NPS Form 10-900
(Rev. Aug. 2002)

OMB Approval No. 1024—0018
(Expires Jan. 2005)

**United States Department of the 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 Minneapolis Fire Department Repair Shop

other names/site number

## 2. Location

street & number 24 University Avenue NE and 222 First Avenue NE ☐ not for publication N/A

city or town Minneapolis ☐ vicinity

state Minnesota code MN county Hennepin code 053 zip code 55413

## 3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this ☒ 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 ☒ meets ☐ does not meet the National Register criteria. I recommend that this property be considered significant ☐ nationally ☐ statewide ☒ locally. (☐ See continuation sheet for additional comments.)

Signature of certifying official/Title — Date March 30, 2005

Patrick McCormack, Deputy State Historic Preservation Officer

State or Federal Agency or Tribal government Minnesota Historical Society

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.

☐ removed from the National Register.

☐ other, (explain:) _____

Signature of the Keeper — Date of Action

for Edson Beall 5/19/05

Minneapolis Fire Department Repair Shop
Name of Property

Hennepin County, MN
County and State

## 5. Classification

**Ownership of Property**
(Check as many boxes as apply)

- ☒ private
- ☐ public-local
- ☐ public-State
- ☐ public-Federal

**Category of Property**
(Check only one box)

- ☒ building(s)
- ☐ district
- ☐ site
- ☐ structure
- ☐ object

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

| Contributing | Noncontributing | |
|---|---|---|
| 1 | 0 | buildings |
| 0 | 0 | sites |
| 0 | 0 | structures |
| 0 | 0 | objects |
| 1 | 0 | Total |

**Name of related multiple property listing**
(Enter "N/A" if property is 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)

GOVERNMENT: other: fire engine repair shop

**Current Functions**
(Enter categories from instructions)

COMMERCE: trade: business/professional

## 7. Description

**Architectural Classification**
(Enter categories from instructions)

LATE 19TH AND EARLY 20TH CENTURY
AMERICAN MOVEMENTS: Commercial Style

**Materials**
(Enter categories from instructions)

foundation STONE: Limestone
walls BRICK
roof ASPHALT
other STONE: Limstone lintels

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

(See continuation sheets)

Minneapolis Fire Department Repair Shop
Name of Property

Hennepin County, MN
County and State

## 8. Statement of Significance

**Applicable National Register Criteria**
(Mark "x" in one or more boxes for the criteria qualifying the property for 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)
POLITICS/GOVERNMENT

**Period of Significance**
1909-1933

**Significant Dates**
1910—construction of main building
1922—construction of addition

**Significant Person**
(Complete if Criterion B is marked above)
N/A

**Cultural Affiliation**
N/A

**Architect/Builder**
Downs & Eads

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

## 9. Major Bibliographical References

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

**Previous documentation on file (NPS):**

- [X] preliminary determination of individual listing (36 CFR 67) has been requested
- [ ] previously listed in the National Register
- [ ] 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:**

- [ ] State Historic Preservation Office
- [X] Other State agency
- [ ] Federal agency
- [ ] Local government
- [ ] University
- [X] Other

Name of repository:
Minnesota State Historical Society Archives

Minneapolis Fire Department Repair Shop
Name of Property

Hennepin County, MN
County and State

## 10. Geographical Data

**Acreage of Property** less than one

Minneapolis South, Minn., 1967, Revised 1993

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

| | Zone | Easting | Northing |
|---|---|---|---|
| 1 | 15 | 479720 | 4981510 |
| 2 | | | |
| 3 | | | |
| 4 | | | |

☐ 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 Thomas R. Zahn, Bethany Gladhill

organization Thomas R. Zahn & Associates date December 20, 2004

street & number 807 Holly Avenue telephone 651-227-9989

city or town Saint Paul state MN zip code 55104

## 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 Fire Barn Associates, LLD

street & number 24 University Avenue NE telephone 612-746-0001

city or town Minneapolis state MN zip code 55413

Minneapolis Fire Department Repair Shop
Hennepin County, MN

**Description**

The Minneapolis Fire Department Repair Shop, located at 24 University Avenue Northeast, is a two-story brick industrial building on the northwest corner of University Avenue Northeast and First Avenue Northeast. It was built in 1909, and designed by the firm of Downs and Eads. Its later addition is a one story brick building, to its west side, at 210 First Avenue Northeast between University Avenue and Second Street Northeast. Its is alternately listed as 13-17 Second Street Northeast. The architect of the addition, built in 1922 as a "brick filling and greasing station," is unknown.

The Minneapolis Fire Department Repair Shop is located in the northwest area of the St. Anthony Falls Historic District that was listed on the National Register of Historic Places in 1971. It is the opinion of the MN/SHPO that this portion of the district has lost its historic physical integrity and no longer contributes to the significance of the larger district. Because of this, it is necessary to evaluate the eligibility of the Minneapolis Fire Department Repair Shop on an individual basis by considering its significance under a separate context.

The main repair garage is a two-story, early-twentieth-century masonry building, rectangular in plan, with no setback from the sidewalk. The dimensions are approximately 80' x 155'.

The building displays two finished elevations along University Avenue and First Avenue Northeast. The elevations are composed of a red brick foundation/watertable with a cream colored brick above. The facades are crowned with a shallow projecting corbelled cornice and a tile capped parapet. The fenestration consists of windows, pedestrian doors and garage doors on the first floor, and window banding along the second floor. All windows on the two main elevations have stone sills and are nine-over-nine, double-hung.

The University Avenue façade, the main entrance to the building, displays on the first floor a symmetrical placement of a central pedestrian door and transom, flanked by windows. To the outside of the windows are two doorway openings, originally fitted for garage doors, to the side of the doors are two more windows. A band of second story, nine-over-nine double-hung windows line up with the openings below on the first floor.

