

# Bridge sites considered near dam

□ Bureau of Reclamation officials say a new bridge will ease traffic woes around the Hoover Dam.

By K.J. Evans  
Review-Journal

No one will argue that the stretch of U.S. Highway 93 crossing Hoover Dam is dangerous.

Each day, mammoth trucks and rented compact cars wend bumper to bumper through the hairpin turns, dodging tourists and tour buses. In the past 20 years, there have been 500 traffic accidents on the dam and approach roads, causing several fatalities, according to the Bureau of Reclamation.

And they're holding their breath at bureau headquarters, waiting for the inevitable calamity — an upset chlorine tanker on the dam crest on a Saturday afternoon, or the tour bus that loses its brakes on one of the steep grades.

The traffic load is a hazard to motorists, says Chris Mills, bridge project manager for the bureau, and also is a hindrance to the operation of the dam.

The bureau has been wishing for a bridge since 1965, and numerous studies have been done on the subject, most reaching the same conclusion: It's an engineering nightmare and will cost a lot.

In 1984, Congress authorized the construction of a bridge in the area, and active planning began.

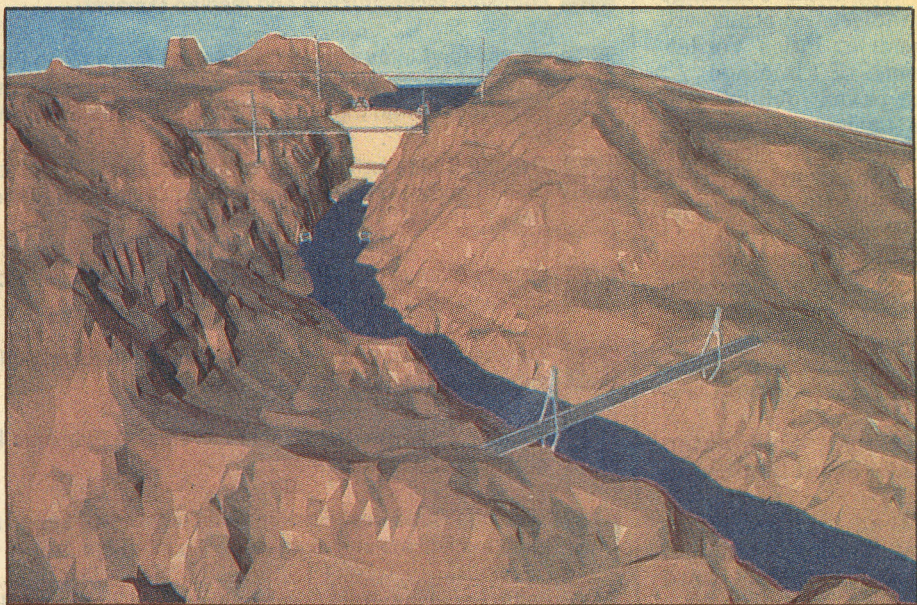
Only now, however, does the bridge seem likely to become a reality.

The thorniest decision the bureau must make is where to put it.

"Once we have a preferred route, then we can deal with the states a little better as far as specifics on who would be doing which part of the bridge or the roadway," Mills said.

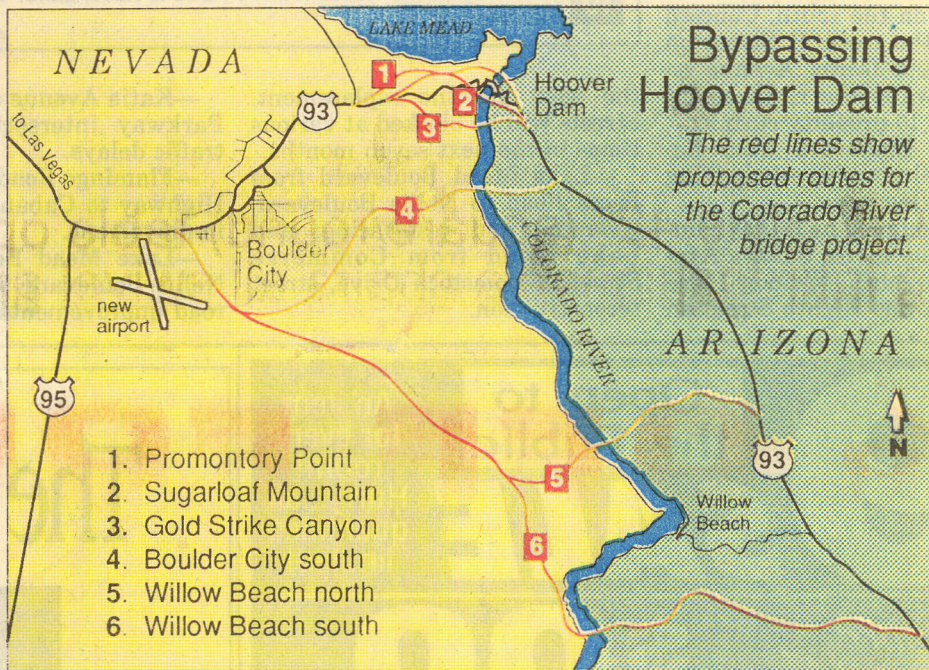
If the complicated chronology of the project unfolds as it should, he said, traffic could begin moving across a new bridge in 1996.

