

02

UNDERSTANDING OUR REGION



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HOW DOES THE REGION CONNECT?

A core objective of the RATP is to develop a consistent, region-wide dataset to support analyses and decision-making. This dataset integrates information on existing infrastructure, equity focus areas, and network gaps using data from PAG and its member agencies, along with other trusted sources. The resulting dataset, shown in **Figure 4**, provides a strong foundation for identifying regional needs and prioritizing future improvements. The existing pedestrian and bicycle networks on major roadways are shown in **Figure 5** and **Figure 6**, respectively, on the following pages.

Figure 4. Regional Dataset Components

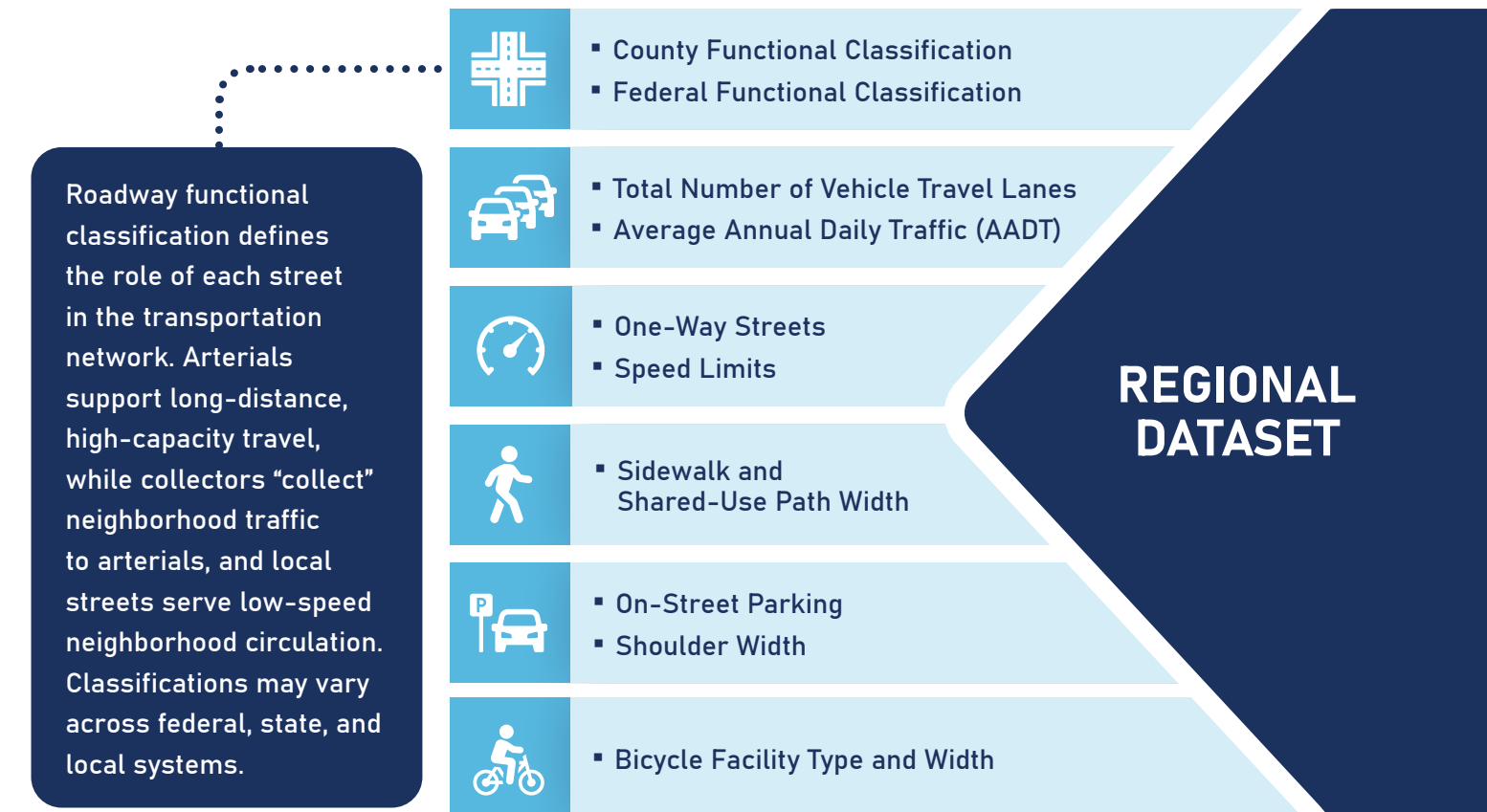
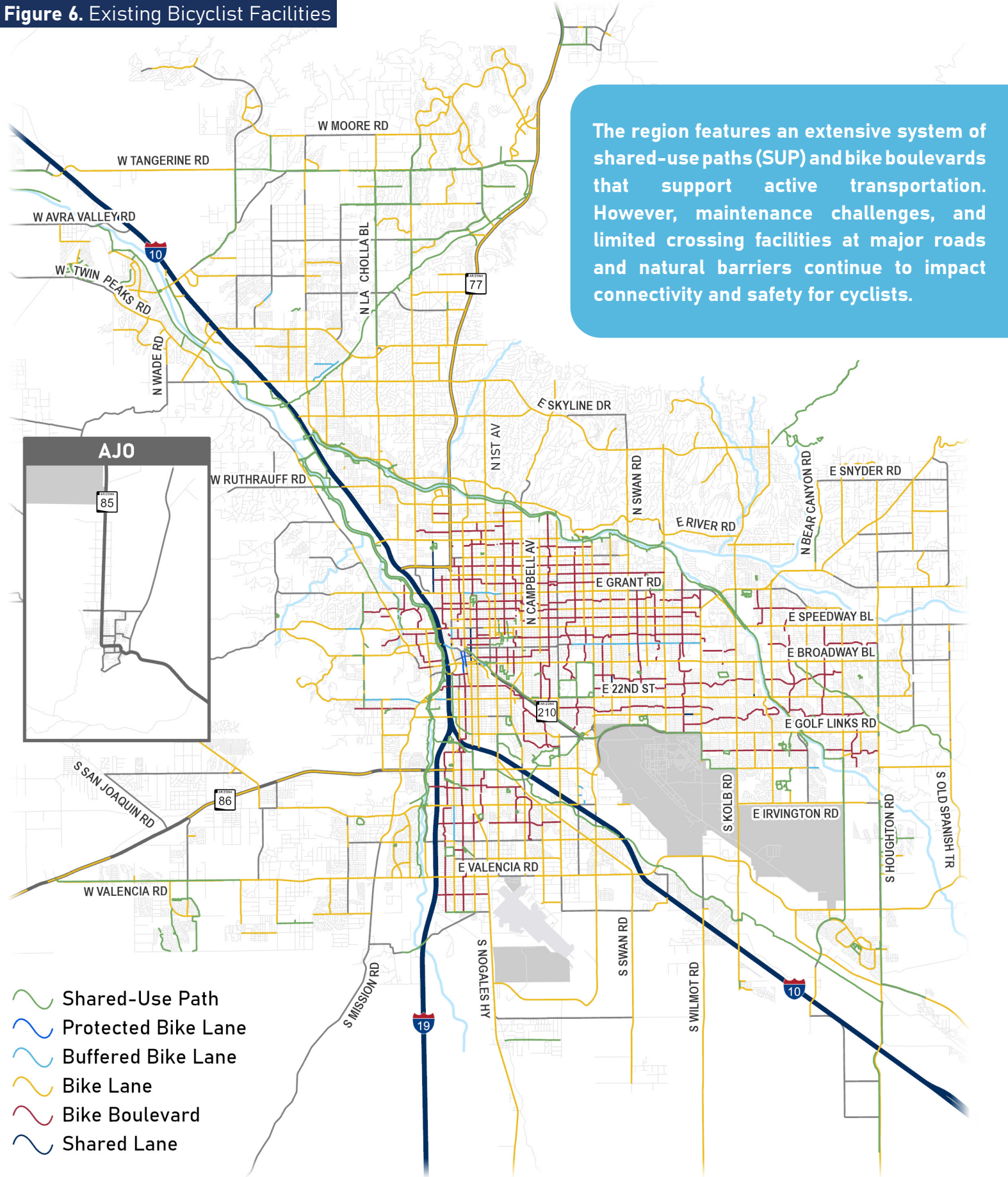


