United States Helium Production Plant No. 1, Compression Building
(Building No. 3)
(Federal Aviation Administration Southwest Regional Office)
4400 Blue Mound Road
Fort Worth
Tarrant County
Texas

HABS No. TX-3487-C

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN BUILDING SURVEY
Southwest System Support Office
National Park Service
P.O. Box 728
Santa Fe, New Mexico 87504

HISTORIC AMERICAN BUILDINGS SURVEY

UNITED STATES HELIUM PRODUCTION PLANT No. 1
COMPRESSION BUILDING, (BUILDING NO. 3)

HABS No. TX-3487-C

LOCATION:	4400 Blue Mound Road, Ft. Worth, Tarrant County, Texas
USGS:	Haltom City Quadrangle
UTM COORDINATES:	14.655.400.3632680
ARCHITECT, BUILDER:	United States Navy, Bureau of Yards and Docks
PRESENT OWNER:	Federal Aviation Administration
PRESENT USE:	Vacant
SIGNIFICANCE:	Building 3 is significant for its association with the United States Strategic Materials Program following World War I. It is the original building where the extracted helium was compressed into cylinders. It retains its integrity of location, design, setting, materials, workmanship, feeling, and association.

HISTORICAL AND DESCRIPTIVE INFORMATION

Specification Number 3800, "Argon Production Plant at North Fort Worth, Texas," was created by the Navy Department, and released on February 15, 1919. It contained specifications for Building 3:

> Compression building will be one story in height and shall have concrete walls and roof; concrete and wood block floors, steel sash, metal-covered bifolding and hinged doors, sheet metal work and ventilators, built-up roofing, tile coping, steel crane tracks, hardware, painting and glazing, heating, lighting and electrical installation and mechanical equipment. Mechanical equipment is furnished by the Government, except as noted.

In 1921, the Bureau of Yards and Docks of the Navy Department published a book that included a detailed description of the buildings at the United States Helium Plant No. 1 after they were constructed (Navy Department 1921:443-444). Building 3, the massive Compression Building, contained all of the compressors and carbon dioxide refrigerating units. The one-story building was 97' wide, 290' long, and 32' wide. The longitudinal bays at each side of the building contained ventilation doors, which also were designed as a safety feature should combustion of leaking gases occur. The northern end of the building contained a 20' platform adjacent to the railroad tracks for loading and unloading of cylinders and other equipment. Another safety feature was complete concrete flooring, with the exception of several panels located adjacent to the loading platform, which were laid with wood block, to prevent sparking during movement of cylinders (Navy Department 1921:443).

When the Airways Division first moved into the facility, Building 3, in addition to Building 2, was used for storage for airways material, and equipment that required protection from the elements (FAA 1976:5).

An account of the building in 1945 reported that the west side of Building 3 was used for storage of small electrical and electronic items; the north end was used for shipping and receiving, with a small area used for a crystal-grinding laboratory; the south end of the building contained an engine generator repair shop; the east portion of the building was used as a bowling alley; the center of the building held a carpenter shop; and the remainder of the building was used as storage space for transmitters, transformers, sheet metal, and other large materials. There were metal tracks running from north to south, upon which an overhead crane was used to move large items (FAA 1976:6).

Alterations to the building include exterior and interior changes. On the exterior, original doors have been replaced with aluminum and glass or steel units, and most window openings have been

blocked in with concrete or steel units, and/or small glass blocks. There were two small, one story additions made to the southwest corner in the 1930s and 1950s, respectively. Two additions were made to the east elevation in the early 1950s. On the interior, alterations include incorporation of two new floors above the ground level, addition of plywood wall paneling, carpeting, and acoustic dropped ceilings.

SOURCES OF INFORMATION

A. ARCHITECTURAL DRAWINGS

Record Group 71, Entry 649. Bureau of Yards and Docks, Facility Blueprints. On microfilm file, National Archives, College Park, Maryland.

B. HISTORIC VIEWS

Record Group 72, Entry 162, Boxes 1, 16, 25. Bureau of Aeronautics, Helium Plant Material, 1919-1930. On file, National Archives, Washington, D.C.

C. BIBLIOGRAPHY

1961
Cook, Gerhard A. *Argon, Helium, and the Rare Gases - the Elements of the Helium Group; Volume II - Production, Analytical Determination, and Uses*. Linde Company and Interscience Publishers, New York.

1921
Davis, John W., James O. Lewis, and Andrew Stewart. *Report on the United States Helium Project*. Department of the Interior, Bureau of Mines.

1994
Federal Aviation Administration, Southwest Region. *Reminiscences on the Reservation*: A History of the FAA Southwest Regional Office. FAA, Fort Worth.

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Federal Aviation Administration, Southwest Region. *Recollections and Reflections*. Public Affairs Office, FAA, Fort Worth.

1989
Historic Preservation Council for Tarrant County. *Tarrant County Historic Resources Survey, Volumes I-IV.* Historic Preservation Council for Tarrant County, Texas.

1921
Navy Department, Bureau of Yards and Docks. *Activities of the U.S. Bureau of Yards and Docks, World War 1917-1918.* Government Printing Office.

Record Group 70, Entry 11. Bureau of Mines, General Records, Correspondence, Reports. On file, National Archives, Washington, D.C.

Record Group 71. Bureau of Yards and Docks, General Correspondence, Shore Establishments, 1918-1925. On file, National Archives, Washington, D.C.

Record Group 71, Entry 649. Bureau of Yards and Docks, Facility Blueprints. On microfilm file, National Archives, College Park, Maryland.

Record Group 72, Entry 62. Bureau of Aeronautics, General Correspondence, 1925-1942. On file, National Archives, Washington, D.C.

Record Group 72, Entry 162. Bureau of Aeronautics, Helium Plant Material, 1919-1930. On file, National Archives, Washington, D.C.

