

LAND-USE PLANNING

**A COLLABORATIVE REPORT OF
ARIZONA STATE UNIVERSITY'S PROJECT CITIES
& THE CITY OF APACHE JUNCTION**



This report represents original work prepared for the City of Apache Junction 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 Student reports are not peer reviewed for statistical or computational accuracy, or comprehensively fact-checked, in the same fashion as academic journal articles.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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On behalf of the ASU Wrigley Institute and the School of Sustainability, we extend a heartfelt thank you to the City of Apache Junction for enthusiastically engaging with students and faculty to confront difficult problems facing the community. Your real-world projects provide students with hands-on opportunities to apply knowledge that can create positive changes to Apache Junction's future livelihood and community wellbeing.



City of Apache Junction

300 East Superstition Boulevard • Apache Junction, Arizona 85119 • www.ajcity.net

February 20, 2018

Dear Apache Junction residents and community members,

On behalf of the City Council and the City of Apache Junction we wanted to let you know about our experience as the inaugural partner city for ASU's Project Cities program. We were extremely grateful for the opportunity to work on four projects with over one hundred-forty students, and eight university professors, in six courses. Each of the projects provided Apache Junction citizens with opportunities for involvement in community improvements.

As a smaller community, Apache Junction doesn't always have the resources to undertake every project that needs to be done. With a small investment in a Project Cities program, we can now work toward completing a few backlogged projects that have been identified in our city work programs and plans. The four projects that were undertaken in the Fall semester of 2017 (Positively AJ, Off-leash Dog Park, Sustainability and Solid Waste, and Understanding Homelessness), have been identified over a number of years as important issues in the Apache Junction community. By engaging with ASU on the four projects, the city has been able to advance each project more quickly than we otherwise would have been able to do with city employees alone.

The research and recommendations for each project gave the city objective insights into some of our ongoing challenges as a city and how we can better serve residents and visitors. The city is already using the report's findings and recommendations to take the next logical steps in moving the projects forward. We look forward to working with ASU and the Project Cities program on future projects!

With gratitude,

Jeff Serdy, Mayor



Bryant Powell, City Manager



ABOUT PROJECT CITIES

Arizona State University's (ASU) Project Cities program is a university-community partnership. For an entire academic year, faculty and students work with a single city to co-create strategies for better environmental, economic, and social balance in the places we live. Students from multiple disciplines research difficult problems chosen by the city, and propose innovative sustainability solutions that will help it achieve a better future. Project Cities is a member of the Educational Partnerships for Innovation in Communities Network (EPIC-N), a growing network of more than 30 educational institutions partnering with cities throughout the United States and world.

ABOUT SUSTAINABLE CITIES

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 the 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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Project Cities

Sustainability Through Local Action

sustainability.asu.edu/project-cities

ABOUT APACHE JUNCTION

The City of Apache Junction is well situated on the eastern edge of Greater Phoenix, the twelfth largest metropolis in the United States, yet it has a small-town, Western feel. This is both intentional, and influenced by geography. Apache Junction sits at the base of the Superstition Mountains and Goldfield Mountains, and is near attractions such as the Lost Dutchman State Park, Goldfield Ghost Town, Superstition Mountain Museum, Canyon Lake, Tortilla Flat, and the historic Apache Trail. Home to 39,000 residents, the city has a population that nearly doubles in the winter, when seasonal residents arrive to enjoy its pleasant weather and unique setting.

It was named Apache Junction because it is located at the intersection of US Route 60 and the historic Apache Trail, which was used by Native Americans and later stagecoaches to traverse the Superstition Mountains, and for the construction of water-reclamation dams along the Salt River. The city also straddles Maricopa County and Pinal County. Incorporated in 1978, Apache Junction has arrived at another crossroads as it matures. While the city wants to retain its small-town character, it must prepare for an increasing population, and has set out to develop greater economic opportunities. In the spring of 2005, Apache Junction debuted the first LEED-certified city hall in Arizona. It is Apache Junction's aspirations and potential for sustainability, and the unique challenges it is facing, that form the basis of its partnership with Arizona State University's Project Cities.

Apache Junction Team

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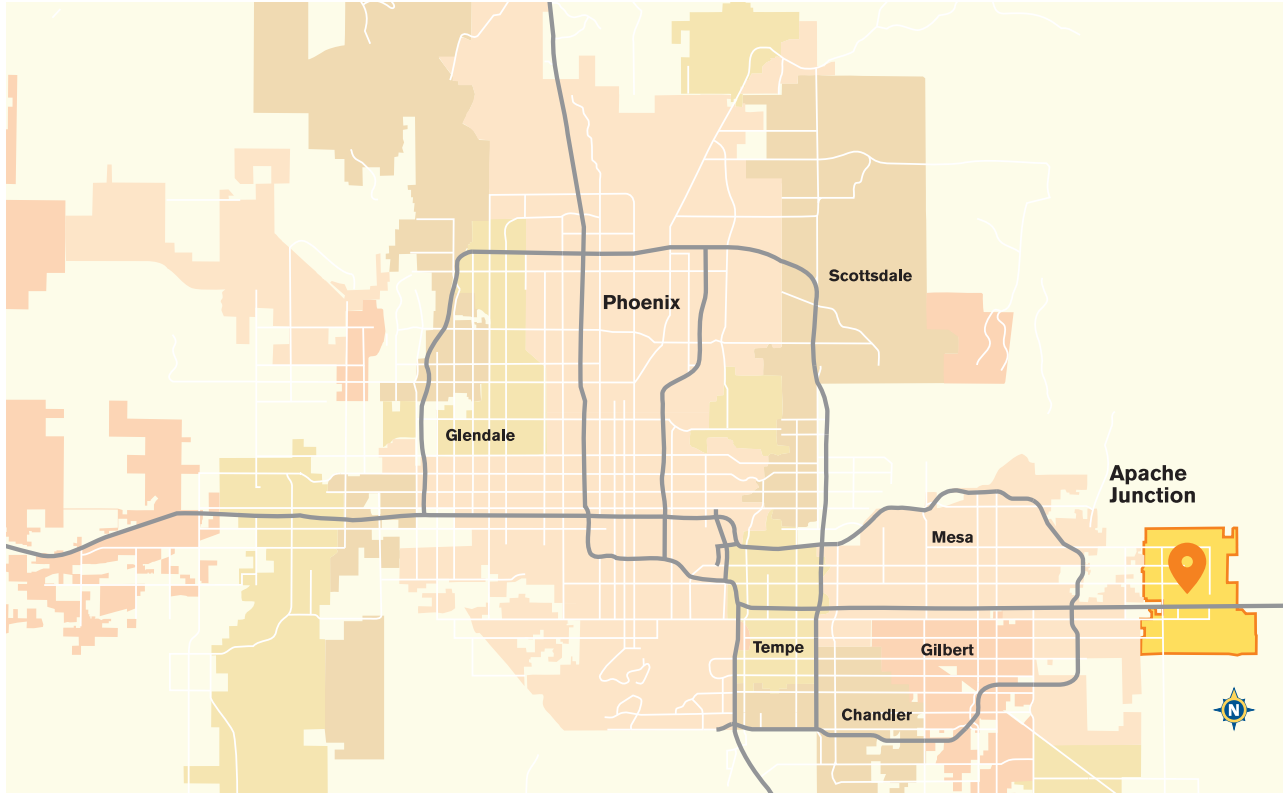
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Surrounded by Legends

ajcity.net

***Map of the City of Apache Junction
and Greater Phoenix, Arizona***



EXECUTIVE SUMMARY

Apache Junction is a young city, incorporated in 1978. It is still in the process of forming its identity and long-term growth strategy. At the same time, the city is figuring out how to stimulate its economy and improve the quality of life of its residents. Landscape architecture can help with this, as it connects physical contexts and community priorities to create cohesive visions for its land use. Its design process integrates the physical context of a space so that buildings, landscapes, and the things that connect them make the most of their environments while meeting the needs of urban communities.

To help the city envision how to maximize resources, enrich its community, and attract interest, the fall 2017 course LDE 361/590 focused on landscape architecture inventoried the natural and human characteristics of Apache Junction, visited the city for onsite fieldwork and community engagement, and conducted case studies. Student teams then identified opportunities and constraints. From this research emerged strategic themes for Apache Junction such as tourism and recreation, culture and history, and healthy communities. Students built upon these to produce multiple conceptual land use plans. While these plans are specific to an area of Apache Junction, the most promising ideas from the plans can be extracted and considered for the entire city or other similar areas. Ideas students generated include creating an intricate chain of trails and parks that will give residents the ability to explore the outdoors, and creating an arts district that will highlight the city's culture and setting. Both concepts are intended to improve the quality of life of current residents while attracting visitors and new residents.

LDE 361 Landscape Architecture I and 590 Core Landscape Architecture Studio I: Professor Ken Brooks and Faculty Associate Kevin Kellogg led this combined undergraduate and graduate course that teaches the principles of site analysis and the basics of zoning, master planning, and community design. First, students were guided through a series of research methods including community participation, observation, case studies, inventorying, and analysis. After learning the basics of land use planning and urban design, the students applied their imaginations and creativity to develop ideas for Apache Junction.

The ideas presented by these students are starting points for Apache Junction. The work is not comprehensive or cohesive, and any pursuit of the recommendations requires professional review and consideration. That being said, the course reports are meant to stimulate deeper conversations for managers and policy makers.

Next are the goal and ideas generated by the course. Following this is a summary of the final reports generated by the five student teams that includes the targeted problem, research methods used, findings, resulting ideas, and areas for further exploration. The report is followed by student project booklets in their entirety, which can be consulted for greater depth and more clarity on how the ideas were reached.

LANDSCAPE ARCHITECTURE GOAL & IDEAS

Goal

The goal of this course was to create overarching visions for Apache Junction in the context of all the Project Cities projects, and generate landscape architecture ideas related to these visions that will inspire Apache Junction.

While students considered partaking in one of the four formal projects of the Apache Junction and Project Cities fall 2017 partnership, they found that the greater overarching problem was the city's lack of a common vision or development themes.

CONCEPTUAL LAND-USE PLANS & MASTERPLAN IDEAS FOR APACHE JUNCTION



Clockwise from above: 1) a masterplan for the Tourism and Recreation theme inspired by Boston's "Emerald Necklace" that would have a path running throughout the city and linking Apache Junction neighborhoods, parks, and the OK Corral; 2) an outdoor theater celebrating the arts that is part of a masterplan for the Culture and History theme; 3) a masterplan focused on urban forestry.

Thematic Ideas

Tourism and Recreation: This theme envisions Apache Junction as a place designed to attract new and reoccurring visitors and provide residents with a range of outdoor recreation. This vision also supports a thriving economy and draws new residents. It celebrates the city's beautiful location as well as its parks and open land.

Tourism and Recreation Ideas	
Add a recreational lodge to enhance the visitor experience for people who love nature and want to be in the wilderness. In this masterplan, imagine a lodge with a community pool and hot tub, and indoor-outdoor shooting range, indoor-outdoor spas, community grills and fire pits. Its shopping center would have a breakfast option, camping gear shops, tourist shops, coffee stations, and activities for all ages.	
Capture the beauty of Apache Junction and cater to its avid outdoor culture with an intricate chain of trails and parks. This will provide residents with more means to explore the outdoors, and attract visitors trying to escape the city. This highlights Apache Junction's natural beauty, such as the Superstition Mountains, and promotes community connectivity through recreation.	
To bolster adventure tourism in Apache Junction, create a hub for outdoor recreation connected to bike and trail systems for mountain biking and road cycling. The scale of the city's open spaces, and the open space surrounding it, is ideal for adventure tourists interested in cycling. For example, Flatiron Park is already used for bicycling gatherings, so a mixed-use development next to it could provide convenient accommodation for tourists and provide opportunities for new businesses that cater to them.	



Culture and History: This theme celebrates Apache Junction's Western culture and history and makes it central to design choices, while allowing for the city to be modernized. It also envisions the city as a place where people come to experience art in all its forms.

Culture and History Ideas	
Design city spaces that act as intersections of culture, arts, and the people that participate in them. Use these to attract younger generations to Apache Junction, make the city a destination, and highlight its outdoor beauty.	
Create a modern, art-filled site like an art district that incorporates the historical background that makes Apache Junction an important historical landmark in Arizona.	
Create an artful signature attraction for this art district, which will help give Apache Junction a modern look while retaining its history.	
Use Apache Junction's history and features to design the ultimate art walk in this district.	
Create a sense of place inspired by local history and the community of Apache Junction where arts and culture are vibrantly expressed and displayed.	
To do so, develop a community hub with a multi-use land platform. An example is a multi-use community center with multi-story family housing, a commercial shopping plaza, a community recreation center, and a focal main street walk lined with restaurant and shops that open to a park and entertainment center.	
Provide the necessities for comfort, including food, shade, and seating.	

Housing: While this theme sounds less romantic, it supports a vision in that is focused on quality of life of residents, which an important function of any city. It imagines an Apache Junction in which residents are more self-sufficient, have access to affordable housing and communal open space, and have greater access to local retail space and amenities. Such a vision can emphasize sustainability, active and healthy living, and a strong community identity.

Housing Ideas	
Create a simpler, more self-sufficient lifestyle for residents while providing more affordable housing options including a tiny-house community and high-density residential buildings, communal open space, and greater access to local retail space and amenities (including retail space on the first floor of the residential buildings).	
Focus on environmentally conscious planning and development and responsible resource consumption.	

Healthy Communities: Similar to the housing theme, this theme prioritizes the quality of life of residents, with the optional added aspect of creating a health-focused industry in the city. This vision recognizes that Arizona has a market for rehabilitation and therapy, and that Apache Junction's location and cost of living makes it an ideal place to build a community around health and wellness.

Healthy Community Ideas	
Build Apache Junction into a health and recreation district. Include inpatient drug and alcohol addiction recovery with luxury private facilities; concierge healthcare; transitional living communities with treatment services and sober living houses; enriched retirement health opportunities; itinerant healthcare that serves the rural population and offers technical assistance, training, and employment; and commercial development including medical manufacturing.	
Create commercial and recreational design that meets the need for affordable and convenient healthcare.	
Take advantage of Apache Junction's close proximity to the Phoenix Mesa Gateway Airport and its open space.	

Forestry: This theme highlights the benefits of trees, which prevent unnecessary heat from being trapped in the city, provide shade for residents using alternative forms of transportation. This vision also includes urban agriculture.

Forestry Ideas	
Encourage a community that is actively aware of the benefits attained from a marriage between the urban and natural environments.	
Provide adequate housing that encourages outdoor recreation for families interested in migrating from Gilbert and Chandler.	
Create a diverse and friendly environment through the establishment of public outdoor gathering spaces.	
Establish a network of green pathways between areas of work, home, and play to allow easy access for cyclists, pedestrians, and horseback riders.	
Create an urban canopy of more than 30% within the Southwest quadrant of Apache Junction.	

Resource Conservation: This theme focuses on the natural resources of the city in a different way than using them to attract visitors. Instead, its vision is to preserve resources such as land and water, which also improves the quality of life of residents and the sustainability of the city.

Resource Conservation Ideas	
Transform the city of Apache Junction into a proactive water-conserving community, as the distribution of water is a major constraint to expansion in the city. By seeing this instead as an opportunity, the city can be a leader in sustainable water conservation and built a community that identifies with natural processes.	
Build a future community that works closely with natural processes to fully utilize water in a unique, efficient, and sustainable way.	
Create a unified community conservation center that inspires visitors to adopt beneficial techniques that adhere to sustainable practices.	

Circulation: Also known as mobility, this theme focuses on improving transportation opportunities for the Apache Junction community. This vision is intended to make the city more sustainable, improve the quality of life of residents, and attract new long-term residents.

Circulation Ideas	
Use design elements such as shade, sidewalks, bike lanes, bike racks, benches, and multi-modal connection points to encourage all modes of transportation, including biking, walking, and public transportation. (This is also known as “complete streets.”)	
Give pedestrians convenient, affordable, and healthy options for travel.	
Build bike stations to encourage a different, accessible way of travel.	
Encourage community engagement by designing intersections of bike, transit, pedestrian, and automobile pathways at activity hubs.	
Make roadways a better place for bicyclists and pedestrians by providing improved facilities such as shaded sidewalks and landscape rainwater collection basins while reducing the speeds and volumes of vehicular traffic.	
Add a multi-use transit system with a bus route system connecting Apache Junction to nearby cities.	
Create a bus hub with regular routes, local circulators, and express buses.	

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LANDSCAPE ARCHITECTURAL
DESIGN & TECHNOLOGY
STUDIES

361/590 LANDSCAPE
ARCHITECTURE I
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Landscape Architecture Design Ideas to Spark a Unified Vision of Apache Junction

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INTRODUCTION

Apache Junction has an abundance of natural assets, is affordable, and is well located at the cusp of Greater Phoenix and the rugged outdoors. However, it does not have a cohesive vision for its future. Through Project Cities, Apache Junction invited ASU courses to participate in four projects. These were related to solid waste management, an off-leash dog park, understanding homelessness, and its Positively AJ marketing campaign. The fall 2017 course LDE 360/590 signed up to support the city on all four projects. The faculty and students decided the best way to do so was to create overarching visions for Apache Junction in the context of all the Project Cities projects, and generate inspiring landscape architecture ideas related to these visions.

To do so, students divided into five teams and were assigned specific geographic sections of the city. They reviewed documents from the city's planning department and ASU archives of previous studies of Apache Junction. They pulled data from various agency sites, such as the Federal Emergency Management Agency (FEMA), on its flood risk, soils, geology, vegetation, wildlife, transportation, and more. Students attended the city's visioning town hall and local events, and drove, walked, and biked the city's streets and open spaces to immerse themselves in the physical and human environment.

The results of this mixed-methods research process are both analytical and speculative. They first analyzed the data they collected, drawing conclusions about suitability for use and preservation, and identifying potential negative impacts. With that knowledge, they put their imaginations to work to invent future development scenarios that address both community vision and the physical opportunities and constraints. The students generated seven potential themes for an overarching vision for Apache Junction: Tourism and Recreation, Culture and History, Housing, Healthy Communities, Urban Forestry and Urban Agriculture, Resource Conservation, and Circulation. Then, based on a selected theme and the constraints and opportunities they identified, each student created conceptual land use plans and masterplans for their assigned section of the city. These resulted in ideas meant to inspire Apache Junction. These the most promising parts of the plans can be extracted and considered for the entire city or similar areas.

The remainder of this "Landscape Architecture Design Ideas to Spark a Unified Vision of Apache Junction" section explains the methods used by the students and their findings. It then delves into the most enlightening ideas. The report wraps up with areas for further exploration and a concise conclusion, followed by student team reports in their entirety.

PROBLEM

While students considered partaking in one of the four formal projects of the Apache Junction and Project Cities fall 2017 partnership, they found that the greater overarching problem was the city's lack of a common vision or overarching development themes.

METHODS

A design studio uses a synthetic process of research, engagement, experiential onsite fieldwork, data collection, and analysis for its approach. To begin, course faculty divided Apache Junction into four quadrants of 40 acres plus a fifth zone containing the Envisioned Downtown district (see Figure 1). Next, these were assigned to five student teams. Each team was tasked with engaging with, researching, and analyzing the existing conditions in Apache Junction and their assigned zones. The students then set out to gather data on the physical and social contexts for their proposals. They did so through inventorying and analyzing data, community engagement, and observation. They also performed case studies to gather ideas of good and poor practices for similar plots of land. The methods used by students are detailed next.

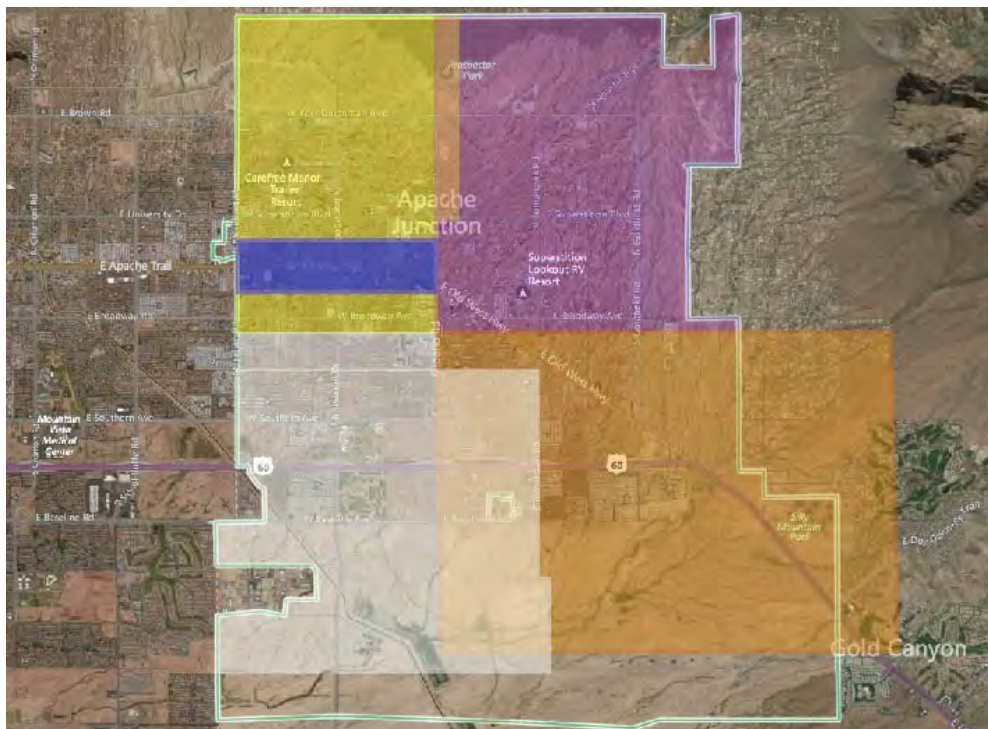


Figure 1. Sections of Apache Junction assigned to student teams.

Inventorying data: This research method is used to collect natural factors and human factors that impact the uses of community land. For the natural factors, the student teams researched data related to Apache Junction and their zones through sources such as the U.S. Department of Agriculture (USDA), the Federal Emergency Management Agency (FEMA), and geographic information systems (GIS). A short list of what they inventoried includes mining, water, soils, sun angles, wildlife, and climate. Flood zones were also researched using documents such as flood insurance rate maps. Through this the students found that flooding is a significant factor in the city (Figure 2). They also researched human factors including traffic counts, transit, zoning, and existing land uses. By consulting aerial maps, like that available with Google Earth, students were able to see vacant and recent zoning cases. They also researched the area's history, demographics, land ownership, and services available such as public facilities.

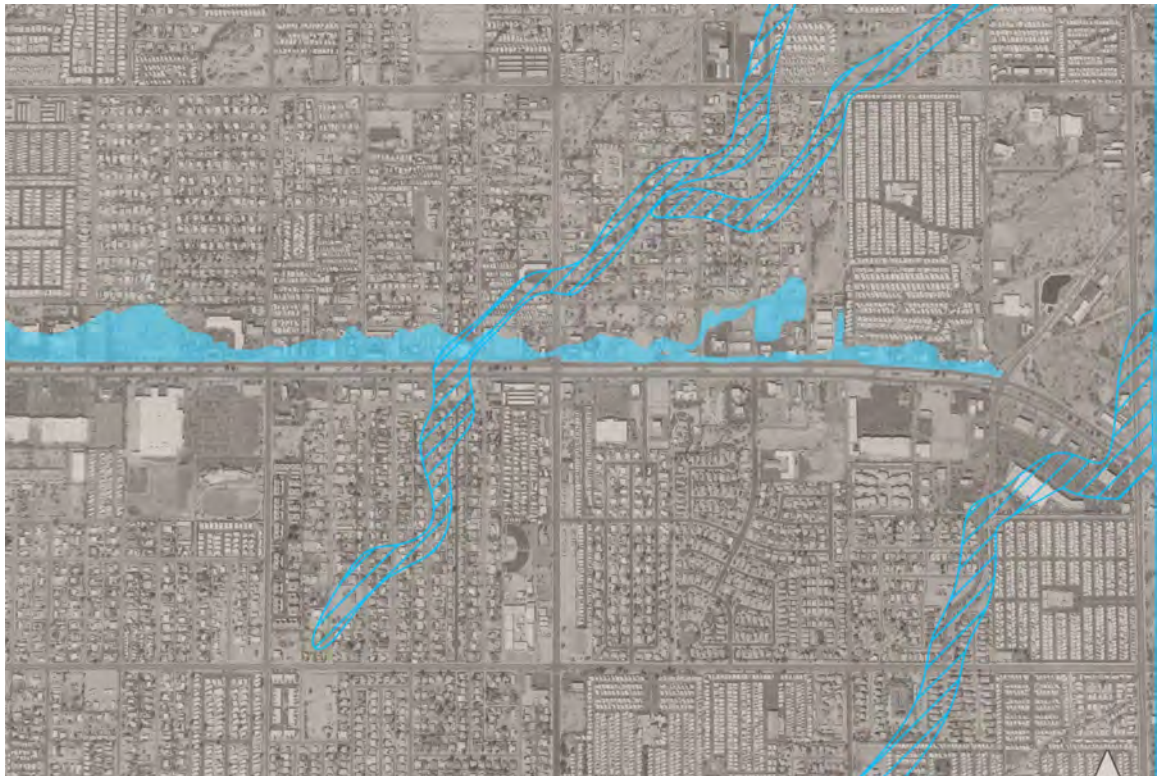


Figure 2. A mapping of the flood zone and washes in the downtown area. According to the student team, just north of Apache Trail is part of a 100-year floodplain that causes commercial buildings to conform to a large setback. However they are still at risk of flooding because of poor drain-age infrastructure (SPUR Landscape Architecture, page 5-13).

Onsite fieldwork (ground-truthing and observation): This method involves visiting a site and experiencing or observing it. The first way of doing so used by some students is referred to by designers as “ground-truthing.” With this method, designers experience the place as if they lived there, seeking the truth of the place from the ground. The assignment in this case was to go to the city on a weekend day, park, and try to buy something at a store or bike to the park. The students found this experience to be profound. They were able to create a cognitive map of the city’s topography and its heat profile, which is where the city traps or mitigates heat hence creating hotter or cooler areas. (Urban cities often have high heat profiles due to less vegetation and more surfaces that absorb heat, as well as infrastructure that releases heat such as cars and air conditioners. This is called the “urban heat island effect.”) It also revealed that bicycling in the community is unsafe and hot. The second type of onsite fieldwork performed by students was observation. In this case, they were tasked with walking the four corners of their quadrants, taking pictures, and making records of what they saw (see Figures 3, 4, 5).



Figures 3, 4, and 5. Images from student observation of Apache Junction (SPUR Landscape Architecture, page 5-11).

Community engagement: Only the LDE 590 graduate students used this method of research. To do so, four students attended the Project Cities kickoff meeting in Apache Junction, a town hall, and four breakout sessions. During all of these engagements, they participated in events and used the



Socratic questioning method, which explores perspectives on a specific topic. It involves asking open-ended and broad questions and then working to clarify and deepen responses.

Case Studies: This research method involves investigating a specific instance or place. In this case, students studied parts of Phoenix and Tempe that had the same land area and physical qualities as their quadrants. The studied sites were 40 acres in area and located on major intersections. Then they narrowed in on 10 acres of the plot and documented the ways this land was used. The point of this method is to understand the relationships between land, land use, and public infrastructure. This method charts the results of the past: students learned what effect past policies, economic motives, and market demands had on existing neighborhoods by look at existing examples.

The point of case studies was for students to understand the relationships between land, land use, and public infrastructure.

Assessment of opportunities and constraints: Based on the data students generated from researching natural and human factors of Apache Junction, they assessed opportunities and constraints of their quadrants. These can be internal or external. An example of a constraint is a canal, which is a physical barrier that must be taken into consideration in a land-use plan. However, this can also be seen as an opportunity, as it can be an attractive centerpiece for an urban community. An example of an external opportunity is the growing pressure on housing markets in neighboring cities like Gilbert, Mesa, and Chandler, which presents an opening for Apache Junction to attract new residents. Such constraints and opportunities are discussed further in the findings section.

Land-use suitability analysis: This research method builds upon the results of previous methods. Based on the zoning and land-use data collected, they identified potential future land uses for their quadrants. For example, since the downtown area has mixed-use zoning, students located mixed commercial and residential uses there.

FINDINGS

This research is intended to create a strong foundation for conceptual land use plans they were to develop, so that the plans responded to the features, opportunities, and constraints identified by the students and advanced the development goals of Apache Junction.

General Findings

Apache Junction's natural beauty and its location at a crossroads and gateway to magnificent natural assets are strategic opportunities. The city has tremendous potential to advance a development agenda. However, if the city allows the rapid, non-inclusive, land-consumptive, ad-hoc development seen broadly in the Phoenix metropolitan area, it will likely result in traffic congestion, poor air quality, a lack of affordable housing, and long commutes. Therefore, **the city must take care to ensure its development reflects the values of all of its citizens and is built with sustainability best practices.**

As it stands, the **students perceived no consistent vision on the part of the city.** Without this, no design proposal can project an envisioned future. One student did find in public meetings that the city's identity is tied to the land surrounding it (Sarah Gaughan, SPUR Landscape Architecture, page 5-28). However, more broadly, the students heard three differing narratives of overarching visions for the city that were presented in public meetings. These are listed in Figure 6.

One common theme was a concern that new development could bifurcate the city into the "old" and "new" Apache Junction. Care should be taken to integrate the community in future development.

Specific Findings

Upward pressure on home sales prices and rents in cities like Gilbert and Chandler could present an opportunity for Apache Junction. As homebuyers and renters are priced out of those areas, especially younger residents who are looking for more space for their growing families, they will look for monthly payments that they can afford.



THREE DIFFERING VISION NARRATIVES

1. Apache Junction has a poor reputation and is stigmatized in public opinion as a haven for low-level crime, the drug trade, and blight. Examples include unregulated developments and self-built dwellings, homeless encampments, sub-standard infrastructure, and accumulation of refuse and junk vehicles. The solution is to create and enforce laws and regulations that disallow these behaviors.
2. Apache Junction should become a year-round city with well-paying jobs, good schools, and development that supports family life. Gilbert and Chandler were cited as examples.
3. Apache Junction should become a tourism-based community that provides a gateway to spectacular natural assets in the vicinity. Scottsdale and Sedona were cited as examples.

Figure 6. Three different narratives for the city and its future presented at public gatherings and events.

One of the student groups, the Wild Nature Design team, focused on the southeast quadrant of the city. **It found large separations between residential areas, and communities without accessible roadways.** Further, they determined that this area lacks commercial zoning, and its schools, residential areas, and shopping centers are disorganized. (page 1-11). Additionally, the city's landfill is located within a wash zone, which can cause groundwater pollution and damage wildlife ecosystems. While the area has limited connections to the Phoenix metropolitan area, this can be seen as both a constraint and an opportunity, as it is something that can be further developed.

Another mixed opportunity and constraint is its winter visitor population. They could become long-term residents, but can also create problems like long waits at restaurants. An opportunity of the area is its generally flat topography, which is suitable for building and can be used to manipulate water to improve the city's existing green infrastructure. (Green infrastructure features vegetation and soil meant to naturally reduce flooding and filter storm water.)

According to the Southwest Native Design team and the Superstition Studios team, which looked at the southwest and northwest quadrants, the washes in their areas are constraints and opportunities. While the Weeks Wash in the Southwest quadrant regularly floods intersecting streets during heavy rainfall, it can actually be used as a resource to support agriculture. Because of this, the team proposed dedicating land use for agriculture in the related area. **The Superstition Studios team saw washes as opportunities for water resources, and constraints for building.** Related to this, the city's limited water resources were considered a constraint, as they inhibit expansion (Superstition Studios, page 4-63). (Overuse of groundwater can also lead to land subsidence, as has happened in Apache Junction, which can harm developments.) However, this was interpreted as an opportunity to create a resource-aware, sustainable vision for the city.

Another feature that was both an opportunity and a constraint according to Southwest Studios is the downtown area, as it is good for attracting people but hard to change. Opportunities the students in this team identified were the park, which is good for connection, and green belts, which have possibilities for recreation.

The SPUR Landscape Team had a slightly different approach to the project as it focused on the downtown area. For this team, **opportunities presented in Apache Junction are its infill (vacant parcels in developed areas), views of the Superstition Mountains, open space, proximity to recreation, historical Western culture, design standards, and existing infrastructure.** Constraints they identified were that the city doesn't have a clear identity, it has homogenous business, residents perceive it as unsafe, and it has a high number of absentee owners. As for the specific downtown zone, one member of this team pointed to lower sales tax in neighboring municipalities, a lack of brick and mortar options, and pressure on local brick and mortar retailers from big-box online retailers as constraints.

IDEAS

The student teams used their findings regarding natural and human factors, zoning, land use, community insight, opportunities and constraints to identify overarching themes that the city could use as a cohesive vision. The overarching themes they came up with were Tourism and Recreation, Culture and History, Housing, Healthy Communities, Forestry, Resource Conservation, and Circulation.

Using one of these themes as an inspiration, each student developed a conceptual land use plan and masterplan of mixed-use community centers to guide future community development for their areas. For example, one student in the Central Design Group team chose walkability as her theme. Her stated mission was “to provide design solutions that will create a more walkable and bikeable community through case studies and study area of the northeast corner of Apache Junction.” Her resulting vision was to create a green belt corridor that utilizes Flatiron Park as a gateway to increase walkability and bikeability between the different land uses.

The ideas they students presented for their quadrants of the city are not meant to result in a cohesive list of recommendations. Instead, they are meant to inspire Apache Junction to select a vision and imagine how to pursue it. The following are explanations of each theme and highlighted thematic ideas the students generated.

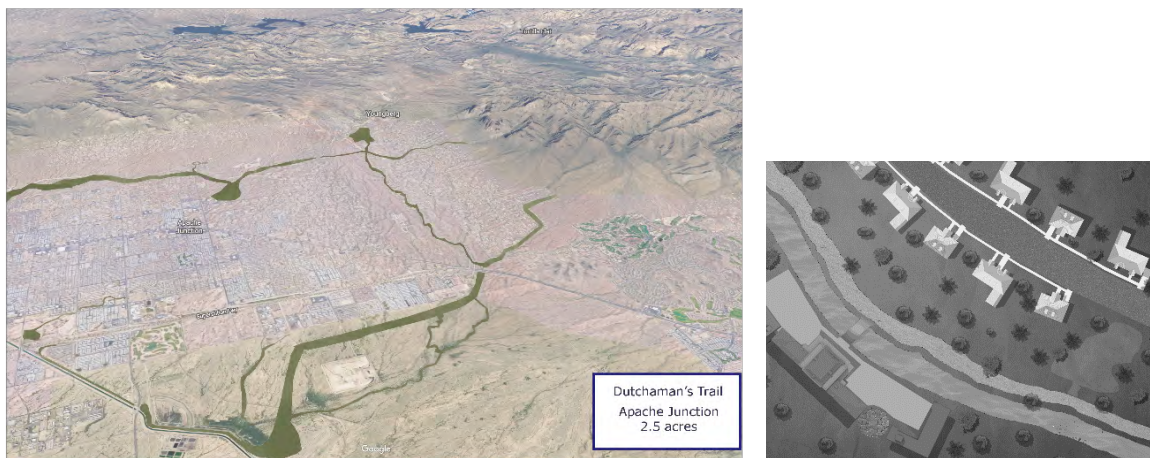


Tourism and Recreation

This theme envisions Apache Junction as a place designed to attract new and reoccurring visitors and provide residents with a range of outdoor recreation. This vision also supports a thriving economy and draws new residents. It celebrates the city's beautiful location as well as its parks and open land.

- Add a recreational lodge to enhance the visitor experience for people who love nature and want to be in the wilderness. In this masterplan, imagine a lodge with a community pool and hot tub, and indoor-outdoor shooting range, indoor-outdoor spas, community grills and fire pits. Its shopping center would have a breakfast option, camping gear shops, tourist shops, coffee stations, and activities for all ages (Evan Meade, Wild Nature Design, page 1-62).

- Capture the beauty of Apache Junction and cater to its avid outdoor culture with an intricate chain of trails and parks. This will provide residents with more means to explore the outdoors, and attract visitors trying to escape the city. This highlights Apache Junction's natural beauty, such as the Superstition Mountains, and promotes community connectivity through recreation (Denise Torloni, *Southwest Native Design*, page 3-22). See Figure 7.
- To bolster adventure tourism in Apache Junction, create a hub for outdoor recreation connected to bike and trail systems for mountain biking and road cycling. The scale of the city's open spaces, and the open space surrounding it, is ideal for adventure tourists interested in cycling. For example, Flatiron Park is already used for bicycling gatherings, so a mixed-use development next to it could provide convenient accommodation for tourists and provide opportunities for new businesses that cater to them (Mark Johnson, *SPUR Landscape Architects*, page 5-48).



*Figure 7. One student created a masterplan inspired by Boston's "Emerald Necklace," which would have a path running throughout the city and linking neighborhoods, parks, and the OK Corral, leading to one of the main Superstition Mountain trails. It would include two public gardens, multiple parks, a horse trail, a commercial district, a dining district, a horse corral, and an off-leash dog park (Page 28, *Southwest Native Design*).*



Culture and History

This theme celebrates Apache Junction's Western culture and history and makes it central to design choices, while allowing for the city to be modernized. It also envisions the city as a place where people come to experience art in all its forms.

- Design city spaces that act as intersections of culture, arts, and the people that participate in them. Use these to attract younger generations to Apache Junction, make the city a destination, and highlight its outdoor beauty. (See Figure 8.) (Lucas Ayers, Central Design Group, page 2-43).
- Create a modern, art-filled site like an art district that incorporates the historical background that makes Apache Junction an important historical landmark in Arizona. (Nicholas Salazar, Central Design Group, page 2-53).
- Create an artful signature attraction for this art district, which will help give Apache Junction a modern look while retaining its history.
- Use Apache Junction's history and features to design the ultimate art walk in this district. (See Figure 9.)
- Create a sense of place inspired by local history and the community of Apache Junction where arts and culture are vibrantly expressed and displayed. (Dylan Mayo, Southwest Native Design, page 3-64).
- To do so, develop a community hub with a multi-use land platform. An example is a multi-use community center with multi-story family housing, a commercial shopping plaza, a community recreation center, and a focal main street walk lined with restaurant and shops that open to a park and entertainment center.
- Provide the necessities for comfort, such as food, shade, and seating.



Figure 8. An outdoor theater could be built in Apache Junction to celebrate the arts and draw new residents and visitors (Lucas Ayers, Central Design Group, page 2-46).



Figure 9. This illustration of an art district in Apache Junction has a maze of canyon-inspired walls featuring urban art (Nicholas Salazar, Central Design Group, page 2-55).



Housing

This theme supports a vision that is focused on quality of life of residents, which an important function of any city. According to one student, it is a vision of Apache Junction in which residents are more self-sufficient, and have access to communal space, affordable housing, local retail space, and amenities (Matthew Favazzo, Superstition Studios, page 4-54). Such a vision can emphasize sustainability, active and healthy living, and a strong community identity.

- Create a simpler, more self-sufficient lifestyle for residents while providing more affordable housing options like a tiny-house community and high-density residential buildings, communal open space, and greater access to local retail space and amenities (including retail space on the first floor of the residential buildings). See Figure 10. (Matthew Favazzo, Superstition Studios, page 4-56).
- Focus on environmentally conscious planning and development and responsible resource consumption.



Figure 10. This conceptual design plan has a tiny-house community near the commercial core as an example for simpler, more affordable living and to encourage reducing waste. It also features higher density apartment buildings as affordable housing that is an alternative to trailer homes. A community open space and dog park promote a healthy lifestyle, while a community garden and farmer's market support the local economy. It has a commercial streetscape with storefronts and turns underused parcels into local retail space. Finally, it has foot and bike paths that connect community amenities and reduce vehicle dependence in the neighborhood. (Matthew Favazzo, Superstition Studios, page 4-58).



Healthy Communities

Similar to the housing theme, this theme prioritizes the quality of life of residents, with the optional added aspect of creating a health-focused industry in the city. This vision recognizes that Arizona has a market for rehabilitation and therapy, and that Apache Junction's location and cost of living makes it an ideal place to build a community around health and wellness (Anthony Martin, *Southwest Native Design*, page 3-40).

- Build Apache Junction into a health and recreation district, which will attract visitors and residents and bolster the economy. This multifaceted vision includes inpatient drug and alcohol addiction recovery with luxury private facilities; concierge healthcare; transitional living communities with treatment services and sober living houses; enriched retirement health opportunities; itinerant healthcare that serves the rural population and offers technical assistance, training, and employment; and commercial development including medical manufacturing. See figure 11.
- Create commercial and recreational design that meets the need for affordable and convenient healthcare.
- Take advantage of Apache Junction's close proximity to the Phoenix Mesa Gateway Airport and its open space.



*Figure 11. This masterplan has a recreation center (1), medical center (2), circular retirement community (3), transitional living community (4), community center (5), and a canal reservoir (6) (Anthony Martin, *Southwest Native Design*, page 3-51).*



Forestry

This theme highlights the benefits of trees, which prevent unnecessary heat from being trapped in the city, provide shade for residents using alternative forms of transportation. This vision also includes urban agriculture.

- Encourage a community that is actively aware of the benefits attained from a marriage between the urban and natural environments (Katryn Squyres, *Southwest Native Design*, page 3-72). See Figure 13.
- Provide adequate housing that encourages outdoor recreation for families interested in migrating from Gilbert and Chandler.
- Create a diverse and friendly environment through the establishment of public outdoor gathering spaces.
- Establish a network of green pathways between areas of work, home, and play to allow easy access for cyclists, pedestrians, and horseback riders. See figure 12.
- Create an urban canopy of more than 30% within the Southwest quadrant of Apache Junction.



*Figure 12. This imagining of a Wash Trail System features pedestrian and equestrian friendly trails, wash-bed trails accessible during the dry season and marked with flood signage during wet season, native arroyo vegetation, and trail information signage (Katryn Squyres, *Southwest Native Design*, page 3-79).*

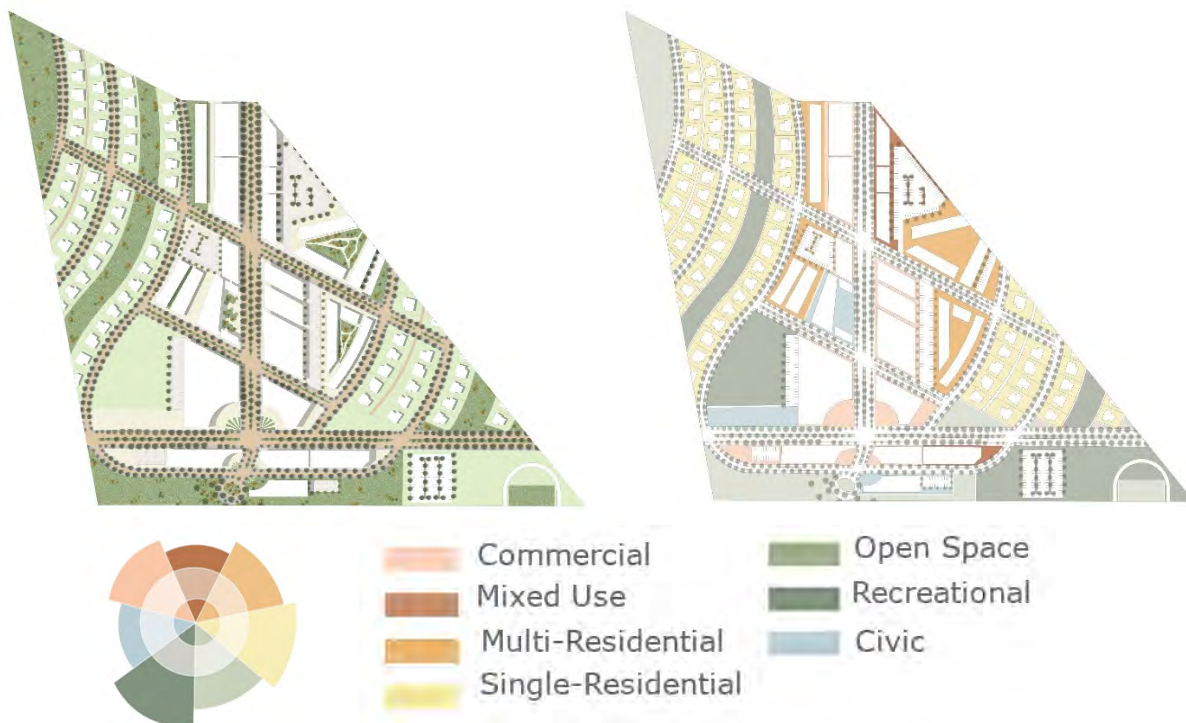


Figure 13. In this masterplan, a student envisioned a tree canopy featuring species native to the region, primarily palo verde, mesquite, and desert ironwood, with smaller tree species planted around intersections that provide shade but allow for visibility. It has backyard access to a trail system, community open spaces with opportunities for community gardens, public parks for community gatherings, and a public sports park. This was designed around Idaho Road. Where Idaho Road ends near Baseline Avenue, it becomes a pedestrian gateway between the urban and natural environments. However, this masterplan could apply to other parts of the city as well (Katryn Squyres, *Southwest Native Design*, page 3-78).



Resource Conservation

This theme focuses on the natural resources of the city in a different way than using them to attract visitors. Instead, its vision is to preserve resources such as land and water, which also improves the quality of life of residents and the sustainability of the city.

- Transform Apache Junction into a proactive water-conserving community, as the distribution of water is a major constraint to its expansion. By seeing this constraint as an opportunity, the city can become a leader in sustainable water conservation and built a community that identifies with natural processes. (Katherine Keane, Superstition Studios, page 4-61). See Figure 14.
- Build a community that works closely with natural processes to fully utilize water in a unique, efficient, and sustainable way. See Figure 13.
- Create a unified community conservation center that inspires visitors to adopt beneficial techniques that adhere to sustainable practices.



Figure 13. In this masterplan highlighting water conservation, multi-family residential housing would have rainwater harvesting, bioswales (which are landscaping elements designed to naturally filter pollution out of surface runoff), native plants, and would harvest condensate from large air conditioning units. Its no-curb system, which means it does not have raised curbs around paved areas, allows rainwater to run into landscaped or natural areas. (Katherine Keane, Superstition Studios, page 4-66).



Figure 14. Existing vegetation reveal the existing flows of water (upper figure), around which development is strategically located in the bottom figure (Katherine Keane, Superstition Studios, page 4-65).



Circulation

Also known as mobility, this theme focuses on improving transportation opportunities for the Apache Junction community. This vision is intended to make the city more sustainable, improve the quality of life of residents, and attract new long-term residents.

- Use design elements such as shade, sidewalks, bike lanes, bike racks, benches, and multi-modal connection points to encourage all modes of transportation, including biking, walking, and public transportation. See Figure 15. (This is also known as “complete streets.”) (Shinye Kim, Southwest Native Design, page 3-53).
- Give pedestrians convenient, affordable, and healthy options for travel.
- Build bike stations to encourage a different, accessible way of travel.
- Encourage community engagement by designing intersections of bike, transit, pedestrian, and automobile pathways at activity hubs.
- Make roadways a better place for bicyclists and pedestrians by providing improved facilities such as shaded sidewalks and landscape rainwater collection basins while reducing the speeds and volumes of vehicular traffic (Sijie Chen, Superstition Studios, page 4-75).
- Add a multi-use transit system with a bus route system connecting Apache Junction to nearby cities (Shinye Kim).
- Create a bus hub with regular routes, local circulators, and express buses (Sijie Chen). See Figure 16.

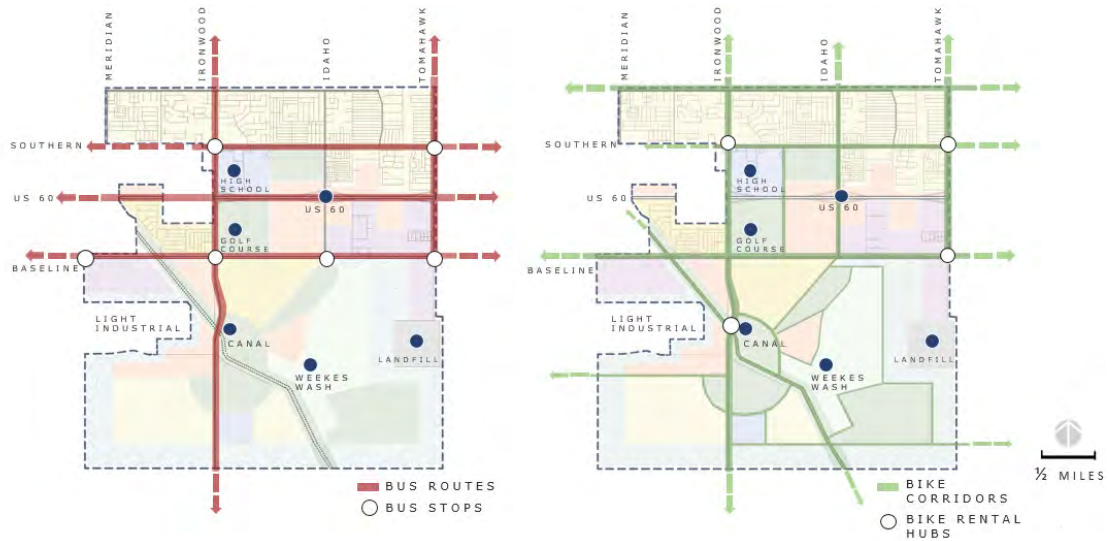


Figure 15. In this vision of the southwest quadrant of Apache Junction, bus routes are enhanced and a bike corridor gives residents and visitors an alternative way to travel through their community. Such accessible diversity of transportation encourages walking rather than driving (Shinye Kim, Southwest Native Design, page 3-59).



Figure 16. This transportation hub masterplan was located strategically to be within 10-minute walk from City Hall as well as a part of the city with lower incomes. It is located at the intersection of Apache Trail, the Old West Highway, and State Route 88 (North Apache Trail). (Sijie Chen, Superstition Studios, page 4-80).

AREAS FOR FURTHER EXPLORATION

Community Engagement and Unified Vision: Engage the community, including seasonal residents, in an extensive process to document the voices of all members of the community. Develop an organizing system for a sustainable communication and participation program. Analyze the input data to define the most important community challenges and opportunities. Verify conclusions with the community.

Data Gathering: Quantify the challenges and opportunities. The city has done a lot of work on high-level and observational studies, and a number of issues have been identified. In moving forward with solutions, it will be essential to collect accurate, relevant and meaningful data on existing conditions. Future work should focus on establishing measurable benchmarks and objectives so that a logic model of inputs, outputs, activities, and outcomes can be tracked.

Downtown Infill Plan: The downtown area base zoning should be expanded with an urban design-specific plan to develop an imagined future character that fits the community vision. This plan should be paired with an economic implementation plan that identifies market demand, sources of capital, and development prototypes that fit the vision.

Mobile home/Recreational Vehicle (RV) Parks:

These communities represent affordable living for seasonal and year-round residents alike. Efforts should be made to develop models for sustainability and future development of existing mobile home/RV communities. Liabilities include failing infrastructure, poor-quality dwelling units, and blight. See these parks as assets to the community and articulate strategies for upgrading infrastructure, energy efficiency, modernization of the dwelling units and community amenities without wholesale displacement of the city's long-term residents.

See mobile home parks as assets to the community, and articulate strategies for upgrading infrastructure.

Transit Plan: Develop an affordable and sustainable transit strategy that links Apache Junction to job centers and airports in metropolitan Phoenix.

CONCLUSION

Apache Junction is well positioned to plan and implement a sustainable, equitable future. It has natural assets, affordability, and a strategic location on the edge of metropolitan Phoenix and the greater outdoors. However, in order for the community to move forward, it will need a unifying vision. Possible themes for an overarching vision for the city include: Tourism and Recreation, Culture and History, Housing, Healthy Communities, Forestry, Resource Conservation, and Circulation. Based on these themes, the ideas students generated are meant to inspire Apache Junction. As the city moves forward with any overarching design, the best practices of walkable, sustainable and equitable urbanism should be applied, and its natural assets should be leveraged. Future success can be measured by community health; environmental preservation; economic prosperity across the income spectrum; access to knowledge, technology and education; and connectivity to job centers Maricopa County. If Apache Junction is able to attract public and private capital investments to fund its development, and makes sure this is to the benefit of its community, both visitors and residents will have positive perceptions of the city.

APACHE JUNCTION



Lauren Colone, Evan Meade, Gabriel Jaramillo,
Xiaojin Xing, Guanyi Zhou, Konatsu Rogers,
Claudia Martinez-Orellana

LDE 361 | PROFESSORS KELLOG & BROOKS

APACHE JUNCTION

ARIZONA



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Assessment/Evaluation and Suitability Analysis

City Master Plan's

Theme 1: Lauren Colone

Theme 2: Evan Meade

Theme 3: Claudia Martinez-Orellana

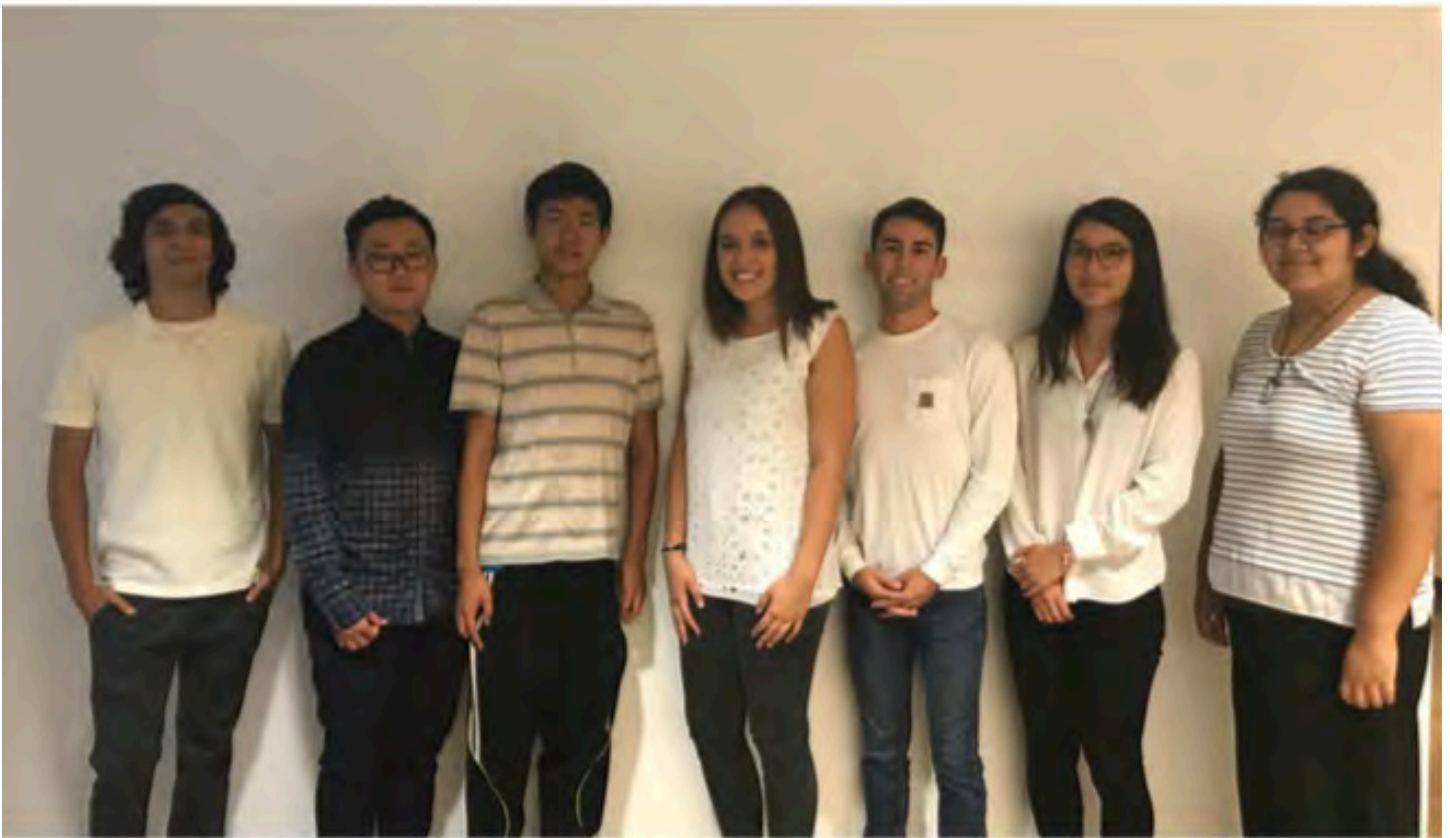
Theme 4: Gabriel Jaramilo

Theme 5: Konatsu Rogers

Theme 6: Guanyi Zhou

Theme 7: Xiaojin Xing

WILD NATURE DESIGNS



Gabriel Jaramillo, Guanyi Zhou, Xiaojin Xing, Lauren Colone, Evan Meade, Konatsu Rogers, Claudia Martinez-Orellana

MISSION

Our goal is to create a more livable and peaceful environment for the people of Apache Junction. We feel that with certain improvements to the landscape we can make Apache Junction a Better place to live in as well as visit.

VISION

While addressing Apache Junction's four main goals of homelessness, positively Apache Junction, Solid waste and Dog Parks, we want to approach our designs in ways to attract more families and improve the city's tourism.

Apache Junction

Community Orientation,
Conditions and background

History

- Located near the Superstition Mountains and in junction with the historic Apache Trail and the US 60
- Incorporated on November 24, 1978
- The city is rich in history and Western Heritage
- Originally named Youngsberg Junction
- Superstition Mountains are now home to the Lost Dutchman Mine story
- The Apache Trail is one of the most scenic routes in the southwest
 - Used by the Native Americans as migratory route
 - The approximate route has severed humanity for more than a millennium
- The mayor currently is Jeff Serdy

Historical Aerial Photography



DEC 2001- FEB 2002



DEC 2003 - JAN 2004



JAN 2007 - JULY 2007



OCT 2008 - DEC 2008

Historical Aerial Photography



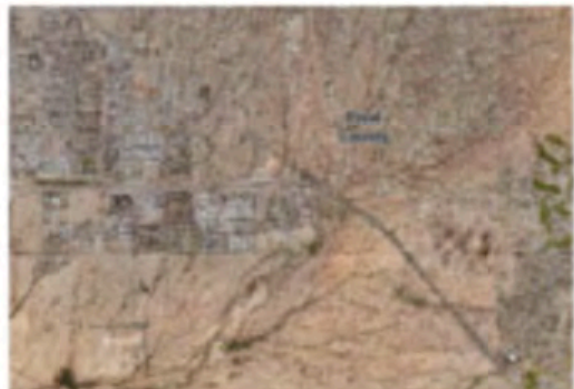
SEP 2010 - OCT 2010



OCT 2012 - DEC 2012



SEP 2014 - NOV 2014



SEP 2016 - DEC 2016

APACHE JUNCTION COMMUNITY

AT A GLANCE

TOTAL POPULATION

35,840

MALE POPULATION

17,431

FEMALE POPULATION

18,409

NOTABLE LANDMARKS

LOST DUTCHMAN STATE PARK
GOLDFIELD GHOST TOWN
SUPERSTITION MOUNTAIN MUSEUM
SILLY MOUNTAIN PARK
APACHE TRAIL TOURS
APACHE CREEK GOLF COURSE
CLOSEST CITY TO THEODORE ROOSEVELT LAKE

Community Constraints and Aspirations

ROAD IMPROVEMENTS

(COMMUNITY ACCESSIBILITY)

Minimal paved roads and these occur in high density areas, Majority of road surfaces are dirt.



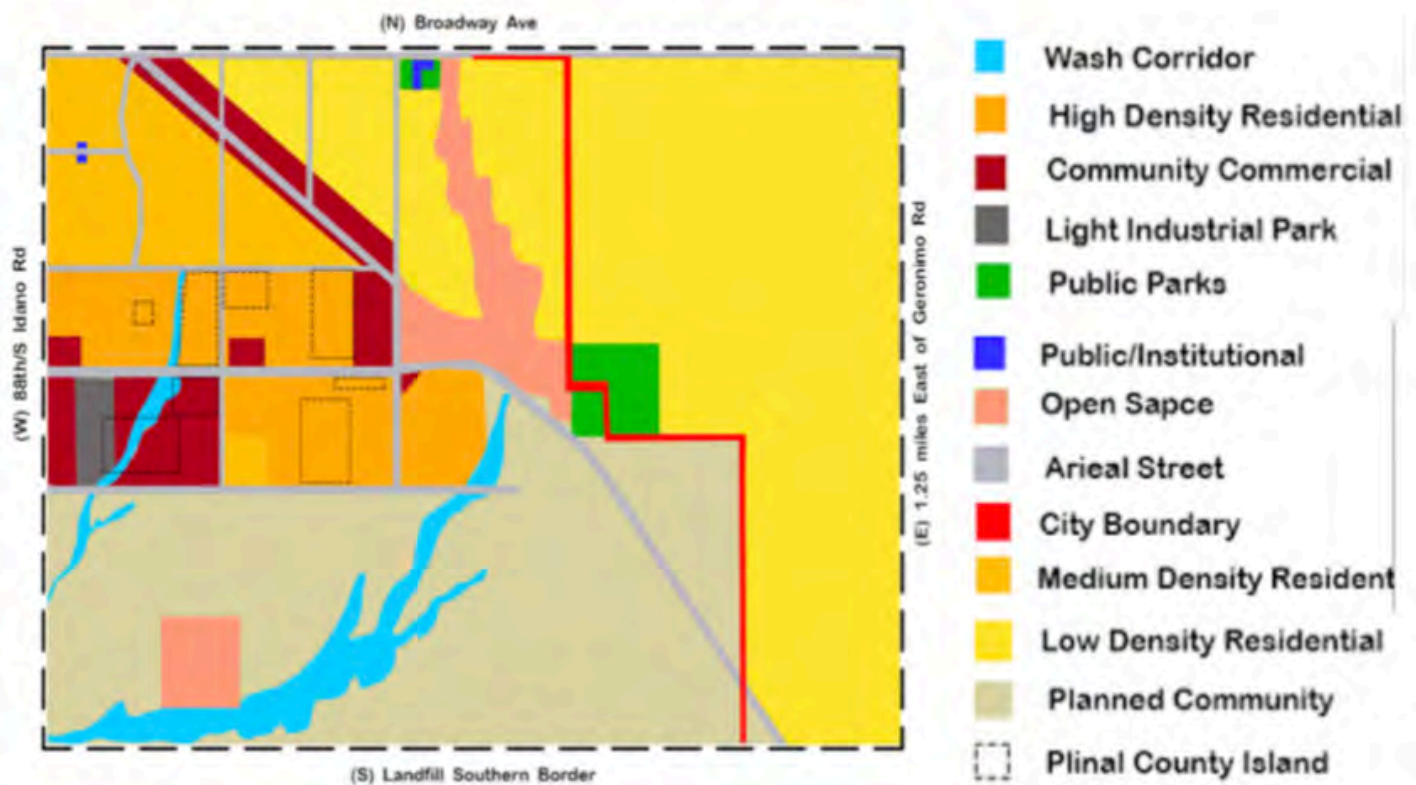
Roads need to be redone, although the surface area is too large. Renovation work would be a huge cost.

Community Constraints and Aspirations

LAND ZONING

DISORGANIZED HOUSING AND LAND USE

Large separation between residential areas.
Some communities lack accessible roadways.
Lack of commercial zoning and disorganization of schools, residential areas and shopping centers.



Topography on surface is changing significantly.
Residential areas can not be constructed on intense slopes. Local government does not have funding for renovations.

Community Constraints and Aspirations

QUALITY OF PLACE

NEED OF INCREASED TOURISM

Surrounded by Utery Mountain Regional Park. Apache Junction provides opportunities for visors to get in touch with nature and even camp. However, there are limited connections to the Phoenix metro area.



To attract visitors and improve tourism, there needs to be a development of the city road system, connecting it to the Phoenix metro area.

Community Constraints and Aspirations

SOLID WASTE

LANDFILL LOCATED WITHIN WASH ZONE

A majority of site washes are located and flow into the city landfill. This can cause ground water pollution. Leakage can damage wildlife ecosystems.



When landfill is relocated, it needs to be moved to an area where it will have minimal effects on our ecosystem in terms of pollution and damage to waterways.

Community Constraints and Aspirations

GREEN INFRASTRUCTURE

FLOOD HAZARDS & ECONOMIC DEVELOPMENT

Existing green infrastructure that is adjacent to development and residential areas is sparse .
Topography can manipulate water to directed towards city and improving the green infrastructure.



New green infrastructure should be thoughtful of flood hazard areas and topography. Greenway planning and design should address role of landscape ecology, creating more comprehensive landscape designs. It should consider biodiversity conservation and seek to protect water resources.

Community Constraints and Aspirations

WINTER DESTINATION

"SNOWBIRDS"

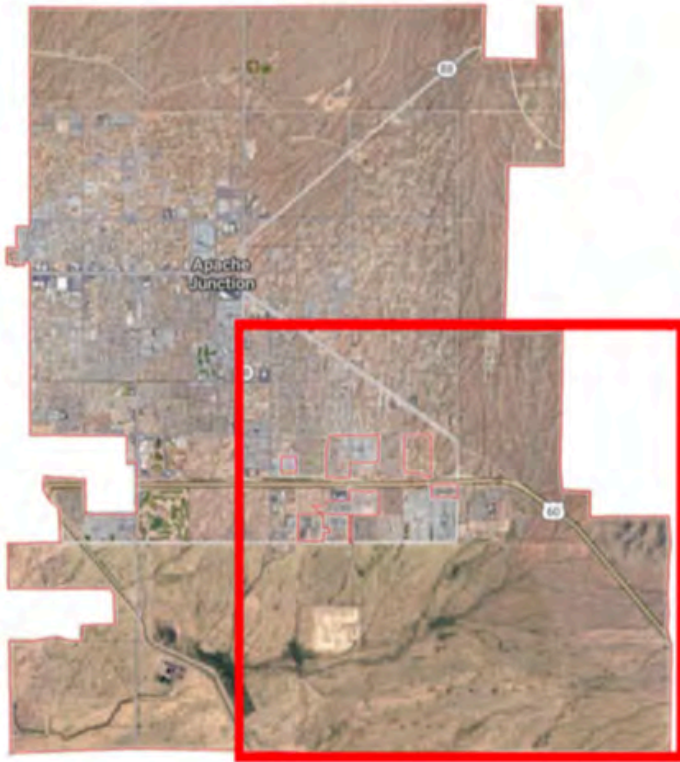
Arizona's winter-visitor scene typically consists of retired people from the Midwest or Canada. These group of seasonal resident usually intends on spending 3-6 months, or until snow melts. Seasonal visitors contribute to the economy of Apache Junction.



The challenge is getting these 'snowbirds' to become long term residents. Though having these long term residents can create problems like longer waits and restaurants or traffic congestion.

Apache Junction Site Selection

South East Apache Junction



BOARDERS

N: BROADWAY AVE
E: 1.25 E OF GERONIMO RD
S: LANDFILL SOUTHERN
BOARDER
W: 88TH ST/S IDAHO RD



Apache Junction Inventory

TOPOGRAPHY



HIGH POINTS
2000'

LOW POINTS
1583'

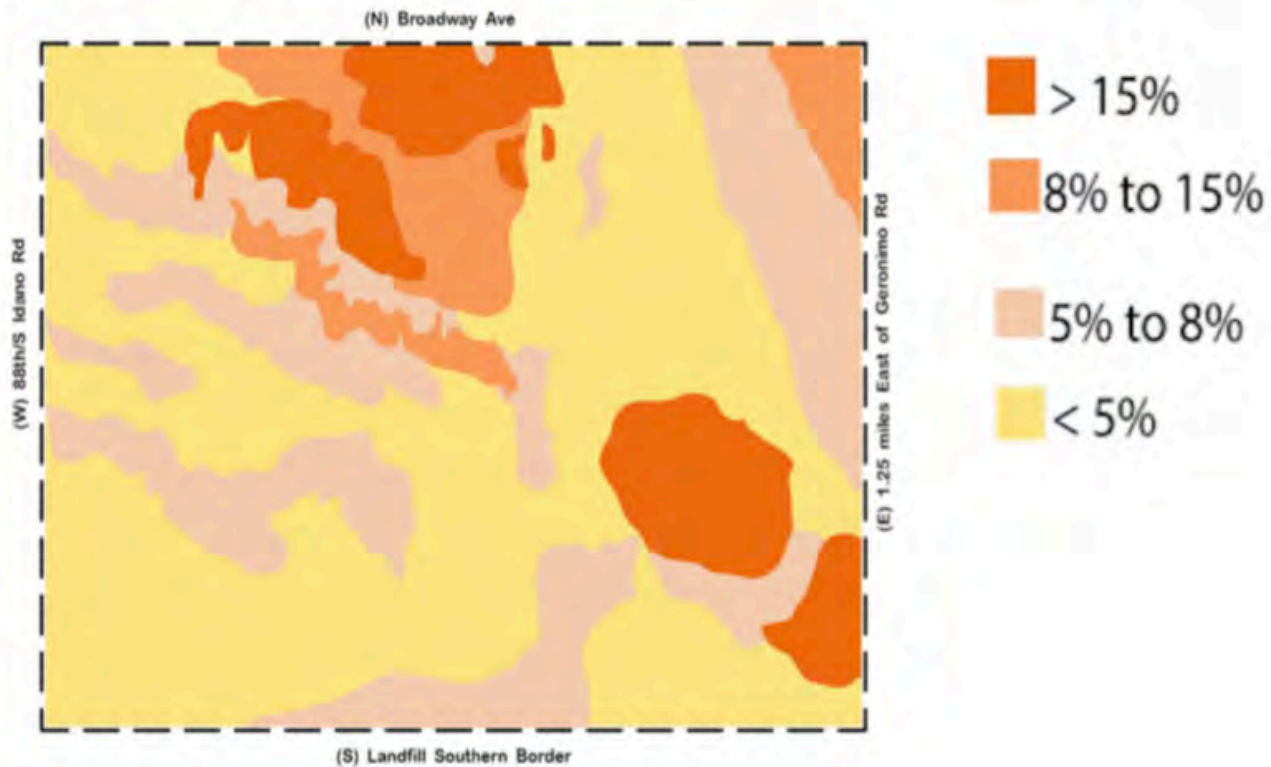
FEATURES

- Base of The Superstition Mountains
- Silly Mountain Park
- Natural and open desert landscape

CHARACTERISTICS

- Mostly flat
- Slopes down hill to South West
- Jagged topography going into the city

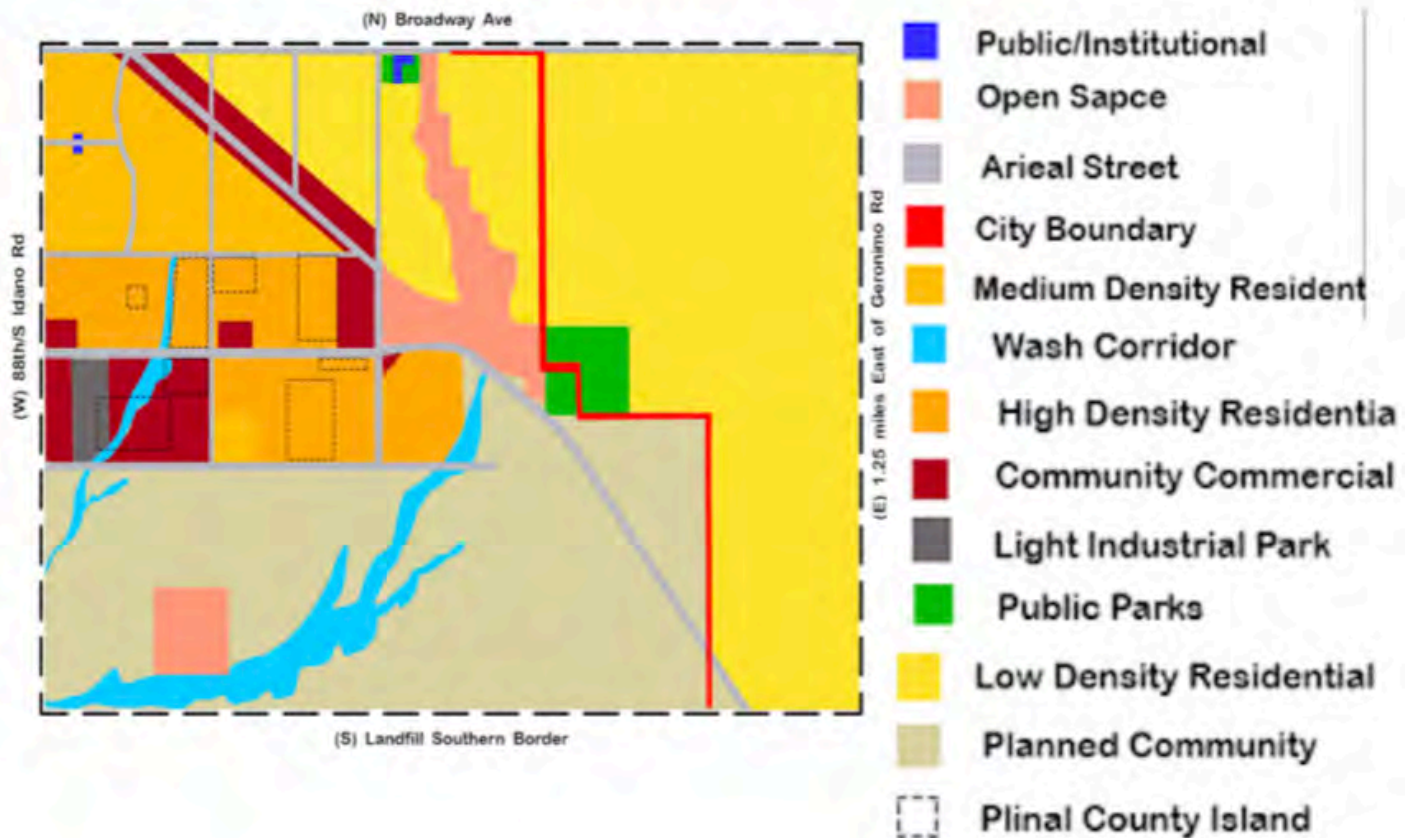
SLOPE/ELEVATION



FEATURES

- Generally flat topography, suitable to build on
- Intense slope is near the Superstition Mountains

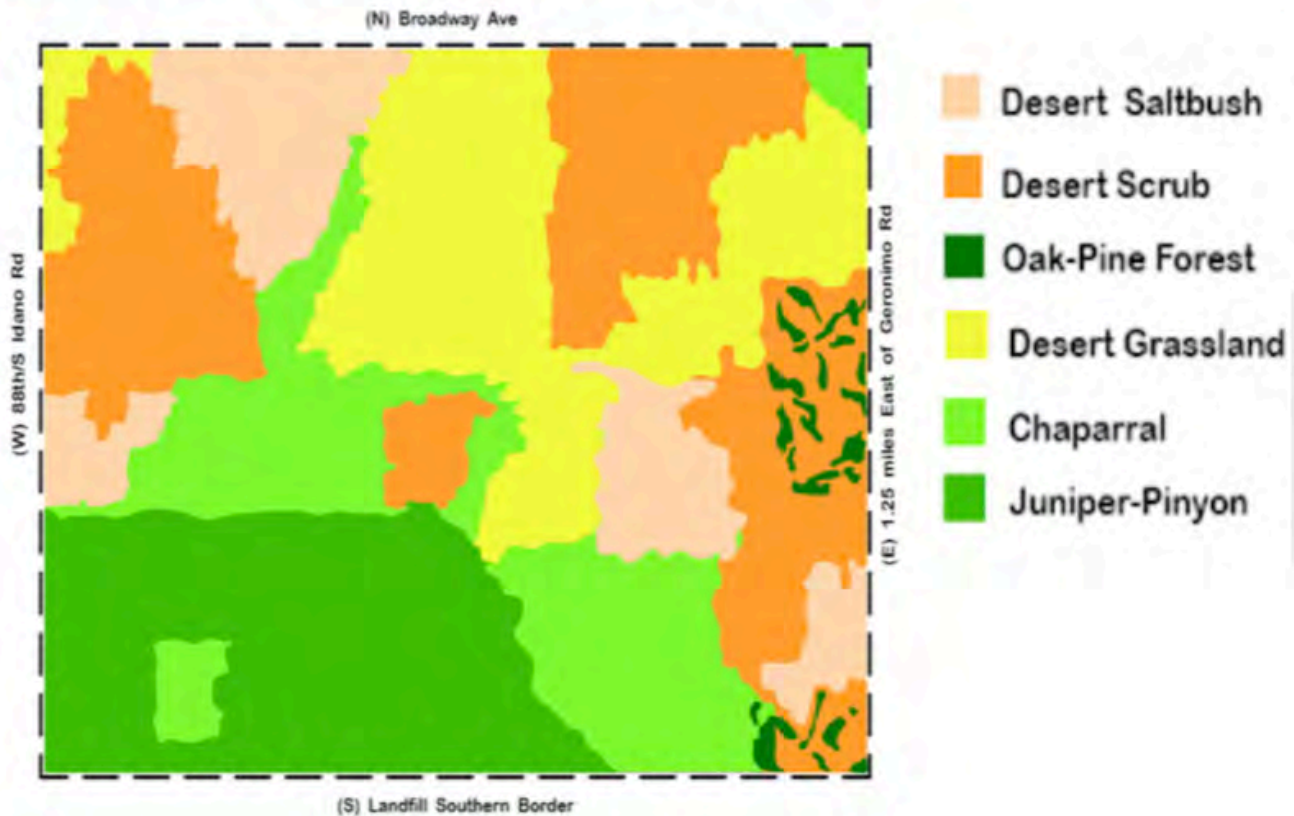
LAND USE



FEATURES

- Over 35% of area is low density residential
- 20% is high or medium residential
- 30% is planned community
- Roads are mainly near higher density residential zones

VEGETATION



FEATURES

- Forests grow on mountains during rainy season
- Grasslands, woodlands, desert scrub and chaparral occupy most areas
- Mostly consisting of a sparse low stature vegetation of short trees, shrubs and cacti

SOILS/GEOLOGY



FEATURES

- Made up mostly of gravelly sandy loam, fine sandy loam, and gravelly clay sandy loam

CHARACTERISTICS

- Sandy loam is the most suitable of the soils to build on, while clay loam is least suitable
- There are a lot of development built upon clay areas

HYDROLOGY



- Flood Zone
- Canal
- Floodplain
- Weekes Wash
- Open Space

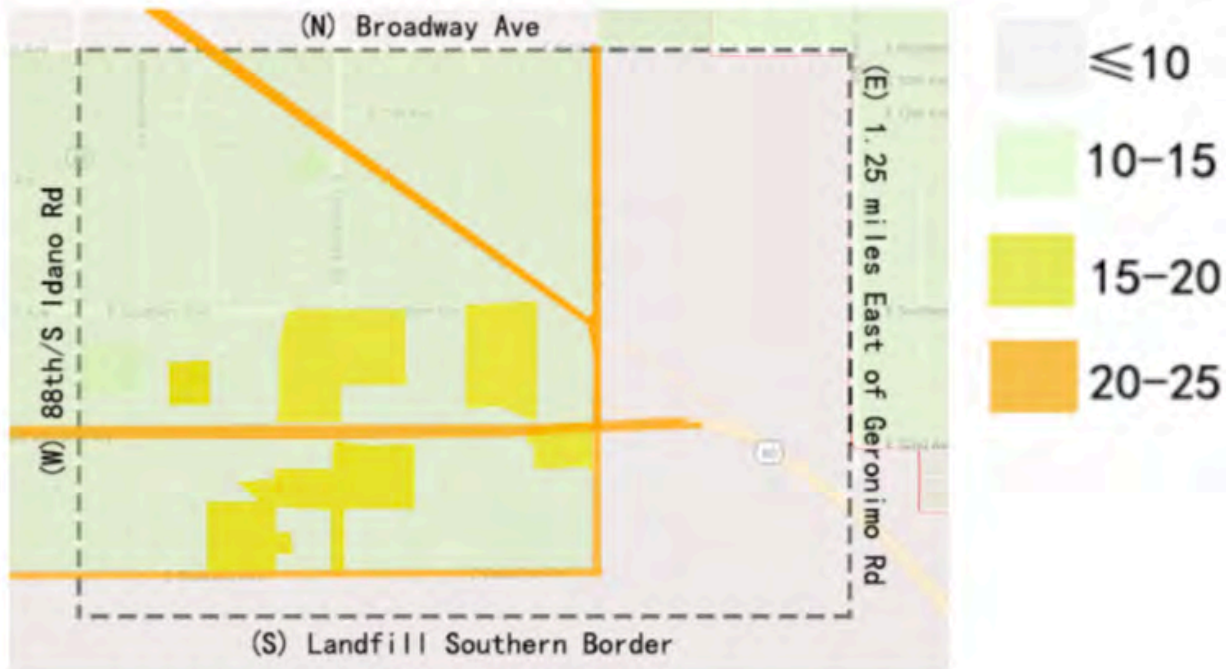
FEATURES

- Average depth <1 ft
- _Washes are found south

CHARACTERISTICS

- Even though residential area is in a flood zone, the only road that is a flood problem is Tomahawk Road near U.S. 60

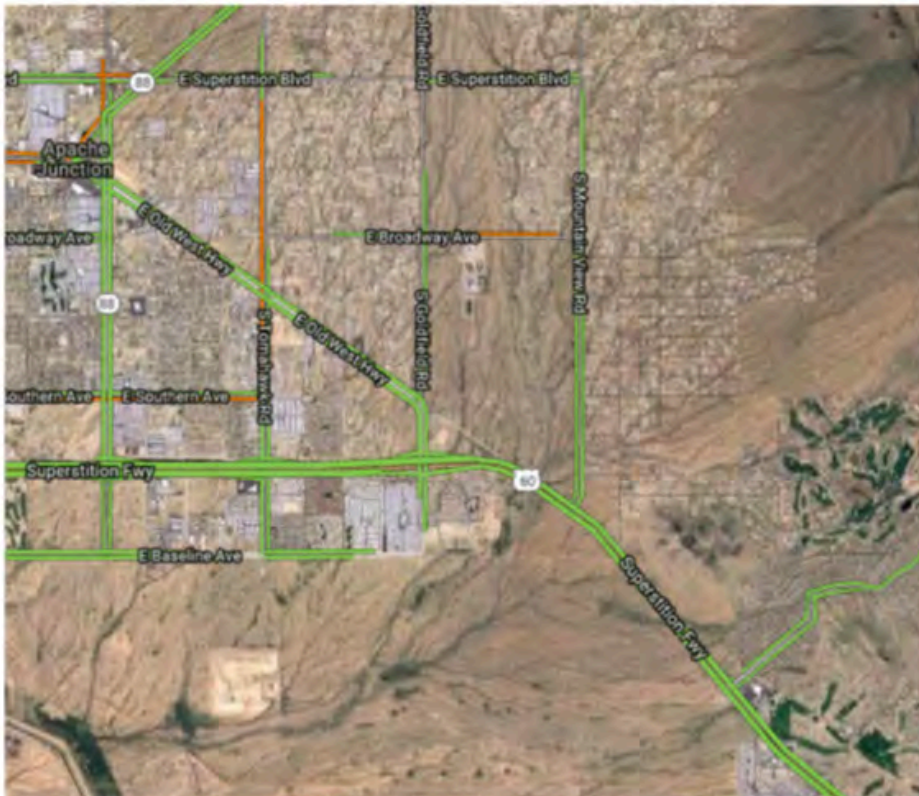
WALKABILITY



FEATURES

- Forests grow on mountains during rainy season
- Grasslands, woodlands, desert scrub and chaparral occupy most areas
- Mostly consisting of a sparse low stature vegetation of short trees, shrubs and cacti

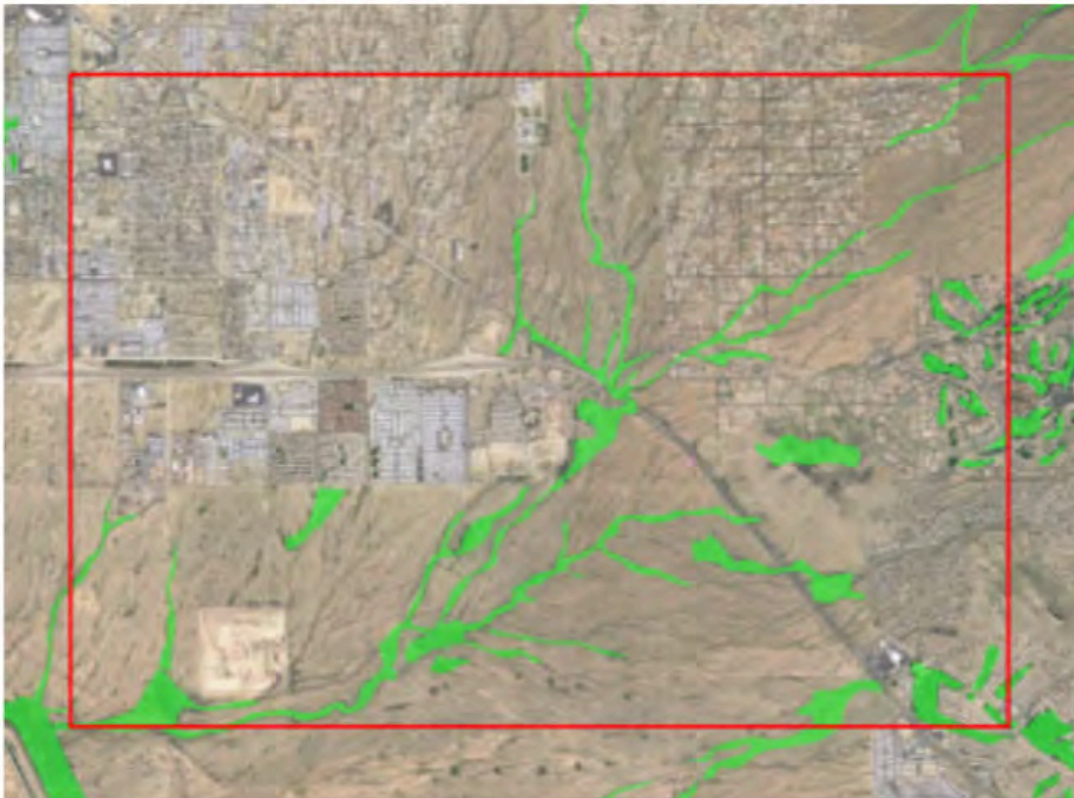
CIRCULATION/TRANSPORTATION SYSTEMS



FEATURES

- Low traffic
- Minimal sidewalks
- Poor road conditions
- Main roads: Superstition Freeway, E Old West Highway and Southern Ave

GREEN INFRASTRUCTURE



FEATURES

- Green Infrastructure is mostly within open and underdeveloped areas
- Green space adjacent to development and neighborhoods in minimal

OPPORTUNITIES/CONSTRAINTS

OPPORTUNITIES

- Community space off S Idaho and Broadway Roads
- Old West Highway/US 60 cross through site
- Open land: recreational uses
- Superstition Mountain views
- Silly Mountain Park
- Silly Mountain Park Trails

CONSTRAINTS

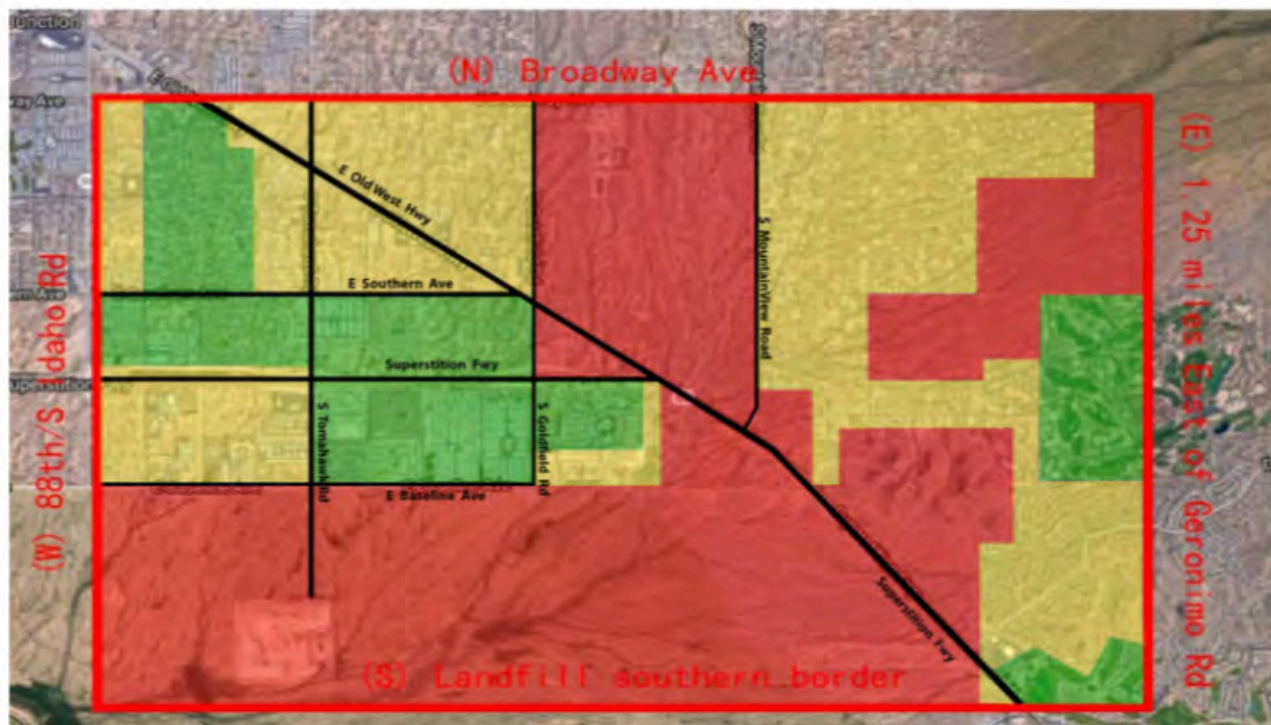
- Washes on Southern end lead into landfill
- Limited accessible utilities
- Underdeveloped roads within residential areas
- Minimal sidewalks

Apache Junction

Assessment/Evaluation & Suitability Analysis

Suitability Maps

RESIDENTIAL



NEGATIVE

NEUTRAL

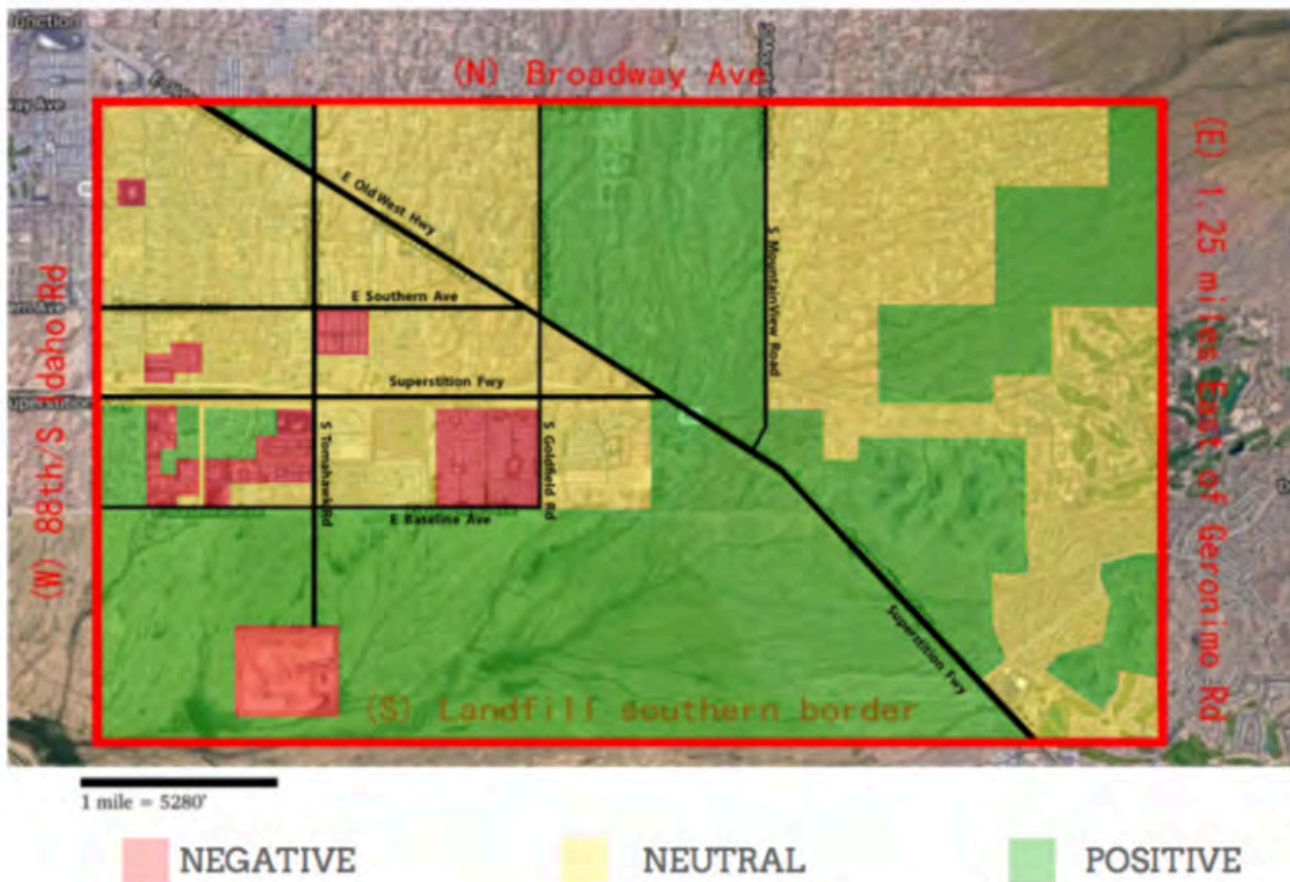
POSITIVE

-LAND IN RED: SOUTH END OF SITE CONSISTS OF STATE TRUST LAND CAUSING IT TO BE UNSUITABLE TO BUILD UPON

-LAND IN YELLOW: WASHES COMING FROM SUPERSTITION MOUNTAINS CREATE LAND TO BE MODERATELY SUITABLE TO BUILD ON. SOIL ALSO EFFECTS SUITABILITY.

