

**City of Madison Landmarks Commission
LANDMARKS AND LANDMARK SITES NOMINATION FORM (1)**

Name of Building or Site

Common Name

Madison Gas & Electric Powerhouse

Historic Name (if applicable)

Madison Gas & Electric Powerhouse

Location

Street Address

717 East Main Street

Aldermanic District

Six

Classification

Type of Property (building, monument, park, etc.)

Building

Zoning District

HIS-TL M1 Third Lake Ridge Historic District

Present Use

Utility power station

Current Owner of Property (available at City Assessor's Office)

Name(s)

Madison Gas & Electric Company, Mr. Jim Montgomery, Facilities Manager

Street Address

P.O. Box 1231

Telephone Number

252-7000

Legal Description (available at City Assessor's Office)

Parcel Number

0709-133-0401-3

Legal Description

Lots 1-18, Block 131, Original Plat

Condition of Property

Physical Condition (excellent, good, fair, deteriorated, ruins)

Excellent

Altered or Unaltered?

Altered with additions

Moved or Original Site?

Original site

Wall Construction

Masonry

City of Madison

LANDMARKS AND LANDMARK SITES NOMINATION FORM (2)

Historical Data

Original Owner

Madison Gas & Electric Company

Original Use

Utility powerhouse

Architect or Builder

Claude & Starck; Mead and Seastone

Architectural Style

Neo-Classical Revival

Date of Construction

1902; 1915; 1922-23; 1937-38;
c. 1955; 1959; 1988.

Indigenous Materials Used

None

List of Bibliographical References Used

Hanson, Gene. *A Case Study of Newspaper Muckraking: The Wisconsin State Journal's Crusade for Better and Lower Gas Rates*. Master's thesis, University of Wisconsin-Madison, 1966.

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Madison City Directory. Madison: G.R. Angell & Co., 1914; and 1916.

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Madison Past and Present. Madison: Wisconsin State Journal, 1902.

Map of Madison. Pelham, New York: Sanborn Publishing Company, 1902; 1908 and 1942 pasted over through 1959.

"*MG&E History at a Glance, 100 Years of Service*." Brochure produced by the Madison Gas & Electric Company, 1996.

Mollenhoff, David V. *Madison: A History of the Formative Years*. Dubuque, IA: Kendall/Hunt Publishing Co., 1982.

Montgomery, James F. Montgomery, P.E. Senior Director – Facilities Management, Madison Gas & Electric Company. Interview, March 23, 2001 and April, 30, 2001.

Nesbit, Robert C. *Wisconsin: A History*. Madison: University of Wisconsin Press, 1973.

Rankin, Katherine H. *Intensive Survey of the Historic Resources of Madison*, prepared for the Madison Department of Planning and Development and the State Historical Society of Wisconsin, 1994.

Wisconsin State Journal. 1903, 1907, 1910.

Wyatt, Barbara, editor. *Cultural Resource Management in Wisconsin*. Madison: State Historical Society of Wisconsin, 1986. Three volumes.

Form Prepared By

Name and Title

Elizabeth L. Miller, Historic Preservation Consultant

Organization Represented (if any)

City of Madison, Department of Planning and Development

October 23, 2001-khr-F:\PLCOMMON\kitty2\mg&enomform70301.DOC

Address

215 Martin Luther King, Jr. Blvd.
Madison, WI 53701

Telephone Number

266-6552

Date Nomination Form Was Prepared

March, 2001

Landmarks Commission
LANDMARKS AND LANDMARK SITES NOMINATION FORM (3)

Describe Present and Original Physical Construction and Appearance.

Introduction

The Madison Gas & Electric Company Powerhouse is sprawling complex made up of contributing sections built in 1902, 1915, 1923, 1928, 1938 and 1949, and non-contributing sections dating to c. 1955, 1959 and 1988 (see attached site plan).¹ The 1902 and 1915 sections comprise the front of the building and are Neo-Classical Revival in style. The rest of the building is astylistic utilitarian. The contributing sections are steel-reinforced concrete finished with brick. The non-contributing sections have been sided with corrugated metal. There is one contributing structure on the property: the Northwest Wall/Wet Well (c. 1915/c. 1938). Two non-contributing buildings and one non-contributing structure on the site are the c. 1909 Pressure House (c. 1909), the PDF Building (c. 1988), and the South Wall (2000).² There are several transformers, chain-link fencing and various non-historic metal sheds in the coal and ash storage yard that are not substantial enough to count.

Description

The Madison Gas & Electric Company Powerhouse (hereafter, Powerhouse) occupies the block bounded by Railroad, South Blount, East Main and South Livingston Streets. It should be noted that South Blount Street does not truly run north-south, nor does East Main Street run east-west. However, for ease of description, the resources on the property will be described as though the streets do run north-south and east-west.

The footprint of the Powerhouse measures approximately 150 feet (north-south) along South Blount Street and about 470 feet along the sides (see attached site plan). The Northwest Wall encloses part of the transformer yard north of the Powerhouse. A chain-link fence attaches to the east end of this wall and runs east to the west wall of the Pressure House, completing the enclosure of the transformer yard along East Main Street. The Pressure House stands at the northwest corner of the property, at East Main and South Livingston Streets. South of the Pressure House, the PDF Building appears. There is a small parking lot between these buildings. The South Wall wraps around the coal and ash storage yard at the south end of the property, beginning and ending at the Powerhouse.

Powerhouse (Contributing)

¹ Dates of construction from *Map of Madison*, (Pelham, New York: Sanborn Publishing Company, 1942 pasted over through 1955); Building Permits, on file, Madison Department of Planning and Development; *Madison Past and Present*, (Madison: Wisconsin State Journal, 1902), pp. 191 and 196; and James F. Montgomery, P.E., Senior Director – Facilities Management, Madison Gas & Electric Company, Interview, 23 March 2001.

² Dates of construction from *Map of Madison*, (Pelham, New York: Sanborn Publishing Company, 1908); Montgomery, Interview 30 April 2001; and Robert Patton, Madison Gas & Electric Company, Interview, 23 March 2001.

The Powerhouse faces South Blount Street. The earliest sections of the complex are located at the front end of the building (see attached floor plan). The front (west-facing) façade is composed of the 28-foot high north section and the 56-foot high south section. Although these two sections are contiguous and have communicating doors, their functions are distinct. The north section is the generator house and the south section is the boiler house. As additions were built onto the rear (east) of the Powerhouse, this spatial distinction was maintained. That is, additions that would contain generators were erected on the north side and additions for boilers were constructed on the south side of the complex. Today, the north section houses Generators 1 through 7 (number 2 has been removed) while the south section contains Boilers 1 through 9.

