

SCOTTSDALE TRANSPORTATION COMMISSION Notice and Agenda

Date: Thursday, March 16, 2023

Time: 5:15 P.M.

Location: Kiva – City Hall 3939 N. Drinkwater Boulevard

Scottsdale, AZ 85251

Call to Order

Roll Call

Don Anderson, Vice-Chair	Mary Ann Miller, Commissioner
Pamela Iacovo, Chair	Kerry Wilcoxon, Commissioner
Karen Kowal, Commissioner	Emmie Cardella, Commissioner
B. Kent Lall, Commissioner	

One or more members of the Transportation Commission may be attending the meeting by telephone, video, or internet conferencing, pursuant to A.R.S. §38-431(4)

Public Comment

Spoken comment is being accepted on both agendized and non-agendized items. Request to speak forms must be submitted to staff in-person before the start of the meeting.

Written comment is being accepted for both agendized and non-agendized items and should be submitted electronically at least 90 minutes before the meeting. These comments will be emailed to the Transportation Commission and posted online prior to the meeting. To submit a written public comment electronically, please <u>click here</u>.

- 1. <u>Approval of Meeting Minutes</u>------ Discussion and Action Regular Meeting of the Transportation Commission February 16, 2023
- 3. <u>Introduction of the new Transportation Planning Manager</u>-------Information Inform the Transportation Commission of the new Transportation Planning Manager and give a brief introduction Mark Melnychenko, Transportation & Streets Director

- 5. <u>Bicycle Friendly Communities Application Process</u> ------Presentation and Discussion Information on the Bicycle Friendly Communities application Susan Conklu, Senior Transportation Planner
- 6. <u>Projects and Programs Update</u> ------ Information
 A continuing overview of the Transportation & Streets Department programs and activities –
 Mark Melnychenko, Transportation & Streets Director
- Commission Identification of Future Agenda Items
 — Discussion
 Commission members identify items or topics of interest to staff for future Commission
 presentations

Adjournment

Persons with a disability may request a reasonable accommodation by contacting Kyle Lofgren at 480-312-7637. Requests should be made 24 hours in advance, or as early as possible, to allow time to arrange the accommodation. For TYY users, the Arizona Relay Service (1-800-367-8939) may also contact Kyle Lofgren at 480-312-7637.



DRAFT SUMMARIZED MINUTES

CITY OF SCOTTSDALE TRANSPORTATION COMMISSION REGULAR MEETING

Thursday, February 16, 2023 Kiva-City Hall 3939 N. Drinkwater Boulevard Scottsdale, Arizona 85251

CALL TO ORDER

Chair Iacovo called the regular meeting of the Scottsdale Transportation Commission to order at 5:16 p.m.

ROLL CALL

PRESENT: Pamela Iacovo, Chair

Don Anderson, Vice Chair

Karen Kowal Kerry Wilcoxon Emmie Cardella

ABSENT: Mary Ann Miller

B. Kent Lall

STAFF: Susan Conklu, Senior Transportation Planner

Mark Melnychenko, Transportation & Streets Director

Cristina Lenko, Public Information Officer Kiran Guntupalli, Principal Traffic Engineer

Kyle Lofgren, Office Manager

Greg Davies, Senior Transportation Planner Phil Kercher, Traffic Engineer & Ops Manager

PUBLIC COMMENT

There were no spoken comments, however, two written comments were submitted and included in the agenda packet.

1. APPROVAL OF MINUTES

Chair lacovo called for changes to the minutes. One correction was made.

VICE CHAIR ANDERSON MOVED TO APPROVE THE REGULAR MEETING MINUTES OF THE TRANSPORTATION COMMISSION OF JANUARY 19, 2023 AS AMENDED. COMMISSIONER WILCOXON SECONDED THE MOTION, WHICH CARRIED 5-0 WITH CHAIR IACOVO, VICE CHAIR ANDERSON AND COMMISSIONERS CARDELLA, KOWAL AND WILCOXON VOTING IN THE AFFIRMATIVE WITH NO DISSENTING VOTES.

2. ELECTION OF OFFICERS

COMMISSIONER KOWAL MOVED TO NOMINATE PAMELA IACOVO TO CONTINUE AS CHAIR. COMMISSIONER WILCOXON SECONDED THE MOTION, WHICH CARRIED 5-0 WITH CHAIR IACOVO, VICE CHAIR ANDERSON AND COMMISSIONERS CARDELLA, KOWAL AND WILCOXON VOTING IN THE AFFIRMATIVE WITH NO DISSENTING VOTES.

CHAIR IACOVO MOVED TO NOMINATE DON ANDERSON TO CONTINUE AS VICE CHAIR. COMMISSIONER WILCOXON SECONDED THE MOTION, WHICH CARRIED 5-0 WITH CHAIR IACOVO, VICE CHAIR ANDERSON AND COMMISSIONERS CARDELLA, KOWAL AND WILCOXON VOTING IN THE AFFIRMATIVE WITH NO DISSENTING VOTES.

3. TRAFFIC ENGINEERING UPDATES

Kiran Guntupalli, Principal Traffic Engineer, gave a presentation updating the Commission on Traffic Engineering's programs and work efforts by discussing the evaluation and decision-making process used for programs and projects.

A overview was provided of the traffic engineering project process:

Step 1: Input

- Resident input
- Traffic Volume and Collision manual
- Traffic Management Center reports
- Development projects
- School officials and resource officers
- Special events
- Construction projects
- Staff observations

> Step 2: Analysis

- Road safety assessments
- Traffic control studies
- Traffic impact and mitigation analysis report review
- Barricade plan review
- School operations observations

Transportation Commission – Regular Meeting February 16, 2023 Page 3 of 7

- Capital improvement project
- Neighborhood meetings
- Step 3: Design and construction
 - Traffic signal design/modification
 - Traffic control changes: Signing/marking
 - Development case stipulations
 - Capital improvement projects
 - Approved barricade plans
 - Special event management
 - Construction projects
 - Traffic calming device installation
 - Signal phasing and timing changes

In response to a Commissioner question, Mr. Guntupalli stated that traffic counts have not yet been completed to determine whether the striping done in the area of the Corriente Condominiums have helped to slow traffic. Commissioner further commented that if effective, this could be a low cost countermeasure to be used in other appropriate locations. Commissioner inquired as to the process that occurs after completion in order to measure effectiveness. Mr. Guntupalli stated that for proven countermeasures such as installation of speed cushions and speed feedback signs, after-studies are not typically conducted.

In response to a Commissioner question, Mr. Guntupalli stated that before school begins each year, traffic technicians are in the field to ensure that all school signage is in place and crosswalks are in good condition.

Chair referred to step two, analysis, and asked whether a weighting system is used in the analysis. Mr. Guntupalli stated that staff typically follows the manual on uniform traffic control devices as well as other relevant reference material, including state and local guidelines and standards.

Mr. Guntupalli discussed Road Safety Assessments (RSAs), which are defined as: A formal assessment of the safety performance of an existing or planned road segment or intersection. In Scottsdale, these are carried out by an independent multidisciplinary RSA team. This team consists of engineers, technicians, operations staff, and enforcement personnel. A review of road safety assessments for the current year was provided.

Commissioner asked whether RSAs are held internally or released to the public. Mr. Guntupalli stated that the RSA generates one of three countermeasures and is utilized by staff for implementation: Short term, mid term and long term. Long-term countermeasures typically have a significant cost and may include the development of a capital improvement project. Mid-term countermeasures can be handled in the existing budget, however, they still require design and implementation phases. Short-term countermeasures include items such as signage changes, striping, or installation of an additional signal head. They are funded under standard operating expenses. Phil Kercher, Traffic Engineer & Ops Manager, added that the public is not typically notified, unless there is a submission of a public records request.

Mr. Guntupalli provided an overview of pedestrian improvement projects:

In design

- Miller Road and Earll Drive
- Miller Road and Jackrabbit Trail

In construction/complete

- Mountain View Road at Loop 101 path crossing
- Camelback Road sidewalk
- PHB at Camelback Road and Saddlebag Trail

4. TRAIL MAINTENANCE PUBLIC OUTREACH PROGRAM

Cristina Lenko, Public Information Officer, gave a brief background of the Trail Maintenance Outreach Plan, which consists of 153 miles of existing non-Preserve trails, City right-of-way and easements. A trail maintenance communication plan is currently in development. The previous inventory was completed in 2012 and the current inventory was completed in July, 2022. City code dictates the property owner's responsibility for trail maintenance. Trail elements in the Transportation Action Plan (TAP) include public education about easements and maintenance responsibilities associated with the trail network, trail obstruction policies and performance measures for mileage of rehabilitated trails. The Trail Maintenance Outreach Plan includes participation by Code Enforcement, Citizen Services, Scottsdale Video Network and the City Attorney's Office.

A breakdown of inventory by ownership is as follows:

- 63 percent: HOAs and commercial properties 2,800 parcels
- 21 percent: Individual property owners 425 parcels
- 16 percent: City-owned or public agency properties 175 parcels

Ms. Lenko reviewed a list of other City workgroups and entities who have received similar presentations on the Trail Maintenance Outreach Plan. Input from all groups was included in the updated Plan. A trail maintenance link has also been created on the City's website, which allows residents to report trail condition concerns. It will also assist staff with tracking and evaluating plan effectiveness. Other education outreach includes trail maintenance video, newsletter articles for HOAs and neighborhood associations, articles in the Scottsdale Update, social media posts and presentations to local realtor associations. Opportunities to promote annual trail maintenance and cleanup include Earth Day, Keep America Beautiful, National Trails Day, National Cleanup Day and Make a Difference Day. The City is scheduling a maintenance and cleanup campaign immediately following monsoon season. Feedback from the City Attorney's Office and City boards and commissions led to the development of a trail maintenance pilot program. This will include notification to property owners whose trails require maintenance. Participants will be invited to a Meet the Planner Tailgate Meeting in the neighborhood. A questionnaire will collect feedback on the program. Another pilot program will target HOAs and commercial properties. Feedback from all groups will be used in the final version of the Plan.

5. ELECTRIC BICYCLES, SCOOTERS AND SIMILAR DEVICES

Susan Conklu, Senior Transportation Planner, provided a brief history and background of devices in the City. Revised regulations governing use of the devices was presented to City Council on January 19, 2021.

The proposed regulations included:

- Prohibit riding on sidewalks in Transportation Safety Zone
- Usage times
- Parking of devices
- · Permission of underage users
- Fees

Staff also proposed a draft licensing ordinance for providers with a fee based on total number of devices. Mayor Ortega and City Council members expressed concerns regarding sidewalk restrictions, parking restrictions, hours of operation for rental devices and minimum age restrictions. Ultimately, City Council directed staff to revise the proposed regulations.

