



# Speed Mitigation

Efficacy for Different Speed Mitigation Measures  
Study Results



# Agenda

- Study Overview
- Study Results
- Questions & Open Discussion

# Study Overview

## Effectiveness of Various Speed Mitigation Measures/Features

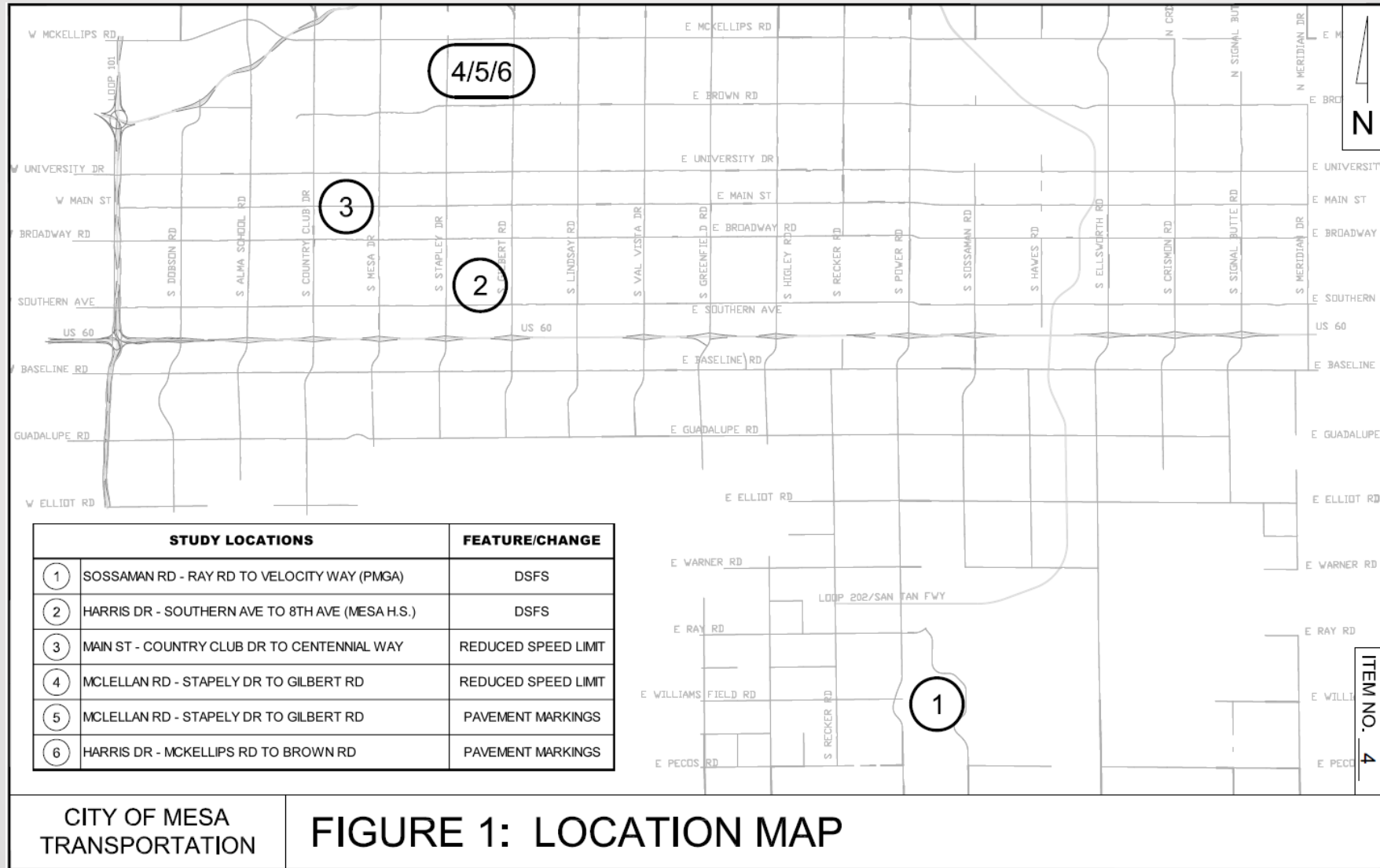


FIGURE 1: LOCATION MAP

# Driver Speed Feedback Signs (DSFS)

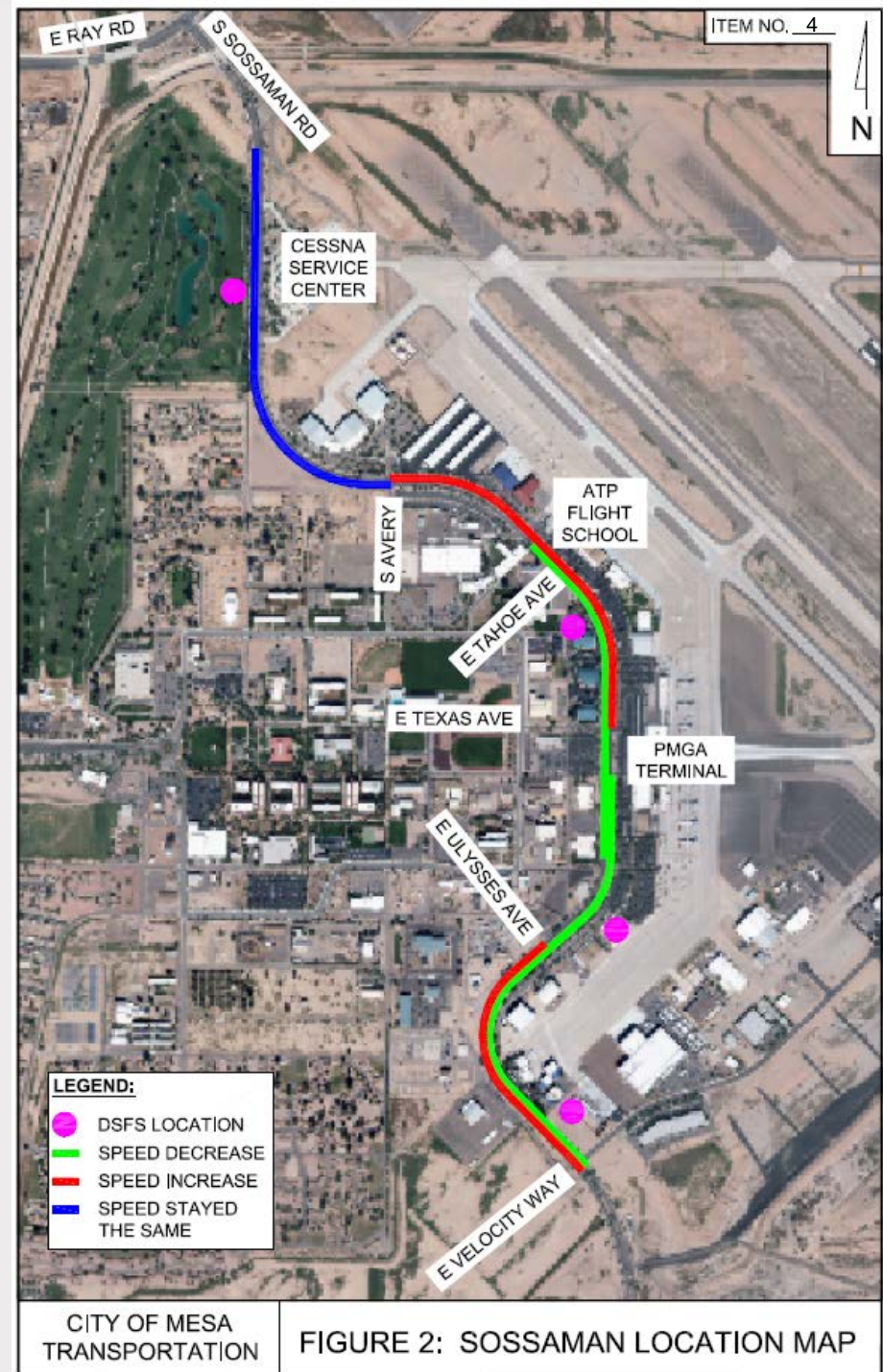


WEIGHTED AVERAGE - Sossaman from Ray to 2800' N/O Pecos				Posted Speed Limit: 35mph
Nov-16 Installed	Oct-15 & Sep-16 Before	Feb-17 After	Change	
Avg. Speed (mph)	37.0	37.1	0.0	
85th%-tile Speed (mph)	42.6	43.0	0.5	
% Veh > 35 mph	64.7%	67.2%	2.6%	
% Veh > 45 mph	10.0%	9.3%	-0.7%	
% Veh > 55 mph	0.5%	0.5%	0.0%	
Daily Volume (vpd)	4064	4510	446	