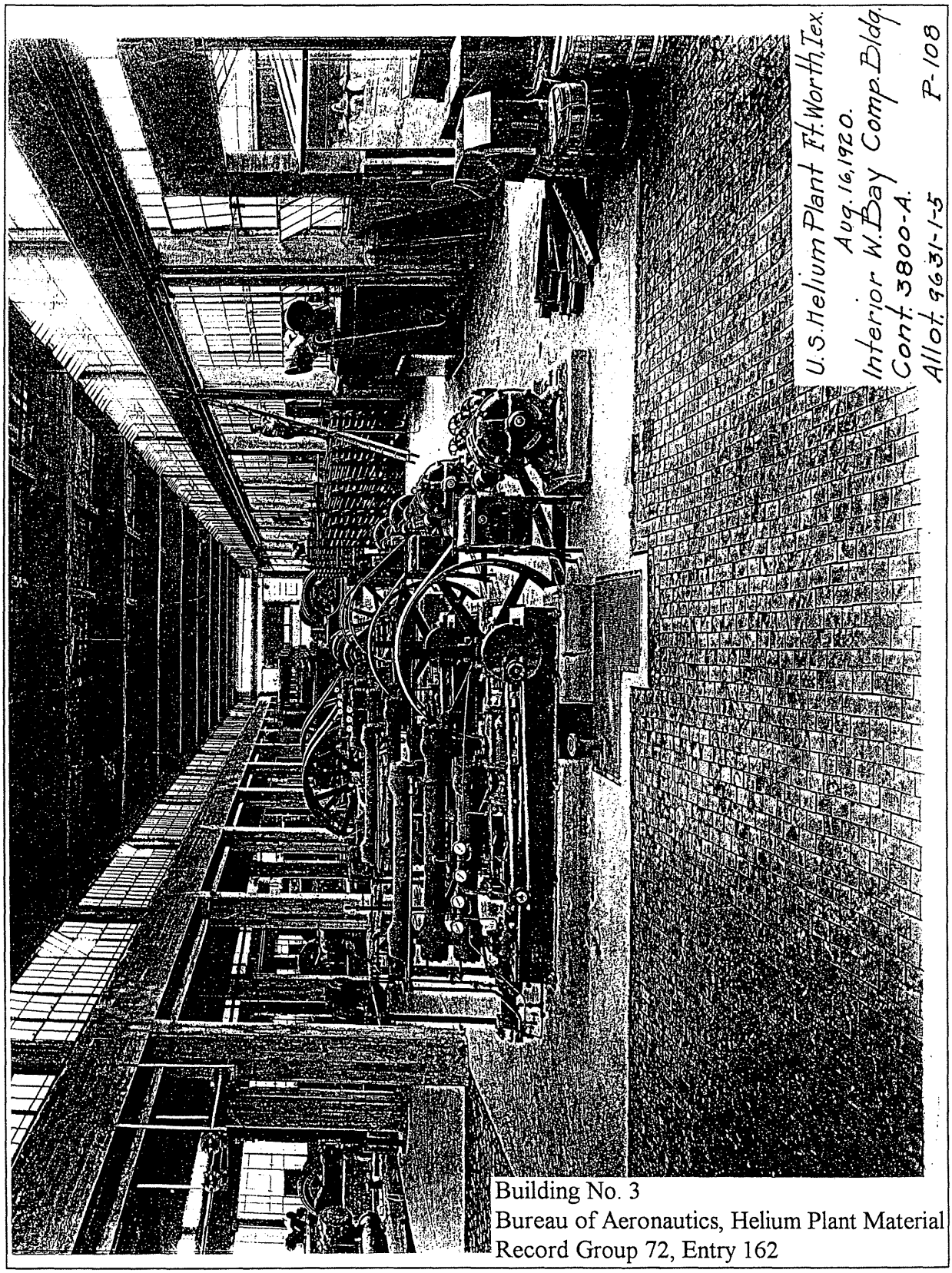
Record Group 80, General Records of the Navy, Secretary of the Navy Correspondence, 1916-1926

D. LIKELY SOURCES NOT YET INVESTIGATED

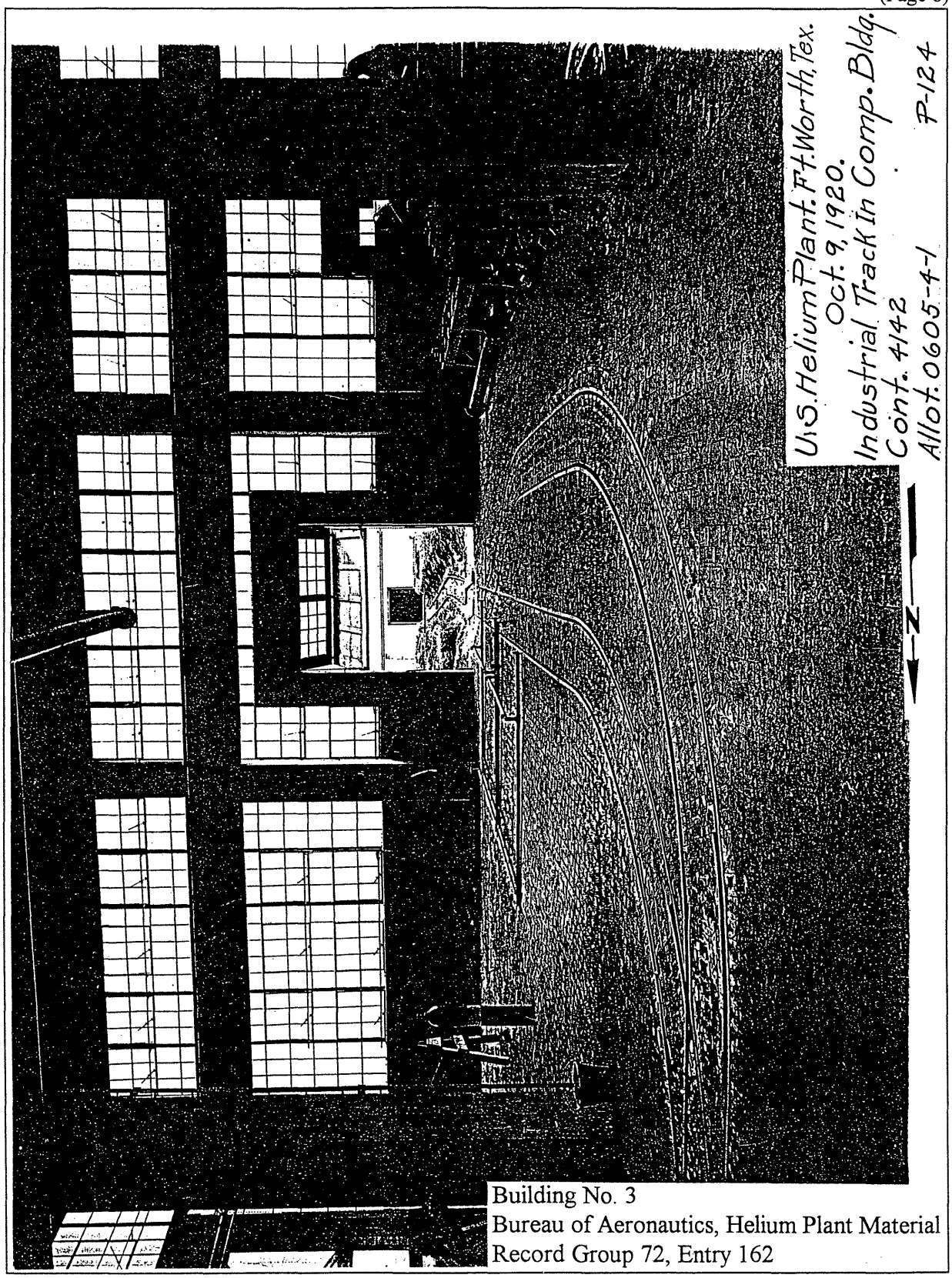
There are a number of repositories and facilities, both in the state of Texas as well as elsewhere, which have the potential to contain records or information pertaining to the former United States Helium Production Plant located at 4400 Blue Mound Road, in North Fort Worth, Texas. In addition to the following list, the potential for oral history accounts is a promising avenue for further research. The two FAA publications listed in the bibliography above were very useful in preparation of this document, and they contain several accounts from local residents employed at the former Helium Plant, many of which could be pursued as further leads. The following represents a comprehensive list for continuation of, or augmentation to, the results of the research presented in this document. The following list is arranged in no particular order, and should not be considered conclusive.

