

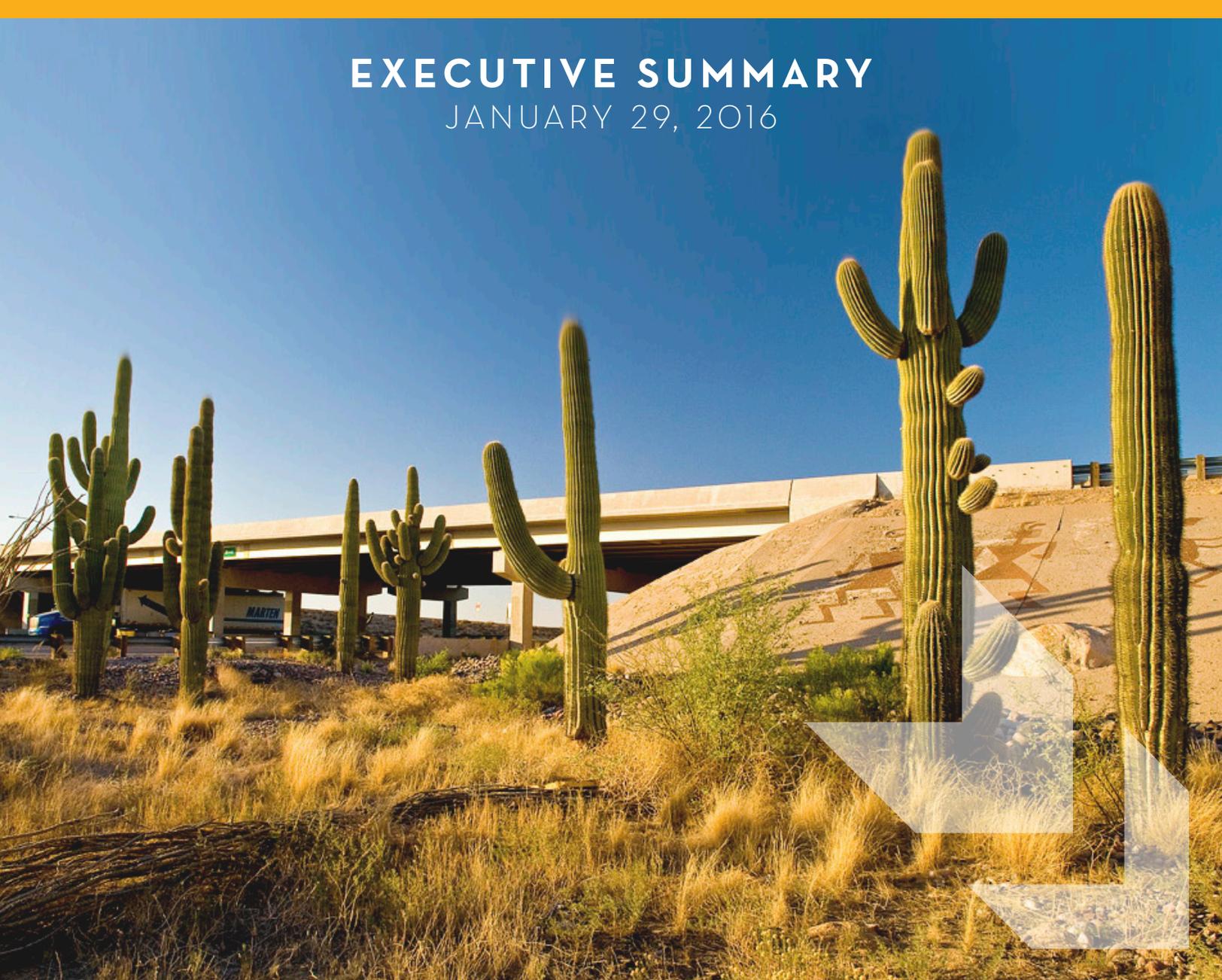


# REGIONAL TRANSPORTATION PLAN 2040

## CREATING CONNECTIVITY

### EXECUTIVE SUMMARY

JANUARY 29, 2016



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## Introduction

The Sun Corridor Metropolitan Planning Organization (Sun Corridor MPO) was formed in 2013, after the 2010 U.S. Census determined that the City of Casa Grande had reached a population over 50,000. Federal law requires that a Metropolitan Planning Organization (MPO) be formed to provide transportation planning within designated boundaries. The Sun Corridor MPO encompasses 1,155 square miles, and provides transportation planning services to the region that includes the cities of Casa Grande, Coolidge, and Eloy, and adjacent rural portions of Pinal County. The 2015 population of the Sun Corridor MPO is 119,332. The Sun Corridor MPO region is shown in Figure 2.

## Sun Corridor MPO Regional Transportation Plan 2040, Creating Connectivity

The Sun Corridor MPO has completed its first Regional Transportation Plan (RTP). The Sun Corridor MPO RTP defines the region's strategy for creating a regional transportation system that accommodates the current mobility needs of residents, while also looking to the future.

