United States Department of Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900A). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name **Filer and Stowell Company Complex**

other names/site number **Whitehall Sewing Machine Company (1881-1888), Wilkin Manufacturing Company (1888-c. 1891)**

2. Location

street & number	147 East Becher Street						N/A	**not for publication**	
city or town	Milwaukee						N/A	**vicinity**	
state	Wisconsin	**code**	WI	**county**	Milwaukee	**code**	079	**zip code**	53207

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this X nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property X meets _ does not meet the National Register criteria. I recommend that this property be considered significant _ nationally _ statewide X locally. (_ See continuation sheet for additional comments.)

Signature of certifying official/Title Date

State or Federal agency and bureau

In my opinion, the property _ meets _ does not meet the National Register criteria.
(_ See continuation sheet for additional comments.)

Signature of commenting official/Title Date

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the property is:

__ entered in the National Register.
___ See continuation sheet.
__ determined eligible for the National Register.
___ See continuation sheet.
__ determined not eligible for the National Register.
___ See continuation sheet.
__ removed from the National Register.
__ other, (explain:)

Signature of the Keeper | Date of Action

5. Classification

Ownership of Property
(check as many boxes as as apply)

X	private
	public-local
	public-State
	public-Federal

Category of Property
(Check only one box)

X	building(s)
	district
	structure
	site
	object

Number of Resources within Property
(Do not include previously listed resources in the count)

contributing	noncontributing	
10	2	buildings
		sites
1		structures
		objects
11	2	total

Name of related multiple property listing:
(Enter "N/A" if property not part of a multiple property listing.)
N/A

Number of contributing resources previously listed in the National Register
0

6. Function or Use

Historic Functions (Enter categories from instructions)	**Current Functions** (Enter categories from instructions)
INDUSTRY: Manufacturing facility	INDUSTRY: Warehouse
	INDUSTRY: Sawmill
	VACANT

7. Description

Architectural Classification (Enter categories from instructions)	**Materials** (Enter categories from instructions)	
	foundation	limestone, concrete
LATE VICTORIAN: Renaissance Revival	walls	brick, limestone, concrete, glass, aluminum
MODERN MOVEMENT: Art Deco		asphalt, wood
Other: Astylistic Utilitarian	roof	asphalt, rubber, aluminum
	other	wood

Narrative Description

(Describe the historic and current condition of the property on one or more continuation sheets.)

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for the National Register listing.)

X A Property is associated with events that have made a significant contribution to the broad patterns of our history.

_ B Property is associated with the lives of persons significant in our past.

_ C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

_ D Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations
(Mark "x" in all the boxes that apply.)

Property is:

_ A owned by a religious institution or used for religious purposes.

_ B removed from its original location.

_ C a birthplace or grave.

_ D a cemetery.

_ E a reconstructed building, object, or structure.

_ F a commemorative property.

_ G less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance
(Enter categories from instructions)

INDUSTRY

Period of Significance

1892-1971

Significant Dates

1916 and 1918 fires
1930 construction of office building
1941-1943 World War II production and honors

Significant Person
(Complete if Criterion B is marked)

N/A

Cultural Affiliation

N/A

Architect/Builder

Koch, Henry C.; Worden-Allen Company
Other architects/builders unknown

Narrative Statement of Significance
(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographic References

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous Documentation on File (National Park Service):
- _ preliminary determination of individual listing (36 CFR 67) has been requested
- _ previously listed in the National Register
- X previously determined eligible by the National Register
- _ designated a National Historic landmark
- _ recorded by Historic American Buildings Survey #
- _ recorded by Historic American Engineering Record #

Primary location of additional data:
- X State Historic Preservation Office
- _ Other State Agency
- _ Federal Agency
- _ Local government
- _ University
- Other

Name of repository:

10. Geographical Data

Acreage of Property 11 acres

UTM References (Place additional UTM references on a continuation sheet.)

	Zone	Easting	Northing
1	16T	425800	4761933
2	16T	425904	4761933
3	16T	425896	4761548
4	16T	425790	4761549

☐ See Continuation Sheet

Verbal Boundary Description (Describe the boundaries of the property on a continuation sheet)

Boundary Justification (Explain why the boundaries were selected on a continuation sheet)

11. Form Prepared By

name/title	Kate Bissen, Preservation Associate, and Wendy Bright, Preservation Assistant				
organization	Preserve, LLC			**date**	09/23/2021
street & number	5027 N Berkeley Boulevard			**telephone**	262-617-1408
city or town	Whitefish Bay	**state**	WI	**zip code**	53217-5502

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps A USGS map (7.5 or 15 minute series) indicating the property's location.
A sketch map for historic districts and properties having large acreage or numerous resources.

Photographs Representative black and white photographs of the property.

Additional Items (Check with the SHPO or FPO for any additional items)

Property Owner

Complete this item at the request of SHPO or FPO.)

name/title	Brian Read				
organization	Beta-Becher Acquisition Co, LLC			**date**	09/23/2021
street & number	147 East Becher Street			**telephone**	414-779-1924
city or town	Milwaukee	**state**	WI	**zip code**	53207

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects, (1024-0018), Washington, DC 20503.

Narrative Description

Introduction
The Filer and Stowell Company Complex is a collection of ten contributing buildings, one contributing structure, and two non-contributing buildings located in the Bay View neighborhood in Milwaukee, Wisconsin. Bay View is situated along the Lake Michigan shoreline, south of the Menomonee Valley, in the southeastern area of the city. Bay View was once a village separate from the city of Milwaukee, but when incorporated into the Town of Bay View in 1879, it became Milwaukee's first suburb. The Filer and Stowell Complex is in a major industrial corridor centered on East Becher Street in the northwest corner of the Bay View neighborhood. This industrial zone was attractive to mid- to late-nineteenth century manufacturers because of its proximity to water transportation, rail transportation, and a large workforce living in Bay View and surrounding neighborhoods. The Kinnickinnic, one of Milwaukee's three rivers, which flows out to Lake Michigan, bends around this industrial area. The Filer and Stowell complex is 350 yards away from the river both to the north and west. The two major rail lines running north to south through this area were formerly operated by the Chicago & North Western Railway Company and the Chicago, Milwaukee, and St. Paul Railroad. Several spur tracks split from the main lines to serve many of the manufacturers in the industrial corridor. By the twentieth century, Filer and Stowell's central Bay View location meant additional access to highways for truck shipping, such as U.S. 41 beginning in the 1920s and, in 1956, I-94, less than one half mile directly west. With expansion of the Filer and Stowell complex over several decades, the property eventually stretched from East Becher Street south to the busy East Lincoln Avenue thoroughfare, with vehicle entrances at both streets. Recently the area has become a focus of redevelopment due to the substantial availability of empty lots and buildings once occupied by manufacturers.

The buildings of the Filer and Stowell Company Complex form a U-shape with the bottom of the U at the north end of the site. The earliest buildings were constructed in the 1880s by the Whitehill Sewing Machine Company, including the building referred to as the Pattern Shop, designed by architect Henry C. Koch. The oldest part of the Foundry was constructed by Wilkin Manufacturing Company. The rest of the buildings and several additions were added by the Filer and Stowell Company between 1892 and the 1950s. The Office and Pattern Shop, on the north end of the site, were the original public-facing buildings and have the most decorative features. These buildings are connected by a bridge (contributing structure) to form the base of the U. The production buildings are more utilitarian. The site includes all of the typical industrial building types of the period, including masonry industrial loft buildings and long wood- and steel-framed production sheds. All contributing buildings retain historic features dating to the period of significance and Filer and Stowell's activity on site.

Site Context
The Filer and Stowell Company Complex occupies an eleven-acre site located in the middle of the Becher Street industrial corridor that developed as a result of the unprecedented industrialization that took place in 1860s Bay View. Prior to that time Bay View was a densely wooded area dotted with cabins and farmland. As larger industrial concerns developed in Milwaukee in the mid-nineteenth century, established industrial areas lacked sufficient available, affordable land, and Bay View became a logical point of expansion.

The Becher Street industrial corridor thrived until the late twentieth century. By the 1980s most of the former manufacturers had closed or moved on. Much of the area's rail service was discontinued, much of the shipping from docks along the Kinnickinnic River had ceased, and the respective infrastructure was eventually dismantled. Empty buildings were sometimes adaptively reused, but many remained vacant or underutilized while others were razed, leaving large, empty lots primed for redevelopment.

Late-twentieth-century regeneration of nearby neighborhoods, such as the Historic Third Ward and Walker's Point, led to overall increased residential occupation of the neighborhoods south of downtown Milwaukee. While Bay View had long been a stable residential community, its attractiveness accelerated by the 1990s as it promised a central location on the lakefront close to downtown, quality housing, and unique commercial buildings along Kinnickinnic Avenue well suited for bars, restaurants, and cultural establishments. The 1999 completion of the I-794 Lake Parkway facilitated unprecedented access to and from Bay View. Soon property values soared, and new development began in earnest. The recent development of the new Harbor District at the confluence of Milwaukee's three rivers and Lake Michigan has further accelerated these trends.

The area around the Filer and Stowell complex has seen a substantial amount of development in recent years. The Becher Street corridor, which features direct access to I-94, large tracts of developable land, and prime connectivity, has been one of the most actively developing areas in Milwaukee. The surrounding area is a mixture of building types, styles, and vintages. Due to the industrial history and sporadic redevelopment, most of the closest buildings to the subject property do not have consistent siting, setbacks, or site features. The industrial character of the area remains intact due to the rail corridor, relatively large plats compared to more dense urban areas, and a handful of extant industrial resources that have been sensitively redeveloped or remain vacant.

New commercial developments surround the complex. Northwest of the property, across Becher Street, is a redeveloped industrial site with a new brewing company, distillery, and other small businesses. West of 1st Street is a large commercial building with paved parking lots that replaced a manufacturing complex in 2016. To the south of the complex and Lincoln Avenue, a commercial development was completed in 2020.

Much of the surrounding properties also remain vacant and underutilized. An existing manufacturing building as well as several open lots remain to the north across Becher Street. To the west of the Filer and Stowell site, a large gravel lot was cleared of a manufacturing complex in 2016 and is awaiting redevelopment. One production shed-type manufacturing building remains along the Kinnickinnic River at 2217 South 1st Street.

New residential developments in the area abound, especially to the east. Immediately to the east of the complex across the rail corridor is a multi-building residential development, which in 2016 replaced a manufacturing complex. A large, multi-building complex was built to the northwest in 2019. East and southeast of the complex is a residential neighborhood of tree-lined blocks and one- to two-story frame houses. Across the river to the southwest is Baran Park, a Milwaukee County Park, and an elementary school that serves a large residential area.

Site and Setting
The Filer and Stowell Company specialized in the manufacture of sawmill machinery from its founding in 1856 (ocated in Walker's Point until 1892) until 1998, when the subject complex was closed. The site was continuously occupied by manufacturing concerns since first developed in 1881. The Whitehill Sewing Machine Company commissioned the first non-residential buildings, including the Pattern Shop in 1881. It was followed in 1888 by the Wilkin Manufacturing Company, producers of lumber mill machinery, which erected additional buildings, including the Foundry and south Machine Shops extension. Filer and Stowell was the third and longest occupant of the site, relocating their factory to the subject property in 1892. The firm built the remaining buildings and additions and operated at the site for over a century until they relocated in 1998. Filer and Stowell is the most significant occupant of the site, as discussed later in the Statement of Significance. A site plan with a summary of all buildings and structures is included in Figure 1.

The Filer and Stowell complex consists of eleven main industrial buildings completed between 1881 and 1930 and retains nearly all of its associated structures from the period of significance. The buildings are preserved in their original locations and retain good integrity in massing, form, materials, and design. Neglect, age, and weather have resulted in moderate deterioration.

The buildings are compactly fit into a long, narrow, rectangular parcel, approximately 1,250 feet long, north to south, and 330 feet wide, east to west. The main administration buildings face East Becher Street, the site's northern boundary. Only the Office building (K) has an entrance from the public sidewalk. To the south, the site is bounded by East Lincoln Ave. The site is now entirely fenced, including the north end between the northernmost buildings which abut the public sidewalk. Railroad embankments form the east and west boundaries. The west edge of the site was previously bounded by the vacated former Chicago & North Western Railway right-of-way. This rail line has been added to

the subject property and converted to a gravel road; no rail tracks remain. The gravel drive is separated from the adjacent property to the west by a chain link fence, running north south approximately 1251 feet east of South 1st Street. The east boundary is an active right-of-way for the Amtrak Hiawatha passenger route and Canadian Pacific Railroad.

The Filer and Stowell buildings and additions are predominantly of astylistic utilitarian design. The two main buildings facing East Becher Street that historically housed offices in addition to manufacturing were designed in the Renaissance Revival and Art Deco styles. The earlier structures were typical of the industrial loft building type and usually clad in cream brick. One exception is the large Machine Shop; the original portion of this production shed-type building is heavy timber with an asphalt cladding that appears to cover wood siding. Later buildings are typically clad (or reclad) in metal panels or incorporate large banks of industrial steel sash windows between the open structural members. Foundations are of concrete and stone; there are no excavated basements except for the ground floor of the Pattern Shop (B) which is partially excavated.

The buildings are arranged within the narrow site in a U-shape. The bottom, or closed, part of the U is at the north end facing Becher Street. The open end faces south and Lincoln Avenue. The property is bisected by a driveway, which is paved in concrete and asphalt on the north half of the site and splits into two gravel drives on the south end of the site, roughly following former railroad spurs. Two vehicular entrances open to the driveway, one on Becher Street on the north end and the other at Lincoln Avenue on the south end. The Becher Street entrance is set between the Office Building (K) and the Garage (A) and is protected by a chain link fence with a single-leaf gate. The entrance gate opens into a small, rectangular, asphalt-paved parking area surrounded on three sides by the Garage (A), Pattern Shop (B), and the Office Building (K). The asphalt paving has worn away to reveal clay paving bricks beneath. The grade here is approximately two feet higher than the street, with the driveway sloped between them. The driveway continues beneath the Bridge (D), a second-story concrete and steel-framed covered structure between the Office (K) and Pattern Shop (B).

Past the Bridge (D), the driveway turns to the right into a second, larger, rectangular concrete-paved parking area, surrounded by buildings on all sides. The driveway continues south for the length of the property, bordered by buildings on the east and west sides.

A single railroad spur track once extended from the main rail line through Filer and Stowell's Lincoln Avenue entrance up the driveway and curved over to the south elevation of the South Machine Shop (on the west side of the site). The track was removed in the 1990s. Remnants of rail tracks remain inside buildings on the site, typically aligned with overhead doors. In the southeast corner of the site is a large open lot, which historically contained extra sets of railroad spur tracks, but in the twentieth century served as material storage. In recent years the lot has been utilized for stacked rows of timber.

The southern entrance at Lincoln Avenue is protected by a double-leaf chain link gate. A wood-slat-covered chain link fence extends along the entire southern boundary north of the public sidewalk. A secondary driveway, created c. 2000, branches west from the central driveway and accesses the vacated Chicago & North Western Railway right-of-way; this driveway is outside of the historic Filer and Stowell complex boundary but included in the modern parcel boundary.

The grounds are strictly utilitarian with no extant landscaping or decorative site design. The site is bordered by natural vegetation. Volunteer trees and shrubs fill the southern corners of the site and flank the Lincoln Avenue entrance. Trees and shrubs also line the railroad embankment on the east side of the site. Shrubs and overgrown lawn are typical along all exterior building faces where the paving is set back at least eighteen inches from the wall. Significant vegetation has also emerged through cracks in the paving.

Building Descriptions

Note: The following building descriptions follow a counterclockwise movement around the site, beginning at the northeast corner where the earliest extant industrial building is located. See Figure 1 for a site map that identifies the locations of all buildings and additions.

GARAGE (A, Non-Contributing) *1903*
(See Photos 01 and 02)

The single-story rectilinear structure located at the north entrance to the site was built in 1903 as a garage. Its south wall directly abuts the Pattern Shop's (B) north elevation; The Pattern Shop's bricked-in window openings are visible along the north side of the garage interior. The garage was a utilitarian cream common brick building with structural clay tile backup. The Indiana limestone keystone above the overhead door is the only remaining historical feature. Any historical elements are obscured by modern siding, trim, and doors; a small asymmetrical front-facing gable rises above the entrance. This gable appears to have part of a monitor that once held a north-facing window (now roofed over with modern materials). The Garage originally had multiple, wood four-over-four double-hung windows on the north and west elevations. These are currently covered with exterior siding but still visible from the interior. The main (west) elevation has a central garage door and entrance door to its right and faces the small rectangular parking area that is part of the main driveway. The single-leaf entrance door is not historic. Due to the extensive modifications, the garage is included in this nomination as a non-contributing building.

PATTERN SHOP (B, Contributing) *1881*
(See Figures 14, 15, 16, 17, 18, 19, and 20 and Photos 01, 03, 04, 05, 06, 07, 08, 09, 10, and 12)

The Pattern Shop is a loft-type industrial building that faces the Becher Street entrance and is the oldest extant structure at the Filer and Stowell Complex.[1] Designed by renowned Milwaukee architect Henry C. Koch in 1881 for the Whitehall Sewing Machine Company, it was used by Filer and Stowell for offices, machinery parts production, pattern production, and storage space.

The Pattern Shop is a flat roof, four-story, Renaissance Revival style building; the first floor is partially below-grade with a stone foundation that continues into a random ashlar-coursed Indiana limestone watertable approximately two-and-one-half feet above grade. The building is regularly fenestrated, with windows arranged singly or in pairs. The windows have been boarded and covered by corrugated fiberglass panels and, where intact, are still visible from the interior. Most windows are wood twenty-over-twenty double-hung units. Windows have Indiana limestone sills and flat or jack arched masonry headers. The exterior walls are constructed of now-soiled Milwaukee Cream City face brick, with a heavy timber frame structure on the interior.

The north façade, ornamented with brick banding and string courses, is where Koch's affinity for the Romanesque Revival may best be seen. The north elevation is organized into four bays, which are visually divided by brick pilasters. The west bay is anchored by the tower, which extends an additional story above the roof. The original main entrance is centered within this bay and located vertically between the first and second floors; it retains its original pair of beadboard paneled wood doors. The original entrance steps have been removed, as well as the original peaked roof porch canopy; stone corbels that supported the porch remain. The center portion of the tower above the non-extant entry gable up to the fourth-floor roof line is recessed one brick wythe. Within this recess are two pairs of equally spaced narrow stairwell windows with jack arch headers. The windows are located between the second and third and third and fourth floors. At the top half of the fourth floor, five recessed-brick vertical lines are equally spaced across the bay. The tower is separated from the rest of the west end bay by an Indiana limestone sill course (aligned with the parapet of the rest of the building) supported by two corbeled brick courses. Three shorter windows with flat jack arch headers are located at the fifth floor. Above the windows, the tower corbels out several courses on all sides before stepping back at an Indiana limestone belt course that caps this corbeled portion. The rest of the tower is brick up to the Indiana limestone coping of the tower parapet. According to historic photographs, the tower was previously capped by a non-extant peaked roof. The tower currently has a flat roof with a tall flagpole. This change was made during the period of significance.

The remaining three bays of the north elevation feature pairs of boarded windows. At the first floor, these are concealed within the Garage building in the two east bays, infilled with matching cream

[1] "Building Intelligence," *The Sanitary Engineer*, October 1, 1881, 510.

brick. In these bays, the Indiana limestone watertable terminates at the sill course for the first-floor window units. An Indiana limestone belt course is extant above the first-floor jack arch window heads. At the first (east end) and third bays on the second floor, windows are evenly spaced between pilasters. In the center bay, a single arch-top window opening infills almost the entire width between pilasters. The spandrel area between the second and third floor windows is characterized by two slightly projecting brick bands running horizontally between pilasters. Third floor units have flat headers instead of jack arches. The units in the second bay are closer together than those in the first and third bays, with a narrow band of brick separating them. Above the third-floor windows, brick corbels out to a projecting brick band, and then again to an Indiana limestone sill course below the fourth-floor windows. The sill course continues across the pilasters between the first and second and second and third bays. This spandrel area aligns with a decorative Indiana limestone corner detail at the east corner. The fourth-floor window spacing is the same as the third floor; these units also have flat jack arch tops.

The elevation is capped by a decorative brick cornice with corbelled blind arcades running between the pilasters. Historically, the second bay from the east was topped by a brick pediment flanked by brick piers; both the piers and pediment were removed during the 1940s (within the period of significance) and replaced with plain stone coping.

The east elevation is ten bays wide and is regularly fenestrated with pairs of boarded windows. Pilasters divide each bay/pair of windows. Each bay is identical to the first and third bays on the north elevation. A random ashlar Indiana limestone water table is extant from grade up to the sill of the first-floor windows. An Indiana limestone belt course approximately in line with the second-floor line separates the first floor from the upper floors. All other belt coursing and projecting brick bands match those described on the first and third bays of the north elevation, up to the decorative brick cornice with corbeled blind arcades. The entire parapet is capped by a honed Indiana limestone coping.

The west elevation is partially obscured by the 1920s Engine Room (C-C2). The visible portion is an unadorned, cream face brick façade that jogs back approximately ten feet for two structural bays between the stair tower and projecting freight elevator shaft. Brick is heavily soiled, with areas of spalling, abandoned anchors, and deteriorated mortar. The north projecting volume, which includes the tower, and the elevator shaft are capped in a honed Indiana limestone coping. The recessed area on either side of the freight elevator does not have a parapet. Instead, the roof slopes shallowly towards this wall and drains through a gutter along the west wall face and downspouts mounted to the west façade. An iron fire escape is mounted to the west façade in the center bay between the projecting stair and freight elevator volumes. Bars are mounted to the freight elevator windows.

Above the Engine Room, the decorative brick work on the one-hundred-foot tall, four-sided, slightly tapering brick chimney is visible. The chimney also features recessed vertical bands, accentuating its

verticality. Windows are regularly spaced across this façade. Similar to the north elevation, the first two floors have jack arch headers and the upper two floors have flat jack arch headers. Some original, double-hung, 20-over-20, wood sash windows are visible, but the majority are boarded and several are partially dismantled. Doors are located below the northernmost bank of windows and at the base of the freight elevator shaft, near the connection to the Engine Room.

On the interior, the main entrance opens into the stair tower in the northwest corner of the building. The stair accesses all floors and is utilitarian, with painted exposed brick walls and exposed ceiling and stair structure. Historic pipe railings are intact. All stairs have wood treads and risers, and landings have wood tongue and groove flooring. Simple exposed pipe radiators are mounted to landing walls. All floors have double-leaf segmental arched metal fire doors hung on strap hinges separating the stair tower from the main industrial space.

All floors are similar in plan with few exceptions, featuring exposed masonry walls and heavy timber structure. Floors are divided into three structural bays running north-south by two rows of iron-capped wood columns. Ceilings are the exposed wood underside of the three-layer floor system: a solid, heavy timber plank running north south supporting and providing rigid bracing for a diagonally laid subfloor upon which is laid wood tongue and groove plank flooring. The seam between the heavy timber planks at the ceiling is finished with a narrow board, creating a board-and-batten effect. Many of the battens are missing. Flooring at the first floor is concrete. Where wood windows are intact, they are surrounded with simple trim that only covers the jamb within the brick rough opening.

The only interior partition within the open industrial loft space on most floors is a large, brick-enclosed, walk-in safe located along the east wall (there is no safe on the fourth floor). The safe retains its historic double metal door on each floor. On most floors, the interior walls of the safe are parged, and some have built-in utilitarian wood shelving. Interior wood and masonry has been painted and/or limewashed at least once over the building's history. Sprinkler pipes, conduit, and fluorescent lighting fixtures are attached to the ceiling. Remnants of pulley systems and other equipment are also affixed to the ceiling. Rows of wood racks with wood part patterns that belonged to Filer and Stowell line the east and west sides of the floor. On the upper floors, the two rows of wood columns line a central path that bisects the floor and accesses the rows of pattern racks.

At the second floor, wall finishes vary. The north third of the floor has walls that are covered in vertical beadboard, with three rows of horizontal plain wood trim between the baseboard and crown molding. The ceiling in this area is also tongue-and-groove between the exposed heavy timber beams and girders. All wood is painted. Windows in this area are framed with plain wood trim and corner rosettes. The built-in safe on this floor features a more decorative segmental arched frame than the safe entrance on the other floors. A small office with interior windows in the upper half of all walls is intact at the north end of the second floor. This floor also has a toilet room (added c. 1930); the toilet room

has a concrete-topped floor and plaster walls. Flooring throughout this more decorative space is a narrower plank than that used on the upper floors. The remainder of the second floor is utilitarian, similar to the upper floors.

ENGINE ROOM and ADDITIONS (C, C1, C2, C3, Contributing) *1910-c1940*
(See Photos 11, 12, 13, and 14)

Along the southern half of the west elevation of the Pattern Shop (B) is a one- to two-story brick building, constructed in stages between 1910 and c1940. It is a steel frame building with Milwaukee Cream City brick exterior walls on a concrete foundation. The walls terminate at a terra cotta camelback coping.

The north portion of the Engine Room (C) dates to 1910, with a small area that may predate the existing building. The south portion, with its distinctive central penthouse, was built as a boiler room (C1-C2). The majority of fenestration contains original steel-sash, divided light, hopper type windows with concrete sills and flat steel lintels. A shallow-peaked skylight is set in the roof above the Engine Room (C). The interior is characterized by exposed structural clay tile.

The primary elevation of the Engine Room (C) and additions (C1-C2) faces west onto the site's main north-south driveway. The elevation is visually divided between the two halves by a projecting brick pilaster that separates the original portion from the additions; the south half (C2) is taller and includes a penthouse. All windows on the west elevation are industrial steel sash units in punched openings set back approximately one wythe into the masonry wall, with honed Indiana limestone sills and steel headers.

The earliest (north) half is arranged into three bays. The walls are predominantly flat with little surface articulation. The first bay is narrower and contains a tall window panel composed of a five-by-seven steel window over a five-by-five steel window. The windows have six-lite ventilators. The middle bay features an original folding wood door with beadboard lower panels and upper glazing. The whole doorway is protected by a non-historic woven steel wire gate. A large pair of five-by-seven steel windows is positioned above the doorway.

The south bay of the Engine Room (C) may be partially composed of an older brick building. The bay is clad with two types of cream brick. The lower half of the wall is of older molded brick, while the upper half of the wall is clad in later brick that matches the rest of the Engine Room. Similarly, the lower half of the bay has a window opening with a segmental brick arch and wood divided light sashes. The upper sashes are twelve light casements on either side of a central louver, and the lower sashes are twenty-light sashes similar to those on the Pattern Shop. The upper wall contains a pair of

industrial steel sash windows with central six-light ventilator that match others on the west elevation.

The west elevation of the boiler room addition (C1-C2) is a single bay flanked by projecting brick pilasters. The north half features an original pair of wood paneled doors under a pair of original industrial steel sash four-by-six windows with an eight-light hopper. A pair of three-by-three steel units with ventilators are located above this, roughly in line with the third floor of the Pattern Shop. The top of the boiler portion has a central penthouse that rises a full story above the roof and features a pair of original wood doors. An iron I-beam with a hoist extends out from the penthouse. The rest of this elevation features tall, narrow steel windows (three-by-four at the first floor, three-by-six at the second). South of these is another three-by-three steel unit below steel coal chute door. At the top, at the same sill height as the other upper unit, is a five-by-three steel unit. The coping is partially missing and has been replaced by prefinished aluminum coping.

The north elevation of the Engine Room (C) was not intended to be a primary elevation but is visible between the other buildings from the public right of way. It is divided into four bays; the east end bay is narrower than the rest. All bays contain large, industrial steel sash windows with hopper-style ventilators occupying almost the entire width between structural columns. The windows start above the door in the second bay and about four feet above grade in the third and fourth bays. Similar to the west elevation, the units have steel lintels and honed Indiana limestone sills. A doorway with an original double leaf, wood paneled door is set in the second bay from the east. The doorway is protected by a non-historic woven steel wire gate. In front of the elevation is a set of transmission poles with a pair of transformers.

In the 1940s, a single-story addition was constructed at the south end of the Engine Room. The south elevation of the boiler room addition (C1-C2) is visible above the flat roof of the 1940s addition (C3). A row of steel sash windows is visible across the east half of the elevation, while the west half has a row of windows that are covered by corrugated metal panels. The 1940s addition (C3) is constructed of structural clay tile with a steel frame and is fenestrated with steel sash windows. It abuts the 1918 Foundry Addition (E1) to the east but is not connected on the interior. Structural clay tile has been spot replaced with concrete masonry units.