The First Avenue, first story elevation displays a long band of double-hung windows interrupted with a pedestrian entry and two garage door openings to the west. One of the vehicular openings retains its original swinging doors with six-over-six windowpane openings in each door. The second story displays a band of double-hung windows in line with the openings below.

The secondary facades of the 1909 building are faced in a cream-colored common brick that has been partially painted white. The elevations are capped with red tiled parapet that is broken with the projection of brick stacks. The window and door openings on the secondary elevation are crowned with segmental arches. The windows are flat and metal framed.

The interior of the 1909 building was originally open space defined by concrete and wood floors, exposed brick outer walls, iron posts and beams, open wood joists, and some beadboard ceilings. The interior has been subdivided into suites for office and commercial service uses, but retains its exposed brick outer walls, iron posts and beams. The centrally located industrial elevator shaft was retained and now contains an elevator and a circulation staircase.

The one-story 1922 addition at 222 First Avenue Northeast is similar to the original 1909 building in that it is constructed of similar brick and continues the foundation/watertable across its principle façade facing First Avenue. Dimensions of the addition are approximately 26' x 32'.

The main façade of the addition is divided into three bays. The center bay, which surrounds the garage entry door, is given emphasis with a raised, corbelled brick parapet cornice. The door opening is filled with an over-sized, modern, overhead garage door. Above the door is a multi-planed transom. The two side bays are filled with large banks of industrial paned windows, divided by brick piers in the Chicago style, with multi-paned transom windows above. A pedestrian door is located to the far left of the main façade.

The secondary facades are faced in common brick and have a short parapet capped in tile. Some of the brick has been painted and the back of the building displays a garage door opening with an overhead door. The most striking features on the secondary elevations are the four skylight enclosures that project above the parapet along the Second Street Northeast elevation.

The interior of the 1922 building is raw open space defined a carpeted concrete floor, exposed brick outer walls, and elaborate truss system that supports the four massive skylights which cross the entire addition east to west. The addition has no basement.

Minneapolis Fire Department Repair Shop
Hennepin County, MN

**Statement of Significance**

The Minneapolis Fire Department Repair Shop, located at 24 University Avenue Northeast, and its adjacent later addition at 222 First Avenue Northeast, is eligible for the National Register under Criterion A — its contribution to the broad patterns of our history and the City of Minneapolis' efforts to reorganize and centralize specific municipal operations — in the Area of Significance of Government and Politics. In particular, the shop is representative of both the early consolidation of department services and the Minneapolis Fire Department's conversion from horse-drawn to motorized vehicles. The level of significance is local to Minneapolis, and the period of significance is 1909-1933, beginning with the construction of the main repair shop in 1909 and continuing through the motorization of the force as completed by 1933. The property reflects the historical patterns identified by the Minnesota historic context "Urban Centers, 1870-1940."

Minneapolis' Fire Department has a long and proud tradition of excellence, with two of its proudest moments reflected by this repair shop. First, the shop demonstrated an efficient use of the department's resources by its consolidation of services in a central repair and production site, the only one of its kind in the city. Here, repairs and maintenance could be done promptly, without tying up valuable space and resources at the individual fire stations, while mechanics developed specialized skills and abilities. Secondly, the motorization of the force, especially in the adaptation and construction of new apparatus as developed by the repair shop, allowed the department to evolve into an efficient and impressive modern fire department.

The City of Minneapolis had long placed great importance on its firefighting operations, and a basic understanding of the history of the Minneapolis Fire Department (MFD) is crucial to understanding the importance of the consolidation and motorization initiatives. As with most late 19$^{th}$ century industrial American cities, Minneapolis' first fire department was an all-volunteer force, established in 1868 after the city developed its first major water system, as supplied by the Mississippi River's St. Anthony Falls, which provided sufficient water pressure for hand-drawn hoses (Heath 1981, p7). The town of St. Anthony, located on the east bank of the Mississippi, ran its own volunteer fire department, but absent a similar municipal water system, relied upon hand-drawn pumping engines.

Minneapolis in the late 1800s was a rapidly expanding city, with most of its economic basis in lumber and flour milling. It grew even more substantially when it formally merged with St. Anthony in 1872; however, each side of the river continued to be served by separate volunteer fire brigades. In 1878, the volunteer firefighters for both areas joined as one force under the command of Chief Winslow M. Brackett. Concerns about Minneapolis' fire vulnerability due to its volatile milling industry and the predominance of wood-frame construction were

growing quickly. The city suffered a major loss with the Washburn "A" Mill Fire on May 2, 1878, in which two blocks of industrial properties were leveled and eighteen lives lost. (Huyck notebook)

In 1879 the overwhelmed volunteer firefighters petitioned the City of Minneapolis to replace them with a paid, professional "call force," and Minneapolis became perhaps the only major city nationwide in which the volunteer force requested to be disbanded. (Rowe interview, 2001) The total size of the new call force was two steamers, six hose companies, one ladder truck and one chemical ladder, operating out of seven stations (Heath 1981, p11).

The city rapidly professionalized its force by updating several of its ladder trucks and stations, and by discontinuing the practice of hiring teams of horses, instead purchasing horses that could be more easily chosen and trained for the rigors of their duties. A huge improvement occurred in 1881, when all Minneapolis stations installed the "swinging harness" — a quick-hitch harness permanently attached to the apparatus and suspended from the fire station ceiling, which could be quickly dropped onto the horses when the alarm sounded.

The 1880s were an extremely challenging period for the Minneapolis Fire Department. The city of Minneapolis expanded to the north and south, adding over 22 square miles to the city. Minneapolis effectively became three major districts: downtown, the mills, and residential areas, all of which provided unique firefighting challenges, particularly due to a lack of construction standards and the choice of wood as the primary building material.

