

Sun Corridor REGIONAL TRANSPORTATION PLAN 2040

UPDATE

EXECUTIVE SUMMARY



Kimley»Horn

*Completed February 2020
Adopted March 10, 2020*

SUN CORRIDOR METROPOLITAN PLANNING ORGANIZATION

REGIONAL TRANSPORTATION PLAN 2040 UPDATE

EXECUTIVE SUMMARY

Prepared by

Kimley»Horn

333 East Wetmore Road, Suite 280
Tucson, AZ 85705

In association with

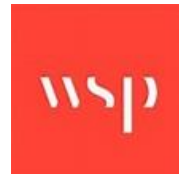


Table of Contents

1. Introduction	4
A Regional Gateway	4
Sun Corridor MPO RTP	6
What is the Difference between an RTP and Other Transportation Planning Documents?	6
2. Community Outreach in the Planning Process	7
3. Performance-Based Planning	7
Goals, Objectives, and Performance Measures	7
4. How Transportation and Economic Development are Interrelated	9
5. How Will the Region Grow in the Future?	9
6. How is the Region's Transportation System Performing?	10
Roadways	11
Transportation Safety	11
Roadway Pavement Conditions	12
Bridge Conditions	12
Transit	12
Bicycle and Pedestrian Transportation	13
Aviation	13
Freight	13
Transportation Security	14
7. Best Practices in Transportation	14
8. Implementation	15
Roadway System Implementation Plan - Funding	15
Roadway Recommended Investment Strategy (RIS)	16
Projects of Opportunity	17
Strategic Projects	17
Transit Implementation Plan	17
Aviation Implementation Plan	19
Summary of Recommendations	19
9. Air Quality	21
Conformance with Air Quality Standards	21
Transportation Control Measures for Particulates	22

List of Figures

Figure 1 – Sun Corridor MPO Region.....	5
Figure 2 – RTP Provides Overall Regional Transportation Policy Vision	6
Figure 3 – Stakeholder Transportation Goal Priorities.....	7
Figure 4 – Steps in a Performance-Based Planning Project.....	8
Figure 5 – Projected Population Growth for the Sun Corridor Region	9
Figure 6 – Projected Employment Growth for the Sun Corridor MPO Region	10
Figure 7 – Sun Corridor MPO Region's Transportation Systems	10
Figure 8 – Condition of Arterial and Collector Roadways in the Sun Corridor MPO Region.....	12
Figure 9 – Recommended Investment Strategy	17
Figure 10 – Sun Corridor MPO and MAG Planning Areas and Air Quality Nonattainment Areas.....	21

List of Tables

Table 1 – HSIP Projects and Funding.....	12
Table 2 – STBG and HSIP Revenues, 2020-2040	16
Table 3 – Section 5311 Funding Grants, FY 2019-2020	18
Table 4 – Summary of Recommendations.....	20

This report was funded in part through grant(s) from the Federal Highway Administration and/or Federal Transit Administration, U.S. Department of Transportation. The contents of this report reflect the views and opinions of the author(s) who is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily state or reflect the official views or policies of the U.S. Department of Transportation, the Arizona Department of Transportation, or any other State or Federal Agency. This report does not constitute a standard, specification, or regulation.

1. 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, as well as adjacent rural portions of Pinal County. The 2018 population of the Sun Corridor MPO is 127,960, according to the Maricopa Association of Governments (MAG) Travel Demand Model (TDM). The Sun Corridor MPO region is shown in

Figure 1.

A Regional Gateway

Nestled between two major metropolitan areas (Phoenix and Tucson), two Native American communities, and one Native American nation, the Sun Corridor MPO region is an important gateway for regional, national, and international freight shipments.

Interstate 10 (I-10), which crosses the region in a northwest-southeast direction, is a cross-country interstate highway that extends from California to Florida. Interstate 8 (I-8), which extends in an east-west direction from Casa Grande to San Diego, California is another key transportation facility.

The Sun Corridor MPO is in a unique position to develop partnerships that will enhance the region's ability to provide goods, services, and economic development strategies; improve local and regionally significant roads and transit systems; and plan for transportation improvements along I-8, I-10, and the potential future Interstate 11 (I-11) Intermountain West Corridor.

WHAT IS A METROPOLITAN PLANNING ORGANIZATION?

An MPO is a federally-mandated and federally-funded transportation policy-making organization comprised of representatives from local governments. The Federal-Aid Highway Act of 1962 requires the formation of an MPO for any urbanized area (UZA) with a population greater than 50,000. Federal funding for transportation projects and programs is channeled through the MPO. Congress created MPOs to ensure that existing and future expenditures of governmental funds for transportation projects and programs are based on a continuing, cooperative, and comprehensive ("3 C") planning process. Statewide and metropolitan transportation planning processes are governed by federal law (23 U.S.C. § 134-135). As of 2015, there are 408 MPOs in the United States.

