. Sixteen structures were built before 1880, 17 between 1880 and 1890, between 1900 and 1920 and one after World War I (55 Eldridge, 1964). Building conditions are excellent (35 or 82%) with only 8 structures rated as fair. Minor repair work is needed along the sidewalks on School Street, and minor patching is required on Eldridge Street. Cheney Brothers owned 19 of the 43 residential properties (44%) in 1927 all of which were sold at the 1937 auction. The home-ownership rate today is very high, 31 of 43, or 72%.



East of Main Street

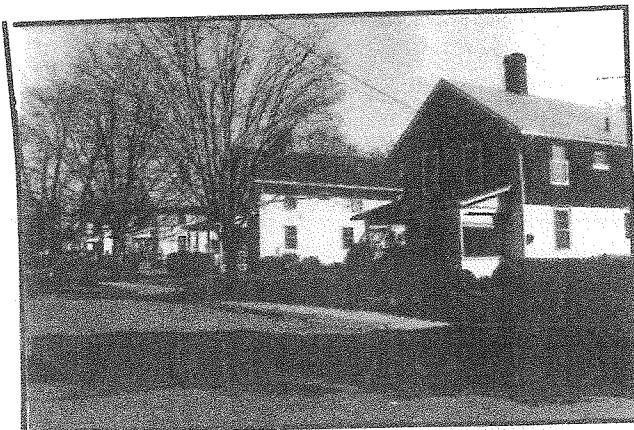
Preservation Inventory

Workers Housing

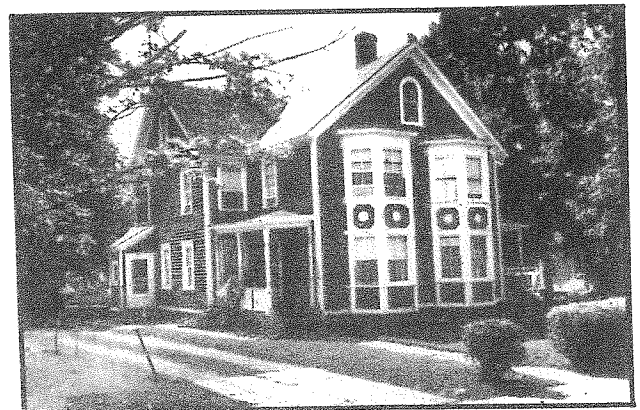
East of Main Street

The School-Eldridge Street neighborhood is characterized by a row of ten c.1860 two story, gable-roofed, frame structures along the south side of Eldridge. The rectangular plan houses have deep roof overhangs with flat cornices, all supported with sawn scroll brackets. A shed roof porch runs across the entire front facade, with chamfered posts, sawn fan brackets, molded hand rail and square balusters. The ends of the porch roof are sheathed with vertical board and batten siding, with a scallop pattern at the bottom edge. Many of the structures retain at least part of their original Gothic trim in the gables, and all have 6/6 wood double-hung sash of the period. Unfortunately, the original clapboards on nine of the ten have been covered with asbestos or aluminum siding, and five of the porches have been infilled to gain another room at the ground floor level.

School Street has a group of three excellent two and one-half story, two family residences built in 1866 (72-74, 78-80 and 86-88). The cross gabled, structures have the main gable facing the street. 72-74 and 86-88 have artificial siding and minor changes to the porches but 78-80 School Street is virtually intact architecturally with clapboard siding, and flat corner and sill boards set on a brick foundation. The front facade has a pair of excellent projecting hexagonal bays, whose spandrels are decorated with raised panels and turned bosses. One story entrance porches infill the angles of the T plan and feature roofs supported by turned posts with sawn brackets and pattern work below a molded handrail.



58 Eldridge Street

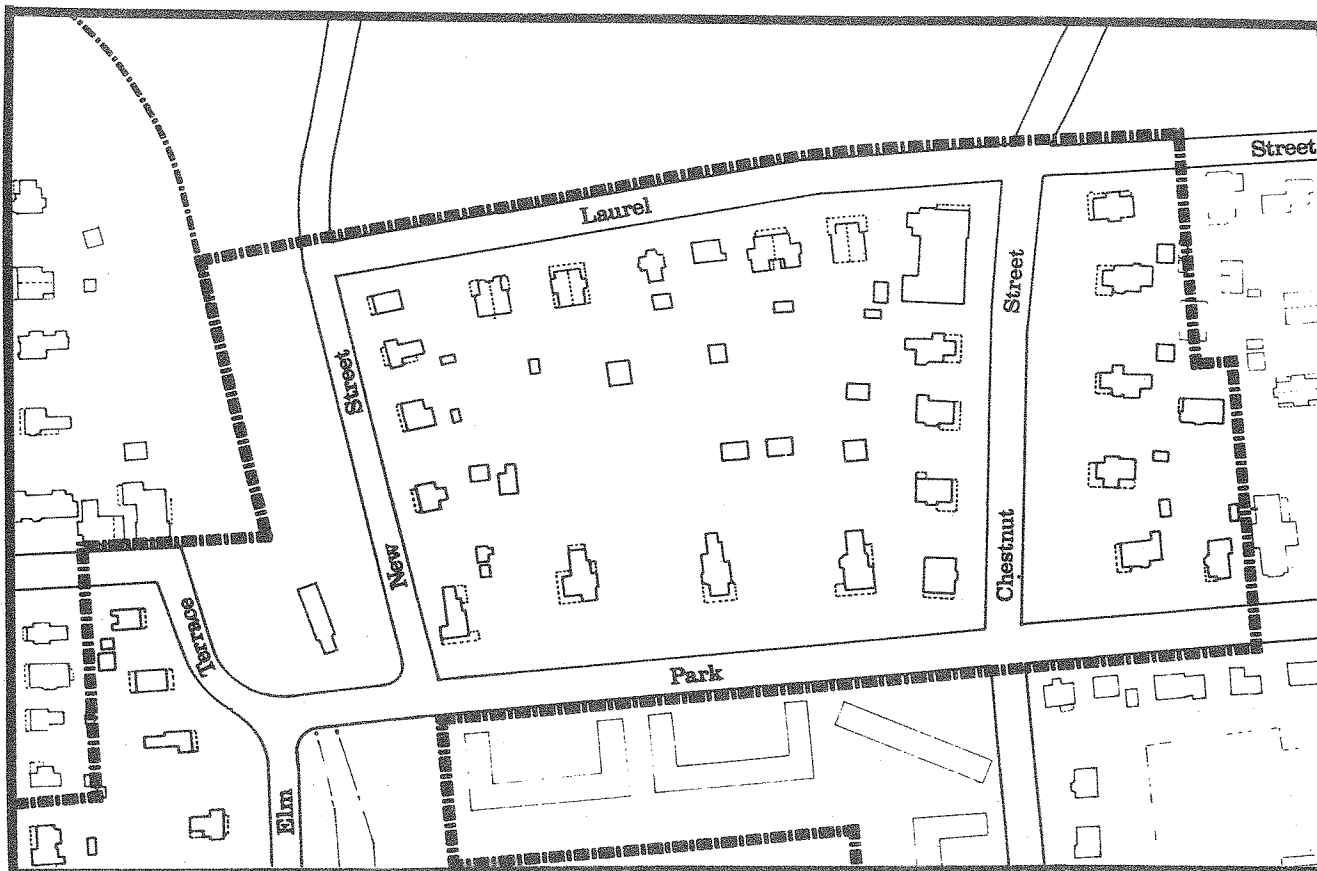


78-80 School Street

North of the Mills: Supervisors Homes

This area is situated north of the mills, east of the railroad right-of-way and is bordered by Park, Chestnut, Laurel, and New Streets. The neighborhood contains 26 residential structures, including 16 single family, 7 two-family, and 3 apartment buildings. Building heights are two or two and one-half stories (25 of 26) and all structures are rated in good condition. Only one property required yard improvements. In contrast to the three other residential areas, only 7 structures have artificial siding, and all of the buildings are situated on large open lots which range from 11, 000 to 52,000

square feet. Twenty-two (85%) were constructed during the expansion period of Cheney Brothers (1880-1900), 3 were built between 1900 and 1920 and 1 (74 Laurel, 1941) is post World War I. Sidewalk repairs are needed on New and Laurel Streets, and on the east side of Chestnut, where no sidewalk exists. Chestnut Street is in need of minor paving repairs. Reflecting the role of the Cheney Brothers in housing, 18 of the 26 structures were originally company-owned. The home-owner occupancy rate today is high at 84%.



Preservation Inventory

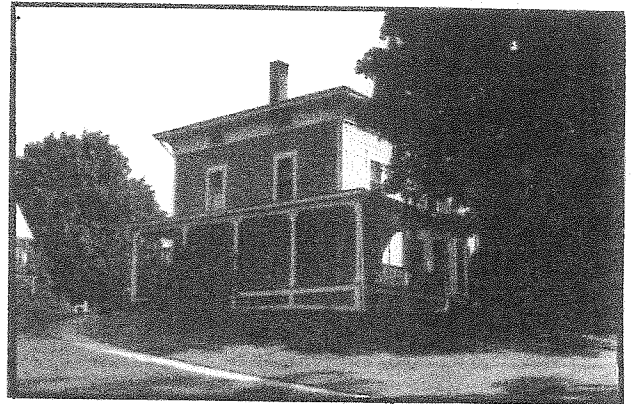
Workers Housing

North of the Mills

Three structures, 86-88 Laurel, 122 Chestnut and 157 Park Streets attest to the variety and quality of the residential construction in this area. The house at 86-88 Laurel Street (1896) is a large, three story, rectangular plan, two-family residence with a cross gable roof. The lower two stories are clapboard and the third story is sheathed with patterned shingles. The entrances are recessed at either side, with a wide porch at the sides to shelter the doorways. The space beneath the porch is screened with interesting sawn cut-out panels. At 122 Chestnut Street (1882) stands a two story, low hipped roof structure. The house is situated in the middle of a large, well maintained lot, facing Chestnut Street. The overhanging roof has a deep band under the overhanging eaves, with two flat rectangular windows punched into each wall. The roof is supported by excellent sawn scroll brackets. A wide, one story porch runs full width across the west elevation and returns at the southwest corner. The porch has chamfered posts, simple fan brackets, square balusters and cut-out screens under the porch floor.

Located at 157 Park Street (1883) is a one and one-half story, single family, frame cottage with fine hexagonal bays on each side of the centered entrance. Sash is 1/1, and the entrance door is provided with round headed glass panels. Both details are typical of the period.

Wall dormers with 2/2 sash span the front roof plane and project below the eaves line. An excellent five bay porch runs the full width of the house. The porch has square posts sawn brackets, square balusters and sawn cut-out screens under the floor.