Various archived/microfilmed newspapers/periodicals in the collections of various state public libraries, particularly in Amarillo, Texas, and Wichita Falls, Texas.
Various files and collections at Texas Universities
Federal Aviation Administration Records Facility, Cinncinnati, Ohio
City of Fort Worth Planning Department - Historic Building Permits
Navy Historical Foundation
Department of the Interior Library
National Science Foundation
Records of the Lone Star Gas Company
Records of the Linde Company, New York
Records of the Air Reduction Company, New York

GRAPHIC DOCUMENTATION



Building No. 3
Bureau of Aeronautics, Helium Plant Material
Record Group 72, Entry 162



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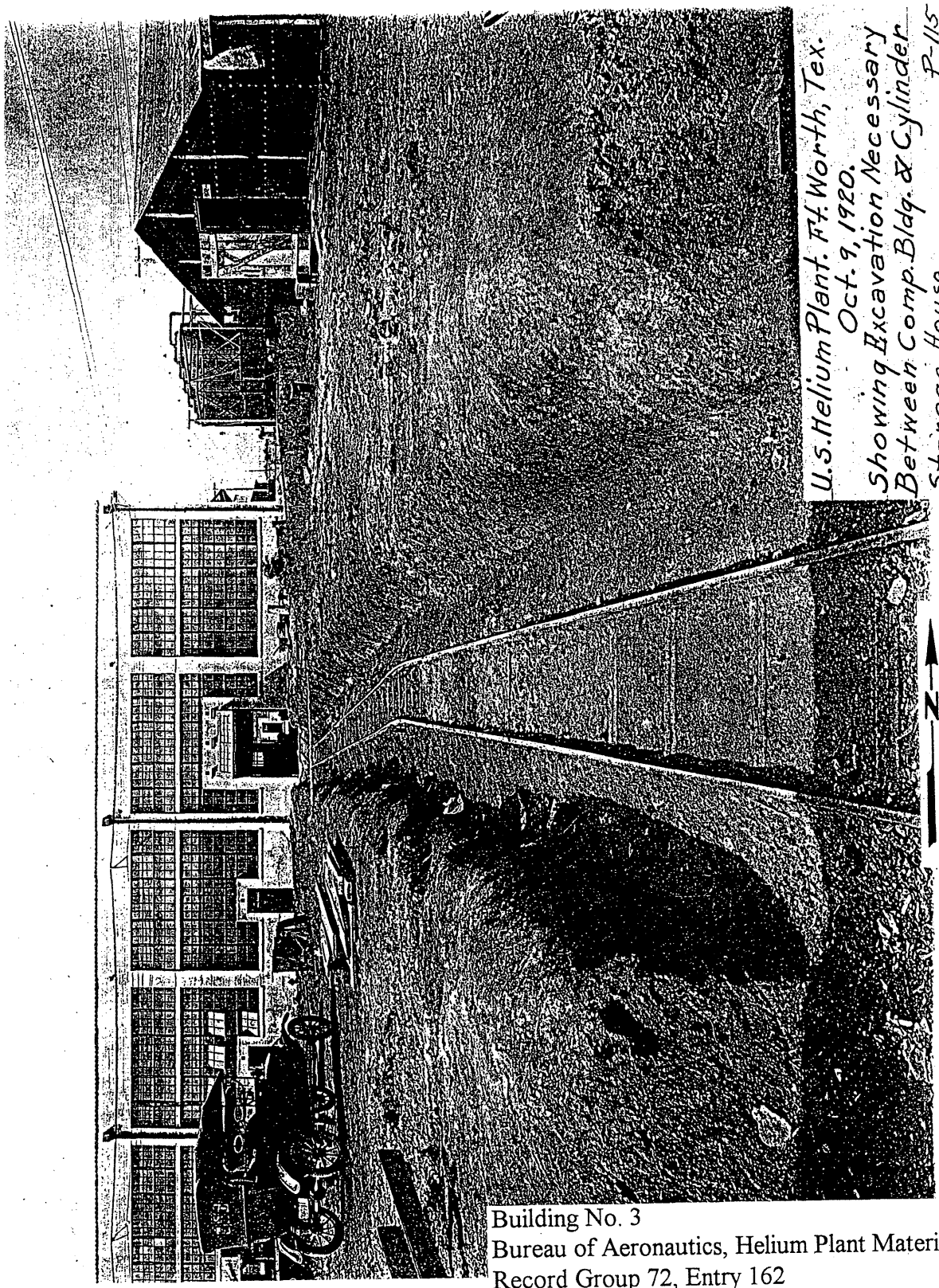