Figure 5. Existing Pedestrian Facilities



Figure 6. Existing Bicyclist Facilities





RELEVANT PLANS REVIEW

Understanding how active transportation has been addressed in previous and ongoing planning efforts is essential for building on existing goals and ensuring regional consistency. The review revealed consistent priorities, including collaboration among agencies, development of continuous active transportation networks that connect major activity centers, and integration with transit to support multimodal travel. Reviewing plans from the PAG region, along with statewide initiatives, provides valuable context on safety priorities, infrastructure strategies, and performance measures.

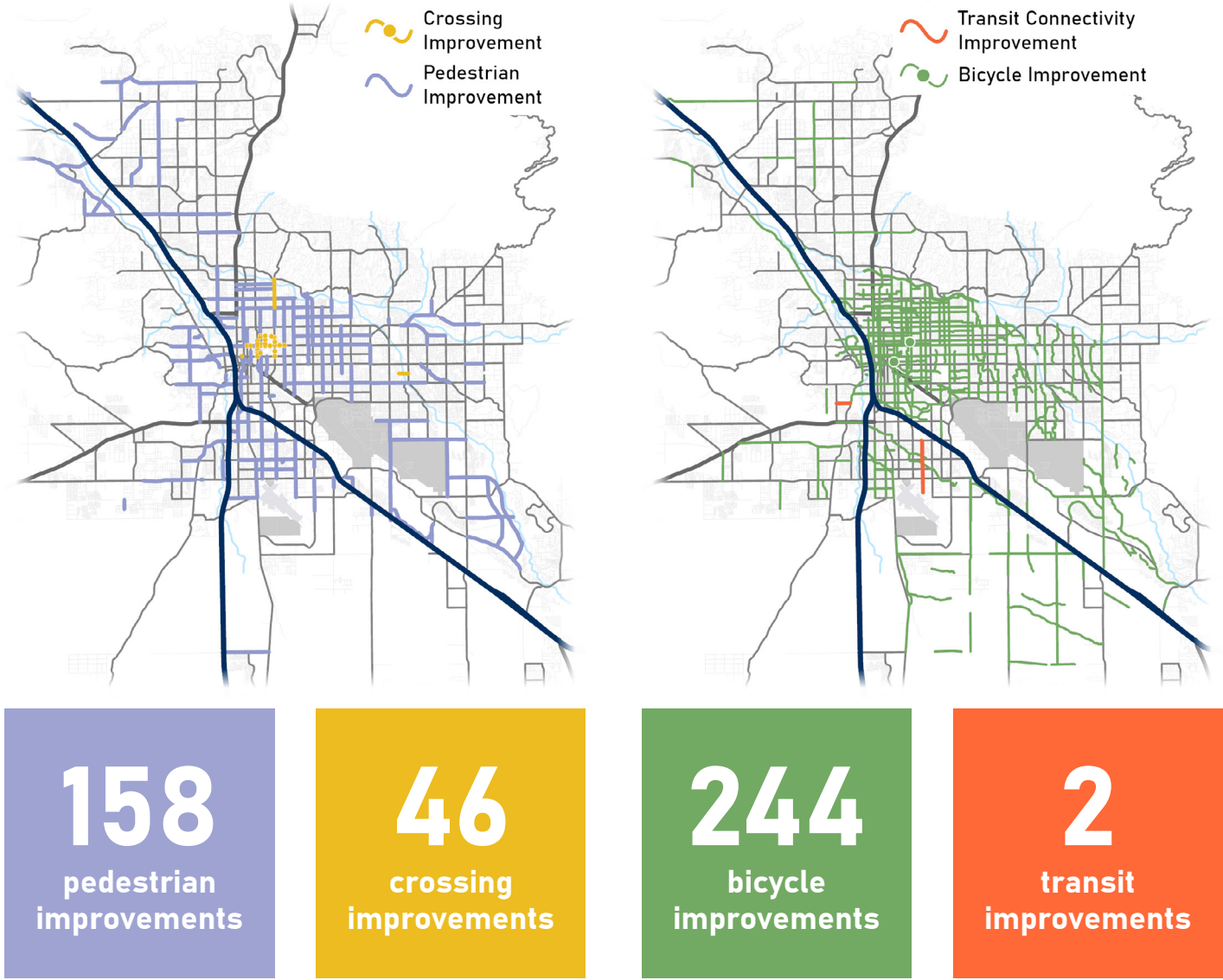


PREVIOUSLY RECOMMENDED IMPROVEMENTS

Active transportation improvement projects were identified from a range of existing planning documents, as well as Capital Improvement Plans (CIPs) from PAG member agencies and the PAG Transportation Improvement Program (TIP). Projects from local CIPs represent funded and programmed efforts across the region and provide important context for understanding current priorities. Recommendations from previous plans were compiled and organized by type, including pedestrian, bicycle, crossing, and transit connectivity improvements and are shown in **Figure 7**.

Categorizing these projects helps clarify the types of investments being prioritized and reveals opportunities to strengthen regional coordination. The distribution of improvements also highlights areas where gaps remain in the active transportation network that need to be addressed. This information supports the recommendations, building on existing efforts and contributes to improving the active transportation network.

Figure 7. Previously Recommended Pedestrian, Bicycle, Crossing, and Transit Improvements



* While many improvements include features for pedestrians, bicyclists, and transit users, each was categorized based on its primary function.

LEVEL OF TRAFFIC STRESS

Level of Traffic Stress (LTS) was used to evaluate how comfortable pedestrians and bicyclists feel on different roadway segments, based on factors shown in **Figure 8**, including lane count, speed limits, and existing facilities. Most arterial and collector roads in the region are rated as highly stressful for both modes due to narrow sidewalks, high speeds, and limited dedicated infrastructure. While LTS was evaluated across the entire roadway network, **Figures 9 and 10** highlight the high-stress areas on arterial roadways, where narrow sidewalks, high speeds, and limited dedicated facilities make travel particularly uncomfortable. These major roadways often act as barriers to active transportation, underscoring the need for improvements like lower speeds, narrower lanes, and safer crossings to boost comfort and connectivity.

Figure 8. Level of Traffic Stress Factors



Figure 9. Poor Pedestrian LTS

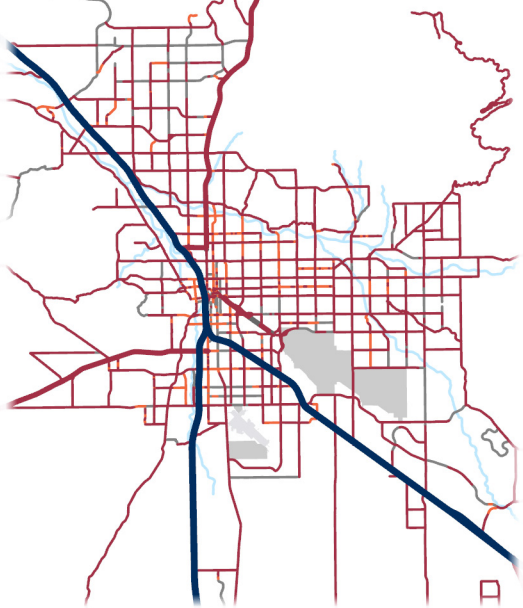
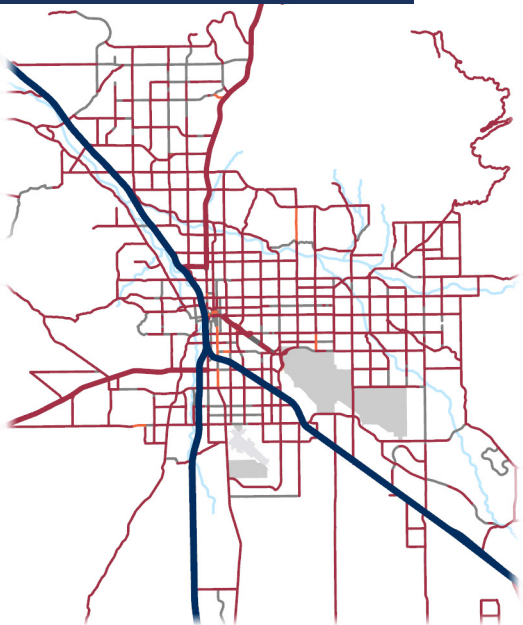


