

Deer Springs District Livable Center

Final Report
January 15, 2020

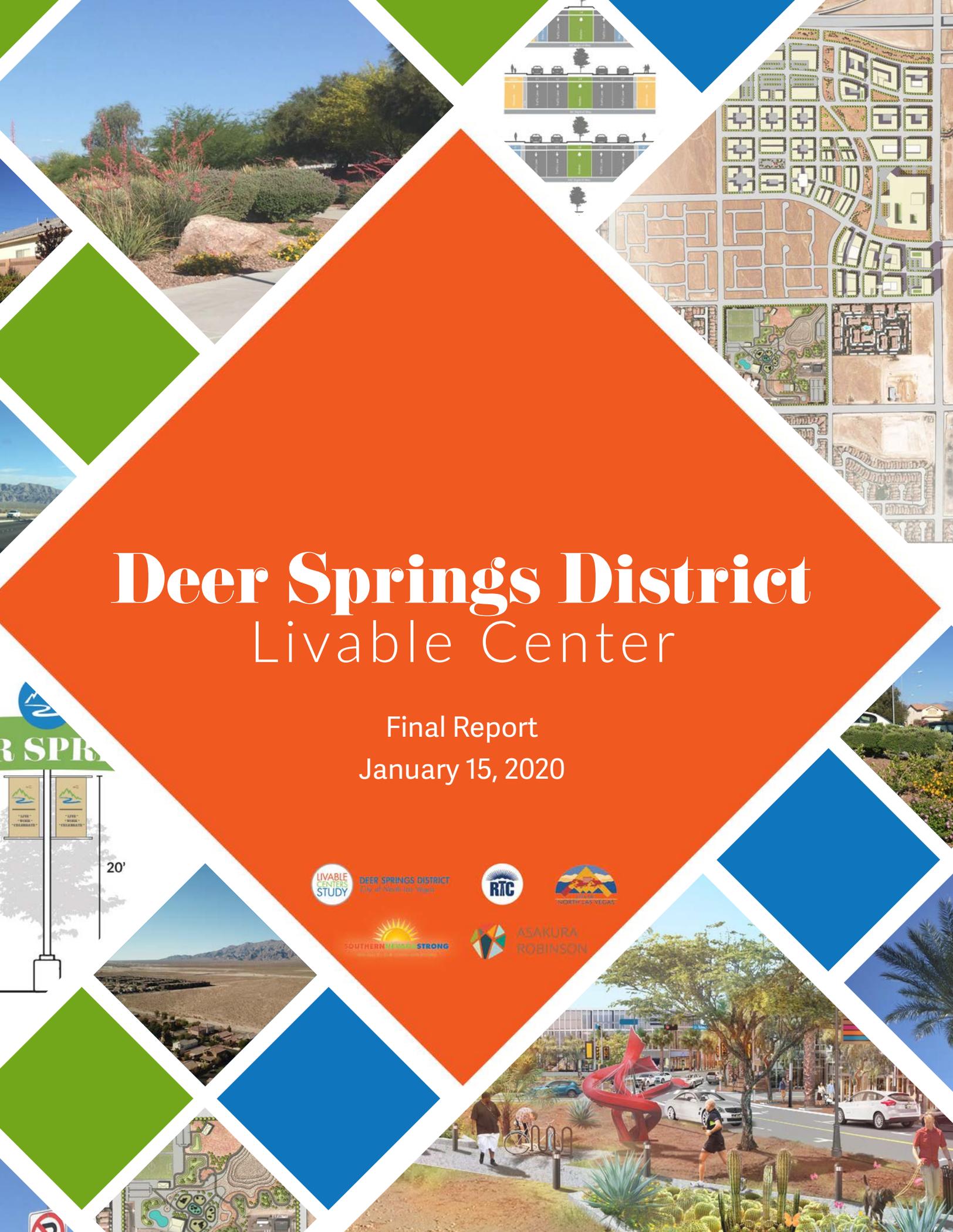


DEER SPRINGS DISTRICT
City of North Las Vegas



ASAKURA
ROBINSON

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Thank you to the hundreds of individuals who participated in the planning process through public workshops, community surveys, and community events.

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Chapter 1: Introduction

The Deer Springs District Livable Centers Study provides significant opportunity to advance existing planning efforts for creating a transit, pedestrian, and bicycle friendly, economically successful, and socially vibrant live-work-play North Las Vegas community that remains competitive for development over the long term.

The overall goal of the Livable Centers Study is to foster multimodal access and connectivity, a mix of uses, a diversity of housing options, and a sense of place. The Livable Centers Study will create a plan for the area that:

- Analyses the safety and quality of the public realm
- Identifies existing as well as potential future pedestrian generators
- Provides design solutions for an enhanced, attractive, connected, and safe pedestrian environment
- Design concepts for the Job Creation Zone

Livable Center Study

The Deer Springs District was selected through a competitive application process to be the pilot Livable Center Study. Southern Nevada Strong and the Regional Transportation Commission studied existing programs in the Houston and Atlanta regions. Livable Centers Studies are sponsored by the RTC with local partners to create places where people can live, work, and play with less reliance on their cars. According to RTC, “Livable Centers, with concentrations of residential and employment, support more trips by foot, bicycle, transit, or carpool.”

The study area contains a broad mix of land uses, several future station areas, major trail and open space opportunities, and a congressionally designated Job Creation Zone. The Deer Springs District has the potential to be a vibrant, walkable area with a mix of housing choices and diverse employment opportunities that could be linked to key destinations throughout the Las Vegas Valley via the North Fifth Street Transit Corridor.

Section 1.1: Livable Centers Defined

Livable Centers is a planning strategy to help improve the quality of life in a neighborhood and specific area within the City of North Las Vegas. The intended outcome of this strategy is to create neighborhoods that are vibrant, walkable communities that offer increased transportation options, encourages healthy lifestyles and provides improved access to jobs and services.

This approach to neighborhood planning functions well with or without transit resulting from the concentration of retail, jobs, recreation and housing with a strong pedestrian network. The addition of transit to a livable center increases mobility within the center and to other destinations outside of the center.

Major benefits of the Livable Centers Strategy (LCS) include the following:

- Increasing housing choices with a range of densities
- Increasing housing affordability by reducing household transportation costs
- Increasing transportation choices by adding facilities for pedestrians, bicyclists, and transit riders
- Increasing connectivity to jobs, services, and entertainment by promoting direct pedestrian access with trails and sidewalks
- Reducing air pollution
- Increasing access to recreation
- Increasing community health
- Decreasing infrastructure costs with compact development

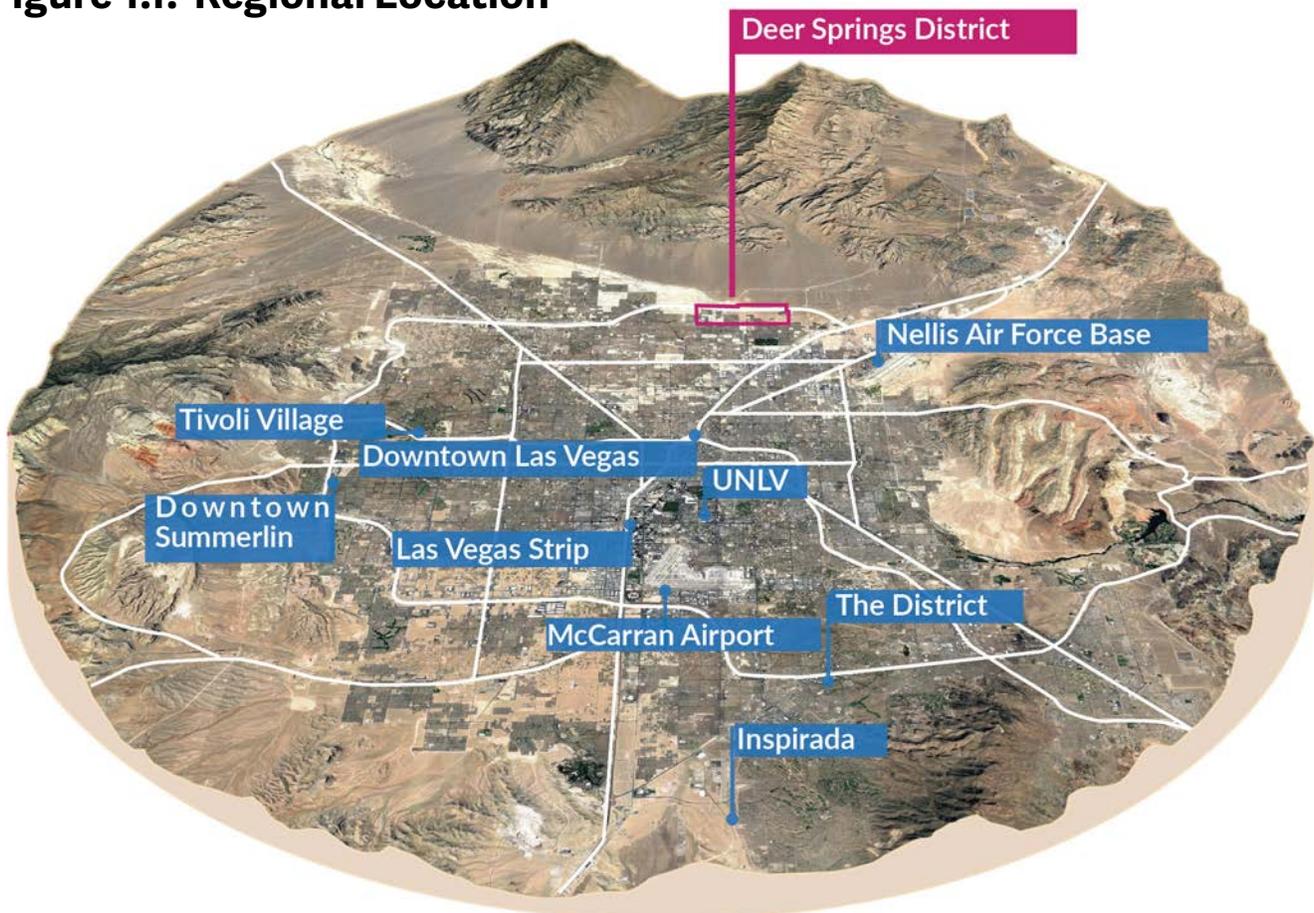
Section 1.2: Location of the Deer Springs District

The Deer Springs District is located in North Las Vegas, Clark County, Nevada. Although North Las Vegas was the third fastest-growing large city in the U.S. from 2000-2009, the growth of retail, commercial and entertainment destinations has largely been concentrated in the central and southern portions of the Las Vegas Valley, including Downtown Summerlin, Town Square, the District at Green Valley Ranch in Henderson, and Tivoli Village. Many North Las Vegas residents have to travel great distances to dine, shop, and work at these destinations. This has created an opportunity for a new entertainment, residential, and employment center in the northern part of the valley.

The Deer Springs District is approximately 2.5 miles in length. District boundaries are Commerce Street, Walnut Road, Centennial Parkway, and the Bruce Woodbury Beltway. The study area includes a broad mix of land uses, several future transit stations, major trail and open space opportunities, and the Job Creation Zone.

The Deer Springs District's location near the I-15 corridor and Bruce Woodbury Beltway (Beltway) is well-situated to attract new investment and development. Located at the southwest corner of Pecos Road and the Beltway is the approximately 150 acre Job Creation Zone. This land was designated by the U.S. Congress as a Job Creation

Figure 1.1: Regional Location



Zone (JCZ) to help stimulate job growth and development within this area. The JCZ is intended for nonresidential uses, so the City has prioritized this land for office, commercial, retail, and light industrial uses, as permitted. This is one of the largest assets of the Deer Springs District. Located at the southeast corner of Pecos Road and the Beltway (across the street from the Job Creation Zone) is the Veteran's Administration - Southern Nevada Healthcare System (VA Hospital). The VA Hospital opened in 2012 on 151 acres with services available to more than 240,000 Veterans living in the catchment area.

Within the Deer Springs District, there are also more than 500 acres of developable land for residential

uses. The future residential developments should include a diverse mix of housing options. Included in the Deer Springs District's future residential development is Village Four of the Villages of Tule Springs Master Planned Community. Village Four's housing mix will include single-family homes, alley-loaded homes, and attached homes.

Just outside the Deer Springs District boundaries, north of the Beltway, is a future University of Nevada, Las Vegas - North Campus. The area intended for future higher education expansion is approximately 1,900 acres. The north campus is a combined vision of government, civic, business, and university leaders.

Figure 1.2: Project Boundary



— Deer Springs District Boundary

Section 1.3: Planning Process

The planning process was completed in a twelve-month period and consisted of four phases:

1. **Needs Assessment:** Analysis of existing conditions that also explored opportunities and challenges.
2. **Conceptual Plan:** Development of initial concepts and goals that frame the priorities of the community, and incorporating back into the original purpose of the Livable Center Study.
3. **Design Development:** Physical and programmatic elements designed visually to help communicate the Concept Plan.
4. **Implementation Strategy:** Identification and development of next steps, responsibilities, and potential costs to assist the City of North Las Vegas and the Regional Transportation Commission to establish near term and long term priorities.

Section 1.4: Project Goals

The project goals were established at the beginning of the planning process. The goal framework was developed in conjunction with project stakeholders and enhanced by area residents at public participation workshops. The goals were used throughout the development of the study to help guide the recommendations and designs for the Deer Springs District.

Figure 1.3: Project Timeline

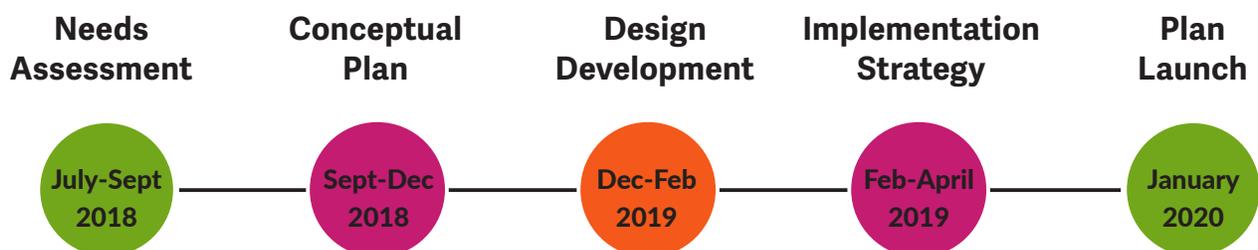


Figure 1.4: Project Goals

Create Value



The Deer Springs District will create value for the City of North Las Vegas through coordinated public investments in infrastructure, parks, and economic development that will attract private investment in housing, jobs, and retail development to enhance the City and serve its residents.

Build Resilience



The Deer Springs District will be resilient to economic and environmental challenges and will safeguard the long-term fiscal, environmental, and social health of the City.

Make Connections



The Deer Springs District will be connected by streets, trails, sidewalks, and transit, both within the Deer Springs District and to destinations throughout the City and the Las Vegas Valley.

Prioritize Health



The Deer Springs District will build upon the unique assets of the VA Hospital and the North Las Vegas Job Creation Zone to utilize health as a key driver of economic development and livability for the community. The built environment will prioritize community health through infrastructure and programming investments.

Develop with Distinction



The Deer Springs District will be a unique, distinct destination within the City of North Las Vegas and the Las Vegas Valley that provides authentic opportunities to live, work, learn, shop, play, or grow a family.

Section 1.5: Project Implementation

The study's conceptual framework and resulting catalyst projects should encourage walkability, connections within and between the nodes of community activity, built environment strategies, and diversification of the economy.

To accomplish project implementation, the City of North Las Vegas and community members must have a clear guide for the development phases and potential resources. Funding and phasing strategies, as well as community capacity building, will help the Deer Springs District market itself as a top-class destination in the U.S.

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Chapter 2: Community Engagement

A successful planning process should be measured by community members' and business interests' pride in the final plan and a readiness to start the implementation process. The Deer Springs District community engagement process included convening a stakeholder advisory group, hosting public workshops, and participation at strategic community events.

Key objectives included defining Livable Centers; communicating project scope and timeline; sharing preliminary findings; incorporating public input; and sharing study recommendations.

Section 2.1: Participation Strategies

Key to successful public participation in a planning study is effective communication. Effective communication includes information sharing, building relationships, and venue selection. Deer Springs District effective communication was focused around three pillars: make it easy, make it fun, and make it impactful. These were integral when developing the various workshops and special event activities intended to solicit feedback from community stakeholders, area residents, the business community, land owners, and potential developers.

The activities were designed to be easily understandable so participants could provide feedback on development patterns, complete street components and other design elements. The activities were also designed to be fun and meaningful. It is important to be respectful of the participants' time and build trust while gathering feedback. Venue selection should focus on convenience and comfort to help ensure effective interaction.

Identification of project stakeholders begins with an assessment of who may be impacted by the study and who should be involved in the process. Identification of a diverse group of project stakeholders will help ensure the process will engage a wide range of perspectives in order to conduct meaningful public engagement.

The target audience for the Deer Springs District Livable Centers Study included:

- City Council, Planning Commission, and City Advisory Boards
- Study area land owners and business community
- Area residents
- Area schools
- Pedestrians, cyclists, and transit riders
- Ethnic minorities
- Economically disadvantaged groups
- Non-transit riders
- Community groups
- Advocacy groups
- Homeowners Associations
- Others



The project team distributed flyers to local institutions, businesses, community leaders, and partner organizations. The City of North Las Vegas created a Facebook Event page and created a project page on the City's official website.

Section 2.2: Public-facing Engagement

Strategy

Public engagement was essential to the success of this study. The project team created an outreach program strategy that combined social media, community events, public workshops, and door-to-door canvassing of local businesses. The use of social media platforms including Facebook Live allowed us to reach a much larger audience than what could be expected at a typical public meeting. This tool allowed hundreds of residents to view the information and provide input on their schedule. Broadcasting the three public workshops resulted in the following responses: Workshop #1 with 423 views, Workshop #2 with 722 views, Workshop #3 with 201 views.

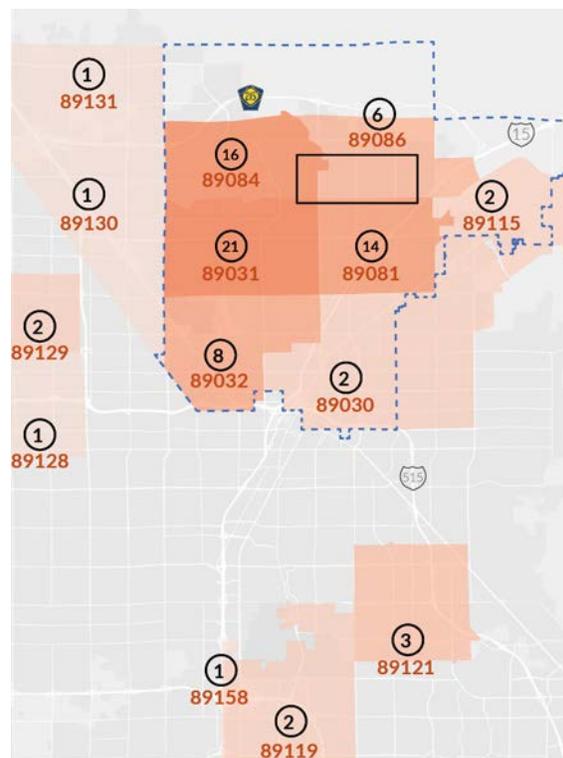
Promotion of the workshops and the online survey included flyer delivery, media coordination, and social media posts with local institutions, businesses, community leaders, and partner organizations.



Community Survey

Over 100 community surveys were completed online and at community events during the initial months of the community engagement process. The survey results influenced the concept plan development. The concept plan incorporates the public's input on live/work options, recreational facilities, transportation and the economy.

Figure 2.1: Respondents' Place of Residence



A resident of North Las Vegas fills out the Community Survey at a community event.

The survey results indicated that North Las Vegas residents would like additional transportation options, recreation options, and employment opportunities located within their community. This data supports the development of Livable Centers concepts in the Deer Springs District. The following is a summary of the survey results:

- Transportation:
 - » 81% primarily drive alone to work, school, etc.
 - » 58% are concerned bicycle riders (they prefer routes with low traffic or prefer to ride only on trails)
 - » 64% ride their bike more than once a week
 - » 36% already use or are interested in using public transit
- Recreation:
 - » 53% go to a park at least once a week
- Economy/Employment Opportunities:
 - » 84% do not live and work in the same zip code
 - » 58% do not see job opportunities for their occupation in North Las Vegas
 - » 49% see job opportunities for their friends and families in North Las Vegas
 - » 56% have worked more than 5+ years in their current occupation
 - » The most important industry for North Las Vegas to grow: Innovation and Health Care
- Top 6 amenities for neighborhoods:
 - » Restaurants
 - » Transit
 - » Safety
 - » Shopping
 - » Walkability
 - » Trails
- Top 6 recreational amenities:
 - » Shade
 - » Shopping
 - » Walkability
 - » Food
 - » Outdoor space
 - » Trails



The Project Team set up tables at various community events to gather input from community members and to share information about the Deer Springs Livable Centers Study.

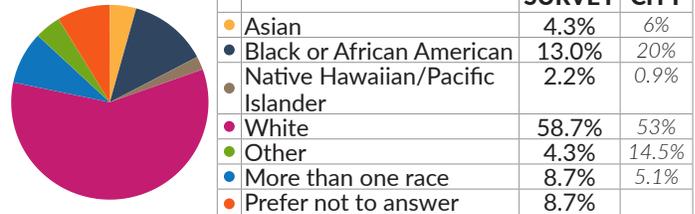
Figure 2.2: Survey Respondent's Demographics

City's demographics in italics for comparison.
 Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates

AGE



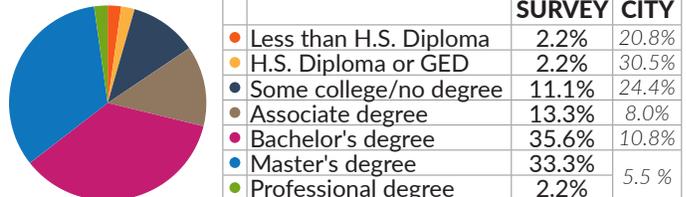
RACE



INCOME



EDUCATION



Community Events

Project team members attended various local public events to gather input from the community. The event booth provided project information, project boards describing goals and project boundary location, and a hard copy of the project's survey. Between September and December 2018, the project team hosted event booths at the following four events:

- Harvest Fair
- North Las Vegas Police Department Community Connections Meeting
- Pop Up Activation at Skyview YMCA
- North Las Vegas Alliance of HOA and Concerned Citizens meeting

Participation varied at each event, from 25 participants at the Police Department Meeting to 75 participants at the Community Clean Up Day. On average, 18 surveys were completed at each event.

General comments about the project included excitement towards the area being developed, requests for additional parks and outdoor family space, and safety concerns for the entire city.

Distribution of flyers promoting the online survey:

- RE-EVENT a Household & Clean Up Day
- Reading Rainbow in the Park

To increase awareness of the Deer Springs District and the Livable Centers Study, project information was also available at community events as well as at City Hall, Silver Mesa Recreation Center, Neighborhood Recreation Center, Aliante Library, Alexander Library and the Downtown Library. Project information was also shared on the City's website and made available to local media.

Public Workshops

Public Workshop #1

Tuesday, September 18th, 2018
Skyview YMCA

The goals of the first public workshop were to:

- Define “livable centers”
- Define opportunities and benefits for the Deer Springs District and North Las Vegas
- Set goals for the project
- Actively shape the future of the community and provide important feedback about what the public wants in the Deer Springs District

After a short presentation, the participants were invited to visit six stations to provide insight on project goals, parks and open spaces, economic development opportunities, urban design, and transportation. The following summarizes feedback on the five topic areas:

Project Goals: Participants ranked “Prioritizing Health” and “Developing with Distinction” as their highest priorities for the Deer Springs District. Participants additionally noted that the following are highly desired for the study area: gas stations, apartments, stop lights at key intersections, skate parks, trails, bike paths, shopping, markets, restaurants, and parks.

Parks and Open Space: Participants were asked to determine what makes parks and open space successful. Key elements for successful parks and open spaces include shaded areas; lighting; restrooms; family events and local art installations; places to relax and eat; and pools or water features.

Economic Development: Participants were asked to identify opportunities and challenges for the Deer Springs District, the city, and the county. The Deer Springs District’s opportunities include health related industries; commercial uses such as



restaurants and grocery stores; and education at all levels. Concerns for the Deer Springs District include the conditions of the schools; public services such as library, police and fire substations; and the restaurant and commercial options.

Urban Design: Participants were asked about their ideal public experience. Design elements that enhance street life ranked very high. Street life design elements include lighting, outdoor seating, landscaping, shade canopy and public art.

Transportation: Participants were asked to identify their commutes (routes and destinations) around the Valley and rank Complete Street elements that could enhance their commutes. The participants’ results indicated the need for regional transportation access to and from the Deer Springs District. Top ranked Complete Street elements include cycle tracks, transit services (BRT), and transit stops.

Public Workshop # 2

Thursday, January 17, 2019
Skyview YMCA

The goals of this workshop were to provide the public an opportunity to:

- Review the six core concepts
- Confirm the concepts were reflective of the public’s input
- Develop the design concepts further
- Identify gaps in the concept plan

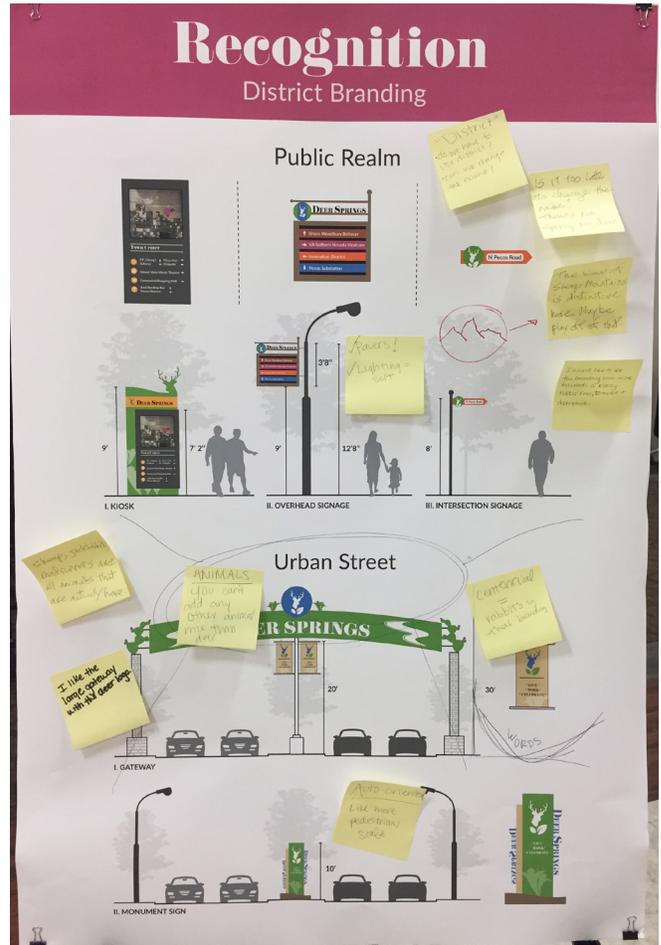
After a short presentation, attendees were encouraged to visit the core concept stations and ask questions and provide feedback. The following summarizes input received at each station:

Job Creation Zone: Participants were asked to comment on potential land uses in the Job Creation Zone (JCZ). Participants responded positively to the medical uses and indicated that the City should pursue collaboration with University of Nevada, Las Vegas to increase opportunities for higher education within the JCZ. Concerns were raised around the market for retail at this location because there are significant vacant storefronts nearby.

Deer Springs District Branding: Participants supported the distinct branding opportunities for the Deer Springs District. A resident inquired if the name of the Deer Springs District could be changed out of concern that other residents may not associate the area with “deer” or “springs”. Participants preferred logo options with mountains or local flowers, rather than animals.

Street Network: Many participants had positive feedback toward the proposed street design, especially separating pedestrian and cars with a landscaped buffer.

Skyview Park: Participants provided feedback about park programming and park access. Concerns included noise from the streets.



Top, "Recognition" Board, photo taken after the Public Workshop. Bottom, Councilmember Cherchio attended the public meeting and engaged with his constituents.

Public Workshop # 3

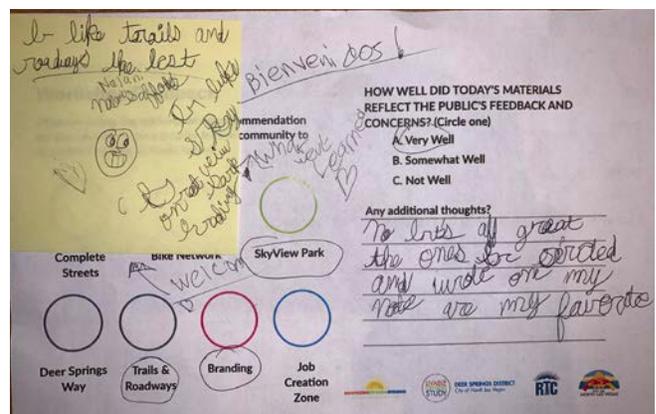
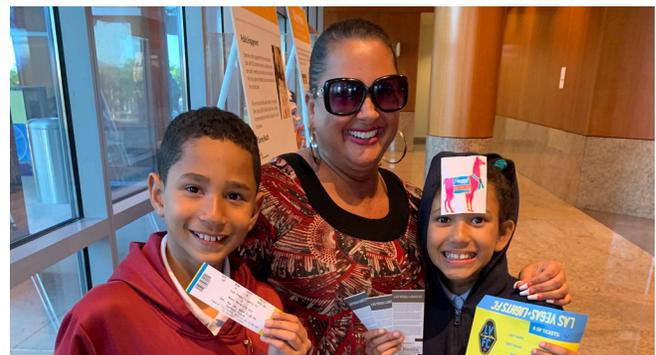
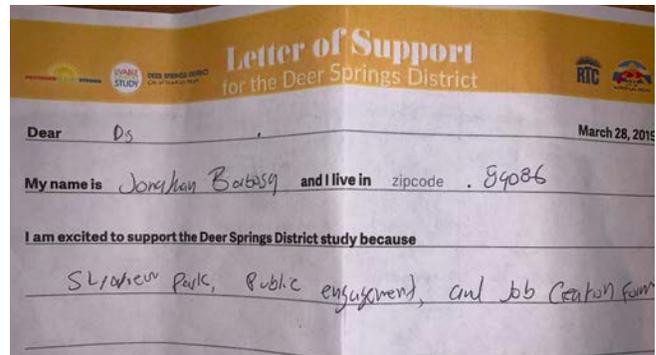
Thursday, March 28, 2019
North Las Vegas City Hall

At the third and final public workshop, participants:

- Reviewed the draft plan and designs
- Confirmed the designs are reflective of the public's previous input
- Helped prioritize projects and designs
- Learned about project implementation and phasing goals

After the short presentation, participants were asked to visit the activity stations. Each station focused on a different design component and included implementation timeframes.

The third workshop was located at City Hall because of scheduling challenges. The location change was likely the cause of the lower than expected attendance. Unfortunately, since attendance was low, community input was also low. Participants in attendance indicated that they were pleased with the draft designs and wrote letters of support to their councilmembers.



The Public Workshop included a short presentation and a number of hands-on activities. The RTC On Board Bus was stationed outside of the YMCA to attract residents to visit the Public Workshop. The workshop secured Lights FC to participate in the public meeting and provide a Family 4-Pack ticket raffle. Meeting participants were asked to write a Letter of Support, above, to support the project with their council members.

Section 2.3: Stakeholder Advisory Group and Technical Team

The Deer Springs District Stakeholder Advisory Group (SAG) membership included local leaders from the following organizations: Skyview YMCA, Southern Nevada Bicycle Coalition, Southern Nevada Health District, University of Nevada Las Vegas, North Las Vegas Alliance of Homeowners Associations and Concerned Citizens, North Las Vegas Planning Commission, Get Outdoors Nevada, Southern Nevada Homebuilders Association, North Las Vegas Parks & Recreation Advisory Board, and area residents. The SAG met bimonthly and provided guidance on the development of project goals, plan concepts, design development and project implementation. The SAG also guided the content provided at the Public Workshops.

