

# 2015 MAJOR GENERAL PLAN AMENDMENT

## CIRCULATION ELEMENT

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#### 3.0 GOALS

1. Encourage public safety through appropriate street design.
2. Improve "Level of Service" within the Community through coordinated street design, signal spacing and access management within the community and with adjacent communities.
3. Plan and provide for alternative methods of transportation.

#### 3.1 PURPOSE

The purpose of the Circulation Element is:

- To provide an outline of existing street and roadway conditions,
- To provide guidance and goals for public transportation, multi-modal pathways, and other modes of transportation,
- To list and define the different street classifications,
- To map the existing and future roadway network,
- To show how the City's streets relate to both existing land use and proposed future land use, and finally,
- To provide guidance to the City of where infrastructure should be upgraded to facilitate more efficient movement of people, goods and services within the City of Eloy.

#### 3.2 EXISTING CHARACTER

Within the City boundaries there are approximately 150 miles of existing roadway. These roads vary in size and condition. Some roads are in serious need of repair while other roads are newly constructed or have recently been resurfaced.

The City's downtown was initially laid out using a radial street pattern. This was later modified into a grid pattern with Arterials planned at each mile. This situation has led to offset intersections as well as five (5) five-legged intersections which are a hazard to both vehicles and especially pedestrians. The confusion that these types of intersections create can be the cause of accidents and/or serious injury/death as traffic volumes increase.

#### Roadways

The local roadway network is based on the one-mile grid system originally established in Pinal County. There are six basic street classifications used by the City, specifically: Interstate Freeways/State Highways; Major and Minor Arterials; Major and Minor Collectors; and Local Streets.

## Airport

The Eloy Municipal Airport was opened to the public in February 1969 and is a general aviation facility. The Eloy Municipal Airport is located approximately three miles northwest of City Hall and encompasses approximately 90-acres in area. The airport was initially constructed by the Air Force for training purposes. Estimated air traffic using the airport is roughly 52,000 operations annually. It has one runway approximately 3,900 feet in length and 75-feet wide. The airport has five conventional hangers and twelve T-hangers with a parking apron 150-feet by 300-feet.

The Eloy Municipal Airport is currently used for general aviation and skydiving activities, with no scheduled services to other locations. Recommendations for future upgrades to the airport to meet potential and desired demand includes the extension of the runway, new T-hangars, and a new terminal building, to name a few.

## Multi-Use Pathways

Currently, there are 95 miles of existing pathways and trails within Eloy's Planning Area. These pathways currently include everything from dirt pathways to sidewalks.

## Public Transportation Alternatives

No intercity public transportation of any kind is currently available in Eloy. The closest Greyhound stop is in Casa Grande and the closest Amtrak stop is in the City of Maricopa. Greyhound serves Casa Grande twice daily in each direction with schedules operating between Tucson and Phoenix. Local Bus Service: The Cotton Express and Central Arizona Regional Transit currently serve the City of Casa Grande, City of Coolidge and Town of Florence.

Amtrak's Sunset Limited, which operates between Los Angeles and New Orleans, stops in Maricopa three times weekly in each direction.

## Railroad

The Union Pacific Railroad operates approximately 45-55 freight trains daily on the railroad line located south of, and parallel to, Frontier Street (Highway-84). As a result of the pending double-tracking of the Sunset Route, all railroad crossings have been upgraded and as such have minimized safety concerns. Currently, there are no stops or passenger services on this line in Eloy. Both freight and passenger services exist on a branch line located east of Highway-87.

### 3.3 DISCUSSION

#### Circulation Plan

The City of Eloy's circulation system is composed primarily of two Circulation Plan components, the roadway network and the multi-use path network, with the recommended characteristic of each discussed below.

#### Roadway Network Roadway Network

The roadway system consists of a hierarchy of streets which range in widths and traffic volume capacity. For example, an arterial's main function is to carry the largest volume of traffic from collector streets to places of employment, retail, offices, and to the City gateways and then funnel the traffic back to the collectors. Functional characteristics include roadway type, function, right-of-way width, lane configuration, pavement width (curb-to-curb), and average daily traffic (ADT).

#### Roadway Descriptions

##### Interstate Freeway / State Routes (Highways)

Freeways and State Routes should connect major metropolitan areas, and carry a high proportion of vehicular travel on a minimum of mileage. Freeways and State Routes should be integrated with arterial streets. Freeways and State Routes generally have full access control and consist of interstate highways, other freeways or U.S./State routes. This class of street is designed to handle higher speeds between 55 and 75 mph as well as between 11,000 and 22,000 vehicle trips per day. Number of lanes should range between 3 and 5 (one direction) with a total right-of-way width of 130-feet or greater.

