IVANPAH VALLEY

FUTURE LAND USE STUDY

PUBLIC REVIEW DRAFT
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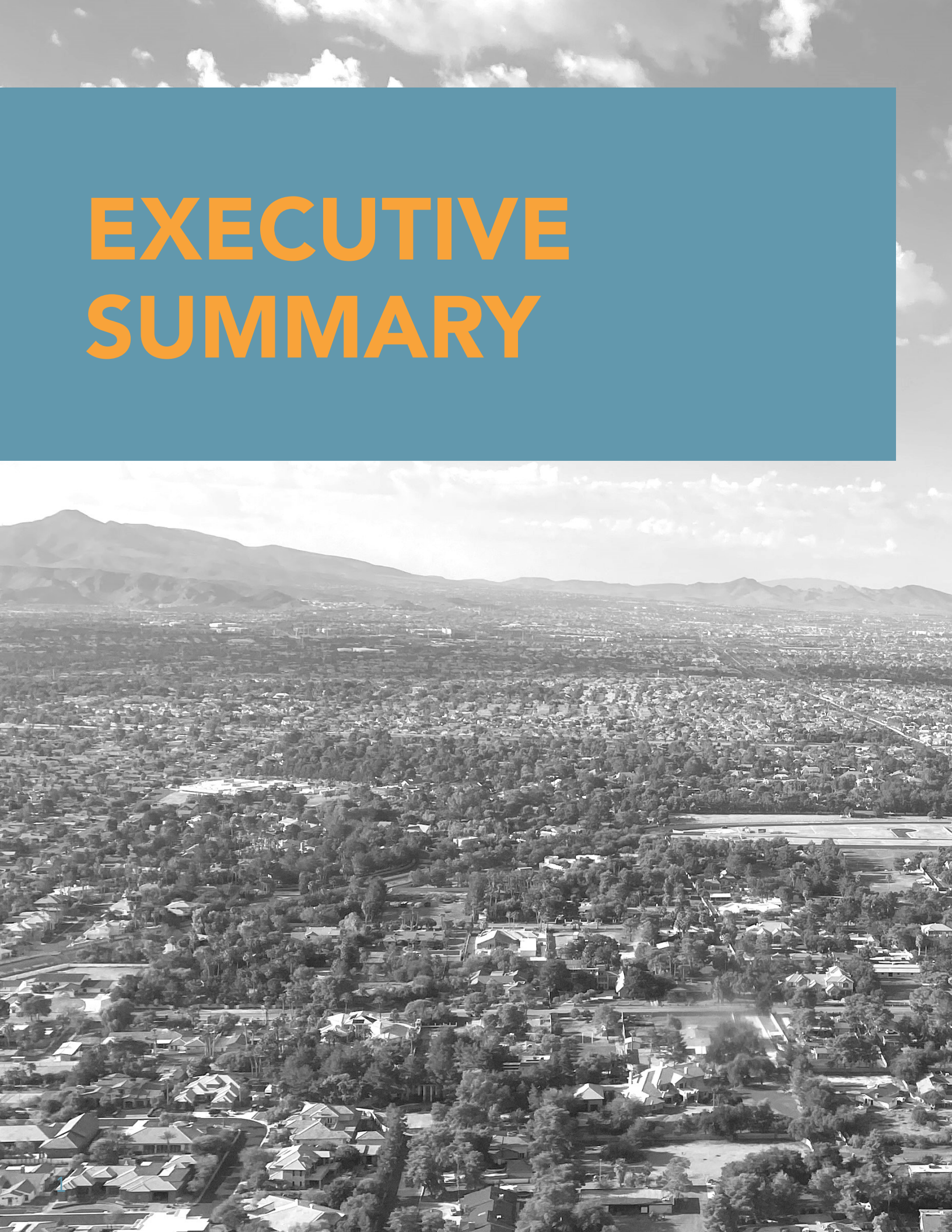
EXECUTIVE SUMMARY



Plan Purpose & Objectives

The purpose of the Ivanpah Valley Future Land Use Study - also referred to as the "Joint Land Use Study" or JLUS - is to provide a blueprint for strategic future growth in a portion of southern Clark County in the event that the Southern Nevada Public Lands Management Act (SNPLMA) Disposal Boundary is expanded to include this area. The Study Area covers almost 31,000 acres of unincorporated land, including areas to the east and west of Interstate 15 and adjacent to the Henderson city limit. Figures 1 and 2 display the Study Area's location and extent.

This study recognizes that the SNPLMA disposal process and subsequent timing for development within the Study Area is uncertain. Analyses and outcomes of this study are based on current data and information available at the time of writing, but also acknowledge the various elements of uncertainty and likelihood that conditions will evolve and change over time.

The JLUS is a policy tool to provide guidance on responsible development within the Study Area over the next 20+ years. The approach to this work is modeled after traditional joint land use planning studies, with modifications to account for the context of Southern Nevada. These include a focus on water supply, conservation of natural land and species habitat, and an understanding of the regulatory landscape of Nevada and Clark County.

The objectives of this effort were to align with the stated priorities of Clark County and the City of Henderson in their adopted plans (see page 23 and Appendix B); seek public and stakeholder input; educate participants about the opportunities, benefits and tradeoffs associated with planned development

The Study Area and its surrounding context as it exists today. The Study Area is just south of Henderson between Sloan and Jean and primarily east of I-15

of the Study Area; and gain consensus on final recommendations. The process began in the summer of 2022 and concluded the summer of 2024.

Key Findings

The key findings of this study are:

- The Study Area should include the development of a variety of housing types, including opportunities for both workforce housing and affordable housing;
- The Study Area should support multiple job centers, especially for the growing advanced manufacturing industry and related industry clusters; and
- Proactive planning is crucial to achieve desired development goals for the Study Area.

Plan Elements & Organization

The study includes the following elements, which together comprise a high-level conceptual "blueprint" for the Study Area's long-term development:

Housing and employment projections inform a preferred development scenario. This scenario has balanced a diversity of housing to accommodate projected population growth while also promoting a vision for high quality employment and commercial services for residents and the workforce.

Study Area recommendations that align with adopted planning priorities of the City and County, acknowledge parallel planning efforts, and set a forward-looking foundation for the Study Area.

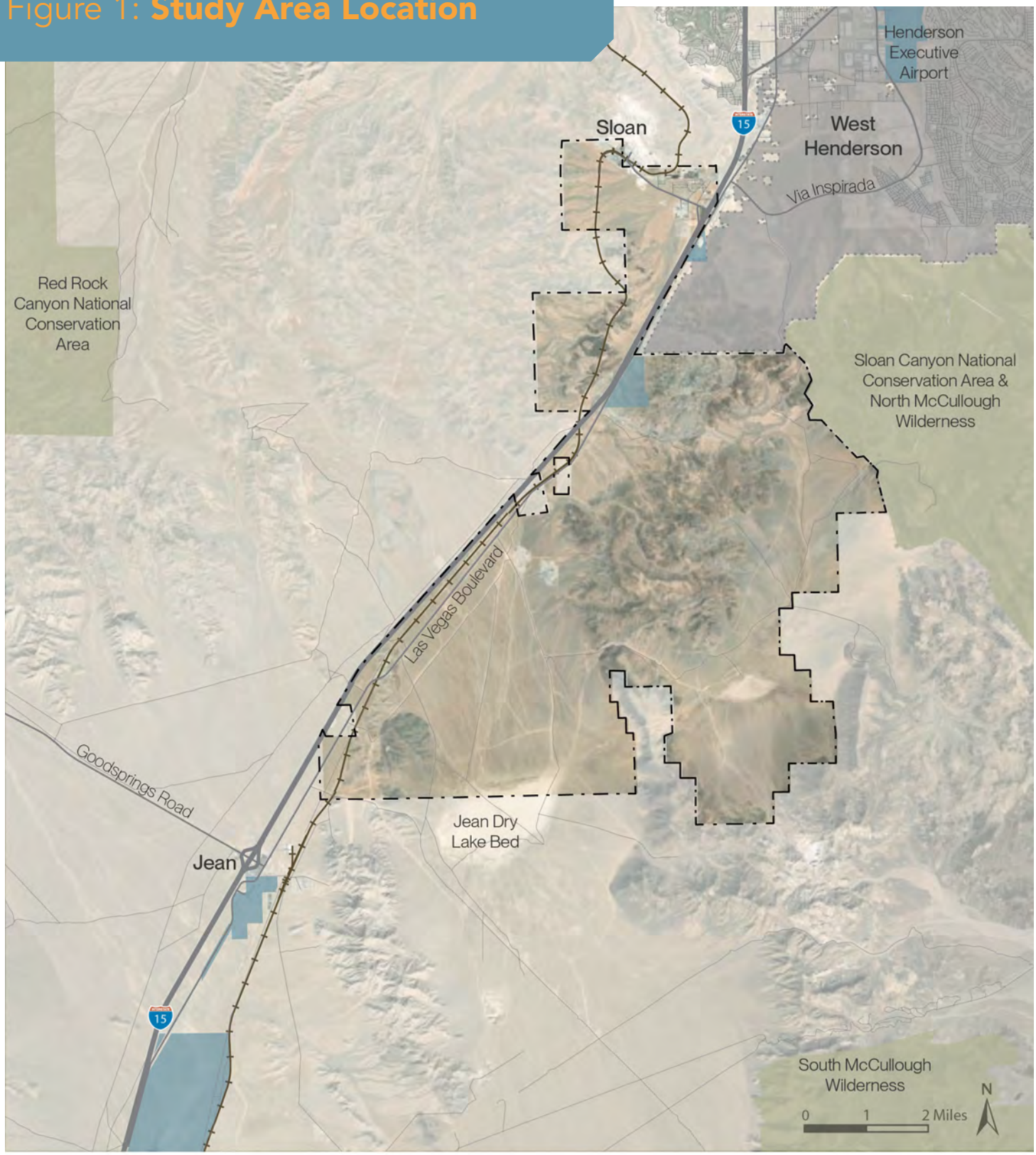
Development principles and framework that acknowledge and address anticipated challenges, constraints and projected demand. This study outlines a preferred land use plan, development practices, and design standards to inform zoning and other development regulations for the Study Area, building from the City's and County's existing regulatory tools. Infrastructure and utilities are addressed at a high level.

Conceptual plans that visualize development principles and the land use framework. These concepts illustrate a hypothetical outcome reflecting intentions for built form, supporting infrastructure, relationships between different land uses, circulation, recreation and open space, and infrastructure.

Implementation plan that brings all elements together and ensures proactive planning for development. The implementation plan lays out a phased approach for further assessment, planning, and coordination for achieving the development framework and concepts laid out in this study.

In total, this plan and its supporting appendices articulate the desired future for the Ivanpah Valley.

Figure 1: **Study Area Location**



LEGEND

- Study Area
- Railroad
- Major & Minor Roads
- City of Henderson
- Clark County Department of Aviation Property
- Conserved Wilderness

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INTRODUCTION

1

PURPOSE

Area Description

The Study Area for the Joint Land Use Planning Study is approximately 30,980 acres in southern Clark County, beginning approximately 9 miles south of Harry Reid International Airport. The northern portion of the Study Area abuts the City of Henderson, while the southern edge almost reaches the Town of Jean. The other unincorporated towns within the Study Area are Sloan and Enterprise. Interstate 15 (I-15) and South Las Vegas Boulevard bisect the Study Area from northeast to southwest, with about 90% of the area lying to the east of these parallel transportation corridors. The majority of the Study Area is undeveloped. However, a few private entities own parcels in the northern portions of the Study Area – housing residences and some industrial operations. A few parcels (including the site of a proposed future heliport) are owned by Clark County. The remainder of the Study Area is currently owned by the federal government's Bureau of Land Management (BLM). To the south of the Study Area, the State of Nevada owns a single large parcel in Jean (on the former penitentiary site), and Clark County owns the existing Jean Sport Aviation Center. Figure 3 illustrates property ownership within the Study Area.

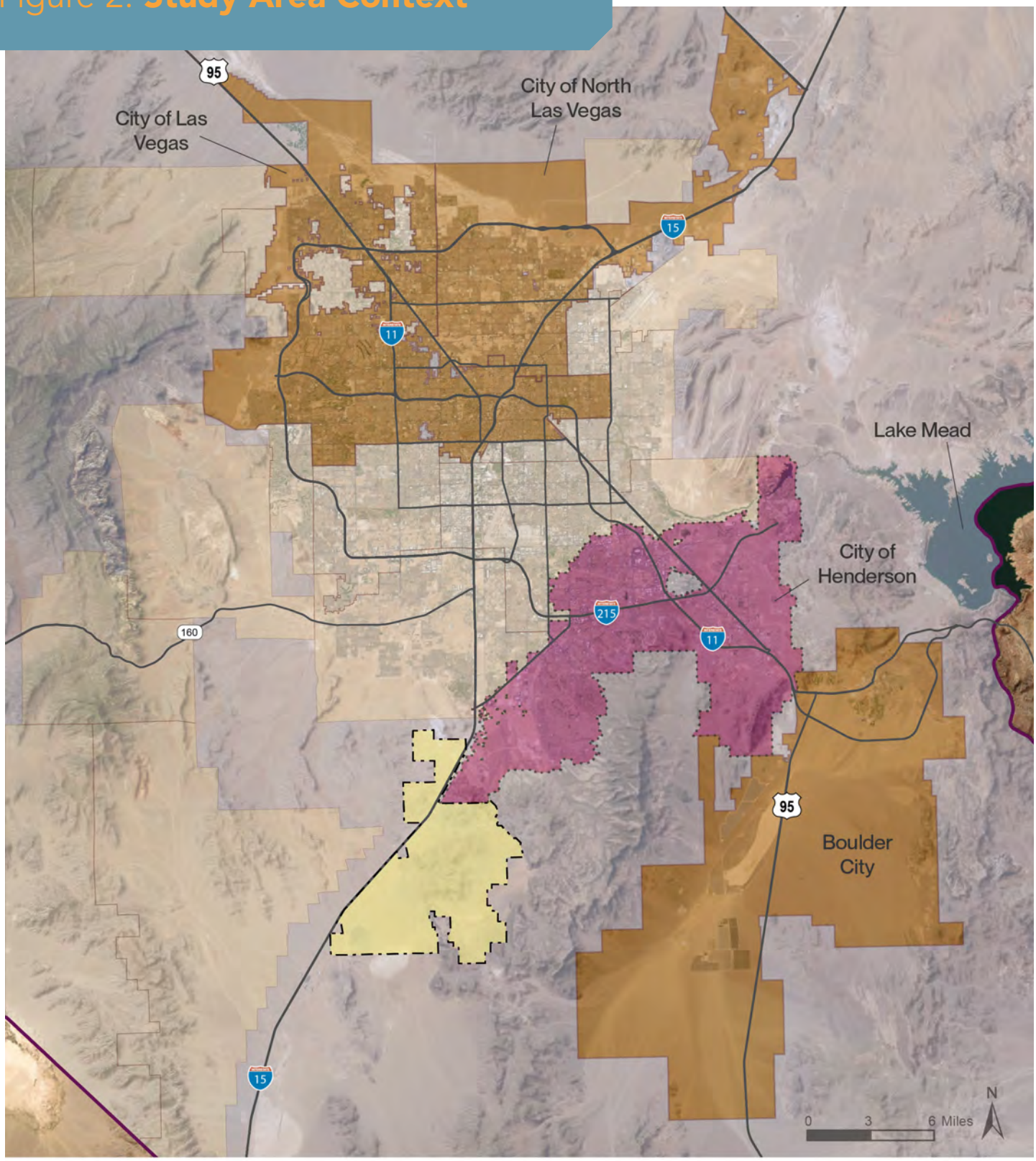
The Study Area is defined by the proposed expansion of BLM's Disposal Boundary in this area, encompassing all land within the proposed expansion except for a portion that is reserved for the proposed Supplemental Nevada Supplemental Airport project (south of the Study Area). Details about the Disposal Boundary and expansion process are provided in the following pages.

Migration, Population Growth & Housing Affordability

Nevada is among the fastest growing states in the nation, adding residents from domestic and international migration as well as a burgeoning local population. The state's rapid growth is projected to continue during the timeframe of this study. Californians remain the largest numerical group of individuals relocating to Nevada, and specifically to the Las Vegas Valley.[1] Still, multiple other places have seen groups of their residents finding a specific attraction to and relocating to this area.

For example, Native Hawaiians and Pacific Islanders have moved to Clark County at the fastest rate of any demographic group, fueling a 40% increase in this population in the decade ending in 2021 and now numbering about 22,000, with a vibrant Hawaiian community now established here.[2] Honolulu County, Hawaii is at the largest contributor to this demographic trend, with the 7th-highest number of net in-migration to Nevada among all US counties in 2020, and the highest of any non-California county.[3] As more people decide to make the Las Vegas Valley their home, the demand for relatively affordable housing and business opportunities continues to rise – both for current and future residents. This area of Ivanpah Valley could be primed to supply many of the homes and businesses that will meet this demand.

Figure 2: **Study Area Context**



LEGEND

- Study Area
- Clark County/State Boundary
- City of Henderson
- Unincorporated Towns
- Unincorporated Clark County
- Other Municipalities
- Major Roads

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Clark County has grown rapidly for several decades, despite some slower periods during the Great Recession and the early months of the COVID-19 pandemic. Non-migration growth is a significant source of population increases as more children are born to area residents. While Clark County's population grew 17% in the decade from 2011 to 2021, selected demographic groups grew even faster through domestic migration, continuing a trend that has been seen in prior decades. In many cases, people are moving to Southern Nevada because housing remains affordable relative to other metro areas in the U.S.[4]

As more households establish themselves in Clark County each year, the region's job growth is robust, with more talent present in the region than ever before. Together these factors present an opportunity to promote both new homes and high-paying, skilled jobs in the Study Area. The recommendations in the following sections detail how this could be achieved, in service of the larger Southern Nevada region.

Why a Joint Land Use Study?

Joint Land Use Studies – sometimes known as Joint Land Use Planning Studies and abbreviated here as JLUS – are used by local governments to strategically consider the future land uses, utilities, and transportation networks that surround and support them, working together with county, state, military, or other neighboring public sector entities.[5] In each case, a JLUS allows two different levels of government to consider their respective long-term priorities, governing laws, and regulations in the Study or Plan.

The impetus for this JLUS was a regional recognition that additional land available for development will be necessary to meet anticipated economic and population growth in the coming decades. Since most of the land surrounding the Las Vegas Metro area is owned and managed by BLM, a portion of that land will need to be transferred from federal hands into local control. The Southern Nevada Public Land Management Act of 1998 established a disposal boundary in the Las Vegas Valley and a fair market value auction process for the sale of federal lands within the boundary. This current boundary will need to be expanded to meet future needs, requiring a new act of Congress. All recommendations that follow in this study depend on that factor.

The current legislative vehicle for this action is known as SNEDCA, or the Southern Nevada Economic Development and Conservation Act (a.k.a. "Clark County Lands Bill").[6] Among other solutions, SNEDCA would expand the federal disposal boundary to allow this area to become eligible for a disposal action. Currently, Clark County will be the government entity charged with land use and zoning authority, while the City of Henderson could annex portions of the Study Area and thus assume these roles. The adjacency of the Study Area to the current western limits of Henderson could yield impacts to the City regardless of any annexation action. The land adjacent to Las Vegas Boulevard is largely privately owned but regulated by the County. These factors led to the decision to jointly commission this effort, and to design it as a Joint Land Use Study. Together, Clark County and the City of Henderson are guiding the future of the Ivanpah Valley.

Planned Infrastructure Projects

The current infrastructure in the Study Area is somewhat limited. I-15 and Las Vegas Boulevard traverse the Study Area from north to south, and some paved roads exist in the Sloan area, while most other roads are unpaved. A flood conveyance is located in Jean at the southwest edge of the Study Area, near the I-15 and State Route 161 interchange. Water and energy utilities infrastructure currently exist only in Sloan and along the I-15 corridor.

With regional growth approaching the Ivanpah Valley, multiple new infrastructure projects and upgrades of existing infrastructure are planned that will impact the Study Area if built. This includes (visualized in Figure 3):

- Expansion and changes to I-15 by Nevada Department of Transportation (NDOT). This includes two new planned interchanges within the Study Area boundary, the implementation of which depends on meeting specific criteria regarding demand/need for the area.
- Widening and expansion of Las Vegas Boulevard by Clark County.
- Construction of a high-speed passenger rail line between Los Angeles and Las Vegas by Brightline West. This includes center-running tracks inside the I-15 center median and a maintenance and storage yard in the Study Area.
- Additional flood conveyances and new detention basins near Sloan – the Duck Creek Larson basin immediately west of I-15 and the Southeast and Southwest Pittman basins just east of I-15.
- Construction of a new Horizon Lateral pipeline to convey water throughout the south end of the Las Vegas Valley and into the Ivanpah Valley. Two alignment alternatives are under consideration currently.
- A proposed supplemental commercial service airport by Clark County which, if approved, would be located several miles south of the Study Area. See Figure 6 on page 20 for more details on the proposed Southern Nevada Supplemental Airport (SNSA) project.

Through Congressional acts, the Federal Government has reserved a 2,640-foot (0.5 mile) wide utility corridor along I-15 to preserve land for future utilities infrastructure needs that will support growth in the region, particularly for the proposed SNSA.

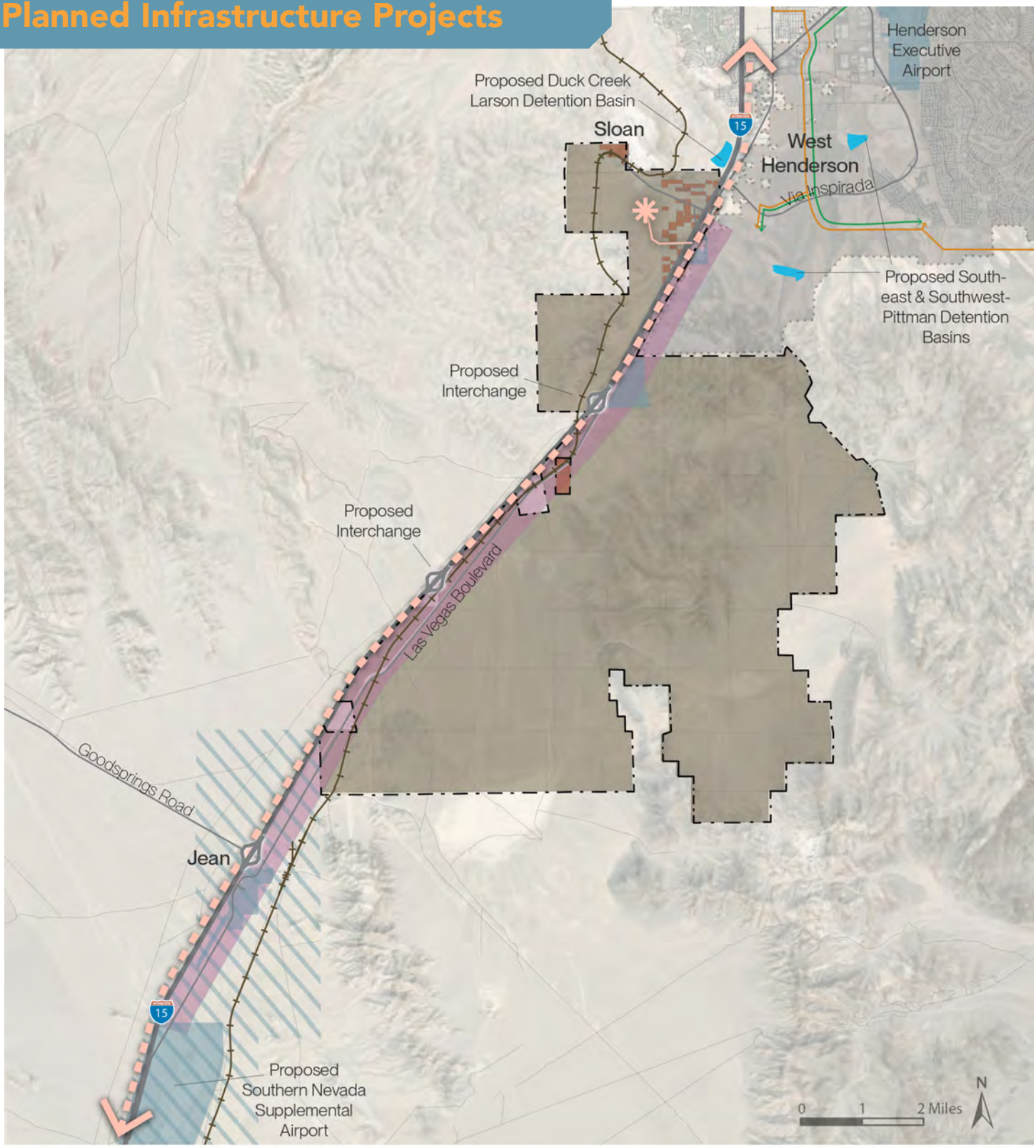
COLLABORATION & CONTROL

Why Clark County and Henderson Collaborated

Future growth in the Study Area is likely to occur if the SNPLMA Disposal Boundary is expanded to include this area. Because there are virtually no residents in the Study Area – most land is undeveloped – growth would significantly alter its character and the Las Vegas Valley's "center of gravity" may move southward with growth of jobs, housing, and other destinations.

Multiple land use and transportation factors were examined through mapping and spatial analysis, stakeholder interviews, and policy and regulatory analyses. The project team considered these parameters while drafting the study:

Figure 3: **Property Ownership & Planned Infrastructure Projects**



LEGEND

- Study Area
- Railroad
- Major & Minor Roads
- City of Henderson
- BLM Property
- Private Properties
- Utility Corridor Property
- Clark County Department of Aviation Property
- Proposed North & South Horizon Lateral Alignments
- Proposed SNSA Site & Noise Compatibility Buffer
- Proposed Brightline West Alignment & Storage Yard
- Proposed Detention Basins

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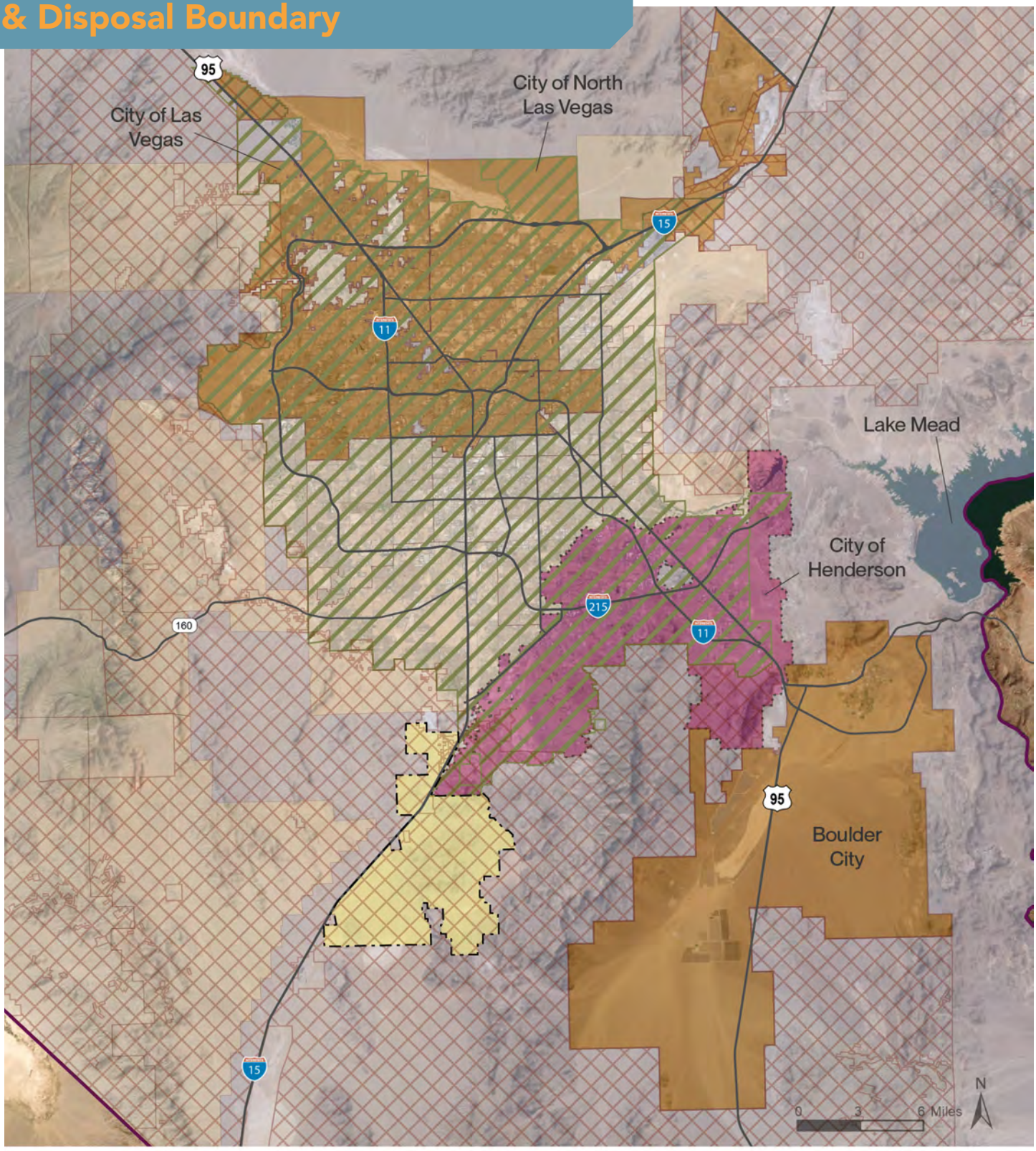
- 86% of Nevada's land is managed by the federal government, and the Bureau of Land Management (BLM) holds the bulk of that – 63% of the state's total area.[7] Almost 90% of Clark County's land is under the jurisdiction of a federal agency.[8] BLM leases much of their land for ranching, mineral and fuel extraction, and other purposes.
- BLM also has an established land disposal process for transferring selected parcels to local control when deemed appropriate. However, land disposal comes with significant uncertainty. Despite participating in nomination procedures, the County and City cannot predict which parcels will move out of federal control and become candidates for development or the timing of those actions.
- There is demand for future private sector development in the Study Area. Freight and logistics operators, homebuilders, and commercial property owners all project long-term growth in their industries beyond what the existing disposal boundary would accommodate. This portion of the Las Vegas Valley is strategically located and offers ample space for their industries' expansion.
- A planned passenger train line connecting Las Vegas to Southern California will traverse the Study Area once complete. Operated by Brightline West, most of this rail alignment within Nevada will run in the I-15 median between northbound and southbound lanes. The rail service will be supported by a maintenance and storage yard, turn-around tracks and under- or overpasses to allow emergency access. Although there are no planned stations in the Study Area, many support facilities and infrastructure will be located here.
- Natural resource constraints guiding the study include legally required land and species conservation efforts, the popularity of trails and open spaces, and regional water conservation needs. See Figure 5 on page 17 for the locations of protected natural areas near the Study Area.

BLM Control

As mentioned, Congress has enacted several laws which govern the disposal of federal lands. The two primary statutes which are applicable in Clark County are the Federal Land Policy and Management Act of 1976 (FLPMA) and the previously discussed SNPLMA. SNPLMA established a disposal boundary in the Las Vegas Valley and a fair market value auction process for the sale of federal lands within the boundary. Federal land can also be made available through a 99-year lease to the County and the City under the Recreation and Public Purposes Act of 1954 (RPP) so long as the lands are used for public purposes.

The County and City expect continued collaboration with BLM and other federal agencies throughout and extending beyond the disposal process to ensure that necessary land use, infrastructure, facilities, and service needs are met. In some instances, the City and County may need to work with BLM to acquire Right of Way or easement access across BLM land into developable lands within the Study Area.[9] If the disposal process does not move forward, the Federal Government will continue to administer and manage these lands. Under SNPLMA, proceeds from land sales are spent

Figure 4: **Existing BLM Management & Disposal Boundary**



LEGEND

- Study Area
- Clark County/State Boundary
- City of Henderson
- Unincorporated Towns
- Unincorporated Clark County
- Other Municipalities
- Land Currently Managed by BLM
- Current Disposal Boundary
- Major Roads

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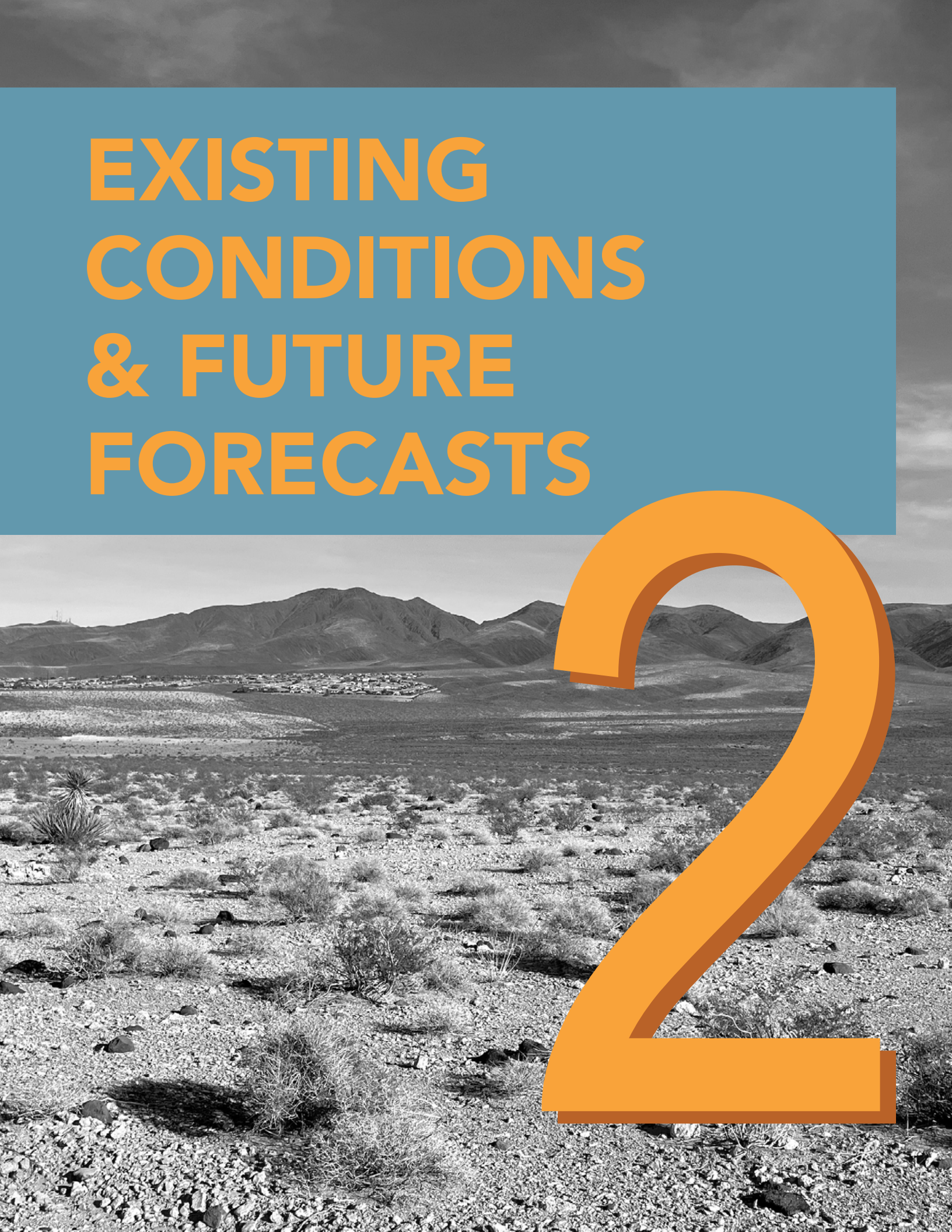
by the Department of Interior as follows: 85% to fund the acquisition of environmentally sensitive lands and provide improvements of federal trails and recreation areas throughout Nevada, 10% is transferred to the Southern Nevada Water Authority or to Clark County, and 5% is transferred to the State General Education Fund. The SNPLMA disposal process has transferred thousands of acres in Clark County to private development and local control since its enactment. This is the primary planned method for local governments to accommodate future expansion around the Las Vegas Valley, assuming that the disposal boundary is expanded and the disposal action ensues.

Existing Conditions in the Study Area.

EXISTING CONDITIONS & FUTURE FORECASTS



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STUDY AREA CONDITIONS

The JLUS area covers about 30,980 acres of unincorporated land in Clark County. The Study Area includes areas east and west of I-15 and is adjacent to the southern city limits of Henderson. The area is mostly under the federal land ownership of BLM. The City and County are actively engaged in the BLM's land disposal process to acquire ownership in the land. The Study Area is mostly undeveloped land with very few residents. The Sloan Canyon National Conservation Area borders the Study Area to the northeast, the Town of Jean and the Jean/Roach Dry Lakebeds are located to the south. The area is characterized by desert vegetation, flatlands, gentle hills, and more rugged mountainous areas.

NATURAL & RECREATIONAL AMENITIES

Topography & Natural Areas

Terrain in the Study Area varies from flat to mountainous, with elevations that range from 850 feet to approximately 1,200 feet (Mean Sea Level). The geologic features in the northern and eastern portions of the Study Area were developed over millions of years, both through volcanic activity and the formation of thrust faults by shifting tectonic plates. The resulting landscape includes abrupt variations in terrain in some places, forming ridges, cliffs, and steep slopes of 12% or greater that are not suitable for development.[10] The western and southern parts of the Study Area, by contrast, have flatter terrain interspersed with dry lake beds and washes.