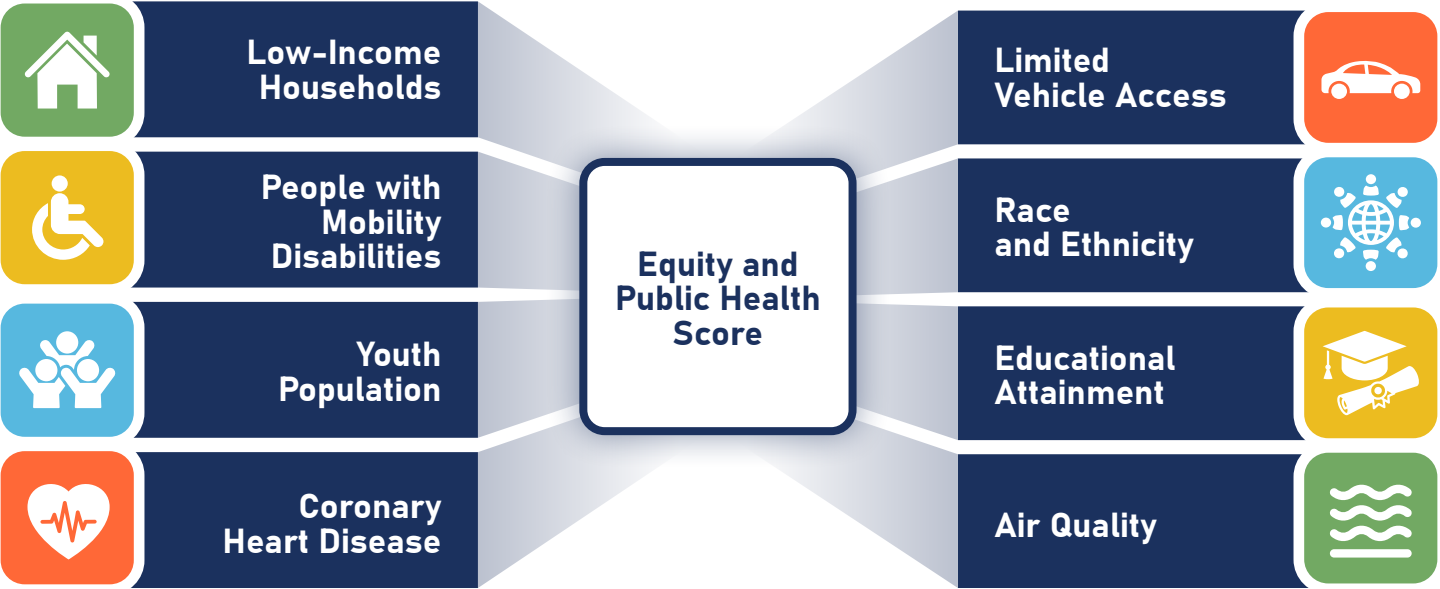
Figure 10. Poor Bicyclist LTS



EQUITY AND PUBLIC HEALTH

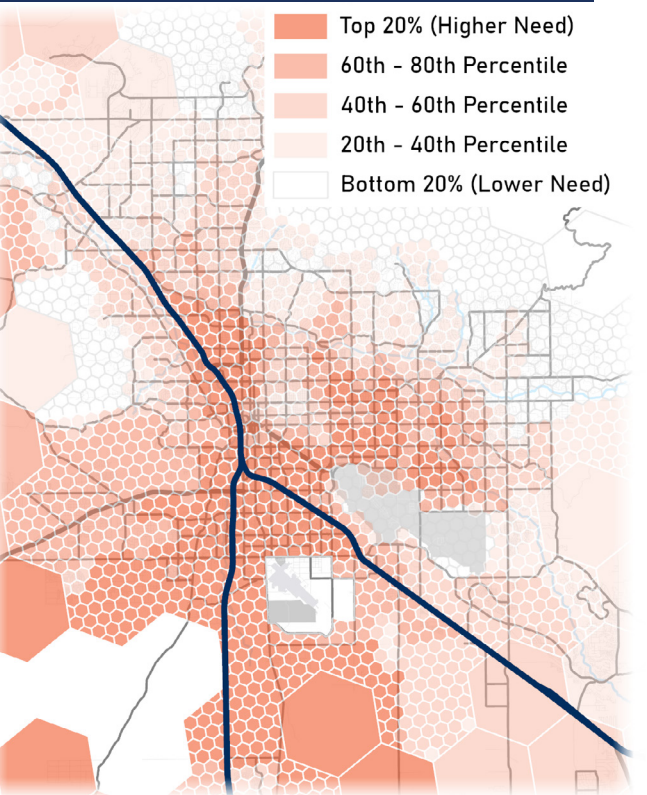
The equity and public health analysis highlights areas within the region where socioeconomic and health-related challenges overlap, helping to identify communities with greater need for active transportation investment. Variables considered in the analysis, shown in **Figure 11**, include income levels, educational attainment, access to vehicles, air quality, and rates of mobility-related disabilities and are consolidated into an equity and public health score.