By then, it will be a virtual necessity. An average of between 6,000 and 7,000 vehicles cross Hoover Dam every day, and that volume is enough to create virtual gridlock at certain peak periods, Mills said. The daily vehicle count will double in 25 years, according to the bureau's traffic studies. By 2035, an average of 16,000 vehicles will make the crossing daily.



Bureau of Reclamation photo

Three possible crossing points for a Colorado River bridge are shown in this computer graphic. Behind the dam is the proposed Promontory Point crossing, the one immediately below is the Sugarloaf Mountain crossing, and in the foreground is the Gold Strike Canyon crossing.



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In preliminary studies, the bureau considered nine crossings, then narrowed the field to three most likely, all of them making use of the existing corridor through Black Canyon.

That decision was based partly on environmental concerns, since the area is National Park Service land and enjoys a heightened degree of protection under a 1966 federal law.

"Basically, it says that you have to use the alternative that impacts the least amount of park service land," Mills said.

The main environmental concern about using the old corridor was the aesthetic impact on the Hoover Dam

historical district.

And there was the high cost of building approach roads across the craggy river mountain wilderness below Hoover Dam.

The next step will be to further study the three preferred sites, and to complete environmental impact statements for each of the three routes. A draft impact statement is due this month and would include what Mills termed "pretty solid" cost estimates for the project.

Release of the draft statement would be followed by a round of public hearings in Las Vegas and Boulder

Please see BRIDGE/4B

# Bridge

## From 1B

City, and a final report in December. The final site decision would be made by the secretary of the interior in October 1992. Construction would start in fall 1993, with completion in summer 1996.

Here are summaries of the crossing sites considered, beginning with the Bureau of Reclamation's three preferred sites:

**Promontory Point** — This is the only route that would place the bridge behind the dam, about 1,000 feet upstream. It would require a 1½-mile approach road in Arizona, a 2½-mile approach in Nevada, linked to a 2,300-foot bridge. Total cost estimate is \$130 million.

Impact to wildlife habitat would be minimal, according to the bureau, because the route would cross well traveled territory. But the famous frontal view of Hoover Dam backed by volcanic mountains would change.

**Sugarloaf Mountain** — An 1,800-foot bridge would cross the river about 1,500 feet downstream of the dam. Cost estimate is \$110 million. The route involves the least amount of approach road building — two miles in Nevada, one mile in Arizona.

The area already has been disturbed, and the wildlife habitat impact would be the least of the prospective sites. As with Promontory Point, the main concern is the visual impact to the dam.

**Gold Strike Canyon** — About a mile below the dam, a 1,700-foot bridge, one mile of approach road in Arizona and two miles in Nevada would cost an estimated \$100 million.

The area is mostly undisturbed, so construction would

## Dam visitor center gets new look

### Review-Journal

It's been awhile since the visitor center at Hoover Dam got a face lift. "I guess those displays were state of the art in 1946, but they're looking a little dated now," laughs Julian Rhinehart, regional public affairs officer for the Bureau of Reclamation.

In fact, the exhibit building was actually built in 1942 to house troops assigned to protect the dam against sabotage. It was later converted to its current use.

The main part of the \$70 million project got under way earlier this month after extensive preparatory work to clear additional land on the Nevada approach to the dam. The old "snacketeria" building was razed, and a bridge was built, straightening the last few hundred yards of twisted road approaching the dam, and expanding precious ground space.

The centerpiece of the new visitor center will be a unique theater, which will show three 70-millimeter, 12-minute films on the history of water in the Southwest, and the history of the construction of the dam. Visitors will be seated on a turntable, which will rotate to each of three different screens while the visitors remain seated.

Dam tours, which now begin at the center of the dam, will leave from the visitor center, and will give visitors a look at areas of the dam not previously open to the public, such as turbines, control rooms and penstock connections.

Parking, now a near impossibility during peak hours, will be eased with completion of a five-story, 420-vehicle parking garage that will handle tour buses and motor homes.