Prompted by Mayor Ames and an *ad hoc* task force of local builders and architects, and after much debate, the Minneapolis City Council enacted its first comprehensive building code in 1884. It required non-combustible walls, cornices and roofs, as well as interior enclosures and fireproofing for larger buildings, and created the position of building inspector to ensure compliance. From 1880-1890, ten new fire stations were constructed in order to meet the needs of the expanding city. The professional call force was eliminated, replaced by a full-time regular force on duty 24 hours a day (Heath 1981, p20).

Also during this period, there were tremendous problems with water supplies due to the rapid expansion of the system, and to low river levels. In response, the city standardized the hydrant connections in order to increase efficiency, and the Minneapolis Fire Department (MFD) added several new steamers, hose units and chemical trucks to reduce its dependence on the direct pressure water system. Between 1894-1890, the Fire Department added nine steamers, two aerial ladders, two service ladders, eleven hose carriages, five chemical engines, and a water tower to its force. It also expanded several of its rigs to be pulled by three or four-horse teams, to increase their speed and endurance (Heath 1981, p28).

Throughout the 1880s, Minneapolis suffered several large conflagrations, including the Excelsior/Minneapolis Mill fire (1881) in which the first Minneapolis firefighters died in the line of duty, the St. Anthony Elevator fire (1887) in which the $950,000 property loss set new records for the state, and the Tribune Fire (1889) in which 8 lives were lost, the most since the Washburn Explosion. The Minneapolis Fire Department, under the leadership of Frank Stetson since 1882, was widely criticized for its ineffectiveness. However, despite its combustible mills and rapid expansion, Minneapolis escaped the disastrous fires of other industrial urban centers such as Chicago and Boston (Rowe interview, 2001).

The MFD experimented with its first apparatus shop in 1889-90, creating a small outbuilding (now demolished) behind Station H, on the southern edge of downtown, which could perform repairs on the department's rapidly increasing line of equipment. Horace Tuttle was named the first Master Mechanic in a small shop that nevertheless managed to incorporate a machine room, blacksmith, woodworking shop, harness and pattern shops, hose depot, and storage room. Twelve men were detailed on a day-by-day basis from their home companies. (Heath 1978).

In 1891, the Republican majority Minneapolis City Council took two steps that greatly affected firefighting operations in the city; in a highly political appointment they replaced Chief Stetson with their candidate, August Runge, and they made the first major revisions to the building code adopted in 1884, requiring that all hotels and tenements over 6 stories be completely fireproof and setting a height limit of 100', except for mills (Heath 1981, p38).

Over the next sixteen years, the fire department experienced a great fluctuation in funding. At times, the department received high bonding allocations, allowing it to make new purchases, improve systems (such as the telegraph dispatch), and increase the size of the force. During other years, funding was reduced, resulting in wage and benefit cuts and in increased reliance upon the apparatus shop to both handle repairs and to build and adapt new equipment. This period was marked by political controversy (including Stetson's reappointment as Chief in 1895 and subsequent replacement by Republican appointee James Canterbury in 1899) and in investigations of the department (such as a grand jury trial in 1893 inquiring into indiscipline, embezzlement, and theft.) It was also a period of several large, high-profile blazes, of which the Nicollet Island-Boom Island Northeast fire in 1893 is the most notable; it burned over 23 square blocks, many residential, with a total loss of over $975,000 (Huyck notebook).

In 1907, the National Board of Fire Underwriters surveyed Minneapolis' fire systems for the first time. They found the MFD to be efficient and led by a competent Chief; however, the survey also noted that the

department was under funded and provided poor training, and deemed the City Council's direct administrative role unacceptable (Heath 1981, p77-78). The Underwriters also recommended new facilities, and the city responded with liberal bond issues that provided for four additional stations, new apparatus, an improved veterinary hospital, and most importantly, a dedicated repair shop to replace the inadequate facilities at Station H. Firefighter wages and benefits also improved.

The new repair shop was a major priority for the department. However, the choice of location, in the old St. Anthony area near the river, proved highly controversial. Several aldermen, the city attorney, and most notably Chief Canterbury were implicated in a major land speculation scandal regarding the site. The resulting investigation proved that Canterbury had purchased title to the land in early 1909, having paid $100 earnest money on a $6,000 contract. He then gave his cousin, Sarah Guile, $200 to offer the land to the City for $9,000, which guaranteed the site's selection by setting a price substantially less than the other properties under consideration (Heath 1981, p81).

Unfortunately, the repair shop site scandal was not the only land speculation deal revealed at that time. City aldermen were implicated in several situations, including improprieties related to the selection of proposed fire station sites both at 24th Avenue South and Crystal Lake Road, and a second connection to Canterbury in a land sale deal at 27th and Johnson Streets Northeast. Infractions ranged from providing advance information to a real estate company to actual acquisition and resale of the site. In any case, all expansion was halted until stricter property acquisition policies were implemented. At the same time, between the new stations, increased wages, and equipment purchases, the department built up a deficit of over $50,000, sharply curtailing additional or expansion spending. 1910 became a notorious year for the Minneapolis Fire Department, not only for scandals and deficits, but also for record fire destruction, totaling more than $1.9 million for the year.