The Study Area lies within the Lower Sonoran biotic zone. Despite the typically dry conditions, alkaline soil in some places, and long, hot summers, the Vegas-Ivanpah Valley is not without natural flora and habitat that supports multiple animal species. The majority of land in this area is undeveloped Mojave Desert Scrub. Small pockets of Blackbrush, Salt Desert Scrub, and Playa ecosystems are also found in and around the Study Area.

Common flora also include creosote; sagebrush; various cacti including plains, pancake, and englemann prickly pear, buckhorn and teddy bear cholla, mountain ball, and salt bushes in the former lake beds; and various desert flowers, including desert marigolds,

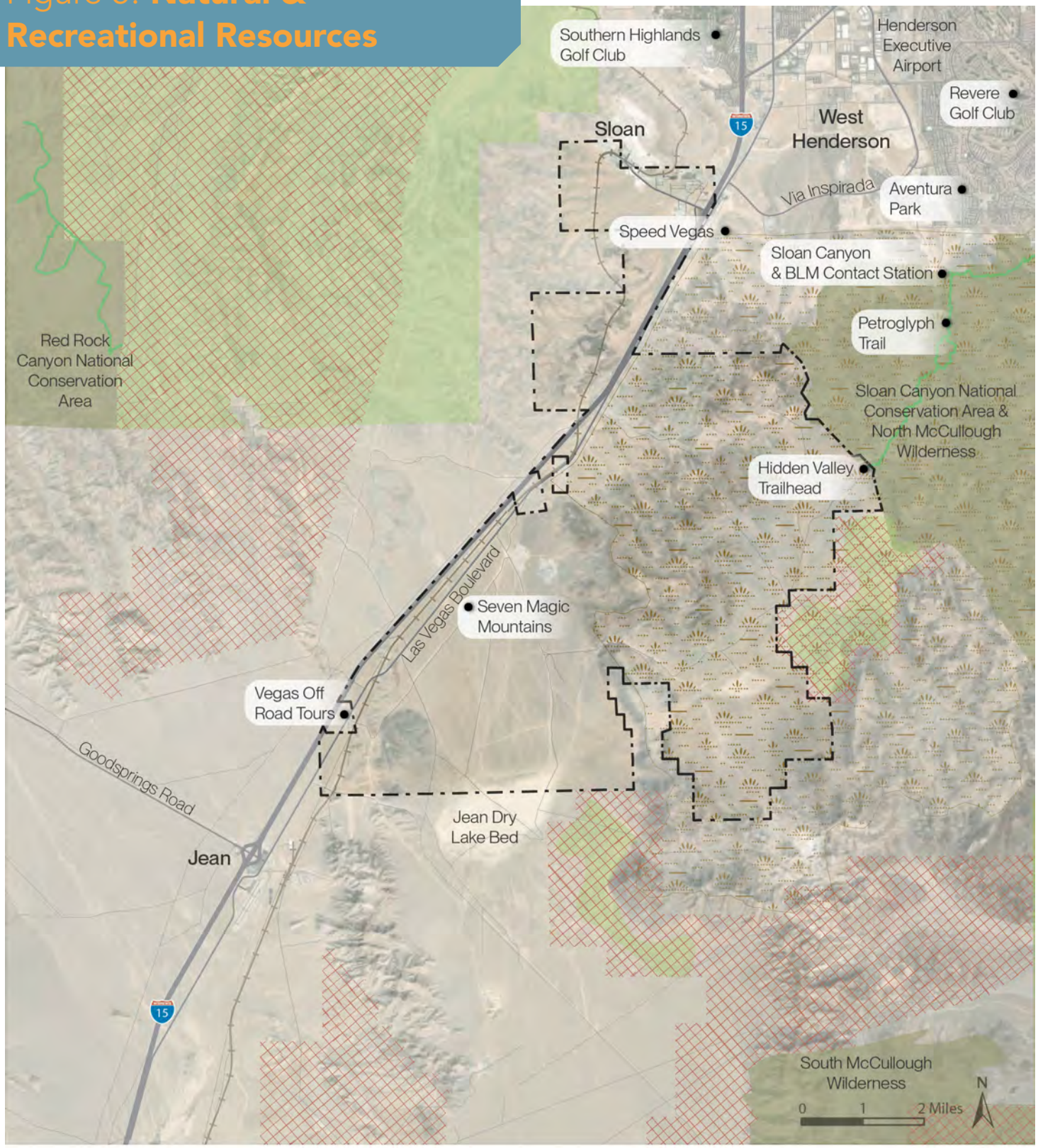
The Study Area and its surrounding context as it exists today. The Study Area is just south of Henderson between Sloan and Jean and primarily east of I-15. It is largely undeveloped and characterized by a mix of desert flatlands, gentle hills, and more rugged mountainous areas.

brittlebush, and globe mallow. Evergreens and deciduous trees are not common in these undeveloped desert conditions.[11] The most common fauna include desert rodents (mice, shrews, squirrels); lagomorphs (rabbits, pikas); carnivores (racoons, skunks, weasels); artiodactyls (pronghorn, deer, sheep); and various lizards, snakes, frogs, turtles, birds, and insects. Notably, the desert tortoise (Gopherus agassizii) is listed as a threatened species under the Endangered Species Act of 1973, which is a contributing factor to some of the area's regulated and preserved lands.[12]

Figure 5 illustrates natural systems within the area. The Sloan Canyon National Conservation Area and North McCullough Wilderness lie to the east of the Study Area. Red Rock Canyon National Conservation area lies to the northwest, and the South McCullough Wilderness lies to the south. Several large conservation areas also surround the Study Area, as well as areas identified by BLM as Areas of Critical Environmental Concern (ACEC). The ACEC designation means "special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes." These include the Paiute/Eldorado ACEC to the east of the Study Area, established to protect habitat areas of the desert tortoise, and the Ivanpah ACEC, abutting the Study Area to the south and established to protect biological resources.[13]

In addition, dry lakebeds are found throughout the area, the largest being Jean Dry Lake which lies at the southern extreme of the Study Area, just northeast of the Town of Jean. The Colorado River and Lake Mead lie farther east and northeast of the Study Area; otherwise, natural surface water is virtually nonexistent.

Figure 5: **Natural & Recreational Resources**



LEGEND

- Study Area
- Railroad
- Major & Minor Roads
- Conserved Wilderness
- Conservation Easement
- BLM Managed Public Trails
- Grazing Allotment (BLM)
- Areas of Critical Environmental Concern (BLM)

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Recreational & Cultural Amenities

The climate and ecosystems of this area provide ample beauty and opportunities for outdoor recreation (also illustrated in Figure 3). Because the majority of land in this area is publicly owned, it is largely available to residents and visitors for their enjoyment and recreational use. The neighboring conservation and wilderness areas provide hiking trails and scenic beauty. Various BLM four-wheeler roads and trails traverse and surround the Study Area, which offer opportunities for hiking, biking, horseback riding, and off-roading. Off-roading and car-racing are also popular in this area, with a few recreational businesses located along I-15 and elsewhere surrounding the Study Area. Additionally, the Mint 400 off-roading race takes place in the area every March, subject to annual approval of permits by BLM.[14] The City of Henderson also offers many existing parks, trails, and recreational facilities nearby, both private and public.

The Seven Magic Mountains sculpture is a land-based art installation placed by the Nevada Museum of Art in 2016. Accessed from Las Vegas Boulevard about ten miles south of Henderson, the brightly painted rocks reach a maximum of 35 feet high and attract many visitors, offering a unique vista in this region. The installation is planned to remain in place through at least 2027.[15]

Archaeologists have found historic petroglyphs in several locations to the east in the adjacent Sloan Canyon NCA. These more than 300 preserved art walls illustrate the Native American history and cultural background in this part of the Ivanpah Valley. The petroglyphs are accessible to the public along the Petroglyph Trail, which connects to the JLUS Study Area via the Hidden Valley Trail and Trailhead.

PROPOSED SUPPLEMENTAL COMMERCIAL SERVICE AIRPORT

Status & Intent

The existing Harry Reid International Airport (LAS) is located in an urbanized center of Clark County. It is immediately adjacent to the Strip and constrained by surrounding development. Thus, it is unlikely to accommodate anticipated growth in demand and activity for the region without significant property acquisition to allow expansion.[16]

As a result, the Clark County Department of Aviation (CCDOA) is planning for the construction of the proposed Southern Nevada Supplemental Airport (SNSA), which will operate as a supplemental commercial service airport in order to provide long-term, supplemental aviation capacity for the Las Vegas metropolitan area. The site for the proposed SNSA is east of I-15 between the towns of Jean and Primm (see Figure 6 on the following page for the site's contextual location).

The proposed airport requires federal approvals from both the Federal Aviation Administration (FAA) and the Bureau of Land Management (BLM) and will require preparation of a full environmental impact statement (EIS) under the National Environmental Policy Act.

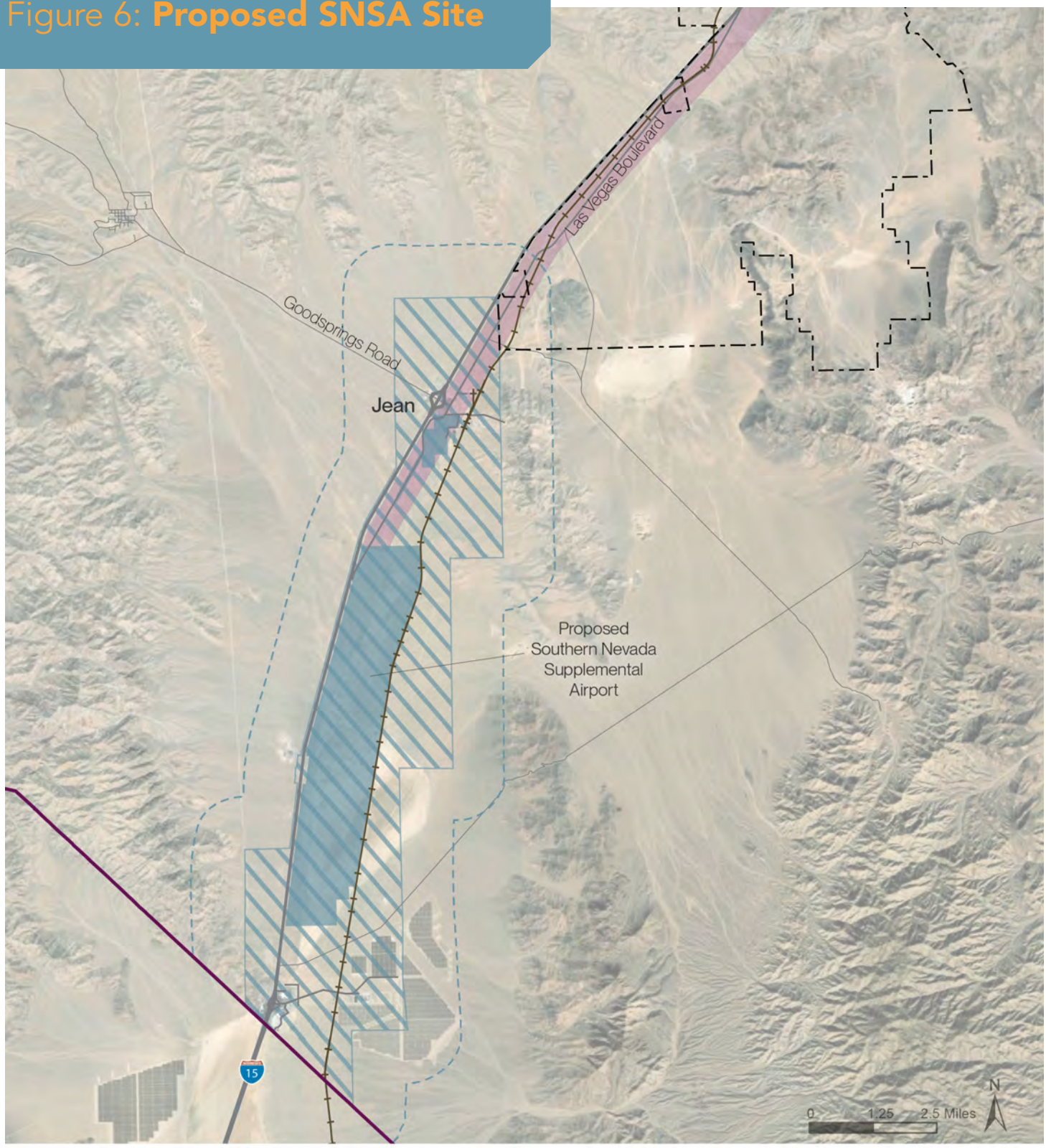
Potential Use & Utility

The SNSA site is over 7 miles long and encompasses approximately 6,000 acres. The site was identified by the United States Congress in the 2000 Ivanpah Valley Public Lands Transfer Act and, as directed by that law, the land was conveyed to Clark County in 2004.[17] If it receives the necessary federal approvals, the SNSA would be constructed with airport facilities that include up to two runways, associated taxiways, apron areas, passenger terminals and concourses, automobile parking facilities, airline and cargo storage areas, an Airport Traffic Control Tower (ATCT), access roads, and other appurtenant facilities, including but not limited to rental car facilities, general aviation (GA) facilities, airline support, cargo facilities, and a fuel farm.

Under Title V of the 2002 Clark County Conservation of Public Land and Natural Resources Act,[18] the United States will transfer an additional approximately 17,000 acres of land surrounding the airport site for use as a compatibility area (see Figure 6). This is contingent on the proposed SNSA project receiving a favorable Record of Decision following completion of environmental review under the National Environmental Policy Act. If the 17,000 acres are transferred to the County, the Department of Aviation will manage that land as airport-compatible uses subject to limits on development to ensure compatibility with the airport operations are sited there. Unless or until the proposed SNSA receives the necessary federal approvals, the 17,000 acres of land will remain in federal ownership.

The 2002 Clark County Conservation of Public Land and Natural Resources Act also establishes a 2,640-foot-wide Transportation and Utilities Corridor (TUC) along the eastern side of I-15 between Jean and Sloan. This corridor is managed for the non-exclusive placement of transportation and utilities infrastructure. Finally, the National Defense Act of 2015[19] directs the BLM to convey an additional 2,320 acres of land for flood mitigation infrastructure upon a favorable Record of Decision.

Figure 6: **Proposed SNSA Site**



LEGEND

- Study Area
- Clark County/State Boundary
- Utility Corridor
- Clark County Department of Aviation Property
- Noise Compatibility Buffer
- 1-Mile Annexation Exclusion Area
- Major Roads

GROWTH TRAJECTORY

Preparing population and housing unit projections before knowing when the federal disposal action may occur presents a challenge to making an "apples-to-apples" comparison of anticipated housing production or employment growth in the Study Area relative to the Las Vegas Valley as a whole. As a result, these estimates are based on the knowledge at hand when drafting this document and are subject to change.

Population & Households

Per UNLV Center for Business and Economic Development Research (CBER) forecasts, Clark County is expected to grow by 761,000 residents between 2025 and 2045.[20] This equates to an estimated 283,700 additional households and demand for 268,400 new housing units. This translates to an annual demand of approximately 13,400 new housing units.

The Study Area is estimated to capture approximately 10% of regional population growth and residential demand. This equates to an estimated 26,843 housing units - or 1,342 housing units annually - over the 20-year forecast period. Table 1 illustrates the estimated breakdown of demand for different housing types, based on regional trends.

Clark County is experiencing an acute shortage of housing supply at most price points, especially options affordable to low- and moderate-income renters and would-be first-time homeowners. This plan is a conceptual document looking several decades ahead, and the housing market could be in a different position by the time recommendations are carried out. That said, the household growth projections above hint at the possibility that housing supply and cost may remain a particular challenge in the long-term. The Study Area has the potential to help alleviate some of these pressures by proactively planning for new development to accommodate anticipated needs.

Table 1: Housing Demand (2025-2045)

Housing Type	20-Year Unit Demand (%)	20-Year Unit Demand (#)
Single-Family	60%	16,106
Missing Middle*	10%	2,684
Multifamily	30%	8,053

*See definition in Appendix A

Employment

Expected demand for economic growth and employment within the Study Area is grounded in recent trends and regional industry forecasts. Per CBER forecasts, the Las Vegas Metropolitan Statistical Area (MSA) is expected to grow by 368,000 jobs from 2021 to 2040, which equates to approximately 19,400 jobs annually or 1.3% annual growth. These forecasts are then applied across the region's industry sectors, with construction, manufacturing, healthcare, agriculture and mining, transportation and warehousing, professional services, real estate, public administration, education, and administrative and waste services all expected to grow at a higher rate than overall employment growth.

"Driving industries" (also known as "basic") are those that that generate goods and services at a greater rate than is needed to support local communities. This

means that goods and services are either exported or consumed by visitors, resulting in revenue from outside sources. Per 2022 data, in Clark County, these driving industries include:

- Agriculture and mining
- Construction
- Manufacturing
- Education
- Health care and social services
- Arts, entertainment, and recreation
- Accommodation and food service

It is expected that these industries will continue to be important for the regional economy and for Clark County. In total, it is forecasted that these industries will grow by 117,268 jobs in Clark County by 2040. Other supporting industries are expected to grow by a total of 90,321 jobs by 2040 in Clark County. Combined, this results in a total of 207,588 expected new jobs - or 11,533 annually.

The Study Area is expected to capture approximately 30% of anticipated industrial growth, while the capture for retail, hospitality, and office are expected to be 10%. While there are many uncertainties at this time regarding the timeline for development, these educated assumptions help in determining how much land is needed to meet expected demand. These details are provided in Chapter 3, with a more thorough discussion provided in Appendix C.

WATER & UTILITIES

The Region's Conservation Approach

The Colorado River provides the fresh water supply for virtually all of Clark County, stored in Lake Mead until ready for transmission and treatment. The Southern Nevada Water Authority (SNWA) oversees the allocation of water supply for the region and must ensure the water is conserved to guarantee a consistent supply and sufficient recharge. This entails limiting consumptive use, i.e., outdoor landscape watering and other water use that cannot be recaptured and ensuring that all other water remains in the system for use. SNWA's approach has been to issue advisory recommendations to the region's member governments that they can adopt as regulations. These include:

- Limits on installation of new swimming pools, grass lawns, and other non-native landscaping;
- Recommendations for xeriscaping and native landscaping in place of the above; and
- Prohibit landscape watering on specific days and times.[21]

SNWA works with the Las Vegas Valley Water District (LVVWD), Clark County Water Reclamation District (CCWRD), and City of Henderson Department of Utility Services, among other water provision and treatment agencies in the region. CCWRD maintains the final portions of the closed system, ensuring that water is treated, cycled back through the system, and returned to Lake Mead.

Colorado River Allocations

Operating guidelines for the Colorado River have historically been agreed upon between all government users of the river in a binational fashion, involving the United States and Mexico. Among users within the U.S., the Department of the Interior brokers agreements between the seven states (including Nevada) and tribes that draw water from the river. Current guidelines are in place through 2026.[22] In light of historic drought and concerns that climate change will worsen these conditions over time, the parties agreed to additional conservation of 3 million acre-feet of Colorado River water between 2023 and 2026.[23] After 2026, the supply for lower Colorado River Lower Basin states (AZ, CA, and NV) may be voluntarily cut by up to 13% of the current legal water allocation.[24] SNWA is the Nevada entity that advocates for the state in this process, and has expressed its judgement that sufficient water will remain available to support the Las Vegas Valley's growth.[25] The SNWA water resource plan reflects this expectation.

As of right now, the Study Area is expected to have sufficient water allocation to support new development, at least through the next 20 years. With the uncertainty around timing and outcomes for the Disposal Boundary expansion process, it will be important to continually reevaluate water allocation and availability that can support development in this area. It is expected that development will follow any water-related regulations established by Clark County and the City of Henderson, with high-level guidance from SNWA. Appendix B contains reference details for adopted plans that address this topic.

Existing Utilities and Infrastructure

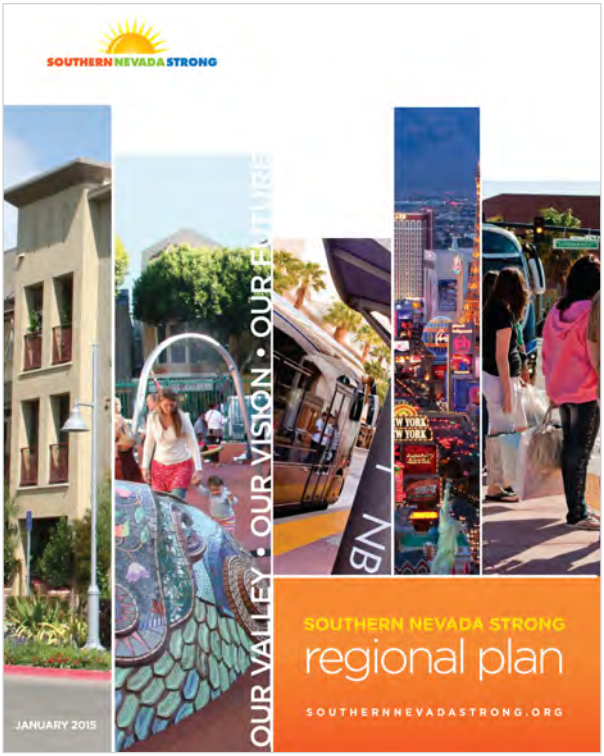
Because the Study Area is largely undeveloped at present, limited infrastructure exists. Dirt roads and trails can be found scattered throughout, while formal paved roads only exist immediately adjacent to I-15 and in the northwest where some development already exists. Sanitary sewer, potable water, and electricity are also virtually nonexistent in the vast majority of the Study Area, although adjacent roadways and development to the north and south offer convenient opportunities to connect future infrastructure with existing systems. Chapter 4 provides further details on infrastructure considerations.

Plans Governing the Area

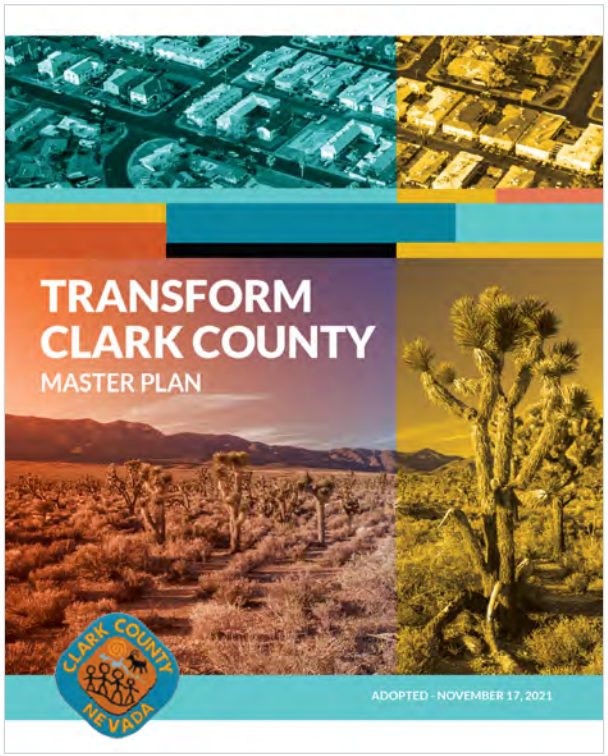
Several adopted plans provide valuable guidance from a regional context regarding key priorities, considerations, best practices, and regulations that pertain to the Study Area. Key plans and studies that influenced the development of this document are listed below. Further details can be found in Appendix B.

Federal, State & Regional Plans

- Southern Nevada Strong Regional Plan (2015)
- Access 2050: Regional Transportation Plan for Southern Nevada (2021)
- Vision 2025: A Comprehensive Economic Development Strategy for Southern Nevada (2021)
- Nevada State Freight Plan: A strategic framework for freight mobility and economic competitiveness (2017)



- Sloan Canyon National Conservation Area Resource Management Plan (2006)
- Regional Flood Control Master Plan Update (2023)



Clark County Plans

- Transform Clark County Master Plan (2021)
- "All In Clark County" Community Sustainability & Climate Action Plan (2023)
- Clark County Parks, Recreation & Open Space Plan (2022-2027)
- Multiple Species Habitat Conservation Plan (2000)

City of Henderson Plans

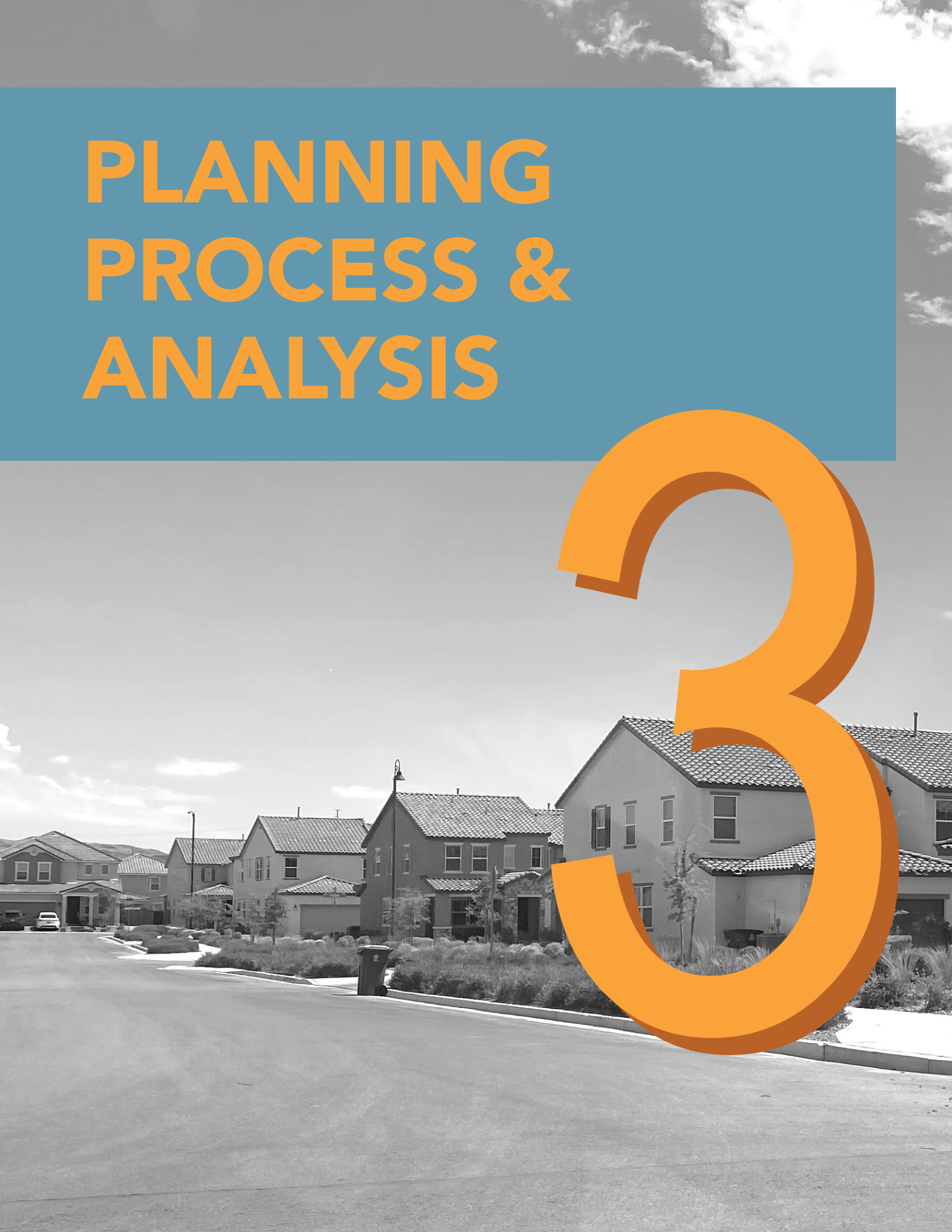
- Henderson Strong Comprehensive Plan (2017; updates in progress)
- West Henderson Land Use Plan Update (2014)
- Henderson Transportation and Mobility Plan (in progress)
- Henderson Open Space & Trails Plan (update in progress)
- Age-Friendly Henderson Action Plan (2024)
- 2024-2027 Henderson Strategic Plan (2024)

Industry Studies

- Southern Nevada Housing Market & Land Use Availability Analysis (2022)
- Southern Nevada Industrial Land Analysis (2020)

PLANNING PROCESS & ANALYSIS

3



APPROACH

Methodology

With goals of the JLUS identified by the City and County through an Interlocal Agreement and joint project solicitation, this plan was created through an iterative 24-month process. First, a Public Outreach Plan and Project Overview were drafted to establish the technical experts to consult and to provide the public context on the study's intent. Stakeholders identified as important to the Study Area's present and/or future were invited to virtual interviews to express their priorities, identify issues and opportunities, and guide the Study from their perspectives.

The next step was to develop three scenarios to identify and lay out possible land use combinations to support anticipated demand and growth, as well as overall long-term objectives for the site. These scenarios were developed using GIS analysis and a land demand analysis (see details on page 31). Land use categories identified include:

- Mixed employment, including office campuses and industrial sites
- Housing/neighborhoods
- Traditional mixed use
- Retail, hospitality and entertainment
- Open space and buffers

Other community facilities, such as schools, community centers, and libraries were assumed to be integrated within these distinct land use types.

Scenario 1 included significant large employment sites, to maximize the possibility of transloading, freight, processing, and advanced manufacturing employers locating suitable expansion or relocation sites in the Study Area, with a long-term goal of creating an intensive job center. The primary benefit of this scenario, if pursued successfully, would be the most significant positive revenue generation impact per acre.

Scenario 2 placed greater emphasis on single-family residential neighborhoods, providing new construction opportunities for homebuilders in a part of the region with close access to nature and to possible new job centers. This scenario's primary benefit would be to ensure adequate homes would be available to absorb parts of the region's anticipated population growth.

Scenario 3 was weighted to include more retail, commercial, hospitality, and entertainment uses, providing more of a regional draw for visitors than the other two scenarios. This scenario would have assisted in providing needed services and amenities to new southern Clark County residents.

These three scenarios were presented to a broad group of stakeholders, including property owners in and near the Study Area, during in-person focus group sessions in March of 2023. Based on feedback, the three scenarios were then refined into a single preferred alternative, which most closely resembled Scenario 2 but incorporated select elements of Scenarios 1 and 3. A refined version of this preferred alternative is presented in Chapter 4, serving as a high-level concept of desired development in the Study Area. This land use framework can inform proactive regulation decisions that will ultimately determine how the area develops over time.

Using the preferred alternative, the team performed a revised assessment of economic projections, including anticipated households and jobs within the Study Area. These projections then informed the development of high-level understanding infrastructure and utilities demand, such as roadway capacity and water needs. These considerations were translated into a conceptual roadway and trails network map to complement the land use framework. Further utilities and transportation assessment will be necessary as planning continues for potential development in this area.

Accompanying these items are 3D models and graphics to illustrate what each of the future land use types could look like in the Study Area. These include one 3D model for each type from a bird's eye view. Selected plan views and cross-sections were also developed, to more fully demonstrate how the built environment, and the road/infrastructure network supporting it, could be laid out.

The team also wrote recommendations that reflect overarching principles of the preferred land use alternative and infrastructure framework. These recommendations are meant to drive implementation, including policy and regulatory actions, development guidelines, collaboration, and phasing considerations that Clark County and the City of Henderson can undertake.

Stakeholders

Thirty-eight individuals participated in virtual stakeholder interviews, representing 19 different interest groups, departments, and organizations.

Area Property Owners

All existing property owners in the Study Area, whether they own residential or commercial parcels, were notified of the JLUS and invited to join group stakeholder meetings in August 2023 (in-person) and December 2023 (virtual and in-person options). Each meeting provided a channel for feedback and information, similar to the formal interviews with other stakeholders. Several owners also shared feedback by email with the project team.

Brightline West

A business organization implementing the private high-speed passenger rail project that will connect suburban Los Angeles with Las Vegas. An affiliate organization, known simply as Brightline, operates a similar rail line in Florida.[26]

Bureau of Land Management, Nevada (BLM)

A branch of the U.S. Department of the Interior that manages public lands, including lands leased for mining and drilling, agriculture, conservation and habitat, or recreation. 48 million acres (67%) of land in Nevada is publicly owned. BLM currently owns almost all of the land within the Study Area.[27]

Clark County Board of County Commissioners

The seven-member service delivery organization that oversees county-wide policies and decisions. This elected body also governs the Las Vegas Valley Water District, Clark County Water Reclamation District, University Medical Center of Southern Nevada, Big Bend & Kyle Canyon Water Districts, and the Clark County Liquor & Gaming Licensing Board.[28]

Clark County Department of Aviation

Governmental department that manages Harry Reid International Airport and four other general aviation

facilities in Southern Nevada. This agency is also leading the proposed Southern Nevada Supplemental Airport (SNSA) project.[29]

Clark County Office of Community & Economic Development

Governmental department that serves as a resource for developers, new businesses and companies interested in relocating to or expanding in Clark County.[30]

Clark County Parks & Recreation Department

Governmental department that manages trails, parks, playgrounds, open spaces, and other recreational assets, assesses needs, and provides recreational experiences for residents and visitors.[31]

Clark County Water Reclamation District (CCWRD)

Local agency responsible for the collection, treatment, and reclamation of wastewater which is then returned to Lake Mead – the drinking water source for more than 95% of Clark County. The District is a member of SNWA and serves more than 240,000 businesses and residential units in the area.[32]

Friends of Sloan Canyon

A non-profit organization that provides community support and educational resources to enhance the conservation, protection, and public enjoyment of Sloan Canyon National Conservation Area.[33]

Henderson Economic Development Department

Municipal department focused on business attraction and serves as a resource for business owners, entrepreneurs, developers, and the workforce.[34]

Henderson Parks & Recreation Department

Municipal department that manages recreational assets, assesses needs, and offers a variety of classes, programs, and experiences for residents of all ages.[35]

Henderson Utility Services Department

Municipal department that manages city water, wastewater, and reclaimed water services.[36]

Housing & Equity Advocates

Representatives from five different advocacy, community, and policy-oriented organizations that support the needs and perspectives of traditionally marginalized and underrepresented groups, including low-income households, people of color, people with disabilities, and others.

Southern Nevada Commercial Real Estate Development Association (NAIOP)

Professional organization related to office, industrial, and mixed-use real estate, to advance responsible commercial real estate development and advocate for effective public policy.[37]

Southern Nevada Home Builders Association (SNHBA)

Local trade association representing the residential construction industry in Southern Nevada, with more than 500 members. Selected individual homebuilders also engaged during the process.[38]

Southern Nevada Regional Transportation Commission (RTC)

Regional organization that oversees public transportation, traffic management, roadway design, construction and funding, transportation planning, and regional planning – known as Southern Nevada Strong.[39]

Southern Nevada Water Authority (SNWA)
Not-for-profit agency that addresses water issues regionally, providing guidance to seven member agencies who collectively serve more than two million residents. SNWA is a wholesale water provider, responsible for treatment, delivery, and the acquisition and long-term management of water resources for the region.[40]

These interviews had dual purposes: a) to learn about each organization's operations (including resources and capacity), priorities, challenges, and major projects, and b) to ask participants what they envision for the Study Area, what challenges they anticipate, what concerns they have, and what strategic opportunities they see.

These groups were identified as important stakeholders within the area that could provide valuable insight into the various considerations and conditions on the ground. In addition, these groups will inevitably have a role in the implementation of this plan, making their input and involvement early on essential for future success.

These conversations were crucial to the Plan development process, providing context and guidance for development goals, developing and refining land use concepts, and preparing robust recommendations for implementation. Stakeholders discussed many projects in the pipeline that will inform and support the opportunity for development in the Study Area and in the broader region, including the potential for a new airport, high-speed light rail, new water service infrastructure, commercial centers, and residences. However, these proposed projects–including the potential expansion of the disposal boundary and subsequent nomination process for BLM land within the Study Area – still face significant uncertainty and their plans will continue to evolve in the coming years. The following is a summary of key takeaways from these stakeholder discussions.

- Stakeholders expressed excitement about the development and economic potential of this area.
- Stakeholders recognized a need for strategic coordination and collaboration amongst actors and jurisdictions to ensure success moving forward.
- Stakeholders recognized a need for consistent and coordinated development regulations area-wide to implement a shared vision and ensure cutting-edge, resilient, and sustainable development. This area provides a unique opportunity for 'blank slate' development that should be implemented thoughtfully to promote resource preservation and supportive livable communities.
- Stakeholders expressed that business attraction and competitive advantage will be crucial to this project. The focal point of the economy in this area could be an 'inland port' for the distribution and logistics industry, although they also reported a strong desire to balance this commercial center with complete communities.
- A complete community would balance attainable and affordable housing, daily retail and service needs, recreation and entertainment, convenient and multimodal connectivity with a diverse array of job opportunities.
- Stakeholders recognized a need for new infrastructure and utilities provision.
- Stakeholders recognized a need for new development and business operations to be

water-conservative and meet the stringent requirements of existing development codes to protect resource availability.

NET LAND DEMAND

Based on regional forecasts for population and economic growth and the assessed proportional capture of that growth within the Study Area, the following land demand is estimated for the 20-year planning horizon.

Residential Development

Table 2 illustrates the estimated land demand for residential development, based on expected demand for different housing types. The total expected 20-year demand for residential development is approximately 6,155 acres - or 308 acres annually.

