SVTOD

SOUTH VIRGINIA STREET
TRANSIT-ORIENTED DEVELOPMENT PLAN

AUGUST 2024

Prepared For

RTC

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CHAPTER 1
INTRODUCTION

Introduction

The South Virginia Street Transit-Oriented Development (SVTOD) Plan is a collaboration between the Regional Transportation Commission (RTC) of Washoe County, the City of Reno, and other state and federal stakeholders. The goal of the plan is to expand opportunities for TOD and mixed-use development along South Virginia Street. This initiative will support a southern extension of the Virginia Line Bus Rapid Transit (BRT) route, which currently runs from the University of Nevada, Reno, through downtown and Midtown Reno, ending at Meadowood Mall. The TOD study aims to create a framework that promotes walkable and transit-supportive development on vacant and underutilized land within the study area.

Why is the Project Needed?

- **Lack of transit service for existing and future growth along South Virginia Street and surrounding areas.**
- **Vehicle dependent development patterns and lack of multi-modal connectivity.**
- **Safety concerns for all users.**
- **Support regional growth plans such as the ReImagine Reno Master Plan and Truckee Meadows Regional Plan.**
- **Lack of affordable housing and access barriers to transit dependent populations.**

What is the Purpose of the Project?

- **Extend next generation transit service to South Virginia Street.**
- **Serve existing and future growth areas, improve access to employment opportunities.**
- **Improve multimodal infrastructure and safety for all users.**
- **Accommodate regional growth plans.**
- **Encourage new housing and redevelopment opportunities through supportive transit, walking and biking improvements.**

What is TOD?

Transit Oriented Development (TOD) is a form of city planning focused on creating vibrant and pedestrian-oriented communities. This is done through mixed-use developments, walkable infrastructure, and availability of public transportation options to reduce dependency on cars as the primary mode of transportation. The RTC and its partners have utilized TOD to improve the transit options for Nevadans across Reno, Sparks, and Washoe County. As part of the TOD planning efforts, the RTC has solicited public input and feedback on TOD options for the South Virginia Street corridor to inform future planning efforts (see Chapter 2 for public outreach summary).

Over the last thirty years, South Virginia Street, from South McCarran Boulevard to Mount Rose Highway (SR 431), has evolved from a rural highway connecting Reno and Carson City into a growing corridor with a mix of uses including high-density housing, commercial centers, industrial, and variety of other less intense uses. This transition is ongoing along the South Virginia Street Corridor and establishing opportunities to create a multi-modal, transit-supportive pattern will help meet the growth and development needs of the region.

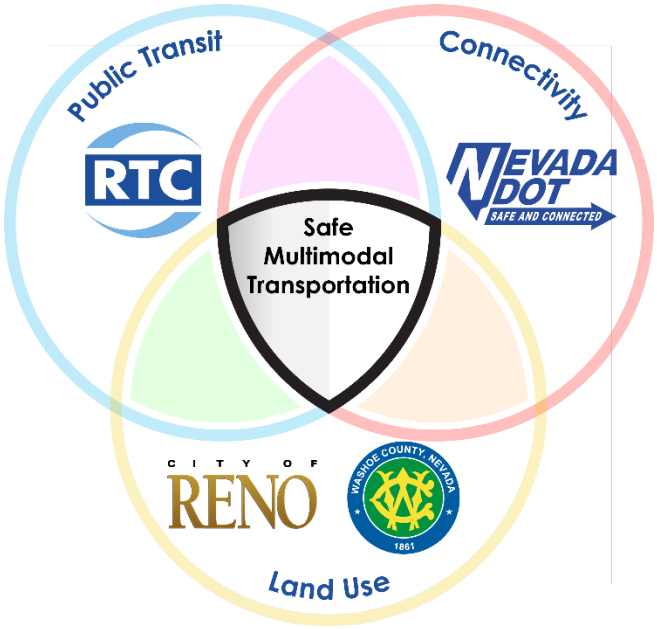
Transit Oriented Development in the Study Area

The Federal Transit Administration (FTA) is supportive of TOD development, stating:

"The success of transit systems in rural, urban, and suburban neighborhoods is critical to the economic health and sustainable growth of America's communities. Transit systems should address the needs of everyone and help people get to jobs, school, healthcare, and visit friends and family. Transit-oriented development (TOD) is where those two areas intersect to create real change."

TOD Guiding Principles

The South Virginia Street TOD includes a diverse group of key jurisdictional partners with individual focuses, but it shares one common goal; improving safety and multimodal transportation options accessible for all.

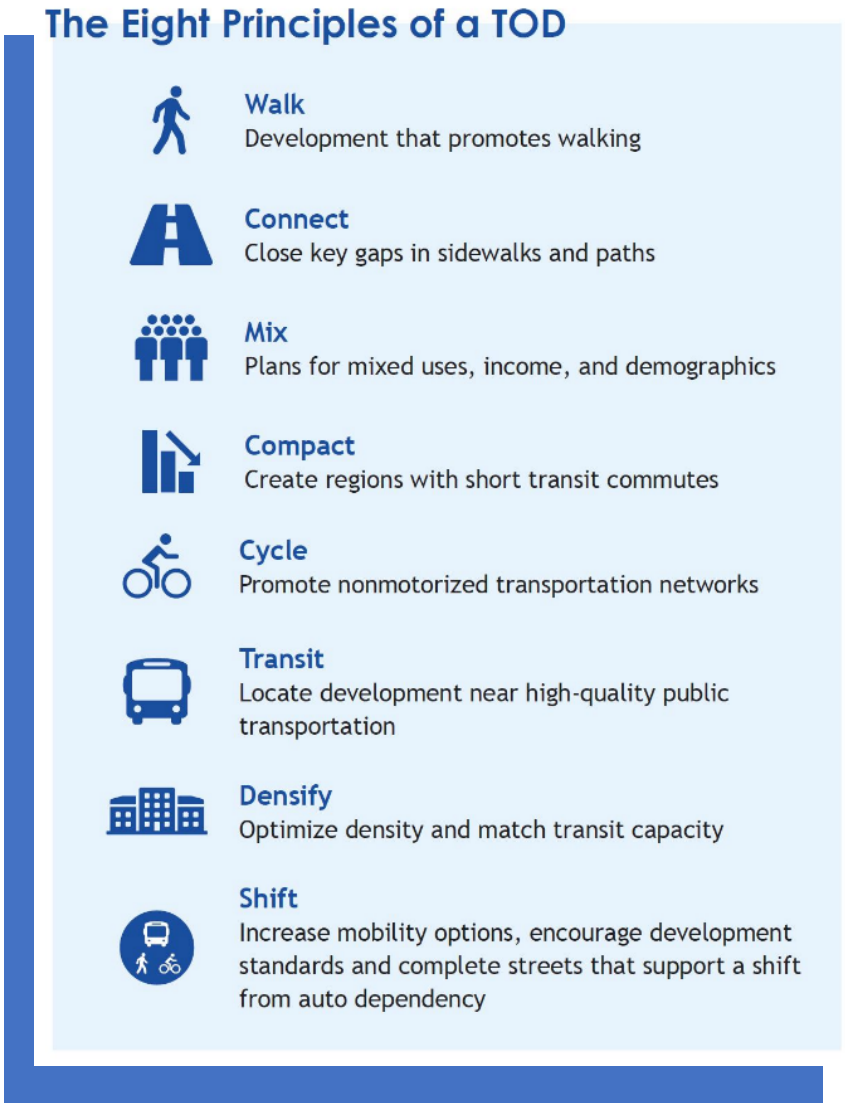


RTP 2050 Vision

"Extend Virginia Line RAPID to Mt. Rose Highway – Providing transit connectivity to employment, education, commercial, and residential centers in south Reno would improve access to opportunities, expand travel options, and encourage transit supportive development along South Virginia Street."