The front façade of the Powerhouse presents a unified appearance that dates from 1915. That year, the original section of the generator house was remodeled and the boiler house was built, following plans prepared by the distinguished Madison engineering firm of (Daniel H.) Mead and (Charles) Seastone. Madison architects (Louis W.) Claude and (Edward F.) Starck designed the original section of the generator house. Claude and Starck's design was erected in two sections. The west (front) 60 feet was apparently built early in 1902, and a 60-foot rear addition was constructed in late 1902.³ The original generator house held the first gas-powered central station electric plant in the United States.⁴ Madison Gas & Electric's use of gas-powered generators was experimental and was discontinued when the generator house was remodeled in 1915.

The 1902 generator house was finished with red brick and rested on a concrete basement veneered with rock-faced stone. Neo-Classical Revival in style, the 1902 generator house presented the appearance of a library. Tall, brick Ionic pilasters divided the front façade into three bays and the front-gabled roof exhibited a closed pediment (see attached photocopy of an historical photograph). The centrally-placed entrance was set in a stone surround with simple classical moldings. Above, multipane double-hung sash windows with wire glass appeared, surmounted by a round-arched transom. Brick quoining edged the entrance and the window. On either side of the entrance, brick quoining surrounded a column of multipane double-hung sash windows, each column terminating in a round-arched transom. The generator house was further enriched with a broad entablature ornamented with simple, classical moldings and a denticulated cornice. Within the pediment, a raking denticulated cornice and a lunette appeared.

Mead and Seastone's 1915 remodeling converted the generator house so that it could hold two, steam-powered electric generators. Their plans also called for the construction of the boiler house to accommodate three boilers to provide steam power to the generators. Although the current appearance of the front facade of the Powerhouse dates from Mead & Seastone's 1915 plans, their design incorporated many of the details of the Claude and Starck's 1902 design.

The front façade of the Powerhouse displays Neo-Classical Revival styling, but a deep parapet gives the structure the appearance of a two-story, brick industrial building. As on the 1902 generator house, tall brick pilasters divide the façade. The generator house (north section) is three

³ *Map of Madison*, (Pelham, New York: Sanborn Publishing Company, 1902 and 1908); *Wisconsin State Journal*, January 3, 1903; and *Madison Past and Present*, (Madison: Wisconsin State Journal, 1902), pp. 191 and 196.

⁴ *Madison Past and Present*, p. 191.

bays wide and the boiler house (south section) is three bays wide. The pilasters feature Ionic capitals ornamented with an egg-and-dart molding, much as appeared on the 1902 generator house. Above, there is an entablature decorated with classical moldings, stone belt courses, denticulated and projecting cornices. Instead of the closed pediment of the 1902 generator house, the entablature is surmounted by a parapet enriched with brick panels and stone volute buttresses. Two openings in the parapet in the boiler house facade have been filled with brick, and the boiler house parapet rises above the parapet of the generator house. The parapets terminate in shaped caps with stone copings. Behind the parapets, the generator and boiler houses have monitor roofs.

On the front façade between the pilasters, multipane industrial sash appear, arranged in columns of three, united within a quoined brick surround. The uppermost window in each column is surmounted by a round-arched, multipane transom. Stone sills are inserted within the brick surround. This configuration matches that of the 1902 generator house, except that the current windows are metal, multipane industrial sash with wire glass, brick panels are included in each column of windows, and the round-arched transom is Neo-Classical Revival (that is, with curvilinear panes) rather than Craftsman (with vertical panes). There is an entrance into each of the generator and boiler houses on this façade. The entrances are identical and consist of a heavy metal door in a stone surround, enriched with a classical cornice, very similar in appearance to entrance of the 1902 generator house.

The ornamentation on the front façade turns the corner onto the north- and south-facing facades. On the north-facing façade, these details also appear on the 1928 addition (which faces north). The north-facing façade is otherwise much plainer than the front façade. The 1902/1915 generator house shows a round-arched, Craftsman-style, transom that dates from the 1902 window configuration. Brick panels decorate the parapet on this façade of the 1902/1915 generator house. The 1928 generator house addition displays a group of multipane industrial sash windows with round-arched, multipane transoms in a continuous surround of brick quoining. A metal garage door appears at the base of the grouped windows and is not original to the addition. A metal door recessed in a flat-arched opening west of the garage door likely is original to the addition. The remainder of the north-facing façade consists of the two-story office addition dating from 1988, and the 100-foot high c. 1955 and 1959 generator house additions. All of these additions are flat-roofed and finished with corrugated metal siding. Metal windows appear at the first and second stories in part of the 1988 addition. No openings can be seen on the c. 1955 or 1959 additions. The 1959 addition was appended to the c. 1955 addition. Both of these additions include generators and boilers. Above the 1988 addition, a portion of the exterior wall of the 1938 addition is visible (see attached floor plan). The 1938 addition is finished with brick and displays brick pilasters with stone caps. It contributes to the significance of the Powerhouse because its interior is intact and the exterior is as visible as it ever was, as it was previously hidden by the 1924 gas plant, which the 1988 office addition replaced.

Much of the south-facing façade is hidden by the South Wall (erected 2000) and the equipment in the coal and ash storage yard. The 56-foot high 1915 boiler house is enriched with brick panels, but shows no openings. Just east of the 1915 section is the 34-foot high boiler house addition, constructed in 1938 and contributing to the significance of the powerhouse. Its appearance matches the 1938 generator house addition, with its brick exterior articulated with stone-capped brick

pilasters. Each of the additions' two bays exhibits three stories of grouped, multipane industrial sash windows. A flat roof is hidden behind the simple parapet. East of this is the contributing 1949 boiler house addition, also finished with brick and displaying stone-capped brick pilasters and a parapeted, flat roof. Grouped, multipane industrial sash windows appear near the top of wall in this section. The c. 1955 boiler house addition, which is 100 feet tall, is attached to the east end of the 1949 addition. The c. 1955 and 1959 additions were covered with corrugated metal in 1988. Three-pane metal windows appear near the top of the c. 1955 and 1959 additions. A tile coal silo, a metal tower and other hoisting equipment is attached to the c. 1955 addition and stand in the coal and ash storage yard.