The RTP describes how federal transportation funds, provided to the Sun Corridor MPO, will be expended over the next 25 years, from now until 2040, within the Sun Corridor MPO planning area. The RTP is a financially constrained plan, meaning that projected expenditures are programmed consistent with anticipated revenue.

The RTP addresses all modes of transportation, including automobile, bicycle, pedestrian, transit, air, and rail movements. The RTP is updated once every four years, enabling the plan to evolve as the region continues to grow and develop.

### What is a Metropolitan Planning Organization?

The Regional Transportation Plan is a long-term blueprint for the region's transportation.

The plan fulfills federal requirements and serves as the region's transportation vision.

Federal funding cannot be allocated to transportation projects and programs unless they are included in the Regional Transportation Plan.

The Plan is updated every four years to ensure that it continues to meet the needs of the region.

The RTP provides an overall transportation policy vision for the region, as shown in Figure 1. The Sun Corridor RTP identifies an investment strategy and a project selection and prioritization process to guide how federal funds are spent on transportation improvements within the region.

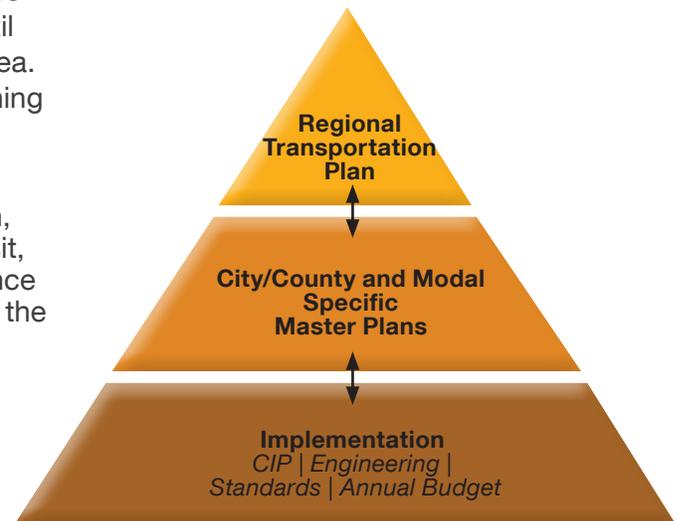


Figure 1 – RTP Provides Overall Regional Transportation Policy Vision

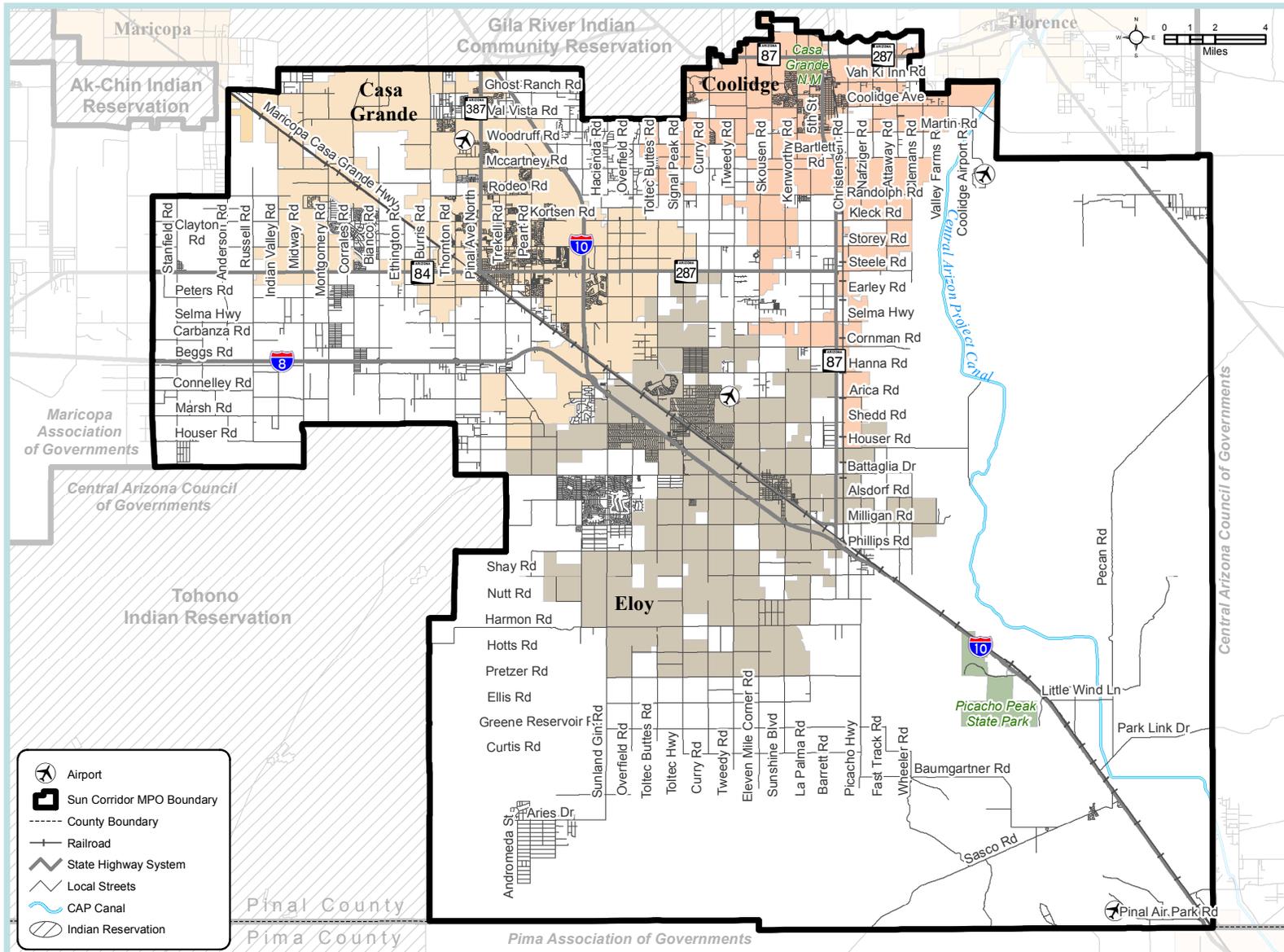


Figure 2 – Sun Corridor MPO Region

## How Will the Region Grow in the Future?

As illustrated in Figure 3, the Sun Corridor MPO planning area 2015 population is estimated to be 121,979 persons. The most densely populated areas are centered primarily in the incorporated cities of the region. The population of the Sun Corridor MPO planning area is anticipated to grow to approximately 330,000 persons in 2040. This represents an annual average growth rate of 4.06% per year over the next 25 years. The total number of jobs in the region is estimated to grow from approximately 37,000 employees today to 131,367 by 2040 as shown in Figure 4.

