Driving Public Transit Forward Through Youth Input

A Fall 2019
Collaborative Project with
Arizona State University's
Project Cities & the
City of Peoria

Sustainable Cities Network
Arizona State University

Project Cities

This report represents original work prepared for the City of Peoria by students participating in courses aligned with Arizona State University's Project Cities program. Findings, information, and recommendations are those of students and are not necessarily of Arizona State University. Student reports are not peer reviewed for statistical or computational accuracy, or comprehensively fact-checked, in the same fashion as academic journal articles. Project partners should use care when using student reports as justification for future actions. Text and images contained in this report may not be used without permission from Project Cities.

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ACKNOWLEDGMENTS

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On behalf of the Julie Ann Wrigley Global Futures Laboratory, the Global Institute of Sustainability and Innovation, and the School of Sustainability, we extend a heartfelt thank you to the City of Peoria for enthusiastically engaging with students and faculty throughout the semester. These projects provide valuable real-world experience for our students and we hope that their perspectives shine light on opportunities to continuously improve Peoria's future livelihood and community well-being.

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To access the original student reports, additional materials, and resources, visit:
links.asu.edu/PCPeoriaTransit19F

ABOUT PROJECT CITIES

The ASU Project Cities program uses an innovative, new approach to traditional university-community partnerships. Through a curated relationship over the course of an academic year, selected Community Partners work with Project Cities faculty and students to co-create strategies for better environmental, economic, and social balance in the places we call home. Students from multiple disciplines research difficult challenges chosen by the city and propose innovative sustainable solutions in consultation with city staff. This is a win-win partnership, which also allows students to reinforce classroom learning and practice professional skills in a real-world client-based project. Project Cities is a member of Educational Partnerships for Innovation in Communities Network (EPIC-N), a growing coalition of more than 35 educational institutions partnering with local government agencies across the United States and around the world.

ABOUT SUSTAINABLE CITIES NETWORK

Project Cities is a program of ASU's Sustainable Cities Network. This network was founded in 2008 to support communities in sharing knowledge and coordinating efforts to understand and solve sustainability problems. It is designed to foster partnerships, identify best practices, provide training and information, and connect ASU's research to front-line challenges facing local communities. Network members come from Arizona cities, towns, counties, and Native American communities, and cover a broad range of professional disciplines. Together, these members work to create a more sustainable region and state. In 2012, the network was awarded the Pacific Southwest Region's 2012 Green Government Award by the U.S. EPA for its efforts. For more information, visit *sustainablecities.asu.edu.*

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ASU Sustainable Cities Network
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Project Cities

Sustainability Through Local Action

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ABOUT PEORIA

Ranked as the No. 1 place to live in Arizona by Money Magazine and the only Arizona city named as one of the best cities in the U.S. by Yahoo! Finance, the city of Peoria is currently home to more than 171,000 residents. The city enjoys a reputation as a family-oriented, active community with an exceptional quality of life. Peoria entertainment and recreational amenities include popular attractions such as Lake Pleasant, a large network of trails and open space, community parks, recreation centers, community theater, libraries, pools, and the spring training home for the San Diego Padres and the Seattle Mariners.

The city has demonstrated a strong commitment to sustainability, as evidenced by its directive to incorporate LEED building design standards, a council-adopted Sustainability Action Plan, and a dedicated full-time staff person to manage and coordinate organization-wide sustainability initiatives.

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Peoria is the place
World class ▪ Sustainable ▪ Future Ready

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June 4, 2020

Dear Peoria community members,

It is with tremendous gratitude and excitement that we bring to your attention the results of the first year of our partnership with ASU's Project Cities program. This collaboration provided the opportunity to move beyond traditional resources, and explore all that is possible by working alongside faculty and students across several academic programs.

Project Cities is one of several partnerships we enjoy with ASU, and part of our ongoing strategy to learn from innovative community leaders as we address the complex challenges and opportunities we face as a fast-growing community. With a modest investment in this program, we received extensive research, creative recommendations, diverse perspectives, and innovative deliverables that take several key initiatives to the next level for us.

These include our efforts around water conservation, transit, placemaking, smart cities, and the possibilities around our Skunk Creek corridor near the P83 Entertainment District. Many of these efforts entailed public participation, and you may have participated by speaking to students at one of several Peoria events they attended, or by sharing your personal insight through a survey. By engaging students and faculty on these subjects, we have advanced our understanding and positions on each topic much more quickly than we could have without their assistance.

The project results provided us with invaluable insights into many of our most important opportunities and we are proud to see the students' deliverables advancing. We hold our partnership with ASU and Project Cities in high esteem and look forward to continuing this work on additional projects in the coming year.

Sincerely,

Cathy Carlat, Mayor

Jeff Tyne, City Manager

Peoria, Arizona

Proud partner of

ASU Sustainable Cities Network

Arizona State University

Project Cities

Rio Vista Recreation Center

Demographics

total population: **172,259**

median age: **39.5**

highly skilled and educated workforce of 85,252

11,997 veterans live in Peoria

73% of residents are homeowners

median property value: **$230,400**

31% of residents hold a Bachelor's degree or higher

median household income: **$73,039**

Schools

#3 of 131 Best School Districts for Athletes in Arizona

#5 of 40 Best School Districts in Phoenix Metro Area

#7 of 130 Best School Districts in Arizona

The Peoria Unified School District is one of the largest employers in the West Valley. The district consistently receives high ratings and offers signature programs such as the Career and Technical Education programs.

Peoria is also home to Huntington University, a liberal arts college offering digital media education in animation, broadcasting, film, graphic design and other digital media arts.

Leading industries

Peoria, Arizona is not just a scenic suburb of Phoenix, but also a thriving economic development hub with an educated workforce and high-end residential living. There are 22,470 employers and more than 75,000 people employed within Peoria. Leading industries include health care and social assistance, retail trade, and finance and insurance. Highest-paying industries include utilities, manufacturing and public administration. Beyond these industries, Peoria works actively to attract businesses from aerospace and defense, film and digital media, technology and innovation, hospitality and tourism, and research and development. Peoria is the place for business owners, developers and investors.

Health Care & Social Work

10,905 employees

Retail Trade

10,628 employees

Finance & Insurance

6,574 employees

History

Founded in 1886 by Midwestern settlers, Peoria is nestled in the Salt River Valley and extends North into the foothills around Lake Pleasant. Beginning as a small agricultural town, the economy received a major boost when a railroad spur line was built along Grand Avenue. The construction of the Roosevelt Dam in 1910 secured a reliable water supply, attracting more settlers to the area and business endeavors to the town center. Peoria's economy continued to have an agricultural focus for decades. Continually growing, Peoria assumed city status in 1971 with a population of 4,792. It has since grown into a city with a population over 172,000, and is renowned for its high quality of life and recreational amenities.

Sustainability

Peoria has demonstrated leadership in municipal sustainability efforts through a wide range of actions. Listed below are some of the City's sustainability accomplishments.