The interior of the Engine Room is similarly divided into the north half (C) and the south half (C1-C3). The entire interior is characterized by concrete floors, exposed masonry walls, and exposed steel structure. The north half is one free-span open space with a large central pit, several large pieces of equipment, and control panels. A large control panel with Tennessee pink marble faceplates and bronze control levers is intact on the south wall of this space, and much of the equipment bears the Filer and Stowell name. Part of the equipment is built up on wood platforms with wood plank steps and flooring. A small steel-clad fire door separates the north and south interior spaces. The south interior space is lower in elevation, accessed by a wood ladder on the south side of this doorway. It is

predominantly filled with large furnaces. In the middle of the space, about twelve feet above the floor is a large, riveted steel coal basin. It appears that some apparatus allowed coal deliveries to be lifted into the basin where it could then be transferred to the furnaces via chutes in the bottom. There is another basin like this in the Forge (F2). The interior of the south half of the space is completely full of pipes, ducts, chutes, equipment, and other industrial remnants and debris.

BRIDGE (D, Contributing Structure)
(See Photo 01 and 03)

The steel-framed Bridge is an unconditioned, concrete-enclosed bridge that connects the west elevation of the Pattern Shop (B) to the Office (K). The bridge is separated by a historic door from each building's stair tower, located at the landing between the second and third floors. The structure has two small, rectangular steel windows on both its north and south walls. The concrete wall surfaces are significantly deteriorated, leaving much of the bridge prone to weather and freeze-thaw cycling.

FOUNDRY and ADDITIONS (E, E1, E2, Contributing) *1891, 1918, 1921, 1926*
(See Figure 16 and Photos 21, 22, 23, 24, 25, and 26)

The long production shed on the east side of the site is the Foundry (E) built in 1891 after the original foundry was destroyed by fire.[2] In 1918, the Foundry was extended north by the construction of the Foundry Addition (E1) up to the Pattern Shop (B);[3] the Foundry Addition replaced a four-story pattern storage building that was also destroyed by fire.[4] The building was altered in 1921, and windows were replaced by metal siding in the late twentieth century. A second addition (E2) was added to the west side of the oldest portion of the building in 1926.

The Foundry (E) and its additions share a similar form, massing, and structure. Both share a continuous wide, raised, gabled monitor roof and a shed wing along the east side. The 1926 addition (E2) created a shed wing along the west side of the south portion of the building. The monitor roof is clad in asphalt shingles and features rows of clerestory windows.

The northern third of the building (E1) retains its industrial steel sash clerestory windows with

[2] *Annual Reports of the City Comptroller, Police Department, Fire Department, and Board of Public Works, of the City of Milwaukee, for the Year Ending December 31st, 1891* (Milwaukee: Ed. Keogh, Printer, 1892), 31; "Went Up in Flames," *The Milwaukee Journal*, February 13, 1891, 3; "South Side News," *The Milwaukee Journal*, June 12, 1891, 3; "South Side News," *The Milwaukee Journal*, July 23, 1891, 4.
[3] "Milwaukee, Wis.," *The American Architect*, January 29, 1918, 18; *The Waste Trade Journal*, July 27, 1918, 29; "Wisconsin," *The American Architect*, August 3, 1921, 20; *The National Underwriter*, May 9, 1918, 14.
[4] *The Iron Trade Review*, December 19, 1918, 1436; "Big Fires," *The Insurance Press*, December 27, 1916, 9.

operable ventilator connected to a lever arm system that allowed all windows to be opened and closed from one location. Wood window sashes have been removed in the southern two thirds of the building, and the frames have been covered with corrugated fiberglass panels mounted to the exterior side. The roof ridge has a series of five metal ventilators.

None of the Foundry elevations are visible from the public right of way. The main overhead access doors are located in the south elevation. This façade is divided into three bays. The west end bay is part of an addition (E2) that was constructed to mirror the cream common brick east end bay. The side bays feature stepped parapets capped in terra cotta camelback coping and concealing the sloped shed roof behind. A large vehicular entrance with a non-historic overhead door is centered in the west bay. The taller, gabled middle bay is clad in corrugated metal and features a vehicular entrance with a non-historic overhead door. West of the door is a tall section that is clad with non-historic siding. The brick east bay is partially obscured by the 1942 Flask Repair Shop (G, non-contributing).

The north elevation abuts the Pattern Shop (B). The Foundry Addition (E1) connects to the Pattern Shop (B) by doorways with intact steel-clad sliding fire doors at the first and second floors. The north wall of the Foundry Addition (E1) is formed by the exposed brick south wall of the Pattern Shop (B). This brick is painted white.

The west elevation of the Foundry partially abuts the Forge and Forge Cupola (F2, F1, and F). A narrow portion of the Foundry Addition's (E1) west elevation is visible at the building's north end and consists of a brick wall with a large metal overhead door (non-historic) cut into it. To the north of the overhead door is a smaller doorway with a segmental brick arch and concrete masonry unit infill. Above these and below the clerestory, one band of industrial steel sash windows is intact but covered with metal paneling on the exterior side.

To the south of the Forge and Forge Cupola, the long, narrow steel-frame shed addition (E2) makes up the rest of the west elevation. The single-story addition was built in 1926 according to historic plans. The west elevation is clad in corrugated metal panels with evenly spaced fiberglass panels to allow natural light. These panels sit on a board-formed, cast-in-place poured concrete knee wall about three feet tall. Historically, this elevation was likely lined by two rows of steel sash windows above the knee wall, based on other intact examples of this condition on site.

The east elevation faces the rail corridor and is mostly obscured behind vegetation. It is similar to the 1926 addition's west elevation. Historically, a brick knee wall with a concrete sill supported rows of industrial steel sash windows tied back to the steel structure. These windows have been predominantly replaced with metal and fiberglass panels. The knee wall remains intact. This wall/window configuration is still present on site at the Forge and the southernmost Machine Shop addition. Except for the clerestories at the north Foundry Addition (E1), there are no other windows or stylistic details

at the east elevation.

The interior of the Forge buildings is characterized by a large open production space. The exposed steel structure is painted white and supports exposed trusses under the central gable and side shed roofs. The metal panels and intact windows are tied into this structure. Additional horizontal bracing supports the metal panels at the mid-height. Fiberglass inserted into openings in the metal panels allows diffuse natural light.

The west interior wall is partially made up by the original exterior east elevation of the Forge (F2, F1, and F), now facing the interior of the Foundry. The former exterior walls of these buildings are poured concrete frame infilled with painted cream brick and industrial steel sash windows. North of this wall, the west wall face is exposed brick painted white. The poured concrete and masonry knee walls are also exposed and painted white on the interior. All floors are concrete. The ceiling is exposed, with plank decking intact above the trusses. Decking is painted white except where planks have been replaced.

Several large overhead cranes are still extant on the interior. The top steel girder that supports the main gable also acts as a track for the cranes, which roll along the top web. A control booth hangs from the east end of each crane to allow an operator to move it. At the north end, a second crane operates in the east shed portion, with additional steel beams supported by the main columns acting as the track. Ladders provide access to platforms which allow operators to enter the crane control booths. The interior space is otherwise completely open except for a loft platform installed at the north end to provide access to the Pattern Shop's second floor. The Foundry Addition (E2) interior was historically open to the main production shed space and serves as an extension of the working area. A modern-era wood stud and industrial plastic partition has been erected to create a large spray booth for boats. Otherwise the entire addition has similar finishes, with exposed concrete floors, non-historic corrugated metal panel clad walls, and a ceiling with exposed metal trusses and wood plank decking.

FORGE and FORGE CUPOLA (F, F1, F2, Contributing) *1922, 1931*
(See Photos 15, 16, 17, 18, 19, 20, and 24)

Three buildings associated with the forge operations were constructed against the west side of the Foundry beginning in 1922 with a substantial in 1931. The 1922 portion, a three story, concrete-framed building referred to as the Forge Cupola (F), is the farthest south. Cream common brick and windows infill the concrete frame. The building was originally a forge shop. Above the roof is a central, brick-clad, elevator penthouse, which was historically referred to as a "cupola," giving the building its name.[5] A prior renovation was halted, leaving much of the building exposed to the

[5] *The American Contractor*, January 28, 1922: 71; *The Iron Trade Review*, January 26, 1922, 292.

elements. Most fenestration on the Forge Cupola (F) is partially in-filled with plywood and non-historic vinyl sliding-sash or fixed-pane window units.

An addition to the Forge Cupola (F1) was constructed sometime between 1922 and 1931. The addition utilizes the same flat roof, concrete frame, and cream common brick infill as the Forge Cupola and features one continuous space on the interior.[6] In 1931, a large trussed, open-span addition, the Forge, (F2) was constructed on the north side of the Forge Cupola with an open bay connecting it to the Foundry. The Forge is a double-height space with steel-framed structure and open web trusses spanning the entire width of the space under a flat concrete roof. The west and north elevations have brick knee walls with original, steel-framed glazed upper walls of industrial steel sash window units. An original rail car entrance with a non-historic overhead door is set in the south end of the west elevation from which a section of extant rail line extends west across the main north-south driveway to the Machine Shop (J).

No elevations of the Forge Cupola (F) or its additions are visible from the public right of way, and the buildings was not historically intended for public access. There are entrances for staff on the south and west elevations of the Forge Cupola, a vehicle entrance on the west elevation of the Forge (F2), and an interior doorway between the east elevation of the Forge Cupola and the Foundry (E).

The north elevation of the Forge is simple: a brick knee wall with a sloped concrete cap that forms the sill for the two rows of industrial steel sash glazing units. Glazing units are typically four lights wide with a few units that are three lights wide. A tall beam separates these horizontal rows. Above the windows, a steel panel follows the low slope of the roof, which has an exposed concrete fascia and prefinished aluminum coping.

On the west elevation, which faces the main central driveway that bisects the property, the north Forge portion (F2) is distinct from the south concrete frame portions (F1, F) due to the change in structural system and fenestration. The two southernmost bays of the Forge (F2) are recessed and further this visual separation. The west Forge (F2) elevation is similar to the north elevation with the previously described brick knee wall supporting two rows of glazing, most of which are four lights wide, up to a concrete fascia and prefinished aluminum coping. The lower row of window units has ventilators in alternating sashes. Two structural bays north of recessed bays of the Forge portion is the overhead door, which is surrounded by cream brick on the sides and top. The brick is capped below the mid-height horizontal beam by a concrete coping unit. The upper row of windows continues across the door and masonry surround. The elevation jogs east and then south again to meet up with the Forge Cupola addition (F1).

The Forge Cupola (F1 and F) portion of the west elevation is divided into four bays distinguished by

[6] *The Foundry*, 1932: 72

the concrete frame, which is exposed on the exterior. Cream common brick infills the frame up to the concrete windowsills; industrial steel sash windows originally occupied the full width of the structural bays up to the concrete beam/header. The steel windows are retained in the first (north) bay of the addition (F1) and the second and third floors of the fourth bay at the elevator shaft. The other window locations are either empty or infilled with plywood and smaller vinyl units as previously described. The second bay is an entrance and stair tower which is a narrower version of the other bays except for the window placement; windows are placed according to stair landings and out of alignment with the other bays. There is no visible coping or roofing membrane except for a section of prefinished aluminum coping at the north end. The door has been replaced at the main west entrance at the second bay. The exterior elevator doors have been boarded.

The south elevation, which is three bays wide, is mostly obscured within the 1926 Foundry addition (E2). One bay remains exposed and is the same as the typical bays on the west elevation. An aluminum storefront door has been installed in the south entrance location on the first floor and a small interior vestibule created. The rest of the elevation has the same pattern of brick and glazing infill as that described on the west elevation and retains its exposed concrete frame. At the first floor, the glazing has been infilled with concrete masonry units. All brick and concrete have been painted where it remains inside the Foundry.

The east elevation also faces the interior of the Foundry and forms part of its western wall. It is four bays long with windows across the width of each bay on the second floor and across the width of the first and second bays on the third floor. Structural bays are infilled with brick; where windows are intact, brick terminates at a concrete sill. Where they face the interior of the Forge, industrial steel sash windows have been refurbished and the glazing replaced with plexiglass. First floor windows have been infilled with concrete masonry units. The entire east elevation is painted on the former exterior side that now faces the Forge interior.

The north elevation of the Forge Cupola (F) was fully enclosed in the Forge space (F2) when it was constructed. It retains the same details as the other now-interior elevations, including intact industrial steel sash windows on the second floor (the third floor never had windows). The brick and concrete are painted. A door connects the Forge and Forge Cupola addition (F1).

The Forge Cupola and its addition have been remodeled on the first floor into a mess hall and later a marine parts store, including carpeting and furred out gypsum board walls, as well as a counter with roll-top divider. The elevator has been closed off behind these walls. The upper floors retain their open, industrial aesthetic. The concrete stair retains exposed structural clay tile walls and its original handrails. The ceilings are exposed concrete, and the columns are painted and remain exposed. The cream common brick is exposed and unpainted on the interior wall faces.

The central concrete stair retains its handrails and exposed structural clay tile walls. All other interior spaces are utilitarian with exposed concrete floors, concrete ceilings, and masonry walls.

The Forge (F2) interior has concrete floors, an office in the southwest corner partitioned with concrete masonry units and interior steel sash windows, and an open floor plan spanned by steel trusses. Two original, gabled skylights illuminate the space. The wall dividing the Forge from the Foundry Addition (E1) is clad with non-historic metal paneling. Ducts, piping, and other industrial leftovers hang from the ceiling and are mounted to the walls. At the north end of the space is a large steel coal storage bin on steel supports.

FLASK REPAIR BUILDING (G) *1942*
(See Photo 26)

The single-story Flask Repair shop was built at the south end of the Foundry (E) in 1942. The Flask Repair Building (G) abuts the east half of the Foundry's (E) south elevation. The concrete block structure has a concrete foundation and is clad in aluminum siding with an asphalt shingle, gable roof. A non-historic shed dormer is built on the west side of the roof. The west elevation retains all original fenestration locations, including three windows and a large, former vehicular entrance. All windows were historically steel sash but have been replaced with non-historic aluminum units. The vehicular entrance was converted into a doorway with a non-historic glazed aluminum-framed storefront-style door and interior aluminum storefront vestibule partition. The south elevation features a single window and an original steel door. Aluminum siding has been installed at all elevations. On the interior, many walls have been furred out for use as a marine storage rental and repair business. The wall finish in many areas is faux wood paneling, and vinyl tile has been installed on the floors. Due to the extent of interior and exterior alterations, this building is non-contributing.

FORGE SHOP (H) *1918*
(See Photos 27, 28, 29, and 30)

The Forge Shop (H) is a single-story brick structure built in 1918. The building is the farthest south on the site and accessed by vehicles via a converted railway spur off the main driveway. The Forge Shop (H) is a rectangular building with a concrete foundation, a mixture of wall materials, and a shallow gable roof with synthetic roofing. A round metal chimney is centered on the roof. The south elevation is visible through the gate on East Lincoln Avenue, but, since the site is oriented with the the offices to the north, this was never intended to be a primary elevation.

The north elevation is entirely constructed of cream common brick and has no fenestration. The north

wall continues up past the roofline into a short, symmetrical, stepped parapet that is higher in the center to accommodate the shallow gable. It is capped by terra cotta camelback coping.

The south elevation has cream common brick outer corners and is clad in corrugated metal panels. A large railcar entrance with a non-historic overhead door is located at the east side of the elevation. A standard steel swing door (non-historic) is located next to the overhead door, and an infilled modern-era window is located at the mezzanine level to the west of the door. The gable is expressed at this elevation with a shallow overhang of prefinished aluminum fascia.

The east elevation has a lower wall that is clad in metal panels up to a concrete sill at mezzanine height, and an upper band of original industrial steel sash windows with hopper-style ventilators in the upper third. The original glass of these windows is tinted blue-green. The west elevation is entirely covered in metal panels with some fiberglass panels to permit diffuse light. A metal gutter caps the east and west elevations.

The interior of the Forge Shop is unobstructed. Steel trusses span the entire width of the space east-to-west. A large overhead crane like those described in the Foundry is mounted on beams serving as tracks. The brick is exposed at the north wall and painted white. The only partitions are in the southwest corner. The toilet and locker rooms are surrounded by exposed painted brick walls. Above this a mezzanine was added (date unknown), constructed of a simple steel frame with masonite and faux wood paneled walls and interior windows. This mezzanine is accessed by a narrow metal stair with open risers and diamond plate treads.

WOOD SHOP (I) *1926*
(See Photos 30, 31, 32, and 33)

The single-story brick Wood Shop (I) is located roughly forty-five feet north of the Forge Shop (H) and is separated from it by a gravel-paved extension of the main site driveway. The building was a woodworking shop constructed in 1926.

The Wood Shop (I) is rectangular in plan with a concrete foundation, cream brick walls, and industrial steel sash windows (most concealed behind corrugated metal panels). No elevations are visible from the public right of way, but the wood shop was primarily accessed from the large door opening at the south elevation.

The south elevation was altered to accommodate a wide vehicular doorway with two pairs of sliding corrugated metal doors. On either side of this doorway, remnants of hinges indicate it may have once had large banks of swinging doors. The doorway is flanked by remaining sections of the original brick

knee wall and industrial steel sash windows on concrete sills. Above the doorway, the gable is clad in fiberglass panels. According to historic plans, the elevation historically had a brick knee wall with a longer band of steel frame windows. There was a narrow railcar doorway at the eastern side of the elevation and the gable was clad in concrete plaster. Alterations were likely made during the 2000s, when the adjacent vacated rail right-of-way was connected to the site as a driveway.

The north elevation is entirely constructed of cream common brick and has no fenestration. A large opening with an intact steel-clad sliding fire door (boarded on the exterior) is extant on the east half of the elevation. The north wall continues up past the roofline into a short, symmetrical, stepped parapet that is higher in the center to accommodate the shallow gable. It is capped by terra cotta camelback coping.

The longer east and west elevations are divided by brick piers into four bays. On the west elevation, each bay features a window opening with a concrete sill, but all openings are covered by corrugated metal panels. The east elevation is similarly fenestrated, except the second bay from the south contains an original loading doorway with a non-historic plywood overhead door. The windows continue up to the roof eaves and gutter.

The interior of the Wood Shop (I) is an open shop space that is free of columns. Finishes include concrete floors, exposed brick walls, and a ceiling with exposed steel trusses. Original pendant lights and non-historic fluorescent light and heater units are attached to the ceiling, which is exposed plank roof sheathing. Along the east side of the space there is a north-south oriented steel I-beam that supports a small non-historic traveling hoist.

MACHINE SHOP and ADDITIONS (J, J1, J2, J3, J4, J5) 1889, c. 1890, 1899, 1926, c. 1950
(See Figures 15, 18, 19, 20, and 21, and Photos 17, 34, 35, 36, 37, 38, 39, 40, and 41)

The oldest portion of the Machine Shop is the north production shed (J), built in 1889 at the northwest corner of the site. The original wood frame structure is more than five hundred feet long and divided horizontally east-to-west into three structural bays. The length of the building is symmetrically arranged with a wide monitor roof flanked by shed wings. The foundation is of concrete; the roof is covered in asphalt shingles. Several additions were connected to the original structure, including two substantial extensions to the south, the first in 1899 and the second in 1926. Additions will be described along with each applicable facade.

The north elevation of the Machine Shop faces Becher Street and is built up to the property line. Corrugated fiberglass and metal panels clad the elevation, which has a large central non-historic rectangular metal vent. The shed and gable roofs extend just past the wall face with a prefinished

aluminum fascia and eave.

The west elevation faces the vacated former rail right-of-way and the east elevation faces the main north-south central drive. The east and west sides of the monitor are clad in fiberglass panels, which obscure the Machine Shop's original window openings. In the oldest portion of the building (the north half), the sashes have been removed; fiberglass is affixed to the exterior side. At the lower portion of the original Machine Shop building, walls are now clad in a green asphalt sheet product. The interior side of these walls is also a historic sheet product of unknown material. Where the asphalt is peeling, wood siding is visible underneath. Both the east and west elevations of the oldest north portion retain original sixteen-over-sixteen double-hung wood windows with wood sills. The windows are arranged in sets of three across twenty-seven bays on both east and west elevations. The west elevation also has a single brick chimney roughly centered on the north half of the elevation above the shed wing roof.

The north three bays of the east elevation's shed wing abut the Office building (K, 1930). The east elevation also has three separate additions projecting toward the center drive from it the main west lower wall face. Between the two north additions is a railcar entrance with a non-historic overhead door. A historic panel door is intact just north of the toilet room addition (J4).

The west elevation of the Office (K) abuts the north three bays of the east shed wing. Immediately south of the Office (K) is a frame flat-roof pavilion (J1) built c. 1890 that projects from the east shed wing. The pavilion's cladding matches the shed wing and it is approximately two-and-one-half bays long. It may have been part of a large addition that ran the full length of the façade (see Figure 16). The addition features seven original wood windows along its east side and pairs of original wood windows on its north and south sides. On the interior, this space is continuous with the main production space and utilizes the same materials.

Toward the southern end of the original 1889 Machine Shop (J) there is a flat roofed concrete block toilet and locker room addition that was built during the 1950s. This addition has exposed, painted concrete masonry walls on the interior and retains its two large, round terrazzo communal sink basins and metal lockers (freestanding). A second 1950s addition (J5) was constructed where the original Machine Shop meets the south Machine Shop extension (J2). This addition is clad with corrugated metal panels. Behind the metal panels are a concrete knee wall on the two exterior sides with industrial steel sash windows filling the entire height up to the eave of the shed roof. These windows are intact visible from the interior. A small, wood-framed covered entrance is located on the north side of this addition.

The interior of this 1950s office addition (J5) is open to the main production space, however a building within the building has been added to create an office area and break/training room. This inner building is one story tall and has large ducts supplying forced air HVAC mounted to the top of the

space. The interior is characterized by carpet and ceramic tile, gypsum board walls, and acoustical ceilings. The break room section has large interior picture windows overlooking the factory floor. This compact, modernized interior building is approximately three column bays long.

The Machine Shop was extended southward in 1899 (J2), obliterating the original south elevation. This extension is similar in form and massing to the north portion of the Machine Shop, but distinguished by its riveted steel frame, masonry walls, and fenestration pattern. The extension is approximately half the length of the original building and slightly wider (or the same width as the 1889 portion plus the southernmost addition, J5). The size, position, and shape of the roof monitor continues into the extension, which is similarly clad with fiberglass panels on both east and west sides and a corrugated metal panel roof. The west shed wing also continues southward from the north portion (J), while the east shed wing is about twice as wide.

The east and west elevations of the shed wings are constructed of cream brick walls with three punched window openings per each of the thirteen bays. All window openings have Indiana limestone sills and historically held wood double hung windows. The window frames remain, but the sashes were replaced with corrugated fiberglass panels. At the west elevation, the window units are taller with a transom over the double-hung unit. These sashes have also been replaced with fiberglass panels. At the east elevation, masonry divided the lower double-hung unit from a single square casement above. Near the center of the addition's east elevation, a steel lintel has been installed across an entire bay and the area below it infilled with wood siding, two blocked in windows, and a modern-era door. A non-historic overhead door has been installed in the bay next to it. On the interior, a modern-era steel partition, which swings open at two large center leafs, separates the original Machine Shop from the extension.

In 1926, the Machine Shop was extended southward again about eighty feet with another steel frame addition built by the Worden-Allen Company. The portion is identical in width and form to the 1899 extension (J2) but is clad in corrugated fiberglass panels above a brick knee wall along its east and west elevations. Behind these panels are walls of steel framed windows, arranged in two horizontal bands, along the east and west elevations.

The south elevation, which serves as the south elevation for the entire Machine Shop, is divided into three bays and predominantly clad in cement plaster. The west bay retains its two horizontal bands of industrial steel sash window units, with cement plaster above up to the shallow overhang of the prefinished aluminum shed roof fascia. The center bay aligns with the gabled end of the roof monitor and is clad in a mixture of materials. The industrial steel sash windows are intact at the upper portion of this bay under the gable. A pair of steel-clad double doors is located at the center on the first floor. An opening around it that used to have steel sash units has been infilled with steel studs, fiberglass panels, and other miscellaneous sheet goods. The east bay has a brick knee wall with an Indiana

limestone sill and then concrete masonry unit infill above up to the second band of industrial steel sash units, which are predominantly intact. Occupying part of the middle and east bays is a large original railcar entrance with a non-historic overhead metal door. To the east of the doorway within the east bay is a non-historic doorway with an overhead door. A number of platforms, steps, and steel loading docks have been installed at the doors on the south elevation.

The interior of the Machine Shop is defined by its open-frame structure. At the original north portion (J) this structure consists of heavy timber columns, beams, and diagonal bracing members. The floors were originally composed of wood blocks; concrete has since been poured over the top. A portion of wood blocks remains. The structure is exposed at the walls, and groups of pipes provided radiant heat, running the length of the building below the windows.

Timber posts spaced sixteen feet apart line the central double-height space and support the monitor roof and travelling crane tracks. The long, rectilinear space is arranged into a central forty-foot-wide main production space with a travelling crane track and a raised monitor roof above. At least four traveling cranes remain in the production shed. These cranes have suspended operator booths accessed by ladders and platforms located periodically along the length of the space. A metal partition partially divides the oldest portion of the Machine Shop into two sections; the space is otherwise continuous until a similar metal partition separating it from the south extension (J2).

In the south extension, rows of steel I-beam columns spaced 20-feet apart support the monitor roof and traveling crane tracks, while flanking the central space and visually separating it from a side production space under the shed roofs to the east and west. This southern extension has concrete floors, exposed brick walls, and industrial steel sash walls on the interior side of metal and fiberglass panels, and exposed metal trusses and beams under the roof. The ceiling is exposed wood planks running above the structural components. At the far south end, a wide concrete ramp makes the transition from the lower exterior grade at the south end of the building to the floor level, which is aligned with the north edge of the site.

The interior is full of equipment, machinery, worktables, built-in storage systems, and parts used by the Filer and Stowell Company. Most of the building has been unoccupied since the company vacated it with the exception of the southernmost portion where modern-era sawmill equipment has been installed. The only other interior partitions are those previously described in the additions (J4 and J5).

OFFICE BUILDING (K) *1930*
(See Photos 01, 42, 43, 44, 45, 46, 47, 48, 49, and 50)

The three-story brick Office Building (K) faces north, with the primary elevation and main entrance on

East Becher Street. This handsome structure was completed in 1930 and designed in the Art Deco style with Milwaukee Cream City face brick and cast stone trim and coping. The main elevation is separated slightly from the sidewalk by a two-foot-wide landscaped strip, the only extant landscaped area within the complex. The flat roof retains an original hipped skylight.

The main north elevation is symmetrically arranged with a shallow projecting middle bay flanked by a wide bay on either side. The flanking side bays are composed of four columns of single windows separated by brick pilasters, which emphasize verticality, before subtly terminating a few courses beneath the parapet with cast stone caps. The cast stone parapet coping is stepped back to a narrower cap at the top.

All windows on the first floor of the north elevation are non-historic aluminum replacements and are covered by woven wire grates. Upper floors retain original one-over-one wood double-hung windows. Aluminum storm-screen combo units have been affixed to the exterior side of the upper floor windows. All windows have a cast stone sill.

The middle bay features the main entrance and, above it, pairs of double-hung, one-over-one sash windows recessed slightly from the main wall face. The spandrel between these units is also recessed to further emphasize the verticality. The doorway is set within the original cast stone surround, which is detailed with a stepped border, characteristic of the Art Deco style. Historic plans called for a surround of carved Bedford limestone, but the extant surround was manufactured from cast stone. At the top of the surround is the engraved name: The Filer & Stowell Co. The current entrance doors and transom are non-historic aluminum-framed glass, sitting atop a short concrete stoop. Above the third-floor windows, the recessed brick terminates at a cast stone header course. Just below this, between the windows, is a flagpole mounted to the façade and angled forty-five degrees from the vertical surface. The coping follows the slight projection of the middle bay and is the same style as the side bays.

The east elevation faces a small, paved parking area and the north driveway entrance from East Becher Street. This open area makes it more visible from the public right of way than the other secondary elevations. The east elevation is divided by ten evenly spaced brick piers with cast stone caps, similar to those described on the north elevation. Single windows are arranged between most piers on each floor. The Bridge (D) connects the Office (K) with the Pattern Shop (B) to the east through the south end of the east elevation at the stair landing between the second and third floors. There are no windows above the Bridge, and evenly spaced between pilasters on the first floor at this east end are two historic wood panel doors with a glazed upper panel. Similar to the north elevation, the first-floor windows are aluminum replacement units, and the one-over-one double-hung wood units are retained behind aluminum storm-screen units on the second and third floors. There are no windows between the second and third piers counting from the north corner.

