

## 6 IMPLEMENTATION

A variety of funding sources can be considered as potential mechanisms for programming the projects identified as part of the CDS. Three potential sources include:

- P2P Programming (P2P): projects compete against projects from across the state through a standardized scoring process to identify statewide priority projects to be added to the 5-year program.
- District Minor Funding: state monies allocated to each of the seven ADOT districts across the state to fund projects identified as priorities by each district.
- Highway Safety Improvement Program (HSIP) Funding: HSIP funding is allocated to locations that have a demonstrated fatal and severe injury crash history and projects with effective countermeasures. HSIP funding can also be used for systemic improvements, such as ITS or signage improvements.

A potential funding source of the for each of the 12 packaged projects is identified in **Table 27**, though this list should not exclude exploration of additional funding sources.

**Table 27: Recommended Funding Sources**

CPS Rank	Project	Potential Funding Source		
		P2P	District Minor	HSIP
1	Northcentral District ITS/Signage Improvements (MP 218-251)			X
2	Slate Creek Improvements (MP 226-232)	X		
3	Southbound Roadway Improvements (MP 244-250)	X		
4	Northbound Roadway Improvements (MP 247-250)		X	
5	Central District Shoulder Improvements (MP 196-211)		X	
6	Northbound Roadway Improvements (MP 241-248)	X		
7	Central District ITS/Signage Improvements (MP 191-218)			X
8	Rye Improvements (MP 239-241)		X	
9	Northbound Roadway Improvements (MP 212-218)	X		
10	Northbound Roadway Improvements (MP 218-226)	X		
N/A	Central District Rock-Fall Mitigation (MP 213-218)		X	
N/A	Northcentral District Rock-Fall Mitigation (MP 222-247)		X	

P2P pre-scoping forms have been developed for each of the 12 packaged projects to provide background detail and justification to pursue projects through the P2P program. Although not all projects are recommended to be pursued through the P2P funding avenue, pre-scoping forms have been developed for all projects in the event that P2P funding becomes the preferred source in the future. The pre-scoping forms are provided in **Appendix D**.

## 7 PUBLIC AND AGENCY INVOLVEMENT

### 7.1 Technical Advisory Committee

ADOT established a Technical Advisory Committee (TAC) consisting of ADOT, FHWA, and Metropolitan Planning Organization (MPO) and Council of Governments (COG) representatives. Member organizations are summarized in **Table 28**.

**Table 28: Technical Advisory Committee Member Organizations**

TAC Member Organizations
ADOT Bridge Design
ADOT Central District
ADOT Central District Traffic
ADOT Communications
ADOT Drainage Design
ADOT Environmental Planning Group
ADOT Geotechnical
ADOT Multimodal Planning
ADOT Northcentral District
ADOT Pavement Design
ADOT Project Management Group
ADOT Transportation Technology Group
ADOT Traffic Design
ADOT Traffic Systems Management and Operations
ADOT Tribal Coordination
ADOT Traffic Systems Management and Operations – Northern Region Traffic
Central Arizona Governments
Federal Highway Administration (FHWA)
FHWA Planning Region 1
FHWA Project Delivery – Central
FHWA Project Delivery – North Central
Maricopa Association of Governments
Northern Arizona Council of Governments

The Technical Advisory Committee met five times over the course of the project. Meeting summaries are provided in **Appendix C**.

### 7.2 Stakeholder Meetings

As discussed in Chapter 1, SR 87 is bounded by U.S. Forest Service land, except for both ends of the corridor. There are few residents in the corridor. As such, it was determined that outreach is best accomplished through individual stakeholder meetings and input from Technical Advisory Committee representatives.

Individual stakeholder meetings were held with representatives of municipalities, DPS, and ADOT to review potential projects and obtain input on potential issues and project ideas to address those issues. The purpose of the interviews was to:

- Inform stakeholders about the study process and intent
- Obtain input on the projects recommended through the Corridor Profile process
- Identify key concerns of stakeholders and the public regarding ADOT’s efforts to improve traffic operations and safety on SR 87 within the study limits
- Identify environmental issues
- Identify opportunities beyond those already presented in previous studies

The format of the meetings was to review proposed projects from the Corridor Profile Study, determine if they should advance to further analysis or removed from further consideration or if previously recommended projects should be modified, or new projects discussed. A summary of the meeting input is summarized in **Table 29**.