**Projected Population Growth**

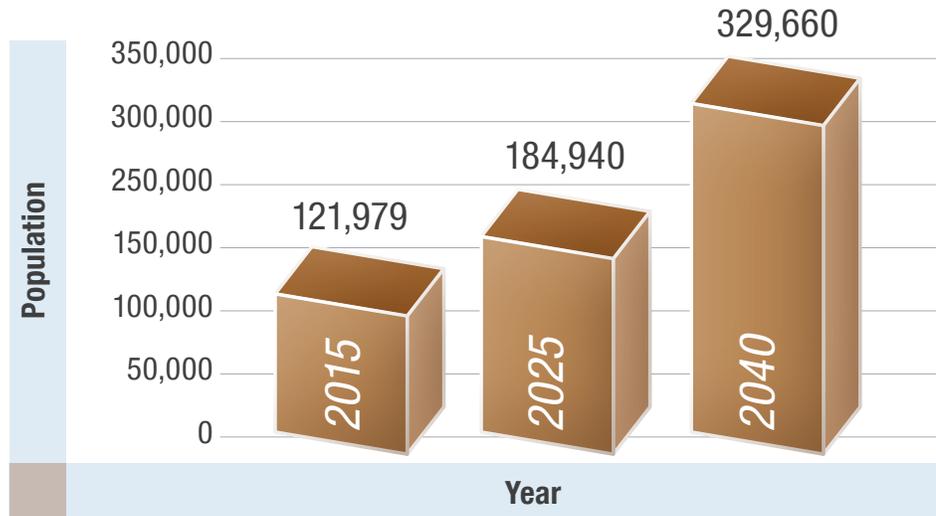


Figure 3 – Projected Population Growth in the Sun Corridor MPO Region

**Current and Future Employment**

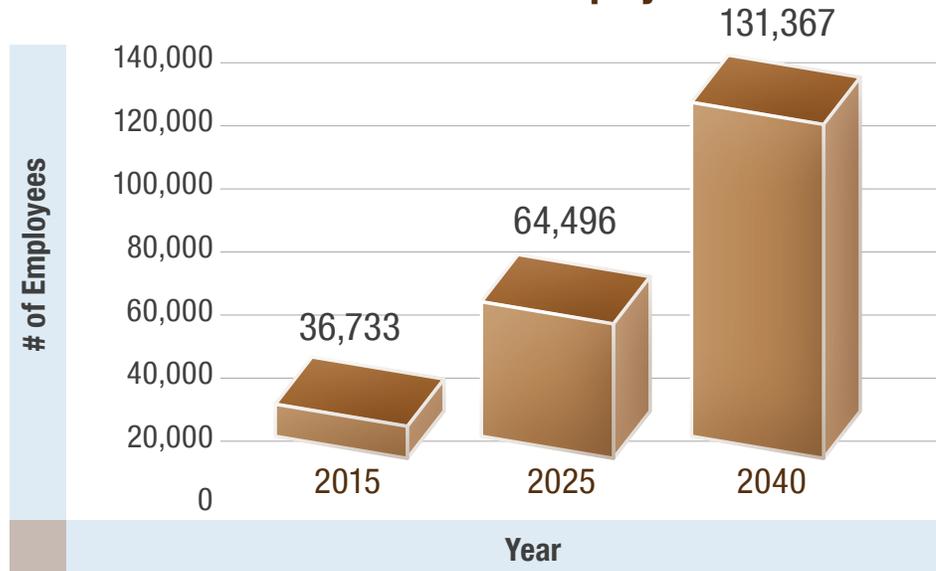


Figure 4 – Current and Future Employment in the Sun Corridor MPO Region

Source: Maricopa Association of Governments

## How are the Region’s Transportation Systems Performing?

The Sun Corridor regional transportation system consists of roadways, transit systems, bicycling and walking pathways, and airports as listed in Figure 5.

### Sun Corridor MPO Region’s Transportation Systems

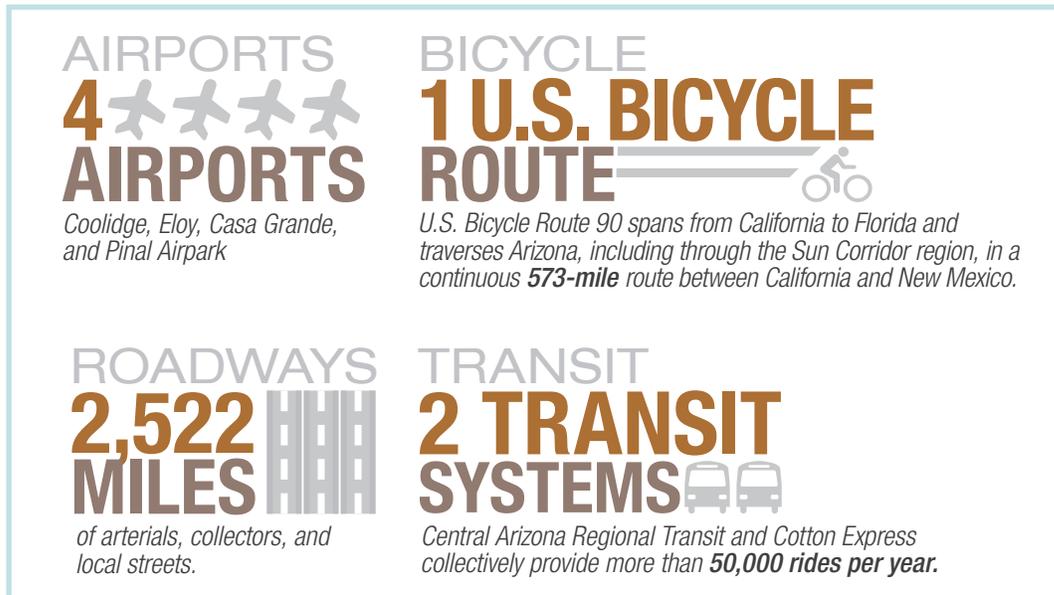


Figure 5 – Sun Corridor MPO Region’s Transportation Systems

### Roadways

Roads serve as the foundation of the Sun Corridor MPO regional transportation network, accommodating motor vehicles, freight, transit users, and pedestrians and bicyclists. Roads are the main component of the transportation network throughout the MPO, and the primary public space in which MPO residents travel and recreate on a daily basis. In all, there are 2,522 miles of roads of various conditions and types. The efficiency, safety, and condition of the MPO’s road and bridge network is essential to the functionality of the other transportation modes, and to the economic prosperity and quality of life of the Sun Corridor MPO region.

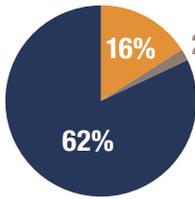
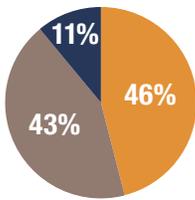
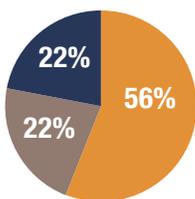
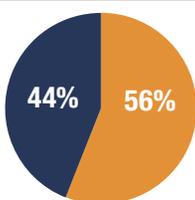
Current traffic congestion levels in the Sun Corridor MPO planning area were analyzed using Level of Service (LOS), a measure which rates the performance of the roadway network in terms of the degree of congestion, using the Letters A through F with A being the best, and F being the worst. In general, the roads within the region are operating in the LOS A to C range, with the exception of I-10, which operates at LOS D throughout much of the region.