##### Arterial (Principal - RSR, Major and Minor)

Arterials are major streets that are designed to move large volumes of traffic within each community and between cities and towns and are typically spaced at one-mile or greater intervals. These streets are typically constructed with a total of four to six lanes of traffic, and have a raised or striped median. Access to arterials should be limited to intersections at approximately one-quarter mile intervals and from the driveways of major developments. No on-street parking is allowed on arterial roadways.

These streets are typically designed to handle between 8,900 and 11,740 vehicle trips per day with speeds ranging from 45 to 55 mph. Total right-of-way width for arterials range from approximately 110- to 130-feet.

##### Collector (Major and Minor)

Collector streets provide mobility and access between local streets and arterials, local streets to other local streets, as well as, allowing access to properties fronting onto the street. Collectors are generally spaced at one- half mile intervals. These streets are constructed with a total of two to four travel lanes, and typically have a striped or raised median. Travel speeds on collector streets are typically set at 35 mph. Collector's usually have right-of-way widths ranging from 70- to 80-feet.

<b>CIR-1: Roadway Functional Classification &amp; Characteristics*</b>					
<b>CLASSIFICATIONS</b>	<b>CHARACTERISTICS</b>				
	<b>Primary Function</b>	<b>Configuration (both sides included)</b>	<b>Right of-Way Width</b>	<b>Width Curb-to Curb</b>	<b>Maximum Vehicle Trips Per Day</b>
Freeway/State Route	Mobility	4 and Greater Divided	300+	---	>55,000
Major Arterial (Principal)	Mobility	6 Lanes + Divided Median	150' - 130'	124' - 104'	45,000 - 55,000
Minor Arterial	Mobility / Access	4 Lanes + Raised Median	110'	80'	30,000
Major Collector (Commercial)	Access / Mobility	3 Lanes + Two Way Turn Lane	80'	54'	10,000
Minor Collector	Access	2-3 Lanes + Two Way Turn Lane	70'	48'	8,000
Local	Access	Two Lanes	50'	32'	1,000

Collectors may have on-street parking, although this is typically not permitted near intersections and curbs-cuts for visibility purposes. Collector roadways designated within the Eloy Planning Area are generally located on the midsection-line boundaries.

### Local Road

Local roadways serve local traffic, providing access to adjacent properties and roadways of higher classification. Local roadways usually have two lanes and low travel speeds (25 mph or slower), and allow on-street parking. A typical right-of-way width for a local street is approximately 50-feet.

Future subdivision developments and local street construction should focus on a non-grid internal street pattern to help slow traffic, create visual aesthetics (when coupled with a landscaping theme), create a sense of place and variety within each individual development and create a more pedestrian friendly environment.

## Multi-Use Pathway

The purpose of a multi-use pathway system is to provide residents with other transportation alternatives to travel within the community without a vehicle. Other transportation options include walking, jogging, bicycling, skating, or horseback riding. Non-vehicular travel may provide a wide-range of benefits, such as increased mobility and access as well as enhanced recreational activities, improved air quality, and better personal health.

The multi-use pathway system consists of trails and bike routes/paths. The trails typically consist of shared-use paths that are physically separated from vehicular traffic. These may be paved or unpaved, and may be located within an existing roadway right-of-way or within an existing utility or canal right-of-way or easement.

Bicycle paths are comprised of both trails and lanes. A bicycle lane is a one-way travel lane located along the edge of a paved street. A bicycle trail is a non-vehicular pathway identified for bicycle use by signage only. Bicycle trails are physically separated from vehicular traffic, and may be paved or unpaved.

Aside from the 95 existing miles of trails and pathways, Pinal County's Open Space Master Plan also shows an additional 44 miles of proposed trails. As the City expands into its Planning Area through future annexation and when these areas are developed, an analysis of the proposed pathway system should be completed. Developers should be encouraged to set aside, construct and possibly dedicate pathway network improvements within or adjacent to their development.

Opportunities exist for developing a system of urban multi-use trails along the street, utility, and railroad rights-of-way that could be used for pedestrian, equestrian, and bicycle travel. Potential locations for these trails include Frontier Boulevard (south side), Sunshine Boulevard (west side), Hanna Road (south side), Milligan Road (south side), SR-87 (west side), Toltec Highway (east side), and Sunland Gin Road (west side). In the future, a more comprehensive Parks, Recreation, and Trails Master Plan could be developed and adopted that will confirm such corridors.