The 1959 generator house and boiler house additions comprise the east-facing façade (behind the PDF Building). These sections are 100 feet tall, flat-roofed and clad with corrugated metal since 1988. Although no openings can be seen, the Powerhouse's four, monumental, concrete chimneys are especially visible when viewing this façade. The westernmost chimney was erected in 1923, while the other three were constructed as part of the 1949, c. 1955 and 1959 boiler house additions.

On the interior, each of the contributing sections of the Powerhouse shows an open plan with brick walls, steel trusses, and concrete floors and ceilings, all left exposed. A crane rail with a hook hoist travels each of the 1915, 1928 and 1938 sections of the generator house. Also called a crane girder, this mechanism is used to raise the turbines for maintenance. Generator 1 is still operating and may date to 1915. Although Generator 2 has been removed, Generators 3 (1928 addition), 4 and 5 (1938 addition) are still in operation. The basement is constructed of exposed, poured concrete. It houses turbines and other equipment that assist in the operation of the generators and boilers.

Northwest Wall/Wet Well (Contributing)

The Northwest Wall/Wet Well combines the c. 1915 circular brick Wet Well, a discharge well at the northwest corner of the property, with the Northwest Wall, a c. 1938 brick structure that encloses the transformer yard. The Northwest Wall is ten feet high, about 100 feet long on South Blount Street and 150 feet long on East Main Street. Brick pilasters with stepped, Art Deco-influenced caps articulate the wall along both streets. The south end of the wall abuts the original section of the Powerhouse. A metal door into the transformer yard appears toward the north end of the wall on South Blount Street. A chain-link gate near the east end of the wall on East Main Street also accesses the transformer yard. Originally, the Northwest Wall joined at a 90-degree angle at South Blount and East Main Streets. In 1988, the corner was removed, revealing the Wet Well and making the well's curving wall the corner of the Northwest Wall. The Wet Well displays raised metal letters reading: "MG&E, Madison Gas & Electric Company, Blount Station."

Pressure House (Non-contributing)

The Pressure House was built in two sections. The two-story east (front) section was erected c. 1909.⁵ It is believed to have been a stable, although no evidence to support this contention was

⁵ *Map of Madison*, (Pelham, New York: Sanborn Publishing Company, 1908).
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found. The east section is of brick construction, reinforced with an exterior concrete frame, and displays a flat roof and an astylistic utilitarian appearance. Two-over-two windows and a pair of wood, hayloft doors on the South Livingston Street (front) façade of the Pressure House appear to have been a part of the Pressure House's original configuration. Most of the openings have been boarded or filled. The west (rear) section is a one-story, flat-roofed, addition finished with corrugated metal and erected in 1995. This section replaced a 1926 addition and conformed to the footprint of the earlier addition. Although the original section of the Pressure House is more than 50 years old, it is quite altered. Therefore, it is a non-contributing element on the Powerhouse property. The location of the Pressure House at the east end (rear) of the site and its small size minimize its impact on the Powerhouse.

PDF Building (Non-contributing)

The astylistic utilitarian PDF Building is one-story high and was constructed in c. 1988. It is flat-roofed, rests on a raised, poured concrete foundation, and is finished with corrugated metal. The PDF Building is sited very close to the back of the Powerhouse Building, but is not attached to it. A tall, metal garage door opens onto South Livingston Street. The PDF Building is a non-contributing element on the Powerhouse property. The location of the PDF Building at the east end (rear) of the site minimizes its impact on the historic sections of the Powerhouse.

South Wall (Non-contributing)

The South Wall encloses the coal and ash storage yard at the south end of the Powerhouse property. Erected in 2000, this wall is constructed of concrete and is about 20 feet tall. It is about 50 feet long on South Blount and South Livingston Streets, and runs the full length of the property, some 594 feet, along Railroad Street (vacated). Prominent pilasters with classical caps frame horizontally-placed panels of brick veneer. The brick matches the color of the brick on the Powerhouse. These details render the South Wall visually compatible with the Powerhouse, even though the South Wall is a non-contributing resource on the property.

Alterations

The exterior of the Powerhouse has been altered by the construction of several additions. The 1928, 1938 and 1949 additions contribute to the significance of the Powerhouse, both because they were erected during the historic period and because they are compatible with the 1902/1915 generator house and 1915 boiler house in scale, materials, ornamental details and function. A few openings have been altered in 1915 boiler house and in the 1928 generator house addition. The non-contributing additions, erected in c. 1955 and 1988, have been appended to the rear of the earliest sections, reducing their impact. Overall, the exterior integrity of the Powerhouse is very good. The interior of the Powerhouse retains excellent integrity. The non-contributing resources on the site have a minimal effect on the historic character of the Powerhouse due to their location at the rear of the property and their relatively small size (Pressure House and PDF Building) or due to compatibility of design elements (South Wall).

Significance Of The Nominated Property

The Madison Gas & Electric Company Powerhouse is eligible for Madison Landmark designation because it meets criterion 1 of the Landmarks and Landmarks Sites Designation Criteria (see Madison Ordinances Sec. 33.01(4)(a)). Under criterion 1, the powerhouse is significant in industry, as Madison's most important private utility and one of the city's major employers. The Madison Gas & Electric Company Powerhouse retains good integrity despite many additions.

History of the Madison Gas & Electric Company and Powerhouse

The Madison Gas & Electric Company descends, in part, from the Madison City Gas Light and Coke Company. This enterprise was the first gas company in Madison and the second in the state. Organized in 1855 to provide gas lighting to the city, the Madison City Gas Light and Coke Company had a plant on Block 131, the site that is the subject of this nomination.