**Table 29: Stakeholder Meeting Summaries**

Stakeholder Meeting	Meeting Date	Input Received
ADOT Northcentral District	9/18/2018	<ul style="list-style-type: none"> <li>• MP 201-202.5 the shoulders are in poor condition and have an old style of rumble strips. MP 203.9-208 has new slurry, but rumble strips are inconsistent.</li> <li>• an overhead DMS sign in advance of the Fort McDowell Road intersection with real-time travel times to Payson and Show Low would allow vehicles to detour during times of extreme congestion.</li> <li>• Rockfall mitigation is needed in these areas: NB MP 214.2-214.6, SB MP 228.9-228.7, and SB MP 228.5-228.0. At SB MP 217.6-218.0 It was indicated that this location had experienced enough rock-fall that the problem has largely taken care of itself and should be considered a low priority.</li> <li>• The locations noted for speed feedback signs and speed advisory warning signs with flashing beacons at curves were noted as good locations. NB MP NB 224.5 was noted as a top priority.</li> <li>• MP 229-218 has a lot of guardrail that inhibits emergency access. There are dips in the current shoulders that need to be addressed.</li> <li>• In addition to widening inside shoulders, also improve areas where the outside shoulders are less than 10' as well because of guardrail, which should be remedied.</li> <li>• Constructing a NB climbing lane at NB 213-215, this project is a top priority for the Central District.</li> <li>• Constructing a NB climbing lane at MP 219-223, this project is a priority for the Northcentral District. Carry the climbing lane all the way to the brake check location at the summit of Mount Ord.</li> <li>• Regarding the widening the Whiskey Springs Bridge and the Upper Kitty Joe Bridge, this is needed to accommodate the proposed climbing lane.</li> <li>• Provide an overhead DMS sign in advance of the SR 188 intersection with real-time travel times to Payson and Show Low to provide drivers detour options</li> <li>• Adding intersection warning signage at Sunflower (MP 218) would be beneficial due to a high amount of cross traffic.</li> <li>• Regarding adding a merge lane from the brake check area (MP 223), trucks frequently use the shoulder to accelerate from the brake check area to merge back into traffic. This location could benefit from longer acceleration lanes to allow trucks to gain speed off the shoulders.</li> <li>• Sloughing on the northbound side at MP 231 has been a continuous issue. There are also drainage issues in the area, resulting in mud over the road during a monsoon season. Identify locations where there are not 10' wide outside shoulders.</li> </ul>

