Elizabeth Ann Wittgartner
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McKEES ROCKS BRIDGE
OHIO RIVER BOULEVARD

1931

Souvenir Pamphlet commemorating the opening of the Twelve Million Dollar Bridge and Boulevard Project of Allegheny County's which was dedicated to the service of the People August 19, 1931.

McKEES ROCKS BRIDGE
OHIO RIVER BOULEVARD

1931

Voluntary contributions on the part of the employees of the County Department of Public Works and on the part of the various contractors engaged on the work, have made possible the publication of this descriptive booklet.

Compiled and Edited by

Joseph White

Department of Public Works

County of Allegheny

Pennsylvania

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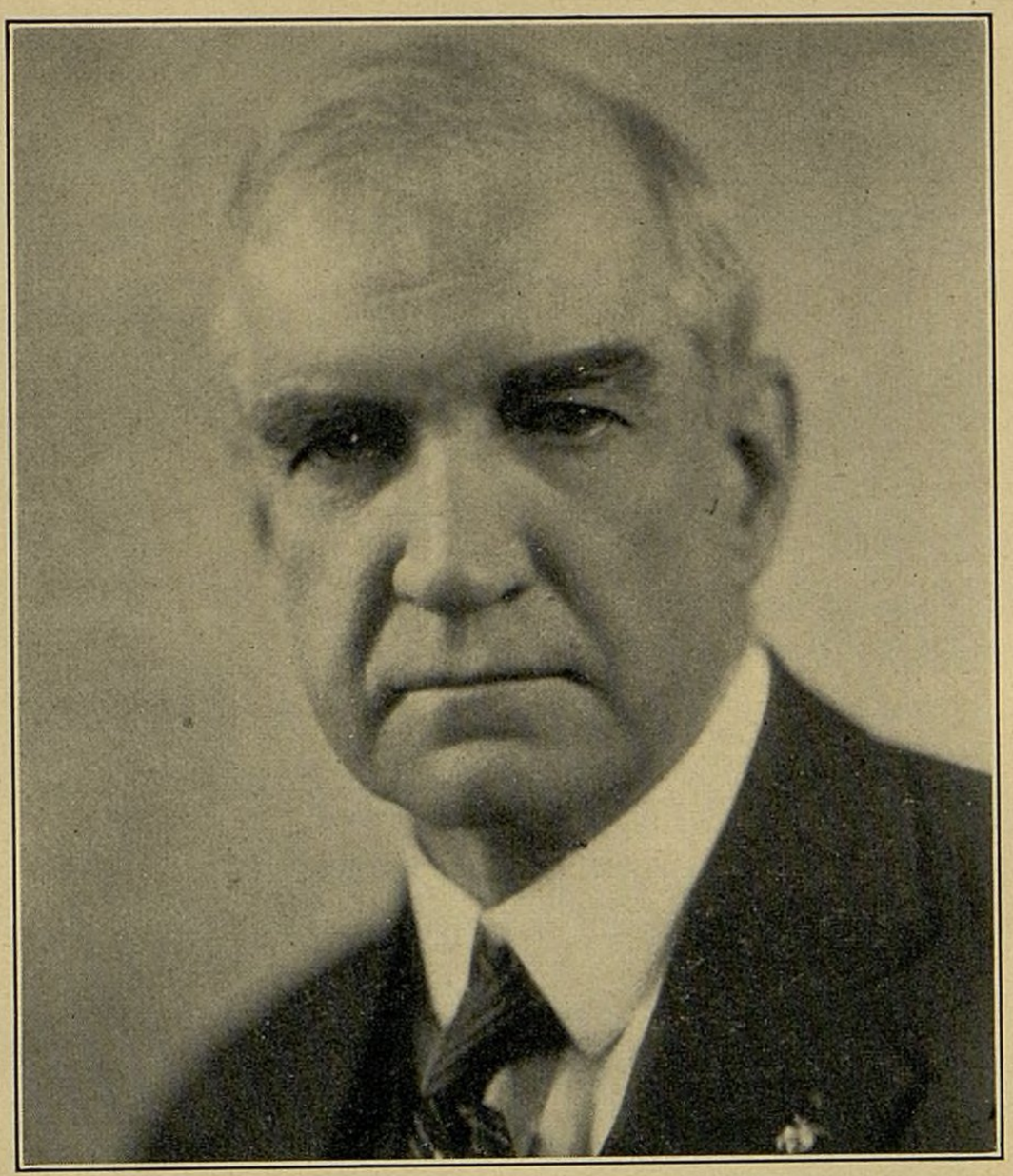
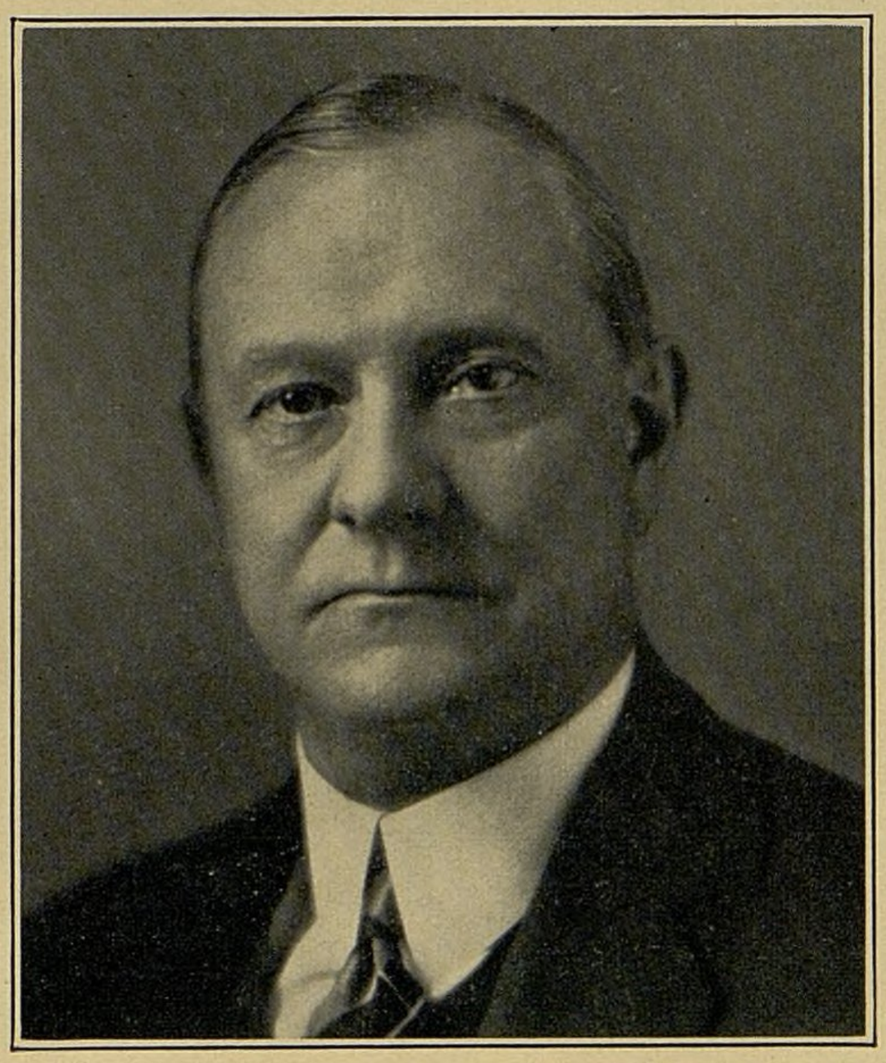
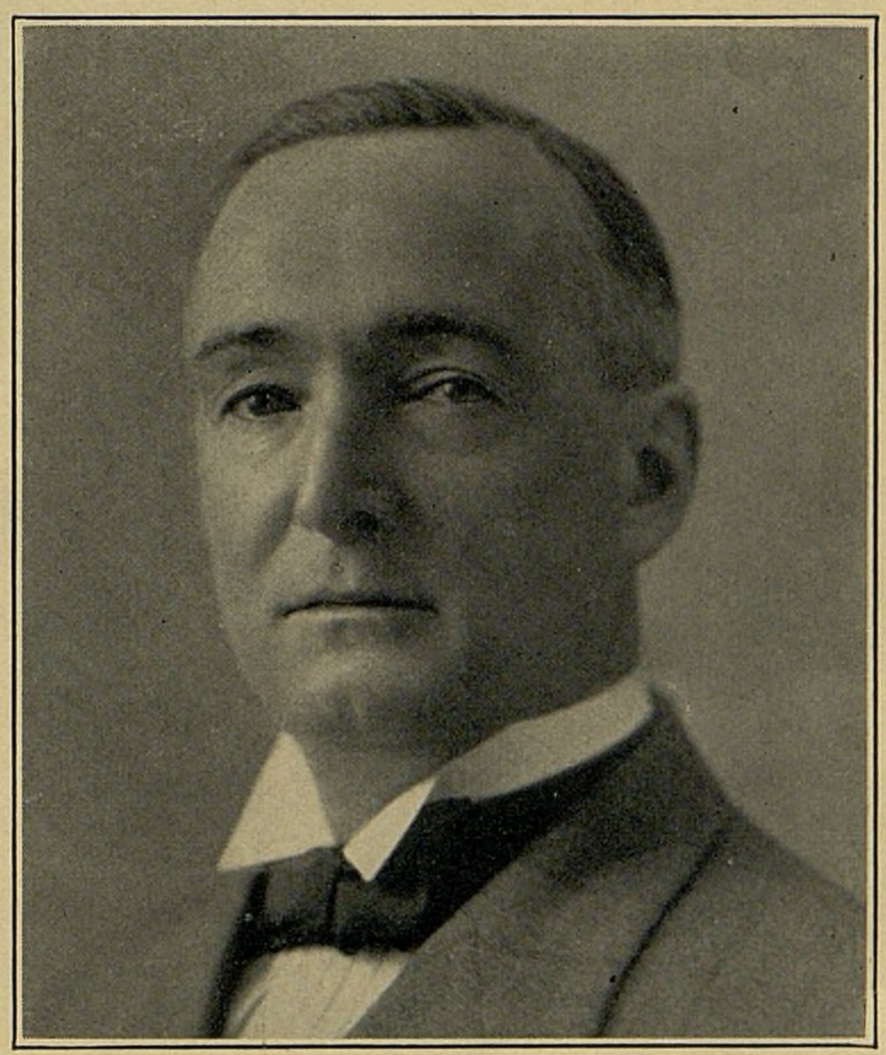
BOARD OF COUNTY COMMISSIONERS
of ALLEGHENY COUNTY



JOSEPH G. ARMSTRONG
Chairman of Board from January 1, 1924 to Date



EDWARD V. BABCOCK
Commissioner from May, 1925 to Date



CHARLES C. McGOVERN
Commissioner from January 1, 1928 to Date

FOREWORD

By JOSEPH G. ARMSTRONG, Chairman
BOARD OF COUNTY COMMISSIONERS

THE Ohio River Boulevard and the McKees Rocks Bridge, involving an expenditure of some 12 million dollars, represents, in a striking manner, how the people of Allegheny County, in the face of grave natural difficulties, are mastering the great problem of traffic, a problem which is today facing every great American Metropolitan center.

While several of us in our capacity as public officials have played a more or less active part in formulating and directing the great 100 million dollar program of public improvements during the past eight years, the weight of the credit for these great engineering works rests with the voters and taxpayers of the County who generously and confidently placed in our hands the funds which makes possible the work.

As it so happened, circumstances or fate placed me in a position of authority, as chairman of the board of County Commissioners during the past eight years, when this demand for better roads and more adequate bridges had reached a crisis. The people of Allegheny County, eight years ago, were forced to make a decision as to whether their community was to remain in the front ranks in the march of progress or simply trail along at the end of the procession. If my experience over a period of 30 years with public affairs and with public improvements enabled me to render service of value to my fellow citizens, the great reward which I can enjoy during the matured period of my career is the consciousness of having tried to carry out a big job in a big way.

These two great projects must not be looked upon merely as isolated pieces of construction, built only to save traffic time of a restricted local district, but they are major links in the Allegheny County Highway System. While much of it has already been completed, there still remains much to be accomplished in the future. It is my belief that this new boulevard and bridge is destined to exert far-reaching traffic influence, not only throughout Allegheny County, but also throughout Western Pennsylvania. It will improve the accessibility for thousands of people living in the east, west, north and south to Pittsburgh's Golden Triangle and the business establishments therein.

The following pages of this book, permanently record full information about this engineering project. The careful selection and arrangement of the pictures, show conditions before the work started, during its progress and upon its completion. Never before has such a clear historic, construction record been placed before the people who generously provided the funds for the undertaking. My long service in public office convinces me that the confidence of the people in their elected officers must be based upon correct information as to the accomplishments of these self-same officials. It was with this intention that this pamphlet was prepared.

The Ohio River Boulevard and McKees Rocks Bridge Important Links in Allegheny County's Ultimate Highway System

By NORMAN F. BROWN
Director, County Department of Public Works

Early in 1924 a most important step was taken in the improvement of County Highways when there was boldly outlined on a County map the so called Ultimate County Highway System. While the tangible result was merely a map, the recommendations presented thereon represented careful thought on not only the present highway needs, but what the future requirements would be.

In brief the County's proposed Ultimate Highway System consists of three classes of thoroughfares. RIVERSIDE BOULEVARDS, following with unbroken continuity, as closely as possible, each bank of three rivers; these Riverside Boulevards to be bonded together at suitable places with adequate bridges. RADIAL HIGHWAYS reaching out in all directions from Pittsburgh to the outermost boundaries of the County. CIRCUIT ROUTES consisting of two belt lines, an inner and outer, north and south of the City of Pittsburgh, completely encircling the County's interior and making convenient intersections with the Radial Highways and Riverside Boulevards.

NORMAN F. BROWN, *Director*

The Ohio River Boulevard represents one of the most important highways which have been completed as a part of the Riverside Boulevard System. River banks from time immemorial have been natural locations for highways. The course of the canoe down the stream soon becomes paralleled by a primitive trail along the water's edge. Crude river boats soon cause this primitive trail to become a well-defined tow path. Steam boats and river navigation cause the tow path to develop into a cart road. Population increases and communities grow so that railroads are laid out alongside the cart road. Modern highways for automobiles must submit to the same compelling influences to which their varied predecessors bowed. Traffic naturally accumulates and flows along river sides.

During the past eight years many highways of the three classifications referred above have been completed. In carrying on this work there has been a wonderful advantage in following the pre-established road plan. Each stretch of highway that was built not only fulfilled some local need, but it also fitted into the general plan and thereby helped to provide suitable through-traffic facilities. Of all the highways built, none has exceeded, in its traffic possibilities the Ohio River Boulevard, with its powerful arm reaching across the river—the McKees Rocks Bridge.

For a great many years the need of additional crossings over the Ohio River has been an urgent necessity. Manufacturing plants on both sides of the river have frequently urged the construction of a bridge which would carry traffic across the river at some point between the Point Bridge and the Sewickley Bridge. Prior to the construction of this bridge it was necessary for all traffic to go several miles out of its direct course to cross the river. In 1928 the people authorized the construction of a bridge at McKees Rocks. This structure is now completed and will fill a long felt want.

DESCRIPTION OF McKEES ROCKS BRIDGE

By VERNON R. COVELL

Chief Engineer—Bureau of Bridges
County Department of Public Works

The McKees Rocks Bridge, with its approaches, has a total length of almost 7,300 feet, extending from Island Avenue in the Borough of McKees Rocks to California Avenue in the City of Pittsburgh. It intersects the Ohio River Boulevard at a distance of 5,900 feet from Island Avenue, with a traffic circle 150 feet in diameter.

Work of construction was begun on August 12th, 1929.

The main features of the bridge are as follows:

(a) A wide approach from Island Avenue 282 feet in length.

(b) Two 300 foot crescent tied steel arch through spans over the Pittsburgh & Lake Erie Railroad tracks, superseding the old O'Donovan Bridge.

(c) Filled retaining wall construction 1,145 feet long, with a maximum width of 103 feet consisting of a high level for through traffic, with four ramps for access to the business and residential area below.

(d) Nine steel deck spans with a total length of 1,504 feet and a maximum span of 194 feet, approaching the main span over the Ohio River.

(e) The main span over the Ohio River, consisting of a spandrel braced two-hinged through steel arch, 800 feet center to center of piers, and flanked by two deck arch spans of 340 and 338 feet.

(f) Two deck arch spans of 324 and 334 feet over industrial works and tracks of the Pennsylvania Railroad.

(g) A deck plate girder span of 77 feet over Verner Road and the cliff above it.

(h) An approach 1,400 feet land, from California Avenue to the traffic circle.

The two main river piers are founded on bed rock, about 45 feet below water, and have a total height from rock of 207 feet. These piers are capped with massive granite pylons, two of which contain utility rooms for the use of the bridge care-takers. The other two are arranged for use as public observation towers, affording a splendid view of the river; they are equipped with search lights.

LIGHTING

The roadway lighting consists of almost two hundred lantern type fixtures supported on ornamental brackets on fluted poles, all the work specially designed for this bridge. The roadway lights are each of 600 candle power. The navigation lights for the protection of river traffic, six in number, are of one thousand candle power each.

ROADWAY, SIDEWALKS, PAVING

The roadway is 40 feet between curbs throughout the length of the bridge and is paved with a concrete base course surfaced with asphaltic concrete, except on the 18-foot wide ramps to and from Helen Street, which are surfaced with granite blocks. The general roadway grade is 3 percent, descending toward McKees Rocks, except on the spans over the Pittsburgh & Lake Erie Railroad tracks. The grade on the ramps to and from Helen Street is about 7 percent.

The center line of the roadway is permanently marked out by a continuous line of light-colored brick extending the full length of the bridge. This line and intermittent lines of bricks on each side define the traffic lanes in each direction.

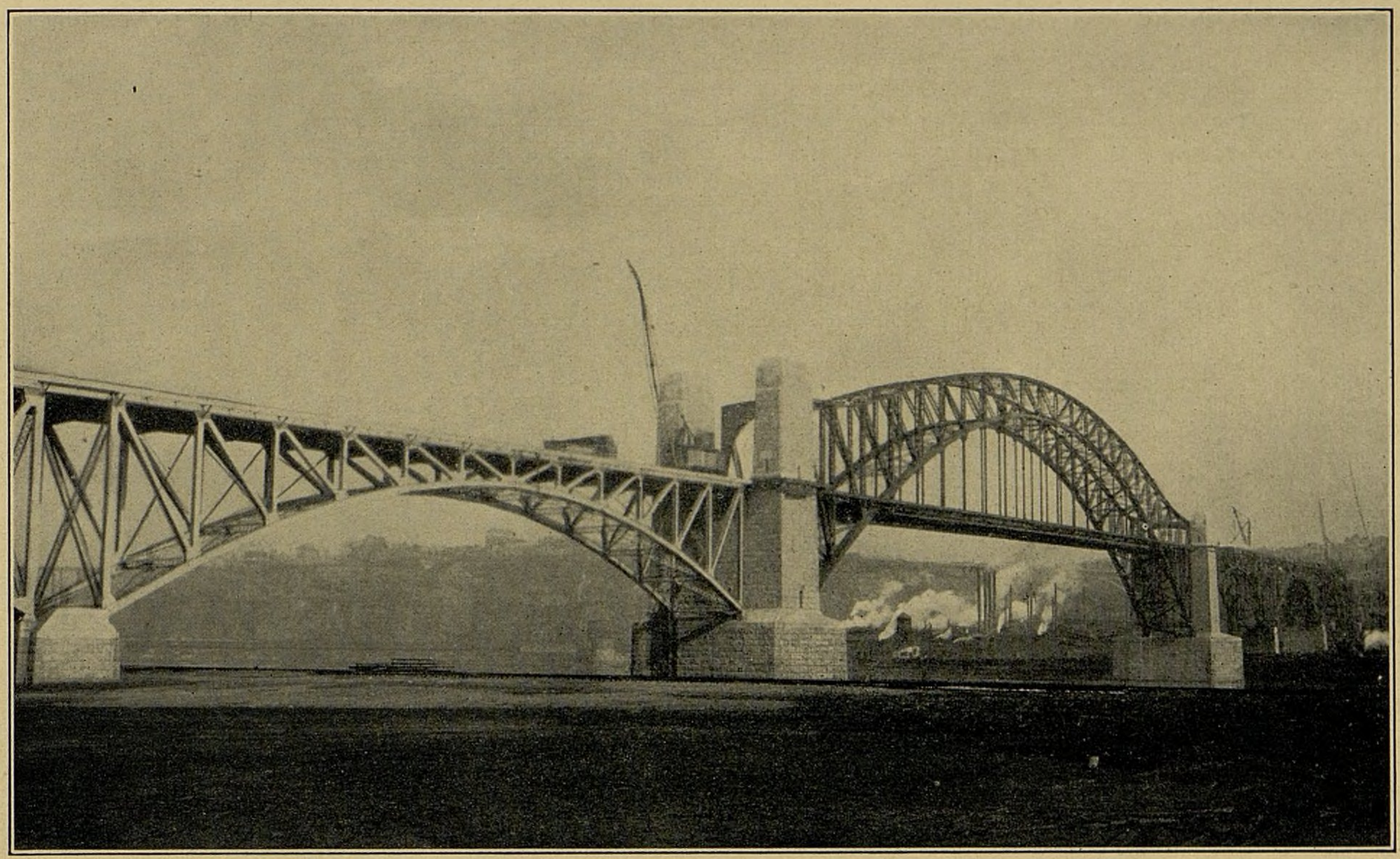
The roadway curbs are 10 inches in height. An additional steel safety curb guard 13 inches high is provided for the sidewalks; set back seven inches from the regular curb, it allows a total curb protection of 23 inches in height.

The bridge railing has a total length of almost two and one-half miles and is of malleable iron. The ornamental panels are easily removable for repair.

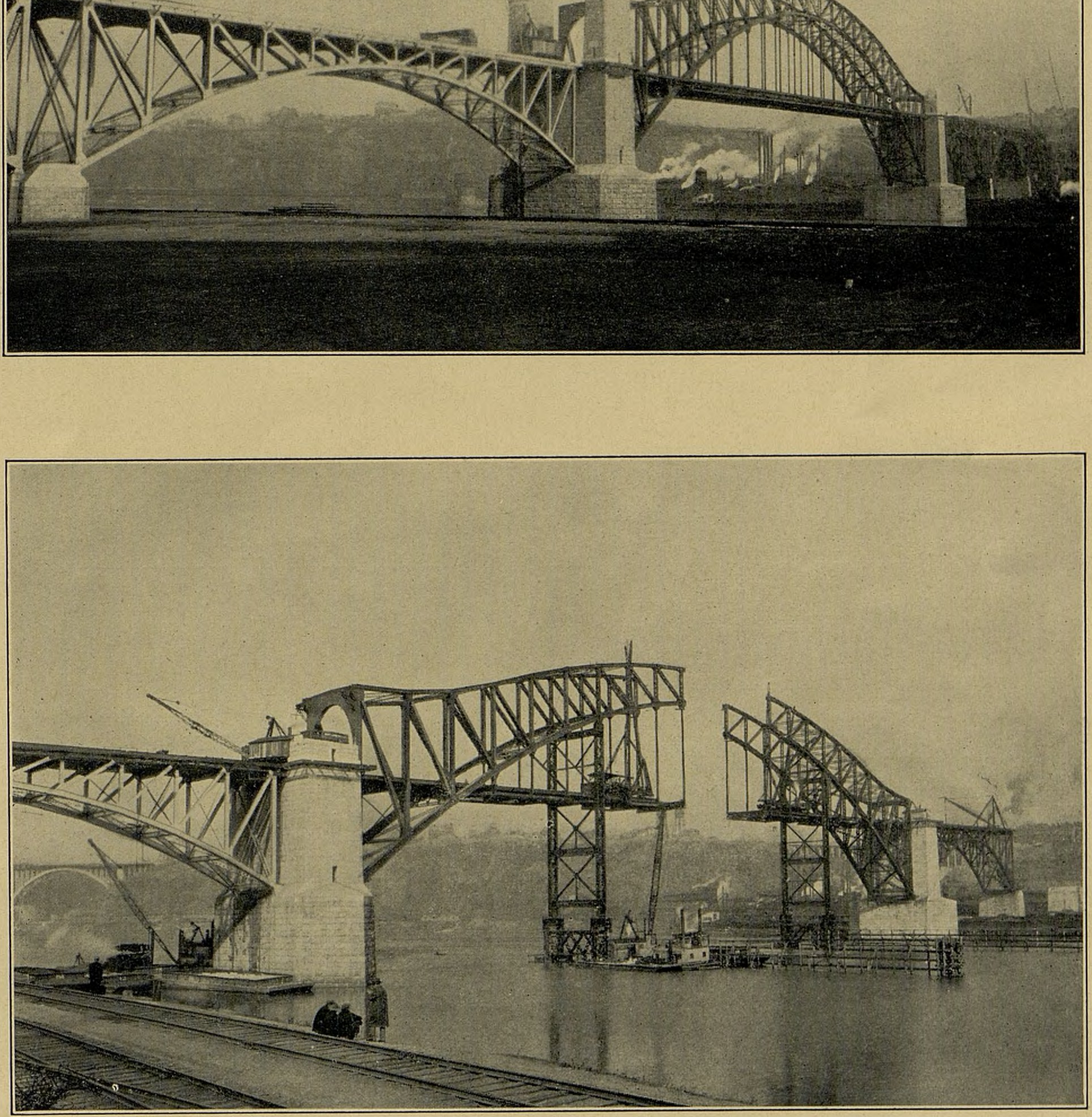
INTERESTING FACTS

The main river piers have a height above the bed rock on which they rest equal to that of a seventeen-story building. The granite used in the facing of the more important piers would completely cover an area of more than two and one-half acres.

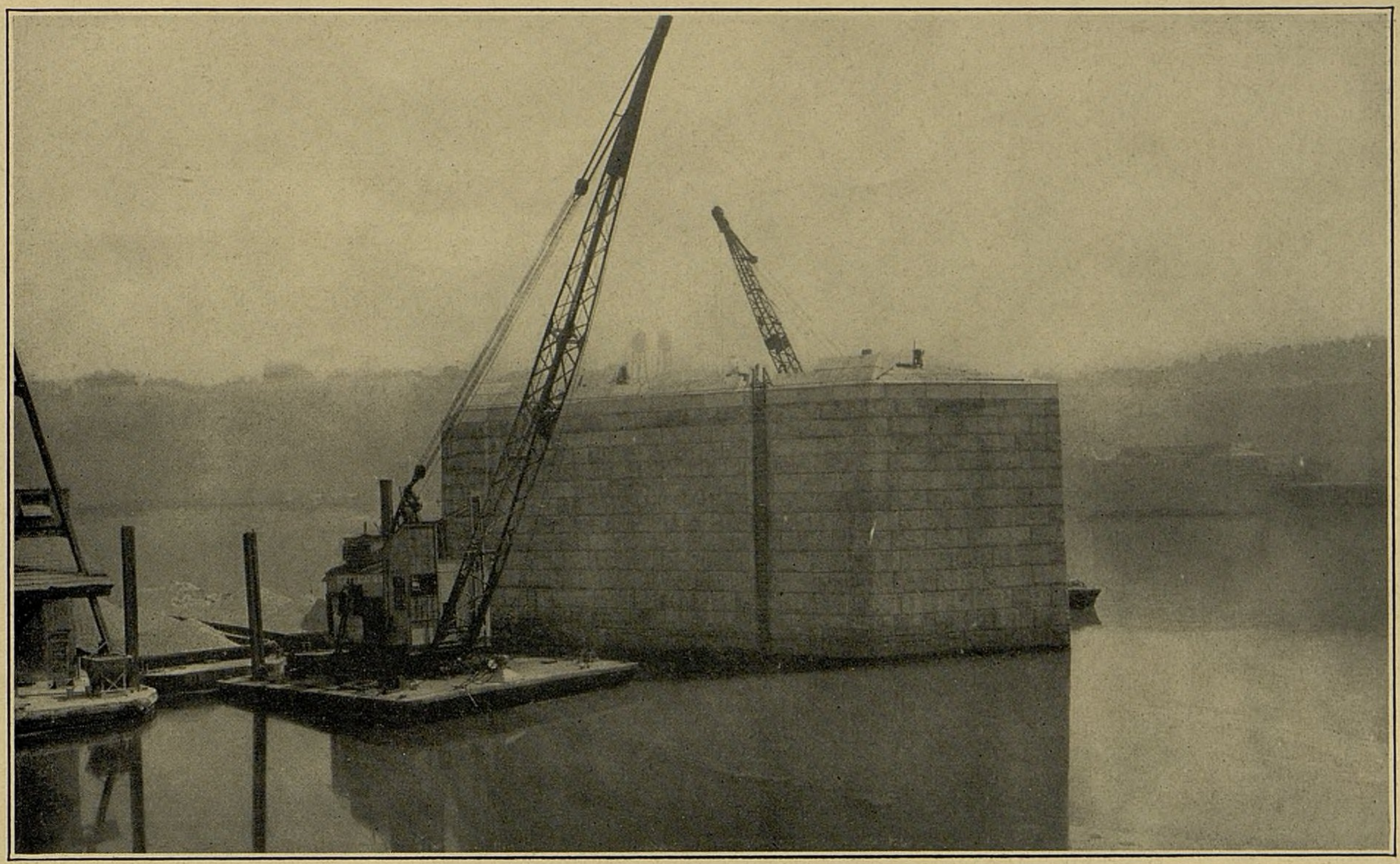
Almost 12,000 tons of steel and other metals are used in the bridge superstructure. If all this material could be rolled into a bar one inch wide and one-quarter inch thick it would extend 5,200 miles, or more than one-fifth the distance around the earth at the equator. If drawn into a wire 1-16 inch in diameter it length would go almost 17 times around the earth at the equator.

