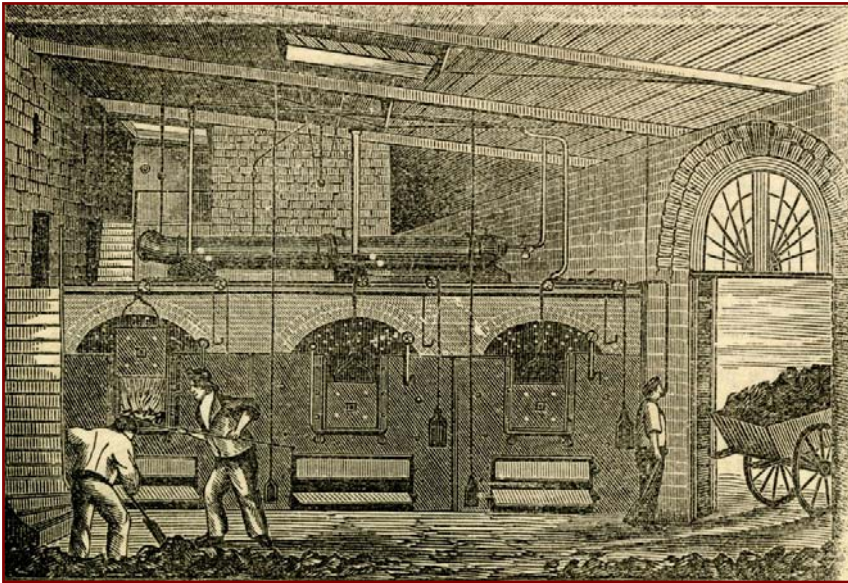


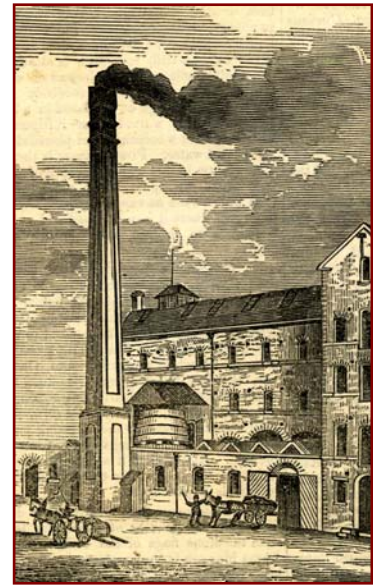
Building Histories

Buildings 2 & 4: Steam power & Mash drying



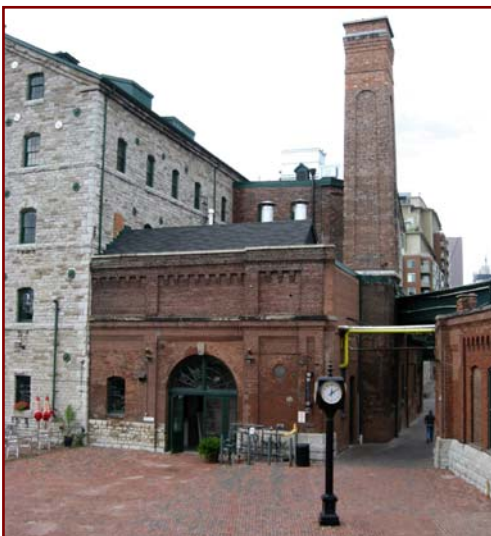
Inside the original Boiler House, April 1863

TPL



Chimney & Boiler House

Originally, Buildings 2 and 4 formed a single, limestone Boiler House along the north side of David Roberts, Sr.'s five-storey Stone Distillery. Building 2 remained a boiler house during its entire industrial life, but Building 4 was transformed into a "drying house" between stints as a boiler house in the very early years and again after whisky production was halted in 1957. Today, Buildings 2 and 4 are radically altered. Essentially, the exteriors reflect revisions made in the late-19th century. And the interiors are even more dramatically changed from their industrial past, while maintaining a distinctly industrial atmosphere.