Membership of the Deer Springs District Technical Team (Team) included City Staff from Land Development & Community Services, Public Works, and Economic Development Departments. The Team met throughout the project to provide guidance on their specific areas of expertise.

Section 2.4: Community Partner Interviews

Various interviews with Deer Springs District Community Partners were held throughout the project. The Community Partner interviews were identified by the project team as important conversations to guarantee the success and ownership of the final plan. The interviews included primary property owners, Southern Nevada VA Healthcare System, local homebuilders, developers, commercial realtors, construction professionals, council members, and representatives for other ongoing planning projects, such as the citywide Pedestrian and Bicycle Plan.

Key concerns discussed during these interviews included:

- Planned or existing residential development in the study area
- The ongoing Pedestrian and Bicycle Plan efforts for North Las Vegas



The Stakeholder Advisory Group, above, met prior to each public meeting to provide insight on the planning process and the recommendation design.

Section 2.5: Job Creation Zone Forum

On January 17, 2019 the City hosted the Job Creation Zone Forum. The Forum was open to everyone, but was especially valuable to developers, financiers, and commercial real estate professionals. The Forum started with a collaborative presentation and discussion about the Job Creation Zone and the Deer Springs District. The Forum's attendees were split into small groups to brainstorm a vision for the property. As the event concluded, the City highlighted development logistics, such as land conveyance, the RFI process, and timelines.

Key takeaways from the Job Creation Zone Forum included:

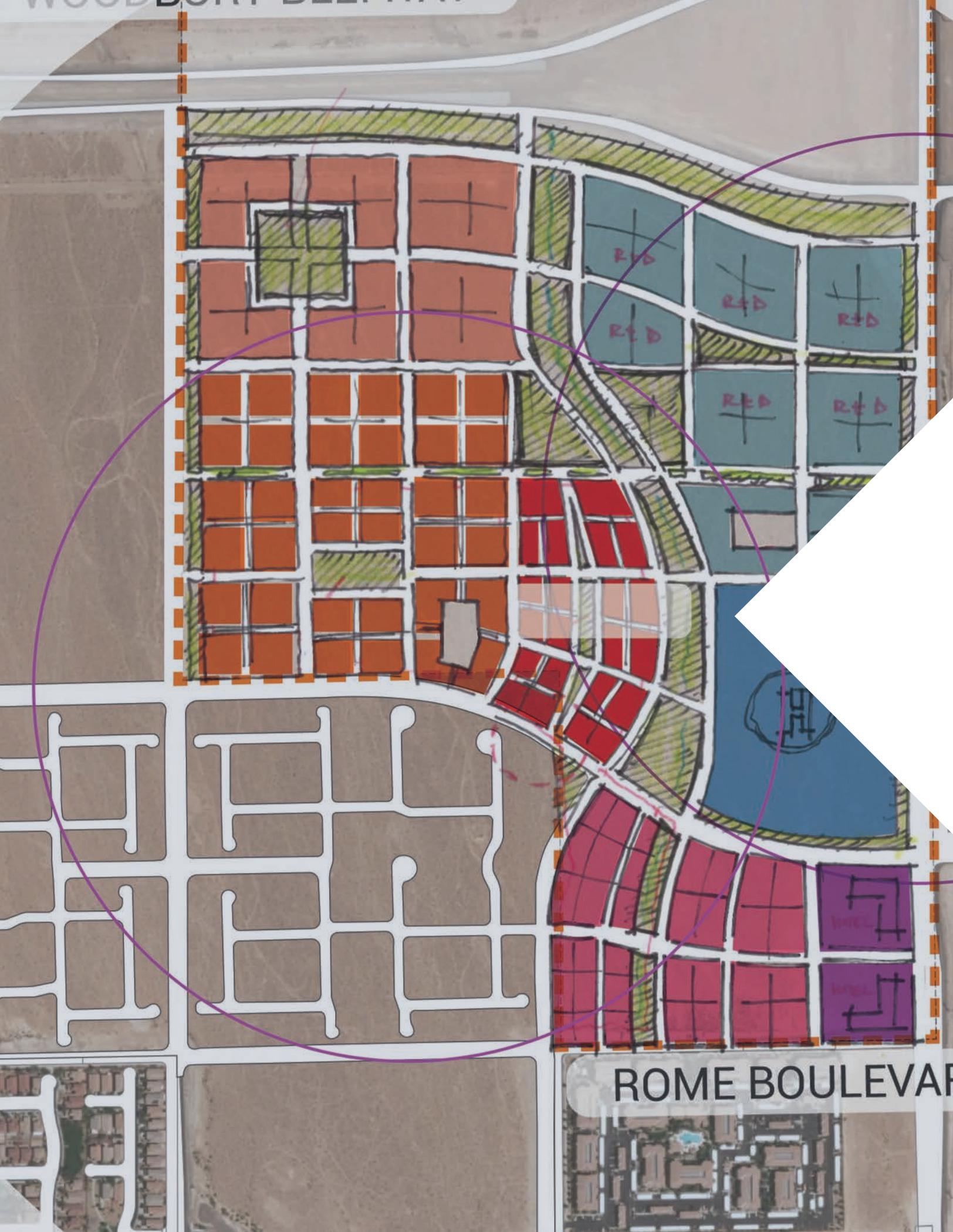
1. **Cohesive Design:** The Job Creation Zone (JCZ) should be developed with one unifying theme and a cohesive design. A single master developer could help ensure that development is cohesive.
2. **Hospital Anchor:** A second full service hospital for North Las Vegas would be a great anchor and partner for the Veterans Administration Healthcare System.
3. **Entertainment:** In addition to the professional offices created, the City should create an entertainment area that contains restaurants, hotels, and recreation opportunities.
4. **Sustainable:** Development within the JCZ should incorporate green infrastructure to better conserve natural resources and increase long-term utility/energy savings.
5. **City Support:** The City should provide additional staff support to facilitate the permitting and entitlement process.
6. **Incentives:** Additional federal, state, and local incentives should be considered to help the development of the Deer Springs District.



Top: City of North Las Vegas Mayor, John Lee, kicked off the Job Creation Zone Forum by setting the vision for the future of North Las Vegas. He highlighted existing efforts in the community.

Bottom: The Forum attendees were broken into small groups, each with a facilitator, who led the group through a Job Creation Zone visioning discussion. The break-out groups were strategically divided by professional expertise. Each group included real estate experts, developers, end users, and a City employee. The Study Team thanks all Job Creation Zone Forum participants for devoting time and attention to this study.

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ROME BOULEVARD

Chapter 3: Needs Assessment

The overall goal of the Livable Centers Study is to provide recommendations for the Deer Springs District to increase transportation choices, attract a mix of uses, develop a diversity of housing options, and create a sense of place. This chapter reviews and analyzes previous planning studies, existing data, and stakeholders' input with these and other city and regional planning goals in mind.

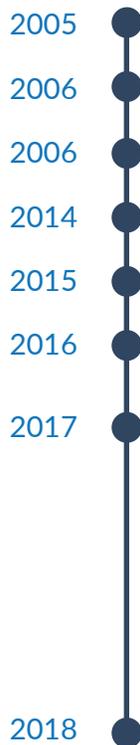
The following sections identify challenges and opportunities in four key areas:

- Housing
- Economic Development
- Urban Design
- Transportation

The information analyzed in the Needs Assessment informs the development of concepts and recommendations in the next phases of the project.

Section 3.1: Previous and Ongoing Planning

Many challenges and opportunities identified by the Needs Assessment analysis have also been documented in several other City and regional planning initiatives.

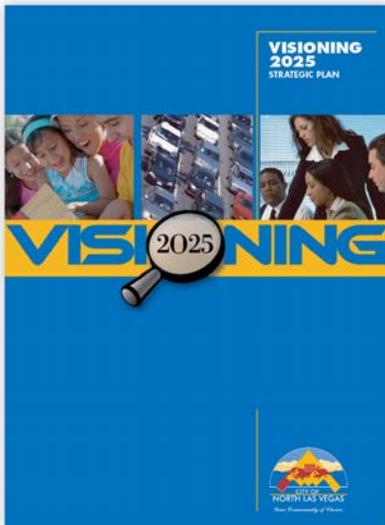


	HOUSING	ECONOMIC DEVELOPMENT	URBAN DESIGN	TRANSPORTATION
Visioning 2025 Strategic Plan	●	●		●
City of North Las Vegas Comprehensive Master Plan	●	●	●	●
North Fifth Street Transit Supportive Concept Plan	●		●	●
Master Plan of Streets and Highways				●
Southern Nevada Strong	●	●		●
Community Health Improvement Plan				●
Access2040 – Enhancing Mobility for Southern Nevada Residents				●
Regional Bicycle and Pedestrian Plan for Southern Nevada				●
City of North Las Vegas Complete Streets Policy			●	●
Job Creation Medical & Research Conceptual Plan		●	●	
On Board – Your Future Mobility Plan				●

Visioning 2025 Strategic Plan

March 2005

Plan Extent: Citywide



●	Housing
●	Economic Development
	Urban Design
●	Transportation

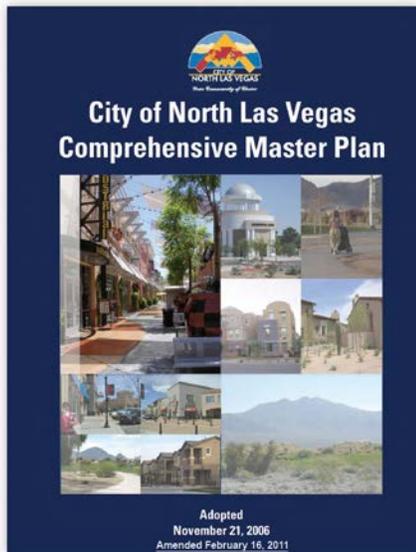
The Visioning 2025 Strategic Plan (Strategic Plan) lists seven vision elements, described below. These vision elements include extensive goals that can help guide the future growth of the Deer Springs District:

- **Planned Quality Growth:** Encourage mixed-use and pathway development along master planned major transportation corridors to improve air quality, maintain sufficient water resources, and mitigate traffic congestion.
- **Pivotal Centers for Development and Redevelopment:** The Northern Development Area was identified as an area that will likely grow due to the future UNLV campus and the VA Hospital. The Strategic Plan identified the following as potential strategies for the Northern Development Area: improved transportation, a university-based research park, retail, and office development.
- **Economic Development:** Diversify North Las Vegas’s economy and encourage the development of educational facilities. Train adults and expand minority-served businesses.
- **Community Services and Amenities:** Improve existing and create opportunities for education, libraries, health care, and parks and recreation. Specific health care goals include attracting and retaining medical professionals. Specific recreation goals include encouraging the cultivation of commercial recreation opportunities.
- The goals of the last three vision elements, **“Safe and Livable Community”**; **“Community Spirit, Relationships, and Pride”**; and **“Fiscal Policies and Management”** relate to livability and governance.

City of North Las Vegas Comprehensive Master Plan

Originally published in 2006 and amended in 2011, 2014, 2017

Plan Extent: Citywide



●	Housing
●	Economic Development
●	Urban Design
●	Transportation

The Deer Springs District area is not specifically identified in the City of North Las Vegas Comprehensive Plan (Plan), but the Deer Springs District’s boundary intersects three identified “activity centers”, the North Fifth Street Transit Corridor and Craig Ranch, and the Northern Development Area. The Plan proposes policies, including transit oriented design, park oriented design, and promoting a live-work environment, with the goal of creating a sense of place and to encouraging a diversity of neighborhood amenities. The Plan specifies the opportunities to continue development of the Veterans Affairs (VA) Hospital and the potential University of Nevada Las Vegas (UNLV) Campus.

The Plan identifies a strong need for a city-wide multimodal transportation system in order to improve the quality of life for North Las Vegas residents. The Plan proposed the following steps for the development of a multimodal transportation plan:

- Preparation of a Transportation Master Plan for North Las Vegas
- Improvement of pedestrian connections throughout North Las Vegas
- Establishment of Transportation Improvement Priorities

The Plan lists indicators to gauge transportation system improvements, including:

- Reduced number of sawtooth roads which currently are an impediment to safe and uninterrupted vehicle transportation
- Improved pedestrian connections
- Increased availability of and access to transit options, in partnership with the Regional Transportation Commission (RTC)

North Fifth Street Transit Supportive Concept Plan

April 19, 2006

Project Extent: 7-mile corridor:

- » North Fifth Street from Owens Avenue to Deer Springs Way
- » Deer Springs Way from North Fifth Street to Pecos Road
- » Pecos Road from Deer Springs Way to future UNLV site



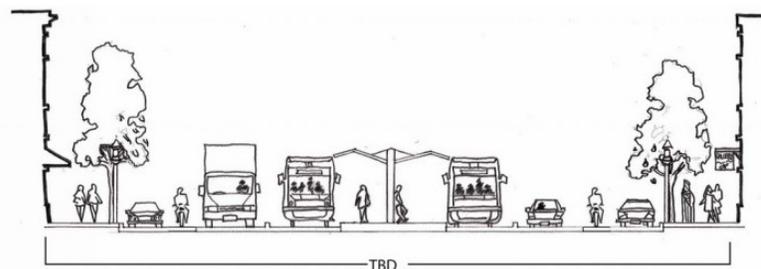
	Housing
	Economic Development
●	Urban Design
●	Transportation

The North Fifth Street Transit Supportive Concept Plan (Concept Plan) addressed the rapid population and employment growth of North Las Vegas, and covered a 7-mile corridor that included North Fifth Street, Deer Springs Way and Pecos Road. The Concept Plan identified opportunities to integrate transportation elements with land development to enhance the quality of life for residents and capitalize on the effectiveness of the public investment in transportation.

The Concept Plan describes needed zoning changes, including building density, height, and bulk; and allowed uses; public realm and circulation; building location and setbacks; building street presence and design; off-street parking location and quality; and local street widths.

The Concept Plan notes that the Deer Springs District will provide the highest concentration of mixed-use development within the study area. As such, the Concept Plan recommends that Deer Springs Way and Pecos Road (within the Deer Springs District) be considered a “Great Street” that will provide multimodal transportation. Three transit stations were recommended on Deer Springs Way (Donna Street, Losee Road, and Pecos Road). An example cross section of a “Great Street” is shown in the figure below.

Figure 3.1: Great Streets Section Example



Data Source: North Fifth Street Transit Supportive Concept Plan, April 2006

Master Plan of Streets and Highways

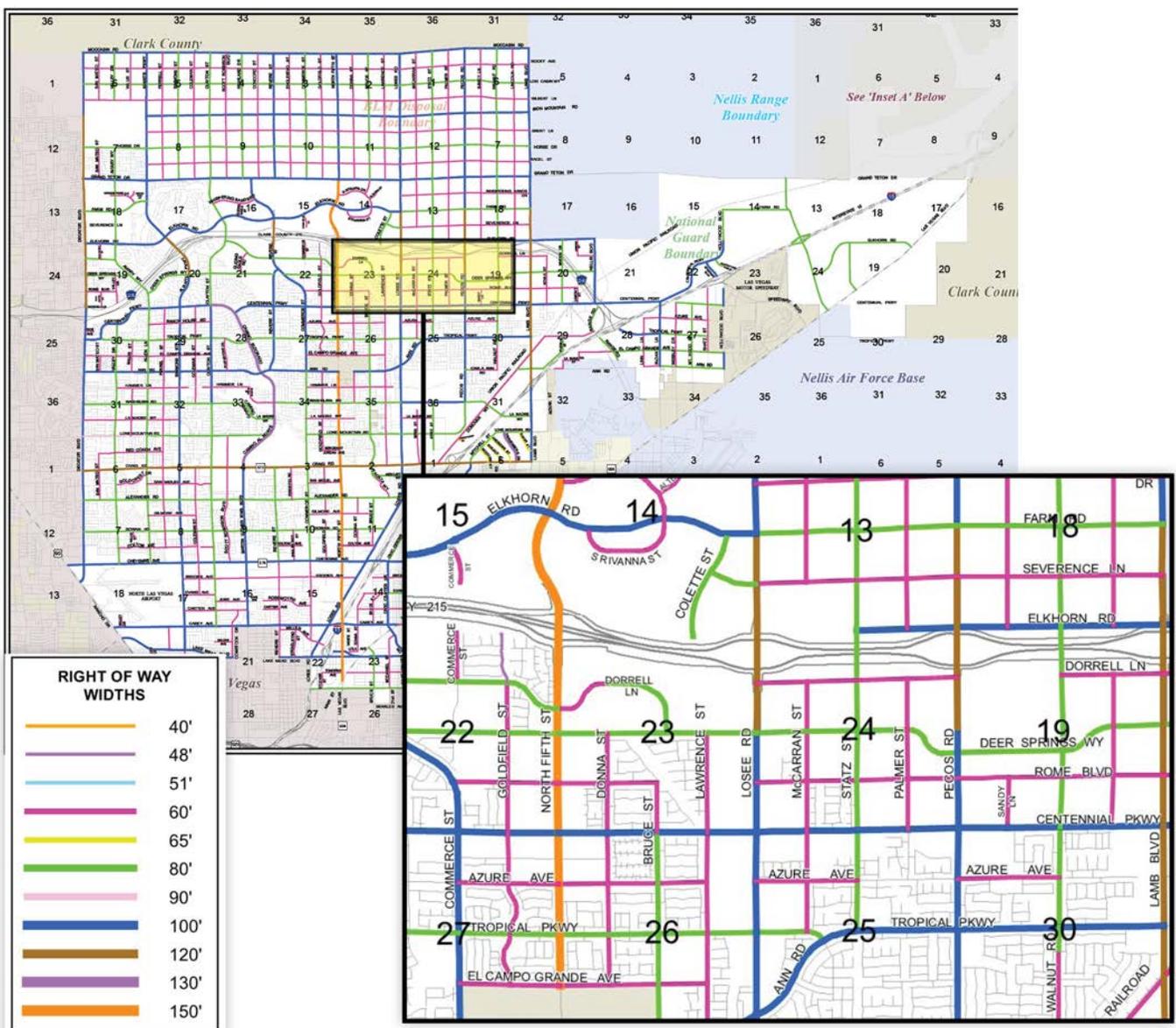
September 2014

Project Extent: Citywide

	Housing
	Economic Development
	Urban Design
●	Transportation

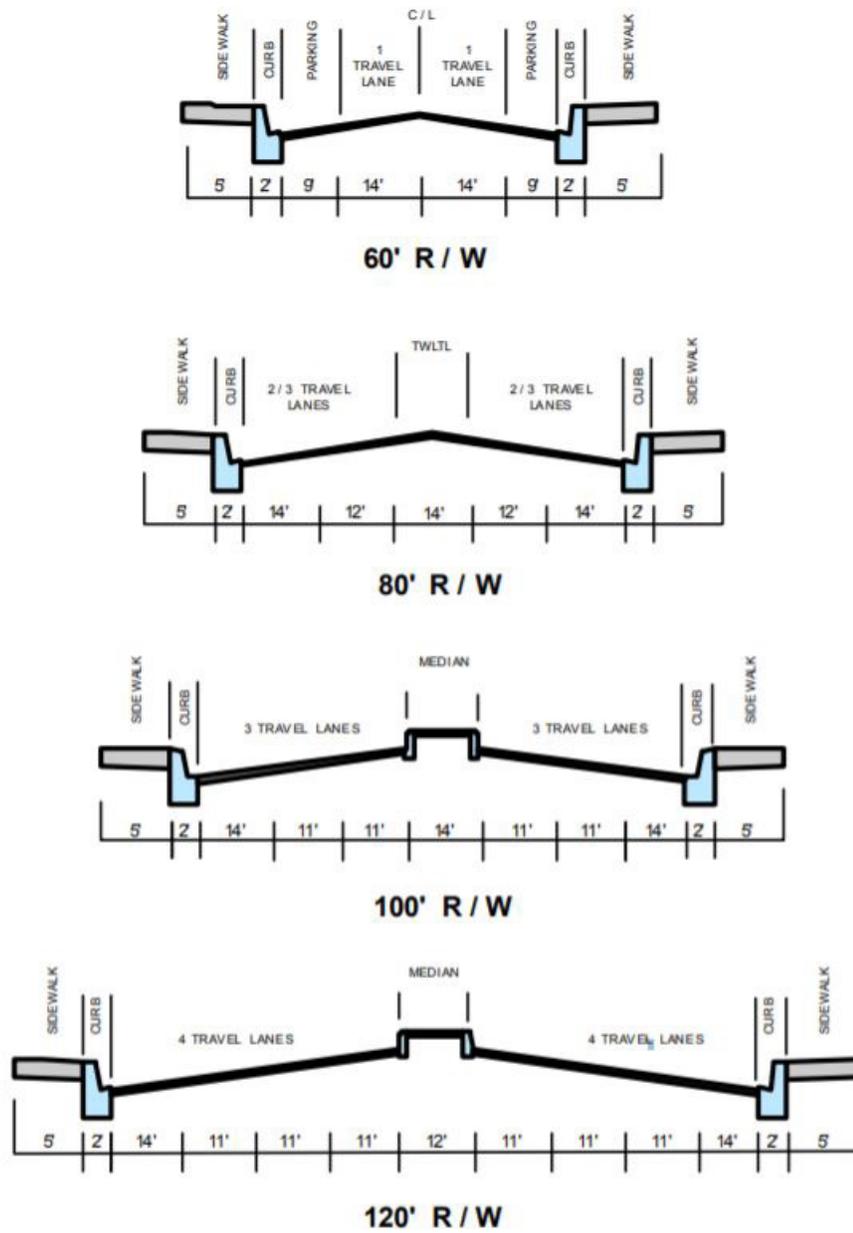
The right of way available in the Deer Springs District ranges from 60 to 150 feet as shown in the maps below. Typical cross sections provided in the Master Plan of Streets and Highways are shown on the following page.

Figure 3.2: Right of Way Widths



Data Source: City of North Las Vegas Master Plan of Streets and Highways, September 2014

Figure 3.3: Typical Cross Sections

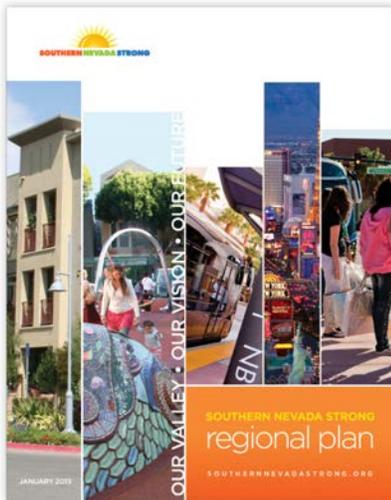


Data Source: City of North Las Vegas Master Plan of Streets and Highways, September 2014

Southern Nevada Strong

January 2015

Plan Extent: Regional



●	Housing
●	Economic Development
	Urban Design
●	Transportation

The goal of Southern Nevada Strong (SNS) was to plan for a prosperous region with great education, strong communities, diverse housing, access to multi-modal transportation, and a variety of jobs. Recognizing that transportation infrastructure is integral to the region's overall success, SNS aims to increase transportation choices in a region whose transportation infrastructure has lagged behind that of other regions that invested in advanced systems to support urban centers. SNS envisions a regional multi-modal transportation system that is accessible, efficient, equitable, and safe. SNS outlined the following transportation challenges throughout the region:

- **Unrealistic Transportation Network:** The region is car-dependent
- **Inadequate Bike/Pedestrian Facilities:** The region has poor connectivity, high pedestrian fatalities, and a low Walk Score
- **Congested Road Network:** Local road connectivity is poor on the outskirts of urban areas, therefore; the region relies on arterial system

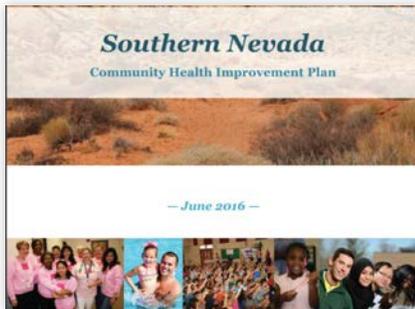
With the above challenges in mind, SNS identified the following opportunities for the improvement of the region's current transportation system:

- Develop a modern transit system with vibrant neighborhoods and employment centers in mind
- Connect and enhance bike and pedestrian facilities throughout the region
- Develop a safe, efficient road network for all mode of transportation

Community Health Improvement Plan

June 2016

Plan Extent: Southern Nevada



	Housing
	Economic Development
	Urban Design
●	Transportation

Aimed at addressing complex societal and health problems that impact all of Southern Nevada, the Community Health Improvement Plan has three priority areas, including:

- Access to care
- Chronic Diseases
- Policy and Funding

The Deer Springs District can actively enhance the quality of life for residents and employees by meeting the following Health Improvement Plans goals:

- “Reducing obesity by increasing physical activity” through improved parks and recreation and reduced single-occupancy vehicle dependence
- “Increasing healthcare workforce resources and transportation” through recruiting and retaining medical students and employees

Access2040 – Enhancing Mobility for Southern Nevada Residents

February 9, 2017

Project Extent: Southern Nevada



Access2040 provides an assessment of the current transportation system as it impacts Southern Nevada. The study identifies transportation infrastructure projects that will improve the quality of life of Southern Nevada residents and visitors. Input for the study was provided by various sources such as the RTC’s Transportation Vision Survey, RTC Boards and Committees, and Federal and state planning requirements. Three goals established for the study include improving the local economy, improving quality of life for people living in regional communities, and utilizing resources for sustainable transportation systems. To achieve these goals, the plan outlines four primary strategies:

	Housing
	Economic Development
	Urban Design
●	Transportation

- Improve safety
- Manage congestion
- Enhance multimodal connectivity
- Maintain current infrastructure

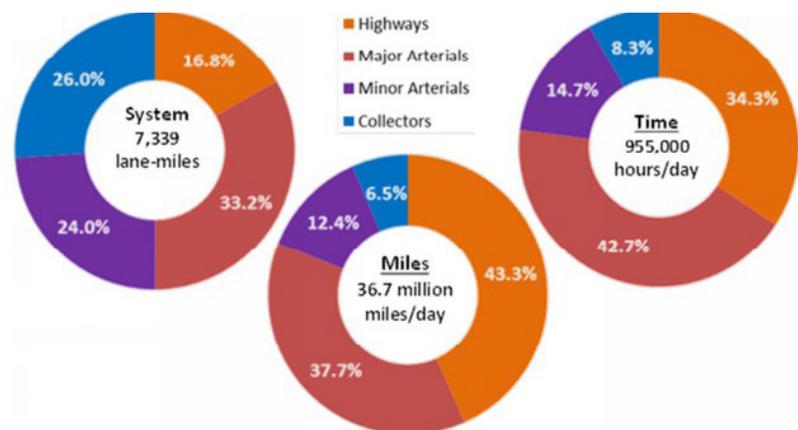
These primary strategies are supported by six secondary strategies which include:

- Improving Access to Essential Services
- Providing an Accountable and Transparent Planning Process
- Enhancing Freight Movement
- Improve Public Health Related to Transportation
- Conserve and Protect Natural Resources
- Use Innovative Planning to Address Emerging Technologies and Trends

The current transportation system in Southern Nevada includes more than seven thousand lane-miles of paved roadway with arterial streets comprising most of the major roadway system. It was determined that people spend more than 34% of their driving time on highways. Despite comprising approximately a quarter of the transportation system, local roads serve only about 8% of travel time and 7% of daily traffic, as shown in the figures below.

Access2040 identified roadway challenges including roadway safety, congestion-related concerns, and commute times. There was a 21% increase in transportation fatalities between 2014 and 2015, which included a 24% increase in pedestrian and bicyclist fatalities. Access2040 found that the vehicle miles traveled (VMT) will increase by more than 48% by 2040, and estimated that average daily travel times will increase by 15% over the next 25 years from 25.1 minutes per day to 28.9 minutes per day.

Figure 3.4: Regional Roadway System and Travel Activity (Time and Miles)



Data Source: RTC of Southern Nevada Access2040 Enhancing Mobility for Southern Nevada Residents

Regional Bicycle and Pedestrian Plan for Southern Nevada

May 18, 2017

Project Extent: Regional



Existing conditions in Southern Nevada were analyzed in order to prepare a regional pedestrian and bicycle transportation system plan. The plan outlines four primary goals for this transportation system:

- Comfort and Safety
- Access
- Education and Encouragement
- Equity and Health

During the engagement process, the public identified implementation concerns and desired improvements to bicycle and pedestrian infrastructure. Concerns included safety, weather, and inconvenience. Desired improvements included better facilities, more regional paved trails, and more safe routes to school.

	Housing
	Economic Development
	Urban Design
●	Transportation

To address these concerns and desired improvements, the plan recommends constructing approximately 10 miles of bicycle boulevards, 500 miles of enhanced bike facilities, 550 miles of bike lanes, and 960 miles of shared use paths. The addition of this infrastructure would increase the percentage of comfortable non-freeway roads in the region to 46%.

City of North Las Vegas Complete Streets Policy

May 2017

Project Extent: Citywide

	Housing
	Economic Development
●	Urban Design
●	Transportation

The City of North Las Vegas adopted their Complete Streets Policy in May 2017 as part of the City's goal to create and sustain a balanced and well-planned community where quality in municipal services, education, housing, recreation, and leisure is provided. The Complete Streets design approach focuses on developing a safe and comfortable street network for all road users. Benefits of Complete Streets include:

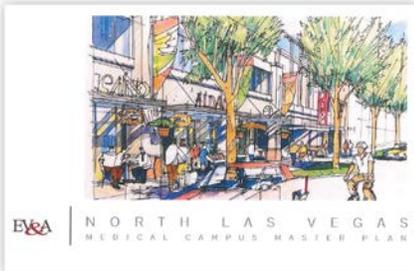
- Safety Improvements
- Increased Transportation Choice
- Economic Revitalization
- Positive Environmental Impacts
- Opportunities for Increased Physical Activity

The Complete Streets Policy is intended to reduce traffic congestion which will improve air quality and overall quality of life for city residents. Additionally, implementing Complete Streets guidelines may decrease the likelihood of motor vehicle fatalities and injuries. As well as having the potential for a decrease in motor vehicle fatalities and injuries. Elements of the Complete Streets Policy can be included as recommendations for the Deer Springs District.

Job Creation Medical & Research Conceptual Plan

November 2017

Extent: Job Creation Zone in North Las Vegas



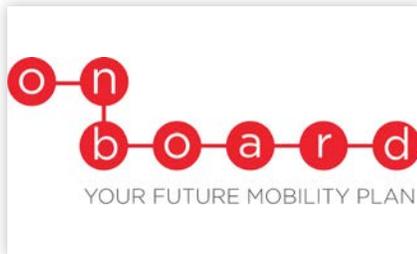
The Job Creation Medical and Research Conceptual Plan (Conceptual Plan) included planning and proposed uses for the Job Creation Zone (JCZ) site. The Conceptual Plan included a proposal to capitalize on the momentum of the Veterans Affairs Hospital, which is directly adjacent to the JCZ site, by programming the site with medical offices, research and development facilities, and other medical supportive industries. The Conceptual Plan for the JCZ also included a central park and main street retail. The plan assumed over 1,650,000 square feet of building.

	Housing
●	Economic Development
●	Urban Design
	Transportation

On Board – Your Future Mobility Plan

Ongoing (2020 expected)

Project Extent: Southern Nevada



The On Board – Your Future Mobility Plan is the community's comprehensive mobility plan for Southern Nevada. This visionary plan will identify how enhancements to the current bus system, new high capacity transit services and emerging transportation technologies can improve future mobility and accessibility for our residents and visitors.

On Board will:

	Housing
	Economic Development
	Urban Design
●	Transportation

1. Identify where enhancements to the current transit system, such as new, more frequent and faster routes, would provide the most benefit to riders and the surrounding community.
2. Identify first-and-last mile connections to major transit hubs, including rideshare, bikeshare, pedestrian improvements, and other mobility options.
3. Identify the corridors where high capacity transit services such as bus rapid transit, streetcar, or light rail would provide the most benefit to riders and the regional economy.
4. Identify emerging transportation technologies that could enhance mobility for all modes of travel.

