

# HOV SPEED COMPLIANCE ACTION PLAN



Prepared by  
**Arizona Department of Transportation**  
Multimodal Planning Division

Submitted to  
**Federal Highway Administration**  
Arizona Division  
June 3, 2024

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Director's Office

Katie Hobbs, Governor  
Jennifer Toth, Director

June 3, 2024

Anthony Sarhan  
Interim Arizona Division Administrator  
Federal Highway Administration  
4000 N. Central Avenue Suite 1500  
Phoenix, Arizona 85012

Dear Interim Arizona Division Administrator Sarhan:

In compliance with 23 USC 166 d (1) D, the Arizona Department of Transportation submits the attached action plan addressing the degradation of the High Occupancy Vehicle (HOV) Lanes. This action plan identifies any and all segments of the currently operational HOV lanes within the metropolitan area freeway system that are not fully compliant with 23 USC 166 d (2). The action plan also addresses the actions established or planned by ADOT to bring the HOV lanes into compliance with the previously identified requirements.

If you require further information or assistance with this matter, please contact Paul Patane, MPD Director at (602) 712-7435.

Sincerely,

DocuSigned by:  
  
B62A62C2C737460...  
Jennifer Toth  
Director



Multimodal Planning

Katie Hobbs, Governor  
Jennifer Toth, Director  
Greg Byres, Deputy Director for Transportation/State Engineer  
Paul Patane, MPD Director

June 3, 2024

Kieran Jordan, Operations Engineer  
Federal Highway Administration (FHWA), Arizona Division  
4000 North Central Avenue, Suite 1500  
Phoenix, Arizona 85012-3500

RE: 2024 High Occupancy Vehicle Speed Compliance Update

Mr. Jordan,

In accordance with FHWA guidance (23 USC 166) on High Occupancy Vehicle (HOV) facility operations, the responsible state agency will limit or discontinue the use of HOV facilities by non-HOV vehicles (low emission and energy efficient vehicles not meeting the occupancy requirement) if the presence of the vehicles contributes to degraded operation of the facility. The performance standard is based upon an agreement between ADOT and FHWA Division, as follows: maintain a 45 mph average speed in each morning and evening peak hour during the 180-day period ending in March of each year.

As requested we have provided an HOV Report Supplement summarizing the HOV lane speed compliance results for 2024.

Please let us know if you have any questions or concerns.

Thank you,

DocuSigned by:

F74C40B9C9A84DC  
Paul V. Patane, P. E.

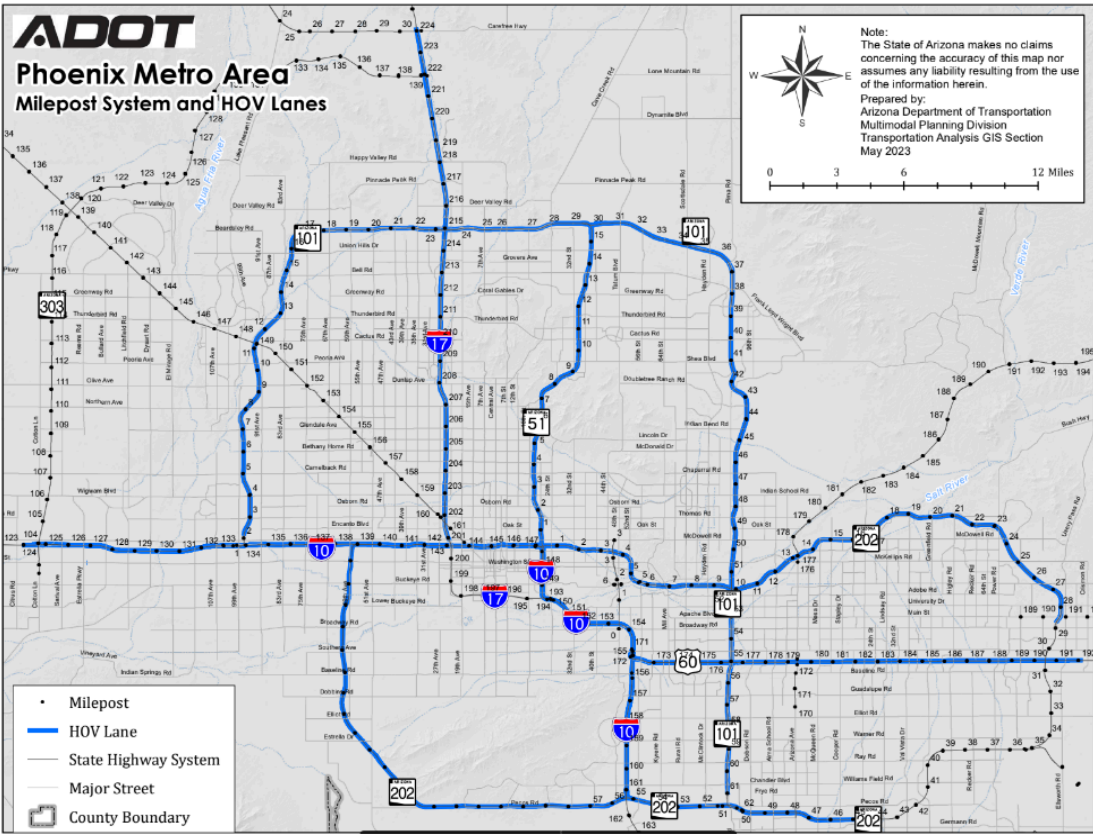
Multimodal Planning Division Director

# Executive Summary

The Arizona Department of Transportation (ADOT) received a grant from the FHWA to implement High Occupancy Vehicle (HOV) Lanes in the past. This HOV Lane report is required under [23 USC 166 \(d\)\(1\)\(D\)\(i\)](#), and has been prepared to establish a plan to mitigate the existing degradation of the HOV lanes within the Phoenix metro area.

