Retained Property

at Superstition Vistas

Master Planned Community Plan

August 6th, 2021

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1. Introduction

1.1 Summary

Located in north central Pinal County is an approximate 275 square mile area of property commonly referred to as "Superstition Vistas." Superstition Vistas is the largest contiguous parcel of land near a metropolitan area that is held in trust by the Arizona State Land Department (the "State Land Department").

Within the larger land area described, the State Land Department has identified approximately 8,090 acres (the "Site") of property for initial planning and entitlement efforts, which includes a portion of property north of Elliot Road outside of the Superstition Vistas, as shown on **Exhibit 1.1.1: Site** and **Exhibit 1.1.2: Site location within Superstition Vistas**. The Site is made up of two parcels, the first is approximately 2,783 acres of land auctioned by the State Land Department on November 4, 2020 for which D.R. Horton was the winning bidder (the "Auction Property"), as shown on **Exhibit 1.1.3: Auction Property**. The second parcel consists of approximately 5,307 acres, which is being retained by the State Land Department for future disposition (the "Retained Property"), as shown on **Exhibit 1.1.4: Retained Property**. At the time of the auction, the Auction Property and portions of the Retained Property were situated in an unincorporated area of Pinal County. As the successful bidder at the auction, D.R. Horton accepted the responsibility to request annexation of the Auction Property and the Retained Property into the municipal limits of the City of Apache Junction, an Arizona municipal corporation (the "City" or "Apache Junction"). The annexation application was filed with the Pinal County Recorder on December 22, 2020.

This request seeks Master Planned Community zoning for the 5,307 acres of Retained Property. The application is accompanied by this Master Planned Community Plan (henceforth referred to as the "MPC" or "MPC Plan"). The MPC contains the criteria by which the City will administer and regulate the zoning and development of the Retained Property. The MPC includes a Land Use Budget for residential and non-residential uses. The land use density and gross floor area set forth in the Land Use Budget are supported by the accompanying master plans for water, wastewater, non-potable water, transportation, and drainage (hereinafter referred to as "Infrastructure Master Plans", **Section 3.4.4: Infrastructure Master Plans**).

As the Retained Property develops, the One Water and other sustainability goals of the City, the AJWD, the Superstition Mountains Community Facilities District No. 1 ("SMCFD"), and other Retained Property stakeholders will be considered in an effort to effectively manage the available water resources for the Site and surrounding areas. Opportunities to offset potable water use may include an integrated approach to water supply by using one or more sources such as potable water, non-potable reuse, potable reuse, wastewater, stormwater and others.

This MPC will guide the planning and design of the Retained Property. The MPC aligns with the City's General Plan goals and policies.

1.2 Applicant

The Arizona State Land Department shall be the Applicant for the Retained Property.

1.3 Authority

This MPC zoning is enacted pursuant to the City of Apache Junction Land Development Code and is in conformance with the City's 2020-2050 Legendary Landscapes and Lifestyles General Plan (the "General Plan").

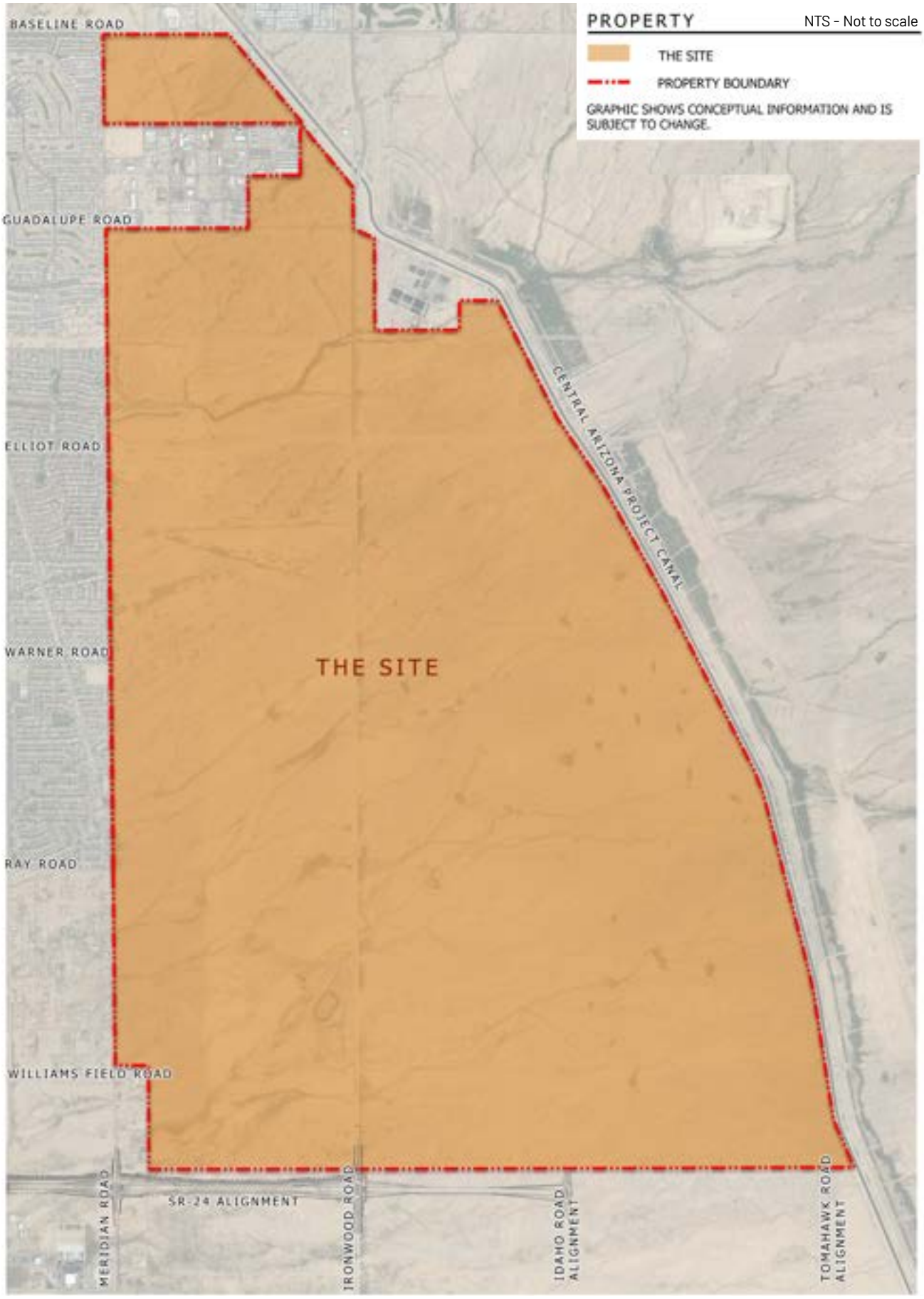

Exhibit 1.1.1: Site

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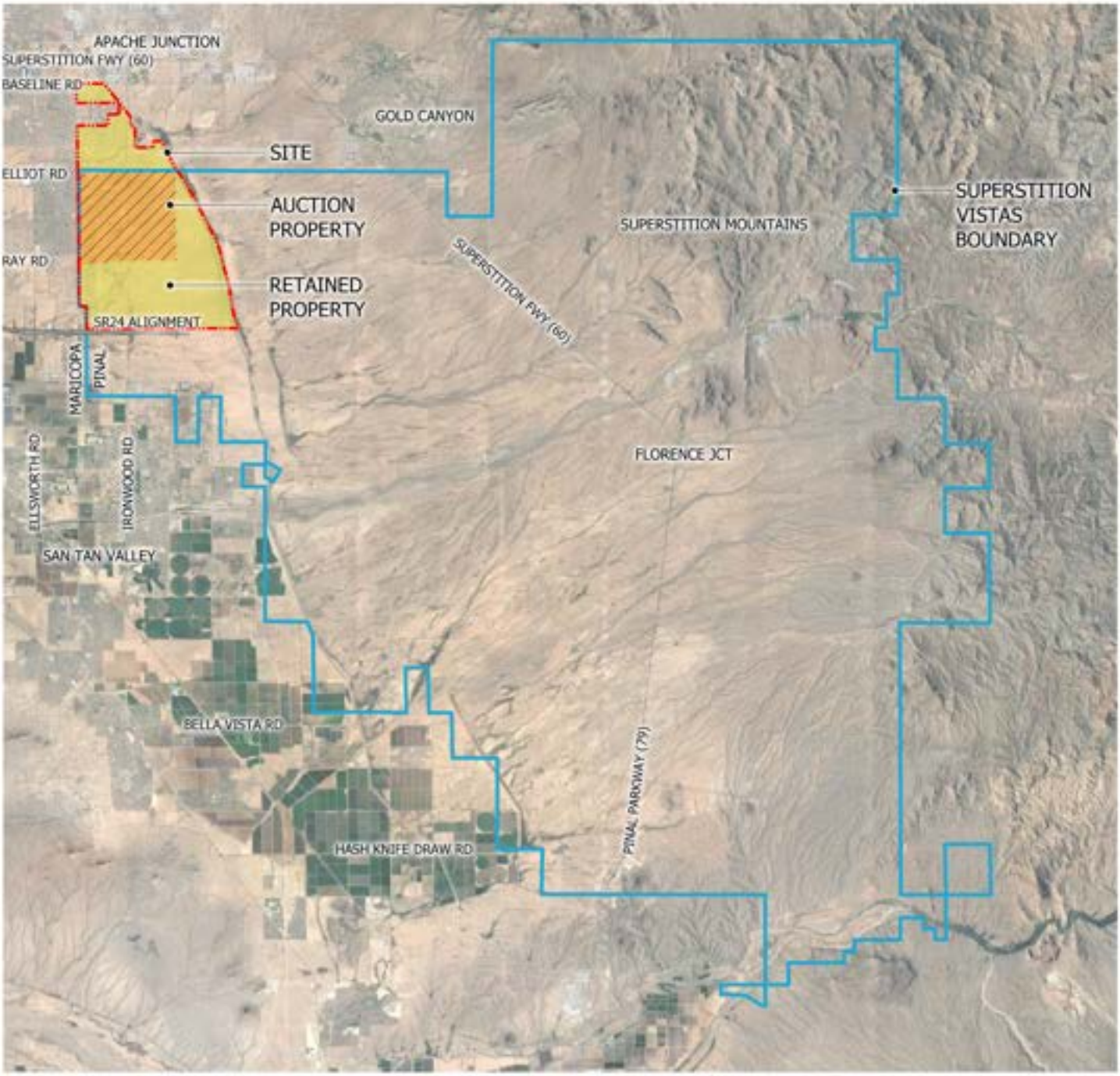

SOURCE: ARIZONA STATE LAND DEPARTMENT
-SUPERSTITION VISTAS CONCEPTUAL PLAN

Exhibit 1.1.2: Site Location within Superstition Vistas

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Exhibit 1.1.3: Auction Property

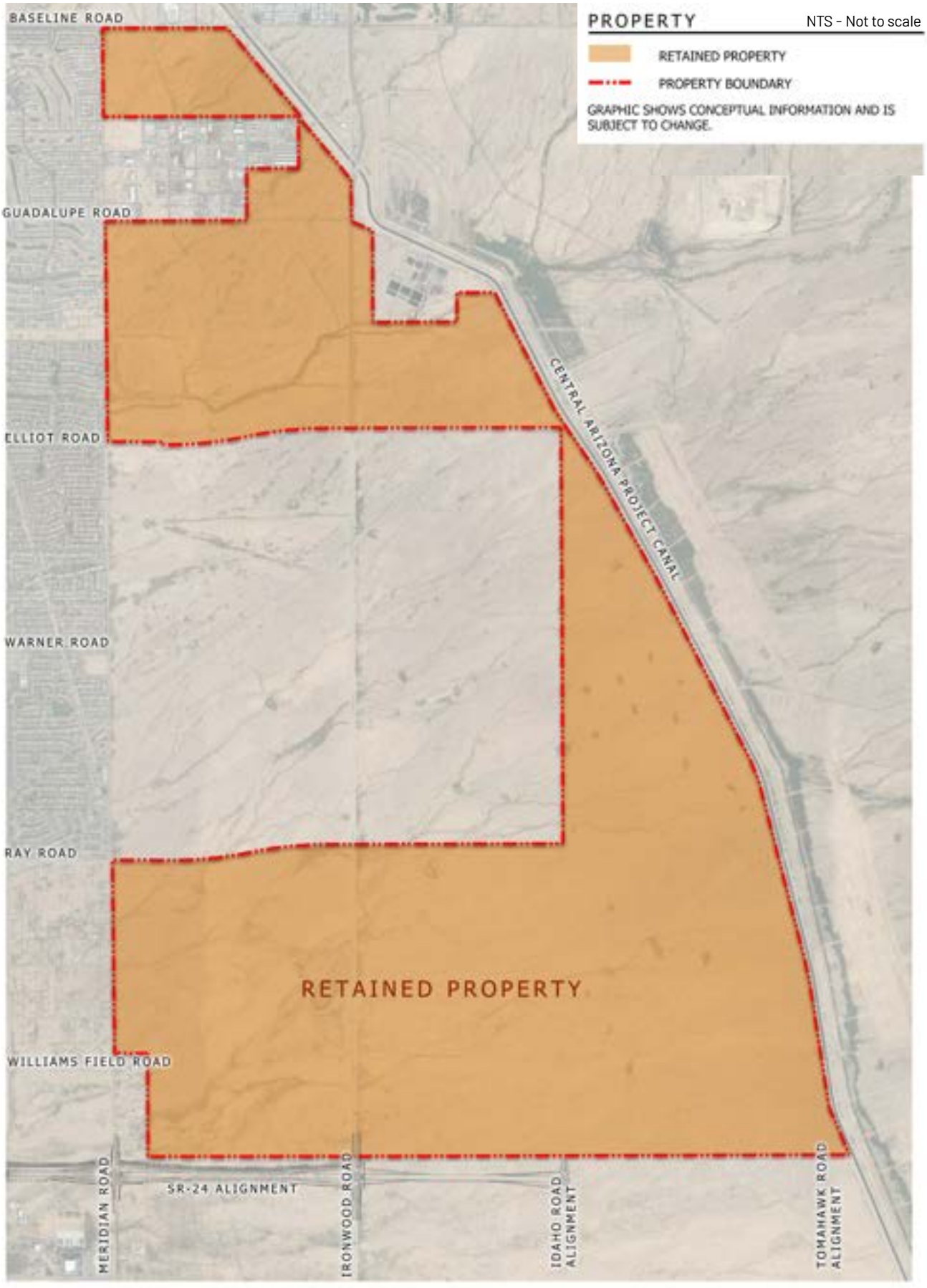


Exhibit 1.1.4: Retained Property

1.4 Vision

The Retained Property is in an optimal location for future development, immediately adjacent to existing neighborhoods, within proximity to major transportation corridors including the State Route 24 alignment, employment, and commercial services. The Retained Property also benefits from exceptional views of the Superstition Mountain range to the northeast and San Tan Mountain range to the southwest.

The MPC for the Retained Property is comprised of a blend of land uses including residential, commercial, and other non-residential uses, allocated via the Land Use Budget to each of the six (6) development units (the "Development Unit(s)"). As the State Land Department auctions property, more detailed Development Unit Plans will be prepared for each Development Unit that will address the entire Development Unit and further detail the location of permitted uses and demonstrate conformance with the Infrastructure Master Plans. The Development Unit Plan process allows development to respond to market conditions and provides for a more creative and innovative approach to each Development Unit's specific master planning. This process ensures a diversity in residential and non-residential uses, resulting in a cohesive and sustainable mixed-use, mixed-density master planned community with supporting employment and commercial services.

The development of the Retained Property is an opportunity to craft a healthy, vibrant, and sustainable community. This will be achieved by recognizing the uniqueness and natural beauty of the area. The open space and connecting trails will weave throughout the Retained Property connecting the varying land uses and creating opportunities for recreation. Residents, employees, and visitors alike will enjoy the ability to easily connect and to experience open space and natural beauty while surrounded by mountain views.

1.5 Purpose

The purpose of this MPC Plan is to provide base level entitlements for the Retained Property. This includes establishment of a Land Use Budget for each Development Unit as well and parameters for future Development Unit Plans. The MPC zoning provides for the flexible development of residential and non-residential uses. The regulatory framework outlines a creative approach to the planning of communities and neighborhoods in order to provide for an efficient, aesthetic, and desirable development as the State Land Department disposes of property through future auctions.

1.6 Conformance with General Plan

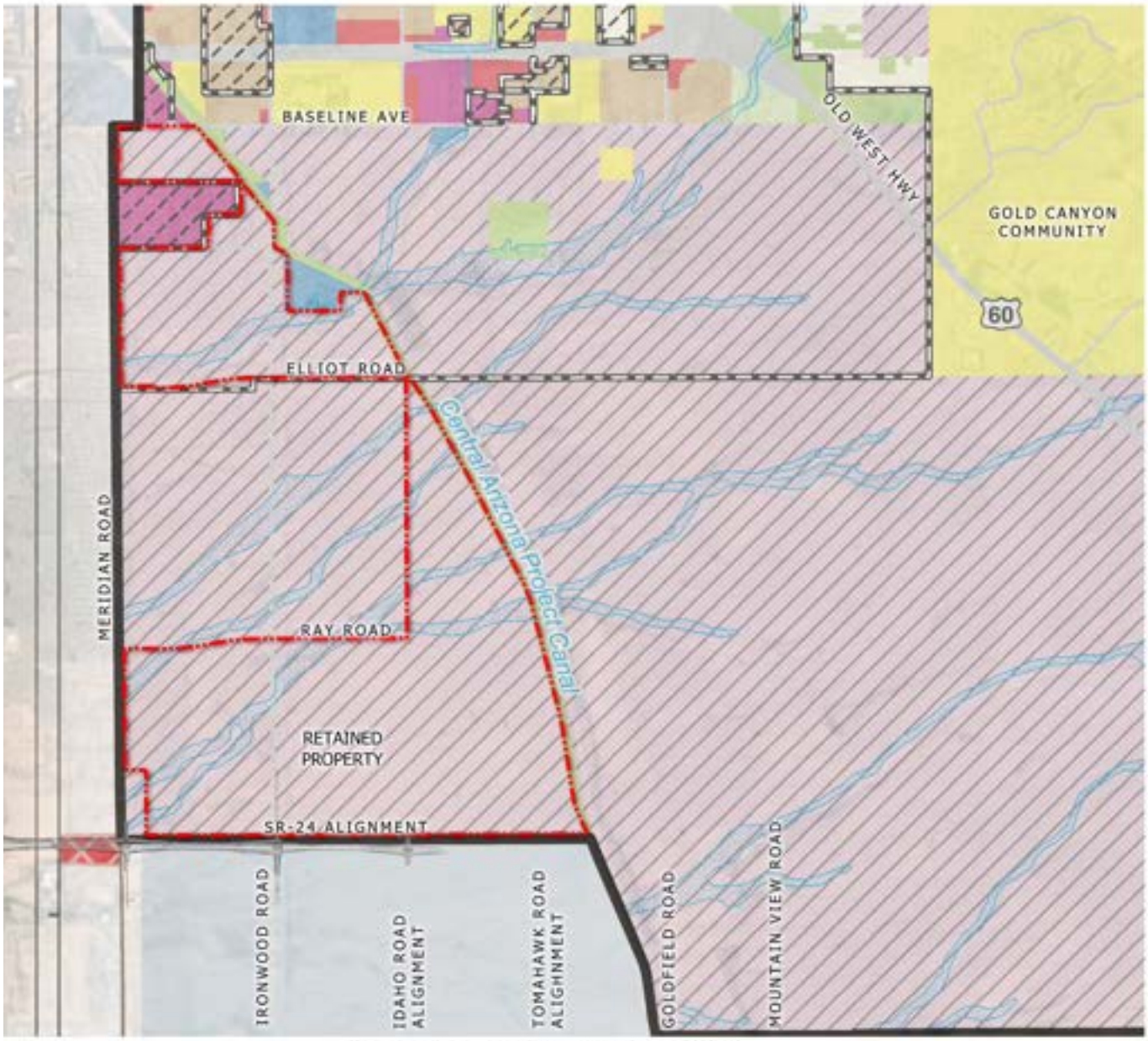
1.6.1 Vision

"Apache Junction is a diverse community of natural beauty and heritage that offers prosperity, compassion, and forward thinking to its residents, businesses, and visitors" (City of Apache Junction General Plan 2050, Community Vision & Mission, Page iii).

The mission for the City's General Plan is to preserve the history and character that makes Apache Junction an exceptional city, while investing in quality of life and planned improvements that will serve Apache Junction and its residents.

1.6.2 Role of General Plan and Relationship to Retained Property

The General Plan consists of goals, policies, and principles that guide land use, future growth, and development within Apache Junction. The General Plan Land Use Map has designated the Retained Property as "Master Planned Community" (max 20 du/ac) as shown on **Exhibit 1.6.2: Existing General Plan Map.** This area was designated as Master Planned Community to provide general guidance for the development of vacant State Trust Land. The Master Planned Community designation ensures that a variety of uses are planned and developed in a comprehensive manner to facilitate a high quality of life and vibrant local community.



GENERAL PLAN LAND USES

NTS - Not to scale

- FLOODPLAIN OVERLAY
- CONSERVATION (1 DU/AC)
- LOW DENSITY RESIDENTIAL (1 DU/1.25 AC)
- MEDIUM DENSITY RESIDENTIAL (10 DU/AC MAX)
- HIGH DENSITY RESIDENTIAL (40 DU/AC MAX)
- DOWNTOWN MIXED USE
- MASTER PLANNED COMMUNITY (20 DU/AC MAX)
- COMMERCIAL
- LIGHT INDUSTRIAL/BUSINESS PARK AND INDUSTRIAL
- PUBLIC/INSTITUTIONAL
- OPEN SPACE AND RECREATION
- TRANSPORTATION
- MUNICIPAL PLANNING AREA
- MUNICIPAL BOUNDARY
- PINAL COUNTY ISLAND
- COUNTY BOUNDARY
- STATE LAND
- NATIONAL FOREST
- WILDERNESS AREA
- PROPERTY BOUNDARY

GRAPHIC SHOWS CONCEPTUAL INFORMATION AND IS SUBJECT TO CHANGE.

Exhibit 1.6.2: Existing General Plan Map

N

ENVIRONMENTAL PLANNING

GOAL 1.1: PROTECT THE PLANNING AREA'S UNIQUE ENVIRONMENTAL ASSETS AND QUALITY OF LIFE

Policy: *Encourage developers and property owners to preserve the environment by:*

- ***a.*** *Leaving areas of sensitive lands in their natural state*
- ***b.*** *Clustering residential units where appropriate (new developers would receive a density bonus for employing this approach)*
- ***c.*** *Prohibiting new development within floodways*

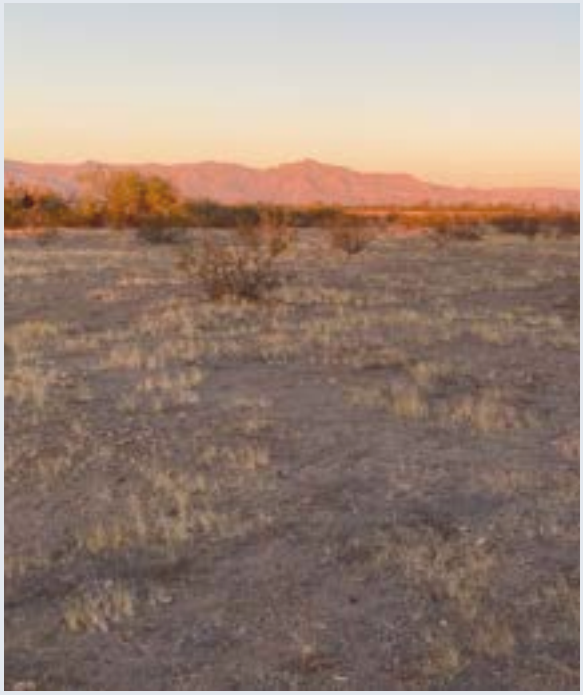
Policy: *Carefully integrate changes to drainage in a master stormwater plan that recognizes existing drainage and wash patterns, discharge locations and storm water flows.*

Policy: *Emphasize non-structural flood control techniques where feasible. Choose and foster flood control methods that retain beneficial functions and maintain natural flooding and riparian vegetation while minimizing damage to private property.*

Policy: *Encourage creative design for storm water harvesting and detention ponds to reduce increased storm water flows and provide an opportunity to channel storm rainwater to native Sonoran Desert plant material.*

RESPONSE

Where they exist, sensitive land areas shall be properly mitigated to maintain their natural features and environmental value. Comprehensive planning efforts will be utilized to locate complementary land uses in proximity to one another and allow for adequate transitions to more intense land uses. The drainage influences within and outside the property will be reviewed and mitigated per the Infrastructure Master Plans to allow for development outside of floodways as well as study opportunities to utilize drainage for environmental benefits.



ENVIRONMENTAL PLANNING CONTINUED

GOAL 1.2: PROTECT DARK SKIES IN APACHE JUNCTION

Policy: *Update the dark sky ordinance that includes a standard to encourage residential, commercial and industrial property owners to install lighting only for safety, security and utility purposes to minimize light pollution of neighboring properties.*

RESPONSE

Development within the Retained Property will implement Dark Sky lighting principles in accordance with IDA standards through future Development Unit planning to minimize light pollution

GOAL 1.3: ENCOURAGE LOW IMPACT DEVELOPMENT PRACTICES TO MITIGATE THE NEGATIVE IMPACTS OF URBANIZATION

Policy: *Incorporate LID into the city's design standards and describe detailed methods about how to incorporate these practices*

Policy: *Educate the community about the benefits and necessity of LID practices.*

RESPONSE

Through future Development Unit planning, where appropriate, the Retained Property shall incorporate low impact development practices for stormwater management as described in **Section 3.5.18 Stormwater and Drainage**.

ENVIRONMENTAL PLANNING CONTINUED

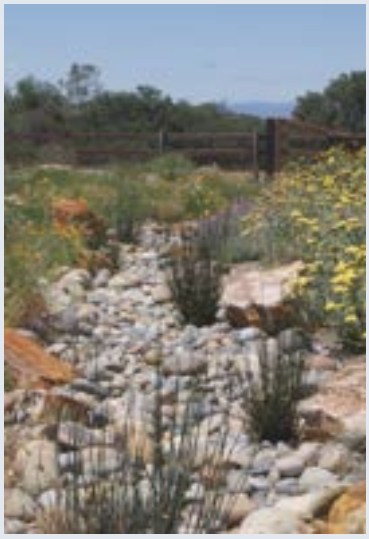
GOAL 1.4: CONSERVE EXISTING HABITAT, RECREATE HABITAT WHERE IT HAS BEEN DESTROYED AND PROVIDE NEW HABITATS WHERE APPROPRIATE

Policy: *Conserve corridors along significant ephemeral washes to preserve habitat with the greatest value for wildlife. Include the floodway, floodplain and an appropriate upland buffer to allow a transition to urbanized areas.*

Policy: *Promote planting and maintenance of indigenous vegetation along washes, the Central Arizona Project ("CAP") Canal and other public spaces to enhance use by native wildlife.*

RESPONSE

The Retained Property is bounded by the Central Arizona Project canal and Vineyard Flood Retarding Structure ("FRS") on its eastern boundary. Due to this condition, all the existing wash corridors, with the exception of the Siphon Draw, have been cut off from upstream flows. Drainage which has been impacted by the FRS through the Retained Property will be addressed as described within the Drainage Infrastructure Master Plan. The drainage corridors will be landscaped with a native and transitional desert palette in varying character forms to blend with the aesthetics of the communities they traverse. The Siphon Draw corridor will be preserved within the Retained Property.