Section 3.2: Housing

North Las Vegas was once the fastest growing city in the Las Vegas Valley and the third-fastest growing city in the U.S., but its growth in residential and industrial construction was severely impacted by the 2008 Recession. During the Recession, the city saw a record number of foreclosures and a significant decrease in drop-in applications for building permits (North Las Vegas data). Although building permits have begun to increase, current numbers are only 20% of the pre-Recession numbers.

The Deer Springs District's existing housing stock is primarily single-family, with some garden-style multi-family options ranging from 2 to 3 stories in height. The Deer Springs District has large parcels not fully developed and continues to rapidly develop adding new housing stock. Greenfields provide ample opportunities for new development as the market accommodates more growth. This new development will provide numerous cost-appropriate housing options to accommodate families and veterans.

Despite the relative affordability of new development, the Deer Springs District does not currently function as a live-work environment. The majority of residents living within the Deer Springs District commute elsewhere for work, and the majority of employees commute into the Deer Springs District from other parts of the Las Vegas Valley. Approximately 30 residents live and work within the study area (U.S. Census On the Map).

The Deer Springs District is currently dominated by single-family housing, with some mid-rise apartments. The Deer Springs District's current automobile centric design does not encourage a safe, enjoyable walking environment or attract

mixed-use development. As such, the current design does not support the Deer Springs District's development as a major job center for North Las Vegas.

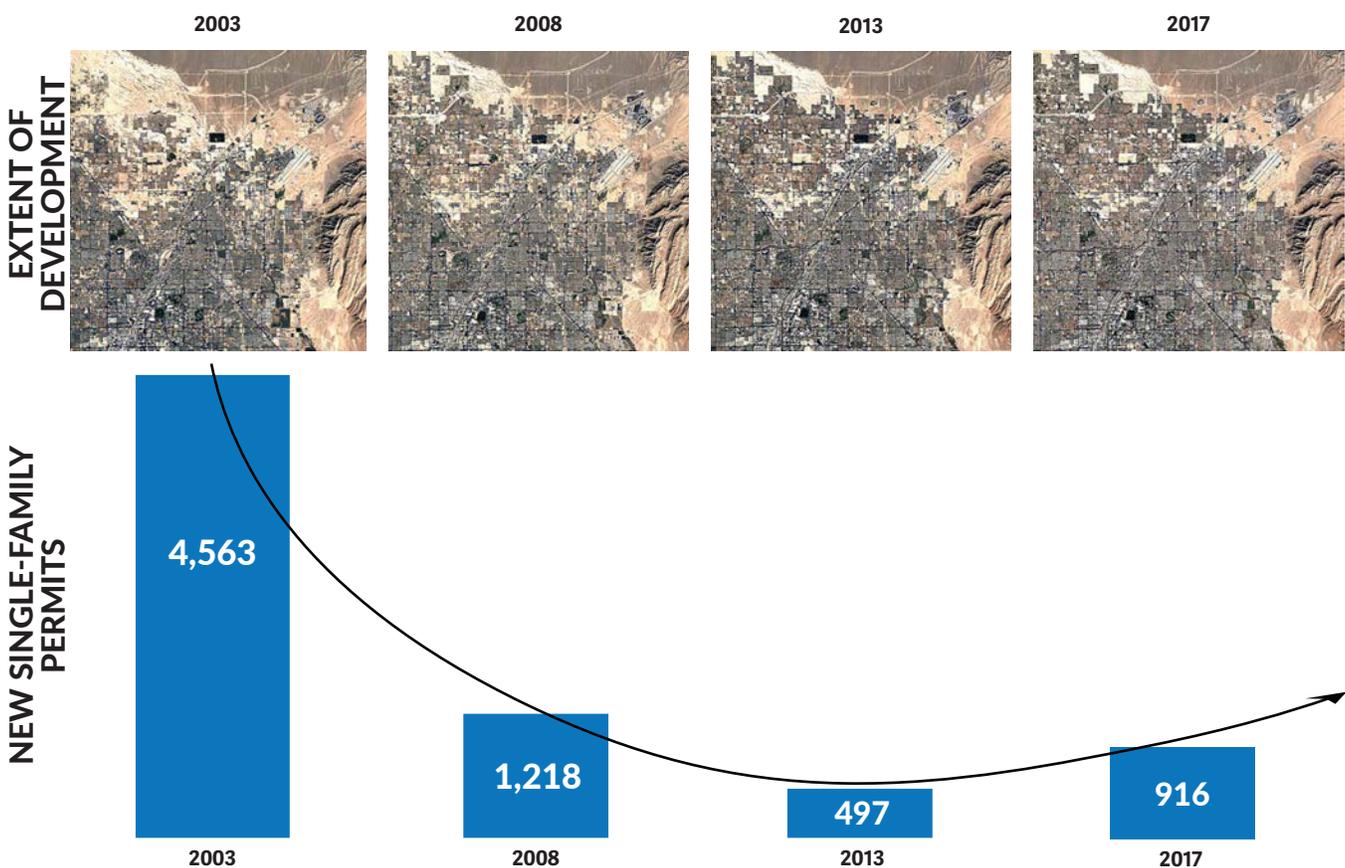
Research identified needs for new housing options in the Deer Springs District that promote a live-work environment and attract employees and employers to the study area. Local builders interviewed during the engagement phase of the Livable Centers Study expressed the ability to provide a more diverse housing typology, including attached single-family and alley-loading housing, which would encourage the density and walking environment to support transit and commercial uses.

As the residential industry continues to rebound, North Las Vegas can use this opportunity to

diversify its existing housing stock to serve a more diverse resident community including young professionals, empty nesters, seniors, and high-wage professionals, all of whom currently lack housing options in the Deer Springs District. Diversifying the Deer Springs District's housing stock will promote a live-work environment, as well as increasing community resilience in the face of another future economic downturn by providing a variety of options for those who need to alter their living situation.

This recent and projected future job growth has created opportunities for households to purchase entry-level housing throughout the city. Many households are attracted to the Deer Springs District area for its recent housing development and real estate prices.

Figure 3.5: Building Permits



Demographics

North Las Vegas was the third fastest-growing large city in the U.S. from 2000-2009. The largest population increase happened between 2003-2005. Since then, the city's population has increased 1-2% each year (U.S. Census). The 2018 population was 252,101 residents¹.

The city is more racially and ethnically diverse than Clark County. It also is slightly younger than the county, with a smaller population of individuals ages 40 and above. Many stakeholders interviewed during the engagement phase of the Livable Centers Study perceive potential growth opportunities in the senior populations, due to the growth of the Veterans Affairs Hospital.

¹ City of North Las Vegas, Land Development and Community Services Department

Figure 3.6: Race & Ethnicity

Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates

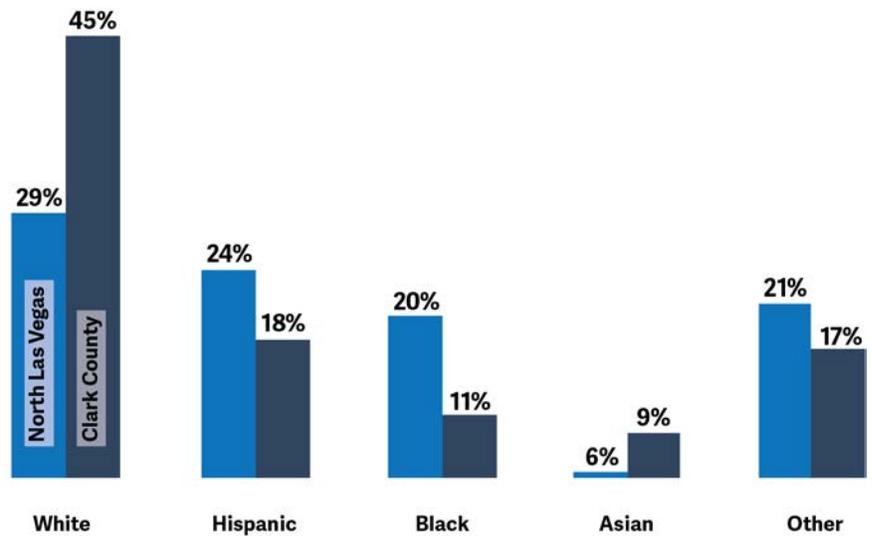
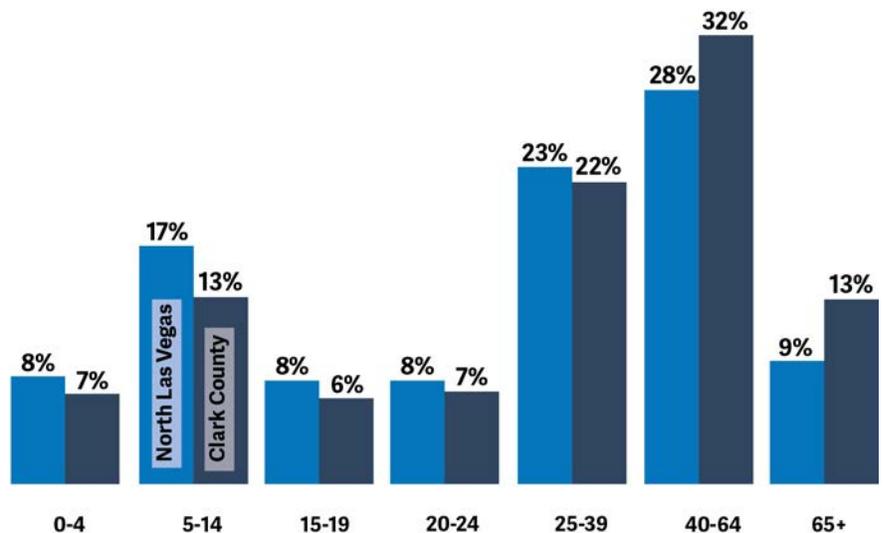


Figure 3.7: Age

Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates



The City's median household income (MHI) is slightly higher than that of Clark County. The city's distribution of MHIs, while relatively diverse, skews towards middle and upper-income households.

Comparing an area's Median Household Income (MHI) to its housing prices indicates whether the real estate market is performing well. As a rule of thumb, a potential buyer can afford to pay no more than five times their annual income for a home. Therefore, a ratio of median home sales price to MHI greater than 5:1 indicates that a typical home is unaffordable to the typical household. The median housing price in North Las Vegas is \$261,800 (Zillow, August 2019) and the MHI is \$56,699 (Census). The ratio of median home sales price to MHI is about 4.6:1, indicating that the typical household can afford to purchase the typical home, though of course this may not be the case for all residents.

Figure 3.8: Median Household Income

Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates

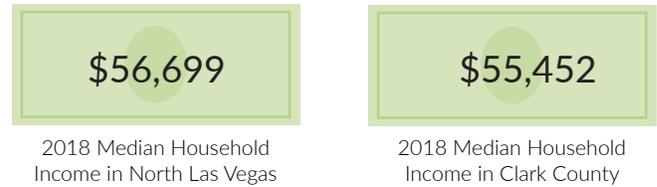
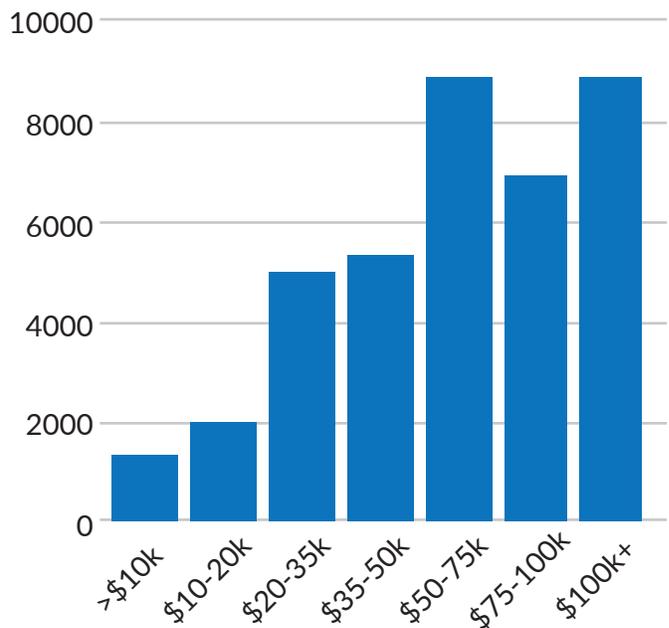


Figure 3.9: Households at Each Income Level

Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates



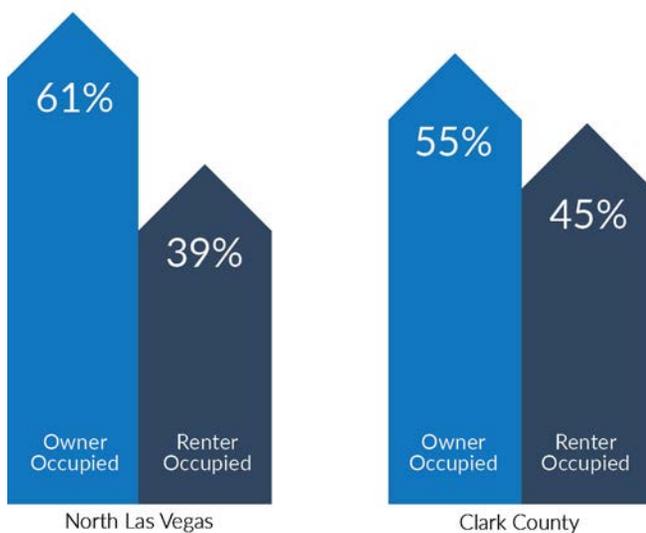
Housing Diversity

While the City of North Las Vegas uses standard zoning designations, “Single Family Low Density” and “Planned Unit Development” are the largest residential zoning category represented, comprising 11.7% and 9% of the city’s area respectively. The remaining residential zoning categories, including Single Family Medium Density and Multifamily Residential, comprise only 1.6% of the city’s area. The city’s development and design standards for residential buildings favor similarly-styled, front-loaded, single-family walled subdivisions. The City should prioritize diversifying the housing stock in order to support a diversity of residents and promote a live-work environment as discussed above.

North Las Vegas has a slightly higher percentage of owner-occupied housing than Clark County. Homeowners are less vulnerable to displacement due to market conditions than renters.

Figure 3.10: Housing Tenure

Source: ESRI Business Analyst



Single-Family



Multi-Family



Planned Unit Development (PUD)

North Las Vegas contains a housing stock that is affordable for homeowners at every income level, although this may be changing. While the city currently contains an oversupply of units affordable to middle income households and an under supply of units priced for high-income households, stakeholders interviewed during the engagement process indicated the belief that North Las Vegas is one of the most over-appreciating housing markets in the country, and that many first time homebuyers are beginning to face unaffordable prices.

The popularity of single-family owner-occupied housing in the city can mean that renters in North Las Vegas are even more financially constrained than homeowners. The majority of renting households with incomes at or below \$35,000 are rent burdened, while the majority of renting households with incomes above \$35,000 pay affordable rents. This affordability gap implies that renting households are seeking units in the next higher income tier, which will result in a constrained market in all renting income levels. In other words, although numerous units may be available for households making \$35 to 50k, many of those units may be housing those in lower income brackets.

Figure 3.11: Homeowner Household Incomes vs Occupied Units Affordable at Each Income Level

Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates

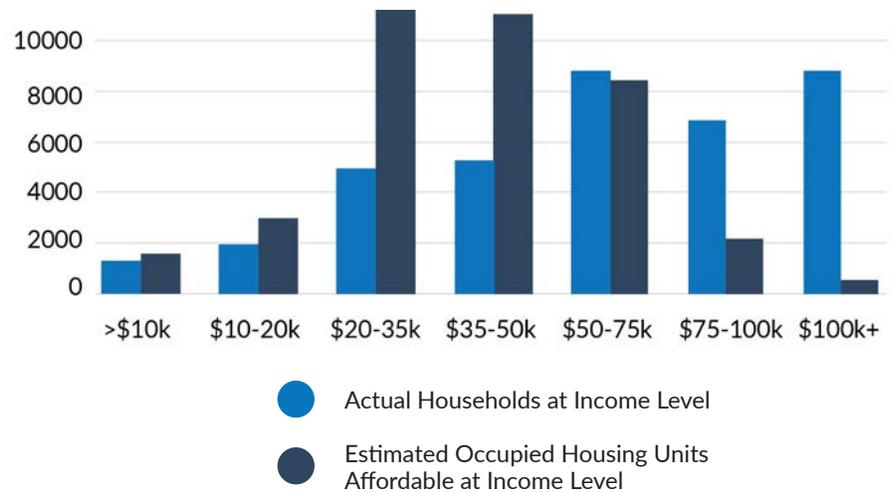
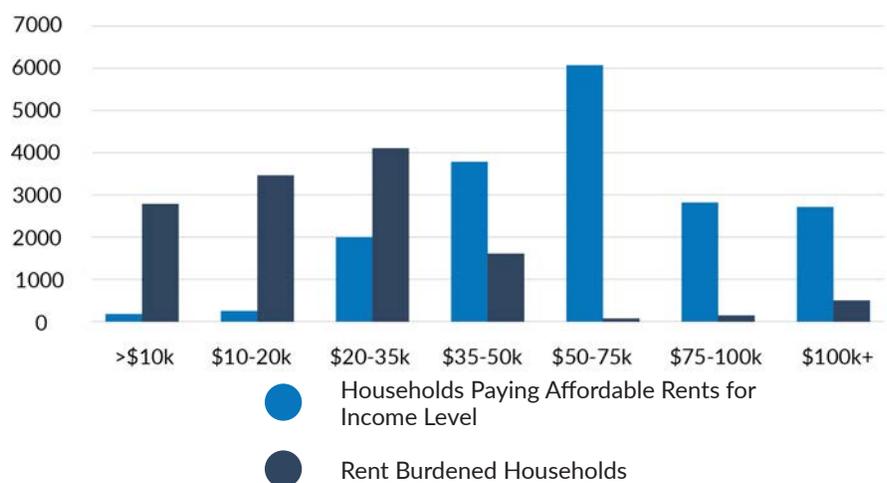


Figure 3.12: Non-Rent Burdened and Rent Burdened Households By Income Levels

Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates



Section 3.3: Economic Development

North Las Vegas is located on the northern urban edge of rapidly growing Clark County, near the growing suburbs of Henderson and Summerlin. The city's location within the I-15 corridor is well-situated to attract new investment and development.

The availability of large undeveloped parcels in the City of North Las Vegas will continue to attract industrial and master planned communities. However, in order to encourage the development of a stronger and more diverse economic base, the City must adopt a proactive approach to attracting diverse development. Recommendations for attracting diverse development appear in Chapter 4.

Between 2010 and 2015, the total number of jobs in the city grew by 9.4% but remains 6.6% below the pre-recession level (US Census On The Map). A recently-completed Amazon fulfillment center has provided additional jobs. A new Sephora distribution center that is currently under construction, a planned expansion of the Nellis Air Force base, and a potential future new University of Nevada, Las Vegas campus north of the VA Hospital and the Bruce Woodbury Beltway, will all contribute to future job growth in North Las Vegas.

Nevada’s tax structure attracts businesses and employees because its no-tax mentality²:

- No Corporate Income Tax
- No Chain Store Tax
- No Personal Income Tax
- No Unitary, Franchise, Inventory Tax
- No Inheritance, Estate, and/or Gift Tax

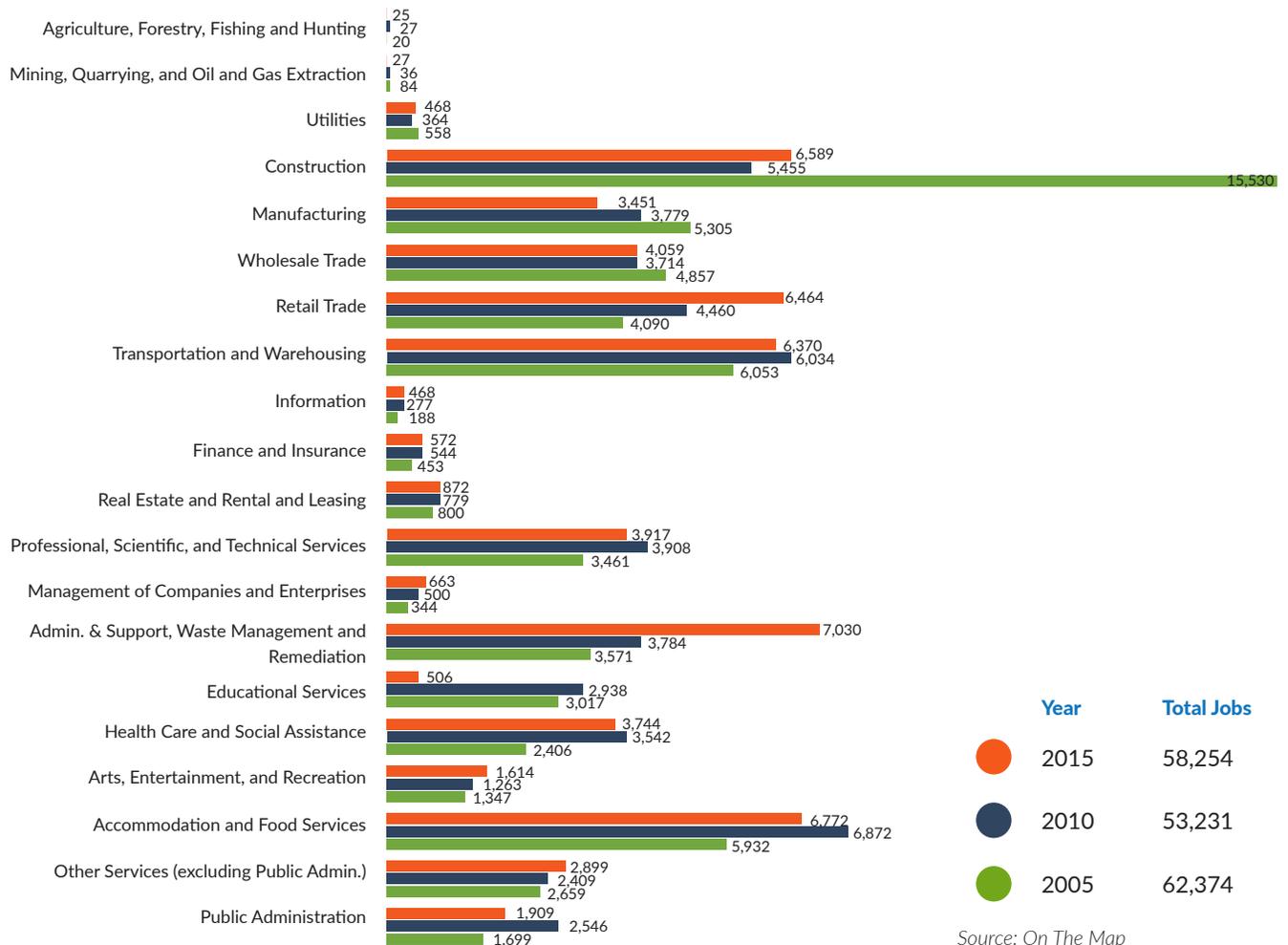
City and Council initiatives in addition to the State’s tax structure have attracted recent growth in light industrial, manufacturing, and warehousing industries. The Industry Mix Chart below details the changes in the city’s industry mix between 2005, 2010, and 2015. After the Recession, Construction

and Education saw dramatic decreases post-recession, while Retail Trade and Administration and Support have expanded. With the new Amazon and Sephora jobs coming online, the Transportation and Warehouse industry will likely experience significant growth.

Given the large amount of vacant land in the Deer Springs District (See Figure 3.14), the Deer Springs District is well-positioned to contribute to the city’s job diversity through the development of a live-work environment in this “activity center” identified in the City of North Las Vegas Comprehensive Plan.

² City of North Las Vegas presentation, “Open for Business”, March 2013

Figure 3.13: Jobs Share (Percent) by Industry *(Job Count noted next to Job Share)*



Source: On The Map

The Job Creation Zone (JCZ) will be instrumental in achieving the city's job-diversification and live-work goals.

The JCZ's property is owned by the City of North Las Vegas. The land was transferred to the City after Congress approved the 2014 National Defense Authorization Act, the act designated approximately 640 acres of land for job creation and established the Tule Springs Fossil Bed National Monument. The Job Creation Zone is restricted to nonresidential uses; office, commercial, retail, and light industrial uses are permitted. The City developed a Job Creation Medical & Research Conceptual Plan in 2017, summarized in early in Chapter 3, which recommended medical and research programming for the site to capitalize on the proximity to the Veterans Affairs and the potential UNLV campus.

As North Las Vegas continues to diversify its industries, the City should consider additional economic policies and programs to improve its long-term economic health by planning for redevelopment. Figure 3.15 is an example of a

city's typical growth cycle, with the option of moving towards either redevelopment or decline. In order to position itself for redevelopment, the City should:

- Attract new residents to balance the existing, aging population
- Renovate and resell residential properties, with the addition of new housing options
- Renovate commercial properties and maintain infrastructure
- Rehabilitate and transform public infrastructure
- Continue to grow the city's tax base

Figure 3.14: Vacant Land and Job Creation Zone

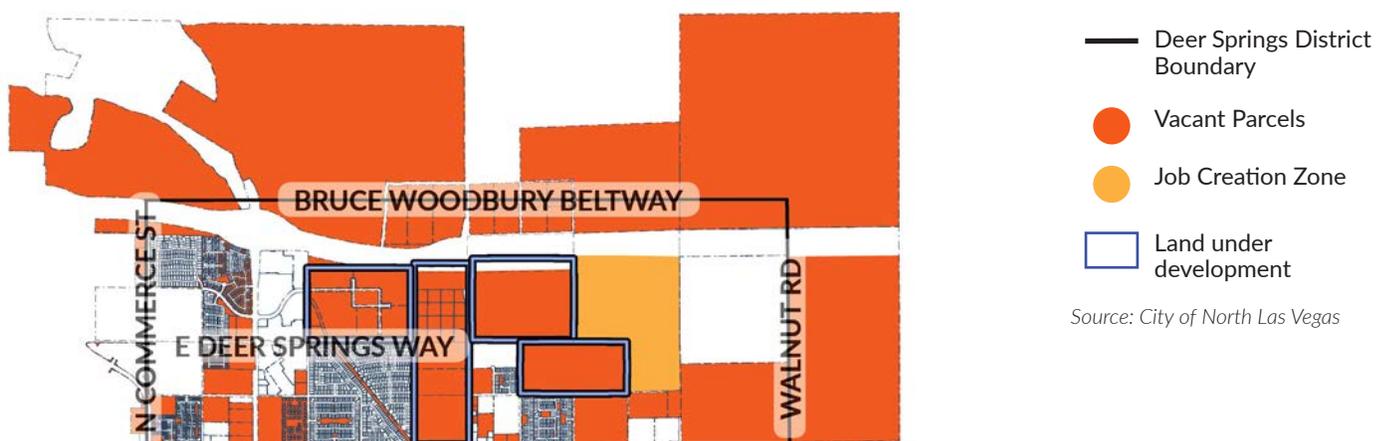
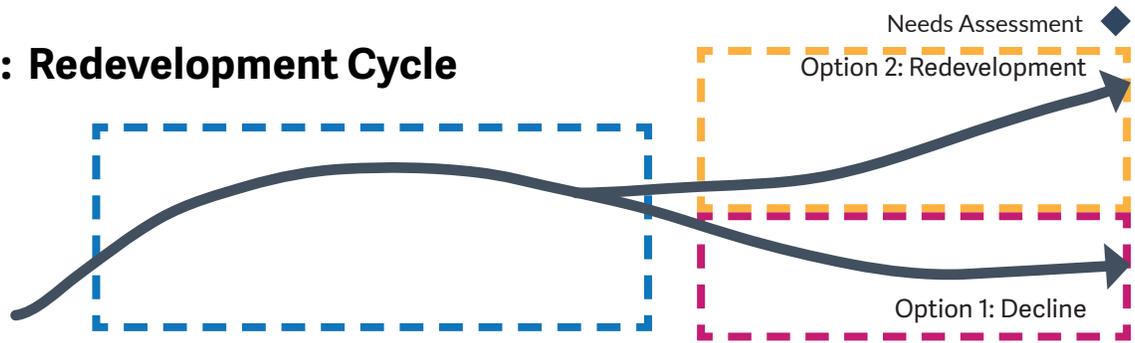


Figure 3.15: Redevelopment Cycle



	Phase 1 SMALL TOWN	Phase 2 RAPID GROWTH	Phase 3 PEAK	Option 1 DECLINE	Option 2 REDEVELOPMENT
LOCATION	Outside the metropolitan area	At edge of growth area	Within metropolitan area	Well within metropolitan area	Well within metropolitan area
POPULATION	Small, stable	Rapidly growing	Slow growth	Stable or declining	Stable to growing
DEMOGRAPHICS	Mix	Largely young families	Older families in some areas, young families in others	Aging population	Aging population, influx of new residents
RESIDENTIAL PROPERTY	Mix	New single-family development with market appeal	Still relatively new and attractive	Aging, undesirable housing stock, as original owners move on	New and renovated housing resells, new housing options
COMMERCIAL PROPERTY	Limited, local	Boom in new retail with national tenants	Original retail begins to turn over, national retailers leave	Infrastructure declines, maintenance funding a challenge	Renovation and redevelopment of retail
INFRASTRUCTURE	Limited	New streets and utilities on a large scale	New streets and utilities still being constructed, costs rise	Decaying, costs rise	Rehabilitation and transformation
TAX BASE AND PROPERTY VALUE	Low	Fast growing	Growing	Flat/Declining	New development continues to increase tax base



Section 3.4: Urban Design

North Las Vegas' location in and near rapidly growing areas necessitates strong regulatory measures to ensure high quality new development. Title 17, the City's zoning ordinance, contains many provisions that support a high-quality urban environment.

A variety of existing conditions lead to discrepancies between the community vision and the built environment, as detailed in the following sections.

Residential Buildings

The development and design standards for residential buildings heavily favor similarly-styled, front-loaded, single-family houses. Current regulations could be modified to support increased walkability. In large residential developments, front-facing garages are currently allowed for 75% of structures. Restricting this allowance, along with encouraging alley-loading products, could promote increased built form variation and visual interest and decrease auto-related elements at the pedestrian level. In addition, use permits, while currently appropriate for residential areas, could be modified to allow low-intensity commercial uses where the neighborhood would support commercial activity. Low-intensity commercial uses near residential developments would allow and encourage residents to walk or bike to fulfill their everyday needs.

Through interviews with the development community, it was learned that there is a perception that the existing zoning code does not support alley-loaded residential structures and makes the development of attached residential units difficult.



The similarly styled houses prioritize the car and privacy rather than the street life and community.

Image Source: Asakura Robinson, Taken September 17, 2018.

Unit Per Acre Regulations

The current zoning code regulates units per acre. In general, this results in similarly-sized units at the maximum allowed density. A livable community needs a variety of densities and housing types.

Commercial Development

Commercial development within the study area primarily takes the forms of strip centers, with smaller retail and serves and regional power centers, which incorporate multiple big box retailers. In strip centers, parking is typically between in the street and the building entrances, in power centers, there are typically internal parking lots with building entrances facing away from the street. Guidelines have been created to support transparency and walkability.



Unit per acre regulations can restrict the true market needs of a given area and result in a large number of similar housing types, rather than a mix of unit types providing for families, young people, and seniors. Multiple districts can somewhat reduce this, but adding more complexity to the zoning regulations often outweighs this strategy.

Image Source: Milton Place and Gaston Lane, Google Earth. Retrieved October 17, 2018.



Transparent facades, awnings, and short blocks encourage an interesting walking environment that is comfortable to the user.

Image Source: Downtown Summerlin, Google, Retrieved October 16, 2018.

Planned Unit Development

Interviews with developers and City staff during the initial project engagement period made clear that a significant amount of large new developments in North Las Vegas, and the Las Vegas Valley in general are created through Planned Unit Development (PUD). PUDs are an effective way to regulate development happening at a large scale with a single developer while allowing some flexibility to mix uses and densities. The high rate of use of PUD zoning is normal in western states where very large tracts of vacant land are available and provide flexibility for negotiation for the city.

