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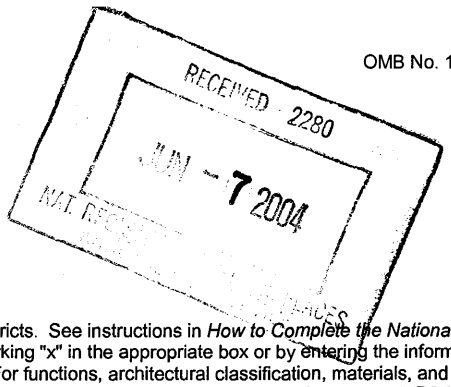
NPS Form 10-900
(Oct. 1990)

OMB No. 1024-0018



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 any 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: St. Paul Municipal Grain Terminal

other names/site number: St. Paul Municipal Elevator and Sackhouse; City House

2. Location

street & number: 266 Old Shepard Road ☐ not for publication N/A

city or town: St. Paul ☐ vicinity

State: Minnesota code MN county Ramsey code 123 zip code 55102

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1986, 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)

Nina M. Archabal 6/2/04

Signature of certifying official Date

Nina M. Archabal, Director and State Historic Preservation Officer, Minnesota Historical Society

State of 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 certifying official/Title Date

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that this 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

Carson V.F. Beall 7/21/04

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	
		buildings
		sites
1		structure
		objects
1		Total

Name of related multiple property listing
(Enter "N/A" if property is not part of a multiple property listing.)
Grain Elevators in Minnesota

Number of contributing resources previously listed in the National Register
0

6. Function or Use

Historic Functions
(Enter categories from instructions)
Transportation: water-related; rail-related
Agriculture: storage; transfer

Current Functions
(Enter categories from instructions)
Vacant - Work in Progress

7. Description

Architectural Classification
(Enter categories from instructions)
No Style

Materials
(Enter categories from instructions)
foundation (substructure): concrete - both
walls concrete and tile with stucco; sack house - tile and brick
roof concrete; sack house - asbestos shingles
other

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

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)

☒ 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 a 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)

Commerce
Transportation

Period of Significance
1931-54

Significant Dates
1931

Significant Person
(Complete if Criterion B is marked above)

Cultural Affiliation

Architect/Builder
Shepard, George M. & Kelsey, John W., City of St. Paul Engineers; Shultz, Walter F., Consulting Engineer
Builder: Ganley Brothers

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)

- ☐ 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 Record #_____

Primary Location of Additional Data

- ☐ State Historic Preservation Office
- ☐ Other State agency
- ☒ Federal agency: Corps of Engineers, St. Paul
- ☒ Local government: City of St. Paul.
- ☐ University
- ☐ Other
  Name of repository:

10. Geographical Data

Acreage of Property Approximately 0.2

St. Paul East, Minn. 1967
Revised 1993

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

	Zone	Easting	Northing
1.	15	492117	4976167
2.			
3.			
4.			

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	John O. Anfinson, PhD/Historian (see continuation sheet for others)		
organization	Mississippi National River and Recreation Area, NPS	date	February 10, 2004
street and number	111 East Kellogg Boulevard	telephone	651-290-3030
city or town	St. Paul state MN	zip code	55101

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 the SHPO or FPO.)

name/title	City of St. Paul, Martha Fuller, Executive Director, St. Paul Housing and Redevelopment Authority		
street and number	Suite 1300, 25 West 4th Street	telephone	651-266-6633
city or town	St. Paul state MN	zip code	55102
name/title	Gene Merriam, Commissioner, Minnesota Department of Natural Resources		
street and number	500 Lafayette Road	telephone	651-296-2549
city or town	St. Paul state MN	zip code	55155

Typology and Function

The St. Paul Municipal Grain Terminal is a structural complex consisting of two sections sharing a common wall. The west (taller) section is identified on 1927 plans as the "elevator," and is also known as the "headhouse"; the east structure is identified as the "warehouse," also known as the "sack house." (Figures 1 and 2) The plans for the complex were completed in 1927, revised in 1929, and construction was completed in 1931. The engineers for the City of St. Paul were George M. Shepard and John W. Kelsey. The consulting engineer was Walter F. Schulz. The contractor was Ganley Brothers.

In grain-elevator typology, the headhouse is a "transfer elevator," with the sole function of facilitating the movement of bulk grain from one point to another. It is a "hub" situated at the center of multiple transportation modes, storage elevators, and manufacturing facilities, and it has the mechanical and structural capability to receive grain from any of these sources and ship it out to any other. In this case, the shipping and receiving points included rail, barge, and truck transport, several conventional grain storage elevators, and a flour mill. All bulk grain going to and from these points moved through this structure. The primary transfer function, however, and the one that accounts for its unique location, was the river-land transfer.

A conventional headhouse associated with a specific storage elevator or a mill has simple transfer capabilities, but also has grain cleaning and processing capabilities and additional internal distribution equipment, usually an extensive above-bin and under-bin horizontal conveyor system to service long rows of huge storage bins. By design, the Municipal Grain Terminal's transfer elevator had no cleaning function or cleaning equipment. It was designed and built entirely around two central elevator legs (a west receiving leg and an east transfer leg), two bulk grain scales to weigh incoming and outgoing batches, and turnheads and spouts to direct the grain to any desired point in the system. The structure was also designed with enough small internal storage bins to accommodate the transfer process. Long-term storage was not part of the design and no bins were ever constructed for that purpose. (Figures 3 and 4)

The sackhouse also is a transfer facility, but was designed to handle sacked or bagged product rather than the bulk product that flowed through its neighbor. The sackhouse may be viewed as a conventional warehouse, but in the grain and flour trade its design is a descendant of the pre-elevator-era grain flathouse. Like the transfer elevator, the sackhouse was designed not for long-term storage of product, but only for moving sacked product from one storage facility, mill, or transportation mode to another. This sackhouse also was designed to facilitate the transfer of product from the St. Paul Milling Co. plant to river barge.

Location and Common Substructure

The headhouse and sackhouse create a continuous structure parallel with the Mississippi River, which, at this location, follows a southwest-northeast axis; for simple descriptive purposes in this text the alignment of the complex will be cited as "east-west." The easternmost wall of the complex is about 400 feet west of Chestnut Street, which is perpendicular to the river. Originally, the Equity Co-op elevator was about 30 feet north of the complex and the St. Paul Milling Co. building was about 160 feet north. The elevator and mill structures were demolished in the 1950s to make room for construction of steel-tank elevators, which, in turn, were razed by the city after their acquisition in 1983, leaving only the two structures of the Municipal Grain Terminal that stand today.