The following outline shows progress and events since that time:

- 2021 Transportation Commission and Paths & Trails Subcommittee updates
- Regular meetings with device sharing companies and coordinating by email
- Evaluating operations and Scottsdale EZ requests
- Listening to public feedback
- Monthly meeting with cities in region and Arizona State University
- Five companies operating in Scottsdale e-bikes and scooters
- Paths & Trails Subcommittee update February 7, 2023

Steps include:

> Short-term

- Website updated to educate the public on regulations
- Monthly meetings with companies and regular email communications
- Restricted areas map revised
- Temporary restrictions during "Super Season"
- Working with Police Department staff and the owner companies

Mid-term

- Device dashboard for City staff
- Will show locations or rental e-bikes and scooters in real time by company and device type
- Devices that are out of compliance
- Automatic notifications through Scottsdale EZ

- Public outreach strategies
- Long-term: Work with City Attorneys on code updates
 - Minor language updates to match the State of Arizona
 - Sidewalk riding restrictions in Old Town
 - Requiring parking in bike racks or designated areas

Next steps

- Continue to monitor and evaluate the program
- Regularly meet and correspond with companies and City staff
- Take further action or make additional recommendations to the Paths & Trails Subcommittee, Transportation Commission and City Council as needed

In response to Commissioner question, Ms. Conklu confirmed that there currently are no fees to companies operating the vehicles. The proposed fees would be enacted, should licensing be required through ordinance enactment. In addition, there is currently no requirement for companies to provide ridership data. However, the dashboard being developed by City will include a wider range of data collection in conjunction with the companies' cooperation in providing device ID information.

Commissioner inquired as to the volume of devices in service. Ms. Conklu stated that this data has not been collected recently. However, most Scottsdale companies are operating fewer devices than in the early days of operation. There are approximately 200 to 250 at this time. This is in stark contrast to the 4,000 bikes operating in the City in the past. Commissioner surmised that it would be feasible to request companies to provide monthly statistics on the number of vehicles and their utilization.

Chair asked whether the scooters have markings for nighttime use. Ms. Conklu said that State requirements are for a white headlight visible from a minimum distance and a rear reflector.

6. COMMISSION IDENTIFICATION OF FUTURE AGENDA ITEMS

The following agenda items were identified:

- Presentation by Sensagrate
- Pavement cut ordinance

7. ADJOURNMENT

With no further business to discuss, being duly moved by Commissioner Wilcoxon and seconded by Commissioner Kowal, the meeting adjourned at 6:39 p.m.

Transportation Commission – Regular Meeting February 16, 2023 Page 7 of 7

AYES: Chair Iacovo, Vice Chair Anderson, Commissioners Kowal, Cardella and Wilcoxon

NAYS: None

SUBMITTED BY:

eScribers, LLC

*Note: These are summary action meeting minutes only. A complete copy of the audio/video recording is available at http://www.scottsdaleaz.gov/boards/transp.asp

SCOTTSDALE TRANSPORTATION COMMISSION REPORT

To: Transportation Commission

From: Kiran Guntupalli, Principal Traffic Engineer

Subject: Sensagrate Pilot Project Update – Scottsdale Road and

Camelback Road Intersection

Meeting Date: March 16, 2023

Action:

Information and Discussion regarding Sensagrate pilot installation at Scottsdale and Road Camelback Road intersection.

Purpose:

The purpose of the presentation is to provide an update regarding Sensagrate pilot project installation from a consultant to assess the pedestrian movements on roads, sidewalks, and curbside utilization. Previously, the city did not have methods to collect pedestrians counts 24 hours/7 days a week and analyze the data for the desired locations. The pilot project installation at the subject location is helping us obtaining the data on pedestrian and crash activity at the intersection and capture near miss collision information at this intersection.

Background:

According to the City of Scottsdale's 2020 Transportation Action Plan Scottsdale Road is classified as a Major Collector and has a posted speed limit of 40 miles-per-hour (MPH) north of intersection and 30 miles-per-hour (MPH) south of the intersection. Camelback Road is classified as a Minor Arterial and is four lanes wide (two lanes eastbound and two westbound). Due to the unique character Camelback Road has a variable speed limit, regularly posted at 35mph and it reduces to 25mph east of the intersection over the weekend evenings due to the activity of Camelback Road. The Scottsdale Road and Camelback Road intersection is a four-legged signalized intersection with dual left-turn lanes on the northbound, southbound, and eastbound approaches, and a single left-turn lane on westbound approach. The left-turn phasing is protected only on all approaches.

The intersection of Scottsdale Road and Camelback Road is a unique location and has been a focus of City Council and staff due to high pedestrian activity and proximity to the activity centers. A Sensagrate pilot installation was completed at the intersection and this installation will provide following information

- Provide counts for vehicles, pedestrians, and cyclists.
- Apply data to improve planning and designing of roadways, including infrastructure investments and enforcement efforts.
- Provide safety data analytics for pedestrian and cyclist movements and frequency of use along roadways to prevent collisions and fatalities.
- Identify the causes of near-miss collisions and actual collisions to improve pedestrian and cyclist safety and to inform city planners and traffic engineers in the design of safety improvements and facility upgrades.





Figure 1: Scottsdale Road and Camelback Road intersection

Sensagrate Scope and Study Update

SensaVision includes a software license and subscription to the web application. It provides real-time data collection using off-the-shelf LiDAR (light detection and ranging), radar, and video camera sensors and the project will focus on data collection and analysis of pedestrian, cyclist, and vehicle counts and safety assessments to target lifesaving interventions. The data collected will include traffic flow, vehicle and pedestrian counts, pedestrian movements, near-miss collision detection between pedestrians, cyclists, and vehicles, and congestion analysis to improve traffic flow.

The installation of equipment was completed in September 2022. Sensagrate representative will be presenting the findings at this meeting.

Attachments:

Attachment A: The City of Scottsdale Pedestrian Safety Report March 2023

Staff Contact: Kiran Guntupalli, 480-312-7623, kguntupalli@scottsdaleaz.gov



The City of Scottsdale Pedestrian Safety Report March 2023

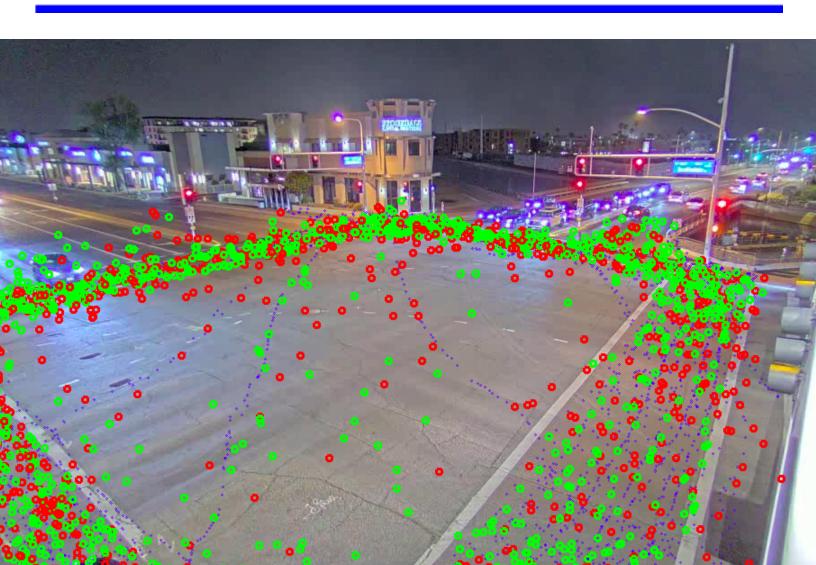




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Demos

- Scottsdale Traffic and Safety Analysis
- Scottsdale Pedestrian Safety Analysis

About Sensagrate's SensaVision Solution

Sensagrate monitors pedestrian behavior to collect roadway data to assist Traffic Engineers in planning safer and smarter roads, improve autonomous transportation solutions, and enhance mobility applications. SensaVision provides real-time data collection using off-the-shelf LiDAR (light detection and ranging), radar, and video camera sensors to detect and track pedestrians, vehicles, cyclists, and other mobility and non-mobility users. The sensors connect to an internet of things (IoT) edge device to process the sensor data in real-time using computer vision (perception) detection and tracking software. The software is developed from deep learning algorithms using 2D and 3D data to identify objects in real-time and at night. The system collects roadside sensor data to identify engagement between pedestrians and vehicles. A single fully integrated smart city solution has applications not only for pedestrian safety, curbside monitoring, and traffic flow management that enables the readiness of vehicle-to-everything communications and adaptive signal control.



Project Scope and Objectives

The City of Scottsdale Department of Transportation (DOT) wants to collect data on pedestrian counts and safety by assessing the movements on roads, sidewalks, and curbside utilization. The city can use the data and analytics to understand pedestrian safety, plan capital projects, and design planning.

Project 1.A will include deploying at one signalized intersection.

- Location: Intersection Deployment Scottsdale Rd and Camelback Rd.
- Use Cases:
 - o Pedestrian counts
 - o Pedestrian movements
 - o Near-miss collisions involving pedestrians
- Objectives
 - Understand the counts and risks of pedestrians, cyclists, and other mobility road users' vehicle engagement.
 - o Data can be used to support obtaining capital projects and development.

Sensagrate monitors pedestrian behavior to collect roadway data to assist Traffic Engineers in planning safer and smarter roads. SensaVision provides real-time data collection using off-the-shelf LiDAR (light detection and ranging), radar, and video camera sensors to detect and track pedestrians, vehicles, cyclists, and other mobility and non-mobility users.

Data Date Ranges

We set up two cameras facing southbound and westbound traffic. The data reported are from each camera's field of view.

- September 14, 2022, to October 09, 2022
- December 14, 2022, to January 02, 2022
- January 10, 2023, to February 18, 2023

Pedestrian Safety Analysis

To perform the pedestrian analysis, we identified counts of pedestrians and their movements at the intersection including the crosswalk waiting area, time in the crosswalk, and assessing safety using near-miss collision analysis. It was critical to identify if pedestrians were experiencing any safety concerns.

This data helps understand the correlation between real-life crashes and near-miss collisions to help validate the overall traffic safety trends. Real-time analytics allows for a short time frame to proactively assess an intersection's health and safety versus waiting for patterns to emerge over 1 to 5 years.



Counts

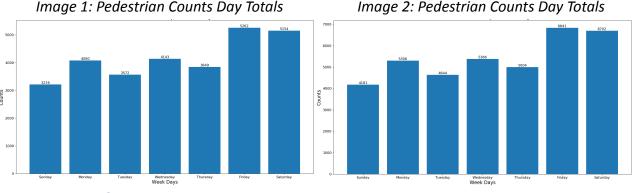
During the data collection period, we counted 29,276 pedestrians in the southbound facing camera and 38,064 pedestrians in the westbound facing camera. We identified that the following days had the highest daily volume in this order. We observed that the daily traffic volume counts are the same for vehicles and cyclists.

- 1. Friday
- 2. Saturday
- 3. Wednesday

- 4. Monday
- 5. Thursday

- 6. Tuesday
- 7. Sunday

Image 1: Pedestrian Counts Day Totals

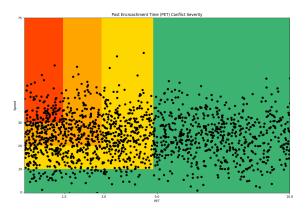


Near-Miss Collision Analysis

SensaVision processes near-miss collision analysis with two different algorithms: Post-Encroachment Time (PET) and Time to Collision (TCC). Near-miss analytics assess roadway conditions and identify data to predict the spots where the next injury or death is most likely.

PET is between two road users with a time difference between the first road user leaving a common spatial zone and a second user entering the zone.

