

Transportation & Streets

Department

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This White Paper, developed by the Transportation and Streets Department, provides background information and details surrounding the future Scottsdale Rd: Dixileta Drive to Jomax Road project.

ALCP Project and Regional Connection

In 2004, the Maricopa Association of Governments (MAG) initiated the development of the Arterial Life Cycle Program (ALCP) to provide management and oversight for the implementation of the arterial component of the Regional Transportation Plan (RTP). One of the goals of the RTP is to create a comprehensive arterial gird network that provides movement of people and goods across the region. The RTP adds, "The transportation system also includes growing investments in non-motorized infrastructure for bicyclists and pedestrians to safely connect people to places through an integrated regional active transportation network". As one of Scottsdale's main ALCP corridors, Scottsdale Road from Arizona State Route 101 to Carefree has been planned as an arterial for many decades. The roadway north of the Happy Valley alignment has been planned as a 4-lane arterial since 2008. Several ALCP projects, including Scottsdale Road: Dixileta Drive to Jomax Road, will improve Scottsdale Road to its planned designation as a regional arterial, increasing its overall capacity. The projects will provide additional turn bays to further improve capacity and safety, incorporate bike lanes through the corridor and furnish ADA accessible off-street options for pedestrians and cyclists. The projects look to improve cross drainage and reduce the impact of road closures that occur when the normally dry washes flow across the road from east to west. See appendix A: CIP and ALCP Projects.

Scottsdale Road: Dixileta Drive to Jomax Road ALCP Project

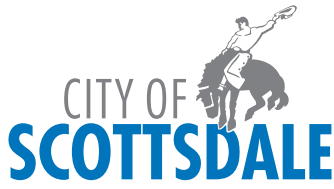
The current segment is from Jomax Road to Dixileta Drive, a distance of 2.0 miles. This segment will include widening the street to the 4-lane complete arterial roadway with a raised landscaped median, capacity and safety improvements at approximately 13 intersections, drainage improvements at approximately 15 wet crossings, improved bike lanes, ADA access, and new sidewalk/shared-use path, and trail. The raised median will enhance driver safety, as will the improved drainage system. Adding new turn bays at side streets and driveways will also reduce the likelihood of collisions. This corridor is also called the Desert Foothills Scenic Drive. To accommodate the scenic and unique nature of this corridor, project elements were modified slightly to fit more organically into this unique natural environment and have a minimal physical and visual impact on the natural desert setting.

Key: *This project will link to future ALCP roadway projects to the north and south.*

Scottsdale Rd/Dynamite Blvd Roundabout

The existing signalized Dynamite Boulevard/Scottsdale Road intersection will be replaced with a multi-lane roundabout. A modern roundabout at this intersection was analyzed at the beginning of the project, and it was determined to provide a safe and efficient intersection control. **Key:** *The decision to install a roundabout is made on a case-by-case basis per the City of Scottsdale's Roundabout First Policy and established state and national guidelines. This roundabout is at a high accident location and at a location where geometry or cost-effectiveness would favor installation. Modern roundabouts are safer than traffic signals because the most severe crashes at conventional intersections are virtually eliminated at roundabouts.*

The City of Scottsdale has constructed a number of circular intersections (e.g., roundabouts and traffic circles). Appendix B lists both the single-lane and multi-lane roundabouts in the City that are planned, under construction or built.



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Funding

Funding between the widening project and the roundabout are separate from each other. The roundabout is 6% of the overall financing of the project and augments the ALCP funds.

- The ALCP widening project on Scottsdale Road from Jomax Road to Dixileta Drive is funded by 70% MAG (Surface Transportation Block Grant Program) and 30% local match.
- The Scottsdale Rd/Dynamite Blvd Roundabout project is funded by a Federal Highway Safety Improvement Program (HSIP) grant. This is 6% of the overall project and separate from the funding of the roadway widening.