The Terminal complex is erected on a common substructure set on timber and concrete pilings driven into the earth at the edge of the river. The substructure is an open system of reinforced-concrete columns and beams designed to support the first floor (grade) level of both structures at the high water (flood) elevation. The substructure extends down 19 ft. to the low water elevation, where it rests on the pilings. This substructure system allows approximately half of the entire complex to extend out over the river, creating a continuous barge dock and mooring platform along the entire south facade.

Headhouse

The footprint of the transfer elevator building, or head house, is almost square, 43 ft. x 43 ft., 11 ins. The overall height from first floor to top of coping is approximately 125 ft. The head house is built in two vertical sections. The lower section is 43 ft. 11 ins. x 33 ft. 4 ins., and is approximately 70 ft. high. The upper section is 43 ft. 11 in. x 25 ft. 4 ins., with a 5 x 10-ft. bay on the south wall for the stairway, and extends the remaining 55 ft. to the coping. The difference in horizontal size between the two sections is created by the large, reinforced-concrete bins built into the lower section.

All original architectural detail is intact, but it is minimal and consists of a simple concrete coping at the top of all exterior walls and small Art Deco concrete caps at the tops of the structural columns, which read as pilasters on the exterior, where they define the bays.

The headhouse is constructed with a reinforced-concrete framework that is three unequal bays wide by two bays deep at the lower section, and reduces to two unequal bays deep at the upper section. The reinforced-concrete columns are 1 ft. 6 ins. square and were erected using sliding-form construction. The columns support reinforced-concrete floors using flat-slab

construction. The bay walls are built of hollow tile covered with stucco in the lower section and are reinforced concrete slabs in the upper section.

The original internal arrangement is unaltered and includes the following floors (and spaces), listed in elevator nomenclature from top to bottom: roof slab, head floor, (garner bins), scale hoppers and scale floor, distributing floor, (bins and bin walls, bin bottoms and bin-floor slab), working floor, and substructure. The exterior bay walls have original 12-light, fixed-sash, metal windows with pivoting 6-light center sections. The window openings are generally centered in the upper bays and paired in the lower, wider bays at the first floor. There are no windows where walls enclose bins or garners. Small 6-light, fixed-sash, metal windows penetrate the south first-floor wall. The working floor also has a single, 3-ft., hinged steel door on the west side and an overhead, steel, rolling door on the south (river) side.

All original equipment remains in the headhouse, thus preserving the grain transfer system intact. Two metal elevator legs extend from the working floor to the head floor, where the original wood-cog gearing (designed to break free if the system jams) connects the elevator driveshaft with a newer electric motor. The west leg is the receiving leg and the east leg is the transfer leg. Each would feed its receiving or transfer system in the elevator's upper section. Each leg lifted grain from its bottom or "boot" to its top or "head," where it deposited the grain in its respective 1,533-bushel concrete receiving garner or transfer garner below the head floor. Each garner, in turn, emptied into its respective 2,000-bu. metal scale hopper, where grain was weighed by a massive Fairbanks grain balance-scale, one for receiving and one for transfer. Each scale emptied into its own turnhead on the distributing floor where motor-assisted, telescoping 12-in.-diameter metal spouts could reach the top bin openings of all seven rectangular reinforced-concrete bins below. The bins are integral with the building's reinforced-concrete structure, as are the smaller garners above. Six bins have inside dimensions of 7 ft. 4 ins x 15 ft. 7 ins., and one bin is 15 ft. 4 ins. square. Each of the bins could be emptied into the transfer elevator boot by using a telescoping portable (wheeled) spout on the working floor. From there the transfer leg could direct the grain to any of the originally intended options, such as a waiting barge.

The headhouse contains all components of its original Humphrey Manhoist (a 19th century Minnesota invention), which used a continuously running belt with hand-holds and foot-holds to carry a worker using a step-on, step-off method between the head and working floors and any stop in between. The only other means for moving through the head house was the reinforced-concrete stairway, which is built inside the small bay that appears on the south exterior of the upper elevator section.

Exterior window alterations include the following: north facade: top west window opening enlarged for conveyor; west facade: three door openings added in upper wall; east

facade: none; south facade: none. The 4-ft. low north wall of sack house was continued west across first story of head house when the tracks and rail/scale shed were removed.

The west bin openings in the distributing floor were altered in the 1950s when new steel elevator tanks were erected north of the complex. Square openings, approximately 2 x 2 ft., were cut into the bin tops, replacing slightly smaller oval openings. There were additional exterior alterations after the elevator was decommissioned, adjacent rail lines were removed, and other buildings to the north were razed in the 1980s. These include the removal of exterior spouting and conveyors, a corrugated metal rail scale shed and scale, and an exterior corrugated south leg housing. A new opening was cut into the west side of the north exterior wall on the head floor to accommodate a new conveyor.

Sackhouse

The footprint of the single-story sack house is 43 ft. by 129 ft. It shares a common 12-in. brick wall with the first floor of the head house. The sack-house roof is approximately 20 ft. high at the ridge line and 17 ft. high at the outside wall, creating a low gable roof aligned on an east-west axis.

Structurally, the building consists of a series of simple, riveted, metal roof trusses, 6-ft. deep at center, supported by 6-in. metal "H" columns standing on the flat-slab, reinforced-concrete floor. The roof trusses create a 41-ft. clear-span interior space. The non-load-bearing walls are constructed of 12-in. hollow vitrified tile above a 4-ft. high concrete base wall.

The asbestos-shingle roof is penetrated by six paired skylights, spaced at regular intervals along the north and south roof slopes. Each skylight is a 6-ft.-square unit rising about 2 ft. above the roof surface. There are two 24-in.-diameter round metal ventilators on the roof ridge. The skylights and ventilators are original design and construction.

Along the south (river) side of the sackhouse are five freight door openings, spaced at regular intervals. Each opening contains the original, 10-ft.-square, steel, rolling overhead door. There are three identical door openings and original doors along the north side. The east (end) wall has a single 3-ft. hinged steel door. At a later point two horizontal window openings were cut into the east end wall and a simple office room was created inside. There are no other doors or windows in the sackhouse.

The north slope of the sack-house roof, near the east end, is penetrated by the structural remnants of the original sack conveyor, which connected the sack house with the St. Paul Milling Co. mill via an overhead conveyor gallery, now gone. Mounted at the top of the interior east wall is the motor and pulley that operated the interior sack conveyor system.