We detected 2.664 PET near-miss collisions in the westbound (WB) camera, with 252 involving pedestrians. Of the 252 PET near-misses with pedestrians, thirty-three (33) were severe near-misses. We measure severe PET near-misses as a vehicle going above 30 miles per hour (mph) with a severity rating of 0 to 1.5. Of the 33 severe PET near-misses, nine (9) (or 0.34% of total PET near-misses) involved vehicles above 30 mph. Image 3: PET Conflict Severity Charts

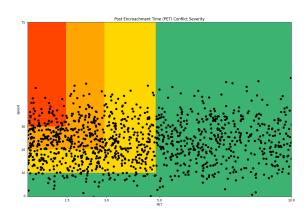


We detected 1,830 PET near-miss collisions in the southbound (SB) camera, with 321 involving pedestrians. Of the 321 PET near-misses with pedestrians, thirty-eight (38) were severe near-misses. Of the 38 severe PET near-misses, five (5) (or 0.27% of total

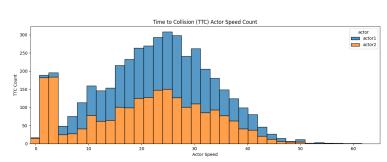


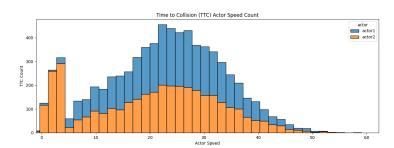
PET near-misses) involved vehicles with speeds above 30 mph. *Image 4: PET Conflict Severity Charts*

The next near-miss we assess is TCC. TCC is defined as the estimated time for the occurrence of a collision between road users assuming no new external force is introduced to avert the collision within the estimated time frame. This algorithm is similar to rear-end collision prevention technology in vehicles.



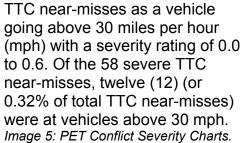
We detected 3,719 TTC near-miss collisions in the westbound camera, with 514 involving pedestrians. Of the 252 TTC near-misses with pedestrians, fifty-eight (58) were severe TTC near-misses. We measure severe





above 30 mph. Image 6: PET Conflict Severity Charts

We compared the total PET and TCC near-misses to total pedestrian counts per hour. We observed the top 5 times of average pedestrians are 10 PM, 11 PM, 9 PM, 12 AM, and 1 AM. The top 2 PET events occurred at 11 PM and 12 AM. We observed the same pattern in the TCC analytics. The second-highest PET and TCC events occurred between 8 AM and 3 PM. Image 7: PET and Pedestrian Counts (SB)



We detected 2,225 TTC near-miss collisions in the southbound camera, with 361 involving pedestrians. Of the 361 TTC near-misses pedestrians, forty-two (42) were severe TTC near-misses. Of the 42 severe TTC near-misses, seven (7) (or 0.27% of total TCC near-misses) were at vehicles

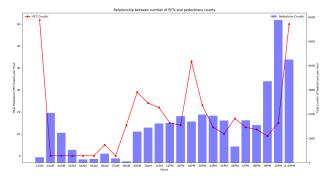
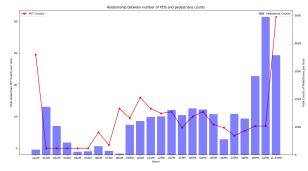




Image 8: PET and Pedestrian Counts (WB)



Behavior Analysis

During the data collection period, we analyzed the behavior of the time it takes for pedestrians to wait at the crosswalk, time to cross the crosswalk, and near-misses between pedestrians and other mobility objects on the road.

Crosswalk Zone Analysis

In Images 8 and 9 Crosswalk Zones, we observed when a pedestrian enters a crosswalk and exits and identified how many seconds it takes to cross. Also, we observed near-misses between pedestrians and vehicles (this includes vehicle-to-vehicle, vehicle-to-cyclist, and other mobility and non-mobility users). The average crosswalk times per zones are as follows:





Crosswalk 1: 17.2 secondsCrosswalk 2: 14.5 seconds

Crosswalk 3: 18.9 secondsCrosswalk 4: 15.5 seconds

Crosswalk Wait Times

Further, we measured the pedestrian wait times at crosswalks. We reviewed three corners and observed the peak waiting times in seconds:

Waiting Zone 1: 23.9

Waiting Zone 2: 21.9

Waiting Zone 3: 20.1

Image 10: Waiting Zones (WB)



Image 11: Waiting Zones (SB)





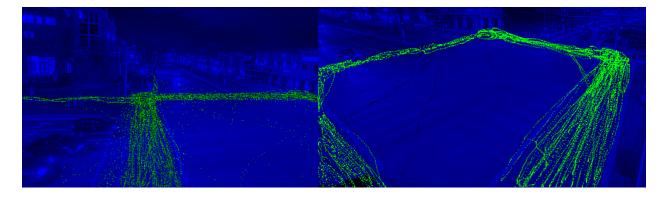
Understanding these behaviors and patterns can assist in improving pedestrian accommodation at signalized crossings for pedestrian crosswalk signal timing, increase pedestrian clearance intervals, integrate into automated signal control, and assist with improving safety in road designs.

Pedestrian Tracking Behavior Heat Map

The SensaVision solution tracks the movements of all objects within the sensors' field of view. To understand the movements and behaviors of pedestrians, we took their position and tracking information and overlaid it into the images of the cameras.

The images below illustrate the paths and directions pedestrians take at the intersection. We use this to assess the common and unique behaviors of pedestrians on a heat map to see the common path areas taken by pedestrians. The color representation with more points will be red, orange, and yellow. The darker the color represents the common trajectory paths. We identified not all paths are in the crosswalk; during late times in the early morning, with no vehicles, people would cross diagonally at the intersection.

Image 12: Pedestrian Path Heat Map (SB) Image 13: Pedestrian Path Heat Map (WB)



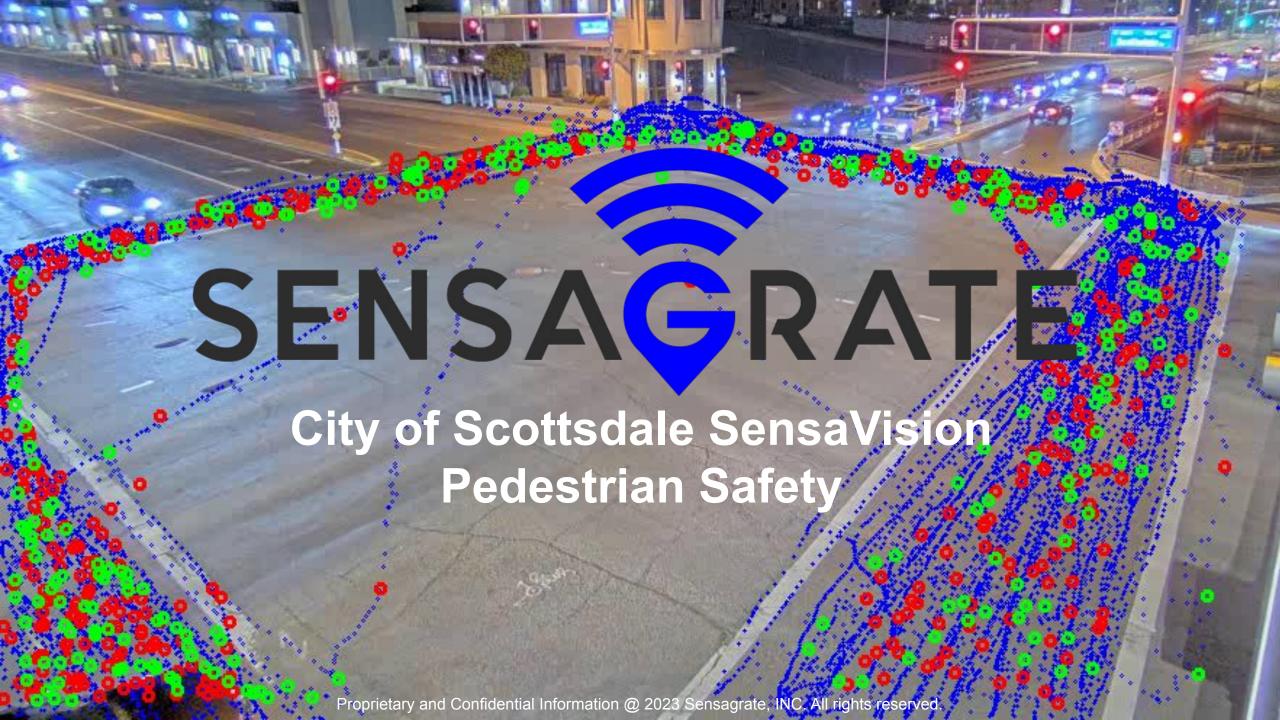
Pedestrian Near-Misses Map

In this image, we overlaid the near-miss events of PET and TCC and show where they occur with the pedestrian trajectory data. With the trajectory paths and near-misses, you can identify locations of high-density near-misses.

Image 14: Pedestrian Near-Misses (SB)

Image 15: Pedestrian Near-Misses (WB)

Sensagrate: The City of Scottsdale Pedestrian Safety Report March 2023 | CONFIDENTIAL | 7



Project Scope and Objectives

The City of Scottsdale Department of Transportation (DOT) wants to collect data on pedestrian counts and safety by assessing the movements on roads, sidewalks, and curbside utilization. The city can use the data and analytics for planning capital projects and design planning for development.

Project 1.A will include deploying at one signalized intersection.

- Location: Intersection Deployment Scottsdale Rd and Camelback Rd. Refer to the Design and Location pdf file for the site of the deployment.
- Use Cases:
 - o Pedestrian counts
 - o Pedestrian movements
 - o Near-miss collisions involving pedestrians
- Objectives
 - Understand the counts and risks of pedestrians,
 cyclists, and other mobility road users' engagement with vehicles.
 - o Data can be used for supporting obtaining capital projects and development.







The Solution

"Proactively Advancing Safer and Smarter Roads."

Sensagrate is an AI and IoT software platform that provides real-time data and data analytics as a service.





SensaVision



The Solution SensaVision[™]

"Proactively Advancing Safer and Smarter Roads."

Sensagrate is an AI and IoT software platform that provides real-time data and data analytics as a service.

- Out-of-the-Box Solution
- Sensors: LiDAR, Camera, and Radar
- SensaVision Computer Vision Software
- SensaVision Web App with Predictive Analytics
- Sensor Fusion and Open Edge IoT
- API Integration
- Installation and Technical Support



SensaVision Software



- Real-time processing of video cameras using our computer perception software
- Object detection, classification, and tracking
- Agnostic solution that works on any camera
- Comes with a simple GUI interface for setting up and configuring event management zones and polylines
- Analyzes real-time roadway traffic and safety data
- Data shared in raw feeds or processed JSON format.
- Record data and capture events
- Collect data at intersections, beyond intersections, mid-block, highways, parking lots, and other locations



The City of Scottsdale Pedestrian Safety Analysis

September 2022 to February 2023

Data Date Ranges

We set up two cameras facing southbound and westbound traffic. The data reported is from each cameras field of view.