Project Goals

- **WALK/CYCLE –** Provide infrastructure improvements along Virginia Street to improve the non-motorized transportation networks in the corridor.
- **CONNECT –** Locate future transit stops in areas that promote walking and cycling to access transit and maximize corridor connectivity.
- **TRANSIT –** Expand transit service to better serve existing and future residents and employees along South Virginia Street.
- **MIX –** Encourage economic development and plan for mixed uses, income, and demographics.
- **DENSIFY –** Optimize density on vacant and infill properties and encourage redevelopment opportunities to support transit in the corridor.
- **COMPACT –** Optimize transit service in the corridor to improve ridership.
- **SHIFT –** Transform South Virginia Street to accommodate all users and increase safe, non-auto mobility in the corridor.



SVTOD Plan Process

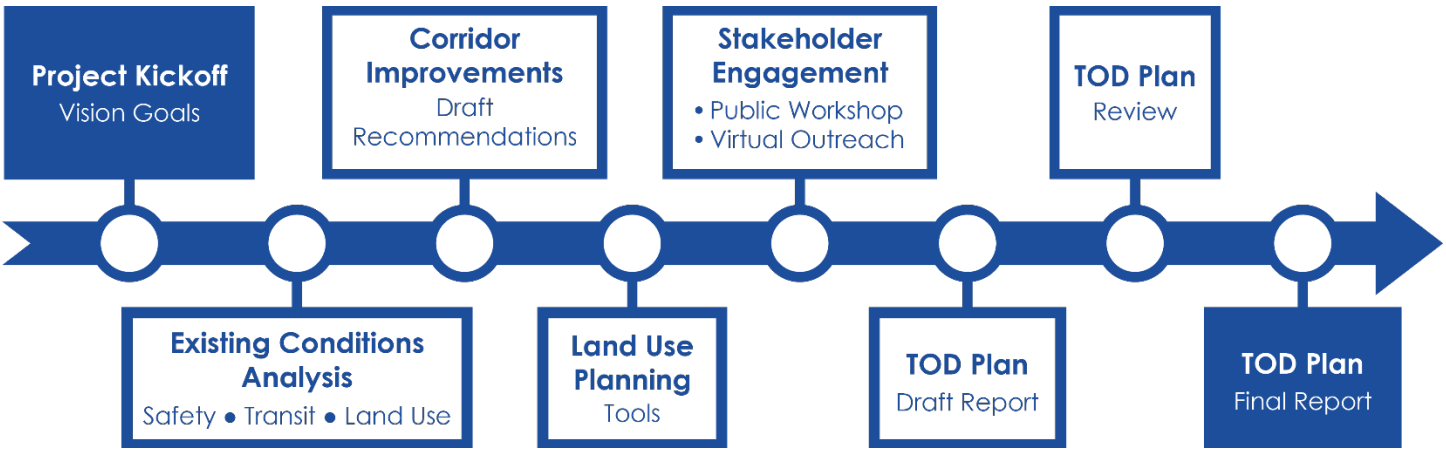


Figure 1.1 SVTOD Plan Process Timeline

Existing Plan and Studies

The study area has been analyzed in several existing studies and future plans may include portions of the study area. Therefore, it is important to recognize and coordinate with these plans where appropriate. This approach ensures that this study considers the recommendations of previous plans while acknowledging changing conditions in the study area and the evolving relevance of some older documents. The Transportation Plans and Studies in **Table 1.1** highlights the sections of documents relevant to the South Virginia Street corridor. The two most important plans that influence this plan are the City of Reno's ReImagine Reno Master Plan, and the Nevada Department of Transportation (NDOT) Safety Management Plan (SMP).

In 2006, to keep up with development patterns, the City of Reno adopted a TOD Plan for South Virginia Street, which changed the zoning along South Virginia Street to mixed-use to intensify development to support transit. Following the Great Recession, the market conditions forced the City of Reno to rethink a variety of past planning efforts, leading to the adoption of the 2017 ReImagine Reno Master Plan. As a result of the ReImagine Reno Plan, the 2006 South Virginia Street TOD Plan was removed and the TOD overlay zoning within the study area was converted to a zoning designation of Suburban Mixed-Use. In theory, the zoning change was meant to keep a transit supportive, mixed-use zoning without needing an overlay with unlimited density and commercial floor area. However, the zoning change did remove the minimum density and commercial floor area requirements, essentially opening the door for a broader range of uses including less transit supportive, low intense development. Master Planned Developments in south Reno remained as part of the ReImagine Reno Plan, which have seen higher density (both single and multi-family units) completed or under construction the past several years in Damonte Ranch. The first mixed-use type of development was recently announced for Damonte Ranch, which is identified as 'Downtown Damonte". The proposed mixed-use district will include retail, shops, restaurants, office space, and residential apartments (www.downtowndamonte.com). The Pioneer Parkway Master Planned Community south of Downtown Damonte on the future extension of Damonte Ranch Parkway has not yet started construction but would allow for additional high density or mixed-use development.

The NDOT is responsible for maintaining more than sixty percent of the study area right of way from Patriot Boulevard to the Mount Rose Highway. As part of improving safety along this stretch of the corridor, NDOT has been performing a Safety Management Plan (SMP) to analyze the traffic safety for all road users. This plan includes identifying low, medium, and high-priority implementable improvements that can be applied to this section of the South Virginia Street corridor. Many of the proposed improvements support the efforts of this study and the SMP has been working in tandem with this SVTOD plan. Although the NDOT SMP follows the timeline of this study it is a separate study and only applies to a portion of the South Virginia Street, however, the proposed improvements suggested from this study will be supported by this document.