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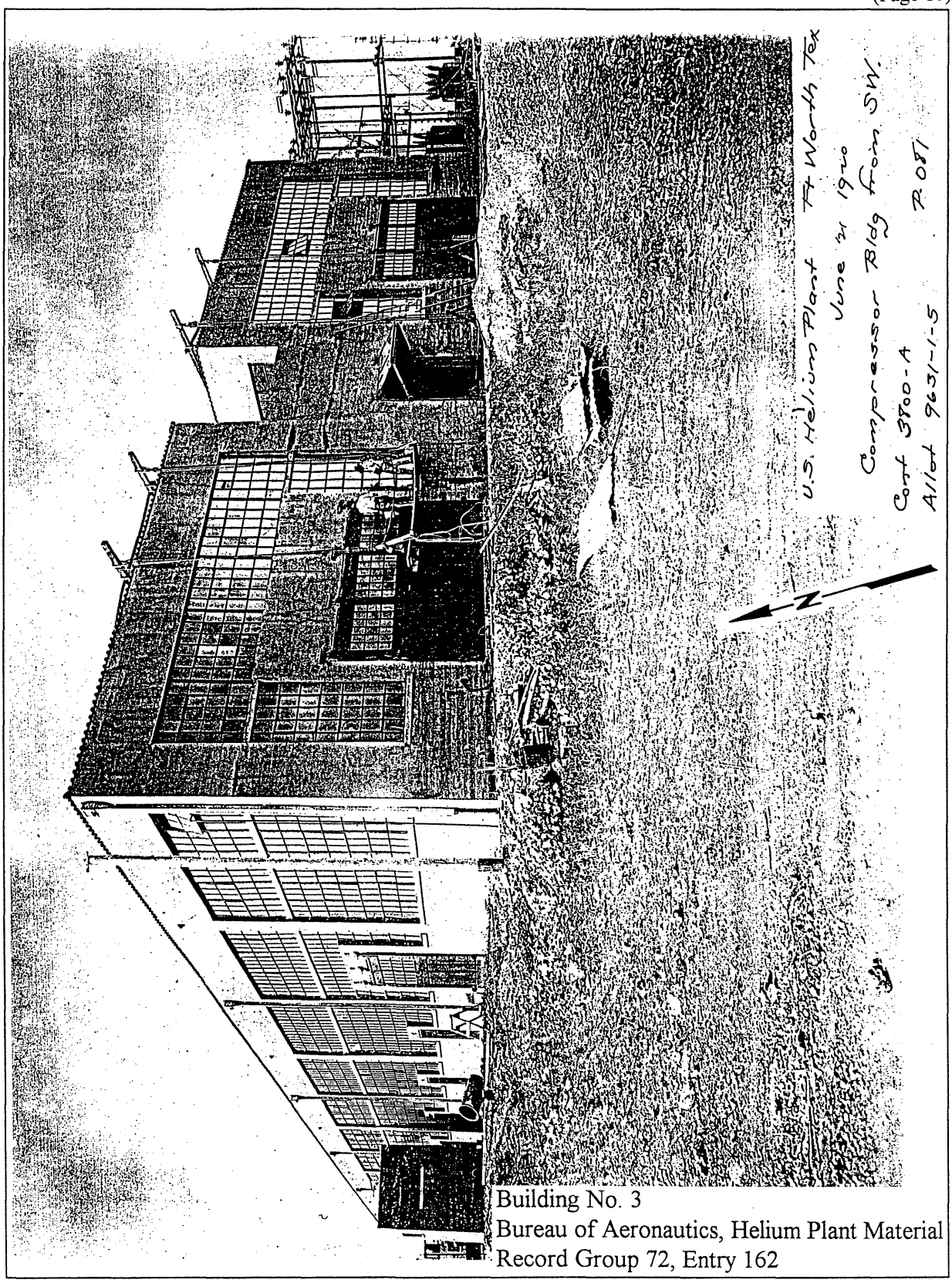

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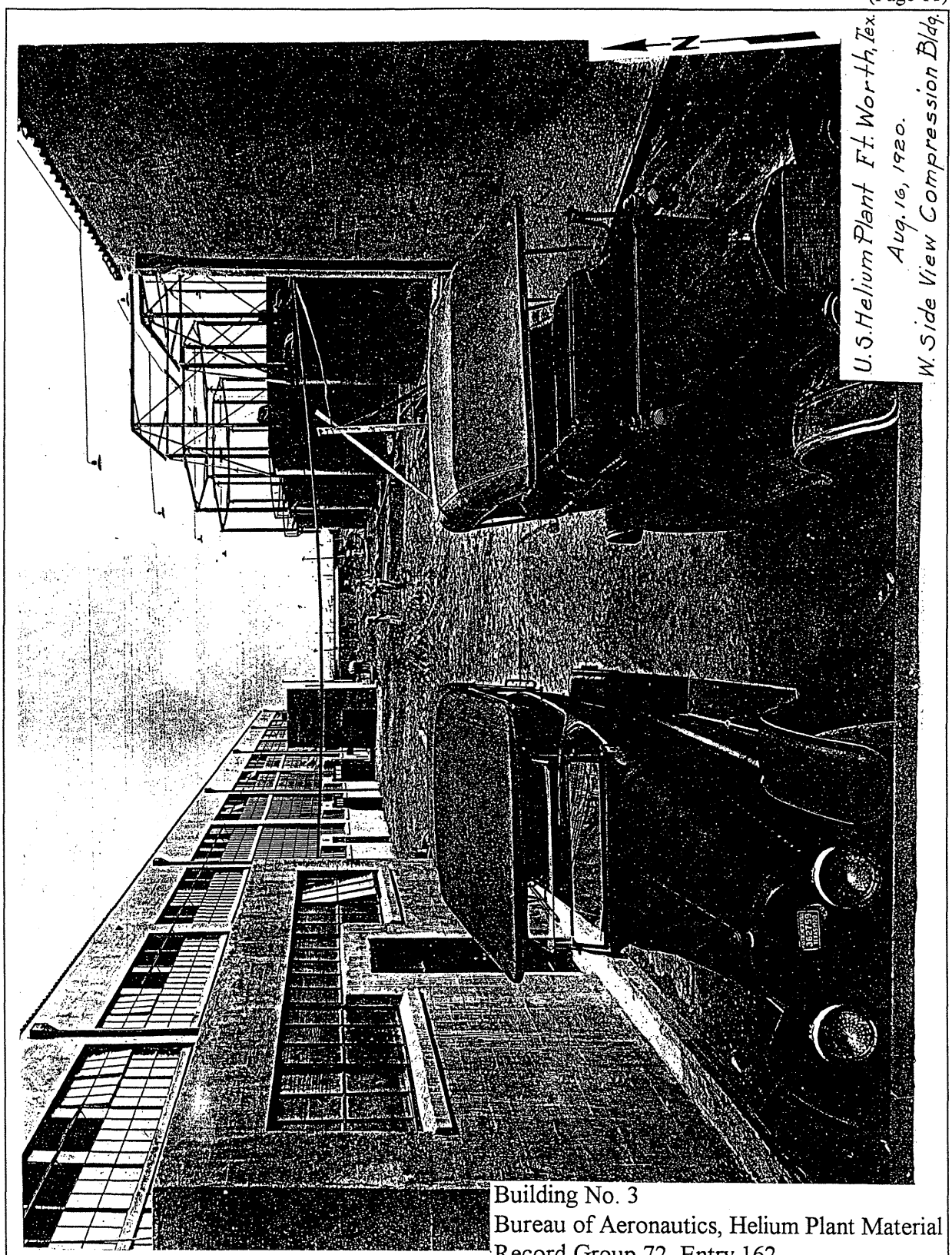

