

## Example Need and Purpose Statement

### NEED AND PURPOSE

South Leon River Draw Bridge exhibits a number of structural and geometric deficiencies, which severely limits its capacity to meet the needs of modern vehicular traffic on Skalak Road. The bridge does not meet current load requirements due to the inherent design limitations coupled with physical deterioration of the bridge over time. As a result, the functionality of the bridge is limited in two ways. Neither the load capacity nor the geometry of the bridge is adequate for today's transportation system users. The purpose and need for this project is to provide a safe and efficient crossing over Draw of the Leon River along CR 235 that meets the current and future traffic needs.

#### *Structural Deficiencies*

A load limit of 10,000 lbs. (axle or tandem) and 16,000 lbs. gross (HS 7.2 Inventory) is currently posted at the bridge. The load limit is controlled by the existing truss capacity. Because of the relatively low load limit currently posted, the bridge is restricted to use only by cars and light trucks. School buses, fire trucks, ambulances and other essential services vehicles that exceed the posted load limit are restricted from using this structure. Planned trips by essential services vehicles and other state legal load vehicles are routed around a minimum 15-mile detour.

#### *Functional Inadequacies*

County Road 235 is a two-lane roadway with a typical driving surface width of 18 ft. The bridge has a roadway width of 12'-0" and is functioning as a one-lane bridge, carrying two-way traffic. As a result, the existing bridge acts as a one-way structure on a two-way roadway (see photographs, CE document). Travel distances for alternate routes are discussed below.

The purpose of this project is to eliminate the 5-plus mile minimum detour for essential services vehicles and to accommodate two-way traffic operation at the CR 235 crossing of South Leon River Draw. A successful project should also meet current safety and design standards with respect to lane width, traffic rail and load carrying capacity. It should eliminate the need for one-way traffic, allow utilization of the crossing by essential services vehicles and eliminate the rerouting of legal sized and weight loads.

#### *Geometric Deficiencies*

There are no noteworthy geometric deficiencies.