Public controversy over the issue raged, forcing Canterbury's resignation. Initial reports were sympathetic — "Former Chief Worries While Fire Bell Taps... 'I forget,' he apologized, 'The town doesn't look to me for protection anymore." *(Minneapolis Tribune,* October 2, 1910). Soon, however, the extent of the situation was revealed — "The transaction which led to the indictment was the purchasing of a site at University and First Avenues Northeast for a repair shop for the fire department. It was declared that, by that transaction, Mr. Canterbury realized a profit of approximately $3,000 to which he was not entitled, and that the city was muleted of that sum." *(Minneapolis Tribune,* October 6, 1910). Public sentiment turned vehemently against Canterbury as the extent of the damage was realized, with City Council members asserting that "...the primary reasons for the scare about firemen not getting their November or December pay are attributed to the land purchase revelations..." *(Minneapolis Tribune,* October 11, 1910). Finally, Canterbury was indicted and named in a civil

suit, and Northeast Minneapolis Alderman Johnson censured by the City Council, as "the city council chamber was crowded as it had not been in months, and scores without chairs remained until the last phase of the fire department and council disclosures were brought to settlement." *(Minneapolis Tribune,* November 1, 1910)

Despite these controversial origins, the new repair shop (as completed in late 1909 and opened in 1910) was immediately praised within the department for its spaciousness and building capacity (Berman 1980, p85). The well-equipped shop greatly increased the department's capacity to repair equipment and to build new apparatus, such as the sleds used with the rigs during the winter. The building was designed by the Minneapolis firm of Downs and Eads, well known architects of several other civic and commercial buildings of the period, including Station #28 (built 1914). Harry T. Downs (1868-1929) and Harold H. Eads (1872-1936) practiced architecture together for most of their careers, from 1905-1928.

The shop staff also increased exponentially to 22 men, growing to 25 by 1912. These men were generally permanently assigned to the shop, augmented by some detail engineers from the stations and by a few disabled pensioners no longer able to complete active duty, but able to work in the shop or the dispatch (Rowe interview, 2001).

In 1911, a major shift occurred in the force when Charles Ringer was appointed Chief. Ringer would hold the position for 22 years — the longest term in the department's history, and would usher in the modernization of the force. The beginning of Ringer's term was plagued by several high profile fires, including the Syndicate Fire, which resulted in a total loss of almost $834,000 and required the total Minneapolis force, plus the St. Paul contingent brought over by flatcar, to control (Rowe interview, 2001). Subsequently, one of Ringer's first moves was to coordinate a second National Board of Fire Underwriter's survey. This investigation found substantially more problems with the MFD than its earlier investigation, including deficiencies in manpower, number of stations, and equipment. (See Graphic A, map of Minneapolis fire stations and companies).

The major recommendation made by the report was the conversion from horse-drawn to motorized vehicles, citing their ability to cover large areas and their operational cost savings after the high initial capital investment. Not only were the costs of maintaining the horses eliminated with motorized vehicles, but personnel costs were also reduced, since the driver could also operate the pump; motorized equipment could also potentially reduce the number of stations needed, since they were more mobile and faster. Minneapolis companies had been constructing motorized fire rigs for several years — most notably including the first motorized vehicle to respond to the Triangle Shirtwaist Factory fire in New York (Rowe interview, 2001) — but the MFD had not shown interest in them until Acting Chief Hill tested a motor hose wagon in 1910. The Board of Underwriters

survey confirmed the issue, and the city began issuing bonds for new equipment. By the end of 1911, the MFD had purchased a motorized squad wagon, hose wagon, and automobile for the Chief. The associated Salvage Corps, which had developed to try to save merchandise and commodities at fire sites, replaced its horse drawn units with Pierce-Arrow touring cars, and subsequently was able to close its east side station (Heath 1981, p90).

Rapid expansion continued in 1912-13, when the department purchased five more hose wagons, a triple-combination pumper, a motor tractor for a ladder truck, and cars for district chiefs (Heath 1991, p92). The repair shop saw its first motorized vehicle in 1913, when it began modifying steam fire engines to be towed behind motor hose wagons, rather than by teams of horses. The motorized vehicles did indeed prove faster and more efficient, so much so that the City Council's fire safety committee set motorization, rather than construction of new stations, as its top policy for neighborhood fire protection. Station #29, built in 1916 at 27$^{th}$ and Johnson Streets in Northeast Minneapolis, became the city's last expansion station, with all subsequent stations built either to replace or relocate existing divisions. (See Graphic B, an early chemical-and-hose rig).

Master Mechanic Tuttle retired in 1914, and was succeeded by H.E. Penney, one of the first city employees to pass Minneapolis' new civil service system exams.

By 1916, over one-third of the force had been motorized, with the MFD having acquired six triple combinations, five hose wagons, two steamer tows, four ladder trucks, and three auxiliary squads. Although motorized vehicles were running up to four times as many miles as horse-drawn rigs, they proved to be substantially cheaper to operate, with the MFD estimating over $4,600 per rig in annual savings (Heath 1991, p90). However, other costs began catching up with the department. Top among these were major repairs to the fire telegraph system, and personnel costs relating to the adoption of a two-platoon, alternating shift.

The repair shop turned out to be the answer to a number of Chief Ringer's problems, including: a shortage of firefighters due to the new hours, a lack of funds and the subsequent stalling of the motorization program, and a number of particularly bad, high-profile fires. He realized that part of the solution to both the staffing shortages and financial problems would be to increase motorization of the force, but lacked the capital funds to do so. In 1920, Ringer turned to the shop for an answer, having them convert two old chief's autos to hose wagons.

The financial situation only worsened, as the City of Minneapolis reached the limits of its bonded indebtedness. Ringer's solution was revolutionary and capitalized upon one of the department's main assets— rather than having the repair shop convert obsolete equipment, he would buy secondhand touring cars on the retail market, and then rebuild them as fire rigs in the shop. (See Graphic C, a converted Pierce Arrow).

