Rockwell Street Line Elevated Bridges
Roughly spanning Fulton Street (North)
to 15th Street (South)
Chicago
Cook County
Illinois

HIER No. CK-2021-1

PHOTOGRAPHS
WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic Illinois Engineering Record
Illinois State Historic Preservation Office
Illinois Department of Natural Resources
Old State Capitol Building
One Old State Capitol Plaza
Springfield, Illinois
62701

HISTORIC ILLINOIS ENGINEERING RECORD
HIER NO. CK-2021-1
IDOT SEQUENCE #11755D

ROCKWELL STREET LINE ELEVATED BRIDGES

Location: Rockwell Street Elevated Railroad Bridges, spanning Fulton Street (North) to 15th Street (South)
Chicago, Cook County, Illinois

USGS Quadrangle:
15th St: 41°51'40.2"N 87°41'17.3"W
Taylor St: 41°52'09.6"N 87°41'28.6"W
Polk St: 41°52'16.0"N 87°41'28.6"W
Harrison St: 41°52'25.8"N 87°41'29.0"W
Congress Pkwy: 41°52'29.7"N 87°41'29.1"W
Van Buren St: 41°52'33.8"N 87°41'29.0"W
Jackson Blvd: 41°52'39.0"N 87°41'29.3"W
Monroe St: 41°52'48.7"N 87°41'29.8"W
Madison St: 41°52'52.0"N 87°41'29.9"W
Warren Blvd: 41°52'55.3"N 87°41'29.8"W
Washington Blvd: 41°52'58.6"N 87°41'29.8"W
Maypole Ave: 41°53'01.4"N 87°41'29.7"W
Lake St: 41°53'03.9"N 87°41'29.9"W
Fulton St: 41°53'11.7"N 87°41'31.1"W

Present Owner/ Occupant: The elevated railroad bridges are owned by the Union Pacific Railroad, except at 15th Street, where it is jointly owned and operated by the Union Pacific Railroad, the Norfolk Southern Railway, and CSX Transportation.

Present Use: The tracks that run along the elevated railroad bridges still function as freight rail.

Significance: The Rockwell Street Elevated Railroad Bridges is an intact group of railroad bridges along Rockwell Street on the west side of the city of Chicago that run from Fulton Street on the north to Twelfth Street on the south. These bridges were constructed at the end of the nineteenth century, when railroads were engaged in a city-wide effort to elevate their tracks above grade, to provide better safety measures and to allow ease of travel through the city. The Fifteenth Street bridge was constructed at the beginning of the twentieth century. The stone abutments of 13 of the elevated railroad bridges are associated with the earliest years of the city-wide project to

elevate railroad tracks, and the concrete abutment of the Fifteenth Street bridge is associated with the end of the project, and all are an important part of railroad and transportation history in Chicago.

Historian: Sylvester Historic Consultants, LLC
Jeanne Sylvester
February 10, 2022

Project Information: Architectural sketches were prepared by JLK Architects.

Architectural photography was produced by Leslie Schwartz Photography, Leslie Schwartz photographer. On-site color photographs were taken from May 19-23, 2021. On-site archival photographs were taken from November 5-16, 2021.

Historical research and historical narrative were completed by Sylvester Historic Consultants, LLC, Jeanne Sylvester, historian.

The HIER documentation was commissioned by the Parsons Transportation Group, Inc. The documentation was required as part of the Memorandum of Agreement among the Parsons Transportation Group, Inc., the Illinois Department of Transportation, and the Illinois State Historic Preservation Office. The documentation was part of Section 106 mitigation in connection with structural improvements and installation of a new traffic control system along a two-mile segment of the Union Pacific rail line between Carroll Avenue and 18th Street east of Farrar Drive called “CREATE Project WA1.”

Part I. Historical Information

A. **Physical History**:

1. **Date(s) of construction**: The Rockwell Street line between Fulton Street and Twelfth Street was elevated and railroad bridges were built between June 1, 1897 and July 22, 1897. The date of construction for the 15th Street bridge is c. 1907 – 1911.

2. **Architect/Engineer:** Louis H. Evans, an engineer with the Chicago & North Western Railway Company, was named Engineer of Track Elevation, overseeing the entirety of the Rockwell Street elevation project. Not much is known about him, other than he was a graduate of the University of Michigan. William Graham designed the bridges and arranged for their delivery and assembly, G.C. Chittenden oversaw track work and train crews, T.R. Philbin was responsible for work on the subways, T. Gilmore placed the bridges and maintained them until they were permanently supported, and C.H. Kilpatrick oversaw material and labor.[1]

   The architect/engineer for the Fifteenth Street bridge is unknown, but the company responsible for construction was the Pittsburgh, Cincinnati, Chicago and St. Louis railway company.

3. **Original and subsequent owners:** The original owner of the bridges was the city of Chicago.

4. **Builder/Contractor/Supplier**: The builder/contractor/supplier for the Rockwell Street line track elevation project between Fulton Street and Twelfth Street was the Chicago and North Western Railway Company. The CHICAGO & NORTH WESTERN RAILWAY provided its own limestone for the facing of the abutments from its quarries in Duck Creek, Wisconsin for the project, and limestone rubble for backing came from Lemont, Illinois. Parts for the bridges were manufactured by the Lassig Bridge & Iron Works Company in Chicago, assembled in sections, shipped to the erecting yard of the Chicago & North Western Railway Company, then delivered to the site.[2] The builder/contractor/supplier for the Fifteenth Street bridge is unknown.

5. **Original plans and construction**: The Rockwell Street elevated railroad bridges have received alterations, but do not appear significantly altered from when they were originally constructed. The bridges have iron plate girders with steel girder webs, web splices, deck plates and guard rail angles. The bridges are supported with metal columns and wood stringers, and stone abutment walls and retaining walls. Original

[1] Louis H. Evans, "Track Elevation of the Chicago & Northwestern Railway," *Journal of the Western Society of Engineers* 3, no. 5, XLVII, (1898): 1243.

[2] "Track Elevation, Chicago & North Western Railway, in Chicago," *Engineering News* XXXVI, no. 8 (August 20, 1896): 115.

plans and plans for alterations for the railroad bridges were provided by the Union Pacific Railroad Company and are attached to this report.

6. **Alterations and additions**: Each of the 14 Rockwell Street elevated railroad bridges has received repairs and alterations over the years. Plans for alterations for each bridge were provided by the Union Pacific Railroad Company and are attached to the short forms for each bridge attached to this report. Minor alterations include:

   Fulton Street Bridge Alterations:
   1904: connections between girders over posts
   1908: repairs to stringers
   1916: new stringers, apron plates
   1916: shim plates
   1919: stringer renewals
   1925: shim plates, repairs to girders, guard angles and shim
   1927: repairs to curb column
   1929: repairs to shims, web girder no. 3 (center bridge)
   1931: repairs of apron plates and shims
   1932: repairs to web of girder
   1933: skew crossings welding repairs
   1938: repairs to webs of girders and floor beam gusset
   1942: repairs to floor beams
   Illegible: renewal of guard angles
   1952: waterproofing subway floor
   1960 repairs to outside guard angle for rail #2
   1971: revised floor system
   Illegible: floor plate renewal
   1986: renewal of deck, tie supports

   Lake Street Bridge Alterations:
   1917: repairs to stringers and plates
   1919: stringer renewals
   1924: repairs to webs of girders
   1925: shim plates
   1926: repairs to shim
   1927, illegible: repairs to apron plates and guard angles
   1929: repairs to web of girders
   1931: repairs to shim, repairs to column bases
   1933: welding repairs to square crossings
   1936: repairs to plates and angles
   1945: repairs to floor beams
   1953: repairs to end gusset plates
   1963: column r.c. bearing block
   1968: floor plate renewal
   1971: revised floor system

Washington Street Bridge Alterations:
1919: stringer renewals
1965: strengthening main tracks floor system
1928: repairs to guard angles and apron plates
1965: repairs to floor plates and tie anchors

Warren Street Bridge Alterations:
1917: stringers and plates
1919: stringer renewals
1928: repairs to guard angles and apron plates
1965: repairs to floor plates and tie anchors
1965: strengthening main tracks floor system

Madison Street Bridge Alterations:
1917: repairs to stringers and plates
1919: stringer renewals

Monroe Street Bridge Alterations:
1919: stringer renewals
1928: Repairs to guard angles and apron plates
1965: repairs to floor plates and tie anchors
1965: strengthening main tracks floor system

Jackson Boulevard Bridge Alterations:
1919: stringer renewals
1928: repairs to apron plates and guard angles
1965: repairs to floor plates and tie anchors
1965: strengthening main tracks floor system

Harrison Street Bridge Alterations:
1919: stringer renewals
1965: repairs to floor plates and tie anchors
1965: strengthening main tracks floor system

Polk Street Bridge Alterations:
1905: repairs to girders
1917: stringers and plates
1918: repairs to girders
1919: stringer renewals
1928: repairs to guard angles and apron plates
1928: repairs to girders
1965: strengthening main tracks floor system

Taylor Street Bridge Alterations:

1912: repairs to north end of east girder
1916: apron plates
1919: stringer renewals
1925: repairs to girder no. 2
1931: repairs to apron plates and shims
1934: repairs to guard angles
1938: concrete bearing block
1941: anchors for abutments
1953: renewal of guard angles, gusset plates
1954: repairs to floor beams
1958: floor plate renewal
1965: repairs to floor plates and tie anchors
1965: strengthening main tracks floor system

No drawings were found for the Fifteenth Street bridge.

B. Historical Context

Railroads in Chicago

In the nineteenth century, Chicago was the center of transportation in the United States. Ideally located at the convergence of the Great Lakes and the Chicago River, adjacent to the prairies of the Middle West, the city was the natural midway between the industrial east and open west. Beginning in the seventeenth century with the French-Canadian voyageurs who portaged the area, to the completion of the Illinois and Michigan Canal, and finally with the development of the railway system, transportation provided the foundation for the economic explosion that resulted in the city's burgeoning population and prodigious growth.

The first railroad developed in Chicago was the Galena and Chicago Union Railroad, incorporated in 1836. Other railroads quickly followed and extended lines throughout Illinois and other states, particularly in the south and west. By 1853, Chicago's railroads connected to the east coast, and soon thereafter freight and passenger rail lines connected Chicago to cities all over the country. Connections between rail lines linked cities and made Chicago a national railway hub.

The city grew at an exponential rate, and increasing pedestrian, horse, buggy, wagon, and rail traffic at street-level led to increasing congestion and numerous, often fatal accidents. Street-level, or at-grade crossings, were increasingly problematic. When Chicago was chosen to host the Colombian Exposition of 1893, one railroad had a proposal to provide quicker and more efficient service to the fair which resulted in reducing the number of at-grade crossing accidents.

Railroad Track Elevation in Chicago

In 1892, the Illinois Central (IC) Railroad, which operated tracks to Hyde Park, wanted to separate its tracks from pedestrian and street traffic so that it could run trains quickly and efficiently to and from the fairgrounds. Its solution helped eliminate a large percentage of at-grade crossing railroad accidents.

The city of Chicago's railroad track elevation project began on May 23, 1892, when an ordinance was enacted allowing the IC to voluntarily elevate the tracks on its Hyde Park line that ran to the fair.[3] Seeing the success of the IC's track elevation, on February 23, 1893, the City Council passed an ordinance which provided for the elimination of all railroad grade crossings in the city and required all railroad tracks to be elevated at the railroad companies' expense. Drafted by Alderman John O'Neill, the ordinance became known as "The O'Neill Ordinance." The railroads vehemently opposed the ordinance and its requirements.[4] However, after considerable negotiations, the railroads finally agreed to the mandate and subsequently dozens of ordinances were passed on a line-by-line basis, providing specific requirements for elevations and railroad subway, or bridge, construction.

John O'Neill later resigned from his aldermanic position with the City Council on March 29, 1897 and a month later was appointed Superintendent of Track Elevation, a position he held for over ten years, until he resigned on October 31, 1907. He was replaced by Walter J. Raymer, who was named Commissioner of Track Elevation.[5]

Chicago & North Western Railway Elevation

On February 18, 1895, the City Council of Chicago passed an ordinance mandating that the Chicago & Northwestern Railway Company elevate its train tracks from approximately California Avenue to the western edge of the city limits. The Chicago & Northwestern Railway Company was required to raise its tracks from 10 or 11 feet above the surrounding streets and avenues and to construct subways passing beneath the tracks to allow for the flow of traffic at Kedzie, Homas, St. Louis and Hamlin Avenues, and W. 40th Street and Central Park Boulevard. Three of the subways were to be 66 feet wide between the abutments, and two of them were to be 80 feet wide.[6] News of the ordinance was widely reported in newspapers and railroad journals. Plans and surveys to elevate the tracks were completed by December of 1895.[7]

---

[3] City of Chicago, *Track Elevation Within the Corporate Limits of the City of Chicago* (Chicago: City of Chicago, 1908): 10.

[4] *Track Elevation Within the Corporate Limits; "Progress of Track Elevation in Chicago," Engineering News (January 23, 1896):54.*

[5] Ibid, 11; City of Chicago, *Track Elevation Department, Track Elevation within the Corporate Limits of the City of Chicago* (Chicago: City of Chicago, 1909).

[6] "Chicago Track Elevation," *Railroad Gazette,* March 1, 1895; "Proceedings of Council," *Chicago Tribune*, April 24, 1896; "Further Track Elevation," *Chicago Tribune*, April 26, 1896.

[7] "Pan-Handle Tracks are to Go Up," *Chicago Tribune*, December 5, 1895.

The Chicago & North Western Railway was cooperative and willing to accomplish the directives of the City Council and the requirements of the ordinance.[8] Quickly, within passage of the ordinance, the railway company began making plans to elevate multiple lines all over the city.[9]

Rockwell Street Railroad Track Elevation

In December, 1895, it was announced that eight important west side streets would be relieved of "long and aggravating delays" to street cars and carriages by the elevation of the Pittsburgh, Cincinnati, Chicago and St. Louis (known as the "Pan-Handle") railroad tracks along Rockwell street. The *Chicago Tribune* wrote that the heaviest traffic to the outlying districts of the West Side of the city was on West Lake, West Madison, West Van Buren, and West Twelfth streets, and "when the rush was greatest it seemed that the longest and most aggravating delays were caused at the Rockwell street crossing of these lines."[10] "For years" the crossing of the Pennsylvania tracks along Rockwell Street had been regarded as "one of the most dangerous in the city."[11]

Certain streets were more dangerous than others. Six railroad tracks crossed Fulton Street. The at-grade crossing at Fulton Street there was particularly dangerous; the *Inter Ocean* newspaper called the expenditure of funds for elevating tracks "a godsend," and said that elevating the tracks along Rockwell street would free Washington and Jackson Boulevards from "dangerous grade crossings," but would abolish the "*death-trap* at the Fulton street crossing (emphasis added)."[12]

The elevation of Lake Street was complicated because of the presence of the Lake Street Elevated Railroad, the tracks of which were required to be raised to allow room for the Chicago & North Western elevated tracks.[13]

Elevating the tracks would not only alleviate traffic delays, but it would also open access to Garfield, Humboldt and Garfield Parks, which would be a "great convenience" to both residents of the west side and other parts of the city.[14]

---

[8] "Accepts Elevation Ordinance," *Chicago Tribune*, August 9, 1896; "Aims at a Track-Raising Record," *Chicago Tribune*, March 25, 1897. *Engineering News* reported that "the Chicago & Northwestern Ry. is notable for having taken up the work with good will and energy." "Track Elevation, Chicago & Northwestern Ry., in Chicago, *Engineering News* XXXVI, no. 8, August 20, 1896, 114.

[9] Evans, "Track Elevation," *Journal of the Western Society of Engineers*; Chicago & North Western Railway Company, *Annual Report for the Thirty-sixth Fiscal Year Ending May 31st, 1895* (New York: Albert King & Co., 1895); *Chicago & North Western Railway Company, Annual Report for the Thirty-Seventh Fiscal Year Ending May 31st, 1896* (New York: Albert King & Co., 1896): "Track Elevation in Chicago, *Railroad Gazette* 27 (March 1, 1895); "Track Elevation in Chicago," *Railroad Gazette* 27 (April 26, 1895); "Track Elevation, Chicago & North Western Ry., in Chicago," *Engineering News* 36 (August 20, 1896);

[10] "Eight Streets will be Relieved," *Chicago Tribune*, December 6, 1895.

