

# Woodend Road over Wolf Creek Bonner Springs, Kansas

## City of Bonner Springs, Kansas

This project involved the replacement of a functionally-obsolete and structurally-inadequate bridge. Additionally, the undersized structure was constricting the water flow, resulting in undermining at the abutments and wing-walls. The deteriorating condition of the bridge substructure, combined with similar problems with the superstructure and deck, rendered the existing Woodend Road Bridge structurally inadequate.

Hydraulic and feasibility studies, preliminary cost estimates, compliance with KDOT and AASHTO design criteria/safety concerns, impacts to adjacent properties, utility relocations, existing roadways, and overall effects on the community were all considered in DRG's design. DRG designed a curved 3-span structure utilizing prestressed concrete girders (41'-44'-31'). The bridge deck included a 28-foot wide superelevated roadway with a 5-foot wide concrete sidewalk. Implementation of curb and gutter sections, tampered concrete end barriers, and bridge corral rail. Also included was the realignment of two residential driveways located in close proximity to the southeast end of the bridge.



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