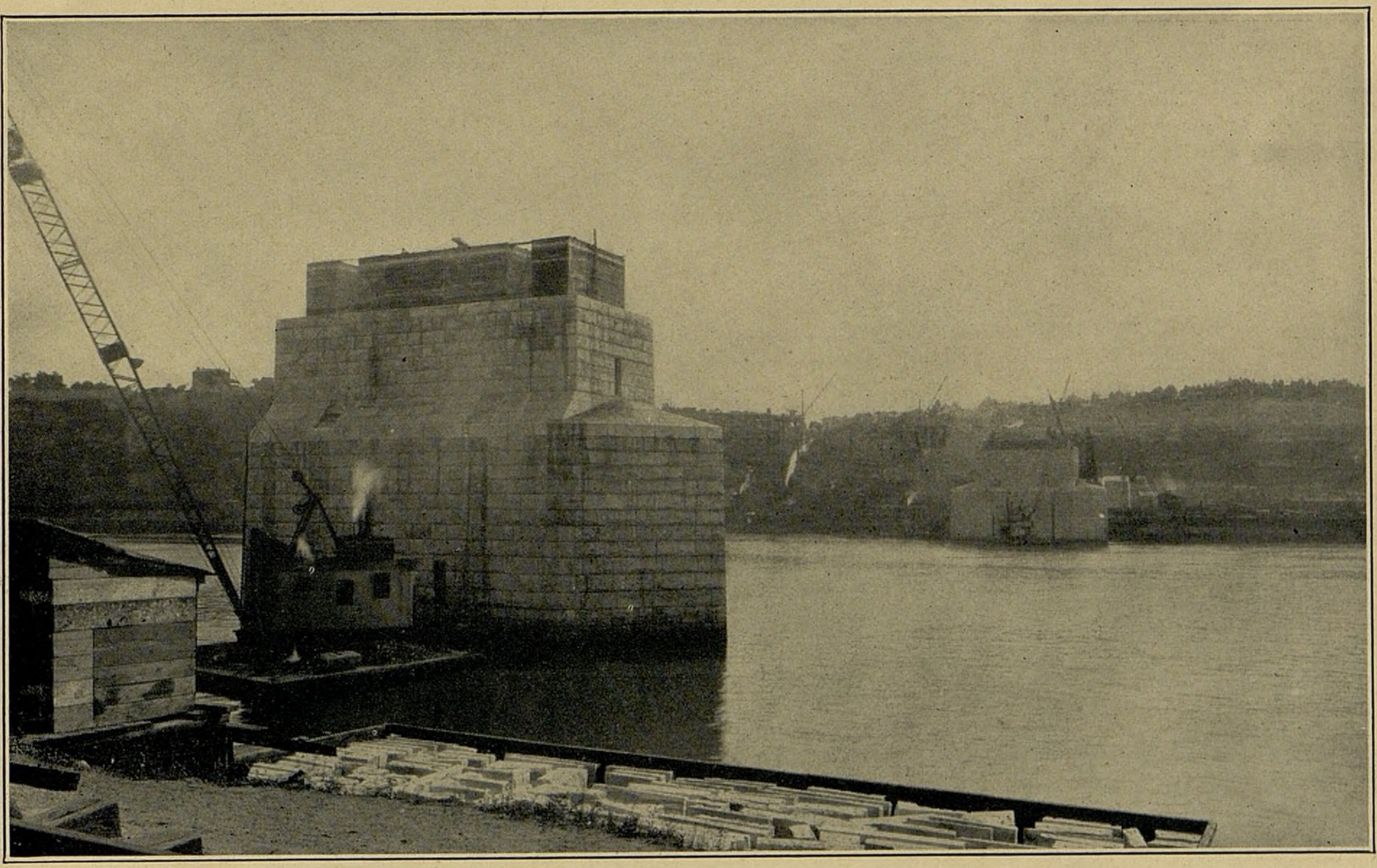


Upper View: McKees Rocks Bridge under construction, January 26, 1931.



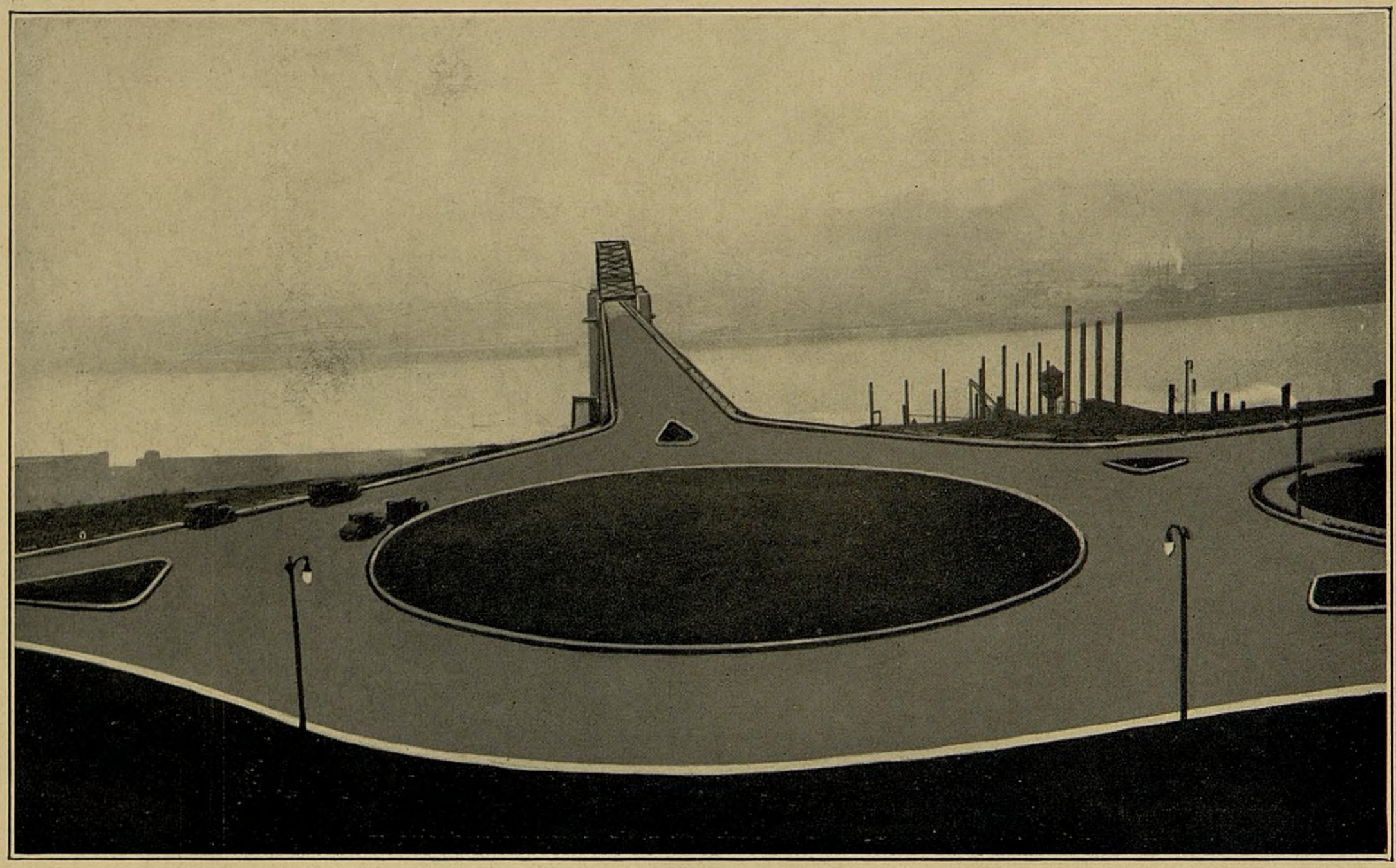
Lower view: Truss before it was closed, October 22, 1930.



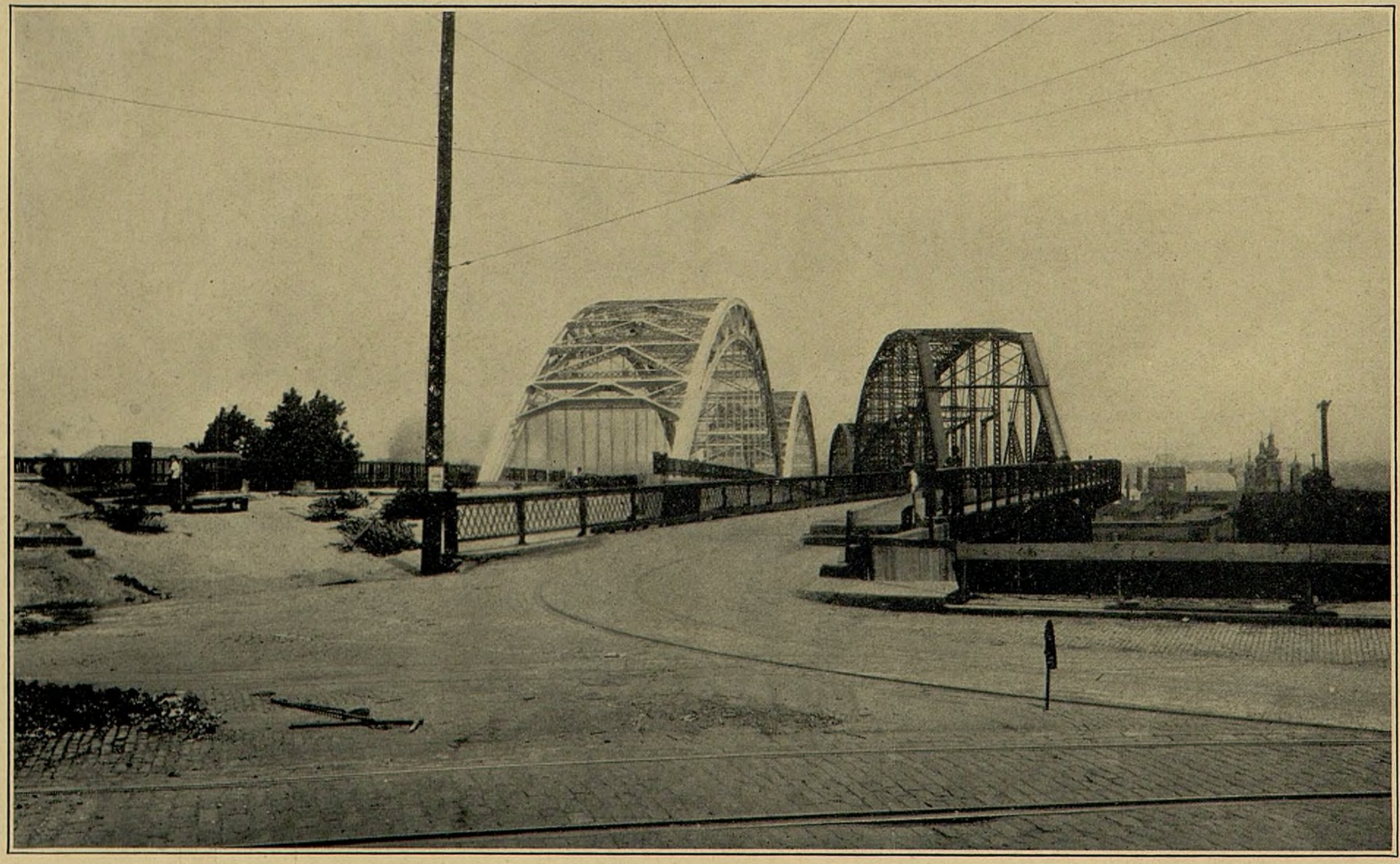


Upper view: The main river pier near the McKees Rocks end of the Bridge as it appeared June 3, 1930.

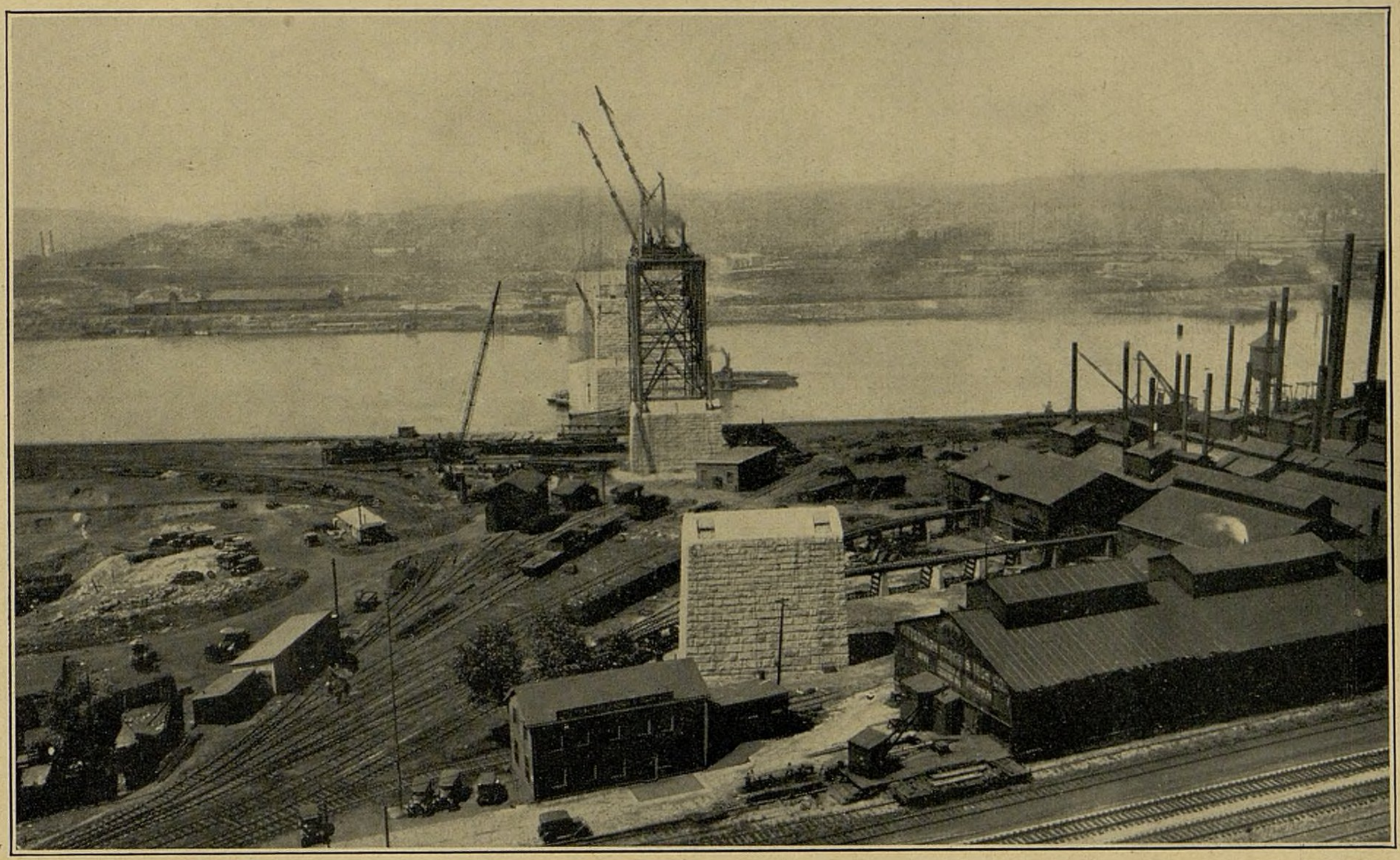
Lower view: Photograph of the two main river piers as they appeared July 7, 1930.

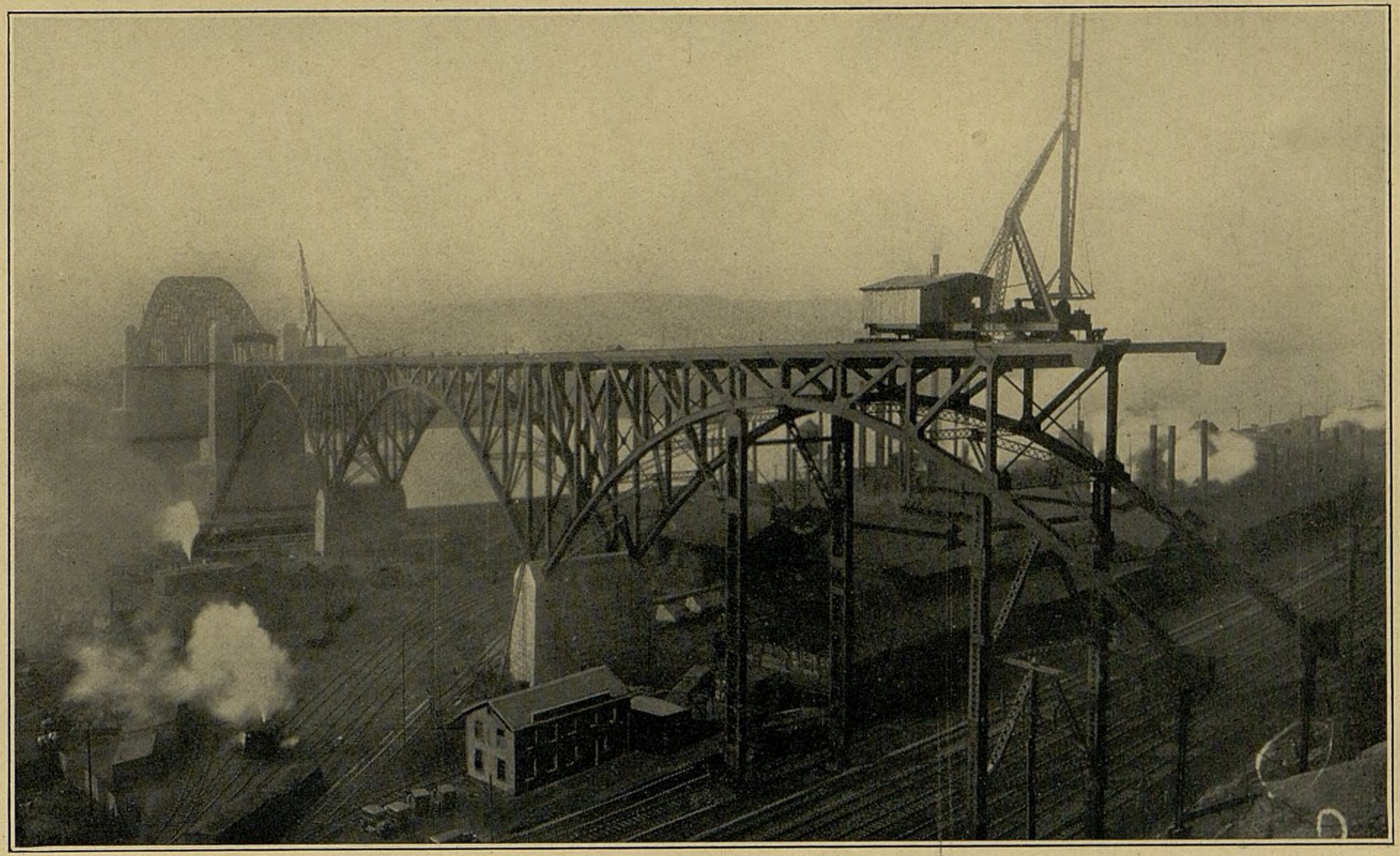


Upper view: Approach to McKees Rocks Bridge from the Traffic Circle of the Ohio River Boulevard.



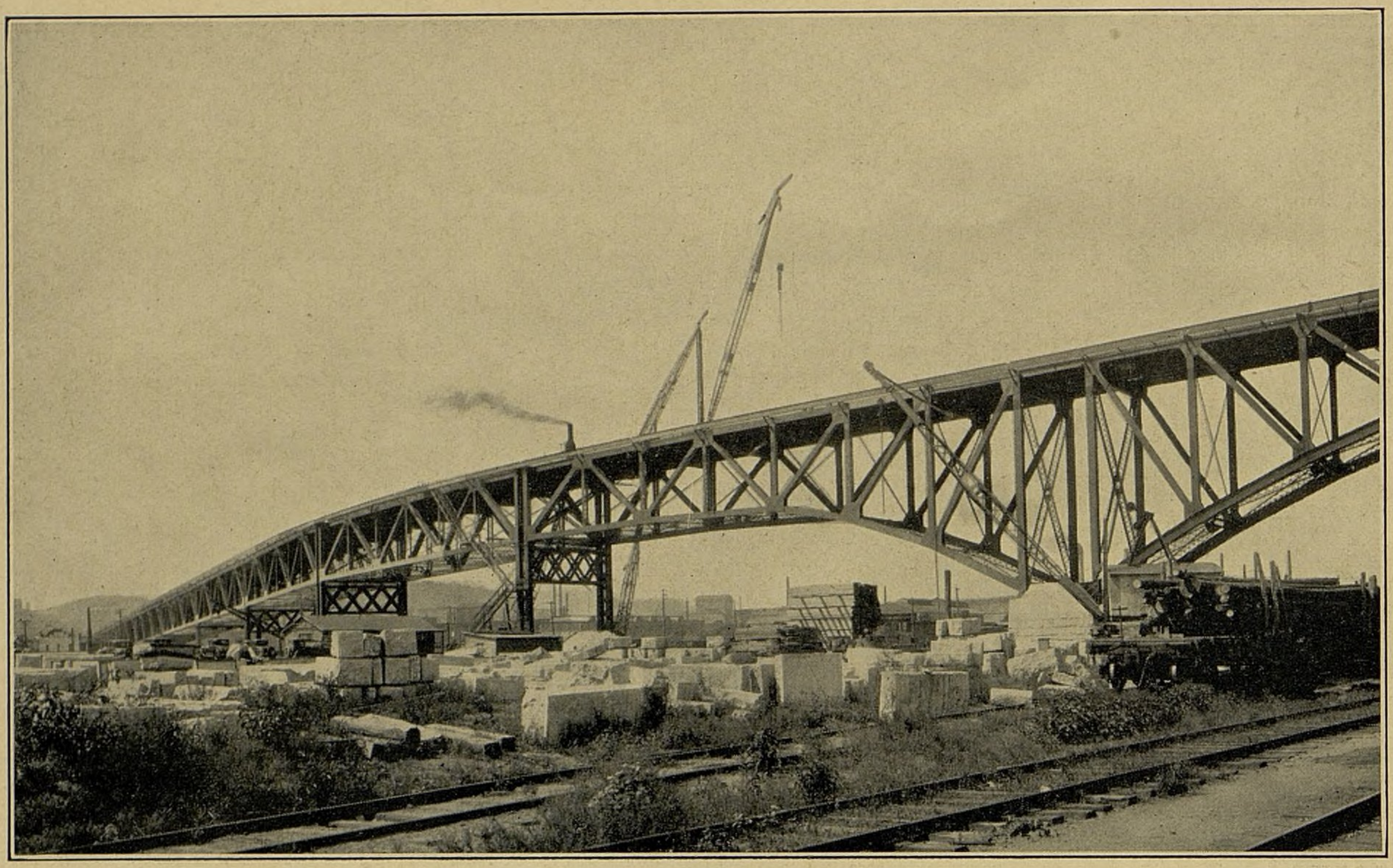
Lower view: Approach to the same bridge from Island Avenue, McKees Rocks. The O'Donovan Bridge at the right will be removed. Photograph taken May 2, 1931.

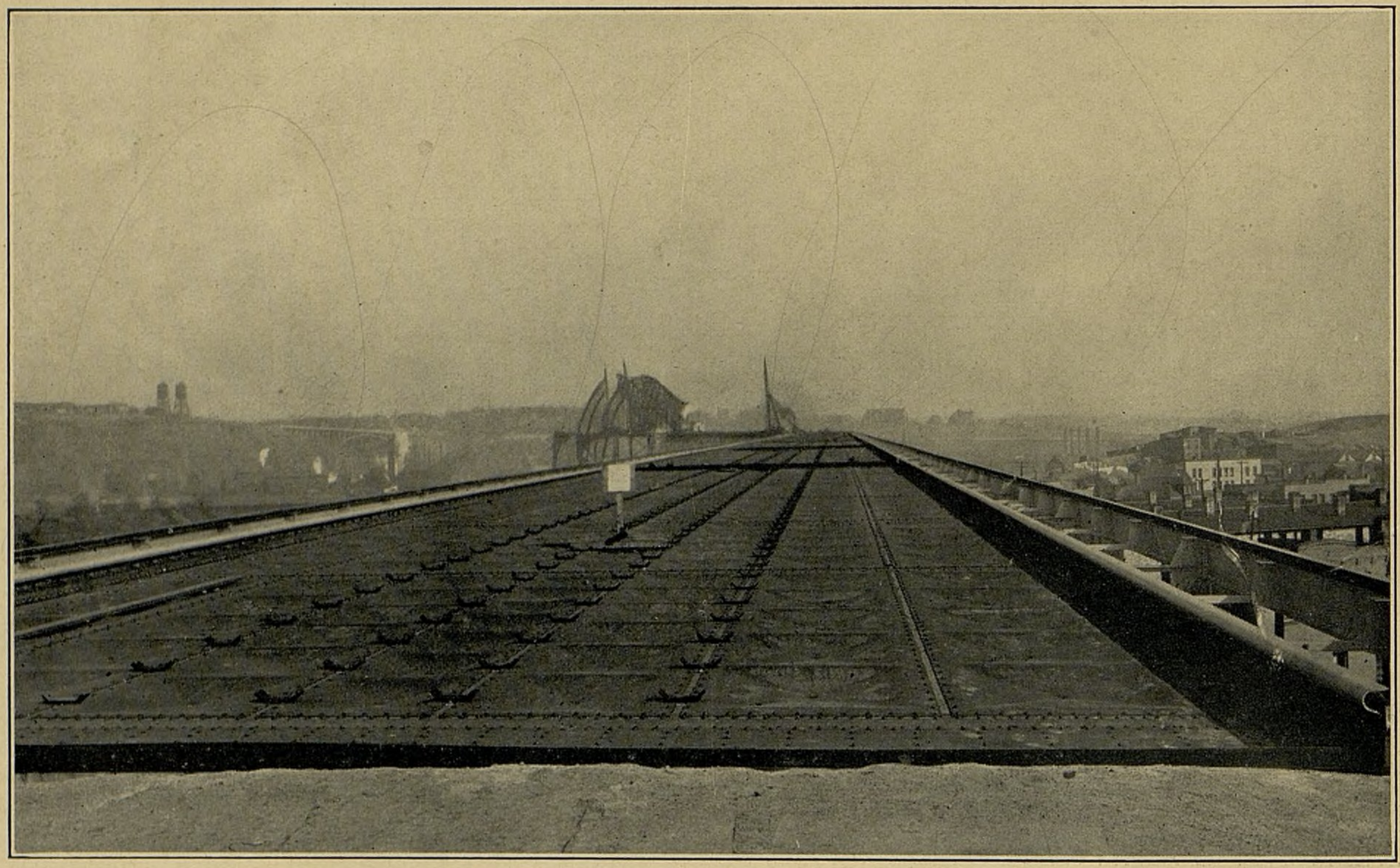




Upper view: Land piers and steel erection at the Ohio River Boulevard end of bridge as it appeared August 1, 1930.