[11] "Begin Work on Their Tracks," *The Chicago Chronicle* (Chicago, Illinois), June 1, 1897.

[12] "Work on Track Elevation," *The Inter Ocean*, May 18, 1897.

[13] "Begin Work," *Chicago Chronicle.*

[14] "Eight Streets will be Relieved," *Chicago Tribune*, December 6, 1895.

It was "expected" that the "greatest trouble" would be experienced with the Northern Pacific company, whose tracks crossed the Pan-Handle south of Twelfth Street.

On April 24, 1896, the City Council passed an ordinance requiring that the tracks of the Chicago and North Western, the Pan-Handle and the Chicago and Northern Pacific railroad companies be elevated along Rockwell Street from Kinzie to Twelfth Street.[15] The specified reason for requiring the elevation was to provide for safety and to allow travel between neighborhoods easier; as an added advantage, streets wouldn't have to be closed, and the work elevating the tracks would provide employment.[16] The tracks would be elevated, on average, two feet higher than other elevations in the city. Alderman O'Neill, chairman of the special committee on Track Elevation, said it was the "best and most comprehensive scheme for track elevation that … was adopted by the Council."[17] While several amendments were proposed, the only amendment that passed was one that required the use of union labor and an eight-hour-work-day.[18] News of the ordinance was widely reported in the newspapers and railroad journals, including the May 1, 1896 *Railroad Gazette*.[19]

On January 18, 1897, another ordinance was passed requiring the Chicago & North Western, the Pan-Handle and the Northern Pacific Railroad Company to elevate their tracks at Rockwell Street from West 12th Street to Fulton Street.[20] Three of the tracks were for North Western freight trains and two were for the Pan-Handle main line. The sixth line, the Chicago and Northern Pacific Railroad, joined the tracks at Rockwell between Fulton and 12th streets. The ordinance provided specific requirements for elevation requirements and subway construction at each crossing.

---

[15] City of Chicago, Ordinance, January 18, 1897, published in Council Proceedings for Year 1896 – 1897, 1440 – 1457, https://books.google.com/books?id=rLMVAAAAYAAJ&pg=PA2626&lpg=PA2626&dq=city+of+chicago+ordinance+january+18,+1897&source=bl&ots=168LIRWABN&sig=ACfU3U1QHLdQdXm964vW8CLwBi8fFyH1Hg&hl=en&sa=X&ved=2ahUKEwjtq-7BpNbwAhUabc0KHYQ-CbkQ6AEwCHoECAwQAw#v=onepage&q=city%20of%20chicago%20ordinance%20january%2018%2C%201897&f=false, accessed May 1, 2021; "Proceedings of Council," *Chicago Tribune*, April 24, 1896; "Further Track Elevation," *Chicago Tribune*, April 26, 1896.

[16] "Further Track Elevation."

[17] "Proceedings of Council," *Chicago Tribune,* April 24, 1896.

[18] Ibid.

[19] "Track Elevation in Chicago, *Railroad Gazette* XXVIII, May 1, 1896, 310.

[20] Id., 24; City of Chicago Ordinance, January18, 1897.

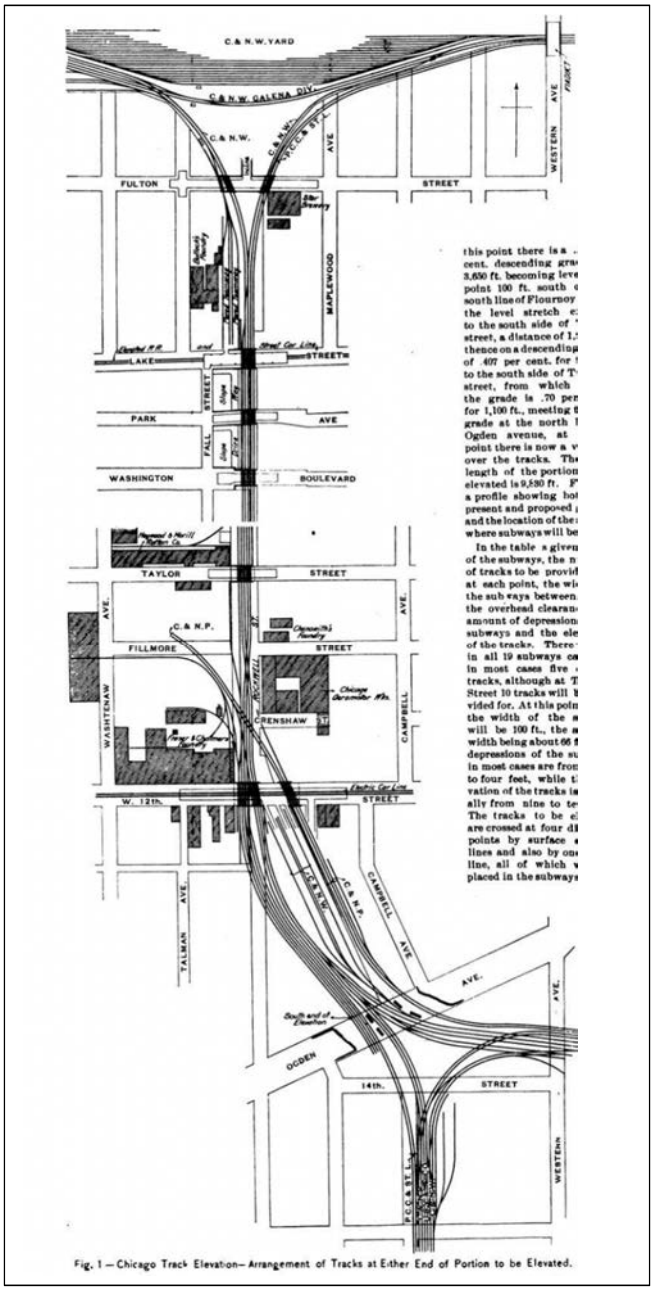
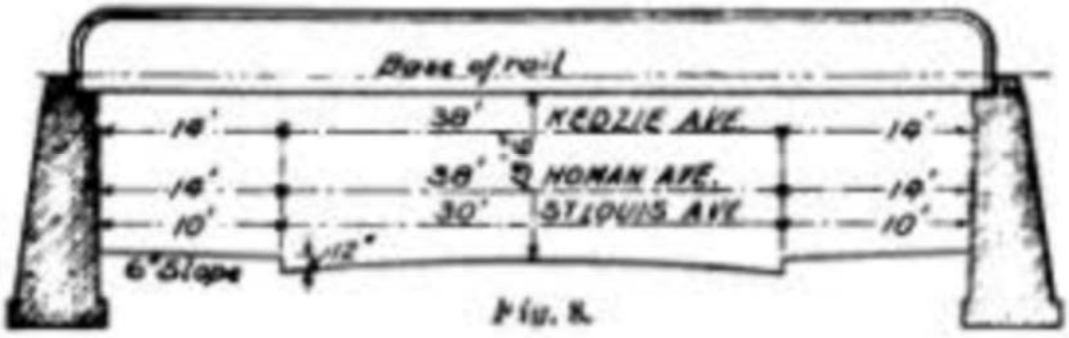


Fig. 1 — Chicago Track Elevation— Arrangement of Tracks at Either End of Portion to be Elevated.

"Chicago Track Elevation,"
The Railroad Gazette, August 13, 1897, 567.

The Rockwell Street corridor is defined as the linear elevation that carries the tracks between subways, as well as the sixteen subways, three of which are not part of this project (those over 12th Street/Roosevelt Road, Adams Street and Wilcox Avenue because those streets were not part of the Union Pacific's proposed improvement of the Rockwell Street alignment; in addition, the subway at Wilcox Avenue appears to have been in-filled).

Three of the subways and their abutments have been removed and infilled, and those accommodated passage of Harvard Street (now W. Arthington), Lexington Street and Flournoy Street beneath the elevated tracks. Of the remaining sixteen subways, thirteen are sixty-six feet long, one is seventy-three feet long, one is eighty feet long, and the structure over Twelfth Street (Roosevelt Road) is 100 feet long. All were designed by the Chicago and North Western Railway, in accordance with the design that was published in *Railroad Gazette* on July 26, 1895:



"Track Elevation in Chicago, *Railroad Gazette* 27, July 26, 1895, 493

When the Rockwell Street alignment was completed, there were nineteens subways that carried a total of ninety-eight bridges in the corridor. In 2016, fifty-nine of those bridges remained, meaning that thirty-nine had been removed. If the Wilcox Avenue subway was removed, then fifty-four bridges remain and forty-four bridges were removed.[21]

For the project along Rockwell Street from Fulton to Twelfth Streets, the Chicago & North Western Railway managed the project for all three railway companies. Payroll for workers was pro-rated among the three railroads. According to the 1898 article in the *Journal of the Western Society of Engineers* entitled "Track Elevation of the Chicago & Northwestern Railway," Louis H. Evans, engineer for the Chicago & North Western Railway Co., estimated the number of workers on the track elevation project for the Chicago & North

[21] Chicago's Elevated Common Carrier Railroad Alignments, 35.

Western: "[t]he force of subway contractor averaged about 200 men, bridge erecters averaged about 50 men, and C.& N.W. R'y Co's force averaged about 350 men.[22] The work elevating the tracks was described in *The Railway and Engineering Review*: "the average force was 300 men at raising and filling in the tracks, and 200 men at installing abutments and excavating and lowering the streets by contract."[23]

Louis H. Evans, a graduate of the University of Michigan, was named Engineer of Track Elevation for all three companies to oversee the project.[24] As Evans identified in the *Journal of the Western Society of Engineers,* William Graham designed the bridges and arranged for their delivery and assembly, G.C. Chittenden oversaw track work and train crews, T.R. Philbin was responsible for work on the subways, T. Gilmore placed the bridges and maintained them until they were permanently supported, and C.H. Kilpatrick oversaw material and labor.[25]

On March 17, 1897, the *Chicago Tribune* reported that Chicago & North Western requested a permit from the Commissioner of Public Works Joseph Downey to begin work elevating the tracks along Rockwell street between Twelfth and Fulton Streets, in accordance with the requirements of the ordinance passed by the City Council on January 18, 1897.[26] While the *Chicago Tribune* reported that work was started at Lake Street on March 29, 1897, the work started in earnest by the Chicago and North Western in early June, 1897.[27]

The *Railway and Engineering Review* called the project "[t]he most expensive piece of track elevation for the distance, yet undertaken in Chicago."[28] The process the Chicago & North Western used to elevate the first tracks from California Avenue to the western edge of the city limits and build the first railroad bridges beneath the tracks to allow for the flow of traffic at Kedzie, Homas, St. Louis and Hamlin Avenues, and W. 40th Street and Central Park Boulevard remained the same for those along Rockwell Street.[29]

Louis Evans described the process:

> Starting June 4, 1897, a string of bridges on two tracks (east and middle) were placed at four streets, Monroe, Wilcox, Adams, and Jackson, Fig.

---

[22] Evans, "Track Elevation," *Journal of the Western Society of Engineers,* 1243.

[23] "Track Elevation at Rockwell Street," 482.

[24] "University of Michigan Alumni Dine," Chicago Tribune, June 16, 1894; Evans, "Track Elevation," *Journal of the Western Society of Engineers,* 1235; "Aims at a Track-Raising Record," *Chicago Tribune*, March 25, 1897.

[25] Evans, "Track Elevation," *Journal of the Western Society of Engineers,* 1243.

[26] "Northwestern Asks Permit to Elevate," *Chicago Tribune*, March 17, 1897.

[27] "Must Raise the Tracks," *Chicago Tribune*, March 30, 1897; Evans, "Track Elevation," *Journal of the Western Society of Engineers,* 1235; "Begin Work on Their Tracks," *The Chicago Chronicle* (Chicago, Illinois), June 1, 1897.

[28] "Track Elevation in Rockwell Street, Chicago," *The Railway and Engineering Review*," August 21, 1897, 482.

[29] Evans, "Track Elevation," *Journal of the Western Society of Engineers,* 1235; "Chicago Track Elevation," *Railroad Gazette*, August 13, 1897; "Track Elevation in Rockwell Street, Chicago," *The Railway and Engineering Review*," August 21, 1897.

462; the fills were made, and the intermediate floors were put in and double track traffic put on this elevated section June 12th, 2 P.M. This first section elevated was about 1,800 feet long. The remining bridges were placed on the west track on June 13th, intermediate floors put in on June 14th. The remaining bridges were placed on the west track June 13th, intermediate floors put in June 14th. Because of blocking four streets it was decided to make a temporary planked road at Wilcox, which was done June 17th. The street excavation was started at once. Masonry started very soon and all branches of the work were well under way by the middle of June. The traffic was elevated over four streets, and it was decided to add a string of bridges on the west tracks over the next four streets to the north, Madison, Warren, Washington and Park Ave., so that with the next change of traffic to the west side of the elevated lines it would be over eight bridges. In making this decision the cable line at Madison St. loomed up. The placing of the bridge at Madison St. would stop the cars. The first bridge was placed at Madison St. Friday, June 18th, at 5 A.M. An officer attempted to serve an injunction to prevent the placing of the bridge at 6 A.M., but he was too late. Saturday at 4 P.M. the injunction was dissolved, and the work started again after two days' delay. Had this injunction held, it would have stopped track elevation, except at a full elevation of 16 feet and no interference with street traffic. Traffic was placed on the west track elevated over eight streets June 25th; on the east tracks elevated over twelve streets July 12th; on the west tracks elevated over sixteen streets July 22nd.[30]

[30] Ibid.; *Twenty-second Annual Report of the Department of Public Works to the City Council of the City of Chicago for the Fiscal Year Ending December 31, 1897* (Chicago: Cameron, Amberg & Co., 1898), 15.

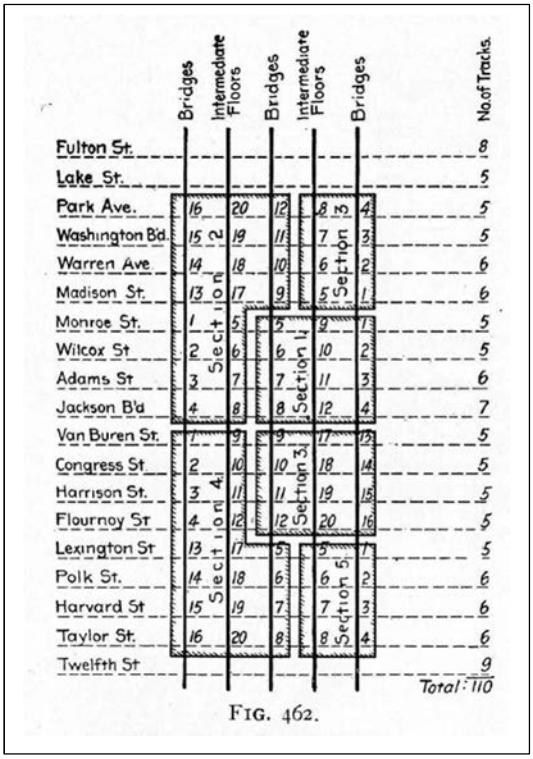


FIG. 462.

Fig. 462. Plan of track elevation work on Rockwell Street showing order in which structures were erected. Evans, "Track Elevation," *Journal of the Western Society of Engineers,* 1238.

