

United States Department of the Interior  
National Park Service

National Register of Historic Places  
Registration Form

1. Name of Property

historic name American Zinc, Lead and Smelting Company Building

other names/site number American Zinc Building; Zinc Building; La Barge Building

2. Location

street & number 20 South Fourth Street [N/A] not for publication

city or town St. Louis [N/A] vicinity

state Missouri code MO county St. Louis [Independent City] code 510 zip code 63102

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this  
[X] nomination [ ] request for determination of eligibility meets the documentation standards for registering properties in the  
National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my  
opinion, the property [X] meets [ ] does not meet the National Register criteria. I recommend that this property be considered  
significant [ ] nationally [ ] statewide [X] locally.  
( See continuation sheet for additional comments [ ]. )

Signature of certifying official/Title Claire F. Blackwell/Deputy SHPO

Date 12 March 1998

Missouri Department of Natural Resources  
State or Federal agency and bureau

In my opinion, the property [ ] meets [ ] does not meet the National Register criteria.  
( See continuation sheet for additional comments [ ]. )

Signature of certifying official/Title

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the property is:

Signature of the Keeper

Date

[ ] entered in the National Register  
See continuation sheet [ ].

[ ] determined eligible for the  
National Register  
See continuation sheet [ ].

[ ] determined not eligible for the  
National Register.

[ ] removed from the  
National Register

[ ] other, explain  
See continuation sheet [ ].

## 5. Classification

Ownership of Property	Category of Property	Number of Resources within Property	
		Contributing	Noncontributing
<input checked="" type="checkbox"/> private	<input checked="" type="checkbox"/> building(s)		
<input type="checkbox"/> public-local	<input type="checkbox"/> district	<u>1</u>	<u>0</u> buildings
<input type="checkbox"/> public-State	<input type="checkbox"/> site		
<input type="checkbox"/> public-Federal	<input type="checkbox"/> structure	<u>0</u>	<u>0</u> sites
	<input type="checkbox"/> object	<u>0</u>	<u>0</u> structures
		<u>0</u>	<u>0</u> objects
		<u>1</u>	<u>0</u> Total

Name of related multiple property listing.

Number of contributing resources  
previously listed in the National  
Register.

n/a

0

## 6. Function or Use

Historic Function

COMMERCE/TRADE:business

Current Functions

VACANT/NOT IN USE

## 7. Description

Architectural Classification

MODERN MOVEMENT

Materials

foundation concrete

walls steel

roof asphalt

other concrete

glass

## Narrative Description

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

## 8. Statement of Significance

### Applicable National Register Criteria

- ☐ **A** Property is associated with events that have made a significant contribution to the broad patterns of our history
- ☐ **B** Property is associated with the lives of persons significant in our past.
- ☒ **C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- ☐ **D** Property has yielded, or is likely to yield, information important in prehistory or history.

### Criteria Considerations

Property is:

- ☐ **A** owned by a religious institution or used for religious purposes.
- ☐ **B** removed from its original location.
- ☐ **C** a birthplace or grave.
- ☐ **D** a cemetery.
- ☐ **E** a reconstructed building, object, or structure.
- ☐ **F** a commemorative property.
- ☒ **G** less than 50 years of age or achieved significance within the past 50 years.

### Areas of Significance

ARCHITECTURE

### Periods of Significance

1967

### Significant Dates

N/A

### Significant Person(s)

N/A

### Cultural Affiliation

N/A

### Architect/Builder

Hellmuth, Obata & Kassabaum/  
Millstone Associates

## Narrative Statement of Significance

(Explain the significance of the property on one or more continuation sheets.)

## 9. Major Bibliographic References

### Bibliography

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

### Previous documentation on file (NPS):

- ☐ preliminary determination of individual listing (36 CFR 67) has been requested
- ☐ previously listed in the National Register
- ☐ previously determined eligible by the National Register
- ☐ designated a National Historic Landmark
- ☐ recorded by Historic American Buildings Survey
- # ☐ recorded by Historic American Engineering Record
- #

### Primary location of additional data:

- ☒ State Historic Preservation Office
- ☐ Other State Agency
- ☐ Federal Agency
- ☐ Local Government
- ☐ University
- ☒ Other:  
Name of repository: Landmarks Association of  
St. Louis, INC.

## 10. Geographical Data

Acreage of Property 0.23 acre

### UTM References

A. Zone	Easting	Northing	B. Zone	Easting	Northing
15	744778	4278530			
C. Zone	Easting	Northing	D. Zone	Easting	Northing

[ ] See continuation sheet

### Verbal Boundary Description

(Describe the boundaries of the property on a continuation sheet.)

### Boundary Justification

(Explain why the boundaries were selected on a continuation sheet.)

## 11. Form Prepared By

name/title see continuation sheet  
organization \_\_\_\_\_ date \_\_\_\_\_  
street & number \_\_\_\_\_ telephone \_\_\_\_\_  
city or town \_\_\_\_\_ state \_\_\_\_\_ zip code \_\_\_\_\_

### Additional Documentation

Submit the following items with the completed form:

### Continuation Sheets

### Maps

A **USGS map** (7.5 or 15 minute series) indicating the property's location.

A **Sketch map** for historic districts and properties having large acreage or numerous resources.

### Photographs

Representative **black and white photographs** of the property.

### Additional Items

(Check with the SHPO or FPO for any additional items)

### Property Owner

(Complete this item at the request of SHPO or FPO.)

name Druco, Inc.  
street & number 8315 Drury Industrial Parkway telephone 314-423-6698  
city or town St. Louis state MO zip code 63114

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National Park Service

NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET

Section 7 Page 1

American Zinc, Lead & Smelting Company Building  
St. Louis [Independent City], MO

**Summary:** The American Zinc, Lead & Smelting Company Building is a four-story, flat-roofed office building of 30,000 square feet located at the northeast corner of Fourth and Walnut Streets in downtown St. Louis. Perched on a stepped concrete podium, the first floor consists of the service core wrapped in a glass enclosed lobby and reception area recessed on three elevations. The three upper floors measure 122 feet by 62 feet 4 1/4 inches and rest on two tapered concrete piers that support the upper floors and are set in 20 feet from the corners. The upper floors are clad in stainless steel. On the east and west elevations, ten glass panels form a continuous span which reflects the unobstructed interior space. On the facade, or south elevation, the vertical supports of the Vierendeel trusses divide the elevation into twelve bays filled with two-pane windows. The openings on all three elevations are deeply inset in stainless steel reveals and have rounded corners which masks the bracing of the Vierendeel truss that forms them. The south elevation is placed against the adjacent building. Although demolition of the American Zinc Building began in 1997, it was halted at an early stage. Externally, the only evidence is the chain link fence surrounding the building and neatly boarded doors and two windows. Internally, the office floors were cleared of partitions, some wiring was removed from the ceilings, and an opening was created into the adjacent building through the third-floor men's room. Otherwise the building is in nearly original condition.

**Narrative:** The building lot is narrow and sloped. The building rests on an aggregate concrete podium. The three upper floors of the building are clad in stainless steel and project on three elevations beyond the glass enclosed lobby and service area. The Vierendeel truss that forms the south wall of the building permits fifty-foot clear spans back to the service core, which conceals more conventional structural steel columns and beams which support the building at two main support points and five intermediate ones. On the south elevation, two battered concrete piers provide support and create the illusion of a barely suspended construction. The stainless steel sheathing was rounded at window corners to conceal stiffeners for the truss system. In addition, the steel around each window opening was turned up to provide window framing, providing an additional economy of design and materials.

Inside the building, the unbroken expanses of the upper floors are marked only by a low heating unit that runs continuously around the outer perimeter. All partitions have been removed; however, the floorplan was intended to be open and flexible, so the alteration is not significant. Services are lined up along the north wall, including stairwells front and back, two elevator cabs, pairs of restrooms, and mechanical and custodial rooms. The interior of the podium, which is supported along its edges by concrete piers, is entered from a rectangular opening on the east, alley side and has parking spaces along the south side and service rooms along the north. Above, the terrace created by the podium and the recessed ground floor is bordered by an iron balustrade with straight supports. The three upper floors were designed to be unobstructed by interior supports to allow maximum flexibility as office space.

