

## PRACTICAL DESIGN AT WORK — DESIGN



Washington State  
Department of Transportation

## SR 285/W End of George Sellar Bridge Intersection Improvements

### Background

The Senator George Sellar Bridge on State Route 285 is one of two Columbia River crossings in the immediate Wenatchee area. It connects the southern ends of Wenatchee and East Wenatchee. The intersections within the city of Wenatchee, adjacent to the west end of the bridge, create choke points for traffic approaching and departing the bridge due to the traffic volumes in excess of 50,000 vehicles per day. These intersections cause gaps in the traffic flow, which in turn produce substantial delay and a high number of vehicle collisions. A large number of pedestrians use the Sellar Bridge to access shopping and services on both sides of the river.



Before



After

### Original plan

The original plan was to eliminate left-turning-traffic movements at several of the heavily congested intersections and replace those traffic patterns with a succession of right turns and road widenings. A separate pedestrian bridge was to be built to keep foot traffic separated from vehicle traffic and connect pedestrians to the path across the Sellar Bridge.



Before



After

## Practical design solution

After several open houses, it was clear the public did not support the idea of removing left turns and replacing them with multiple right turns. The original design created unusual traffic patterns and had a large impact on businesses due to the road widening and right-turn lane installations. The design team worked with the city of Wenatchee and determined a new off ramp could be added prior to the congested intersection to pull left-turning traffic out of the intersections and put them on upgraded surface streets. This allowed for other left turns, which the elected officials and public deemed very important, to be incorporated back into the design. This new design significantly reduced the amount of right of way to be acquired, which reduced impacts to several businesses that are critical to this part of the city. The project's purpose – to improve traffic flow – was comparable with the new design to that of the original plan. Once this new design was presented at follow up open houses, the design team received full support of attendees as well as city and elected officials.



## Results

**Safety:** Eliminating several left turns and lane merges greatly reduces conflict points and in turn reduces the number of collisions. Separating pedestrian movements from several intersections and installing several flashing beacon systems for remaining crossings will help get foot traffic through the project safely.

**Community coordination:** Close coordination with the community and elected officials during the design process resulted in a design that accommodates community interests while moving traffic through the project area efficiently. The personal attention the design team gave to the business community helped in gaining their support of the design as well as potential impacts during construction.

**Economic Vitality:** The project has significantly increased the capacity in the project area, allowing vehicles and freight to efficiently navigate through the area, saving time and money. By adding the new off ramp, the impacts to businesses were significantly reduced. The new design ensured the adjacent communities would have access to groceries and services that may have been impacted with other alternatives.

**Cost:** By changing the design, the right of way costs were significantly reduced. The practical design solution resulted in a cost savings of \$2.8M, reducing the overall cost from \$20.8M to \$18M.