

# VETERANS MEMORIAL BRIDGE & SUBWAY

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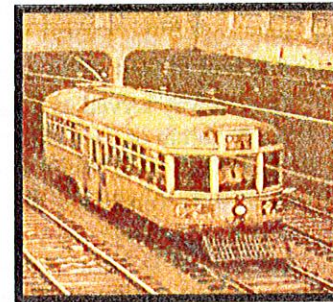
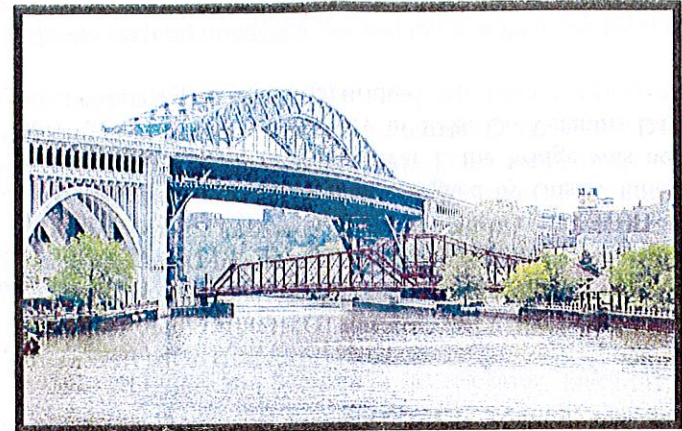
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## HISTORY

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**The World's Largest...** At the time of its completion in 1918, the Veterans Memorial Bridge (originally known as the Detroit-Superior) was hailed as the world's largest double-deck concrete reinforced bridge. The 3,112 foot long structure links Detroit and Superior Avenues over the flats of the Cuyahoga River Valley in downtown Cleveland. It consists of 12 concrete arches, varying in size from 58 to 174 feet, and an overhead steel arch span that is 591 feet long and 196 feet tall. Clearance for river vessels is 96 feet.

**Two Decks...** Over the years, the bridge has conveyed the pulse of a modern city. By 1930, the upper deck, opened to automobile traffic on Thanksgiving Day 1917, carried an average daily traffic volume of 70,000 vehicles. The lower deck, opened on Christmas Day 1917, held four streetcar tracks. On the west side, streetcars entered and exited the bridge through tunnels beneath West 25<sup>th</sup> Street and Detroit Avenue. To the east, just off Public Square, a tunnel system containing four tracks (two in each direction) ran down the center of Superior Avenue. The streetcars swayed back and forth as they traversed the open steel of the river span.

**Below the Surface...** The "Subway" contained six station areas, four restrooms, an electrical control center and pedestrian tunnels that provided access from one side of the Subway to the other beneath the tracks. Pedestrian entrances were located at each end of the bridge as well as through the Forest City Savings & Trust Building located at the intersection of West 25<sup>th</sup> Street and Detroit Avenue. The Subway served as a major hub for commuter transportation until the discontinuation of streetcar service on January 24, 1954. After the closure of the lower level, there was much speculation about its future use. In 1957, a study concluded that the old streetcar area was unsuitable for automobile traffic. Over the years, many ideas about commercial development and a new streetcar system were discussed but never initiated. Public tours of the historic lower level were first conducted in 1988.

**Construction...** Started on June 4, 1912, the bridge was constructed from 2,123,300 cubic yards of concrete and 9,385,000 pounds of steel. When the last section of trusses in the river span was erected, the two halves (each 290 feet long and weighing 2,000 tons) lined up within an eighth of an inch. The difference was easily corrected by readjusting support cables. Total cost of the construction was \$5,398,000.00. Designers included County Engineers A.B. Lea, Frank R. Lander and W.A. Stinchcomb, original developer of the Cleveland Metroparks.

**Rehabilitation...** To improve travel across the bridge, the upper deck was replaced and widened from four to six lanes. The project was built from 1967 to 1969 and involved the construction of cantilever deck supports to hold two new outside lanes and sidewalks. Total cost of this work was \$7,378,000.00. From 1995 to 1997 the bridge was closed for a \$50,000,000.00 rehabilitation project. Improvements included replacement of the upper deck, repair and replacement of steel members, restoration of deteriorated concrete, removal and replacement of sections of the lower deck, drainage reconstruction, installation of new highway and decorative lighting systems, placement of ornamental railing and painting of the structure. Since 1915, three construction workers have been killed on the bridge.

**Historical Notes...** Listed on the National Register of Historic Places in 1976, the bridge has been compared to the Queen Maria-Pia Bridge over the Douro River in Oporto, Portugal (1877) and the Garabit Viaduct over the Truyere River near Ruines France (1886), both designed by Gustav Eiffel. Because of America's involvement in World War I, the bridge was not officially dedicated until its 70th Anniversary in 1988. On Veterans Day 1989, it was renamed the Veterans Memorial Bridge.