

## Transportation

### Highways & Bridges

#### Client

Washington State Department of Transportation

#### Location

Seattle, Washington, USA

## SR 520 Bridge Replacement and HOV Project

### Project Highlights

- Multi-modal corridor project to improve mobility across Lake Washington in the Seattle metropolitan area
- Development of comprehensive public outreach process involving project Web site, newsletters, and community and media outreach
- Development of geographic information system Web site to allow the project team to view, query, and print environmental and socioeconomic criteria and impacts for numerous project alternatives

### Project Description



The SR 520 Bridge replacement was a regional multi-modal corridor project to improve mobility across Lake Washington within the 13-mile SR 520 corridor from Seattle to Redmond, Washington. Alternatives considered included replacing the substandard highway and bridges along the corridor, as well as several six-lane alternatives and multiple options. These alternatives were the result of a long-term study that eliminated numerous previous options, including several four- and eight-lane alternatives. CH2M HILL led the environmental review and provided scheduling, costing, design, and traffic engineering services. CH2M HILL also designed and implemented a Web-based system for receiving comments from the public and responding to those comments.

The supplemental draft Environmental Impact Statement (EIS) phase of the project focused on several six-lane alternatives. The environmental analysis involved preparation of discipline reports, technical memoranda, discipline report addenda, and a supplemental draft EIS for release in 2009.

In an early study phase, CH2M HILL led all the public involvement, including design of a Web site, monthly newsletters, and outreach to community groups and the press. CH2M HILL also provided presentation information for public outreach activities and assisted with the development of public outreach materials.

The project progressed over several years, starting with a study phase to examine methods to reduce congestion across and around Lake Washington. During the study, the team worked with a 47-member study committee comprising city, county, and state elected officials, as well as neighborhood, business, and special interest group representatives. CH2M HILL designed the decision process, prepared all the preliminary environmental impact analyses to support the Committee's decision making, led the public involvement, and assisted with the traffic and conceptual designs.

The study committee's recommendation to focus on the SR 520 corridor kicked off the National Environmental Policy Act (NEPA) process. Managed by three co-lead agencies (WSDOT, Sound Transit, and the Federal Highway Administration), this project was highly visible and jurisdictionally



complex. It involved nine cities, a county, and several regional transportation agencies, in addition to local, state, and federal natural resource agencies.

As a member of the consultant team, CH2M HILL worked with three appointed committees: a Technical Committee made up of technical experts from all the agencies of jurisdiction, an Advisory Committee of neighborhood and interest group stakeholders, and an Executive Committee of elected officials from the potentially impacted jurisdictions.

To support these committees and an interdisciplinary and geographically dispersed team, CH2M HILL developed a project geographic information system (GIS) Web site (in addition to the public Web site) using ArcIMS. The GIS Web site enabled the project team to view, query, and print environmental and socioeconomic criteria and impacts for the project alternatives.

The GIS Web site was a vital technology for this project, both for analyzing environmental impacts for the EIS and as a tool for public outreach. CH2M HILL developed an ArcGIS extension that automated the process of identifying and quantifying environmental impacts. RIBIT, a GIS resource impact reporting and decision tool, automated a series of spatial overlay and database procedures commonly performed to quantify and report impacts of proposed highway alternatives on natural, cultural, and other resources.

This was a highly successful GIS program because it streamlined the analysis and map-making process and effectively disseminated information to the public. It saved time, eliminated redundancies, and increased efficiencies.