Funding Summary

- Regional Contribution – \$20,420,000
- Transportation Sales Tax - \$6,878,364
- Federal HISP Grant – \$1,874,207

Project Timeline

Milestone	Actual (A)/Estimated (E) Date
Design Kick-Off Meeting:	June 2020 A
60% Design:	Fall 2021 A
Virtual Open House:	Fall 2021 A
90% Design:	Fall 2022 A
Design Complete:	Spring 2023 A
Construction Start:	Fall 2023 E
Construction Complete:	Fall 2025 E

Complete Streets

A Complete Street is a street that provides safe and convenient access and travel for users of all types: pedestrians; mobility assisted; bicyclists; transit vehicles and riders; equestrians; cars; and trucks. Complete streets provide better accommodations for ensuring that auto, bicycle, pedestrian, and transit facilities are recognized as integral to a properly designed and functioning road. Complete streets accommodate people of all ages and abilities, including people too young to drive, people who cannot drive, people who choose not to drive and people who wish to drive. The City's current design guidelines for the standard major roadway have incorporated bike lanes and sidewalks in the cross-sections. In 2008, the Transportation Master Plan established the Complete Street Policy that has carried over to the 2016 Transportation Master Plan and 2022 Transportation Action Plan. The Scottsdale General Plan references the MAG 2011 Complete Streets Guide in the related plans and policies section. Instituting a complete streets policy ensures that the entire ROW is designed and operated to enable safe access for all users.

Key: *The Complete Streets Policy recognizes that there is a need for flexibility as all streets are different and user needs should be balanced. All road projects should result in a complete street appropriate to local context and where safe and efficient motorized and non-motorized traffic circulation is maintained.*

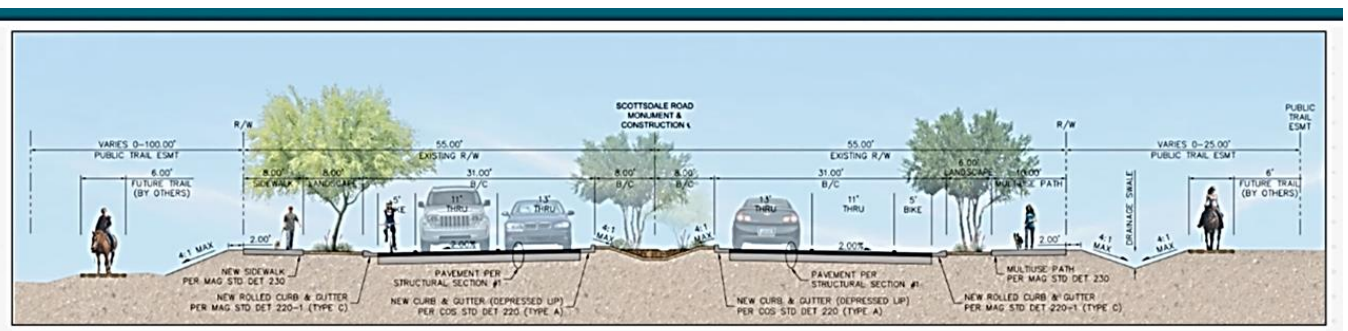
Scenic Corridor

On February 20, 2003, the City of Scottsdale Design Review Board approved the Scenic Corridor Design Guidelines. These guidelines are a component of the City of Scottsdale's Sensitive Design Program. The Scottsdale Sensitive Design Program is a comprehensive compilation of policies and guidelines used to shape the quality and character of the City's built environment. These guidelines clearly identify the setbacks (100 feet with some exceptions) and design elements for scenic corridors. The setback is measured from the back of the planned ultimate ROW with some exceptions. Development within the setback is limited to revegetation, non-vehicular travel ways (e.g., shared-use paths, walks, and trails with a meandering alignment), regional drainage structures, limited cross-access, and limited signs (as allowed by the sign ordinance).

To assist in integrating the ultimately planned roadway cross-section along designated scenic corridors, the Scenic Corridor Guidelines rely on the right-of-way cross-section model. This model includes the following elements:

- Right-of-way width (minimum 150')
- Landscaped median for access control
- Vehicular travel lanes (ultimate cross-section shall include at least two or three travel lanes in each direction)
- Bicycle lanes (minimum four-foot bicycle lane)
- Pedestrian walkways/multi-use paths (preferred location in the scenic landscape setback)
- Transit stops
- Parkway edge landscaping
- Trails (preferred location in the scenic landscape setback)
- Drainage structures

Key: The right-of-way cross-section model set the framework for Scottsdale's Complete Street Policy, which was adopted on January 8, 2008, by city council. Below is the cross-section for this project that incorporates and accommodates the scenic and unique nature of this corridor.