Table 1.1: Transportation Plans and Studies

Transportation Plans and Studies			
Document	**Owner**	**Description**	**Status**
Virginia Street Corridor Investment Plan	RTC	The Virginia Street Corridor Investment Plan identifies near term and long-term transportation improvements that will be made along Virginia Street from North McCarran Boulevard to Mount Rose Highway.	Final April 2014
Transit Oriented Development in the Truckee Meadows: Bridging the Gap Between Planning and Implementation	TMRPA	The primary purpose of this paper is to assist stakeholders in the Truckee Meadows in bridging the gap between TOD planning and implementation.	Revised July 2009
2050 Regional Transportation Plan	RTC	The 2050 RTP identifies the long-term transportation investments that will be made in the urbanized area of Reno, Sparks, and Washoe County, Nevada, also known as the Truckee Meadows.	Update In-Process
City of Reno Bicycle and Pedestrian Master Plan	RTC	Guides bicycle an pedestrian facilities in the City of Reno.	Final June 2017
South Meadows Multimodal Transportation Study	RTC	The purpose of this multimodal study is to identify needs and long-term transportation improvements for regional roads and intersections in the South Meadows area.	Final April 2020
Mt. Rose Corridor Plan	NDOT	This Corridor Plan is focused on potential improvement concepts between Veterans Parkway and Douglas Fir Drive.	Final April 2022
South Virginia Street Transit Oriented Development Corridor Plan	City of Reno	The South Virginia Street Transit Oriented Development (TOD) Corridor Plan is divided into two sections: the Corridor Plan and Station Area Plans.	Draft November 2006
Reno Sparks ADA Right-of-Way Transition Plan	RTC	The Reno Sparks ADA Right-of-Way Transition Plan provides a roadmap to making pedestrian facilities accessible to persons with disabilities.	Draft 2019
Transportation Optimization Plan Strategies (TOPS)	RTC	The Transit Optimization Plan Strategies (TOPS) serves as the basis for changes to RTC's public transportation services over the next five years (FY23-FY27).	Final July 2022
South Virginia Street Safety Management Plan (SMP)	NDOT	A Safety Management Plan (SMP) is a transportation analysis that focuses on traffic safety for all road users.	Final Anticipated (September 2024)
Land Use and Area Plans			
Document	**Owner**	**Description**	**Status**
Truckee Meadows Regional Plan	TMRPA	In relation to the South Virginia Street TOD Study, this plan addresses infill development scenarios along the study corridor.	Final 2019
ReImagine Reno: City of Reno Master Plan	City of Reno	The Master Plan reflects the ideas, values, and desires of the community, aligning these with a range of plans, policies, and initiatives in place or underway in both Reno and the wider region.	Final November 2021
Envision Washoe 2040	Washoe County	The Master Plan is used to determine the most desirable location of each type of development. The plan has policies and maps designed to define development suitability and conserve natural resources.	Adopted January 2024

Ozone Advance Path Forward	U.S. EPA	The U.S. Environmental Protection Agency (EPA) establishes health-based National Ambient Air Quality Standards (NAAQS) for six criteria pollutants including ozone. Ozone concentrations are strongly linked to population, employment, and on-road vehicle miles traveled (VMT). Long-term initiatives focused on shaping land use development patterns and the built environment.	Updated April 2016
Complete Streets Master Plan	RTC	The purpose of the Complete Streets Master Plan is to identify the Regional Transportation Commission of Washoe County's (RTC) long range strategy for complete street treatments in the Reno-Sparks metropolitan area.	July 2016

Study Area

The study corridor extends 5.5 miles along South Virginia Street from the existing Virginia Line BRT route's current terminus at the Meadowood Mall transfer station to Mount Rose Highway (SR 431). This section of road will be identified as the 'study area' throughout this document. A majority of the study area has already been developed (S. McCarran Blvd. to S. Meadows Pkwy), but the area south of South Meadows Parkway remains mostly vacant with several high-density projects being planned specifically around Damonte Ranch Parkway. Therefore, an alternate study route has been included as the Damonte Ranch Parkway Alternative which appears to be the one area adjacent to South Virginia Street providing TOD level development. The study area follows these corridors and includes any property located within a walking distance of 1/2 mile as depicted in **Figure 1.2**.

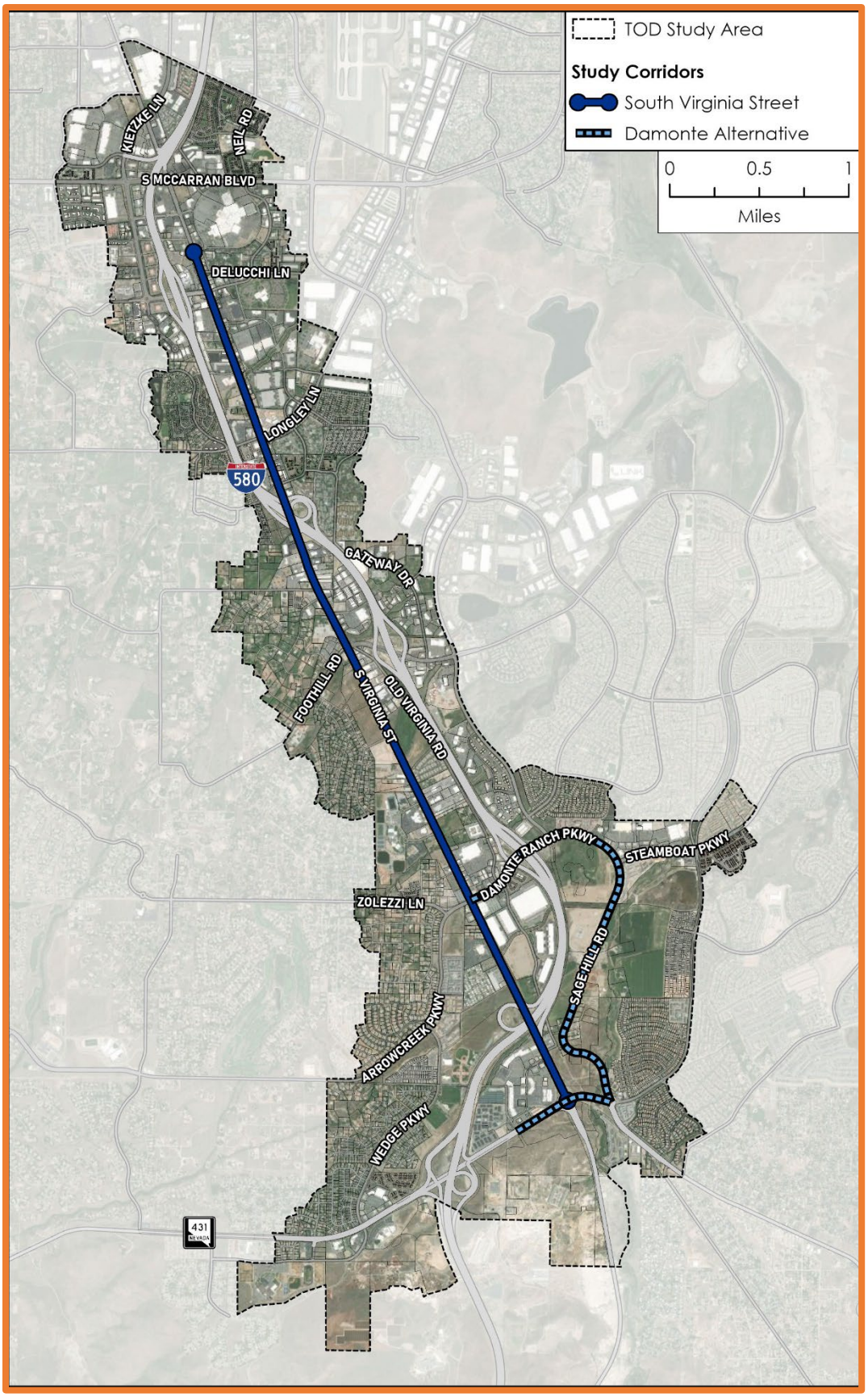


Figure 1.2: Study Area

Plan Corridor

Vacant tract at South McCarran Boulevard and South Virginia Street

South Virginia Street Study Area: Extends from half a mile north of Meadowood Mall in the north to half a mile south of the Summit Shopping District in the south. Specifically, the ±5.5 mile corridor includes South Virginia Street from Meadowood Mall Way to Mount Rose Highway (SR 431).

