

Washburn-Crosby Milling Complex,
Feed Elevator
715 South First Street
Minneapolis
Hennepin County
Minnesota

HABS No. MN-69-G

HABS
MINN,
27-MINAP,
20-G-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Buildings Survey
National Park Service
Rocky Mountain Regional Office
Department of the Interior
P.O. Box 25287
Denver, Colorado 80225

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HISTORIC AMERICAN BUILDINGS SURVEY

WASHBURN-CROSBY MILLING COMPLEX,
FEED ELEVATOR

HABS No. MN-~~69G~~^{69-G}

Location: 715 South First Street, Minneapolis, Hennepin
County, Minnesota

USGS Minneapolis South Quadrangle, Universal
Transverse Mercator Coordinates: Zone 15;
479740:4980480; 479860:4980420; 479820:4980360;
479700:4980400

Present Owner: Riverside Industries, Inc.
P.O. Box 1125
Minneapolis, Minnesota 55440

Present Occupant: Leased by General Mills, Inc.
Minneapolis, Minnesota

Present Use: Grain Storage

Significance: The Feed Elevator is a part of the larger Washburn-Crosby Milling Complex. Situated on the west side of the Mississippi River near the historic St. Anthony Falls. The Washburn-Crosby Milling Complex is the last surviving milling complex on that side of the river, which once was the heart of the Minneapolis milling district and which gave rise to Minneapolis' title of flour milling capital of the world in the late 19th and early 20th century. The Feed Elevator was constructed to expand the storage capabilities for the mill complex. It has been continually used for storage by General Mills, Inc. and is still being used by them.

PART I. HISTORICAL INFORMATION See HABS No. MN-69 for general information.

A. Physical History:

1. Date of erection: 1928
2. Architect: Barnett and Record Company, Minneapolis, Minnesota
3. Original and subsequent owner: The Feed Elevator was originally built for, and owned by the Washburn-Crosby Company, which later became General Mills, Inc., of Minneapolis, Minnesota.
4. Builder, contractor, suppliers: Barnett and Record Company, Minneapolis, Minnesota. Minneapolis Building Permit #A19151 was issued on November 5, 1928 to Barnett and Record Co. for the foundations. Minneapolis Building Permit #A19187 was issued on December 5, 1928 to Barnett and Record Co. for the tank construction.

5. Original plans and construction: Plans for the Feed Elevator are in the tube files at General Mills, James Ford Bell Technical Center in Minneapolis, Minnesota. Other plans may exist, as yet unfiled at the Northwest Architectural Archives of the University of Minnesota, Minneapolis, Minnesota.
6. Alterations and additions: Many alterations have taken place since the elevator was constructed. Most of the alterations have been either to the equipment or minor in nature. This has been deducted by a review of the building permits and plans and plan listings.

B. Historical Context:

The Feed Elevator was erected on the site of the East Boiler House. The permit for the demolition of the East Boiler House has not been found. The Feed Elevator was built adjacent to No. 1 Elevator to increase grain handling capacity.

PART II. ARCHITECTURAL INFORMATION

A. General Statement:

1. Architectural character: The Feed Elevator is typical of the storage/grain handling structures that gives the milling district its unique expression on the Mississippi River banks. Its strong architectural form is a direct and efficient expression of its unique role in the flour milling process.
2. Condition of fabric: The elevator itself appears to be in good condition generally. It has been in continuous use since its erection and is therefore assumed to be in working order.

B. Description of Exterior:

1. Overall Dimensions: The elevator consists of fifteen circular storage bins arranged in 3 rows of 5 each. The bins are 13 feet 9 inches inside diameter. The overall dimensions are respectively 42 feet x 70 feet and the height of the bins is 120 feet. A workhouse that is approximately 25 x 70 feet and 20 feet high runs along the middle of the top of the bins.
2. Foundations: The storage elevators rest on a foundation of concrete, similar to the material of the elevators. The foundation extends about 12 feet above grade on the north. The whole structure is supported on concrete piles, reinforced with steel, as was common in the construction of such buildings.

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3. Walls: The elevator bin walls are made of concrete 6-1/2 inches thick. The material is Portland cement poured continuously to the top and is unpainted. The circular structure of the bins is expressed from the grade up. The grade level forms a flat wall that is tangential to the outer edges of the circular elevators, about 12 feet tall. Four bays, each with two windows, compose the north elevation. The other sides are hidden by the structures surrounding the elevator. The corners of the base are cut off at 45 degrees to be tangential to the corner bins. All surfaces are concrete, none are painted. The workhouse on top is of metal siding with five large window bays on its two long sides, with a door and window on the short west end.
4. Structural system, framing: The bins are of reinforced concrete, most likely constructed by slip forming, common by the time of construction, to allow a continuous pour. The workhouse on top is of metal frame construction.
5. Chimneys: Above each elevator is a narrow vent pipe extending a few feet above the top of the workhouse.
6. Openings:
 - a. Doorways and doors: There is a metal door in the middle of the angled wall in the northwest corner. The door is of an industrial design, with metal trim.
 - b. Windows and shutters: Eight windows are found on the base of the elevation to the north. They are composed of a seven by seven grid of 6 inch glass blocks for an overall dimension of 42 inches square. The trim is metal and there is concrete grout between the blocks of glass. A small window of wire screen glazing is located in the center of the glass block, equivalent to two blocks high and three blocks wide. It is located such that there are two rows of glass block on the sides and the top of it and three rows below.
7. Roof: The roof of the bins is of concrete.
 - a. Slope, coverings: The roof slopes gradually away from the workhouse and extends past the edge of the elevators. The workhouse has a composite roof that pitches slightly from the center towards the long sides.

