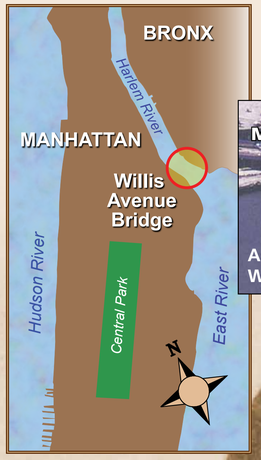
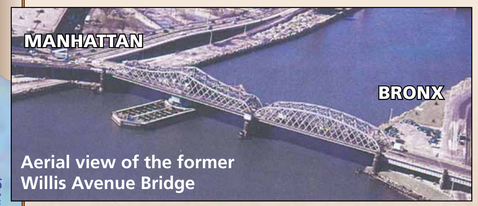
Willis Avenue Bridge

The Harlem River separates the Bronx from Manhattan, and crossing it has always presented a challenge. By 1667 small boats were ferrying people and goods across the river near here, but it was to the north and west near 133rd Street that Coles Bridge, the first permanent link for this southern section of the Harlem River, was built in 1795. Over the years more bridges were built, but even after the Third Avenue Bridge was opened in 1898, traffic demanded another crossing.

Construction of the original Willis Avenue Bridge between First Avenue in Manhattan and Willis Avenue in the Bronx was approved by the Commissioner of Public Works in 1894 with a budget of 2.5 million. Thomas C. Clarke was selected to design the original bridge and at the time the design was criticized by some for its two unmatched river spans. The actual cost of construction was much greater than expected because of additions like incandescent electric lights and cement pavement. After it was finished in 1901, there were additions such as ornamental pedestrian shelters and restrooms on the piers of the swing span for use by the gatemen. Once completed, the bridge was to be operated free of tolls by the newly created Department of Bridges.





Aerial view of the former Willis Avenue Bridge

The bridge carried four lanes of traffic across the two river spans and adjoining rail yard. The west river span was a swing span over the Harlem River that opened to allow tall boats to pass through the important Harlem shipping channel. The east span was fixed over the barge and rail operations along the shore and in the Mott Haven Rail Yard of the New York, New Haven and Hartford Railroad.

In 1914, the two steam engines that operated the swing span were replaced by electric motors. The bridge originally carried two-way traffic but was later converted to one-way traffic Bronx-bound in 1941. In the 1950's the bridge was connected on the Manhattan side to the new FDR Drive. The original Willis Avenue Bridge was removed and replaced with the current structure between 2007 and 2012. The new swing span is centered on the river, eliminating the need for an adjoining fixed truss river span.

Horse and wagon traffic crossing into Manhattan on the former Willis Avenue Bridge, right after it was built in 1901. (From Thomas X. Casey Collection.)

Original Willis Avenue Bridge Facts:

Designed by Thomas C. Clarke, built between 1897-1901
Length of swing span – 304 Feet
Length of fixed span – 240 Feet
Width of bridge – 60 Feet
Clearance at center above high water – 24 Feet
Steel used in structure – 6,213 tons
Cost of original structure – $2,500,000

Since 1976 the New York City marathon has run through all five boroughs. In the 2008 Marathon, approximately 37,900 runners crossed the Willis Avenue Bridge.

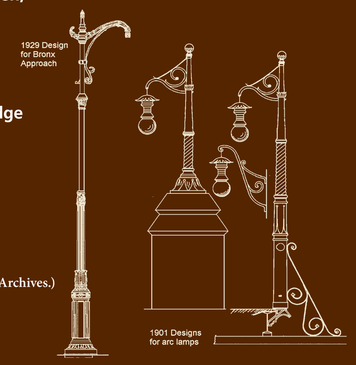
Remnants of this former swing bridge have been saved. A massive arched stone pier has been left standing in the Bronx Railyard. Large stone blocks from the demolition of the bridge have been reused at Brooklyn Bridge Park and for benches in Harlem River Park.

In 1908 the old horse cars of First Avenue were replaced by electric street cars. The new trolley line extended from the Willis Avenue in the Bronx, over the former Willis Avenue Bridge, and down First Avenue. (From Bill Armstrong Collection.)

With the swing span open, an electric trolley is stopped on the Manhattan approach, as viewed from the open swing span of the former Willis Avenue Bridge – ca.1930. (From Bill Armstrong Collection.)

Gatemen's booths were built to house the steam engineman who operated, cleaned, and repaired the former bridge and mechanisms. In addition, it took four stokers to man the steam engines, twelve bridgetenders, two linemen, one foreman, and six laborers to operate and upkeep the bridge.

Former Willis Avenue Bridge lamp designs.



(From MTA Archives.)