Stakeholder Meeting	Meeting Date	Input Received
		<ul style="list-style-type: none"> <li>• Deer Creek Drive intersection - residential area, horse trailers entering and exiting west leg of intersection, signage should be added</li> <li>• Gisela Road intersection – a lot of crossovers, signage should be added</li> <li>• Rye (MP 240.5 and 240.9) – this section of roadway is straight and flat, leading to higher speeds. There is a lot of cross traffic in the area, signage should be added</li> <li>• Adding a flashing beacon at WB stop sign on SR 188 was affirmed as a project that should remain in the study.</li> <li>• SR 188 intersection - If acceleration lanes are lengthened or added, they should be concrete to avoid the current issue of a washboard effect on the asphalt because of heavy vehicle acceleration. Add a southbound acceleration lane along the median for traffic from SR 188. Turn lanes to SR 188 should be lengthened to allow for more deceleration distance.</li> <li>• Constructing climbing lanes, NB MP 243-247- this project would work on normal weekends but may cause additional back-ups during congested times due to merging. The shoulders should get widened at the same time as this project (MP 241-247) to improve emergency response abilities.</li> <li>• RWIS with Dynamic Weather Warning Beacons at MP 245 – low priority project. If it does move forward, move the SB location to MP 244 and NB location to MP 246 with cameras.</li> <li>• Proposed variable speed limits, MP 241-246 - low priority.</li> <li>• A SB DMS sign proposed at SB MP 247 would be more helpful near the casino, to provide people the opportunity to turn around at Gibson Ranch Road or Oxbow Trail before they enter the congested area. The sign could be mounted on a new pedestrian overpass.</li> <li>• A DMS sign at NB MP 240 is not necessary – a sign before SR 188 or at the top of Mount Ord would be more useful.</li> <li>• Widen shoulders at SB MP 246.2-250.9 - this should be a top priority, and that consistent 10' right shoulders should continue all the way to MP 241. Also, NB shoulders should be widened out where guardrails are to provide 10' of space for emergency response.</li> <li>• Current superelevation and drainage issues at SB MP 241-250 cause sheets of water to cross the roadway and ADOT responds to crashes at these locations frequently during rain events, particularly at MP 246-242.</li> <li>• SR 87 is becoming an alternate route for I-17, due to the unreliability of that facility. Drivers use SR 87 through Payson to SR 260 west to Camp Verde, or Lake Mary Road (County Road 3) to Flagstaff.</li> <li>• Traffic volumes have been increasing rapidly over the last few years, particularly RV's and vehicles towing boats. Update the traffic analysis to more recent counts.</li> <li>• Responding to incidents would be much easier if the entire corridor had 10' right shoulders.</li> <li>• Proposed speed feedback signs should be incorporated into ADOT's real-time travel information to allow DMS signage to provide travel times to Payson and Show Low.</li> <li>• Review appropriate applications of temporary transverse rumble strips.</li> <li>• A runaway truck ramp was installed for northbound traffic near MP 227 due to the steep descent from the summit of Mount Ord. The lighted 'Occupied' sign should be relocated at the summit of Mount Ord.</li> <li>• A concrete barrier at the 'Corvair Curve' (SB MP 246-245) would be very beneficial and encourage motorists to slow down through the curve.</li> <li>• A project to reopen the rest area is in the 5-year program.</li> </ul>
Department of Public Safety and Gila County	10/23/2018	<ul style="list-style-type: none"> <li>• NB MP 224.5 is a great location for speed feedback signs; in fact, there could be more speed feedback signs on the northbound side in advance of curves going down the hill from the summit of Mount Ord.</li> <li>• NB MP 213-215 there are a lot of crash and near misses in this area and a climbing lane would be very helpful to take slow traffic out of the through lanes.</li> <li>• MP 223 – 228.5 is a 5+ mile stretch that has continuous concrete median barrier that does not provide adequate emergency crossover locations. An additional crossover</li> </ul>