In 2025, traffic volumes will increase as development continues. While most roadways will remain uncongested, congestion is projected to occur on Attaway Road, from Vah Ki Inn Road north to the Gila River and into Florence.

In 2040, more congestion is expected to occur, particularly on sections of SR 84, Maricopa-Casa Grande Highway, Sunland Gin Road, Bianco Road, Toltec Road, SR 287, and Attaway Road, which are projected to operate at either level of service F, or E-F. Other roads projected to operate at level of service E are sections of Kortsen Road, McCartney Road, Peters Road, Selma Highway, Houser Road, Tweedy Road, Val Vista Road, and Vah Ki Inn Road.

## Pavement Condition

A review of pavement condition demonstrates that the City of Casa Grande does an excellent job at maintaining their arterial and collector roadways, with more than 80% of roadways in good, very good, or excellent condition. Within unincorporated Pinal County, 44% of arterial and collector roadways are in good, very good, or excellent condition. Within Eloy and Coolidge, less than 25% of arterial and collector roadways are in good, very good, or excellent condition, as demonstrated in Table 1.

Table 1 – Condition of Arterial and Collector Roadways in the Sun Corridor MPO Region		
Percent of Arterial and Collector Roads*	Condition	
<b>Casa Grande</b>		
82.1%	good, very good, or excellent	<b>Casa Grande Arterial and Collector Road Condition</b>  <ul style="list-style-type: none"> <li><span style="color: #003366;">■</span> Good, Very Good, or Excellent</li> <li><span style="color: #FF9933;">■</span> Fair</li> <li><span style="color: #996666;">■</span> Poor or Very Poor</li> </ul>
15.9%	fair	
2.0 %	poor or very poor	
<b>Coolidge</b>		
11.3%	good, very good, or excellent	<b>Coolidge Arterial and Collector Road Condition</b>  <ul style="list-style-type: none"> <li><span style="color: #003366;">■</span> Good, Very Good, or Excellent</li> <li><span style="color: #FF9933;">■</span> Fair</li> <li><span style="color: #996666;">■</span> Poor or Very Poor</li> </ul>
46.3%	fair	
42.5 %	poor or very poor	
<b>Eloy</b>		
22.5%	good, very good, or excellent	<b>Eloy Arterial or Collector Road Condition</b>  <ul style="list-style-type: none"> <li><span style="color: #003366;">■</span> Good, Very Good, or Excellent</li> <li><span style="color: #FF9933;">■</span> Fair</li> <li><span style="color: #996666;">■</span> Poor or Very Poor</li> </ul>
55.9%	fair	
21.6%	poor or very poor	
<b>Pinal County</b>		
44.3%	Good, very good, or excellent	<b>Pinal Arterial and Collector Road Condition</b>  <ul style="list-style-type: none"> <li><span style="color: #003366;">■</span> Good, Very Good, or Excellent</li> <li><span style="color: #FF9933;">■</span> Fair</li> </ul>
55.7%	fair	

\*Note: Percentages are calculated based on the number of inspected arterial and collector roads.

## Safety

Safety is a top-priority for the Sun Corridor MPO region. As listed in Table 2, over a 10-year period (2005-2014), there were more than 17,000 crashes within the region, including 246 fatal crashes, an average of 20 fatalities and 45 serious injuries annually on Sun Corridor MPO area roadways.

Currently, the Sun Corridor MPO is preparing a Strategic Transportation Safety Plan. Once completed, recommendations from the Strategic Transportation Safety Plan will be referenced as part of the RTP.

**Table 2 – Crash Severity in the Sun Corridor MPO Region, 2005-2014**

Collision Severity	Number of Collisions	Percent of Total
Fatal	246	1.4%
Incapacitating Injury	655	3.8%
Non-Incapacitating Injury	2,074	12.2%
Possible Injury	2,353	13.8%
No Injury	11,698	68.7%
Total	17,026	100.0%

## Transit

The Sun Corridor MPO is responsible to coordinate transit systems funding and investment. The MPO TAC collaboratively ensures that transit investments serve to support regional transportation priorities and goals. Two public transit systems currently operate in the Sun Corridor MPO region. The Cotton Express provided 27,687 passenger trips for the period October 1, 2013 to September 30, 2014.

Central Arizona Regional Transit service provided 26,224 passenger trips for the period October 1, 2013 to September 30, 2014.



## Aviation

Aviation represents another critical transportation mode in the Sun Corridor region. While airport investments (taxiways, runways, terminals, etc.) are guided by the Federal Aviation Administration, the Sun Corridor MPO is responsible for ensuring that investments in airport and aviation facilities become part of the region’s intermodal transportation system by improving connectivity and access to them by other transportation modes including by vehicle and freight, walking, bicycling, or transit. Multimodal access to aviation facilities can promote economic development and tourism. The four municipal airports in the Sun Corridor region include:

- ⇒ Casa Grande Municipal Airport
- ⇒ Coolidge Municipal Airport
- ⇒ Eloy Municipal Airport
- ⇒ Pinal Airport



## Freight

Efficient, reliable, and strategically designed transportation infrastructure benefits businesses by lowering transportation and shipping costs and providing quicker access to markets and services. This leads to their improved economic competitiveness and growth, and that of the region.