The Madison City Gas Light and Coke Company began operating gaslights on some streets and in a few homes in July 1855. Soon, gaslights had been installed along most streets and in most residences in the city, although oil lamps continued to light some Madison streets and kerosene lamps were used in humbler homes into the 1890s. In 1879, Thomas Edison created the incandescent light bulb. The same year, large electrical generators became commercially available. As a result of these developments, electric lighting would soon become a practical alternative to gaslight.⁶

The first demonstration of electric lighting in Madison took place on December 5, 1883 and used arc lights, rather than incandescent bulbs. The arc light generated light when the electric current jumped a small gap between conductors. Reflectors and lenses could be used to focus the arc light, washing a large area with light. To demonstrate the arc lights, the Van Depoele Electrical Company, of Chicago, set up six lamps along one side of the Capitol Square. The lamps were hooked up to a portable generator, in turn attached to a steam engine at a nearby laundry. The street was bathed in bright light, prompting the Common Council to appoint a citizen committee to investigate installing electric lights in Madison. However, Breese Stevens became mayor in April 1884. Stevens was, by coincidence, director of the Madison Gas Light and Coke Company, and did not reappoint the committee. As the Madison Gas Light and Coke Company had reduced the price of gas from \$3.00 per cubic foot to \$2.50 per cubic foot following the Van Depoele demonstration, effectively making arc lights seem unjustifiably expensive, the idea was dropped, at least temporarily.⁷

In April 1888, the newly-formed Madison Electric Light Company approached the Common Council, requesting a franchise to provide electric street lighting for the city. The franchise was granted, AC arc lights were installed on several Madison streets, and on June 10, 1888, the lights were turned on for the first time. The Madison Electric Light Company showed foresight in choosing the AC system; Madison was the third city in the state to choose AC, which would

⁶ Mollenhoff, p. 212.

⁷ Ibid., p. 213.

become the industry standard by 1892. The Madison Electric Light Company's first dynamo was located in the Hausmann Brewery on State Street (demolished).⁸

Seeing the Madison Electric Light Company as a serious threat to its market dominance, the Madison Gas Light and Coke Company responded with a series of actions to eliminate its rival. In May 1888, the Madison Gas Light and Coke Company asked the Common Council for a franchise so that it, too, could produce electricity. Napoleon Bonaparte Van Slyke, speaking on behalf of the gas company, argued that electrical companies should have competition. The Madison Electric Light Company, in response, contended that Madison could not support two electrical companies and that if there were two companies, the Madison Electric Light Company would be driven out of business because the Madison Gas Light and Coke Company had much greater financial resources. The Common Council denied the request of the Madison Gas Light and Coke Company.⁹

In June 1888, Madison Gas Light and Coke Company tried to another tactic, reducing the price of gas from \$2.50 per cubic foot to \$1.00 per cubic foot. This effort gained the Madison Gas Light and Coke Company very little ground and by 1890, the Common Council had further damaged their profitability and market share by drastically reducing the number of gas lights on the streets of Madison, replacing them with arc lights. The Madison Electric Light Company prospered, erecting a new plant at 631 Williamson Street in 1889 (demolished).¹⁰

Undaunted, Madison Gas Light and Coke Company officials decided to try entering the electricity-generating business by providing power for electric streetcars. In other cities, pairing streetcar operation (which mostly took place during the day) with street lighting (a night-time endeavor) was proving very profitable, as companies could sell electricity around the clock. The officials of the Madison Gas Light and Coke Company apparently thought that once they had the contract to provide power to the streetcars, they could capture the electric street lighting contract as well. To this end, the leading stockholders of the company organized the Four Lakes Light and Power Company, taking care not to reveal the identities of the officials of the new company.¹¹

The Four Lakes Light and Power Company appealed to the Common Council for an electric utility franchise. Suspicious, the Common Council rejected the request. Then, on 25 August 1892, the Four Lakes Light and Power Company bought the Madison Electric Light Company, and the Common Council had to grant the franchise to the Four Lakes Light and Power Company. On 3 September 1892, the fact that the Madison Gas Light and Coke Company controlled the Four Lakes Company became public knowledge when an article in the Wisconsin State Journal revealed that Napoleon Bonaparte Van Slyke, still a director of the Madison Gas Light and Coke Company, was the president of the Four Lakes Power and Light Company. Officials of the latter company denied that the Madison Gas and Coke Company controlled the electric company. Outraged, the Common Council granted another electrical franchise to a new

⁸ Ibid; and Katherine H. Rankin, *Intensive Survey of the Historic Resources of Madison*, prepared for the Madison Department of Planning and Development and the State Historical Society of Wisconsin, 1994, no page numbers.

⁹ Mollenhoff, p. 213.

¹⁰ Mollenhoff, p. 213; and Rankin, no page numbers.

¹¹ Ibid.

enterprise, the Capital City Electric Company, formed by local men unconnected to the Madison Gas Light and Coke Company. Even though the new company had no equipment and no plant, the Common Council awarded them the City's annual street lighting contract. But the Capital City Electric Company was unable to build its plant and failed, leaving the Four Lakes Light and Power Company the only electric company in Madison.¹²

The public, long disgruntled by the monopolistic practices of the Madison Gas Light and Coke Company, extended its antipathy to the Four Lakes Light and Power Company. Complaints about the dimness of the street lights and the increasing cost of electricity spurred the Common Council to appoint a committee to look into building a municipal plant. This effort was in the planning stages when a New York utility syndicate headed by Emerson McMillin bought the Madison Gas Light and Coke Company, the Madison City Gas Light & Coke Company (a newly-organized concern) and the Four Lakes Light and Power Company in April 1896. This consolidation created the Madison Gas & Electric Company. At the time, McMillin owned eighteen plants around the country including the Milwaukee Gas Company. Unlike some syndicate owners, McMillin utilized progressive management practices, including shorter work hours and higher wages than was standard in the industry and offering profit sharing to all his employees. McMillin was the president of the company and he brought in as general manager, Henry L. Doherty, an experienced utility executive. Napoleon Bonaparte Van Slyke, well-known locally for his ties to the Madison Gas Light and Coke Company and the Four Lakes Light and Power Company, was made vice-president of the new company.¹³

As this consolidation was taking place, Madisonians were re-thinking the wisdom of floating bonds to build a City-owned plant, which it was estimated would cost \$24,000. The City was already very close to its maximum legal debt limit and as yet had no provisions for repaying \$152,000 in bonds that would come due in 1904. In addition, Madison lacked a sewage treatment system and most of the city's decision-makers agreed that such a system should take precedence over any other infrastructure improvement. When the canny Doherty offered the City a very low rate, the Common Council accepted, ending efforts to build a municipal electric plant.¹⁴

Henry L. Doherty was general manager of Madison Gas & Electric until 1899, when the American Light and Traction Company (a part of the McMillin syndicate) acquired Madison Gas and Electric. Under the new parent company, Doherty served as president until 1909, and John Corscot was general manager. During Doherty's tenure, the company rapidly expanded and improved the city's utility system, especially gas lines, supporting this effort with a very successful campaign to promote the use of gas for cooking and heating. The gas stove and the gas heater had become affordable and widely available. Unlike their wood and coal counterparts, gas appliances could be quickly and conveniently lighted, were instantly the appropriate temperature, were easily controlled and did not require purchasing, storing and carrying of wood or coal, or the cleanup of ashes and soot. The Madison Gas & Electric Company sold gas appliances, offering gas stoves on an installment payment plan at \$13.00 dollars a month in newspaper ads

¹² Ibid., p. 214.

