



**UPPER MISSISSIPPI HARBOR DEVELOPMENT  
ARCHITECTURAL/HISTORICAL SURVEY  
MINNEAPOLIS, HENNEPIN COUNTY**

**PREPARED BY**

**ERIN HANAFIN BERG AND CHARLENE ROISE, HISTORIANS  
PENNY PETERSEN, RESEARCHER  
HESS, ROISE AND COMPANY  
THE FOSTER HOUSE  
100 NORTH FIRST STREET  
MINNEAPOLIS, MINNESOTA 55401**

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## INTRODUCTION

### Project Administration

In March 2006, the City of Minneapolis Community Planning and Economic Development department (CPED) retained Hess, Roise and Company, historical consultants, to investigate resources associated with the development of the Upper Mississippi Harbor. An earlier study by Hess Roise completed in May 2003 found the Upper and Lower Saint Anthony Falls Locks and Dams to be eligible for listing in the National Register of Historic Places. The report indicated that additional resources associated with the Upper Mississippi Harbor Development might be significant, but further evaluation was beyond the scope of that study.<sup>1</sup>

Recent riverfront plans commissioned by the city, including the *Above the Falls* master plan adopted in 2001 and the draft Mississippi River Critical Area Plan of March 2006, have recommended redevelopment of the municipal Upper Harbor Terminal property. In light of those proposals, CPED retained Hess Roise to survey the Upper Harbor Terminal and determine whether it is eligible for local or national historic designation. Since the Upper Harbor Terminal is located near the upstream limit of navigation and within a broader historical context associated with the construction of the Saint Anthony Falls locks and dams, the study included additional industrial sites and resources within the Upper Mississippi Harbor Development area. Removal or redevelopment of the Upper Harbor Terminal has the potential to impact the historical context of other barge terminals and related structures in the vicinity and the integrity of the Upper Harbor as a whole.

### Criteria for Historic Designation

Properties are assessed for historical significance using the criteria of the National Register of Historic Places and applicable municipal ordinances. While mainly an honorary designation, listing in the National Register or a determination of eligibility requires federally funded or permitted projects to be reviewed in terms of their impacts on historic resources, as directed by Section 106 of the National Historic Preservation Act. Designation under local landmarks laws is often associated with protective measures including review by the heritage preservation commission of proposed alterations and demolition.

The criteria for the National Register and for local landmark designation are similar, but the standards for National Register evaluation are higher and more restrictive. Established by the National Historic Preservation Act of 1966, the National Register consists of properties “significant in American history, architecture, archeology, engineering, and culture.” To be considered significant, a property must meet one or more of the following criteria:

Criterion A: be associated with events important to broad patterns of history;

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<sup>1</sup> Charlene K. Roise and Penny Petersen, “Lower Saint Anthony Falls Hydroelectric Project Architectural/Historical Survey,” May 2003, prepared by Hess, Roise and Company for Spaulding Consultants. Portions of the May 2003 report are included in the following historical context and survey findings.

Criterion B: have a significant association with the life of an important person;  
Criterion C: represent a type, period, or method of construction; or be the work of a master; or express high artistic values; or  
Criterion D: yield, or be likely to yield, information important in prehistory or history.

Typically, above-ground properties merit National Register designation based on the first three criteria; Criterion D is usually applied to archaeological sites. Properties can achieve significance on a local, state, or national level. A property may be individually eligible for listing in the National Register, or eligible as a contributing component of a historic district. In addition to significance, a property must maintain physical integrity to be considered for the National Register, and must usually be over fifty years old unless it ranks as exceptionally significant.

Criteria for local landmark designation are provided in the Heritage Preservation Regulations (Chapter 599) of the Minneapolis code. A property can merit designation “because of its historical, cultural, architectural, archaeological, or engineering significance” under the following criteria:

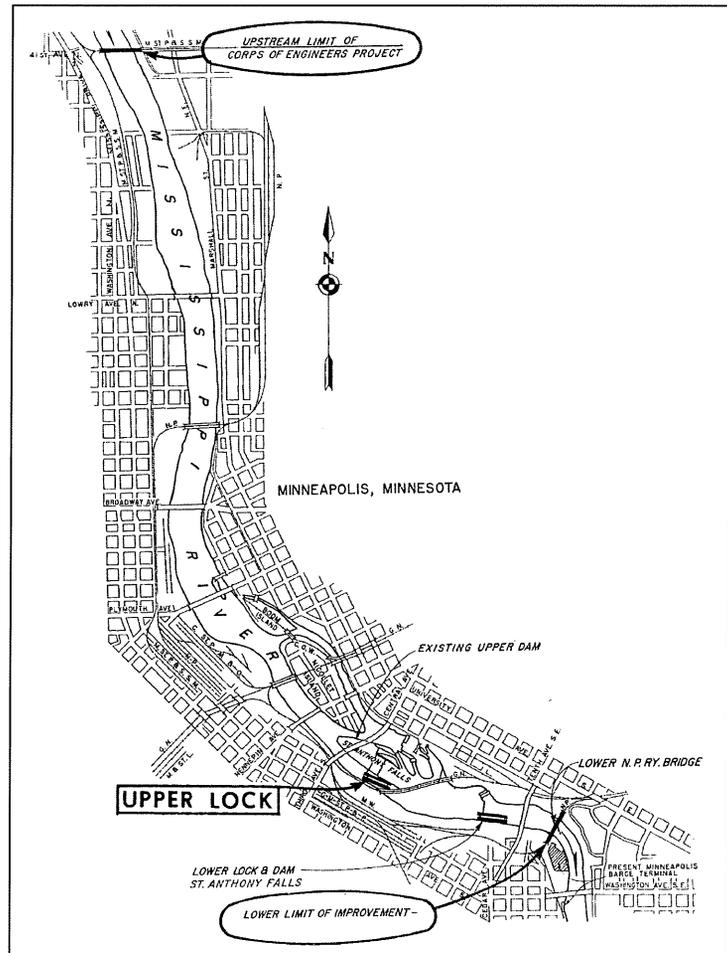
1. The property is associated with significant events or with periods that exemplify broad patterns of cultural, political, economic or social history;
2. The property is associated with the lives of significant persons or groups;
3. The property contains or is associated with distinctive elements of city identity;
4. The property embodies the distinctive characteristics of an architectural or engineering type or style, or method of construction;
5. The property exemplifies a landscape design or development pattern distinguished by innovation, rarity, uniqueness or quality of design or detail;
6. The property exemplifies works of master builders, engineers, designers, artists, craftsmen or architects; or
7. The property has yielded, or may be likely to yield, information important in prehistory or history.

The following report includes a narrative history of the Upper Mississippi Harbor Development project, laying the groundwork for evaluation of resources associated with the development. A summary of the survey findings follows the historical context. The surveyed properties’ eligibility for historic designation is assessed, and mitigation strategies are suggested in the event that significant historic properties will be altered or demolished for future redevelopment. Inventory forms for the surveyed properties are appended to the report.

Charlene Roise, president of Hess Roise, served as the study’s principal investigator and historian. Erin Hanafin Berg conducted the research and fieldwork and compiled inventory and contextual information, with the assistance of Penny Petersen. This report was written by Ms. Berg and Ms. Roise. Carrie Flack served as the project coordinator for CPED.

## Methodology

The boundaries adopted for this study are based on the area defined as the Upper Mississippi Harbor Development by the U.S. Army Corps of Engineers at the initiation of the project in 1937. The project area extends upriver from the Northern Pacific Railway Bridge (Bridge #9) below Saint Anthony Falls to the historic Soo Line Railway Bridge near the Minneapolis city limits, a total distance of 4.6 miles. Properties on both sides of the river were surveyed within this area, as well as resources located in the river itself. The Area of Potential Effects (APE) related to the potential removal of the Upper Harbor Terminal is limited to the locks and dams, barge terminals, and associated resources north of the Northern Pacific Railway Bridge at river mile 855.8. This area is historically associated with the Upper Mississippi Harbor Development project, has visual and operational continuity, and largely retains the most historical integrity. The boundaries of the APE were established in consultation with Dennis Gimmestad and Susan Roth of the State Historic Preservation Office (SHPO).



*This map, from a 1970 tour pamphlet for the American Society of Civil Engineers (ASCE) conference at the University of Minnesota, shows the geographical limits of the Upper Mississippi Harbor Development. See Appendix A for a large-scale copy.*

Primary consideration was given to industrial properties that were constructed, altered, or enlarged during the Upper Mississippi Harbor Development's early period of significance, 1950 to 1968, and that have features such as docks, mooring cells, or boat ramps associated with harbor use. Industrial sites situated more than a block from the riverfront were assumed to have been located in the area for reasons other than the waterway improvements. Similarly, it was assumed that riverfront buildings or sites that predated the period of significance were not related to the channel extension. Some of the warehouses, offices, and light-industrial buildings in the area might have been constructed in response to the increased industrial activity of the Upper Harbor, but this was a tangential effect. The bluff-top residential and commercial buildings on the east side of the river were not historically associated with the Upper Mississippi Harbor Development and were therefore not included in this study.

Several of the barge terminals in the Upper Harbor have been substantially altered or removed, leaving little physical evidence of their historic construction. Many such sites were identified during the research phase of this study using historic maps, aerial photographs, and planning documents. Reconnaissance survey of these sites revealed that they retain insufficient integrity to qualify for more thorough investigation or inventory.

A corps of engineers map denoting the upstream and lower limits of the improvements helped to establish boundaries for the project, and a map published in a 1972 riverfront study, *Mississippi/Minneapolis: A Plan and Program for Riverfront Development*, was particularly informative.<sup>2</sup>

Because of the size of the study area and large acreage of many of the terminal properties, the intensive-level survey required a number of site visits. Fieldwork and photography were completed between April and October 2006. The researcher took field notes and documented each property with black-and-white photographs; contact prints are attached to individual inventory forms. Digital color photographs were taken to assist in the evaluation process and to illustrate this report.

The research phase of the project was conducted concurrently with the fieldwork. Hess Roise researchers consulted the firm's in-house collection of books, unpublished reports, vertical files, and other reference materials to establish the historical context of the Upper Mississippi Harbor Development. City employee Jim Forsyth allowed Hess Roise to use a collection of materials he had collected during his tenure as CPED liaison to the Upper Harbor Terminal. Aerial photographs, building permit and tax records, city directories, and Sanborn maps were used to research individual properties. Corps of engineers records relative to the historic harbor improvements have been moved Washington, D.C., and were not consulted due to project budget limitations. Historic corps records housed at the Minnesota Historical Society provided limited background information. Planning documents and reports, newspaper articles, and photographs from the historic period provided the most valuable information about the chronological development of individual sites and the area as a whole.

Individuals who contributed information to this report include: Dick Lambert, director of the Ports and Waterways Unit of the Minnesota Department of Transportation, who recalled his firsthand experience with the terminals; Jerry Christensen, the manager of River Services, Inc., who assisted in identifying the buildings and structures at the Upper Harbor Terminal; and Mindy Isaacs, owner of the American Iron Company, and Mark Newberry, general manager, who provided valuable information about that property.

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<sup>2</sup> "Tour of St. Anthony Falls Upper Lock," prepared for ASCE Hydraulics Division Eighteenth Annual Specialty Conference, University of Minnesota; *Mississippi/Minneapolis: A Plan and Program for Riverfront Development* (Minneapolis: Office of the City Coordinator, 1972), 30-31. See Appendix A for a full-size copy of this map.

## HISTORICAL CONTEXT

### The Mississippi River: A Long History of Change

Between 1930 and 1940, the corps of engineers established a nine-foot navigation channel on the Upper Mississippi River to promote the expansion of transportation, commerce, and industry in the Upper Midwest. Extensions in Minneapolis and near Saint Louis were begun in 1937 and 1947, respectively, but not completed until 1963 and 1964. At the conclusion of this thirty-four year undertaking, twenty-nine locks and dams had been built or modified. The project transformed the Mississippi—an unpredictable, winding river of channels and sloughs, filled with sandbars and snags, with a 73-foot drop at Saint Anthony Falls—into a stair-stepped series of slackwater pools that climbed approximately 400 vertical feet over a distance of 669 miles.<sup>3</sup>

Improved navigation of the Upper Mississippi River had been actively sought by the federal government since the early nineteenth century, when the surrounding area was opened to Euro-American settlement. Even before that, presidents, explorers, and businessmen contemplated the power and potential of the Mississippi as an inland waterway.<sup>4</sup> Until the advent of railroads, the river was the primary mode of transportation for the entire central United States, as it was a more reliable route than the region's rough roads and trails. In 1823, the first steamboat traveled from Saint Louis to Saint Paul, proving that the Upper Mississippi was navigable despite its meandering course, numerous sloughs and side channels, widely varying depth, and constant obstructions. By 1840, there was heavy river commerce between these two Midwestern ports, and the Mississippi River flourished as a transportation route. Before the Civil War, river tonnage in the United States exceeded the seagoing tonnage of all the ships in the British merchant fleet; the Mississippi had the potential to be the backbone of a new commercial empire.<sup>5</sup>

The U.S. Army Engineering Corps (later renamed the Corps of Engineers) was assigned responsibility for removing hazards such as submerged trees, logs, and rocks, and dredging shallow areas of the river channel, but its early efforts to tame the Mississippi did not succeed in promoting swift, reliable commerce. Steamboats were still subjected to numerous hazards, and wrecks were common. States and territories along the river actively petitioned Congress for channel improvements. William Windom, a senator from Winona, Minnesota, and later secretary of the treasury under President Garfield, chaired a committee in the early 1870s that studied railroad regulation and river navigability. Windom's committee concluded that improving the Mississippi River and promoting river transport would be the most effective way to achieve competition between the railroads. The committee recommended a minimum four-and-a-half-

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<sup>3</sup> Jon Gjerde, "Historical Resources Evaluation: St. Paul District Locks and Dams on the Mississippi River and Two Structures at St. Anthony Falls," September 15, 1983, ii-iii, prepared for the Saint Paul District, U. S. Army Corps of Engineers, and available at that office; William Patrick O'Brien, Mary Yeater Rathbun, and Patrick O'Bannon, *Gateways to Commerce: The U.S. Army Corps of Engineers' Nine-Foot Channel Project on the Upper Mississippi River* (Denver: National Park Service, 1992), 11-15, 132-133, 201.

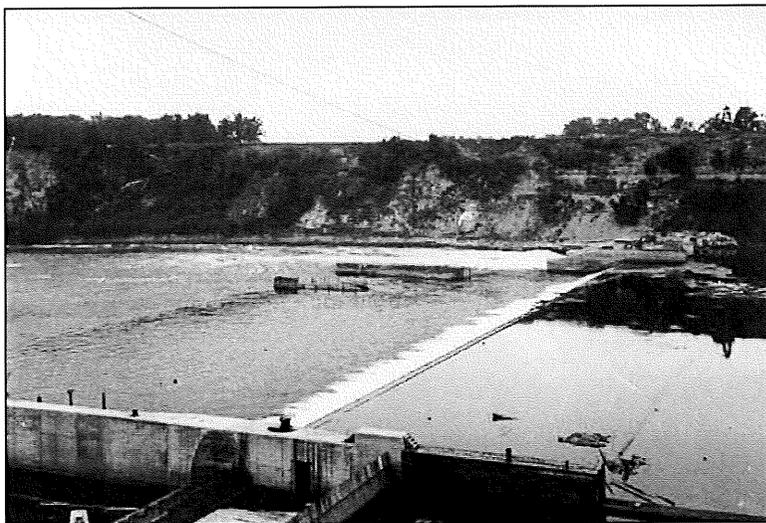
<sup>4</sup> Gjerde, "Historical Resources Evaluation," 55.

<sup>5</sup> *Mississippi River Navigation* (Vicksburg, Miss.: Mississippi River Commission and U.S. Army Corps of Engineers, 1985), available at <http://www.mvn.usace.army.mil/PAO/history/MISSRNAV/steamboat.asp>; Hal Quarfoth, "Shipping Booms on Old Man River: It's the Era of Towboat and Barges," *Minneapolis Tribune*, December 20, 1959.

foot channel on the Upper Mississippi River between Saint Paul and the mouth of the Illinois River at Alton, Illinois.<sup>6</sup>

This recommendation did not sit well with civic and business leaders in Minneapolis, who wished to make their city the head of navigation on the Mississippi and reap the benefits of the booming steamboat trade. Unfortunately, Saint Anthony Falls stood in the way. Over many centuries, the falls had receded upstream from the mouth of the Minnesota River, leaving behind a treacherous channel filled with debris. Boosters and the newly formed state legislature backed a private proposal in 1866 to build three locks and dams in the Mississippi River's nine-mile course between the falls and the Minnesota River. The proposed construction would dam the river at intervals, allowing vessels to reach a landing in the vicinity of the present Washington Avenue Bridge. Although Congress initially rejected the proposal, it authorized the corps to survey the area between Fort Snelling and Saint Anthony Falls. The survey recommended a lock and dam at Meeker Island, about three miles downriver from the falls. In 1867, Representative Ignatius Donnelly and Senator Alexander Ramsey persuaded Congress to support the project. Despite federal appropriations of land and cash, the private company that was to construct the facility was unable to get the project started. Frustrated navigation boosters in Minneapolis had to watch while the corps made channel improvements that benefited only their rivals downriver—including Saint Paul.<sup>7</sup>

Congress approved the four-and-a-half-foot channel depth recommended by Windom's committee in 1878. Hundreds of wing and closing dams were constructed between Saint Paul and Saint Louis that allowed the current to scour the riverbed. It was not until 1894—over twenty years after funding for the Meeker Island Dam was appropriated—that the corps went ahead with the project, producing a dam and lock with a thirteen-foot lift that began operating in 1906. There was little traffic to serve, however; a nine-foot channel depth had been maintained on the Lower Mississippi south of Cairo, Illinois, since in 1896, and the larger riverboats bringing goods from the Delta were unable to traverse the shallower, more obstructed waters of the Upper Mississippi.

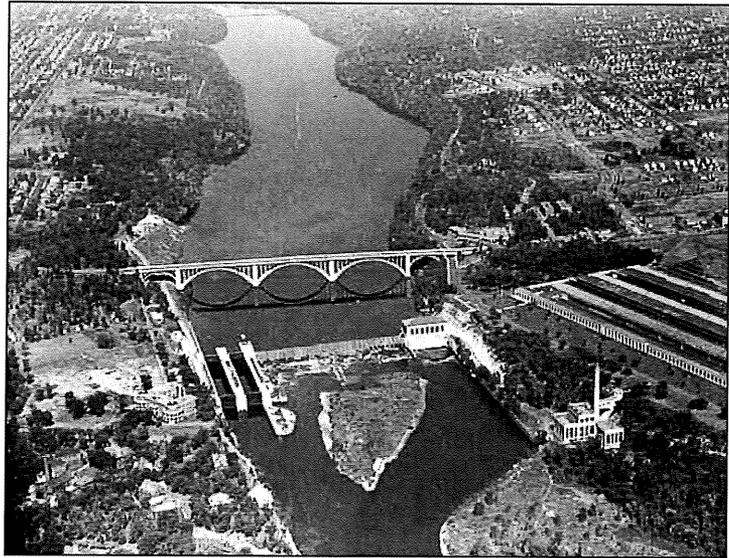


*Constructing Meeker Island Lock and Dam on the Mississippi River near the Franklin Avenue Bridge, Minneapolis, ca. 1904. (Minnesota Historical Society)*

<sup>6</sup> John O. Anfinson, *River of History: A Historic Resources Study of the Mississippi National River and Recreation Area* (Saint Paul: U.S. Army Corps of Engineers, Saint Paul District, 2003), 84-85.

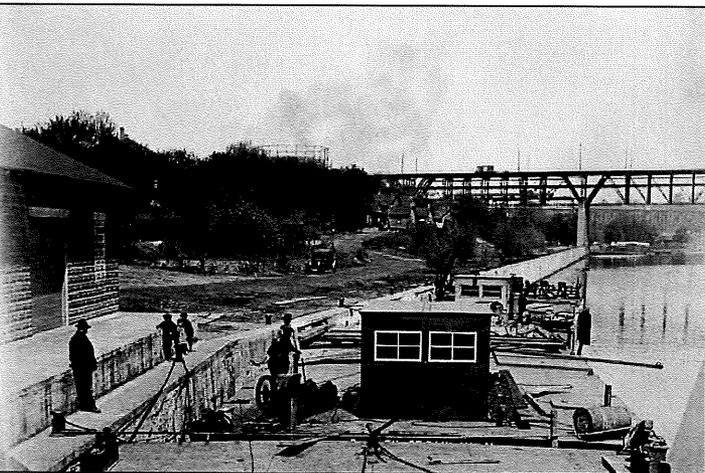
<sup>7</sup> Adolph F. Meyer and Lewis H. Brittin, *Saint Paul's Plan for Development and Utilization of Power at Government Dam No. 1, Saint Paul, Minnesota*, prepared for the Federal Power Commission by the Saint Paul High Dam Committee (Saint Paul: McGill-Warner Company, 1921), 9-11; Anfinson, *River of History*, 90-92.

A second thirteen-foot lock and dam was included in the Rivers and Harbors Act of 1899 for a site downriver of the Meeker Island facility. Construction was underway in 1906 when engineers questioned the wisdom of installing the three small dams. In 1907, Congress authorized a six-foot channel depth from Cairo to Minneapolis, making the upper river more suitable for large boats from the south. Construction of the dam below Meeker Island was stopped abruptly. Plans were revised to provide a high dam and a lock with a thirty-foot lift, fulfilling the same navigational purpose as the three smaller structures while permitting the six-foot channel depth, and the facility came to be known as Government Lock and Dam No. 1. The dam was completed in 1917. The outdated Meeker Island facility was partially removed and submerged in the pool above the dam. The added height allowed the dam to include a foundation for a hydroelectric plant, which was developed by the Ford Motor Company in the following decade.<sup>8</sup>



*above: Government Lock and Dam No. 1, Saint Paul, 1936. The Ford Dam, as it is commonly known, provided a thirty-foot lift that rendered the Meeker Island dam obsolete;*

Ironically, the early twentieth-century improvements to the Upper Mississippi River channel corresponded with a decline in transportable goods from the region. The volume of timber, once the most important freight on the river, diminished rapidly around the turn of the century. Few river cities had terminal facilities that would allow commodities to be transferred between barge and rail, and railroads had been extended far into the heartland, usurping the river's role in transporting grain. The Interstate Commerce Commission ruled in 1922 that waterborne transport on the Upper Mississippi River had not expanded enough to provide real competition to the railroads, permitting dramatic railroad rate increases that prompted businessmen, politicians, and other civic boosters to advocate more strongly for a navigable channel clear to Minneapolis.<sup>9</sup>



*below: Minneapolis Municipal Terminal near the Washington Avenue Bridge, ca. 1927. (Minnesota Historical Society)*

<sup>8</sup> Meyer and Brittin, *Saint Paul's Plan*, 9-11.

<sup>9</sup> Anfinson, *River of History*, 110.

In 1924, Congress formed the Inland Waterways Corporation, charged with promoting barge operations and river transport. Shipping became well established on the nine-foot channel of the Lower Mississippi, and the Upper Mississippi Barge Line Company was organized in Saint Paul in 1925 to promote barge transport on the upper river. Barge traffic that could navigate the existing six-foot channel utilized Lock No. 2 near Hastings and Lock No. 1 in Saint Paul to reach Minneapolis. In 1927, the city built a municipal barge terminal near the Washington Avenue Bridge, the only available site below Saint Anthony Falls, finally establishing itself as the head of navigation. The terminal facilities were at the bottom of the gorge, though, without convenient railroad or vehicular access. Minneapolis still craved both a more navigable channel and a large, flat harbor, which could be created above the falls.

It is possible that a nine-foot channel for the Upper Mississippi would never have been approved if not for the efforts of Henrik Shipstead, a U.S. senator from west-central Minnesota who had been elected in 1923. Shipstead, a member of the Farmer-Labor party, lobbied alongside western and rural progressives for domestic programs supportive of union workers and farmers, who were in the midst of a growing agricultural crisis that began after World War I. As one of the primary advocates for extending the nine-foot channel, Shipstead argued that the waterway improvements were needed to fulfill the economic potential of the Midwest. When the U.S. House of Representatives passed the Rivers and Harbors Act of 1930 without authorizing the nine-foot channel for the Upper Mississippi, Shipstead proposed an amendment in the Senate that included the project and was successful in having it passed by both houses of Congress. The channel legislation was signed into law by President Herbert Hoover in July 1930.<sup>10</sup>

The corps of engineers drafted plans for twenty-six locks and dams that, together with the Ford and Hastings dams already in place, would create a series of slackwater pools from the base of Saint Anthony Falls to near Saint Louis. The plans evolved as the project moved forward in stages, with the corps prioritizing locations based on assessments of need. Local communities, however, were not always enthusiastic about the corps's proposals. The first two new lock and dam installations, planned for the Quad Cities of Iowa and Illinois, were criticized by local officials, conservationists, and railroad interests. The threat of endless lawsuits resulted in the passage of amended legislation in 1932, giving the corps the power to modify the types and locations of the locks and dams as individual facilities were designed.

Initially, the nine-foot channel was promoted as a way to alleviate the nation's farming crisis and as an antidote to the Panama Canal and railroad monopolies, factors that disadvantaged Midwestern commerce. At the height of the Great Depression, the corps recast the nine-foot channel as a work-relief effort and the timetable was accelerated to put as many people as possible to work immediately. The project employed not only engineers and laborers, but also administrators, writers, and photographers. With this extensive workforce and a dedicated funding source, the project was substantially completed by 1940, many decades sooner than originally scheduled.<sup>11</sup>

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<sup>10</sup> Henrik Shipstead, "Build the Waterways Now!" in *What Two Great Waterway Leaders Say* (Saint Louis: Mississippi Valley Shippers Conference, 1931), 1-7; Gjerde, "Historic Resources Evaluation," 110; O'Brien et al., *Gateways to Commerce*, 30; United States Senate Art and History webpage, [http://www.senate.gov/artandhistory/history/common/briefing/senators\\_changed\\_parties.htm](http://www.senate.gov/artandhistory/history/common/briefing/senators_changed_parties.htm).

<sup>11</sup> O'Brien et al., *Gateways to Commerce*, 55-56.

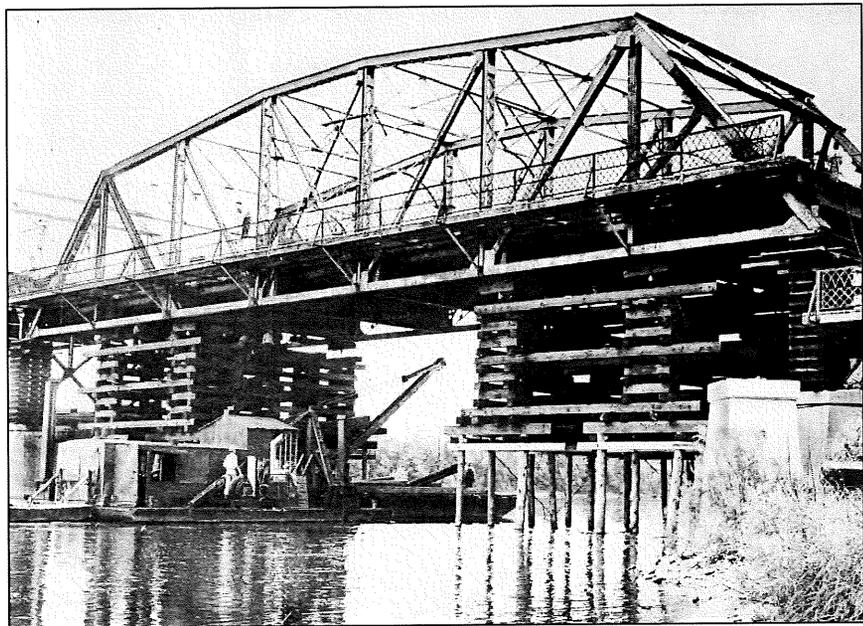
By the time the nine-foot-channel legislation was up for reauthorization in 1937, the municipal barge terminal in Minneapolis was considered inadequate and boosters seized upon the opportunity to push for extending the channel above Saint Anthony Falls. Senator Shipstead promoted a 4.6-mile extension of the river channel and, although the corps found the \$15 million project uneconomical and refused to endorse it, Congress passed legislation authorizing the Upper Mississippi Harbor Development. It was only a matter of time before Minneapolis would have access to the river above the falls—and “the best inland harbor in America.”<sup>12</sup>

### The Development of the Upper Mississippi Harbor

Despite its opposition to the project, the corps of engineers was responsible for constructing the Saint Anthony Falls lock and dam facilities, although Minneapolis had to shoulder some of the expense. As corps engineer F. E. Mullen explained in February 1951, “Congress has established and maintained the policy of letting the people of the basins carry the responsibility for their own development programs.” He noted that “Congress authorized the [Upper Mississippi Harbor Development] project with the provision that local interests bear the cost of necessary bridge modifications and adjustment to utility structures, and furnish free of cost to the United States all lands needed from the improvement. The City of Minneapolis assumed all the responsibility for the required local cooperation.”<sup>13</sup>

The city initially agreed to contribute \$1.1 million towards the development. Possibly suspecting that its financial responsibility would grow, the city council passed a resolution in 1940 appropriating \$300,000 a year from the general fund

*Raising one span of the Plymouth Avenue Bridge to accommodate barge traffic in the Upper Harbor, ca. 1955. (Upper Harbor: Minneapolis and the Future. . .)*



<sup>12</sup> Gjerde, “Historic Resources Evaluation,” 112; O’Brien et al., *Gateways to Commerce*, 51; Pat McCarty, “None See Immediate Boom in Upper Harbor Project,” *Minneapolis Tribune*, December 2, 1962; Pat McCarty, “Upper Harbor Will Extend River Traffic,” *Minneapolis Tribune*, January 13, 1963; Merlin H. Berg, “Abstract of Available Historical Data on St. Anthony Falls,” copy of typescript, January 26, 1939, pages 20-21, submitted to the War Department, U.S. Engineer Office, Saint Paul, available in archives of Saint Paul District, Corps of Engineers.

<sup>13</sup> F. E. Mullen, “The Upper Harbor Development,” typescript, February 1, 1951, pages 2, 7-8, paper presented to the Hydromechanics Colloquium Meeting, copy available in archives of Saint Paul District, Corps of Engineers; Lucile M. Kane, *The Falls of St. Anthony, The Waterfall That Built Minneapolis* (Saint Paul: Minnesota Historical Society Press, 1987), 176.

for as many years as necessary to complete the project. According to corps historian Raymond H. Merritt, “The fact that Minneapolis businessmen were willing to support a city contribution this large . . . indicates the extent of renewed civic interest in the river as a commercial resource.” The city’s investment grew to \$6.6 million by the conclusion of the project in 1963, including costs for land acquisition, bridge modifications, and other improvements.<sup>14</sup>

Corps engineer Martin E. Nelson was instrumental in planning and implementing the Upper Mississippi Harbor Development project. He outlined its four main elements: “(1) the construction of a new dam to replace the obsolete masonry dam at the lower falls, (2) construction of two locks, one at the new lower dam and one at the Upper Saint Anthony Falls dam, (3) dredging connecting navigation channels and turning basins, and (4) modification of numerous bridges, cable and pipeline crossings, and water power installations.” This succinct description, however, minimizes the complexity and scale of the project.<sup>15</sup>

One challenge was presented by the physical characteristics of the river below Saint Anthony Falls, where its course was relatively narrow and in a gorge. As a result, obstructions had to be minimized during construction and in the final design to reduce the danger of flooding. In addition, the Saint Peter sandstone underlying the area was soft and crumbled easily, a poor foundation for structures perpetually pounded by the Mississippi’s current. Engineering alternatives were considered with the aid of a 1:50-scale model of the project area developed at the University of Minnesota’s Hydraulic Laboratory, which was conveniently located on Hennepin Island, right in the middle of the project. In addition to the work directly related to the locks and



*An illustration by the Corps of Engineers showing the anticipated physical impact of the locks and dams on the area of Saint Anthony Falls, ca. 1945. (Minnesota Historical Society)*

<sup>14</sup> Raymond H. Merritt, *Creativity, Conflict, and Controversy: A History of the Saint Paul District, U.S. Army Corps of Engineers* (Washington, D.C.: Government Printing Office, 1979), 148; Timothy Blodgett, “Upper Harbor Project to Open Saturday, But City Lacks Barge Facilities,” *Minneapolis Tribune*, September 15, 1963; Daniel M. Upham, “Upper Harbor May Be Open in Four Years,” *Minneapolis Tribune*, June 14, 1959.

<sup>15</sup> Martin E. Nelson, “Nine-foot Channel Extension Above St. Anthony Falls,” *Minnesota Engineer* 11 (June 1960): 8.

dams, ten of the eleven bridges upstream from the Washington Avenue Bridge had to be raised or altered to provide clearance for navigation. Cribs and shear gates were built to protect the bridge piers and guide the barges. The Minneapolis Western Railway Bridge, which passed over the site of the lower dam, was removed altogether. Further complicating the project was the fact that the existing municipal barge terminal, located about one-third of a mile below the site of the Lower Lock and Dam, was in constant use, crowded with barges docked two and three deep that were loaded with critical commodities such as coal and heating oil. The locks and dam upstream had to be constructed without disrupting the existing barge traffic.<sup>16</sup>

Given the engineering challenges—and the interruption of World War II—construction was not initiated until 1948. The passage of time allowed people to reconsider the project, and when news of the imminent construction was touted in the local press, it was met with criticism by some members of the public. For the most part, however, politicians, business and civic leaders, and the editorial boards of the Minneapolis newspapers wholeheartedly supported the project. Minneapolis Mayor Hubert H. Humphrey strongly advocated for the improvements before his election to the Senate in 1948, and his mayoral successor, Eric Hoyer, supported the project during his four terms in office. Fifth District Representative Walter Judd shepherded post-war appropriations for the project through Congress.<sup>17</sup>

The revised schedule called for the entire Upper Mississippi Harbor Development project to be completed by 1957 at a cost of \$20.5 million. The first step was dredging the river from the existing head of navigation at the municipal barge terminal to the site of the lower lock. In 1950,



*Lower Saint Anthony Falls Lock and Dam under construction, ca. 1955.  
(Upper Harbor: Minneapolis and the Future. . .)*

work began on the lower lock structure. It was not possible to divert the entire channel of the river, so the construction was planned in phases, with cofferdams dewatering one section of the river at a time. Although work on the lower lock and dam was scheduled to be completed by 1953, it was delayed by higher-than-usual spring river flows and a flood of the construction site in November 1951. The lower lock complex was not finished until 1956.<sup>18</sup>

<sup>16</sup> Kane, *The Falls of St. Anthony*, 154; Mullen, “The Upper Harbor Development,” 9-10; “Flooding and Untimely Thaws Test Contractors’ Mettle on River Job,” *Construction Bulletin*, March 6, 1952, 36-41.

<sup>17</sup> “Is the Upper Harbor Worth All the Cost?” *Minneapolis Star*, August 2, 1948; Blodgett, “Upper Harbor Project to Open Saturday.”

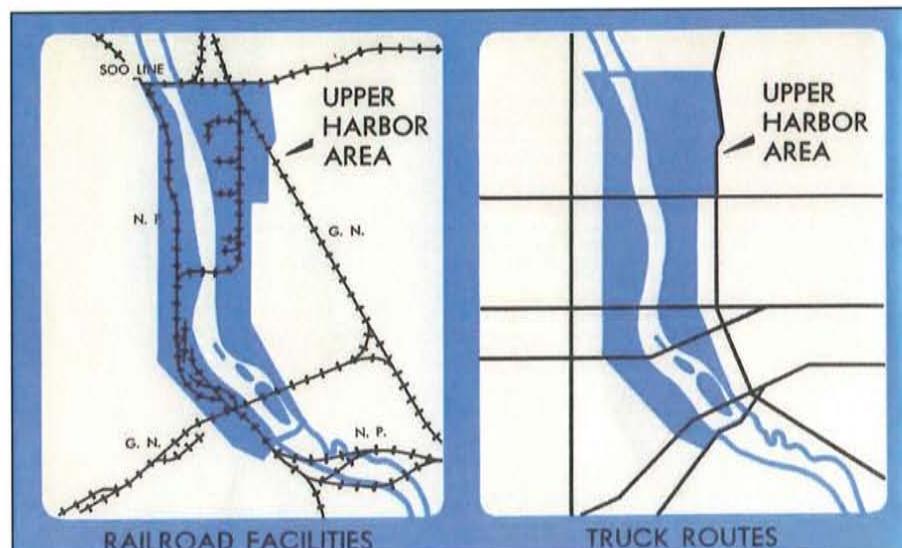
<sup>18</sup> “Solving a Tricky Dewatering Problem,” *Engineering News-Record*, October 11, 1951, 39-40, 43.

Doubts about the long-term viability of the project seemed to grow in direct proportion to the increased costs and construction delays. Competition was increasing from railroads, whose rates to haul bulk commodities dropped, and from a proposed industrial port on the Minnesota River near Savage. Dwindling public support was reflected in a 1953 editorial in the *Minneapolis Star*:

A growing number of persons wonder about the projected Mississippi River harbor in north Minneapolis. Cost estimates have gone skyward, while barge traffic hasn't expanded as once seemed likely. . . . The *Star* long has supported the Upper Harbor as a way to provide cheaper transportation of certain commodities and as an industrial development that could add to the tax base of the city. But maybe new conditions dictate a reconsideration of previous conclusions.

The editorial ended with a call for the city council to review the project, but government officials and other civic leaders remained staunchly in support.<sup>19</sup>

In 1954, the corps again questioned the viability of the project and argued against its completion, despite \$11 million that had already been spent. Upper Harbor advocates reacted by launching a public relations campaign. The Minneapolis City Council produced a booklet supporting the development, in which council president Eugene E. Stokowski stated:



*This diagram, printed in a promotional brochure distributed by the Minneapolis City Council, illustrated the Upper Harbor's proximity to existing transportation routes.*

The Mississippi, life's blood [*sic*] of the nation, is especially vital to Minneapolis. Through the nine-foot channel, the Congress has made river transportation available to the very doorstep of one of the largest industrial areas in mid-America: the Upper Harbor area above Saint Anthony Falls. Since the project was approved in 1937, Minneapolis has been investing time and resources to bring it to completion. Now, with our partners, the Federal Government, we must secure the final lock and dam to connect our great natural harbor with the waterways of the world. We feel we are on the brink of a new era in which our city will flourish as never before. The Upper Harbor is an integral part of that new era.<sup>20</sup>

<sup>19</sup> "Minneapolis Pork Barrel?" *Minneapolis Star*, March 12, 1953.

<sup>20</sup> *Upper Harbor: Minneapolis and the Future*. . . . (Minneapolis: City Council of Minneapolis, n.d. [1956?]), 1.

The booklet included statements of support from Governor Orville E. Freeman and the entire Washington delegation—U.S. Senators Humphrey and Edward J. Thye and Congressmen Judd and Roy W. Wier. The booklet's diagrams and graphs showed how the Upper Harbor would augment the existing transportation network and pointed to Saint Paul's presently inimitable superiority as a river port. The Minneapolis Chamber of Commerce came out in force to support the project, lobbying Congress with a fifty-member delegation and a favorable research report. The corps ultimately came around to continuing the project, if only to avoid wasting money already spent.<sup>21</sup>

Construction on the upper lock began in 1959 and was tentatively scheduled for completion in 1963. The costs of the entire development had risen to a projected \$39 million, but river shipments had also increased, bolstering optimistic projections for the Upper Harbor. A 1959 article in the *Minneapolis Tribune* proclaimed "Shipping Booms on Old Man River," citing a recent speech by Governor Freeman in which he predicted that the river states—located along what he termed the "nation's fifth seacoast"—would have the greatest share of economic growth in the next decade. Following the completion of the nine-foot channel on the Upper Mississippi, river shipments grew from 3.5 million tons in 1940 to 24.5 million tons in 1958. Minneapolis business leaders anticipated that this growth in shipping would lead to an influx of grain processing facilities, steel and machinery fabricating industries, fertilizer plants, sand and gravel companies, and similar operations to the Upper Harbor.<sup>22</sup>

As the upper lock neared completion, frequent articles in the local press praised and promoted the project. Photographs of the evolving facilities were featured in several issues of the *Minneapolis Tribune*, including in the Sunday "Picture" section. In September 1962, a collection of photographs illustrated the structure, design, and engineering of the upper lock under the heading "Upper Harbor Is in Final Stretch." The cover of the newspaper's Sunday business section showed the steel deck truss that replaced two spans of the Stone Arch Bridge, accompanied by an article entitled "Long Dream, Upper Harbor Will Go into Use in Spring." A month before the grand opening of the upper lock, an editorial in the *Minneapolis Tribune* acknowledged: "That Minneapolis has tended to forget the Upper Harbor is not surprising—appropriations and construction were dragged out far longer than anyone dreamed at the start. What is needed now is an insistent promotional effort to acquaint everyone concerned with the opportunities the Upper Harbor offers."<sup>23</sup>

Enthusiasm for the project was not universal. At the same time local interests were eagerly anticipating its completion, the project was being derided nationally as an example of uncontrolled government spending. It was criticized by the president of the U.S. Chamber of Commerce in Washington, D.C., and an article in *Life* magazine about "pork barrel outrage" profiled the Upper Harbor along with other projects as examples of fiscal waste. The magazine printed an aerial photograph of the Saint Anthony Falls area with a caption that read:

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<sup>21</sup> At the time Judd and Weir were in the U.S. House of Representatives, Minnesota's Fifth Congressional district encompassed most of south Minneapolis, and the Third District comprised the remainder of Hennepin County and all of Anoka, Isanti, Chisago, and Washington Counties. Don Morrison, "Upper Harbor Swings into Last Phase," *Minneapolis Tribune*, November 13, 1959; McCarty, "Upper Harbor Will Extend River Traffic."

<sup>22</sup> Hal Quarfoth, "Shipping Booms on Old Man River," *Minneapolis Tribune*, December 20, 1959.

<sup>23</sup> "Upper Harbor's Value," *Minneapolis Tribune*, August 19, 1963; McCarty, "Long Dream, Upper Harbor Will Go into Use in Spring," *Minneapolis Tribune*, November 4, 1962.

The new Minneapolis dam and lock are part of a \$30.3 million pipe dream to extend Mississippi River navigation above the city. Designed to permit shipping to bypass Saint Anthony's Falls [*sic*] through a system of locks, the project was disapproved by the Army Engineers in 1932. Congress authorized it in 1937 and continued to pour money into it down through the years. Its champion, former Representative Walter Judd, calls it "no pork barrel . . . but vital to our area." But as the project nears completion the city has no plans to develop the harbor that it will open to shipping.<sup>24</sup>

Even locally, enthusiasm was tempered by reality. A headline in the *Minneapolis Tribune* had admitted months earlier that "None See Immediate Boom in Upper Harbor Project," and explained why "even the most loyal supporters of the program agree that its economic benefits will be slow in coming." Several companies that had pledged to build docks and terminals in the Upper Harbor lost interest as the project was delayed, found other facilities along the newly opened Minnesota River channel, or merged with companies that already had dockage facilities elsewhere. Northern Waterway Terminals Corporation, which operated the existing municipal barge terminal, said that it had no definite plans to expand above the falls. The secretary of the Upper Mississippi Waterway Association—the commission formed by the federal government to promote barge traffic on the Upper Mississippi—believed that the economic development of the Upper Harbor would depend upon public investment in terminal facilities. Other public officials, including City Engineer Gordon Bodien, disagreed and thought that increased barge activity on the river would spur the construction of terminals by private enterprises.<sup>25</sup>

The upper lock was officially dedicated in September 1963. The *Minneapolis Tribune* gave advance notice of the grand opening ceremony:

A decades-old dream becomes a reality next Saturday morning, when a tugboat pushing a barge up the Mississippi River chugs past the towers of downtown Minneapolis. The tug and barge will be the first craft to be lifted through two locks bypassing Saint Anthony Falls—the mammoth effort, twenty-six years in the doing, known as the Upper Harbor project.

The dedication was attended by dignitaries including former Congressman Judd, who gave the keynote address, Senator Eugene McCarthy, corps of engineers district chief Lt. Col. Leslie B. Harding, and Minneapolis mayor Arthur Naftalin. McCarthy described the Upper Harbor project as the link that tied Minneapolis to the "great cities of the United States that are part of the country's waterways commerce system." Harding acknowledged that the project represented a "challenge and an opportunity for one of the great industrial and commercial centers of the United States." Mayor Naftalin suggested that the city "should plan at the proper time to erect a city barge terminal to make full use of its newly opened and expanded waterfront," reversing

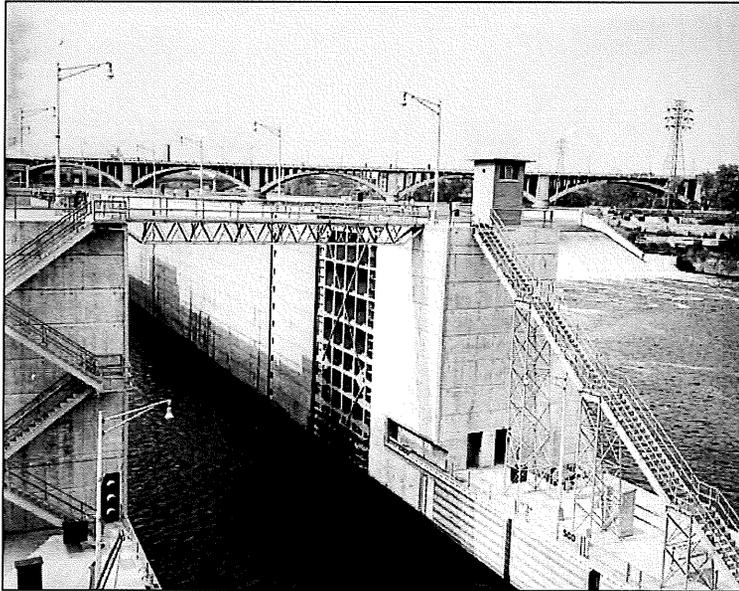
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<sup>24</sup> Keith Wheeler, Henry Suydam, Norman Ritter, Bill Wise, and Howard Sochurek, "Now—See the Innards of a Fat Pig," *Life* 55 (August 16, 1953): 55.