122 Chestnut Street

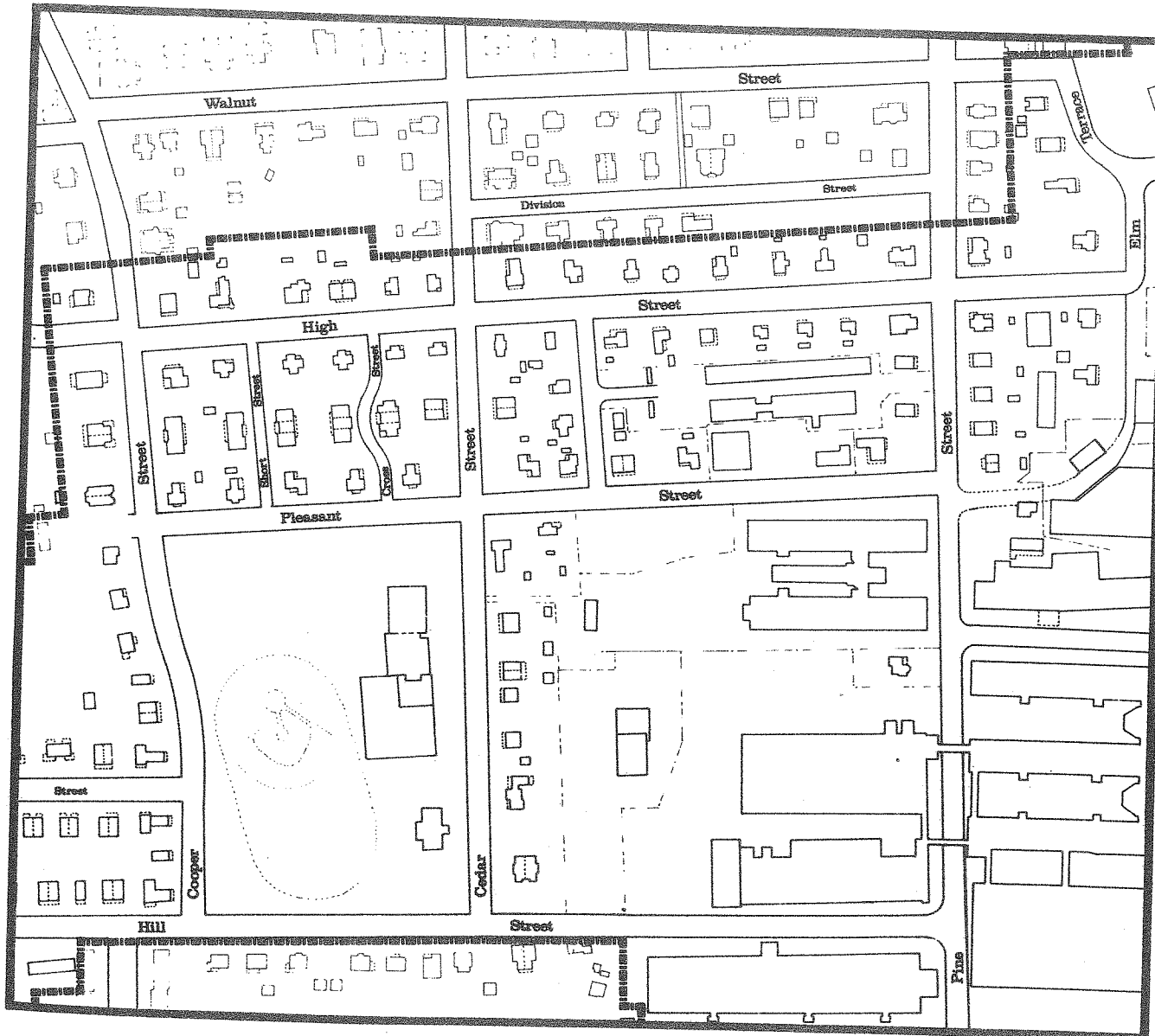


86-88 Laurel Street



157 Park Street

Northwest of the Mill Complex: Turn-of-the-Century Housing



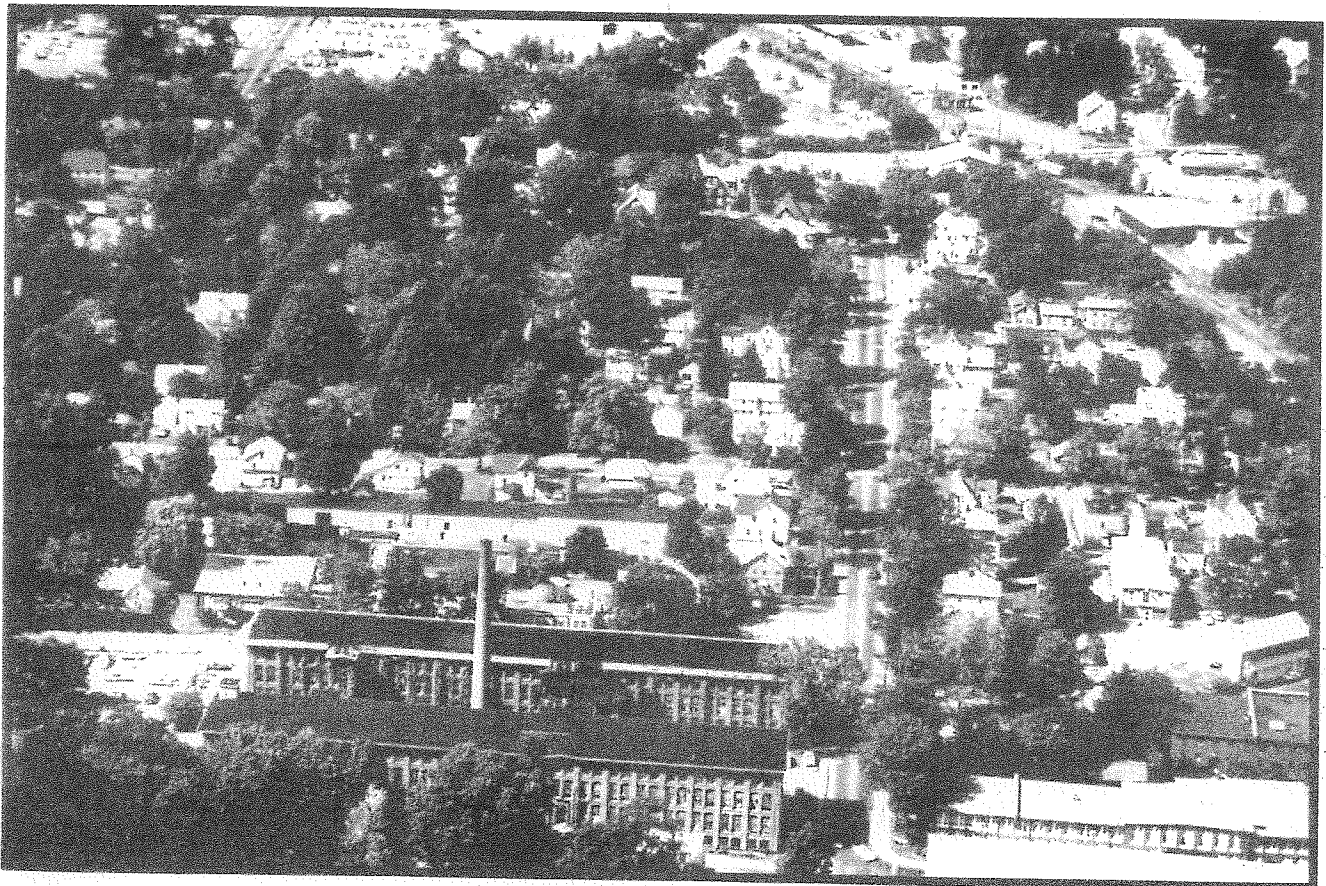
Preservation Inventory

Workers Housing

Northwest of the Mill Complex

The residential area centered along Cooper, Cedar, Cooper Hill, Pleasant and High Streets consists of 107 structures, of which 68 are in single family use, 34 are two-family and 5 are three-family. The predominant height (93 or 87%) is two and one-half stories, with only 13 buildings that are one and one-half stories and one which is three stories or more. As in all of the workers' housing areas, conditions are excellent, with 96 structures rated Good (90%), 11 Fair (10%) and none Poor. Fifteen lots were noted as requiring maintenance, and one (a vacant lot at 142 Pine Street) was poor. Seventy-five structures (70%) have artificial siding. Sidewalk repairs are needed along Pine, Cooper Hill, Pleasant, Cedar and High Streets, and street repairs are required along Elm Terrace at Walnut. Also, there is no curb along the south side of Pleasant.

Most of the houses were built between 1880-1900 (42) and 1900-1920 (41), during the height of the Cheney Brothers operations. Nineteen were built before 1880, and five along Cooper Street were constructed post 1940. The rate of home-owner occupancy today is an impressive 97%.

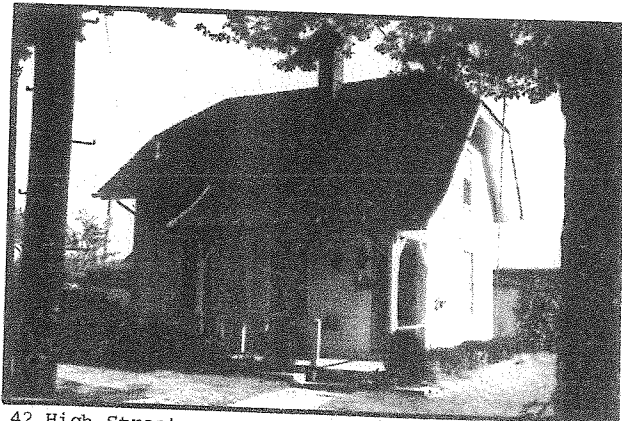


The Zion Church Parsonage at 120-122 Cooper Street, was designed as a two-family, two and one-half story, frame structure set back from the street on a fairly spacious lawn. The body of the house is sheathed with clapboard, and the gable ends are covered with shingles. The front facade is two bays wide with enclosed porches which serve recessed entrances at either side of the leg of the T.



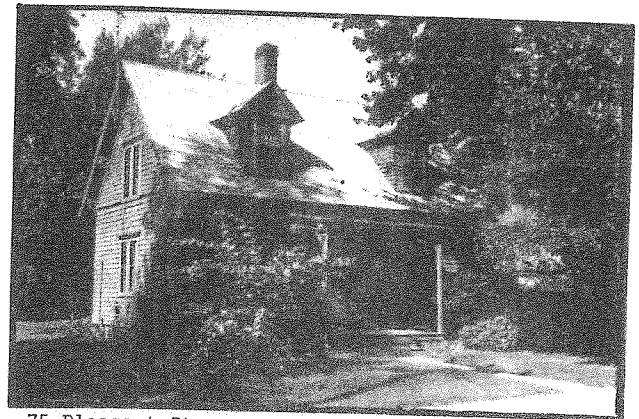
120-122 Cooper Street

The residence at 42 High Street (1882) is a one and one-half story Eclectic single family dwelling reminiscent of the English Rural Cottage style. The clapboarded, L plan, frame structure has a gable roof which extends over the two west bays as an entrance porch. This part of the roof is supported by chamfered square posts and diagonal knee braces.



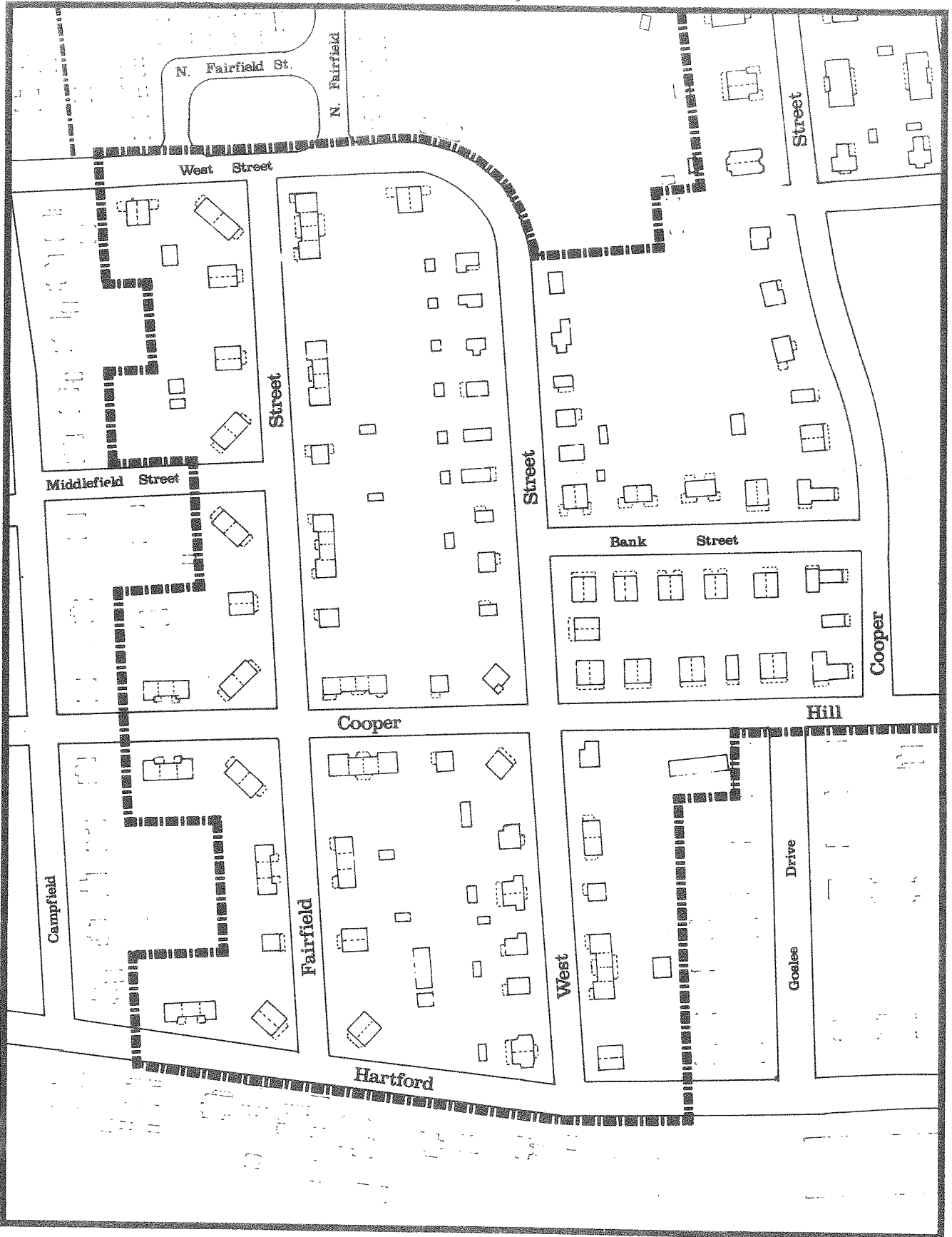
42 High Street

The house at 75 Pleasant Street (1876) represents another type of one and one-half story paired frame cottage, L-shaped in plan with gable roof incorporating two dormers. The main block has a one story gable roof section appended to the rear corner. Windows in the end walls are paired with 6/6 sash. The house is sheathed with butted shingles in alternating height to produce a fret pattern. The porch has a shed roof, chamfered posts, sawn brackets and square balusters.



75 Pleasant Street

Preservation Inventory



Workers Housing

Fairfield/West Streets Area: Early 20th Century Housing

This residential neighborhood consists of 57 structures with a total of 107 dwelling units which are situated along both sides of Fairfield and West Streets in the extreme western section of the historic district. Of the 57 structures, 25 are in single family use, 21 are two-family, 4 are three-family and 7 are four-family, all as originally designed. The predominant height is two to two and one-half story (49 or 86%), 55 are in good condition, and only 7 need yard maintenance. Artificial siding has been applied to 60% (34) of the structures but few have experienced any major alterations. Both West and Fairfield Streets require maintenance, and Cooper Hill Street is in need of sidewalk repairs. Twelve of the residences (all on West Street) predate 1880, 6 were constructed between 1880 and 1900, but the majority (36 or 63%) were built

during the last expansion phase of Cheney Brothers, 1900-1920. Three structures were put up after 1920, including 37 West Street in 1952. Cheney Brothers influence is evidenced by the fact that 57 structures (88%) were company-owned in 1937. Today, 45 or 79% are home-owner occupied.

The high visual quality of the neighborhood is the result of advanced planning concepts; exceptional landscaping, siting and three dimensional design combine to create a most important ensemble. Most of the "Cottages" represent various styles grouped under the term Eclecticism and are loosely patterned after "Colonial" forms. There are also restrained examples of the Arts and Crafts movement of the 1880's in the area, but most residences combine details



Fairfield/West Street Area

Preservation Inventory

Workers Housing

Fairfield/West Streets

from the Early Colonial, Georgian, Adam and Post Colonial periods such as Swedish Gambrel roofs, 6/6 sash, boxed cornices and narrow clapboard or shingle siding. Examples of the Bungalow style have exposed and extended purlins and rafters, often with attenuated ends, and gable porches set below gable roofs of the same pitch, both parallel with the street. The cottages and bungalows appear to have been influenced by design and pattern books current at the turn-of-the century, especially Radford's Artistic Homes, published in 1908.

More importantly, the two and three family structures on Fairfield Avenue are remarkably similar to the designs and use of materials prepared by McKim, Mead and White for workers' housing in Echota, Niagara Falls, N.Y. (1891-1955). Also, while neither design can be positively attributed to this important firm, the single and double houses like 46-48 Fairfield Avenue are heavily influenced by McKim, Mead and White's "Turtle Houses" built in Roanoke Rapids, N.C. (1894-1895).

Three structures representative of the c. 1920 period, are 165-169 Cooper Hill, 69,75 Fairfield, and, as mentioned, 46-48 Fairfield. The Cooper Hill Street house (1922) is a two story, frame, two-family residence consisting of projecting wings with gable roofs and a connecting hyphen. The lower floor is clapboard, while the upper level of the hyphen and the two bay wide gable ends are clad in patterned shingles.