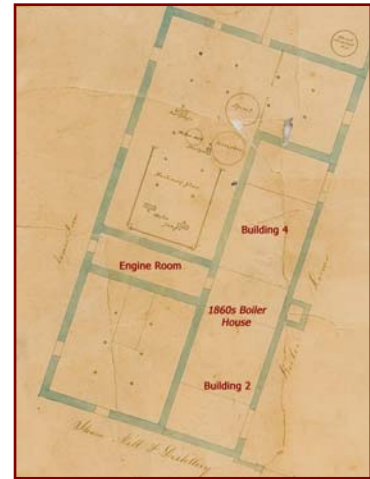


Building 2, Trinity Street facade



Building 4 with 1860s entrance, Distillery Lane

A series of mid-1860s plans confirms that Roberts' Boiler House was one-storey high and stretched from Trinity Street to the projecting "L" of the distillery building. It bracketed the tall brick chimney, which remains a landmark on the site, and had two large entrances, one at the northeast end (no longer the main entrance to Building 2) and another at the northwest end, which remains the entrance to Building 4. Strategically located directly north of the Engine Room housing the massive 100-horsepower engine that needed steam to operate, the first Boiler House contained five boilers, three new ones by Bartley & Gilbert of Montreal and two older ones. Its location outside the main walls probably protected it when the Great Fire of October 1869 destroyed the interior of the Stone Distillery. "Paradoxically," architectural historian Stephen Otto has observed, the building then "changed beyond recognition." Not much of the 1860s structure remains. And unraveling the buildings' complex history presents major challenges.



**"Boiler Rooms" 1860s
(labels added) DHD/CTA**

Illustrations by David D. Robertson from the *Canadian Illustrated News* (Hamilton) of April 25 1863 provide critical information about the first Boiler House, despite their obvious limitations in perspective and level of detail. The exterior view from the northwest (see detail at the beginning of this article) indicates that the one-storey building lay between the Stone Distillery where the actual steam engine was housed and the new chimney stack that emitted smoke from the boilers. Cartloads of coal were received from horse-drawn wagons backed up to one of the arched doorways opening onto what is now Distillery Lane. (Sometimes the beast of burden balked.) The roof appears to support a shed that perhaps stored coal, a round wooden tank that perhaps contained water pumped from the Lake, and what appear to be skylights or ventilators. A small detail from another exterior view drawn from the southeast shows a small fragment of the east façade of Building 2, which was clearly not the principle façade that it later became and still is.



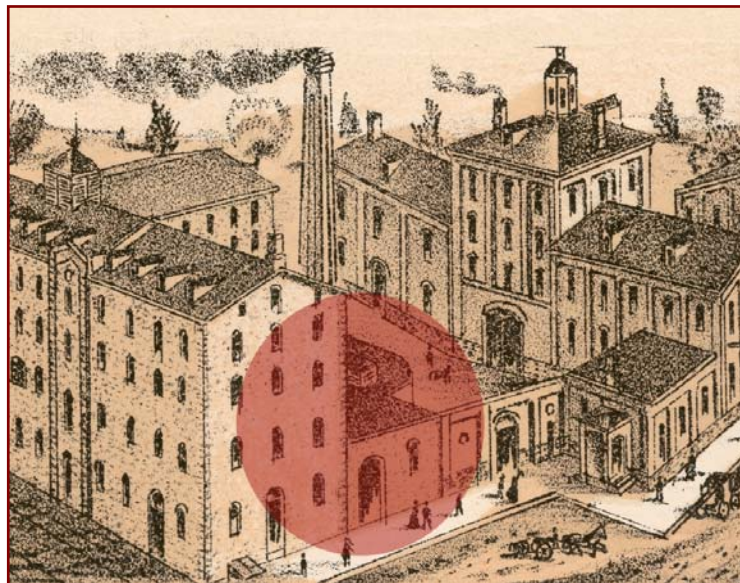
**Meeting of Mill (left) &
Boiler House (right)**

The interior view shows a coal cart backed through a surprisingly lovely fanlight doorway that resembles the present-day door to Building 4. Strong-backed labourers stoke the great boilers from coal dumped directly onto the floor. The work was hard, dirty, round-the-clock and potentially dangerous. About eight months after these images were published, one of the new boilers exploded, killing stoker John Kingston and destroying the building. The boilers were repaired, the building was rebuilt, and distillery work continued.