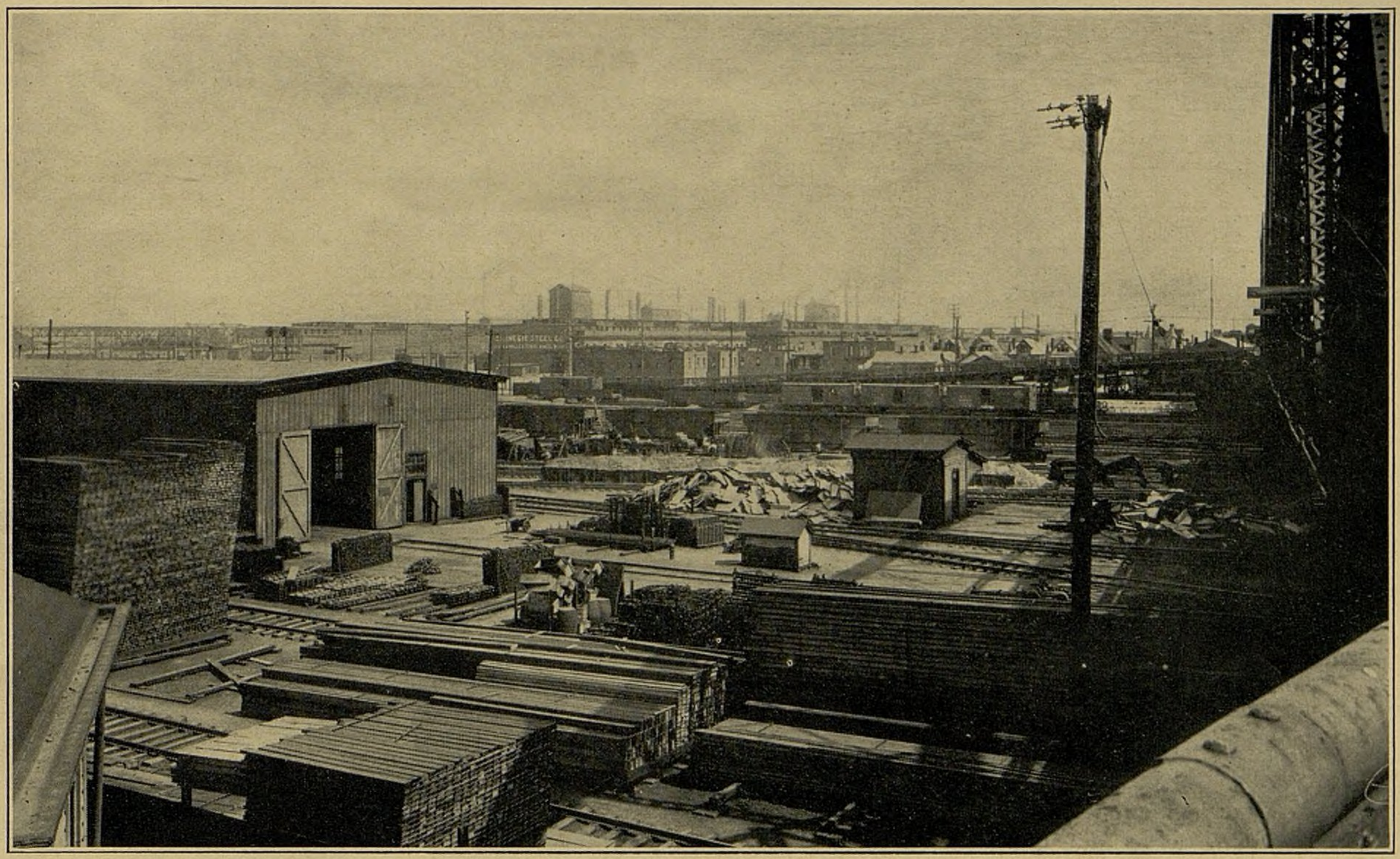
Lower view: Same site as shown above six months later, January 26, 1931.





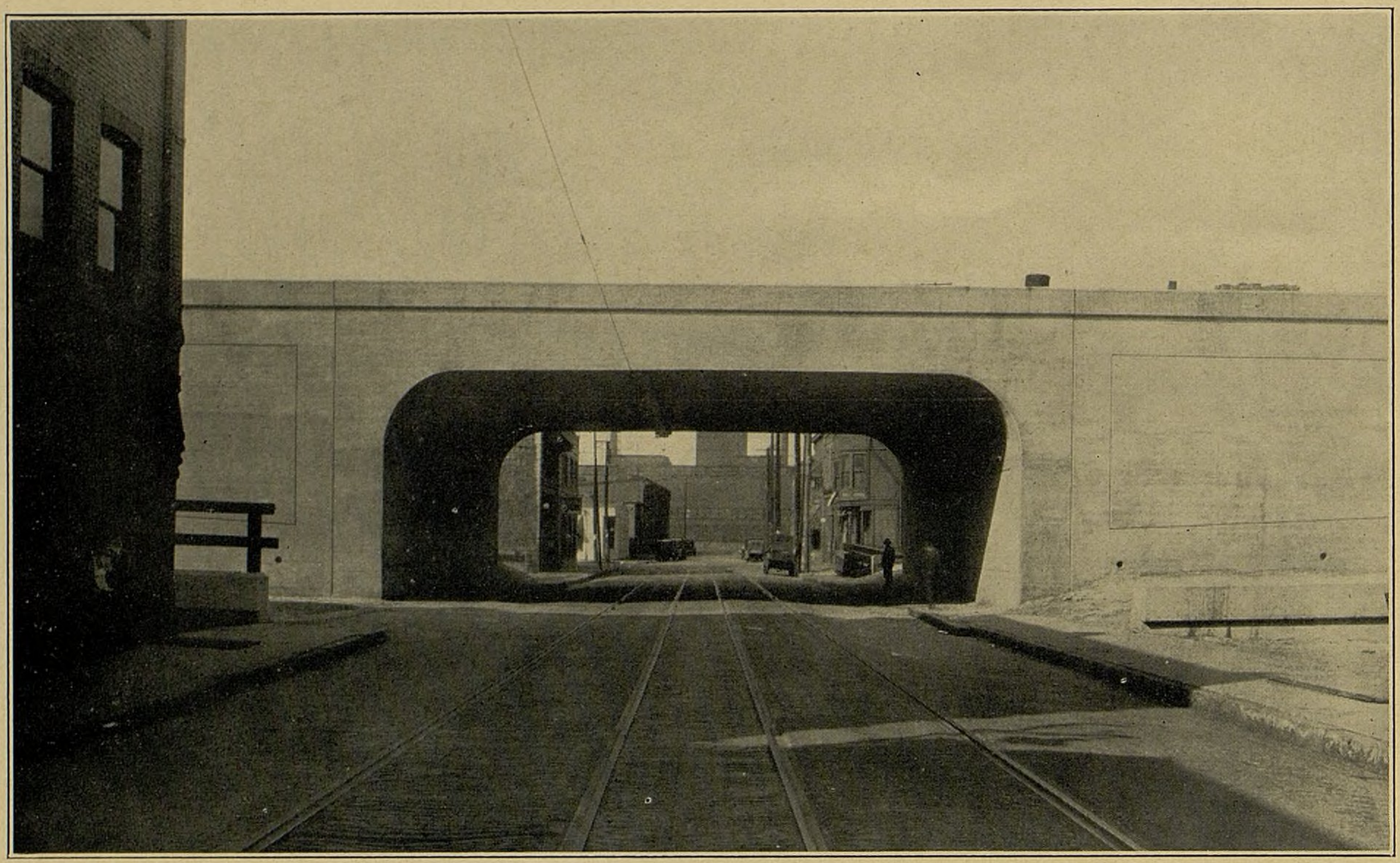
Upper view: Steel erection on the McKees Rocks approach of the bridge. A large part of the McKees Rocks Bridge structure passes over railroad and industrial section, September 8, 1930.

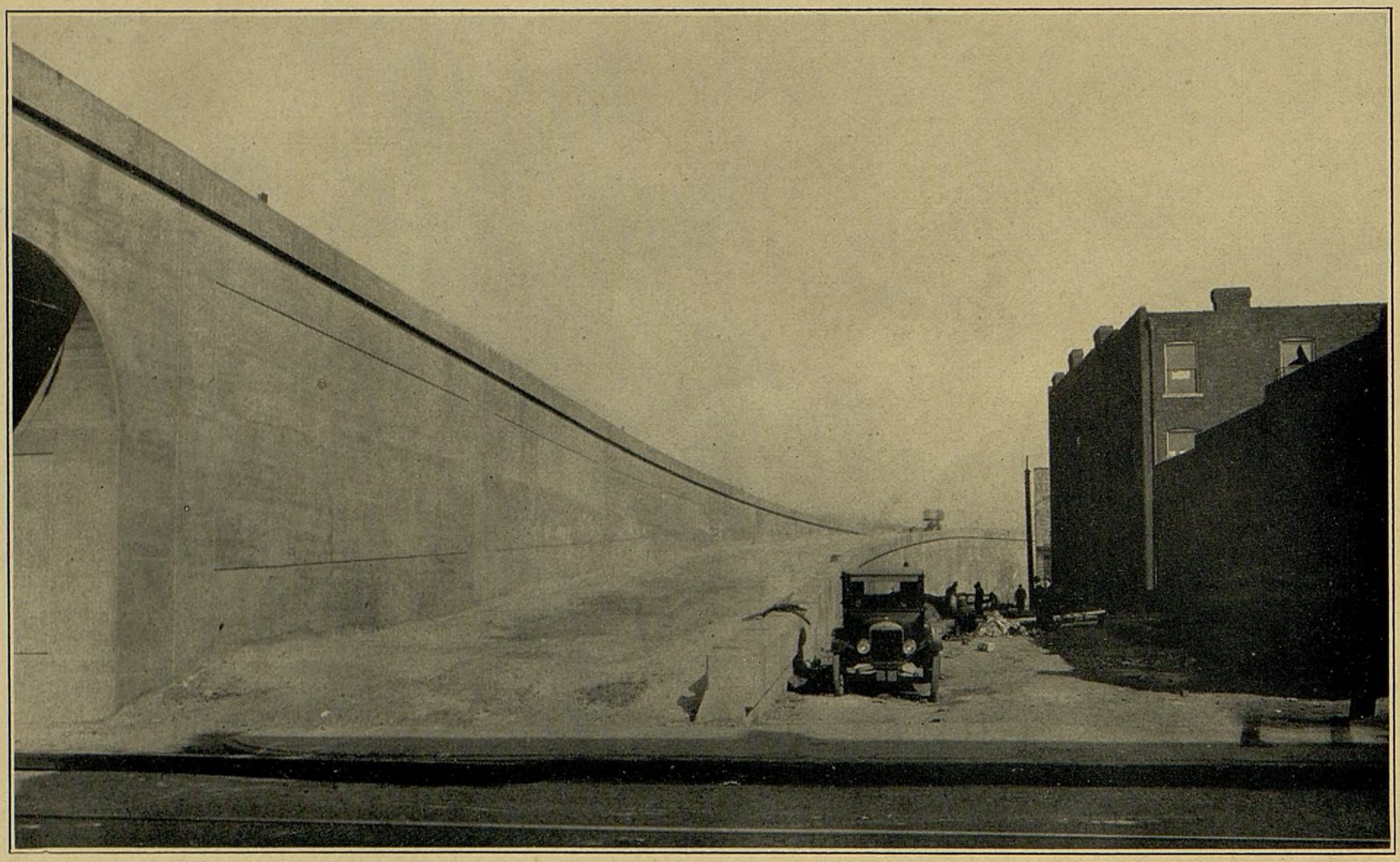
Lower view: Buckle plates of floor system at the McKees Rocks end of structure, October 22, 1930.



Upper view: Railroad and industrial sites over which the McKees Rocks approach is built. Structure at right is the present O'Donovan Bridge, April 8, 1929.

Lower view: Same site as shown above nine and one-half months later, January 26, 1931.





Upper view: The Helen Street underpass on the McKees Rocks approach which passes over a commercial and residential section as well as an industrial and railroad area.

Lower view: Showing how the traffic gets on to the bridge by means of concrete ramp leading off Helen Street.

DESCRIPTION OF OHIO RIVER BOULEVARD

By EDWARD L. SCHMIDT

Chief Engineer, Bureau of Roads
County Department of Public Works

DURING the early part of 1926, an organization representing the North Boroughs was formed to promote the idea of constructing a high speed boulevard from the west County line to Pittsburgh's Golden Triangle. This organization represented all the Boroughs north of the Ohio River and was known as "North Boroughs Associated Councils."

After several meetings the organization presented the idea of a high-speed boulevard to the Board of County Commissioners in March, 1927. The need of such a highway being apparent, the various representatives pledged their support to an item in the Peoples Bond Issue of 1928 to finance such a project—such a project to be a High-Speed Thoroughfare through Pittsburgh and the North Boroughs which would avoid the congested business streets of this populous section. Former plans for this improvement had attempted to utilize existing secondary streets. While these plans avoided congestion on main business streets, they would not, however, avoid numerous street crossings which are always potential sources of delay and accidents; street crossings comparing with railroad crossings as hazards on modern high-speed motor highways.

The Ohio River Boulevard, in its present location, abandoned the idea of using secondary streets and the possibility of cross-streets by occupying the land adjacent to the Pennsylvania Railroad on the Ohio River bluffs. This location allows sufficient feeders and also eliminates the hazards of cross-streets.

Following the approval of the project by vote of the people in the 1928 bond issue, contract plans were prepared from exhaustive field surveys, the results of which were the production and projection of the best possible lines and grades from which there has been no necessity for deviation. The heavy cuts encountered required the use of high grade modern construction equipment. In the movement of the excavated material, it was necessary to use the heaviest type of tractors and trucks available. Several cuts were made to depths ranging from 50 feet to 75 feet. Fills aggregating approximately 800,000 cubic yards of filling material were rolled in place in 6 and 8-inch layers, with rollers of the latest approved type to form the proper sub-grade for a 40-foot concrete base course of 9-inch thickness. This base was paved with three inch depth vitrified paving brick laid on a sand cushion.

By the will of the people and instructions from the Board of County Commissioners, consisting of Joseph G. Armstrong, Chairman; E. V. Babcock and C. C. McGovern, the Department of Public Works, under Director N. F. Brown, started contract work in July, 1929 on the Ohio River Boulevard, consisting of grading the 60-foot right of way and a 40-foot paving, five and one-half miles long. The Boulevard, together with the McKees Rocks Bridge and its Termon Avenue approach which joins the Boulevard in a traffic circle was completed in August, 1931. In approximately two years a $12,000,000 artery of traffic comparable to the best in the eastern United States and surpassing many in Europe was opened for the use of the travelling public.

In July, 1929 a contract was awarded and actual grading work was started for the portion of the highway between Horne Camp Road and the McKees Rocks Bridge, traversing the City of Pittsburgh and the Boroughs of Bellevue, Avalon, Ben Avon and Emsworth. In February, 1930 a contract was awarded for that section of the highway between McKees Rocks Bridge and Superior Avenue and in November, 1930 a contract was awarded which included the widening, reconstruction and relocation of streets between Superior Avenue and Island Avenue; both within the City limits, connecting the whole project with present streets in the City of Pittsburgh.

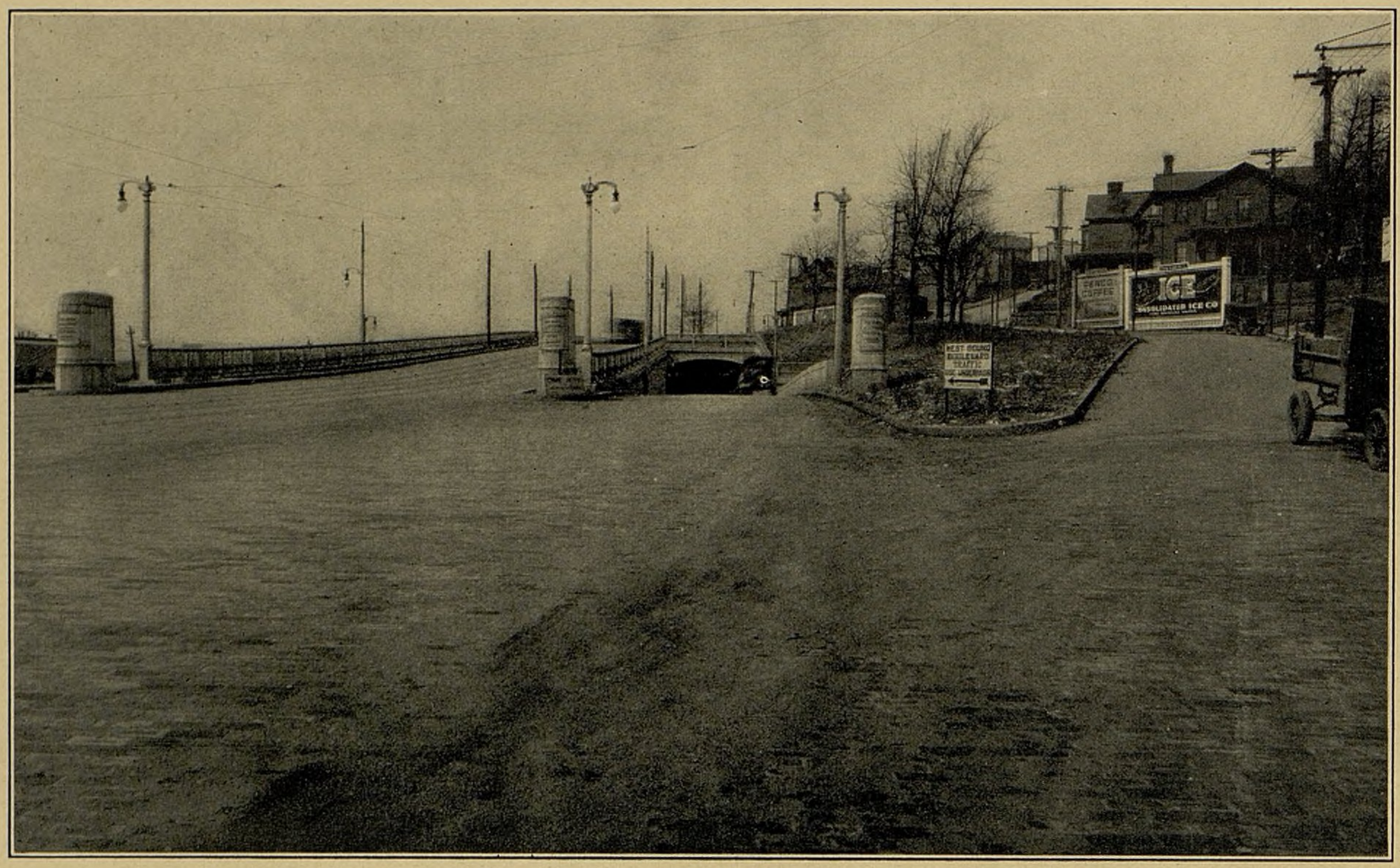
Shortly after the Boulevard construction was under way, a contract was let in September, 1930 for the landscaping and planting of all cuts, slopes, fills, traffic islands, banks and berms. Special attention is called to the immediate landscaping of the cuts and fills, the planting of all islands, circles and parking strips with grass, shade trees, shrubs and vines, delighting the thousands of persons who have availed themselves of the uses and beauties of this highway.

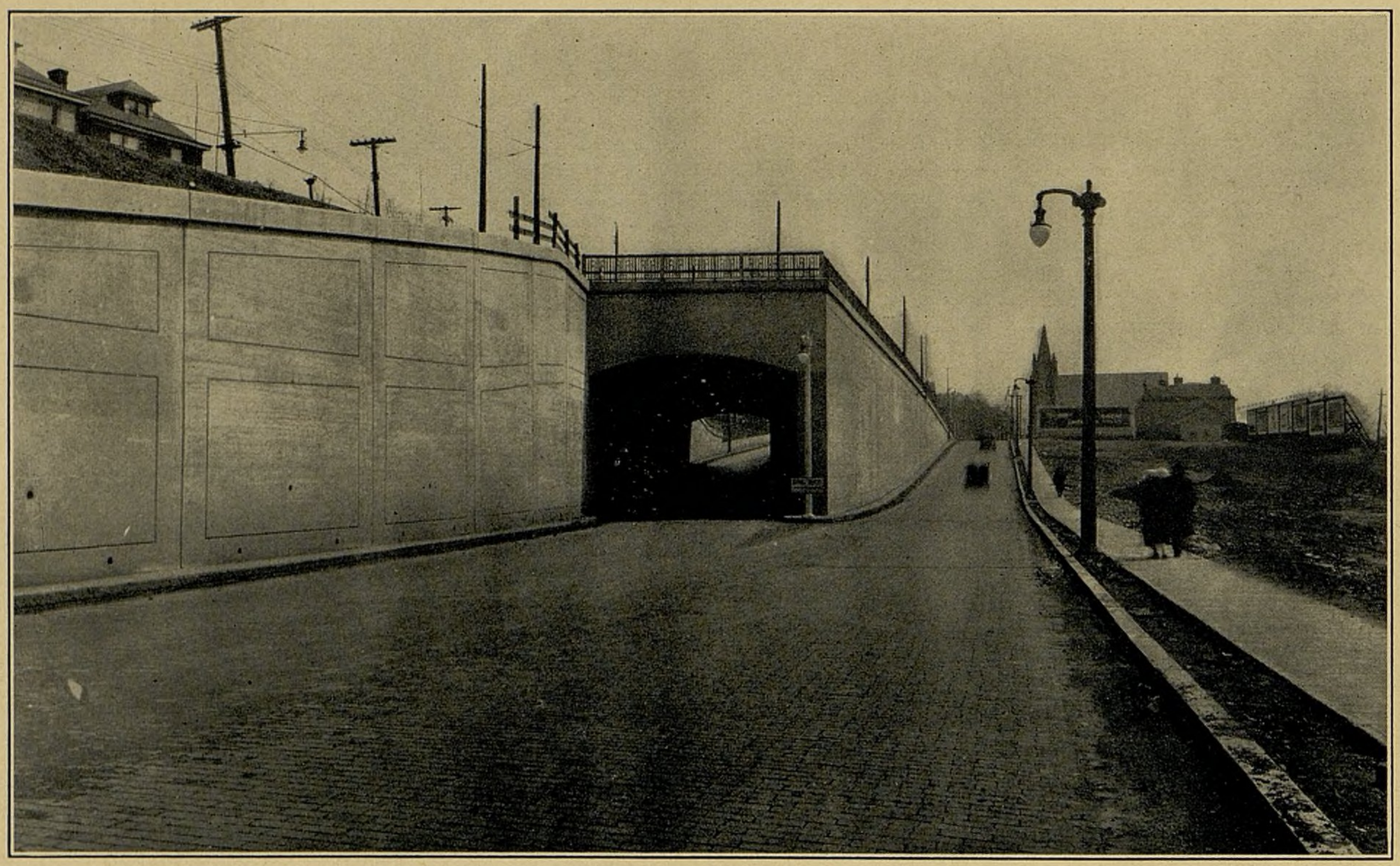
The lighting system in use was brought about after numerous conferences, and with the cooperation of the four boroughs and the City of Pittsburgh. The lights consisting of 1,000 candle power, are suspended from ornamental fluted poles, no wooden poles being permitted on the boulevard from one end to the other.

The topography of the district through which the Ohio River Boulevard passes is such as to require a large number of bridges. The Boulevard is located in general on a high bluff overlooking the Ohio River. This bluff is cut by numerous ravines requiring 10 bridges of lengths up to 800 feet. It was also necessary to construct two foot bridges to enable pedestrians to cross the boulevard safely at Boston and Rankin Avenues and to relocate and reconstruct a small bridge over Spruce Run in connection with the large Spruce Run Bridge. These bridges have a total length of more than 3,000 feet and cost approximately $2,000,000.

Among the numerous structures is the Jacks Run Bridge, one of the largest concrete arches in the Country of the spandrel arch type, having a span of 400 feet with a clearance of 370 feet between abutments. Its total length is 802 feet.

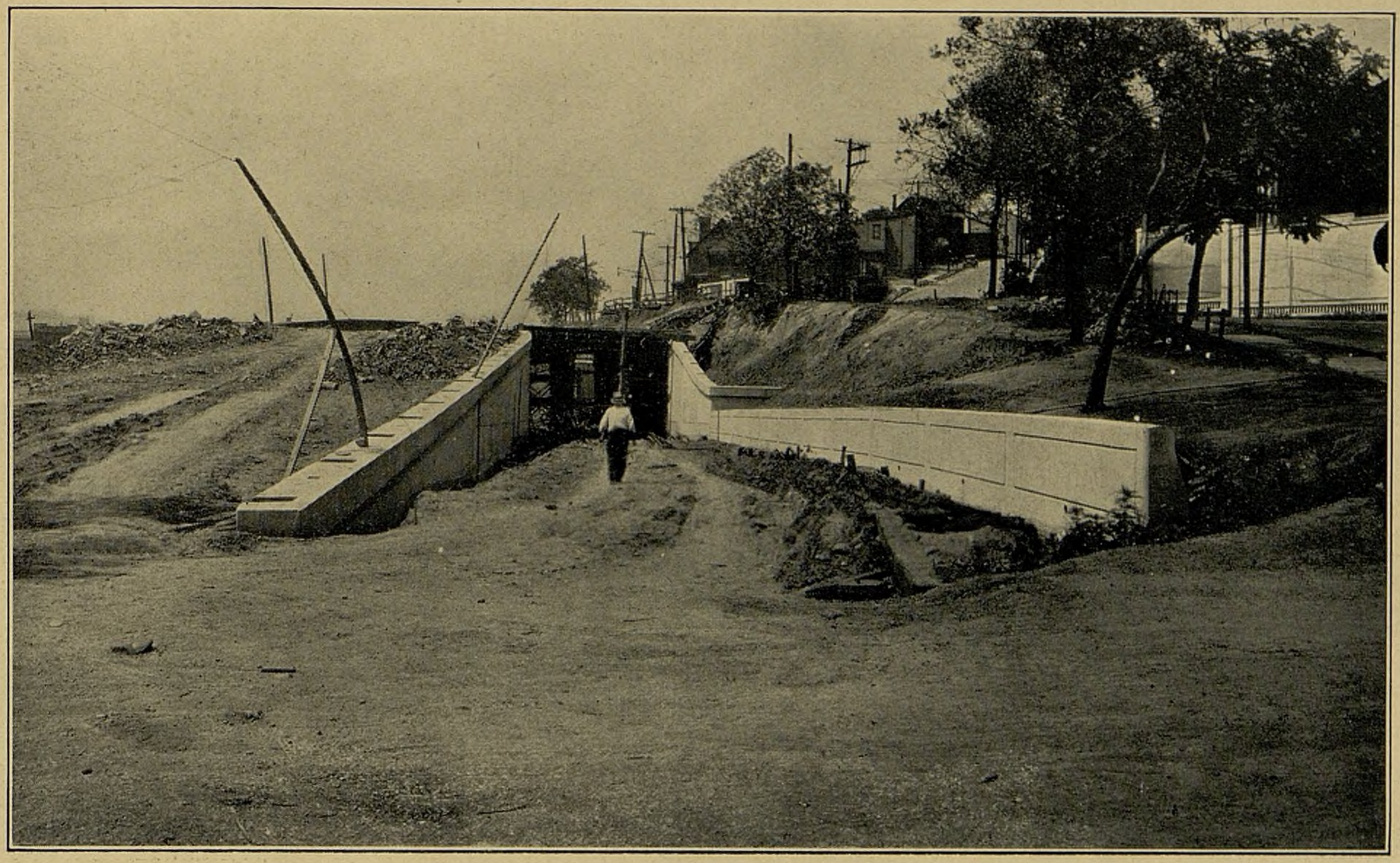
Nowhere in Western Pennsylvania, is there a scenic route comparable to the Ohio River Boulevard. For pleasure and ease of driving, the grades are ideal; the elimination of cross streets gives a feeling of security and the numerous feeders are so located and protected as not to create a hazard. The magnificence of the Ohio River and its valley are in view at practically all times. The scenic effect of the McKees Rocks Bridge and the historic Indian Mound on the river's edge in McKees Rocks, together with the panorama of industry spread over the broad valley, produces an impressive picture.