WEIGHTED AVERAGE - Harris Dr. Between Southern Ave. & El Moro Ave.				Posted Speed Limit: 25mph
Nov-16 Installed	Oct-15 & Sep-16 Before	Feb-17 After	Change	
Avg. Speed (mph)	27.3	23.2	-4.1	
85th%-tile Speed (mph)	33.4	28.4	-5.0	
% Veh > 25 mph	63.2%	32.2%	-31.1%	
% Veh > 35 mph	11.1%	1.7%	-9.3%	
% Veh > 45 mph	0.9%	0.0%	-0.9%	
% Veh > 55 mph	0.2%	0.0%	-0.2%	
Daily Volume (vpd)	2261	2031	-231	

# Driver Speed Feedback Signs (DSFS)

**Sossaman Road from Ray Road to Velocity Way**  
(Adjacent to the Phoenix-Mesa Gateway Airport)  
– Installation of two DSFS per direction of travel.



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# Driver Speed Feedback Signs (DSFS)

**Harris Drive from Southern Avenue to 8<sup>th</sup> Ave**  
(Adjacent to Mesa High School) – Installation of one DSFS per direction of travel.



CITY OF MESA TRANSPORTATION      FIGURE 3: HARRIS LOCATION MAP - DSFS

# Takeaways

- DSFS Sossaman Road
  - Overall speeds stayed the same.
