



City Council Report

Date: November 6, 2023
To: City Council
Through: Candace Cannistraro, Deputy City Manager
From: RJ Zeder, Transportation Department Director
Ryan Hudson, City Traffic Engineer
Subject: Establish Speed Limits – Williams Field Road, Ellsworth Road to the East City Limits, Council District 6

Purpose and Recommendation

The intent of this report is to establish speed limits on Williams Field Road from Ellsworth Road to the east City limits. This stretch of Williams Field Road is a mix of three existing, one recently annexed, and two newly constructed roadway segments, none of which currently have a speed limit that is established in Mesa City Code (City Code). Staff recommends the following:

- Establish a speed limit of 40 mph on Williams Field Road from Ellsworth Road to Crismon Road (Segment 1).
- Establish a speed limit of 45 mph on Williams Field Road from Crismon Road to the east City limits (Segment 2).

See the attached **Figure 1** for a location map.

Background and Discussion

Williams Field Road was divided into two segments for this discussion because the roadway characteristics for each are different. National research has found that drivers will operate at the speed they are comfortable driving based on roadway characteristics.

Segment 1

Williams Field Road between Ellsworth Road and SR-24 is currently a partially built cross section that generally provides one lane in each direction. When the property located along the north side of Williams Field Road is developed, the roadway will become a 6-lane arterial with raised median. The existing land use along the south side of Williams Field Road on this segment is a large-scale sports complex known as Legacy Sports Park.

The roadway alignment between Ellsworth Road and Crismon Road includes three horizontal curves, one east and two west of SR-24, that exist to create a more

perpendicular intersection with the SR-24. The two curves west of SR-24 and the ultimate Williams Field Road alignment were established as part of a City of Mesa alignment study that was completed in 2019. This study considered roadway design criteria for horizontal curves, the SR-24 alignment, the adjacent street network, Phoenix Mesa Gateway Airport's development plans, future development along Williams Field Road, and area drainage conditions. The study determined that the preferred and chosen roadway curve geometry could accommodate a 50-mph design speed if Williams Field Road was designed to include superelevation. Without superelevation, as recommended by staff, the roadway curves meet criteria for a 45-mph design speed, as defined by the American Association of State Highway and Transportation Officials (AASHTO). Typically, speed limits are set at 5 mph below the design speed. Williams Field Road was constructed without superelevation.

This segment of Williams Field Road between Ellsworth Road and Crismon Road currently has a posted speed limit of 45 mph and is not established in City Code. Given the roadway geometry, the existing and anticipated future land uses adjacent to this segment of Williams Field Road, and the plans for Gateway Boulevard, west of Ellsworth Road, a 40-mph speed limit is reasonable and most appropriate. The 40-mph speed limit must be established by means of Ordinance and amendment of Section 10-4-4 of City Code, which currently includes Williams Field Road from the west City limits to Innovation Way.

Segment 2

Williams Field Road east of Crismon Road is currently a partially built cross section that generally provides one lane in each direction. This section of Williams Field Road provides access to residential and commercial properties and is in the process of being developed and built out. It is a straight section of arterial street, like the majority of Mesa's arterial-street network. Segment 2 does not include any curves and the roadway runs along the established section line alignment similar to most other arterial street sections throughout Mesa. East of Crismon Road, Williams Field Road will transition from a 6-lane to a 4-lane with raised median roadway cross section.

Historically, the segment east of 222nd Street was under Maricopa County (County) jurisdiction and had a posted speed limit of 45 mph up to Mountain Road. Williams Field Road currently ends at Meridian Road and the segment between Mountain Road and Meridian Road has a posted speed limit of 35 mph. By means of an ordinance, the City annexed segments of Williams Field Road between 222nd Street and a point approximately 850 feet west of Mountain Road, and the respective annexations were recorded on April 19, 2021. Now that the City has annexed portions of Williams Field Road and there is a new roadway between 222nd Street and Crismon Road, the proposed 45-mph speed limit must be established by means of Ordinance and amendment of Section 10-4-3 of the City Code.

Coordination

The Transportation Advisory Board (TAB) reviewed the proposed speed limits for Williams Field Road at their May 16, 2023, meeting. The TAB made a motion with an amendment to staff's recommendation as summarized below:

Staff's recommendation –

- Establish a speed limit of 40 mph on Williams Field Road from Ellsworth Road to Crismon Road (Segment 1).
- Establish a speed limit of 45 mph on Williams Field Road from Crismon Road to the east City limits (Segment 2).

TAB's motion –

- Establish a speed limit of 40 mph on Williams Field Road from Ellsworth Road to the east City limits.

TAB's rationale for the amendment to staff's recommendation was based upon Williams Field Road not having separated/buffered bike lane facilities, slowing traffic down, and keeping a consistent posted speed limit of 40 mph to the west.

Staff's recommendation remains given the roadway geometry, classification, and characteristics of Segments 1 and 2, which are different, as detailed in the Background and Discussion section. This was presented to City Council at their October 19, 2023 study session, and staff received direction to move forward with staff's recommendation.

Alternatives

As an alternative, a speed limit other than the recommended 40 mph (between Ellsworth Road and Crismon Road) and 45 mph (between Crismon Road and the east City limits) could be established. However, considering the roadway geometrics of these segments of Williams Field Road, roadway classification, and street characteristics, the recommended speed limits are most appropriate and reasonable.

Fiscal Impact

The existing 45-mph sign faces between Ellsworth Road and Crismon Road will need to be replaced with 40-mph sign faces resulting in a negligible fiscal impact. From Crismon Road to the east City limits, the 45-mph speed limit signing is included in the maintenance efforts required per the annexation with the County and the construction of adjacent development offsite improvements, resulting in no fiscal impact.

