



# City Council Report

**Date:** July 8, 2020  
**To:** City Council  
**Through:** Karolyn Kent, Assistant City Manager  
**From:** RJ Zeder, Transportation Department Director  
Sabine Ellis, City Traffic Engineer  
**Subject:** Speed Limit Change - Signal Butte Road, Guadalupe Road to Elliot Road, Council District 6

## Purpose and Recommendation

As part of recent development along Signal Butte Road north and south of Guadalupe Road, the Signal Butte Road street cross section has been largely widened to provide a fully improved, 88-foot wide arterial street. Recent developments include the Legacy Charter School, Mulberry Residential Community, and commercial developments on both the northeast and northwest corners of the Signal Butte Road and Guadalupe Road intersection. Additionally, a recent capital improvement project was completed on Signal Butte Road from Elliot Road to a point approximately 2,800' north of Elliot Road. This project included the installation of additional asphalt pavement along the west side of Signal Butte Road to widen the cross section and allow for two lanes in each direction. Through the development and with the capital improvement project, all northbound and southbound shifting lane tapers which are the reason for the current 40 mph speed limit were able to be modified or eliminated.

Staff recommends increasing the existing 40 mph speed limit to 45 mph on Signal Butte Road from Guadalupe Road to a point 450 feet south of Elliot Road. This would establish a consistent 45 mph speed limit on Signal Butte Road from Broadway Road to the south City limits. See **Figure 1** for a location map.

## Background and Discussion

The typical speed limit for similar arterial streets within the City of Mesa is 45 mph. However, Signal Butte Road from Guadalupe Road to Elliot Road has been in various stages of development, alternating between the ultimate, fully improved cross section and a half-built cross section. Due to the roadway geometry, some of the shifting lane tapers were based on a 40-mph design speed. Thus, the posted speed limit on Signal Butte Road, from Guadalupe Road to a point 450' south of Elliot Road, is currently 40 mph. As mentioned above, the street cross section has been largely widened to the ultimate 88-foot wide cross section. This has allowed for a redesign of the shifting tapers between Guadalupe Road and Elliot Road which now accommodate a 50-mph design speed.

Currently, Signal Butte Road has a speed limit of 40 mph from Guadalupe Road to a point 450 feet south of Elliot Road per Section 10-4-4 of the Mesa City Code. To establish the 45-mph speed limit, as discussed in this report, these boundaries will be removed from Section 10-4-4 and the 45-mph speed limit will be established by means of Ordinance and amendment of Section 10-4-3 of the Mesa City Code.

### **Coordination**

The Transportation Advisory Board has reviewed the proposed speed limit change and concurred with staff's recommendation to increase the existing 40 mph speed limit to 45 mph on Signal Butte Road from Guadalupe Road to a point 450 feet south of Elliot Road at their May 19, 2020 meeting.

### **Alternatives**

One alternative is to make no changes to the posted speed limit. However, considering roadway geometrics and the existing speed limit north and south of this portion of Signal Butte Road, a speed limit of 45 mph is most appropriate and reasonable.

### **Fiscal Impact**

The approximate cost to replace eight signs is less than \$500. The fiscal impact is not considered as a contingent factor for this type of change.

**Figure 1**