The repair shop devised a process in which it lengthened the chassis of the cars and made them chain-driven, then added pumps, towing elements, or hose racks, but left the front of the vehicles untouched, making for some very unusual looking rigs! It initially converted two Pierce-Arrows and a Locomobile into pumpers (see Graphic D, a converted Pierce Arrow tractor), and another Pierce-Arrow into a ladder tractor; these were so well received that they went on to concert two more pumpers, four more tractors, and two hose trucks, as well as five newly constructed service ladder trailers (see Graphic E) (Heath 1991, p110). The shop's function had changed from that of a centralized repair unit to a manufacturing facility. It was an integral part of the department without which the motorization of the force could not have occurred at that time.

A 1922 addition to the shop demonstrated the importance of the shop's capacity to build and adapt motorized equipment. The building, a single-story brick structure at 210 First Avenue East, was the first structure built by the MFD specifically for motorized vehicles, and allowed the work force to expand to 31 men (Heath 1979). It marked the department's almost complete conversion to motorized apparatus (Berman 1980, p85). In 1923, "Rocket" and "Flare," the last remaining fire horses, were retired from Station #24 (Heath 1991, p106).

The motorization of the force appears to have had a dramatic effect on the per capita fire loss for the citizens of Minneapolis, as demonstrated below (Hauck notebook):

| Year | Number of Alarms | Loss Per Capita |
|---|---|---|
| 1907 | 1,472 | $3.60 |
| 1908 | 1,832 | $3.59 |
| 1909 | 1,671 | $2.89 |
| 1910 | 2,838 | $6.60 |
| 1911 | 2,146 | $6.82 |
| 1912 | 2,360 | $3.64 |
| 1913 | 2,226 | $1.83 |
| 1914 | 2,474 | $3.16 |
| 1915 | 2,190 | $3.60 |
| 1916 | 2,809 | $3.86 |

Note that although after 1910 the number of alarms remained roughly consistent, the loss per capita dropped dramatically, demonstrating quicker response times and more effective firefighting.

In twelve short years from 1911-1923, the Minneapolis Fire Department had gone from a traditional, nineteenth century force to a modern well-equipped department, thanks to the motorization program. This conversion had a number of consequences. A number of stations closed and combined as they became redundant — motorized rigs could cover more territory and used fewer men. Most of the auxiliary squads disbanded. Chief Ringer was able to put the money saved toward an improved fire alarm telegraph system (an element cited as dangerous in the 1919 National Board of Underwriters survey) and for better training and recruitment. These efforts, along with the increased efficiency of the motorized rigs, were cited as the reasons that the MFD had such a successful firefighting record in the early 1920s.

In a move that had a significant effect on the development and population density of Minneapolis, the Minneapolis City Council reconsidered the fire safety ordinances that had been adopted in 1890 and revised through the early 1900s. They determined that, with the advent of its more efficient fire force, certain elements such as the height limits could be relaxed. A skyscraper "building boom" followed this 1926 action.

The shop continued to be of major importance in meeting the MFD's equipment needs. In particular, it could build and adapt apparatus using funds in the department's expense budget, rather than requiring Ringer to request capital bonding funds from the city at a time when any new taxation was extremely unpopular. For example, the shop converted four pumpers and a chemical in 1924, three pumpers, a chemical, and a service ladder in 1925, and four pumpers, a "Foamite" foam truck, and a newly innovated smoke extractor (that Ringer eventually patented) in 1926 — all while continuing to perform their normal maintenance duties (Heath 1981, p111-112). The shop's innovative techniques allowed the MFD to have the latest in technology — albeit, in rather unusual vehicles — at a substantially lower cost than such equipment would have been if purchased from more traditional vendors. (See Graphics F and G, interior shots of the shop).

In total, during this period the MFD completely converted forty-eight Pierce-Arrows into fire equipment, including twenty-two pumpers, fourteen ladder tractors, two chemical engines, and various support vehicles including a foam truck, a smoke extractor, and several shop rigs. Until 1926, these conversions exclusively used locally built Northern or Pagel pumps; by the late 1920s, however, Penney was able to design and produce pumps completely in the shop.

Master Mechanic H.E. Penney retired from the Minneapolis repair shop in 1927, and production slowed, although it still produced a few converted Pierce-Arrows every year. However, in 1929 the department was denied funding for new apparatus after an investigation by Hennepin County Attorney Floyd B. Olson that revealed graft scandals in the equipment bidding. The City Council then asked Ringer if the shop would be able

to construct new heavy duty pumpers, to which Ringer proudly answered that the shop, under Master Mechanic James Lyons, could build apparatus "equal or superior" (Heath 1991, p131) to anything on the market, at two-thirds of the cost. Ringer recalled Penney from retirement to design the pumps, and between 1929 and 1932, the shop constructed eight pumpers from Four-Wheel Drive Company components, saving the department from any purchases on the open market. This move was not without protest, particularly from Northern Pump Company president J.B. Hawley, who claimed the vehicles were obsolete and unsafe, and that "...any sane person [could be convinced] that the Repair Division activities should be discontinued immediately" (Heath 1979).

Although the MFD repair shop continued to be in use at the site until 1960, its heyday generally ended with Chief Ringer's resignation in 1933. The City Council, in an investigation of the shop under acting chief Earl Traeger, alleged poor accounting methods and high overhead. Traeger ceased all major manufacturing, and reduced the shop to 21 men, most of whom were the pension employees (Heath 1979).

For the next twenty-seven years, the shop's function would be almost exclusively repair, rather than the conversion and construction for which it had been so famous. Today, the MFD still maintains a central fire repair shop, located on Currie Street, but the work is performed by five mechanics on-site, one roving mechanic who travels between fire stations, and a service person to perform routine maintenance such as oil changes. These positions are contracted by Public Works.

The Minneapolis Fire Department underwent many changes as it evolved from a volunteer, horse-drawn brigade to a professional, motorized force. Often, these changes are indicative of the expansion of the city as a whole; in some cases, such as the relaxation of the height restrictions, they had a significant impact on the city's development. The repair shop on the corner of University and First Avenue Northeast is indicative of these changes, and stands as an important contribution in the development of urban public safety.