To the east, the American Zinc Building looks over the podium of a taller office building and down the hill toward the grounds of the Jefferson National Expansion Monument (Gateway Arch) only a block away, with the spire of the Old Cathedral and the stainless steel Gateway Arch clearly visible. To the north, the building abuts the American Fur Exchange complex begun in 1919, while other neighbors are large modern office buildings erected in the last thirty years.

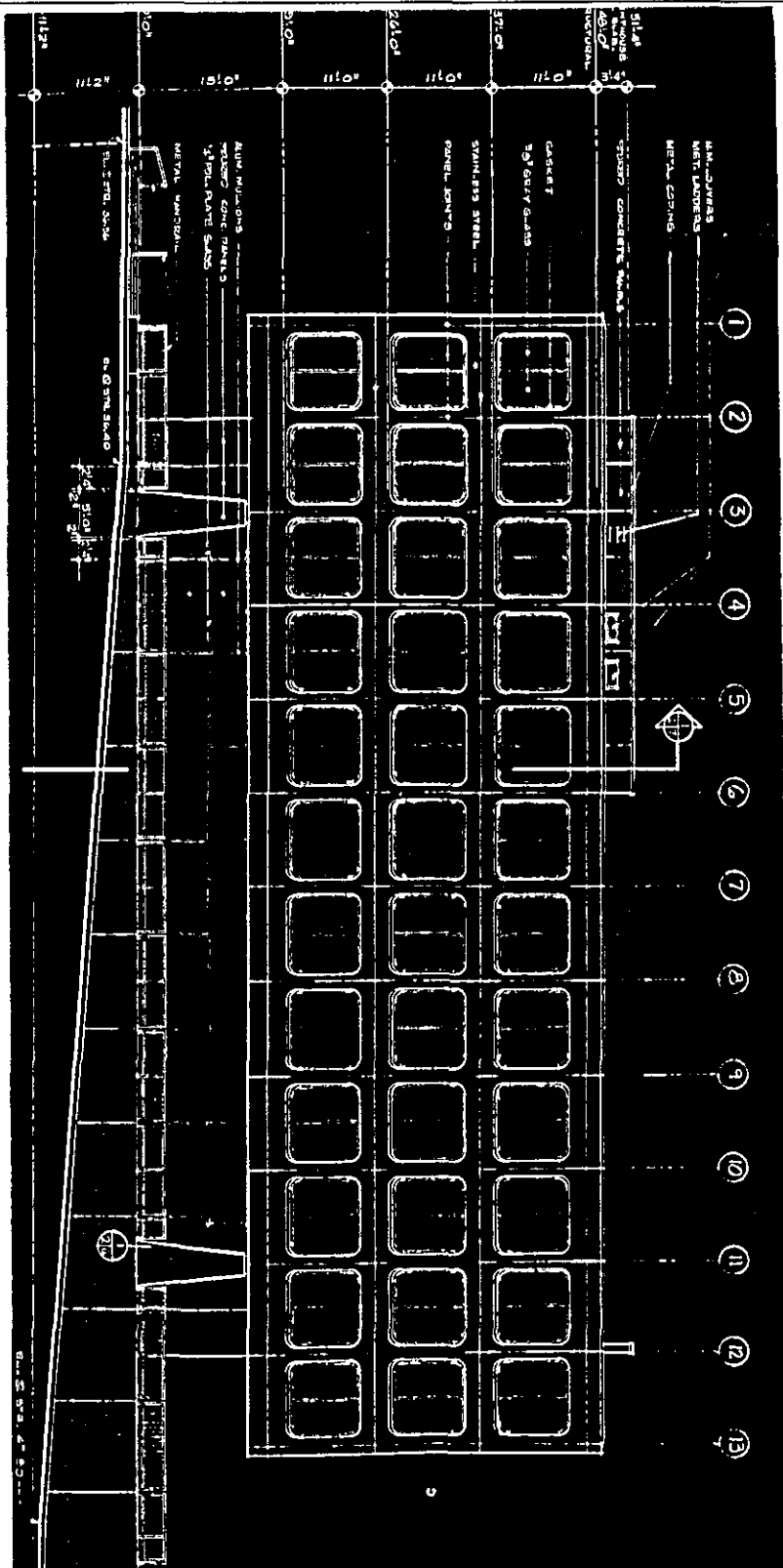
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American Zinc, Lead & Smelting Company Building  
St. Louis [Independent City], MO

1 South elevation, American Zinc, Lead & Smelting Co. Building. Source: American Zinc Office Building, Elevation, p. A-6, HOK project files.

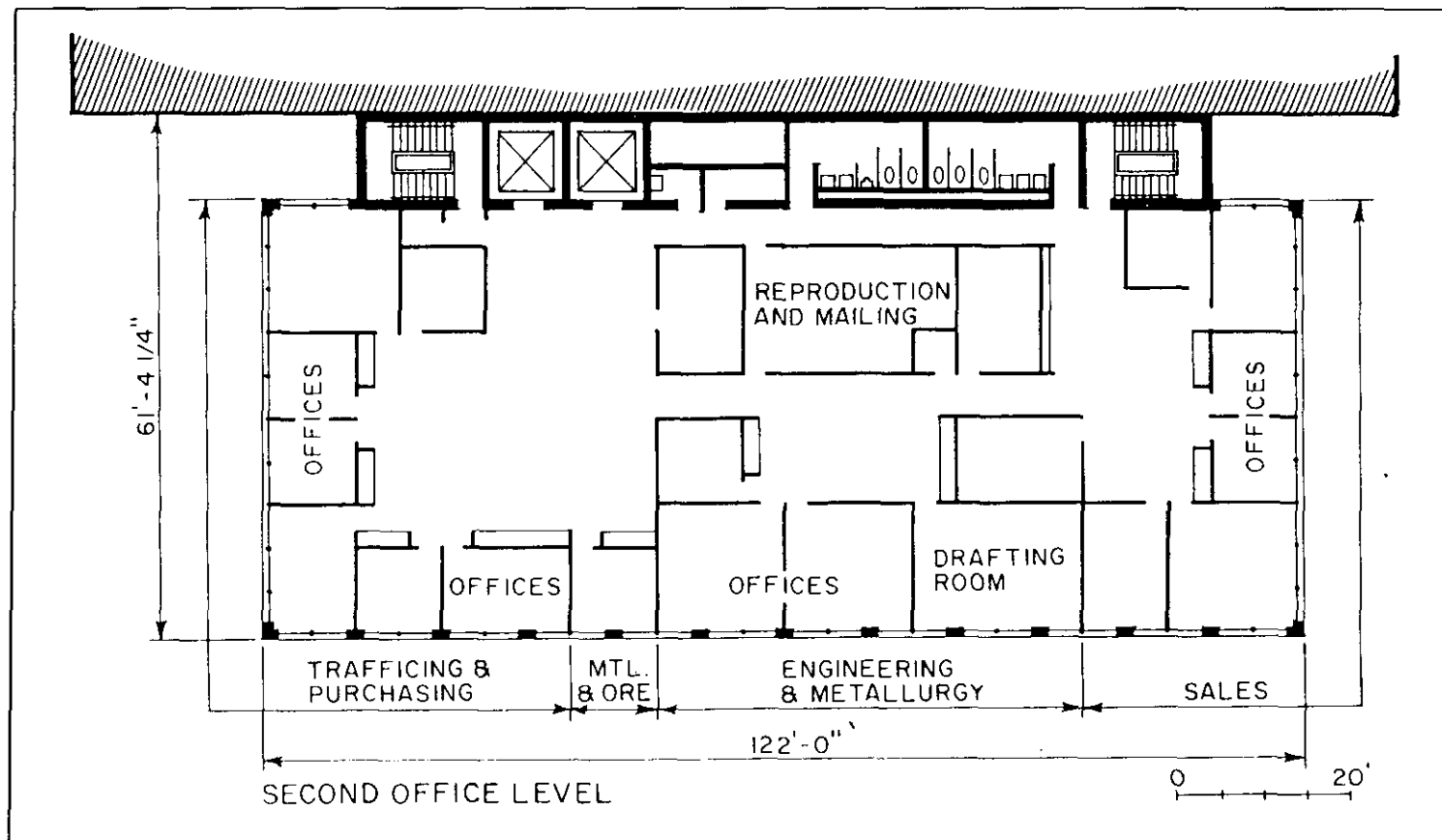


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American Zinc, Lead & Smelting Company Building  
St. Louis [Independent City], MO



2Floor plan, Second floor. Source: Progressive Architecture, March 1971.