The west elevation is plain and clad in cream city common brick. The first story abuts the Machine Shop (J) to the west, but the upper floors have four window units each. On the west elevation, windows are steel two-over-two double-hung units with textured, translucent wire glass, likely to slow potential fire spread from the Machine Shed.

The rear (south) elevation faces a second paved parking area and has a view down the length of the site's main north-south-oriented driveway. The elevation is regularly fenestrated and has a central vehicular entrance with a historic glass-and-wood overhead door concealed behind the plywood board-up. To the east of the vehicular entrance there are two doorways with original paneled wood doors and transoms. Two one-over-one double-hung wood windows are located east of these doors. West of the doors is one wood double-hung unit and two two-over-two steel double-hung units. One of these has been partially modified as an air intake. On the upper floors, most south elevation windows are wood one-over-one units that may not be original. Storm-screen combo units are installed on the exterior side of these units. Along the western third of the elevation are original metal double-hung two-over-two windows (three per floor). These windows vary in height from the wood units. A non-historic metal vent pipe is attached to the elevation.

The Office Building (K) has a rectilinear footprint, with a main stair situated near the front (north) wall, accessed by the main entry lobby. All floors feature open spaces with only a few partitioned smaller offices. The main entrance opens into a small vestibule, which leads to a small inner lobby with an open main stair to the west. Finishes in the vestibule and stair include terrazzo floors and plaster walls and ceilings. An original glazed wood frame doorway with glazed double leaf doors, transoms, and fixed side sashes separates the vestibule from the lobby and stair. The stair has painted steel risers, newel posts, stringers, and twisted balusters. The stair treads and landings are terrazzo, and the handrail is stained and lacquered wood. Stair walls and ceilings are finished with plaster. At the second floor there is a single divided-light wood hopper type window that provides borrowed light to the stair. At the third floor, the stair has original glazed east and west walls that borrow light from adjacent offices. A secondary L-shaped open steel stair, south of the main stair, connects only the first and second floors. In the southeast corner there is a third stair that accesses the second and third floors. This stair has similar terrazzo tread and steel post and handrail style as the main stair. The mid-level landing leads to the connecting Bridge (D) to the Pattern Shop (B).

The entrance lobby has an original flat panel wood door and leads to the utilitarian first floor. According to historic plans, the first floor housed storage rooms and mechanical spaces. Three small original rooms with structural clay tile partitions remain in the southeast, southwest, and northwest corners. An open space interrupted by two rows of iron columns occupies the northeast corner. All spaces have utilitarian finishes, including concrete floors, exposed brick and structural clay tile walls, and painted exposed concrete ceilings with exposed steel I-beams. Conduit, non-historic lighting, exposed piping, and ducts are attached to the ceiling.

At the second floor, the main stair leads through an original glazed double leaf doorway with a transom, to a small lobby. The lobby has terrazzo floors and plaster walls and ceilings. An original glazed wood door to the west leads to an original corridor and offices in the northwest corner of the floor. To the east of the lobby is a doorway that leads to an open floor area that is divided only by square plaster-clad columns. A series of original offices line the north and east walls, while a storage room and small rooms are located along the west wall. Overall, the floor largely retains its original layout. A vault room with its original steel door is set in the southeast corner of the floor beside the southeast stair. All office spaces are finished with either concrete or vinyl tile floors and plaster clad walls and ceilings. A portion of terrazzo floor is intact at the toilet rooms in the southwest corner. Dropped ceilings and acoustic ceiling tiles appear to have been removed during the 2010s, but anchor wire and mastic remain attached to ceiling surfaces.

The third floor is similar to the second floor. The main stair opens through an original glazed double leaf wood doorway into a small lobby. The lobby, according to original plans, is not historic. It has drywall partitions and a dropped ceiling. To the east is an open room with plaster columns and an original skylight with interior glazing and casing. A non-historic drywall partition separates the space from similar spaces to the south. A series of offices with drywall partitions are positioned along the east wall beside an original built-in vault room. These spaces have vinyl tile floors, plaster walls, and dropped ceilings with plaster ceilings above. A portion of terrazzo floor is intact at the former toilet rooms in the southwest corner. To the south is a large room with a door to the southeast stair. Finishes include acoustic tile floors and plaster walls and ceilings.

Integrity

While several individual buildings have suffered from deterioration and loss of character-defining features as noted above, the complex as a whole retains good integrity, retaining buildings representing the wide range of building types and uses that made up a complex of this type. The site plan is fully intact, the building forms and massing are all exactly as they were during the period of significance, and the non-contributing buildings represent a very small percentage of the overall square footage. Even though many of the historic windows were removed, hundreds remain, including several behind modern-era materials.

Map Key*	Historic Name	Date	Additions	Class **	Style
A	Garage	1903		NC	
B	Pattern Shop	1881		C	Renaissance Revival
C	Engine Room	1910		C	
C1		c. 1910s	Engine Room Addition		
C2		c. 1910s	Engine Room Addition		
C3		c. 1940s	Engine Room Addition		
D	Bridge	c. 1940s		C	Structure
E	Foundry	1891	Alterations in 1918 and 1921 (extent unknown)	C	
E1		1918	Foundry Addition		
E2		1926	Foundry Addition		
F	Forge Cupola	1922		C	
F1		c. 1930	Forge Cupola Addition		
F2		1931	Forge		
G	Flask Repair Building	1942		NC	
H	Forge Shop	1918		C	
I	Wood Shop	1926		C	

Map Key*	Historic Name	Date	Additions	Class **	Style

J	Machine Shop	1899		C	
J1		c.1890	North Machine Shop Addition		
J2		1899	South Machine Shop		
J3		1926	South Machine Shop Addition		
J4		c. 1950s	North Machine Shop Toilet Addition		
J5		c. 1950s	North Machine Shop Office Addition		
K	Office	1930		C	Art Deco

***Letters correspond with keyed buildings on the site plan, Figure 1**
****Class Key: C=Contributing, NC=Non-contributing**

Summary

The Filer and Stowell Company Complex, located at 147 East Becher Street in the Bay View neighborhood, is a factory complex located along the east side of the Chicago, Milwaukee & St. Paul rail corridor between East Becher Street to the north and East Lincoln Avenue to the south. The property is significant under Criterion A: History for its important association with sawmill machinery and engine manufacture in Milwaukee and its prominent role in the city's industrial history. Established as the Cream City Iron Works in 1856 in Walker's Point at South 1st Street and West Florida Street (non-extant), Filer and Stowell took its later name from founders Delos Filer and John Stowell and became a nationwide leader in the manufacture of sawmill and logging equipment.

Filer and Stowell relocated to the present site in 1892, and the company continued to grow after the turn of the century, manufacturing Corliss engines and a range of band saws and other milling machinery. To meet the enormous demand for their wide array of products, the company doubled the length of the Machine Shop (J) and Foundry (E) sheds between 1895 and 1910 and added a substantial office building in 1930. Filer and Stowell remained at the subject property until 1998, relocating to western Milwaukee. The company was one of the longest continuously operating manufacturers in Milwaukee.

While the oldest extant buildings were constructed for other manufacturers, the subject property is associated with the company for the majority of its existence, serving as the company headquarters and central manufacturing facility for over one hundred years. The property retains good integrity when compared against the period of significance (1892-1971). Constructed between 1881 and the 1950s, the complex retains numerous extant resources that represent a complete collection of the building types and uses that typically constitute such a complex, and the buildings themselves retain good overall integrity. The numerous additions all date to the buildings' use by the Filer and Stowell company and were constructed within the period of significance.

Milwaukee maintained a large, diverse range of industrial sectors that included the production of machinery and engines. Filer and Stowell was a significant company within that sector, employing hundreds of laborers in the production of a wide range of products. Filer and Stowell was distinct among other machinery companies in Milwaukee for its specialization in sawmill equipment and its prolific production of Corliss steam engines. The company manufactured all components necessary for processing lumber and operating a sawmill, from locomotives for hauling trees to boilers, engines, and saws. The company grew into a diversified operation that manufactured Corliss steam engines; marine engines; automobiles, trucks, and automotive parts; winches; pumping equipment; fire hydrants; and brass and iron castings. During World War II, Filer and Stowell was one of fourteen companies

nationwide to produce marine steam engines for cargo ships called Liberty Ships; these ships played an important role in keeping the Allied forces supplied during the war.

The Filer and Stowell Company Complex represents a significant aspect of Milwaukee's industrial heritage.

Period of Significance
The period of significance begins in 1892 when Filer and Stowell relocated their plant to the subject property, and ends in 1971, the National Register program's fifty-year mark. Filer and Stowell continued to be an important producer of sawmill machinery in Milwaukee into the 1980s and remained on the site until 1998. Research did not reveal any major industrial contributions or developments after 1971 that were sufficient to establish extraordinary significance or warrant extending this period.

Land Acknowledgement

This nomination recognizes the depth of human presence here, the ancestral homeland of American Indians for millennia, including the Menominee and Ho-Chunk tribes. From as early as the 17th century, inter-tribal conflict, Euro-American exploration and settlement, and ensuing military campaigns, all had the effect of repeated displacement of Indians of many tribal affiliations. This continuous tribal movement resulted in Wisconsin being home to many tribes who originated from other parts of the country, generating a pattern of immigration, relocation, and formation of a new homeland. Some of these tribes remain in Wisconsin; others may not, but numerous count Wisconsin as home: Brotherton, Dakota, Fox/Meskwaki, Ho-Chunk, Kickapoo, Mascoutens, Menominee, Miami, Munsee, Odawa, Ojibwa, Oneida, Potawatomi, Stockbridge, Sauk, and Wyandot tribes. We acknowledge that the property that is the subject of this nomination is located on land long occupied by American Indians, and since 1850 by the Potawatomi tribe.

Historical Context

The History of Manufacturing in Milwaukee[7]
The land that would become the City of Milwaukee had long been home to the Ho-Chunk, Menominee, and Potawatomi peoples. Each Native American group used a version of the name "Milwaukee" to describe the place, which generally translated as "the good land." French missionaries

[7] Unless cited otherwise, this section is directly sourced from: Mead & Hunt, *Milwaukee Industrial Properties Intensive Survey* (Madison: prepared for the Wisconsin Historical Society, 2016).

such as Father Jacques Marquette and French Canadian fur traders came through the area in the seventeenth and eighteenth centuries. A small number of fur traders became the first permanent white settlers, establishing trading posts. This location in southeastern Wisconsin was attractive for many reasons: its siting on Lake Michigan and its large and deep natural harbor, its three confluent rivers, and wide variety of abundant resources. Following the Black Hawk War of 1832, the United States government expelled American Indian tribes from the Milwaukee region and opened the area to large-scale white settlement. By 1835, Milwaukee had been surveyed and sites were offered for public sale.

The first white groups to settle were Yankees and Germans. They were motivated by profit: land speculation and the prospect of business in a burgeoning settlement. As these settlers arrived in great numbers starting in the 1830s, three separate communities formed near the three rivers (Milwaukee, Menomonee, Kinnickinnic). On the east side, the village named Juneautown had been founded by Solomon Juneau. On the west side, Byron Kilbourn established Kilbourntown. To the south, George Walker founded Walker's Point. The three settlements initially competed (often bitterly and violently) for resources and settlers. But by the mid-1840s they opted to cooperate in order to attract—rather than repel—settlers. The three communities incorporated as the City of Milwaukee in 1846.[8] Solomon Juneau was elected the city's first mayor. Milwaukee emerged as Wisconsin's largest city. It would soon also become the state's largest industrialized urban center and one of the leading industrial cities of the Midwest.

Milwaukee's first industries revolved around the buying and selling of agricultural products. The city, for a time, was the nation's largest wheat market. But, as the market for wheat moved west, city and state businesses realized the need for adjustment. Wisconsin's farmers switched from growing wheat to other crops and began focusing on dairying. Milwaukee initiated a new emphasis on manufacturing. Agricultural products were now viewed as raw materials to be processed: wheat into flour, barley into beer, hogs into hams, cowhides into leather, and ore into iron. Local businessmen recognized the strong market for finished products and realized that they already had the population and the skilled workers in their midst to successfully begin large scale manufacturing.

All of these processes required specialized machinery. If the machinery was obtained locally, all the better. Prior to the 1840s, Milwaukee's mills relied on machinery produced in the eastern U.S. But the shipping process was inefficient and led to significant delays in production while the firms waited for parts and repairs. The 1840s development of metal foundries in Milwaukee allowed for local machinery production, which streamlined the manufacturing process. In addition to mill equipment, these early machine shops cast boilers, steam engines, and locomotive pieces to power the city's growing industrial base.

[8] National Register of Historic Places, Walker's Point Historic District, Milwaukee, Milwaukee County, Wisconsin, National Register #78000120, 8-3.

As manufacturing expanded in Milwaukee after the Civil War, the city displayed a marked breadth of industries and areas of production. Industries emerged all over the city, but centralized in several areas, including the Bay View and Walker's Point neighborhoods, along the banks of the Milwaukee and Kinnickinnic Rivers, and in the sprawling Menomonee River Valley.

By the late nineteenth century, manufacturing was flourishing. In 1880 the Milwaukee Chamber of Commerce reported: "Our manufacturing interests are in a prosperous condition. Every establishment in the city, great and small...[is] constantly kept busy."[9]

In contrast to other cities that became known for producing a single product, Milwaukee maintained a booming economy of diversified industries. The city rose to prominence for several of them: iron works, tanning, lumberyards, meatpacking, brickyards, and brewing. Brewing was inarguably Milwaukee's most famous industry (Schlitz, Pabst, Blatz, Miller), with Schlitz and Pabst operating the two largest breweries in the world.

As the city grew and prospered after the Civil War, several types of manufacturing developed, including the production of large and small engines, machinery and equipment, hardware and appliances, and electrical controls. Some of Milwaukee's well-known historical names got their start producing large engines and other related heavy industrial equipment. Major manufacturers in Milwaukee included Edward P. Allis (steam engines and mill equipment), Pawling & Harnischfeger (cranes), Nordberg Manufacturing (mining equipment and diesel engines), Falk Corporation (gears), A.O. Smith (automobile frames), Allen-Bradley (industrial controls), and Harley-Davidson (motorcycles). Among Milwaukee's most prominent machinery firms was Filer and Stowell. By 1910 Milwaukee proudly proclaimed itself "The Machine Shop of the World," a moniker that was widely adopted.[10]

Many of Milwaukee's manufacturing firms became national leaders in innovation and design. Several produced Corliss steam engines, the most cutting-edge industrial technology of the latter nineteenth century. George H. Corliss had invented the revolutionary new steam engine in Rhode Island in 1849, which allowed steam power to overtake water power as the main source of energy for American industry. Of the twenty-four national companies producing Corliss engines in 1916, four were located in Milwaukee: Filer and Stowell, Allis-Chalmers, Nordberg, and Vilter. The E.P. Allis Reliance Works constructed Milwaukee's early system of pipes and water pumps and became a leading steam engine producer. Vilter Manufacturing specialized in refrigeration and cooling machinery, including a variety of Corliss engines that provided cooling for the food and brewing industries.

[9] Milwaukee Chamber of Commerce, *Annual Report 1879* (Milwaukee, Wis., 1880), 47–48.
[10] Thomas H. Fehring, *The Magnificent Machines of Milwaukee* (Milwaukee: CreateSpace, 2017), ix, xv.

Filer and Stowell was a diverse enterprise that soon expanded from offering sawmill equipment and became a leader in the development and manufacture of Corliss steam engines as well as several types of patented saws.[11] Steam engines—especially the Corliss—dominated industry for the remainder of the nineteenth century, providing power for factories, generating electricity, and refrigeration machinery for industries such as brewing and meat packing. The engine's popularity extended into the early twentieth century, as several dozen companies in the U.S. continued to produce Corliss engines. Other types of engines eventually eclipsed the Corliss, but it had been one of Milwaukee's most important products of the period. After the Corliss, the next breakthrough in engine technology was the diesel engine. Milwaukee's Nordberg Manufacturing became the first American company to produce diesel engines in 1914, and Allis-Chalmers soon diversified to produce a variety of diesel products, as well.

Filer and Stowell's other most significant offering was sawmill equipment. Wisconsin's Cultural Resource Management Plan identifies logging and lumber milling as one of the key industries that shaped the environment and landscape of the state and had an impact on the livelihood of a significant portion of the population. Between about 1890 until 1910, lumber and timber products made up the largest portion of the state's developing economy. Demand for lumber had grown around the country as larger towns and cities developed, using up local timber resources. The development of the railroads positioned Wisconsin to supply lumber around the country, and independent outfits quickly grew or were supplanted by larger, integrated industrial concerns that handled everything from initial land speculation to land clearing to contractors who set up systems to transfer logs using dams and booms, to sawmills that processed rough timber into lumber, shingles, lath, and other wood products.

By this peak period of lumber production, sawmills were a fully mechanized process. As companies like Filer and Stowell produced more sophisticated machines to saw and shape timber, the processes of milling, cleaning, and transporting were improved, and production levels rose rapidly. As the distribution of Wisconsin's lumber grew, trees might be sawed into manageable planks close to the harvesting point, and then transferred to a finishing mill, which after 1870 or so, typically also operated a lumber yard. The steam engine was an important development for late nineteenth-century sawmills, allowing mills to move to rail corridors (often away from water which was the main previous power source) and use sawdust and milling waste to feed the boilers.

Milwaukee-based E.P. Allis was one of the largest suppliers of equipment and machinery to the lumber industry, as well as J. I Case Company (Racine) and McDonough Manufacturing Company (Eau Claire), and Filer and Stowell at the subject property. The milling equipment produced by these companies and their contemporaries helped increase production from 50,000 board feet per day in 1860 to 100,000-200,000 board feet per day by 1870. With improvements to the band saw, production

[11] City of Milwaukee, *Bay View Neighborhood Historic Resources Survey: Volume II* (Milwaukee, Wis., July 1990), 87.

increased again by the 1880s to 250,000-300,000 at Wisconsin's largest mills. The lumber industry thrived until available resources diminished in the early twentieth century, but production of sawmill machinery remained an important Wisconsin industry into the mid- to late-twentieth century.[12]

Industrial Development in Bay View, Wisconsin's First Company Town[13]

The Milwaukee neighborhood of Bay View is nearly as old as Milwaukee itself. It was originally settled in the 1830s as the Village of Bay View, in the Town of Lake, south of Milwaukee. Located on lakefront land south of the Menomonee River Valley, Bay View took its name from its scenic bluff views of Lake Michigan. The Village was located in a wooded area dotted with cabins and farmland.

In 1867, Detroit entrepreneur Eber Brock Ward established the Milwaukee Iron Company on 114 acres, at that time far from the population center of Milwaukee. The location was ideal: near the Milwaukee harbor, which provided access to Great Lakes shipping, and near the newly discovered iron ore deposits in Dodge County. Ward built the largest manufacturing complex in Wisconsin and employed one of the largest workforces at the time; within only a few years, the mill had a labor force of 1,000. In order to ensure a resident work force, Ward developed the Village of Bay View into Wisconsin's first company town. Housing, stores, and other amenities were provided for his employees. The mill originally produced iron—much of it for railroad rails—and became one of the top rail producers in the country. Ward quickly began producing far superior steel with the Bessemer process. He imported skilled steelworkers from England to ensure success. Soon the blast furnace was producing 30,000 tons of steel rail per year.

Even though Milwaukee's south side initially grew more slowly than other areas of the city, its industrial future was evident by the 1860s. Iron works and foundries were built in Walker's Point, and brickyards and tanneries in the Menomonee Valley, which attracted workers to nearby locations. In the 1860s, Edward P. Allis's Reliance Works relocated to the south side. Eber Brock Ward's Bay View rolling mill dramatically energized southside industry, attracting more industry, skilled and unskilled workers, and businesses and services to the area.

Bay View is a uniquely separated area of the city even today, bordered on two sides by water, tucked into a relatively quiet corner of Milwaukee, and often mistaken for a suburb. This perception is partially due to how its streets were laid out. Ward's company town spread south of the steel mill with north-south streets aligned parallel to Lake Michigan, not aligned with the Milwaukee grid. The intersecting east-west streets are on an angle as well. Eventually numerous multi-point intersections

[12] *Cultural Resource Management Plan* (Madison: Wisconsin Historical Society, 1986), 5-1 to 5-14.

[13] Information in this section from the following resources unless otherwise noted: City of Milwaukee, *Bay View Neighborhood Historic Resources Survey: Volume I, II* (Milwaukee, Wis., July 1990); John Gurda, *Milwaukee: City of Neighborhoods* (Milwaukee: Historic Milwaukee, Inc., 2015).

were formed by the merger of Ward's streets, the City of Milwaukee's standard north-south grid system, and the meandering pioneer roads such as Kinnickinnic Avenue.

The Village of Bay View (population 2,500) incorporated in 1879, which made it Milwaukee's first suburb. Its inability to provide streetlights, sewers, and other essential services, however, convinced residents to agree to annexation by the City of Milwaukee in 1887. Bay View retained its name and continued as a distinct neighborhood with its own identity.

Eber Brock Ward had been a pioneer in the American iron and steel industry with mills in several locations and investments in railroads and other businesses. After he died in 1875, the Bay View mill closed down, but soon was purchased and back in business. The Bay View rolling mill continued to do well into the 20th century. It was acquired by progressively larger steel companies until it became part of the vast U.S. Steel. The plant was ultimately closed in 1929 and razed in 1939. The original company town has been designated as the Bay View National Historic District (NRHP reference no. 82000686).

The Milwaukee Iron Company's iron and steel supplied the essential material for Milwaukee manufacturing, without which Milwaukee could not have become the "machine shop of the world."[14] The large-scale mill paved the way for other local manufacturers to grow quickly, including Allis-Chalmers, Nordberg, Harnischfeger, and Filer and Stowell.

Bay View's northern edge—with the City of Milwaukee's urging—developed into an attractive location for manufacturing plants. Industries such as the Milwaukee Corrugating Company and Wisconsin Glass Company clustered there. This industrial corridor was anchored by the Kinnickinnic River and by two rail lines that were operated by the Chicago & North Western Railway Company and the Chicago, Milwaukee, and St. Paul Railroad.

In the 1870s and 1880s the scale of manufacturing in Milwaukee increased and plant size grew accordingly. The many small workshops with living quarters above which had characterized Milwaukee before 1890 gradually disappeared as manufacturing was increasingly housed in huge buildings built exclusively for that purpose. This expansion was occurring in a major industrial zone that extended from the Third Ward south to Walker's Point and into northern Bay View. In 1892, Filer and Stowell moved their operations to that Bay View manufacturing corridor.

By the turn of the twentieth century, Bay View's industry was at its peak, employing thousands of workers, most of whom lived nearby.

[14] Thomas H. Fehring, *The Magnificent Machines of Milwaukee* (Milwaukee: CreateSpace, 2017), ix, xv.

By the time the steel mill closed in 1929, an industrial corridor had developed—the Becher Street industrial corridor—which continued to thrive until the late twentieth century when many of the larger industrial concerns were converted to housing or razed and most of Bay View began to transition to a predominantly residential neighborhood.

History of 147 East Becher Street before Filer and Stowell
The site at 147 East Becher Street was selected by the City of Milwaukee as a suitable site for industrial use during a campaign to draw manufacturers to the area. The Italianate-style residence of Frederick J. Ziemer, a large Bay View landowner in the nineteenth century, was located at the north end of the site (see Figure 15). From 1881 to 1888, the Whitehill Sewing Machine Company, originally from New York, erected and operated a plant on the subject property and also preserved Ziemer's residence. The company produced a line of sewing machines along with specialized motors.[15] Two men who would go on to become prominent Milwaukee industrialists, Alonzo Pawling and Henry Harnischfeger, met while working at the Whitehill plant on the future Filer and Stowell site.[16] They would form a partnership and open their own pattern and machine shop, eventually becoming Pawling & Harnischfeger.

In 1881 Whitehill Sewing Machine Company hired prominent Milwaukee architect Henry C. Koch to design the four-story brick industrial loft type building, featuring Milwaukee Cream City brick cladding and a corner tower, at the northeast corner of the site (the Pattern Shop, B).[17] Koch was a highly trained and influential Milwaukee architect in the latter half of the nineteenth century who led the profession in the city during a time of great urban growth. He is included in Wisconsin's *Cultural Resource Management Plan* as one of the most notable architects in the state's history. He, along with his contemporary Edward Townsend Mix, left a significant mark on the city by designing some of the period's more sophisticated buildings. Koch had established his own firm in 1870 and designed buildings in Wisconsin and around the country. He is most known for the landmark Milwaukee City Hall (1895, NRHP reference no. 73000085).

In 1888, the Whitehill Sewing Company was dissolved, and the Wilkin Manufacturing Company moved into Whitehill's Becher Street plant. Whitehill's former president Henry Mann served as the Wilkin Manufacturing Company's president, and Theodore S. Wilkin as vice president and manager.[18] The company produced sawmill machinery, and in 1891 attempted to consolidate with Hoffman &

[15] "The Whitehill Sewing Machine Company," *Industrial History of Milwaukee* (Milwaukee: E.E. Barton, 1886), 129.
[16] *Rules and Regulations for the First Exhibition by the Milwaukee Industrial Exposition Association* (Milwaukee: Cramer, Aikens & Cramer, 1881), 21; Lt. Col. Jerome A. Watrous, Ed., *Memoirs of Milwaukee County, Vol. II* (Madison, Wisconsin: Western Historical Association, 1909), 219-220.
[17] "Building Intelligence," *The Sanitary Engineer*, October 1, 1881: 510.
[18] *Thirtieth Annual Report of the Trade and Commerce of Milwaukee* (Milwaukee: King, Fowle & Co, 1888), 173.

Billings, whose plant was located across Becher Street to the north. The consolidation failed, and the Wilkin Company became severely indebted and was forced to sell their assets.[19]

The company's equipment was acquired by John Maxwell Stowell, who used the plant for his company, Cream City Iron Works, established in 1856 and previously operating in Walker's Point. In 1892, Cream City Iron Works, which later became Filer and Stowell, moved their main operations to the Bay View site at the subject property, beginning that company's century of manufacturing activity on site.

History of Filer and Stowell

The Filer and Stowell Company originated in Milwaukee, Wisconsin, as the Cream City Iron Works, established in 1856 by John Maxwell Stowell (1824-1907) and Delos L. Filer (1817-1879).[20] Filer was born in New York in 1817 and moved to Racine, Wisconsin in 1849.[21] Stowell was born in 1824 in Alexander, New York, and moved to Milwaukee in 1856.[22] Filer was the president of the Pere Marquette Lumber Company of Ludington, Michigan, and reportedly met Stowell during one of his routine trips across Lake Michigan to conduct banking in Milwaukee, which was more convenient than traveling by land to Detroit.[23]

The Cream City Iron Works produced engines and machinery for the lumbering industry, such as sawmill and grist mill equipment, and was described in 1877 by Charles B. Harger's *Milwaukee Illustrated* as one of Milwaukee's "iron industries of importance," that produced "nearly all the large circular sawing machines purchased by Chicago lumbermen for the pineries of Michigan and Wisconsin." [24]

In the 1870s, Cream City Iron Works was reincorporated as Filer Stowell & Co. and then as the Filer and Stowell Company. After an illness, Filer died in 1870, and was buried in Milwaukee's Forest

[19] "The Wilkin Plant Will Be Sold," *The Milwaukee Journal*, September 2, 1891.

[20] Mead & Hunt, *Milwaukee Industrial Properties Intensive Survey* (Madison: prepared for the Wisconsin Historical Society, 2016), 71; Thomas H. Fehring, *The Magnificent Machines of Milwaukee* (Milwaukee: CreateSpace, 2017), 61; A.T. Andreas, *History of Milwaukee, Wisconsin, Vol. 1* (Chicago: Western Historical Company, 1881), 1289-1290; Record Publishing Company, *Portrait and Biographical Record of Northern Michigan* (Chicago: Record Publishing Company, 1895), 118.

[21] Record Publishing Company, *Portrait and Biographical Record of Northern Michigan* (Chicago: Record Publishing Company, 1895), 117.

[22] C.H. Lillingston, *The Sentinel Almanac and Book of Facts for the Year 1899* (Milwaukee: The Sentinel Company, 1899), 50.

[23] Thomas H. Fehring, *The Magnificent Machines of Milwaukee* (Milwaukee: CreateSpace, 2017), 61.

[24] Charles B. Harger, *Milwaukee Illustrated: Its Trade, Commerce, Manufacturing Interests, and Advantages as a Residence City* (W.W. Coleman, 1877), 90-91.