  - Noticeable drop in vehicle speeds at/near DSFS.
  - Drivers tend to try and “make up time” once past the DSFS and/or activity area.
  
- DSFS Harris Drive
  - Speeds were only reduced for northbound traffic where the initially recorded speeds were much higher than the posted speed limit.
  
- DSFS appear to be more effective on non-arterial roadways and could be considered to complement other speed mitigation efforts in areas of high pedestrian activity (schools, parks, etc.).

# Speed Limit Reduction



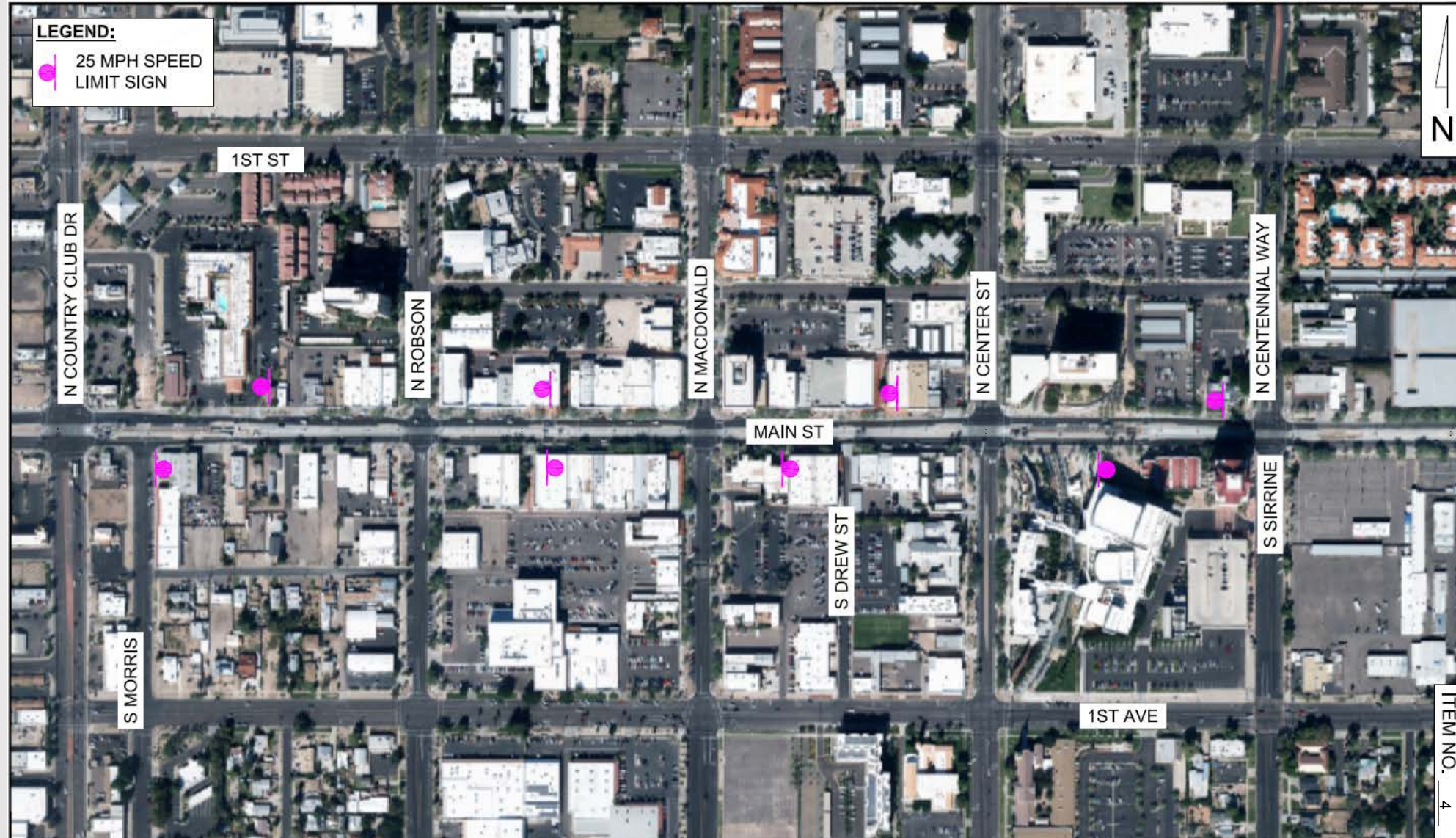
Weighted Averages from Several Locations on Main Street			
Main St Between Centennial/Sirrine & Country Club Dr			
Dec-16	Feb-16	Feb-17	
Installed	Before	After	Change
Avg. Speed (mph)	22.5	23.1	0.6
85th%-tile Speed (mph)	28.2	28.3	0.2
% Veh > 25 mph	30.8%	34.0%	3.3%
% Veh > 35 mph	0.8%	1.0%	0.3%
% Veh > 45 mph	0.0%	0.0%	0.0%
% Veh > 55 mph	0.0%	0.0%	0.0%
Daily Volume (vpd)	5221	4502	-719
Posted Speed Limit	30 mph	25 mph	N/A