Regionally, a key challenge for the Sun Corridor MPO and member agencies is balancing the need for truck-friendly road configurations to support industrial development, while also encouraging viable, modern commercial and residential development.



There is a need for a regional freight network to be defined within the Sun Corridor MPO region, as well as road design guidelines. Transportation plans need to consider alternative truck-traffic routing that will enhance connectivity between industrial investment areas and I-10, and protect the region’s ability to have efficient and effective road designs promoting commercial and residential development in a livable community.

## How Much Funding is Available for Transportation Improvements?

Federal transportation revenues for transportation are associated with distinct funding sources and funding requirements and are not transferable except in special cases. Federal funding available for surface transportation (roadways) are summarized in Table 3. Highway Safety Improvement Funds (HSIP) are migrating to a statewide, performance-based distribution beginning in 2019. As such, the Sun Corridor MPO is not forecasting these funds to be consistently available to the region. Note that the \$17M available within the Sun Corridor MPO region for roadway-related improvements represents a very small portion of the funding needed to maintain and improve the region’s transportation system. At a cost of \$1M to \$2M per lane-mile of new roadway, available federal funds in the Sun Corridor MPO region are only sufficient to construct less than 10 miles of new roadway over a 25-year period.

<b>Time Period</b>	<b>Surface Transportation Program Funds</b>	<b>Highway Safety Improvement Funds</b>
2016- 2020	\$ 2,888,802	\$1,955,278
2021-2025	\$ 3,109,868	0
2026-2030	\$ 3,416,747	0
2031-2035	\$ 3,753,909	0
2036-2040	\$ 4,124,342	0
<b>Totals</b>	<b>\$ 17,293,668</b>	<b>\$1,955,278</b>

Source: ADOT

The limited amount of available funding must be allocated to key projects and activities that preserve and maintain our existing roads, modernize them with new traffic signals and sidewalks, or expand them with new travel lanes where needed. Figure 6 defines each of these investment categories.

**PRESERVATION:** Activities that protect transportation infrastructure by sustaining asset condition or extending asset service life; preservation includes regular maintenance and resurfacing of pavements.

**MODERNIZATION:** Roadway improvements that upgrade efficiency, functionality, and safety without adding capacity; examples of modernization activities include widening of narrow lanes, access control, bridge replacement, hazard elimination, lane reconstruction and sidewalks.

**EXPANSION:** Improvements that add transportation capacity through the addition of new facilities and or services; expansion activities include adding new roadway lanes and construction of new roadway facilities.

*Figure 6 – Investment Strategy Categories*

## What are the Region’s Transportation Priorities?

Public and stakeholders were asked at the May 2015 public meetings to identify their highest priority for transportation investments. Stakeholders and the public were given a list of goal areas, and asked to identify the relative importance of each goal area.

The goal prioritization exercise identified that the most critical transportation issues in the Sun Corridor MPO region relate to roadway and bridge preservation (maintaining the road system in good repair), economic vitality, and roadway safety. Figure 7 on the following page demonstrates the relative priority of RTP goal areas.

During the public and stakeholder outreach, members of the public also provided specific comments related to the need for transit and rail service, regional connectivity such as the completion of the North-South Corridor and widening I-10 between Casa Grande and Phoenix. Improvements identified as needed included additional traffic signals, additional freeway access, and general connectivity.

Working with the RTP Technical Advisory Committee, the RTP introduces the goals as identified in Table 4. For context, and 2015 baseline condition and the 2020 target are provided.