<sup>25</sup> McCarty, "None See Immediate Boom in Upper Harbor Project"; McCarty, "Upper Harbor Will Extend River Traffic"; "NSP Begins Expansion of Riverside Unit," *Minneapolis Tribune*, January 7, 1962.

earlier statements by city officials and acknowledging the apparent lack of private initiatives in the newly opened harbor.<sup>26</sup>

During the ceremony, the tugboat *Savage* pushed a 195-foot-long barge through the upper lock, breaking a red ribbon that spanned the lock at the high-water level. The barge was loaded with 756 tons of sewer pipe destined for use in the Minneapolis Auditorium expansion. It was all for show. Without docks and terminal facilities in the Upper Harbor, the barge was forced to pass back through the lock two hours later to unload its cargo at a terminal on the Minnesota River.<sup>27</sup>



*left: A view through the lower gate of the Upper Saint Anthony Lock, ca. 1963. (Minnesota Historical Society)*

*below: The NSP Riverside Station barge dock facilities, ca. 1968. (Merlin H. Berg, "Upper Harbor Terminal Report")*

### Terminal Development in the Upper Harbor

The embarrassing lack of terminal facilities was somewhat ameliorated only a few days after the upper lock's grand opening with the completion of a dock at Northern States Power's (NSP) Riverside Plant. The facility began receiving coal shipments by barge several weeks later and transported coal exclusively by barge for the remaining few months of the navigation season. NSP was apparently satisfied with the service, announcing plans to ship approximately one-third of its annual coal tonnage by barge in subsequent years. But NSP remained the only company in the Upper Harbor area with dock facilities in 1963.<sup>28</sup>



<sup>26</sup> "\$36 Million Harbor Project Is Opened," *Minneapolis Star*, September 21, 1963.

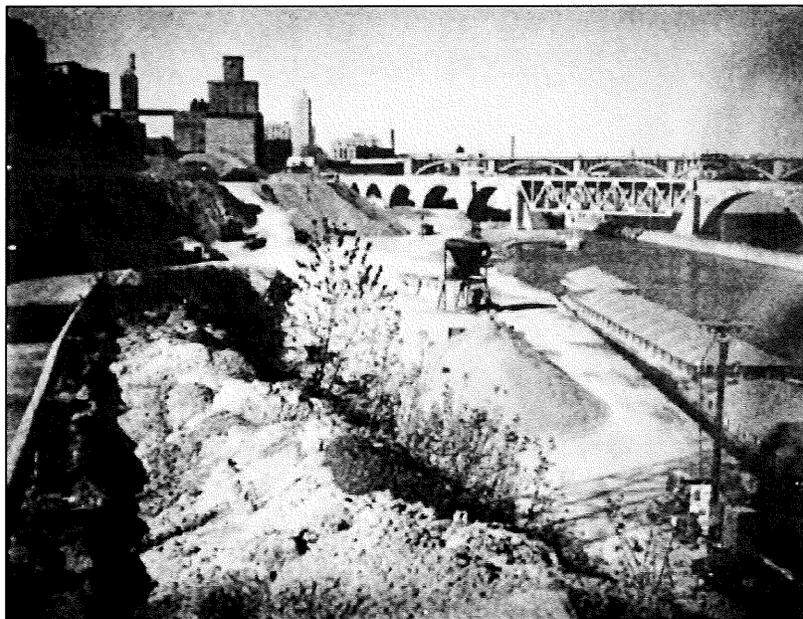
<sup>27</sup> "New Step Up the Mississippi Opens," *Minneapolis Tribune*, September 22, 1963; Blodgett, "Upper Harbor Project to Open Saturday."

<sup>28</sup> "Barge Traffic Increases," *Minneapolis Tribune*, December 29, 1963.

One year after the upper lock opened, the *Minneapolis Tribune* reported that barge activity in the Upper Harbor was still slow, although American Iron and Supply Company had built a barge dock in early 1964 and two other facilities were under construction by Scherer Brothers Lumber Company and the J. L. Shiely Company. According to the article, “many city officials and businessmen close to the Upper Harbor development see its future as, at best, uncertain.” Much of the blame was placed on the railroads, which were major landowners along the riverfront and viewed the barge lines as direct competition. The Minneapolis City Council also was criticized for not promoting the industrial potential of the area more vigorously. The Minneapolis Chamber of Commerce and the Twin City Barge and Towing Company, based in Saint Paul, remained optimistic that barge traffic to the area would continue to increase and that Minneapolis was now positioned to take advantage of it.<sup>29</sup>

The Minneapolis City Council formed a Citizens’ Upper Harbor Committee in 1964 and charged it with establishing “an orderly economic and effective program of governmental and private action in developing industrial areas of Minneapolis, with its initial attention to be given to the Upper Harbor area.” The Citizens’ Committee debated whether an independent port authority should be created to manage and develop the Upper Harbor, but ultimately drafted a bill for legislative approval in 1965 that gave similar powers to the Minneapolis City Council. At the committee’s recommendation, the city council established the Minneapolis Industrial Development Commission (MIDC) with a mandate to develop a public river terminal.<sup>30</sup>

In early 1965, the Northern Waterways Terminals Corporation, which leased ten acres of the municipal terminal near Washington Avenue from the city, proposed relocating to the Upper Harbor. After considering this option at length, the MIDC recommended in 1967 that the city council establish a public terminal in the Upper Harbor and phase out operations at the old terminal. A consultant was hired to develop an economic study and a preliminary engineering layout for a twenty-one-acre parcel of land owned by the city on the west bank of the Upper Harbor. The



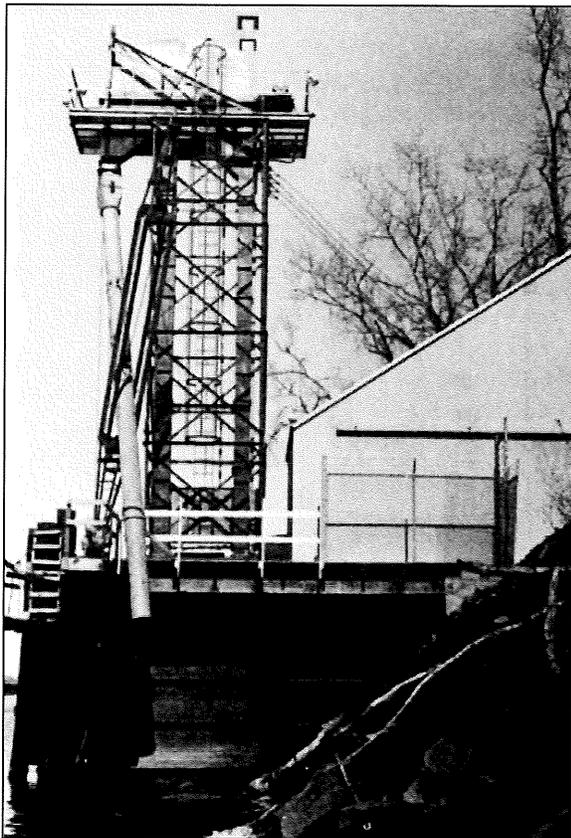
*The barge terminals of the J. L. Shiely Company Yard “C”, 1967.  
(Berg, “Upper Harbor Terminal Report”)*

<sup>29</sup> “Port Authority Proposed for City,” *Minneapolis Tribune*, October 17, 1963; Frank Premack, “Port Authority Issue Faces City Council,” *Minneapolis Tribune*, January 19, 1964; “Port Authority Proposal for City Protested,” *Minneapolis Tribune*, April 30, 1964.

<sup>30</sup> Minneapolis Industrial Development Commission, “A Report on the Minneapolis Upper Harbor Terminal,” 1973, 2.

property, which had 1,200 feet of river frontage, was bounded by Dowling Avenue North, Thirty-sixth Avenue North, Second Street North, and the river. The site was level and had room for expansion, adequate drainage, and excellent access to rail and roadways.

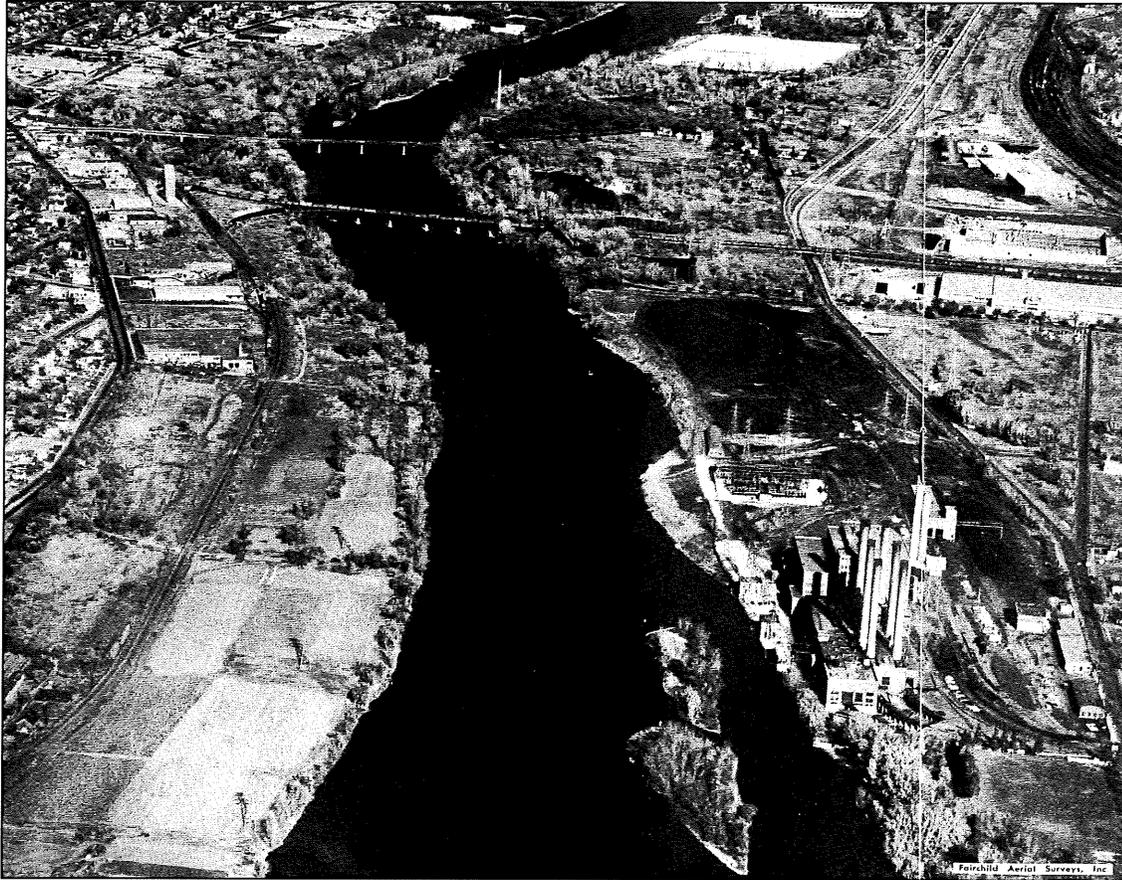
The consultant, Merlin H. Berg, submitted a report in March 1968 that explained the limited private investment in the Upper Harbor to that point. According to Berg, barge traffic through the Saint Anthony Falls locks before 1967 was mainly for the transportation of coal to the NSP Riverside Plant and sand and gravel to the Shiely Terminal in the intermediate pool between the locks. In 1967, the



*The Victoria Elevator Company (left) and Dundee Cement Company (above) were established on the Upper Harbor in 1967. (Berg, "Upper Harbor Terminal Report")*

Victoria Elevator Company established a grain-handling facility (no longer extant) on the east bank of the river above the Broadway Bridge, and the Dundee Cement Company constructed a distribution plant on the west bank above the proposed public terminal site. Berg concurred with business leaders that the Upper Harbor had not reached its potential for industrial development and that the existing municipal terminal was inadequate and should be relocated to the Upper Harbor site.<sup>31</sup>

<sup>31</sup> Merlin H. Berg, "Upper Harbor Terminal Report," prepared for Department of Public Works, Minneapolis, March 1968, 2-3, 16-17.



*above:* This photograph shows the site of the future Upper Harbor Terminal, the undeveloped area along the riverbank to the left, ca. 1955. The NSP Riverside Station Power Plant is at right. (Upper Harbor: Minneapolis and the Future. . . .)

*right:* Three stages of development were planned for the Upper Harbor Terminal by TKDA. The terminal office building was completed according to the Stage 1 plan (following page) in 1968.

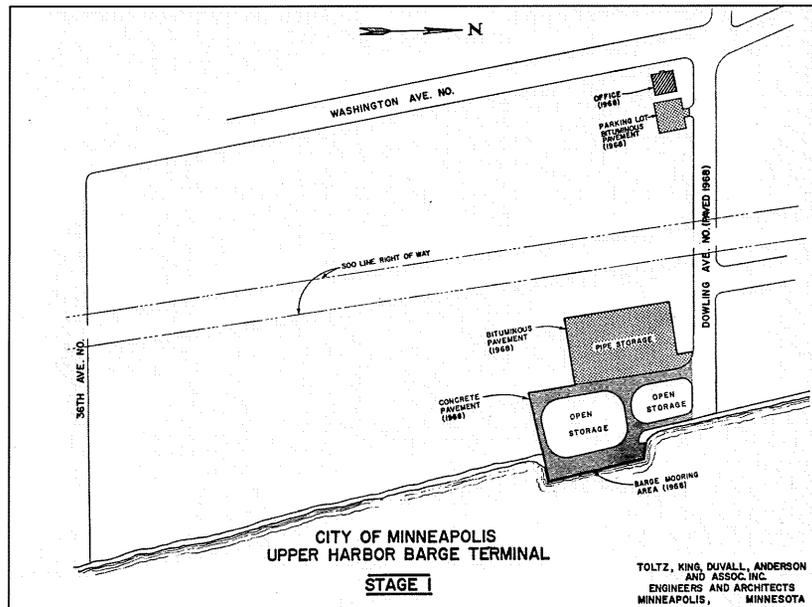


Berg's report included a preliminary plan for the layout and use of the municipal terminal. At first, the site would be used largely for open commodity storage. Fill from the nearby construction of Interstate 94 covered much of the site and would have to be removed before extensive improvements could be made. Berg anticipated demand for storage and transfer of many different kinds of commodities ranging from newspaper, twine, and wire to coal, salt, and fertilizer. Additional land would be needed for open storage and the construction of a warehouse,

tanks, and elevators. Berg recommended that the city acquire adjacent parcels to extend the site from about twenty-one acres to just over fifty acres; this was accomplished over the coming decade at a cost of about \$1.85 million.<sup>32</sup>

Northern Waterway’s request to relocate to the Upper Harbor was granted by the city council in 1967. The company agreed to undertake the initial capital improvements to the site, receiving reimbursement from the city, at a depreciated rate, only if the company’s lease was terminated. Northern Waterways commissioned the construction of a 3,000 square-foot office building, a scale and scale house, and a barge dock. The office and barge dock were completed in 1968 at a cost of about \$200,000. The scale and scale house were built shortly thereafter. The company also installed roadways and fencing so vacant land could be used for open commodity storage.<sup>33</sup>

In 1969, the architecture and engineering firm Toltz, King, Duvall, Anderson and Associates (TKDA), designer of the terminal office building, was hired to plan the remainder of the Upper Harbor Terminal site. The plans called for developing the site in three additional stages, adding buildings and acquiring more land to diversify the kinds of commodities that could be stored and transferred at the terminal.



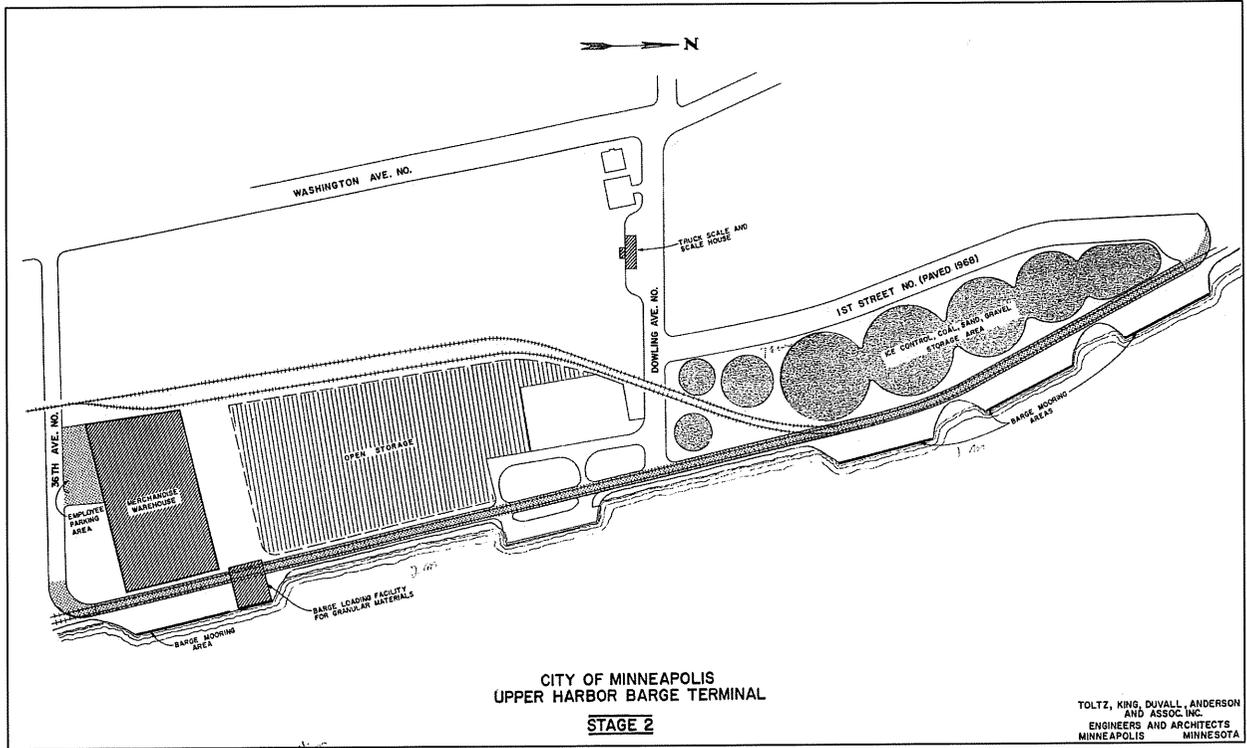
Stage 1, Upper Harbor Terminal development plan, 1968. (CPED files)

The second phase of the Upper Harbor Terminal’s development was completed in 1971 with the construction of a 110,000 square-foot warehouse and another barge dock. Additional facilities were added gradually in several phases over the next sixteen years as the master plan took shape. Asphalt tanks, dykes, and docks were built at both ends of the terminal site in the early to mid-1970s. A grain handling facility was built in the mid-1970s, with a four-silo elevator, overhead and underground conveyors, a rail dump, and a riverfront load-out tower. Between 1982 and 1987, four thin-shell concrete storage domes were erected. The construction method, which used inflated fabric membranes that were sprayed with insulation and concrete, reinforced with rebar, was a recent invention. The dome constructed in 1982 is possibly the earliest thin-shell concrete dome built using this method in this region of the country. Vital infrastructure, such as roadways and railroad spurs, office and accessory structures, and open storage areas, also took shape over the years.<sup>34</sup>

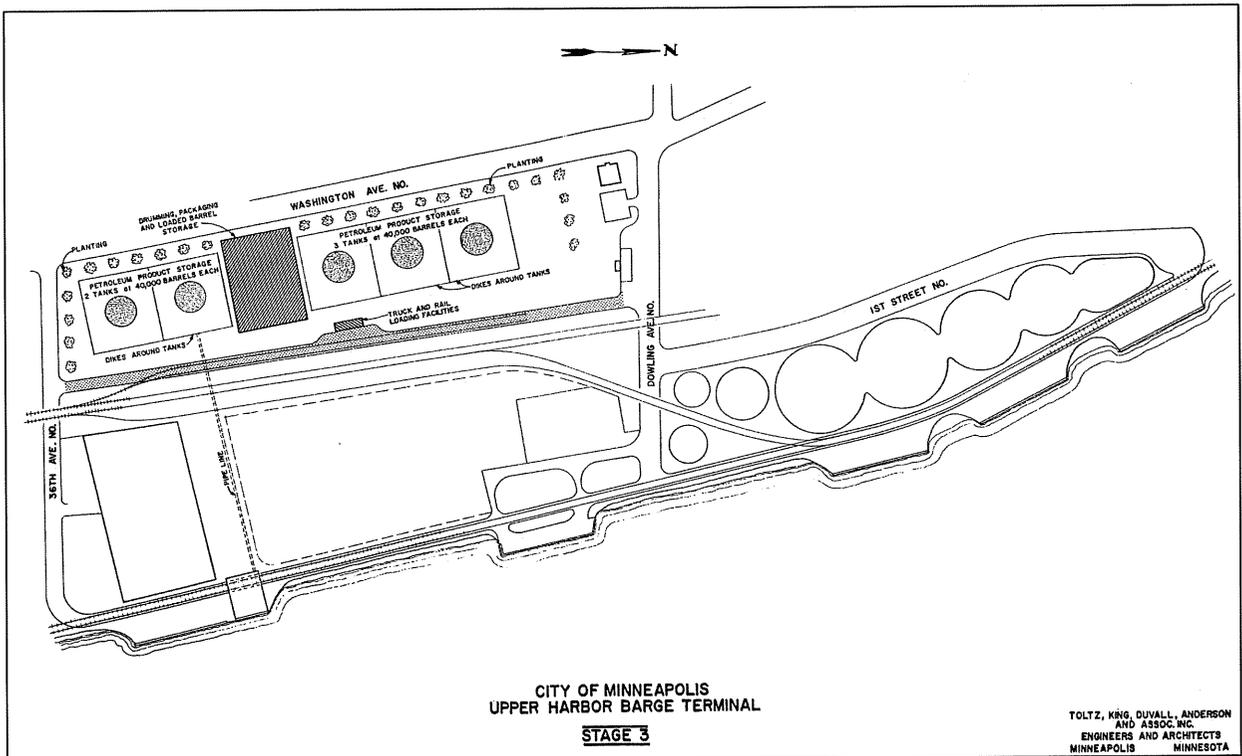
<sup>32</sup> “A Report on the Minneapolis Upper Harbor Terminal,” 6.

<sup>33</sup> Ibid., 5; “Upper Harbor Terminal Will Be Dedicated,” *Minneapolis Tribune*, August 1, 1968.

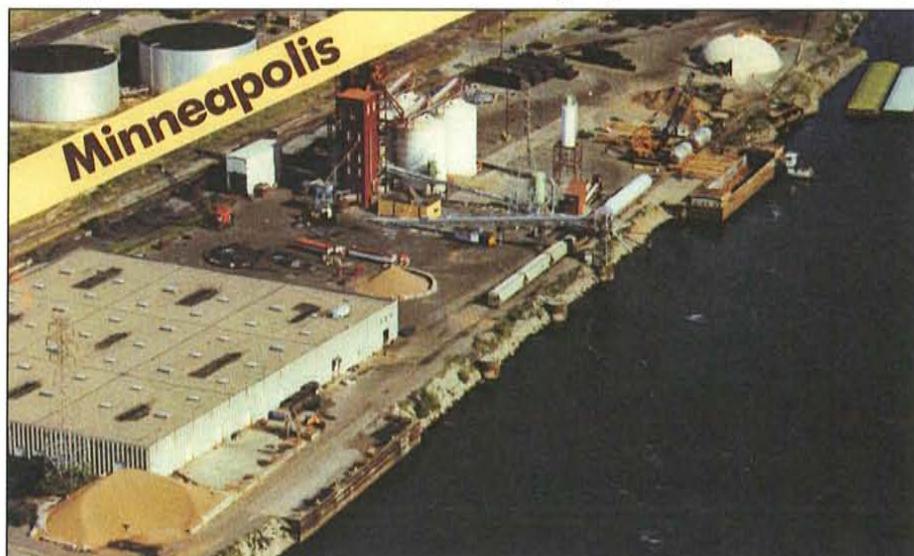
<sup>34</sup> “A Report on the Minneapolis Upper Harbor Terminal,” 6, 39-41; “Plan Will Increase Upper Harbor Use,” *Minneapolis Tribune*, December 14, 1971; “Upper Harbor Terminal: History, Status and Operations,” 1994, 5.



*The second stage of development (above) was completed between 1969 and 1971.  
The third stage (below) was not realized as planned, but aspects of it were  
completed in the mid-1970s. (CPED files)*



The municipal Upper Harbor Terminal has been managed by six companies over its thirty-eight-year history. Northern Waterway Terminals, which had operated the original municipal terminal since 1949, declared bankruptcy in 1973. The city engineer's office took over operation of both terminals for what proved to be a very expensive year—the facilities (and the city) lost approximately \$500,000. The Bolander Conlan Terminal Corporation leased the Upper Harbor facility from the city from 1975 until the company was purchased in 1979 by Con-Agra, which assumed the lease. Late in 1982, Con-Agra sued the city over a number of issues and, when the lawsuit was decided in the city's favor, Con-Agra's contract was terminated. Packer River Terminals, which also operated a barge terminal facility in South Saint Paul, ran the Upper Harbor Terminal from 1983 to 1991. This contract, too, ended with a lawsuit: the company claimed that a two-year drought, which greatly reduced revenues, permitted the company to withhold rent payments. Although the lawsuit resulted in a favorable judgment for Minneapolis, it required that the city find a new operator for the Upper Harbor Terminal. River Services has operated the Upper Harbor Terminal since 1991.<sup>35</sup>



*This aerial photograph of the north end of the Upper Harbor Terminal site was printed in a Packer River Terminals brochure around 1983. (CPED files)*

Private terminals continued to be developed or expanded in the Upper Harbor after the municipal terminal was established. Both Dundee Cement and American Iron enlarged their docking facilities. The J. L. Shiely

Company relocated to the Upper Harbor around 1990 after its terminal between the locks was acquired by the Minneapolis Park and Recreation Board for the construction of Mill Ruins Park. At this time, Shiely built a dock adjacent to the city-owned Northside Garage and established storage yards and a concrete manufacturing facility on nearby parcels.<sup>36</sup>

Presently, two barge terminals, five docking locations, two groupings of mooring cells, four altered bridges, and the Upper and Lower Saint Anthony Falls Locks and Dams are substantially intact along the 4.6-mile length of the Upper Mississippi Harbor Development area. As explained in the following section, two groupings of these resources effectively convey the story of the Upper Harbor's development and are eligible for historic designation.

<sup>35</sup> The first municipal terminal came to be known as the Lower Harbor Terminal after the completion of the Upper Harbor; "Commercial Navigation Strategic Plan," 1988, 1.

<sup>36</sup> "Upper Harbor Terminal: History, Status and Operations," 5.

## FINDINGS AND RECOMMENDATIONS

### Previous Determinations of Eligibility

Several properties and districts related to the Upper Mississippi Harbor Development project have been listed in the National Register of Historic Places or determined eligible for listing, some for associations with other historical contexts. Already listed in the National Register are the **Saint Anthony Falls Historic District**, designated for its association with historic grain milling and industry, and the **Cedar Avenue Bridge**, significant for its engineering achievement. Resources determined eligible for listing are the **Upper Mississippi Nine-Foot Channel**, the **Lower Northern Pacific Railroad Bridge (Bridge No. 9)**, and the **Saint Anthony Falls Locks and Dams**. The **Lowry Avenue Bridge** previously had been determined ineligible for designation, but reconsideration in the context of the Upper Mississippi Harbor Development is necessary. Brief descriptions of these properties and districts follow.

#### *Saint Anthony Falls Historic District*

The area associated with the Upper Mississippi Harbor Development overlaps the Saint Anthony Falls Historic District, which was listed in the National Register of Historic Places in 1976, and several resources significant to the development are located within the district boundaries. For example, the Stone Arch Bridge, which was altered during the construction of the upper lock, is a contributing feature in this district. Although the locks and dams are in the center of the established district, they do not contribute to its character, since they date from after the district's period of significance. Additional sites relevant to the Upper Mississippi Harbor Development context were surveyed in the late 1980s by Hess, Roise and Company when the Saint Anthony Falls Historic District was considered for expansion. Most of the properties associated with the Upper Mississippi Harbor Development were found at the time not to contribute to the district based on their construction after the district's period of significance; however, as explained in the following section, these sites now appear to be eligible for designation in association with the Upper Harbor development.

#### *Cedar Avenue Bridge*

The Cedar Avenue Bridge, which spans the Mississippi River just south of the lower lock and dam, was built in 1929. The bridge was listed in the National Register in 1989, significant under Criteria A and C. The center pier was slightly modified during the Upper Mississippi Harbor Development project, but this alteration was not considered to be a character-defining feature of the bridge at the time of its designation.

#### *Upper Mississippi Nine-Foot Channel*

The significance of the Upper Mississippi Nine-Foot Channel, which extends from Minneapolis to near Saint Louis, was first evaluated in 1983. John Gjerde's study found that Lock and Dam Nos. 3-10, in the Saint Paul district, were eligible for listing in the National Register of Historic Places for their association with the creation of the channel. Lock and Dam Nos. 11-26, in the Rock Island and Saint Louis districts, were later found to have historical significance. Planned renovations to the system of locks and dams led to a determination that the entire nine-foot channel was eligible for the National Register. A Memorandum of Agreement (MOA) between the corps of engineers and the National Park Service's Rocky Mountain Regional Office required

the corps to document the original twenty-six-unit system of locks and dams between Saint Paul and Saint Louis before beginning renovation work.<sup>37</sup>

The nine-foot channel project was found to be historically significant at the national level for many reasons. Its development and construction reflect the politics of several presidential administrations and the changing circumstances of the national economy during the 1920s and 1930s. This massive public works project put thousands of people back to work during the Great Depression and its development characterizes a significant period in U.S. history.

The channel improvement project is also associated with the U.S. Army Corps of Engineers and improvements in marine engineering during the early twentieth century. The authors of *Gateways to Commerce*, a book about the nine-foot channel project published by the National Park Service, assert that the project was constructed during the “Golden Age” of the corps of engineers, when the corps achieved its greatest influence and completed its highest volume of work. Significant advances in technology were made over the course of the project, as roller and Tainter gate installations were refined and perfected and the advances promised by poured concrete construction methods began to be realized.<sup>38</sup>

The nine-foot channel project had regional influence in the areas of transportation, commerce, and industry. As the project developed, supporters cited the anticipated economic gains to override concerns about environmental impacts raised by early conservationists and to defeat court challenges by railroad interests. Although the benefits of extending the channel above Saint Anthony Falls remain in question today, barge traffic thrives on the remaining length of the river and continues to be one of the least expensive means of transporting bulk goods. The nine-foot channel project reformed the Upper Mississippi as a commercial thoroughfare, in the process altering the shape, character, and habitat of North America’s longest river and greatly affecting the towns, cities, and rural areas adjacent to it.

#### *Lower Northern Pacific Railroad Bridge (Bridge No. 9)*

The Lower Northern Pacific Railroad (now Burlington Northern) Bridge, which defines the lower boundary of the harbor development area, has been determined eligible for the National Register. As part of the harbor project, a protective cell was constructed around the center pier of this bridge, located in a critical area where the river shifts course and levels out after dropping through the falls. Future historical evaluation or designation of this bridge should take into account the role it played in the channel extension.

#### *Saint Anthony Falls Locks and Dams*

In 1983, John Gjerde determined that the lock and dam structures at Saint Anthony Falls were not yet eligible for National Register designation based largely on their relatively young age. Over twenty years have passed since the historical context of the nine-foot channel was first studied, and the perspective of time allowed Hess Roise to conclude in May 2003 that the locks

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<sup>37</sup> Gjerde, “Historical Resources Evaluation,” ii-iii; O’Brien et al., *Gateways to Commerce*, 7; letter accompanying distribution of *Gateways to Commerce* by Robert J. Whiting, Chief, Environmental Resources Branch, Planning Division, Rocky Mountain Region, National Park Service, September 21, 1992. Lock and Dam Nos. 1 and 2, completed in 1917 and 1906, respectively, were built before the nine-foot channel was envisioned.

<sup>38</sup> O’Brien et al., *Gateways to Commerce*, 14, 63.

and dams meet two National Register criteria for their association with the Upper Mississippi Harbor Development project. The locks and dams qualify under Criterion A in the areas of Commerce, Industry, Maritime History, and Transportation, as they were the critical last steps in the century-old dream of bringing river traffic above Saint Anthony Falls and making Minneapolis the true head of navigation on the Mississippi River. Given the design and construction challenges that were surmounted, the lock and dam facilities also qualify under Criterion C for their engineering achievements.

### *Lowry Avenue Bridge*

In 1985, when a statewide bridge survey was being conducted, the Lowry Avenue Bridge was categorized with a large group of historic bridges that had not yet received adequate research and analysis for determination of National Register eligibility. A subsequent study in 1988 was limited in scope and did not include the bridge. Hess Roise carried out follow-up inventories of historic Minnesota bridges for the Minnesota Department of Transportation in 1995-1996, based on a research design developed in 1991. The Lowry



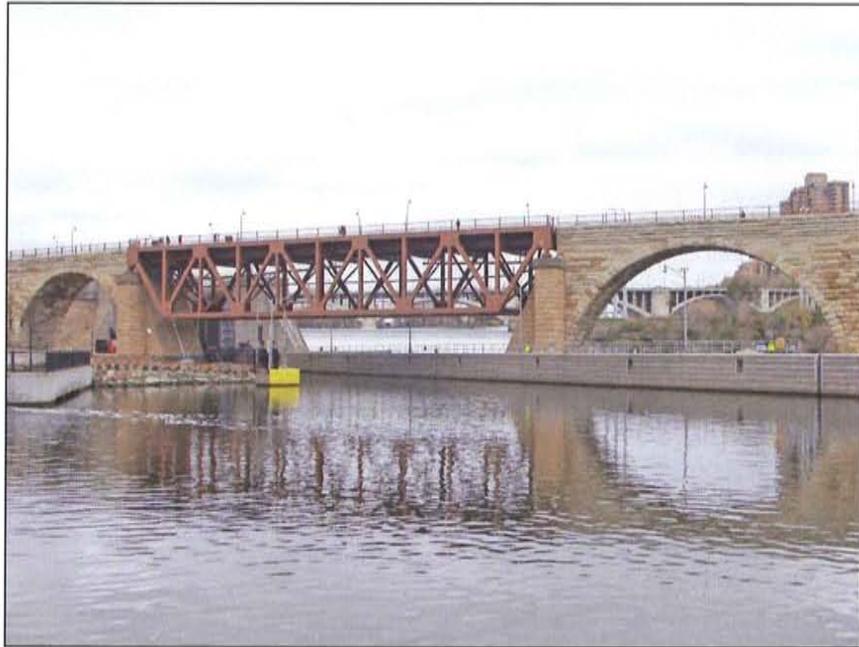
*Previous studies of the Lowry Avenue Bridge did not consider its role in the Upper Mississippi Harbor Development.*

Avenue Bridge was identified for potential survey at this time, but was not included in the final survey sample. An October 2002 study of the Lowry Avenue corridor conducted by Hess Roise concluded that the bridge was not eligible for National Register listing, but that study did not consider the Upper Mississippi Harbor Development context.

### **Significance and Eligibility for Historic Designation**

The Upper Harbor's value as a historic area is intrinsically tied to the nine-foot channel as a whole and is historically significant in the same context as the Saint Anthony Falls lock and dam facilities. That the Upper Mississippi Harbor Development was achieved through the lobbying efforts of Minneapolis politicians and businessman, after nearly a century of struggle, adds to the local significance of the harbor. The extent to which the City of Minneapolis supported and promoted the harbor development is exemplified by the funding contributed and the resulting city undertakings—specifically, the bridge and utility alterations and the eventual construction of the municipal Upper Harbor Terminal.

Understanding the history of the nine-foot channel extension and related Upper Harbor facilities is essential to the context of the Saint Anthony Falls locks and dams. Creation of the Upper Harbor was the *raison d'etre* for the locks and dams, and without the physical association of the barge docks and terminals upriver, the engineered structures at the falls would exist in a vacuum. The integrity of the Upper Harbor area has been diminished, however, especially in comparison to the high degree of integrity exhibited by the locks and dams. While there are several remaining resources that convey the history of the harbor development, they are too few in number and too spread out for the entire 4.6-mile length of the project to warrant designation as a single historic district.



*The locks and dams at Saint Anthony Falls are eligible for the National Register. The lower approach of the upper lock passes underneath the Stone Arch Bridge.*

Two separate areas of the harbor development, though, meet the criteria for National Register and local designation. (See Appendix A for maps of the proposed districts and Appendix B for photographs of the contributing properties. Inventory forms in Appendix C provide more detailed information on these properties.)

#### *Saint Anthony Falls Locks and Dams Historic District*

One potential historic district includes the **Saint Anthony Falls Upper and Lower Locks and Dams**, previously determined individually eligible for listing under National Register Criteria A and C. While the locks and dams are themselves significant, they could also be incorporated in a district containing other resources associated with the Upper Mississippi Harbor Development project: the **Cedar Avenue Bridge** and **Lower Northern Pacific Railroad Bridge**; **Mooring Cells 1-3**, at the head of the lower lock; and the remaining dock wall and tie-offs of the **J. L. Shiely/General Mills Terminal** on the intermediate pool. The mooring cells and dock wall of the **University of Minnesota Dock**, which appear to have been constructed early in the channel extension project, would also contribute to this district. The Saint Anthony Falls Locks and Dams Historic District is significant under National Register Criterion A in the areas of Commerce, Industry, Maritime History, and Transportation, and under Criterion C in the area of Engineering.

Although the channel extension's economic benefits to the city of Minneapolis can be disputed—by some accounts, barge traffic has failed to cover the costs of operating the locks—the physical effects of the project are obvious. The lock and dam structures transformed Saint Anthony Falls, obliterating many remaining natural geological features and simultaneously changing the character of the central Minneapolis riverfront. By permanently cutting off the water supply to the west side of the river, the upper lock cemented the demise of the city's flour-milling industry and altered the economic landscape of the area as well. The last stalwart milling companies vacated the riverfront within a few years of the upper lock's completion. In this context, the Saint Anthony Locks and Dams Historic District is eligible for Minneapolis landmark designation under Criterion 1 for its association with significant historic events and Criterion 3 for its association with the city's distinctive identity as a river city founded at Saint Anthony Falls. The locks and dams are also individually eligible for Minneapolis landmark designation under Criterion 4 for their engineering significance.

#### *Upper Harbor Historic District*

The other area meeting National Register criteria is a collection of bridges and terminal facilities at the northern end of the Upper Harbor. This 1.5-mile section of the harbor is largely intact, with a relatively high concentration of resources and visual continuity. Intact buildings, structures, and objects in this area demonstrate the scope and breadth of the efforts to extend the channel and develop the harbor, meeting National Register Criterion A in the areas of Commerce, Industry, Maritime History, and Transportation.

The area of eligibility extends upriver from the **Northern Pacific (NP) Railroad Bridge**, which was altered by the removal of one historic pier and the substitution of a through-truss span. This bridge symbolizes the complex relationship between local rail and barge shipping industries at the time.

On the west bank above the NP Bridge, the **Huron Cement Terminal** further represents the inter-modal aspirations of the harbor development. Although a barge dock was never built at this site, the cement terminal's proximity to the river and its 1968 construction date indicate that the potential for barge shipping was an important incentive for its construction.

The **American Iron and Supply Company** property, which contains two linear barge docks, is significant as one of the earliest terminals established after the upper lock was opened to traffic. American Iron relocated to the riverfront in direct response to the harbor development; the founders of the company worked with Senator Hubert Humphrey in lobbying Congress to complete the channel extension.<sup>14</sup>

Although the **J. L. Shiely Yard "D"** was established too late in the Upper Harbor development to be considered a historic resource, the property contributes to the character of the district as a compatible use. The aggregate barges use the **Northside Garage Barge Dock**, adjacent to city-owned property. This site also contains a **Boat Ramp** dating from around 1968.

The **Lowry Avenue Bridge** is significant to the character of the district as the only remaining vehicular bridge that was raised by the city to accommodate navigation in the Upper Harbor.

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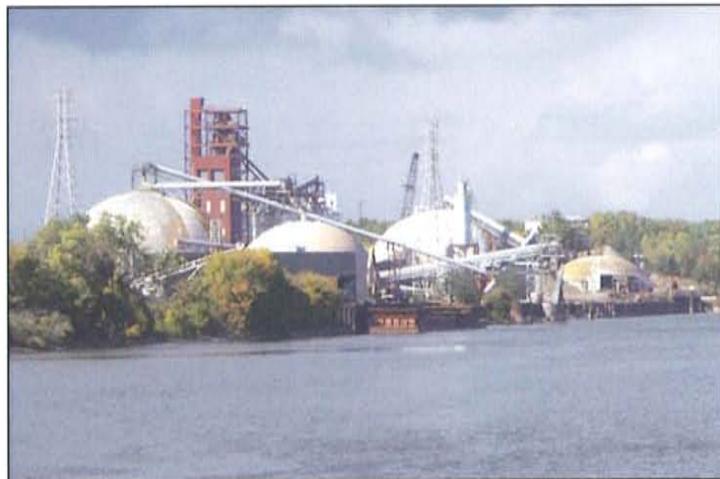
<sup>14</sup> Mindy Isaacs and Mark Newberry in conversation with Erin Hanafin Berg, October 5, 2006.

The facilities located near the upper limit of navigation—the municipal Upper Harbor Terminal, the Xcel Energy Riverside Plant Terminal, and the Dundee Cement Terminal—formed the most intact area of the Upper Harbor development until recently. The **Dundee Cement Terminal** was decommissioned a couple years ago, however, and its floating dock was removed; more importantly, the terminal elevator and related structures were recently demolished. The integrity of the whole area suffered as a result of this demolition, but the concentration of properties remains intact and the Dundee Cement site would still contribute to the larger designation of the area by virtue of its remaining dock structures.

The **Riverside Station Power Plant Terminal** is remarkably intact, especially considering that it has not been used for over a decade. Xcel Energy is in the process of converting the plant from coal to natural gas, however, and the removal of the coal storage fields and additional buildings will probably have a detrimental impact on the physical and historical context of the barge terminal.

The municipal **Upper Harbor Terminal** is the largest developed barge terminal property in the area. The buildings, structures, and objects on the site have had very few alterations and exhibit a high degree of integrity. The municipal terminal represents many aspirations of the Upper Harbor development—it is intermodal, accommodating shipments by barge, rail, and truck, and its facilities were built to store and ship a wide variety of commodities. The establishment of a second municipal terminal came about as something of an afterthought, and was less firmly tied to the channel extension than was the development of the harbor as a whole. Nonetheless, the terminal stands as testament to the city’s past industrial development efforts.<sup>15</sup>

Because the Upper Harbor Terminal was not envisioned as an initial component of the harbor development—in fact, its construction began four years after the upper lock was opened—the property would most readily qualify for National Register designation as part of a larger district, with surrounding barge terminals and related resources that help to convey the area’s significance. The Upper Harbor Historic District meets National Register Criterion A in the areas of Commerce, Industry, Maritime History, and



*Four monolithic concrete storage domes are prominent features of the Upper Harbor Terminal.*

Transportation. While the Upper Harbor Terminal is the largest and most intact resource within this district, the presence of other barge terminals and bridges physically and temporally connects the property’s development to the significance of the upper lock. The Upper Harbor

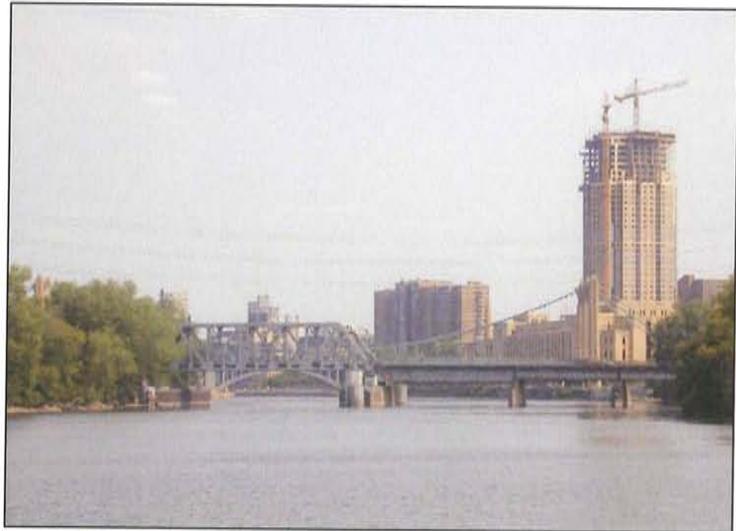
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<sup>15</sup> The scope of this study did not allow for an assessment of the Upper Harbor Terminal in comparison with other industrial developments envisioned and promoted by the City of Minneapolis. The Upper Harbor Terminal might have additional significance in that context.

Terminal does not embody these characteristics on its own, and it is therefore not individually eligible for National Register designation.

The Upper Harbor Terminal's four monolithic concrete domes appear to be the only examples of a unique method of dome construction in Minneapolis. Additional research into the historical context and engineering importance of these domes might reveal that they are eligible for National Register designation with local significance under Criterion C in the area of Engineering.