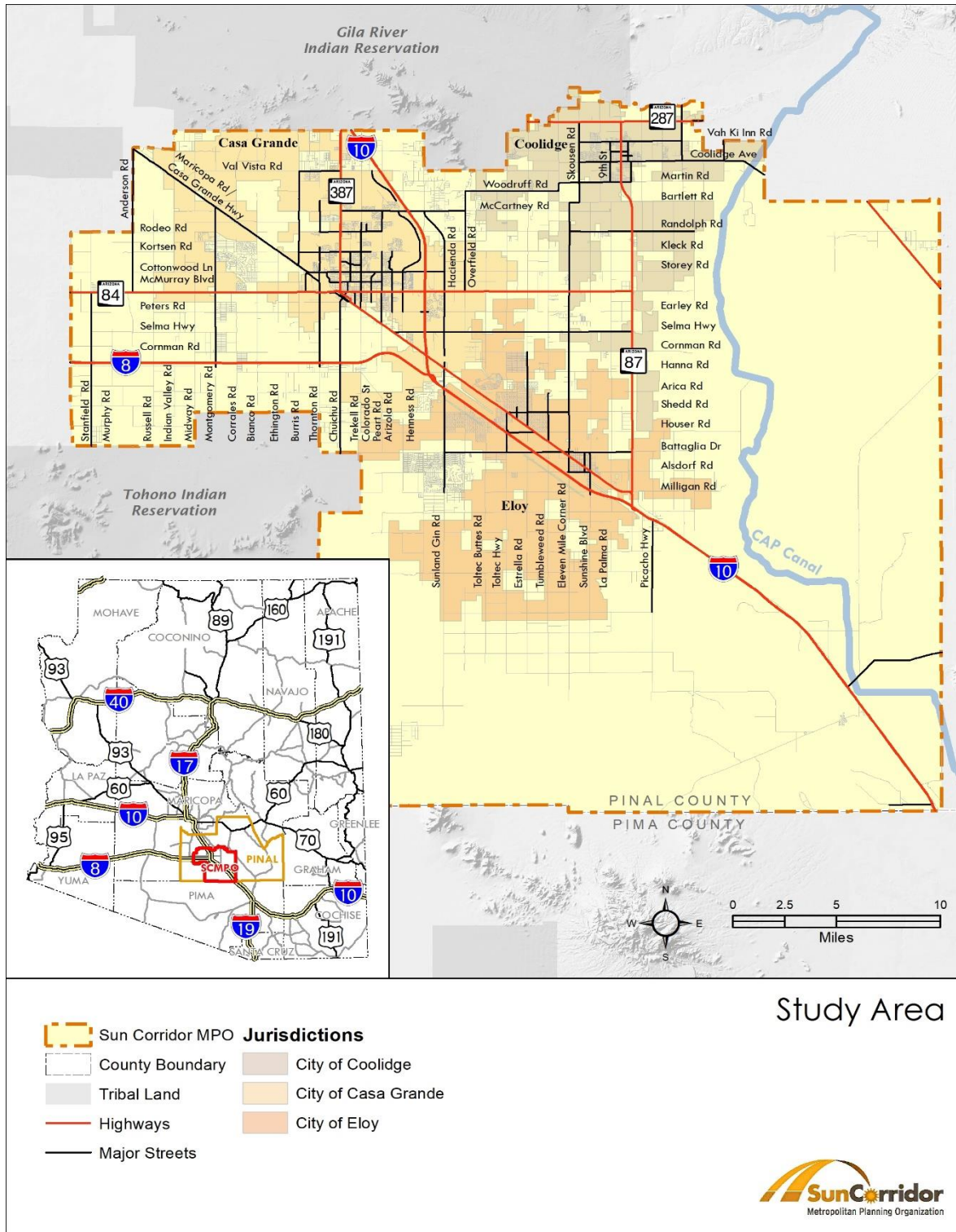


Figure 1 – Sun Corridor MPO Region

Sun Corridor MPO RTP

The Sun Corridor MPO Regional Transportation Plan (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. It is a 20-year multimodal plan developed in conjunction with Sun Corridor MPO member jurisdictions, Federal Highway Administration (FHWA), Arizona Department of Transportation (ADOT), MAG, and Central Arizona Governments (CAG).

This RTP describes how federal transportation funds, provided to the Sun Corridor MPO, will be expended over the next 20 years 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, truck, 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. This Plan is an update of the RTP adopted in March 2016.

What is the Difference between an RTP and Other Transportation Planning Documents?

The 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. The RTP provides an overall transportation policy vision for the region, as shown in **Figure 2**. The direction provided in the RTP is a guide for the more detailed future work of specific project development. The RTP does not replace individual jurisdictions' general plans, transportation master plans, specific circulation plans, capital improvement plans (CIPs), or modal plans such as bicycle, pedestrian, trail, or transit plans.

WHAT IS A REGIONAL TRANSPORTATION PLAN?

The RTP is a long-term blueprint for the region's transportation system.

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 this financially-constrained plan.

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

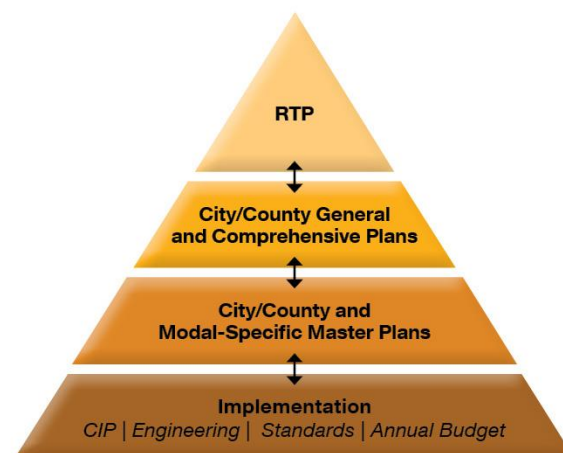


Figure 2 – RTP Provides Overall Regional Transportation Policy Vision

2. Community Outreach in the Planning Process

Public outreach was conducted in a number of ways throughout the project:

- ⇒ **RTP Technical Advisory Committee (TAC):** Representatives of the Sun Corridor MPO met regularly throughout the project to discuss progress and issues, as well as to provide guidance for the Plan.
- ⇒ **Sun Corridor MPO Executive Board Briefings:** Briefings were held at key points in the study.
- ⇒ **Board of Supervisors/City Council Briefings:** Presentations on the RTP were made to the City of Casa Grande, City of Coolidge, and Pinal County in August 2019. A presentation on the RTP was made to the City of Eloy in October 2019.
- ⇒ **Stakeholder Interviews:** Information was gathered through discussions with city and county staff related to economic development in the region. These meetings shed light on issues and needs of the transportation system relative to future growth.
- ⇒ **Stakeholder Survey:** An online stakeholder survey was conducted in late 2018 to obtain input on RTP goals and transportation needs in the community.
- ⇒ **Public Meeting:** A public meeting was held during the development of the RTP.

Copies of the RTP and meeting minutes are provided on the Sun Corridor MPO website at <https://scmpo.org/>.

Goal priorities for the region, as expressed in the stakeholder survey, are shown in **Figure 3**.