Figure 11. Equity and Public Health Score Components



The resulting Equity and Public Health Scores are shown in **Figure 12**. Areas with higher concentrations of need are generally located south of I-10 and near I-19, including neighborhoods such as Drexel Heights and Flowing Wells. Many of these communities are situated near major transportation infrastructure, such as interstate highways and the Tucson International Airport, which can create physical and environmental barriers to walking and biking. Limited access to vehicles in these areas increases reliance on active transportation, making safe and connected infrastructure critical. Rural areas, including much of the Tohono O’odham Nation, show elevated levels of need due to similar factors, underscoring the importance of equitable investment across both urban and rural contexts.

Figure 12. Equity and Public Health Score





TRAVELER ALIGNMENT AND CROSSING DEMAND

Traveler alignment identifies areas where short vehicle trips could be converted to walking or biking, helping to pinpoint locations with high potential demand for active transportation facilities. This can be done by applying trip data to the arterial roadway network and surrounding areas to highlight corridors where mode shift is most feasible. The resulting traveler alignment is shown in **Figure 13**. While vehicle trips may occur on major roads, the potential for active transportation often exists on adjacent or parallel routes that offer safer and more comfortable conditions.

Areas with the highest mode shift potential are concentrated near central Tucson and in neighborhoods north of the Tucson International Airport, where trip density and proximity to destinations support walking and biking.

Crossing demand focuses on locations where short vehicle trips cross major roadways, indicating where improved crossing infrastructure could reduce barriers and support safer, more direct routes for pedestrians and bicyclists. The resulting crossing demand is shown in **Figure 14**. Locations with high crossing demand represent key opportunities areas to enhance connectivity and encourage active transportation by addressing physical barriers in the network.

High crossing demand is present in several areas, including east Tucson near Kolb Road and Speedway Boulevard, around the Tucson Mall, Marana near I-10, and neighborhoods north of the airport.

Figure 13. Traveler Alignment

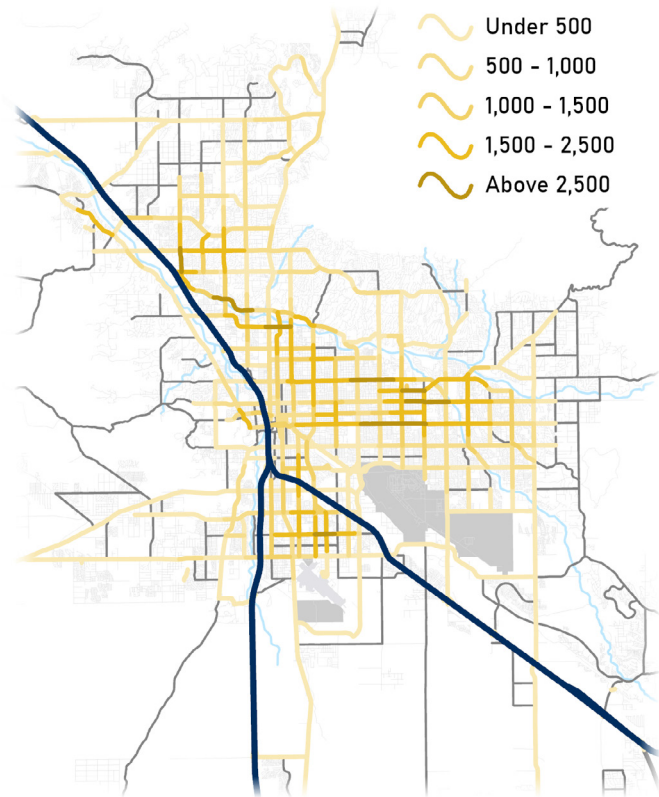
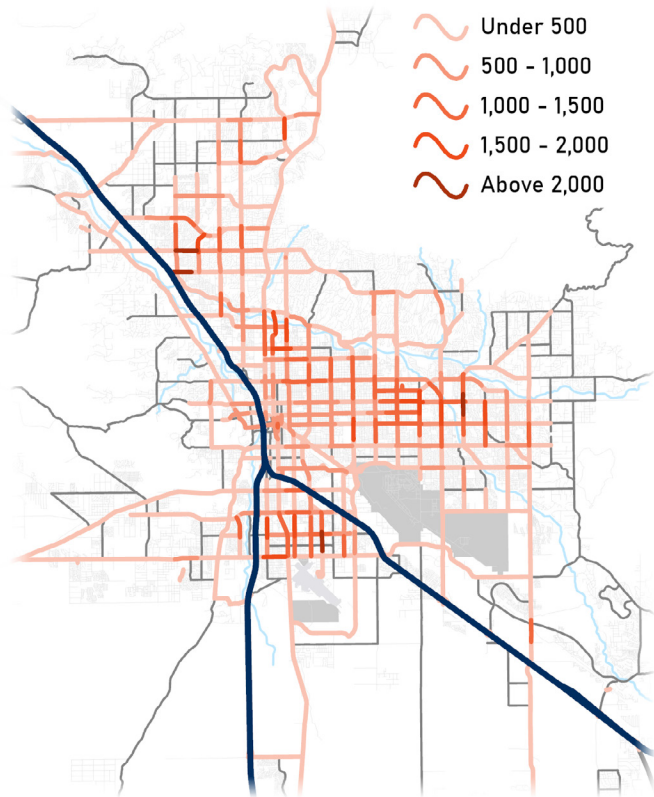