Damonte Ranch Parkway across from Downtown Damonte

Damonte Ranch Parkway Alternative: An alternative corridor that was analyzed is adjacent to many existing multi-family developments, includes Damonte Ranch Parkway from South Virginia Street to the terminus of Damonte Ranch Parkway. It also includes the future extension of Damonte Ranch Parkway which will connect to Geiger Grade Road and continues west along the Mount Rose Highway (SR 431) to the Summit Mall.

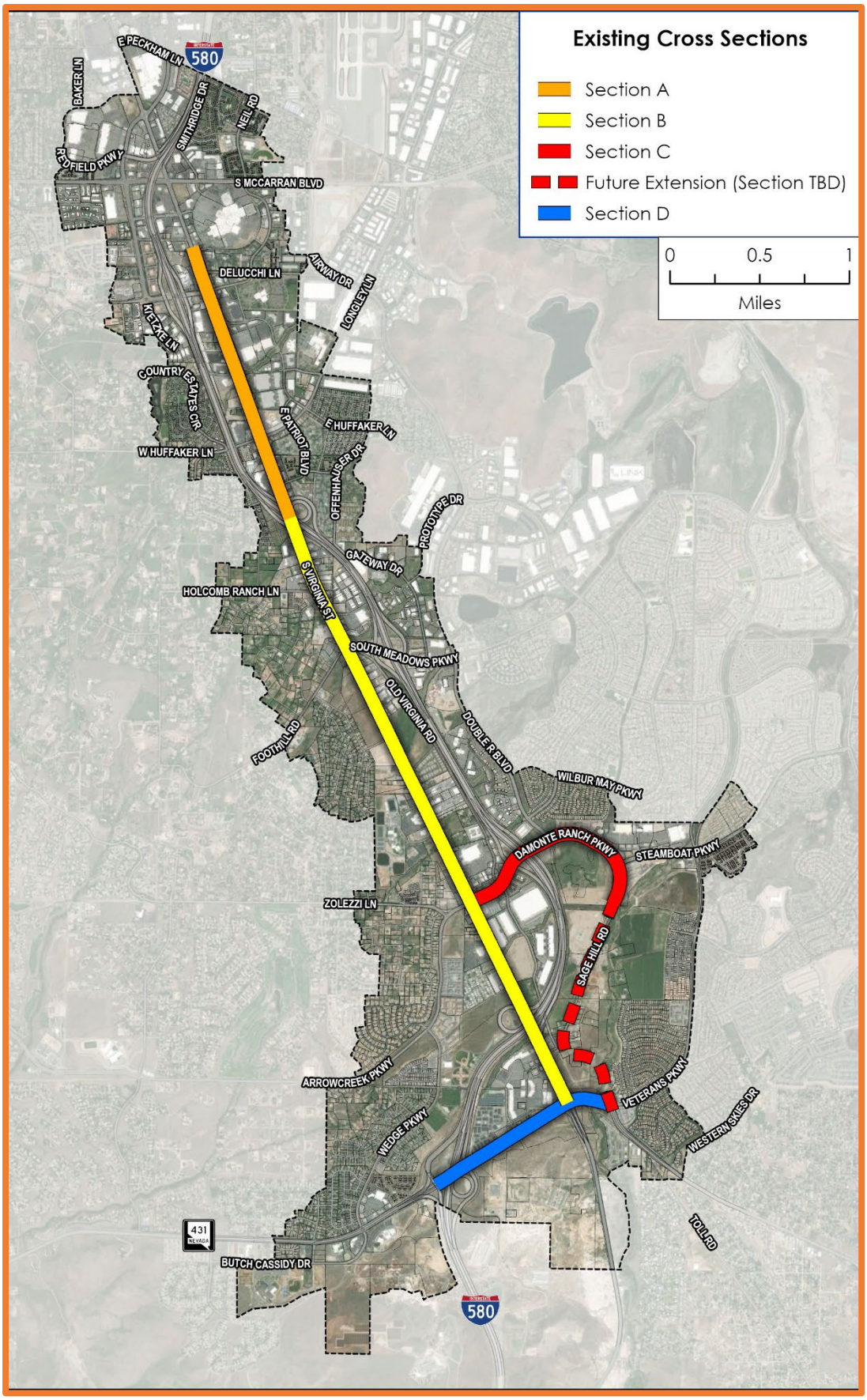


Figure 1.3: Roadway Sections

Corridor Roadway Sections

The study area and the existing cross sections are generally identified in **Figure 1.3** above showing the approximate location for each section and **Figure 1.4 thru 1.7** below display the details of each typical section.

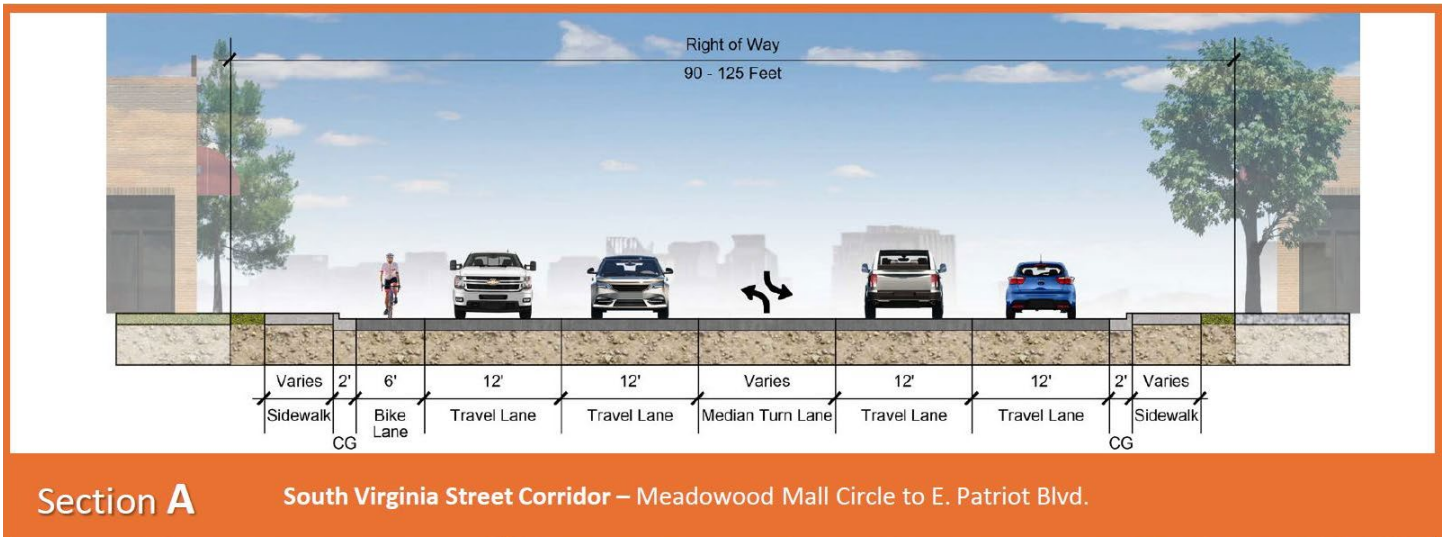


Figure 1.4: Typical Section A

Section A of South Virginia Street extends from Meadowood Mall Circle to East Patriot Boulevard and includes four travel lanes and center median/turn lane within a relatively confined corridor. Speed limits range from 35-45 miles per hour (MPH). Section A is within the City of Reno owned right of way and has been generally controlled by development standards as developments/redevelopments have occurred over the years on a property-by-property basis, leading to a variety of sidewalk widths, absence of curb and gutter in older areas, and inconsistent bike lanes/multimodal facilities. Despite the inconsistencies, sidewalk and bike lanes are generally provided throughout this section. The right of way width for Section A is generally 90-125 feet, making it the most restrictive within the study area corridors.