-LAND IN GREEN: CURRENTLY HOST OF RESIDENTIAL DEVELOPMENTS, GREAT TO BUILD ON.

ACTIVE RECREATION

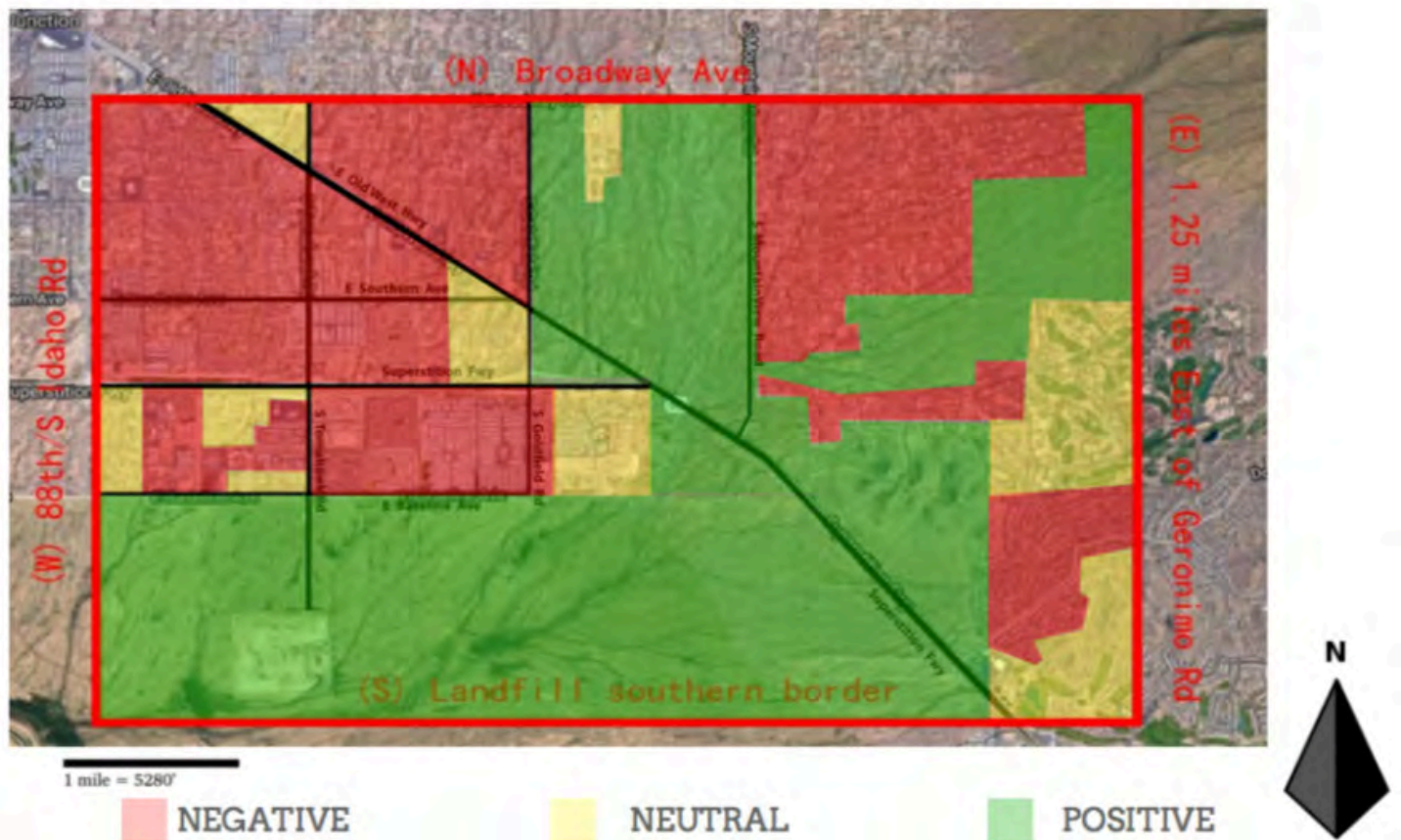


-LAND IN RED: MINIMAL OPPORTUNITIES FOR ACTIVE RECREATION WITHIN NEIGHBORHOODS. NOT SUITABLE RECREATION NEAR LANDFILL

-LAND IN YELLOW: OPEN LAND FOR OPPORTUNITY TO IMPLEMENT ACTIVE RECREATION, MINIMAL HUMAN DISTURBANCE, OR ACTIVE RECREATION MAY BE BEGINNING WITHIN THESE AREAS.

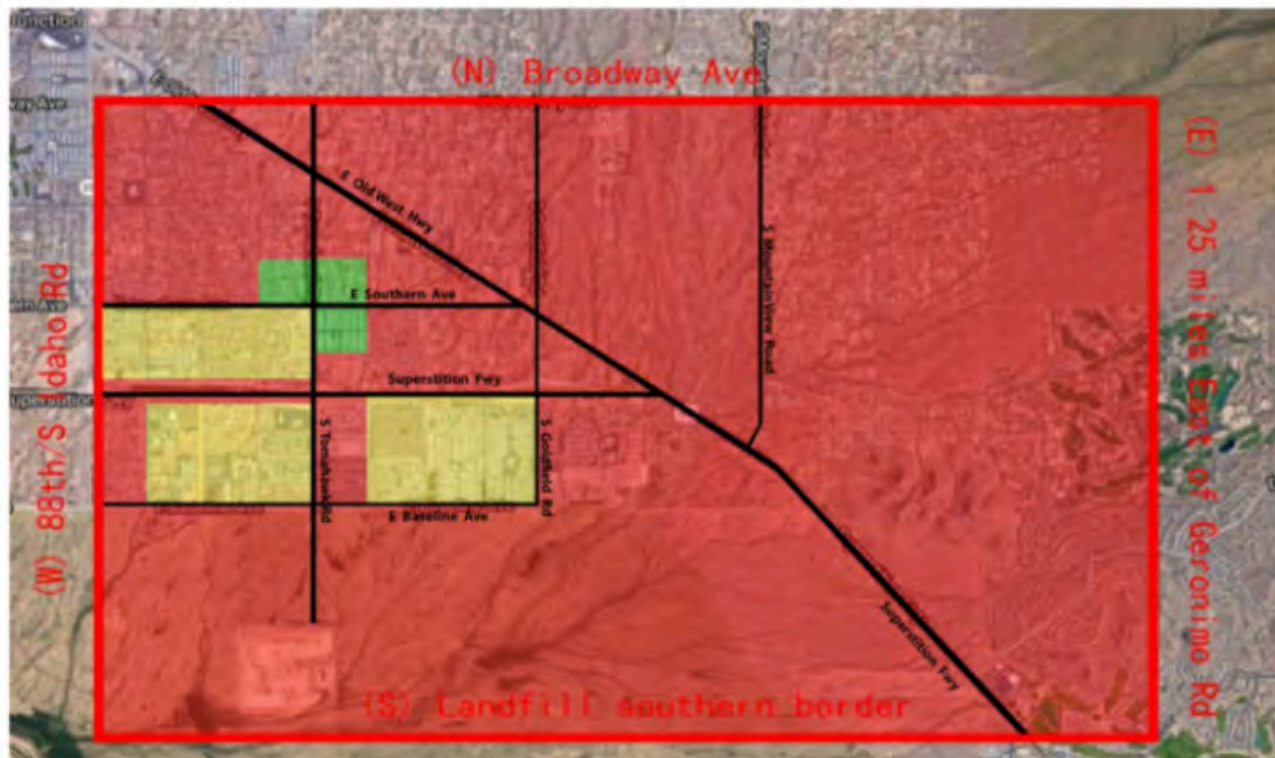
-LAND IN GREEN: OPEN LAND WITH MULTIPLE OPPORTUNITIES FOR OPEN RECREATION

OPEN SPACE CORRIDORS



- LAND IN RED: HIGH DENSITY AREAS WITH LITTLE TO NO OPEN SPACE
- LAND IN YELLOW: MINIMAL OPEN SPACE
- LAND IN GREEN: MAINLY OPEN LAND

COMMERCIAL



1 mile = 5280'

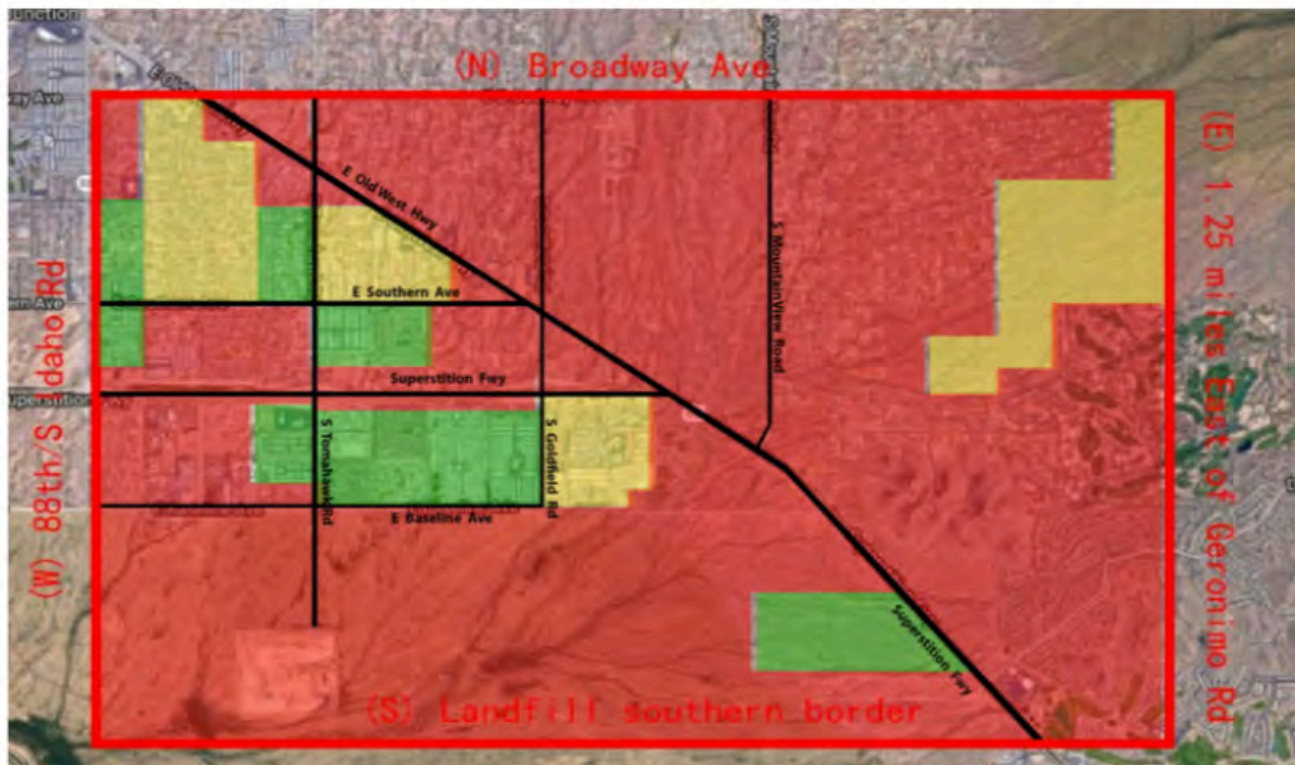
NEGATIVE

NEUTRAL

POSITIVE

- LAND IN RED: STATE TRUST LAND, RESIDENTIAL DEVELOPMENTS, OR LAND WITH ELEVATION UNSUITABLE TO BUILD UPON
- LAND IN YELLOW: COMMERCIAL DEVELOPMENT OCCURS IN THESE AREAS WITH VACANT LAND TO EXPAND UPON
- LAND IN GREEN: OPEN LAND AVAILABLE FOR COMMERCIAL DEVELOPMENT

INSTITUTION



1 mile = 5280'

NEGATIVE

NEUTRAL

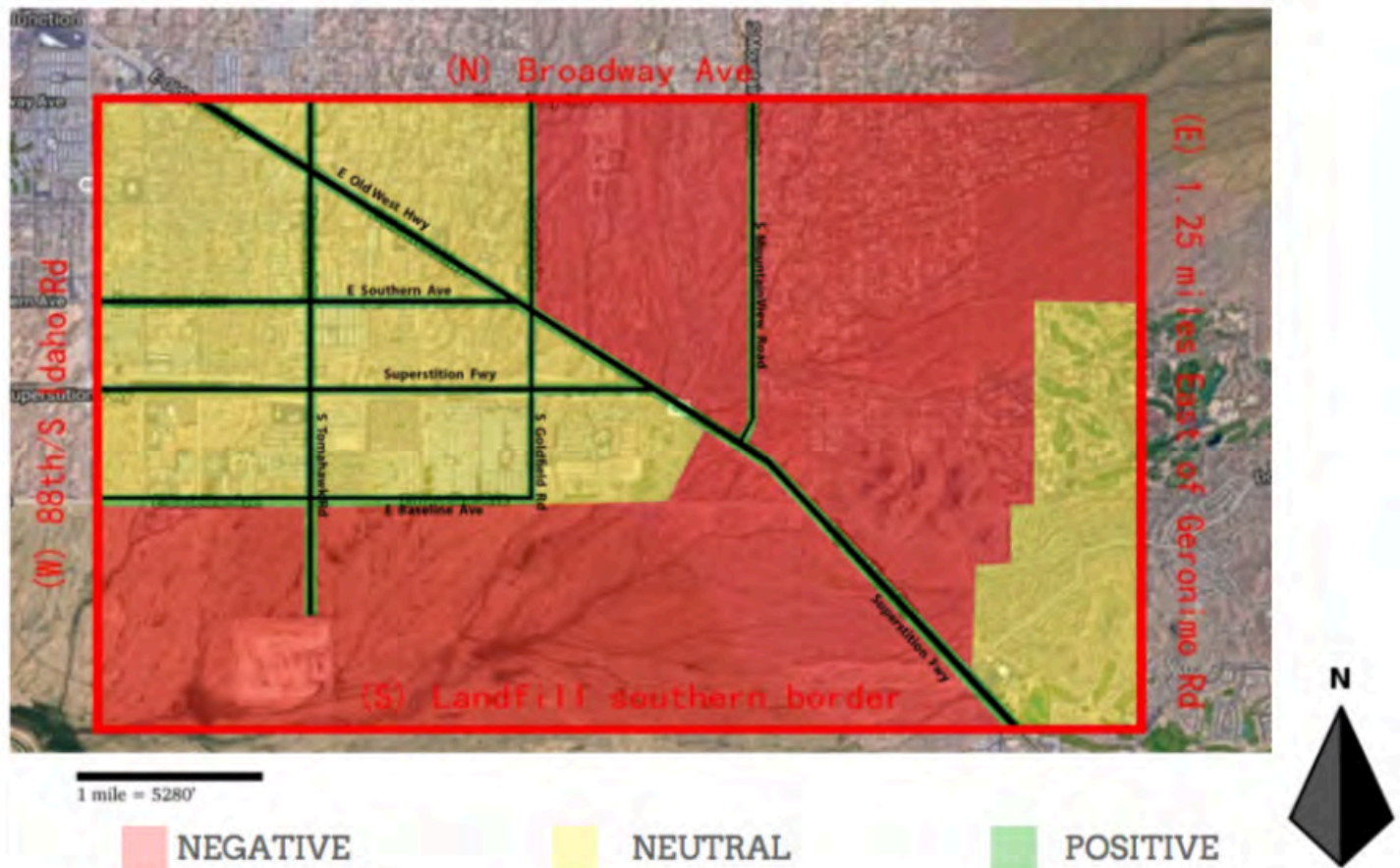
POSITIVE

-LAND IN RED: STATE TRUST LAND UNSUITABLE FOR INSTITUTION

-LAND IN YELLOW: SHOW OPPORTUNITY OR PROVIDES MINIMAL OPPORTUNITY FOR INSTITUTION

-LAND IN GREEN: LAND MOST SUITABLE FOR INSTITUTIONS

MULTI-MODAL CIRCULATION

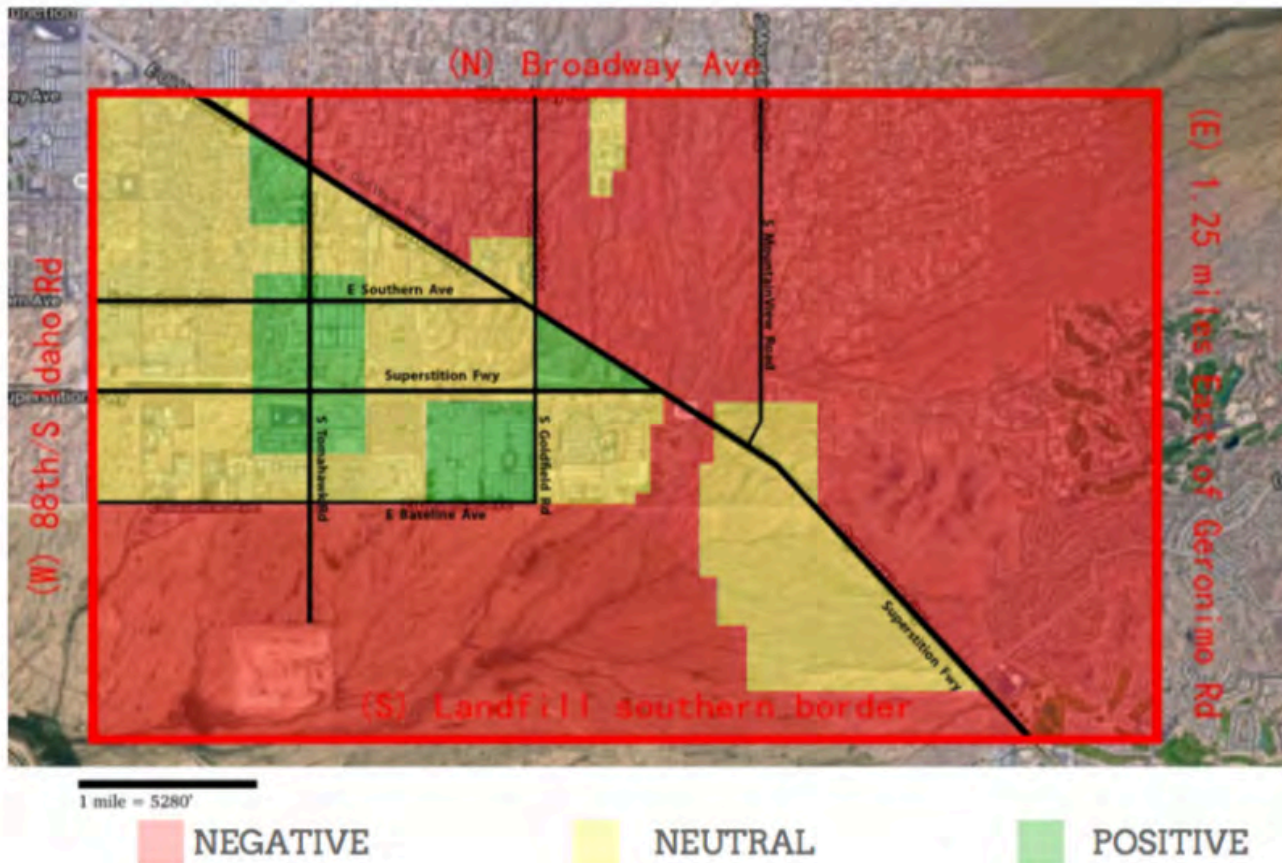


-LAND IN RED: CIRCULATION IS MINIMAL

-LAND IN YELLOW: CIRCULATION EXISTS BUT CONDITIONS ARE POOR

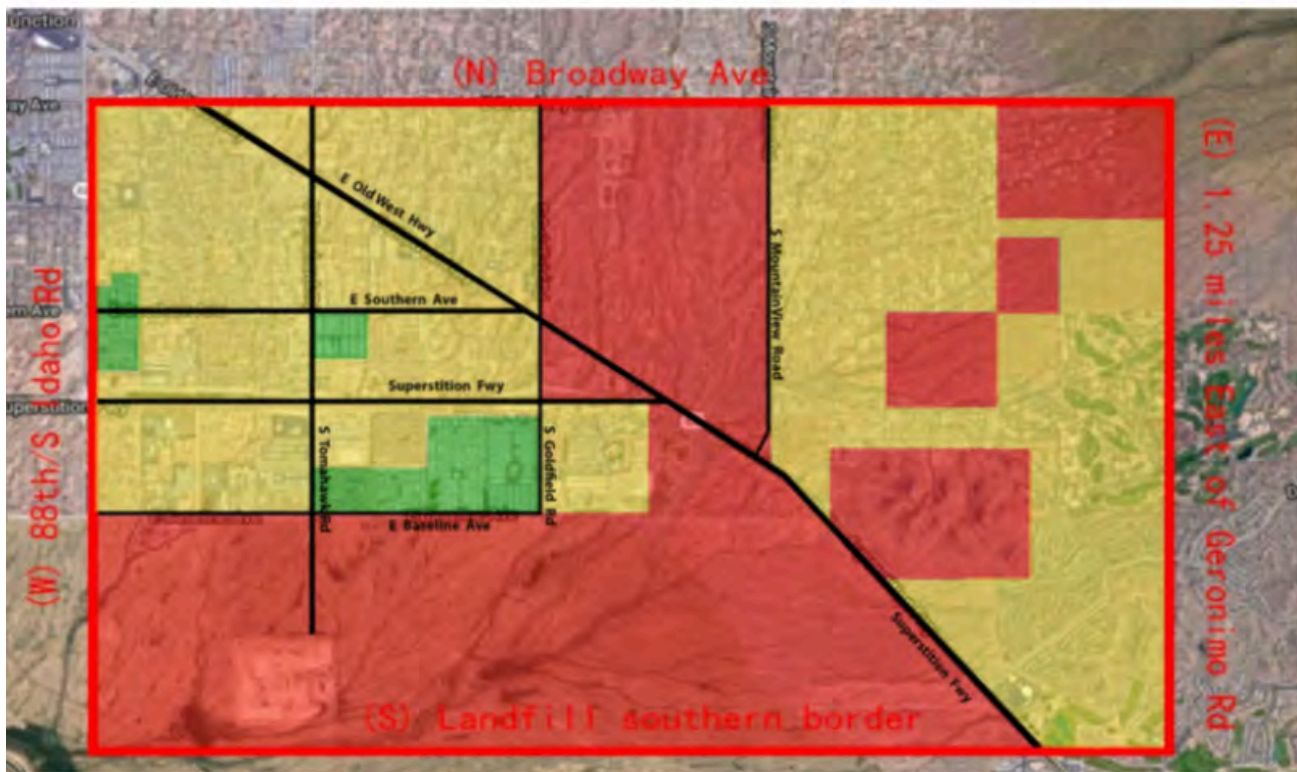
-LAND IN GREEN: MAIN ROUTES OF TRANSPORTATION FOR THE CITY

LIGHT INDUSTRIAL



- LAND IN RED: STATE TRUST LAND, RESIDENTIAL DEVELOPMENTS, OR LAND WITH ELEVATION UNSUITABLE TO BUILD UPON
- LAND IN YELLOW: LAND PROVIDES OPPORTUNITIES MILDLY SUITABLE FOR LIGHT INDUSTRIAL DEVELOPMENTS
- LAND IN GREEN: LAND SUITABLE FOR LIGHT INDUSTRIAL DEVELOPMENTS

VILLAGE CORE



1 mile = 5280'

 **NEGATIVE**

 **NEUTRAL**

 **POSITIVE**

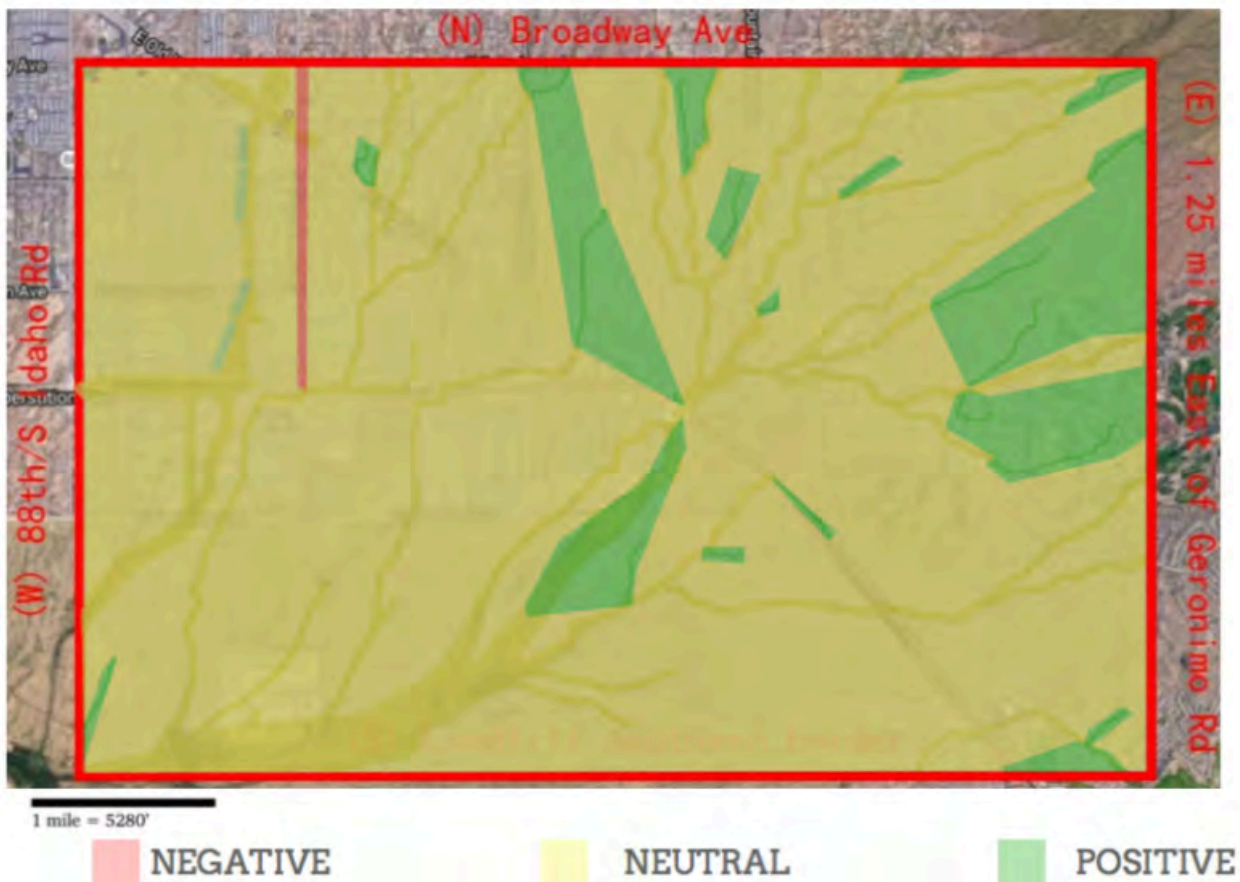


-LAND IN RED: STATE TRUST LAND, NO CURRENT DEVELOPMENTS

-LAND IN YELLOW: LOW DENSITY AREAS WITHIN SECTION WHETHER RESIDENTIAL, COMMERCIAL OR INDUSTRIAL

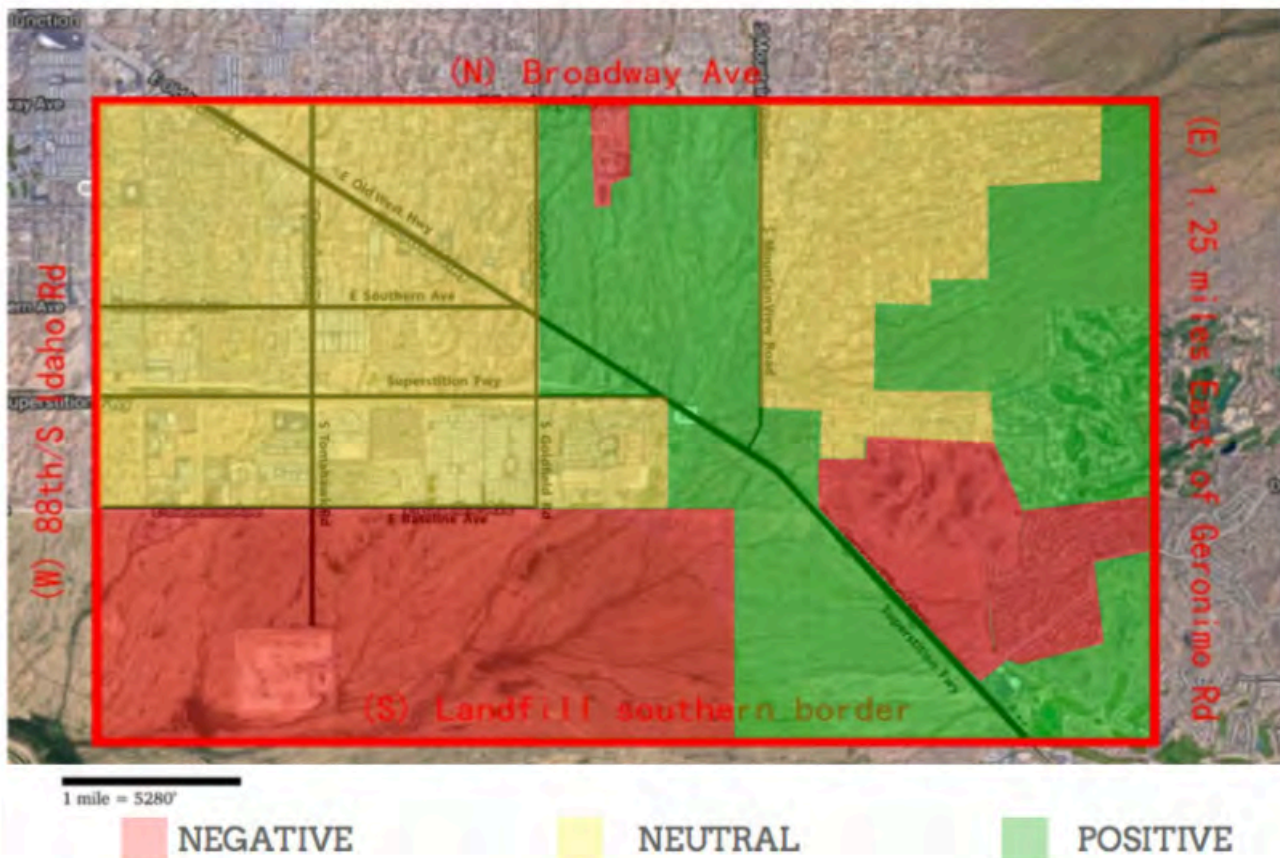
-LAND IN GREEN: MAIN CORE OF SITE SELECTION

HYDROLOGY



- LAND IN RED: MOST INTENSE FLOODING OF CITY SITE
- LAND IN YELLOW: MINIMAL FLOODING AND WASHES
- LAND IN GREEN: MANY WASHES, MOST FLOODING WITHIN SITE

URBAN AGRICULTURE

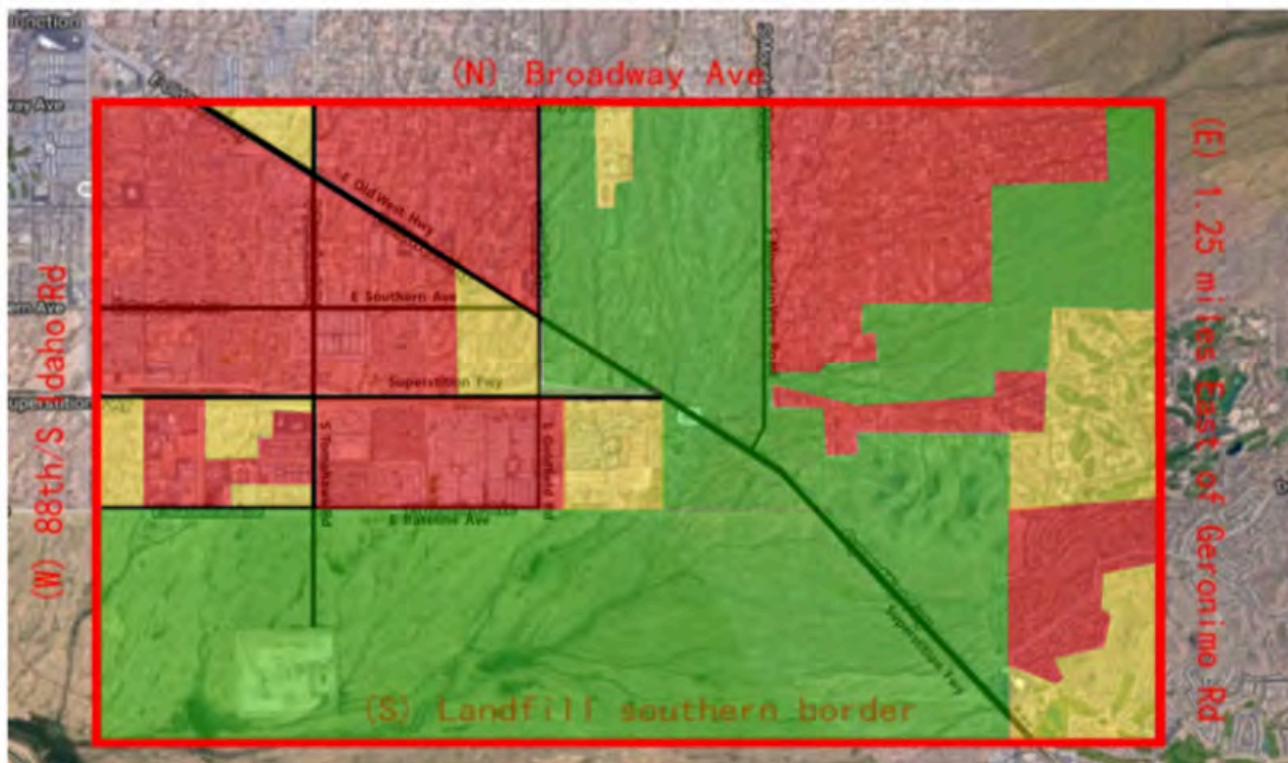


-LAND IN RED: STATE TRUST LAND UNABLE TO BUILD UPON

-LAND IN YELLOW: RESIDENTIAL DEVELOPMENT UNSUITABLE FOR URBAN AGRICULTURE

-LAND IN GREEN: OPEN LAND AVAILABLE FOR URBAN AGRICULTURE

WILDLIFE



1 mile = 5280'

NEGATIVE

NEUTRAL

POSITIVE

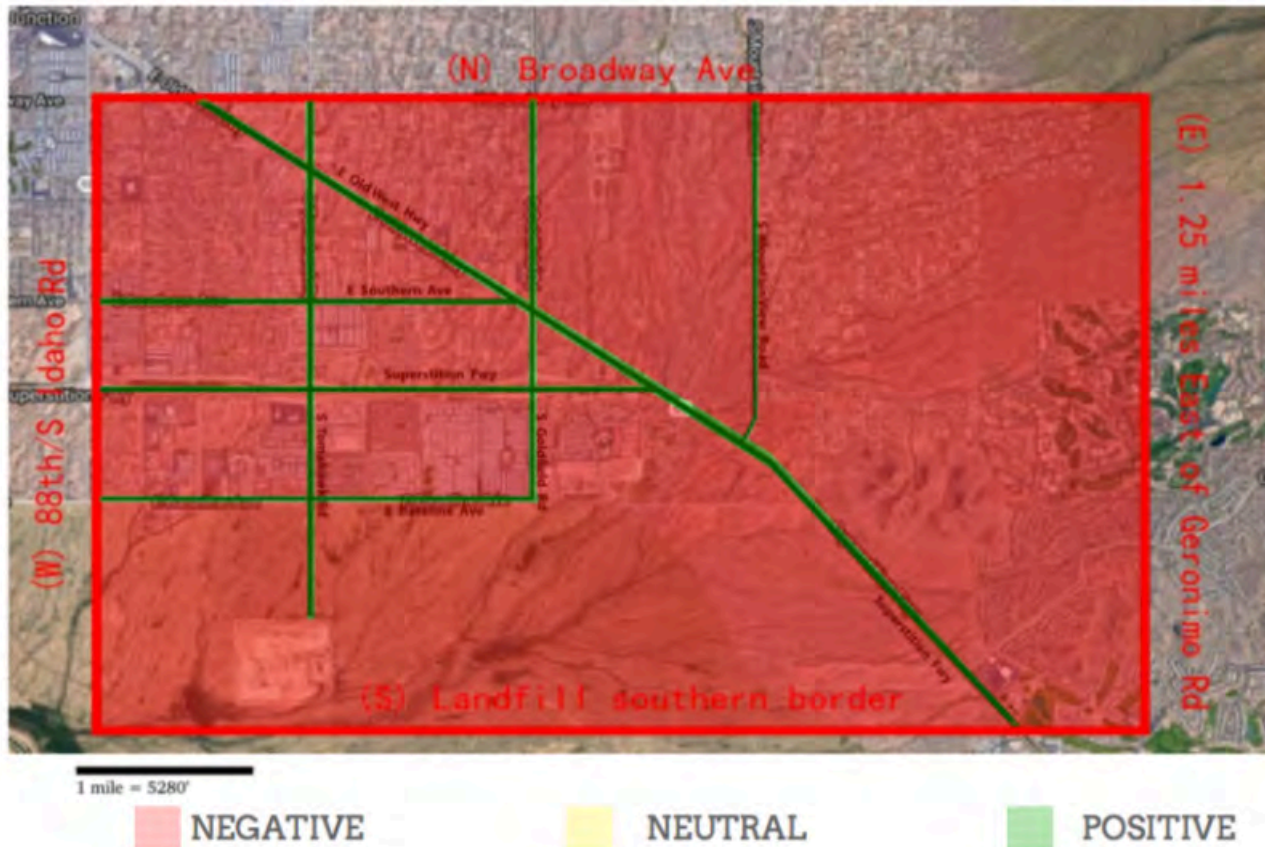


-LAND IN RED: HIGH DENSITY RESIDENTIAL, LITTLE TO NO WILD LIFE WITHIN THESE PARTS

-LAND IN YELLOW: MEDIUM TO LOW DENSITY, APPROPRIATE FOR WILD LIFE

-LAND IN GREEN: NO DEVELOPMENTS, MOST SUITABLE FOR WILD LIFE TO LIVE WITHOUT ANY HUMAN DISTURBANCE

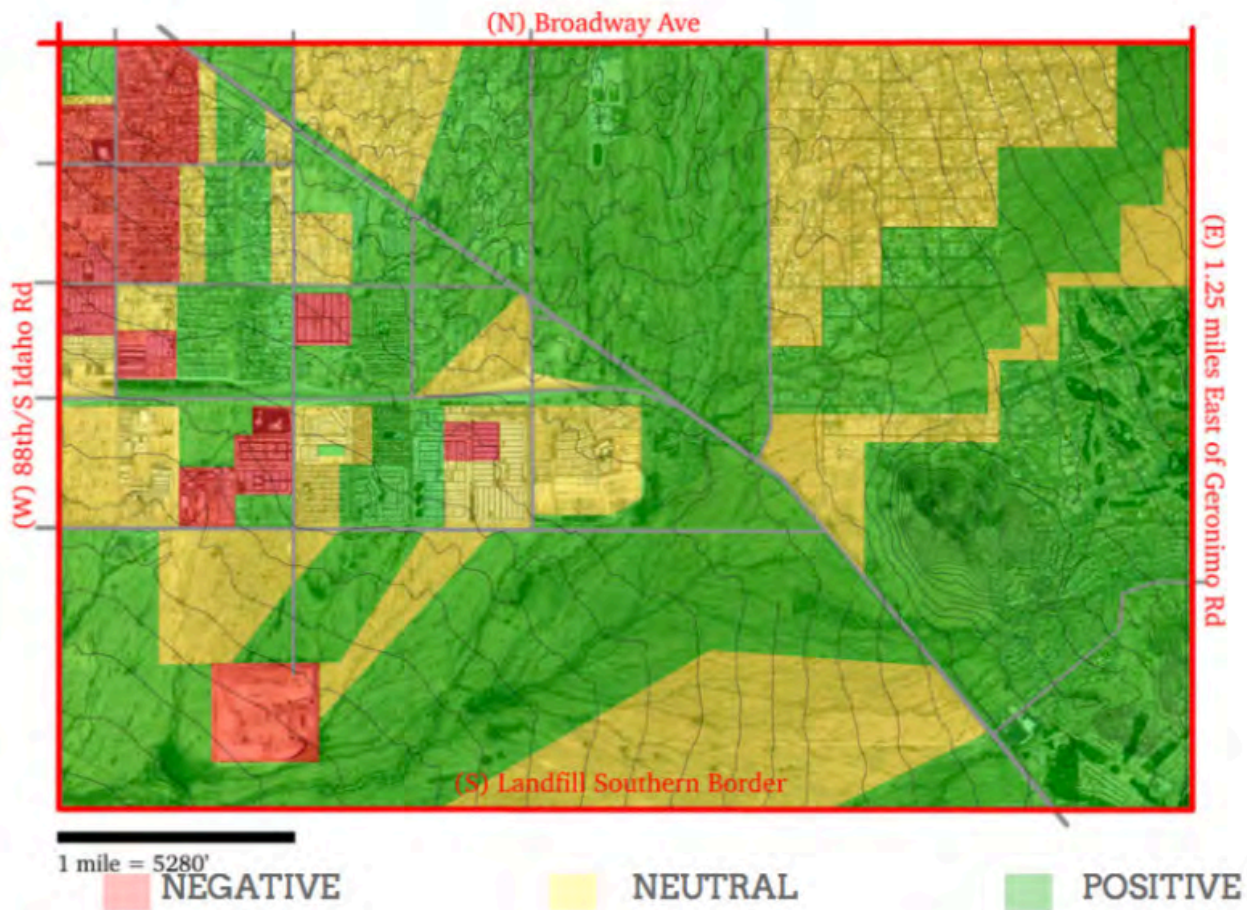
ARTERIAL ROADS



-LAND IN RED: POOR ROADS AND SIDEWALKS

-LAND IN GREEN: MAIN ROUTES OF TRANSPORTATION
FOR RESIDENTS

GREEN INFRASTRUCTURE



-LAND IN RED: NO GREEN INFRASTRUCTURE

-LAND IN YELLOW: OPPORTUNITIES FOR GREEN INFRASTRUCTURE

-LAND IN GREEN: MOST SUITABLE FOR GREEN INFRASTRUCTURE WITHIN THE CITY SITE

LAND USE SUITABILITY

	CLIMATE	HYDROLOGY	SLOPE	SOIL	INFRASTRUCTURE	DEMOGRAPHICS	CIRCULATION	LAND USE	VEGETATION	WILDLIFE	GREEN INFRASTRUCTURE	GREEN WAYS
AGRICULTURE	Yellow	Yellow	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Green	Yellow	Yellow	Yellow
ACTIVE RECREATION	Green	Green	Green	Green	Yellow	Green	Yellow	Green	Green	Yellow	Green	Green
OPEN SPACE CORRIDOR	Green	Green	Yellow	Green	Yellow	Green	Yellow	Yellow	Yellow	Green	Green	Green
WILDLIFE PRESERVE	Green	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Green	Green	Green	Green

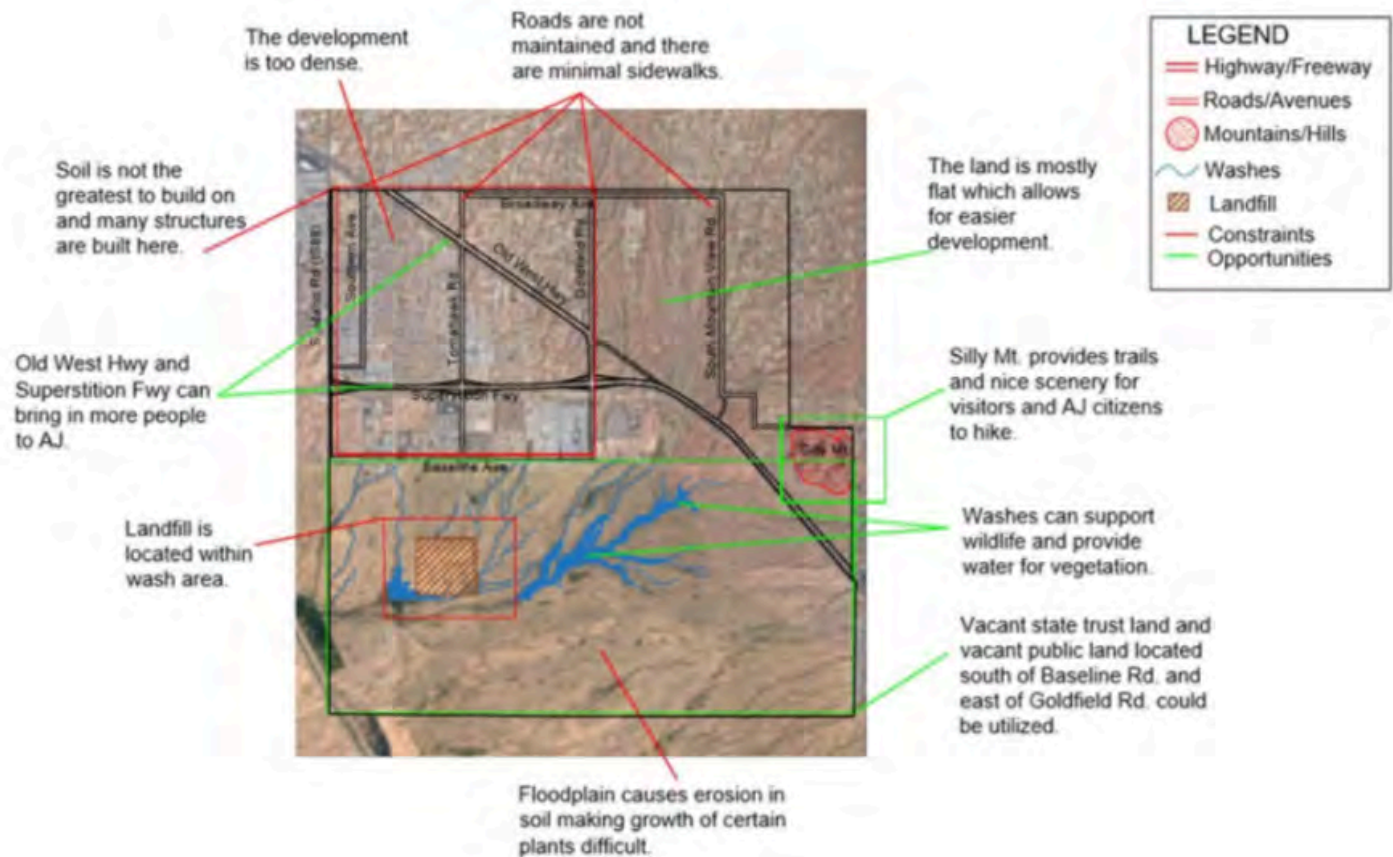
HUMAN FACTORS SUITABILITY

	CLIMATE	HYDROLOGY	SLOPE	SOIL	INFRASTRUCTURE	DEMOGRAPHICS	CIRCULATION	LAND USE	VEGETATION	WILDLIFE	GREEN INFRASTRUCTURE	GREEN WAYS
ARTERIAL ROADS	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Red	Yellow	Yellow	Yellow	Green	Yellow
COMMERCIAL	Yellow	Yellow	Green	Green	Yellow	Yellow	Yellow	Red	Yellow	Yellow	Yellow	Red
INSTITUTIONAL	Yellow	Yellow	Green	Yellow	Yellow	Yellow	Yellow	Green	Yellow	Yellow	Yellow	Green
LIGHT INDUSTRIAL	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Red	Red	Red	Red
MULTI-MODAL CIRCULATION	Yellow	Yellow	Yellow	Yellow	Yellow	Red	Yellow	Yellow	Yellow	Red	Yellow	Red
RESIDENTIAL	Green	Red	Yellow	Yellow	Green	Green	Red	Red	Green	Red	Yellow	Yellow
VILLAGE CORE	Green	Yellow	Yellow	Yellow	Yellow	Green	Red	Yellow	Green	Yellow	Yellow	Yellow

LAND USE COMPATIBILITY

PROPOSED													
EDUCATIONAL	Green	Red	Red	Red	Green	Green	Yellow	Red	Red	Red	Red	Green	Green
COMMERCIAL	Red	Green	Red	Red	Yellow	Yellow	Yellow	Red	Red	Yellow	Yellow	Green	Green
RELIGIOUS/INSTITUTIONAL	Red	Red	Red	Red	Yellow	Yellow	Green	Red	Red	Red	Red	Green	Green
PUBLIC/SPECIAL EVENT/MILITARY	Red	Red	Red	Red	Yellow	Yellow	Red	Green	Green	Red	Red	Green	Green
ACTIVE/OPEN SPACE	Green	Red	Red	Red	Yellow	Yellow	Yellow	Green	Green	Red	Red	Green	Green
SINGLE FAMILY	Red	Red	Green	Yellow	Green	Green	Red	Red	Red	Red	Red	Yellow	Red
MULTI FAMILY	Red	Red	Red	Green	Green	Green	Red	Red	Red	Red	Red	Yellow	Red
VACANT STATE TRUST LAND	Green	Yellow	Red	Red	Red	Red	Red	Green	Green	Green	Green	Green	Green
INDUSTRIAL	Red	Yellow	Red	Red	Yellow	Yellow	Red	Red	Red	Green	Red	Green	Green
OTHER EMPLOYMENT	Red	Yellow	Red	Red	Green	Green	Red	Yellow	Yellow	Green	Green	Green	Red
TOURIST ACCOMMODATIONS	Red	Yellow	Red	Red	Green	Green	Red	Yellow	Green	Red	Green	Green	Green
PUBLIC LAND	Yellow	Yellow	Red	Red	Green	Green	Yellow	Green	Green	Red	Green	Green	Green
EXISTING	EDUCATIONAL	COMMERCIAL	SINGLE FAMILY	MULTI FAMILY	VACANT STATE TRUST LAND	VACANT	RELIGIOUS/INSTITUTIONAL	ACTIVE/OPEN SPACE	PUBLIC/SPECIAL EVENT/MILITARY	INDUSTRIAL	TOURIST ACCOMMODATIONS	OTHER EMPLOYMENT	PUBLIC LAND

Opportunities & Constraints



Conclusion

Through our suitability maps we found the possibilities of having active recreation, open space corridors, wildlife preserve and urban agriculture.

We also found things that could be improved including sidewalks to encourage walking and community interaction as well as reconstructing and maintaining roads.

Apache Junction

Master Plan's

Theme 1

Healthy Aging, Aging in Place

Healthy Aging, Aging in Place

MISSION

Introducing new commercial properties, increasing single and multi family housing developments, and providing new opportunities to stay active within the community. Residents should have the ability to age in place.

VISION

Creating the opportunity to build and live out a life within Apache Junction. This means creating smaller communities within the larger Apache Junction Community.

CURRENT LAND USE PLAN



PROPOSED LAND USE PLAN



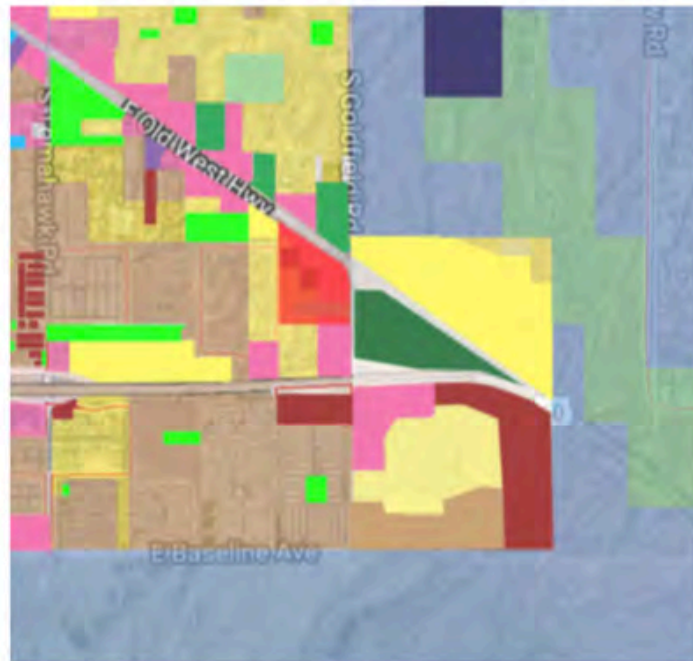
Healthy Aging, Aging in Place

LAND USE ALLOCATIONS

LAND USES	CURRENT LAND USE %	PROPOSED LAND USE %
 Educational	2%	2%
 Commercial Low	8%	10.5%
 Single Family Medium Density	6%	8%
 Vacant	12%	.01%
 Religious/Institutional	1.5%	1.5%
 Public/Special Event/Military	1.6%	1.6%
 Active/Open Space	.5%	2%
 Single Family High Density	20%	22.2%
 Industrial	6%	6%
 Tourist Accomodations	.01%	.01%
 Other Employment	2%	2%
 Single Family Low Density	15.3%	18%
 Public Land	.09%	.09%
 Vacant State Trust	15%	15%
 Multi Family	10%	11.09%

Healthy Aging, Aging in Place

SITE SELECTION



BOARDS

N: E OLD WESTERN HIGHWAY
E: S GOLDFIELD ROAD
S: E 28TH ST
W: S STAR STREET

Healthy Aging, Aging in Place

MASTER PLAN



AMMENITIES

COMMUNITY CENTER
CLUB HOUSE
GOLF DRIVING RANGE
SINGLE FAMILY RESIDENTIAL HOUSING
MULTI-FAMILY RESIDENTIAL HOUSING
OPEN SPACE-DOG PARK

Healthy Aging, Aging in Place

COMMUNITY CENTER

- 28,595 SF
- PHYSICAL THERAPY CENTER
- GYM FACILITIES
- YOGA CLASSES
- INDOOR/OUTDOOR LAP POOLS
- MALE/FEMALE LOCKER ROOMS
- SPORT COURTS: TENNIS & RACQUET BALL

CLUB HOUSE

- 37,520 SF
- SPORTS DEN
- CONFERENCE CENTER
- CLASS ROOMS
- LIBRARY
- RESTURANTS
- OUTDOOR PATIO SPACE

GOLF DRIVING RANGE

- 14 ACRES
- 2 STORY BUILDING

SINGLE FAMILY RESIDENTIAL HOUSING

- 1000 SF
- RANCH STYLE HOMES
- PROPERTY: 70' X 35'
- HOME: 40' X 25' X 15'
- 15' FRONT AND BACK YARD
- 5' WALLS SURROUNDING HOMES CREATING PRIVACY

Healthy Aging, Aging in Place

MULTI FAMILY RESIDENTIAL HOUSING

- 960 SF
- DUPLEX RANCH STYLE HOMES
- PROPERTY: 78' X 60'
- DUPLEX UNITS: 68' X 30' X 15'
- INDIVIDUAL UNITS: 32' X 30' X 15'
- 15' FRONT AND BACK YARD
- 5' WALLS SURROUND HOMES CREATING PRIVACY

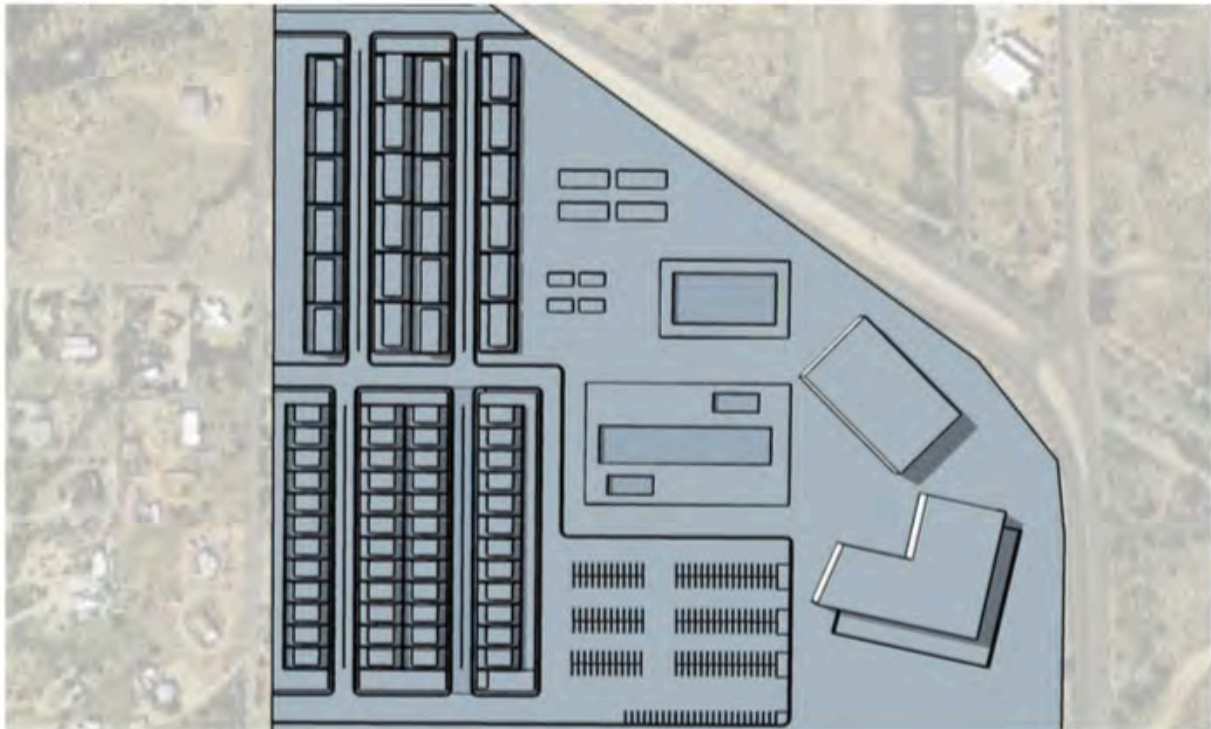
PUBLIC OPEN SPACE

- MULTI PURPOSE USE
- DOG PARK

BEST PRACTICES

- SINGLE LEVEL DESIGNED HOMES
- ELEVATORS IN MULTI LEVEL BUILDINGS:
- COMMUNITY CENTER & CLUB HOUSE
- WHEEL CHAIR ACCESSIBLE THROUGHOUT ENTIRE MASTER PLAN
- SLIP RESISTANT SURFACES
- OPEN FLOOR PLANS
- CUSTOMISABLE HOMES

RESIDENTIAL HOUSING

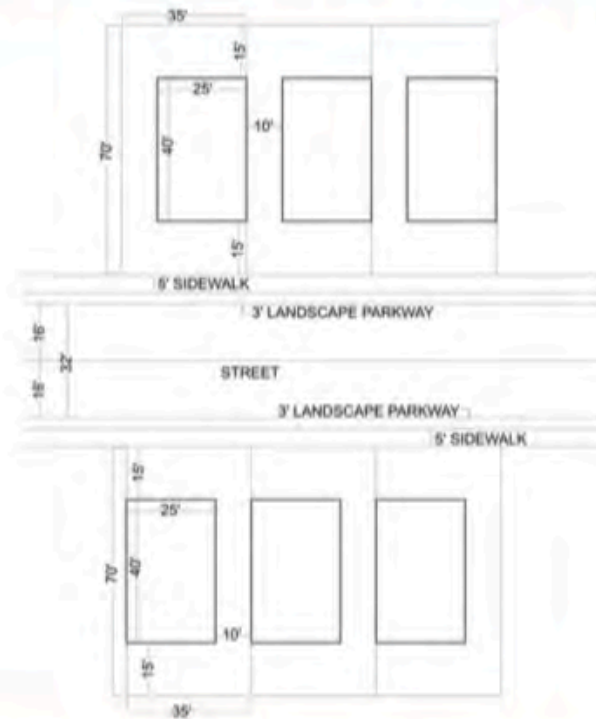


-LOCATED SOUTH OF THE OPEN SPACE DOG PARK,
WEST OF THE COMMUNITY CENTER AND CLUB
HOUSE AND NORTH OF THE GOLF DRIVING RANGE

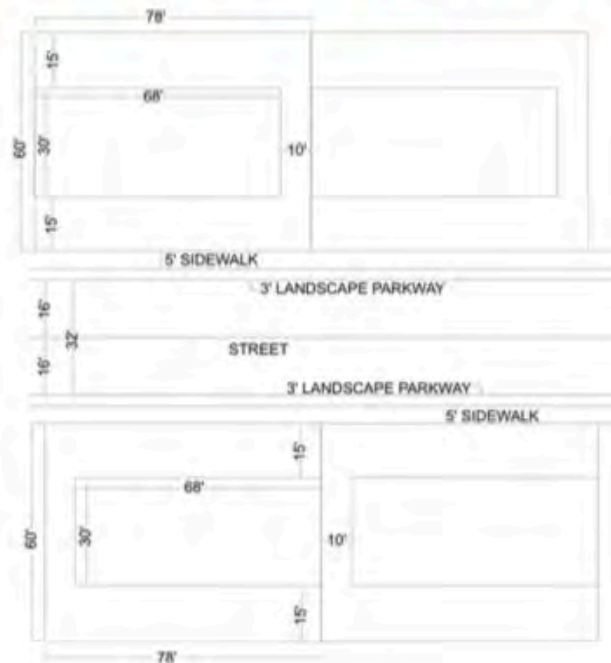
-MULTI FAMILY RESIDENTIAL HOMES ARE NORTH
OF SINGLE FAMILY RESIDENTIAL HOMES

Healthy Aging, Aging in Place

SINGLE FAMILY RESIDENTIAL HOUSING



MULTI FAMILY RESIDENTIAL HOUSING



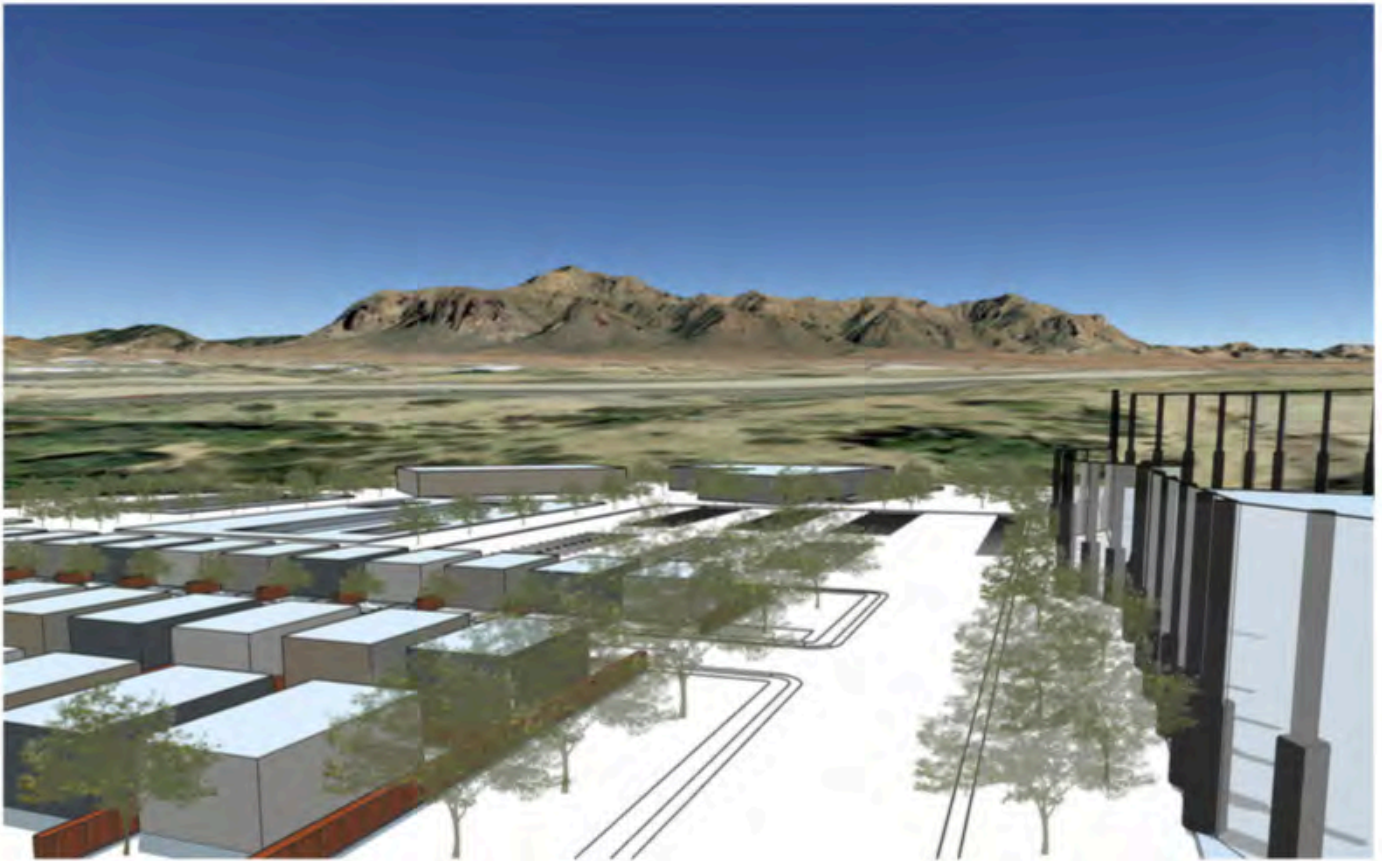
SECTION VIEW OF SINGLE FAMILY RESIDENTIAL HOUSING



- PROPERTIES ARE DESIGNED TO MAXIMIZE PRIVACY WHILE ALSO MINIMIZING PROPERTY MAINTENANCE
- HOMES ARE CUSTOMIZABLE
- 5' OF SIDEWALK THROUGHOUT NEIGHBORHOOD EXTENDING ACROSS THE ENTIRE SITE
- 3' OF LANDSCAPE PARKWAY BETWEEN SIDEWALKS AND STREETS

Healthy Aging, Aging in Place

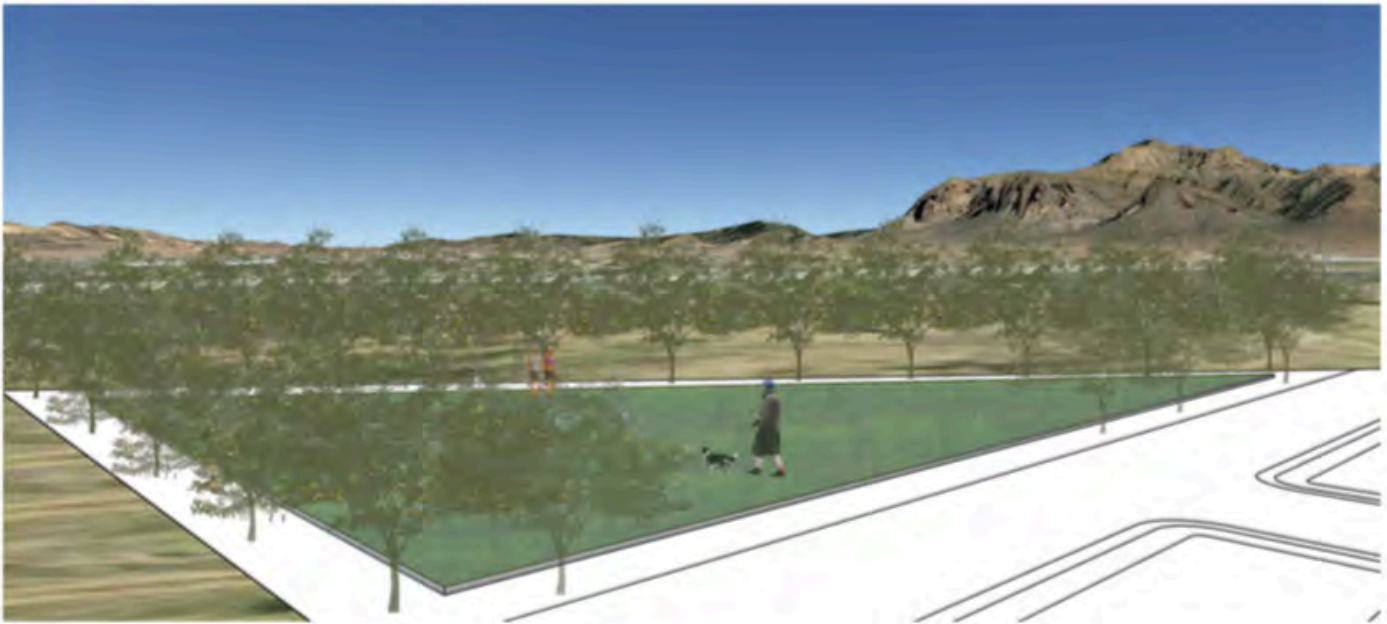
PERSPECTIVE VIEWS



-SUPERSTITION MOUNTAINS ARE THE EAST VIEW OF THE SITE. SITE IS FULLY VEGETATED WITH NATIVE PLANTS.

Healthy Aging, Aging in Place

PERSPECTIVE VIEWS



-SUPERSTITION MOUNTAINS ARE WITHIN VIEW OF THIS OPEN SPACE DOG PARK. THERE IS A TREE BUFFER CREATED BETWEEN STREETS AND THIS OPEN SPACE DOG PARK. THIS WILL MINIMIZE TRAFFIC NOISE AND CREATE A MORE PRIVATE ENVIRONMENT

Healthy Aging, Aging in Place

PERSPECTIVE VIEWS



-WHETHER LOOKING FROM YOUR FRONT YARD OR YOUR BACK YARD, HOMES HAVE A VIEW OF THE SUPERSTITION MOUNTAINS TO THE EAST, AND THE CITY OF APACHE JUNCTION TO THE WEST. ALSO A SOUTH END VIEW OF THE COMMUNITIES DRIVING RANGE.