¹³ Ibid.

¹⁴ Ibid., p. 215.

that appeared almost every day in the late 1890s. The company also financed the Madison Cooking School, teaching women the culinary arts, using gas appliances. By 1902, gas lines had been extended to most of the residential areas in the city and more than half the homes in Madison were equipped with gas appliances.¹⁵

Doherty also oversaw the construction of several new buildings on the Powerhouse site. Although it is unclear what exactly was on the site when the Madison Gas & Electric Company was formed in 1896, by the end of 1902, there were several buildings on the property. A sprawling gas plant (demolished 1925), made up of several narrow stone and brick sections (at least some of which probably predated 1896), stretched about 200 feet north-south across the property. The front faced East Main Street. The rear 100 feet of the plant was erected in 1902. A large, frame, coal shed was attached to the east façade of the gas plant. A small, two-story, brick office and storage building (demolished 1925) faced East Main Street just west of the gas plant. Two large, round masonry gas tanks stood south and west of the office building. One was constructed in 1902, the other prior to 1902 (both removed in the 1920s). Frame storage sheds (demolished) appeared at the south end of the property, adjacent to the railroad tracks, about 100 feet east of South Blount Street. The original section of the current generator house was erected in two parts during 1902.¹⁶ The company's main offices were located in a building at 120-126 East Main Street (demolished) from about 1898 until 1922. The Madison Gas & Electric Company also continued to operate the 1889 Madison Electric Light Company plant at 631 Williamson Street until 1915.¹⁷ By 1908, a one-story, brick storage battery building (demolished) had been erected just north of the generator house and additional frame coal sheds (demolished) had appeared at the south end of the property, adjacent to the railroad tracks.¹⁸

During the early twentieth century, the Madison Gas & Electric Company's monopolistic practices were scrutinized and attacked by August Roden, then editor of Madison's daily newspaper, the *Wisconsin State Journal*. Roden was a Progressive Republican reformer, determined to expose corruption and injustice.

Public complaints about the poor quality of gas and electricity, begun during the time of the Madison Gas Light and Coke Company and the Four Lakes Light and Power Company, had continued unabated since the formation of the Madison Gas and Electric Company. In 1903, the Common Council asked the Madison Gas and Electric Company for data so that the Common Council could evaluate whether the company's rates were fair. The Madison Gas and Electric Company refused the request and the Common Council initiate a court battle that would last three years.¹⁹ The *Wisconsin State Journal* entered into the fray, reporting in 1904 that Madison Gas and Electric charged 25 percent more for its gas than any other company in the state and 21

15 Ibid.; and *Madison Past and Present*, pp. 189-191.

16 *Madison Past and Present*, p. 191; and *Map of Madison*, (Pelham, New York: Sanborn Publishing Company, 1902).

17 Rankin, no page numbers.

18 *Map of Madison*, (Pelham, New York: Sanborn Publishing Company, 1908).

19 Mollenhoff, p. 298.

percent more than the U. S. average.²⁰ The case reached the Wisconsin Supreme Court, where the City lost on procedural grounds.

In 1906, the Board of Regents of the University of Wisconsin hired a professor to test the quality of the gas that the Madison Gas & Electric Company provided in several different locations on campus. The *Wisconsin State Journal* trumpeted the professor's results, which showed that 20 percent of the gas was nitrogen, an inert element that did not provide light or heat, but which certainly registered on the gas meters. Roden labeled the presence of nitrogen gas as "fraudulent."²¹ The public outcry was such that Governor James O. Davidson, a Progressive Republican, initiated a study to determine whether Madison Gas and Electric's rates were based on actual production costs and a fair return on their investment. Davidson wanted to show that state regulation of gas and electric companies was needed. In late February 1907, the Davidson's study confirmed what Madisonians had long suspected, the Madison Gas and Electric Company's rates had no basis in actual costs, but reflected what the market could bear.²²

Beginning in March 1907, August Roden carried on a crusade against the Madison Gas and Electric Company through the pages of the *Wisconsin State Journal*. He opened this crusade with the claim that the Madison Gas and Electric Company was overcharging its customers \$47,000 each year while providing customers with gas that fell below the state's minimum standards (WSJ March 16, 1907).²³ For the next several months, Roden published an article nearly every day, expanding on these charges and making new ones. He described stock-watering schemes, expensive experiments with untried technology and a previously unpublicized offer, made to dissuade the City from taking over the company, to reduce the price of gas to by 53 percent. By name, Roden charged the local men who served on the board of directors of the Madison Gas and Electric Company with complicity in the schemes of the McMillin syndicate and the American Light and Traction Company, prompting two Madison directors to resign.²⁴ The Madison Gas and Electric Company did not respond to any of Roden's charges.

In his thesis, "A Case Study of Newspaper Muckraking: The Wisconsin State Journal's Crusade for Better and Lower Gas Rates," Gene Hanson suggests that Roden's masterful crusade against the Madison Gas and Electric Company at a time when the state legislature was in session likely resulted in the adoption of a new public utilities regulation law in July 1907.²⁵

Although there was a public utilities regulation law on the books at the time, it was weak and lacked a workable procedure for calculating fair gas rates. Several Progressive state legislators enlisted John Commons, a professor at the University of Wisconsin, to draft the new public utilities regulation law. This law gave the Wisconsin Railroad Commission (forerunner of the Wisconsin Public Service Commission) the power to regulate gas and electric utilities, including

²⁰ *Wisconsin State Journal*, 16 August 1904.

²¹ *Wisconsin State Journal*, 15 February 1907.

²² *Wisconsin State Journal*, 27 February 1907; and Mollenhoff, p. 298.

²³ *Wisconsin State Journal*, 16 March 1907.

²⁴ Mollenhoff, p. 298.