Home Cemetery.[25]After Filer's death, Stowell continued to operate the company and retained Filer in the company name. Stowell also served as the mayor of Milwaukee from 1882 to 1884.

The Filer and Stowell Company previous Walker's Point plant was a six-lot complex on the former site of the Bay State Company Works at the northwest corner of the intersection of Clinton (now South 1st) and Florida Streets, across the street from the E.P. Allis Reliance Iron Works (non-extant).[26] The Walker's Point plant consisted of a two- to three-story machine shop, a foundry, blacksmith shop, and a three-story mill shop (see Figure 10).[27] In the late 1870s, the plant's operating equipment included fifteen engine lathes, four iron planers, four drill machines, slotting and bolt machines, wood lathes, and upright and circular sawing machines kept running by a hundred laborers day and night.[28]

Filer and Stowell joined a sizable milling sector in Milwaukee. The availability of Wisconsin timber and the reliance of Milwaukee construction and industry on wood resulted in a hearty lumber industry in the city. The greatest growth occurred in the 1870s once infrastructure was established to allow for large shipments of raw timber to reach Milwaukee.[29]

From that point, Filer and Stowell expanded their business by specializing in a full range of sawmill machinery. Between 1877 and 1956, the company was granted fifty-seven U.S. patents for a wide variety of mill types, parts, mechanisms, and processes.[30] By 1886 they were a well-established and successful sawmill equipment manufacturer in Milwaukee.[31]

By 1881 the firm employed 135 people.[32] Their products included steam engines, sawmill machinery, and flouring mills sold to customers nationwide. An 1886 company advertisement listed twenty-nine product specialties, including automatic bolters, patent movable tooth saws, circular saws, Cream City cant hooks, shingle mills, packers and jointers, live rollers, brass and iron castings, pulleys, steam pumps, and timber gauges (see Figures 11-13 for advertisements from this period). [33] Filer & Stowell's

[25] Record Publishing Company, *Portrait and Biographical Record of Northern Michigan* (Chicago: Record Publishing Company, 1895), 118.
[26] A.T. Andreas, *History of Milwaukee, Wisconsin, Vol. 1* (Chicago: Western Historical Company, 1881), 1289-1290; Thomas H. Fehring, *The Magnificent Machines of Milwaukee* (Milwaukee: CreateSpace, 2017), 61.
[27] Charles B. Harger, *Milwaukee Illustrated: Its Trade, Commerce, Manufacturing Interests, and Advantages as a Residence City* (W.W. Coleman, 1877), 90.
[28] Charles B. Harger, *Milwaukee Illustrated: Its Trade, Commerce, Manufacturing Interests, and Advantages as a Residence City* (W.W. Coleman, 1877), 90.
[29] Mead & Hunt, *Milwaukee Industrial Properties Intensive Survey* (Madison: prepared for the Wisconsin Historical Society, 2016), 14.
[30] Filer & Stowell Co. Patents. Accessed September 2021. http://vintagemachinery.org/mfgindex/detail.aspx?id=310&tab=7.
[31] "The Filer & Stowell Co.," *Industrial History of Milwaukee* (Milwaukee: E.E. Barton, 1886), 155.
[32] A.T. Andreas, *History of Milwaukee, Wisconsin, Vol. 1* (Chicago: Western Historical Company, 1881), 1289-1290.
[33] Advertisement, *The City of Milwaukee Guide* (Milwaukee: Casper & Zahn, 1886), 44.

Corliss steam engines were typically provided along with their sawmill equipment to power the line shafts used throughout the mill.[34]

The Milwaukee Sentinel in *An Illustrated Description of Milwaukee* characterized the company as "prominent in the industrial up-building of Milwaukee" and likewise listed the firm's diverse array of products predominantly used for sawmills and flour mills: Corliss steam engines, gang edgers, gang lathe mills, twin engines, saw guides, shingle mills, and band and circular saws.[35] Filer and Stowell's Corliss steam engines were also utilized in municipal lighting plants in Louisiana (Lake Charles, Donaldsonville, Baton Rouge, Crowley), Mississippi (Brookhaven, Port Gibson, Natchez, West Point), and Florida (Jacksonville).[36]

The Filer and Stowell Company's workforce and output grew rapidly in the latter part of the nineteenth century. In 1888 the firm employed 200 laborers and shipped their products to nearly every U.S. state and Canada. By 1890, Filer and Stowell had added a crew of traveling salesmen. After moving their main operations to the subject property in 1892, they expanded their workforce to 300.[37] The site, which had railroad tracks on both the east and west boundaries, would've been particularly advantageous for a company that was already involved in manufacturing and shipping engines and other products around the United States.

The company utilized the existing buildings on the site: the 1881 Henry Koch-designed four story brick industrial loft building with corner tower built for the Whitehill Sewing Company (Pattern Shop, B on the site plan, Figure 1), the Wilkin Manufacturing Company's 1889 wood-frame production shed on the west side of the site (J, used as a machine shop), and the 1891 production shed on the east side of the site (E, used as a foundry).[38] Initially, they also retained the two-story Ziemer house at the north end of the site; it is listed as a boarding house in the 1894 Sanborn Map.

The 1881 brick industrial loft building (B) initially contained a machine shop on the ground and third floors, offices and a drafting room on the second floor, a carpentry shop on the third floor, and fourth-floor pattern storage shop.[39] Abutting it was a powerhouse with engine room (non-extant or absorbed in C), coal room, and tall brick smokestack. The company used a Corliss engine for their own operations, too. See Figure 17 for a photo of a Corliss running in the Machine Shop (J).

[34] Thomas H. Fehring, *The Magnificent Machines of Milwaukee* (Milwaukee: CreateSpace, 2017), 63.
[35] The Milwaukee Sentinel, *An Illustrated Description of Milwaukee* (Milwaukee: Milwaukee Sentinel, 1890), 169.
[36] *The Iron Age*, February 16, 1899: 21.
[37] "South Side News," *The Milwaukee Journal*, January 30, 1892; Advertisement, *The Milwaukee Journal*, August 13, 1892: 15; *Sixth Biennial Report of the Commissioner of Labor, Census and Industrial Statistics of Wisconsin* (Madison, WI: Democrat Printing Company, 1894), 87a.
[38] "South Side News," *The Milwaukee Journal*, July 23, 1891: 4.
[39] Sanborn Fire Insurance Map, 1894, Vol. 4. Accessed via Milwaukee County GIS and Land Information Interactive Map.

Between the 1881 industrial loft building (B) and the Foundry (E) stood a four-story-plus-basement brick industrial loft used for pattern storage (non-extant, see Figures 15 and 16). Directly to the west of this, across a long, narrow yard, was a one-story brick blacksmith shop with a dirt floor. Smaller wood-frame outbuildings stored iron, sand, and coal. A railroad spur ran through the center of the works roughly along the route of the current center driveway.

From 1897 to 1899, Filer and Stowell's prominent orders included a Corliss steam engine for the Eckhart & Swan Flour Milling Company in Chicago, a 2000-horsepower cross compound engine for the Union Railroad Company in Providence, Rhode Island, a 250-horsepower tandem compound engine for the Washburn & Moen Manufacturing Company in Worcester, Massachusetts, a 1000-horsepower cross compound engine for the Edison Electric Light & Power Company in Erie, Pennsylvania, and a complete steam plant for the Purina Mill Company in St. Louis. By 1899, the demand for large engines was so high, that they were unable to fill every request.[40] This prompted the company to nearly double the size of the 1889 Machine Shop (J) with a steel-frame south extension (J2). It featured iron storage, additional core rooms, sand house attachments, and the rail spur entrance at its south end.[41]At the turn of the twentieth century, Filer and Stowell was the second-largest producer of steam engines west of the Allegheny mountains after Milwaukee's E.P. Allis Company.[42]

In the twentieth century, the company continued to diversify. In addition to engines and sawmill equipment, Filer and Stowell produced wood- and coal-fired locomotives used to transport logs to the mill, and from the mill to markets (see Figure 20).[43] Filer and Stowell's locomotives, both narrow and standard gauge, were designed to be rugged and easy to maintain, as they typically operated along temporary tracks in forested areas. Filer and Stowell also produced air compressors and pumping machinery, including beer pumps for the brewing industry. The company was awarded the contract to produce sluice gates and gate valves for Milwaukee's Jones Island waste treatment facility. It also manufactured fire hydrants from the 1870s into the 1930s.

The Italianate Frederick J. Ziemer residence was demolished around the turn of the twentieth century to make room for expansion. In 1903 a one-story brick auto house (A) was attached to the north side of the Pattern Shop (B). The 1910 Sanborn Map (Figure 3) shows the site development during this peirod. The plant had expanded southward towards Lincoln Avenue with new and enlarged

[40] *The Age of Steel*, December 16, 1899, 15; "Great Factories Must Be Enlarged," *The Milwaukee Journal*, October 18, 1900.
[41] *The Age of Steel*, December 16, 1899, 15; "Great Factories Must Be Enlarged," *The Milwaukee Journal*, October 18, 1900.
[42] *The Age of Steel*, December 16, 1899, 15.
[43] Thomas H. Fehring, *The Magnificent Machines of Milwaukee* (Milwaukee: CreateSpace, 2017), 61.

buildings.[44] A building had been constructed at the south end of the Foundry (location of the Flask Repair Building, G). The yard to the south served as open storage for stacks of lumber. An iron-clad building at the southwest corner of the yard contained three iron pit forges.

Beginning in the 1910s Filer and Stowell became involved in the manufacture of automobile engines and transmissions. The company acquired the Petrel Motor Car Company and the Beaver Manufacturing Company and from 1912 to 1914 produced a line of light delivery trucks.[45, 46]

After 1916 and 1918 fires destroyed several buildings at the plant, Filer and Stowell constructed a new forge shop at the south end of the site (H) and extended the Foundry northward with a steel-frame addition (E1).[47,48]

In 1922, J.L. Monaghan became the president of Filer and Stowell, a position he held for over thirty-four years.[49] The company further diversified at this time by manufacturing products for marine usage, including winches, tugboat engines, and marine steam engines.

Several new buildings were constructed in the 1920s and early 1930s. The oldest part of the still-extant forge buildings (Forge Cupola, F) was built in 1922. In 1926 a steel frame and truss woodworking shop was constructed at the southwest area of the plant (I). That same year, an addition was built on the west side of the Foundry (E2) and the south end of the Machine Shop (J3). In 1930 a new three-story cream brick Art Deco office building was built facing East Becher Street. Most of the head office and administrative functions were expanded from the Pattern Shop to this building, which was appointed with more decorative interior details and finishes and allowed access from the public sidewalk without entering the industrial yards between the buildings. The two northern segments of the forge were added in 1931. By 1940, the site was very similar to the present configuration (see 1937 aerial photograph, Figure 4).

Like many Milwaukee companies, Filer and Stowell became an important contributor to the efforts of the Allied Forces during World War II. Filer and Stowell was one of fourteen companies nationwide contracted by the United States government to produce steam engines for Liberty Ships, a class of cargo ships mass-produced for the war effort.[50] The Liberty Ship program was devised to ship cargo

[44] Sanborn Fire Insurance Map, 1910. Accessed via Milwaukee County GIS and Land Information Interactive Map.
[45] *The Iron Trade Review*, March 31, 1910: 603.
[46] "Filer & Stowell, and Its Boss, Wear the Long Years Lightly," *The Milwaukee Journal*, November 18, 1956: 4-19.
[47] *The Insurance Press*, December 27, 1916, 9; *The National Underwriter*, May 9, 1918: 14; *The Iron Trade Review*, June 20, 1918; *The Iron Trade Review*, December 19, 1918; *The American Architect*, January 29, 1919, 18.
[48] *The Foundry*, 1932, 72.
[49] "Filer & Stowell, and Its Boss, Wear the Long Years Lightly," *The Milwaukee Journal*, November 18, 1956, 4-17.
[50] Thomas H. Fehring, "When Milwaukee Went to War, Part Five: Engine Builders," War Memorial Center, accessed November 2020, https://warmemorialcenter.org/events/75th-commemoration/when-milwaukee-went-to-war-part-5/.

across the Atlantic Ocean at a faster rate to elude German U-boats. Over 2,700 Liberty Ships were ultimately produced, allowing the Allied forces to maintain critical equipment supply lines during the war. By May of 1943, Filer and Stowell had produced over fifty of the horsepower marine steam engines, each weighing 135 tons. In 1942 the company was the first in Wisconsin to be awarded the "M" pennant by the Maritime Commission for outstanding production achievement and fulfilling its commissions in record time.[51] Each of Filer and Stowell's 450 employees received a maritime commission labor badge for their work. Figure 18 shows one of Filer and Stowell's marine engines in production in the Machine Shop (J).

In the second half of the twentieth century, Filer and Stowell continued to manufacture their original, core product line of sawmill machinery and continued to produce parts for steam engines.[52] In the 1950s, the company was recognized as the largest producer in the country of sawmill machinery, which constituted about ninety percent of the company's output.[53] They still continued to diversify their products, sometimes through acquisitions of existing brands and product lines. By 1956, Filer and Stowell's subsidiaries included Dostal & Lowey Co., Inc., a producer of bottle washing machines, and Graham Transmissions, Inc., manufacturer of variable speed transmissions, both located in Menomonee Falls, Wisconsin.

In the early 1950s, a minor addition containing toilet and locker rooms (J4) was added to the east side of the Machine Shop. During that same period, a single-story office and training area had been inserted and a new entrance configuration established at the northwest corner of the Machine Shop addition (J5). These alterations do not appear on the 1951 Sanborn Map (Figure 5) but do appear in a 1955 aerial photograph (Figure 6).

As Milwaukee's economy shifted away from manufacturing in the 1960s and 1970s, many manufacturers closed local factories and relocated to the southern United States, Mexico, or Asia. By 1985, Milwaukee's manufacturing jobs had declined by eighty percent from its 1960 numbers, which was a greater loss of manufacturing than in any other US city.

By 1985, Filer and Stowell was near bankruptcy and had gone from a peak of 500 employees down to an average of twenty.[54] Under President Charles Read, who had worked with Filer and Stowell since the 1950s, the company's prospects improved by emphasizing its esteemed reputation for durability. He was able to continue operations as well as gain overseas customers in Germany, Australia, New Zealand, and the Fiji Islands.[55]

[51] "Concern Here is Awarded Maritime M," *The Milwaukee Sentinel*, September 6, 1942.
[52] "Filer & Stowell, and Its Boss, Wear the Long Years Lightly," *The Milwaukee Journal*, November 18, 1956: 4-17.
[53] "Filer & Stowell, and Its Boss, Wear the Long Years Lightly," *The Milwaukee Journal*, November 18, 1956: 4-19.
[54] Durable Filer & Stowell Builds on Lumber Industry Reputation," *The Milwaukee Journal*, January 26, 1991.
[55] Durable Filer & Stowell Builds on Lumber Industry Reputation," *The Milwaukee Journal*, January 26, 1991.

Figures 7 through 9 show very little change to the physical buildings or site configuration after the 1950s. In 1998, Filer and Stowell sold the Becher Street plant, downsized, and relocated to 3939 West McKinley Avenue in western Milwaukee. The company continued operations as a sawmill machinery producer until 2020.[56] Filer and Stowell built a 164-year legacy as an important industrial enterprise in Milwaukee.

Statement of Significance

The Filer and Stowell Complex at 147 East Becher Street is significant under Criterion A: Industry for the company's important association with sawmill machinery and engine manufacture in Milwaukee and its prominent role in the city's industrial history.

Filer and Stowell was a significant part of Milwaukee's growth as a manufacturing center. Milwaukee maintained a large, diverse range of industrial sectors that included the production of machinery and engines. Filer and Stowell was a significant company within that sector, employing hundreds of laborers in the production of a wide range of products. Filer and Stowell was distinct among other machinery companies in Milwaukee for its specialization in sawmill equipment. The company became a nationwide leader in the manufacture of sawmill and logging equipment. The company was among Milwaukee's well-known historical names that first gained a foothold by producing large engines, locomotives, sawmill equipment, and other heavy industrial equipment. The company helped establish Milwaukee's place as a manufacturing powerhouse.

One of the longest continuously operating manufacturers in Milwaukee, Filer and Stowell remained over one century at the subject property. The site was associated with other companies, but for most of its existence the site would serve as Filer and Stowell's company headquarters and primary manufacturing facility, and is the site most closely associated with the company.

Filer and Stowell was also an important national producer of Corliss engines. Steam engines—especially the Corliss—were an essential development in providing power for factories in industrial cities like Milwaukee. At the turn of the 20th century, Filer and Stowell was the second-largest producer of steam engines west of the Allegheny mountains, after Milwaukee's E.P. Allis Company, and by the mid-twentieth century was the largest producer of sawmill machinery in the country.

[56] State of Wisconsin Department of Financial Institutions, Corporate Records, "Filer Stowell & Co LLC," accessed September 2021. https://www.wdfi.org/apps/CorpSearch/Details.aspx?entityID=F037475&hash=95084202&searchFunctionID=82b4ca9f-8a56-49de-bb3e-ec592b96998c&type=Simple&q=Filer+%26+Stowell.

Filer and Stowell played an important role during World War II, producing over fifty marine steam engines at the subject property for U.S. cargo ships as one of only fourteen companies nationwide commissioned to do so. Many Wisconsin and Milwaukee companies made significant contributions to the war, but Filer and Stowell was the first in Wisconsin to be awarded the "M" pennant by the Maritime Commission for outstanding production achievement and fulfilling its commissions in record time.

Comparative Analysis

A 2016 professional survey of Milwaukee industrial properties identified prominent manufacturers of machinery: Filer and Stowell, the E.P. Allis Company (Allis-Chalmers), the Nordberg Manufacturing Company, and the Vilter Manufacturing Company.[57]

The Edward P. Allis Company originated in 1847 as James Seville and Charles Decker's Reliance Works, an iron foundry and machine shop specializing in milling equipment for lumber and flour industries.[58] In 1861 the firm was purchased by Edward Phelps Allis, a Milwaukee tanning magnate. In 1867 the Edward P. Allis & Company Reliance Works relocated to Milwaukee's Walker's Point neighborhood. The plant was located at the southeast corner of Clinton (now 1st) and Florida Streets, directly southeast of the Filer and Stowell Company's (then Cream City Iron Works) Walker's Point plant. In addition to milling equipment, E.P. Allis Reliance Works produced steam engines, boilers, gearing, and large pipes and pumps. The company constructed Milwaukee's early system of municipal pipes and water pumps. By the twentieth century, E.P. Allis Reliance Works, with a workforce of 1,800, became the largest manufacturer of steam engines in the country and one of Milwaukee's largest employers.

Allis died in 1889, and his successor Edwin Reynolds merged the company and formed the Allis-Chalmers Company in 1901. In 1902 Allis-Chalmers opened a vast new plant along major rail lines on the western outskirts of Milwaukee, creating the industrial suburb of West Allis.[59] Allis-Chalmers continued to be one of the largest machinery manufacturing concerns in the country throughout the first half of the twentieth century.

[57] Mead & Hunt, *Milwaukee Industrial Properties Intensive Survey* (Madison: prepared for the Wisconsin Historical Society, 2016), 17-24.
[58] Joseph B. Walzer, "Allis-Chalmers Corporation," Encyclopedia of Milwaukee, accessed November 24, 2020, https://emke.uwm.edu/entry/allis-chalmers-corporation/.
[59] Joseph B. Walzer, "Allis-Chalmers Corporation," Encyclopedia of Milwaukee, accessed November 24, 2020, https://emke.uwm.edu/entry/allis-chalmers-corporation/.

After a decline in the 1960s, the company declared bankruptcy in 1987.[60] In the late twentieth century much of the Allis-Chalmers plant in West Allis was razed, although a few buildings remain and have been adaptively reused for commercial and residential purposes. The E.P. Allis Reliance Works plant in Walker's Point was demolished in 1937.[61]

In 1890 Finnish Bruno V. Nordberg, who originally worked as a draftsman for the E.P. Allis Company, founded the Nordberg Manufacturing Company.[62] While working for Allis, Nordberg had focused on improving the Corliss steam engine's design and ultimately developed and patented his own designs. The Nordberg Manufacturing Company manufactured heavy machinery, including engines and hoists, and diversified into mining and railway equipment.

The Nordberg plant was located in Bay View at 3073 S. Chase Avenue. The company would occupy the site for over a century.[63] By 1900 the company employed 300 laborers. In the 1910s Nordberg was the first American manufacturer to construct diesel-patented and designed engines. Throughout the 1920s Nordberg expanded as a producer of mining equipment. During World War II, the company manufactured torpedo tubes.

In 1970, Nordberg was purchased and became the Rexnord Corporation, which is still in operation and employs more than 8,000. The former Nordberg Company plant at 3073 S. Chase, occupied by the company from 1900 until 2004, was in 2016 determined eligible for listing in the National Register as part of a transportation compliance project.[64]

In 1867 the Vilter Manufacturing Company was founded by Peter Weisel in Milwaukee's Third Ward as a general-purpose job shop.[65] In 1880 Weisel partnered with Ernest Vilter and the firm diversified into the manufacture of Corliss steam engines, refrigerating and cooling equipment, and brewery equipment.

After the 1892 Third Ward fire razed the machine shop, the Vilter Manufacturing Plant relocated to Bay View. The plant at 2217 S. 1st Street occupied both sides of Clinton (now 1st Street) between

[60] "Allis Chalmers Mfg. Co. Machine Shop No.6," Wisconsin Architecture and History Inventory Record #229982, updated October 21, 2020.
[61] Historic aerials, Milwaukee County GIS and Land Information Interactive Map.
[62] Alexander Belovsky, "Nordberg Manufacturing Company," Encyclopedia of Milwaukee, https://emke.uwm.edu/entry/nordberg-manufacturing-company/, accessed November 24, 2020; Mead & Hunt, *Milwaukee Industrial Properties Intensive Survey* (Madison: prepared for the Wisconsin Historical Society, 2016), 20.
[63] "Nordberg Manufacturing Company Plant Pattern Shop and Office," Wisconsin Architecture and History Inventory Record #230650, updated June 21, 2016.
[64] Mead & Hunt, *Milwaukee Industrial Properties Intensive Survey* (Madison: prepared for the Wisconsin Historical Society, 2016), 20.
[65] Thomas H. Fehring, *The Magnificent Machines of Milwaukee* (Milwaukee: CreateSpace, 2017), 203.

Becher Street to the north and Lincoln Avenue to the south. Vilter was directly west of the Filer and Stowell Company Plant at 147 East Becher Street.[66]

After a nationwide ice crop failure in 1890, demand for Vilter's refrigeration and cooling products increased among the city's brewing and meat packing enterprises, and the company became a nationwide leader in cooling equipment, including refrigerated rail cars.[67] During World War II, Vilter built howitzers and pack ice machines for cargo ships.[68]

In 2009 Vilter was acquired by Emerson Climate Technologies and the company relocated to Cudahy, Wisconsin.

The Vilter Manufacturing Company Plant in Bay View retained several historic industrial buildings and was determined eligible for listing in the National Register in 2016 under Criterion A in the area of Industry. However, in 2017 most of the complex was razed. One c. 1915 production shed remains on the west side of 1st Street (AHI #232647).

These four companies, Filer and Stowell, E.P. Allis & Co., Nordberg, and Vilter, were Milwaukee's most prominent machinery manufacturers. Each engaged in the widespread manufacture of the Corliss steam engine, which was responsible for powering industrial machines nationwide.

E.P. Allis & Co. was the nationwide leader in the production of Corliss steam engines, and the other three companies drew distinction for manufacturing a diverse range of machinery catering to specific industries. Vilter specialized in refrigeration and cooling equipment, while Nordberg was a leading producer of diesel engines.

The Filer and Stowell Company was distinguished by its extensive line of machinery for the sawmill industry. The company produced every machine required for the operation of a sawmill, from the locomotives used to haul trees to the engines used to power the lumber factories to the saws used to create lumber.

Of these four companies, only the Filer and Stowell and Nordberg plants survive with sufficient integrity to bear witness to Milwaukee's mighty machinery manufacturing history.

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[66] "Vilter Manufacturing, Office," Wisconsin Architecture and History Inventory Record #232646, updated October 26, 2016.
[67] Mead & Hunt, *Milwaukee Industrial Properties Intensive Survey* (Madison: prepared for the Wisconsin Historical Society, 2016), 94.
[68] "Vilter Celebrates 160 Years," Cooling Post, August 1, 2017, https://www.coolingpost.com/world-news/vilter-celebrates-150-years/, accessed November 24, 2020; Thomas H. Fehring, *The Magnificent Machines of Milwaukee* (Milwaukee: CreateSpace, 2017), 205.

Conclusion

The Filer and Stowell Complex at 147 East Becher Street is significant under Criterion A in the area of Industry for the company's prominent role in Milwaukee's industrial history, growth as a machinery manufacturing center, and as an important Milwaukee manufacturer of steam engines and sawmill equipment. The site's buildings reflect the evolution of industrial forms over the nineteenth and twentieth centuries, from Henry C. Koch's Renaissance Revival 1881 Pattern Shop to utilitarian astylistic production sheds to a modern Art Deco office building. The buildings on site show both the physical diversity of industrial complexes and the flexibility of industrial building types to serve not only multiple companies but multiple shifts and diversification in industrial production. The site also demonstrates through its physical structures how a successful firm survived challenges, diversified, managed growth, and continued to prosper over one century.

The decline of manufacturing in Milwaukee has left many industrial areas vacant and many manufacturing buildings destroyed for new construction. Recognizing the Filer and Stowell complex would honor the manufacturing heritage of Milwaukee and that of a successful company that helped make Milwaukee the machine shop of the world.

Statement of Archaeological Potential

The area where the City of Milwaukee is now located has long been the home of American Indian populations. The subject property is very close to what is now known as Jones Island, which was documented by the first fur traders as a location Fox and Mascouten Indian villages. Between 1785 and 1837 the village at this location was headed by Onautissah, also called King of the Potawatomis, and was home to primarily Potawatomi families along with a few Objibwe, Menomini, and Ho-Chunk groups, totaling as many as 2000 individuals. West of Jones Island and about eight blocks east of the subject property is a documented prehistoric cemetery. According to the Wisconsin Archaeological Site Inventory, other prehistoric archeological finds have been documented throughout the Bay View neighborhood. Pre-contact and early settlement archeological deposits undoubtedly remain despite significant subsequent industrial development. Most of the site has not been excavated beyond that required for footings. Further exploration of archaeological potential was outside the scope of this nomination and remains unassessed.

Preservation Activity

The site has remained in continuous use as a manufacturing complex and industrial warehouse facility from the nineteenth century until today. Regular maintenance and repairs have retained the buildings in good to fair condition. The Pattern Shop, the oldest extant building on site, requires significant structural stabilization. Apart from continued maintenance and use, there have been no preservation efforts undertaken at the property. Initial planning is underway for a large rehabilitation effort as part of the Rehabilitation Tax Credit program.

Bibliography

Advertisement. *The City of Milwaukee Guide*. Milwaukee: Casper & Zahn, 1886.

Advertisement. *The Milwaukee Journal*, August 13, 1892: 15.

Andreas, A.T. *History of Milwaukee, Wisconsin, Vol. 1*. Chicago: Western Historical Company, 1881.

American Manufacturer, April 15, 1898: 521.

Annual Reports of the City Comptroller, Police Department, Fire Department, and Board of Public Works, of the City of Milwaukee, for the Year Ending December 31st, 1891. Milwaukee: Ed. Keogh, Printer, 1892.

Belovsky, Alexander. "Nordberg Manufacturing Company." Encyclopedia of Milwaukee. https://emke.uwm.edu/entry/nordberg-manufacturing-company/. Accessed November 24, 2020.

"Big Fires." *The Insurance Press*, December 27, 1916: 9.

"Building Intelligence," *The Sanitary Engineer*, October 1, 1881: 510.

City of Milwaukee. *Bay View Neighborhood Historic Resources Survey: Volume I, II*. Milwaukee, Wis., July 1990.

"Concern Here is Awarded Maritime M." *The Milwaukee Sentinel*, September 6, 1942.

Costello, Matthew. "Pawling and Harnischfeger." Encyclopedia of Milwaukee, https://emke.uwm.edu/entry/pawling-and-harnischfeger/. Accessed August 31, 2021.

Cultural Resource Management Plan. Madison: Wisconsin Historical Society, 1986.

"Durable Filer and Stowell Builds on Lumber Industry Reputation." *The Milwaukee Journal*, January 26, 1991.

"Filer and Stowell, and Its Boss, Wear the Long Years Lightly." *The Milwaukee Journal*, November 18, 1956: 4-19.