On Saturday, October 8, 1898, the Western Society of Engineers made an "inspection trip" over the track elevation work of the Chicago & North Western, Pan-Handle along Rockwell Street and the Chicago, Milwaukee & St. Paul Roads in Chicago. Prominent railroad and bridge engineers were included in the group of 130 people, who were guests of the Chicago & North Western Railroad. By that time the work of elevating the tracks had been almost completed, so the group was mostly interested in the ongoing work building the concrete abutments of the Chicago, Milwaukee & St. Paul Railway, which consisted of a revolving, steel Ransome concrete mixing machine.[31]

Process of Track Elevation

The method that was developed by the Chicago & North Western Railway for elevating the tracks along Rockwell Street was new, and remarkably efficient. The tracks were elevated, and bridges were built, between Fulton Street and Twelfth Street (Roosevelt Road) in 38 working days between June 4th and July 22, 1897, and during the process only one street

[31] "Western Society of Engineers," *The Railway and Engineering Review* XXXVIII, October 15, 1898, 584.

was closed at a time.[32] The Rockwell Street Elevated Railroad Bridge project was two-fold and included elevating the tracks and constructing the subways and bridges.[33] An 1896 article in the journal *Engineering News* entitled "Track Elevation, Chicago & Northwestern Ry., in Chicago" described the process that the Chicago & North Western Railway used to elevate the tracks and build the bridges.[34] First, the tracks were elevated. Elevation was simple earth embankment work. According to the terms of the ordinance, retaining walls were to be built wherever necessary to keep the embankment within the limits of the company's right of way, which was only 100 feet wide, and with five tracks, a retaining wall was needed only along part of the distance. Walls were built of quarried limestone masonry with a concrete footing.

According to the article in *Engineering News*, the most interesting part of the embankment work was the method of filling, which is illustrated in the following diagram.

> The bottom solid line shows the original grade of the tracks, and the top solid line shows the grade after elevation. The broken lines show the different sections of the embankment numbered in the order they were built. For example, triangles No. 1 were first built with sand hauled in by train, the tracks being raised little by little until they conformed to the grade indicated by the line A, B, C, D, E. It will be noticed that the tracks crossing Kedzie Ave., at C, had not been elevated thus far, but now the girders for the two outside and the center tracks, with floor system, tracks, etc., complete, were brought to Kedzie Ave. mounted on jacks on flat cars, and were hoisted onto temporary pile abutments, but not up to full grade. Two tracks, it will be noticed, were unobstructed by the work. The girders being hoisted to their temporary positions, triangles 2, 2 were filled in, which as the quantity was small, was done in one day. The tracks now followed the grade A, B, F, D, E and the trains run over the two outside tracks and the center track. The bridges for the remaining two of the five tracks were then raised onto their temporary abutments. Everything was now ready for filling the irregular prism 3, raising the bridges to full grade, and the girder erection at Homas Ave., after which triangles 4 and 5 were filled, and so on west until the work was completed.[35]

---

[32] Evans, "Track Elevation," *Journal of the Western Society of Engineers,* 1238; "Track Elevation, Chicago & North Western Railway, in Chicago," *Engineering News* (August 20, 1896): 115.

[33] The process for elevating the tracks, and the materials for filling the embankments, and for building the subways were the same as those described in *Railroad Gazette* on July 26, 1895, Aug 4 and 14, 1896, *Railway Review* of April 27 and May 4, 1895, and *Railway and Engineering Review* of June 26, 1897. "Must Raise the Tracks," *Chicago Tribune,* March 30, 1897.

[34] "Track Elevation, Chicago & Northwestern Ry., in Chicago," *Engineering News* XXXVI, no. 8, 1896.

[35] Ibid., 115.

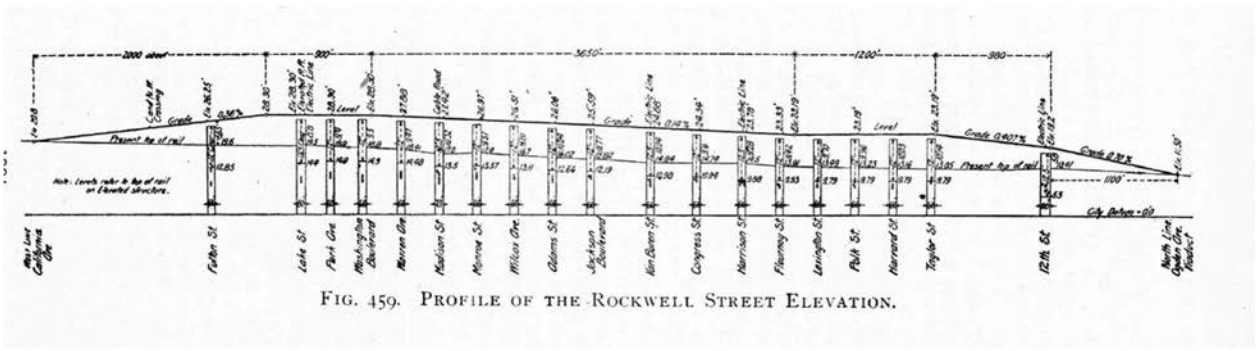


FIG. 459. PROFILE OF THE ROCKWELL STREET ELEVATION.

"Track Elevation of the Chicago & Northwestern Railway," *Journal of the Western Society of Engineers 3, no. 5, XLVII* (1898): 1234.

The new grade was described in the August 13, 1897 *Railroad Gazette*:

> [T]he new grade rises on a .38 per cent slope, for a distance of 2,000 ft. to a point about 250 ft. north of the north line of Lake street: thence level for 900 ft. to a point 50 ft. south of the south line of Washington Boulevard; from this point there is a .14 per cent descending grade for 3,650 ft. becoming level at a point 100 ft. south of the south line of Flournoy street; the level stretch extends to the south side of Taylor street, a distance of 1,200 ft.; thence on a descending grade of .407 per cent for 980 ft. to the south side of Twelfth street. From which point the grade is .70 per cent for 1,100 ft., meeting the old grade at the north line of Ogden Avenue, at which point there is now a viaduct over the tracks. The total length of the portion to be elevated is 9, 880 ft.[36]

About 150,000 cubic yards of sand was required for filling, brought to Rockwell Street by the Lake Shore & Michigan Southern Railway from Dune Park, Indiana, the same place that provided sand for the previous elevation projects by the Chicago & North Western Railway.[37]

Process of Building Bridges

The city ordinance required that the bridges have iron or steel girders, water-tight floors, and masonry or masonry and metal column foundations. The following images from *Engineering News* shows the construction method adopted. Figure 2 shows the girder and floor construction in detail and figure 3 shows the enlarged detail of the track construction. The floor beams consist of two channels riveted back-to-back with a filler plate between,

[36] Ibid., 567.

[37] "Track Elevation in Rockwell Street, Chicago," *The Railway and Engineering Review* 37 (August 21, 1897): 482.

extending to within about 1' of the beam ends. These beams are fastened to gusset plates, which slip into the spaces left by the filler plate at each end of the beam and are spaced 5 feet center to center. The stringers consist of two 6" X 16" oak timbers carried in a trough formed by two Z-bars and a plate, and riveted to the floor beams. Between the oak stringers, the space is covered with 3-16" deck plate which closes the floor solid and prevents dripping of dirt or water onto the subway floor beneath. The designer of the floor was Louis Evans.[38]

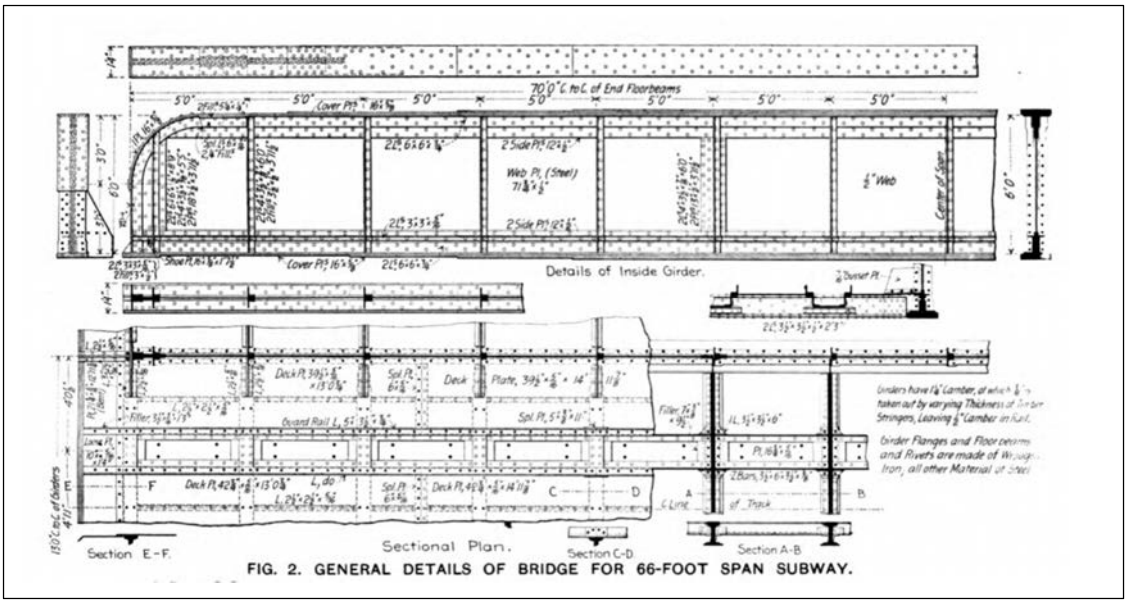


FIG. 2. GENERAL DETAILS OF BRIDGE FOR 66-FOOT SPAN SUBWAY.

"Track Elevation, Chicago & North Western Ry, Chicago," Supplement to *Engineering News,* August 20, 1896.

[38] "Track Elevation in Rockwell Street, Chicago," 432.

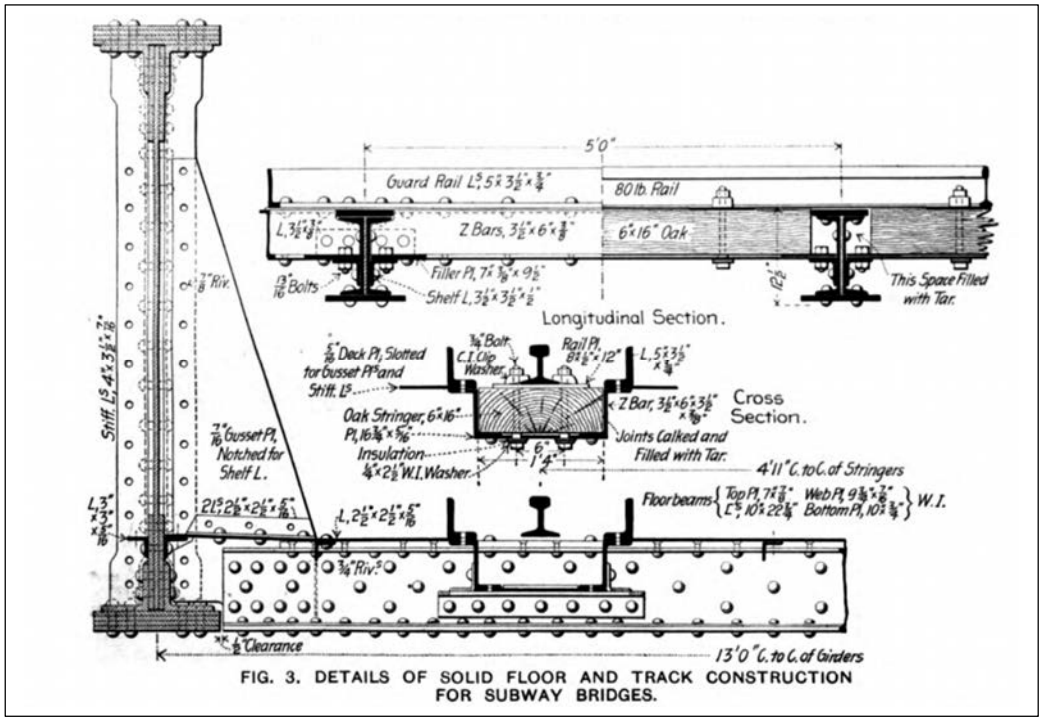


FIG. 3. DETAILS OF SOLID FLOOR AND TRACK CONSTRUCTION FOR SUBWAY BRIDGES.

"Track Elevation, Chicago & North Western Ry, Chicago," Supplement to *Engineering News,* August 20, 1896.

The bridges were built at the Lassig Bridge & Iron Works Company in Chicago. Various parts were shipped, partially assembled in sections, to the erecting yard of the Chicago & North Western Railway company. An erecting frame was located here, that connected the two girders and floor system for one track. Blocked up on two flat cars, the structure, weighing 70 tons, was brought to the bridge site. Once there, the first job was to excavate under the tracks, while keeping the tracks blocked up to continue to allow them to carry traffic. Piles were driven to act as temporary abutments for the subway bridge. The cars carrying the bridge were backed in on the rails, the bridge then lifted by screw jacks off the car and secured to the piles, after which the cars were pulled away. Abutments were then built for the height of the bridge.

If there was a three-track alignment, two bridges were brought in, off-loaded, and installed, then a floor system was installed between the two pre-assembled bridges to carry the third track. Following this basic procedure generally allowed the Chicago & North Western to install up to 6,500 linear feet of a three-track conveyance on a nine-foot elevated embankment with a 66' right-of-way per month.[39]

[39] "Track Elevation, Chicago & North Western Ry., in Chicago," *Engineering News* (August 20, 1896): 114 – 116; Chicago's Elevated Common Carrier Railroad Alignments, A Consideration of Historic Resources (Draft), 2017, Heritage Research, Ltd, 25-26.

The abutments were built with stone brought from its own quarries that the Chicago & North Western Railway Company owned in Duck Creek, Wisconsin.[40] In 1897, the Chicago & North Western Railway Company bought another quarry at Duck Creek and added it to the several quarries it already owned in the area because it needed more stone in connection with the track elevation project: "A gang of men will be put to work at once getting stone from the property as the material cannot be supplied fast enough from the old quarry. The stone is used in track elevation work in Chicago." [41]

According to *The Railway and Engineering Review*, four engines were in use most of the time, one of which was kept busy hauling iron work from the works of the Lassig Bridge & Iron Company and "doing necessary shifting in connection therewith."[42]

In total 1.7 miles of 5 tracks were elevated and 19 bridges were constructed. The project used 177,000 square yards of sand filling, 72,000 cubic yards of street excavation, 20,000 of gravel ballast, created 17,000 cubic yards of masonry abutments and foundations, 9,200 cubic yards of rubble retaining walls and foundations, 5,540 tons of bridge metal, 36,400 square yards of paving and 14,700 square yards of sidewalks. [43]

Fifteenth Street

The bridge at 15th Street was not part of the Rockwell Street track elevation project.

Chicago Track Elevation, 15th Street Subway, June 19, 1911
Pennsylvania Railroad Glass Plate Negative Collection, 1907 – 1917
University of Pittsburgh, Pennsylvania Railroad Photo graphs.

[40] Evans, "Track Elevation," *Journal of the Western Society of Engineers,* 1242; "Notes from Quarry and Shop," *Stone, An Illustrated Magazine* 15, 1897: 416, 418.

[41] Ibid. at 418.

[42] "Track Elevation in Rockwell Street, Chicago," 432.

[43] Evans, "Track Elevation," 1244.

The Pan-Handle elevated the tracks on Fifteenth Street. The image above, dated June 19, 1911, is from a glass plate negative collection from 1907 – 1917, which was one of a series of photographs that were taken to document the Pittsburgh, Cincinnati, Chicago and St. Louis railway company track elevation project from Twelfth Street to Thirty-first Street. The Pennsylvania Railroad Glass Plate Negative Collection, 1907 – 1917, University of Pittsburgh, Pennsylvania Railroad Photo graphs.