²⁵ Gene Hanson, "A Case Study of Newspaper Muckraking: The Wisconsin State Journal's Crusade for Better and Lower Gas Rates," (Master's thesis, University of Wisconsin – Madison, 1966), p. 45.

setting rates. As soon as this legislation passed, the *Wisconsin State Journal* retained Madison attorney, Emerson Ela, to file a formal complaint against the Madison Gas and Electric Company with the Railroad Commission. This was the first complaint involving a gas or electric utility that was lodged before the Railroad Commission. The case received national attention because it sought to determine how utility rates could be calculated fairly, a question on the minds of reformers and politicians across the nation. The Railroad Commission spent three years gathering information and wrestling with the question before rendering a decision in March 1910, reducing the Madison Gas and Electric Company's rates for gas and electricity by nearly 10 percent.²⁶ By the time the decision was handed down, Henry Doherty and John Corscot had left the company. Alanson Lathrop was president and Frank Cross served as general manager.

Despite this blow to the company's profits, the Madison Gas and Electric Company's prospered, employing 119 people in 1912, all of them paid in cash.²⁷ In 1915, the company undertook a major building campaign, remodeling the 1902 generator house to accommodate steam-powered turbines (abandoning the company's experiment with gas-powered generators) and erecting the adjacent boiler house at a cost of \$150,000.²⁸ Together these two form the earliest sections of the existing Powerhouse that is the subject of this nomination. At the same time, the 1889 plant at 631 Williamson Street closed and those operations brought to the Powerhouse site.

The plans for the remodeling of the generator house and the construction of the boiler house were prepared by the Madison engineering firm of (Daniel H.) Mead and (Charles) Seastone. Mead (1862-1948) was a graduate of Cornell University in Ithaca, New York. In 1900, he had opened an engineering office in Chicago. He relocated to Madison in 1904 to accept a professorship in engineering at the University of Wisconsin. Mead continued to operate his consulting firm in Chicago until 1907. That year, he moved the consulting firm to Madison and engaged Charles Seastone, a professor of sanitary engineering at Purdue University, to take up the post of chief engineer and manager of the business. In 1913, Mead made Seastone his partner in the consulting firm; their association would last for twenty years. Mead taught at the University of Wisconsin until 1932 while maintaining an active practice. Mead and Seastone designed a variety of engineering facilities but are probably best known for their hydroelectric facilities. During the late 1920s, Mead also served as a consultant to the federal government in the design of the Hoover Dam. The successor firm, Mead & Hunt, is still in operation and is one of the largest engineering companies in the U.S.²⁹

The Madison Gas and Electric Company continued to expand its service area during the late 1910s and the early 1920s. In 1917, John St. John became general manager under Alanson Lathrop. In 1922, the company inaugurated a new building campaign with the erection of an elegant stone-veneered office building (demolished) at 100 North Fairchild Street. Designed by prominent Madison architect Frank Riley, the Madison Gas and Electric Company office

²⁶ *Wisconsin State Journal*, 8 March 1910.

²⁷ "MG&E History at a Glance, 100 Years of Service," Brochure produced by the Madison Gas and Electric Company, 1996, p. 2.

²⁸ Building permit, on file, Madison Department of Planning and Development.

²⁹ Mead & Hunt website, www.meadhunt.com.

building presented an outstanding example of the Neo-Classical Revival style.³⁰ It would be the company's headquarters until 1983. In 1923, Mead and Seastone designed a small addition to the boiler house, which included a monumental chimney (see attached plan). In 1924, Madison architects (James R.) Law and (Edward J.) Law prepared plans for three brick and concrete buildings for Madison Gas and Electric. The first was a water gas building (demolished) erected just east of the Powerhouse. The second was a liquid purification building, a two-story structure located at 713 East Main Street (demolished), on part of the site on which the old gas plant had stood. The third was the works utility building (extant) on the southwest corner of South Blount and East Main Streets. A one-story, brick and steel addition to the Pressure House was built in 1926 to the designs of (James R.) Law, (Edward J.) Law and (Ellis) Potter.³¹ The generator house was expanded in 1928.³² That year, R. B. Brown was named president. John St. John continued as general manager.³³

In the 1920s, the Madison Gas and Electric Company had added electrical appliances to their product line. The company's products were promoted through the company's magazine, *Today's Home*, sent to customers and featuring household tips and recipes. The company expanded its promotion of electrical appliances into rural areas during the 1930s by sending saleswomen in the "Demonstration Car" into the countryside to demonstrate the appliances.³⁴ In 1938, the steadily increasing number of customers necessitated an addition to the generator house (to accommodate generators 4 and 5) and to the boiler house (for boiler 4).³⁵ In 1939, John St. John became president and general manager of the Madison Gas and Electric Company. At that time the company had 270 employees and a payroll of \$470,000 a year, making it one of Madison's largest industries. The Madison Gas and Electric Company served 18,262 gas customers and 23,978 electric consumers that year in Madison and neighboring rural areas.³⁶

In 1944, the American Light and Traction Company sold the Madison Gas and Electric Company to employees of Madison Gas and Electric and local investors, making the company publicly-owned. John St. John continued as president and general manager, a post he would hold until 1958. An addition to the boiler house to hold Boilers 5 and 6, and a pipeline to carry natural gas from Michigan, were constructed in 1949. Around the same time, the 1924 liquid purification building at 713 East Main Street was demolished and a small, one-story office erected. In 1950, the number of gas customers exceeded 18,000.³⁷

During the 1950s, the generator house and the boiler house were expanded twice, c. 1955 and in 1959. The Summit Peaking Plant was erected in 1957, as the Powerhouse that is the subject of this nomination could no longer provide sufficient power to all the customers of the Madison Gas and Electric Company. By 1959, the company's service area totaled 195 square miles, with 42,

30 Building permit.

31 Building permits.

32 *Map of Madison*, (Pelham, New York: Sanborn Publishing Company, 1908 pasted over through 1939).

33 "MG&E History at a Glance: 100 Years of Service," p. 8.

34 "MG&E History at a Glance: 100 Years of Service," p. 4.

35 *Map of Madison*, (Pelham, New York: Sanborn Publishing Company, 1908 pasted through 1939).

36 Rankin, no page numbers.

37 "MG&E History at a Glance: 100 Years of Service," p. 4 and 5.