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American Zinc, Lead & Smelting Company Building  
St. Louis [Independent City], MO

**Summary:** The American Zinc, Lead & Smelting Company Building, 120 South Fourth Street, St. Louis [Independent City], is significant under Criterion C in the area of architecture. The building was completed in 1967 to designs of the architectural firm of Hellmuth, Obata & Kassabaum (HOK), with Gyo Obata the principal in charge of design. Obata's design successfully and dramatically employed a structural element, the Vierendeel truss, as the major aesthetic determinant for the building. Selected by Obata to meet a number of challenges provided by the desires of his client, as well as the limitations of the building lot, the ladder-like trusses are clearly expressed in the fenestration and dominate the facade of the building. The rounded openings dictated by the bracing of the trusses are also echoed on the two visible elevations of the building. *Recognized within one year of its completion as an architectural landmark within the City of St. Louis, local acclaim and affection for the building has only increased.* The American Zinc, Lead & Smelting Company Building is one of only a comparatively few buildings nationwide which have employed the Vierendeel truss architecturally and to such an aesthetic effect, making full use of what were described as the truss's "unique architectural advantages."<sup>1</sup> Although less than fifty years old, the building is regarded by many architects as unique within St. Louis, one of the first post-World War II buildings to embody modern architectural design and techniques. The level of significance has been evaluated as local.

**Narrative:** In 1896, Belgian engineer M.A. Vierendeel invented the truss which was named for him. The Vierendeel truss, according to Carl Condit, is "a linear succession of rectangular rigid frames in which the posts are joined to the chords by means of fillet plates riveted to the two members."<sup>2</sup> The chords are usually parallel, although the top chord may be polygonal. Rigidly fixed verticals eliminate the need for diagonal bracing, resulting in a ladder-like appearance rather than the triangular arrangement of members typical in many trusses.<sup>3</sup> The first use of the truss was an experimental bridge at Tervueren, Belgium, in the following year; the bridge, which spanned 103 feet 4 inches, carried nearly three times its projected load in tests. By 1930, over 30 highway and railroad bridges in Belgium employed the truss, in addition to twenty-three railroad bridges in the Belgian Congo.<sup>4</sup>

The rigid frame truss was apparently developed independently by American engineers Mason R. Strong and Octave Chanute at about the same time as it was developed by Vierendeel. In 1900, in their construction of the Kinzua Creek Viaduct, a deck-girder span near Bradford, Pennsylvania for the Erie Railroad, Strong and Chanute constructed "a series of trapezoidal frames contracting upward with the inclination of the posts, each frame made rigid by the introduction of fillet plates at the four corners." The new truss was greeted with less than overwhelming enthusiasm, however, and neither the Vierendeel truss nor Strong's and Chanute's independently developed truss were employed again in the United States

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<sup>1</sup>David J. Wickersheimer, "The Vierendeel," Journal of the Society of Architectural Historians 35 (March 1976): 54.

<sup>2</sup>Carl W. Condit, American Building Art: The Twentieth Century (New York: Oxford University Press, 1961), p. 90.

<sup>3</sup>Condit, American Building: Materials and Techniques from the Colonial Settlements to the Present, Chicago History of American Civilization, Daniel J. Boorstin, ed. (Chicago: University of Chicago Press, 1968), p. 197.

<sup>4</sup>*Ibid.*, American Building Art, pp. 90-91; and Wickersheimer, pp. 55-56.



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American Zinc, Lead & Smelting Company Building  
St. Louis [Independent City], MO

until 1937.<sup>5</sup> In that year, the first Vierendeel truss in the United States was constructed by the US Army Corps of Engineers to carry a street over a drainage channel in Los Angeles; several others were subsequently constructed within the metropolitan area. For this bridge application, the truss eliminated the need for overhead bracing and provided good visibility at the ends of the roadway; allowed an unobstructed channel beneath the bridge; and provided a clearly delineated bridge portal. Despite these advantages, however, Condit criticized the resulting form as "heavy and awkward, even primitive in appearance . . ."<sup>6</sup>

According to Condit, the Vierendeel truss

has one defect that springs from a characteristic of the rigid frame. The maximum bending moment in the vertical member occurs at the connections with the chords and is hence partly transmitted to them. To offset this disadvantage the posts and the chord lengths between adjacent pairs of posts must have a greater cross-sectional area throughout their length than those of other trusses, and the area must increase toward the joints. The resulting form is therefore uneconomical and clumsy and has very limited applications.<sup>7</sup>

Because of these problems, the truss was never widely used in this country; in modified form, the truss was used in suspension bridge towers, such as those of the Golden Gate Bridge.

Although the truss was not favored for engineering applications, it proved more popular architecturally and was used advantageously in a number of instances, such as integrating mechanical needs with architectural concerns. The lack of diagonals between chords provided for a rectangular grid of openings, which accommodated the regular placement of doors and windows and also mechanical or ventilation systems, particularly those between building floors. The Vierendeel truss was not employed in building frames until the 1930s. According to Condit, "the rectangular openings of the rigid-frame truss make it particularly suitable for the support of internal loads over long spans, since the openings in the web correspond in shape to the rectangular outlines of corridors and windows."<sup>8</sup> Among the architectural advantages of the truss, it permitted the spanning of large open spaces while allowing the rectangular openings in the truss to provide circulation and function as fenestration. As early as 1934, the truss was used in the Royal Institute of British Architect's building in London. Four years later, in the United States, the International Agricultural Corporation in Chicago Heights utilized a Vierendeel for support and to conceal mechanical systems. Use of the truss as a means of integrating complicated mechanical systems into buildings requiring flexible open space was pioneered by Louis Kahn in both his 1959 Richards Medical Research Laboratory for the University of Pennsylvania and his 1966 Salk Institute in La Jolla.<sup>9</sup>

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<sup>5</sup>Ibid., p. 91.

<sup>6</sup>Ibid., pp. 91-92.

<sup>7</sup>Ibid., p. 91.

<sup>8</sup>Condit, American Building, p. 197; and Wickersheimer, p. 54.

<sup>9</sup>David J. Wickersheimer, "The Vierendeel," Journal of the Society of Architectural Historians 35 (March 1976): 58.