According to an 1872 article from *The Mail* (Toronto), the boilers consumed an astonishing 30 tons of coal per day, or about 8,000 tons during the season. All hand-shoveled. The coal would have been delivered by either rail or ship,

weighed (eventually in the nearby [Scale House](#)), and distributed to the boiler house by wagon. What happened to the enormous amounts of ash and cinder left over? As ever, the Victorian industrialists reused whatever by-products they could: lesser grains were used for [distilling](#); “slop” from distilling was transformed into [feed for livestock](#). In this case, *The Mail* reported, the ashes, slag and cinders were “constantly utilized on the streets around the distillery, which are becoming better than even ‘macadamizing’ could make them...the people living there have good streets made for them nearly altogether with the coal refuse from the furnaces.”

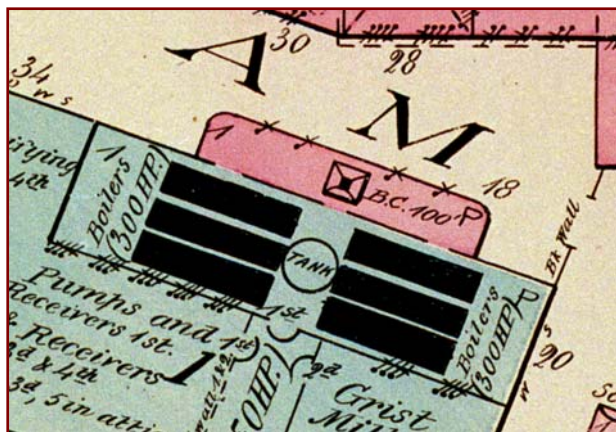
According to that same article, Gooderham & Worts was already reconstructing the Boiler House in order to install a fuel “economizer” that would save a huge amount of coal, an estimated one-eighth or 1000 tons per year. The strictly functional new structure, probably designed by David Roberts, Sr., was a one-storey, red-brick building that enclosed the bottom of the chimney stack and the new machinery, creating the distinctive rounded corners still visible from Distillery Lane and Trinity Street. A Greene fuel economizer was still operating in the early 1920s.



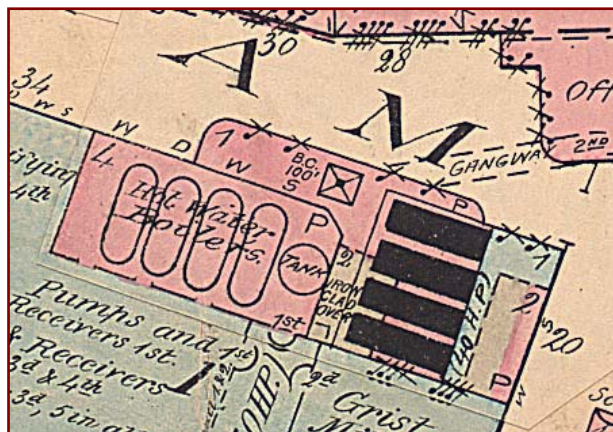
**The only known view of the 1870s economizer addition to the 1860s Boiler House
detail from *Timperlake*, published in 1877 CTA**

Two Goad's plates document the great changes that occurred between 1880 and 1892 (more precisely, between 1880 and [1889](#)). In 1880, the one-storey limestone building contained six boilers, in two ranks of three, with the newer brick structure wrapped around the economizer. In 1892, an especially rare Goad's plan shows the dramatically reconfigured space, with four John Abell Company boilers located in the one-storey eastern part of the building (capable of generating 560 horsepower), and four boilers producing hot water in the now four-storey western part of the building. In order to accommodate the John Abell boilers, the original north limestone wall of Building 2 was removed. Meanwhile, the brick economizer addition of 1872 remained one-storey but was linked more tightly to the eastern building, even housing one of the new boilers. It was also around this time that the [pipe bridge](#) from the Stone

Distillery to Building 31 and on to the Pure Spirits complex across Trinity Street was added.