The Upper Harbor Terminal is eligible for local designation under Criteria 1 and 3 for its importance as an industrial site envisioned, promoted, constructed, and funded by the City of Minneapolis in association with the Upper Mississippi Harbor Development. The monolithic concrete domes might also meet Minneapolis HPC Criterion 4 in the area of Engineering.



*The Great Northern Railroad Bridge is eligible for listing as a Minneapolis landmark.*

#### *Individual Sites*

#### **The Great Northern Railroad**

**Bridge** between the west bank and

Nicollet Island is intact and clearly shows how it was altered to accommodate barge traffic. Although the bridge exhibits a high degree of physical integrity, the historical value of its immediate context has been affected by recent redevelopment and its setting retains very little evidence of the historic railroad dominance of the riverfront. The nearby Hennepin Avenue and Plymouth Avenue Bridges, both of which also were altered to allow barge traffic during the Upper Harbor development, have been replaced; the present structures do not contribute to the setting in regards to that period of significance. The Great Northern Railroad Bridge is not of sufficient individual importance to warrant individual listing in the National Register of Historic Places.

Historic photographs documenting alterations to the Great Northern Railroad Bridge enhance understanding of bridge engineering, river navigation, and concrete construction techniques. Because of its extensive documentation, good condition, and high degree of historical physical integrity, the bridge appears to be eligible for local landmark designation under Minneapolis HPC Criteria 1, 4, and 7.

#### *Ineligible Areas*

Few historic resources associated with the Upper Mississippi Harbor Development are intact in the area immediately above the falls. Pier protection structures installed under the Hennepin Avenue Bridge were removed when the bridge was replaced in 1990. **Mooring Cells Nos. 4-6**, near the mouth of Bassett's Creek, are intact and remain visible maritime landmarks, but they

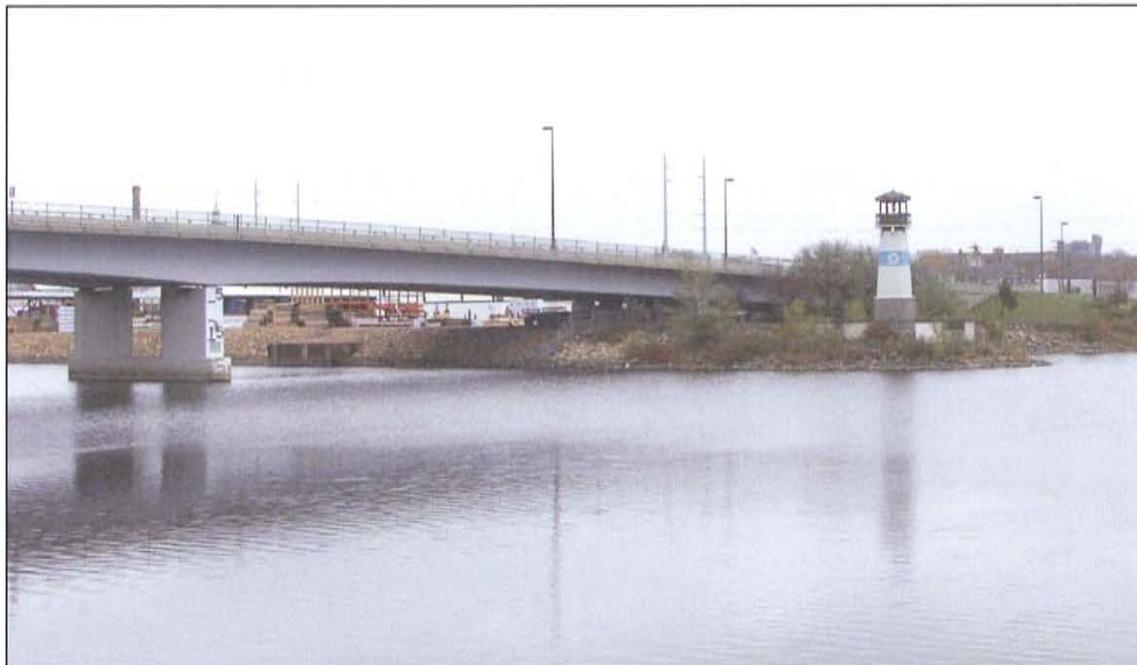
lack sufficient importance for National Register or local landmark designation. **Boom Island**, which was used as a terminal site and barge dock in the 1970s, has been redeveloped as a public park and retains no historic integrity in this context.



*Mooring Cells Nos. 4-6 (above) are intact but lack the physical context for National Register designation.*

*The historic Plymouth Avenue Bridge was replaced by a concrete deck-span structure in the 1980s (below). Little physical evidence remains of the Scherer Brothers Lumber Company dock, which was to the north of the bridge.*

The stretch of river between the Plymouth Avenue Bridge and the Northern Pacific Railroad Bridge retains no historic resources associated with the Upper Harbor development. The historic **Plymouth Avenue and Broadway Bridges**—through-truss bridges that were raised by the city in the early 1950s to accommodate the eventual barge traffic—were replaced with concrete deck spans in the 1980s. Two terminals established on the east bank of the river—the **Scherer Brothers Lumber Company** in the vicinity of the Plymouth Avenue Bridge and the **Port Victoria Grain Terminal** just north of the Broadway Bridge—have been removed; the remaining structures at these terminal sites retain too little integrity to convey their historic value.



### *Criteria Consideration G*

Development of the Upper Harbor did not begin until 1963 and its active construction spanned close to thirty years. Because the associated resources have not reached fifty years in age, they are ineligible for listing in the National Register unless they are of exceptional importance to satisfy Criteria Consideration G. Designation of the upper lock also would have to meet this consideration (the lower lock, completed in 1956, meets the age requirement), but this less problematic because of the significance of its engineering achievement as well as its connection to the construction of the lower lock and the channel extension.

In the case of the Upper Harbor, the resources have achieved exceptional importance because of their role in the industrial development of the city. Minneapolis has had a poor record of preserving its riverfront industry, despite the fact that the city's growth was fueled by the power of Saint Anthony Falls. The buildings remaining in the Saint Anthony Falls Historic District represent only a small fraction of the mills and other industrial buildings that were present at the falls in the nineteenth and early twentieth centuries. Most of the railroad infrastructure that once dominated the central riverfront has been removed. Industrial sites downriver of the falls—including the former municipal terminal—have been redeveloped. Very little evidence remains of the city's lumber mills, which occupied the riverbanks in the Upper Harbor area through the early twentieth century. The barge terminals of the Upper Harbor are the only remaining industry intrinsically tied to the Mississippi River in the city of Minneapolis; as such, they are resources that are fragile, with a future jeopardized by their industrial use and riverfront location.

### **Mitigation Recommendations**

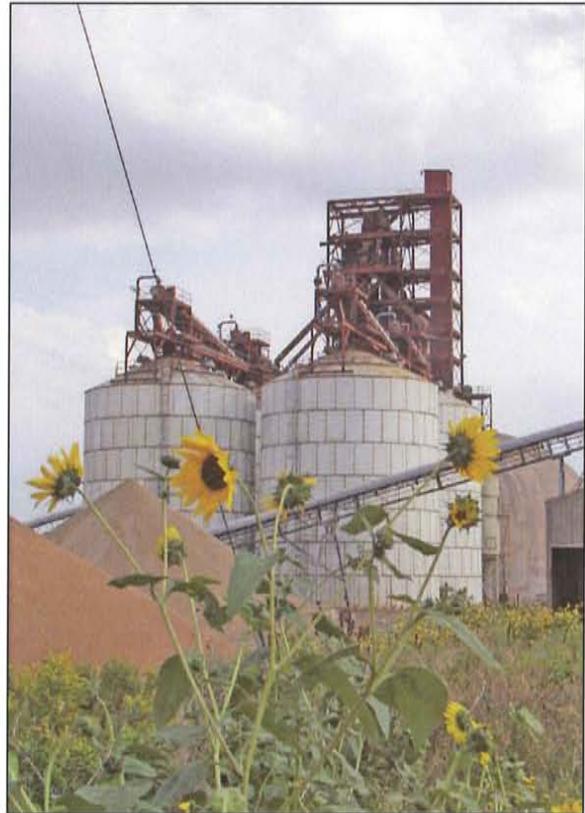
As explained above, two districts are eligible for listing in the National Register of Historic Places: the **Saint Anthony Falls Locks and Dams Historic District**, comprising the area around the lock and dam complexes, and the **Upper Harbor Historic District**, which includes the municipal terminal and neighboring properties. Individual properties within these areas are eligible for historic landmark designation by the City of Minneapolis. Since the riverfront master plans presented by the city have called for redevelopment of these areas, proposals should be analyzed for their potential impact to historic resources and mitigation measures adopted.

Redevelopment proposals should endeavor to maintain the existing use of contributing buildings, structures, objects, and landscapes, or to provide for their adaptive reuse. The preservation of historic elements as landscape features and sculptural artifacts with accompanying interpretive displays—similar to the approach used at Gasworks Park in Seattle—would be an appropriate alternative if adaptive reuse is not pursued. The patina of the buildings and objects should be preserved as evidence of their industrial use. If redevelopment goes forward, structures and objects located at the water's edge—barge docks and mooring cells, tie-off cleats and cavel—should be retained. Surrounding landscaping and paving should also be compatible with the industrial character of the site. Buildings or structures that will be altered or removed should be documented for the Minnesota Historic Property Record prior to demolition.

Interpretive efforts in the area should also be expanded to explain the context of the Upper Harbor development and the construction of the locks and dams. For example, interpretive plaques at Mill Ruins Park have very little information about the construction of the locks and dams and their historical context. The interpretation of Bohemian Flats, the site of the original municipal terminal, could be expanded to address the need for development of the Upper Harbor. If redevelopment of the Upper Harbor Terminal property goes forward, the history of the site should be preserved through interpretive efforts as well.

## CONCLUSION

The Saint Anthony Falls locks and dams and the 4.6-mile extension of the nine-foot channel came about only after lengthy and relentless lobbying by Minneapolis politicians and business leaders. The creation of the Upper Harbor was the realization of a decades-long dream held by several generations of Minneapolis businessmen, civic leaders, and politicians. As such, two districts associated with the Upper Mississippi Harbor Development have local historical significance and are eligible for listing in the National Register under Criteria A and C in the areas of Commerce, Industry, Maritime History, Transportation, and Engineering, and as local landmarks under Minneapolis Heritage Preservation Commission Criteria 1, 3, and 4. An additional resource, the Great Northern Railroad Bridge, is eligible as a local landmark under Minneapolis Heritage Preservation Commission Designation Criteria 1, 4, and 7.



*The Upper Harbor Terminal grain elevator might be adaptively reused or retained as an artifact.*

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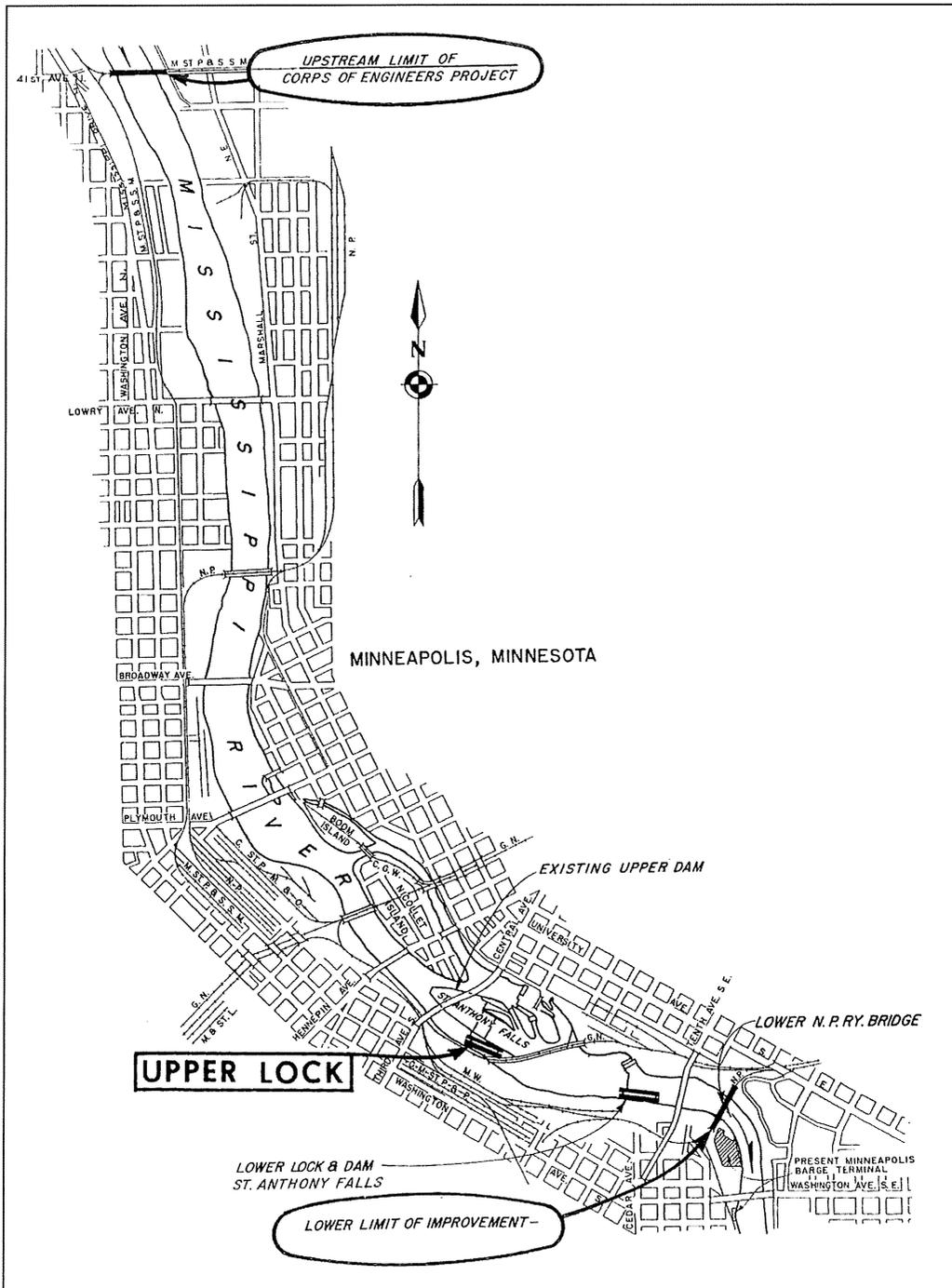
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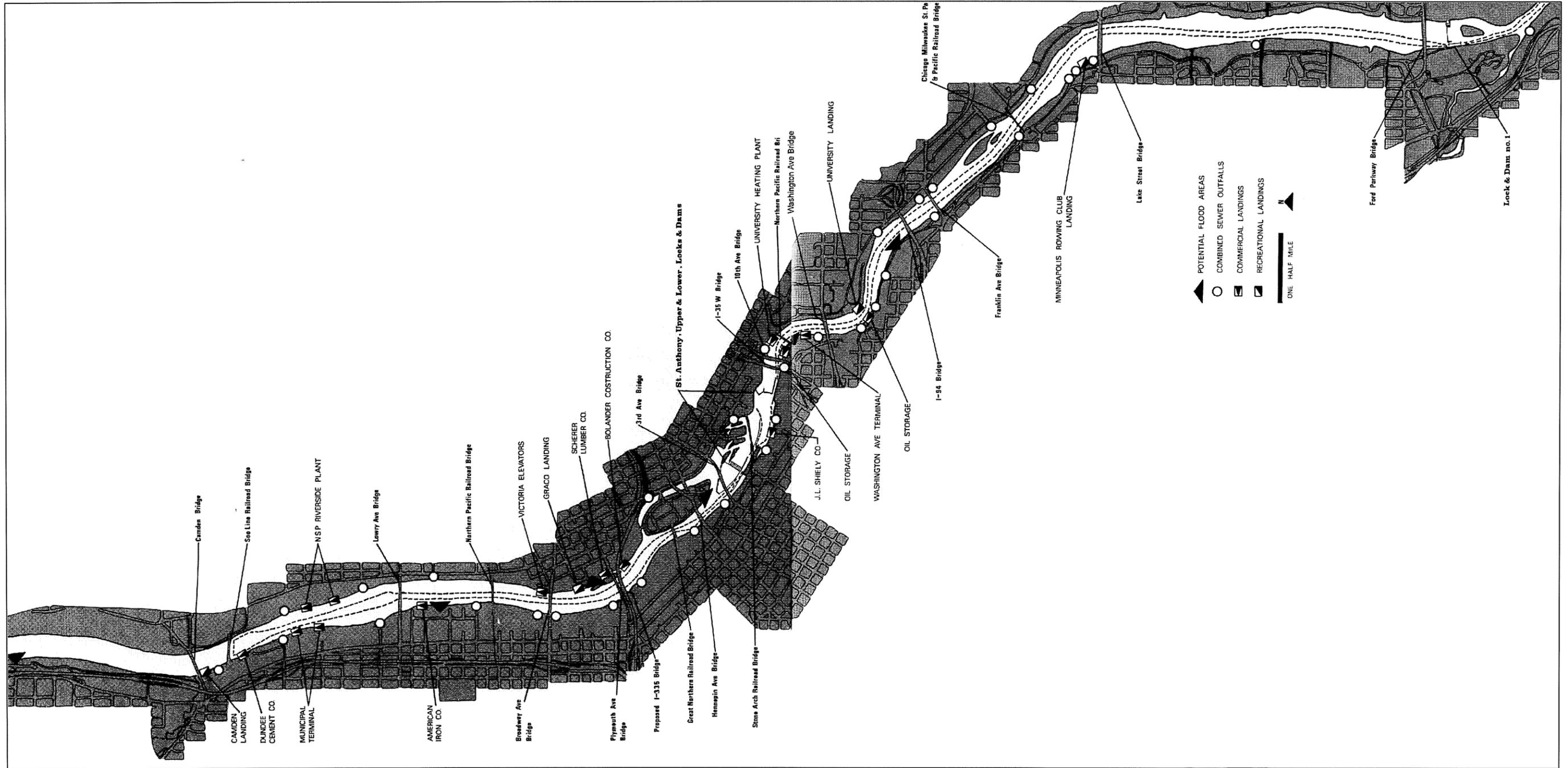
**APPENDIX A**

**MAPS**



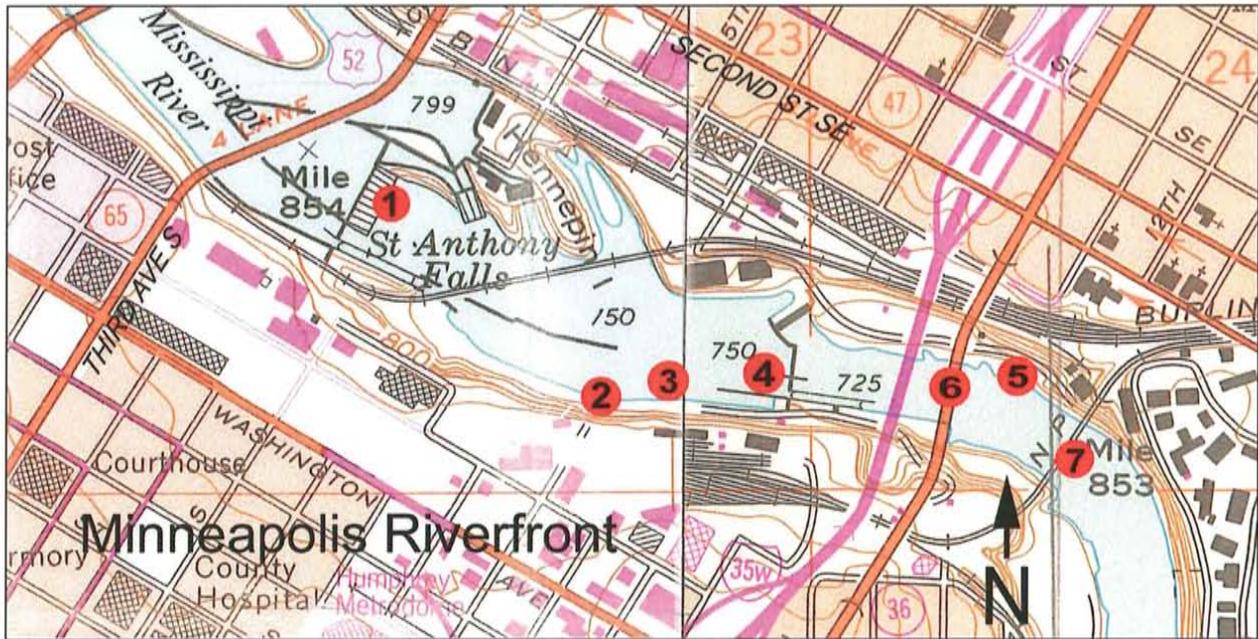
Upper Mississippi Harbor Development project area.

Map from "Tour of Saint Anthony Falls Upper Lock," Typescript, August 1970. Prepared for American Society of Civil Engineers (ASCE) Hydraulics Division Eighteenth Annual Specialty Conference, University of Minnesota.



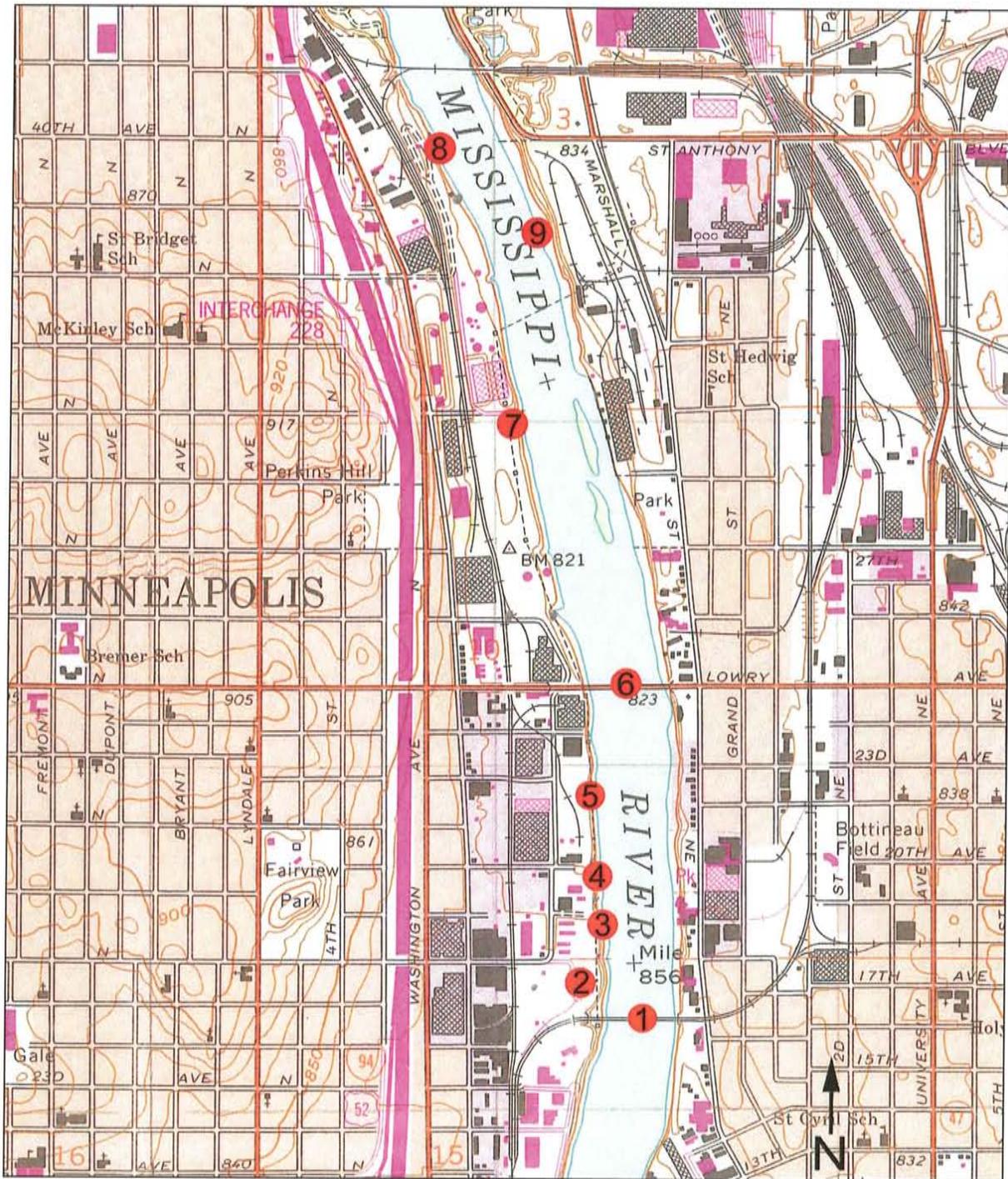
Terminals and bridges of the Upper Mississippi River in Minneapolis., 1972.

Map from *Mississippi/Minneapolis: A Plan and Program for Riverfront Development* (Minneapolis: City of Minneapolis, 1972), 30-31.



Contributing properties to the potential **Saint Anthony Falls Locks and Dams Historic District**

1. Upper Saint Anthony Lock and Dam Complex
2. J. L. Shiely/General Mills Dock
3. Mooring Cells Nos. 1-3
4. Lower Saint Anthony Lock and Dam Complex
5. University of Minnesota Dock
6. Cedar Avenue Bridge
7. Lower Northern Pacific Railroad Bridge (Bridge No. 9)



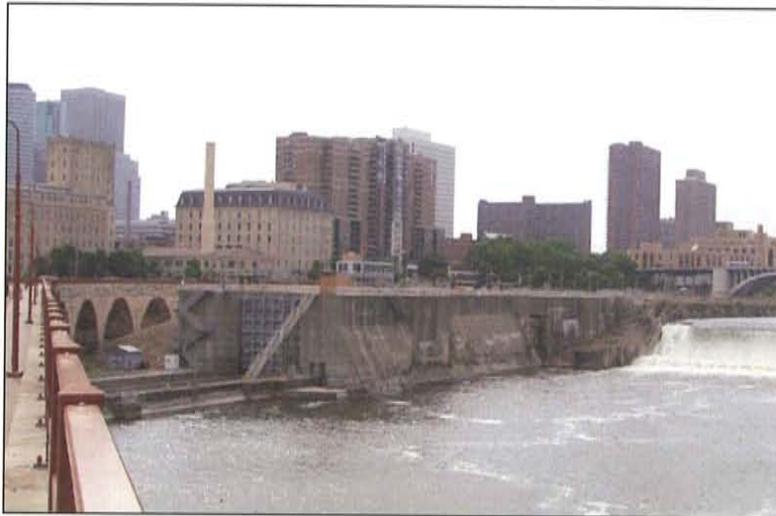
Contributing properties to the potential **Upper Harbor Historic District**

- |                                     |   |
|-------------------------------------|---|
| 1. Northern Pacific Railroad Bridge | 6. Lowry Avenue Bridge                    |
| 2. Huron Cement Terminal            | 7. Upper Harbor Terminal                  |
| 3. Northside Barge Dock             | 8. Dundee Cement Terminal                 |
| 4. Northside Boat Ramp              | 9. Riverside Station Power Plant Terminal |
| 5. American Iron and Supply Company |   |

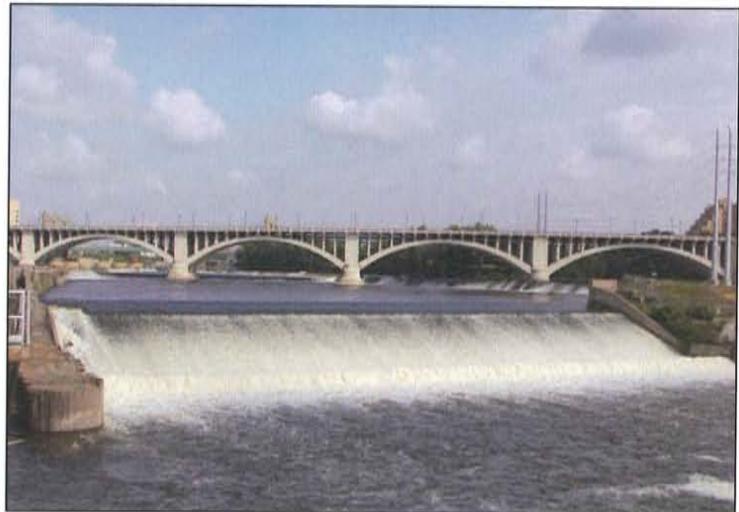
**APPENDIX B**

**PHOTOGRAPHS OF  
ELIGIBLE HISTORIC PROPERTIES**

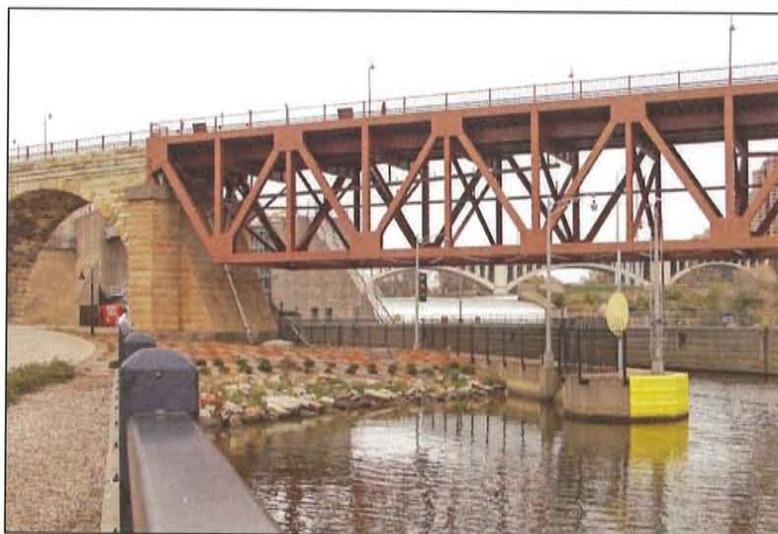
**SAINT ANTHONY FALLS LOCKS AND DAMS HISTORIC DISTRICT**  
*Upper Saint Anthony Lock and Dam*



Left: General view, Upper Saint Anthony Lock, looking southwest



Right: General view, Upper Saint Anthony Dam, Third Avenue Bridge in background, looking northwest



Left: Detail view, Upper Saint Anthony Falls Lock and Dam, Stone Arch Bridge in foreground, looking northwest

**SAINT ANTHONY FALLS LOCKS AND DAMS HISTORIC DISTRICT**  
*J. L. Shiely/General Mills Dock*

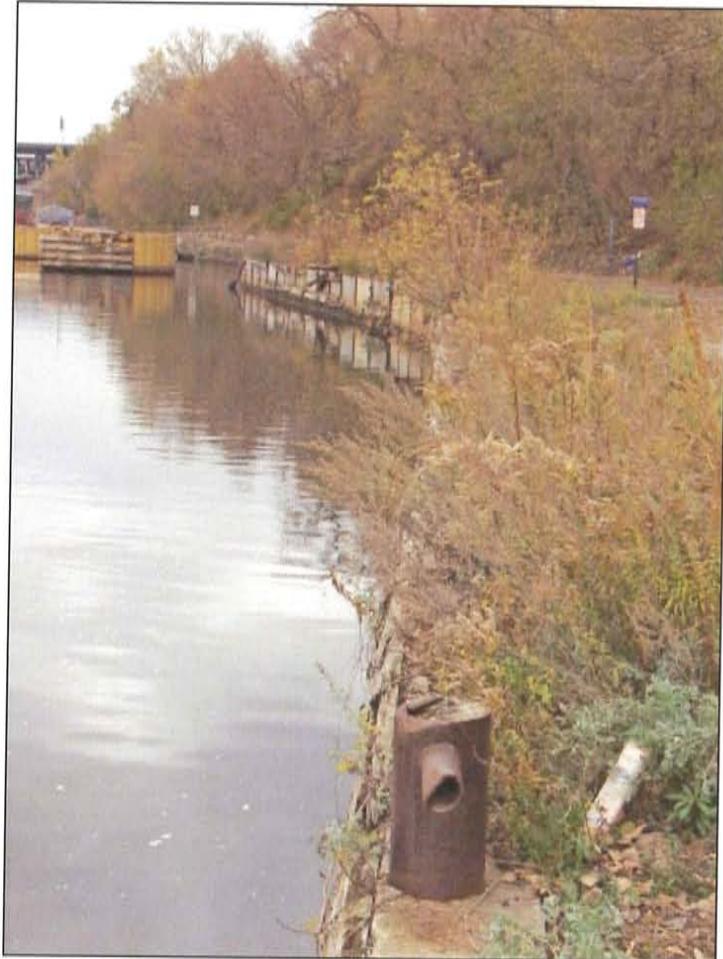


Above: General view, J. L. Shiely/General Mills Dock, looking southeast



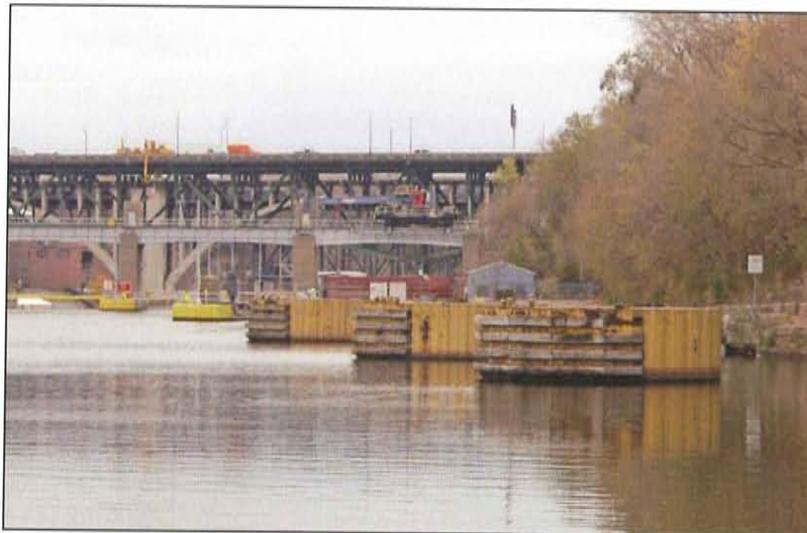
Right: Detail view, J. L. Shiely/General Mills Dock, looking southeast

**SAINT ANTHONY FALLS LOCKS AND DAMS HISTORIC DISTRICT**  
*J. L. Shiely/General Mills Dock*



Left: Detail view, J. L. Shiely Company/General Mills Dock, showing extant dock cleat, looking southeast

*Mooring Cells Nos. 1-3*



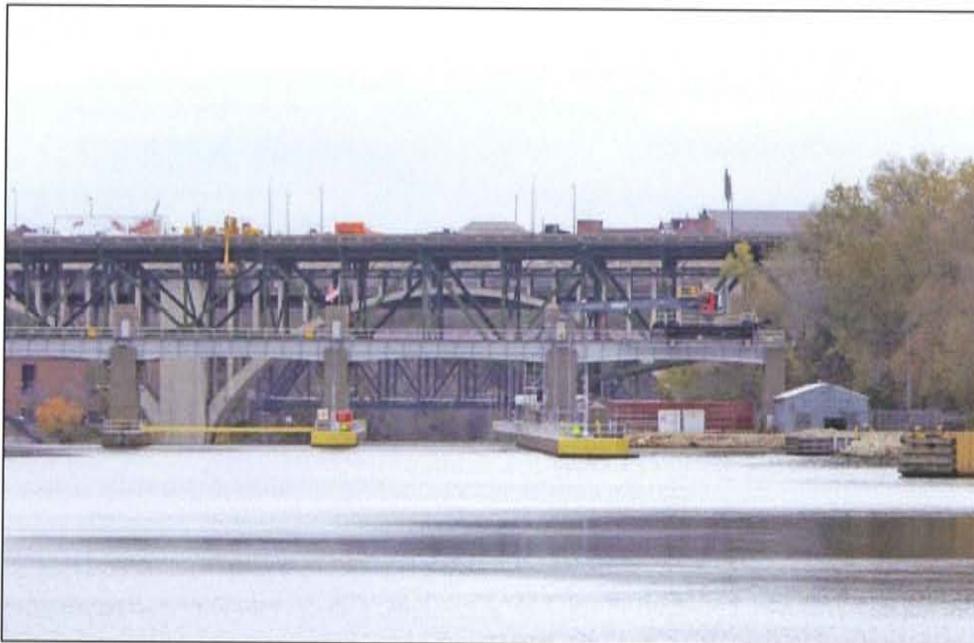
Left: General view, Mooring Cells Nos. 1-3, looking east

**SAINT ANTHONY FALLS LOCKS AND DAMS HISTORIC DISTRICT**  
*Lower Lock and Dam Complex*



Above: General view, J. L. Shiely/General Mills Dock (foreground),  
Mooring Cells Nos. 1-3 (center right), Lower Lock and Dam  
Service Bridge (background), looking east

Below: Detail view, Lower Lock and Dam  
Service Bridge and lock approach, looking east

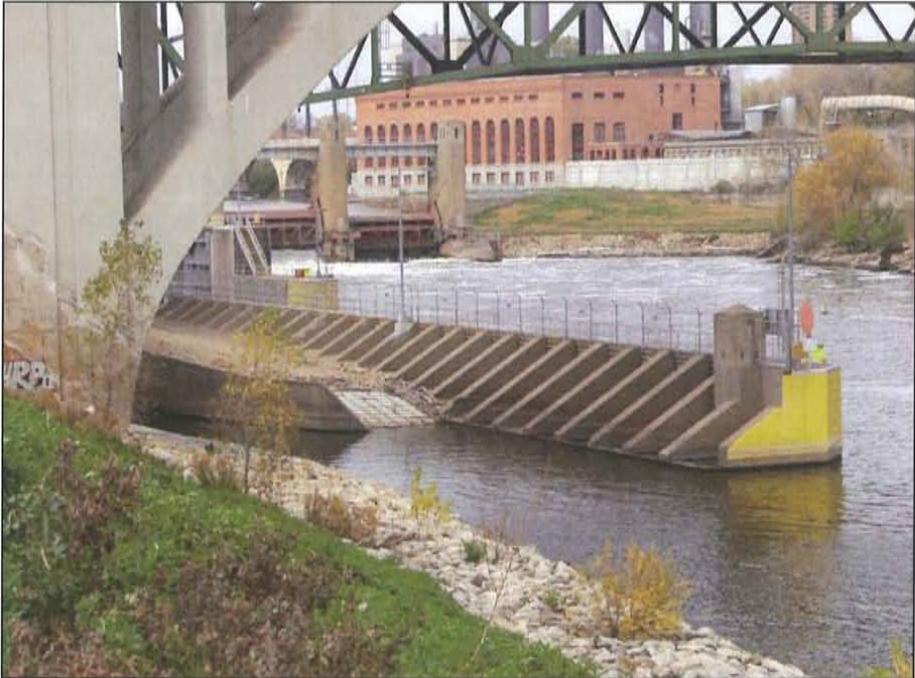


**SAINT ANTHONY FALLS LOCKS AND DAMS HISTORIC DISTRICT**  
*Lower Saint Anthony Lock and Dam*

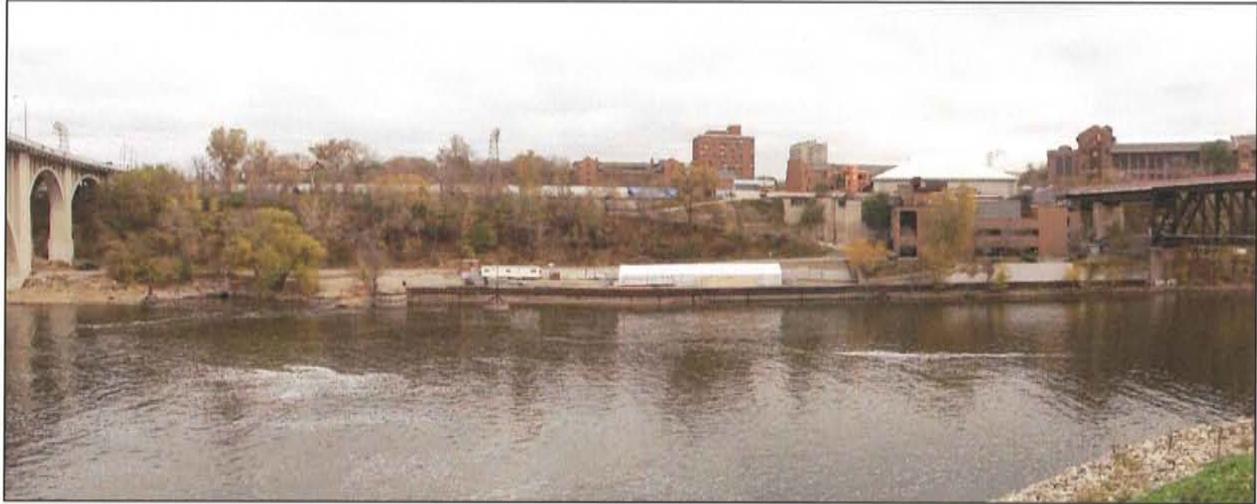


Above: General view,  
Lower Saint Anthony Lock and Dam,  
looking northwest

Below: Detail view,  
Lower Saint Anthony Lock and Dam,  
looking northwest

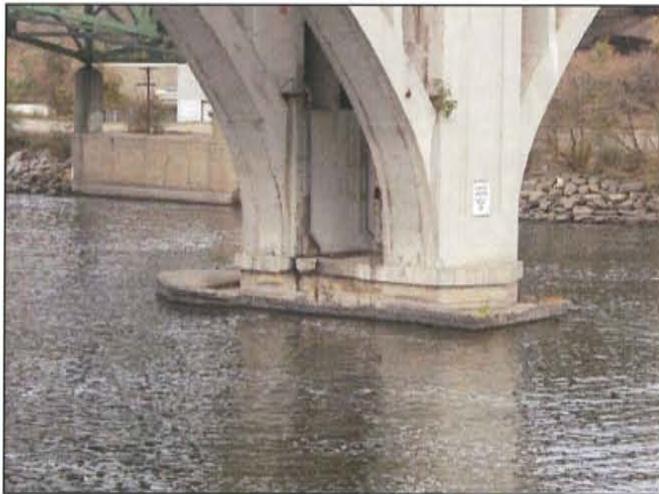


**SAINT ANTHONY FALLS LOCKS AND DAM HISTORIC DISTRICT**



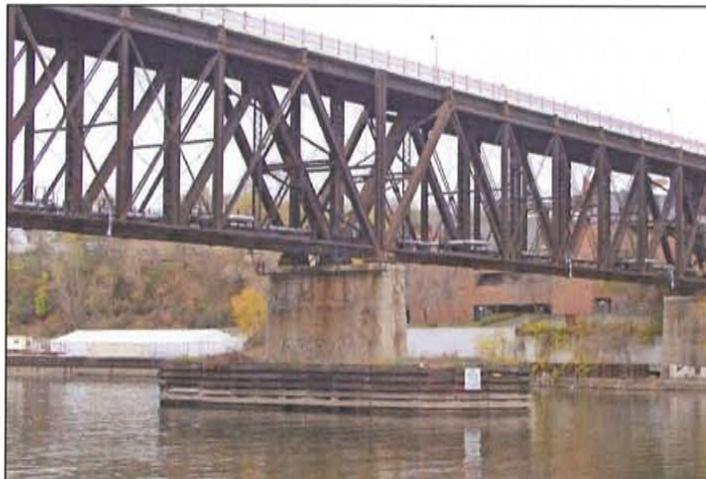
*University of Minnesota Dock*

Above: General view, dolphins and barge dock, looking north



*Cedar Avenue Bridge*

Left: Detail view, Cedar Avenue Bridge pier protection, looking northwest



*Lower Northern Pacific Railroad Bridge  
(Bridge No. 9)*

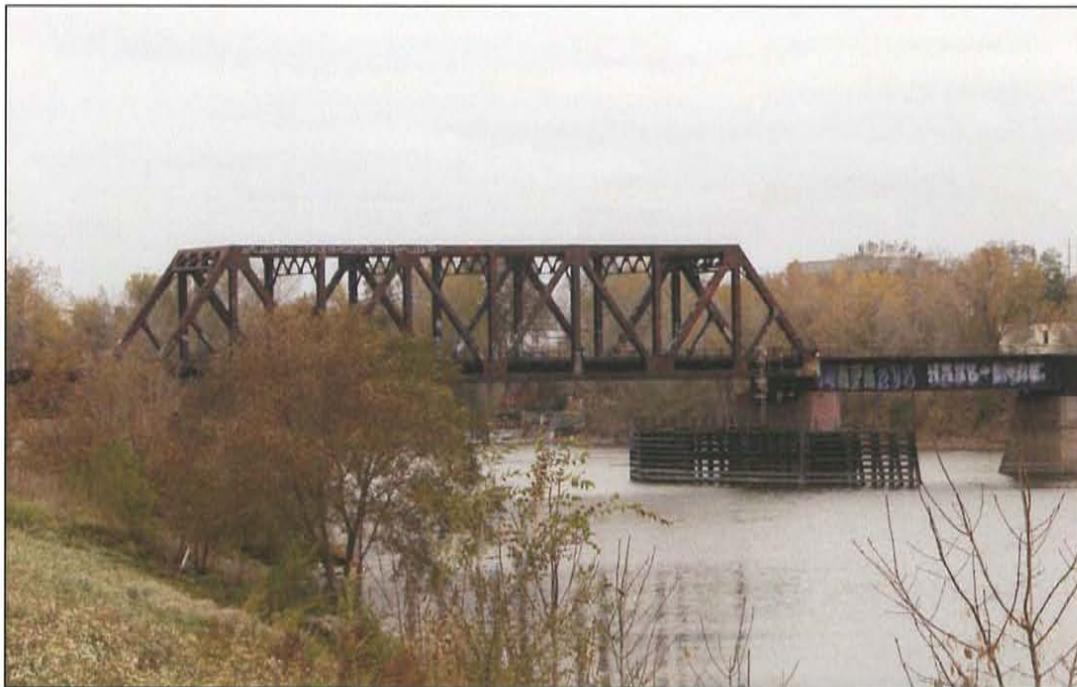
Right: Detail view, Northern Pacific Railroad Bridge pier protection, looking northwest