GOAL 1.5: PRESERVE THE VARIETY OF ANIMAL AND PLANT SPECIES IN APACHE JUNCTION

Policy: *Educate citizens and encourage awareness regarding the preservation of habitats and species existing within the city.*

RESPONSE

The Retained Property, through future Development Unit planning, will salvage and preserve certain native tree and cacti plant materials and explore opportunities to provide interpretive signage at recreation areas regarding wildlife and plant habitats.

ENVIRONMENTAL PLANNING CONTINUED

GOAL 1.6: SUPPORT SUSTAINABLE BUILDING PRACTICES THAT REDUCE THE IMPACT ON ENVIRONMENTAL QUALITY, RESOURCE USE AND HUMAN HEALTH

Policy: *Update the green building ordinance and implement a program to promote green building principles and practices.*

RESPONSE

Energy Star, a program run by the U.S. Environmental Protection Agency and U.S. Department of Energy that promotes energy efficiency, will be implemented within all residential development. Additionally, the use of low water use plumbing fixtures which meet current building codes will be utilized within all residential development.

GOAL 1.7: PROTECT AND ENHANCE AIR QUALITY AND PUBLIC HEALTH

Policy: *Enforce regulations that reduce particulate air pollutants by:*
a. Continuing to participate with Maricopa Association of Governments ("MAG"), Central Arizona of Governments ("CAG") and Pinal County to implement regional air quality planning and implementation,

Policy: *Reduce emissions of greenhouse gases through programs and policies such as the possible conversion of the city's fleet to clean alternative fuels or electric vehicles.*

Policy: *Implement a no-idling ordinance that prohibits unmanned vehicles from idling for more than five minutes.*

RESPONSE

Proposed development within the Retained Property shall follow governing agency requirements regarding pollution and dust control.

ENVIRONMENTAL PLANNING CONTINUED

GOAL 1.8: REDUCE THE AMOUNT OF SOLID WASTE AND MINIMIZE ILLEGAL DUMPING VIA AN INTEGRATED SOLID WASTE MANAGEMENT SYSTEM

Policy: *Require residents to subscribe to weekly solid waste and recycling collection. The recycling program should include standard recyclables (glass, plastic, etc.) and green waste (grass clippings, weeds, etc.).*

Policy: *Phase out Free Dump Week by 2025. Policy: Create an environmental leadership institute similar to the Citizen Leadership Institute ("CLI") to educate the residents on solid waste, pest management, green buildings, LID, solar power, dark skies, xeriscape and raingardens.*

RESPONSE

Proposed development within the Retained Property shall follow the City of Apache Junction requirements for solid waste and recycling.

RECREATION AND OPEN SPACE

GOAL 2.1: DEVELOP A SYSTEM OF PARKS, TRAILS AND OPEN SPACE TO MEET THE RECREATIONAL AND HEALTH NEEDS OF APACHE JUNCTION RESIDENTS AND VISITORS

Policy: *Encourage and facilitate public participation in planning and expanding the parks and trail system through various means, including regularly scheduled parks and recreation commission meetings.*

Policy: *Consider development of community sponsored facilities such as: off-leash dog parks, expansion of pickleball courts, open space expansion, archaeological parks on BLM land, landfill park conversion, bicycle motocross ("BMX") and other bicycle facilities.*

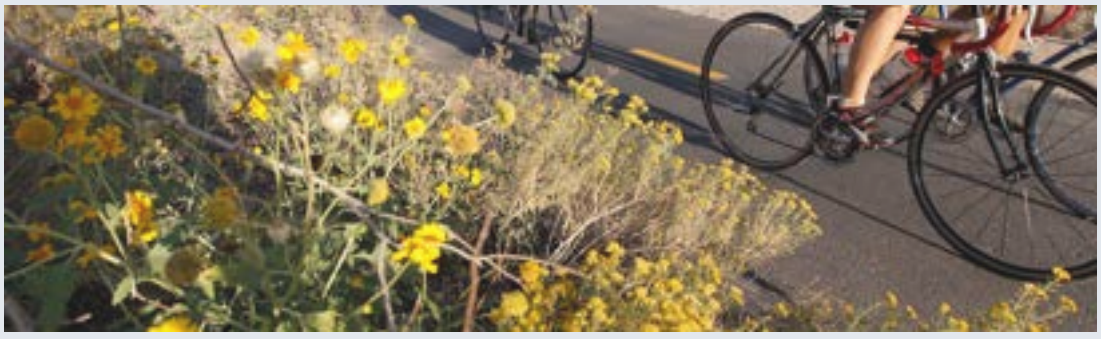
Policy: *Coordinate with developers to incorporate potential sites for parks, trails, open space and other recreational facilities in their development master plans. Continue to require residential developers to construct neighborhood parks and place operation and maintenance responsibilities on HOAs.*

Policy: *Coordinate with other public and private groups to promote joint acquisition, use and public/private participation in the development of new parks and trails and recreational facilities.*

Policy: *Update and reintroduce the parks and recreation master plan for review and eventual approval by the parks and recreation commission and the city council.*

RESPONSE

The MPC (or subsequent development agreements) includes criteria by which the need for trails, parks and open space will be determined as a part of future Development Unit Plans. The exact location and amount of trails, parks and open space will be determined during the Development Unit Plan process. A minimum amount of open space required in each Development Unit has been established in **Exhibit 3.4.1.1: Land Use Budget Table.**



NEIGHBORHOOD PRESERVATION, REVITALIZATION, AND HOUSING

GOAL 3.2: DIVERSIFY HOUSING STOCK AND NEIGHBORHOODS BY INCORPORATING A VARIETY OF HOUSING TYPES AND ASSOCIATED VALUES TO ALLOW FOR A DIVERSE DEMOGRAPHIC OF RESIDENTS

Policy: *Create a policy for the development of quality workforce housing by utilizing available federal, state, regional and local resources and programs to encourage first-time homebuyers and by providing incentives to encourage the development of affordable housing.*

Policy: *Encourage the development of public-private ventures developing low income housing with local, state and federal funds in order to promote a quality rental market.*

RESPONSE

The Retained Property allows for a broad range of housing opportunities, in location, style and size. The variety in housing options will allow residents of varying income levels and ages to have an abundance of housing choices based on market demand and desired lifestyle.

GOAL 3.3: MAINTAIN AND ATTRACT A QUALITY HOUSING STOCK IN CONDITION, DESIGN, AND CONSTRUCTION STANDARDS

Policy: *Develop design guidelines and standards such as energy efficient "green" designs for all new housing construction.*

Policy: *Strengthen and implement housing quality standards for existing housing units by promoting the city's owner-occupied housing rehabilitation program, and enforcing the property maintenance code to include standards of care requiring trash removal, landscape requirements, and sewer hook-ups.*

RESPONSE

The Development Unit plans will provide design parameters for housing types which will guide the design, quality and ultimately construction of housing.

NEIGHBORHOOD PRESERVATION, REVITALIZATION, AND HOUSING

GOAL 3.4: INCORPORATE SUSTAINABLE PRACTICES IN ALL HOUSING DEVELOPMENT

Policy: *Maintain the natural environment, views and access to greenspace by establishing connectivity and walkability between existing neighborhoods and commercial areas while ensuring connectivity to the south and future development.*

Policy: *Encourage infill, redevelopment, and higher density housing within downtown while preserving low density housing development in areas designated on land use map.*

RESPONSE

The proposed development plan employs a design approach based on connecting residents to the outdoors with a series of trails and recreation features. These areas will provide opportunities for walking, running, biking, enjoyment of mountain views, and other activities, thus benefitting the City's overall public health by promoting an active lifestyle.

The Retained Property includes a range of residential densities, which will be located based on well thought out criteria established within future Development Unit planning providing for diverse neighborhoods.

ECONOMIC DEVELOPMENT

GOAL 5.1: ATTRACT ALL TYPES OF QUALITY PRIVATE INVESTMENT THAT WILL ADD VALUE AND BRING DIVERSIFICATION TO CURRENT AND FUTURE RESIDENTS OF APACHE JUNCTION AS A GREAT PLACE TO LIVE, WORK AND PLAY

Policy: *Strategically identify infill opportunity sites that can accommodate office, industrial, entertainment, retail, and housing and mitigate barriers to development.*

Policy: *Consider incentives or economic development agreements to close the gap on hard to redevelop properties that have been underutilized or have sat vacant.*

Policy: *Consider alternative zoning or overlay districts for idle infill parcels or redevelopment areas that may inspire a higher and better use based in current market realities.*

Policy: *Encourage the protection and expansion of the land designated in the general plan specifically for employment and ensure they are preserved along transportation corridors or in prime business cluster locations that will maximize the impact and economic potential for those businesses and employment centers. Discourage any uses that bring little or no value to the community (such as RV Parks, RV storage, mini-storage lots and seasonal residential units).*

RESPONSE

The Auction Property and the Retained Property together total approximately 8,090 gross acres in area. The area spans nearly six miles north to south and nearly four miles east to west. With the US-60 Superstition Freeway on its north end and the SR-24 on is south end, the overall Site is well placed for future development.

The Retained Property is approximately 5,307 acres in area. The scale of the property affords for a significant range of proposed land uses. As proposed, a blend of non-residential and residential land uses is planned providing for potential economic development, regional growth of employment growth of the general population.

ECONOMIC DEVELOPMENT CONTINUED

GOAL 5.2: ALIGN RESOURCES AND PRIORITIES TO ENHANCE EXPANSION AND ATTRACTION OF THE CITY'S TARGETED INDUSTRIES (BUSINESS SERVICES; STANDARD AND ADVANCED MANUFACTURING; REGIONAL AND CORPORATE CENTERS; MEDICAL INSTITUTIONS AND/OR ASSOCIATED SATELLITE OPERATIONS; MINING SUPPORT FACILITIES; RESORT/TOURIST ORIENTED DEVELOPMENT; EXPANDED RETAIL OPPORTUNITIES, HIGH-DENSITY RESIDENTIAL)

Policy: *Collaborate and engage with Arizona Commerce Authority, Greater Phoenix Economic Council, Phoenix-East Valley Partnership, Arizona Office of Tourism, the local Chamber of Commerce, neighboring municipalities, and other regional economic development organizations to align business supply and demand opportunities, enhance competitiveness of the state and region, and bring additional prospect activity and quality job growth to Apache Junction.*

Policy: *Identify and strategize infrastructure gaps or opportunities with utility providers or districts to enhance shovel-readiness of key locations with maximum opportunity to bring additional economic development benefits to the city and to those providers.*

Policy: *Assess the adequacy of current services to existing employment areas to aid in business retention efforts.*

Policy: *Develop an infrastructure improvement recommendation for key potential and existing employment areas.*

RESPONSE

The Auction Property and the Retained Property together total approximately 8,090 acres in area. The area spans nearly six miles north to south and nearly four miles east to west. With the US-60 Superstition Freeway on its north end and the SR-24 on its south end, the overall site is well placed for future development.

Future development of the Retained Property will attract new industries to the region by providing entitled land in prime locations with access to regional transportation corridors and a wide array of residential, commercial, office and mixed uses.

ECONOMIC DEVELOPMENT CONTINUED

GOAL 5.4: ENHANCE THE IMAGE AND ELEVATE AWARENESS OF APACHE JUNCTION AND ALL IT HAS TO OFFER

Policy: *Utilizing the identified targeted industries, create a more robust marketing campaign that would seek to pique the interest of development that would help bring more diversity and living-wage jobs to the market by showing the strengths and niche potential unique to Apache Junction. As new sites targeting employment come online, actively promote and recruit through industry specific forums.*

Policy: *Collaborate efforts focused on visitor services and tourism marketing with local organizations and/or regional visitor bureaus to promote quality of life and business opportunity assets unique to Apache Junction.*

Policy: *Consider ways to engage and support area tourist attractions that will elevate awareness and increase visitor traffic in the city.*

Policy: *Identify local assets that are attractive to visitor psychographic profiles with strong spend potential that are currently not well represented in the market. Add unique tourism demand generators as appropriate that will be attractive to that more diverse visitor profile.*

RESPONSE

The Auction Property and the Retained Property together total approximately 8,090 acres in area. The area spans nearly six miles north to south and nearly four miles east to west. With the US-60 Superstition Freeway on its north end and the SR-24 on is south end, the overall site is well placed for future development.

Future development of the Retained Property will attract new industries to the region by providing entitled land in prime locations with access to regional transportation corridors and a wide array of residential, commercial, office and mixed uses. Additionally, the new parks, trails, open spaces, and other planned uses within the Auction Property and the Retained Property will provide amenities that are attractive to visitors to the City.

ECONOMIC DEVELOPMENT CONTINUED

GOAL 5.5: MAKE ROOM FOR ALL BY MAINTAINING THE VERY UNIQUE CHARACTERISTICS AND RICH HISTORY OF APACHE JUNCTION'S EXISTING DEVELOPMENT PATTERNS AND LIFESTYLE PREFERENCES, WHILE RECOGNIZING NEW GROWTH IN LARGE SWATHS OF STATE LAND WILL COME WITH VASTLY DIFFERENT PREFERENCES FOR DEVELOPMENT

Policy: *The likelihood of "one community, feeling like two different places" should be embraced not be avoided. Marketing efforts need to help overcome perceptions that Apache Junction is a small town and simply wants more of what currently exists.*

Policy: *Actively gather insight and data from the development community not active in Apache Junction and assess if there are gaps preventing them from investing in the community, or if there is an opportunity to share additional information to help with a site selection decision.*

RESPONSE

Future development will provide opportunities for a variety of uses and character areas. The Development Unit plans will accommodate the flexibility needed for future development and establish a more creative approach to community and neighborhood planning.

PUBLIC SAFETY, SERVICES, AND FACILITIES

GOAL 6.1: CONTINUE TO PROVIDE EXCELLENT POLICE AND FIRE SERVICES

Policy: *Raise professional standards and seek state accreditation through the ACOP.*

Policy: *Develop and expand police resources at a rate to keep pace with growth in terms of facilities, personnel, equipment, technologies and other resources.*

Policy: *Improve/lower 911 emergency call response times for police, fire and other emergency services personnel.*

RESPONSE

The Retained Property, through future Development Unit plans, will provide funding for police service through impact fees or other dedications. Fire service will be funded indirectly through construction tax, property tax and sales tax revenues. These contributions support the growth of Police and Fire services as well as the quality of life of the residents of Apache Junction.

GOAL 6.2: CONTINUE TO PROVIDE ADEQUATE PUBLIC FACILITIES

Policy: *Provide adequate public facilities and services concurrent with new development while maintaining or improving existing service levels for existing development.*

Policy: *Continue to require new development to provide its fair share of required services and infrastructure in a timely manner (see Chapter 10 - Cost of Development Element).*

Policy: *Develop minimum acceptable standards for the provision of community services and infrastructure.*

Policy: *Develop and/or maintain community facilities that encourage and promote opportunities for the interaction and communication between citizens of all ages, cultures and incomes.*

RESPONSE

The Retained Property will provide for substantial infrastructure improvements as the Property develops. Improvements to offsite public facilities included in the City's development impact fee structure will receive funding through impact fees, construction taxes and sales taxes. Where future Development Unit planning includes improvements that are part of the impact fee calculation, the future developer will receive impact fee reimbursement for improvements that are completed. Additionally, future Development Units may fund and construct certain necessary improvements within the Retained Property through one or more Community Facilities Districts ("CFDs").

GOAL 6.3: CONTINUE TO PROVIDE FOR STORMWATER MANAGEMENT

Policy: *Update the 2002 City of Apache Junction Stormwater Master Plan.*

Policy: *Work with the Flood Control District of Maricopa County, Pinal County and Federal Emergency Management Agency ("FEMA") on stormwater management.*

Policy: *Promote the joint use of detention basins for flood control, groundwater recharge and recreational activities.*

RESPONSE

Future Development Unit planning shall provide direction on the use of retention basins for flood control, groundwater recharge through various methods including the use of drywells to percolate storm water into the aquifer, and recreational areas which may be implemented as part of the Retained Property development.

GOAL 6.4: COMPREHENSIVE COMMUNITY PLANNING

Policy: *Encourage new development to provide up-to-date technology, such as fiber optics and wireless internet connections, throughout the development.*

Policy: *Require the inclusion of Salt River Project, water, sewer and other public/private utility facilities and line routes on development plan submittals.*

Policy: *Evaluate the implications of allowing areas affected by existing or proposed overhead electrical facilities to organize improvement districts for facility undergrounding.*

Policy: *Provide adequate space to accommodate community utilities, services, and facilities as development occurs.*

RESPONSE

The Retained Property will provide for substantial infrastructure improvements as the Property develops. Opportunities will be considered to provide backbone infrastructure for future technologies. Utility corridors will be maintained and/or established for water, sewer, power, or other public/private utilities. New electrical services 12Kv or less will be served through undergrounded electrical lines.

PUBLIC SAFETY, SERVICES, AND FACILITIES CONTINUED

GOAL 6.5: SUPPORT CULTURAL FACILITIES

Policy: *Ensure that the library system and multi-generational center continues its role as a major cultural resource for the community.*

Policy: *Continue to provide funding for the library and parks through development fees.*

Policy: *Develop and support art programs, including public art and other cultural activities.*

Policy: *Support public and private partnerships to promote arts and culture.*

RESPONSE

The Retained Property, through future Development Unit planning, will support the City's parks and library facilities through either direct contributions for libraries or by development impact fees, one or more CFD's, construction taxes and sales taxes. These facilities are valuable assets to the greater community providing for essential social and knowledge-based activities.

GOAL 6.6: SUPPORT EDUCATIONAL FACILITIES

Policy: *Promote and support the expansion and enhancement of CAC's Superstition Mountain Campus.*

Policy: *Actively coordinate with AJUSD, CAC, charter schools and private entities on the planning and construction of new and rehabilitated schools in concert with redevelopment, revitalization and development activities.*

Policy: *Request that developers of large residential projects meet with the respective school district and that the district provide the city with projected enrollment and timing impacts such that this information can be included in planning commission and city council staff reports.*

Policy: *Encourage developers to provide for multiple housing choices for all citizens and discourage the creation of more age-restricted development.*

Policy: *Promote sound site planning principles in locating safe, secure school sites.*

Policy: *Encourage the connection of schools to surrounding residences through sidewalks, bicycle paths and trail systems.*

Policy: *Create joint development opportunities to co-locate schools and parks, as well as selected sites for swimming pools and satellite library facilities.*

Policy: *Negotiate intergovernmental agreements for joint use of facilities where and when appropriate.*

RESPONSE

The Retained Property allows for a broad range of housing opportunities, in location, style and size. Future applicants for each Development Unit will coordinate with the Apache Junction Unified School District to evaluate the impacts of development on current school capacities. Where additional school sites are warranted because of student generation, well thought out criteria established within the MPC will be utilized to locate schools at the most appropriate locations.

CIRCULATION

GOAL 7.1: IDENTIFY AND PRIORITIZE TRANSPORTATION PROJECTS

Policy: *Finalize the 10-year transportation capital improvement projects ("CIP)" plan.*

Policy: *Adhere to the adopted Active Transportation Plan:*

a. Plan, design and construct in accordance with recommended lanes and street classification.

b. Planning, design and construction shall include recommended active transportation amenities.

c. Acquire necessary right-of-way to accommodate active transportation amenities. Policy: Coordinate with adjacent municipalities and counties to address regional transportation issues and planning programs.

Policy: *Preserve, protect and acquire transportation corridors from federal patented easements ("FPEs"), washes, powerlines and CAP canals.*

RESPONSE

The Retained Property will provide for substantial street infrastructure improvements as the Property develops. Each Development Unit will reserve the opportunity to propose and finance infrastructure improvements through one or more CFDs or through other regional funding solutions.

GOAL 7.2: IMPLEMENT THE ACTIVE TRANSPORTATION PLAN

Policy: *Prioritize the active transportation network. Compare this priority list to the 10-year transportation CIP. Expand, when possible, any transportation CIP projects to close small gaps or complete an active transportation trail.*

Policy: *Pursue all public or private funding options.*

Policy: *Expand maintenance projects to include trails and paths*

RESPONSE

The Retained Property will provide for substantial street infrastructure improvements as the Property develops. Each Development Unit will reserve the opportunity to propose and finance infrastructure improvements through one or more CFDs or through other regional funding solutions. Each Development Unit will provide a Traffic Impact Analysis which will provide more specific information regarding the planned transportation network for that Development Unit.

CIRCULATION CONTINUED

GOAL 7.3: PROMOTE REGIONAL TRANSPORTATION PLANNING

Policy: *Coordinate with adjacent municipalities and counties to address regional transportation issues.*

Policy: *Promote and be an involved partner in all regional transportation planning programs.*

RESPONSE

The Retained Property will coordinate all future development recommendations within the context of local and regional transportation planning with adjacent municipalities and counties. The Retained Property will propose and finance infrastructure improvements through one or more CFDs or through other regional funding solutions.

GOAL 7.4: PROMOTE INTELLIGENT TRANSPORTATION SYSTEMS AND TECHNOLOGY ADVANCEMENTS

Policy: *Promote solar powered electronic vehicle charging stations in existing and new development.*

Policy: *Stay up-to-date on changing technologies and how those technologies can impact existing transportation systems and laws.*

RESPONSE

Future Development Unit planning will provide for opportunities for future developers to employ technological related practices.

WATER RESOURCES

GOAL 8.1: ADVANCE WATER QUALITY AND QUANTITY

Policy: *Develop and maintain physically and legally available water supplies of sufficient capacity and quality to satisfy demands of current and future water users.*

Policy: *Investigate creative partnerships for the supply and delivery of water to existing and new development in Apache Junction.*

Policy: *Participate in processes to develop alternative regulations to facilitate the acquisition, development and use of necessary water supplies.*

Policy: *Encourage the use of scientific/technical studies to reduce negative impacts of the development of new water sources on existing water facilities.*

Policy: *Maintain a reliable water supply in order to enhance the security and economic sustainability of Apache Junction.*

Policy: *Develop a regional approach to water resource utilization that promotes future growth and sustainability.*

Policy: *Evaluate the costs and benefits of merging AzWC and AJWD into one municipal water service provider.*

Policy: *Evaluate the costs and benefits of merging SMCFD (sewer district) and AJWD into a water and wastewater city utility department.*

RESPONSE

The Retained Property, through development of Infrastructure Master Plans, will evaluate connections to the water and wastewater services within the City. Future Development Unit planning will demonstrate conformance to the Infrastructure Master Plans.

WATER RESOURCES

GOAL 8.2: STRENGTHEN WATER CONSERVATION

Policy: *Develop and/or participate in existing public education efforts regarding the incorporation of water harvesting, xeriscape and other water conservation measures into new developments, redevelopment areas and city projects.*

Policy: *Promote development that conserves water through the type of LID provisions of recharge and use of renewable water supplies.*

Policy: *Conserve the use of both groundwater and renewable water supplies.*

Policy: *Require compliance with ADWR programs, rules and regulations for new developments and city projects.*

Policy: *Require compliance with water conservation guidelines set by the ADWR, for all users, including those outside of the AMAs.*

Policy: *Update the 2002 Stormwater Masterplan. Consider stormwater as a renewable water supply.*

Policy: *Adopt LID Standards and incorporate them into the land development code for water quality and managing stormwater as a source of water for landscape irrigation.*

Policy: *Evaluate the cost/benefit analysis of a stormwater utility to carry out the Stormwater Pollution Prevention Plan ("SWPPP") and the 2002 Stormwater Masterplan.*

RESPONSE

The Retained Property, through the Infrastructure Master Plans and future Development Unit planning, evaluates the use and management of treated wastewater or "non-potable water" within the Non-Potable Water Infrastructure Master Plan. Best practices for the use of non-potable water for irrigation of landscape materials, groundwater recharge, construction water or other planned uses may be incorporated where non-potable water is available. Proposed development will follow ADWR requirements for low water-use plant materials. Where appropriate, the Retained Property shall incorporate low impact development practices for stormwater management as described in **Section 3.5.18 Stormwater and Drainage.**

GROWTH AREA

GOAL 9.1: INCREASE THE CITY'S FINANCIAL SUSTAINABILITY

Policy: *Develop into a shopping and entertainment destination for the region.*

Policy: *Capture greater shares of the year-round and seasonal resident expenditures.*

RESPONSE

The Auction Property and the Retained Property together total approximately 8,090 acres in area. The area spans nearly six miles north to south and nearly four miles east to west. With the US-60 Superstition Freeway on its north end and the SR-24 on is south end, the overall site is well placed for future development.

The Retained Property has frontage along the State Route 24 alignment on the southern portion of the Site. This area is planned for the more intense, regional, employment and other non-residential uses as well as residential uses, which support the goals of the City.

GOAL 9.4: SUPPORT SUSTAINABLE GROWTH

Policy: *Encourage the use of "green building practices" for developers/builders.*

Policy: *Require the use of low impact development practices for all new development.*

Policy: *Conserve for future generations permanent open space to connect the natural resources that are the essence of what defines the city.*

RESPONSE

Each Development Unit plan for the Retained Property will provide opportunities for future developers to employ sustainable building practices, and where appropriate, shall incorporate low impact development practices for stormwater management as described in **Section 3.5.18 Stormwater and Drainage**.

COST OF DEVELOPMENT, CAPITAL IMPROVEMENTS

GOAL 10.1: CONSIDER ALTERNATE FINANCIAL MECHANISMS

Policy: *Explore the possibility of implementing a minor property tax to diversify funding and accelerate city-initiated improvements such as public safety, parks, streets and the expansion of other municipal services.*

RESPONSE

The Retained Property, through future Development Unit planning, will provide funding through various methods including the formation of one or more CFDs, development impact fees, construction taxes and sales taxes to support the growth of police service, parks, and infrastructure to support the quality of life for the residents of Apache Junction.

GOAL 10.2: MAINTAIN OR ENHANCE PUBLIC SERVICE LEVELS

Policy: *Public services/facilities should be available concurrently with development demand.*

RESPONSE

The Retained Property, through future Development Unit planning, will provide funding through various methods including the formation of one or more CFDs, development impact fees, construction taxes and sales taxes to support the growth of police service, parks, and infrastructure to support the quality of life for the residents of Apache Junction.

COST OF DEVELOPMENT, CAPITAL IMPROVEMENTS CONTINUED

GOAL 10.5: ENSURE THAT NEW DEVELOPMENT PAYS ITS FAIR AND PROPORTIONAL SHARE OF THE COST OF ADDITIONAL PUBLIC FACILITY AND SERVICE NEEDS THAT IT GENERATES

Policy: *Continue to recover, through development fees, the costs of police, roads, parks and libraries associated with new development.*

Policy: *When practical and feasible, encourage the formation of CFDs, or improvement districts, to upgrade or construct city streets and sidewalks in developed or developing areas.*

Policy: *Conduct a periodic review with peer governments of the city's tax and fee structure to ensure economic development competitiveness including a construction sales tax.*

RESPONSE

The Retained Property, through future Development Unit planning, will provide funding through various methods including the formation of one or more CFDs, development impact fees, construction taxes and sales taxes to support the growth of police service, parks, and infrastructure to support the quality of life for the residents of Apache Junction.

COST OF DEVELOPMENT, CAPITAL IMPROVEMENTS CONTINUED

GOAL 10.6: RELATE INFRASTRUCTURE INVESTMENT AND LAND USE DECISIONS TO MUNICIPAL ECONOMIC SUSTAINABILITY

Policy: *Recognize long term municipal revenue implications of land use decisions. Support desired levels of public services and fiscal stability by promoting revenue generating land uses.*

Policy: *Conduct fiscal impact analysis for major developments or annexation proposals.*

RESPONSE

The Auction Property and the Retained Property together total approximately 8,090 acres in area. The area spans nearly six miles north to south and nearly four miles east to west. With the US-60 Superstition Freeway on its north end and the Arizona State Route 24 alignment on is south end, the overall site is well placed for future development.