The sack house is virtually unaltered, with all original door openings and doors intact.

St. Paul Municipal Grain Terminal

The St. Paul Municipal Grain Terminal is significant at the national level under Criterion A, for its association with events that have made a significant contribution to the broad patterns of American history. Specifically, it embodies several nationally significant stories. It is the only remaining structure representing a grain storage and transfer complex that grew from the first farmer-owned, co-operative terminal elevator in America. It is tied to a movement that transformed the upper Mississippi River from a failed navigation project into a modern commercial highway. Both of these stories are about the efforts of Midwestern farmers and business owners and of river cities, like St. Paul, Minnesota, to revive navigation on the upper Mississippi River.

After the Corps finished most of the Mississippi River lock and dam system in 1940, the St. Paul Municipal Grain Terminal became an increasingly important conduit for Midwestern grain moving from rail and truck to barge. Grain shipping on the river began climbing dramatically in the mid 1950s and would not begin to level off until the 1980s. Because shipping continued into the modern era, the closing date of significance is defined as 1954 following National Register guidelines.

The Municipal Grain Terminal is important for another reason. Together, its two components – the headhouse and sackhouse – represent the shift in river transportation from the old system of hauling grain and flour in sacks to a modern system of directly loading entire barges (Figures 5 and 6). For the above reasons, the St. Paul Municipal Grain Terminal conveys a unique, outstanding, and strong sense of American history and culture.

As a regional facility for the storage and transfer of grain from rail and truck to barges, the Municipal Grain Terminal falls under the State Historic Preservation Office's Urban Centers (1870-1940) and the Railroads and Agricultural Development (1870-1940) historic contexts. Located in one of Minnesota's major urban centers, it funneled grain from Minnesota and the Dakotas into St. Paul and out to the nation and the world. It also represents the competition between major urban centers and between railroads and the Mississippi River. By building the Grain Terminal, St. Paul hoped to win back a grain shipping trade Chicago had taken away shortly after the Civil War. Chicago had been able to do this by becoming the major east to west rail hub. St. Paul believed that a revived Mississippi River could wrest the control of grain shipping in the Midwest from Chicago and the railroads. Finally, the St. Paul Municipal Grain

Terminal represents competition between the two major regional centers on the northern Mississippi: St. Paul and Minneapolis.

Under Criterion A, the Municipal Grain Terminal is thematically related to the Multiple Property Documentation Form, Grain Elevators in Minnesota. This is discussed in more detail at the end of the significance statement.

The Equity Cooperative Exchange

During the late nineteenth century, the Midwest's grain production boomed, and railroads established the means to market huge quantities of grain nationally and internationally. In this context, some entrepreneurs saw the opportunity to control grain buying, selling and shipping. Two men dominated by the start of the twentieth century: William Wallace Cargill and Frank Hutchinson Peavey. Both located in Minneapolis, Minnesota, in 1884 and helped build the city into one of the world's major grain marketing centers. Joined by the powerful flour millers and other grain merchants, Peavey and Cargill allowed the Minneapolis Chamber of Commerce to corner cereal trading in the Midwest.

Farmers protested. The Equity Cooperative Exchange, which started in Minneapolis in 1908 and incorporated under the laws of North Dakota in 1911, emerged as one of several farm organizations to challenge the Minneapolis Chamber. The Equity and other critics accused the Chamber of rigging prices and commissions against farmers. Farmers had little choice but to go through Minneapolis. The Federal Trade Commission estimated that 70 percent of the region's cereal harvest between 1912 and 1917 passed through the city. To counter the Chamber, the Equity established its own exchange in Minneapolis in 1914 and soon after moved to St. Paul.

St. Paul promised the Equity free land along the upper levee, so the exchange could build a terminal grain elevator. The location provided access to rail lines and, potentially, to the river. The Equity broke ground in 1915 and completed the new building in 1917. At the dedication ceremony, J. M. Anderson, the Equity's President, baptized the building with river water, hoping that the Mississippi would again become a factor in grain shipping.

The Equity's timing was poor, however. In 1917, no steamboats carried or pushed cargo from St. Paul to St. Louis, Missouri. Despite over 50 years of navigation improvements by the U.S. Army Corps of Engineers, commerce abandoned the Mississippi River. Chicago, Illinois, and railroads running west to east had captured the flow of grain.

The Equity's influence on grain marketing spread far beyond the Mississippi. By the 1950s, farm cooperatives were an accepted part of American agriculture. As one scholar wrote, "the radicalism of 1916 is in large measure the accepted practice of today."[1]

The Demise of Riverfront Terminals

If farmers hoped to escape the control of railroads and the giant grain terminals of Chicago, they would have to make the Mississippi River a true alternative. They would have to make it reliably navigable, and they would have to convince its cities to build modern terminals.

While the natural river had been hauling grain since the birth of Midwestern agriculture, railroads held too many advantages. Railroads moved their freight quicker, giving their users greater flexibility in responding to market changes. Rail lines ran more direct and could reach deep into lands served by no navigable rivers. Compatibility between rail lines made transshipment unnecessary. Trains ran when the river was high or low; they ran when the cold of winter froze it; for the most part, they ran throughout the year. Those railroads that ran east to west–especially to Chicago–took advantage of complementary markets. Midwestern farmers sent grain to Chicago. Chicago merchants and eastern manufacturers sent their goods back. Steamboats and barges delivering commodities to St. Louis or New Orleans, Louisiana, or points in between too often returned empty.[2]

The Civil War, by closing the Mississippi, helped shift trade to the northern rail lines. But the railroads and Chicago had begun winning the Midwest's trade before the war. In part, the river's natural character pushed shippers away, and in part, the railroads and Chicago offered advantages neither the river nor its cities could match. St. Louis, the key transfer point for cargoes moving north or south, lacked sufficient warehouse and handling facilities. Since the water fluctuated as much as 41 feet at St. Louis, goods and produce had to be stored well away from the river, which increased handling costs. Like St. Louis, New Orleans needed adequate storage facilities. Produce arriving in the late summer and fall overwhelmed the city. In New Orleans' hot and humid climate, unprotected produce easily spoiled. The far longer and more hazardous route down the Mississippi to New Orleans and on to the East Coast or Europe also discouraged shipping on the Mississippi. The eastern route, through Chicago and the Great Lakes, presented fewer problems, and many eastern cities had better harbors and storage facilities than New Orleans or St. Louis. When the Chicago and Illinois Canal, connecting Lake Michigan

to the Illinois River, opened in 1848, it offered a way for shippers on the Mississippi to reach Chicago and the northern route by water.[3]