393 electric consumers and 26,711 gas consumers. In the 1960s, service was expanded to other municipalities in Dane County, including Waunakee, Cross Plains, Black Earth, Mazomanie, Mount Horeb, Verona, DeForest and Windsor. By 1966, the number of gas customers had risen to 37,357 and the company began construction of the Kewaunee Nuclear Plant (completed in 1974).³⁸

The Madison Gas and Electric Company built a new office building on South Blair Street in 1983. In 1988, the office addition to the Powerhouse was completed. The company continued to expand its service area, extending to include Iowa, Vernon, Crawford and Monroe counties by the mid-1990s. Today, the Madison Gas and Electric Company generates and transmits electricity to 125,000 customers in a 250-square mile area and distributes natural gas to 112,000 customers in seven counties. The company provides customer assistance through brochures, a monthly newsletter, a speaker's bureau, and at the Innovation Center (opened in 1990), as well as offering economic assistance to low-income families in paying their utility bills. The Powerhouse that is the subject of this nomination has been maintained in an excellent state of preservation and in working condition. It continues to provide one-quarter of the electricity that Madison Gas and Electric's customers use.³⁹

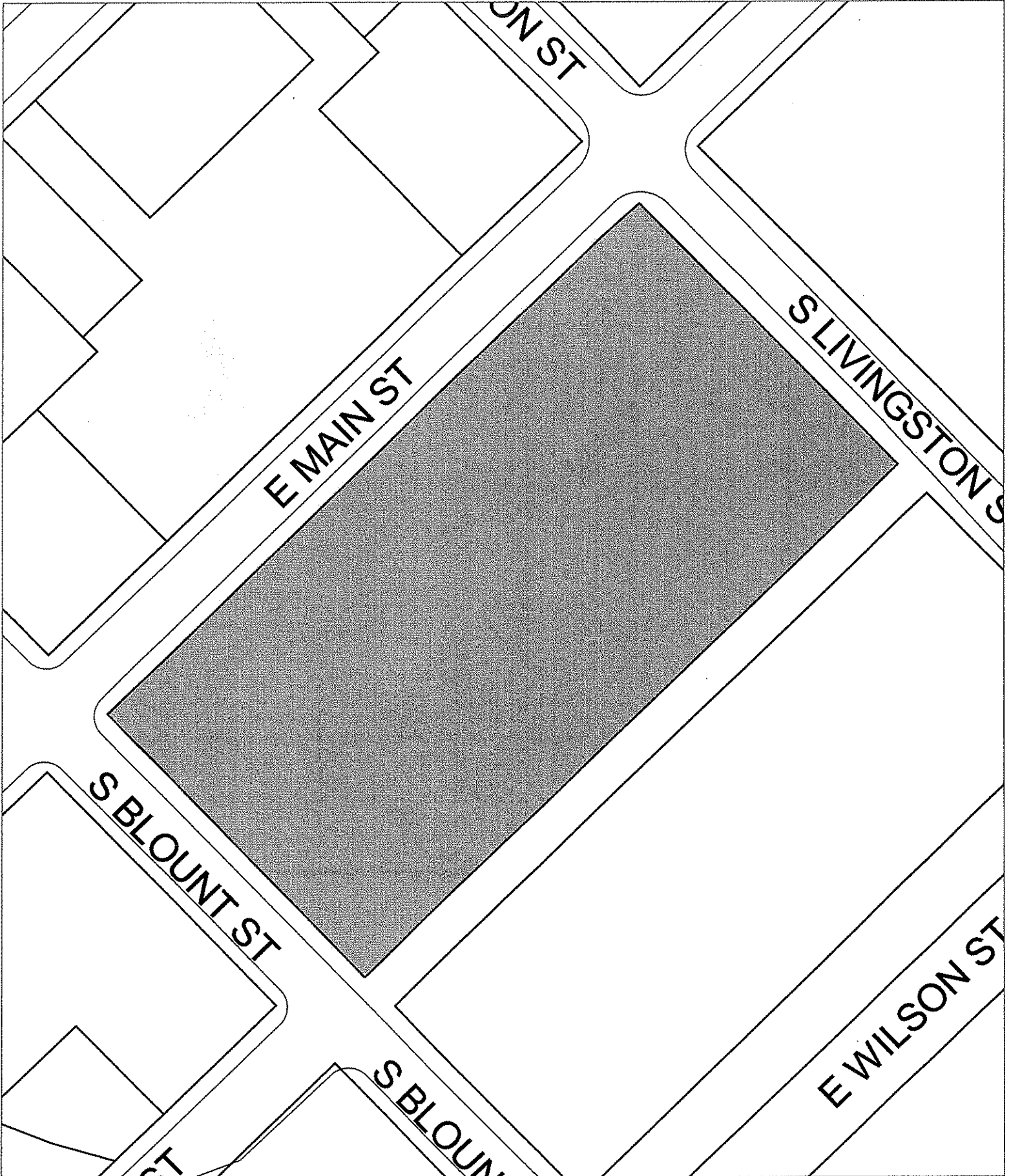
38 Ibid., pp. 5 and 6.

