

Maintenance of Traffic

Boyero US 40/US 287: Ports to Plains Highway

Lincoln County, Colo.

Project Overview

This two-lane rural highway is a vital link for trucks hauling oil-field supplies and agricultural products, so keeping traffic flowing with minimal disruption was a must. The contractor used a combination of a flagger station and pilot car to manage traffic. This approach, along with excellent staging and well-planned delivery of materials on the grade, resulted in an efficient and cost-effective reconstruction project.

MOT Factors

- One of two lanes was required to remain open 24/7 during full project duration.
- All paving was completed during daylight hours.
- No traffic was allowed beyond barriers.
- Temporary pavement was optional, but not used.

- Pilot cars and flagger stations were used. The milling for grade of the asphalt and paving were completed with a pilot car.
- Traffic was moved back on the asphalt at night and until paving operations began. This involved a daily lane rental and 24-hour traffic control.

Other Traffic Considerations

- Contractor was required to maintain at least a 10.5 ft travel lane.
- Colorado DOT's phasing plan limited the length of the pilot car operation to 9 mi.
- 25 minute maximum traffic queues were allowed.
- Maximum 4 in. edge drop-offs were allowed.



Fast Facts

Owner

Colorado DOT

Contractor

Castle Rock Construction

<http://www.castlerockconstructionco.com/>

Facility

Two-lane rural highway

Project Type

Bonded concrete on asphalt with interlayer.

Average Daily Traffic

2200, with 65% trucks

Construction Timeframe

Nov. 2009 to Nov. 2010

Construction Factors

- Contractor placed 10 to 12 in. concrete overlay placed on 8 to 12 in. of existing asphalt pavement.
- Tight tolerances between lanes required vertical barrier panels and a ski attached to the paver for centerline control.

Other project details

- To keep the project costs low, the embankment for the side slopes was hauled prior to pilot car operations with simple shoulder closures.
- The ends of the project and at bridges full depth repairs of 12" concrete for smooth transitions.

Equipment & Materials Factors

- Pavement was placed with slipform paver and stringline.
- 212,084 SY of concrete pavement.
- 68,355 CY of embankment work completed in place for side slopes and minor bridge repairs prior to milling work on pavement.
- Shoulders were 8 ft. wide on a minimum of 5 in. thick asphalt.



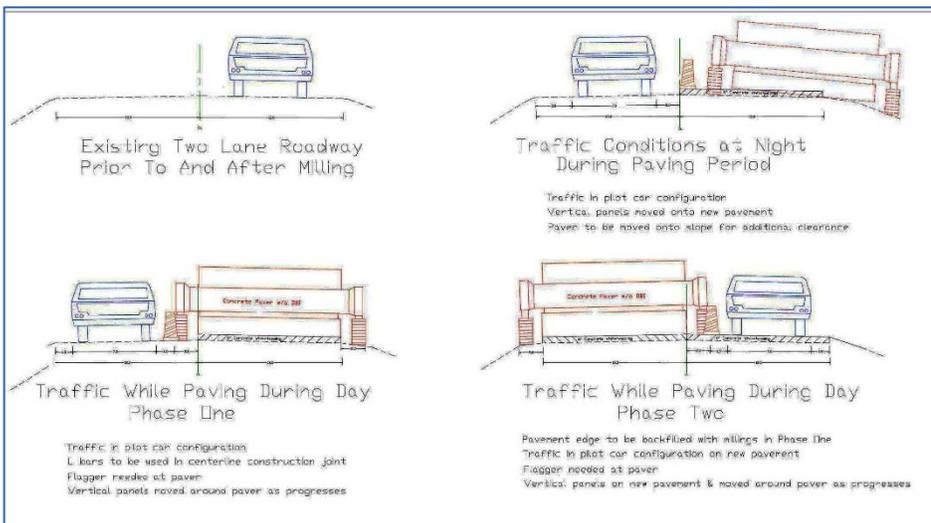
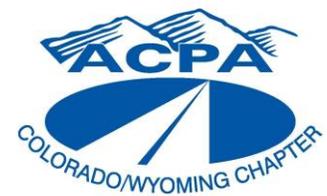
Presented by the

ACPA, COLORADO/WYOMING CHAPTER

6880 South Yosemite Court
Suite 100
Centennial, Colo. 80112
Phone: 303.297.1789
Fax: 303.290.8008

Executive Director

Angela Folkestad, P.E.
Office: 303.947.9576
Mobile: 303.947.9576
Email: afolkestad@pavement.com



MOT-1-2015

American Concrete Pavement Association

Rosemont, Ill. | Washington, D.C. | Charlotte, N.C.

www.acpa.org