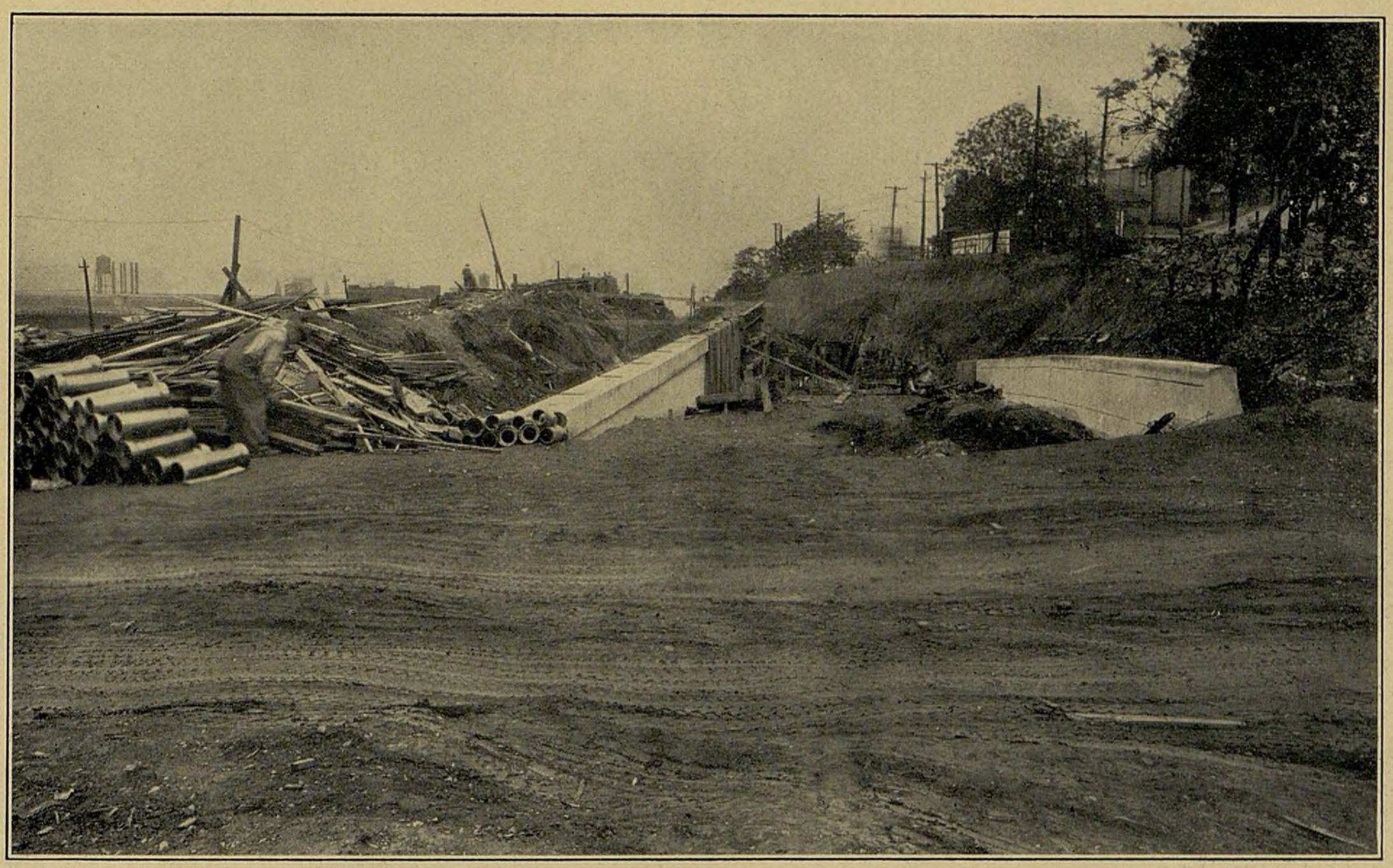




Upper view: Completed California Avenue Underpass as it appears when travelling away from Pittsburgh, making an absolutely safe separation of traffic.

Lower view: Completed California Avenue Underpass as it appears when travelling the Boulevard towards Pittsburgh.

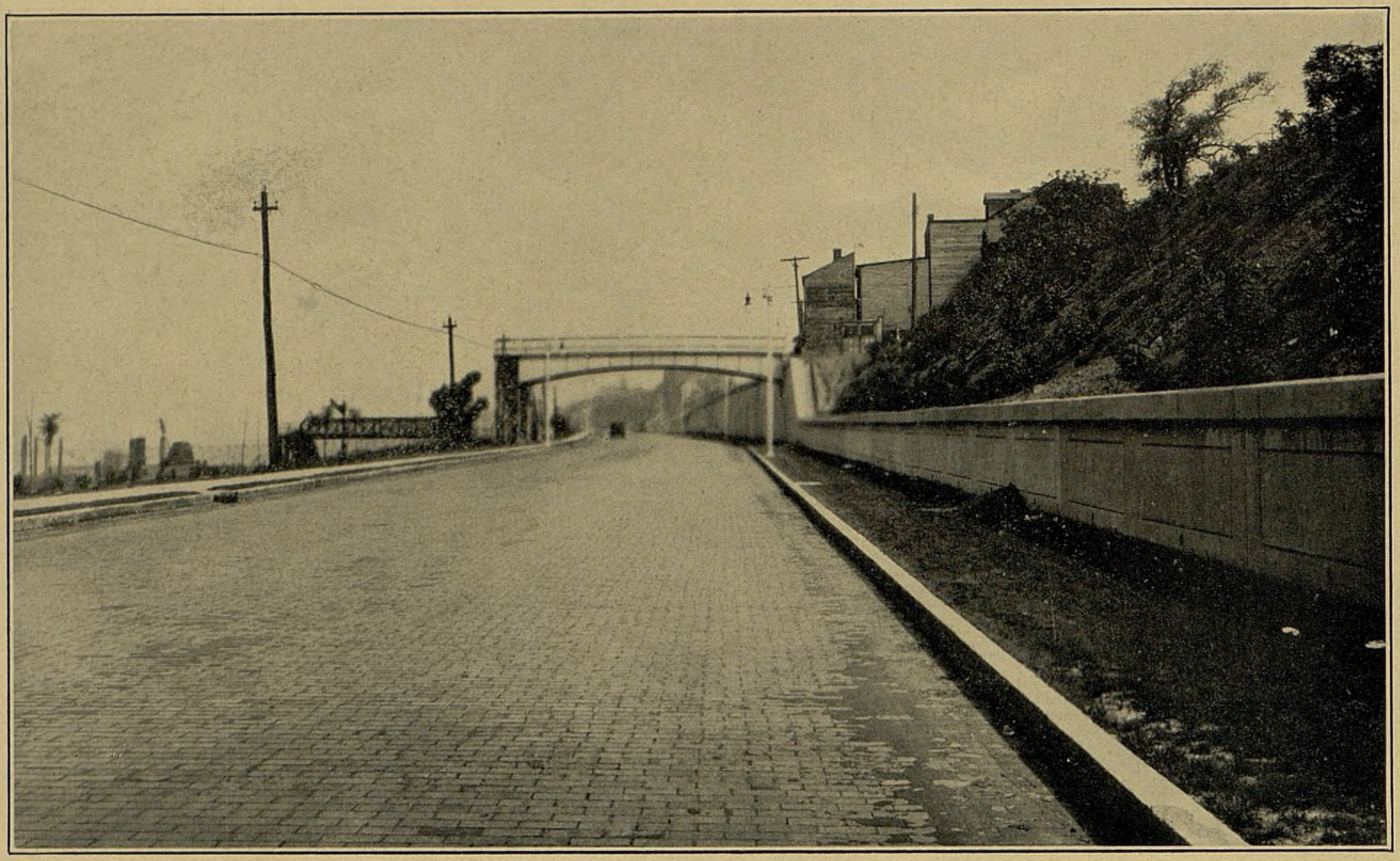




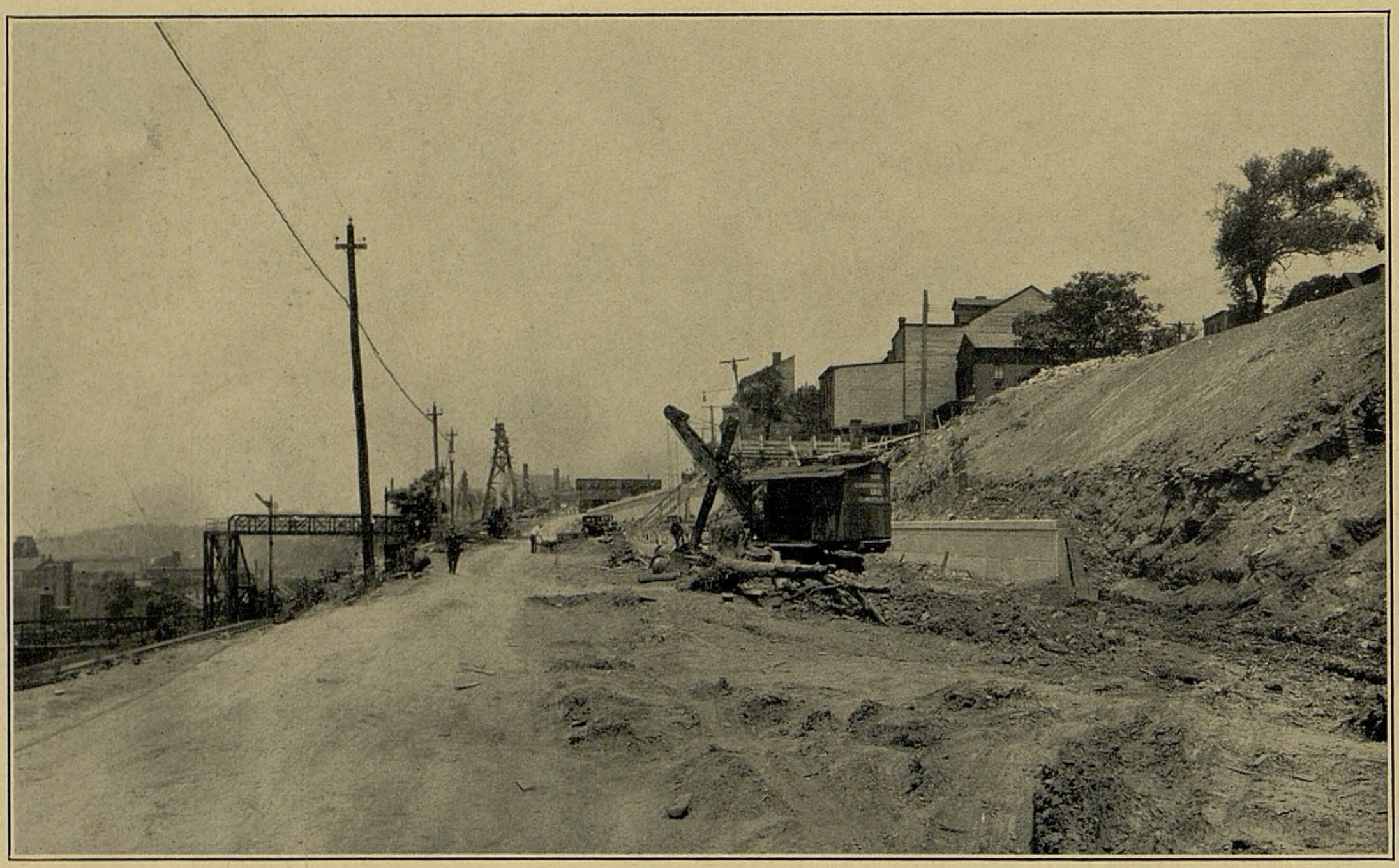
Upper view: California Avenue Underpass during construction as of July 24, 1930. Cellular retaining walls were used in this construction.

Lower view: California Avenue Underpass in its early stages of construction.

This picture was taken May 28, 1930.

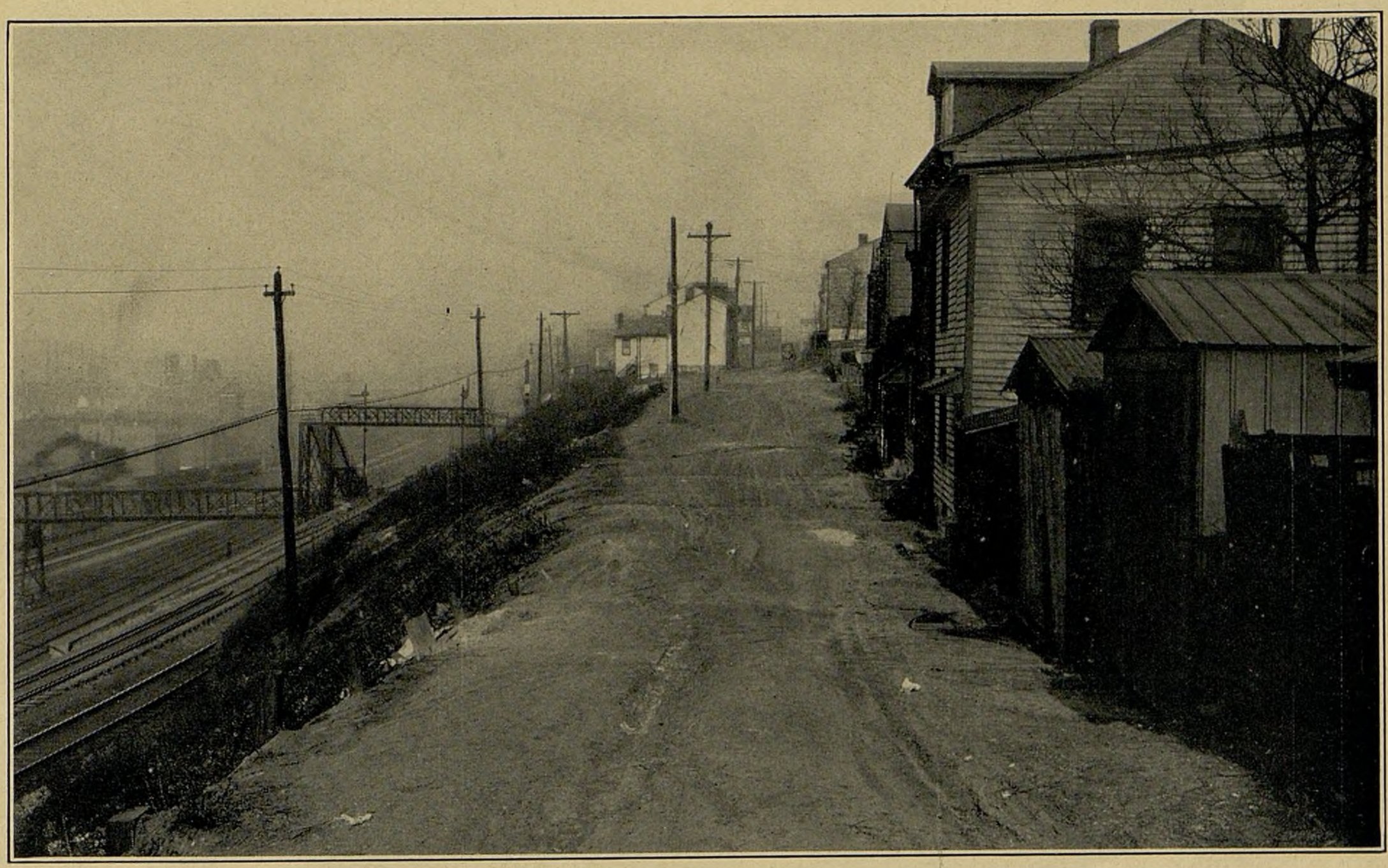


Upper view: Completed Boulevard where overhead pedestrian bridge crosses Boulevard and railroad tracks in vicinity of the penitentiary.



Lower view: Same site during the construction stages as of July 25, 1930. Note pedestrian bridge over railroad.

Upper view: Same site in its earlier stages of construction. Photograph taken May 28, 1930. Note pedestrian bridge over railroad.



Lower view: Same site before construction work was started. Note pedestrian bridge over railroad. All the houses seen in this view were removed or demolished.

KILBUCK TWP.

ROSS TWP.

AVALON

BELLEVUE

BEN AVON

EMSWORTH

NEVILLE ISLAND

OHIO RIVER

DAVIS ISLAND

STOWE TWP.

McKEES ROCKS

KENNEDY TWP.

INGRAM

ROAD

CAMP

CENTER

HORNE

AVE.

CHURCH AVE.

CALIFORNIA AVE.

LINCOLN

SHERIDAN

S. FREMONT

GRANT

KENDALL

AVE.

BRIGHT

NEVILLE ROAD

ROBISON BLVD.

McKEES ROCKS BRIDGE

ISLAND

McCOY ROAD

AVE.

AVE.

FOREST GROVE ROAD

HECKEL RD.

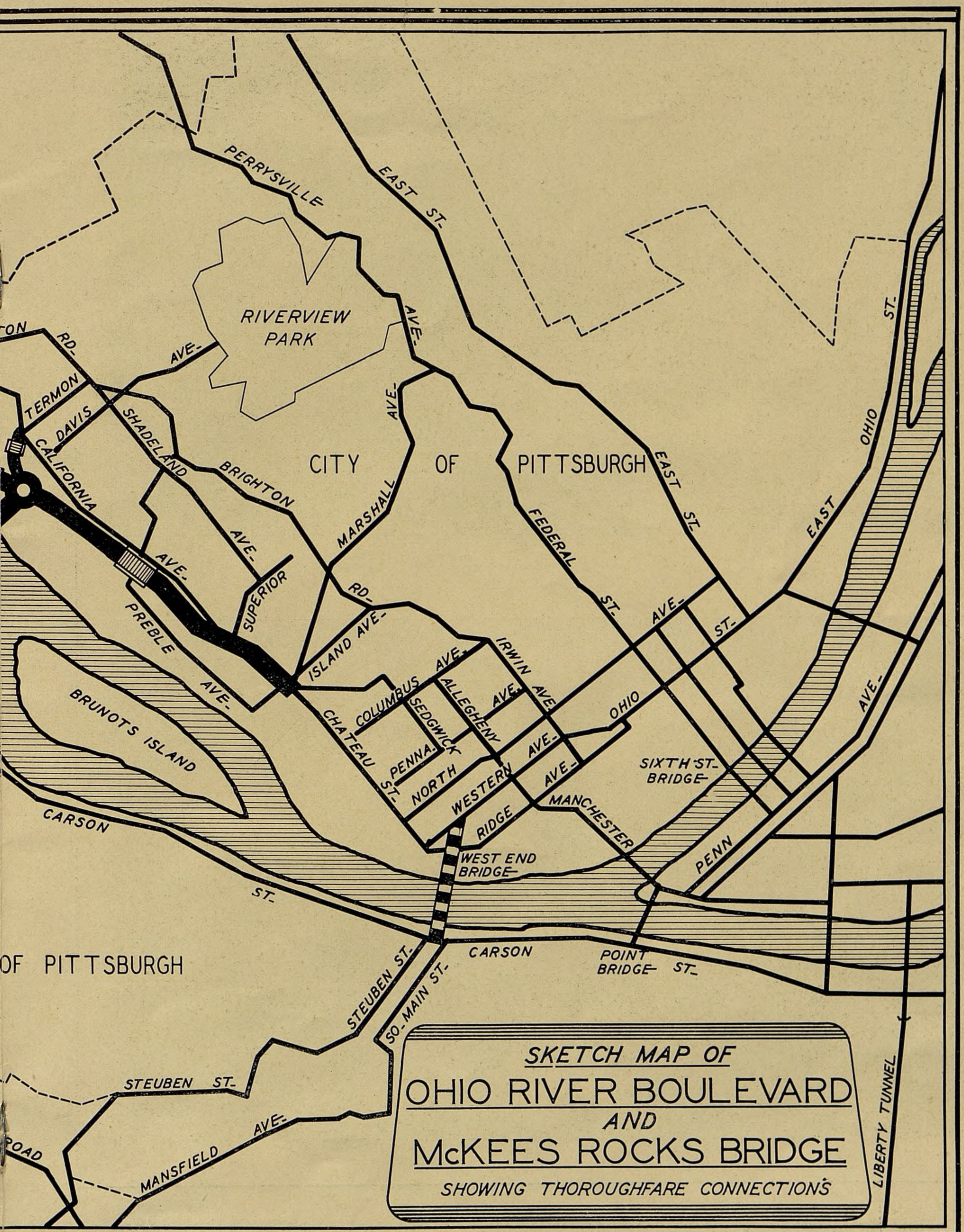
CHARTIERS

ROAD

MOON RUN

WINDGAP

MOLYNEAUX


PERRYSVILLE
EAST ST.
RIVERVIEW PARK
AVE.
RD.
TERMON
DAVIS
CALIFORNIA
SHADELAND
BRIGHTON
AVE.
CITY OF PITTSBURGH
MARSHALL
FEDERAL
EAST ST.
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ST.
SUPERIOR
RD.
PREBLE
AVE.
ISLAND AVE.
IRWIN AVE.
ST.
AVE.
BRUNOTS ISLAND
COLUMBUS
SEDGWICK
ALLEGHENY
CHATEAU
PENNA.
NORTH
WESTERN
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OHIO
SIXTH ST. BRIDGE
AVE.
CARSON
RIDGE
MANCHESTER
WEST END BRIDGE
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POINT BRIDGE
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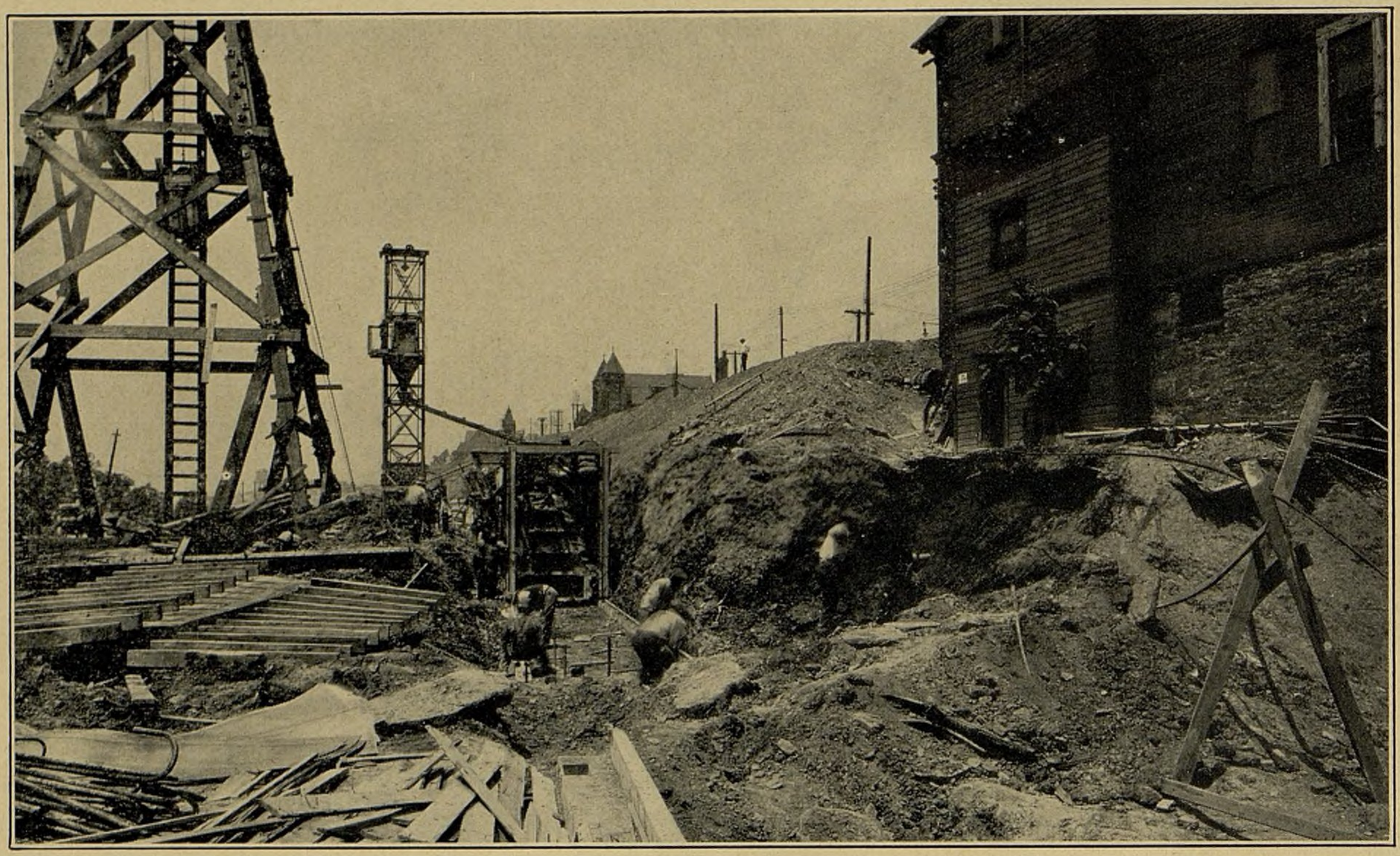
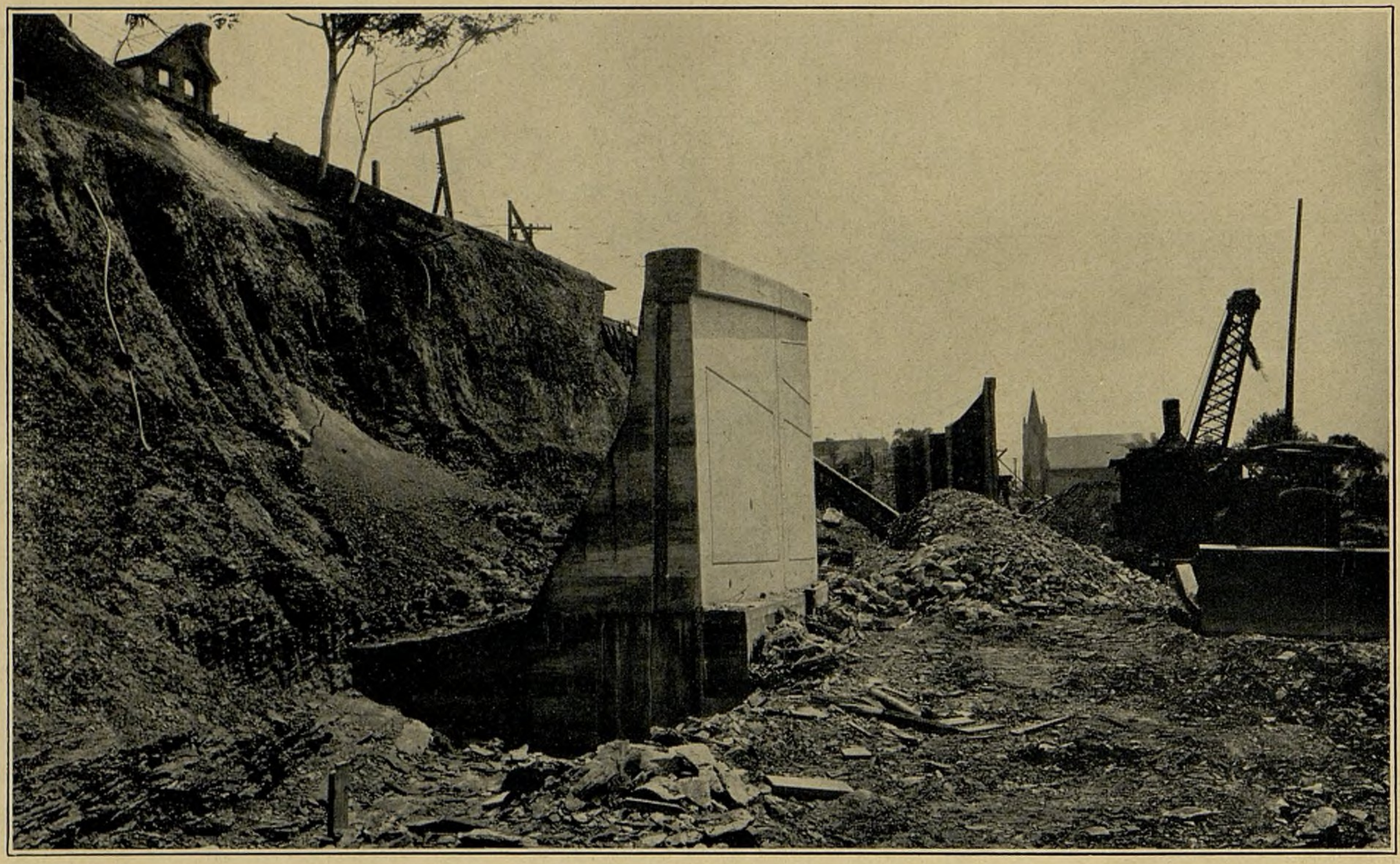
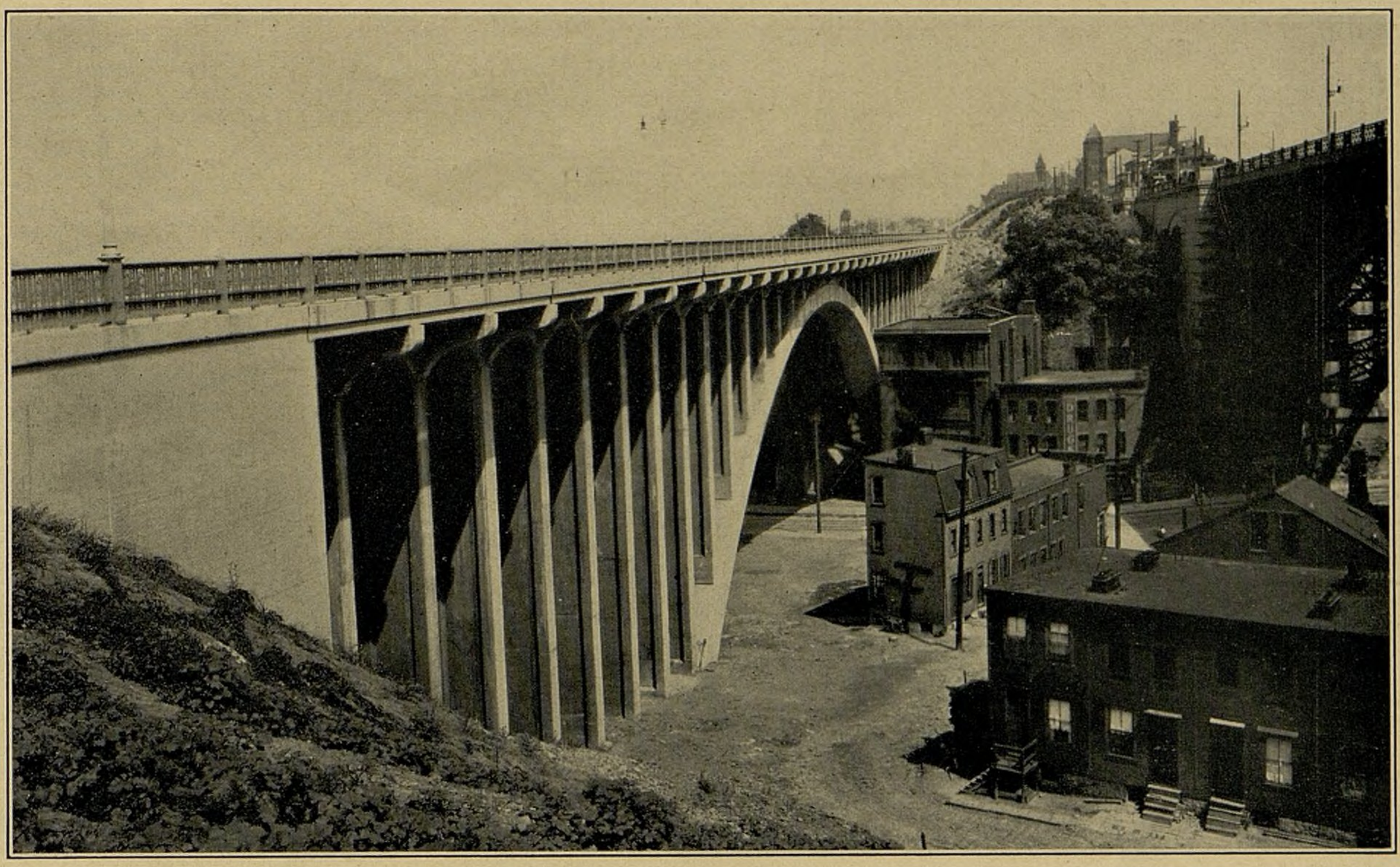
SKETCH MAP OF
OHIO RIVER BOULEVARD
AND
McKEES ROCKS BRIDGE
SHOWING THOROUGHFARE CONNECTIONS