C. Description of Interior:

1. Floor Plans:

- a. Foundation: The foundation is a reinforced concrete slab on footings. Feeders dump the contents onto a 9 inch screw conveyor that is connected to the "A" Mill.
- b. Storage bins: The 15 circular bins are arranged in 3 rows of 5 each. The walls are 6-1/2 inch thick concrete and 13 feet 3 inches in diameter. They are poured in a continuous form that rises 112 feet to the cupola or workhouse. The bins are aligned flush with the northeast side of the No. 1 Elevator. Each bin is connected to the adjacent ones by a 5 foot concrete span.
- c. Workhouse: The workhouse or cupola is 20 feet 8 inches wide and runs the longitudinal length of the grain bins. It houses a 36 inch belt conveyor that connects to the grain handling equipment in the No. 1 Elevator.

D. Site:

1. General setting and orientation: The Feed Elevator is located about 3 feet east of the Wheel House. East of the Feed Elevator is the No. 1 Elevator with, at most, a foot between them. Both the Wheel House and the No. 1 Elevator predate the Feed Elevator. South of the Feed Elevator is the East Engine House. Behind and south of the East Engine House and across the south side of the No. 1 Elevators runs the train shed. The train shed conceals the East Engine House and the south side of the Feed Elevator from view. The north or riverside is the only side readily exposed to view.

PART III. SOURCES OF INFORMATION

- A. Original Architectural Drawings: The following original plans are at General Mills, Inc., Corporate Engineering, James Ford Beel Technical Center, Minneapolis, Minnesota.

| <u>Dwg No.</u> | <u>Description</u> | <u>Date</u> |
|----------------|---|-------------|
| 1273 | Barnett and Record | 1928 |
| 250-1 | Feed Mill Elevator-Foundation and Bin Floor | 1928 |
| 250 | Feed Mill Elevator | |
| 250-01 | F.M.E. Section and Bin Layout Detail | |
| 250-02 | F.M.E. 1st Floor and Foundation Plan | |
| 250-03 | F.M.E. Typical Bin, Window and Section Plan | |

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| Dwg No. | Description | Date |
|----------|---|------|
| 250-04 | F.M.E. Bin Floor Plan and Bin Wall Details, Cupola Walls and Roof | |
| 250-05 | F.M.E. Sliding forms, Machinery and Mixing Plant | |
| 250-06 | F.M.E. Detail of Conv. Bridge Housing, Machine Supports and Stairs | |
| 250-07 | F.M.E. Elevations and Roof Plan of Conveyor Bridge and Housing | |
| 250-08 | F.M.E. Conveyor supports in Old Work House | |
| 239-2 | Feed Mill Elevator Bin Opening and Feeder Detail | 1928 |
| 239-1 | Feed Mill Elevator Lighting Plan Basement | 1928 |
| 242-2 | Feed Mill Elevator Lighting Plan 1st Floor | 1928 |
| 242-3 | Feed Mill Elevator Lighting Plan Texas Level | 1928 |
| 244 | Feed Elevator Return Conveyor Areaway and Beam Hoist | |
| 245 | Feed Elevator Insert Spacing and Conveyor Layout | |
| Job 621 | Feed Elevator Bin Bottom Plan | |
| A2-274-1 | Feed Mill Rehab-Plot Plan | 1953 |

B. Early Views: The early panoramic views do not show the Feed Elevator. Three 1945 photographs from the General Mills Archives, Minneapolis, Minnesota show the Feed Elevator.

C. Interviews:

Mr. Don Noel, Millright
 3727 Rhode Island Avenue South
 St. Louis Park, Minnesota 55426
 (612)938-5556

Mr. Bill Praus, Estimator, Coordinator
 General Mills, Inc.
 7232 Oakland Avenue South
 Richfield, Minnesota
 (612) 866-9053

Mr. Walt Langley
 Building Superintendent
 Riverside Industries, Inc.
 P.O. Box 1125
 Minneapolis, Minnesota 55440

D. Bibliography:

1. Primary and unpublished sources:

Department of Inspections
City of Minneapolis
Building Permit Files 1884-1973

Archives
General Mills, Inc.
9200 Wayzata Boulevard
Golden Valley, Minnesota 55426

Corporate Engineering
James Ford Bell Technical Center
General Mills, Inc.
900D Plymouth Avenue
Golden Valley, Minnesota 55424

Ben Miller
Riverside Industries, Inc.
P.O. Box 1125
Minneapolis, Minnesota 55440

Draft nomination, National Register of Historic Landmarks,
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2. Secondary and published sources:

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Prepared by:
Lorene Lehmann,
Jill Fuerstneau and
Ben Metzdorff
University of Minnesota
March 1986

PART IV. PROJECT INFORMATION

This project was prepared as a class project for Architecture 5142,
Historic Building Research and Documentation, a class offered in the
School of Architecture and Landscape Architecture at the University of
Minnesota, Minneapolis, Minnesota. The class project was prepared under
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Saint Paul, Minnesota. Historical data was compiled by Lorene Lehmann,
Jill Fuerstneau, and Ben Metzdorff, University of Minnesota, March 1986.