Employment-Based Development

For the purposes of this Study, anticipated employment growth across all industries are grouped into the following development types:

- Retail
- Hospitality
- Office
- Flex
- Industrial

Industrial development ("Industrial" and "Flex" sector types in Table 3) will achieve the greatest capture of regional demand in the Study Area, estimated to capture 30% of regional demand. This correlates to approximately 18.5 million square feet of space over 20 years, requiring approximately 2,800 acres of land. The estimated capture of retail, hospitality, and office demand is 10%. This results in demand for 1.5 million square feet of retail space (175 acres of land), 1.4 million square feet of hospitality space (133 acres of land), and 1.6 million square feet of office space (180 acres of land).

TECHNICAL CONSIDERATIONS

The BLM Disposal Process

Disposal of public lands may occur in the form of a land sale, exchange, mineral conveyance, or Recreation and Public Purpose long-term leases. This process—begun in 1926—was further clarified by the U.S. Congress with passage of the Federal Land Policy Management Act (FLPMA) in 1976 and the Southern Nevada Public Lands Management Act (SNPLMA) in 1998. From SNPLMA, a local disposal boundary was established that covers large portions of the Las Vegas Valley, and a Resource Management Plan (RMP) developed to manage the transfer of land within the boundary through disposal.[41]

Table 2: Land Demand For Residential Development (2025 - 2045)

Housing Type	Density	Unit Demand	Land Demand (Acres)
Single-Family	3 DU/Acre	16,106	5,369
Missing Middle*	7 DU/Acre	2,684	383
Multifamily	20 DU/Acre	8,053	403
Total		**26,843**	**6,155**

*See definition in Appendix A

Table 3: Land Demand For Commercial & Industrial Development (2025-2045)

Geography	Demand by Sector (in sqft unless otherwise noted)				
	Retail	Hospitality	Office	Flex	Industrial
Clark County	15,181,500	14,465,100	7,828,600	8,534,900	53,282,000
Study Area					
Est. % Capture	10%	10%	10%	30%	30%
Est. Sqft Capture	1,520,000	1,446,510	1,566,000	2,560,000	15,985,000
Est. Acreage Demand	175	133	180	235	2,450
Total Square Footage Demand	**23,077,510**				
Total Acreage Demand	**3,173**				

A parcel may be considered by the federal government for disposal if it meets criteria such as: not being manageable by another federal agency, acquired for a specific purpose that is no longer relevant, or will serve a purpose like expansion of communities or accommodating resident needs which are deemed to outweigh the public objectives if kept as federal land.[42] BLM then determines if sale or transfer is appropriate, following the requirements of the enabling laws. While the nomination of parcels by local governments is advisory only, many prior nominations have been granted and conveyed, paving the way for new uses ranging from industrial parks to affordable housing.[43]

Traditionally, when ready to initiate a disposal action, BLM 1) places a notice in the Federal Register and accepts public comments for 45 days, and 2) notifies the state's governor and relevant political subdivision(s) so they can prepare for their role in administering land use regulation and zoning. Following these actions, BLM can proceed to auction the parcels at a competitive sale, priced at least at fair market value.[44]

The state and local governments can nominate specific parcels for disposal and previously did so using the RMP; however, BLM retains control over which parcels are sold and the timing of that action. The County is now seeking Congressional action to expand the disposal boundary to increase the amount of land that is eligible for sale nomination by BLM.[45]

The current lands bill—the Southern Nevada Economic Development and Conservation Act—is pending before the 118th Congress as of the writing of this Study and could significantly expand the SNPLMA. Its passage and signature by the President would authorize BLM to move ahead with the disposal boundary expansion and disposal action to Clark County, thus accommodating population growth and economic diversification. In addition, some land would be set aside to expand National Conservation Areas, preserve natural landscapes, and to conserve habitats.[46]

Nature & History

How should development proceed among the unique natural and cultural resources within the Study Area? This section details the priority considerations assuming passage of the additional lands bill and conveyance to the County. However, this review is not intended to be comprehensive, as other natural and historical considerations may arise by that point.

The threatened species status of the desert tortoise calls for great care in preserving critical habitat and minimizing human disturbances before moving ahead with any development in this area. Clark County is aware of this challenge and has been operating since 2000 under a Multi-Species Habitat Conservation Plan that includes the desert tortoise; see Appendix B for details.[47] As such, no recommendations in the JLUS change that effort. In fact, the land use recommendations of this plan encourage the preservation of significant wild lands, alongside the conservation of others for recreational uses. When implementing this plan, care and consideration should be taken to provide wildlife corridors to connect habitat areas and manage recreation areas to minimize human impact on wildlife and fragile ecosystems.

While petroglyphs have not been found within the Study Area, archaeologists have located these in multiple locations to the east in the Sloan Canyon NCA. This document recommends that a portion of the land abutting the NCA and the McCullough Wilderness at the eastern edge of the Study Area be retained as open space, to protect the existing sites and minimize the possibility of human disturbance of petroglyphs yet to be identified. Additionally, the County and partnering entities should consider how archeologists, historians, and Indigenous voices from the area can contribute to the character of future neighborhoods and activity centers within the Study Area. Through placemaking and public art, new development has the potential to recognize, preserve, and uplift the cultural heritage of these lands.

The County and partnering entities should collaborate with the Nevada Museum of Art and the community at-large to determine the most appropriate future for the Seven Magic Mountains art installation. Its perennial popularity has added years on to its planned exhibition time.[48] If desired, the installation's continued presence and thoughtful, permanent incorporation into future development should be carefully considered and planned for.

Finally, the County is required to comply with federal Clean Air Act standards to ensure that the County meets, or is working to attain, National Ambient Air Quality Standards (NAAQS).[49] While there are limited tools available to modify the existing transportation system and developed areas of the County, this type of blank slate development presents an opportunity to promote multimodal transportation and reduced vehicle miles traveled (VMT) per person/household.

RECOMMENDATIONS

4

IVANPAH VALLEY DEVELOPMENT RECOMMENDATIONS

Based on our comprehensive assessment of relevant planning and regulatory documents, background research, and stakeholder input, the following recommendations capture key priorities for future development within the Study Area. These recommendations are followed by supporting materials that provide a greater level of detail and direction and comprise a complete land use framework for the Study Area. This framework incorporates specific Development Types that depict land use and character, design guidelines, infrastructure concepts, and policy and regulatory considerations to guide the County and City – and other partners - as planning progresses toward eventual development of the Study Area.

Recommendation #1: Provide a wide array of diverse housing options, including workforce housing and affordable housing, within the Study Area. These new options will fulfill demand and ensure workers can live within a reasonable commuting distance to future job centers.

Recommendation #2: Encourage the growth of neighborhood-serving retail that is strategically mixed with other uses (such as residential) to ensure a strong customer base for business success and the provision of leisure amenities for residents. Promote a higher-density combination of these uses in strategic locations to form community hubs.

- Prioritize smaller retail footprints over the growth of large, single-use retail centers or clusters within the Study Area, as the region appears to have more than enough of these. A mix of brick-and-mortar retail with other uses will attract more residents and visitors alike. Complementary land uses include residences, experiential activities, entertainment, and restaurants.

Recommendation #3: Encourage industrial sector development in appropriate locations through land prioritization as it offers substantial revenue impact per acre and the region currently has a limited supply of large parcels to support this sector.

Recommendation #4: In early development stages, encourage the prioritization of strategic community hubs that have a higher concentration of economic generating uses, such as traditional mixed-use, manufacturing and distribution, business headquarters, and office parks.

- Development phasing will start upon the completion of Federal disposal action. Hubs of economic development should be prioritized in early development phases, assuming the availability of shovel-ready sites and appropriate utility connections. Such development will generate demand for other uses, such as residential, retail, and recreation or entertainment.

Recommendation #5: Promote high-quality, design-conscious development, in keeping with the Study Area's position as a gateway to the region.

- With perennial heavy visitor traffic approaching Las Vegas on I-15 from southern California, and the coming Brightline West rail option, approach from the southwest remains a common entry point for many visitors. The Study Area's development would not change this fact, but the "gateway" would move southward as the metro's

center of gravity advances in that direction. This provides a unique opportunity to visually welcome visitors to the Ivanpah and Las Vegas Valley.

Recommendation #6: Promote sustainable, low impact and water-efficient development that aligns with current standards and requirements for reducing water use and reclaiming/recycling water. Strategically encourage cutting-edge development that is energy and resource efficient. Utilize incentives or overlay regulations for Building Performance Hubs that establish the Ivanpah Valley as a leading example for forward-thinking development trends that accommodate growth while considering resource constraints and the needs of future generations.

Recommendation #7: Utilize placemaking to curate a unique and distinct identity, establishing new community hubs and neighborhoods within the Study Area as regional destinations, rather than undefined and disjointed outward expansion.

- Placemaking within the Study Area will increase its attractiveness for businesses and employees, visitors, and residents alike. This is especially important because of its proximity to the Las Vegas metropolitan area, which is a significant attraction and gravitational center.

Recommendation #8: Align Study Area planning and development with best practices for public health to support the Southern Nevada Health District's position as the lead organization in promoting public health for the region. Encourage public health from the start by designing walkable neighborhoods and destinations and promoting outdoor recreation with thoughtful connectivity and placement of trails and parks.

- As planning and development in the Study Area continue, multiple strategies should be considered and prioritized that align with best practices for promoting public health including 1) increasing physical activity in adults by providing nearby locations for aerobic physical activity and promoting active transportation between destinations (reducing vehicle miles traveled or VMT) through design, land use, and infrastructure provision; and 2) limiting exposure to unhealthy air by siting residences distant from large transportation corridors like I-15 or manufacturing facilities.

Recommendation #9: Emphasize the economic integration of new development within the Study Area with the regional economy. This includes the promotion of business siting and growth in target sectors, including advanced manufacturing and distribution, business headquarter relocations or expansions, innovation and entrepreneurship, and others. Partnerships and coordination with existing businesses located within the Las Vegas metro will be crucial to regional success in the long-term.

Recommendation #10: Promote growth in the local outdoor recreation industry to increase access to the unique wilderness and open spaces in and around the Study Area, while balancing responsible management and protection of valuable natural resources.

- This effort will diversify the tourism activities in the area and simultaneously provide recreational opportunities for residents.

- As appropriate, apply the City of Henderson's Sensitive Lands Overlay regulations – or similar tools – to protect sensitive landscapes, preserved open spaces, and natural habitats.

Recommendation #11: Support the attraction of national and regional freight distribution operators interested in southern Nevada.

Recommendation #12: Support the proposed Southern Nevada Supplemental Airport and coordinate with the Clark County Department of Aviation as necessary to ensure compatible development.

Recommendation #13: Continue to utilize airport overlay districts and consider land use regulations that dictate buffers or compatible-only land uses as a regulatory tool for land near airports and heliports. Consider expansions or revisions to existing standards as needed to mitigate any potential conflicts and adhere to best practices.

- Development limitations and/or sound insulation for properties within an airport overlay district is a national best practice recommended by the Federal Aviation Administration. Clark County and the City of Henderson have relevant experience in applying this best practice through their development codes for the adopted Airport Environs Overlays for airports within their jurisdiction. Proactive application and potential updates will proactively prevent the kind of compatibility issues that Clark County and the City of Henderson have experienced in the neighborhoods surrounding Harry Reid International Airport and Henderson Executive Airport.

Recommendation #14: Align Study Area planning with established best practices and standards identified by Clark County and the City of Henderson for transportation and mobility.

- Promote multimodal neighborhood development through design guidelines, strategic platting, and regulatory strategies that move beyond "business as usual." A multimodal neighborhood offers several options for daily trips, including but not limited to bus, bicycling, walking, carpooling, and driving alone.
- Ensure multimodal connections to existing areas of development, including the northern edge where the Study Area abuts West Henderson, and west toward the I-15 corridor.

Recommendation #15: Align Study Area planning and development with future capital investments and improvement programs for Clark County and the City of Henderson.

- Expend funds available to build quality infrastructure and facilities to provide the high level of service to meet the needs and desires of future residents, primarily through these jurisdictions' Capital Improvement Programs.
- Deploy SNPLMA proceeds to develop specific types of facilities within the Study Area (e.g., trail networks, parks, etc.).

PRIMARY LAND USE FRAMEWORK

The eight proposed Development Types include conceptual recommendations for recommended densities; the appropriate mix of land uses; circulation, access, and connectivity; and appropriate transitions between Development Types. Crucially, each Development Type includes several conceptual 3D models that illustrate how these elements comprise complete neighborhoods and community destinations when implemented together.

The Proposed Land Use Map (Figure 7 on the following page) lays out the proposed Development Types geographically to provide a cohesive visual concept for the land use framework. The map was developed to align with the development code of Clark County at a high level, while balancing that requirement with strategies that incentivize forward-looking priorities and recommendations. These include discouraging sprawl and the need for long car trips to reach daily destinations, encouraging complementary land uses to be co-located, encouraging the production of housing at different price points and serving different preferences and needs, protecting and providing open spaces, and collectively assembling coherent, complete neighborhoods.

Future Land Uses and Development Types

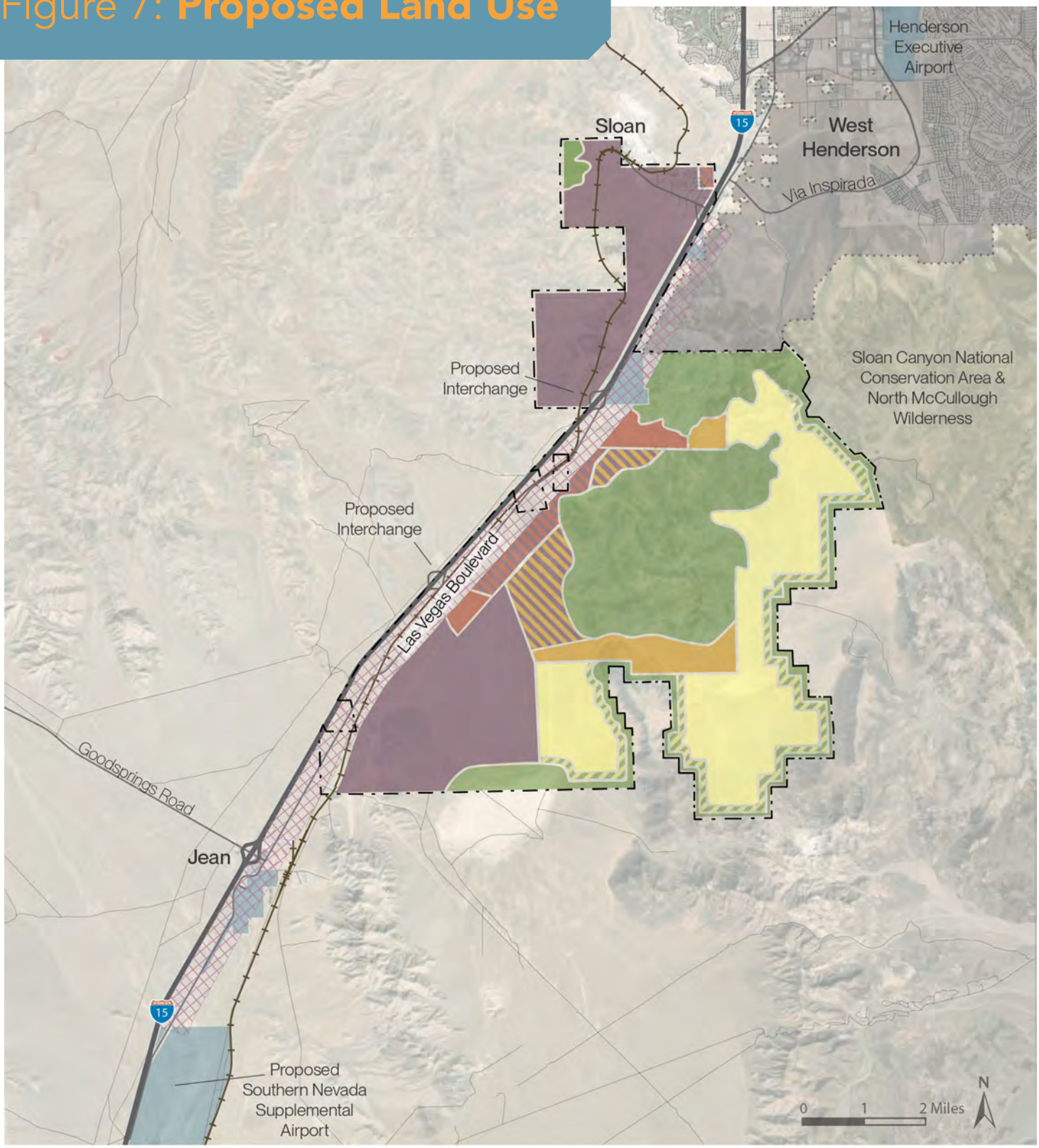
The eight proposed land use categories each have distinct development patterns and implications for infrastructure needs, intensity of activity, and relationship to neighboring areas – all of which shape the parameters for each Development Typology.

Table 4: Development Types & Land Use Mix

Development Types	Acreage	Percent of Total
Open Space	8,713	31%
Mixed Employment	8,162	29%
Residential	6,033	22%
Residential/Open Space Buffer	1,416	5%
Traditional Mixed Use/Mixed Employment	1,162	4%
Traditional Mixed Use	1,178	4%
Retail, Hospitality & Entertainment/ Mixed Employment	626	2%
Retail, Hospitality & Entertainment	514	2%

Note: The Study Area is about 30,980 acres, which includes the reserved utility corridor along I-15. Development Types are not applied to the utility corridor, thus the land use acreage totals are less than the total Study Area.

Figure 7: **Proposed Land Use**



LEGEND

- Study Area
- Railroad
- Major & Minor Roads
- Utility Corridor
- City of Henderson
- Clark County Department of Aviation Property
- Retail/Hospitality/Entertainment
- Traditional Mixed Use
- Mixed Employment
- Residential
- Open Space
- Transition Areas (mix of two land use types)

MIG

CLARK COUNTY NEVADA

HENDERSON

Development Types portray the intended characteristics and specific development patterns for each of the land use categories, in conjunction with the Design Guidelines outlined later in this chapter. Conceptual models for the eight Development Types are displayed in this section, which build from the typologies introduced in public and stakeholder engagement events throughout 2023, and incorporate elements from other portions of the Study process. The fundamental components of the development type models are:

General roadway hierarchy, providing high-level guidance on the hypothetical local road network character and intersection density (see proposed roadway network details on page 94).

Block size, to show differences between the Development Types that accommodate different target land uses and building types.

Integration of parks and recreation, to illustrate that parks, open spaces, and connecting trails are part of each Development Type.

Integration of public facilities, to show the physical relationship to private properties within all Development Types (except for Open Space, where lands will be public).

Integration of hubs, in selected Development Types as appropriate. This primarily applies to Community Hubs, as Building Performance Hubs would generally have the same layout and physical character as other proposed development (see page 105 for details).

Intended scale, density, and transitions from one Development Type to another and between uses within a Development Type.


Sloan Canyon
NATIONAL CONSERVATION AREA


2001
9191
CITY OF HENDERSON FIRE STATION


SIXTY BRAINERD ROAD
EDGE

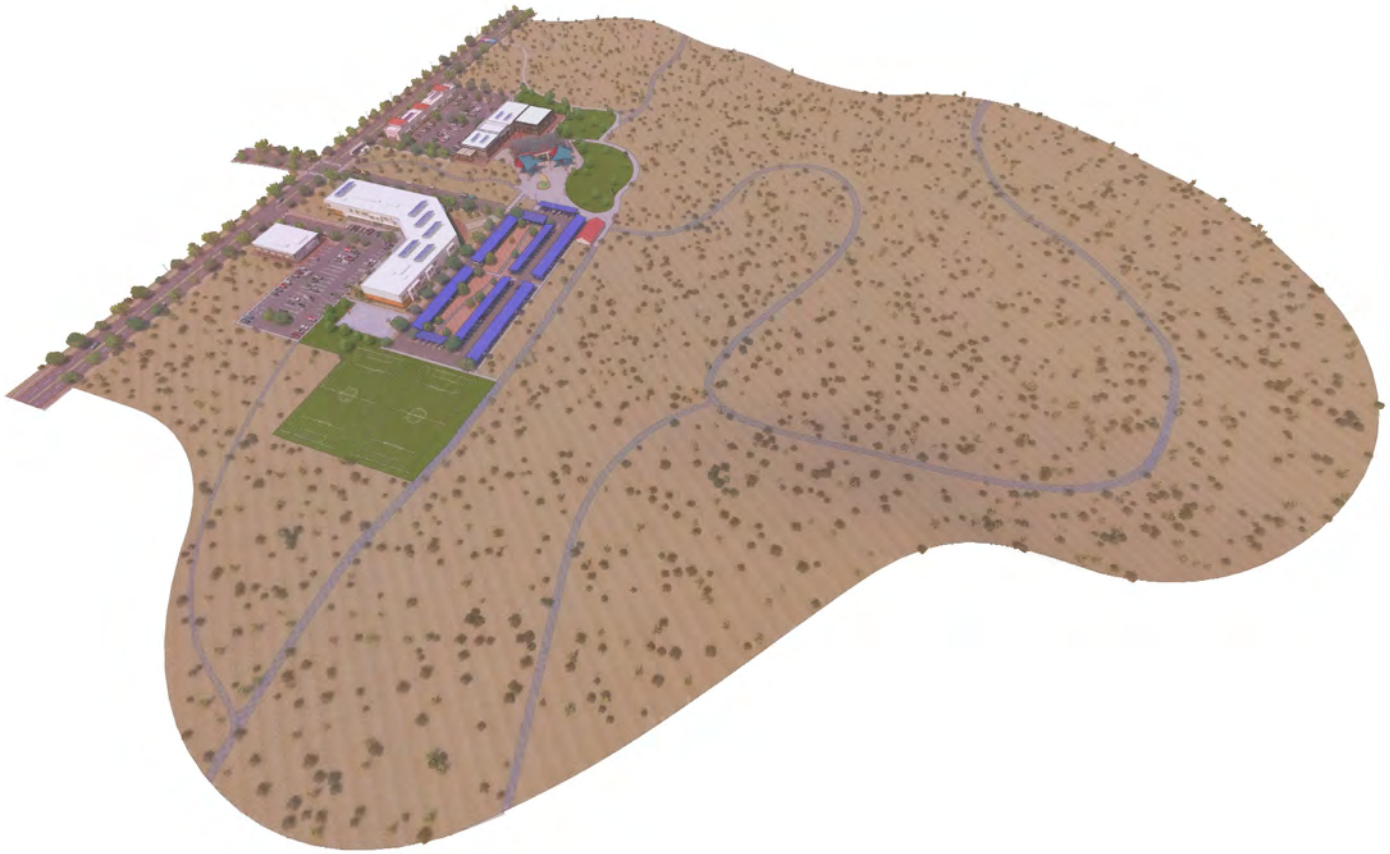

SAWMILL MARKET

OPEN SPACE

The Open Space Development Type is primarily comprised of conservation or recreational spaces, such as protected open space, public parks, and trails. This Type also includes civic spaces and public facilities, such as police and fire, schools, recreation centers, and libraries. Most of the Open Space acreage is found in the center of the Study Area where terrain is mountainous, however these spaces and facilities are also integrated throughout other Development Types.

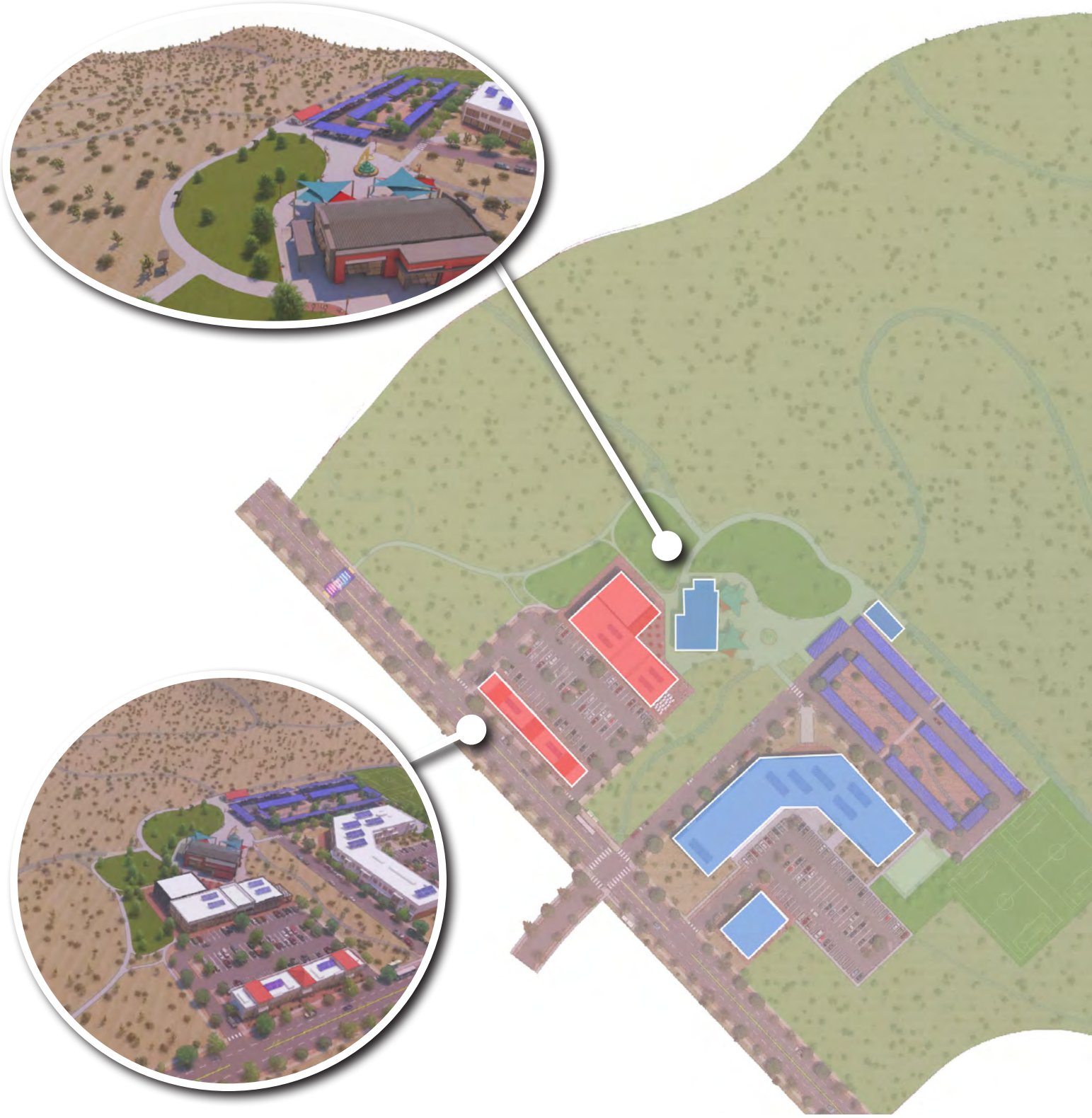
- 0 dwelling units per acre
- < 1 job per acre
- Example jobs: recreation instructor, law enforcement officer, librarian, firefighter, public lands manager, etc.

Open Space Public Lands



The Open Space concept is characterized primarily by a lack of change, i.e., these areas would mostly remain undeveloped and unaltered. Other than public facilities and civic spaces as noted above, the addition of recreational trails would be the primary form of new development. Given the relatively common occurrence of informal trails used by recreation enthusiasts in the Study Area today, formal trails and paths will be a valuable addition. Keeping trails mostly unpaved in open space areas is recommended. Finally, for safety reasons, natural elements that would cause a safety concern may be changed, such as removal of loose rock or boulders on adjacent slopes that could increase the risk of rockslides.

Figure 8: **Open Space - Land Use Mix**



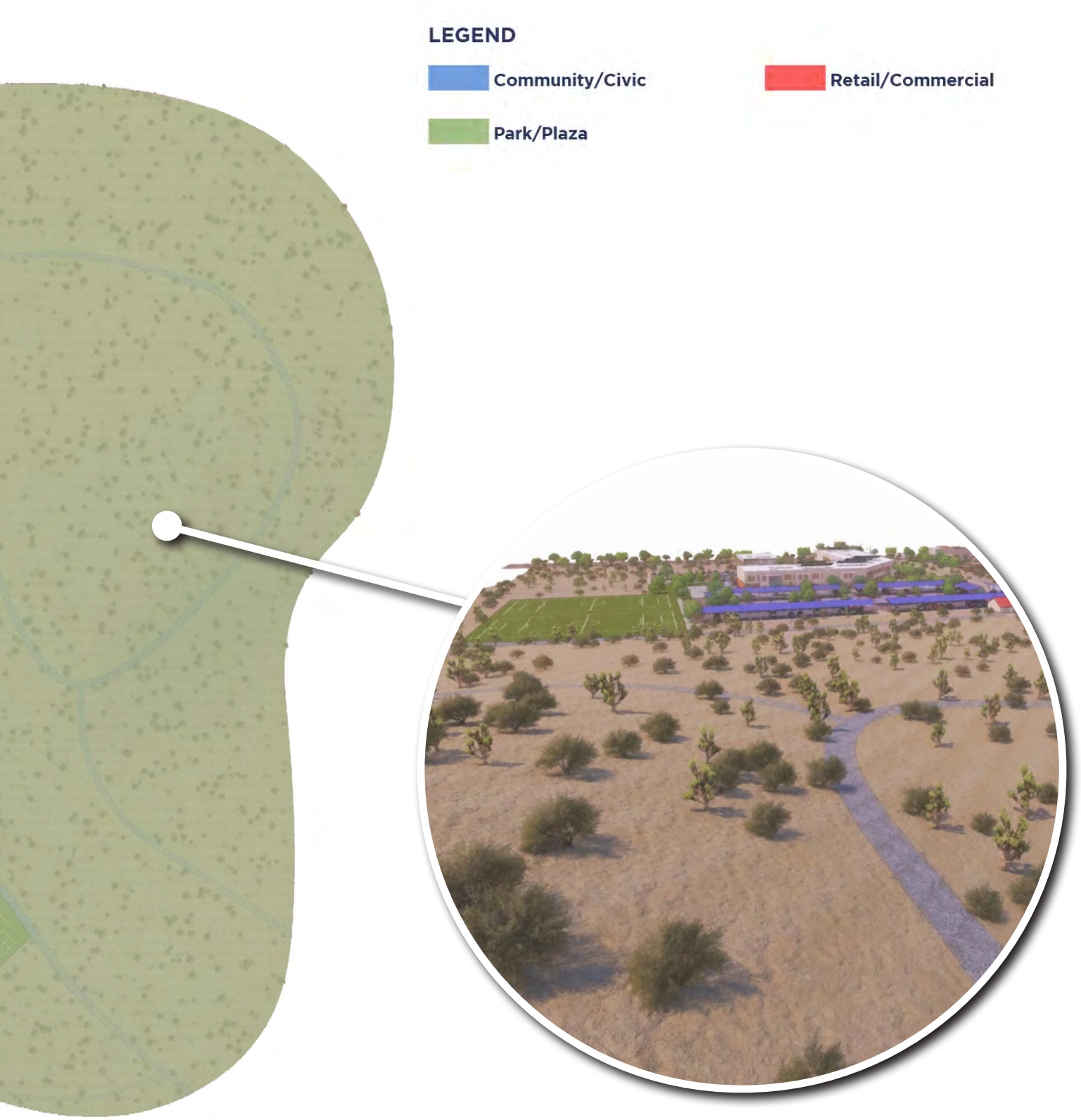
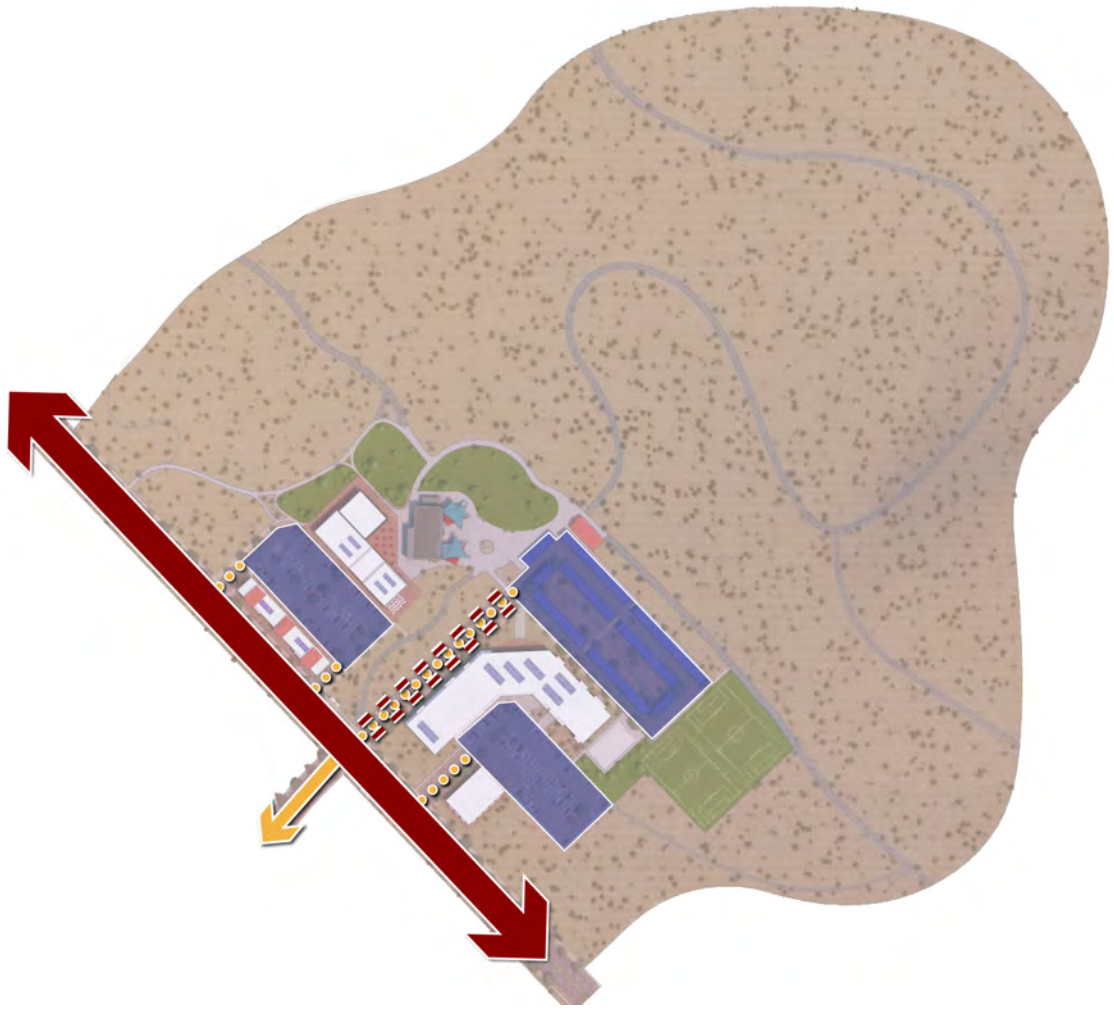

LEGEND
Community/Civic
Retail/Commercial
Park/Plaza

Figure 9: **Open Space - Roadway Network**

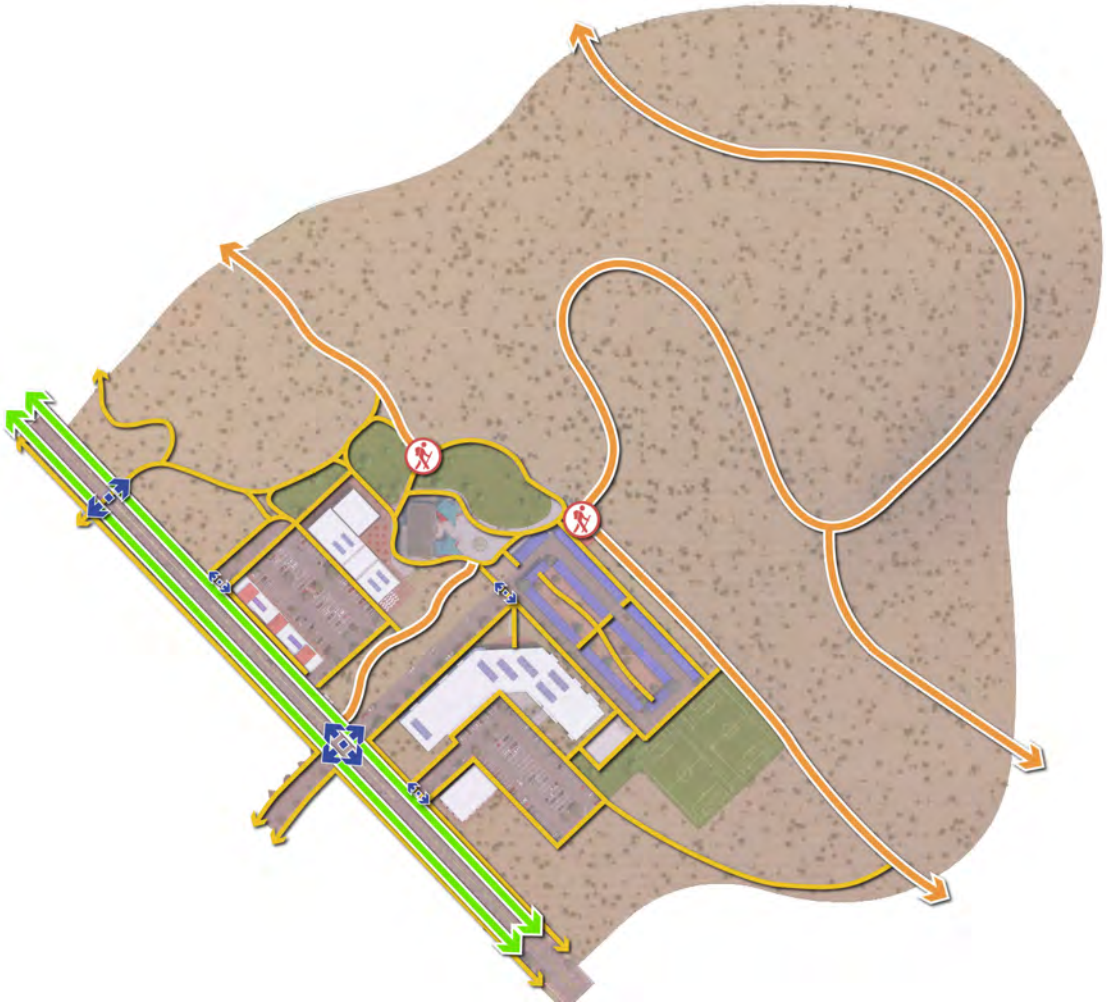


LEGEND

- Arterial Road
- Local Road
- Access Road
- Surface Parking Lot
- Street Parking

In general, Open Space areas are meant to be free of vehicular roads and limited to pathways. However, key access points and connections to the road network will be essential, including parking areas.