The report is provided to the Federal Highway Administration (FHWA) every June 1st and includes 6-months worth of data (October through March). Analysis is performed to identify areas of congestion on the network. Compliance is defined for segments as speeds of 45 mph or faster for 90% of the time over a 180-day period during the weekdays rush hours (excluding holidays) which start from 6 am to 9 am and from 3 pm to 7 pm. For the 2024 collection cycle, there are seven segments that are out of compliance. This report details the analysis methods used and the updates in ADOT's processes, and new initiatives to improve compliance on the roadway network. Reporting requirements include updates to countermeasures to show continuous improvement in travel time reliability.

# HOV Lane Facilities



**Figure 1. Overview map of HOV Segments**

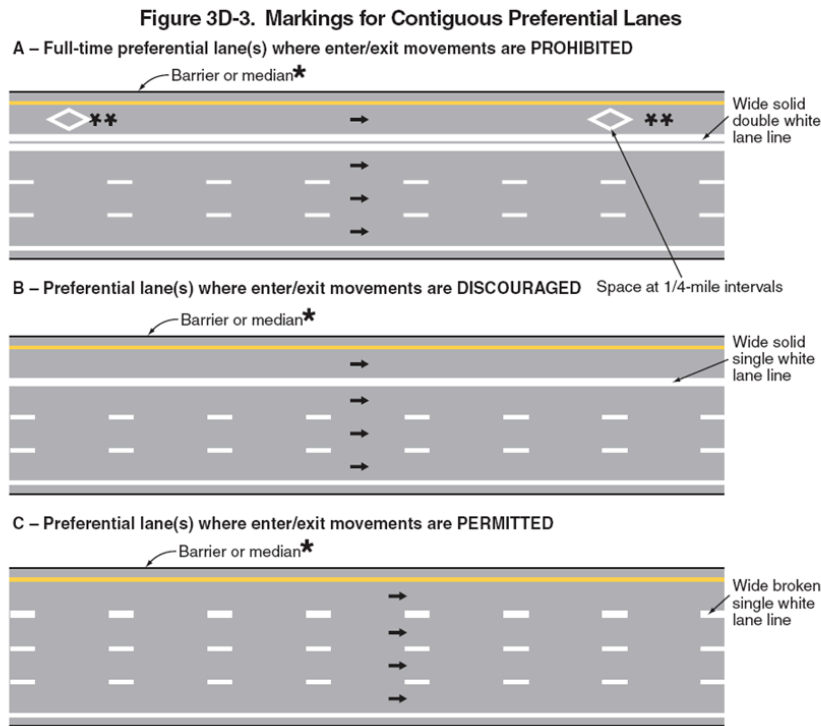
As of calendar year 2023, there are 437 lane miles of High Occupancy Vehicle (HOV) lanes in the state of Arizona, all of which reside within the Phoenix metropolitan area (see Figure 1 below). Currently, all of the HOV lanes are 1-lane HOV lanes. There are plans to add over 10 additional lane miles of 2-lane HOV lanes on Interstate 10 via the [Broadway Curve project](#) that will be completed in 2024.

The predominant freeway striping that separates the HOV lane from the general purpose lane is a wide solid single white lane line (shown below in figure 2B). A wide solid white line is appropriate to discourage, but not prohibit, crossing between the two lane types. Other types of preferential lanes also use solid wide lines, so drivers are accustomed to this treatment. Current striping allows for entering/exiting where there are available gaps between vehicles and no additional signage is needed.

There is a combination of overhead signing and ground mounted signing throughout the Phoenix-metro freeways showing the designated HOV preferential lane that would be easily recognizable to any visitors unfamiliar with the area. Violating the HOV lane restrictions in Arizona results in a fine of \$400.

Currently, ADOT does not have any congestion pricing on any of the freeways in the state. If there is a time when this would be implemented, changing the striping at that time might be appropriate. There would be a significant change to the usage of the preferential lane and a change to the striping would make the public aware of this. Implementing this now would require significant stripe obliteration, which would result in significant costs. Please see countermeasure #7 for more details.

(Source: FHWA, 14 Sep. 2022)



**Figure 2. HOV Lane Striping**

## Calculating Degradation

The calculation for a good or poor performing highway segment is expressed as a percentage. Morning peak period is from 6 am to 9 am and evening peak period is from 3 pm to 7 pm. For the purposes of speed performance monitoring, a segment is in compliance if the average speed is 45 mph or faster for 90 percent of the time over the 180 day period (October through March).

FHWA does not specify the speed data sources, only the analysis of the speed data. This is primarily because each state has different characteristics, and each agency responsible for operations has different resources to collect and analyze data.

## Data Collection

The speed data used in the analysis is collected via Freeway Management System (FMS) detectors by direction on the metropolitan freeway system in an automated fashion. The speed data is gathered in 20-second intervals and is averaged into 5-minute intervals. The selected reporting period reduces the seasonality issues observed from some segments. However, ADOT monitors the monthly performance of the segments during the reporting period for possible compliance issues. Table 1 illustrates the performance of all the segments during the 180-day period.