Theme 2

Ecotourism

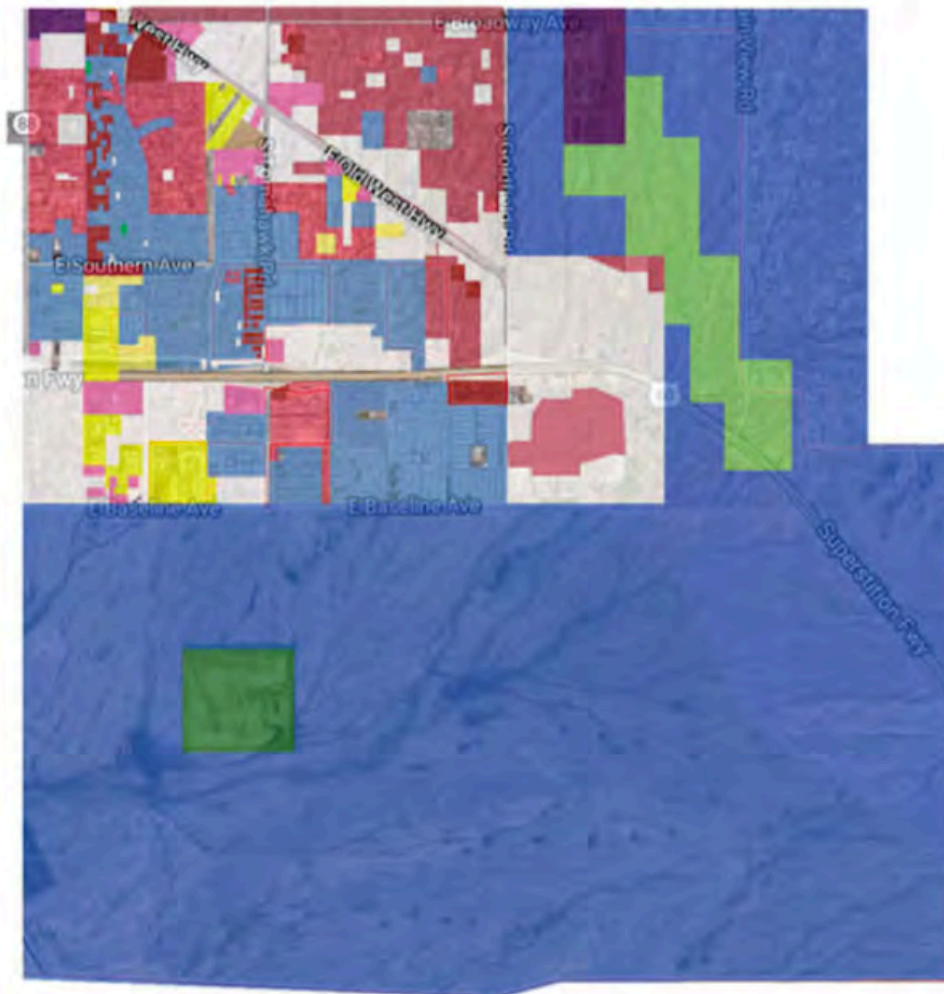
MISSION

Add a recreational lodge to enhance the experience for people who love nature and want to be engrossed by the wilderness.

VISION

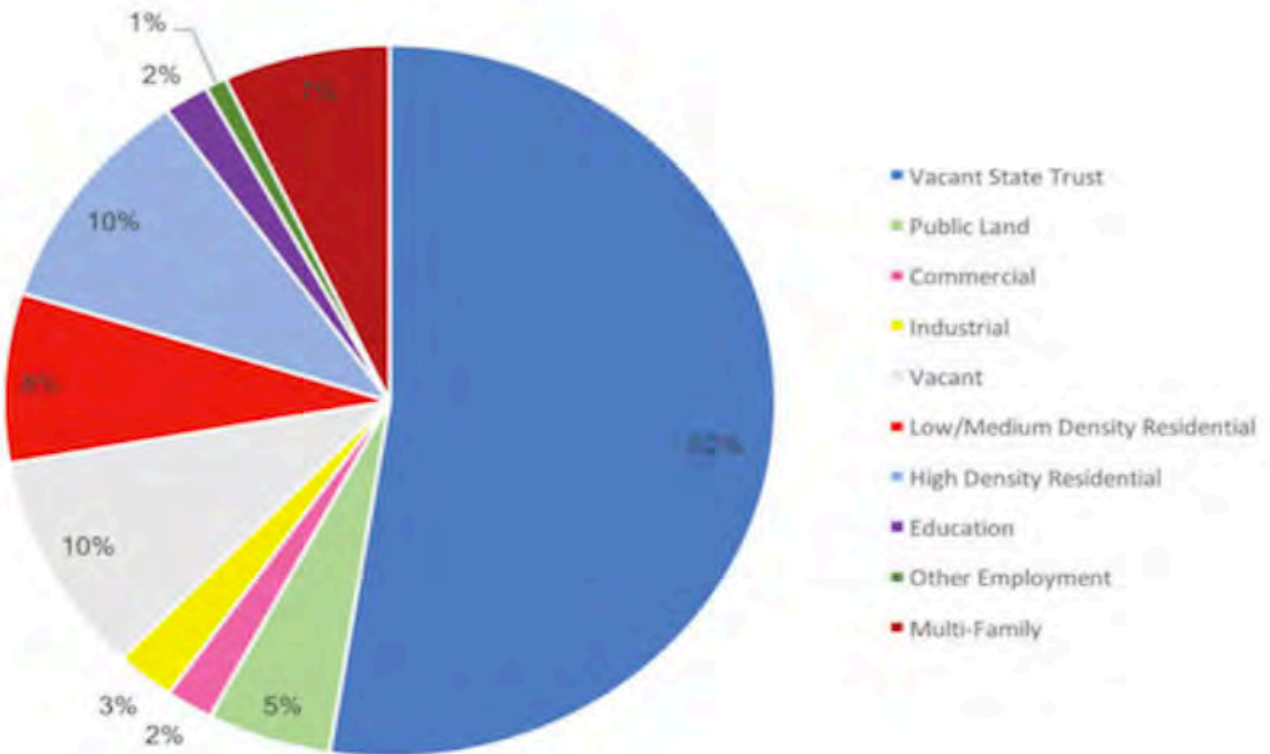
Have the lodging and local shops be the prime destination and have visitors experience and enjoy their time staying here.

CURRENT AND PLANNED LAND USE



Ecotourism

LAND USE



MASTER PLAN



AMMENITIES

LODGING

950 SF PER THE AVERAGE LODGE
COMMUNITY POOL/HOT TUB
INDER/OUTDOOR SHOOTING RANGE
INDER/OUTDOOR SPAS
COMMUNITY GRILLS
COMMUNITY FIRE PITS

SHOPPING CENTER

BREAKFAST
CAMPING GEAR SHOPS
TOURIST SHOPS
COFFEE STATIONS
DAILY COMMUNITY CLUBS AND
ACTIVITIES FOR ALL AGES

PERSPECTIVE VIEWS



SINGLE STYLE LODGING FOR PEOPLE WHO ARE TRAVELING ALONE

FAMILY STYLE LODGES ARE MORE TOWARDS THE RESORT AND SHOPPING CENTER

Theme 3

Convenience Walk

CONVENIENCE WALK

MISSION

In order to create a more livable lifestyle, there will be a cafe, dog park and residential area in one area within walking distance. This creates areas for residents to interact with one another and have fun.

VISION

Residents will be able to walk their dog, enjoy a cup of coffee and walk home in a total of 6 acres from their house and back.

CONVENIENCE WALK

FUNCTIONAL ANALYSIS

	Active Open Space	Public Land	Vacant	Vacant State Trust	Commercial	Public/Special Event/Military	Religious/Institutional	Single Family Low Density
Active Open Space	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive
Public Land	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive
Vacant	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive
Vacant State Trust	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive
Public/Special Event/Military	Positive	Positive	Positive	Positive	Neutral	Neutral	Neutral	Positive
Religious/Institutional	Positive	Positive	Positive	Positive	Neutral	Neutral	Neutral	Positive
Single Family Low Density	Positive	Positive	Positive	Positive	Neutral	Neutral	Neutral	Positive
Commercial	Positive	Positive	Positive	Positive	Neutral	Neutral	Neutral	Neutral

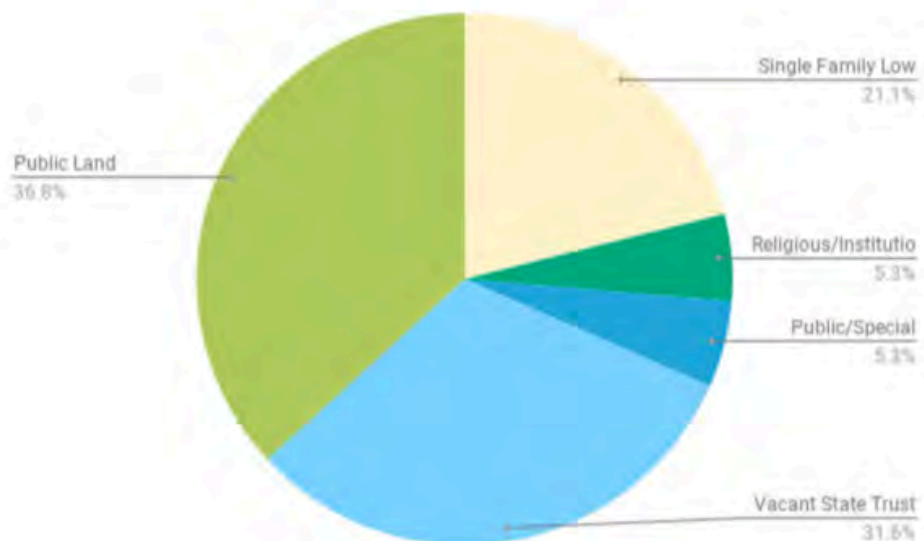
Positive
 Neutral

CONVENIENCE WALK

LAND USE PLAN

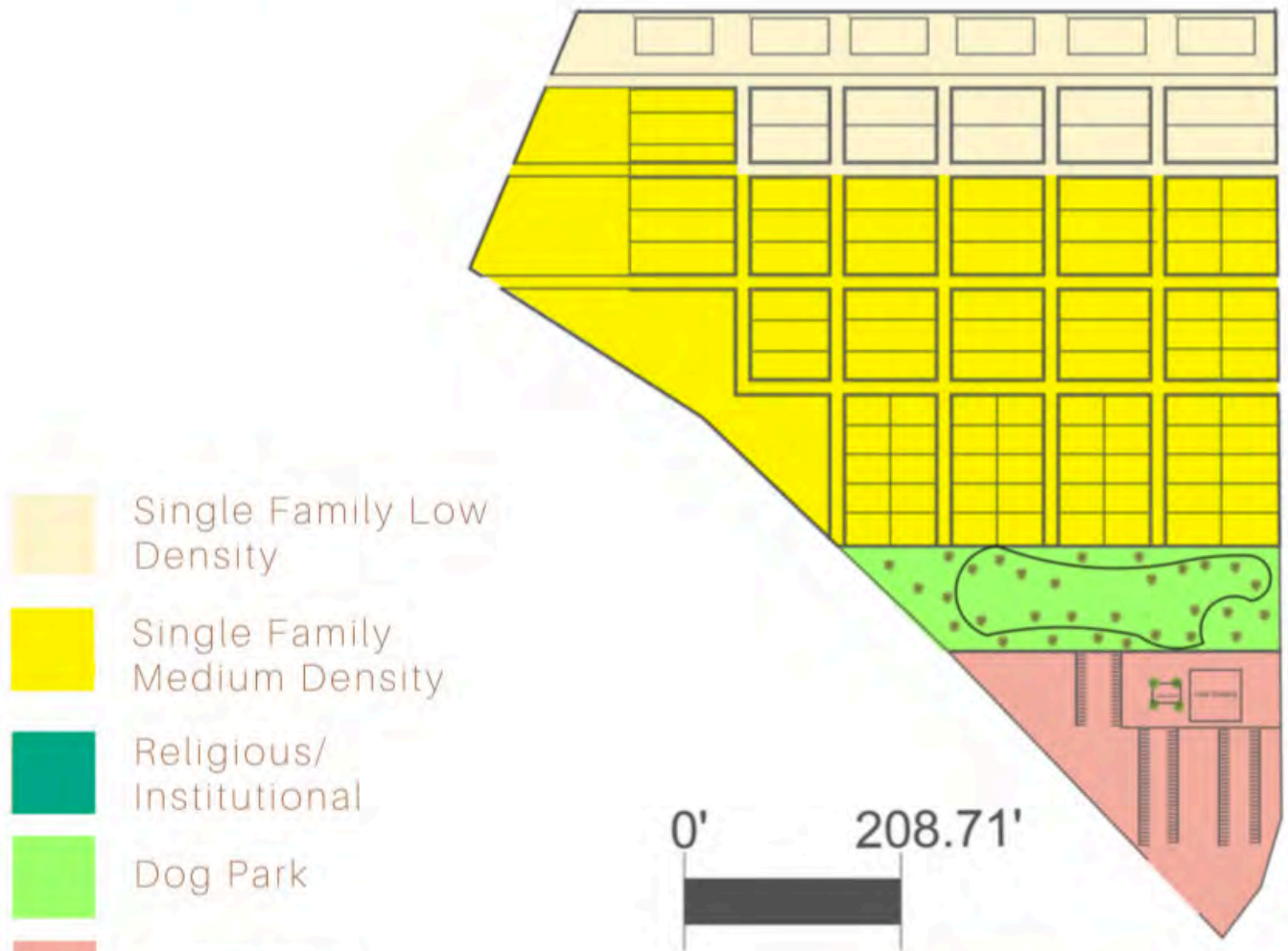


Land Use Pie Chart



CONVENIENCE WALK

MASTER PLAN



BORDERS

North: E 32nd Ave

South: Superstition Fwy

East: S Silly Mountain Rd

West: S Mountain View Rd

CONVENIENCE WALK

COMMUNITY KEY ELEMENTS

1. YELLOW = RESIDENTIAL AREA

-SIZE: 32 ACRES

-SINGLE FAMILY LOW DENSITY: 36,8370 SQ. FT.

-AVERAGE HOUSE: 12,614 SQ. FT.

-SINGLE FAMILY MEDIUM DENSITY: 746,618.383

-AVERAGE HOUSE: 11,303 SQ. FT.

2. GREEN = DOG PARK

SIZE: 3 ACRES

-31 TREES IN THE DOG PARK WITH A SPREAD OF 25 FT SO THE RESIDENTS AND DOGS CAN STAY COOL

3. PINK = COMMERCIAL AREA

-SIZE: 5 ACRES

-CAFE BUILDING: 10,000 SQ. FT.

-OUTDOOR AREA: 2,096 SQ. FT.

-4 TREES AT EACH CORNER OF OUTDOOR AREA

-PARKING LOT COUNT: 149 PARKING SPACES

CONVENIENCE WALK

SECTION



- THE BUILDING ON THE LEFT IS THE CAFE FOR PEOPLE TO ENJOY A CUP OF COFFEE BEFORE GOING TO THE PARK.
- IN BETWEEN THE BUILDINGS IS THE DOG PARK WHERE RESIDENTS CAN ENJOY PLAYTIME WITH THEIR DOGS.
- THE BUILDING ON THE RIGHT IS THE FIRST HOUSE OF THE RESIDENTIAL AREA.

Theme 4

Green Infrastructure With Native Plant Communities

Green Infrastructure With Native Plant Communities

MISSION

To design a very livable and peaceful environment for the people of Apache Junction and for visitors. Focusing on the opportunities, we can use green infrastructure with native plant communities to create an urban community center and land use plan that's environmentally friendly and user friendly.

VISION

In introducing natural greenways, proposed greenways and streets into single family low and medium density and multi family high density residential areas.

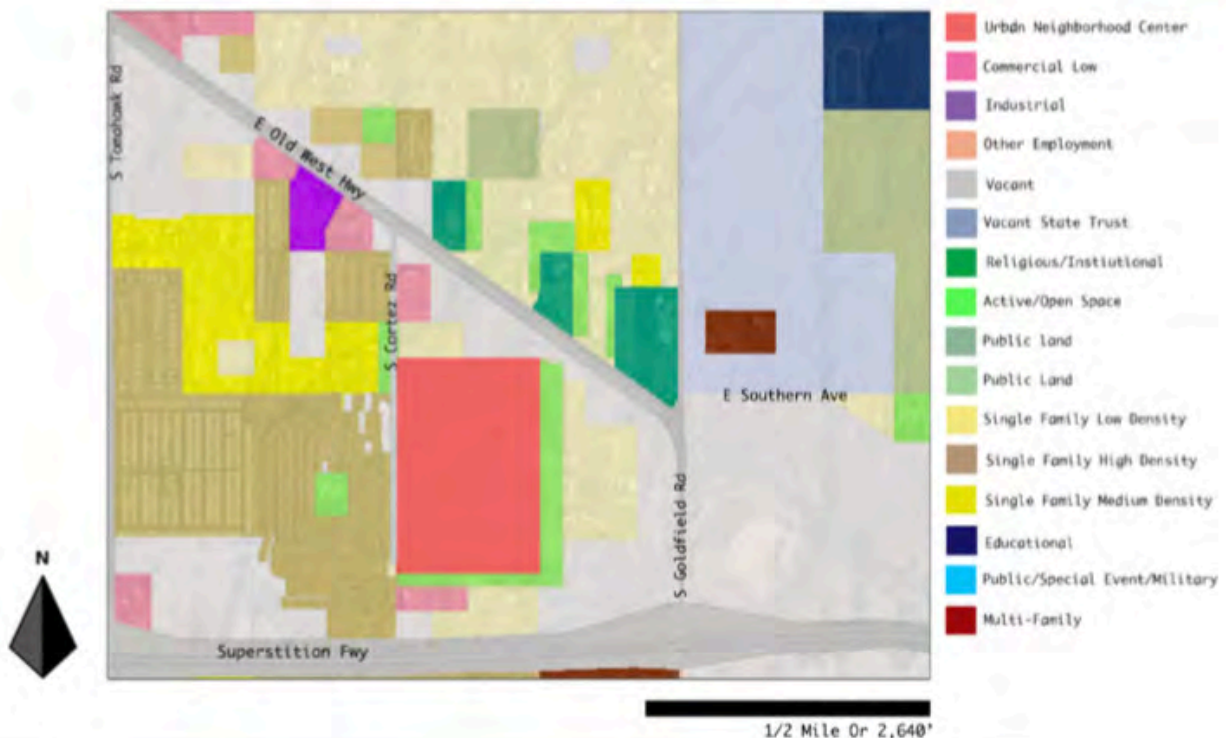
The community can enjoy what the urban center has to offer for example, Hiking trails, active open space with dog parks, a step to becoming apart of Tree City USA , residential, and commercial development.

Green Infrastructure With Native Plant Communities

CURRENT LAND USE PLAN



PROPOSED LAND USE PLAN



Green Infrastructure With Native Plant Communities

SITE SELECTION



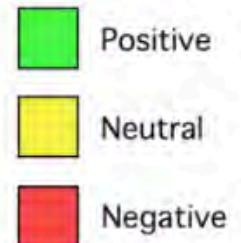
BOARDERS

N: E OLD WESTERN HIGHWAY
E: S STARR ROAD
S: S CORTEZ ROAD
W: S CORTEZ ROAD

Green Infrastructure With Native Plant Communities

FUNCTIONAL PROGRAM MATRIX

	Multi-Family (Medium Density)	Institutional	Commercial	Greenways	Single Family (High Density)	Single Family (Low Density)	Active Space/Parks	Natural/Open Space
Multi-Family (Medium Density)	Positive	Positive	Positive	Positive	Positive	Neutral	Positive	Neutral
Multi-Family (High Density)	Positive	Neutral	Positive	Neutral	Neutral	Negative	Neutral	Neutral
Commercial	Positive	Positive	Positive	Neutral	Positive	Neutral	Neutral	Negative
Greenways	Positive	Positive	Neutral	Positive	Positive	Positive	Positive	Positive
Single Family (Medium Density)	Positive	Positive	Positive	Positive	Positive	Positive	Neutral	Neutral
Single Family (Low Density)	Neutral	Positive	Neutral	Positive	Neutral	Positive	Positive	Positive
Natural/Open Space	Neutral	Positive	Negative	Positive	Positive	Positive	Positive	Positive
Active Space/Parks	Positive	Positive	Neutral	Positive	Positive	Positive	Positive	Positive



RELATIONSHIPS OF COMMUNITY CENTER LAND USES, ELEMENTS AND ACTIVITIES ON THE RIGHT HAND SIDE. SHOWS THE RELATIONSHIPS BETWEEN OTHER LAND USES LOCATED ON THE TOP OF THE MATRIX.

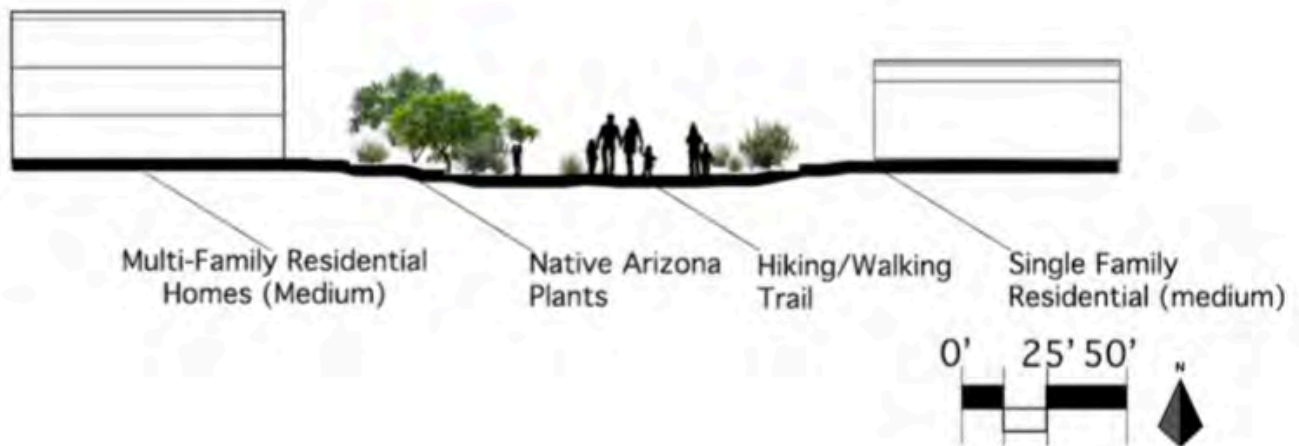
Green Infrastructure With Native Plant Communities

MASTER PLAN



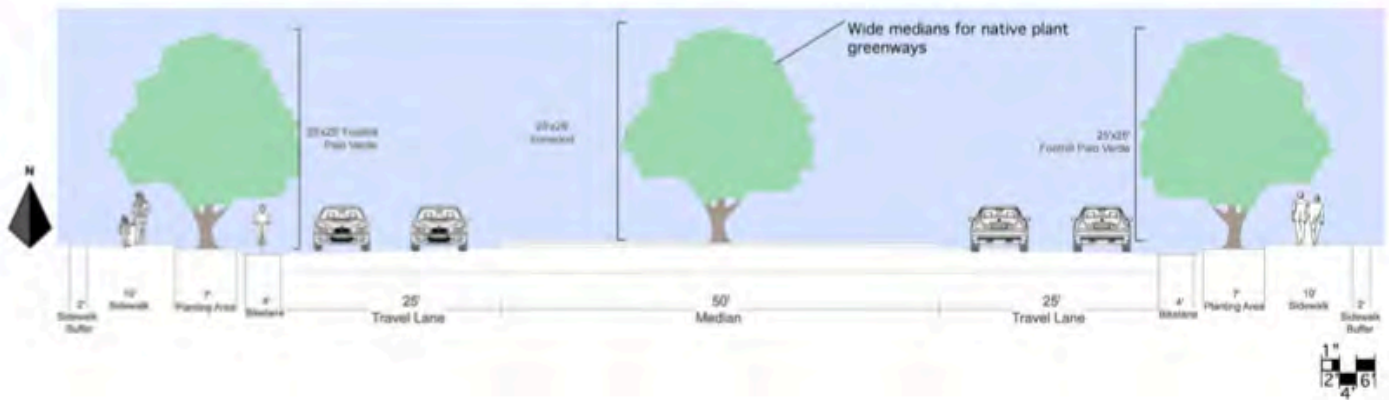
Green Infrastructure With Native Plant Communities

SECTION VIEW OF MULTI-FAMILY (MEDIUM DENSITY) & SINGLE FAMILY (MEDIUM DENSITY)

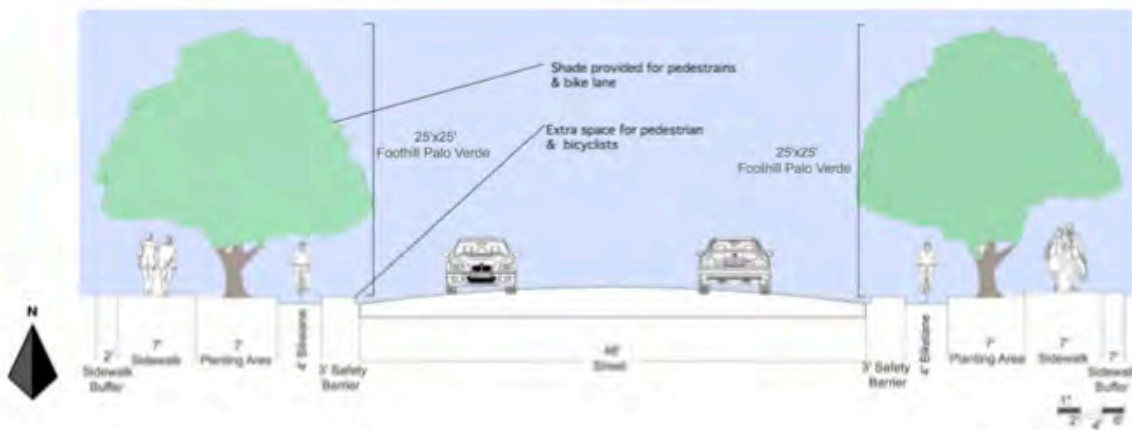


Green Infrastructure With Native Plant Communities

ARTERIAL STREETSCAPES



LOCAL & COLLECTOR STREETSCAPES



Green Infrastructure With Native Plant Communities

PERSPECTIVE VIEWS



HIKING GREENWAY TRAILS MAKING IT EASY TO TRAVEL ALONG THE COMMUNITY CENTER AND ITS VARIOUS LAND USES. WIDE PATHS ARE MEANT FOR MANY ACTIVITIES. FOR-EXAMPLE YOU CAN TAKE YOUR HORSE DWN THE PATHS.

Green Infrastructure With Native Plant Communities

TREE CITY, USA



QUALIFICATIONS

- A TREE BOARD OR DEPARTMENT.
DELEGATING CITY TREE CARE DECISIONS TO PERFORM
NEEDED TREE WORK.
- A TREE CARE ORDINANCE.
THE FOUNDATION OF A CITY'S TREE CARE PROGRAM.
- A COMMUNITY FORESTRY-PROGRAM.
INVESTMENT OF AN ANNUAL BUDGET OF AT LEAST \$2 PER
CAPITA.
- AN ARBOR DAY OBSERVANCE & PROCLAMATION OR
ARBOR DAY CELEBRATION.

BENEFITS

- PROPER TREE CARE FOR CITY TREES AND CARBON
SEQUESTRATION.

Theme 5

Multimodal Complete Community Circulation

Multimodal Complete Community Circulation

MISSION

In order to create a better experience for people traveling in and out or simply visiting Apache Junction, complete streets may be the best option in making it happen. The mission would be to ensure access for people traveling in various ways such as by foot, car, bicycle, or even by horse.

VISION

My vision is to create a very accessible transportation system throughout Apache Junction using complete streets. Not only will these streets be utilized by cars, trucks, buses, and bikes, but it will also try to incorporate horse riders into the system as well, especially because of the presence of horses and ranches in the area. This will create a smoother mode of circulation for daily passersby, and it will also welcome more people into the trails of the Superstition mountains and Silly mountain which are some of the main features of Apache Junction

Multimodal Complete Community Circulation

CURRENT LAND USE PLAN



PROPOSED LAND USE PLAN



Multimodal Complete Community Circulation

Legend

-  Vacant
-  Educational
-  Commercial
-  Single-family medium-density
-  Religious/institutional
-  Multi-family residential
-  Single-family high-density
-  Single-family low-density
-  Active open space
-  Public/special event/military
-  Industrial
-  Public land
-  Vacant state trust
-  Other employment

Su

B

Multimodal Complete Community Circulation

LOCATION



Multimodal Complete Community Circulation

MASTER PLAN



Multimodal Complete Community Circulation

AMENITIES

The community center will be located near Superstition Mts and Silly Mt. It will be an area where people can lounge around and enjoy the scenic views of the mountains ahead. This mixed land-use community center will include resteraunts/cafes, gift shops, bike shops, mini Apache Junction history museum, horse stables, and so on. It will be the perfect place for people to gather souvenirs or get prepared for their hike up the mountains.

Multimodal Complete Community Circulation

WHY COMPLETE STREETS?

Why Complete Streets?

improved safety

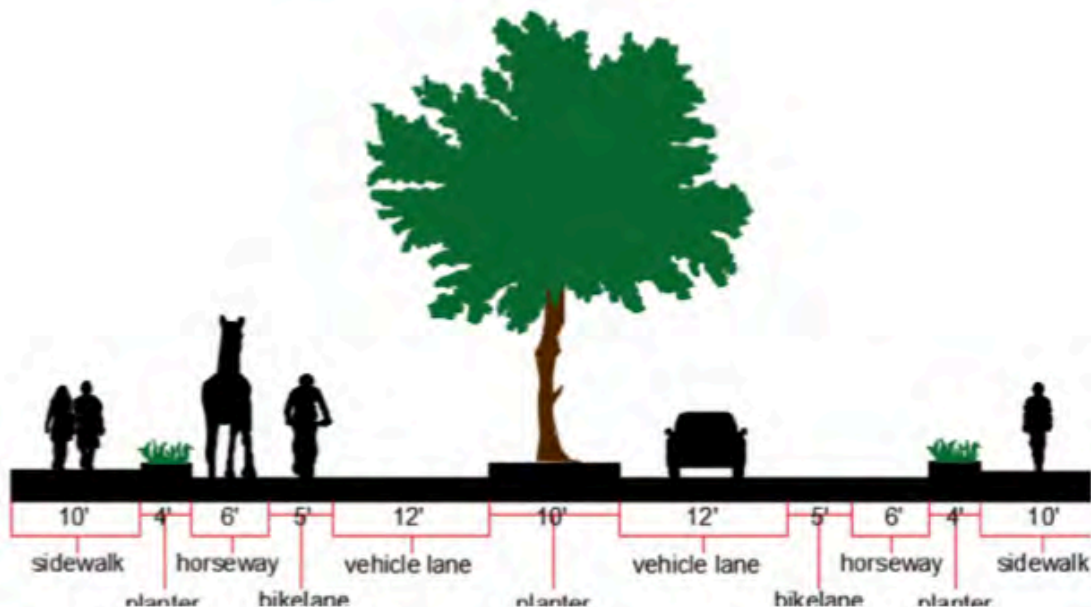
easy accessibility

more accessibility

reduction of greenhouse gas emissions

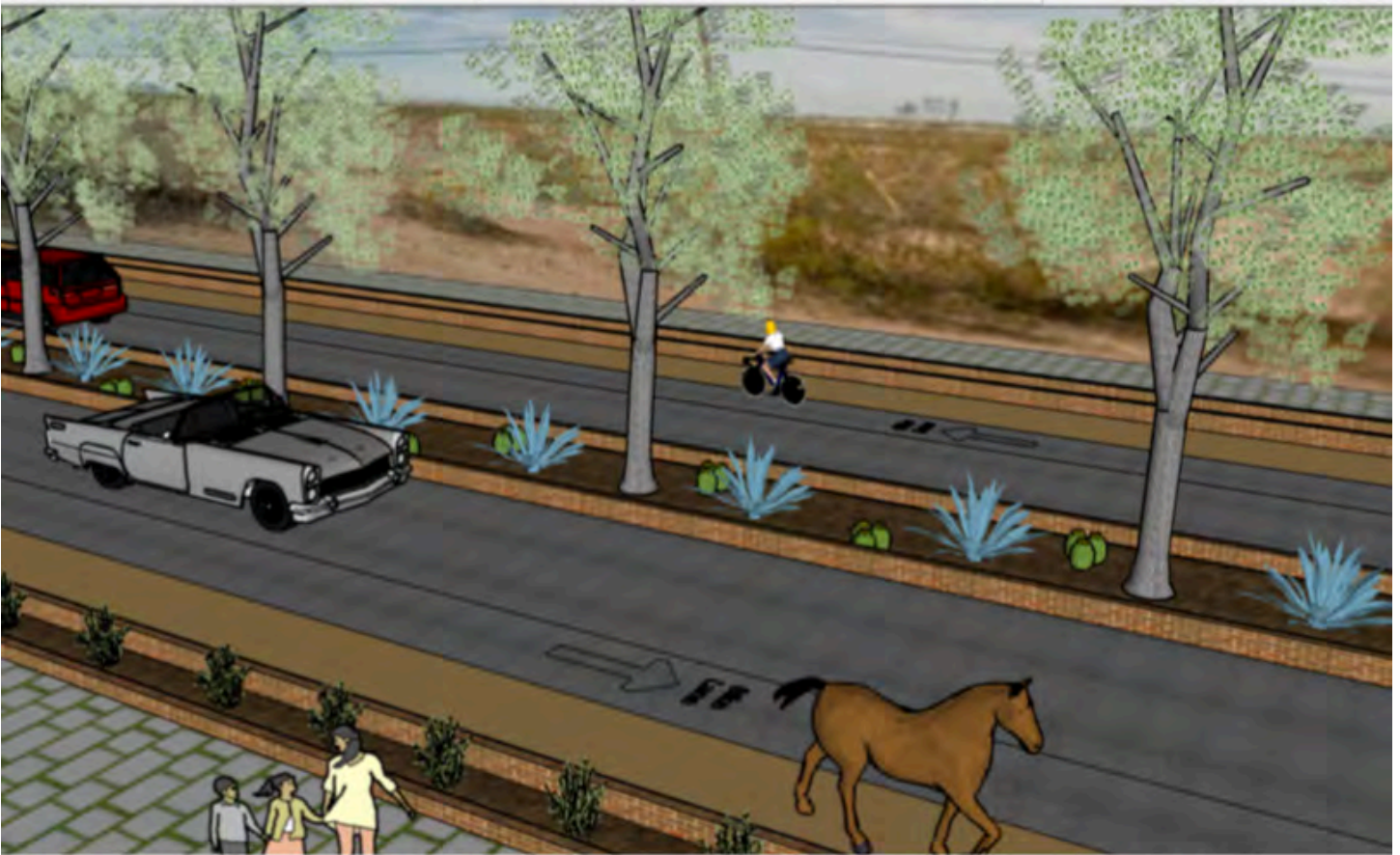
improvements in health (more physical activity)

STREET SECTION



Multimodal Complete Community Circulation

PERSPECTIVE



Theme 6

Walkability

MISSION

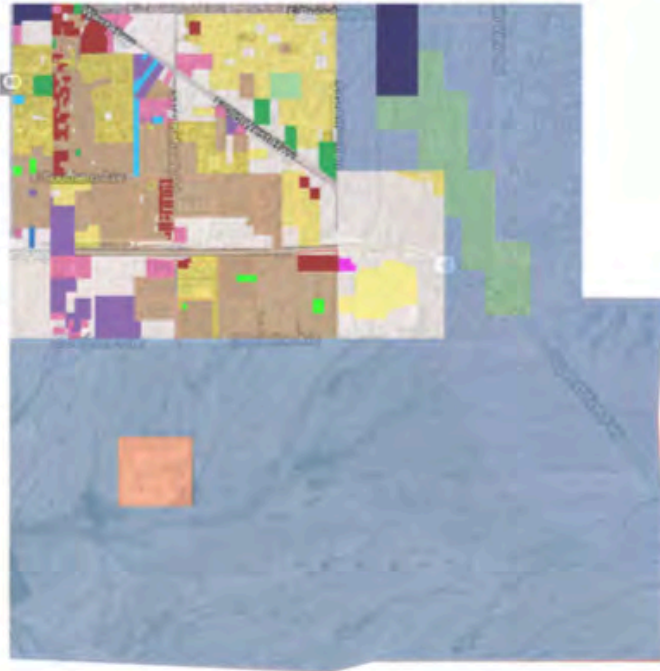
Our team, Wild Nature Designs' goal is to create a more livable and peaceful environment for the people of Apache Junction. My mission is create an urban community center in order to increase the walkability. Use different ways to try to Apache Junction People enjoy the walking.

VISION

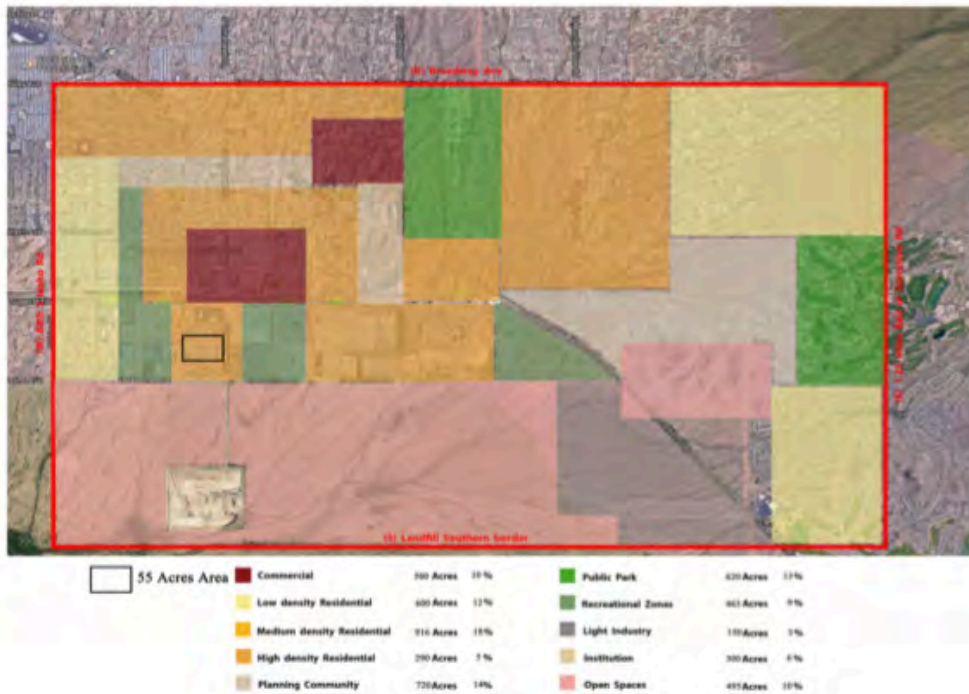
My goals is to increasing the walkability for Apache Junction. It will be focus on different aspects, such as people's feeling, connecting, convenient, safety. Build a friendly urban center, in order to make people have a good feeling of walk.

Walkability

CURRENT LAND USE PLAN



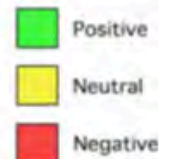
PROPOSED LAND USE PLAN



Walkability

FUNCTIONAL PROGRAM MATRIX

	Climate	Soils	Open spaces	Commercial	Residential	Recreational Park	Industry	Natural Conservation
Commercial								
Residential								
Institutional								
Park & Recreation								
Open Space								
Industry								



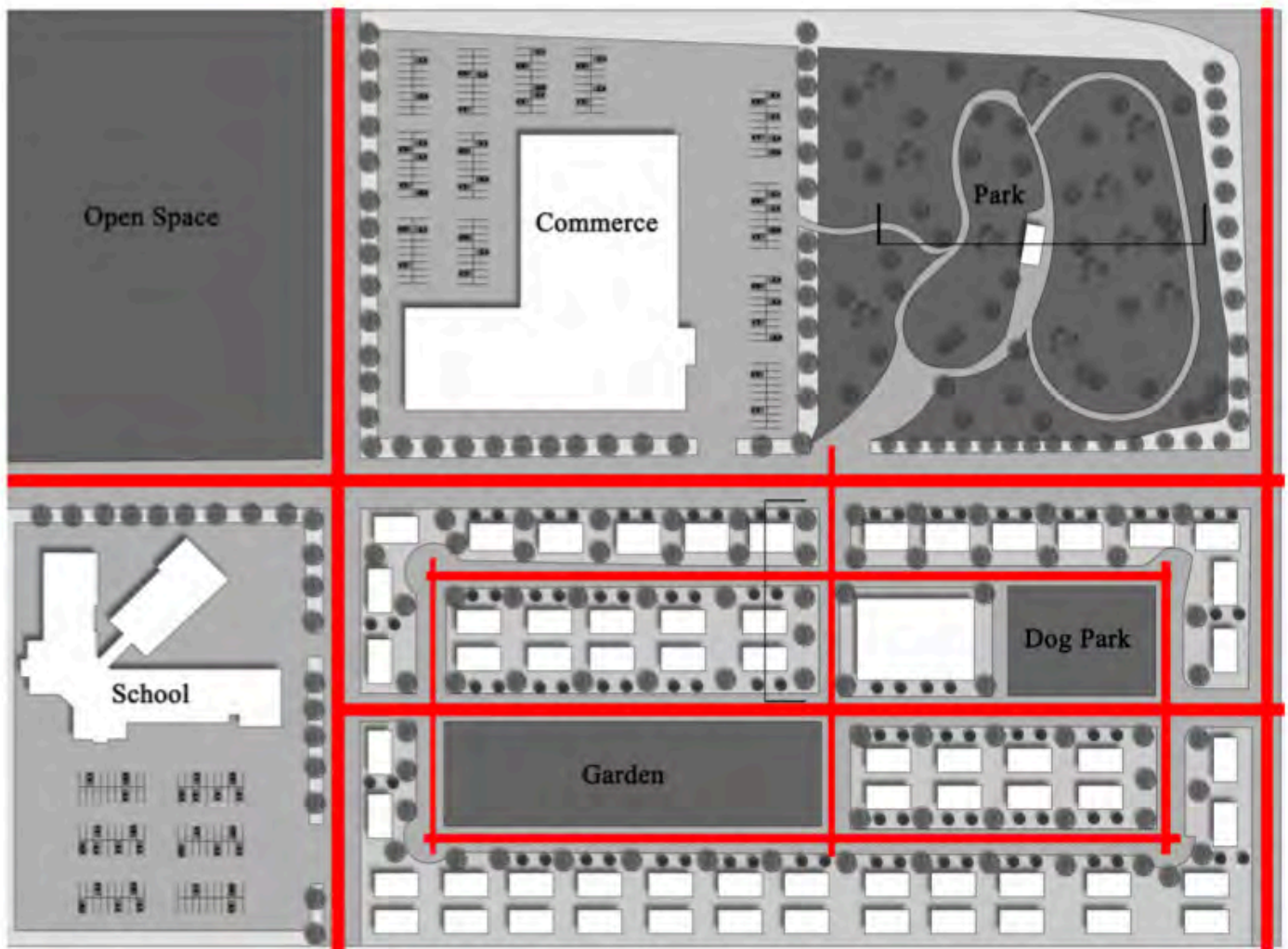
Walkability

MASTER PLAN



Walkability

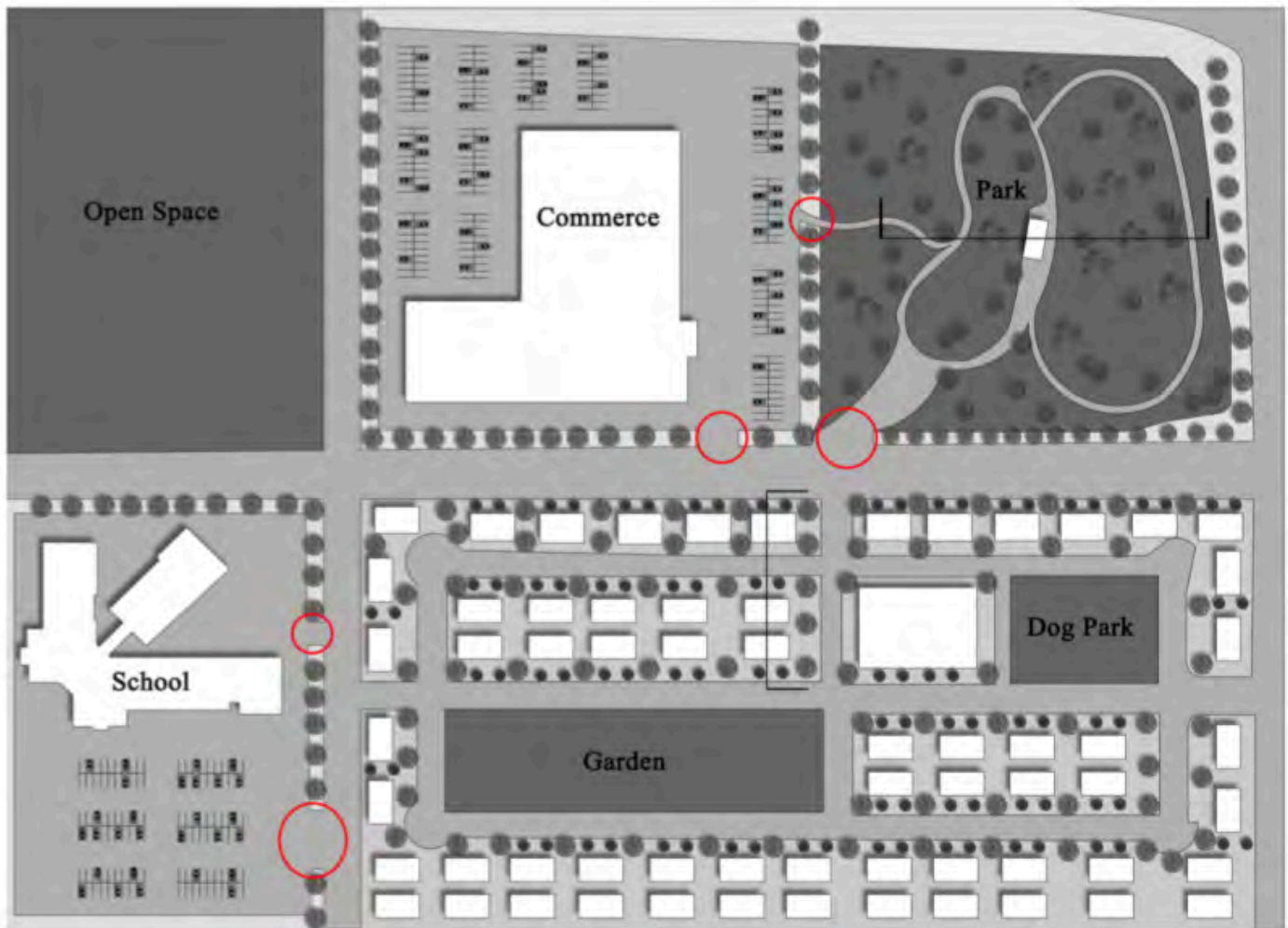
CONNECTION



IN THE MASTER PLAN, ALL THE ROADS ARE CONNECTED, SO THAT WHEN PEOPLE WALK IN MY URBAN CENTER, PEOPLE HAVE A VARIETY OF ROUTES TO TRAVEL ON.

Walkability

CONVENIENCE



KEEPING THE RESIDENTIAL DISTRICT IN THE MIDDLE OF SITE, AND ADDING A MULTITUDE OF ENTRANCES NEAR COMMERCIAL, INSTITUTION AND RECREATION AREAS. THIS ALLOWS FOR PEOPLE TO SAVE TIME WHEN TRAVELING TO THEIR DESIRED DESTINATION.

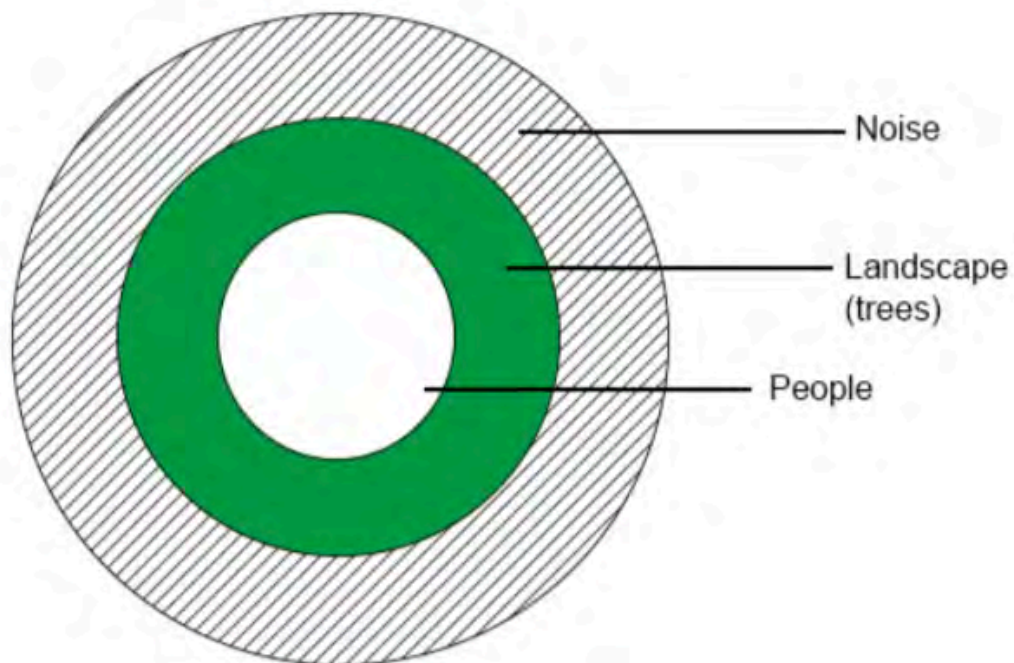
Walkability

SAFETY



EXTENDING THE WIDTH OF THE ROAD AND PLANTING PLANTS NEAR THE ROADSIDE AS A BUFFER BETWEEN THE ROAD AND SIDE WALK. THIS IS BENEFICIAL TO PEDESTRIANS WALKING BY INCREASING THE SAFETY.

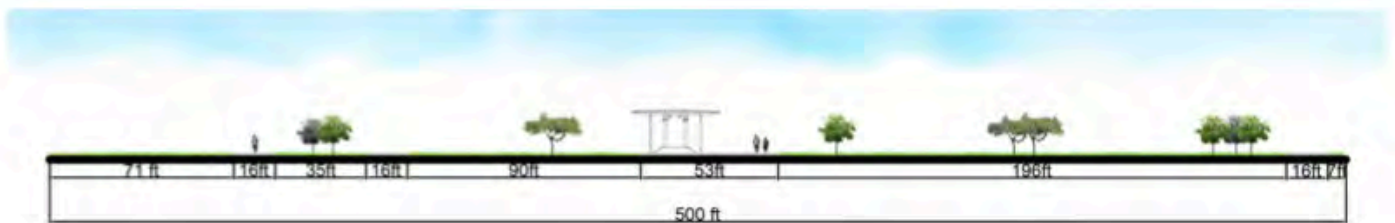
COMFORTABILITY



USING TREES' SHADE TO MAKE SURE PEOPLE CAN FEEL COMFORTABLE IN THE HEAT. IT CAN ALSO PROVIDE A SHORT REST AREA FOR PEOPLE. IN ADDITION, TREE'S ARE USED TO CREATE A NOISE BUFFER, CREATING A QUIET TREE WALK.

Walkability

SECTION VIEW OF PARK



-IT IS A 500 FT LONG PARK.

-IT HAS MANY DIFFERENT KINDS OF TREE. PEOPLE CAN EXPERIENCE A TREE WALK IN THE PARK.

-THE WIDTH OF PATHWAY IS 16 FT, IT CAN INCREASING WALKABILITY.

Walkability

SECTION VIEW OF RESIDENTIAL AREA



-RESIDENTIAL AREA IS NOT CROWDED, PROVIDING A GOOD CONDITION OF WALK FOR PEOPLE.

-BOTH SIDES OF ROAD ARE TREES. SEPARATE THE NOISE.

PERSPECTIVE VIEWS



-PEOPLE HAVE A NICE FEELING WHEN THEY WALK IN RESIDENTIAL AREA. DOG PARK IS CLOSE TO THIS AREA, PEOPLE ALSO CAN WALK WITH DOG HERE.

Theme 7

Solar Community

MISSION

To create a positive image of Apache Junction. Taking advantage of the abundance of sunshine and wide open areas, this will allow us to exploit local solar resources and enhance our use of our use of this natural resource. This will also help the community conserve its use of electricity.

VISION

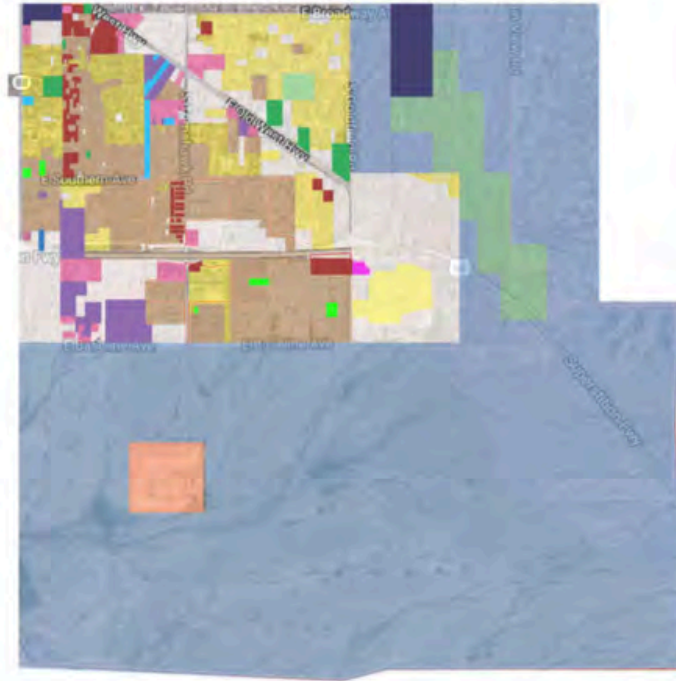
Introducing solar panels to a luxury community and implement the construction of a solar farm to collect solar resources from a natural environment. The whole community can receive the benefits harvested from solar energy like reducing energy budgets, decreasing excessive dependence on fuels, and easing environmental pollution.

GOALS

- Decrease dependency on fuels and ease environmental pollution
- Exploit new clean resources and decrease solid waste
- Supply more affordable energy solutions to poor communities, improving their living conditions
- Providing job opportunities for local community members, promoting economic growth and creating more revenue.

Solar Community

CURRENT LAND USE PLAN



PROPOSED LAND USE PLAN



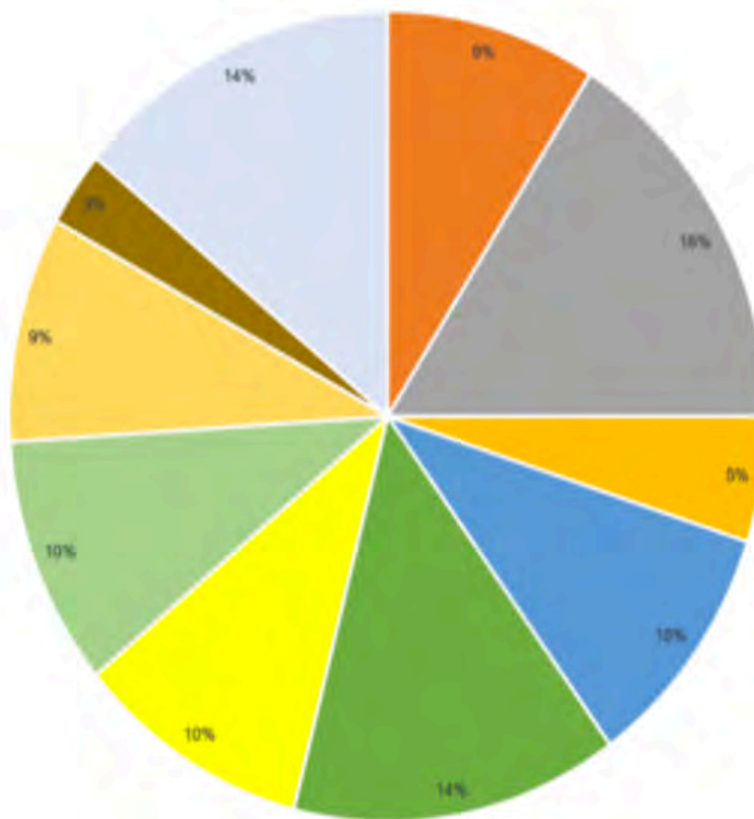
Proposed Land Use Allocation Plan

Commercial	485 acres	9%
Low density Residential	864 acres	16%
Medium density Residential	270 acres	5%
High density Residential	540 acres	10%
Planning Community	756 acres	14%
Public Park	540 acres	10%
Recreational Zones	540 acres	10%
Light Industry	485 acres	9%
Institution	160 acres	3%
Open Spaces	756 acres	14%

 50 Acres Area

LAND USE ALLOCATIONS

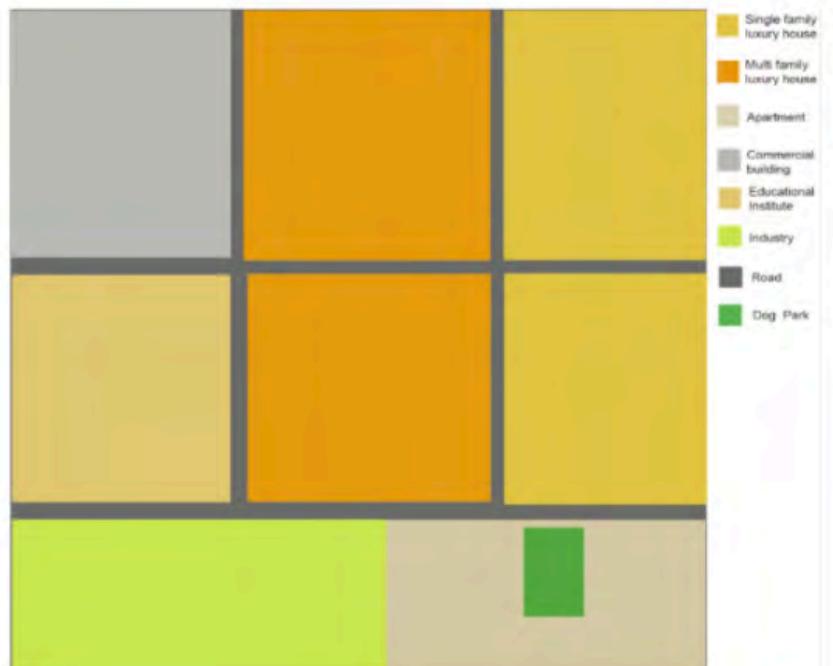
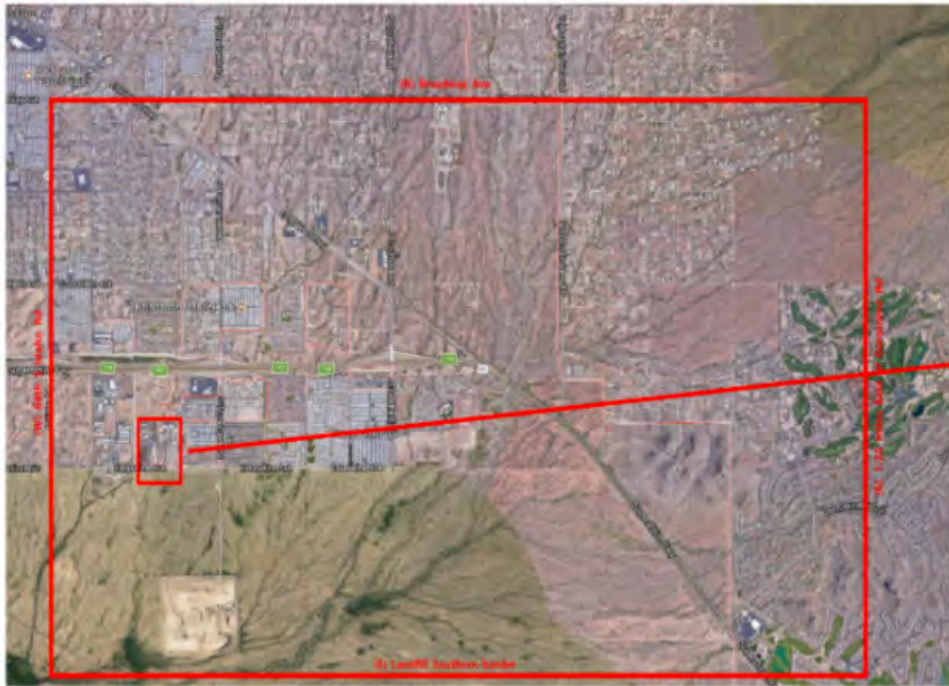
Proposed Land Use Allocation Plan



- proposed landuse allocation plan
- Commercial
- low density residential
- medium density residential
- high density residential
- planning community
- public park
- recreational park
- light industry
- institution
- open spaces

Solar Community

SITE SELECTION



Solar Community

MASTER PLAN 50 ACRES



Solar Community

FUNCTIONAL ANALYSIS

	Commercial	Residential	Institutional	Recreational Park	Open spaces	Industry	Natural Conservation	Solar farm
Commercial								
Residential								
Institutional								
Park & Recreation								
Open Space								
Industry								



Positive



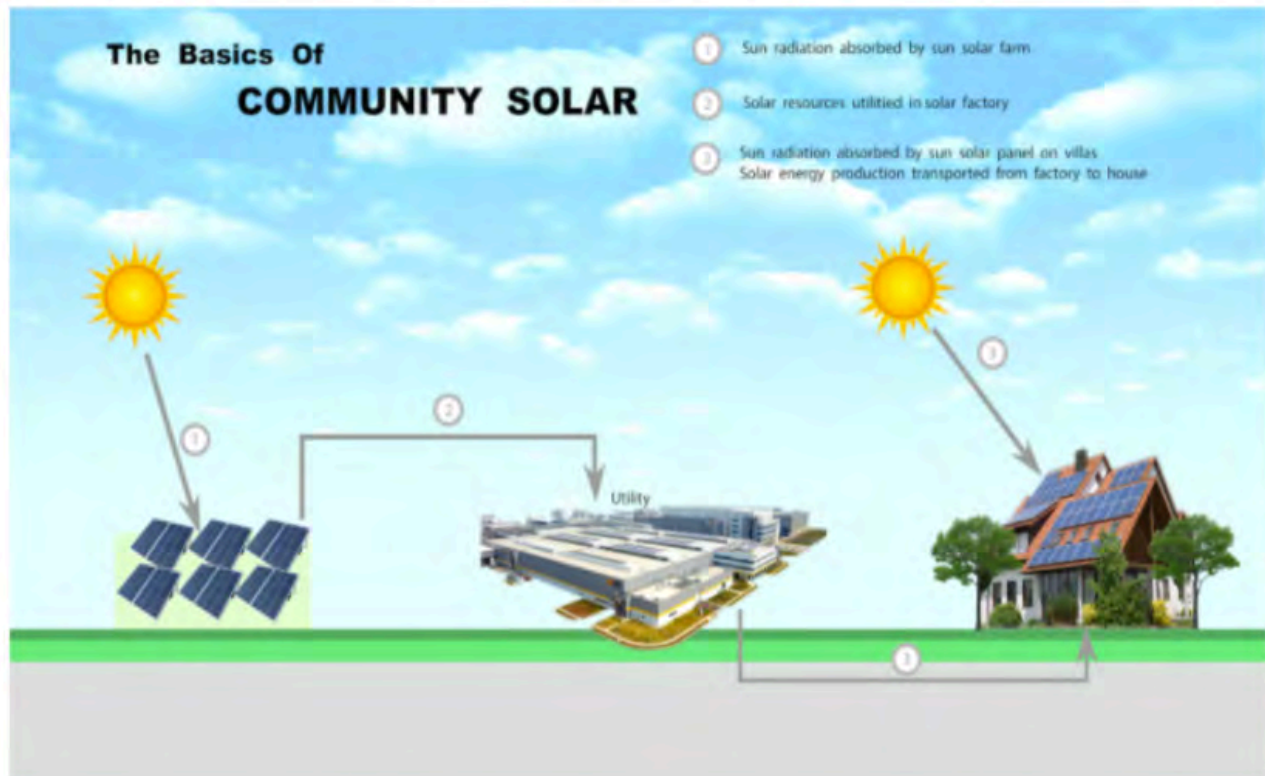
Neutral



Negative

Solar Community

COMMUNITY KEY ELEMENTS



LUXURY RESIDENTIAL ZONE: EACH UNIT IS ARRANGED WITH AT LEAST ONE SOLAR PANEL ON TOP TO COLLECT HEAT DURING SUNNY DAYS. THE HEAT ABSORBED BY SOLAR PANELS CAN BE CONVERTED INTO ELECTRICITY FOR FAMILY PRIVATE USE.

DOG PARK: A GREAT OUTDOOR RECREATIONAL AREA FOR PEDESTRIANS TO WALK AROUND AND HAVE FUN WITH DOGS.

SOLAR ENERGY FACTORY: CONVERTING SOLAR ENERGY INTO ELECTRICITY FOR RESIDENTIAL USE. BESIDES SOLAR FARM, HUGE SOLAR PANELS SET ON THE TOP OF A FACTORY CAN ABSORB A LOT OF HEAT FROM SUNSHINE AND THEN UTILIZE THEM EFFECTIVELY.

OFFICE BUILDING: PUT A ROW OF SOLAR PANELS ON TOP TO ABSORB SUNSHINE AND THEN TRANSFORM THEM INTO ENERGY FOR OFFICE BUILDING USE.

Solar Community

SECTION VIEWS

A - B



C - D



Solar Community

PERSPECTIVE VIEW



Solar Community

PERSPECTIVE VIEW



Solar Community

PERSPECTIVE VIEW



Apache Junction 2020

LDE 361
BROOKS &
KELLOGG



OUR TEAM



Mission Statement:

To provide the client with the best possible design outcomes through **experience, ethics** and a **team based approach**.

Table of Contents

- Team Introductions
- Context
- Addressed Issues
- Research
- Analysis
- Individual Design Development
- Conclusion

Parker LaFlam



- Skills:
 - Photoshop
 - SketchUp
 - AutoCAD
- Interests:
 - Residential Planting Design
- Fun Fact:
 - Model Building and Painting are my favorite pastimes.

Chloe Leyba



- Skills:
 - InDesign
 - SketchUp
 - AutoCAD
 - Illustrator
- Interests:
 - Community Design
 - Arid Climate Plants
 - Hardscape Design
- Fun Fact:
 - Favorite color is Daphne Blue.

Brett Cordova



- Skills:
 - Hand Illustrations
 - AutoCAD
- Interests:
 - Green roofs/walls
 - Urban Gardens
- Fun Fact:
 - I consider myself a Mid-Century Modern/Modern Design aficionado

Lucas Ayers



- Skills:
 - Hand Illustrations
 - Modeling
 - AutoCAD
- Interests:
 - Modeling
 - Plant Care
 - Outdoor Activities
- Fun Fact:
 - I can play the electric bass guitar and sing

Cathy La



- Skills:
 - Photoshop
 - InDesign
- Interests:
 - Sustainability
 - Environment - “Healthy cities”
 - Green Infrastructures
- Fun Fact:
 - I.M. Pei was my inspiration to become a designer.

Nick Salazar



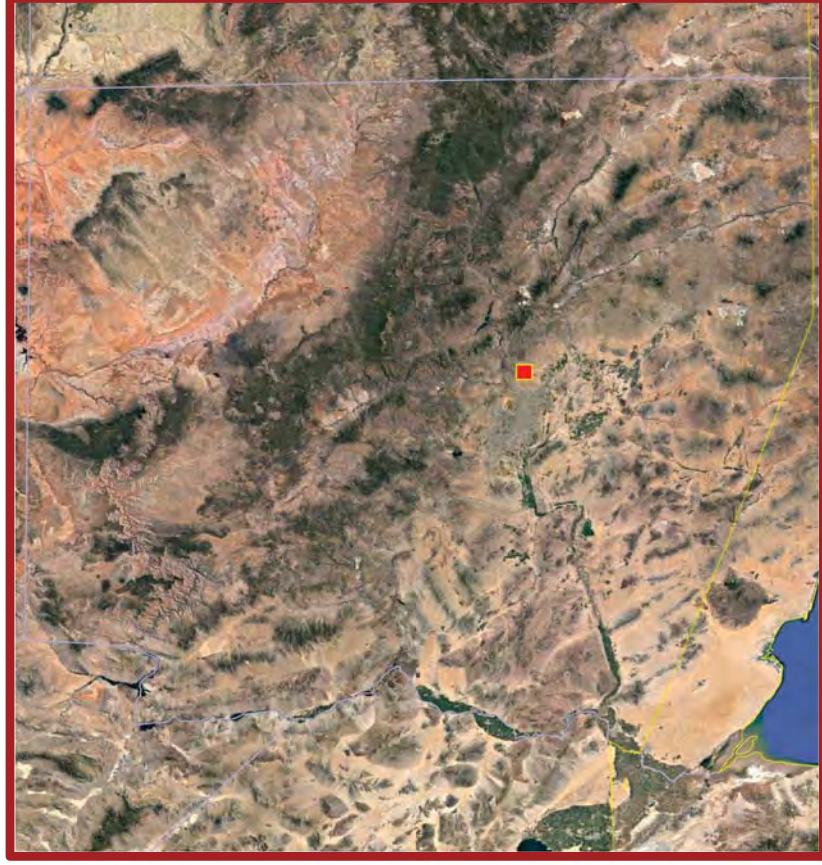
- Skills:
 - Research
 - Public Speaking
 - Hand Sketches
- Interests:
 - Project/Construction Management
- Fun Fact:
 - I can mirror write.

Context

The city that this book will focus on is Apache Junction. It is located to the East of Phoenix, Arizona and is situated next to the base of the Superstition Mountains.

The Population of the city is averaged at 35,000 year round, and its city boundary encompasses just over 6,200 acres or 9.7 square miles.

ARIZONA



100 Miles



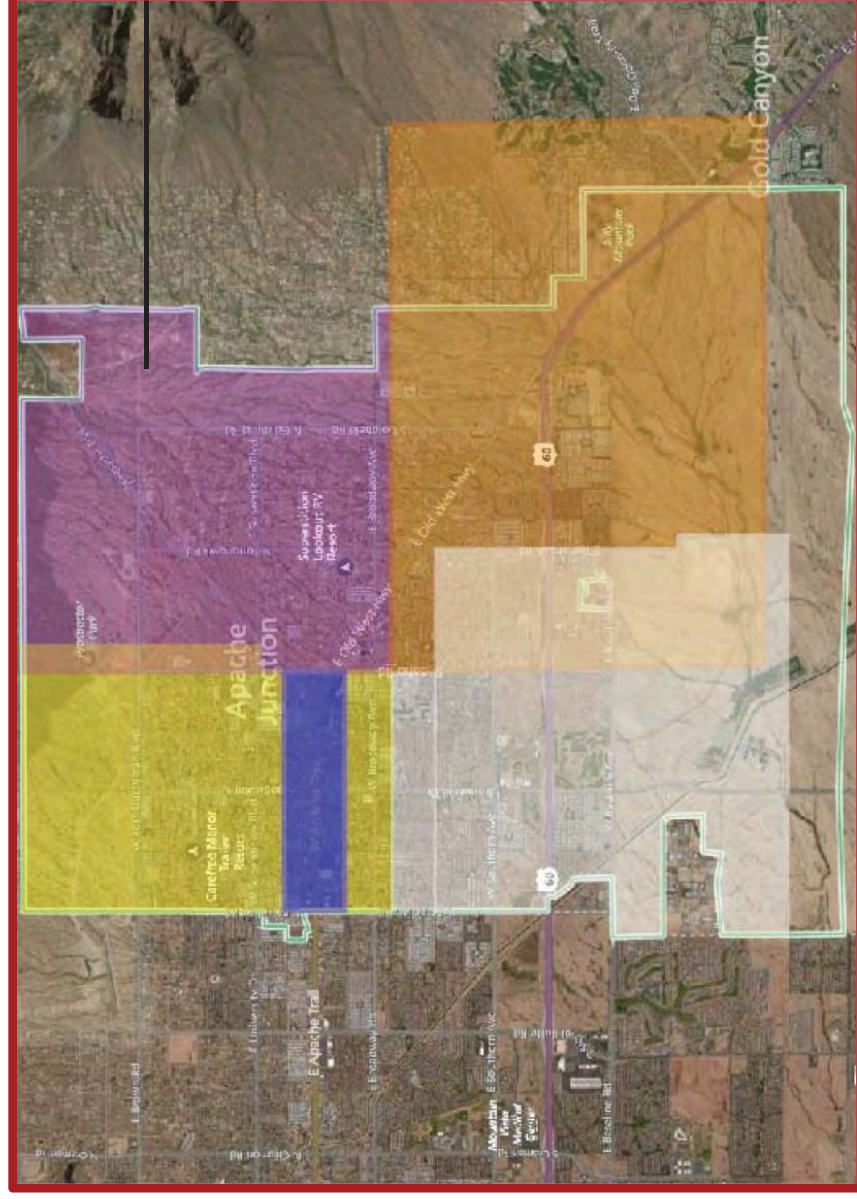
= Apache Junction



Context:

The city was divided into five design teams over the semester.

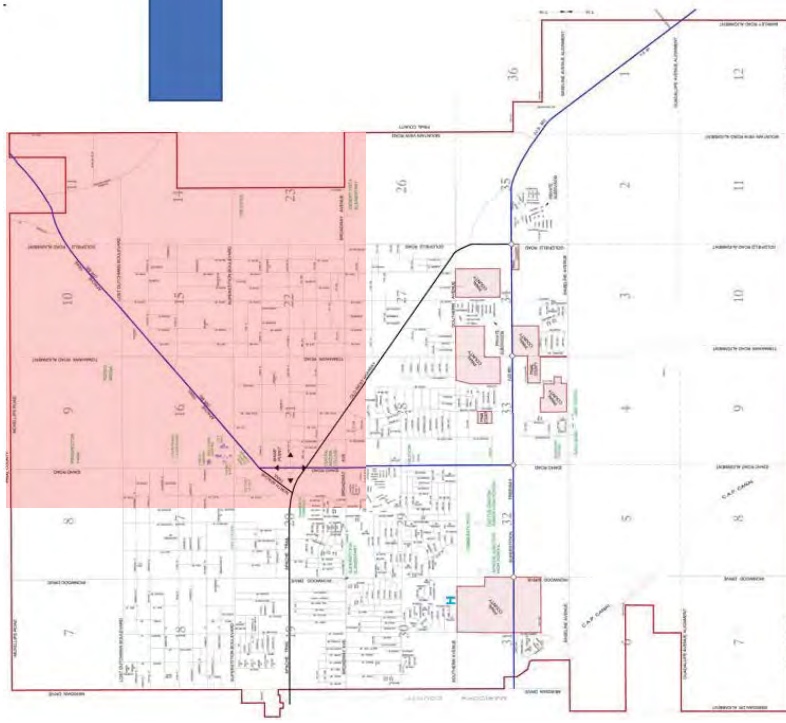
- Central Design Group
- Wild Nature Design
- Southwest Native Design
- SPUR Landscape Architecture
- Superstition Studios



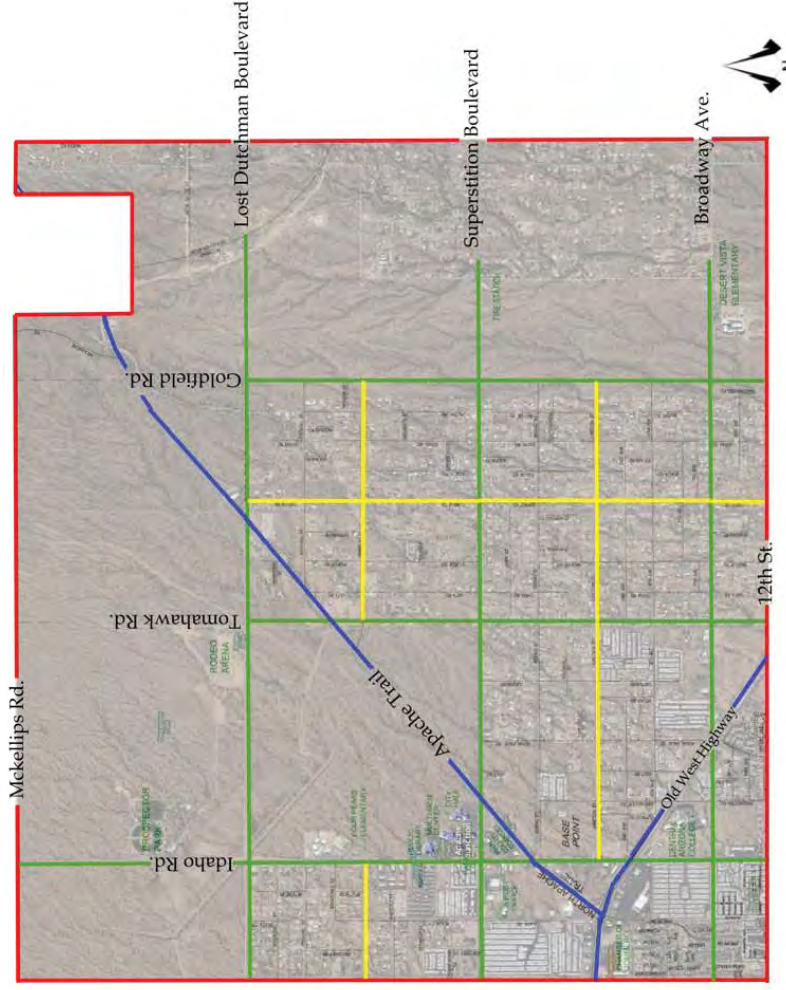
Central Design
Group

Context

APACHE JUNCTION, ARIZONA



NORTHEAST QUADRANT APACHE JUNCTION



The Issues

The city of Apache Junction along with the Project Cities Program approached Arizona State University and asked for assistance with solving some of their community's issues. These were narrowed down to the four below.

- Positively AJ (Apache Junction)
- Solid Waste
- Homelessness
- Dog Park

We as the Landscape Architecture studio decided to encompass all of the presented bullet points above within our design process.