Stakeholder Meeting	Meeting Date	Input Received
		<p>would reduce emergency response times. A tunnel, like the one at MP 220, could be a good solution.</p> <ul style="list-style-type: none"> <li>Near NB 226, there is a location on the northbound side where there is a rise followed by an immediate left curve with poor superelevation that occasionally causes crashes.</li> <li>At MP 239.3, there are transitions between the roadway and the bridge over Rye Creek are bumpy and cause vehicles to bounce and lose control at the bridge.</li> <li>Regarding installing speed feedback signs and advisory warning signs with flashing beacons at curves, SB MP 247 is a good location because it would help reinforce the speed restrictions in advance of 'Corvair Curve'</li> <li>Regarding a project to widen shoulders at SB MP 246.2-250.9, there is only one safety pull-out in this stretch and it has very poor visibility for vehicles re-entering the roadway.</li> <li>The curve at SB MP 246 (Corvair Curve) is the biggest safety problem in the entire district. Crashes are mostly single vehicle – run off road and rollover crashes.</li> <li>Regarding a proposal to realign SR 87 to remove "Corvair Curve" (MP 246), an alternative could be to realign the SB lanes to the west to remove the curve and some of the subsequent sharp curves. There may be opportunities to follow the existing drainage elevations to straighten out the roadway.</li> <li>Regarding a proposal to address sight visibility issues at crossovers at Ox Bow Trl, FR 375B, and Gibson Ranch Rd, there is a difference in elevation between the two sides of SR 87, which causes sight distance issues and acceleration issues for vehicles turning onto the roadway from side streets. Additional acceleration lanes may be warranted at these locations.</li> <li>Regarding a proposed project to realign FR 375B, an alternative suggested was to realign FR 375B to a frontage road along the east side of SR 87 northward to Gibson Ranch Road. This alternative would allow for the removal of the intersection of SR 87 and FR 375B.</li> <li>The southern of the two crossover tunnels on SR 87, MP 220 is used heavily as an emergency crossover and may be a good model to improve emergency access in areas with center concrete barriers.</li> </ul>
ADOT Central District	10/23/2018	<ul style="list-style-type: none"> <li>Supplemental DMS at SB MP 191.2 can alert drivers to crashes ahead so that they can detour onto Shea Boulevard or Gilbert Road. A SB DMS sign north of Bush Highway would be the optimal location, but there is no power available, so it would be expensive to implement.</li> <li>Between MP 194 to 205 NB and SB the shoulders are in acceptable condition but are approximately 25 years old and would likely need to be rehabilitated in the next 5-10 years.</li> <li>The inside shoulders MP 211-209 should be widened.</li> <li>Proposed speed feedback signs should be placed in advance of curves</li> <li>SB MP 212 -213 - supplemental chevron signs and delineators would be helpful.</li> <li>NB MP 214.2-214.6 should be a top priority for rock-fall mitigation.</li> <li>SB MP 217.6-218.0 is also in need of rock-fall mitigation.</li> <li>Intersection warning signs at Sunflower is a good idea.</li> <li>NB climbing lanes at NB MP 213-215 and NB MP 219-223 are a good idea</li> <li>There is a long gap in emergency crossovers between MP 213-217.5 and it would be nice to have additional access in this area, however; the terrain is challenging.</li> <li>There is a drainage structure on the SB roadway near MP 216 just north of the crossover bridge, but that water drains into the rocks just before it enters the structure and follows cracks in the rocks onto the northbound lanes and shoots out of the northbound lane under the crossover bridge, requiring roadway patches every time there is a sizeable rain event.</li> <li>The roadway is buckling from MP 217.2-217.7 (northbound and southbound), causing vehicles to bounce on the roadway, possibly contributed by standing water in the median.</li> <li>All of the guardrail in the Central District along SR 87 is at least several years old and does not meet current standards. If any of the projects impact the shoulders with guardrails, the guardrail will need to be replaced with the current standard.</li> </ul>