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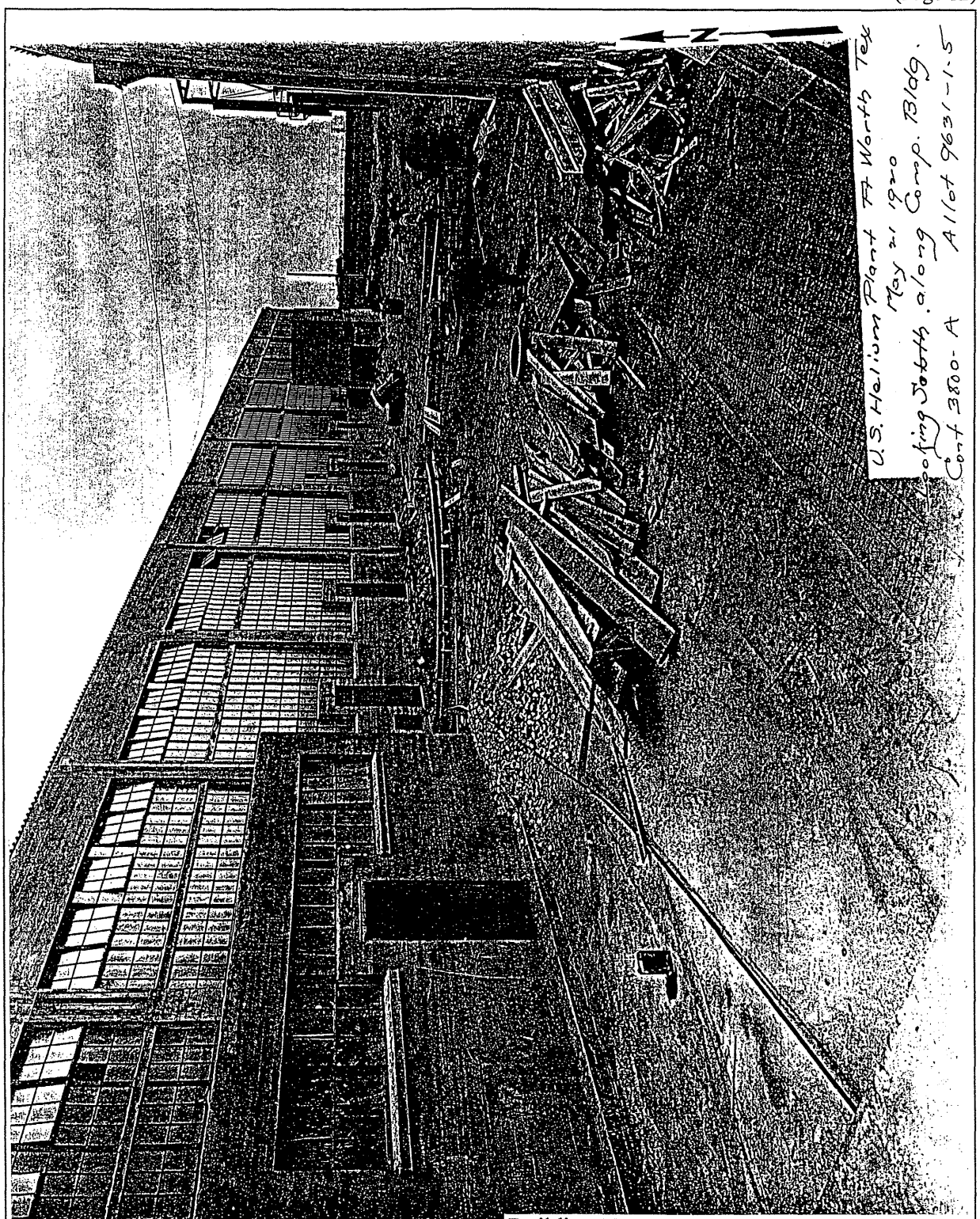

