WOODROW WILSON MEMORIAL BRIDGE

Location:
Alexandria, Virginia
Washington D.C.

Owner:
Maryland DOT and Virginia DOT

Client:
Joint Venture - American Bridge & Edward Kraemer & Sons

Construction Cost:
$600 Million

Completion Date:
2008

Project Description

The Woodrow Wilson Memorial Bridge on I-95/I-495 over the Potomac River is a vital link between Virginia and Maryland. The bridge consists of 6 travel lanes in each direction and carries over 200,000 vehicles per day. The $600 million Bridge was featured in numerous national technical publications and the Discovery Channel "Extreme Engineering" and the National Geographic Channel "Mega Structures". The outer loop is shown in the picture.

JSE was hired by the Contractor to provide construction engineering services on both the 270' bascule span (Draw Bridge) over the main channel and the 3,300' long, 9 span Maryland approach structure. JSE produced over 6000 sheets of integrated shop drawings, developed the structure's geometry control and calculated design stresses for all bridge elements during construction. JSE designed the steel falsework sections for each pier face of the bascule span. The 70' tall by 30' wide steel falsework sections were movable and reusable. JSE's construction engineering and falsework design innovations produced significant cost savings to the Contractor.

Project Data:

Total Length:	559 ft Bascule with Delta Frames over 270 ft Clear Channel
Number of Spans:	3322 ft. Maryland Approach, 9 spans
Width:	2 x 6 lanes = 12 lanes