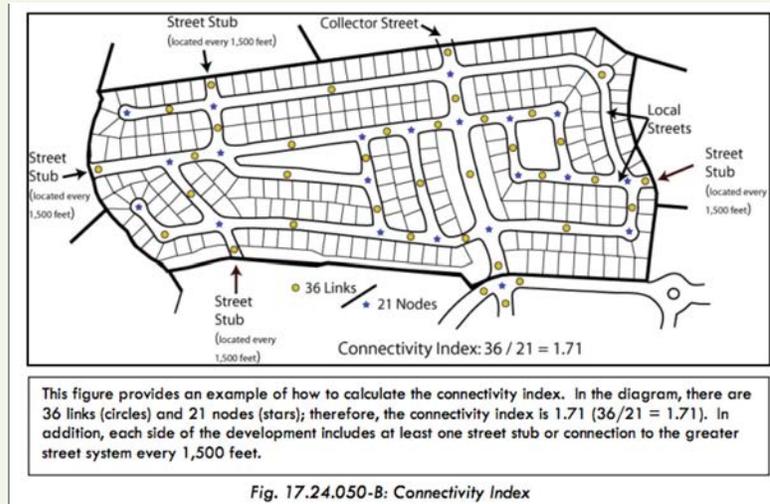


Planned Unit Developments can be ideal for the development community to build outside the norm- encouraging mixed-use development, retail, a variety of residential typologies, and design.

Image Source: Goldfield Street and E Tropical Parkway, Google Earth. Retrieved October 17, 2018.

Connectivity

Chapter 17.24 of the City of North Las Vegas Code of Ordinances details development standards including mobility and circulation. These regulations exist to support active transportation, limit automobile use, and manage the traffic impacts of new development. Within these standards, internal street connectivity regulations are strong, requiring a minimum connectivity index score from new residential and mixed-use development.

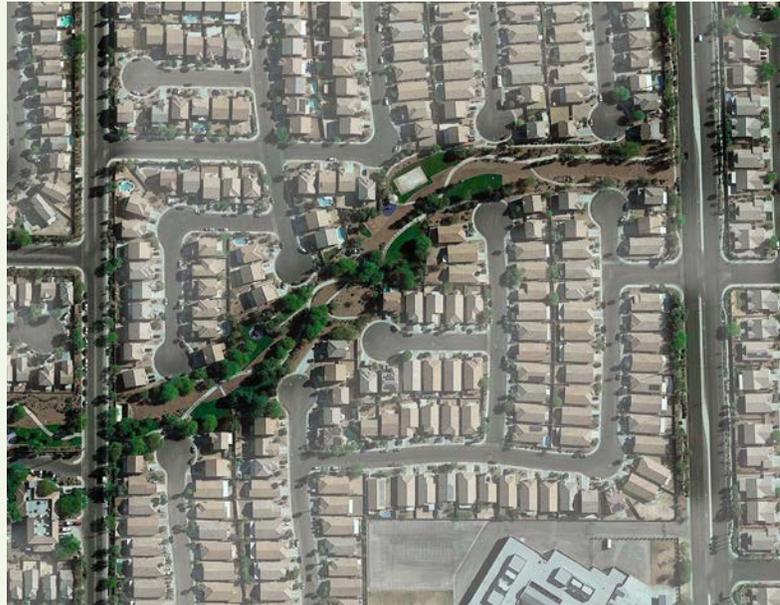


The Connectivity Index encourages walkability and alternative modes of transportation. Pedestrian access points connect users from cul-de-sacs to the main thoroughfare.

Image Source: (top) Chapter 17.24.050 Mobility and Circulation: Connectivity Index Diagram. (bottom) E Tropical Parkway and Bruce Street, Google Earth, Retrieved October 17, 2018.

Tree Cover and Vegetation

Landscape regulations are largely effective in supporting connectivity and walkability, as well as defining regionally-relevant plant-based palates and preventing wasteful water usage in the Las Vegas Valley context.



Tree cover along pathways connecting neighborhoods supports pedestrian activity. The landscaping buffer between the main thoroughfare and a neighborhood creates ample space for vegetation and tree cover.

Image Source: (top) Hartley Cove Avenue, Google Earth (enhanced), Retrieved October 17, 2018. (bottom) Asakura Robinson, Taken September 17, 2018.

Section 3.5: Transportation

Impediments to the Use of Alternative Modes of Transportation

Alternative modes of transportation include walking, biking, and public transit. For North Las Vegas residents, dependency on personal vehicle transportation for long commutes to major employment centers outside of North Las Vegas is common. Single family housing subdivisions with single points of entry creating long walking distances are also common.

Other impediments to alternative modes of transportation such as walking or bicycling include the summer weather, lack of infrastructure, and safety/comfort. The RTC's Regional Bicycle and Pedestrian Plan (RBPP) indicates that only one percent of trips in the Las Vegas Valley are completed by bicycle, and 8% to 12% by walking.

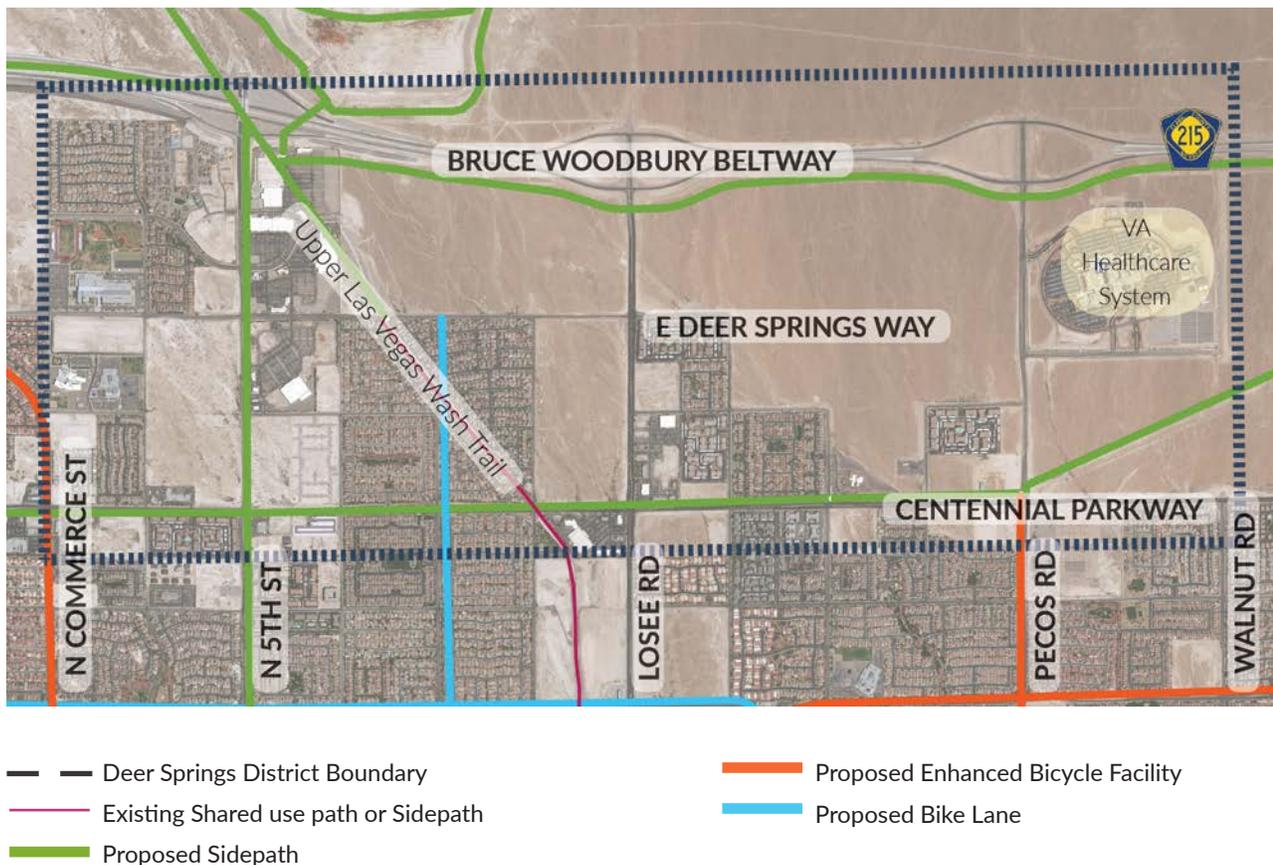
Major Barriers to Bicycle and Pedestrian Mobility

The RBPP indicated that, on a regional level, only 14% to 17% of existing non-freeway roadways were considered comfortable for both bicyclists and pedestrians. As previously stated, only 1% and up to 12% of trips are biked and walked, respectively. Barriers to connectivity outlined in the same study include safety, summer weather, and inconvenience. Within the Deer Springs District, the generally undeveloped land areas contribute to the lack of connectivity of sidewalks and bike lanes.

Connectivity Map

Connectivity in the study area was obtained by reviewing the RBPP. The Upper Las Vegas Wash Regional Trail is an existing shared use facility within the Deer Springs District. The RBPP shows proposed enhanced bicycle facilities and shared use path trails within the Deer Springs District, but there still remains a void internal to the Deer Springs District.

Figure 3.16: RTC Planned and Existing Bike and Pedestrian Trails



Data Source: RTC of Southern Nevada Regional Bicycle & Pedestrian Plan for Southern Nevada, May 2017

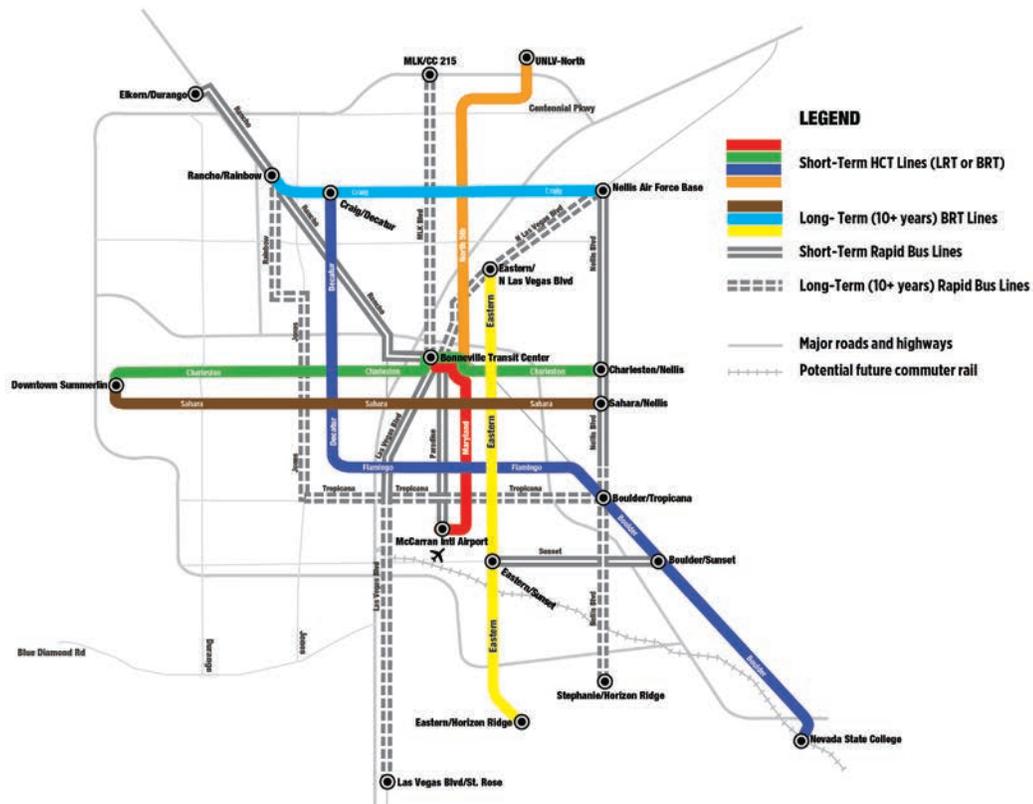
Complete Streets

Barriers to walking, biking, and using public transit can be reduced within the Deer Springs District by following Complete Streets guidelines. The following sections describe the City of North Las Vegas Complete Streets Policy along with a summary of typical sections within the City's existing roadway network.

The City of North Las Vegas developed a Complete Streets Policy to support the creation of a well-planned community that serves a diverse population across age and ability. Complete Streets is a design approach that balances the needs of all mode users, including motorists, pedestrians, bicyclists,

and public transportation users, while promoting a safe, comfortable, and more livable community for people of all backgrounds, including children, youth, families, older adults, and individuals with disabilities. The intent of the Complete Streets Policy is to reduce traffic congestion, improve air quality, provide safe routes for all mode users, and potentially improve the economic and environmental health of the region and reduce motor vehicle related injuries and deaths.

Figure 3.17: Proposed RTC High Capacity Transit Map



Transit

Existing Transit

North Las Vegas and neighboring urban areas within Southern Nevada differ from other cities when it comes to transit. For example, RTC transit ridership increases throughout the day (whereas many cities experience peak ridership during AM and PM commute times) and weekend ridership shows a smaller decrease from weekday levels than would be expected.

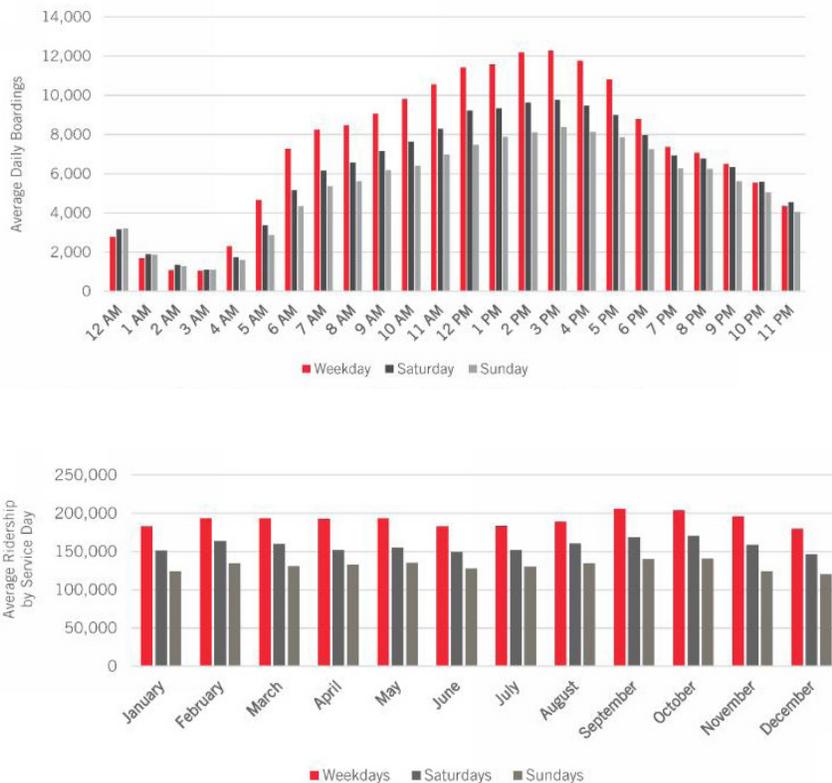
In the Las Vegas Valley, transit ridership averages 190,000 riders on a weekday and 150,000 riders on the weekend, with the highest ridership occurring in Downtown Las Vegas and the Las Vegas Strip. Ridership peaks between 2 PM and 4 PM and remains high into the evening hours. Weekend ridership is about 82% of weekday ridership.

Of the 39 transit routes within the Las Vegas Valley, sixteen provide "frequent service" (route that operates every 15 minutes between noon and 7 PM and every 20 minutes the rest of the day). Frequent routes currently operate along the Las Vegas Strip as well as major east-west corridors.

The Deer Springs District is served by the DVX Highway Express, which serves the VA Hospital, and the 105 Martin L. King Route with stops on Centennial Parkway, North 5th Street, and at Deer Springs Town Center. The closest major transit facility is the Park-and-Ride at the Cannery Hotel & Casino (about 2.5 miles from the Deer Springs District).

There are no "frequent service" transit routes in the Deer Springs District or surrounding areas. Opportunities to expand frequent service to additional residential areas can significantly improve access to jobs, something to consider for future transit routes serving the Deer Springs District Job Creation Zone.

Figure 3.18: Transit Ridership



Data Source: RTC of Southern Nevada On-Board State of the System, December 2017

Future Transit

According to the RTC's On Board – Your Future Mobility Plan (On-Board Study), Southern Nevada considers expected growth of both resident and visitors when determining demand for high capacity transit (HCT). Visitor-based demand is important due to the number of conventions, resort tourism, and other entertainment industries in the area; however, population, employment and land use density are the main factors driving transit demand and transit frequency. For example, light rail can be considered when the land use density is greater than 45 residents per acre and greater than 25 employees per acre. Figure 3.20 on the following page shows transit type and frequency as it relates to land use (employment and resident) density.

High-capacity transit benefits communities by:

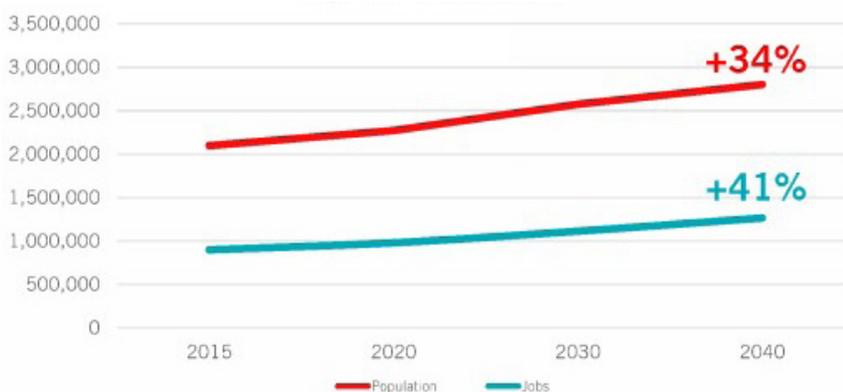
- Making the community a better place to live and work
- Attracting a talented workforce
- Supporting accessibility and reduced costs

- Supporting responsible growth
- Contributing to health and safety
- Making the community a better place to visit
- Boosting the region's economy

By 2025, Clark County's population is expected to grow to 2.7 million. North Las Vegas has potential to assume a majority of that growth due to its undeveloped residential areas. Congestion will continue to increase with population growth, and high capacity transit will provide a reliable and efficient way to move people.

According to On-Board Study data, the demand for HCT is impacted by anticipated increases in population and employment which are expected to grow 34% and 41%, respectively, by 2040 across Southern Nevada. Even more, data estimates that the Deer Springs District employment and population is expected to grow upwards of 200% from 2015 to 2040, significantly impacting the demand for increased access to transit including expanded transit routes, frequent service, and new facilities.

Figure 3.19: Population and Job Growth



Data Source: RTC of Southern Nevada On-Board State of the System, December 2017

Figure 3.20: Transit Frequency Increases with Land Use Density



Data Source: RTC of Southern Nevada On-Board State of the System, December 2017

Transit Readiness

The Deer Springs District has potential for high capacity transit along Deer Springs Way. High capacity transit on Deer Springs Way would provide service for riders within the Deer Springs District as well as regional travelers to and from the existing commercial area at North 5th and Deer Springs Way (Deer Springs Town Center), the planned Job Creation Zone, the VA Hospital, and the future UNLV Campus north of the 215 Beltway.

High Capacity Transit (HCT)

High capacity transit (HCT) refers to faster, higher-volume transit services in busier, denser travel corridors. HCT services typically move more people faster and more efficiently than regular bus services, and operate seven days a week from early morning until late night.

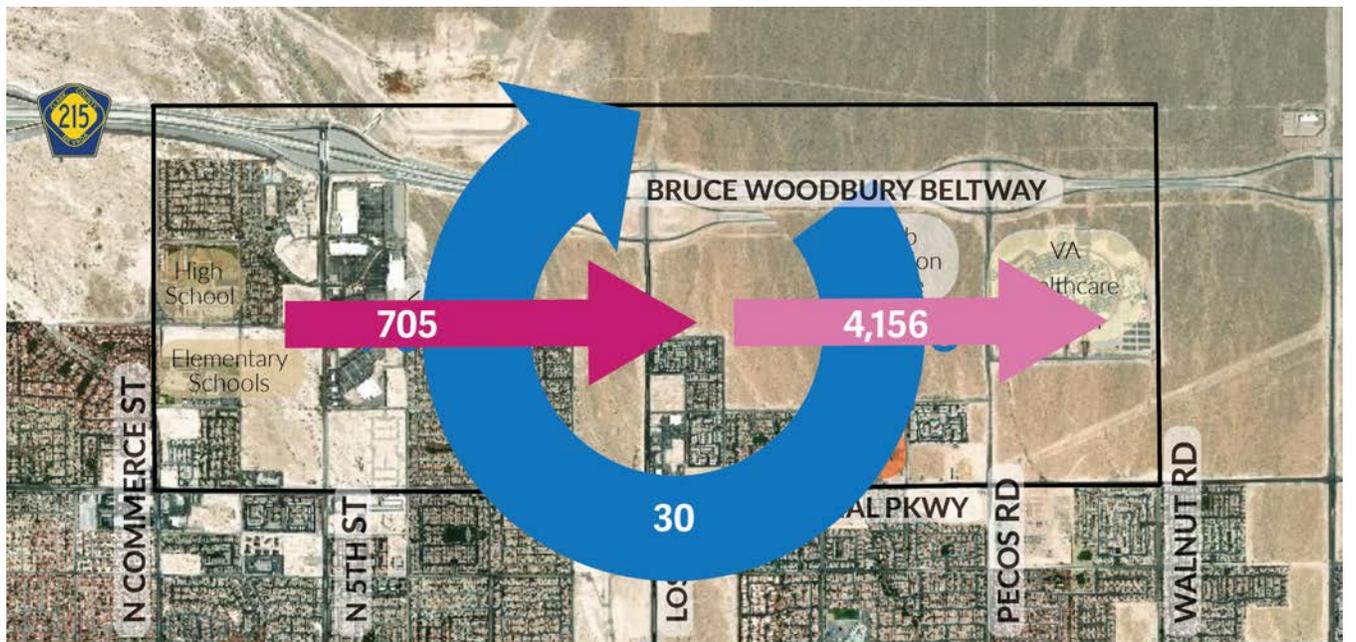
Source: Regional Transportation Commission

Commuter Information

According to the U.S. Census Bureau, 705 employees travel to the Deer Springs District from other areas in the Las Vegas Valley for work. Approximately 4,156 residents living in the Deer Springs District leave the area for employment, while 30 people reported that they live and work in the Deer Springs District.

Figure 3.21: Commute Patterns

Source: U.S. Census Bureau, Center for Economic Studies



- Deer Springs District Boundary
- Employed in the Deer Springs District, Lives Outside the District
- Employed and Lives in the Deer Springs District
- Lives in the Deer Springs District, Employed Outside the District

Traffic Volumes

Annual Average Daily Traffic (AADT) counts were obtained from three Nevada Department of Transportation (NDOT) stations within the Deer Springs District. AADTs were reported for the 100-foot right-of-way arterial streets of Centennial Parkway, Losee Road and Pecos Road and are included in the table below. AADTs from NDOT count stations on three other major arterials in the Las Vegas Valley are also included for comparison. AADTs reported in the Deer Springs District are historically lower than other areas in the Las Vegas Valley but are expected to continue to increase as the Deer Springs District and surrounding area develops.

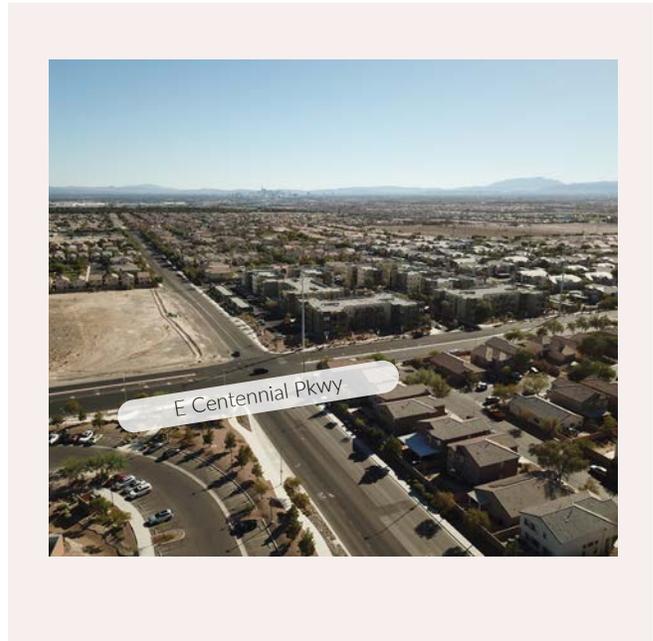


Figure 3.22: AADT Volumes Comparison

NDOT ID	Location	2013	2014	2015	2016	2017	5 Year Average
0036001	Centennial Pkwy, 270ft E of Lawrence St	12,000*	12,000*	12,500*	13,000*	13,300*	12,560*
0036605	Losee Rd, 155ft N of Deer Springs Way	7,600*	7,800*	8,000*	8,200*	8,550*	8,030*
0036606	Pecos Rd, 600ft S of CC215	2,300*	2,300*	2,400*	2,400*	2,550*	2,390*
0030147	SR159, Charleston Blvd, 425ft W of CC215	18,000	18,500	18,000	19,000	21,000	18,900
0032223	Sahara Ave, 280ft W of Pavillion Center Dr	14,500	16,000	16,000*	24,000	23,800	18,860
0031062	Flamingo Rd, 410ft E of Sandalwood Dr	34,000	33,500	33,500	39,000	39,000	35,800

Data Source: NDOT Traffic Records Information Access

*Indicates that the AADT value is estimated

Crash Data

Crash data was obtained from the NDOT for the three-year period from January 1, 2015 to December 31, 2017. There was a total of 368 crashes in the Deer Springs District over the past three years. The highest crash types reported were angle, rear-end, and non-collision (single vehicle) crashes. The table below (Figure 3.23) shows the breakdown by crash severity of all crashes as well as crashes occurring on local streets (excluding Clark County 215 crashes) within the Deer Springs District.

Two fatal crashes occurred within the Deer Springs District; one occurred at the intersection of Goldfield Street and Deer Springs Way and one at the intersection of Centennial Parkway and Losee Road. According to official reports, both fatal crashes' drivers had been drinking. The fatal crash on Goldfield Street and Deer Springs Way involved a pedestrian. Crash rate analysis was completed on North 5th Street, Losee Road, Pecos Road, and Centennial Parkway, and resulted in a higher crash rate for the Deer Springs District than the state average for the respective functional classification.

Figure 3.23: Deer Springs District Crashes by Severity

CRASH SEVERITY	TOTAL DSD CRASHES		DSD LOCAL STREET CRASHES (EXCLUDING CC-215 CRASHES)	
Fatal (K)	2	0.50%	2	0.80%
Injury A (Incapacitating)	14	3.80%	11	4.40%
Injury B (Serious Injury)	39	10.60%	26	10.50%
Injury C (Non Life-Threatening)	126	34.20%	95	38.30%
Property Damage Only (PDO)	187	50.80%	114	46.00%
Total	368 (100%)		248 (100%)	

Source: NDOT Crash Data from January 1, 2015 to December 31, 2017

Figure 3.24: Deer Springs District Crash Rate Analysis Summary

2017 FUNCTIONAL CLASSIFICATION		TOTAL ANNUAL VEHICLE MILES (AVM)	TOTAL INJURY CRASHES	INJURY CRASH RATE	TOTAL FATAL CRASHES	FATAL CRASH RATE	TOTAL TRAFFIC CRASHES	TOTAL CRASH RATE
Urban Principal Arterial Other	Statewide	1,788,790,759	1,093	0.61	9	0.01	3,153	1.76
	North 5th Street (1.3 Miles)	13,143,176	36	2.74	-	-	67	5.10
Minor Arterial Urban	Statewide	4,943,022,156	7,770	1.57	83	0.02	15,879	3.21
	Losee Road (1.2 Miles)	10,840,500	32	2.95	1	0.09	59	5.44
	Pecos Road (1.2 Miles)	3,219,300	25	7.77	-	-	35	10.87
Minor Collector Urban	Statewide	2,037,680,523	2,639	1.30	28	0.01	5,670	2.78
	Centennial Parkway (3.2 Miles)	45,317,232	77	1.70	1	0.02	132	2.91

Notes: AVM for Statewide and Project Corridor is calculated using 2017 AADT. However, AVM for the project corridor used the average AADT over the 3 years of crash data covered.

Source: NDOT Crash Data from January 1, 2015 to December 31, 2017

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Chapter 4: Recommendations

The development of the Deer Springs District / Livable Center melds the City's vision for the North Fifth Street Corridor and the Job Creation Zone with the goals created by the residents and stakeholders. Each of the Deer Springs District Goals has a collection of strategies and tools to help guide the City, land owners, developers, and residents create the Deer Springs District Livable Center.

DSD Goal #1

Create Value



The Deer Springs District will create value for the City of North Las Vegas through coordinated public investments in infrastructure, parks, and economic development that attract private investment in housing, jobs, and retail development to enhance the city and serve its residents.

Livable Centers are more successful in communities and neighborhoods that have a defined core, offering multiple attractions and reasons for pedestrians to frequent the area. Public infrastructure investments in the Deer Springs District should include development of Skyview Park; construction of phase 2 of the multi-generational center; extension of the Northern Beltway Trail; and complete street improvements along Deer Springs Way. The Deer Springs District is approximately 2.5 square miles in size. The size of the Deer Springs District allows for multiple core areas. Various land use and environmental design options may be utilized to establish core areas and create value. Examples of design elements may include:

- Densities and buildings are highest near the core of the Livable Center
- Densities transition from the core to edge in Livable Centers matching the surrounding development
- Buildings heights are typically higher in the core than the surrounding area
- Buildings are oriented to the street frontage and include main entrances and window displays
- Sidewalks are wider in the core than in lower density areas, and offer pedestrian amenities, such as street trees, benches, kiosks, and plazas
- Parking should be less predominant in the core area, being located to the rear/or and in parking structures
- Reduce parking requirements when in close proximity to transit

DSD Goal #2

Build Resilience



The Deer Springs District will be resilient to economic and environmental

challenges and will safeguard the long-term fiscal, environmental, and social health of the city.

The purpose of the Deer Springs District is to provide more economic diversity within the city. The development of the Job Creation Zone with a mix of commercial and medical facilities will help strengthen the health of the city while providing more economic and social opportunities for our residents.

As many changes in technology (for example, the potential for automated vehicles or the changing role of retail) are unpredictable, varied housing typologies and commercial design can create more opportunities for flexibility as changes occur. Specific design and sustainability standards seek to ensure high quality development which is resilient to economic and environmental challenges and is as supportive to redevelopment in the future as it is to initial development. Some examples of resilient elements may include:

- Balancing robust economic development and community growth with environmentally conscious design
- Investing in parks, recreation, and other infrastructure that could contribute to attracting employers, employees, and new residents
- Supporting recommendations that can evolve over time and with changes in the economic and social environment of the city
- Creating a sense of place that will attract visitors regionally and beyond, fueling local businesses and the tax base

DSD Goal #3

Make Connections



The Deer Springs District will be connected by streets, trails, sidewalks and

transit, both within the Deer Springs District and to destinations throughout the city and the Las Vegas Valley.

Vibrant communities, with or without transit, are convenient and comfortable places for pedestrians and bicyclists. Land use and environmental design options may be utilized to enhance the pedestrian & bicyclist environment. Examples of design elements may include:

- Primary building entrances are oriented to be accessible from the street frontage
- Architectural features relate to the street and pedestrian environment
- Use awnings, windows, lighting, street furniture and landscaping to create a comfortable pedestrian environment
- Form an interconnected grid street pattern that simplifies access for all modes
- Curb extensions and crosswalks with paving accents
- Pedestrian routes buffered from fast-moving traffic and expanses of parking
- Sidewalk system from the street to the primary entrances of the buildings
- Parking located to the side or to the rear of the buildings
- Convenient and secure bicycle parking

DSD Goal #4

Prioritize Health



The Deer Springs District will build upon the unique assets of the VA Hospital and the

North Las Vegas Job Creation Zone to utilize health as a key driver of economic development and livability for the community. The built environment will prioritize community health through infrastructure and programming investments.