**UPPER HARBOR HISTORIC DISTRICT**  
*Northern Pacific Railroad Bridge*



General view, Northern Pacific Railroad Bridge, looking northeast

Detail view, Northern Pacific Railroad Bridge  
truss span and pier protection, looking northeast

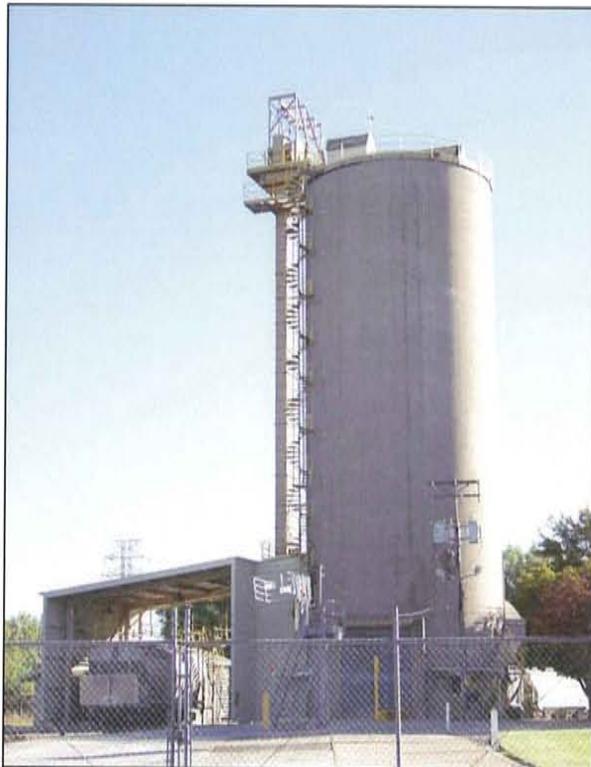


**UPPER HARBOR HISTORIC DISTRICT,**  
*Huron Cement Terminal*

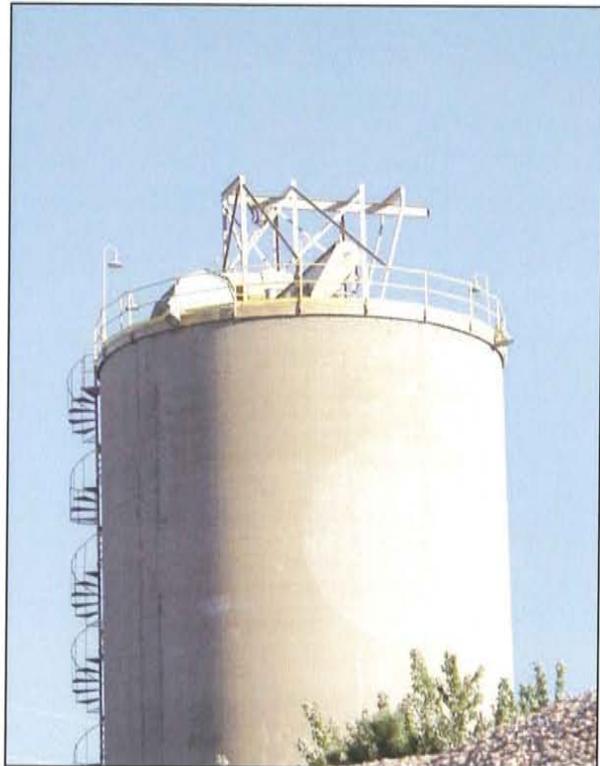


General view, Huron Cement Terminal site, looking southeast

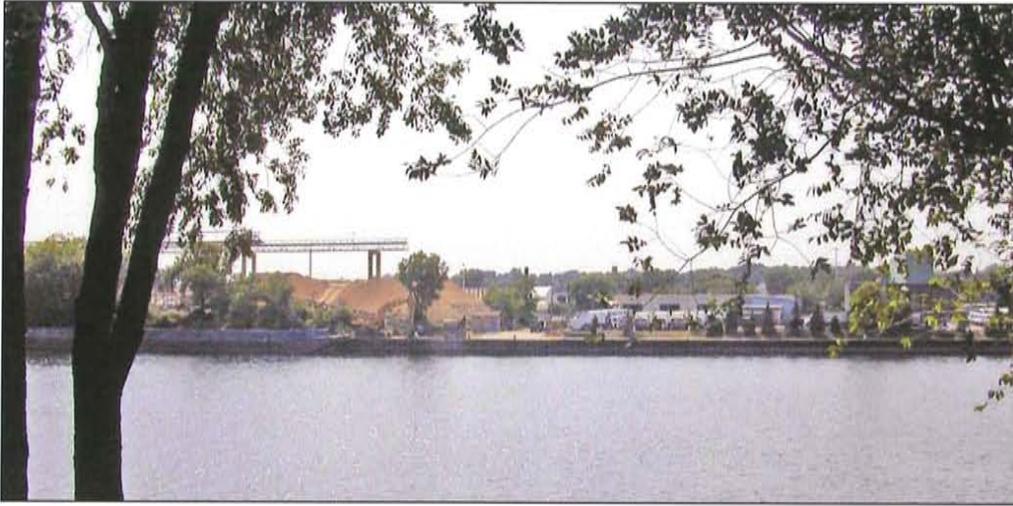
Detail view, Huron Cement Terminal  
elevator, looking south



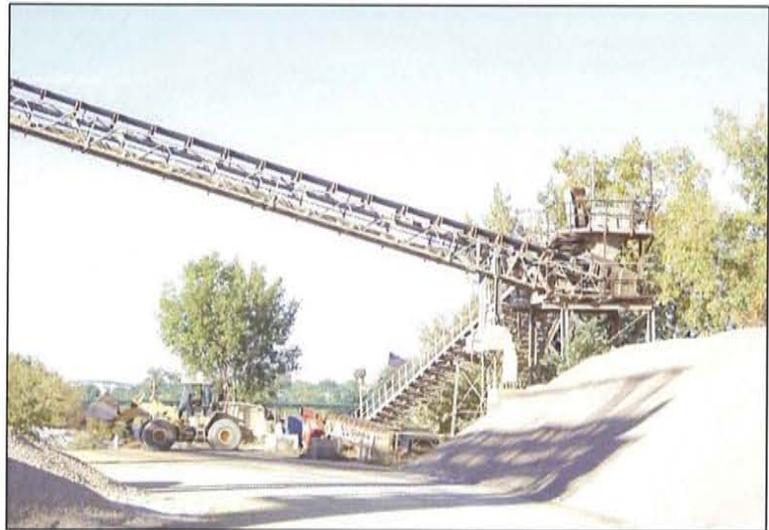
Detail view, elevator ghost sign,  
looking southeast



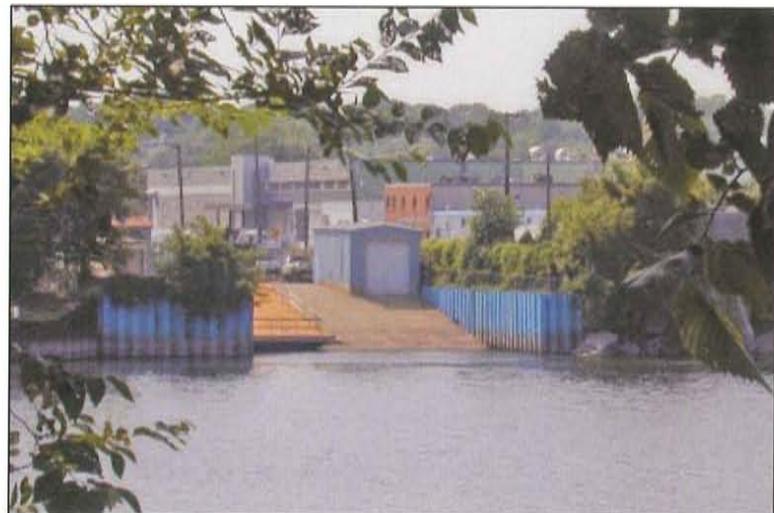
**UPPER HARBOR HISTORIC DISTRICT**  
*Northside Dock and Boat Ramp*



Above: General view, Northside Dock, J. L. Shiely Yard “D” on left side of photograph, looking west

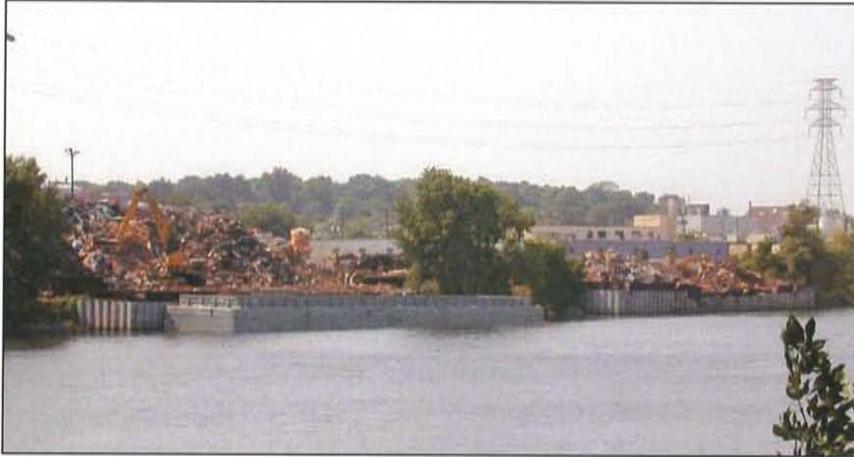


General view, J. L. Shiely Yard “D” conveyor, looking north



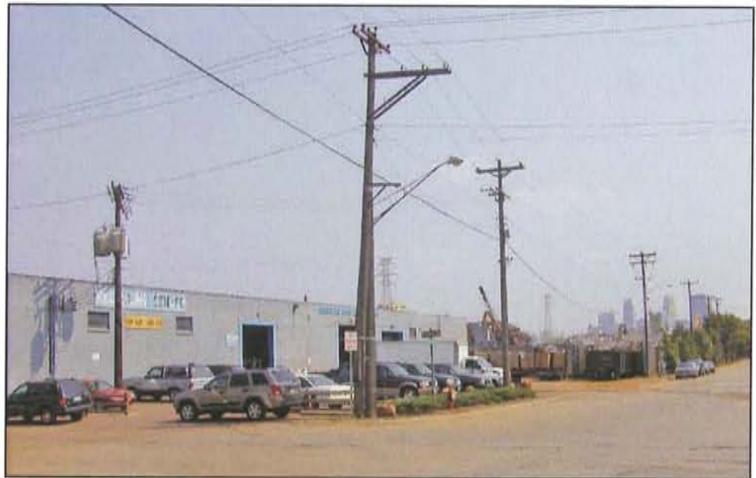
General view, Northside Boat Ramp, looking west

**UPPER HARBOR HISTORIC DISTRICT**  
*American Iron and Supply Company*



Above: General view of American Iron and Supply Company barge docks, looking northwest

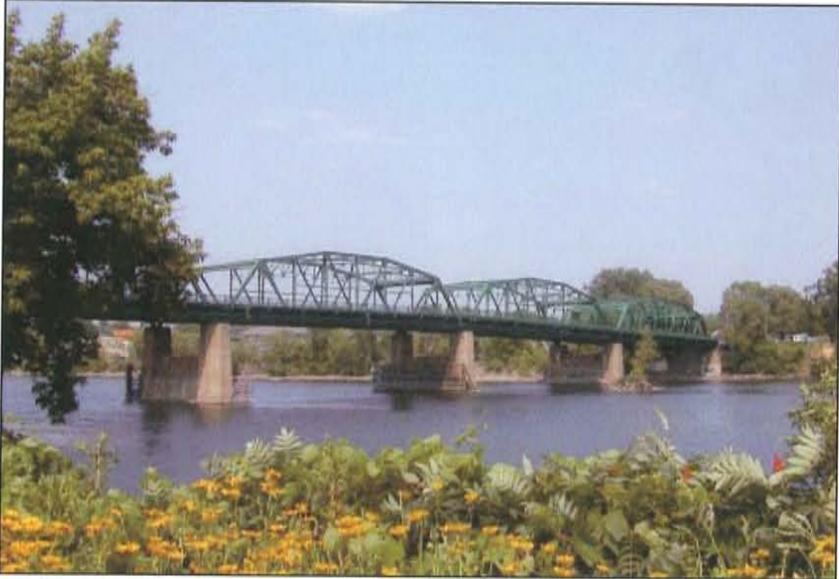
Right: General view of American Iron and Supply Company site, Recycling Center Warehouse in foreground, looking southeast



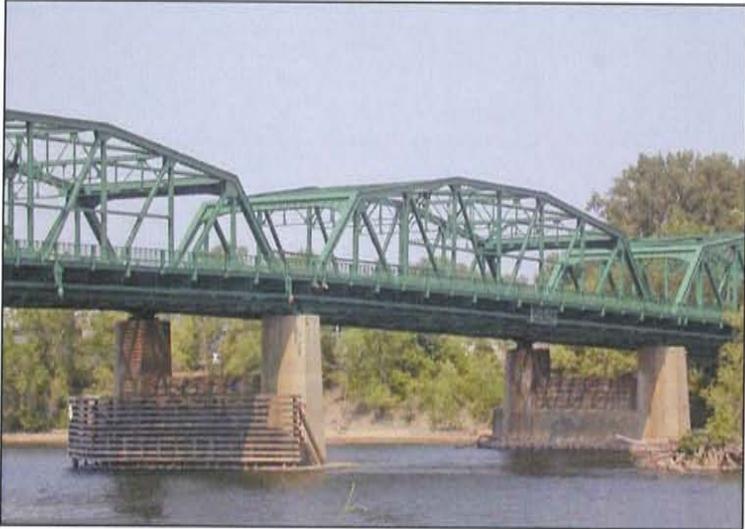
Below: General view of American Iron and Supply Company Office and Truck Scale (center), Warehouse (right) and Weld Shop (left), looking northeast



**UPPER HARBOR HISTORIC DISTRICT,**  
*Lowry Avenue Bridge*

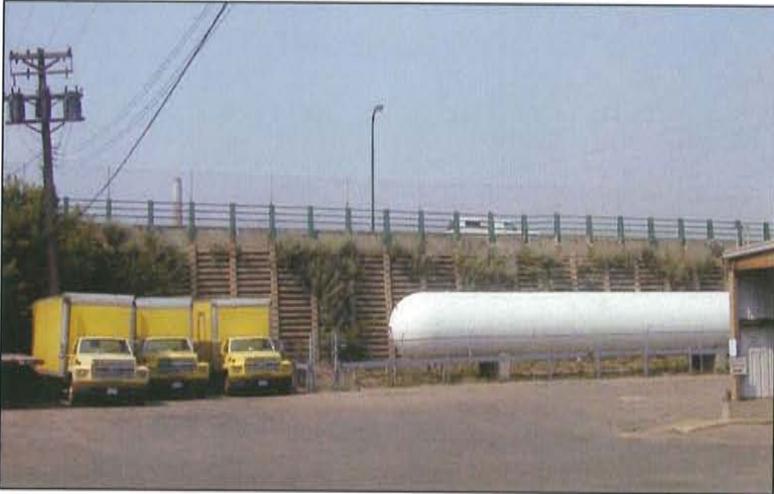


Above: General view, Lowry Avenue Bridge, looking northeast



Left: Detail view, Lowry Avenue Bridge truss span and piers, looking northeast

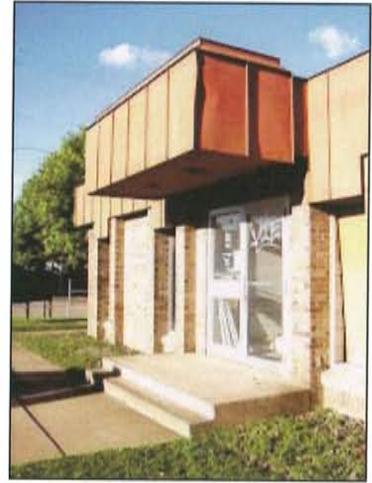
Below: General view, Lowry Avenue Bridge embankment, looking north



**UPPER HARBOR HISTORIC DISTRICT,**  
*Upper Harbor Terminal*



Above left: General view, Upper Harbor Terminal Scale Houses and Office Building, looking southwest



Above right: Detail view, Upper Harbor Terminal Office Building, front entrance, looking north

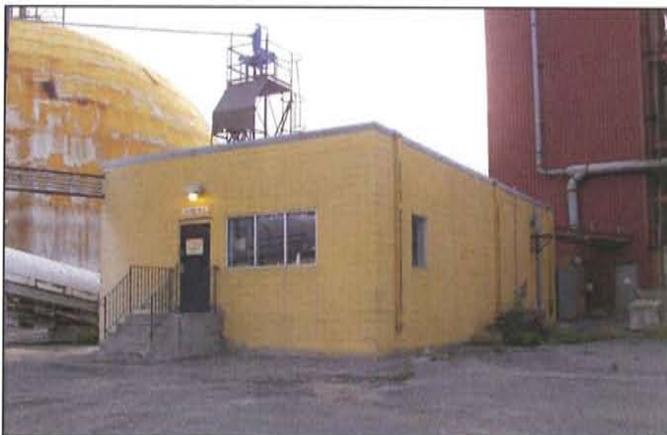
Below: Overview of Upper Harbor Terminal site showing Open Commodity Storage Areas, Storage Domes, Grain Elevator, Conveyor, Rail and Truck Dumps, and Rail Lines



*Upper Harbor Terminal*



Above: Detail view, Load-out Tower, looking northeast



Left: Detail view, Control Building, looking southwest

Below: General view, Truck Dump/Hoist and Dust Tank, looking southeast



*Upper Harbor Terminal*



Above: General view, Warehouse, looking south

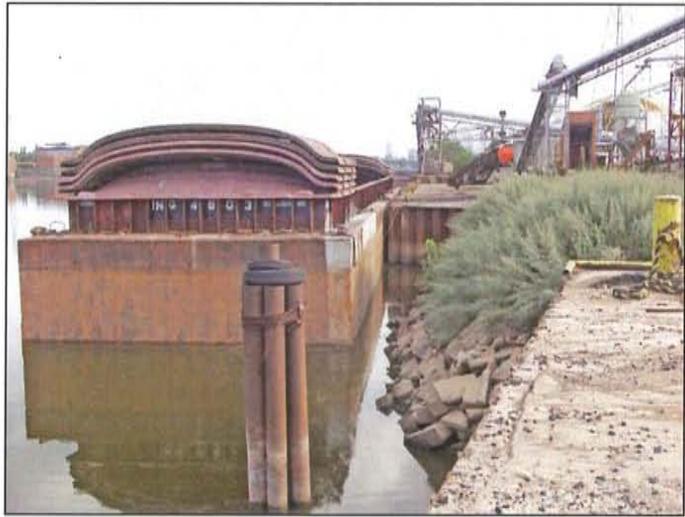
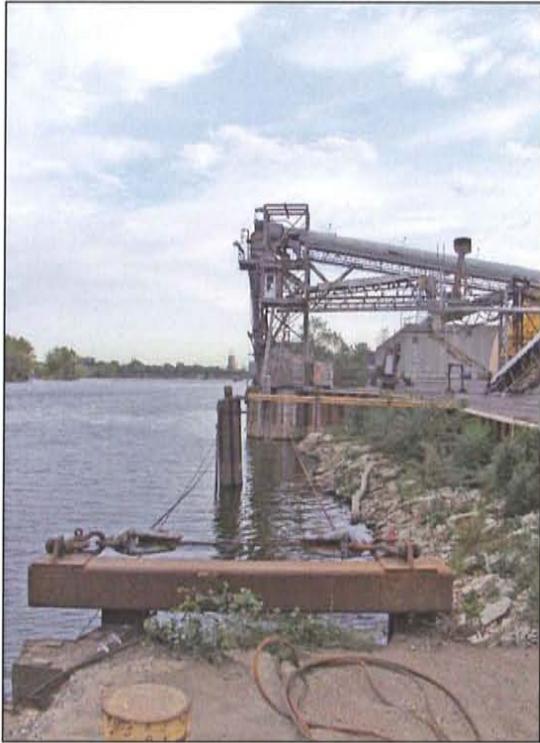


Right: General view, Storage Dome (8,000 ton capacity), looking northeast

Below: General view, Asphalt Tanks, Dyke, and Meter House, looking west



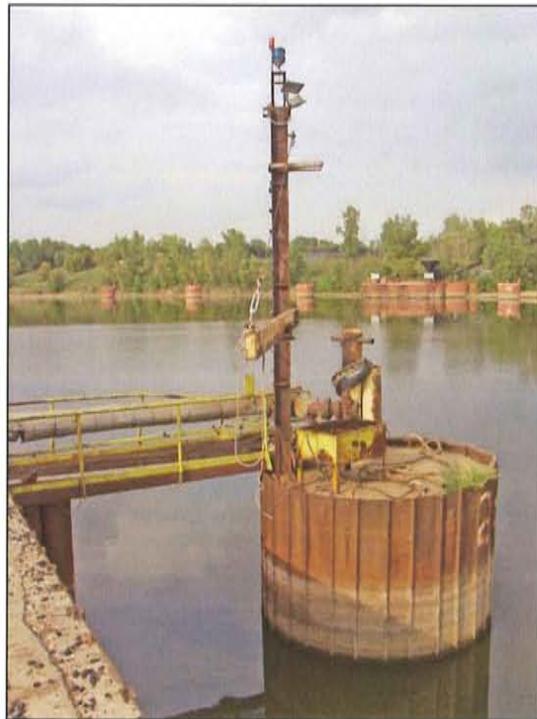
*Upper Harbor Terminal*



Above: General view, North Barge Dock, looking south

Left: General view, North Barge Dock, Loading Area Mooring Cells, and Load-out Tower, looking south

Below: Detail view, North Mooring Cell, looking northeast



**UPPER HARBOR HISTORIC DISTRICT,**  
*Dundee Cement Terminal*



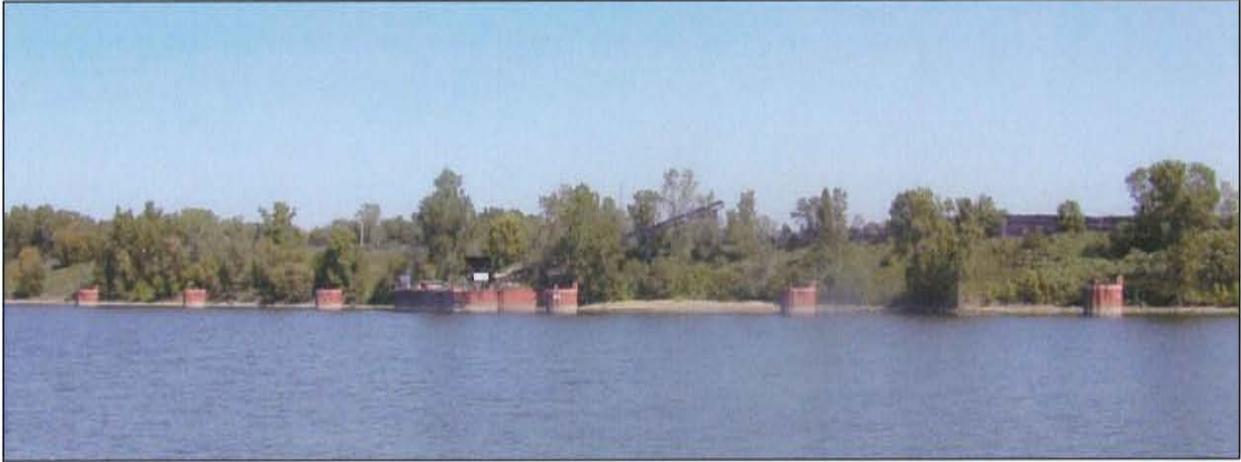
Above: General view, Elevator Office (demolished),  
view to north

Left: General view, Cement Elevator (demolished),  
view to north

Below: General view of site, view to west (Barge  
Mooring Dolphins, Dock Brackets, and Conveyor  
Equipment are extant.)

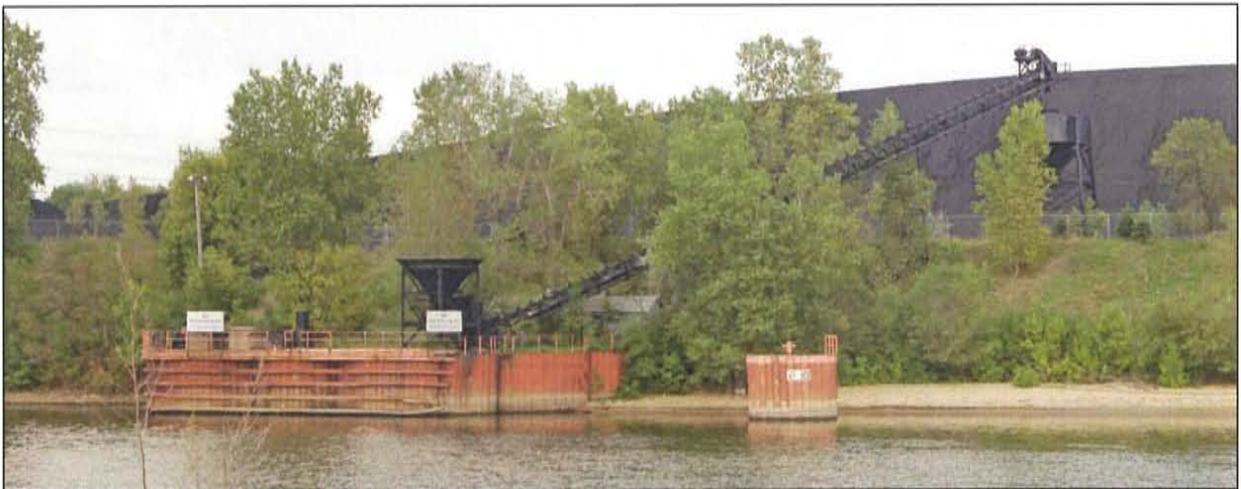


**UPPER HARBOR HISTORIC DISTRICT**  
*Riverside Station Power Plant Terminal*



Above: General view, Riverside Station Power Plant Terminal, looking northeast

Below: Detail view showing Barge Dock, Conveyor and Hoppers, Terminal Building, and Coal Field in background, looking northeast



**APPENDIX C**  
**INVENTORY FORMS**

## American Iron and Supply Company

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2800-3018 North Pacific Street Minneapolis Hennepin County 55411	<b>PID(s)</b>	10-029-24-42-0007 10-029-24-42-0006 10-029-24-42-0005	<b>Inventory No(s).</b>	HE-MPC- 9204 HE-MPC- 9205 HE-MPC- 9206 HE-MPC- 9207 HE-MPC- 9208 HE-MPC- 9209 HE-MPC- 9210 HE-MPC- 9211 HE-MPC- 9212 HE-MPC- 9213 HE-MPC- 9214 HE-MPC- 9215 HE-MPC- 9216 HE-MPC- 9217
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### Survey Information

<b>Current Name</b>	American Iron Company	<b>Historic Names</b>	American Iron and Supply Company American Iron and Steel Company
<b>Property Category</b>	Industrial	<b>Surveyed by</b>	Erin Hanafin Berg, Hess, Roise and Company
<b>Current Function</b>	Barge terminal and metal salvage operation	<b>Date</b>	October 4, 2006

### Locational Information

<b>Zone</b>	15	<b>Quad</b>	Minneapolis North	<b>Neighborhood</b>	Hawthorne; North River Industrial				
<b>E</b>	A: 478190 B: 478290 C: 478320 D: 478190	<b>N</b>	A: 4984090 B: 4984090 C: 4983710 D: 4983710	<b>Twp</b>	029	<b>R</b>	24	<b>Sec</b>	10
<b>Addition</b>	Morrison's Addition to North Minneapolis		<b>Block(s)</b>	16, 17, 18, 19, 31, 32	<b>Lot(s)</b>	All; except Lots 1, 2 only, Block 17			
<b>Property Description</b>	Bounded by 28th Avenue North, Pacific Street North, 31st Avenue North, and the Mississippi River.								
<b>River Mile</b>	856.3	<b>River Side</b>	Right (west)						

### Owner Information

<b>Owner Status</b>	Private					
<b>Current Owner</b>	Atlas Land Company LLC					
<b>Address</b>	2800 Pacific Street North					
<b>City</b>	Minneapolis	<b>State</b>	MN	<b>ZIP</b>	55411	

**Summary**

The American Iron and Supply Company was one of two businesses that were positioned to take early advantage of the barge shipping extended to the Upper Harbor. Buildings on the property date from the late 1950s to the 1970s and are largely intact. The company’s barge terminal was established in 1964 and expanded with the addition of a second dock ca. 1985. The property is eligible for local landmark and National Register designation as part of the Upper Harbor Historic District.

**Site Resources**

<b>Inventory No(s).</b>	<b>Name</b>	<b>Type</b>	<b>Year Built</b>
HE-MPC- 9204	North Barge Dock	Structure	ca. 1985
HE-MPC- 9205	South Barge Dock	Structure	1964
HE-MPC- 9206	Office Building	Building	1953
HE-MPC- 9207	Warehouse	Building	1953
HE-MPC- 9208	Truck Scale	Object	1953
HE-MPC- 9209	Recycling Center	Building	1955
HE-MPC- 9210	“Old” Baler Building	Building	ca. 1958
HE-MPC- 9211	Weld Shop	Building	ca. 1958
HE-MPC- 9212	Baler Building	Building	ca. 1977
HE-MPC- 9213	Shear Building	Building	1973
HE-MPC- 9214	Rail Lines	Objects	ca. 1953
HE-MPC- 9215	Rail Scale	Structure	1989
HE-MPC- 9216	Scale House	Building	1989
HE-MPC- 9217	Storage Yard	Site	ca. 1953 – ca. 1965

**Barge Docks**

Two linear barge docks, each about 200’ long, are located on the river frontage on the east side of the property. Each dock is constructed of sheet-piling that forms a three-sided rectangle contiguous with the yard surface. The dock surfaces and yard are unpaved. The docks project about 30’ from the natural shoreline.

The north dock extends southward from a point approximately equal with the southeast corner of the Recycling Center Warehouse, which is located at the northern end of the site. Aerial photographs indicate that the north dock was built in the mid-1980s. This dock is in somewhat deteriorated condition, with dented and bent sheet-piling and an uneven dock surface. The southern dock, which was built in 1964, is also made of sheet-piling with earthen fill and is in good condition. There is a gap of about 100’ of natural shoreline between the two docks, containing some wild vegetation.

**Office Building, Warehouse, and Truck Scale**

A two-story brick office building is located at the northeast corner of Pacific Street North and 28th Avenue North. The office building faces Pacific, and is set back about 15-20’ from the curb. A linear, in-ground truck scale is located directly in front of the office building, parallel to the street, with driveway curb cuts at the corner and to the north of the office building on Pacific Street.

The office building facade is brown, variegated brick set in running bond, with rows of header bricks approximately every five courses. The building has a flat

roof with sheet metal coping. Floodlights are mounted to the parapet on the west facade.

The building fenestration is roughly symmetrical on the west facade, with a centered door between two pairs of windows. The ground-floor window pairs consist of large, horizontal, rectangular windows closest to the door and smaller windows at the outside edge. The width of the northernmost window opening has been enlarged, while the southernmost window retains its original vertical orientation. There are four evenly spaced vertical windows on the upper level of the west facade.

The south facade has six vertical window openings on the ground level and five on the upper level. The two windows on the west section of the ground-floor level are located within individual recessed openings that might originally have been door openings. A large, recessed area in the center of the facade contains a pair of sliding-sash windows. All three of these recessed areas have been infilled with brick. The remaining windows are single fixed or casement lights with recessed frames and projecting brick sills.

A small, two-story brick addition with an attached one-story, double garage is located on the north side of the office building. The addition has a brick facade, flat roof, and two single garage-door openings on the west facade. The date of the addition cannot be discerned from building records, but appears to be about 1978.

A large, one-story concrete-block warehouse is attached to the east wall of the office building. The warehouse has five loading docks, an elevated pedestrian door, and a nine-light industrial-sash window on the south facade. The warehouse is somewhat L-shaped in plan, with a linear extension on the north side.

**Recycling Center Warehouse**

A one-story, concrete-block warehouse is located at the northern end of the site, on the southeast corner of 31st Avenue North and Pacific Street. The building is rectangular in plan, with a flat roof and tile coping. Large rectangular openings are irregularly placed on the west, north, and east facades. Elevated concrete loading docks are in front of the openings on the west and north facades. Rectangular, six-light, steel-sash clerestory windows with angled tile sills are present on all four facades. Applied signage is on the west facade.

**“Old” Baler Building**

A one-story, concrete-block building is north of the office building and warehouse. Known as the “Old” Baler Building, this structure is L-shaped in plan, with a short wing on the south side. The building has a flat roof with metal coping and a rooftop vent. A single garage door is centered on the west facade, flanked by two steel-sash, multi-light windows. Single pedestrian doors are located on the south and north facades near the west corners, and a steel-sash multi-light window is also on the north facade.

- Weld Shop** A one-story, rectangular building known as the Weld Shop is located to the west of the “Old” Baler Building. The Weld Shop has an exterior of concrete block. The flat roof has six square skylights and metal coping. There is a single pedestrian door centered between two single garage doors on the south facade, and another metal pedestrian door on the west facade.
- Baler Building** A rectangular building known as the Baler Building is located in the storage yard south and west of the railroad spur lines. This building is about one-and-a-half stories in height, also of concrete block, with a flat roof and metal coping. Pedestrian doors are located on the east, north, and south facades. On the center of the west facade, an elevated shed abuts the building. The shed has a gable roof, plywood siding, and a door on the west facade. An elevated platform in front of the shed is connected to the baler, a large piece of equipment that runs parallel to the west facade and wraps around the northwest corner of the building.
- Shear Building** A one-and-a-half-story concrete-block building in the northern third of the storage yard is known as the Shear Building. The structure has concrete-block walls, a rectangular form, and a flat roof. There is a large, square, door opening on the north facade. Two additions—a one-story, concrete-block wing on the west side, and a small rooftop monitor—have single pedestrian doors; the rooftop addition has an elevated steel staircase on the east. There is an open, elevated steel platform to the south of the building.
- Rail Lines** Five rail switching lines are located on the site, branching off of a single line that enters the property from the northwest corner near the Recycling Center Warehouse and curves through the site to the southeast. A rail stop at the end of one of the lines is east of the Recycling Center Warehouse.
- Rail Scale and Scale House** A rail scale was installed near the center of the site in 1989, extending to the northwest from the north-south rail lines. The scale consists of a pair of tracks on top of a concrete pad. Vertical steel columns about 10’ in height stand near the center on opposite sides of the scale. The Scale House, located slightly southwest of the scale, is a square building, one story in height, with concrete-block walls and a flat roof with sheet-metal coping. The southeast facade holds a pedestrian door and a square aluminum-sash fixed window. A rectangular, aluminum-sash window is centered on the northeast facade. Both windows have projecting sills. A digital scale display panel is located above the square window.
- Storage Yard** The majority of the property is a 12-acre open storage yard piled high with heaps of scrap metal. A portion of the yard surrounding the office building and attached warehouse is paved with asphalt, but most of it is packed earth.

## **Other Site Features**

A continuous, steel panel fence is located along the Pacific Street and 30th Avenue North frontages. This fence was installed in about 1991; the property was not fenced prior to that time and had a prominent sign facing Pacific Street. Several small, moveable storage sheds and containers are located on the property; these buildings do not appear to have historic significance.

The shoreline and Pacific Avenue frontage of the property contains a number of small trees.

## **Setting**

The American Iron property is surrounded on three sides by large warehouses and other industrial activity. The City of Minneapolis Northside Garage, which shelters and services the city's garbage and recycling trucks, stands on the opposite side of 28th Avenue North. Single-family houses and parkland are located on the bluff directly across the river from the American Iron site.

## **Integrity**

### **Alterations**

The office building has been altered by a small two-story addition on the north side and windows have been altered on all facades. The attached warehouse appears to be intact. The massing and exterior materials of the office building are intact, but the window alterations and side addition detract from the historic character of the building.

### **Notes on Condition**

The buildings and other facilities are worn, but in generally good condition. The edge of the north barge dock is somewhat damaged and pending repair.

## **Historical Background**

The American Iron and Supply Company, now known simply as American Iron, is a family-owned business founded in 1885. The company was located at 1803 2nd Street North until the early 1950s. According to the owner, Mindy Isaacs, the company was enticed to move to its present riverfront location by Hubert H. Humphrey, who advocated for the Upper Mississippi Harbor Development during his term as mayor of Minneapolis and as a member of the U.S. Senate. Isaacs's father and grandfather, Fred and Harry Isaacs, participated in lobbying efforts before Congress when reauthorization of the harbor development project was debated in the mid-1950s.

Building permits were issued in 1953 for the construction of an office and warehouse building at the corner of Pacific Street and 28th Avenue North. The company must have received its shipments by rail and truck until the Upper Lock was completed in the fall of 1963. Newspaper accounts indicate that a barge dock was constructed at American Iron in 1964. Aerial photographs of the area show that the north barge dock was added about twenty years later.

Several small buildings were constructed on the property over the course of about twenty years, but the majority of the site is used for open storage. The Rail Scale and Scale House located near the center of the yard were the last structures to be built, in 1989.

Abraham Isaacs, the founder of American Iron and Supply Company, was a Jewish businessman from North Minneapolis. There appear to have been a number of other metal salvage companies in the vicinity that were also owned by local Jews during the early decades of the twentieth century.

## **Previous Reviews**

None.

## **Statement of Significance**

The American Iron and Supply Company property is significant as one of the earliest barge terminals established in the Upper Harbor after the completion of the upper lock, and as the longest continually operated barge facility in the area. The fact that the company relocated to the riverfront in anticipation of the Upper Harbor's completion and that the owners were actively engaged in lobbying for the project adds to the significance of the property. The American Iron property is eligible for historic designation as part of the potential Upper Harbor Historic District. The district meets National Register Criterion A in the areas of Commerce, Industry, Maritime History, and Transportation, and Minneapolis HPC Criteria 1 and 3.

The American Iron property also appears to be individually eligible for local landmark designation under Criteria 1 and 2, for its association with Hubert H. Humphrey's promotion of the Upper Harbor.

The American Iron property might have additional historical significance related to the social and economic history of this industry and local ethnic groups; this historical context appears worthy of additional research.

## **References**

Aerial photographs of Hennepin County: 2004. Available at the Hennepin County Web site Property Information Search: <http://www.co.hennepin.mn.us/>

Aerial photographs of Minneapolis: 1945, 1971, 1980, 1987, 1990, 1991. Available at the John R. Borchert Map Library, University of Minnesota, Minneapolis.

American Iron, "Company Profile." <http://www.scrappy.com>

"Barge Traffic Increases." *Minneapolis Tribune*, December 29, 1963.

Blodgett, Timothy. "Upper Harbor Project to Open Saturday, but City Lacks Barge Facilities." *Minneapolis Tribune*, September 15, 1963.

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McCarty, Pat. "None See Immediate Boom in Upper Harbor Project." *Minneapolis Tribune*, December 2, 1962.

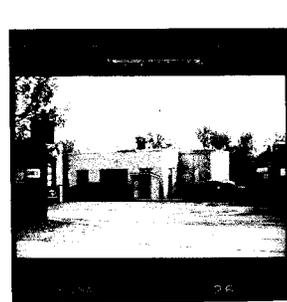
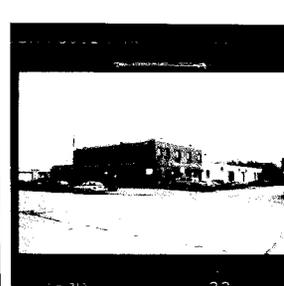
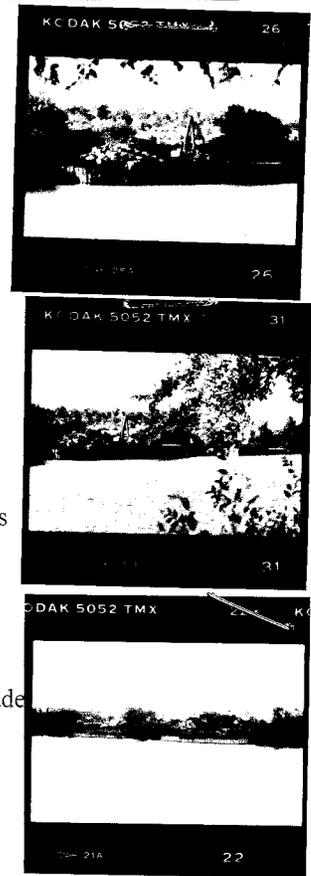
*Mississippi/Minneapolis: A Plan and Program for Riverfront Development*. Minneapolis: Office of the City Coordinator, 1972.

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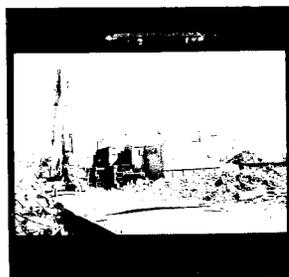
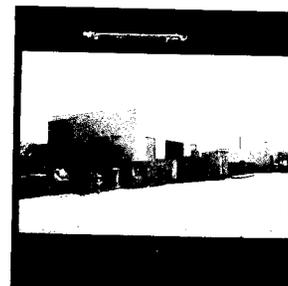
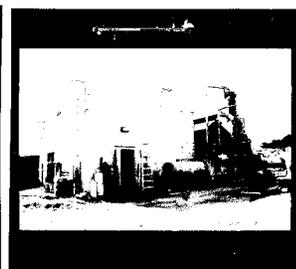
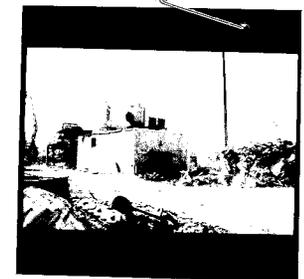
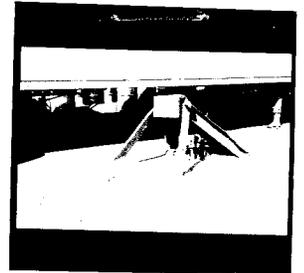
**Photograph Information**

Date	9/26/06	Roll	16	Contact Sheet	16	Frame	26
Facing	Northwest	Subject	Barge Dock, southern				
Date	9/26/06	Roll	16	Contact Sheet	16	Frame	31
Facing	Northwest	Subject	Barge docks				
Date	5/2/2006	Roll	7	Contact Sheet	7	Frame	22
Facing	Southwest	Subject	Barge docks				
Date	4/15/06	Roll	1	Contact Sheet	1	Frame	33
Facing	Northwest	Subject	Barge docks				
Date	10/3/06	Roll	17	Contact Sheet	17	Frame	9
Facing	Southeast	Subject	Recycling Center Warehouse, west and north facades				
Date	10/3/06	Roll	17	Contact Sheet	17	Frame	10
Facing	Southeast	Subject	Storage Yard and fence				
Date	10/3/06	Roll	17	Contact Sheet	17	Frame	22
Facing	Northeast	Subject	Office Building and Warehouse, west and south facade				
Date	10/3/06	Roll	17	Contact Sheet	17	Frame	15
Facing	Southwest	Subject	Recycling Center Warehouse, north and east facades				
Date	10/3/06	Roll	17	Contact Sheet	17	Frame	26
Facing	East	Subject	"Old" Baler Building, west and south facades				
Date	10/3/06	Roll	17	Contact Sheet	17	Frame	28
Facing	Northeast	Subject	Weld Shop, south facade				



**Photograph Information, continued**

<b>Date</b>	10/4/06	<b>Roll</b>	18	<b>Contact Sheet</b>	18	<b>Frame</b>	13
<b>Facing</b>	North	<b>Subject</b>	Dock edge with barge, view toward Lowry Avenue Bridge				
<b>Date</b>	10/4/06	<b>Roll</b>	18	<b>Contact Sheet</b>	18	<b>Frame</b>	16
<b>Facing</b>	Northwest	<b>Subject</b>	Rail stop, located near Recycling Center Warehouse				
<b>Date</b>	10/4/06	<b>Roll</b>	18	<b>Contact Sheet</b>	18	<b>Frame</b>	21
<b>Facing</b>	Southwest	<b>Subject</b>	Shear Building, north and east facades				
<b>Date</b>	10/4/06	<b>Roll</b>	18	<b>Contact Sheet</b>	18	<b>Frame</b>	22
<b>Facing</b>	Northwest	<b>Subject</b>	Rail Scale and Scale House, northeast and southeast facades				
<b>Date</b>	10/4/06	<b>Roll</b>	18	<b>Contact Sheet</b>	18	<b>Frame</b>	25
<b>Facing</b>	Southwest	<b>Subject</b>	Baler Building, north and east facades				
<b>Date</b>	10/4/06	<b>Roll</b>	18	<b>Contact Sheet</b>	18	<b>Frame</b>	28
<b>Facing</b>	South	<b>Subject</b>	Railroad tracks in center of yard				
<b>Date</b>	10/4/06	<b>Roll</b>	18	<b>Contact Sheet</b>	18	<b>Frame</b>	33
<b>Facing</b>	Southeast	<b>Subject</b>	"Old" Baler Building, west and north facades				
<b>Date</b>	10/4/06	<b>Roll</b>	18	<b>Contact Sheet</b>	18	<b>Frame</b>	36
<b>Facing</b>	North	<b>Subject</b>	Baler Building, south and west facades				



## **Dundee Cement Terminal**

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3939 North 1st Street	<b>PID(s)</b>	03-029-24-31-0012	<b>Inventory No(s).</b>	HE-MPC- 9222
4022 Washington Avenue North		03-029-24-23-0126		HE-MPC- 9223
Minneapolis				HE-MPC- 9224
Hennepin County				HE-MPC- 9225
55412				HE-MPC- 9226
				HE-MPC- 9227
				HE-MPC- 9228
				HE-MPC- 9229
				HE-MPC- 9230

### **Survey Information**

<b>Current Name</b>	Holcim, Incorporated	<b>Historic Names</b>	Dundee Cement Holnam, Incorporated
<b>Property Category</b>	Industrial	<b>Surveyed by</b>	Erin Hanafin Berg, Hess, Roise and Company
<b>Current Function</b>	Vacant	<b>Date</b>	May – October 2006

### **Locational Information**

<b>Zone</b>	15	<b>Quad</b>	Minneapolis North	<b>Neighborhood</b>	Camden Industrial Area				
<b>E</b>	477820	<b>N</b>	4985830	<b>Twp</b>	029	<b>R</b>	24	<b>Sec</b>	03
<b>Addition</b>	Osborne-McMillan 1st Addition	<b>Block</b>	1	<b>Lot(s)</b>	1, partial 2				
<b>Property Description</b>	Roughly bounded by First Street North (extended) on the south, the Soo Line Railway on the west and north, and the Mississippi River on the east.								
<b>River Mile</b>	857.4	<b>River Side</b>	Right (West)						

### **Owner Information**

<b>Owner Status</b>	Private				
<b>Current Owner</b>	Atlas Development Company LLC				
<b>Address</b>	2800 Pacific Street North				
<b>City</b>	Minneapolis	<b>State</b>	MN	<b>ZIP</b>	55411

### **Summary**

The Holcim property in the Upper Harbor was established in 1967 as the Dundee Cement Terminal. Initially used for cement distribution and storage, it was later expanded to store and transfer aggregate. The property recently was sold and the elevator and associated structures were demolished in late September 2006, after this form was prepared. The supports for the floating barge dock and elements of the conveyor system are extant and are eligible for National Register and local landmark designation as contributing resources within the Upper Harbor Historic District.