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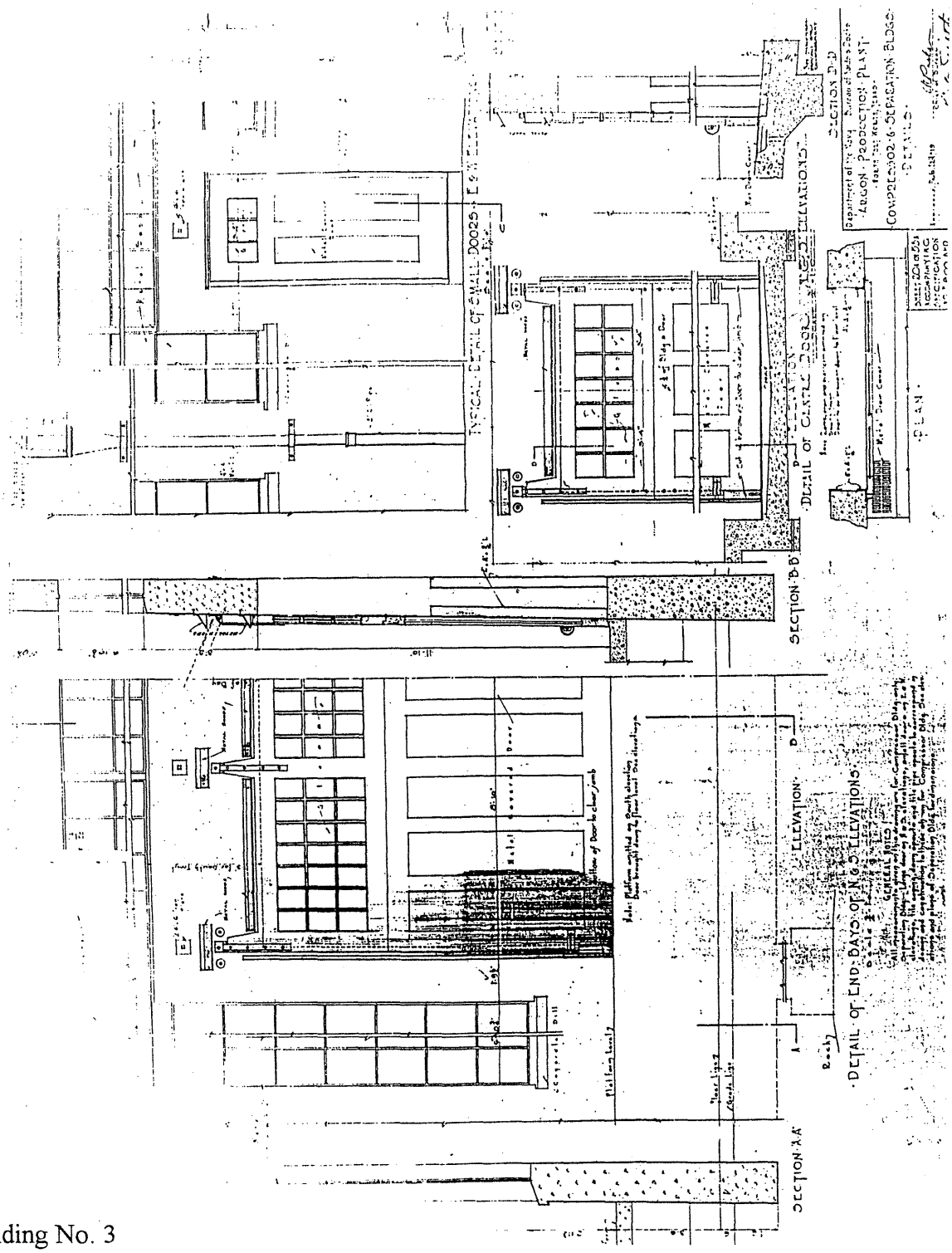

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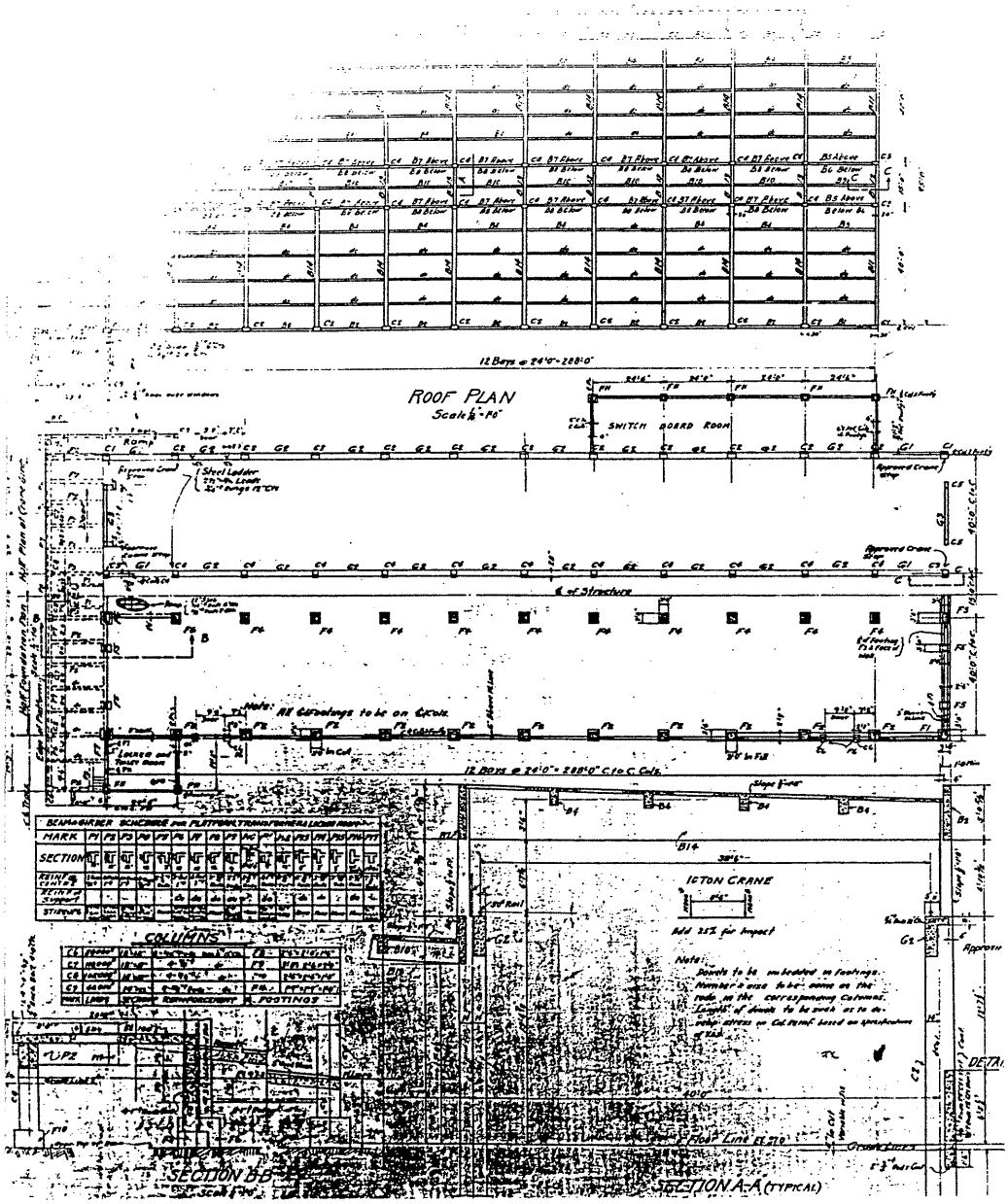