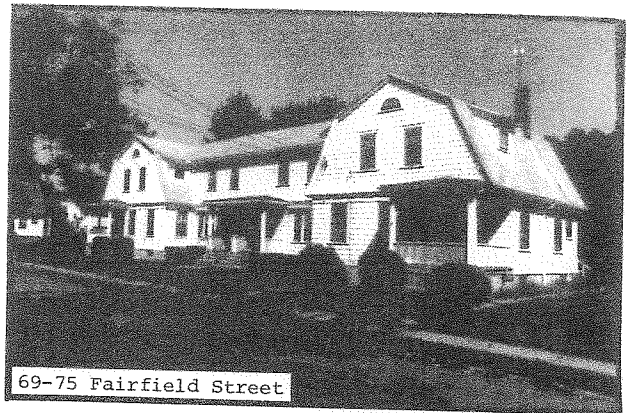


165-169 Cooper Hill Street

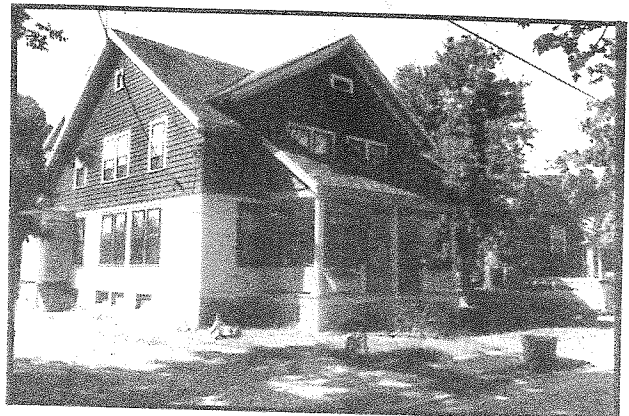
57

The two story, four family structure at 69-75 Fairfield Street (1919) has projecting Swedish gambrel wings connected by a long, two story hyphen. The wings are 3 bays in the lower level, and 2 in the upper level, while the hyphen has paired entrance doors in the middle of the facade flanked by triple windows.

All wall surfaces are shingled, and the gambrels are defined by flat fascia boards. The outer bays of each wing feature porches with square posts, Tuscan capitals, molded hand rail and square balusters.



At 46-48 Fairfield Street (1919) is a two story double cottage with a cross gable roof. The front part is parallel to the street and is continued by the plane of the front wall to enclose a porch. The porch occupies the center four bays of the six bay facade and has turned columns with Tuscan caps, molded hand rail and square balusters. The cottage, originally clapboard but now sheathed with asbestos shingles, has side porches at the rear of each facade.



46-48 Fairfield Street

Expanded District Recommendation

The Historic District Base Map on pages 13-14 of this report shows the existing district boundary lines as well as proposed expanded district boundary lines. As a result of the preservation inventory undertaken by Anderson Notter Finegold Inc., and Russell Wright A.I.A., A.I.C.P., it is believed that such an expansion of the Historic District is justified under criteria established by the Department of the Interior and should be initiated by the Cheney Commission at once.

The five areas of proposed expansion are the following;

1. Below Hartford Road
To include the parcels at:
160-176 Hartford Road (former Cheney Brothers Mills)
178 Hartford Road (vacant lot)
192 Hartford Road (residence)
204 Hartford Road (gas station site)
218 Hartford Road (non-Cheney mill structure)
27 Prospect Street (vacant-parking lot)
146 Hartford Road (portion south of Hop Brook)
2. Cooper Hill Street/Hartford Road
58-60 Cooper Hill Street (former Cheney Residence hall)
253 Hartford Road (residence)
Transformer Station (Cheney built 1920-25 adjacent to Yarn Mill)
3. Forest Street (Cheney family mansion area)
-43 Forest Street (John S. Cheney residence)
-75 Forest Street (Mary Chapman residence)

4. Northwest of the Mills

To extend this area to the crest of the hill overlooking the silk mills, including the residences on the north sides of Ridge and Summer Streets. These houses are consistent in style and design to those already in the district.

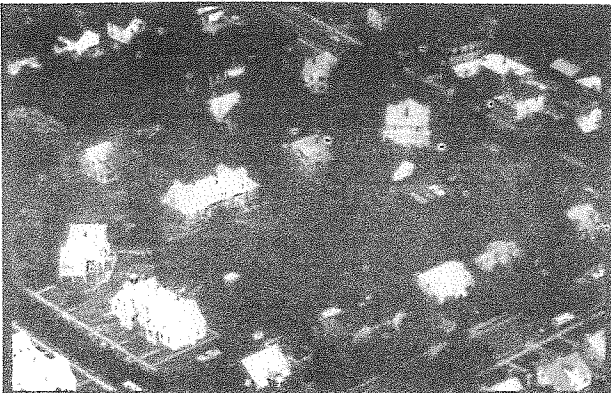
5. East of Main Street

To extend this most historic portion of Cheney worker housing to include an area roughly bordered by Oak, Spruce, and Charter Oak Streets. Over 30% of the houses in this proposed expanded area were sold as Cheney property in the bankruptcy sale of 1937.

These large areas are more thoroughly documented in the Preservation Inventory Survey Forms at the Town Planning Department.

Although it is understood that the Cheney District Commission and the residents of the District do not intend to pursue establishment of a State Historic District, this report would not be complete if the question of a State Historic District designation was not addressed.

This type of district would be regulated by Section 7-147 of the Connecticut General Statutes. The controlling legislative body would be established by the local municipality. Such a district could result only if seventy-five percent of all owners of record of all real property within the proposed district vote affirmatively to establish a State Historic District. Broad base support from the affected property owners and the Town is essential for such a district to develop and to be successful. Without this critical support, this approach should not be implemented.



Fairfield/West Streets

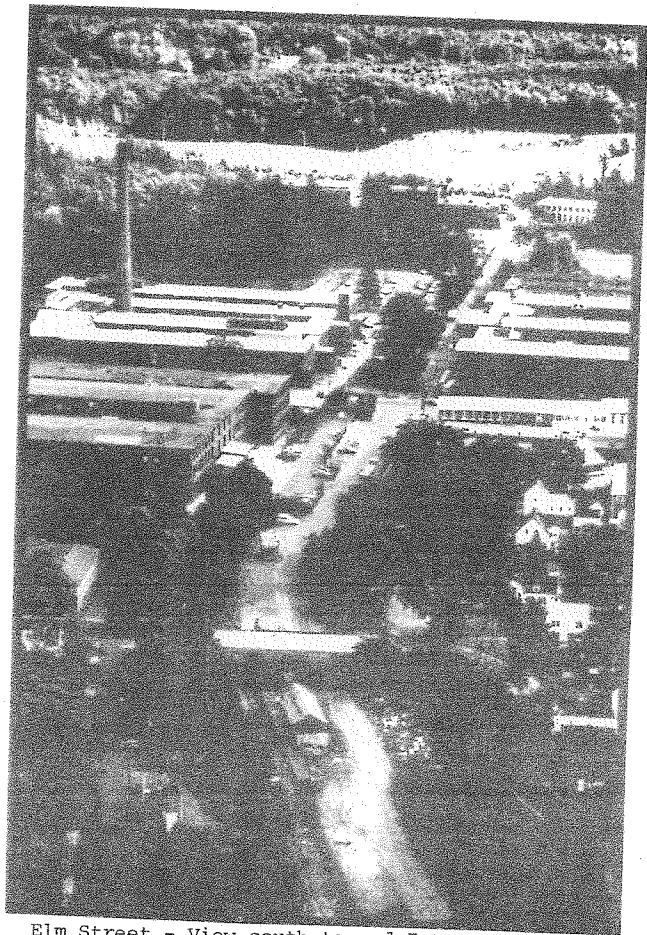


Fairfield/Cooper Hill Streets

Market Analysis



Interstate 84 - View west toward Hartford



Elm Street - View south toward Interstate 84

The connection of Interstate 84 with Interstate 86 promises a major economic benefit for downtown Manchester. Commuting time to Hartford will be greatly reduced and Main Street merchants can expect increased sales. Market support for revitalization in the Cheney Silk Mills will also be increased

and it is therefore imperative that plans for channeling this growth be adopted. This chapter attempts to quantify this demand for growth and to correlate it with available square footage in the Silk Mill Area.

Introduction

South Manchester has been in decline since the end of World War II. With the sale of the Cheney Mills in 1955 to J.P. Stevens, Inc., much of the textile manufacturing production of the Cheney Company was shifted to North Carolina. Mills were sold, leased, and subleased to many smaller warehousing and industrial tenants who could not afford to look after the physical appearance of the area in the same way that the Cheney's had.

The first things to go in the mill area were the great oaks and elm trees that lined the streets and pathways. Next, the lawns were asphalted over for use as parking lots. Finally, as numerous tenants began to subdivide the massive mills into smaller and smaller areas, changes were made to the buildings such as the installation of new garage doors and loading docks on the fronts of the buildings, cyclone fenced storage areas in front of the buildings, the painting of the original brickwork and window trim, and the installation of advertising and identification logos of the various concerns over the fine old architectural detailing.

All of this detracted from the unified, high design quality of the mill area during the Cheney era and added to the sense of decline and deterioration.

Today, the Cheney Brothers Historic District retains all of the mills, mansions, and housing that were a part of the extraordinary industrial village that had its development peak in the 1920's. These structures have just lost their original purpose and need to find new uses that will make their maintenance and upkeep economically feasible once again. That is the dual purpose of this Preservation and Development Plan:

1. To find those economic uses that can best fill up the empty and under-utilized spaces in the historic district.
2. Channel this redevelopment in a planned way that will restore the buildings, roads, and landscaping of the district in an historically accurate manner.

This chapter presents a summary of the major market conclusions arrived at concerning adaptive re-use of the Cheney Mills. Three such uses were considered appropriate for consideration; residential, office, and restaurant. Commercial uses beyond local convenience shopping were considered inappropriate as these had not existed historically and would compete today with revitalization efforts on Main Street.

Market Analysis

RESIDENTIAL MARKET ANALYSIS

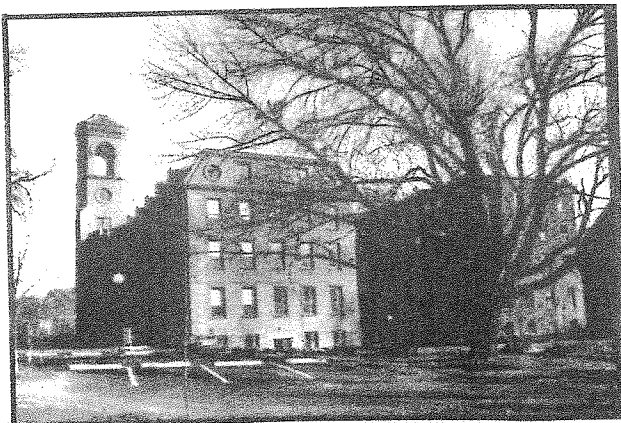
Economics Research Associates has analyzed the market support for residential development in the Cheney Mills, based on household projections for the Hartford Region, residential development trends, and vacancy rates. The following highlights the findings of this analysis.

Manchester Residential Development Trends

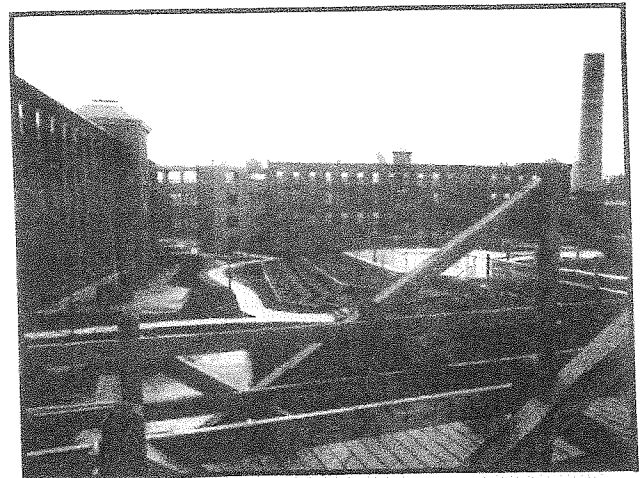
- The number of housing units in Manchester increased at a rate of 240 units per year from 1970 to 1978.
- Despite a relatively low percentage increase in housing units from 1970 to 1978 (12 percent), Manchester experienced one of the largest net gains in housing units in the Hartford Region--2052 units.
- Forty-four percent of the new housing units built since 1970 in Manchester were multi-family units. However, virtually no apartments and only 60 condominium units have been built since 1974, so that most of the increase was prior to that time.
- Based on a survey by ERA of 891 apartments, ERA estimates the vacancy rate in Manchester at less than 1 percent.
- Sales of new condominium units at Forest Ridge are brisk, and indicate a turnaround in the lagging condominium market in Manchester.

Regional Development Trends

- There is a strong demand for condominiums throughout the region.
- The primary market support for condominiums is among empty-nesters, young singles, and young couples.
- In 13 towns in the Hartford region surveyed in 1979, apartment vacancy rates are one percent or less, indicating an undersupply of apartments in the region.
- The population growth previously experienced to the west and south of Hartford is now being experienced in the more affluent eastern suburbs such as Glastonbury and Marlborough.



Vernon Envelope Factory
conversion to subsidized housing



Glastonbury Soap Factory
conversion to market rate
housing.

Market Support at the Cheney Mills

- o The market area for housing in the Cheney Mills is defined as the 28 towns in the Capitol Region, excluding the City of Hartford.
- o Based on household projections by the Capitol Region Council of Governments, ERA has forecasted the demand for new housing units in this market area as follows:

1980-1985	18,280 units
1985-1990	19,725 units

- o Market penetration rates for the Cheney Mills were determined by ERA taking into account numerous factors including: the low vacancy rates in rental apartments; major developments planned in the region; Manchester's image as a stable, middle class community; the quality of Manchester's schools (excellent); Manchester's lack of "prestige"; and the completion of the I-84 connector by 1985.

- o Based on the above, ERA has projected market support for ownership and market rate rental units, by income range and affordable rents and sales prices. Ranges of the annual demand for market rate housing units at the Cheney Mills are as indicated on the right.

- o The market support shown here is highly contingent upon the creation of a development which has numerous amenities, such as a restaurant, sports club, and swimming pool; and an exterior which is attractively landscaped. The buildings converted to residential use should be separated by appropriate design techniques from those buildings which are used for commercial or industrial uses.

On-Site Annual Demand for Apartments

<u>Income</u>	1980- <u>1985</u>	1985- <u>1990</u>	Afford- able Rents (Theoretical)
\$10,000-\$15,000	45-50	35-40	\$250-\$315
\$15,000-\$20,000	40-45	35-40	\$315-\$415
\$20,000-\$25,000	25-30	40-45	\$415-\$520
\$25,000 and up	<u>10-15</u>	<u>15-20</u>	\$520 and up
TOTAL*	120-140	125-145	

On-Site Annual Demand for Condominiums

<u>Income</u>	1980- <u>1985</u>	1985- <u>1990</u>	Affordable Sales Price (Theoretical)
\$15,000-\$20,000	30-35	25-30	\$38,000-\$50,000
\$20,000-\$25,000	20-25	30-40	\$50,000-\$68,000
\$25,000 and up	<u>20-25</u>	<u>25-35</u>	\$63,000 and up
TOTAL*	70-85	80-105	

*While total annual demand is indicated, residential development in the Mills will most likely not be aimed at all income groups shown here. If units are developed which are aimed at the \$25,000 and up income category, they will likely include amenities which would make other units too expensive for at least one of the lower income categories.