## Site Resources

The terminal site consists of nine types of resources associated with the storage, handling, and transfer of cement products and aggregate.

<b>Inventory No(s).</b>	<b>Name</b>	<b>Type</b>	<b>Year Built</b>
HE-MPC- 9222	Elevator	Structure	1967
HE-MPC- 9223	Office Building	Building	1967
HE-MPC- 9224	Storage Building	Building	1978
HE-MPC- 9225	Elevated Tank	Structure	1983
HE-MPC- 9226	Conveyor Equipment	Structures and Objects	1967, ca. 1976
HE-MPC- 9227	Barge Mooring Dolphins	Objects	1967, ca. 1976
HE-MPC- 9228	Dock Brackets	Objects	1967, ca. 1976
HE-MPC- 9229	Open Commodity Storage	Site	ca. 1985
HE-MPC- 9230	Railroad Tracks	Site	1967

### **Elevator**

An elevator, consisting of four cylindrical silos and a rectangular, vertical circulation structure, is located near the railroad tracks that form the west boundary of the site. The silos are arranged in a straight line parallel to the tracks. The silos, which are approximately five stories in height, are spaced several feet apart and are two different sizes in diameter. The north and south silos are the largest in diameter and flank the two smaller ones, which are paired in the center of the grouping. The silos appear to be uniquely constructed, formed of steel rebar rings that encase vertical rebar ribs. The silo exteriors are thinly coated with concrete or stucco, exposing the texture of the rebar. The rings have small rectangular knobs or joints that protrude from the surface of the silos and form a spiral pattern on the exterior. A rectangular door opening is visible at ground level on the south facade of the silo grouping.

The rectangular circulation structure on the east side of the line of silos has a steel frame surrounding a metal staircase and mechanical equipment. The structure is approximately five stories in height and has oversized one-story shed wings on the north and south sides, adjacent to the silos. These wings are later additions, although their exact date of construction is not known. Corrugated-metal panels were removed from the exterior of the structure during the summer of 2006.

### **Office Building**

Adjacent to the east facade of the circulation structure stands a two-story, flat-roofed office building. The three exposed sides of the building exterior are concrete block. Alternating blocks protrude on every third course, giving the facades visual and surface texture. Single steel doors on the west ends of the north and south facades are each topped by a vertical grouping of three metal-framed, fixed windows. A rectangular opening with horizontal sliding windows is located in the upper north corner of the east facade.

### **Storage Building**

A metal storage building with a footprint about 30' by 40' is located to the north of the office building. The storage building has vertical ribbed metal siding and a flat roof. A single pedestrian door and an overhead-operating garage door are located on the south facade.

**Elevated Tank**

A small metal tank with a conical base is suspended within a steel framework to the north of the elevator. This structure might have been a dust collection apparatus. A detached, open metal staircase stands between the tank structure and the elevator. A catwalk extends from the top of the staircase to the top of the metal silo.

**Conveyor Equipment**

Parts of the original conveyor system stand to the north of the office building. According to 2004 aerial photographs of the site, pneumatic tubes were located above ground, extending from the roof of the elevator down the east facade. The tubes ran along the ground to a point near the edge of the riverbank, where they became encased in a ramped, steel structure. This portion of the conveyor system still remains; it consists of rectangular metal framework around the bundled tubes, with a metal walkway above framed by steel railings.

The conveyor passes through a large, open, rectangular steel frame located at the apex of the riverbank. The framework appears to contain a cable and pulley system for maneuvering the conveyor tubes or other equipment. The frame has angled leg braces on the west side and supports a metal platform above the tubes. A metal ramped walkway and a short, perpendicular set of steps, both with open metal railings, extend from the north side of the platform.

A second conveyor system appears to have been added to the site around 1976, but it has since been removed. The route of this conveyor is still marked by a wide strip of concrete paving extending from near the elevator site to about halfway down the riverbank. Another open, rectangular steel frame is located near the water's edge, aligned with the end of the paving strip.

**Barge Mooring Dolphins**

Two large, cylindrical dolphins are located about 175' apart in the water near the edge of the riverbank. The dolphins are made of sheet-piling filled with concrete and are about 25' in diameter. The large dolphin on the south has an open steel railing around the west half of the surface, a dock ladder on the north side, and a vertical pole supporting cables that extend to the shore and to the smaller dolphin to the south. The north dolphin has navigation lights atop short poles and appears to have a built-in ladder on the south side. Aerial photographs show that the dolphins were used to anchor the ends of a linear, floating dock, which was present at the site in 1971 and removed in 2005 or 2006.

A third, smaller dolphin, about 15' in diameter, is at the southern end of the site, about 100' from the center dolphin. Erected about 1976, this cylindrical structure is also constructed of sheet-piling filled with concrete. Two horizontal steel beams extend from the south side of the dolphin and appear to be braced with an angled bracket. Two dock ladders that are flush with the walls and have looped railings that extend above the dolphin surface are located on opposite sides. Navigation lights and pulley equipment are on top of the dolphin, and two cables extend over the water to the center dolphin.

**Dock Brackets**

Three vertical brackets protrude from the water near the riverbank. The two brackets spaced between the larger dolphins are identical and appear to have been used to brace the floating dock. These brackets are made up of vertical steel posts braced by angled steel members. A third bracket, located off-center between the center and southern dolphin, is similar in shape, but appears to have been damaged or warped.

- Open Commodity Storage** An open commodity storage area is located to the north of the terminal site, between the elevator and the curved tracks of the Soo Line. This storage area appears to have been established about 1985.
- Railroad Tracks** Two sets of railroad tracks run parallel to the river along the west boundary of the property. Aerial photographs show that a third set of tracks was present in 1971, but had been removed by 2004. The tracks closest to the elevator curve eastward to cross the Soo Line Bridge just to the north of the Holcim site.

### **Other Site Features**

The property contains sidewalks and surface roads for human and vehicular circulation through the site. First Street North forms a cul-de-sac to the south of the terminal property and appears to have been used as a truck staging and parking area. Chain-link fencing with two hinged vehicular gates edges the southern boundary of the site. Utility poles are near the riverbank and overhead power lines run parallel to the river. Small trees and brush are along the riverbank, and a mature deciduous tree is at the south end of the site, near the entrance.

### **Setting**

The Dundee Cement Terminal site is located at the northern end of the nine-foot channel, just south of the Soo Line Railroad Bridge (now owned by Canadian Pacific). The site is surrounded by other open industrial areas, including the municipal Upper Harbor Terminal, located directly to the south.

### **Integrity**

#### **Alterations**

The elevator, the most prominent structure on the site, exhibits good historical integrity. The four silos appear to be intact and of a unique construction method. The vertical circulation structure has been recently altered by the removal of its corrugated-metal panel cladding. The exterior of the concrete-block office building adjacent to the elevator appears to be intact.

The barge dock has been altered by the removal of the floating dock. The addition of a third dolphin and dock brace appear to have occurred within the period of significance for the development of the Upper Harbor; these elements do not detract from the integrity of the site.

#### **Notes on Condition**

The buildings and structures appear to have been recently vacated and decommissioned. The elevator, which was in sound condition at the time of survey, recently has been demolished.

## **Historical Background**

Built in 1967, the Dundee Cement Terminal was the fourth or fifth private terminal established in the Upper Harbor. The Dundee Company was a subsidiary of an international cement manufacturing corporation now known as Holcim, Inc. Shortly after the Dundee Terminal was completed, the City of Minneapolis commissioned a study to analyze the feasibility of a municipal terminal in the Upper Harbor area. The increasing barge traffic to Dundee Cement and other private terminals might have influenced the consultant's recommendation to construct the Upper Harbor Terminal.

The site had been used for lumber storage and shipment around the turn of the twentieth century. Soo Line Railway tracks along the west boundary of the site probably were installed to facilitate the shipment of lumber and continued to serve the property when it became a cement transfer facility. During the planning stage of the Upper Mississippi Harbor Development project, the Osborne-McMillan Elevator Company, a prominent grain handling firm, had purchased the property and committed to building a terminal there. Osborne-McMillan later decided to "mark time until there is evidence" that building a terminal would be justified, and ultimately sold the property to Dundee Cement.<sup>1</sup>

Initially, the Dundee terminal handled only cement, which was stored and transferred in its four-silo elevator. A flat, open area at the north end of the site began to be used for aggregate storage about 1985. The Dundee Cement Terminal is one of three cement products storage and handling facilities in the Upper Harbor; barge transport is an especially economical shipping method for bulk commodities such as aggregate.

## **Previous Reviews**

None.

## **Statement of Significance**

The former Dundee Cement Terminal represents the kinds of private investment in the Upper Harbor during its period of significance. This terminal is one of only a few remaining that predated the nearby municipal terminal. As such, it contributed to the growth of barge traffic to the area, justifying the construction of the locks and dam and influencing the decision to construct the municipal terminal in the Upper Harbor.

Until recently, the Dundee Cement terminal contained two resources that were architecturally distinctive and unique in the Upper Harbor. The elevator, which appears to have been made up of rebar latticework coated with a thin layer of concrete, was unusual and might have had historic, architectural, or engineering significance for its design or construction. The terminal also appears to have had the only floating dock in the Upper Harbor. Although the dock structure has been removed, the dolphins and brackets are intact.

The elevator and office building was demolished in September 2006, which adversely impacted the integrity of the property. However, the remaining docking facilities and conveyor equipment retain sufficient historic character and significance for the site to contribute to the Upper Harbor Historic District, which is eligible for listing in the National Register under Criterion A in the areas of Commerce, Industry, Maritime History, and Transportation, and landmark designation under Minneapolis HPC Criteria 1 and 3.

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<sup>1</sup> Pat McCarty, "None See Immediate Boom in Upper Harbor Project," *Minneapolis Tribune*, December 2, 1962.

**References**

- Aerial photographs of Hennepin County: 2004. Available online at the Hennepin County Property Information Search Web site: <http://www.co.hennepin.mn.us/>
- Aerial photographs of Minneapolis: 1945, 1971, 1980, 1987, 1990, 1991. Available at the John R. Borchert Map Library, University of Minnesota, Minneapolis.
- Berg, Merlin H. "Upper Harbor Terminal Report." Prepared for the Minneapolis Department of Public Works, March 1968. Available at the Minnesota Historical Society, Saint Paul.
- Haeg, Andrew. "Flood's Economic Impact Won't Disappear with the Water." *Minnesota Public Radio*, April 19, 2001. [http://news.minnesota.publicradio.org/features/200104/19\\_haega\\_flood/](http://news.minnesota.publicradio.org/features/200104/19_haega_flood/)

**Photograph Information**

Date	4/11/2006	Roll	5	Contact Sheet	5	Frame	20
Facing	West	Subject	Elevator, office building, storage building, dolphins, and conveyor system				
Date	4/11/06	Roll	5	Contact Sheet	5	Frame	34
Facing	West	Subject	Elevator, office building, storage building, dolphins, and conveyor system				
Date	4/11/06	Roll	5	Contact Sheet	5	Frame	30
Facing	West	Subject	Overview of terminal site				
Date	9/1/06	Roll	10	Contact Sheet	10	Frame	4
Facing	North	Subject	Elevator				
Date	9/1/06	Roll	10	Contact Sheet	10	Frame	7
Facing	North	Subject	Office building, storage building in background				
Date	9/1/06	Roll	10	Contact Sheet	10	Frame	11
Facing	Northwest	Subject	Elevator and office building				
Date	9/1/06	Roll	10	Contact Sheet	10	Frame	17
Facing	Northeast	Subject	Elevator				
Date	10/3/06	Roll	17	Contact Sheet	17	Frame	4
Facing	North	Subject	Elevator during demolition				
Date	10/3/06	Roll	17	Contact Sheet	17	Frame	6
Facing	North	Subject	Site during elevator demolition				



## Great Northern Railroad Bridge

Spanning Mississippi River to  
Nicollet Island, extending from  
228 River Street, adjacent to  
Nicollet Island Park  
Minneapolis  
Hennepin County  
55401

**PID** 22-029-24-14-0226      **Inventory No(s)** HE-MPC- 9218  
HE-MPC- 9219

### Survey Information

**Common Name** Burlington Northern Santa Fe  
Railroad Bridge      **Historic Name** Great Northern Railroad Bridge

**Property Category** Bridge      **Surveyed by** Erin Hanafin Berg,  
Hess, Roise and Company

**Current Function** Railroad crossing      **Date** April 11, 2006

### Locational Information

**Zone** 15      **Quad** Minneapolis South      **Neighborhood** North Loop

**E** 479030      **N** 4981400      **Twp** 29N      **R** 24      **Sec** 22, 23

**Addition** Unplatted, Town of Minneapolis      **Block** 1      **Lot** 1, 2; 2 (partial) Sec 22; 9 (partial) Sec 23

**Property Description** That part of Government Lot 2 in Sec 22 T 29 R 24 and of Government Lot 9 in Sec 23  
T 29 R 24 and of Lots 1 and 2 Block 1 Town of Minneapolis and of vacated River Street

**River Mile** 854.5      **River Side** (spans river)

### Owner Information

**Owner Status** Private

**Current Owner** Burlington Northern Santa Fe Railway Co., Attn: Property Tax Department

**Address** P. O. Box 961089

**City** Fort Worth      **State** TX      **ZIP** 76161-0089

### Summary

The Great Northern Railroad Bridge is one of two historic railroad bridges located above Saint Anthony Falls that were altered in 1963 during the Upper Harbor development to allow clearance for the resulting barge traffic. The bridge spans the main channel of the Mississippi River, from the west bank to the north end of Nicollet Island. The bridge was built in 1893, replacing an 1867 bridge that was the first Mississippi River railroad crossing in the Twin Cities area. The bridge was reconstructed in the mid-1920s, and a through-truss span was installed to permit barge traffic in 1963. The bridge is largely intact and meets the standards for local landmark designation, but is not eligible for listing in the National Register of Historic Places.

## Site Resources

<u>Inventory No(s).</u>	<u>Name</u>	<u>Type</u>	<u>Year Built</u>
HE-MPC- 9218	Bridge	Structure	1893, ca. 1925, 1963
HE-MPC- 9219	Shear gates	Structures	1963

**Bridge** The steel, single-span, Baltimore through-truss bridge rests on concrete and masonry piers. The open bridge deck supports two parallel sets of railroad tracks. A disconnected, curved section of a third spur line is located on the south side of the bridge near the west bank and terminates in mid-air. An approach span passes over West River Parkway, supported by a historic masonry pier and a masonry embankment wall.

**Shear Gates** Two shear gates, constructed of vertical and horizontal steel I-beams lined on the channel side by rows of horizontal wood whalers, are set between the channel and the piers that support the truss. These linear gates, each composed of three rectangular panels, angle outward at both ends to direct the current and protect the piers from potential impact by the barges. The gates are each held up by sets of four dolphins—cylindrical cells of sheet-piling filled with concrete—that are located on the pier side of the gates. The shear gates are set into the riverbed, independent of the bridge piers and structure.

## Setting

The land use at both ends of the bridge has changed dramatically over the past four decades. From 1922 to the 1970s, the Great Northern Railroad depot and yard occupied the west bank of the river just north of Hennepin Avenue. The bridge tracks extended to spur lines in the rail yard, and a shop building of some sort was located in the triangular area between the intersecting tracks, just downriver from the bridge. The rail yard site is now the location of the Federal Reserve Bank and plaza. A development of modern townhouses sits to the north of the railroad tracks on the west end of the bridge. The West River Parkway passes under the bridge, paralleling the riverfront. From before the turn of the century to well after the Upper Mississippi Harbor Development period, the north end of Nicollet Island was also industrial in character, with small-scale warehouse and commercial buildings along the riverfront abutting single- and multi-family residences at the north end of the island. The industrial area is now parkland, with large trees growing along the riverbank. Most of the residential area is intact.

## Integrity

### **Alterations**

The bridge and shear gates appear to retain a high degree of integrity, with few visible alterations since completion of the Upper Harbor project in 1964. One of the concrete piers and a portion of the deck girder might be evidence of the 1924 construction; the masonry pier at the west end probably dates from the 1893 structure. The truss and shear gates are the most obvious structural modifications from the 1962-1964 period. The painted Great Northern Railway sign on the deck girder was replaced at the time of construction with a round sign located at the center of the truss. That sign has been removed or painted over.

### **Notes on Condition**

The bridge appears to be in good condition, and is still used as a rail crossing. The spur line on the west side of the bridge has been disconnected.

## **Historical Background**

In order for the nine-foot channel to be extended above Saint Anthony Falls, the bridges located between the Upper and Lower locks and the planned Upper Harbor area had to be modified to accommodate barge traffic. Ten bridges in the area—four railroad bridges and six vehicular bridges—were altered by expanding the spans, increasing the clearance below the decks, and strengthening and protecting the piers.

At the very outset of the Upper Mississippi Harbor Development project, the City of Minneapolis willingly assumed the costs for altering the vehicular bridges. In 1940, the city council approved an appropriation of \$300,000 per year, for as many years as necessary, to pay for these improvements. Ultimately, more than twenty years worth of funding was dedicated to the project. Implementation of the channel extension project was delayed until several years after the conclusion of World War II, and work did not begin on the bridge modifications until 1951. By this time, construction of the Lower Lock and Dam also was underway.

The railroads, which held a virtual shipping monopoly in the area and occupied most of the riverfront property in the vicinity of Saint Anthony Falls and the Upper Harbor area, were probably resentful of the barges that would soon impact their shipping rates. The initial plan called for the railroads to assume the costs of raising their own bridges. Although the raising of the vehicular bridges began in the 1950s, the needed modifications to the railroad bridges were not made until the early 1960s, as the Upper Lock and Dam neared completion. It is not known whether the city, the railroads, or the corps of engineers bore the financial responsibility for the alterations to the railroad bridges.

A truss bridge spanning the west channel of the Mississippi between downtown Minneapolis and Nicollet Island was first built in this location by the Saint Paul and Pacific Railroad in 1867. The bridge appears to have been rebuilt as a through-truss structure in 1893 and later converted to a beam-span bridge in the mid 1920s. Historic photographs show that, by the time of the Upper Harbor alterations in 1962, the bridge had been altered to be a six-span, girder structure supported by cast concrete as well as battered masonry piers. A painted sign on the south side of the girders spelled "GREAT NORTHERN RY."

The initial Upper Mississippi Harbor Development plan, as unveiled in 1946, called for a lift span to be installed at the Great Northern crossing, but that plan was not brought to fruition. Instead, the clearance under the bridge was increased by replacing two sections of deck girders with a single steel, rigid-connected, seven-panel Baltimore through truss. The center masonry pier was enlarged and encased in concrete, as was the masonry pier at the east end of the channel. The cast-concrete pier between these two (which appears to have dated from the 1920s reconstruction) was removed, and shear gates were installed to protect the piers on the sides of the channel. Work on the bridge was completed in early 1964. The transformation of the Great Northern bridge is well documented in photographs taken by Robert Keagle in 1962-1963, now housed at the Minnesota Historical Society.

## **Previous Reviews**

None.

## **Statement of Significance**

The Great Northern Railroad Bridge retains physical integrity primarily from its 1920s and 1962-1963 periods of construction, although one masonry pier from its original construction in 1893 still stands on the west side of the bridge.

Although the bridge exhibits a high degree of physical integrity, the historical value of its immediate context has been affected by recent redevelopment. The setting retains very little evidence of the historic railroad dominance of

the riverfront. The nearby Hennepin Avenue and Plymouth Avenue bridges, both of which also were altered to allow barge traffic during the Upper Harbor development, have been replaced; the present structures do not contribute to the setting in regards to that period of significance. The Great Northern Railroad Bridge is not of sufficient individual importance to warrant individual listing in the National Register of Historic Places, and there are too few surrounding historic resources to form a historic district.

The Robert Keagle photographs documenting the alterations to this bridge illustrate the construction of coffer dams that were used to divert the flow of the river while pier modifications were made. These photographs enhance understanding of bridge engineering, river navigation, and concrete construction techniques. Because of its extensive documentation, good condition, and high degree of historical physical integrity, the bridge appears to be eligible for local landmark designation under Minneapolis HPC Designation Criteria 1, 4, and 7.

### **References**

Aerial photographs of Minneapolis: 1945, 1971, 1980, 1987, 1990, 1991. Available at the John R. Borchert Map Library, University of Minnesota, Minneapolis.

Anfinson, Scott F. "Archaeology of the Central Minneapolis Riverfront—Part 1: Historical Overview and Archaeological Potentials." *Minnesota Archaeologist* 48 (1989).

Johnson, Walter. "Ten Bridges Face Alterations under Upper Harbor Plan." *Minneapolis Star*, August 15, 1946.

Keagle, Robert. "Mississippi Upper Harbor Project." Photograph collection, 1950-1964. Available at the Minnesota Historical Society, Saint Paul.

Weeks, John. "The Bridges and Structures of the Major Rivers of Minneapolis and Saint Paul."  
<http://www.johnweeks.com/bridges/index.html>.

**Photograph Information**

<b>Date</b>	4/11/06	<b>Roll</b>	3	<b>Contact Sheet</b>	3	<b>Frame</b>	7
<b>Facing</b>	Northwest	<b>Subject</b>	Overview of bridge				
<b>Date</b>	4/11/06	<b>Roll</b>	3	<b>Contact Sheet</b>	3	<b>Frame</b>	10
<b>Facing</b>	Northwest	<b>Subject</b>	Close-up of deck girder and truss span				
<b>Date</b>	4/11/06	<b>Roll</b>	3	<b>Contact Sheet</b>	3	<b>Frame</b>	18
<b>Facing</b>	North	<b>Subject</b>	Overview of bridge				
<b>Date</b>	4/11/06	<b>Roll</b>	3	<b>Contact Sheet</b>	3	<b>Frame</b>	21
<b>Facing</b>	North	<b>Subject</b>	Close-up of deck span, truss, and shear gates				
<b>Date</b>	4/11/06	<b>Roll</b>	3	<b>Contact Sheet</b>	3	<b>Frame</b>	22
<b>Facing</b>	North	<b>Subject</b>	Detail of truss and shear gates				
<b>Date</b>	4/11/06	<b>Roll</b>	3	<b>Contact Sheet</b>	3	<b>Frame</b>	30
<b>Facing</b>	North	<b>Subject</b>	Pier detail and disconnected spur line				



## Huron Cement Terminal

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33 – 26th Avenue North Minneapolis Hennepin County 55411	<b>PID</b> 15-029-24-12-0006	<b>Inventory No(s).</b> HE-MPC- 9232 HE-MPC- 9233 HE-MPC- 9234 HE-MPC- 9235 HE-MPC- 9236
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### Survey Information

<b>Current Name</b>	Lafarge	<b>Historic Name</b>	Huron Cement Company
<b>Property Category</b>	Industrial	<b>Surveyed by</b>	Erin Hanafin Berg, Hess, Roise and Company
<b>Current Function</b>	Cement storage	<b>Date</b>	September 25, 2006

### Locational Information

<b>Zone</b> 15	<b>Quad</b> Minneapolis North	<b>Neighborhood</b>	Hawthorne; North River Industrial		
<b>E</b> 478250	<b>N</b> 4983380	<b>Twp</b> 029	<b>R</b> 24	<b>Sec</b> 15	
<b>Addition</b>	Unplatted	<b>Block</b>	n/a	<b>Lot(s)</b>	n/a
<b>Property Description</b>	Part of Govt. lot 8 described as commencing at Northwest corner of Block 3 Cobb's Addition to North Minneapolis (incomplete description)				
<b>River Mile</b>	near 855.9	<b>River Side</b>	Right (west)		

### Owner Information

<b>Owner Status</b>	Private				
<b>Current Owner</b>	Lafarge Corporation – Angelo Perry				
<b>Address</b>	20 Oak Hollow #260, P. O. Box 5112				
<b>City</b>	Southfield	<b>State</b>	MI	<b>ZIP</b>	48037

### Summary

Although the Huron Cement Terminal does not contain barge docking facilities, it is immediately adjacent to a concrete mixing plant and is an example of the type of inter-modal industry that civic boosters had hoped to attract to the Upper Harbor. The concrete elevator and metal rail shed were built in 1967, a few years after the upper lock was opened. The site is unique in the surrounding industrial area for its designed, groomed landscape. The Huron Cement Terminal property is eligible for historic designation as part of the Upper Harbor Historic District. The district is eligible under National Register Criterion A and Minneapolis HPC Criteria 1 and 3. This site is also individually eligible for HPC designation under Criterion 5.

**Site Resources**

<b>Inventory No(s).</b>	<b>Name</b>	<b>Type</b>	<b>Year Built</b>
HE-MPC- 9232	Cement Silo	Structure	1968
HE-MPC- 9233	Elevator Shed	Building	1968
HE-MPC- 9234	Roadway and Railroad Tracks	Objects	1968
HE-MPC- 9235	Platforms (set of 2)	Objects	unknown
HE-MPC- 9236	Yard	Site/Landscape Feature	unknown (established by 1980)

**Cement Silo**

A cylindrical, reinforced-concrete silo, 35' in diameter by 100' in height, is located in the approximate center of the property. The surface of the structure is smooth and unpainted except for an illegible, round ghost sign on the west side of the building.

On the northwest side of the silo is a single, metal, pedestrian door that opens to the structure at ground level. The door has a large rectangular light in the upper half. The area in front of the door is covered by a projecting flat metal roof that ties into the roof over an adjacent staircase that winds around the west side of the silo. The staircase extends from the ground to at least the third-story level and has a landing at the second-story level. The north side of the silo contains a tall rectangular opening at ground level, with an overhead operating metal-grate door. There is a metal spiral staircase on the northeast side of the silo that extends from the approximate second-story level to the roof. The spiral staircase is supported at the base and at intervals along its length by steel brackets that project from the face of the silo. A large, open shed (described below) is located at ground level on the east side of the elevator. A tubular conveyor rises vertically from the roof of the shed to the top of the silo. At roof level, a projecting platform supports the conveyor apparatus and mechanical equipment. Near the platform stands a gambrel-roofed storage shed of recent construction. A metal railing encircles the silo roof.

**Elevator Shed**

A large metal shed is located on the east side at the base of the silo. The shed, which appears to be used for rail car unloading, is open on the north and south sides and clad with vertical corrugated-metal siding on the east facade and at the juncture between the shed and silo. The shed has an exposed steel structure and houses elevated metal platforms with railings and staircases. Large, industrial light fixtures are suspended from the ceiling.

**Roadways and Railroad Tracks**

Two railway spur lines curve through the site from southwest to northeast, passing through the elevator shed and converging on the north side of the shed. Aerial photographs indicate that the rail spur had extended off the property to the north, but at present it terminates near the northern boundary of the site. The railroad tracks are coupled to the BNSF (NP) railroad on the south of the site.

Paved concrete roadways are located along the western property line and adjacent to the railroad tracks that curve through the site. A separate roadway parallels the curving railroad tracks on the east side of the site. A rectangular parking area is located to the north of the silo.

**Platforms**

Two raised platforms are fixed on the grounds of the site, positioned near roadways. One structure is located on the north side of the elevator; the other is on the east side of the entrance drive from 26th Avenue North. The structures have open metal steps rising about 15' to a level platform enclosed by a metal railing and some kind of hydraulic lifting apparatus; they appear to be used for loading or inspection. Red warning lights are located on poles at the base of the steps, and the structure on the west has a pole light and call box at the platform level.

**Yard**

The Huron Cement site is unique as one of the only designed and cultivated landscapes in the Upper Harbor area. There is a large, curving lawn area in the northwest corner of the site, an oblong section of lawn adjacent to the riverbank, and a rectangular lawn area between the railroad tracks and roadway on the north side of the elevator shed. The northern boundary of the site is defined by vertical timber posts set at staggered heights, with rocks, boulders, and chain-link fencing behind. The corner of the site, adjacent to the west driveway inlet, has a pair of coniferous trees and there are several other deciduous trees elsewhere on the property. The west boundary of the site has a row of mature evergreens. A large, three-part rectangular sign in the northwest corner of the site reads "Lafarge Minneapolis Terminal, 33 North 26th Ave., Safety Is #1." A flag pole is sited about halfway between the silo and the street.

**Other Site Features**

Several bollards, navigational signs, and meters are scattered around the site, mostly adjacent to roadways and railroad tracks.

A gable-roofed building is located adjacent to the southeast corner of the shed, but its features could not be discerned from the public right-of-way.

**Setting**

The property is bounded on the west and north by open yards used for concrete mixing and aggregate storage and transfer. The Burlington Northern Santa Fe railroad tracks and the historic Northern Pacific bridge are south of the site. The recently developed River Pointe condominium complex is located south of the railroad tracks.

**Integrity****Alterations**

The historic resources on the Huron Cement Terminal site, especially the silo, appear to have had very few alterations.

**Notes on Condition**

The buildings and facilities appear to be in very good condition.

## **Historical Background**

In 1967, the Huron Cement Company obtained a special council permit from the Minneapolis City Council to construct a reinforced-concrete silo and steel unloading enclosure at this site. The permit noted that the facility would be used for unloading bulk cement from railroad cars. The Huron Cement Company built the silo and occupied the property in 1968. Lafarge Corporation acquired Huron Cement and the property in 1988.

The Lafarge property does not contain a barge terminal, but a linear dock is located directly north of the site and the railroad tracks appear to have extended along the riverfront parallel to the dock. The plant might have been able to transfer cement between barge and rail car at this dock, only yards away from its storage facility.

## **Previous Reviews**

None.

## **Statement of Significance**

The Huron Cement Terminal appears to be the kind of industry that civic leaders and harbor proponents hoped would flock to the area once the Upper Harbor was established. Huron Cement relocated to the site after having occupied prime real estate near Saint Anthony Falls.<sup>1</sup> As the Upper Mississippi Harbor Development project reached completion, city planners were already looking to revitalize both sides of the riverfront; it is possible that Huron Cement was enticed to the Upper Harbor to meet the objectives of both development initiatives.

Boosters of the Upper Harbor hoped that navigation improvements would link Minneapolis to other regional ports as well as those downriver. The Huron plant seems to be evidence of this strategy, as the Duluth-Superior port has been a significant manufacturing and distribution point for the company since the early twentieth century. The cement industry is centered on the Great Lakes, and the Huron Cement Company operated its own fleet of ships before being sold to Lafarge.

The Huron Cement Terminal appears to be one of the most intact developments in the Upper Harbor area dating from the early period of significance. Although the property does not contain barge docking facilities, its construction date and historic use tie it to the Upper Harbor development. The property retains sufficient historic character and significance to contribute to a potential historic district that would include resources associated with the development of the Upper Harbor. The Upper Harbor Historic District is eligible for designation under National Register Criterion A in the areas of Commerce, Industry, Maritime History, and Transportation, and Minneapolis HPC Criteria 1 and 3. The Huron Cement Terminal is also eligible for local landmark designation under HPC Criterion 5 for its unique groomed landscape within an industrial area.

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<sup>1</sup> Historic photographs from 1967 by Norton and Peel show that the Huron Portland Cement Company railroad yard was roughly bounded by Main Street, the Mississippi River, 3rd Avenue Southeast, and Hennepin Avenue East; photographs available at the Minnesota Historical Society.

**References**

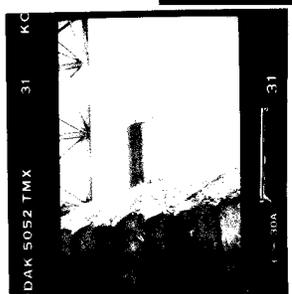
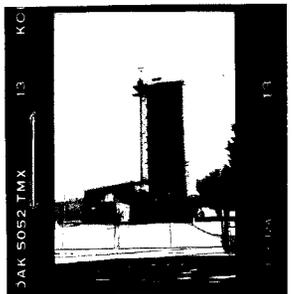
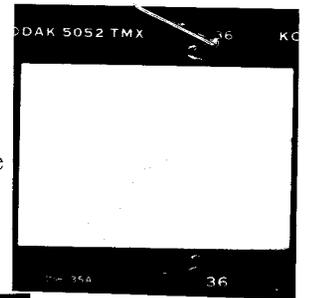
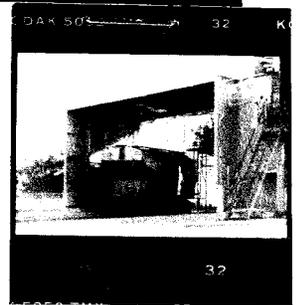
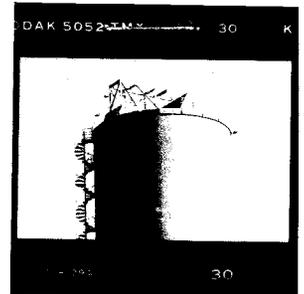
Aerial photographs of Hennepin County: 2004. Available online at the Hennepin County Web site Property Information Search: <http://www.co.hennepin.mn.us/>

Aerial photographs of Minneapolis: 1945, 1971, 1980, 1987, 1990, 1991; available at the John R. Borchert Map Library, University of Minnesota, Minneapolis.

Building Records, City of Minneapolis. Available at the Minneapolis Development Review office.

**Photograph Information**

Date	9/25/06	Roll	13	Contact Sheet	13	Frame	30
Facing	Southeast	Subject	Cement silo showing rooftop equipment, spiral steps & ghost sign				
Date	9/25/06	Roll	13	Contact Sheet	13	Frame	32
Facing	Southeast	Subject	Shed on east side of cement silo				
Date	9/25/06	Roll	13	Contact Sheet	13	Frame	36
Facing	South	Subject	Cement silo showing rooftop equipment and shed				
Date	9/25/06	Roll	11	Contact Sheet	11	Frame	4
Facing	South	Subject	Elevated platform structure				
Date	9/25/06	Roll	11	Contact Sheet	11	Frame	1
Facing	Southeast	Subject	Overview of site				
Date	9/25/06	Roll	11	Contact Sheet	11	Frame	9
Facing	South	Subject	Site entrance and landscaping from 26th Avenue North				
Date	9/25/06	Roll	11	Contact Sheet	11	Frame	10
Facing	Southeast	Subject	Overview of landscaping and lawn at northwest corner of site				
Date	9/25/06	Roll	11	Contact Sheet	11	Frame	18
Facing	South	Subject	Cement silo and shed—north side, and adjacent lawn & paving				
Date	9/25/06	Roll	11	Contact Sheet	11	Frame	13
Facing	South	Subject	Cement silo and shed, north side				
Date	9/25/06	Roll	11	Contact Sheet	11	Frame	31
Facing	Southeast	Subject	Top of cement silo showing circular ghost sign on west side				



## J. L. Shiely Company Yard "D"

30, 45, 65 - 26th Avenue North	<b>PID(s)</b>	10-029-24-43-0007	<b>Inventory No(s).</b>	HE-MPC-9201
2602, 2612, 2622 Mill Street		15-029-24-12-0007		HE-MPC-9202
Minneapolis		15-029-24-21-0054		HE-MPC-9203
Hennepin County		10-029-24-43-0010		HE-MPC-9204
55411		10-029-24-43-0009		
		10-029-24-43-0008		

### Survey Information

<b>Current Name</b>	Aggregate Industries Yard "D"	<b>Historic Name</b>	J. L. Shiely Yard "D"
<b>Other Name</b>	Cemstone		
<b>Property Category</b>	Industrial	<b>Surveyed by</b>	Erin Hanafin Berg, Hess, Roise and Company
<b>Current Function</b>	Aggregate open storage and concrete mixing plant	<b>Date</b>	September 25, 2006

### Locational Information

<b>Zone</b>	15	<b>Quad</b>	Minneapolis North	<b>Neighborhood</b>	Hawthorne, North River Industrial				
<b>E</b>	Parcel 1: 478110 Parcel 2: 478290	<b>N</b>	Parcel 1: 4983360 Parcel 2: 4983520	<b>Twp</b>	29N	<b>R</b>	24	<b>Sec</b>	10, 15
<b>Addition</b>	Demmon's Addition, J. L. Shiely Addition		<b>Block(s)</b>	11, 12	<b>Lot(s)</b>	1-3, 1-7 (partial)			
<b>Property Description</b>	East 95' except part taken for 26th Ave. N. Lots 1 to 7 and including adjacent ½ of vacant street								
<b>River Mile</b>	855.9	<b>River Side</b>	Right (west)						

### Owner Information

<b>Owner Status</b>	Private						
<b>Current Owner Address</b>	Aggregate Industries, Attn: Philip Hancock 6401 Golden Triangle Drive #400						
<b>City</b>	Greenbelt	<b>State</b>	MD	<b>ZIP</b>	20770		

### Summary

This property consists of two sections on opposite sides of 26th Avenue North. The concrete mixing plant and conveyor structures on this site were built in 1990 and 1992. Although they are not historic structures, they and the adjacent barge dock built in 1987 (located directly to the north but used by the owners of this site) are compatible with the surrounding resources eligible for National Register and Minneapolis HPC designation as the Upper Harbor Historic District.\*

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\* The barge dock is inventoried separately; Northside Dock and Boat Ramp, 2710 Pacific Street North, Inventory No. HE-MPC-9295.

**Site Resources**

<b>Inventory No(s).</b>	<b>Name</b>	<b>Type</b>	<b>Year Built</b>
HE-MPC-9201	Conveyor	Structure	1992
HE-MPC-9202	Concrete Plant	Buildings	1990
HE-MPC-9203	Open Commodity Storage	Site	1988
HE-MPC-9204	Open Commodity Storage	Site	1988

**Conveyor** An elevated belt conveyor system extends from the riverbank north of 26th Avenue North to an interior site on the south side of the street. The conveyor is supported by cast concrete legs and steel structures located on opposite sides of the street. Aerial photographs indicate that the conveyor was not present in 1991 and building permit records indicate that a significant structure was erected in 1992; the conveyor is presumed to date from that year.

**Concrete Plant** A concrete plant was built in 1990 on the portion of the site south of 26th Avenue North. The building is three or four stories in height, with a vertical corrugated metal exterior. Four covered conveyors extend from openings in the upper north facade to a secondary building at ground level. Tanks and mechanical equipment are located on the rooftop. The building extends to the south and has drive-through openings for cement-mixing trucks.

**Open Commodity Storage** A 1988 table of Upper Mississippi terminals indicates that the J. L. Shiely Company operated an aggregate storage yard in this area with a storage capacity of 200,000 tons. Aerial photographs indicate that the storage yard was probably established on two sites straddling 26th Avenue North that same year. No significant permanent features appear to be located on the open storage site.

**Other Site Features**

Very large piles of aggregate are scattered around the property on both sides of 26th Avenue North. The bases of the piles are contained by large concrete cubes, some of which form a wall three courses in height. A chain-link metal fence, topped with barbed wire, is located around the perimeters of both halves of the site. There are a few mature deciduous trees at the perimeter of the property.

**Setting**

The J. L. Shiely Company Yard "D" is divided into two sites. The southern section is bounded on the west and south by two sets of railroad tracks and on the north by 26th Avenue North. The northern section is bordered by a propane tank farm on the west and the City of Minneapolis Northside Garage on the north. The majority of the surrounding land use is industrial, with low-scale warehouses and other storage yards in the vicinity. The recently developed River Pointe condominium complex is southeast of the gravel yard.

## **Historical Background**

Building permit records indicate that this site was occupied by the American Lumber Company around the time that the Upper Harbor was developed. This company erected manufacturing buildings on the property between 1965 and 1971, but these buildings were demolished in 1976. It appears that the Shiely yard was not established on the site until the 1980s; according to Mindy Isaacs, the owner of American Iron (located about two blocks to the north), the site was used as a dump for many years.

J. L. Shiely expanded to the Upper Harbor site before vacating another gravel yard located on the intermediary pool between the Saint Anthony Falls locks. Shiely had established the earlier barge terminal and gravel yard between the locks, known as Yard "C," in 1964. The Yard "C" site was acquired by the Minneapolis Park and Recreation Board around 1990 and converted to a parking area for Mill Ruins Park.

## **Previous Reviews**

None.

## **Statement of Significance**

This site has no significant historic resources and only a tangential relationship to the historic development of the Upper Harbor, but it was surveyed and analyzed because of its association with the J. L. Shiely Company and its proximity to the adjacent barge dock to the north and to the Huron/Lafarge cement elevator to the south. Shiely constructed the barge dock adjacent to city property in preparation for vacating its terminal on the intermediate pool between the Saint Anthony Falls locks.

The gravel yard, conveyor, and concrete plant are not historically significant, but they are compatible structures located within the core intact area of the potential Upper Harbor Historic District. They are eligible for inclusion in the historic district as non-contributing resources.

## **References**

Aerial photographs of Hennepin County: 2004. Available online at the Hennepin County Property Tax Web site  
Property Information Search: <http://www.co.hennepin.mn.us/>

Aerial photographs of Minneapolis: 1966, 1968, 1970, 1973, 1974, 1978, 1980, 1984, 1987, and 1990. Available at  
John R. Borchert Map Library, University of Minnesota, Minneapolis.

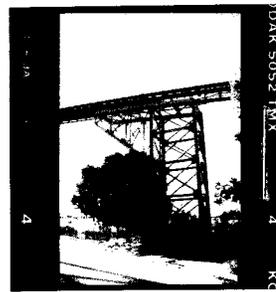
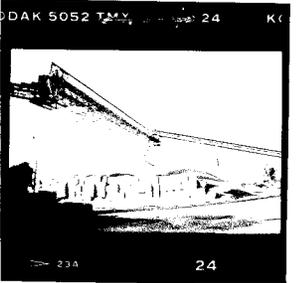
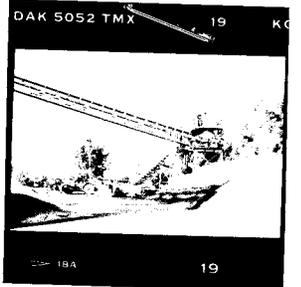
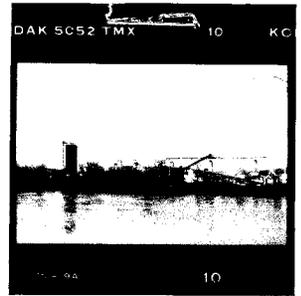
Building permit records, City of Minneapolis. Available at the Minneapolis Development review office.

"Commercial Navigation Strategic Plan," [City of Minneapolis, 1988].

Sheridan, David. "Upper Harbor Activity Still Slow after Year." *Minneapolis Tribune*, September 27, 1964.

**Photograph Information**

Date	4/2/06	Roll	2	Contact Sheet	2	Frame	10
Facing	Southwest	Subject	Overview of conveyor and adjacent cement silo and dock				
Date	4/2/06	Roll	1	Contact Sheet	1	Frame	35
Facing	West	Subject	Conveyor system, north section				
Date	9/26/06	Roll	16	Contact Sheet	16	Frame	13
Facing	West	Subject	North end of conveyor system and adjacent dock, detail				
Date	9/25/06	Roll	11	Contact Sheet	11	Frame	19
Facing	North	Subject	Conveyor system near riverbank				
Date	9/25/06	Roll	11	Contact Sheet	11	Frame	24
Facing	North	Subject	Elevated conveyor system, north of 26th Ave. N.				
Date	9/25/06	Roll	11	Contact Sheet	11	Frame	25
Facing	South	Subject	Concrete plant, north facade				
Date	9/25/06	Roll	11	Contact Sheet	11	Frame	28
Facing	Southeast	Subject	Elevated conveyor system, south of 26th Ave. N.				
Date	9/25/06	Roll	12	Contact Sheet	12	Frame	4
Facing	North	Subject	Elevated conveyor support pier, north of 26th Ave. N.				



