

## **HR-166 Freeway Operations Analysis of I-80, I-29 Interchange**

**Key Words:** I-80, I-29, Traffic conflicts,

### **ABSTRACT**

At the request of the Iowa State Highway Commission, the Engineering Research Institute observed the traffic operations at the Interstate 29 (I-29) and Interstate 80 (I-80) interchange in the southwest part of Council Bluffs. Before limiting the analysis to the diverging area the project staff drove the entire Council Bluffs freeway system and consulted with Mr. Philip Hassenstab (Iowa State Highway Commission, District 4, Resident Maintenance Engineer at Council Bluffs). The final study scope was delineated as encompassing only the operational characteristics of the diverge area where I-29 South and I-80 East divide and the ramp to merge area where I-80 West joins I-29 North (both areas being contained within the aforementioned interchange).

Supplementing the traffic operations scope, was an effort to delineate and document the applicability of videotape techniques to traffic engineering studies and analyses. Documentation was primarily in the form of a demonstration videotape.

The research activity was directed toward achieving the following objectives:

1. The magnitude and character of future, traffic conflicts at each study site are estimated.
2. Possible alternative solutions are generated which have the potential to lessen the intensity and/or the frequency of both present and future traffic conflicts in each study area
3. Alternative solutions are compared and evaluated in a structured manner.
4. The applicability of video tape techniques to traffic operations analysis is demonstrated.