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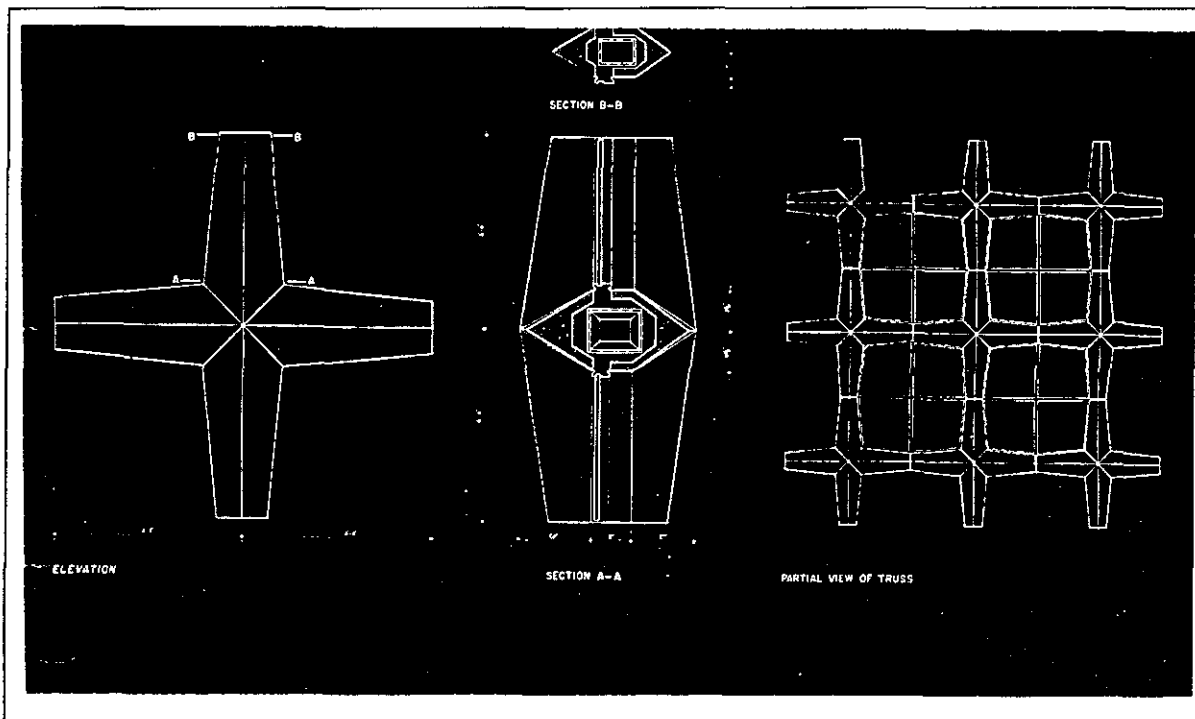
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American Zinc, Lead & Smelting Company Building  
St. Louis [Independent City], MO

Use of the truss was restricted to conventional building frames, according to Condit, until about 1960, when designers first acknowledged the possibility of employing external walls as bearing-truss structures. Wickersheimer defined this use of the truss as a cantilevered tube. Employed in some form on the world's tallest buildings, a web of rectangular openings with closely spaced columns and deep spandrel girders acts as a very rigid frame and makes up the building's periphery. Wickersheimer explained:

... the Vierendeel mesh offers a reasonable compromise [to the use of a solid tube as a frame]. Horizontally, multi-layered Vierendeels are employed to take advantage of the rigidity gained by the increased depth of the system. This technique permits spanning large spaces, while still expressing a rectangular grid.<sup>10</sup>



3Detail of connections, Beinecke Library. Source: Architectural Forum, Nov. 1960, p. 139.

In this application, according to Wickersheimer, the Vierendeel truss "excels."<sup>11</sup> The Beinecke Library at Yale University was described by Condit as the "initial embodiment in steel"<sup>12</sup> of the concept. Constructed in 1962-1963, the library was designed by Gordon Bunshaft of Skidmore, Owings and Merrill; Bunshaft evaluated the result as one of his half-dozen best buildings. The main building of the library complex was

<sup>10</sup>Ibid., pp. 59-60.

<sup>11</sup>Ibid., p. 54.

<sup>12</sup>Condit, American Building, p. 197.

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American Zinc, Lead & Smelting Company Building  
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a five-story structure perched on pyramidal concrete piers set at its corners. The open plan of the 131-foot long building dispensed with interior supports; to carry its length, the walls of the open construction were designed as steel Vierendeel trusses. The resulting appearance was a row of squares sealed with curtains of marble.<sup>13</sup>

Completed four years after the Beinecke Library, the Zinc Building shared a number of features with the earlier building. In addition to its use of the Vierendeel truss as a structural and aesthetic determinant, the Zinc Building also perched on piers that, in this case, were recessed from the corners of the building. One review of HOK's design of the building observed that "the impressively broad bays between piers that turn the ground floor into a virtually diaphanous and unobstructed area, give the feeling of a very light building, almost suspended in mid-air."<sup>14</sup> Despite these similarities, according to Gyo Obata, the Zinc Building was conceived independently of the Beinecke Library.<sup>15</sup> Obata perceived use of the Vierendeel truss as the solution to the needs of his client and to the limitations of the building site:

The width of the site was only 60 feet, therefore, I felt it was possible to do a clear span building to create an office space free of any columns. If I used the whole south wall as a Vierendeel truss supported at just two points on the ground level, I could then get office spaces that would have a clear span of 52 feet by 120 feet long. By using a Vierendeel truss, essentially a truss without any diagonals, I could have windows on the south wall between the vertical members of the truss.<sup>16</sup>

As a reflection of its structural system, the Zinc Building was more successful than the Beinecke Library. As Condit noted, on the Beinecke Library, the voids in the trusses were closed with marble slabs, while the steel truss was clad with granite; "the external appearance of this sumptuous work thus suggests that it is a masonry prism, which is not only at odds with its underlying steel construction but would be in itself a structural absurdity."<sup>17</sup> In the Zinc Building, its stainless steel cladding, although utilized as a corporate advertisement, more accurately reflected the structural system, while the expanses of glass clearly expressed the Vierendeel framework on the south elevation and the open span of the truss on the east and west elevations.

#### THE BUILDING

The developer of the American Zinc, Lead & Smelting Company Building was Raymond H. Wittcoff, who was developing the Gateway Tower to HOK's design at the same time. His company, A-Z Redevelopment

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<sup>13</sup>Ibid.; "Rare building for rare books," *Architectural Forum* (November 1960), pp. 139-141; "Yale's New Vault: Material/Structural Analysis," *Progressive Architecture* (December 1961), pp. 152-159; "Rare Book Library at Yale Dedicated," *Architectural Record* (November 1963); and Carol Herselle Krinsky, *Gordon Bunshaft of Skidmore, Owings & Merrill* (New York: The Architectural History Foundation/Cambridge, Mass.: MIT Press, 1988), pp. 141-146.

<sup>14</sup>Unidentified article in HOK American Zinc, Lead & Smelting Company Building project files.

<sup>15</sup>Gyo Obata to Doris Danna, no date [February 1998]. Copy in Missouri Cultural Resource Inventory.

<sup>16</sup>Ibid.

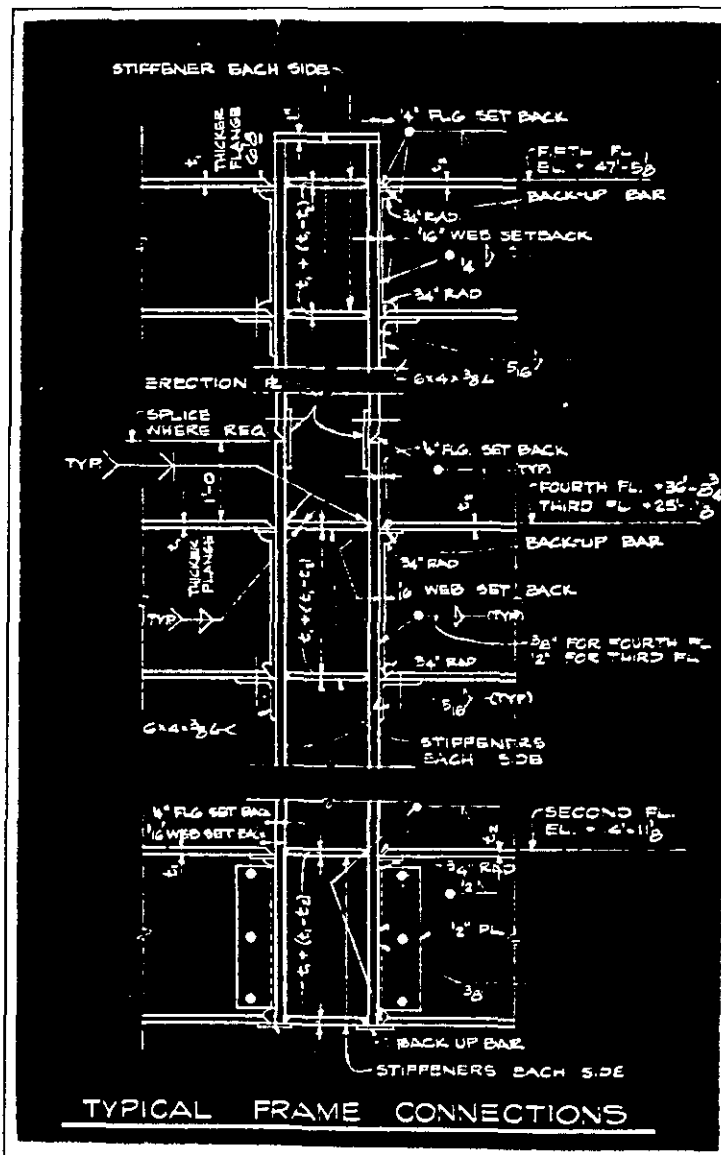
<sup>17</sup>Condit, *American Building Art*, p. 197.