Figure 10: **Open Space - Trails & Bikeways**



LEGEND

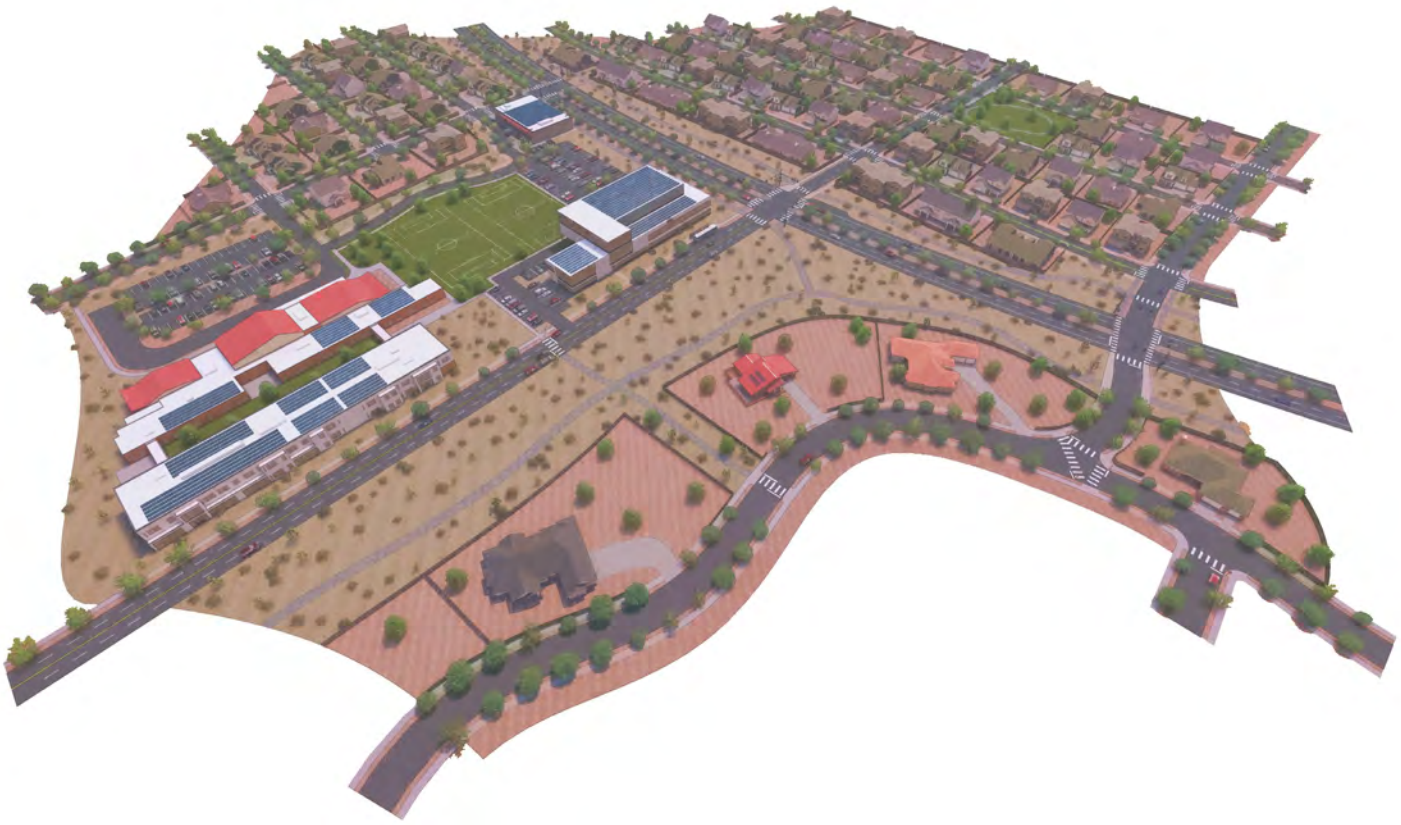
- Unpaved Multi-Modal Trail
- Pedestrian Trail/Sidewalk
- Marked Trailhead
- Bike Lane
- Street Crossing

RESIDENTIAL

The Residential Development Type is primarily comprised of homes and neighborhoods, ranging in size, type, density, tenure, and price point. These include large-lot single family estates; traditional single-family; small- and mid-scale multifamily (duplexes, triplexes, quads, townhomes, larger scale multifamily apartments, and mixed use) types. Higher density residential types are clustered closer to other Development Types and Community Hubs, while lower density residential types are found in outlying areas and at the fringe.

- 1 - 15+ dwelling units per acre
- < 1 job per acre

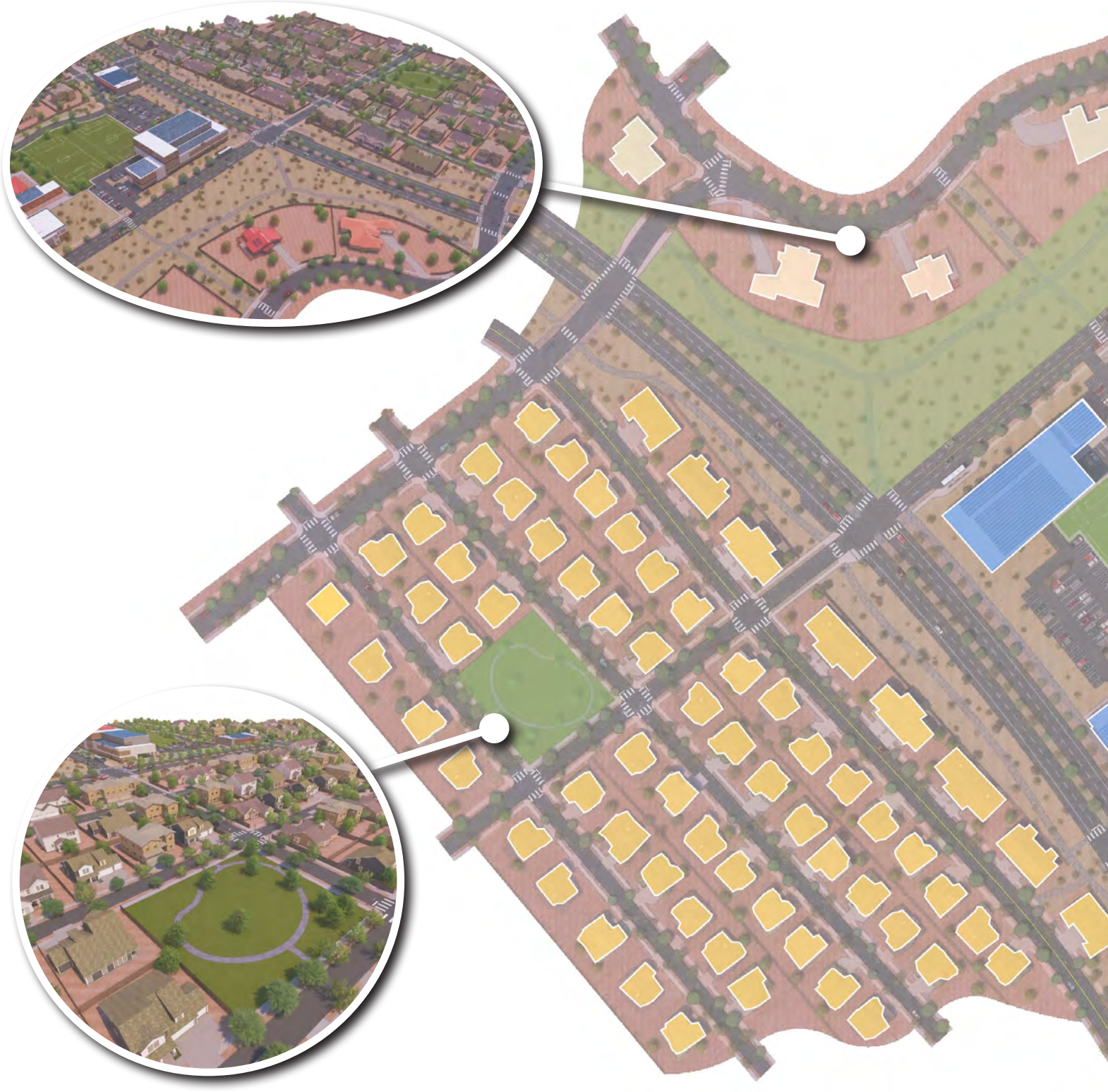
Low Density Neighborhoods



The Low Density residential area pictured above demonstrates a more limited density of homes, with single-family detached residences as the primary housing stock. Job-generating uses are generally not intended within in this Development Type, except for residents working from home or those working in public facilities, such as libraries or schools.

Parks, public facilities, and minor supporting uses are integrated components of these neighborhoods, including multi-generational playgrounds that provide a range of activities, sports fields, open spaces, picnic areas, libraries, recreation and community centers, schools, childcare centers, and public safety facilities. All households should have access to recreational amenities within a 10-minute walk or half-mile, per national best practices.

Figure 11: **Low Density Neighborhoods - Land Use**



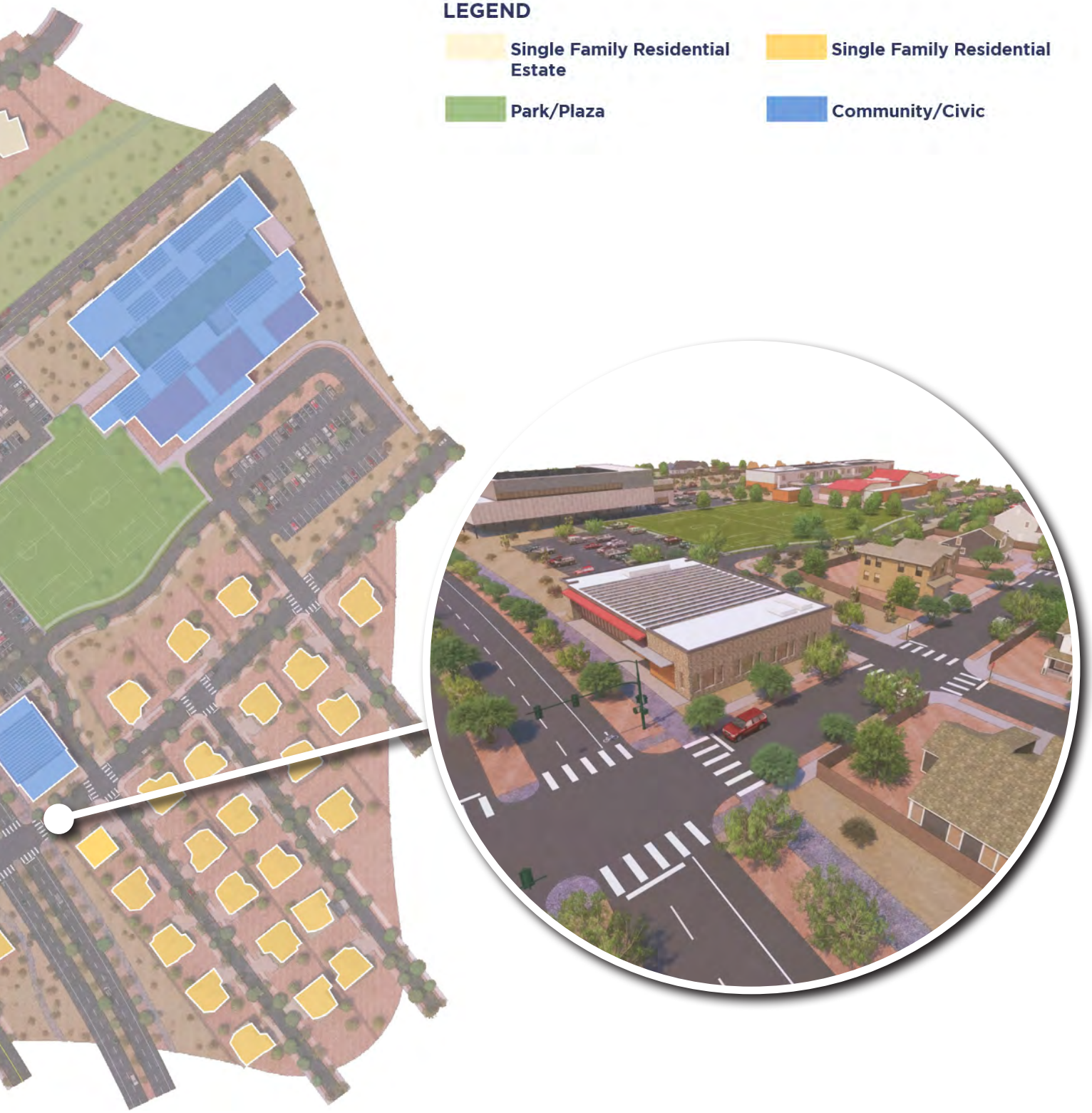
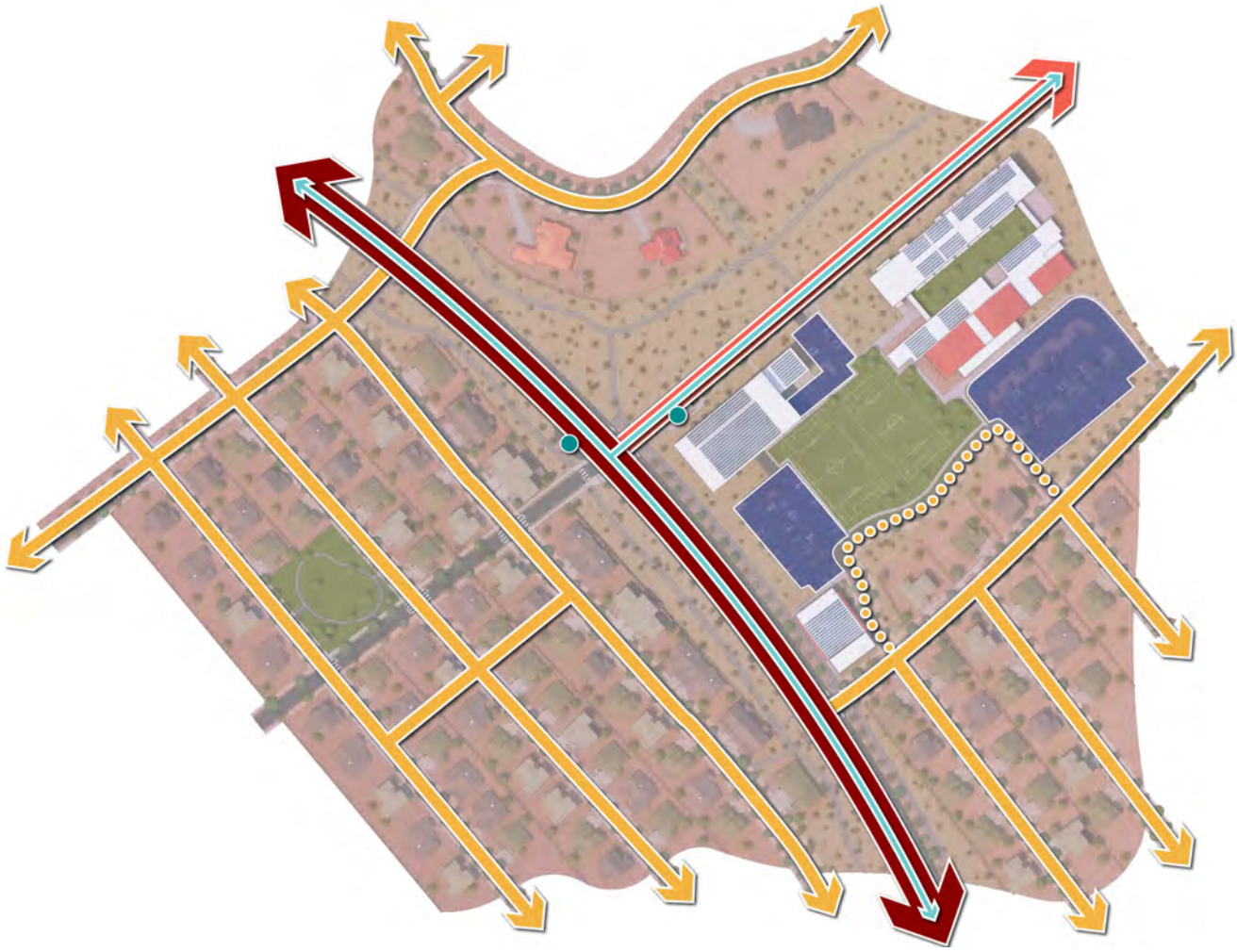

LEGEND
Single Family Residential Estate
Single Family Residential
Park/Plaza
Community/Civic

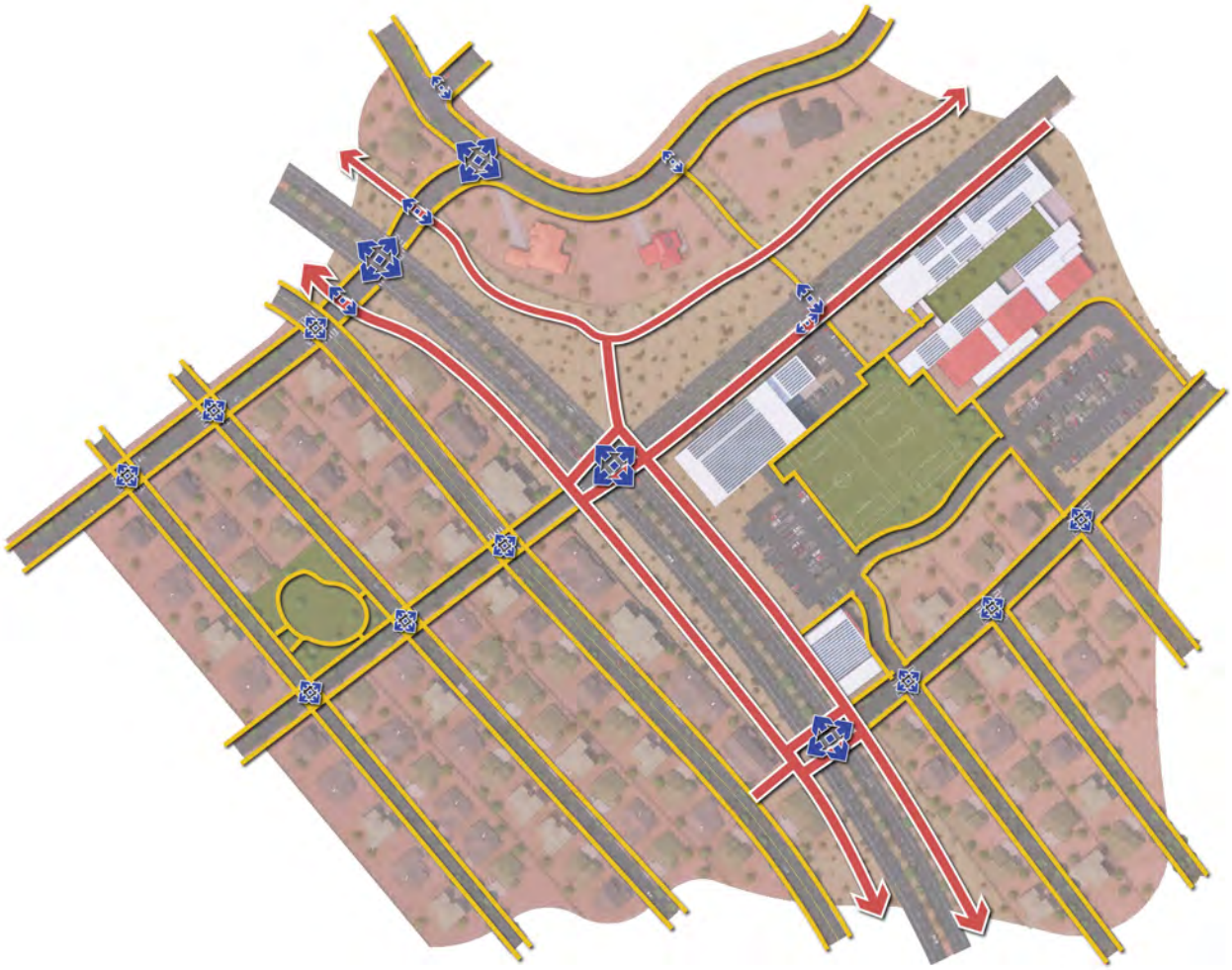
Figure 12: **Low Density Neighborhoods - Roadway Network**



LEGEND

- Arterial Road
- Collector Road
- Local Road
- Access Road
- Bus Route
- Transit Stop
- Surface Parking Lot

Figure 13: **Low Density Neighborhoods - Trails & Bikeways**



LEGEND

- Paved Multi-Modal Trail
- Pedestrian Trail/Sidewalk
- Street Crossing

Roadways are primarily local or small collectors that provide connection to larger collectors or arterials. Sidewalks, crosswalks, trails, bike lanes, and multi-use paths are amply provided, and block lengths are reasonable to promote walkability, although blocks and street formations may be more spacious and irregular. Connections to the larger trail network and transit stops are prioritized.

Higher Density Neighborhoods

The Higher Density residential area pictured above demonstrates the greatest density of homes of any Development Type concept, while maintaining a solely residential character. The limited jobs that may be located here are those working in property management, maintenance, leasing, etc., residents working from home, or those working in public facilities, such as libraries or schools.

Parks, public facilities, and minor supporting uses are integrated components of these neighborhoods, including multi-generational playgrounds that provide a range of activities, sports fields, open spaces, picnic areas, libraries, recreation and community centers, schools, childcare centers, and public safety facilities. All households should have access to recreational amenities within a 10-minute walk or half-mile, per national best practices.

Figure 14: **Higher Density Neighborhoods - Land Use**

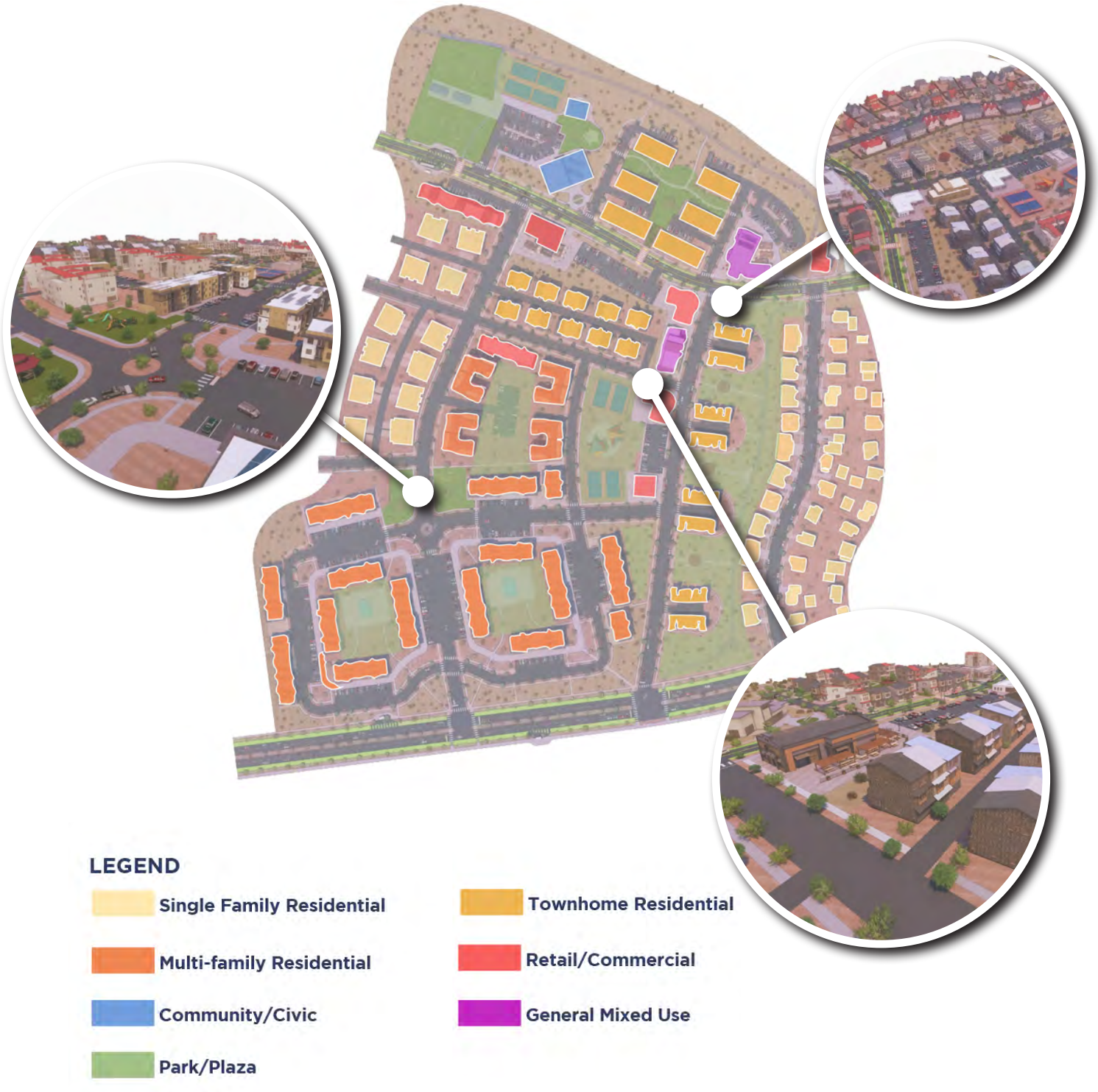


Figure 15: **Higher Density Neighborhoods - Roadway Network**

LEGEND

- Arterial Road
- Collector Road
- Local Road
- Access Road
- Bus Route
- Transit Stop
- Surface Parking Lot
- Tuck-Under Parking*
- Street Parking

* Definition provided in Appendix A

Roadways are primarily local or small collectors, while some higher density neighborhoods may abut larger collectors or arterials. Sidewalks, crosswalks, trails, bike lanes, and multi-use paths are amply provided and block lengths are reasonable to promote walkability. Streets generally follow a predictable grid, although some areas may be more irregular due to topography. Connections to the larger trail network and transit stops are prioritized.

Figure 16: **Higher Density Neighborhoods - Trails & Bikeways**

LEGEND

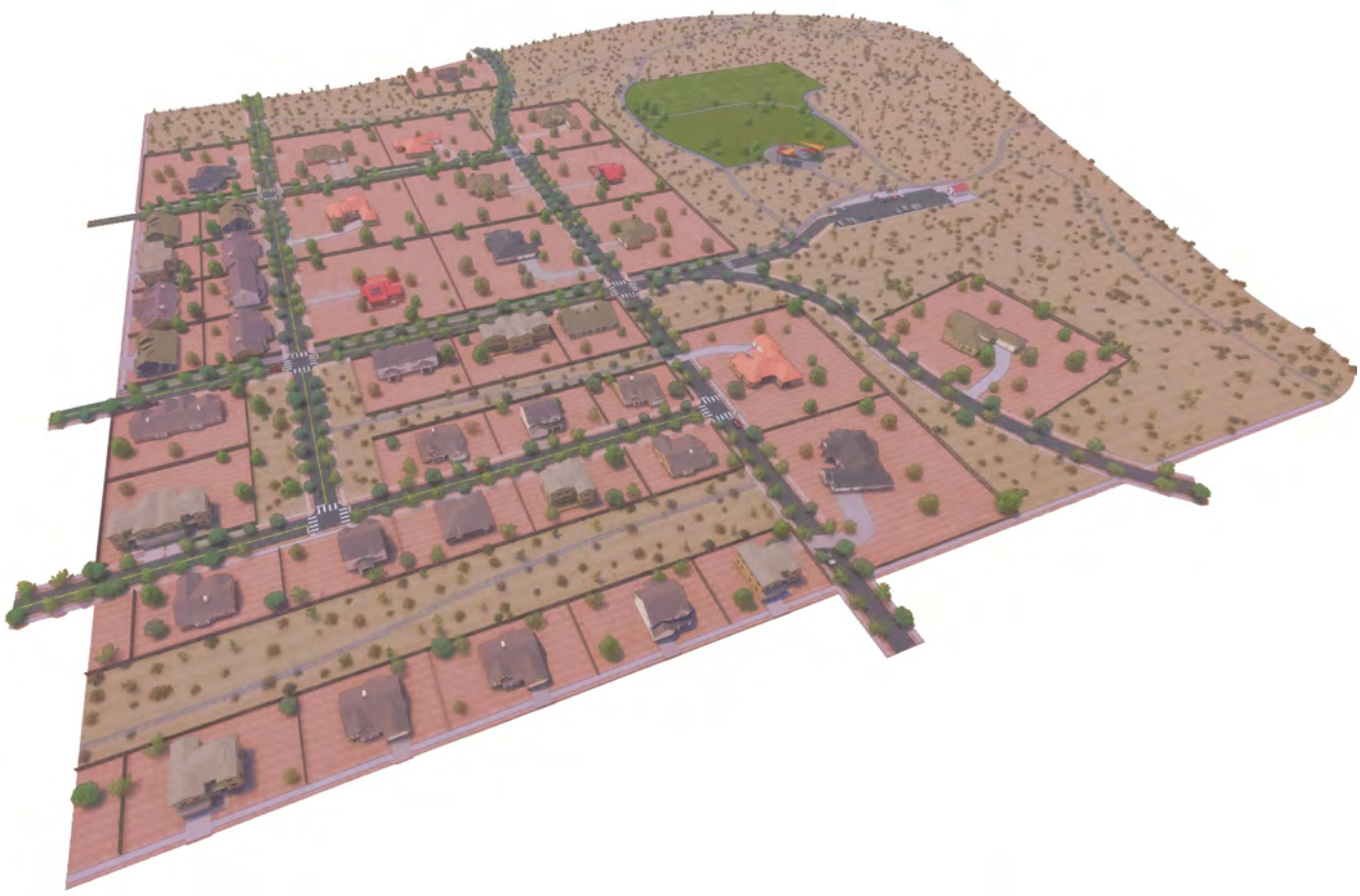
- Paved Multi-Modal Trail
- Unpaved Multi-Modal Trail
- Pedestrian Trail/Sidewalk
- Marked Trailhead
- Bike Lane
- Street Crossing

RESIDENTIAL / OPEN SPACE BUFFER

This Development Type serves as a buffer and transition between residential neighborhoods and protected open spaces that border the Study Area to the east and south, including the Sloan Canyon National Conservation Area. This Type is comprised of dispersed, low density single-family homes, such as estate or ranch-style homes. These spaces may also include trailheads for recreational access to neighboring public lands.

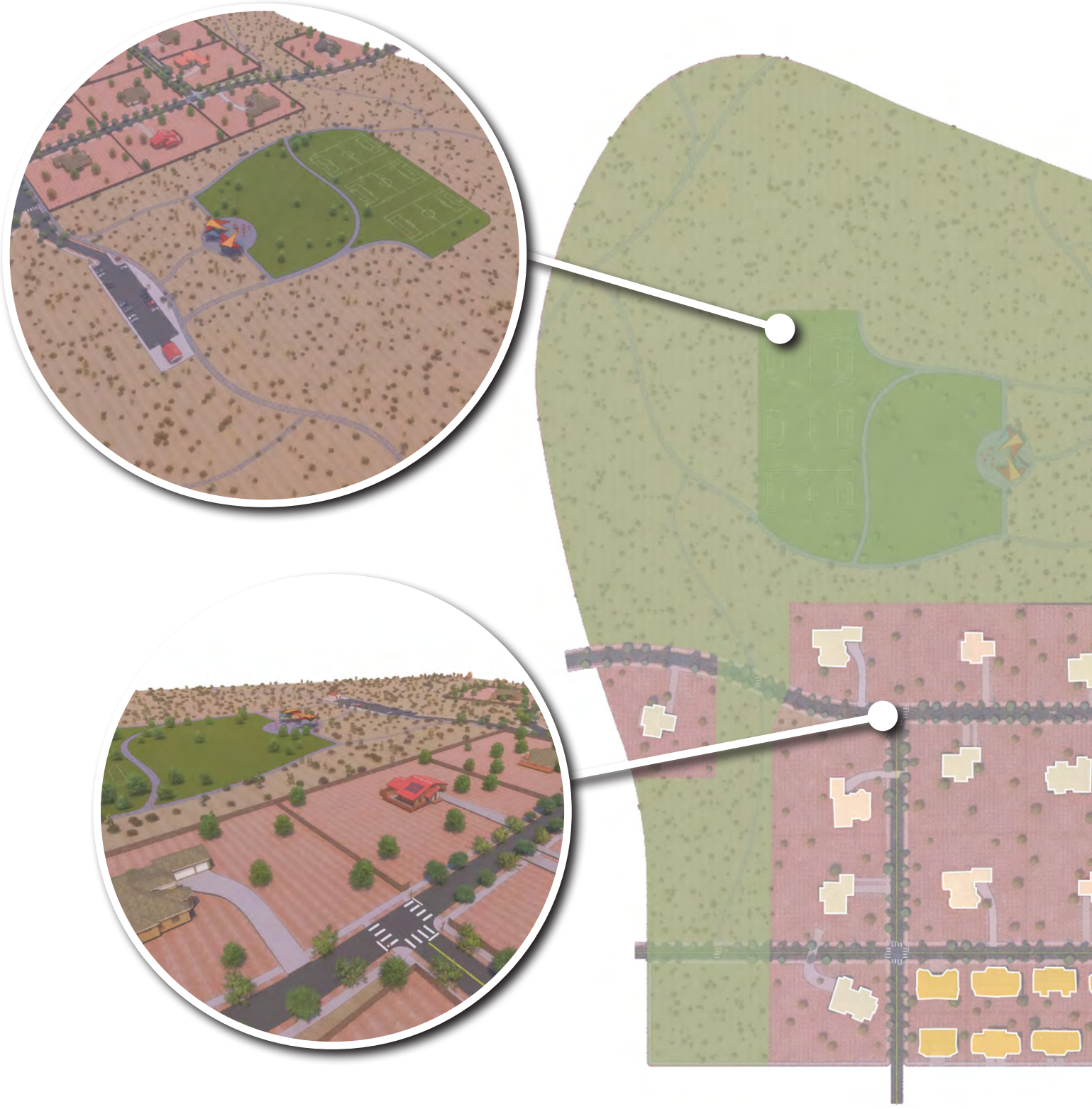
- < 2 dwelling units per acre
- < 1 jobs per acre

Low Impact Transitional Residential



The Residential/Open Space Buffer area depicted above displays rural development characteristics, with limited impact to the natural environment. Residences are meant to be dispersed and low profile. Residents of these areas would enjoy nearly immediate access to natural areas, as their location would be adjacent to public lands and the trailheads that provide formal access to them. Views of mountainous areas should also be maintained.