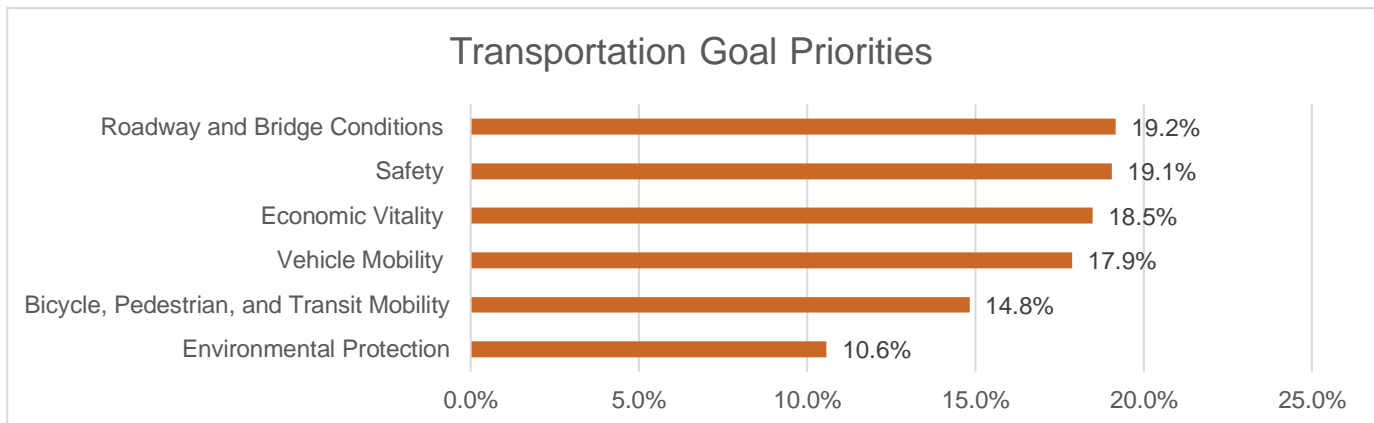


Figure 3 – Stakeholder Transportation Goal Priorities

3. Performance-Based Planning

Goals, Objectives, and Performance Measures

The Fixing America's Surface Transportation (FAST) Act requires MPOs and states to develop transportation plans and transportation improvement programs through a performance-driven, outcome-based approach to planning.

Performance-based planning methods help to translate a long-range vision into a set of goals, objectives, and performance criteria that can be used to guide investment decisions. Performance-based planning involves the following steps.

1. **Develop goals and objectives:** Goals are broad statements that describe what will be achieved. Objectives are specific and measurable statements to achieve the goals. Goals and objectives were developed in collaboration with the RTP TAC and input on priorities obtained at public meetings.
2. **Identify performance measures:** Performance measures are metrics that are used to assess progress towards meeting an objective.
3. **Establish performance targets:** Targets are measures of performance. In this plan, many of the targets involve exceeding the baseline conditions that are observed today.
4. **Allocate resources:** This step involves determining the specific approaches that will be used to achieve the targets.
5. **Measure and report results:** This step involves measuring progress on a regular and recurring basis.

These steps are shown in Figure 4.



Figure 4 – Steps in a Performance-Based Planning Project

For the prior RTP, completed in 2016, the planning process led to development of goals in six areas:

- ⇒ Roadway and bridge
- ⇒ Safety
- ⇒ Vehicle mobility
- ⇒ Bicycle, pedestrian, and transit
- ⇒ Economic vitality
- ⇒ Environmental protection

In addition to goal areas and targets identified in the 2016 Sun Corridor MPO RTP, the Sun Corridor MPO Executive Board voted to support and adopt ADOT performance measures that were developed in 2018 in the following areas:

- ⇒ Infrastructure condition
- ⇒ Safety
- ⇒ System reliability, freight movement, and economic vitality
- ⇒ Transit
- ⇒ Environmental sustainability

4. How Transportation and Economic Development are Interrelated

Economic development and transportation are closely intertwined. An efficient transportation system is essential to a market economy. Efficient transportation facilities provide economic benefits such as accessibility to markets and labor resources. An effective transportation network helps customers to easily reach markets, employees to get to work, and industry to ship goods faster. Businesses, ranging from shopping malls to industrial factories, make location and development decisions based on nearby transportation facilities.

Over the next 25 years and beyond, the Sun Corridor MPO region is positioned to experience sustained economic development growth. Sun Corridor MPO and its member agencies are committed to promoting projects that improve access to existing employment centers, as well as to new and emerging centers.

The Sun Corridor MPO region will benefit from access to I-10 and I-8. The Sun Corridor MPO TAC is committed to implementing projects that maintain adequate performance on these and other key roadway facilities in order to best support economic growth and development. The Sun Corridor MPO supports additional access to I-10 so that congested or limited access does not become a constraint to growth.

5. How Will the Region Grow in the Future?

Population, employment, demographics, and growth location help define transportation needs and choices. As the population grows, the need for multimodal transportation facilities to facilitate travel and mobility needs will also grow.

The Sun Corridor MPO planning area 2018 population is estimated to be 127,960 persons.¹ The most populated areas are centered primarily in the incorporated cities of the region. Population is anticipated to grow from today's 127,960 persons to approximately 284,268 persons in 2040. This represents an annual average growth rate of 3.69% per year over the next 22 years. Population projections for the region are shown graphically in **Figure 5** and are taken from the MAG TDM.

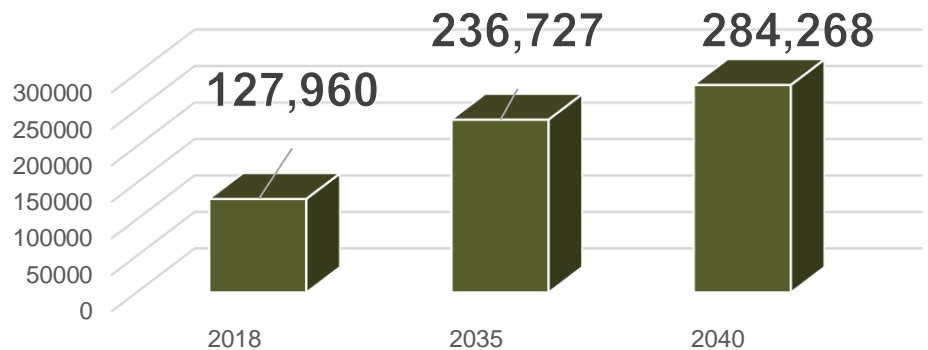
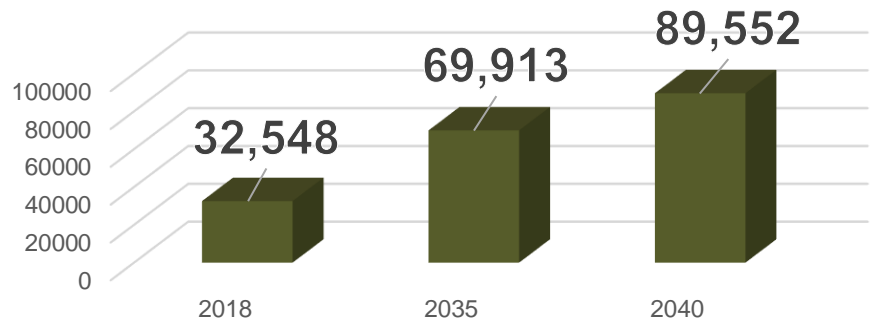