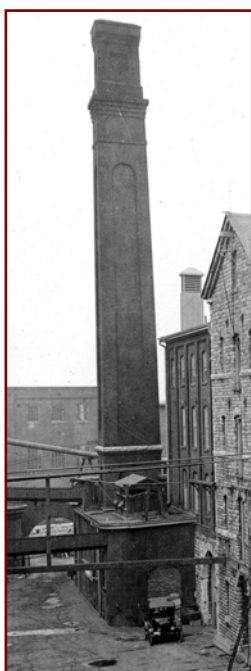


**One-storey boiler house and economizer
Goad, 1880** CTA

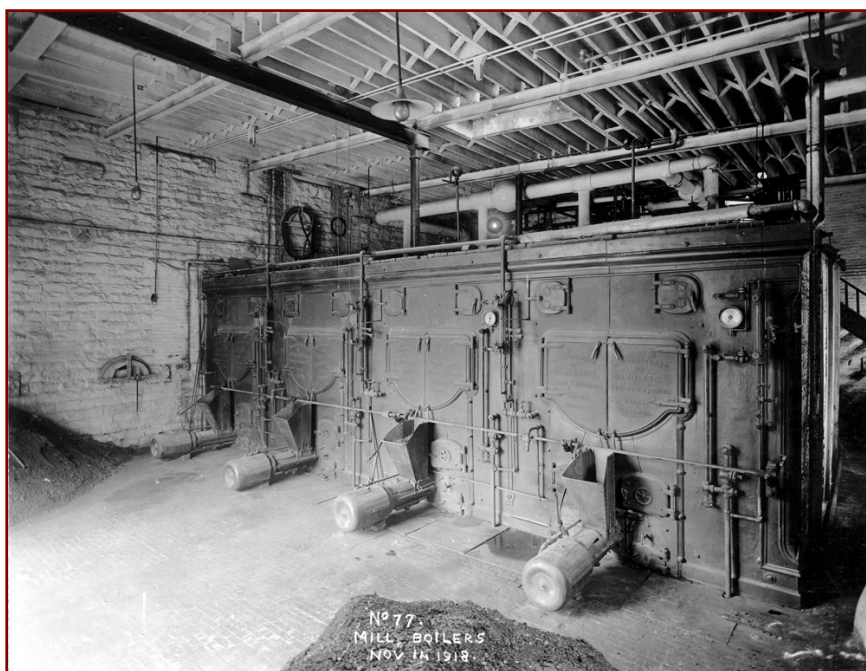


**Building 4 (left) now four storeys & boilers
completely reconfigured, Goad, 1892** TPL

The subsequent history of Buildings 2 and 4 is complex, descriptions are scarce, and gaps remain in our knowledge. During the First World War, the buildings helped power the war machine when Gooderham & Worts was transformed into British Acetones to manufacture a critical component of smokeless gun powder. At this time, Building 2 remained a boiler house, but Building 4 had been already been transformed into a drying house. It's unclear exactly what equipment was where. According to the 1924 appraisal, a battery of four, 100 HP John Abell boilers were located in Building 2, while assorted mash-drying equipment was distributed throughout Building 4. A single interior photograph taken at the end of the First World War provides a close-up view of the John Abell boilers that had probably been manufactured just across town in the company's Queen Street West plant.



Building 4, 1918 CTA



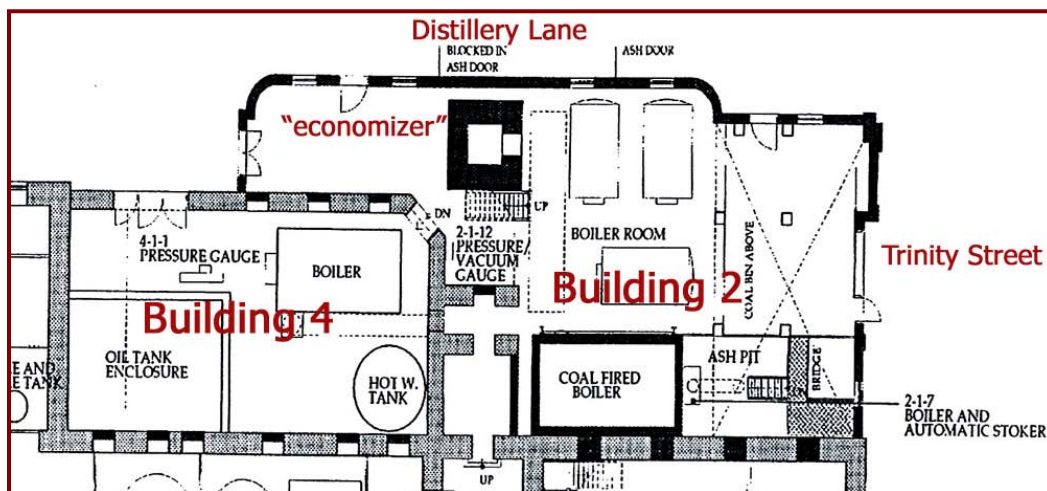
Battery of four self-stoking John Abell boilers, 1918 CTA