The Retained Property has frontage along the planned future extension of Arizona State Route 24 alignment on the southern portion of the site. This area is planned for the more intense, regional, employment and other non-residential uses as well as residential uses, which support the goals of the City as it relates to economic development and regional growth of employment and general population.

In addition, a fiscal impact analysis is provided as part of the application for MPC zoning.

LAND USE

GOAL 11.1: BE CONSIDERATE OF THE RURAL CHARACTER OF THE CITY

Policy: *Preserve mountain views through the limitation of multi-story buildings outside the downtown core and master planned area.*

Policy: *Require active open space in all new residential developments.*

RESPONSE

The Retained Property, through future Development Unit planning, places more intense uses near the future major transportation corridor to the south. The larger, central land area is primarily comprised of residential land uses with low building profiles. Future development will highlight mountain views.

LAND USE CONTINUED

GOAL 11.2: PROVIDE A BALANCE OF USES THROUGHOUT THE COMMUNITY

Policy: *Allow for the future development of regional shopping centers.*

Policy: *Provide incentives for desired uses.*

Policy: *Attract employment uses to the U.S. 60 corridor.*

Policy: *Discourage any additional manufactured home/recreational vehicle parks and mini-storage within the city*

RESPONSE

The Auction Property and the Retained Property together total approximately 8,090 acres in area. The area spans nearly six miles north to south and nearly four miles east to west. With the US-60 Superstition Freeway on its north end and the Arizona State Route 24 alignment on is south end, the overall site is well placed for future development.

The Retained Property has frontage along the State Route 24 alignment on the southern portion of the site. This area is planned for the more intense, regional, employment and other non-residential uses as well as residential uses, which support the goals of the City as it relates to economic development and regional growth of employment and general population.

GOAL 11.4: ENCOURAGE AND PROMOTE SUSTAINABLE LAND USE DEVELOPMENT

Policy: *Encourage use of green building standards.*

Policy: *Zoning regulations should include sustainable development standards.*

Policy: *Utilize city resources to promote sustainable awareness.*

RESPONSE

The future Development Unit plans will provide for opportunities for future developers to employ sustainable building practices and land use specific development standards.

LAND USE CONTINUED

GOAL 11.5: PROVIDE EQUAL PROTECTION OF EXISTING AGGREGATE AND RESIDENTIAL DEVELOPMENT

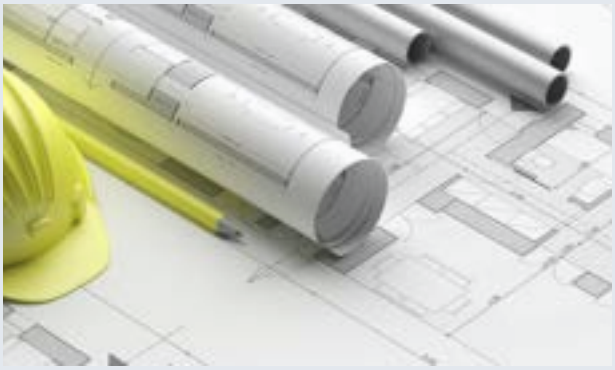
Policy: *Discourage new residential zoning adjacent to where existing or future aggregate operations are planned.*

Policy: *Discourage aggregate operations near or adjacent to residential development, schools or planned/existing city parks.*

Policy: *Promote aggregate operations to be located adjacent to industrial uses.*

RESPONSE

The Retained Property, through future Development Unit plans, will propose land uses and associated development standards for each Development Unit. Proposed land uses will be appropriately distributed throughout the land areas and required to be compatible and complementary uses.



INTERGOVERNMENTAL COOPERATION

GOAL 12.1: PROTECT THE IRREPLACEABLE LEGENDARY LANDSCAPES AND LIFESTYLE OF THE CITY AND REGION

Policy: *The city, federal, state, county and adjacent cities have an imperative and obligation to protect the Superstition region for future generations and shall ensure that the regions natural landscapes are not lost to irresponsible growth.*

Policy: *The city will lead by example by requiring development to leave the lightest foot print possible on the landscape.*

Policy: *The city will convene regional partners to define the metrics and agree to a regional compact for the protection of the resources that define the region and the quality of life for area residents.*

RESPONSE

The Retained Property's request for MPC zoning recognizes the importance of providing a foundation for quality and responsible development that addresses quality of life through prosperity, health, and environment. These elements contribute to the well-being of future residents and ultimately the viability of the project and region. Future Development Unit plans provide opportunities for future developers to employ sustainable building practices and land use specific development standards.

INTERGOVERNMENTAL COOPERATION CONTINUED

GOAL 12.2: FOSTER THE 3 C's OF INTERGOVERNMENTAL COOPERATION (COLLABORATION, COMMUNICATION AND COLLEGIALITY)

Policy: *The city will work proactively to avoid conflict on matters pertaining to regional issues and build interpersonal relationships that promote communication and cooperation.*

Policy: *Put residents first by sharing public resources, services and facilities that serve residents across jurisdictional boundaries.*

Policy: *Grow the City of Apache Junction in a way that benefits the region while conserving the quality of life of existing residents, visitors and businesses.*

Policy: *Encourage planning in Pinal County that promotes the eventual elimination of county islands, logical extensions of public utilities and roadways, services delivery and directs growth to existing municipalities.*

Policy: *The city will not permit connection to water and sewer utilities without annexation to the city.*

RESPONSE

The Retained Property is an asset to the City. As a part of an overall larger land area, the range of proposed land uses will create a very diverse and vibrant region within the City.

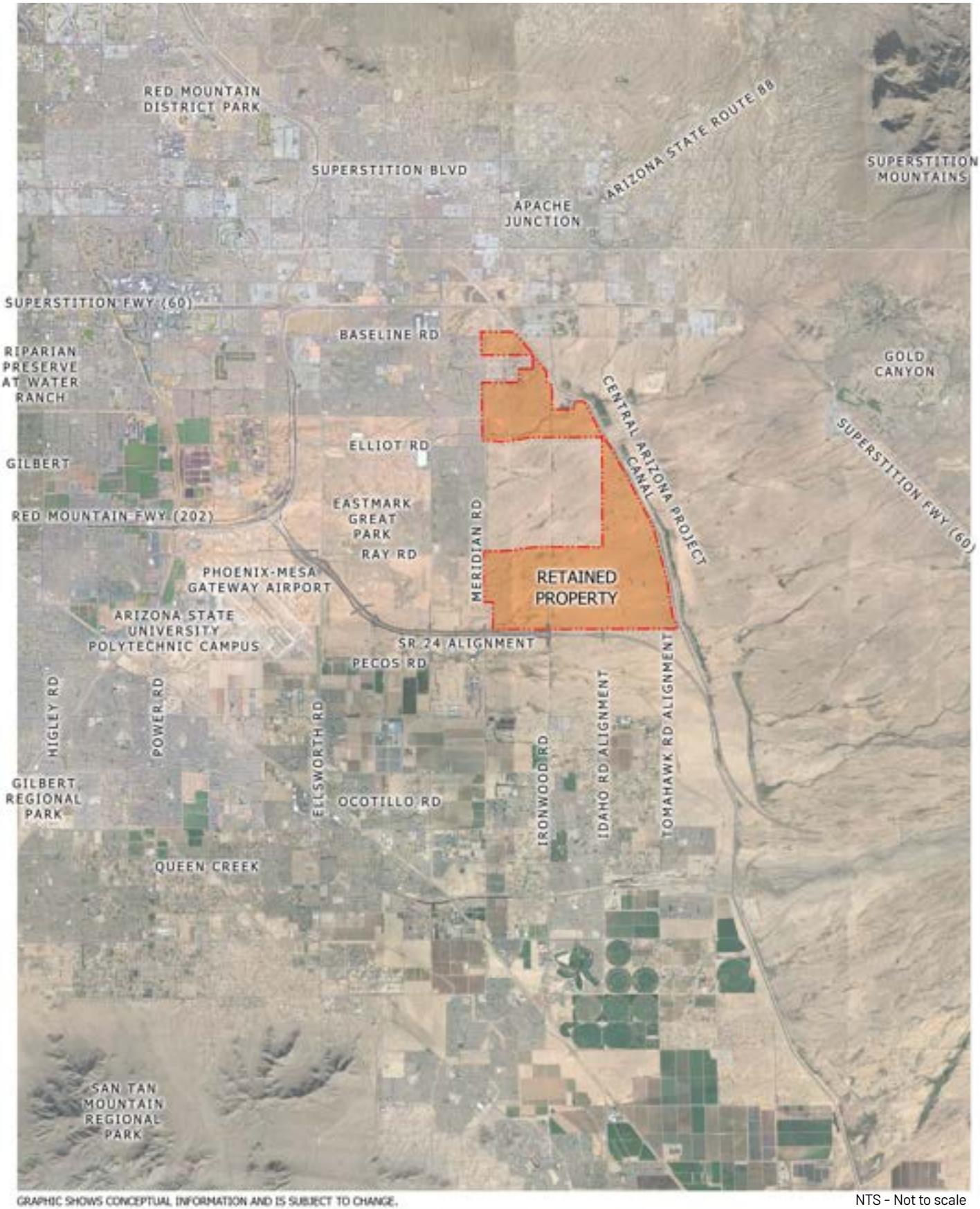
Once the Retained Property has been annexed into the City it will, pursuant to the MPC Plan and future Development Unit planning, provide a location for new residential and non-residential development including opportunities for economic development and regional growth of employment.

2. Site Conditions and Location

2.1 Regional Description

The Retained Property is approximately 5,307 gross acres of land located in the most southern portion of the City and most western portion of the larger Superstition Vistas master plan. The Retained Property is bounded to the north by Baseline Road, to the south by the State Route 24 corridor, to the west by Meridian Road, and to the east by the Central Arizona Project Canal, as shown on **Exhibit 2.1.1: Regional Vicinity Map**. The Retained Property is currently undeveloped with no habitable structures located on-site. It is primarily surrounded by undeveloped land, with the exception of existing single-family residences located west of Meridian Road and industrial uses north of Baseline Road. The northern portion of the Retained Property surrounds an existing land area comprised of industrial uses, east of Meridian Road and north of Guadalupe Road to the Houston Avenue road alignment.

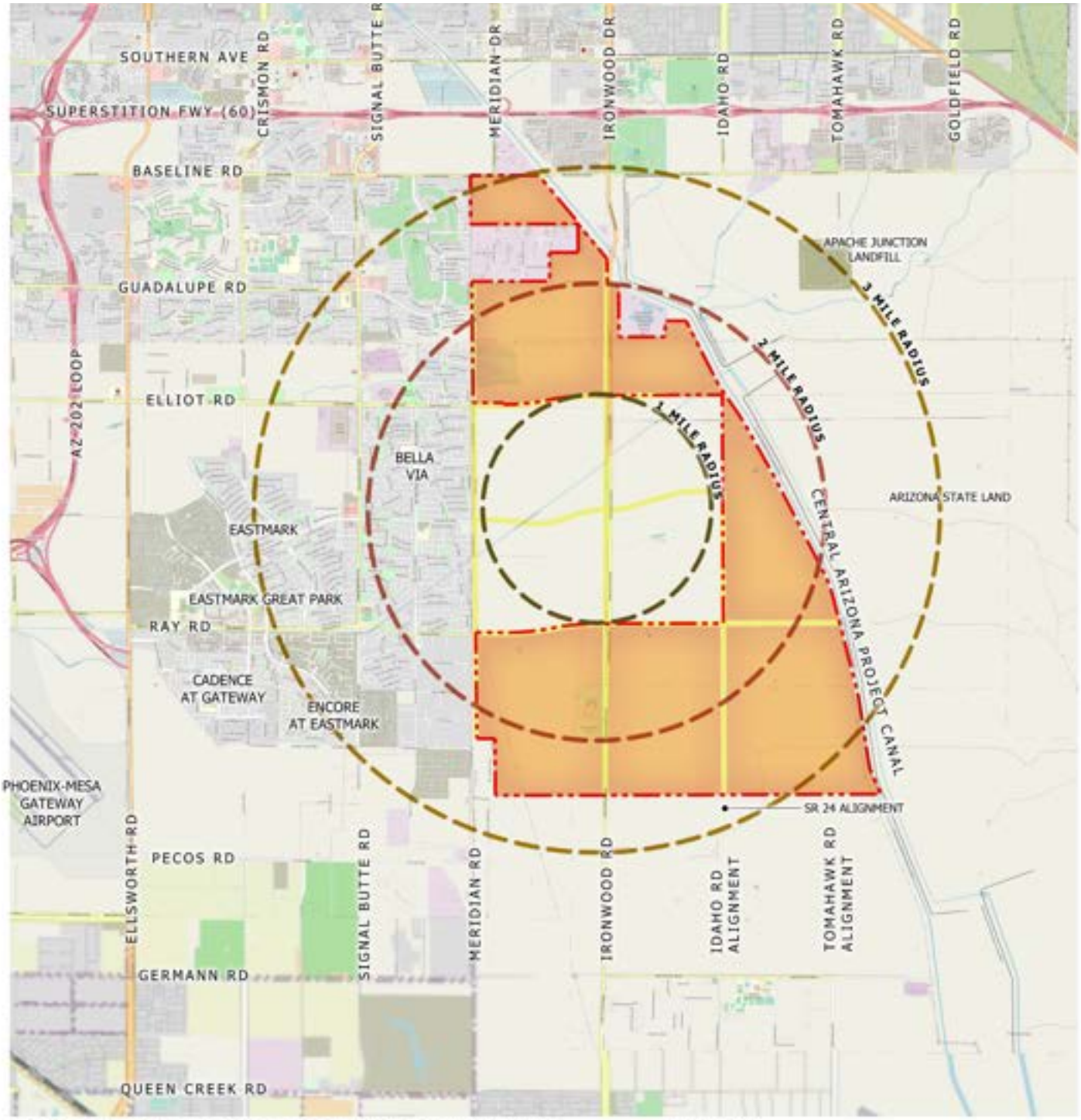
The Retained Property is approximately eight miles from the Superstition Mountains, which are situated northeast of the Site providing outstanding mountain views. The Retained Property is positioned near several major transportation corridors with the US 60 Superstition Freeway to the north, Arizona State Route 202 to the west, Arizona State Route 88 to the northeast, and the State Route 24 corridor to the south. Destinations such as Arizona State University's Polytechnic Campus, Phoenix-Mesa Gateway Airport, regional parks and recreation destinations, and numerous entertainment uses are all within 15 miles of the Site, as shown on **Exhibit 2.1.1: Regional Vicinity Map** and **Exhibit 2.1.2: Context Map**.



GRAPHIC SHOWS CONCEPTUAL INFORMATION AND IS SUBJECT TO CHANGE.

NTS - Not to scale

Exhibit 2.1.1: Regional Vicinity Map



SOURCE: PINAL COUNTY ASSESSOR PARCEL VIEWER OPEN STREET MAP

LEGEND

NTS - Not to scale

PROPERTY BOUNDARY

RETAINED PROPERTY

ROADS

GRAPHIC SHOWS CONCEPTUAL INFORMATION AND IS SUBJECT TO CHANGE.

Exhibit 2.1.2: Context Map

2.2 Existing Site Conditions

The Retained Property is currently undeveloped land.

An existing perpetual right-of-way for Pinal County exists along the Ray Road and Ironwood Road alignments through the Site. Along Meridian Road, right-of-way exists west of the section line in the City of Mesa; however, right-of-way dedications have not yet been established along the east side of Meridian Road. Right-of-way required for Meridian Road will be dedicated as part of this MPC as described within the Infrastructure Master Plans.

Along Elliot Road, a City of Mesa waterline easement was dedicated which routes from the intersection of Elliot Road and Meridian Road to the Central Arizona Project canal, located on the east side of the Retained Property. Within Section 18, the waterline alignment realigns from the Elliot Road section line within the City of Mesa back to follow the north line of Section 18 prior to Ironwood Road, as shown on **Exhibit 2.2.1: Section Map**.

A concrete irrigation ditch known as the "Powerline Floodway Channel" bisects the Auction Property and a portion of the Retained Property. This channel and perpetual right-of-way for the Flood Control District of Maricopa County ("FCDMC") is the principal outlet for the Powerline flood retarding structure ("FRS") and Vineyard FRS and will be required to remain protected in place on the Auction Property and the Retained Property. A portion of the Retained Property is traversed by existing electric transmission lines that will remain in place. Grazing activities currently occur on the Retained Property and will continue until such time development is to occur, as shown on **Exhibit 2.2.2: Existing Site Conditions Map**.

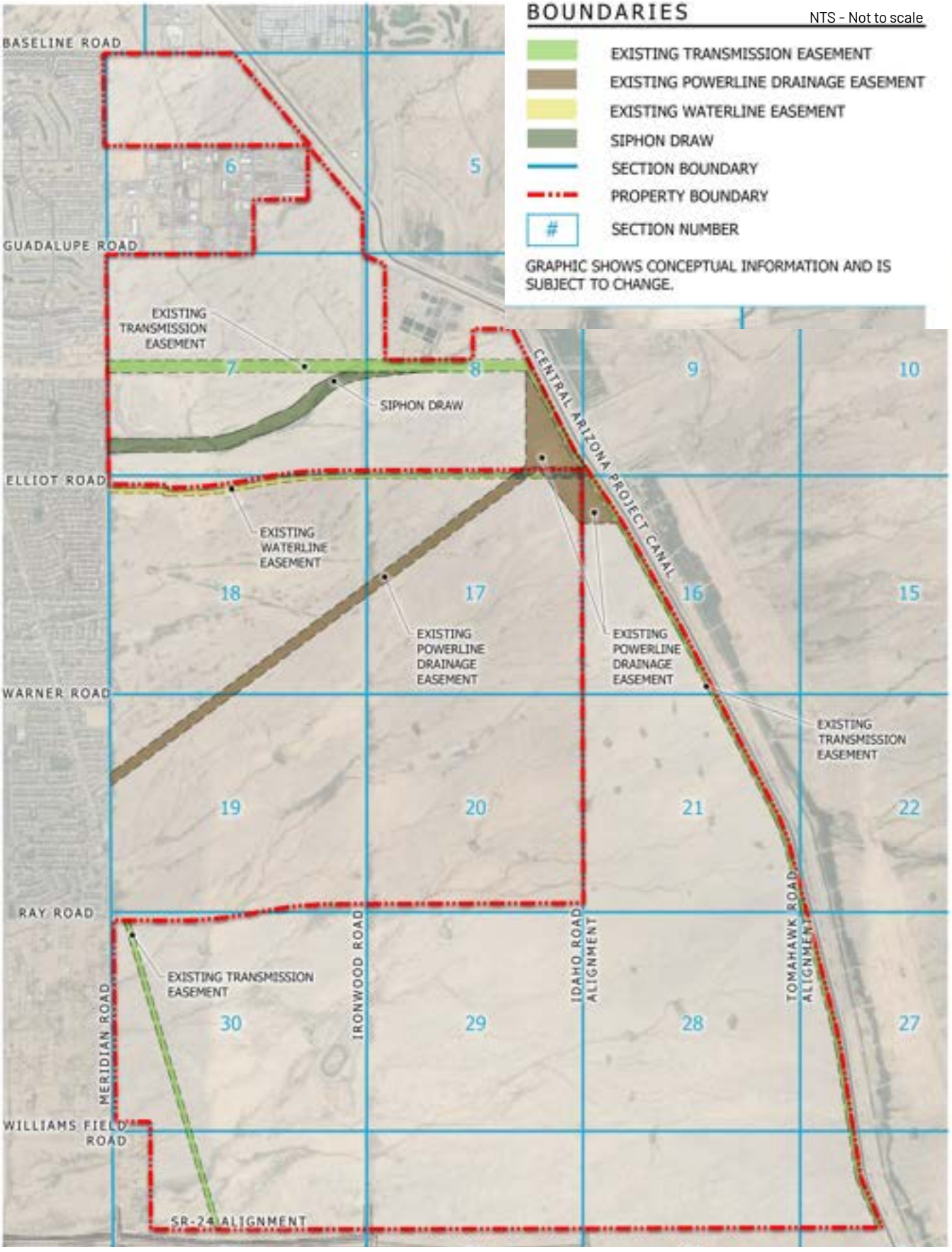
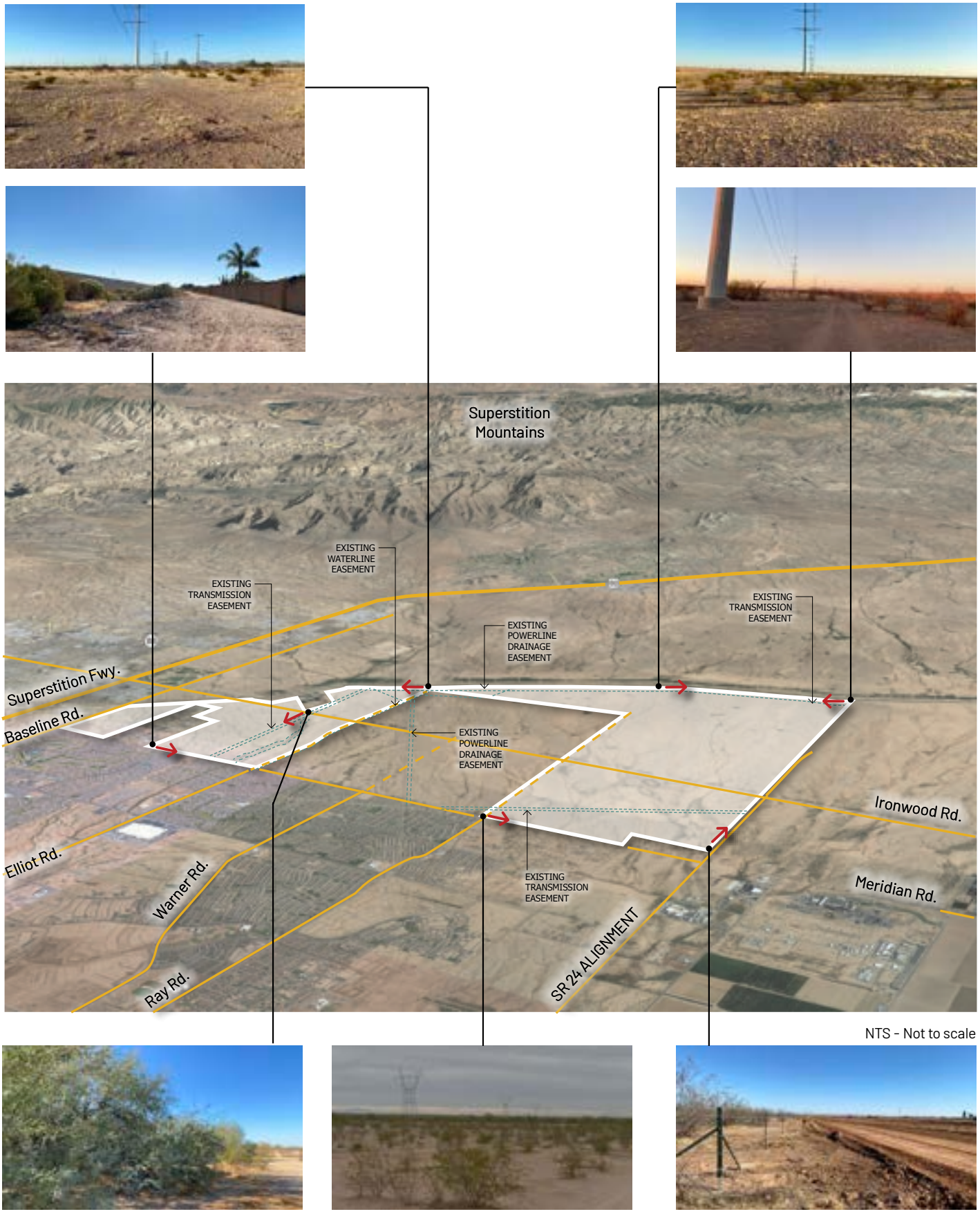


Exhibit 2.2.1: Section Map



NTS - Not to scale

Exhibit 2.2.2: Existing Site Conditions Map

2.3 Existing and Proposed Entitlements

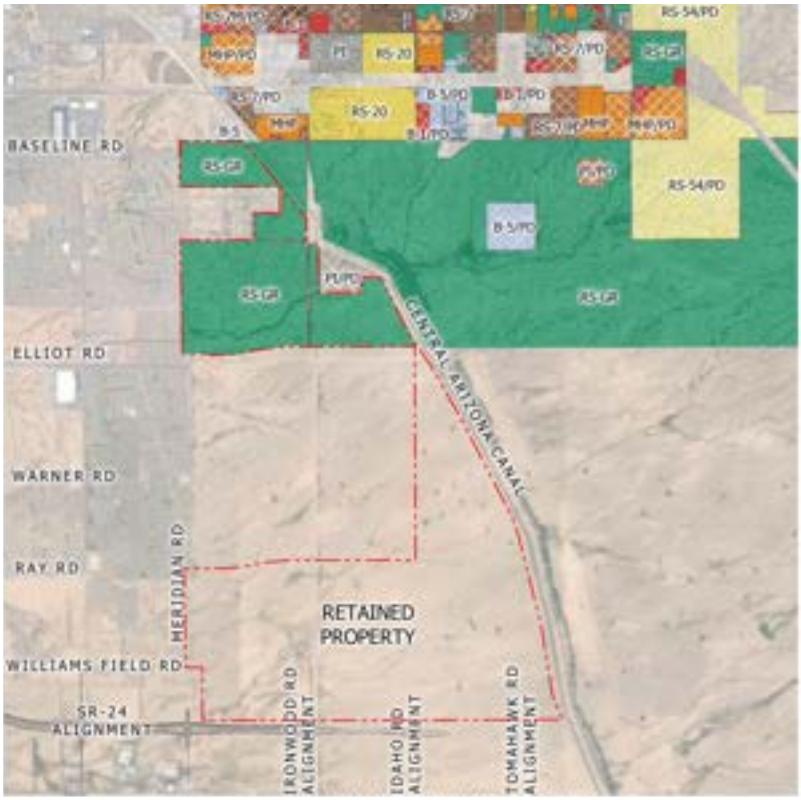
2.3.1 Existing Entitlements

A portion of the Retained Property in Section 6, 7, and 8 is currently within the corporate limits of the City of Apache Junction and is zoned RS-GR. The remainder of the Retained Property will be annexed into the City of Apache Junction and initially zoned RS-GR, which will then be immediately replaced with the MPC zoning district contemplated in this application. Those portions of Sections 6, 7 and 8 that are within the Retained Property area will also be rezoned from RS-GR to MPC at the same time.

2.3.2 Proposed Entitlements

This Applicant is requesting to rezone approximately 5,307 acres of property, the Retained Property, from RS-GR zoning to MPC zoning, as shown on **Exhibit 2.3.2: Existing and Proposed Zoning Map**. The MPC zoning was developed to accommodate master-planned areas of significant scale that will not develop in a single phase but instead will develop over the course of several years in an integrated manner. The MPC zoning provides the flexibility needed to manage development through various market cycles and ever-changing consumer demands.

This MPC Plan seeks to permit a wide variety of residential and non-residential land uses to ensure that the Retained Property is positioned to accommodate future development. As the property develops and as the State Land Department plans for disposition of land within the Retained Property, this MPC may be amended based on the provisions described within **Section 3.2: Amendments** to respond to market conditions or demands.