**Table 1. HOV Corridor Speed Segments**

FHWA Speed Compliance (for 180 day period ending March 31st of the Evaluation Year)				
Segment	HOV Segment	2022	2023	2024
1	I-10_EB_L101_to_I-17	83	80	77
2	I-10_EB_I-17_to_SR_51	94	97	100
3	I-10_EB_SR_51_to_I-17	100	100	100
4	I-10_EB_I-17_to_US_60	57	93	No Data
5	I-10_EB_US_60_to_L202	100	99	No Data
6	I-10_WB_L101_to_I-17	86	84	76
7	I-10_WB_I-17_to_SR_51	86	88	92
8	I-10_WB_SR_51_to_I-17	99	88	100
9	I-10_WB_I-17_to_US_60	95	95	No Data
10	I-10_WB_US_60_to_L202	97	100	No Data
11	I-17_NB_I-10_to_L101	89	90	89
12	I-17_SB_I-10_to_L101	95	88	85
13	L101_Pima_NB_SR_51_to_L202	94	98	93
14	L101_Pima_SB_SR_51_to_L202	91	92	86
15	L101_Price_NB_L202_Red_Mt_to_US_60	100	100	75
16	L101_Price_NB_US_60_to_L202_San_Tan	94	97	99
17	L101_Price_SB_L202_Red_Mt_to_US_60	93	89	76
18	L101_Price_SB_US_60_to_L202_San_Tan	100	100	100
19	L202_Red_Mt_EB_SR_51_to_L101_Pima	100	96	91
20	L202_Red_Mt_WB_SR_51_to_L101_Pima	95	93	92
21	SR_51_NB_L202_to_L101	100	99	99
22	SR_51_SB_L202_to_L101	99	97	95
23	US_60_EB_I-10_to_L101	96	100	99
24	US_60_EB_L101_to_SR_87	100	100	99
25	US_60_EB_SR_87_to_L202	99	99	95
26	US_60_WB_I-10_to_L101	100	100	100
27	US_60_WB_L101_to_SR_87	100	100	100
28	US_60_WB_SR_87_to_L202	99	97	93
29	L101_SB_BEARDSLEY_TO_THOMAS	91	93	94
30	L101_NB_THOMAS_TO_INDIAN_SCHOOL	100	100	100
31	L101_EB_75TH_AVE_TO_27TH_AVE	99	98	98
32	L101_WB_27TH_AVE_TO_67TH_AVE	97	93	91
33	L202_South_Mnt_WB_I-10_to_Bend	100	100	100
34	L202_South_Mnt_NB_Bend_to_Elliot	100	100	100
35	L202_South_Mnt_NB_Dobbins_to_I-10	100	100	100
36	L202_South_Mnt_EB_Bend_to_40th_St	100	100	100
37	L202_South_Mnt_SB_Elliot_to_Bend	100	100	100
38	L202_South_Mnt_SB_I-10_to_Dobbins	100	100	100

**Notes:** HOV Segments highlighted in red are out of compliance for the evaluation period.

CFR Compliance Guidance: HOV lane speeds that fail to maintain 45 mph for 90 percent of the time over a 180 day period are non-compliant

The speed data in Table 1 (segments 33 through 38) suggests that the latest roadway construction design of the SR-202 South Mountain Freeway (SMF) can most likely be the cause of the superior performance for the three consecutive years 2021-2023.

Research studies indicate that improvements in roadway infrastructure elements such as lane width, road width, horizontal and vertical geometry, traffic flow conditions, and roadside environment impact travel speed considerably.

## Phoenix Metro Degradation Summary

The data in Table 2 represents the percentage of time for each segment that is out of compliance and shows the real segment performance changes over the past 3 years.