Market Analysis

OFFICE MARKET ANALYSIS

Economics Research Associates analyzed the market support for office development in the Cheney Mill Buildings, based on local and regional office market trends, and on projections of office-using employment in the Hartford region. The following presents a summary of the findings from this analysis.

Regional Office Market Characteristics

- o There is an extreme shortage of general occupancy space in downtown Hartford, which should benefit those suburbs with new office developments underway. Vacancy rates as of December 1978 for office space in the region were reported by the Farley Company as follows:

<u>District</u>	<u>Percent Vacant</u>
Hartford	2.1 %
North and West Suburbs	10.8 %
South and East Suburbs	3.4 %
TOTAL	4.4 %

- o The Chamber of Commerce estimates there is a latent demand for 1.0 million square feet of Class A office space (Class A refers to buildings constructed since 1960) in the downtown area of Hartford alone. This means there is a pent-up demand for space which cannot be met presently, and which is not dependent on further growth in employment.
- o Thus far, most of the movement of corporate space users from downtown Hartford to the suburbs has been to the west where many of their executives live.

Manchester Office Market Characteristics

- o The office market in Manchester is characterized by a higher vacancy rate than in the Greater Hartford Region as a whole. ERA surveyed 9 buildings constructed since 1970 which contained a total of 92,000 square feet. Of this, 7,000 square feet were vacant, for a vacancy factor of 7.6 percent. However, according to local brokers, the vacancy factor for all classes of office space, including that built prior to 1940, is in

the range of 15 to 20 percent. The rent-up periods for space in Manchester are quite long, and indicate a slow market for office space occupied by the traditional local serving office-users.

- o Existing office space in Manchester is primarily leased by local real estate brokers, doctors, and lawyers.
- o There is a trend in Manchester for professionals such as doctors and lawyers, to buy houses in the commercial areas of Manchester and convert them to office space for their own use.

Projections of Market Support for Office Space in the Cheney Mill Buildings

- o Based on projections of office-using employment in the Hartford Region, ERA has estimated the potential demand for space at the Cheney Mill complex, assuming the complex is developed on a grand scale, providing attractive surroundings, quality office space, and adequate parking.
- o ERA has further assumed that by 1985 the I-84 highway connector will be completed, so that access to Hartford is improved.
- o While Manchester itself has not had the prestige needed to attract many large office-users, the Cheney Mill complex itself could become a prestige office location.
- o Based on projections of regional employment and the above factors, ERA has projected potential market support for office space as follows:

Potential Annual Absorption of Office Space

1980-1985:	30,000 square feet per year
1985-1990:	50,000 square feet per year

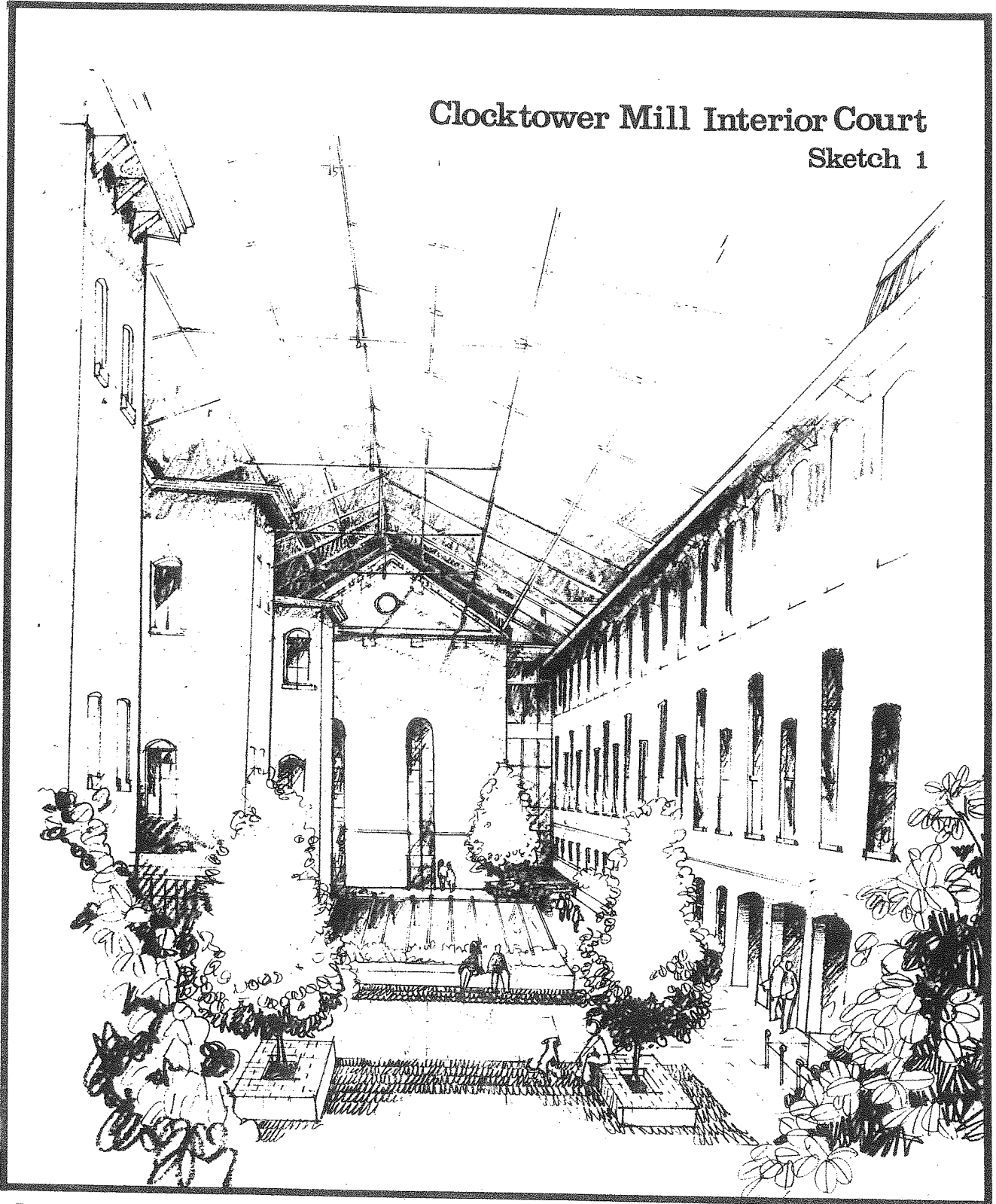
- o The above projections are highly contingent upon the creation of a new image at the Cheney Mills; through landscaping, aggressive marketing, and the development of other buildings for residential and restaurant uses.

MARKET SUPPORT FOR RESTAURANT FACILITIES WITHIN
THE CHENEY MILLS COMPLEX

ERA analyzed the market support for restaurant facilities within the Cheney Historic District, based on information on the market areas of quality restaurants in the area, growth in per capita expenditures in restaurants in the Hartford area, and projected restaurant expenditures within the Hartford region. The following statements summarize the results of this analysis:

- o Per capita expenditures for restaurants in the Hartford Region, in constant dollars, increased at an annual rate of 2.9 percent from 1972 to 1977, as incomes in the area rose.
- o Restaurant sales in Manchester have increased at a faster rate than in the region as a whole, and per capita restaurant sales in Manchester are higher than for the Capitol Region as a whole.
- o The restaurant facilities to be developed within Cheney Hall or elsewhere within the Cheney Mills should be done so in a manner which reinforces the prestige qualities of the office space, apartments and condominiums offered. The dining facilities should enhance the identity and reputation of the Cheney Mill complex, and should thus provide first class operations, environment, and services.
- o Based on conversations with area restaurant owners, the primary market area for medium to high priced quality restaurants in the Cheney Mills is defined as those towns within 10 miles of the site. The market area for a very high priced quality restaurant, with very fine cuisine, is not only the Capitol Region, but the entire State of Connecticut.
- o Other important market segments for restaurants are nearby office employees and visitors to the area on business.
- o Based on projections of expenditures by residents of the market area, businesspersons visiting the Region, and nearby office employees, ERA projects sufficient market support for several restaurants in the Cheney Mills occupying from 12,000 to 15,000 square feet. Such restaurants could include banquet rooms, live entertainment and dancing. However, these are not essential to the success of the proposed facilities.
- o It is ERA's opinion that the Cheney Hall is suitable location for one or several restaurants, but that restaurant facilities need not be restricted to this site.

Development Plan



Introduction

The combination of mansions, mills, and worker housing in the Cheney Brothers Historic District represents what is perhaps the best surviving example of an owner-managed family mill town in the United States. The buildings and landscaping have survived virtually intact from the period of World War I, and many of the structures date from the earliest years of the industrial village.



Interior of 210 Pine Street Yarn Mill

Preservation of this unique community has been attributable to date to a group of conscientious mill owners, home owners, residents, and to an extent, upon the lack of an economic need for change. There has been no great demand to put new industries and allied development into the silk mill area and therefore, these fine old buildings have simply been left alone. Little has been done to alter their appearance from the era when silk was king. Unfortunately, this coincidence of non-development and preservation cannot be expected to continue indefinitely.

Neglect over a period of time also produces ill effects. Deterioration due to lack of upkeep and maintenance is occurring in many of the buildings. Cheney Hall, perhaps the most historic building in all of Manchester, is fast approaching a condition when water damage in the exterior walls and lack of heating and ventilation inside will cause irreparable harm.

The Clocktower Spinning Mill sits largely vacant above the first floor with only a handful of small tenants subdividing the lower floor between them. Clearly this building is no longer returning a profit to its owner and is in danger of being abandoned if appropriate new uses are not found.

The Manchester Community College Building, once the showpiece headquarters offices of the Cheney Brothers Company, will be vacated by the College next year. An appropriate new use must be found for this structure.

Throughout the district, mill structures are reaching a point of deterioration where they will be lost if new uses are not found which will support the costs of renovation and rehabilitation. If action is not taken soon, an irreplaceable national resource will be lost.

This plan is based on the premise that preservation and development are compatible and desirable elements for the historic district. New economic uses mean that historic buildings can be maintained without becoming a financial burden on the community. Preservation means that new economic development does not have to infringe on neighborhoods and disrupt the way of life of a community. Both historic preservation and development are crucial to the community and the heritage of Manchester.

Development Plan

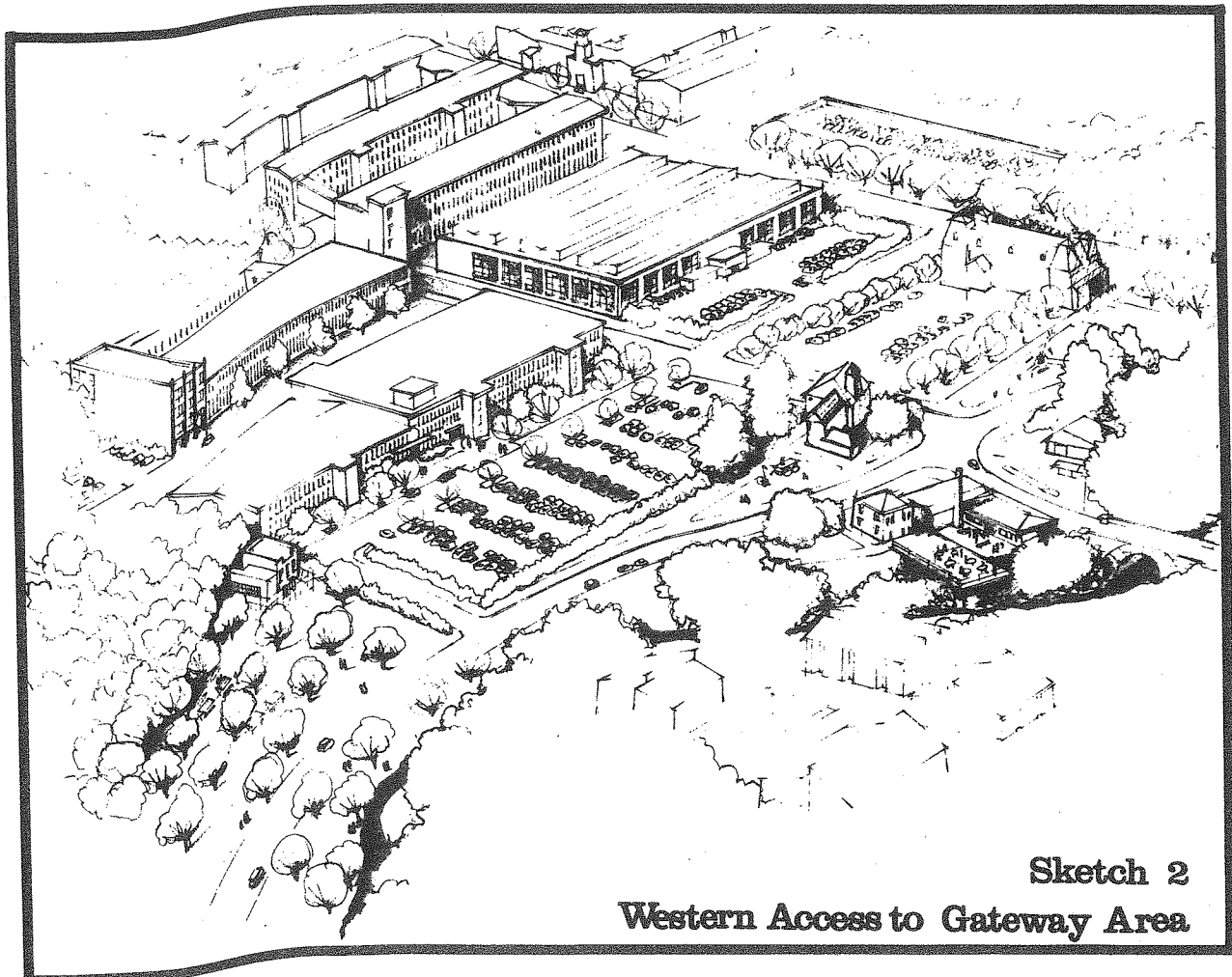
The "Gateway"

The Silk Mills are situated at the geographic center of the historic district and revitalization of this central core must be viewed as the key to the economic well being of the entire district. As industrial land uses will probably not be able to remain in these buildings over the long term, new uses must be found to take their place.

This plan projects that the Silk Mill Area should eventually become a residential neighborhood for about 900 families with a mixture of office space, restaurants, and local convenience retail establishments added in.

The social center of the district would be a renovated Cheney Hall that would be used for public meetings, performances, exhibitions, dances, receptions, and all manner of Town-wide events. The Pine Street Firehouse would be used as a State Fire Museum that would operate in cooperation with the Lutz Junior Museum and a Cheney Silk Museum.