EXISTING ZONING

SOURCE: APACHE JUNCTION ZONING DISTRICTS
https://gis.apachejunctionaz.gov/portal/apps/webappviewer/index.html?id=051abe6845f64b53b7afd690c55c618e

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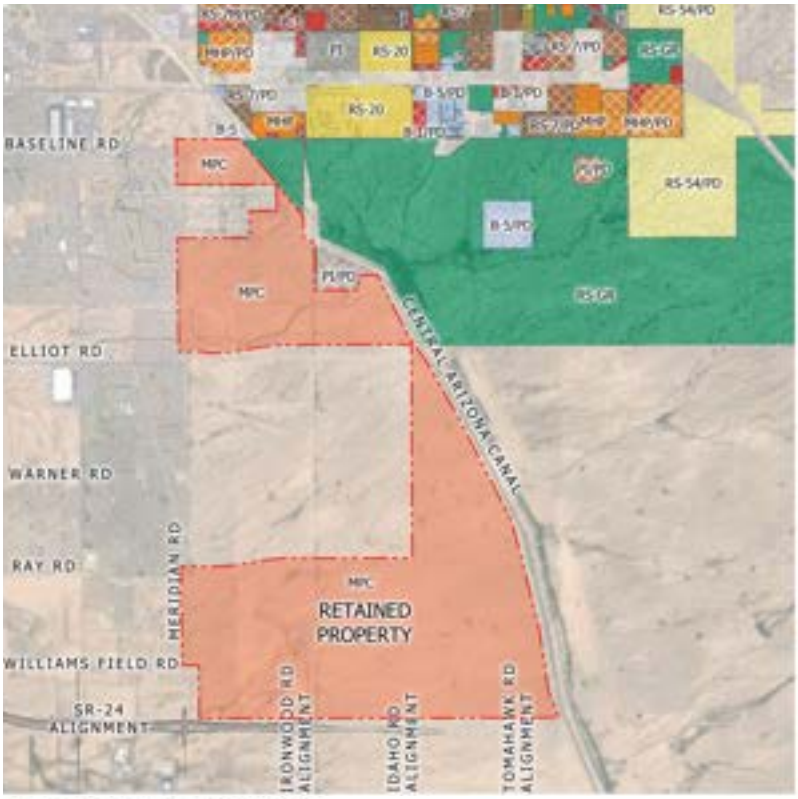

PROPOSED ZONING

SOURCE: APACHE JUNCTION ZONING DISTRICTS
https://gis.apachejunctionaz.gov/portal/apps/webappviewer/index.html?id=051abe6845f64b53b7afd690c55c618e

NTS - Not to scale

Exhibit 2.3.2: Existing and Proposed Zoning Map

3. Regulatory Framework

3.1 Purpose of the Request

The MPC zoning district is to be adopted in conformance with ARS 9-462 et. seq. and the requirements of the ordinances of the City. The MPC Plan is the vehicle for implementation of the City's master planned community zoning goals and establishes a planning and review process that handles the overall development of the Retained Property as the first level of planning. The second level of planning is the Development Unit Plan. Development Unit Plans shall be prepared by the initial winning bidder of future land dispositions by the State Land Department in each Development Unit.

Subsequently, preliminary subdivision plats and site plans will be prepared, submitted, and approved as the third level of planning, before building permits are issued and development occurs within a Development Unit on the Retained Property. The following outlines the sequence and hierarchy of the three levels of Planning:

3.1.1 Master Planned Community Plan

The MPC Plan is the first level of planning and sets forth the baseline entitlements for the development of the Retained Property. The MPC Plan establishes a land use budget, defines development units ("DUs"), permitted uses, and provides the broad vision and character for subsequent Development Unit Plans. The MPC Plan also includes, for convenience and by reference only, overall Infrastructure Master Plans that provide for appropriate infrastructure to accommodate the proposed density and intensity of permitted land uses on the Retained Property. The MPC Plan regulatory framework allows for the implementation of the Development Unit Plan level planning, which allows future developers to adapt criteria to accommodate the then current market and surrounding conditions. See **Section 3.4: Master Planned Community Plan**. Future Development Unit Plans will, at the time of submittal, include Development Standards and Design Guidelines that shall replace all zoning ordinance development standards and design guidelines as well as any future modifications or new development standards or design guidelines.

3.1.2 Development Unit Plan

The Development Unit Plan ("DUP") provides the second and more detailed level of planning demonstrating conformance to the MPC Plan. The Retained Property is divided into six (6) DUs, as shown on **Exhibit 3.1.2: Development Unit Map**. The DUP identifies the approximate amount of acreage for each land use. The Land Use budget allocates development intensities to each of the DUs. Also see **Section 3.5: Development Unit Plan Framework**.

3.1.3 Site Plans and Subdivision Plats

The most detailed level of planning and development review occurs with the approval of a site plan and/or a preliminary subdivision plat. This level of planning provides site-specific details for individual parcels and will identify land uses permitted within the site plan and/or preliminary subdivision plat. Site plans shall be submitted and approved as set forth in the Apache Junction City Code in effect at the time of adoption of the MPC. A preliminary subdivision plat or site plan must demonstrate compliance with the MPC Plan and the applicable Development Unit Plan. Unless otherwise modified by the MPC Plan, the City's subdivision standards are applicable to the development of the Retained Property. Preliminary subdivision plats shall be submitted to the Subdivision Committee and processed in accordance with the City Code in effect at the time of adoption of the MPC. Final subdivision plats must be submitted for review and approval by the City Council.

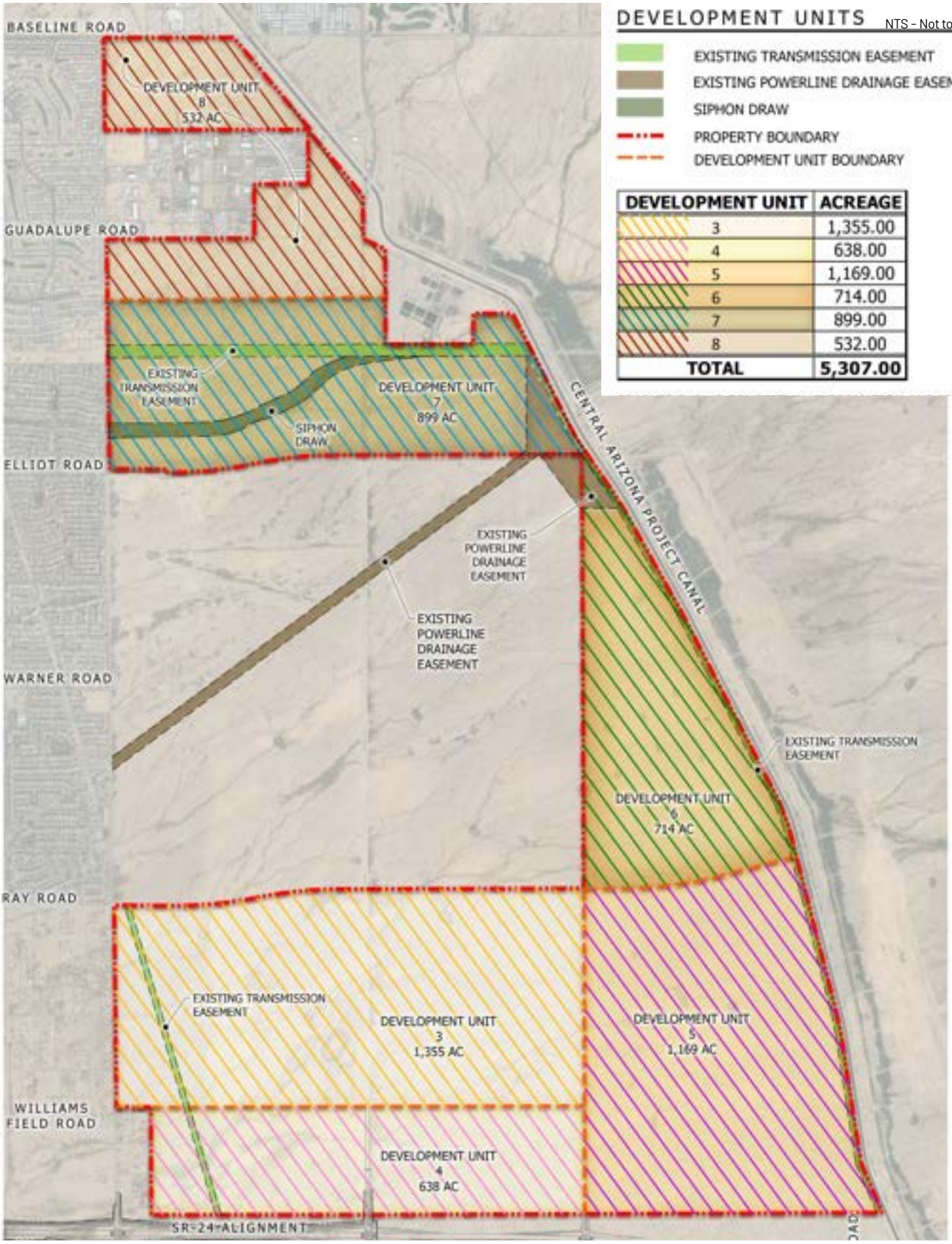

Exhibit 3.1.2: Development Unit Map

3.1.3.1 Pre-Application Conference

A pre-application conference will be required prior to the submittal of a preliminary subdivision plat within a Development Unit. In addition to those items required under the City Code for a pre-application conference, the following materials shall be provided at a conceptual design level to demonstrate conformance with the MPC Plan and Development Unit Plan:

1. Conceptual subdivision plan showing street and lot layout
2. Conceptual path and trail circulation plan
3. Conceptual open space plan showing preliminary open space and parks hierarchy
4. Conceptual wall plan
5. Conceptual landscape character zones
6. Conceptual street tree program
7. Conceptual lighting zones
8. Conceptual signage plan (sign type locations only as required within **Section 3.5.14 Signage Plans**)

A pre-application conference shall be scheduled by the Development Services Director or designee within five (5) days of submittal and be held with the applicant no later than fifteen (15) days from the date of submittal. A submittal for preliminary subdivision plat may be made after the pre-application conference is held.

3.1.3.2 Preliminary Subdivision Plat Submittal

In addition to those items required under the City Code for a preliminary subdivision plat, subject to the modifications within the MPC Plan and Development Unit Plan, the following materials shall be provided to demonstrate conformance with the MPC Plan and Development Unit Plan:

1. Allocation of density within development unit with the use of the Land Use Budget Tracking Table in conformance with **Section 3.4.1 Land Use Budget**.
2. Designation of residential and non-residential uses in conformance with Section **3.4.3 Permitted Uses** and **Section 3.5.7 Permitted Uses Development Categories**.
3. Street network including layout and geometry in conformance with the Transportation Infrastructure Master Plan and **Section 3.5.2 Transportation Framework Plan**.
4. Designation of park types, locations, and sizes as well as proposed programming in conformance with **Section 3.5.9 Open Space and Parks Framework Plan**.
5. Provide calculations of proposed open space as described in **Section 3.5.9(b)**.
6. Identify the location, size, and type of surface for each proposed path or trail within the subdivision plat area in conformance with **Section 3.5.10 Path and Trail Framework Plan**.
7. Identify the proposed landscape zones as well as the proposed palette of plant materials for each zone. Provide symbolized tree locations within landscape areas and proposed street tree program in conformance with **Section 3.5.11 Landscape Framework Plan**.
8. Identify the location, size, and type of proposed public facilities within the subdivision plat area in conformance with **Section 3.5.12 Public Facilities Framework Plan**.
9. Designation of lighting zones including light fixture types and locations per **Section 3.5.13 Lighting Plans**.
10. Designation of signage known signage locations and types within the proposed subdivision plat area in conformance with **Section 3.5.14 Signage Plans**. Where signage is not known, signage can be submitted at a later date following the requirements within **Section 3.5.14 Signage Plans.**
11. Designation of wall locations and types including elevations and materials in conformance with Section **3.5.15 Walls**.
12. Drainage report or narrative as a part of the stormwater management criteria described within **Section 3.5.18 Stormwater and Drainage**.

Preliminary subdivision plat review and approval shall follow the City Code for MPC Districts.

3.2 Amendments

Amendments to this MPC Plan may be necessary from time to time and may be requested by the State Land Department, a winning bidder of an auction, or an owner of land located within the Retained Property. So long as the State Land Department owns any portion of the Retained Property, amendments requested by a property owner, other than the State Land Department, shall provide documentation that such request has been approved by the State Land Department.

The criteria stated below shall determine whether a proposed amendment constitutes a Major Amendment or Minor Amendment (as each is defined below) to the MPC Plan. Once it has been determined that an amendment is a Major Amendment, such amendment request shall be processed in the same manner as an amendment to the MPC district under the Apache Junction City Code Volume II Land Development Code Chapter 1-16-6 and the City Council shall be acting in a legislative capacity when deciding whether to approve a Major Amendment request, approve such a request with conditions of approval, or to deny such a request .

a. **Major Amendments: An amendment to this MPC plan will be deemed a "Major Amendment" only if it involves any one of the following:**

    1. A change in the overall MPC Plan boundary, other than those modifications required due to errors or adjustments for engineering reasons.
    2. A change to the permitted uses in the MPC Plan.
    3. An increase in the total number of approved units or non-residential gross floor area of the overall MPC Plan.
    4. An increase or decrease of more than thirty percent (30%) of the gross area of a Development Unit from that approved in the MPC Plan.

b. **Minor Amendments: Proposed amendments to the MPC plan that are not Major Amendments shall be considered "Minor Amendments". Minor Amendments shall follow an administrative approval process that will simply be to verify whether the requested amendment is not a Major Amendment and is consistent with the purposes and intent of the MPC Plan but may have stipulations or conditions of approval thereto to insure that the Minor Amendment is consistent with the purposes and intent of the MPC Plan.**

    1. Minor Amendment Approval Process

        i. The Development Services Director shall consider each Minor Amendment request within twenty-one (21) calendar days after the date the then-current landowner has provided documentation substantiating the amendment request, including, until such time the State Land Department no longer owns any portion of the Retained Property, documentation that the State Land Department has approved the Minor Amendment request. The Development Services Director shall approve, approve with conditions, or deny the Minor Amendment and shall forward their decision to the then-current landowner.

2. Minor Amendment Appeals, Modifications and Administrative Changes

    i. A decision of the Development Services Director to deny a Minor Amendment request or approve a Minor Amendment request with stipulations or conditions of approval may be appealed to the City Council by the then-current landowner within fifteen (15) calendar days of receiving notice the decision.

    ii. The City Council shall be acting in an administrative capacity when reviewing an appeal from the decision of the Development Services Director and shall be limited to determining whether to reverse the decision of the Development Services Director and approve the Minor Amendment, modify the stipulations or conditions of approval made by the Development Services Director, or confirm the decision of the Development Services Director. The City Council shall meet to consider an appeal of decision of the Development Services Director within fifteen (15) calendar days of receipt of the notice of appeal. If the City Council denies the appeal, the then-current landowner may contest such decision as being an abuse of discretion or file a request for a Major Amendment to the MPC in accordance with the Apache Junction City Code Volume II Land Development Code Chapter 1-16-6.

3. Infrastructure Master Plans

    i. Any modifications made to the Infrastructure Master Plans shall be deemed a Minor Amendment unless required to be updated as a result of a Major Amendment as described in **Section 3.2: Amendments**.

c. Annual Report

1. The State Land Department shall provide an "Annual Report" to the City Council no later than July 1 of each year. The Annual Report shall provide a summary update on the status of development within the Retained Property.

3.3 Interpretations

The Development Services Director shall administratively review and approve clarifications and interpretations not otherwise addressed in the MPC Plan.

3.4 Master Planned Community Plan

3.4.1 Land Use Budget

The Land Use Budget sets forth the maximum number of residential units, non-residential gross floor area and minimum open space area, based on gross area, for the Retained Property as a whole, as shown on **Exhibit 3.4.1.1: Land Use Budget Table.** The intensity and density amounts have been initially allocated for the overall Retained Property and between the Development Units, but such allocation is subject to designation at the time of site plan and/or preliminary subdivision plat approval and dependent on several conditions including drainage, topography, pedestrian and vehicular circulation. Open space area shall be measured and accounted for within each Development Unit as stated in the Land Use Budget. Subdivision plats (preliminary and final) or site plan submittals which, when calculated in aggregate within a Development Unit, may not exceed the maximum residential units or non-residential gross floor area and must meet the minimum open space area established by the Land Use Budget.

a. Land Use Budget Transfers:

i. In order to allow for creativity in design and to be able to provide the flexibility to respond to market conditions for a project of this size, scope and complexity, the State Land Department or a future owner or developer of land located within the Retained Property may transfer intensity and density from one DU to another DU so long as the maximum intensity and density for the Retained Property as a whole is not exceeded. Transfers requested by a property owner other than the State Land Department shall provide documentation that notice of such request has been provided to and approved in writing by the State Land Department's authorized representative. Any proposed transfer shall demonstrate that the transfer will not overburden the transportation system or utility infrastructure.

ii. A transfer of residential units and non-residential gross floor area between DUs will be documented by modifying the Land Use Budget to reflect the increase and decrease of intensity and density for each DU that is part of the transfer.

iii. Land Use Budget transfers shall be either major or minor pursuant to the criteria specified below.

b. Major Land Use Budget Transfers:

i. A transfer request that exceeds the maximum permitted residential units or non-residential gross floor area as described within the Land Use Budget is a Major Land Use Budget Transfer.

ii. A Major Land Use Budget Transfer shall be processed as a Major Amendment to the MPC district, and shall be processed as such, pursuant to the Apache Junction City Code in effect at the time of adoption of the MPC.

c. Minor Land Use Budget Transfers:

i. All other budget transfer requests that are not Major Land Use Budget Transfers shall be Minor Land Use Budget Transfers.

ii. A transfer request shall include brief description of the request as well as a revised Land Use Budget showing the requested transfer of residential units or non-residential gross floor area.

iii. If the transfer request is a Minor Land Use Budget Transfer, based on the criteria specified above, the Development Services Director may administratively act on the amendment to the Land Use Budget and attach related administrative conditions of approval thereto.

d. Density, Intensity and Open Space Tracking:

i. The Land Use Budget Tracking Table is utilized to track the progress of development within Development Units. Site plan or preliminary subdivision plat applications shall submit a Land Use Budget Tracking Table to the City with the application materials, as shown on **Exhibit 3.4.1.2: Land Use Budget Tracking Table.**

ii. The Land Use Budget Tracking Table shall include the following information:

1. The Development Unit identification stating the maximum residential units and non-residential gross floor area permitted from the Land Use Budget, as shown on **Exhibit 3.4.1.1: Land Use Budget Table**.

2. Residential units and non-residential gross floor area as well as open space area for any existing subdivision or site plan within the same Development Unit that have been approved or submitted to the City.

3. Where there are existing subdivisions or site plans within the same Development Unit, calculations for the remaining residential units and non-residential gross floor area, as well as the open space area required before minimum open space area is reached, within the Development Unit. Calculations shall be provided for the quantity of residential units and non-residential gross floor area remaining before the permitted maximum residential units or non-residential gross floor areas are reached.

4. Proposed residential units and/or non-residential gross floor area and open space area for each preliminary subdivision plat or site plan.

5. Totals of the proposed residential units and/or non-residential gross floor area and open space area for each preliminary subdivision plat or site plan.

6. Based on the proposed subdivision plat or site plan, calculations for the remaining residential units and/or non-residential gross floor area, and the residential units and/or non-residential gross floor area remaining before the permitted maximum residential units or non-residential gross floor areas are reached.

The completed Land Use Budget Tracking Table must be filed with the City at the time of preliminary subdivision plat or site plan submittal.

Land Use Budget							
Description	**Development Unit 3**	**Development Unit 4**	**Development Unit 5**	**Development Unit 6**	**Development Unit 7**	**Development Unit 8**	**Retained Property Total**
Gross Acreage	1,355 AC.	638 AC.	1,169 AC.	714 AC.	899 AC.	532 AC.	5,307 AC.
Minimum Required Open Space (15%)	203 AC.	96 AC.	175 AC.	107 AC.	135 AC.	80 AC.	796 AC.
Units	6,400 D.U. [3]	2,730 D.U. [4]	3,790 D.U.	2,170 D.U.	1,340 D.U.	0 D.U.	16,430 D.U. [1]
Maximum Density Transfer In (30%)	1,920 D.U.	820 D.U.	1,140 D.U.	650 D.U.	400 D.U.	810 D.U.	
Units With Maximum Transfer In	8,320 D.U.	3,550 D.U.	4,930 D.U.	2,820 D.U.	1,740 D.U.	810 D.U.	
Maximum Density Transfer Out (30%)	1,920 D.U.	820 D.U.	1,140 D.U.	650 D.U.	400 D.U.	0 D.U.	
Units With Maximum Transfer Out	4,480 D.U.	1,910 D.U.	2,650 D.U.	1,520 D.U.	940 D.U.	0 D.U.	
Non-Residential Gross Floor Area	0 S.F.	2,733,600 S.F.	195,300 S.F.	0 S.F.	2,295,600 S.F.	4,332,100 S.F.	9,556,600 S.F. [2]
Maximum Non-Residential Gross Floor Area Transfer In	217,800 S.F.	790,100 S.F.	58,600 S.F.	54,450 S.F.	688,700 S.F.	1,299,600 S.F.	
Non-Residential Gross Floor Area With Maximum Transfer In	217,800 S.F.	3,523,700 S.F.	253,900 S.F.	54,450 S.F.	2,984,300 S.F.	5,631,700 S.F.	
Maximum Non-Residential Gross Floor Area Transfer Out	0 S.F.	790,100 S.F.	58,600 S.F.	54,450 S.F.	688,700 S.F.	1,299,600 S.F.	
Non-Residential Gross Floor Area With Maximum Transfer Out	0 S.F.	1,943,500 S.F.	136,700 S.F.	0 S.F.	1,606,900 S.F.	3,032,500 S.F.	

1. Maximum combined number of units allowed within Development Units 3-8

2. Maximum combined non-residential gross floor area allowed within Development Units 3-8

3. Of the 6,400 DU permitted, up to 3,200 DU shall be permitted to be developed at 8+ DU/AC.

4. Of the 2,730 DU permitted, up to 2,730 DU shall be permitted to be developed at 8+ DU/AC.

Exhibit 3.4.1.1: Land Use Budget Table

Land Use Budget Tracking (Example)				
Approved Development Unit Totals				
Development Unit	**Gross Acreage**	**Minimum Required Open Space (15%)**	**Units**	**Non-Residential Gross Floor Area**
3	1,355.00 Ac	203.00 Ac	6,400	0 SF
Existing Allocation				
Existing Parcels	**Gross Acreage**	**Open Space**	**Units**	**Non-Residential Gross Floor Area**
1	10.00 Ac	1.50 Ac	39	0 SF
2	10.00 Ac	1.50 Ac	39	0 SF
3	10.00 Ac	1.50 Ac	39	0 SF
4	10.00 Ac	1.50 Ac	39	0 SF
Existing Total Allocation	40.00 Ac	6.00 Ac	156	0 SF
Existing Total Allocation Remaining	1,315.00 Ac	197.00 Ac	6,244	0 SF
Proposed Allocation				
Proposed Parcels	**Gross Acreage**	**Open Space**	**Units**	**Non-Residential Gross Floor Area**
5	10.00 Ac	1.50 Ac	39	0 SF
6	10.00 Ac	1.50 Ac	39	0 SF
Proposed Allocation	20.00 Ac	3.00 Ac	78	0 SF
Proposed Total Allocation	60.00 Ac	9.00 Ac	234	0 SF
Proposed Allocation Remaining	1,295.00 Ac	194.00 Ac	6,166	0 SF

Exhibit 3.4.1.2: Land Use Budget Tracking Table

3.4.2 Development Units

The Retained Property is approximately 5,307 gross acres in overall area. The land area is divided into six (6) Development Units which are generally configured at logical boundaries along primary roadways, drainage areas or land use transitions, as shown on **Exhibit 3.1.2: Development Unit Map**. Within each Development Unit, a maximum residential unit count and non-residential gross floor area as well as minimum open space area is included within **Section 3.4.1: Land Use Budget** and supported by the Infrastructure Master Plans.

As development is planned within a Development Unit, the ability to phase improvements will be required. Development Units shall allow for non-sequential phased improvements providing flexibility in defining where development will occur. A Development Unit may propose development in any location within the boundaries of the Development Unit so long as it leads to a logical development plan where improvements proposed allow for residential or non-residential development. Within a Development Unit, certain parcels may be held out for future development subject to marketability and/or site feasibility. Completion of construction of a particular residential or non-residential development is not required to commence construction of another residential or non-residential development within a Development Unit.

The aggregate of all final subdivision plats or site plan submittals within a Development Unit may not exceed the maximum residential units or non-residential gross floor area established by the most current amended version of the Land Use Budget, as shown on **Exhibit 3.4.1.1: Land Use Budget Table.**

Until the final build-out of a Development Unit, the applications for cumulative final subdivision plats or site plan submittals in each Development Unit shall not utilize all the available residential units or non-residential gross floor area for an entire Development Unit and thereby leave potentially undevelopable portions of the Retained Property.

3.4.3 Permitted Uses

The Retained Property will be comprised of both residential uses and non-residential uses. The proposed use for residential or non-residential shall be identified at the time of preliminary subdivision plat or site plan submittal. This section provides a list of permitted uses within the Retained Property. Requirements for the location of permitted uses as well as their associated development categories and development standards shall be defined within the Development Unit Plan as described in **Section 3.5.7 Permitted Uses Development Categories**.

3.4.4 Infrastructure Master Plans

Master reports for infrastructure have been developed for the Site which support the Land Use Budget as shown on **Exhibit 3.4.1.1: Land Use Budget Table**. They provide an overview of the community-wide infrastructure plans for the Retained Property.

3.4.5 Utilities

3.4.5.1 Electric

Electric service for the Retained Property is anticipated to be provided by Salt River Project (SRP).

3.4.5.2 Telephone and Cable

Cox Communications, AT&T, and Lumen (Century Link) can offer cable television, digital telephone, and broadband data service to the Retained Property.

3.4.5.3 Natural Gas

The Retained Property is within the service area of Southwest Gas Corporation.

3.4.5.4 Solid Waste Disposal

The residential areas of the Retained Property will be served by the City of Apache Junction or its designee for solid waste disposal. Non-Residential areas will be served by contracting with the City or private solid waste disposal companies.

3.4.5.5 Sewer

The Retained Property will be served by the Superstition Mountains Community Facilities District.

3.4.5.6 Water

The Retained Property will be served by the Apache Junction Water district.

3.4.6 Maintenance of Streets and Common Areas

3.4.6.1 Homeowner's Association

Criteria for maintenance of public and private improvements shall be established within the Development Unit Plan. This may include the formation of one or more Homeowner's Associations ("HOA") within a Development Unit.

3.5 Development Unit Plan Framework

As the State Land Department auctions property within the Retained Property, future developers shall be required to prepare Development Unit Plans. The Development Unit Plans includes a series of exhibits with supporting narratives, which generally describe the location of residential and non-residential uses, vehicular and pedestrian connections, parks and open space, landscape character as well as establish an overall aesthetic character for the Development Unit. The following materials, as described hereafter, shall be a part of the Development Unit Plans.

The Development Unit Plan shall address an entire Development Unit based on the auction in which the property was acquired, including any Development Unit boundary adjustments thereof (and after processing any Minor Amendment or Major Amendment, as the case may be, required pursuant to **Section 3.2**), and shall be reviewed and approved by the Development Services Director in accordance with **Section 3.5.20** prior to the submittal of a preliminary subdivision plat or site plan within the identified Development Unit. The actual quantity of Development Unit Plans required shall be based on the auction(s) of property units within the Retained Property by the State Land Department.