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American Zinc, Lead & Smelting Company Building  
St. Louis [Independent City], MO



4Detail of connections, Zinc Building. Source: American Zinc Office Building, Elevation, p. S-5. HOK project files.

Corporation, brought the site in December of 1966; this company and its successors remained owners until 1987.<sup>18</sup> The first tenant, the American Zinc, Lead & Smelting Company wanted a building that had internal flexibility and external identity, and this design gave them both.

The American Zinc, Lead & Smelting Company Building was located in an area of downtown St. Louis targeted for commercial redevelopment in the mid 1960s. The Zinc Building was designed by HOK, with Gyo Obata the principal in charge of design and Jerry Sincoff the project architect; Sincoff later succeeded Obata as chairman of HOK. The Engineers Collaborative served as structural engineer; Millstone Associates was the general contractor; and William Tao & Associates served as mechanical and electrical engineers. Raymond H. Witcoff was the developer responsible for both the Gateway and Zinc buildings.<sup>19</sup> The Zinc Building was completed in 1967. Located within the same area was the CBS Gateway Tower, also designed by HOK and completed the following year.

Unlike the Gateway Tower, which was intended to accommodate a variety of business and professional users, the Zinc Building was intended for a single client, as the headquarters of the American Zinc, Lead & Smelting Company. In addition to a corporate symbol, the company also required highly flexible interior space. While fulfilling the requirements of the client, Obata also had to adapt his design to a narrow lot adjacent to the ten-story addition to the American Fur Exchange Building.

<sup>18</sup>St. Louis City Recorder of Deeds, daily #104, December 5, 1966; Daily #263, November 24, 1984.

<sup>19</sup>HOK American Zinc, Lead & Smelting Company Building project files.

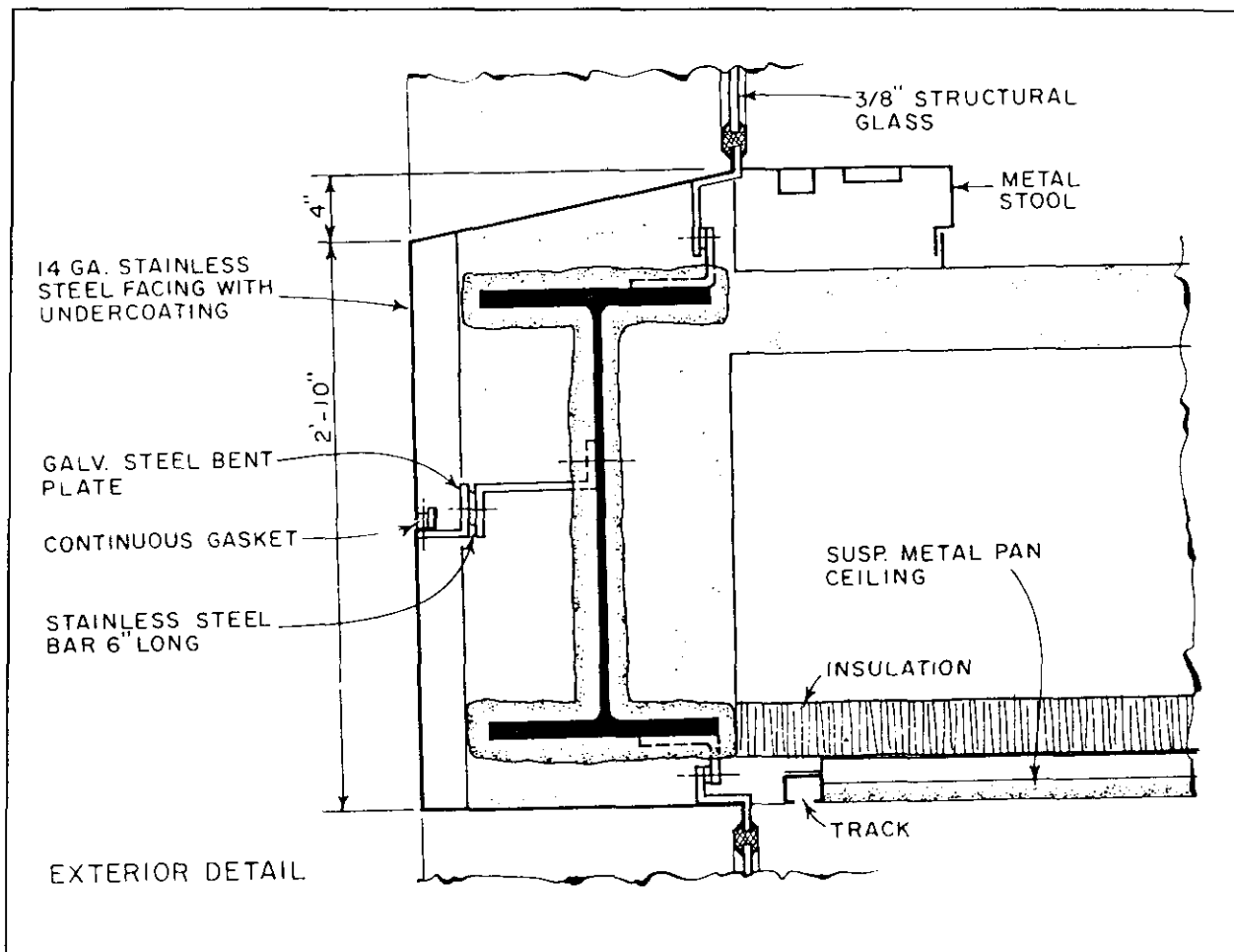
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American Zinc, Lead & Smelting Company Building  
St. Louis [Independent City], MO

Obata's design employed the Vierendeel truss to provide interior spaces free of columns. Aesthetically, the building reflected the use of the truss, which defined the facade, or south elevation, with windows housed in the open spaces between the chords and the verticals. The rounded corners of the windows, which impart a streamlined appearance, concealed stiffeners at stress points of the trusses. The elongated, rounded openings were continued in an uninterrupted wall of glass between the chords of the trusses on the east and west elevations, reflecting the column-free interior span. The truss was supported by two recessed piers on the south elevation, creating the effect of the building delicately balanced or floating above its terrace. There were five support points on the north elevation, within the service core.



5 Cross section showing truss and details of cladding attachment. Source: Progressive Architecture, March 1971.

A number of architects and architectural historians have incorrectly surmised that the choice of materials for the exterior of the Zinc Building was a tribute to the designer of the nearby Gateway Arch, and this assumption has entered the folklore regarding this distinctive building. Instead, the stainless steel

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**American Zinc, Lead & Smelting Company Building  
St. Louis [Independent City], MO**

cladding was intended to provide a distinct physical identity for the building, which served as the corporate headquarters for a metals producer.