Research

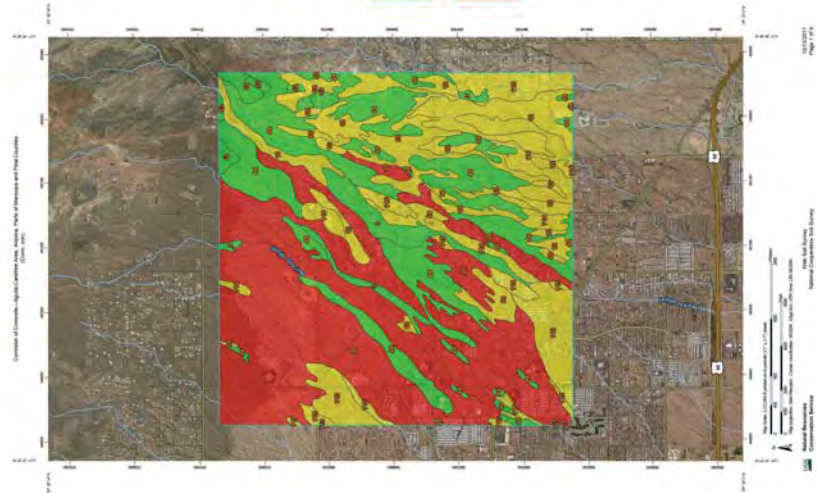
To begin the research process for Apache Junction, our design group divided the site analysis research into 3 categories of Natural Factors, Human Factors, and Land Uses. Within the categories, we were able to go more in depth:

- Natural Factors
 - Soils
 - Hydrology
 - Geology
 - Climate
- Human Factors
 - History
 - Zoning
 - Demographics
 - Ownership
 - Services
- Land Uses
 - Agriculture
 - Commercial
 - Industrial
 - Institutional
 - Residential
 - Open Space/Recreational

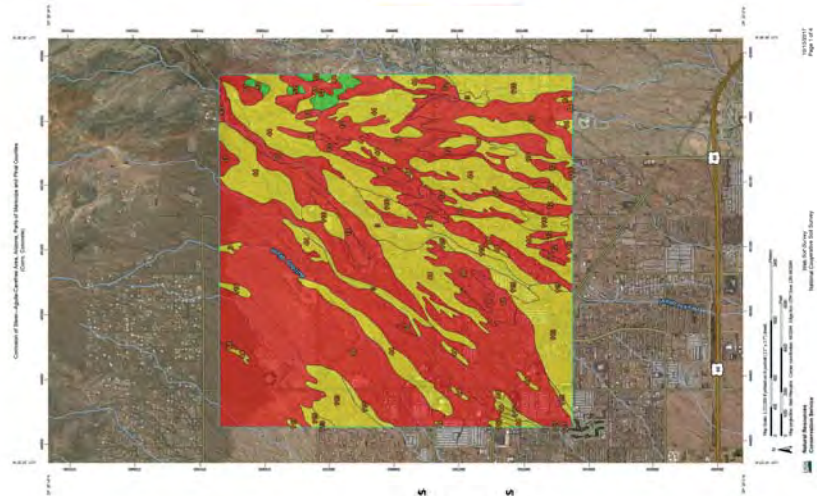
Research - Natural Factors: Soils

Quality and locations of soil for different infrastructure

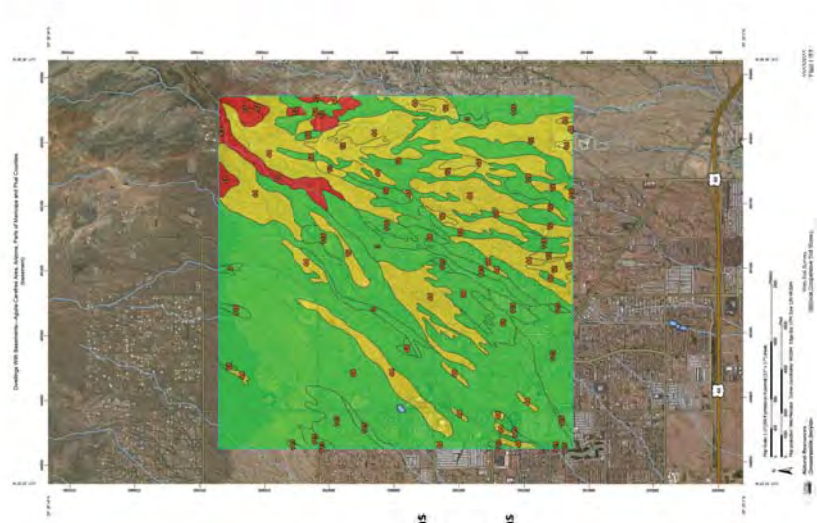
Corrosion of Concrete



Corrosion of Steel



Dwellings with Basements



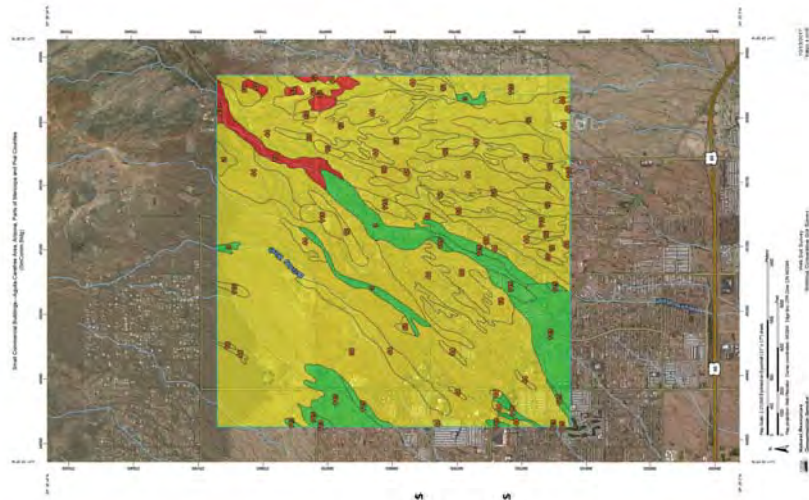
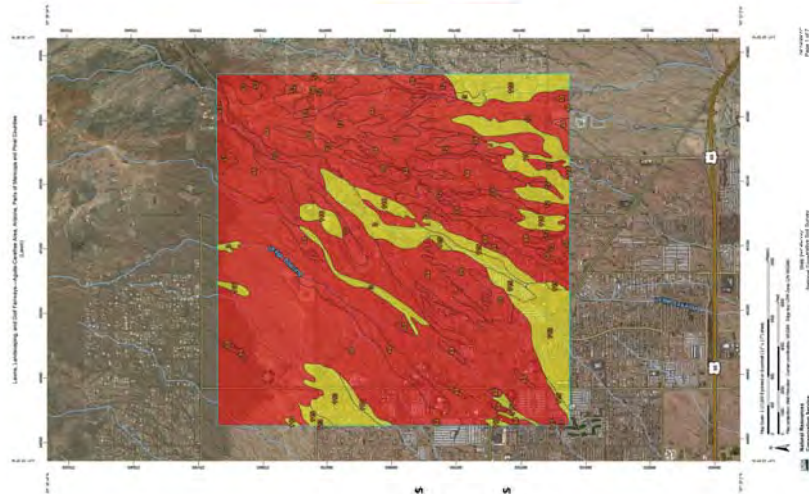
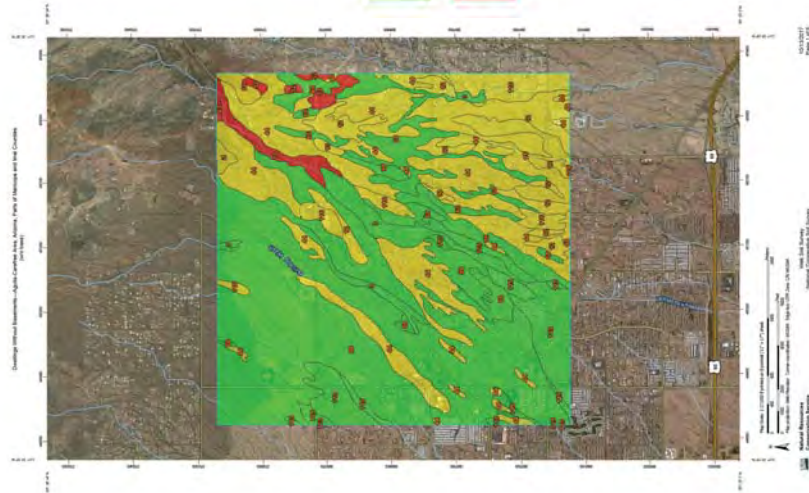
Research - Natural Factors: Soils

Quality and locations of soil for different infrastructure

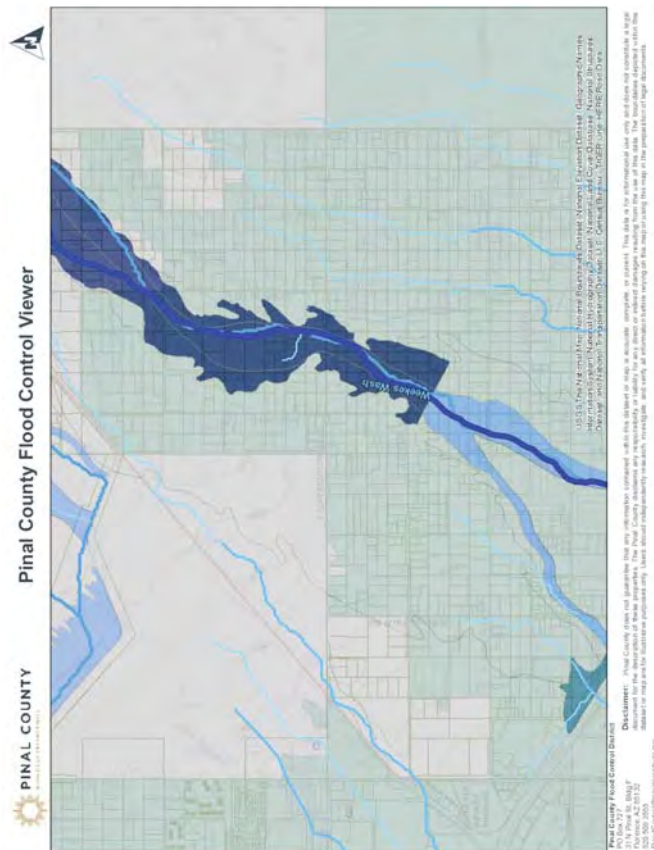
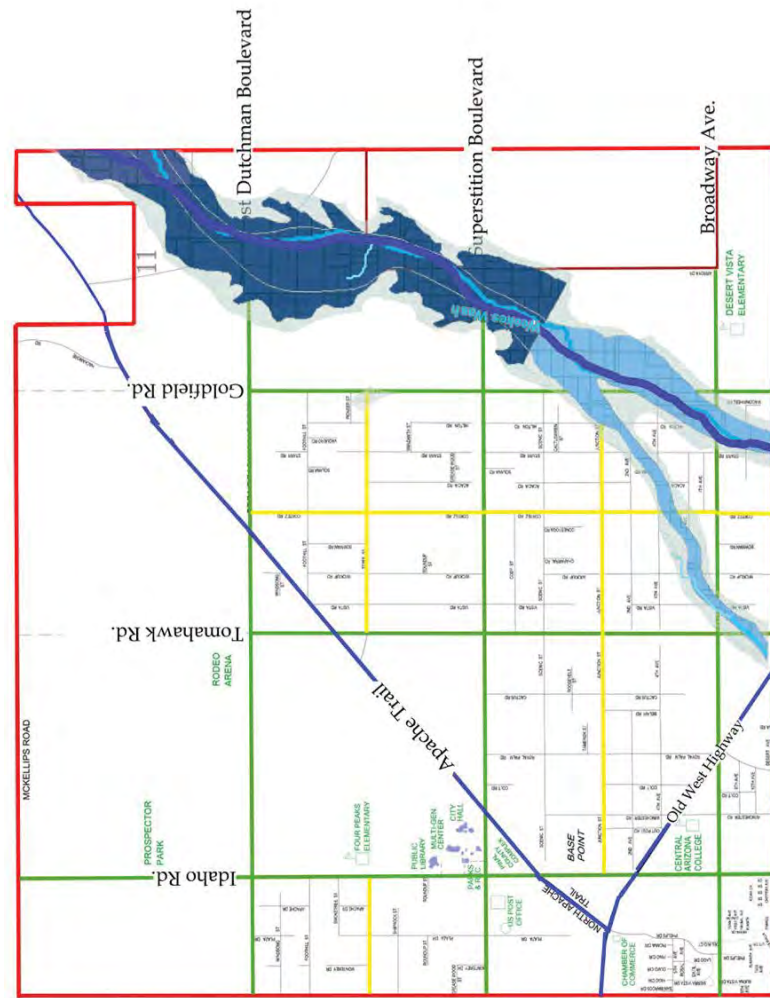
Dwellings without Basements

Corrosion of Steel

Dwellings with Basements

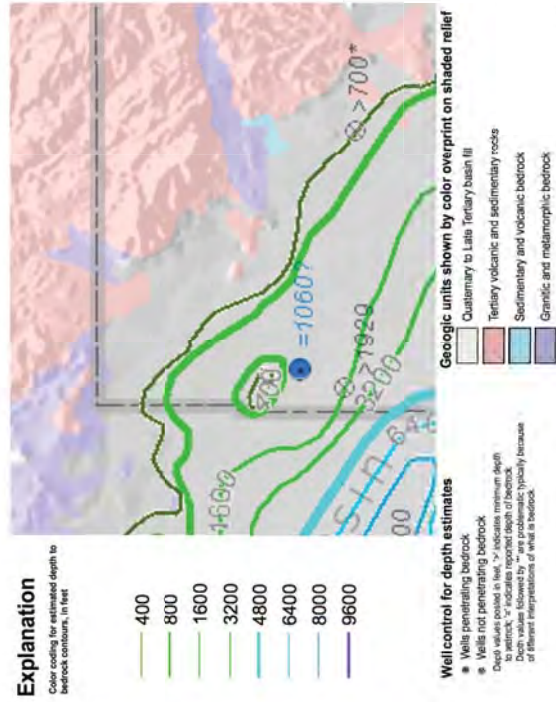
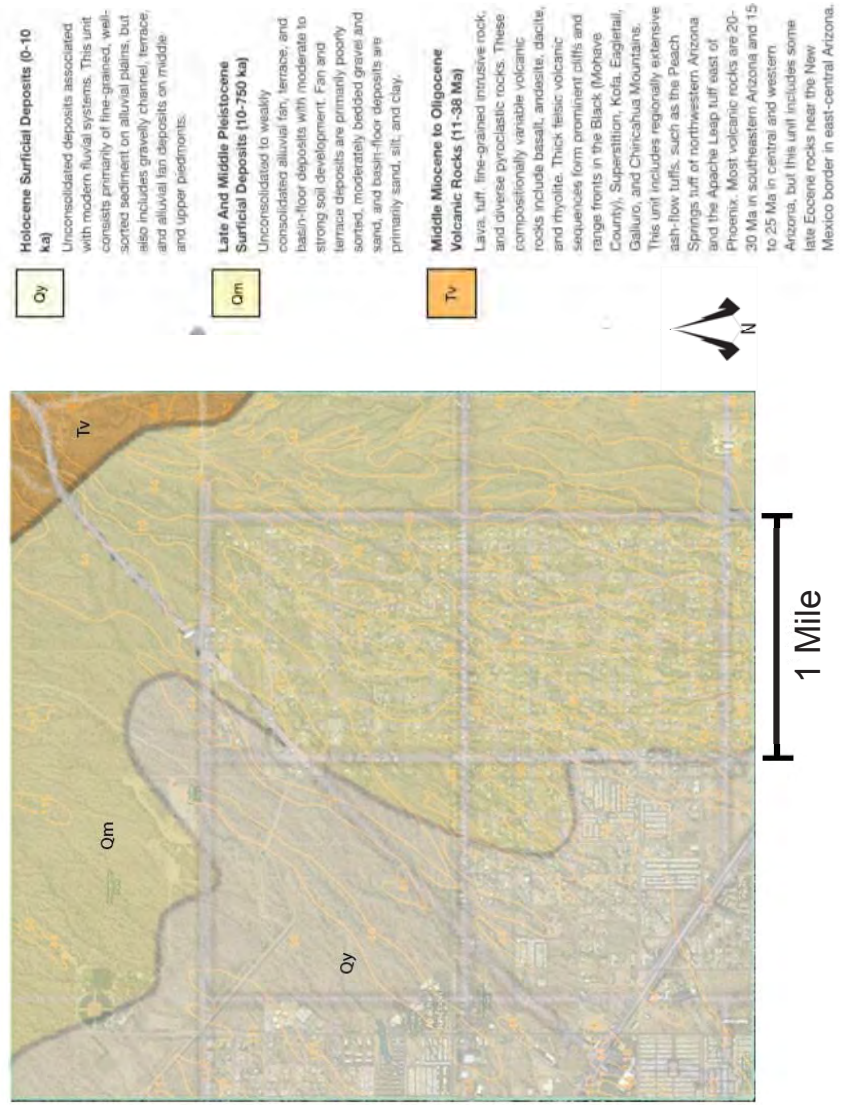


Research - Natural Factors: Hydrology



Research - Natural Factors: Geology

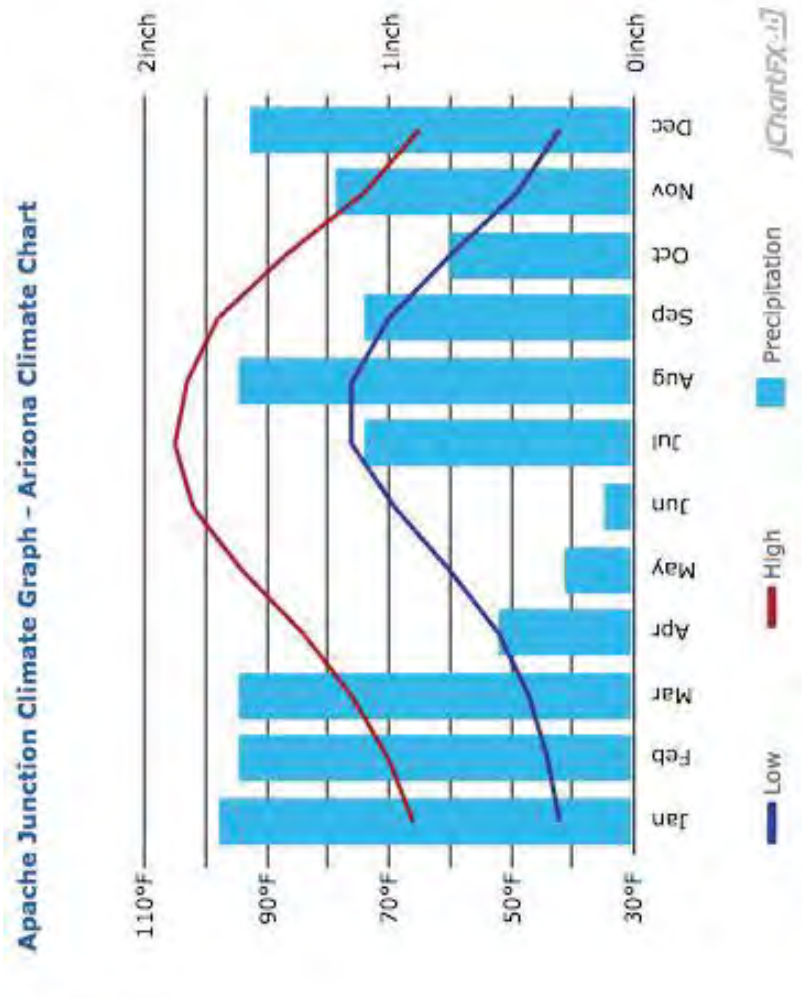
After researching the topsoil that was in our teams quadrant, we then looked at the subsurface geology (right) and the depth to the bedrock (below) and found these existing conditions.



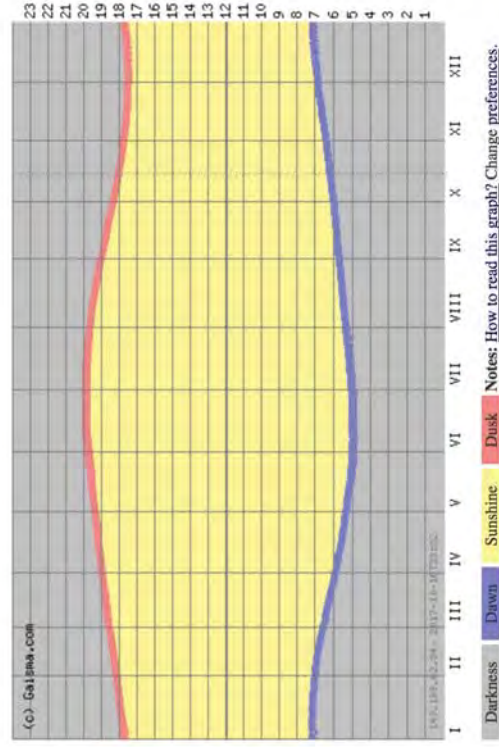
<http://data.azgs.az.gov/geologic-map-of-arizona/#>

<http://data.azgs.az.gov/geologic-map-of-arizona/#>

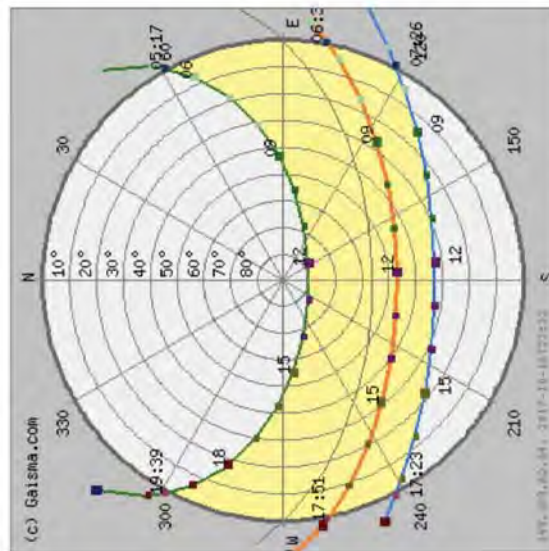
Research - Natural Factors: Climate



Month of year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Dominant wind direction	➔	➔	➔	➔	➔	➔	➔	➔	➔	➔	➔	➔	1-12
Wind probability >= 4 Beaufort (%)	1	0	1	1	1	0	0	1	1	1	1	1	1
Average Wind speed (kts)	1	2	2	3	3	3	3	3	2	2	2	1	2
Average air temp. (°C)	12	15	19	21	25	32	32	31	28	24	17	11	22



Research - Natural Factors: Climate



Notes: • = Daylight saving time, * = Next day How to read this graph? Change preference... October

Sun path
 Today
 June solstice
 December solstice
 Annual variation
 Equinox (March and September)

Sunrise/sunset
 Sunrise
 Sunset

Time

00-02
 03-05
 06-08
 09-11
 12-14
 15-17
 18-20
 21-23

Variable	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Insolation, kWh/m ² /day	2.98	3.78	5.06	6.53	7.37	7.54	6.99	6.21	5.46	4.30	3.30	2.74
Clearness, 0 - 1	0.56	0.57	0.60	0.65	0.67	0.66	0.62	0.60	0.61	0.59	0.58	0.56
Temperature, °C	6.84	8.53	11.77	15.84	21.19	25.81	27.91	26.37	23.48	17.91	10.72	6.52
Wind speed, m/s	5.33	5.12	5.20	5.31	5.31	5.18	4.31	3.88	4.55	4.77	5.31	5.16
Precipitation, mm	31	29	36	11	6	4	28	40	24	24	28	40
Wet days, d	4.2	3.8	4.2	1.8	1.2	1.1	5.8	6.0	4.0	3.0	3.0	4.3

These data were obtained from the NASA Langley Research Center Atmospheric Science Data Center; New et al. 2002

Notes: [Help](#); [Change preferences](#).

New! [Gaisma Planet](#) - Interactive Climate and Environment Imagery Viewer

Research - Human Factors: History

Apache Junction was founded on November 24th, 1978.

The Apache Trail Circle Route is 120 miles long which begins and ends in Apache Junction and has been utilized since 1922. In 1919, Arizona Governor George P. Hunt decided to build a transportation link to open the Globe and Miami copper industry to the Phoenix market and the only route was the Apache Trail.

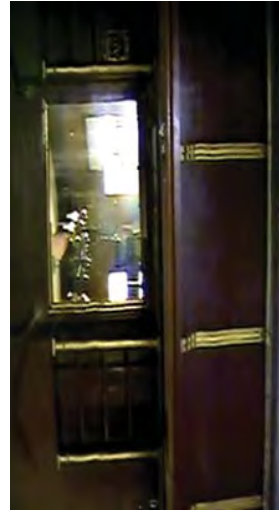
Apache Junction has been a destination for many films and television shows since the early 1900's.

In the 1890's, the Goldfield consisted of 3 saloons, a boarding house, general store, blacksmith shop, brewery, meat market and a school house. This brings in visitors from all over the world to come see the historical mining town which is one of Apache Junction's main attraction.

The other main attraction is the Superstition Mountains that has stories over a century old of lost treasure and those who search for it. The Mountain is also a historical landmark for Pima Indians and is one of the most photographed sites in Arizona for its spectacular view.

Research - Human Factors: History

Apacheland Movie Ranch (Before Fire)



<https://www.youtube.com/watch?v=xFqaanffGfHM>

Research - Human Factors: Demographics

Population in 2014: 38,131 (100% urban, 0% rural). Population change since 2000: +19.9%



Males: 18,333 (48.1%)

Females: 19,798 (51.9%)

Estimated median household income in 2013: \$37,200 (it was \$33,170 in 2000)

Apache Junction: \$37,200

AZ: \$48,510

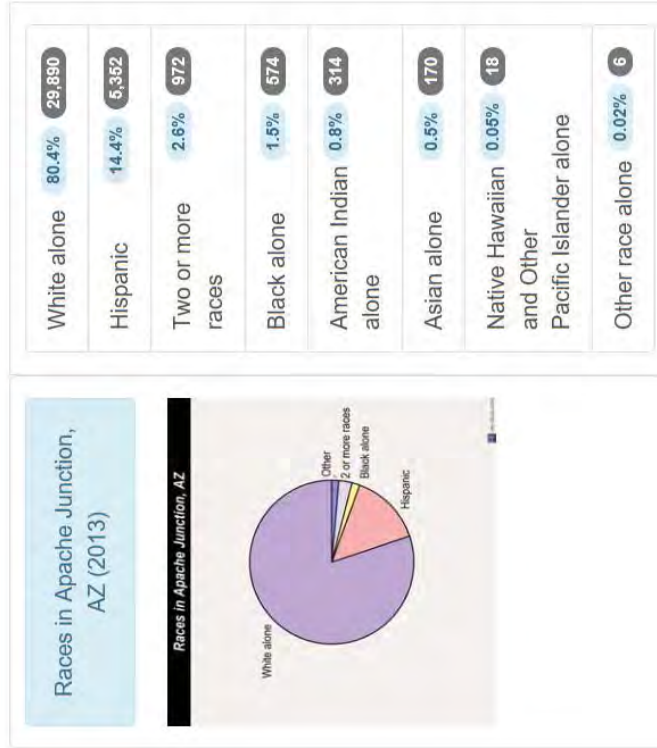
Estimated per capita income in 2013: \$20,781 (it was \$16,806 in 2000)

Estimated median house or condo value in 2013: \$99,470 (it was \$74,000 in 2000)

Apache Junction: \$99,470

AZ: \$166,000

Median gross rent in 2013: \$787

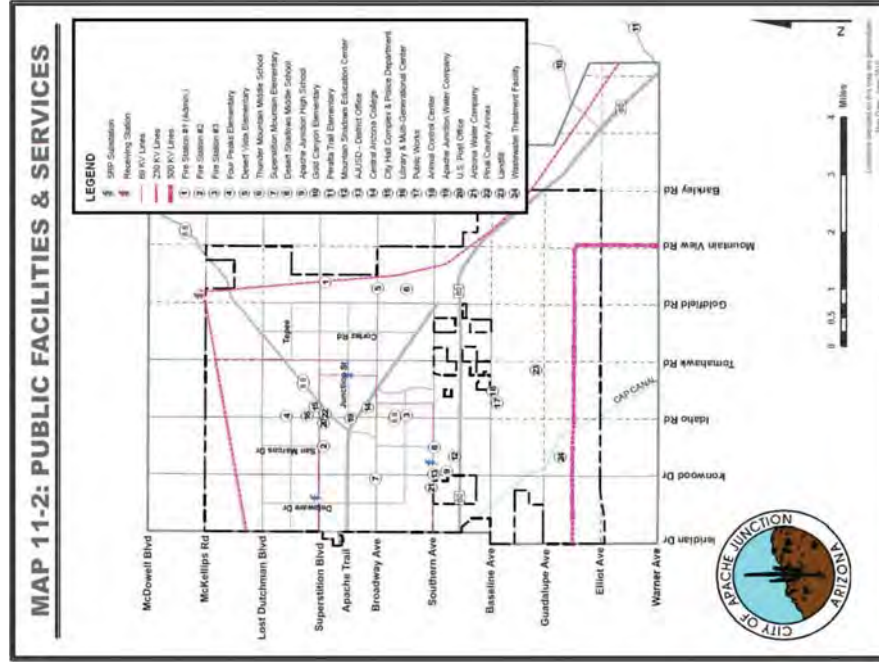
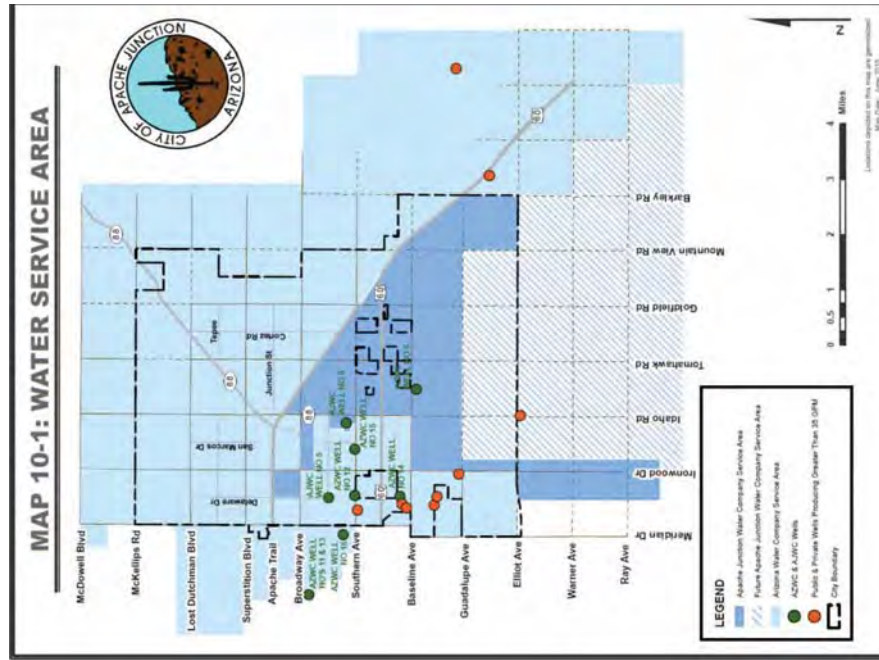


Research - Human Factors: Demographics

Crime rates in Apache Junction by Year													
Type	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2014	
Murders	0	1	1	1	0	4	2	0	3	4	1	2	
	0.0	2.9	2.9	2.9	0.0	12.9	6.3	0.0	9.0	11.0	2.7	5.4	
Rapes	4	12	12	14	13	18	6	8	15	5	13	8	
	11.8	34.5	34.3	40.5	38.8	58.2	19.0	24.3	45.1	13.8	35.1	21.5	
Robberies	20	13	21	6	19	26	31	15	14	8	21	17	
	59.1	37.4	60.0	17.3	56.7	84.1	98.3	45.6	42.1	22.0	56.8	45.6	
Assaults	84	72	92	93	131	92	84	81	76	67	95	64	
	248.3	207.1	262.7	268.8	390.7	297.5	266.5	246.4	228.7	184.3	258.9	171.7	
Burglaries	514	432	419	385	N/A	316	319	296	266	308	236	404	
	1,519.2	1,242.7	1,196.4	1,112.8	N/A	1,021.8	1,012.0	900.5	800.6	847.4	638.1	1,083.9	
Thefts	1,082	1,235	1,096	986	1,280	1,127	920	780	697	848	719	748	
	3,198.0	3,552.6	3,129.6	2,850.0	3,817.2	3,644.3	2,918.7	2,373.1	2,097.8	2,333.1	1,944.0	2,006.8	
Auto thefts	204	213	180	234	225	234	208	124	80	83	70	69	
	602.9	612.7	514.0	676.4	671.0	756.7	659.9	377.3	240.8	228.4	189.3	185.1	
Arson	5	16	13	6	14	5	16	11	3	0	1	14	
	14.8	46.0	37.1	17.3	41.8	16.2	50.8	33.5	9.0	0.0	2.7	37.6	
City-data.com crime index (higher means more crime, U.S. average = 291.1)	382.0	387.1	376.0	364.8	438.9	462.4	373.2	287.7	288.9	263.0	254.6	262.4	

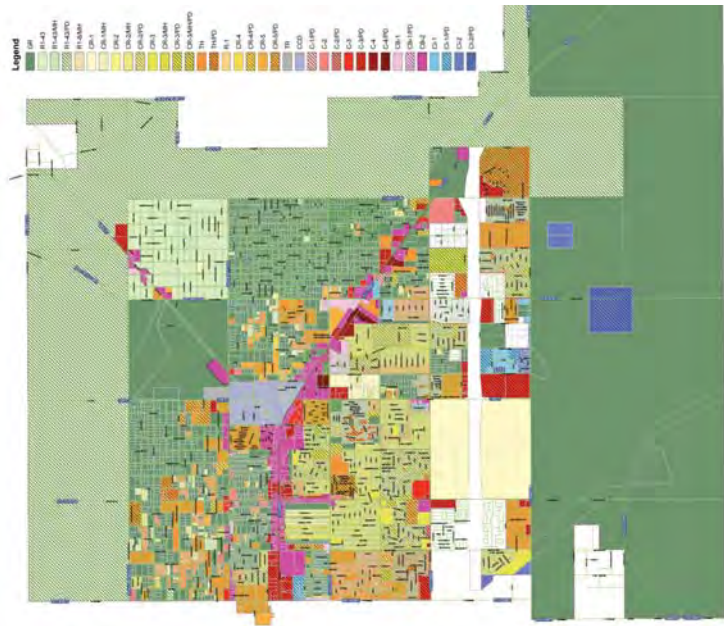
Type	Crime rates in Apache Junction by Year		
	2012	2014	
Murders	1	2	
per 100,000	2.7	5.4	
Rapes	13	8	
per 100,000	35.1	21.5	
Robberies	21	17	
per 100,000	56.8	45.6	
Assaults	95	64	
per 100,000	256.9	171.7	
Burglaries	236	404	
per 100,000	638.1	1,083.9	
Thefts	719	748	
per 100,000	1,944.0	2,006.8	
Auto thefts	70	69	
per 100,000	189.3	185.1	
Arson	1	14	
per 100,000	2.7	37.6	
City-data.com crime index (higher means more crime, U.S. average = 291.1)	254.6	262.4	

Research - Human Factors: Services



Research - Human Factors: Zoning

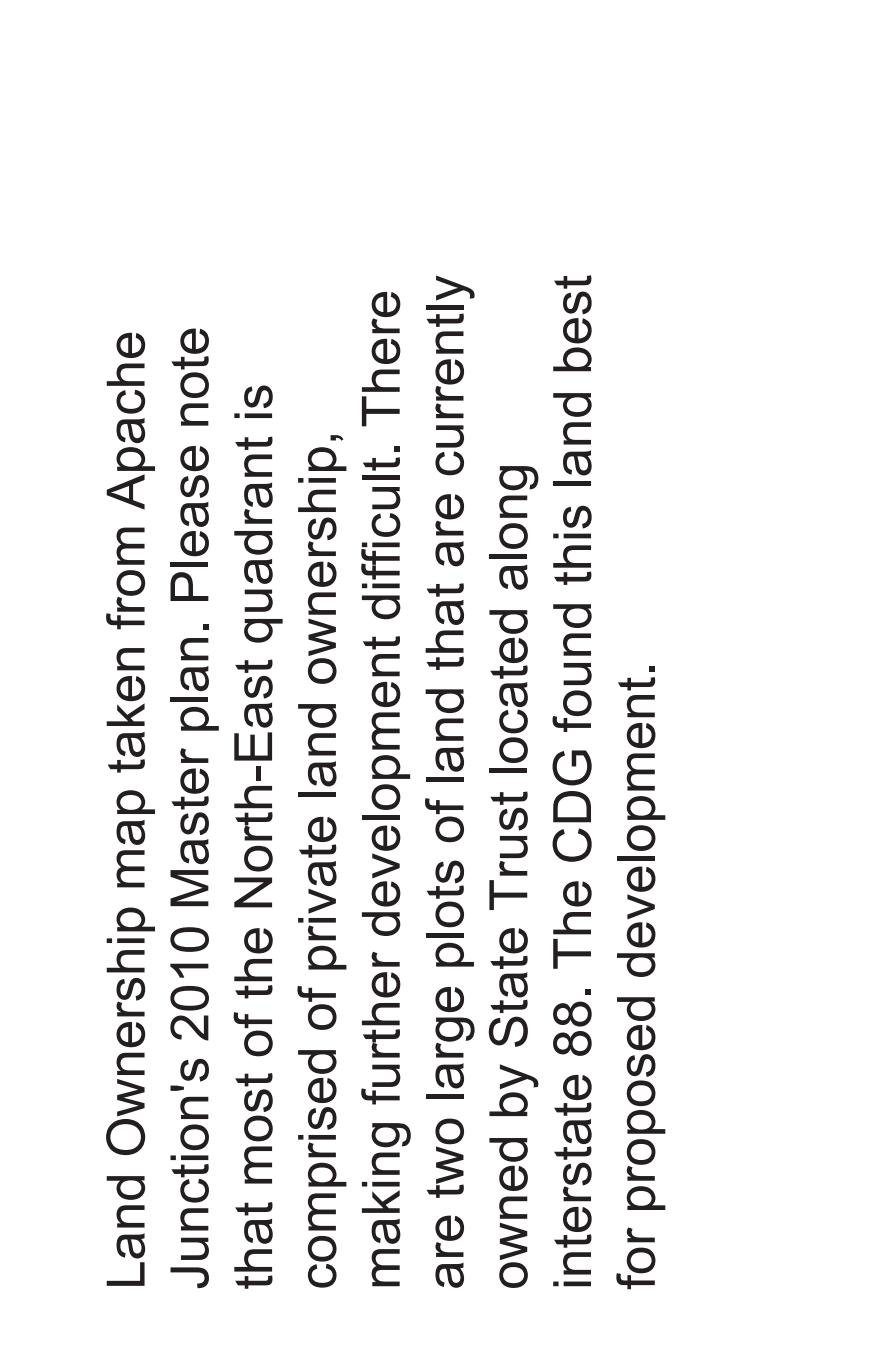
Zoning map taken from Apache Junction's 2010 Master plan. Please note that most of the open space/ parks are zoned as residential.



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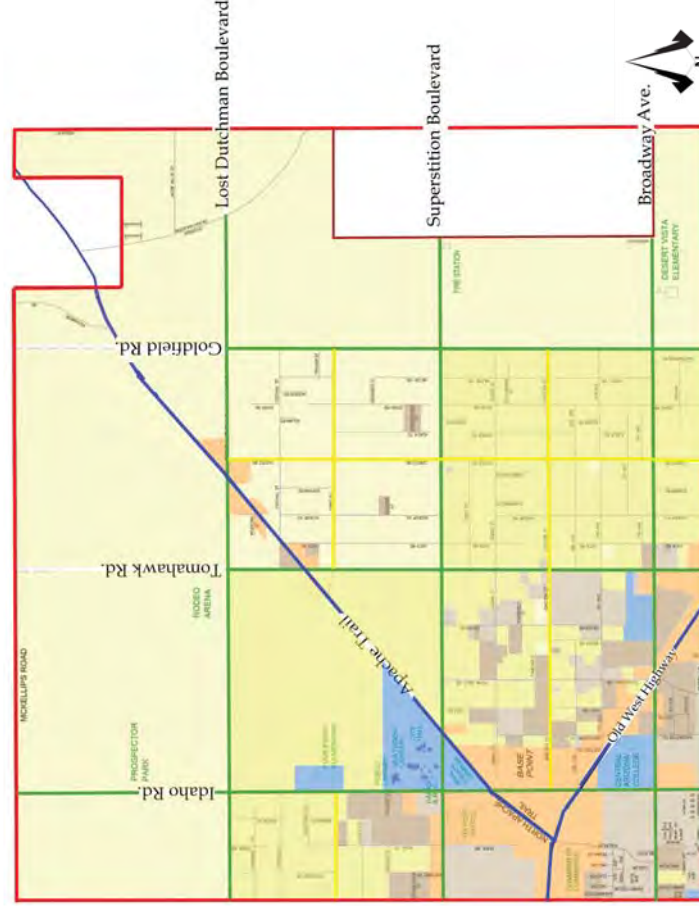
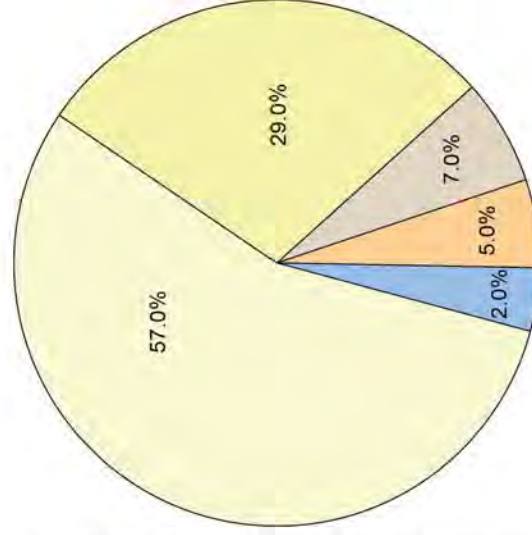
here
ently

best



Research - Land Uses:

Color	Land Use	Acreage	%
	Low* Density Residential	3546 Acres	57%
	High* Density Residential	370 Acres	7%
	Commercial	337 Acres	5%
	Institutional	125 Acres	2%
	Recreational	0 Acres	0%
	Open Space	0 Acres	0%
	Med. Density Residential	1825 Acres	29%



Presented here are the existing land uses in Apache Junction according to the 2014 General Plan on Apache Junction's website.

Analysis

Using the site analysis research that our design group had compiled, we created matrices to compare land use, to land use compatibility and also natural/human factors to those land uses. The matrices then helped us create an opportunity and constraints map for our quadrant and build suitability maps for future land use development.

Analysis - Land Use Suitability: Matrix

This matrix compares land uses to other land uses that are either in Apache Junction now and could be further developed based on our research.

This however is not a list of all the land uses that could be established in the area.

Land Uses vs Land Uses

Uses	Institutional	Agriculture	Industrial
Recreational			
Commercial			
Residential			

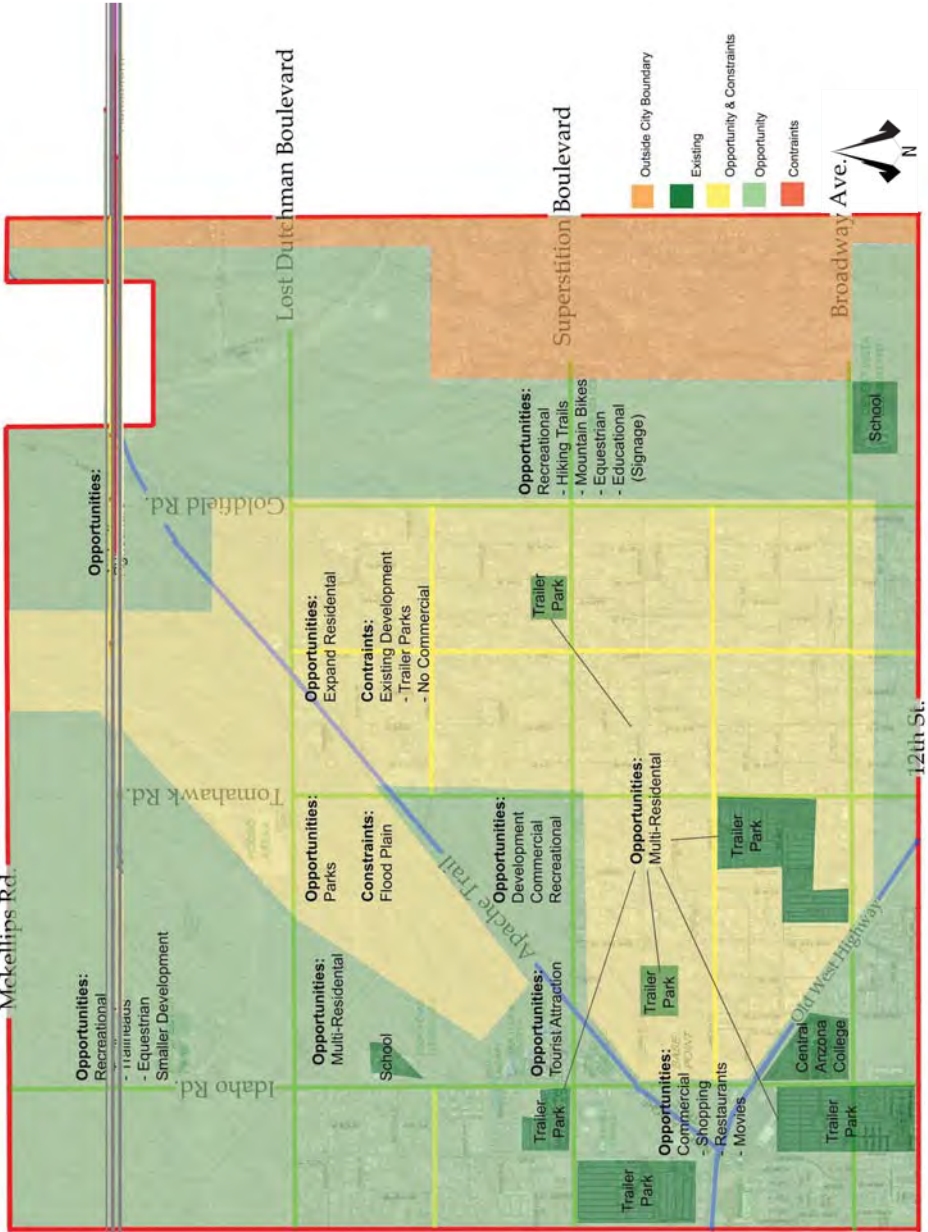






More Suitable → → → → → Less Suitable

Analysis - Opportunities and Constraints



Analysis - Suitability Map

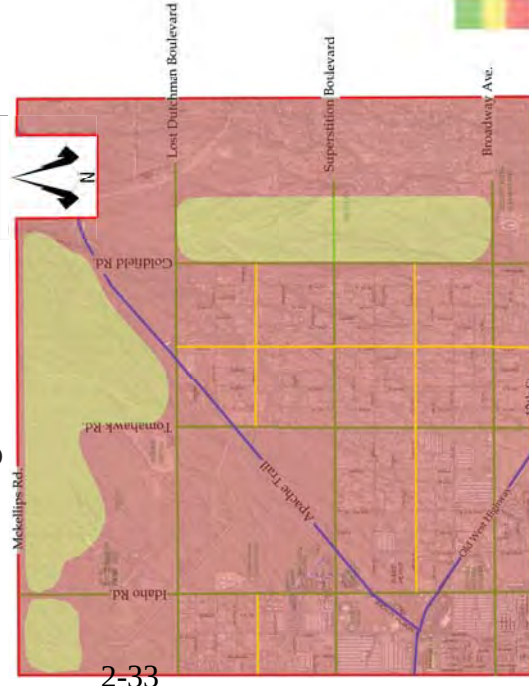


More Suitable



Less Suitable

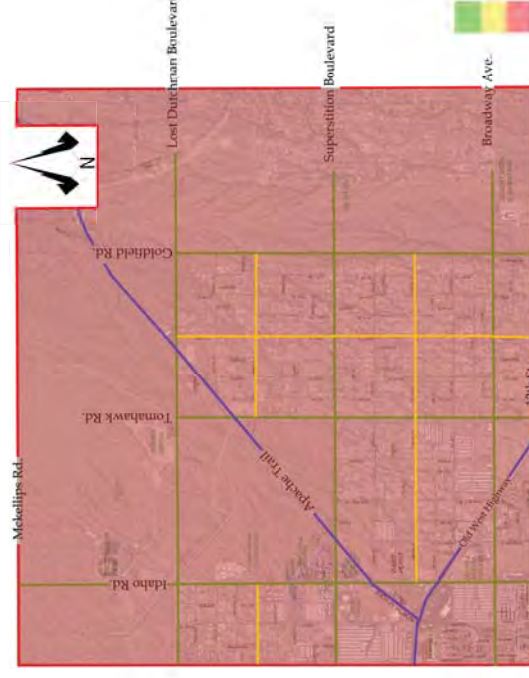
Agriculture



Commercial



Industrial

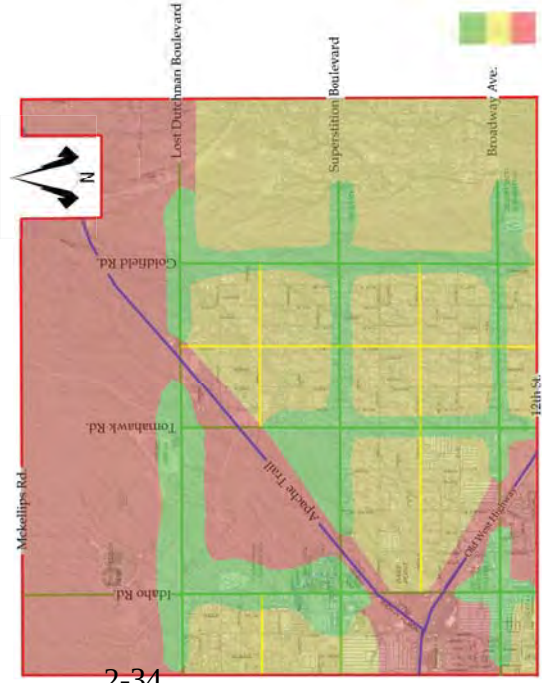


As stated in the analysis introduction, these suitability maps are some of the results that our matrices and research discovered.

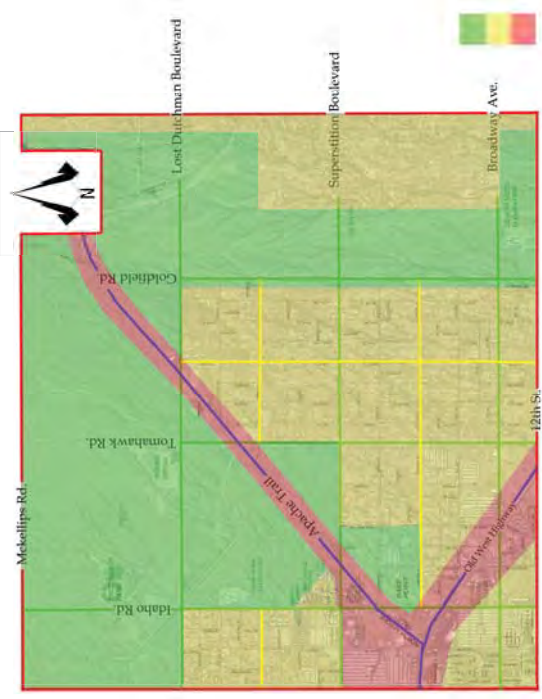
Analysis - Suitability Map



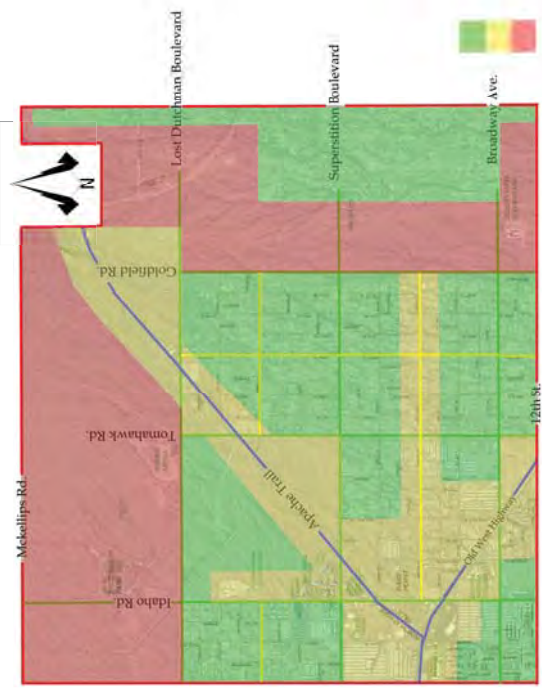
Institutional



Recreation



Residential



As stated in the analysis introduction, these suitability maps are some of the results that our matrices and research discovered.

Design Development

Site Intervention



1 Walkability- Cathy La

2 Healthy Community - Choe Leyba

3 Performing Arts and Culture - Lucas Ayers

4 Urban Agriculture - Brett Cordova

5 Visual Arts - Nick Salazar

6 Urban Forestry - Parker LaFlam

Design Development - Theme: Walkability

Mission:

To **provide** design solutions that will create a more **walkable** and **bikeable** community through case studies and study area of the North East Corner of Apache Junction.

Vision:

Create a green belt corridor that utilizes Flat Iron Park as a gateway to increase walkability and bikeability between the different land uses within the Apache Junction Community.

Goals:

- Create a more pedestrian and biking centered community through a green belt design.
- Connect surrounding land uses with a walkable and bikeable distance.
- Create a more comfortable area for pedestrian and bicyclists for reconnection to the outdoors.
- Increase Apache Junction's walkscore and making it less car dependent.

Design Development - Theme: Walkability

Inspiration:



Pima Acres, Scottsdale, AZ

This neighborhood has a similar layout as AJ but what made it successful is the multiple land uses and trails that connects the land uses.



Indian Bend Wash Greenbelt, Scottsdale, AZ

This greenbelt is one of the best examples of multiple land uses and walkability.



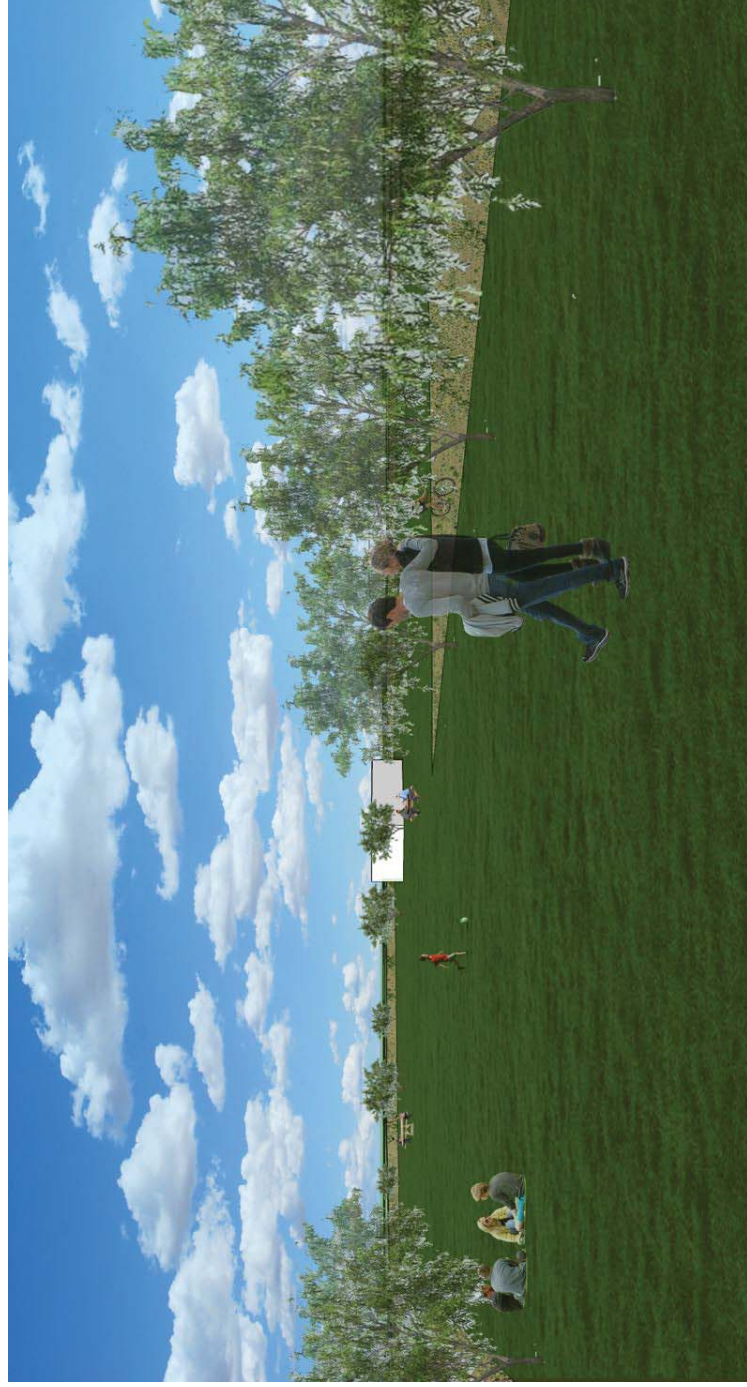
Flat Iron Park, AJ, AZ

One of the successful parks in Apache Junction.



Design Development - Theme: Walkability

Perspective:
An idea of one of the pocket greenbelt parks.



Design Development - Theme: Walkability

Plan:



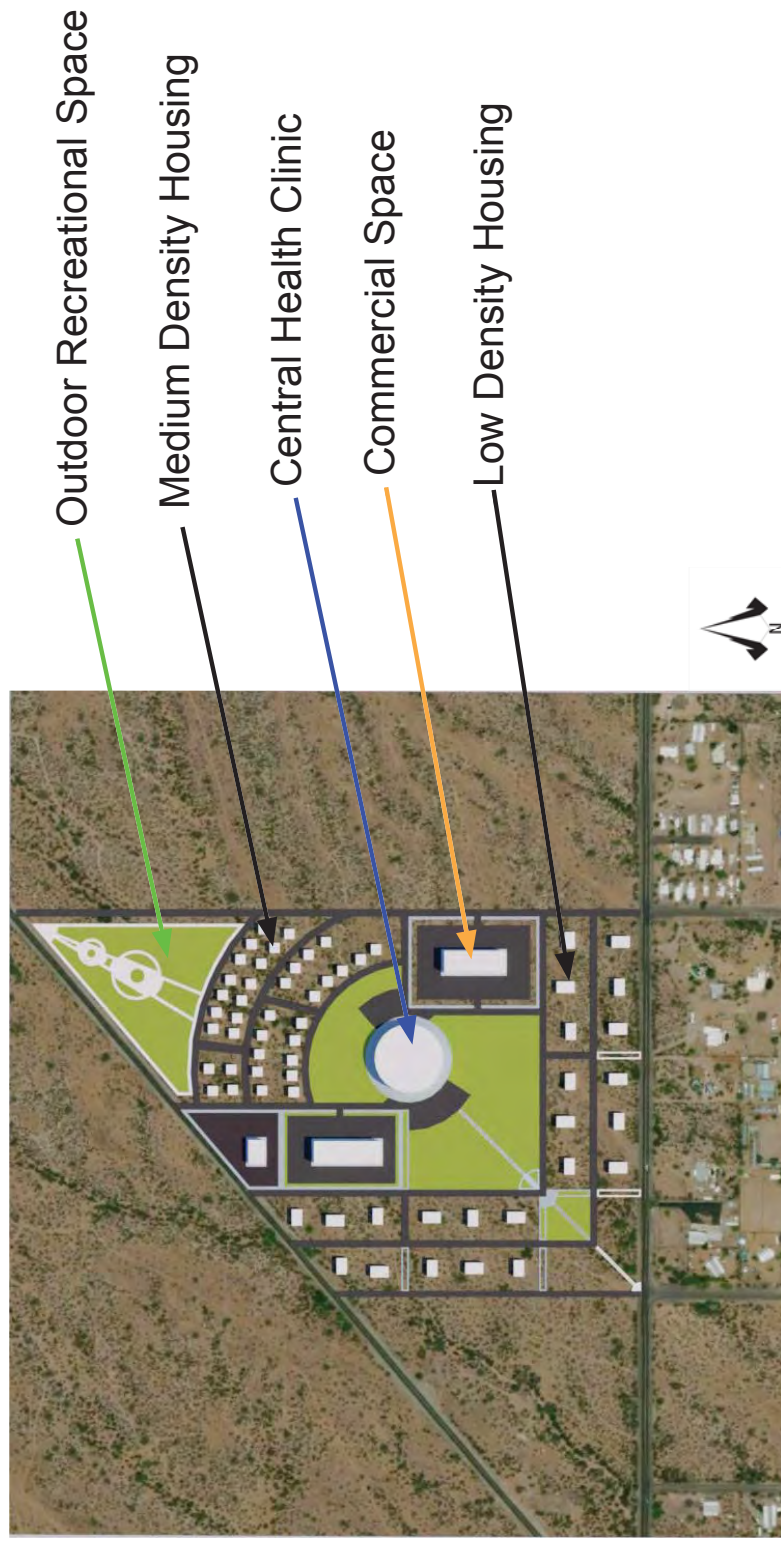
Museum:
History of Apache Junction,
Lost Dutchman, etc.

Pocket Parks:
Small educational
buildings for signage
and facilities

Commercial:
Mom & Pop Shops, Grocery
Store, convenience store, gift
shop, clothing store, etc.

Design Development - Theme: Healthy Community

Master Plan



Design Development - Theme: Healthy Community

Mission

To **design** a community for the city of Apache Junction that will **Inspire** and **Promote** future developments to make Apache Junction a **destination** for residents seeking a better quality of life.

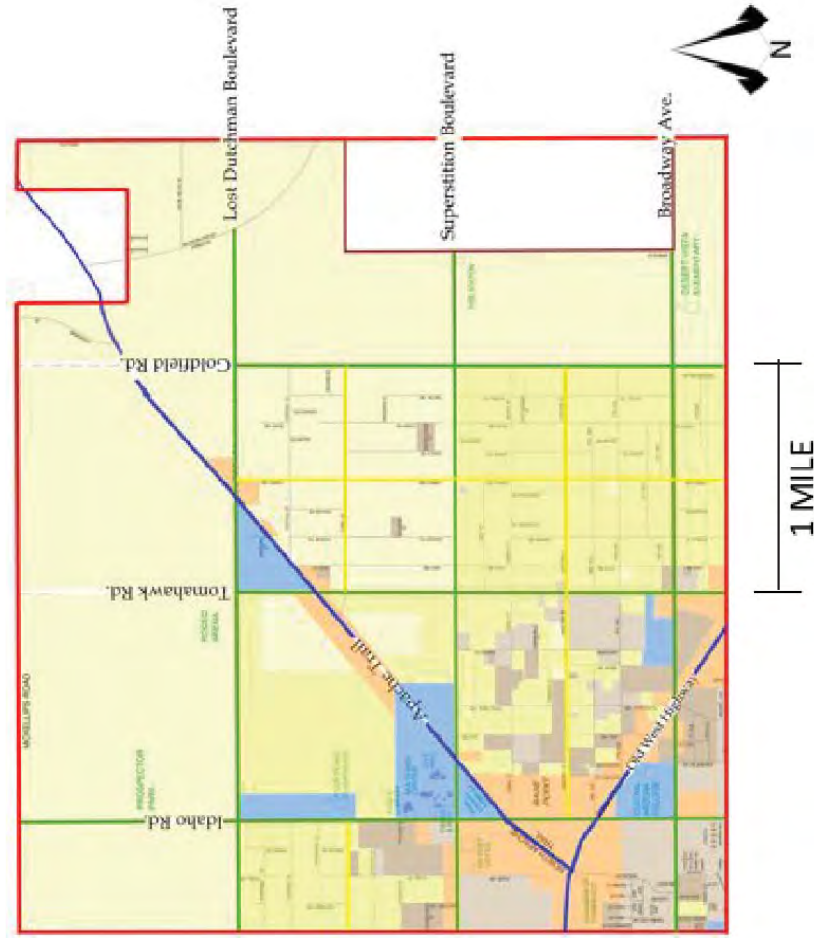
Vision

A community centered around the **well being** of all of its inhabitants, through **promoting** access to **recreation, health care, education, affordable housing and community engagement**.

Design Development - Theme: Healthy Community

New Land Use Allocation

The new land use map incorporates a higher percentage of Institutional land allocation to accommodate the addition of newly designed community health clinics.



Design Development - Theme: Performing Arts - Lucas Ayers

Mission: To **Provide** Apache Junction with **good design** solutions that address their city's issues, in addition to **giving a future** land use plan that can be adapted and evolve **as the city grows**.

Vision: To design city **spaces that act as intersections** of culture, arts, and the people that participate in them.



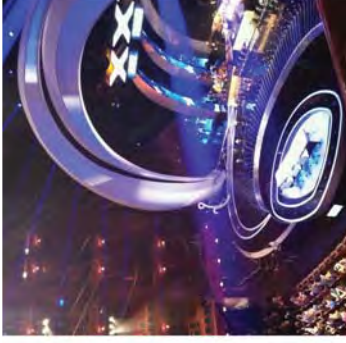
40 acre plan view of a possible build location

Design Development - Theme: Performing Arts

Goals

- Bring younger generations into the city
- Make apache junction a destination
- Give the natural beauty of Apache Junction emphasis

Inspiration

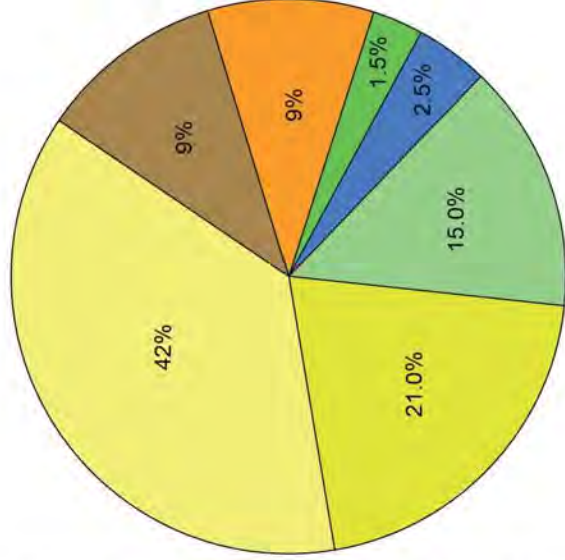


Elements

- Medium Density Residential
- Commercial Development
- Recreational Open Space

Design Development - Theme: Performing Arts

Color	Land Use	Proposed Acreage	Proposed%
	Low* Density Residential	2752 Acres	42%
	High* Density Residential	596 Acres	9%
	Commercial	596 Acres	9%
	Institutional	170 Acres	2.5%
	Recreational	100 Acres	1.5%
	Open Space	1014 Acres	15.0%
	Med. Density Residential	1376 Acres	21.0%



This is a graph, pie chart, and quadrant map showing the proposed land use for the Northeast quadrant.

Design Development - Theme: Performing Arts

This is an illustration of the type of architecture that could be built to accommodate the performing arts. Every week there could be something different occurring in this space from musical performances, to comedy acts, to culinary demonstrations.



Design Development - Theme: Performing Arts

This is an additional illustration of what it might look like along with un-dimensioned section cuts of the area.



Design Development - Theme: Urban Agriculture

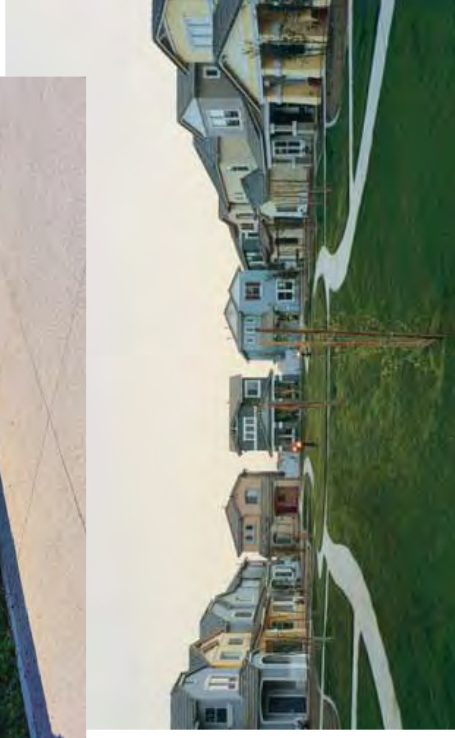
Master Plan



Design Development - Theme: Urban Agriculture

Inspiration

Garden City Movement
Arictopia
Verrado



Design Development - Theme Urban Agriculture

Mission

Allowing Community members an ability to connect with the **land** and their neighbors through **urban farming** as a lifestyle, but still allowing residents to live a modern, **active**, and happy life.

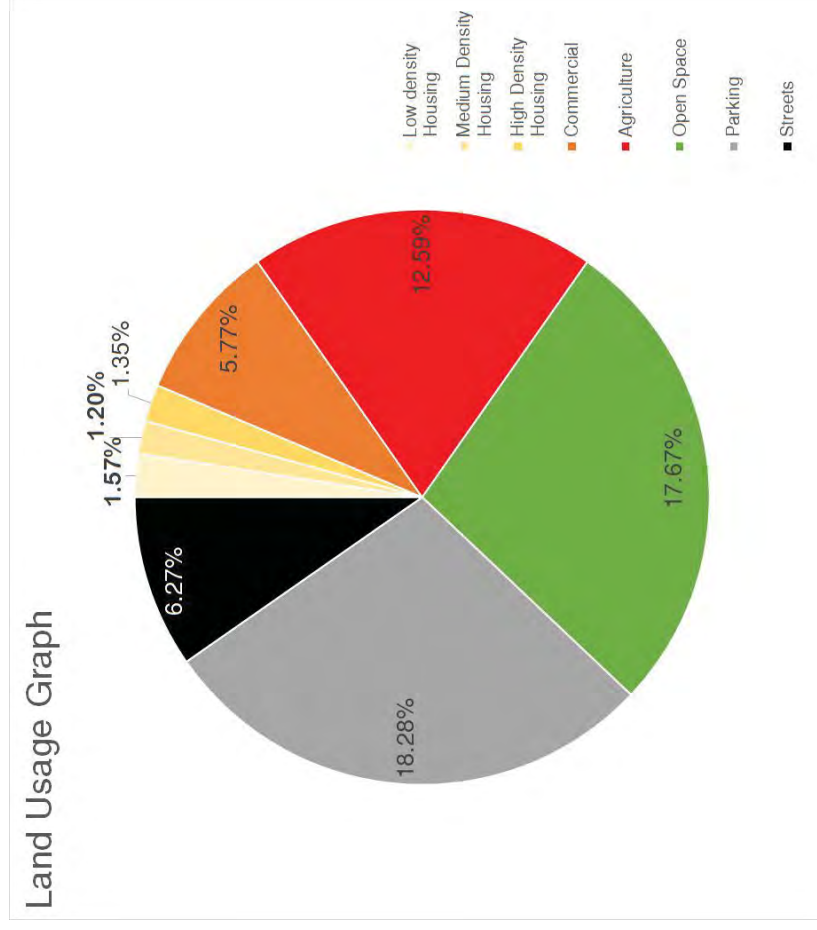
Vision

A community focused on a lifestyle where people **work, live, eat, shop, and interact** with each other in a planned community developed around an **urban agriculture farm** with tree lined streets.

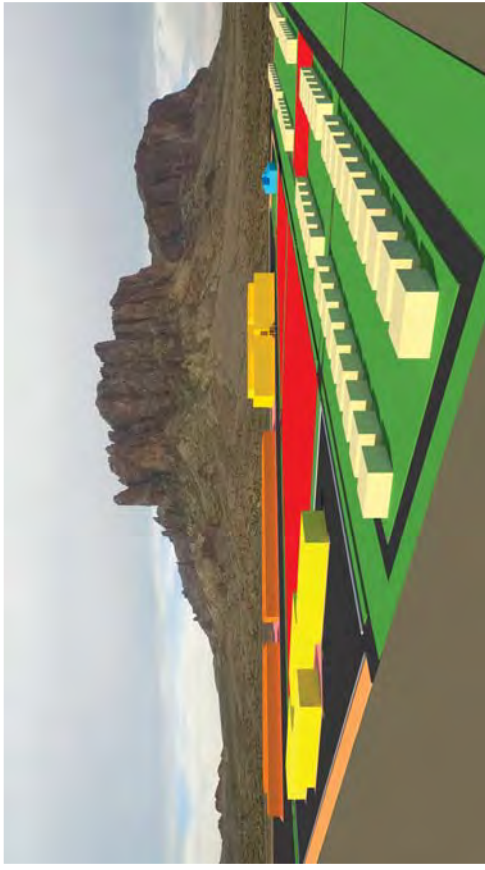
Design Development - Theme: Urban Agriculture

New Land Use Allocation

With the new land, I wanted the land to be mostly **Agriculture** and **Open Space** to allow community members the opportunity to grow their own food and meet their neighbors.



Design Development - Theme: Urban Agriculture



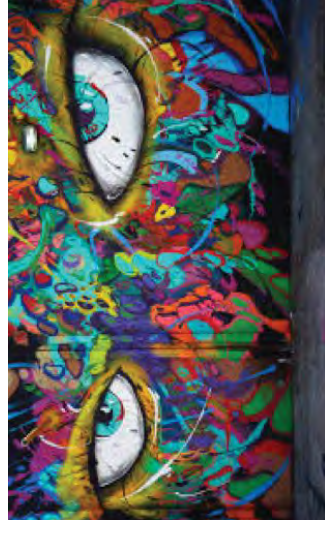
Design Development - Theme: Visual Arts

Mission:

To **offer** local and non-local visitors a place to enjoy a modern, **art-filled** site while still incorporating the **historical** background that makes Apache Junction an important historical landmark in Arizona.

Vision:

Apache Junction has a signature look that makes it stand out from other cities in Arizona. In order to enhance its aesthetic to make it a more popular city, it will be transformed to include a new modern look through the design of a proposed art district to add a blast of color to contrast with the desert surrounding.



Design Development - Theme: Visual Arts

Goals:

- Create an artful signature attraction
- Transform Apache Junction into a modern city while retaining its history
- Use Apache Junction's history and features to design the ultimate art walk

Inspiration:

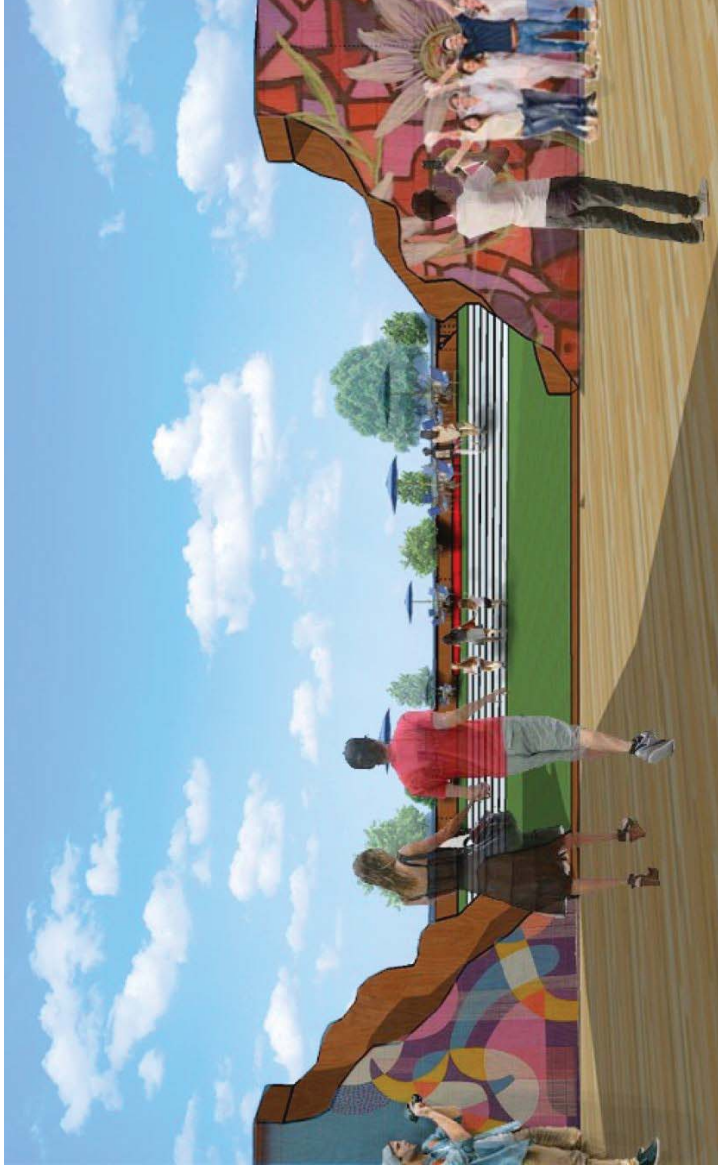
- Gold Mines
- Arizona Landscapes
- Superstition Mountains
- Western Films



Design Development - Theme: Visual Arts

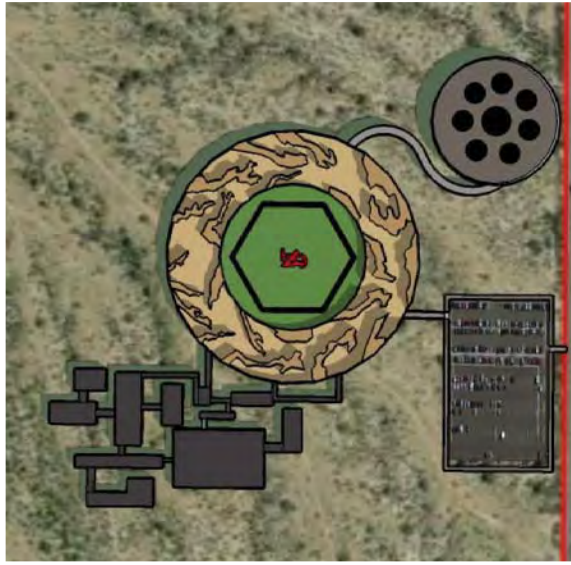
Perspective:

The design of an outdoor art district with a maze of canyon walls.

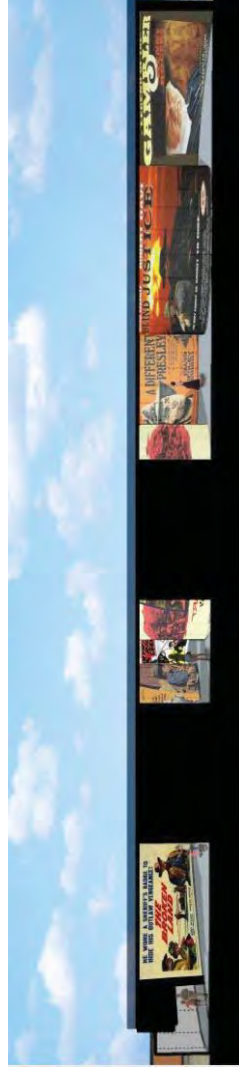


Design Development - Theme: Visual Arts

Plan & Section:



Not to scale



Not to scale

Design Development - Theme: Roadway

Mission:

To develop a plan for Apache Junction that will, in the long run, construct a solid **foundation** to lower the carbon footprint and increase the pedestrian comfort zone to inspire more residents to engage in the outdoor living aspect.

Vision:

Redevelop the streetscape of Apache Junction to include tree lined streets, pedestrian walkways, dedicated bicycle lanes, and centered medians on all streets or as necessary to **promote** secure and comfortable solutions for all modes of transportation

Goals:

- Lower the carbon footprint and motor vehicle emissions
- Utilize bare roadways to become more aesthetically pleasing
- Influence pedestrians to access the outdoor space of Apache Junction

Design Development - Theme: Roadway

Inspiration:

- Hilton Head, South Carolina



- Ocean Park, New York



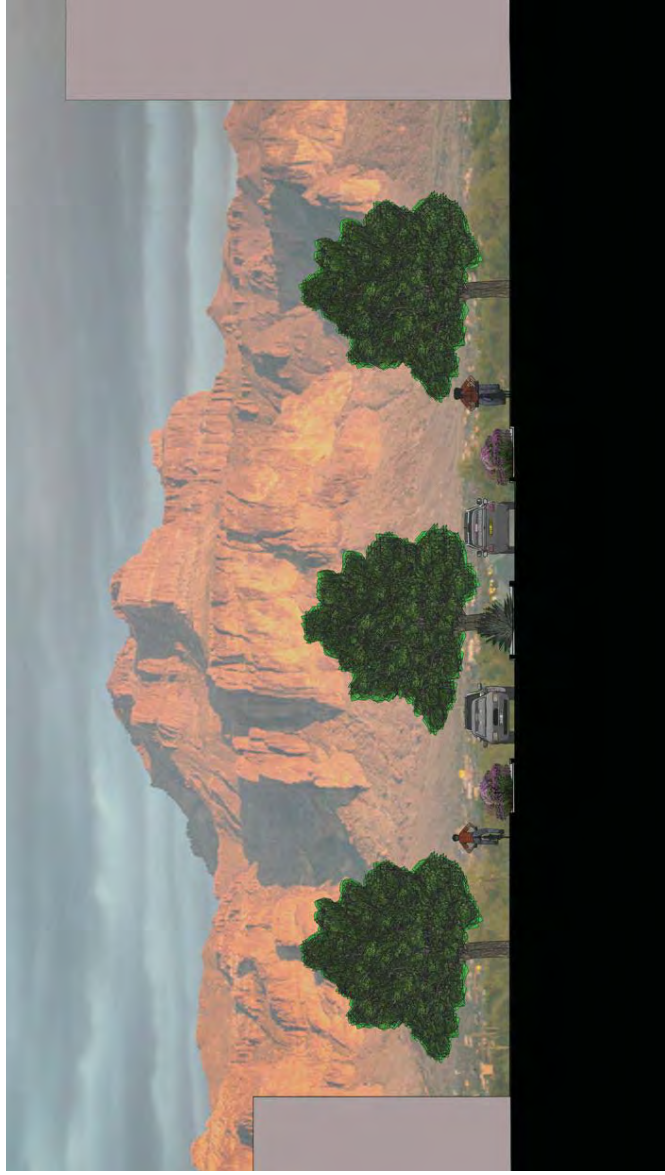
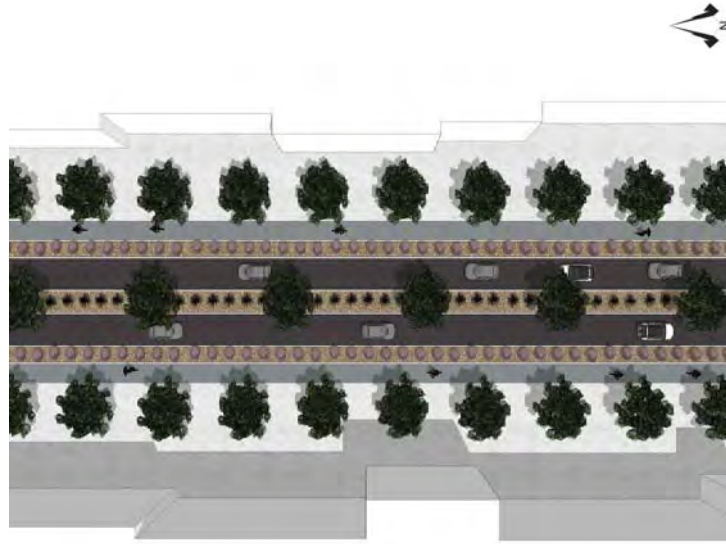
Design Development - Theme: Roadway

Perspective: An idea of streetscape



Design Development - Theme: Roadway

Plan and Section:



Conclusion

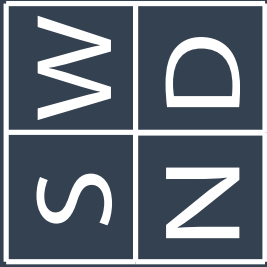
In conclusion, each of our designs are not just suitable for the northeast quadrant of Apache Junction, but these designs can be replicated throughout Apache Junction. Our hope is that our ideas can inspire and direct the future development of Apache Junction into one that can be enjoyed by future generations while maintaining a strong connection to its cultural history.



SOUTHWEST
NATIVE DESIGN

LANDSCAPE ARCHITECTS
AND PLANNERS

Southwest Apache Junction Masterplan Community



SOUTHWEST
NATIVE DESIGN

LANDSCAPE ARCHITECTS
AND PLANNERS

TIA BIAKAIDDY
SHINYE KIM
ANTHONY MARTIN
DYLAN MAYO
KATRYN SQUYRES
DENISE TORLONI

OUR MISSION

To create places inspired by local history and natural beauty of the surrounding environment to enhance the quality of life for the client, community, and local ecology now, and for the future.

This book contains all of the research conducted by Southwest Native Design prior to the start of the design process for the Southwest quadrant of Apache Junction. The final design concepts proposed by each group member are also included.

01 | Context



The City of Apache Junction is located thirty-six miles east of Phoenix, Arizona.



Our group focused on the Southwest quadrant of Apache Junction.

The site boundary ran east along 16th avenue, south down Tomahawk until connecting with the city limits and following the border west to Meridian road and connecting back up to 16th avenue.