- Incorporation of LEED building design standards
- Appointment of a full-time city staff member who manages and coordinates sustainability initiatives
- Sustainable urban planning practices including open space planning and water management principles
- Sustain and Gain: Facebook page and brochures keep residents up to date on city sustainability efforts and ways to get involved
- Water Conservation Program: free public classes, public outreach at city events, and water rebate incentives for residents
- Council-adopted Sustainability Action Plan: this strategic planning document, in its second iteration, ensures city departments are developing sustainability-oriented goals, tracking success metrics, and encouraging cross-communication in the preparation of Sustainability Update presentations made to the Peoria City Council on an annual basis
- Sustainable University: courses and workshops to empower residents to make small changes that make Peoria a better place to live. Topics covered include residential solar, gardening, composting and recycling

Awards and recognition

- Received three Crescordia awards by Arizona Forward at the annual Environmental Excellence Awards in 2016
- 12th City for Green Space in the U.S. in 2019 *(Wallethub)*
- Top 15 Safest Cities in the U.S. 2017-2019 *(Wallethub)*
- 6th Wealthiest ZIP Code in 2020 *(Phoenix Business Journal)*
- Top 50 Hottest Hoods in 2018 *(Phoenix Business Journal)*
- 10th Best City to Raise a Family in 2018 *(Wallethub)*
- Top 100 Golf Course in U.S. 2017-2019 *(Golf Digest)*

Lake Pleasant

1886 — **2020**

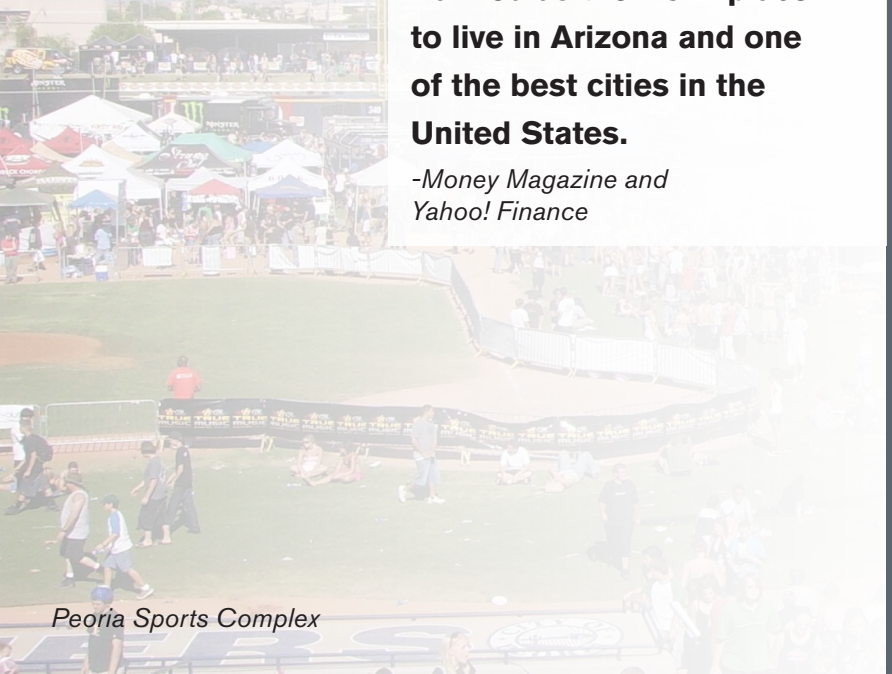
- **1889** — Peoria founded by William J. Murphy
- **1889** — First school district formed
- **1919** — Chamber of Commerce organized
- **1954** — Assumed city status with a population of 4,792
- **1954** — Peoria incorporated
- **1971** — Centennial celebration
- **1977** — Brewers spring training begins at Greenway Sports Complex
- **1986** — Theater for the Performing Arts and Rio Vista Recreation Center opened
- **1994** — Peoria Sports Complex opened
- **2007** — 20-year extension spring training agreement with San Diego Padres and Seattle Mariners
- **2012** — Selected as site of new $70M health clinic for Maricopa County Integrated Health System
- **2017**

Livability

Peoria is renowned as a great place to raise a family and start a career. A plethora of local amenities and attractions contribute to Peoria's livability. Beyond the tourist attractions of Spring Training and Lake Pleasant, the City offers many community facilities and recreational opportunities for all ages and interests such as an extensive public park system and annual community events. Peoria's dedication toward livability is also evident in the City's latest General Plan which addresses sustainable water use, housing, public services and more.

Ranked as the No. 1 place to live in Arizona and one of the best cities in the United States.

-Money Magazine and Yahoo! Finance



Peoria Sports Complex

Peoria strives to uphold these six major livability priorities in order to maintain an exceptional quality of life for its citizens.

- Arts, Cultural and Recreational Enrichment
- Economic Prosperity
- Smart Growth
- Superior Public Services
- Healthy Neighborhoods
- Integrated Transportation

Community facilities

- Peoria Community Center
- Rio Vista Recreation Center
- Peoria Sports Complex
- Peoria Center for the Performing Arts
- 36 neighborhood parks
- 2 libraries
- 3 swimming pools
- 6 golf courses
- 9 lighted multi-purpose ball fields
- 15 tennis courts

Lake Pleasant

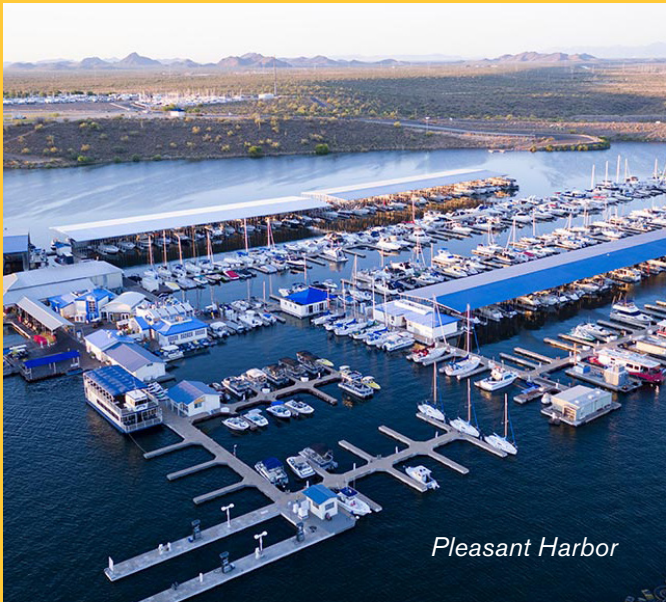
Urban ecology, ecotourism and recreation

Peoria is surrounded by the natural beauty of the Sonoran Desert and is home to Lake Pleasant, a 23,000-acre park and major recreational asset to the North Valley. The transient Agua Fria River and New River flow through Peoria, as do a multitude of washes and creeks. Most notable perhaps is Skunk Creek — known for the recreational trails running alongside it — which forges a connection between Peoria and Glendale. Northern Peoria is home to beautiful mountains and buttes including Sunrise Mountain, Calderwood Butte and Cholla Mountain.

Boasting over 300 days of sunshine annually, Peoria's ecotourism opportunities are a steady industry for residents and visitors. The City features over 60 miles of trails for walking, biking and horseback riding, as well as 570 total acres of accessible park land.