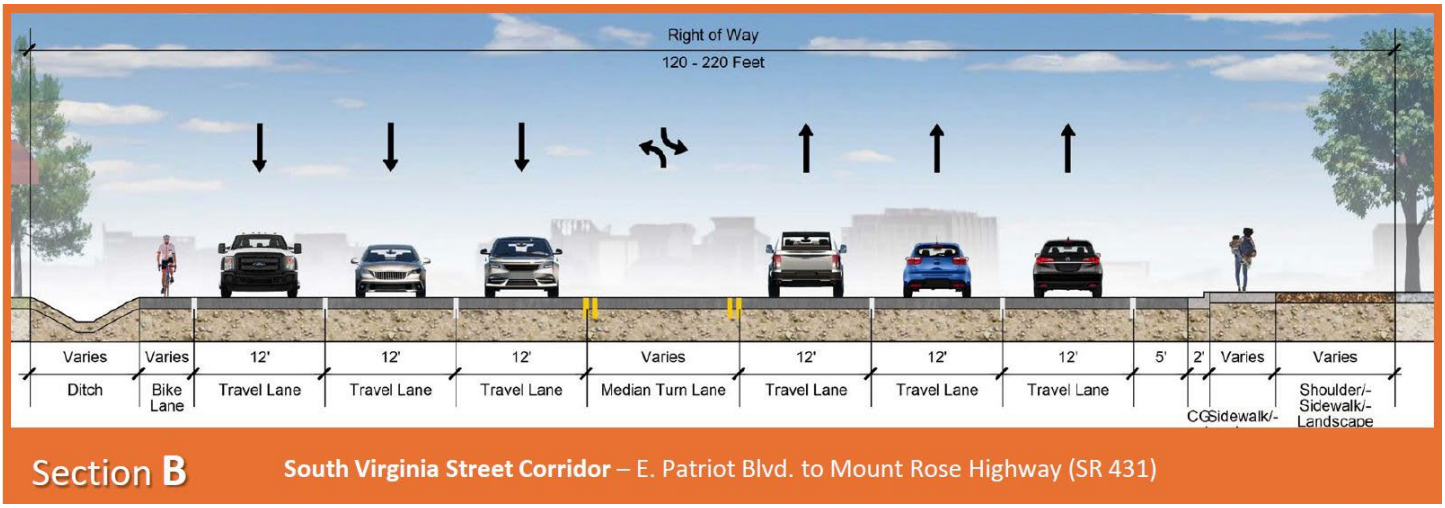


Figure 1.5: Typical Section B

Section B extends from E. Patriot Blvd. to Mt. Rose Hwy. (SR 431) and is owned by NDOT. Speed limits range from 45 to 55 miles per hour. The right of way is less restricted in this section and ranges from 120 to 220 feet in width. This portion of the study area is still largely reflective of the rural highway that South Virginia Street was constructed to serve as. There are several long stretches of the corridor that lack curb and gutter, sidewalks, and bicycle lanes. However, unlike in Section A, in sections that do have bicycle and pedestrian facilities

there is more consistency where recent developments have all met the same design standards. Improvements to Section B are being proposed as part of NDOT's SMP.

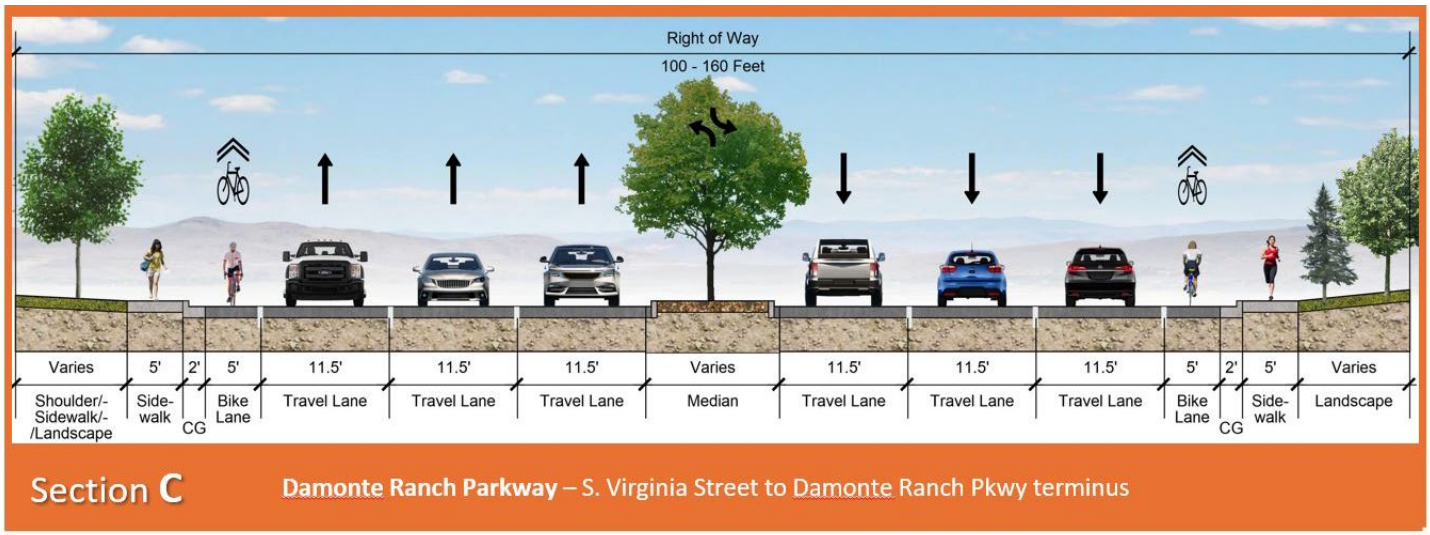


Figure 1.6: Typical Section C

Section C follows Damonte Ranch Parkway as an alternative to the South Virginia Street corridor. This section is a six-lane road with landscape medians and includes sidewalks and bike lanes. Speed limits range from 35 to 45 miles per hour and have been designed to accommodate the development from Damonte Ranch at full buildout. It is anticipated that the future extension of Damonte Ranch Parkway will narrow to four travel lanes from its current terminus to Geiger Grade Road (SR 341).