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Dark Sky Status:

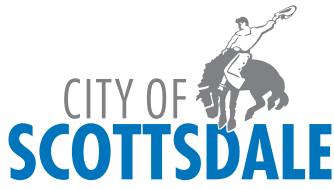
There is a common misconception that the City of Scottsdale has a “dark sky” ordinance for the northern portion of the city. There are no ordinances that discuss street lighting on public streets and no areas of Scottsdale are officially Dark Sky certified (like Flagstaff, Fountain Hills, and Sedona). The City of Scottsdale does have an Environmentally Sensitive Lands (ESL) ordinance, but the standards contained in this section apply primarily to development and activity on private property. There are policies and guidelines for street lighting contained in the Design Standards and Policies Manual (DSPM). The policies suggest installing street lighting at major and minor street intersections in the ESL areas for safety reasons, but not to install street lighting along streets and at local street intersections. The Scenic Corridor Guidelines also address streetlights in two specific districts, the Preservation/Rural character District and the High Activity/Commercial Character District. The Scottsdale Road: Jomax Road to Dixileta Drive roadway project corresponds with the latter district. There are four main components related to streetlights within scenic corridors:

- The number of streetlights should be kept to a minimum required for road safety purposes.
- The location of streetlights should focus on the intersections of scenic corridors with minor collector streets or greater capacity designations.
- All streetlights and other exterior lights should be shielded.
- The use of full pedestrian scale lighting is encouraged in lieu of using the spillage of streetlights.

Per the 2018 DSPM, the intersection of Scottsdale Road at Dynamite Boulevard (future roundabout) requires partial lighting. Partial lighting focuses on conflict points, significant curves and moderate corridor lighting but does not require photometric analysis. At the current Dynamite Boulevard and Scottsdale Road intersection with the existing traffic signal, there are four luminaires installed on traffic signal poles, illuminating the intersection and the crosswalks. **Key:** *It is anticipated that if the signal is replaced by a roundabout that there would be a similar number of streetlights (4). For comparison, there are four streetlights at both roundabouts on Dynamite Boulevard at 118th Street and 122nd Street.*