Figure 17: **Residential/Open Space Buffer - Land Use Mix**



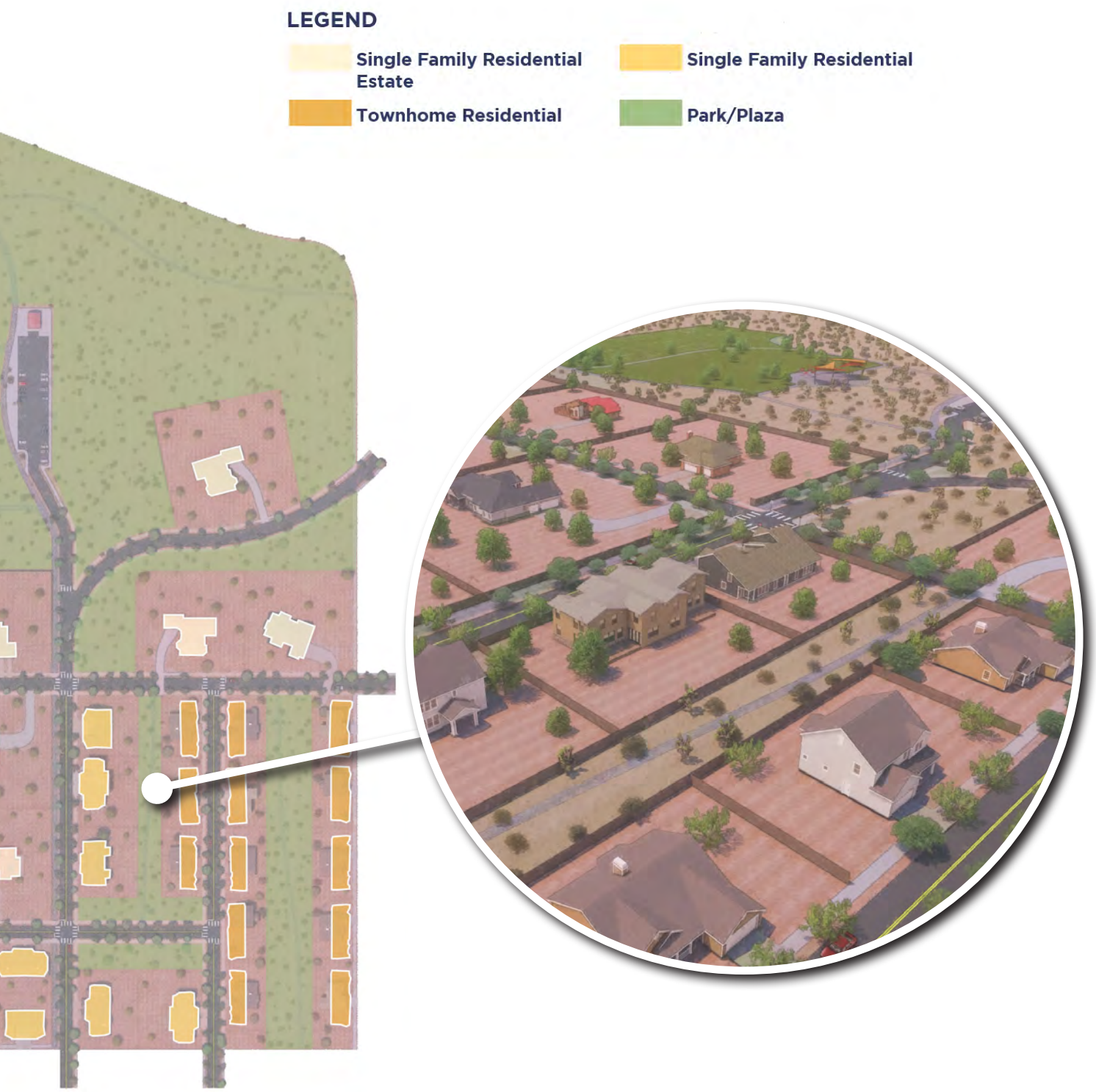
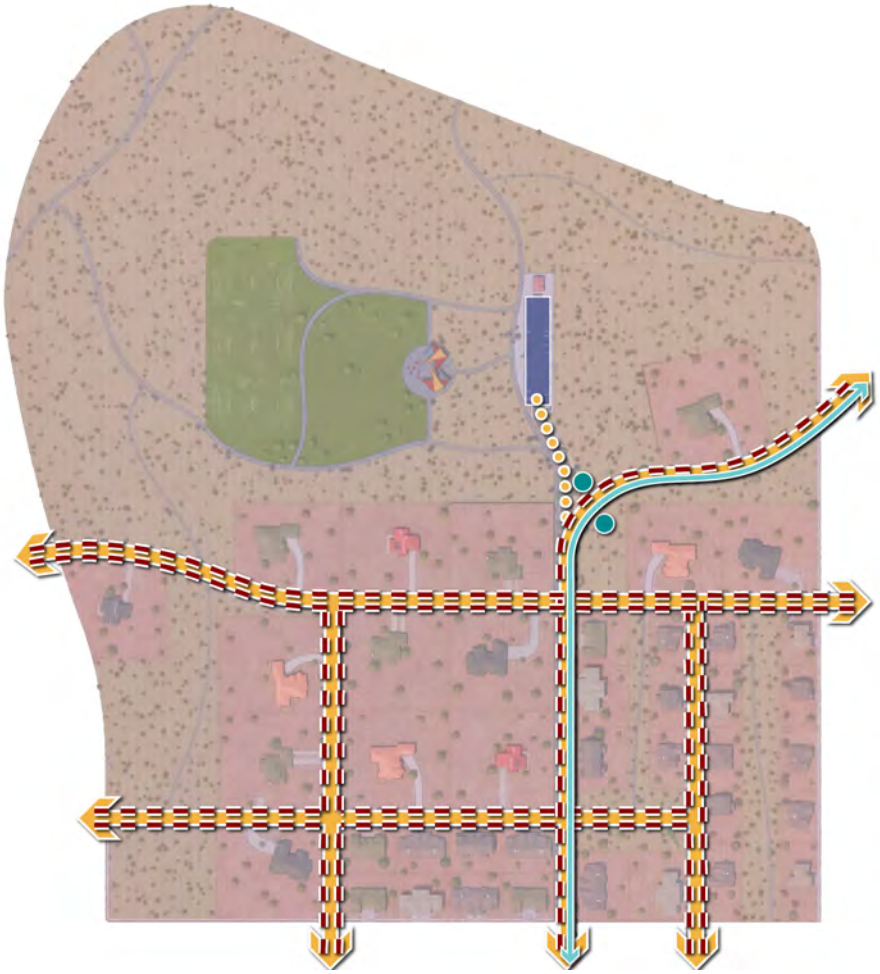

LEGEND
Single Family Residential Estate
Single Family Residential
Townhome Residential
Park/Plaza

Figure 18: **Residential/Open Space Buffer - Roadway Network**

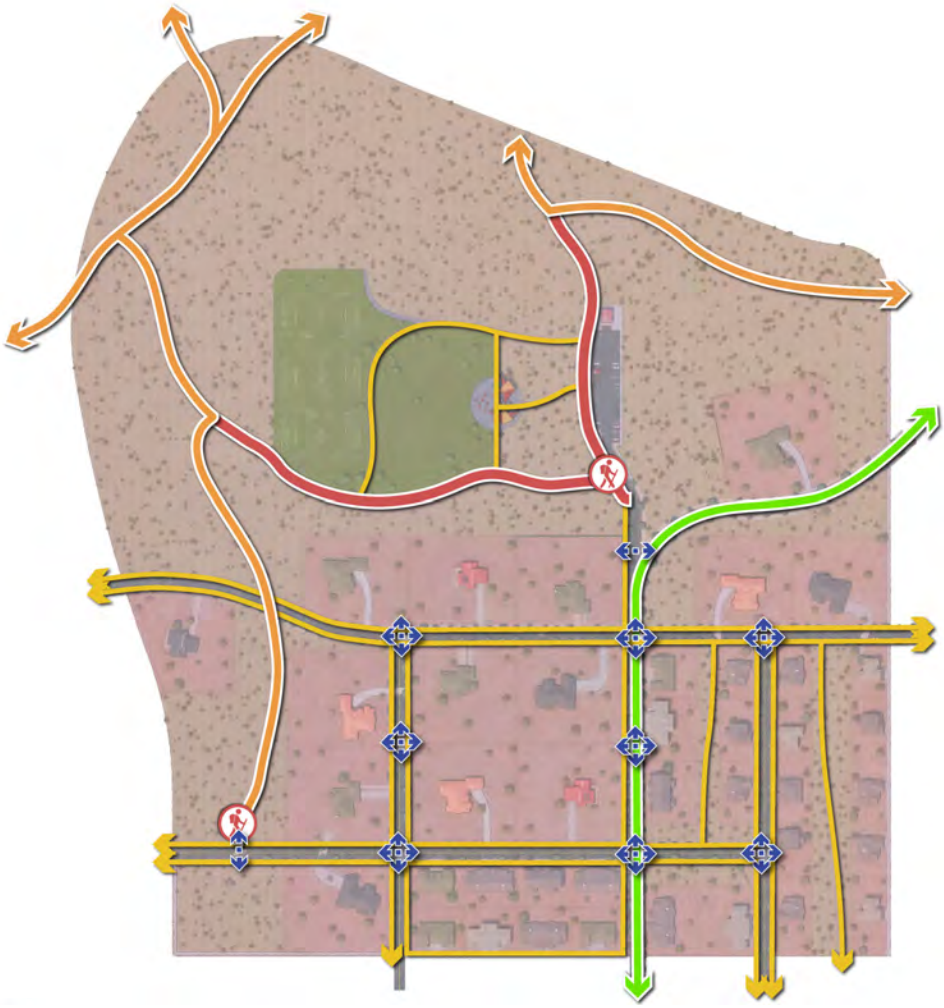


LEGEND

- Local Road
- Access Road
- Bus Route
- Transit Stop
- Surface Parking Lot
- Street Parking

Roadways are sparse in these areas and are limited only to local roadways that provide access to residences and trailheads. Roads are likely to follow topographical patterns and may not include robust infrastructure additions, such as bike lanes, due to the low level of traffic. Low profile parking areas should be provided at trailheads and trail connections should be prioritized to these access points.

Figure 19: **Residential/Open Space Buffer - Trails & Bikeways**



LEGEND

- Paved Multi-Modal Trail
- Unpaved Multi-Modal Trail
- Pedestrian Trail/Sidewalk
- Marked Trailhead
- Bike Lane
- Street Crossing

TRADITIONAL MIXED USE

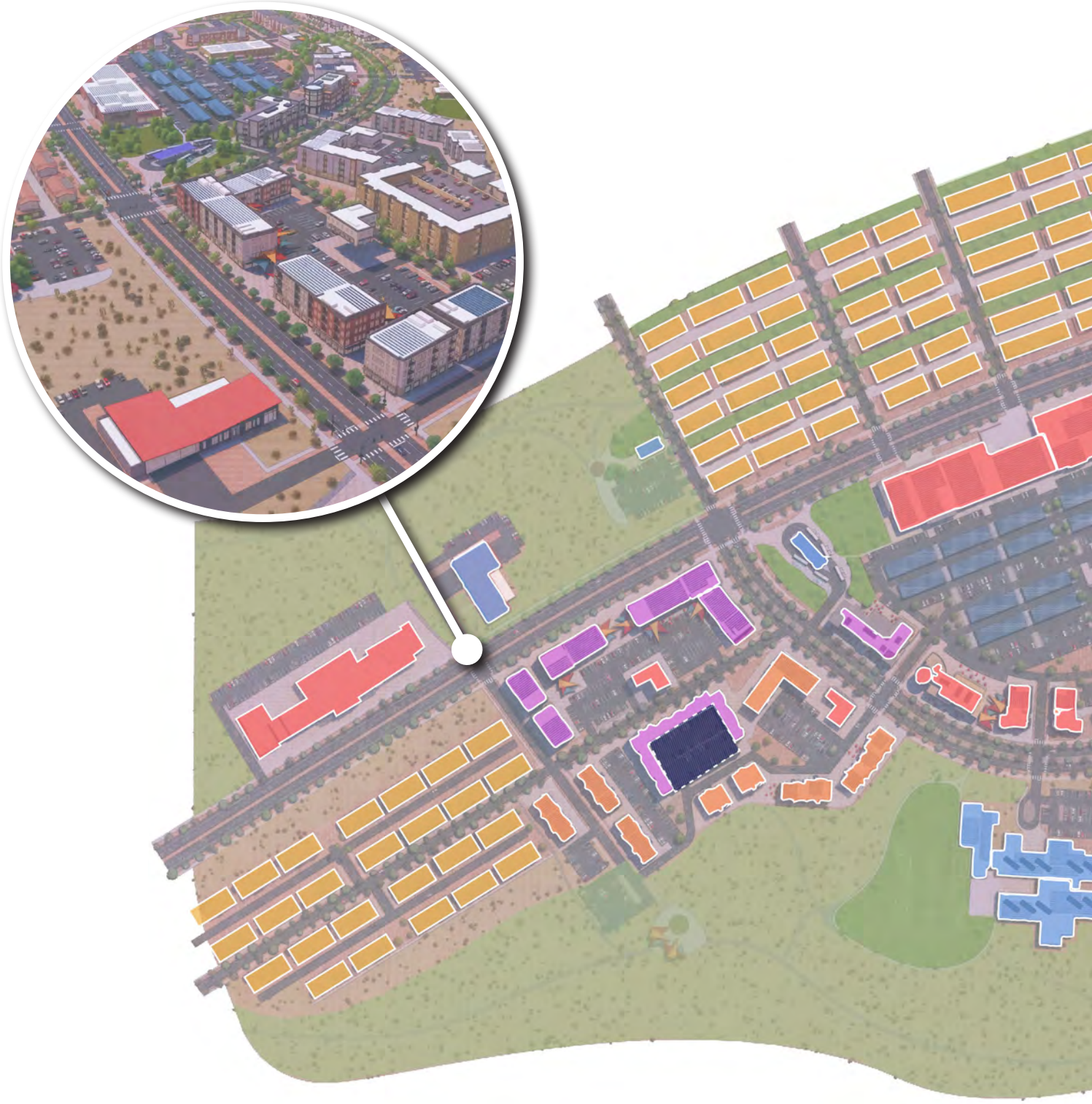
This Development Type includes a modest mix of commercial services and retail nearby or interspersed with housing. Mixed uses may be horizontal (different uses in adjacent buildings) or vertical (multiple uses within one building - usually ground-floor commercial and residential above). Traditional Mixed Use settings may take on an urban main street feel or be more auto-oriented, depending on adjacent development contexts.

- 8+ dwelling units per acre
- 15+ jobs per acre
- Example jobs include: apartment community manager, outpatient nurse or nurse practitioner, restaurant server, retail clerk, consultant, lawyer, etc.

Mixed-Use Neighborhoods & Activity Nodes

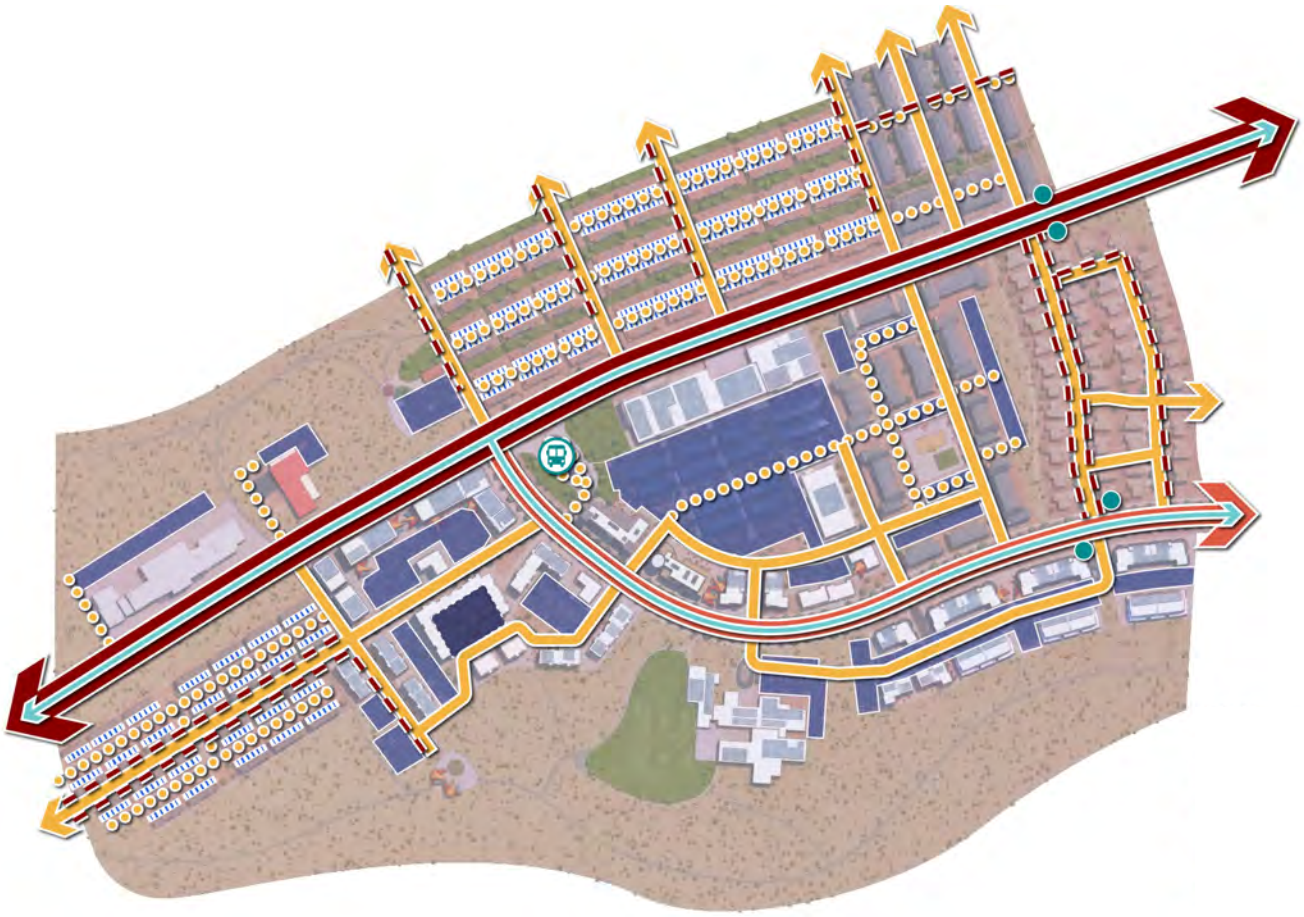
Traditional Mixed Use areas may include townhomes, small apartment complexes, duplexes, triplexes, or quads, single family homes, traditional ADUs (defined in Appendix A), live-work units, storefronts, office buildings, restaurants, and grocery stores. Parks, public facilities, and minor supporting uses are integrated components of these areas, including multi-generational playgrounds that provide a range of activities, sports fields, open spaces, picnic areas, libraries, recreation and community centers, schools , childcare centers, post offices, and public safety facilities. All households should have access to recreational amenities within a 10-minute walk or half-mile, per national best practices. These areas are meant to provide daily needs and areas of activity for local residents as well as employees and visitors.

Figure 20: **Traditional Mixed Use - Land Use**




LEGEND
Single Family Residential
Townhome Residential
Multi-family Residential
Retail/Commercial
General Mixed Use
Community/Civic
Park/Plaza
Structured Parking

Figure 21: **Traditional Mixed Use - Roadway Network**

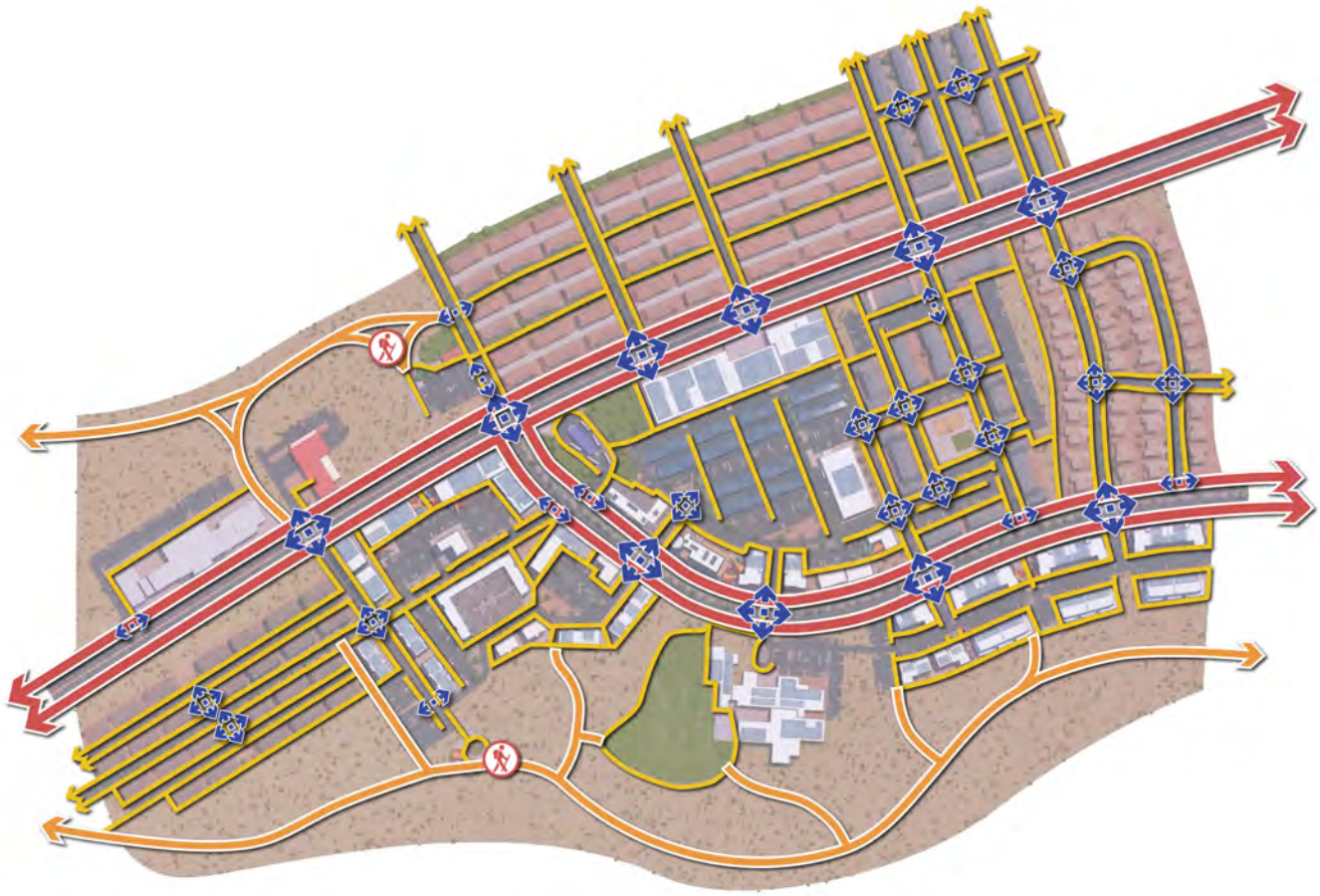


LEGEND

- Arterial Road
- Collector Road
- Local Road
- Access Road
- Bus Route
- Transit Hub
- Surface Parking Lot
- Transit Stop
- Structured Parking
- Tuck-Under Parking*
- Street Parking

* Definition provided in Appendix A

Figure 22: **Traditional Mixed Use - Trails & Bikeways**



LEGEND

- Paved Multi-Modal Trail
- Unpaved Multi-Modal Trail
- Pedestrian Trail/Sidewalk
- Marked Trailhead
- Street Crossing

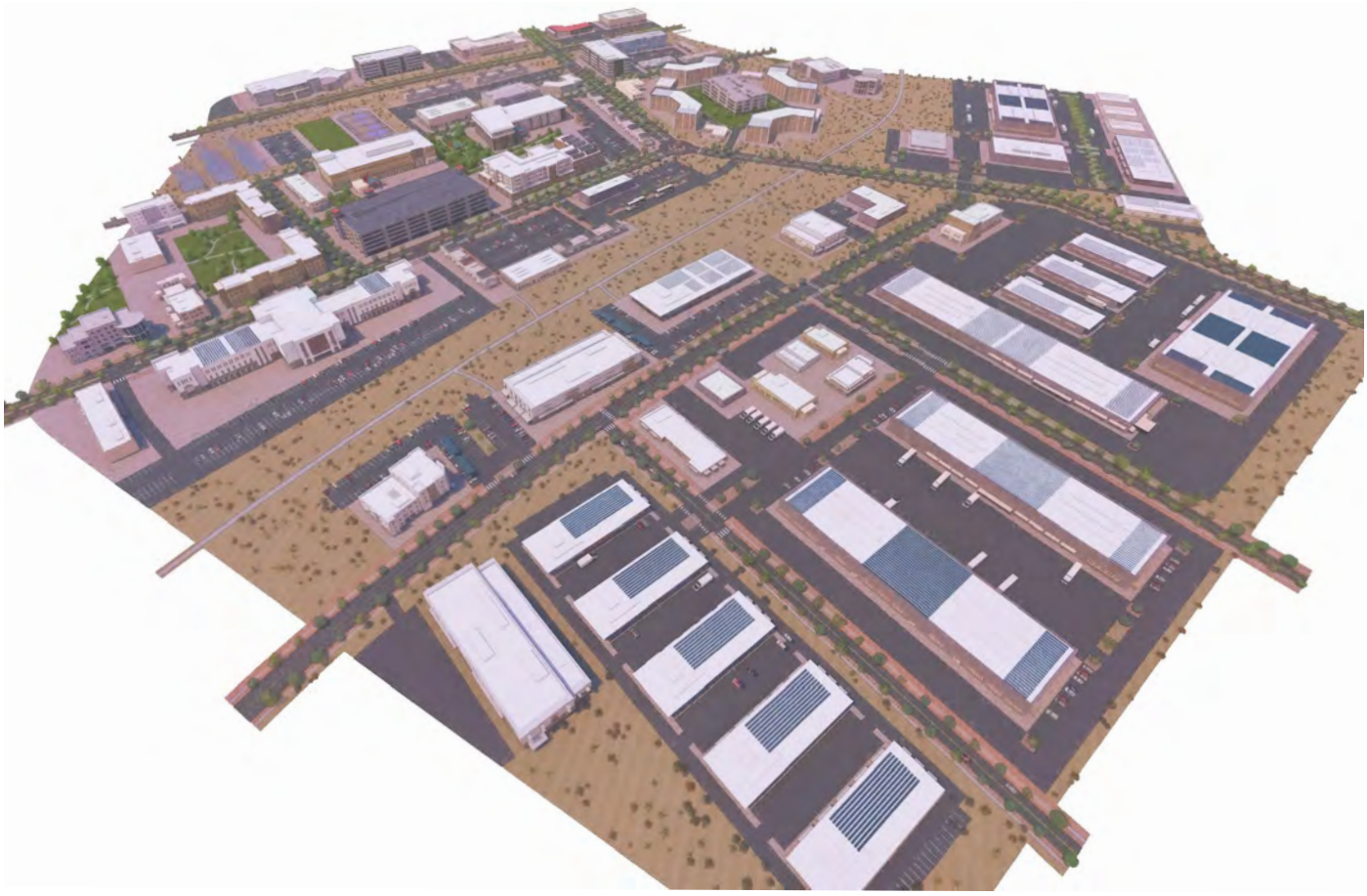
The road network in Traditional Mixed Use areas may be a mix of local roads, collectors, and arterials, mostly following a predictable grid and small block sizes to promote walkability. Sidewalks, crosswalks, trails, bike lanes, and multi-use paths are also amply provided to support walkability. Parking is accommodated through small surface lots and on-street parking, and transit connections are integrated. Buildings should generally be sited along roadways to provide pedestrian-scaled and visually appealing streetscapes.

MIXED EMPLOYMENT

This Development Type is meant to accommodate the majority of economic industry growth and jobs in the Study Area. This Type is comprised of larger employment centers, with a particular focus on advanced manufacturing, logistics, transloading, and warehousing. Multiple stakeholders expressed interest in the promotion of an "inland port," i.e., a concentrated industrial area where truck and rail freight—primarily arriving from southern California—could be offloaded and distributed around the Las Vegas area, or transloaded on trucks to other parts of the country.[50] Needed access routes, large parcels, and adjacency to I-15 and the rail trackage were considered in the creation of this Development Type to support a possible inland port. Office parks and business headquarters or campuses may also be located here. Because of the higher intensity uses intended for these areas, residential uses are generally considered incompatible.

- 0 dwelling units per acre
- 25+ jobs per acre
- Example jobs include: mechanist, precision assembler, accountant, marketing manager, commercial truck driver, etc.

Job Centers



As illustrated above, the Mixed Employment Development Type is characterized by larger lots and large-footprint buildings to accommodate manufacturing and distribution activities, as well as larger office complexes and business headquarters. Adjacency to retail and commercial use as well as open spaces and parks – or their direct incorporation within developments – are meant to serve local employees and nearby visitors to the area. This integration of uses will support the creation of complete communities and a diverse economy while still prioritizing significant portions of land for production-focused activities.

Figure 23: **Mixed Employment - Land Use**

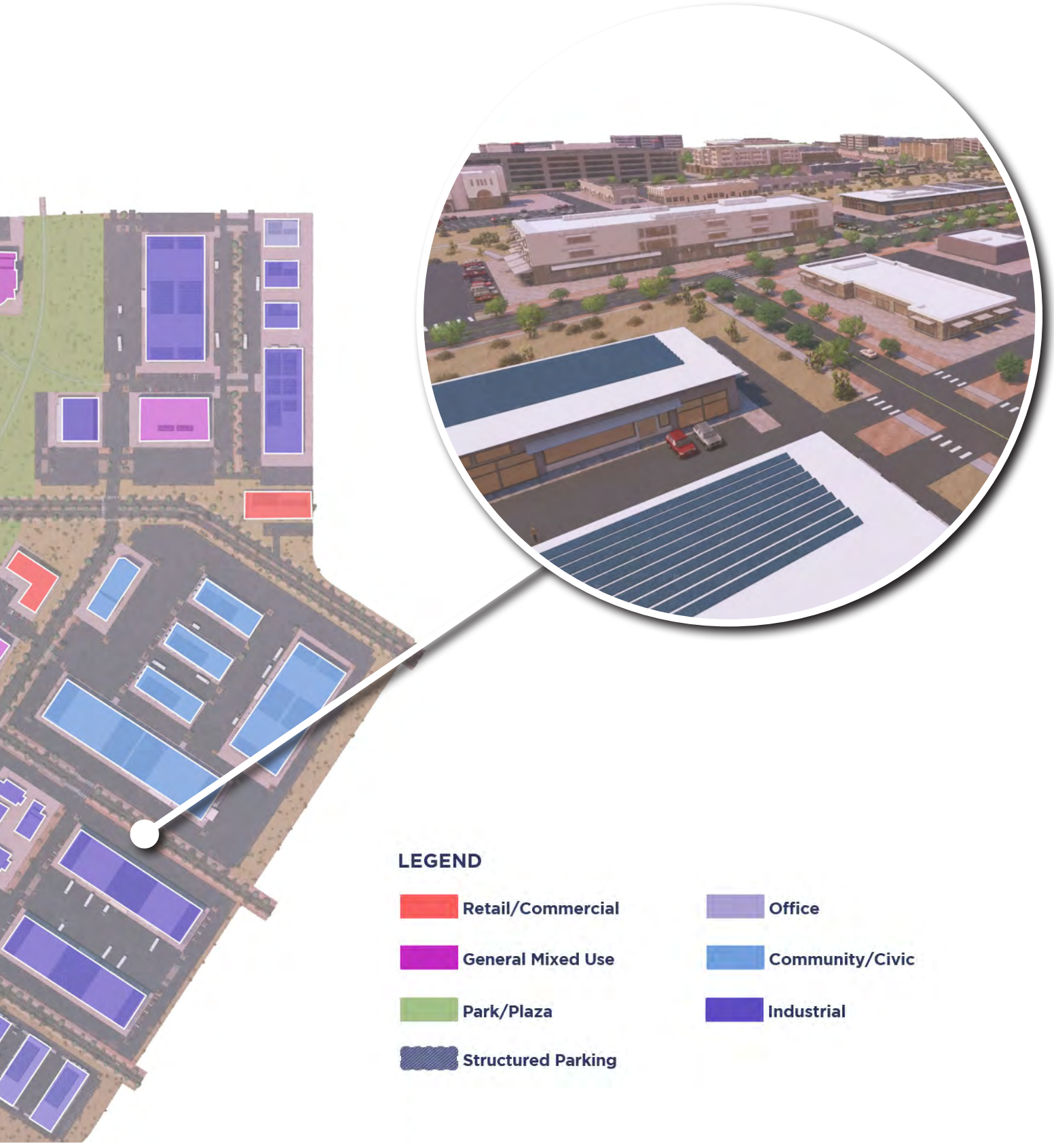
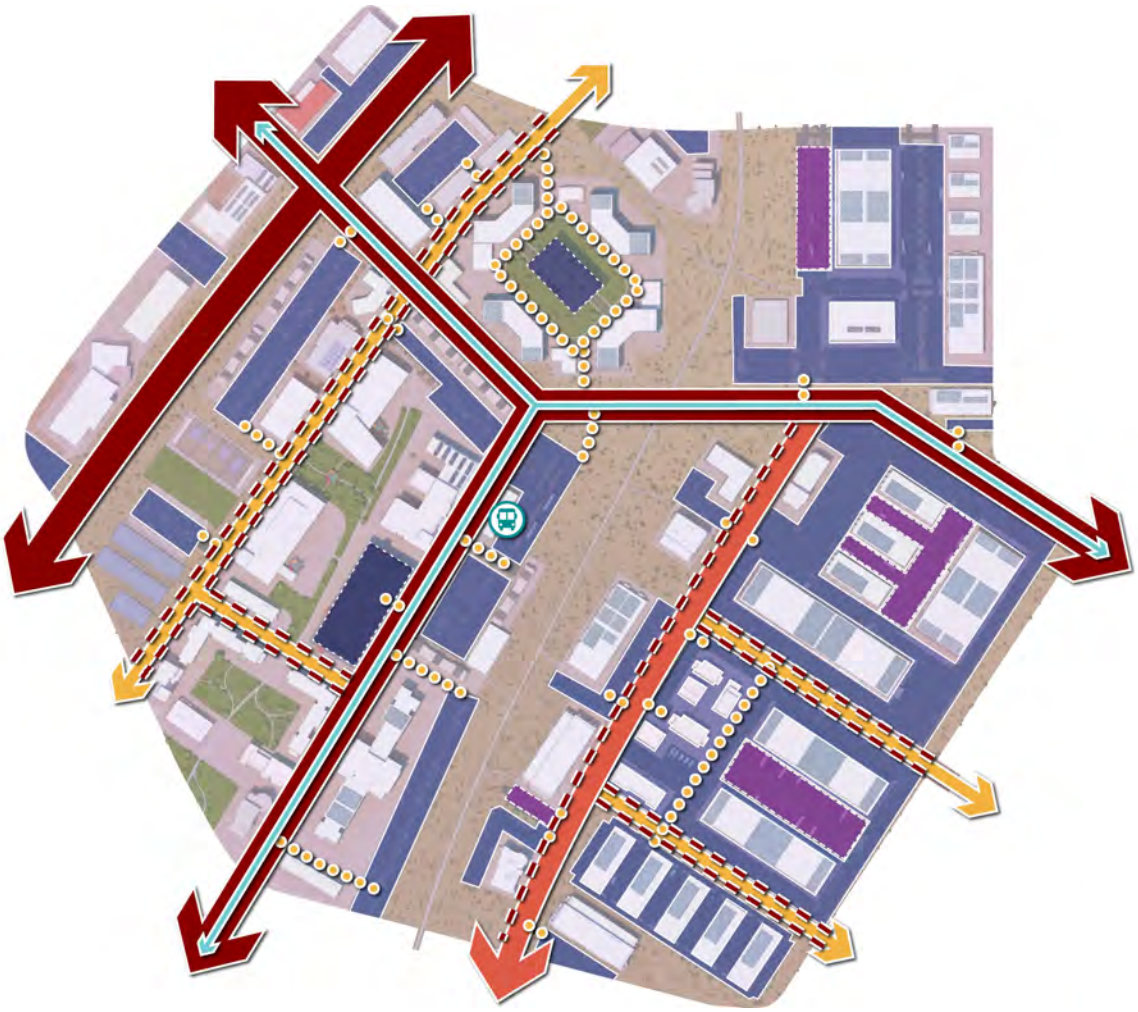

LEGEND
Retail/Commercial
Office
General Mixed Use
Community/Civic
Park/Plaza
Industrial
Structured Parking

Figure 24: **Mixed Employment - Roadway Network**

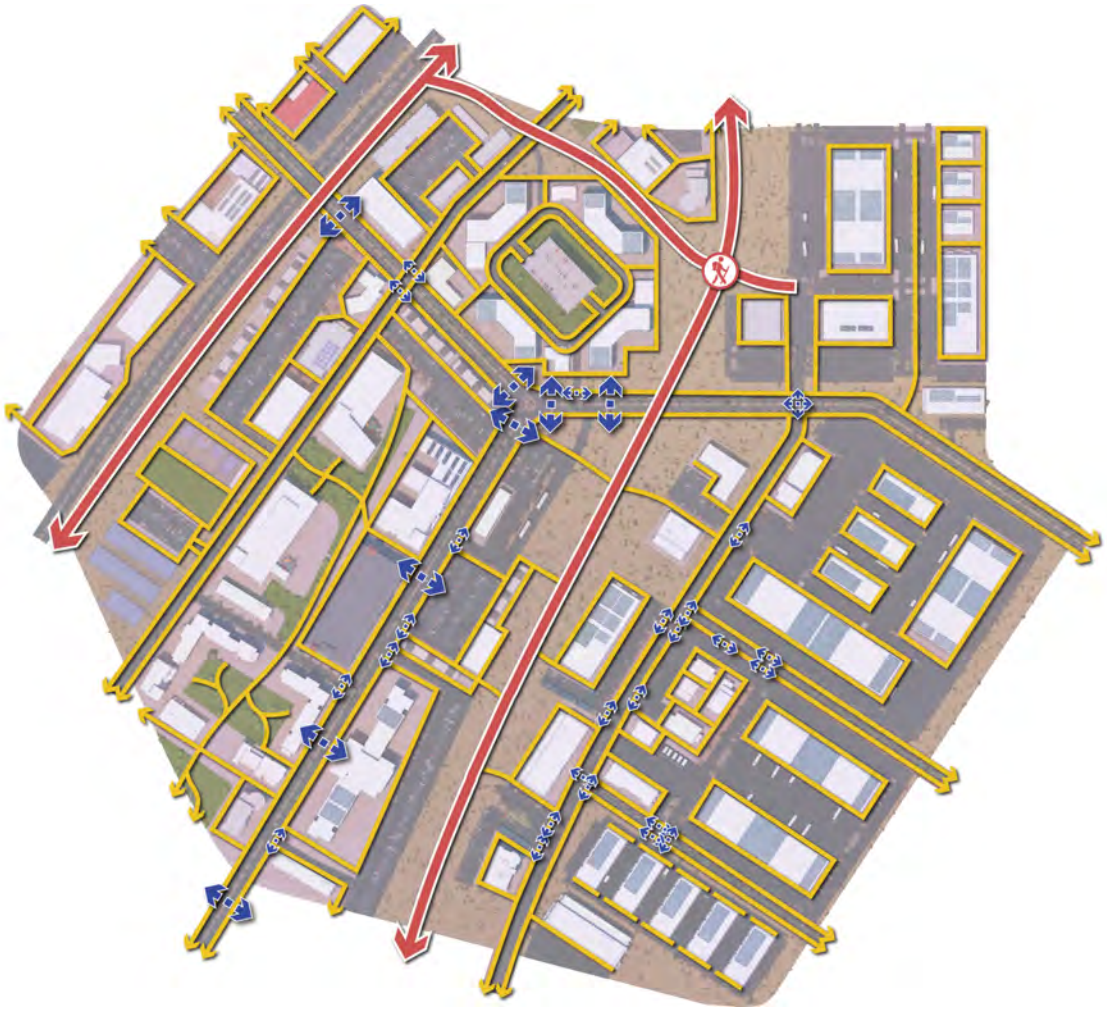


LEGEND

- Arterial Road
- Collector Road
- Local Road
- Access Road
- Bus Route
- Transit Hub
- Surface Parking Lot
- Structured Parking
- Loading Area
- Street Parking

To accommodate the specific industry needs in this area, the road network must be designed for higher levels of traffic and large vehicles. Thus, roadways may be a combination of major arterials, collectors, and local roads.