In 1850 St. Louis still moved twice as much wheat and flour as Chicago. But by 1855 Chicago and the Great Lakes had eclipsed St. Louis and the Mississippi River. Initially, the Great Lakes fostered Chicago's boom. Goods could be moved both east and west in huge vessels, lowering the cost of eastern manufactures and the price of shipping Midwestern produce east. As railroads expanded from east to west, most lines fed into Chicago and then fanned out from the burgeoning metropolis. Chicago thus replaced St. Louis as the great transfer point before the Civil War.[4]

Unlike St. Louis, St. Paul and other river ports, Chicago captured the economies of scale offered by new technologies, such as steam-powered grain elevators. These elevators allowed merchants in Chicago to take grain out of sacks and send it on trains by the carload. Because the elevators moved vast quantities of grain from trains, sorted it by quality and loaded it onto lake freighters, they greatly exceeded the economic benefits of shipping on the river. "By 1857," says historian William Cronon, Chicago "had a dozen elevators whose combined capacity of over four million bushels meant that the city could store more wheat than St. Louis would ship during that entire year."[5]

On the river, grain still moved in sacks. Cities along the river, subject to flooding, had not yet adopted elevators for river commerce. Loading and unloading the sacks required large crews and took much longer than moving grain through elevators. As the Midwest's grain output grew, river towns could not capture the economies offered by elevators. Shippers simply had to hire more dockworkers (Figure 6).[6] By the war's end, Chicago had won the battle for the region's grain and passenger trades.

Following the Civil War, Midwesterners demanded that Congress, through the Corps of Engineers, remake the Mississippi River into a highway capable of competing with railroads. Despite steadily improving the river for navigation, the Corps simply could not create a reliable and deep channel.

Railroad baron James J. Hill happily observed the steamboat's plight. In a 1902 speech in St. Paul, he charged that shipping on the upper Mississippi River had declined so much that the government was wasting money trying to make it navigable and should focus its efforts below St. Louis. Railroads, including his Great Northern Railroad, he boasted, could handle all the traffic above the gateway city. Hill's speech backfired. He scared cities and business interests along the

river and helped trigger the first movement focused specifically on improving the upper Mississippi River for navigation.[7]

Following Hill's speech, the Quincy, Illinois, Freight Bureau joined the city's Chamber of Commerce and summoned towns along the river to unite "to encourage the national government to protect and preserve" the river for commerce. They proposed a convention to examine the river's problems and plan for its revival. Upper river towns responded "unanimously." Quincy hosted the convention on November 12 and 13, 1902.[8]

One-hundred and thirty-two delegates representing most cities on the upper river attended the 1902 Quincy convention. After acknowledging their neglect, they made deepening the upper river to six feet at low water their principal objective, and they boldly called for an appropriation of 15 million dollars to carry it out quickly. A deeper channel, a 6-foot channel, they argued, would bring commerce back. To push for the new project, they formed the Upper Mississippi River Improvement Association (UMRIA) and decided to meet annually. In 1907, they achieved the first step in their goal, when Congress included the 6-foot channel project in the Rivers and Harbors bill. But the navigation boosters needed more than a deeper channel. Another key element was missing.[9]

At their 1910 convention the UMRIA's stalwarts made clear the relationship between restoring traffic to the river and funding from Congress. Samuel Van Sant, a former raftboat pilot and former Minnesota governor, knew how reluctant Congress had become to support navigation improvements on the upper river. When Van Sant appeared before Congress to request money, Congress wanted to know why it should fund the project when so little traffic used the river. W. A. Meese, chair of the resolutions committee, reported the region's representatives in Washington had always asked him and the rest of the committee to show that shippers employed the river. When they could do this, the representatives told them, they would get more funding. Captain Alonzo Bryson put it more bluntly. He complained in 1910 that only three through packets and several short packets operated on the upper river. "I warn you," he declared,

> that if this river is only going to be used by the above transportation and a fleet of pleasure, motor and house boats, and no effort made by those interested to put on the bosom of this beautiful river modern means of transportation, that we will never see the fruition of our hopes in a six-foot channel, because, the government will withhold the

> appropriations until some show of interest and results are shown by the people of the Mississippi Valley.[10]

In response, delegates at the 1910 convention passed a resolution urging cities to encourage shippers to use the river, no matter what size the cargo.[11]

To demonstrate its sincerity to Congress and to encourage river traffic, the UMRIA resolved to make the improvement of river terminals and waterfronts a principal focus. No aspect of its effort reveals how greatly cities had abandoned navigation and how far the UMRIA had to go to restore commerce. At the 1910 convention, the association began its push. They wanted cities to clean up their riverfronts, provide adequate storage facilities, build modern terminals, with loading and unloading equipment, and connect these to railroads. President Wilkinson lectured the association that "The river fronts should be made the most attractive part of every community, and not, as now in many places, a dumping ground and storage place for old junk and local crafts, . . ."[12] Beautifying the riverfronts alone, however, would not bring commerce back.

To gauge the extent of the task before it, the UMRIA asked each city to report on its wharves during the 1911 convention. Only St. Paul, Rock Island, Illinois, and St. Louis had facilities that could begin to meet modern shipping demands. Alton's representative, confirming Wilkinson's description of what riverfronts had become, reported: "If the average man has any junk that he is not in particular need for, he dumps it on the levee."[13] Some cities had been improving their riverfronts, but for parks rather than for terminal facilities. As the roll call proceeded, it became increasingly clear that most river towns had turned away from navigation and the river.[14]

Some cities reported that they had kept control of their riverfronts and could develop them, but they had no reason to. The LaCrosse, Wisconsin, delegate announced that his city planned to build wharves and docks, adding, "That would be a great thing if we had the boats to land there." The Burlington, Iowa, representative admitted his city's levee had deteriorated, but said it did not matter. Shippers, he confessed, had little reason to use the levee, because they "all enjoy side-track facilities and it is rather a hard matter for them to haul their freight from the levee on account of the extra work in handling and hauling from the levee." Wabasha, Minnesota, had no docks or landings and not much for terminal equipment. Draymen had to move cargoes to and from the boats, its representative complained. Galena, Illinois', delegate noted that his city had enough riverfront and a levee, but it lacked machinery for loading and

unloading. This did not matter, however, since no traffic demanded such facilities. Muscatine, Iowa, too, still owned some of its riverfront and hoped to develop terminal facilities. But, its representative said, summarizing what many other cities were experiencing, "It is pretty hard to get any one interested in the river at that place." Fort Madison, Iowa, one of the few cities still receiving lumber rafts in 1911, presented a telling report. While the city hoped to develop a modern terminal facility, it did not have them at the time. Despite its success as a milling center, Fort Madison had abandoned its terminal facilities for other types of river traffic.[15]