Weighted Average from 3 Locations on McLellan Road			
McLellan Road Between Stapley Drive & Gilbert Road			
Aug-16	Jul-16	Nov-16	Average
Installed	Before	After	Change
Avg. Speed (mph)	30.1	29.7	-0.4
85th%-tile Speed (mph)	38.5	35.1	-3.4
% Veh > 25 mph	70.2%	82.8%	12.7%
% Veh > 35 mph	24.8%	14.5%	-10.3%
% Veh > 45 mph	5.3%	0.4%	-4.8%
% Veh > 55 mph	0.3%	0.0%	-0.3%
Daily Volume (vpd)	984	1146	162
Posted Speed Limit	30 mph	25 mph	N/A



# Speed Limit Reduction

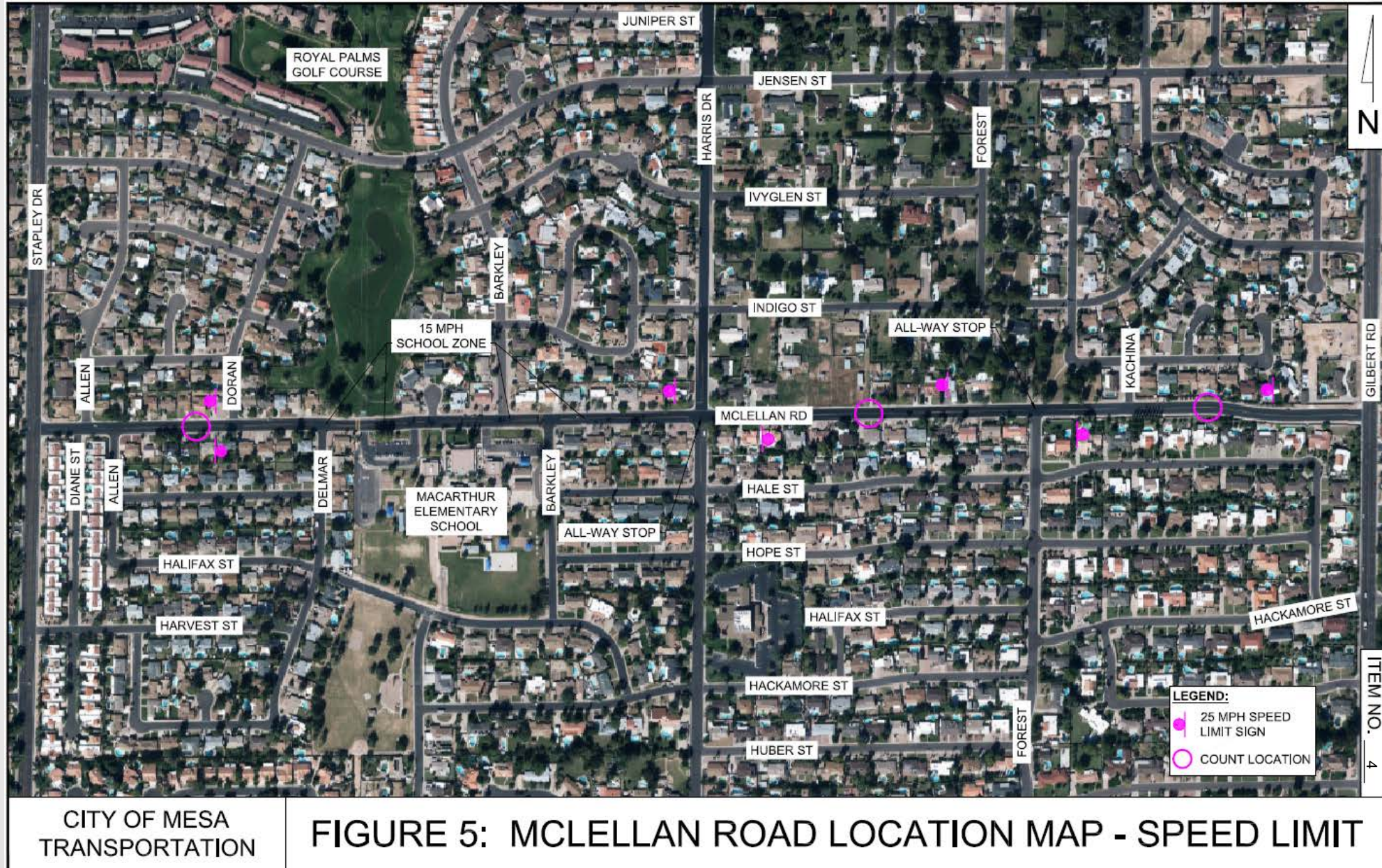
**Main Street from  
Country Club Drive to  
Centennial Way**  
(Downtown Mesa) –  
Reduction of speed limit  
from 30 mph to 25 mph.



**FIGURE 4: MAIN STREET LOCATION MAP**

# Speed Limit Reduction

**McLellan Road from Stapley Drive to Gilbert Road**  
 (Candlelight Estates) –  
 Reduction of speed limit  
 from 30 mph to 25 mph.



# Takeaways

## ○ Posted Speed Limits

- The majority of drivers will drive at a speed that is comfortable given street conditions, roadway geometry, and surrounding land uses.
- Reducing the speed limit alone is not an effective tool in addressing speeding concerns. It needs to be combined with other traffic calming measures.