Fehring, Thomas H. *The Magnificent Machines of Milwaukee*. Milwaukee: CreateSpace, 2017.

Fehring, Thomas H. "When Milwaukee Went to War, Part Five: Engine Builders." War Memorial Center. https://warmemorialcenter.org/events/75th-commemoration/when-milwaukee-went-to-war-part-5/. Accessed November 2020.

"Great Factories Must Be Enlarged." *The Milwaukee Journal*, October 18, 1900.

Gurda, John. *The Making of Milwaukee*. Milwaukee: Milwaukee County Historical Society, 1999, 2018.

Gurda, John. *Milwaukee: City of Neighborhoods.* Milwaukee: Historic Milwaukee, Incorporated, 2015.

Harger, Charles B. *Milwaukee Illustrated: Its Trade, Commerce, Manufacturing Interests, and Advantages as a Residence City.* W.W. Coleman, 1877.

Lillingston, C.H. *The Sentinel Almanac and Book of Facts for the Year 1899.* Milwaukee: The Sentinel Company, 1899.

Marti, Yance. "Architects." Encyclopedia of Milwaukee. https://emke.uwm.edu/entry/architects/ . Accessed September 6, 2021.

Mead & Hunt. *Milwaukee Industrial Properties Intensive Survey.* Madison: prepared for the Wisconsin Historical Society, 2016.

Milwaukee Chamber of Commerce. *Annual Report 1879.* Milwaukee, Wis., 1880.

Milwaukee County GIS and Land Information Interactive Map.

The Milwaukee Sentinel. *An Illustrated Description of Milwaukee*. Milwaukee: Milwaukee Sentinel, 1890.

"Milwaukee, Wis." *The American Architect*, January 29, 1918: 18.

National Register of Historic Places. Walker's Point Historic District, Milwaukee, Milwaukee County, Wisconsin. National Register #78000120.

Nelsen, James K. "Milwaukee." Encyclopedia of Milwaukee, https://emke.uwm.edu/entry/city-of-milwaukee/. Accessed August 31, 2021.

Record Publishing Company. *Portrait and Biographical Record of Northern Michigan*. Chicago: Record Publishing Company, 1895.

Rules and Regulations for the First Exhibition by the Milwaukee Industrial Exposition Association. Milwaukee: Cramer, Aikens & Cramer, 1881.

Sanborn Fire Insurance Maps, New York: Sanborn Map Company, 1894 (Vol 4.), 1910.

Sixth Biennial Report of the Commissioner of Labor, Census and Industrial Statistics of Wisconsin. Madison, Wisconsin: Democrat Printing Company, 1894.

"South Side News." *The Milwaukee Journal*, June 12, 1891: 3.

"South Side News." *The Milwaukee Journal*, July 23, 1891: 4.

"South Side News." *The Milwaukee Journal*, January 30, 1892.

The Age of Steel, January 15, 1898: 22.

The Age of Steel, December 16, 1899: 15.

The American Architect, January 29, 1919: 18.

The American Contractor, January 28, 1922: 71.

The Foundry, 1932: 72.

The Improvement Bulletin, November 17, 1900: 15.

The Insurance Press, December 27, 1916: 9.

The Iron Age, February 16, 1899: 21.

The Iron Age, March 9, 1899: 20.

The Iron Age, December 21, 1899: 23-24.

The Iron Trade Review, March 31, 1910: 603.

The Iron Trade Review, June 20, 1918.

The Iron Trade Review, December 19, 1918: 1436.

The Iron Trade Review, January 26, 1922: 292.

The National Underwriter, May 9, 1918: 14.

The Waste Trade Journal, July 27, 1918: 29.

"The Whitehill Sewing Machine Company." *Industrial History of Milwaukee.* Milwaukee: E.E. Barton, 1886.

"The Wilkin Plant Will Be Sold." *The Milwaukee Journal*, September 2, 1891.

Thirtieth Annual Report of the Trade and Commerce of Milwaukee. Milwaukee: King, Fowle & Co, 1888.

Thirty-First Annual Report of the Trade and Commerce of Milwaukee. Milwaukee: Cramer, Aikens & Cramer, 1889.

"Vilter Celebrates 160 Years." Cooling Post, August 1, 2017. https://www.coolingpost.com/world-news/vilter-celebrates-150-years/. Accessed November 24, 2020.

Walzer, Joseph B. "Allis-Chalmers Corporation." Encyclopedia of Milwaukee, https://emke.uwm.edu/entry/allis-chalmers-corporation/. Accessed November 24, 2020.

Watrous, Lt. Col. Jerome A., Ed. *Memoirs of Milwaukee County, Vol. II*. Madison, Wisconsin: Western Historical Association, 1909.

"Went Up in Flames." *The Milwaukee Journal*, February 13, 1891: 3.

Winkler, Ronald. "Bay View." Encyclopedia of Milwaukee, https://emke.uwm.edu/entry/bay-view/. Accessed August 31, 2020.

"Wisconsin." *The American Architect*, August 3, 1921: 20.

Wisconsin Architecture and History Inventory Records.

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Verbal Boundary Description:

The property includes the buildings and associated property at 147 East Becher Street in Milwaukee, Wisconsin. The boundary is described as such: beginning at the northwest corner point of the property line at the curb line where East Becher Street crosses under the railroad bridge, under the westernmost side of the vacated railroad bridge, continue east along the curb line approximately 346 feet, past the property entrance gate to the northeast corner point of the property under the westernmost side of the active railroad bridge, continue south along the boundary of the railroad easement approximately 1,251 feet to the southeast corner point of the property at the curb line at East Lincoln Avenue under the westernmost side of the active railroad bridge, continue west along the curb line approximately 346 feet, past the south property entrance gate, to the southwest corner point of the property, at the westernmost point of the vacated railroad embankment, continue north along the western boundary of the former railroad right-of-way approximately 1,251 feet to the northwest corner origin point at the curb line at East Becher Street.

Boundary Justification:

The boundary of the Filer and Stowell Complex encompasses all remaining intact buildings and structures, as well as the current legal boundaries of the property which aligns closely with the property boundaries during the period of significance (1892-1971). The vacated rail corridor on the west side of the site is included in the boundary justification because it now part of the legal parcels and physically connected as a continuous private roadway on the site. The proximity to rail was an important aspect of Filer and Stowell's business; inclusion of this vacated rail corridor is in keeping with the property's significance.

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Section **photos** Page 1

RESOURCE:
Filer and Stowell Company Complex
City of Milwaukee, Milwaukee County, Wisconsin

PHOTOGRAPHERS:
Bridget Greuel and Kate Bissen, June 2021

LOCATION OF ORIGINAL DIGITAL FILES:
Wisconsin Historical Society, State Preservation Office
816 State Street, Madison, WI 53706

List of Photographs:

Photograph 01 of 50: (WI_Milwaukee County_Filer and Stowell Company Complex_0001)
Looking south across Becher Street at the complex.

Photograph 02 of 50: (WI_Milwaukee County_Filer and Stowell Company Complex_0002)
West face of Garage.

Photograph 03 of 50: (WI_Milwaukee County_Filer and Stowell Company Complex_0003)
North façade of Pattern Shop and north drive/yard.

Photograph 04 of 50: (WI_Milwaukee County_Filer and Stowell Company Complex_0004)
West facade of Pattern Shop.

Photograph 05 of 50: (WI_Milwaukee County_Filer and Stowell Company Complex_0005)
East facade of Pattern Shop.

Photograph 06 of 50: (WI_Milwaukee County_Filer and Stowell Company Complex_0006)
Interior of Pattern Shop stair.

Photograph 07 of 50: (WI_Milwaukee County_Filer and Stowell Company Complex_0007)
Looking north on second floor of Pattern Shop.

Photograph 08 of 50: (WI_Milwaukee County_Filer and Stowell Company Complex_0008)
Safe door and paneling at second floor of Pattern Shop stair.

Photograph 09 of 50: (WI_Milwaukee County_Filer and Stowell Company Complex_0009)
Looking south at Pattern Shop second floor.

Photograph 10 of 50: (WI_Milwaukee County_Filer and Stowell Company Complex_0010)
Looking north at Pattern Shop fourth floor.

Photograph 11 of 50: (WI_Milwaukee County_Filer and Stowell Company Complex_0011)
North facade of the Engine Room.

Photograph 12 of 50: (WI_Milwaukee County_Filer and Stowell Company Complex_0012)
Looking northeast toward Pattern Shop and Engine Room.

Photograph 13 of 50: (WI_Milwaukee County_Filer and Stowell Company Complex_0013)
West and south facades of Engine Room.

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Looking north between the Forge and Machine Shop.

Photograph 18 of 50: (WI_Milwaukee County_Filer and Stowell Company Complex_0018)
Looking toward Forge addition from Forge interior.

Photograph 19 of 50: (WI_Milwaukee County_Filer and Stowell Company Complex_0019)
Looking northeast toward west facade of Forge addition.

Photograph 20 of 50: (WI_Milwaukee County_Filer and Stowell Company Complex_0020)
Looking northwest in Forge addition second floor.

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Photograph 25 of 50: (WI_Milwaukee County_Filer and Stowell Company Complex_0025)
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Looking northeast toward Flask Repair Building and Foundry.

Photograph 27 of 50: (WI_Milwaukee County_Filer and Stowell Company Complex_0027)
Looking southwest at Forge Shop.

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Photograph 32 of 50: (WI_Milwaukee County_Filer and Stowell Company Complex_0032)
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Photograph 33 of 50: (WI_Milwaukee County_Filer and Stowell Company Complex_0033)
Looking north in Wood Shop interior.

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Photograph 38 of 50: (WI_Milwaukee County_Filer and Stowell Company Complex_0038)
Looking north in South Machine Shop addition.

Photograph 39 of 50: (WI_Milwaukee County_Filer and Stowell Company Complex_0039)
Looking south in Machine Shop.

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Photograph 40 of 50: (WI_Milwaukee County_Filer and Stowell Company Complex_0040)
Looking northeast toward small addition at Machine shop north end.

Photograph 41 of 50: (WI_Milwaukee County_Filer and Stowell Company Complex_0041)
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North facade of Office Building.

Photograph 43 of 50: (WI_Milwaukee County_Filer and Stowell Company Complex_0043)
East facade of Office Building and Bridge connecting it to Pattern Shop.

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Photograph 45 of 50: (WI_Milwaukee County_Filer and Stowell Company Complex_0045)
Office Building interior first floor.

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Office Building interior first floor main entry lobby and stair.

Photograph 47 of 50: (WI_Milwaukee County_Filer and Stowell Company Complex_0047)
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Photograph 48 of 50: (WI_Milwaukee County_Filer and Stowell Company Complex_0048)
Historic safe at Office Building second floor.

Photograph 49 of 50: (WI_Milwaukee County_Filer and Stowell Company Complex_0049)
Office Building stair at connection to Bridge to Pattern Shop.

Photograph 50 of 50: (WI_Milwaukee County_Filer and Stowell Company Complex_0050)
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Pre-1903 view of the Becher Street Filer& Stowell Company Complex

Figure 16
Pre-1903 view of Becher Street Filer and Stowell Company Complex

Figure 17
Filer and Stowell Corliss engine, 1920s photo taken inside the 1889 North Machine Shop (J) (Brad Smith and Tom Fehring).

Figure 18
Filer and Stowell marine engine, c1942, photo taken inside 1889 North Machine Shop (J) (Brad Smith and Tom Fehring).

Figure 19
Filer and Stowell Corliss engine in a late-nineteenth or early-twentieth century photo taken inside the 1889 North Machine Shop (J).

Figure 20
Filer and Stowell locomotive in a late-nineteenth or early-twentieth century photo taken inside the 1889 North Machine Shop (J).

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Figure 27
Floor Plans, Foundry, Forge Cupola/Forge

Figure 28
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Figure 29
Floor Plans, Wood Shop, South Machine Shop

Figure 30
Floor Plans, North Machine Shop

Figure 31
Floor Plans, Office Building

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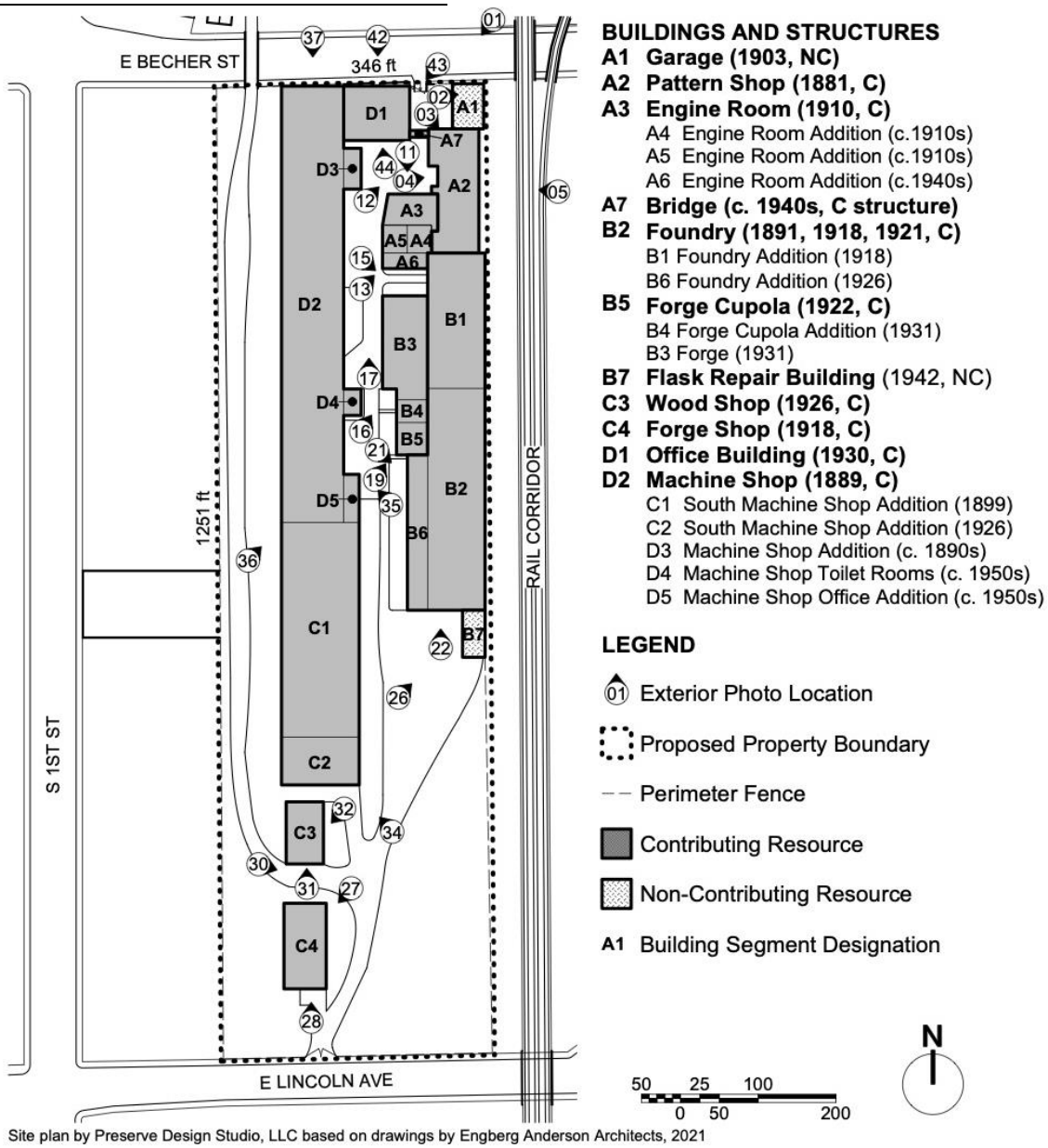

Site plan by Preserve Design Studio, LLC based on drawings by Engberg Anderson Architects, 2021

FILER AND STOWELL COMPANY COMPLEX
147 East Becher Street, Milwaukee County, Milwaukee
Site Plan

Figure 1: Site Plan

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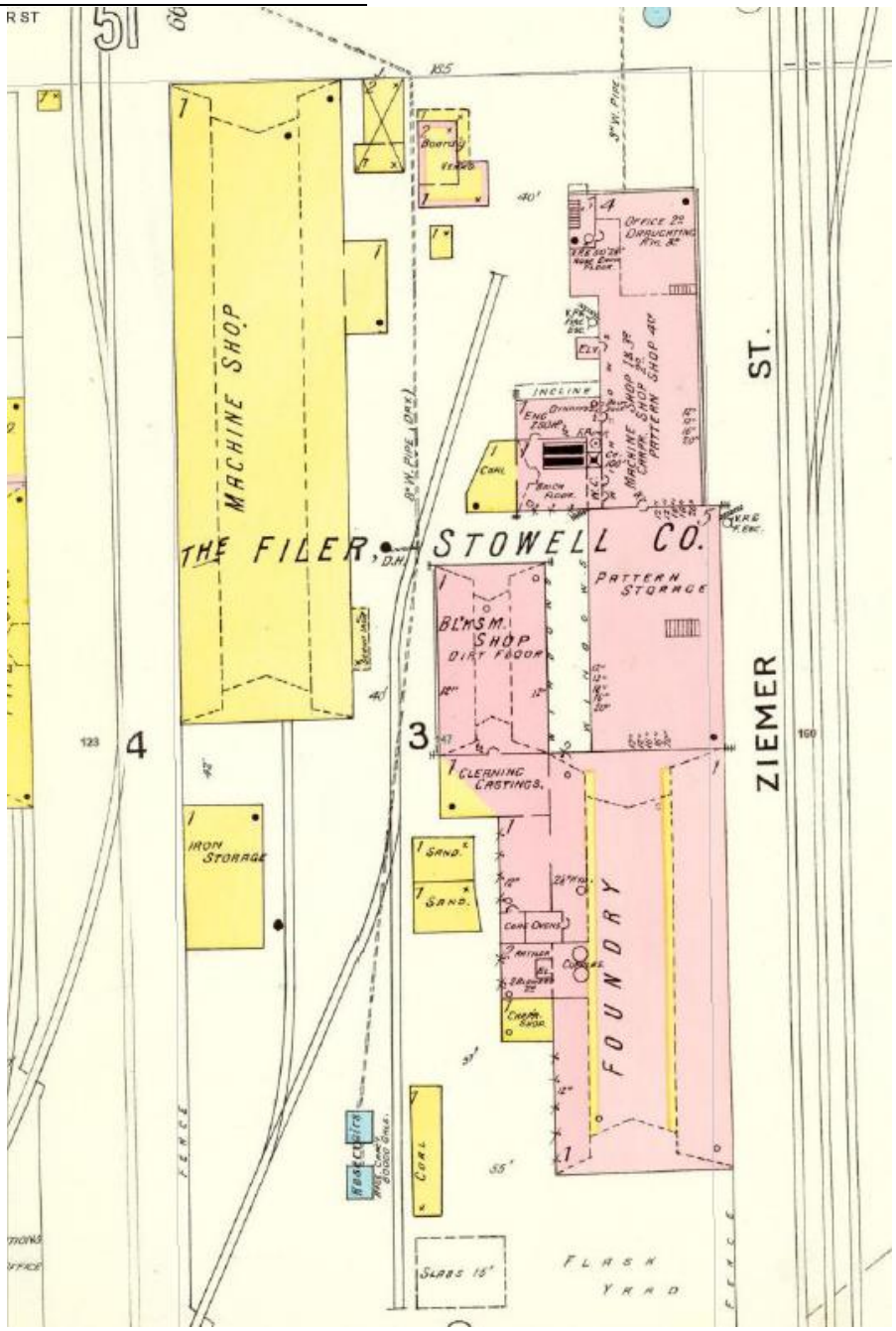

Figure 2: Sanborn Fire Insurance Map, 1894.

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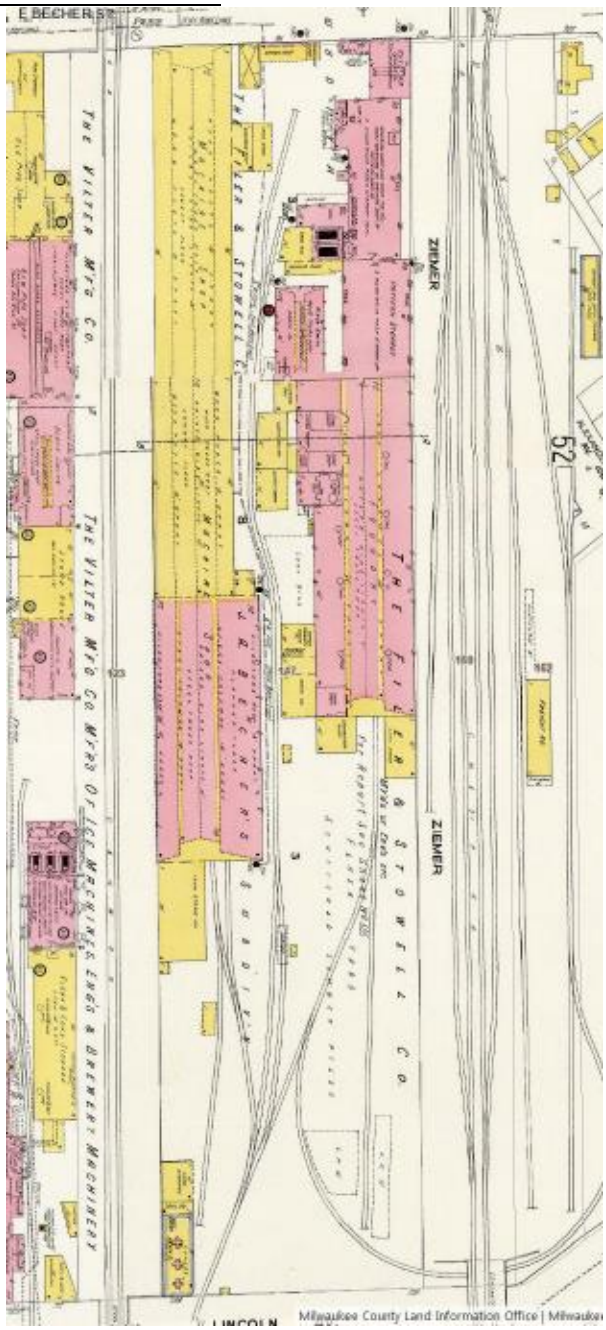

Figure 3: Sanborn Fire Insurance Map, 1910.

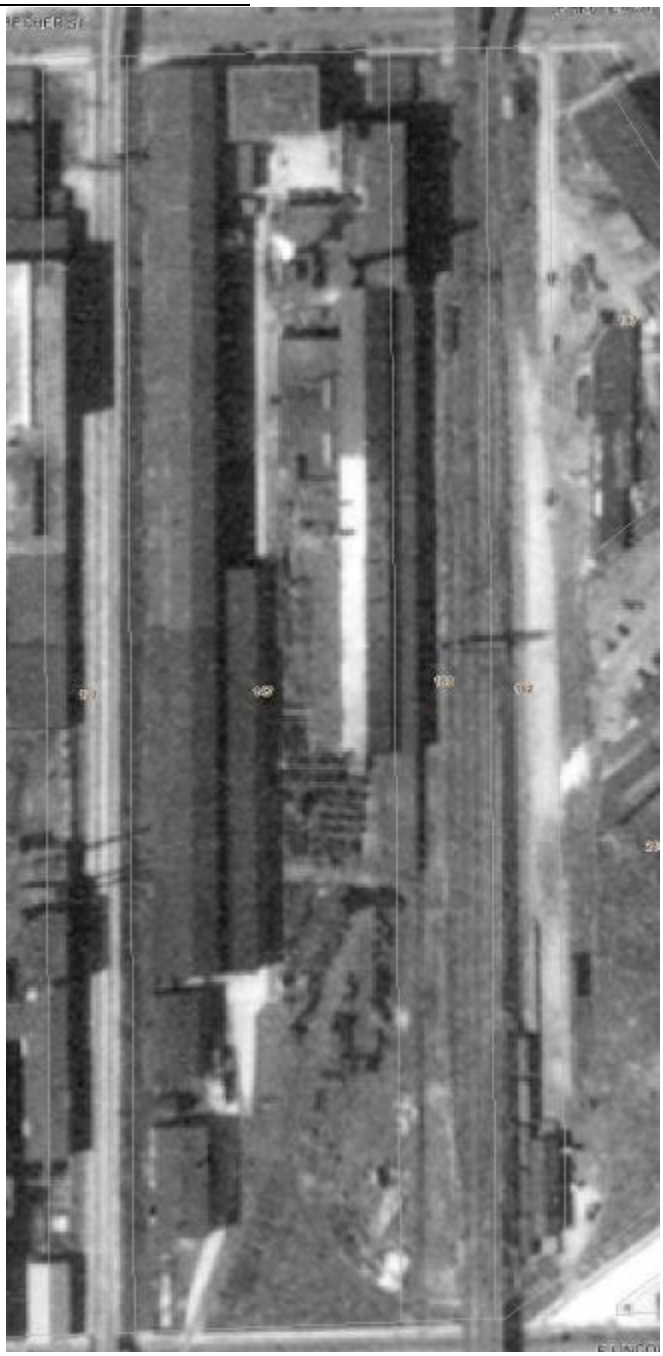

Figure 4: Aerial photograph, 1937 (Milwaukee County Land Information Office).

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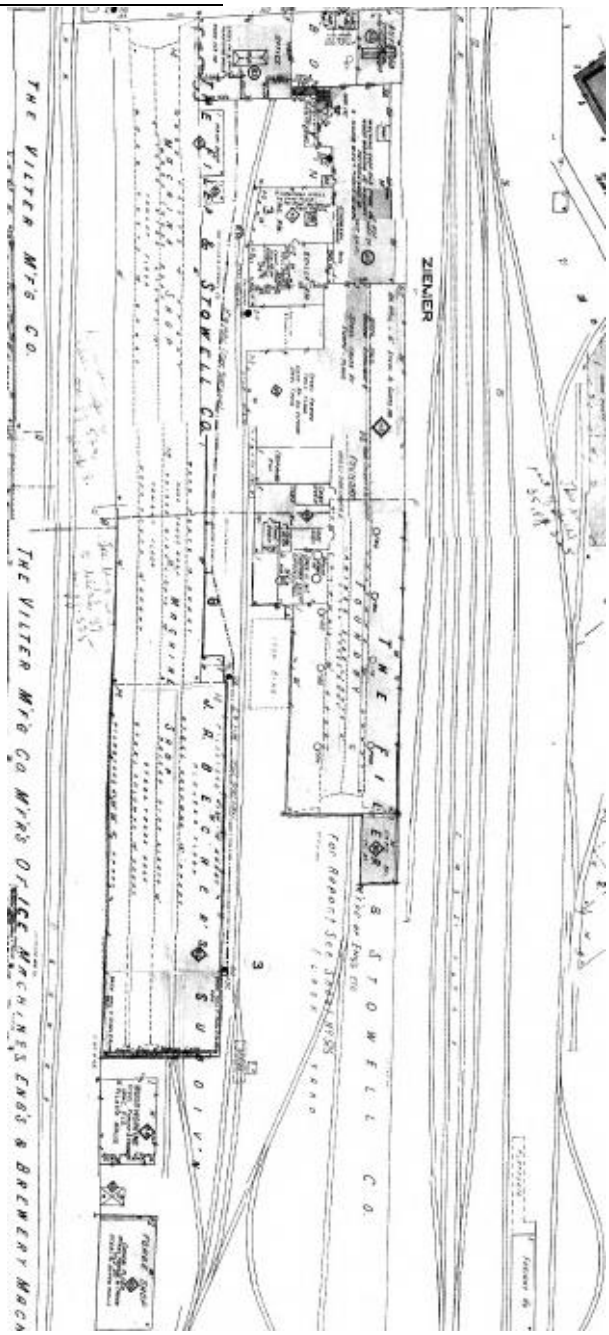


Figure 5: Sanborn Fire Insurance Map, 1951.