Each Development Unit based on the auction in which the property was acquired, shall prepare a Fiscal Impact Analysis to accompany the first submittal of the Development Unit Plan.

3.5.1 Opportunities and Constraints Plan

The "Development Unit Opportunities and Constraints Plan" identifies the areas of unconstrained development potential on the Retained Property and areas where development will consider methods to minimize impacts of existing site constraints to proposed development. See **Exhibit 3.5.1: Opportunities and Constraints Plan.**

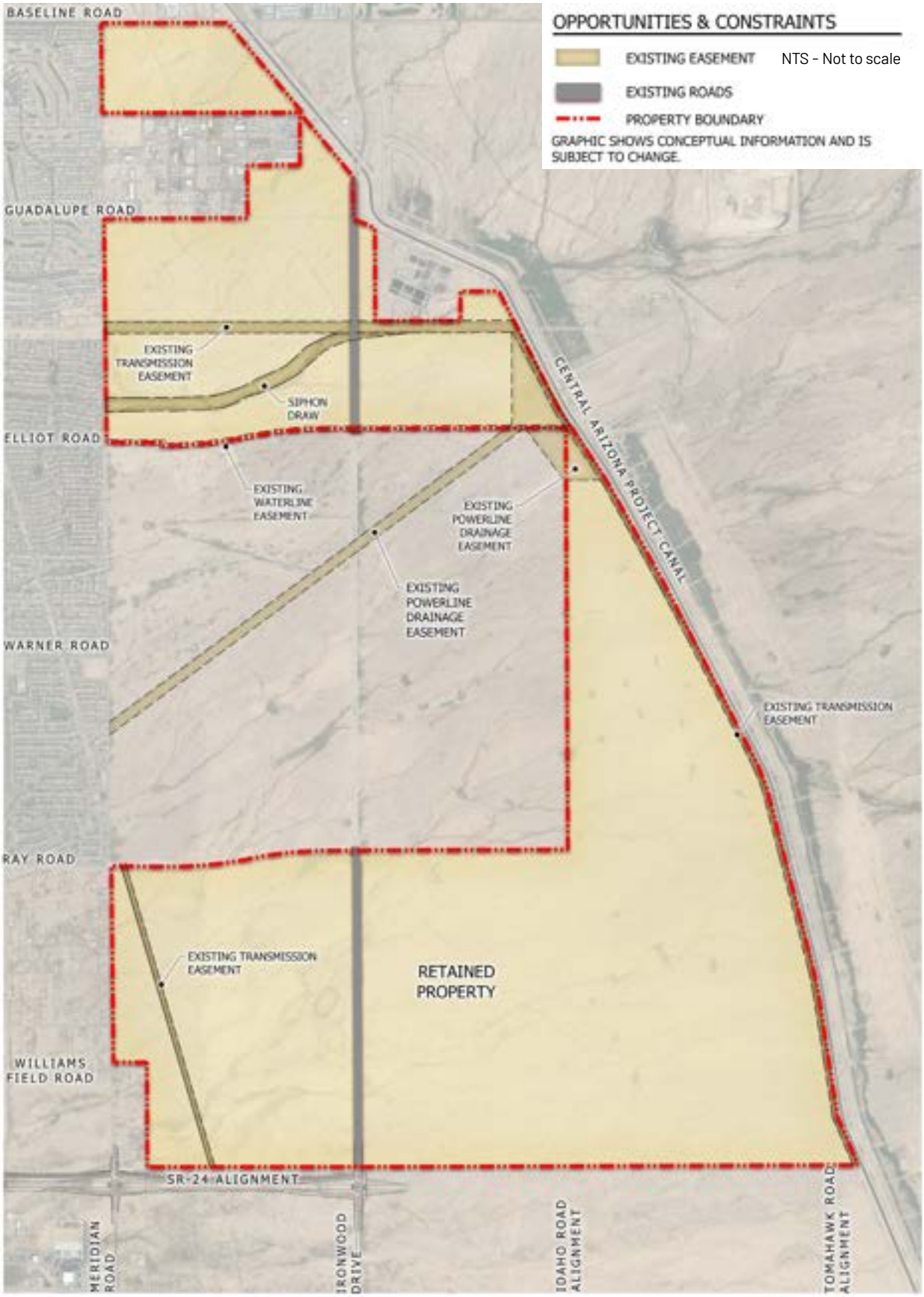

Exhibit 3.5.1: Opportunities and Constraints Plan

3.5.2 Transportation Framework Plan

The "Development Unit Transportation Framework Plan" illustrates the primary street network for each Development Unit. The proposed primary public street network includes arterial and collector classification roadways where proposed right-of-way dedications will be required, as shown on **Exhibit 3.5.2: Transportation Framework Plan**. To provide for flexibility in the planning and development of each Development Unit, a series of alternative street sections may be included within each Development Unit Plan.

Each Development Unit shall provide a Traffic Impact Analysis, which demonstrates the proposed improvements are in conformance with the Transportation Infrastructure Master Plan and shall address any increases or decreases in traffic volumes from other Development Units and within the proposed Development Unit which may occur as development progresses and residential units and non-residential gross floor area changes.

Final street network layout and geometry are to be determined at the time of preliminary subdivision plat or site plan submittal.

3.5.3 Drainage Plans

Each Development Unit shall prepare a "Mass Grading and Drainage Plan" for each development phase that shall demonstrate conformance to the Drainage Infrastructure Master Plan. A Development Unit Mass Grading and Drainage Plan should address any increase or decrease in runoff from upstream or downstream Development Units or within the proposed development phase that may occur as development progresses and residential unit density and non-residential gross floor area intensity changes. The following components should be included on the Development Unit Mass Grading and Drainage Plan:

a. Design report which demonstrates conformance to the Drainage Infrastructure Master Plan.
b. Maps which show the watersheds draining onto or through the development phase with the estimated peak flows for flood events as described within the Drainage Infrastructure Master Plan.
c. Within the proposed development phase, provide estimated peak flows and volumes of run-off exiting the property for both the developed and undeveloped conditions.
d. Location and estimated size of major drainage facilities such as channels, detention basins or retention basins.
e. Proposed phasing of the drainage system, if required, for the development phase.
f. Each development phase shall adhere to the 100 year/2 hour storm requirements.

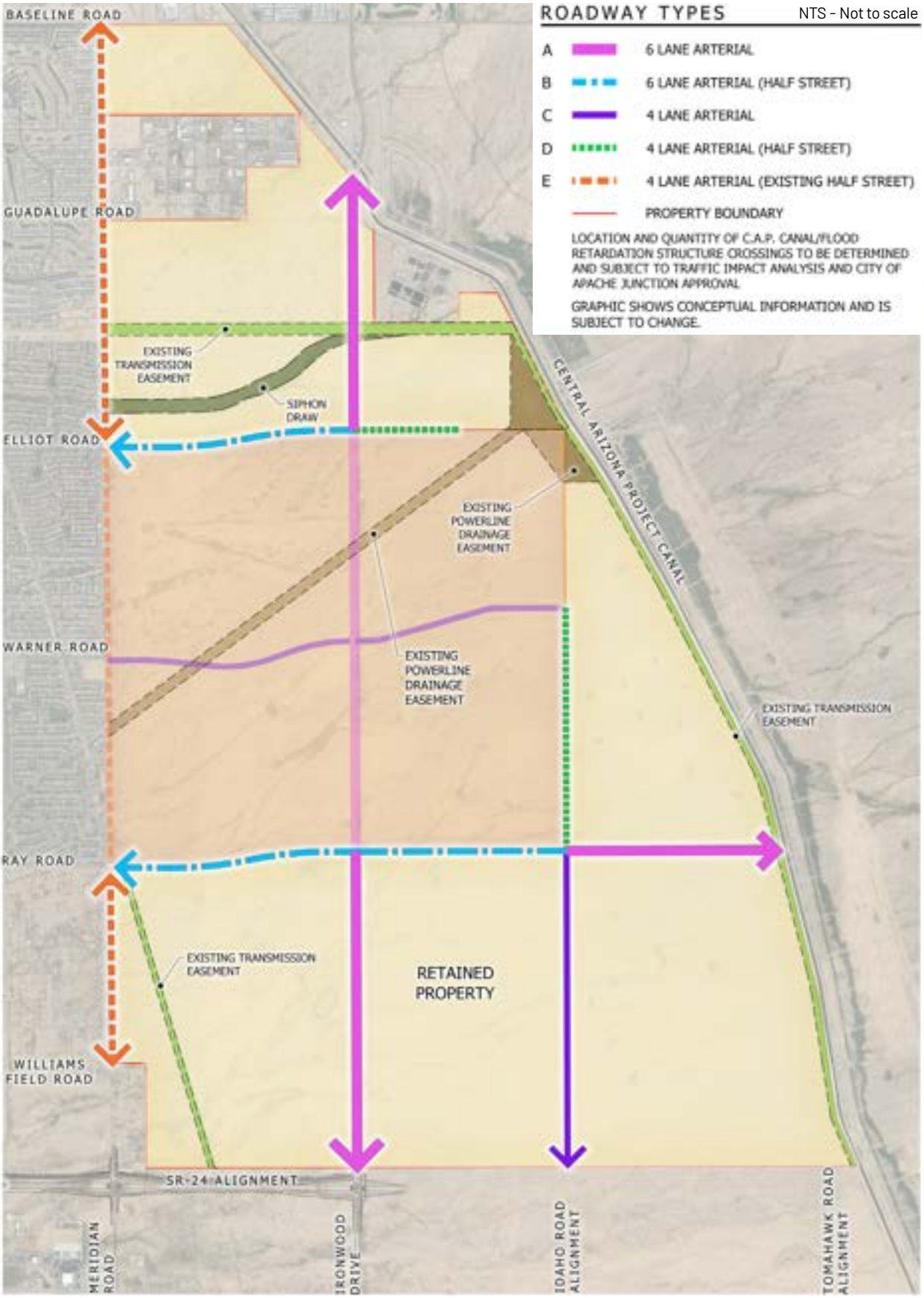

Exhibit 3.5.2: Transportation Framework Plan

3.5.4 Potable Water Basis of Design Report

Each Development Unit shall prepare a "Potable Water Basis of Design Report" for each development phase that shall demonstrate conformance with the Potable Water Infrastructure Master Plan. A Potable Water Basis of Design Report should address any increase or decrease in water demand from other Development Units or within the proposed development phase that may occur as development progresses and residential unit density and non-residential gross floor area intensity changes. Each Potable Water Basis of Design Report shall include the following:

a. Design report which demonstrates conformance to the Potable Water Infrastructure Master Plan.

b. Potable water plan which includes the size, location, and type of required potable water system components including on-site and offsite infrastructure, pump stations and storage facilities (if required) to service the development phase in both the interim condition and full buildout.

c. Calculations necessary to substantiate the proposed infrastructure sizes, types, and capacities of the proposed potable water system including updated demand factors that reflect actual usage.

d. Proposed phasing of the potable water system, if required, for the development phase.

e. Well sites are required for redundancy. Future purchasers of the Retained Property will dedicate property not to exceed one-half (.5) acres in area for each well site not to exceed the frequency of one (1) well site per one (1) square mile, at the time of development.

f. A future parcel for a surface water plant is currently planned to be located within DU 6 as described within the Potable Water infrastructure Master Plan. The location is subject to change based on future potable water plan studies. The identification of the property for a surface water plant assumes that AJWD will purchase the property at such time it is deemed necessary to construct.

3.5.5 Wastewater Basis of Design Report

Each Development Unit shall prepare a "Wastewater Basis of Design Report" for each development phase that shall demonstrate conformance with the Wastewater Infrastructure Master Plan. A Wastewater Basis of Design Report should address any increase or decrease in wastewater flow from other Development Units or within the proposed development phase that may occur as development progresses and residential unit density and non-residential gross floor area intensity changes. Each Wastewater Basis of Design Report shall include the following:

a. Design report which demonstrates conformance to the Wastewater Infrastructure Master Plan.

b. Wastewater Plan which includes the size, location and type of required wastewater collection system components including on-site and offsite infrastructure, lift stations, transmission lines and, treatment system elements required to service the development phase in both the interim condition and full buildout.

c. Calculations necessary to substantiate the proposed infrastructure capacities, sizes, types, and capacities of the proposed wastewater system.

d. Proposed phasing of the wastewater system, if required, for the development phase.

e. Future parcel(s) for a recharge site(s) may be required within Development Units. Location of a site shall be determined based on the amount of wastewater produced within a particular Development Unit. Any such wastewater recharge site shall not to exceed ten (10) acres in area and should be located in undevelopable areas near the non-potable water main distribution network. The identification of the property within developable areas assumes that SMCFD will purchase the property at such time it is deemed necessary to construct. The use of drywells will be required within the recharge site(s) to increase the percolation rates.

3.5.6 Non-Potable Water Basis of Design Report

Each Development Unit shall prepare a "Non-Potable Basis of Design Report" for each development phase that shall demonstrate conformance with the Non-Potable Water Infrastructure Master Plan. A Non-Potable Water Basis of Design Report should address any increase or decrease in water demand from other Development Units or within the proposed development phase that may occur as development progresses and residential unit density and non-residential gross floor area intensity changes. Each Non-Potable Water Basis of Design Report shall include the following:

a. Design report which demonstrates conformance to the Non-Potable Water Infrastructure Master Plan.

b. Non-Potable Water Plan which includes the size, location, and type of required non-potable water system components including on-site and offsite infrastructure, pump stations and storage facilities (if required) to service the development phase in both the interim condition and full buildout.

c. Calculations necessary to substantiate the proposed infrastructure sizes, types, and capacities of the proposed non-potable water system.

d. Proposed phasing of the non-potable water system, if required, for the development phase.

3.5.7 Permitted Uses Development Categories

Each Development Unit Plan shall provide criteria for the location of land use classifications as well as their associated development categories. For instance, residential use classifications typically include Low-Density, Medium-Density and High-Density. The criteria should establish a density range for each residential use classification and include specific development categories by which each use is implemented through development standards. Specific regulated uses within each of the residential use categories shall also be established. The City land use classifications, uses and development categories may be utilized as a basis for establishing the required criteria, or custom land use classifications, uses and development categories may be established based on the desired development result.

Similarly, for non-residential land uses, such as Commercial, Mixed-Use, Employment, Industrial or other non-residential uses, criteria shall be established for the use and implementation of each land use category. Development standards for each land use category as well as regulatory use criteria shall be established for each Development Unit Plan. The City land use classifications, uses and development standards may be utilized as a basis for establishing the required criteria, or custom land use classifications, uses and development standards may be established based on the desired development result.

3.5.8 Non-Residential Intensity Plans

"Development Unit Non-Residential Intensity Plans" conceptually locate areas of proposed non-residential gross floor area against the background of each of the Development Unit's proposed land use classifications. The specific proposed non-residential gross floor area will be provided through future site plan submittals. The information is intended to provide context for understanding the distribution of land uses through a Development Unit.

Residential Permitted Uses	
Above Ground Utilities	Mixed Use Commercial and Multi-Family
Accessory Dwelling Unit	Model Homes
Accessory Structures (except cargo cont.)	Multi-Family Residential Housing
Adult Care Home	Non-Commercial Agriculture and Grazing
Alternate (non-solar) Energy Technologies	Nursing Home / Hospice
Animal Keeping	Outdoor Storage
Assisted Living Facility	Personal Caretaker Unit
Boarding House	Public/Private Schools K to 12
Cargo Containers	Recreational (Indoor and Outdoor)
Child Care Homes	Religious Institutions
Civic Uses and Structures	School Dormitory
Day Care Center	Single-Family Detached Conventional Housing
Day Care Home	Single-Family Attached Housing
Detached Garages	Solar Panels
Equestrian Activities (private)	Subdivision and HOA Activities
Foster Home or Foster Group Home	Swimming Pools and Sports Courts
Group Care Homes	Telecom Facilities
Home Occupations	Temp. Living Quarters During Construction
Live / Work Unit	Temporary Uses and Structures

Non-Residential Permitted Uses
Agriculture
Animal Sales/ Service (Domestic Pet)
Field Crops, Orchards
Greenhouse
Kennel
Nurseries/ Garden Centers
Stable
Automotive
Auto Sound System Installation, Auto Glass Tinting & Repair, & similar uses
Auto Auction
Auto Body Repair & Painting Facilities
Auto dismantling, Scrap Dealers, Recycling Centers
Auto Impound
Auto Parking Lot or Parking Structure as Principal Use
Auto Parts and Accessory Store
Auto Rental
Auto Washing/ Detail
Automobile Diagnostic and/or Service Establishment
Automobile Sales
Automobile Service
Automobile Towing & Impound Facilities
Automobile, Boat, RV, or Motorcycle, Outdoor Sales and Rental
Automobile, RV, & Boat Storage Facility
Automotive Repair Facilities
Boat & RV Repair
Car Wash
Car/ Truck Maintenance

Automotive Continued
Emissions Testing Facility
Gasoline & Alternative Fuel Station
Marine Fuel Facility
Recreational Vehicle Storage
Roadside Stand
Tire Sales, Repair and Mounting
Truck Stop, including wash

Exhibit 3.5.8.1: Non-Residential Permitted Uses

Non-Residential Permitted Uses
Civic
Art Gallery
Bus Shelter
Bus Terminals / Park and Ride Facilities
Cemeteries/ Mausoleums
Clubs/ Lodges
Commercial Recreation
Community Center
Conference/ Convention/ Exhibition Center
Cultural Institutions
Fire Station
Fountain or Public Art
Government Offices
Library
Live Theater
Movie Theater (more than one screen)
Museum
Non-profit Social services
Nursing or Convalescent Home, Long Term Care Facility
Open Space
Outdoor Auditorium
Parking Structure
Parks, Recreation, Playground
Passenger Terminal
Police Station
Public & Public Utility Buildings, Structures, Uses, Facilities and Equipment
Public Buildings
Public Maintenance Facility
Religious Institutions & similar places of worship

Civic Continued
Seasonal Art Festival
Special Events
Sports Stadium
Substance Abuse Detoxification & Treatment Centers
Surface Parking Lot
Water Production and Storage
Water Reclamation Facility
Education
College
Elementary School/ Middle School
High School
Other - Childcare Center
Trade School
Public/Private Schools, Educational Institutions, Business, Technical or Vocational excluding Colleges Universities
Entertainment
Dancing, Theatrical or Music Studio
Golf Courses, incl. golf clubs and maintenance
Health and Exercise Center
Indoor Recreation/Entertainment including Bowling Alleys, Game Rooms, Video Arcades, Ice & Roller Skating Rinks, Shooting Ranges, Pool & Dance Halls, Bingo Halls, & similar uses, excluding Adult Uses & Taverns, Bars & Lounges
Recreation and Social Clubs
Tennis, Racquet Clubs, Miniature Golf & similar uses
Wedding and Reception Center

Exhibit 3.5.8.1: Non-Residential Permitted Uses Cont.

Non-Residential Permitted Uses
Industrial & Manufacturing
Aviation uses such as Aircraft Repair, Aircraft Sales & Air Charter Services
Bulk Fuel Sales and Storage
Call center
Cement & Asphaltic Concrete Batch Plants
Commercial Laundry & Dying Plant
Contractors Storage Yard, including outdoor storage of construction equipment & materials
Cotton Ginning & Baling, Wood Preserving by pressure impregnation, Rubber or Oil Reclaiming
Cremation Facility
Data Center
Day Labor Hiring Centers
Drilling, Production, Refining of Petrol, Gas or Hydrocarbons
Electric Power Generating Plants, Solar Panel Energy Production, Transformer Stations & Sub-stations, Gas Pumping Plants
Electric Substation
Environmental Remediation Facility
Essential Public Service or Utility Installation
Freight/ Truck Terminals/ Depots
Hatcheries
Heavy Industrial Facility
Indoor Storage/ Mini Storage/ Warehouse
Laboratory Facility
Light Industrial Facility
Machine Shops
Manufacturing of lumber & wood products, primary metal industries, fabricating metal products, machinery, & transportation equipment excluding ore reduction & smelting, production or refining of petroleum, gas or hydrocarbons

Industrial & Manufacturing Continued
Manufacturing, Fabrication & Processing of Goods
Mini-storage warehouses, RV, Boat & trailer storage
Motion Picture Studio, Television Pictures, Commercial Still Photography
Moving company storage & transfer facility
Moving truck, trailer & equipment rental
Outdoor storage
Parcel delivery service
Printing and publishing facilities
Railroad shops & similar heavy service facilities
Recycling collection facility
Recycling Collection Point
Recycling Facilities
Remote Mail Service
Research laboratories
School bus parking and maintenance
Transit Terminals
Wholesaling, warehousing, distributing, repair, rental & servicing of any commodity excluding live animals, explosives & storage of flammable liquids & gases
Wireless Communication Facilities/ Cellular Tower
Lodging
Bed & Breakfast (up to 6 Rooms)
Inn (up to 12 rooms)
Hotel (no room limit)/ Resort

Exhibit 3.5.8.1: Non-Residential Permitted Uses Cont.

Non-Residential Permitted Uses
Medical
Ambulance Service Facility
Emergency Medical Care Facility
Hospitals
Medical, Dental, Optician or Health offices including Clinics and Laboratories
Veterinary Hospital
Veterinary Offices and Clinics, excluding animal boarding
Office
Business Services
Professional, Administrative or Business Offices
Research & Development
Personal Services
Animal Shelter
Appliance Repair
Auction Houses and Estate Sales
Boarding Kennels
Blueprint Shop
Cabinet and Carpentry Shop
Custom Dressmaking, Furrier, Millinery or Tailor Shop
Dry Cleaning and Laundry Establishment
Employment Agencies, not including Day Labor Hiring Centers
Laundromat, self-service
Locksmith
Messenger Delivery Service
Tattoo & Body Piercing Studio
Palm Readers, Phrenologists, Fortune Tellers and Astrologers
Tanning salon, Nail Salon, Barber Shop, Beauty parlor & similar uses
Pest Control Service

Personal Services Continued
Pet Grooming Shop
Photographic Developing and Printing
Photographic Studio
Radio and Television Sales and Service
Recording Studio
Shoe Sales and Service, Clothing Alteration
Sightseeing Tour Companies
Ticket and Travel Agency
Watch and Clock Repair Shop
Retail
Art Gallery
Antiques, Crafts, and Collectibles Sales
Appliance, Furniture, & Household Equipment Sales and Rentals
Artist Studio
Bait and Tackle Shops
Bank/ Financial Institiutions
Breweries and Distillers
Book, Stationery & Greeting Card Store
Building Materials/ Big Box
Candy and Ice Cream Store
Carpet and Floor Covering Store
Catering Establishment
Coffee Shop
Commercial Entertainment
Commercial Parking
Copy Center
Delicatessen and Catering Establishment
Department Store
Donation Center

Exhibit 3.5.8.1: Non-Residential Permitted Uses Cont.

Non-Residential Permitted Uses	
Retail Continued	**Retail Continued**
Drive Through	Restaurant, fast-food (drive-thru)
Equipment Sales, Rental and Storage Yard	Restaurant, fast-food
Farmers Markets	Restaurants and Cafeterias
Florist	Retail
Food & Beverage Sales	Retail Decorative Rock Sales
Food & Beverage Vendor Cart	Retail Liquor Store
Funeral Parlor/ Home	Retail Sales of Lumber & Building Materials
Gift, Novelty and Souvenir Shop	Retail Sales of Merchandise, Indoor
Hardware Store with outdoor storage	Sales & Storage of grain, feed, seed, fertilizer, farm & garden supplies
Hobby, Stamp and Coin Shop	Street Performers
Home Improvement Store	Surplus Store
Liquor Selling Establishment	Tavern, Bar, Lounge or Establishment that sells alcoholic beverages for consumption on premise, excluding restaurants
Live Entertainment	Thrift Store
Mobile Home Sales	Upholstery Shop
Monument Sales and Engraving Shop	Video Rental Store
Newsstand	Water and Ice Store
Office Supply & Machine Sales & Service	Wholesale Produce Storage or Market
Open-Market Building	Wholesale sales of finished goods
Outdoor Dining Areas	
Outdoor Display	
Outdoor Entertainment	
Outdoor Sales and Display Area	
Pawn Shop	
Personal Services	
Pet Shop	
Plant Nursery, Retail	
Plant Nursery, Wholesale	
Plumbing, Heating & Air-conditioning Sales and Service	
Push Cart / Kiosk	

Exhibit 3.5.8.1: Non-Residential Permitted Uses Cont.

3.5.9 Open Space and Parks Framework Plans

"Development Unit Open Space and Parks Framework Plans" provide information related to the network of open space and parks within each Development Unit in the Retained Property. A hierarchy of parks shall be established providing for a range of program and scale complementing the planned uses within each Development Unit. Minimum open space requirements for each Development Unit have been established within **Exhibit 3.4.1.1 Land Use Budget Table**.

Parks within a Development Unit may range in character, size, and location depending on their intended use. Parks may be located within neighborhoods, adjacent to open spaces, or other non-residential land uses. Parks should be main features within their proposed location and support the recreation needs of their users. Trails should provide clear access to parks and connections to adjacent land uses.

"Open Space" areas shall be defined as those areas within a development that are either improved or unimproved and are intended for the common use of residents. Open Space shall be comprised of active and passive areas with improvements which are appropriate for their intended users.

"Active Open Space" shall be defined as those areas designated for recreation activities, play areas, open play fields, court games, or those areas which include program such as picnic tables, benches, interpretive signage, trails or pathways or other recreation type activities.

"Passive Open Space" shall be defined as those Open Space areas which do not include Active Open Space.

Development Unit Open Space and Parks Framework Plans shall provide the following information:

a. Parks

i. Parks shall be located within each Development Unit within a ten (10) minute walk of residential units. Size, type, and quantity of parks shall be determined at the time of preliminary subdivision plat submittal. The approximate size and location of any park that is planned to be over eight (8) acres in area shall be shown at the time of the Development Unit Plan submittal. Parks should be an integral feature within a Development Units overall open space.

ii. Parks shall not be required for non-residential uses. Multi-family use area park requirements shall be satisfied through common open space provided within the multi-family parcel.

iii. Park guidelines for each Development Unit shall be provided to establish proposed development requirements within a particular Development Unit.

iv. Within parks greater than five (5) acres in area, turf areas which exceed two and one-half (2 ½) acres of contiguous area shall be designed to be irrigated within non-potable water.

b. Open Space

i. Residential Common Open Space: Common open space shall be a minimum of fifteen percent (15%) of the gross site area. This may include landscaped common area, public or private, or any areas maintained by an HOA within public right-of-way (excluding medians), setbacks, drainage areas, trail corridors, landscape easements, parks or other natural area or other open space areas created as a part of residential development. Open Space requirements for residential development shall be met in aggregate for each Development Unit as a whole. Individual subdivision plats (preliminary or final) are not required to meet the minimum Open Space percentage. Open space shall be calculated within a Development Unit with each preliminary subdivision plat or site plan submittal to ensure the minimum overall area is met as required within **Section 3.4.1: Land Use Budget**.