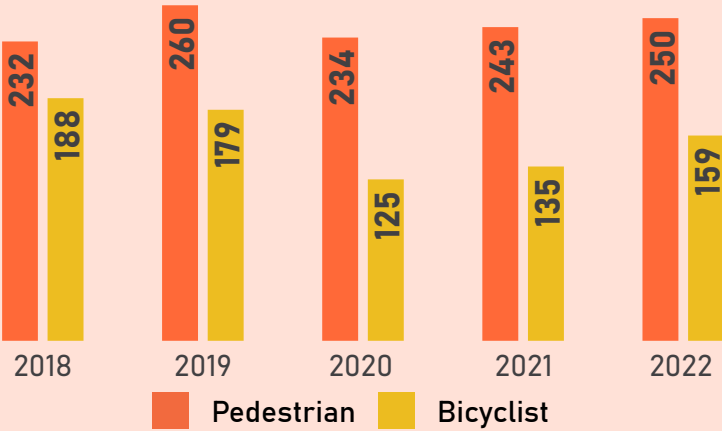
Figure 14. Crossing Demand



SAFETY ANALYSIS

Safety was evaluated using a collision severity index, which accounts for both the frequency and severity of pedestrian- and bicycle-involved crashes along the region's arterial roadway network. This index provides a weighted measure that highlights segments with elevated safety concerns based on normalized crash data. Shown in **Figures 15** and **16**, high-risk locations are distributed across the region's major corridors. These findings emphasize the importance of targeted improvements to reduce crash severity and enhance safety for people walking and biking along high-traffic roadways.

Figure 17. Annual Active Transportation Crashes



Despite a dip during the COVID-19 pandemic, **Figure 17** shows annual active transportation crashes have remained consistently high.

Nearly **50%** of all active transportation crashes in the region occur during evening or nighttime hours.

Figure 15. Pedestrian Safety Index

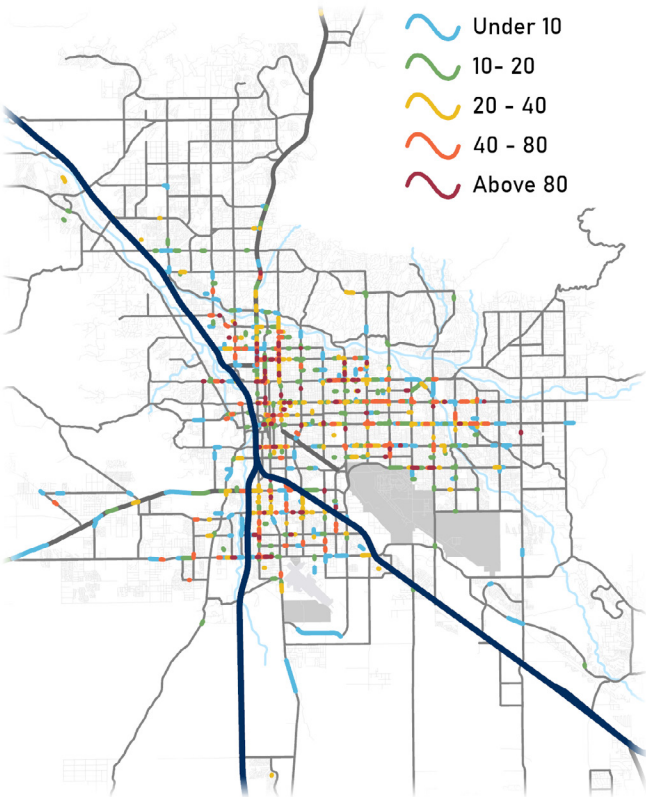
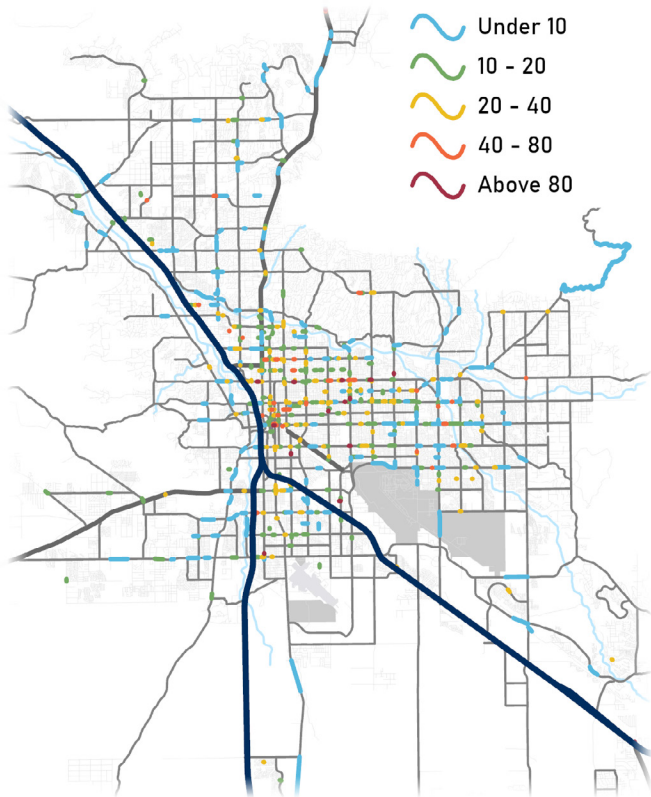