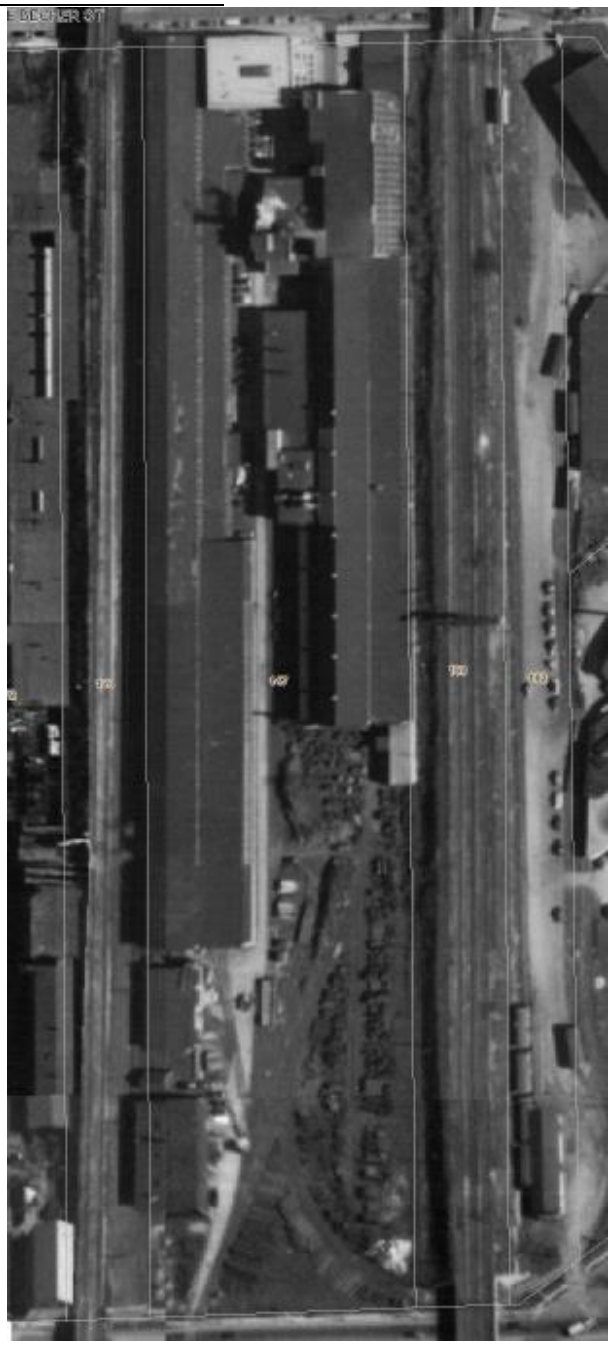


Figure 6: Aerial photograph, 1955 (Milwaukee County Land Information Office).

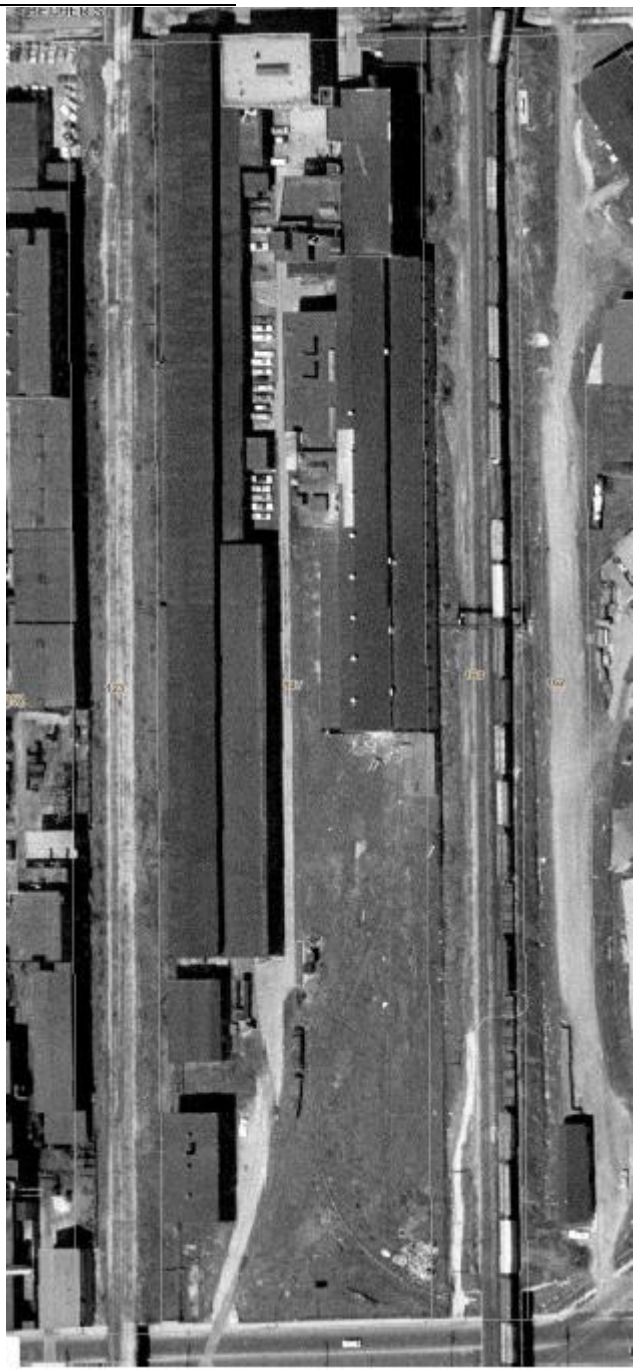


Figure 7: Aerial photograph, 1967 (Milwaukee County Land Information Office).

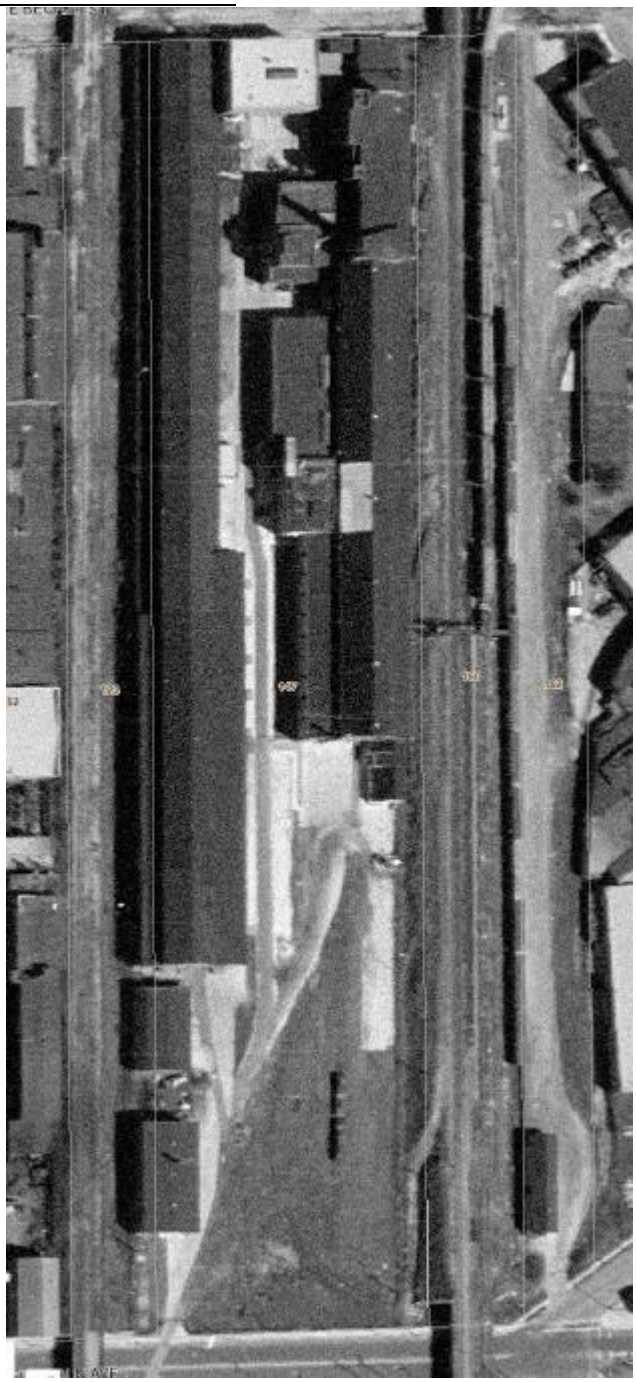


Figure 8: Aerial photograph, 1970 (Milwaukee County Land Information Office).

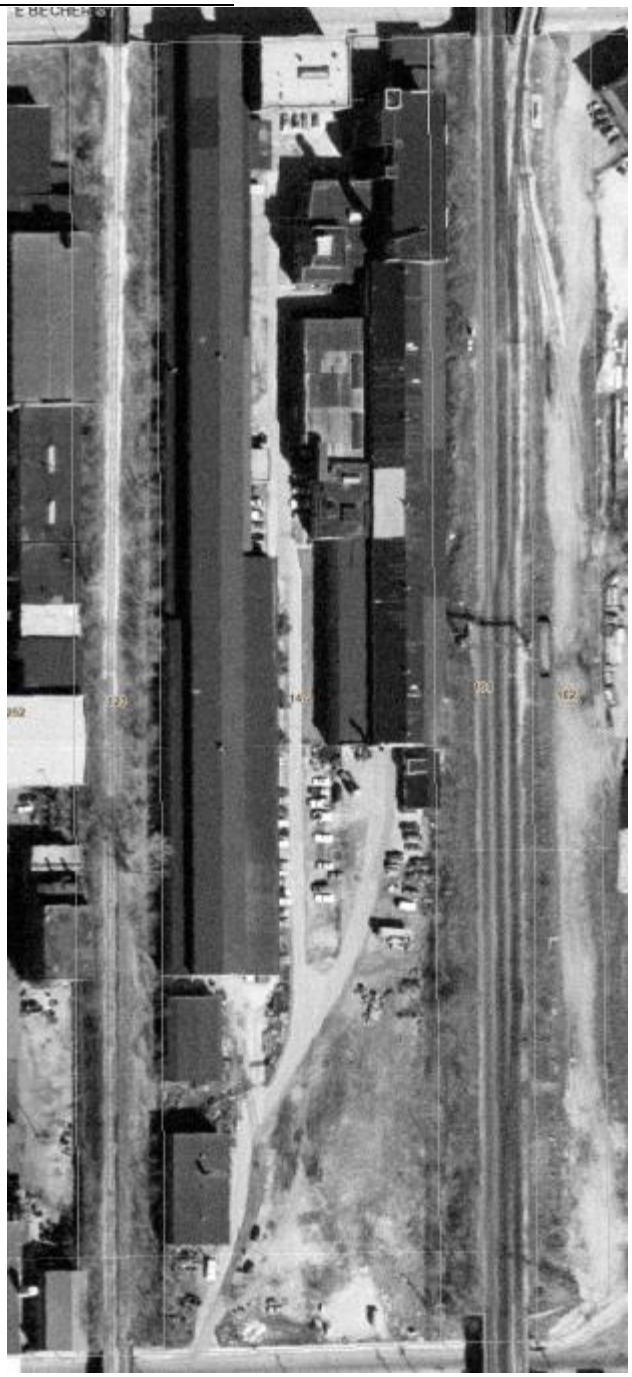


Figure 9: Aerial photograph, 1990 (Milwaukee County Land Information Office).

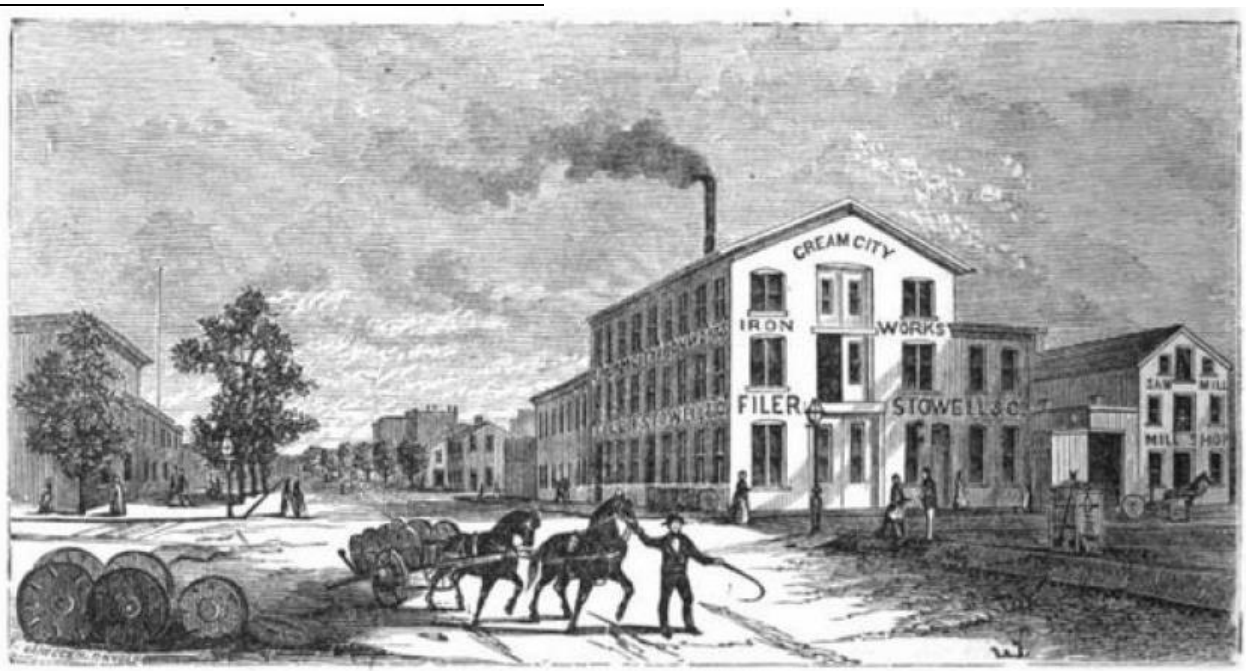
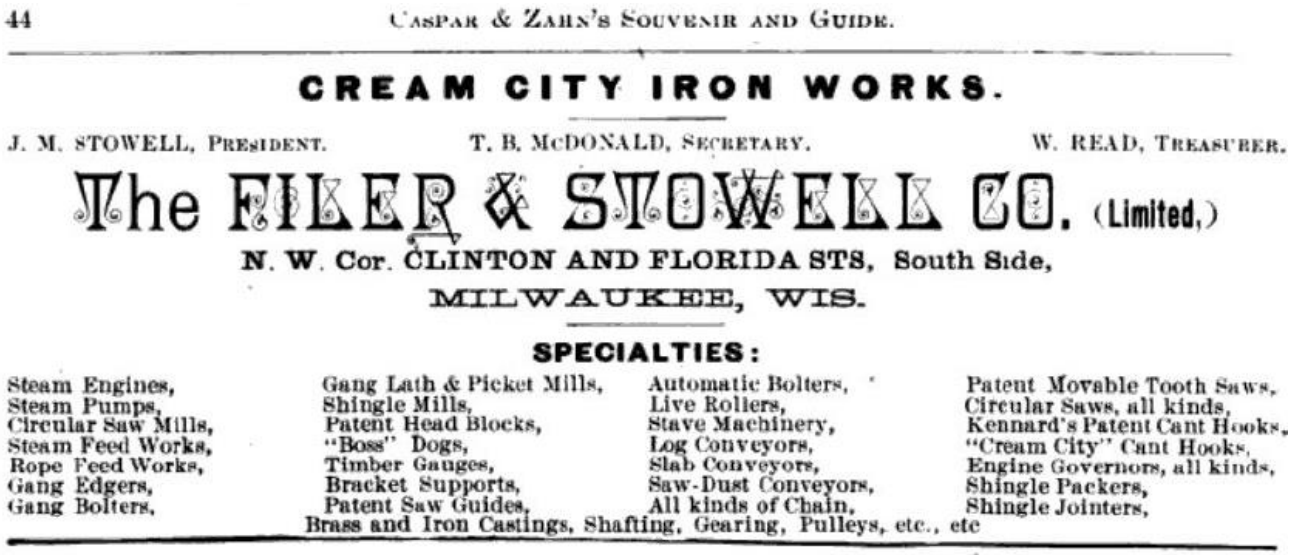


Figure 10: Filer and Stowell Cream City Iron Works, 1877. (*Milwaukee Illustrated: Its Trade, Commerce, Manufacturing Interests, and Advantages as a Residence*, 1877.)



44 CASPAR & ZAHN'S SOUVENIR AND GUIDE.

CREAM CITY IRON WORKS.

J. M. STOWELL, PRESIDENT. T. B. McDONALD, SECRETARY. W. READ, TREASURER.

The FILER & STOWELL CO. (Limited,)

N. W. Cor. CLINTON AND FLORIDA STS, South Side,

MILWAUKEE, WIS.

SPECIALTIES:

Steam Engines,	Gang Lath & Picket Mills,	Automatic Bolters,	Patent Movable Tooth Saws,
Steam Pumps,	Shingle Mills,	Live Rollers,	Circular Saws, all kinds,
Circular Saw Mills,	Patent Head Blocks,	Stave Machinery,	Kennard's Patent Cant Hooks,
Steam Feed Works,	"Boss" Dogs,	Log Conveyors,	"Cream City" Cant Hooks,
Rope Feed Works,	Timber Gauges,	Slab Conveyors,	Engine Governors, all kinds,
Gang Edgers,	Bracket Supports,	Saw-Dust Conveyors,	Shingle Packers,
Gang Bolters,	Patent Saw Guides,	All kinds of Chain,	Shingle Jointers,

Brass and Iron Castings, Shafting, Gearing, Pulleys, etc., etc

Figure 11: Filer and Stowell advertisement, 1886 (*The City of Milwaukee Guide to the "Cream City" for Visitors and Citizens*, 1886).

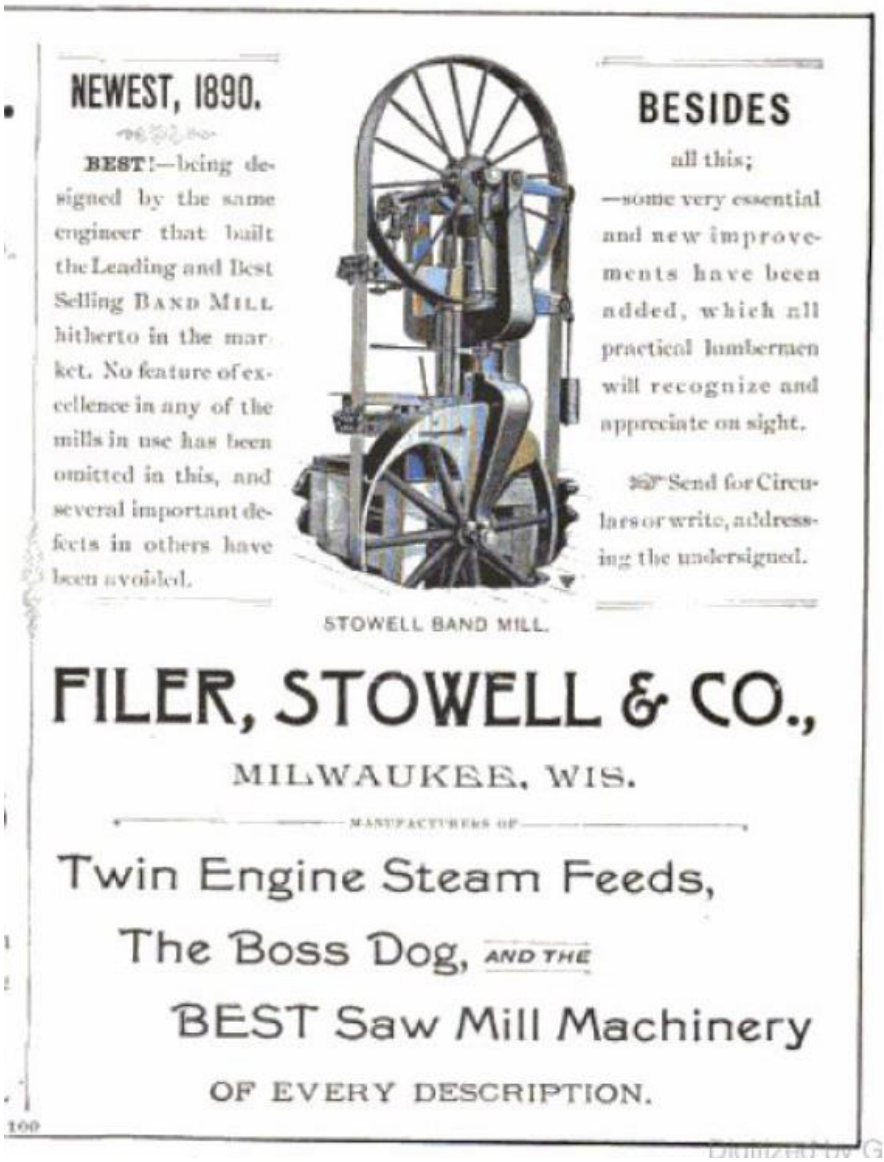


Figure 12: Filer and Stowell advertisement from 1890, two years prior to company's 1892 relocation to the Becher Street site ("An Illustrated Description of Milwaukee, Its Homes, Social Conditions, Public Institutions, Manufacturers, Commerce, Improvements, and its Unparalleled Growth, Together with a Record of its Activities in the Past Year," *Milwaukee Sentinel*, March 1, 1890).

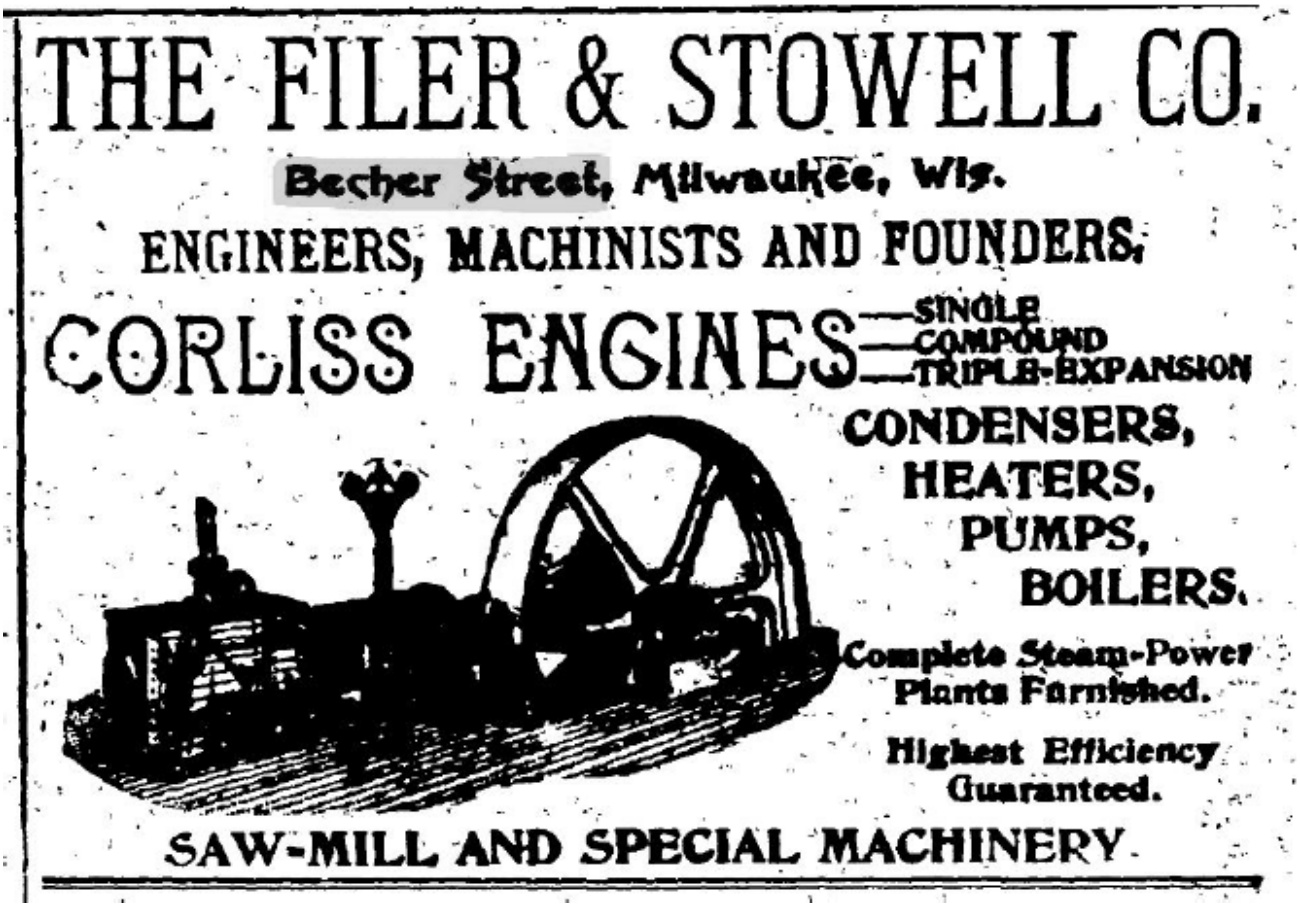


Figure 13: Filer and Stowell advertisement from 1892, the year the company relocated to the Becher Street plant (*Milwaukee Journal*, August 13, 1892).

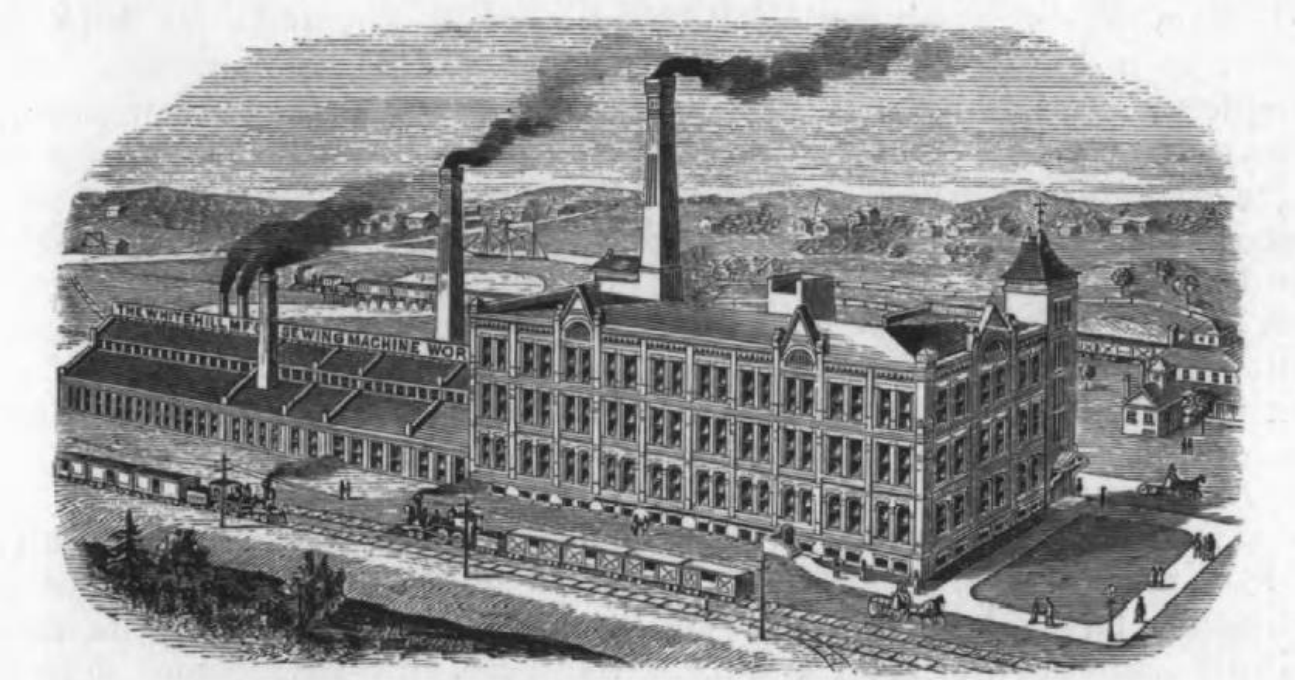


Figure 14: 1886 view of the 1881 Whitehill Sewing Machine Co. factory, later Filer and Stowell's Pattern Shop (B) (*Industrial History of Milwaukee: The Commercial, Manufacturing and Railway Metropolis of the North-West*, 1886).

Figure 15: Pre-1903 view of the Becher Street Filer and Stowell Company Complex from an undated advertisement. Note the 1903 Garage (A) and 1930 Office (K) are not yet constructed.

