

History and Heritage Committee Update

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One of the major goals of the HHC is to increase the recognition of the Historic Civil Engineering Landmarks (HCEs) and encourage the nomination of new HCEs in our state. California currently has 15 National HCEs, and over 70 local HCEs, but there are many more historic civil engineering projects that are worthy of being nominated. Two that are in the nominating process for National HCE status are Crystal Springs Dam in the San Francisco Section and Route 66 in the Los Angeles Section.

Crystal Springs Dam is a San Francisco Section HCE that received international attention when it was completed in 1890. Designed by Hermann Schussler, Chief Engineer of the Spring Valley Water Company, it was half a century ahead of its time, and was the first mass concrete dam in the world. In the late 19th century, large gravity dams were constructed of stone masonry, but with no suitable rock available in the vicinity, Schussler decided to use a material just beginning to gain acceptance in larger construction projects, that being Portland cement concrete. Because there was no Portland cement industry in California, the cement was imported from England. Schussler carefully specified the mix, especially the water-cement ratio, and closely monitored the mixing and placement process, a first. The dam used a system of interconnected blocks with grouted joints. The photo is dated May 17, 1906, one month after the 1906 8.3 Richter earthquake on the San Andreas fault, which was only 1,000 feet east of the dam. The dam did not suffer any damage. The Crystal Springs Dam nomination is being prepared by Elizabeth Bialek, Past President of the San Francisco Section, and Larry Magura, Region 8 Director.



The second project is Route 66, the Mother Road, the first all-weather highway connecting Chicago in the Midwest to Santa Monica in southern California. This will be an unusual nomination in that it passes through 8 states and 10 ASCE Sections. The old sections of Route 66 still existing in California reflect the advancements in highway engineering with original narrow sections, sharp curves, narrow shoulders, and minimal drainage swales. Some sections have the original concrete pavement

with newer sections showing the advancements in pavement design with increased heavy vehicle and truck usage over time. Some original bridges still exist. In San Bernardino County, the County public works department is preserving 128 old timber bridges, and the skewed through steel truss over the Mojave River near Victorville is an unusual example of early highway bridges. The nomination for Route 66 in California is being led by Andy Machen of the Los Angeles Section and Vice Chair of the Region 9 History and Heritage Committee. Andy is also coordinating the preparation of the joint nomination with the other 10 ASCE Sections along the 2,448-mile route.

Please watch for an announcement about the future dedication of these deserving projects being designated as Historic Civil Engineering Landmarks. If you would like to join the History and Heritage programs and committees, please contact your Section President about the local History and Heritage Committee or reach out to me.