Figure 5 – Projected Population Growth for the Sun Corridor Region

¹ Source: MAG Travel Demand Model

The region's transportation system is critical to help residents get to and from places of employment. As additional jobs are created in the Sun Corridor MPO region, the need for new and improved roadways will also increase. The total number of jobs in the region is estimated to grow from approximately 32,548 employees today to 89,552 by 2040. This represents an annual average growth rate of 4.71% per year.



A comparison of current and projected employment is shown in **Figure 6**.

Figure 6 – Projected Employment Growth for the Sun Corridor MPO Region

6. How is the Region's Transportation System Performing?

The Sun Corridor regional transportation system consists of roadways, transit systems, bicycling and walking pathways, and airports, as described in **Figure 7**.

Sun Corridor MPO Region's Transportation Systems

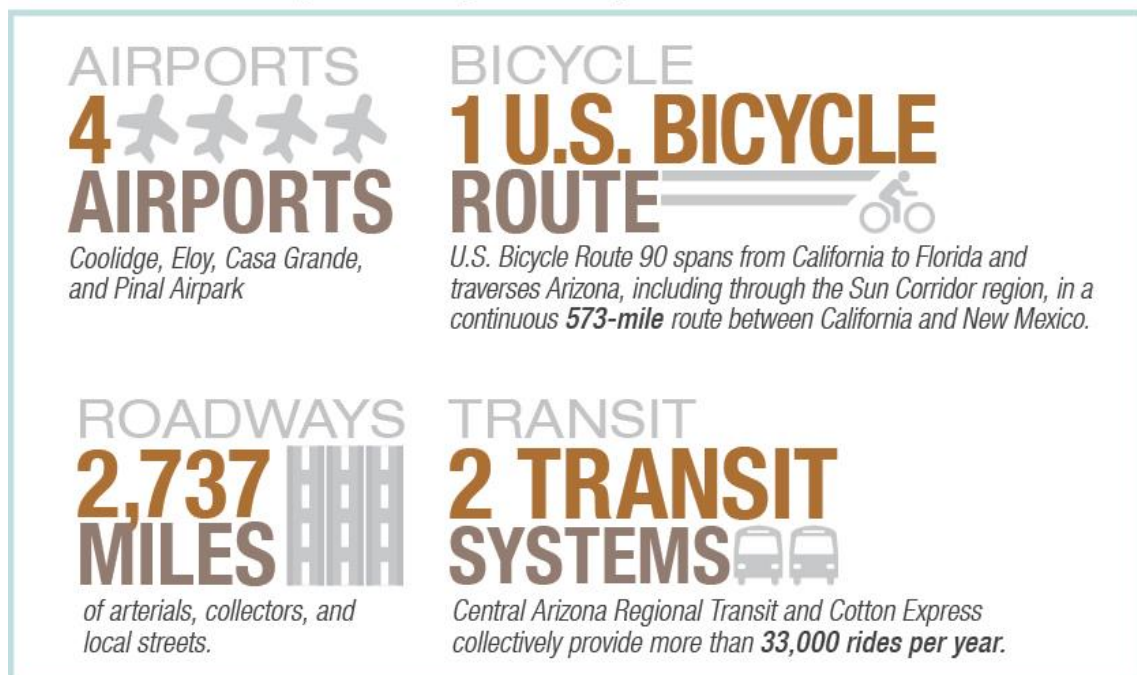


Figure 7 – Sun Corridor MPO Region's Transportation Systems

Roadways

Roads serve as the foundation of the Sun Corridor MPO regional transportation network, accommodating motor vehicles, freight, transit users, 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 on a daily basis. In all, there are 2,737 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 were analyzed using Level of Service (LOS), a measure that rates the performance of a roadway network in terms of the degree of congestion. This measure uses the letters A through F, with A being the best and F being the worst. In general, the roads are operating well; however, during peak periods, congestion may occur at specific intersection locations.

Traffic volumes will increase as development continues in the future. By 2035, the TDM indicates that there are projected to be congested roadway segments on Pinal Airpark Road, Red Rock Road, Camino Correo, and Sasco Road. By 2040, the TDM indicates additional areas of congestion at the I-10/Red Rock Road interchange and in the Battaglia Road/Toltec Highway intersection area.

Transportation Safety

The Sun Corridor MPO completed its first Strategic Transportation Safety Plan (STSP) in 2016. The STSP vision is to ***“Reduce fatal and serious injury crashes through implementation of effective safety strategies and countermeasures,”*** and the STSP goal is to ***“Reduce the number of fatalities and serious injuries in the Sun Corridor MPO region by 3 to 7 percent during the next 5 years.”*** The vision and goal were developed with stakeholder input and were inspired by the FHWA vision “Towards Zero Deaths” and Arizona’s vision “Toward Zero Deaths by Reducing Crashes for a Safer Arizona.”

Findings and recommendations in the STSP were based on data provided by ADOT for all reported crashes within the Sun Corridor MPO region for the 10-year period from January 2005 through December 2014. During that 10-year period, the region experienced:

- ⇒ 243 fatal crashes
- ⇒ 640 incapacitating injury crashes
- ⇒ 16,525 crashes

A key component of the STSP was developing safety projects. **Table 1** shows projects selected to receive Highway Safety Improvement Program (HSIP) project funding.

TRANSPORTATION SAFETY

A goal of the Sun Corridor MPO and member agencies is to reduce the five-year rolling average for fatal and serious injury crashes. From 2013-2017, an average of 18 fatal and 38 serious injury crashes occurred annually on Sun Corridor MPO area roadways.