**Table 2. HOV Corridor Segments**

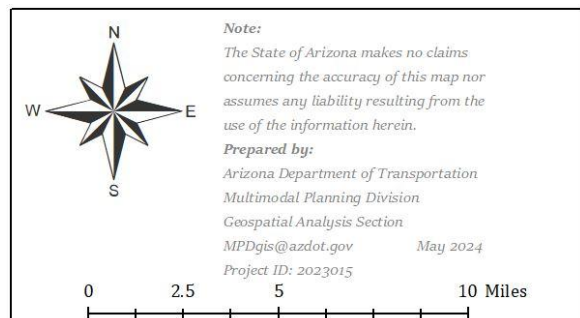
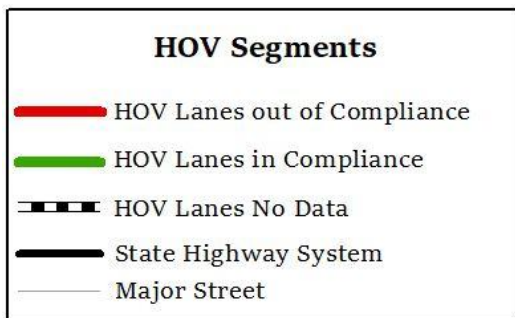
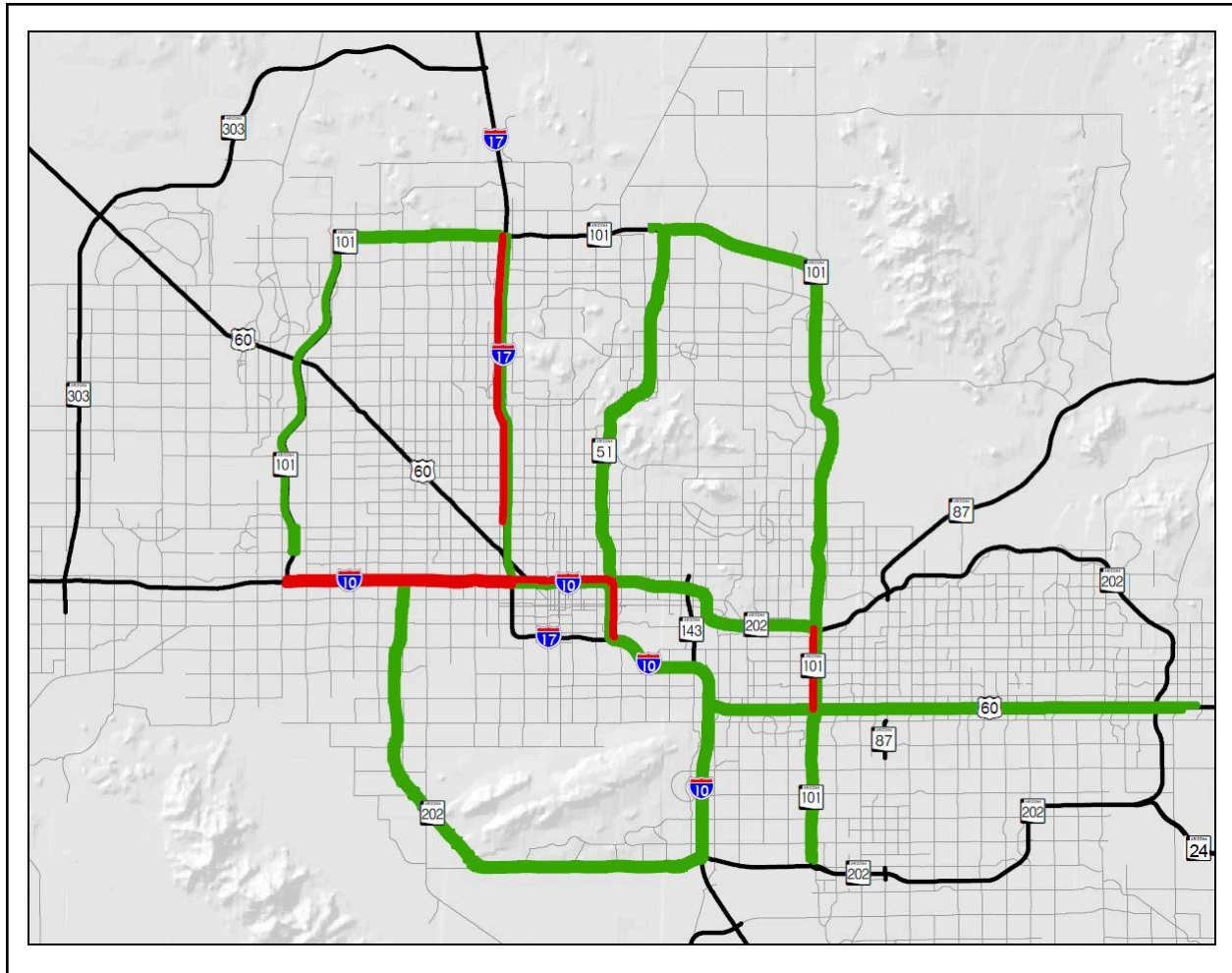
Segment Order	HOV Segment	Evaluation Year		
		2022	2023	2024
1	I-10_EB_L101_to_I-17	83	80	77
4	I-10_EB_I-17_to_US_60	57	93	No Data
6	I-10_WB_L101_to_I-17	86	84	76
7	I-10_WB_I-17_to_SR_51	86	88	92
8	I-10_WB_SR_51_to_I-17	99	88	100
11	I-17_NB_I-10_to_L101	89	90	89
12	I-17_SB_I-10_to_L101	95	88	85
14	L101_Pima_SB_SR_51_to_L202	91	92	86
15	L101_Pima_NB_L202_Red_Mt_to_US_60	100	100	75
17	L101_Price_SB_L202_Red_Mt_to_US_60	93	89	76
<b>Total number of segments out of compliance</b>		<b>5</b>	<b>6</b>	<b>7</b>

It can be observed from the data in Table 2 the following:

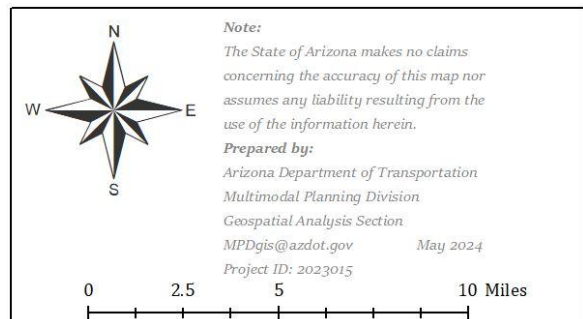
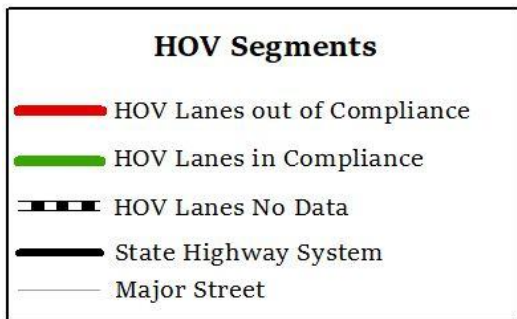
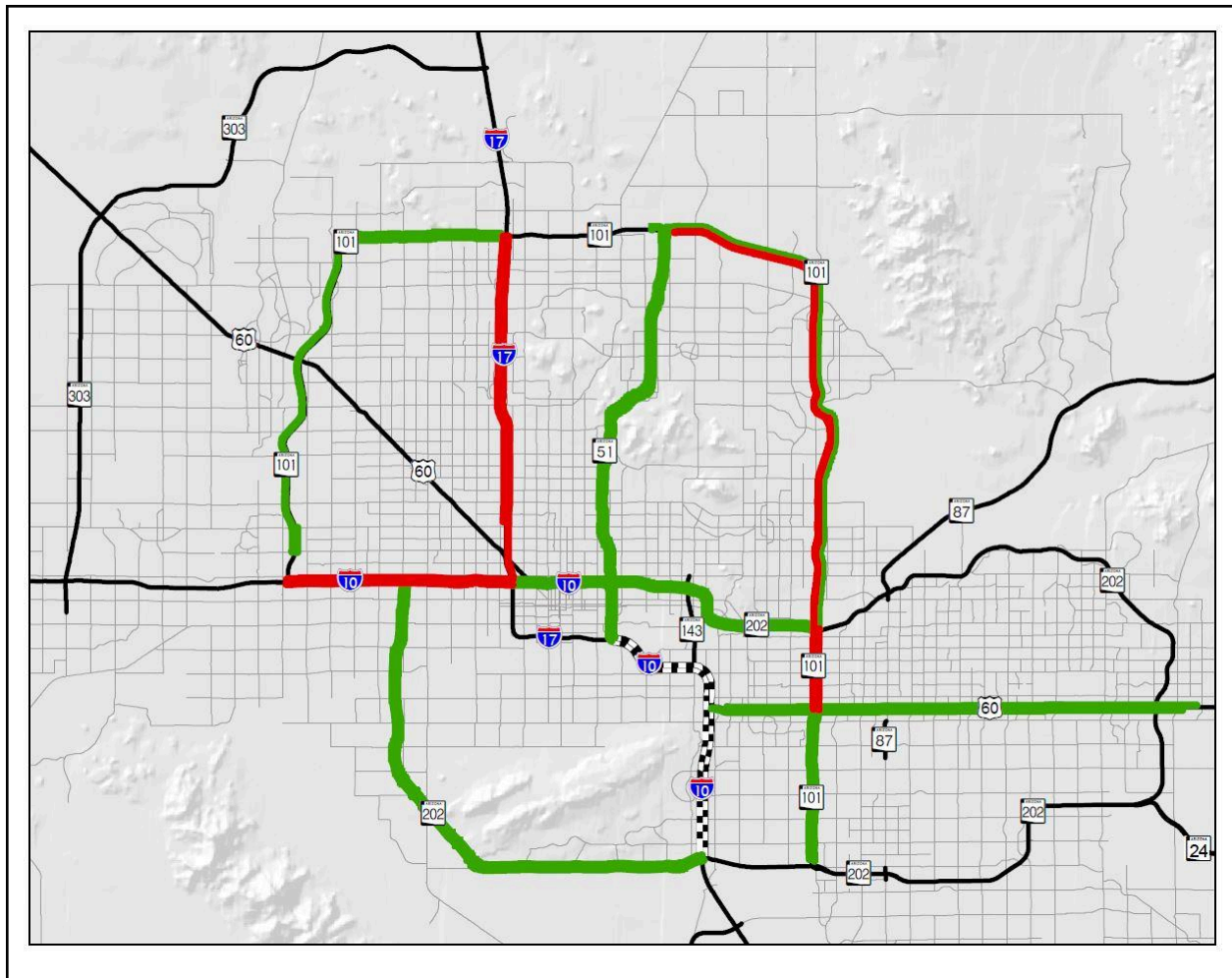
- 13% of the total HOV segments are out of compliance in 2022
- 16% of the total HOV segments are out of compliance in 2023
- 18% of the total HOV segments are out of compliance in 2024

The maps in Figure 3, illustrate the HOV segments in compliance (in green) and the HOV segments out of compliance (in red) for the years 2023 and 2024. There are more HOV segments in compliance in 2023 than there are in 2024.

## 2023 HOV Segments



## 2024 HOV Segments



**Figure 3. Overview map of HOV Segments**

There are a number of contributing factors for the increased degradation on the HOV lane network.

1. Maricopa County's population grew 3 percent from the year 2020 to 2022 (Arizona Commerce Authority, 2022). With the population of the state increasing,

the state highway system Level of Service (LOS) will be affected with increased travel times.

2. Maricopa County experienced a 5 percent increase in employment from January 2020 to January 2023 (Arizona Commerce Authority, 2023).
3. Impact of Covid 19 Pandemic on Degradation: On March 11, 2020, Governor Doug Ducey declared a statewide public health emergency (A.R.S. § 26-303) that enforced a 'Stay at home' order that affected all 'in-person' educational institutions and majority of 'in-person' employment. As a result, during the year 2020, the majority of employees began to telework and the majority of students transitioned to online students.
4. TSMO has a recognised problem with detectors which leads to fewer observations for impacted detectors. They have a consultant checking out detectors and fixing problems. There are two segments in question, #8 and #15, which have fewer observations than in years past that may have impacted the results. The results as presented for 2024 are correct given the smaller number of observations. Segment #8 has no observations below 45 mph leading to the 100% result. Segment #15 did not have any observations below 45 mph for the two prior years but did have observations this year. The below 45 mph observations combined with lower overall observations lead to the 2024 result.
5. For the 2023-2024 data collection cycle, ADOT found issues with one location (I-10 between I-17 and US-60 both East and Westbound) on the highway system. Both lack data due to the Broadway Curve construction project. In the past, these locations stayed within compliance.