Figure 25: **Mixed Employment - Trails & Bikeways**



LEGEND

- Paved Multi-Modal Trail
- Pedestrian Trail/Sidewalk
- Marked Trailhead
- Street Crossing

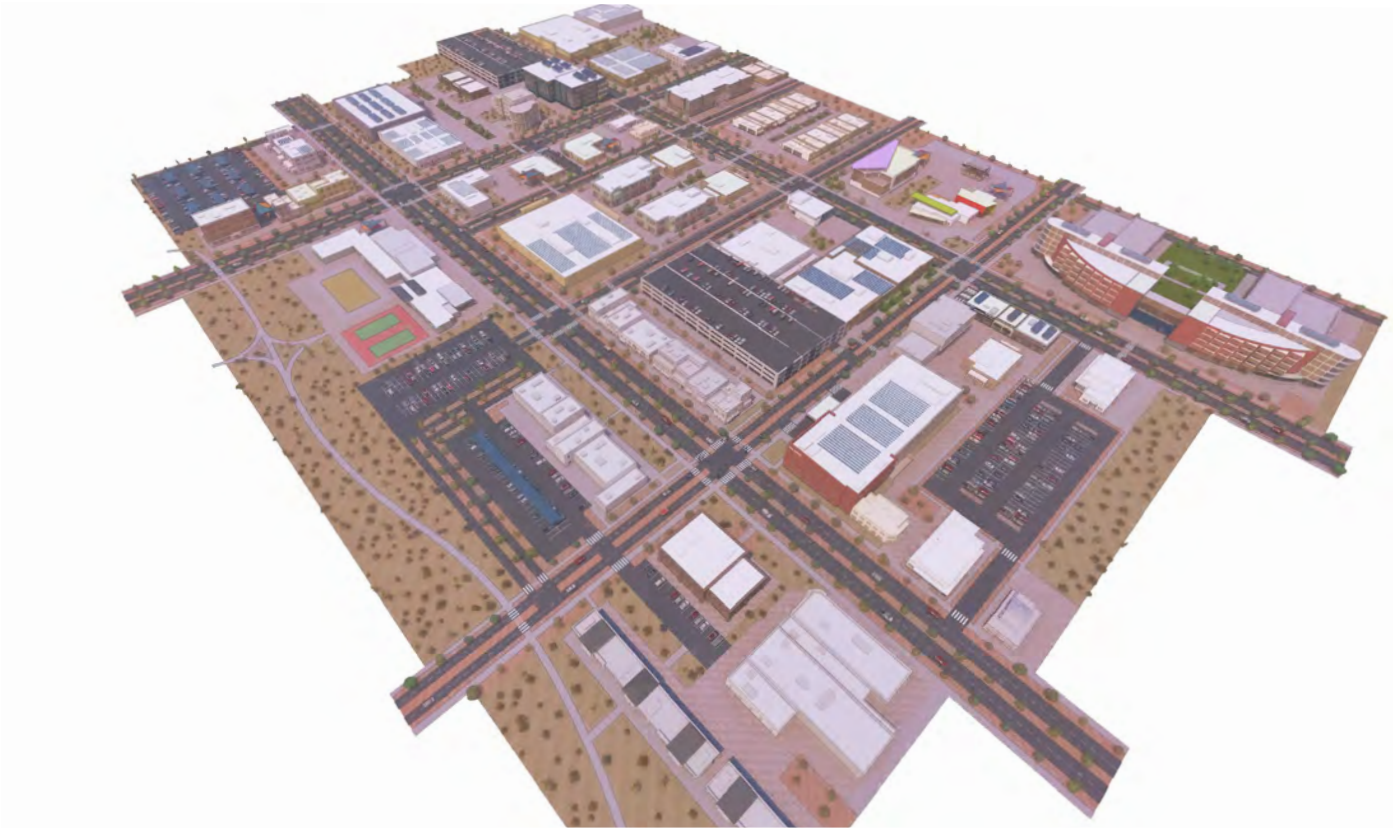
Blocks are generally larger to accommodate necessary parcel size and building mass, while pedestrian infrastructure, such as sidewalks and pathways, are still integrated to allow for walkable connectivity to nearby amenities. This Development Type is strategically located close to I-15 and its interchange access points.

RETAIL, HOSPITALITY & ENTERTAINMENT

This Development Type provides areas with higher-intensity mixed-uses and activities that serve both local neighborhoods and the region. This Type is comprised of commercial retail and service centers; entertainment and performance venues (although not specifically geared towards gaming); and accommodations that serve tourists and visitors. These community hubs provide distinguished destinations with experiential activities, dining, music, art, and shopping. In addition to hotels and resorts, higher density housing may also be incorporated in these areas.

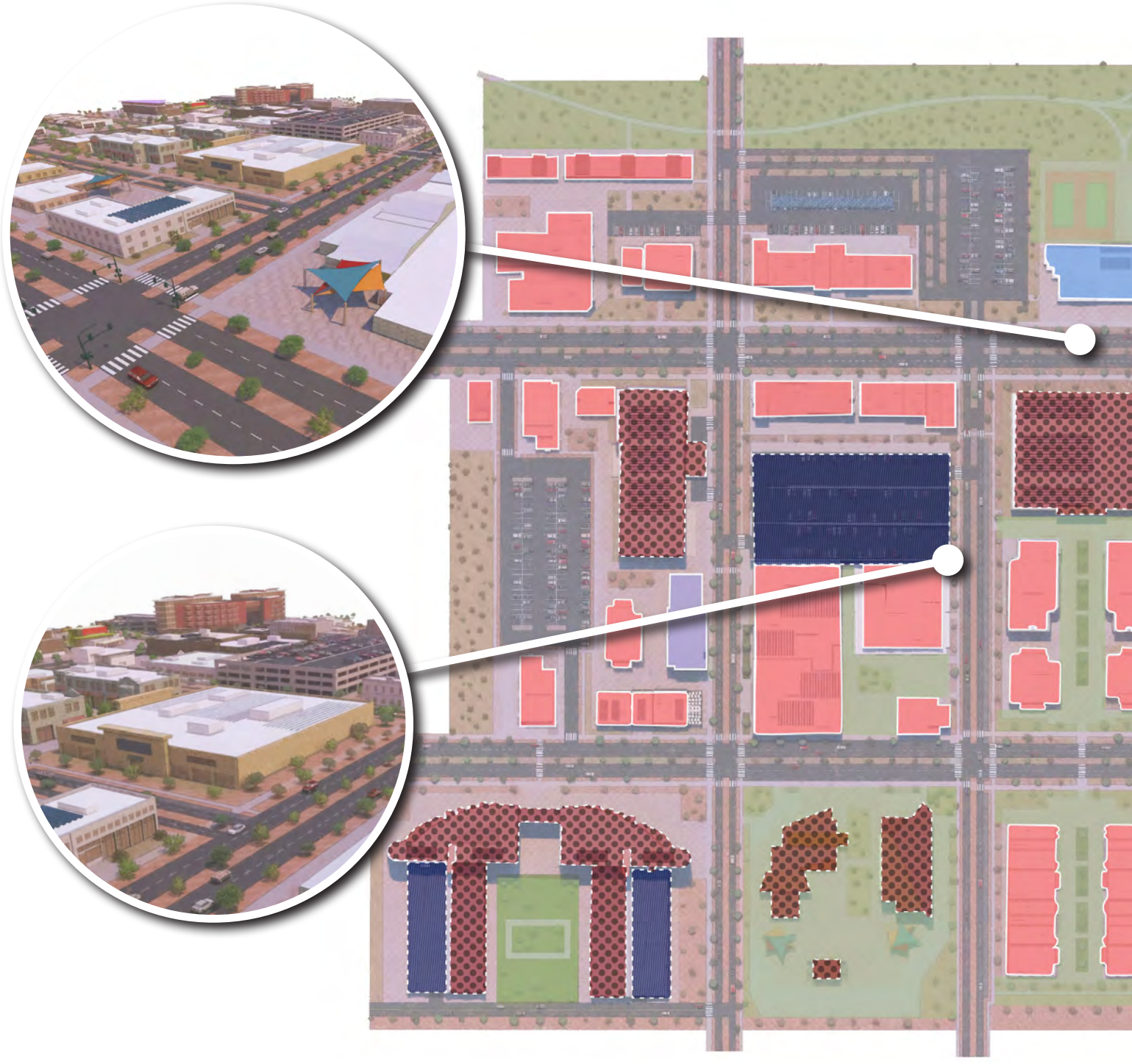
- 15+ dwelling units per acre
- 30+ jobs per acre
- Example jobs include: hotel manager, storage and venue operator, retail store manager, chef, etc.

Activity Centers & Destinations



This Development Type is characterized by a wide range of uses, with a focus on activity and vibrancy. In addition to performance venues, restaurants, shopping, hotels, and apartments or condo communities, regionally serving uses such as hospitals and health care facilities, higher education campuses, and public facilities may be good matches to complement the primary uses included in this Development Type. Parks, public facilities, and minor supporting uses are integrated components of this Development Type, including multi-generational playgrounds that provide a range of activities, public plazas, sports fields, open spaces, picnic areas, libraries, recreation and community centers, schools, childcare centers, post offices, and public safety facilities. All households should have access to recreational amenities within a 10-minute walk or half-mile, per national best practices. These areas are meant to provide daily needs and leisure activities for residents and employees as well as key attractions for visitors.

Figure 26: **Retail, Hospitality & Entertainment - Land Use**



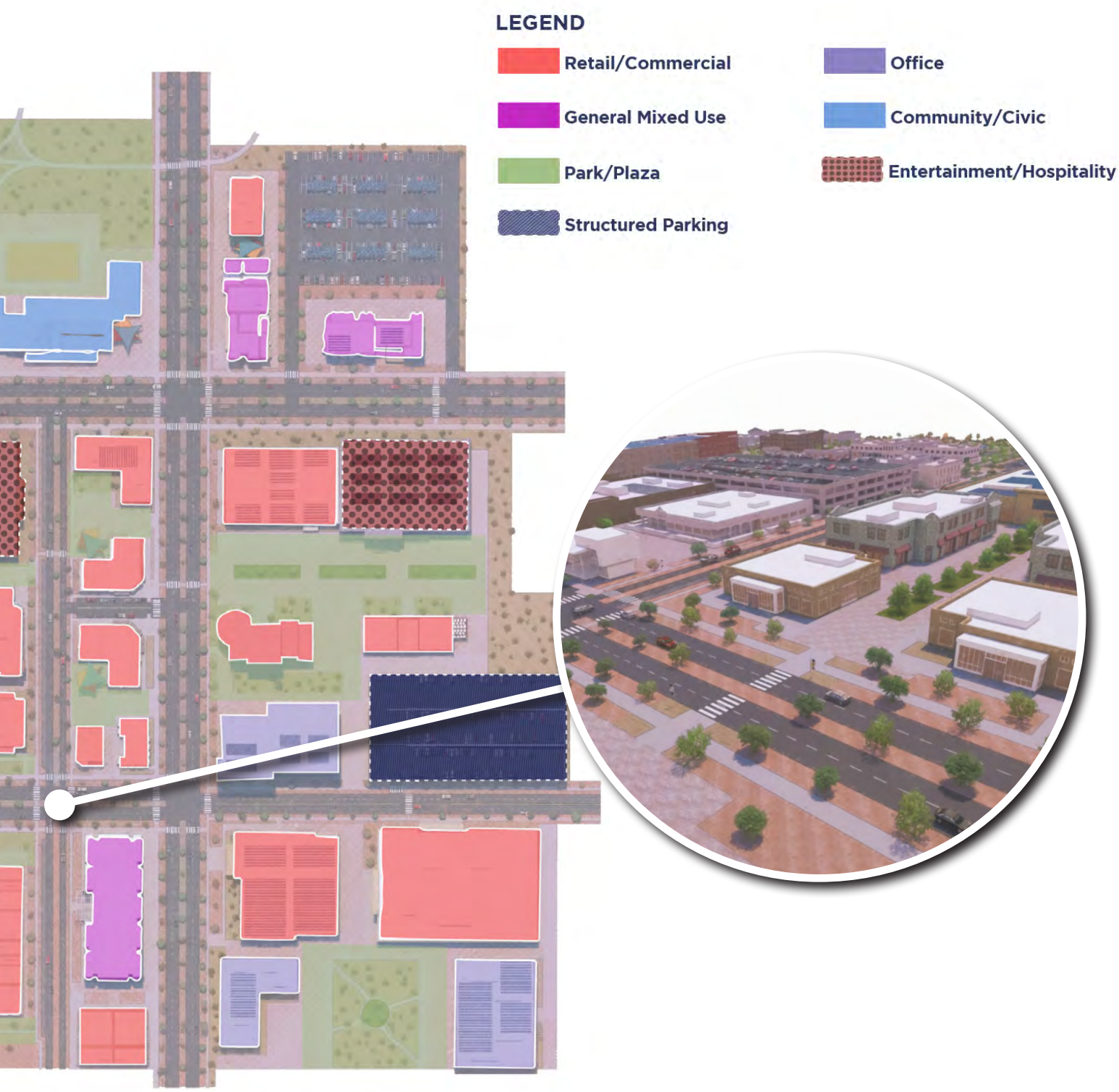
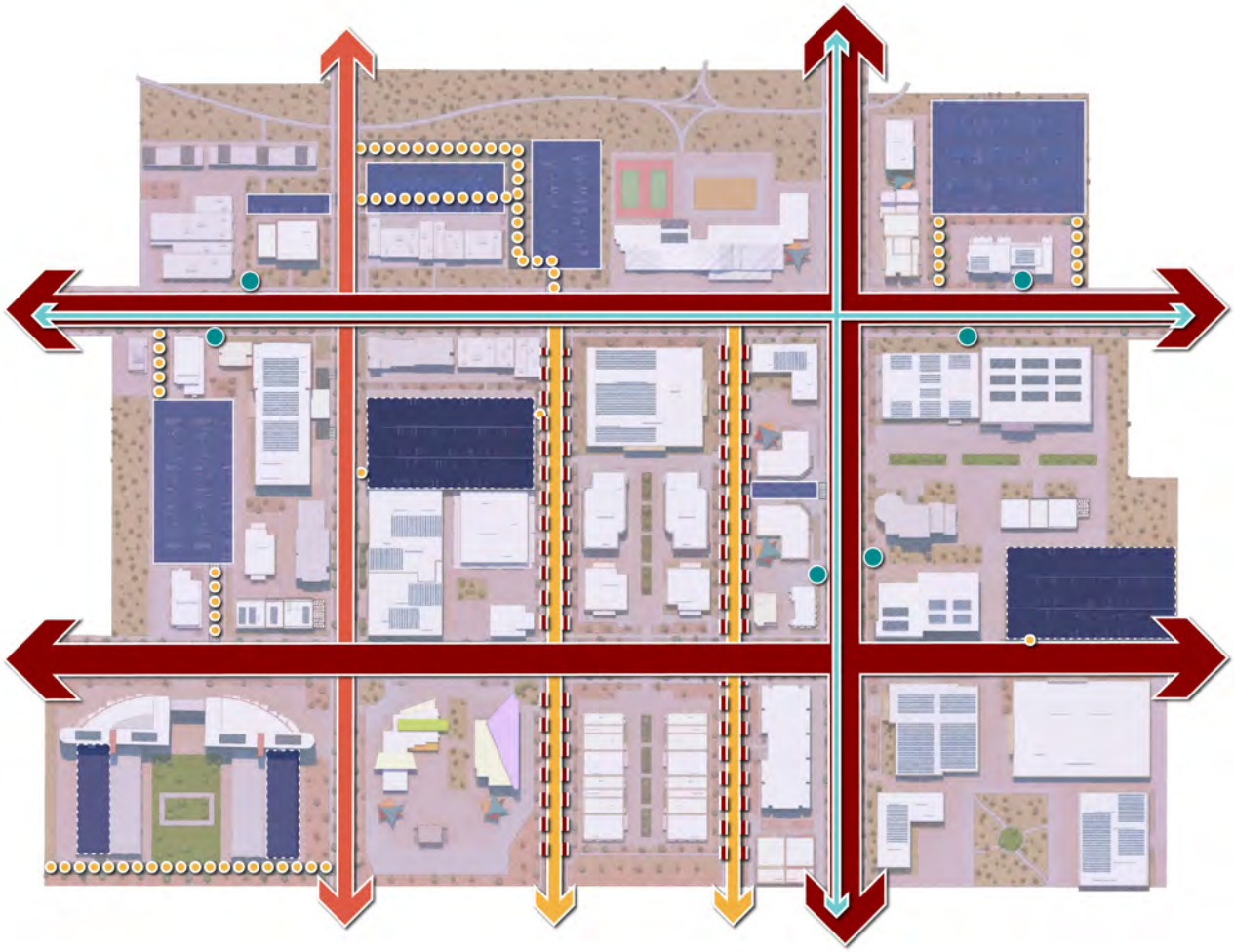

LEGEND
Retail/Commercial
General Mixed Use
Park/Plaza
Structured Parking
Office
Community/Civic
Entertainment/Hospitality

Figure 27: **Retail, Hospitality & Entertainment - Roadway Network**

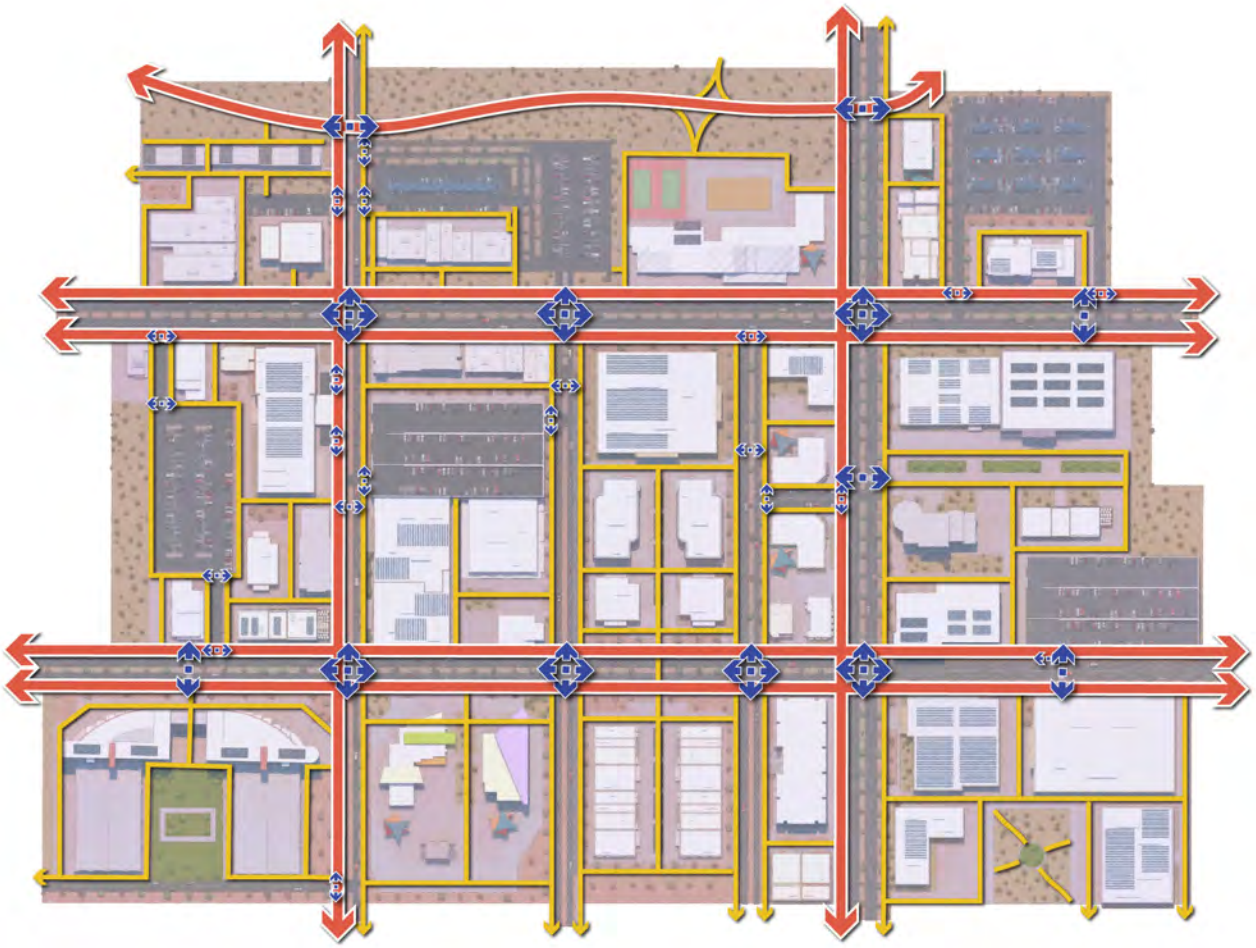


LEGEND

- Arterial Road
- Collector Road
- Local Road
- Access Road
- Bus Route
- Transit Stop
- Surface Parking Lot
- Structured Parking
- Street Parking

The road network within this Development Type may be a mix of local roads, collectors, and arterials, mostly following a predictable grid and small block sizes to promote walkability. Due to the level of activity in these areas, the street network should be well connected to other parts of the Study Area and region, following robust Complete Streets best practices.

Figure 28: **Retail, Hospitality & Entertainment - Trails & Bikeways**



LEGEND

Paved Multi-Modal Trail

Pedestrian Trail

Street Crossing

Sidewalks, crosswalks, trails, bike lanes, and multi-use paths are also amply provided to support walkability. Parking is accommodated through surface lots, parking structures, and on-street parking, and transit hubs are integrated. Buildings should generally be sited along roadways to provide pedestrian-scaled and visually appealing streetscapes.

FLEX & TRANSITION AREAS

The last two Development Types are areas where two Development Types are combined to allow for flexibility as future planning and development occurs and to encourage thoughtful transitions between different Development Types. These flex and transition areas include:

- Traditional Mixed Use + Mixed Employment
- Retail, Hospitality & Entertainment + Mixed Employment

Mixed Employment + Traditional Mixed Use

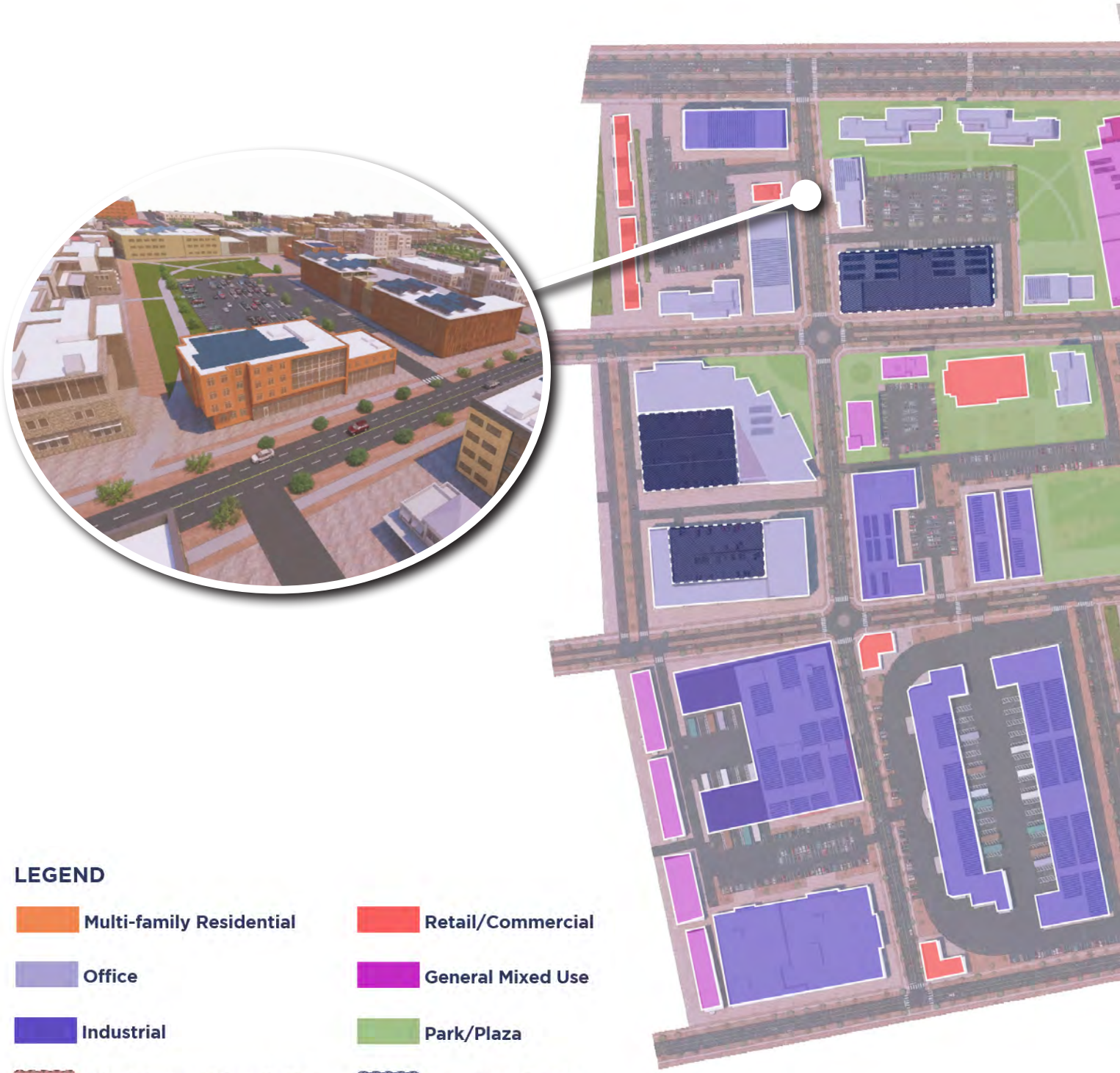
This Development Type combines elements of both Traditional Mixed Use and Mixed Employment. Vertical mixed use may be more geared towards offices above ground floor commercial and more intensive business and industrial development should be responsive to the neighboring or integrated lower intensity uses, including residences. Business headquarters and campuses may be better suited in these areas than warehousing or manufacturing. Transportation connections from multiple modes (drivers, transit riders, pedestrians, and bicyclists) and the associated infrastructure are included.

- 8+ dwelling units per acre
- 15+ jobs per acre
- Example jobs include: accountant, marketing manager, commercial truck driver, apartment community manager, outpatient nurse or nurse practitioner, restaurant server, consultant, retail clerk, etc.

Mixed Employment + Traditional Mixed Use

This Development Type includes a combination of moderate-intensity production activities or business complexes and lower intensity operations, such as small office buildings and retail complexes, including grocery stores. Public facilities and supporting amenity uses, such as schools, libraries, community and recreation centers, post offices, childcare centers, and public safety facilities are also appropriate to serve daily needs in these areas. Mid-density housing may also be integrated as appropriate, such as apartments and condo communities or townhomes. Community-serving parks and open spaces should also be included, with all households having access to recreational amenities within a 10 minute walk or half-mile, per national best practices. Parcels and buildings are generally mid- to- large-scale and may slowly transition in massing between adjacent uses to serve as a buffer.

Figure 29: **Mixed Employment + Traditional Mixed Use - Land Use**



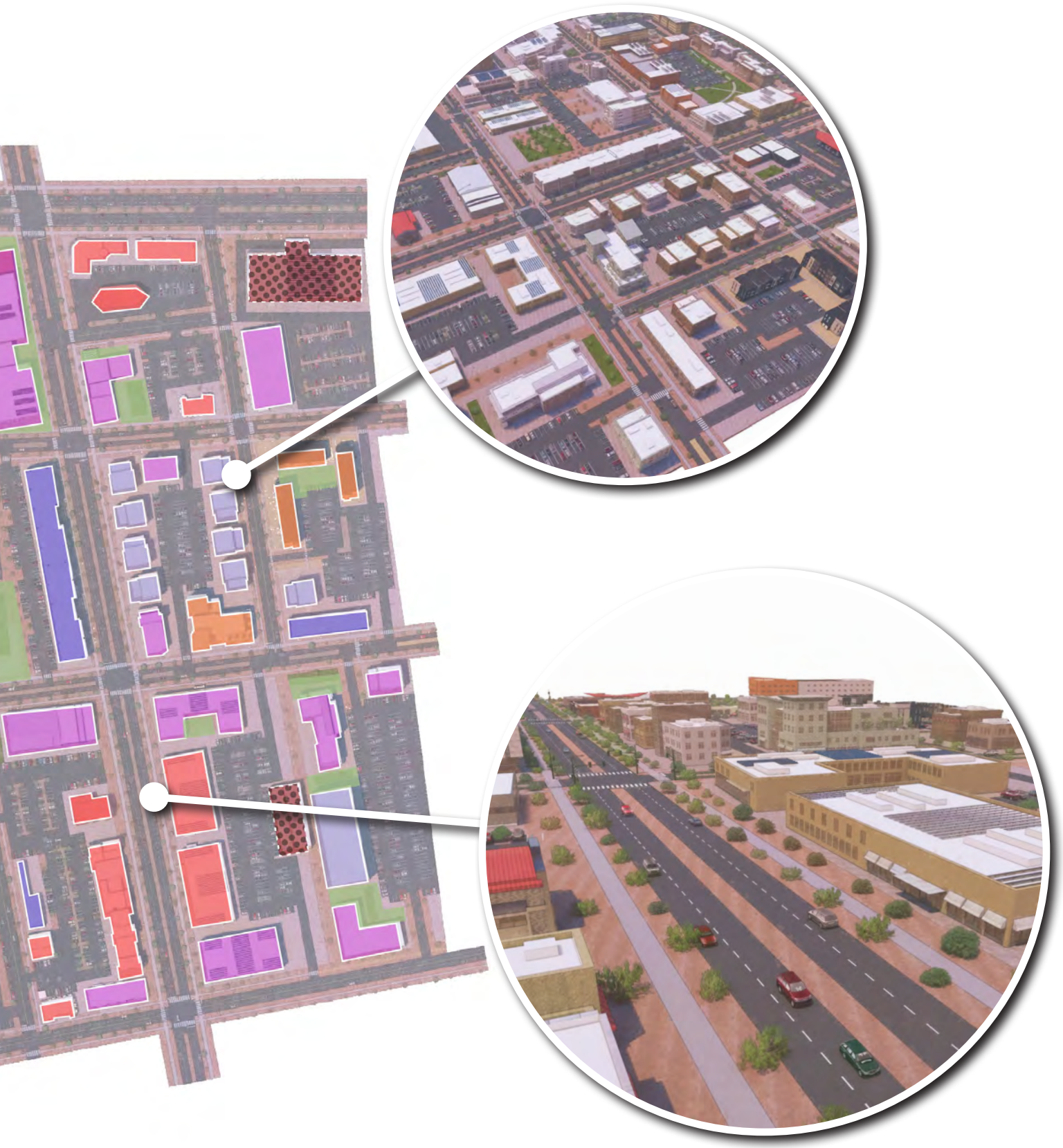
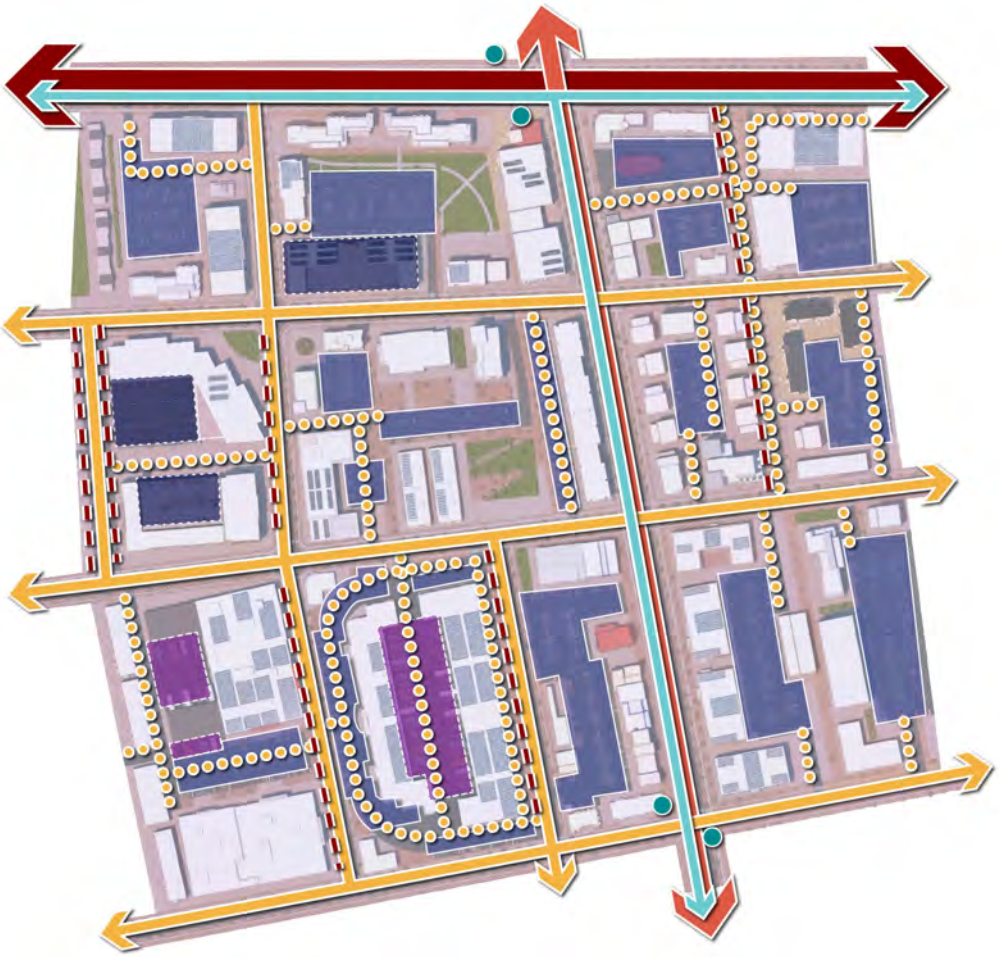


Figure 30: **Mixed Employment + Traditional Mixed Use - Roadway Network**

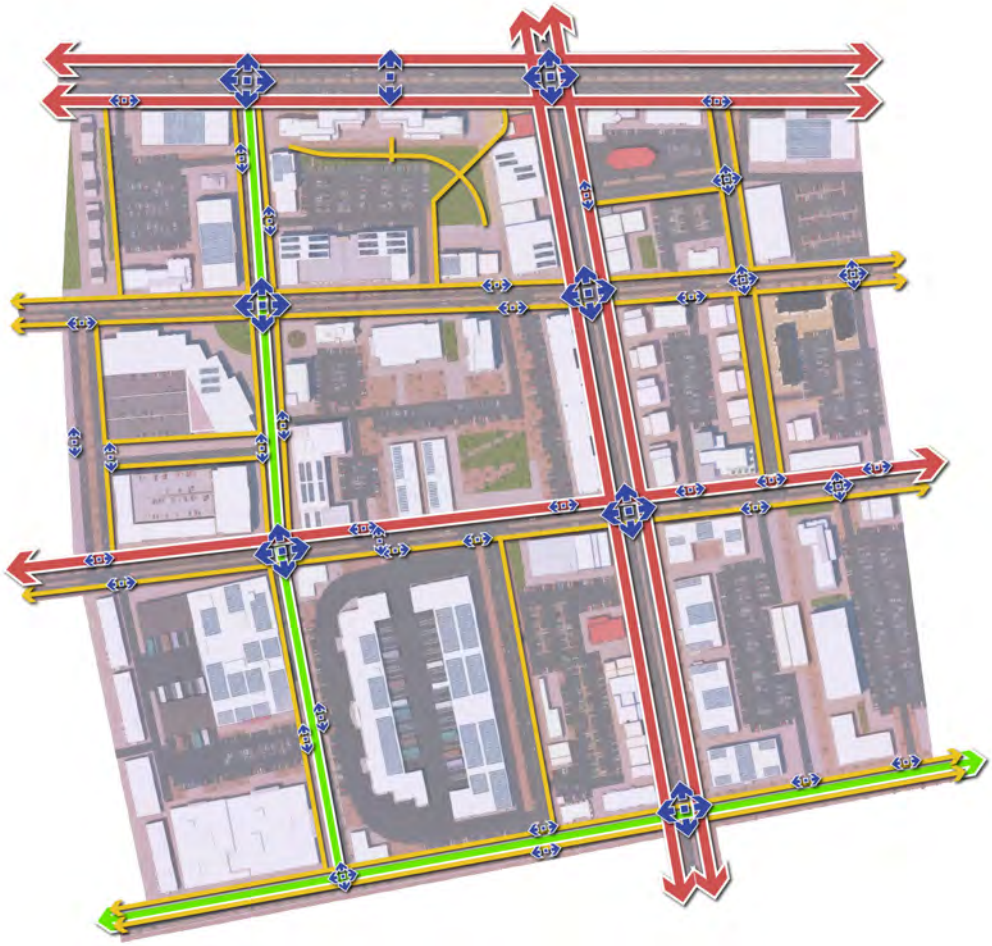


LEGEND

- Arterial Road
- Collector Road
- Local Road
- Access Road
- Bus Route
- Transit Stop
- Surface Parking Lot
- Loading Area
- Structured Parking
- Street Parking

Roadways in these areas are a mix of arterials, collectors, and local roads, providing ample connectivity to and between different areas of activity and neighborhoods. Roads and blocks may follow a grid pattern or be more irregular based on topography and surrounding context. Blocks and parcels should allow for flexibility and transition to accommodate both larger-scale business development and allow for walkability and human-scaled design.

