



POLICY FOR SPEED CUSHION INSTALLATION



**Community Development
- Engineering**

July 2020

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CITY OF EL MIRAGE POLICY FOR SPEED CUSHION INSTALLATION

July 1, 2020

Request & Evaluation - Residents may request speed cushions through a petition process to address speeding concerns. An engineering and safety evaluation of any speed cushion request will be made to determine that the guidelines listed below are met. Since speed cushions have a wide-ranging impact not only on the vehicles crossing them, but also on the residents living on the immediate and nearby streets, the installation will be studied within the context of an overall Neighborhood Traffic Management Study. Speed cushion requests will be handled in the order in which they are received. City staff will coordinate with the requestor to select proposed locations for installation. The cost of the evaluation and the installation of approved speed cushions will be paid for by the City based on the annual funding provided.

Speed - Speed cushions will be considered on local or collector streets where the posted speed does not exceed 30 mph. See Page 7 for Street Classifications and Page 8 for Speed Limits. Should the speed on these streets exceed the posted speed by 8 mph or more by at least 85% of those vehicles using the street, speed cushions may be considered. If the speed requirements are not met at the time of the initial study, then a second study can be conducted twelve months later to determine if the street meets the qualification.

Traffic Volumes – Each individual street location should be evaluated to justify installing speed cushions. Streets with volumes less than 400 vehicles per day will not be considered for speed cushions. However, if a study shows that area drivers are using a street as a "cut-through" route, then speed cushions may be installed regardless of speed or volumes.

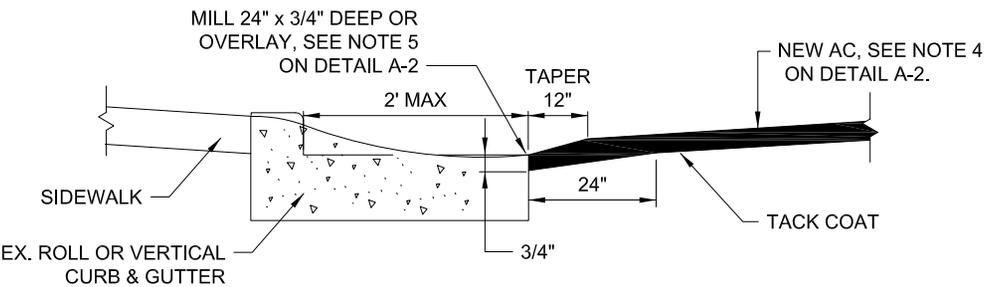
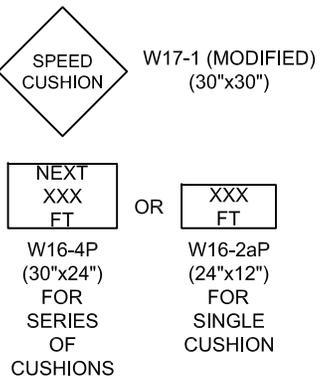
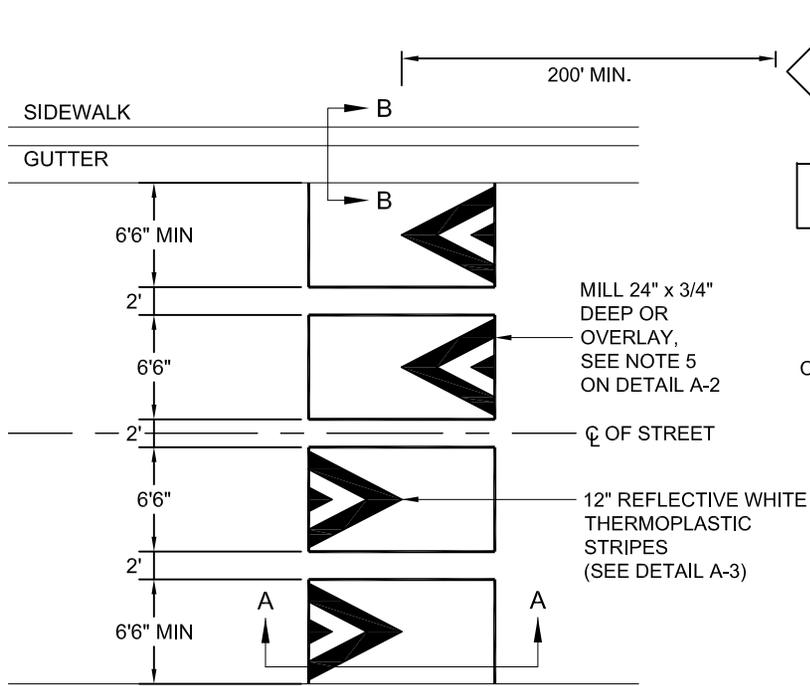
Emergency and Transit Routes – Prior to approving the locations for speed cushion installation, the proposed locations will be reviewed with police, fire, ambulance and other emergency service departments. In addition, consideration will be given to other potentially affected groups such as transit agencies, school districts, refuse collection agencies, etc. Should the proposed installation of speed cushions have a significant impact on providing emergency services, the request for installation may be denied.