1863

Arizona split from the Territory of New Mexico to form Arizona Territory



1893

Goldfield Minding Town was established



1891

Jacob Waltz dies and leaves location of Lost Dutchman Gold Mine Unknown

1912

Arizona became 48th State



1978

Apache Junction established as a city on November 24



1977

Lost Dutchman State Park is open and dedicated on December 5

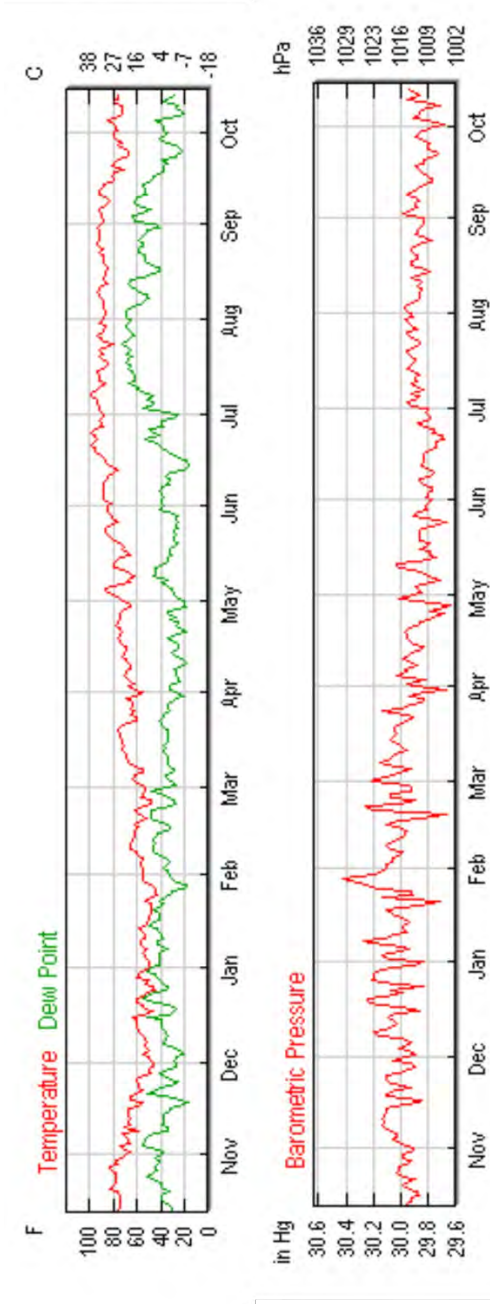


2003

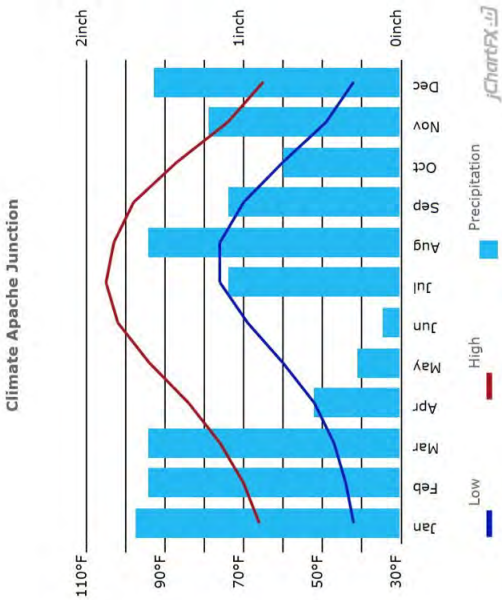
Central Arizona Aqueducts designed as a National Recreational Trail



02 | INVENTORY

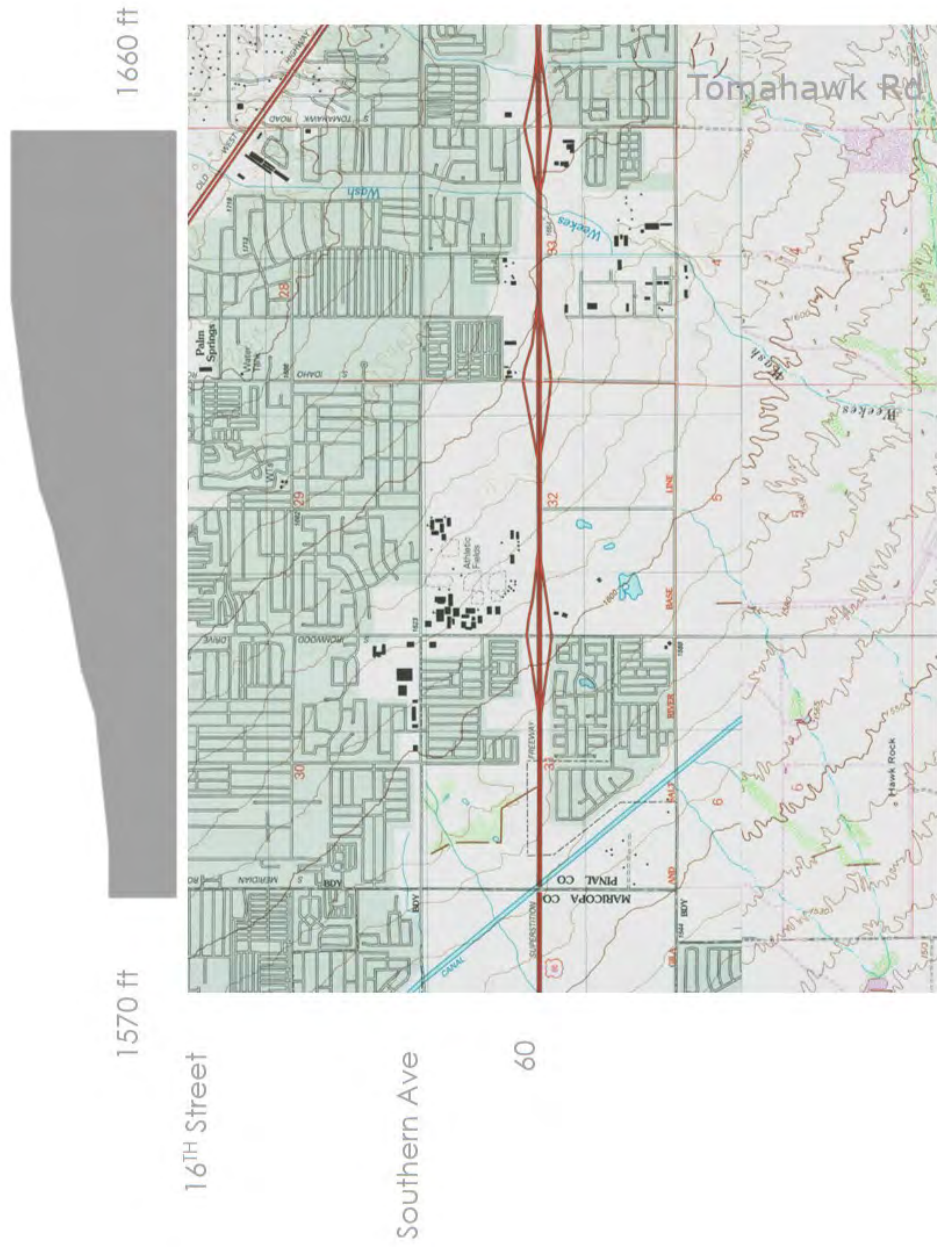


Apache Junction has an annual high temperature of 85.3 degrees F and an annual low temperature of 57.3 degrees F. Rainfall occurs the most during the winter months, as well as August during the monsoon season, receiving about 13.21 inches per year.



	Jan	Feb	Mar	Apr	May	Jun
Average high in °F:	66	70	76	84	94	102
Average low in °F:	42	44	47	52	60	69
Av. precipitation in inch:	1.69	1.61	1.61	0.55	0.28	0.12
Days with precipitation:	-	-	-	-	-	-
Hours of sunshine:	-	-	-	-	-	-

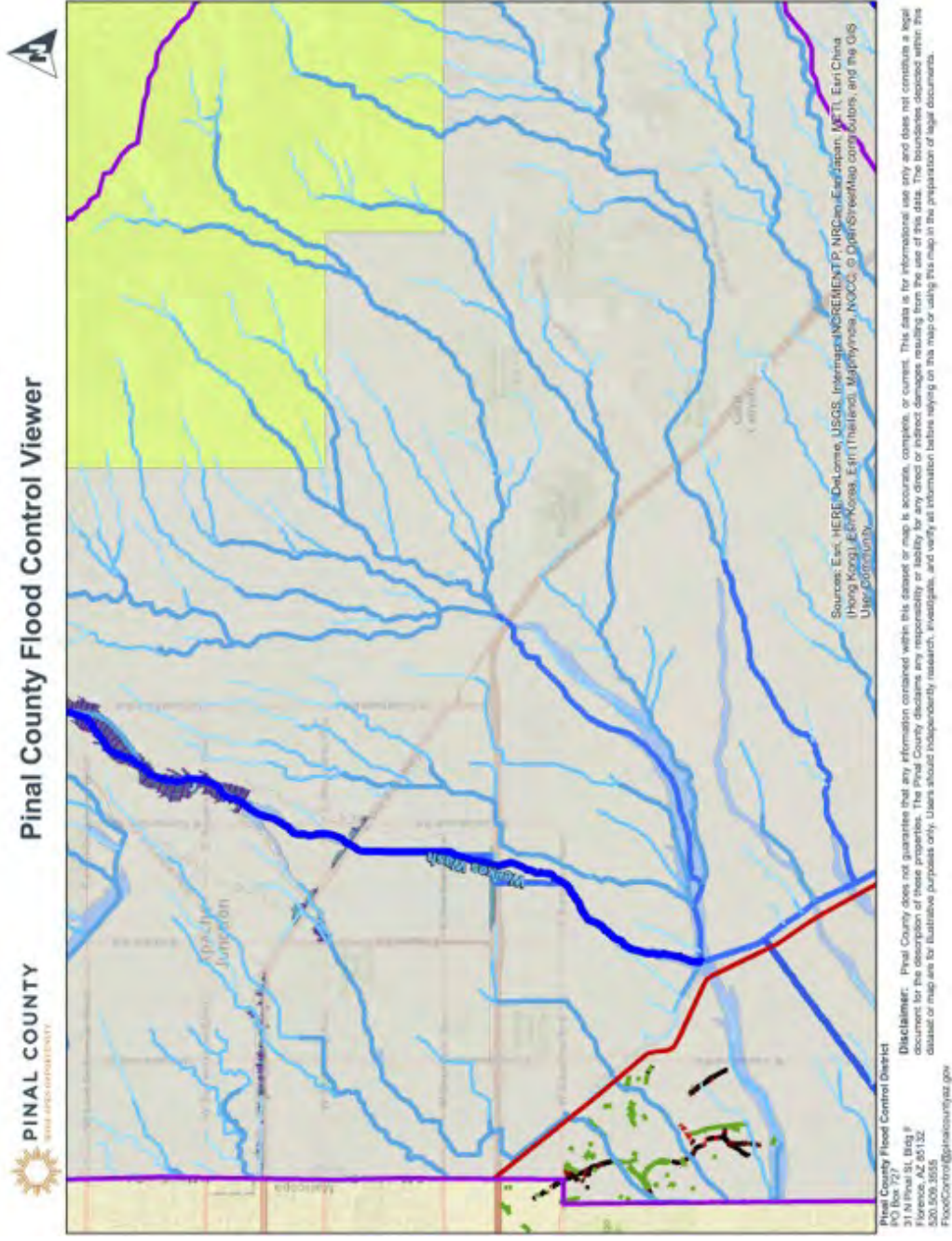
	Jul	Aug	Sep	Oct	Nov	Dec
Average high in °F:	105	103	98	87	74	65
Average low in °F:	76	76	70	60	49	42
Av. precipitation in inch:	1.1	1.61	1.1	0.75	1.22	1.57
Days with precipitation:	-	-	-	-	-	-
Hours of sunshine:	-	-	-	-	-	-



Apache Junction has a .5% Slope

MAJOR FEATURES

- Weekes Wash- regularly floods intersecting streets during heavy rainfall
- Central Arizona Project (CAP) Canal



BIRDS

- Gila Woodpecker
- Sparrows
- Quail

MAMMALS

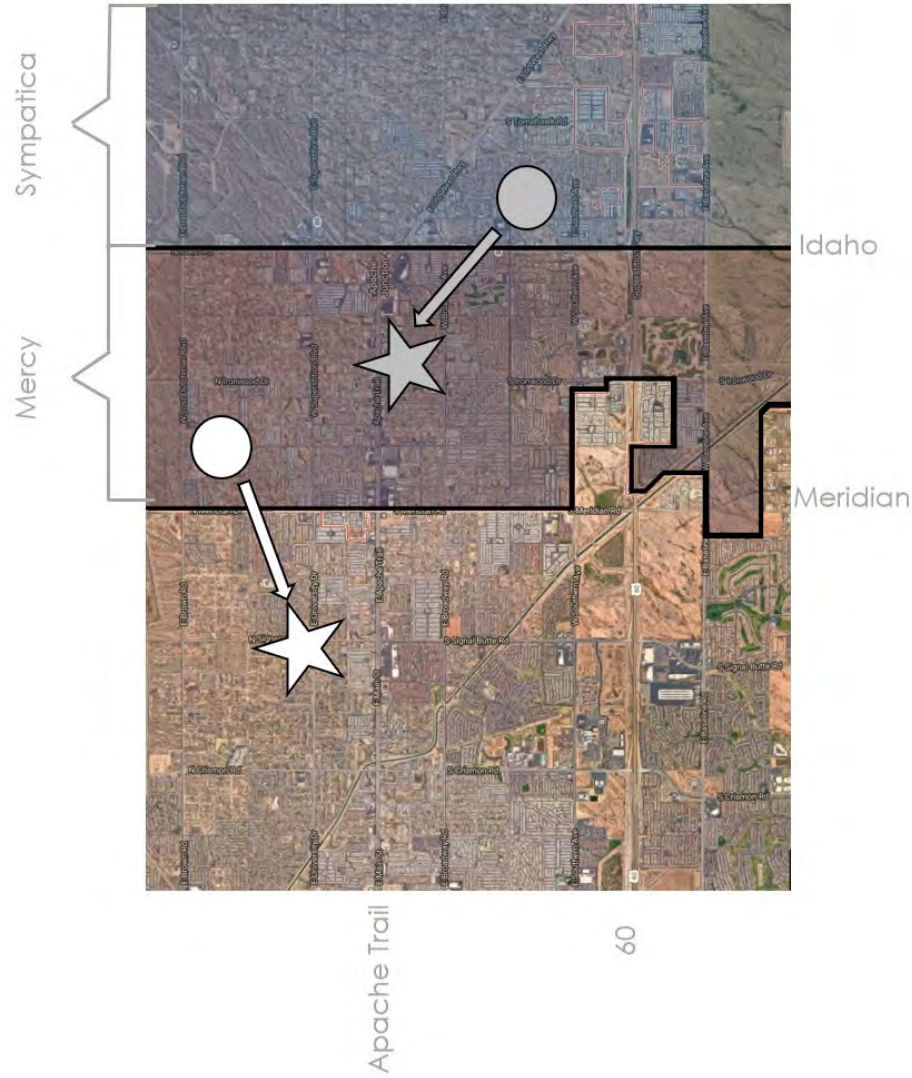
- Several species of bats
- Antelope Jackrabbit
- Kit fox
- Mule Deer

REPTILES

- Gila Monster
- Several species of snakes
- Sonoran Desert Tortoise







Currently Apache Junction contains two main organizations that manage health opportunities for lower income families or homeless. If an individual lives in the east side of the city, their health organization will send them to another health facility on the other side

of the city division line. However, if an individual lives on the west side, their health organization sends them over the county line to find help in Maricopa County, making the entire process extremely confusing.





One of the unique characteristics of the Phoenix metro area that Apache Junction contains is one of the many canals running through the outskirts of the city, specifically in the Southwest quadrant.



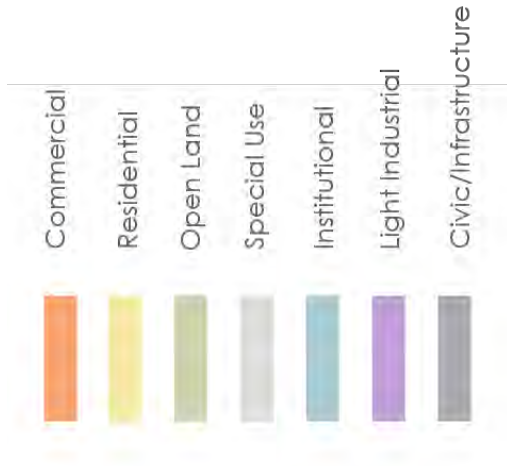
The canal, if opened to the public, would provide a pedestrian connection from Apache Junction to the greater Phoenix-metro area through networks of miles of trails.



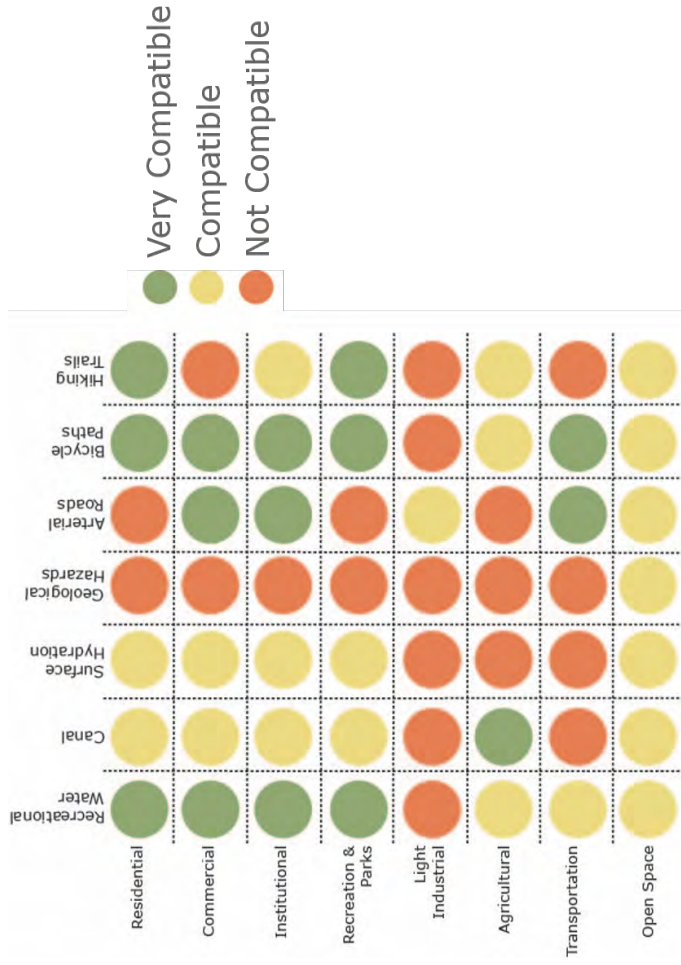
03 | LAND USE



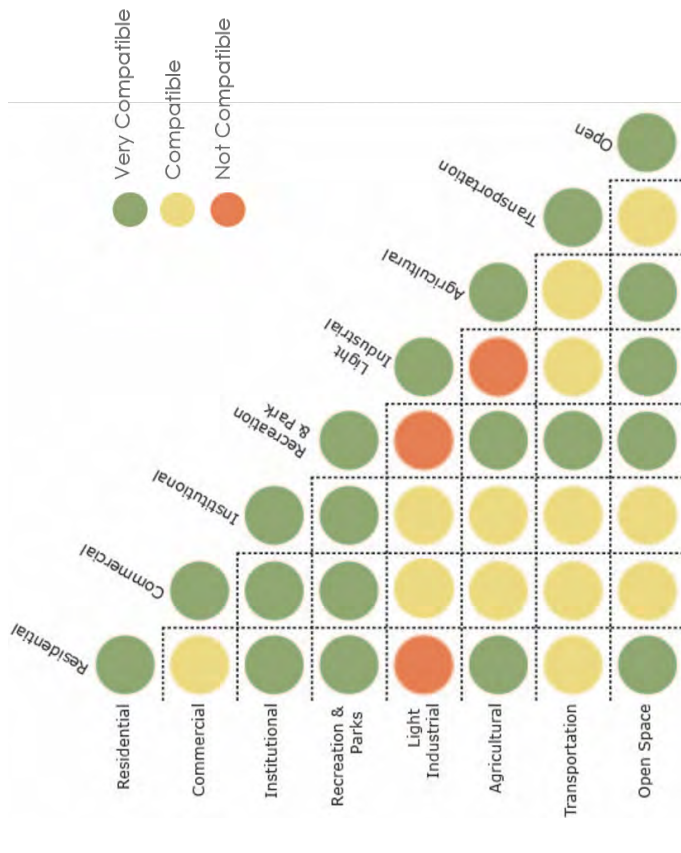
The majority of the Southwestern quadrant of Apache Junction is composed by open space, with the second largest zone being residential. The area also contains the city landfill, which will be closed down within the next decade. The area also hosts a school, a golf course, and some small light industrial areas. Commercial spaces are almost non-existent.



LAND USE VS LAND USE



LAND USE VS HUMAN FACTORS

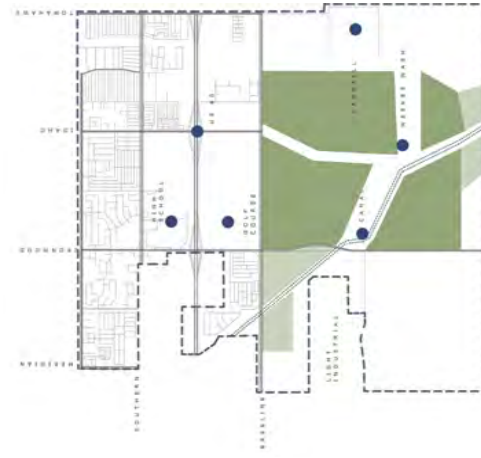


The majority of land uses are either compatible or very compatible. Really the only type of zoning to be aware of is light industrial.

INDUSTRIAL



AGRICULTURAL OPEN LAND RECREATIONAL TRANSPORTATION



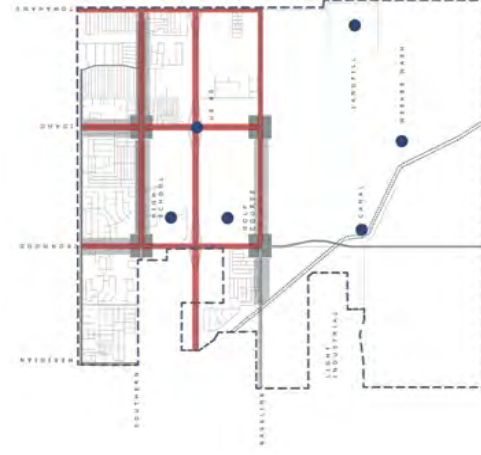
- Best use
- Good use



- Best use
- Good use



- Best use
- Good use
- Moderate use



- Bus routes
- Best Bike Station
- Moderate Bike Station



Largest land use increase within the Southwestern quadrant of Apache Junction was commercial, centered around U.S. 60 to draw in visitors. Large amounts of residential were also proposed for potential future migrating middle-class families from nearby Gilbert and Chandler. Agricultural space was added because of the benefits of flooding from Weekes Wash.



04 | DESIGN PROPOSALS

COMMUNITY CONNECTIVITY
THROUGH RECREATION
DENISE TORLONI

VISION

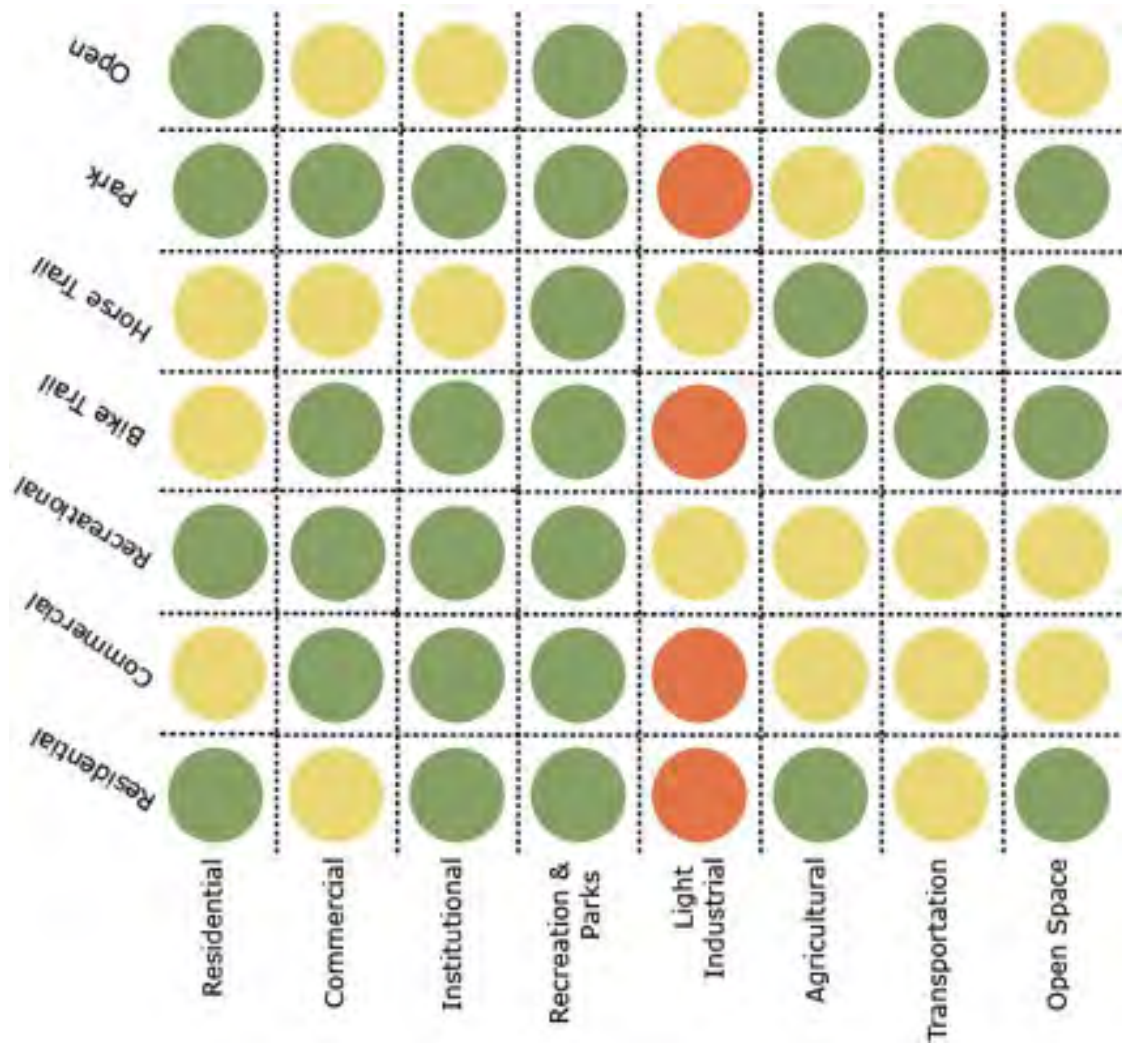
To capture the beauty of Apache Junction and cater to it's avid outdoor culture. An intricate chain of trails and parks will provide residents with more means to explore the outdoors, and attract visitors trying to escape the city!

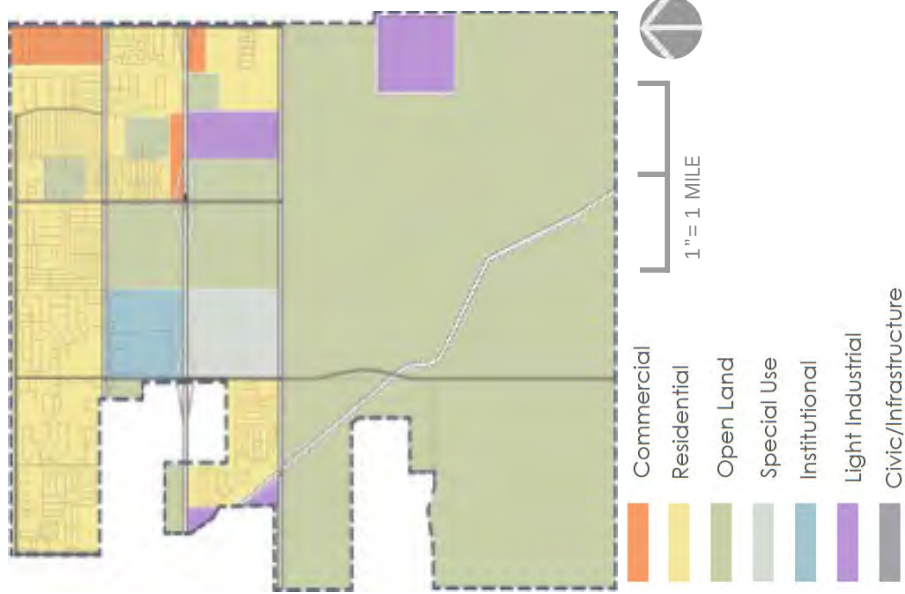
OBJECTIVES

1. Highlight Apache Junctions **Natural Beauty**-the Superstition Mountains
2. Promote **Community Connectivity** through recreation
3. Create an **Identity** for Apache Junction

Land Use Compatibility Matrix

Looking at the data it is observed that the proposed (top) and the existing (left) don't have any major conflicting areas, with the exception of light industrial. Being that the 40 Acres that was chosen to focus on does not contain any major industrial buildings, there are no outstanding conflicts that need to be addressed.

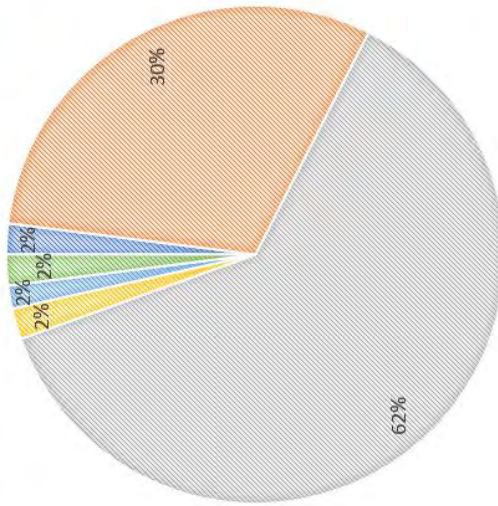




Comparing the existing (left) and proposed (right.) It can be observed that the major changes proposed is more residential space with recreational land/trails cutting through it to connect the neighborhoods with each other.

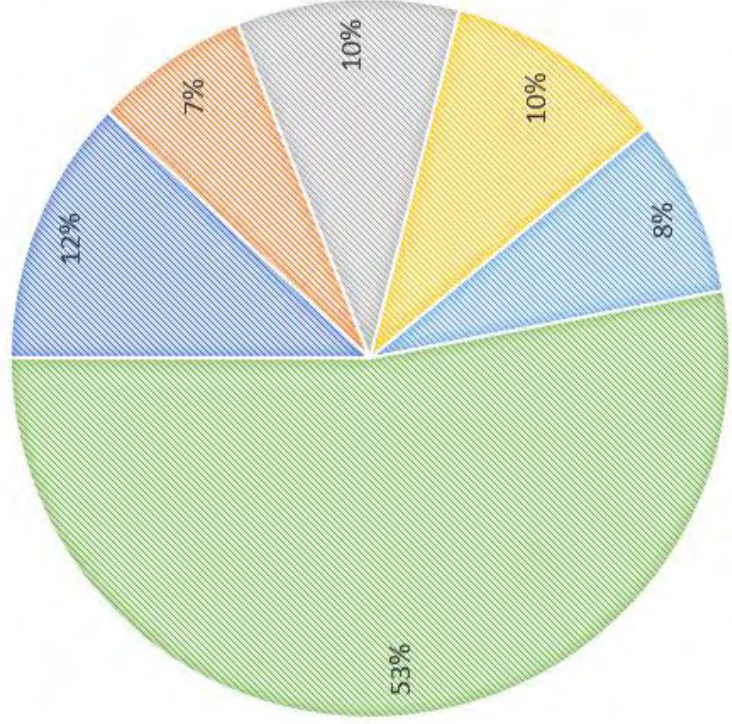
EXISTING LAND USE

Commercial
Institutional
Residential
Light Industrial
Open Space
Industrial



PPROPOSED LAND USE

Residential
Commercial
Recreational
Bike Trail
Park
Open



EMERALD NECKLACE

Inspiration for Dutchman's Necklace

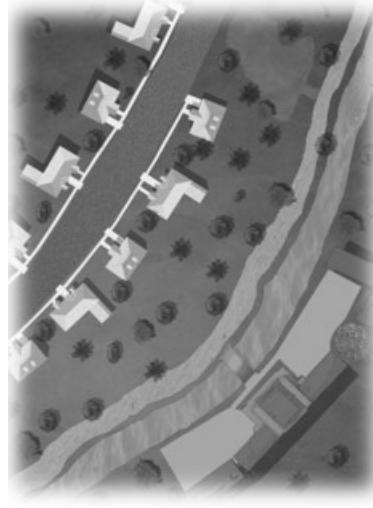
Boston | Fredrick Olmsted | 1,100 Acres

Includes;

- 3 Public Gardens
- Riverway
- Jamaica Pond
- Arboretum
- The Fens
- Boston Commons
- Multiple Gardens



Running its path throughout Apache Junction, it links neighborhoods, passes through existing parks and even the O.K Corral, leading to one of the main trails to The Superstition Mountains!





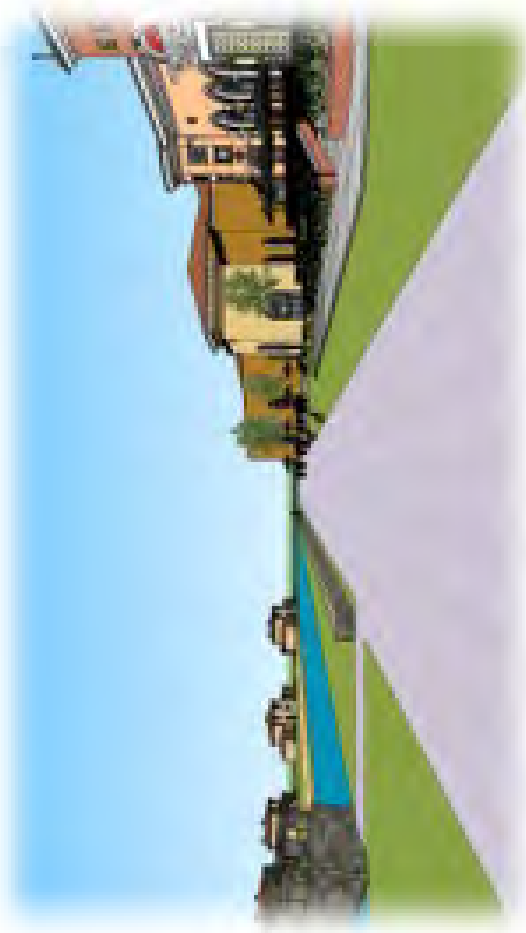
Residential
Recreational
Commercial

With multiple zones within close proximity, it makes for a community to feel more like home.

- Residential near recreational and Recreational close to Commercial.



DUTCHMAN'S TRAIL





05 | DESIGN PROPOSALS

URBAN AGRICULTURE

TIA BIAKAIDY

VISION

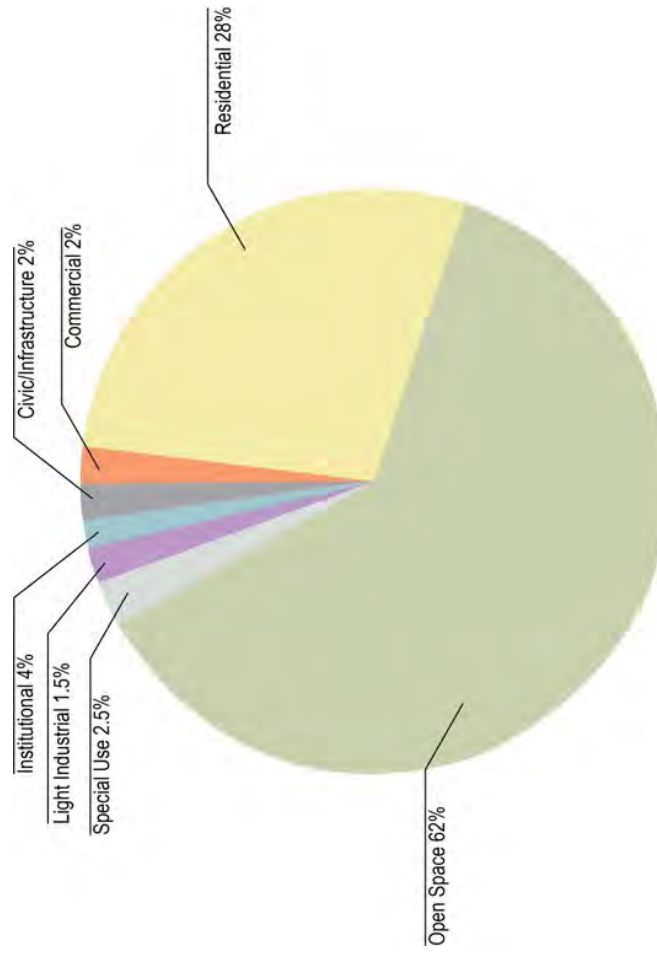
Create a healthy community that is fully aware of the food that is produced for their family and friends dinner table, while creating a fun and inviting natural desert community.

OBJECTIVES

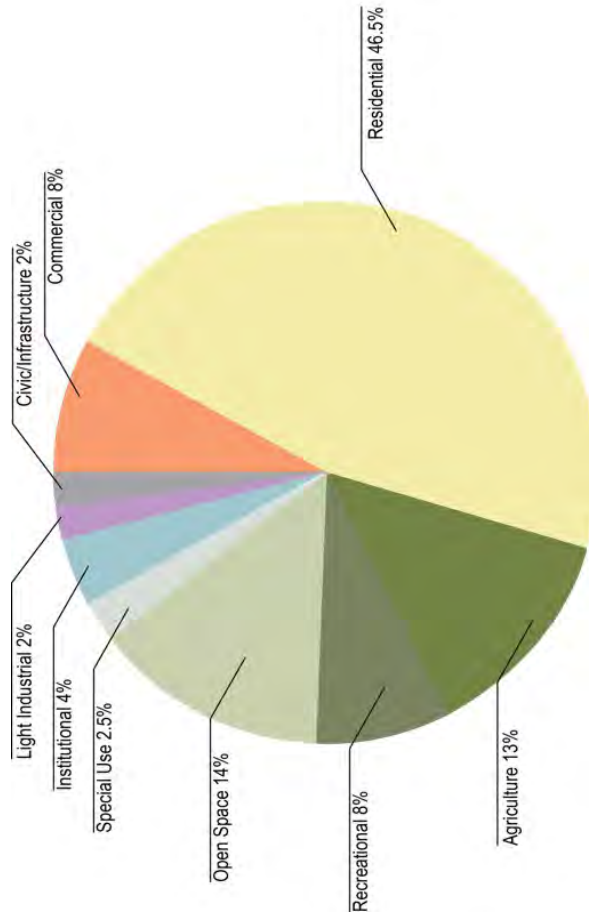
1. Create easy access to seasonally locally grown food
2. Provide opportunities for a new form of community engagement
3. Create a new business opportunity for the City of Apache Junction
4. Establish a new form of community living

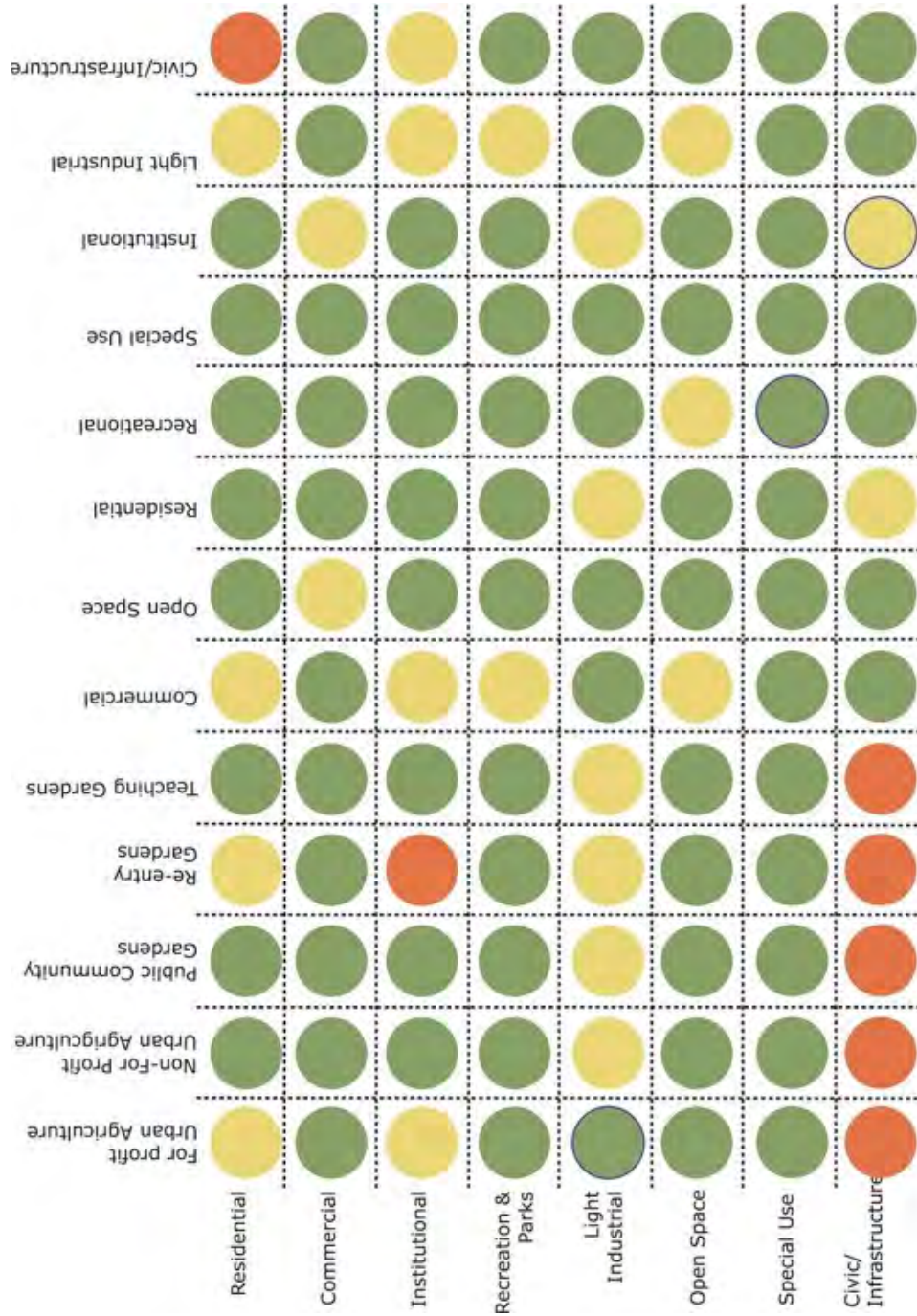


EXISTING



PROPOSED







Proposed Land Use Allocation Plan

Commercial	8%
Residential	46.5%
Agriculture	13%
Recreational	8%
Open Space	14%
Special Use	2.5%
Institutional	4%
Light Industrial	2%
Civic Infrastructure	2%







06 | DESIGN PROPOSALS

HEALTH SERVICES

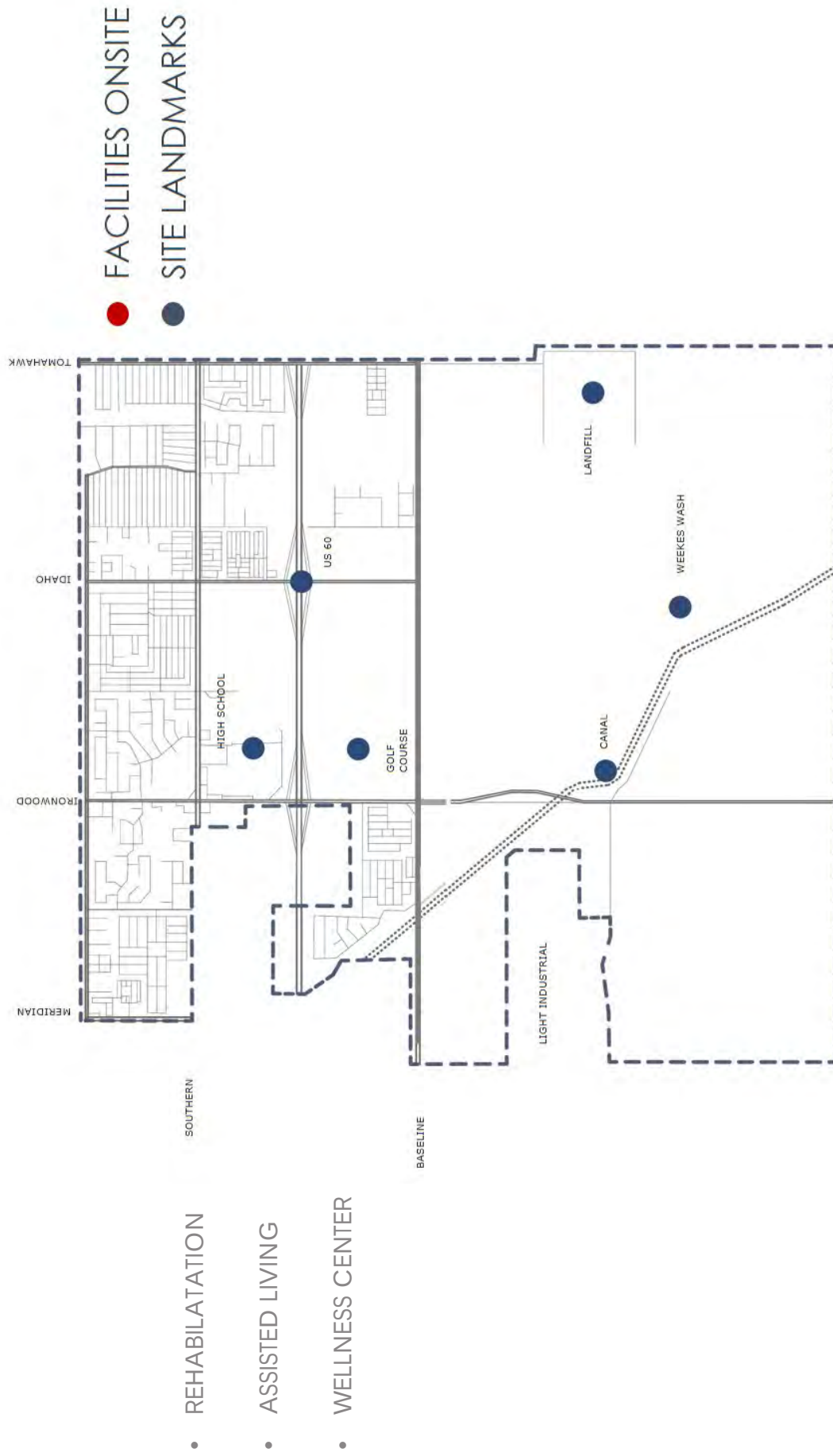
ANTHONY MARTIN

VISION

To design a healthy community that invites travelers as well as those in need to Apache Junction. To utilize Apache Junction's natural beauty and contributes to building a prosperous city. Arizona has a market for rehabilitation and therapy. Apache Junction's location and cost of living makes it an ideal place to build a community around health and wellness.

OBJECTIVES

1. Build Apache Junction to invite a Health and Recreation District.
2. Utilize the need for affordable and convenient health care by commercial and recreational design.
3. Attract passage to Apache Junction with nearby airport.



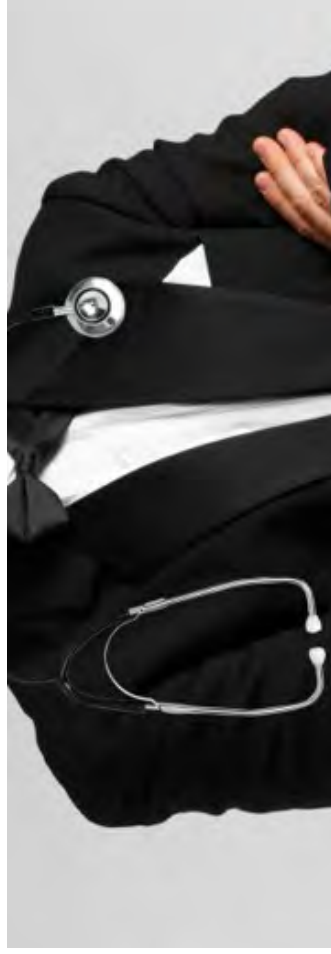


INPATIENT DRUG AND ALCOHOL

- luxury private facilities
- state funded or privately funded
- addiction and mental facilities



- Travel Medical Assistant
- Private Health Advisors
- Private Physician Practice
- Total Care Platform



TRANSITIONAL LIVING



- Treatment Services
- Sober Living Houses

ENRICHED RETIREMENT



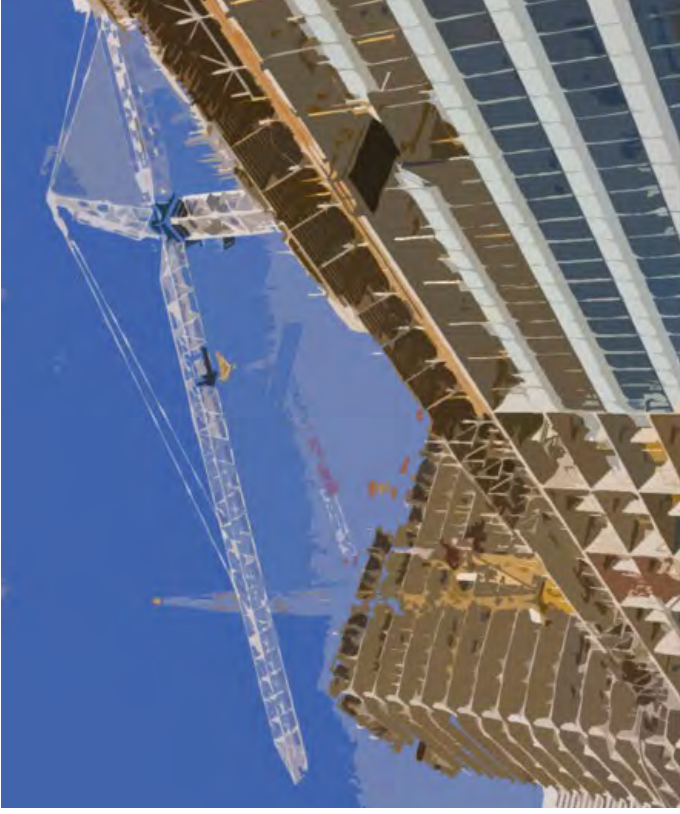
- Intellectual Wellness
- Physical Wellness
- Spiritual Wellness
- Emotional Wellness

ITINERANT HEALTHCARE

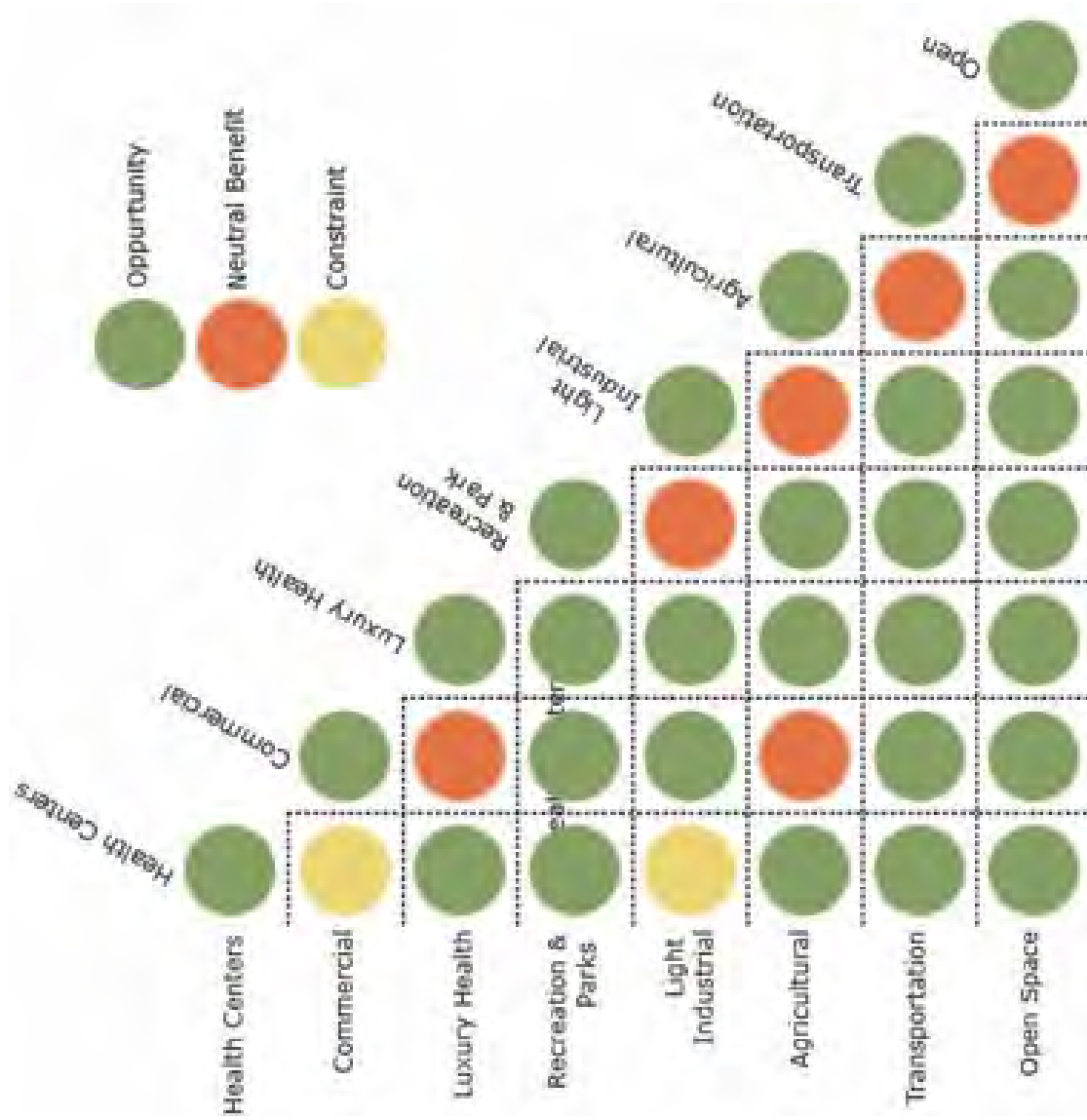


- Principally Community Organization
- Technical Assistance
- Rural Healthcare Delivery
- Training and Employment

COMMERCIAL DEVELOPMENT

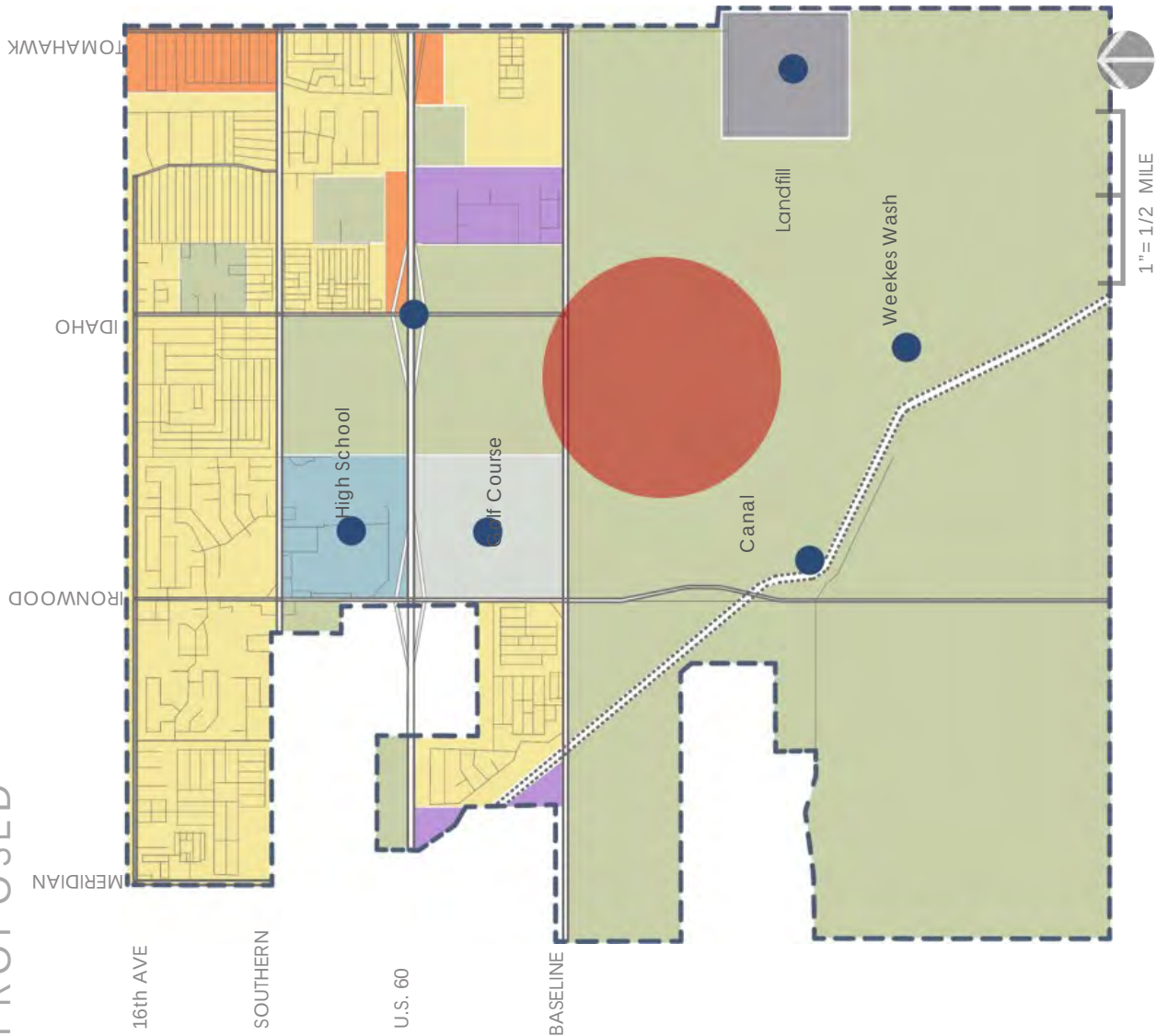


- Medical Manufacturing
- Real Estate Development
- Economic Prosperity



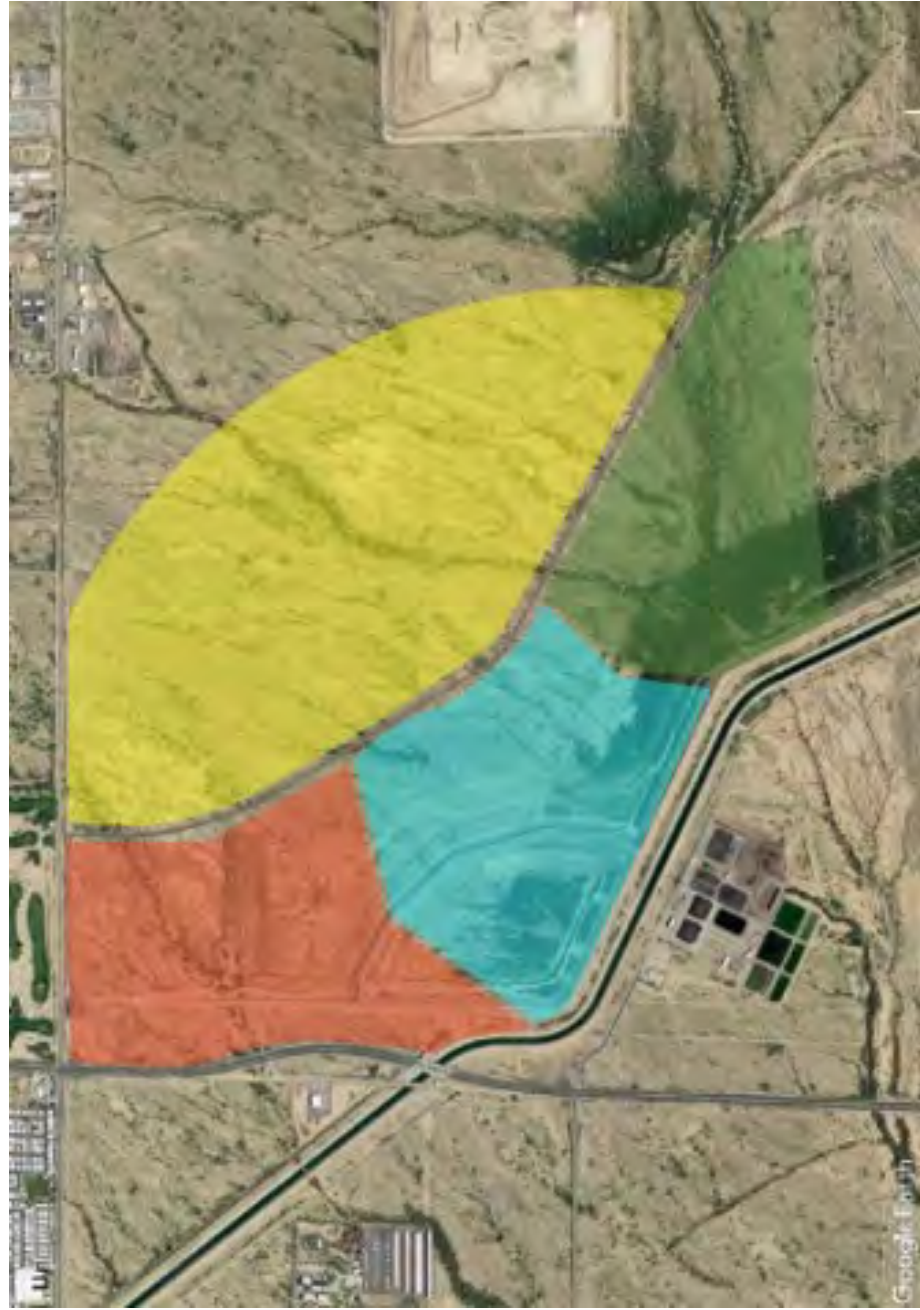
EXISTING

PROPOSED



- Commercial
- Residential
- Open Land
- Special Use
- Institutional
- Light Industrial
- Civic/Infrastructure

- Health Centers
- Retirement
- Transitional Living
- Recreation



1. Weekes Wash Recreation Center

2. Medical Center

3. Circular Retirement Community

4. Transitional Living Community

5. TLC Community Center

6. Weeks Canal Reservoir





07 | DESIGN PROPOSALS

COMMUNITY WALKABILITY

SHINYE KIM

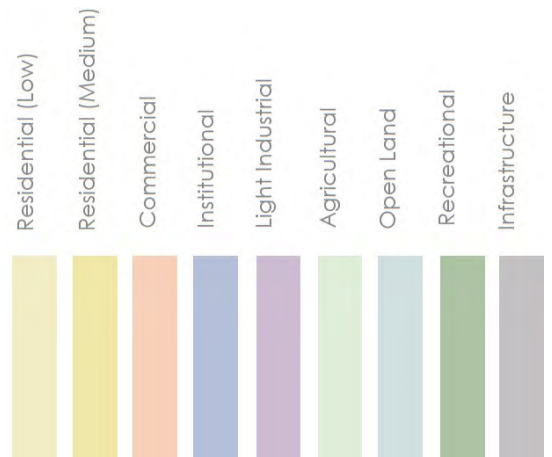
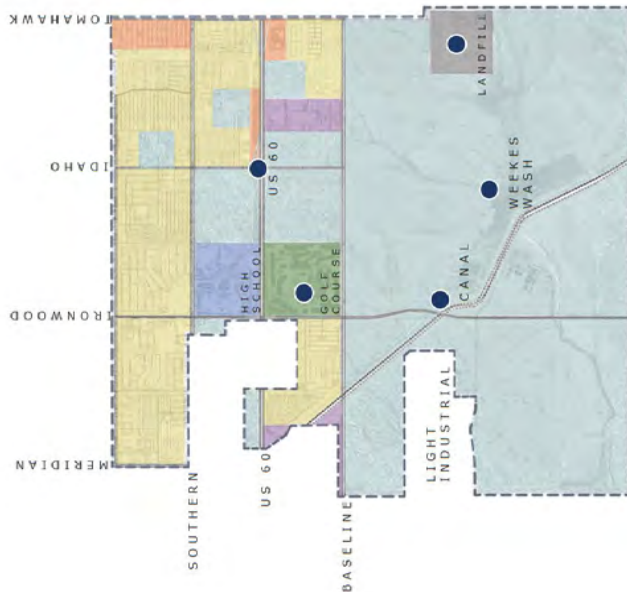
VISION

The purpose of this project is to develop a community within Apache Junction by providing complete streets that are safe, accessible, and pleasing to all age groups. All modes of transportation, including biking, walking, and public transportation, are encouraged by the design and give pedestrians convenient, affordable, and healthy options for travel.

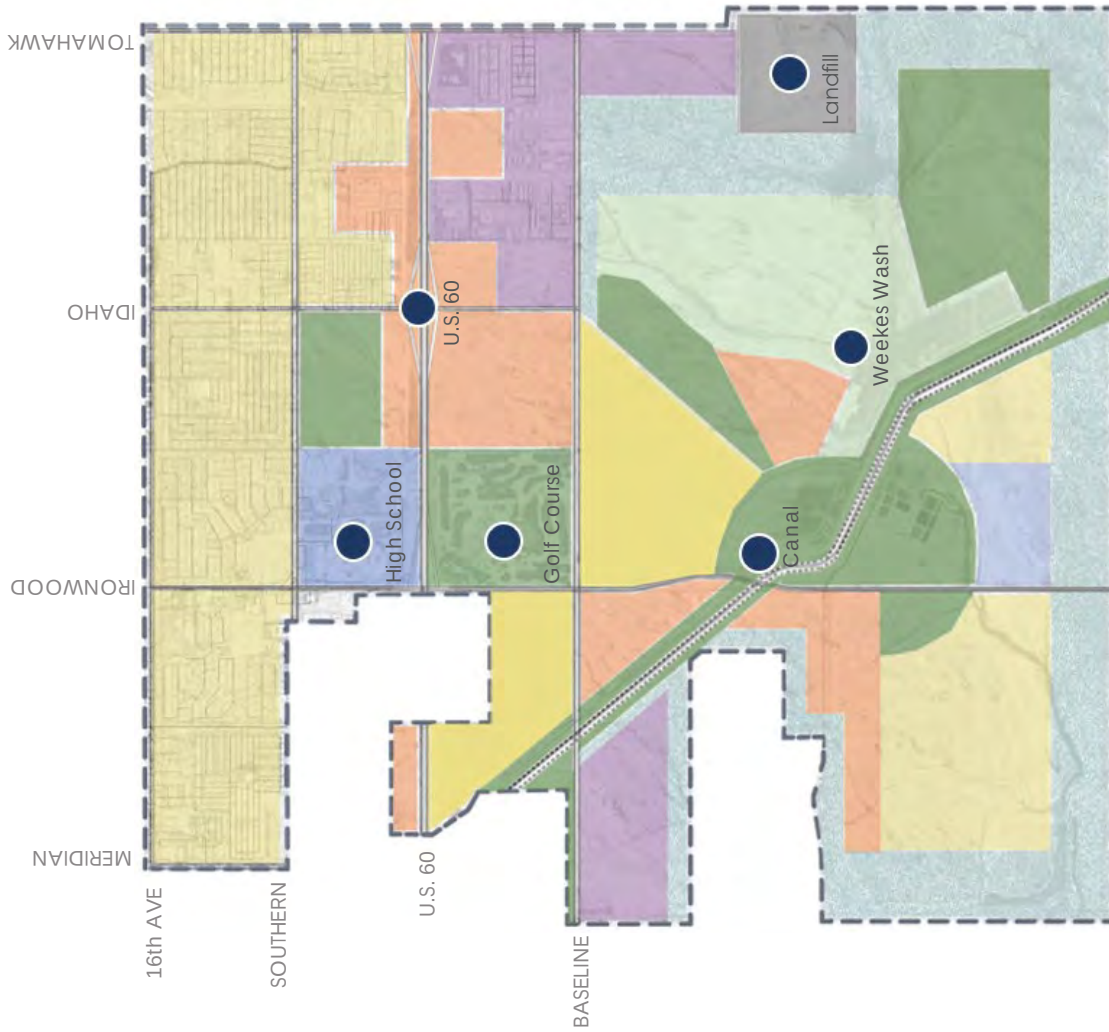
OBJECTIVES

1. Provide multi-use transit system throughout Apache Junction by bringing in a bus route system that connects Apache Junction to nearby cities.
2. Build bike stations throughout the site to encourage a different mode of transportation for a more accessible way of travel.
3. Design mixed land use that will encourage community engagement through connections of varied sectors that interact at provided corridors.

EXISTING



PROPOSED

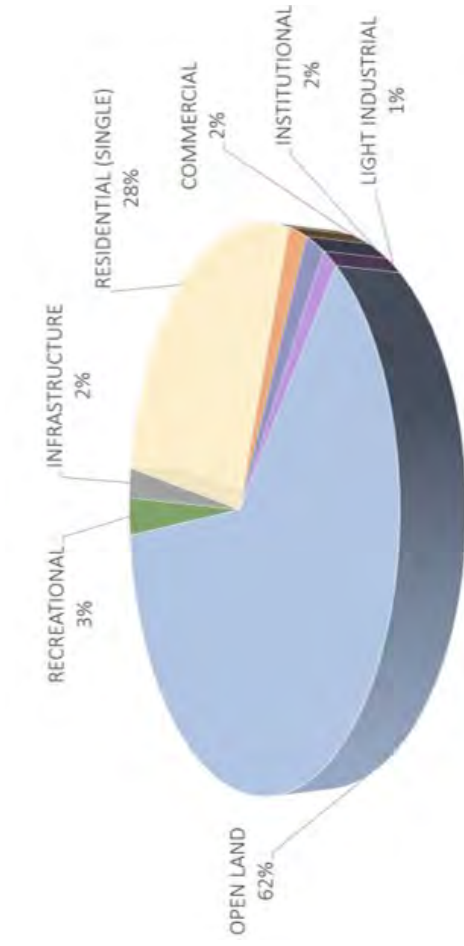


EXISTING LANDUSE

PROPOSED LANDUSE

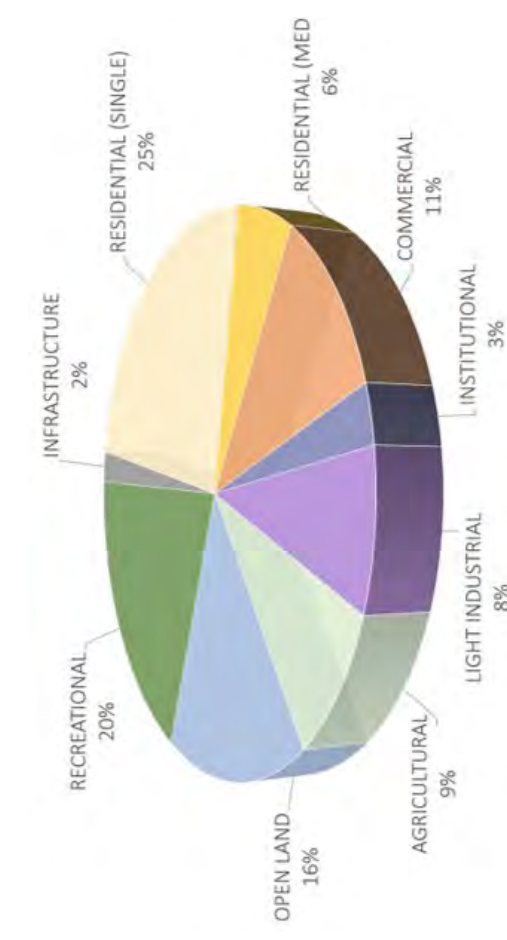
ZONE COLOR	LANDUSE	# OF ACRES	% OF ACRES	# OF ACRES	% OF ACRES
	Residential (Low)	1792 ACRES	28 %	1600 ACRES	25 %
	Residential (Medium)	0 ACRES	0 %	384 ACRES	6 %
	Commercial	128 ACRES	2 %	704 ACRES	11 %
	Institutional	128 ACRES	2 %	224 ACRES	3.5 %
	Light Industrial	96 ACRES	1.5 %	486.4 ACRES	7.6 %
	Agricultural	0 ACRES	0 %	544 ACRES	8.5 %
	Open Land	3968 ACRES	62 %	1049.6 ACRES	16.4 %
	Recreational	160 ACRES	2.5 %	1280 ACRES	20 %
	Infrastructure	128 ACRES	2 %	128 ACRES	2 %
TOTAL:		6,400 ACRES	100%	6,400 ACRES	100%

EXISTING

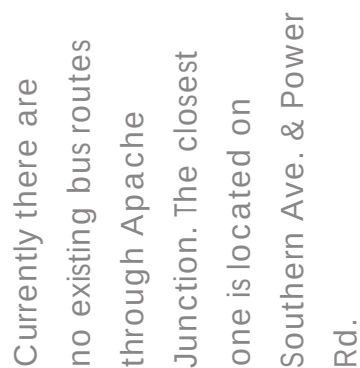


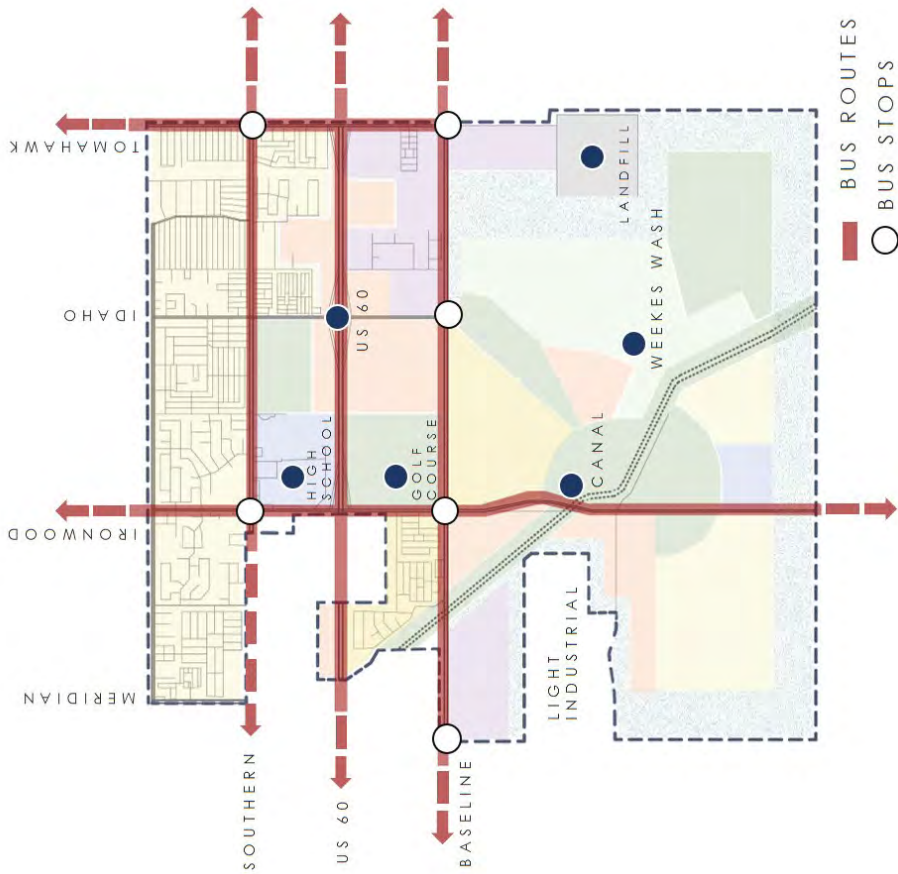
The majority of the existing landuse was covered by open land and 28% of residential space for single-family homes. There was only 2% of commercial landuse which was surprising due to having direct access to the U.S. 60 FWY. The beauty of having this part of the Apache Junction was because of that open space in the site. There was a lot of room for growth and to design it into a place where more of a community involvement can be achieve.

PROPOSED

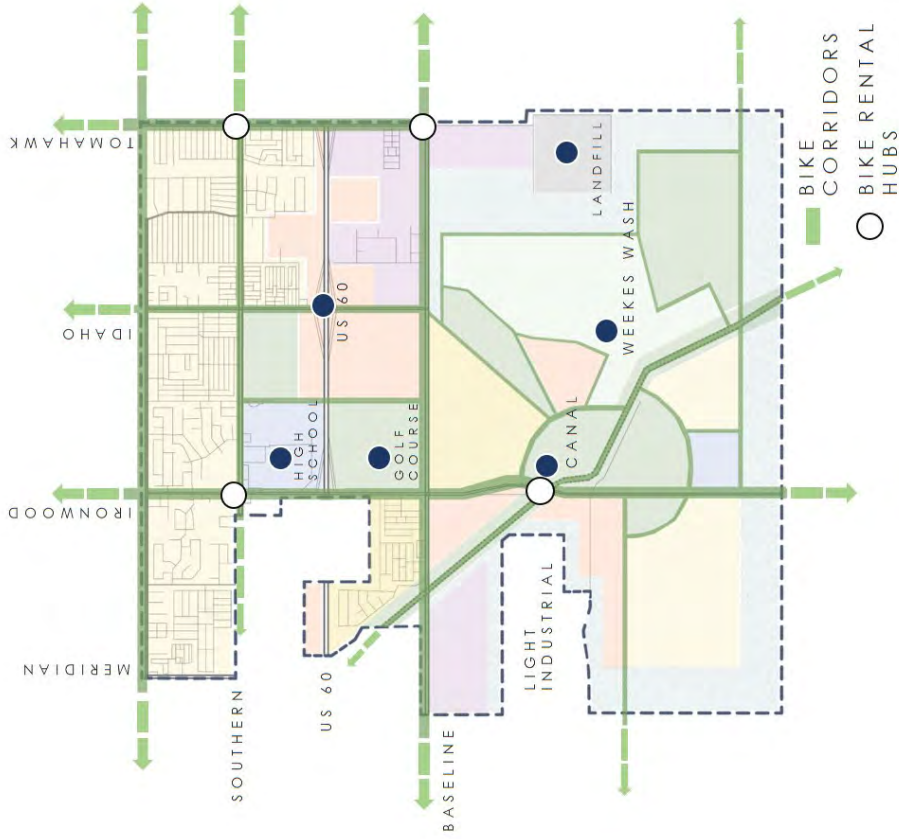


The proposed landuse was distributed to bring in more of a walking friendly neighborhood. I have added medium density housing which include some townhomes and condos. I brought this into the site to offer different type of housing to Southwest quadrant and to accomodate mixed landuse in the area. A big portion of recreational space was designed to create walkable and bikeable corridor space.



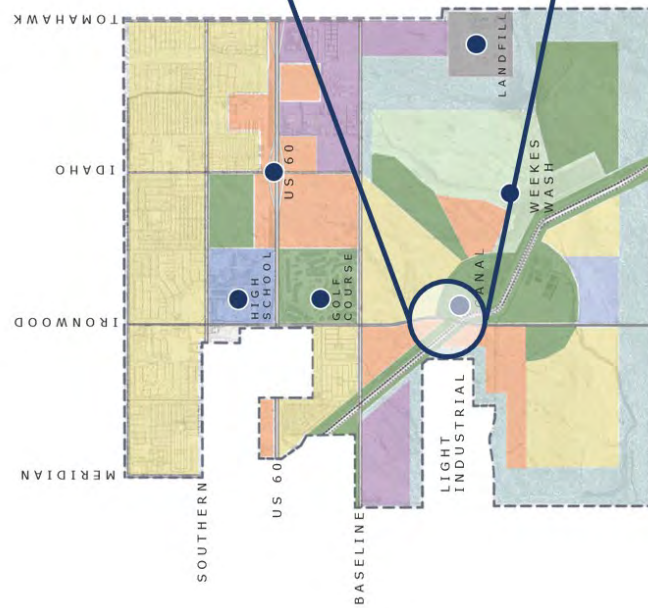


This is the purposed bus route system that can be incorporated into Southwest quadrant of Apache Junction. Southern Ave. travels straight through our site which was a great opportunity for my project since the closest stop of existing bus routes was Southern Ave & Power Rd.



The purpose of bike corridor was to help the residents and visitor to give them another option of travel through their community. It was designed to encourage people to increase their daily steps and to chose to walk rather than drive because it was accessible.