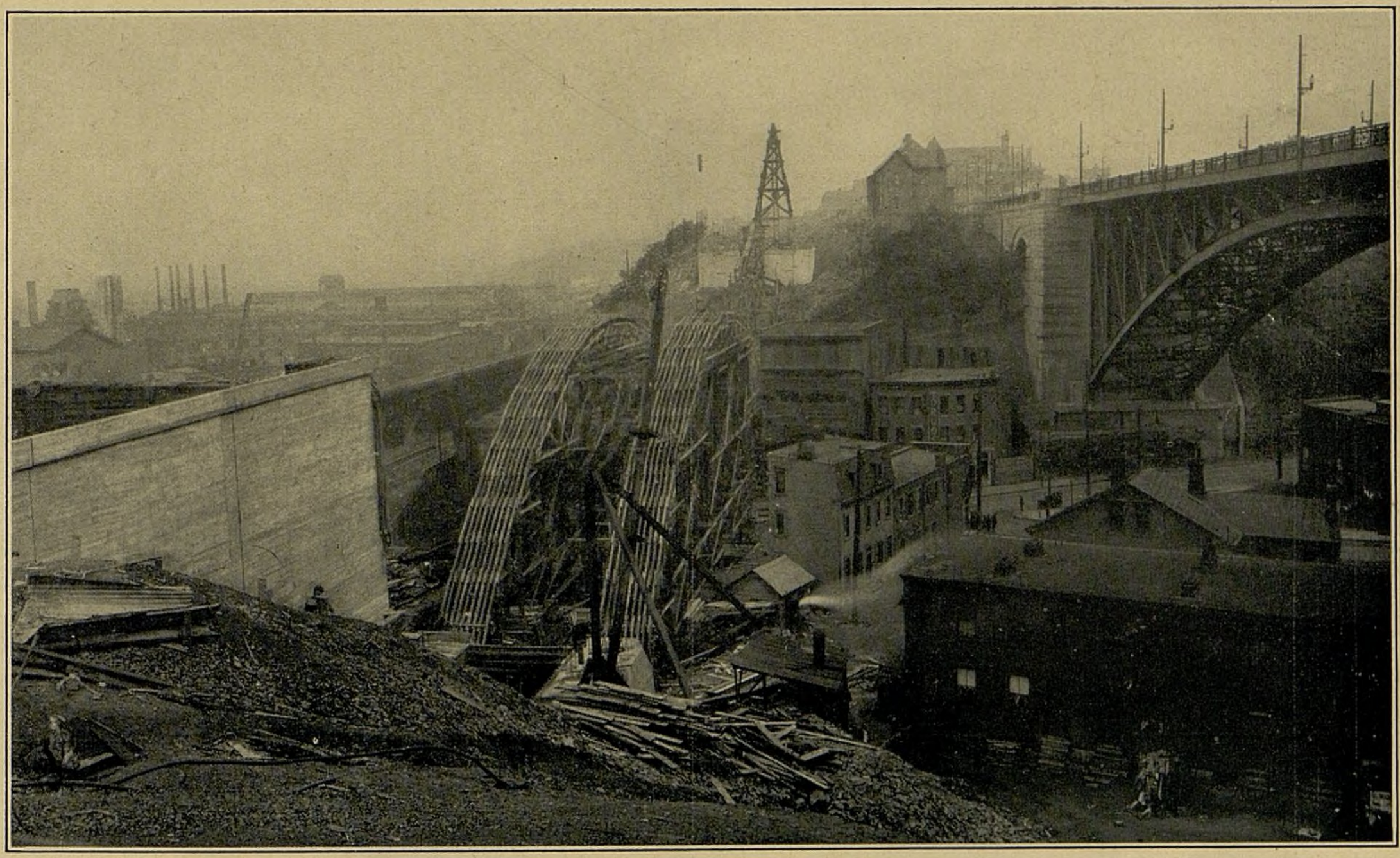
Upper view: Showing construction of concrete retaining walls. Note portable steel forms and tower for placement of concrete.



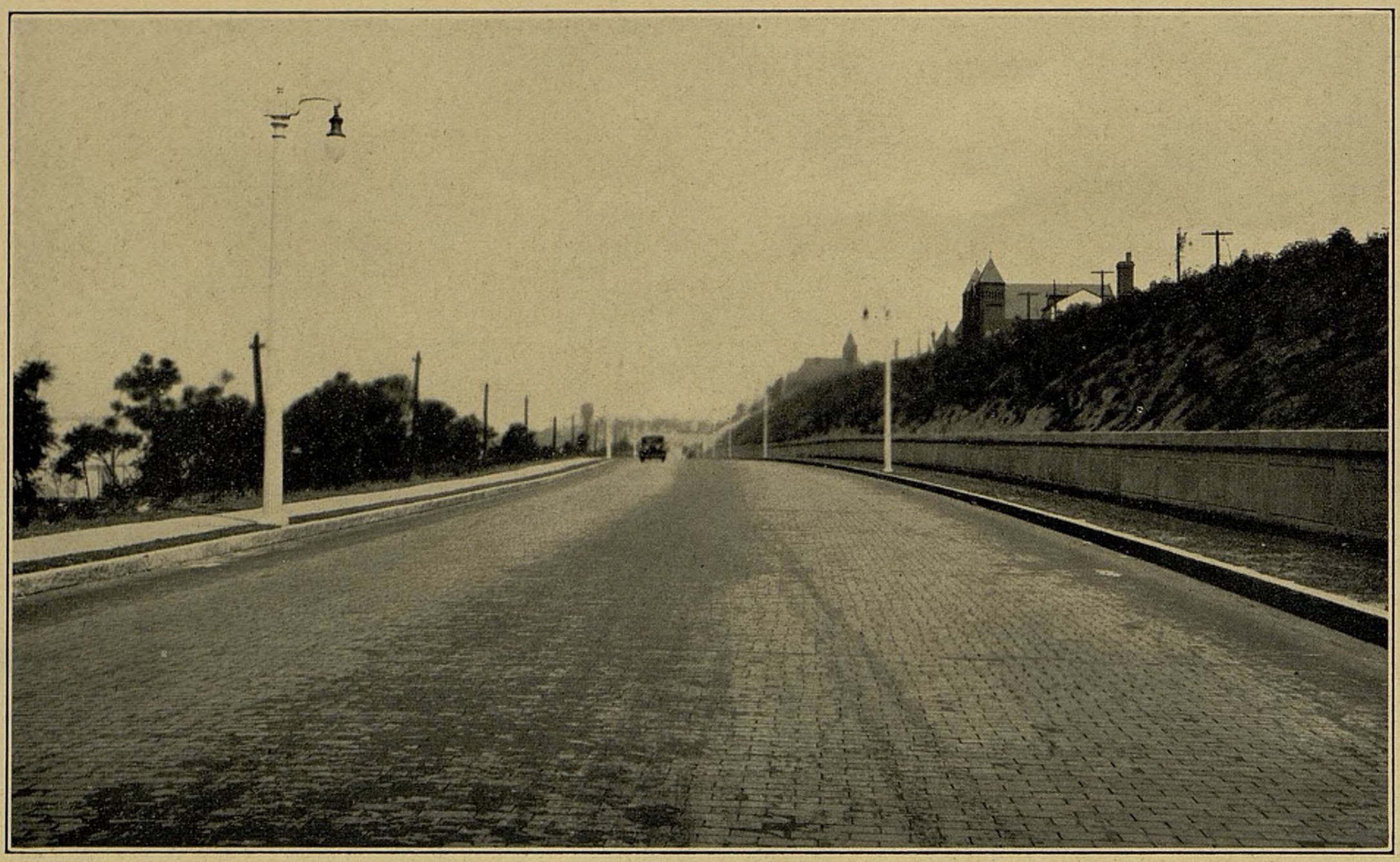
Lower view: Construction picture showing a concrete cantilever retaining wall; a very stable type of wall for resisting pressure and overturning.



Upper view: Completed bridge carrying Boulevard over Woods Run. Note to right structure carrying California Avenue over the same ravine.

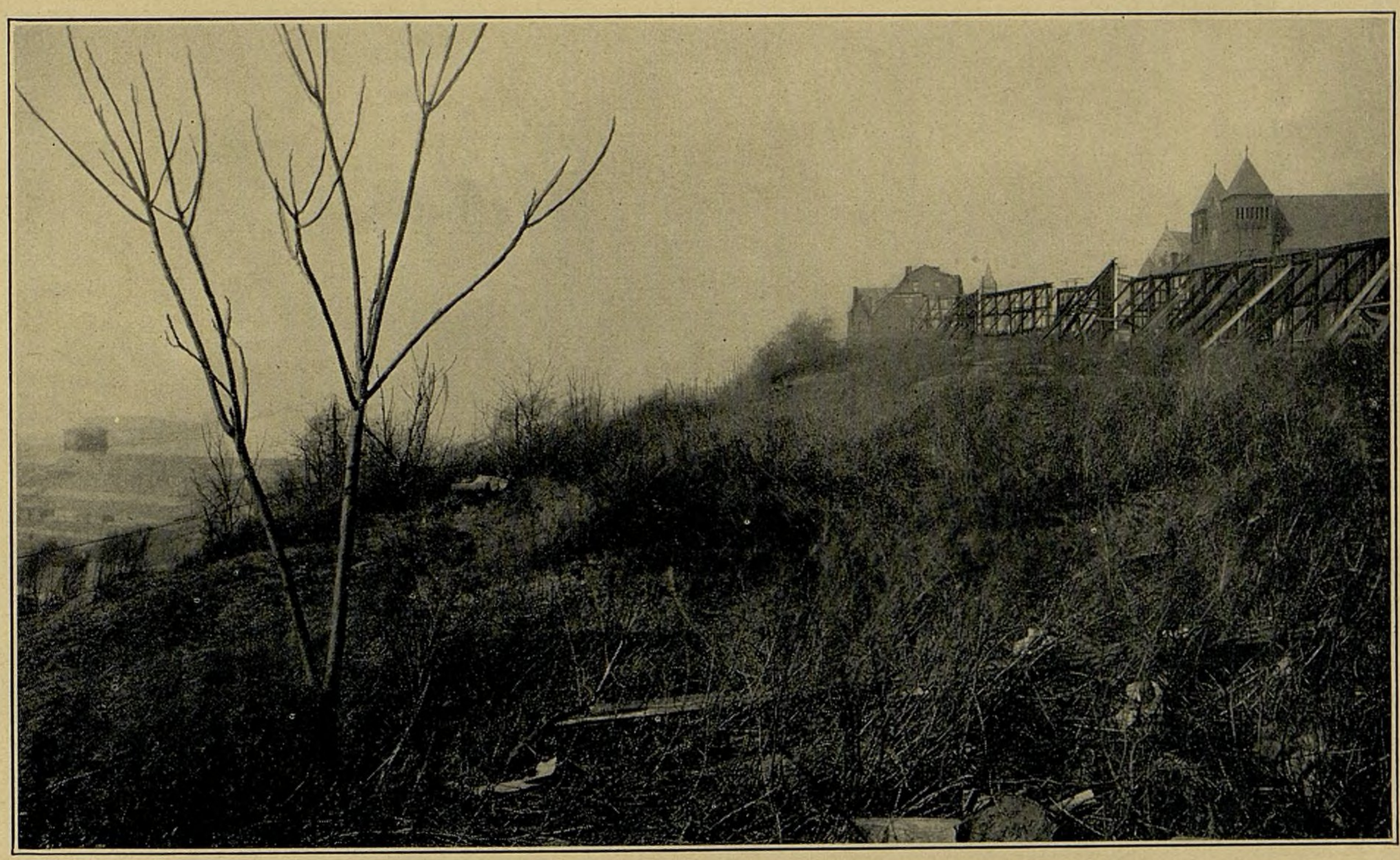


Lower view: Woods Run Bridge under construction as of May 28, 1930. Framed false work was used in constructing this arch.



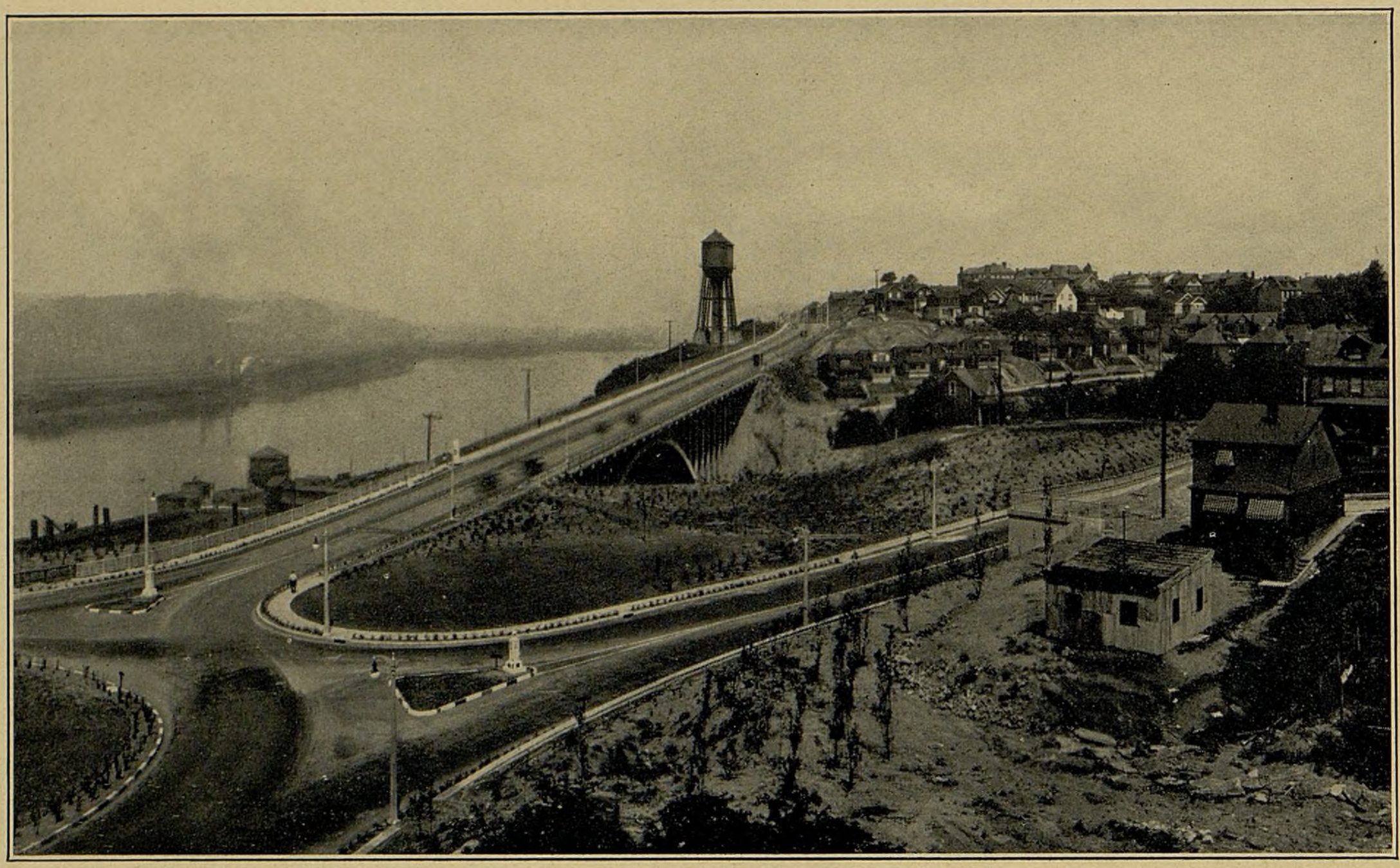
Upper view: Completed Boulevard at the site of the Saint Francis Xavier Church. Note brick pavement; lighting system, and the landscaped embankment.

Lower view: Same site as it appeared July 24. 1930.

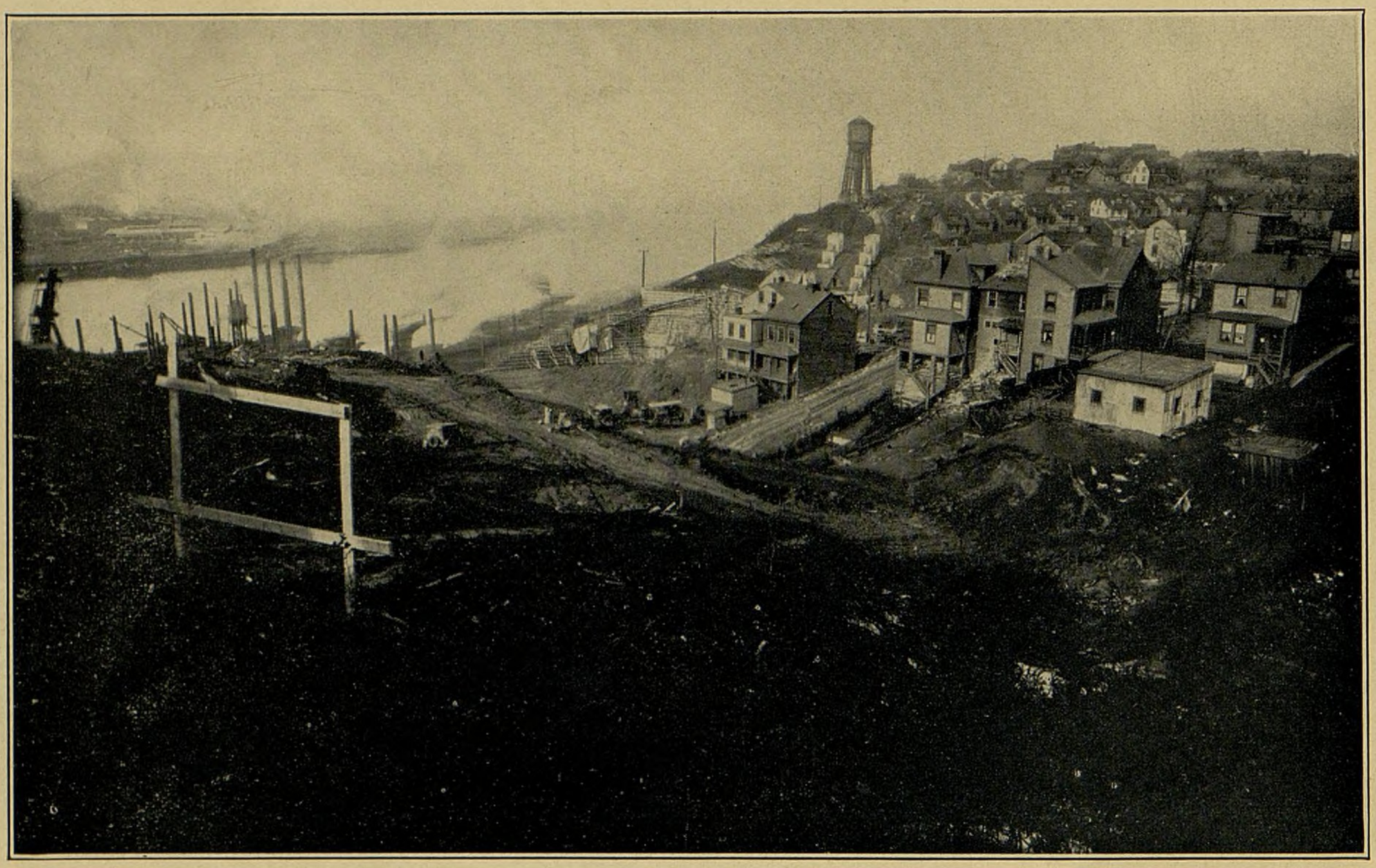


Upper view: Grading operations at the site of Saint Francis Xavier Church. Picture was taken May 28, 1930.

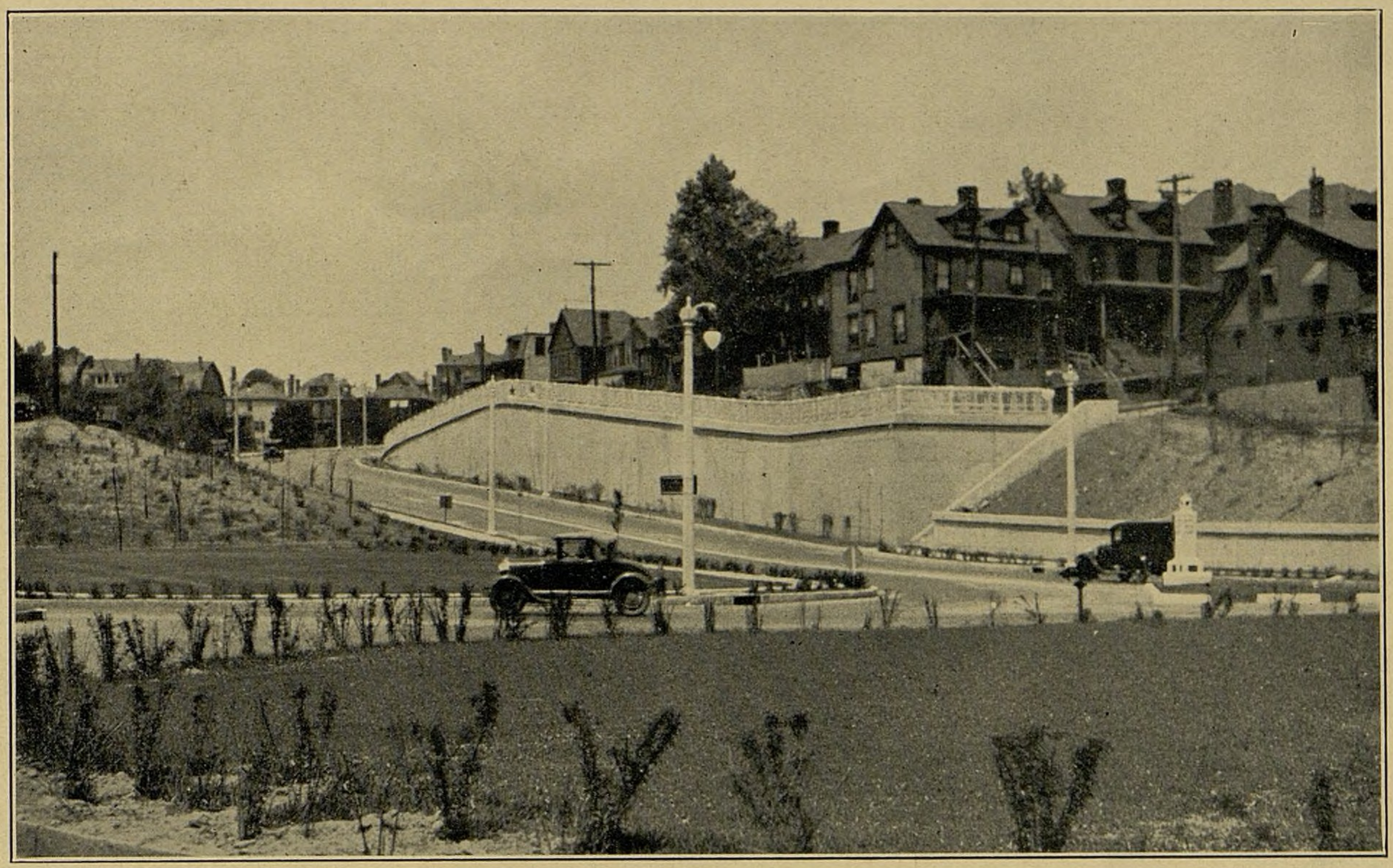
Lower view: This same site before construction work was started, February 18, 1930.



Upper view: Completed Boulevard showing Verner Hollow Bridge and the Termon Avenue Approach to the Traffic Circle.