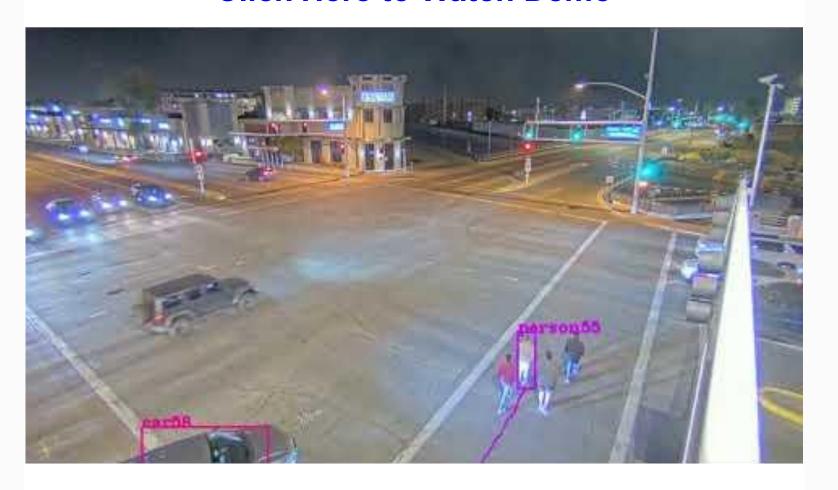
- September 14, 2022 06:32 PM to October 09, 2022 02:03 AM
- December 14, 2022 09:58 PM to January 02, 2022 11:31 AM
- January 10, 2023 03:19 PM to
 February 18 (2023) 01:23 PM





Safety Demo

Click Here to Watch Demo





Traffic Demo

Click Here to Watch Demo





Total Counts of Pedestrians

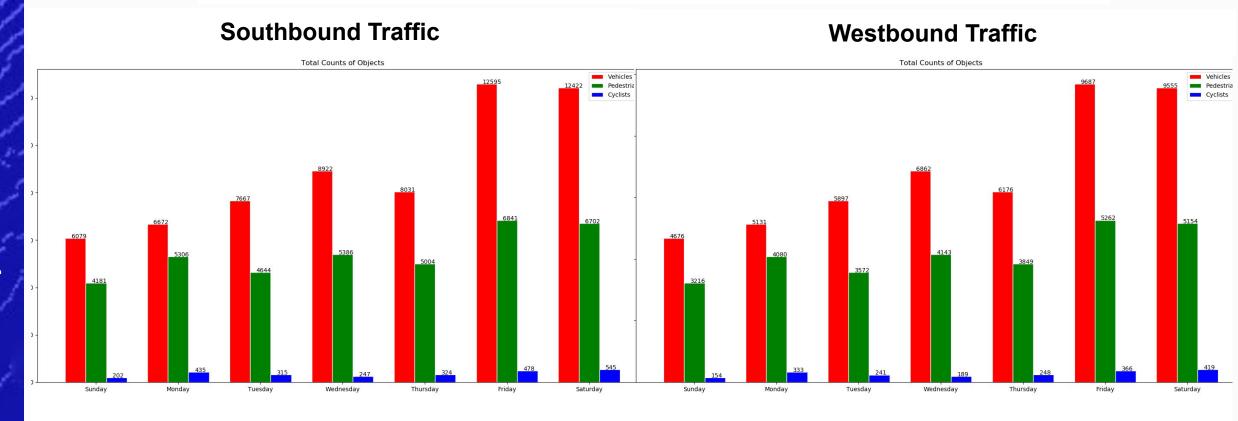
Total counts of detected pedestrians during data collection period (per camera).

Southbound Traffic Southb



Total Counts of Pedestrians, Cyclists, and Vehicles

Total counts of detected pedestrians, cyclists, and vehicles during data collection period (per camera).



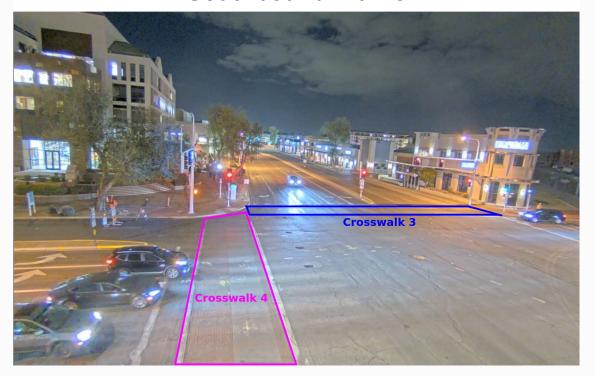


Intersection Analysis Approach

CROSSWALKS

During the period of data collection we analyzed the behavior of the time it takes for pedestrians to cross the crosswalk and near-misses between pedestrians and other mobility objects on the road.

Southbound Traffic

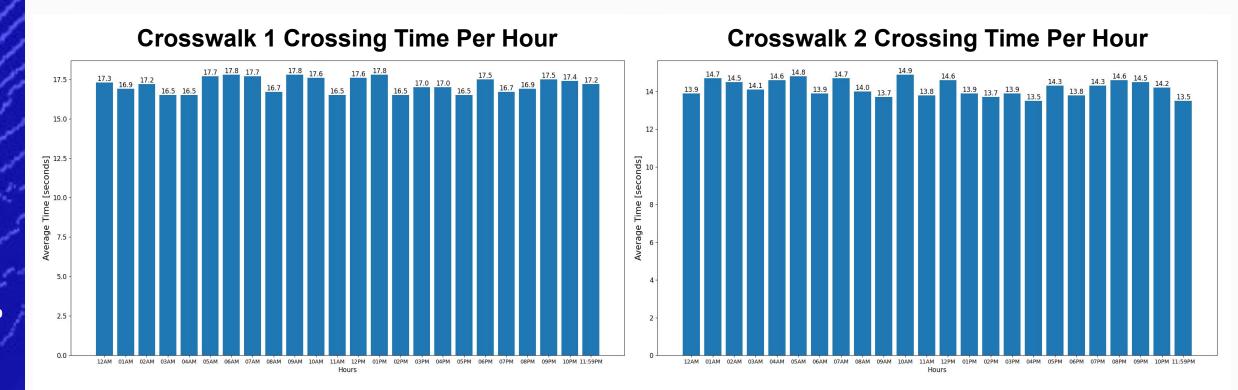


Westbound Traffic





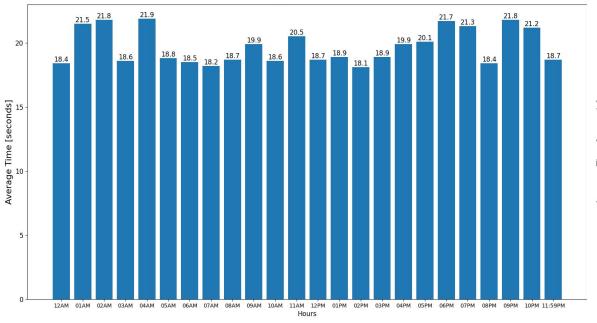
Crosswalk Crossing Times



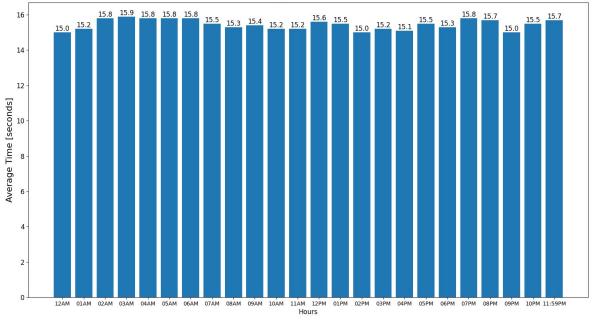


Crosswalk Crossing Times

Crosswalk 3 Crossing Time Per Hour



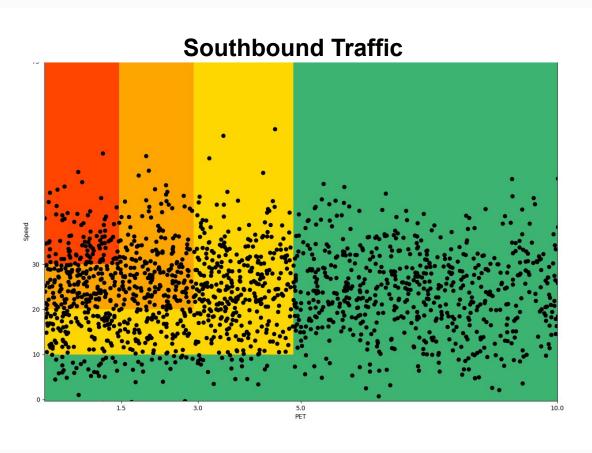
Crosswalk 4 Crossing Time Per Hour





Post-Encroachment Time (PET)

PET between two road users is defined as the the time difference between the first road user leaving a common spatial zone and a second user arriving entering the zone.





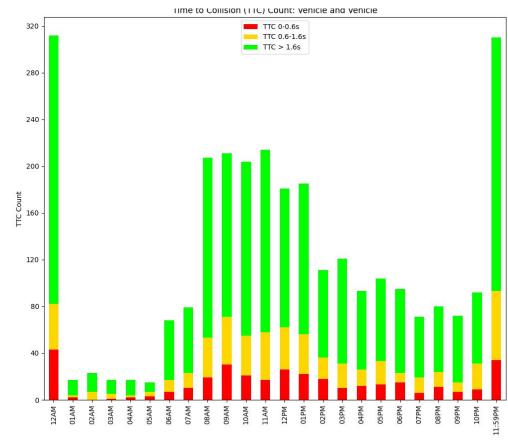


Time to Collision (TCC)

Given the history of distance, velocity and acceleration of two road users within a spatial ROI (region of interest), TTC is defined as the estimated time for the occurrence of a collision between the road users assuming no new external force is introduced to avert the collision within the estimated time frame.

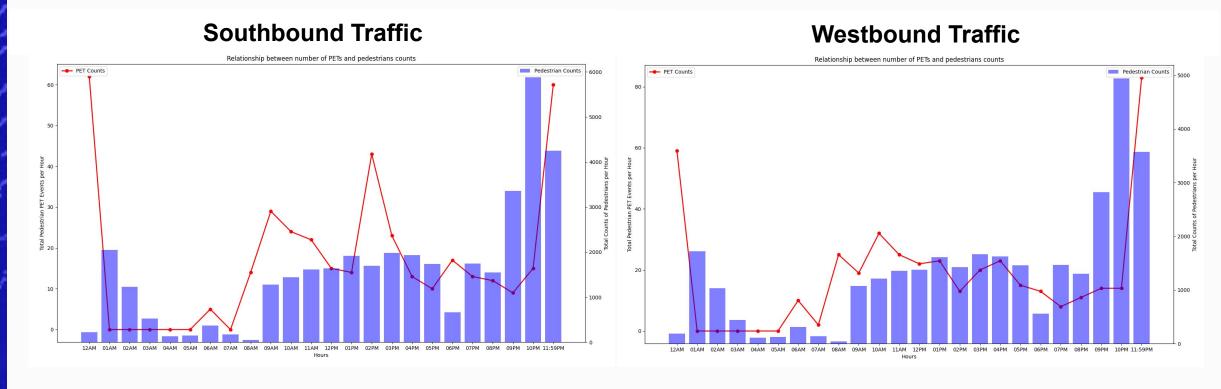


Westbound Traffic



Total PET Near-Miss to Total Pedestrians

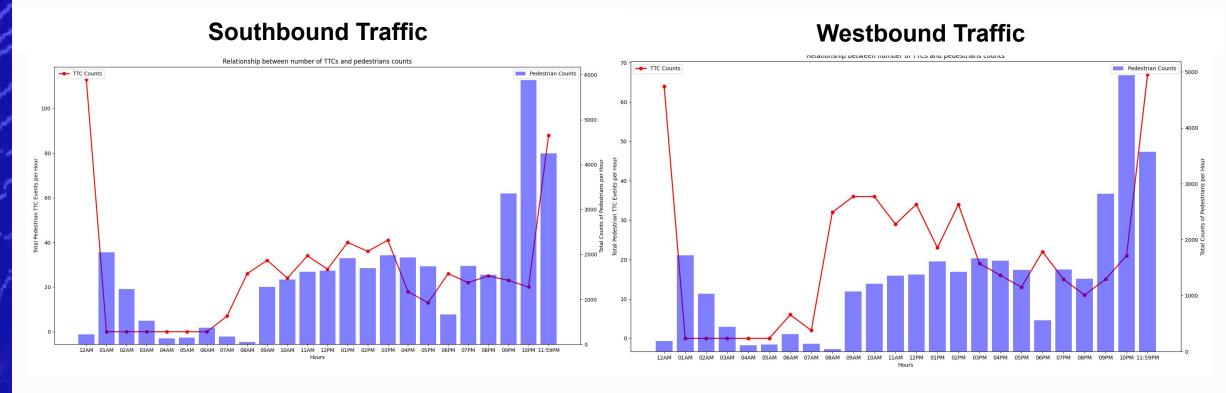
This near-miss analysis assessed the correlation between the total PET near-misses to the total counts of pedestrians observed during the time period per hour.