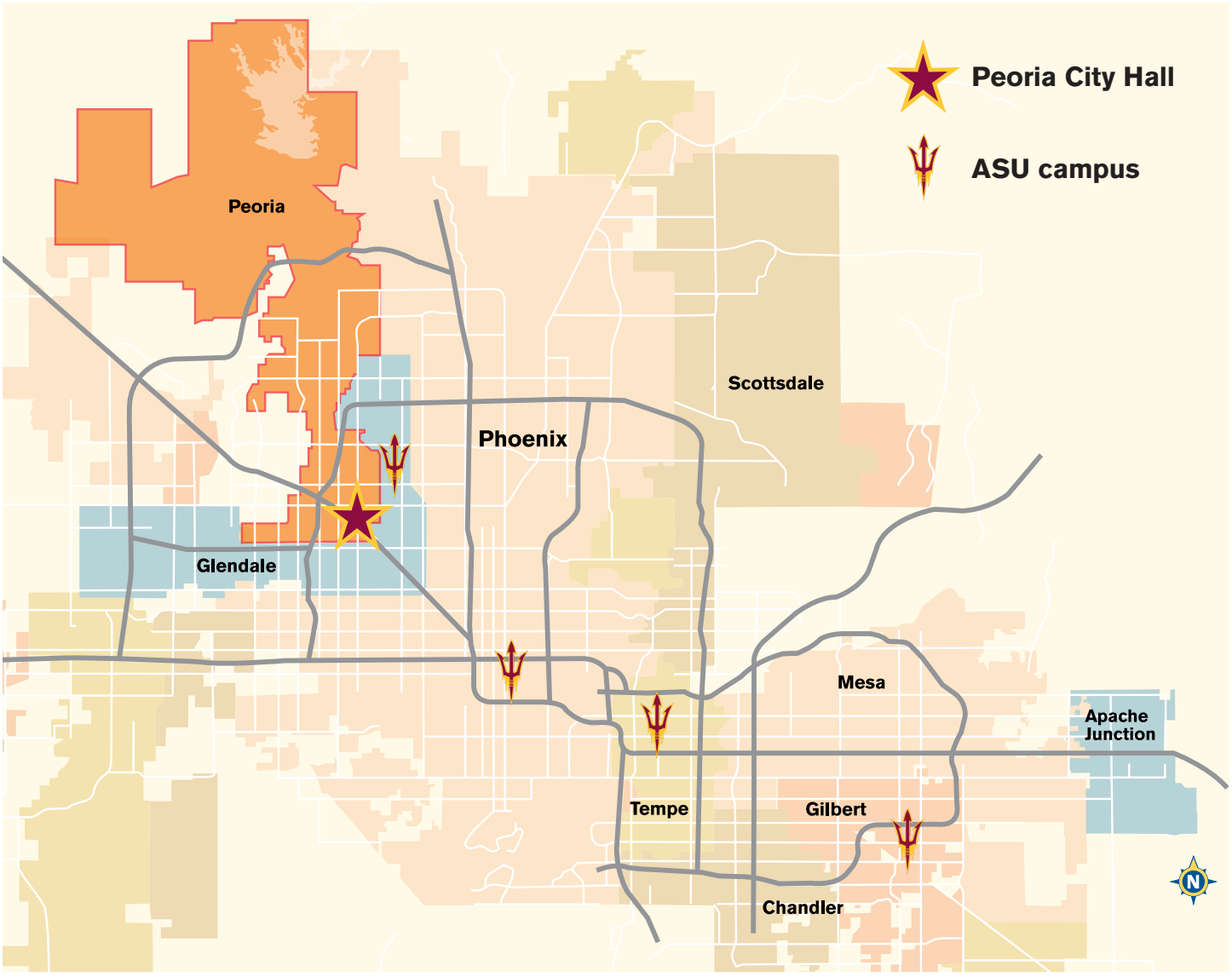
Lake Pleasant Regional Park contains a full-service marina, providing opportunities for water-oriented recreation such as kayaking, water skiing and even scuba diving. Visitors can also go horseback riding, take gliding lessons, hike, camp and more.

Skunk Creek



Pleasant Harbor

MAP OF PEORIA & GREATER PHOENIX, ARIZONA



The following report summarizes and draws highlights from work and research conducted by students in CPP 201 NGSC Community Impact Lab, for the Fall 2019 partnership between ASU's Project Cities and the City of Peoria.

To access the original student reports, additional materials, and resources, visit:

links.asu.edu/PCPeoriaTransit19F

ASU Sustainable Cities Network
Arizona State University

Project Cities

Sustainability through local action

EXECUTIVE SUMMARY

Choosing viable transportation options for everyday activities is a big step in decreasing an individual's carbon footprint and leading a more sustainable lifestyle. Every day, people opt to use public transit, ride a bicycle, or carpool to decrease their carbon footprint. In many cases, though, an individual's ability to practice sustainable transportation can only be as successful as the public transit infrastructure within their city. Just as it can be less appealing to commute by bicycle without designated bike lanes, it is inherently more difficult to successfully utilize a public transit system that does not align with the wants and needs of its users.

Student researchers in CPP 201: Next Generation Service Corps (NGSC) Community Impact Lab, a course focused on service learning opportunities and human-centered design, were faced with the challenge of increasing ridership of the Peoria on the Go (POGO) public circulator, specifically youth ridership ages 12-18 (King et al., p.2). Students identified two root causes of low youth ridership during their research: general perception of public transportation, and a lack of services dedicated to the needs of youth riders (King et al., p.2). To address these targeted issues, student researchers developed strategies to understand further the community perception of public transportation. Youth community members were surveyed and interviewed, and their responses were used to establish directly beneficial suggestions for improving the POGO system. Recommendations detailed in this report will address community perceptions of transportation, strategic route and schedule adjustment, a variety of marketing and educational opportunities, and mobile application improvement.

Making public transportation more accessible and attractive to youth residents in Peoria can be a critical stride in establishing a culture of sustainability throughout the city. Through key improvements to the POGO system and a regular, systematic gathering of feedback, POGO has the potential to become a well-used community amenity that serves the residents and tourists alike while contributing to sustainable transportation practices.

GOALS & RECOMMENDATIONS

The purpose of this project was to identify viable methods to increase youth ridership of the Peoria on the Go (POGO) transit circulator. The student research outlined in this report is intended to identify best practices for the City of Peoria to implement to better serve the community through public transportation.

Figure 1 *Peoria On The Go circulator, from the City of Peoria*

Figure 2 *Students presenting their final project at the Fall 2019 End-of-Semester Student Showcase*

RECOMMENDATIONS FOR TAILORING TRANSIT CIRCULATOR PRACTICES TO YOUTH RIDERS

Recommendations for scheduling and route adjustments
Conduct a marketing campaign on social media to increase awareness of the revised route and schedule (King et al., p.7).
Host a promotional "Opening Day" event in the Spring to raise awareness of the changes to POGO (King et al., p.7).
Establish a "Summer with POGO" social media campaign that shares stories from current riders with city's mascot, Prickly Pete (King et al., p.8).
Update the POGO mobile application to be more attractive and user-friendly (King et al., p.9).
Establish an educational system focused on livability and sustainability targeted toward community members can help promote POGO by educating residents on the impact public transportation can have in their city (King et al., p.11).
Address misconceptions around public transit by providing a sense of security around POGO through mobile application features and public education (King et al., p.11).
Increase the public relations presence of POGO and relaunch POGO public outreach to educate the public on safety, opportunities, and sustainable functions of the circulator (King et al., p.11).
Make it a primary effort to understand the community and their specific needs in order to keep POGO relevant, sustainable, and useful (King et al., p.11).

