Sponsor: City of Lancaster
Streambank protection for Nokomis Road Bridge over Ten Mile Creek

Type of Project: Section 14, Streambank Erosion Protection

Authorization: Flood Control Act of 1946, as amended

Status: $1.63 million project completed in 2013

Background: Nokomis Road Bridge is located on the outskirts of the city of Lancaster, Texas, a suburb of Dallas. It carries 1,200 cars per day. Erosion upstream and downstream of a sharp bend in Ten Mile Creek as it passes under the bridge threatened its structural integrity. Rainfall tends to be moderate with periodic cloudbursts causing elevated stream flow velocities. Based on the field investigation, erosion calculations, and visual inspections, if erosion was not stabilized, the stream banks would continue to fail. At the current rate of erosion, both the embankment and the bridge were likely to be negatively impacted within the next five years. The site is adjacent to a Dallas County park.

The project utilized prepackaged concrete riprap bag slope protection. It stacked 13”x21”x4 ¾” prepackaged bags of concrete riprap up the side slopes for approximately 325 linear feet at a 1H:1V slope and backfilled with compacted fill. The bags would be staggered up the slope and anchored with 7” reinforced bars and 4’ reinforced bars at the toe.