Figure 16. Bicycle Safety Index





WHERE ARE THE MISSING LINKS?

Connectivity was measured by evaluating how far someone can travel using the existing roadway network within a 10-minute walk or 15-minute bike ride. This measurement compares the actual area that can be reached to an idealized area without barriers, resulting in a ratio that reflects the effectiveness of the active transportation network. The pedestrian and bicycle connectivity ratios are shown in **Figures 18** and **19**, respectively. Higher ratios indicate stronger connectivity.

Bicycle connectivity is highest in central Tucson, where the street network is dense and well-connected. Most suburban and rural areas show lower connectivity, though Picture Rocks stands out with a relatively high ratio due to its development pattern. Pedestrian connectivity follows a similar trend but is more affected by large roads and developments that limit crossing opportunities. Connectivity to transit, measured by access to bus stations via walking or biking, is strongest near downtown Tucson and significantly lower in areas such as the City of South Tucson, the Town of Oro Valley, the vicinity of Tucson International Airport, and the Pascua Yaqui Tribe.



Figure 18. Pedestrian Connectivity

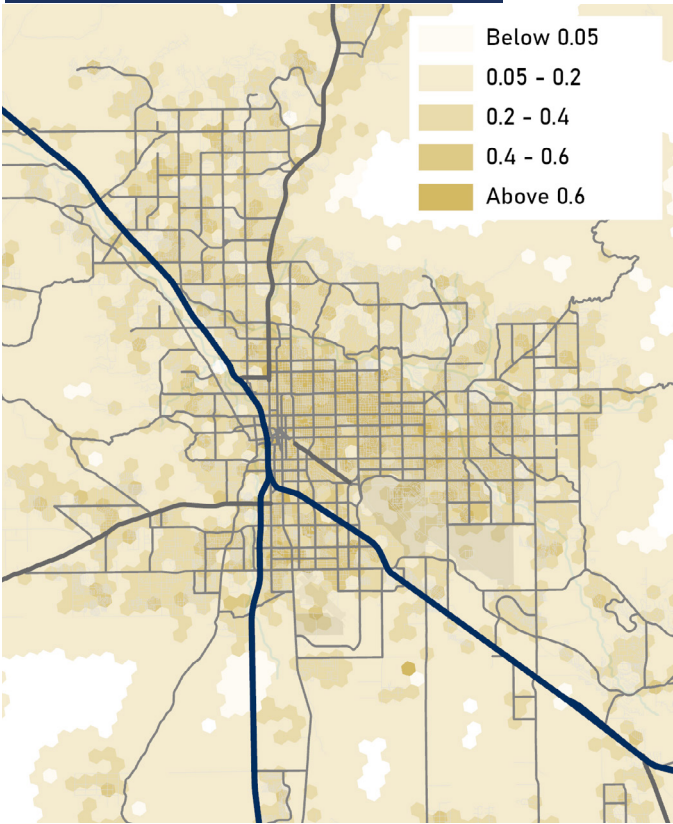
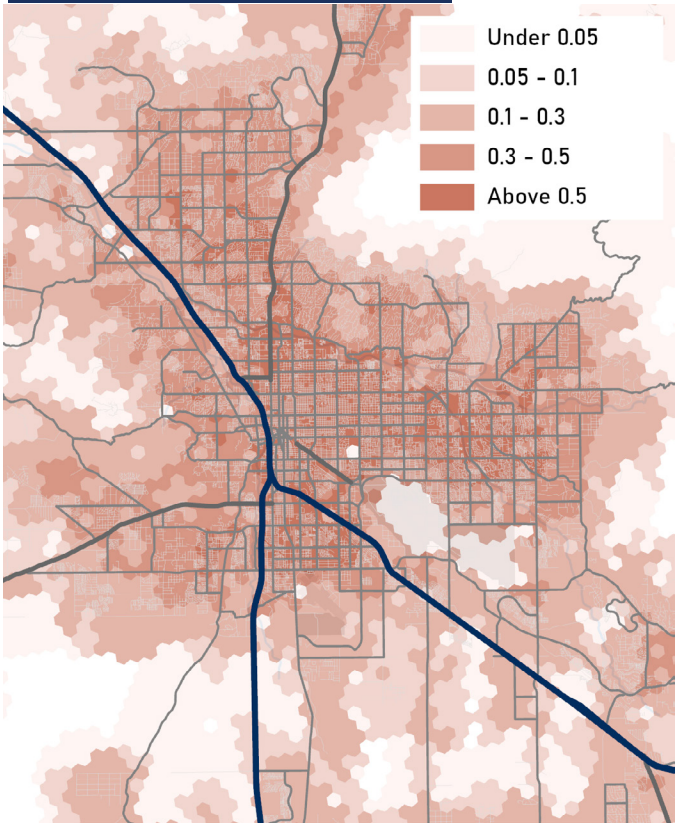