40 ACRES SITE



COMMERCIAL

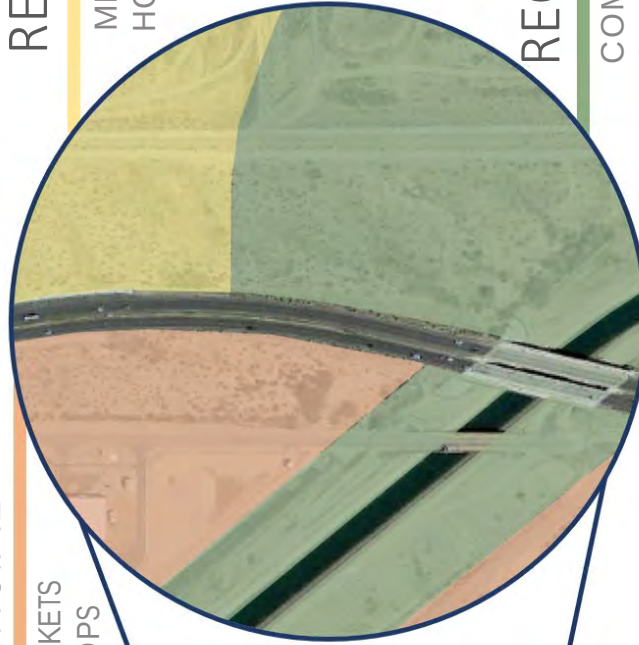
LOCAL MARKETS
COFFEE SHOPS

RESIDENTIAL

MEDIUM DENSITY
HOUSING: CONDOS

RECREATIONAL

COMMUNITY CENTER
CANAL TRAIL SYSTEM
DOG PARK

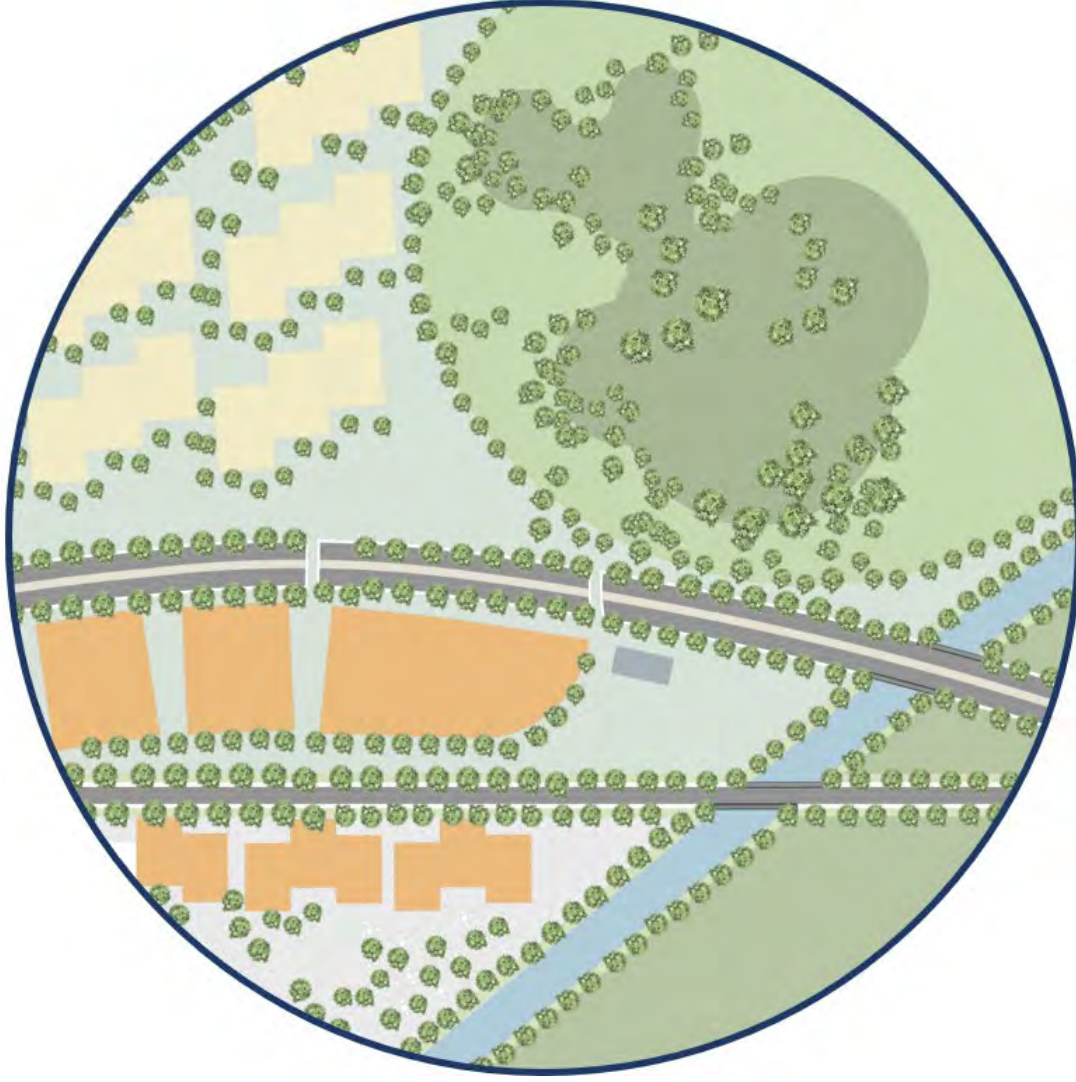


One of the bike station located in site to connect with trail systems and recreational area.

Local markets, coffee shops and outside seating areas with the view of the canal trail.

Recreational area in site include potential dog park and gathering open space for the community.

The trail system along the canal is a connecting routes to other parts of apache junction.







08 | DESIGN PROPOSALS

ARTS AND CULTURE

DYLAN MAYO

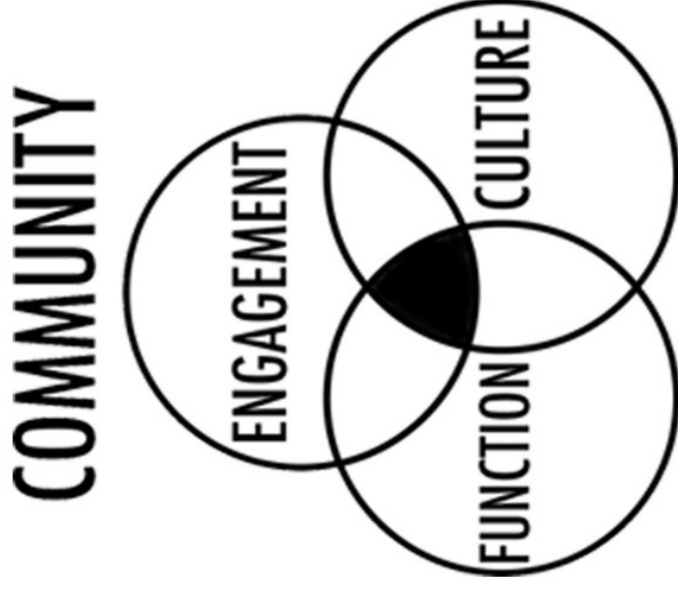
VISION

To create an environment and sense of place, inspired by the unique cultural influence of the community of Apache Junction whereas the arts and cultures are vibrantly expressed and displayed through the gathering of the community at a central community hub, also known as THE VILLAGE.

OBJECTIVES

1. Create an environment that develops a unique cultural sense of place
2. Provide the necessities for comfort: food, shade, seating, etc.
3. Develop a community hub that is capable of providing for a multi-use land platform

Simplistically, the perfect community is the meshing of three factors: ENGAGEMENT, FUNCTION, AND CULTURE. The active engagement of the local populace and the city itself, the cultural identity created by the unique character of the community, and the simple functionality providing for the basic needs of the local inhabitants creates the environment for a vibrant successful community.

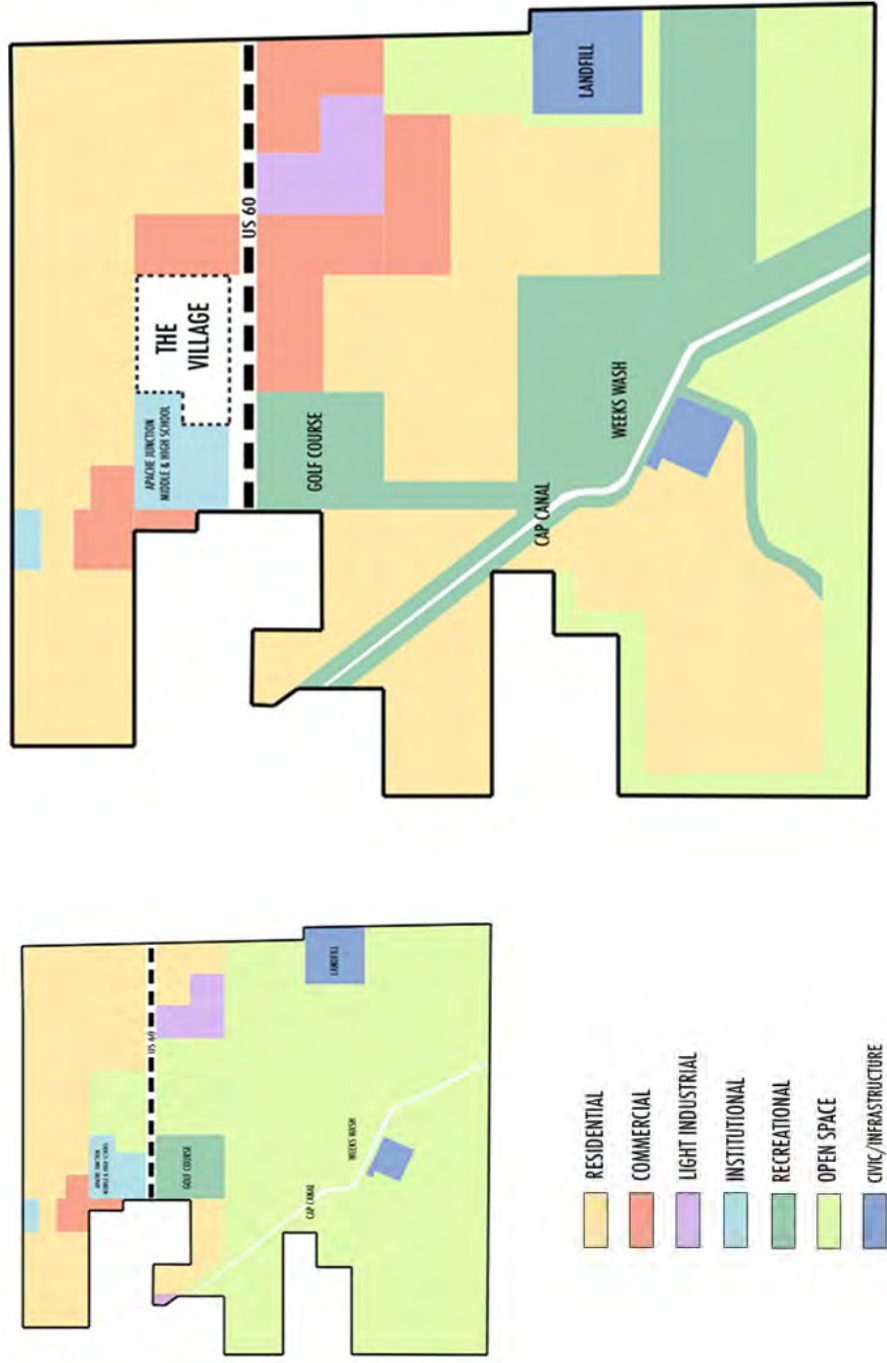


EXISTING

The current land use allocation for Southwest Apache Junction consists primarily of open space and residential with a few various other land uses. Looking forward into the future and seeing Apache Junction expanding, the

proposed land use projects more residential development and turning some of the open space into recreational space with connecting trails and corridors. Also along the US60, the development of a commercial shopping center is projected to provide for the incoming residents moving into the new neighborhood developments.

PROPOSED



The Village is a multi use community center that incorporates a multi story family housing complex for the families being attracted to the community, a commercial shopping plaza, a community rec center, and the focal point, the “main street” walk, lined with restaurants and shops that opens up to a park and entertainment center. All of these combined give enormous opportunity for culture and community engagement to develop.





1"=4'-0"



Perspective looking across park northwest toward the Superstition Mountains.

09 | DESIGN PROPOSALS

URBAN FORESTRY

KATRYN SQUYRES

VISION

To create a community within Apache Junction rooted in a firm ecological understanding and sense of stewardship towards surrounding vegetated urban environments. community residents and visitors will benefit from a green, living environment, both physically and psychologically throughout their every day lives.

OBJECTIVES

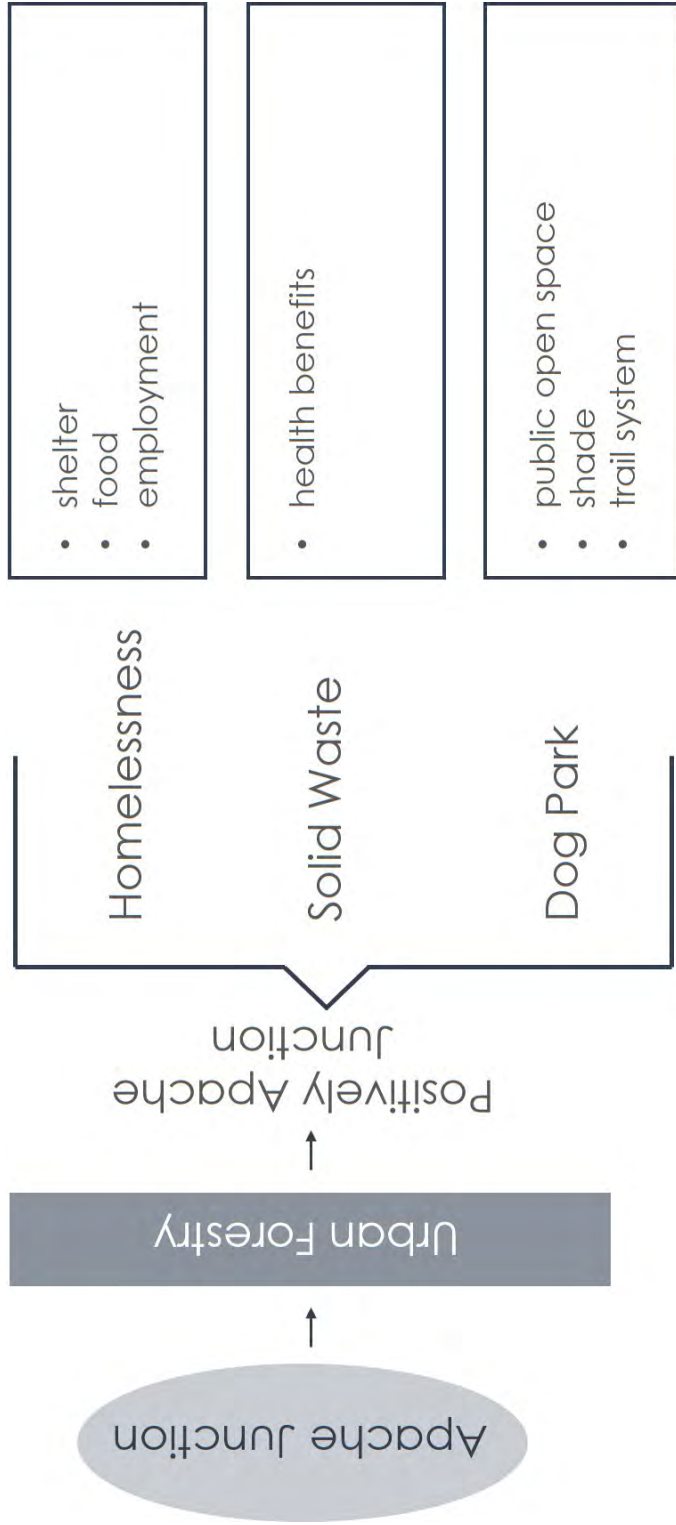
1. Create 40% Urban Canopy coverage
2. Use native trees with a high CO2 capture rate
3. Establish a network of green pedestrian, equestrian, and bike trail systems throughout the site
4. Provide adequate housing designed to encourage outdoor recreation
5. Encourage a community that is actively aware of the benefits attained from a marriage between the urban and natural environments

BENEFITS

Urban Forestry is composed of a number of living, green elements implemented within a community, including community gardens, bioswales, green roofs, and open spaces. However Trees are probably the most important element to implement within an urban environment. Trees have a vast number of benefits, a few of which include:

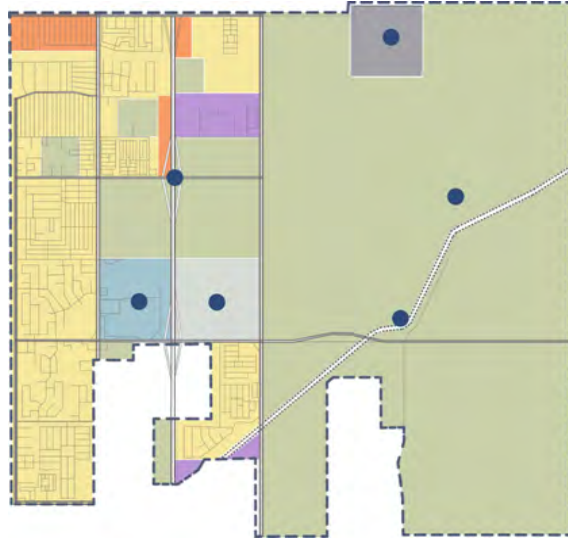
- absorbing and increasing oxygen levels with a site
- mitigate the urban heat island effect by producing natural shade
- act as a buffer and reduce noise pollution
- health benefits, including reducing stress and lengthening lifespans
- reduce stormwater runoff and erosion





Apache Junction asked for our group to think about solutions pertaining to four categories: Positively Apache Junction, Homelessness, Solid Waste, and Dog Parks. Before beginning the design process the Positively Apache Junction category was used to encompass the remaining categories. Each group was then viewed through the lens of Urban Forestry, and solutions for each were recognized.

EXISTING

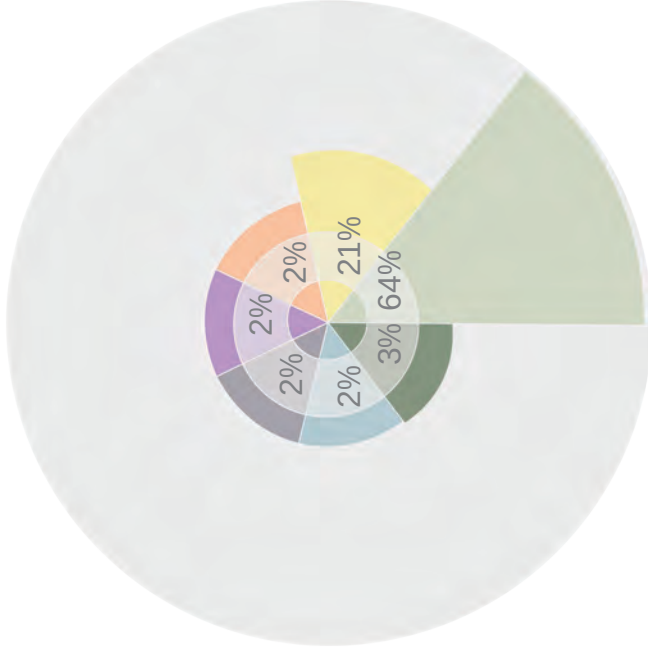


PROPOSED

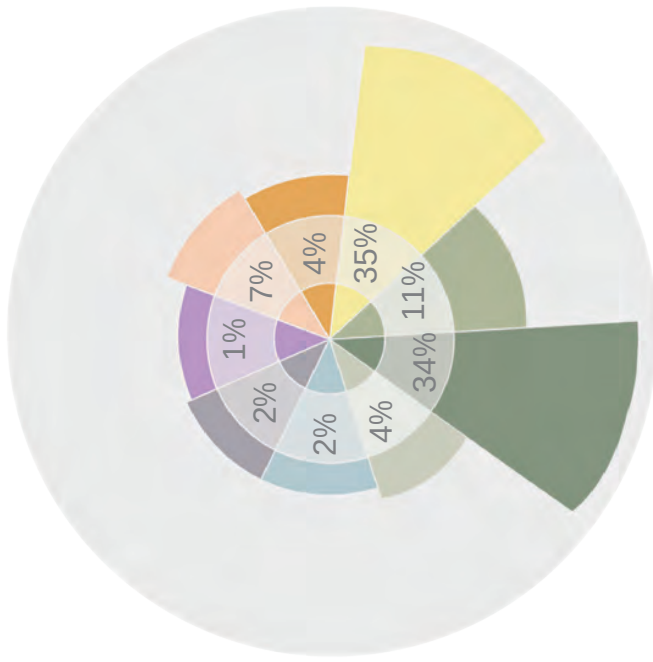


EXISTING

Proposed zoning in Apache Junction was layered out in an attempt to preserve the unique element of this corner of the city: untouched native open land. Recreational trail spaces were increased dramatically to preserve the native ecosystems. Residential zoning was also increased to provide for future middle-class families migrating from Gilbert and Chandler—major technology driven centers to the west becoming increasingly more expensive to live in.

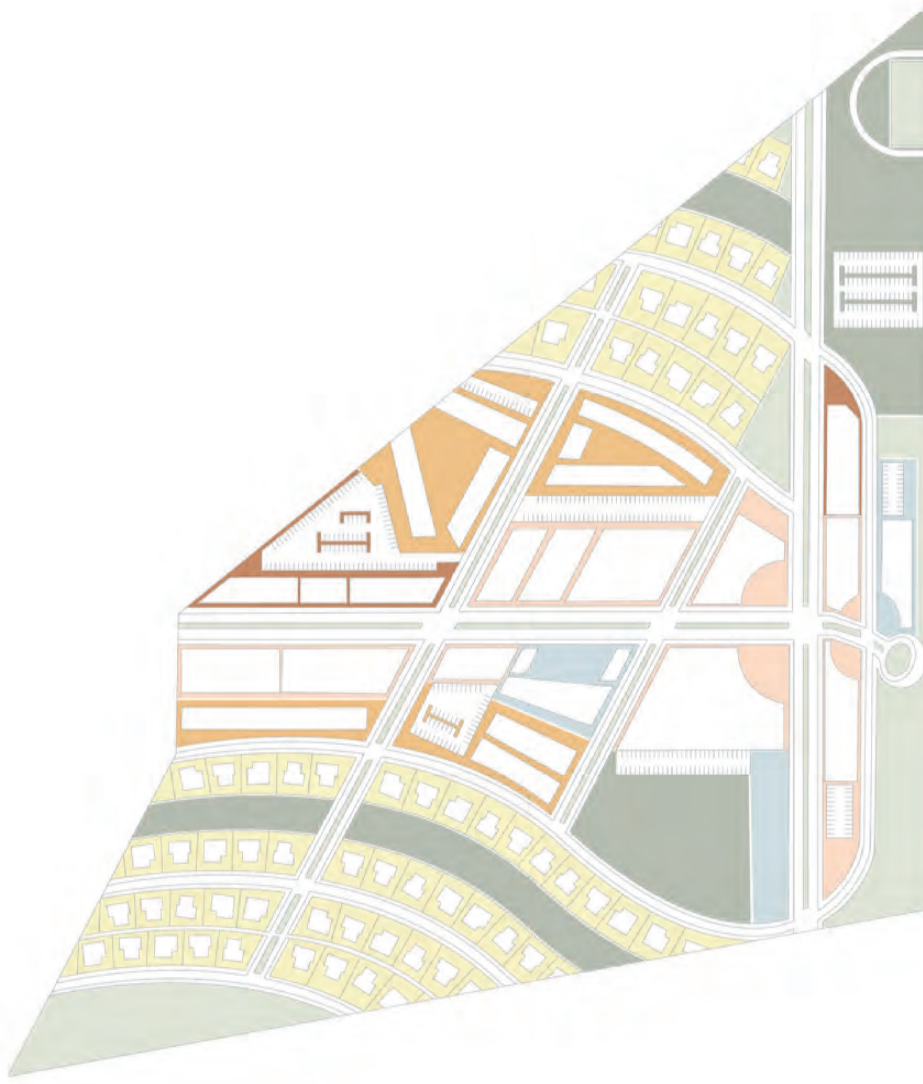
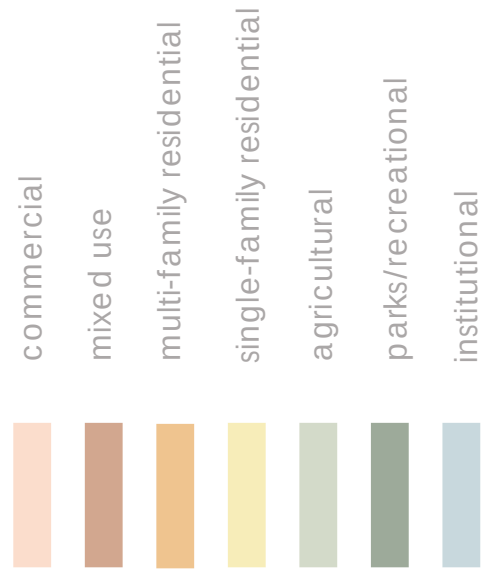


PROPOSED

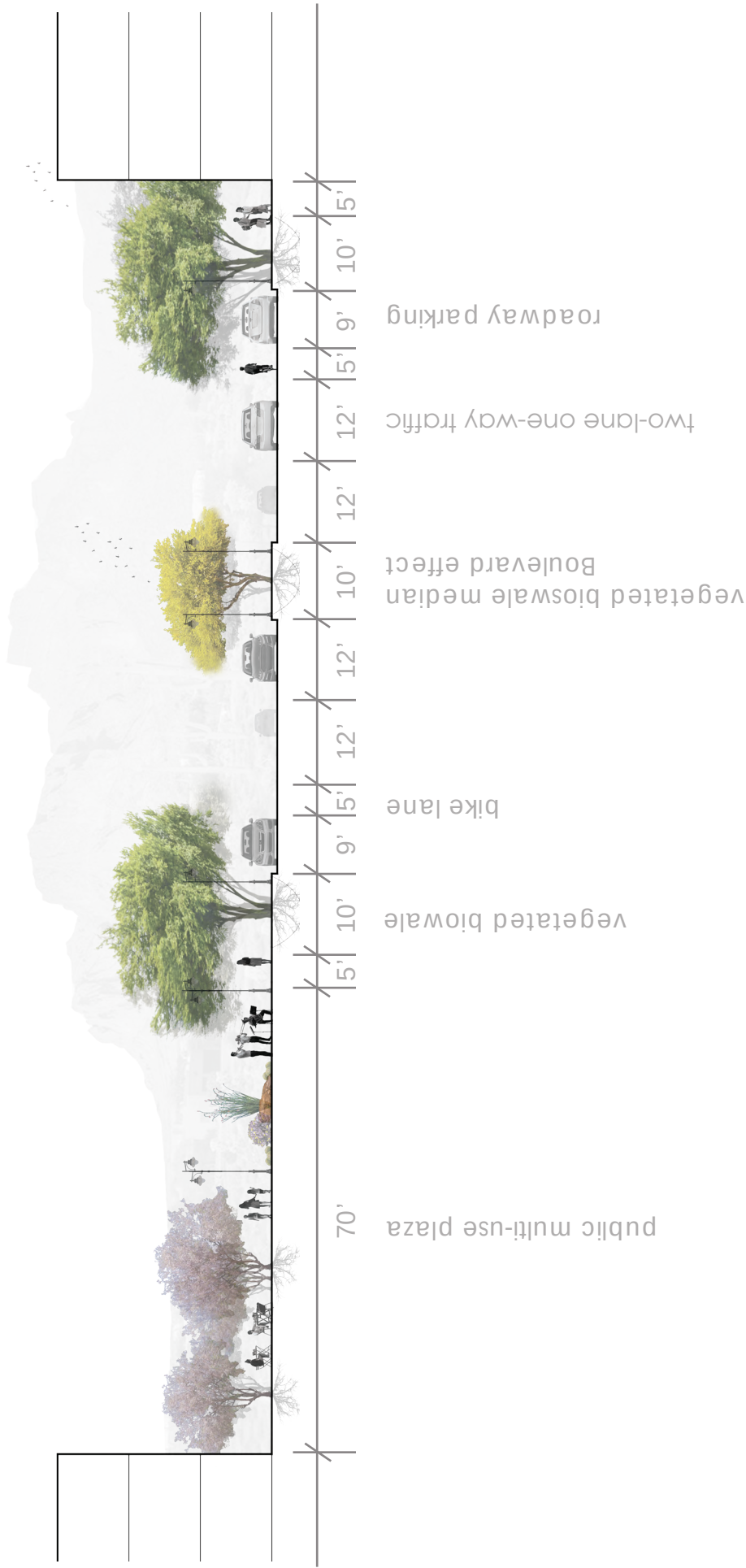


1. Tree pallet comprised of species native to the region; primarily Palo Verde, Mesquite, and Desert Ironwood
2. Backyard Access to native designed trail system
3. Smaller tree species planted around intersections to increase visibility
4. Community open spaces provide opportunities for community gardens
5. Pubic parks provide opportunities for community gatherings
6. Termination of Idaho Rd acts as a pedestrian gateway between urban and natural landscapes
7. Public sports park





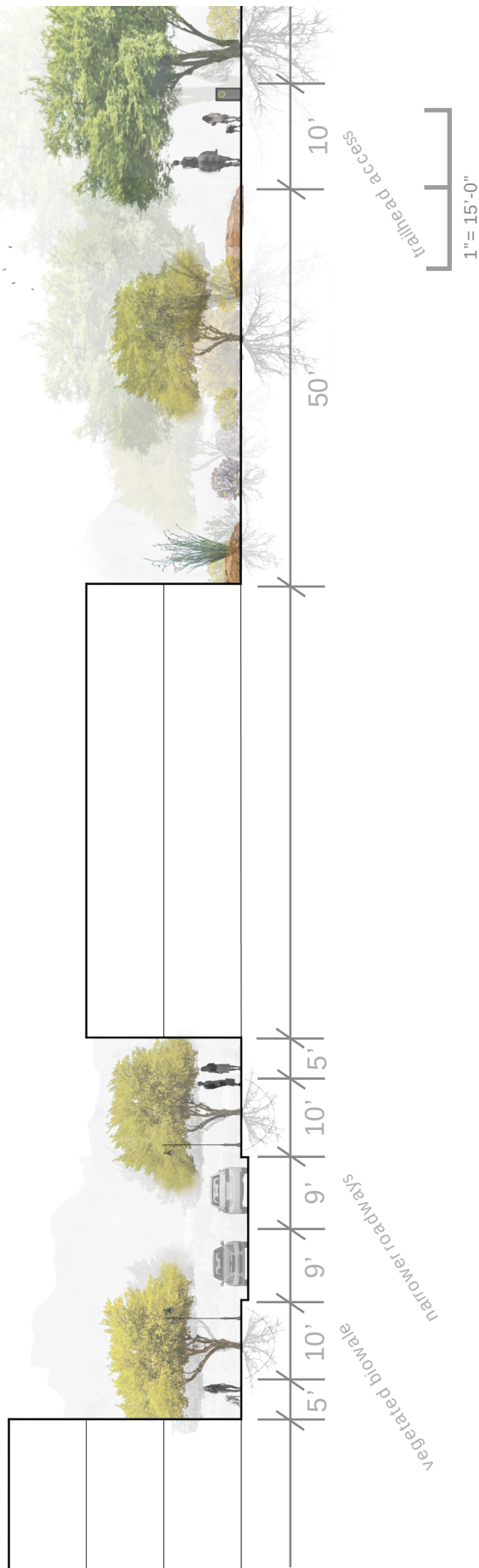
ARTERIAL ROADWAY

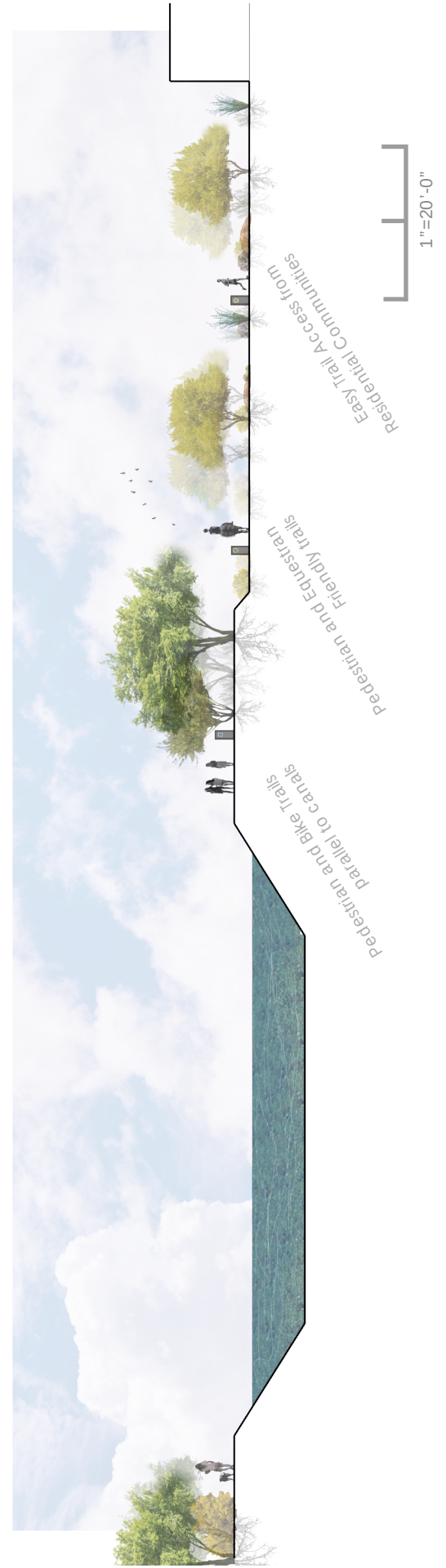
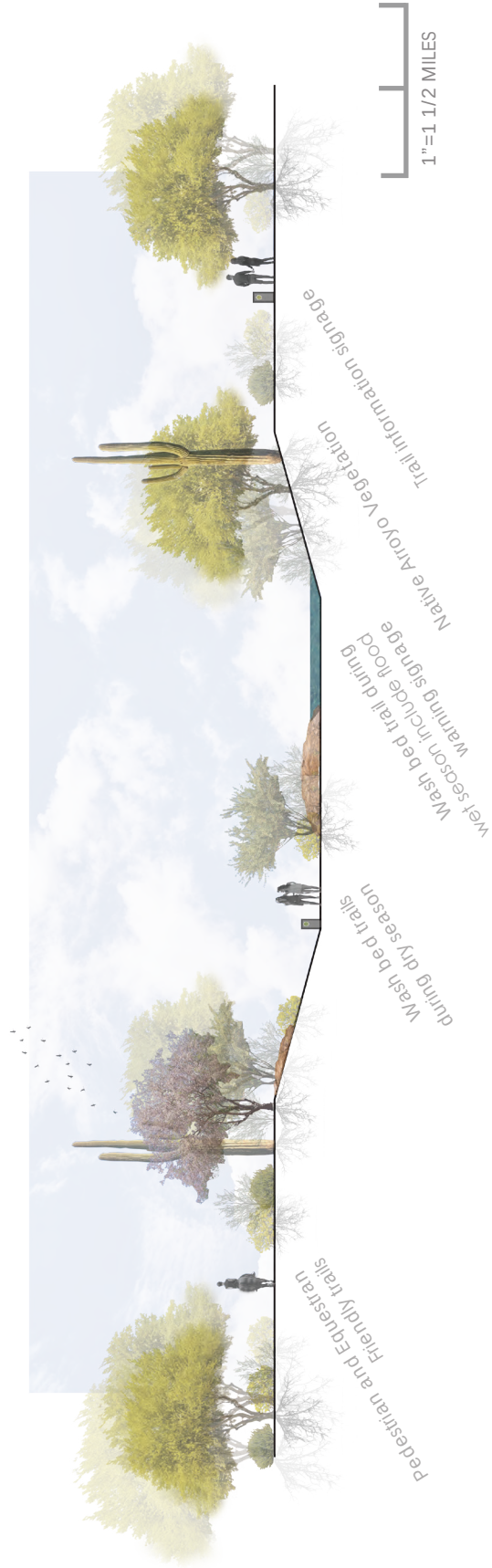


COLLECTOR ROADWAY

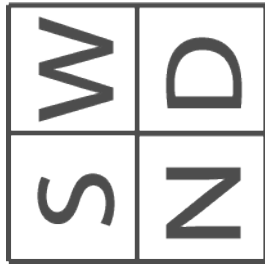


LOCAL ROADWAY









SOUTHWEST
NATIVE DESIGN

LANDSCAPE ARCHITECTS
AND PLANNERS

THANK YOU!



Fall 2017 Partnership with Apache Junction

ASU Project Cities Superstition Studio

LDE361/590 Landscape Architecture Design Studio 1
& HDA320 Herberger Design & Arts Corps
Students of Professors Ken Brooks / Kevin Kellogg / Stephani Woodson



Project Cities



Maria Maurer, Katherine Keane,
Sijie Chen, Matthew Favazzo,
Zac Pekala, Yifan Li



About Us

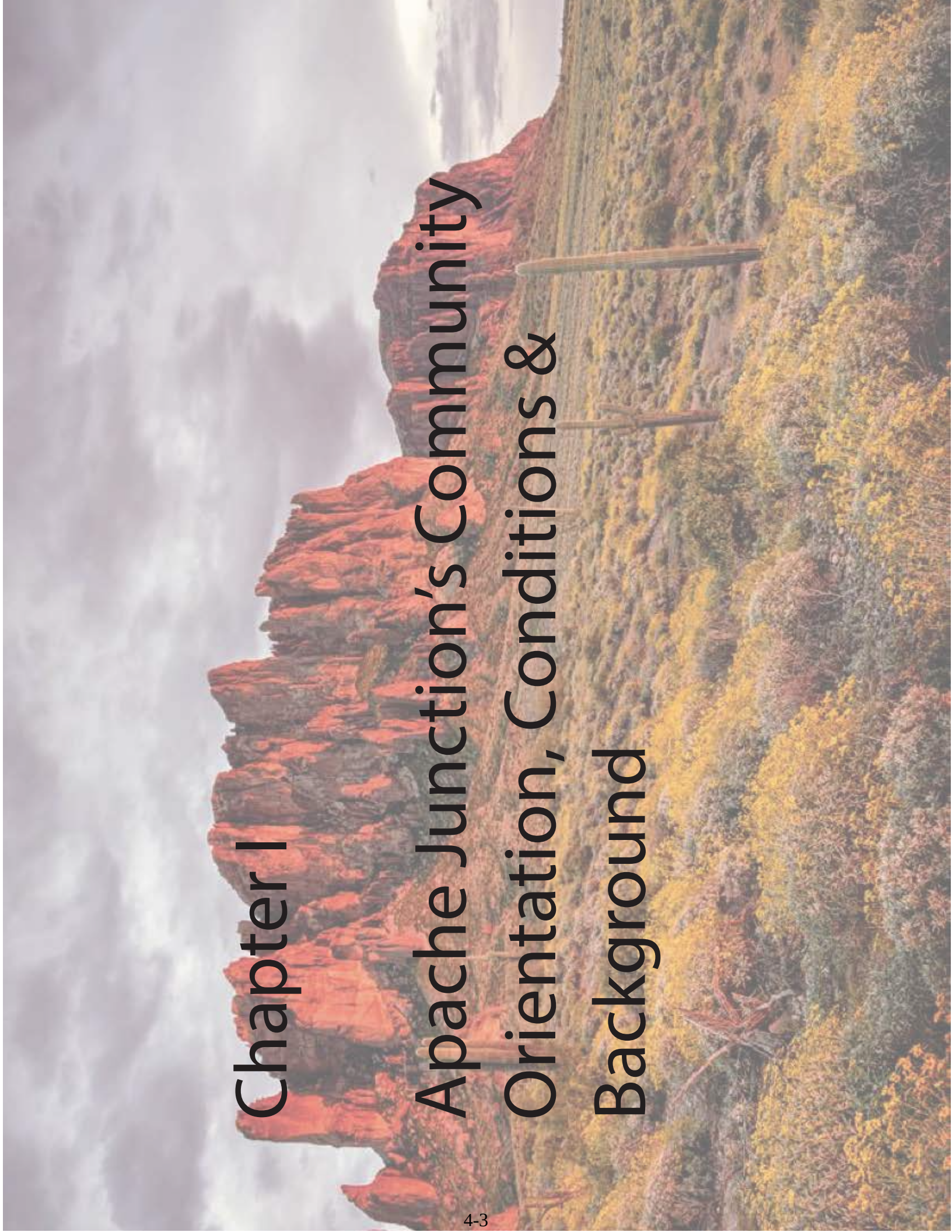
Superstition Studios

We are here to transform Apache Junction into an active community that has strong citizen engagement and ties its values together to create a proud identity.



Maria Maurer, Katherine Keane, Sijie Chen, Matthew Favazzo, Zac Pekala, Yifan Li



A desert landscape featuring prominent red rock formations in the background, a flat desert floor with sparse vegetation, and several saguaro cacti. The sky is filled with soft, grey clouds.

Chapter I

Apache Junction's Community Orientation, Conditions & Background

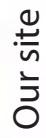


Mckellips Rd

Idaho Rd

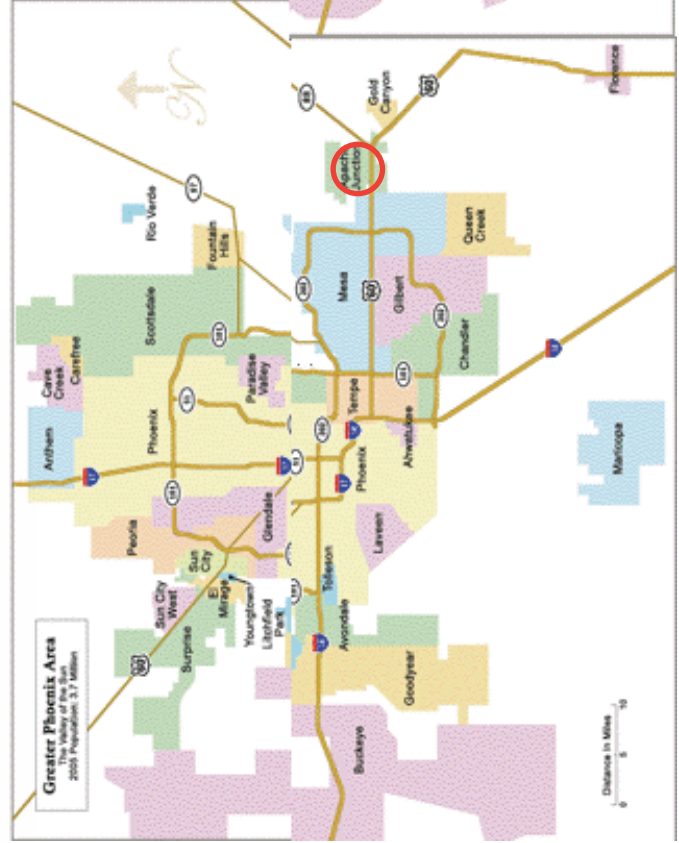
Idaho Rd

16th Ave



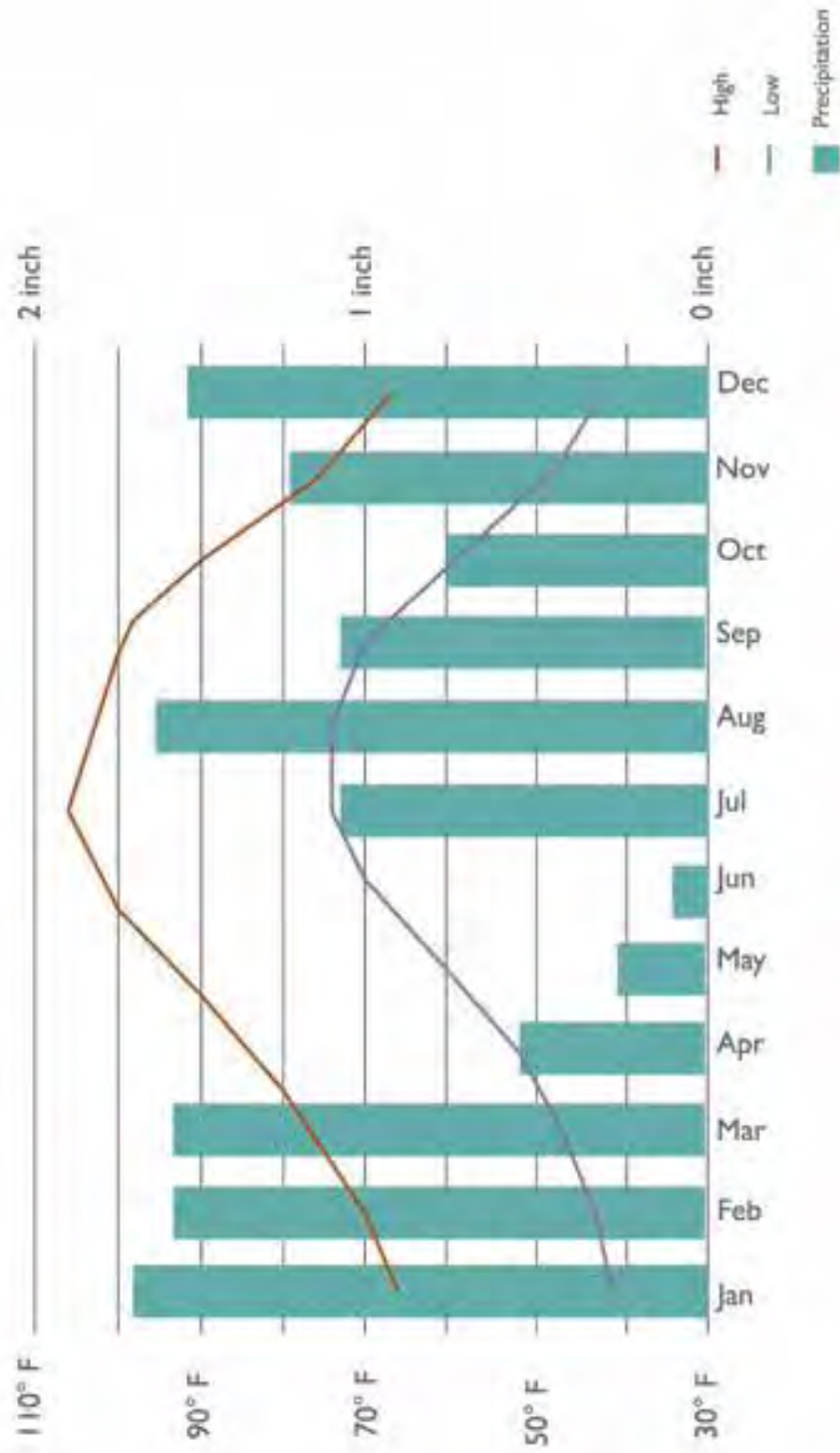
Apache Junction

State of Arizona





Apache Junction Climate Graph



Wind Statistics

WIND STATISTICS

Statistics based on observations taken between 07/2013 - 09/2017 daily from 7am to 7pm local time. You can order the raw wind and weather data in Excel format from our historical weather data request page.

Month of year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
01	01	02	03	04	05	06	07	08	09	10	11	12	1-12
Dominant wind direction	↗	↗	↗	↖	↗	↗	↖	↖	↖	↗	↗	↗	↗
Wind probability >= 4 Beaufort (%)	1	0	1	1	1	0	0	1	1	1	1	1	1
Average Wind speed (mph)	1	2	2	3	3	3	3	3	2	2	2	1	2
Average air temp. (°F)	54	59	66	70	77	80	90	88	84	80	63	52	71

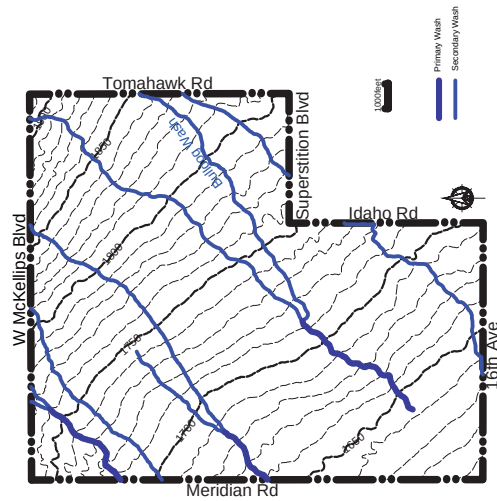
Wind direction distribution in (%)



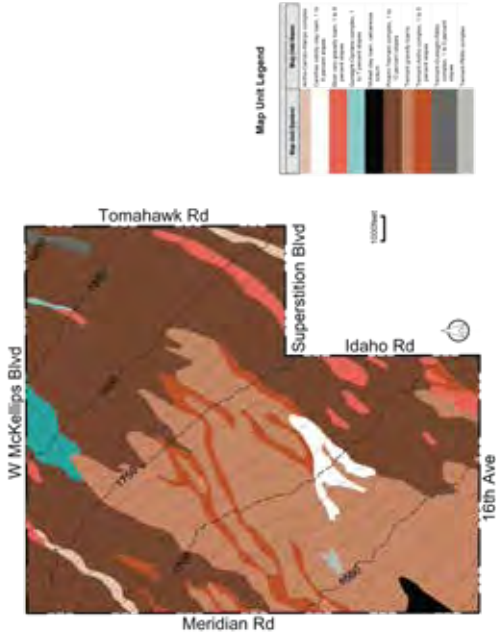
Sun Angles & Exposure



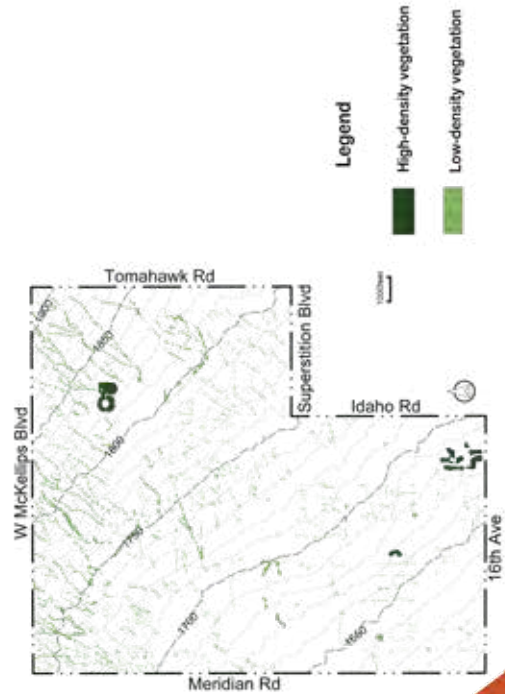
Hydrology



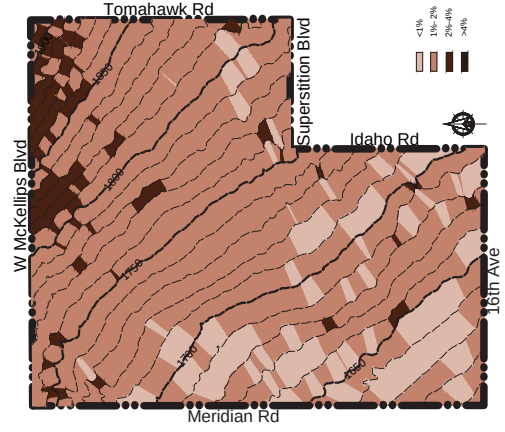
Geology



Vegetation



Slope

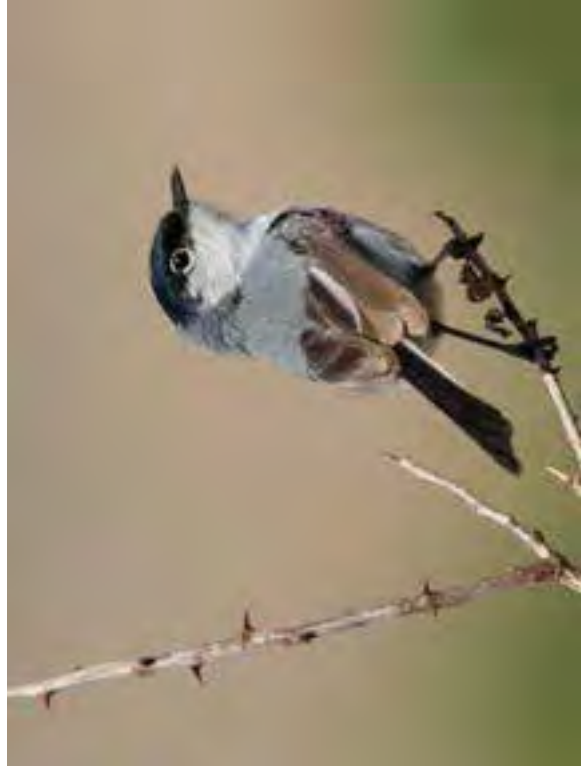


Topography



Composite





Birds

Costa's hummingbird
Gilder Flicker
Gila and ladder-backed woodpeckers
Cactus and Rock Wrens



Phainopepla
Verdin
Black-tailed gnatcatcher
Gambel's quail
Curve-billed thrasher
Harris's and red-tailed hawks



Mammals

Mule deer
Javelina
Gray fox

Mountain lion
Round-tailed and Harris' antelope squirrel
Desert cottontail



Reptiles

Tiger whiptail
Desert spiny lizard
Common side-blotched lizard
Gophersnake -Coachwhip



Western patch-nosed snake
Nightsnake
Gila monster
3 species of rattlesnakes

History

Area originally inhabited for mining gold, under the name Goldfield



Gold veins ran dry, the area was abandoned... until the construction of the Apache Trail

Apache Trail allowed access for the construction of the Roosevelt Dam



Through the increase in access and water to Apache Junction, development of the city spread.



<http://activerain.com/blog/view/4779051/custom-mountain-view-home-in-apache-junction>

Community Profile

Attractions:

Historic Apache Trail
Lost Dutchman State Park
Goldfield Ghost Town
Superstition Mountain Museum
Salt River Lakes
Tonto National Forest



Events:

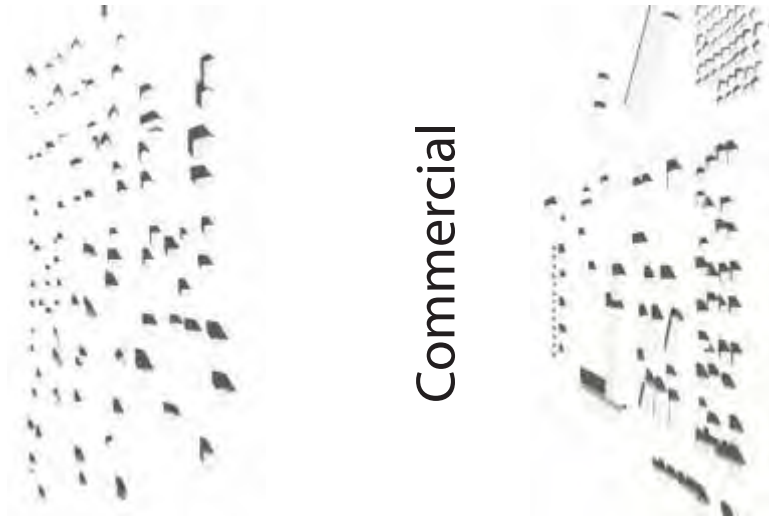
Lost Dutchman Marathon
Lost Dutchman Days
Celebration
Renaissance Festival
Antique Tractor Show
Festival of the Superstitions
Christmas Lights Parade



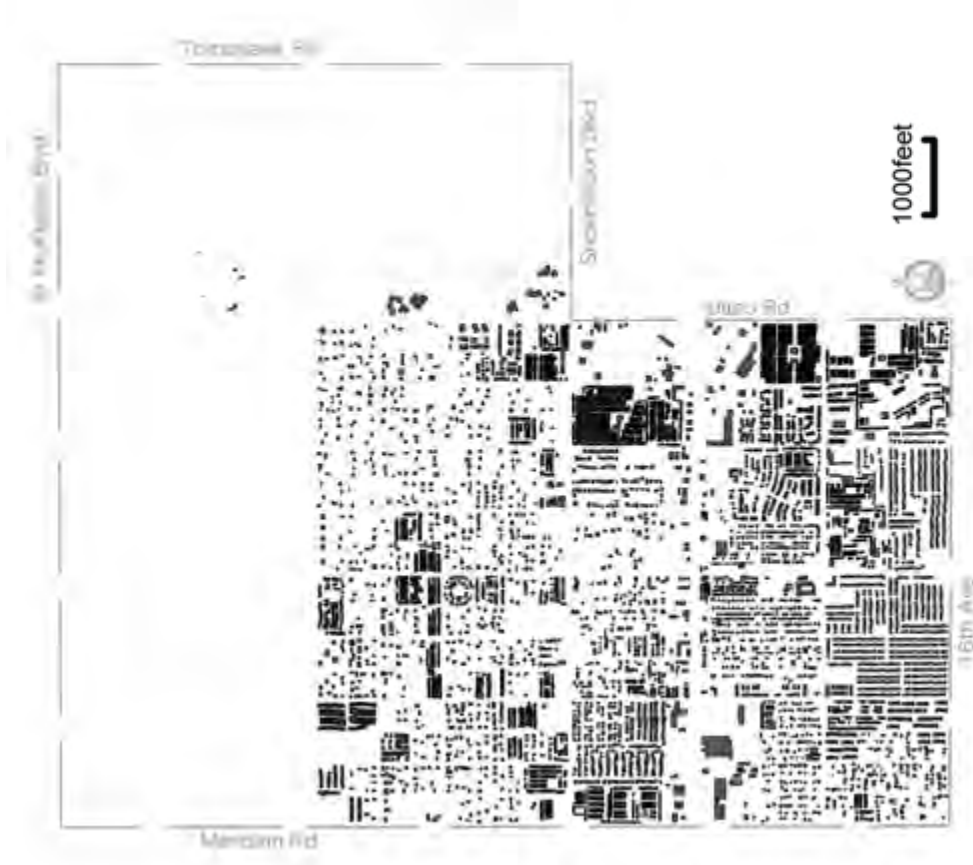


Building Footprints

Single Family Housing



Commercial

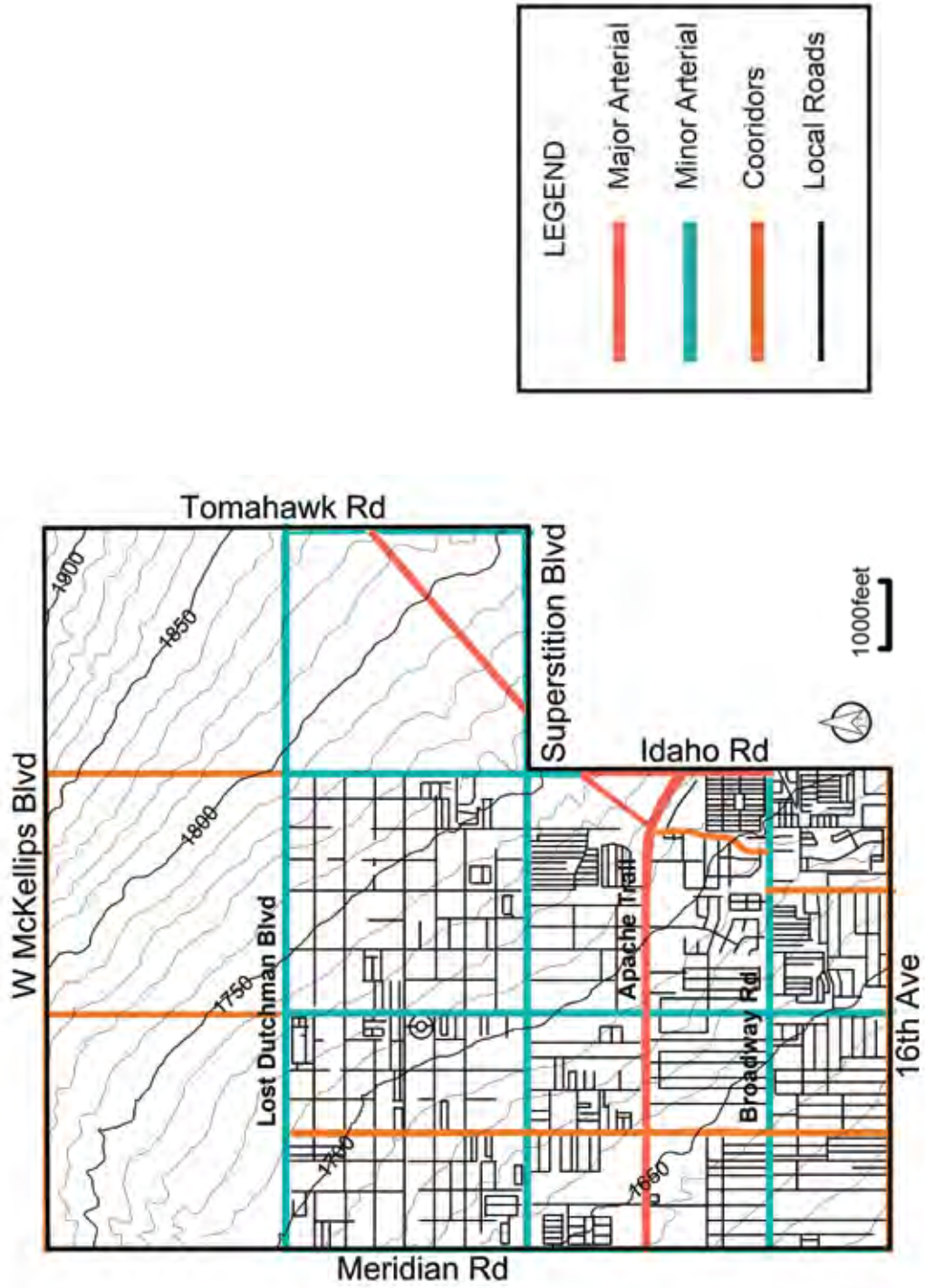


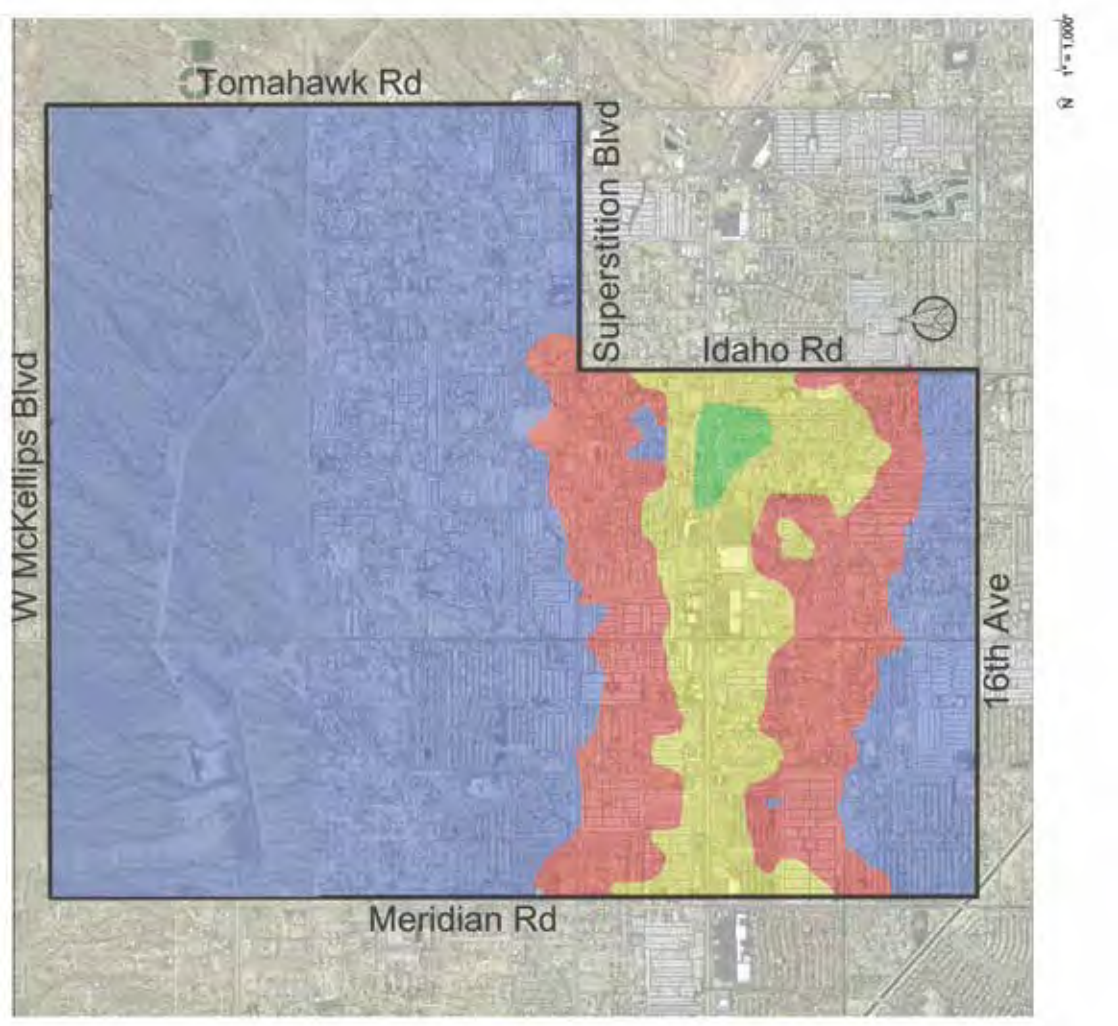
Public



Mobile Home Park



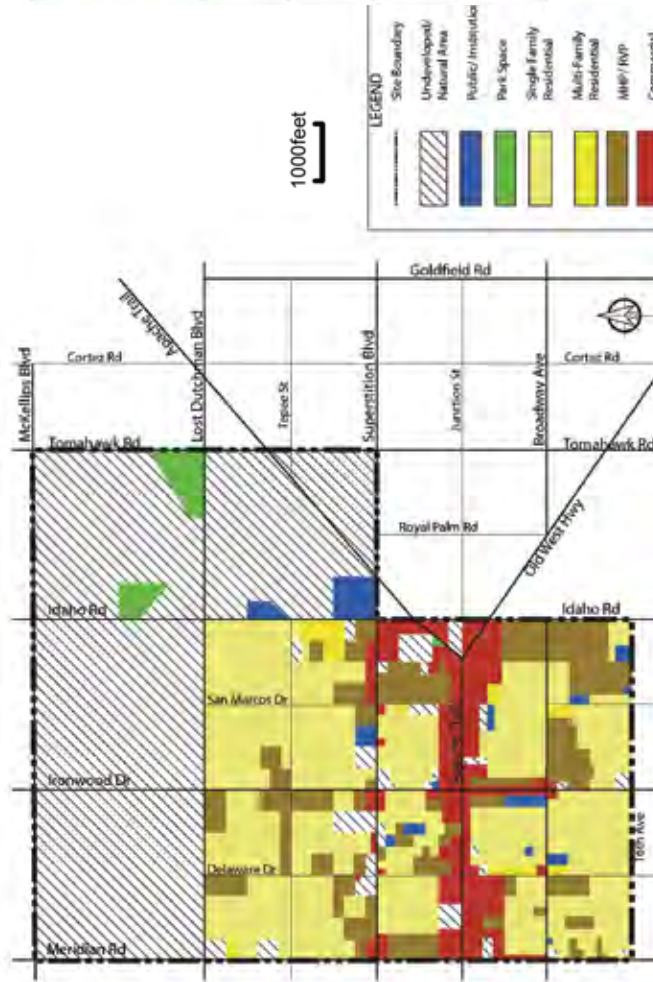




Walk Score: 16

Car dependent

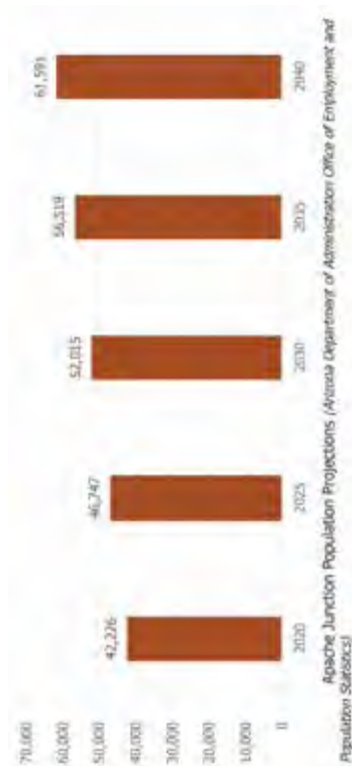
Current Land Use



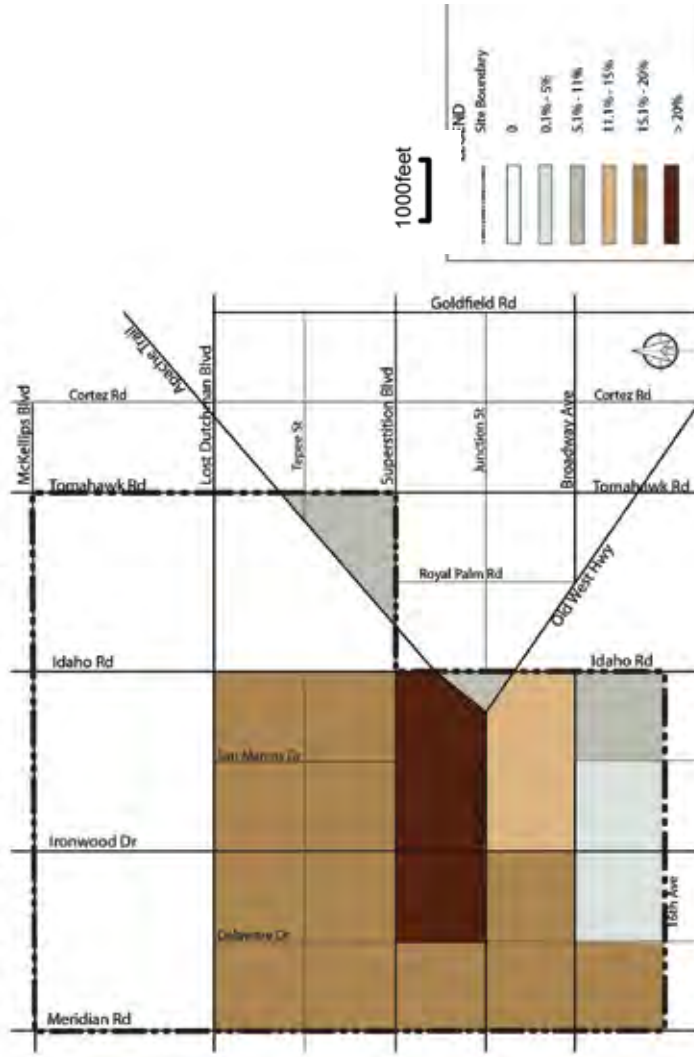
Land Ownership



Year-round Residents
Apx. 38,074
Seasonal Residents
Apx. 35,000



BELOW POVERTY POPULATION



Source: Apache Junction Comprehensive Transportation Study, 2013

Population Overview

Religion:

Religious

Affiliation: 31.45%

Catholic: 18.21%

Baptist: 4.06%

Latter-Day Saints: 3.45%

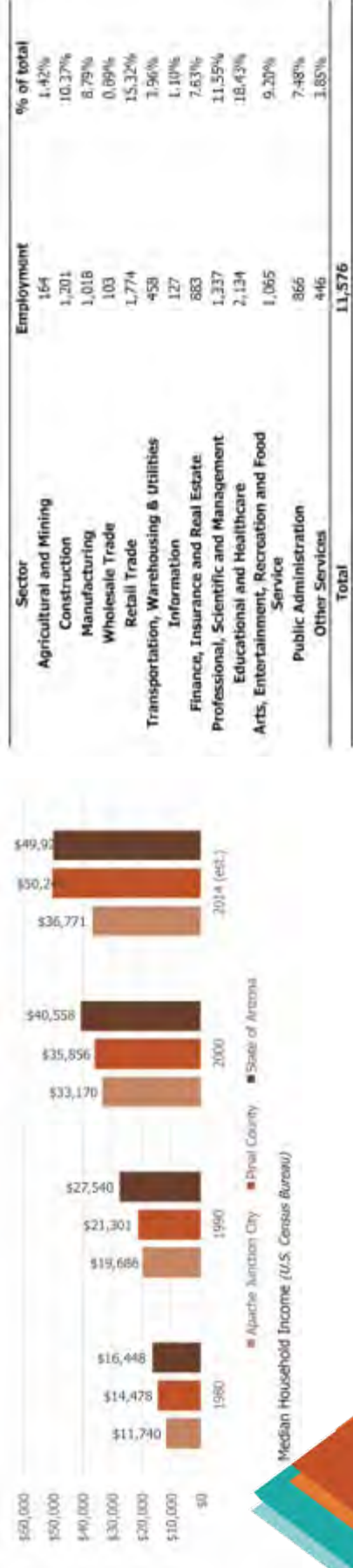
Other: 5.73%

Education Level	Apache Junction		Pinal County		State of Arizona	
	# of Persons	% of total	# of Persons	% of total	# of Persons	% of total
Less than High School	3,510	14.3%	38,794	15.0%	604,153	14.1%
High School Graduate	9,488	34.2%	77,330	25.9%	1,040,770	24.5%
Some College	8,011	29.3%	71,899	27.8%	1,100,757	25.9%
Associate Degree	2,406	8.8%	24,062	9.2%	359,821	8.4%
Bachelor's Degree or greater	3,527	12.9%	46,553	18.0%	1,161,174	27.1%
Total Population 25 yrs and over	27,343		258,629		4,284,776	

Educational Attainment for Population 25 years and Older (U.S. Census Bureau, American Community Survey 2010-2014 Estimates)

Ethnic Group	Apache Junction City	% of Total	Pinal County	% of Total	State of Arizona	% of Total
White	32,092	89.5	242,692	73.7	4,667,121	73
Black	431	1.2	13,830	4.2	259,008	4.1
American Indian	398	1.1	18,111	5.5	296,529	4.6
Asian	279	0.8	5,598	1.7	176,695	2.8
Pacific Islander	26	0.1	1,317	0.4	12,648	0.2
Hispanic	5,153	14.4	95,167	28.9	1,895,149	29.6

Population by Ethnic Composition (Census Bureau, 2010 Census)



Apache Junction Water District

Apache Junction Water Utilities Community Facilities District (AJWD) is a special district formed by the Apache Junction City Council on August 2, 1994. The Water District is primarily responsible for providing water service in the City of Apache Junction within the District's water service area.

Currently, Apache Junction Water District serves approximately eight square miles and a population of 14,348, which accounts for more than one-third of the City of Apache Junction. The remaining area is served by Arizona Water Company.



Arizona Water Company

Arizona Water Company is one of the largest investor-owned water utilities in Arizona. The Company, whose home office is located in Phoenix, Arizona, was organized in 1955 around a nucleus of ten water systems acquired from Arizona Public Service Company. Today it provides water service to a population of nearly 250,000 in eight counties and in more than thirty communities throughout Arizona.

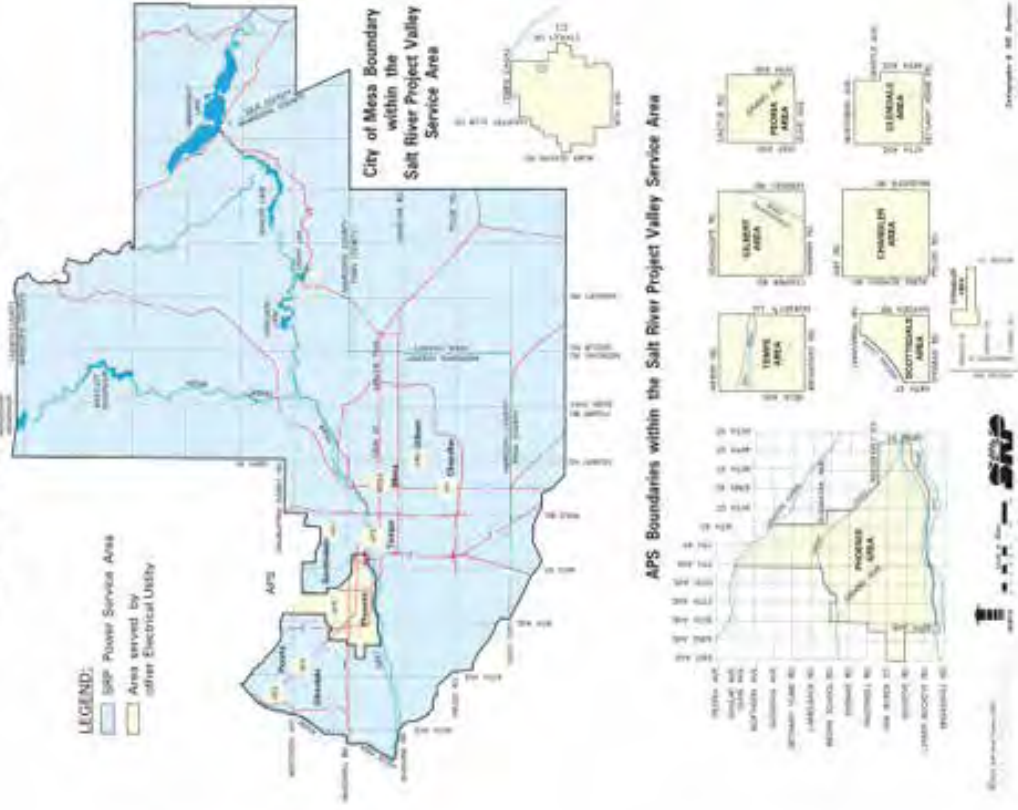
Currently, Apache Junction Water District serves approximately eight square miles and a population of 14,348, which accounts for more than one-third of the City of Apache Junction. The remaining area is served by Arizona Water Company.



The Salt River Project

SRP is the oldest multipurpose federal reclamation project in the United States and has been serving central Arizona since 1903. Today the SRP power district is one of the nation's largest public power utilities, providing electricity to 1 million customers

SRP ELECTRIC SERVICE AREA



Sustainability



All three solid waste companies provide recycling services.

Strong Sustainable Community Initiative

Strengthening Neighborhoods, Sustaining Businesses, Celebrating Community

AJ picks one neighborhood per year to clean up and improve.



Selected by the EPA for assistance improving economic and environmental sustainability.



Creates outdoor pedestals for local artists



Median Beautification on Old West Highway

Encourages community involvement in local projects

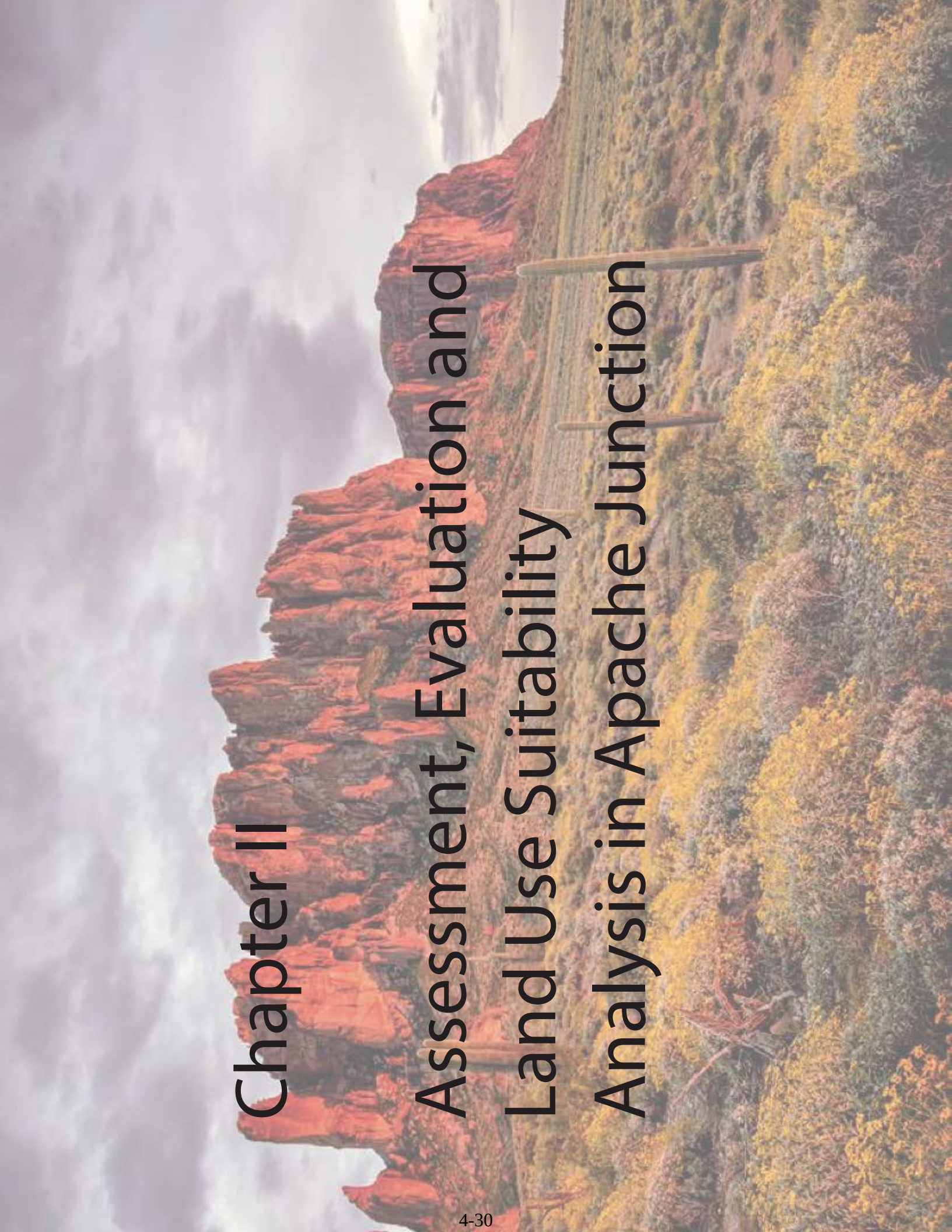


Designed by Nicholas T. Blake
Parks Superintendent for City of Apache Junction
Completed in 1996

Views On Site



Superrition Studios

A desert landscape featuring prominent red rock formations in the background. The foreground is filled with dense, low-lying vegetation in shades of yellow and green. Several saguaro cacti are visible, some standing tall and others as smaller, younger specimens. The sky is filled with soft, white clouds.