39 Ibid.

100 S BLOUNT ST (AKA 717 E MAIN ST)



100 0 100 Feet





ROAD
CLOSED

P A R K

MADISON GAS AND ELECTRIC COMPANY
MADISON WISCONSIN

northwest wall ca. 1938

well ca. 1915

MADISON
ENCLOSURE
MENTIONED

addition and remodel
1988

1902,
remodeled
1915

1915

1928

1938

1938

1938

1949

1955

1959

ca. 1988

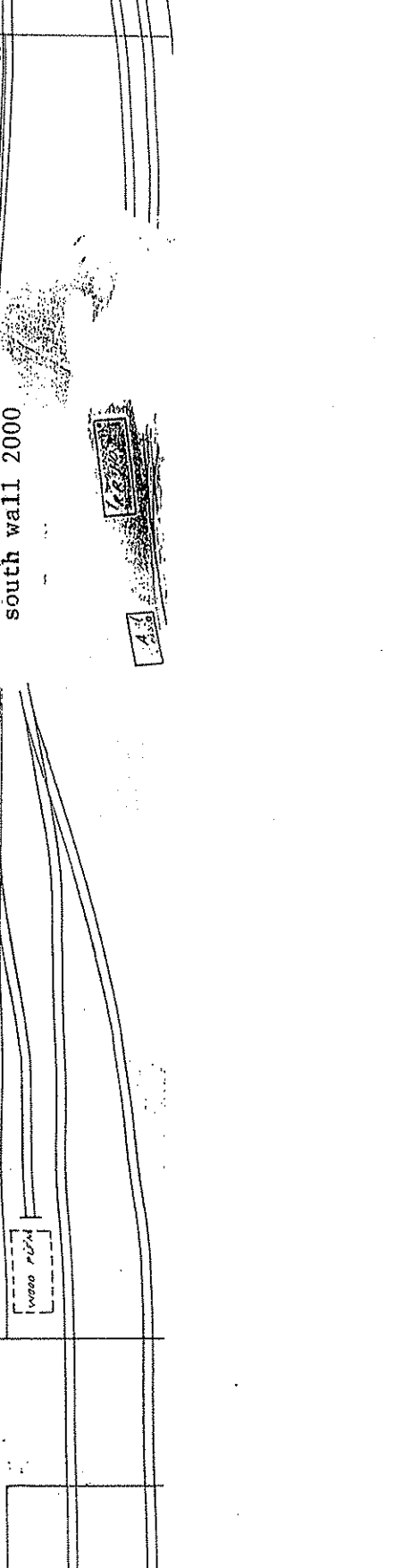
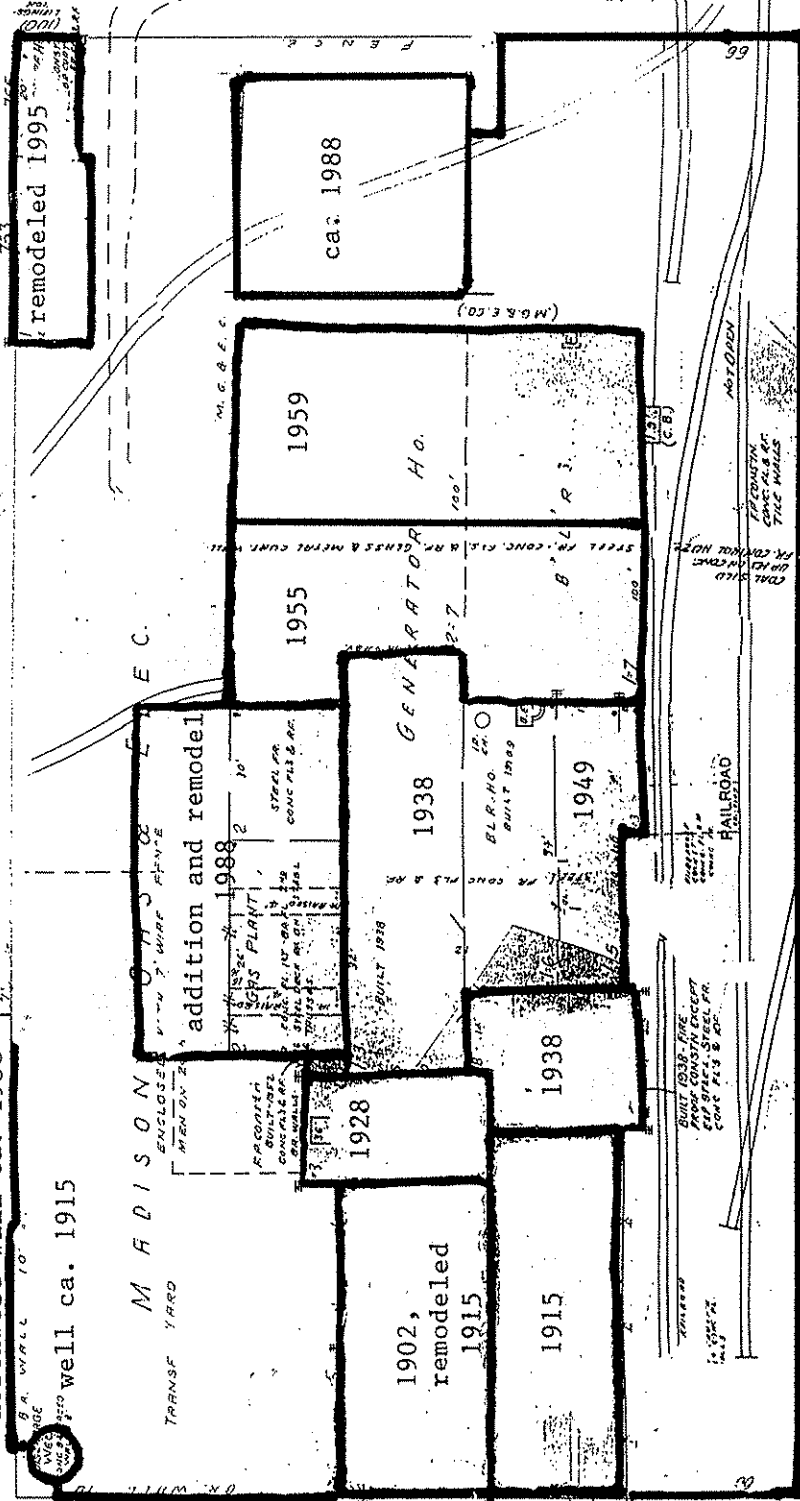
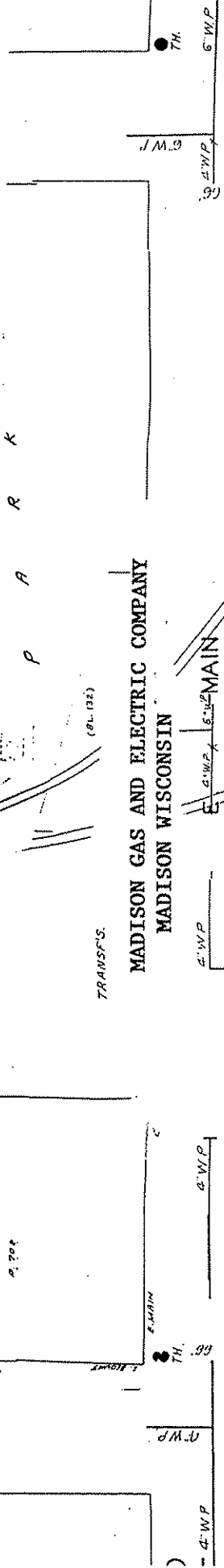
remodeled 1995

S. BLOUNT

S. LIVINGSTON

south wall 2000

68



Madison Gas & Electric Powerhouse in 1902
(Generator House Section)

Source: Madison Past and Present (Madison: Wisconsin State Journal, 1902)



NEW POWER HOUSE, WHERE THEY "USE GAS FOR FUEL."