The architecture of the new buildings was a major concern, said Rhinehart, an attempt to make the transition between the art deco style of the dam to the rough cliffs of Black Canyon in which the structures nestle.

"We think it succeeds," he said.

have a significant impact on wildlife. Its advantage is that would have the least visual impact on Hoover Dam.

**Boulder City South** — Under this less-popular plan, the bridge would be built about 2½ miles downstream from the dam. Depending on which of three routes were chosen, approach-road needs on the Nevada side would vary from six to nine miles. In Arizona, two miles of approach road would be needed. Two of the approach options would bypass Boulder City.

Pristine wilderness, containing peregrine falcon aeries and desert

bighorn habitats, would be affected by the extensive cut-and-fill work needed to get to the site. Wildlife agencies and the National Park Service are concerned about impact to sensitive species.

Also, one of the approach routes on the Nevada side would pass through an area containing one of the highest concentrations of desert tortoises in the state, about 15 to 20 per acre.

Total cost is pegged at \$135 million.

**Willow Beach** — Actually two routes, one eight miles downstream from Hoover Dam and north of Willow Beach, the other

14 miles below the dam and below the resort.

The north route would require four miles of approach road in Arizona, a 2,000- to 2,500-foot bridge, and eight miles of approach road in Nevada. Cost is estimated at \$200 million.

The south route would involve building eight miles of approach road in Arizona, 14 in Nevada, a 1,000- to 2,200-foot bridge, and would cost \$250 million.

The most threatening option to wildlife habitat, the route would pass through two areas — Black Mesa and Big Nasty — with high populations of desert bighorns. There also is concern about damage to prehistoric sites in the area, and to historic sites relating to the Colorado River survey of the 1920s, such as the house of the tender of the river-gauging station, the pathway and the cantilevered catwalk from the house to the gauging station.

Though also not preferred sites, the Willow Beach routes would bypass Boulder City and so are favored by a group there called CAUTION, which is pushing for a route that would reduce traffic through the city.

The type of bridge — whether it will be suspension, steel or concrete arch, or cable-stayed — has not been decided. A study by bureau engineers, and the engineering firm of Parsons and Brinkerhoff, hired jointly by the states of Arizona and Nevada, will help make that choice. It will be a

four-lane bridge.

One scheme, discarded early, would have placed the bridge across the dam crest, which would have to be widened by 40 feet. The hairpin approach roads would have had to be straightened and widened. In addition to marring the art deco architecture of the dam, the route would have been breathtakingly expensive.

Money always has been one of the big problems, Mills said, noting his agency isn't usually in the bridge-building business. Building dams, aqueducts and the like are the bureau's bailiwick.

Water projects, Mills noted, usually are based on reimbursable funding. They generally are moneymakers, and the proceeds are used to recharge the federal coffers. (The federal appropriation for Hoover Dam, for instance, was paid back through its generation of electricity, though it took 50 years to do so.)

The only way for that to work with a bridge project, he said, would be to charge crossing tolls.

He said the bureau hasn't closely examined that idea, but preliminary estimates show that to generate the money needed to pay off the bridge debt within a reasonable period, the charge would have to be about \$2 a car and \$5 a truck. Mills said the bureau is nervous about imposing such a high toll.

One possible, though not promising, source is the federal bridge discretionary fund, money re-

served for the replacement of decrepit bridges.

Essentially, the state of Arizona would apply for money to replace the short bridge spanning the Arizona spillway, a still-stout structure, albeit one overloaded by traffic.

Because there is keen competition for the \$200 million in the fund, and Arizona will be asking for \$35 to \$45 million of that, the prospects of that, said Mills, aren't good.

The direct approach, in this case, may be the best, he said. The bureau probably will seek a direct, non-reimbursable appropriation from Congress for about 80 percent of the cost of the bridge, with Nevada and Arizona bearing the remaining cost.

"We're not just talking about the cost of constructing the facility," Mills said. There are design costs, data collection studies, and that often pricey environmental impact statement.

Money, Mills said, may have the biggest influence on how the project site is chosen. Being primarily a federal project, drawing most of its funding from the national coffers, it's going to have to be a good value for taxpayers.

"The taxpayers of Boulder City are one group, but there are people in Congress who're concerned more with the taxpayers in New York and would rather see us take the cheapest route. They don't necessarily care about Boulder City."

CHARLES J.  
**ABDO, M.D.**  
CHARTERED

## PUBLIC NOTICE

THE MEETING OF THE LAS VEGAS CITY COUNCIL SCHEDULED FOR WEDNESDAY