

Local Adaptive Signal Timing on US 101 in Lincoln City, Oregon



Presented to the 2016 Western States Rural Transportation Technology Implementers Forum by:

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PROJECT OVERVIEW

Lincoln City is Selected for Adaptive Signal Control Technology

- ⇒ FHWA defines adaptive signal control as “technology that captures current traffic demand data to adjust traffic signal timing to optimize traffic flow in coordinated traffic signal systems.”
- ⇒ US 101 is the main arterial through Lincoln City and is greatly impacted by seasonal traffic fluctuations. During peak traffic conditions, particularly on summer weekends, significant congestion is experienced at the existing traffic signals. The existing signal timing system had limited ability to adjust to changing traffic demands.

Systems Engineering Process

- ⇒ FHWA's Systems Engineering Process is used to define the goals, requirements and objectives of the adaptive signal control system.
- ⇒ Seven intersections on US 101 are selected for adaptive signal control technology.

System Installation and Roadside Improvements

- ⇒ Adaptive signal control components are added to existing signal cabinets.
- ⇒ New inductive loop detectors are installed for enhanced data collection capabilities.
- ⇒ Remote communications are installed to allow traffic operations staff to monitor the signal system in real time.

System Evaluation Effort

- ⇒ Preliminary results show travel time improvements along the corridor.
- ⇒ A full evaluation is planned to be completed following the 2016 summer season.