Resident Surveys – Prior to obtaining signatures, City staff will determine the petition area. Resident surveys are required to determine support for speed cushion installation after it is determined that a particular street is eligible for speed cushions. A documented majority of the residents should be in favor of speed cushion installations. Signatures of the owner or the occupant are acceptable. Where proposed speed cushion locations are determined, 100% of those signatures of the properties within 100 feet are required, whereas, 75% of the resident's signatures on the rest of the affected street are required. If the area contains a Homeowners' Association (HOA) common area, the HOA Board must gain approval through board action documented in the official meeting minutes. Petitions shall be completed and returned to the City of El Mirage within three months.

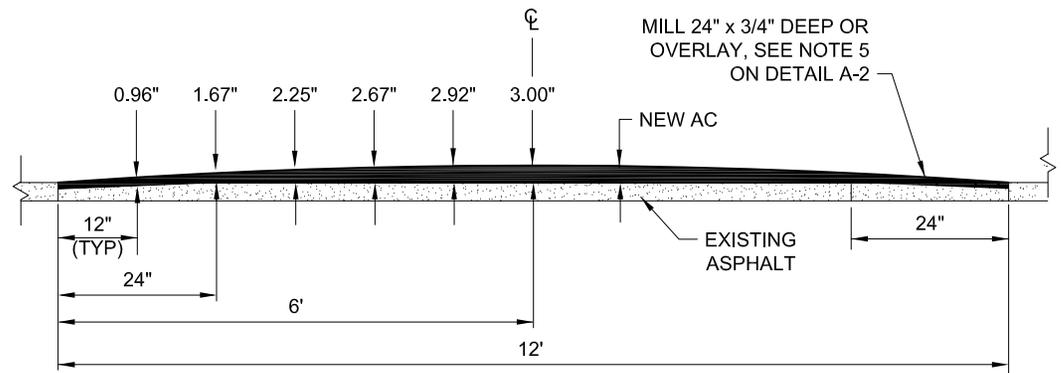
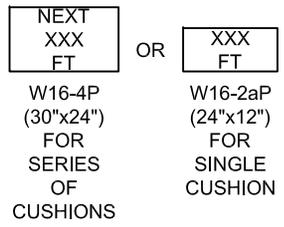
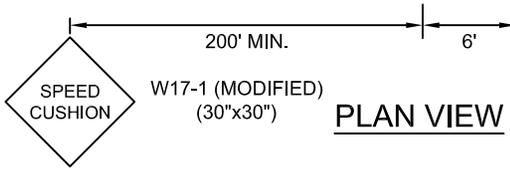
Speed Cushion Installation – After obtaining all studies, approvals, and appropriate neighborhood surveys, the City will arrange to have its contractor install the speed cushions at the City’s expense. Appropriate signs and striping will be installed by the City.

Speed Cushion Removal – Installations cannot be considered for removal for at least one year after installation. The process to remove the installation follows the same petition requirements.

Contact: Bryce Christo at 623-876-2974



SECTION B-B



SECTION A-A



ADOPTED BY COUNCIL:
JUNE 16, 2020

SPEED CUSHION

REVISION DATE: 07/2020
STANDARD DETAIL NO.
A-1

NOTES:

1. CUSHIONS MUST BE THE FULL 3" FOR MAXIMUM EFFECT BUT SHALL NOT EXCEED 3.25".
2. SPEED CUSHIONS SHALL NOT BE PLACED OVER MANHOLES, WATER VALVES, SURVEY MONUMENTS, JUNCTION CHAMBERS, ADJACENT TO FIRE HYDRANTS, OR IN CONFLICT WITH DRIVEWAYS.
3. SPEED CUSHIONS MUST BE PLACED AT LOCATIONS APPROVED BY THE CITY OF EL MIRAGE.
4. CUSHION TO BE CONSTRUCTED WITH AN APPROVED D-1/2 HEAVY VOLUME HOT MIX PER CITY OF PHOENIX STANDARD. ASPHALT COMPACTION SHALL BE PER MAG SECTION 321. A TACK COAT PER MAG SECTION 715 SHALL BE APPLIED PRIOR TO APPLICATION OF PAVEMENT.
5. INSTALLATION JOINTS:
 - A. STANDARD INSTALLATION:
THE EXISTING ROADWAY SHALL BE MILLED TO A MINIMUM DEPTH OF 3/4" AROUND THE PERIMETER. CROSS SECTION DIMENSIONS ON COEM DETAIL A-1 DO NOT INCLUDE THE 3/4" MILLING. CONTRACTOR MUST PROVIDE VERIFICATION OF CROSS-SECTION DIMENSIONS.
 - B. ALTERNATIVE INSTALLATION:
FOR TRANSVERSE JOINTS (CROSS ROADWAY), THE EXISTING ASPHALT SHALL BE SAW CUT AND REMOVED FOR A WIDTH OF 24". THE ASPHALT SHALL BE REPLACED WITH THE SAME ASPHALT AND AT THE SAME TIME AS THE CUSHION ASPHALT. FOR LONGITUDINAL JOINTS, THE EXISTING ASPHALT SHALL BE OVERLAID AND TAPERED IN 12". CROSS-SECTION DIMENSIONS ON COEM DETAIL A-1 REFLECT DISTANCE FROM THE SURFACE OF EXISTING ASPHALT.
6. CONTACT THE CITY INSPECTOR ONE WEEK PRIOR TO INSTALLATION TO COORDINATE PAVEMENT MARKINGS AND SIGNING.
7. DETAILS SHOW APPROXIMATE ELEVATIONS FOR A SPEED CUSHION.
8. CENTERLINE STRIPE MAY NOT BE IN THE CENTER OF THE ROADWAY, BUT IF NOT STRIPED, POSITION CUSHIONS SYMMETRICAL TO CENTER OF ROADWAY.
9. POSITION SPEED CUSHIONS ON STRAIGHT SECTIONS OF ROADWAY.
10. CONTRACTOR SHALL PROVIDE VERIFICATION OF DIMENSIONS.
11. THIS DETAIL IS NOT APPROPRIATE FOR STREETS LESS THAN 36' WIDE. ON STREETS LESS THAN 36' WIDE, ONLY TWO RUTS SHALL BE SPACED AT 6'6". THE RUTS SHALL BE CONSTRUCTED 3'3" FROM THE CENTER OF THE ROADWAY.

IMPORTANT:

TO GAIN MAXIMUM EFFECT, CUSHIONS MUST BE CONSTRUCTED AS PER THE SHOWN DETAILS, WITH AN ALLOWABLE TOLERANCE OF +0.25". CONTRACTORS MUST COMPLY BASED ON CONSIDERATION FOR EMERGENCY AND FIRE DEPARTMENT VEHICLES. BECAUSE OF THIS CONCERN, ANY DEVIATION FROM THE SHOWN DIMENSIONS MUST BE CORRECTED AT THE CONTRACTOR'S EXPENSE. THE OUTER CUSHIONS MUST BE EXTENDED TO THE EDGE OF PAVEMENT WITH A MINIMUM WIDTH BEING 6'6".