Strategies to improve safety focus on both roadway improvements (speed control, roadway lighting, medians, as well as education of drivers, motorists, pedestrians, and bicyclists.

Table 1 – HSIP Projects and Funding

Project Name	FY	Cost
Jimmie Kerr Boulevard (Eloy): Dilemma Zone Warning System, Rumble Strips	2019-2020	\$388,607
Macrae Road (Coolidge): Rumble Strips	2019-2020	\$333,428
Peart Road (Casa Grande): Left-Turn Lane, Transverse Rumble Strips	2019-2020	\$615,012
Multiple Roads (Pinal County): Rumble Strips	2021-2022	\$3,018,897
Cottonwood Lane/Kadota Avenue (Casa Grande): Pedestrian Hybrid Beacon (PHB)	2021-2022	\$360,000
Skousen Road (Coolidge): Rumble Strips	2021-2022	\$735,525
Multiple Intersections (Pinal County): Systemic LED Stop Sign Replacement Project	2024-2025	\$400,575

Source: Sun Corridor MPO

Roadway Pavement Conditions

A review of pavement conditions shows that the City of Casa Grande does an excellent job of maintaining their arterial and collector roadways, with more than 80% of roadways in good, very good, or excellent condition. Within unincorporated Pinal County, 37% of arterial and collector roadways are in good, very good, or excellent condition. Within Eloy and Coolidge, less than 30% of arterial and collector roadways are in good, very good, or excellent condition. A summary of pavement conditions is shown in **Figure 8**.

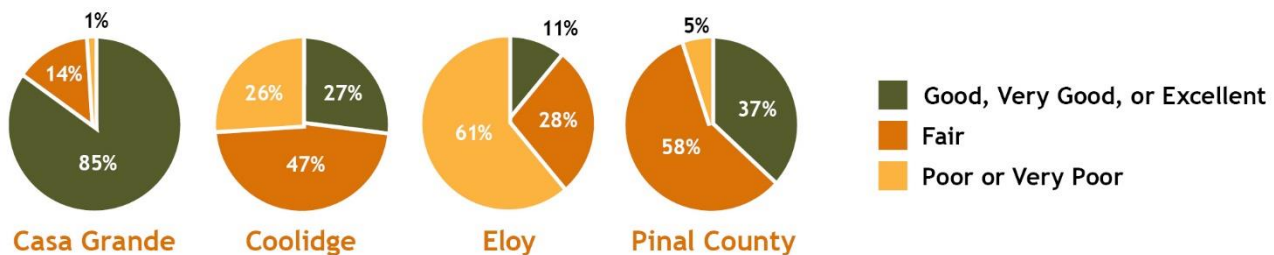


Figure 8 – Condition of Arterial and Collector Roadways in the Sun Corridor MPO Region

Bridge Conditions

Approximately 97% of all bridges in the region are in good or fair condition, based on the most recently available state and local government bridge inventories for the Sun Corridor MPO region.

Transit

The Sun Corridor MPO is responsible for coordinating transit system funding and investment. The Sun Corridor RTP has established a goal to increase the number of residents and visitors served by transit in the region.

Two public transit systems currently operate in the Sun Corridor MPO region, the Central Arizona Regional Transit (CART) and the Cotton Express, which provides deviated fixed-route bus service and on-demand service throughout the City of Coolidge. These services had a combined 2018 ridership of 33,083 passenger trips, according to data from the City of Coolidge. In addition, the City of Maricopa Express Transit (COMET) system provides once-a-week transit

service to the Banner Regional Medical Center in Casa Grande. Several organizations also provide valuable transit services for seniors and individuals with disabilities.

The Gila-Pinal Rides Committee is the steering committee for transit coordination issues within the CAG and Sun Corridor MPO regions. This steering committee comprises transit providers and stakeholders from Pinal and Gila counties and meets bi-monthly.

Bicycle and Pedestrian Transportation

Bicycling and walking represent important modes of transportation for the region. The Sun Corridor RTP encourages investments in bicycling and walking facilities. These investments encourage healthy lifestyles and physical fitness, as well as provide safe and comfortable transportation options to access jobs, schools, residences, recreation, and shopping. When walking and bicycling facilities are provided, particularly in downtown areas, they can mean fewer vehicles on the road.

A goal of the Sun Corridor RTP is to increase the number of miles of new bicycle infrastructure in the region. This can be implemented in conjunction with pavement preservation and rehabilitation projects or new roadway construction by agencies or private development.

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 (FAA), 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 personal and freight vehicles, walking, bicycling, and 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 Airpark



**Casa Grande
Municipal Airport**

Source: City of Casa Grande

Freight

Efficient, reliable, and strategically designed transportation infrastructure benefits businesses by lowering transportation and shipping costs and providing quicker access to markets and services. These investments lead to improved economic competitiveness and growth, which has larger benefits for the region as a whole.

Freight transportation represents a tremendous opportunity in the Sun Corridor MPO region. With access to two major interstates (I-8 and I-10), as well as the Union Pacific Railroad, the region is well-positioned to continue to attract freight-associated industries and customers. This will require a unified approach by Sun Corridor MPO agencies and

collaboration with freight providers and industrial customers to protect, maximize, and expand freight-oriented commerce and economic activity.

Transportation plans need to consider alternative truck-traffic routing that will enhance connectivity between industrial investment areas and interstates while protecting the region's ability to have efficient and effective road designs promoting commercial and residential development in a livable community. For example, a freight planning consideration is designated truck routes to reach the proposed inland port in the Coolidge-Eloy area on SR 87. There is a possible need for roadway improvements as new industries develop in the region. Some examples include possible improvements to Peters Road to support traffic from Lucid Motors or improvements to Houser Road for Nikola Corporation.

Transportation Security

Transportation security addresses the protection of transportation infrastructure related to hazardous events. When one considers the amount of hazardous materials, chemicals, and flammable products that are transported on the nation's infrastructure each day, it is easy to recognize the need for security measures along highways and bridges.