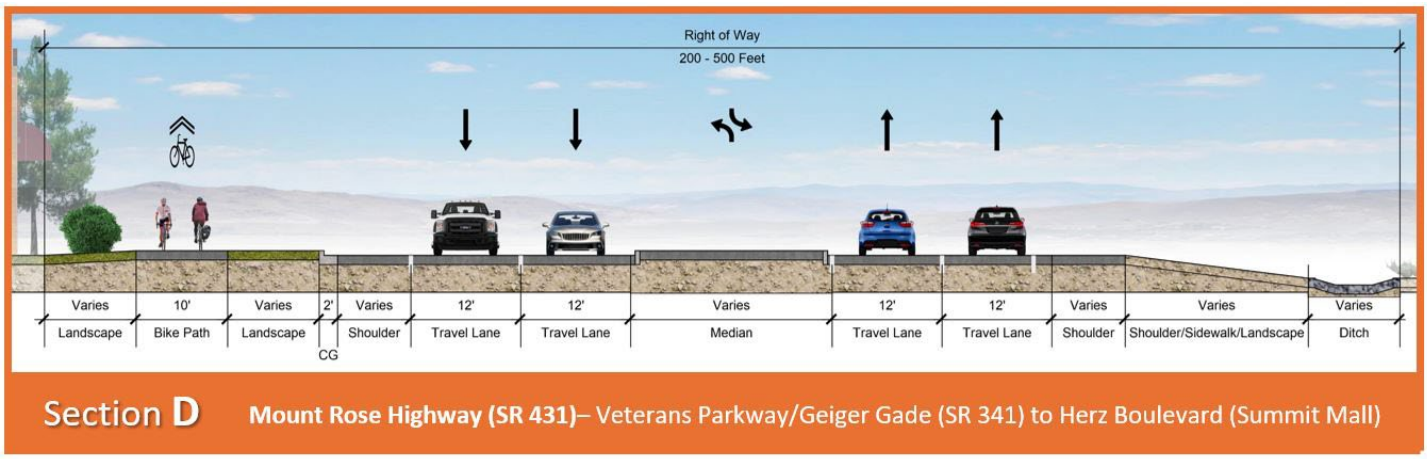


Figure 1.7: Typical Section D

Section D includes Mount Rose Highway (SR 431) from the roundabout at Veterans Parkway/Geiger Grade (SR 341) to Herz Boulevard at the Summit Mall. The right of way within this section is also owned by NDOT and provides ample room for any configuration. Currently, the speeds along this section range from 45-55 mph and there is a separated ten-foot wide multi use path on the northside from South Virginia Street to Wedge Parkway.

Active Transportation Facilities

The study area is a developing corridor with several gaps in the bike and pedestrian network. Currently, sidewalks exist on only 52% of the corridors with gaps on both sides of the street as shown in **Figure 1.8**. Additionally, bike facilities shown in **Figure 1.9** are entirely absent on approximately 18% of the corridors, although there is at least one bike lane or path on one side of the street in some areas. This inconsistency results in unreliable conditions for biking along South Virginia Street. Furthermore, the existing bike lanes vary in size and markings throughout the study area, potentially not accurately reflecting the intended facility standards.