Figure 31: **Mixed Employment + Traditional Mixed Use - Trails & Bikeways**



LEGEND

- Paved Multi-Modal Trail
- Pedestrian Trail/Sidewalk
- Bike Lane
- Street Crossing

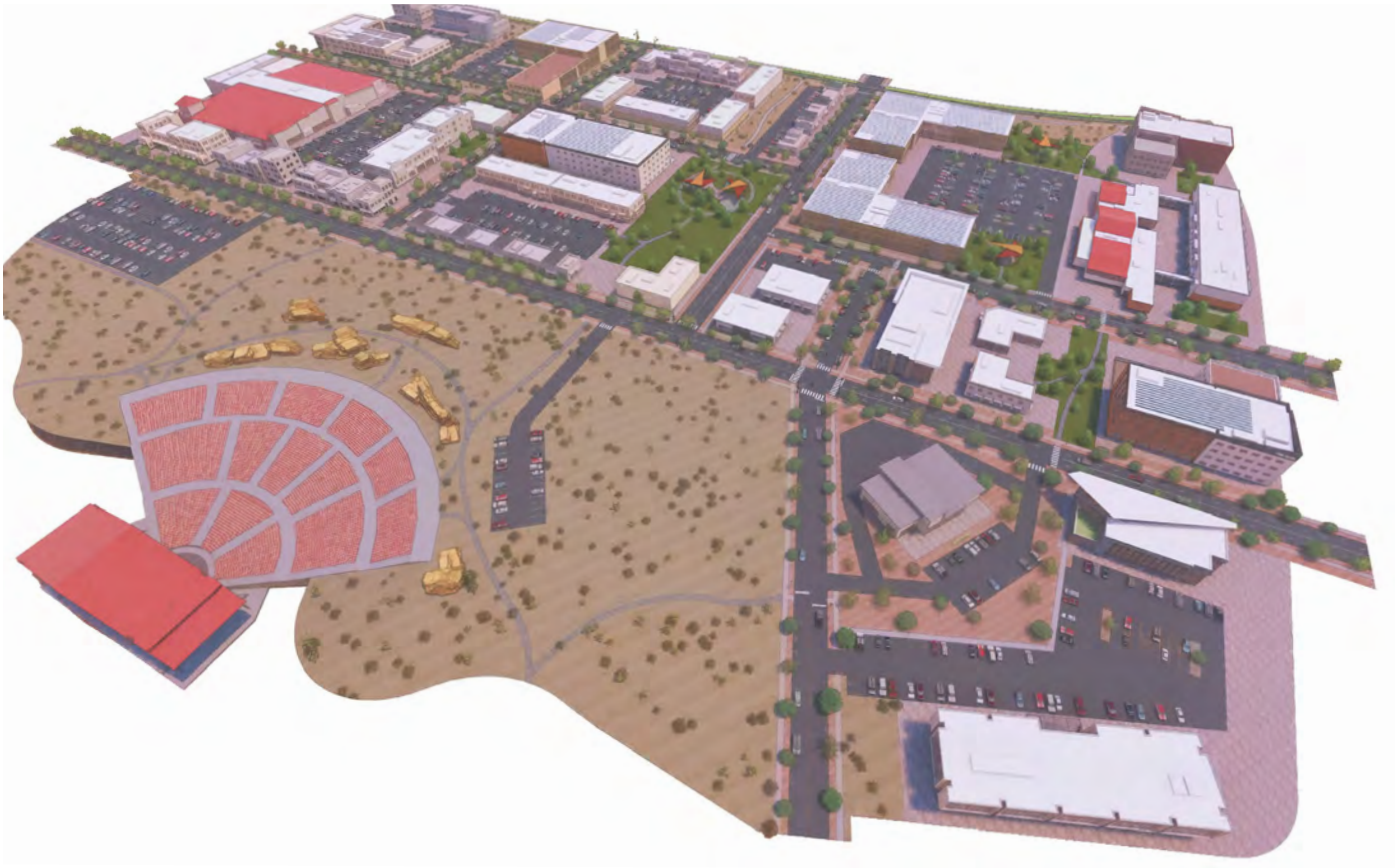
Sidewalks, crosswalks, trails, bike lanes, and multi-use paths are also amply provided to support walkability. Parking is accommodated mostly in surface lots with some on-street parking, and transit connections are integrated. Setbacks and building orientation should be flexible to allow for variability.

Mixed Employment + Retail, Hospitality & Entertainment

This Development Type combines elements of both Retail, Hospitality & Entertainment and Mixed Employment. Industrial development in these areas should be responsive to the neighboring or integrated uses that draw visitors and residents for leisure and enjoyment. Business headquarters and campuses or low intensity, small-scale manufacturing may be better suited to these areas than warehousing or large-scale manufacturing. As with the Mixed Employment Development Type, direct incorporation of locally serving retail and commercial uses would serve workers and visitors. Transportation connections from multiple modes (drivers, transit riders, pedestrians, and bicyclists) and the associated infrastructure are included.

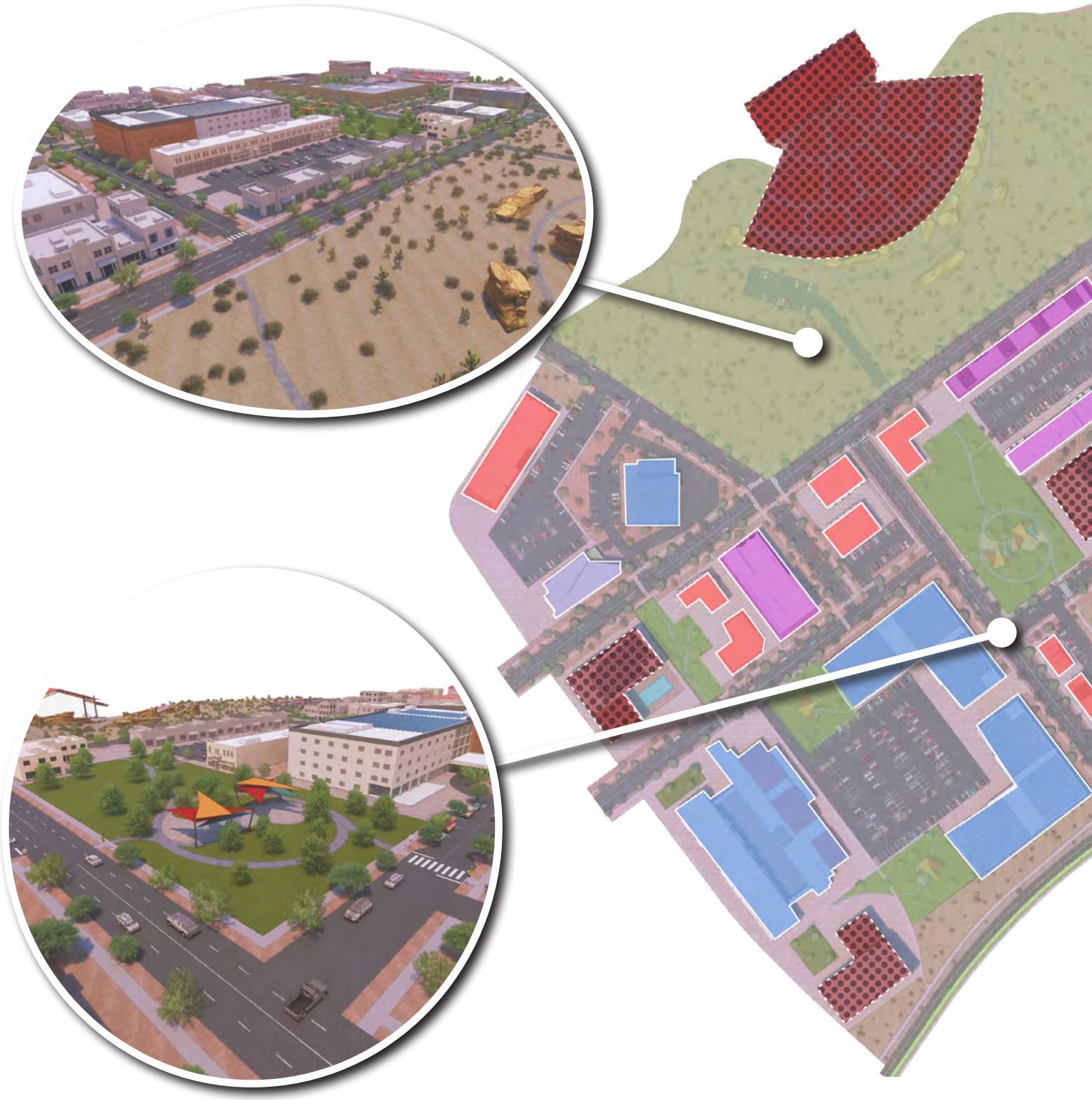
- 15+ dwelling units per acre
- 30+ jobs per acre
- Example jobs include: mechanist, precision assembler, accountant, marketing manager, commercial truck driver, hotel manager, storage and venue operator, retail store manager, chef, etc.

Mixed Employment + Retail, Hospitality & Entertainment



This Development Type includes a combination of moderate-intensity production facilities or business and office complexes and hotels, entertainment operations, apartment or condo communities, and townhome residences. Other regionally serving uses may also be included, such as hospitals and health care facilities and higher education campuses may also be included, as well as other public facilities and supporting uses, such as schools, libraries, community and recreation centers, post offices, and public safety facilities. Regionally serving public space amenities are also a critical component of this Development Type, including public plazas, sports fields, open spaces, and picnic areas. All households should have access to recreational amenities within a 10-minute walk or half-mile, per national best practices.

Figure 32: **Mixed Employment + Retail, Hospitality & Entertainment - Land Use**



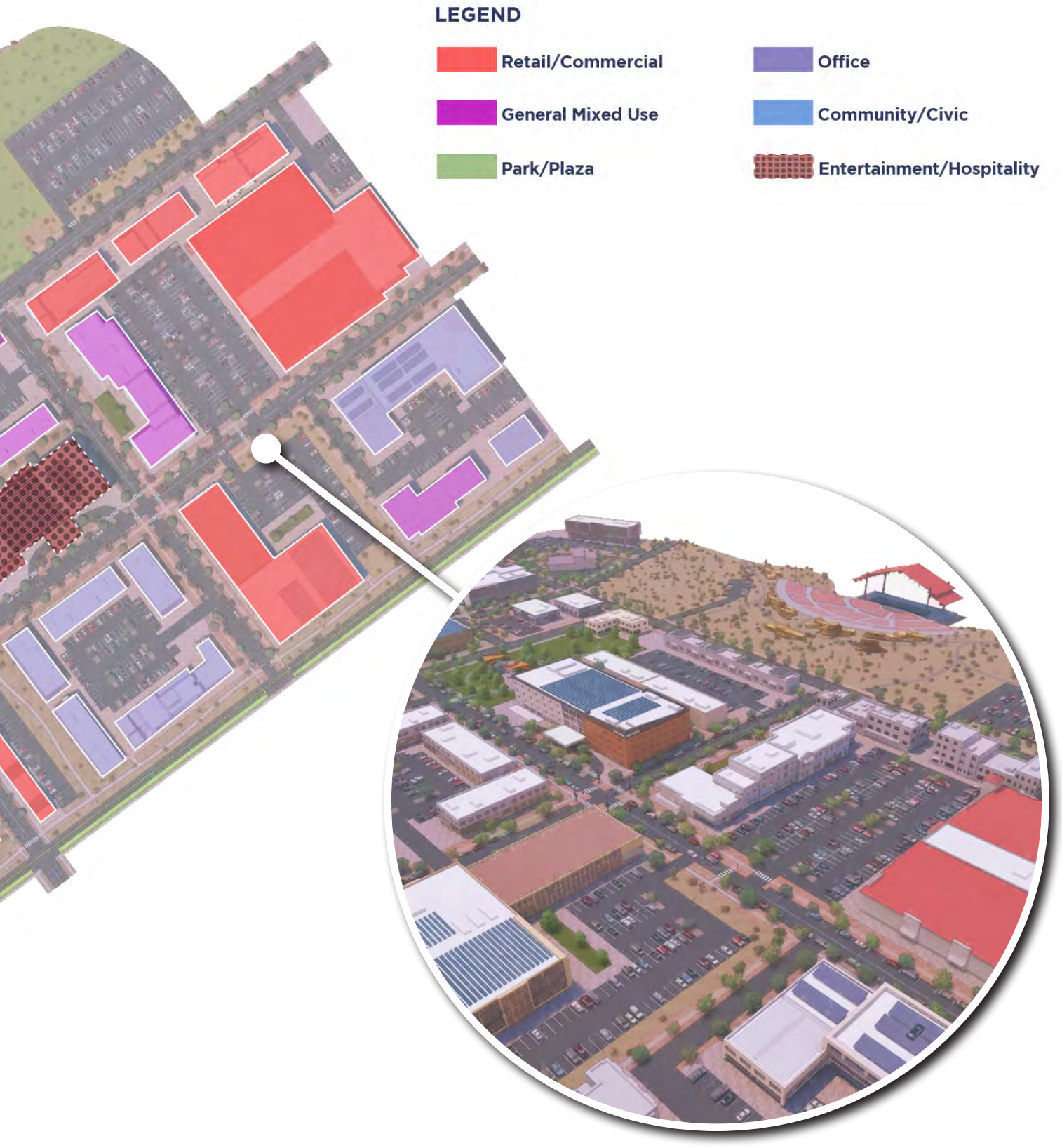
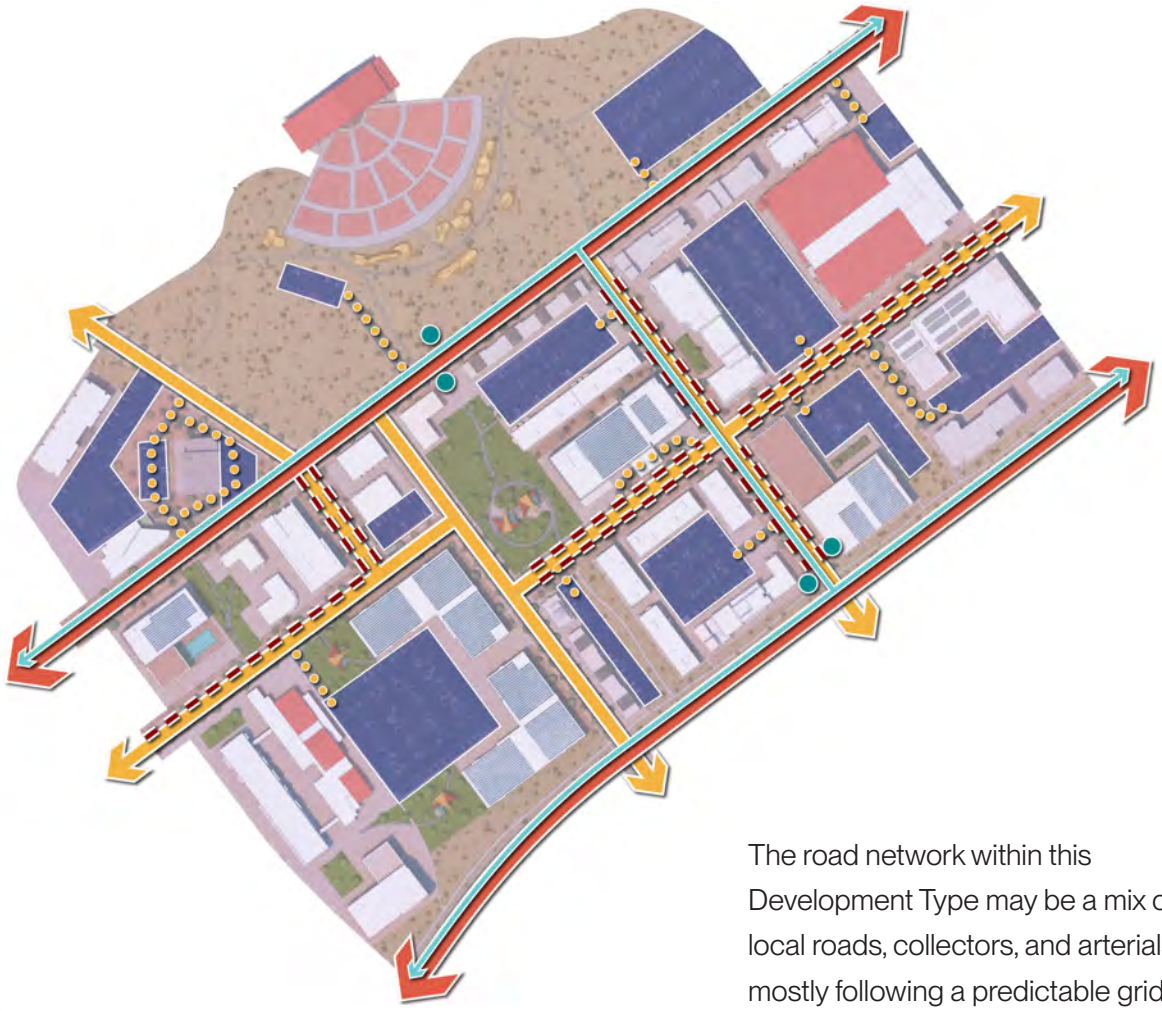

LEGEND
Retail/Commercial
Office
General Mixed Use
Community/Civic
Park/Plaza
Entertainment/Hospitality

Figure 33: **Mixed Employment + Retail, Hospitality & Entertainment - Roadway Network**



LEGEND

- Local Road
- Collector Road
- Bus Route
- Access Road
- Surface Parking Lot
- Transit Stop
- Street Parking

The road network within this Development Type may be a mix of local roads, collectors, and arterials, mostly following a predictable grid and small-to-medium block sizes to promote walkability. Due to the level of activity in these areas, the street network should be well connected to other parts of the Study Area and region, following robust Complete Streets best practices. Sidewalks, crosswalks, trails, bike lanes, and multi-use paths are also amply provided to support walkability. Parking is accommodated through surface lots, parking structures, and on-street parking, and transit hubs are integrated.

Figure 34: **Mixed Employment + Retail, Hospitality & Entertainment - Trails & Bikeways**

LEGEND

- Paved Multi-Modal Trail
- Unpaved Multi-Modal Trail
- Pedestrian Trail/Sidewalk
- Marked Trailhead
- Bike Lane
- Street Crossing

Buildings should generally be sited along roadways to provide pedestrian-scaled and visually appealing streetscapes, although flexibility in these conditions may be appropriate.

SUPPORTING INFRASTRUCTURE & FACILITIES

Infrastructure & Capital Improvements

Significant investment in infrastructure and facilities will be required to allow for new development in this area. Major roads and utilities infrastructure, such as water and sewer and high voltage power, as well as stormwater and drainage systems comprise the big-ticket investments that will be necessary to establish this land as development-ready. As noted earlier, per the 2002 Clark County Conservation of Public Land and Natural Resources Act, the BLM has designated a 2,640-foot-wide Transportation and Utilities Corridor (TUC) along the eastern side of I-15 between Jean and Sloan. BLM manages the corridor for the non-exclusive placement of transportation and utilities infrastructure.

The information below provides a high-level discussion of key considerations for transportation and utilities infrastructure, including a conceptual network for major roads and trails. Additional assessment and planning for utilities and transportation infrastructure will be necessary at later stages, should the disposal boundary expansion be approved and more is known about how management of the area will be divided between Clark County and the City of Henderson.

Transportation Network

This Traffic Analysis is a high-level assessment of the transportation implications for the proposed land use scenario. The Study estimates vehicle trips to determine capacity needs for major intersections and corridors. Further, the Study identifies and proposes a set of multimodal recommendations that address safety, capacity, connectivity, and efficiency.

Existing Roadway Conditions

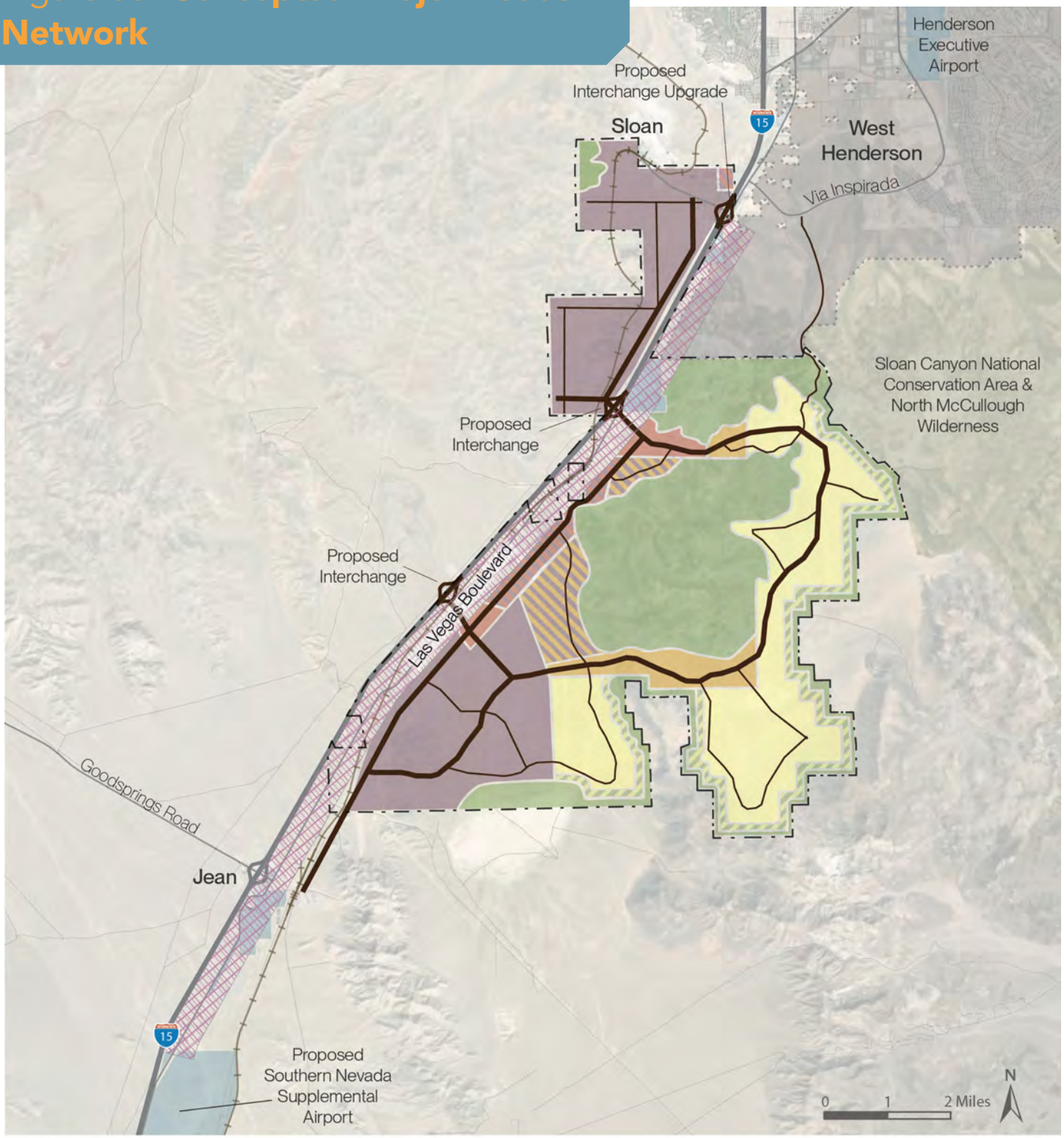
Most of the Study Area is undeveloped with few existing roadways. Primary access is provided via I-15, which bisects and borders the JLUS limits. Las Vegas Boulevard South runs parallel to I-15 and connects the Study Area to the City of Henderson to the north and the Town of Jean to the south. There is an I-15 interchange at Highway 161 in Jean, south of the Study Area, and a partial interchange with slip ramps at Sloan Road to the north. Via Inspirada is another existing arterial that connects I-15 to the City of Henderson to the north of the Study Area.

Proposed Roadway Network - Connectivity

In developing a proposed mobility network, the traffic team took inspiration from the existing landscape and trail networks. This conceptual network is presented in Figure 35. The following key components and considerations shape the proposed network:

- An extensive trail network is proposed within the JLUS area, largely along existing trail alignments and proposed roadways. This network will promote the movement of pedestrians and cyclists within the Study Area, providing connectivity and recreation opportunities throughout.
- The central open space area affects the placement of future roadways, with Arterials proposed on either side of this open space. One runs parallel and to the east of I-15 and passes through retail and employment land uses. The second one runs along the eastern portion of the area, through mixed-use and residential land

Figure 35: **Conceptual Major Roads Network**



LEGEND

- Study Area
- Railroad
- Existing Roads
- Utility Corridor
- Clark County Department of Aviation Property
- City of Henderson
- Retail/Hospitality/Entertainment
- Traditional Mixed Use
- Mixed Employment
- Residential
- Open Space
- Transition Areas (mix of two land use types)
- Proposed Arterials
- Proposed Collectors

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uses to join with Casa del Sol Drive – a planned north-south collector that will extend south from Henderson to the Study Area. The industrial and mixed-use area west of I-15 will also require an arterial roadway to accommodate local traffic to and from I-15.

- Two new interchanges are already proposed along the I-15 corridor. Once criteria are met to necessitate their implementation, these interchanges will accommodate the increase in traffic associated with proposed development. These interchanges will provide critical access points to and from the Study Area.
- The existing interchange at Sloan Road will need to be upgraded to a full interchange to accommodate the anticipated traffic increases in this area.
- The existing Las Vegas Boulevard will also provide essential access and circulation for the area, and will need to be expanded (as planned) to accommodate future traffic increases.
- To the south of the development, the JLUS lands will connect to I-15 at Jean via Prison Road and the existing interchange there.
- The road network will also be supported by major collectors that provide additional access to and through different use areas and connect to primary arterials.
- For the purposes of this Study, smaller collectors and local roads have not been identified. These configurations will be determined through subsequent site planning.

Roadway Classifications

Per the City of Henderson's Transportation & Mobility Plan, this study uses the following roadway classification definitions:

Collectors = 2-4 lane road (10,000 – 30,000 vehicles per day)
Arterials = 6-8 lane road (25,000 – 60,000 vehicles per day)

Proposed Roadway Network - Safety

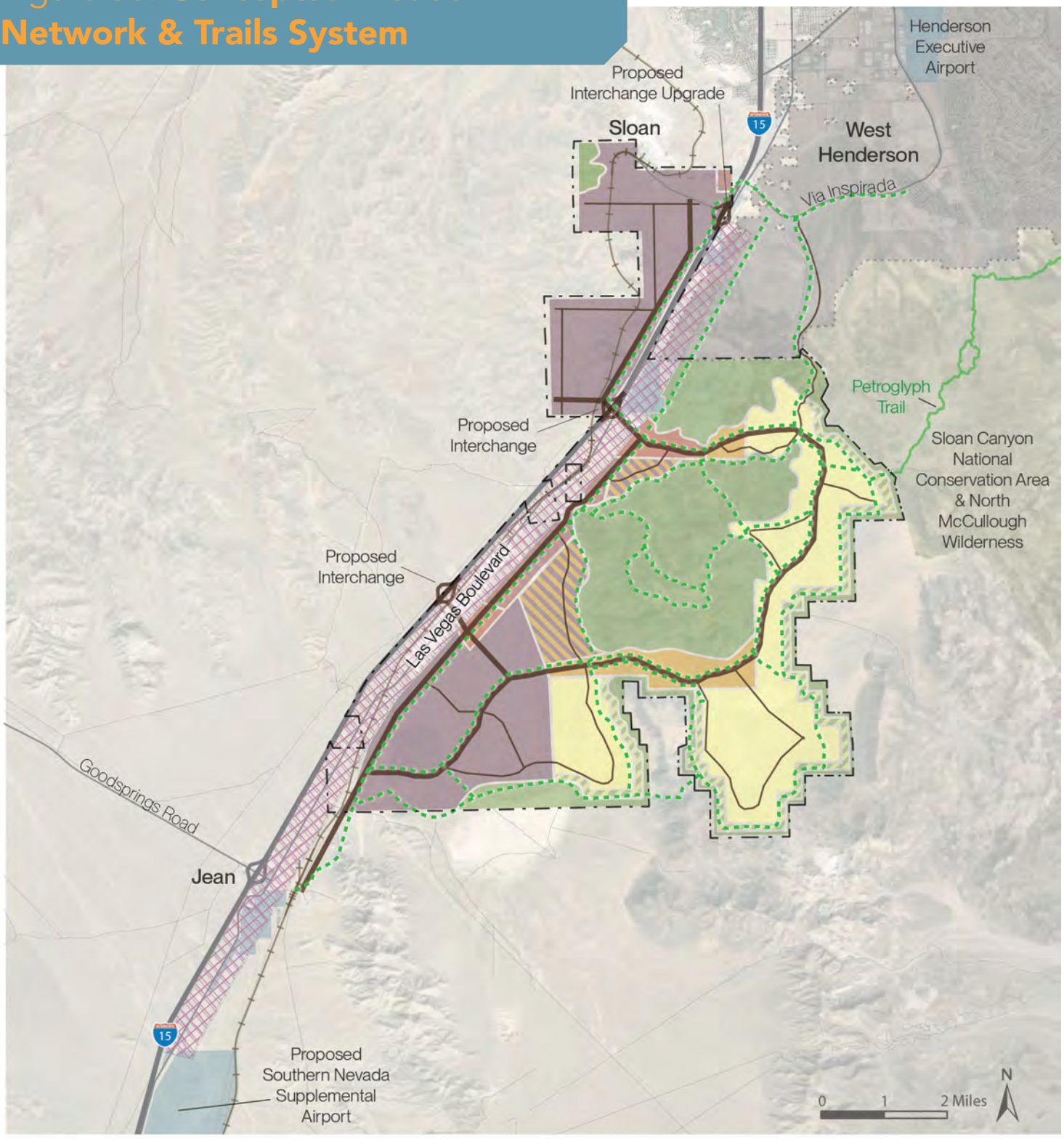
As planning and design for the Study Area move forward from a high-level conceptual design into a more detailed construction design, the traffic team propose a series of recommendations to promote safety within the Study Area. These recommendations include:

Intersection Design: Major signalized intersections should be spaced adequately to accommodate anticipated traffic volumes and sized appropriately for the planned development. Pedestrian infrastructure, such as signalization and crosswalks should be prioritized at most, if not all intersections.

Arterial Design: Ensure adequate sight distances are met at intersections and along roadways. Design roadways to accommodate traffic volumes without encouraging excessive speeds. Major roadways will need to be four to six lanes to accommodate the anticipated traffic.

Interchanges: Ensure efficient access to and from the Study Area and I-15 with new planned interchanges. Alternative intersection designs or flyovers should

Figure 36: **Conceptual Roads Network & Trails System**



LEGEND

- Study Area
- Railroad
- Existing Roads
- Utility Corridor
- Clark County Department of Aviation Property
- City of Henderson
- Retail/Hospitality/Entertainment
- Traditional Mixed Use
- Mixed Employment
- Residential
- Open Space
- Transition Areas (mix of two land use types)
- Proposed Arterials
- Proposed Collectors
- Proposed Trail Network
- Existing Trails

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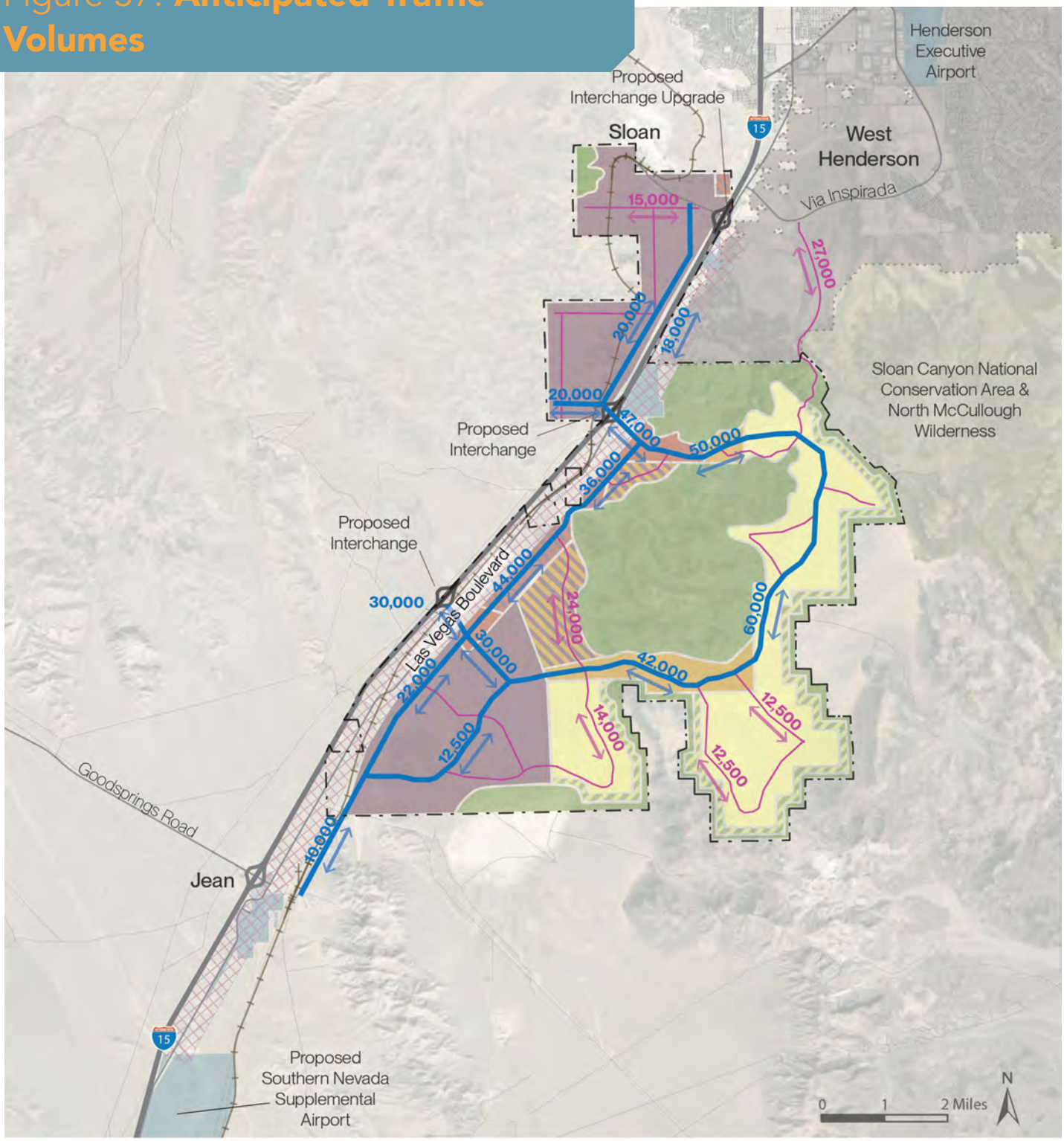
Figure 37: **Anticipated Traffic Volumes**



LEGEND

- Study Area
- Railroad
- Existing Roads
- Utility Corridor
- Clark County Department of Aviation Property
- City of Henderson
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- Traditional Mixed Use
- Mixed Employment
- Residential
- Open Space
- Transition Areas (mix of two land use types)
- Proposed Arterials
- Proposed Collectors

be considered, and right-of-way should be set aside to ensure adequate future operations. Existing interchanges should be upgraded to accommodate planned development. Acceleration and deceleration lane improvements may be required along I-15 adjacent to the Study Area.

Pedestrian and cyclist facilities: All of the roadways within the Study Area should feature sidewalks and bike paths or lanes. Trail Connectivity should be encouraged and prioritized wherever possible. Due to the high volume of traffic anticipated on the proposed arterials, underpasses should be considered at major trail crossings.

Right of Way Widths for Multi-Mobility: Ensure that roadways have ample right-of-way width to accommodate multiple users as appropriate, such as bike lanes, vehicular travel lanes, turn pockets and bus stops.

Railroad Grade Separation: Consider grade separation with the existing railroad tracks along major roadways.