Major Keller, the Rock Island District commander, learned firsthand how poor river terminals had become. In 1910 he traveled on the river from Rock Island to St. Paul to attend the UMRIA convention. Getting supplies from the towns at which he stopped proved more challenging than the river. "Unless supplies are forthcoming with more promptness and in larger quantities than we find them today," he warned, "terminals and deep water will not do much for steamboats."[16]

Even their old nemesis, James J. Hill, chided river cities for the state of their terminals. At the 1911 convention, Wilkinson read part of a paper Hill presented at a National Millers' Association meeting in Minneapolis. Hill had criticized river cities for their poor terminal facilities and had berated river ports for using manual labor to move freight to and from the levees. "It is a deplorable fact," he charged, "that in no branch of commercial activity, has there been so great a lack of development and progress, as in river transportation and river terminals. The whole system stands today just about where it stood fifty years ago."[17] Wilkinson quoted Hill because he knew how right the railroad magnate was.

For the next six years, the UMRIA pushed the upper river's cities to build modern terminals. In 1911 Major Keller reported that the Rock Island District had undertaken a study of terminals at Wilkinson's request. Keller met with an eastern engineer in St. Louis on the subject just before coming to the convention and promised the UMRIA a report on waterway terminals world-wide. Despite the UMRIA's studies and exhortations, few cities made progress. In 1917 Wilkinson still pleaded for modern terminals. No cities, not even St. Paul, had truly modern facilities that could match those in Chicago.[18]

The Equity, by moving to St. Paul and building its new elevator near the riverfront, dreamed of capturing the cheaper rates offered by shipping bulk commodities on the Mississippi. St. Paul and the Equity also hoped to justify Congressional spending on navigation improvements. Even though St. Paul lured the Equity to St. Paul, as of 1927, neither had yet connected the facility to the river.

The St. Paul Municipal Grain Terminal

As the region's need for a diverse transportation system grew, its shipping options declined, creating a transportation crisis. The failure of navigation improvements compounded by railroad car shortages, the Panama Canal's opening in 1914, several Interstate Commerce Commission decisions erected, Midwesterners declared, an "economic barrier" around their region.

High shipping costs especially worried farmers. During the 1920s, they entered a depression that would last into the Great Depression of the 1930s. Without the Mississippi as a viable competitor to railroads, they feared monopolistic rates. To farmers, cheap transportation meant the difference between surviving and bankruptcy. In this climate, cooperatives – like the Equity – and the river became more important to farmers, the Midwest's economy, and the nation's competitive standing in world agricultural markets.

In response to the transportation crisis, navigation boosters initiated a movement to revive river shipping, a movement that surpassed all previous movements. Between 1925 and 1930, they fought to restore commerce and persuade Congress to authorize a new project for the river, one that would allow the Mississippi to truly compete with railroads. As the movement developed, the navigation boosters proposed a 9-foot channel project, which the Corps would accomplish by building 23 locks and dams. Only with such a project could the Corps guarantee a deep and reliable channel and hope to bring commerce back to the river. The movement would draw support from the largest and smallest businesses in the valley, from most of its cities, from the Midwest's principal farm organizations, and from the major political parties. St. Paul and Minneapolis pushed especially hard. As the largest cities above St. Louis, they, more than any other cities, would have to convince Congress to approve the new project.

Critics in Congress questioned spending millions of federal dollars on the upper Mississippi River, because few cities had terminals and even fewer had modern facilities for loading and unloading goods. If the Midwest hoped to persuade Congress to authorize a massive new project, they had to build new terminals. They would have to succeed where the UMRIA had failed.

In reviewing a permit for the proposed St. Paul Municipal Grain Terminal in 1926, the Corps of Engineers underscored how important the new facility would be and how totally the cities on the upper Mississippi had abandoned shipping on the river. In a memorandum to the Chief of Engineers in Washington, D.C., St. Paul District Engineer, R. C. Williams explained:

> The determining factor in selecting the site for this proposed grain terminal was the location of the plant of the St. Paul Milling Company and the Equity Elevator Company. ... The decision to build a grain terminal was the result of an economic study which brought out the fact that a down-stream movement of grain and grain products would be absolutely necessary for the successful and profitable barge line operation which is to be undertaken on the Upper Mississippi. Investigation brought out the fact that *the grain elevator and flour mill companies above referred to are the only facilities of this kind now in existence in cities of the Upper Mississippi so located that transfer of grain and grain products into and out of barges can be effected without an intermediate haul by rail or motor vehicle at an expense that would be practically prohibitive.*[19]

In 1923 George C. Lambert became the secretary-treasurer and general counsel of the Minnesota Farmers Union, which took over the Equity Cooperative Exchange that year. Lambert believed that the success of the terminal and the Farmers Union depended upon the success of river transportation. Likewise, he realized, Congress would watch the river's cities to judge their commitment to river shipping. So, Lambert joined the movement and helped convince St. Paul to expand the Minnesota Farmers Union Elevator and demonstrated the City's effort to encourage navigation.

Fulfilling the Equity's original vision, St. Paul approved a new facility that included a 22,000-bushel, reinforced-concrete elevator or headhouse, a clay-tile sackhouse (warehouse) and a loading dock, which the City completed in 1931. Conveyors connected the Headhouse to the old Equity Elevator and the Sackhouse to a flour mill across the road. Now farmers had a direct and modern facility for delivering their grain to the Mississippi. All they needed was a river capable of handling large, fully-loaded barges. St. Paul and the Minnesota Farmers Union hoped the new elevator complex would convince Congress to authorize a major new project for the upper Mississippi River.

When Congress balked at the lock and dam project, river cities argued that they had put millions of dollars into developing terminals and that their investment would be wasted without the project.

Responding to the navigation improvement movement, Congress included the 9-foot channel project in the 1930 Rivers and Harbors Act. The project called for 23 locks and dams from just above Red Wing, Minnesota, to Alton, Illinois. When completed in 1940, the locks and dams created a series of deep reservoirs that could guarantee a navigable channel. The St.

Paul Municipal Grain Terminal helped convince Congress to authorize the 9-foot channel project.