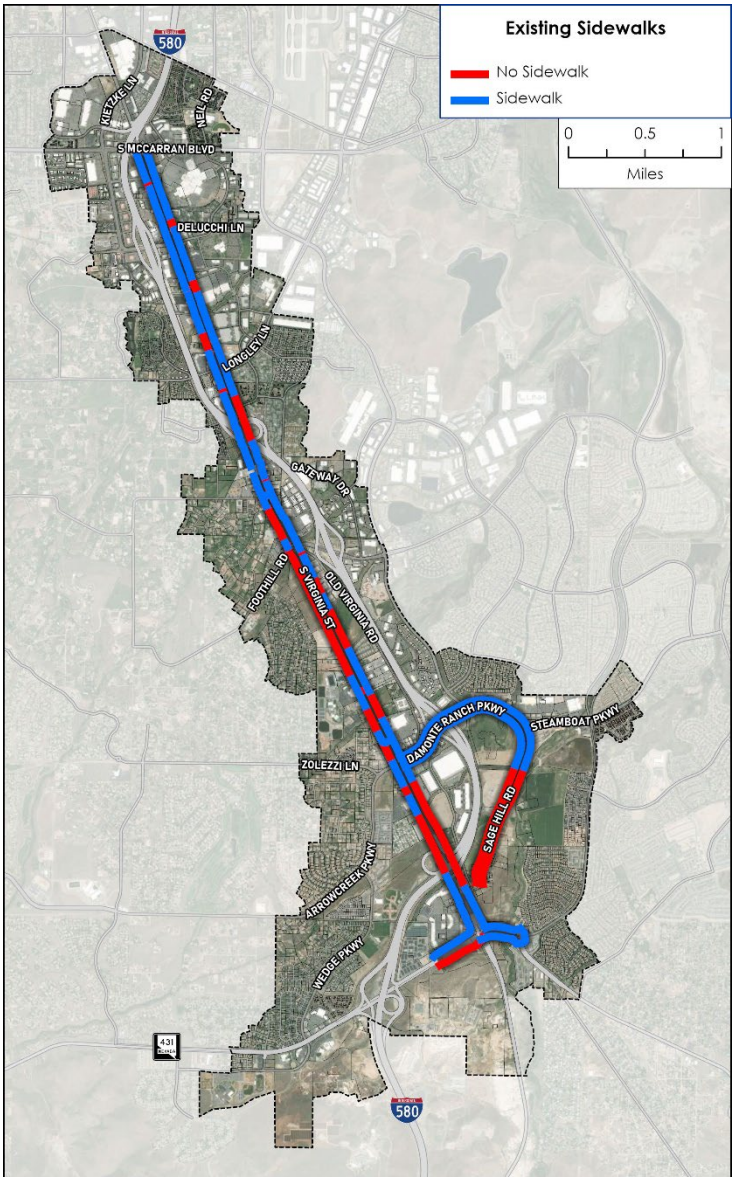


Figure 1.8: Existing Sidewalk

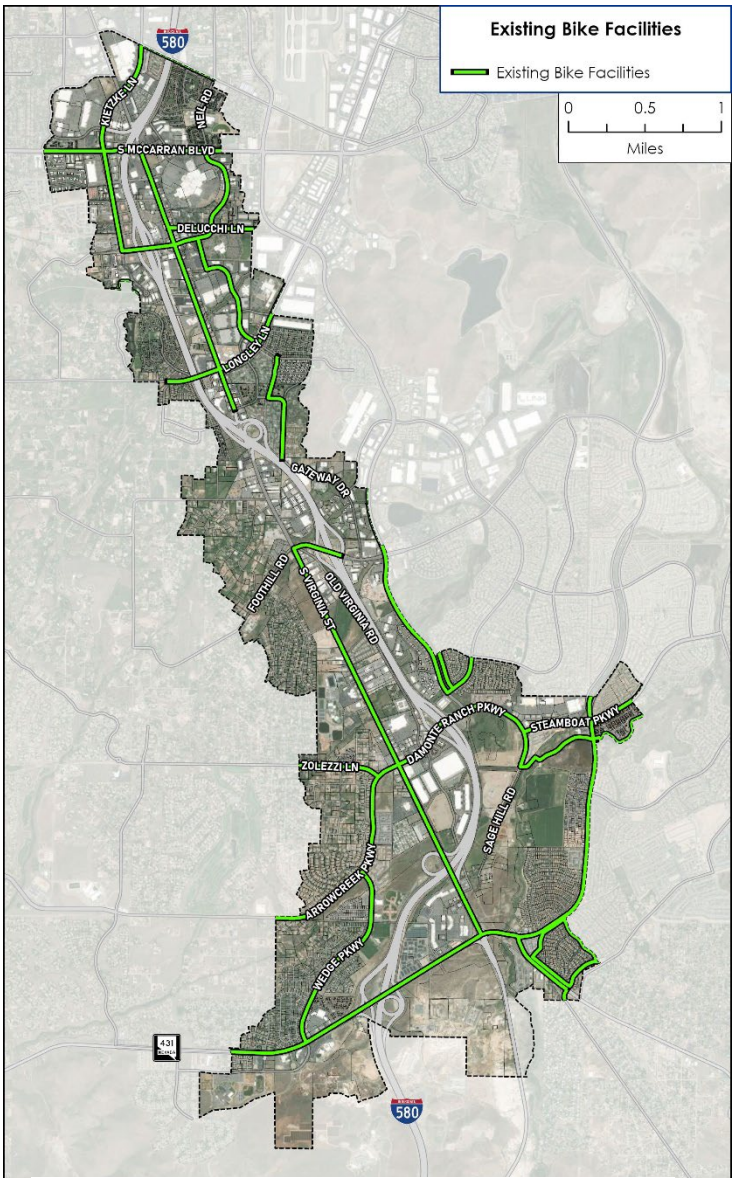


Figure 1.9: Existing Bike Facilities

The **Damonte Ranch Parkway Alternative** has been mostly developed within Planned Unit Developments (PUDs) which required bike and pedestrian connectivity and has consistent sidewalk, pedestrian paths, and bike lanes throughout the community. Bike facilities are also provided along the majority of the South Virginia Street corridor with an existing bike trail along Mount Rose Highway. These facilities connect to a larger network found throughout the residential development to the east and will help connect pedestrians to areas outside of the study area.

Bus Facilities

Existing bus services are limited in South Reno south of Meadowood Mall. In fact, **Route 56** is the only fixed route service in this portion of the study area (see **Figure 1.10**). Route 56 is limited to half-hour frequencies during peak times on the weekdays and has limited service after 8:00pm and during the weekends. There are a limited number of bus stops along Route 56 within the study area.

Another very limited service along the Study Area is provided by the Carson City regional route which runs the entirety of the South Virginia Street corridor from the Meadowood Mall transfer station to the Summit Mall. However, this is a commuter route connecting riders from Reno to Carson City and only runs during the weekdays in the mornings and evenings. This limits service along a majority of the study area for existing businesses and residents reliant on transit. **FlexRIDE** service is available and provides on-demand service from the neighborhoods to the east to portions of the study area including the Summit Mall, and areas around Damonte Ranch Parkway and South Meadows Parkway.

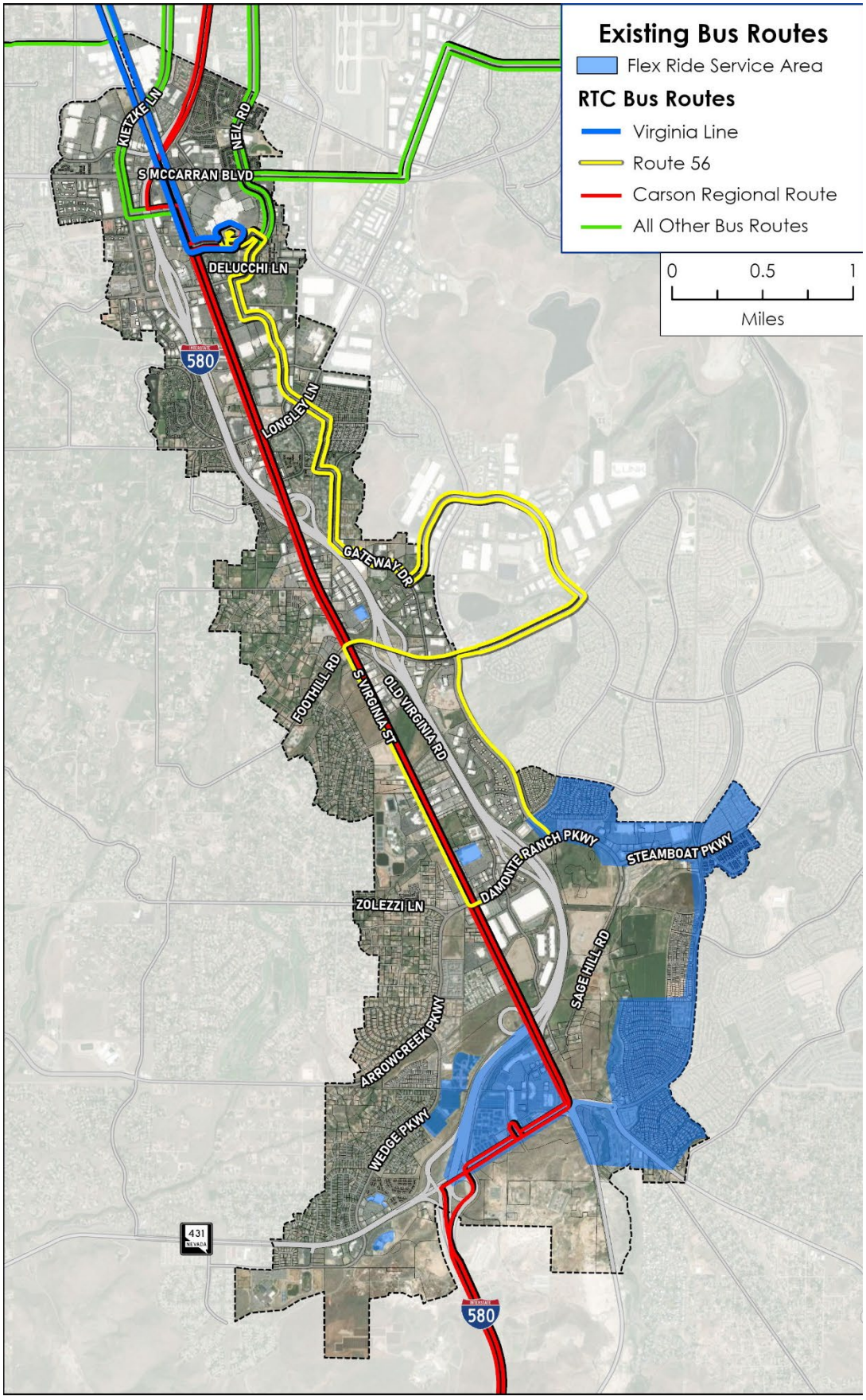


Figure 1.10: Existing Transit Facilities

Safety

Five-year crash data between the years 2016-2020 were analyzed along the South Virginia Street corridor and included over 1,000 crash reports that resulted in Equivalent Property Damage Only (EPDO). EPDO is a range of severity based on the equivalent cost of a crash in terms of property damage only, not including injury. As shown in **Figure 1.11**, crashes along South Virginia Street are concentrated at the major intersections. The map below, **Figure 1.12**, shows recorded pedestrian crashes including vehicle vs. pedestrian and vehicle vs. bicyclist. The data shows these concentrations are mostly occurring between existing signalized intersections and in areas that allow full movement with high-speed limits and six lanes of traffic. More importantly, these areas are also located in areas where multimodal infrastructure, including sidewalks and bike lanes are limited or do not exist.