Proposed Roadway Network - Traffic Demand & Capacity

The traffic team conducted an assessment of proposed land use densities and types to estimate the traffic generation and trip distribution associated with proposed development. Figure 37 illustrates the anticipated trip generation for individual road segments in the conceptual road network. It is estimated that the proposed land use will generate an additional 130,000 daily trips for the connecting roadway network that will provide access into the Study Area (I-15, Las Vegas Blvd, and Casa Del Sol). The estimated traffic flows can be used at a high level to understand the necessary capacity for roads within the JLUS area, although additional Traffic Demand Modeling will necessary as part of future planning for the area. Further details about the trip generation analysis can be found in Appendix D.

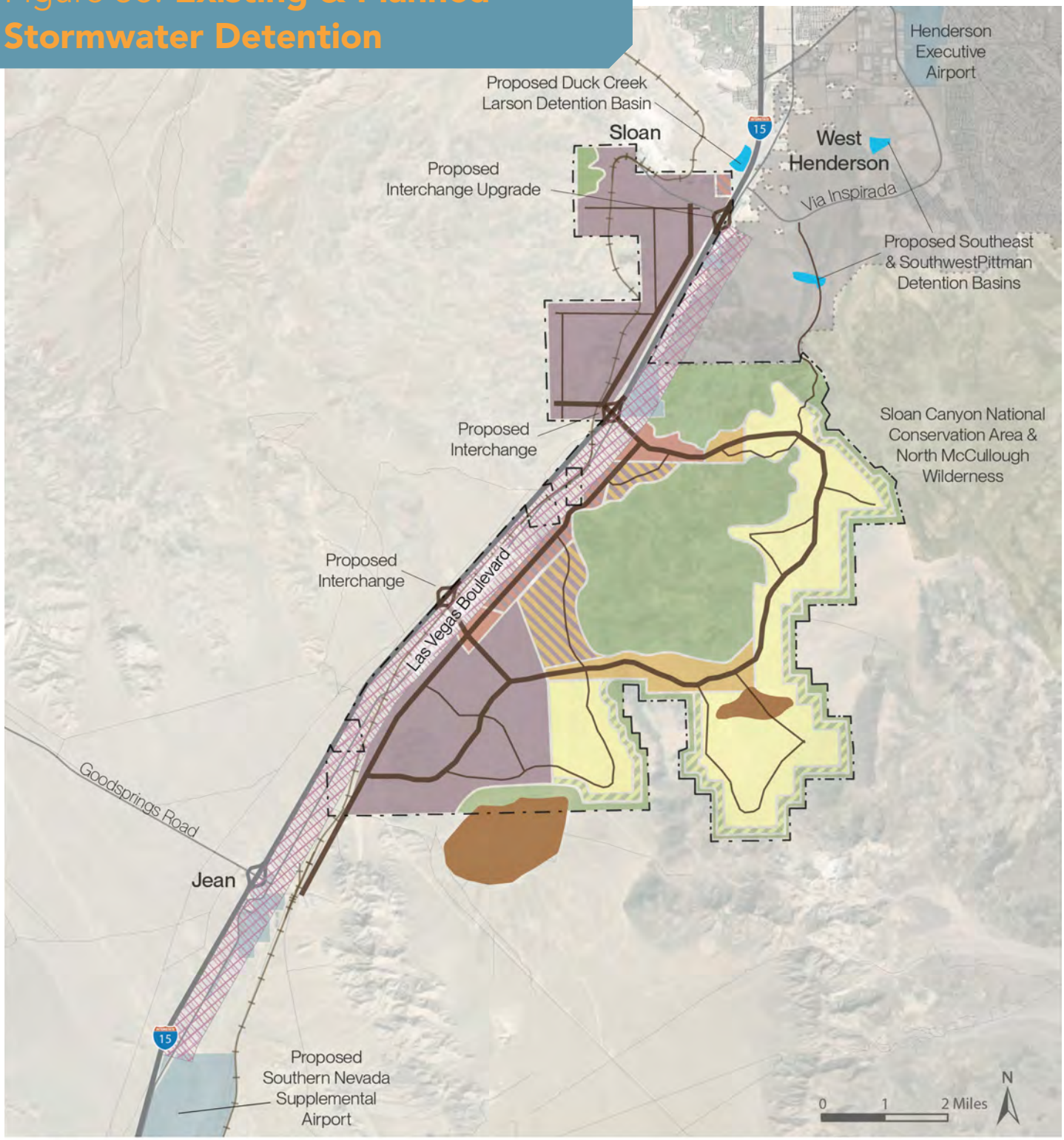
Utilities

Stormwater

The north portion of the Study Area drains to the Las Vegas Valley. This area is addressed in the 2023 Las Vegas Valley Flood Control Master Plan (LVVMPU). The LVVMPU outlines the proposed stormwater facility network to contain the 100-year ultimate condition flows – assuming a full "build-out" based on current zoning and entity-controlled land. Proposed land use and development for the Study Area were not included in the LVVMPU analysis as planning was still in progress. Potential impacts from the proposed JLUS development will need to be analyzed and amended in the LVVMPU in the future.

Additional stormwater management in this area could include natural lined berms to concentrate flows into channels in the mountain foothills and riprap, concrete lined channels, or underground Reinforced Concrete Pipes (RCPs)/Reinforced Concrete Boxes (RCBs) within developed areas. Small debris basins may be required for larger natural drainage areas and two natural low points within the Study Area may be reserved for water detention. It is expected that stormwater and local drainage facilities, including curb and gutter, will exist within all developed portions of the Study Area but additional analysis and planning will be necessary in the future to determine flows, routing, and facility sizing. Impacts from the proposed development should be assessed for the three planned detention basins north of the Study Area.

Figure 38: **Existing & Planned Stormwater Detention**



LEGEND

- Study Area
- Railroad
- Existing Roads
- Utility Corridor
- Clark County Department of Aviation Property
- City of Henderson
- Retail/Hospitality/Entertainment
- Traditional Mixed Use
- Mixed Employment
- Residential
- Open Space
- Transition Areas (mix of two land use types)
- Proposed Arterials
- Proposed Collectors
- Clark County Regional Flood Control District Proposed Detention Basins
- Existing Dry Lakebeds

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Sanitary Sewer

The Clark County Water Reclamation District (CCWRD) is currently preparing the 22101 Ivanpah Valley Wastewater Master Plan that will guide the orderly development of wastewater facilities from the California state line to Sloan, encompassing the Study Area. Once complete, this document can be used to guide the siting, design, and construction of wastewater improvements necessary to serve new development within the Study Area. Such infrastructure will need to comply with approved standards and service rules. As planning continues in the Study Area, land portions will need to be reserved for utilities infrastructure at appropriate elevations.

Potable Water Demand

Based on the planned land uses and densities that have been identified as part of the JLUS study, a high-level daily and maximum water demand was developed to assist with discussions regarding water needs for the Study Area. The daily and maximum demands are based on complete build-out of the Study Area - where all land proposed for development is fully developed. It is uncertain when this condition may be reached, if ever, but provides useful information about the *potential* demand that this area could generate.

Extrapolating 2025-2045 projections for employment and population capture (see page 21) and associated net land demand (see page 31), at full build-out, the Study Area is expected to generate a water demand of approximately 24 million gallons per day. The maximum daily demand is expected to be 49 million gallons per day at full build-out.

Additional details and methodologies for potable water estimates are provided in Appendix D.

Electrical Utilities

There are a series of local electric power stations in close proximity to the site which could be used to provide power to the Study Area. These plants and substations are located north of the site off Via Inspirada, to the east (Eldorado Solar Power Plant) and to the south (Primm). Existing high voltage electric lines exist south of the site between the Eldorado Solar Power Plant and the power plants at Primm, and to the west of the site between Jean and south Henderson. Any extension of electricity lines must comply with 14 Code of Federal Regulations Part 77, as applicable. Figure 39 illustrates the location of existing high voltage lines and power substations.

Natural Gas

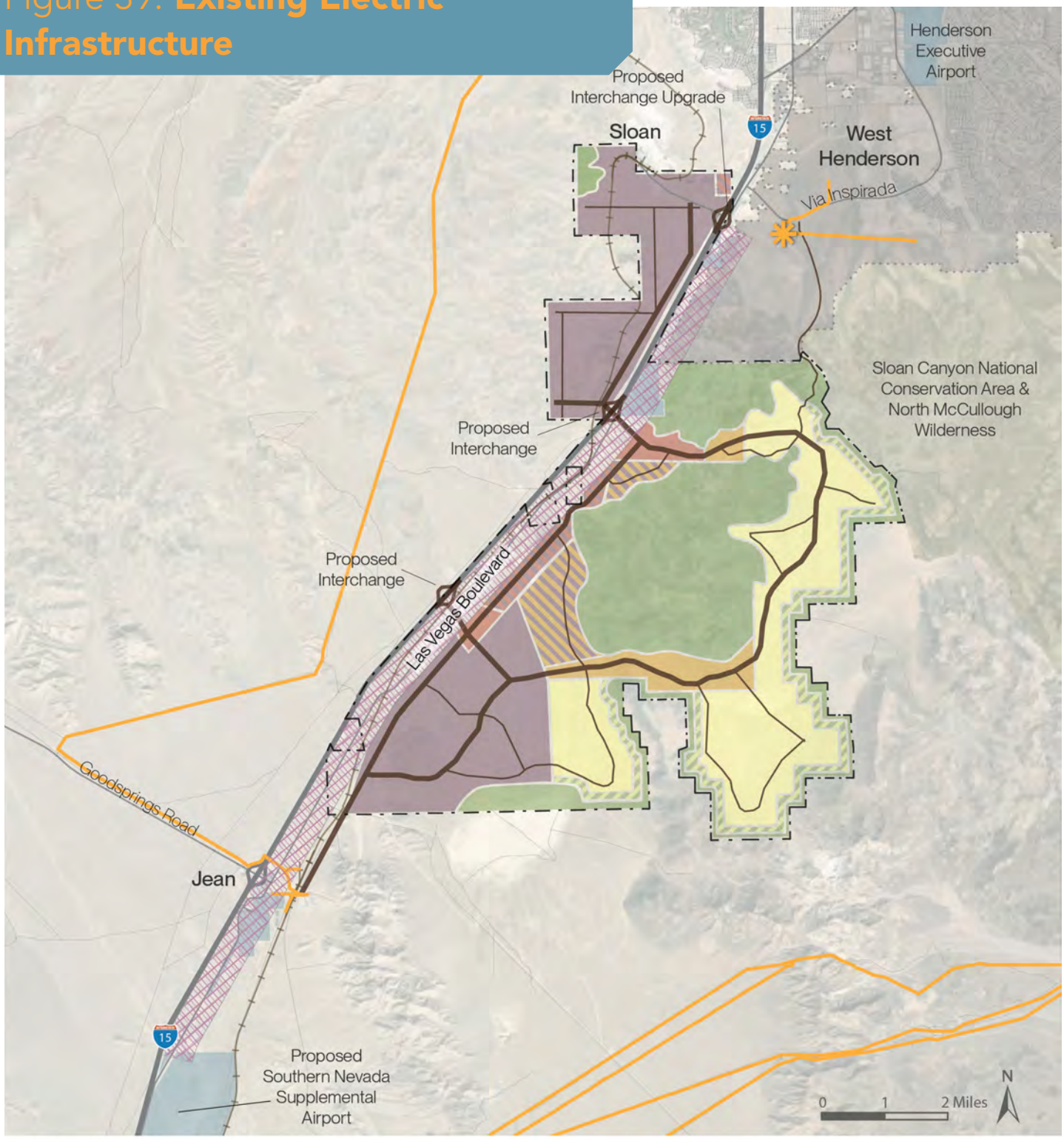
The notion of electrification—fulfilling all heating and energy demand through electric power and removing the option for natural gas—has emerged recently as a possible strategy to combat climate change.[51] Because of the uncertainties of whether and when the Study Area may become open for development, the potential need for natural gas service is not yet known.

Broadband

The Nevada Office of Broadband, within the Nevada Governor's Office of Science, Innovation & Technology (OSIT), has set a goal to add high-speed broadband infrastructure to all communities across the state that do not currently have it.[52] The Study Area is within OSIT RFP Regions 9 and 10, indicating that middle-mile and last-mile broadband connections may be added here at different times and by different vendors.[53]

The present condition shows only limited portions of the Study Area—in the Roark Estates area and surrounding industrial properties—have a single

Figure 39: **Existing Electric Infrastructure**



LEGEND

- Study Area
- Railroad
- Existing Roads
- Utility Corridor
- Clark County Department of Aviation Property
- City of Henderson
- Retail/Hospitality/Entertainment
- Traditional Mixed Use
- Mixed Employment
- Residential
- Open Space
- Transition Areas (mix of two land use types)
- Proposed Arterials
- Proposed Collectors
- Existing High Voltage Electric Lines
- Existing Power Substation

carrier that offers fixed broadband service.[54] This means that the northwestern corner is classified by OSIT as an underserved location, and the remainder of the Study Area is classified as unserved. However, as the Study Area develops, this gap would need to be filled to ensure businesses can operate and that residents have an internet access option beyond relying on satellite-provided or mobile cellular devices.

This can be a challenging addition to make. Because of the distance from Henderson and the rest of the Las Vegas metro area, the estimated cost of buried fiber installation could be $22-37 per mile, higher than the national average range of $15-20 per mile.[55] To facilitate eventual fiber deployment, OSIT vendors should be encouraged to use the I-15 Utility Corridor established by SNPLMA as well as other NDOT rights-of-way, local road rights-of-way, and the utility poles of NV Energy as each of these assets are extended into the Study Area. Coordination by Clark County may reduce this cost and help broadband providers understand the potential customer base that is anticipated to move to this area.

Public Services & Facilities

The public service and facility needs for the Study Area are in three categories: permanent site facilities (schools, fire stations, police substations, parks, utility maintenance yards, water reservoirs, etc.), networks that reach all properties (water and wastewater networks, trash collection, etc.), and services that move around as needed (transit service, call-based responders like code enforcement, etc.). The key concept is that both the County and the City of Henderson have minimum service requirements (e.g., fire/police use a target response time and/or specify a maximum radius from each occupied address, while parks and recreation providers may use a park space ratio by number of households).

Today, fire protection and emergency medical services come from County Fire Station 87 at 20400 South Las Vegas Blvd. in Jean, a full-time emergency medical station with two personnel. The southern edges of Henderson are served by the Henderson Fire Department's Station 91 on Democracy Drive.[56] Today, this service is sufficient due to the current lack of residential development in the area.

The first and overall recommendation is to directly provide services in newly developed areas in the same manner as Clark County does in already developed areas. For example, Clark County Parks and Recreation has set a minimum level-of-service rule of 6 acres of park space per 1,000 residents in rural areas.[57] Should the disposal boundary be expanded, and land transferred to local control, each jurisdiction should apply similar standards and tools to encourage public health and quality of life through the dedication of protected open space and the thoughtful placement of trails and parks.

The second recommendation is to disperse public facilities within areas of private development. Creating separate "public service hubs" is neither necessary nor efficient. Instead, this recommendation seeks to meet residents' needs more conveniently by integrating public facilities within their neighborhoods as they are established. This development pattern already occurs in suburban and urban parts of Clark County, especially for elementary schools. Still, buffering of some facilities will occur to mitigate selected impacts, like noise of emergency response vehicles from fire stations and noise and emissions from transit hubs and motor pools.

The third recommendation is to develop at a density that would support at least limited bus transit – a goal that is reflected in the land use concepts and development principles outlined in this plan. However, reaching this critical density may take time. The more concentrated development areas like job centers and community hubs would be most likely to develop a customer base dense enough for RTC bus line(s) to begin servicing the area. If this occurs, the County and the City could align Study Area planning efforts with the Regional Transportation Commission of Southern Nevada's established best practices for adding transportation and mobility services.

DESIGN STANDARDS & GUIDELINES

This section provides guidance for new structures and improvements within the Study Area, with the intent of matching the physical character of development to the overall recommendations in this document. The basic tenets that should be fulfilled by all developments include those that the County and City codes already require (promoting high-quality design, sensitivity to the natural environment, and providing safe, habitable structures for people). In addition, desirable characteristics are sensitive to natural systems (habitats) and natural unifying elements; protection of hillsides; achieving cohesiveness and compatibility with surroundings; and a high level of convenience with amenities, services, and areas of activities located near homes.

To achieve these goals, this section aligns with the existing Henderson Strong Comprehensive Plan, Clark County Master Plan, and the relevant development codes. By doing so, these guidelines offer the private sector greater certainty on what will comprise a

desirable proposed improvement within the Study Area. Finally, these guidelines are illustrated in the 3D Development Type models and should be considered together.

Buildings & Structures

The intended objectives of this section are to promote the desirable characteristics above as they apply to these elements:

- Massing
- Lot coverage
- Building materials
- Attached outdoor spaces, i.e., patios, built-out rooftops, etc.
- Lighting
- Service areas (parking lots, loading docks)

Hub Concepts

Keeping low building profiles and similar densities as other portions of Clark County and the City of Henderson is desirable, with exceptions for areas identified to develop as intensive "hubs" that can support a vertical mix of uses, office headquarters, and/or manufacturing facilities. This plan recommends two hub types, which may be implemented separately at different locations or in conjunction with each other at the same location. See the sidebar for more details about the proposed "Community Hubs" and "Building Performance Hubs."

Building Performance

While this is a conceptual plan, selected recommendations for maximizing the performance of any new development are included. As a baseline, this document assumes the 2021 International Energy Conservation Code (IECC) or its successor as the state's model code will be followed for all improvements at the time of any proposed development.[58] Adoption of updated model codes is handled by the Governor's Office of Energy, and local governments will be tasked to implement new versions of adopted codes over time—currently on a triennial basis.

Targeting more aggressive building performance standards than the model code is advisable. The primary benefit is reduced provision of electric power to support the same developed square footage. Related cost savings—such as operating public facilities—may also accrue to the public sector. To quantify these standards, the County and City may designate portions of the Study Area as one or more Building Performance Hubs before development begins. These could be the same areas as Community Hubs or could be standalone designations for other parts of the Study Area. In either case, a Building Performance Hub's dual benefits would be cost savings to the operator and serving as a model of the energy-saving possibilities of innovative building envelopes. Features of the Building Performance Hubs could include strategies such as:

- Setting an annual benchmark for individual site energy use intensity (EUI) and incentivize building owners and operators to meet or exceed those benchmarks.[59]
- Meeting ASHRAE standards and guidelines for decarbonization,[60] and meet or exceed the Greenhouse Gas Emission Intensity standard of the U.S. Environmental Protection Agency using the agency's Building Emissions Calculator.
- Taking a district-wide approach to stand up efforts that would be too large and/or too costly for a single building to undertake. This may include generating parts of on-site power needs through community solar structures,[61] district-wide HVAC systems, and other initiatives.

Site Planning Guidelines

When considering the siting regulations for specific developments, the following priorities and strategies should be followed:

- Promote sites on the most level topography to minimize grading and encourage siting and design to be compatible with the topography and landscape. Development should generally not occur on slopes greater than 15% and should be prioritized for areas less than 12%. Where appropriate, development on slopes should be consistent with the City's and County's hillside development regulations.

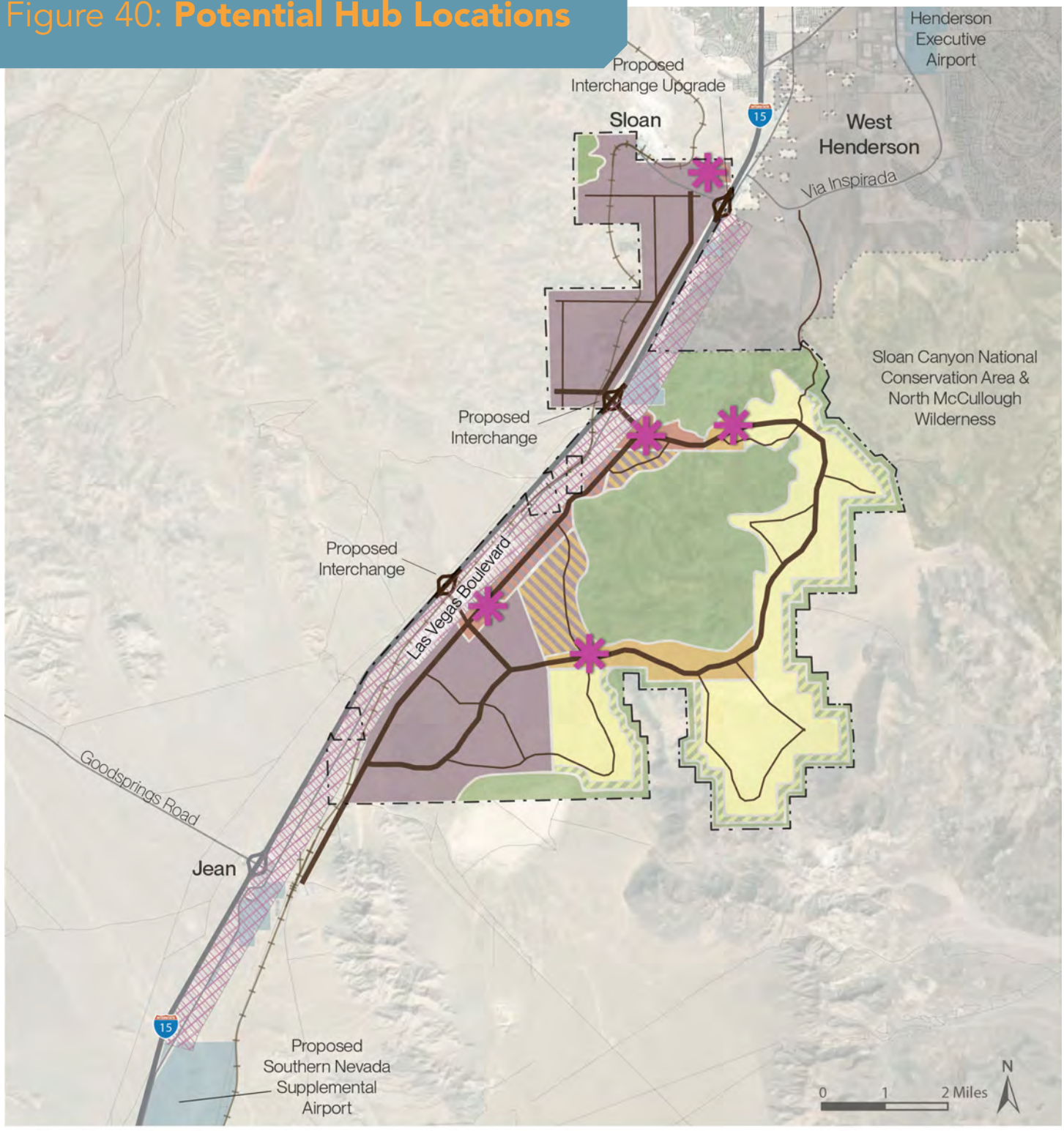
Community Hubs

Community Hubs are intended as the most intensively developed areas of Ivanpah Valley. More than simply dense development, Community Hubs are designed proactively as multiple adjoining parcels that house a mix of uses and share pieces of infrastructure such as access points for multiple transportation modes, parking, plazas and open spaces. Their exact location will be determined by ease of access (more than one connection to the local transportation network, along or near to I-15 or an arterial), relative ease to develop (utility access already in place or imminently planned, non-challenging terrain), and parcels large enough to capture regional commercial facilities as well as locally serving businesses. Figure 40 illustrates potential locations for community hubs – these areas will require higher capacity utilities and ample access via multiple modes of transportation, including heightened parking needs.

Building Performance Hubs

Building Performance Hubs are areas that promote ambitious, leading-edge energy efficiency and building performance goals. These goals may be met with the use of features including water-wise and context sensitive rooftop gardens or "green" roofs, solar and co-generation facilities, district-wide energy systems. While the features of such a Hub are desirable for all new construction, the commercial-only and single-family detached residential areas may struggle to meet the standards in practice; as a result, the most feasible Development Type with such a Hub is Traditional Mixed Use. Property owners and operators could be incentivized to build within a Building Performance Hub in exchange for expedited development review and/or permit approvals, simplified impact fees, or other incentives as deemed appropriate by the County and/or the City.[62] Whatever incentives are chosen, they should be designed to measurably reduce an owner or operator's construction time, financial investment, or both, and thus be attractive enough to pursue.

Figure 40: **Potential Hub Locations**



LEGEND

- Study Area
- Railroad
- Existing Roads
- Utility Corridor
- Clark County Department of Aviation Property
- City of Henderson
- Retail/Hospitality/Entertainment
- Traditional Mixed Use
- Mixed Employment
- Residential
- Open Space
- Transition Areas (mix of two land use types)
- Proposed Arterials
- Proposed Collectors
- Potential Hub Locations

- Activate streetscapes through building siting and design. This may include orienting buildings and entrances to face the primary street, minimizing setbacks, and encouraging transparency and fenestration. Provide alternate entrances at the side or back of a building for access from parking areas. In commercial areas, consider uses that will be open throughout the day and evening, and site less interactive uses (offices, meeting rooms, production facilities) on upper floors or within building interiors.
- Include "bonus" transition spaces, such as dedicated space for delivery and rideshare vehicles, plazas, parklets, or small playgrounds - especially in multifamily residential and mixed-use areas.
- Include robust signage and other wayfinding features on trails for pedestrians and bicyclists. Use the standard signage for vehicles on streets but ensure visual continuity whenever possible.

Landscaping & Open Space Treatments

Landscaping is the installation and maintenance of plant material, and supporting soil, stone, and other items that keep plants alive. Open space treatments are the changes–or lack thereof—made to existing plants, soil, stone, and other ground cover in an outdoor location.

The general recommendations for improved areas are to 1) limit irrigated grass areas to schools, community parks, and athletic/recreation fields, 2) promote xeriscaping to conserve water, 3) generally promote context-appropriate plantings, and 4) use landscaping to strategically provide shade cover and reduce urban

heat island effect. For all other open space areas, this plan recommends retaining the existing natural conditions of the soil and plants. The only exception in such areas would be to modify or remove natural elements that may impede access or cause a safety concern (e.g. loose rocks or boulders on steep slopes that could increase the risk of rockslides).

When considering landscaping regulations for specific developments and open or public space areas, the following priorities and strategies should be followed:

- Encourage plants that are regionally native and adaptive, drought-tolerant, and water wise
- Promote aesthetic desirability while balancing water conservation goals
- Provide ecological function for water retention, wildlife, and pollinators (for larger improved areas)
- Encourage landscaping that is appropriate for soils in this region
- Intentionally design and landscape "bonus" or in-between spaces to ensure a cohesive look for developed areas. This would include front and side setbacks, undeveloped portions of parking lots and driveways, tree boxes, rights of way, and alleyway-facing spaces.
- Ensure equitable distribution of landscaping and tree canopy across all neighborhoods and districts in the Ivanpah Valley.

IMPLEMENTATION

5

PHASING

It is anticipated that the Study Area's growth over time will roughly occur from west to east, beginning in the northwestern corner of the Study Area and in the vicinity of I-15. These areas already include some development, including industrial facilities (quarries and concrete plants), and about two dozen residences.

This section addresses how phasing may inform the Study Area's future. While informed growth and demand forecasting must be grounded in a specific timeframe (projections provided in Chapter 2), this study recognizes that the SNPLMA disposal process and subsequent timing for development within the Study Area is uncertain. Thus, a conceptual phased timeline is provided, with initiation based upon expansion of the SNPLMA Disposal Boundary to include the Study Area - i.e., the clock would not begin until the Bureau of Land Management has ability to dispose of the land within the Study Area through the SNPLMA auction process. This timeline is segmented into three key phases: short-term, mid-term, and long-term (see Table 5). This approach allows us to estimate a more realistic progression of growth, based on typical development trends and our understanding of the progressive actions necessary to achieve the end-goals for this area.

Development would be slow at first, requiring the application of zoning regulations, site planning, and infrastructure investments. By the end of the short-term timeframe, it is expected that just a small portion of housing units and/or industry development may be constructed. During the mid-term timeframe, development will start to pick up and the area could experience more significant growth. Finally, after 20 years of development activity, the Study Area is expected to have met anticipated demand. However, it is not expected that the area will be at a "built out" condition by this time, allowing for additional growth and development into the future.

Table 5: Implementation Timeframe & Phasing

Phase	Timeframe	What Happens
Short-term	Up to 3 years	Initial public investments, incl. roads, utilities, public facilities, etc.; limited private development begins
Mid-term	3-10 years	Private development continues in earnest
Long-term	11-20 years	Majority of anticipated private development; maintenance of public facilities

Demand Forecast

As outlined in Chapter 4, it is anticipated that the Study Area will require a total of 6,155 acres of land for residential development, and between 3,173 and 1,552 acres of land for employment-based development. Combined, this is a total of 9,328 to 7,707 acres of land - or 466 to 385 acres annually over 20 years. These estimates are based on current forecasts between 2025 and 2045.

However, knowing that the timing for the SNPMLA disposal process is uncertain, development demand may change as time progresses. Additionally, as illustrated in the discussion above regarding phasing, private development is not expected to occur at an even rate over the 20-year implementation timeline. Thus, in the mid- and long-term phases, land development may occur at a higher annual rate - closer to 450 to 550 acres per year.

Dependent Infrastructure & Utility Extensions

These factors are of the utmost importance because developers will be very unlikely to move ahead with any plans until infrastructure resources become available.[63] Utilities, some roads, and infrastructure systems are already in place in the far western portion of the Study Area (especially in the northwest), but do not yet exist farther east or south.

NDOT intends to expand access to the area by adding two new interchanges along Interstate 15, in the current 13-mile gap between the Via Inspirada and Jean interchanges.[64] The approximate locations of these interchanges are illustrated on several maps throughout this plan. Clark County also intends to widen Las Vegas Boulevard. from its current two-lane configuration to improve access. The widened boulevard will feature two traffic lanes in each direction. At the time of writing this Plan, no timeframes have been announced for either project.

While the expansion of Las Vegas Boulevard will help to increase access to the Study Area, development along Las Vegas Boulevard. itself will be limited due to the utility corridor easement. As shown in Figure 35 on page 95, additional major roadways will need to be constructed - including an arterial parallel to and east of Las Vegas Boulevard. - to allow for new development to occur.

Potential for Future Annexation

At this time, it is uncertain how land within the Study Area will ultimately be governed. While the land currently lies within unincorporated Clark County, the future annexation of portions of the areas into the City of Henderson is a possibility. This formal process would legally transfer selected lands into the City's jurisdiction.

The City of Henderson considers annexations on a case-by-case basis. Annexations may be initiated by the City itself or by an individual or group of property owners through a formal application process.

The City Council typically bases annexation decisions on meeting each of the following conditions:

- Reasonable ability to provide public services to current and future residents of the area.
- Net increase or stability in City revenue and fiscal impact.
- Reasonable opportunity to meet identified needs and goals, such as economic growth, community amenities, or housing development.
- Contiguity with the existing City footprint.

The JLUS Study Area and associated recommendations within this plan provide an opportunity to meet identified needs and overarching goals for trending growth. Determining reasonable provision of public service needs and fiscal stability will require additional assessment and collaborative planning over the next several years as conditions change and the intentions of this project approach implementation.

It is unclear at this time exactly how utility infrastructure will be extended into the Study Area and which agencies will take responsibility for utility provision. Wherever possible, system efficiencies and collaboration should be prioritized.

Responsibility and structure for other infrastructure and service provision may depend more on the phased sequencing of decisions (such as annexations), available funding, and variable opportunities (such as public-private partnerships from interested developers). The City and County will need to work collaboratively to determine the most efficient, cost-effective, opportunistic, and appropriate path forward as implementation of this Plan unfolds.

COLLABORATION

Incentives and Partnerships to Drive Action

The vision, intentions, and recommendations of this study cannot be realized by the City of Henderson and Clark County alone. As referenced throughout this document, many other stakeholders, including individuals, businesses, organizations, and units of government are both crucial to the successful implementation of this Plan, and have an interest in seeing this Plan come to fruition. As leaders for this work and convenors of conversations on Ivanpah Valley's long-term future, the City and County can strategically foster partnerships and build momentum to capitalize on collective capacity.

Other Responsible Parties & How They Will Contribute to Implementation

The following list captures entities who should be consulted, convened, and leveraged. This is not intended as an exhaustive list, but will provide robust contributions because of shared interests in development of the Study Area.

Existing and future private property owners

Any existing property owners within or adjacent to the Study Area should be involved in future steps to implement this Plan as they have personal experience and vested interest in the area. Some property owners may be interested in acquiring new property within the area. As development occurs, new property owners and residents will serve as critical stakeholders in shaping the future of this area.

Indigenous Tribes of Southern Nevada

Representatives and community members of the Pipa Aha Macav and Nuwuvi Tribes should be consulted and invited to participate as stakeholders as planning continues for future development in the Ivanpah Valley. The histories, cultural significance, and current priorities of these constituents should be given intentional voice and representation as the evolution of these lands continues to unfold under human influence.

Developers

The private development community will play a significant and critical role as this area evolves. Key organizational entities, such as the Southern Nevada NAIOP and SNHBA have been and will continue to be important conduits for understanding developer perspectives and building partnerships.

Business owners and managers, particularly for target industries

In concert with development entities, business buy-in and partnerships will strengthen and catalyze investment and growth in this area. Efforts should engage both local, regional, and broader national or international businesses, driven and facilitated by the Clark County and City of Henderson Departments of Economic Development, Las Vegas Global Economic Development Alliance, and Nevada Governor's Office of Economic Development.

Clark County Department of Aviation and Federal Aviation Administration

As parallel planning efforts continue for the proposed SNSA project adjacent to the Study Area, CCDOA and the FAA will be critical partners.

Regional transportation operators

NDOT and the RTC of Southern Nevada will be critical partners in coordinating and providing transportation infrastructure and mobility service, such as potential regional public transportation. As parallel planning efforts continue for I-15 improvements and the Brightline West light rail service, these entities can ensure coordinated and complementary development, including informed phasing, funding for infrastructure improvements and economic growth, and right-of-way preservation. The City of Henderson and Clark County Public Works Departments as well as elected officials will need to collaborate with these entities to coordinate infrastructure projects and funding.

U.S. Bureau of Land Management

As the opportunity for any development within the Study Area hinges on the BLM expansion of the SNPLMA disposal boundary and BLM disposal process, coordination with BLM will be critical. Although expected, the exact timing and assurance of this process is uncertain. Thus, it will be important for both the City of Henderson and Clark County to maintain a close and continuous line of communication with BLM to stay abreast of any developments or decisions.

Utility providers

Entities such as the Las Vegas Valley Water District, Southern Nevada Water Authority, Clark County Water Reclamation District, Nevada Energy, Southwest Gas Corp., Sempra Generation, PG&E, City of Henderson and Boulder City Utility Departments are important collaborators for understanding and implementing utility infrastructure and services. If any development were to move forward, close coordination with parallel planning efforts for the Horizon Lateral water line would be critical to ensure service needs are met and new development can proceed in this part of Ivanpah Valley.

Outdoor recreation providers and managers

Recreation will likely be managed by either Clark County or the City of Henderson, or through a cooperative effort of both entities. Close collaboration between the Parks and Recreation Departments of these jurisdictions will be crucial to determining the most appropriate and cost-effective provision of high-quality recreational amenities. Other organizations, such as Friends of Sloan Canyon, BLM, and Conserve Nevada (Nevada Department of Conservation and Natural Resources) may also play roles in funding, partnering, or managing recreational resources within the Study Area.

Framework for Future Collaborations

To ensure ongoing collaboration and momentum for this project, Clark County and the City of Henderson should each designate at least one department to serve as the responsible party and point of contact for this area and project. These liaisons should meet regularly to maintain open communication and

coordinated efforts. These liaisons should regularly report to department and broader staff groups, as well as elected officials.

In addition, these departments could convene a stakeholder steering committee and/or smaller topical working groups to share updates on planning efforts, project implementation, and arising opportunities or challenges. As such, the occasion could be used to push implementation of this Plan forward and ensure continual progress. If smaller working groups are the selected approach, the full group could meet as needed to allow for cross-sector coordination and information sharing.

As the Plan is implemented and development occurs, this structure for coordination may need to be adjusted to accommodate new players, such as major developers, property owners, or businesses. Broader community engagement will also be necessary as residents move into the area.

REPORTING & TRACKING PROGRESS

Below is an initial set of "next steps" to initiate implementation of this plan. As planning efforts continue and current day uncertainties are clarified, the City and County should consider creating a more detailed implementation matrix as a single, centralized location for tracking progress on the recommendations and goals included herein. Staff from the County, the City, or a combination of the two may update the matrix as time goes forward. The City and County may also consider making the implementation matrix publicly available to provide transparent reporting on progress, new studies and information, or formal decisions.

Next Steps

- Determine the appropriate representatives from the City and County to take ownership and responsibility for driving this project forward.
- Establish a regular meeting schedule for these project leaders.
- Consider establishing a larger stakeholder task force that meets less frequently to coordinate across various challenges, efforts, and priorities for this region.
- Continue to monitor efforts to expand the SNPLMA Disposal Boundary, including SNEDCA.
- If SNEDCA is approved, initiate additional technical assessment of the Study Area to update assumptions and projections used in this plan, and to more thoroughly investigate infrastructure needs. This could include updated population and market projections, detailed traffic demand modeling, other detailed utilities assessments and planning, and fiscal impact assessments.
- Use this information to determine priorities for jurisdictional management of specific lands within the Study Area between the City, County, and utility providers.
- Work with BLM to align these priorities with the land disposal nomination process.
- Conduct robust and inclusive community. engagement to refine concerns and priorities.

ENDNOTES

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