Creation of a medical district requires a coordinated vision for the Job Creation Zone. Expansion of the Southern Nevada VA Healthcare System to include a hospital on Pecos Road in the Deer Springs District, established the basis for the creation of a medical district within the city. The VA North Las Vegas Medical Center is a 90-bed inpatient facility with state of the art medical and diagnostic services. Creating and promoting a special medical district requires modifications and incentives within the current development codes and ordinances. This should include identification of key development sites; an open space network and trails network; and a multi-modal plan for transportation.

DSD Goal #5

Develop with Distinction



The Deer Springs District will be a unique, distinct destination within the city of North Las Vegas

and the Las Vegas Valley that provides authentic opportunities to live, work, learn, shop, play, or grow a family.

Livable Centers include a mixture of residential, commercial, employment, recreation, and public spaces which distinguishes the neighborhood from the surrounding area. Land use and environmental design options may be utilized to help encourage a mix of uses within the Deer Springs District. Examples of design elements may include:

- Continuous ground floor retail and office uses that activate the streetscape
- Building face setbacks transition building heights
- Alleys provide access for utilities, services and surface parking
- On-street parking beneficial for ground floor retail access and visibility
- Multiple compatible uses are permitted within buildings
- First floor uses are “active” and oriented to serve pedestrians
- Auto-oriented uses, such as service stations and drive through facilities, should be limited if near transit



The Deer Springs District should be developed with some of the most intense mixed-use developments within the city. This study recommends development within the Deer Springs District with densities up to 25 units per acre; building heights from 2-10 stories, and greater site coverage. The 2019 Livable Centers Study for the Deer Springs District will act as the Master Plan for the Deer Springs District and contains additional analysis.

The recommendations contained herein are based on previous planning efforts; “Livable Centers” best practices and the inputs gathered from stakeholders and community residents. The recommendations for the Deer Springs District Livable Center are organized into two concepts:

- **Concept 1:** Ensure that the Deer Springs District develops as a connected, walkable, and transit supportive area, that contains numerous housing choices, vibrant commercial areas, and world class open space.
- **Concept 2:** Develop the Job Creation Zone as a major job center, that repositions commercial development, and catalyzes adjacent, high-quality residential development for North Las Vegas.

The two concepts and supporting recommendations address the Deer Springs District Livable Center Study’s central focus areas by:

- Encouraging new, high-quality housing options in the Deer Springs District that support future transit-oriented development goals
- Incentivizing the private sector development within the Job Creation Zone and the surrounding area for the highest and best use
- Incorporating ongoing walkability, bikeability, and transit planning that encourages alternative modes of travel





Concept 1. Ensure that the Deer Springs District Livable Center develops as a connected, walkable, and transit supportive area that contains numerous housing choices, vibrant commercial areas, and world class open space

SUB-CONCEPT 1.1 DEER SPRINGS DISTRICT LAND USE STRATEGIES



Application of the proposed strategies and tools associated with the Deer Springs District Goals depends on the location of the development within the Livable Center. Core areas have the highest density and concentration of mixed uses in the Deer Springs District. These areas should have buildings fronting sidewalks; wide sidewalks with pedestrian amenities; and smaller, walkable street blocks. The land uses should lessen in density and intensity of uses as development transitions from the core area to the edge areas and the existing single-family residential developments.

Core areas within the Deer Springs District should develop as town centers. Town centers land use mix includes residential, retail, commercial, and multi-family housing with ground floor retail or office use. These areas have wide sidewalks, convenient connections and other amenities. Design elements for the core areas (**town centers**) may include:

- Continuous ground floor retail and office uses
- Office and/or residential above the ground floor
- Buildings oriented toward street and sidewalk with limited setbacks. The setback area should be used for merchandise displays, outdoor dining, and public art installations
- Sidewalks should be a minimum of 8-10 feet in width
- Block circumference should be 1,600 linear feet maximum
- Curb extensions and crosswalks with accent pavement

- Building heights typically range from 2 to 8 stories
- Residential densities range from 6 to 25 dwelling units per acre
- Employment densities range from 5 to 15 jobs per acres

As development transitions from core area to edge areas, suburban centers should transition to suburban neighborhood medium density developments. The suburban neighborhood medium density land use mix includes residential, neighborhood retail, and local offices. These areas also have wide sidewalks, convenient connections, and other amenities. Design elements for these transition areas (**suburban neighborhood medium density**) may include:

- Single family attached townhouses with attached parking in the rear
- Zero lot-line single family units with detached garages in the rear
- Residential units oriented toward streetscapes
- Alleys to provide access for parking, utilities, and transition areas for varying building scale
- Curb extensions with enhanced crosswalks
- Tot lots/play areas
- Buildings with reduced setbacks and compatible architectural styles on either side of the street for block balance and a unifying streetscape
- Multi-family units with articulated facades complimentary to detached single family units
- Block circumference – 1,600 linear feet maximum
- Sidewalks should be 6 to 8 feet in width and separated from the curb with landscaped areas
- Building heights typically range from 2 to 4 stories
- Residential densities range from 6 to 25 dwelling units per acre

Edge areas are located furthest from core areas or adjacent to existing single-family developments. Development in edge areas should have similar residential densities to developments outside the Deer Springs District. Typical development within edge areas should be suburban neighborhood low density. The suburban neighborhood low density land use mix should include residential with neighborhood retail. These areas have 5-foot wide sidewalks, convenient connections, and other amenities. Design elements for edge areas (**suburban neighborhood low density**) include:

- Neighborhood commercial/ multifamily residential to serve as anchors for the blocks
- Single family residential units within center of neighborhood
- Front porches and patios setback 10 feet maximum from sidewalk
- Houses oriented toward the street provide more usable space in the backyard
- Sidewalks should be 5 feet in width and separated from the curb with landscaped areas
- Building heights typically range from 1 to 3 stories
- Residential densities range from 4.5 to 12 dwelling units per acre

North Las Vegas' location in and near rapidly growing areas necessitates strong regulatory measures to ensure high-quality new development. Title 17, the City's zoning ordinance, contains many provisions that support a high-quality urban environment. Title 17 includes design standards for residential, commercial and mixed-use developments. The current design standards require building articulation, cohesive design, and visual interest. Also, included in Title 17 are development standards which require elements such as open

spaces, connectivity standards, and off-street parking. The current zoning requirements establish a solid base line for urban development. There are some provisions within the zoning ordinance that may be modified to help transition typical urban development into a Livable Center. The following discussion highlights potential modifications to the current municipal code to better support Concept 1.

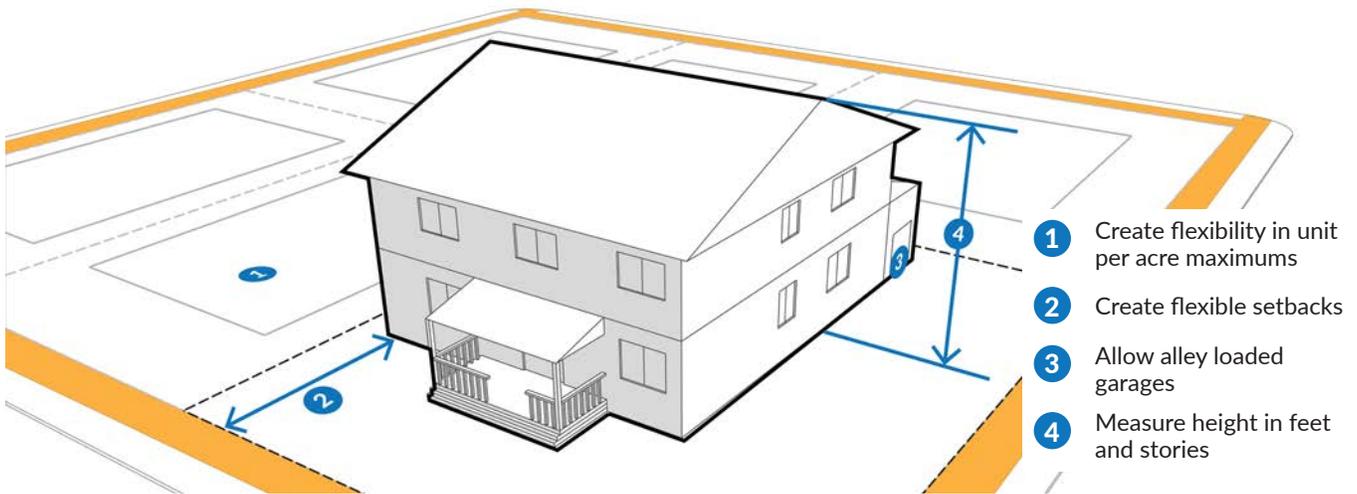


Residential Design Standards - Livable Center Recommendations

The development and design standards for residential buildings heavily favor similarly-styled, front-loaded, single-family homes. Lot size and setback requirements are appropriate for the named intensities of the residential districts, but front, side, and rear setbacks should be given as a flexible range, for example 10-20 feet, to encourage a varied street wall. Dictating a range provides a balance of allowing flexibility without an over-prescriptive code, such as one with specific variation rules. Height should be measured in both maximum feet and maximum stories, to allow moderate flexibility while providing a maximum height and preventing large-scaled, single-story buildings. Alley loaded garages should be encouraged.

	TITLE 17 EXISTING	RECOMMENDED REGULATIONS	RATIONALE
Setbacks	Varies	Adjust to flexible range for each zone (10-20')	Creates facade variation
Alley loaded garages	Allowed	Encouraged	Reduces street-facing blank walls and the appearance of auto-dependency
Height	35' max, 2 stories max	Adjust to feet and stories	Allows for variation in floor height

Figure 4.1: Residential Development



Density Regulations

The current zoning code regulates units per acre. This type of code, known as traditional or Euclidean zoning, focuses on the specific use and often segregates the land uses. Traditional zoning creates uniformity by applying similar parameters like setbacks, building heights, density and floor area ratios based on the land use. Often this results in similarly-sized structures and developments at the maximum allowed density.

A livable center should have a variety of housing types, densities, and a true mix with employment and commercial uses. Eliminating the units-per-acre regulation for residential and mixed-use districts may result in a variety of housing types instead of the typical similarly sized structures. Adding requirements for strong building envelopes and setbacks that are tied to market realities could help ensure varied new development. Modifying current requirements to have a greater emphasis on the physical character of the development can help create a high-quality public realm. Another potential way to promote varied setbacks could include addressing the relationship between

building facades and the public realm, based on the type of streets. This type of zoning code modifications are successful when designing transit-oriented developments, downtowns, and town centers.

Communities across the country are transitioning from traditional zoning to encourage a broader range of housing options within some districts. Examples where municipalities have been able to encourage more diversity in housing product include: Chattanooga, Tennessee³; Missoula, Montana⁴; and Fort Worth Stockyards, Texas⁵. More study is needed to understand how removing density regulations within the Deer Springs District, without recalibrating the existing zoning code, would affect overall development.

³ <http://www.chattanooga.gov/images/FBC%2012%20Month%20Edits.pdf>
⁴ https://www.ci.missoula.mt.us/DocumentCenter/View/48325/Design-Excellence-Overlay-Standards_01162019
⁵ <http://www.chattanooga.gov/images/FBC%2012%20Month%20Edits.pdf>

	TITLE 17 EXISTING	RECOMMENDED REGULATIONS	RATIONALE
Unit/acre density regulations	Regulated	Consider removing	Produces multiple unit types

Connectivity Index

Increasing connectivity is a key strategy for creating a safe, walkable, and bikeable area. Increased neighborhood street connectivity offers pedestrians, bicyclists, and motorists more options when devising a route. Multiple routes may disperse traffic within the neighborhood. For pedestrians, multiple routes support a varied and interesting walking experience.

Chapter 17.24 of the City's zoning code includes mobility and circulation standards. The City requires a circulation plan be developed for all new residential and mixed-use projects. Circulation plans address street and pedestrian connectivity; emergency and service vehicle access; parking movements; turning radii; and traffic calming measures where future "cut-through" traffic is likely and similar issues. Within these standards, internal street connectivity

regulations are strong with minimum connectivity index score requirements. Subdivision internal street connectivity is evaluated with a connectivity index. This index is calculated by dividing links and nodes (Refer to Title 17.24.0050.E.2 for additional calculation guidance).

Subdivisions within a livable center are expected to have higher connectivity levels than traditional subdivisions. The minimum index scores for single-family and multi-family residential is 1.3 and 1.5 respectively. It is recommended that a minimum 1.6 connectivity index is established for the Deer Springs District. There are many subdivision design options that could be utilized to increase the connectivity index within the Deer Springs District. For example, the City could consider reducing the number of cul-de-sacs; decreasing the maximum length between street intersections; and encouraging both vehicular and pedestrian linkages to adjacent subdivisions.

Figure 4.2: Connectivity Index-Existing

Connectivity terminology

Connectivity refers to the "density of connections in path or road network and the directness of links." A well-connected network has many links, intersections, and few cul-de-sacs. When connectivity is higher, more direct travel is allowed as travel distances reduce and the number of available routes increase. A Connectivity Index is measured by the ratio of links to nodes, excluding perimeter arterials. A higher index number means a more connected area.

Source: <https://www.idahosmartgrowth.org/app/uploads/2014/10/Z4-Connectivity-Standards-final.pdf>

Connectivity index score

The existing development to the right has 18 links and 14 Nodes.

$18/14=1.3$ Connectivity Index Score



	TITLE 17 EXISTING	RECOMMENDED REGULATIONS	RATIONALE
Cul-de-sac	Discouraged	Prohibited	Supports connectivity
Length between intersections	Title 16	600' maximum	Support walkability
Connectivity index	SF 1.3 minimum MF 1.5 minimum	1.6	Increases walkability, pedestrian and bike connections, reduced distances to amenities
Intersections per square mile	N/A	150 minimum	Increases connectivity

Figure 4.3: Connectivity Index-Proposed



Connectivity index score

The proposed example above has 33 links and 20 Nodes.
 $33/20=1.9$ Connectivity Index Score

Screening, Walls, and Fences

Typical residential subdivisions within North Las Vegas and the Las Vegas Valley include masonry perimeter walls. The walled subdivisions often have limited points of ingress/egress that are usually not convenient for transit riders, pedestrians, and bicyclists. The subdivision walls also tend to be constructed with one material and simple patterns. This type of wall can create an adverse pedestrian environment and visual monotony. Buildings and structures constructed within Livable Centers have a higher level of visual interest. This is created with the use of varied materials, forms, and colors.

Currently, within the Deer Springs District, existing residential development follows the typical



Source: Google Street View



Source: Google Street View

subdivision wall design. To mitigate this condition while still being sensitive to regional design context, the City should consider requiring additional variation, and increased variety of materials for new subdivisions within the Deer Springs District, or in certain situations removing perimeter walls.

Placement of Perimeter Walls

The City utilizes roadway typologies that typically break down to 100-foot major arterials, 80-foot minor arterials, and 60-foot collectors to determine placement of perimeter walls and perimeter landscaping.

It is both appropriate and understandable that residential uses would not want to be oriented to front 100-foot major arterials, due to the high volume of traffic and the fast design speeds. Typically, 60-foot collectors and 80-foot minor arterials have slower design speeds and less traffic volumes. Therefore, it may be appropriate to limit the use of perimeter walls along these street types. Developers should be discouraged from locating perimeter walls along 60-foot collector streets and used only sparingly on 80-foot right of way within the Deer Springs District.

	REGULATIONS EXISTING	RECOMMENDED REGULATIONS
Variation	Max length continuous wall is 500'	4 to 18 inches every 100 to 150 feet
Materials and colors	Concrete block, brick, stucco	Brick, stucco, wood, corrugated steel, corten, powder coated steel or aluminum

In the current regulations, Title 17 requires less than 1,500' of continuous wall length, and Title 16 requires 600'. The Title 16 regulation should be used.

Introduce variety
 Better designed walls, or none at all, can greatly improve not only the aesthetics of the Deer Springs District, but it can also increase connectivity scores, increase pedestrian and active transportation use, and improve the pedestrian environment.

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Commercial Design Standards- Livable Center Recommendations

While higher density commercial development, with multi-story, multi-use buildings and structured parking, is the most desirable development typology to support a walkable, economically successful district, it is also true that the developers of these building types rely on higher land values in order to create successful commercial projects of this type. The recommendations of this study, and especially the long-term development of the Job Creation Zone will create the market conditions necessary to support this type of development, however, in the near term it would be necessary to apply significant incentives to encourage this type of development. Alternatively, commercial development can be designed to allow single-story big box tenants with direct auto-access now, and walkable, smaller commercial with centralized parking as the market supports more dense development in the future.

Accommodating current commercial development trends now that could be converted in the future to higher density development would include

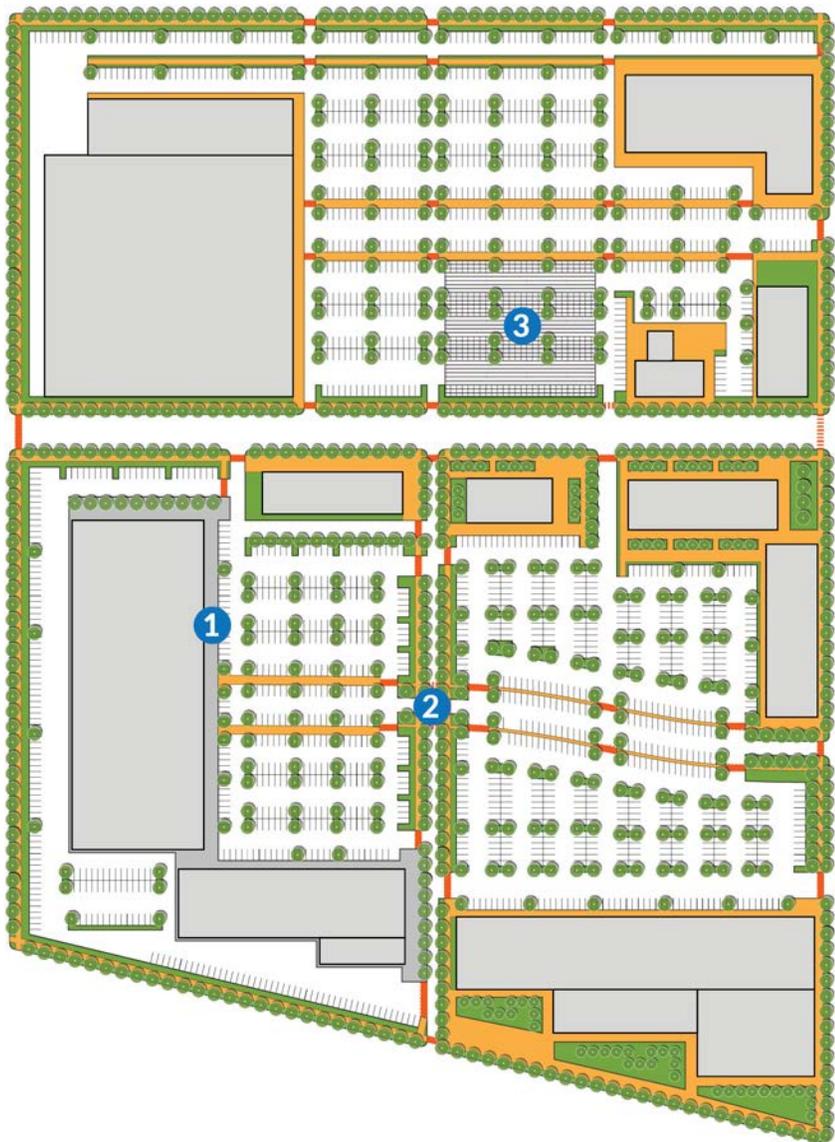
designing parking lots to allow infill buildings that can be added as land values rise. At the time of densification, parking can be relocated into parking structures rather than surface parking. Figure 4.4 shows a surface parking scenario where future streets are planned and eventually, commercial structures would fill-in current surface parking lots. In this example, people access the site through transit or park in a centralized structure nearby.

Additionally, in commercial areas, buildings should adhere to standards that ensure walkability and flexibility, regardless of the type of parking provided. Ground floor transparency should be increased from the current suggested 50% as a required percentage of total facade. To further support walkability, blank wall length maximums and ground floor height minimums should also be considered. This will insure that all development is supportive of future walkability regardless of changing market conditions in the Deer Springs District.

BUILDING			
	TITLE 17 EXISTING	RECOMMENDED REGULATIONS	RATIONALE
Entrance spacing	N/A	80' maximum	Supports walkability and variation
Ground floor height	N/A	12' minimum	Support flexibility for uses

SITE			
	TITLE 17 EXISTING	RECOMMENDED REGULATIONS	RATIONALE
Right-of-ways	N/A	Establish 60' right of ways within parking lots that will turn future 300' - 400' blocks.	Reduce street width and impervious pavement, prepare for infill development
Landscape Standards	N/A	Require landscape standards on these right of ways as with any other 60' right of way.	Reduce street width and impervious pavement, prepare for infill development

Figure 4.4: Phased Commercial Development



- 1 Wide sidewalks
- 2 Establish through streets
- 3 Future infill site

Getting Ready for Walkable Urbanism

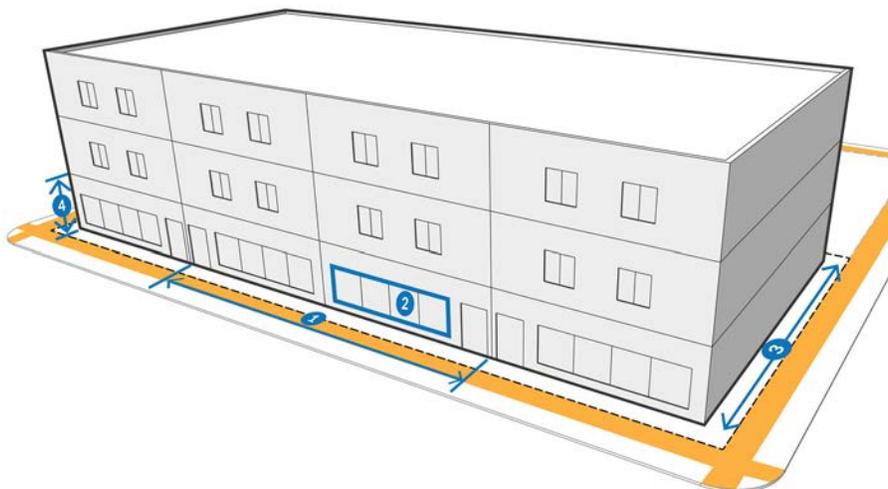
In some cases, traditional, big box development occurs before the market or the community is ready to support pedestrian-centered, walkable development. In these situations, traditional commercial areas can be built with parking as usual, but designed in a way that infill will create a walkable, urban area in the future.

Below is an example of existing commercial development.



Source: Google Maps

Figure 4.5: Commercial Development



- 1 Entrance spacing
- 2 Transparency per existing code
- 3 Maximum blank wall width
- 4 Ground floor height minimums

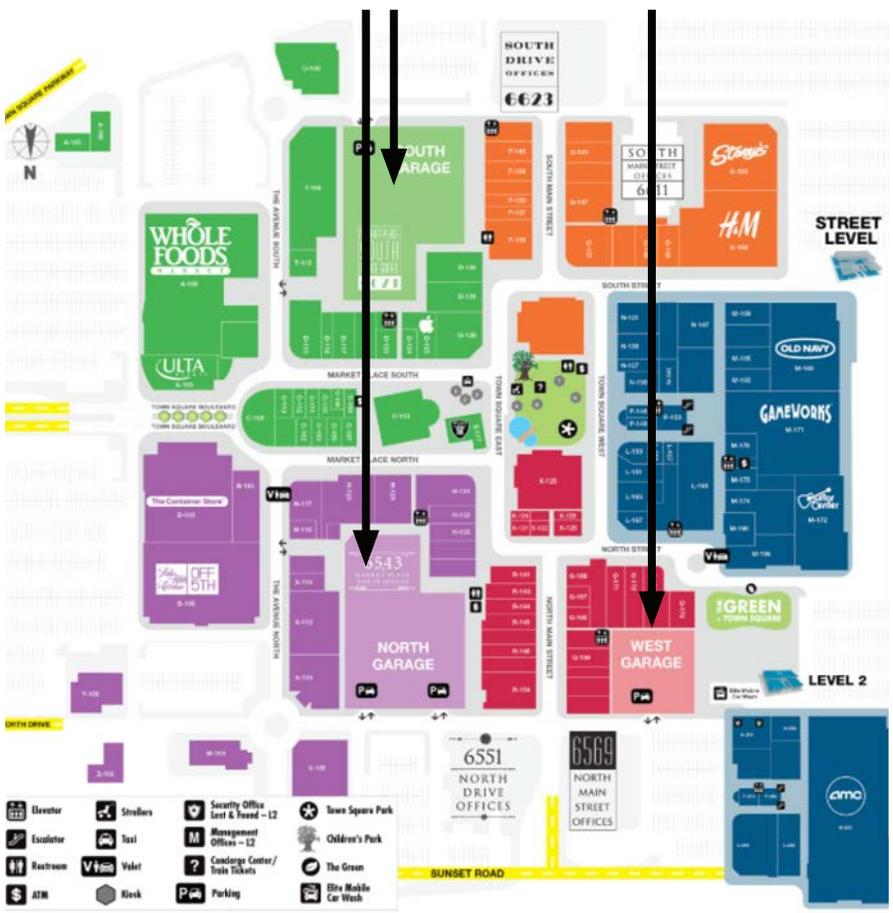
Parking and Service Placement

Structured district parking is strongly encouraged within the Job Creation Zone to encourage visitors to park once and visit multiple locations in a single trip. Consider parking structure design wrapped by office/commercial. A local example is Town Square, where the North, South and West Garages are wrapped by retail (street level) and office. Surface parking should be avoided within a ¼ mile of structured district parking. Where surface parking does exist, to the extent possible it should not be located between the street and the primary entry of the building it serves. Alley access for surface parking is recommended to limit curb cuts on streets. Space for street parking should be allocated on commercial streets; however, in the future this space may be allocated for other uses and street parking is not a requirement.

A hospital may consider underground parking for staff or underground access for service and loading.

Deliveries and pickup areas, including municipal services such as trash collection, should be placed fronting alleys only. No service entrances or loading docks should be placed fronting the street.

In large retail areas utilizing surface parking lots, parking should be shaded by trees or other shade structures. Parking lot trees or shade devices should be placed in all parking lot islands, which should be a minimum of eight feet in width and placed at intervals of a minimum of forty feet.



Source: Town Square Wayfinding Map

Shared Parking

Parking observations of mixed-use developments have indicated that combinations of land uses have a lower parking demand than the same land uses in freestanding locations. Shared parking among combinations of land uses has long been observed in central business districts, mixed-use developments, and other areas where land uses are combined. This can lead to excess parking if parking is allocated based on zoning regulations for single-use demand.

City code parking requirements may overstate the actual number of parking spaces required to satisfy peak parking demands when parking requirements are based on the cumulative demands of individual land uses. Realistically, the accumulated peak parking demands for individual land uses in mixed-use developments can occur at different times. Peak demand for a given use can vary by time of day, day of the week, or season.

The Urban Land Institute (ULI)'s procedures for evaluation and analysis of the parking demands of mixed-use developments should be used to determine parking requirements within the Job Creation Zone, as well as other future commercial areas within the Deer Springs District that contain more than one land use.

Shared parking is defined as a parking space that can be used to serve two or more individual land uses

without conflict or encroachment. The opportunity to implement shared parking is the result of two conditions:

- Variations in the peak accumulation of parked vehicles as the result of different activity patterns of multi-use developments (by hour, by day, by season) and
- Relationships among land use activities that result in peoples' attraction to two or more land uses on a single auto trip to a given area or development.

Shared parking demands have been found to exist in mixed-use developments that exhibit the following characteristics:

- Three or more significant revenue-producing land uses
- Significant functional and physical integration of project components (including continuous pedestrian connections)
- A coherent development plan specifying project phasing, scheduling, land use densities and other characteristics

Bicycle Parking

Bicycle parking is to be provided within the Job Creation Zone, Sky View Park, Deer Springs Town Center, and near major transit stops. It is recommended that within the Deer Springs District, the bicycle parking requirement be modified to match the R-A Redevelopment Area District. Within the R-A District one bicycle parking space is required per ten vehicular parking spaces to a maximum of ten bicycle spaces. Similar to Downtown North Las Vegas, active modes of transportation are encouraged, which increases the need for bicycle parking facilities.

Applicable to both Residential and Commercial Design Standards – Livable Center Recommendations

Screening, Walls, and Fences

PERIMETER WALL VARIATION

The City currently requires new perimeter walls to match existing abutting walls. This requirement is intended to achieve design continuity. This requirement for design continuity should be discouraged within the Deer Springs District. Abutting wall designs should vary to avoid visual monotony.

In addition, walls should vary by 4 to 18 inches perpendicular to the right-of-way every 100 to 150 feet (typically every 2 to 3 lot widths). This can be achieved through the use of a vertical element or shift in wall face.

PERIMETER WALL MATERIALS AND COLORS

The City currently requires perimeter walls include design elements such that 20 percent of the wall façade must be contrasting with the other 80 percent by use of different colors, materials, or architectural design. This current standard does not result in a high level of visual interest. Within the Deer Springs District, the City should consider increasing the contrast to a 40/60 percent contrast. The City should also consider expanding the type of allowable materials to include brick, stucco, wood, corrugated steel, corten, powder coated steel, or aluminum. The walls designs should seek to provide variety and visual differentiation, either from the use of color, materials or both.

Land Use Tools to Implement Livable Centers Recommendations

The City's Zoning Ordinance provides multiple options to incorporate the Livable Centers Recommendations into proposed developments.

Zoning Ordinance Tool – Section 17.16.050.E Mixed Use Development District (MUD)

The City encourages new development and redevelopment projects that contain a mix of complementary and internally or externally connected uses (e.g., retail, offices, and residential uses) with a variety of densities and active public spaces. The design of mixed-use areas should emphasize pedestrian comfort, safety, and connectivity.

Mixed use projects shall be integrated in a vertical or horizontal manner. Vertical mixed-use projects incorporate different land uses within the same building (e.g., residential and/or office above retail uses). Horizontal mixed-use projects incorporate different land uses within adjacent buildings on the same site. Both types of mixed-use projects are encouraged and allowed in the City of North Las Vegas.

Proposed mixed use projects shall also comply with at least one of the following locational criteria:

- The development contributes to the revitalization or redevelopment of specific site(s) and/or neighborhood(s) within a designated redevelopment area.
- The development constitutes infill development on vacant or underutilized parcels.
- The development site is located within one-quarter mile of an existing or future bus rapid transit (BRT) or light rail transit (LRT) stop.
- The development is located adjacent to and directly accessible from an existing or planned

segment of the regional trail system or other City-planned trail facilities.

- The development is located within one-quarter mile of Cheyenne Avenue between Pecos Road and Decatur Boulevard and features employment-based uses (e.g., light industrial, office, supportive commercial, professional services, etc.) as a primary component.

Zoning Ordinance Tool – Section 17.16.050.C Planned Unit Development District (PUD)

A planned unit development is intended to maximize flexibility and innovation in residential, commercial and industrial development by utilizing area-sensitive site planning and design to achieve a desirable mixture of compatible land use patterns that include efficient and vehicular traffic systems and streetscapes; enhanced residential amenities; and allowances for the provision of usable open spaces.

Zoning Ordinance Tool – Development Agreements (DA)

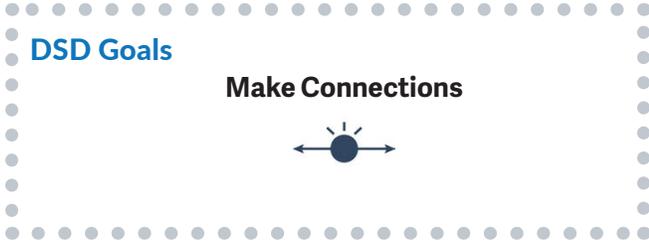
A development agreement is an agreement between the developer and the City that clearly establishes the developer's responsibility, the city's responsibility and the mutually agreed to terms and requirements. Often, development agreements include policies, rules, regulations and conditions of approval applicable to the project regardless of changes to the City's rules and regulations after the approval of the project. Development agreements contain elements and components that promote the public's interest and the welfare of the City while providing entitlements to the developer.