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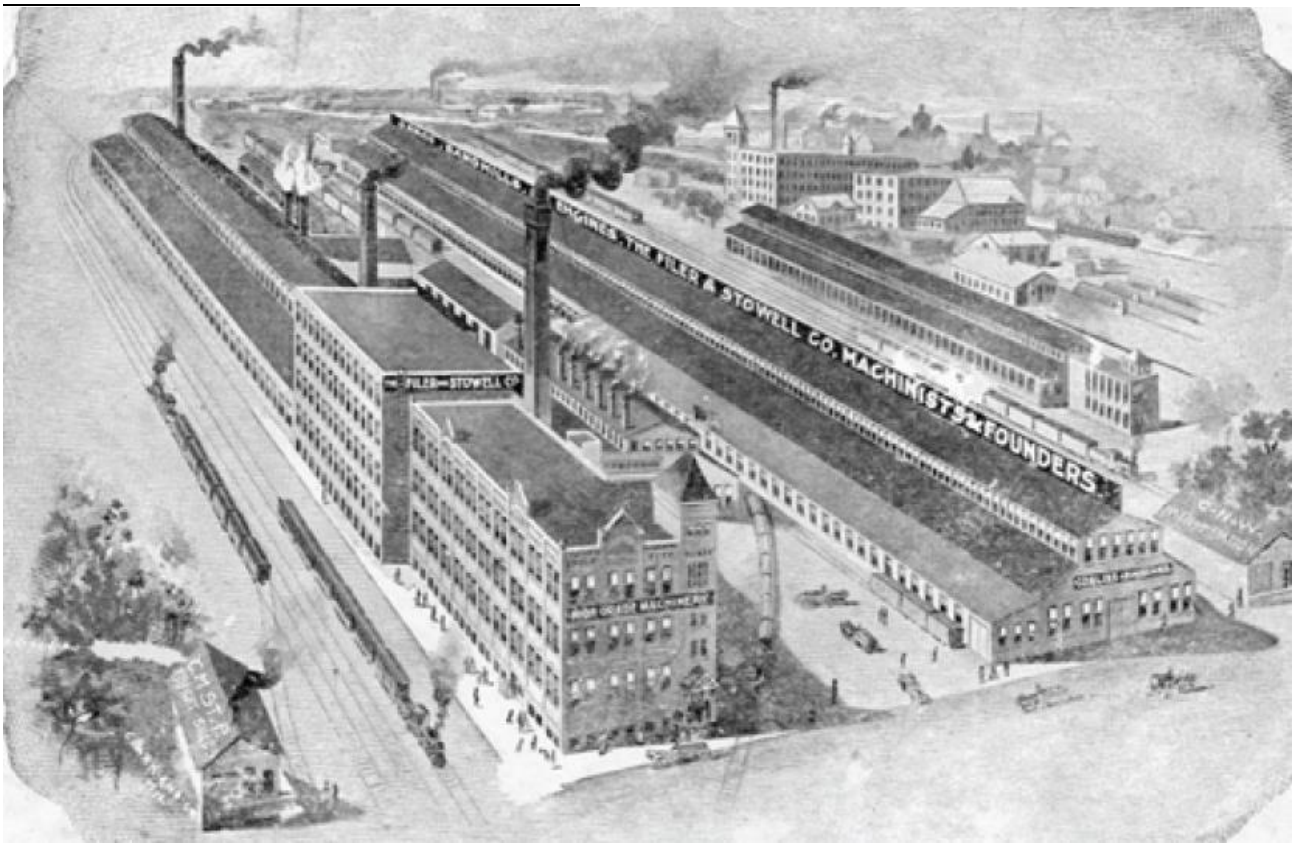

Figure 16: Pre-1903 view of Becher Street Filer and Stowell Company Complex. Note the 1903 Garage (A) and 1930 Office (K) are not yet constructed.

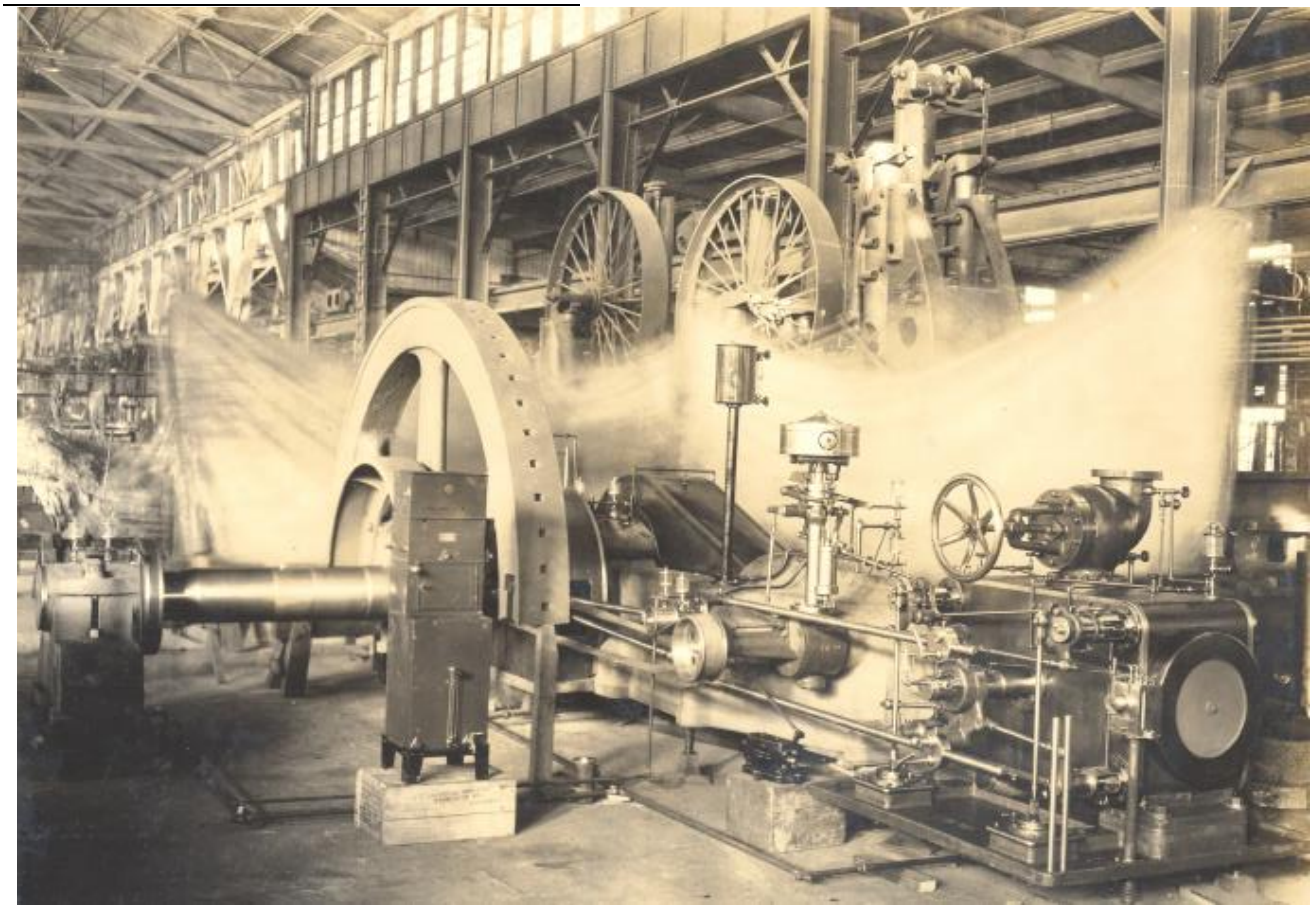

Figure 17: 1920s photo of a Filer and Stowell Corliss engine inside the south Machine Shop extension (J2) near the connection with the original 1889 Machine Shop (J). Note the transition from steel to wood structure in the left quarter of the photograph. (Brad Smith and Tom Fehring).

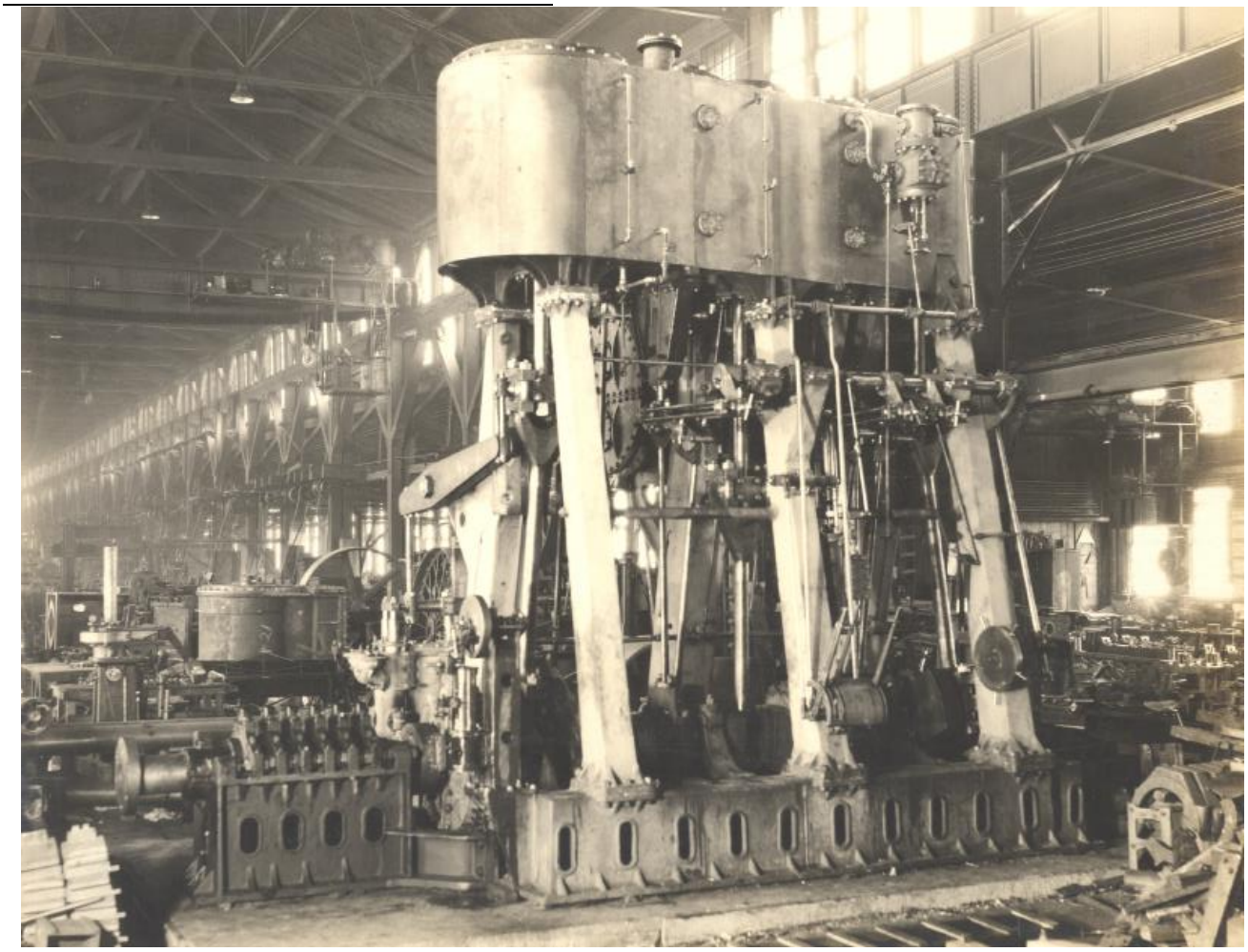

Figure 18: C. 1942 photo of the Filer and Stowell marine engine under production in the 1899 Machine Shop extension (J2) near the connection with the 1889 Machine Shop (J). The building's structural system on the right side of the engine is steel, and on the left side of the engine it's heavy timber (Brad Smith and Tom Fehring).

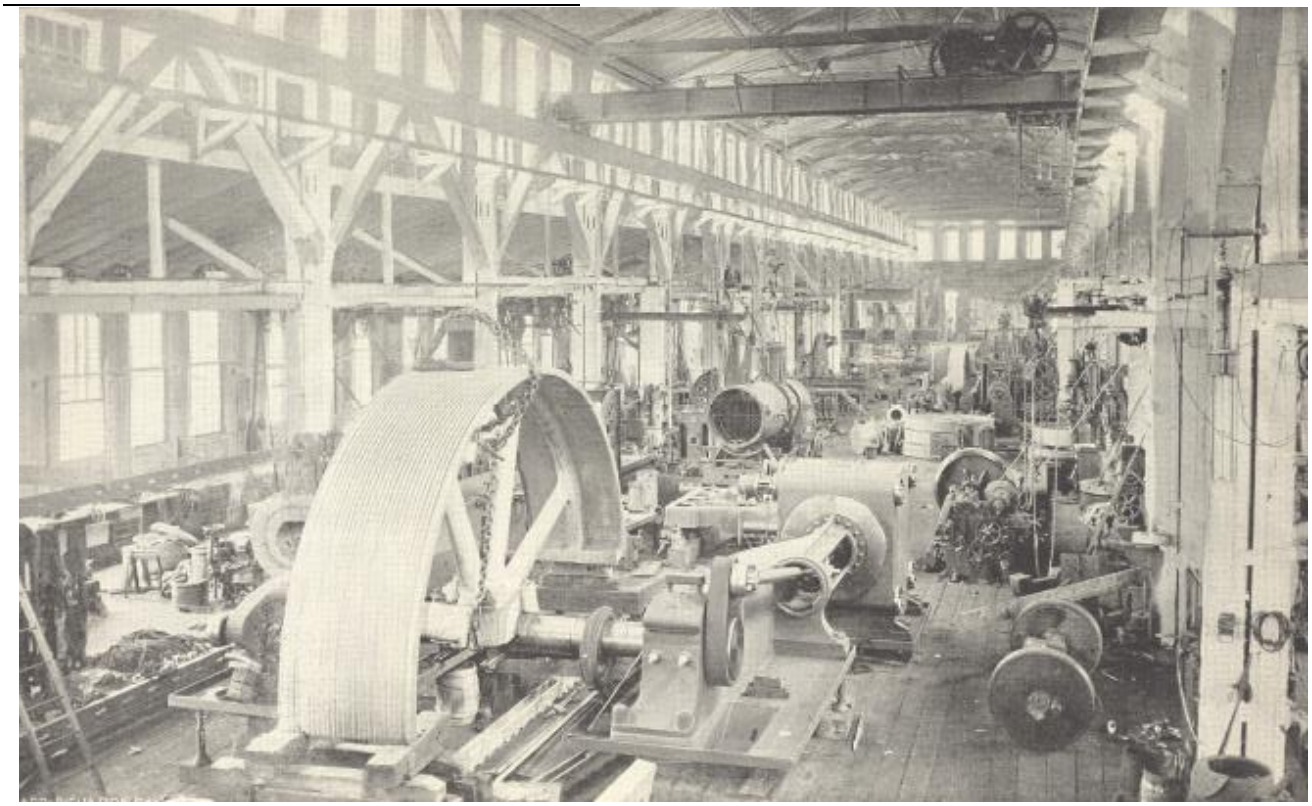

Figure 19: Filer and Stowell Corliss engine in a late-nineteenth or early-twentieth century photo taken inside the 1889 North Machine Shop (J) (Brad Smith and Tom Fehring).

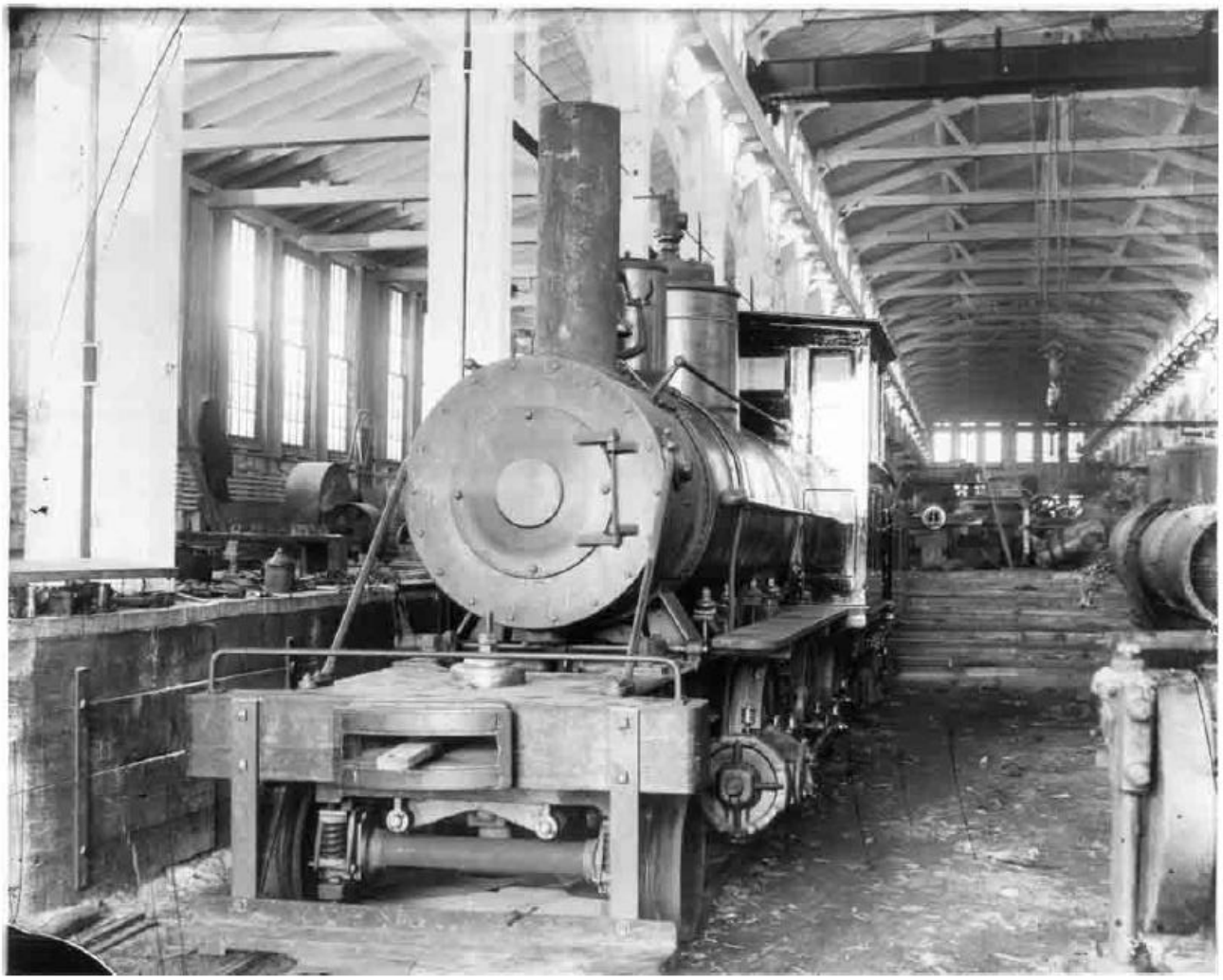

Figure 20: Filer and Stowell locomotive in a late-nineteenth or early-twentieth century photo taken inside the 1889 North Machine Shop (J) (Brad Smith and Tom Fehring).

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THE FILER & STOWELL COMPANY

Manufacturers of Corliss Engines

MILWAUKEE, WIS.

PRODUCTS

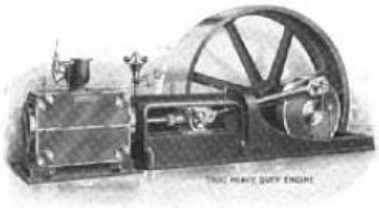
CORLISS ENGINES, STEAM ENGINES, SIMPLE AND CROSS COMPOUND ENGINES, VERTICAL AND HORIZONTAL ENGINES, BLOWING ENGINES, REVERSING ENGINES, CONDENSERS, COMPRESSORS, HEAVY DUTY ROCKING VALVE ENGINES; POWER TRANSMISSION MACHINERY; PUMPING MACHINERY; HOISTING ENGINES

POINTS OF SUPERIORITY OF OUR CONSTRUCTION

All parts subjected to strain are proportioned to stand higher initial steam pressures and higher speeds than other types of Corliss engines.

All working parts and wearing surfaces are made larger than usually found and provided with the most improved devices to prevent the heating of these parts.

All standing parts are made stronger, and so proportioned as to preserve perfect alignment, thereby insuring freedom of movement to the working parts and preventing shocks and jars caused by the momentum of these working parts.



"1900" Heavy Duty Corliss Engine—Rolling Mill Type—Disc Crank

The steam ways in cylinder are so arranged that the passage of steam to and from the cylinder shall occur with the least possible loss.

The clearance spaces in the cylinders are reduced to the smallest percentage.

The cylinder lagging is made of steel, completely covering the cylinder.

No new bonnets are required after the valve ports are rebored.

The valve gear is the most improved gear on the market. The angle of travel are smaller and the working parts simpler, neater and absolutely noiseless.

The wrist plate hook is of a new and improved design, most handy for the engineer.

Governor is of a powerful and highly sensitive construction.

PATENT SAFETY STOP

Every engine is provided with our Patent Safety Stop, which operates in case the governor belt should break or slip off the pulley. This device acts directly upon the valve gear, but will under no condition interfere with the starting of the engine. It does not need to be handled by the engineer.

CONNECTING ROD

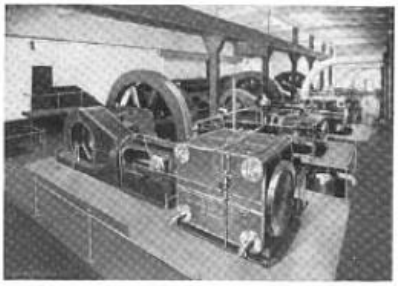
Connecting Rod is of solid end type and provided with the simplest and best take-up bearing in the market.

MULTIPLE CYLINDER EXPANSION ENGINES

Multiple cylinder expansion engines are divided into Compound, Triple, and Quadruple Expansion Engines.

Compound Engines are either of the Tandem or Cross Compound Type. As there is no difference in economy the selection between a cross or a tandem compound engine will largely depend upon the location.

In order to obtain the best results, compound engines should run condensing.



Three Cross Compound Engines "1900" Heavy Duty Rolling Mill Type direct connected to 800 K.W. Generator. 100 R.P.M. Cylinders 26" and 48" x 48". Union Street Rwy., New Bedford, Mass.

COMPOUND NON-CONDENSING ENGINES

Compound non-condensing engines will operate with good economy provided they have a comparatively steady load, for which they must be carefully proportioned, and provided, they are given high steam pressures, not less than 110 pounds.

In the equipment of compound engine plants great care should be taken to avoid leakage. A thorough covering of the pipes and cylinders to prevent radiation, large steam passages and also good management of both engine and boiler, are items that have a great influence on the economy of the plant.

Figure 21: Filer and Stowell advertisement for Corliss engines, 1912.

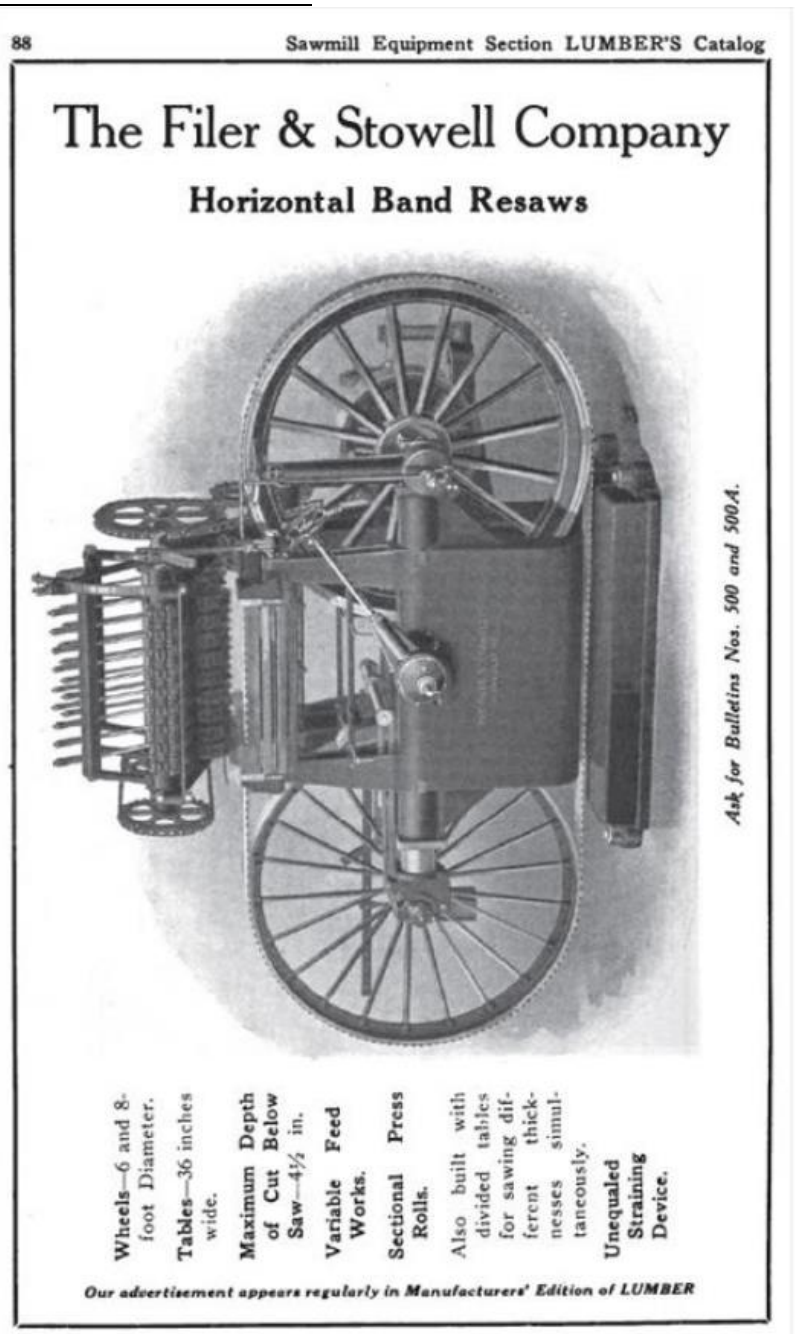


Figure 22: Filer and Stowell advertisement for horizontal band resaws, 1921.

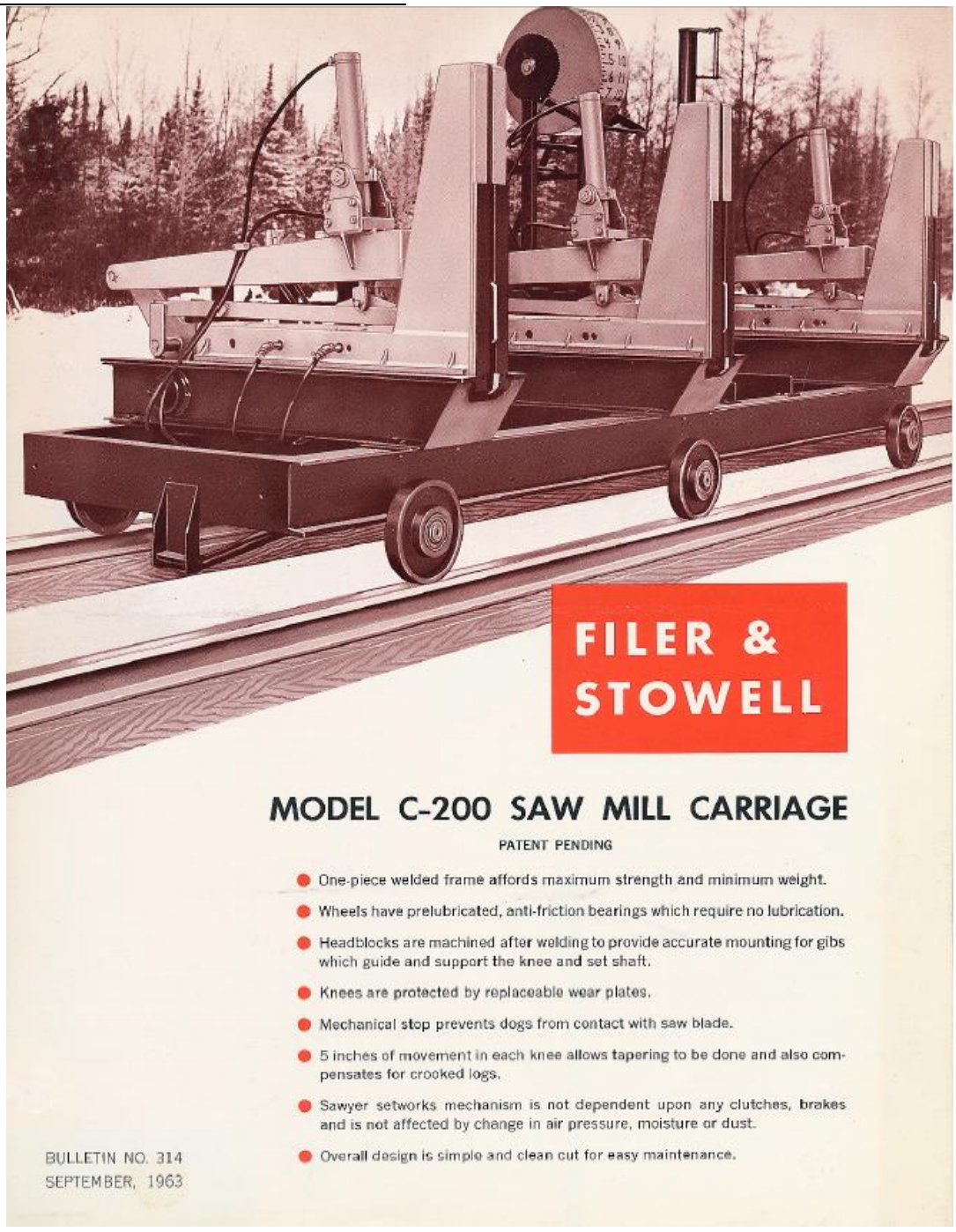


Figure 23: Cover of 1963 Filer and Stowell sawmill carriage marketing brochure.