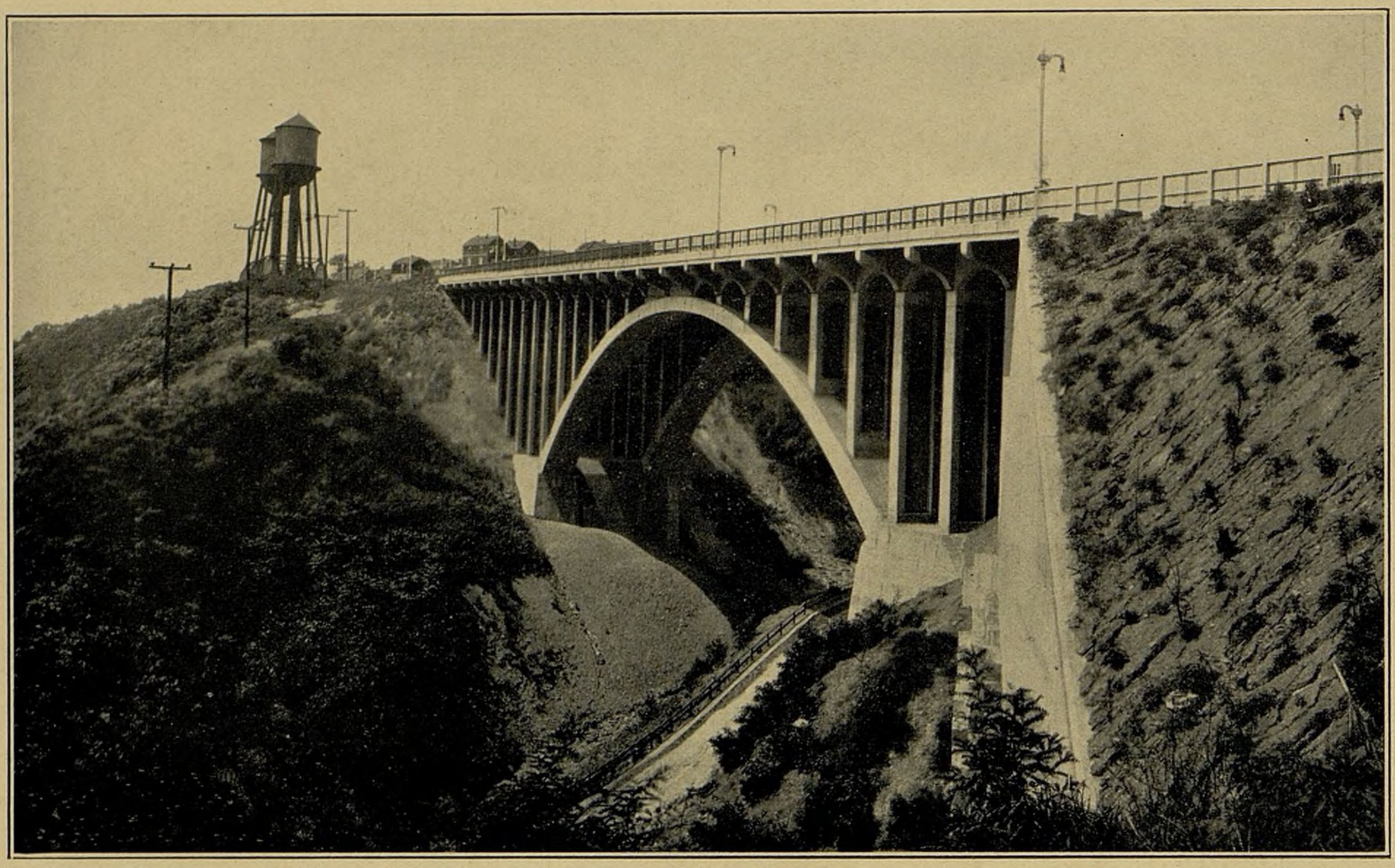


Lower view: Showing conditions at this site as construction work was started, December 31, 1929. This view is now hardly recognizable on the ground today.

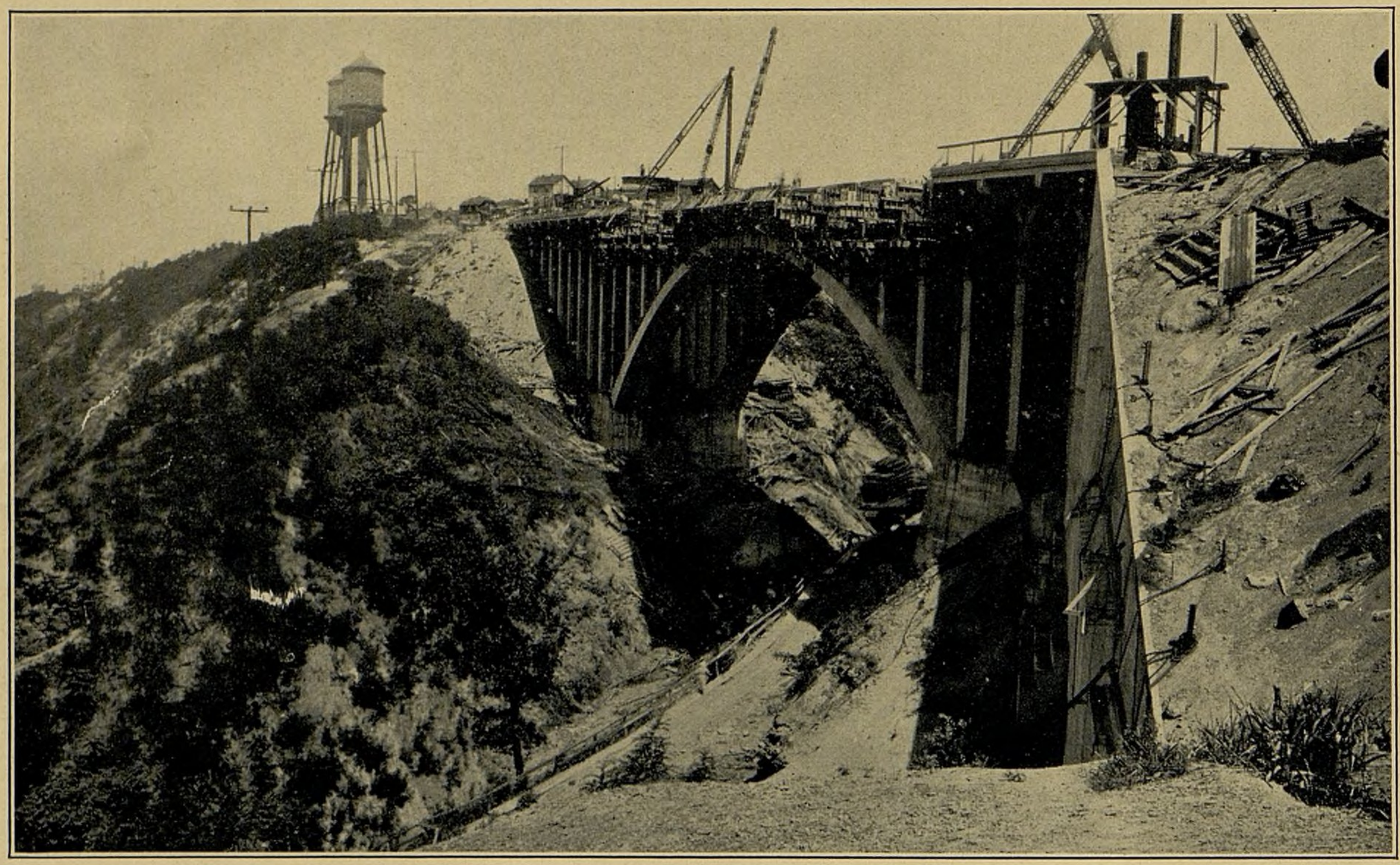


Upper view: Termon Avenue approach to the traffic circle completed.

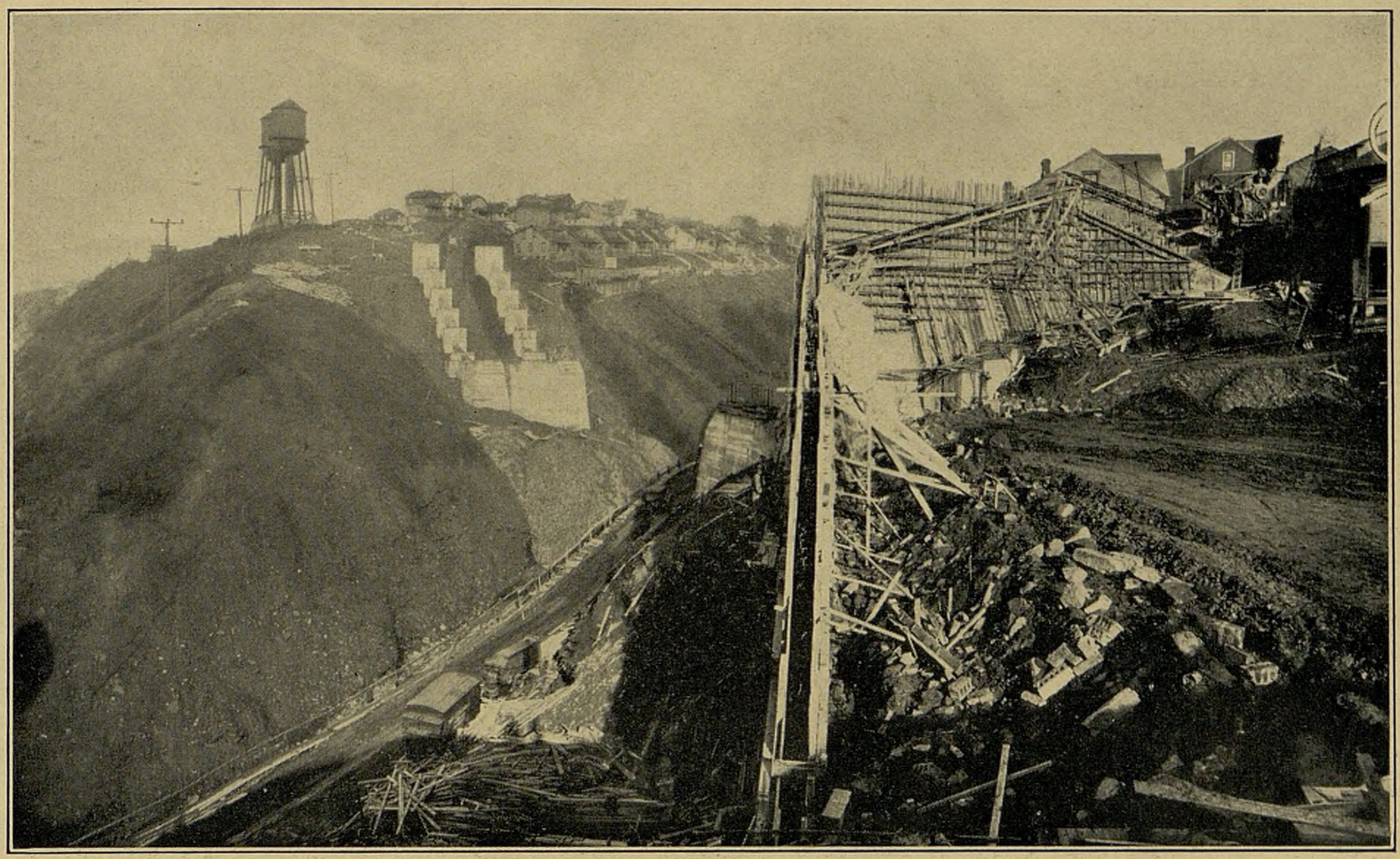
Lower view: Termon Avenue approach as it appeared during its construction stages on February 21, 1930.



Upper view: Completed Verner Hollow Bridge looking up the ravine.

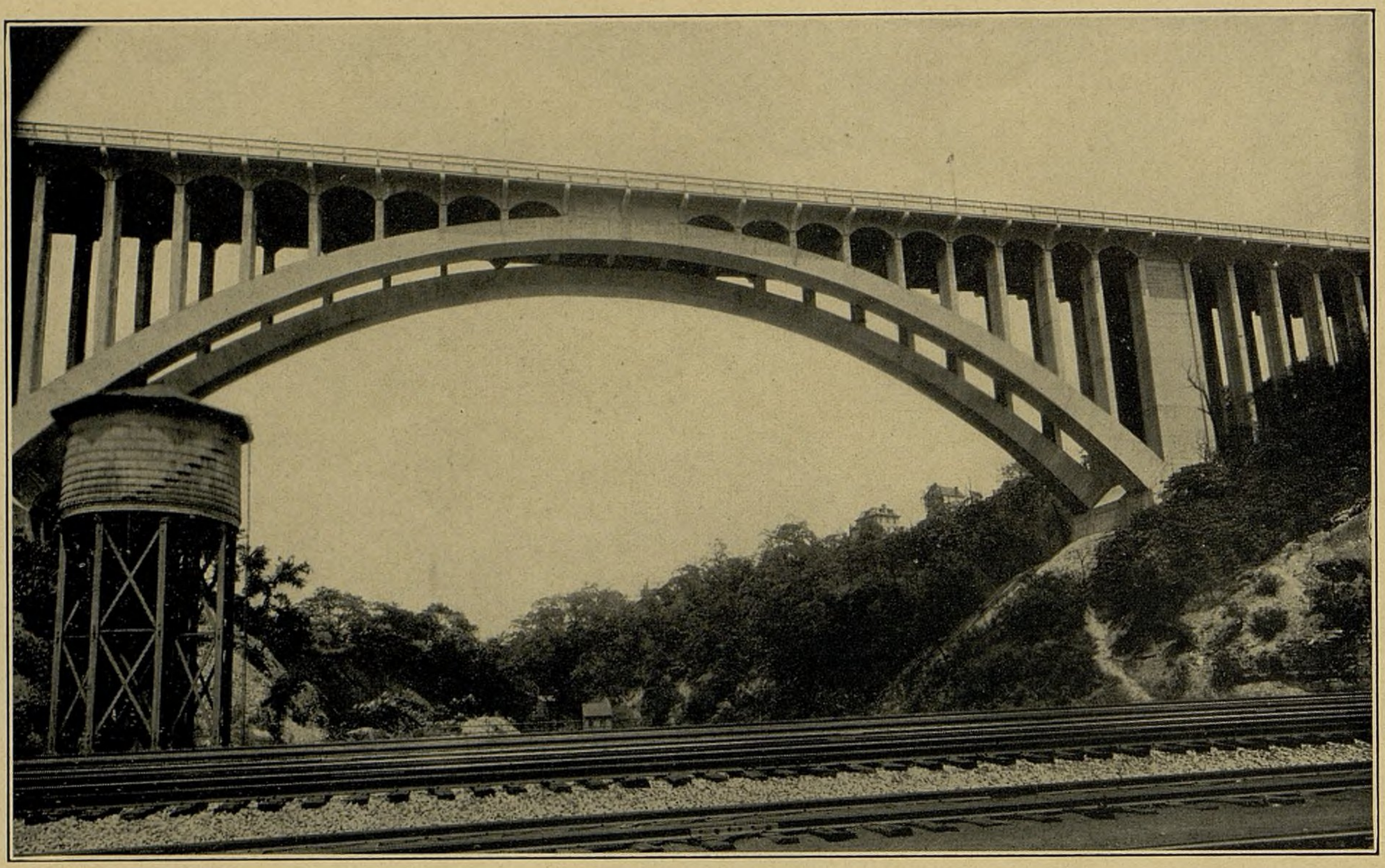


Lower view: Photograph of same site during its construction, August 1, 1930.

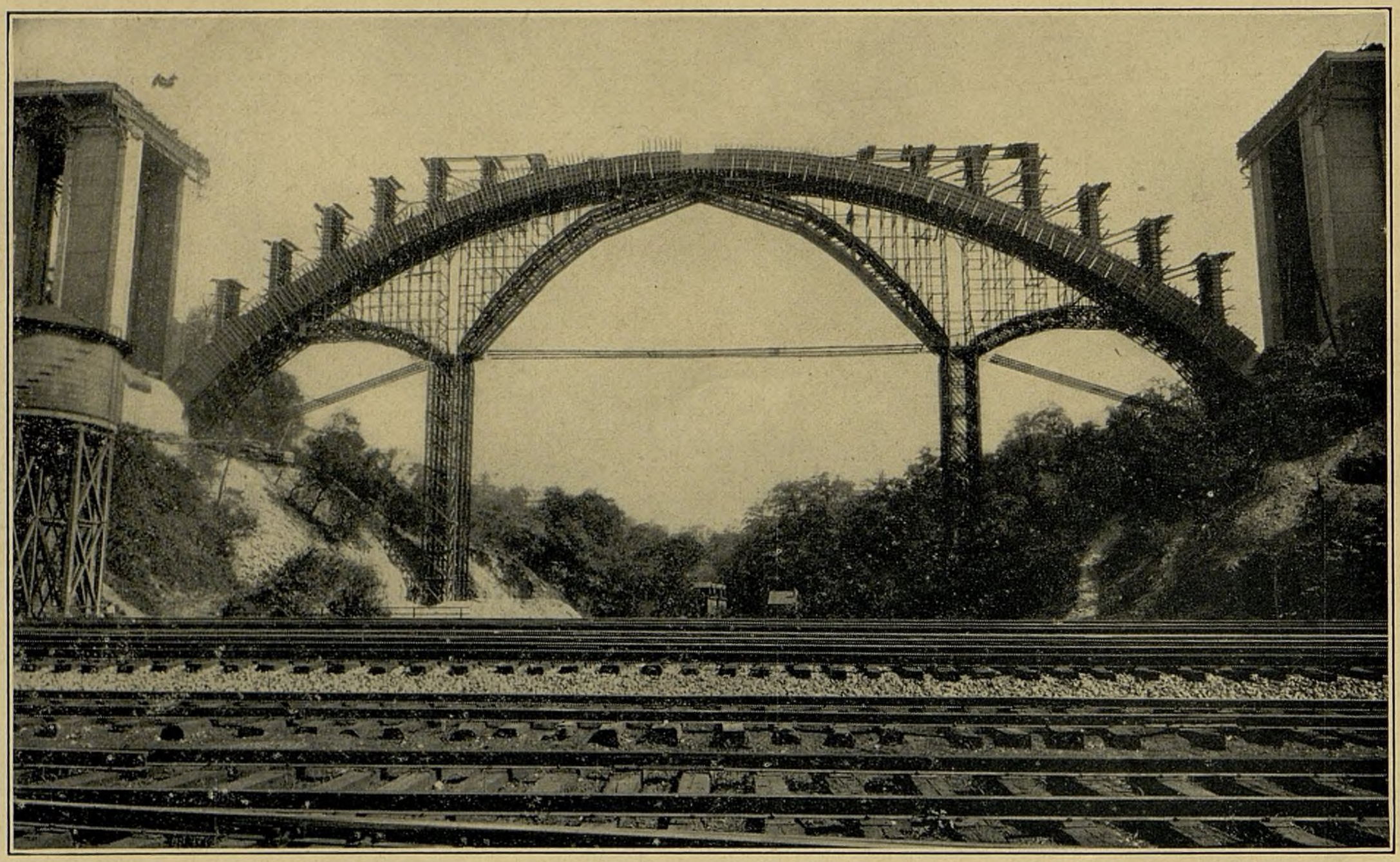


Upper view: Verner Hollow Bridge showing bridge abutments under construction before placement of arch, December 31, 1929.

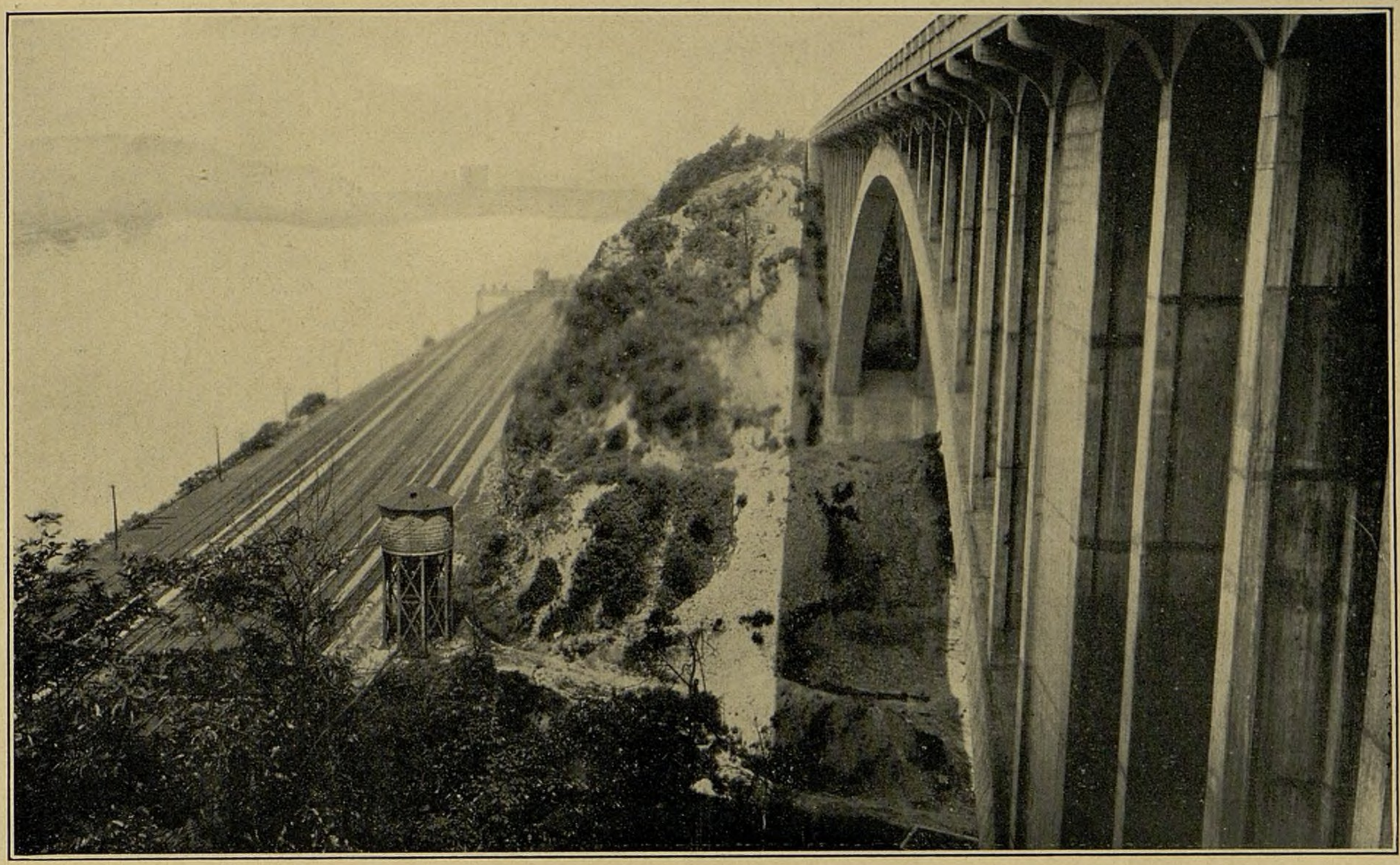
Lower view: View of Verner Hollow before construction work was started, October 17, 1929.

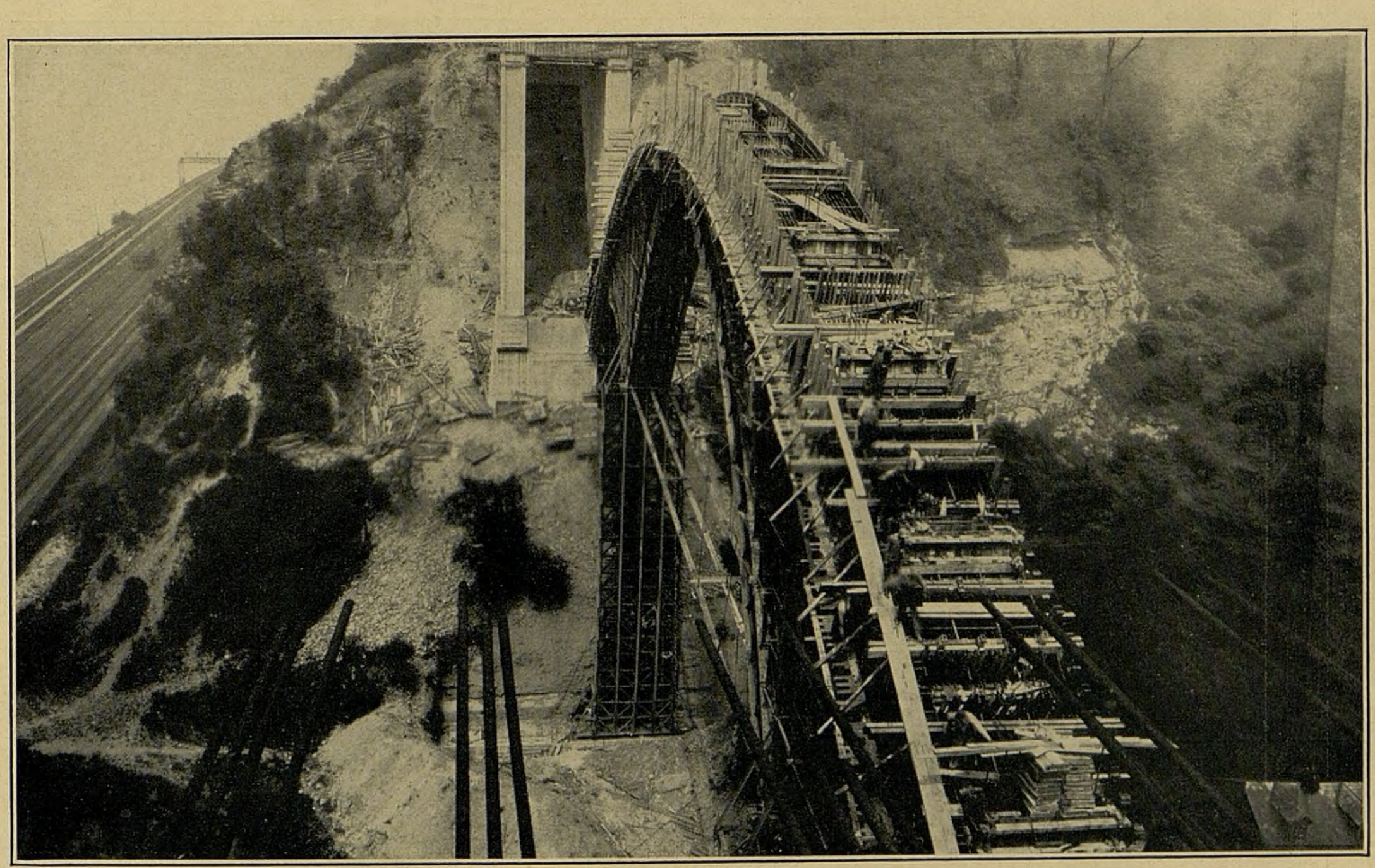


Upper view: Jacks Run Bridge completed. The most costly of all the 10 bridges that were built in the construction of the Boulevard.



Lower view: Jacks Run Bridge under construction, September 10, 1930. Steel arch centering was utilized in constructing the arch.