Stakeholder Meeting	Meeting Date	Input Received
Maricopa County, Town of Payson, Town of Fountain Hills	10/30/2018	<ul style="list-style-type: none"> <li>A supplemental DMS sign SB approximately MP 191.2 would be helpful to be able to alert drivers to congestion on Shea Boulevard in Fountain Hills so that drivers can divert to SR 87 or Gilbert Road.</li> <li>cross-traffic at Goldfield Ranch Road has been increasing in recent years, and more substantial infrastructure may be warranted. The alignment of some of the crossovers is atypical and may cause safety issues.</li> <li>it may be beneficial to add additional speed feedback signs on the northbound side of the roadway along the decline from the summit of Mount Ord along Slate Creek to approximately mile post 229.</li> <li>A DMS located NB at MP 235.5 would be very beneficial.</li> <li>At the SR 188 intersection - location may warrant grade separation in the future, but an added acceleration lane will help in the short-term.</li> <li>Public comments that the Mazatzal rest stop should be rehabilitated.</li> <li>Between NB MP 241- 246 observed that vehicles overheating on the long incline on the northbound lanes and that the shoulders are too narrow to safely pull out of traffic.</li> <li>Between Rye and Payson there is poor cell phone reception in this area and people that break down cannot call for help.</li> <li>Review the corridor for inadequate shoulder widths.</li> <li>MCDOT is adding message signs (both DMS and permanent signage) to Bush Highway warning drivers about wildlife (Salt River Horses). SR 87 may experience the same issues.</li> </ul>
United States Forest Service and Game and Fish Department	10/31/2018	<ul style="list-style-type: none"> <li>Projects on U.S. Forest Service land shall follow the "Guidelines for Highway on BLM and USFS Lands".</li> <li>A highway easement deed may be required in areas of new construction. J. Mona added that this applies to any capacity improvements that require additional right-of-way.</li> <li>Planning for potential waste areas and/or borrow sources shall be coordinated in advance and analyzed during the NEPA planning phase. It is preferred that all projects are designed to be balanced.</li> <li>Contractor staging areas shall be sited in advance and analyzed during the NEPA planning phase.</li> <li>Construction water shall be coordinated in advance.</li> <li>Geotechnical exploration shall be analyzed early in the NEPA planning phase.</li> <li>Salvage and transplant Saguaro cacti that impacted by construction.</li> <li>Install directional fencing to encourage wildlife to use culverts for crossing.</li> <li>Modify existing culvert designs to accommodate wildlife movement and passage.</li> <li>Projects shall include treatment for noxious and invasive weeds.</li> <li>Provide livestock signage in the Bush Highway area (for the Salt River horses).</li> <li>Fence continuity shall be maintained in areas with active grazing allotments.</li> <li>Project shall include fire plan requirements.</li> <li>Projects shall comply with the Tonto National Forest Plan visual quality objectives.</li> <li>USFS may come out with an updated plan within the next two years, but that the current plan's requirements should suffice for the time being.</li> <li>Weathering steel shall be used for all new guardrail and galvanized end sections shall be treated with Natina.</li> <li>The area around MP 224 has continuously suffered from slope failures. A larger project involving a permanent solution should be developed rather than responding to potential and actual failures. Any improvements planned for this area should consider the larger permanent solution being developed.</li> <li>Be aware of a hazardous material waste site NB and SB near MP 248.8.</li> <li>USFS has changed its policy approach from minimizing the footprint of highways to allowing adequate right-of-way for stable slopes. USFS also believes that wide medians are more in line with the aesthetic guidelines in the Forest Plan.</li> <li>USFS would like to get a cultural survey for the entire corridor to speed up the process for general maintenance need</li> </ul>

Stakeholder Meeting	Meeting Date	Input Received
Town of Payson	11/6/2018	<ul style="list-style-type: none"> <li>• ‘Corvair curve’ (southbound curve at MP 246) is the biggest safety concern on the highway.</li> <li>• Wrong-way drivers are sometimes an issue on SR 87. The most common location is people exiting the Mazatzal Casino</li> <li>• Congestion on summer weekends is a major source of complaints received by the Town.</li> <li>• Because the majority of vehicles are turning right at SR 260, all the vehicles are using the right lane and the left lane is relatively empty.</li> <li>• At the intersection with SR 188, the southbound left and westbound left turn movements cause the majority of the crashes as they cross the northbound through lanes. if the Mazatzal Rest Area is reopened, it would likely exacerbate this problem. A preferred solution would to grade separate the intersection.</li> <li>• Additional emergency crossovers would be helpful for emergency response purposes</li> </ul>
ADOT Central District	6/12/2019	<ul style="list-style-type: none"> <li>• Update description of project section 3 to “Reconstruct north leg at Goldfield Road”</li> <li>• Check with TSMO on whether they want to add FMS conduit the length of the project (or at least to the DMS)</li> <li>• Subdivide the rockfall mitigation that would be in the widening section and combine them into one project</li> <li>• Combine the remainder of rockfall mitigation not included in comment above into another separate project</li> <li>• Always keep the projects separated by ADOT District</li> <li>• Ask the U.S. Forest Service for their preference on slope rockfall mitigation types – ADOT District Maintenance does not yet have a preference</li> </ul>

### 7.3 Public Engagement

**TO BE INCLUDED FOLLOWING COMPLETION OF NEXT ROUND OF ENGAGEMENT IN SEPTEMBER 2019.**