This leads to a decrease in traffic congestion. As educational institutions and employees began to gradually transition to a hybrid mode, traffic congestion increased. On March 20th 2022, Covid-19 state of emergency ended with the majority of employees returning to 'in-person' mode of work and educational institutions allowing for 'in-person' classes. Traffic volumes have increased from pre-pandemic volumes and the state highway system capacity has not been able to support the demand.

## Countermeasures

The countermeasures listed below are used to track progress with ADOT's compliance with [23 USC 166](#). Some of these countermeasures are works in progress and will take multiple years of data collection and analysis to complete.

## **Countermeasure #1: End Low Emission Efficient Vehicle (Hybrid) Program**

Per 23 USC 166(b)(5)(B), earlier versions of hybrid vehicle technologies (non-plug-in-type) were to be removed from the occupancy requirements exemptions effective September 30, 2019.

**Changes:** Continue to track data.

**Progress:** ADOT implemented this countermeasure by issuing a letter dated December 23, 2019 and made the actions effective March 2, 2020. The letter informed Blue Sky hybrid plate holders of the Federal law ending the program for their specific vehicles. Blue Sky Hybrid Plates are being phased out through sales and attrition of the vehicles.

Currently, ADOT allows qualified alternative fuel vehicles (AFV) with an AFV license plate to use HOV lanes, regardless of the number of occupants. Qualified AFVs include vehicles powered exclusively by electricity, propane, natural gas, hydrogen, or a blend of hydrogen with propane or natural gas. This exemption expires September 20, 2025. For more information about vehicle eligibility and HOV access, visit the [ADOT AFV website](#). This will help to reduce the number of vehicles in the HOV lane and will lead to greater reliability.

**Status:** Active

**Results:** As of January of 2024, there are 2,553 hybrid plates remaining on Arizona's roadways.

## **Countermeasure #2: Traffic Congestion Analysis**

There are seven segments identified that do not comply with the minimum speed requirements. These particular segments will be analyzed to determine factors that may be affecting upstream and downstream HOV lane volume and speed reductions.

**Changes:** Conduct analysis on out of compliance segments.

**Progress:** The analysis of the detector level data in the non-compliant segments is underway. There were several segments without data due to the construction on the Broadway curve. These segments will most likely continue to be in compliance due to the additional HOV lane once the construction is completed. Coordination with the Transportation Systems Management and Operations (TSMO) division continues to ensure proper maintenance of the traffic loop detectors, which is the mechanism for getting the speed data. Improvements in process continue to be identified and implemented.

Categorizing the different types of congestion will help to target specific countermeasures. There are several [congestion root causes](#) included in the following list (FHWA, 2020).

- Physical Bottlenecks
- Traffic Incidents
- Work Zones
- Weather
- Traffic Control Devices
- Special Events
- Fluctuations in Normal Traffic

For the HOV lanes, the culprit is typically physical bottlenecks, work zones and traffic incidents. This means the network is at or exceeds its capacity and car crashes compound the issues during peak hours. More research will be performed to support the improvement of travel time reliability.

**Status:** Active

**Results:** Progress continues to be made and a dedicated project is being considered to understand why each respective segment is having challenges.

### **Countermeasure #3: Increased Signage**

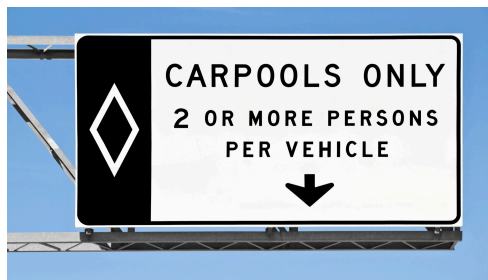
Evaluate if increased signage along the HOV facilities reinforcing the occupancy requirements and penalties for violations may discourage use of the HOV facilities by vehicles that do not meet the occupancy requirements.

Other state DOTs use signage in different capacities than ADOT. The California Department of Transportation (Caltrans), for example, utilizes overhead signage above the HOV lane with a large image of the HOV diamond symbol covering the entire vertical length of the sign. The Virginia Department of Transportation (VDOT) uses electronic overhead signage indicating the status of the HOV lanes (VDOT, 2024).

The reason for the differences in the signage as seen in the pictures from ADOT, Caltrans, and VDOT below is because of the *Manual on Uniform Traffic Control Devices (MUTCD)*. For example, the overhead sign for Caltrans has a large HOV diamond symbol, but does not use the word message “HOV” (Candelieri, 2023). As seen in the *MUTCD* Figure 2G-1, there is a variety of overhead HOV sign designs that range from a diamond spanning the full sign, like in the Caltrans sign, or a diamond covering half of the sign, like in the ADOT and VDOT signs (FHWA, 2023). Additionally, Changeable message signs may replace static signs according to Section 2G.03 of the *MUTCD*, which can be seen in the VDOT image below (FHWA, 2023).