Total TTC Near-Miss to Total Pedestrians

This near-miss analysis assessed the correlation between the total TTC near-misses to the total counts of pedestrians observed during the time period per hour.



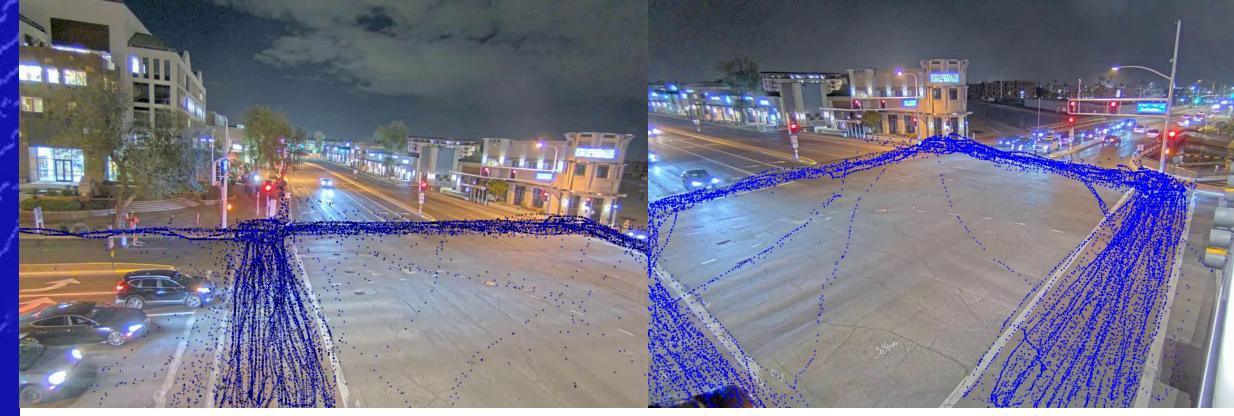


Pedestrian Trajectory Behavior Map

In this image, we overlaid the trajectory data to a camera image to illustrate the paths and directions pedestrians take at the intersection. We use this to asses the common and unique behaviors of pedestrians. As you can see, not all paths are in the crosswalk.

Southbound Traffic

Westbound Traffic



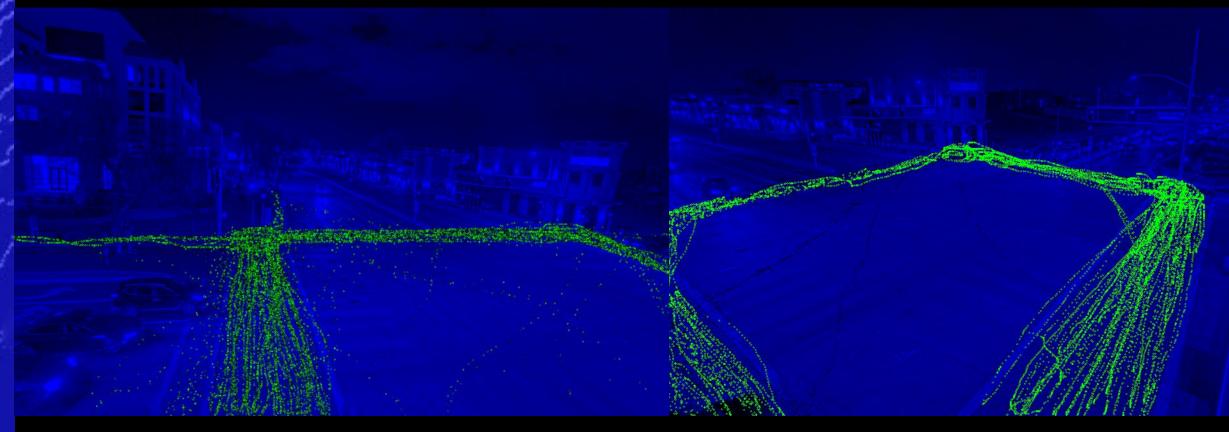


Pedestrian Tracking Behavior Heat Map

This image shows the same trajectory paths but in heat map to see the common path areas taken by pedestrians.

Southbound Traffic

Westbound Traffic





Red: TTC Green: PET

Pedestrian Near-Misses Map

In this image, we overlaid the near-miss events of PET and TCC and show where they occur with the pedestrian trajectory data.

Southbound Traffic

Westbound Traffic





Project Next Steps

- Deploy Phase 2
- Present in Summer 2023 with consistent data
 - Demonstrate full solution
 - o Show data from Phase 2
 - Provide enhanced detailed and predictive analytics on pedestrian safety in the corridor include Phase 2







THE FUTURE OF SMARTER AND SAFER ROADS

Darryl Keeton, Founder and President







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LA OUA PLAZA





Scottsdale, AZ 85257

SCOTTSD COMMER

PAPAGO PARKWAY

Vista Del Camino Parkensa GRATE

SCOTTSDALE TRANSPORTATION COMMISSION REPORT

To: Transportation Commission

From: Nathan Domme, Transportation Planning Manager Subject: Update on Grant Applications, Status and Awards

Meeting Date: March 16, 2023

ITEM IN BRIEF

Action: Presentation and discussion

Purpose:

Provide an update on recent grant applications, results from recent grant applications both regional and federal, and an overview of the Blue Zone Award and partnership moving forward.

Background:

The city of Scottsdale seeks funding for transportation studies and improvements through regional, state, and federal opportunities. Many are submitted through the Maricopa Association of Governments (MAG) Active Transportation and Safety Programs, which utilize regional, state, and federal funding. Other applications are submitted directly to the U.S. Department of Transportation.

Maricopa Association of Governments			
Grant	Call For Projects		
MAG Design Assistance	May/June		
MAG Road Safety Program (RSP)	September		
Highway Safety Improvement Program (HSIP)	September		
Congestion Mitigation and Air Quality Improvement Program (CMAQ)	August		
Air Quality Programs (PM-10 Certified Street Sweepers and PM-10/PM-2.5 Paving of Unpaved Roads)	August		
Transportation Alternatives Program	August		

Federal Grants – U.S. Department of Transportation		
Grant	Call For Projects	
Rebuilding American Infrastructure with Sustainability and Equity (Raise)	Feb	
Safe Streets and Roads for All (SS4A)	Sept	

The list above includes the grants that the city of Scottsdale applies for regularly. They are annual grants that staff routinely identifies projects that best fit the criteria for the application. Staff bases recommendations for grant applications on the community's needs as well as the competitiveness of the project to win the grant.



Transportation Commission March 16, 2023 Update on Grant Applications, Status, and Awards Page 2 of 2

Outcome of 2022 Grant Applications

Grant	Grant	Outcome
Central Arizona Project Canal/100 Street Path	MAG DA	Awarded
64 th St Thomas and Indian School Intersections Study	MAG DA	Awarded
Scottsdale Street Safety Action Plan	DOT SS4A	Awarded
McDowell Road: Scottsdale Rd to Hayden Rd	MAG RSP	Not Awarded
Hayden Road and Indian Bend Road	MAG RSP	Not Awarded
Legacy Blvd – Reatta Wash Bridge Expansion	MAG HSIP	Not Awarded
2 nd Street RAISE Grant	DOT RAISE	In Process

In 2022, the city of Scottsdale Transportation and Streets department applied for seven grants. We were successful on three applications and still awaiting news regarding the RAISE Grant. Two of the awarded grants were from the MAG Design Assistance Program, and one was from the federal Safe Streets for All Program.

Current Active Grant Funded Projects

The city currently has ten active grant-funded transportation projects. These projects come from many different types of grants and provide unique projects to the city that we would not be able to fund if not through a grant. Several projects provide Design and Planning assistance to determine the needs of several of our corridors. The rest are providing various connection and safety improvements to our network.

77th Street Access Improvements

The City of Scottsdale was awarded HUD Economic Development Initiative/Community Project Funding Grant (EDI-CPF) to provide an access point to the community to improve emergency access during extreme rain events. This grant is for \$1.8 million dollars and will provide a neighboring community with a needed connection.

Blue Zone Award

The City of Scottsdale, through a partnership with HonorHealth, was awarded a Blue Zone Project. This project will focus on improving the liable environment of Scottsdale by looking to create economic vibrancy, environmental quality, and public health. The goal is to achieve a healthy community through the environment we all live in. Over the next several months, HonorHealth will form a steering committee, hire local staff and develop a Scottsdale-specific blueprint for community transformation to help our residents live better, longer lives.

Staff Contact: Nathan Domme, 480-312-2732, ndomme@scottsdaleaz.gov

Update on Grant Applications, Status and Awards

Transportation Commission March 16, 2023



What Grants Provide Us

- Provides additional funding
- Allows for us to develop projects unlikely to be done with regular funding
- Leverage our funds
- Allows faster implementation of the project
- More innovative on the project



AVAILABLE GRANTS

Maricopa Association of Governments		
Grant	Call For Projects	
MAG Design Assistance	May/June	
MAG Road Safety Program (RSP)	September	
Highway Safety Improvement Program (HSIP)	September	
Congestion Mitigation and Air Quality Improvement Program (CMAQ)	August	
Air Quality Programs (PM-10 Certified Street Sweepers and PM-10/PM-2.5 Paving of Unpaved Roads)	August	
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PROCESS FOR SELECTING PROJECTS AND GRANTS

- Identify grant opportunities and their timeline
- Identify criteria for the grant
- Look at list of future projects
- Staff review and select project based on project need and ability to score high on the grant
- Aid other city departments with grant applications requested and related to transportation

RECENTLY COMPLETED GRANT FUNDED PROJECTS

- Old Town Bicycle Master Plan
- 70th St Neighborhood Bikeway Study
- Dirt Road Paving
- Camelback and Saddlebag HAWK
- Scottsdale Rd and Palm HAWK
- McDowell Road Bike Lanes



ACTIVE GRANT FUNDED PROJECTS

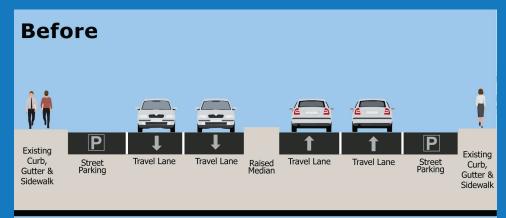
Project	Grant	Grant Funding
68 th St Complete Street Project	CMAQ/TAP	\$1,485,936
Thomas Rd Complete Street Project	CMAQ	\$3,681,972
Osborn Road Complete Street Project	TAP	\$3,209,483
Indian Bend Wash Underpass at Chaparral Road	CMAQ	\$2,495,904
Goldwater Blvd Bike and Pedestrian Underpass	CMAQ	\$2,352,421
PM-10 Dirt Road Paving	CMAQ	\$3,856,200
64 th and Indian School/ 64 th and Thomas	DA	\$150,000
Safety Action Plan	SS4A	\$300,000
CAP Canal Path from Northsight to Scottsdale	CMAQ	\$2,700,000
77 th Street Access Improvements	HUD EDI-CPF	\$1,800,000

68th Street and Thomas Road Projects

- Project is located on 68th Between Indian School and Thomas and Thomas between 73rd and 56th Streets
- MAG CMAQ Grant
- 68th St \$1.5 million request with \$90,000 local match and \$340,000 in additional local funding
- Thomas Rd \$3.7 million request with \$1.1 million match

Improvements

- Compete Street Improvements
- Bike lanes
- Protected Pedestrian crossing
- Turning Lanes for improved Traffic Flow







Indian Bend Wash Underpass at Chaparral Road

- Project is located on Chaparral Rd and Hayden Rd Intersection
- MAG CMAQ Grant
- \$2.5 Million was awarded with \$1 million local match

Improvements

 Underpass Bicycle and Pedestrian Connection under Chaparral Road.