Elevation of the Fifteenth Street tracks was completely separate from the Rockwell Street project managed by the Chicago & North Western Railway, and elevation of the Fifteenth Street tracks started later than the Rockwell project. The Fifteenth Street tracks, located historically at S. Campbell Avenue, was provided for in an ordinance dated September 3, 1907. The ordinance required the subways on Fifteenth Street, Sixteenth Street and Eighteenth Street to be constructed jointly by the Pittsburgh, Cincinnati, Chicago and St. Louis Railway Company, the Chicago Junction Railway Company, and the Chicago Terminal Transfer Railroad Company. The Pittsburgh Cincinnati Chicago and St. Louis Railway Company was to construct all the subways and west approaches lying west of the east right of way lines; the Chicago Junction Railway Company would construct all the portion of the subway lying between the right of way lines, and the Chicago Terminal Transfer Railroad Company would construct the remaining portion and the east approaches ling east of its west right of way lines.[44] The railroads would jointly construct any retaining walls that would be necessary for the purpose of keeping the embankments entirely within their right of way lines.[45]

The ordinance provided specific requirements for the subway in West Fifteenth Street, under the Pittsburgh, Cincinnati, Chicago and St. Louis Railway, the Chicago Terminal Transfer Railroad and the Chicago Junction Railway. The depression of the street would be sufficient to make the elevation of the floor of the subway not less than 7.78 feet above city datum, and that level should extend to the right of way lines of the railways on each side. From that level the approaches shall extend on a grade of not to exceed 3.5’ in 100’ to a connection with the then-present surface of the street. The width between the walls of the subway was to be 66’. The width of the roadway in the subway was to be 46’. The width of the sidewalks in the subway were to be 10’each, the width of the roadway and sidewalks outside of the subway were to remain the same as they existed before the subway was built. The depression of sidewalks was to be uniform with the roadway and about 1’ above the level of the same. Two lines of posts were allowed to be placed in curb lines and one line of posts in the center of the roadway to support the girders. 12’ of clear headroom was required.[46]

Success of Track Elevation

The work was completed and reported in the 1897 – 1898 Chicago & North Western *Annual Report.* The cost of elevating the tracks from Fulton Street to 12th Street on the Rockwell

[44] Track Elevation Within the Corporate Limits of the City of Chicago to December 31, 1908; 1023, 532.
[45] Ibid., 834.
[46] Id., 835.

Street Line, Galena Division, was $385, 993.42.[47] 1 66/100 miles of the Rockwell Street line was elevated, adding 19 subways.[48]

In 1909, the Track Elevation Department of the City of Chicago published a report that summarized the results of the track elevation project. The biggest benefit and largest impact of track elevation was the reduction of fatal and non-fatal accidents. According to the statistics provided by the Track Elevation Department, track elevation prevented 1,380 grade crossing fatalities and 2,510 nonfatal accidents. While the population in Chicago grew from 1,626,333 in 1899 to 2,166,055 in 1908, the number of fatal accidents dropped from 113 per year to 20, and the number of non-fatal accidents dropped from 169 to 27.[49]

There were other benefits from elevating the tracks, including time saved because of blocked crossings; unrestricted passage for the fire department when trying to get to a fire; the reduction of congestion, new development; accessibility to churches, markets and schools; fewer court cases due to trespass, car thieving, or hitching; trains on time; fewer accidents for which the public had to suffer and for which the railroads had to pay; railroad rights of way were more clearly defined; freight trains no longer had to be cut at street intersections; underground pipes and conduits were more accessible in subways than when they were lying under the tracks; future electrification of the railroads was made easier in that the third rail and return circuits could be more easily disposed of, and more.[50]

The track elevation project accomplished a great many things and was viewed as a major achievement: the number of fatalities and accidents that occurred at grade crossings decreased, congestion was reduced, train time improved with consistent speed and fewer interruptions due to stoppages or accidents, and parked freight trains were not required to be separated to accommodate traffic at cross streets.

Commissioner Raymer, when introducing the 1908 Track Elevation Report, stated:

> After the first experiment of operating trains on an elevation was tried, it was but a short time before other railroad officials, recognizing the advantages of rapid movement of their trains within the city limits, the economy of operation, and the elimination of damage suits, came to realize that it would be to their advantage to follow the example and do likewise. It is true today that the officials of all railroads entering Chicago are ready to cooperate with city officials in removing the deadly grade crossings."[51]

---

[47] Chicago & North Western Railway Company, *Annual Report for the Thirty-Ninth Fiscal Year Ending May 31st, 1898* (New York: Albert King & Co., 1898), 17, 42.

[48] Ibid., 18.

[49] City of Chicago, *Track Elevation Department, Track Elevation within the Corporate Limits of the City of Chicago* (Chicago: City of Chicago, 1909): 17; "Track Elevation Pays for Itself," *Chicago Tribune,* May 23, 1909.

[50] Ibid., "Track Elevation Pays for Itself," *Chicago Tribune,* May 23, 1909.

[51] Ibid.

Part II. Structural/Design/Equipment Information

A. General Statement:

1. **Character**: The railroad bridges from Fulton Street to Twelfth Street along Rockwell Street, constructed by the Chicago & North Western Railway Company, with quarried limestone-faced abutments and bridges manufactured by the Lassig Bridge & Iron Works Company, and the Fifteenth Street Bridge, constructed by the Pittsburgh, Cincinnati, Chicago and St. Louis railway company, are a visual reminder of the earliest days of Chicago's city-wide track elevation project, an important part of Chicago's transportation history.

2. **Condition of fabric**: The abutments and bridges are in varying degrees of condition, most being fair to good. The limestone abutments at many locations have been painted over and the steel structure of many locations are severely rusted.

B. **Description**: The Rockwell Line as described in this report consists of a linear elevation supporting the tracks, spanning from Fulton Street down to 15th Street. The tracks run in a north-south direction, spanning across 16 east-west streets. Of those 16, 14 are to be demolished.

Each of these 14 bridges are supported by steel girders and flanked by abutments. The majority of the abutments are constructed of limestone with the exception of the 15th Street bridge and the south abutment of the Van Buren Street bridge, which are constructed of concrete. All of the abutments have been painted white. Several of the bridge have steel columns supporting the girders at the north and south ends of each crossing, at the edge of each sidewalk.

The Fulton bridges were manufactured by the Lassig Bridge & Iron Works Company. They were constructed of iron, except for girder webs, web splices, deck plates and guard rail angles which were constructed of steel. They were manufactured off-site, partially assembled, shipped to the erecting yard of the Chicago & North Western Railway Company, and then delivered to the site. The abutments were made of limestone from the Chicago & North Western Railway Company quarry in Duck Creek, Wisconsin with limestone rubble from Lemont, Illinois for backing, and concrete foundations.

Original plans and construction:
Original drawings of some of the bridges were provided by the Union Pacific Railroad Company. The drawings date from 1897, the period of track elevation and original bridge construction, and document subsequent alterations.

C. **Mechanicals/Operation:** The Rockwell Street Elevated Railroad Bridges do not have mechanical or operational functions.

D. **Site Information**: The Rockwell Street Elevated Railroad Bridges are laid out along an approximate mile and a half stretch of railroad tracks along Rockwell Street. The railroad bridges are part of the urban landscape.

Part III. Sources of Information

A. **Original Architectural Drawings**:
Original drawings for many of the bridges built by the Chicago & North Western Railway Company were received from Union Pacific Railroad Company and are attached to this report. No drawings have been found for the Fifteenth Street bridge.

B. **Early Views**: Several early views of the track elevation and bridge construction processes were found in railroad and engineering journals and are attached to this report.

C. **Interviews**: No interviews were conducted.

D. **Bibliography**:

1. Primary Sources:

Chicago & North Western Railway Company, *Annual Report for the Thirty-Ninth Fiscal Year Ending May 31st, 1898* (New York: Albert King & Co., 1898). https://babel.hathitrust.org/cgi/pt?id=uc1.b3009554&view=1up&seq=160&q1=track%20elevation, accessed April 19, 2021.

City of Chicago, Ordinance, January 18, 1897, published in Council Proceedings for Year 1896 – 1897, 1440 – 1457. https://books.google.com/books?id=rLMVAAAAYAAJ&pg=PA2626&lpg=PA2626&dq=city+of+chicago+ordinance+january+18,+1897&source=bl&ots=168LIRWABN&sig=ACfU3U1QHLdQdXm964vW8CLwBi8fFyH1Hg&hl=en&sa=X&ved=2ahUKEwjtq-7BpNbwAhUabc0KHYQ-CbkQ6AEwCHoECAwQAw#v=onepage&q=city%20of%20chicago%20ordinance%20january%2018%2C%201897&f=false, accessed May 1, 2021.

City of Chicago, *Track Elevation Department, Track Elevation within the Corporate Limits of the City of Chicago* (Chicago: City of Chicago, 1909).

City of Chicago, *Track Elevation Department, Track Elevation within the Corporate Limits of the City of Chicago* (Chicago: City of Chicago, 1911).

Evans, Louis H. "Track Elevation of the Chicago & Northwestern Railway," *Journal of the Western Society of Engineers* 3, no.1 (1898).

Track Elevation, Chicago & North Western Railway, in Chicago," *Engineering News* 36, no. 8, August 20, 1896, with supplement.

"Track Elevation in Chicago," *The Railroad Gazette,* March 1, 1895.

"Track Elevation in Chicago," *Engineering News* 32, July 19, 1894.

Twenty-second Annual Report of the Department of Public Works to the City Council of the City of Chicago for the Fiscal Year Ending December 31, 1897. Chicago: Cameron, Amberg & Co., 1898.

2. Secondary Sources:

"Aims at a Track-Raising Record," *Chicago Tribune,* March 25, 1897.

"Another Snag for Track Elevation," *The Chicago Chronicle*, April 21, 1897.

"Begin Work on Their Tracks," *The Chicago Chronicle* (Chicago, Illinois), June 1, 1897.

Chicago's Elevated Common Carrier Railroad Alignments, A Consideration of Historic Resources (Draft), 2017, Heritage Research, Ltd.

"Eight Streets will be Relieved," *Chicago Tribune*, December 6, 1895.

"Further Track Elevation," *Chicago Tribune,* April 26, 1896.

"Must Raise the Tracks," *Chicago Tribune,* March 30, 1897.

"Northwestern Asks Permit to Elevate," *Chicago Tribune*, March 17, 1897.

"Pan-Handle Tracks are to Go Up," *Chicago Tribune*, December 5, 1895.

"Proceedings of Council," *Chicago Tribune,* April 24, 1896.

"Proceedings of the Ninth Annual Convention of the American Railway Engineering and Maintenance-of-Way Association," 1908.

"Track Elevation Making Progress in Chicago," *Chicago Tribune*, April 10, 1898.

"Track Elevation in Rockwell Street, Chicago," *The Railway and Engineering Review* 37, August 21, 1897.

"Work on Track Elevation," *The Inter Ocean* (Chicago, Illinois), May 18, 1897.

E. Likely Sources Not Yet Investigated:

Original construction permit may be on file at the Illinois Department of Transportation, Chicago Department of Transportation, or Chicago Department of Public Works.

The Chicago History Museum Research Center holds a collection of lantern slides that include 87 transparencies of the construction of railway bridges and roads in Chicago from 1896 – 1924, including railroad bridges, and images from the Chicago and North Western Railway Company, among others. It is possible that some images show construction of track elevation and bridges. The Research Center at the Chicago History Museum was not staffed to allow viewing of lantern slides at the time of preparation of this report.

Lantern slides of construction of railway bridges and roads in Chicago:
http://chsmedia.org/media/fa/fa/1986/591.htm

In addition, the Chicago History Museum has two collections of photographs that might have images of these bridges:

Chicago Railroad Track Elevation Collection of Photo graphs:
https://www.chsmedia.org/ipac20/ipac.jsp?session=162M456V92T61.45753&profile=public&source=~!horizon&view=subscriptionsummary&uri=full=3100046~!4318~!5&ri=6&aspect=subtab112&menu=search&ipp=20&spp=20&staffonly=&term=chicago+railroad+bridges&index=.GW&uindex=&aspect=subtab112&menu=search&ri=6

Chicago Department of Public Works Photo graphs Collection
https://www.chsmedia.org/ipac20/ipac.jsp?session=162M456V92T61.45753&profile=public&source=~!horizon&view=subscriptionsummary&uri=full=3100046~!4316~!8&ri=18&aspect=subtab112&menu=search&ipp=20&spp=20&staffonly=&term=department+of+public+works&index=.GW&uindex=&aspect=subtab112&menu=search&ri=18

F. **Supplemental Material**: Historic images are attached to the end of this report.

INDEX TO 4X5 BLACK AND WHITE PHOTOGRAPHS

CK-2021-1.1	15th Street to the West
CK-2021-1.2	15th Street to the Northwest
CK-2021-1.3	15th Street to the Southwest, under bridge
CK-2021-1.4	15th Street to the Northwest, under bridge
CK-2021-1.5	15th Street to the South
CK-2021-1.6	Taylor Street to the West
CK-2021-1.7	Taylor Street to the North
CK-2021-1.8	Taylor Street to the South, under bridge
CK-2021-1.9	Taylor Street to the Northeast
CK-2021-1.10	Taylor Street to the Southeast, under bridge
CK-2021-1.11	Polk Street to the West
CK-2021-1.12	Polk Street to the West
CK-2021-1.13	Polk Street to the North, under bridge
CK-2021-1.14	Polk Street to the North, under bridge
CK-2021-1.15	Polk Street to the North, under bridge
CK-2021-1.16	Polk Street to the Northeast
CK-2021-1.17	Polk Street to the East
CK-2021-1.18	Harrison Street to the West
CK-2021-1.19	Harrison Street to the Northwest
CK-2021-1.20	Harrison Street to the North, under bridge
CK-2021-1.21	Harrison Street to the Northeast
CK-2021-1.22	Harrison Street to the Southeast
CK-2021-1.23	Harrison Street to the Southwest
CK-2021-1.24	Harrison Street to the South, under bridge
CK-2021-1.25	Harrison Street to the Southeast
CK-2021-1.26	Congress Street to the West
CK-2021-1.27	Congress Street to the Northwest
CK-2021-1.28	Congress Street to the Southwest
CK-2021-1.29	Congress Street to the South
CK-2021-1.30	Congress Street to the Southeast
CK-2021-1.31	Congress Street to the North
CK-2021-1.32	Van Buren Street to the West
CK-2021-1.33	Van Buren Street to the Northwest
CK-2021-1.34	Van Buren Street to the Southeast
CK-2021-1.35	Van Buren Street to the Northeast
CK-2021-1.36	Van Buren Street to the Northeast
CK-2021-1.37	Van Buren Street to the Southeast
CK-2021-1.38	Van Buren Street to the Southwest

CK-2021-1.39	Jackson Blvd to the West
CK-2021-1.40	Jackson Blvd to the Southwest
CK-2021-1.41	Jackson Blvd to the Northeast
CK-2021-1.42	Jackson Blvd to the Northeast
CK-2021-1.43	Jackson Blvd to the East
CK-2021-1.44	Jackson Blvd to the Southwest
CK-2021-1.45	Monroe Street to the West
CK-2021-1.46	Monroe Street to the North
CK-2021-1.47	Monroe Street to the Southeast
CK-2021-1.48	Monroe Street to the Northeast
CK-2021-1.49	Monroe Street to the East
CK-2021-1.50	Madison Street to the West
CK-2021-1.51	Madison Street to the Southwest
CK-2021-1.51	Madison Street to the North
CK-2021-1.53	Madison Street to the Northeast
CK-2021-1.54	Madison Street to the South
CK-2021-1.55	Warren Ave to the East
CK-2021-1.56	Warren Ave to the Southwest
CK-2021-1.57	Warren Ave to the North
CK-2021-1.58	Warren Ave to the Northeast
CK-2021-1.59	Warren Ave to the Southeast
CK-2021-1.60	Washington Blvd to the Northwest
CK-2021-1.61	Washington Blvd to the North
CK-2021-1.62	Washington Blvd to the East
CK-2021-1.63	Washington Blvd to the Southeast
CK-2021-1.64	Washington Blvd to the East
CK-2021-1.65	Washington Blvd to the South
CK-2021-1.66	Maypole Ave to the Southwest
CK-2021-1.67	Maypole Ave to the West
CK-2021-1.68	Maypole Ave to the Southwest
CK-2021-1.69	Maypole Ave to the Northwest
CK-2021-1.70	Maypole Ave to the East
CK-2021-1.71	Maypole Ave to the Northeast
CK-2021-1.71	Lake Street to the West
CK-2021-1.73	Lake Street to the Northwest
CK-2021-1.74	Lake Street to the Northeast
CK-2021-1.75	Lake Street to the Southeast
CK-2021-1.76	Lake Street to the East