ADOT I-10



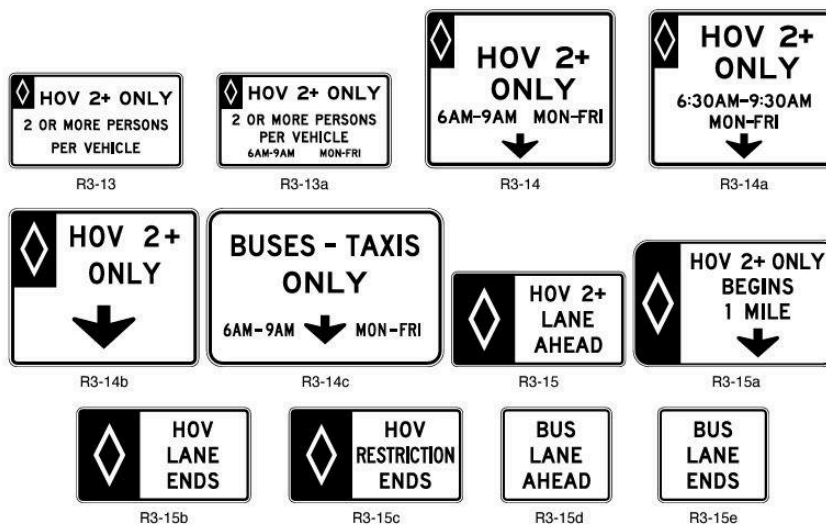
Caltrans



VDOT

Figure 2G-1. Preferential Lane Regulatory Signs and Plaque (Sheet 2 of 2)

B – Overhead Preferential Lane regulatory signs



MUTCD Overhead Sign Diversity



**Changes:** No substantial changes at this time.

**Progress:** Planning staff meet with internal subject matter experts to understand the current state of HOV signage. ADOT is currently in compliance with MUTCD requirements. As new requirements come from FHWA, ADOT will be sure to make the necessary changes. A Geographic Information System (GIS) analysis will be considered to associate increased signage and citations to see if there is a significant change in driver behavior in these corridors in the future. With increased signage, enforcement will also need to follow suit.

**Status:** Active

**Results:** Not Applicable (N/A)

#### **Countermeasure #4: Increased Enforcement**

Coordination with Arizona Department of Public Safety (DPS) on increasing enforcement activity of HOV lanes in sections where the data determines that the lanes are degraded.

**Changes:** Additional discussions with DPS will need to occur to help determine where enforcement efforts should focus on areas of noncompliance with HOV lane usage.

**Progress:** A new baseline was established for the number of citations issued and where those citations occur on the state highway system. Over the last 5 years, there have been HOV lane citations given within the Phoenix metro area.

**Table 3. HOV Lane Citations**

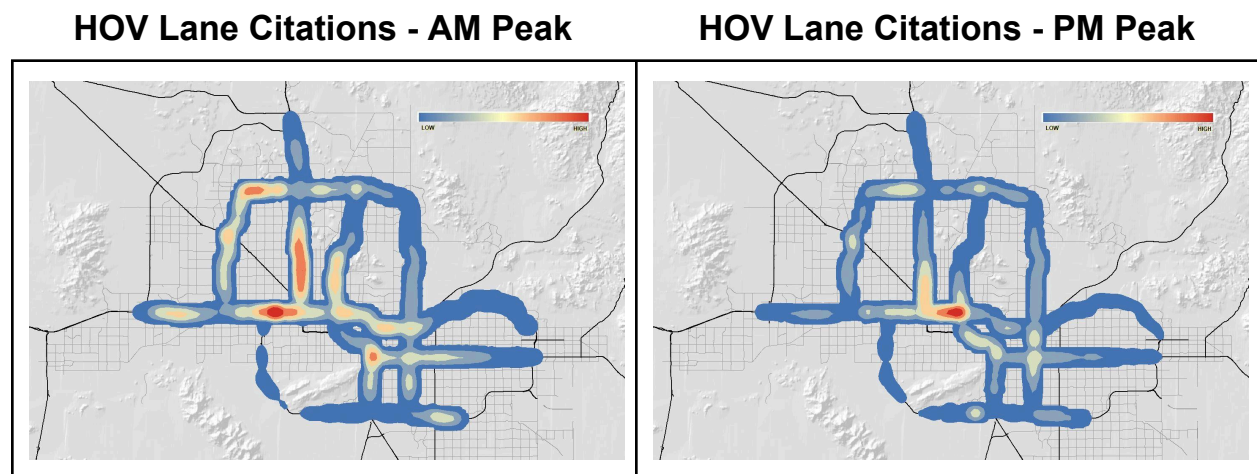
<b>Year</b>	<b>Citations</b>
2018	7,525
2019	6,689
2020	3,225
2021	4,177
2022	4,816
2023	5,232
2024: Year to Date?	1,340

The Arizona Department of Public Service provided ADOT with a database of over 27,000 citations issued to drivers in single occupancy vehicles utilizing the HOV lane during rush hour traffic, which is a violation of Arizona Revised Statutes, Title 28-737A. The data is from January 2018, through April 2024.

With this baseline data, more informed metrics and decisions can be made to improve highway reliability and safety.

**Status:** Active

**Results:** Baseline results will be used in determining the percentage of violators and where additional enforcement is needed. Analysis was performed on the past 5 years of data to determine hot spots for enforcement as well as areas where enhanced enforcement is needed. The deliverable from this analysis is shown in the maps below (Figure 4).



**Figure 4. Violation 28-737A Citation Volume Distribution**

The areas of high ticketing are on the I-10, I-17, SR-51 and SR-101 corridors. The maps also show where additional enforcement can be done such as the US-60 or SR-202.

### **Countermeasure #5: Hours of Operation**

The current hours of operation are from 6:00am - 9:00am and 3:00pm - 7:00pm. Due to the current AM peak and PM peak travel demand, extending the operation hours may relieve surges in HOV lanes.