## J. L. Shiely/General Mills Dock

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900 South 1st Street  
Minneapolis  
Hennepin County  
55401

**PID** 23-029-24-43-0039

**Inventory No.** HE-MPC- 9231

### Survey Information

<b>Common Name</b>	Mill Ruins Park	<b>Historic Name</b>	J. L. Shiely Yard "C" General Mills
<b>Property Category</b>	Park	<b>Surveyed by</b>	Erin Hanafin Berg, Hess, Roise and Company
<b>Current Function</b>	Open space	<b>Date</b>	October 19, 2006

### Locational Information

<b>Zone</b>	15	<b>Quad</b>	Minneapolis South	<b>Neighborhood</b>	Downtown				
<b>E</b>	480250	<b>N</b>	4980400	<b>TWP</b>	29N	<b>R</b>	24	<b>Sec</b>	23
<b>Addition</b>	Auditor's Subdivision No. 41			<b>Block</b>	<b>Lot(s)</b> 5; 11, 12				
<b>Property Description</b>	That part of Lot 5 Auditor's Subdivision No. 41 and of Government Lots 11 and 12 Section 23 described as commencing at the most southerly corner of said Lot 5 then on an assumed bearing of north 30 degrees (partial metes and bounds).								
<b>River Mile</b>	853.7	<b>River Side</b>	Right (west)						

### Owner Information

<b>Owner Status</b>	Federal	<b>Current Taxpayer</b>	Minneapolis Park and Recreation Board		
<b>Current Owner</b>	U.S. Government	<b>State</b>	MN	<b>ZIP</b>	55411
<b>Taxpayer Address</b>	2117 West River Road				
<b>City</b>	Minneapolis				

### Summary

The site of the J. L. Shiely and General Mills barge facilities is located on the west bank of the Mississippi River, on the intermediate pool between the locks. Recently redeveloped as a parking lot for the nearby Mill Ruins Park, the site retains the cast-concrete and steel wall of the barge dock and approximately two dozen iron timberhead cleats. The site is eligible for inclusion in a National Register and local historic district comprising the upper and lower lock and dam complexes and associated properties on the intermediate pool.

**Site Resources**

<b>Inventory No.</b>	<b>Name</b>	<b>Type</b>	<b>Year Built</b>
HE-MPC-9231	Barge Dock	Structure	ca. 1965

**Barge Dock** The barge dock is an angled structure formed of three unequal lengths of cast-concrete retaining wall at the edge of the west riverbank. The dock wall has exposed, vertical steel reinforcing bars spaced about two feet apart. Several deteriorated wood “whalers,” which served as bumpers for the barges, are attached to the wall at the top edge and just above the water level. About two dozen iron “timberhead” cleats are set into the top edge of the wall.

**Other Site Features**

There is an asphalt-paved parking lot and roadway in the center of the site. A gravel road extends southward from the parking area. Low-scale vegetation covers the remainder of the site.

**Setting**

The site is located at the river’s edge, below the former bluff-top milling district. The surrounding area recently has been reclaimed as parkland.

**Integrity**

**Alterations**

The buildings and other elements of the site’s industrial past have been removed. The dock appears to be the only remaining feature of the barge facilities.

**Notes on Condition**

The dock wall appears to be in fair condition. Whalers and reinforcing bars are in deteriorated condition. Timberhead cleats are rusted, but solid.

**Historical Background**

The J. L. Shiely Concrete Company located its barge dock on this site in around 1965 and occupied the adjacent land with gravel piles, hoppers, and cement-mixing equipment. The Shiely Yard “C” might have been established at this site about 1959 as part of the construction of the upper lock and dam.

General Mills shared the dock beginning in 1969 when Elevator No. 2 was connected to the dock with conveyor structures used to load barges with stored grain. By 1990, when redevelopment of the area was underway, the J. L. Shiely Company established another site, Yard “D,” on the Upper Harbor, adjacent to city-owned property upriver from the Northern Pacific Railroad Bridge. General Mills ceased using the barge dock in 1994. The conveyor was dismantled sometime before Elevator No. 2 was demolished in 1997.

## **Previous Reviews**

None.

## **Statement of Significance**

The J. L. Shiely/General Mills Dock is significant as the only barge facility constructed on the intermediate pool between the upper and lower locks, demonstrating the extent and dimensions of the Upper Harbor development and its direct impacts on the central riverfront. Although the integrity of the site has been compromised by its redevelopment as a public park, it retains sufficient waterfront character to contribute to district designation of this area. A district comprising the upper and lower locks and dams, the intermediate pool, and related maritime structures meets National Register Criterion A in the areas of Commerce, Industry, Maritime History, and Transportation, and Criterion C in the area of Engineering. The district also is eligible for Minneapolis HPC designation under Criteria 1, 3, and 4.

## **References**

Aerial photographs of Hennepin County: 2004. Available at the Hennepin County Property Information Search Web site: <http://www.co.hennepin.mn.us/>

Aerial photographs of Minneapolis: 1945, 1971, 1980, 1987, 1990, 1991. Available at the John R. Borchert Map Library, University of Minnesota, Minneapolis.

Berg, Merlin H. "Upper Harbor Terminal Report." Prepared for the Minneapolis Department of Public Works. March 1968. Available at the Minnesota Historical Society, Saint Paul.

Blodgett, Timothy. "Upper Harbor Project to Open Saturday, but City Lacks Barge Facilities." *Minneapolis Tribune*, September 15, 1963.

Keagle, Robert. "Mississippi Upper Harbor Project." Photograph collection, 1950-1964. Available at the Minnesota Historical Society, Saint Paul.

Minnesota Department of Transportation. Ports and Waterways Section. *A Directory of Minnesota's River Terminals*. Saint Paul: Minnesota Department of Transportation, 1998.

*Mississippi/Minneapolis: A Plan and Program for Riverfront Development*. Minneapolis: City of Minneapolis, 1972.

*The Mississippi River in Minneapolis*. Minneapolis: Minneapolis Park and Recreation Board, 1975.

Roise, Charlene K., and Robert D. Frame. "Washburn Crosby Company Elevators No. 2 and 3." HAER No. MN-92, 1997.

Sheridan, David. "Upper Harbor Activity Still Slow after Year." *Minneapolis Tribune*, September 27, 1964.

"Work Starts on Last Phase of Harbor Project." *Minneapolis Tribune*, June 23, 1961.

**Photograph Information**

**Date** 11/20/06      **Roll** 19      **Contact Sheet** 19      **Frame** 13  
**Facing** East      **Subject** Lower approach to Upper Lock, Shiely Dock at right edge

**Date** 11/20/06      **Roll** 19      **Contact Sheet** 19      **Frame** 31  
**Facing** East      **Subject** Timberhead cleat and dock wall



## Lower Saint Anthony Lock and Dam

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1303 South 1st Street	<b>PID</b> 23-029-24-44-0010	<b>Inventory No(s).</b> HE-MPC- 0285
1-1 ½ Cedar Avenue South	24-029-24-33-0010	HE-MPC- 0288
Minneapolis	24-029-24-33-0002	HE-MPC- 9237
Hennepin County		HE-MPC- 9238
55401 and 55454		

### Survey Information

<b>Common Name</b>	Lower Lock and Dam	<b>Historic Name</b>	Lower Saint Anthony Lock and Dam
<b>Property Category</b>	Industrial	<b>Surveyed by</b>	Erin Hanafin Berg, Hess, Roise and Company
<b>Current Function</b>	River navigation	<b>Date</b>	August – October 2006

### Locational Information

<b>Zone</b>	15	<b>Quad</b>	Saint Paul West	<b>Neighborhood</b>	Downtown
<b>E</b>	A: 480330 B: 480670 C: 480660 D: 480330	<b>N</b>	A: 4980500 B: 4980490 C: 4980340 D: 4980380	<b>Twp</b>	29N <b>R</b> 24 <b>Sec</b> 24

**Addition(s)** Auditor's Subdivision Nos. 41, 63, and 96      **Block** (none)      **Lot(s)** 3, 11, 12 (all partial)

**Property Description** That part of Government Lots 11 and 12 lying north of Auditor's Subdivision Nos. 41 and 63 and east of northerly extension of center line of 10th Avenue South; That part of Government Lot 3 lying west of Auditor's Subdivision No. 96 and north of Auditor's Subdivision No. 63.

**River Mile** 853.3      **River Side** Right (west)

### Owner Information

<b>Owner Status</b>	Federal				
<b>Current Owner</b>	U.S. Government				
<b>Address</b>	1301 1st Street South				
<b>City</b>	Minneapolis	<b>State</b>	MN	<b>ZIP</b>	55454

### Summary

The Lower Saint Anthony Lock and Dam complex consists of a 290' overflow dam paired with a 230' non-overflow section, a 400' by 56' lock structure, cast-concrete guide walls, a service bridge spanning the length of the overflow dam, and a small control building. The lock complex was completed in 1956 and meets criteria for National Register designation, either individually or as a contributing element of a potential Saint Anthony Falls Locks and Dams Historic District. The Lower Lock and Dam complex is also eligible for local landmark designation.

## Site Resources

<u>Inventory No(s).</u>	<u>Name</u>	<u>Type</u>	<u>Year Built</u>
HE-MPC- 0285	Lock	Structure	1951-1956
HE-MPC- 0288	Dam	Structure	1951-1956
HE-MPC- 9237	Control Building	Building	1951-1956
HE-MPC-9238	Service Bridge	Structure	1951-1956

**Lock** The lock structure is 400' long by 56' wide. With a 15.2' high Tainter gate at the upstream end and miter gates downstream, the lock provides a 25' lift. The lock has a dry-dock type of chamber – with integral walls and floor – rather than the more common gravity-wall design. A bottom lateral hydraulic system uses culverts within the east lock wall to fill and empty the lock rapidly. Cast-concrete guide walls extend from both ends of the lock.

**Dam** The 290' overflow section of the dam has four 56' Tainter crest gates. Three gates are for flow control and one, paired with a short concrete wall, was designed to accommodate an auxiliary lock. The three Tainter gates are 20.5' high, with a 15.2' high Tainter gate in the auxiliary lock. A 230' non-overflow section of the dam angles upstream, joining the corner of the foundation of the adjacent power company building. This section was rebuilt in 1987, following the collapse of the Lower Saint Anthony Hydroelectric Plant.

**Service Bridge** A metal service bridge extends above the entire length of the overflow dam, including the lock. The bridge has low, segmental deck arches, with each section supported by cast-concrete piers. The piers contain a hot-water radiant heating system to allow the Tainter gates to operate year-round and maintain the level of the intermediate pool. A moveable crane runs on rails on the top of the bridge.

**Control Building** A one-story control building is located on the west bank at the approximate midpoint of the lock structure. The building is rectangular in plan, with a semi-circular bay window centered on the east (river side) facade. The control building exterior is beige brick, with a painted cast-concrete foundation and band cornice. The building has a flat roof with metal coping and fixed single-light and double-hung metal windows.

## Other Site Features

A paved area on the west bank of the river spans nearly the entire length of the lock structure. Cedar Avenue South, which extends down the bluff from West River Parkway, is a service road to the lock and dam facility. Two gable-roofed sheds for maintenance and storage also are located on the west side of the facility. The sheds have vertical, ribbed metal siding and low gable roofs.

## Setting

The Lower Lock and Dam are located toward the east end of downtown, at the base of the area historically known as “Gasworks Bluff.” The facility is just upriver from the Cedar Avenue Bridge, and the lower end of the lock structure extended underneath the I-35W Bridge, which collapsed in 2007.

The bluff area on the west bank of the river has recently been converted to park land. The University of Minnesota steam plant—the historic Twin Cities Rapid Transit Company power station—is located on the opposite river bank, near the east end of the dam.

## **Integrity**

### **Alterations**

There have been few alterations to the lock and dam facility, which retains a high degree of historic integrity.

### **Notes on Condition**

The facility appears to be in good condition and is in use during the navigation season.

## **Historical Background\***

Although the extension of the Upper Mississippi nine-foot channel above Saint Anthony Falls was authorized in 1937, work on the project did not begin until after the conclusion of World War II. The first stages of the project required dredging of two areas between the lower Northern Pacific Bridge—the previous head of navigation—to the base of the lock and dam site. The contract for the lock and dam construction was awarded to a partnership formed by the Al Johnson Construction Company of Minneapolis and Peter Kiewit Sons' Company of Omaha.

Construction on the Lower Lock and Dam began in the summer of 1950, when the first cofferdam was erected to dewater the site. Progress was interrupted in the late fall of 1951 by floodwaters, which were so severe and unexpected that they topped the cofferdams, carrying away construction equipment and damaging temporary buildings erected at the site. The contractors were not able to start building the lock itself until 1952, and it took until 1956 to complete the facility.

As construction of the lower lock and dam neared completion, the federal funding for the remainder of the Upper Mississippi Harbor Development came under attack. Ultimately, a concerted lobbying effort by the Minneapolis Chamber of Commerce, city council, and the Minnesota congressional delegation persuaded the corps of engineers to complete the project by constructing the Upper Lock and Dam. The paired locks were open to barge traffic in September 1963.

Barge terminals were established on the intermediate pool between the locks and in the Upper Harbor area beginning in late 1963. The J. L. Shiely Company and General Mills maintained a shared docking facility on the intermediate pool near the head of the lower lock approach in 1964.

## **Previous Reviews**

A study by Hess, Roise and Company in May 2003 concluded that properties associated with the Upper Mississippi Harbor Development, including the lower lock and dam, were eligible for listing in the National Register of Historic Places.

## **Statement of Significance**

The Lower Saint Anthony Lock and Dam facility is locally and nationally significant as the means by which the Mississippi's "highway of water" was extended above Saint Anthony Falls to the Upper Harbor. The lock and dam complex meets National Register Criterion A in the areas of Commerce, Industry, Maritime History, and Transportation and Criterion C in the area of Engineering. The lower lock and dam complex also meets the conditions for individual historic designation by the Minneapolis HPC under Criteria 1, 3, and 4.

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\* Portions of this text were excerpted from "Lower Saint Anthony Falls Hydroelectric Project Architectural/Historical Survey," prepared by Hess, Roise and Company for Spaulding Consultants, May 2003.

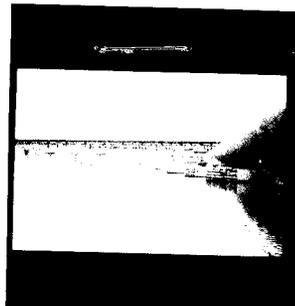
The Lower Lock and Dam is also eligible for designation as part of a historic district that also includes the Upper Lock and Dam and other nearby resources associated with the Upper Mississippi Harbor Development. The Saint Anthony Falls Locks and Dams Historic District meets National Register Criterion A, in the areas of Commerce, Industry, Maritime History, and Transportation, and Criterion C, for the engineering significance of the lock and dam structures. The district also meets Minneapolis HPC designation Criteria 1, 3, and 4.

### **References**

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- "Flooding and Untimely Thaws Test Contractors' Mettle on River Job." *Construction Bulletin*, March 6, 1952, 36-41.
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- Murphy, Bob. "How Completed Upper Harbor Will Look." *Minneapolis Tribune*, October 12, 1956.
- Nelson, Martin E. "Nine-foot Channel Extension above St. Anthony Falls." *Minnesota Engineer* 11 (June 1960): 6-9.
- Quarfoth, Hal. "Upper Harbor Dream Is over Halfway to Reality." *Minneapolis Tribune*, January 8, 1961.
- "Tour of St. Anthony Falls Upper Lock." Typescript. August 1970. Prepared for ASCE Hydraulics Division Eighteenth Annual Specialty Conference, University of Minnesota.

### **Photograph Information**

<b>Date</b>	11/20/06	<b>Roll</b>	19	<b>Contact Sheet</b>	19	<b>Frame</b>	17
<b>Facing</b>	North	<b>Subject</b>	Lower end of lock approach, Cedar Ave. Bridge pier protection in background				
<b>Date</b>	11/20/06	<b>Roll</b>	19	<b>Contact Sheet</b>	19	<b>Frame</b>	18
<b>Facing</b>	West	<b>Subject</b>	Lock and dam structure, taken from underneath I-35W bridge				
<b>Date</b>	11/20/06	<b>Roll</b>	19	<b>Contact Sheet</b>	19	<b>Frame</b>	36
<b>Facing</b>	East	<b>Subject</b>	Intermediate pool, Lower Lock service bridge in background				



## Lowry Avenue Bridge

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Spanning Mississippi River between North and Northeast Minneapolis  
Minneapolis  
Hennepin County  
55411 and 55418

**PID** (none)

**Inventory No(s).** HE-MPC-8351  
HE-MPC-9409

### Survey Information

**Common Name** Lowry Avenue Bridge  
(Bridge No. 2723)

**Historic Name** Lowry Avenue Bridge  
(Bridge No. 726)

**Property Category** Bridge

**Surveyed by** Erin Hanafin Berg,  
Hess, Roise and Company

**Current Function** Vehicular and pedestrian bridge

**Date** July 6, 2006

### Locational Information

**Zone** 15      **Quad** Minneapolis North      **Neighborhood** McKinley; Marshall Terrace;  
North River Industrial

**E** 478400      **N** 4984230      **Twp** 29N      **R** 24      **Sec** 10

**Addition** n/a      **Block** n/a      **Lot(s)** n/a

**Property Description** Bridge crossing Mississippi River.

**River Mile** 856.4      **River Side** (spans river)

### Owner Information

**Owner Status** Local

**Current Owner** City of Minneapolis Public Works Department

**Address** City Hall, Room 203, 350 - 5th Street South

**City** Minneapolis      **State** MN      **ZIP** 55415-1315

### Summary

The Lowry Avenue Bridge was one of three steel truss vehicular bridges upriver from Saint Anthony Falls that were raised and modified by the City of Minneapolis during the Upper Mississippi Harbor Development project, and it is the only such bridge remaining. The Lowry Avenue Bridge retains its original superstructure; the bridge piers, embankment, and approaches show evidence of its mid-twentieth-century alterations. The bridge is eligible for listing in the National Register and local landmark designation as a contributing resource to the potential Upper Harbor Historic District.

## Site Resources

<u>Inventory No.</u>	<u>Name</u>	<u>Type</u>	<u>Year Built</u>
HE-MPC-8351	Bridge	Structure	1905, ca. 1955
HE-MPC-9409	Shear Gates	Structures	ca. 1955

### **Bridge**

The Lowry Avenue Bridge was originally constructed in 1905. The steel, through-truss bridge has five eight-panel, rigid-connected main spans, each 166' long, approached by two concrete girder spans. The total length is 889'. The bridge deck is 40' wide, and the four-lane road surface is open metal grate. The bridge has cantilevered concrete sidewalks on both sides with ornamental steel railings. Its five original masonry piers were altered in the early 1950s when the bridge was raised to accommodate barge traffic stemming from the Upper Mississippi Harbor Development. The piers were modified by encasing the masonry bases in concrete, vertically extending the piers at both ends. Sections of the original block masonry remain visible in the centers of the piers.

As the bridge deck was raised, the approaches and embankments also were altered. The west side of the bridge has a lengthened approach that extends from Second Street North and includes two grade changes that are visibly apparent. The approach includes a short tunnel through which several sets of railroad tracks pass. The embankment is stabilized with a crib wall of stacked concrete blocks. Vegetation grows out of narrow horizontal spaces between the blocks. The approach has a pipe railing with three horizontal rails next to a concrete sidewalk.

### **Shear Gates**

Two curved shear gates are located between the center piers and the channel route. The gates are constructed of vertical steel posts with long, curved wood whalers. The gates are fairly short, extending only a couple of feet past the edges of the piers. Angled brackets brace the back of the gates against the pier foundations.

## Setting

The Lowry Avenue Bridge is located just to the south of the Upper Harbor Terminal, about two miles upstream from Saint Anthony Falls. The land use on the west side of the bridge is mostly industrial. Commercial, industrial, and residential properties are on the east side.

## Integrity

### **Alterations**

Major maintenance was recently performed on the bridge, but it still retains a high degree of integrity dating from the period of significance associated with the Upper Mississippi Harbor Development.

### **Notes on Condition**

Engineers have determined that the bridge is structurally inadequate, and it is slated for replacement.

## Historical Background

The Lowry Avenue Bridge, constructed in 1905, is the only remaining vehicular bridge that was altered during the Upper Mississippi Harbor project. Its trusses, deck, and railings appear to date from its initial construction, and its piers show evidence of both phases of construction. For the Upper Harbor project, the bridge was raised 13.5' and its approach spans were altered. Ironically, the Lowry Avenue Bridge was slated for replacement during the preliminary planning phase of the Upper Harbor.

The City of Minneapolis had prepared for its financial responsibilities for the project by authorizing a special Upper River Harbor line-item within the Permanent Improvement Fund. In 1941, the Minneapolis City Council appropriated \$300,000 for 1942 and subsequent years, and ultimately contributed more than \$6 million towards the project and related improvements. Minneapolis's costs came entirely from the general fund for over two decades, reflecting the importance of the contribution. An article in *Minneapolis Builds!* (1963) stated: "It is significant that the City's portion of this \$36 million project was financed entirely out of current funds, without the use of a single dollar of bond funds. . . . The savings in interest by the use of current financing has amounted to about \$750,000. The balance of the construction funds came from federal appropriations."

The modifications to the Lowry Avenue Bridge might have been made at the same time that the Broadway Bridge was altered during the Upper Harbor development. The Broadway Bridge—originally built in 1887-1888 and a rare example of a decorative Pratt truss in Minnesota—was documented for the Historic American Engineering Record (HAER) prior to its demolition in 1987. The HAER report states:

In 1950, the City of Minneapolis significantly altered the appearance of the river bridge. A desire for navigation on this section of the Mississippi necessitated the raising of the trusses and the removal, because of increased grades, of the streetcar tracks. The west abutment remained at its original elevation while the east span rested on a steel frame forming a new abutment at the raised east approach. The raised bridge was supported by a beam at the west pier and transverse trusses at the other two piers. Supporting beams and trusses rested on the original piers and on new supplementary concrete piers constructed at each end of the existing piers. New stringers were added under the outer portions of the roadway, and the bridge deck was replaced by an open grate steel deck to reduce the dead load of the bridge.<sup>1</sup>

A photograph in the collection of the Minnesota Historical Society inaccurately labeled "Raising the Lowry Avenue Bridge, Minneapolis" shows the method used to raise the Broadway Bridge and illustrates the increased clearance that was achieved.

## Previous Reviews

When a statewide bridge survey was conducted in 1985, the Lowry Avenue Bridge was categorized with a large group of historic bridges that had not yet received adequate research and analysis to determine National Register eligibility. A follow-up study in 1988 was limited in scope and did not include the bridge. Hess Roise carried out follow-up inventories of historic Minnesota bridges for the Minnesota Department of Transportation in 1995-1996, based on a research design developed in 1991. The Lowry Avenue Bridge was identified for potential survey at this time, but was not included in the final survey sample. An October 2002 study of the Lowry Avenue corridor conducted by Hess Roise concluded that the bridge was not considered eligible for National Register listing, but that study did not consider the Upper Harbor context.

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<sup>1</sup> Bill Jensen, "Broadway Bridge (Twentieth Avenue North Bridge)," HAER No. MN-2, 1984, 12-13.

### **Statement of Significance**

The previous determination of ineligibility appears to have been based on the bridge's lack of significance in the areas of engineering and design and its limited importance compared with other turn-of-the-century river crossings in Minneapolis. The historical context of the Upper Mississippi Harbor Development was not considered. It is apparent at this time that the bridge retains integrity from that period and is eligible for historic designation.

The bridge stands as a symbol that conveys the level of commitment to the project by the City of Minneapolis. The vehicular bridge modifications undertaken by the city demonstrated its financial and political dedication to the Upper Harbor project. The relatively early date of the alterations, which occurred in the early 1950s, thirteen years before the Upper Lock was completed, indicates the city's optimism about the speed at which the project would proceed. The city's dedication of annual funding beginning in 1941 is additional evidence that the city was committed to seeing the Upper Harbor development through to fruition.

The Lowry Avenue Bridge is eligible for National Register designation as a component of a historic district associated with the development of the Upper Mississippi Harbor, which meets National Register Criterion A in the areas of Commerce, Industry, Maritime History, and Transportation. The potential Upper Harbor Historic District is also eligible for local landmark designation under Minneapolis HPC Criteria 1 and 3 for its association with a significant local event.

**References**

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- Frame, Robert M. III. “Historic Bridge Project.” 1985. Prepared for the Minnesota State Historic Preservation Office and Minnesota Department of Transportation.
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- Jensen, Bill. “Broadway Bridge (Twentieth Avenue North Bridge).” HAER No. MN-2, 1984.
- Johnson, Walter. “Ten Bridges Face Alterations under Upper Harbor Plan.” *Minneapolis Star*, August 15, 1946.
- Minneapolis Builds!: A Decade of Progress, 10 Year Capital Improvements Report, 1957-1966*. Minneapolis: Minneapolis City Council Capital Long-Range Improvements Committee, [1962].
- Mullen, F. E. “The Upper Harbor Development.” Typescript. February 1, 1951. Paper presented to the Hydromechanics Colloquium Meeting. Prepared for the Saint Paul District, U.S. Army Corps of Engineers, and available at that office.
- Pearson, Marjorie. “Historic Lowry Avenue: An Assessment of the National Register Eligibility of the Lowry Avenue Corridor, Minneapolis, Hennepin County, Minnesota.” October 2002. Prepared for the Hennepin County Department of Transit and Community Works and available at that office.
- “Raising the Lowry Avenue Bridge, Minneapolis.” *Minneapolis Star Journal Tribune*, November 16, 1950. (Note: inaccurately labeled and identified.) Photograph. Available at the Minnesota Historical Society, Saint Paul.
- Roise, Charlene K., and Jeffrey A. Hess. “Management Plan for Minnesota’s Historic Bridges.” 1997. Prepared for the Minnesota Department of Transportation.
- Upham, Daniel M. “Upper Harbor May Be Open in Four Years.” *Minneapolis Tribune*, June 14, 1959.

**Photograph Information**

Date	5/2/06	Roll	7	Contact Sheet	7	Frame	6
Facing	East	Subject	Through truss from west end of bridge span				
Date	5/2/06	Roll	7	Contact Sheet	7	Frame	9
Facing	East	Subject	Detail view of through truss				
Date	5/2/06	Roll	7	Contact Sheet	7	Frame	14
Facing	East	Subject	Paired through trusses				
Date	5/2/06	Roll	7	Contact Sheet	7	Frame	12
Facing	East	Subject	Paired through trusses				
Date	5/2/06	Roll	7	Contact Sheet	7	Frame	21
Facing	West	Subject	Through trusses from east end of bridge				
Date	5/2/06	Roll	7	Contact Sheet	7	Frame	28
Facing	East	Subject	Bridge approach from west				
Date	5/2/06	Roll	7	Contact Sheet	7	Frame	32
Facing	Northeast	Subject	West bridge embankment, south side				
Date	10/3/06	Roll	17	Contact Sheet	17	Frame	19
Facing	Northeast	Subject	Close-up view of trusses and piers				
Date	10/3/06	Roll	17	Contact Sheet	17	Frame	18
Facing	Northeast	Subject	Overview of bridge from near terminus of 31st Ave. N.				
Date	10/4/06	Roll	18	Contact Sheet	18	Frame	7
Facing	North	Subject	Overview of bridge from American Iron riverfront property				



## Mooring Cells Nos. 1-3

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Vicinity of 1301 South 1st Street  
Minneapolis  
Hennepin County  
55454

**PID** n/a

**Inventory No.** HE-MPC- 9239

### Survey Information

**Common Name** Mooring Cells

**Historic Name** Same

**Property Category** Objects

**Surveyed by** Erin Hanafin Berg,  
Hess, Roise and Company

**Current Function** Navigational aid

**Date** April 11, 2006

### Locational Information

**Zone** 15

**Quad** Saint Paul West

**Neighborhood** Downtown

**E** 480290

**N** 4980410

**Twp** 29N

**R** 24

**Sec** 23

**Addition** n/a

**Block** n/a

**Lot(s)** n/a

**Property Description** Off-shore area in pool between Upper and Lower Saint Anthony Locks and Dams.

**River Mile** 853.6

**River Side** Right (west)

### Owner Information

**Owner Status** Private

**Current Owner** Unknown

**Address**

**City**

**State**

**ZIP**

### Summary

A linear grouping of three cylindrical mooring cells, or “dolphins,” is located on the intermediate pool between the Saint Anthony locks. The cells are sited about 10’ to 15’ offshore, unevenly spaced, and at a slight angle to the shoreline. Mooring Cells Nos. 1-3 contribute to a potential Saint Anthony Falls Locks and Dams Historic District, which meets National Register Criterion A in the areas of Commerce, Industry, Maritime History, and Transportation, and Criterion C in the area of Engineering. The district also is eligible for Minneapolis HPC designation under Criteria 1, 3, and 4.

## Site Resources

<u>Inventory No.</u>	<u>Name</u>	<u>Type</u>	<u>Year Built</u>
HE-MPC- 9239	Mooring Cells (three)	Objects	ca. 1963

**Mooring Cells** The three cylindrical structures are made of steel sheet-piling filled with concrete labeled numerically from north (upriver) to south (downriver). Each cell is about 20' in diameter. All three dolphins have curved wood whalers on the channel side, set out from the surface of the cells by vertical steel spacers. Cavels and timberhead cleats are located on the top surfaces of the structures near the channel edges for tying off vessels. Cell 2 supports navigation lights.

## Other Site Features

A deteriorated retaining wall stands along the west river bank near the mooring cells.

## Setting

These mooring cells are located between the upper and lower locks on the intermediary pool. Other than the operating locks, the land use in the area is mostly recreational open space. Mill Ruins Park is located upriver from the dolphins; a grassy area and paved parking lot are situated near the shoreline. The bluff-top area at the top of the west river bank is owned by a local utility company and appears to have an industrial use.

## Integrity

### **Alterations**

The mooring cells appear to be intact, with no significant alterations.

### **Notes on Condition**

The mooring cells are in good condition.

## Historical Background

The intermediate pool between the two Saint Anthony locks contained the barge docking facilities for General Mills and the J. L. Shiely aggregate and cement company. A linear, cast-concrete dock stretched the length of the shoreline from the base of the upper lock to near a grouping of three cylindrical mooring cells at the head of the lower lock, in the area that is now the eastern end of Mill Ruins Park. The J. L. Shiely Yard "C" was in operation at this site by at least 1965, and might have been installed earlier for the construction of the concrete locks and dam.

An aerial photograph of the area taken in 1970 shows that the Shiely yard was well established, with gravel piles taking up most of the riverfront land immediately below the upper lock. General Mills grain elevators were along the south bluff of the river, with a long conveyor extending from the elevator to the dock. Rather than providing mooring facilities for these industries, the three dolphins appear to be navigational elements to keep barges away from the riverbank.

The Shiely terminal was expanded to a site above Saint Anthony Falls in the late 1980s, but remained in operation on the intermediate pool until the early 1990s. The Shiely and General Mills terminal docks have since been redeveloped as park land, but the dolphins remain to guide barges through the locks.

## Previous Reviews

None.

## Statement of Significance

This group of three dolphins is an essential navigational element of the lock system, directing barge traffic from the lower level of the Upper Lock to the entrance of the Lower Lock. These structures retain sufficient historic character and significance to contribute to a potential district comprising the Upper and Lower Locks and Dams, the intermediate pool, and related maritime structures. This potential district meets National Register Criteria Criterion A in the areas of Commerce, Industry, Maritime History, and Transportation, and Criterion C in the area of Engineering. The district also is eligible for Minneapolis HPC designation under Criteria 1, 3, and 4.

## References

Aerial photographs of Hennepin County: 2004. Available at the Hennepin County Property Information Search Web site: <http://www.co.hennepin.mn.us/>

Aerial photographs of Minneapolis: 1945, 1971, 1980, 1987, 1990, 1991. Available at the John R. Borchert Map Library, University of Minnesota, Minneapolis.

Berg, Merlin H. "Upper Harbor Terminal Report." Prepared for the Minneapolis Department of Public Works. March 1968. Available at the Minnesota Historical Society, Saint Paul.

Blodgett, Timothy. "Upper Harbor Project to Open Saturday, but City Lacks Barge Facilities." *Minneapolis Tribune*, September 15, 1963.

Keagle, Robert. "Mississippi Upper Harbor Project." Photograph collection, 1950-1964. Available at the Minnesota Historical Society, Saint Paul.

Minnesota Department of Transportation. Ports and Waterways Section. *A Directory of Minnesota's River Terminals*. Saint Paul: Minnesota Department of Transportation, 1998.

*Mississippi/Minneapolis: A Plan and Program for Riverfront Development*. Minneapolis: City of Minneapolis, 1972.

*The Mississippi River in Minneapolis*. Minneapolis: Minneapolis Park and Recreation Board, 1975.

"Work Starts on Last Phase of Harbor Project." *Minneapolis Tribune*, June 23, 1961.

**Photograph Information**

**Date** 11/20/2006    **Roll** 19    **Contact Sheet** 19    **Frame** 34  
**Facing** East    **Subject** Mooring cells 1-3, Shiely dock in foreground, Lower Lock in background



## Mooring Cells Nos. 4-6

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Near 400 West River Parkway  
Minneapolis  
Hennepin County  
55401

**PID** n/a

**Inventory No.** HE-MPC- 9240

### Survey Information

**Common Name** Mooring Cells

**Historic Name** Same

**Property Category** Objects

**Surveyed by** Erin Hanafin Berg,  
Hess, Roise and Company

**Current Function** Navigational aid

**Date** April 11, 2006

### Locational Information

**Zone** 15

**Quad** Minneapolis South

**Neighborhood** North Loop

**E** 478690

**N** 4981700

**Twp** 029

**R** 24

**Sec** 22

**Addition** n/a

**Block** n/a

**Lot(s)** n/a

**Property Description** Off-shore area, south of mouth of Bassett's Creek.

**River Mile** 854.8

**River Side** Right (west)

### Owner Information

**Owner Code** Private

**Current Owner** unknown

**Address**

**City**

**State**

**ZIP**

### Summary

This linear grouping of three cylindrical mooring cells is near the west bank of the Mississippi River, directly across from Boom Island. Although identified by the U.S. Coast Guard as privately-owned mooring cells, the dolphins appear to have been used primarily as navigational structures since their installation around 1963. The mooring cells are one of only two remaining resources between the upper lock and the Northern Pacific Bridge associated with the Upper Mississippi Harbor Development. Mooring Cells Nos. 4-6 appear not to be eligible for historic designation because of a lack of individual significance and insufficient surrounding physical context.

## **Site Resources**

<b>Inventory No.</b>	<b>Name</b>	<b>Type</b>	<b>Year Built</b>
HE-MPC- 9240	Mooring Cells (three)	Objects	ca. 1963

The three cylindrical dolphins, each approximately 25' in diameter, are constructed of steel sheet-piling filled with earth or gravel and capped with concrete. The cells are labeled numerically: number 6 is at the upriver position, number 4 is downriver, and number 5 is in the center.<sup>1</sup> Dock ladders are on the shore side of cells 4 and 6. Cell 5 supports a vertical pole and navigation lights. All three dolphins have curved wood whalers on the channel side, set out from the surface of the cells by vertical steel spacers. Cavels and timberhead cleats for tying off vessels are located on the channel edges of the dolphin platforms. The dolphins are unequally spaced over a distance of about 200', about 10' to 20' offshore.

## **Other Site Features**

None.

## **Setting**

The mooring cells are located near a point where the river changes direction from almost directly north-south to a more meandering course passing over Saint Anthony Falls and continuing diagonally through downtown Minneapolis. The mooring cells are just downriver from the Plymouth Avenue Bridge and the mouth of Bassett's Creek, slightly upriver from Nicollet Island, and directly across the river from Boom Island. The present land use in the immediate vicinity is mostly recreational open space, with grassy areas, shoreline trees, and walking paths. Two townhouse developments are located nearby.

## **Integrity**

### **Alterations**

The mooring cells appear to be intact, with no significant alterations.

### **Notes on Condition**

The mooring cells are in good condition.

## **Historical Background**

Aerial photographs of the river in the vicinity of these mooring cells show that the land use in the area has changed dramatically since the mid-1960s. Boom Island, located on the opposite side of the river from the mooring cells, appears to have been a railroad yard when the Upper Harbor was first opened to barge traffic in 1963. The mooring cells are evident in an aerial photograph taken in 1966, along with a small rail yard and associated buildings nearby on the west bank. This rail yard, established around 1930 by the Chicago, Burlington, and Quincy Railroad and expanded by the Great Northern Railroad, was removed in 1971. These rail facilities might be evidence that these cells were used for mooring barges, although no photographs or other historic documentation have been found to confirm that use. Barge docking at this site probably was short-lived, if it occurred at all.

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<sup>1</sup> Mooring Cells Nos. 1-3 are located in the intermediate pool between the Lower and Upper Locks at Saint Anthony Falls.

By 1974, the Boom Island shore was used for mooring barges, despite the lack of permanent docking facilities. The island was redeveloped as a public park in the mid-1980s; at around the same time, the West River Parkway was constructed on the opposite side of the river.

A similar grouping of three dolphins is present on the intermediate pool between the end of the upper and lower locks. The dolphins in this location, constructed while the locks were being built between 1951 and 1963, appear to have been used primarily for navigational purposes, directing barge traffic away from the shoreline towards the lower lock entrance. A long line of dolphins is also located above the falls, defining the approach to the upper lock. These examples raise the possibility that the Mooring Cells 4-6, located near the mouth of Basset Creek, also have had a purely navigational purpose.

### Previous Reviews

None.

### Statement of Significance

Although the exact purpose and history of these mooring cells are unknown, they remain a prominent maritime resource that reflects the Upper Harbor development. The mooring cells retain historic character but do not appear to be individually significant. The land use and structures of nearby properties have been altered, compromising the historical integrity and context of the mooring cells.

These resources do not appear to meet the criteria for National Register or local landmark designation.

### References

Aerial photographs of Hennepin County: 2004. Available online at the Hennepin County Property Information Search Web site: <http://www.co.hennepin.mn.us/>

Aerial photographs of Minneapolis: 1945, 1971, 1980, 1987, 1990, 1991. Available at the John R. Borchert Map Library, University of Minnesota, Minneapolis.

Anfinson, Scott F. "Archeology of the Central Minneapolis Riverfront—Part 1: Historical Overview and Archaeological Potentials." *Minnesota Archaeologist* 48 (1989).

### Photograph Information

<b>Date</b>	4/11/06	<b>Roll</b>	3	<b>Contact Sheet</b>	3	<b>Frame</b>	34
<b>Facing</b>	Southwest	<b>Subject</b>	Overview of dolphins with west bank in background				
<b>Date</b>	4/11/06	<b>Roll</b>	4	<b>Contact Sheet</b>	4	<b>Frame</b>	4
<b>Facing</b>	West	<b>Subject</b>	Dolphins in Mississippi River, view from Boom Island				



## Northern Pacific Railroad Bridge

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Spanning Mississippi River, adjacent to  
76 – 23rd Avenue North and  
1514 Marshall Street Northeast  
Minneapolis  
Hennepin County  
55411 and 55413

**PID** (none)      **Inventory No(s)** HE-MPC- 9220  
HE-MPC- 9221

### Survey Information

**Current Name** Burlington Northern Santa Fe  
Railroad Bridge      **Historic Name** Northern Pacific Railroad Bridge

**Property Category** Bridge      **Surveyed by** Erin Hanafin Berg,  
Hess, Roise and Company

**Current Function** Railroad crossing      **Date** September 1, 2006

### Locational Information

**Zone** 15      **Quad** Minneapolis North      **Neighborhood** Hawthorne, North River Industrial

**E** 478430      **N** 4983260      **Twp** 29N      **R** 24      **Sec** 15

**Addition** n/a      **Block** n/a      **Lot** n/a

**River Mile** 855.8      **River Side** (spans river)

### Owner Information

**Owner Status** Private

**Current Owner** Burlington Northern Santa Fe Railway Co., Attn: Property Tax Department

**Address** P. O. Box 961089

**City** Fort Worth      **State** TX      **ZIP** 76161-0089

### Summary

The Burlington Northern Santa Fe (formerly Northern Pacific) Railroad Bridge spanning the Mississippi River from North to Northeast Minneapolis is one of two remaining historic railroad bridges above Saint Anthony Falls that were altered to accommodate barge traffic resulting from the Upper Harbor development. The bridge was originally constructed in 1884, altered in 1927, and raised to allow barge traffic in the early 1960s. The bridge is eligible for historic designation as a contributing resource and the southern boundary of a potential Upper Harbor Historic District.

## Site Resources

<b>Inventory No(s).</b>	<b>Name</b>	<b>Type</b>	<b>Year Built</b>
HE-MPC- 9220	Bridge	Structure	1884, 1927, 1963
HE-MPC- 9221	Shear gates	Structures	ca. 1963

**Bridge** This bridge, 821' in length, consists of a single, steel, rigid-connected, eight-panel, Warren through-truss main span and seven plate-girder approach spans. The bridge is supported by masonry and cast-concrete piers that are battered on the upstream ends. The bridge deck has two tracks that curve to connect to a north-south route on the west side of the river. One of the tracks appears to terminate on the east side of the bridge.

**Shear Gates** Angled shear gates, formed of horizontal wood whalers attached to vertical, triangular steel brackets, flank the channel sides of the two piers supporting the through truss. Four cylindrical dolphins, made of sheet-piling filled with concrete, anchor the ends of the shear gates.

## Setting

The bridge is located approximately midway between the Broadway Bridge and the Lowry Avenue Bridge. The left (east) bank of the river is quite elevated, with residential, commercial, and light industrial buildings, some of which are historic. The area to the south of the bridge along the west side of the river has been converted to parkland. A modern condominium complex is located to the south of the bridge, on the site of a roundhouse that stood adjacent to the railroad tracks. To the north of the bridge are industrial sites associated with the Upper Harbor development, including two barge terminals and a cement elevator.

## Integrity

### **Alterations**

The bridge appears to retain a high degree of integrity, with few visible alterations since the time of the Upper Harbor project.

### **Notes on Condition**

The bridge appears to be in good condition and is still used as a rail crossing.

## Historical Background

In order for the nine-foot channel to be extended above Saint Anthony Falls, the bridges located between the upper and lower locks and the planned Upper Harbor area had to be modified to accommodate barge traffic. Ten bridges in the area—four railroad bridges and six vehicular bridges—were altered by expanding the width of the spans, increasing the clearance below the decks to at least 26', and strengthening and protecting the piers.

At the very outset of the Upper Mississippi Harbor Development project, the City of Minneapolis willingly assumed the costs for altering the vehicular bridges. In 1940, the city council approved an appropriation of \$300,000 per year, for as many years as necessary, to pay for these improvements. Ultimately, more than twenty years worth of funding was dedicated to the project. Implementation of the channel extension project was delayed until several years after the conclusion of World War II, and work did not begin on the bridge modifications until 1951. By this time, construction of the Lower Lock and Dam also was underway.

The railroads, which held a virtual shipping monopoly in the area and occupied most of the riverfront property in the vicinity of Saint Anthony Falls and the Upper Harbor area, were probably resentful of the barges that would soon impact their shipping rates. The initial plan called for the railroads to assume the costs of raising their own bridges. Although the raising of the vehicular bridges began in the 1950s, the needed modifications to the railroad bridges were not made until the early 1960s, as the Upper Lock and Dam neared completion. It is not known whether the city, the railroads, or the corps of engineers ultimately bore the financial responsibility for the alterations to the railroad bridges.

Although little historic documentation exists to illustrate the modifications made to the upper Northern Pacific Bridge, the alterations were presumably similar to those of the upper Great Northern Bridge downriver. Historic photographs taken by Robert Keagle thoroughly documented the alterations to that railroad bridge.

The historic Northern Pacific Bridge was one of five bridges upstream from Saint Anthony Falls that were altered during the harbor project. The bridge was initially built in 1884, at a time of momentous railroad expansion in the Twin Cities. The bridge is connected to railroad tracks that run parallel to the west bank of the Mississippi River and is still in use.

### **Previous Reviews**

None.

### **Statement of Significance**

The bridge retains physical integrity primarily from its 1927 and 1962-1963 periods of construction, although two masonry piers from its original construction in 1884 still stand.

Unlike the historic Great Northern Railroad Bridge near Nicollet Island, which was also altered during the Upper Mississippi Harbor Development, the physical context of this bridge is mostly intact. The roundhouse and related railroad infrastructure on the west bank directly to the south of the bridge have been removed, but the area upriver contains historic resources dating from the Upper Harbor's period of significance.

The Northern Pacific Railroad Bridge is eligible for local and national historic designation as part of a potential historic district related to the development of the Upper Harbor. The bridge forms the southern boundary of the district. Properties within the potential historic district are eligible for National Register listing under Criterion A in the areas of Commerce, Industry, Maritime History, and Transportation, and Minneapolis HPC Criteria 1 and 3.

**References**

Aerial photographs of Hennepin County: 2004. Available at the Hennepin County Property Information Search Web site: <http://www.co.hennepin.mn.us/>

Aerial photographs of Minneapolis: 1945, 1971, 1980, 1987, 1990, 1991. Available at the John R. Borchert Map Library, University of Minnesota, Minneapolis.