CK-2021-1.77	Lake Street to the South
CK-2021-1.78	Lake Street to the South
CK-2021-1.79	Fulton Street to the West
CK-2021-1.80	Fulton Street to the Southeast
CK-2021-1.81	Fulton Street to the Southeast
CK-2021-1.82	Fulton Street to the East
CK-2021-1.83	Fulton Street to the Southwest
CK-2021-1.84	Fulton Street to the Northwest

INDEX TO COLOR PHOTOGRAPHS

Photo 1	15th Street to the West
Photo 2	15th Street to the Northwest
Photo 3	15th Street to the West, under bridge
Photo 4	15th Street to the Southwest, under bridge
Photo 5	15th Street to the Northwest, under bridge
Photo 6	15th Street to the West, under bridge
Photo 7	15th Street to the South
Photo 8	Taylor Street to the West
Photo 9	Taylor Street to the Southwest
Photo 10	Taylor Street to the Northwest
Photo 11	Taylor Street to the North
Photo 12	Taylor Street to the South
Photo 13	Taylor Street to the South, under bridge
Photo 14	Taylor Street to the North, under bridge
Photo 15	Taylor Street to the Northeast
Photo 16	Taylor Street to the Southeast
Photo 17	Taylor Street to the Southeast, under bridge
Photo 18	Polk Street to the West
Photo 19	Polk Street to the West
Photo 20	Polk Street to the Northwest
Photo 21	Polk Street to the North, under bridge
Photo 22	Polk Street to the North, under bridge
Photo 23	Polk Street to the North, under bridge
Photo 24	Polk Street to the Northeast
Photo 25	Polk Street to the East
Photo 26	Polk Street to the East
Photo 27	Polk Street to the Southwest
Photo 28	Polk Street to the Northwest
Photo 29	Polk Street to the South, under bridge
Photo 30	Polk Street to the South, under bridge
Photo 31	Polk Street to the Southeast
Photo 32	Polk Street to the East
Photo 33	Harrison Street to the West
Photo 34	Harrison Street to the Northwest
Photo 35	Harrison Street to the Northwest
Photo 36	Harrison Street to the North, under bridge
Photo 37	Harrison Street to the North, under bridge
Photo 38	Harrison Street to the North, under bridge
Photo 39	Harrison Street to the Northeast
Photo 40	Harrison Street to the Northeast

Photo 41	Harrison Street to the Southeast
Photo 42	Harrison Street to the Southwest
Photo 43	Harrison Street to the Southwest
Photo 44	Harrison Street to the South, under bridge
Photo 45	Harrison Street to the South, under bridge
Photo 46	Harrison Street to the South, under bridge
Photo 47	Harrison Street to the Southeast
Photo 48	Harrison Street to the East
Photo 49	Congress Street to the West
Photo 50	Congress Street to the Southwest
Photo 51	Congress Street to the Northwest
Photo 52	Congress Street to the Southwest
Photo 53	Congress Street to the South
Photo 54	Congress Street to the South
Photo 55	Congress Street to the South
Photo 56	Congress Street to the Southeast
Photo 57	Congress Street to the East
Photo 58	Congress Street to the Northeast
Photo 59	Congress Street to the Southeast
Photo 60	Congress Street to the North
Photo 61	Congress Street to the West
Photo 62	Van Buren Street to the West
Photo 63	Van Buren Street to the West
Photo 64	Van Buren Street to the Northwest
Photo 65	Van Buren Street to the North
Photo 66	Van Buren Street to the North
Photo 67	Van Buren Street to the North
Photo 68	Van Buren Street to the Northeast
Photo 69	Van Buren Street to the East
Photo 70	Van Buren Street to the Southeast
Photo 71	Van Buren Street to the Northeast
Photo 72	Van Buren Street to the Northeast
Photo 73	Van Buren Street to the Southeast
Photo 74	Van Buren Street to the Southeast
Photo 75	Van Buren Street to the Southwest
Photo 76	Van Buren Street to the East
Photo 77	Van Buren Street to the Southeast
Photo 78	Van Buren Street to the East
Photo 79	Jackson Blvd to the West
Photo 80	Jackson Blvd to the Northwest
Photo 81	Jackson Blvd to the Southwest
Photo 82	Jackson Blvd to the Southwest

Photo 83	Jackson Blvd to the Northeast
Photo 84	Jackson Blvd to the North
Photo 85	Jackson Blvd to the North
Photo 86	Jackson Blvd to the North
Photo 87	Jackson Blvd to the Northeast
Photo 88	Jackson Blvd to the East
Photo 89	Jackson Blvd to the Northeast
Photo 90	Jackson Blvd to the Southeast
Photo 91	Jackson Blvd to the East
Photo 92	Jackson Blvd to the South
Photo 93	Jackson Blvd to the South
Photo 94	Jackson Blvd to the South
Photo 95	Jackson Blvd to the Southwest
Photo 96	Monroe Street to the West
Photo 97	Monroe Street to the Northwest
Photo 98	Monroe Street to the Southwest
Photo 99	Monroe Street to the Southwest
Photo 100	Monroe Street to the North
Photo 101	Monroe Street to the North
Photo 102	Monroe Street to the North
Photo 103	Monroe Street to the Southeast
Photo 104	Monroe Street to the Southeast
Photo 105	Monroe Street to the Northeast
Photo 106	Monroe Street to the Northeast
Photo 107	Monroe Street to the East
Photo 108	Monroe Street to the Southeast
Photo 109	Monroe Street to the South
Photo 110	Monroe Street to the South
Photo 111	Monroe Street to the South
Photo 112	Monroe Street to the Northwest
Photo 113	Madison Street to the West
Photo 114	Madison Street to the Northwest
Photo 115	Madison Street to the Southwest
Photo 116	Madison Street to the Southwest
Photo 117	Madison Street to the North
Photo 118	Madison Street to the North
Photo 119	Madison Street to the North
Photo 120	Madison Street to the Southeast
Photo 121	Madison Street to the Northeast
Photo 122	Madison Street to the Northeast
Photo 123	Madison Street to the East
Photo 124	Madison Street to the Southeast
Photo 125	Madison Street to the East

Photo 126 Madison Street to the South
Photo 127 Madison Street to the South
Photo 128 Madison Street to the South
Photo 129 Madison Street to the South
Photo 130 Madison Street to the Northwest
Photo 131 Madison Street to the West

Photo 132 Warren Ave to the East
Photo 133 Warren Ave to the Northwest
Photo 134 Warren Ave to the Southwest
Photo 135 Warren Ave to the Southwest
Photo 136 Warren Ave to the Southwest
Photo 137 Warren Ave to the North
Photo 138 Warren Ave to the North
Photo 139 Warren Ave to the North
Photo 140 Warren Ave to the Southeast
Photo 141 Warren Ave to the Northeast
Photo 142 Warren Ave to the Southeast
Photo 143 Warren Ave to the East
Photo 144 Warren Ave to the South
Photo 145 Warren Ave to the South
Photo 146 Warren Ave to the South
Photo 147 Warren Ave to the West

Photo 148 Washington Blvd to the West
Photo 149 Washington Blvd to the Northwest
Photo 150 Washington Blvd to the Southwest
Photo 151 Washington Blvd to the West
Photo 152 Washington Blvd to the North
Photo 153 Washington Blvd to the North
Photo 154 Washington Blvd to the North
Photo 155 Washington Blvd to the Northeast
Photo 156 Washington Blvd to the East
Photo 157 Washington Blvd to the East
Photo 158 Washington Blvd to the Southeast
Photo 159 Washington Blvd to the East
Photo 160 Washington Blvd to the Northeast
Photo 161 Washington Blvd to the South
Photo 162 Washington Blvd to the South
Photo 163 Washington Blvd to the South
Photo 164 Washington Blvd to the Northwest
Photo 165 Washington Blvd to the Northwest

Photo 166 Maypole Ave to the Northwest
Photo 167 Maypole Ave to the Southwest

Photo 168	Maypole Ave to the West
Photo 169	Maypole Ave to the West
Photo 170	Maypole Ave to the Northwest
Photo 171	Maypole Ave to the Southwest
Photo 172	Maypole Ave to the Southwest
Photo 173	Maypole Ave to the North
Photo 174	Maypole Ave to the Northwest
Photo 175	Maypole Ave to the North
Photo 176	Maypole Ave to the Northeast
Photo 177	Maypole Ave to the East
Photo 178	Maypole Ave to the East
Photo 179	Maypole Ave to the Southeast
Photo 180	Maypole Ave to the South
Photo 181	Maypole Ave to the South
Photo 182	Maypole Ave to the South
Photo 183	Maypole Ave to the Northeast
Photo 184	Maypole Ave to the Northeast
Photo 185	Maypole Ave to the East
Photo 186	Lake Street to the West
Photo 187	Lake Street to the Northwest
Photo 188	Lake Street to the Southwest
Photo 189	Lake Street to the West
Photo 190	Lake Street to the West
Photo 191	Lake Street to the Northwest
Photo 192	Lake Street to the West
Photo 193	Lake Street to the Southwest
Photo 194	Lake Street to the Northwest
Photo 195	Lake Street to the North
Photo 196	Lake Street to the North
Photo 197	Lake Street to the North
Photo 198	Lake Street to the Northeast
Photo 199	Lake Street to the Southeast
Photo 200	Lake Street to the Southeast
Photo 201	Lake Street to the East
Photo 202	Lake Street to the Southeast
Photo 203	Lake Street to the South
Photo 204	Lake Street to the East
Photo 205	Lake Street to the South
Photo 206	Lake Street to the South
Photo 207	Lake Street to the Northwest
Photo 208	Fulton Street to the West
Photo 209	Fulton Street to the West
Photo 210	Fulton Street to the South

Photo 211	Fulton Street to the Southeast
Photo 212	Fulton Street to the Southwest
Photo 213	Fulton Street to the Northwest
Photo 214	Fulton Street to the Southeast
Photo 215	Fulton Street to the Northeast
Photo 216	Fulton Street to the Southeast
Photo 217	Fulton Street to the Southeast
Photo 218	Fulton Street to the East
Photo 219	Fulton Street to the Northeast
Photo 220	Fulton Street to the Southeast
Photo 221	Fulton Street to the North
Photo 222	Fulton Street to the Southeast
Photo 223	Fulton Street to the North
Photo 224	Fulton Street to the South
Photo 225	Fulton Street to the Southwest
Photo 226	Fulton Street to the Southwest
Photo 227	Fulton Street to the North
Photo 228	Fulton Street to the West
Photo 229	Fulton Street to the West
Photo 230	Fulton Street to the Northwest
Photo 231	Fulton Street to the Southwest