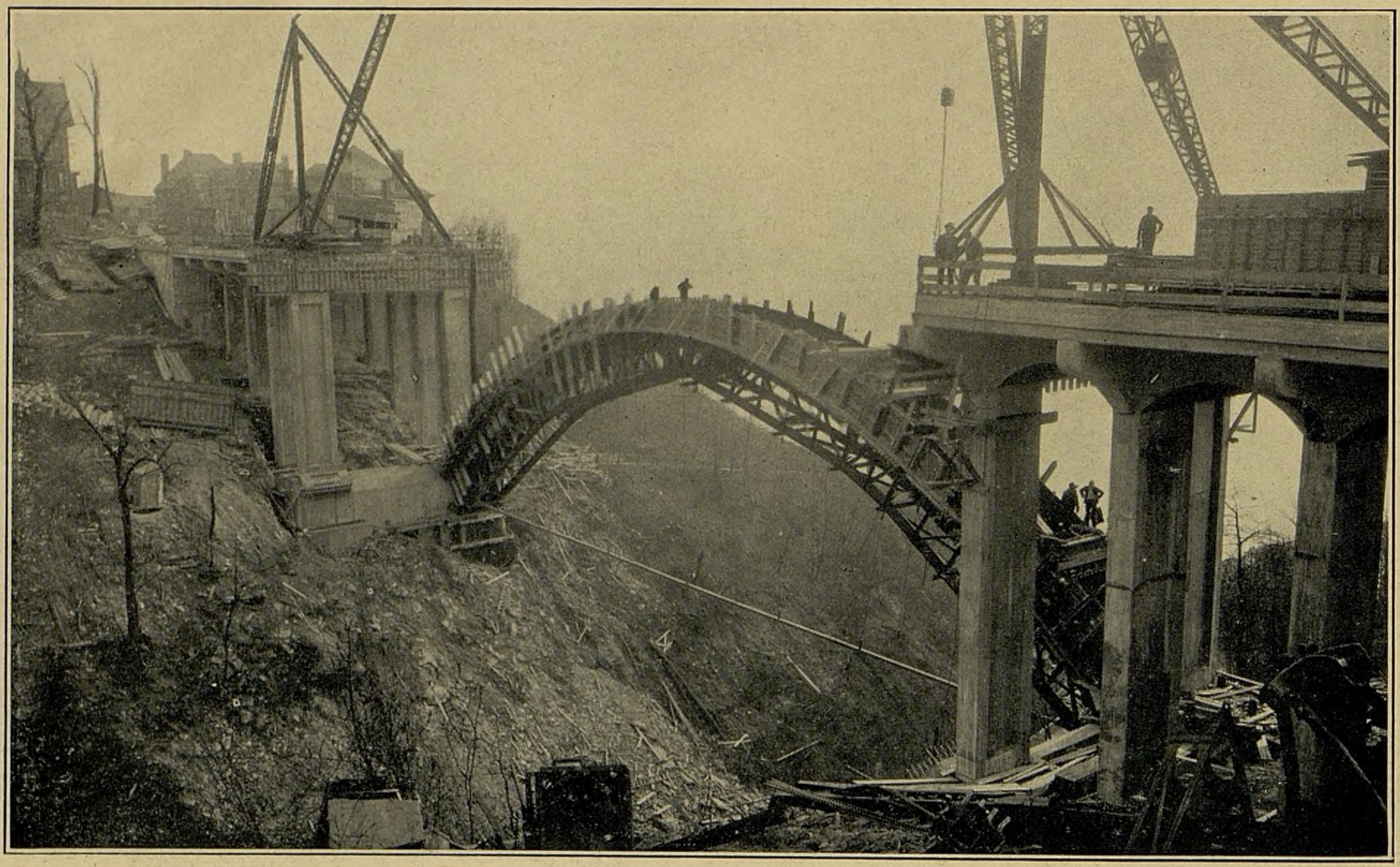




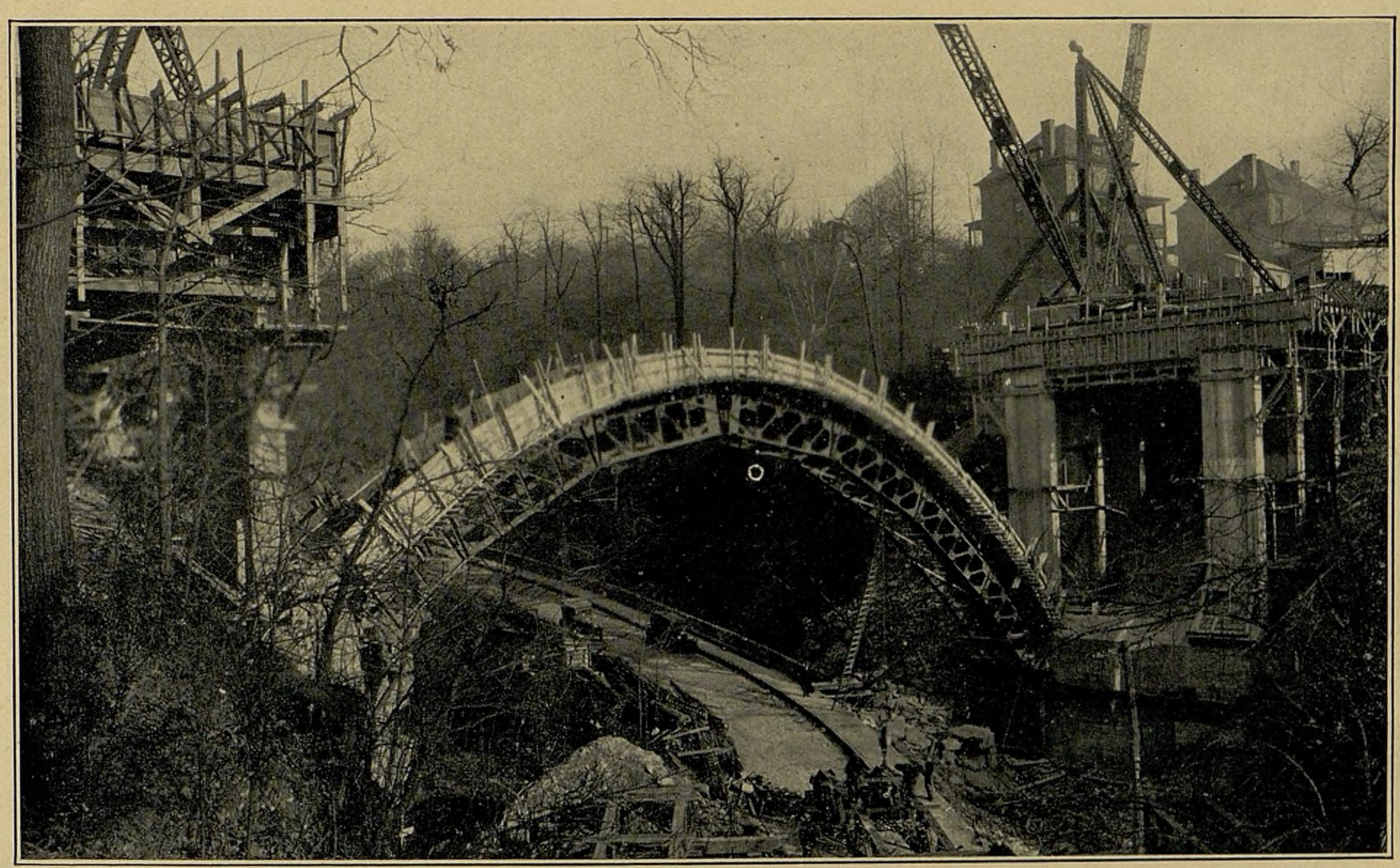
Upper view: Jacks Run Bridge and view looking down the Ohio. This was the deepest ravine spanned.

Lower view: A comparative picture showing system of constructing a concrete arch with portable steel arch centering. August 27, 1930.

Upper view: Fremont Avenue Bridge completed. It is 382 feet long with an arch span of 185 feet.

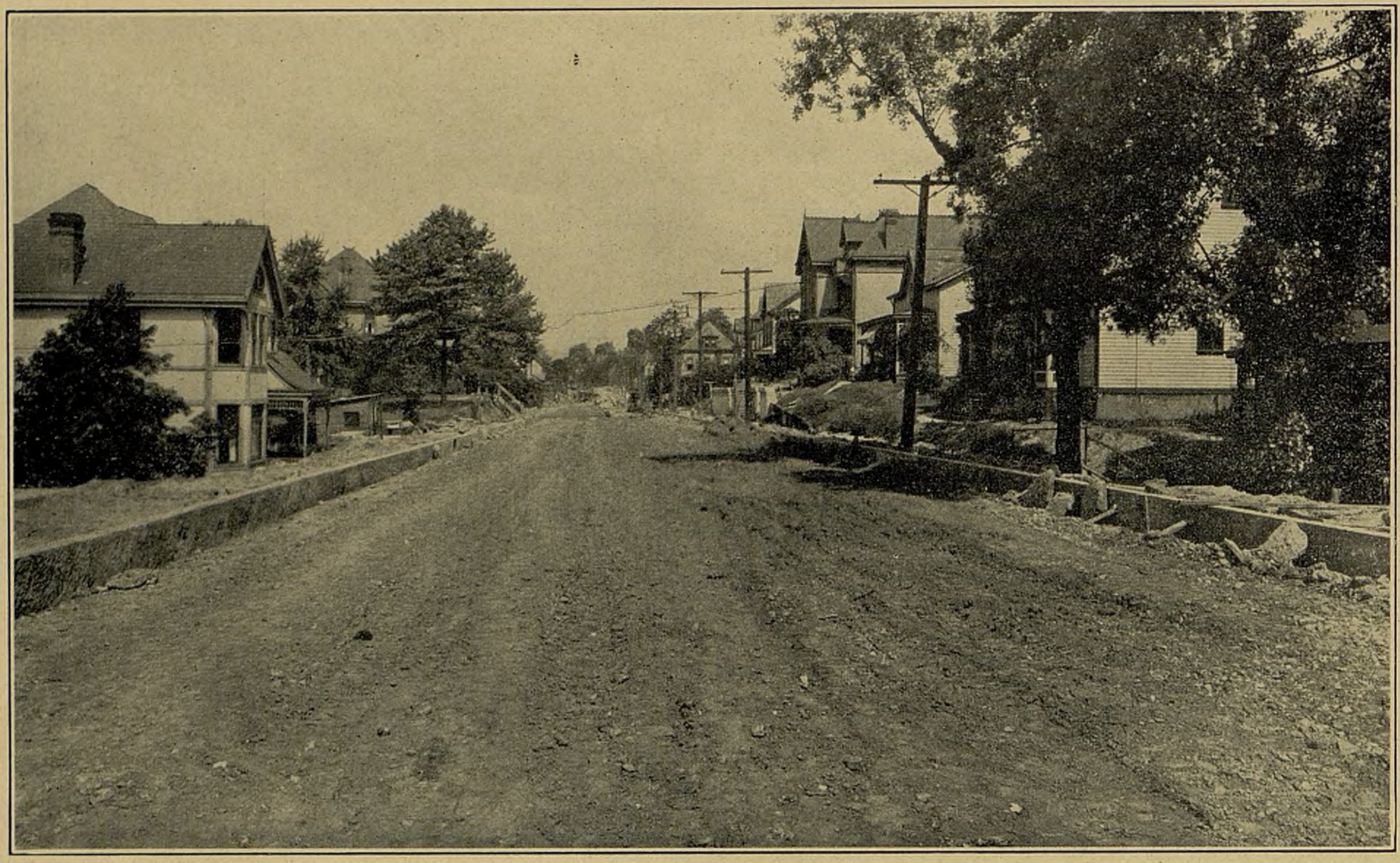


Lower view: Fremont Avenue Bridge under construction showing approaches, derricks and steel arch centering. February 21, 1930.

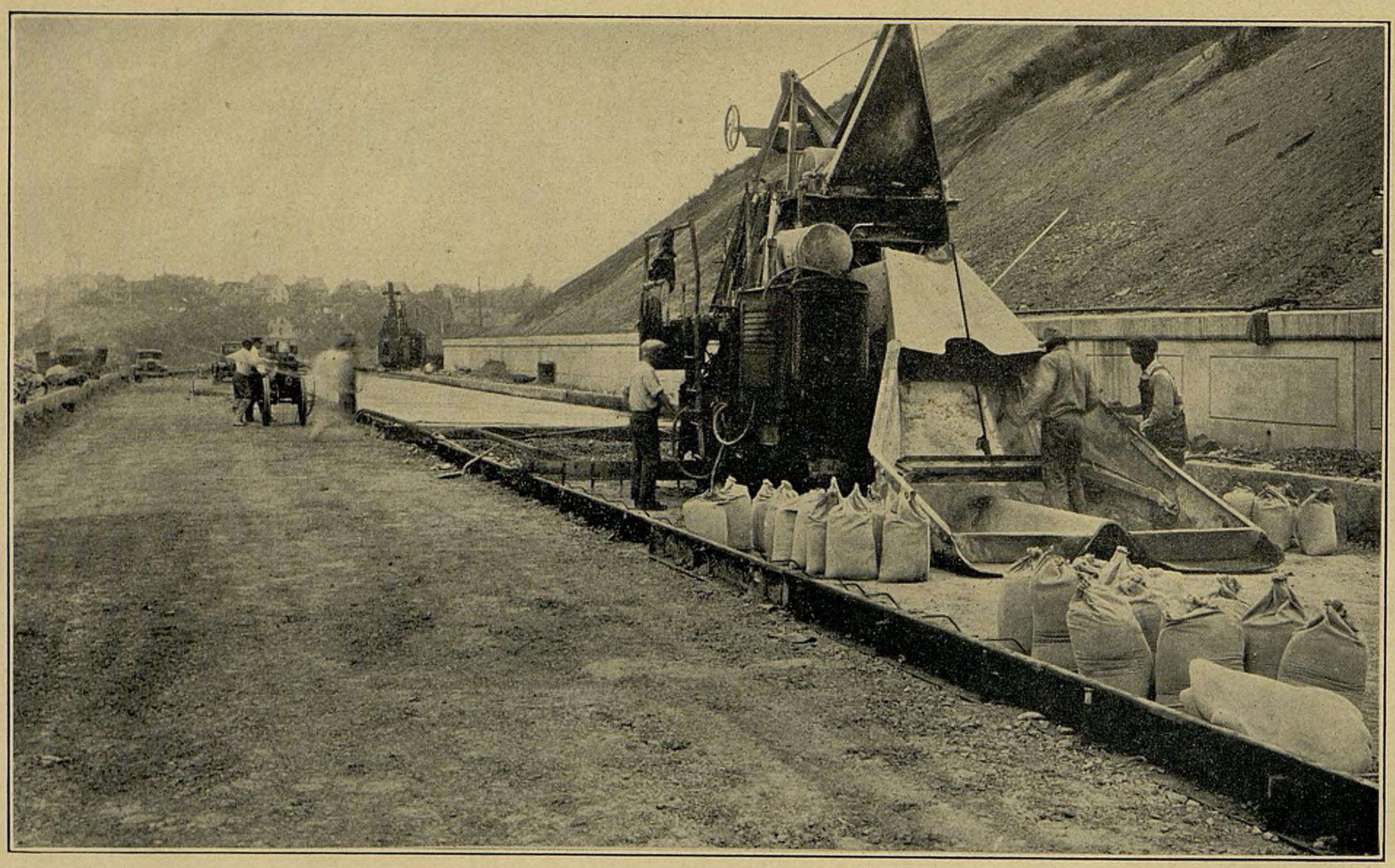


Upper view: The beautiful Dilworth Run Bridge. This view illustrates how the concrete arch structure blends in charmingly with the natural setting of the bridge.

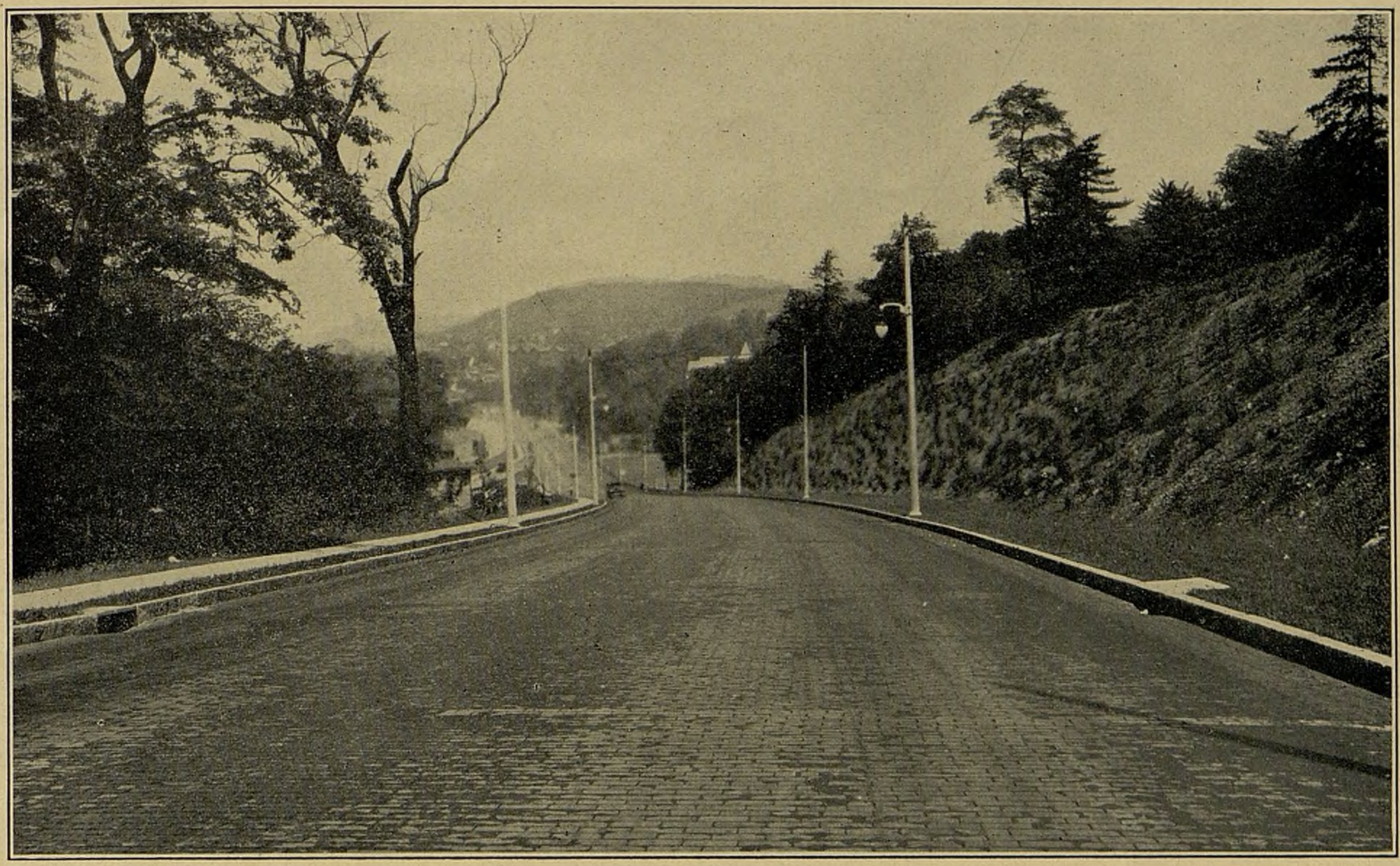
Lower view: A comparative view of Dilworth Run Bridge under construction, November 25, 1929.



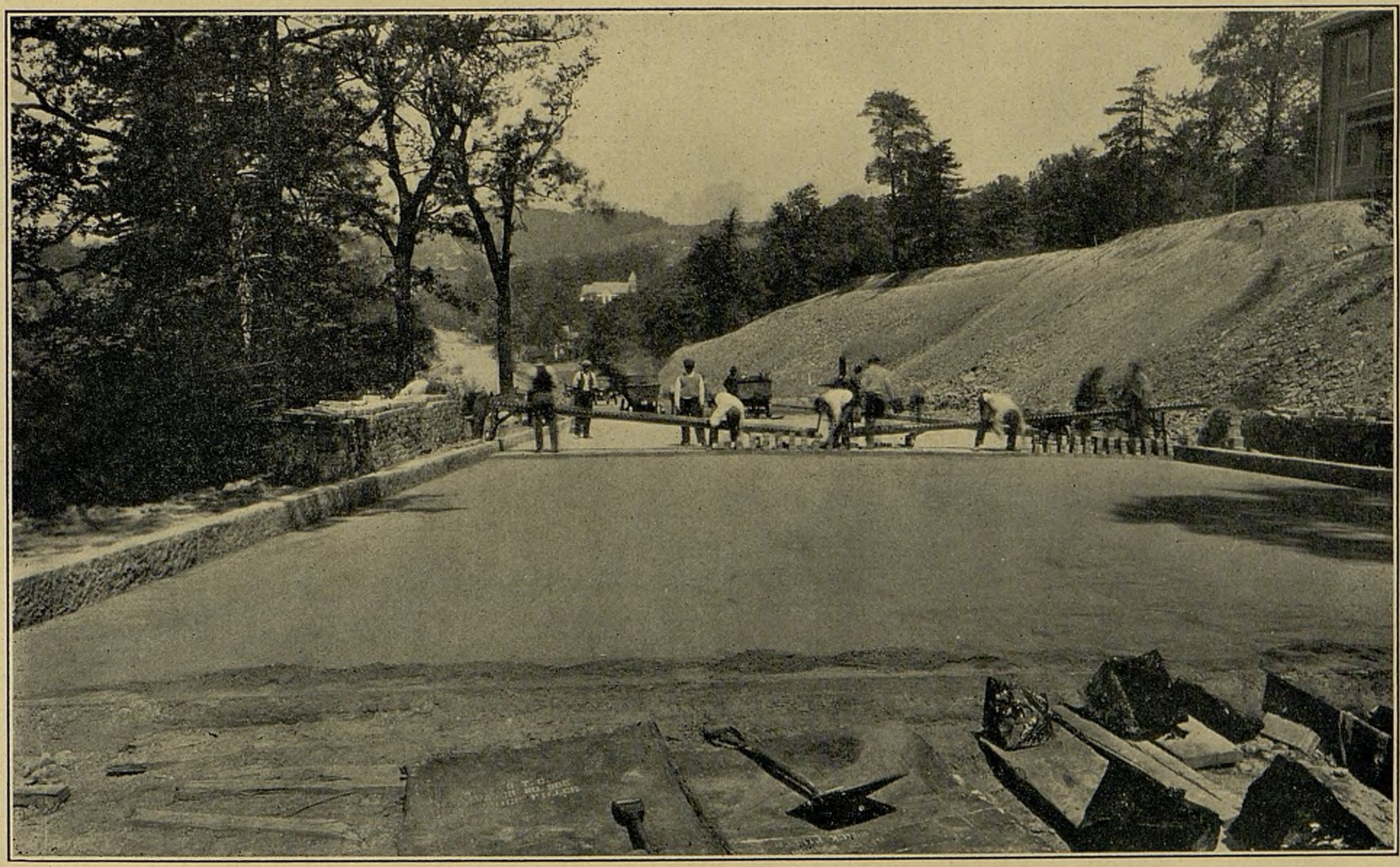
Upper view: Subgrading completed, curbing placed and everything in readiness for laying the concrete, May 28, 1930.



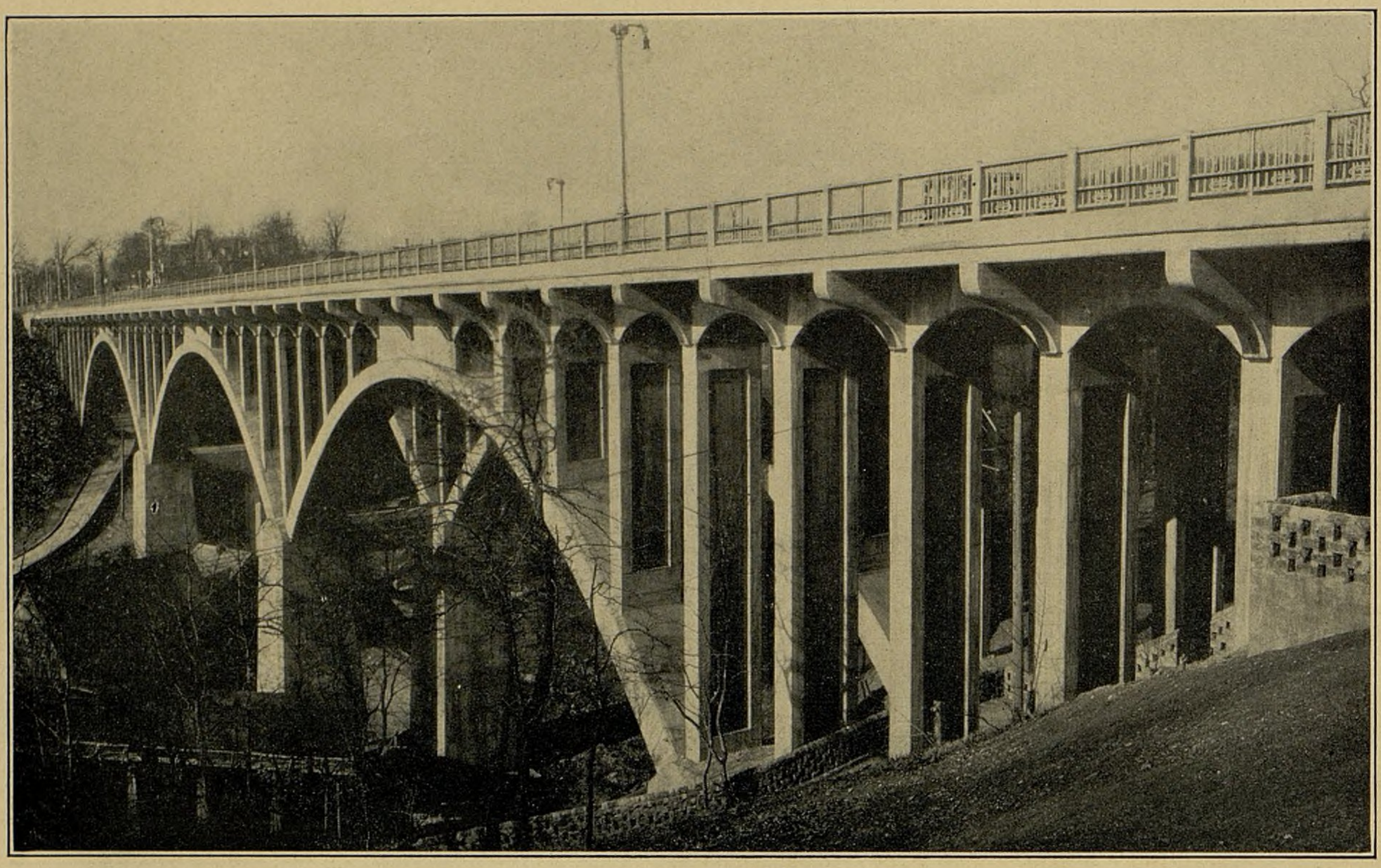
Lower view: How the concrete base course was laid in two separate lanes, September 2, 1930.



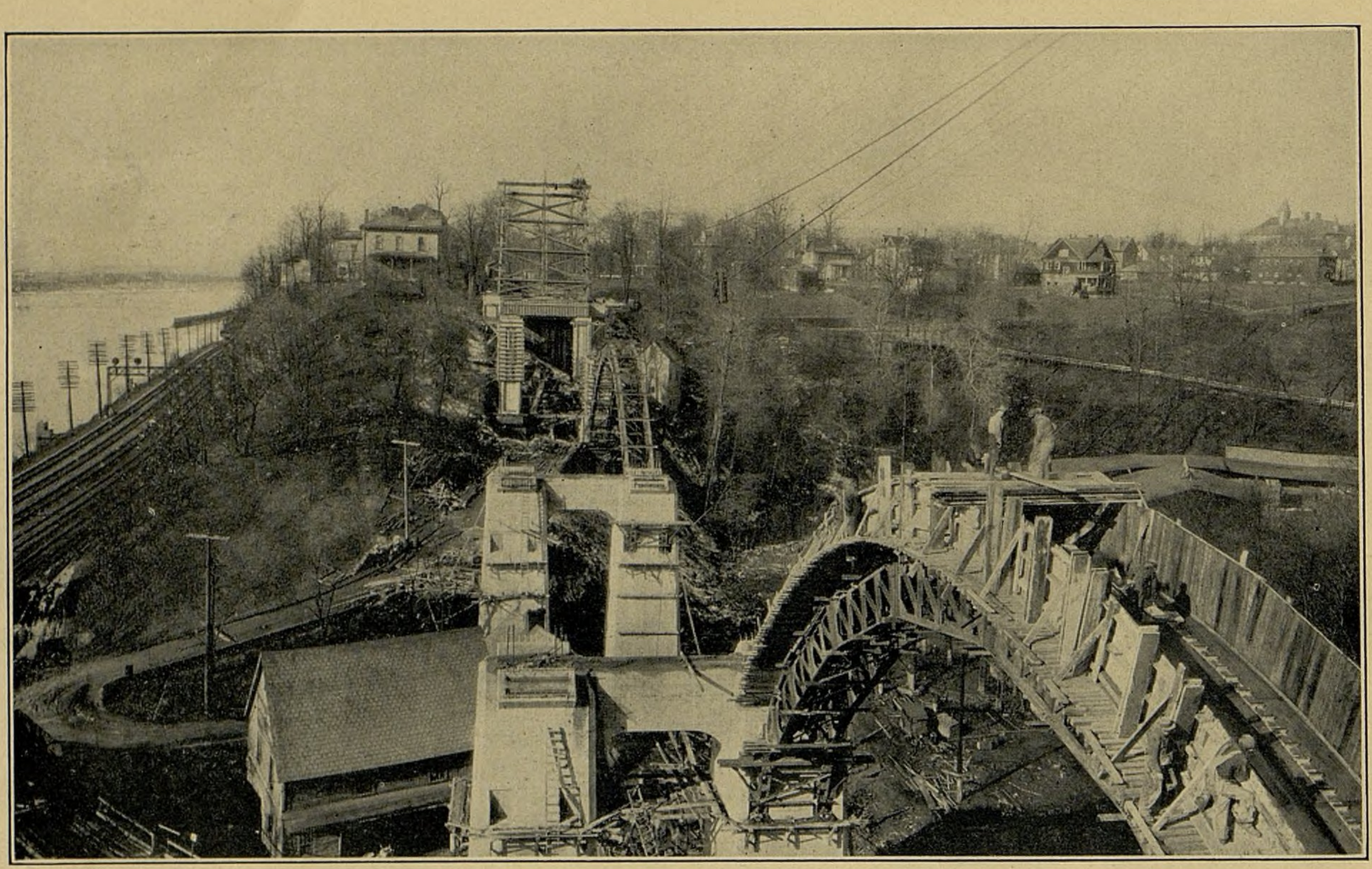
Upper view: Completed stretch of Boulevard near its western terminus. Note brick pavements; lighting fixtures, and landscaped embankment.