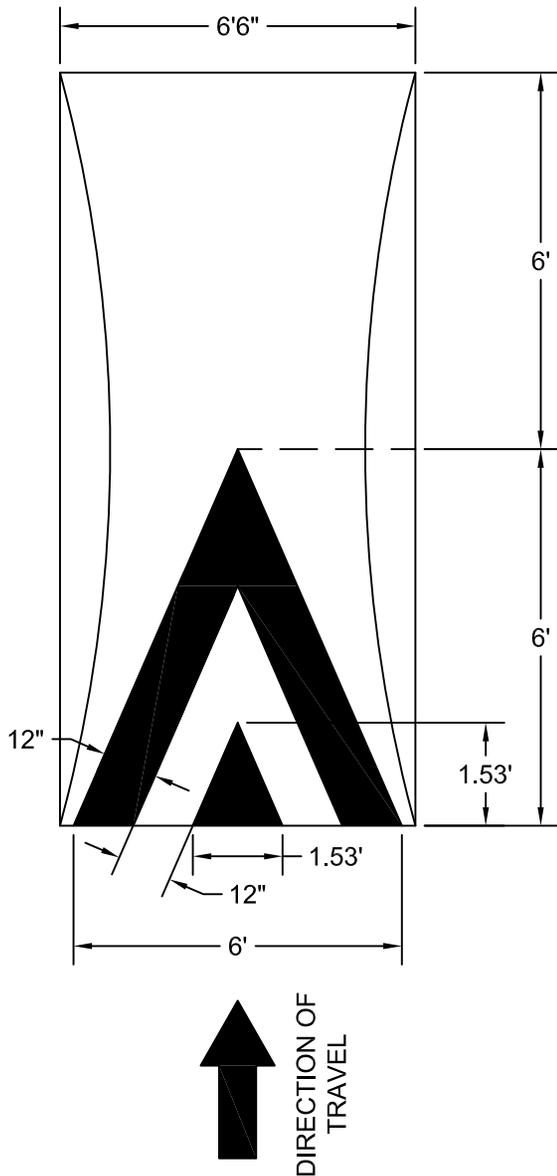
ADOPTED BY COUNCIL:
JUNE 16, 2020

SPEED CUSHION

REVISION DATE: 07/2020

STANDARD DETAIL NO.

A-2



NOTES:

1. AFTER INSTALLATION, CONTRACTOR SHALL TEMPORARILY STRIPE THE CUSHIONS WITH WATER BASED PAINT PER ADOT 7.08 SPECS.
2. CONTRACTOR SHALL PERMANENTLY STRIPE THE SPEED CUSHIONS WITH 12" WHITE MARKINGS 30 DAYS AFTER INSTALLATION.
3. PERMANENT STRIPING SHALL BE THERMOPLASTIC HOT TAPE OR 3M STA-MARK SERIES SMS-5730 OR APPROVED EQUIVALENT.
4. APPLY 3M CONTACT CEMENT, E-44 OR APPROVED EQUIVALENT TO THE ROADWAY FOR STRIPING INSTALLATION.



ADOPTED BY COUNCIL:
JUNE 16, 2020

SPEED CUSHION

REVISION DATE: 07/2020

STANDARD DETAIL NO.

A-3



**COMMUNITY DEVELOPMENT
ENGINEERING DIVISION**

10000 N. El Mirage Road
El Mirage, AZ 85335
Phone: 623-876-2974
www.elmirageaz.gov

SPEED CUSHION REQUEST FORM

Residents may begin the process for requesting Speed Cushions through the El Mirage Engineering Division. Please read the "City of El Mirage Policy for Speed Cushion Installation" on page 1 to determine if your street is eligible and for the full process and requirements. The Engineering Division will review and approve/deny the request.

- Staff will conduct a traffic count on the street to determine vehicle speeds and volumes. Local and collector streets with 85th percentile speeds at least 8 miles per hour above the posted speed limit and volumes over 400 vehicles per day may qualify.
- Staff will identify proposed speed cushion locations and create a "Preliminary Location" map.
- Staff will review the locations with emergency service departments and other affected agencies.
- Staff will create and send the requestor a petition with the area required to collect signatures.
- 100% of properties within 100 feet of the proposed locations & 75% on the rest of the affected street must sign and indicate "YES" for the request to be completed.

Please complete the information below:

Requested Street to be Considered: _____

Nearest Cross Street: _____

Contact Name: _____ Address: _____

Phone Number: _____ Email Address: _____

I understand this request will be processed according to the procedures detailed in the "City of El Mirage Policy for Speed Cushion Installation". I agree to be the contact person for the above request.