Sackhouse and Headhouse - A Rare Pair

In his prologue to the National Register of Historic Places Multiple Property Documentation Form for Grain Elevators in Minnesota, Dr. Robert Frame notes that the precursor to the elevator was the "flathouse." The flathouse "was nothing more than a generic one-story, gable-roofed, wood-frame warehouse." During Minnesota's early years, when most grain went down the Mississippi River in sacks, flathouses were common. In 1862, when Winona was the state's largest wheat shipper, the city had thirty flathouses, according to Frame.

The Sackhouse was built specifically to handle flour from the St. Paul Milling Company, which lay next to the Equity Elevator. The design called for a sack conveyor to deliver sacks of flour from the milling company to the Sackhouse. From there, the sacks would go onto barges. Sacks of grain could also be loaded on to barges from the Sackhouse.

With the coming of railroads, flathouses disappeared. In Canada (the example used in the nomination) there were 126 flathouses in 1900 and none by the 1920s. If flathouses in the United States followed the Canadian pattern, few such structures exist today, which makes the Sackhouse especially important. Sitting side-by-side, the headhouse and sackhouse of the St. Paul Municipal Grain Terminal represent the old and the new technology of grain shipping. No where else does such a combination still exist on the upper Mississippi River. In fact, such a combination may be extremely rare or nonexistent on the whole Mississippi and in the United States.[20]

Municipal Grain Terminal Expansion

By the late 1950s, the Minnesota Farmers Union Elevator complex had become the key transfer point for grain going from railcar to barge in the Upper Midwest. In 1938, 121 cooperatives from Minnesota, the Dakotas and Montana, including the Farmers' Union, formed the Grain Terminal Association or GTA. That year, the Headhouse funneled over 17 million bushels of grain into barges. Over the next two decades, GTA expanded its St. Paul riverside facility to take advantage of the new navigation system. The Municipal Grain Terminal made this possible. (Figures 7 and 8)

In 1983, the GTA merged with North Pacific Grain Growers of Oregon to form the Harvest States Cooperative. Then, in 1989, Harvest States sold the privately-owned portion of

the elevator complex to the City of St. Paul for riverfront revitalization projects. Today, the Municipal Grain Terminal is the only structure associated with St. Paul's early port city history and the only structure associated with the Equity Cooperative.[21] (Figure 1)

Summary

The St. Paul Municipal Grain Terminal represents:

* the Equity's vision of creating a competitive alternative to the Minneapolis Chamber of Commerce grain monopoly;
* the drive by Midwestern farmers and shippers to find a competitive alternative to railroads;
* the struggle between railroads and the Mississippi River over grain hauling;
* the Midwest's desire to connect itself to the world through the Mississippi River;
* the long quest for navigable channel on the Mississippi River, from the steamboat days to the 1930s;
* the effort to compete with Chicago and other rail hubs by placing facilities on the river, knowing they would flood from time to time;
* the old and new technologies of moving grain on the Mississippi River.

The St. Paul Municipal Grain Terminal was the first concrete elevator built to deliver grain into barges on the upper Mississippi River, and it is the last of this kind built on the river before modern navigation began.

Multiple Property Listing, Grain Elevators in Minnesota

The St. Paul Municipal Grain Terminal fits under the National Register of Historic Places Multiple Property Documentation Form for Grain Elevators in Minnesota. As the document's author, Dr. Robert Frame, states, "A terminal elevator normally divides the two main elevator functions, grain handling and grain storage, into two separate physical units. The handling unit is the workhouse; and the storage unit contains the storage bins. ... the two units are separate physical structures, which may be adjacent or separated by some space."[22] The Municipal Grain Terminal represents the workhouse portion.

Frame also notes that the workhouse was located in one of two places (what he refers to as the functional arrangement). Under the first type (the older type), the workhouse was on top

of the grain silos. Under the second type, the workhouse was located next to the silos. The Municipal Grain Terminal falls under the second type identified by Frame.

Registration Requirements (Terminal Elevator Property Type)

According to the documentation, to be eligible under Criterion A, "a terminal grain elevator must have been involved in a particularly meaningful way with a significant development in the grain industry, grain trade, a transportation and shipping nexus, and/or a major processor."[23] As the Significance Statement makes clear, the Municipal Grain Terminal is associated with major developments in the grain industry, grain trade and a transportation and shipping nexus.

Special Consideration for Terminal Elevators. "Each terminal elevator is a large, often extremely massive and expensive, undertaking. Each terminal elevator is a uniquely engineered solution to a particular grain-storage problem."[24] The St. Paul Municipal Grain Terminal was designed specifically to complete the connection between the Equity Elevator and the Mississippi River. One of the principal reasons the Mississippi River had lost grain shipping to railroads and Chicago was the problem of locating terminal elevators on the river's banks. The facility was built to accommodate floods and to deliver grain to barges during the navigation season. The St. Paul Municipal Grain Terminal represents the first attempt to overcome this problem on the upper river. The inclusion of the sackhouse recognized the fact that most grain still moved in sacks on the river.

Terminal Elevator Integrity. "As with other properties, the elevator must retain integrity of the element considered significant." In this case, it is the elevator itself that is the most critical element. It was built explicitly to deliver grain from the original Equity Cooperative Terminal Elevator and the flour mill next to it. The St. Paul Municipal Grain Terminal was never intended as long-term storage unit, like other types of elevators.

"In the working house or headhouse, exterior structural integrity is necessary, although some historic changes in fenestration are acceptable." As discussed in the Description, the Municipal Grain Terminal retains great exterior integrity. While the registration requirements downplay the need for internal integrity, the headhouse also has great integrity inside, as most of the original equipment is still in place.[25]

Endnotes

1.Robert Hybben and Jeffrey Hess, "Historic American Engineering Record, Equity Cooperative Exchange Grain Elevator Complex," unpublished documents prepared for the City of St. Paul, (December 1989). This document was prepared at the direction of the City of St. Paul but never officially submitted to the Historic American Engineering Record. Barbara A. Mitchell, Hemispheres Field Services, Inc., "A History of the St. Paul Municipal Grain Elevator and Sack House." This study was prepared for the Mississippi National River and Recreation Area, National Park Service, as part of its Historic Resources Study, by John O. Anfinson, et. al., entitled *River of History* (2003). This nomination is based on the research and writing of Hybben, Hess, Mitchell and also of Jane Carroll, a historian with the Corps of Engineers, who helped prepare a Determination of Eligibility for the site in 1990. The State Historic Preservation Office recommended changes to this DOE, which were not completed. In many ways this nomination is a compilation of the above works.