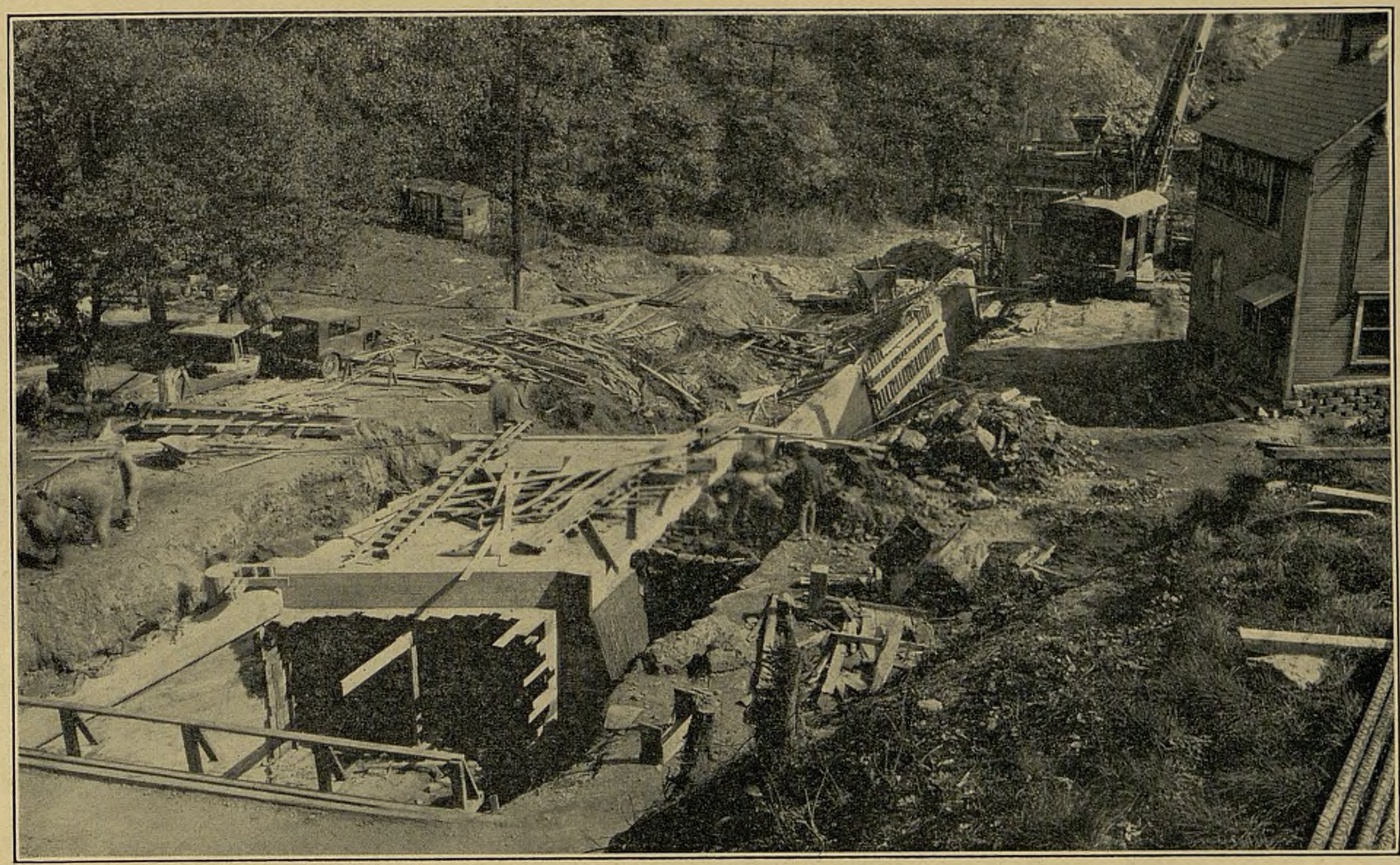
Lower view: Laying the brick pavement and showing sand cushion upon which brick rests. Note the appearance of embankment before landscaping.



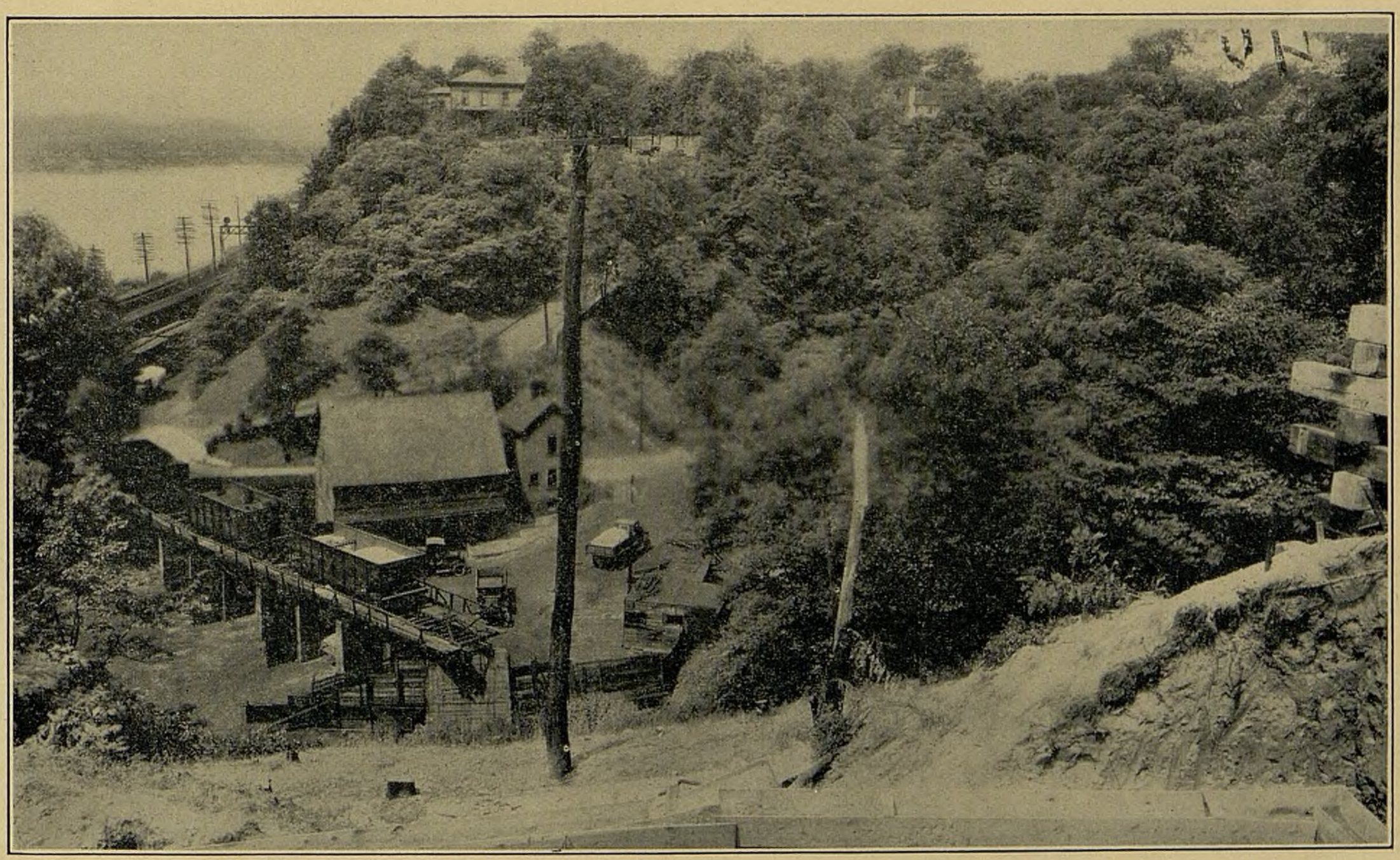
Upper view: Spruce Run Triple Spandrel Arch Bridge, spanning the widest ravine encountered in the construction of the Boulevard.



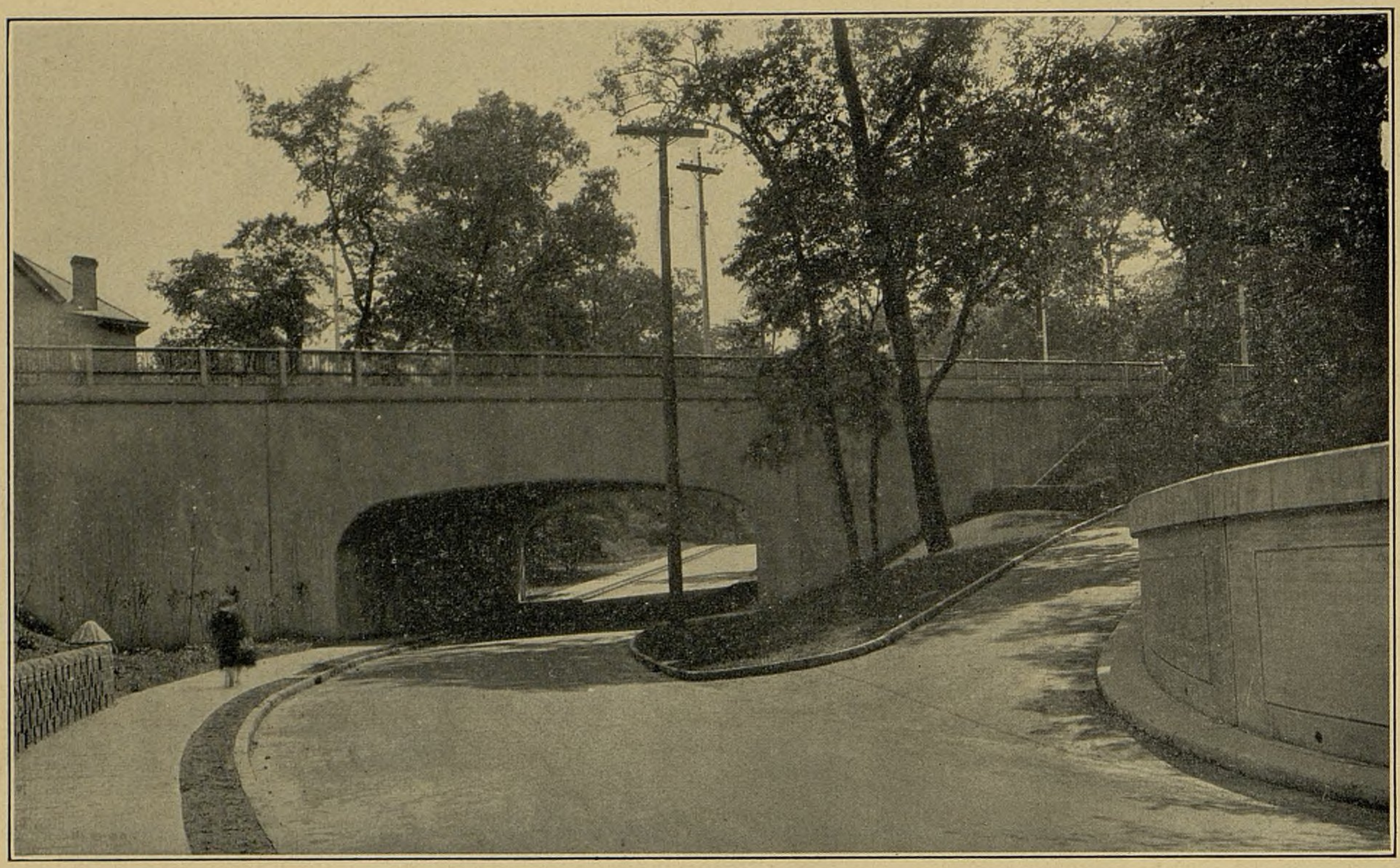
Lower view: The bridge under construction, December 31, 1929. The total length of bridge is 752 feet. Each of the three arches has a span of 150 feet.

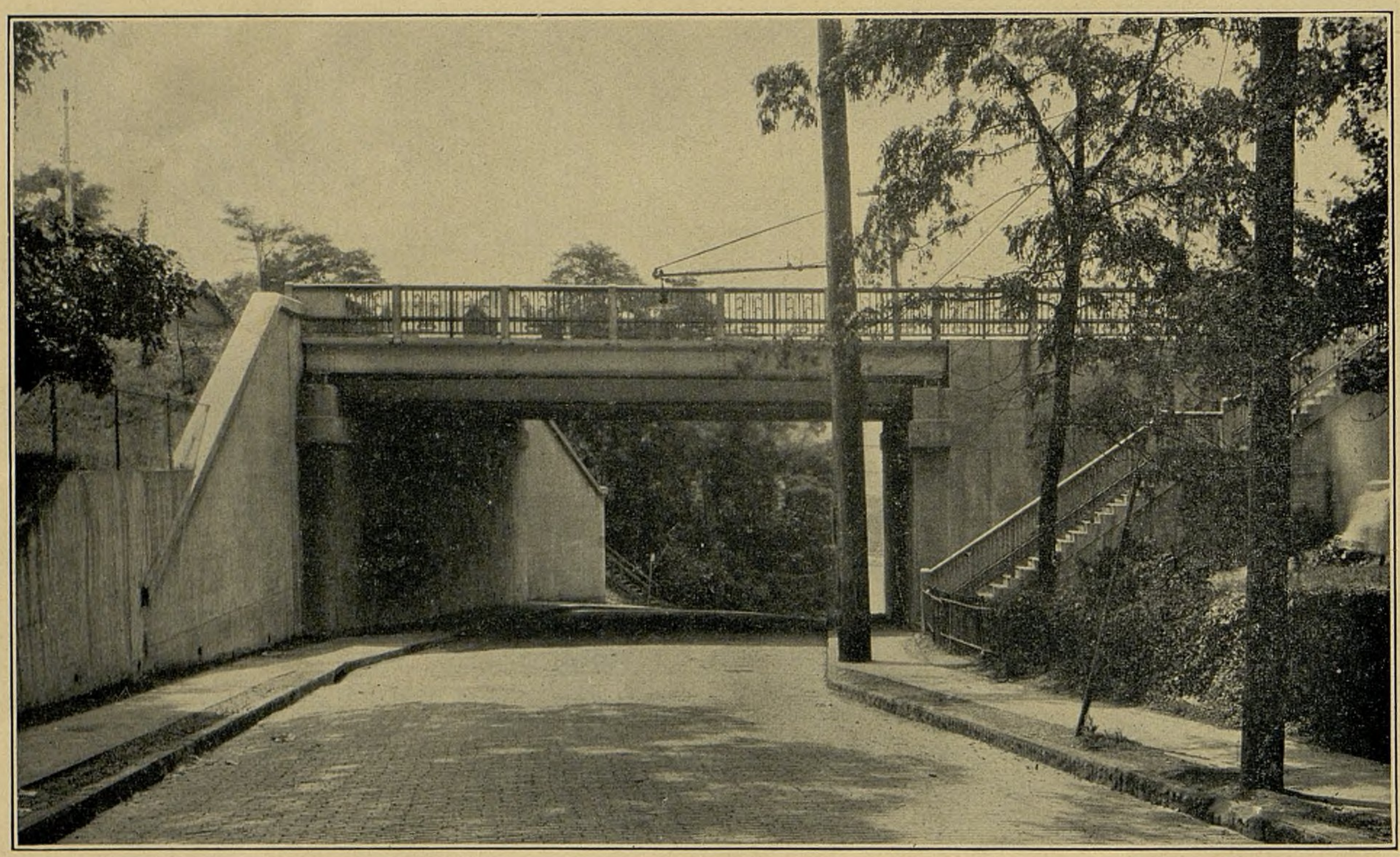


Upper view: A reinforced concrete box culvert which carries Spruce Run down the ravine.



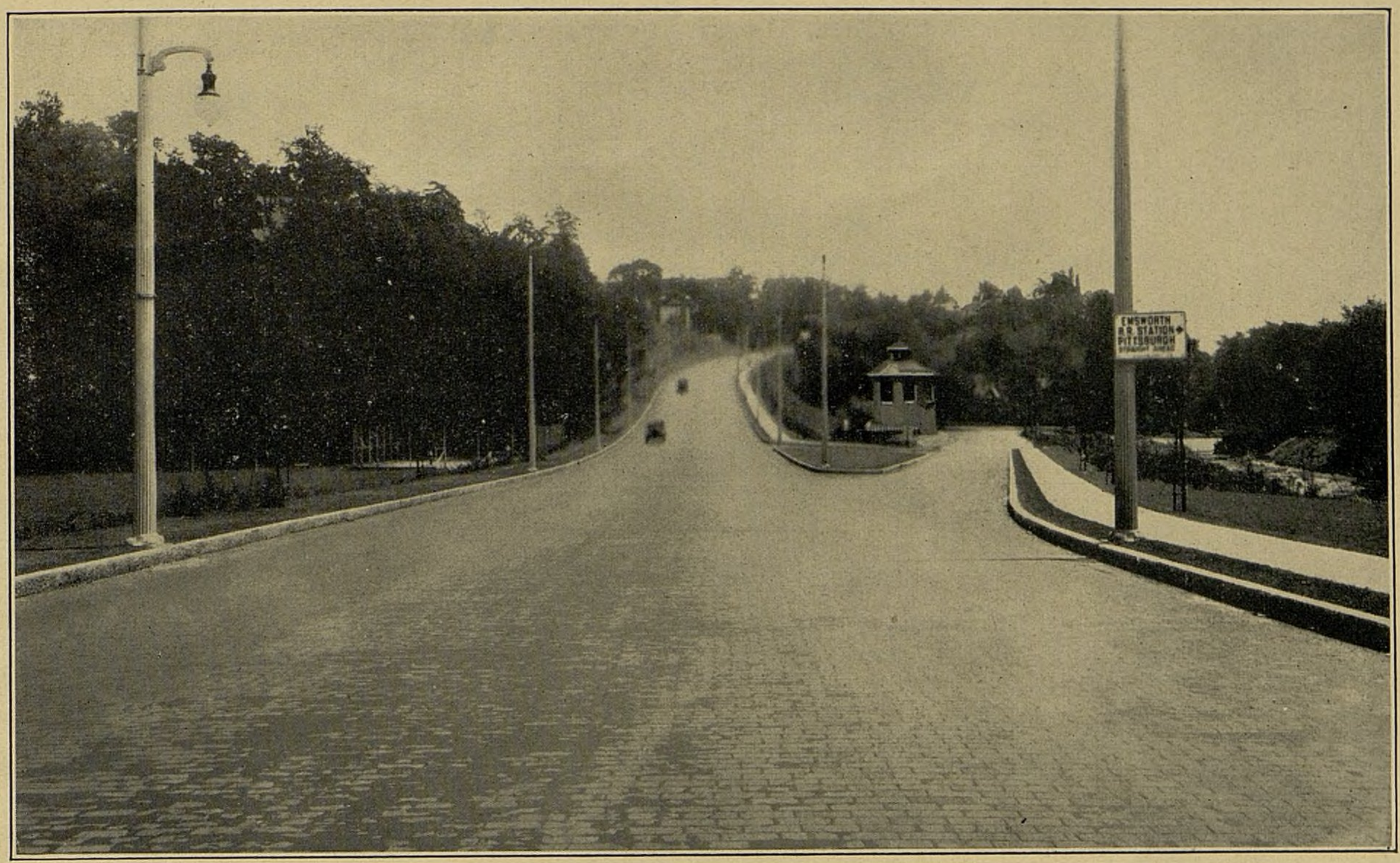
Lower view: Spruce Run Ravine before construction work was started September 2, 1929.





Upper view: Forest Avenue Bridge completed. It is a rigid frame reinforced concrete bridge.

Lower view: South Birmingham Avenue Bridge completed. A plate girder with a span of 45 feet.



Upper view: Near the western terminus of the Boulevard. Note brick pavement, concrete sidewalks and lighting fixtures. New Atlanta Avenue leads off to the right.

Lower view: The same site during construction stages. Note the heavy rock cut to the left and beyond the brick tank which was necessary to bring the Boulevard to grade, November 25, 1929.

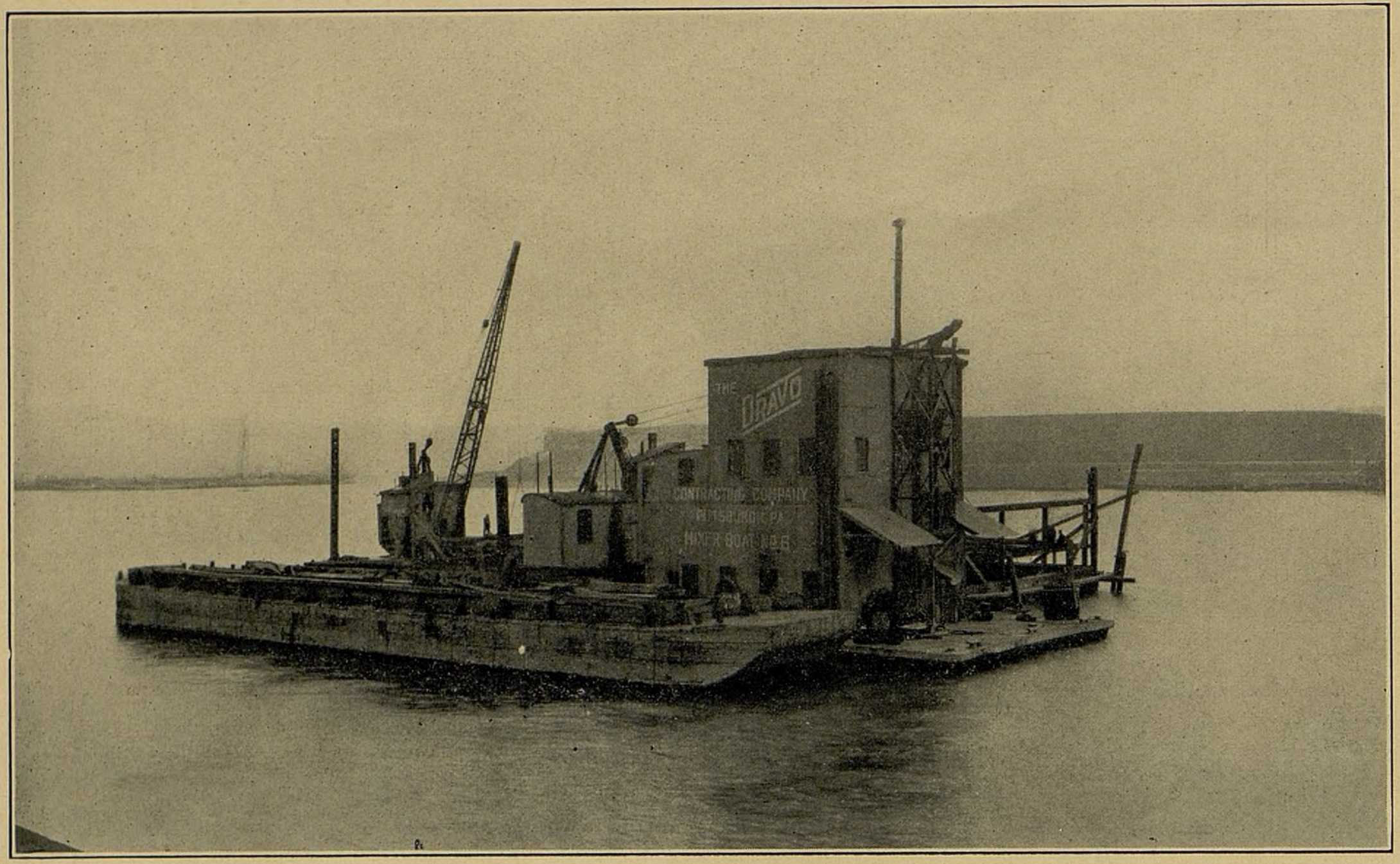
List of Contractors Who Participated in the Construction of the McKees Rocks Bridge and Ohio River Boulevard

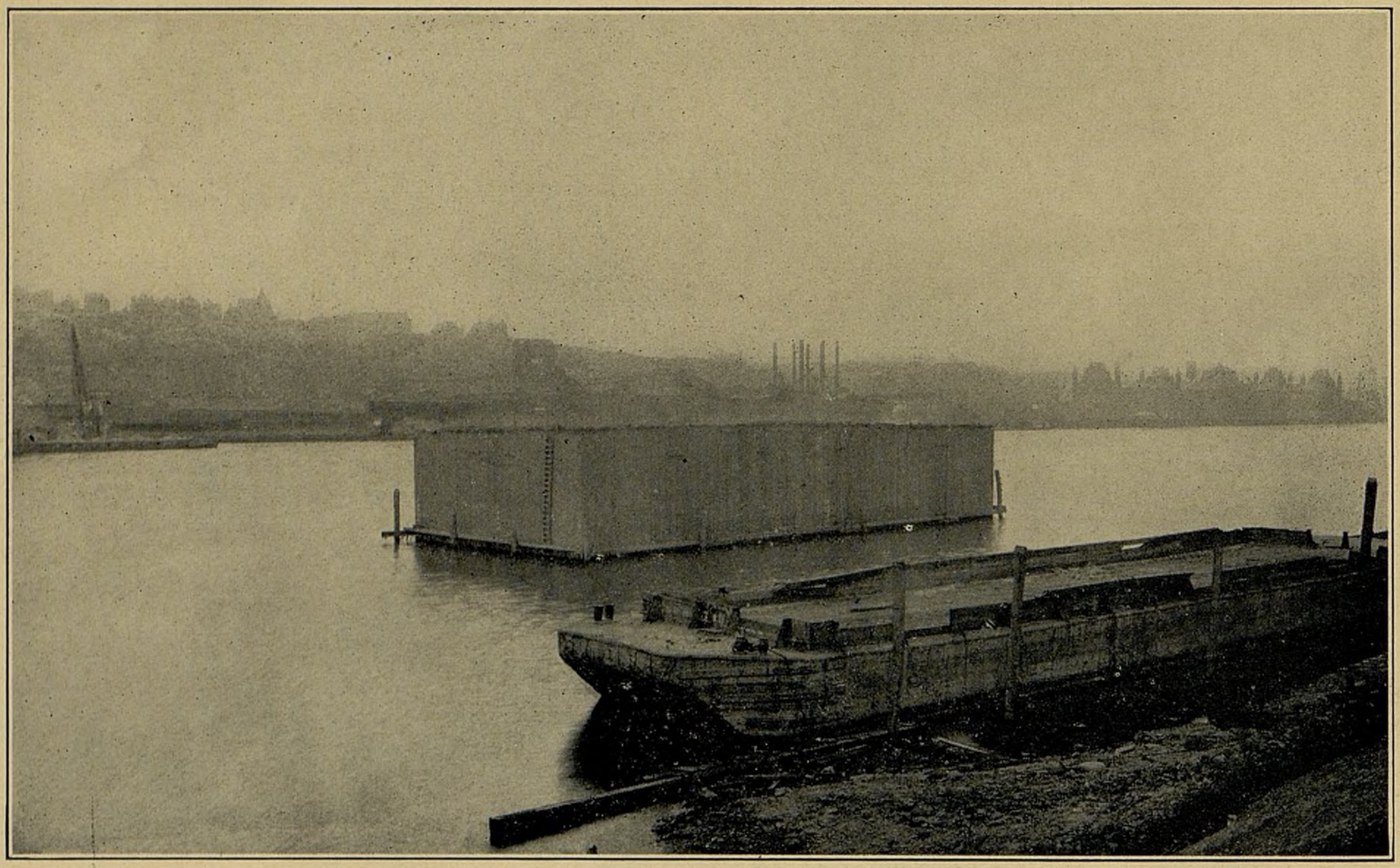
McKEES ROCKS BRIDGE

NAME OF CONTRACTOR	WORK PERFORMED
Dravo Contracting Company	Masonry and approach filling
Fort Pitt Bridge Works	Superstructure
Booth & Flinn Company	Boulevard approach—West
Vang Construction Company	Boulevard approach—East
Harrison Construction Company	Bridge and approach paving
P. E. Hunter	Handrailing
Raphael Electric Company	Electrical work, lamp poles and brackets
Pressed Steel Car Company	Safety Curb Guard
Bardona Nursery Company	Landscaping on approaches
Harry Wimer, Inc.	Utility houses and pylon work
Frank Vittor	Sculptural work—Main pylons
Cement Gun Co., Inc.	Gunite ceiling protection
Sprague & Henwood	Test borings
Delmer Electric Company	Electrical work

OHIO RIVER BOULEVARD

NAME OF CONTRACTOR	WORK PERFORMED
Booth & Flinn Company	Bridge & Road construction—Traffic circle to Emsworth
Vang Construction Company	Bridge & Road construction—Traffic circle to Superior Avenue.
Harrison Construction Company	Road Construction—Superior to Island Ave.
Bardona Nursery Company	Landscaping
Donatelli Granite Company	Granite markers
Pennsylvania Drilling Company	Test borings
Delmer Electric Company	Electrical work
Frank Vittor	Sculptural panels on granite markers
E. M. Diebold Company	Engineers' field offices





Upper view: Contractors equipment at work sinking caisson of the main river pier at Ohio River Boulevard end of the bridge, October 16, 1929.

Lower view: The completed caisson of the main river pier at the McKees Rocks end of the bridge, October 21, 1929.