Zoning Ordinance Tool – Section 17.16.040.C Overlay Districts (OD)

Overlay districts are a zoning tool used to apply specialized standards to one or more areas; they can apply stricter or additional standards or lessen existing restrictions or standards. Overlay districts are often used to protect certain areas, such as those with historic value, or to apply special criteria to areas with specific natural features, such as wetlands or steep slopes. For development or redevelopment purposes, overlay districts can be used to promote specific development patterns, provide needed uses, or support transportation goals. Like established zoning districts, uses contained in overlay zones are legally justified for regulation "as contributing to the health, safety, and welfare" of the community.

During the public engagement process, an overlay district was identified as a potential tool to encourage walkable, transit- friendly development in line with the community's vision for the Deer Springs District.

SUB-CONCEPT 1.2 DEER SPRINGS DISTRICT TRANSPORTATION STRATEGIES



Pedestrian Realm

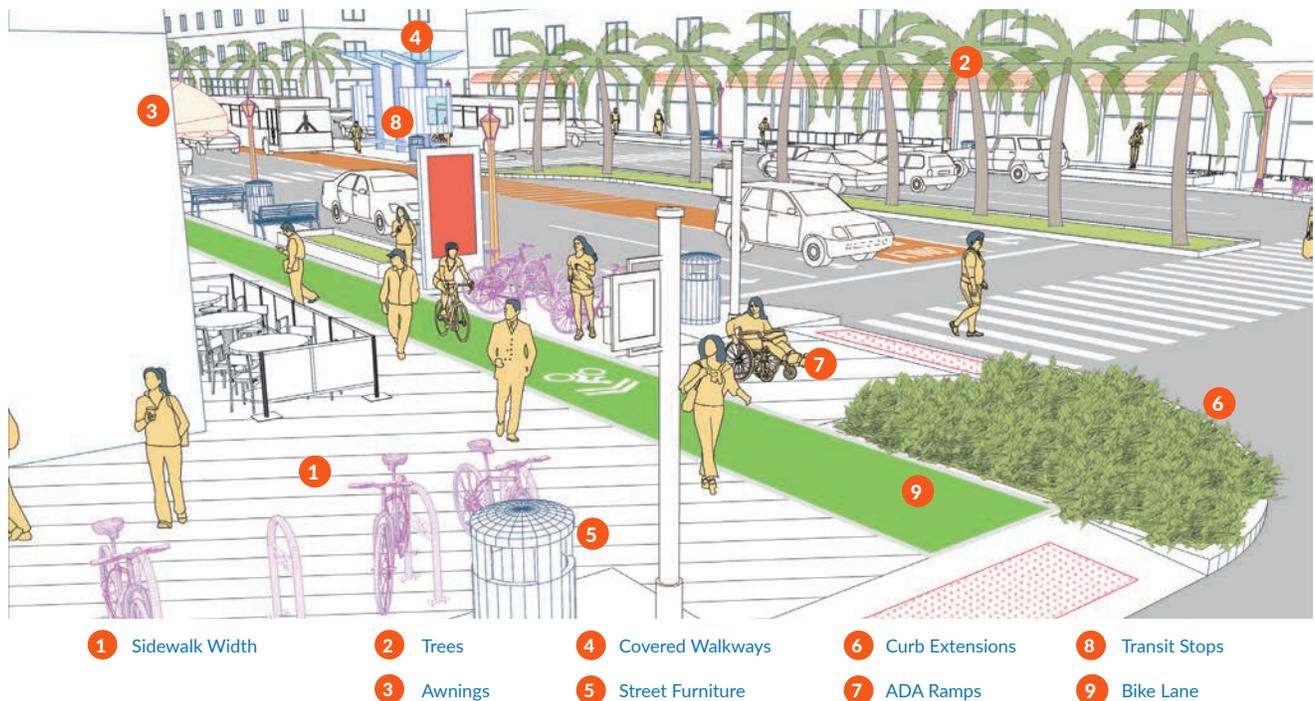
Pedestrian infrastructure supports the most fundamental form of transportation — walking — and is also a major component of Complete Streets. Well-designed pedestrian facilities increase mobility for those who do not drive, improving the transit user experience. It also offers automobile drivers opportunities to use their cars less.

The width of the pedestrian realm and its relationship to the adjacent street will depend on the street type, and the adjacent land use. In addition, comfortable and inviting pedestrian facilities promote the “park-once” mentality by encouraging

people to walk to multiple destinations, while standards for bicycle facilities focus on creating a comfortable cycling environment and decrease potential conflicts between bicyclists, pedestrians and automobile traffic.

The following pages provide recommendations to enhance pedestrian and bicycle mobility through alternative street cross-sections as well as options for transit facilities, bicycle facilities, and parking within the Deer Springs District.

Figure 4.6: Pedestrian Realm Conceptual Design



Deer Springs District Street Concepts

Typical cross sections from the City's Master Plan of Highways and Streets were used to develop new street concepts for the Deer Springs District. The street widths are shown in the Conceptual Street Network map below.

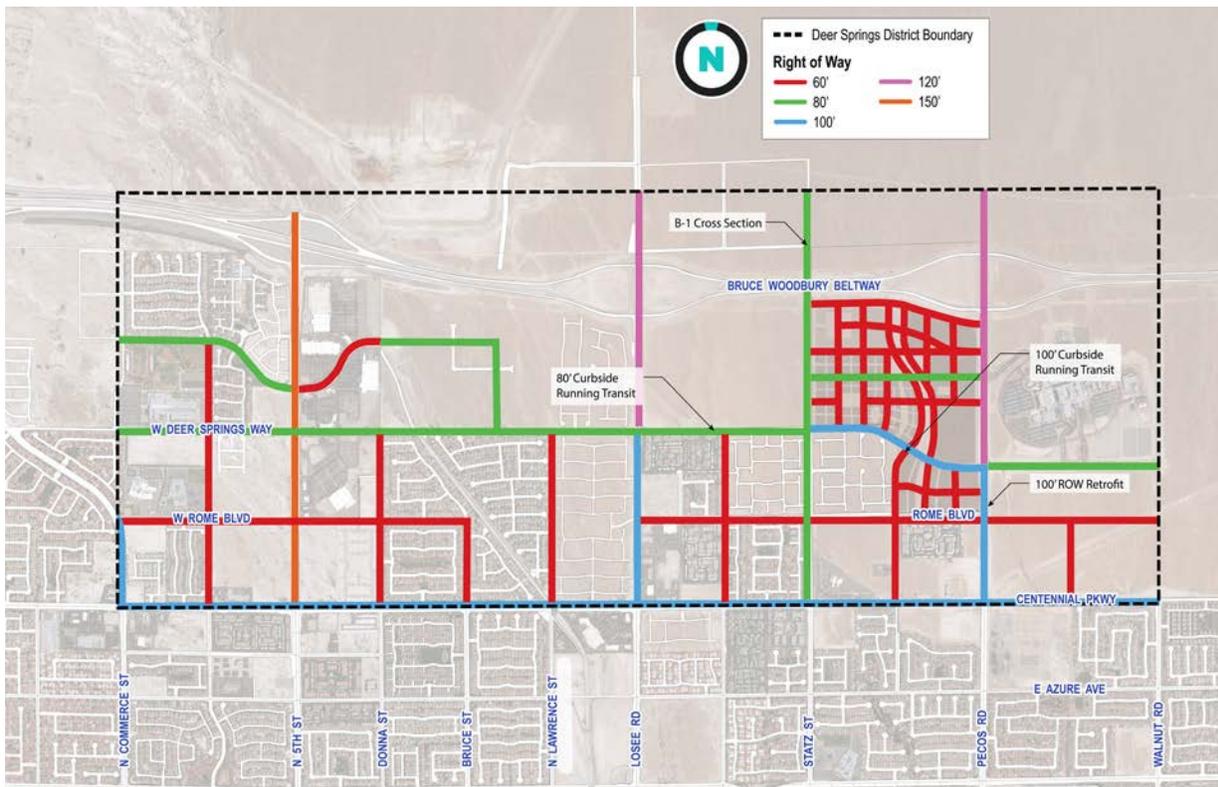
The proposed street concepts for the Deer Springs District include the existing street right-of-way and the first ten feet of the required perimeter landscape areas. Section 17.24.060 E of the Zoning Ordinance requires perimeter landscaping based on the proposed development's land use and street

width. Typically, this area is 10-feet for residential projects or 15-feet for mixed-use and commercial developments. The proposed street concepts provides a better experience for pedestrians and bicyclists by using the perimeter landscaping area for enhanced sidewalks and bike lanes. This area is referred to as the amenity zone on the proposed street concepts.

Proposed Street Hierarchy for The Deer Springs District

Streets colored blue in the graphic below indicates 100' ROW, green indicates 80' ROW, and red indicates (60' ROW or smaller). Deer Springs Way (80' ROW), has special characteristics adjacent to the Job Creation Zone, designated on the map by blue in the area of the Job Creation Zone.

Figure 4.7: Deer Springs District Conceptual Street Network



Proposed 100' ROW Street Concepts

Figure 4.8: Concept 1 (Shared Use Path)

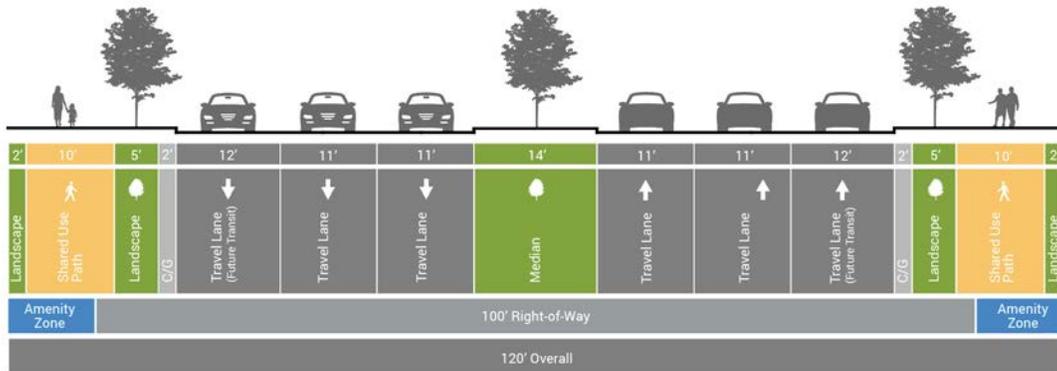


Figure 4.9: Concept 2 (Cycle Track)

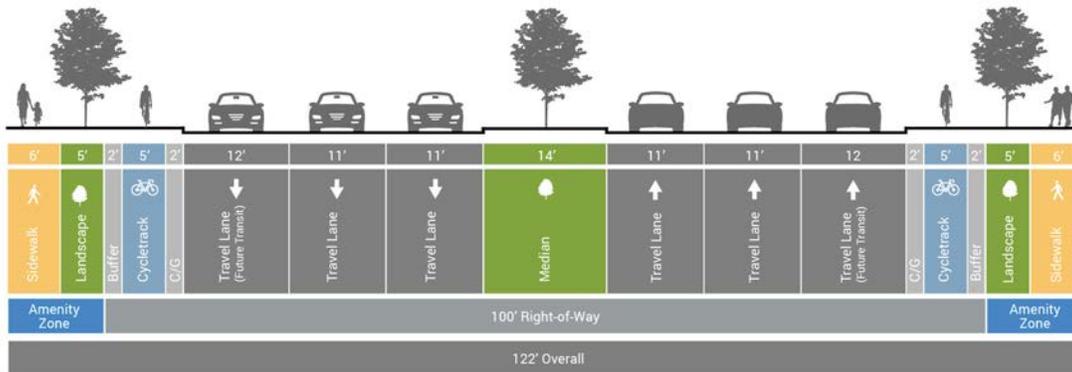
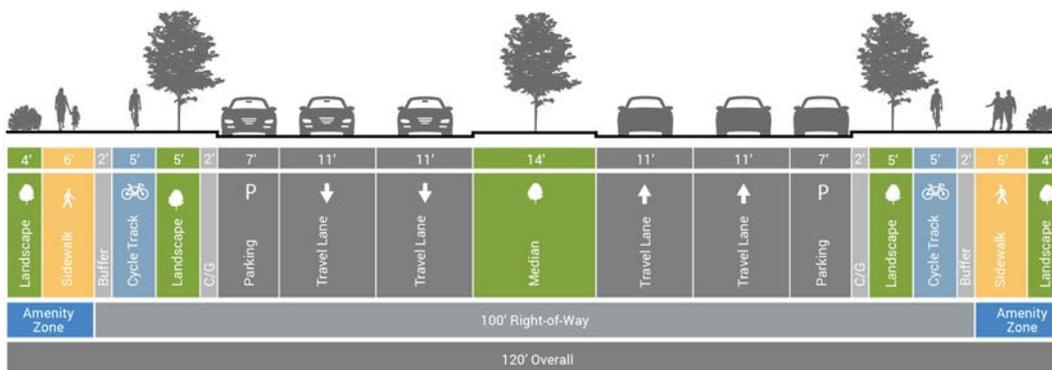


Figure 4.10: Concept 3 (Road Diet)



Proposed 80' ROW Street Concepts

Figure 4.11: Concept 1 (Wide Median)

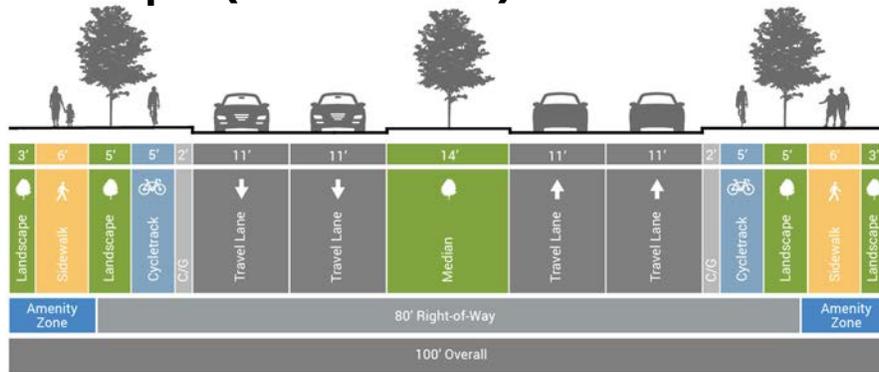


Figure 4.12: Concept 2 (Cycle Track 1)

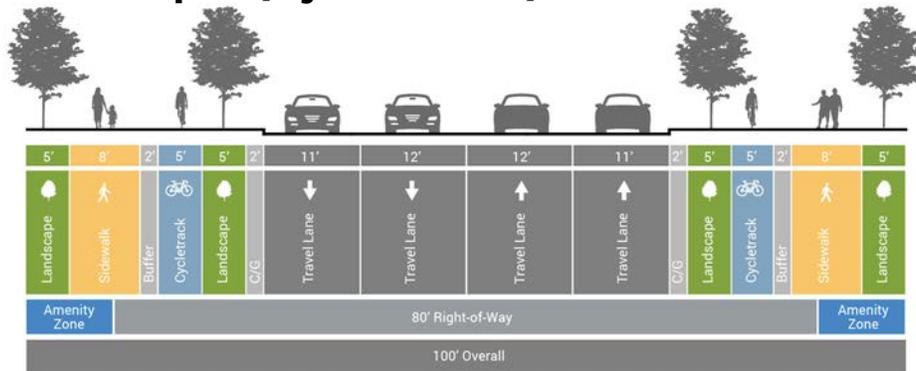


Figure 4.13: Concept 3 (Cycle Track 2)

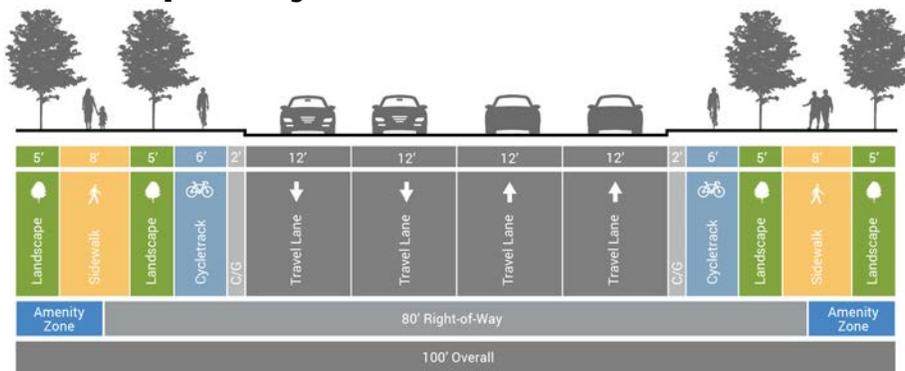
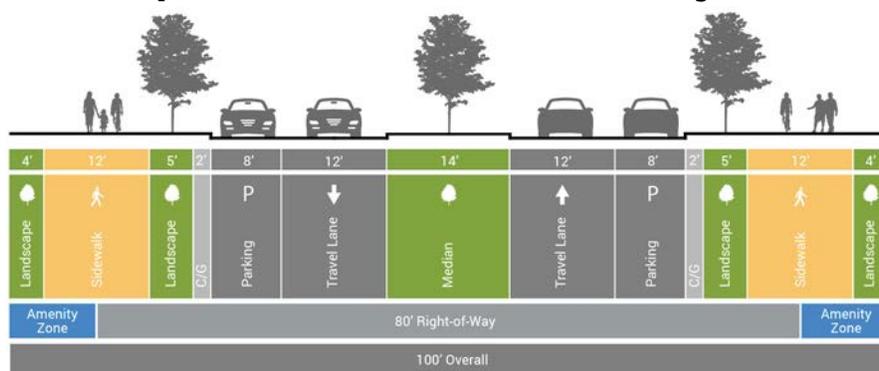


Figure 4.14: Concept 4 (Job Creation Zone Only)



Proposed 60' ROW Street Concepts

Figure 4.15: Concept 1 (Cycle Track)

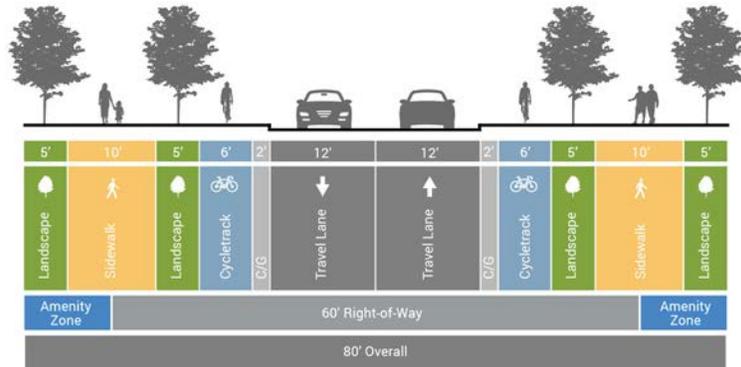


Figure 4.16: Concept 2 (Buffered Bike Lane, Wide Sidewalk)

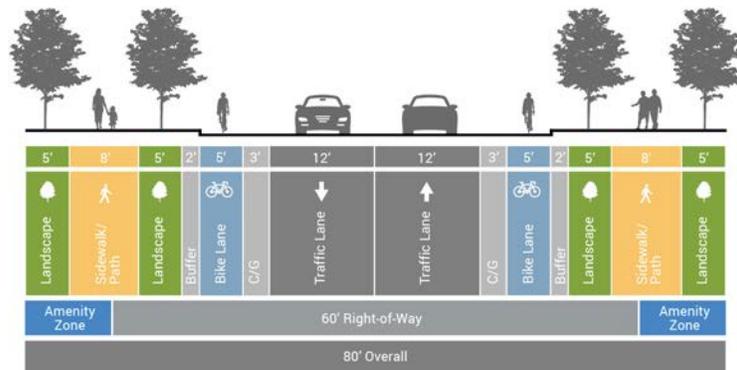
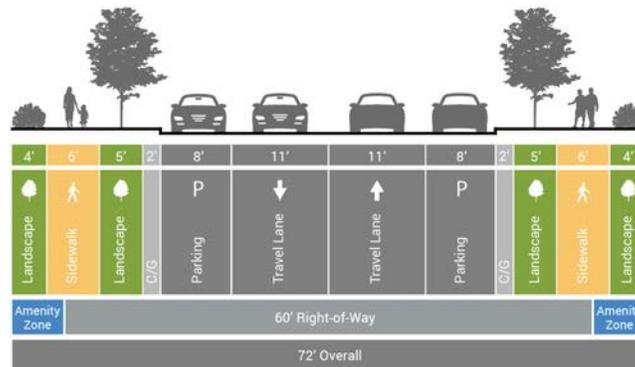


Figure 4.17: Concept 3 (On-street Parking)



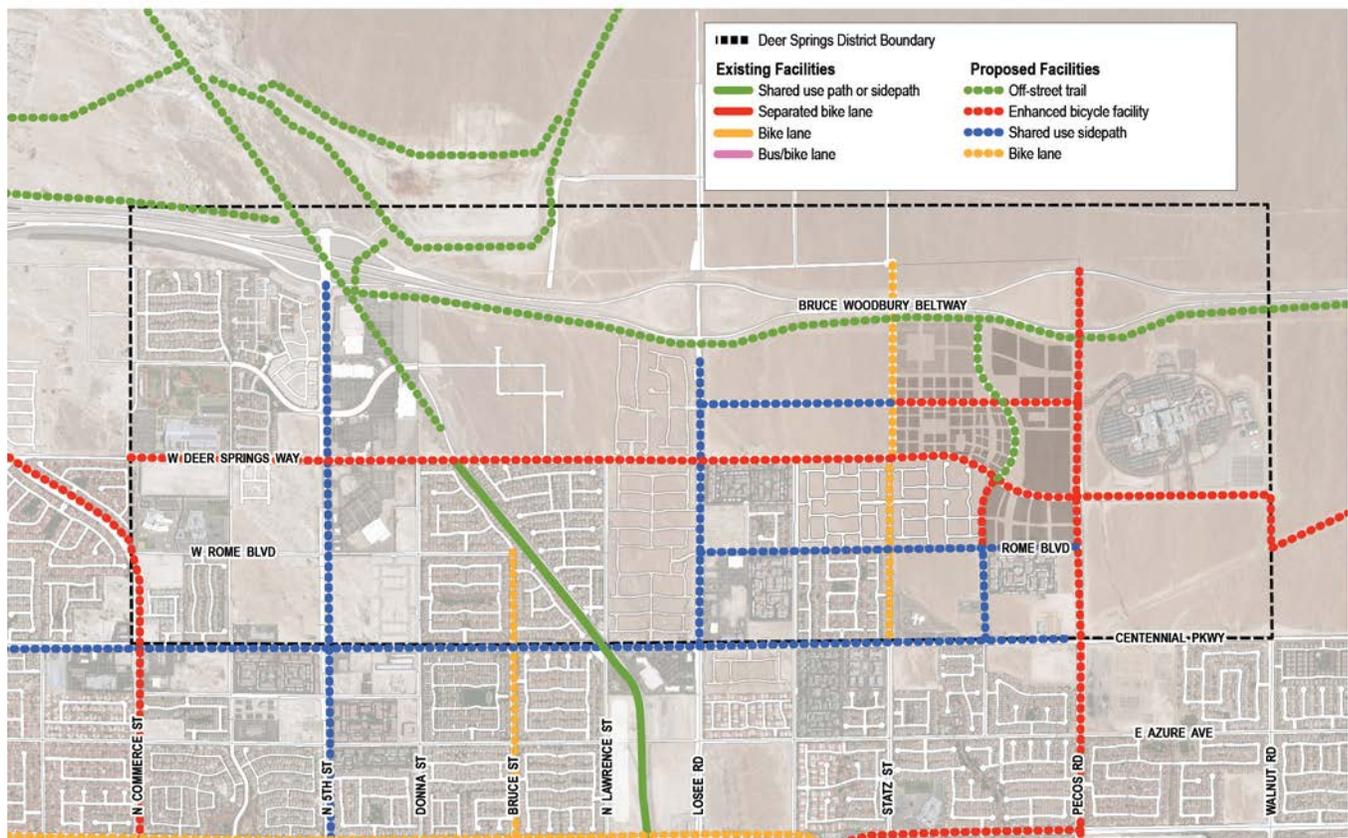
Trails and Bicycle Facilities

Bicycle facilities should be incorporated into the street network as the Deer Springs District develops, along with connections to the 215 Beltway Trail. Accommodations for bicycle connections into and within the Job Creation Zone should be considered.

For sections of the 215 Beltway Trail within Deer Springs District, see Northern Beltway Trail Alignment and Connectivity Study or the City of North Las Vegas Citywide Pedestrian & Bike Plan 2018 for Off-Street Trails document. Trail crossings at major arterials will need to be developed. An under crossing would be provided on the 215 Beltway trail at Aviary Way according to the Northern Beltway Trail Alignment Connectivity Study.

Different types of bikeway facilities provide different levels of comfort to cyclists according to their skill levels, riding experience, and traffic volume on a particular roadway. High-comfort bikeways provide the highest level of comfort to most cyclists. These facilities are separated from vehicular traffic and are appropriate for most age groups. Low-comfort bikeways are on-street facilities, which may either be separated from vehicular traffic or share lanes with vehicles. Low-comfort bikeways are generally located on higher-volume, higher-speed roadways and are considered high-stress for most bicyclists.

Figure 4.18: Proposed Bike Network



Off-Street Trail

An off-street trail is a type of shared use facility that provides a high-comfort connection for pedestrians and cyclists. Trails are typically located outside of the street right-of-way, parallel or adjacent to auto travel lanes, with some type of grade separation to reduce traffic stress, bypassing major barriers such as highways and railroads. This type of off-street facility is also typically implemented in regional or community parks to serve people biking for both leisure and longer commuting trips. Trails are typically considered the highest-comfort off-street bikeway facilities.



Source: Tucson Bike Rentals

Bicycle Lane

A bicycle lane is a type of bikeway facility that separates cyclists from pedestrians and motorists by providing dedicated street space through the use of pavement markings and signage. Bike lanes are typically located adjacent to vehicular traffic and can include a buffer. Bike lanes follow the same direction of flow as vehicular traffic.



Source: Google Street View

Cycletrack

A cycletrack is a type of high-comfort bikeway facility that separates cyclists from pedestrians and motorists by providing dedicated street space. Cycletracks can be one-way or two-way and can be at street level or sidewalk level. At street level, cycletracks are separated from cars with curbs or planters, and are typically implemented along streets with multiple lanes, high traffic volumes or speeds, high parking turnover, and/or congestion conditions. Cycletracks are typically considered the highest-comfort on-street bikeway facilities.



Source: People for Bikes

Shared Use Sidepath

A shared use sidepath is a type of high-comfort facility that provides a connection for pedestrians and cyclists. Shared use sidepaths are typically implemented along streets with high traffic volumes and speeds within the street right-of-way behind adjacent curbs in residential areas. Shared



Source: Google Street View

Figure 4.19: Proposed Trail Head Amenities



Trail Head Amenities

In order to encourage use of the proposed integrated trail network within the Deer Springs District, amenities such as shade structures, benches, water fountains, trash receptacles, and wayfinding signage should be added throughout the trail system, specifically at trail heads.

use sidepaths are generally not well suited to commercial areas where there are higher volumes of pedestrians and a greater number of driveways.

Deer Springs Way

Within the Job Creation Zone, the Master Developer and the City of North Las Vegas can obtain more Right-of-Way to enhance the pedestrian and transit-ready environment. Deer Springs Way should be designed to support active transportation, future transit, and to foster a strong retail environment.

Elements provided in the following Transit Toolkit were used as a basis for the cross sections proposed for Deer Springs Way. Options Figure 4.22 and Figure 4.24 were considered for the widened area within the Job Creation Zone (100' right-of-way)

Deer Springs Way

Within the Job Creation Zone, the Master Developer and the City of North Las Vegas can obtain more Right-of-Way for an enhanced sidewalk and pedestrian amenity area.

Proposed Street Hierarchy for Job Creation Zone

The graphic at the bottom of this page shows how the Deer Springs Way will increase from 80' ROW to 100' ROW within the Job Creation Zone.

while Options Figure 4.23 and Figure 4.25 were considered at the areas where 80' right-of-way is provided. The options show both curbside running and center running transit. From the available options, curbside running transit is proposed within the Deer Springs District (Figures 4.22 and 4.23).