Goldwater Blvd Ped and Bicycle Underpass

- Project is located on Scottsdale Rd at Goldwater Blvd
- MAG CMAQ Grant
- \$2.4 Million was awarded with \$680,000 local match

Improvements

 Underpass Bicycle and Pedestrian Connection under Goldwater Blvd





Osborn Road Complete Street

- Project is located on Osborn Rd between Scottsdale Rd and Hayden roads Rd
- MAG CMAQ Grant
- \$3.2 Million was awarded with \$1.8 Million local match and \$2.8 additional Local Funding.

Improvements

 Sidewalks, Improvement Crossings, Roundabout



64th Street Intersections

- Project is located at the intersections of 64th and Thomas and 64th and Indian School
- MAG Design Assistance
- \$150,000 awarded with no local match.

Improvements

 Identify Solutions for more efficient pedestrian and bike crossing while on the multiuse path or connecting to multiuse path





Safe Streets and Roads for All (SS4A) Grant

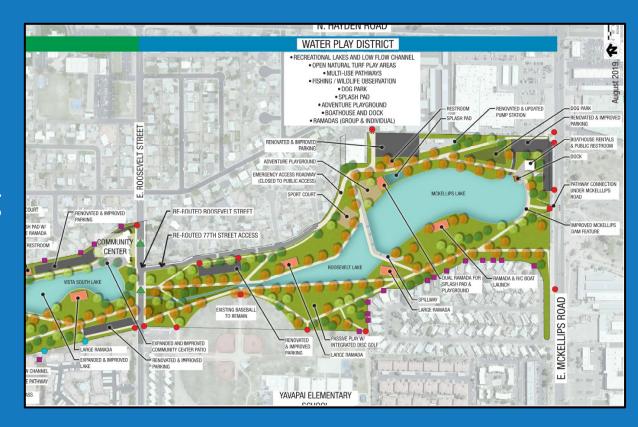
- Scottsdale Street Safety Action Plan submitted in September 2022
 - Will improve multimodal traffic safety by significantly reducing roadway fatalities and serious injuries. A comprehensive, safe systems approach utilizing the 5 E's (engineering, evaluation, education, enforcement, and equity) will guide safety improvements for people using all modes, especially the most vulnerable users.
- We were awarded \$300,000



77th Street Access Improvements

- Project is located on 77th St
- Awarded by U.S. Department of Housing and Urban Development Economic Development Initiative/Community Project Funding Grants (EDI-CPF).
- Awarded \$1.8 Million.

- Proposed
- An additional connection to the communities to improve emergency access during extreme rain events





RECENTLY APPLIED FOR GRANTS

• RAISE GRANT FOR 2ND St Complete Street

 RAISE projects are rigorously reviewed and evaluated on statutory criteria of safety, environmental sustainability, quality of life, mobility and community connectivity, economic competitiveness and opportunity including tourism, state of good repair, partnership and collaboration, and innovation.



RAISE Grant Application

- Project is located on 2nd Street from 75th St. to Goldwater Blvd.
- Submitted to U.S. Department of Transportation's (USDOT) Rebuilding American Infrastructure with Sustainability and Equity (RAISE) discretionary grant program.
- \$14.5 million request with \$4.8 million local match.

Existing

 Wide street, no shade, existing sidewalks back of curb, uninviting for those using the street to make connections to the commercial, civic, arts and health facilities via walking or biking that align the area.

Proposed

 Wider sidewalks, a protected two-way bicycle cycle track, traffic calming strategies, sustainable landscaping, manmade and natural shade, traffic signal improvements and pedestrian lighting.



Blue Zones Project Awarded

City of Scottsdale has a partnership with HonorHealth to launch a Blue Zones Project.

Blue Zones helps communities live better and longer by improving their environment though:

- economic vibrancy,
- environmental quality, and
- public health

The goal is to make our community more livable, walkable, and bikeable.

Over the next several months, HonorHealth will form a steering committee, hire local staff and develop a Scottsdale-specific blueprint for community transformation to help our residents live better, longer lives.





Thank you. Questions?



SCOTTSDALE TRANSPORTATION COMMISSION REPORT

To: Transportation Commission

From: Susan Conklu, Senior Transportation Planner

Subject: Bicycle Friendly Community Application

Meeting Date: March 16, 2023



ITEM IN BRIEF

Action: Information and Discussion

Purpose: Provide an update on the 2023 Bicycle Friendly Community application.

Background:

The League of American Bicyclists (LAB) offers the Bicycle Friendly America program for communities, states, universities, and businesses as a tool to make bicycling available for transportation and recreation. The Bicycle Friendly Community Program (BFC) provides incentives, hands-on assistance and award recognition for communities that actively support bicycling. These communities welcome cyclists by providing safe accommodations for cycling and encouraging people to bike. Increasing the safety and comfort of bicycling improves public health, the environment, quality of life, and economic development.

The BFC application provides a comprehensive picture of a community by asking questions across five categories often referred to as the Five "Es": Engineering, Education, Encouragement, Equity (formerly Enforcement), and Evaluation & Planning. To be considered for an award, a community must demonstrate achievements in each of the five categories through the application process. Application review includes evaluation from LAB staff and feedback from local cyclists and advocates. Then one of the following awards is issued (from highest to lowest level): Diamond, Platinum, Gold, Silver, Bronze, or Honorable Mention. The designated award is held by each entity for four years, after which the application process is repeated. This ensures continual improvements and achievements for biking.

The City of Scottsdale entered the BFC program at the Silver level in 2005 and was notably the first community without a university or college to reach that level. Scottsdale was awarded Silver again in 2007. In 2011, Scottsdale was awarded Gold, which was a goal of the 2008 Transportation Master Plan. In 2015, Scottsdale was again awarded Gold. The 2015 LAB designation announcement included two other communities in the region with Mesa moving up to Silver and Tempe moving up to Gold.

Transportation staff submitted an application to LAB on August 8, 2019. The application included two attachments giving a PowerPoint overview of our program and the results of Scottsdale's public internet survey on bicycling in June and July 2019. Scottsdale received 123 responses to this survey. In September 2019, LAB conducted its own public survey of biking in Scottsdale and solicited feedback from local cyclists and advocates, which assisted with their evaluation of our application. On November 21, 2019 LAB announced the Bicycle Friendly Community Award Designations for fall 2019. Scottsdale was again awarded Gold level and received a Report Card (Attachment A). The Report Card includes Key Steps to Platinum.

Update:

On April 26, 2022, the Transportation Action Plan (TAP) was adopted by City Council. The Bikeway Element of the TAP includes a goal, policies and performance measures related to the Bicycle Friendly Community program:

Bikeway Element Goal (B-06)

Achieve a Platinum-level Bicycle Friendly Community certification from the League of American Bicyclists (LAB).

Bikeway Element Policy B-02

Roadway Restriping: Improve on-street bike accommodation and bicyclist and pedestrian comfort through striping changes that consider historic and forecasted motor vehicle traffic, center turn lane

Transportation Commission
March 16, 2023
Bicycle Friendly Community Update
Page 2

requirements, existing pavement width and existing lane widths. This restriping protocol will typically be applied when roadways are being treated through standard pavement preservation applications and will incorporate buffered bike lanes where feasible.

Bikeway Element Policy B-03

Neighborhood Bikeways: Develop Neighborhood Bikeways on low-volume, low-speed roadways to be used by a wide range of bicyclist abilities. Improvement options should consider traffic calming and enhanced roadway crossings.

Bikeway Element Policy B-04

Wayfinding: Implement a cohesive wayfinding system directing people to and along shared use paths and Neighborhood Bikeways and to community destinations.

Bikeway Element Policy B-06

Education and data collection: Promote bicycling's benefits for health, recreation, transportation, and tourism. Evaluate bicycle usage counts on the network to establish trends and prioritize outreach and improvements.

Bikeway Element Policy B-07

Safety and Enforcement: Inform the public (motorists, bicyclists, and pedestrians) about bicycle, vehicle and pedestrian operation on streets and paths. Work with public safety staff to improve enforcement of traffic laws related to biking. Collect, analyze, and report on bicycle collision data on a regular basis and develop remediation measures to address high-frequency and high-volume collision locations. Support Safe Routes to School programs. Support the use of grade separated crossings at barriers such as freeways and arterial roadways and along large drainageways.

Bikeway Element Performance Measure B-04

Mileage of completed shared use paths.

Bikeway Element Performance Measure B-05

Mileage of arterial and collector roadways with bike lanes.

Bikeway Element Performance Measure B-06

Mileage of completed Neighborhood Bikeways.

Bikeway Element Performance Measure B-08

Annual counts from permanent counters, mobile counters, and third-party vendors.

Scottsdale's next Bicycle Friendly Community application is up for renewal by August 30, 2023. In preparation for the new application, Transportation staff attended webinars from the League of American Bicyclists on the new questions. Staff also coordinated a Teams meeting with colleagues from the Platinum level communities of Boulder and Fort Collins, Colorado to gain important knowledge on their programs.

Next Steps:

The application preparation will include input from the public, Paths and Trails Subcommittee, and Transportation Commission. Transportation staff will present an update to the Paths and Trails Subcommittee on June 6, 2023.