RECOMMENDATIONS FOR TAILORING TRANSIT CIRCULATOR PRACTICES TO YOUTH RIDERS

Recommendations for marketing and public outreach
Implement an additional circulation route to specifically meet youth needs by reaching key destinations and running at intervals useful to the target group (King et al., p.5).
Establish bus stops at strategic locations, including high schools (four are located on the route), Sunrise Mountain Library, P83, and Arrowhead Mall, where there are higher amounts of foot traffic (King et al., p.5).
Revise the circulator running schedule to continue into the weekend as survey respondents expressed a need for extended transportation services (King et al., p.5).
Provide incentives, such as prize giveaways, to attract riders to participate in public input opportunities (King et al., p.7).
Conduct thorough planning and research to ensure the usability of the new route and schedule before the public release (King et al., p.7).

FACULTY
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CPP 201: NGSC COMMUNITY IMPACT LAB
ASU PUBLIC SERVICE ACADEMY
NEXT GENERATION LEADERSHIP CORPS

Best Practices for Sustainable Transit Circulators

Transit strategies for serving middle and high school students

ACKNOWLEDGMENTS

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INTRODUCTION

Peoria's population has been steadily rising, growing 11% from 2010 to 2018, and with more residents comes higher stress on a city's transportation system (King et al., p.11). Providing communities with reliable transit options can increase livability and encourage sustainable travel choices by residents and visitors (King et al., p.11). In order to be effective, these transit systems must be designed in an informed, strategic way that best serves the public's interests. 28.4% of Peoria's population is under the age of 18, and 93% of survey respondents in this group do not utilize Peoria's public circulator, Peoria on the Go (POGO) (King et al., Appendix A). Decreasing a city's reliance on personal vehicles is a responsible step toward creating a sustainable community environment.

Student researchers in CPP 201: NGSC Community Impact Lab partnered with the City of Peoria and Project Cities to address the challenge of increasing youth ridership of the POGO public transit circulator. The NGSC Community Impact Lab aims to give students hands-on experiences that focus on human-centered design solutions. Students sought to understand the perceptions, needs, and barriers of current and potential POGO riders in the City of Peoria, as well as the parents of potential youth riders (King et al., p.3). Students conducted field research, collected survey data, analyzed their findings, and developed recommended strategies for the City of Peoria to renovate the POGO system with youth riders in mind.

By seeking ways to improve this public circulator, Peoria continues to show its concern for providing its citizens with sustainable, convenient transportation in order to uphold the City's high livability standards. For public transportation to thrive and stay relevant, it is a necessary step to collect, analyze, and address the needs of current and potential users (King et al., p.3).

RESEARCH METHODS

Student researchers engaged with Peoria residents through surveys, in-person interviews, and public outreach (King et al., p.3). Specific groups surveyed included the Peoria Youth Advisory Board Liberty High School students, parents of Liberty High School students, and current Peoria on the Go (POGO) riders (King et al., p.3). Survey questions were developed from broader research questions, specifically with the goal of understanding respondents' perceptions, needs, and barriers surrounding POGO (King et al., p.3). From the collected data, key themes and patterns were identified to target probable hesitancies of potential riders (King et al., p.3). For this research project, students used the Design Thinking model, an iterative learning method emphasizing the need to understand a problem before offering comprehensive, holistic solutions.

Throughout the process, students sought to understand POGO users and challenge assumptions about transit in order to redefine current problems to youth ridership. Through this non-linear process, students began with an end goal in mind reverse-engineered a path to innovative solutions. Figure 3 depicts the five phases involved in this process: Empathize, Define, Ideate, Prototype and Test. Before jumping into a sustainability challenge, the Design Thinking orientated researcher begins by empathizing with a problem, such as the barriers to public transit for youth riders in Peoria. Once they had defined the problem or need, students came up with ideas to improve service for youth riders such as modifying the transportation schedule or educating the community via events. Students then collected insight through surveying youth and community members, and they presented their findings and recommendations to city staff. The POGO program is in a state of flux as city leaders figure out how to best meet rider needs amid new and ongoing challenges.

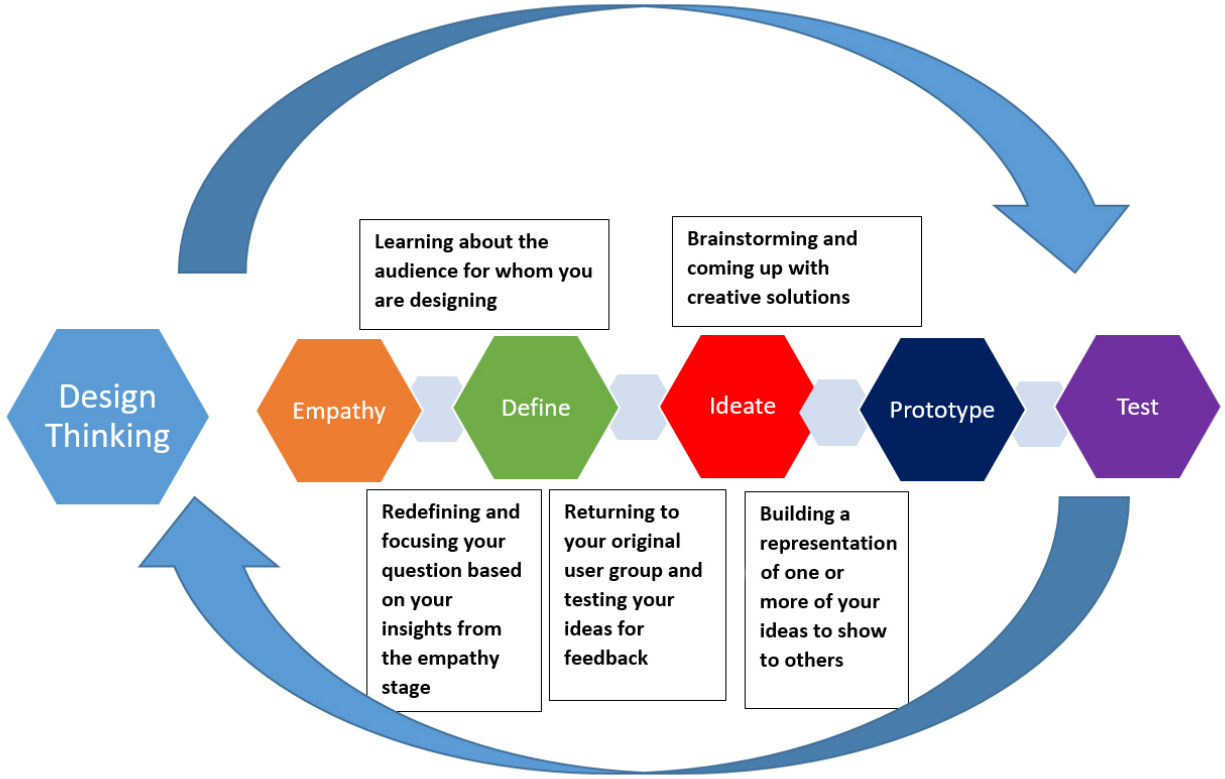

Figure 3 *Design thinking process students used to understand POGO ridership*

Explore and reflect

The student research team aimed to transform the perception of public transportation, through understanding young people's needs and barriers to accessing the service. By exploring these ideas through the youth perspective, students were able to identify what causes low ridership: affluence in the area, low demand for public transportation, high dependence on individual vehicles. By prototyping with the help of surveys, students intend to attract younger generations to utilize POGO in order to create sustainability infrastructure and improve the environment (King et al., p.4). The final prototype was based on reflecting local community values and current views of the public transit system (King et al., p.4).