COLOR PHOTOGRAPHS

Photo 1

Photo 2

Photo 3

Photo 4

Photo 5

Photo 6

Photo 7

Photo 8

Photo 9

Photo 10

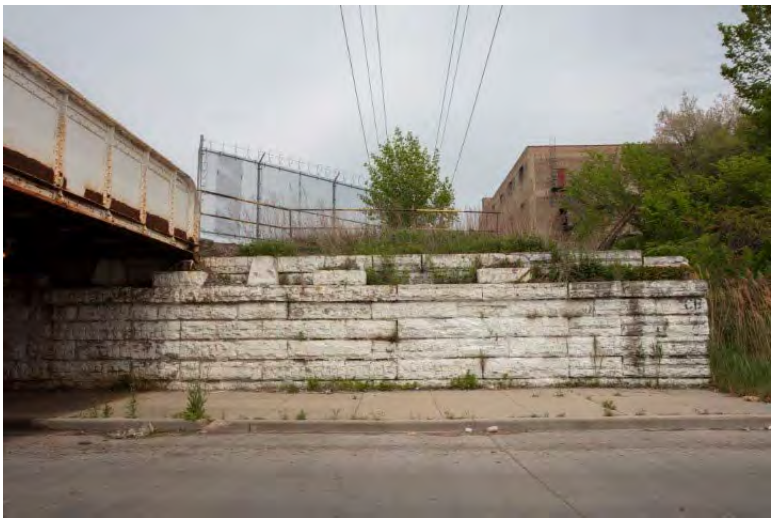


Photo 11

Photo 12

Photo 13

Photo 14

Photo 15

Photo 16

Photo 17

Photo 18

Photo 19

Photo 20

Photo 21

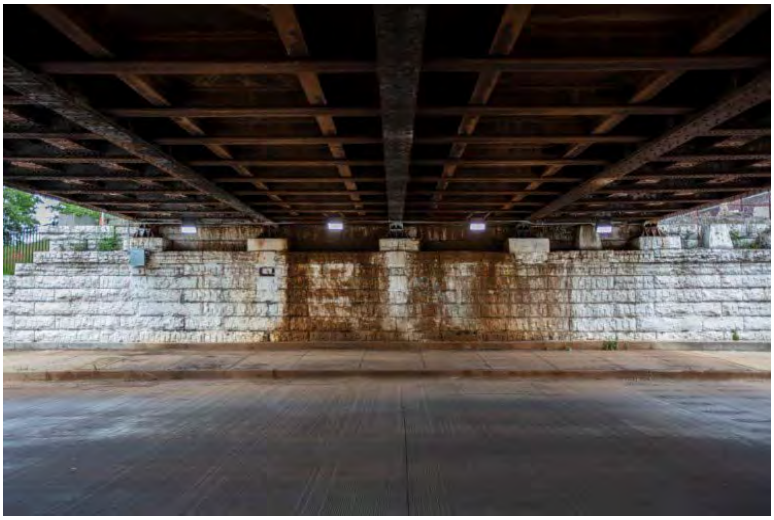


Photo 22

Photo 23

Photo 24

Photo 25

Photo 26

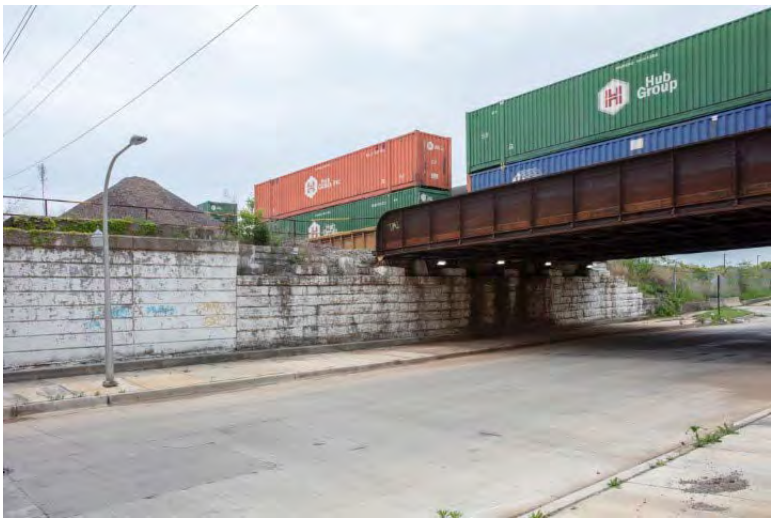


Photo 27

Photo 28

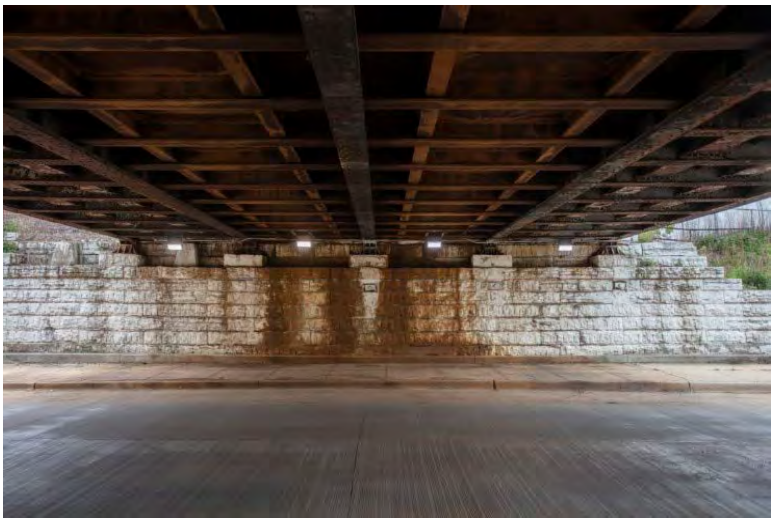


Photo 29

Photo 30

Photo 31

Photo 32

Photo 33

Photo 34

Photo 35

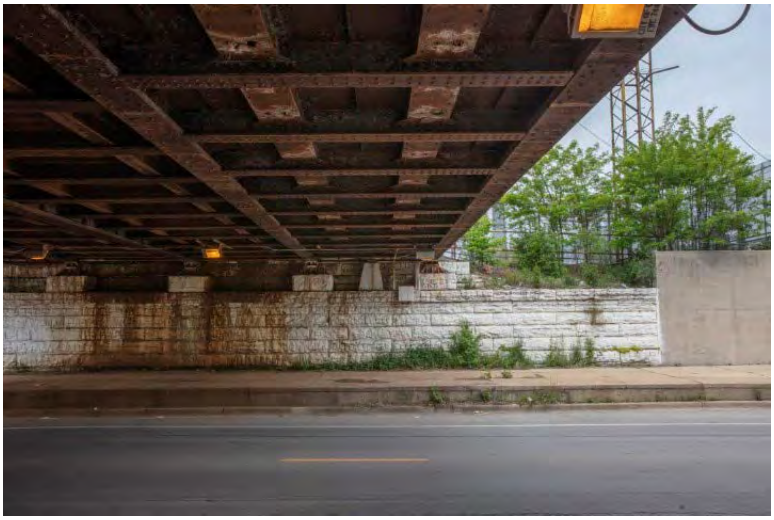


Photo 36

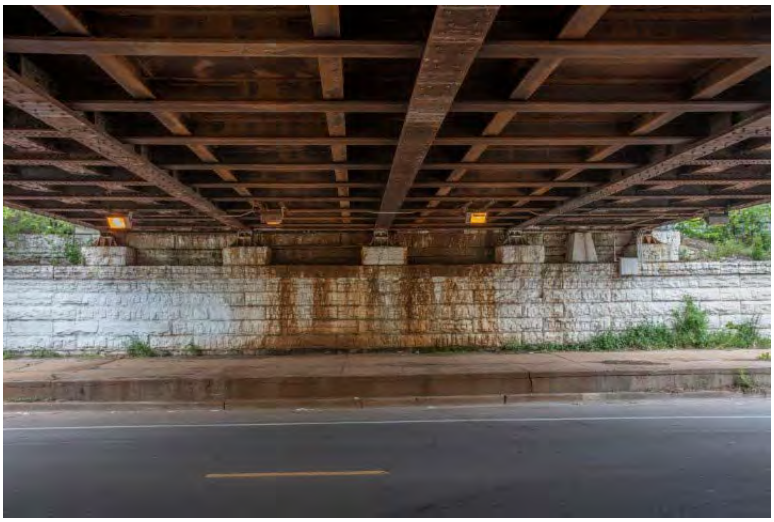


Photo 37

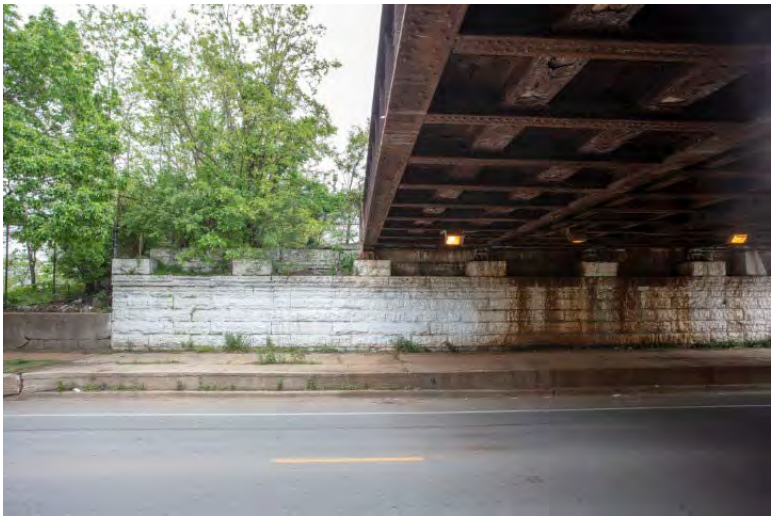


Photo 38

Photo 39

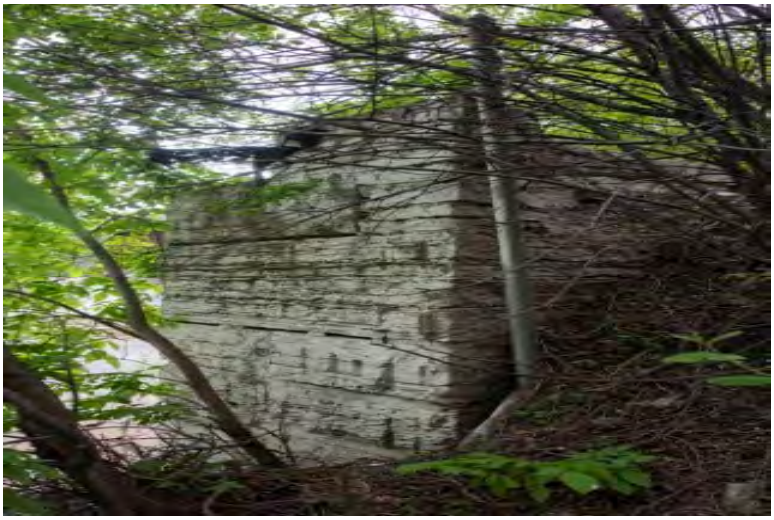


Photo 40

Photo 41

Photo 42

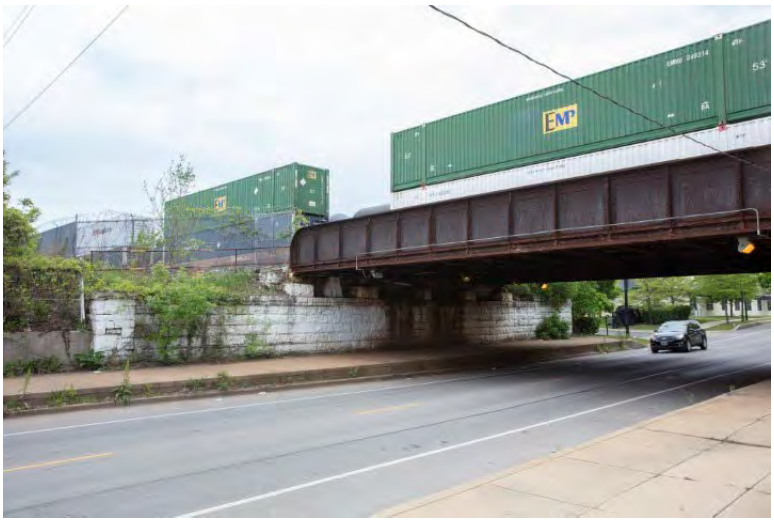


Photo 43

Photo 44

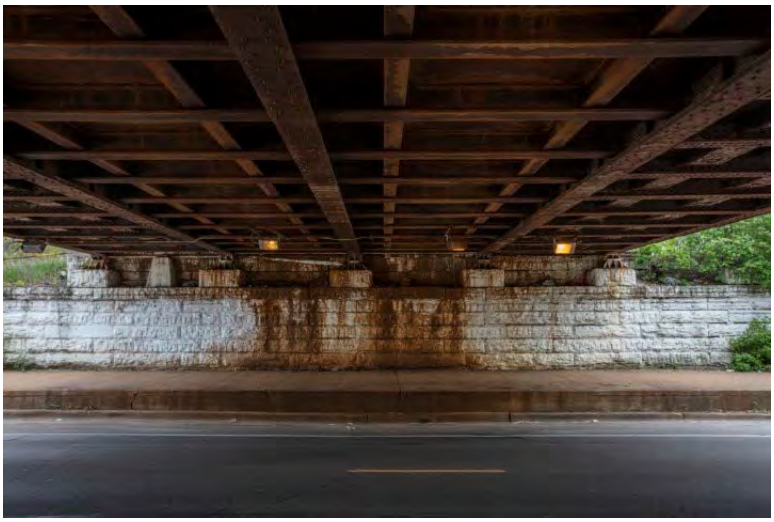


Photo 45

Photo 46

Photo 47

Photo 48

Photo 49

Photo 50

Photo 51

Photo 52

Photo 53

Photo 54

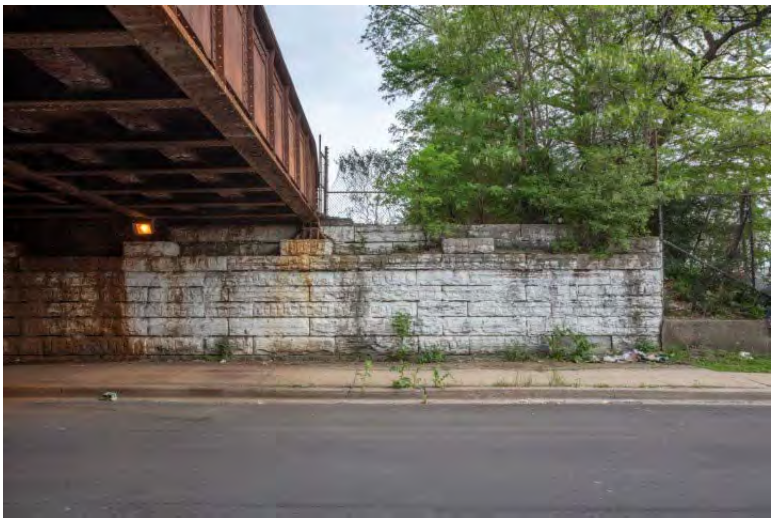


Photo 55

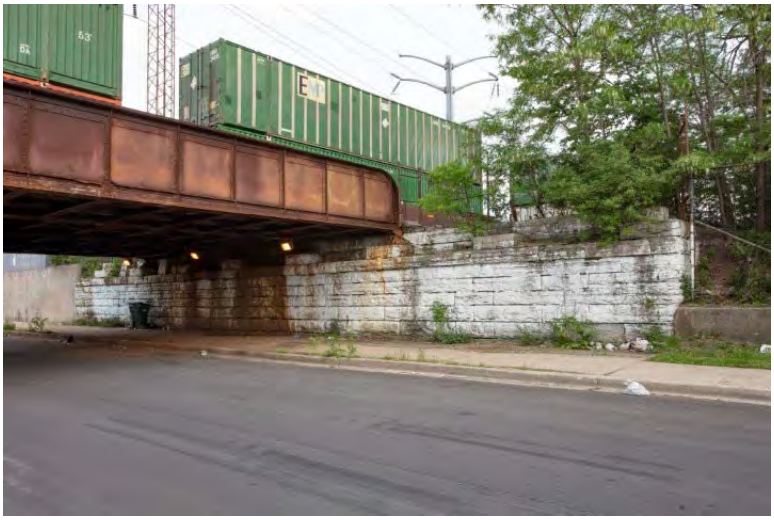


Photo 56

Photo 57

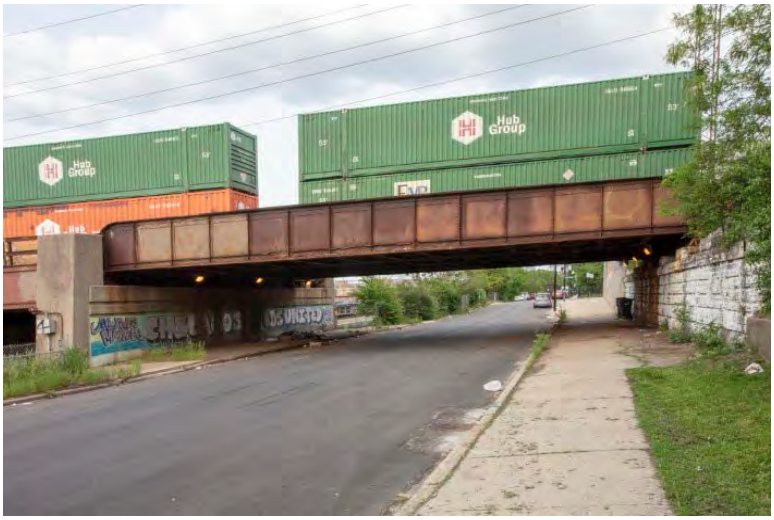


Photo 58

Photo 59

Photo 60

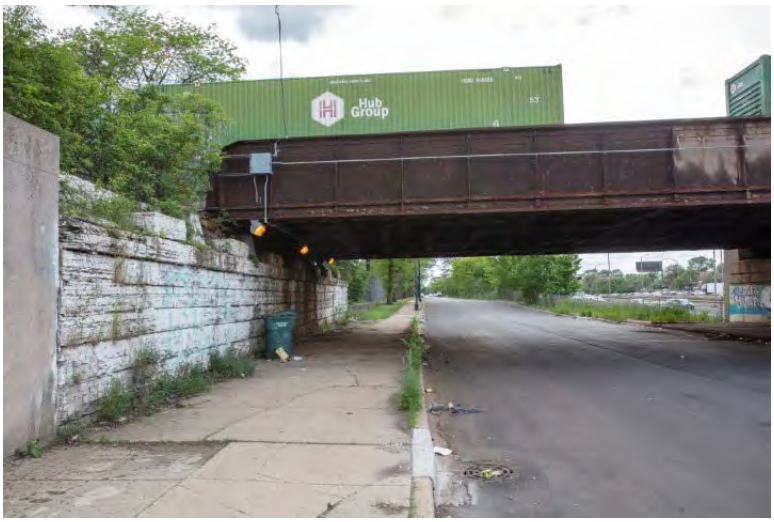


Photo 61

Photo 62

Photo 63

Photo 64

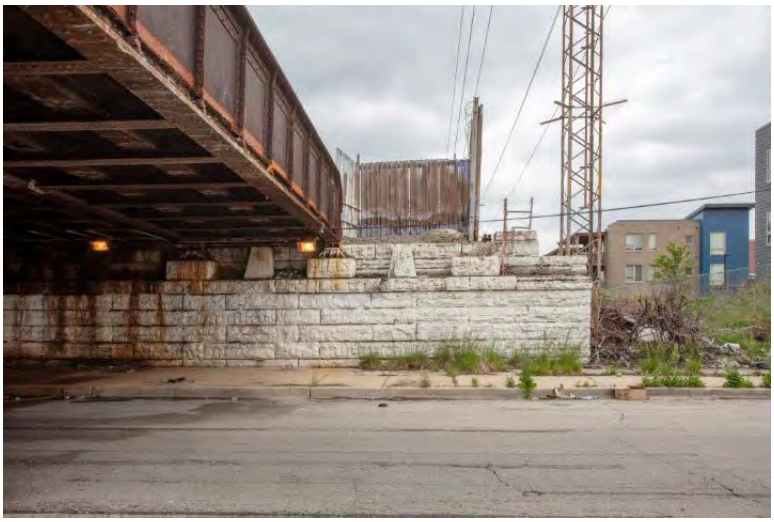


Photo 65

Photo 66

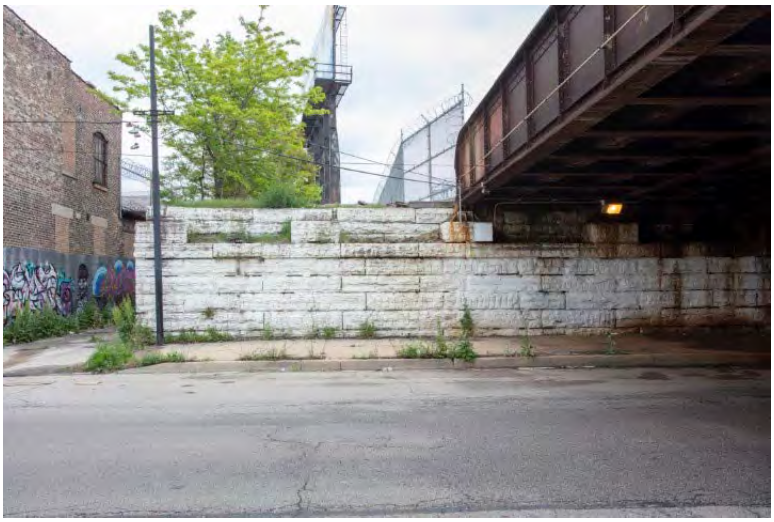


Photo 67

Photo 68

Photo 69

Photo 70

Photo 71

Photo 72

Photo 73

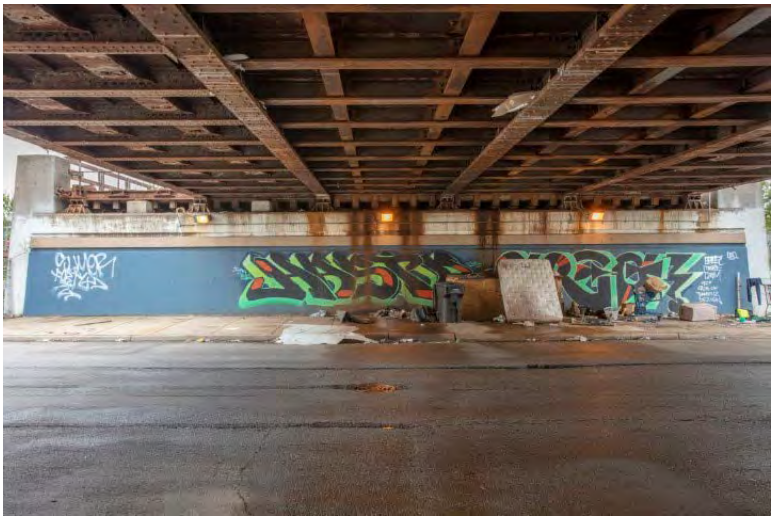


Photo 74

Photo 75

Photo 76