Minneapolis Fire Department Repair Shop ,
Hennepin County, MN

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**Geographical Data**

**Verbal Boundary Description**

Reg. Land Survey No. 1726, Tract A and Tract B

**Boundary Justification**

The boundary includes the parcels that retain integrity and that have historically been associated with the property.

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**Additional Documentation**

**Roster of Major Apparatus Built and Rebuilt by MFD Shops**
**During the period of influence: 1909-1933**

1909
Ladder truck MFD #5 built new
Hose and Chemical MFD #19 built new
Hose and Chemical MFD #20 built new

1911
1885 Ahrens steamer #437 rebuilt with new LaFrance boiler
1888 LaFrance steamer #140 rebuilt with new MFD-LaFrance boiler 1885
Hayes-LaFrance aerial #60 rebuilt with spring hoist and new frame

1912
Wilcox #2052 chassis completed as hose and chemical
1887 Clapp and Jones #496 rebuilt for towing by Seagrave hose #7149

1913
1891 Ahrens steamer #637 rebuilt with new LaFrance boiler
1888 Babcock #88 service truck motorized with Nott #851 tractor

1914
1894 Clapp and Jones steamer #2313 rebuilt with new LMFD boiler
1891 Ahrens steamer #499 rebuilt with new MFD boiler
Four-wheel-drive #210 chassis completed as hose and chemical
1893 Clapp and Jones steamer #2244 rebuilt for towing by FWD hose #210
1889 Fire Extension Manufacturing #93 service truck motorized with Nott #920 tractor

1915
1893 Clapp and Jones steamer #2217 rebuilt with new MFD boiler
1886 Ahrens steamer #499 rebuilt with new MFD boiler
1891 Ahrens steamer #638 rebuilt for towing by Seagrave hose #7184

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1916
1894 MFD #2 service truck motorized with American-LaFrance tractor #1288

1917
1893 Clapp and Jones steamer #2244 rebuilt with new MFD boiler 1912
Seagrave hose #7149 with new "Type F" Seagrave motor installed 1906
Nott #622 steamer rebuilt for towing by FWD hose #210

1918
1912 Seagrave hose #7150 with new "Type F" Seagrave motor installed
1912 Seagrave hose #7148 with new "Type F" Seagrave motor installed

1919
1914 Nott triple #909 with new "Type F" Seagrave motor installed
1910 Seagrave aerial #3984 motorized with American-LaFrance tractor #2202
1906 Seagrave aerial #1735 motorized with American-LaFrance tractor #2671

1920
1911 Stoddard-Dayton #460 chief car rebuilt as hose wagon
1912 Cole #6132 chief car rebuilt as hose wagon
1912 Winton #17647 chief car rebuilt as hose wagon
1890 Clapp and Jones steamer #545 rebuilt for towing by Seagrave hose #7149
1885/1911 Hayes-MFD aerial #60 motorized with Mack tractor #731430

1921
1917 Locomobile #5971 chassis rebuilt as a Northern pump pumper 1909-10
Pierce-Arrow #6390 chassis rebuilt as a Northern pump pumper 1910-11
Pierce-Arrow #8140 chassis rebuilt as a Northern pump pumper 1908-09
Pierce-Arrow #6773 chassis rebuilt as a tractor for service ladder 1912-13
Pierce-Arrow #10712 chassis rebuilt as a tractor for service ladder 1892 MFD #1 service truck motorized with Pierce-Arrow tractor #6773 MFD #6 service truck trailer built for Pierce-Arrow tractor #10712

1922
1910-11 Pierce-Arrow #66035 chassis rebuilt as a Northern pump pumper
1911-12 Pierce-Arrow #66373 chassis rebuilt as a Pagel pump pumper

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1910-11 Pierce-Arrow #8579 chassis rebuilt as a tractor for service trailer
1909-10 Pierce-Arrow #7468 chassis rebuilt as a tractor for service trailer
1912-13 Pierce-Arrow #10922 chassis rebuilt as a tractor for service trailer
MFD #7 service truck trailer built for Pierce-Arrow tractor #10922 MFD #8 service truck trailer built for American-LaFrance tractor #1288 MFD #9 service truck trailer built for Pierce-Arrow tractor #8579 MFD #10 service truck trailer built for Pierce-Arrow tractor #7468

1923
1911-12 Pierce-Arrow #66425 chassis rebuilt as a Pagel pump pumper 1912-13 Pierce-Arrow #66759 chassis rebuilt as a Pagel pump pumper 1917 Pierce-Arrow #67573 chassis rebuilt as a Pagel pump pumper 1911-12 Pierce-Arrow #9381 chassis rebuilt as a tractor for service trailer 1913-14 Pierce-Arrow #12086 chassis rebuilt as a tractor for service trailer MFD #11 service truck trailer built for Pierce-Arrow tractor #9381 MFD #12 service truck trailer built for Pierce-Arrow tractor #12086

1924
1911-12 Pierce-Arrow #66341 chassis rebuilt as a Northern pump pumper
1912-13 Pierce-Arrow #66667 chassis rebuilt as a Northern pump pumper
1916 Pierce-Arrow #67225 chassis rebuilt as a Northern pump pumper 1917 Pierce-Arrow #67570 chassis rebuilt as a Northern pump pumper 1912-13 Pierce-Arrow #11097 chassis rebuilt as a chemical

1925
1913-14 Pierce-Arrow #66949 chassis rebuilt as a Northern pump pumper
1913-14 Pierce-Arrow #66954 chassis rebuilt as a Northern pump pumper
1917 Pierce-Arrow #67553 chassis rebuilt as a Northern pump pumper
1917-18 Pierce-Arrow #15446 chassis used to rebuild PA#10922 tractor
1914-15 Pierce-Arrow #12527 chassis rebuilt as a chemical