Public agencies in the Sun Corridor MPO region have developed plans to mitigate adverse impacts from hazardous natural or man-made events. The Pinal County Office of Emergency Management is responsible for maintaining the County's Emergency Response Plan, the Long-Term Recovery Plan, the Multi-Hazard Multi-Jurisdiction Mitigation Plan, and the Local Emergency Planning Committee Hazardous Materials Response Plan. The Multi-Hazard Multi-Jurisdiction Mitigation Plan (2016) provides mitigation strategies for each of the Sun Corridor MPO jurisdictions.

Pinal County has a Pinal Emergency Notification System (PENS) to provide citizens with critical information in a variety of situations, such as major roadwork, road closures, severe weather, fires, hazardous materials incidents, evacuations, and other emergency events. One must sign up for the system online at:

<http://www.pinalcountyz.gov/emergencymanagement/pages/home.aspx>

7. Best Practices in Transportation

The RTP discusses considerations in developing high-quality transportation improvements for the Sun Corridor MPO region, such as:

- ⇒ Complete Streets
- ⇒ Bicycle and Pedestrian Facilities
- ⇒ Travel Demand Management
- ⇒ Intelligent Transportation Systems (ITS)
- ⇒ Pavement Management
- ⇒ Regional Transit Governance
- ⇒ Designated Truck Routes

Best practices are methods, techniques, or programs that have been found to be successful in accomplishing goals, and generally produce results that are superior to those achieved by other means, or because it has become a standard way of doing things. Some best practices can range from detailed practices to more open guidelines, depending on the specific topic. Several best practices or innovative approaches have already occurred on projects in the region, such as:



*RRFB on Florence Boulevard, between
Sacaton Street and 4th Street*

- ⇒ Improved pedestrian/bicyclist crossings, such as a rectangular rapid flash beacon (RRFB) on Florence Boulevard
- ⇒ New dust detection system on I-10, Sunshine Boulevard to Picacho Peak Road
- ⇒ Complete streets to serve all road users, such as the Eloy Main Street project
- ⇒ More visible stop signs at critical locations

8. Implementation

The Sun Corridor MPO RTP includes separate implementation plans for three transportation elements: roadway, transit, and aviation. Revenues at the federal and state level for these elements are associated with distinct funding sources, and funding requirements are not transferable except in special cases.

The roadway system implementation plan encompasses all RTP elements not specifically covered by the transit and aviation implementation plans, including bicycle and pedestrian considerations. The roadway system implementation plan is the focus of the 2040 RTP, as the Sun Corridor MPO member jurisdictions have control over the allocation of the revenues associated with roadway improvements.

Roadway System Implementation Plan - Funding

A roadway transportation system investment approach was selected in collaboration with the Sun Corridor MPO RTP TAC and is fiscally constrained—that is, the level of investment serves as a “budget” for federal transportation funding that is projected to be available to the Sun Corridor MPO region over the next 20 years.

The Surface Transportation Block Grant (STBG) program and the HSIP represent the primary federal funding sources for transportation system improvements in the Sun Corridor MPO region. The STBG program is allocated to states and MPOs for projects to preserve and improve the conditions and performance on federal-aid roadways, bridge and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects.

STBG funds are obligated in proportion to their relative share of the state’s population. STBG funds vary by year, but for the 20-year period (2020 to 2040), the Sun Corridor MPO anticipates receiving approximately \$590,879 per year.

The HSIP funds highway safety improvements with the purpose of achieving a significant reduction in traffic fatalities and serious injuries on all public roads. The HSIP emphasizes a data-driven, strategic approach to improving highway safety that focuses on results. Currently these funds are allocated through a statewide competitive process. The Sun Corridor MPO region has been highly successful in applying for HSIP funding; however, to be conservative, only currently-awarded funds are assumed to be available in the future.

The Sun Corridor MPO jurisdictions will continue to pursue HSIP projects consistent with the Sun Corridor MPO STSP and Pinal County STSP. The HSIP revenues shown include a recently-awarded HSIP project for fiscal years 2024/2025 to address angle crashes at thirteen intersections in Pinal County by replacing stop signs with solar-powered LED stop signs.

STBG and HSIP funds that are projected to be available in the Sun Corridor MPO region are identified in **Table 2**. Note that **Table 2** does not include other local or state revenue that is anticipated to be available to local agencies for transportation investments.

Highway User Revenue Fund (HURF) Exchange

The HURF Exchange was created by the Arizona Legislature in 1997 and is run at ADOT’s discretion to benefit rural cities, towns, and counties. The program allows planning organizations and their local agencies to swap out federal

funds for state highway funds to design and construct projects. The program was active from 1998 to 2009 and was launched again in 2017. The program offers less restrictive design and construction standards, fewer requirements, and less project oversight, generally resulting in lower overall project costs than with federal funding.

Table 2 – STBG and HSIP Revenues, 2020-2040

Revenues		
Time Period	STBG Program Funds	Highway Safety Improvement Funds
2020-2025	\$3,545,274	\$7,223,986
2026-2030	\$2,954,395	\$0
2031-2035	\$2,954,395	\$0
2036-2040	\$2,954,395	\$0
Totals	\$12,408,459	\$7,223,986

Source: Sun Corridor MPO

Roadway Recommended Investment Strategy (RIS)

A primary purpose of the RTP is to identify how federal funds will be expended over the next 20 years. Roadway improvements are categorized into three general categories of investments; preservation, modernization, and expansion, as defined in **Figure 9**. These categories are consistent with the ADOT Long-Range Transportation Plan.

The Sun Corridor MPO RTP 2040 Update uses an RIS for expenditure of federal funds within the Sun Corridor MPO region. The RIS priorities were largely developed based on a technical analysis of recent and programmed projects, but also included public and stakeholder input received through stakeholder outreach as well as Sun Corridor TAC member directives. The RIS does not apply to HURF or other state sources. The RTP TAC recommended that federal funding be distributed approximately consistent with the percentages shown in **Figure 9**.

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.