Photo 77

Photo 78

Photo 79

Photo 80

Photo 81

Photo 82

Photo 83

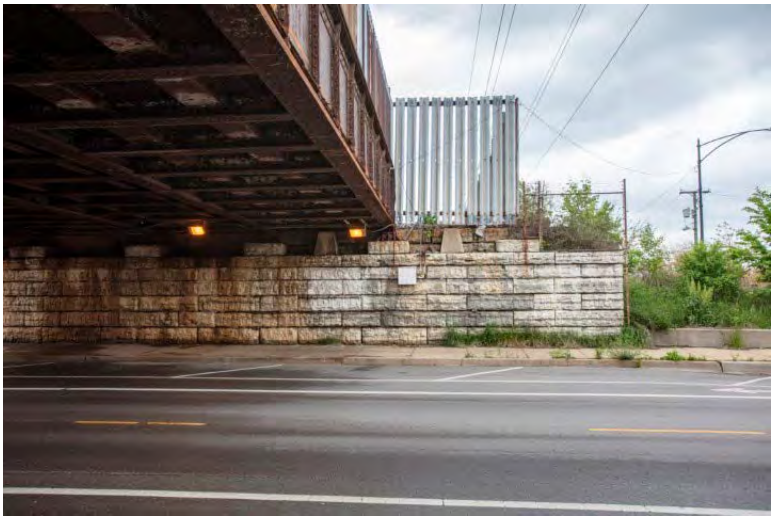


Photo 84

Photo 85

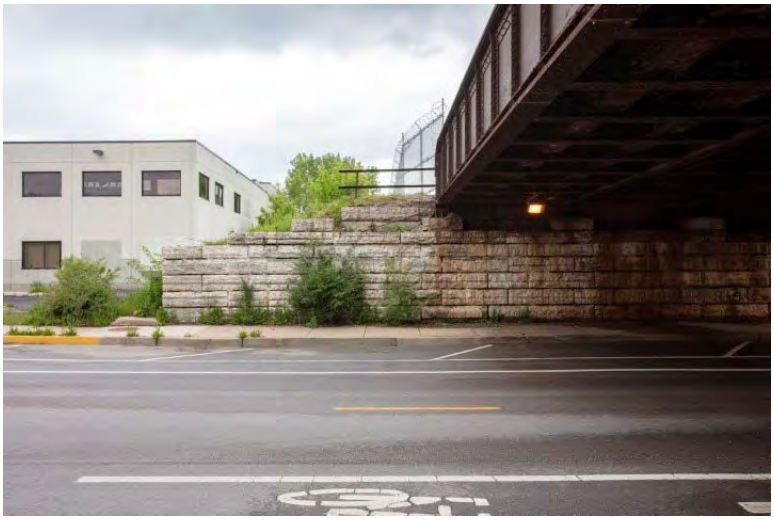


Photo 86

Photo 87

Photo 88

Photo 89

Photo 90

Photo 91

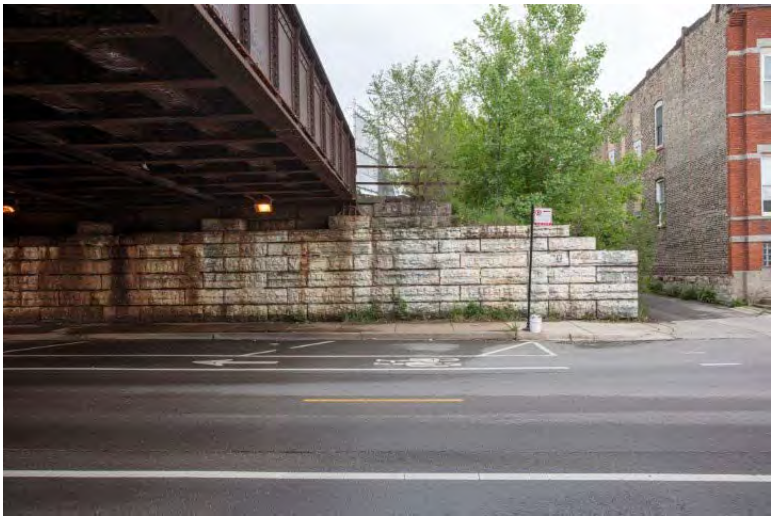


Photo 92

Photo 93

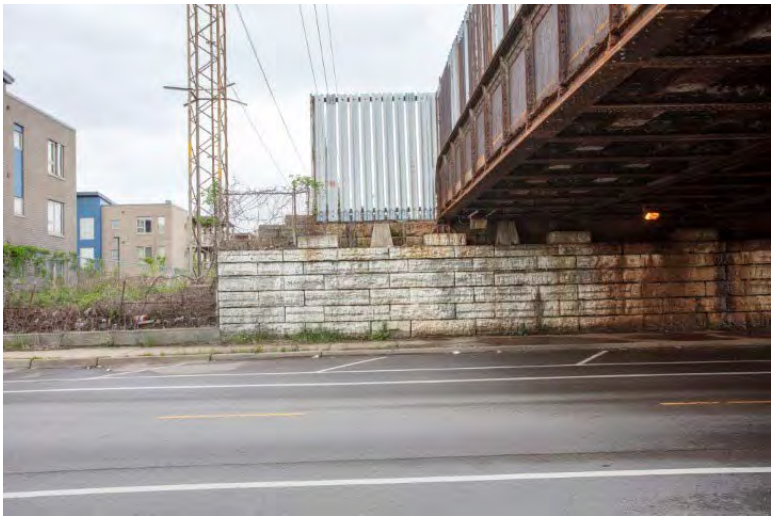


Photo 94

Photo 95

Photo 96

Photo 97

Photo 98

Photo 99

Photo 100

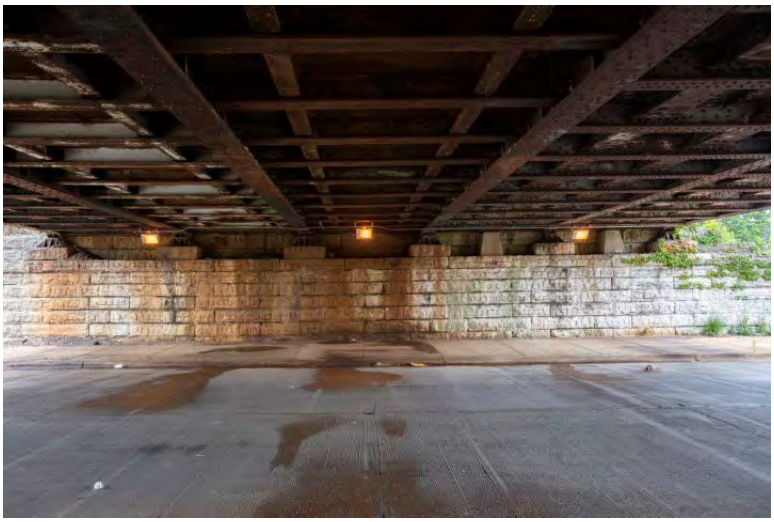


Photo 101

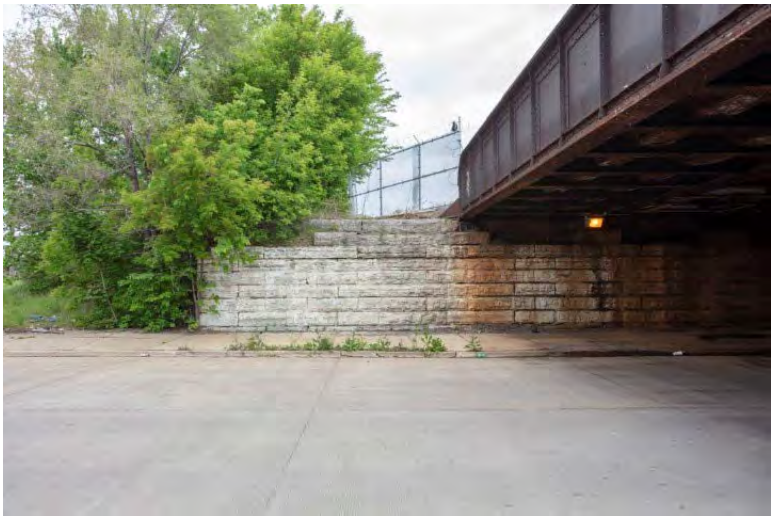


Photo 102

Photo 103

Photo 104

Photo 105

Photo 106

Photo 107

Photo 108

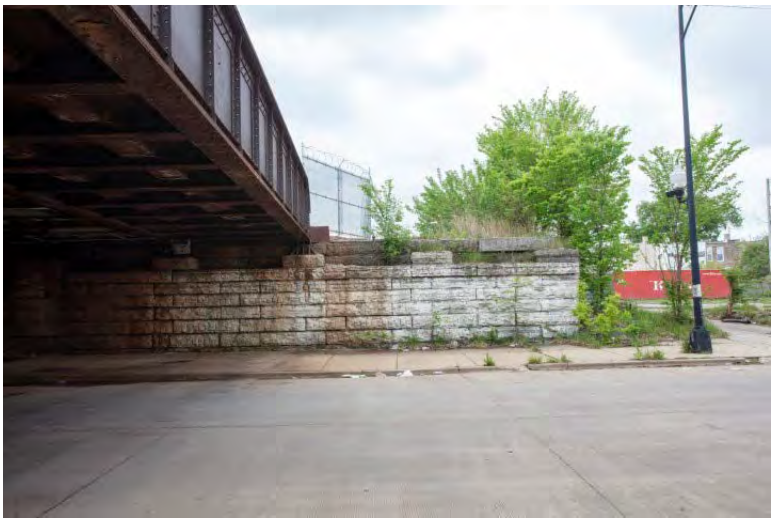


Photo 109

Photo 110

Photo 111

Photo 112

Photo 113

Photo 114

Photo 115

Photo 116

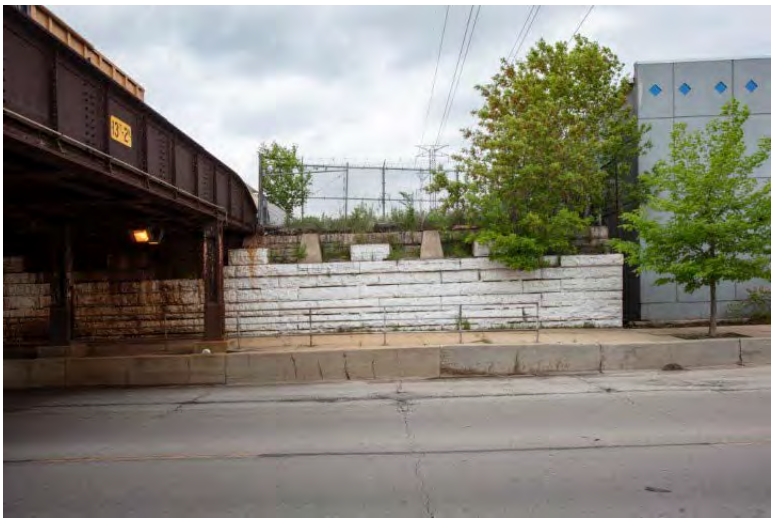


Photo 117

Photo 118

Photo 119

Photo 120

Photo 121

Photo 122

Photo 123

Photo 124

Photo 125

Photo 126

Photo 127

Photo 128

Photo 129

Photo 130

Photo 131

Photo 132

Photo 133

Photo 134

Photo 135

Photo 136

Photo 137

Photo 138

Photo 139

Photo 140

Photo 141

Photo 142

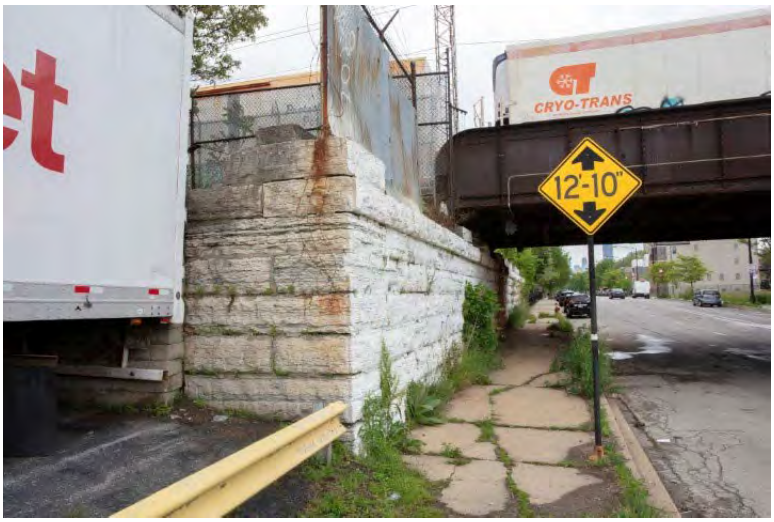


Photo 143

Photo 144

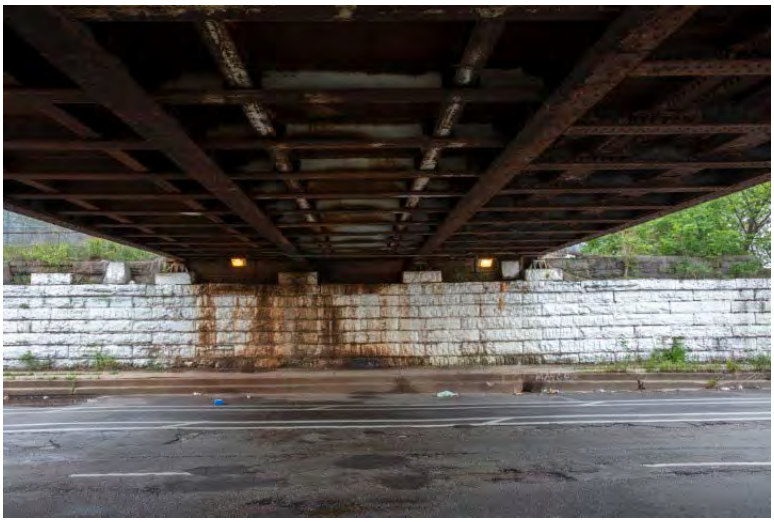


Photo 145

Photo 146

Photo 147

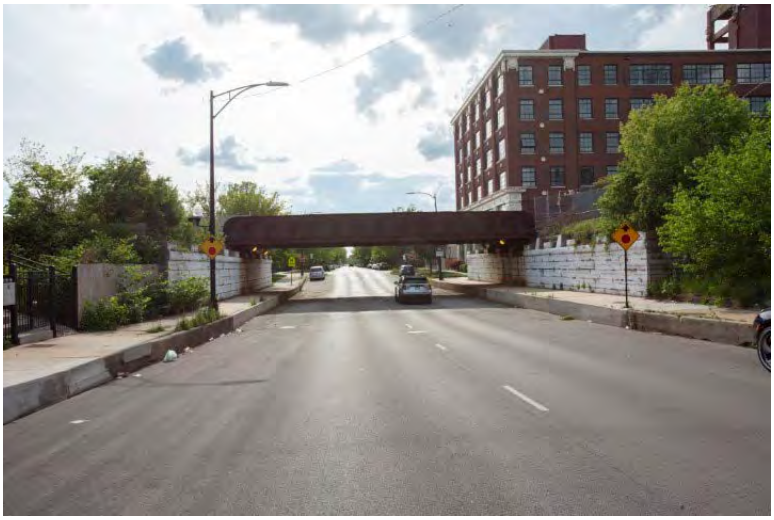


Photo 148

Photo 149

Photo 150

Photo 151

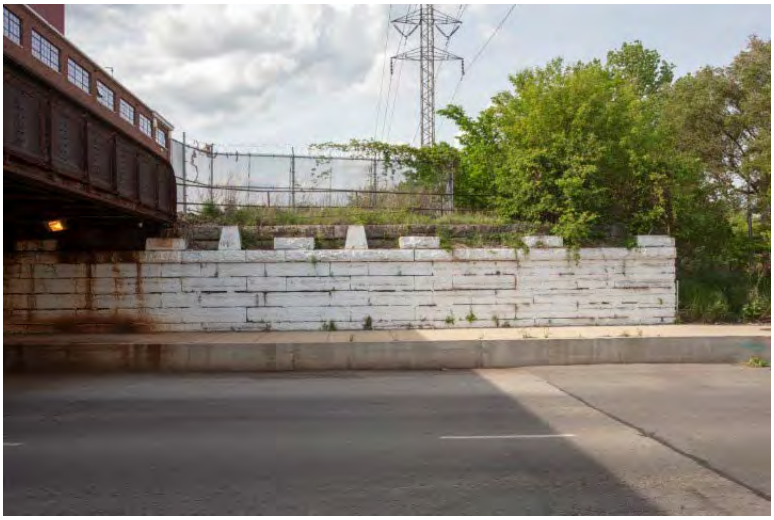


Photo 152

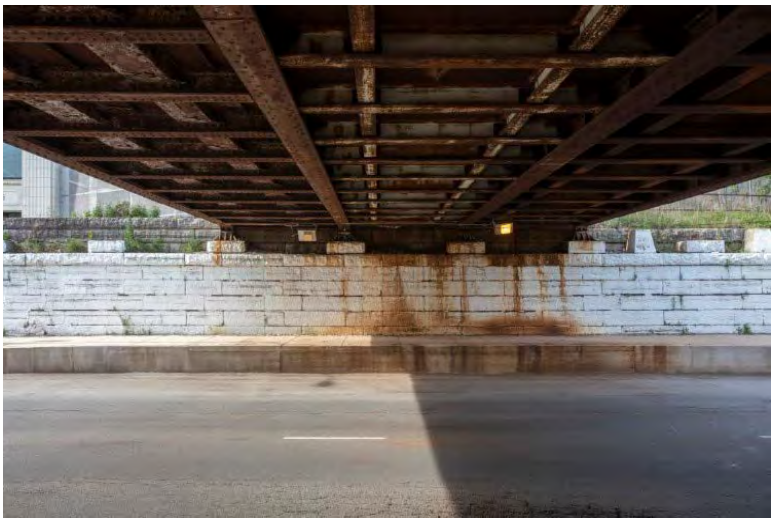


Photo 153

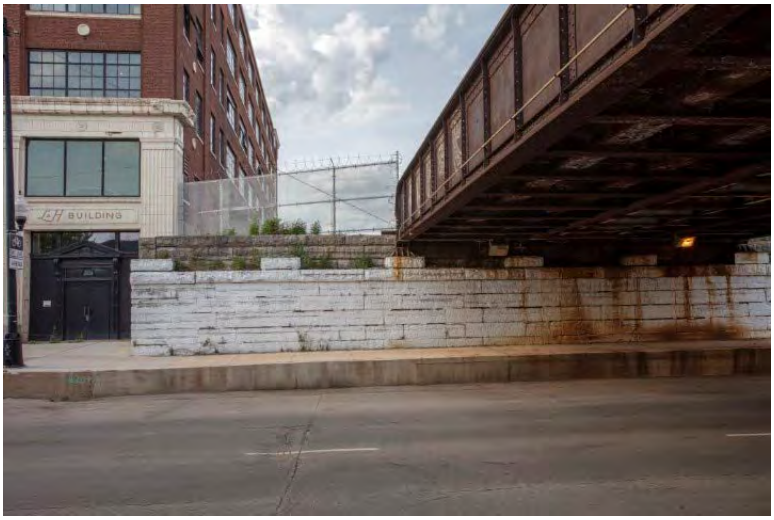


Photo 154

Photo 155

Photo 156

Photo 157

Photo 158