**THE ARCHITECTS**

In 1955, the firm of Hellmuth, Obata & Kassabaum (HOK) was formed as the successor to Hellmuth, Yamasake & Leinweber, which had offices in both St. Louis and Detroit.<sup>20</sup> That firm had just completed the new terminal building for Lambert-St. Louis Airport, for which Gyo Obata had served as chief designer under Minoru Yamasaki. The founders of HOK were George F. Hellmuth, son of George W. Hellmuth, co-founder of the earlier firm; Gyo Obata; and George E. Kassabaum. Hellmuth joined his father's firm after he received his diploma from the Ecole Des Beaux Art, Fountainbleu; he also served for seven years as the architect for the City of St. Louis. Kassabaum joined Hellmuth, Yamasake & Leinweber in 1950, and Obata joined the following year.

Obata was born in San Francisco in 1923, the son of a Japanese-American born artist; his father became a professor at the University of California at Berkeley. Obata came to St. Louis at the beginning of World War II to avoid internment, as did several other future St. Louis architects of Japanese ancestry.<sup>21</sup> He graduated from Washington University in 1945, then studied with Eliel Saarinen. After military service and three years with Skidmore, Owings & Merrill in Chicago, the firm later responsible for the Beinecke Library, Obata moved to Detroit to work with Minoru Yamasaki; Obata assisted Yamasaki with the expansion of the Lambert-St. Louis Airport.

With Obata as designer of the reorganized firm, HOK first drew local attention with the Bristol School in Webster Groves. A few years later, they achieved national recognition with the Priory Chapel, a circular design of parabolic thin-shell concrete vaults. Other notable St. Louis projects included Temple Israel, the McDonnell Planetarium at the St. Louis Science Center, the Yalem Children's Zoo and Living World, the Cervantes Convention Center and Stadium, and, for business clients, projects for Equitable, Boatmen's, Mallinckrodt, Ralston-Purina, and One Bell Square. HOK also designed the Union Station rehabilitation. In Kansas City, they designed the Executive Plaza Office Building, and, in Jefferson City, the Missouri Conservation Commission headquarters building. For the Reorganized Church of Jesus Christ of Latter Day Saints, Obata provided the design for their main temple in Independence. He also designed or provided oversight on the design of Federal Reserve Banks in Minneapolis and Baltimore and conceptual design for the Grand Stade for the City of Paris (1993), the Japanese American National Museum's phase II pavilion, the University of Riyadh campus (1974), the King Khalid International Airport in Riyadh, the Taipei World Trade Center, and the National Air & Space Museum in Washington, D.C.

By the 1980's, HOK had become one of the nation's largest architectural firms, with branches in San Francisco; Dallas; Washington, D.C.; New York City; Belleville, IL; Anchorage; Cairo, Egypt; and Riyadh, Saudi Arabia. Projects were also world wide, including large-scale office buildings (including all three of the tallest in St. Louis), airports, convention centers, and recreational facilities. George Hellmuth retired

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<sup>20</sup>The most complete history of HOK is found in Walter McQuade, *Architecture in the Real World* (New York: Harry N. Adams, 1984), esp. pp. 59-61 on Obata. See also Gyo Obata, *HOK, 1954-1990* (Tokyo: A+U Publishing Co., 1990); Jerry Berger, "View from the Top," *St. Louis Post-Dispatch*, June 12, 1997.

<sup>21</sup>Esley Hamilton, *The Way We Came: A Century of the AIA in St. Louis* (St. Louis: Patrice Press, 1991), p. 68.

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American Zinc, Lead & Smelting Company Building  
St. Louis [Independent City], MO

from the firm in 1978 and George Kassabaum died in 1982. Obata stepped down as chairman in 1993 but remains active in design. In 1997, HOK was ranked by both Building, Design & Construction and Engineering News-Record as the number one architectural/engineering firm in the U.S.; in 1998, World Architecture pronounced HOK the largest architectural firm in the world, while Architecture ranked HOK the top U.S. firm practicing overseas.

ASSESSMENT OF THE ZINC BUILDING

As early as 1967, George McCue, St. Louis Post-Dispatch architecture and art critic and honorary member of the AIA, numbered the less than one year old American Zinc, Lead & Smelting Company Building among the area's "exemplary buildings".<sup>22</sup> In the second edition of The Building Art in St. Louis, a guide to the architecture of the St. Louis area, McCue briefly described the building:

A clean, steel-clad structure designed around a Vierendiehl [sic] truss, which supports the 50-foot spans between front and back piers.<sup>23</sup>

In the third edition of his guide book, McCue provided a more enthusiastic assessment of the building, then occupied by La Barge, Inc.:

An elegant package of a building, in which the ladder-like Vierendeel trusses, which carry 50-foot column-free spans on each floor, are supported at two points on the south side and along the opposite wall. Stainless steel sheathing is rounded at window corners to stiffen the clearly expressed trusses.<sup>24</sup>

In a more recent assessment, McCue continued to praise the building he described as "somewhat like a ladder on its side":

The American Zinc building was made a jewel in a difficult site--it occupies a sliver of land up against a ten-story building on a narrow street near the riverfront. It was required to be long and low, and to exist in the shadow of its high neighbors and within the immediate aura of the new and nearby Gateway Arch. Another near neighbor is the oldest cathedral west of the Mississippi River, the 1834 Basilica of St. Louis, King of France.

In that challenging context of old and new, Architects Hellmuth, Obata & Kassabaum put a building clad in stainless steel that respectfully salutes the Gateway Arch of the same material, and in scale respects the Old Cathedral (its familiar name) across the highway, and both the historic Thomas Jefferson Building and the Fur Exchange Building in the same block.<sup>25</sup>

The March 1971 issue of Progressive Architecture praised HOK's design as satisfying their client's two primary goals: internal flexibility and external identity. The use of the truss provided "a column-free interior

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<sup>22</sup>Angela Corrubia, "Introduction," in George McCue, The Building Art in St. Louis: Two Centuries, 2d ed. (St. Louis: Knight Publishing Company, 1967), p. 5.

<sup>23</sup>McCue, The Building Art in St. Louis: Two Centuries, p. 35.

<sup>24</sup>George McCue, The Building Art in St. Louis: Two Centuries, 3d ed. (St. Louis: Knight Publishing Company, 1981), p. 26.

<sup>25</sup>McCue to Doris Danna, February 18, 1998.

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that allows great flexibility for office arrangements."<sup>26</sup> However, the journal reserved the majority of its review for the inspired use of exterior cladding. The choice of stainless steel was "an appropriate exterior material" which "proclaims [American Zinc's] identity."<sup>27</sup> The metal cladding also expressed the structural system:

*Along the north face, the rounded corners of the windows cover stiffeners for the vierendeel [sic] truss, and along the east and west ends, the long horizontal bands of glazing reflect the clear spaces inside.*<sup>28</sup>

Obata regards the Zinc building as "one of the clearest expressions of any structural system I have designed" and

*one of the simplest and direct office buildings I have designed. The south elevation reflects the whole Vierendeel truss. The three floors of the Vierendeel truss, the east and west elevations is a clear span, therefore, the glass runs continuously for approximately 50 feet without any columns, again reflecting the clear span of the building.*<sup>29</sup>

In defense of the Zinc Building in the face of proposed demolition, the St. Louis Chapter of the AIA seconded McCue's praise of the building in the third edition of his guidebook. They also added that it was "a familiar and approachable landmark which counterbalances the scale and lack of merit of many newer buildings."<sup>30</sup> When polled on the importance of the Zinc Building in St. Louis's architectural legacy, individual members of the chapter echoed and expanded on this sentiment.