This "Gateway" to the historic district would be attractively landscaped in a parklike manner and would extend down to the old Hop Brook, the stream along the banks of which everything began for Manchester with the first silk mill over 140 years ago...



Sketch 2

Western Access to Gateway Area

Public Action

PUBLIC ACTION TAKEN

Because of years of inaction and neglect, the first steps in revitalization are always the most difficult. The Historic District designation by the Department of the Interior in 1978 was a very important event in this process. Under the envelope of an historic landmark district property owners are entitled to tax advantages for renovation work. Matching grants for improvements may also be available. The landmark designation has brought national attention and recognition to the area which can serve as a very positive stimulus to development. Recent articles in the New York Times, the Journal of the Society of Architectural Historians, and various Connecticut publications promise renewed interest in the area.

The creation of the Commission for the Cheney Brothers Historic District was a second event of importance. Through public meetings, discussions with mill owners and co-operation of the Downtown Coordinating Committee, areas of shared interest and mutual concern have been brought to the public's attention and preliminary problems and solutions have been discussed. Coincident with the Commission's work were efforts by Town officials which resulted in a 99 year lease by the State Firemen's Association for use of the old Pine Street Firehouse as a State Fire Museum. Clearly, the first steps; the most difficult ones, have already been taken.

In the role of consultants to the Cheney Commission and the Town of Manchester, Anderson Notter Finegold Inc. has met with all of the above mentioned groups as well as with decision makers and cultural representatives that have input into the revitalization process in the Cheney Mills. Through these discussions, the following development plan has evolved. At every step, input from the Commission and local residents has been sought, and coverage by the local press has touched on all major points of discussion.

PUBLIC ACTION CALLED FOR

Of the total 1.3 million square feet in the Cheney Silk Mills, there are approximately 650,000 square feet that stand vacant or highly underutilized. Developers and owners of Cheney Hall, the Clocktower Mill, and the Yarn Mill are anxious to proceed. If these three complexes were to be renovated, over 300,000 square feet of this non-utilized space would be reused. Anderson Notter Finegold Inc. estimates that the current annual tax return to the Town from these properties is approximately 2¢ per square foot. Renovated and reused, these properties could return over 35¢ per square foot for residential use. It is in the Town's interest to commence discussions with prospective developers.

Tax abatement in conjunction with the Connecticut City and Town Development Act or Federal Urban Development Action Grants should not be rejected out-of-hand for these first projects. After years of decline, it is difficult for developers to raise capital for renovation in an area that does not have a proven track record without a corresponding public commitment. The citizens of Manchester have a stake in providing that commitment if a revitalized Cheney Mill Complex is to be achieved.

If Cheney Hall and the Clocktower Mill are successfully rehabilitated in an architecturally sensitive manner, with proper landscaping and other amenities, a standard of quality will be established for all subsequent renovations. Also, many owners and developers that now have "cold feet" because they are uncertain about the risks involved, would have their fears belied by a successful project.

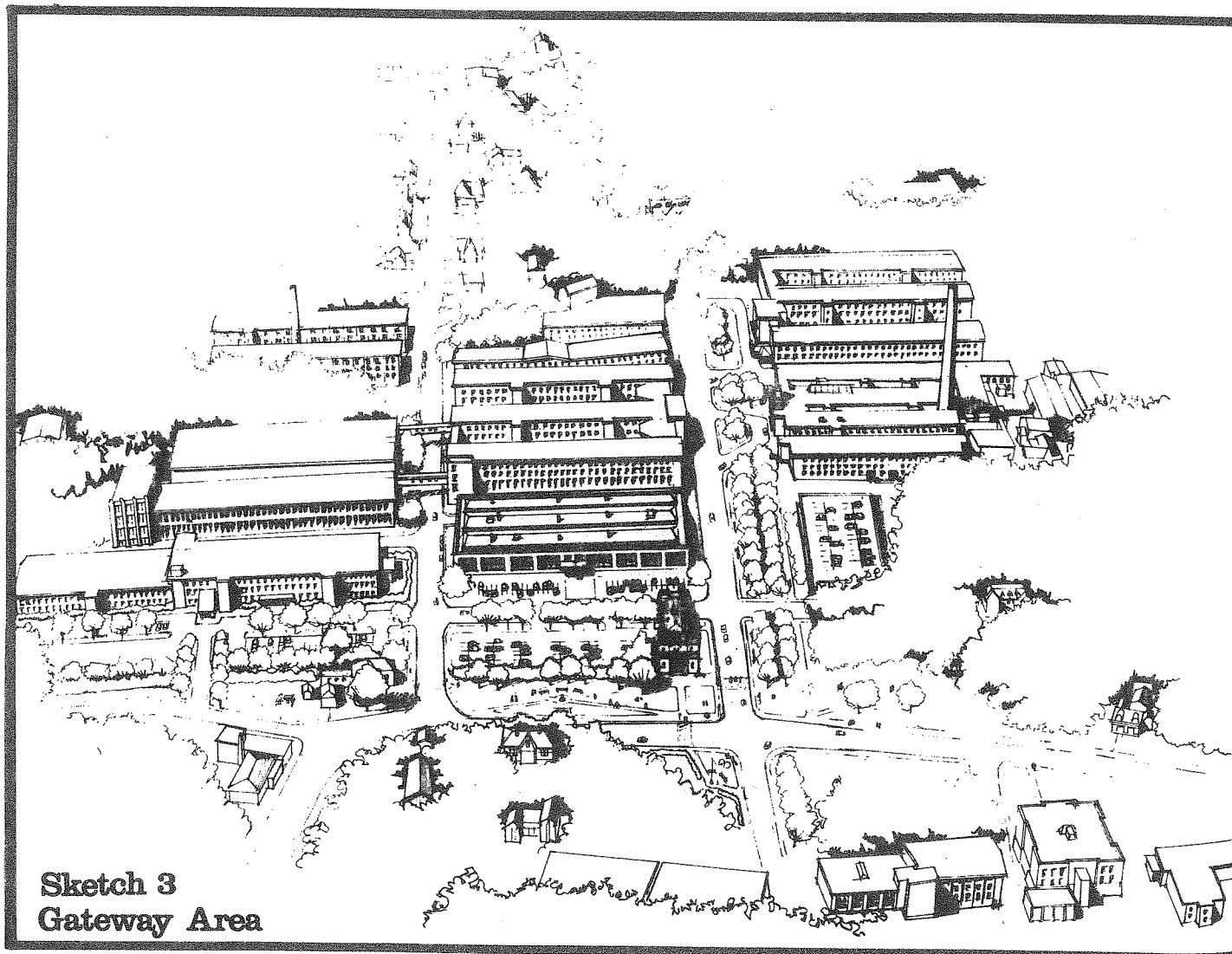
As the first steps in the administrative organization of revitalization have proven to be the hardest, so too are the first physical improvements in the area. The Commission and the Town have a responsibility to ensure that these initial efforts are given every chance of success. Based on economic pro-formas for condominium and rental apartment construction generated by Anderson Notter Finegold Inc. and Economics Research Associates, which provide detailed financial information on development costs and funding mechanisms, discussions should be commenced with developers and owners without delay. This data has been supplied to the Cheney Commission and the Town Planning Department and should be used as a tool to measure feasibility in such negotiations.

Development Plan

Public Improvements

The Town must actively promote private sector redevelopment in the silk mill area while at the same time protecting the rich legacy left by the Cheney family and their employees by enforcing the provisions of this development plan and providing public infrastructure that is sensitive to history and conducive to planned growth.

Public improvements called for in the streets and landscaping between private renovation projects must satisfy the shared criteria of historical reconstruction and public safety & convenience. Those improvements recommended by Anderson Notter Finegold Inc. are listed numerically and correspond to the sketches in this section of the report.



Sketch 3
Gateway Area

1. CHENEY HALL (Sketch #3 page 69)

Located in the center of the district in what is termed the "gateway area" this building is truly the heart of the area. Although restaurant use is the most economically feasible at this time, enough support has been evidenced by the Town that this building should probably be designated for public assembly purposes.

The entire block on which it is located (bounded by Hartford Road, Elm Street, Hall Court, and Pine Street) should be landscaped in a parklike setting with parking to the rear of the site, screened by trees and planting from the view at the front of the building. Suggested funding source would be the Urban Park Program of the Department of the Interior along with private fund raising efforts of the organizations that would have access to the new use of the structure.

The Town Planning Department is already investigating the possibility of such a fund raising effort for the three parcels on the north of Hartford Road: Cheney Hall, the Fire Museum, and the parcel on the northeast corner of the Elm Street Hartford Road intersection. Such a reuse of these three properties would be historically accurate and would create a greened "front door" to the silk mill area.

2. ELM STREET GREEN (Sketch #3 Page 69)

The Clocktower Mill currently has a 60 foot green area with lawn and trees in front of its west elevation. This green was created around the railroad trackbed that ran down Elm Street. This green is an integral element to the historical fabric of the silk mill area and forms an important north-south axis for pedestrian and recreation use. This green should be extended north to include the area in front of the Weaving Mill when that complex is redeveloped, and south to Hartford Road and below, terminating at the mill complexes at 160-176 Hartford Road when they are renovated. There should be no buildings or parking within this greenway and appropriate planting of Elm trees and lawns should be specified throughout the various ownership parcels. This area is currently protected from development by the existing railroad right-of-way but cyclone fences, parking, and poor landscaping have been created over most of this open land.

Redevelopment in the silk mill area should specifically avoid such land uses, and greening of this area should be specified as a basic criteria to the redevelopment of each of the Elm Street Mill Complexes.

Development Plan

3. GREAT LAWN (Photo Page 38)

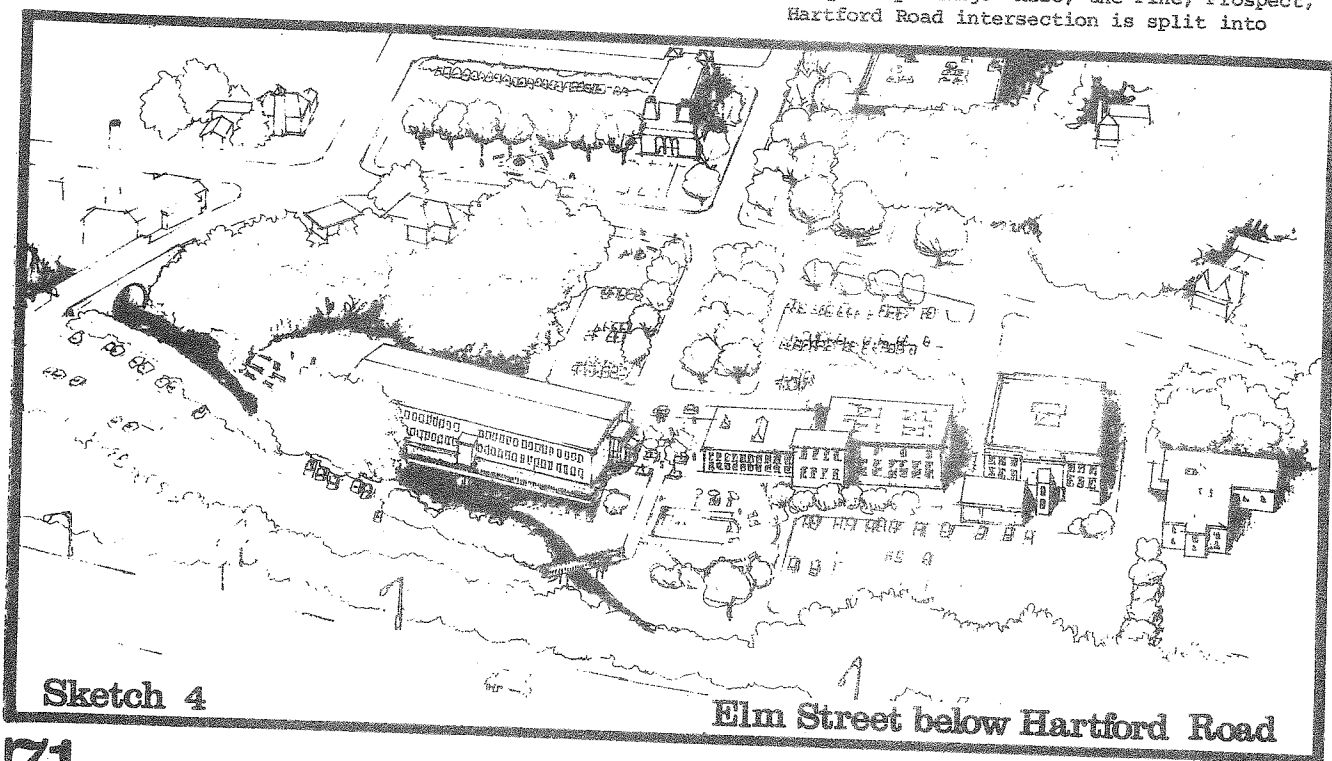
The integrity of the Cheney Family Mansion area would be seriously damaged by any new construction in the great lawn area. Presently owned by the various property owners in the mansion area, this resource is a benefit to the entire town, and as such should be protected from development and well cared for.

Suggested implementation should recognize that owners of the former Cheney Family homes should not be penalized economically for maintaining a parklike setting that is enjoyed by all the citizens of Manchester. Therefore, property owners should be made aware of the Manchester Land Conservation Trust which allows owners to donate open land, or development rights to that land, to the Town for substantial tax benefits while at the same time assuring themselves that the area adjacent to their homes will be kept open and undeveloped. Covenants can be attached to such donations that insure limited access or specific public uses of any such donated lands.

4. HARTFORD ROAD WESTERN ACCESS TO SILK MILL AREA (Photo Page 72, Sketch #2 Page 67)

As shown from the aerial photo, the entrance to the silk mill area from the west is unattractive and cluttered with four strip commercial concerns that were built in the 1940's and 1950's. These buildings detract from the historical integrity of the area and block access to the Hop Brook as a recreational amenity. Hartford Road at this point bends radically and creates traffic congestion because of the narrowness of the lanes and the sharp turning angle. This portion of Hartford Road should be realigned to a more moderate curve west of Prospect Street with the current businesses relocated into other structures and the reclaimed land used as a public park on both sides of the new roadway.