Prototyping

A prototype is a preliminary model of something (in this case a transit system) that is then used to test a concept and then develop it further. In the students' first prototype, they drafted the framework for an additional route specifically for youth. This route would prioritize locations they attend often such as local schools, P83 and Arrowhead Mall (King et al., p.5). This prototype was structured according to the needs of youth in the area. For example, respondents who were students would like POGO to stop by their high schools, libraries near them, or be a walking distance away from their residence (King et al., p.5).

Limitations

Multiple factors limited the extent to which students were able to research and test their ideas. Time constraints narrowed the scope of the project. Additionally, feedback quality was extremely variable, making it sometimes difficult for students to decide what facets of their research project to focus on. The target age category of the focus group posed additional barriers to conducting research, making survey distribution and follow-up a challenge.

Editor's Note

Two methodological issues limit the generalizability of the data collected. First, students reported revising their questions mid-project; as a result, the respondents may not have all seen the same questions. Second, the sample size (n=#) is very small and cannot be generalized to the population.

FINDINGS AND ANALYSIS

"By understanding what is important to the local community, and their views of the current public transportation system, we can provide a solution that is successful in meeting their needs" - King et al., p.4

CAUSES OF LOW RIDERSHIP

Personal vehicle dependence is cited as one of the major reasons community members are not utilizing Peoria on the Go (POGO). 65.4% of survey respondents use a personal vehicle as their primary form of transportation (King et al., p.4). According to the City of Peoria's census, residents' median income is $69,589, with an 8.2% poverty rate (King et al., p.4). Due to the economic affluence of the region, the demand for public transportation may be lower compared to other cities or neighborhoods (King et al., p.4). The attitude associated with affluence indicates a lack of demand for public transportation from the current adult workforce generation (King et al., p.4). By focusing instead on attracting younger generations to utilize POGO, the City of Peoria can develop a sustainable future for public transportation and its subsequent environmental impacts by potentially inspiring long-term users of public transit (King et al., p.4). Additional barriers to utilizing POGO included bus stop locations and perceived safety concerns. 8 of 26 respondents cited the lack of a nearby bus stop as a significant barrier. Others indicated a fear of criminal activity or lack of safety as the main reason they do not ride POGO (King et al., p.4).

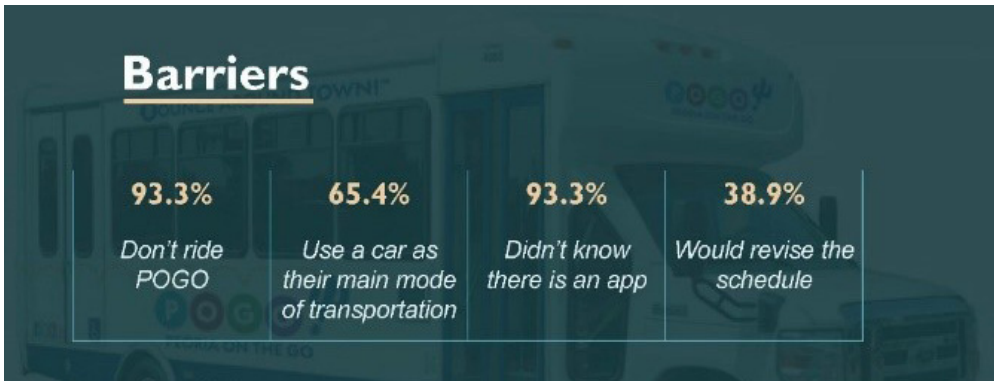

Figure 4 *Presentation slide depicting barriers to riding POGO from original student content*

Editor's Note
Perceptions of public safety were not addressed in this report but warrants further examination by the City in order to leverage the use of public transportation.

ROUTE AND SCHEDULE ADJUSTMENTS

For POGO to appeal to youth riders, **students recommend creating a circulator route that is exclusively tailored to youth** (King et al., p.5). The current layout features stops at grocery stores and restaurants, which could be less useful to youth riders than other businesses (King et al., p.5). Students designed a new route specifically for youth riders (Figure 6) based on survey and interview responses which helped identify prime bus stop locations. Some respondents mentioned that they would like the route to go by Sunrise Mountain Highschool and to have more access to libraries in the area (King et al., p.5). The new proposed route would serve youth residents by establishing bus stops at all local high schools, Sunrise Mountain Library, P83, and Arrowhead Mall (King et al., p.5).

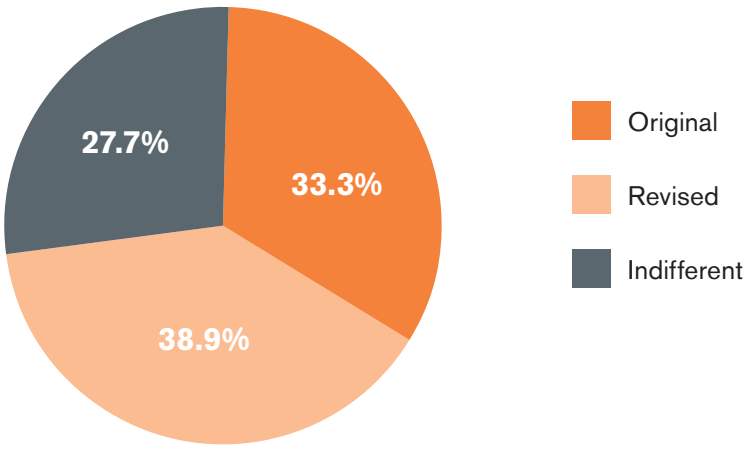

Figure 5 *Preferences on original vs. revised POGO schedule*

Survey findings also showed that many respondents (38.9%) would prefer a revised schedule of POGO running times, illustrated in Figure 5 (King et al., p.4). The operating schedule at the time of the surveys did not run weekdays past 6:00 p.m. and did not run at all on weekends (King et al., p.4). 69.2% of youth respondents indicated Arrowhead Mall as a destination if and when they used POGO (King et al., p.4). Considering the mall closes at 9:00 p.m., the previously mentioned operating schedule leaves a three-hour window of inaccessibility on weeknights, and all of Saturday for riders looking to reach Arrowhead Mall (King et al., p.5).

This information suggests schedule changes to POGO running times could also increase youth ridership by providing more relevant operating hours (King et al., p.5). Figure 6 also displays the proposed schedule for the youth-centered route, extending current POGO run-times to include weekend and evening hours.

