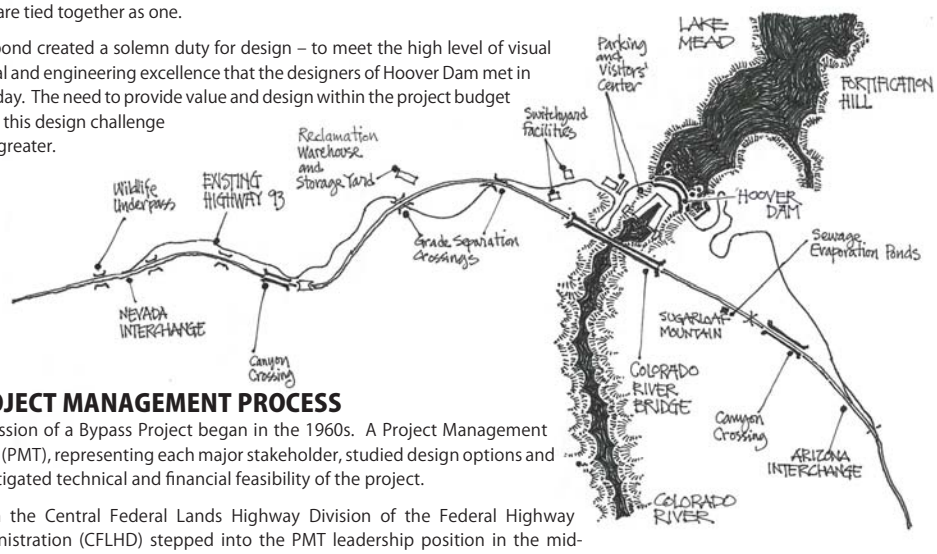
THE DESIGN CHALLENGE

The Hoover Dam Bypass joins one of the most famous civil engineering landmarks in the world. It pairs off in such proximity to Hoover Dam that the visual presence of each are tied together as one.

This bond created a solemn duty for design – to meet the high level of visual appeal and engineering excellence that the designers of Hoover Dam met in their day. The need to provide value and design within the project budget made this design challenge even greater.



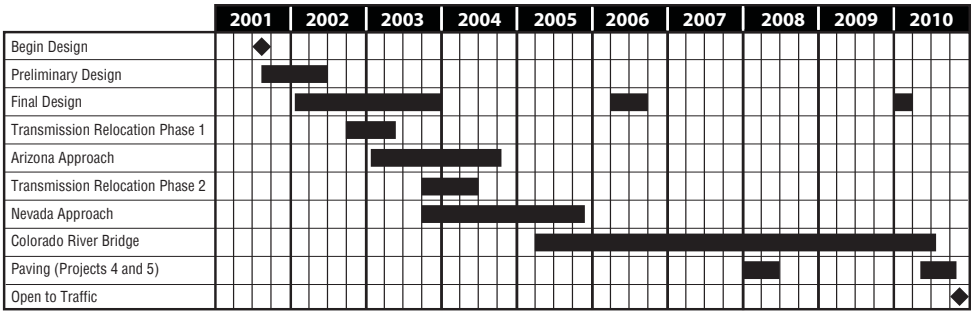
PROJECT MANAGEMENT PROCESS

Discussion of a Bypass Project began in the 1960s. A Project Management Team (PMT), representing each major stakeholder, studied design options and investigated technical and financial feasibility of the project.

When the Central Federal Lands Highway Division of the Federal Highway Administration (CFLHD) stepped into the PMT leadership position in the mid-1990s, the Hoover Dam Bypass Project began to come together. In 2001, CFLHD hired a team of design firms known as the Hoover Support Team (HST). It included professionals in engineering, geotechnical and environmental investigation, and 20 other specialized consultants.

CFLHD developed an organizational approach to manage the massive project set up by separate design disciplines with overlapping communication circles. This approach gave all disciplines a chance to work together toward a common goal from design through construction. This management method forged integration so the efforts of one discipline did not have unanticipated ripple effects on others. A Design Advisory Panel (DAP), consisting of designers, stakeholder agencies, State Historic Preservation Offices, and tribal representatives actively participated in developing design considerations for architectural, cultural and historic features.

PLAN FOR SUCCESS
with Process & Phases



PROJECT PHASES

The Bypass Project consisted of eight overlapping phases planned to maximize efficiency and to minimize disruptions.

The major design work began in late 2001 and continued to the end of 2003. Subsequent supporting design work occurred in 2006 and in 2010. The relocation of power lines preceded the work on the Arizona and Nevada highway approaches. The monumental bridge was constructed from 2005 to 2010. The paving project and visitor plaza construction completed the Bypass Project in October of 2010.