### Stakeholder and Public Input on RTP Plan Goals and Priorities

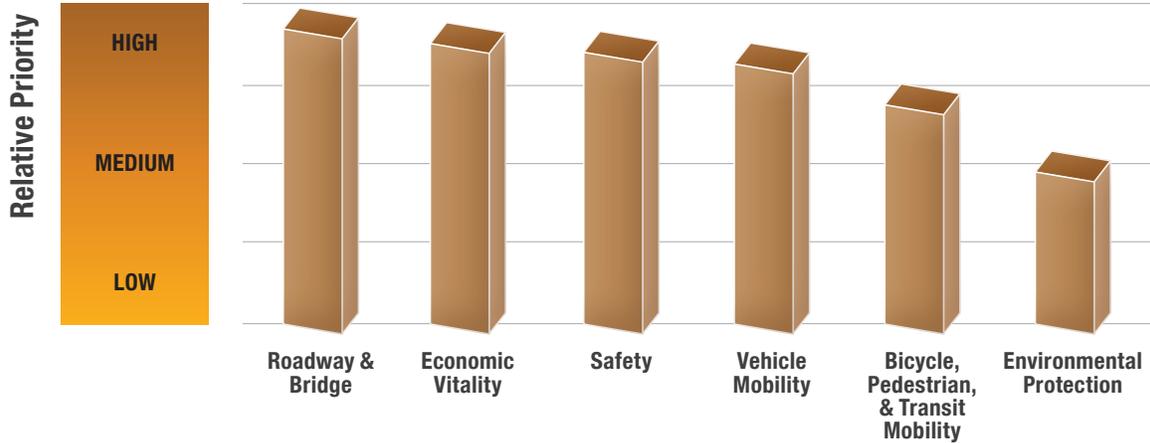


Figure 7 – Stakeholder and Public Input on RTP Goals and Priorities

Table 4 – Sun Corridor MPO RTP 2040 Goals, Objectives, and Targets		
<b>Goal: Maintain the road system in good repair.</b>		
Objective	2015 Baseline Condition	2020 Target
Increase the percentage of roads in good condition.	Arterial and collector roadway condition (percentage of inspected segments)  <b>Casa Grande</b> » 82.1% good, very good, or excellent » 15.9% fair » 2.0 % poor or very poor  <b>Coolidge</b> » 11.3% good, very good, or excellent » 46.3% fair » 42.5 % poor or very poor	Increase in percentage of roads in good condition.  <b>Eloy</b> » 22.5% good, very good, or excellent » 55.9% fair » 21.6% poor or very poor  <b>Pinal County</b> » 44.3% good » 55.7% fair
Increase the percentage of bridges classified as in good condition.	Percentage of bridges that are not classified as functionally obsolete or structurally deficient – 90.5%	Increase in percentage of bridges in good condition.
<b>Goal: Reduce the number of fatalities and serious-injury crashes on all public roads.</b>		
Objective	2015 Baseline Condition	2020 Target
Improve the five-year rolling average for: » Fatalities » Serious Injuries	» Average number of fatalities, 2010 – 2014: 20 » Average number of serious (incapacitating) injuries, 2010 – 2014: 45	» Decrease the five-year rolling average for fatalities. » Decrease the five-year rolling average for incapacitating injuries.

**Table 4 – Sun Corridor MPO RTP 2040 Goals, Objectives, and Targets**

**Goal:** Reduce travel times in the region by providing new and improving existing roadway connections.

Objective	2015 Baseline Condition	2020 Target
Reduce annual hours of delay on major arterials and collectors in the region.	2010 vehicle hours traveled = 63,146	» Decrease annual vehicle hours traveled.
Reduce roadway segment miles with unacceptable LOS (LOS E or F) on major arterials and collectors in the region.	There are currently zero road segment miles that perform at Level of Service (LOS) E or F	Zero miles of roadway operating at LOS E and F.

**Goal:** Provide more bicycle, pedestrian, and transit options region wide.

Objective	2015 Baseline Condition*	2020 Target
Increase annual transit vehicle revenue miles and annual transit vehicle revenue hours.	<ul style="list-style-type: none"> <li>» Annual vehicle revenue miles CART: 146,141 revenue miles Cotton Express: 76,221 revenue miles</li> <li>» Annual vehicle revenue hours CART: 4,788 vehicle service hours Cotton Express: 9,828 vehicle service hours</li> </ul>	<ul style="list-style-type: none"> <li>» Increase annual vehicle revenue miles</li> <li>» Increase annual vehicle revenue hours</li> </ul>
Increase annual transit passenger trips.	<ul style="list-style-type: none"> <li>» Annual transit ridership CART: 26,224 passenger trips Cotton Express: 27,687 passenger trips</li> </ul>	Increase in annual ridership.
Increase the number of miles of new bicycle infrastructure in the region.	<p>Miles of arterials and collectors with bike lanes</p> <p><b>Casa Grande</b></p> <ul style="list-style-type: none"> <li>» 31.42 miles striped bicycle lane</li> </ul> <p><b>Coolidge</b></p> <ul style="list-style-type: none"> <li>» 8.17 miles of paved shoulder 4-foot wide or greater</li> </ul> <p><b>Eloy</b></p> <ul style="list-style-type: none"> <li>» 6.49 miles paved shoulder</li> <li>» 0.94 miles striped bike lane</li> </ul> <p><b>Pinal County</b></p> <ul style="list-style-type: none"> <li>» No designated bicycle facilities</li> </ul>	Increase miles of principal arterials, major arterials, and major collectors with bike lanes.

\*Transit data is for period October 2013 to November 2014

**Goal:** Provide more jobs in the region.

Objective	2015 Baseline Condition	2020 Target
Increase number of jobs in the region.	<ul style="list-style-type: none"> <li>» Total primary jobs*: 21,754 persons</li> <li>» Employed and living in Sun Corridor (MPO) region: 11,316 persons</li> <li>» Inflow employees: 10,438 persons</li> <li>» Outflow employees: 23,572 persons</li> </ul>	Increase total primary jobs in the region.