## High Capacity Transportation Corridors

A series of recent studies have identified several key transportation corridors for future consideration within the Eloy Planning Area. The Arizona Department of Transportation is currently assessing (through an Environmental Impact Statement) two routing options for a future North-South Freeway. The intent is to connect US 60 in northern Pinal County to Interstate 10 within the City of Eloy. The City of Eloy supports (through Resolution 15-1343) Segment Z/AA which utilizes the existing SR 87 roadway and terminates at Interstate 10.

The Intermountain West Corridor is intended as a multimodal transportation facility to diversify, support, and connect the economies of Arizona and Nevada, ultimately linking Mexico and Canada. The connection between Phoenix, Arizona, and Las Vegas, Nevada has been analyzed, and the segment through Eloy may utilize the existing I-10 corridor, or, it may deviate to the south of I-10 within the Eloy Planning Area.

No funding has currently been set-aside for the construction of these conceptual corridors.

## Railroad

The rail line through Eloy was originally constructed by the Southern Pacific in 1880 and parallels Frontier Street. The Union Pacific rail line (also known as the Sunset Route), which was acquired by the Union Pacific in 1996, traverses the southern portion of Arizona, connecting Los Angeles with Tucson, El Paso, Houston, and New Orleans.

Currently, between 45 and 55 freight trains operate through Eloy daily. The largest of the commodities shipped on these trains are Agricultural Products (grains, grain products, and food & refrigerated products); Automotive (finished vehicles and auto parts); Chemicals (Fertilizer, Plastics, Industrial Chemicals, Soda Ash, Petroleum LPG and Crude Oil); Coal (Coal and petroleum coke); Industrial Products (Lumber, construction products, metals, minerals/consumer, paper, other); Intermodal (Domestic and international), Mexico (Autos, intermodal, agricultural, industrial products, chemicals and coal); and some 10,000,000 tons of coal (shipped in) to run the state's power plants.

Train traffic is anticipated to increase when a second parallel line is completed through Eloy and could get as high as 80 trains per day by 2013.

Currently, the only grade-separated crossings of the Union Pacific in the vicinity of Eloy's Planning Area are the I-10 viaduct west of Toltec and the SR 87 viaduct at Picacho. However, as the parallel track is constructed and daily train volumes increase, the at-grade rail crossings at Sunland Gin Road, Toltec Highway, Houser Road, Battaglia Drive, Eleven-Mile Corner Road, Main Street and Sunshine Boulevard will become more of a concern with respect to both vehicular safety and mobility.

In the future, the proposed development of the Red Rock Rail Yard is a 367-acre property located on the east side of the Red Rock/Interstate 10 Interchange. The Rail Yard would be constructed as a classification yard, where the Union Pacific Railroad optimizes efficiency and reduces the number of trips made hauling empty cars. It is intended to be planned with approximately two miles of freeway frontage and also fronts the Union Pacific Railroad's Sunset Route. If successful, a major multi-modal rail served warehouse/distribution facility has the potential to generate job opportunities for the region.

### 3.4 OBJECTIVES

The objectives provide the City necessary direction in order to create and enhance a functional circulation network and to interweave viable alternative transportation modes that could reduce reliance on the automobile.