The Hop Brook should be utilized as a recreational resource, and planting should include pine, oak, elm, and mulberry trees on a lawn with picnic facilities and adequate parking. Also, the Pine, Prospect, Hartford Road intersection is split into

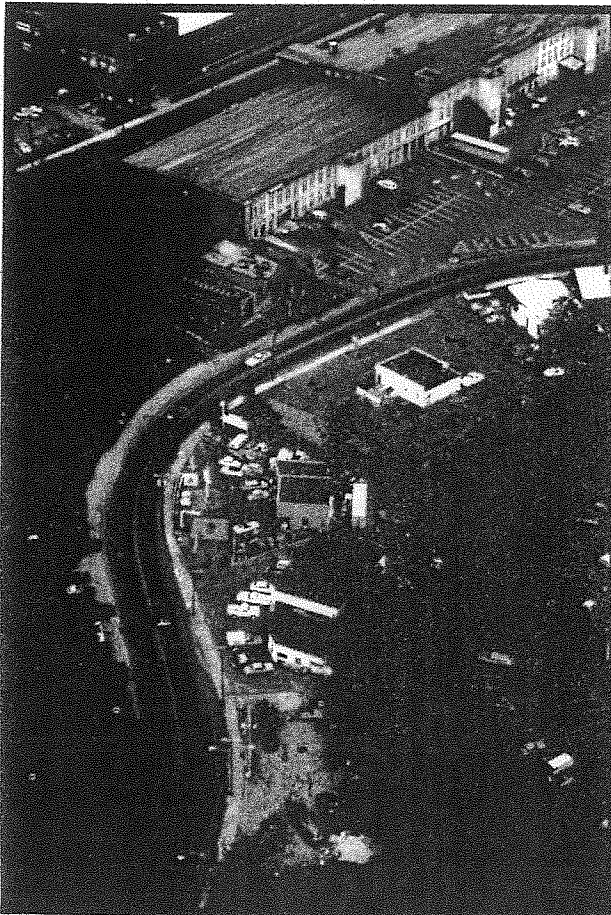


Sketch 4

Elm Street below Hartford Road

two T-shaped intersections at present and should be realigned so that Prospect Street would flow directly into Pine Street. This would necessitate the taking of a strip of land from the gas station on the southeast corner of the intersection but would not affect the use of that site as a gas station.

Suggested implementation would be to use a combination of Federal Urban Systems Program funds and State of Connecticut Urban Action Grant Program funds to acquire the properties at 234, 250, 270, and 276 Hartford Road and to rebuild and realign the roadway and intersection.



Hartford Road west of Prospect Street

5. TRAFFIC MEASURES

Hartford Road is already heavily used but should be able to accommodate increased traffic loads in the historic district with the following modifications in the silk mill area:

- a) signalization of the Elm Street and Pine Street/Prospect Street intersections
- b) addition of a turning lane between Elm and Pine Street for left-hand turns, also extending back approximately 200 feet east and west of both of these intersections.
- c) addition of a turning lane at the Main Street intersection.
(This is already being implemented as part of the Interstate Highway Fund's Turnback Program.)
- d) stop signs at Elm/Forest intersection (four way) and at Pine/Forest intersection (3-way)
- e) creation of a bus loop through the district running from Hartford Road up Pine Street, across Forest Street to Elm Street and down Elm Street back to Hartford Road. Suitable streetscaped pull-out lanes with bus shelters should be provided at the Elm/Forest Street intersection (sketch #5 page 73) and at Hartford Road, either across from the Fire Museum on Pine Street or across from Cheney Hall on Elm Street.
- f) The Town Engineering and Planning Departments should investigate the possibility of extending Elm Street north past Forest Street to join New Street just south of Center Street. This would create a new north-south roadway access to the silk mill area that would relieve traffic congestion along Pine Street. If this were to be done, either Pine Street or Arch Street could be closed to through traffic where they join Center Street, thus relieving congestion at this heavily over-utilized intersection.

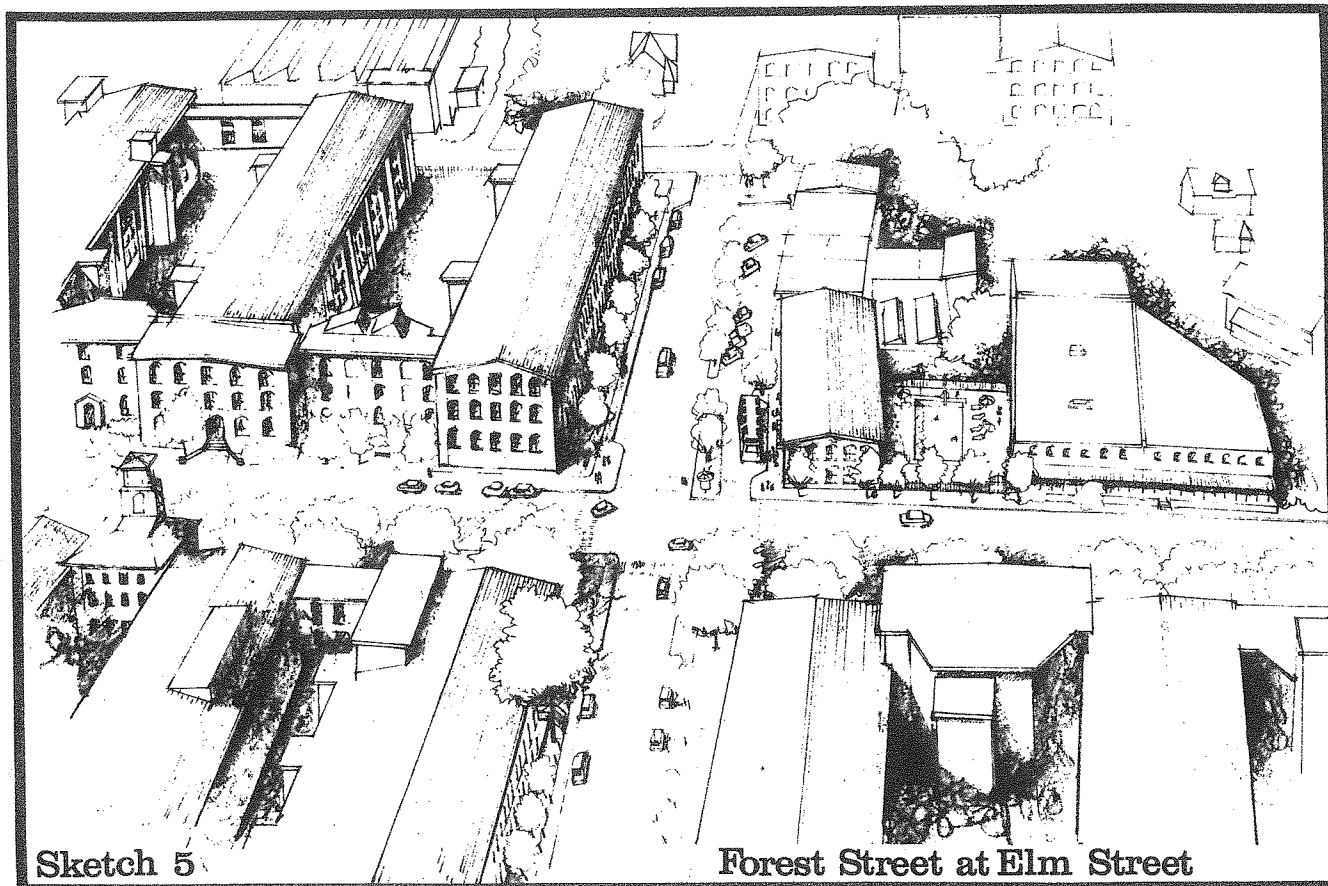
Development Plan

6. ELM STREET PARKING STRUCTURE

The existing at-grade parking lot adjacent to the Clocktower Mill currently supplies practically all of the parking spaces for the Cheney Brothers employees. If the Clocktower Mill, Velvet Mill, and Cheney Hall were to all be converted to new uses, there would not be enough on-grade parking to satisfy the new demand.

Anderson Notter Finegold believes that a parking structure that is suitably landscaped, depressed 1/2 level below the ground, and which respects the building line along Elm Street would be the best solution to the increased parking demand within the silk mill area. Concentrating as much parking in one central location as is possible, is a better solution than creating a great number of asphalt parking lots throughout the silk mill area.

Suggested funding for this structure would be an Urban Development Action Grant coupled with U.S. Economic Development Administration Public Works and Redevelopment Area Programs, and the Federal Highway Administration's Urban Systems Program. Also bonding based on anticipated revenues from the use of such a facility should be explored.



Legal & Administrative Action

In addition to the creation of the Cheney Brothers Historic District and the creation of the Commission for the Cheney Brothers Historic District, certain actions by public bodies are necessary to support and direct private physical development:

1) EXPANDED HISTORIC DISTRICT

The Commission for the Cheney Brothers Historic District should apply to the National Register through the State Historic Commission for the expansion of the Historic District to include those areas of Cheney worker housing stock as described in the map on page 13 of this report, and verbally on page 58.

2) ZONING CHANGES

A Special Zoning District should be created and applied as an envelope over the Silk Mill Area. Mixed Land Uses should be encouraged in this area consistent with the phased development presented in this plan. Very little construction of new structures should be permitted in this area as potential densities from conversion of existing buildings are sufficiently high.

Also, in the part of the district east of Main Street there are many Cheney workers houses that are presently threatened because they are zoned either B2 or CBD.

Main Street redevelopment should be encouraged, but not at the expense of this historic housing stock.

Zoning should be changed to RA or RB to reflect those areas currently within the Historic District, and those areas proposed for District expansion.

3. REDEVELOPMENT AUTHORITY

Redevelopment Commission powers, as authorized by the State Legislature, are already in place in Manchester and could be reactivated to work in conjunction with the Commission for the Cheney Brothers Historic District, the Town Board of Directors, and the Town Manager's Office. Negotiations with developers, owners and bankers could be conducted through this agency. Also, bonding for public improvements, tax-abatement authority, and grants-in-aid could be channeled through this body.

An alternative approach, that would involve the existing governmental structure of the Town, would be to assign responsibility for such negotiations to the Town Manager's Office and the Town Economic Development Commission.

Under either approach, the issue of primary importance is that a visible branch of the Town government should aggressively promote development in the silk mill area and have the authority to speak for the Town in any subsequent negotiation process.

4. CULTURAL SUBCOMMITTEE OF THE CHENEY COMMISSION

Because of the many cultural groups that have a direct interest in redevelopment efforts in the Cheney Mills, a subcommittee of the Cheney Commission should be established that includes, but is not limited to, representatives of the following institutions:

- Lutz Museum
- Fire Museum
- Manchester Historical Society
- Manchester Arts Council
- Manchester Community College
- Cheney Brothers (silk museum)
- League of Women Voters (tourism)
- Cheney Hall (owner or developer)
- 218 Hartford Road (owner or developer)

There are many shared interests between all of these groups and a position paper based on this development plan should be drawn up regarding the role these groups see for themselves and the citizens of Manchester in the silk mill area. Their recommendations should be directly reported to the Commission itself, and subsequently to the Economic/Redevelopment Commission.

Development Plan

Development Phasing

Redevelopment of the Silk Mill Area is a large scale project that will take many years to complete. Many contingencies over such a time span are impossible to foresee, and for that reason, phases of development are scheduled. Phase 1 is based on existing vacancies and underutilized spaces. It is a minimum impact plan that recycles only those buildings that are in immediate need of redevelopment. Phases 2 and 3 are more conjectural. They are based on probabilities of what will happen in the future. Phase 2 assumes that the redevelopments and public improvements of Phase 1 have been completed and the buildings that Cheney Brothers now occupy become available for redevelopment. Correspondingly, Phase 3 looks at what are the best reuses for the other industrial buildings in the silk mill area, given that all of the redevelopment planned under Phases 1 and 2 has taken place.





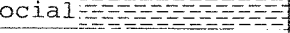
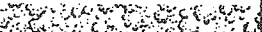

These three phases do not necessarily imply that the Silk Mill Area should be completely recycled for residential and office uses. On the contrary, a superior level of density would be achieved if only those redevelopments under Phase 1 were to take place and the remaining industrial uses remained in the area. Cheney Brothers, Manchester Modes, and the various incubator industries should be given every encouragement to remain in the area.

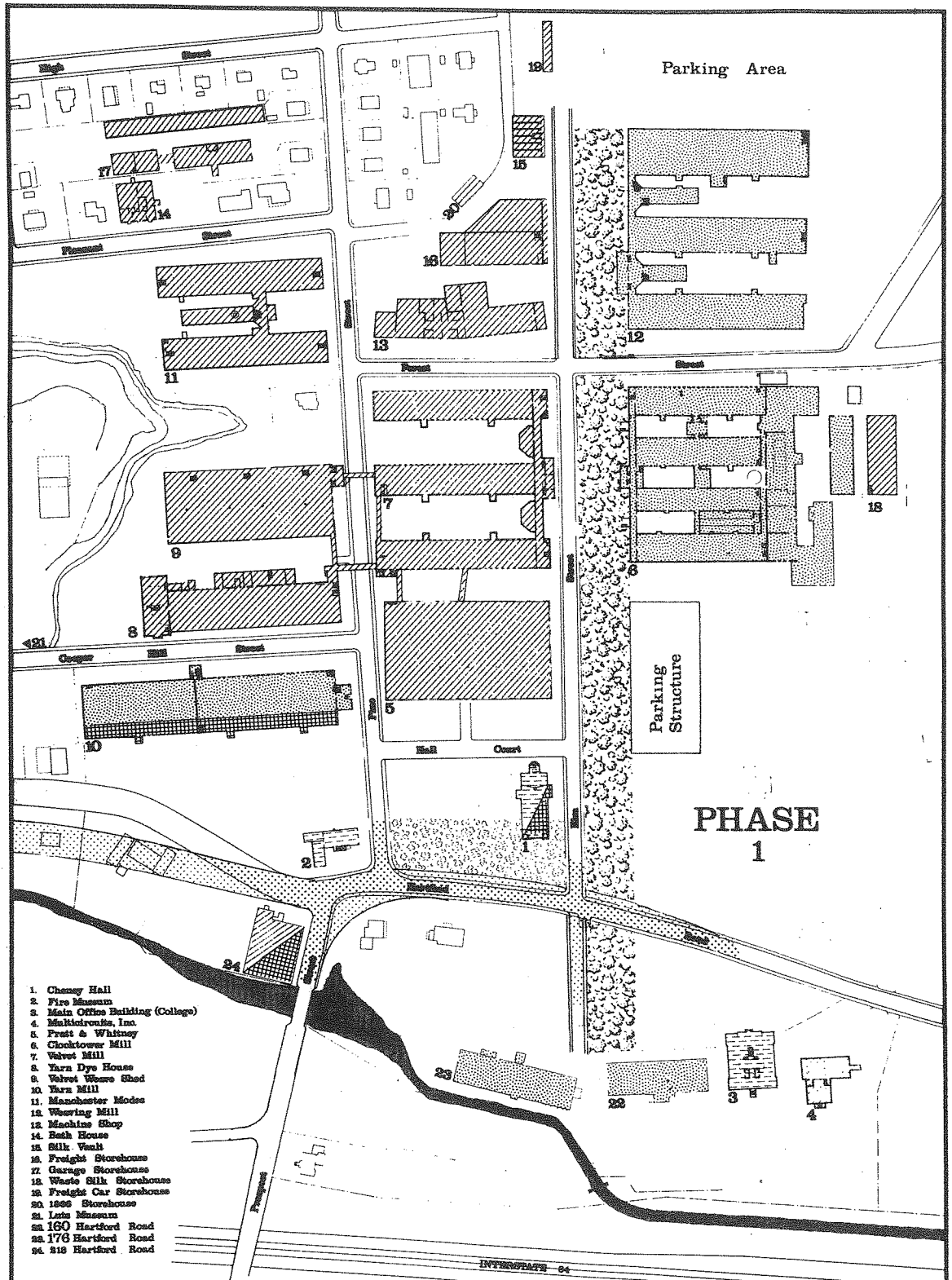
PHASE 1

Under this initial stage of development only those buildings which are currently highly underutilized or in which there has been expressed developer interest are shown to be renovated to new uses.