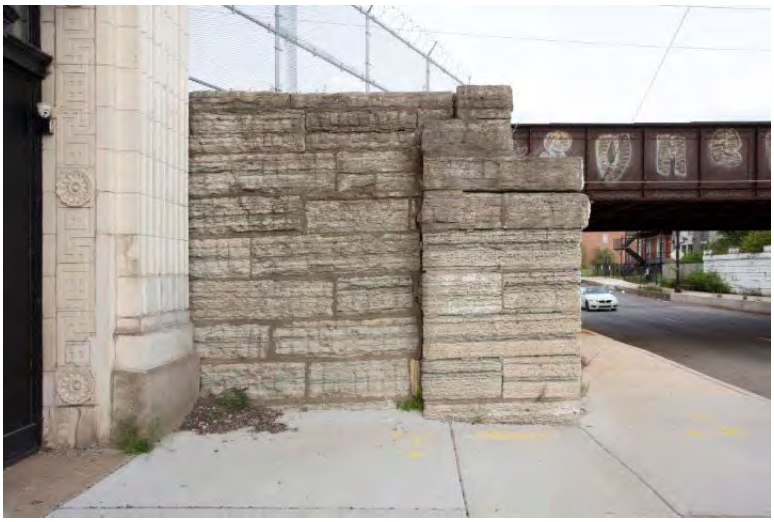


Photo 159

Photo 160

Photo 161

Photo 162

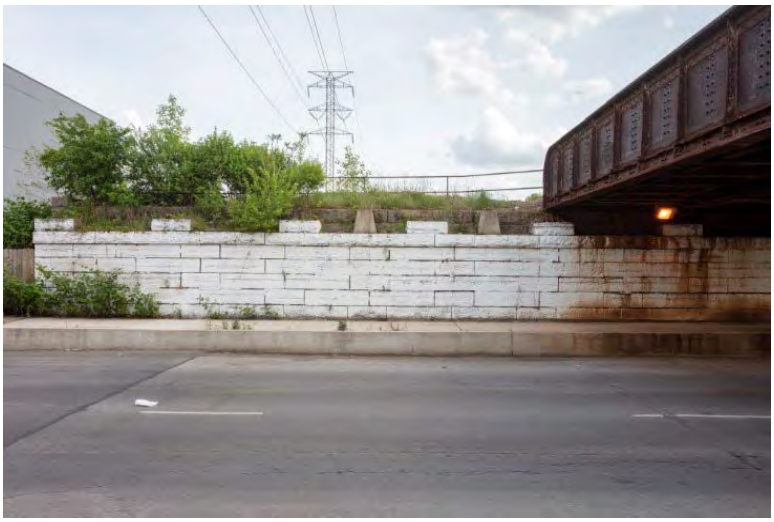


Photo 163

Photo 164

Photo 165

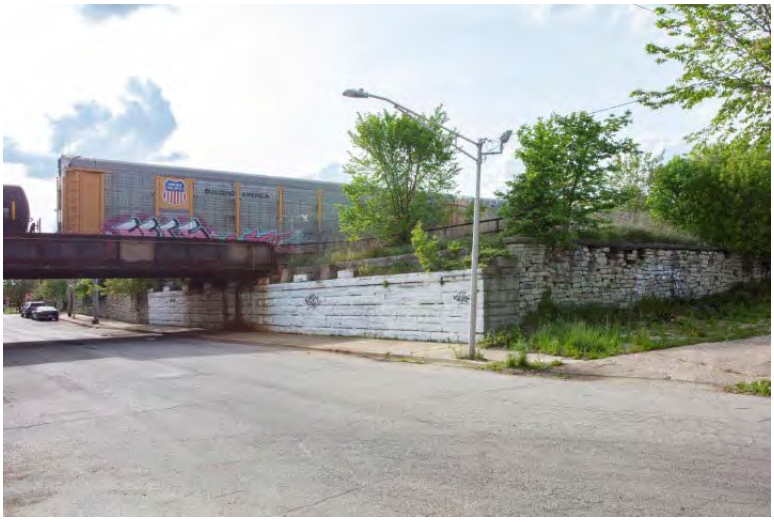


Photo 166

Photo 167

Photo 168

Photo 169

Photo 170

Photo 171

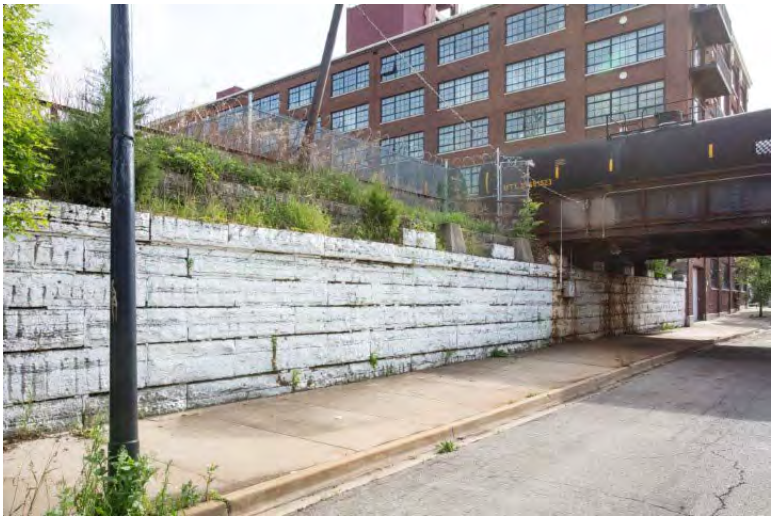


Photo 172

Photo 173

Photo 174

Photo 175

Photo 176

Photo 177

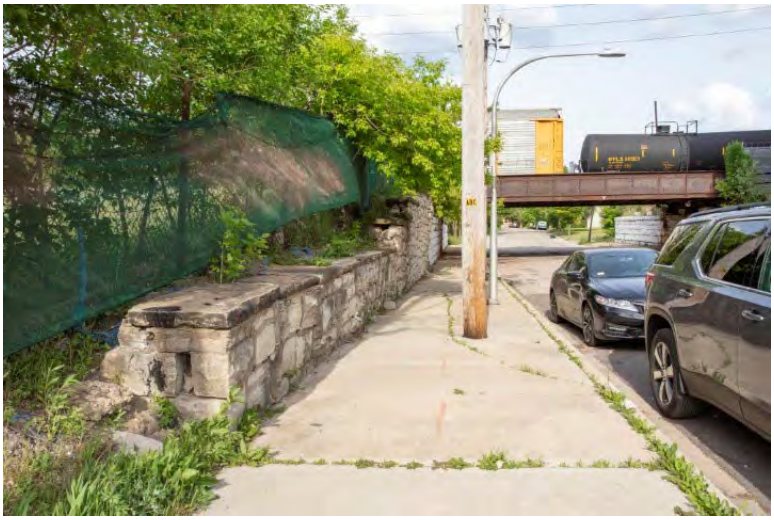


Photo 178

Photo 179

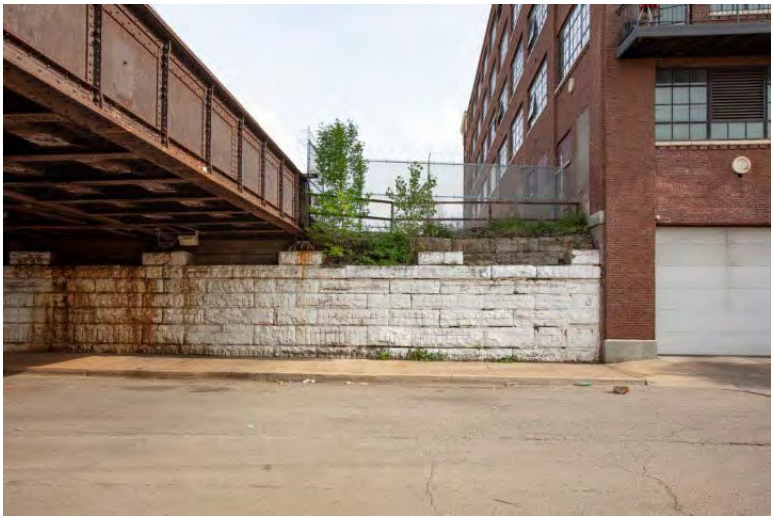


Photo 180

Photo 181

Photo 182

Photo 183

Photo 184

Photo 185

Photo 186

Photo 187

Photo 188

Photo 189

Photo 190

Photo 191

Photo 192

Photo 193

Photo 194

Photo 195

Photo 196

Photo 197

Photo 198

Photo 199

Photo 200

Photo 201

Photo 202

Photo 203

Photo 204

Photo 205

Photo 206

Photo 207

Photo 208

Photo 209

Photo 210

Photo 211

Photo 212

Photo 213

Photo 214

Photo 215

Photo 216

Photo 217

Photo 218

Photo 219

Photo 220

Photo 221

Photo 222

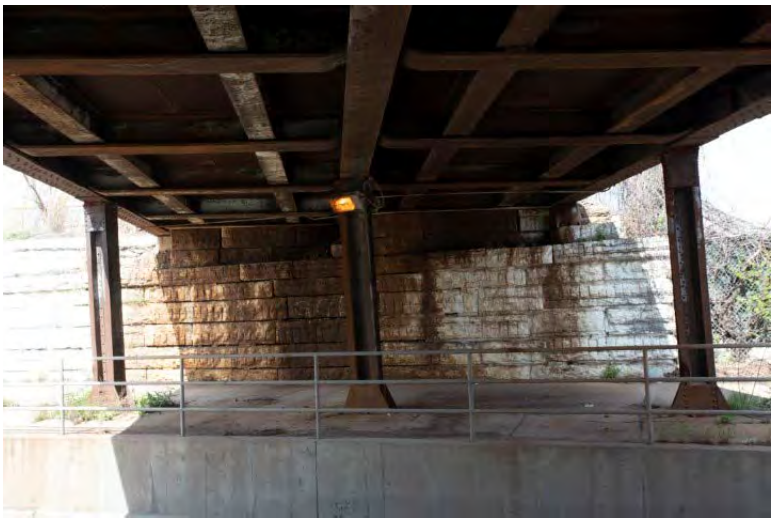


Photo 223

Photo 224

Photo 225

Photo 226

Photo 227

Photo 228

Photo 229

Photo 230

Photo 231


B


SAFE
PASSAGE


NO RX
26 50
NO RX
26 35
NO RX
90 78
12-6


Harrison St
Maplewood Ave
1240


12-10


Hub Group
Hub Group


Hub Group
Hub Group
Black Lives Matter


Hub Group
Hub Group


Hub Group
53'


Hub Group
EMP


Hub
Group


Hub
Group


11'-2"
STOP
ALL WAY


HGIU 63761


12-10"


L&H BUILDING


BUILDING


NG


BUILDING AMERICA
BK TY
155


OPEN
CURRENCY EXCHANGE


BIKE LANE


S L M


SLIVER


SLMeR
SLMeR