*. . . the American Zinc Co. Building is a modern masterpiece . . . [it] stands out as a truly great work of modern architecture, without peer.--Jeffrey A. Brambila, February 26, 1998.*

*St. Louis will lose more of its rich architectural heritage if the American Zinc, Lead & Smelting Company building is razed or drastically altered.--Richard L. Bliss, February 26, 1998.*

*The Vierendiehl [sic] truss provided the means of obtaining a clear unadorned exterior that had excellent proportions. The design is not dated--it is as outstanding today as when it was built. It is a landmark in downtown . . . --Kenneth M. Schaefer, February 24, 1998.*

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<sup>26</sup>"Stainless steel polishes a corporate image," Progressive Architecture (March 1971), n.p., copy in HOK American Zinc, Lead & Smelting Company Building project files.

<sup>27</sup>Ibid.

<sup>28</sup>Ibid. Also included in the HOK file is an unidentified article which summarizes and evaluates, in English, French, and German, the design of the building. According to the article, ". . . two piers 15 m appart [sic] on the main facade leave free from obstacles the entire floor space of the several storeys, while . . . the stainless-steel-covered outside surfaces form an identification sign for the Company occupying the building."

<sup>29</sup>Obata to Danna.

<sup>30</sup>Jamie Cannon, "[AIA St. Louis] Chapter Position on the Proposed Demolition of the International Fur Exchange, Thomas Jefferson and La Barge Buildings," August 3, 1994, copy in the Missouri Cultural Resource Inventory.



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The American Zinc Co. Building at Fourth and Walnut was the extent of Modern Architecture in Downtown St. Louis in 1967. . . . Despite its size, I believe it is still the best example of Modern Architecture in St. Louis.--Albert B. Fuller Jr., February 22, 1998.

. . . the American Zinc Company Building is a precious gem . . . It nestles next to its historic neighbors like it belongs. Yet, it is a contrast of elegance and style.--H. Curtis Ittner, February 24, 1998.

It was a striking trend setter . . . It is not a big building, but it is a big idea and I hope it can be saved as an historic downtown milestone.--William W. Stewart, February 24, 1998.

The American Zinc building is a landmark building, unique by virtue of its 'exterior machine age skin,' representative of the modern movement in which structural and functional aesthetics are expressed.--Andrew Trivers, February 25, 1998.

. . . one of Gyo Obata's finest design achievements . . . this elegant structure with a sleek stainless steel and glass exterior is ageless in style and compliments the Saarinen Arch completed in 1965. It is a rare and eloquent example of the use of the Vierendeel truss in the United States.--Charles Danna, February 27, 1998.

This modest building is a modern St. Louis treasure. Easily one of the finest buildings ever designed by Gyo Obata, the building was probably intended to be a background building for other, much larger buildings in Downtown St. Louis. Instead, due in part to the decision to use a Vierendiehl [sic] truss that resulted in a column free building, the simple, yet enormously elegant steel skin produced a timeless example of the modern idiom at its very finest.--Jamie Cannon, February 27, 1998.

In their newsletter, the Missouri Valley Chapter of the Society of Architectural Historians conceded that the building was young to be considered a landmark, but countered that "its value, however, is already amply evident."

The American Zinc Building goes beyond the honest expression of structure, which had been one goal of modern architecture over the previous half century, to become a celebration of the structural capabilities of modern technology. . . . Outside, it is a jewel box, matching its fine construction with fine materials. . . . The American Zinc Building was a prestige building, one that several subsequent corporations have been proud to put their names on, and it is one of only a handful of similarly constructed buildings around the world. It is not a building the city can afford to lose.<sup>31</sup>

Obata was more reserved in his evaluation of his work: "I would evaluate the Zinc building as one of the simplest and direct office buildings I have designed. . . . I feel that this building is one of the clearest expressions of any structural system I have designed." The building clearly expressed Obata's general philosophy of design: "My design philosophy . . . is to really understand the clients need . . . why that client

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<sup>31</sup>"The American Zinc Building: An Appreciation," The Society of Architectural Historians Missouri Valley Chapter News Letter 3 (Fall 1997): 1.

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and what that building type is calling for it to be."<sup>32</sup> Although Obata may not have intended for his work to salute the nearby Gateway Arch, all the factors of location may have influenced him.

If the buildings in the area have important architectural features, they should somehow be reflected in the new building--so the existing physical environment should play a part. Certainly the location, if it's say near the river and near the central urban area, has a lot to do with how the building will be placed on that site, allowing for easy public access, as a gateway towards another section of the city, and so forth. So the site would be a very important part of how the building will be formed.<sup>33</sup>

Condit notes only one building, the Beinecke Library, in which the Vierendeel truss was employed to aesthetic effect similar to that achieved by the Zinc Building. Wickersheimer, in his discussion of the use of the truss to span large spaces yet still present a rectangular grid, cites only two examples, the Beinecke and Cornell's Social Sciences Building. In the absence of a more comprehensive evaluation, the level of significance has been set as local. Despite the comparatively young age of the building, architects and preservationists have provided sufficient evaluation of the merits of the property and its place within the architectural history of St. Louis to establish exceptional significance.

**THE BUILDING SINCE 1967**

The Zinc Building was later occupied by LaBarge Inc., founded in 1953 as a distributor and fabricator of steel pipe and tubing but after 1968 increasingly known as an electronics systems manufacturer. The company moved its headquarters to Joplin in 1986, leaving the building vacant at a time when downtown St. Louis was experiencing a glut of office space.<sup>34</sup> In 1994, a company called SIBAG Investments proposed to tear down the Zinc Building and the adjacent Fur Exchange for a surface parking lot. At the time the threat was averted by the city's Heritage and Urban Design Commission and the local AIA chapter, but the following year, under pressure from the Mayor Freeman Bosley, the Commission reversed itself.<sup>35</sup> Demolition by Spirtas Wrecking began in 1997 but was halted when Charles Drury made an offer to purchase the buildings for a new downtown hotel.<sup>36</sup> Architectural and financing plans for the renovation are currently under way.

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<sup>32</sup>"Gyo Obata," *The Region* (September 1992), p. 2 (Internet at <http://woodrow.mpls.frb.fed.us/pubs/region/int929.html>).

<sup>33</sup>*Ibid.*

<sup>34</sup>"Sophisticated Electronics Systems," *St. Louis Commerce*, April 1993, p. 22; "LaBarge Loses \$215,104 In Quarter," *St. Louis Post-Dispatch*, February 5, 1986.

<sup>35</sup>Suzanne Langlois, "Demolition Derby," *The Riverfront Times*, August 3-9, 1994, p. 13; "Block That Headache Ball," *St. Louis Post-Dispatch*, August 4, 1994, p. 6B; Roger Signor, "City Commission Approves Demolition Of 3 Buildings," *St. Louis Post-Dispatch*, June 2, 1995.

<sup>36</sup>Charlene Prost, "Developer is seeking tax break downtown," *Post-Dispatch*, December 10, 1997.

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**10. Geographical Data**

**Verbal Boundary Description**

Beginning at the northeast corner of the intersection of Fourth Street and Walnut Street, proceed east along the north right-of-way of Fourth Street 163.64 feet; then proceed north 61.35 feet; then proceed west to the east right-of-way of Fourth Street; then proceed south along the east right-of-way of Fourth Street to the point of beginning.

**Boundary Justification**

The boundaries described are that portion of the city block historically associated with the American Zinc, Lead & Smelting Company Building.