# Pavement Markings

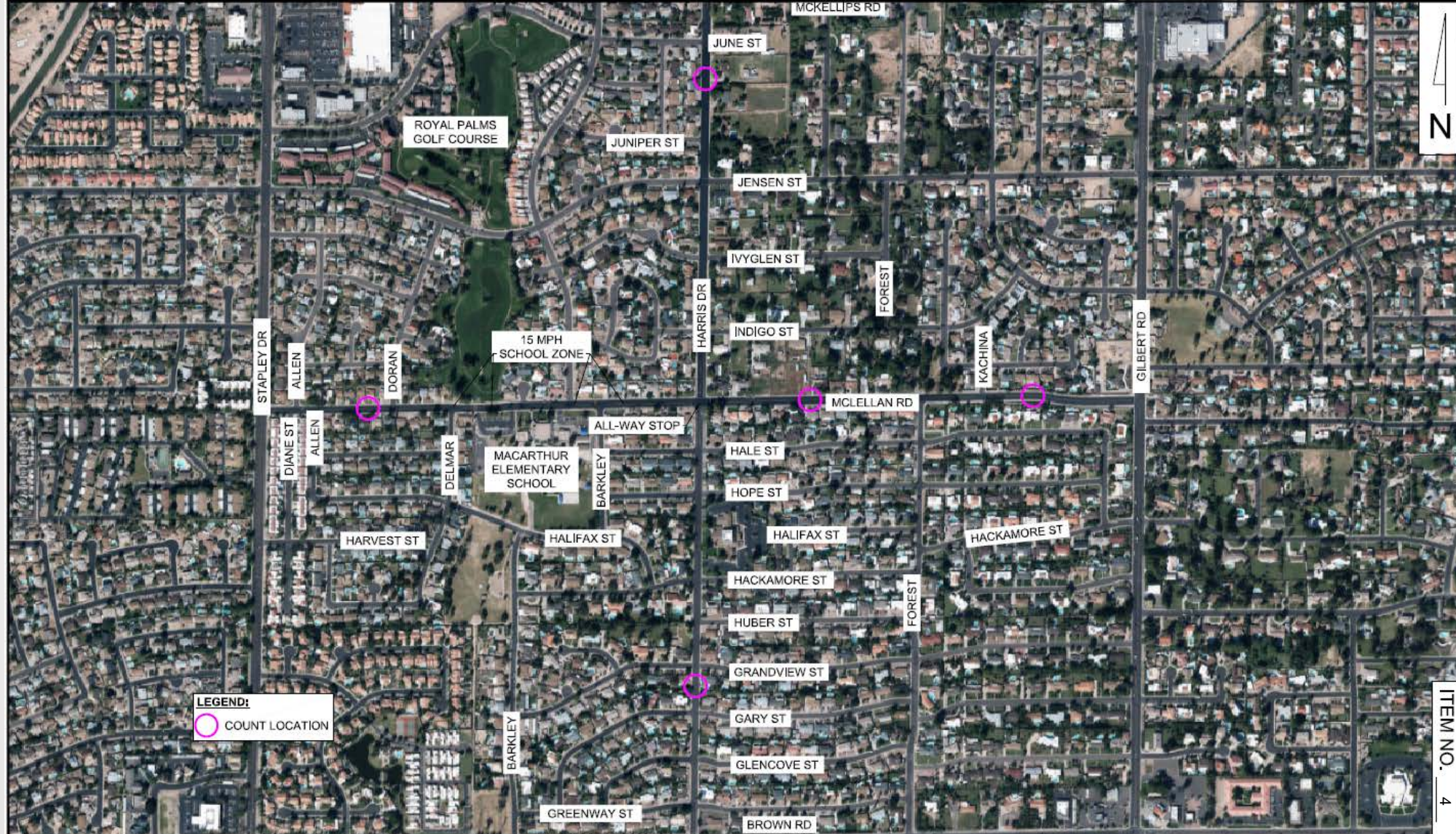


Weighted Average from 3 Locations on McLellan Road				Posted Speed Limit: 30mph
McLellan Road Between Stapley Drive & Gilbert Road				
Apr-16	Apr-16	Jul-16	Average	
Installed	Before	After	Change	
Avg. Speed (mph)	29.8	30.1	0.3	
85th%-tile Speed (mph)	36.0	38.5	2.5	
% Veh > 25 mph	78.6%	70.2%	-8.4%	
% Veh > 35 mph	18.0%	24.8%	6.8%	
% Veh > 45 mph	1.1%	5.3%	4.1%	
% Veh > 55 mph	0.1%	0.3%	0.2%	
Daily Volume (vpd)	1247	984	-263	

Weighted Average from 2 Locations on Harris Drive				Posted Speed Limit: 25mph
Harris Drive Between McKellips Rd & Brown Rd				
Jun-16	Apr-16	Jul & Sep-16	Average	
Installed	Before	After	Change	
Avg. Speed (mph)	29.0	30.8	1.7	
85th%-tile Speed (mph)	34.4	37.0	2.6	
% Veh > 25 mph	78.6%	84.9%	6.3%	
% Veh > 35 mph	11.7%	21.4%	9.7%	
% Veh > 45 mph	0.4%	1.7%	1.2%	
% Veh > 55 mph	0.1%	0.1%	0.1%	
Daily Volume (vpd)	1827	1593	-234	

# Pavement Markings

**McLellan Road from Stapley Drive to Gilbert Road & Harris Drive from McKellips Road to Brown Road**  
 (Candlelight Estates) –  
 Installation of pavement markings to delineate travel, bike and parking lanes.



# Takeaways

## ○ Pavement Markings

- Striping lanes through residential areas can have varied effects on driver speeds.
- On McLellan Road and Harris Drive, the overall speeds increased slightly which could be attributed to the fact that school was out of session when the follow-up counts were taken.
- Primary purpose of painting a center line and adding shared bike/parking lanes is to delineate traffic and in some cases, a reduction of speed is an added benefit.

# Questions & Discussion