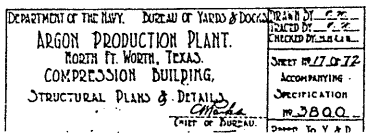

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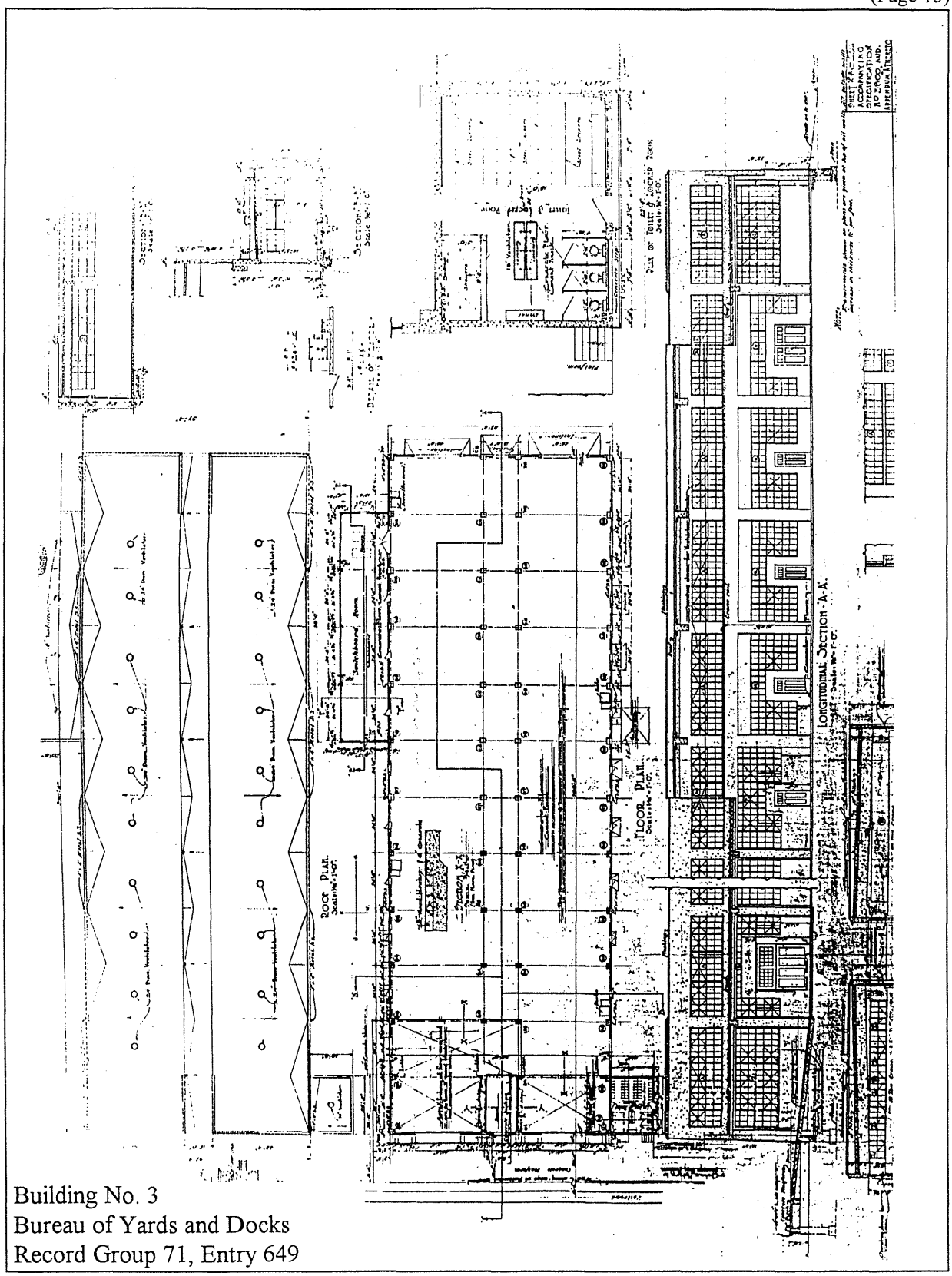