Public Outreach – Scottsdale Rd: Jomax to Dixileta

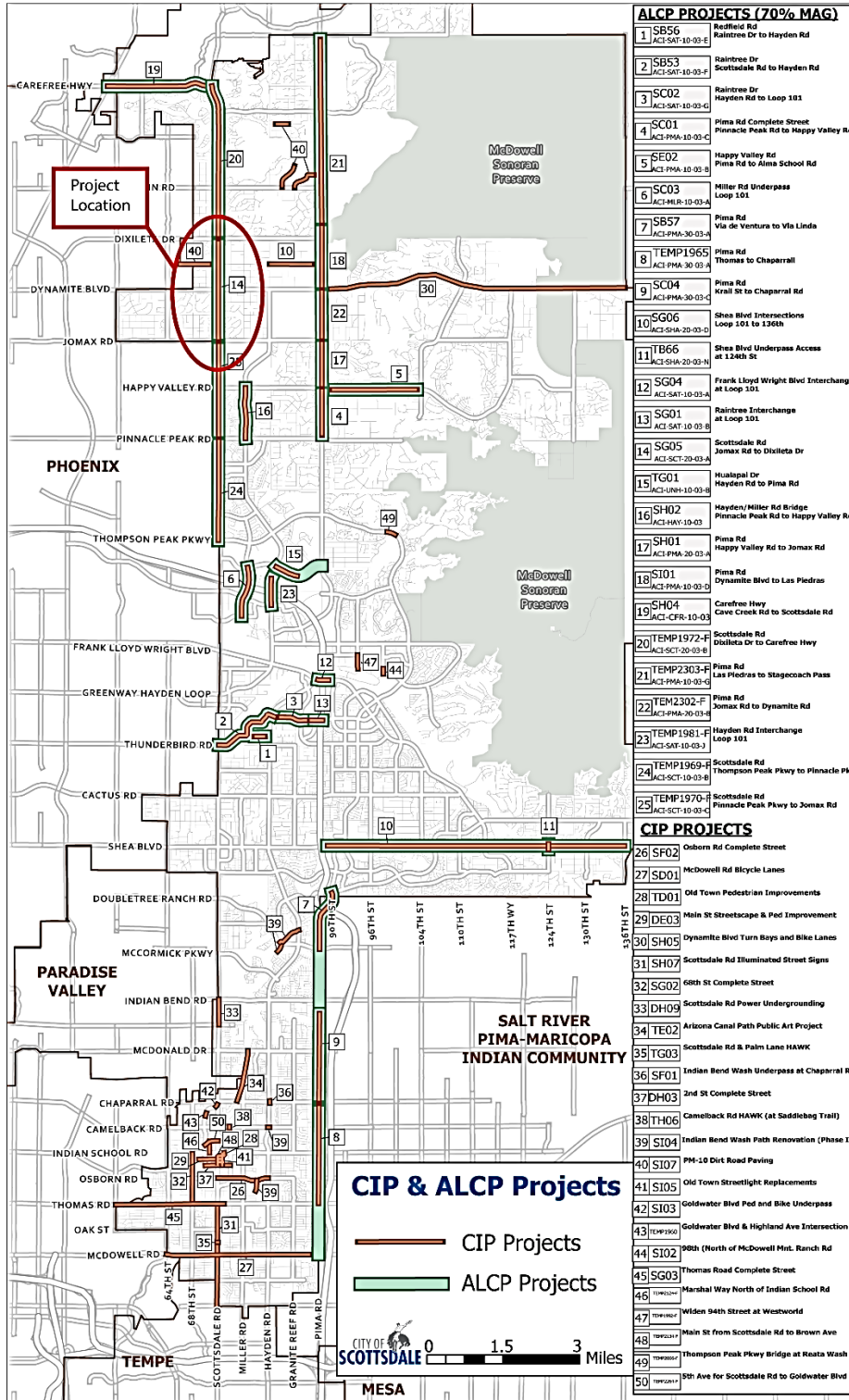
There were several public outreach events conducted to inform the public of the upcoming project. First was an announcement postcard sent out in June of 2020 that included information about the design and forthcoming project. After that, a virtual public meeting was held in October of 2021. Since it was a virtual public meeting, we do not have a sign-in sheet, but we did receive 60 individual comments through our online comment cards. Many of the comments were about the roundabout and their concerns with the design feature. Staff has looked to better inform the public about the safety advantages of roundabouts at intersections. There were also several HOA meetings with the design firm, which were used to notify the surrounding areas about project details in a more localized effort. There will be another meeting (either virtual or in person) to inform the public now that the project is at 100% design. This will include a project update mailing and updated postings on the website and social media sites. The project website will be outdated with the most current information.



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Appendix A: CIP & ALCP Projects





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Appendix B: Roundabout Locations

Multi-lane roundabout intersections

Existing (3)

- Hayden Road & Northsight Boulevard
- Princess Boulevard & Princess Drive
- 90th Street & Mustang Library Entrance

Under Construction (1):

- Hayden Road and Raintree Drive

Planned (3)

- Scottsdale Road & Dynamite Boulevard
- Axon Wy and 81st Street (Developer)

Single-lane roundabout intersections

Existing (18):

- 60th Street & Dove Valley Road
- 64th Street & Lafayette Boulevard
- 68th Street & Cholla Street
- 70th Street & Oak Street
- 70th Street & Chaparral Road
- 74th Street and Sweetwater Boulevard
- 94th Street & Union Hills Boulevard
- 96th Street & Sweetwater Boulevard
- 96th Street & Cholla Street
- 100th Street & Cactus Road
- 104th Street & Cactus Road
- 104th Street & Cholla Street
- 108th Street & Cactus Road
- 124th Street & Columbine Drive
- 124th Street & Cactus Road
- 118th Street & Rio Verde Drive
- 122nd Street & Rio Verde Drive
- Osborn Road and Miller Road

Under Construction (1):

- 76th Place and Redfield Road

Planned (3):

- Axon Way & Perimeter Drive (Developer)
- Axon Way & 82nd Street (Developer)
- Mayo Boulevard & 73rd Place (Developer)