1926
1916 Pierce-Arrow #67319 chassis rebuilt as a Northern pump pumper
1917 Pierce-Arrow #67557 chassis rebuilt as a Penney pump pumper
1918 Pierce-Arrow #67760 chassis rebuilt as a Penney pump pumper
1918 Pierce-Arrow #67783 chassis rebuilt as a Penney pump pumper

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1918 Pierce-Arrow #16213 chassis rebuilt as a foam truck
1920 Pierce-Arrow #515465 chassis rebuilt as a smoke extractor

1927
1916 Pierce-Arrow #67302 chassis rebuilt as a Penney pump pumper 1916-17 Pierce-Arrow #14137 chassis rebuilt as a tractor for service ladder 1914-15 Pierce-Arrow #12525 chassis used to rebuild PA#7468 tractor MFD #13 service truck trailer built for Pierce-Arrow tractor #14137

1928
1917 Pierce-Arrow #67505 chassis rebuilt as a Northern pump pumper, from Locomobile #5971
1917-18 Pierce-Arrow #15186 chassis rebuilt as a tractor for service ladder
1916-17 Pierce-Arrow #13117 chassis rebuilt as a tractor for service ladder
MFD #14 service truck trailer built for Pierce-Arrow tractor #15186

1929
1915 Pierce-Arrow #67127 chassis used to rebuild PA#66759 Pagel pumper
1915 Pierce-Arrow #67142 chassis used to rebuild PA#6390 Northern pumper
1917-18 Pierce-Arrow #15002 chassis used to rebuild PA#79381 tractor

1930
1916-17 Pierce-Arrow #14540 chassis rebuilt as spare ladder tractor
MFD #15 service truck trailer built for Pierce-Arrow tractor #10712

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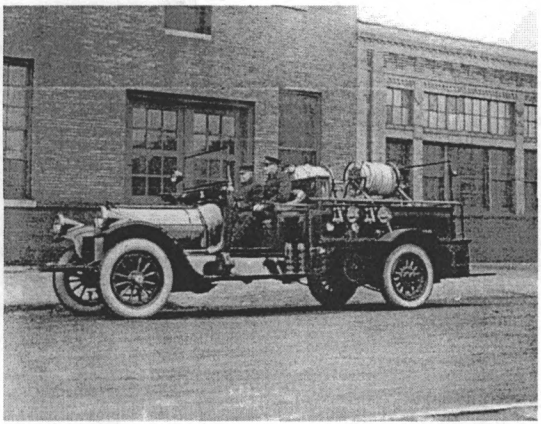
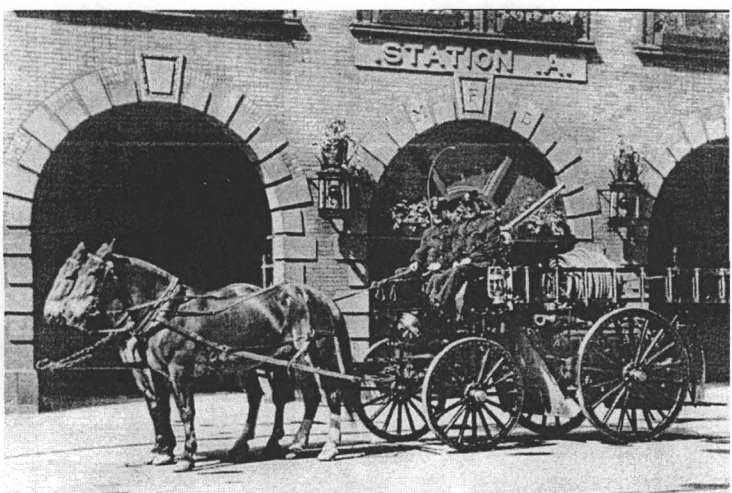
**Photographs of Minneapolis Fire Equipment related to the Minneapolis Fire Department Repair Shop**



1912-1913 Pierce-Arrow Chassis #11097, rebuilt as a chemical engine by the MFD in 1924
Seen along First Avenue NE façade of the Minneapolis Fire Department Repair Shop

Minneapolis Fire Department Repair Shop
Hennepin County, MN




Chemical Engine Company 1, ca 1915 with MFD #4, and 1895 shop-built Chemical Engine

Minneapolis Fire Department Repair Shop
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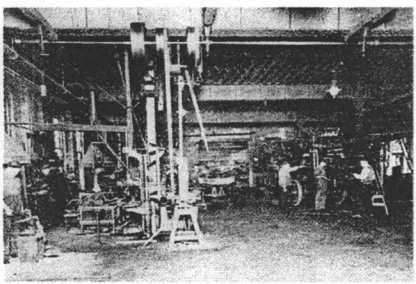
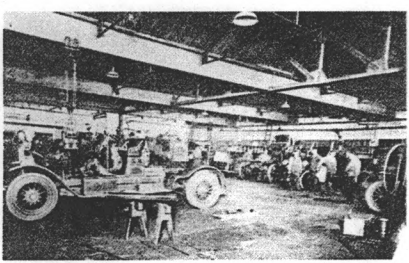