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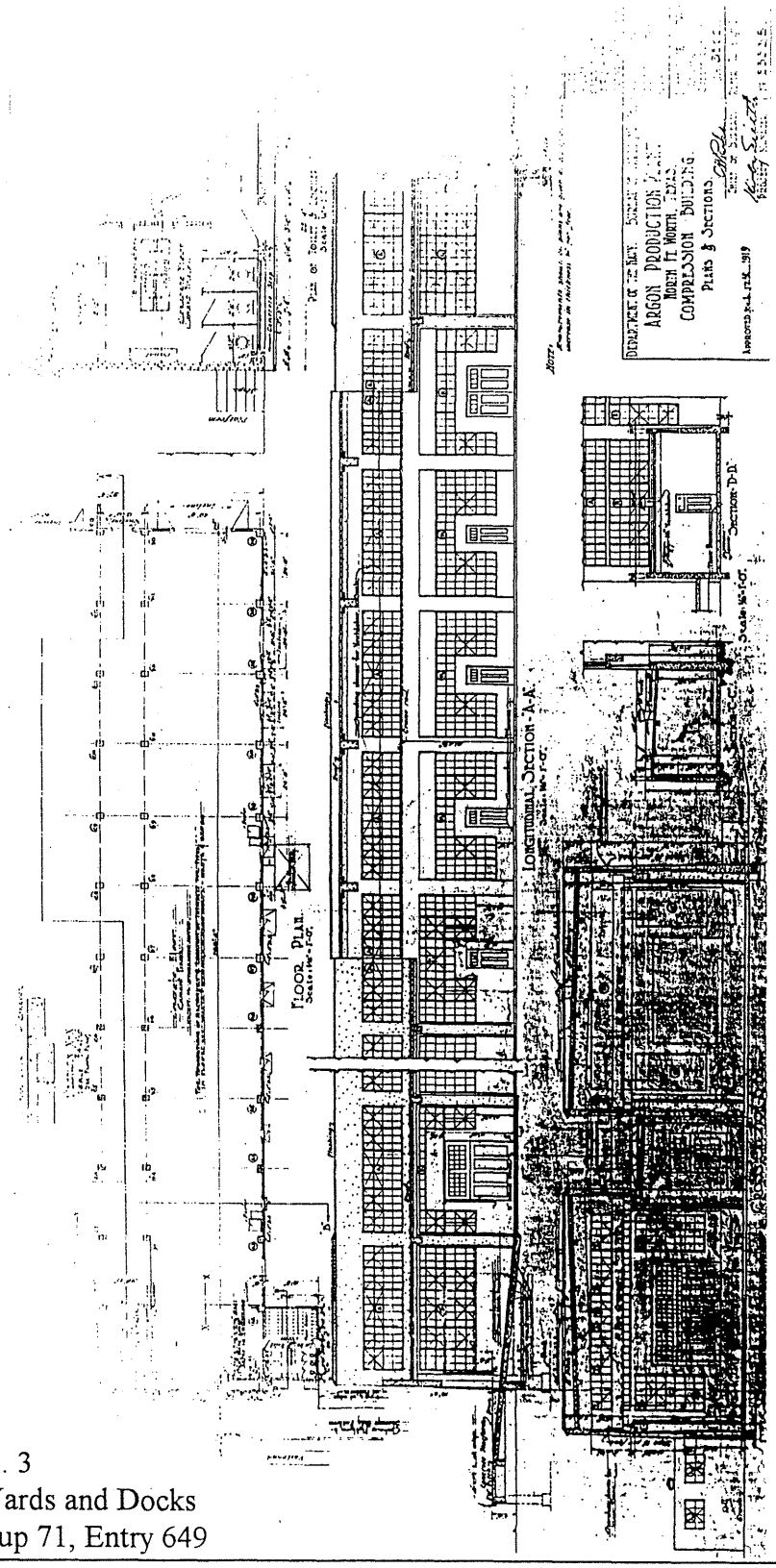

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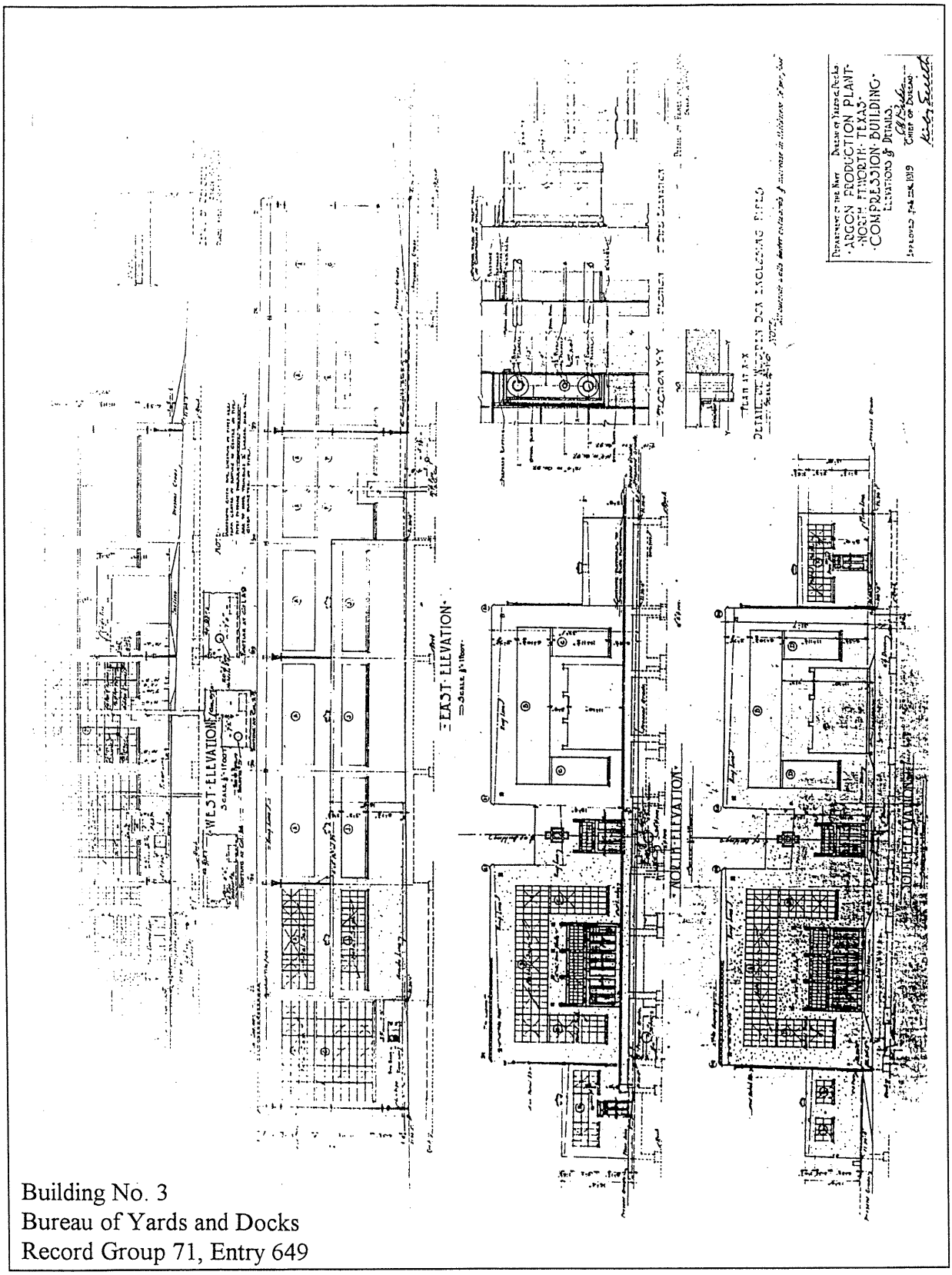

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