1. Residential Common Open Space: of the required Open Space for residential development within a Development Unit, twenty (20%) of the area shall be Active Open Space. Retention and/or detention areas shall meet the Active Open Space requirements so long as an area of no less than ten thousand (10,000) square feet is available for recreation activities. Active Open Space requirements for residential development shall be met in aggregate for each Development Unit as a whole. Individual subdivision plats are not required to meet the minimum Active Open Space percentage.

ii. Multi-Family Common Open Space: common open space shall be a minimum of fifteen percent (15%) of the gross site area of the particular multi-family development site. This may include landscaped areas within public right-of-way (excluding medians), setbacks, parking islands, drainage areas, trail corridors, landscape easements, or other natural area or open space area created as a part of the multi-family development. An enclosed climate-controlled community facility of at least eight hundred (800) square feet for developments of one hundred (100) units or more is required. Each individual site plan, including any proposed phasing, shall meet the required common open space area, in aggregate for the entire proposed site.

iii. Commercial Common Open Space: common open space shall be a minimum of fifteen percent (15%) of the gross site area. This may include landscaped areas within public right-of-way (excluding medians), setbacks, parking islands, drainage areas, trail corridors, landscape easements, or other natural area or open space area created as a part of a commercial development. Each individual site plan, including any proposed phasing, shall meet the required open space area, in aggregate for the entire proposed site.

iv. Open space guidelines shall be provided to establish proposed development requirements within a Development Unit.

3.5.10 Path and Trail Framework Plans

Paths and trails within a Development Unit may include pedestrian paths, bike paths or other multi-purpose trails. The paths and trails may be located adjacent to proposed street networks or in open space areas. Surface materials may include native soil, stabilized decomposed granite, concrete, asphalt or other suitable surface materials, which support the intended path or trail use. The Development Unit "Path and Trail Framework Plans" shall conceptually locate, at a minimum, the paths and trails described hereafter associated with primary roadways, collector roadways and the existing electric transmission easement.



As the location of parks and open space are defined within a Development Unit through the subdivision plat or site plan process, a "Path and Trail Circulation Plan" for each subdivision plat or site plan shall be created and submitted as a part of the proposed phase of development. The Path and Trail Circulation Plans should demonstrate connectivity between the external trails network on the primary roadways, collector roads or other primary level trails, to the more localized neighborhood level based on proposed street networks and open space areas. The paths and trails should provide safe and convenient access to the neighborhoods and parks. All proposed trails and pathway surfaces and materials shall be identified on the plan. Each submitted Path and Trail Circulation Plan shall include the following:

a. Primary Roadway Trails

i. The "Primary Roadway Trails" are certain identified primary roads which border and bisect the Retained Property. Meridian Road, Ironwood Road, Idaho Road, Tomahawk Road, Williams Field Road, Ray Road, Warner Road, Elliot Road, Guadalupe Road and Baseline Road comprise the primary roads.

ii. The Primary Roadway Trails are planned to have concrete paved trails that are separated from the curb to allow for landscape areas buffering the vehicular environment from the pedestrian environment. Path and trail locations and minimum width of the concrete shall be shown on the proposed street sections. The trails provide circulation around the Retained Property allowing for regional connections as well as internal community connections.

iii. Primary Roadway Trails will also serve as the main bike circulation route through the use of on-street bike lanes. The bike lanes will connect to the Collector Road Trails (defined below) with other on-street bike lanes or proposed bike paths.

b. Collector Roadway Trails

i. The "Collector Road Trails" are roadway trails, which connect to the primary roadway network providing for intermediate level connections within the Development Units.

ii. The Collector Road Trails are planned to be either concrete paved, decomposed granite surfaces or asphalt, separated from the curb to allow for a landscape area. The varying trails surfacing allows for a range of recreation activities from walking & jogging to biking or skating. Path and Trail locations and minimum widths shall be shown on the proposed street sections.

iii. Collector Road Trails, dependent on the proposed street condition, provide for on-street bike lanes. The bike lanes will connect to the Primary Roadway Trails allowing for greater distances to be traveled on a comprehensive network of bike lanes.

c. Neighborhood Trails

i. The Neighborhood Trails are all other paths or trails within the community. These trails may include street adjacent trails, attached or detached from the curb, paths or trails connecting open space areas or leading to amenity areas, or access to the primary and collector roadway paths or trails or other defined trails networks.

ii. The Neighborhood Trails are planned to be either concrete paved or decomposed granite surfaces. The varying trails surfacing allows for a range of recreation activities from walking & jogging to biking or skating. Path and Trail locations for the varying street adjacent conditions and minimum widths shall be shown on the proposed street sections.

iii. Neighborhood Trails should be depicted on the Path and Trail Circulation Plan.

d. Transmission Easement Trail

i. There are two (2) locations for the "Transmission Easement Trail". The first is located on the southwest portion of the Retained Property and the second is located on the northern portion of the Retained Property. The southwestern Transmission Easement Trail begins within the Auction Property and is planned to continue south and east through the Retained Property as the remainder of the Site is developed. The northern Transmission Easement Trail follows an east – west alignment north of the Siphon Draw connecting Meridian Road to the CAP Canal.

ii. Each Transmission Easement Trail is planned to be a ten-foot (10') wide multi-purpose path, which meanders within the overall easement corridor. Where feasible, access to the trail should be included as a part of the Path and Trail Circulation Plan. This trail is intended to serve as a minor connector between the Primary Roadway Trails and the internal community trails network.

iii. The trail is proposed within an easement that may have certain restrictions related to proposed uses, structures, surface materials and landscape materials or other improvements. The proposed trail shall be coordinated with the respective agency for specific permitted uses and proposed improvements. Where agency requirements limit uses and improvements, area outside the easement shall be defined for the proposed trail corridor.

e. Siphon Draw Trail

i. The "Siphon Draw Trail" is located on the northern portion of the Retained Property. The segment of the trail follows an east – west alignment south of the northern Transmission Easement Trail where it ultimately meets the easement on the eastern portion of the property.

ii. The Siphon Draw Trail is planned to be a ten-foot (10') wide multi-purpose path, which may be placed above water flow limits within the corridor or outside the corridor, dependent on engineering requirements. Where feasible, access to the trail should be included as a part of the Path and Trail Circulation Plan. This trail is intended to serve as a minor connector between the Primary Roadway Trails and the internal community trails network. Where the Siphon Draw Trail and northern Transmission Easement Trail meet, only one (1) trail is required to be constructed.

iii. The trail is proposed within an easement that may have certain restrictions related to proposed uses, structures, surface materials and landscape materials or other improvements. The proposed trail shall be coordinated with the respective agency for specific permitted uses and proposed improvements. Where agency requirements limit uses and improvements, area outside the easement shall be defined for the proposed trail corridor.

f. Requirements for trails design, cross sections and proposed materials shall be a part of each Path and Trail Circulation Plan.

3.5.11 Landscape Framework Plans

"Development Unit Landscape Framework Plan" provide criteria for landscape design within each Development Unit, envisioned through specific landscape character zones. Each landscape character zone provides general guiding principles, which influence the ultimate design of the Development Unit landscape. The proposed landscape character of each Development Unit may vary, offering a variety of aesthetics throughout the Retained Property. Development Unit Landscape Framework Plans shall include the following:

a. Proposed landscape zones within a Development Unit based on a hierarchy of character areas. This may include streetscapes, parks, focal areas, drainageways, transition zones or other types of landscape zones.

b. Conceptual plant materials palette to be included within the landscape zones, public right of way or other areas within a Development Unit.

c. Proposed landscape standards within a Development Unit.

d. A narrative describing the proposed landscape theme within a Development Unit based on the landscape zones proposed and their intended uses.

Within each landscape character zone, the following parameters shall be followed:

a. Plant materials within public right-of-way and common areas shall be compliant with the current edition of the ADWR Phoenix Active Management Area Low-Water-Use/ Drought-Tolerant Plant List.

b. Trees with thorns shall be planted a minimum of six feet (6') from a pedestrian path or trail, measured from the edge of the pedestrian surface to the tree trunk.

c. Any other plant materials with thorns shall be planted a minimum of three feet (3') from a pedestrian walkway or path, measured from the edge of the pedestrian surface to the mature size of the plant material.

d. Turf plays an important role in creating inviting and usable destination points and open spaces. Turf shall be selectively used in ways that will promote recreation activities and social interaction, while being conscientious of water use.

e. No turf shall be planted within the public right-of-way.

3.5.12 Public Facilities Framework Plan

A Development Unit Public Facilities Framework Plan provides documentation and organization of key public facilities that will support the Development Unit, and when appropriate, the entire Retained Property. The Development Unit Public Facilities Plan shall show the conceptual location, size and type of any proposed public facility planned within a Development Unit. The Public Facilities Framework Plan is made up of Schools, Police, Fire and other Emergency Services. The Public Facilities Framework Plan should include the following:

a. Conceptual symbolized location of each proposed facility including a legend which describes the facility and the estimate land area the facility will occupy.

b. Conceptual primary vehicular access to the Public Facility.

c. Final public facilities location(s) and size(s) to be determined at the time of preliminary subdivision plat or site plan submittal.

3.5.13 Lighting Plans

Each "Development Unit Lighting Plans" shall define the use and intensity of lighting allowed through the use of lighting zones in each Development Unit. The zones shall be established based on land use criteria as well as roadway hierarchy. The result will provide the Retained Property with a balance between safety and aesthetics by regulating the quantity and quality of nighttime illumination. Development Unit Lighting Plans shall include the following:

a. Lighting standards which enforce the City's recognition of the International Dark-Sky Association, the Illuminating Engineering Society of North America ("IESNA"), and the International Energy Conservation Code ("IECC").

b. Establishment of lighting zones and development of criteria which will guide the placement, intensity, shielding and scale of the lighting proposed for specific uses within a Development Unit.

c. Subsequent submittals of subdivision plats or site plans shall include "Lighting Plans" which graphically depict the lighting standards established within the Development Unit Lighting Plan for each Development Unit.

3.5.14 Signage Plans

"Development Unit Signage Plans" establish criteria for project signage in each Development Unit that defines the character of that Development Unit, creates a sense of place, and provides wayfinding for vehicular and pedestrian destinations. The signage within a Development Unit should also reinforce the overarching vision and identity of the Development Unit, as well as promote a high-quality aesthetic. While signage character and aesthetics will differ from Development Unit to Development Unit, the continuity in appearance shall be achieved through establishing a level of quality and finish to be executed in all applications. Development Unit Signage Plans shall include the following:

a. Conceptual symbolized locations of types of proposed signage, including a legend, within the Development Unit.
b. The hierarchy of signage proposed within a Development Unit including size (both in land area and height) and signage area.
c. Narrative describing the proposed signage character and theme within a Development Unit.
d. Design guidelines for the proposed signage hierarchy including criteria for location of hierarchy of signage and where certain signage types will be prohibited or required.
e. Signage shall comply with Dark Sky recommendations except where proposed uses are more intense or the signage is intended to be made a special feature.

3.5.15 Walls

A Development Unit shall include a wall and fence hierarchy to provide variety of forms and materials as well as provide for continuity within a Development Unit. Walls and fencing will be used throughout a Development Unit to establish community identity, provide protection from roadway and other noise, and allow privacy and security in residential areas. The use of walls and fences accentuates neighborhood features in addition to screening streets and adjacent uses.

Materials for walls constructed within a Development Unit should complement the character of the community and architecture. Walls shall be constructed of masonry, brick, block, painted block, stone, stucco, steel, board form concrete, concrete, split-face, single-score or patterned integrally colored block or similar enhancement. Development Unit Plans shall include criteria for walls and fences including:

a. The hierarchy of Walls proposed within a Development Unit including potential location, height and materials.
b. Narrative describing the proposed wall character and theme within a Development Unit.
c. Design guidelines and criteria for location and materials of the proposed hierarchy of Walls.

3.5.16 Architecture

"Development Unit Architecture" focuses on the quality of the architecture planned within a Development Unit. Each Development Unit, based on proposed land uses, will retain the ability to establish several unique characters and themes. This may include areas within a Development Unit that are more urban in character with a mix of uses, employment, commercial services, parks, residential neighborhoods, and other types of architectural features planned within a Development Unit. The objective of the Development Unit Architecture is to establish design guidelines that will provide for a variety of aesthetic and character while maintaining a level of quality and finish.

Architectural design review for architectural development within the Retained Property shall follow the requirements as stated within **Section 6.5D Architectural Review of the Development Agreemen**t.

Development Unit Architecture submittals shall include the following:

a. Narrative to include the range of architecture styles to be proposed within a Development Unit for all the proposed land uses (such as mixed-use, commercial, employment, residential, etc.).

b. Design guidelines for architecture for residential uses including, but not limited to, diversity, elevations, equipment screening, windows, entrances, porches, courtyards, terraces, columns, chimneys, garages, driveways, exterior materials, lighting, colors, and other unique features.

c. Design guidelines for architecture for non-residential uses including, but not limited to, diversity, elevations, equipment screening, windows, entrances, parking screening, courtyards, terraces, columns, driveways, exterior materials, lighting, colors, and other unique features.

3.5.17 Development Standards and Design Guidelines

"Development Standards and Design Guidelines" for each Development Unit shall provide criteria for site planning, lot design, architecture plotting, and other specific design parameters required to plan and develop a quality master planned community. Proposed Development Standards and Design Guidelines within a Development Unit shall replace all City zoning ordinance development standards and design guidelines, as well as any future modifications or new development standards or design guidelines adopted by the City. Development Unit Development Standards and Design Guidelines shall provide the following:

a. Development standards for residential product types based on the proposed land use and development categories. Criteria shall be developed for density, plotting, lot size or area, setbacks, building height, lot coverage, or other product specific features.

b. Development standards for non-residential product types based on the proposed land use and development categories. Criteria shall be developed for density (where applicable), plotting, lot size or area, setbacks, building height, lot coverage, or other product specific features.

c. Development standards for street design including proposed street sections and geometry criteria, lot design, block configuration, open space criteria, street diversity standards, utility design, mailbox criteria or other specific site design criteria proposed within a Development Unit.

d. Development standards for parking for various uses proposed within a Development Unit.

3.5.18 Stormwater and Drainage

The Retained Property plans to employ various methods of managing stormwater within the Development Units. Where a Development Unit plans to provide flexible, creative design solutions which support the design of neighborhoods, parks, and other uses, specific criteria for stormwater management may be established. The criteria stated hereafter shall be considered preliminary and are meant to establish a baseline set of parameter for managing stormwater and providing options for low impact development ("LID"). Development Units may propose alternative or additional methods for managing stormwater or options for LID within the Development Unit Plan.

3.5.18.1 Stormwater and Drainage City Code Modifications

The following sections or subsections shall specifically replace those within Article 10-4 of the City Code of Apache Junction (copied into Appendix A as a part of the MPC and amended as noted hereafter), all other sections of Article 10-4 not replaced by the sections or subsections specified below shall remain the same.

§ 10-4-2 STORMWATER STANDARDS.

Replace subsections (A)(2) and (A)(3) with the following:

"(2) For the areas south of Baseline Avenue, the following retention requirement shall apply: stormwater which falls within the development from a 100-year storm of 2-hour duration (precipitation per NOAA Atlas 14 Documents) must be retained within the boundaries of that development (including street areas if within a subdivision) (see Apache Junction City Code Vol. II, § 10-4-10(B)(1) and (2)).

(3) Surface and Underground retention is allowed in all newly developed areas."

§ 10-4-4 STORMWATER PLAN AND DRAINAGE REPORTS.

Replace subsection (B)(1)(g) with the following:

"(g) The retention volumes required by the formula defined in Section 10-4-10."

Replace subsections (B)(2)(m) with the following:

"(m) Lowest floor elevations of all habitable structures;"

§ 10-4-10 DETENTION OR RETENTION FACILITIES.

Replace subsection (A)(3) with the following:

"(3) Underground storage. Underground storage utilizes storage tanks, vaults, pipes and the like to place the required stormwater retention volume underground on the development site. Underground storage is permitted within residential and non-residential development."

Replace subsection (B)(1)(a) with the following:

"(a) All retention/detention facilities shall be sized to retain the storm event falling over the developed portions of project including streets, but excluding areas used for conveyance of offsite flows (see division (B)(2)(a) and (b) below). For the purpose of determining the volume required, the project shall be considered to extend to the centerline of all existing and/or future streets on the exterior boundaries, unless it is unpractical to capture those flows (ex. street is separated from the project by a drainage channel), and to include all interior streets and other rights-of-way within the project."

Replace subsection (B)(2)(b) with the following:

"(b) South of Baseline Avenue:

V R = DC x A

where:

V R = Retention volume required (cubic feet)

D = 100-year, 2-hour depth of rainfall per current NOAA Atlas Documents

C = a coefficient relating the runoff to rainfall (per FCDMC Drainage Design Manual, Volume 1, Table 3.2). A = drainage area, including ½ of all abutting streets (square feet)

Drywell volumes shall not be included in the proposed storage capacities."

Replace subsection (B)(3)(a) with the following:

"(a) Retention/detention basins shall be located such that they can intercept the flows from all developed portions of the site not used to convey offsite flows."

Replace (E)(1) and (E)(2)(a) as follows:

"(1) Retention/detention in parking lots of multi-family developments is not allowed. All retention/detention of such developments shall be in landscaped areas or underground vaults."

"(a) No more than 50% of the required storage volume may be retained/detained in parking areas. The balance shall be provided in landscaped areas or underground vaults. The tributary areas to each basin shall be noted on the master drainage map."

Replace (L)(1) as follows:

"(1) Underground retention shall be permitted in residential and non-residential uses."

§ 10-4-11 DRAINAGE EASEMENTS AND COVENANTS.

Replace subsection (D)(3) with the following:

"(3) Temporary drainage easements. Where the stormwater is retained in an area subject to future development, the easement can be described as a "temporary drainage easement." These easements shall be "automatically" extinguished upon the submittal of a permanent location.

3.5.18.2 Alternative Stormwater Management

The purpose of including these methods of LID is to provide approaches to alternate stormwater management, design, and planning into the Development Units. Utilizing LID practices can reduce the amount of runoff and stormwater conveyed into the stormwater conveyance systems of the Property. Pollutants can be filtered naturally through LID installations. Additionally, implementation of LID practices can result in the beneficial use of stormwater as a supplemental source of landscape irrigation. Benefits of incorporating LID are:

- mitigating localized flooding.
- harvesting stormwater to offset potable water use for outdoor use.
- providing water to surrounding landscapes.
- reducing non-point source pollutant loads and erosion.
- increasing rainfall and runoff infiltration into soils.
- recharging groundwater.
- preserving and improving natural wildlife and habitat.
- beautifying surrounding streetscape.
- reducing heat-island effect.
- improving the health of the local watershed.

The LID options described herein and referenced within the "Greater Phoenix Metro Green Infrastructure Handbook, Low-Impact Development Detail for Alternative Stormwater Management (Reference 24)" shall be considered conceptual by both their design, construction, and implementation. Alternative methods of design, construction and implementation may be proposed which meet the design and engineering requirements of the Property. These alternative methods shall be considered equal where overall design intent is generally achieved with the proposed alternative method and final design and construction details included in the final improvement plans.

Certain LID options may be implemented at a major infrastructure level versus the more granular site plan or subdivision plat level. Due to this circumstance and the variables associated with the varying scale of proposed improvements at the site plan or subdivision plat level, LID options shall be implemented as described hereafter.

MPC Plan:

Within the overall MPC Plan, it is anticipated that the LID options described below will be implemented as design and construction occur. As design occurs within each Development Unit, opportunities to utilize LID options shall be identified and planned at a macro level to ensure utilization and ultimately implementation.

Development Unit:

The scale of each Development Unit affords for a larger land area to implement LID options. Where LID options are a part of an engineering solution or feature within a Development Unit, they should be identified within a narrative or drainage report to be a part of the preliminary subdivision plat or site plan submittal.

Subdivision Plat or Site Plan:

Where a preliminary subdivision plat or site plan is smaller in scale, generally an area less than 100 (one hundred) acres, it shall be considered reasonable to not utilize LID options.

Where a subdivision plat or site plan exceeds 100 (one hundred) acres in area, reasonable efforts to implement LID options shall be utilized.

Where an LID option is proposed, a drainage report shall be provided within the preliminary subdivision plat or site plan submittal describing the proposed LID option to be incorporated into the final design.

Where LID options have been designed and constructed or designed and planned to be implemented within the Development Unit and a subdivision plat or site plan benefit from the constructed or proposed LID option, the preliminary subdivision plat or site plan shall provide a narrative at the time of submittal describing how the LID option within the Development Unit supports LID within the proposed preliminary subdivision plat or site plan.

Final Improvement Plans:

The final improvement plans shall include the design and construction details for proposed LID options based on the concepts proposed within the preliminary subdivision plat or site plan drainage report or narrative.

A minimum of two (2) of the following LID options, or other options proposed by the project design team, are required to be implemented within each Development Unit:

- Curb Openings.
- Sediment Traps.
- Stormwater Harvesting Basin.
- Vegetated Rock Bioswale.
- Bioretention Systems.
- Curb Extensions.
- Drywells.

a. Curb Openings

Curb openings convey runoff into and out of LID features, such as swales or bioretention areas. This LID treatment can be built as part of new construction and can be used in almost any situation.

i. Applicability

The clear openings are typically two (2) feet wide. Curb openings are regularly used to convey flows from parking lots and streets into stormwater capture areas and LID facilities. They are the most common LID practice. For safety purposes, roadway design speeds, clear zone offsets, and the type of curb opening must be considered during the curb opening selection process.

- Metal grate curb openings can be designed to meet ADA standards while accommodating water flows and pedestrian traffic.
- Curb openings are useful in areas where the runoff source is not separated from a LID feature by a pedestrian path.
- Curb openings are relatively easy to maintain.

ii. Design Considerations

- By themselves, curb openings are not a LID treatment.
- The curb openings should be at least twenty-four inches (24") wide to prevent clogging.
- When the curb cut is angled, it should have chamfered sides at forty-five (45) degrees, which is the maximum angle that can be achieved with typical concrete saws.
- The floor of the curb opening should slope toward the stormwater or LID element.
- A minimum two-inch (2") grade drop should be provided between the floor of the curb opening and the finished grade of stormwater element to allow positive drainage.
- The curb opening must be sized allow the design flow to pass without causing ponding in the adjacent roadway travel lane.
- The back slope of curb opening inlet should be armored to prevent erosion if a sediment trap is not also installed.

b. Sediment Traps

Sediment traps should be installed at curb openings and/or inlets that receive concentrated stormwater flows. A sediment trap provides a collection point for sediment and other debris before runoff enters a stormwater capture or LID facility. Sediment traps facilitate individual component and system maintenance.

i. Applicability

Sediment traps are applicable to areas with concentrated runoff flowing into a stormwater capture or LID facility. Traps are generally used as an accessory to another LID element or storage basin. Sediment traps:

- Reduce sedimentation of adjacent basins and LID features.
- Reduce erosion and disperse energy.
- Reduce maintenance efforts because the concrete debris pad facilitates easy removal of sediment and debris.
- Improve the overall LID system function and life cycle/longevity.

ii. Design Considerations

- The debris pad of the sediment trap should be as flat as possible to aid in the removal of debris. A 3-inch concrete lip should be constructed on three sides to reduce maintenance and encourage sediment deposition.
- The flow path length-to-width ratio should be 3 to 1 or less because a higher flow path length to width ratio increases fine sediment removal.
- The sediment trap flow path and debris pad can be built as a single unit from poured concrete or from precast units.
- A riprap bottom is not recommended because they are difficult to clean. Riprap or appropriately sized rock should be used to armor the sediment trap side slopes.
- The optimal sediment trap design would be long enough so that the hydraulic jump occurs within the feature.
- Sediment traps can have adjacent landscaping or can have grasses within the concentrated flow portion of the facility.

c. Stormwater Harvesting Basin

Stormwater harvesting basins, also known as rain gardens, are shallow vegetated earthen depressions that collect stormwater and cleanse it prior to the water percolating into the subsurface. These differ from typical retention basins in that they provide subsurface storage within the constructed facility. An infiltration trench is designed in the center of the storage area so that surface water is infiltrated within thirty-six (36) hours, or per local municipality requirements. Generally, harvesting basins are utilized in onsite planning for stormwater detention. They can be constructed at any size and for various developments, including residential, commercial, or industrial land uses. Harvesting basins should be built adjacent to impervious areas like parking lots and recreational areas such as sport courts. When there is adequate ROW, basins may also be incorporated as roadway enhancements. Harvesting basins are typically landscaped. Due to lower rainfall amounts and a more arid climate within the Sonoran Desert region, reliance solely on harvesting basins may not be a viable option for sustained plant health.

i. Applicability

- Harvesting basins may accomplish a portion of the onsite detention requirements, if designed and maintained with that intent.
- Harvesting basins should be built immediately adjacent to localized runoff sources/ impervious areas (e.g., parking areas, driveways, and rooftops) in lieu of constructing a large, centralized on-site basin.
- Harvesting basins can be retrofitted into sites with or without existing drainage features, are compatible features when adjacent to parking and roadways, easily fit within natural areas, and can be used to achieve drainage volume credit in some municipalities, if designed and approved to meet those requirements.
- Harvesting basins are relatively simple to build, relatively easy to maintain, and scalable in size.
- Harvesting basins can be multifunctional, providing wildlife habitat and creating a "softer" aesthetic for streets and roads by incorporating additional landscaping and vegetation.
- Harvesting basins enhance stormwater infiltration, potentially improving water quality.

- Harvesting basins can reduce the reliance on potable water sources for landscaping irrigation for other portions of the project area, depending on the landscape design and the volume and pattern of stormwater collection.
- Harvesting basins create planting conditions that encourage enhanced vegetation growth that yields cooling properties for adjacent land areas and the Phoenix Metropolitan Area heat island phenomenon.

ii. Design Considerations

- There may be a need to design the basin with an underdrain or overflow drain option if the soils have low infiltration rates or if the anticipated capture volume exceeds the holding capacity of the basin and the infiltration trench. Please refer to the municipality requirements for storage and infiltration tables to determine the design volume and percolation rates of underground systems. The overflow outlet should be located at the downstream end of a drainage basin. Subterranean outlets associated with the underdrain must connect to an appropriate downstream drainage facility, LID element, and/ or underground stormwater collection system.
- The first flush rainfall (one-half inch (0.5")) can be used to determine the design stormwater volume in accordance with the local standards. The allowable surface storage of a harvesting basin should be 9-12 inches with a recommended freeboard of three inches (3"). Stormwater harvesting basins should drain surface ponding in less than thirty-six (36) hours in accordance with the local standards for vector control purposes. The underground runoff volume should percolate within seventy-two (72) hours, so the feature remains effective during the monsoon.
- Stormwater harvesting basins may accept distributed flow along some or all perimeter sides from areas like parking lots or landscape areas. If the basin slope can be designed to be flatter than 3 to 1, the basin sides accepting the distributed flow may be of vegetated earthen construction. Slopes steeper than 3 to 1 should be rock-lined based on the engineering analysis.
- When the stormwater harvesting basin is located next to a travel lane, the Engineer must refer to the AASHTO Roadway Design Book for clear zone requirements (Reference 14).
- The underground work will likely require a special inspection during construction.
- For steep slopes and inlets where flow is concentrated, scuppers or riprap spillways should be designed to prevent erosion.
- Harvesting basins should be located as close to the runoff sources as possible and be distributed throughout a project instead of relying on one large basin to capture the flows.