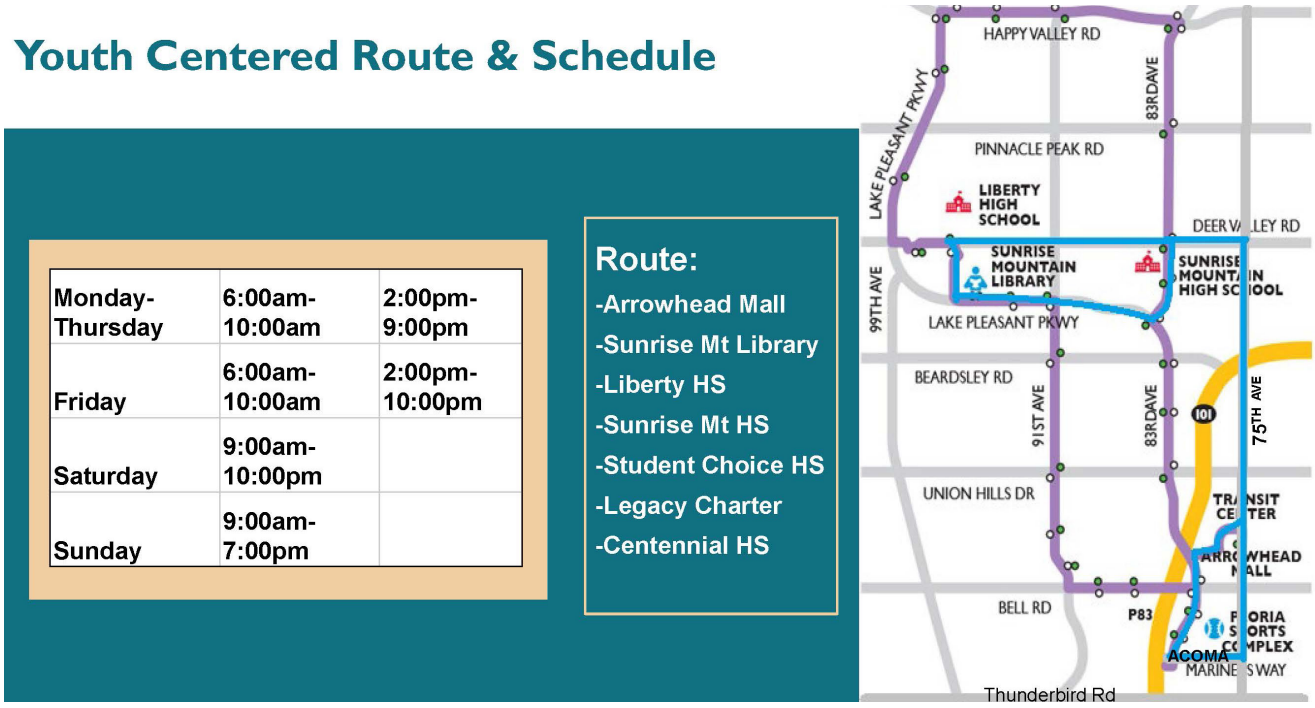

Figure 6 *Student proposal for new youth centered route and schedule from original student content*

Students recommend beta testing of the new route and schedule before the full public release of the new schedule and route (King et al., p.7). During and after beta testing, POGO riders and community members should be surveyed to collect timely feedback and make changes to the new route and schedule as necessary (King et al., p.7). In order to increase the number of participants, it may be beneficial to provide riders with an incentive. Suggestions include establishing a giveaway, potentially involving local businesses, for riders who complete a survey about their POGO experience, and follow POGO social media accounts (King et al., p.7). Students suggest providing a QR code linking to an online survey as the easiest and most effective method of gathering data during this beta testing period. Details on the timeline of beta testing can be found in the Implementation Timeline section on page 32.

Editor's Note

In regards to 'beta testing' riding a bus is quite different than testing software or doing a soft opening of a store. In order to understand if the proposed route works, you need a wholesale roll-out of the service. All people need to know when and where it runs before they will ride it, if ridership is being tested. If ride comfort, technology, or marketing material, are the variables being tested, researchers cancan b e more specific with a test or focus group. The transit industry does pilot routes for a year or less, but that has some drawback because if people don't believe the route is going to stay, they will never try it.

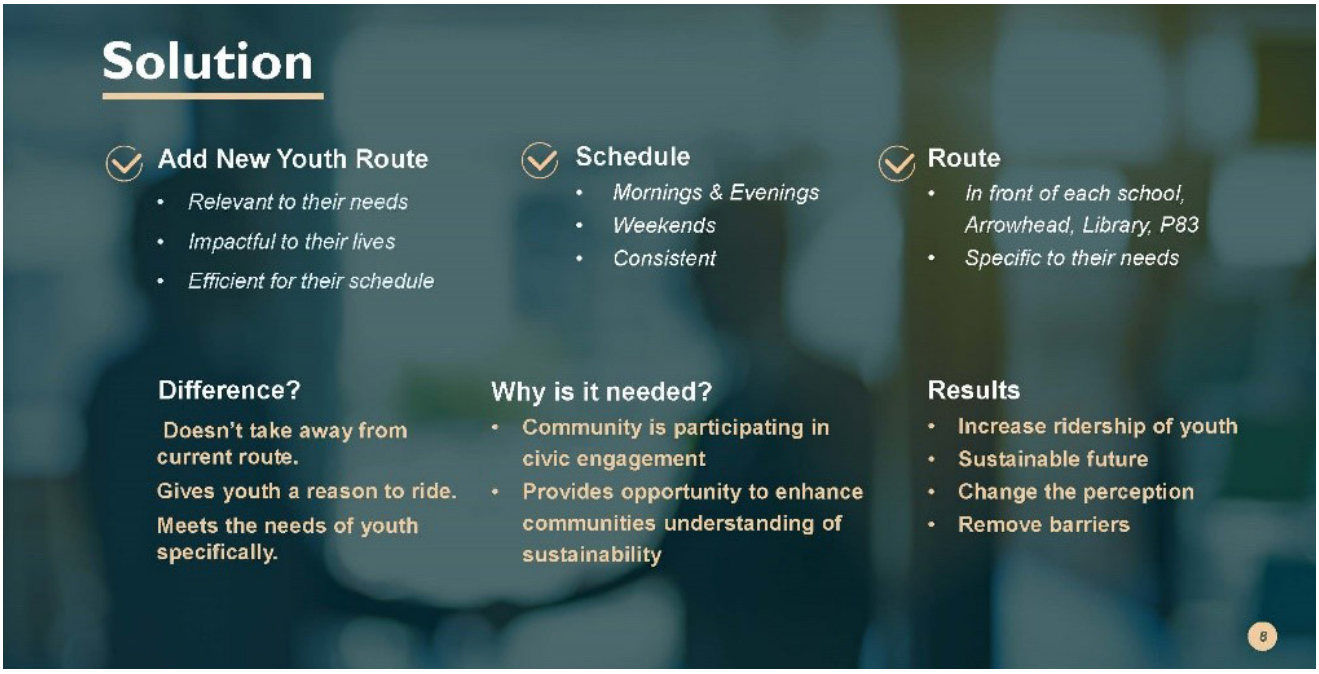

Figure 7 *Proposed POGO route and schedule solutions, from original student content*

Recommendations for route and schedule adjustments

- Consider creating a circulator route that is exclusively tailored to youth riders that features locations the demographic are more prone to visit such as the local high schools, restaurants, near libraries, and stores (King et al., p.5).
- Tailor the transit operating schedule to run on weekends and evening hours during the week to make it more possible to visit the Arrowhead Mall and other destinations (King et al., p.5).
- Decrease the running hours of the current, less relevant circulator route to provide time and budget for the new route aimed at youth riders (King et al., p.6).
- Conduct thorough planning and research to ensure the usability of the new route and schedule before the public release (King et al., p.7).
- Collect timely feedback from riders and community members and adjust changes as necessary (King et al., p.7).
- After one year, make further changes to the suggested route and schedule as necessary, and determine if maintaining the new “youth route” is feasible (King et al., p.7).

MARKETING AND PUBLIC OUTREACH

Establishing a marketing presence around POGO's new route and schedule could play a key role in its success by informing potential riders of changes that may affect their decision to utilize the circulator (King et al., p.7). Hosting a promotional "Opening Day" event could raise awareness of the changes in POGO's offerings, and could be coordinated to align with a time of year where students are on break from school (King et al., p.7). A fun campaign, like "Summer with POGO" could be used to incite interest by including stories from current riders with POGO's mascot Prickly Pete, making the campaign exciting and relatable (King et al., p.8). Providing informational table setups featuring Prickly Pete at various Peoria events may also increase marketing efforts and boost social media activity (King et al., p.8). It may be beneficial to hire a marketing professional dedicated specifically to POGO in order to execute these suggestions (King et al., p.8). Details on the suggested marketing campaign timeline can be found in the Implementation Timeline section on pages 32-33.