The two mill structures east of Elm Street in compliance with the Town Development Plan are designated for residential uses. The two mills south of Hartford Road adjacent to the Community College and Hop Brook are shown as residential. The Yarn Mill at 210 Pine Street takes advantage of its high visibility along Hartford Road to maintain ground floor commercial uses with housing above.

In the "Gateway Area" three buildings are designated for social/commercial purposes. These will require varying degrees of public support. Cheney Hall is envisioned as a cultural center and high quality restaurant with meeting facilities and exhibit spaces. The Community College Building which is soon to be vacated is seen as a community facility for groups such as the Shelter Workshop, the Manchester Historical Society, Manchester Arts Council, and possibly expanded programs of the Lutz Museum. The Pine Street Fire House has already been leased to the Connecticut State Firemen's Historical Society for use as a State Fire Museum. The building directly across the street at 218 Hartford Road might be used in a complementary way for expanded use by the Fire

BUILDING/LAND USE	SQUARE FOOTAGE (NET)			
	Existing	Scheme 1	Scheme 2	Scheme 3
Industrial 	1,472,200	836,200	364,200	84,000
Residential 	0	636,000	727,700	900,700
Office 	8,500	8,500	308,800	308,800
Commercial 	41,500	47,750	47,750	58,750
Cultural, Social 	37,800	44,050	44,050	123,250
Green Spaces 				
Street Improvements 				



**THE CHENEY BROTHERS NATIONAL HISTORIC LANDMARK DISTRICT
 SILK MILL AREA**

Commission for the Cheney Brothers National Historic Landmark District
 Town of Manchester, Connecticut
 Anderson Nutter Finegold Inc.
 Russell Wright A.I.A. A.I.C.P. Architects and Preservation Planners
 Preservation Consultant



Development Plan





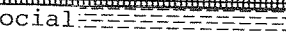
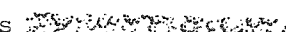
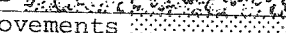
Museum and/or exhibits of other topics of area interest such as a Silk or Gun Museum. Restaurant facilities could be accommodated in this structure, and should take full advantage of the adjacent Hop Brook, perhaps by creating an outdoor seating area shaded by trees and overlooking the brook.

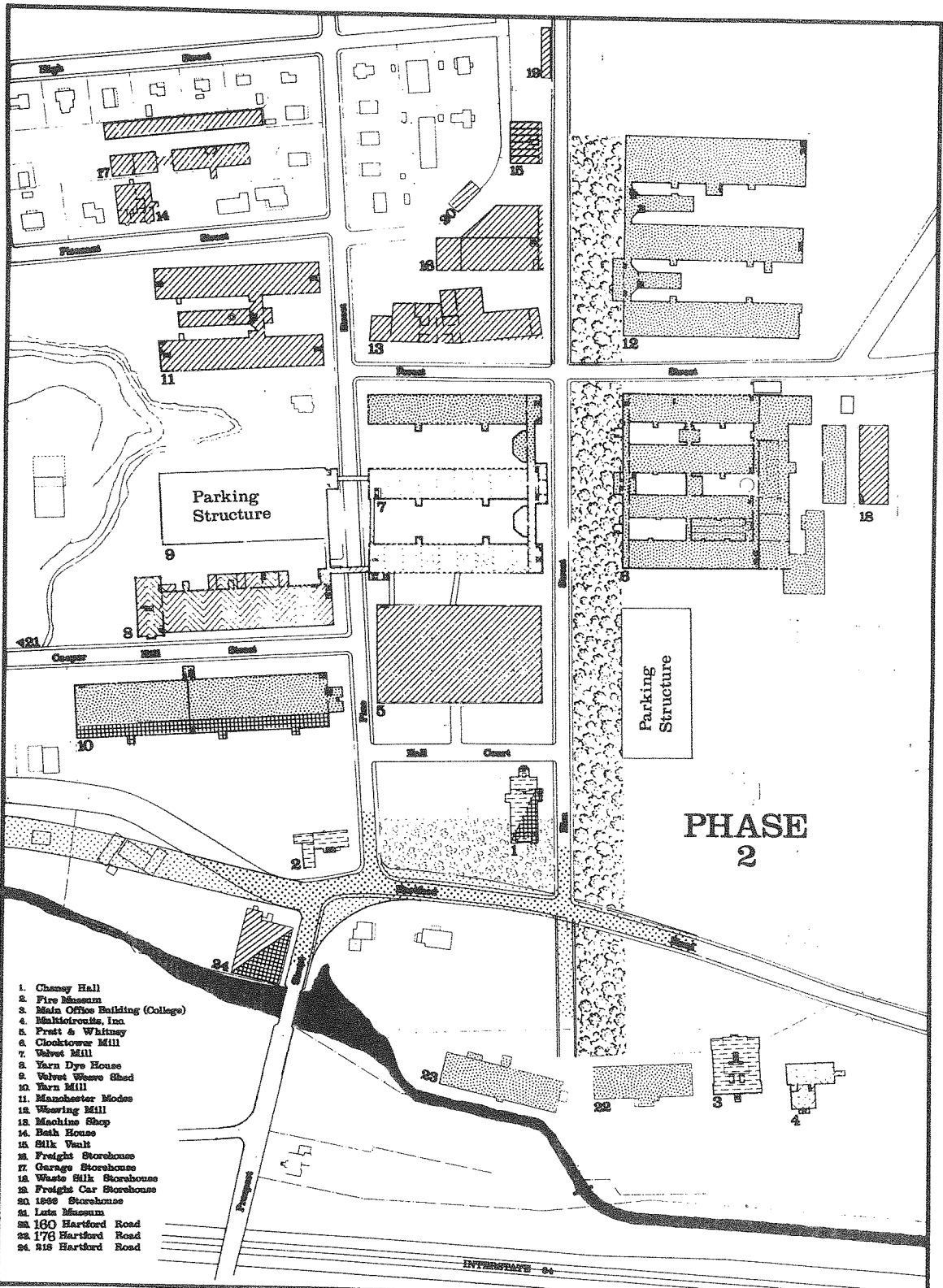
Hartford Road will require signalization at Elm Street and Pine Street and widening to accommodate turning lanes. Realignment is recommended west of Pine Street. A parking structure adjacent to the Clocktower Mill could be shared by residential tenants and Cheney Brothers employees, along with visitors to Cheney Hall. Such a structure in a central location would obviate the need for an excess of asphalt surface parking lots, thus allowing the area to be relandscaped to a more parklike setting. Creation of an Elm Street Green would provide the necessary buffer between industrial and residential land uses.

PHASE 2

Because of the fundamental role that Cheney Brothers has had in the Cheney District, every effort should be made by the Commission and the Town to see that the company is able to remain in the silk mill area. If however, the company should decide that these historic old buildings are no longer suited to modern industrial processes, then it is envisioned that the three mill structures they presently occupy would be best utilized by a major corporate user who would take over the role that Cheney Brothers has so long fulfilled. The Velvet Weave Shed could accommodate parking for the office uses that would be connected by the bridges currently linking these structures.

Major traffic generation at peak hours would occur at this phase in development. It is envisioned, however, that incentives to employees could be offered that would encourage car pooling and use of mass transit. Creation of a bus loop through the mill area from Hartford Road would be called for.

BUILDING/LAND USE	SQUARE FOOTAGE (NET)			
	Existing	Scheme 1	Scheme 2	Scheme 3
Industrial 	1,472,200	836,200	364,200	84,000
Residential 	0	636,000	727,700	900,700
Office 	8,500	8,500	308,800	308,800
Commercial 	41,500	47,750	47,750	58,750
Cultural, Social 	37,800	44,050	44,050	123,250
Green Spaces 				
Street Improvements 				



1. Cheney Hall
2. Fire Museum
3. Main Office Building (College)
4. Malindrovia, Inc.
5. Pratt & Whitney
6. Clocktower Mill
7. Velvet Mill
8. Yarn Dye House
9. Velvet Weave Shed
10. Yarn Mill
11. Manchester Modes
12. Weaving Mill
13. Machine Shop
14. Bath House
15. Silk Vault
16. Freight Storehouse
17. Garage Storehouse
18. Waste Silk Storehouse
19. Freight Car Storehouse
20. 1930 Storehouse
21. Lutz Museum
22. 160 Hartford Road
23. 176 Hartford Road
24. 218 Hartford Road

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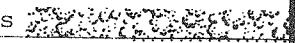



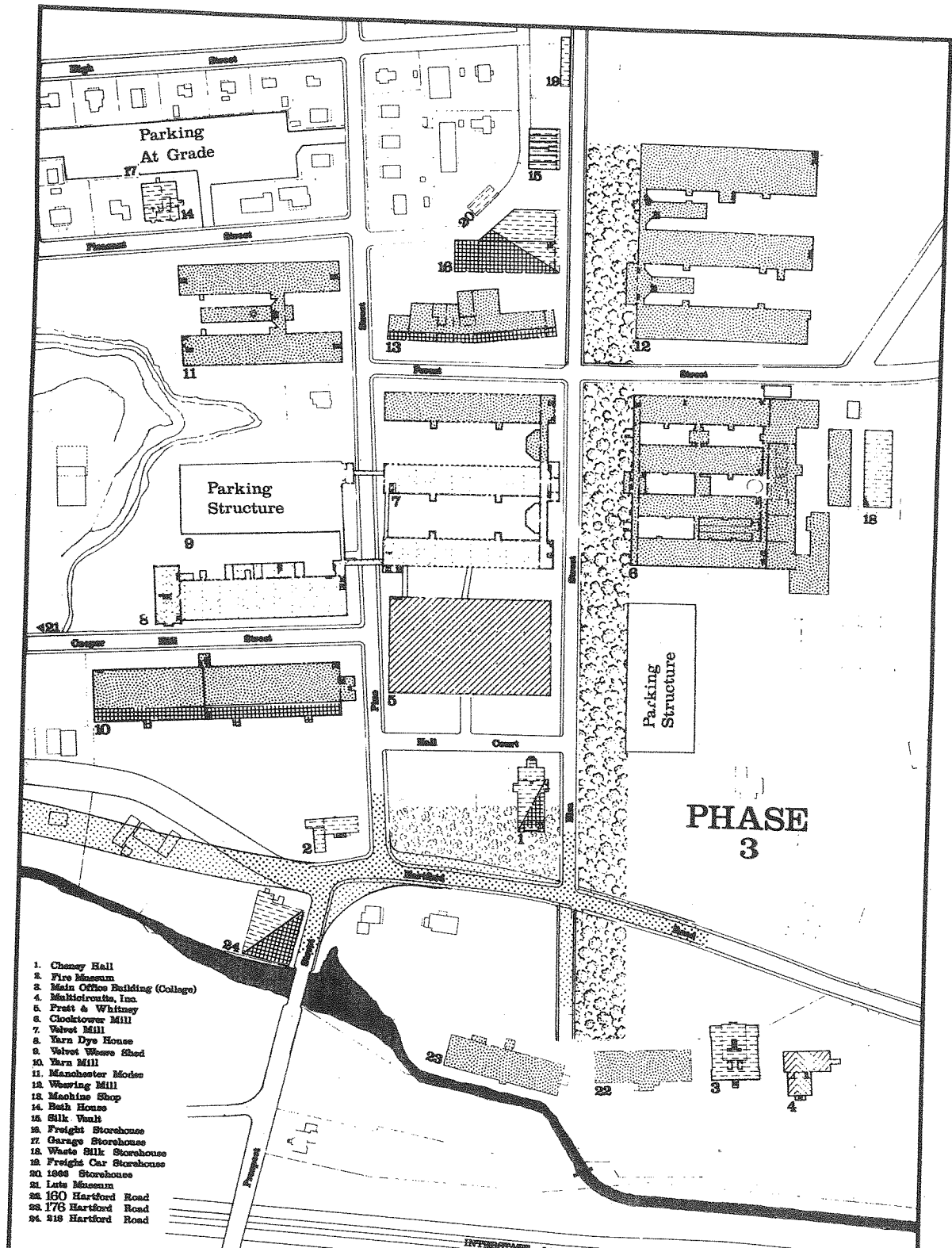
Development Plan

PHASE 3

Should the first two stages of development occur, the momentum of change will in all probability put pressures for redevelopment on the remaining industrial users. Manchester Modes would probably not remain in the area without the umbrella of Cheney Brothers, and their building is therefore designated to be renovated to residential use. Correspondingly, the buildings between Pine and Elm Streets, north of Forest could then serve as community support facilities for the new residential neighborhood surrounding them. The Machine Shop would have local convenience shops with housing above and the Freight Storehouse would have amenities such as recreation and social facilities. The only industrial use left at this phase is Pratt & Whitney Aircraft which is assumed to be very stable and a relatively compatible neighbor for office and residential uses.

Consideration should be given at this stage of development to the extension of Elm Street north to Center Street to divert some of the traffic flow out of the residential neighborhoods. The old railroad right-of-way could be used to a point just South of Center Street where Elm Street could curve to join New Street. Either Arch or Pine Street could then be closed to through traffic to relieve congestion where they join Center Street.