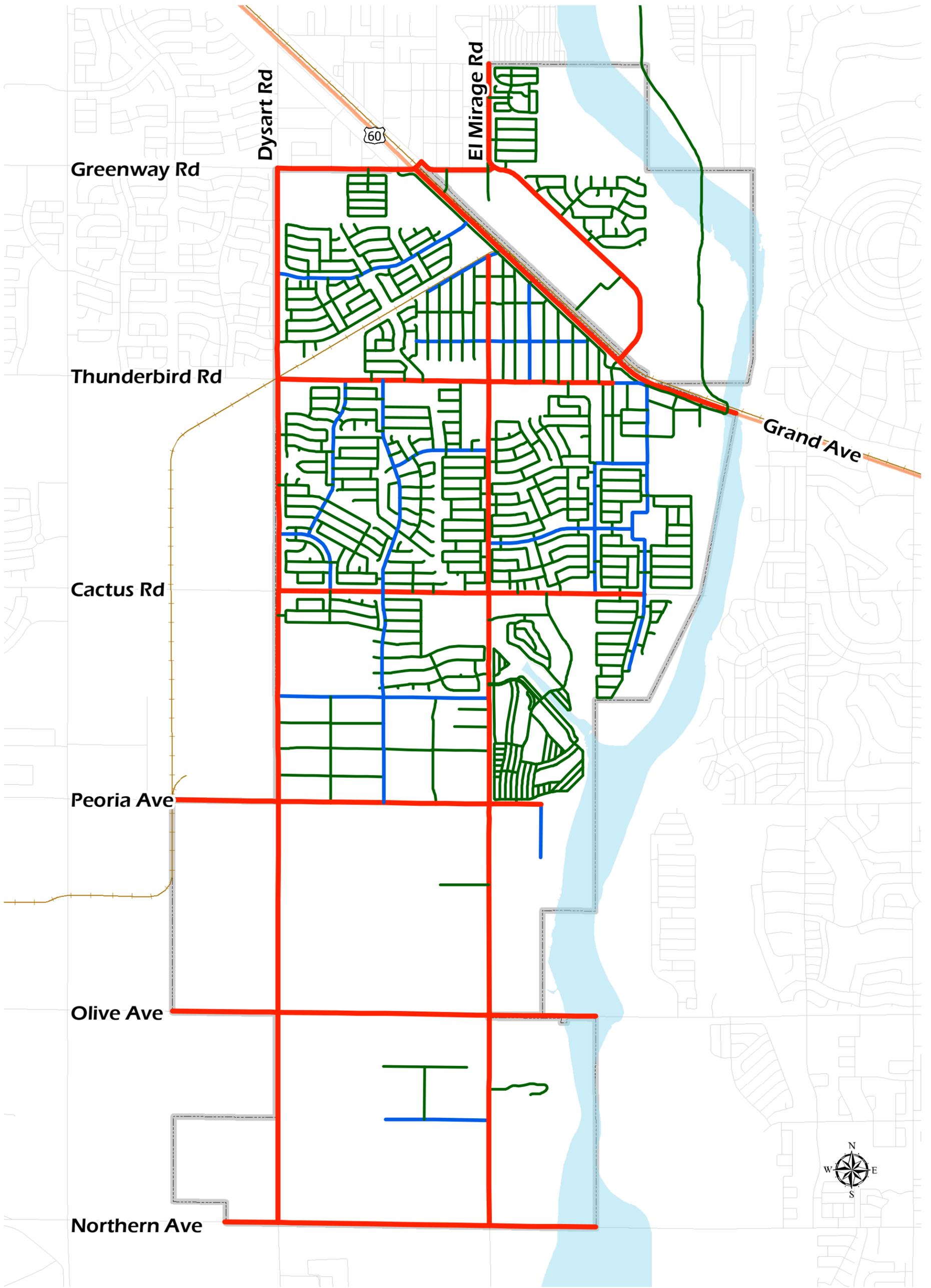
Signature of Applicant _____ Date _____

Please send the completed form to:

City of El Mirage
Community Development - Engineering
Re: Speed Cushion Request
10000 N. El Mirage Road
El Mirage, AZ 85335