Figure 4.20: Job Creation Zone Conceptual Street Network

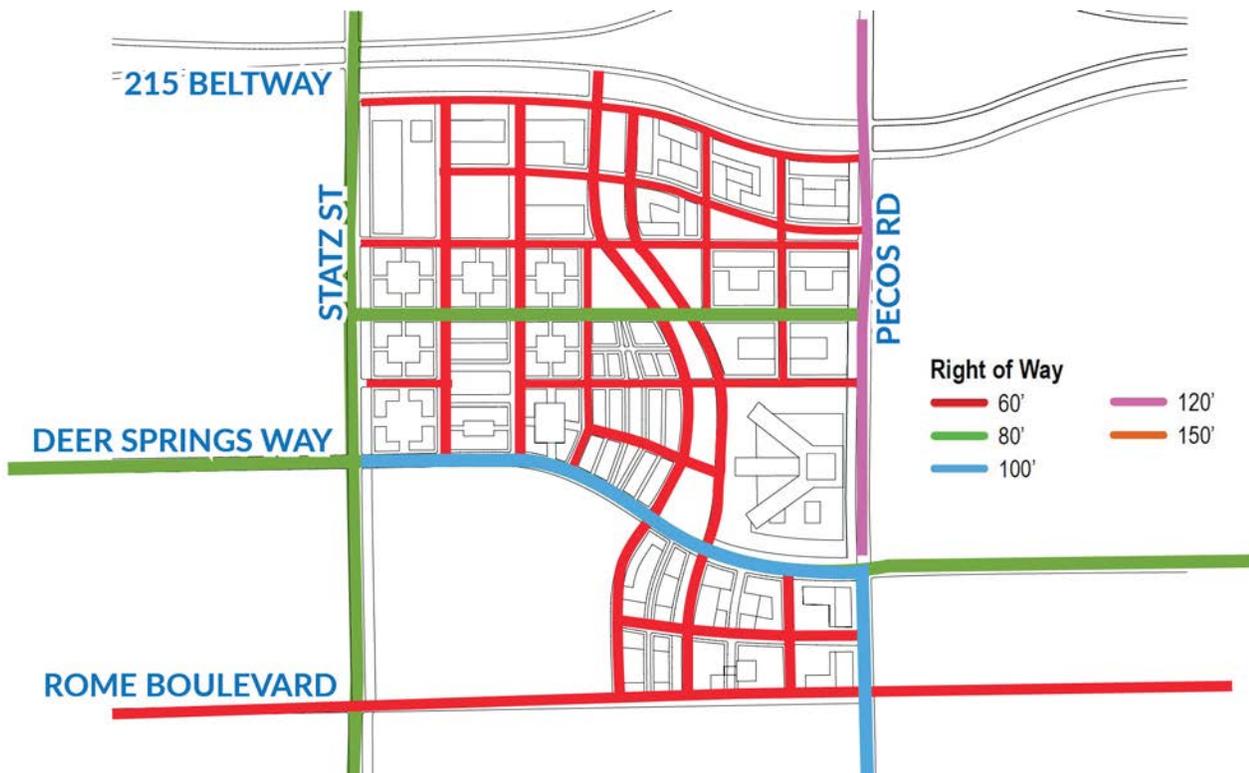


Figure 4.21: Deer Springs Way Conceptual Streetscape Design



1 Conventional Crosswalks

2 Raised Crosswalks with Artistic Designs

3 Cycle Track

Proposed Deer Springs Way Street Concept with Curbside Running Transit

Figure 4.22: Concept 1 (Within Job Creation Zone 100' ROW)

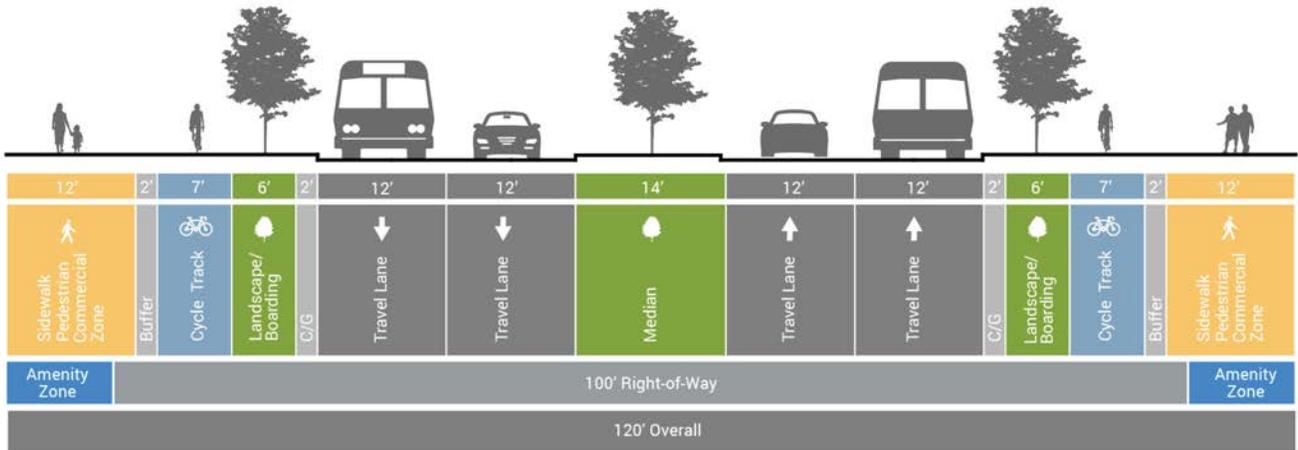
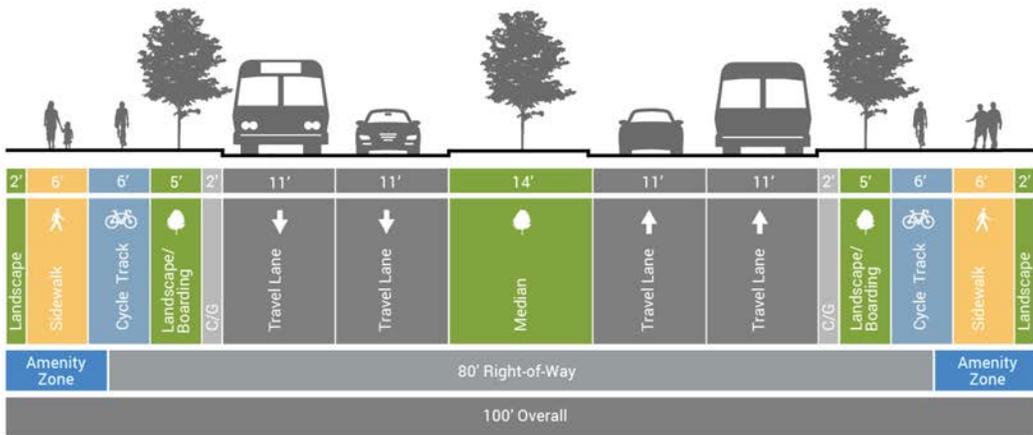


Figure 4.23: Concept 2 (Outside the Job Creation Zone 80' ROW)



Proposed Deer Springs Way Street Concept with Center Running Transit

Figure 4.24: Concept 3 (Within the Job Creation Zone 100' ROW)

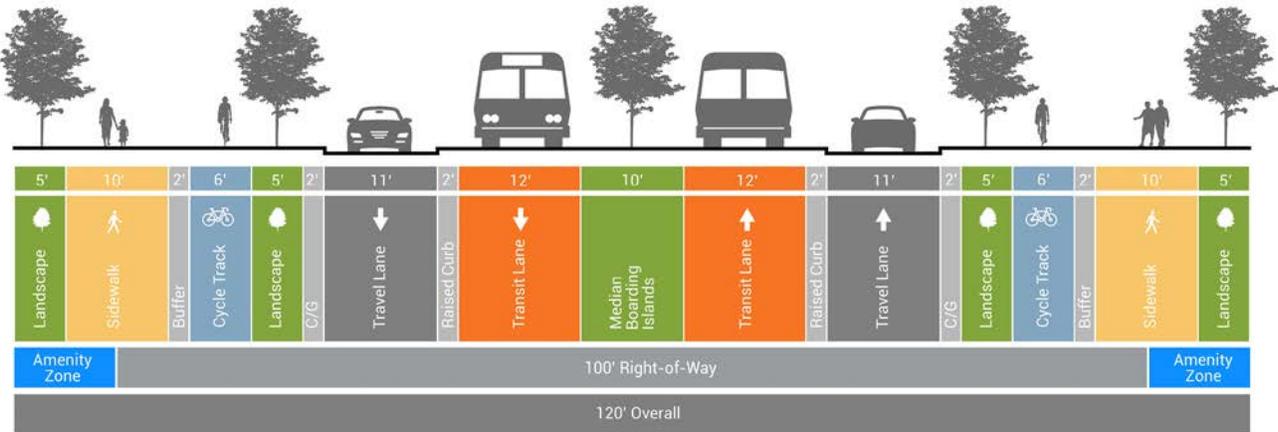
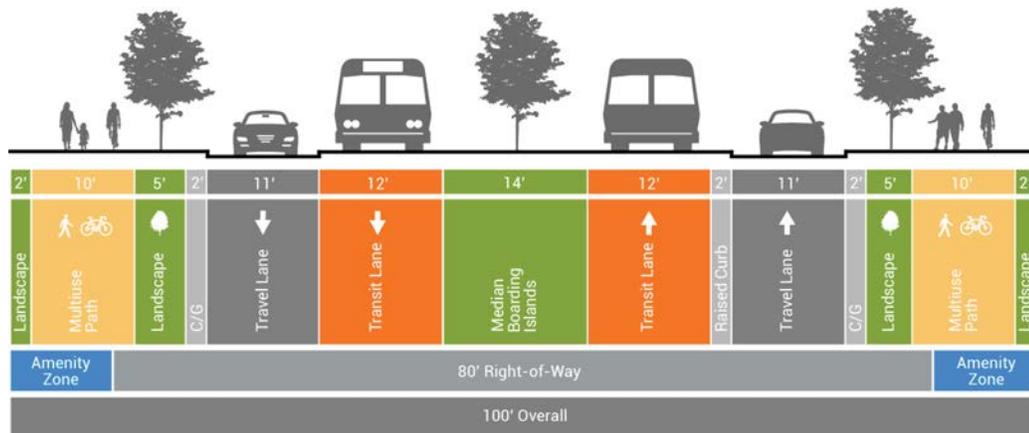


Figure 4.25: Concept 4 (Outside the Job Creation Zone 80' ROW)



Transit Toolkit

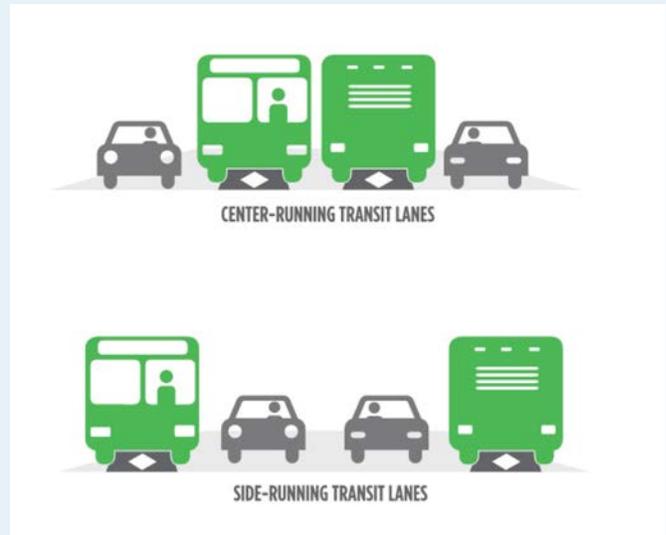
Type of Service

As part of this study, it is recommended that Deer Springs Way be built with the infrastructure to accommodate Bus Rapid Transit (BRT) in the near future, as well as long-term Light Rail Transit (LRT) as part of the North 5th Street transit corridor.

BRT is a bus service that operates similar to LRT in that they have dedicated transit lanes. Fully implemented BRT can decrease travel times and increase economic development in an area. BRT is set apart from typical bus services in that it includes the following design features:

- Dedicated transit lanes,
- Enhanced stations with prepayment options
- Wider stop spacing
- Transit signal priority
- Higher capacity vehicles
- Frequent service

As the City of North Las Vegas plans for BRT along the Deer Springs Way corridor, it will need to be determined if transit will be curbside running or center running and how to plan for and transition to future LRT. The following sections summarize curbside transit operations as well as center-running transit operations.



Source: RTC On-Board Study

Curbside vs. center running design is influenced by corridor constraints and other factors, including:

- Right-of-way
- Pedestrian access (center running reduce crossing time to and from stations)
- Bicycle lane provision
- Traffic volumes and turning volumes
- Driveway spacing (access management)
- Street network characteristics
- Driver expectations
- Type of transit/aesthetics

Curbside Transit

Curbside transit lanes are typically provided on through-corridors in areas where parking is not provided or utilized and are typically used by most BRT in the United States. According to the National Association of City Transportation Officials (NACTO), benefits of curbside transit include:

- No delay due to interactions with parking or loading of vehicles
- Variable use of curbside lanes during the day, such as parking or shared bus-bike lane

Curbside transit lanes should consider the following:



DVX Downtown and Veterans Medical Center Express

Source: RTC

There are many examples of curbside BRT transit in the Las Vegas Valley, including Boulder Highway Express, Centennial Express, Henderson & Downtown Express, and Sahara Express. An image of the Downtown Express lanes is included above.

- Design of right turn lanes
- Enforcement to prevent encroachment by other users
- Good drainage to avoid water from pooling and splashing onto the sidewalk
- Transit stops must provide adequate room for waiting passengers and passing pedestrians
- Provide proper lane markings
- On-street parking impacts
- Business access impacts (e.g., deliveries and loading)
- Impact on roadway capacity and level of service (LOS)
- Driveway and intersection density
- General traffic turning volumes
- Volume of buses to be accommodated
- Need to accommodate buses passing each other (e.g., by providing pull-outs at stations)
- Station location (i.e., near-side, far-side, and midblock)
- Pedestrian crossings and station access
- Bicycle lane accommodation
- Signalization
- Enforcement
- Full-time bus lanes vs. part-time bus lanes
- Vehicle right turn from the bus lane

Transit Toolkit continued

Center Running Transit

Center-running transit streets are appropriate for high-ridership rapid transit. Most of LRTs in the United States runs along the center of roadways. NACTO lists the following benefits for center-running transit:

- Improved service
- High capacity and volume
- Improved pedestrian and passenger experience
- No conflicts with drop-off, deliveries, or illegal parking



Grand Central Parkway and Symphony Park Avenue, Looking North

Source: RTC

The two existing BRT routes currently operating in dedicated center running transit lanes within the City of Las Vegas operate on Grand Central Parkway from City Parkway to Charleston Boulevard and on Casino Center Boulevard from Bridger Avenue to Colorado Avenue.

Considerations for center-running transit include the following:

- Low design speeds
- Prohibited parking at stops
- Restrictive or separate left-turn phasing
- Refuge islands
- Transit signal heads
- Off-board fare collection to reduce dwell time
- Presence of a suitably wide median or impact on roadway capacity and LOS if the median is widened by absorbing the general traffic lanes along the median
- Right-of-way for median stations
- Need to accommodate buses passing each other
- Accommodation of general traffic left turns (e.g., by channeling them into lanes outside the median or prohibiting them)
- Volume of buses to be accommodated
- Pedestrian crossings and access
- Signalization

CURBSIDE RUNNING TRANSIT		CENTER RUNNING TRANSIT	
PROS	CONS	PROS	CONS
<ul style="list-style-type: none"> • Easier to implement in existing infrastructure • Typically require less right-of-way, station can be located in sidewalk • Do not require changes to left turn lanes • Less expensive to develop curbside stations • Transit vehicles are not delayed due to parking or loading interactions between vehicles • Flexible usage throughout the day, could be uses for parking, shared use (bus/ bike lane), or HOVs 	<ul style="list-style-type: none"> • Special attention needed for right turn lanes where right turn volumes are high • Enforcement is needed since lanes are prone to illegal parking, passenger pickup/ drop-off • Less reliable than center running transit due to unauthorized vehicles using dedicated transit lanes 	<ul style="list-style-type: none"> • Transit service is improved as vehicle conflicts are reduced (drop-offs, deliveries, or illegal parking) • Center running transit provides for high capacity and volume • Reduces conflicts between sidewalk activity and waiting passengers in high ridership areas • Reduces distance for pedestrian to cross from station to sidewalk 	<ul style="list-style-type: none"> • Low design speed • Parking prohibited at stops • Left-turns across are either restricted or have separate phases • Reduces number of left turns which could impact access to residences and businesses • Center stops require more right-of-way width than curbside lanes (28 feet min. for transit lanes and stations) • More expensive to procure left-side boarding buses (for single stations)

Source: *Transit Street Design Guide*, NACTO and *On Board High Capacity Transit Briefing Book*

Transit Stations

Station spacing of 0.5 mile (maximum 1 mile) is recommended for stations for both BRT and LRT. Three station locations were proposed for Deer Springs Way in the North 5th Street Transit Supportive Concept Plan, and it is recommended that two additional stations be located near the Las Vegas Upper Wash Trail Head, and one near Statz Street.

For center-running transit, station design and location will impact the right-of-way needed in the area of the station and particularly at intersections. Bi-directional stations could be accessed from the same platform, but that would require buses that open on the left. Stops could be directional stations that straddle the intersection (typical to Grand Central Parkway in Las Vegas). Directional stations (one on each side of the intersection) better accommodate left turn lanes.

SUB-CONCEPT 1.3 DEER SPRINGS DISTRICT RECREATION STRATEGIES

DSD Goals

Create Value



Develop with Distinction



The Deer Springs District has the opportunity to introduce new parks and plazas to serve as destinations for recreation. The new parks and plazas will provide amenities for residents who will live and work in the Deer Springs District. Currently, the Skyview Multi-Generational Center, operated by the YMCA, is one of only two recreational amenities in the Deer Springs District. The Upper Las Vegas Wash trail is the other recreational amenity. The community center, that opened in 2011, was a part of a multi-phased plan to develop the full 40-acre site to encompass an outdoor park. The original park plan was developed over a decade

ago and should be revisited to ensure the proposed amenities are still desirable.

The design and development of Skyview Park will contribute to the success of the Deer Springs District. The public has identified this park as a major asset for the community, especially for nearby residents and families. Input from the Deer Springs District study public workshops has been captured in the following conceptual park design.

The location of the Skyview Park will become an attractive feature to Job Creation Zone (JCZ) developers, and eventually JCZ employees. The park is located at the southwest corner of Rome Boulevard and Palmer Street, and the JCZ boundary is at the northeast corner. This juxtaposition at the same intersection provides recreation space for both District residents and JCZ employees.

Figure 4.26: Skyview Park Conceptual Rendering



Figure 4.27: Skyview Park Conceptual Design



- 1 Multi-Use Fields
- 2 Pavilions and Public Restrooms
- 3 Flexible Use Space
- 4 Picnic shelters
- 5 Play areas
- 6 Splash pad
- 7 Basketball pavilion
- 8 Botanic garden
- 9 Parking
- 10 Senior fitness trail
- 11 Desert wash



Figure 4.28: Job Creation Zone Location Map



A proposed trail will run north to south through the JCZ, linking the future Northern Beltway Trail to Skyview Park. The JCZ open space and trail system will link future retail, commercial, and office uses in the JCZ creating an off street transportation network to increase bicycle and pedestrian mobility. The existing wash in the JCZ has influenced the design of the open space and trail system as well as the Skyview Park design. The wash introduces topographical variation to the future trail and park.

- 1 **Multi-Use Fields:** Two fields, eighteen benches, and surrounding berms provide ample seating for spectators and players.
- 2 **Pavilions and Public Restrooms:** Three large pavilions spaced throughout the park provide space for performances, vendors, or celebrations as well as utility connections for public restrooms.
- 3 **Flexible Use Space:** One lawn centered at the north edge of the park provides a flexible space for a wide variety of activities ranging from games to markets.
- 4 **Picnic shelters:** Simple shelters that provide shade and ADA accessible tables are clustered at the heart of the park, surrounded by berms and locally appropriate vegetation, with a great view of the desert wash and botanic garden.
- 5 **Play areas:** Five play areas with equipment for varying levels of ability are clustered near the community center and bordered by shallow swales that offer visitors the chance to study local ecology, soil, and drainage patterns.
- 6 **Splash pad:** Punctuates the end of one of the desert wash swales connecting sustainable water management practices with unique recreational activities. The splash pad is buffered by a berm to provide privacy from the nearby parking lot.
- 7 **Basketball pavilion:** A pavilion large enough for two basketball courts is proposed on the north side of the community center offering a shaded outdoor environment for recreation and gathering.
- 8 **Botanic garden:** Shallow berms repurpose soil excavated from the desert wash area are planted with locally appropriate vegetation provide a passive green environment and separation between the existing police station and proposed park activities.
- 9 **Parking** with integrated vegetated drainage collect and filter stormwater on site.
- 10 **Senior fitness trail**
- 11 **Desert wash**



3 Flexible Use Space
Source: Maricopa County



4 Picnic Shelters
Source: Clark County



5 Play Areas
Source: City of Palm Desert



6 Splash Pad
Source: Washoe County, Nevada Melio Gaspari Water Play Park



7 Basketball Pavilion
Source: Travis County Parks, Texas



8 Botanic Garden
Source: Baepler Xeric Garden, UNLV



9 Parking
Source: US EPA



10 Senior Fitness Trail
Source: Montreal Gazette

SUB-CONCEPT 1.4 DEER SPRINGS DISTRICT BRANDING STRATEGIES

DSD Goals

Create Value



Develop with Distinction



Public realm improvements, such as signs, public art, and wide sidewalks, can attract private investment in retail and office. These features also help to create a socially vibrant live-work-play community. North Las Vegas has an opportunity to use the development process to ensure a high-quality and community-serving public realm. The following community branding standards can guide public investment in the public realm within the Deer Springs District.

District branding meets several goals:

- Create a recognizable district for visitors
- Create a sense of identity and ownership for business owners and nearby residents.
- Enhance the pedestrian realm and encourage pedestrian activity. Wayfinding will provide accurate direction and distance estimates.
- Establish the Deer Springs District as a unique destination within North Las Vegas and southern Nevada.

These public realm infrastructure improvements are in the form of gateways, signs, and wayfinding.

- Wide sidewalks to accommodate amenities like benches and street trees
- Connections to trails and transit stations

Public art frequency

The location and frequency of Public Art will vary depending on funding and if installed on public or private land.

The City of North Las Vegas Strategic Arts and Cultural Plan for 2018-2020 identified opportunities for funding. Following through with creating an overall plan for the City's public art program will help define rules and regulations for public art.

Public Art

A successful business district includes quality, functional public space. A vibrant and welcoming street environment can increase pedestrian traffic, which may result in additional sales, generating more revenue for business and supporting the local economy.

Businesses may be interested in installing public art that reflects the Deer Springs District's character. Businesses can work with the City to identify locations for signature art pieces on medians or at the Deer Springs District gateways in coordination with the introduction of wayfinding elements. The installation of murals on public-facing private properties can highlight local artists and the culture of the Deer Springs District.



Source: Art League Houston, Patrick Renner, artist, Houston, Texas 2013



Source: Janet Echelman, artist, Denver, Colorado 2010



Source: Great Public Places, Agueda, Portugal 2015

Wayfinding

Wayfinding signage, in addition to enhancing the public realm, will help visitors to the Deer Springs District discover new places. The signage will also connect places and promote active transportation. Wayfinding signage should include the Deer Springs District logo and other branding elements to distinguish the Deer Springs District from other areas in North Las Vegas.

Signs

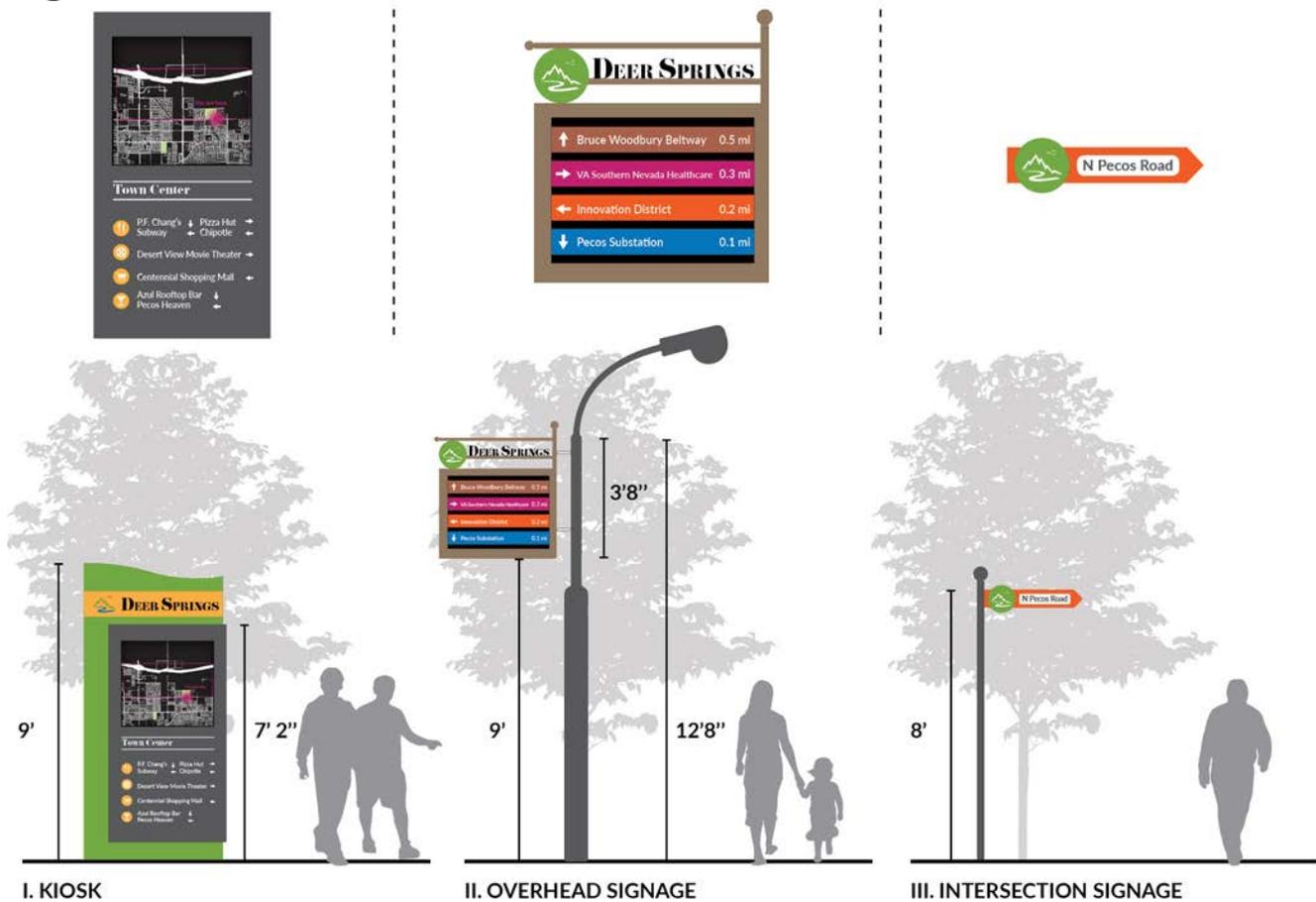
Signs should include the three Ds: Destination, Direction, and Distance. Signs should be strategically placed at decision points. The frequency of signage should be predictable. Banners should be placed on City lighting along major corridors. Refer to the Neon to Nature Wayfinding Guide for sign frequency, measurable distances, and sign typology.

Logo design

Development of a logo for the Deer Springs District will be an integral part of branding the Deer Springs District. Colors and a unique design will be incorporated in the Deer Springs District's remaining branding, such as wayfinding, marketing, and public art.

Input provided at Workshop #2 and #3 gave direction for a logo design. Notable comments included a lack of association with the words "Deer" and "Springs", and that the public prefers logos without animals or cacti, which feedback indicated are overused in the valley. Attendees noted the view of the mountain range is very distinct in North Las Vegas and should be highlighted in future branding. The logo concepts incorporated into the wayfinding exhibits builds on these ideas.

Figure 4.29: Public Realm



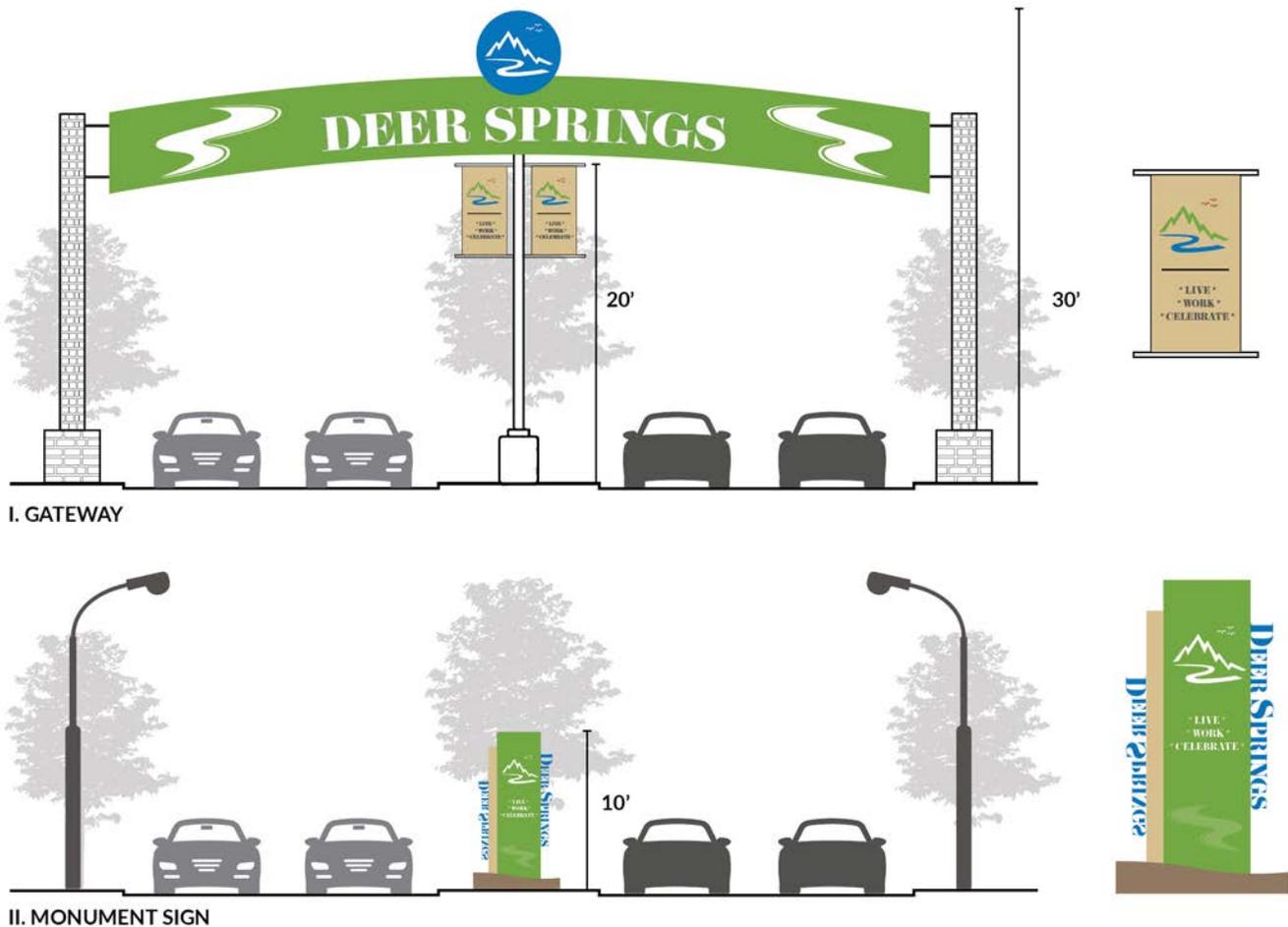
Gateways

Gateways identify the key points of entry and should create a sense of welcome, arrival, and place. These should be placed at key traffic points, and can be unique to each location's surrounding character. Gateways may include special landscaping, pronounced paving, an overhead banner or overhead sign, or a simpler corner sign. These elements will create a "front door" to the Deer Springs District.

Gateway frequency

Gateway arches should be located at both ends of Deer Springs Way, North 5th Street, and Pecos Boulevard and the monument signs should be on street intersections where an A and B street intersect, as well as every other entry point to the Deer Springs District.

Figure 4.30: Urban Street



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Concept 2. Develop the Job Creation Zone as a major job center, that repositions commercial development, and catalyzes adjacent, high-quality residential development for North Las Vegas.

The Deer Springs District is home to a U.S. Congressionally designated Job Creation Zone (JCZ). The JCZ is bordered on the east by the Veteran’s Administration Hospital (VA Hospital) and to the northeast, across the Bruce Woodbury Beltway, by land designated for a future University of Nevada- Las Vegas campus (UNLV). Both UNLV and the VA Hospital are important anchors for North Las Vegas and provide significant opportunities for economic development within and adjacent to the Deer Springs District.

To the west and south of the JCZ, there is currently a significant amount of vacant land that has been entitled for residential development. It is likely that there will be some additional commercial development along major corridors, including Deer Springs Way (See Figure 4.31).

Located to the southwest, is a future major open space amenity - Skyview Park, and the Skyview YMCA which provides civic and community use anchor to the site as well.

The VA Hospital will greatly aid in the marketing of this corridor to office/business park developers. The VA’s Hospital is located on a 151-acre site at the Deer Springs alignment and the Beltway. The \$600 million facility opened in 2012 with services available to more than 240,000 Veterans living within the catchment area.

Previously in 2017, a conceptual master plan for a Medical & Research Campus within this Job Creation Zone was developed and showcases multi-faceted health-care services with additional professional office uses in conjunction with the

development of supporting commercial services, open green space, and walking paths.

The recommendations for the development of the JCZ is to build upon previous planning efforts as well as the overall vision and goals for the Deer Springs District. As the JCZ is approximately 150 acres and development will likely be phased, different primary uses may be implemented within the different phases. A potential building plan is explored on the following pages. Opportunities exist for the City to contribute to the shaping of the Job Creation Zone through infrastructure, open space and sustainable design, all of which are explored in more detail.

SUB-CONCEPT 2.1 JOB CREATION ZONE SPECIAL AREA STRATEGIES



Specific application of the various strategies and tools associated with the each of the Deer Springs District Goals varies depending on the location of the development within the Livable Center. The JCZ should have one of the highest employment densities and degree of mixed uses within in the Deer Springs District excluding residential uses. This Core area should have buildings fronting sidewalks; wide sidewalks with pedestrian amenities; and walkable street blocks.

Figure 4.31: Job Creation Zone Conceptual Site Plan



- | | |
|--------------|---------------------------------------|
| 1 Hospital | 6 Town Center |
| 2 Parking | 7 Supportive Research and Development |
| 3 Office | 8 The Wash or Linear Park |
| 4 Commercial | 9 Open Space |
| 5 Hotel | 10 Plaza |

Figure 4.32: District Location Map



The JCZ Core area should develop as a special area focused on economic development and anchored on a medical district. This special area should contain a land use mix of services, retail, civic, educational and professional office uses. The JCZ will have convenient connections and other amenities for users of the professional medical offices and the surrounding residential developments. Design elements for the JCZ Core area may include:

- Continuous ground floor retail and office uses
- Commercial and/or office above the ground floor
- Buildings oriented toward street and sidewalk with limited setbacks. The setback area should be used for merchandise displays, outdoor dining and public art installations
- Sidewalks should be a minimum of 10-15 feet in width
- Alleys to provide service access for buildings and future access to structured parking
- Block circumference should be 1,600 linear feet maximum
- Curb extensions and crosswalks with accent pavement
- Building heights typically range from 1 to 10 stories
- Employment density range 15 to 25+ jobs per acre

Building Program

The success of the Job Creation Zone relies heavily upon the program that is chosen to anchor the site. Although residential uses cannot be constructed within the Job Creation Zone, a mix of non-residential uses will contribute to the long-term successes and resiliency of the project. The site is large enough that non-compatible uses can be segregated from each other, but, at the same time, many opportunities exist for significant synergies between adjacent uses - for example, a hospital with professional office space nearby, or restaurants that can serve a lunch time office crowd. The building program may be phased over time; for example, a small town center may expand with initial successes, or major program may be built all at once, as would likely be the case with a medical campus. This page highlights a number of potential program types that have been identified through research and community input to be a good fit for the Job Creation Zone.