2.Much of the text in the section on river terminals is taken from an early draft of John O. Anfinson, *The River We Have Wrought: A History of the Upper Mississippi River* (Minneapolis, Minnesota: University of Minnesota Press, 2003), Chapters 2, 5 and 8. Lester Shippee, "Steamboating on the Upper Mississippi after the Civil War: A Mississippi Magnate," *Mississippi Valley Historical Review* 6:4 (March 1920):496; Frank Haigh Dixon, *A Traffic History of the Mississippi River System*, National Waterways Commission, Document No. 11 (Washington: Government Printing Office: 1909): 49; Mildred Hartsough, *From Canoe to Steel Barge*, (Minneapolis: University of Minnesota Press, 1934), pp. 84-85, 91, 196-197, 199, 203; Roald D. Tweet, *History of Transportation on the Upper Mississippi and Illinois Rivers*, (U.S. Army Water Resources Support Center, Institute for Water Resources, 1983), pp. 38-39.

3.Tweet, *History of Transportation*, pp. 25, 28, suggests that shippers formed the "habit" of shipping goods along the east-west route during the Civil War. Hartsough, *Canoe*, pp. 195-96, contends that the Civil War "accentuated and hastened" a trend already underway. Appleton, "The Declining Significance," p. 64, argues that "After 1847 the volume of trade on the Mississippi represented a rapidly decreasing proportion of the commerce of the Upper Mississippi Region owing to the advantages offered by the less hazardous, more direct East-West Route." See also pp. 47-64.

4.William Cronon, *Nature's Metropolis: Chicago and the Great West*, (New York: W. W. Norton & Company, 1991), provides the most in-depth analysis of the shift in the region's flow of commerce away from the Mississippi River. For an extended discussion of how railroads captured the region's trade for Chicago, see chapt. 2 and pp. 295-309.

5.Cronon, *Nature's Metropolis*, p. 112. Cronon, p. 111, declares that the invention of the steam-powered grain elevator was "the most important yet least acknowledged in the history of American agriculture...."

6.Cronon, *Nature's Metropolis*, pp. 112-13. Sacks of grain had to pay an overhead cost of six to eight cents per bushel and the sacks cost two to four cents each. "The economic benefits" of transferring grain from elevators to rail cars or lake freighters, Cronon argues, "were so great that moving a bushel of grain from railroad car to lake vessel cost only half a cent, giving Chicago a more than tenfold advantage over St. Louis." See pp. 113-14.

7. Upper Mississippi River Improvement Association (UMRIA), *Proceedings of the Upper Mississippi River Improvement Convention*, 1902, (Quincy, Illinois: Volk, Jones & McMein Co., Printers, n.d.), pp. 4-5.

8.UMRIA, *Proceedings*, 1902, pp. 8-9.

9.Ibid., p. 73.

10.UMRIA, *Proceedings of the Convention of the Upper Mississippi River Improvement Association, St. Paul, Minnesota*, July 12-13, 1910, p. 87.

11.Ibid., pp. 77, 90, 92.

12.Ibid., p. 24.

13.UMRIA, *Proceedings of the Upper Mississippi River Improvement Association Convention Held at Alton, Illinois, October 25 and 26, 1911*, (Quincy, Illinois: McMein, n.d.), p. 51.

14.Ibid., pp. 67-68, 88-89.

15.Ibid., pp. 97, 65, 96, 52, 76, 79.

16.UMRIA, *Proceedings*, 1910, p. 136.

17.UMRIA, *Proceedings*, 1911, p. 124.

18.Ibid., p. 98; UMRIA, *Extracts of Proceedings, Annual Convention, October 11-12, 1917*, p. 7.

19.Application for Permit, City of St. Paul, 7510 (St. Paul, MINN)-10, Subject: Application for permit to construct grain terminal near foot of Chestnut St., St. Paul, Minn., 4th Ind., U.S.E.O., St. Paul, Minn., December 15, 1926. – To The Chief of Engineers, U.S. Army. Through The Division Engineer, Western Division, emphasis added.

20.Robert M. Frame, III, National Register of Historic Places, Multiple Property Documentation Form, Grain Elevators in Minnesota, p. E-1. Available online from the National Register of Historic Places.

21.Hybben and Hess, "Historic American Engineering Record"; Morlan, *Political Prairie Fire*; Oscar N. Refsell, "The Farmers' Elevator Movement I," *Journal of Political Economy* 21(November 1914): 872-873; D. Jerome Tewton, "The Business of Agriculture," in Clifford E. Clark, Jr., ed., *Minnesota in a Century of Change: The State and Its People Since 1900,* (St. Paul: Minnesota Historical Society Press, 1989), pp. 267-68; Theodore Saloutos, "The Rise of the Equity Cooperative Exchange," *The Mississippi Valley Historical Review* 32:1 (June 1945):31-62; Society for Industrial Archeology, *A Guide to the Industrial Archeology of the Twin Cities*, (May, 1983): 67; C. L. Franks, "Inland Waterways Advocate, Col. George C. Lambert, Dies: Among Pioneers to Back Channel in Upper Mississippi," *Upper Mississippi River Bulletin* 3:3 (March 1934):1; David L. Nass, "The Rural Experience," in Clark, ed., *Minnesota in a Century of Change*, p. 143; E. J. Barry, "Water Transportation and Grain Marketing," in *American Cooperation*, 1961 (Washington DC: American Institute for Cooperation, 1961), pp. 365-366; "How the Nine Foot Channel was Built," *Upper Mississippi River Bulletin* 8 (November 1939): 4; Mitchell, "A History of the St. Paul Municipal Grain Elevator and Sack House." Application for Permit, City of St. Paul. August 14, 1951, number 31833; February 18, 1955, 10802; May 13, 1955, 12891; December 22, 1955, 32805, 32806, 32807, 31808; June 1, 1956, 32804; October 24, 1956, 421824, May 15, 1958, number 76407, at St. Paul City Hall.

22.Frame, Multiple Property Documentation Form, Grain Elevators Minnesota, F-1.

23.Ibid., F-3, F-5

24.Ibid., F-7

25.Ibid.

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Verbal Boundary Description

The boundary of the St. Paul Municipal Grain Terminal is shown as a heavy black line on the accompanying map entitled, "Survey, St. Paul Municipal Grain Terminal, February 2004".

Boundary Justification

The boundary that comprises the St. Paul Municipal Grain Terminal includes the elevator, sackhouse and the concrete deck that lies on the up and downstream sides and on the riverward side. Parcels located to the north and northwest of the nominated property, once used for grain storage and handling, have been excluded because the land has been subdivided and developed into a residential neighborhood.