Editor's Note
Utilizing public transportation instead of personal vehicles for everyday travel can potentially contribute to reduction in greenhouse gas emissions, save riders money, and help build a strong community.

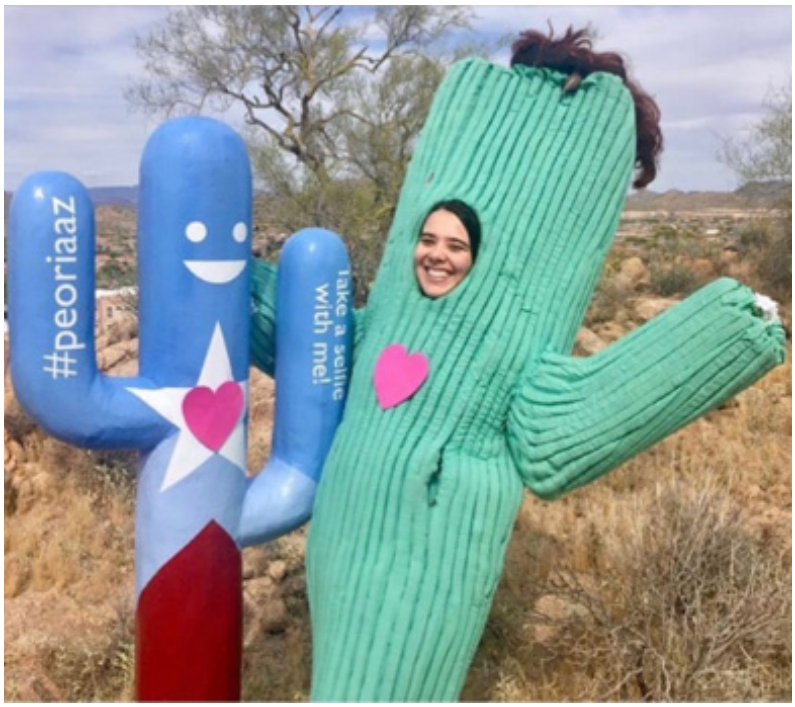

Figure 8 *Prickly Pete from the City of Peoria*

Educating the public on the sustainable impact public transportation can have on a city, could also be beneficial to increasing ridership (King et al., p.11). By establishing an educational system for community members focused on livability and sustainability, potential riders could better understand the consequences of their actions surrounding transportation (King et al., p.11). Some survey respondents cited safety concerns as their primary barrier to riding POGO (King et al., p.4). It is important to address misconceptions like this, and provide a sense of security around POGO, which could be done through public education events or safety features in the updated mobile application (King et al., p.11). Increasing public relations presence may also assist in the public education of POGO's safety, opportunities, and sustainable functions (King et al., p.11). **It should be an initial effort to understand the community and their specific needs in order to keep POGO relevant, sustainable, and useful** (King et al., p.11).

Editor's Note
Consequences of over-reliance on personal vehicles can include air pollution, traffic congestion, and driver safety.

Recommendations for marketing and public outreach

- Increase marketing awareness around POGO by hosting information tables with Prickly Pete at local events (King et al., p.8).
- Hold focus groups and additional educational events to collect additional feedback after the new POGO system has been running for at least six months (King et al., p.8).
- Hire a marketing professional for POGO to run social media, keep the website updated, man event tables, run the "Opening Day" event, and beyond (King et al., p.8).

POGO MOBILE APPLICATION

The POGO mobile application is currently somewhat unattractive and difficult to use (King et al., p.9). It would be highly beneficial for the City to rework this app to help POGO riders (King et al., p.9). The application must be destination centered and capable of determining a potential rider's physical location (King et al., p.9). Currently, geolocating abilities on the mobile application are difficult to use or cannot complete the actions (King et al., p.9). **The application should be updated to be capable of providing riders with ideal routes based on their current location and intended destination** (King et al., p.9). Mockups of the mobile application in Figure 9 illustrates suggested improvements.

Editor's Note

The current app plots where the user is on the map, which is an error and overall traditional way of how people used maps. Students recommend using geolocating abilities that Uber, Lyft, and Google Maps provide when using a smart phone. These systems start with "where do you want to go" and work backwards to provide a course a user takes to get to their destination.

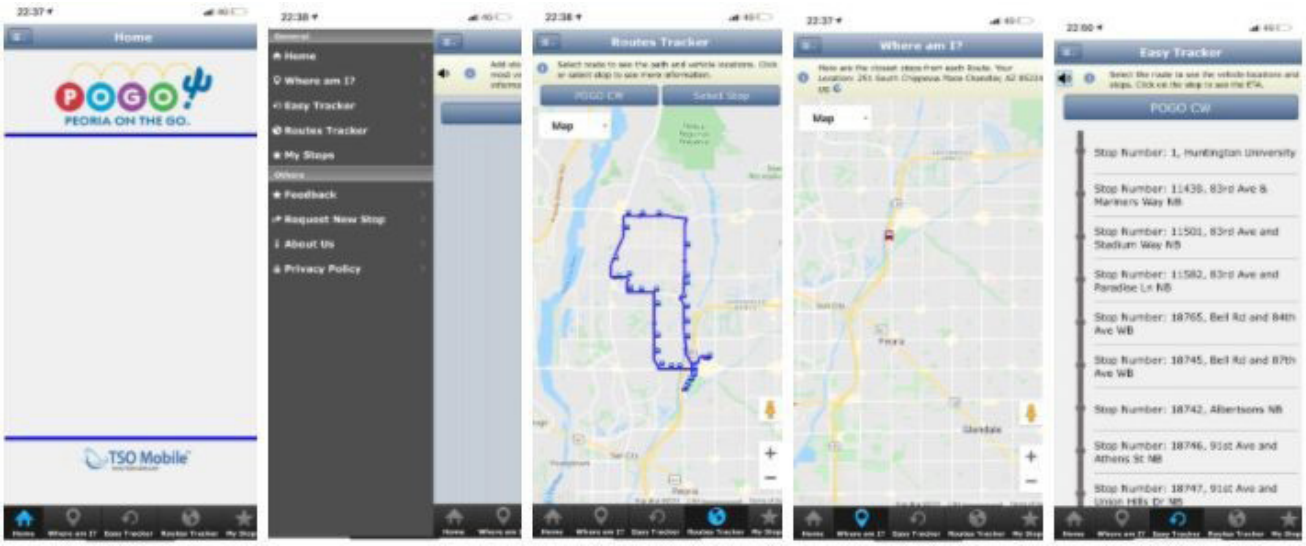

Figure 9A *Original POGO application*

Figure 9B *Student mockups of the reimagined POGO application*

Recommendations for POGO mobile application

- Redesign the POGO app to make it more attractive and user-friendly by updating the use of geolocation so that riders can choose ideal routes based on their current location (King et al., p.9).
- Tackle misconceptions around public transit by providing a sense of security around POGO through mobile application features and public education (King et al., p.11).

IMPLEMENTATION TIMELINE

This timeline was generated by students to describe the potential introduction of a new circulator route for youth riders. Peoria can use this as an outline if they choose to implement this recommendation.

