

Mill #4: "The New Mill"

A Look at the Champlain Mill



Champlain Mill c.1960s

American Woolen Company, at one time the largest textile firm in the world, began operations in Winooski in 1901 with the purchase, of Mills #1, 2 and 3. Construction of Mill #4 began in 1909. By 1912 the Champlain Mill, the "new mill," was producing fine worsteds for military uniforms, women's fashion fabrics and men's suiting. Government contracts during wartime were profitable. By 1944 American Woolen Company was operating Mills #1, 2, 3, 4 and the Chace Mill at Winooski Falls.

Construction of the six-story Champlain Mill followed Regular Mill Construction, the traditional plan used by many New England textile mills. The original building was 6 stories high, 280 feet long and 100 feet wide. Its 4-foot cement foundation rested on piles 28 feet deep. The top level windowed clerestory was removed during 1980 renovations because of structural concerns and needed roof repair. There was one staircase and one fire escape. Workers were allowed to smoke on the fire escape, however the substance of choice was chewing tobacco which they could use while working.

New Exhibit Illustrates Champlain Mill Features

This exhibit includes photographs, a location drawing and a chronology. As with most textile mills, the riverside location gave access to waterpower. Two turbines on the east end of the building provided power. Economy determined design. The flat roof meant usable space on every floor. The narrow rectangular building allowed daylight from the high side windows to reach the room's center. The floors of thick wide-grooved pine installed lengthwise and topped with narrow hardwood boards running crosswise could move with machine vibrations, but prevented dust from falling through to the floor below.



◀ Level 1 (basement) wall is twice as thick as the Level 3 wall ▶
Exterior brick walls and interior wood framing of beams & pillars support the building. The outer wall thickness decreases as the walls rise.



Although structural steel was available by the 1880s, the original pillars are pine with hollow cores to prevent expansion and contraction, and to save on the expense of steel. The pillars decrease in diameter with each ascending floor and less weight to support. Steel cross beams assured a level floor for the spinning frames. Wood tended to warp which could put a 40 foot spinning frame out of alignment.

Some newer steel pillars are encased in fire-resistant plaster. Mill fires were a hazard, given the oil-soaked floors and abundance of lint. Steel pillars would melt in a burning building, making them difficult to remove.

The original windows had 36 panes, and were generally kept closed to preserve high humidity helpful for keeping wool fibers from breaking. Often there were white curtains to help keep the sun out in summer and heat in during the cold weather. Reports of rats and cockroaches abound.



This 1927 flood photo shows the wires from an electric plant entering the Champlain Mill. Entry marks are still visible. The many windows on the clerestory provided better light for yarn inspection during the spooling.

By 1927 the one story extension at the east end of the mill became a dye house. Electricity from the plant behind Mills #1 and 2 powered the mill via wires that ran from the Woolen Mill under the bridge to the Champlain Mill. Steam piped to the mill provided heat.

Information for this article is in part from notes written by the late Raymond Roy, former superintendent of the Champlain Mill.

Notebook Entries Show Increase in Museum Visits

Many current entries are from visitors with no apparent connection to Winooski Falls mills. Samplings include:

"Very interesting & informative!"

"Great historical info"

"I especially love all the photographs"

"Really was impressed with all the old stuff"

"The displays are great. Very educational. Thanks for having the Mill Museum"

"I think the stuff here is cool"

"Can be improved upon but an excellent effort"

"Very good job preserving history. Thank you."

"Glad you are keeping history alive"

Below is an entry from a worker's granddaughter:

"Thon (Alvin) LaForce

My grandfather worked here and looking at all the pictures and equipment makes me think of all the stories he's told me – he is around 87, and he was around 15 when he worked here because one of the stories is how he had to mess with his birth certificate to say he was 16. All of his brothers were off to war.

Héritage Winooski Publications

The Mills at Winooski Falls, essays and oral histories, available at Saint Michael's College, Vermont Historical Society, Winooski Public Library and The Flying Pig.

The curriculum guide, *Clickity Clack: Wool & Waterpower* has activities & worksheets for teachers and their students.

Order either publication from Héritage Winooski, Box 181, Saint Michael's College, Colchester VT 05439.

Mill Museum Hours

Mon – Fri 8 a.m. – 6 p.m.; Sat 10 a.m. – 1 p.m.
Closed Sunday and major holidays

Héritage Winooski, a project of Saint Michael's College, is a cooperative effort of merchants, educators and historians examining the industrial & cultural heritage of Winooski during the mill era.