BUILDING/LAND USE	SQUARE FOOTAGE (NET)			
	Existing	Scheme 1	Scheme 2	Scheme 3
Industrial 	1,472,200	836,200	364,200	84,000
Residential 	0	636,000	727,700	900,700
Office 	8,500	8,500	308,800	308,800
Commercial 	41,500	47,750	47,750	58,750
Cultural, Social 	37,800	44,050	44,050	123,250
Green Spaces 				
Street Improvements 				



1. Cheney Hall
2. Fire Museum
3. Main Office Building (Collage)
4. Makitrouks, Inc.
5. Frost & Whitney
6. Clocktower Mill
7. Velvet Mill
8. Yarn Dye House
9. Velvet Waste Shed
10. Yarn Mill
11. Manchester Modes
12. Weaving Mill
13. Machine Shop
14. Bath House
15. Silk Vault
16. Freight Storehouse
17. Garage Storehouse
18. Waste Silk Storehouse
19. Freight Car Storehouse
20. 1898 Storehouse
21. Lutz Museum
22. 160 Hartford Road
23. 176 Hartford Road
24. 218 Hartford Road

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Development Plan

Implementation & Public Funding

Implementation

The practical and realistic implementation of the Development Plan proposals for the Cheney Brothers Historic District will depend on a series of interrelated actions by the Town of Manchester and the various property owners within the silk mill area. A partnership must be developed between the public sector and the private sector where each defines what it can do best and then works cooperatively toward the implementation of the various proposals.

Funding for improvements has been limited in recent years. However, there is emerging at all levels of government, as well as in the private sector, a renewed and growing awareness and interest in the revitalization of older areas, particularly those located in downtown areas. Basic factors such as the need for energy conservation, soaring costs of new construction, the appeal of imaginative rehabilitation and a greater concern for the natural environment have been major catalysts for the renewed interest in historic areas. This renewed interest is evolving new policies and funding sources to assist communities to implement revitalization efforts.

Competition for a share of public funds is very keen. To be successful in obtaining funds, a community must be able to demonstrate the following:

- A comprehensive plan of development that can be implemented in stages
- Strong local initiative and broad-based community support which involves both public and private commitment
- Specific physical and organizational accomplishments with local resources

Communities which meet these three conditions are in an excellent position to attract and capture outside interest and funding assistance. Manchester, due to its present efforts in planning for downtown Main Street revitalization, its link with the new Interstate 84 Highway, and its public commitment to town heritage and tradition is in an excellent position to receive favorable consideration from various state and federal funding sources. Broad based community support exists, is expanding, and is critical to the success of this revitalization effort.

Funding Sources:

HUD Community Development Block Grants, are a basic overall program funding source. They can be used for piggy-backing a variety of federal, state, and local financial resources. There are two types of funding to apply for: 1) Single purpose one-year grants; and 2) multi-year comprehensive grants for one to three years. Single purpose grants are of three types: housing needs, deficiencies in public services, and economic conditions.

A single purpose grant to improve public services could include street and sidewalk upgrading, and proposed parking improvements. These funds can also be used to match and leverage other federal grant programs such as National Register Preservation Grants and federal road improvement grants.

Urban Development Action Grants are administered through HUD for development projects which have the potential to stimulate the local economy and leverage private rehabilitation investments. Such funding should be specifically sought for the Elm Street parking deck as a portion of the redevelopment of Cheney Hall and the Clocktower Mill.

The Federal Highway Administration funds roadway and related construction improvements through its Urban Systems Program in conjunction with the Connecticut State Highway Department. Program activities should encourage maximum efficiency from the existing roadway system. Eligible activities include modernized traffic signal systems, channelization, sidewalks, and related landscaping and street furniture. This program could be used for substantial traffic, street, and sidewalk improvements along Hartford Road.

The FHA Bikeways and Pedestrian Walkways Program provides monies for construction of independent bikeway or walkway projects adjacent to urban systems routes. This program could be used along the Hop Brook to provide funding for special paving, bike racks, landscaping, and street furniture. It could also be used for portions of Manchester's townwide bikeway network.

The Urban Mass Transportation Administration provides a number of programs including the Urban Initiatives Program of the Surface Transportation Act of 1978 which authorizes \$200 million of Department of Transportation funds for projects that contribute to urban revitalization by spurring commercial and residential development around transportation improvements by communities. Grant awards are made on a competitive basis in quarterly rounds.

UMTA Capital Grants may be used to assist in acquisition, construction, and renovation of mass transit services. Such monies could be effectively utilized in the Historic District along designated bus routes for items such as paving, shelters, neck-downs, trees, and lighting.

Historic Preservation Grants are provided by the Department of the Interior, Heritage, Conservation and Recreation Service, for acquisition and development of properties listed in the National Register of Historic Places. These are 50% matching grants and can be used for exterior building improvements which restore or rehabilitate historic properties.

The National Historic Preservation Fund makes loans available to non-profit National Trust member organizations. Loans can be used to finance rehabilitation projects or establish revolving funds and generally range from \$25,000 to \$50,000.

The Tax Reform Act of 1976 creates tax incentives to owners of income-producing properties for rehabilitating their properties. These preservation provisions permit owners of certain depreciable properties to amortize the costs of a rehabilitation over a five-year period and to depreciate these structures at an accelerated rate. (see appendix for criteria)

The Revenue Act of 1978 provides a 10% tax investment credit to encourage rehabilitation of older buildings. The building must be at least 20 years old and improvements must have a life of 5 years or more. The rehabilitation must be certified by the Department of the Interior. This tax credit can be used with the accelerated depreciation provision of the Tax Reform Act but cannot be used with the rapid amortization.

National Endowment for the Arts Challenge Grants are one-time grants awarded to cultural institutions to help them obtain sources of contributed income on a continuing basis. Grants require that the recipient match each federal dollar with a minimum of three dollars from other sources. Such monies could be used by cultural institutions in the Historic District for expansion, and by groups interested in the creation of new institutions such as a silk museum or a gun museum.

Development Plan

Implementation & Private Funding

Critical Mass of Development

Industrial buildings within the mill complex contain over 1,300,000 square feet. The most difficult problem to adaptively reuse these structures for housing is to achieve a critical mass of development which is sufficiently large to convince the market that the overall area is on its way toward becoming a viable residential community.

Although there is a strong demand for both condominium housing and market rate rental housing as well as a need for additional rental assisted housing, the current demand for each of these sectors within the housing market is not sufficient to achieve this critical mass of development.

Therefore, it is recommended that all three segments of the housing market be utilized in the initial development phase. The initial project should be composed of approximately 1/3 condominiums, 1/3 market-rate rental units and 1/3 subsidized elderly rental units for a total project of at least 300 units. Different types of housing could be accommodated within the same mill complex since most of the complexes contain separate wings. This initial development must be coupled with a Town commitment to build high-quality public improvements and landscaping around the development area that will establish a standard of quality for the subsequent development of the entire district.

Private Financing

In these rapidly changing economic times, it is difficult to forecast exactly what financial format will be feasible within six months or a year. However, at the time of this writing three distinctly different development options are feasible. It can also be assumed that if the general economy becomes depressed, federal economic policy will involve some pump-priming programs and additional financial subsidies. The location and significance of the historic district should establish a high degree of eligibility for projects to benefit from these programs.

Three development options that are currently feasible are:

Condominiums - The development of condominiums of one, two, and three bedrooms coupled with an appropriate amenity package including swimming pools and tennis courts is feasible. These units could be marketed and sold for \$65,000 - \$70,000. Construction costs, soft costs, acquisition costs all balance to provide a developer with sufficient profit to be motivated to proceed with development. Annual returns to the Town in property taxes should be in the range of \$500-\$750 per unit.

Market-Rate Rental Housing - The development of market-rate rental housing will require the use of federal programs and tax incentives along with a ten year reduced property tax from the Town. A HUD insured mortgage under the 221d4 program coupled with a GNMA take-out mortgage at an interest rate of 7-1/2% will be required to achieve a feasible project. In order to successfully operate this project, property taxes will probably have to begin at \$100/per unit per year and gradually increase over 10 years to \$500 per unit per year. The developer's profit can come from syndication proceeds by utilizing the provisions of the Tax Reform Act of 1976 which allows the accelerated depreciation of most development costs over a five year period for project plans which are approved by the Heritage Conservation and Recreation Service.

Rental Assisted Housing - The development of a Section 8, federally subsidized rental project for elderly or small families will require rent subsidies which are becoming increasingly scarce. The Town should amend its Housing Assistance Plan to include this mill complex area. A HUD insured mortgage under the 221d4 program coupled with a GNMA take-out mortgage at an interest rate of 7-1/2% should establish a feasible project. Connecticut Housing Finance Agency funds may also be used for construction and permanent financing along with the HUD 221d4 insurance. The developer's profit can come from syndication proceeds by utilizing either the provisions of the Tax Reform Act of 1976 or Section 167k of the Internal Revenue Code both of which allow for the accelerated depreciation of most development costs over a five year period for project plans which are approved by the Heritage Conservation and Recreation Service.

Appendix

Secretary of the Interior's Standards for Rehabilitation

The following "Standards for Rehabilitation" are used by the Secretary of the Interior when determining if a rehabilitation project qualifies as "certified rehabilitation" pursuant to the Tax Reform Act of 1976. These standards appear in Section 36 of the Code of Federal Regulations, Part 67.

"Rehabilitation" means the process of returning a property to a state of utility through repair or alteration, which makes possible and efficient contemporary use while preserving those portions and features of the property which are significant to its historic, architectural and cultural values.

The ten "Standards for Rehabilitation" are:

1. Every reasonable effort shall be made to provide a compatible use for a property which requires minimal alteration of the building, structure, or site and its environment, or to use a property for its originally intended purpose.
2. The distinguishing original qualities or character of a building, structure, or site and its environment shall not be destroyed. The removal or alteration of any historic material or distinctive architectural features should be avoided when possible.
3. All buildings, structures and sites shall be recognized as products of their own time. Alterations that have no historical basis and which seek to create an earlier appearance shall be discouraged.
4. Changes which may have taken place in the course of time are evidence of the history and development of a building, structure, or site and its environment. These changes may have acquired significance in their own right, and this significance shall be recognized and respected.
5. Distinctive stylistic features or examples of skilled craftsmanship which characterize a building, structure, or site shall be treated with sensitivity.
6. Deteriorated architectural features shall be repaired rather than replaced, wherever possible. In the event replacement is necessary, the new material should match the material being replaced in composition, design, color, texture, and other visual qualities. Repair or replacement of missing architectural features should be based on accurate duplications of features, substantiated by historic, physical, or pictorial evidence rather than on conjectural designs or the availability or different architectural elements from other buildings or structures.
7. The surface cleaning of structures shall be undertaken with the gentlest means possible. Sandblasting and other cleaning methods that will damage the historic building materials shall not be undertaken.
8. Every reasonable effort shall be made to protect and preserve archeological resources affected by, or adjacent to any project.
9. Contemporary design for alterations and additions to existing properties shall not be discouraged when such alterations and additions do not destroy significant historical, architectural or cultural material, and such design is compatible with the size, scale, color, material, and character of the property, neighborhood or environment.
10. Wherever possible, new additions or alterations to structures shall be done in such a manner that if such additions or alterations were to be removed in the future, the essential form and integrity of the structure would be unimpaired.

Appendix

Suitability of Major Mill Structures for Housing Conversion

	Suitability of Structure	Appropriateness of Window Placement	Ability to Make Duplexes	Adjacent Parking	Sense of Placement in Neighborhood	Total	Average
#6 Clocktower Mill	10	5	3	5	9	32	6.4
#7 Velvet Mill	10	8	9	5	9.5	41.5	8.3
#8 Yarn Dye House	8	5	10	4	5	32	6.4
#9 Velvet Weave Shed	0	5	5	4	5	19	3.8
#10 Yarn Mill	7	9.5	7	10	10	43.5	8.7
#11 Manchester Modes	10	10	2.5	10	10	42.5	8.5
#12 Weaving Mill	9	9	10	10	8	46	9.2
#13 Machine Shop	8	8	0	10	10	36	7.2
#16 Freight Storehouse	2	3	0	1	1	7	1.4
Overall Suitability	<u>Suitable</u> 1. Weaving Mill 2. Yarn Mill 3. Manchester Modes 4. Velvet Mills 5. Machine Shops 6. Clock Tower Mill 7. Yarn Dye House			<u>Not Suitable</u> 8. Velvet Weave Shed 9. Freight Storehouse			

Parking Generation by Proposed Building Use

I Industrial S Social, Community Public Use
 R Residential C Commercial
 V Vacant O Office

Building	Existing	Phase 1	Phase 2	Phase 3
1	Cheney Hall Pine Street	V 125	S/C 125	S/C 125
2	Firehouse	V 5	S 100	S 100
3	Manchester Community College	S 200	S 80	S 80
4	Multicircuits, Inc.	O 30	O 30	O 30
5	Pratt & Whitney	I 80	I 80	I 80
6	Clock Tower Mill	I 125	R 240	R 240
7	Cheney Brothers Velvet Mill	I 30	I 30	R 135 O 540
8	Cheney Brothers Yarn Dye House	I 60	I 60	O 350
9	Cheney Brothers Velvet Weave Shed	I 60	I 60	Parking
10	Yarn Mill	I,C 250	R 225 C 100	R 225 C 100
11	Manchester Modes	I 100	R 375	R 375
12	Weaving Mills	I 100	R 375	R 375
13	Machine Shop	I 35	I 35	R 65 C 25
14	Bath House	I 5	I 5	S 20
15	Silk Vault	I 5	I 5	S 5
16	Freight Storehouse	I 25	I 25	S/C 50
17	Garage Storehouse	I 15	I 15	Parking
18	Waste Silk Storehouse	I 5	I 5	S 5
19	Freight Car Storehouse	I 0	I 0	S 0
20	1866 Storehouse	I 5	I 5	S 5
21	Lutz Museum	S 20	S 50	S 50
22	160 Hartford Rd.	I 50	R 60	R 60
23	176 Hartford Rd.	I 10	R 55	R 55
24	218 Hartford Rd.	I,C 10	I,C 10	S/C 70
	Total	1,350	1,895	2,750

Credits

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Merrimack Valley Textile Museum

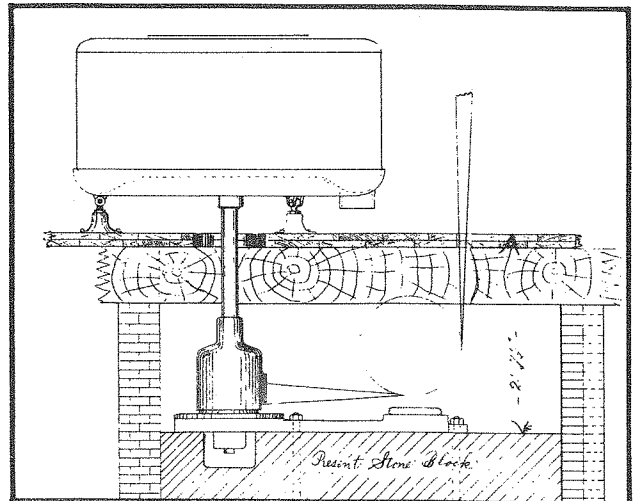
- Helena Wright

Cheney Family Members

- David Newbold
- Antoinette Cheney Crocker

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