Attachments:

Attachment A: Scottsdale's 2019 Report Card from the League of American Bicyclists

Contacts: Susan Conklu, 480-312-2308, sconklu@scottsdaleaz.gov



SCOTTSDALE, AZ

TOTAL POPULATION 246.000 TOTAL AREA (sq. miles) 184.5

POPULATION DENSITY 1.340

OF LOCAL BICYCLE FRIENDLY BUSINESSES

0

OF LOCAL BICYCLE FRIENDLY UNIVERSITIES

10 BUILDING BLOCKS OF

A BICYCLE FRIENDLY COMMUNITY	Average Platinum	Scottsdale
High Speed Roads with Bike Facilities	36%	36%
Total Bicycle Network Mileage to Total Road Network Mileage	80%	16%
Bicycle Education in Schools	GOOD	ACCEPTABLE
Share of Transportation Budget Spent on Bicycling	14%	10%
Bike Month and Bike to Work Events	VERY GOOD	GOOD
Active Bicycle Advocacy Group	YES	YES
Active Bicycle Advisory Committee	MEETS AT LEAST MONTHLY	MEETS EVERY TWO MONTHS
Bicycle–Friendly Laws & Ordinances	VERY GOOD	GOOD
Bike Plan is Current and is Being Implemented	YES	YES
Bike Program Staff to Population	1 PER 21K	1 PER 41K

CATEGORY SCORES

ENGINEERING Bicycle network and connectivity	4.5/10
EDUCATION Motorist awareness and bicycling skills	4.1/10
ENCOURAGEMENT Mainstreaming bicycling culture	4.1 /10
ENFORCEMENT Promoting safety and protecting bicyclists' rights	3.4/10
EVALUATION & PLANNING Setting targets and baving a plan	5.9 /10

VEV OUTCOMES

KEA ONICOWE2	Average Platinum	Scottsdale	
RIDERSHIP Percentage of commuters who bike	13.6%	0.95%	
SAFETY MEASURES CRASHES Crashes per 10k bicycle commuters	100	641	
SAFETY MEASURES FATALITIES Fatalities per 10k bicycle commuters	0.4	5.24	



KEY STEPS TO PLATINUM



- Continue to expand and improve Scottsdale's low-stress on-road bike network and ensure that your community follows a bicycle facility selection criteria that increases separation and protection of bicyclists based on levels of motor vehicle speed and volume, to maximize safety and comfort for bicyclists of all ages and abilities.
- Expand bicycle safety education to be a routine part of education for students of all ages, and ensure that schools and the surrounding neighborhoods are particularly safe and convenient for biking and walking. Work with local bicycle groups and interested parents to create Safe Routes to School programming for all K-12 schools.
- » Expand bicycle education opportunities for adults by offering more educational opportunities per year. Host a League Cycling Instructor (LCI) seminar to increase the number of local LCIs in

- your community, allowing you to expand cycling education for youth and adults, deliver Bicycle Friendly Driver education to motorists, and have more experts available to assist in encouragement programs. Visit bikeleague.org/ridesmart for more information.
- » Use the framework of the Bicycle Friendly Business program to engage with more local businesses, agencies, and organizations to promote cycling to their employees and customers as a way to further encourage ridership.
- » Adopt a local comprehensive road safety plan or a Vision Zero policy to create engineering, education, and enforcement strategies to reduce traffic crashes and deaths for all road users, including bicyclists and pedestrians. Road diets, lane diets, and traffic calming treatments are important engineering components for addressing safety.

Bicycle Friendly Community Update

Transportation Commission March 16, 2023



League of American Bicyclists (LAB)

- The Bicycle Friendly Community (BFC) program recognizes municipalities that actively support cycling and encourage residents to use bicycles for transportation and recreation
- Comprehensive look at the city's achievements in all of the "5 Es":
 - Engineering
 - Education
 - Encouragement/ events
 - Equity (formerly Enforcement)
 - Evaluation and Planning
- Measurable goals for continuous improvement
- Provides best practices and resources
- Clear comparisons to peer cities
- Can help city compete for grant
- Can act as a tool for economic development



League of American Bicyclists (LAB)

- An award of Diamond, Platinum, Gold, Silver, Bronze, or Honorable Mention status is designated for four years
- Scottsdale awarded Silver level in 2005
 - First community without a university or college to reach Silver level
 - Achieved Silver again in 2007
- Awarded Gold level in 2011, 2015, and 2019
 - Receive feedback from LAB Report Card
 - Public input for applications
 - Local reviewers help LAB evaluate applications







Bicycle Friendly Communities

- Since 2015
 - the same 5 Platinum Communities
 - Boulder, Fort Collins, Davis, Portland, and Madison
 - Added 10 Gold communities totaling 34
 - Totaling 34 communities
 - Added 116 new communities to the Program
 - Totaling 488 communities
 - Around 80% of the Gold and Platinum communities have a major college campus
 - Scottsdale was first community without a major college campus to reach silver and gold







Update

- Scottsdale's Report Card from LAB was received in December 2019
 - Key Steps to Platinum
 - Report Cards from other communities provide ideas for improvements

10 BUILDING BLOCKS OF A BICYCLE FRIENDLY COMMUNITY	Average Platinum	Scottsdale
High Speed Roads with Bike Facilities	36%	36%
Total Bicycle Network Mileage to Total Road Network Mileage	80%	16%
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ENFORCEMENT Promoting safety and protecting bicyclists' rights		3	.4/10
EVALUATION & PLANNING Setting targets and baving a plan		5.9/10	
KEY OUTCOMES	Average 1	Platinum	Scottsdale
RIDERSHIP Percentage of commuters who bike	13.	6%	0.95%
SAFETY MEASURES CRASHES Crashes per 10k bicycle commuters	10	00	641
SAFETY MEASURES FATALITIES Fatalities per 10k bicycle commuters	0	.4	5.24



Update

- 2022 Transportation Action Plan Bikeway Element
 - Goal B-06 Achieve a Platinum-level Bicycle Friendly Community certification from the League of American Bicyclists (LAB)
 - Policy B-02, B-03, B-04, B-06, B-07
 - Performance Measure B-04, B-05, B-06, B-08



Key Steps to Platinum Level

- Continue to expand and improve Scottsdale's low-stress on-road bike network ... that increases separation and protection of bicyclists based on levels of motor vehicle speed and volume, to maximize safety and comfort for bicyclists of all ages and abilities.
- Expand bicycle safety education to be a routine part of education for students of all ages.
- Work with local bicycle groups and interested parents to create Safe Routes to School programming for all K-12 schools.









Key Steps to Platinum Level (Cont'd)

- Expand bicycle education opportunities for adults
- Host a League Cycling Instructor (LCI) seminar to increase the number of local LCIs in your community
- Use the framework of the Bicycle Friendly Business program to engage with more local businesses, agencies, and organizations to promote cycling to their employees and customers as a way to further encourage ridership.
- Adopt a local comprehensive road safety plan or a Vision Zero policy to reduce traffic crashes and deaths for all road users, including bicyclists and pedestrians.
- Road diets, lane diets, and traffic calming treatments are important engineering components for addressing safety.





Additional Goals 2020-2023

ENGINEERING

- Increase total bikeway mileage on arterial and collector roads
- Improve biking into and within Old Town
- Complete bike lanes on Dynamite Boulevard
- Implement Path Wayfinding Signage

EDUCATION

- Bicycle safety for children K-12
- Bike 101 Community Classes for adults



Additional Goals 2020-2023

- ENCOURAGEMENT/ EVENTS
 - Hold signature bike events Open Streets Event, expand Bike Month events
- EQUITY
 - Police Bike/Ped Safety Outreach expand current program
 - Enforce new state law on handheld devices while driving
 - Sharing the Road and Path messaging
- EVALUATION AND PLANNING
 - Better bicyclist counts install counters
 - Gap analysis of bikeways, including those that access transit stops
 - Old Town Bicycle Master Plan
 - Update the Transportation Master Plan



Next Steps

- Scottsdale's next Bicycle Friendly Community Application will be by August 30, 2023
- May/June 2022:
 - Webinars from the League of American Bicyclists on the new questions.
 - Teams meeting with colleagues from the Platinum level communities of Boulder and Fort Collins, Colorado to gain important knowledge on their programs.
- Preparation will include input from the public, Paths and Trails Subcommittee, and Transportation Commission







Bicycle Friendly Community Update

Transportation Commission March 16, 2023

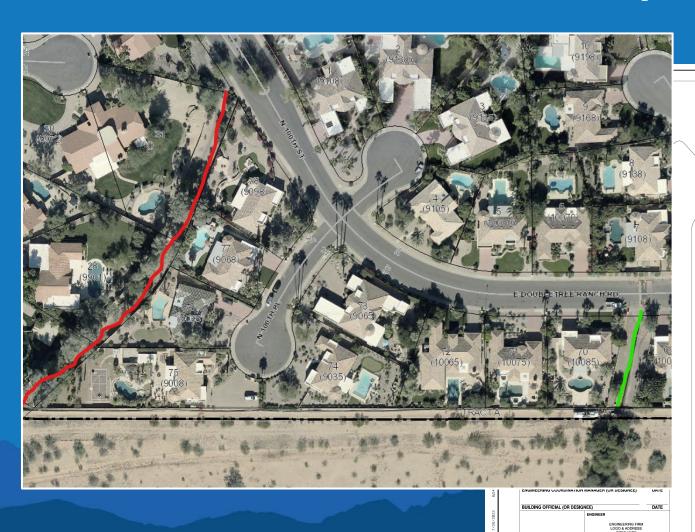


Projects and Programs Update

Transportation Commission March 16, 2023



Salt River Pima Maricopa Indian Community - Drainage



CITY OF SCOTTSDALE

PUBLIC IMPROVEMENTS

SCOTTSDALE & SRPMIC JOINT WASH FLOWLINE MAINTENANCE

SCOPE OF WORK STATEMENT

PROJECT BACKGROUND:

The City of Scottsdale (City) has performed a topographic survey of four wash locations along the City boundary with the Salt River Pima Maricopa Indian Community (Community). Three of the four washes surveyed show flowline slopes that were negative, and thus caused water to hack un.

PROJECT OBJECTIVES:

The objective of the project is to clean out vegetation from the washes and regrade them to have positive drainage.

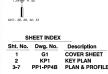
PROJECT SCOP

The City proposes to remove brush, small trees, and other vegetation that is within the limits of the existing west flowlines. Once the brush has been removed, grading will be performed to establish a positive flowline, and the limits of a new 6 foot wide fiel bottom ditch with 4th It side stopes. Once positive slopes from the property of the performed to expensive slopes once a stabilished, a transition will be graded to

PROJECT BOUNDARIES

The actual boundaries will be determined in the field during grading activities based or the conditions and grades at the time of work. Approximate limits of grading have been estimated based on the topographic survey, and are presented in the attached sketches.





Vicinity Map

N.T.S.

City of Scottsdale approved plans shall be kept on the job site at all times during the course of construction.

N INCOME ADDROVAL NO

SCOTTSDALE & SRPMIC JOINT WASH FLOWLINE MAINTENANCE

зит. С

Salt River Pima Maricopa Indian Community - Drainage





Scottsdale Ranch Improvements

Before After





Continuing Homeless Issue







Staff is exploring ways to help address this ongoing concern.



Street Operations – West World

Work beyond just street maintenance







Spring Training Trolley Route

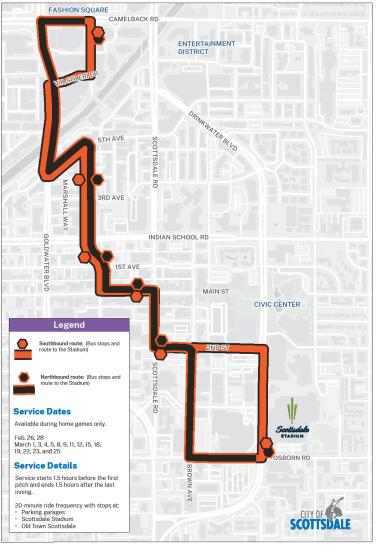






TROLLEY STOPS HERE | RIDE FREE

Spring Training Free Trolley Service Scottsdale Stadium & Old Town





Senior Expo





Upcoming Transportation & Streets Events Bike Month

Ride to Read

Saturday, April 1 9:30 – 11:00 a.m. Family-friendly 1-mile bike ride from Mountain View Park to Mustang Library

Cycle the Arts

Sunday, April 16 8:30 a.m. - Noon 4 and 13-mile bike tours of the city's public art collection - rides start at Scottsdale Center for the Arts

Bike to Work Thursday, April 27

6:30 – 9:00 a.m. *Various locations*





Upcoming Transportation & Streets Events

Scottsdale Earth Day Celebration
Saturday, April 22 | North Corporation Yard











Thank you. Questions?