Hospital



Source: Mayo Clinic News Network, Rochester, MN

As the job creation zone is directly adjacent to a large, regional Veterans Administration hospital facility, there is a very strong opportunity to build complementary health related facilities within the Job Creation Zone. Destination regional hospitals are an amenity missing from both the City of North Las Vegas, and the Las Vegas Valley in general and, given both the climate, the ease of travel to Las Vegas from almost anywhere in North America, and the low costs of living, there is a strong potential for the city to become a destination for health care. Within the Job Creation Zone, a full-service regional hospital, or a more targeted facility, such as a Mayo Clinic or MD Anderson Cancer Research Center, could be an appropriate fit and would likely anchor significant other development.

Research and Development



Source: Wikimedia Commons, San Antonio Building upon both the health care theme and the proximity to land owned by the University of Nevada-Las Vegas, facilities for research and development, including flexible wet lab space and even small light industrial/prototyping could be appropriate ancillary uses. North Las Vegas' existing superiority in logistics, manufacturing and warehousing would similarly give researchers developing items such as medical devices a strong access to markets utilizing research done in the Deer Springs District and manufacturing done in the Apex Industrial Zone, for example.

Hotel



Source: Wikimedia Commons, Portland Although residential uses are not allowed in the Job Creation Zone, Hotels are considered a commercial use and would therefore be allowed. Hotel options could include both long term stay options for those seeking treatment at the VA or the Deer Springs District Hospital as well as more traditional hotel experiences. Hotel users will significantly contribute to the vitality of the Job Creation office Zone, especially after traditional office hours.

Civic Uses



Source: San Jose, CA Parks and Recreation Civic uses, such as a library, city facility, or community center can be significant assets as an anchor for this type of development. In many cases, such buildings can be gifted to the City as a part of an incentives negotiation with a master developer. One prominent type of civic use that could fit well within the proposed uses for the Job Creation Zone could be a Medical/Health Care Magnet High School. DeBakey High School for Health Professions, located in the Medical Center area of Houston, Texas, has been rated the number one public school in Houston and in the top 50 in the US by US News and could serve as a model for this type of facility.

Class A Office



Source: Flickr, Google offices Class A Office space can be a natural outgrowth of the professional medical focus of other aspects of the Job Creation Zone programing. Space that is attracting not just for medical uses, but also the ancillary services necessary for those uses (lawyers, insurance, etc.) can create a major professional job cluster in North Las Vegas.

Restaurant / Restaurant Incubator



Source: Google Images, The Conservatory

In addition to retail uses, surveyed residents expressed a strong desire for more options for dining in North Las Vegas, especially of non-chain restaurants. This can take the form of traditional restaurants, but could also incorporate a food or market hall, or other types of non-traditional restaurant incubators, which encourage chefs from the community (who may already be working in the Las Vegas Valley) to test new concepts before establishing a traditional brick-and-mortar restaurants.

Commercial



Source: Culture Trip, Downtown Summerlin The community outreach for this study has shown a very significant desire from North Las Vegas residents for more shopping options in the City. Outdoor "town center" style shopping developments, such as Downtown Summerlin or Las Vegas Town Square were frequently cited as favorite destinations in the Las Vegas Valley. Community members also focused on the desirability of local, unique shopping experiences.

SUB-CONCEPT 2.2 URBAN DESIGN STRATEGIES



The Job Creation Zone Conceptual Site Plan (plan) is intended to encourage a vibrant community within the JCZ including a hospital anchor, medical office, research and development space, hospitality including hotel, and daily retail uses for area residents. The public realm should include programmed public open spaces, encourage interactions and vibrant street life, and be welcoming to all. Further, the level of urban design in the public realm should serve to attract people from neighboring communities as well as Deer Springs residents. The Urban Design recommendations of this plan are intended to be supportive of these goals at a high level.

Streetscapes and Sidewalks

Pedestrian activity is the hallmark of vibrant street life and supports retail and small business better than auto-oriented environments. Streetscapes are detailed in other sections of this study but should include a pedestrian zone, street furnishing zone, and a landscape zone. Active streetscape amenities include a mix of trees, lighting, seating, planting areas, and bicycle or motorized scooter parking located away from travel paths.

A diversity of materials is encouraged, such as pavers, to provide pedestrian interest and highlight key retail or civic areas. The pedestrian realm should be no less than twelve feet in width and include shade (trees and/or shade structures). Where possible, “green streets” are strongly encouraged—“green streets” may incorporate photovoltaic shade elements; other renewable technologies; rain gardens; other water treatment features; and should include other material strategies to set them apart from other streetscapes.

Street intersections should have bulb-outs at all corners to slow turning vehicle speeds and shorten pedestrian crossing distances. Where appropriate, turning lanes may be included but free right-turn lanes bypassing intersections are not acceptable.

Building Facades, Entries, and Massing

To activate street life and encourage interaction between building occupants, commercial buildings should have glazing facing the street and second floors facing streets should have balconies or additional glazing. Commercial buildings should have clearly recognizable primary entries directly fronting the street where possible. Covered entries are encouraged; the height of these should range between eight and twelve feet to reinforce the human scale of entries.

The JCZ will include variety of land uses that have different operational requirements of buildings. Building massing should be no greater than the depth of the building or, if greater, should be visually articulated at intervals no greater than the depth of the building by material changes or physical articulation. Where parking structures exist, it should be in the form of a liner building. Ornaments on building facades are encouraged, as are contemporary architectural styles, in order to create pedestrian interest. Faux historic styles are strongly discouraged. No step-backs are required on buildings of any height, excluding setbacks as listed in zoning requirements. Buildings should not contribute to heat island effect and mirrored surfaces are prohibited. All roof surfaces should be white (such as TPO) or vegetated.

Block Layout and Building Orientation

The Job Creation Zone Conceptual Site Plan is oriented to appropriately meet the existing street grid and provide a maximum of pedestrian, bicycle, and vehicle connections to other development, including in some cases aligning with existing cul-de-sacs that could be converted to through-streets in the future (See blue dashed lines in Figure 4.33). Blocks are laid out to have their long faces facing south. To provide higher levels of energy efficiency, buildings should have their longest face directed to the south and north. Where possible, building design should take into account prevailing summer winds.

Buildings on blocks that face toward open space or park space should maintain that block face as their primary entrance. In these areas, additional streetscape provisions, such as café seating and shade structures, should be encouraged for all uses.

Figure 4.33: Job Creation Zone Conceptual Site Plan Connections



SUB-CONCEPT 2.3 OPEN SPACE & RECREATION STRATEGIES



The Job Creation Zone, as well as the rest of the Deer Springs District, can build upon its adjacent environmental assets, such as Tule Springs Fossil Beds National Monument and Desert National Wildlife Refuge, by introducing new open spaces and recreation amenities that will stimulate development, attract businesses and visitors, and offer public assembly opportunities.

Open space amenities should accommodate all types of users and uses, including playgrounds, flexible recreation fields, splash pads, and plazas. Programming and public facilities will ensure a welcoming family environment for visitors and residents. Amenities available for public use during all hours of the day, and occasionally for evening events, will create a vibrant, unique environment for the Job Creation Zone.

Central Plaza

The conceptual design in Figure 4.34 to the right illustrates potential amenities for a future public plaza that would serve residents, businesses and visitors. Retail, café, and business activity on the first floors of the adjacent streets will stimulate activity and promote safety in a vibrant business district plaza. Development should capitalize on proximity to Skyview Park by incorporating active and transparent ground floors.

Figure 4.34: Public Plaza Conceptual Design

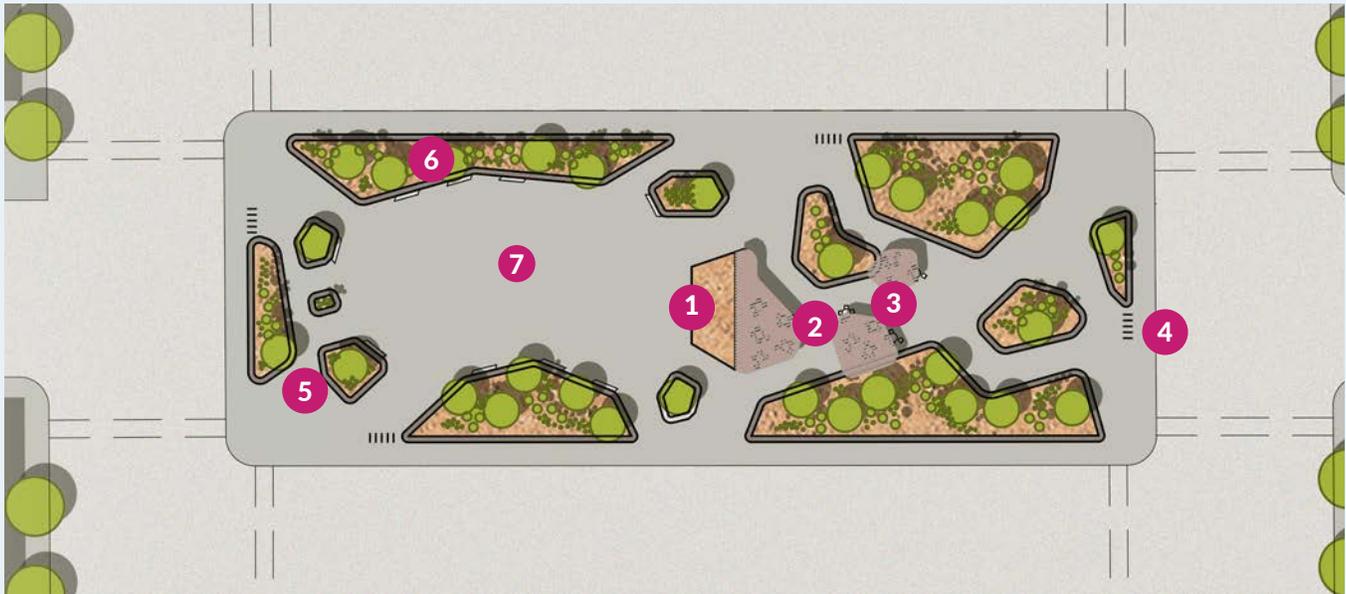


Figure 4.35: Public Plaza Location Map



- 1 **Café and Public Restrooms:** A 15'x 20' building anchors programs at the center of the park, providing space for a café and restrooms as well as walls angled strategically for public artwork and/or film projections
- 2 **Movable Seating:** Tables and chairs east of the building are placed under shade structures in this design, but are movable to accommodate various sized crowds and avoid intense sun exposure at different times of day. More movable seating could be provided in the large open space if desired.
- 3 **Shade Structures:** Slotted shade structures provide refuge from intense sun and mirror the shapes and angles formed by the raised planters that contain the public space.
- 4 **Bike Racks:** 28 bike spaces placed throughout the park provide ample bike parking for park users as well as visitors to adjacent businesses. Designating bike parking in this spot may also decrease clutter on the public sidewalks.
- 5 **Planters:** 18' high planters provide refuge from adjacent traffic and seating areas for park users without blocking views of bordering businesses.
- 6 **Landscape Planters:** Planted beds with boulders, trees, and desert shrubs varying in size provide visual interest and reduce the heat island effect of a largely paved area.
- 7 **Open Plaza:** 100'x 50' open space with edges defined by low planters and fixed seating could accommodate performances, movie screenings, exercise classes, demonstrations and other public gatherings.

Deer Springs Wash

The Linear Park concept for "The Wash" to the right introduces a naturally occurring desert landscape feature into the proposed Job Creation Zone. A large swale (or wash) running along the side of the trail in this linear park will serve an ecological purpose, collecting stormwater during rain events and draining into the larger detention area in Skyview Park, outlined in pink on Figure 4.37. The trail that runs along The Wash connects multiple recreational areas, creating an integrated park system that will stimulate development. Companies often choose to locate in communities that offer amenities such as parks as a means of attracting and retaining top-level workers.⁶ All of the parcels adjacent to the linear park will benefit from the ecological and recreational programming designer into this park, as well as the flexible open space.

⁶ *Conservation Tools*, Pennsylvania Land Trust Association, *The Economic Benefit of Parks*



Source: Arizona State University

Figure 4.36: Linear Park Conceptual Design



Linear Park: Flexible gravel spaces on the east and west sides of the trails serve as low maintenance multifunctional areas that can accommodate programmed events or spontaneous gathering. These areas are also ideal settings for highly visible public art to be installed as acquired by the City.

Trails and Nodes: Undulating trails vary in width from 8' to 24' providing a complete pedestrian connection from the Northern Beltway Trail at the north end of the linear park to Skyview Park at the south end of the linear park, as well as wider nodes with shade and seating where pedestrians can rest or gather.

Shade Structures: Shade structures provide refuge from intense sun and mirror the shapes and angles formed by the paths and inspired by the local horizon line.

Vegetation: Densely planted landscaped areas with desert-adapted plants and boulders provide backdrop for nodes along the linear park's trail and reduce the heat island effect of a largely paved area. These shrub beds can also be graded to collect stormwater during rain events. Large shade trees are clustered around seating areas and pedestrian crossings.

Seating: Formed concrete walls provide low maintenance, fixed seating along the edges of each trail node.

Figure 4.37: Linear Park Location Map



SUB-CONCEPT 2.4 SUSTAINABILITY STRATEGIES

DSD Goals

Build Resilience



Job Creation Zone Thinking: Energy

Energy is a critical aspect of development for the future of the Job Creation Zone (JCZ). It is needed for nearly all elements of a community: commercial activities, buildings and infrastructure, water distribution, and food production. Renewable energy generation systems and conservative use of energy within the Job Creation Zone will reduce dependency on fossil fuels and allow for a more sustainable future.

Applications

SOLAR PHOTOVOLTAICS (PV)

Solar Photovoltaics capture the sun's energy to create electricity. They are typically placed on panels that can be mounted on building rooftops or on any open, sunny surface. Within the JCZ, PV can be implemented in a decentralized system of production sites ranging from large commercial buildings to small office buildings. Alternatively, a centralized PV facility can produce energy and distributed it to users across the JCZ.



Parking lot panels in New Mexico

Source: US Department of Energy

BENEFIT TO DEVELOPER

Solar PV systems allow buildings to create their own energy instead of purchasing it from the City. This is a very effective cost-saving measure.

BENEFIT TO CITY AND COMMUNITY

Solar PV protects the environment by diverting energy use away from dependence on polluting fossil fuels. The design, production, and installation of solar panels also creates jobs and supports a "green" economy.

PASSIVE COOLING

Passive cooling is a building design approach that enhances indoor thermal comfort and reduces or eliminates energy use for air conditioning. Passive cooling either prevents heat from entering the building or naturally removes heat from the building. Designs to prevent heat from entering the building may include site design strategies, building orientation, solar gain control through shading, building form and layout, and thermal insulation. Designs to remove heat from the building may include strategic ventilation, night flushing of hot air, radiative cooling, evaporative cooling, and earth coupling.



Air intakes for ventilation and cooling in a passive office.

Source: IEA

BENEFIT TO DEVELOPER

Utilizing passive cooling strategies reduces energy usage and costs associated with indoor climate control.

BENEFIT TO COMMUNITY

Offices and other commercial buildings can be designed using passive cooling strategies, and building owners will save significantly on air conditioning costs.

Job Creation Zone Thinking: Water

As the JCZ develops, the desert landscape will be replaced with impervious surfaces, such as buildings and parking lots, which do not allow for rain water to infiltrate into the soil. When rain falls on these surfaces, it can flood streets and buildings, increase erosion in streams and arroyos, and wash pollutants into natural waterways. Impervious surfaces can also worsen local drought conditions between rainfalls by preventing water from entering the water table. The integration of green infrastructure practices into the JCZ can address these problems, while also aesthetically enhancing streetscapes and cooling street temperatures.



Permeable pavers

Source: Center for Neighborhood Technology

A district-wide stormwater management strategy may include the following green infrastructure elements:

Permeable Pavement

Permeable surfaces are a pervious alternative to traditional impervious surface materials, such as modular pavers, concrete, and asphalt. Permeable surface treatments have small voids or aggregate-filled joints that allow water to drain through to a layer of open-grade aggregate into the ground.

Rain Gardens

Rain Gardens are landscaped depressions that intercept stormwater runoff from adjacent paved surfaces to temporarily store, filter, and infiltrate water into the ground.

Bioswales

Bioswales are similar to rain gardens in that they are vegetated, shallow depressions that capture and temporarily store stormwater; however, they are designed to be narrow and linear.

Green Roofs

Green roofs are vegetated landscapes typically planted in modular soil trays on rooftop surfaces. They capture and retain stormwater and also insulate buildings against heat gain.



Rainwater capture cistern

Source: Eco Environmental

Applications

Street Practices

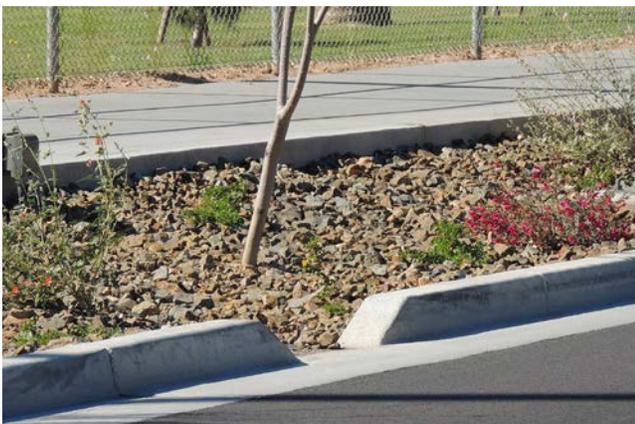
Green infrastructure can be integrated into the right-of-way of streets to capture stormwater running off of the road. This is typically done through the creation of curb cuts at the sidewalk that allow stormwater to flow off of the street and into roadside, linear bioswales. Bioswales and rain gardens can also be built into chicanes, road medians, and traffic circles.

BENEFIT TO DEVELOPER

Integrating green infrastructure into street design may reduce the need for traditional stormwater management practices such as piping and retention ponds.

BENEFIT TO CITY AND COMMUNITY

Green infrastructure reduces road flooding in storm events and lessens flooding in homes and buildings. Trees and vegetation within green infrastructure reduce urban heat island effect by cooling streets through shading and evapotranspiration.



Bioswale along street

Source: City of Mesa, Arizona



Parking lot rain garden

Source: US EPA

Parking Lots

Stormwater infiltration at parking lots may include the integration of bioswales within the parking lot or along the side to receive and infiltrate water. Parking lots may also be built using permeable paving, a type of porous pavement that allows for water to flow through voids between pavers or paving stones to infiltrate into the soil below.

BENEFIT TO DEVELOPER

Permeable pavement is less expensive and labor-intensive than traditional asphalt or concrete. Integrating permeable pavers can also help developers and property owners qualify for credits under the U.S. Green Building Council's LEED certification.

BENEFIT TO CITY AND COMMUNITY

Permeable pavers allow stormwater from parking lots to infiltrate directly into the ground. This reduces the flow of vehicle-related pollutants into local waterways. As part of an integrated city-wide green infrastructure system, permeable pavers reduce the costs of investment in traditional gray infrastructure, such as piping.

BUILDINGS

Green infrastructure on buildings may include water conservation practices alongside stormwater management techniques. In 2017 Nevada changed its rainwater collection laws to allow for the harvest and reuse of rainwater for onsite irrigation purposes. The use of graywater allows for the collection of water from washing machines, sinks, bathtubs, showers, or other fixtures excluding toilets, bidets, and kitchen sinks using a separated graywater plumbing system. This water can then be used to irrigate plants through drip irrigation systems or subsurface distribution of water. Stormwater management associated with buildings may also include green roofs planted with drought-resistant plants.

BENEFIT TO DEVELOPER

Approximately 60% of southern Nevada's water is currently used outdoors in landscape irrigation applications. By capturing and reusing water for irrigation on-site, building operators may see a reduction in water fees.

BENEFIT TO CITY AND COMMUNITY

Drought will continue to be a threat for the Las Vegas Valley. Reducing demand for potable water increases North Las Vegas' resilience to climate variability. Water reuse also saves energy associated with pumping water from more distant sources.



Cacti on green roof

Source: American Society of Landscape Architects



DEER SPRINGS DISTRICT



Skyview Park Trail System



- ↑ Linear Park Trail 0.3 mi
- ➔ North Las Vegas Police Department 150 ft
- ➔ Glenbrook Terrace Apt 0.3 mi
- ➔ Skyview YMCA 650 ft



Chapter 5: Implementation

The City of North Las Vegas has a history of working closely with partner organizations to actively implement planning study recommendations to further the City's goal of cultivating a business-friendly environment. Many of the partner organizations who will be involved in implementing the Deer Springs Livable Centers Study have participated in the Stakeholder Advisory Committee, Community Partner Interviews, or the Job Creation Zone Forum. This base of support will assist the City in moving the recommendations of this plan forward.

This chapter includes:

- An overview of key implementation partners
- Next steps and funding opportunities for the Livable Centers Study's recommendations
- A high-level health impact analysis
- A methodology for tracking successes

Section 5.1: Key Implementation Partners

City of North Las Vegas

The City of North Las Vegas operates under a Council-Manager form of Government. The Mayor and four Councilmembers are elected on a non-partisan basis for four-year terms. Each Council Member represents a ward of the city. The Council has adopted a strategic plan with five goals that are reflected in the Deer Springs Livable Centers Study:

- Support a financially sustainable City government that provides services of the highest quality
- Grow a diverse local economy
- Make North Las Vegas the safest, most beautiful City in the Las Vegas Valley
- Upgrade City facilities and infrastructure
- Create a distinctive image and community identity

Several City departments will participate in implementing the recommendations of the Livable Centers Study. These departments include the Land Development and Community Services Department, which is responsible for planning and zoning, neighborhood services, and code enforcement; the Economic Development Division, which provides services that facilitate development and redevelopment and assists existing and prospective businesses find their place in North Las Vegas; and the Public Works Department, which provides services for development, flood control, infrastructure maintenance and transportation services. The Parks and Recreation, Utilities, and Finance and Neighborhood Services departments may participate in implementation as well.

Regional Transportation Commission of Southern Nevada

The Regional Transportation Commission of Southern Nevada (RTC) oversees regional public transportation, traffic management, roadway design, and construction funding, as well as regional planning efforts. The RTC has the following goals:

- Improve the efficiency and effectiveness of the transportation system and air quality by managing congestion
- Enhance mobility by improving transportation choices and facilitating multi-modal connectivity
- Increase safety for both motorized and non-motorized users
- Maintain and improve transportation system infrastructure
- Support regional planning efforts to improve economic vitality and education and invest in complete communities
- Secure funding for expansion, operation, and maintenance of systems and routes
- Enhance public awareness and support of the regional transportation system

Active partnership with the RTC will be necessary to implement the Livable Centers Study's recommendations. Specifically, the RTC will need to fund roadway infrastructure engineering and construction. Ultimately, public transportation improvements, including the high-capacity transit which will significantly enhance the Deer Springs District, are the responsibility of the RTC.

U.S. Department of the Interior Bureau of Land Management

The Bureau of Land Management (BLM) is a division of the U.S. Department of the Interior. The BLM manages the United States' public lands, with a mission to "sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations." The BLM manages vast amounts of land in the West in general and in the Las Vegas Valley specifically and works with cities to make land available for development. As the land owner of the future Job Creation Zone (JCZ) site, the BLM will play a role in implementing the Livable Centers Study's recommendations for the JCZ

Private Developers

Private developers will be major partners in the development of the Deer Springs District. In North Las Vegas, as in much of the country, private developers working within the regulatory environment of the City are responsible for most development that occurs. Private developers operating within the Deer Springs District must be familiarized with the Livable Centers Study's recommendations to ensure that all new development contributes to the Study's goals.

Section 5.2: Trail and Roadway Network

Next Steps

Design and Engineering

The City of North Las Vegas could adopt the trail and roadway network recommendations from Chapter 4 of this study as requirements for new development within the Deer Springs District. Additionally, City staff may choose to develop engineering standard drawings and specifications unique to the Deer Springs District. The City may also choose to design and construct select roadways within the Deer Springs District utilizing funding from one or more of the sources in the following section.

Funding

Several federal and local funding sources are available to the City to implement the Livable Center Study's recommendations.

Federal Funding

Better Utilizing Investments to Leverage Development (BUILD)

The Better Utilizing Investments to Leverage Development (BUILD) Transportation Grants Program is a federal grants program that can be used for transportation infrastructure and transit projects.

RTC

Transportation Improvement Program (TIP)

The RTC's Transportation Improvement Program (TIP) is a financial plan for transportation projects that awards federal funding for projects over a four-year period. Projects listed in the TIP are priorities for the region. Projects covered by TIP include transit, roadway, pedestrian, rehabilitation, and other transportation operation projects.

Fuel Revenue Indexing (FRI)

The Fuel Revenue Indexing (FRI) program is administered by the RTC and was designed to generate funds for critical transportation projects within the Las Vegas Valley. These funds are then distributed to the jurisdictions to implement these projects. Projects funded by FRI can be included in the extended 10-year plan through 2026.

CNLV

Capital Projects

The City of North Las Vegas Capital Improvement Plan (CIP) plans for the city's future in five-year increments. CIP projects focus on urgent major improvements. The current CIP plan is established from Fiscal Year 2019 to 2023.

Developers' Role

New development projects are typically required to include the construction of off-site improvements in the public right-of-way along their project frontages for the half street plus one lane, if not already present. Off-site improvements include:

- Sidewalks
- Signage
- Streetlights
- Bus turnouts/shelters
- Signal equipment at intersections impacted by the development
- Empty RTC conduit for future connections by RTC FAST
- Specific mitigations determined by a project's traffic impact study

Section 5.3: Skyview Park

Next Steps

Design and Engineering

While this plan offers initial design guidance for Skyview Park and other open spaces within the Deer Springs District, final designs, with cost estimates will need to be prepared by a landscape architect registered in the State of Nevada. Selection of a landscape architect should be conducted through an RFP process and should include a full team of specialists for civil and traffic engineering, cost estimators, and lighting and environmental specialists, among others.

Funding

Federal Funding

Southern Nevada Public Lands Management Act

This congressionally authorized program of the Bureau of Land Management provides funding for specific types of park and trail projects on land owned by local governments in Clark County.

State funds

Land and Water Conservation Funds

Administered by the Nevada Division of State Parks, this fund provides 50/50 matching funding for individual recreation development and acquisition projects.

City of North Las Vegas

Capital Funds

Capital funds from the City of North Las Vegas could be applied to park development or leveraged as matching funds for other opportunities.

National Grants and Funding Opportunities

Numerous grant programs exist at the national level through corporations, foundations and government entities. Many of these programs relate directly to recreation or health based funders. A comprehensive list of the best of these opportunities at the national level is maintained by the National Recreation and Park Association (NRPA.org); however, local philanthropy, health care organizations and sports teams can also be potential sources of funding.

Developers' Role

Skyview Park could be included in the discussion of incentives for the development of the JCZ. The private sector could guide the park's design and construction, with the City taking over management and maintenance. Alternatively, "park fees" could be assessed to neighboring development in order to fund the park.

Section 5.4: Wayfinding

Next Steps

Design and Wayfinding Plan

The City of North Las Vegas should engage a consultant to complete a wayfinding plan and provide a final design for the Deer Springs District's branding and signage, based on this Study's initial recommendations. Funding will need to be identified for both the design and implementation of the wayfinding plan.

Funding

CNLV

Capital Funds

Funding for the wayfinding plan will most likely be identified through the City's capital funds.

Developers' Role

Developers, or the master developer for the Job Creation Zone, could participate in defining the Deer Springs District's branding and in funding both design and implementation of the wayfinding plan.

Section 5.5: Job Creation Zone

Next Steps

Public Private Partnerships

Numerous partnership opportunities exist for the City of North Las Vegas, most significantly with the University of Nevada at Las Vegas (UNLV) and the Veterans Administration (VA). Additional opportunities may exist with the US Air Force.

Potential Incentives

Identify incentives for development of the Job Creation Zone. Potential incentives may include:

- State tax incentives
- Roadway infrastructure
- Parks and open space infrastructure
- Utilities

Section 5.6: Health Impacts

Health Impact of Livable Centers

The recommendations in this study will promote the health of the Deer Springs District's residents and employees by encouraging active living, helping to grow residents' social networks, improving air quality in the study area, and increasing safe mobility for residents by reducing the incidence of traffic crashes.

Active Living and Social Networks

The creation of mixed-use and transit-oriented development will provide more housing and employment opportunities to foster a diverse community. Implementing the study's recommendations will benefit the mental and physical health of District residents and employees in the following ways:

- **Increased exercise:** Improved walkability and mobility in cities has been shown to correlate with an increase in exercise, which confers a number of positive mental and physical health benefits.
- **Increased pedestrian safety:** Thoughtful pedestrian-centered design will increase pedestrian safety and promote walkability.
- **Increased active transportation choices:** The implementation of improved bicycle facilities will encourage increased bicycle use.
- **Increased social connection opportunities:** The creation of active fields, trails, and courts, as well as public realm improvements to better activate public spaces, will promote social networks, which have positive mental health benefits and create community cohesion.

Climate

As the Deer Springs District develops, temperatures may rise slightly as a result of the Urban Heat Island Effect. Temperatures are already a main concern of North Las Vegas residents, especially as heat stress has been shown to impact physical health, particularly in the health of elderly. To reduce

the impact of the urban heat island effect, the city should prioritize the planting of street trees and other urban vegetation to reduce ambient temperatures. Additionally, surfaces should be paved in light colors to reflect rather than absorb heat.

Air Quality and Safe Mobility

High capacity transit usage and bike facility enhancements will help reduce vehicle miles traveled. The reduction of vehicular trips, and the reallocation of space to all road users, will help reduce the incidence of traffic crashes. Opportunities for residents to alter their commute via improved bicycle route connections or high capacity transit may reduce commute and traffic-related stress and improve physical health. Trail design standards should consider how to integrate shade and other vegetation to minimize heat stress of users.

Section 5.7: Tracking Success

The City of North Las Vegas and the RTC will both play a role in tracking the Plan's success. The following recommendations for tracking the Plan's success draw from the Houston Galveston Area Council's ten years of experience tracking Livable Centers Studies:

1. Create an annual survey with approximately 10 questions.

The RTC should create a survey to be administered to internal City staff who are integral to the plan's implementation. The survey should include both quantitative and qualitative questions, and the data requested should be accessible to City staff. The following best practices for survey design and administration should be utilized:

- Create a seamless and integrated data collection method, for example using Google Sheets
- Plan phone calls with survey participants to ask follow-up questions
- Focus survey questions on short general updates, for example:
 - » What major developments are happening related to the study's recommendations?
 - » How many miles of bikeways have been implemented?
 - » Qualitative information, such as:
 - Releasing an RFQ for schematic design
 - Discussion with property owners regarding future changes
 - » What are technical needs that RTC can support?
 - Encourage a conversation about the reality of technical needs. For example, does the City have a gap in technical capacity preventing them from implementing a Study recommendation? How can the RTC support and anticipate this in future projects?

2. Hold a 5-year interview. (60-90 minutes)

The five-year interview with City staff should accomplish the following:

- Discuss the progress of individual Livable Center recommendations that do not have a measurable metric, such as programs or policies.
- Discuss key measurable metrics:
 - » Inform staff of the metrics to be discussed in advance of the interview. Provide enough time (< 3 months) for staff to prepare the metric results in order to have the results ready for discussion at the interview.