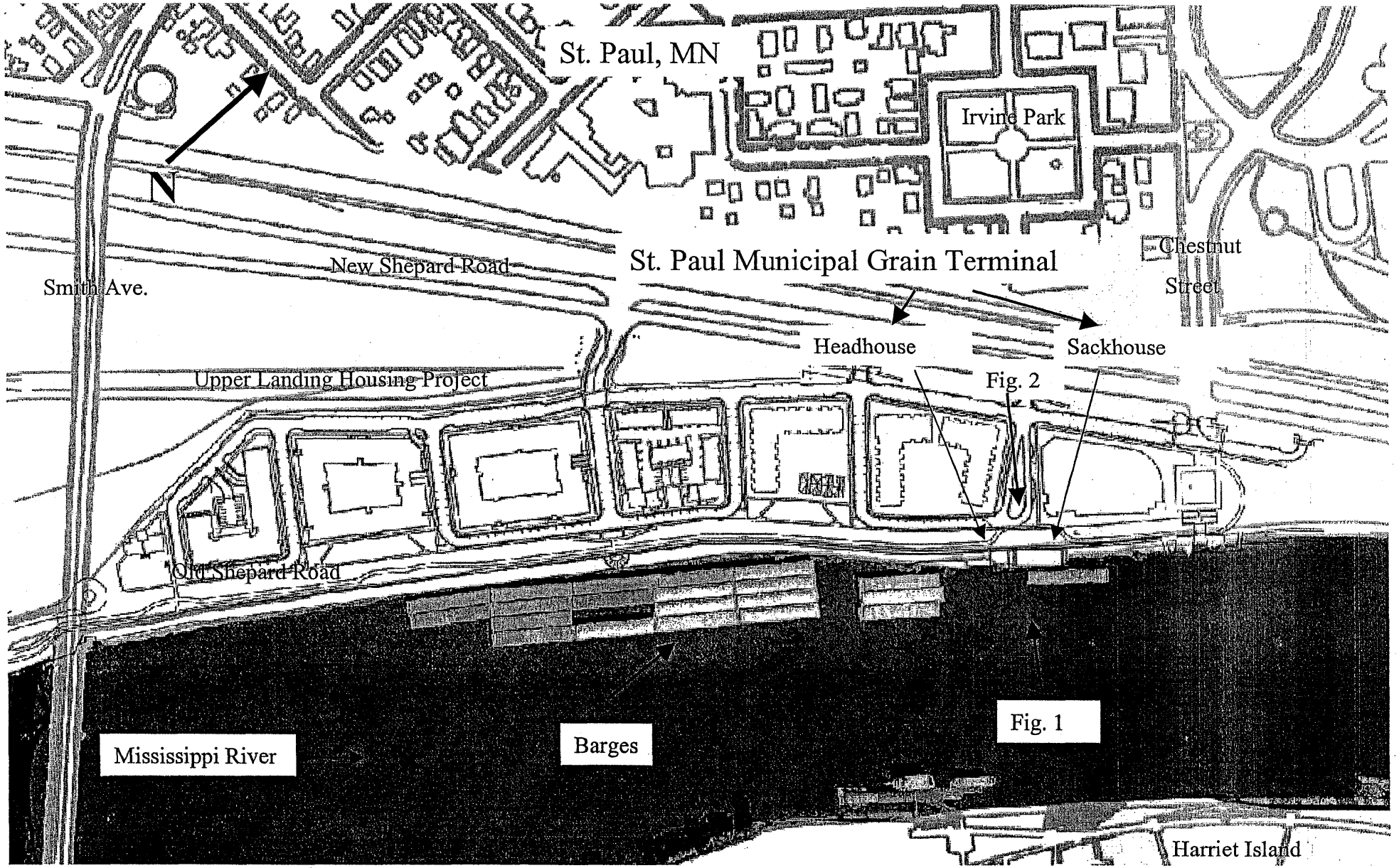
Form Prepared By:

name/title: Robert F. Frame, III, PhD
organization: Historical Consultant
street and number: 178 Goodrich Ave. telephone number: 651-291-7882
city or town: St. Paul, MN 55102

name/title: Gregory Page/Director of Special Projects
organization: St. Paul Riverfront Corporation
street and number: 25 West 6th telephone number: 651-293-6862
city or town: St. Paul, MN 55102

Photographs

Figure 1. St. Paul Municipal Grain Terminal - looking northwest from the Mississippi River.
Figure 2. St. Paul Municipal Grain Terminal - looking southwest toward the Mississippi River.
Figure 3. Headhouse Equipment. Wooden levers for grain bins and Fairbanks scale.
Figure 4. Headhouse Equipment. Operating machinery in top floor of the headhouse.
Figure 5. Dockworkers unloading sacks from a steamboat.
Figure 6. Grain barge being loaded at the Municipal Grain Terminal, 1954.
Figure 7. Farmers Union Grain Terminal Association behind St. Paul Municipal Grain Terminal, 1935.
Figure 8. Farmers Union Grain Terminal Association behind St. Paul Municipal Grain Terminal, 1955.



<u>Sketch Map</u>: St. Paul Municipal Grain Terminal.

Ramsey County, MN.

Approx. Scale: 1"=320'

BLOCK 1
LOT 1

UPPER

MILL STREET

SHEPARD RD.

(OLD SHEPARD RD. - FORMERLY WATER STREET)

SAMUAL H. MORGAN REGIONAL TRAIL

(DEDICATED AS WATER STREET IN RICE AND IRVINES ADD. TO ST. PAUL)

MOST S'LY CORNER OF LOT 1

N

CONCRETE WALL

BITUMINOUS PATH

4 FT. CHAIN LINK FENCE

S42°14'52"W 202.81

boundary

Proposed Parcel

EXISTING BUILDING "HEAD HOUSE"

EXISTING BUILDING SET ON A FOUNDATION AND CONCRETE PIERS

CONCRETE

ROCK

BLDG. HEIGHT = 123.54 FT.

CONC. TOWER

EDGE OF ROCK

CONCRETE WALL

S47°45'08"E 19.67'

5.00

APPROXIMATE SHORE LINE

boundary

N47°45'08"W 19.67'

15.00

ROCK

0.33'

BLDG. HEIGHT = 16.8 FT.

boundary

boundary

MISSISSIPPI RIVER

WILKIN STREET

St. Paul Municipal Grain Terminal
St. Paul, Ramsey County, MN
Boundary Map, February 2004
1 inch equals 20 feet