\*2013 U.S. Census Data

**Table 4 – Sun Corridor MPO RTP 2040 Goals, Objectives, and Targets**

**Goal:** Protect and enhance the natural environment through measures such as paving more dirt roads to reduce dust, noise, and air pollution.

Objective	2015 Baseline Condition	2020 Target
Decrease the number of miles of unpaved roads, which will decrease dust pollution.	<p>Miles of unpaved roads:</p> <p><b>Casa Grande</b> » Approximately 32 miles</p> <p><b>Coolidge</b> » 69 miles of gravel/dirt roads</p> <p><b>Eloy</b> » 67 miles of gravel/dirt roads</p> <p><b>Pinal County</b> » 225 miles of gravel/dirt roads and 113 miles of asphalt-rock dust palliatives</p>	Reduce number of miles of unpaved roads.

### Sun Corridor MPO RTP Recommended Investment Strategy

Recognizing the public’s priority to “maintain what we have”, the RTP Technical Advisory Committee recommended an investment strategy for expenditure of federal funds within the Sun Corridor MPO region that focuses the RTP’s financially-constrained improvement program on preservation projects.

The Recommended Investment Strategy (RIS), depicted in Figure 8, also provides sufficient flexibility to modernize and expand the roadway system as needed while also strategically investing to create/retain jobs. The RIS drives the allocation of resources and influences project selection, yet is sufficiently flexible to allow Sun Corridor MPO agencies to accommodate and respond to changing needs and emerging priorities.

The impact of the RIS on transportation system performance will be limited because of the realities of diminishing long-range revenues. However, the RIS allocations across categories show the commitment of Sun Corridor MPO member agencies to:

- ⇒ Preserve the region’s major roadways (arterial and collectors).
- ⇒ Improve mobility and safety through modest expansion as needed to address economic development needs.
- ⇒ Support economic development by investing in transportation corridors that improve connectivity to employment.
- ⇒ Increase safety and efficiency via system modernization.

### Recommended Investment Strategy

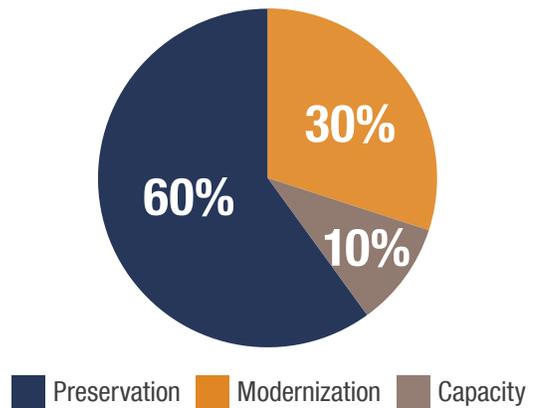


Figure 8 – Recommended Investment Strategy

### How Will the Recommended Investment Strategy be Implemented?

Rather than identify the specific preservation-focused projects within the RTP, the RTP TAC developed a performance-based project selection process to be implemented annually.

This process will allow flexibility for the MPO to annually select those projects for funding which respond to new and emerging regional needs. However, the approach represents a new way of doing business within the Sun Corridor MPO, as projects will be selected based on performance-based evaluation, selection, and prioritization process. The approach to select, prioritize, and fund roadway projects for the Sun Corridor MPO Regional Transportation Plan is described as follows:

- ⇒ Each year, the Sun Corridor MPO will issue a call for projects.
- ⇒ Each agency will submit their proposed projects by completing a project nomination form. The form will reflect prioritization criteria that are based on the RTP goals.
  - ✎ Infrastructure Condition – Project improves pavement condition.
  - ✎ Safety – Project improves the safety of the transportation system by implementing one of the FHWA proven safety. Countermeasures (<http://safety.fhwa.dot.gov/provencountermeasures/>) or recommendations from the Sun Corridor Strategic Transportation Safety Plan.
  - ✎ Vehicle Mobility – Project is on a roadway of regional significance and improves regional connectivity (e.g., completing a corridor or filling a gap in the road system).
  - ✎ Bicycle, Pedestrian, and Transit Mobility – Project benefits bus, bicycle, or pedestrian operations, safety, convenience, and comfort.
  - ✎ Economic Vitality – Project serves or improves connectivity and mobility to an existing or planned employment/activity center.
  - ✎ Environmental Protection – Project includes elements that demonstrate sustainability as championed by FHWA.
- ⇒ The Sun Corridor MPO staff will evaluate and rank the projects consistent with the project prioritization criteria.
- ⇒ The Sun Corridor MPO TAC will review the rankings and approve those projects to be included in the upcoming 5-Year Transportation Improvement Program.