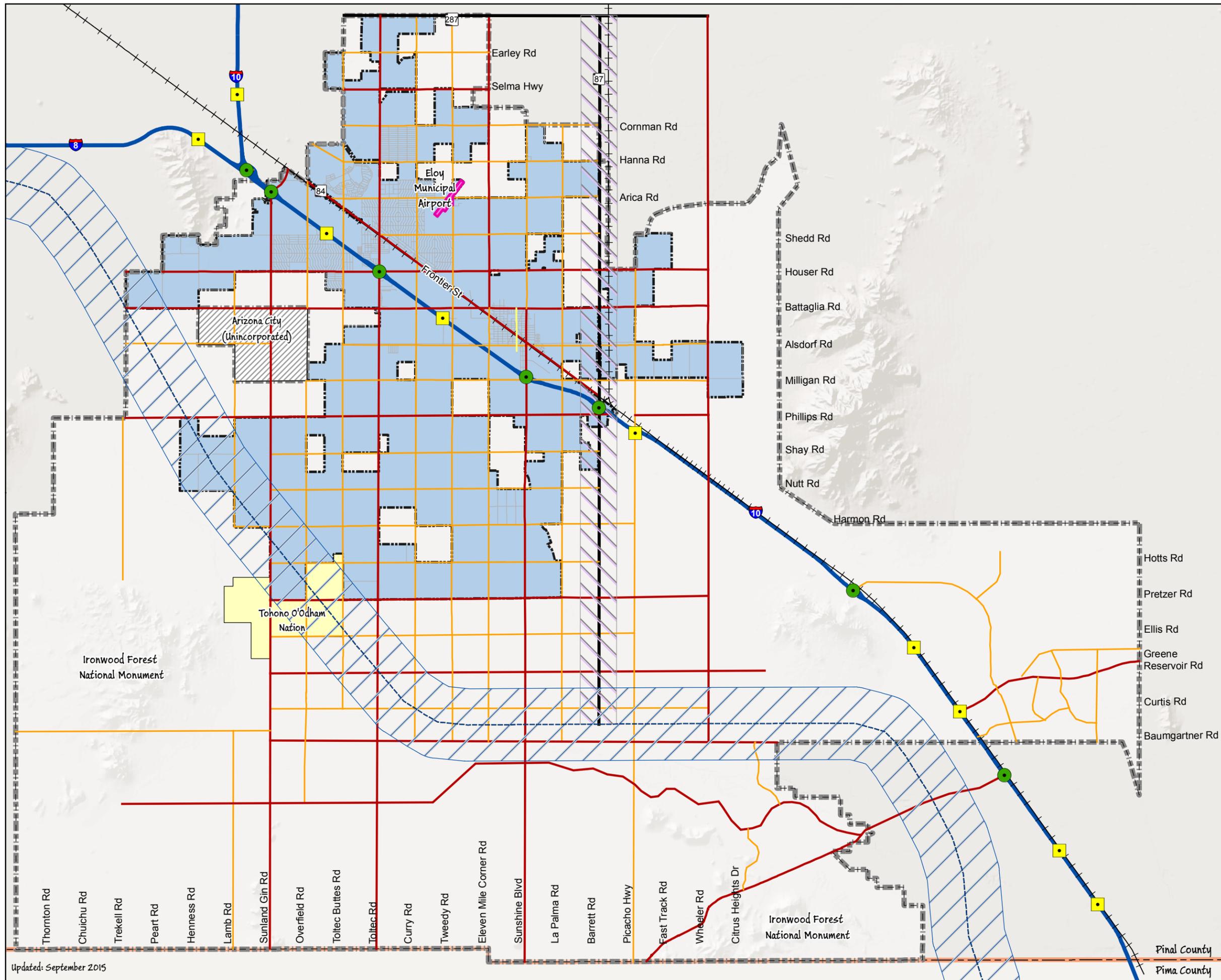
1. Adopt street standards and policies in order to:
  - a. Optimize both local and regional circulation and accessibility for people, goods and services safely, efficiently, and cost effectively;
  - b. Improve and maintain street safety;
  - c. Improve and maintain the quality of street surfaces;
  - d. Manage vehicular access onto the street;
  - e. Reduce accidents at off-set and five-legged intersections;

- f. Implement traffic sign upgrades and pavement rehabilitation actions as recommended in the city of Eloy Small Area Transportation Study, for both streets and railroad crossings; and
  - g. Implement measures necessary to reduce the higher-than-average accident rates at identified roadways or intersections.
2. Provide a circulation network capable of accommodating travel demand for existing and proposed land uses by:
    - a. Adopting a street classification system specifying functional classification, roadway right-of-way (ROW) widths, typical cross-sections, design standards, and improvement standards;
    - b. Incrementally upgrading existing roadways to comply with the street classification system as demand warrants;
    - c. Requiring new developments to adhere to the street classification system and dedicate adequate right-of-way;
    - d. Monitoring vehicular accidents, determining their causes and then adopting policies to avoid similar situations in the future;
    - e. Promoting paving/topical treatment of dirt and gravel roads and prohibiting the creation or continuation of unimproved roads, especially as new development occurs.
  3. Work with other government entities [e.g., Arizona Department of Transportation (ADOT), Sun Corridor Metropolitan Planning Organization (SCMPO), Pinal County, Central Arizona Association of Governments (CAAG), City of Casa Grande, etc.] to improve and maintain the regional roads, including State Routes and Interstates 8 and 10.
  4. Determine and define traffic impact mitigation measures to preserve mobility and access through the City's roadway network.

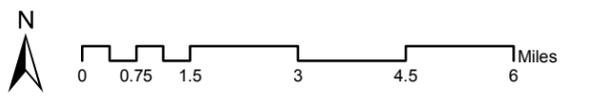


# Circulation Element

## Eloy General Plan



- Interstate
- State Highway
- Major Arterial
- Minor Arterial
- Two Lane Collector (Main St.)
- Union Pacific Railroad
- Existing Interchange
- Potential Interchange
- Preferred North-South Corridor
- Proposed I-11 Corridor
- Eloy Incorporated Area
- Eloy Planning Area



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