**Change:** ADOT performed analysis using historical congestion data and changed the peak period from 3:00pm - 7:00pm to 2:00pm - 7:00pm. This update did not have an impact on the compliance results. As population within the Phoenix Metropolitan area

increases the hours of operation will be reevaluated to improve level of service. Areas facing extreme congestion on highways such as Southern California have enforced 24/7 HOV lane enforcement (Caltrans). The benefits include encouraging carpooling. However, the costs include high enforcement costs or increased noncompliance. Making a drastic change to 24/7 HOV would require more studies on population increase and traffic volume.

**Progress:** Evaluation of modified PM peak period. Hours of operation analysis will be performed in the future to determine any trends.

**Status:** Active

**Results:** No change in results.

### **Countermeasure #6: Technology and Use Cases in other States**

In 2008, Arizona Department of Transportation (ADOT) paired with Redflex Traffic Systems, an Australian based company, to install 42 mobile units and 36 stationary cameras in Phoenix. However, the cameras were taken down within 2 years due to the public's reaction and claims that the placement of such cameras was a violation of constitutional rights (Sakal, 2010). Currently, ADOT has no HOV lane photo enforcement radars on its highway system.

Technology is used by other state DOTs in various ways. Tags such as E-ZPass are used in HOV lanes converted to toll lanes in states like Minnesota (MnDOT) and Virginia. Detectors on the roads read the tag which can be turned to an HOV mode as drivers enter the HOV lanes (MnDOT, 2021; E-ZPass Virginia Service Center, 2024). While there are no toll roads within Arizona currently, this technology has some interesting use cases for HOV lane enforcement. Switching the tag to HOV mode allows a free trip in the HOV lane, despite it being a toll lane.

There are also businesses researching technology to help prevent HOV lane violations. Xerox, for example, created the Vehicle Passenger Detection System which employs cameras that require manual inspection (Xerox, 2015). However, the usage of cameras raises questions about privacy. While the efficacy of new technology is tested through pilot programs, there is potential for more research opportunities for how technology can assist in HOV lane compliance.

**Changes:** None at this time.

**Progress:** As technology continues to evolve, further research will be necessary. Partnerships with other state agencies will help to improve Arizona's level of service. ADOT plans to reach out to the Caltrans Division of Research, Innovation and System Information and Nevada DOT on any recently completed studies that can support with improving countermeasures.

**Status:** Active

**Results:** Further research is necessary into newer technological advances and implementation is needed.

### **Countermeasure #7: HOV-Lane Access Restrictions**

The current configuration of HOV lanes allow ingress and egress at any point along the lane. Limiting the points of ingress and egress may limit traffic volumes in the HOV lanes within certain segments, particularly those currently degraded.

**Changes:** No implementations at this time.

**Progress:** Planning staff meet with subject matter experts on the topic. An analysis was done previously to update lane striping. It was determined that the cost outweighs the benefits. The designated ingress/egress locations would not affect congestion as desired. No lane restrictions are being considered by ADOT at this time.

**Status:** Inactive

**Results:** Not a viable solution at this time.

### **Countermeasure #8: Human Factors Study**

Examine and understand why commuters, despite the availability of other commute options, are choosing to drive alone by conducting a behavioral change assessment study being conducted by ADOA.

**Change:** Additional research is needed to understand human behavior and how to change this behavior that benefits the mobility of the HOV lane. No implementation at this time.

**Progress:** MPD staff met with ADOT safety teams to understand the use of human factor studies. A recent study from the Maricopa Association of Governments (MAG) has looked at [Interstate 10 and 17 corridors](#) and different alternatives including capacity increases and High Occupancy Toll (HOT) lanes (MAG, 2018). In the future, an analysis will be conducted on the number of crashes within the HOV lanes.

**Status:** Inactive

**Results:** Not Applicable (N/A)

### **Countermeasure #9: Additional Alternatives**

Among the recommendations to address HOV lane speed degradation recommended by FHWA, Guidance (23 USC 166) is to increase the occupancy requirement for eligible HOVs. The current operation of Arizona's HOV lanes require carpools to have two or more persons.

There are state DOTs that have increased HOV lane requirements from two plus passengers to three plus passengers. VDOT implemented this change in sections of the state routes (VDOT, 2024). The change incentivizes more carpooling and therefore fewer cars on the road. A change from HOV-2 (2+ passengers) to HOV-3 (3+ passengers) would need to be paired with Countermeasure #1 as more signage would be needed to inform drivers when and which sections are two or three or more passengers. While cars carrying two passengers are unable to travel in the HOV-3 lanes, these lanes are opened up for alternative options such as buses and carpooling services.

Further research could be conducted to analyze increased ridership for buses after HOV-3 implementation. An alternative to segments of a highway being 3+ passengers include designating peak hour restrictions for the number of passengers. The Colorado Department of Transportation (CDOT) implemented HOV-3 on specific state routes, however these are used on toll and express lanes where drivers use a switchable HOV transponder and sticker (CDOT, 2022). Similar methods could be used for HOV lane access.

**Changes:** No implementation at this time, but a communication plan would be needed to ensure the proper vision is communicated to the public.

**Progress:** Not Applicable (N/A)

**Status:** Inactive

**Results:** Not Applicable (N/A)

## Conclusion

Progress continues to be made in improving the reliability of the HOV lanes throughout the Phoenix metropolitan area. As population increases within the state, new and innovative solutions for congestion mitigation will be needed. Continued analysis will help ADOT and its business partners make proactive decisions for planning for the challenges of the future. Further outreach with agency partners (MAG and DPS) will ensure all stakeholders are aware of changes.

# Citations

Arizona Commerce Authority. (2023). Arizona's labor market. Retrieved May 5 2023, from: <https://www.azcommerce.com/oeo/labor-market/>

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