Until the late 1950s, four-storey Building 4 was used to transform wet “slop” into dry cattle feed by heating the still-nutritious “wet mash” from the distillery. No photographs showing the drying process have been discovered, but photographer Larry Turner documented the building and long-abandoned equipment around 1986. This third-floor shot shows the “mash dryer,” a large, inclined screen, standing on a waterproof surface containing a drain. After drying, the grain was sent down to the ground floor where it was bagged and sent off to fatten livestock.



Building 4, 3rd floor drying equipment, ca. 1986

Whatever the precise nature of the later functions, Buildings 2 and 4 were chock-a-block full of mechanical equipment, some still in use and some abandoned. The final distribution of machinery is nicely shown on a ground-floor plan prepared in 1994, four years after the plant had closed down.



Ground-floor plan of Buildings 2 & 4, 1994 (labels added)

The later lives of Buildings 2 and 4 were also documented by various photographers, including Larry Turner around 1986 when the plant was still in operation and Thane Lucas around 2002 when the site was undergoing radical transformation into the cultural centre of today. Let’s take a quick look at these changes.

First of all, Building 2. During the later stages of its industrial life and on into its post-industrial future, Building 2 has been a one-and-a-half storey, red-brick building sitting on a limestone base, perhaps designed by David Roberts, Jr. and featuring elaborate brick detailing. The impressive, wood-and-glass fanlight main entrance now opens on Trinity Street, although access is also possible from Distillery Lane. The base of the chimney was incorporated into this building, as was the round-shouldered “economizer” addition of 1872. Other major changes, however, remain undated.

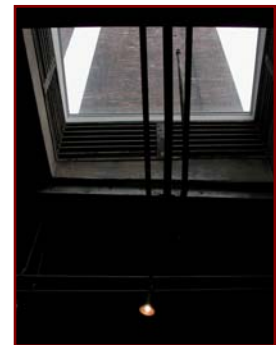
The ground floor contains some surprises, notably a concrete “stoking pit” that is sunk about ten-feet below the main floor level to provide access to a huge, coal-fired boiler that rises some 30 feet to the ceiling. Also surprising are the concrete columns that support a concrete slab ceiling and a coal (now mechanical) storage room on the roof. The structure is quite different from anything else on site. Turner’s photograph from the 1980s shows today’s gallery reception area when it was filled with machinery and the elegant fanlight door was tightly closed.

Turner also takes us into another unusual space: the mezzanine in the upper portion of the old economizer building when it was used as a changing room, with lockers, washing facilities, and sparse furniture. Although workers’ spaces were dotted all around the site, they were seldom photographed. Also of great interest to architectural historians is the south (right) wall that is the north wall of the original Boiler House. Under the layers of silver paint, the wall is definitely limestone, confirming that the 1860s structure was, indeed, limestone.



Two views of Building 2, ca. 1986 *Larry Turner*
Ground-floor machinery, concrete, & fanlight **Mezzanine changing room & 1860s wall**

Today, the boilers are gone, but distinct traces of Building 2’s industrial past remain. Be sure to note the concrete columns and floors, the limestone distillery wall, and descend into the somewhat unnerving sunken “stoking (or ash) pit” that features an “automatic coal-stoker” at the bottom of the towering red-brick boiler. Also note the metal chute over the reception area that guided coal from the overhead coal bunker to the boiler below. As you move through the spaces, be sure to look at the rising boiler, the blocked-up openings that once led to the Engine Room in the Stone Distillery, and both the base and the window view of the [heritage chimney](#) that rises nearly 100 feet above you.