- To facilitate revegetation, soil fertility testing should be conducted on exposed soils to determine what nutrients/amendments may be needed to foster vegetation growth. Imported soils are not encouraged.
- Because of their association with new or existing development, basin sides are typically landscaped to improve the aesthetics of the element, to match an existing landscape character, and/or to reduce potential erosion on the side slopes. The landscaping treatment can range from a native, drought-tolerant palette to a more ornamental landscaping approach commensurate with urban development. Soil building materials such as organic mulch, biota, and fertilizers may be incorporated into the planting area to improve vegetative success; the need for these can be identified through soil fertility testing and by specifically defining the landscaping objectives and performance expectations.
- Plant selections should consider the location of the plants within the basin and their potential frequency of inundation or for damage. In general, installed plantings (not native seeding) will require some degree of supplemental watering to get the plants established. Watering is typically accomplished through an underground irrigation system whose volume may be reduced over time and/or abandoned once the plants have been established, depending on the success of the landscape installation and the volume and pattern of stormwater collection.

d. Vegetated or Rock Bioswales

Vegetated/rock swales are open, shallow channels that may have trees, grasses, and other low-lying vegetation covering the swale bottom and side slopes, with pervious surface plating materials such as decomposed granite, larger rock, and/or mulch. Vegetated or rock bioswales are designed to slow the flow of runoff to downstream discharge points through various optional methods such as a meandering layout, roughened surfaces, plants, and check dams. Vegetated bioswales should encourage and accommodate additional landscaping within the feature. When landscaped, vegetated swales may provide additional pollutant removal through infiltration and vegetation uptake. Bioswales can provide water harvesting opportunities, depending on the site conditions and their hydraulic requirements. When properly designed, swales may allow percolation of cleansed storm water into the ground. Depending on the location, the preferred vegetation may be limited to grasses and forbs and/ or arid-adapted species that are drought-tolerant and don't require irrigation after establishment. Other locations may consider a different plant palette that is also drought tolerant but that requires limited irrigation. In all cases, care must be taken when selecting plant materials used in the bottom of bioswales; these plants must also be able to accommodate occasional inundation, as they may be in water until infiltration has occurred.

i. Applicability

Rock bioswales are usually placed inline within a storm drain system and are intended to slow down and infiltrate runoff. Specifically, swales:

- Slow the water which minimizes and decreases runoff, reduces erosion, and allows filtration (cleansing) of stormwater.
- Provide a method of water harvesting that promotes plant growth, thereby reducing the reliance on potable water for landscape irrigation; they also capture pollutants in stormwater.
- Produce planting conditions that encourage enhanced vegetation growth, providing cooling for adjacent land areas and helping to reduce the Phoenix Metropolitan Area heat island phenomenon. The aesthetics of the swales are enhanced when landscaped.
- Are relatively simple to build, cost-effective, and relatively easy to maintain.
- Can become tiered/stepped features for detaining stormwater where longitudinal grades are steep.

ii. Design Considerations

- Prevention of erosion of in-situ soils should be paramount during the design. Rock, vegetation, and/or organic mulches can be used to stabilize the surface.
- Subterranean outlets associated with the underdrain must connect to an appropriate downstream drainage facility, LID element, and/ or underground stormwater collection system.
- By building obstruction structures perpendicular to the flows (i.e., check dams and weirs), flow velocities are reduced, and infiltration is improved.
- Side slopes of bioswales should not be steeper than 3 to 1 for safety, erosion, and maintenance purposes. If located adjacent to sidewalks or parking lots, a two-foot (2') level shelf must be created along those elements as a recovery area. Swale bottom widths should be less than eight feet (8') if meandering is desired.
- The bioswale can be designed as a trapezoid. The flow depth and limiting velocity should be recommended as part of the design report. If the velocity is less than one foot per second (1 fps), scour and sediment transport of fine materials will be reduced. The longitudinal slope can be reduced by either increasing the longitudinal length or by meandering the flow path.
- May require rock covering, more robust soil cover, or soil amendments to counter the erosion potential for areas with steeper slopes.
- Sediment traps should be used where concentrated runoff enters the bioswale to dissipate flow velocities and to uniformly distribute flows across the channel. Flow spreaders may also be incorporated into the improvements.
- Energy dissipation should be designed at the toes of each vertical drop if energy dissipators, check dams, or similar structures are used.
- When landscaped, the design objective is typically to improve the aesthetics of the swale and/or to match the existing landscape character of the surrounding lands. The landscaping treatment can range from a native, drought-tolerant palette to a more ornamental landscaping approach commensurate with the surrounding character. Soil building materials such as organic mulch, biota, and fertilizers may be incorporated into the planting area to improve vegetative success; the need for these can be identified through soil fertility testing and by specifically defining the landscaping performance expectations. Plant selections need to consider the location of the plants within the bioswale and their potential frequency for inundation, damage, or flow blockage. In general, installed plantings (not native seeding) require supplemental watering to get the plants established. Watering is typically accomplished through an underground irrigation system whose volume may be reduced over time and/ or abandoned once the plants have been established, depending on the success of the landscape installation and the volume and pattern of stormwater collection.

e. Bioretention Systems

Bioretention is a treatment process that removes pollutants from stormwater through an engineered soil media. Bioretention systems may either allow percolation into the subsoil or may have an underdrain that directs infiltrated stormwater to a downstream drainage system. These differ from stormwater harvesting basins and rain gardens because they are generally deeper, and their main purpose is to capture pollutants and to provide a medium to infiltrate stormwater. Like stormwater harvesting basins, bioretention systems can be constructed within roadway ROWs or areas of limited ROW.

i. Applicability

Bioretention systems are applicable to residential, commercial, and industrial sites and along roadways where stormwater volume reduction by infiltration or improved water quality is desired. Bioretention may be particularly well-suited to urban locations with highly impervious sites where space is limited because they can provide higher infiltration rates.

- This facility is an active water purification system, thereby improving water quality.
- The increased open space of a bioretention area can be multifunctional, providing wildlife habitat and creating a "softer" aesthetic for streets and roads by incorporating additional landscaping and vegetation.
- Bioretention creates planting conditions that encourage enhanced vegetation growth that can help cool adjacent land areas and reduce the Phoenix Metropolitan Area heat island phenomenon.
- Bioretention can reduce the reliance on potable water sources for landscaping irrigation for other portions of the project area, depending on the landscape design and the volume and pattern of stormwater collection.
- Bioretention provides a drainage option from traditional drainage approaches, particularly for space-constrained, highly urbanized environments.
- Bioretention reduces vector concerns due to limiting ponding.

ii. Design Considerations

- Bioretention systems are relatively simple to build and relatively easy to maintain.
- If the side slopes where the inflow will occur are steeper than 3 to 1, they should be rock-lined.

- Bioretention areas should have a sediment trap at the inlet to collect the concentrated flow to prevent clogging, thereby prolonging the effective lifespan of the facility.
- If underdrains are used, they should be a minimum of 6 inches in diameter so that they can be cleaned without being damaged. A vertical clean-out pipe is an optional item. PVC and HDPE pipes used as underdrains should conform to ASTM D3034 and AASTHO 252M, respectively.
- The underdrain should be placed parallel to the bottom of the bioretention collector and backfilled and bedded with six inches (6″) of washed ASTM No. 57 or approved equal aggregate drain rock, which should encase at least one foot (1′) around the sides and top of the underdrain.
- Subterranean outlets associated with the underdrain must connect to an appropriate downstream drainage facility, LID element, and/or underground stormwater collection system.
- The BSM should be minimum of thirty-six inches (36″) to forty-two inches (42″), depending on the design to accommodate a forty-eight-inch (48″) box tree planting. The recommended depth for a bioretention system in a desert environment to remove pollutants was developed in the Pima County Low Impact Development and Green Infrastructure Guidance Manual (Reference 1).
- The runoff volume can be calculated from first flush design storm one-half inch (0.5″) based on the drainage area. The recommended ponding depth for a bioretention system should be nine inches (9″) to twelve inches (12″), with three inches (3″) of freeboard from an overflow structure to the berm or the lowest adjacent finished grade surrounding the system. The system should drain ponded water within thirty-six (36) hours to prevent any vector-control issues. The underground runoff should drain within seventy-two (72) hours so that the facility remains effective during the monsoon. An overflow structure or dedicated outlet should be included with the design so that larger storms have an outfall.
- The bioretention system should be sized using the first flush design. The minimum required area for the bioretention system with an underdrain can be calculated using this equation from the Pima County LID Manual.

- Bioretention systems are typically landscaped. The design objective is typically to improve the aesthetics of the bioretention area and/or to install plant materials that will thrive in BSM and within the inundation characteristics of the element. Soil-building materials such as organic mulch, biota, and fertilizers may be incorporated into the prepared soil to improve vegetative success; the need for these can be identified through soil fertility testing and by specifically defining the landscaping objectives and performance expectations. In the Sonoran Desert, the landscaping treatment will usually be limited to a select list of plants. Irrespective of these plants' ability to thrive in an artificial environment, they will require some degree of supplemental watering to get the plants established and periodically during dry periods to maintain their viability.
- Watering is typically accomplished through an underground irrigation system whose volume may be reduced over time and/or abandoned once the plants have been established, depending on the success of the landscape installation and the volume and pattern of stormwater collection.

f. Curb Extensions

Curb extensions are generally placed in locations where a new curb is built out into a travel or parking lane to create an opportunity for the bioretention of street runoff and a space for trees. Curb extensions (also known as chicanes) may have sloped or vertical sides. In most cases, curb extensions will be designed as online (flow-through) elements. Curb extensions are typically landscaped.

i. Applicability

This LID element can be used along low-speed roadways, driveways, and parking lots. This LID element can also function well in urban streetscapes as a traffic-calming measure.

- Curb extensions are easy to retrofit into an existing area.
- The increased open space of the curb extension can create a "softer" aesthetic for streets and roads by incorporating additional landscaping and vegetation.
- The curb extension landscaping creates planting conditions that encourage enhanced vegetation growth that helps cool adjacent land areas and reduce the Phoenix Metropolitan Area heat island phenomenon.
- Curb extensions provide additional stormwater storage capacity as compared to conventional landscape planters.

ii. Design Considerations

- Minimum soil depth should be twelve inches (12") to eighteen inches (18") to facilitate storage capacity and to be beneficial for vegetation. If trees are required, the landscape architect should recommend the minimum depth. The opening must be designed to collect the roadway flow width for the first flush design storm one-half inch (0.5") without causing ponding.
- Minimum planter width should be thirty inches (30"), but any geometric shape can be built. The minimum width is dictated by the width of a small excavator or backhoe.
- Curb extensions should be designed carefully not to be in conflict with dry utilities.
- Curb extensions are typically designed with curb outlets allowing flow back onto the roadway so they act as a flow-through system.
- If used, underdrains must be connected to a downstream conveyance facility or additional LID element with a positive outlet for extra drainage.

- Curb extensions are typically landscaped. The design objective is typically to improve the aesthetics of the streetscape, to provide shade and landscaping for comfort, and/or to install plant materials that will thrive in the BSM and within the inundation characteristics of the element. Soil-building materials such as organic mulch, biota, and fertilizers may be incorporated into the BSM to improve vegetative success; the need for these can be identified through soil fertility testing and by specifically defining the landscaping objectives and performance expectations. In the Sonoran Desert, the landscaping treatment will usually be limited to a select list of plants. Irrespective of these plants' ability to thrive in an artificial environment, they will require some degree of supplemental watering to get the plants established and periodically during dry periods to maintain their viability. Watering is typically accomplished through an underground irrigation system whose volume may be reduced over time and/or abandoned once the plants have been established, depending on the success of the landscape installation and the volume and pattern of stormwater collection.

3.5.19 Supplementary Provisions

The development of the Retained Property is anticipated to occur over a period of many years and possibly multiple economic cycles. Significant infrastructure improvements are planned which will occur over an extended time frame to support the development. As the State Land Department auctions property within the Retained Property, future developers may propose modifications to Chapter 2 of the City Code which allow more flexible permitting and construction processes necessary to develop a large-scale master-planned community. The following shall be included within a Development Unit Plan regarding supplementary provisions:

a. Proposed modifications to Chapter 2 of the City Code which supports the development of a Development Unit.

b. Proposed processes for plan approvals and permitting where the modifications support the development of the Development Unit.

c. Any other proposed modifications or processes which support the development of a Development Unit.

3.5.20 Submittal and Approval

Each "Development Unit Plan" shall be prepared in a document format inclusive of all items stated herein with narrative materials and supporting graphics or other materials required to support development within a Development Unit.

a. Each Development Unit Plan shall be submitted to the Development Services Director for review and approval prior to an application for a subdivision plat or site plan within a Development Unit.

b. Submittal requirements specific to number of copies to be provided or digital materials required shall be defined by the Development Services Director.

c. Approval of the Development Unit Plan shall follow the Minor Amendment process as described in **Section 3.2(b) Minor Amendments**.

4. Conclusion

The Applicant is requesting Master Planned Community zoning and an associated Master Planned Community Plan for the 5,307-acre Retained Property. The Retained Property is in a prime location for development as it is adjacent to existing residential, and near employment uses, commercial services, and existing and future transportation corridors. The Master Planned Community zoning and associated Master Planned Community Plan are intended to allow for adaptable development and the ability to provide the flexibility needed to manage various market cycles and the ever-changing consumer demands of a large-scale master planned site.

Appendix A: Apache Junction City Code

§ 1-16-6 AMENDMENTS TO ZONING CODE OR ZONING MAP.

(A) Authority. The Council may, from time to time, upon the recommendation of the Commission amend, supplement, change or repeal the Zoning Code regulations (i.e., Zoning Code text) and/or Zoning Map boundaries (i.e., rezoning). The Council shall have the power to approve, modify and approve with conditions or deny the Commission's recommendation.

(B) Request to amend.

(1) By Commission or Council. Request to amend the Zoning Code regulations or Zoning Maps may be initiated by the Council or Commission on its own motion.

(2) By private party. Petition by a private party for a Zoning Map amendment shall be made to the Commission on a form and application provided for that purpose by the Development Services Department and shall be signed and notarized by the real property owners of the properties to which the Zoning Map amendment applies.

(C) Citizen review process. Prior to any Commission public hearing regarding a Zoning Map amendment initiated by a private party, a Citizens Review Process shall be required pursuant to Vol. II, § 1-16-7(B).

(D) Public hearing and notice. The Commission shall hold a public hearing on any proposed amendment to the Zoning Code regulations or Zoning Map boundaries, and city staff shall provide the following notice:

(1) Newspaper publication. Notice of the time, date and place of the hearing, including a general description of the matter to be considered and a general description of the area affected, shall be published in a newspaper of general circulation that is published or circulated in the community. The publication notice shall be at least 15 calendar days before the hearing, and shall be published as required by A.R.S. § 9-462.04, as amended.

(2) If the proposed amendment involves a change to the Zoning Code standards, the changes, or reference to where the changes may be publically viewed, shall be published in a display ad covering not less than 1/8 of a full page as per A.R.S. § 9-462.04(A)(4)(c).

(3) Property posting. The notice of public hearing shall be posted by the applicant in accordance with the instructions provided in the application materials.

(4) Outside agency notice. In proceedings involving Zoning Map amendments of land which abuts other municipalities or unincorporated areas of the county or a combination thereof, copies of the notice of public hearing shall be transmitted to the planning agency of such governmental unit abutting such land.

(5) Mailing notice for Zoning Map amendments. Proposed amendments to the Zoning Maps shall require that the city send notice by first class mail to each real property owner, as shown on the last assessment of the property, of the area to be rezoned and all property owners, as shown on the last assessment of the property, within 300 feet of the property to be rezoned

to a non-industrial zoning district classification. Proposed rezoning to an industrial district classification shall require a mailing to property owners within 500 feet of the property to be rezoned. Mailing notices shall not be required for Zoning Code text amendments.

(E) Failure to receive notice. The failure of any person or entity to receive notice shall not constitute grounds for the city or any court to invalidate the actions of the Commission or Council.

(F) Planning and Zoning Commission decision. Following public hearing, the Commission shall render its decision in the form of a written recommendation to the Council. The recommendation shall include the reasons for the recommendation and shall be transmitted to the Council in such form and manner as may be specified by the Council.

(G) City Council decision.

(1) If the Commission has held a public hearing, the Council may adopt the recommendation of the Commission without holding a second public hearing if there is no objection, request for public hearing or other protest. The Council shall hold a public hearing if requested by the aggrieved party or any member of the public or of the Council, or in any case, if no public hearing has been held by the Commission. Notice of the date, time and place of the hearing shall be given in the time and manner provided for the giving of notice of the hearing by the Commission.

(2) A request made by an aggrieved party or member of the public or of the Council for a public hearing to be held by the Council shall be made within 14 calendar days from the date the Commission votes upon a proposed amendment. The request shall be in writing on a form provided by the City Clerk and filed with the City Clerk.

(H) Conditions of Zoning Map amendment approval.

(1) Base district Zoning Map amendments. The Council may condition approval of base district Zoning Map amendments on the following:

(a) Dedication of public rights-of-way as streets (in accordance with city's Street Classification System), alleys, public ways, drainage and public utilities as are reasonably required by or related to the effect of the rezoning.

(b) Establishment of a schedule for development of the specific use or uses for which rezoning is requested. If at the expiration of this period the property has not been improved for the use for which it was conditionally approved, the legislative body, after notification by certified mail to the owner and applicant who requested the rezoning, may schedule a public hearing to take administrative action to extend or determine compliance with the schedule for development or take legislative action to cause the property to revert to its former zoning classification.

(2) Planned Development Overlay District Zoning Map amendments. The Council may condition approval of a Planned Development Overlay Zoning Map amendment on modification of regulations in accordance with Vol. II, § 1-4-3 (PD District).

(I) Reconsideration of denied amendment. In the event that an application for amendment to the zoning district boundaries is denied by the Council, the Commission and Council shall not reconsider a similar application for at least 90 calendar days from the date of the denial action.

(J) Protests against Zoning Map amendment.

(1) If the owners of 20% or more either of the area of the lots included in a proposed Zoning Map amendment, or of those immediately adjacent in the rear or any side thereof extending 150 feet therefrom, or of those directly opposite thereto extending 150 feet from the street frontage of the opposite lots, file a protest in writing against a proposed amendment, it shall not become effective except by the favorable vote of 3/4 of all members of the Council. If any members of the Council are unable to vote on such a question because of a conflict of interest, the required number of votes for passage of the question shall be 3/4 of the remaining membership of the Council, provided that such required number of votes shall in no event be less than a majority of the full membership of the legally established Council.

(2) Protests shall be filed with the Development Services Department no later than 5:00 p.m. on the Wednesday preceeding the Council meeting, or the following day if Wednesday is a holiday where City Hall is closed.

(K) Effective date. A decision by the Council involving rezoning of land which is not owned by the city and which changes the Zoning Map classification of such land may not be enacted as an emergency measure and such change shall not be effective for at least 30 days after final approval of the change in classification by the Council.

(L) Consistency with the General Plan. All Zoning Map amendments or Zoning Code text amendments adopted under this article shall be consistent with and conform to the adopted General Plan of the city. In the case of uncertainty in construing or applying the conformity of any part of a proposed amendment to the adopted General Plan of the city, the proposed amendment shall be construed in a manner that will further the implementation of, and not be contrary to, the goals, policies and applicable elements of the General Plan. An amendment conforms to the General Plan if it proposes land uses, densities or intensities within the range of identified uses, densities and intensities of the Land Use Element of the General Plan.

(M) Filing fees. Application fees for amendments to the Zoning Code regulations or the Zoning Maps shall be in accordance with Apache Junction City Code, Vol. I, Chapter 4 .

(Ord. 1402, passed 5-6-2014)

§ 10-4-2 STORMWATER STANDARDS.

The city requires that stormwater runoff for new commercial, industrial, multi-family and residential developments be managed as follows:

(A) Retention. The required retention to be contained is the stormwater runoff per divisions (A)(1) and (2) below. Half pavements of the adjoining streets may be considered part of the development.

(1) For the areas north of Baseline Avenue, the following retention requirement shall apply: 110% of the stormwater which falls within the development from a 10-year storm of 24-hour duration (approximately 2.4 inches) of which the difference between the natural runoff and the developed runoff must be retained within the boundaries of that development (including street areas if within a subdivision) (see Apache Junction City Code Vol. II, § 10-4-10(B)(1) and (2)).

(2) For the areas south of Baseline Avenue, the following retention requirement shall apply: stormwater which falls within the development from a 100-year storm of 2-hour duration (approximately 3.0 inches) must be retained within the boundaries of that development (including street areas if within a subdivision) (see Apache Junction City Code Vol. II, § 10-4-10(B)(1) and (2)).

(3) Surface retention is allowed in all newly developed areas.

(4) Underground retention is only allowed in commercial and industrial areas.

(B) Streets.

(1) Ten-year stormwater runoff. Streets must be constructed to carry the stormwater runoff from a 10-year storm event as follows:

(a) For local streets, there shall be no curb overtopping with no requirements for dry lane conditions.

(b) For collector, arterial and parkway streets, there shall be at least 1 dry 12-foot driving lane in each direction.

(2) One hundred-year stormwater runoff.

(a) Calculated peak flow shall be considered to be contained within the right-of-way with:

1. Six-inch maximum depth over the curb;
2. One hundred cfs maximum flow; and
3. Ten fps maximum velocity.

(b) See Apache Junction City Code Vol. II, § 10-4-6 for the street drainage design guide.

(3) Runoff in excess of street capacity. When the stormwater runoff in the streets exceeds the 10-year or 100-year conditions stated in divisions (B)(1) and (2) above, the excess flows shall

be contained in an approved storm drain and/or channel system. No open channels are allowed in the city's right-of-way.

(4) Inverted crown streets. No new inverted crown streets are allowed within the city limits.

(5) Street cross drainage. Cross drainage shall be underground with culverts and bridges. Low water crossings shall not be used without the city engineer's approval.

(C) Off-site flows.

(1) Off-site flows are flows that originate upstream of the proposed land development site and have historically traversed either through the site or have been channelized in some form adjacent to the project.

(a) Land development projects are required to convey the 100-year, time of concentration (Tc) peak flows around or through the project site. These off-site flows shall be interpolated from Apache Junction's Stormwater Master Plan report.

(b) Off-site flows shall not be mixed with any stormwater flows originating from within the project's contributing drainage area unless specifically approved by the city engineer.

(c) Off-site flows shall be carried through the development and discharged at a location and in a manner consistent with historical flow patterns without adverse impact to adjacent, upstream or downstream properties.

(d) Storm drains or box culverts shall be required when off-site flows are discharged from a development site into public right-of-way. See Apache Junction City Code Vol. II, § 10-4-7 for additional information.

(2) Note that "off-site flows" does not include the stormwater runoff from adjacent public right-of-way that the project must retain in accordance with division (A) above.

(D) Special Flood Hazard Area (FEMA designated area). Any development or construction within a special flood hazard area shall conform to FEMA flood plain development requirements and to the requirements of the latest city floodplain management ordinance. See Apache Junction City Code Vol. II, § 10-4-13 and Apache Junction City Code Vol. II, Chapter 5.

(E) Conditions for developing property in flood areas.

(1) (a) Existing washes are not to be filled or altered without a city-approved engineering study. Existing washes can be relocated on-site based on a city-approved engineering study showing adequate capacity and slope for the relocated washes. The washes must enter and leave the subject property in the historic locations. This shall apply to the following lands within the corporate limits of the City of Apache Junction, including but not limited to:

1. All special flood hazard areas as defined by FEMA;

2. FEMA zone X-500, also known as Shaded Zone X, as it pertains to alluvial fan or sheet flooding;

3. Local floodplains associated with washes and/or sheet flow having a 100-year peak discharge of 50 cfs or more;

4. Areas within the erosion hazard setback of a watercourse;

5. All floodplains/flood-prone areas and erosion hazard setbacks identified on previously and subsequently recorded subdivision plats; and

6. All floodplains/flood-prone areas and erosion hazard setbacks identified on previously and subsequently drainage studies commissioned by the city engineer.

7. Any ephemeral natural watercourses that convey runoff during rain events.

(b) For the purpose of this section, the following definition shall apply unless the context clearly indicates or requires a different meaning.

FLOODPLAIN or FLOOD- PRONE AREA. Any land area susceptible to being inundated by water from any source. For regulatory purposes this involves either a FEMA Special Flood Hazard Area, areas platted on accepted city plans as being flood-prone or areas near washes which in the opinion of the Floodplain Administrator may be impacted by water during a base flood.

(2) It is unlawful to divert, obstruct or retard a watercourse. Affected agencies or persons may seek legal action.

(3) Construction in designated flood zones.

(a) Construction in an AH designated flood zone, as shown on the FIRM, requires an existing site topography be prepared by a State of Arizona registered land surveyor and a city-approved engineered grading plan. The lowest floor, garage and equipment is to be designed to be at least 1 foot (State of Arizona regulatory flood elevation ("RFE") above the base flood elevation ("BFE")). Certification by a State of Arizona registered civil engineer stating that the development will not raise the base flood elevation more than 1 foot is required.

(b) A subdivision of 5 or more acres or 50 or more lots located all or partially in an A designated flood zone shall have the base flood elevations determined for the A Zone. The base flood elevations may extend outside the A Zone and the limits of the base flood elevations shall be shown on the grading and drainage plan of the subdivision. The lowest floor, garage and equipment is to be designed to the RFE.

(c) When constructing in an A designated flood zone, without designated floodway and base flood elevations determined, the lowest floor of a structure shall be a minimum of 2 feet above the highest adjacent grade ("HAG") at the pad location of the structure.

(d) Construction in an AE designated flood zone where the floodway and base flood elevation is determined, the lowest floor of a structure to be constructed outside the floodway shall be a minimum of 1 foot RFE above the base flood elevation shown on the FIRM.

(e) Construction in Flood Zones A and AE will allow fill dirt to be imported to the site with a city-approved engineered grading plan. A city excavation and grading permit shall be required.

(f) After construction of the building and after all machinery and/or equipment such as water heaters, air conditioners and other associated equipment have been installed and the grading around the building is completed, a State of Arizona registered land surveyor or a registered engineer shall file a finished construction FEMA elevation certificate for city files.

(4) Any grading resulting in alteration of floodwater capacity or re-alignment of a flood area in an A Zone area may require an Army Corps of Engineer's 404 Permit and/or FEMA approval.

(5) Manufactured homes shall be elevated so that the bottom of the structural frame or the lowest point of any attached appliances (e.g., ground-mounted AC unit), whichever is lower, is at or above the regulatory flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse or lateral movement.

(6) Nonresidential buildings constructed in any A Flood Zone are to be elevated or floodproofed to 1 foot above the base flood elevation or higher. A certification by a State of Arizona registered civil engineer is required stating that the development grading and building will not raise the base flood elevation more than 1 foot. An as-built FEMA elevation certificate prepared by a State of Arizona registered land surveyor or registered engineer is also required.

(7) Constructing buildings on posts or pilings does not remove the building from the Special Flood Hazard Area for flood insurance purposes. The posts or pilings are to be designed to resist lateral movement due to forces of the floodwaters.

(8) Construction is prohibited in floodways unless it has been determined by a State of Arizona registered civil engineer that construction will not increase flood levels during the occurrence of the base flood discharge by any amount. Construction in the FEMA floodways as indicated on the area FIRM map requires that there be no rise in the 100-year flood elevation and certification letter by a State of Arizona registered civil engineer to this. The work may require an Army Corps of Engineers 404 Permit and/or approval of FEMA.

(9) Waste disposal systems cannot be installed wholly or partially in a floodway.

(10) Removing a property from a FEMA flood zone requires a State of Arizona registered civil engineer to process a request in accordance with FEMA procedures.

(11) The city's floodplain management ordinance set forth in Apache Junction City Code Vol. II, Chapter 5 should be consulted for further information.

(F) Stormwater collection and retention plan. A conceptual stormwater collection and retention

plan and a preliminary drainage report shall be submitted to the city with a preliminary plat or site development plan, and shall be approved prior to the approval of the plat or plan. Drawings, plats, plans and the like shall comply with the city standards, set forth in Apache Junction City Code Vol. II, § 10-4-4(A).