Minneapolis Fire Department Repair Shop ca. 1924



Minneapolis Fire Department Repair Shop Addition ca. 1925

Minneapolis Fire Department Repair Shop
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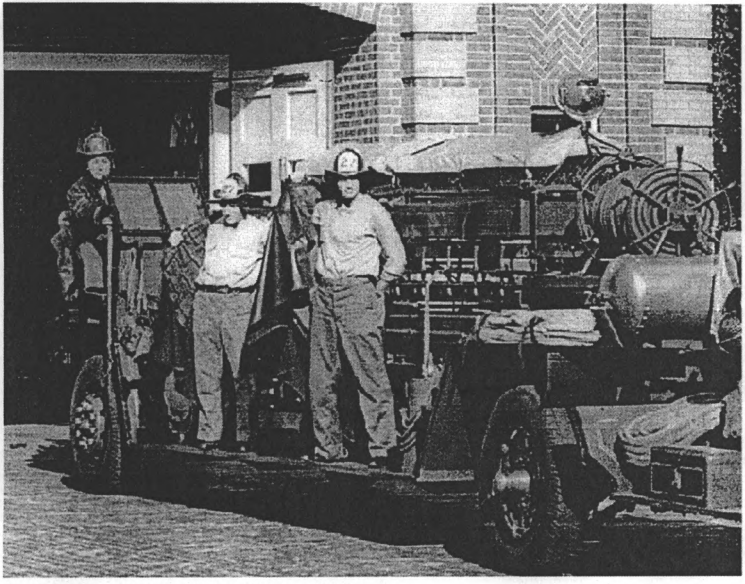

Service ladder trailer built in 1923, ca. 1943

Minneapolis Fire Department Repair Shop
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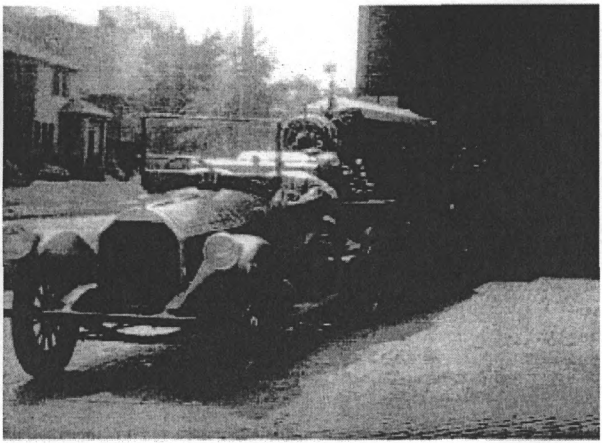

Pierce-Arrow/MFD tractor in 1936

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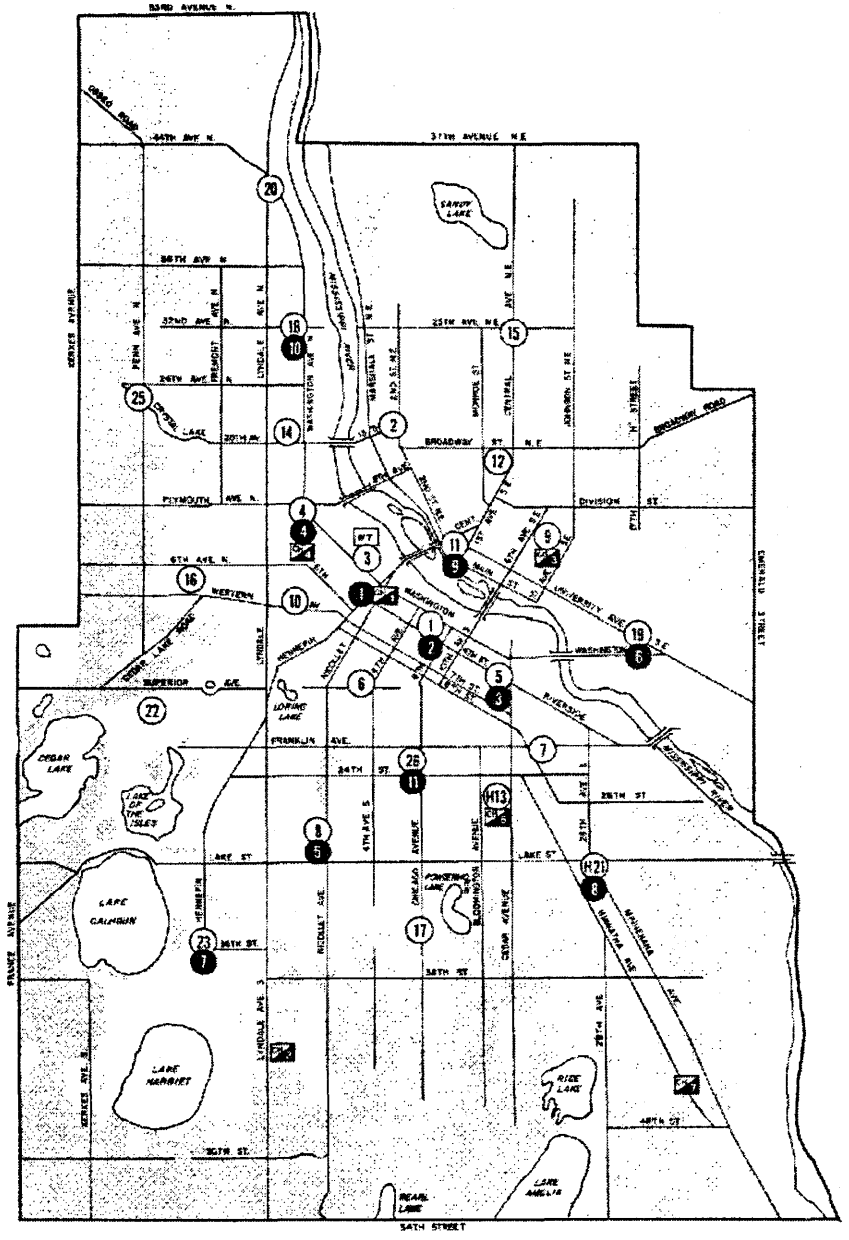


Minneapolis Fire Department Stations and Companies, 1911