Chapter II

Assessment, Evaluation and Land Use Suitability Analysis in Apache Junction

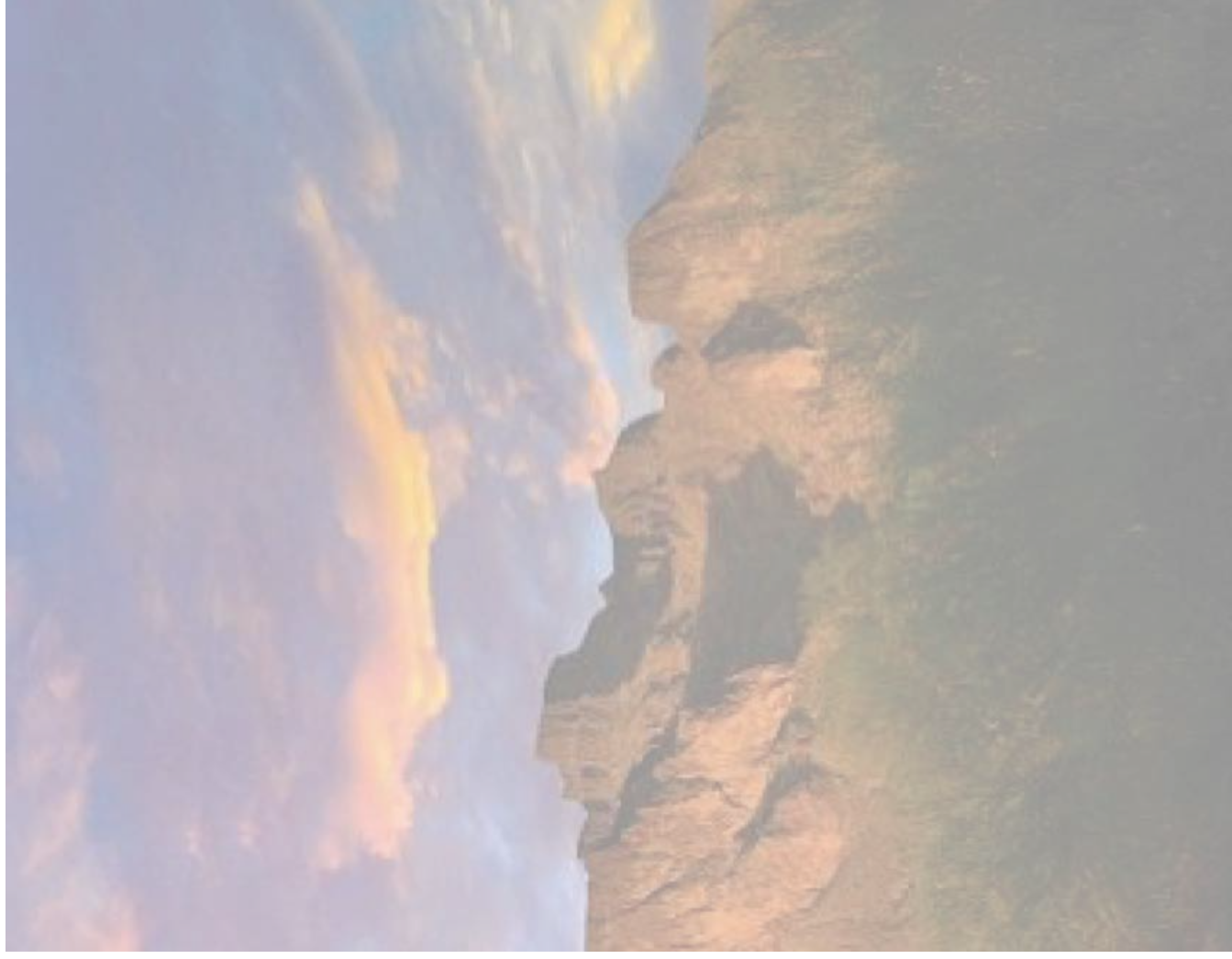
Land Use Compatibility Matrix

Land Use Suitability Matrix

Land Use Suitability Maps

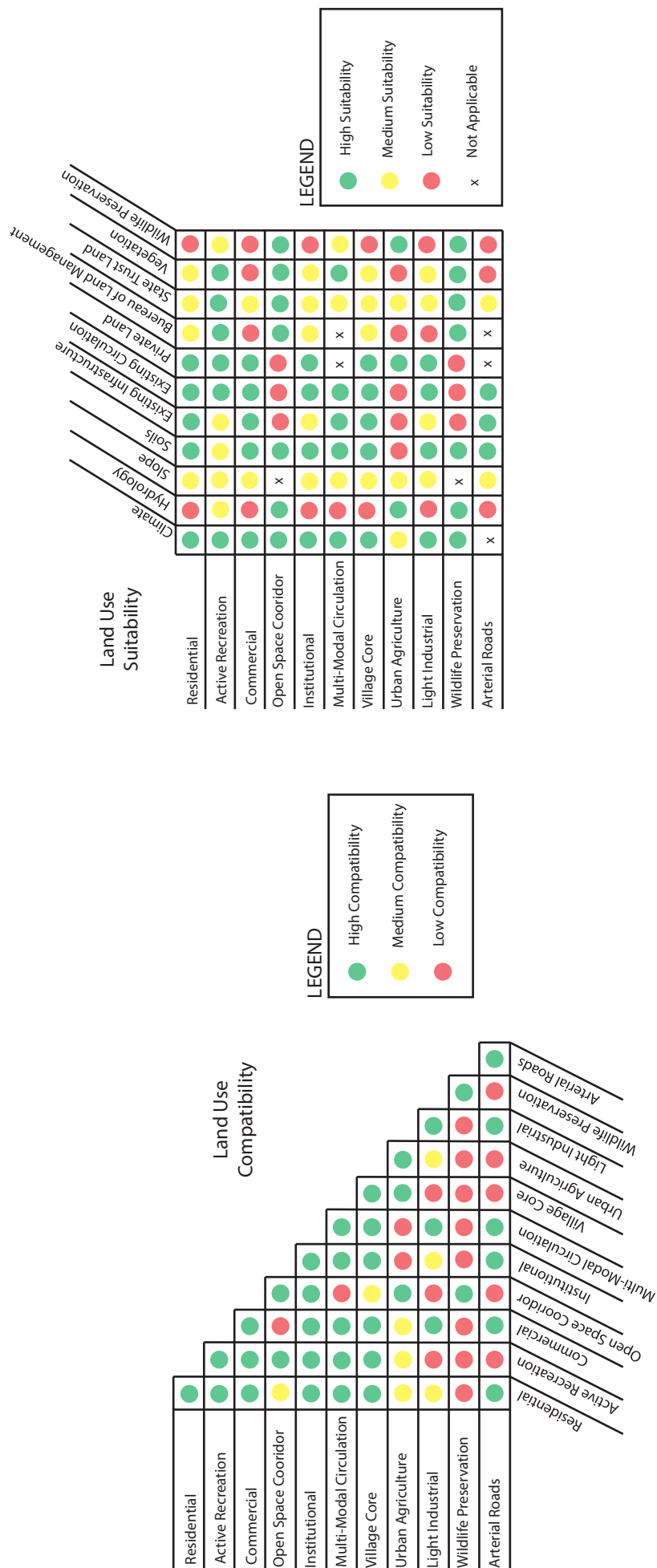
- Commercial
- Residential
- Active Recreation
- Open Space Corridors
- Institutional
- Multi-Modal Circulation
- Village Core
- Urban Agriculture
- Light Industrial
- Wildlife Preservation
- Arterial Roads

Opportunities and Constraints





Land Use Compatibility & Suitability Matrix



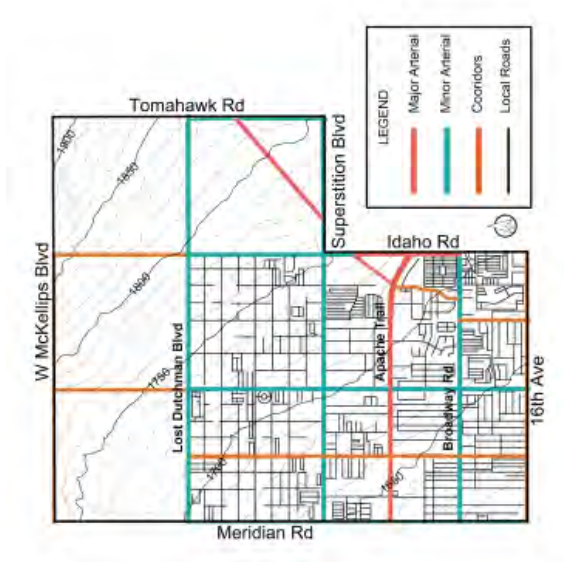
Advantage of undeveloped lots and existing commercial core

Difficulties with proposed development on BLM and State Trust Land

Land ownership



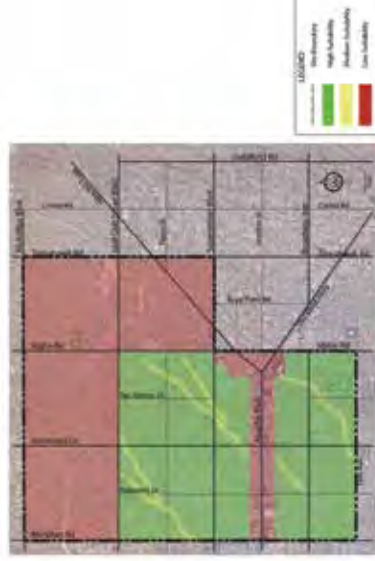
Circulation



Land Use Suitability

Residential:

Housing developments including low, medium, and high densities



Multi-Modal Circulation:

Transportation routes with a hierarchy of roads, paths, and trails that consider and integrate the needs of vehicles, pedestrians, and bicyclists



Institutional:

Schools, libraries, churches, hospitals, police and fire stations, etc.



Wildlife Preservation:

Land set aside for wildlife habitat





Land Use Suitability

Commercial:

Retail and office buildings



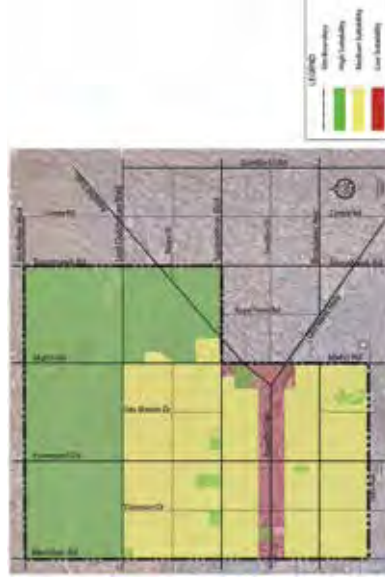
Open Space Corridors:

Natural areas, parkland, and urban public spaces that link the community to an open space system



Active Recreation:

Community, neighborhood, and specialty park spaces



Village Core:

Mixed use areas that function as a neighborhood or community center



Land Use Suitability

Urban Agriculture:
Growing plants and raising animals within and around the city through a process that is integrated into the urban economic and ecological system



Light Industrial:
Warehouse and office spaces



Arterial Roads:
Major circulation through and around the site



Opportunities and Constraints



Open Space & Residential Part



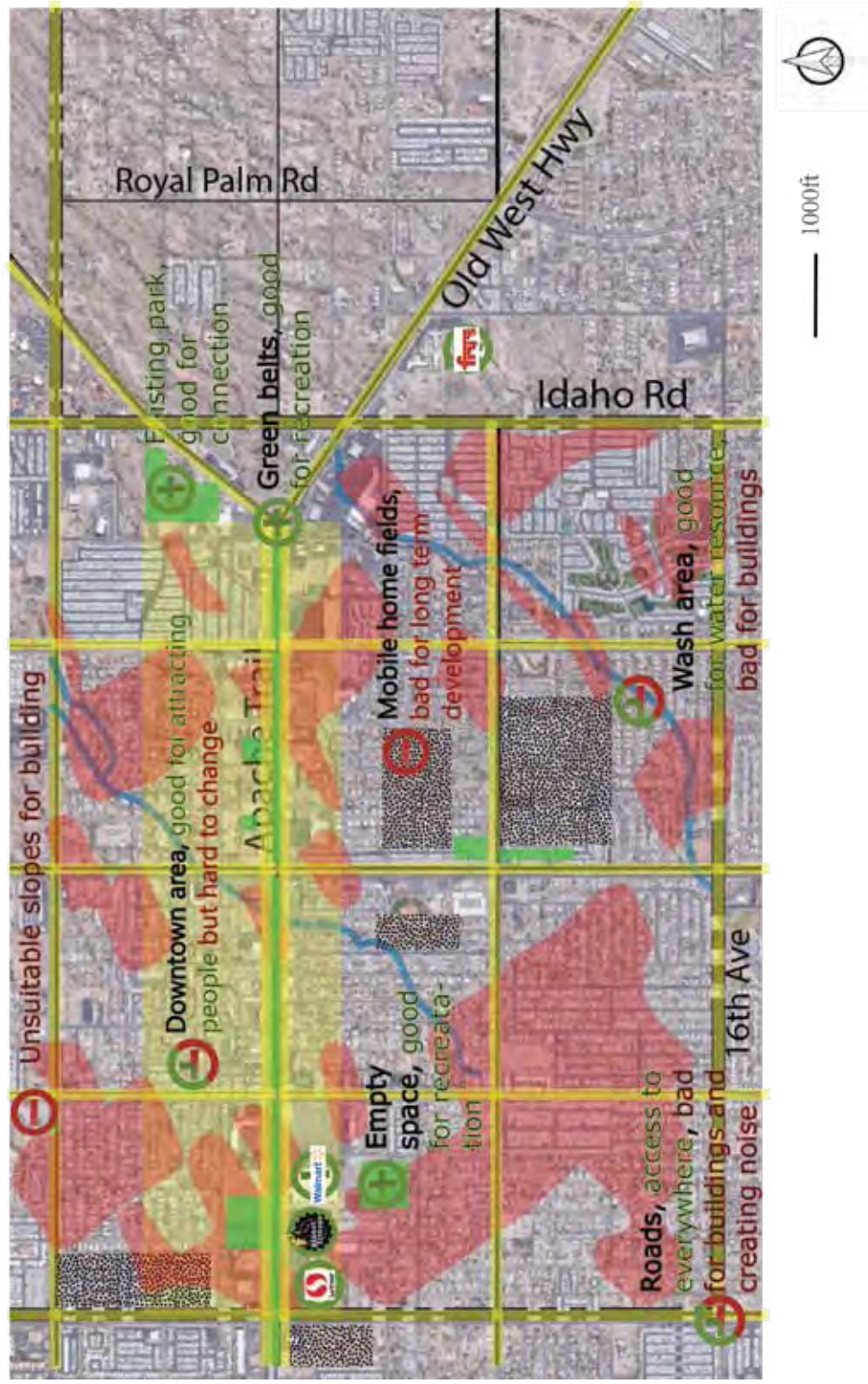
1000ft

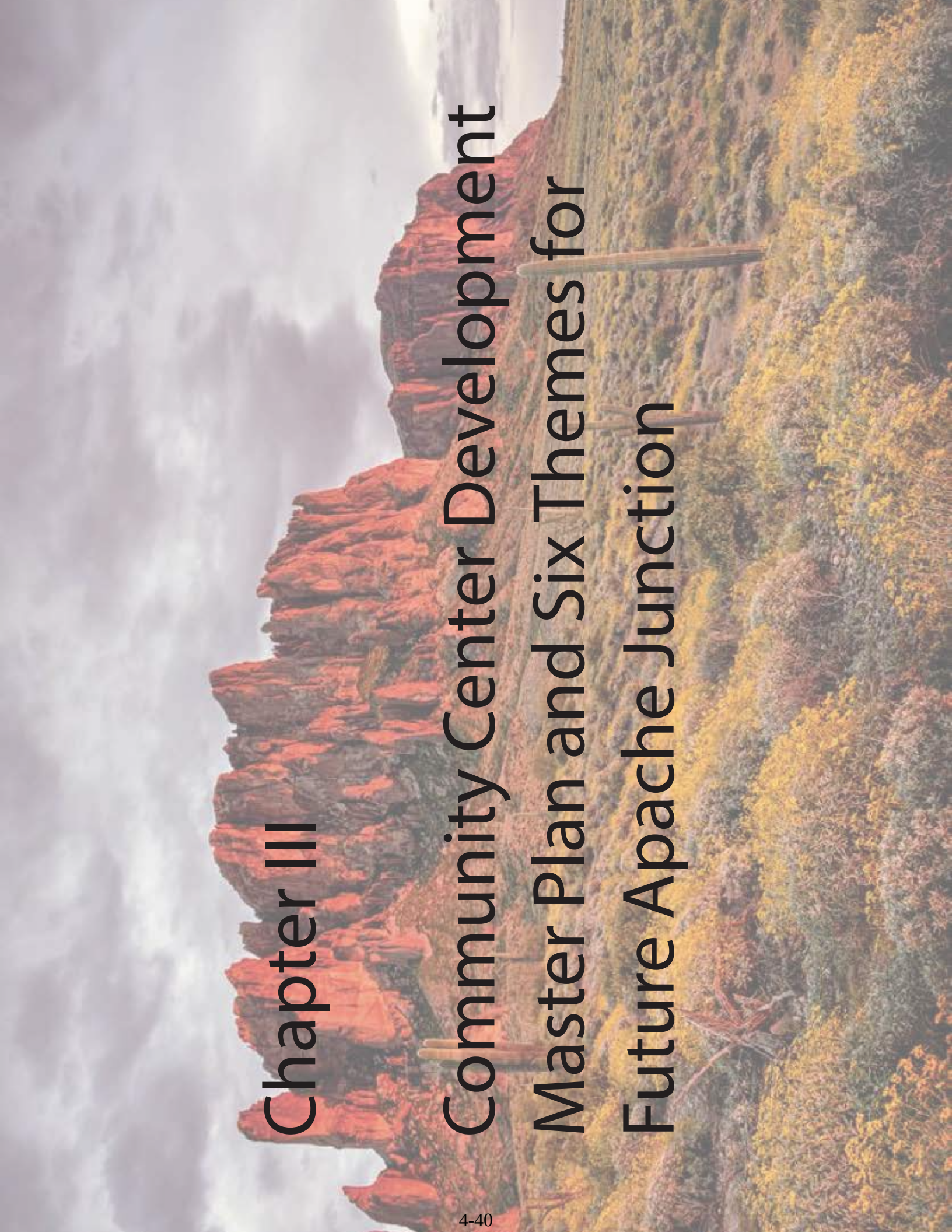


1000ft



Downtown Part



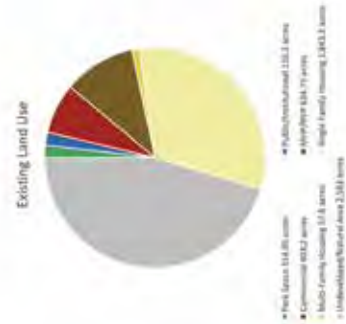
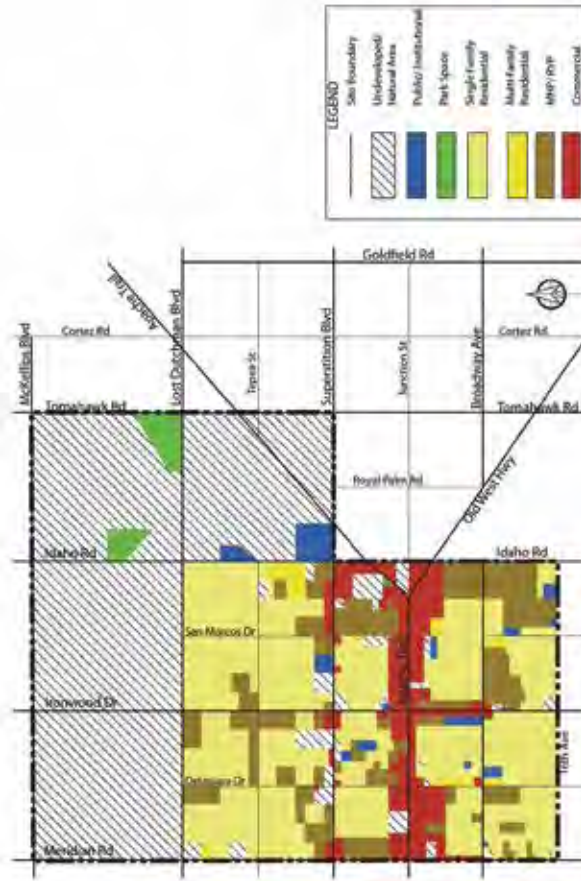
The background of the slide is a photograph of a desert landscape. In the foreground, there is a field of yellow wildflowers and green shrubs. In the middle ground, there are several saguaro cacti. In the background, there are large, red rock formations, likely part of a canyon or mesa. The sky is filled with white and grey clouds.

Chapter III

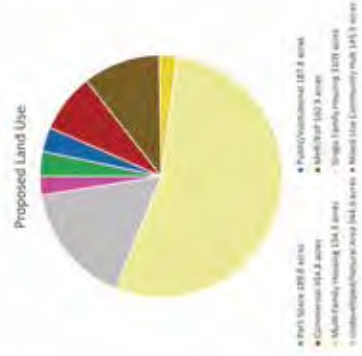
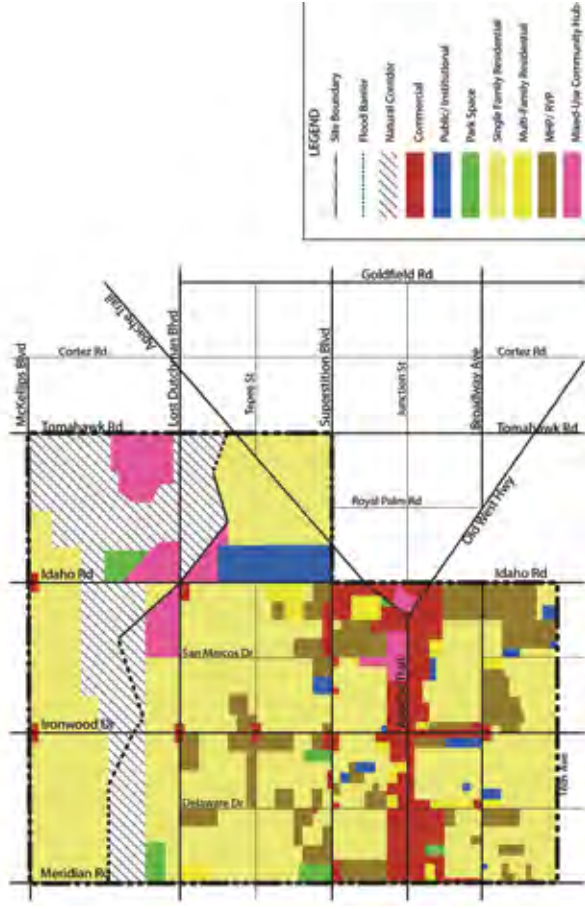
Community Center Development Master Plan and Six Themes for Future Apache Junction

Community Land Use Development Master Plan

Current Land Use



Proposed Land Use



Six Themes:



Natural Recreation



Smaller Living for a Bigger Community



Water Conservation



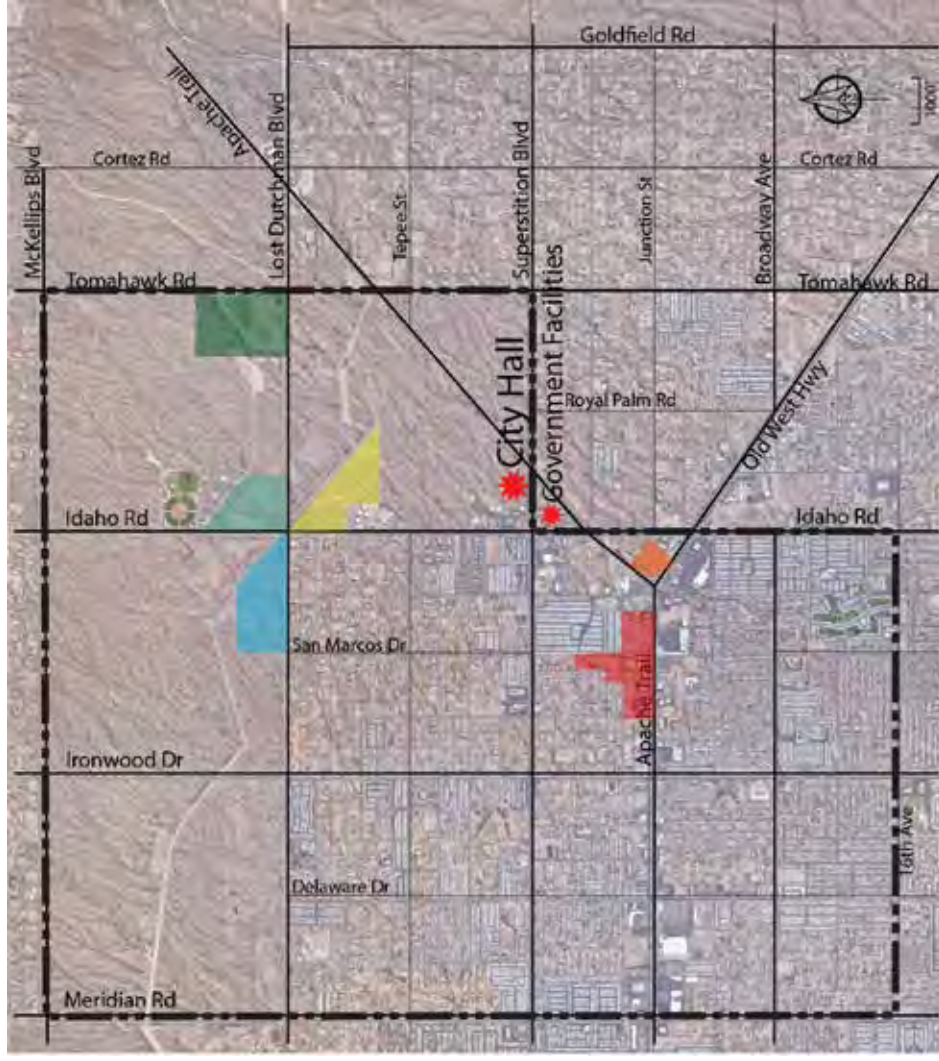
Recreational Tourism



Circulation/ Green Infrastructure



Eco Tourism



Natural Recreation

Conceptual Design Plan By Maria Maurer



Conceptual Design Plan By Maria Maurer

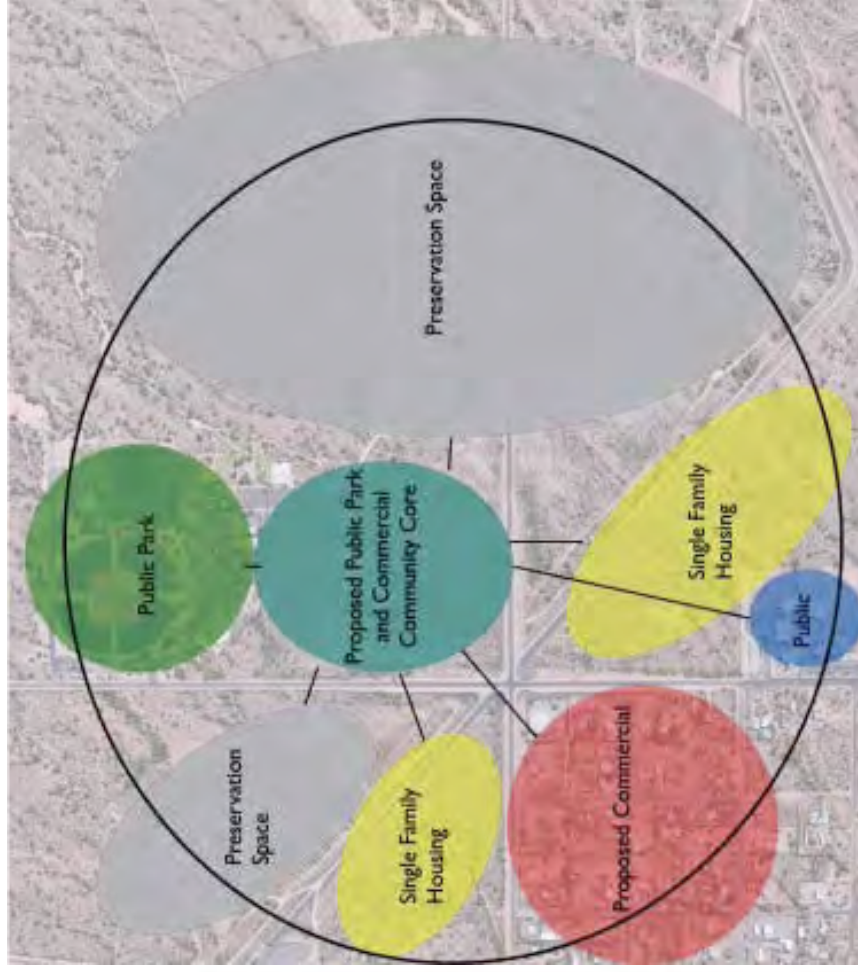
By utilizing the city's open space and close proximity to the Lost Dutchman State Park, this community core will be focused on recreation that connects people to nature.



Site Context

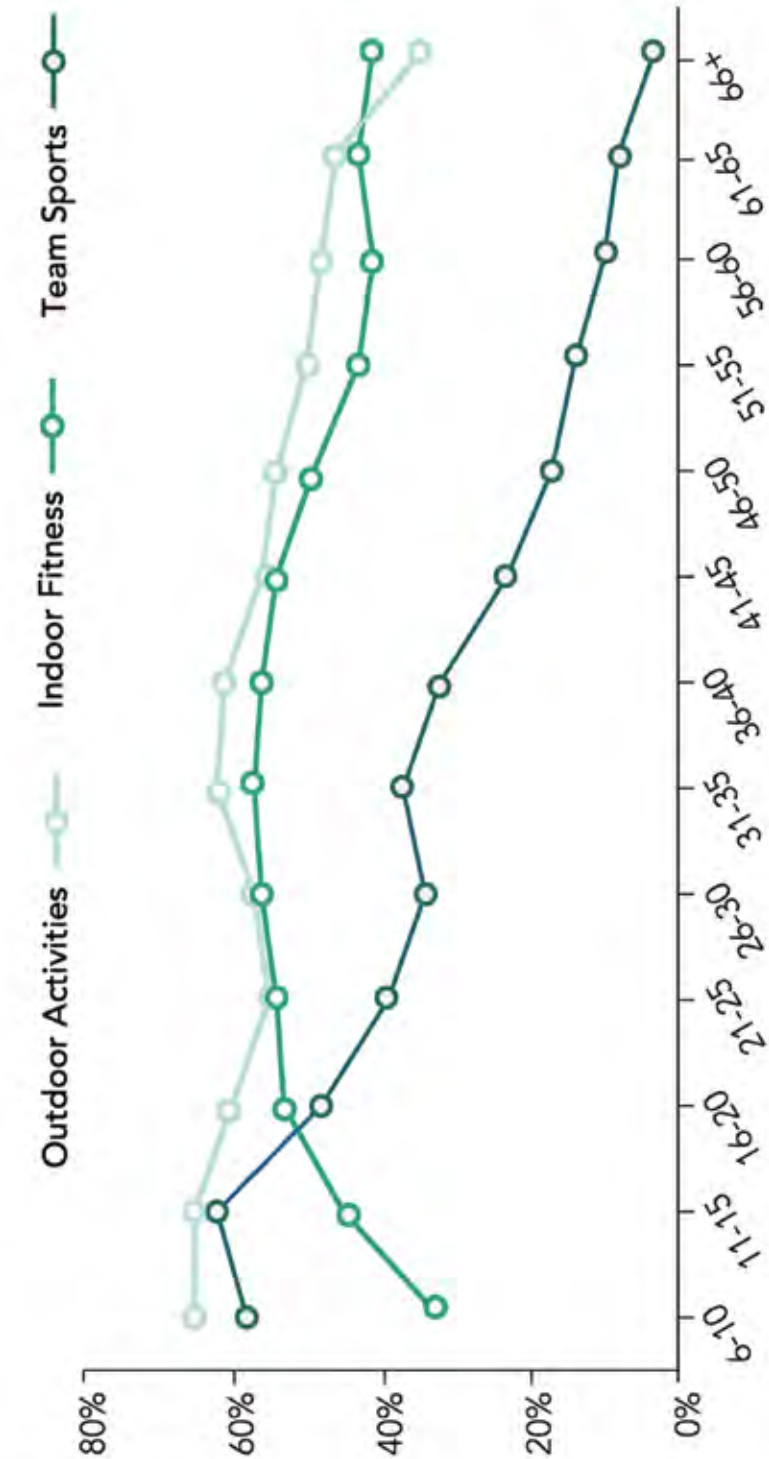


Compatibility Diagram



This diagram shows the different land uses that are surrounding the site and how they can bring in different types of users.

Participation of Recreation Types in 2016



www.outdoorfoundation.org

Why natural recreation? Outdoor recreation is becoming very popular and in 2016, had the most participation out of other recreation types.



Goals

1. To create a formal access point to the adjacent trails for the community to utilize and engage with the wilderness.
2. The mixed land use within this community core provides a hub for people to gather before or after their time on the trails.
3. This space can also serve as a meeting spot for various clubs or groups for organized outdoor recreation events.



Supernatural Studios

Aerial map of a park area with labeled features A through J. A is a large blue pond, B is a small red building, C is a path, D is a path, E is a yellow building, F is a green field, G is a path, H is a path, I is a path, and J is a small boat on the pond. A scale bar and north arrow are in the bottom right corner.

SECTION 1

Sporting good stores and restaurants with take out so people can bring on the trails or have a picnic



Restaurants/Retail



Off-leash Dog Park

The city expressed a need for an off-leash dog park. This one is separated for large and small dogs and is located next to commercial spaces to generate more business.

SECTION 2

With a large equestrian community within Apache Junction, a separate area for people to park their horse trailers will encourage people to take their horses on the trail.

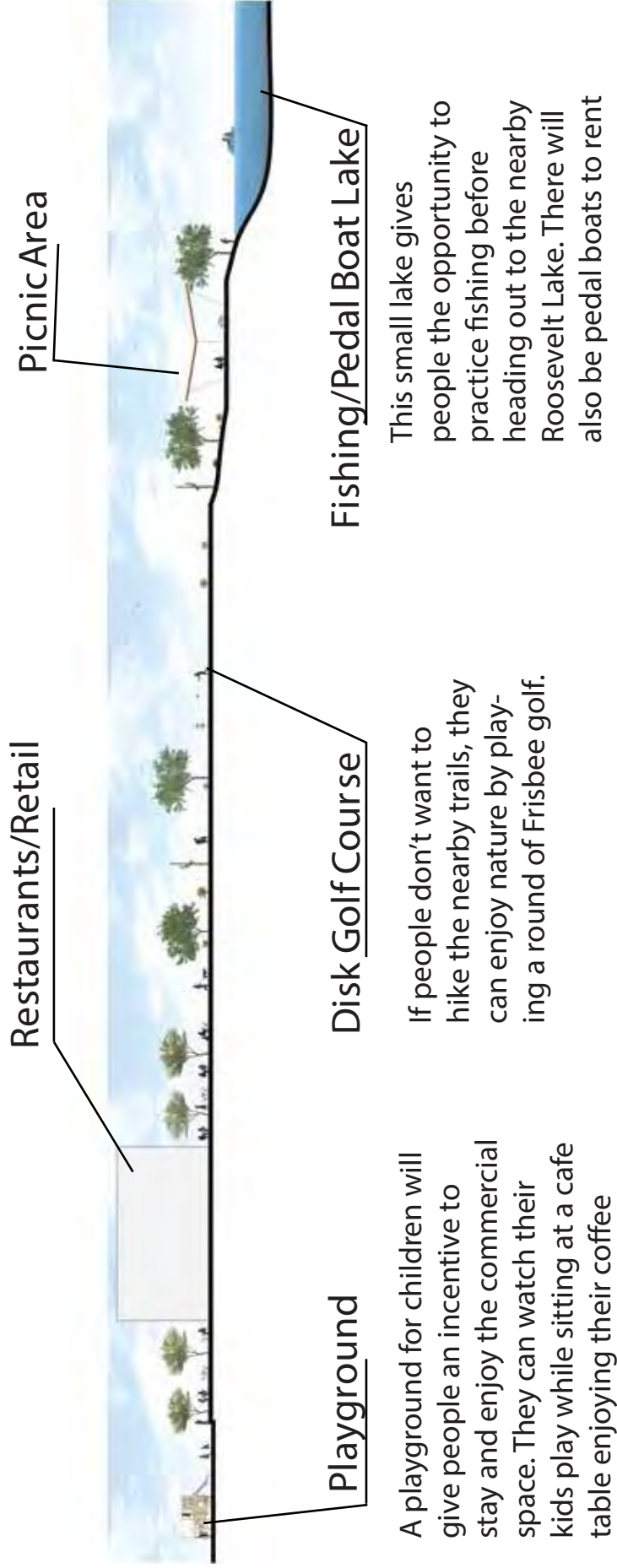
Horse Trailer Parking



Picnic Area with Horse Corral

Horse corrals accompanying the picnic areas gives people the opportunity to relax and enjoy the space without having to worry about their horse.

SECTION 3



Natural Recreation

With a love for the Sonoran Desert that brings people together, Apache Junction will become the city that preserves its natural land and uses it to partake in wilderness recreation which will engage its citizens and visitors with nature, physical activity and community engagement.



Smaller Living for a Bigger Community

4-53

Conceptual Design Plan By Matthew Favazzo

Vision Statement & Goals

This project theme is focused on creating a simpler, more self-sufficient lifestyle for Apache Junction residents while also providing more affordable housing options, more communal open space, and greater access to local retail space and amenities.

Sustainable:

Grow into a city focused on environmentally conscious planning and development and responsible resource consumption.

Active:

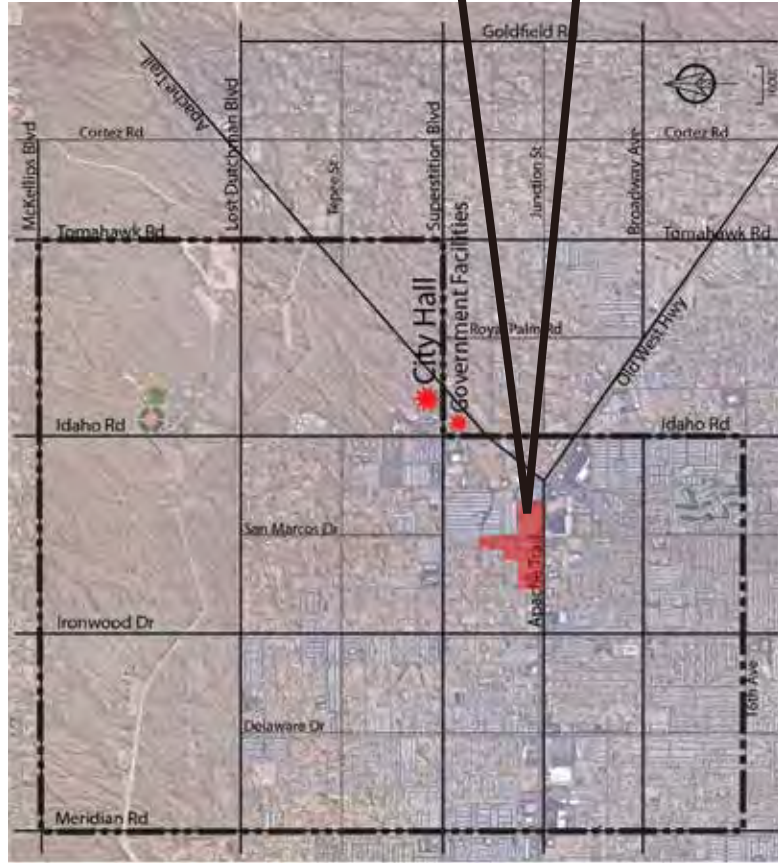
Transform the city into an active and healthy community centered around access to its surrounding natural amenities.

Engaged:

Maintain pride in the city's history and strengthen the passion for their community's identity and the value of the local environment.

Project Location

Northwest Quadrant of Apache Junction



Proposed Development Site



Smaller Living for a Bigger Community

Program Elements

- Tiny house community:**
Build a tiny house community as an example for simpler, more affordable living and to encourage reducing waste.
- High density residential with first floor retail space:**
Develop higher density apartment buildings as an opportunity to transition some trailer homes and create affordable housing.
- Park space:**
Promote a healthy lifestyle by providing community open space for a dog park, community garden, and farmers market.
- Commercial strip:**
Improve the commercial streetscape and store fronts; infill with more local retail space.
- Foot & bike paths:**
Establish foot and bike paths that connect all community amenities and reduce vehicle dependence within the neighborhood.



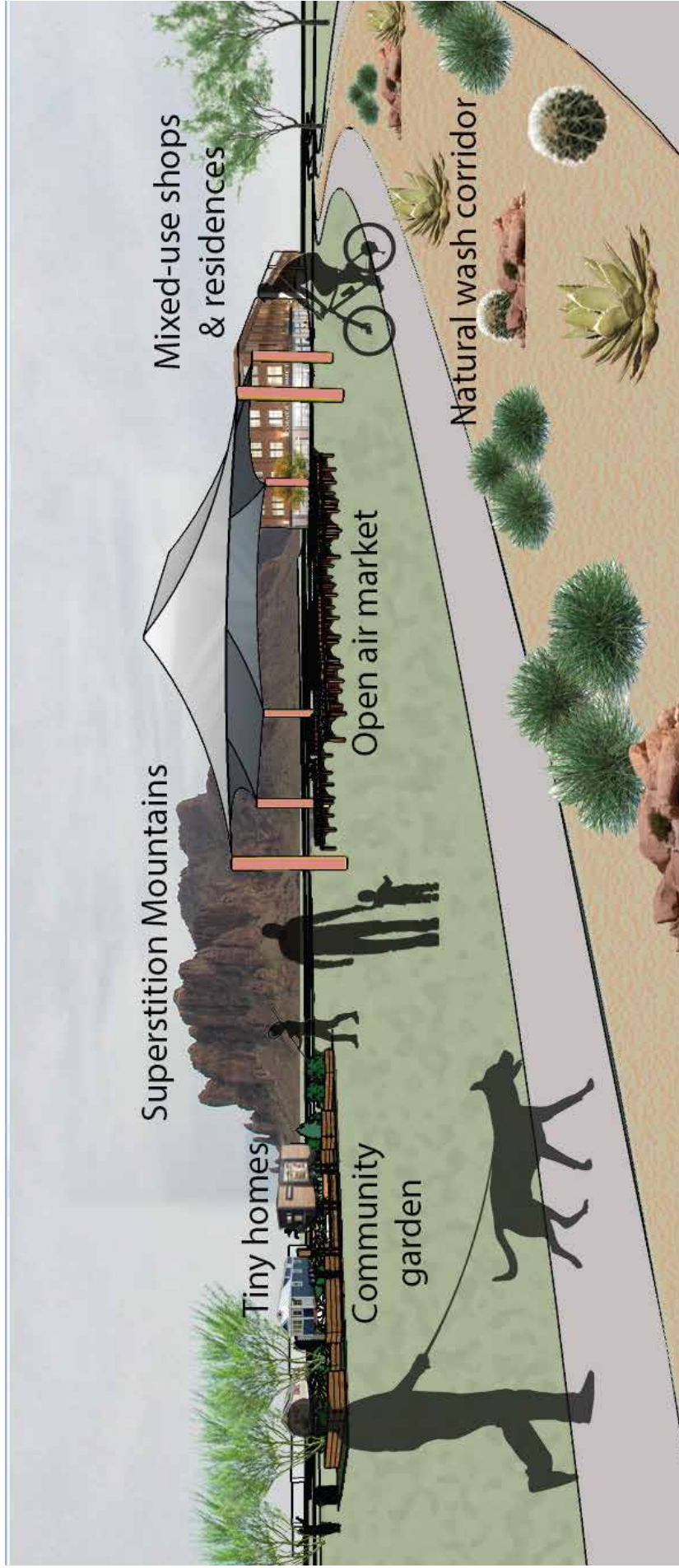


Smaller Living for a Bigger Community

Concept Plan



Concept Perspective



Smaller Living for a Bigger Community

Topics of Interest & Recommendations

Off-Leash Dog Park

A “bigger community” with more communal open space could help eliminate the need for a very large dog park and instead, smaller dog parks can be incorporated into more neighborhoods throughout the city. Also, more pet-friendly facilities can be proposed within mixed-use commercial areas, such as dog friendly patios and cat cafes.



Uncle Bear's Brewery



Matthew Favazzo & Jolteon



Recycled City



Phoenix Public Market

Solid Waste

“Smaller living” will encourage more responsible and more environmentally friendly resource consumption and, in turn, decrease waste. Possible sustainable waste features include communal composting, water recycling systems, and the use of more zero-waste materials.



Smaller Living for a Bigger Community

Topics of Interest & Recommendations

Homelessness

Tiny homes can provide low cost shelters with low maintenance needs and also provide an option for transitioning to affordable housing.



Central Arizona Shelter Services



Reddit



Goldfield Ghost Town

Positively AJ

The community core development will maintain a Southwest / Sonoran Desert vernacular while also paying homage to AJ's Old West, mining town history. This theme will help to create a positive identity of a sustainable, active, and engaged community.



Water Conservation

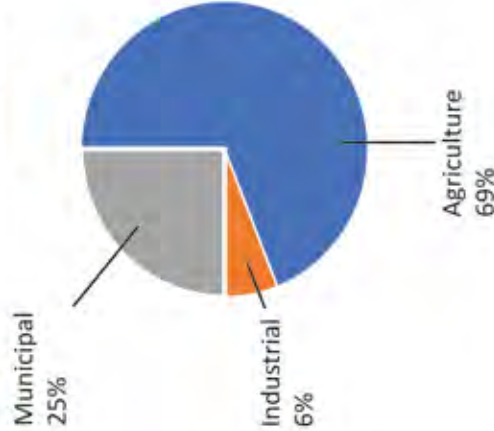
Conceptual Design Plan By Katherine Keane



Working With Water IN APACHE JUNCTION

FINAL PROJECT
by Katherine Keane
Fall 2017

ARIZONA WATER USAGE



Why is conserving water important?

THE FACTS

- The average American uses **88 gallons** of water a day.
- The average Arizona resident uses **147 gallons** of water a day.
- = 59 gallons above average per person

Where is all that extra water coming from?

As the Arizona Water Usage chart depicts, a large amount of water is dedicated to Agricultural purposes. However, the area of Apache Junction that we created our existing land use plan on does not have either agriculture or industrial present. Therefore, municipal usage is what I will be focusing on.

So where is all this water coming from if each resident is using 59 more gallons daily than the average American? Isn't Arizona currently withstanding a long term drought? As the water sources graph explains, 40% comes from groundwater.

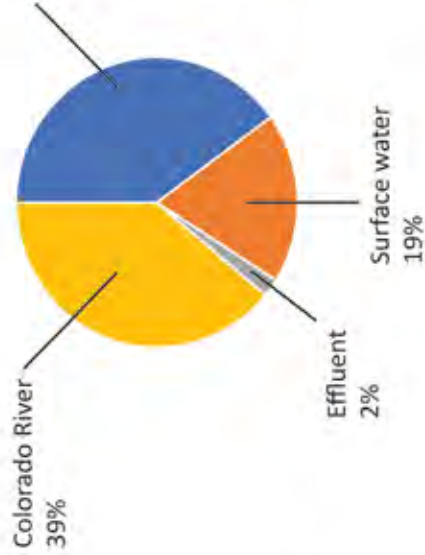
Why is conserving water important to Apache Junction?

As the graphic below expresses, the practice of over-using groundwater can have very negative effects. Land subsidence can harm current developments, and in relation to Apache Junction, their most developed areas are suffering most from this problem which must be addressed.

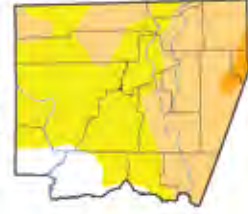


Groundwater

40%



U.S. Drought Monitor Arizona



The most up to date information on the severity of the drought in Apache Junction is currently ranked as **Moderate**

Developing the Vision of Working With Water:

In one of the very first meetings we had with Apache Junction city representatives, it was stated that the major constraint to the expansion of Apache Junction was the distribution of ample water. So for my theme, I wanted to take that constraint and turn it into an opportunity for Apache Junction to be a leader in sustainable, water conserving practices.

VISION

Build a future community that identifies with working closely among natural processes to fully utilize water in a unique, efficient, and sustainable way.

GOALS & OBJECTIVES

1. TRANSFORM the city of Apache Junction into a water conserving community in a positive way.



Implement rainwater harvesting/storage to minimize wasteful runoff during peak rainfall seasons.

Develop no curb/no storm drain communities to eliminate wasteful runoff and preserve the natural hydrology patterns.



Utilize native, low water use plants within the landscape to enhance the desert community while benefitting the ecosystem.

2. ENCOURAGE awareness of natural processes concerning water in Apache Junction.

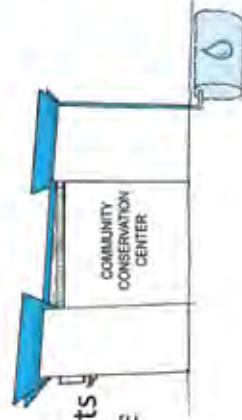
Offer educational landscapes throughout the city.
Establish a rebate program when practicing water conservation methods.



3. CREATE unified community conservation center(s) inspiring visitors to adopt beneficial techniques that

Expose visitors to different rainwater/greywater harvesting techniques.

Promote city rebate programs to participate in conservation methods.

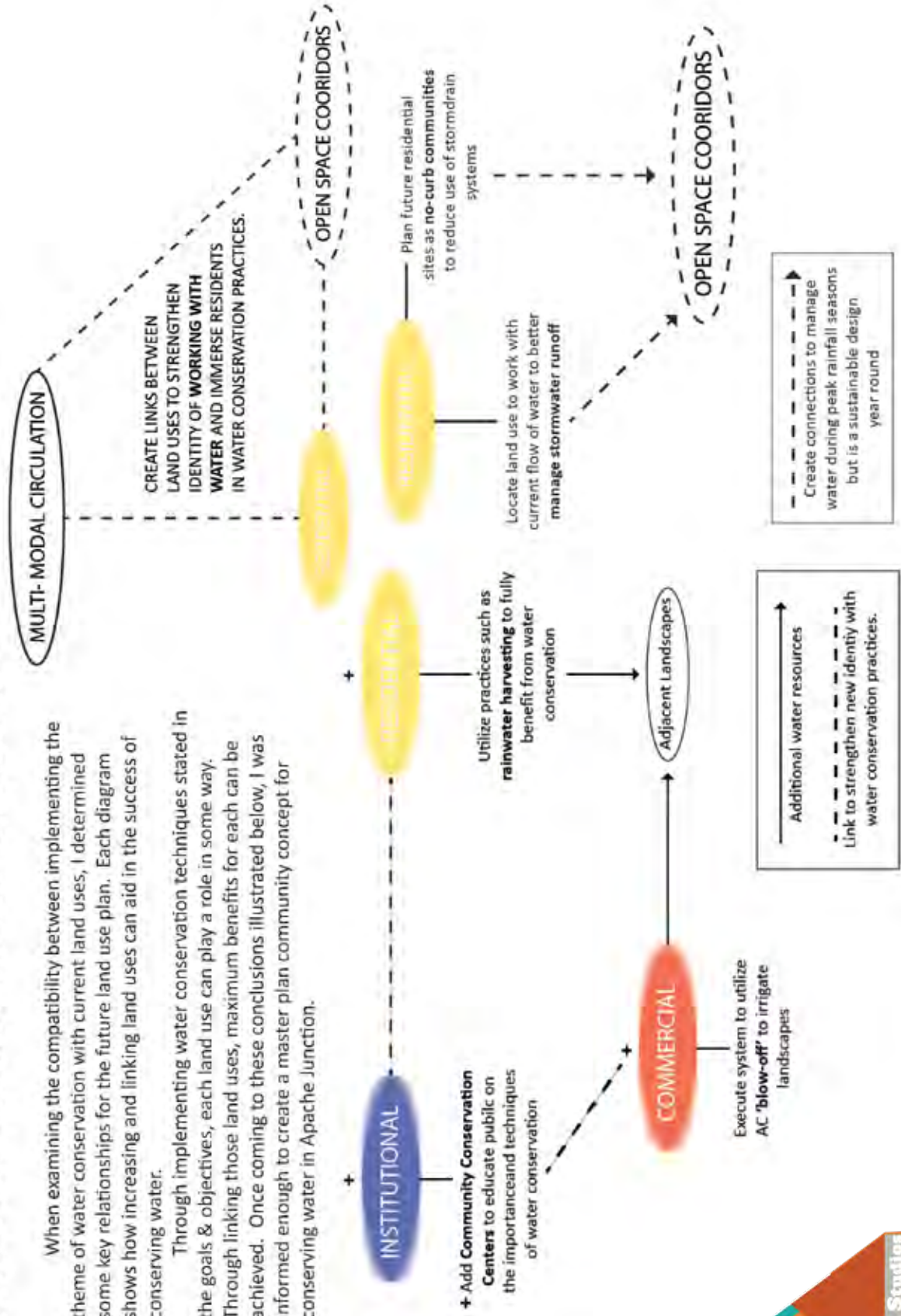


WATER CONSERVATION & LAND USE

FUNCTIONAL RELATIONSHIP DIAGRAMS

When examining the compatibility between implementing the theme of water conservation with current land uses, I determined some key relationships for the future land use plan. Each diagram shows how increasing and linking land uses can aid in the success of conserving water.

Through implementing water conservation techniques stated in the goals & objectives, each land use can play a role in some way. Through linking those land uses, maximum benefits for each can be achieved. Once coming to these conclusions illustrated below, I was informed enough to create a master plan community concept for conserving water in Apache Junction.



SITE CONTEXT

*An example of the future development of Apache Junction

Located:

On the corner of
N Idaho Road &
W Lost Dutchman Blvd

Bounded by San Marcos Drive

Total of 49.7 ACRES



Map 1



EXISTING VEGETATION = EXISTING FLOW OF WATER



FLOW OF DESIGNATED LAND USES WITHIN SITE



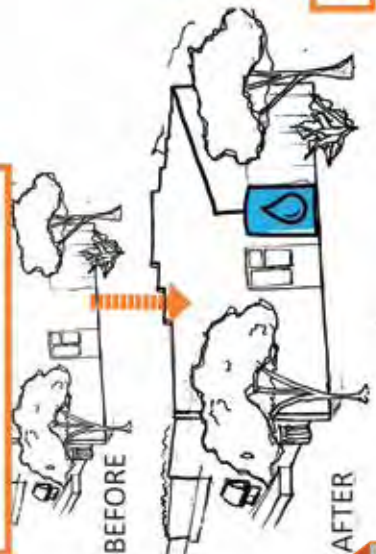
Low Density <-- High Density <-- Institutional <-- Commercial
Residential Residential CCC's

Some important factors to picking this location were the existing bands of vegetation placed throughout the area. As picture in Map 1, the existing vegetation is evidence of existing flows of water. This is important to conserving water because they do not require any irrigation as it so they should be preserved. It is also important for no storm drain communities to be away from where the water is going. Map 2 shows the breakdown of land uses.

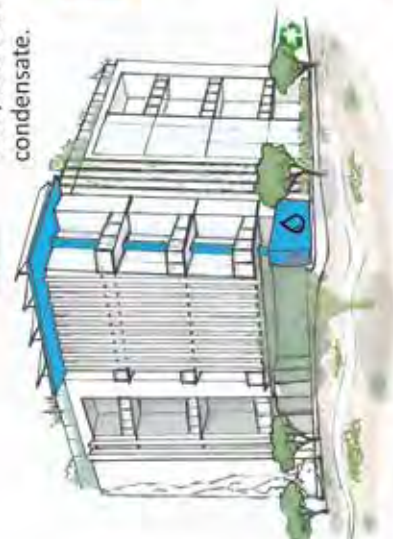
MASTER PLAN



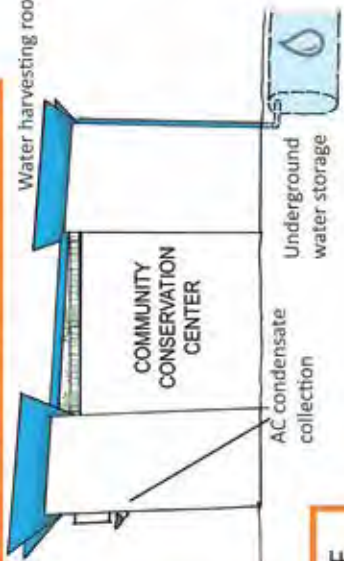
RESIDENTIAL EXAMPLE



MULTI-FAMILY RESIDENTIAL EXAMPLE



COMMUNITY CENTER EXAMPLE



Recreational Tourism

Conceptual Design Plan By Zachary Pekala

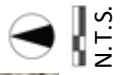
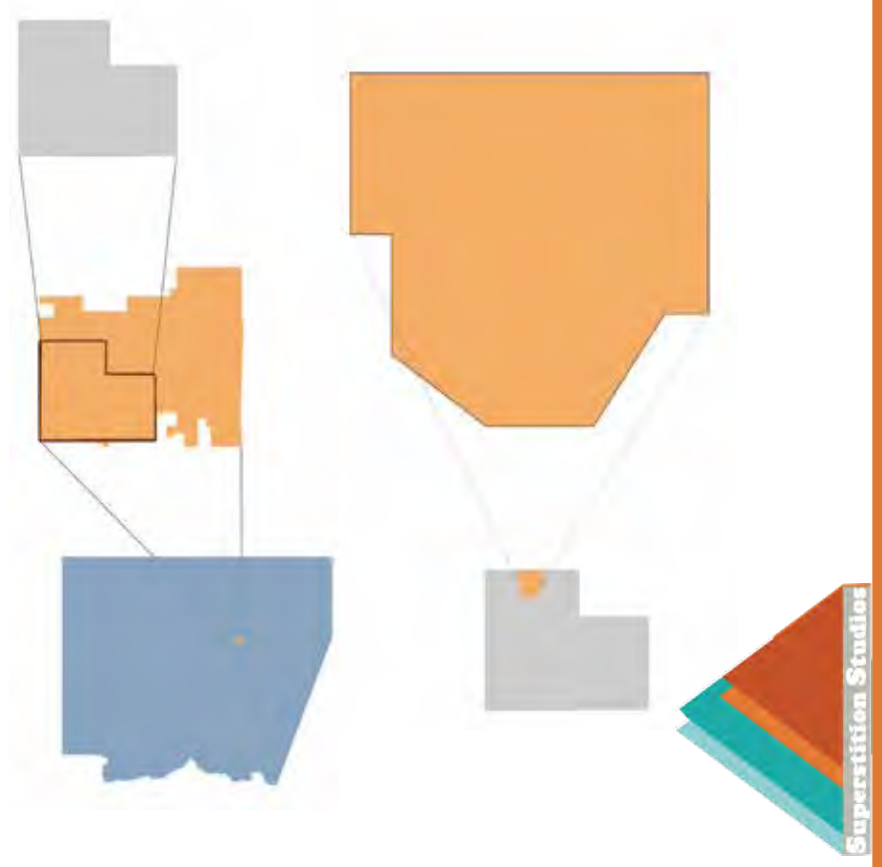
Vision Statement

Apache Junction contains magnificent views, acres of preserved open-space and miles of potential for greatness. Unfortunately, a large portion of the population is composed of seasonal residents during the winter months.

With that being said, a development of a large outdoor sports facility has been proposed. This complex has a wide range of elements which include a Spring time major league baseball field, hotel for players and guests, as well as a college for athletic trainers. The vision is to attract tourists and new full time residents to the city after the snow birds depart leading to a greater generated revenue for the city.

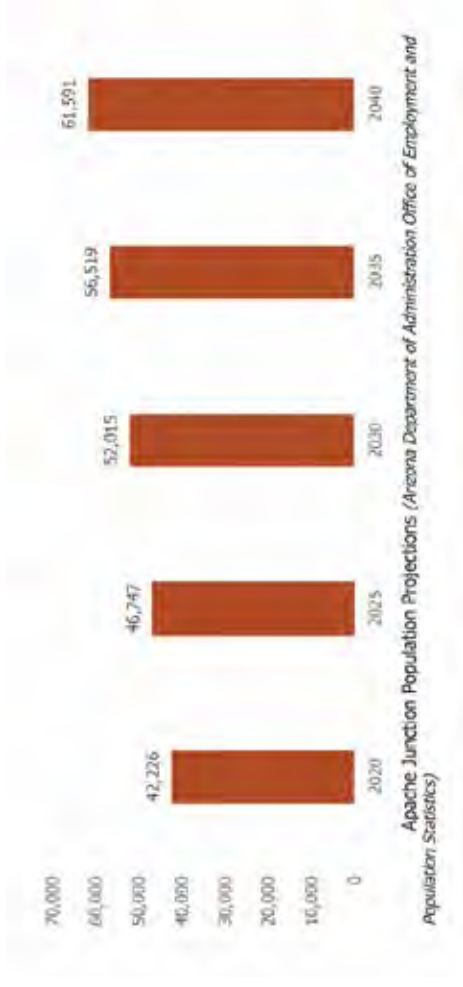
Site Context

Apache Junction, located on the Eastern side of Phoenix was split into sections and assigned to each group. Our group section is located on the North Western side of the city, and within this section we chose a site location. My site location is on the North Eastern part of the assigned section. This is just above the existing rodeo grounds on W. Lost Dutchman Blvd. and N. Tomahawk Rd.

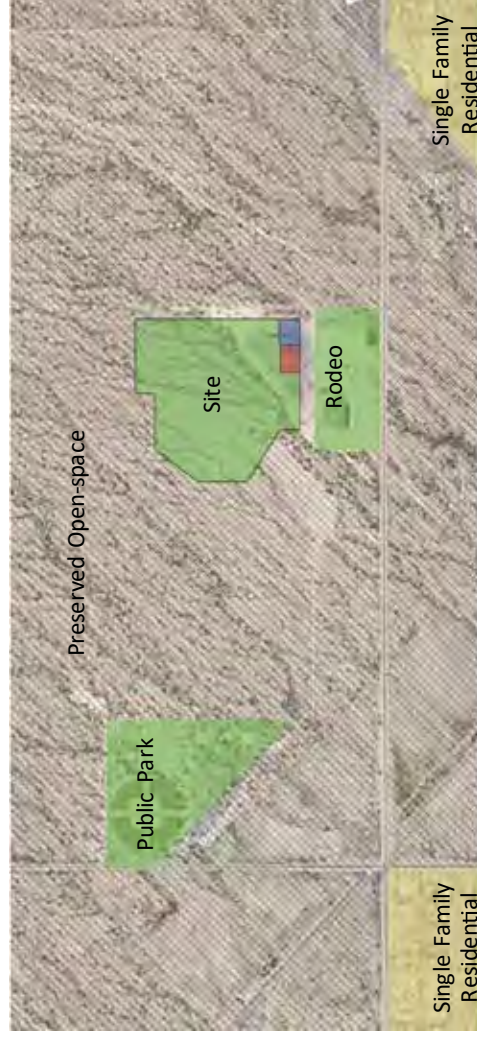


Theme Reasoning

Currently there are 35,000 seasonal residents and 38,074 year round residents. The goal is to attract both more seasonal and year round residents to the city to increase both the population rate and the cities generated revenue.

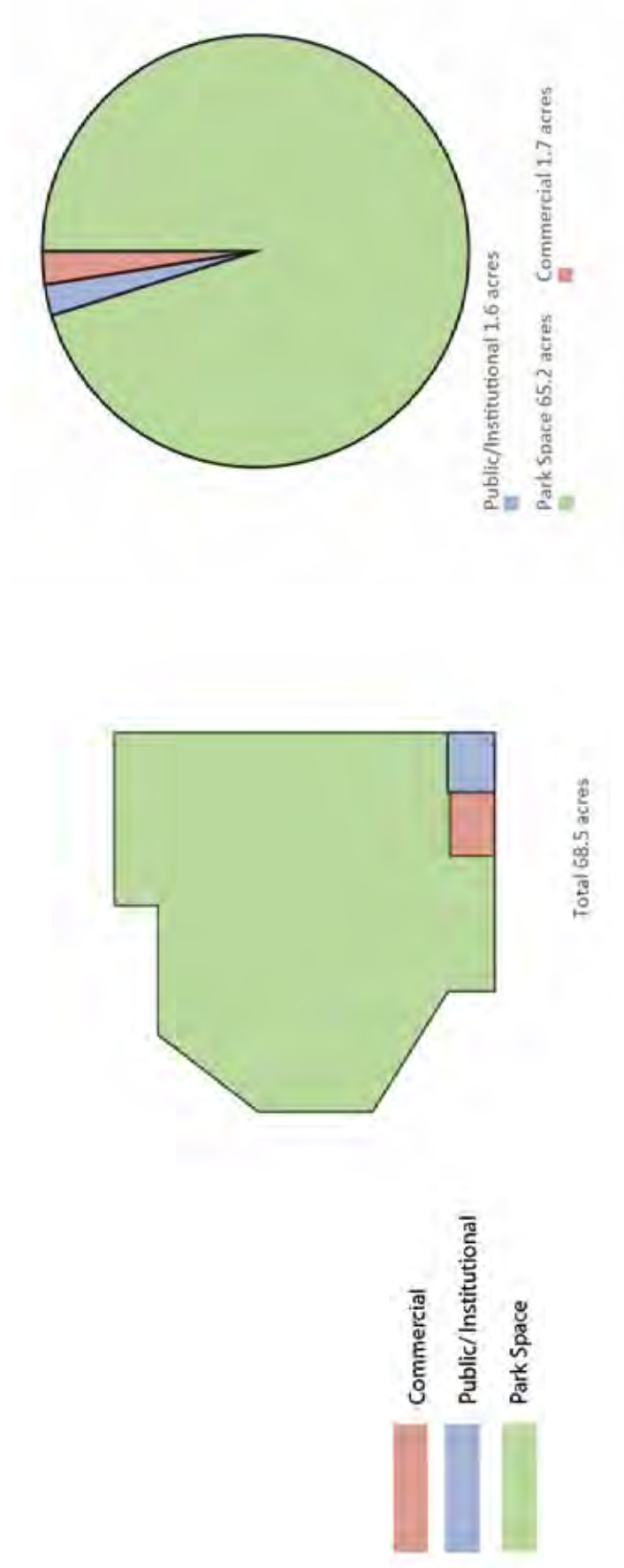


The proposed site is located near an existing park and rodeo grounds. Eventually these three sites can tie into each other in the future. Also the site is located near single family housing for the use of nearby residents. Lastly, the open-space will be located on the perimeter to help users engage with the Sonoran landscape.



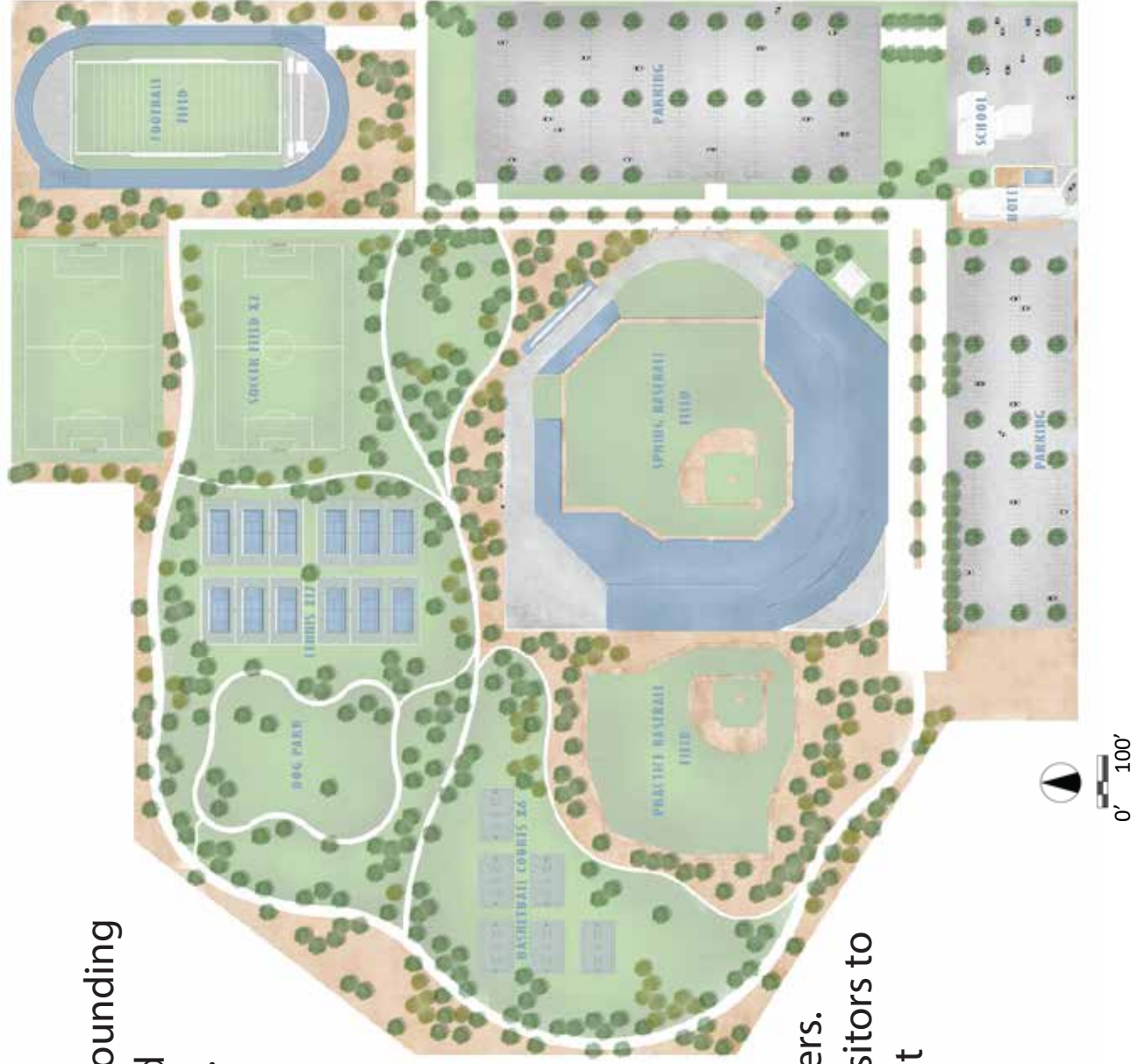
Site Breakdown

The site which contained 68.5 acres was broken down into three parts. A commercial zone, a public/ institutional zone and a park zone. These are represented in the following colors below and the pie chart indicated how large each portion is proposed.



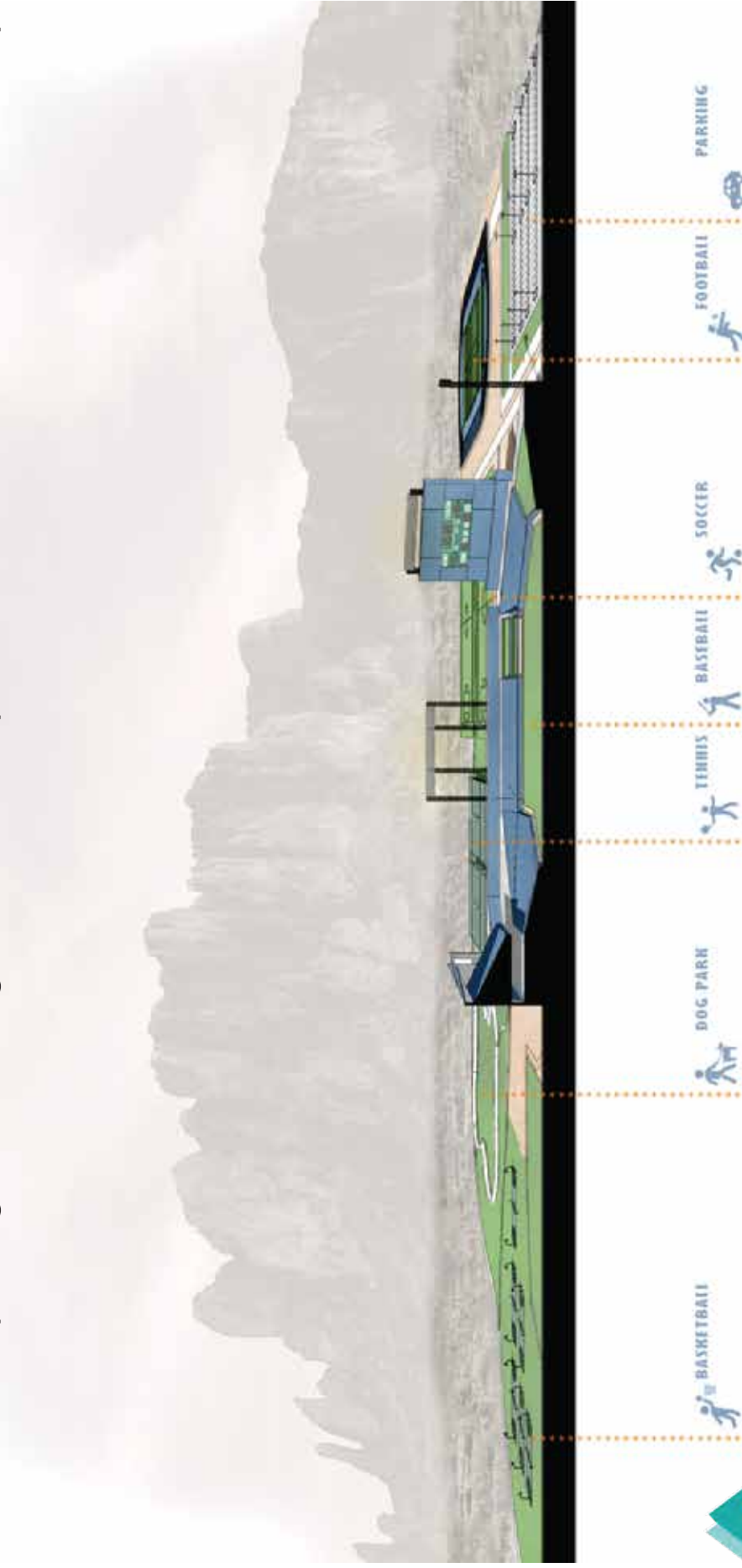
Conceptual Masterplan

The existing land use map and the surrounding views helped determine the theme and location for my conceptual masterplan. Situated just above the existing rodeo grounds, this 68.5 acre site is mostly comprised of recreational open-space. The site contains a dog park, tennis courts, soccer fields, football field, spring training baseball stadium, practice baseball field, basketball courts, winding walkways for biking and natural/ enhanced planting. Also on the proposed site is the addition of a hotel for players and tourists, plus a major medical college for athletic trainers. The goal is to attract a wide range of visitors to the city and the proposed development through out the year.



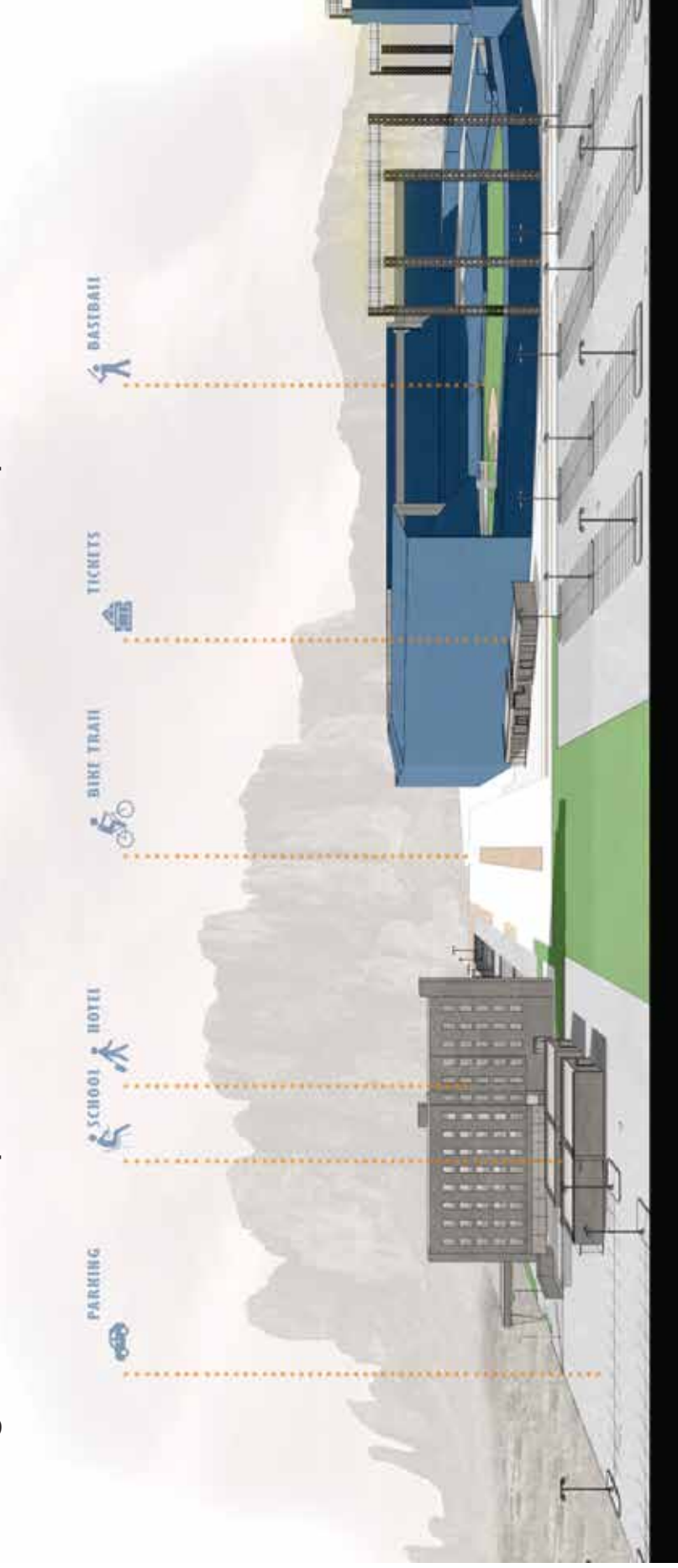
Conceptual Images

Section cuts give a new perspective of the proposed site. In the illustration below you will see the proposed basketball courts, dog park, tennis courts, baseball stadium, soccer fields, football field and parking. In the background is the Superstition Mountains and natural landscape.



Conceptual Images

Section cuts give a new perspective of the proposed site. In the illustration below you will see the proposed parking, college, hotel, bike trails, ticket sales office, and again the stadium. In the background is the Superstition Mountains and natural landscape.

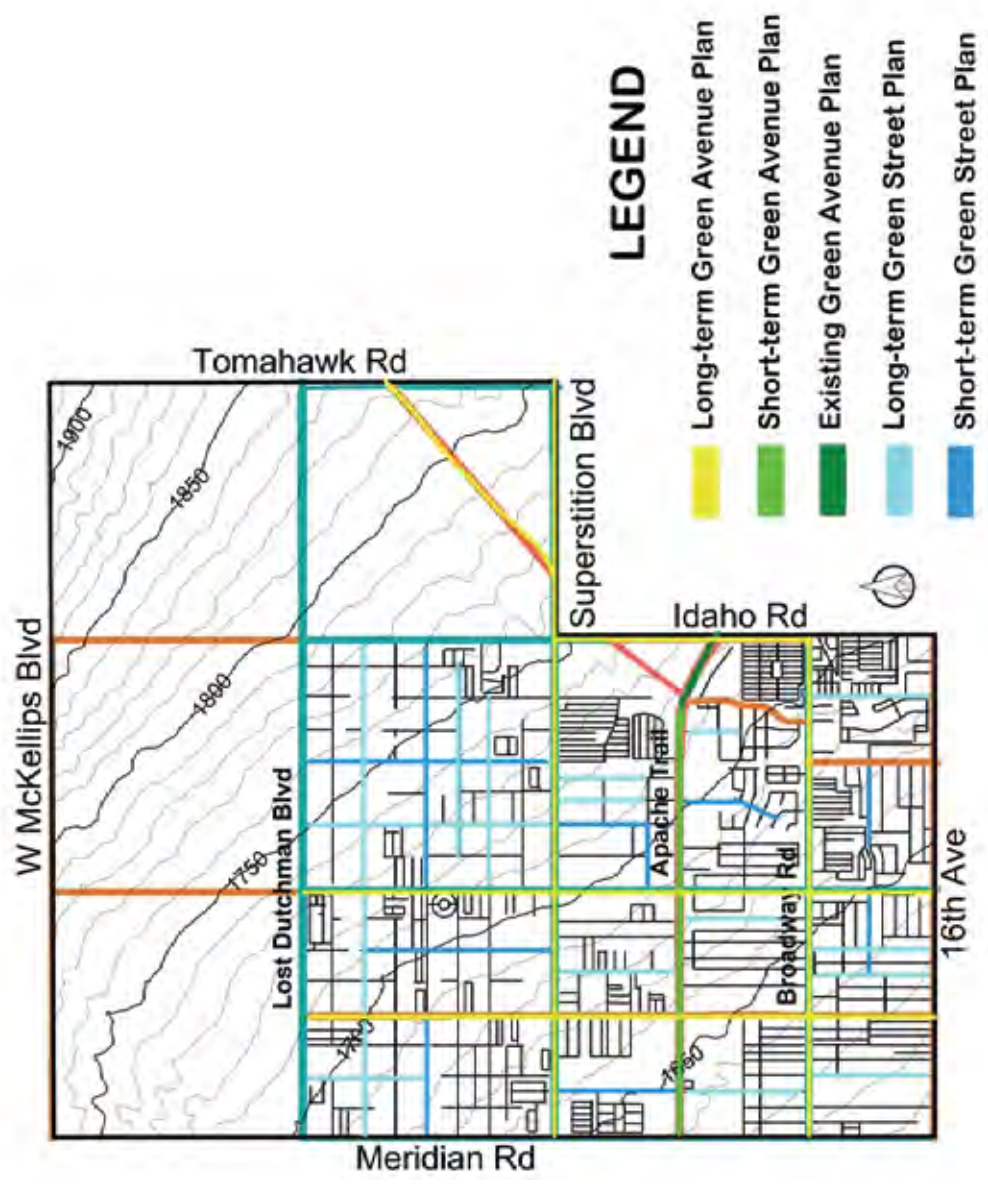


Circulation/Transportation & Green Infrastructure

Conceptual Design Plan By Sijie Chen

The overall goal of the Green Street project is to make roadways a better place for bicyclists and pedestrians by providing improved facilities while reducing the speeds and volumes of vehicular traffic.

Master Plan



Green Street



Before



Green Avenue



After



Public Transportation

Urban public transport is an important city infrastructure, people's production and social life are inseparable from urban public transport. Compared with the private transport, the urban public transport system has the advantages of large capacity, high efficiency, less energy consumption, less pollution and less occupied area.



Sorry, we could not calculate transit directions from "Apache Junction, Arizona" to "Phoenix Sky Harbor International Airport"





Apache Junction
Transportation
Center



Before



After



Not just a transportation center



Public Transportation

Local Bus/Neighborhood Circulators

Local bus service hours and frequency vary by route, primarily serve residential.
Express Bus
Link outside of town.