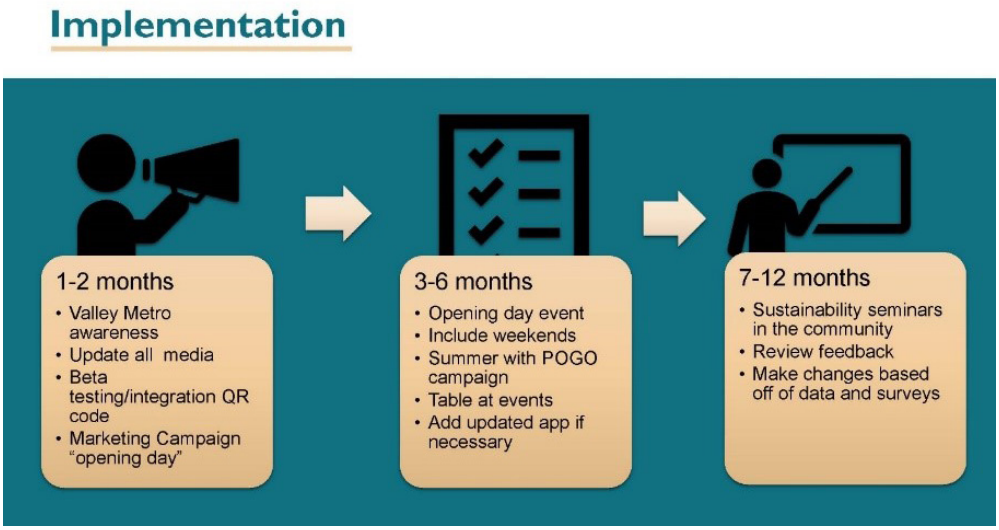

Figure 10 *Implementation timeline slide from original student presentation*

First 6 weeks: Phase out the old schedule

- In the first six weeks before beta testing occurs, the existing circulator schedule should be gradually phased out while simultaneously introducing the newly proposed, extended circulator schedule (King et al., p.7).
- During this time, Valley Metro and all current media about POGO should be updated within the first week (King et al., p.7).

Next 6 weeks: Marketing campaign

- Following the implementation of the new schedule, marketing and public outreach efforts should be running in full force to inform residents of the new route and changes to the current route, with the intent of increasing awareness and ridership (King et al., p.7).

Next 2-6 months: Beta testing (simultaneous with marketing campaign)

- Beta testing should start when marketing efforts begin, before the public release of the new POGO route and schedule (King et al., p.7). The end of this period would be an ideal time to have the POGO mobile application updated to incorporate any useful consumer feedback (King et al., p.8).

Next 7-12 months: Follow-up

- After some time has passed with the new POGO system implemented and marketing efforts underway, it is essential to continue gathering feedback through focus groups or educational events in order to continue making any necessary changes to the new system (King et al., p.8).
- At the end of the follow-up period, it is suggested to determine the feasibility of keeping the new youth focused route (King et al., p.8).
- Beta testing and surveying should provide ample information for city officials to determine next steps (King et al., p.8).

Figure 11 *Simplified implementation timeline graphic.*

Editor's Note

Under advice of city staff, beta testing would not prove useful for roll out of students' transit proposition. Yet, recommendation is still retained to represent student understanding of the issue. The City of Peoria should use standard methods to ensure the validity of recommendations.

COST ANALYSIS

A cost analysis was conducted to determine the budget feasibility of the recommended changes to the circulator. POGO's peak ridership times are from 10a.m. – 3p.m. From a student perspective, youth do not ride in the middle of the day because they are at school. Adjusting the running hours of this existing schedule could allot a budget for the new route focused on the needs of youth ridership (King et al., p.6). The current route runs for 12 hours each weekday. Revising this schedule to run from 6:00 a.m.-10:00 a.m., and 2:00 p.m.-6:00 p.m. would save four hours of run-time daily (King et al., p.6). This, in turn, cuts back on daily costs and saves gasoline (King et al., p.6).

Editor's Note
In the time between students conducting research around POGO, and this report being published, the City of Peoria has made changes to POGO. Observations and "existing conditions" may not be accurate at the time of publication.

Most buses use fuel averaged at $2.89 per gallon at the time of this report (King et al., p.6). The POGO route is approximately 18 miles long and takes 67 minutes to complete the route in one direction (King et al., p.6). If POGO operates for 12 hours per day with a break between each direction, the bus can circulate about four times each way, traveling a total of 144 miles each day (King et al., p.6). There are five buses on the existing route at any one time, and Total Transit charges Peoria $5.50 per mile, which includes all vehicle maintenance, insurance, gas, overhead costs, etc. (King et al., p.6). Current daily costs of one bus is at $792, and a fleet of five buses is at $3,960 (King et al., p.6). If POGO were to implement the schedule as mentioned earlier, the bus would drive for 8 hours each day instead of 12 hours, saving the City $990 in gasoline costs alone. This is enough savings to gas up one bus for a full day's use (King et al., p.6).

Editor's Note

City staff indicated the distance estimate of POGO daily travel from students was quite conservative, and actual travel is 2-3 times this amount. Calculations of cost per gallon would be altered with accurate distance estimates. The essence of this finding is still informative of the potential savings derived after implementing a new route.

Budget feasibility for marketing around POGO is very positive. The cost for a marketing campaign on social media could be virtually free considering the "Opening Day" event outlined on page 28 would provide public advertising to like or follow POGO social media (King et al., p.8). Hiring a professional marketing manager dedicated to POGO would cost approximately $58,361 in annual salary. This person could professionally run social media accounts, update and track the POGO website, host tabling during public events, and be tasked with running the "Opening Day" event. The level of attraction a strong marketing presence could bring to youth outweighs the monetary cost of hiring a marketing professional (King et al., p.8). Another option may be to hire a marketing intern. This position's pay averages $12 per hour in Phoenix, eliminates the need for a full-time position and provides an exciting opportunity for students or other young professionals (King et al., p.8).

Editor's Note
Due to discrepancies in the student analysis of annual budget costs, student commentary on financial considerations has been omitted.

CONCLUSION

To attract youth ridership to public transit, their specific needs and barriers must be identified and addressed. Student survey data clearly shows that young residents are interested in learning more about POGO. Educational initiatives surrounding the circulator via social media, relaunching, and marketing efforts would help promote the circulator to this younger audience and, in turn, increase ridership. However, to effectively serve this population, POGO needs to reach locations most useful to the younger audience and operate at relevant times to them. Continually gathering feedback from riders would help officials refine processes as required. Incentivizing ridership via giveaways on social media could also be a useful tool to engage youth riders.

Student researchers advise gradual implementation and continual community surveying efforts to ensure a new route to be successful and impactful (King et al., p.11). The proposed youth route will highlight the needs of students living in the community, and if the new route is promoted well, there is a higher likelihood it will be utilized (King et al., p.11). Promotion of the new course is paramount to success, and this can be done in a multitude of ways through school announcements, social media, or POGO application updates (King et al., p.11). Ultimately, understanding youth and their needs will help benefit the success and future of POGO (King et al., p.12).

REFERENCES

King, B., Read IV, M., Smith, B., Abraham, B. (2019). *Peoria on the Go Final Proposal.* Arizona State University.

To access the original student reports, additional materials, and resources, visit:

links.asu.edu/PCPeoriaTransit19F