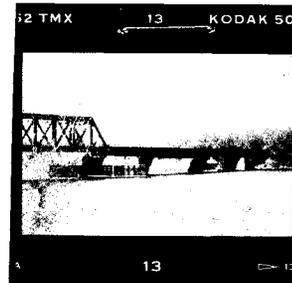
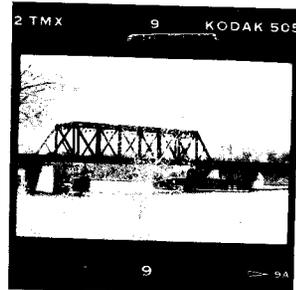
“Flooding and Untimely Thaws Test Contractors’ Mettle on River Job.” *Construction Bulletin*, March 6, 1952, 36-41.

Keagle, Robert. “Mississippi Upper Harbor Project.” Photograph collection, 1950-1964. Available at the Minnesota Historical Society, Saint Paul.

“Work Starts on Last Phase of Harbor Project.” *Minneapolis Tribune*, June 23, 1961.

**Photograph Information**

<b>Date</b>	4/10/06	<b>Roll</b>	1	<b>Contact Sheet</b>	1	<b>Frame</b>	6
<b>Facing</b>	Southwest	<b>Subject</b>	Overview of bridge span				
<b>Date</b>	4/10/06	<b>Roll</b>	1	<b>Contact Sheet</b>	1	<b>Frame</b>	9
<b>Facing</b>	Southwest	<b>Subject</b>	Detail of truss, piers, and shear gates				
<b>Date</b>	4/10/06	<b>Roll</b>	1	<b>Contact Sheet</b>	1	<b>Frame</b>	17
<b>Facing</b>	Southwest	<b>Subject</b>	Detail of piers				
<b>Date</b>	4/10/06	<b>Roll</b>	2	<b>Contact Sheet</b>	2	<b>Frame</b>	7
<b>Facing</b>	South	<b>Subject</b>	Overview of bridge span				
<b>Date</b>	4/19/06	<b>Roll</b>	6	<b>Contact Sheet</b>	6	<b>Frame</b>	9
<b>Facing</b>	Northeast	<b>Subject</b>	Detail of truss and shear gates				
<b>Date</b>	4/19/06	<b>Roll</b>	6	<b>Contact Sheet</b>	6	<b>Frame</b>	13
<b>Facing</b>	Northeast	<b>Subject</b>	Overview of bridge piers				



## Northside Dock and Boat Ramp

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2710 North Pacific Street  
Minneapolis  
Hennepin County  
55418

**PID** 10-029-24-43-0001

**Inventory No(s).** HE-MPC-9294  
HE-MPC-9295

### Survey Information

<b>Current Name</b>	Aggregate Industries Dock	<b>Other Names</b>	Northside Garage J. L. Shiely Company Dock
<b>Property Category</b>	Industrial	<b>Surveyed by</b>	Erin Hanafin Berg, Hess, Roise and Company
<b>Current Function</b>	Barge dock, boat ramp; garage and yard for vehicle service and storage	<b>Date</b>	August 15, 2006

### Locational Information

<b>Zone</b>	15	<b>Quad</b>	Minneapolis North	<b>Neighborhood</b>	Hawthorne, North River Industrial				
<b>E</b>	478290	<b>N</b>	4983620	<b>Twp</b>	29N	<b>R</b>	24	<b>Sec</b>	10
<b>Addition</b>	Demmon's Addition to North Minneapolis			<b>Block(s)</b>	1, 2	<b>Lot(s)</b>	(all)		
<b>Property Description</b>	Blocks 1 and 2 and that part of Mill Street vacated between Blocks 1 and 2.								
<b>River Mile</b>	855.9	<b>River Side</b>	Right (west)						

### Owner Information

<b>Owner Status</b>	Private, Local								
<b>Current Owner</b>	City of Minneapolis Public Works								
<b>Address</b>	309 Second Avenue South #201								
<b>City</b>	Minneapolis			<b>State</b>	MN	<b>ZIP</b>	55401		

### Summary

A linear barge dock and an angled boat ramp are adjacent to the city-owned Northside Garage site. The barge dock was built in 1987 when the J. L. Shiely Company moved its gravel and cement terminal facilities to the Upper Harbor. The boat ramp was built around 1968. The facilities are within the area that is eligible for National Register and local landmark designation as the Upper Harbor Historic District. The boat ramp is a contributing resource to the district, while the barge dock is a compatible, non-historic resource.

## Site Resources

<b>Inventory No(s).</b>	<b>Name</b>	<b>Type</b>	<b>Year Built</b>
HE-MPC-9294	Boat Ramp	Structure	ca. 1968
HE-MPC-9295	Barge Dock	Structure	1987

**Boat Ramp** A boat ramp, running parallel to 28th Street North, angles down towards the river from the level of the garage yard. The ramp has side retaining walls of steel sheet-piling, painted blue, and a concrete paved surface. The ramp is about 100' long and 60' wide. The exact purpose and use of the boat ramp is not known.

**Barge Dock** A linear barge dock, constructed of vertical sheet-piling and earthen fill, is located adjacent to the Northside Garage yard. The dock extends from about 40' south of the boat ramp to about 100' past the south boundary of the yard; the total length of the dock is approximately 300'. The dock angles slightly, following the shoreline; the northeastern corner of the dock is about 15' from shore, while the southern end extends about 30' into the water. The surface of the dock is paved with asphalt. Only the southernmost 100' are used for unloading materials.

## Other Site Features

A concrete block garage (ca. 1945), warehouse, and fuel pumping station are located on the property. These buildings were not surveyed as part of this project as they had no clear relationship to the Upper Harbor development.

## Setting

The barge dock and boat ramp are located in an industrial area of the riverfront. The barge dock serves the gravel yard located directly to the south of the property. The American Iron salvage yard and barge docks are north of the site.

## Integrity

### **Alterations**

The barge dock is relatively recent construction, but its materials, character, and approximate dimensions are in keeping with the historic docks found nearby. The boat ramp does not exhibit any obvious alterations.

### **Notes on Condition**

Both structures appear to be in sound condition.

## Historical Background

The barge dock was built in 1987 adjacent to city-owned property to serve the J. L. Shiely Company, which expanded to the Upper Harbor site before vacating another gravel yard on the intermediary pool between the locks. That site was acquired by the Minneapolis Park and Recreation Board and converted to a parking area for Mill Ruins Park. The barge dock was likely an incentive to the Shiely Company's relocation.

The exact construction date of the boat ramp is unknown, but it is clearly shown on aerial photographs from 1973. It is unlikely that the boat ramp was constructed before 1963 because the water level of the river fluctuated prior to the installation of the Upper Lock and Dam. The purpose of the boat ramp is also unknown, but it does not appear to have been used for public recreation.

## Previous Reviews

None.

## Statement of Significance

This site has one historic resource—the boat ramp—and one non-historic resource—the barge dock. Each structure has an industrial, maritime character that enhances understanding of the Upper Harbor and contributes to the significance of the area. The barge dock's association with the J. L. Shiely Company and its construction by the city demonstrates the city's longstanding involvement in the Upper Harbor development and its evolving plans for the Minneapolis riverfront.

The boat ramp is eligible for local and national historic designation as part of a potential historic district related to the development of the Upper Harbor. Properties within the historic district are eligible for National Register listing under Criterion A in the areas of Commerce, Industry, Maritime History, and Transportation, and Minneapolis HPC Criteria 1 and 3. The barge dock is a compatible, non-historic resource.

## References

Aerial photographs of Hennepin County: 2004. Available at the Hennepin County Web site Property Information Search: <http://www.co.hennepin.mn.us>

Aerial photographs of Minneapolis: 1966, 1968, 1970, 1973, 1974, 1978, 1980, 1984, 1987, and 1990. Available at John R. Borchert Map Library, University of Minnesota, Minneapolis.

Berg, Merlin H. "Upper Harbor Terminal Report." Prepared for the Minneapolis Department of Public Works. March 1968. Available at the Minnesota Historical Society, Saint Paul.

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———. "The Upper Riverfront is the Most Industrial Portion of the Mississippi River in Minneapolis. . . ." *Minneapolis Star Tribune*, November 6, 1995.

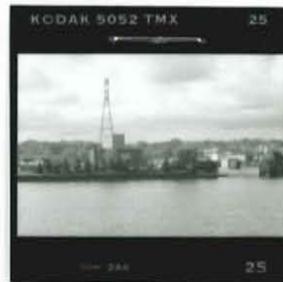
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*Mississippi/Minneapolis: A Plan and Program for Riverfront Development*. Minneapolis: Office of the City Coordinator, 1972.

Sheridan, David. "Upper Harbor Activity Still Slow After Year." *Minneapolis Tribune*, September 27, 1964.

**Photograph Information**

Date	9/26/06	Roll	16	Contact Sheet	16	Frame	18
Facing	West	Subject	North end of dock and ramp				
Date	9/26/06	Roll	16	Contact Sheet	16	Frame	22
Facing	West	Subject	Southern half of dock				
Date	9/26/06	Roll	16	Contact Sheet	16	Frame	25
Facing	West	Subject	North end of dock and ramp				
Date	4/2/06	Roll	2	Contact Sheet	2	Frame	13
Facing	West	Subject	Southern half of dock and conveyor				
Date	4/2/06	Roll	2	Contact Sheet	2	Frame	5
Facing	West	Subject	Northern half of dock and ramp				



## Riverside Station Power Plant Terminal

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2900 (or 3100) Marshall Street Northeast    **PID** 03-029-24-42-0005    **Inventory No(s).** HE-MPC-9289  
Minneapolis    HE-MPC-9290  
Hennepin County    HE-MPC-9291  
55418    HE-MPC-9292  
HE-MPC-9293

### Survey Information

**Current Name**    Xcel Energy Riverside Plant    **Historic Names**    Northern States Power Riverside Plant  
Minneapolis General Electric Riverside  
Station Power Plant

**Property Category**    Industrial    **Surveyed by**    Erin Hanafin Berg,  
Hess, Roise and Company

**Current Function**    Electric utility generation    **Date**    September 1, 2006

### Locational Information

**Zone**    15    **Quad**    Minneapolis North    **Neighborhood**    Marshall Terrace

**E**    478120    **N**    4985550    **Twp**    29N    **R**    24    **Sec**    3

**Addition**    Unplatted and Auditor's Subdivision No. 34    **Block**    n/a    **Lot(s)**    1, 2, 3, 4

**Property Description**    Government Lots 3 and 4 of Section 3 also Lot 1 and that part of Lot 2 Auditor's  
Subdivision No. 34 lying north of Marshall Terrace excluding roads.

**River Mile**    857.1    **River side**    Left (east)

### Owner Information

**Owner Status**    Private

**Current Owner**    Xcel Energy

**Address**    800 Nicollet Mall

**City**    Minneapolis    **State**    MN    **ZIP**    55402

### Summary

The historic Minneapolis General Electric Riverside Station, now owned by Xcel Energy, contains several significant resources associated with barge transportation and the development of the Upper Harbor. The Riverside plant barge terminal, constructed in 1963 for Northern States Power (NSP—a predecessor to Xcel), was the first such industrial facility in the Upper Harbor. NSP was one of only a few industries in the area to use barges before the municipal Upper Harbor Terminal was constructed in 1968. The Riverside Station Power Plant Terminal is eligible for National Register and local landmark designation as a contributing resource to the potential Upper Harbor Historic District.

**Site Resources\***

<b>Inventory No(s).</b>	<b>Name</b>	<b>Type</b>	<b>Year Built</b>
HE-MPC-9289	Barge Mooring Dolphins (6)	Objects	1963
HE-MPC-9290	Barge Dock	Object	1963
HE-MPC-9291	Terminal Building	Building	1963
HE-MPC-9292	Conveyor and Hoppers (2)	Objects	1963
HE-MPC-9293	Coal Field	Site	1911, 1963

**Barge Mooring Dolphins** A linear grouping of six cylindrical dolphins, each spaced approximately 100' apart, is located approximately 10' to 20' offshore along the east bank of the Mississippi River at the north end of the Riverside plant site. The dolphins, which were used for mooring barges as they were unloaded, are about 8' to 10' in diameter, constructed of sheet-piling filled with concrete. The structures extend approximately 10' above the low water line and are painted rust red with a pink stripe along the top. Each dolphin has a timberhead cleat on top for securing the barges and a tubular steel dock ladder attached to the side. The cleats and ladders are also painted pink. The southernmost and northernmost dolphins have navigation lights atop poles approximately 5' in height.

**Barge Dock** A barge dock is located in the center of the line of dolphins and projects from shore about the same distance as the dolphins. The dock is made up of seven large, curved sections of sheet-piling (forming a scalloped rectangle in plan) backfilled with earth and concrete. There appears to be vegetation growing on the dock surface, indicating the presence of soil and probable paving deterioration. The dock is elevated about 10' above the low water level and has five wide wood or tubular steel bumpers, parallel with the water level, on the west side. A tubular steel railing, painted pink, stands along the perimeter of the dock on three sides. The railing is interrupted in two locations on the west side by small, black objects that appear to be fans attached to the dock surface. Mechanical equipment is located at the north end of the dock. Two large "No Trespassing" signs are posted on top of the railing.

**Terminal Building** A long, one-story shed—probably the terminal office—is located on the bank, parallel to the river. The shed has a side gable roof and appears to be clad entirely with corrugated metal. A single door opening is on the west facade near the conveyor. The building appears to be vacant and is dilapidated.

**Conveyor and Hoppers** On the dock near the shoreline stands a large, black, pyramidal hopper set within an open, steel framework. A conveyor, which is supported by triangular steel braces, extends upward at an angle from the base of this hopper. At the top of the river bluff, the conveyor end is suspended over a larger, funnel-shaped, elevated hopper and frame.

**Coal Field** A large coal pile is located at the north end of the Riverside plant grounds, between Marshall Street and the Mississippi River. A feature of the coal-powered generating plant since its construction in 1911, the pile grew in area and height after installation of the barge facilities. The pile is intersected by rail lines, and the plant now receives the majority of its coal supply by rail.

\* Only the resources directly related to the river terminal were surveyed.

## **Other Site Features**

The plant, which was first established in 1911, comprises several buildings, objects, and other site features. Periodic expansions have altered the buildings and grounds.

## **Setting**

The northern end of the Riverside plant is surrounded largely by open space and parkland. Part of the municipal Upper Harbor Terminal and another private barge terminal are located directly across the river. The Soo Line Bridge—the upper limit of the river’s nine-foot navigation channel—is approximately one-quarter mile upriver from the Riverside plant terminal.

## **Integrity**

### **Alterations**

The dolphins, dock, terminal building, conveyor, and hoppers appear to date from the initial construction of the barge terminal and have not sustained significant alterations. The coal pile is a unique site feature that has expanded and contracted over the years, depending on the facility’s coal storage supplies and needs. The acreage reserved for coal storage has remained roughly the same since the facility was expanded in the early 1960s in preparation for the barge terminal construction.

Aerial photographs indicate that a road originally descended from the top of the river bank to the barge terminal level. This site feature may be intact, but overgrown.

### **Notes on Condition**

The barge dolphins and dock appear to be in weathered but sound condition. The condition of the conveyor and hoppers could not be assessed from a distance, but they appear to be sound. The terminal building is in dilapidated condition. Numerous volunteer trees, shrubs, and weeds are located on the riverbank between the terminal dock and the coal pile.

## **Historical Background**

Northern States Power (NSP) was the first private enterprise to commit to utilizing the expanded channel and Upper Harbor. The Riverside plant remained one of only a few terminals responsible for barge traffic in the Upper Harbor until the municipal terminal was constructed on the opposite bank of the river in 1968.

In 1956, when the wisdom of completing the Upper Mississippi Harbor Development project was questioned by the corps of engineers, NSP committed to using the Upper Harbor and estimated that barges would ship about 300,000 tons of coal per year to the Riverside Plant. Minneapolis navigation boosters undoubtedly used this projection in lobbying for funding of the Upper Harbor. Ultimately, the corps was persuaded to complete the work and other industries promised to relocate to or expand in the Upper Harbor area. NSP began a \$28 million expansion to the Riverside plant in 1961, anticipating completion of the Saint Anthony Falls lock and dam facilities two years later. When the Upper Lock was opened in 1963, NSP was the only industry equipped to take advantage of it; five barges of coal were queued up downriver, ready to push through the locks to the Riverside Plant as soon as its barge terminal was ready. Many of the other businesses that pledged to build terminals reneged or delayed their plans until they could assess the performance of the Upper Harbor.

Once the Upper Harbor opened, the Riverside plant coal supply was shipped by both barge and rail, depending on the origin of the coal. According to Dick Lambert, director of the Ports and Waterways Section for the Minnesota

Department of Transportation, the Riverside terminal has not been used regularly since the mid-1980s, and the utility now receives its entire coal shipment by rail.

In early 2006, Xcel Energy announced a plan to convert the Riverside plant to a natural gas combined cycle power plant. A photographic rendering of the proposal provided on the company's Web site shows the coal fields replaced with lawn and the barge dock and dolphins intact.

### **Previous Reviews**

The historical significance of the Riverside Station Power Plant was assessed in a report by The 106 Group Ltd. in December 2005 in response to the planned demolition of one of the plant buildings. The report concluded that the facility had been altered and expanded over the course of the twentieth century, that it did not serve a particularly unique historic purpose in the context of power generation, and, hence that it did not meet National Register criteria. The report did not address the barge facilities, however, or do more than summarize the alterations made to the plant after 1950. There was no acknowledgement that expansion of the plant in the early 1960s was predicated on the Upper Harbor development and the availability of coal shipments by barge.

### **Statement of Significance**

The Riverside Station Power Plant Terminal has significance as a contributing element to a historic district that would include resources associated with the development of the Upper Harbor. This historic district would be eligible for listing in the National Register under Criterion A in the areas of Commerce, Industry, Maritime History, and Transportation. The district is also eligible for designation as a local landmark under Minneapolis Historic Preservation Commission Criteria 1 and 3.

The constraints of this survey have not allowed for survey or evaluation of the alterations made to the plant as part of the early 1960s expansion of the plant. It is possible that plant facilities reflecting this period of alterations are intact, in which case there should be further investigation of the site in relation to the development of the barge terminal and the Upper Harbor development.

### **Other Comments**

The Riverside plant is presently being converted to a gas-powered facility. The planned removal of the coal fields might negate the plant's association with its barge terminal facilities and disrupt this historical context.

### **References**

Aerial photographs of Hennepin County: 2004. Available at the Hennepin County Property Information Search Web site: <http://www.co.hennepin.mn.us/>

Aerial photographs of Minneapolis: 1945, 1971, 1980, 1987, 1990, 1991. Available at the John R. Borchert Map Library, University of Minnesota, Minneapolis.

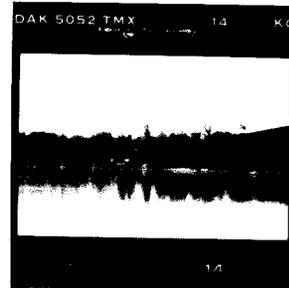
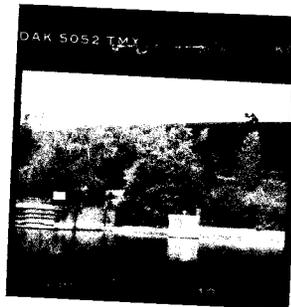
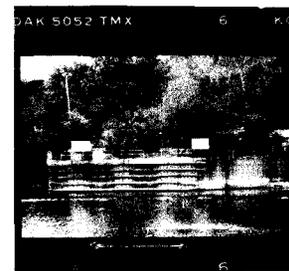
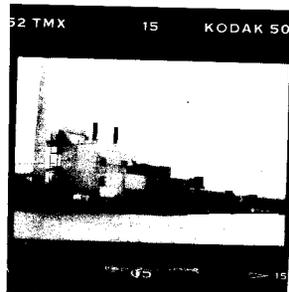
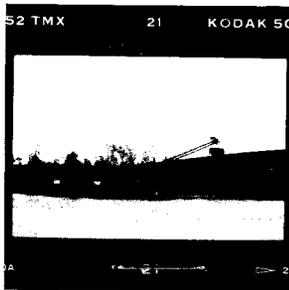
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- "Northern Waterway Proposes Upper Harbor Barge Terminal." *Minneapolis Tribune*, January 9, 1965.
- Sheridan, David. "Upper Harbor Activity Still Slow After Year." *Minneapolis Tribune*, September 27, 1964.
- Stark, William E. "Phase II Architectural History Evaluation for the Riverside Station Power Plant Demolition Project, 3100 Marshall Street Northeast, Minneapolis, Hennepin County, Minnesota." December 2005. Copy available from the Minnesota State Historic Preservation Office, Minnesota Historical Society, Saint Paul.
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- "Upper Harbor Project Called 'Pork Barrel'." *Minneapolis Tribune*, August 29, 1963.
- "Upper Harbor's Value." *Minneapolis Tribune*, August 19, 1963.
- Wheeler, Keith, Henry Suydam, Norman Ritter, Bill Wise, and Howard Sochurek. "Now—See the Innards of a Fat Pig." *Life* 55 (August 16, 1953): 20-26, 55-62.

**Photograph Information**

<b>Date</b>	4/19/06	<b>Roll</b>	6	<b>Contact Sheet</b>	6	<b>Frame</b>	21
<b>Facing</b>	Northeast	<b>Subject</b>		Barge dock and conveyor			
<b>Date</b>	4/19/06	<b>Roll</b>	6	<b>Contact Sheet</b>	6	<b>Frame</b>	15
<b>Facing</b>	Southeast	<b>Subject</b>		Overview of plant facilities, west side			
<b>Date</b>	9/1/06	<b>Roll</b>	13	<b>Contact Sheet</b>	13	<b>Frame</b>	6
<b>Facing</b>	Northeast	<b>Subject</b>		Barge dock and hopper			
<b>Date</b>	9/1/06	<b>Roll</b>	13	<b>Contact Sheet</b>	13	<b>Frame</b>	7
<b>Facing</b>	Northeast	<b>Subject</b>		Partial barge dock, mooring cell, office building			
<b>Date</b>	9/1/06	<b>Roll</b>	13	<b>Contact Sheet</b>	13	<b>Frame</b>	12
<b>Facing</b>	Northeast	<b>Subject</b>		Partial barge dock, mooring cell, office building, & conveyor			
<b>Date</b>	9/1/06	<b>Roll</b>	13	<b>Contact Sheet</b>	13	<b>Frame</b>	14
<b>Facing</b>	Northeast	<b>Subject</b>		Overview of barge docking facilities			



## University of Minnesota Dock

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10 – 10th Avenue Southeast  
Minneapolis  
Hennepin County  
55414

**PID** 24-029-24-34-0003      **Inventory No(s).** HE-MPC-9242  
HE-MPC-9243

### Survey Information

**Common Name** University Dock      **Historic Name** University Dock  
**Property Category** Industrial      **Surveyed by** Erin Hanafin Berg,  
Hess, Roise and Company  
**Current Function** Vacant      **Date** October 19, 2006

### Locational Information

**Zone** 15      **Quad** Saint Paul West      **Neighborhood** University  
**E** 480882      **N** 4980452      **Twp** 29      **R** 24      **Sec** 24  
**Addition** Auditors Subdivision No. 44      **Block** n/a      **Lot(s)** 2, 13, 14  
**Property Description** Lot 13 except railroad right-of-way and that part of Lot 14 lying east of the centerline of 10th Avenue Southeast except road; also that part of Government Lot 2 Section 24.  
**River Mile** 853.1      **River Side** Left (east)

### Owner Information

**Owner Status** State  
**Current Owner** University of Minnesota  
**Address** Real Estate Office, Shops Building Suite 424, 319 15th Avenue Southeast  
**City** Minneapolis      **State** MN      **ZIP** 55455

### Summary

The University of Minnesota Dock is the only barge facility below the lower lock built as part of the Upper Mississippi Harbor Development. Barges used the dock to supply coal to the university's steam plants, two of which are located on the east bank. Neither the exact date of construction nor the dock's decommission date are known. The dock retains sufficient integrity and significance to be eligible for inclusion in a historic district comprising the nearby locks and dams and related resources.

## Site Resources

<u>Inventory No(s).</u>	<u>Name</u>	<u>Type</u>	<u>Year Built</u>
HE-MPC-9242	Barge Dock	Structure	ca. 1965
HE-MPC-9243	Dolphins (grouping of three)	Structure	ca. 1965

**Barge Dock** A linear barge dock is located on the east bank of the river near the University of Minnesota campus. The dock extends from underneath the former Northern Pacific Railroad Bridge (now a pedestrian bridge) to a point approximately 200' downriver from the foot of the Cedar Avenue Bridge, a total length of about 550'.

The dock is constructed of steel sheet-piling and earthen fill. A cast-concrete curb caps the dock wall. Wood walers are attached to the curb, and there is a continuous band of metal—possibly a bumper—at the approximate midpoint of the wall. The dock surface is paved with concrete and asphalt.

The linear dock angles slightly at the north end, and terminates in a narrow dock that extends about 60' into the river. The narrow dock is perpendicular to the shoreline and rounded at the end. This structure is also made of sheet-piling, filled and capped with concrete. A metal band runs along the top of the dock wall. A heavy wood waler is attached to the south side of the dock. Metal pipe railings are located on both sides of the structure.

A pedestrian dock, consisting of a concrete slab at a lower grade level, is located just north of the perpendicular dock structure. This dock is connected to the middle mooring cell by two steel rails, one of which has railings and appears to be used as a catwalk.

**Dolphins** A grouping of three cylindrical dolphins or mooring cells is located at the north end of the barge dock. The middle cell is centered on and connected by a catwalk to the pedestrian dock. The cells are spaced about 100' apart. The dolphins are each about 10' in diameter, and extend only a few feet above the surface of the river. They are constructed of sheet-piling with concrete platforms. The north and south dolphins have metal tripod structures that are probably used for mooring vessels. The middle dolphin is connected to a low, concrete dock by a metal catwalk.

## Other Site Features

Most of the ground surface adjacent to the dock area is paved, and a road extends parallel to the river about 50' from the shoreline. A two-story brick building and a high concrete retaining wall are located near the south end of the barge dock. At the time of survey, several temporary buildings—construction trailers and tents—had been placed on the site. There are mature trees and other vegetation just north of the barge dock.

## Setting

The dock is at the bottom of a gorge adjacent to the university campus. The hillside behind the dock is lightly forested. Bridge footings are located at each end of the dock.

## **Integrity**

### **Alterations**

There do not appear to have been any significant alterations made to the barge dock or dolphins.

### **Notes on Condition**

The structures appear to be in fair but sound condition.

## **Historical Background**

Little is known about the University Dock other than that it was constructed after 1955, when a photograph of the former municipal terminal on the opposite river bank showed that the site was not yet developed. One of the university's steam plants was located near the barge dock site; it received coal by rail or truck from the municipal terminal before the barge dock was built. Although there was little open room for coal storage in the area, the university's Southeast Steam Plant included large coal bunkers. The university might have constructed the barge dock to receive coal directly rather than pay for it to be transferred from the west bank.

## **Previous Reviews**

None.

## **Statement of Significance**

Although little is known about the history of these resources, they are clearly related to barge transport and contribute to the character of the Upper Mississippi Harbor Development area. These structures retain sufficient historic character and significance to contribute to a potential district comprising the upper and lower locks and dams, the intermediate pool, and related maritime structures. This resource contributes to the character of the Saint Anthony Falls Locks and Dams Historic District, which is eligible for designation under National Register Criterion A in the areas of Commerce, Industry, Maritime History, and Transportation, and Criterion C in the area of Engineering. The historic district is also eligible for Minneapolis HPC designation under Criteria 1, 3, and 4.

## **References**

Aerial photographs of Hennepin County: 2004. Available at the Hennepin County Property Information Search Web site: <http://www.co.hennepin.mn.us/>

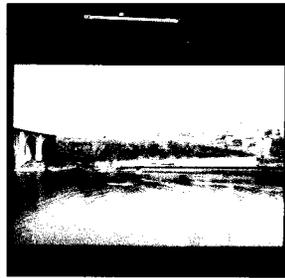
Aerial photographs of Minneapolis: 1945, 1971, 1980, 1987, 1990, 1991. Available at the John R. Borchert Map Library, University of Minnesota, Minneapolis.

James Miller Investment Realty Company. "The Upper Harbor Terminal and Commercial Navigation on the Upper Mississippi River." Appendix to the "Upper Mississippi River Master Plan." August 3, 1999. Prepared for the Minneapolis Park and Recreation Board, Hennepin County, Minneapolis Planning Department, and Minneapolis Community Development Agency.

*Upper Harbor: Minneapolis and the Future. . . .* Minneapolis: City Council of Minneapolis, n.d. [1956?].

**Photograph Information**

**Date** 11/20/2006    **Roll** 19    **Contact Sheet** 19    **Frame** 24  
**Facing** North    **Subject** Dock overview from west bank



## Upper Harbor Terminal

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3700-3750 Washington Avenue North	<b>PIDs</b>	03-029-24-34-0007
3701 Washington Avenue North		03-029-24-34-0029
51 - 36th Avenue North		03-029-24-34-0026
2 - 36th Avenue North		10-029-24-21-0002
51 - 34th Avenue North		10-029-24-21-0048
3360 - North 1st Street		10-029-24-24-0065
3800 - North 1st Street (or 2 Dowling Avenue North)		03-029-24-31-0008
Minneapolis		
Hennepin County		
55412		

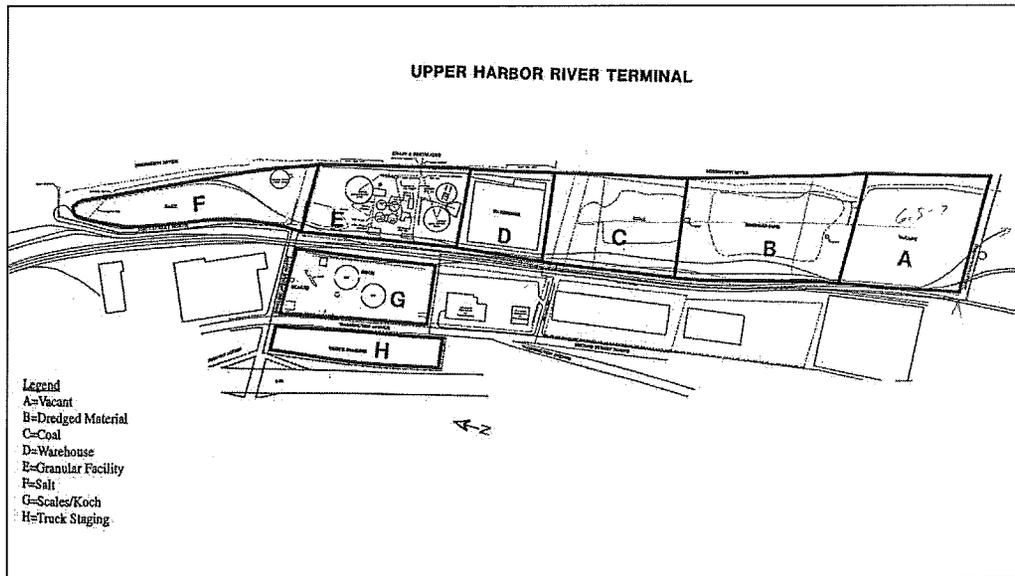
### Inventory Nos.

HE-MPC-9244	HE-MPC-9264
HE-MPC-9245	HE-MPC-9265
HE-MPC-9246	HE-MPC-9266
HE-MPC-9247	HE-MPC-9267
HE-MPC-9248	HE-MPC-9268
HE-MPC-9249	HE-MPC-9269
HE-MPC-9250	HE-MPC-9270
HE-MPC-9251	HE-MPC-9271
HE-MPC-9252	HE-MPC-9272
HE-MPC-9253	HE-MPC-9273
HE-MPC-9254	HE-MPC-9274
HE-MPC-9255	HE-MPC-9275
HE-MPC-9256	HE-MPC-9276
HE-MPC-9257	HE-MPC-9277
HE-MPC-9258	HE-MPC-9278
HE-MPC-9259	HE-MPC-9279
HE-MPC-9260	HE-MPC-9280
HE-MPC-9261	HE-MPC-9281
HE-MPC-9262	HE-MPC-9282
HE-MPC-9263	HE-MPC-9283

### Survey Information

<b>Current Name</b>	River Services, Inc.	<b>Other Names</b>	Packer River Terminals Bolander Conlan Northern Waterways Terminal
<b>Property Category</b>	Industrial	<b>Surveyed by</b>	Erin Hanafin Berg, Hess, Roise and Company
<b>Current Function</b>	Barge terminal, commodity storage	<b>Date</b>	May – October 2006





### Site Resources

Inventory No.	Name	Location	Type	Year Built
HE-MPC-9244	Office Building	G	Building	1968
HE-MPC-9245	Scale House	G	Building	1968
HE-MPC-9246	Truck Scale	G	Object	1968
HE-MPC-9247	Scale House	G	Building	1983
HE-MPC-9248	Truck Scale	G	Object	1983
HE-MPC-9249	North Mooring Cell	F	Structure	ca. 1982
HE-MPC-9250	North Dock	E	Structure	1968
HE-MPC-9251	Loading Area Mooring Cells (group of 3)	E	Structure	1974
HE-MPC-9252	South Dock	D	Structure	1971
HE-MPC-9253	Petroleum Dock	A	Structure	1974
HE-MPC-9254	Warehouse	D	Building	1971
HE-MPC-9255	Shipping/Receiving Office	D	Building	ca. 1985
HE-MPC-9256	Load-out Tower	E	Structure	ca. 1975
HE-MPC-9257	Conveyor	E	Structure	ca. 1975, 1984
HE-MPC-9258	Rail Dump	E	Structure	ca. 1976
HE-MPC-9259	Grain Elevator	E	Structure	ca. 1978
HE-MPC-9260	Truck Dump/Hoist	E	Structure, Object	ca. 1978
HE-MPC-9261	Control Building	E	Building	ca. 1978
HE-MPC-9262	Dust Tanks (group of 4)	E	Structures	ca. 1978
HE-MPC-9263	Dome (1,800 ton capacity)	F	Building	1982
HE-MPC-9264	Dome (12,000 ton capacity)	E	Building	1987
HE-MPC-9265	Dome (8,000 ton capacity)	E	Building	1984
HE-MPC-9266	Dome (16,000 ton capacity)	E	Building	1984
HE-MPC-9267	Load-out Shelter (adj. to 12,000-ton dome)	E	Building	1987
HE-MPC-9268	Load-out Shelters (adj. to paired domes)	E	Building	1984

<b>Inventory #</b>	<b>Name</b>	<b>Location</b>	<b>Type</b>	<b>Year Built</b>
HE-MPC-9269	Truck/Rail Dump	E	Structure	1988
HE-MPC-9270	Asphalt Tanks (2)	G	Structure	ca. 1975
HE-MPC-9271	Dyke Wall	G	Structure	ca. 1975
HE-MPC-9272	Boiler Room (or Meter Room)	G	Building	ca. 1975
HE-MPC-9273	Petroleum Pumping Spout	G	Object	ca. 1975
HE-MPC-9274	Petroleum Pumping Spout	G	Object	ca. 1985
HE-MPC-9275	Truck Staging Area	H	Site	ca. 1985
HE-MPC-9276	Rail and Roadway System	F	Object	1968-1991
HE-MPC-9277	Rail and Roadway System	ABCDE	Object	1968-1991
HE-MPC-9278	Rail Scale Shed	D	Building	1991
HE-MPC-9279	Open Commodity Storage Area	F	Site	1968 - 1986
HE-MPC-9280	Open Commodity Storage Area	E	Site	1968 - 1986
HE-MPC-9281	Open Commodity Storage Area	C	Site	1968 - 1986
HE-MPC-9282	Open Commodity Storage Area	B	Site	1968 - 1986
HE-MPC-9283	Open Commodity Storage Area	A	Site	1968 - 1986

**Office Building**  
 HE-MPC-9244

A one-story office building was the first structure completed at the Upper Harbor Terminal. Located at the corner of Washington Avenue North and Dowling Avenue North (also called Port of Minneapolis Drive), the office building was designed by the architecture and engineering firm Toltz, King, Duvall, Anderson, and Associates (TKDA) of Saint Paul. The building footprint measures about 42' by 45'.

The building exterior is variegated light-brown brick laid in running bond, with two standing soldier courses at the foundation level and horizontal bands of header bricks every sixth course. The building has a flat roof, with a wide, band-like cornice and narrow angled coping. The cornice is brown sheet-metal panels with vertical standing seams.

The building fenestration is symmetrical on the west and north facades, with a centered entry on the west and two windows on each side of the door. The north facade has four evenly spaced window openings. The south facade has two windows in the west half; the rest of the wall is blank. The single-light, floor-to-ceiling windows on the west, south, and north facades have narrow metal frames and are edged by square brick pilasters that form deep reveals. The windows have angled cast-concrete sills. The cornice band dips into the reveals between the window pilasters, forming an upside-down crenellated pattern. The east facade is mostly blank, with an off-center, metal door with a single, small rectangular light

The main entrance, facing Washington Avenue, consists of a single, metal-framed door paired with a single sidelight of equal dimensions. There is a raised stoop in front of the entrance, with two steps on the west side. A rectilinear portico, contiguous to the roof cornice, projects over the entrance stoop.

A wide concrete sidewalk leads from the front entrance to Washington Avenue. A narrow sidewalk extends from the entrance stoop north towards Dowling Avenue. On the east side of the building, a set of steps with paired metal railings is aligned with the secondary entrance. The building site is slightly elevated above the rest of the terminal property, and there is a grassy berm between the building and the parking area to the east.

**Scale Houses and Scales**

HE-MPC-9245  
HE-MPC-9246  
HE-MPC-9247  
HE-MPC-9248

A scale house and linear truck scale were constructed at the Upper Harbor Terminal in 1968. Located off Dowling Avenue, east of Washington Avenue, the scale house is a smaller version of the terminal office building and was presumably also designed by TKDA. The scale house, which measures about 15' square, has a facade of variegated light-brown brick and a band cornice of vertical sheet-metal panels. A row of metal-framed windows spans the north facade and wraps around to the east and west facades. The truck scale in front of the scale house looks like a large, rectangular, metal-rimmed concrete pad set within the dimensions of the concrete driveway. The driveway has two angled curb-cuts along the Dowling Avenue frontage.

In 1983, a second scale house and truck scale were added to the site south of the existing scale house. The linear scale angles from the southwest to the northeast, and the building is square with the scale. The second scale house is about 10' square, with a hipped roof and vertical grooved plywood siding. A single door and window are present on the southwest facade. Three windows are on the southeast side, facing the scale, and a single window is located on each of the northeast and northwest facades. All of the windows are small, 1/1 wood windows with vertical grilles on the exterior.

**Open Storage Areas**

HE-MPC-9279  
HE-MPC-9280  
HE-MPC-9281  
HE-MPC-9282  
HE-MPC-9283

Approximately 27 acres of the site are dedicated to open storage of bulk commodities, divided between the north and south ends of the terminal property. The paved lot at the north end of the site is about 6 acres in size, and is used to store aggregate and gravel, coal, and iron ingots. The open storage on the south lot consists of 5 paved acres for coal storage, 9 unpaved acres used to store dredged material, and 7 acres that were formerly occupied by asphalt tanks and are now used for storing shipping containers. The paved coal storage area south of the warehouse was installed in the mid-1980s.

Several of the gravel and coal piles are confined by rows of large, concrete cubes, which can be configured and positioned as needed. Although not permanent fixtures, these elements contribute to the character of the site.

**Docks and Mooring Cells**

HE-MPC-9249  
HE-MPC-9250  
HE-MPC-9251  
HE-MPC-9252  
HE-MPC-9253

Two linear docks are located on the terminal site. Constructed of sheet piling that has been backfilled and topped with a paved asphalt surface, the docks are each about 250' long. Several timberhead cleats for securing the barges are evenly spaced along the length of the docks.

Mooring cells located between the linear docks were constructed along with the first phase of the conveyor system in 1974. The cells support a cable pulley apparatus used to pull barges past the conveyor spout during loading. The cells are connected to the shore by metal catwalks.

At the southern tip of the terminal site, a narrow pipeline structure projects about 50' into the river, slightly above the water line. This feature was constructed in 1974 to serve the asphalt company that occupied this portion of the site; it has not been used in over a decade and is largely in ruins. A short, angled, projecting dock is paired with a round dolphin near the extension of Dowling Avenue and appears to have been used as an asphalt dock. This structure might have been constructed around 1976, when the northern asphalt tanks were installed, but the large mooring cell now present cannot be seen on aerial photographs until 1984.

**Warehouse**  
HE-MPC-9254

A 110,000 square-foot warehouse, completed in July 1971, was the third building constructed at the Upper Harbor Terminal. Located in the approximate center of the linear site, the warehouse has a footprint of about 300' by 350' and sits near a 250' linear dock. The one-story warehouse has an exterior height of 23' and facade walls of vertical, ribbed concrete panels. The warehouse has a flat roof dotted with domed, square skylights and rooftop vents. Floodlights supported on tall poles are placed around the parapet, with a cluster of eight lights located on the south side of the warehouse near the barge dock.

The expansive facades of the warehouse have mostly irregular fenestration. Rectangular openings for clerestory windows and vents are set between the ribs on the north, east, and south facades. The windows have exterior metal grates and appear to be equal in size. The windows are located near the top of the walls on the north and east facades except near the northeast corner of the building; here, three windows on the east facade and two on the north facade are dropped down a few feet. (There is an elevated corner office on the interior in this area of the building.) Centered under the trio of windows on the north end of the east facade is a large rectangular dock opening with an overhead-operating door. Three additional dock doors are centered on the facade, and a pedestrian door is located near the southeast corner of the warehouse, adjacent to an elevated dock platform. The south side of the warehouse contains seven dock doors, five of which are centered on the facade and the other two located near the southeast corner. Two pedestrian doors are located on the north facade, along with a large rectangular opening with a single, sliding metal door.

**Shipping/Receiving Office**  
HE-MPC-9255

A one-room, freestanding office shed is located near the north facade of the warehouse. The building has a front-gable roof, vertical-grooved plywood siding, single 1/1 windows on the north, east, and west facades, and a pedestrian door on the east side of the north facade. The windows and door have vertical security bars.

**Load-Out Tower**  
HE-MPC-9256

A four-level, rectilinear, open steel tower is sited on a slight outcropping between the two linear docks. The tower contains an enclosed operator's office on the third level and a shed at the ground level that houses hydraulic and mechanical equipment. An overhead diverter spout is located on the south side of the tower. Four flights of steps and several platform landings are located on the north side. There is a folding catwalk that can be lowered to extend to a docked barge. The structure is connected to the overhead conveyor system at the third and fourth levels.

**Conveyor**  
HE-MPC-9257

Several sections of an elevated belt conveyor link the load-out tower, grain elevator, storage domes, and rail- and truck-dump facilities. Most of the conveyor system is fixed in place, but some legs can be moved to divert and direct the flow of material. The conveyor extends from below ground near the grain elevator to the upper level of the riverfront load-out tower and has a rounded, metal cover. The elevated, fixed portions of the apparatus are supported by steel braces on top of concrete footings.

The underground portion of the conveyor was the first to be constructed in around 1975. It was lengthened as the granular storage facility expanded with the construction of the elevator and storage domes.

**Rail Dump**  
HE-MPC-9258

A narrow, linear structure, approximately three stories in height, is located along one of the western spur rail lines. Presently housing the terminal's locomotive, the structure shelters a grated floor that allows grain cars to be emptied into underground hoppers from which the grain is conveyed to storage and shipping areas. The interior steel structure of the building is exposed, and the north and south walls contain oversized openings that allow the train cars to pass through. The building exterior is vertical corrugated-metal panels, and it has a shallow-pitch roof with gables on the north and south facades. A ladder, surrounded by a cylindrical cage, is located on the east facade, near the northeast corner. A plywood shed is attached to the south end of the east facade.

A building permit was obtained for the rail dump in 1973, but the completed building is not visible on aerial photographs until 1978.

**Grain Elevator**  
HE-MPC-9259

A grain elevator, consisting of four 80,000-bushel round tanks and an elevator tower, is located in the approximate center of the terminal grain-handling area (parcel E). The elevator was erected between 1978 and 1980.

The four cylindrical tanks have riveted vertical steel-panel exteriors and are located in a square cluster. The tanks are about four to five stories in height with conical tops. The tanks empty underground, and are filled and connected at the top by overhead conveyors. Vertical ladders are attached to the sides.

The elevator structure on the south side of the tanks exceeds their height by several stories and consists of two offset rectangular forms. The section closest to the silos is an open steel framework with a staircase and mechanical equipment. On the west side of this structure, a narrow shaft enclosed with ribbed sheet-metal siding houses a vertical bucket conveyor. A larger enclosed vertical section, also clad with sheet metal, is located on the south side of the elevator. This structure has three interior levels consisting of a grain scale with charging hoppers above and below. Six ribbed fiberglass panels on the south facade provide natural light to the interior levels.

**Truck Dump/Hoist**  
HE-MPC-9260

A truck dump shelter is located on the east side of the grain handling area between the riverfront and the grain elevator. The tall, shallow building has a shed roof and vertical corrugated-metal cladding. There is an oversized, narrow opening on the north facade, and a single metal pedestrian door on the east facade. The steel structure is exposed on the interior, and there is a grated metal floor covering an underground hopper.

A small, concrete-block control shed is attached to the west side of the truck dump shelter and houses the operating equipment. There is a single pedestrian door centered on the west facade, and a window on the south facade. The shed has a shallow gable roof and a sheet-metal awning extending from the north roof plane.

A truck hoist, consisting of a flat metal panel embedded in the ground and aligned with the opening to the truck dump, is located to the north of the building. The hoist is flanked by triangular steel brackets on the east and west.