(G) Drainage report. A drainage report shall be submitted to the city wherever development and/or grading is proposed within the city limits. DEVELOPMENT shall mean any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling. See Apache Junction City Code Vol. II, § 10-4-4(B). (Ord. passed - -)

§ 10-4-4 STORMWATER PLAN AND DRAINAGE REPORTS.

(A) Stormwater Collection and Retention Plan. The Stormwater Collection and Retention Plan shall include but not be limited to the following:

(1) The watershed boundaries, both on-site and off-site, shall be delineated with any existing drainage or irrigation structures such as waste or delivery ditches, natural drainage channels and the like, and the proposed development's impact on existing features;

(2) A topographic map which shows the location of the project area; a 1- or 2-foot contour interval shall be used as the base map for both existing and proposed. The map shall also show the location of the property with respect to the street system and other features such as existing and proposed stormwater retention basins and the like;

(3) Method of collection (surface and/or subsurface);

(4) Depth, side slopes and volume of retention basins;

(5) Calculations showing retention required and provided;

(6) Method of disposal of water within 36 hours;

(7) Areas tributary to each retention basin;

(8) The development's low outfall elevation and location relative to city datum shall be explained and the location on all watershed and topographic maps shall be identified;

(9) The drainage pattern of all streets within and adjacent to the proposed development on the drainage maps shall be indicated;

(10) A preliminary retention basin plan including size, depth and possible methods of draining the retention basin shall be proposed;

(11) Areas within any 100-year floodplain including any FEMA designated floodplain shall be indicated; and

(12) All stormwater plans and preliminary drainage reports shall be prepared and signed by a professional civil engineer who is registered by the State of Arizona.

(B) Drainage reports. Drainage reports shall be submitted for approval by the city with the site improvement plans. The report shall be typewritten on letter-size sheets with necessary maps folded and inserted into the report in the proper order. All drainage reports shall be prepared and sealed by a qualified professional civil engineer registered in the State of Arizona. All elevations shown on the plans shall be referenced to a benchmark on the city datum unless otherwise approved by the city engineer.

(1) Preliminary drainage report. A preliminary drainage report shall be required for all commercial, industrial, multi-family and residential subdivision developments. The report must be presented with preliminary development plans. Complete engineering reviews shall

not occur without this report, which shall be on separate, letter-size, typewritten sheets with necessary maps and attachments. Handwritten comments on a plan sheet are not acceptable and shall be returned unapproved. The preliminary drainage report shall include, but not be limited to:

(a) Adequate maps that delineate the boundaries of on-site and off-site drainage areas;

(b) Maps or drawings that indicate the drainage pattern of all existing drainage, irrigation, structures, streets and the like, and proposed streets and building sites. The different critical points and where inlets/outlets are to be located shall be labeled. The inlets/outlets are to have the same numbers as the drainage areas draining to them;

(c) Each sub-area is to be analyzed for the peak flow generated by a 10-year and 100-year storm. Use of the rational method is preferred for drainage areas less than 160 acres. Hydrology and hydraulics design methods shall be consistent with the Maricopa County Drainage Design Manual, Volumes I, II and III;

(d) Storm drain design computations;

(e) Inlets shall be analyzed separately and catch basin computations shall be submitted;

(f) The off-site storm runoff flows shall be described in detail. Drainage area, calculated peak flows, and other pertinent runoff data must be clearly set forth. If the flow is in a defined channel, the channel can be improved. An 8-foot bottom to accommodate maintenance vehicles may be required. Special consideration of the use of open channels is to be given on each individual project by the city. Channels for the runoff from areas outside the development may be realigned through the new development. Special precautions at the point of discharge for flow rate, velocity, erosion and sedimentation shall be evaluated to prevent adverse effects on downstream properties;

(g) The retention volumes required by the formula:

Drainage area (square feet) x drainage area coefficient (C) x 0.2 x 1.1 (freeboard) = retention volume in cubic feet; and

(h) Proposed retention basin location(s), size(s) and means of stormwater conveyance and disposal shall be shown on the drainage map(s). Narrative discussion and supporting calculations shall be provided in the body of the report.

(2) Final drainage report. A final drainage report shall be required and accompanied with the drainage and retention agreement (Exhibit 10-4.1, following the text of this Article) to be recorded. The final drainage report shall include but not be limited to:

(a) Cover sheet.

1. With submittal number, name and address of project, parcel or development for which the report is submitted;

2. Name, address and phone number of engineer and property owner; and

3. Seal, signature and date of State of Arizona professional civil engineer.

(b) A narrative with topographic maps that describe the location and condition of the property the project is located on (on-site conditions); and the upstream (off-site) watersheds as well as any downstream constraints which affect the property;

(c) Calculations demonstrating required retention volume, tributary areas to each basin and volume provided and basin grades, depth, high water elevation, pipe invert elevations, basin outfall elevation and side slopes;

(d) Retention basin percolation test results;

(e) Elevation and location of low outfall elevation for the development, sub-area or site improvement;

(f) Explanation of the effect of a basin overflow due to back-to-back storms or a storm greater than the design storm;

(g) Street capacity calculations for the 10-year and 100-year storm;

(h) Time of concentration calculations;

(i) Storm drain piping and catch basin hydraulic calculations, including the hydraulic grade line ("HGL");

(j) The routing of off-site flows through or around the proposed development;

(k) The city datum benchmark to which all site and facility elevations are referenced;

(l) Tailwater and backwater elevations at all culverts;

(m) Finished floor elevations of all structures;

(n) Method of disposing of retained stormwater within 36 hours, and provide shallow pit percolation test results and calculations;

(o) Inflow and outflow points at retention/detention basins and culverts;

(p) Points of concentration and intake point for catch basins, scuppers, channels and street intersections;

(q) Calculations of the retention basin(s) drain time, the number of drywells per city criteria and percolation test results;

(r) Drainage report based upon computerized hydraulic models with all values and variables identified in the report. Software manuals and documentation shall be made available upon request by the city;

(s) Long-term maintenance responsibility shall specify the name, address, and phone number(s) of the person(s), firm(s) or agency responsible for ownership, operation, liability and maintenance of drainage improvements. Other documents where these responsibilities are documented (i.e., CCRs, final plats and the like);

(t) Catch basin V-depth calculations; and

(u) All hydrology and hydraulic calculations as required by the city that includes a summary of the following of each drainage area:

1. Retention required and provided;
2. Street capacity and depths; and
3. Catch basin and storm drain pipe capacity, HGL and velocities.

(Ord. passed - -)

§ 10-4-10 DETENTION OR RETENTION FACILITIES.

(A) Retention methods. Allowable methods of providing stormwater retention are:

(1) Surface storage. Where surface storage (i.e., the traditional retention basin) of the required retention is planned or provided, the basin(s) shall comply with the following:

(a) Irregular areas. Retention is to be accommodated within a limited number of well-defined irregular shaped areas. Pursuant to the Apache Junction City Code, Vol. I, multiple small retention basins are not acceptable for either public or private developments unless approved by the city engineer for public developments and by the development services project engineer for private developments and are in conformance with city standards.

1. To count separate retention areas as one, they must have the same high water elevation and be connected by equalizer pipes.

2. On-lot retention is prohibited in all residential subdivisions.

3. Maximum depth of the required retention that shall be retained within a surface retention basin is 3 feet (see division (D)(1) below).

4. The high water elevation shall be lower than the adjacent grades of adjoining property unless an engineered berm is approved by the city.

(b) Within city right-of-way or PUE.

1. Retention facilities (surface basins, underground pipes, tanks and the like) are to be located within the private property or "on-lot" of the proposed land development. Right-of-way areas shall not be excavated, depressed or encroached upon without prior approval of the City of Engineer. When allowed, the retention facility shall conform to division (D)(1).

2. Retention area(s) including the high water elevation limits for the design storm can encroach into public utility easements ("PUE") subject to:

a. Adequate protection and cover is maintained for any existing public utilities.

b. Buoyancy calculations for the public utilities, whether existing or proposed, are required when the pipe diameter is larger than 16 inches.

c. Where wastewater manholes exist or are planned within the high water limits, the manholes shall have a watertight frame and cover per MAG Standard Detail 423, and the rim shall be higher than the high water elevation of the design storm.

(2) Paved surface storage. In commercial and industrial areas retention may be accomplished upon paved areas (e.g., impervious surfaces such as asphalt, concrete and the like). See division (E) of this section.

(3) Underground storage. Underground storage utilizes storage tanks, vaults, pipes and the like to place the required stormwater retention volume underground on the development site. Underground storage is allowed for commercial retail and industrial type projects only.

(a) The design engineer shall consider the following during the design process for any project involving underground storage:

1. Venting of the structure;

2. Access to the underground structure for routine maintenance;

3. Structural loads including any surface loads;

4. Buoyancy of the structure; and

5. Drainage of the structure within the required 36 hours.

(b) The engineer shall include in the drainage report for the project the justifications, design criteria, operational and maintenance information for the underground structure and any associated equipment such as pumps.

(c) See division (L) below for underground storage guidelines.

(B) Sizing.

(1) Basis of design.

(a) All retention/detention facilities shall be sized to retain the storm event falling over the entire project (gross area including streets) (see division (B)(2)(a) and (b) below). For the purpose of determining the volume required, the project shall be considered to extend to the centerline of all existing and/or future streets on the exterior boundaries and to include all interior streets and other rights-of-way within the project.

(b) There shall be a minimum of 1 foot freeboard from the water surface elevation to the lowest building elevation and/or the gutter of the upstream streets.

(2) Volume required. The volume required for each retention/detention basin shall be calculated as follows:

(a) North of Baseline Avenue:

$$V_R = 1.1 \times 0.2 (C_{post} - C_{pre}) \times A$$

where:

V_R = Retention volume required (cubic feet)

1.1 = An additional 10% of retained volume to account for losses due to sedimentation, weed growth and the like

0.2 = 10-year, 24-hour depth of rainfall (2.4 inches/12)

Cpost = a coefficient relating the runoff to rainfall for the proposed construction (per FCDMC Drainage Design Manual, Volume 1, Table 3.2).

Cpre = a coefficient relating the runoff to rainfall for the existing condition (per FCDMC Drainage Design Manual, Volume 1, Table 3.2).

A = drainage area, including ½ of all abutting streets (square feet)

(b) South of Baseline Avenue:

V R = 0.25C x A

where:

V R = Retention volume required (cubic feet)

0.25 = 100-year, 2-hour depth of rainfall (3.0 inches/12)

C = a coefficient relating the runoff to rainfall (per FCDMC Drainage Design Manual, Volume 1, Table 3.2).

A = drainage area, including ½ of all abutting streets (square feet)

Drywell volumes shall not be included in the proposed storage capacities.

(3) Location.

(a) Retention/detention basins shall be located such that they can intercept the flows from the entire site.

(b) If the basin is located other than at the lowest point of the project, the developer's engineer shall denote on the master drainage map the actual or effective drainage area. If portions of the project cannot drain to the primary basin, additional basins shall be added to retain runoff from these areas. Credit will not be given for providing volume in excess of that needed to retain the required storm event from a basin's effective drainage area.

(C) Volume certification. The developer will provide the city with certified as-built dimensions of the basins and the actual volume of storage provided. This must be based on as-built topographic surveys made by either a civil engineer or land surveyor who is registered to practice in the State of Arizona. These as-built volumes must reflect permanent finished landscaping in place. The volumes shall be certified by the design engineer that the volumes provided meet or exceed the required design volumes per city ordinance and the approved drainage plan. The volume of storage provided must equal or exceed the approved design volumes before the city engineer will issue letters of acceptance for maintenance of any public facilities.

(D) Grading.

(1) Depths.

(a) Retention basins are not permitted within the city ROW. Where unusual circumstances are encountered, retention basins may encroach in city ROW with prior written approval from the city engineer. When retention basins are allowed to encroach, the basins shall not extend more than 10 feet into the city ROW and shall not exceed 1.5 feet of water depth within the city ROW unless there is a fence or other similar protection to restrict access to the area.

(b) The overall average depth shall not exceed 3 feet without authorization of the city engineer. If granted, the basin must be fenced to prohibit access or a side slope of 8:1 shall be provided for a minimum distance of 25 feet measured from the 100-year high water level.

(c) While it is the city's intent that the "average" depth not exceed 3 feet, it is also the city's intent that the basins be contoured to present an aesthetically pleasing appearance as determined by the city engineer. Therefore, up to 25% of the bottom area may be up to 4 feet deep.

(d) In no case shall the depth exceed 1 foot without a positive means of disposing of accumulated runoff.

(2) Slopes, side and bottom.

(a) Bottom. The bottom of all basins shall be sloped towards the discharge points. The minimum bottom slope shall be 0.5%.

(b) Side slopes.

1. Side slopes adjacent to public rights-of-way, or when there is pedestrian type access to that portion of the basin, shall have a side slope of 6:1 or flatter.

2. Side slopes adjacent to walls, fences, hedges and the like (e.g., no or limited pedestrian type access in that area) may have side slopes up to 4:1.

3. Retaining walls (e.g., vertical slopes) may be used in areas adjacent to permanent walls, fences and the like.

(3) Grading/landscaping/joint use as parks.

(a) 1. It is the intent of the city that retention/detention basins present an aesthetically pleasing appearance. The developer's engineer shall contour the sides and bottoms of the basins to enhance appearance through varied slopes.

2. The developer and designer shall work with representatives of the city's development services department and parks and recreation department to determine the need/desirability and feasibility of joint usage of the basin as a park site. If appropriate, the design shall provide for appropriate open areas for the recreational facilities. All design shall be approved by the city parks and recreation department.

(b) It is not the intent of these standards to dictate the specific details of the configuration to the designers; however, the following concepts will be used as the basis of reviewing the plans:

1. Curvilinear sides should be used in lieu of long stretches of straight lines.

2. Side slopes should be varied (e.g., start with 6:1 then change to 7-8:1 or more). With appropriate use of landscaping, side slopes can even be reduced to 4:1.

3. bottom areas should contour to varying depths in lieu of uniform depth/slope.

(c) The tops and bottoms of side slopes shall be rounded off, generally over a distance of 5 feet each way of the curve point of intersection ("PI").

(d) All landscaping within city ROW, easements or dedicated tracts shall be approved by the city parks and recreation department.

(E) Retention/detention in parking lots.

(1) Retention/detention in parking lots of multi-family developments is not allowed. All retention/detention of such developments shall be in landscaped areas.

(2) Retention/detention of runoff in parking lots of industrial/commercial developments is allowed subject to the following guidelines:

(a) No more than 50% of the required storage volume may be retained/detained in parking areas. The balance shall be provided in landscaped areas. The tributary areas to each basin shall be noted on the master drainage map.

(b) No more than 50% of the required parking spaces shall be covered by stormwater retention/detention.

(c) Storage system shall be designed to store the first 30% of the required runoff volume off paved areas (to avoid nuisance water constantly ponding on the pavement).

(d) Depth of water shall not exceed 6 inches within the parking area, nor shall it exceed 0.15 feet at the midpoint of any parking space.

(e) Interference with pedestrian traffic will be minimized in the design of the storage facility.

(f) A continuous fire access lane shall be provided throughout the development, and it shall be free of ponded water from the retention areas.

(g) All parking spaces shall be accessible during periods when the basins are filled to capacity, without pedestrians having to cross ponded water deeper than 0.15 feet.

(3) Before final plan approval, an approved drainage report must show the calculated

stormwater storage volume based on runoff from the 100-year, 2-hour storm, or the pre-approved 10-year, 24-hour storm for the Downtown Area and in-fill projects north of Baseline Avenue.

(F) Overflow/outfall.

(1) Each project shall be designed such that the "ultimate" outfall for all drainage in excess of the 100-year, 2-hour storm is routed to a public street, storm drain, drainage channel or natural watercourse. The outfall shall be accessible without draining over private property.

(2) If such an outfall does not exist, the project must provide an outfall.

(G) Overflow/conveyance.

(1) Off-project flows which historically flowed through the project may be routed through the project. Off-site runoff volumes shall not be allowed across private lots, streets or public/private access ways.

(2) Runoff volumes in excess of those required to be retained/detained may be routed directly through the outfall, although they shall be routed via the retention/detention facilities.

(H) Location/conflicts with existing utilities.

(1) Retention/detention facilities shall not encroach into existing easements for private utilities without written approval of the encroachment from all utilities using the easement.

(2) Retention/detention facilities shall not encroach into public ROW nor into public easements. If necessary, the developer shall relocate conflicting utilities into a new dedicated easement.

(3) The top of the retention/detention facilities (e.g., freeboard elevation) shall be at least 4 horizontal feet from any building or public roadway.

(4) Retention/detention facilities shall not be located within 20 feet of an active septic system nor within 100 feet of an active water well.

(5) A minimum 3 feet of cover (from the bottom of the basin to the top of the pipe) shall be maintained over water and sewer service lines.

(I) Disposal/discharge.

(1) All retention/detention facilities shall have a positive method of disposing of retained/detained runoff waters. All water so retained/detained shall be disposed of within 36 hours. Public streets are not considered an acceptable outlet for disposal of retained/detained runoff, however are considered an acceptable outlet for overflow. Only under special circumstances with prior city engineer approval should pump disposal methods be used.

(2) The minimum allowable pipe size for primary outlet structures is 12 inches. A headwall (MAG Standard Detail 501-4) and an access barrier shall be constructed at the outlet.

(3) Acceptable methods of disposal of accumulated stormwater runoff are:

(a) Positive gravity outlet.

1. Surface infiltration. A percolation test is required in each retention basin location to determine natural percolation. Test results shall be submitted to the city engineer for approval of the retention basin(s).

2. Drywells.

a. Drywells are permitted when no other means of disposal are available. Infiltration into the drywell cannot be considered to reduce the size of the retention area.

b. The property owner of record shall be responsible for the design, performance, operation or maintenance of drywells used with on-site retention.

c. Drywells must penetrate at least 10 feet into a permeable stratum and a percolation test must be carried out on the drywell before acceptance. The percolation test results are to be filed with the development services project engineer.

d. Drywells shall comply with the ADEQ publication Guidance for Design, Installation, Operation, Maintenance, and Inspection of Drywells and the additional requirements described herein. A copy of the application for registration by ADEQ of the proposed drywell(s) shall be submitted prior to approval of grading plans.

e. Multiple drywell installations shall be located a minimum of 100 feet apart, unless waived by the city engineer, and a minimum of 20 feet away from a basin inlet.

f. All drywells draining runoff from more than 1 acre of pavement are to be a dual chamber type similar to the MaxWell dual chamber drywell (Torrent Resources) or approved alternate.

g. For any project involving hazardous materials, including fuels, the drywell must include the "Envibro" Drainage System (Torrent Resources) or approved alternate.

h. Drywells shall be located a minimum of 100 feet away from water wells and underground storage tanks (except stormwater underground storage tanks).

i. Top of the drywell grate shall be set 2 inches above the bottom elevation of the retention basin.

j. Number and type of drywells are to be called out on the engineering plans.

k. Each drywell will be percolation tested after installation and a 50% value of its disposal rate shall be used, up to but not exceeding 0.5 cfs. The percolation test results are to be submitted to the development services project engineer with the final as-built drawings of

the stormwater collection and retention plan.

l. Drywells which encounter perched water shall be sealed in the perched water zone of the well.

m. All drywells shall be registered with the ADEQ and constructed by an ADEQ licensed contractor. The approved drywell registration shall be submitted to the city by the developer at the time as-builts are submitted. A tabulation showing drywell number, registration number, and percolation rate will be added to the grading plan coversheet before submitting as-builts.

n. The property owner of record shall be responsible for the design, performance, operation and maintenance of drywells used with on-site retention.

o. Drywells that cease to drain a project area in a 36-hour period shall be replaced by the maintenance authority with new ones.

p. Drywells are not to be located within public street ROW or private street roadway tracts unless authorized by the city engineer.

3. Storm drain discharge. Discharge to an existing storm drain with a maximum discharge of 1 cubic foot per second. A waiver is required.

4. Drainage channel discharge. Discharge to a drainage channel either natural or man-made of sufficient capacity to convey the anticipated flows from the tributary drainage area. A waiver is required.

5. Prohibited discharge. Water cannot be discharged into a city street, gutter or alley.

(b) Pump station (waiver required).

1. Permitted direction:

a. To an open channel, either natural or man-made;

b. Subsurface direction to a nearby storm sewer system with a maximum discharge of 1 cubic foot per second; or

c. Surface to a storm sewer system if pumped water can be discharged directly into a catch basin or other inlet.

2. Water cannot be discharged into a city street, gutter or alley.

3. Pump stations shall comply with the requirements of Chapter 9 of Volume II of the FCDMC Drainage Design Manual, except as noted below.

a. Pumping facilities shall be set at an elevation at or above the anticipated level of the 100-year event, considering that a total power failure may occur.

b. Pumps shall be capable of handling solids up to a maximum of 3 inches.

(J) Nuisance water. Each basin, particularly those used as a park, shall be graded such that there are one or more "sump" areas wherein runoff from the more frequent storms and nuisance runoff may be retained/detained without flooding the balance of the basin, with preference to surface percolation.

(K) Embankments.

(1) Detention or retention facilities should be constructed below the natural ground surface.

(2) The use of embankments to impound stormwater runoff requires prior approval by the development services project engineer. Embankments become small dams that can be a serious potential downstream flood hazard.

(3) If approval is obtained, all the design requirements shall comply with Section 8.2.3, Embankment Design Criteria, of Chapter 8 of Volume II of the FCDMC Drainage Design Manual.

(4) The developer must provide the city with as-built certification by a State of Arizona registered geotechnical or civil engineer experienced in dam technology, that the embankment was designed and constructed properly, is stable and will safely impound the design volumes of water.

(L) Underground retention storage requirements.

(1) Underground retention shall only be considered in commercial and industrial zoned areas.

(2) Each request for underground storage will be evaluated on an individual basis and permitted if approved by the development services project engineer.

(3) The following guidelines are not meant to be exclusive and, based on the type of underground storage approved, may require additional data and details be submitted to the city engineer.

(a) Installation of corrugated metal pipe ("CMP") shall be in accordance with MAG Standard Specification No. 621, MAG Standard Detail 510 and a note on strutting spacing, if required, demonstrating that they are within manufacturer's specification and recommendation for installation. Excavation, bedding and backfill shall be in accordance with MAG Standard Specification No. 601 and material per MAG Standard Specification No. 760;

(b) Provide the depth of groundwater and the depth of the proposed installation. Provide soil boring results to at least 10 feet below the bottom of the proposed drywell;

(c) Demonstration of a 50-year life of the installation (lining and coating must be specified). Aluminized CMP is usually good for more than 50 years depending on the soil chemistry;

(d) Traffic/load bearing capacity of the installation. Pipe gauge and corrugation size of CMP and D-load for RCP must be specified;

(e) The storage pipe must drain into a dual chamber drywell. Include a detail of how the installation will be drained into the drywell. The standard drywell detail does not address anything other than normal installation. The sedimentation chamber and drain must be lower than the tank drain so the tank drains completely. The system must drain within 36 hours;

(f) Provide a backfill detail. Include material and compaction requirements, particularly under the haunches and to the springline of the pipe;

(g) Provide a minimum 30-inch diameter manhole shaft at each end of underground pipes up to 150 feet in length. Underground pipes longer than 150 feet require an additional minimum 30-inch manhole shaft every 150 feet or fraction thereof. All manhole shafts shall be equally spaced no more than 150 feet measured from center to center.

1. A 30-inch manhole frame and cover can be used at grade with a concrete collar where subject to wheel loads. Provide assurance that the pipe will structurally accommodate the manholes where there is traffic loading on the manhole.

2. The manhole shaft is to be 30 inches in unobstructed diameter. No projections or obstructions are permitted into the manhole shaft. If the manhole shaft is to be provided with a ladder, the distance from any part of the ladder measured on the side of the ladder to the opposite wall of the manhole shaft shall not be less than 30 inches. This may result in the necessity of a larger diameter manhole to accommodate a ladder. A detail of how the ladders are to be anchored must be specified and the material to be used for the ladders in order to assure a 50-year life.

(h) Provide assurance that the material used for the piping is suitable for the site's soil (letter from the Soils Engineer);

(i) Specify water-tight manufactured joints;

(j) Provide end walls for pipe per manufacturer's recommendation with a detail or MAG Standard Detail 427;

(k) Cover to be 3 feet minimum in traffic areas (or manufacturer's recommendation); and

(l) RGRCP is suggested for strength and durability. Structural strength calculations based on subgrade capacity are required in areas subject to wheel loads.

(4) The above requirements are to be shown or specified on the plan or otherwise satisfactorily addressed. The requested assurances are to be provided for the city's project file.

(M) Operation and maintenance.

(1) Maintenance of on-site detention or detention facilities within the city shall be the

responsibility of the property owner.

(2) All retention basins that will be maintained by the city shall be improved by the developer per city standards for retention basin development and installed prior to the city's acceptance of the retention. Retention basins, when not privately maintained, shall be dedicated to the city in fee title as stormwater retention basins or drainage ROW. In the case where private retention basins receive water, other than that which falls upon the property and adjacent streets and/or alleys, the areas shall be designated as easement areas for retention purposes and shall have a recorded restrictive covenant requiring perpetual maintenance.

(N) Retention basins within SRP transmission line ROW.

(1) Retention basins are to be designed to the latest SRP's requirements.

(2) Developer shall submit drawings to the city and SRP for approval. SRP will consider both existing and planned future power facilities in their review. SRP approval letter shall be forwarded to the city engineer before final city approvals.

(Ord. passed - -)

§ 10-4-11 DRAINAGE EASEMENTS AND COVENANTS.

For a drainage easement, the following apply:

(A) A drainage easement is an area designed and used for conveyance and/or retention of stormwater runoff in which nothing can be placed which will impede, divert or cause the runoff to have an adverse affect on adjoining property.

(B) The city engineer requires that all drainage easements and covenants be recorded on a subdivision plat or for those projects that do not require a land subdivision map or plat, the easements and covenants will be recorded by a separate instrument or document.

(C) Public easements and covenants shall be prepared and recorded by the city engineer. Private easements and covenants shall be prepared and recorded by the developer or representative after review and approval of the associated documents.

(D) It is the developer's responsibility to execute or cause the execution of the legal documents. The developer shall return the executed documents to the city engineer along with any recording fees as well as provide recorded copies of all private easements in order to receive construction document approval and/or permits.

(1) Public drainage easements. A public drainage easement is required if the stormwater conveyance or storage occurs per the following:

(a) The conveyance is through city property.

(b) The storage is on city property.

(c) Where stormwater is conveyed from public right-of-way onto private property.

(d) Public easements can only be extinguished through city council action.

(e) The developer's engineer shall provide the following documents with the construction documents for the preparation of a public drainage easement:

1. A sealed legal description of the easement area (Exhibit "A") (see Figure 10-7.1 in Article 10-7); and

2. A graphic exhibit of the easement area (Exhibit "B") (see Figure 10-7.2 in Article 10-7).

(2) Private drainage easements. Where the stormwater runoff will be retained on private property in which any of the following is true, a private drainage easement is required.

(a) Where the stormwater is conveyed across property lines; or

(b) Where stormwater is stored in a common retention area.

(3) Temporary drainage easements. Where the stormwater is retained in an area subject

to future development, the easement can be described as a "temporary drainage easement." These easements are treated the same as regular drainage easements in that they are required to be recorded and can only be extinguished through the submittal of revised easement documents for city review and approval and the subsequent recording.

(4) Drainage covenants. A drainage covenant is a restrictive promise specifying the use of the property relating to storm runoff, drainage and retention. A drainage covenant shall be recorded for private property when it conveys or retains stormwater runoff from public streets or property.

(Ord. passed - -)

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