An average person's walking speed per 10 minutes is 1 km or 0.6 miles - per 10 minutes (1 kilometer or 0.6 miles- per ten minutes)

Public Transportation

Base Map X 10min walk



Building Footprint Map



Building Footprint X 10min walk

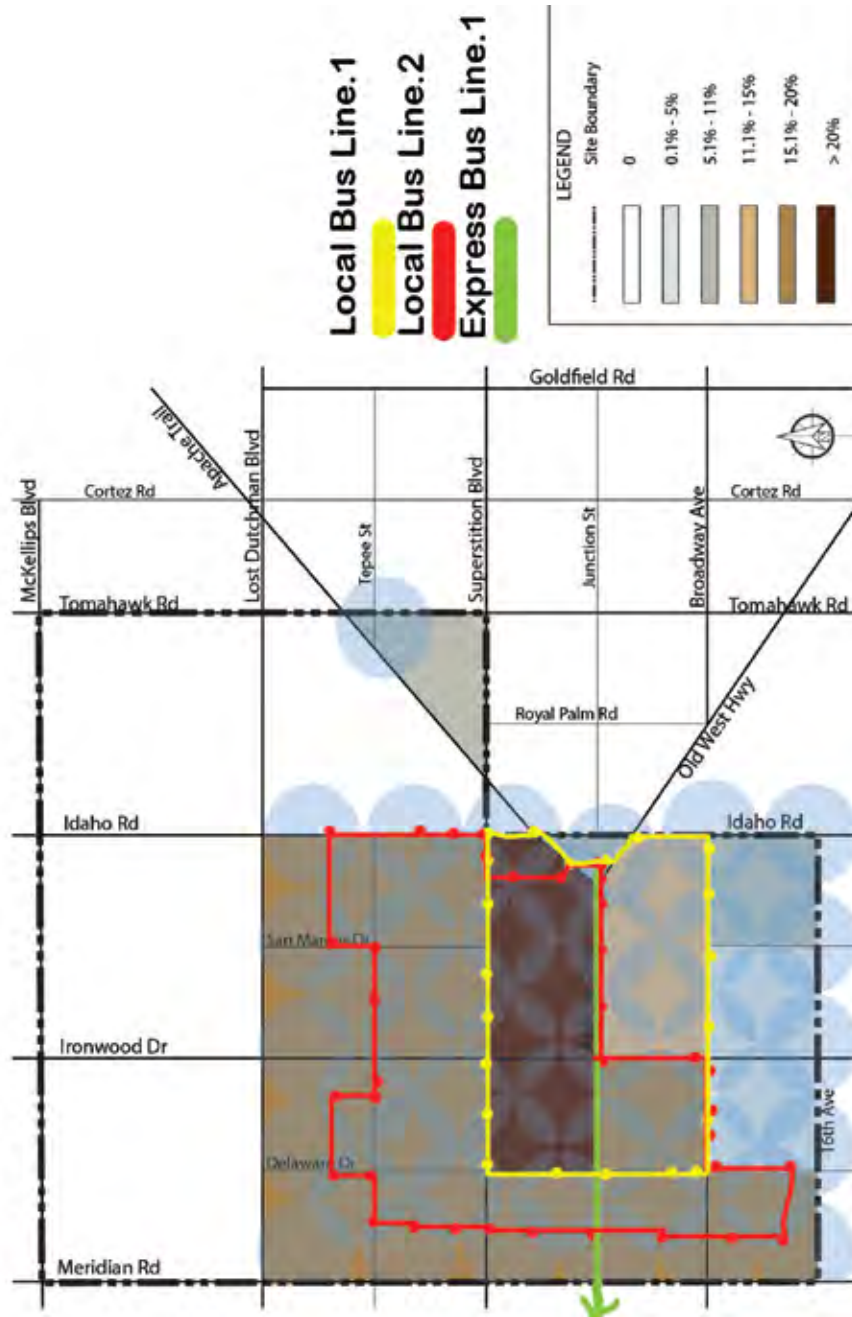


Circulation Map X 10min walk



Bus Line Plan(short-term)

BELOW POVERTY POPULATION



Source: Apache Junction Comprehensive Transportation Study, 2012

Eco-Tourism

Conceptual Design Plan By Yifan Li



What is Eco-tourism?

The Definition:

Ecotourism is now defined as "responsible travel to natural areas that conserves the environment, sustains the well-being of the local people, and involves interpretation and education" (TIES, 2015). Education is meant to be inclusive of both staff and guests.

Conservation



Nature

Communities



People

Interpretation



Play & Learn

Theme

“Apache Junction” is not only a name of the land, it represented the amazing history and the loveable people live in this place. By creating a system of Eco-tourism, my design will dig the inner beauty of the Apache Junction. The historical Storm water management will become a tourist attraction. And the existing empty space will be filled with some wildlife habitats and parks. More people will come to settle here and their life quality will be greatly improved. The Eco-tourism will also increase the employment opportunities and citizen engagement. Finally, it will provide wonderful experiences for both visitors and hosts.

Goals

Create habitats & parks for native wildlife

Refine the canal system and surrounding trails

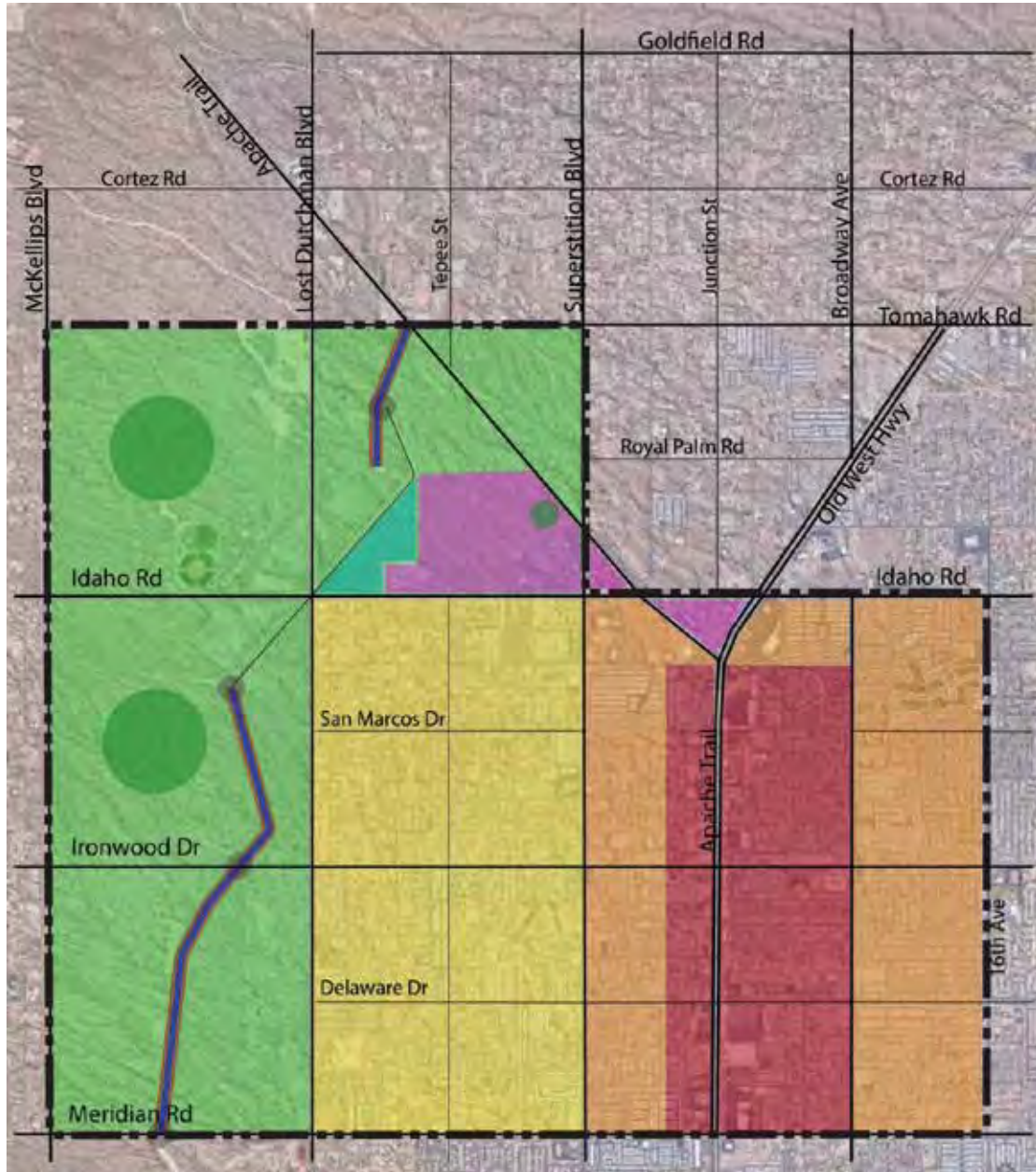
Build environmental & cultural awareness & respect

Play & Learn

Increase the landscape area and walkability

Minimize physical, social, behavioral & psychological impacts

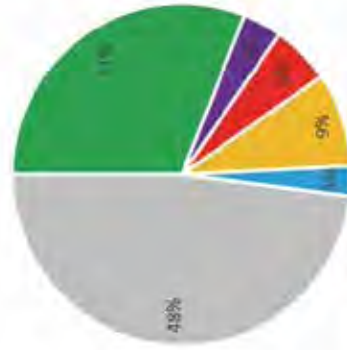
Land Use Development Master Plan



Community Center Master Plan



Total area of site is 44.51 acres.
Existing Contour differences is less than 5 feet.
Most area are open space with a few plants.



Scientific Name	Common Name	Size	Comments
Simmondsia chinensis	Jojoba	6 to 12 feet height & width	Shrubs, Full sun, well-drained soil
Parkinsonia microphylla	Yellow Paloverde	20 feet height & width	Green truck tree
Parkinsonia florida	Blue pola verde	30 feet height & width	Green truck tree
Bauhinia purpurea	Purple orchid	30 to 35 feet height & width	Tree, Full sun, well-drained soil
Prosopis glandulosa	Honey mesquite	15 to 25 feet height & width	Tree, Full sun, well-drained soil
Phoradendron californicum	California mesquite mistletoe	3 to 5 feet height & width	Shrubs, Full sun, well-drained soil
Tipuana tipu	Tipu	35 feet height & width	Tree, regular water

The quantity of plants will be decided later.

- 300+ Parking space for Public
- 50+ Single Family Houses for 200+ people
- Landscape area will increase at least 20%
- 2 new tourist attractions.
- 200+ jobs will be created.
- 10+ restaurants & shops will be opened.



Community Center

A building that providing many services and resources, such as a food pantry, a clothing bank for community members. It also works as a homeless shelter and a tourist center.

The image is the Henderson Community Center in California.



Science Museum

A place opens for both community members and tourists, which exhibits the history of Apache Junction, local plants and wildlife habitats and Storm water management system.

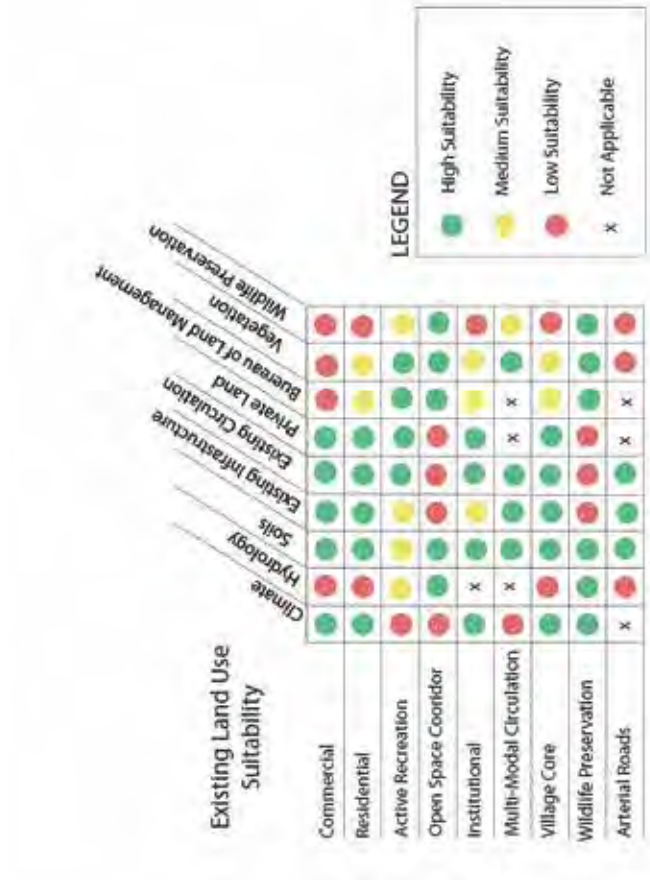
A building like the Science Museum of Minnesota is recommended.

Mini Canal System

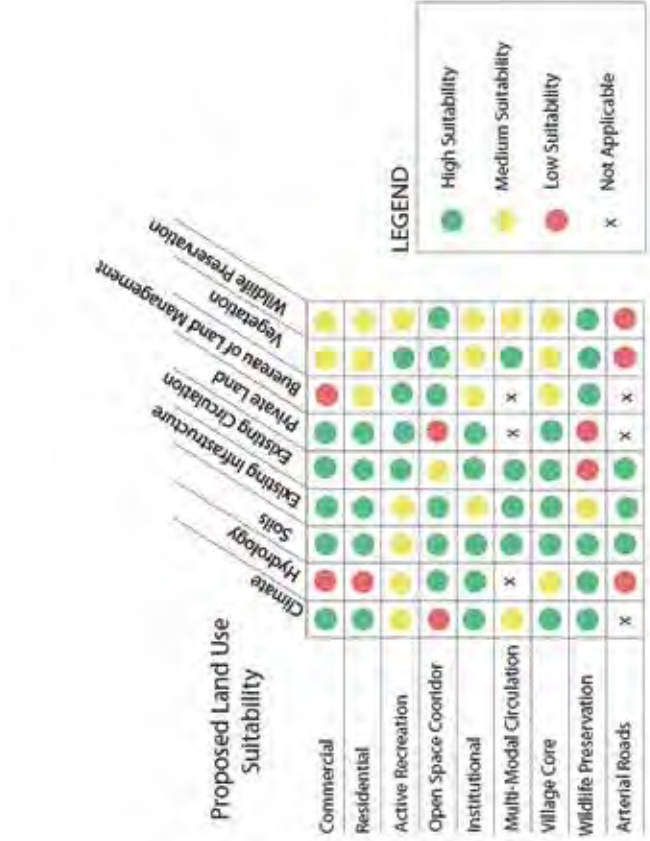


This tiny canal with recycling water allows kids to play with the water and get a better understanding of how the Storm water management system works.

Before



After

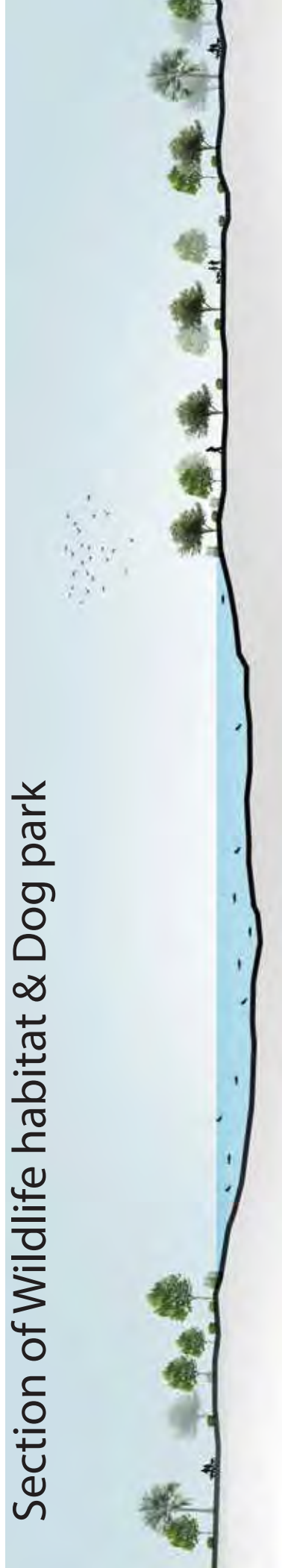


Section of Commercial Area & Community Center



4-94

Section of Wildlife habitat & Dog park





Works Cited

- <https://www.usclimatedata.com/climate/apache-junction/arizona/united-states/usaz0005>
- <https://www.flickr.com/photos/michaelpwilson/16188871363>
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- https://www.google.com/destination/map/topsights?q=apache+junction+landmarks&client=safari&rls=en&site=search&output=search&dest_mid=/m/0qpgy&sa=X&ved=0ahUKewjrmLnKvc7WAhUM0mMKHWH3DE4Q6tEBCC4oBTAAsdest_mid=/m/0qpgy&trifp=t%3De
- <https://www.ajcity.net/193/Special-Events>



Revisioning Downtown

APACHE JUNCTION, AZ



SPUR
LANDSCAPE
ARCHITECTS



Prepared by SPUR Landscape Architects
Ren Andres, Sarah Gaughan, Mark Johnson, Mike Landon

LDE 590: Landscape Architecture Studio I
Kenneth Brooks, Kevin Kellogg
The Design School | Herberger Institute for Design and the Arts
Arizona State University
Fall 2017

This book is a compilation of the work done by Master of Landscape Architecture students Ren Andres, Sarah Gaughan, Mark Johnson, and Mike Landon of The Design School at ASU for their Fall 2017 studio design course. This course was done in collaboration with the Project Cities initiative and focused on providing knowledge capital for the City of Apache Junction to improve their community and quality of life. The following includes the outcomes of in-depth research and analysis done by the group as well as individual design responses in accordance with a chosen theme.







MARK JOHNSON | SARAH GAUGHAN | MIKE LANDON | REN ANDRES

We are SPUR Landscape Architects.

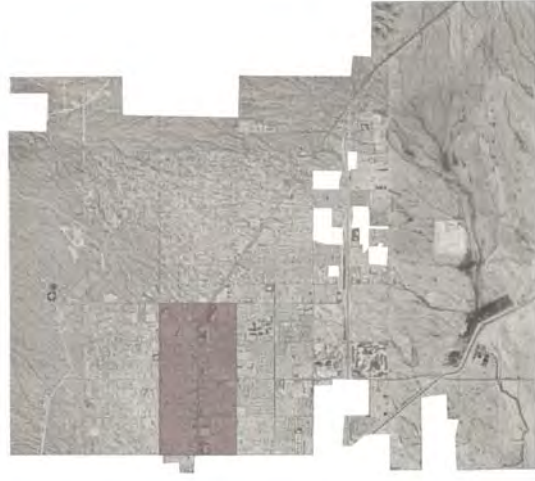
Our firm is named after the device on a cowboy's boot used to urge a horse forward. We were founded with the mission to spur positive community development through sound research, thoughtful planning, as well as client and site specific design. Our vision is to increase connectivity between a community's people and to bridge the gap between the built and natural environment.



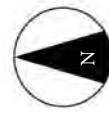
Location



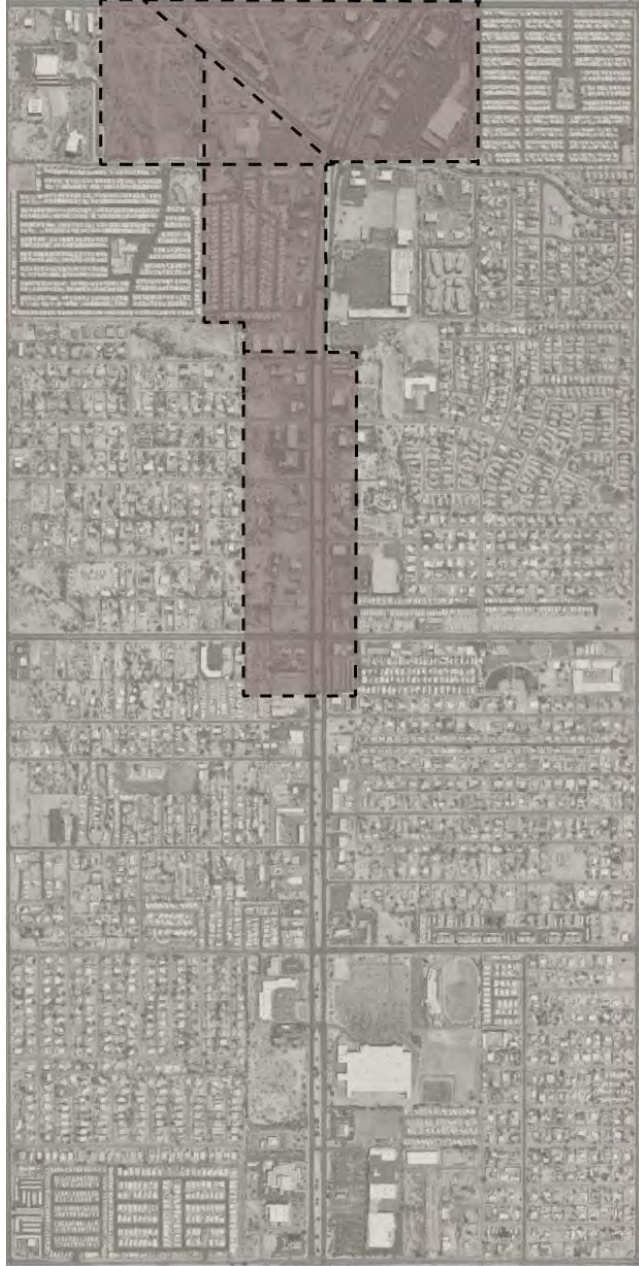
Greater Phoenix Metropolitan Area



City of Apache Junction



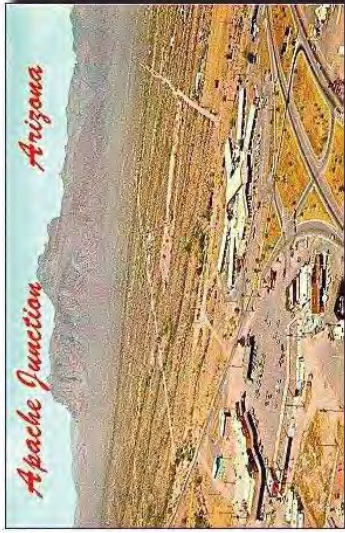
Context



0.5 miles

Selected Downtown Core

Located in the eastern Phoenix valley, the City of Apache Junction sits at the foothills of the Superstition Mountains. Within city limits, a target area was designated as the "downtown corridor" for research purposes. As the research and analysis progressed, a more specific "downtown core" was chosen and divided up as the area of focus for each group member's outcome production.



5-9



Images: Westward Ho Time Capsule
Goldfield Ghost Town



Context

History

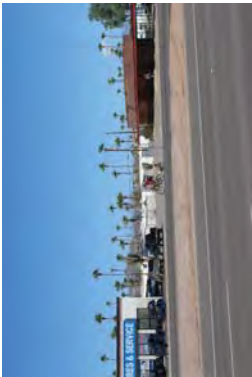
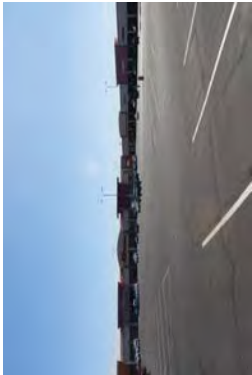
5-10

Apache Junction has a rich western history stemming from mining in the late 19th century myths surrounding the Superstition Mountains. The city was incorporated on November 24, 1978. It drew attention in the 1960's, and became the location for many western movies starring Glenn Ford, Elvis Presley, John Wayne, and Tom Mix. It was during this era Apache Junction became a sought after destination by many, and visitors stayed at the acclaimed Superstition Inn. Now, Apache Junction is known as the "Gateway to the Superstitions," and draws individuals seeking adventure and proximity to the untamed desert.

Source: "Apache Junction History", 2017. Apache Junction Public Library, <http://ajpl.org>



Windshield Survey



Images: Ren Andres
Mike Landon

Research Methods

SPUR conducted extensive research, including an in-depth literature review, data analysis, as well as field research. The team visited Apache Junction multiple times, attending a Town Hall meeting, exploring the city's walkability along Apache Trail, attending the Festival of the Superstitions, and conversing with city staff, business owners and citizens.



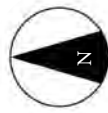
Physical Features

Wind Patterns

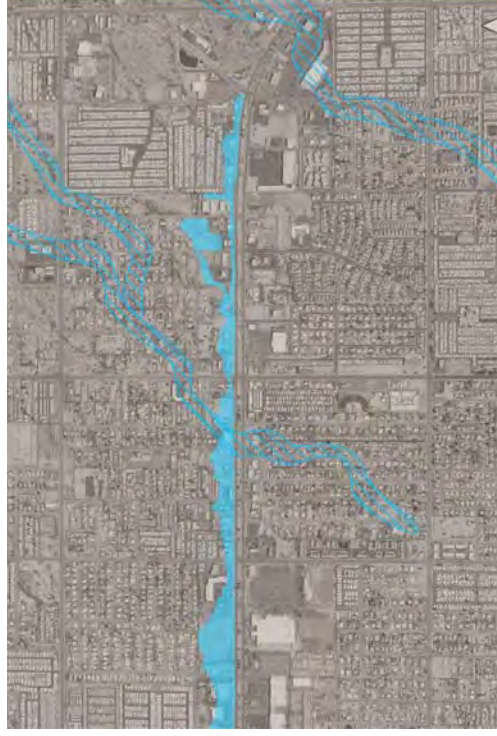


0.5 miles

Winds enter Apache Junction from the northeast and southeast regions depending on the time of year. The winds bearing from the northeast range between 75-54 degrees on average, while those from the north range between 84-90 degrees. (National Weather Service)



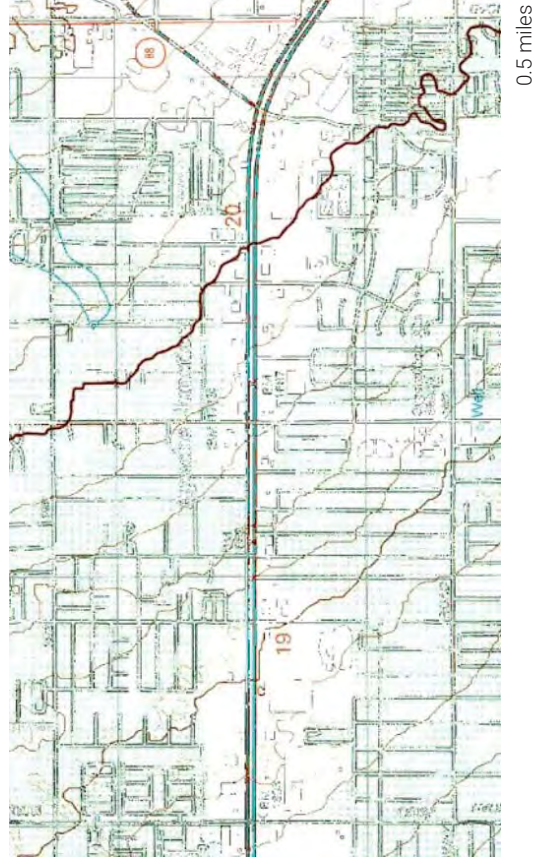
Flood Zone and Washes



0.5 miles

Just north of Apache Trail is a part of a 100 year floodplain, causing commercial buildings to conform to a large setback. However they are still at risk of flooding because of poor drainage infrastructure.

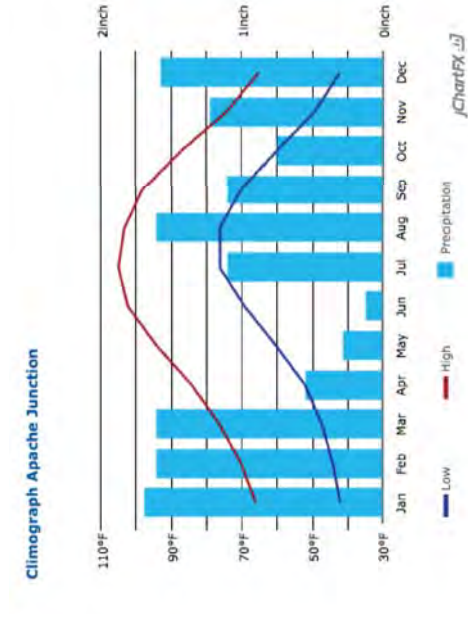
Topography



Apache Junction is located at the base of the Superstition mountains, but the change in grade in this area is approximately 1000 ft over the course of 2 miles, making this a relatively flat site with little topographic obstructions to development.

Source: USGS

Average Climate

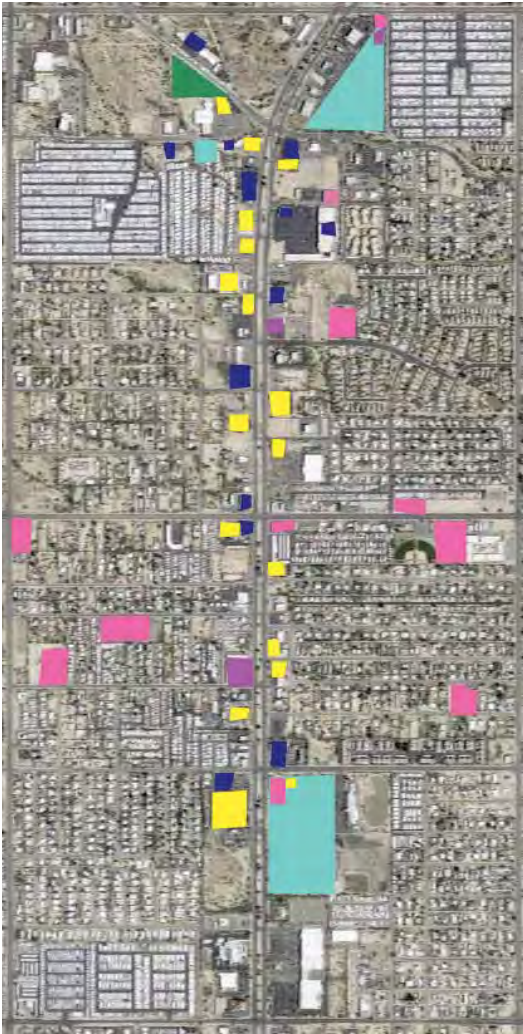


The above graph gives information about Apache Junction's high, low, and average rainfall as well as temperature.

Source: U.S. Climate Data

Cultural Features

Landmarks



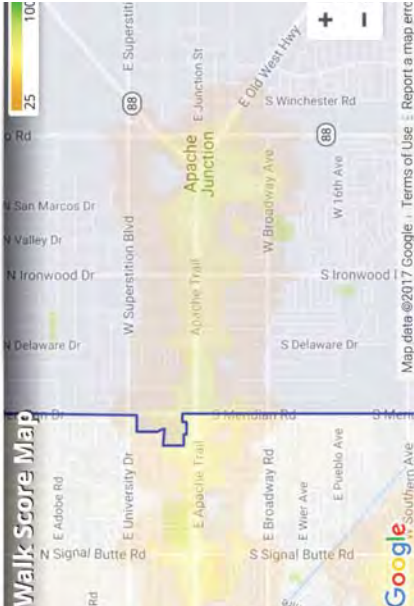
The downtown corridor along Apache Trail consists of 10 Churches, 1 Community Park, 3 Grocery Stores, 2 Schools, 12 Restaurants, and 17 Automotive related businesses.



Inventory

Walk Score

Walk Score 16
Almost all errands require a car.



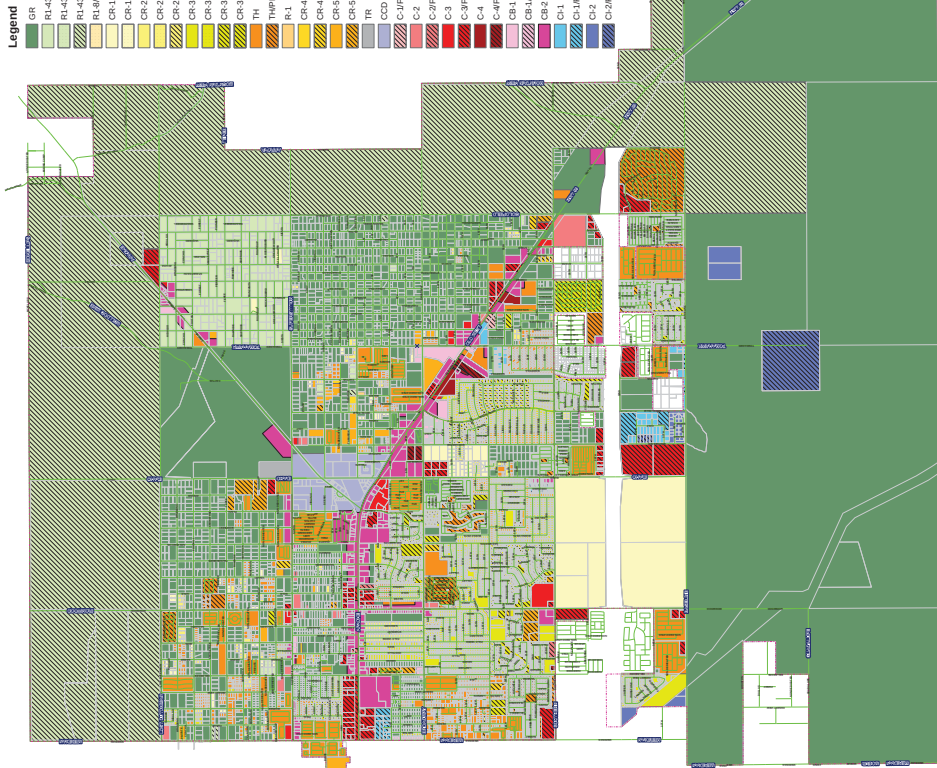
The overall walk score of Apache Junction is 16 out of 100, very low ranking in comparison to other municipalities. As seen here, the walkscore does increase towards the downtown corridor, but it is still relatively low.

Source: WalkScore

The image is a high-contrast, black and white scan of a newspaper page, likely from the Los Angeles Times. The page is filled with a dense grid of text columns. Several large, dark, irregular shapes are scattered across the page, which appear to be redactions or heavily obscured areas. The text is mostly illegible due to the high contrast and noise. The layout includes multiple columns of text, with some sections appearing to be headlines or subheadings. The overall appearance is that of a heavily processed or corrupted scan of a printed document.

0.5 miles

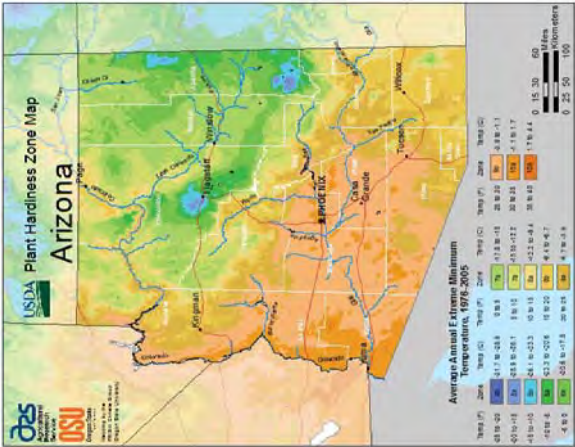
Zoning



Source: City of Apache Junction

Biological Features

Hardiness Zone



Apache Junctions, like the rest of the greater Phoenix valley, exists within plant hardiness zone 9b, which has relatively high minimum temperatures. This combined with other local factors determines the type of vegetation that thrives in this area.

Source: USDA

Vegetation

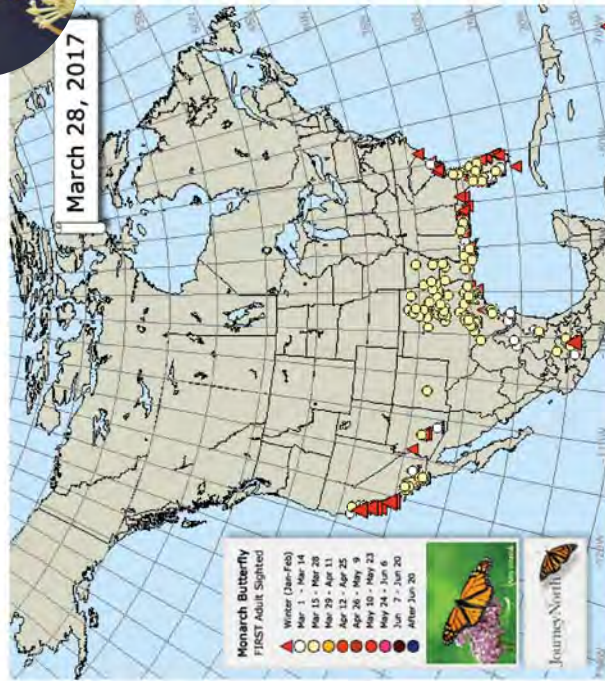


In response to this hardiness zone, some of the vegetation that grows in the area includes the mesquite tree, ironwood tree, ocotillo, hedgehog cactus, teddy bear cholla, golden poppy, buckhorn cholla, cane cholla, and barrel cactus. This is not a comprehensive list of local vegetation, but rather a sample of the most commonly sighted species.

Images: superstitionmountainhikes.com



Monarch Butterfly Migration



The monarch butterfly is also known to migrate and spend winters within the Sonoran Desert.

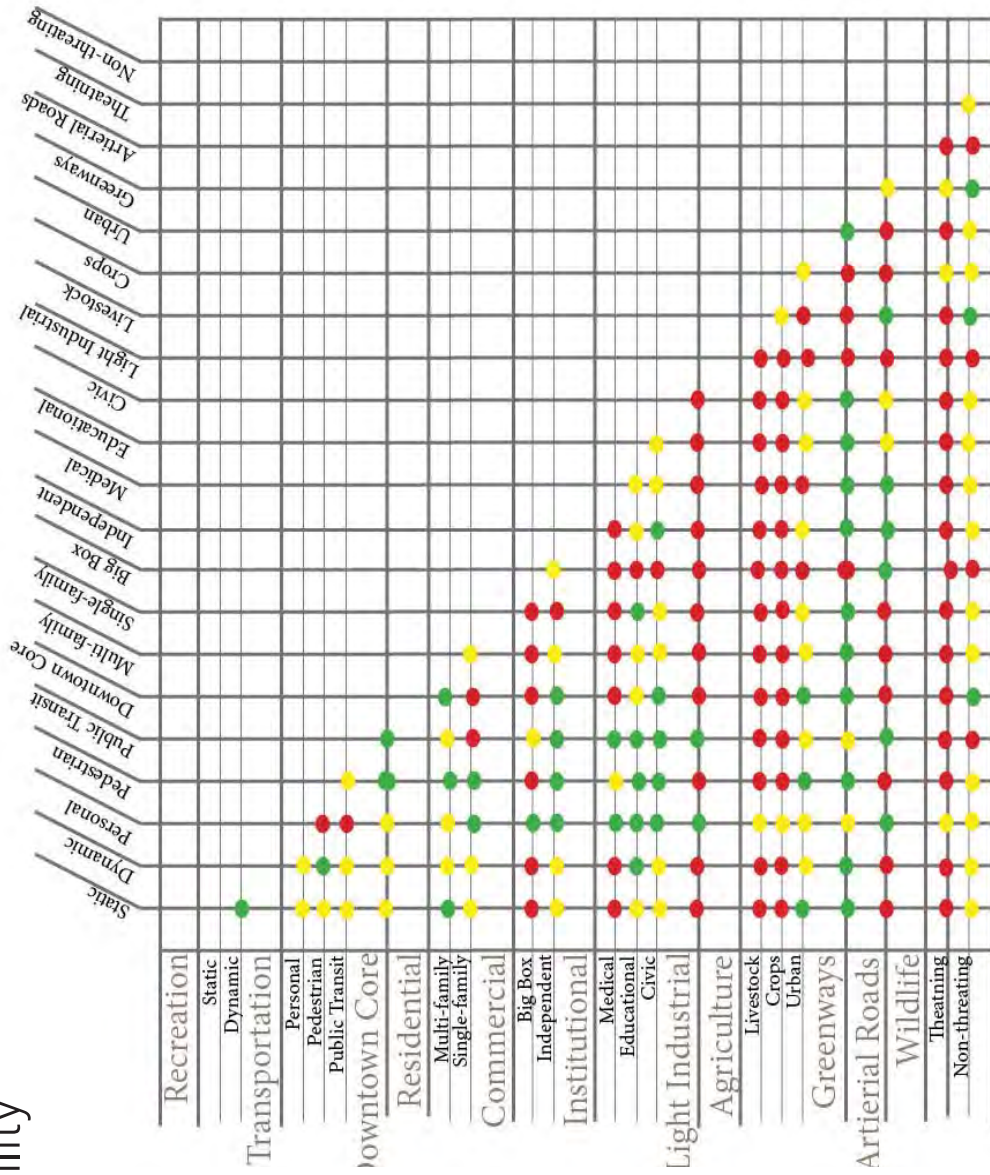
Source: lerner.org
Image: Mike Landon

Birds



The urbanization of the downtown region in Apache Junction dentures most animals from entering the area. However habitats can be integrated to attract local, non-threatening species including Albert Towhee, Gilded Flicker, Gila Woodpecker and Arizona Bell Vireo, which are endangered species that breed in the area according to the National Fish and Wildlife department.
Source: National Fish and Wildlife Department
Image: Audubon Society

Land Use Compatibility & Suitability



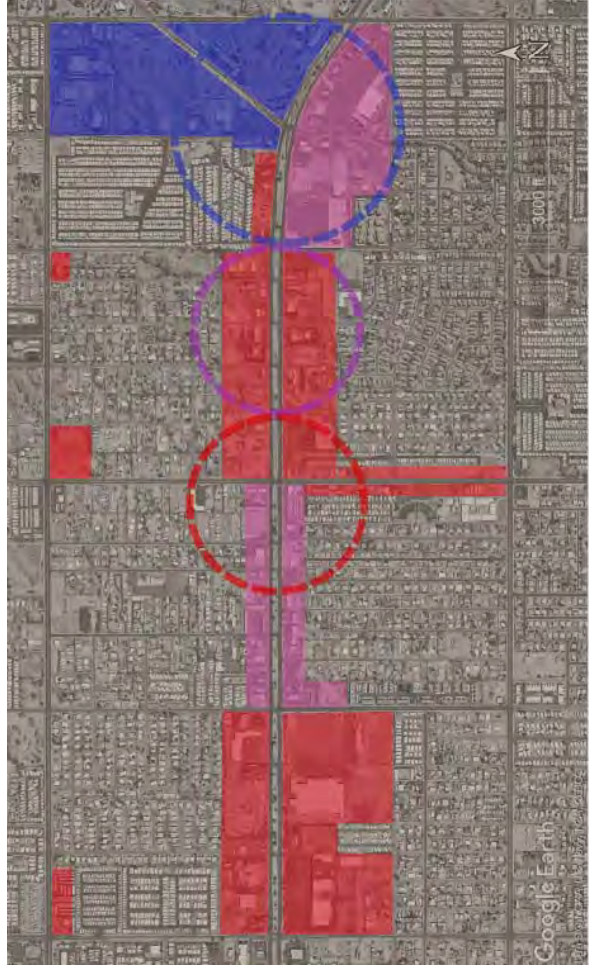
Analysis

	Transportation	Downtown Core	Recreation	Residential	Commercial	Institutional	Light Industrial	Agriculture	Drainage Infrastructure	Greenways
Transportation										
Downtown Core	●									
Recreation	●	●								
Residential	●	●	●							
Commercial	●	●	●	●						
Institutional	●	●	●	●	●					
Light Industrial	●	●	●	●	●	●				
Agriculture	●	●	●	●	●	●	●			
Drainage Infrastructure	●	●	●	●	●	●	●	●		
Greenways	●	●	●	●	●	●	●	●	●	

	Transportation	Downtown Core	Recreation	Residential	Commercial	Institutional	Light Industrial	Agriculture	Drainage Infrastructure	Greenways
Roadway Median	●	●	●	●	●	●	●	●	●	●
Empty Lots	●	●	●	●	●	●	●	●	●	●
Vacant Buildings	●	●	●	●	●	●	●	●	●	●
Flood Zone	●	●	●	●	●	●	●	●	●	●
Residential	●	●	●	●	●	●	●	●	●	●
Commercial	●	●	●	●	●	●	●	●	●	●

Zoning

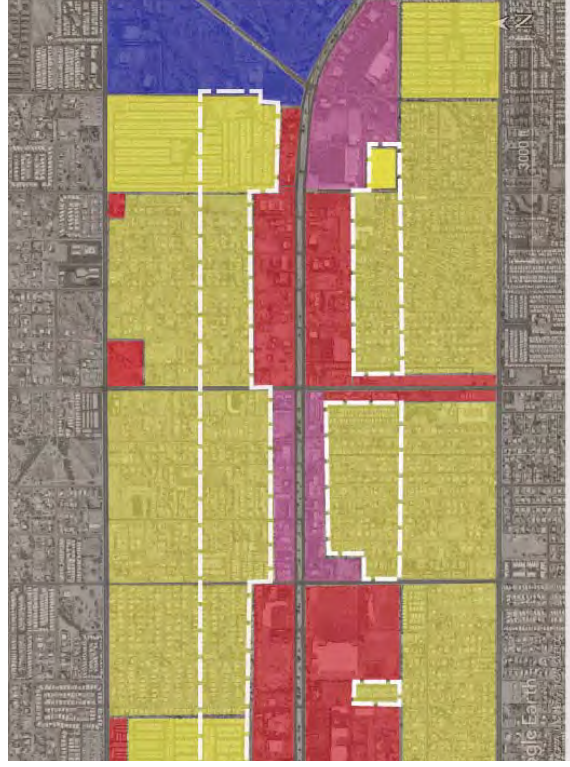
Business Zoning



Apache Junction has 3 zones within the downtown corridor. General Commercial zoned area is intended for commercial uses that serve a local and regional market. Old West Commercial areas are intended for commercial uses located within the Downtown Transition Area. Finally, City Center zoned areas are intended for commercial, recreational and/

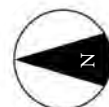
or multi-family residential land uses located within the Core Downtown Area. Current zoning structure of downtown Apache Junction is not cohesively organized. Since each of these zones has its own specific guidelines for landscaping, signage, and setbacks, it would be beneficial to organize these zone cohesively around the downtown core.

Housing Density



Currently the downtown corridor is made up almost exclusively of Medium & Medium/High Density Single Family Detached Residential. Only a small portion of the downtown corridor (approximately 6 acres) is made up of High Density Multiple Family Residential.

An opportunity exists for Apache Junction to zone a larger portion of the downtown residential corridor as High Density Multiple Family Residential. This would allow more Apache Junction residents to live within a walkable distance of the downtown area.



Analysis

Circulation

Downtown Circulation



While visiting Apache Junction, our team walked through the downtown area to gauge it's level of walkability. One of the first things that became apparent was the amount of space Apache Trail (6 lanes) takes up cutting through the downtown area. Additionally, high speeds of 45 - 50 mph on this road cause this area to feel like a highway,

rather than a downtown area. After examining traffic counts in Apache Junction and the number of lanes, it became apparent that Apache Trail has a large amount of unused capacity. Cycling lanes within the downtown area are limited. Expanding these and providing larger buffers from traffic can promote cycling access to the downtown area.

Informal Paths

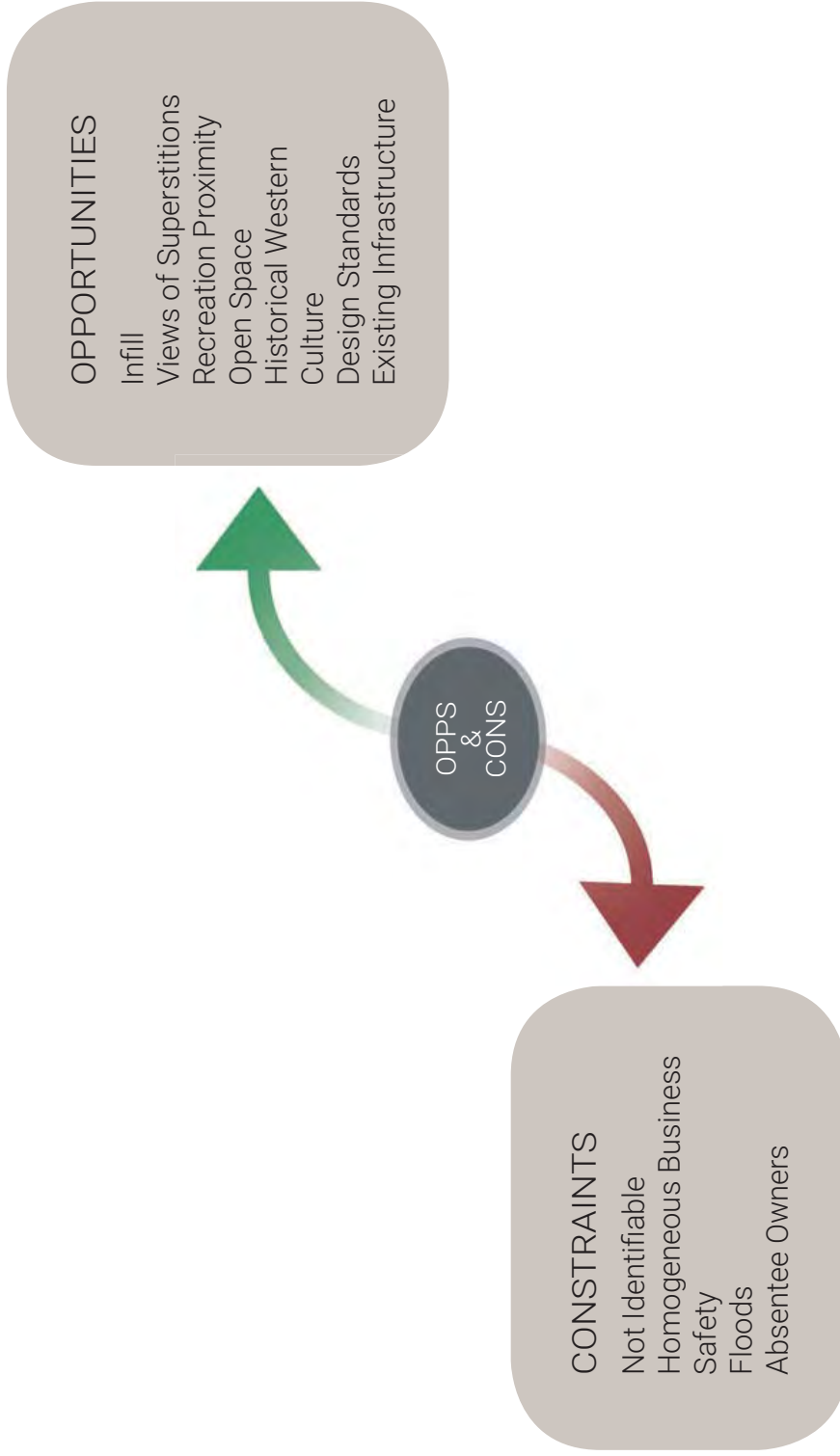


The red lines indicate paths, trails, and sidewalks. The green areas represent open space.

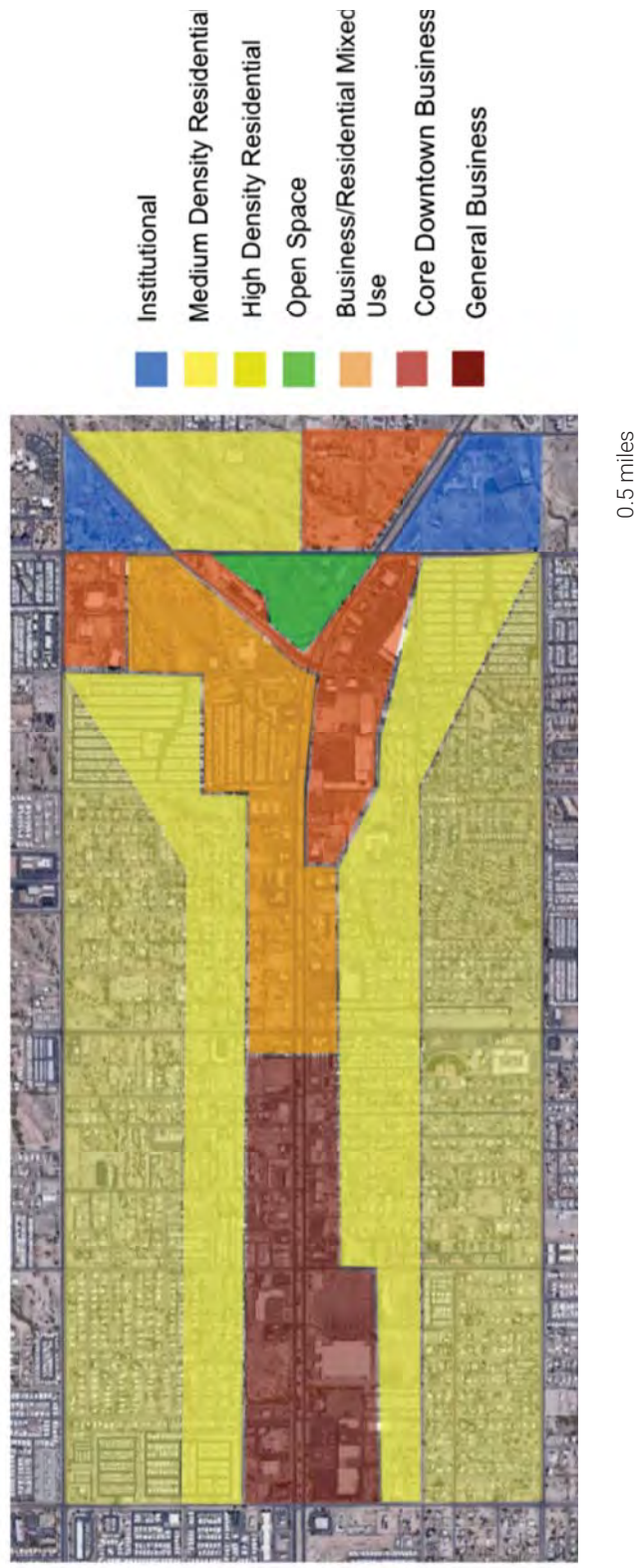


Undeveloped space

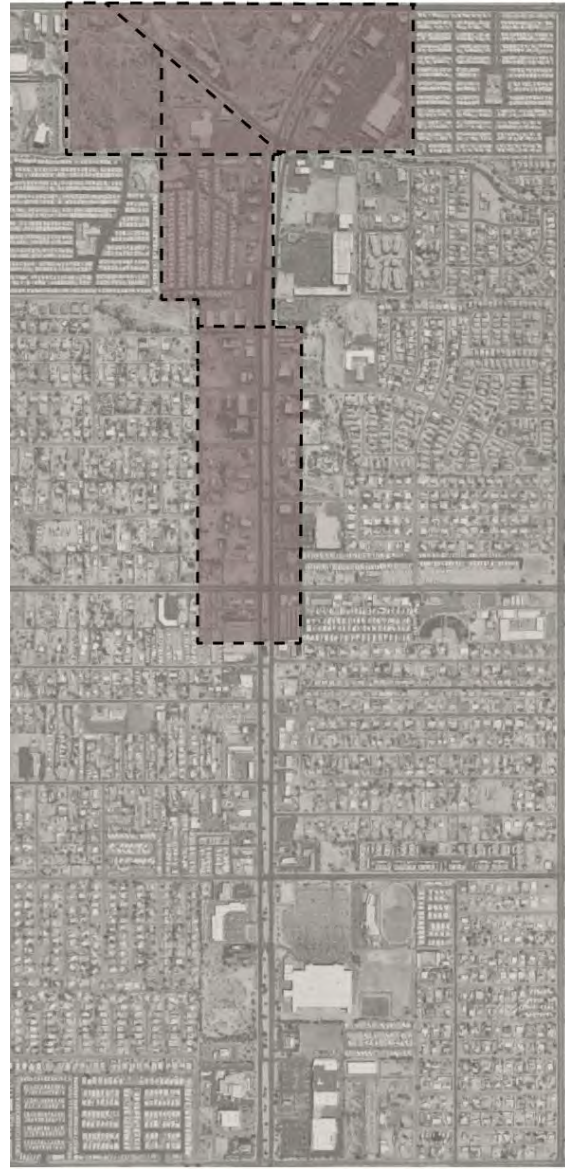
Opportunities & Constraints



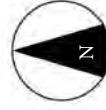
Master Plan



Individual Themed Plans

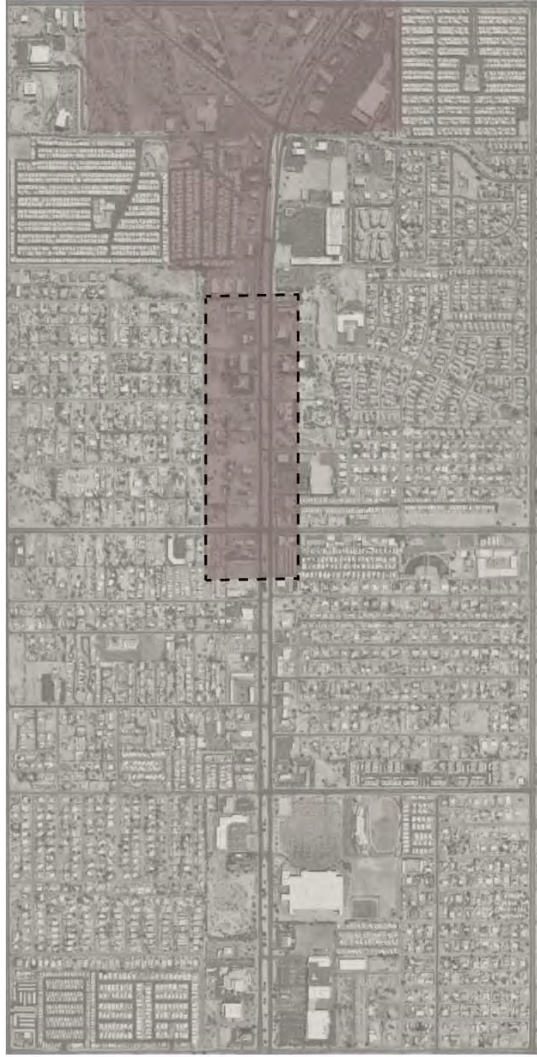


0.5 miles



Each member of SPUR chose a smaller portion within the downtown core to develop individually. During the development process, each member designed with guidance from a chosen specific theme.





0.5 miles

Design Outcomes

Theme: Preservation

Sarah Gaughan

Attending a Town Hall meeting and conversing with the residents of Apache Junction generated insight to the city's unique qualities. While it is perceived to have a "lack of identity" these conversations resulted in the discovery the city's identity is tied to the very land that surrounds it.

With its proximity to the Superstition Mountains, Apache Junction is known as a gateway to the natural desert. Currently the city is surrounded a mile border of open desert, belonging to the state of Arizona, but as Apache Junction continues to grow this land will

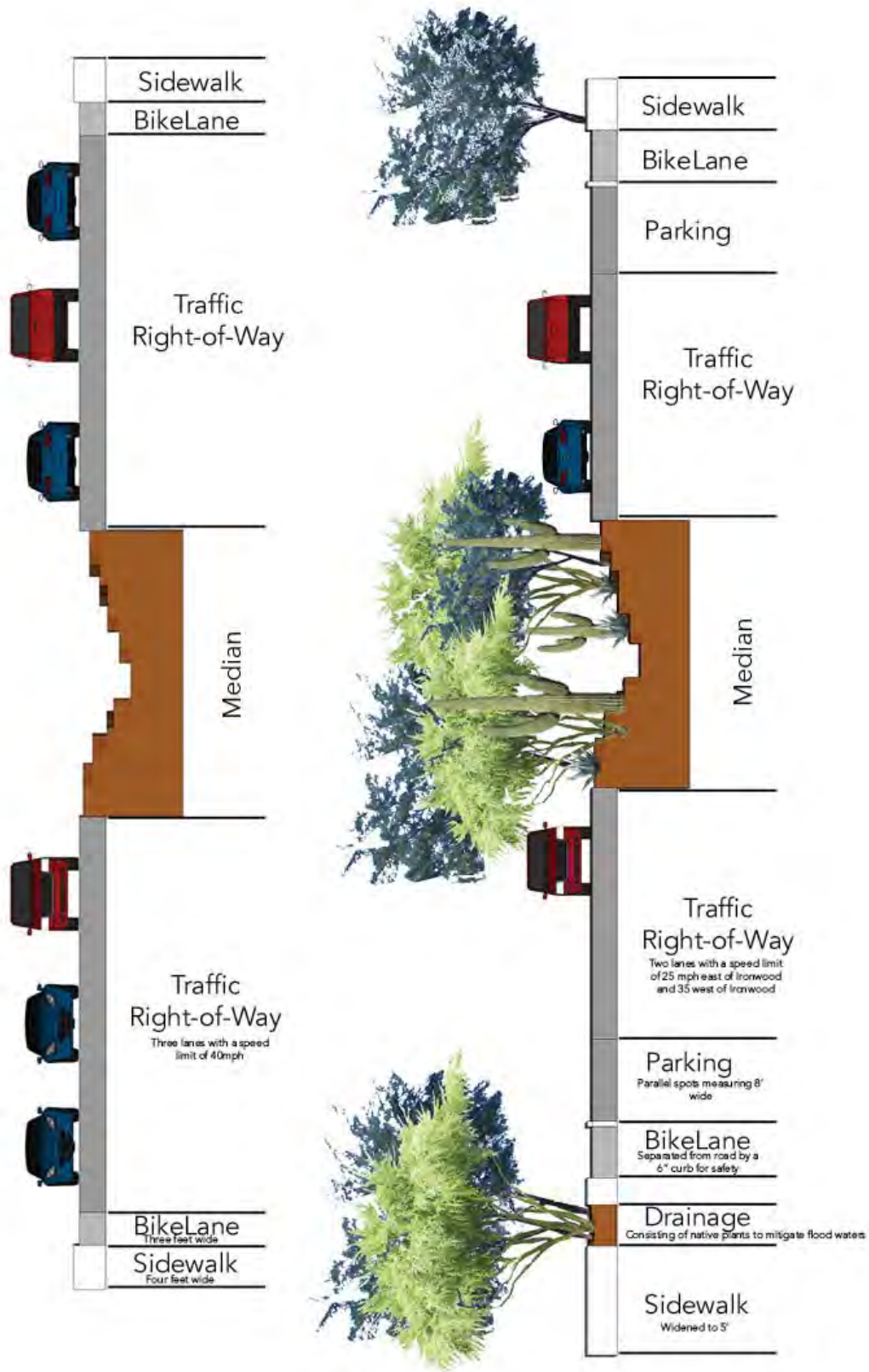
become developed. In order to preserve the city's connection to the land the development of the downtown will integrate green spaces through protecting natural washes and using forested storm drainage. Along with weaving the natural desert throughout the downtown corridor

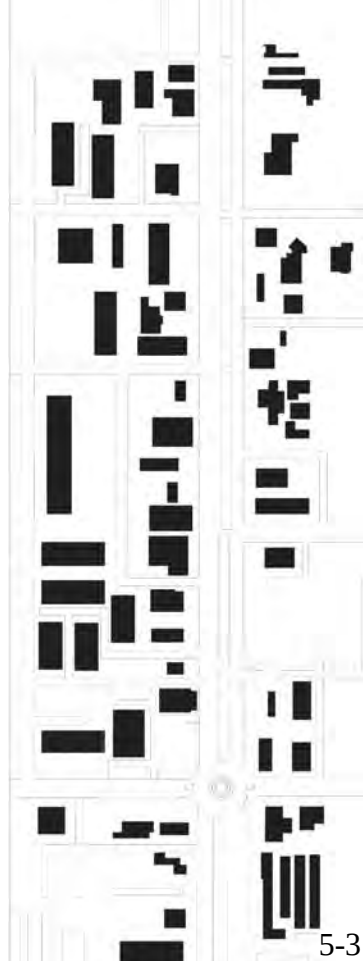
the downtown corridor this space will also incorporate housing and resources for varying incomes, institutional facilities such as a charter school and post office as well as shops and restaurants to promote walkability and sales based income for the city.



The intersection on Ironwood and Apache Trail, according to research, is the busiest intersection along the arterial road. Thus, the project is anchored around this area. In anticipation for Apache Junction's growth a roundabout will be integrated into the intersection. This will allow traffic to continue moving, diverting traffic that is seeking quick passage through town. Once drivers maneuver the roundabout, and continue on Apache Trail the roadway will narrow from six lanes to four, and the third lane will be converted into on-street parking. This is achievable because Apache Trail, as it is currently designed, holds 44,000 traffic, which is 9,000 -11,000 times larger than Apache Junction's need. The speed will also be decreased from 40 mph to 35 mph as vehicles move into the main downtown core.

Design Outcomes



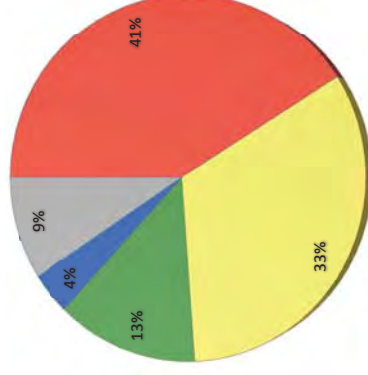


5-31

This node will designate a change traffic pattern as well as in the atmosphere of the space. East of Ironwood the building set back will decrease creating a greater sense of infill. The buildings added to the downtown corridor running along Apache Trail consists of mostly commercial use, with the intention of retail, restaurants and office buildings concentrated east of Ironwood while business west of Ironwood will cater to auto and construction related industries, which are the businesses currently within the area. These building will adhere to the current codes set by the city, retaining a lower profile allowing views of the Superstition Mountains.

Landuse

Commercial Residential Green Space Institutional Roadways



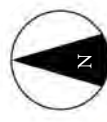
Design Outcomes

The northern region of the project area is zoned to accommodate medium and high-density residences. The proximity of residences will aid in walkability to the main downtown core and will act as a transition between downtown and low-density single-family homes that surround the border of the project area. In amongst these developments will be an acre dedicated to a dog park. This is due the need of open space for dog owners with in apartment complexes as well as its central location and proximity to other developments outside the project site. The high density located at the corner of N. Ironwood Drive and W. Roosevelt Street will consist of affordable housing, allowing ease of access to recourses such as bus stops along Apache trail and Ironwood, which will also be implement with this project. The stops along both streets will be every quarter mile, shown to be the optimal distance for higher ridership.

Two institutional amenities will also be included in this corridor. A charter school, already in place, and a post office located near the housing developments on the northwest corner of Apache Trail and Ironwood.



500 ft



Plant List:



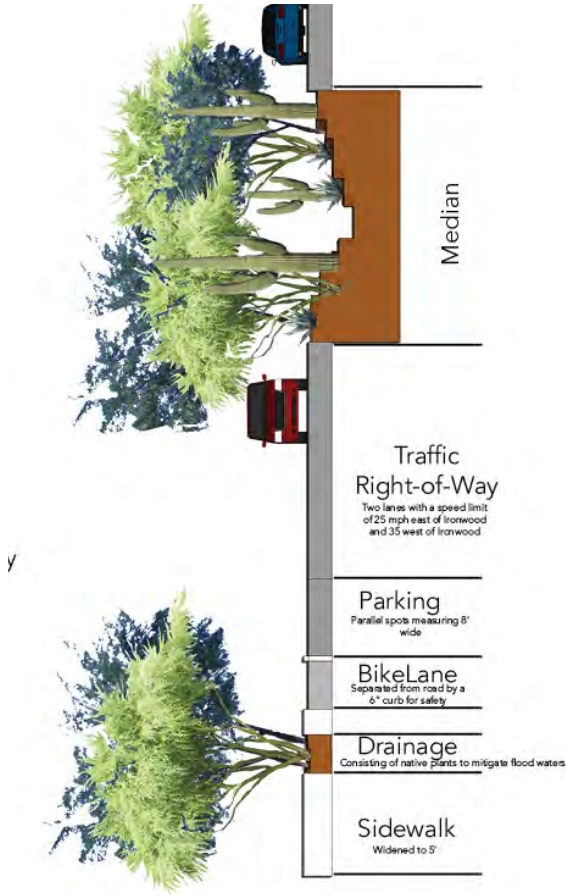
Saguaro Cactus



Mesquite

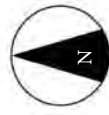


Palo Verde



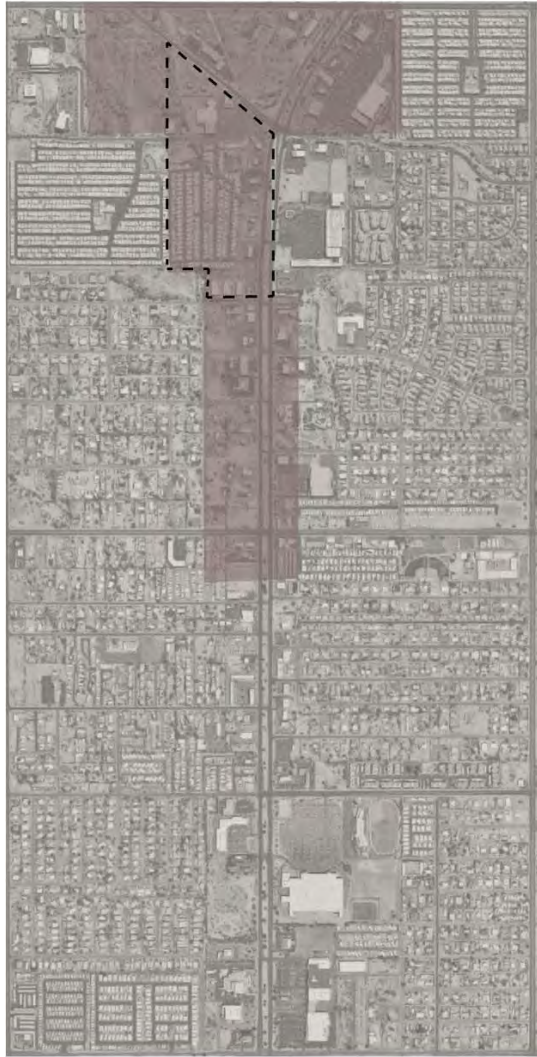
The 100 year flood plane is fed by multiple washes that will remain open space consisting of natural desert, allowing the desert to organically enter the city's downtown core. The flood waters will be diverted into a forested swale and the center median. The forested swale, located just north of Apache Trail will measure four feet wide, three feet deep. Plants integrated in the swale and the median are equip to handle long periods of drought as well as absorb large amount of water when necessary.

Design Outcomes



0.5 miles

The trees and other plants integrated into the forested median will decrease the urban heat island created through the presence of extensive asphalt and NW winds. Lastly, it will create an identifiable feature for individuals entering the city from the west, through Mesa.



Theme: Connectivity

Mike Landon

The cornerstone of the new central business district lies at the crossroads of Apache Trail and Plaza Drive then stretches to west to Thunderbird Drive. Along the business district is found a modern pedestrian route, shops, and a more pleasant road configuration.

Theme:

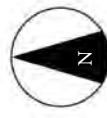
To create access and “in-fill” the downtown corridor via connectivity. The new Apache Junction is woven with paths, greenways, and multi-modal transport encompassing multi-family dwellings and commercial/retail space.

The new Apache Junction is a place of connectivity and community. Visitors and residents will enjoy access to the majesty of the Superstition Mountains and the grandeur of the Sonoran Desert from the serenity of greenways and community spaces winding throughout the downtown corridor. Within walking distance of their home or hotel, Apache Junction shoppers will find café's, retail spaces, and entertainment together in a cohesive locale.



Design Outcomes





100'

Design Outcomes

The central downtown business corridor from North Plaza Drive to North Thunderbird Drive will be rezoned as mixed use. This will allow for a live/work community center where retail and commercial spaces coexist with professional offices and residences. A central “heart” of Apache Junction will become the cornerstone of a vibrant and thriving neighborhood.



[illegible]

A circle with a shaded sector labeled 'Z'.

Highlands Ranch, Colorado is an example of a city that has successfully threaded recreation trails, parks, and greenways throughout the community. Residences, schools, and business are connected via a network of easily navigated pathways.

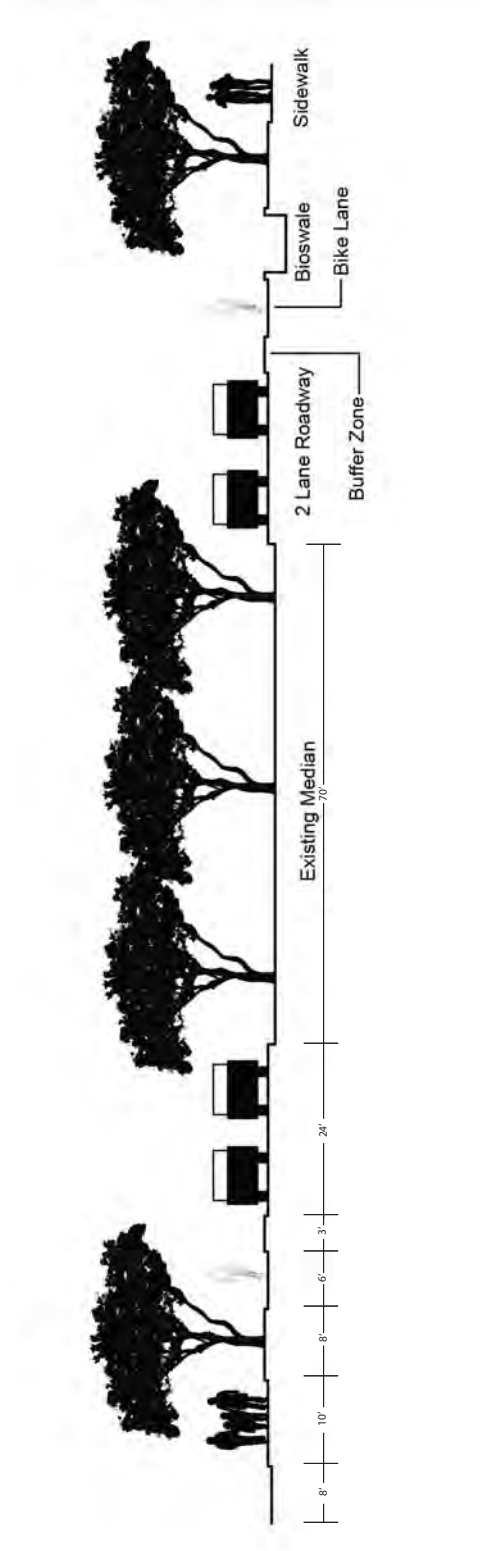


500'

The existing network of informal paths in Apache Junction will become thoughtfully designed connections to civic services, Flatiron Park, residential neighborhoods, and nearby businesses

0.25 miles

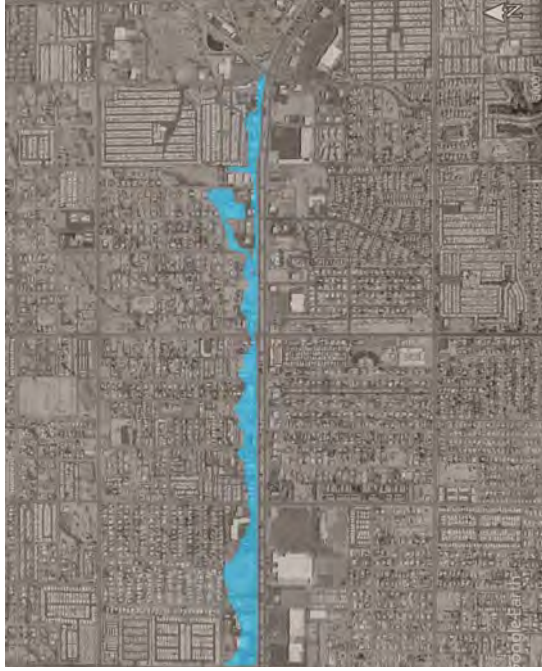




Currently, Apache Trail is configured to accommodate 44,000 vehicles per day¹. A 2016 traffic count reveals that the roadway actually experiences between 9000 and 12,000 vehicles per day². The lane count on Apache Trail can be safely reduced from six to four and the speed limit can be lowered from 45 miles per hour to 25 miles per hour. This will significantly calm the traffic and provide opportunity for the installation of a dedicated bike lane, improved storm water mitigation, shade trees, and increased sidewalk area. The speed limit reduction and new level of accessibility will invite patrons into the retail/ commercial destinations along the corridor.

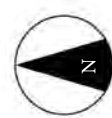
Source: 1 NTSB
2 City of Apache Junction

Design Outcomes



0.5 miles

The north side of Apache Trail from North Plaza Drive to North Meridian Drive is encumbered by a 100-year flood plain.



The use of bioswales as an integral component of a storm water management system along the north side of Apache Trail will help regulate the recurring storm water infiltration of the downtown corridor.



Image: Mike Landon



Theme: Adventure Tourism

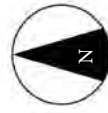
Mark Johnson

Adventure tourism is a fast growing segment of the tourism industry. With the expansive undeveloped open spaces surrounding Apache Junction, this town is well suited to appeal to these tourists.



Apache Junction is already successful at bringing in tourists to appreciate it's rugged open space. The perfect example is the Lost Dutchman Marathon, which has taken place each February for 17 years.

Design Outcomes



1 mile



Bicycle
Circulation



1 mile

The scale of the open spaces, and the way in which the open space surrounds Apache Junction positions this city well to capitalize on Adventure Tourism with a special interest in cycling.





Cycling adventure would include both mountain biking, leveraging the extensive network of trails throughout Apache Junction open space, and road cycling.

Design Outcomes



Flatiron Park is already effectively being used for gatherings. A mixed use development next to it provides convenient accommodation for adventure tourists and positions businesses effectively to make sales to adventure tourists.



0.5 miles

Design Outcomes

Theme: Placemaking

Ren Andres

VISION: To create a sense of place in the downtown core of Apache Junction through consideration of history, culture, the social community, and the arts as creative expression.

5-52

Placemaking refers to the process of connecting a exceptional contextual urban design. When a design community of people to each other and the public realm creates a sense of place, it also “facilitates creative they share through creating a sense of place, home, or patterns of use”, both staying unique to and helping to belonging. Every place is different and therefore every build a place's identity (PPS, 2017). With that in mind, the placemaking process is different, but there are still purpose behind this project was to activate the space common factors that lead to successful placemaking. that exists behind the junction of Apache Trail and the According to James LaGro, a unique sense of place US 60, the very namesake of Apache Junction. The design “elegantly capitalizes on the site's natural and cultural process itself was an investigation and an attempt at the attributes” (LaGro, 2013). Placemaking has strong practice of placemaking from a landscape architecture ties to a place's culture and history, but it's more than point of view.

Sources: LaGro, James (2013). Site Analysis: Informing Context-Sensitive and Sustainable Site Planning and Design. Project for Public Spaces (2017). What is Placemaking?, https://www.pps.org/reference/what_is_placemaking/



Existing Conditions



This site east of the junction is rich with traces of Apache Junction history.



The footprint of the historic Superstition Inn still exists on the site and can be distinctly seen in plan view.



Image: Westward Ho Time Capsule



Looking west behind the marquee is an open unused space that is of prime location for a park.

Junction Park

Open Space

Unique shape pays homage to the historic Superstition Ho and also can be divided into sections for a variety of concurring events and activities. There is potential for annual community events, markets, civic gatherings, art installations, and various other uses.

Off-Leash Dog Park

A fenced-in area within Junction Park allows off-leash dog recreation and social interaction. It also makes use of a space behind the marquee that is already built for park activities.

Lost Dutchman Monument

The existing monument that honors the legendary Lost Dutchman would remain within the off-leash dog park as an interesting park feature and cultural reference.



The result of this investigation into placemaking from a landscape architecture point of view resulted in the conceptual design of a multi-use open space park named Junction Park.

Design Outcomes



Paved Sections

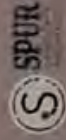
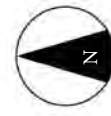
Configuration plays with the shape of the historic Superstition Ho building and facilitates events or installations that require flat ground.

Corridor

Physical connectivity contributes to cultural connectivity. This proposed corridor would provide a more easy and safe way to the future use of the "Old Fry's" and the neighboring commercial land uses.

Decreased Speed

A speed limit reduced to 25 mph allows drivers to notice and enjoy Junction Park, increases the safety of pedestrians and bicyclists, and encourages the social activity that makes up placemaking and building a sense of place.



Creates a noise and space barrier from the surrounding traffic, provides vista points to the Superstitions and the surrounding city, provides play for dog park and open space visitors alike, diversifies the open space possibilities.

Signage

This area east of the junction is rich with cultural heritage, as noted in several design features of this park. The creation of a sense of place through historical and cultural design attributes only works when there is awareness. Therefore, it is proposed that various signage in strategic parts of the park be placed to educate visitors about their town's heritage.

Altered Lanes

In continuation with the rest of SPUR Landscape Architecture's proposed plan for the Apache Junction downtown core, the outermost lane on each side of Apache Trail from Phelps Dr to Idaho Rd has been converted into a protected bicycle lane and a buffer with vegetated swales. A section to illustrate these changes is at bottom section of this poster.

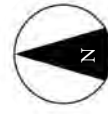


Old Planter

Left behind from the hotel days, this uniquely shaped planter could be renewed as a historic and cultural feature to contain native desert plantings, or possibly a community garden.

Pool Remains

Left as is, the remains of the Superstition Ho pool can serve as a historic artifact and point of interest. It could also be uncovered and converted into a water feature. Several possibilities exist for this feature to create a sense of place.





Pictured is a rendering of what an off-leash dog park could look like as it activates the unused space behind the marquee. Part of the park's hills could be incorporated into the space for the dogs and their owners to run up and down.

Design Outcomes



Junction Park as it could be seen from above.



Physical connectivity contributes to cultural connectivity. Therefore, a corridor extending down from the south side of the park down to the Old Fry's structure and it's future new use makes for a safer and more efficient route for pedestrians. There is also a proposed bus stop along this shaded corridor.

Design Outcomes



In continuation of the streetscapes proposed in the previous downtown sections, Apache Trail between Phelps Dr and Idaho Rd is proposed to have the outer lanes on each side converted to a protected bike lane and a buffer containing a vegetated swale. In order to maintain safety and build interest in the surrounding development, a slower speed limit of 25 mph is also proposed. The existing median has recently been redone to include more vegetation and a swale and would remain unchanged in this proposition.