Figure 19. Bicycle Connectivity

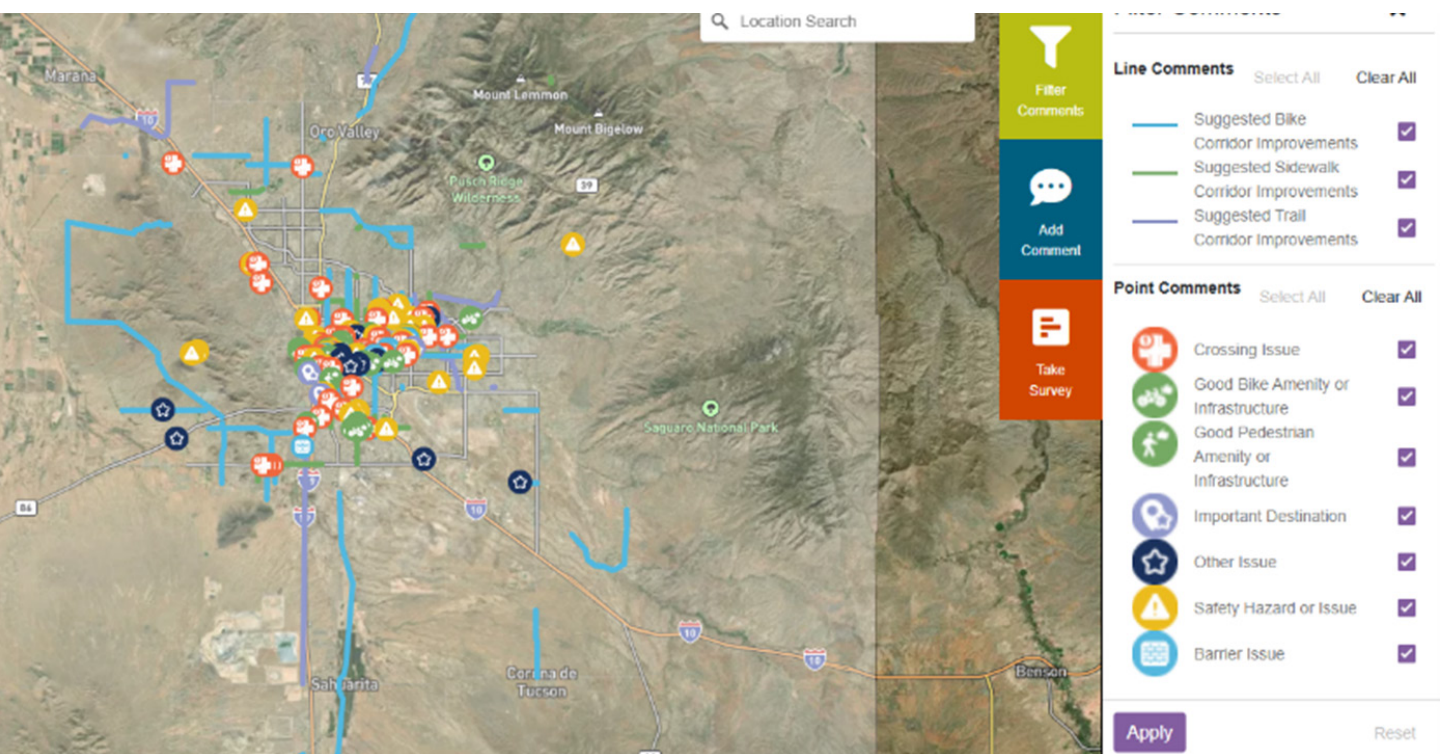


WHERE THE COMMUNITY SEES OPPORTUNITY

The first round of public engagement took place from July to October of 2024 and was designed to gather input on existing conditions and identify priorities for active transportation improvements. Feedback was collected through both virtual and in-person formats. The content focused on barriers, gaps, and areas where infrastructure is working well. Online tools included an interactive map and survey (**Figure 20**), where participants could pinpoint specific locations with needs related to biking, walking, safety, and access to destinations. Outreach was supported through social media and agency websites to encourage broad participation.

In-person engagement was conducted through pop-up events held across the region to raise awareness and collect input from a diverse audience. Attendees learned about the RATP and were guided to the online tools to share feedback on infrastructure needs and opportunities for improvement. Participants identified locations that either exemplify successful active transportation infrastructure or are strong candidates for future investment. These locations were used to refine safety considerations, as well as in the network prioritization process.

Figure 20. Interactive Map



115

survey responses

map comments

277

Pop-up Event Locations

- Summer Road Races (Reid Park)
- Meet Me at Maynards (Hotel Congress)
- Breeze in the Trees 5K (Pecan Festival Grounds)
- FUGA Bicicleteada del Sur (El Pueblo Center)