TENTATIVE FUTURE AGENDA ITEMS

Rev.03-02-23
All Items Subject to Change

TRANSPORTATION COMMISSION

MEETING DATE: April 20, 2023	REPORTS/PRESENTATIONS DUE April 13
Approval of Meeting Minutes	Action
Approval of Regular meeting minutes March 16, 2023	
Paratransit Update Update Paratransit including Cab Connection, Ride-Valley Metro and Joan Freeman, Transportation Rep.	Choice, and Dial-a-Ride programs – Tom Young, resentative
Transit System Update Update on the primary items associated with the trans Manager	sit system post-Covid era – Ratna Korepella, Transit
Bus Stop Lighting Discuss future plans to light bus stop shelters – Brenderical B	
MEETING DATE: May 18, 2023	REPORTS/PRESENTATIONS DUE May 11
Approval of Meeting Minutes	Action
Approval of Regular meeting minutes April 20, 2023	
• Federal Highway Administration's Safety Countern Update on the FHWA's new safety countermeasures f Transportation Planning Manager	
 Bus Stop Signage	es – Ratna Korepella, Transit Manager ffortsPresentation and Discussion and restriping along with the Transportation Action
CIP Update Update on capital improvement projects – Nathan Do	
MEETING DATE: June 15, 2023	REPORTS/PRESENTATIONS DUE June 8
Approval of Meeting Minutes	Action
Approval of Regular meeting minutes May 18, 2023	
• Transportation Commission Summer Schedule Decision on the 2023 Summer Meeting schedule for the	
• Construction Mitigation Plan. Follow up on the initial presentation from staff – Wal.	Presentation and Discussion
Roundabout Education Discuss benefits of Roundabouts and how success is e Manager	valuated – Phil Kercher, Traffic Engineer & Ops
Bicycle and Pedestrian Count Data	
Follow up from initial presentation from staff at the tw Planning Manager	vo-year mark – Nathan Domme, Transportation

MEETING DATE: July 20, 2023

REPORTS/PRESENTATIONS DUE July 13

• TBD...

• Approval of Meeting Minutes	Action
Approval of Regular meeting minutes June 1.	5, 2023
• Arterial Life Cycle Program Fiscal Year 20	23-2024 UpdateInformation
	2024 – Greg Davies, Senior Transportation Planner
	Information
Update on underpass – Susan Conklu, Senior	r Transportation Planner
Follow up from initial presentation from staff	
	Presentation and Discussion
	nall cell wireless facilities on signals poles in North Scottsdal
MEETING DATE: September 21, 2023	REPORTS/PRESENTATIONS DUE September 14
	Action
• Pavement Cut Ordinance	Presentation and Discussion developers, utilities, and city projects on restoring asphalt
UTURE ITEMS:	
INFOR	RMATION ITEMS
• Review of Travel Demand Patterns	Information
Traffic Engineer	effects roadway improvements – Kiran Guntupalli, Principal
	Information
Information on the results from Cool Paving	
<u> </u>	ed driving has on Transportation and Street Operations ation & Streets Director
	Information
	edestrian and automobiles in the city of Scottsdale – Kiran
TRANSPORTATION &	STREETS DEPARTMENT ACTIVITIES
Smart City Discussion on the City's participation in Smart vehicle detection – Hong Huo, Traffic Engi	Presentation and Discussion art City applications as well as ITS strategic plan and ITS ineer Principal
Smart City Discussion on the City's participation in Smart vehicle detection – Hong Huo, Traffic Engi	Presentation and Discussion art City applications as well as ITS strategic plan and ITS
 Smart City Discussion on the City's participation in Smart vehicle detection – Hong Huo, Traffic Engi Expanding Maintenance Needs Maintenance of current infrastructure – Martinese Needs 	Presentation and Discussion art City applications as well as ITS strategic plan and ITS ineer Principal Presentation and Discussion k Melnychenko, Transportation & Streets Director
 Smart City Discussion on the City's participation in Smart vehicle detection – Hong Huo, Traffic Engine Expanding Maintenance Needs Maintenance of current infrastructure – Martenance Volume and Collision Manual. 	Presentation and Discussion art City applications as well as ITS strategic plan and ITS ineer Principal Presentation and Discussion k Melnychenko, Transportation & Streets Director Presentation and Discussion
 Smart City Discussion on the City's participation in Smart vehicle detection – Hong Huo, Traffic Engi Expanding Maintenance Needs	Presentation and Discussion art City applications as well as ITS strategic plan and ITS ineer Principal Presentation and Discuss k Melnychenko, Transportation & Streets Director Presentation and Discussio ablished 2020 Traffic Volume and Collision Manual – Kiran

• No Engine Braking Ordinance Update......Presentation and Discussion

- Discuss the recently approved no engine braking ordinance and its application -Phil Kercher, Traffic Engineering and Ops Manager and Walt Brodzinski, Right-of-Way Manager

PATHS & TRAILS SUBCOMMITTEE

MEETING DATE: April 4, 2023

REPORTS/PRESENTATIONS DUE March 28

MEETING DATE: June 6, 2023

REPORTS/PRESENTATIONS DUE May 30

- Bicycle Friendly Communities Application Process Update...............Presentation and Discussion Information on the Bicycle Friendly Communities Application Susan Conklu, Senior Transportation Planner

FUTURE ITEMS:

INFORMATION ITEMS

TRANSPORTATION & STREETS DEPARTMENT ACTIVITIES

- Wayfinding Signage Information
 Update on the wayfinding signage Susan Conklu, Senior Transportation Planner

From: WebServices

Sent: Sunday, March 5, 2023 10:46 PM

To: Conklu, Susan; Lofgren, Kyle; Melnychenko, Mark **Subject:** Transportation Commission Public Comment

Importance: High

Name: Renee Rule

Address: 9906 E Ironwood Dr, Scottsdale, AZ 85258

Email: rrule4@gmail.com

Phone:

Comment:

Dear Transportation Commission Members: I am writing as a native and lifelong Scottsdale resident to express my support for the ideas behind the city's Transportation Action Plan 2022. I was not aware of the plan until just a few moments ago, having come from a rather frightening comment section on a Nextdoor post someone made about the street reclassification plans (e.g., road narrowing/lane reducing). What I mean by frightening is that the comments were unhinged, fully or partially not based in reality, conspiratorial, and fear-mongering with ideas such as "they're going to take our cars away!" and "public transit means more criminals." Seeing these sorts of sentiments is really discouraging and disappointing. I don't want to live in a place where ideas such as those I mentioned above set precedent and policy. I want to live in a place where evidence- and experience-based research and expert recommendations guide us forward, as a general concept. More specifically, with regard to transit, I was thrilled to see the ideal of "from prioritizing cars to Prioritizing People" on the TAP webpage. This is exactly what I am, and many other people my age (young) are, looking for in a city. Honestly, I didn't expect as bold of a principle from this city, even though I would have loved to have expected it—and I am happy to have been proven wrong. I very much look forward to seeing the TAP 2022 continue to be implemented. And with that implementation, I hope to see the health, safety, and quality of life improvements that those of us who share values like mine and, apparently, the Transportation Department hold know to expect from these changes. I sincerely hope that the Transportation Commission and the city's Transportation Department will stay true to the TAP which has so pleasantly surprised me and exceeded what I would have realistically expected from this city. I will close with a brief quote from the great urban planner Jan Gehl: "My work is not anti-car but pro-people." Thank you for your time. Renee Rule

From: WebServices

Sent: Wednesday, March 15, 2023 4:10 PM

To: Conklu, Susan; Lofgren, Kyle; Melnychenko, Mark **Subject:** Transportation Commission Public Comment

Importance: High

Name: Joseph Boncher

Address: 11316 E. Appaloosa Place Scottsdale, AZ 85259

Email: jboncher@boncherwales.net

Phone: (847) 833-7512

Comment:

End the "Road Diet" plans. We need MORE auto driving lanes, not less, especially with the proposed apartments which will only clog the streets further.

From: WebServices

Sent: Wednesday, March 15, 2023 4:25 PM

To: Conklu, Susan; Lofgren, Kyle; Melnychenko, Mark **Subject:** Transportation Commission Public Comment

Importance: High

Name: Mary Boncher

Address: 11316 E. Appaloosa Place Scottsdale, AZ 85259

Email: marybbw@gmail.com Phone: (312) 804-0663

Comment:

TO THE CITY COUNCIL: End the "Road Diets". Scottsdale had been known previously for having a wonderful roadway system.....multiple lanes to move the traffic effectively. With the addition of 10,000 more apartments to be built (which in itself is a travesty for the image of Scottsdale), we need more traffic lanes, not less. It's called "common sense". Unfortunately, that virtue seems to be running short for the past few years. Quit destroying a beautiful city to accommodate personal agendas (kickbacks?) of certain City Council members.

From: Schwandt, Melanie on behalf of Code Enforcement Mail

Sent: Thursday, March 16, 2023 11:36 AM **To:** Transportation And Streets Administration

Subject: FW: Street narrowing.

From: Janik, Betty <BJanik@Scottsdaleaz.gov> Sent: Thursday, March 16, 2023 11:23 AM

To: Code Enforcement Mail < CodeEnforcement@scottsdaleaz.gov>

Subject: Fw: Street narrowing.

See below. Can you help Joe Zimmerman with this situation?

CW Betty Janik

From: Joe Zimmerman < joezimmerman52@gmail.com>

Sent: Thursday, March 16, 2023 10:57 AM **To:** City Council < CityCouncil@scottsdaleaz.gov >

Subject: Re: Street narrowing.

↑ External Email: Please use caution if opening links or attachments!

Councilman Graham, thank you for your response and understanding this situation.

Councilwoman Caputi, thank you for responding concerning short term rentals. We understand that the city's hands are tied - to a point. However, we have a STR directly across the street from us that continually goes against the occupancy ordinance set by the city. If this ordinance was better regulated, the resulting problems with bachelor parties, drunk people, noise, and the use of the property for business use with over 60 people at the property (which we just recently complained about and were told that there was no violation?????), would all disappear. It's very discouraging when ordinances are put in place (looks good on paper), but nothing is done to enforce the ordinance.

Thank you for listening to my concerns. I am hoping that the occupancy ordinance will be enforced by the code department and we can get our neighborhoods back to being neighborhoods.

Joe Zimmerman

On Tue, Mar 14, 2023 at 12:27 PM Joe Zimmerman < joezimmerman52@gmail.com > wrote:

Please, let's stop wasting time and money on reconfiguring perfectly functional streets. With all the new apartments scheduled to be built, as well as the many other needs the city faces, narrowing a road that will eventually need to be widened again to accommodate future traffic needs is not helping traffic nor the budget. People who wish to ride bicycles are riding them now. People who wish to ride the trolley are riding the trolley now, Spending time and money on changing streets will not increase the use of either of these activities. Please take into consideration that during rush hour no one who is driving will be happy with less car lanes.

Please, let's move on to bigger problems within the city such as the disastrous short-term rental issue. Our neighborhoods are disappearing due to the number of short-term rentals that have been allowed to exist. The oversight of the city's code enforcement related to short-term rentals is minimal at best.

Thank you for taking these ideas into consideration.

Joe Zimmerman 8651 E. Gary Road Scottsdale, AZ 85260 480 616-7207