**Control Building**  
HE-MPC-9261

A flat-roofed, rectangular, concrete-block building is located to the east of the grain elevator and serves as the grain-classing office and operation center for the elevator. The building has a single metal door and a horizontal, triple-sash aluminum window on the east facade. The door is elevated several feet above the ground level and is reached by a set of poured-concrete steps with metal, spindled railings. There is a single, rectangular, aluminum sash window on the north facade and two entrances on the south facade. The west entrance on the south facade has paired metal doors; the other entrance is a single metal door. Exposed electrical conduit is near the parapet along the south facade, and there is a large assemblage of mechanical equipment near the west side of the building.

**Dust Tanks**  
HE-MPC-9262

A dust-handling system consisting of three collection tanks and a separate storage tank is located in the grain handling area. Two of the conical, steel collection tanks are placed between the grain storage tanks and the vertical elevator tower. The third collection tank is located to the west of the truck hoist. These tanks are connected to the grain handling apparatuses by large-diameter pipes and are elevated several feet above ground within open, rectangular steel structures. The central dust storage tank is located near the southeast corner of the 12,000-ton dome load-out shelter. This tank is about twice the height of the others, elevated about 12' off the ground in a steel structure, and connected to the rest of the system by narrow-diameter pipes.

**Domes (4)**  
HE-MPC-9263  
HE-MPC-9264  
HE-MPC-9265  
HE-MPC-9266

Four monolithic concrete domes were erected on the terminal site in the 1980s for enclosed storage of bulk commodities such as fertilizer and road salt. All four domes appear to have been built using a balloon-like form that was inflated, sprayed with foam, reinforced with rebar, and coated on the interior with a thin layer of concrete. The domes have poured-concrete foundation rings.

The northernmost dome, located just to the north near the extension of Dowling Avenue, is the smallest of the four and was the first to be constructed, in 1982. The dome has a storage capacity of 1,800 tons, is about 90' in diameter, and has a low hemispherical form with an integral, projecting rectangular opening on the south side. The exterior surface of the dome appears to be quite deteriorated.

The two southernmost domes, located just north of the warehouse, were built in 1984. The domes stand about 10' apart. The dome on the west is about 124' in diameter with a high hemispherical form, giving it a capacity of 16,000 tons. The other dome is 107' in diameter, hemispherical in form, and holds 8,000 tons. Both domes appear to be in fair condition, with exterior membranes that have peeled away, exposing the insulation underneath. Overhead conveyors extend from the tops of the domes.

The dome located in the center of the terminal site was the last to be erected, in 1987. This dome is 130' in diameter, hemispherical in form, and has a capacity of 12,000 tons. The exterior of this dome also appears deteriorated. This dome is connected to an overhead conveyor.

**Load-Out Shelters (2)**  
HE-MPC-9267  
HE-MPC-9268

The three largest domes have attached load-out buildings to shelter the dome entrances and related equipment. The paired domes near the warehouse are linked on the south side by a common load-out building. This wood-framed building is about two stories in height with a gable roof and minimal eave overhangs. It is irregular in form, with a straight gable on the south side and an angled, shed-roofed section on the north between the two domes. Two one-story, gable-roofed wings on the northwest and northeast sides of the shelter attach to the domes. The exterior of the building is clad with panels of vertical grooved plywood siding. Oversized rectangular openings on the east and west facades have sliding sheet-metal doors. A single, wood-framed pedestrian opening is located on the south facade. There is a louvered wood vent in the peak of the south gable.

The load-out shelter attached to the 12,000-ton-capacity dome is similar in construction and scale, with a rectangular form, vertical-grooved plywood siding, and a gable roof. A large louvered vent is located in the south gable, and framed pedestrian openings are at ground level on the south and west facades. There is an oversized rectangular opening with a sliding plywood panel door on the east facade, near the dome.

**Truck/Rail Dump**  
HE-MPC-9269

A two-story, linear building to load trucks and rail cars is located along the rail lines on the western side of the property. The building has a shallow gable roof and two large openings on both the north and south facades. The openings are of unequal dimensions, and the larger opening has angled corners. A single pedestrian door is centered on the east facade. The building's wood structure is exposed on the interior, and the exterior is clad with vertical-grooved plywood siding. The shed is connected to the overhead conveyor leading to the 12,000-ton-capacity dome. The conveyor is supported by a triangular steel structure that stands parallel to the building's east facade.

**Asphalt Tanks (2) and Dyke**  
HE-MPC-9270  
HE-MPC-9271

Two large cylindrical asphalt tanks and a smaller petroleum tank are located on the center section of the terminal site, between Washington Avenue and the railroad tracks. A dyke of reinforced concrete forms a modified rectangle around the tanks. The dyke is staggered in height and the concrete walls have exposed aggregate, visible marks from the concrete forms, and prominent vertical grooves. The larger tanks are aligned northeast to southwest, with the smaller vertical tank in the northwest corner of the contained area. The large tanks have flat roofs and corrugated metal exteriors that appear to be in poor condition, with missing panels and vegetation growing on the roofs. The smaller tank is constructed of smooth metal panels and has a conical top. A vertical ladder ascends the northwest side of the tank.

**Boiler Room**  
HE-MPC-9272

The boiler room, also called the meter room, is a freestanding building located to the north of the asphalt tanks and dyke. The building contained boiler equipment for warming the asphalt in the tanks and was constructed at the same time as the petroleum storage facility in around 1975. The building is rectangular in form, with vertical, ribbed metal siding. The gable roof is of standing-seam metal and has a rounded ridgeline. The gables on the east and west ends have wide, metal-trimmed fascias. There is a large rectangular opening with an overhead-operating door centered on the west facade. To the north of this door is a single, metal pedestrian door. Pipes extend from the north and south facades of the building. A floodlight is located near the peak of the west-facing gable.

**Petroleum Pumping Spouts**  
HE-MPC-9273  
HE-MPC-9274

A narrow, elevated steel platform with a steel-rung ladder attached to the south end is located to the south of the original scale house. Vertical pipes 6” to 8” in diameter extend from the platform to ground level. To the west of the pumping platform is a low, wide concrete ledge. Three steel valves protrude from the ledge, spaced equally along its length. A horizontal pipe extends from the valve on the north to the base of the platform; rubber hoses are attached to the other two valves. This apparatus probably was used for filling and emptying asphalt tanker trucks.

A second pumping apparatus was installed near the asphalt tanks in around 1985. This structure consists of a rectangular, elevated steel platform with an inclined staircase on the east side. Vertical pipes extend from a plywood box on the ground under the platform through the platform floor. Part of the platform level is framed in by vertical, plywood boards, apparently a later alteration.

**Truck Staging Area**  
HE-MPC-9275

A two-acre asphalt-paved area on the west side of Washington Avenue North is used for staging semi-trailer trucks. The elongated, paved area is framed by grassy berms on the north and west. Two paved inlets from Washington Avenue North are located at the northern and southern ends of the paved area. The staging area is sited within a short distance of the truck scale and the entrance to Interstate 94, and was established in the mid-1980s.

**Rail and Roadway System**  
HE-MPC-9276  
HE-MPC-9277

The Upper Harbor Terminal contains seven sets of rail tracks for staging railroad cars. The tracks run parallel to the river along the western property line and are coupled to several switching lines. The tracks total 2.5 miles in length and are able to accommodate 150 rail cars. One of the spur lines bisects the northern portion of the site at an angle and joins a short spur that runs parallel to the riverbank as far south as the load-out tower.

The area surrounding the granular facility in the center of the site is paved for truck travel and loading, but the roadways are not defined by curbs or markings. The land to the south and east of the office building near Washington is also paved, contiguous to the truck scales in this area. Dowling Avenue (also known as Port of Minneapolis Drive) extends onto the terminal site east of the railroad tracks. Low, metal gates are at this location to secure the property.

**Rail Scale Shed**  
HE-MPC-9278

In 1991, a rail scale was built near the southwestern corner of the warehouse and a scale house constructed next to the west side of the building. The scale house is a small, square shed with a gable roof and wood or metal siding. The building houses electrical equipment for the scale and has room for a standing operator.

## **Other Site Features**

Three steel lattice powerline towers are on the site, one near the grain handling facility, one just to the south of the warehouse, and one in the open storage parcel north of 33rd Avenue North. The 1967 preliminary study of the Upper Harbor Terminal considered the existing Northern States Power line on the property to be an impediment to development of the site, and the consultant recommended that the line be removed or raised. Apparently, the second option was pursued and two additional towers have since been constructed.

Native grasses, wildflowers, shrubs, trees, and other volunteer vegetation are located along the riverbank and at the edges of the railroad tracks on the west side of the property.

A freestanding, exterior boiler was installed along the east side of the asphalt tank dyke in about 1995; this structure does not contribute to the historic character of the property.

## **Setting**

The Upper Harbor Terminal is sited in an industrial area, surrounded by low-scale warehouses and storage yards. The former Dundee Cement terminal site is to the north, and the Xcel Energy Riverside Plant is on the opposite bank of the river. The terminal is less than one-half mile east of Interstate 94, which runs parallel to the river in this area.

## **Integrity**

The Upper Harbor Terminal facility developed over a period of about twenty years, making it difficult to define a period of significance and assess the historical integrity of the site as a whole. Some of the later structures, such as the load-out sheds adjacent to the concrete domes, are built of common, modern materials that are typically considered by historic preservation professionals to have no historical importance. These buildings would appear to have a negative impact on the overall character of the site and yet they were constructed at the same time as the domes, which display a unique construction method and were built to realize the planned Phase 3 of the terminal development. The load-out shelters also are integral to the use and function of the domes. To assess these resources, it is essential to recognize that the function of the structures and the phased development of the site as a whole are more indicative of the property's historical importance than are the buildings' architectural characteristics.

Individual resources within the site have sustained very few intrusive alterations, although most are in somewhat deteriorated condition and show signs of wear and tear. The exteriors of the asphalt tanks and the monolithic concrete storage domes appear to be the most deteriorated. The grooved plywood siding of the load-out shelters, truck and rail dump, and shipping/receiving office building has delaminated in places. Most of the exposed metal structures are rusted, dented, and nicked, but this damage is characteristic of their industrial use.

The asphalt tanks and dyke located near the southern end of the terminal were removed in the 1990s and the area they occupied was converted to open storage.

## **Historical Background**

Construction began on the municipal Upper Harbor Terminal four years after the Upper Saint Anthony Lock was opened to barge traffic. During the planning and construction stages of the Upper Mississippi Harbor Development, the City of Minneapolis was adamant that it would not build a municipal facility, despite the shortcomings of the existing municipal terminal site near the Washington Avenue Bridge. Proponents of the Upper Harbor hoped that private industries would invest in the area, attracting barge traffic that would justify the construction of the locks and dams at Saint Anthony Falls. When that private investment was slow to materialize, the city council established the Citizen's Upper Harbor Committee in 1964 to direct the development of the area. The committee founded the Minneapolis Industrial Development Commission (MIDC) in 1965 and directed it to consider the expansion of public river terminal facilities. The MIDC, along with the citizen's committee, recommended another municipal harbor for the Upper Harbor on city-owned land near 2nd Street North and Dowling Avenue North.

Consultant Merlin Berg was hired in 1967 to analyze the potential of a municipal terminal in the Upper Harbor and plan its initial development. Berg's report, submitted in March 1968, considered the conditions of the site, the activity of other terminal facilities in the Upper Harbor, and the potential for an increase in barge traffic to the area. Berg assessed the viability of a new Minneapolis terminal in comparison with municipal facilities elsewhere in the country. Berg's report was favorable to municipal investment, and so plans proceeded for the development of the Upper Harbor Terminal.

Berg recommended that the core of the Upper Harbor Terminal site—the area bounded by 2nd Street North and the river, between 36th Avenue North and Dowling Avenue North—should be developed “as rapidly as is consistent with traffic needs and the needs of the city.” Berg submitted a plan and layout for the site, and the city adopted a phased development approach. Stage 1 included construction of an office building, 200 feet of dock space, an open storage area, and some concrete roadways. This construction was financed by Northern Waterway Terminals Corporation, the operator of the existing municipal terminal, and later repaid by the city. Stage 2 included a warehouse, rail tracks, granular handling facility, barge mooring area, and additional roadway, elements which were largely completed by 1973. The third stage of development, which was not begun until the mid-1970s, included the construction of asphalt tanks. Subsequent development expanded the granular handling facilities as a grain elevator and storage domes were erected and open storage areas expanded.

The Upper Harbor Terminal facility suffered growing pains as a series of private operators declared bankruptcy or disputed their contracts with the city. For a short period of time, the terminal was managed by the department of public works, during which it lost a great deal of money. Despite the tumultuous management, the contract operators invested in capital improvements, financed with government bonds, and the terminal facilities gradually took shape.

The present configuration and appearance of the Upper Harbor Terminal was realized by 1990, when the phased development of the property was complete. The buildings and grounds are largely unaltered and reflect their initial development, with the exception of about seven acres north of 33rd Avenue North. This parcel was used by Trumbull Asphalt and the Anderson Brothers Construction Company from 1974 until the early 1990s and contained two cylindrical asphalt tanks within a rectangular, concrete dyke. An asphalt pipeline structure extended into the river from the approximate center of the parcel's shoreline; ruins of this structure are still in place at the site, although the asphalt tanks and dyke have been removed and the area is now used for storing shipping containers.

## **Previous Reviews**

Several reports have analyzed the success and economic impact of the Upper Harbor Terminal, but none have specifically considered the historic importance of the facility. Two recent master plans have recommended redevelopment of the property.

## **Statement of Significance**

The significance of the Upper Harbor Terminal (UHT) is tied to that of the extension of the nine-foot river channel in Minneapolis and the construction of the locks and dams at Saint Anthony Falls. These resources meet National Register Criterion A in the areas of Commerce, Maritime History, and Transportation, as the culmination of the century-old dream of bringing river traffic above Saint Anthony Falls, where adequate land was available to make Minneapolis the true head of navigation on the Mississippi River. The locks and dams further qualify under Criterion C for their engineering achievement.

The locks and dams would not have been built if not for the goal of establishing a harbor above Saint Anthony Falls. That the project was achieved through the lobbying efforts of Minneapolis politicians and businessman, after nearly a century of struggle, adds to the local significance of the harbor. The extent to which the City of Minneapolis supported and promoted the harbor development is exemplified by the funding it contributed and the resulting city undertakings—namely, the bridge and utility alterations and the eventual construction of the municipal Upper Harbor Terminal.

The Upper Harbor Terminal is the largest developed property in the area. The buildings, structures, and objects on the site have had very few alterations and exhibit a high degree of integrity. The municipal terminal represents many key aspects of the Upper Harbor development—it is intermodal, accommodating shipments by barge, rail, and truck, and its facilities were built to store and ship a wide variety of commodities.

The development of the municipal terminal seemed to come about as something of an afterthought, and was less firmly tied to the channel extension than was the development of the harbor as a whole. Nonetheless, the terminal stands as proof of the city's concerted efforts towards industrial development until well into the twentieth century. The site is eligible for local designation under Minneapolis HPC Criteria 1 and 3 for its importance as an industrial river site built and funded by the City of Minneapolis in response to the Upper Mississippi Harbor Development.

The Upper Harbor Terminal would most readily qualify for National Register designation as part of the larger Upper Harbor Historic District comprising resources between the Northern Pacific Railroad Bridge and the Soo Line Bridge. The Upper Harbor Historic District is eligible for National Register listing under Criterion A in the areas of Commerce, Industry, Maritime History, and Transportation.

The terminal's four monolithic concrete domes are the only known resources of this type in Minneapolis, and they appear to be eligible for local landmark listing under Minneapolis HPC Criterion 4 and for National Register designation under Criterion C in the area of Engineering.

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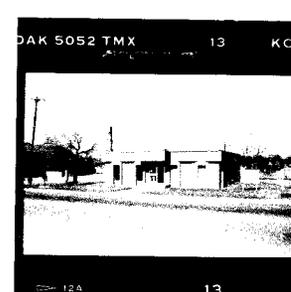
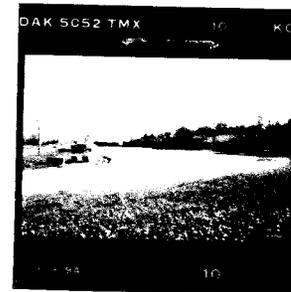
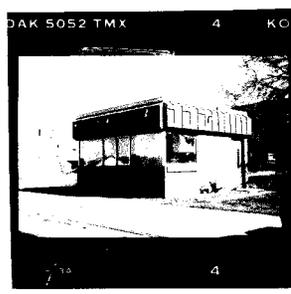
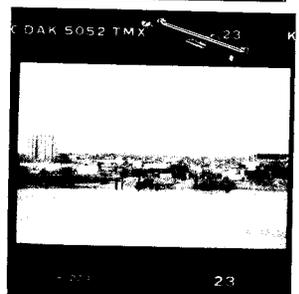
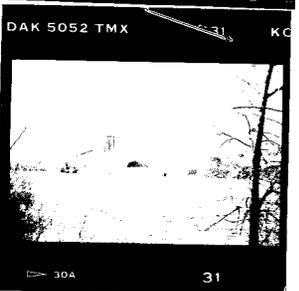
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 2, 51 – 36th Avenue North  
 51 – 34th Avenue North

Upper Harbor Terminal 3360, 3800 – North 1st Street (2 Dowling Avenue North)

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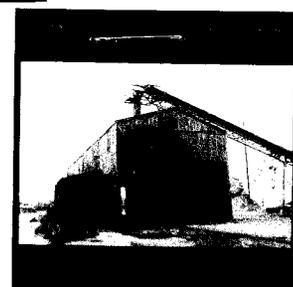
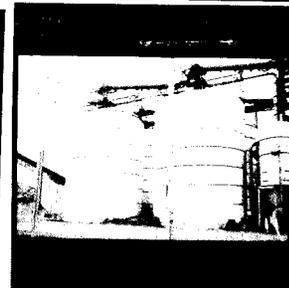
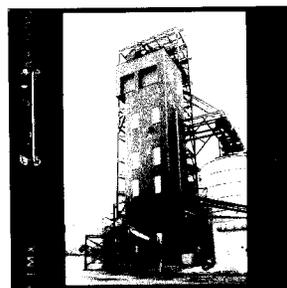
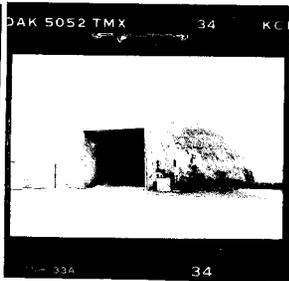
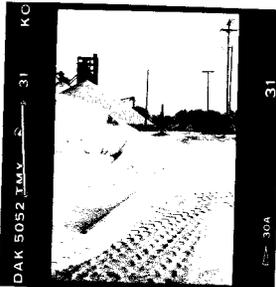
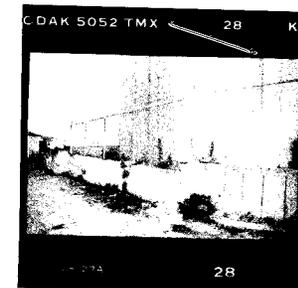
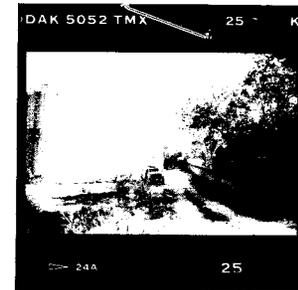
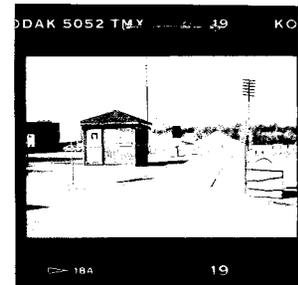
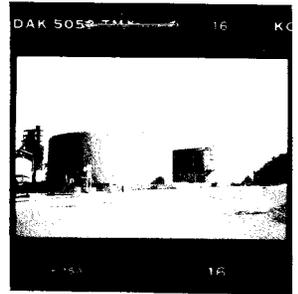
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Date Facing	5/2/2006 North	Roll Subject	6 Lower pier projection	Contact Sheet	6	Frame	36
Date Facing	4/11/06 Southwest	Roll Subject	5 Open storage area at north end of site	Contact Sheet	5	Frame	31
Date Facing	4/10/06 West	Roll Subject	2 Open storage area at south end of site	Contact Sheet	2	Frame	23
Date Facing	4/10/06 Northwest	Roll Subject	2 Open storage area at south end of site	Contact Sheet	2	Frame	25
Date Facing	4/10/06 Northwest	Roll Subject	2 Open storage area at center of site	Contact Sheet	2	Frame	28
Date Facing	5/5/06 Southeast	Roll Subject	9 1968 scale house, north and west facades	Contact Sheet	9	Frame	4
Date Facing	5/5/06 Southeast	Roll Subject	9 North end of UHT site	Contact Sheet	9	Frame	7
Date Facing	5/5/06 South	Roll Subject	9 Truck parking and staging area	Contact Sheet	9	Frame	10
Date Facing	5/5/06 East	Roll Subject	9 Office building, west facade	Contact Sheet	9	Frame	13



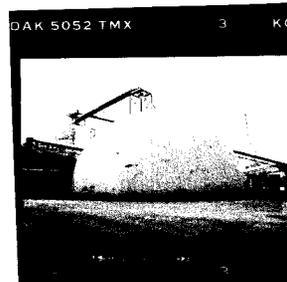
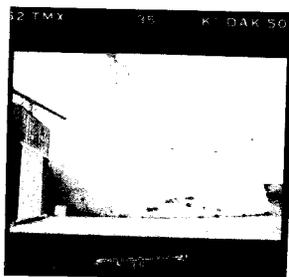
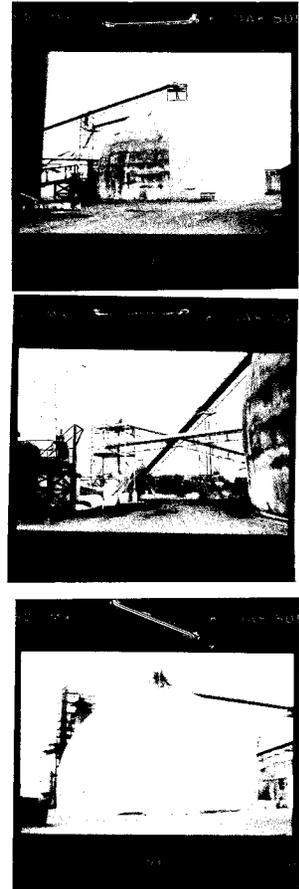
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Date Facing	5/5/06 South	Roll Subject	9 Dyke, west wall	Contact Sheet	9	Frame	25
Date Facing	5/5/06 Southeast	Roll Subject	9 Dyke, north wall	Contact Sheet	9	Frame	28
Date Facing	5/5/06 South	Roll Subject	9 Railroad tracks and open storage piles	Contact Sheet	9	Frame	31
Date Facing	5/5/06 North	Roll Subject	9 90' diameter dome	Contact Sheet	9	Frame	34
Date Facing	5/2/06 Northwest	Roll Subject	8 Elevator operations tower, south facade	Contact Sheet	8	Frame	6
Date Facing	5/2/06 Northeast	Roll Subject	8 Elevator operations tower, south and west facades	Contact Sheet	8	Frame	10
Date Facing	5/2/06 East	Roll Subject	8 Elevator silos, west sides	Contact Sheet	8	Frame	13
Date Facing	5/2/006 North	Roll Subject	8 Shaker house, conveyor, and elevator	Contact Sheet	8	Frame	16
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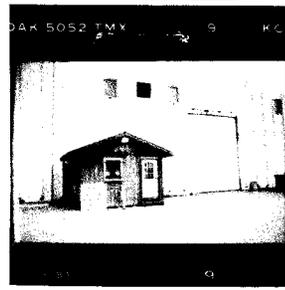
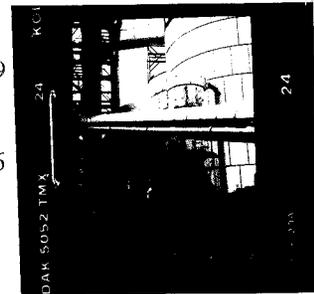
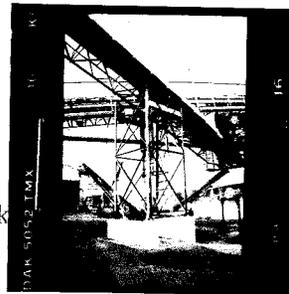
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Date Facing	9/26/06 Northwest	Roll Subject	15 East dome, southeast side	Contact Sheet	15	Frame	3
Date Facing	9/26/06 Southwest	Roll Subject	15 Warehouse, northeast corner	Contact Sheet	15	Frame	6
Date Facing	9/26/06 West	Roll Subject	15 East dome, east side	Contact Sheet	15	Frame	7
Date Facing	9/26/06 Southwest	Roll Subject	15 Paired domes, north sides, and adjacent conveyor	Contact Sheet	15	Frame	15



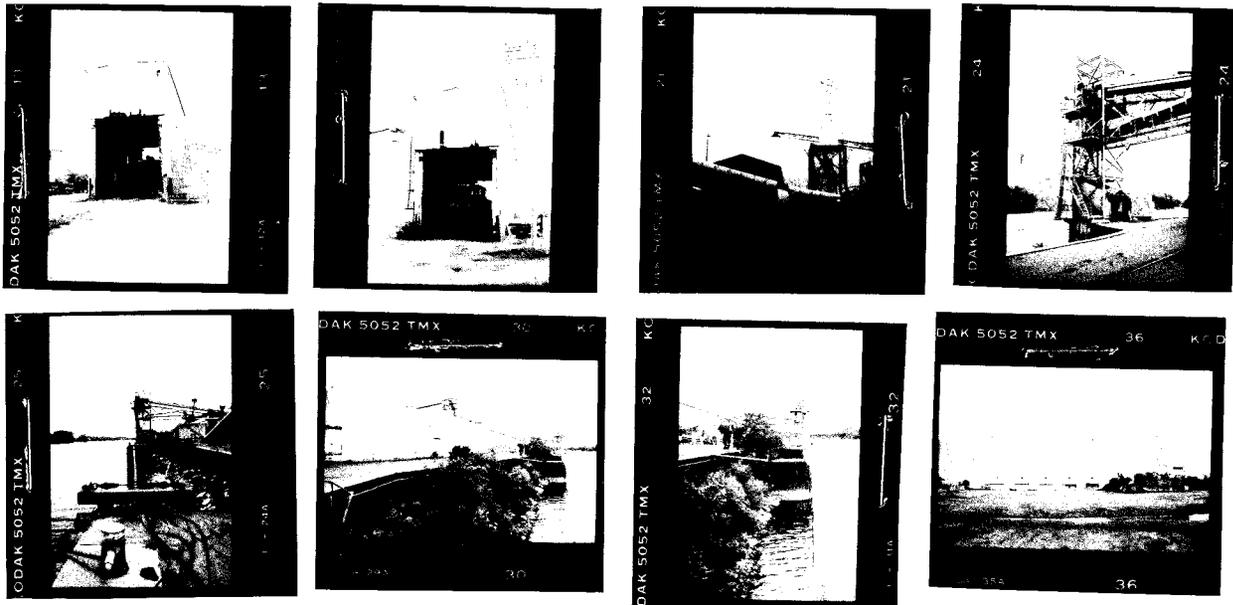
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Date Facing	9/26/06 West	Roll Subject	15 Elevator, dust collection tanks, and conveyor	Contact Sheet	15	Frame	24
Date Facing	9/26/06 South	Roll Subject	15 Truck load-out and hoist	Contact Sheet	15	Frame	27
Date Facing	9/26/06 Southeast	Roll Subject	15 Truck load-out, operating building, and dust collection tank	Contact Sheet	15	Frame	30
Date Facing	9/26/06 North	Roll Subject	15 Middle dome load-out shelter, south and east facades	Contact Sheet	15	Frame	32
Date Facing	9/26/06 North	Roll Subject	15 Elevator office, east and north facades	Contact Sheet	15	Frame	19
Date Facing	9/26/06 North	Roll Subject	14 Elevator office, west and south facades	Contact Sheet	14	Frame	16
Date Facing	9/26/06 Northwest	Roll Subject	14 Paired domes load-out shelter, south and east facades	Contact Sheet	14	Frame	4
Date Facing	9/26/06 Southwest	Roll Subject	14 Shipping office and warehouse, partial north facade	Contact Sheet	14	Frame	9
Date Facing	9/26/06 Northeast	Roll Subject	14 West dome, paired domes load-out shelter—west and south facades	Contact Sheet	14	Frame	12



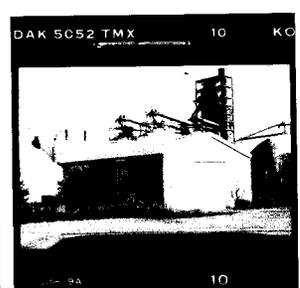
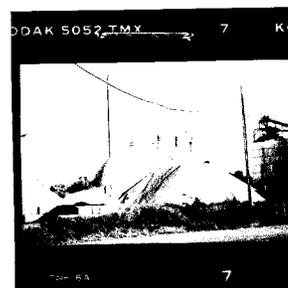
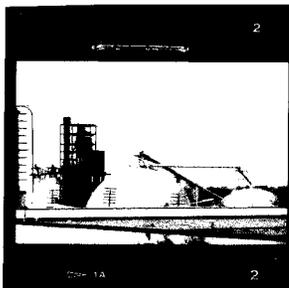
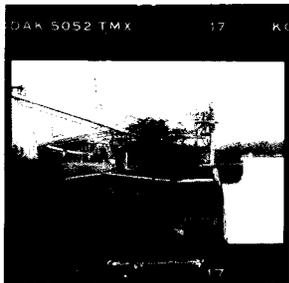
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Date	5/2/06	Roll	8	Contact Sheet	8	Frame	21
Facing	South	Subject	Locomotive shed				
Date	9/26/06	Roll	14	Contact Sheet	14	Frame	21
Facing	North	Subject	Conveyor, middle dome and load-out shelter, dust collection tank				
Date	9/26/06	Roll	14	Contact Sheet	14	Frame	24
Facing	Southeast	Subject	Load-out tower				
Date	9/26/06	Roll	14	Contact Sheet	14	Frame	25
Facing	South	Subject	South end of north dock, pilings, and load-out tower				
Date	9/26/06	Roll	14	Contact Sheet	14	Frame	30
Facing	North	Subject	Dock edge and mooring cells, and warehouse—partial east facade				
Date	9/26/06	Roll	14	Contact Sheet	14	Frame	32
Facing	North	Subject	Dock edge and mooring cells, load-out tower and partial conveyor				
Date	9/26/06	Roll	14	Contact Sheet	14	Frame	36
Facing	North	Subject	Warehouse, partial south facade				



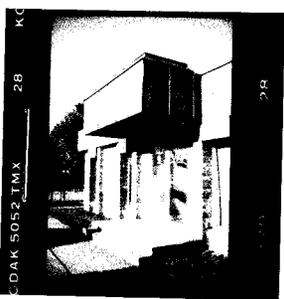
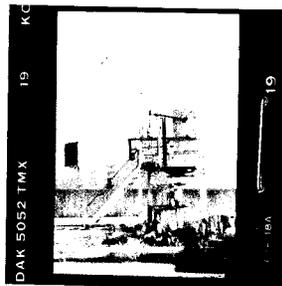
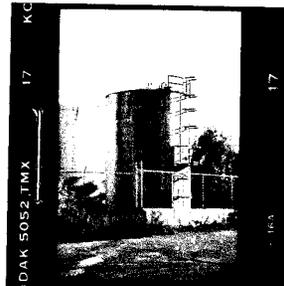
**Photograph Information, continued**

Date	9/1/06	Roll	13	Contact Sheet	13	Frame	17
Facing	North	Subject	Dock edge, mooring cells, load-out tower, and conveyor				
Date	9/1/06	Roll	13	Contact Sheet	13	Frame	20
Facing	East	Subject	Timberhead cleat on dock edge				
Date	9/1/06	Roll	13	Contact Sheet	13	Frame	24
Facing	South	Subject	Piling and docked barge				
Date	9/26/06	Roll	16	Contact Sheet	16	Frame	2
Facing	Northeast	Subject	Overview of materials handling area from 2nd Street North				
Date	9/26/06	Roll	16	Contact Sheet	16	Frame	36A
Facing	Northwest	Subject	Overview of terminal site from Lowry Bridge				
Date	9/25/06	Roll	12	Contact Sheet	12	Frame	7
Facing	East	Subject	North dome and aggregate pile				
Date	9/25/06	Roll	12	Contact Sheet	12	Frame	10
Facing	Southeast	Subject	Asphalt tank boiler house				



**Photograph Information, *continued***

Date	9/25/06	Roll	12	Contact Sheet	12	Frame	13
Facing	South	Subject	Meter house				
Date	9/25/06	Roll	12	Contact Sheet	12	Frame	17
Facing	South	Subject	Vertical asphalt tank				
Date	9/25/06	Roll	12	Contact Sheet	12	Frame	19
Facing	South	Subject	South petroleum loading platform				
Date	9/25/06	Roll	12	Contact Sheet	12	Frame	22
Facing	North	Subject	North petroleum loading platform				
Date	9/25/06	Roll	12	Contact Sheet	12	Frame	25
Facing	North	Subject	Office building, south facade				
Date	9/25/06	Roll	12	Contact Sheet	12	Frame	28
Facing	Northeast	Subject	Office building entrance				
Date	9/25/06	Roll	12	Contact Sheet	12	Frame	32
Facing	South	Subject	Office building, north facade				
Date	9/25/06	Roll	12	Contact Sheet	12	Frame	34
Facing	Southwest	Subject	Office building, east and north facades				



## Upper Saint Anthony Lock and Dam

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1 Portland Avenue South 124 - 9th Avenue Southeast Minneapolis Hennepin County 55401 and 55414	<b>PID</b> 23-029-24-43-0005 23-029-24-43-0003	<b>Inventory No(s).</b> HE-MPC-0177 HE-MPC-9284 HE-MPC-9285 HE-MPC-9286 HE-MPC-9287 HE-MPC-0162 HE-MPC-9288
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### Survey Information

<b>Common Name</b>	Upper Lock and Dam	<b>Historic Name</b>	Upper Saint Anthony Lock and Dam
<b>Property Category</b>	Industrial	<b>Surveyed by</b>	Erin Hanafin Berg, Hess, Roise and Company
<b>Current Function</b>	River navigation	<b>Date</b>	August – October 2006

### Locational Information

<b>Zone</b>	15	<b>Quad</b>	Minneapolis South	<b>Neighborhood</b>	Downtown				
<b>E</b>	A: 479440 B: 479780 C: 480210 D: 479360	<b>N</b>	A: 4980970 B: 4980940 C: 4980450 D: 4980730	<b>Twp</b>	29N	<b>R</b>	24	<b>Sec</b>	23

<b>Addition</b>	Unplatted and Auditor's Subdivision No. 044	<b>Block</b>		<b>Lot(s)</b>	21, 22
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**Property Description** Portion of Upton Island lying northwesterly of railroad right-of-way.

<b>River Mile</b>	853.9	<b>River Side</b>	Right (west)
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### Owner Information

<b>Owner Status</b>	Federal				
<b>Current Owner</b>	U.S. Government				
<b>Address</b>	1 Portland Avenue South				
<b>City</b>	Minneapolis	<b>State</b>	MN	<b>ZIP</b>	55401

### Summary

The Upper Saint Anthony Lock and Dam consists of a concrete horseshoe dam and a 400' by 56' lock structure with a bottom lateral hydraulic system and miter gates at both ends. The lock has a 49.2' lift, the highest on the Mississippi River. A three-story building that includes the operations center and an enclosed observation deck is attached to the west side of the lock structure, and a freestanding building housing public restrooms is located west of the lock. The lock and dam complex, which was completed in 1963 and exhibits good historical integrity, is eligible for the National Register as an individual listing or as a contributing resource to a Saint Anthony Falls Locks and Dams Historic District. The site also meets the criteria for Minneapolis landmark designation.

**Site Resources**

<b>Inventory No(s).</b>	<b>Name</b>	<b>Type</b>	<b>Year Built</b>
HE-MPC-0177	Lock	Structure	1963
HE-MPC-9284	Control Building	Building	1963
HE-MPC-9285	Public Restroom Building	Building	1995
HE-MPC-9286	Jetty	Object	1963
HE-MPC-9287	Dolphins	Objects	1963
HE-MPC-0162	Dam	Structure	1961
HE-MPC-9288	Shear Gate	Structure	1963

**Lock** The upper lock is 400' long by 56' wide and made of cast concrete, with a bottom lateral hydraulic system. Miter gates are present at each end: the downstream lock gates are each approximately 70' tall by 32' wide, while the upstream gates measure 22.5' tall by 32' wide. A submersible Tainter gate at the upper end of the lock chamber controls the flow during flood conditions.

**Control Building** The control building adjacent to the west wall of the lock is a cast-concrete and yellow-brick building three stories in height. The building projects two stories above the top of the lock wall, and has an observation deck on the top level. The observation deck, originally open, was enclosed in 1966. A narrow elevator tower and a rounded corner entry were added to the west facade of the building in 1995.

**Public Restroom Building** A one-story, detached building containing public restroom facilities was constructed to the west of the lock in 1995. The building has a rectangular plan with a projecting triangular canopy on the west, a flat roof with two domed skylights, and a light-colored brick facade.

**Jetty** A jetty extends from the east lock wall into the intermediate pool and curves slightly, following the contour of the riverbank. The jetty is about 1,000' in length; slightly more than half of it is constructed of piled stone, and the remainder is cast concrete. The jetty frames the lower approach to the lock and passes underneath the historic Stone Arch Bridge about 100' downriver from the lock.

**Dolphins** A line of fourteen cylindrical dolphins, each about 25' in diameter, extends from the upper end of the east lock wall. The dolphins are pared with a low, cast-concrete wall that defines the shore edge of the lock approach and is lined with imbedded, horizontal metal whalers. The line of dolphins extends under the Third Avenue Bridge and curves slightly towards the center of the river, rimming the upstream end of the horseshoe dam.

The dolphin structures are formed of rings of sheet-piling filled with soil or gravel and topped with concrete. Most of the dolphins have cavels on the top edge near the channel for securing barges. Additional smaller dolphins have recently been constructed across the river at the head of the horseshoe dam as safety devices.

**Dam** The dam is a narrow, angular, horseshoe shape with a chord dam downstream of the horseshoe and a concrete overflow spillway. The dam was designed to be constructed on top of the existing dam, which was built before the end of the nineteenth century to stabilize the eroding falls, but the structure was found to be inadequate and much of the dam had to be rebuilt.

**Shear Gate** A single concrete shear gate with imbedded, horizontal, metal whalers is located in line with the row of dolphins, adjacent to one of the piers of the Third Avenue Bridge.

### **Setting**

The upper lock and dam are located in the center of the historic milling center of Minneapolis, within the boundaries of the Saint Anthony Falls Historic District. Renovated mill buildings and public parkland are located on the west bank of the river. Additional parkland is present on the opposite bank, along with a hydroelectric plant and related buildings.

### **Integrity**

#### **Alterations**

There have been two major alterations to the lock and dam facility. The observation deck was enclosed in 1966, within the period of significance, and an elevator tower and a freestanding building housing public restrooms were constructed in 1995. Neither of these recent additions compromises the historic integrity of the structure.

#### **Notes on Condition**

The facility appears to be in good condition and is in use during the navigation season.

### **Historical Background**<sup>1</sup>

The U.S. Army Corps of Engineers constructed the Upper Saint Anthony Lock and Dam between 1959 and 1963, part of a two-lock system that extended navigation above Saint Anthony Falls. The facility was built on Upton Island, edging the west bank. Like its downriver companion, the lock measured 400' by 56' and featured a dry-dock design that was filled and emptied with a bottom lateral hydraulic system. The upper lock's 49.2' lift, however, was significantly higher and was, in fact, the greatest on the Mississippi River. Miter gates closed both ends of the lock chamber, but were designed only for locking purposes, so a Tainter gate also was installed within the chamber near the upstream gate to provide control in flood conditions.

The facility was built by Johnson-Kiewit, the same contracting partnership that constructed the lower lock, for \$9.6 million. The groundbreaking took place on November 12, 1959. The construction process was similar to that used for the lower lock, with a double cofferdam protecting the construction site. Open drains and a sump pump were used to remove surface water. An extensive system of some four hundred wellpoints pumped water from lower elevations within the cofferdam. The permeable stone on the upstream end needed further fortification, which was provided by a process described by Clarence Buending, the corps's resident engineer: "Chemicals are injected into the soil through pipes driven to the required depths. The two chemicals used, on making contact, combine by chemical reaction making an impervious jell which hardens over a period of time. At St. Anthony Falls, the Joosten Process produced a nearly water free slope for the foundation of the upstream end of the lock." Excavation was also challenging, because site conditions prohibited blasting a ledge of tough McGregor limestone. A five-ton frost ball cracked layers of the limestone, which were peeled off by a bulldozer; in the process, the chunks of stone were reduced to a manageable size. Excavation was completed by the winter of 1960-1961, and workers began pouring concrete in foundations and other areas that were temporarily enclosed. Most of the dam's concrete was in place by the following fall.<sup>2</sup>

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<sup>1</sup> Portions of this text were excerpted from "Lower Saint Anthony Falls Hydroelectric Project Architectural/Historical Survey," prepared by Hess, Roise and Company for Spaulding Consultants, May 2003.

<sup>2</sup> Clarence W. Buending, "A Review of the Construction of the St. Anthony Falls Project," [ca. 1962], copy of typescript, 6-7, available in archives of Saint Paul District, U.S. Army Corps of Engineers.

The engineers adapted an existing dam that extended across the river to the northeast, ending at a hydroelectric plant on the river's east bank. Modifications to the existing dam proved more complicated than anticipated. Plans called for cutting through the non-overflow section for the upstream approach to the lock, leaving most of the dam in place, outfitted with a new concrete facing. When work began, though, contractors discovered that the stone in the dam had deteriorated, and the entire section was replaced. Despite this surprise, the project remained basically on schedule. As the upper lock neared completion, frequent articles in the local press praised and promoted the project. Photographs of the evolving facilities were featured in several issues of the *Minneapolis Tribune*, including in the Sunday "Picture" section. In September 1962, a collection of photographs illustrated the structure, design, and engineering of the upper lock under the heading "Upper Harbor Is in Final Stretch."

The Upper Lock was officially dedicated in September 1963. The *Minneapolis Tribune* gave advance notice of the grand opening ceremony:

A decades-old dream becomes a reality next Saturday morning, when a tugboat pushing a barge up the Mississippi River chugs past the towers of downtown Minneapolis. The tug and barge will be the first craft to be lifted through two locks bypassing Saint Anthony Falls—the mammoth effort, 26 years in the doing, known as the Upper Harbor project.<sup>3</sup>

During the ceremony, the tugboat *Savage* pushed a 195' barge through the upper lock, breaking a red ribbon that spanned the lock at the high-water level. The barge was loaded with 756 tons of sewer pipe destined for use in the Minneapolis Auditorium expansion. Although the ultimate purpose of the lock construction was to provide navigation to the Upper Harbor, the 1963 grand opening of the lock was all for show. No docks and terminal facilities had yet been built in the Upper Harbor, and the barge was forced to pass back through the locks two hours later to unload its cargo at a terminal on the Minnesota River.

Barge terminals were completed shortly thereafter, however, and expanded throughout the 1960s and into the mid-1980s. While barge shipping has declined recently, the lock remains active during the navigation season.

Notably, the upper lock was constructed shortly after electronic computers became available, and an IBM 650 computer was used for the detailed computations needed to analyze the upper lock floor.

## **Previous Reviews**

A study by Hess, Roise and Company in May 2003 concluded that properties associated with the Upper Mississippi Harbor Development, including the lower lock and dam and—by extension—the upper lock complex, were eligible for listing in the National Register of Historic Places.

## **Statement of Significance**

The Upper Saint Anthony Lock and Dam facility is locally and nationally significant as the means by which the Mississippi's "highway of water" was extended above Saint Anthony Falls to the Upper Harbor. The lock and dam complex meets National Register Criterion A in the areas of Commerce, Industry, Maritime History, and Transportation. The lock and dam also meet Criterion C with historical significance in the area of Engineering. The Upper Lock and Dam also meet the conditions for individual designation by the Minneapolis HPC under Criteria 1, 3, and 4.

The upper lock and dam would also contribute to a historic district comprising the two lock complexes and other nearby resources associated with the Upper Mississippi Harbor Development, such as the pier protection at the Cedar Avenue and lower Northern Pacific Railroad Bridges, the University of Minnesota Dock, and the mooring cells and dock wall on the intermediate pool. The Saint Anthony Falls Locks and Dams Historic District meets

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<sup>3</sup> "Upper Harbor Is in Final Stretch," *Minneapolis Tribune*, September 9, 1962.

National Register Criterion A in the areas of Commerce, Industry, Maritime History, and Transportation, and Criterion C in the area of Engineering. The district also is eligible for Minneapolis HPC designation under Criteria 1, 3, and 4.

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### **Photograph Information**

<b>Date</b>	11/20/06	<b>Roll</b>	19	<b>Contact Sheet</b>	19	<b>Frame</b>	4
<b>Facing</b>	Northwest	<b>Subject</b>	Upper lock approach, dolphins, and dam under Third Avenue Bridge				
<b>Date</b>	11/20/06	<b>Roll</b>	19	<b>Contact Sheet</b>	19	<b>Frame</b>	5
<b>Facing</b>	North	<b>Subject</b>	West lock wall, control building, public restroom building				
<b>Date</b>	11/20/06	<b>Roll</b>	19	<b>Contact Sheet</b>	19	<b>Frame</b>	11
<b>Facing</b>	West	<b>Subject</b>	View into lock chamber from Stone Arch Bridge				