Recommended Investment Strategy

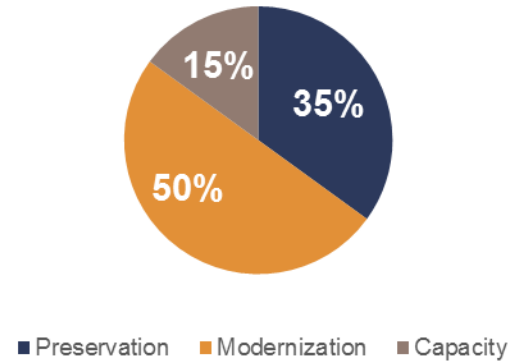


Figure 9 - Recommended Investment Strategy

Projects of Opportunity

Transportation needs in the Sun Corridor MPO region exceed federal STBG program funds that are anticipated to be available over the next 20 years. The Sun Corridor MPO will continue to explore and pursue any available opportunity to fund needed transportation improvements. Should additional federal funding for local projects become available, the jurisdictions in the region have identified several high-priority projects opportunities. These projects are listed in Appendix A.

Strategic Projects

A number of transportation planning initiatives will have a major impact on transportation within the Sun Corridor MPO region as well as adjacent planning areas and jurisdictions. These include:

- ⇒ Pinal Regional Transportation Plan Projects
- ⇒ East-West Corridor
- ⇒ North-South Corridor
- ⇒ I-11 Intermountain West Corridor
- ⇒ Phoenix-Tucson Passenger Rail Study
- ⇒ I-10 (SR 202 - SR 387) Widening

The Sun Corridor MPO supports these studies and will continue to collaborate with ADOT and other regional planning partners to implement these projects.

Transit Implementation Plan

In the future, new transit systems may be established in the region, as well as potentially new regional transit governance. However, until this occurs, the transit implementation plan assumes current funding levels and transit system operations.

Transit Revenue Forecasts

Key sources of transit funding for the region are provided through FTA Formula Grant Programs:

Section 5311 - Rural Areas: This program provides capital, planning, and operating assistance to states to support public transportation in rural areas with populations of less than 50,000. Currently, the Cotton Express and CART use this funding program. In fiscal year 2019, the Cotton Express and CART transit systems had \$1,015,665 in total funding for operating, administration, and capital expenses through the federal 5311 monies and local match funds. In fiscal year 2020, the level of funding is \$978,000. These funding levels and transit projects are summarized in **Table 3**.

Assuming an average funding of \$997,000 per year (average of FY 2019 and 2020 funding), total grant funding for the 20-year period is \$19,940,000.

Section 5310 - Enhanced Mobility of Seniors and Individuals with Disabilities: This program is intended to enhance mobility for seniors and persons with disabilities by providing funds for programs to serve the special needs of transit-dependent populations. Since this is a discretionary program and is based on a competitive process, estimates for this source are not provided.

Section 5307 - Urbanized Area Formula Funding: This program provides transit capital and operating assistance and for transportation related planning in urbanized areas over 50,000 population. This funding is available to the City of Casa Grande should they implement transit service. Just over \$1 million in annual funding would be available.

Programmed Projects

Transit projects that have been awarded 5311 grant funding are summarized in **Table 3**.

Table 3 - Section 5311 Funding Grants, FY 2019-2020

Section 5311 Transit Funding					
FY	Sponsor Name	Description	Federal Funds	Local Match	Total
2019	Cotton Express/CART	Operating, Administration, and Capital Expenses	\$682,895	\$332,700	\$1,015,665
2020	Cotton Express/CART	Operating, Administration, and Capital Expenses	\$671,700	\$306,300	\$978,000

Source: City of Coolidge

Several transit providers in the Sun Corridor region are in the process of applying for Section 5310 transit funds, including the Opportunity Tree and the Pinal Hispanic Council.

Aviation Implementation Plan

Aviation Revenues

A key source of aviation funding is FAA grants. The Airport Improvement Program (AIP) airport grant program funds airport infrastructure projects such as runways, taxiways, airport signage, airport lighting, and airport markings. The grants strengthen our nation's aviation infrastructure. Airports are entitled to a certain amount of AIP funding each year, based on passenger volume. If their capital project needs exceed their available entitlement funds, then the FAA can supplement their entitlements with discretionary funding. The following sections describe currently awarded grants to Sun Corridor MPO region airports.

Coolidge Municipal Airport

Planned improvements are based on information on the Coolidge Municipal Airport website.² Coolidge received a \$9.5 million grant from the FAA for the development of a new runway along with the installation of new lighting and lighting controls. The City of Coolidge received another \$450,000 in funding for runway and runway lighting reconstruction and installing a navigation aid.

Casa Grande Municipal Airport

Planned improvements for the Casa Grande Municipal Airport are available in the Airport Layout Plan Update and Narrative Report (2015). The recommendations span a 20-year period

Eloy Municipal Airport

Planned improvements for the Eloy Municipal Airport are available in the Airport Master Plan (2011). Eloy Municipal Airport will receive a \$150,000 FAA grant for taxiway reconstruction.

Pinal Airpark

Planned improvements for the Pinal Airpark are available in the Airport Master Plan (2015). The recommendations span a 20-year period.

Regional Aviation System Plan (RASP)

Currently, the Sun Corridor MPO region does not have a formal RASP. A RASP is developed to provide an independent analysis of future aviation trends in a region. Identified airport facility and system requirements are used together with the airport planning process to establish a proposed set of improvements for enhancing the regional airport system. Preparation of a RASP includes derivation of forecasts of future operations at each airport. The RASP is primarily an advisory and informational document. Development of a RASP would coordinated with the State Aviation System Plan (SASP), performed by ADOT.

Summary of Recommendations

Recommendations are provided for several topics in this Regional Transportation Plan. These are summarized in Table 4.

² City of Coolidge, Coolidge Municipal Airport CIP, https://www.coolidgeaz.com/index.asp?Type=B_BASIC&SEC={4DD53681-CD51-4788-A124-F602CC9824CE}