For Office Use Only

APPROVED DENIED



- LOCAL STREET
- COLLECTOR STREET
- MAJOR ARTERIAL
- FLOODPLAIN
- CITY BOUNDARY



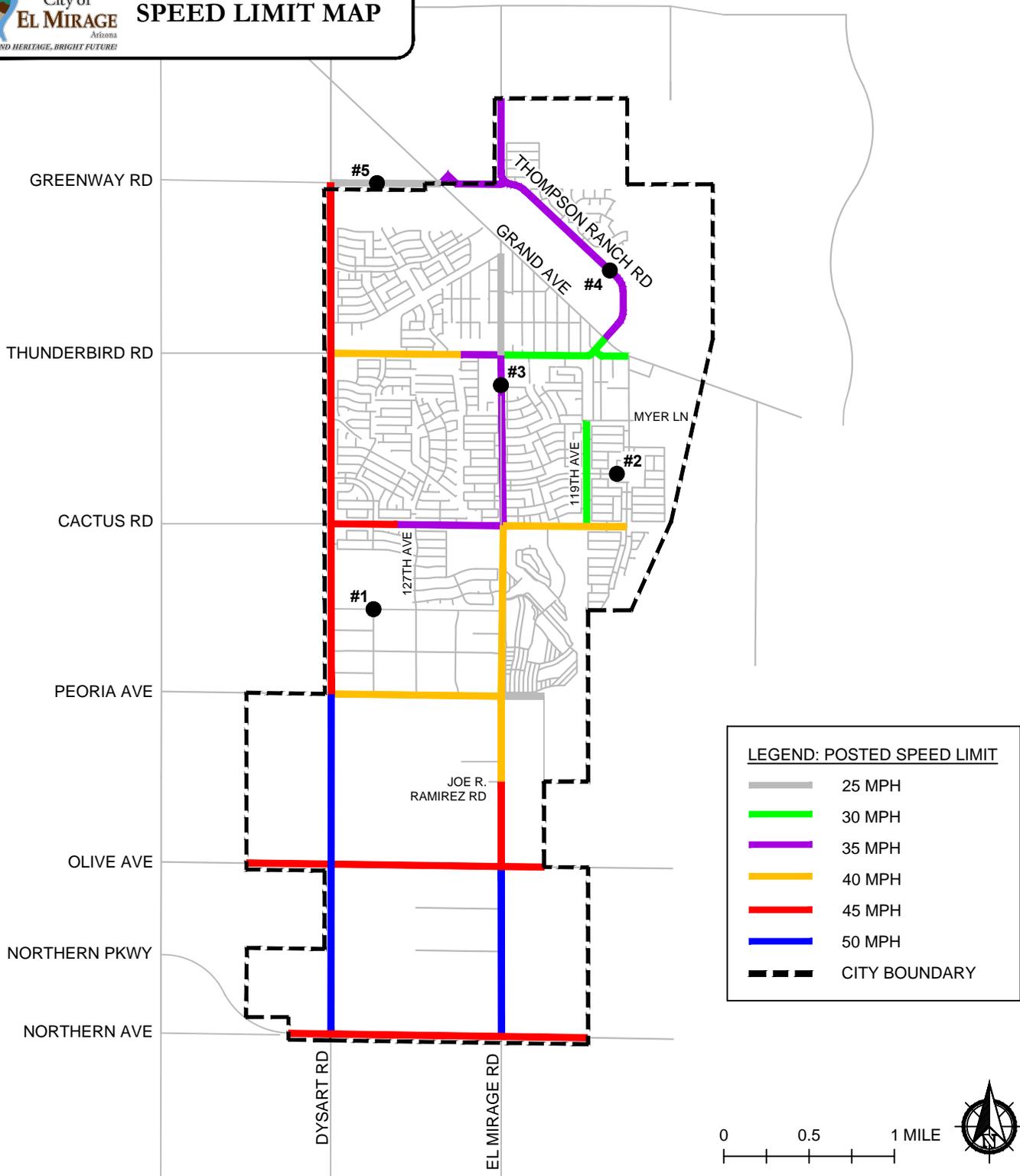
0 0.25 0.5 1
Miles

Source: City of El Mirage: D&CS - Engineering
 Note: Street classification are base off the City of El Mirage City Code 75.03.

Street Classifications Map

Prepared by:
 D&CS - Planning & Zoning/GIS
 April 2016

SPEED LIMIT MAP



PLEASE NOTE THAT:

- THE SPEED LIMIT APPROACHING SCHOOL ZONES WITH YELLOW SCHOOL CROSSWALKS WHEN PORTABLE SIGNS ARE IN PLACE IS 15 MPH.
- THE SPEED LIMIT APPROACHING SCHOOL ZONES WITH FLASHING SIGNAL LIGHTS IS 25 MPH. SCHOOL ZONES WITH FLASHING SIGNALS ARE NUMBERED ABOVE AND LISTED BELOW:
 3. EL MIRAGE ELEMENTARY - 7:30AM TO 3:30PM
 4. THOMPSON RANCH ELEMENTARY - 8:30AM TO 4:30PM

- THE SPEED LIMIT ON ALL LOCAL AND COLLECTOR STREETS IS 25 MPH, EXCEPT 119TH AVENUE FROM MYER LANE TO CACTUS ROAD AND THUNDERBIRD ROAD EAST FROM THUNDERBIRD ROAD TO MAIN STREET.
- SCHOOL ZONES ARE NUMBERED ON THE MAP ABOVE AND LISTED BELOW:
 1. DYSART ELEMENTARY
 2. RIVERVIEW ELEMENTARY
 3. EL MIRAGE ELEMENTARY
 4. THOMPSON RANCH ELEMENTARY
 5. SURPRISE ELEMENTARY