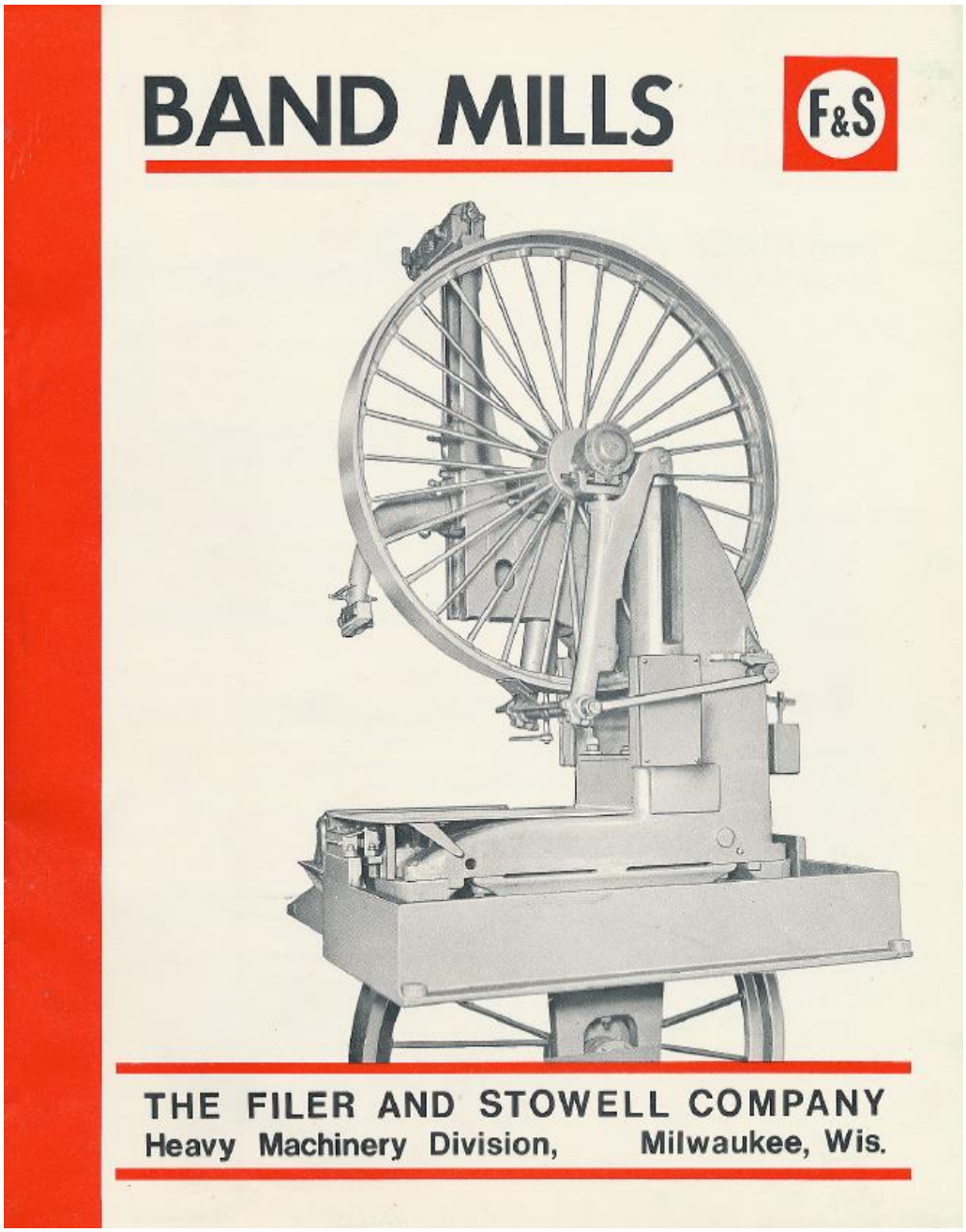


Figure 24: Cover of 1969 Filer and Stowell band mills marketing brochure

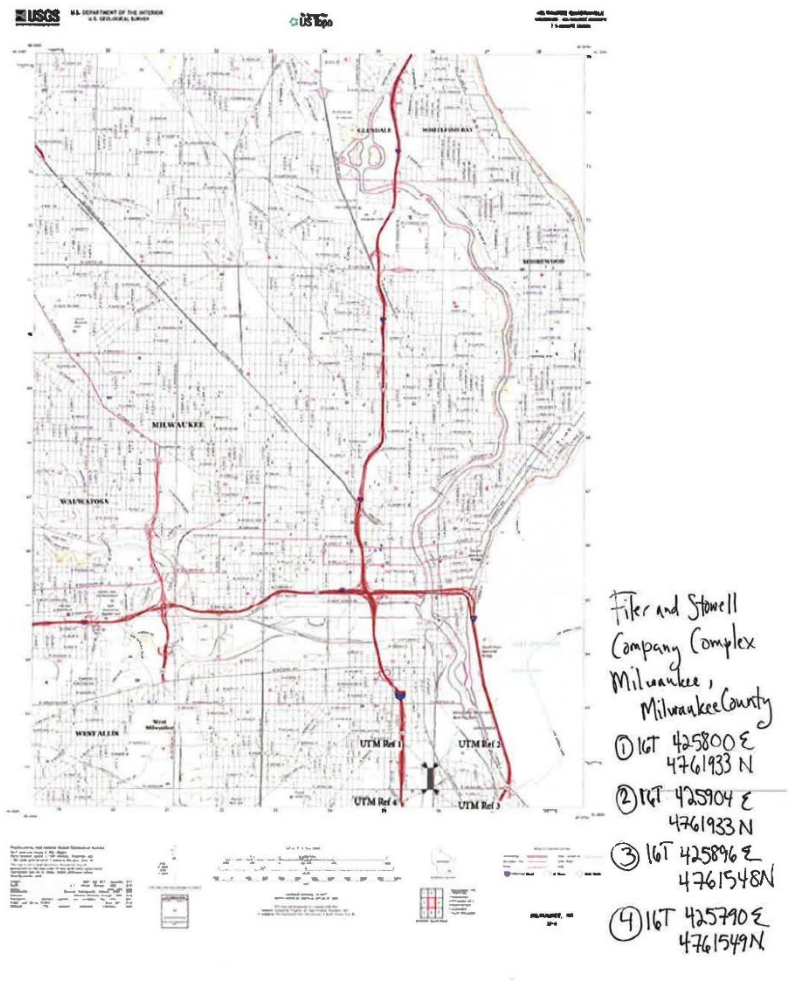


Figure 25: USGS Map with UTM Coordinates

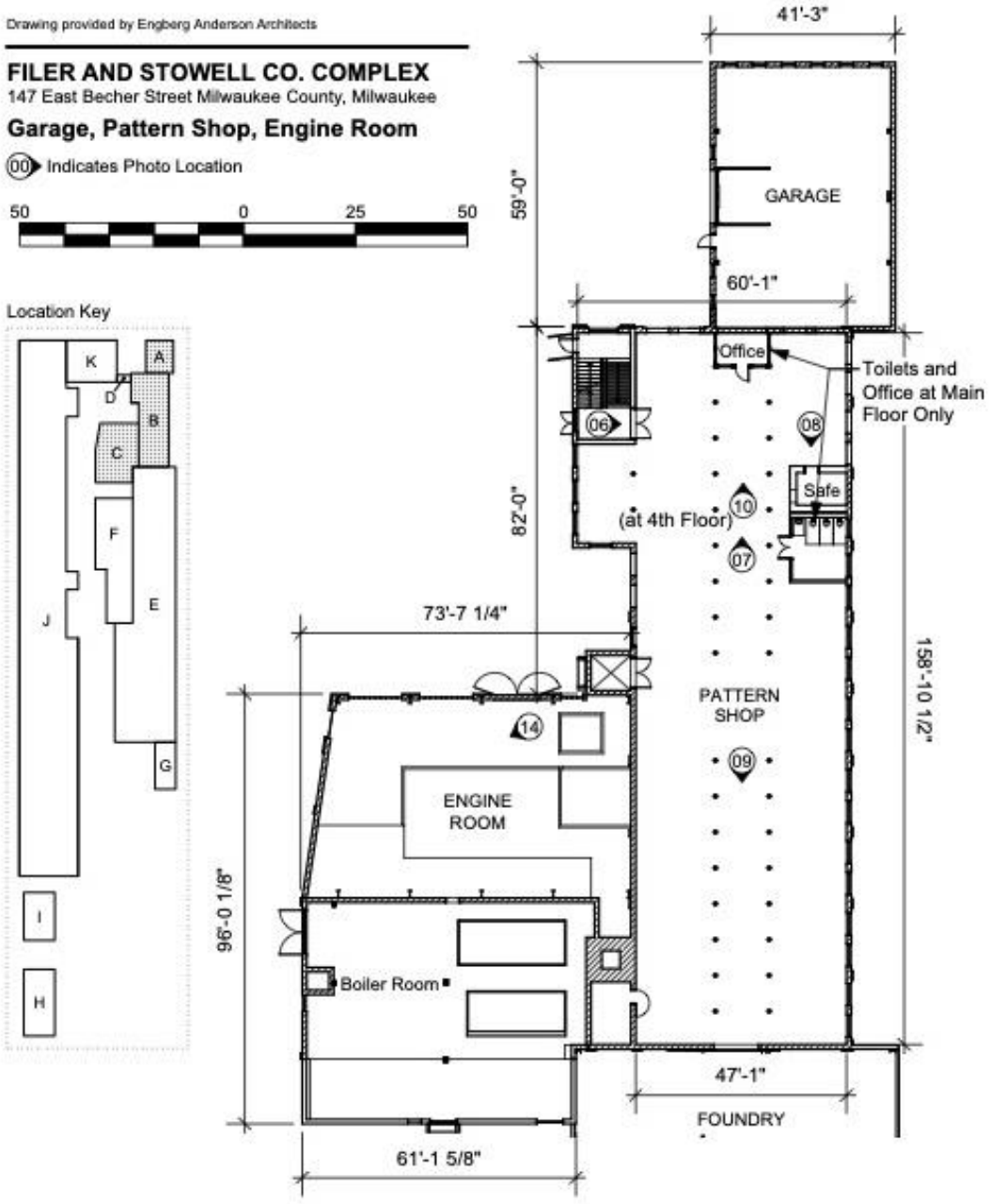


Figure 26: Floor Plans, Garage, Pattern Shop, Engine Room. The Pattern Shop has a similar floor plan on all floors.

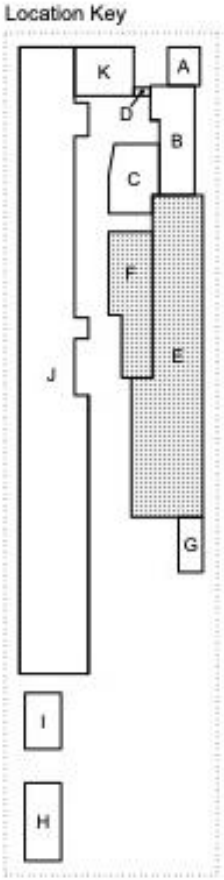
Drawing provided by Engberg Anderson Architects

FILER AND STOWELL CO. COMPLEX
147 East Becher Street Milwaukee County, Milwaukee
Foundry, Forge/Forge Cupola

00 Indicates Photo Location

50 0 25 50 100

Location Key



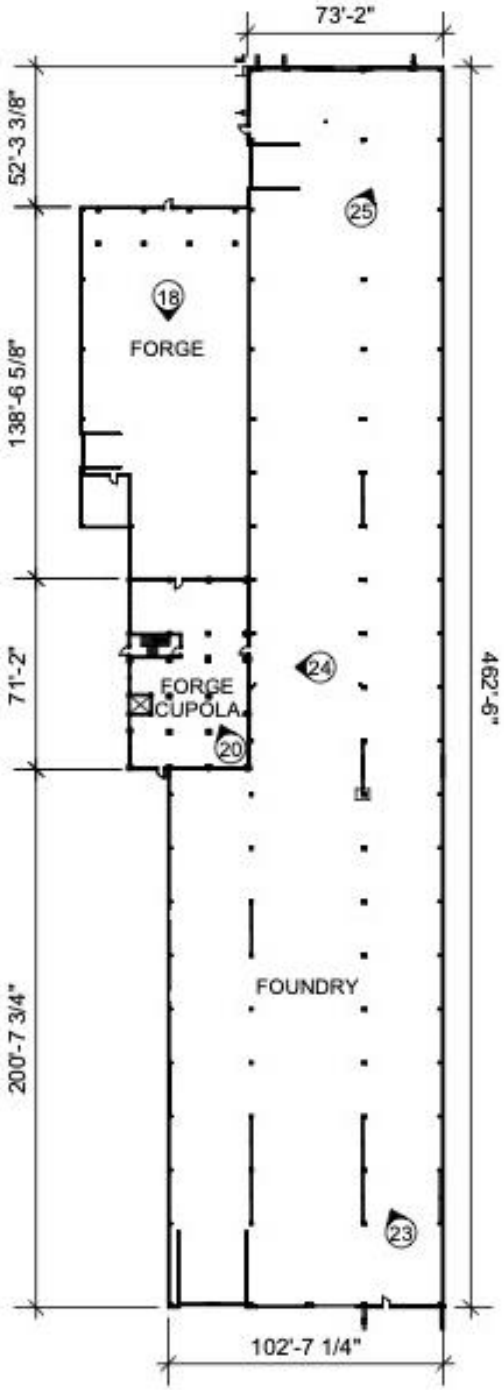


Figure 27: Floor Plans, Foundry, Forge Cupola, and Forge

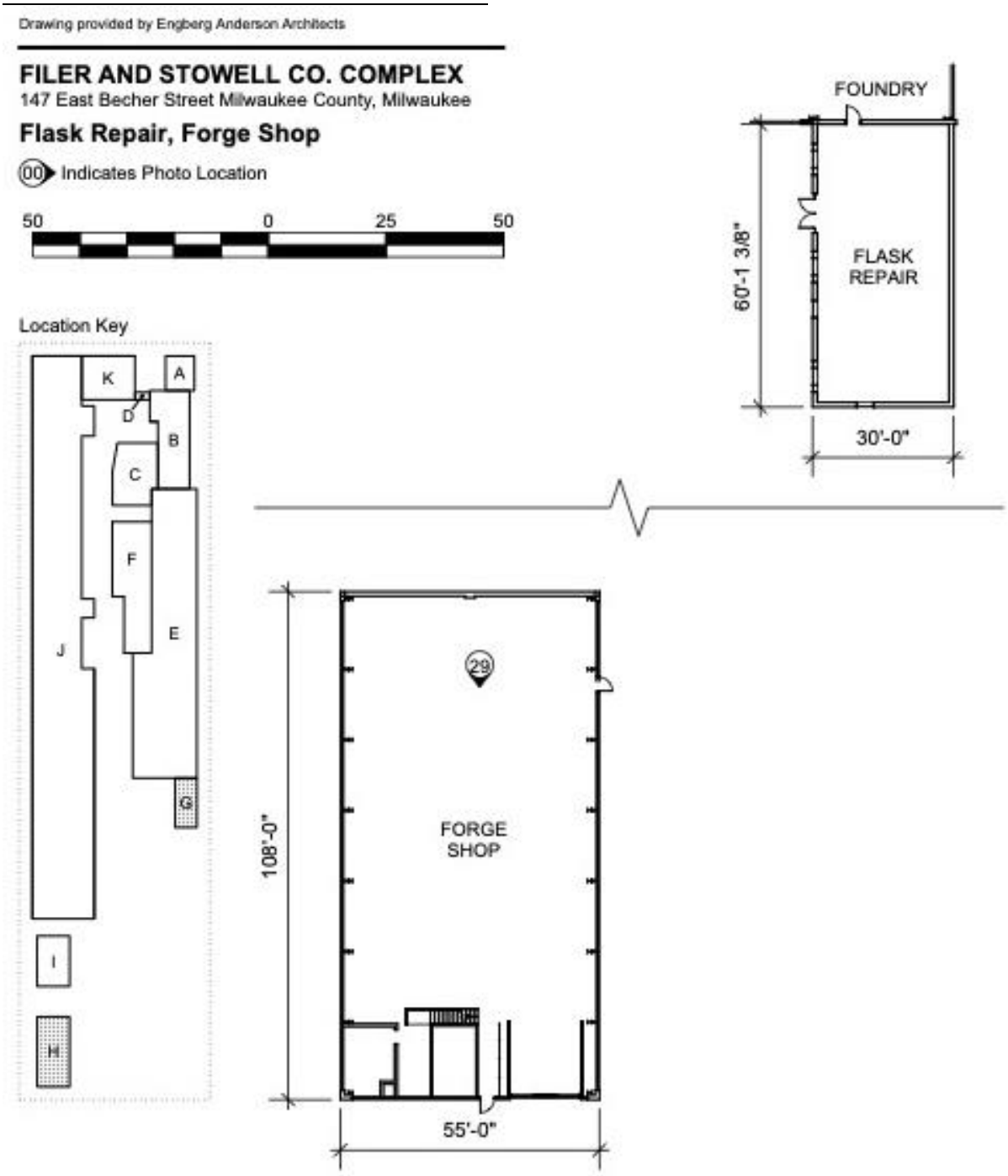


Figure 28: Floor Plans, Flask Repair Building, Forge Shop

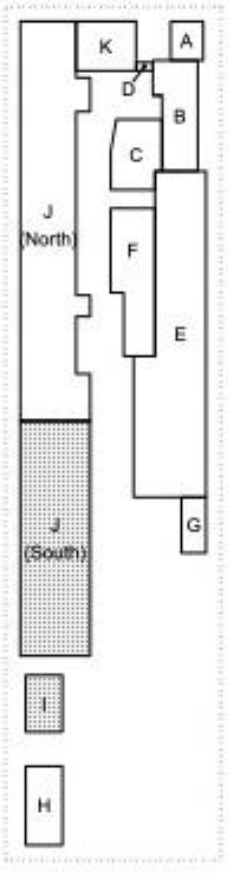
Drawing provided by Engberg Anderson Architects

FILER AND STOWELL CO. COMPLEX
147 East Becher Street Milwaukee County, Milwaukee
Wood Shop, South Machine Shop

(00) Indicates Photo Location

50 0 25 50 100

Location Key



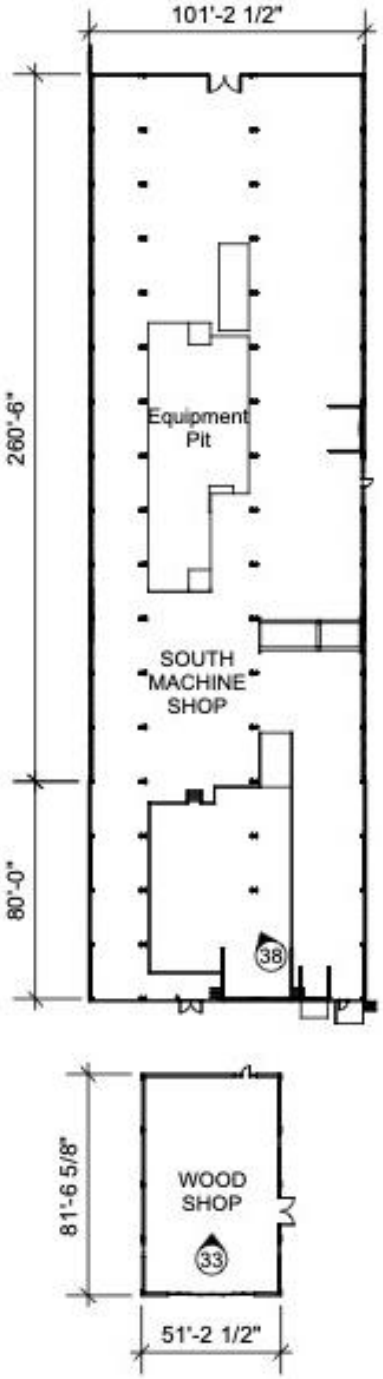


Figure 29: Floor Plans, Wood Shop, South Machine Shop

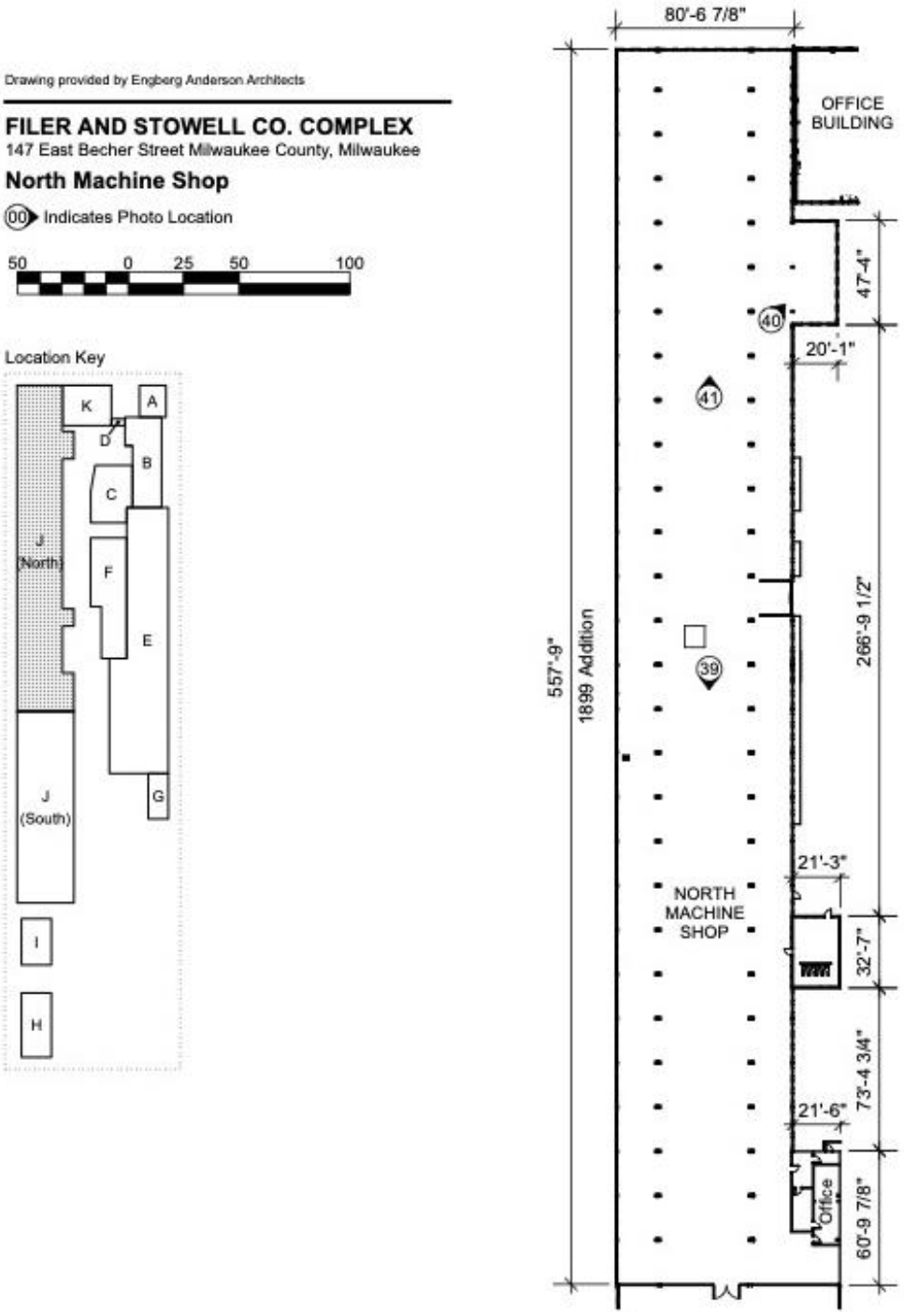


Figure 30: Floor Plans, North Machine Shop

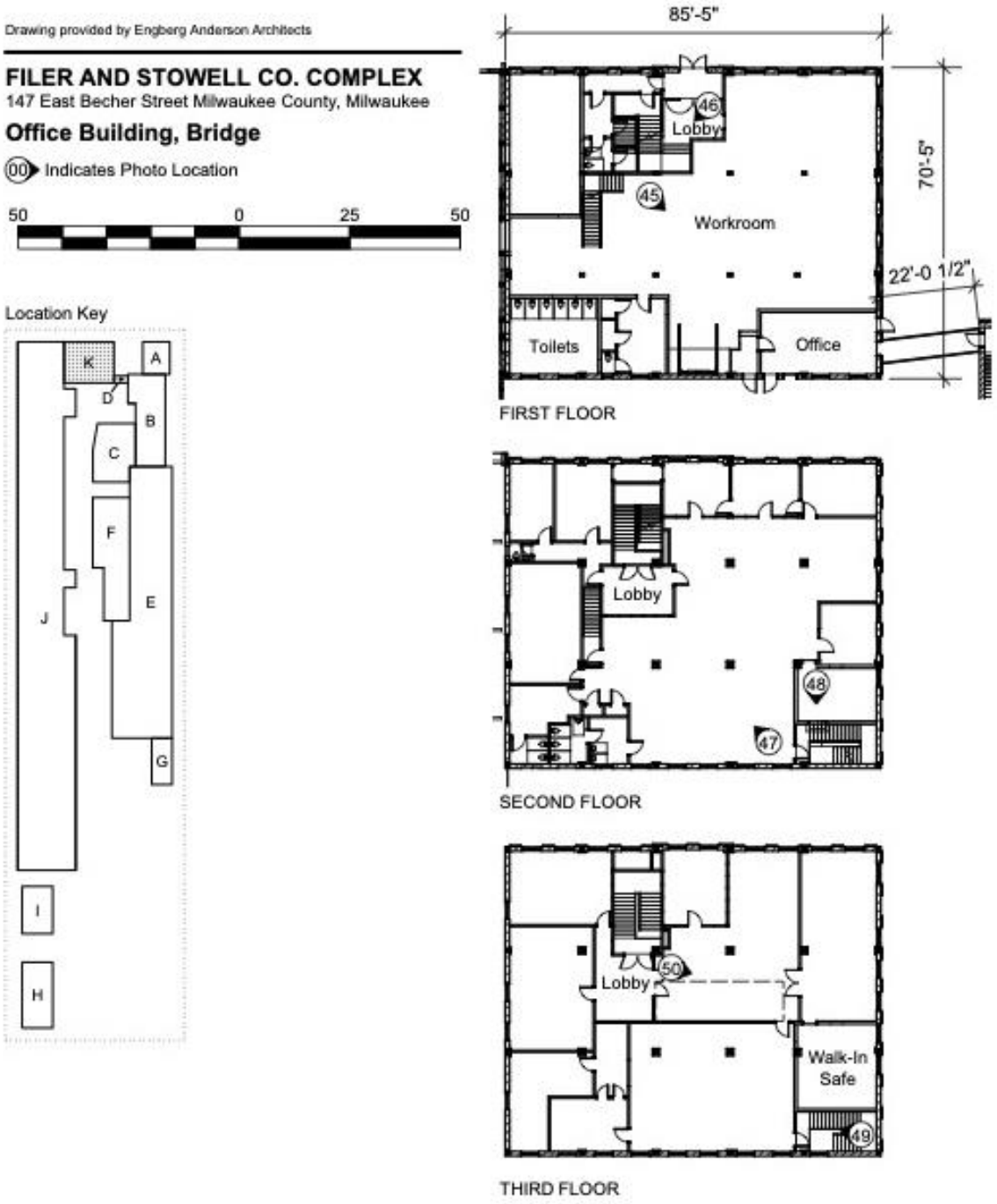


Figure 31: Floor Plans, Office Building