Window view



**Automatic coal-stoker
at base of boiler**



Building 2 in Transition, 2002-3
Thane Lucas



**Boiler (left) Door to
Engine Room (centre)**

Looking at Building 4 from Distillery Lane, the exterior still appears much as it did in the 1890s after the round-shouldered brick economizer building had been added in the early 1870s and a three-storey brick superstructure had been added above the original one-storey 1860s limestone boiler house. The outstanding feature is, of course, the dramatically elegant doorway composed of double, wood-and-glass-paned doors, supporting an elaborate fanlight, all set in the original limestone façade. The red-brick addition, probably by David Roberts, Jr., displays the panel-and-pier construction found elsewhere on the site, as well as touches of decorative sawtooth brickwork. The addition, of course, hides the upper storeys of the 1860s Stone Distillery to the south.

Like Building 2, the interior of Building 4 has changed greatly over the years. After grain distilling was halted in 1957, the upper floors were essentially unused, except for minor storage. The ground floor returned to being a boiler house, but even this function was halted in the early 1970s. The ground floor, photographed by Larry Turner, still contained extensive equipment, including a Babcock-Wilcox boiler and older control panel, a hot water tank (capacity 7,175 gals.), and an oil tank enclosure. None of these remain.



Two views of Building 4 ground floor, ca. 1986 by Larry Turner

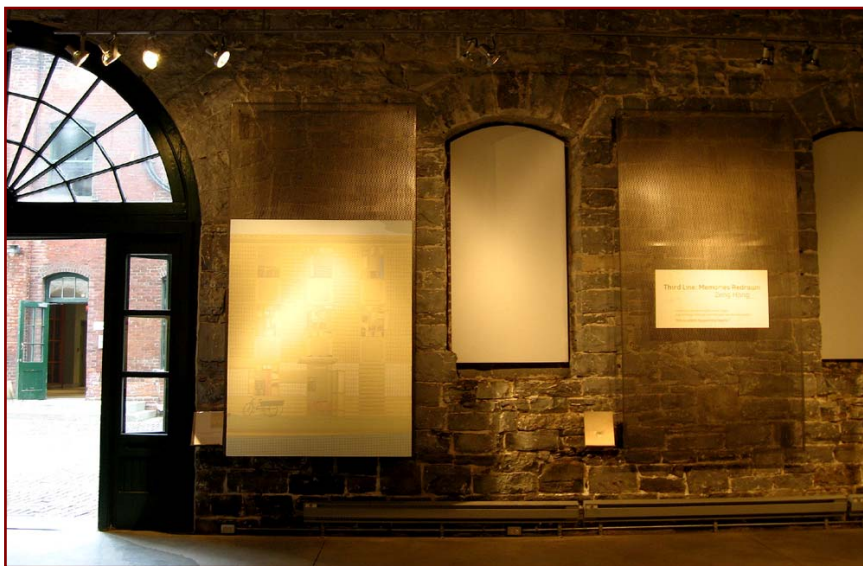
Boiler & control panel

Ceiling with blocked 1860s windows & trap door to dryer room

What does remain is a dramatic modern space with strong traces of its industrial heritage. Exposed timber ceilings about 20-feet high. Original 1860s limestone walls on the north, south, and west side (with coats of paint removed). Exposed east brick wall with blocked-in opening for a flue to the chimney next door. Other bricked-in windows that once looked out on a very different distillery scene. Once-exterior tie plates. And a mysterious piece of charred wood. This blackened timber pokes out of the south wall shared with the Stone Distillery. Could this be a remnant from the Great Fire of 1869 that destroyed the interior of the neighbouring building? It's a romantic thought and one more reason to explore today's Distillery District.



Mysterious charred fragment



Building 4 today



Traces of 1860s boiler house: fanlight door, north limestone wall, west distillery window

Many thanks to Jim White for describing the final years of the boiler houses and for mentioning that there had been a terrible explosion in the 1860s. A fuller tale of the explosion will appear in another heritage snippet.

Please send your comments or questions to Manager of Heritage Services, Sally Gibson, sg@thedistillerydistrict.com.

For more about the history of the Distillery District, visit www.distilleryheritage.com

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