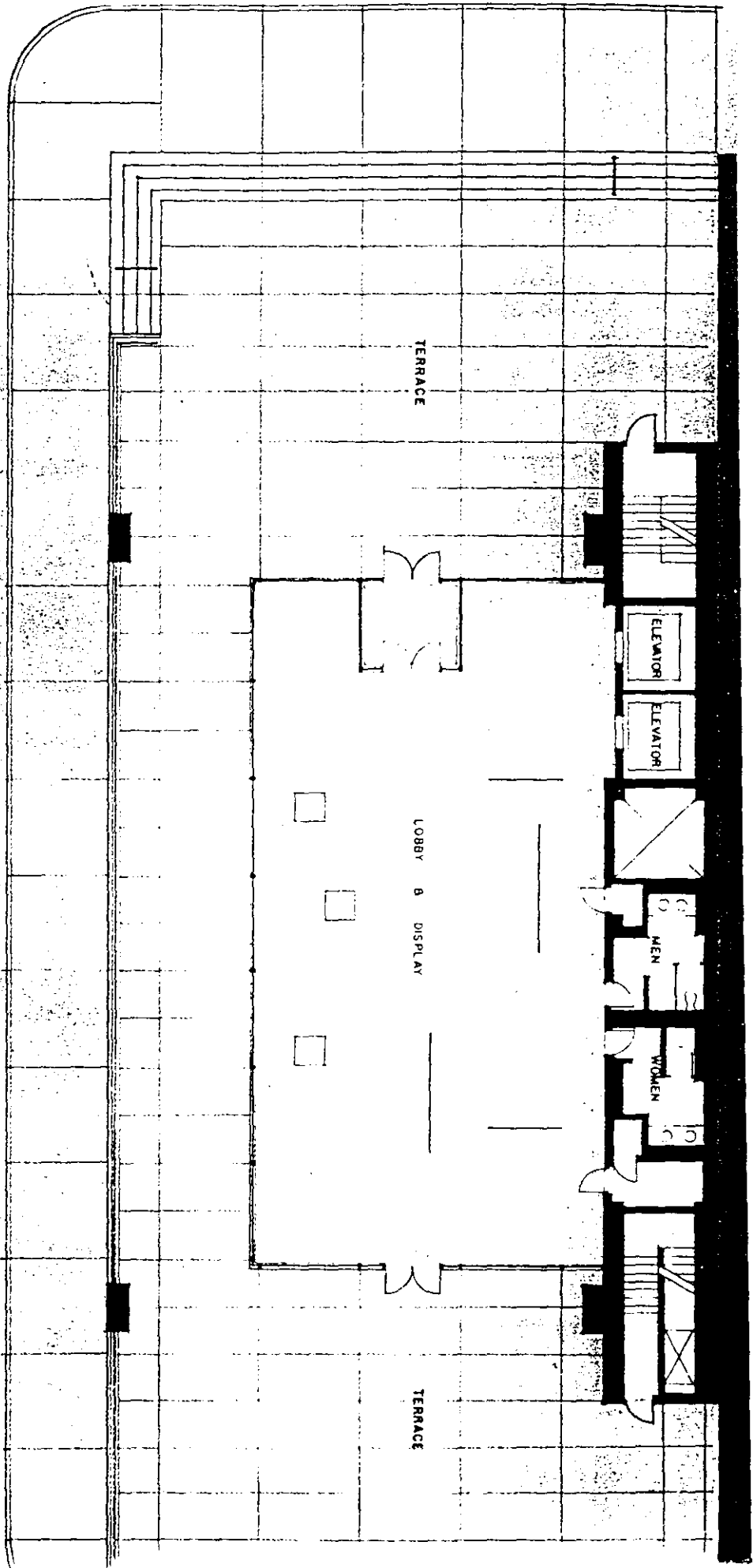
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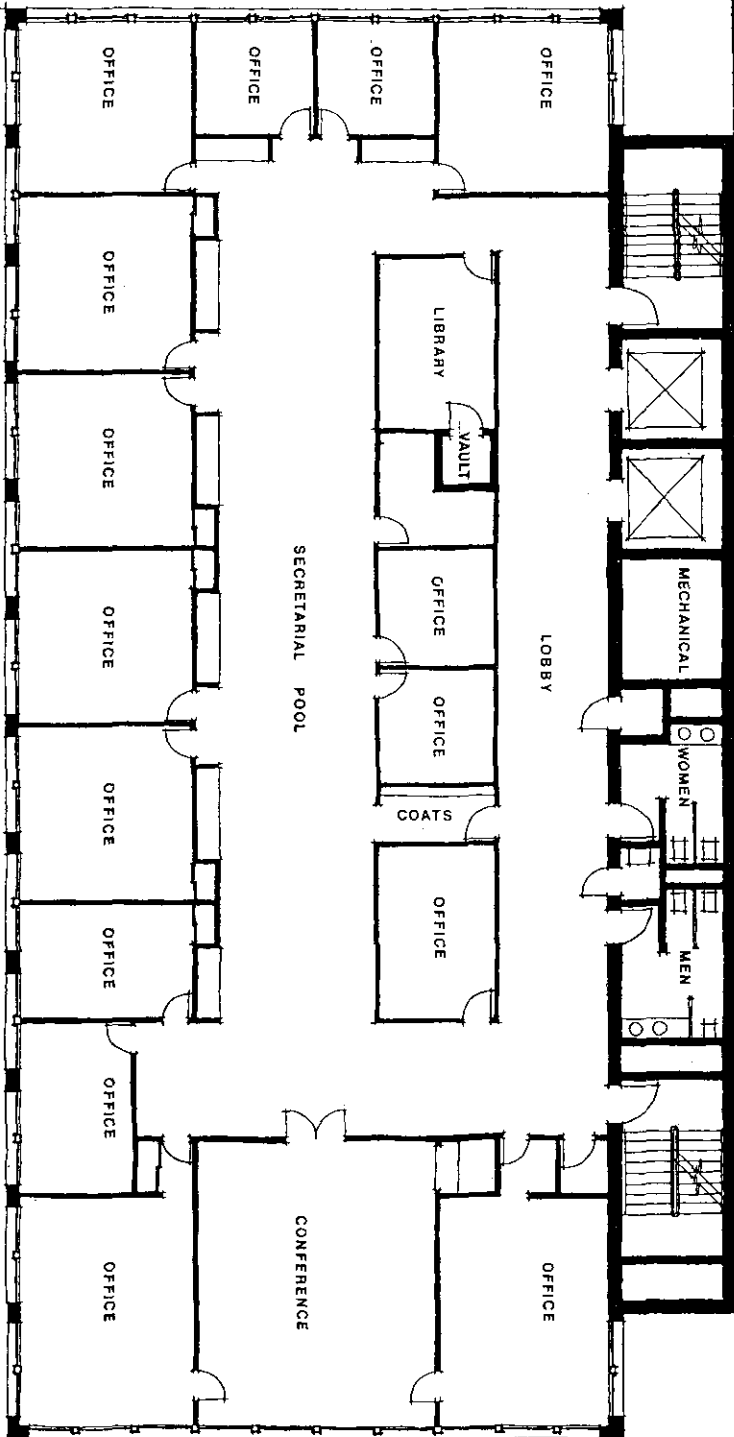
1. Esley Hamilton  
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March 10, 1998  
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TERRACE LEVEL

AMERICAN ZINC BUILDING, ST. LOUIS, MISSOURI

WALNUT STREET



TYPICAL OFFICE LEVEL

AMERICAN ZINC BUILDING, ST. LOUIS, MISSOURI





American Zinc Building

20 South Fourth Street

St. Louis (Independent City), MO

Photog: Dan Sintelar, 1997

Neg. loc.: Druco, Inc., 8315 Drury Industrial Parkway  
St. Louis, MO 63114

West front facade, looking east

Photo #1



American Zinc Building  
20 South Fourth Street  
St. Louis (Independent City), MO  
Photog: Dan Sintelar, 1997  
Neg. loc.: Druco, Inc., 8315 Drury Industrial Parkway  
St. Louis, MO 63114  
South and east elevations looking northwest  
Photo # 2



American Zinc Building  
20 North Fourth Street  
St. Louis (Independent City), MO  
Photog.: Dan Sintelar, 1997  
Neg. loc.: Druco, Inc., 8315 Drury Industrial Parkway  
St. Louis, MO 63114  
Interior of third floor looking southwest  
Photo 3



EXTRA  
PHOTOS