Table 4 – Summary of Recommendations

Summary of Recommendations	
Topic	Recommendation
RIS for Expenditure of Federal Funds	<ul style="list-style-type: none"> ⇒ 35% preservation ⇒ 50% modernization ⇒ 15% expansion
Access Management	Each Sun Corridor MPO member agency adopt a consistent regional access management policy to guide roadway improvements within their respective jurisdictions. The existing Pinal County Access Management Guidelines may serve as a starting point.
Complete Streets	Each Sun Corridor MPO member jurisdiction develop and adopt a complete streets policy.
Bicycle and Pedestrian Facilities	All new roadway projects include, to the extent feasible and practical, bicycle and pedestrian facilities.
Travel Demand Management	Sun Corridor MPO member jurisdictions should encourage employers and developers to consider TDM strategies and approaches. The corridor between Coolidge and Eloy would be a good location to implement TDM practices with the construction of planned industrial developments.
Signal Coordination	Sun Corridor region invest in communications infrastructure (wireless or fiber optic cable) to better enable traffic signal coordination along major corridors.
Autonomous Vehicles	Sun Corridor MPO member jurisdictions take steps to modernize traffic control infrastructure once the new Manual on Uniform Traffic Control Devices (MUTCD) is published as quickly as feasible to accommodate the rapidly-changing technology of vehicles.
Pavement Management	The Sun Corridor MPO region consider acquisition of an Automatic Road Analyzer (ARAN) van that can become a shared and valuable resource for the Sun Corridor MPO member agencies. Acquisition of an ARAN or contracting for this type of service would provide consistent collection of pavement conditions throughout the Sun Corridor MPO region.
Designated Truck Routes	Sun Corridor MPO jurisdictions collaboratively develop an SCMPO Regional Truck Route and Freight Network Plan.

Source: Individual recommendations throughout this Sun Corridor Regional Transportation Plan 2014 Update

9. Air Quality

The Sun Corridor MPO has the responsibility to ensure that the transportation projects, plans, and programs within the Sun Corridor region conform to state air quality plans for the federal air quality standards. Specifically, the Sun Corridor MPO's Five-Year TIP and this RTP must be consistent with and conform to the purpose of air quality plans for the National Ambient Air Quality Standards (NAAQS).

Conformance with Air Quality Standards

NAAQS have been established through the Clean Air Act for six principal pollutants, which are called "criteria" pollutants. Two areas within the Sun Corridor MPO region have been designated as nonattainment areas (shown in Figure 10):

- ⇒ West Pinal PM-10 Nonattainment Area - This area is in nonattainment status for particulate matter (dust) smaller than ten micrometers (PM-10).
- ⇒ West Central Pinal PM-2.5 Nonattainment Area - This area is in nonattainment status for particulate matter (dust) less than 2.5 micrometers in diameters (PM-2.5). It should be noted that since the U.S. Environmental Protection Agency (EPA) or Arizona Department of Environmental Quality (ADEQ) has not determined whether nitrogen oxide (NOx) emissions are an insignificant contributor to the PM-2.5 attainment problem, NOx analysis must be included in the build/no-build analysis for the West Central Pinal PM-2.5 Nonattainment Area.

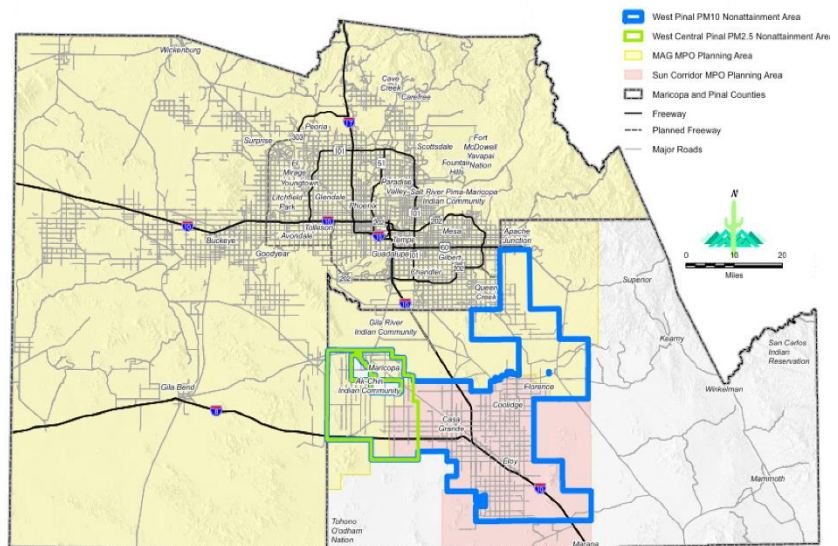


Figure 10 – Sun Corridor MPO and MAG Planning Areas and Air Quality Nonattainment Areas

Dust particles of these sizes can be drawn into the lungs and cause respiratory or other health problems. Both the Sun Corridor MPO planning area boundary and the MAG planning area boundaries include portions of these nonattainment areas.

The Sun Corridor MPO is required to undertake an air quality conformity analysis for two specific reasons:

1. To ensure that transportation investments in the TIP and RTP, taken as a whole, conform to state air quality plans for the federal air quality standards; and
2. To ensure that neither the transportation system as a whole cause new air quality violations or worsen existing conditions.

The air quality conformity process establishes the connection between transportation planning and air quality. A regional emissions analysis must be conducted to assess the impacts that the TIP and RTP, taken as a whole, will have on emissions within an air quality nonattainment area.

Because the Pinal PM-10 and PM-2.5 nonattainment areas overlap the MAG and Sun Corridor MPO planning area boundaries, MAG and the Sun Corridor MPO have entered into a Memorandum of Understanding to complete air quality conformity analyses for the Sun Corridor MPO region.

Conformity tests were conducted for analysis years of 2020, 2025, 2035, and 2040 for the build and no-build scenarios. For each test, the required emissions estimates are developed using the transportation and emission modeling approaches required under the Federal Transportation Conformity Rule.

The tests are conducted for PM-10 for the West Pinal PM-10 Nonattainment Area and for PM-2.5 and NO_x for the West Central Pinal PM-2.5 Nonattainment Area. Findings indicated that the conformity interim emission tests were satisfied for all of these pollutants.

All analyses were conducted using the latest planning assumptions and emissions models in force at the time the conformity analysis began on October 23, 2019. The conformity analysis indicates that the RTP satisfies the criteria specified in the Federal Transportation Conformity Rule for a conformity determination. A finding of conformity is therefore supported.

Transportation Control Measures for Particulates

One of the most important ways to reduce dust emissions is to pave, stabilize, and/or reduce travel on dirt roads. Other examples of dust control measures are:

- ⇒ Watering during construction activities
- ⇒ Applying chemical stabilizers/dust suppressants during construction
- ⇒ Reducing vehicle speeds on unpaved roads and parking lots

View the full Regional Transportation
Plan 2040 Update online at:

<https://scmpo.org/regional-transportation-plan/>