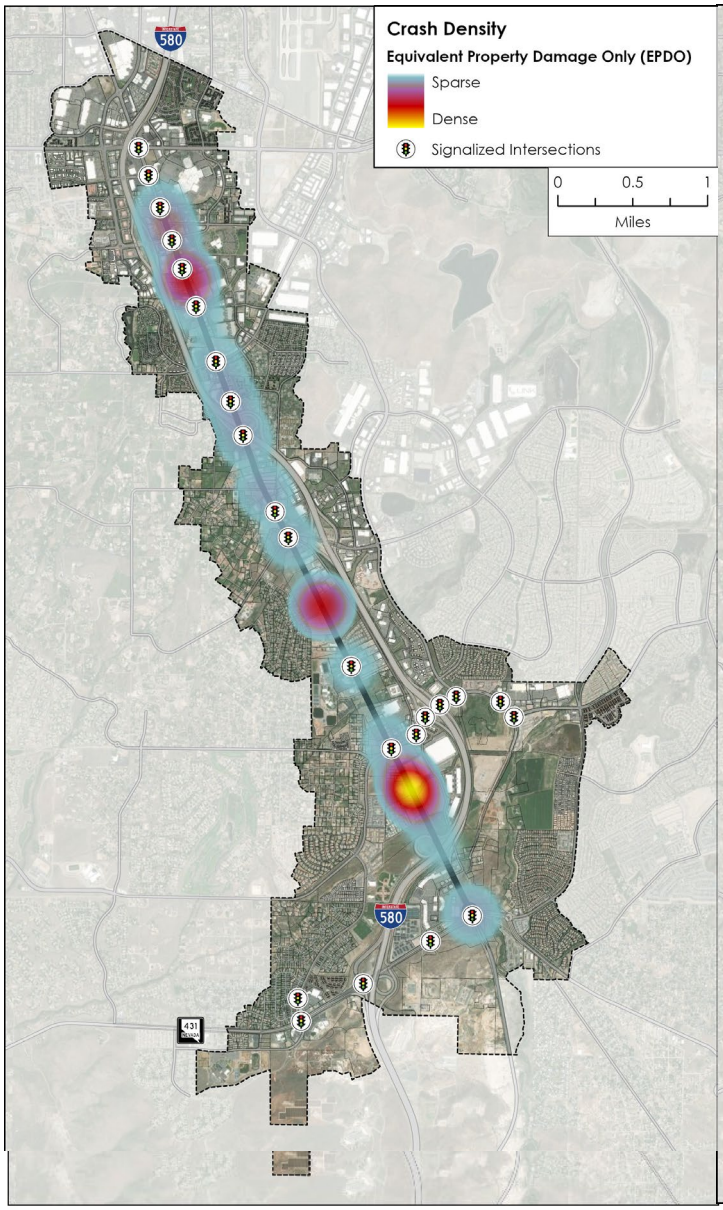


Figure 1.11: Collision Heatmap

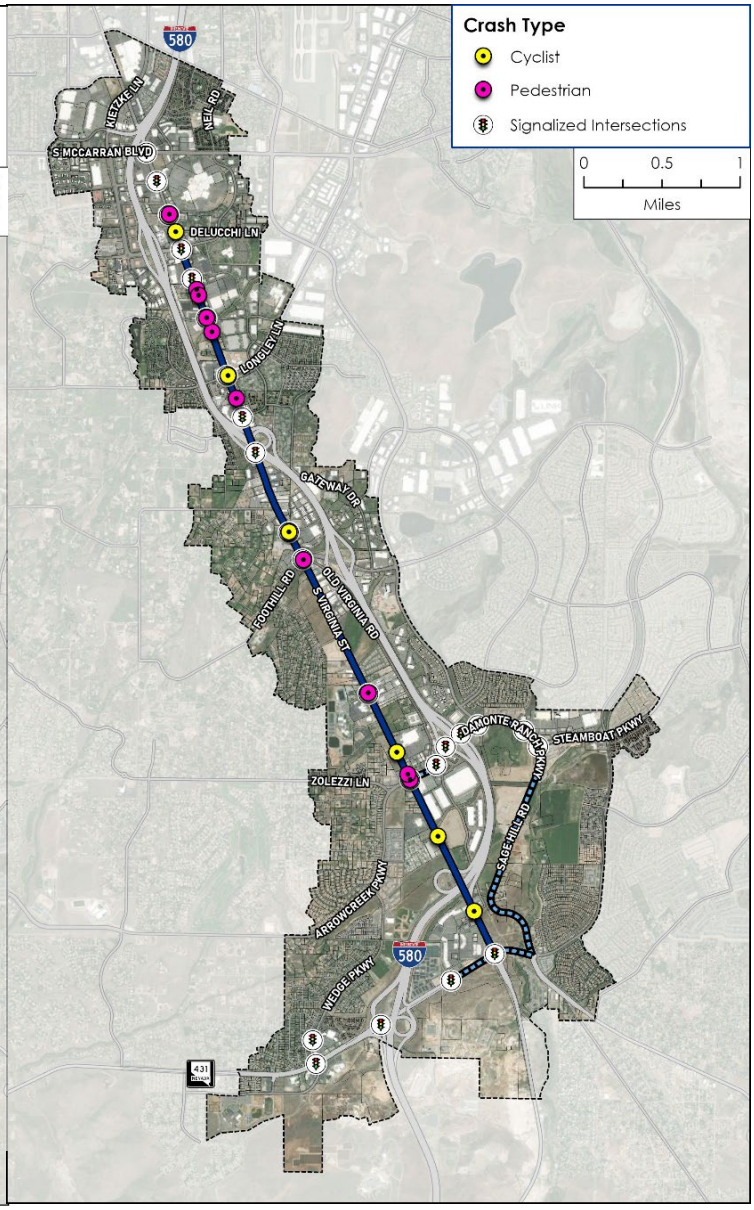


Figure 1.12: Crash Types

Existing Demographics

The demographics within the study area will help to identify potential ridership and will be important to consider as riders in areas of high population, and low to moderate median income tend to be the population to most likely benefit from BRT. Analyzing the 2020 US Census data has developed a clear understanding of the existing population within the study area as shown below in **Figure 1.13**. The Census block groups which are located within the study area show a clear correlation between housing type and population, with the block

groups with the most population, having the most multi-family or high-density housing. Therefore, a better indication for possible dependent riders should be looking at areas with existing multi-family or high-density housing within the study area.

Figure 1.14 shows distribution of household income within the study area. The areas with higher proportions of low-income households are generally considered to be those more likely to be reliant on public transit and should be considered priority locations for future transit stops. Regardless of income or age, areas of high population density are also notable when targeting choice riders as a certain percentage of the population will use transit, especially when it comes to BRT since this service is supposed to be an equal or more attractive option to personal modes of transportation. Finally, when planning for the future needs, areas of vacant land should also be considered as these areas will influence the study area demographics in the future and could lead to an increase need for transit services in an area that is currently not identified.

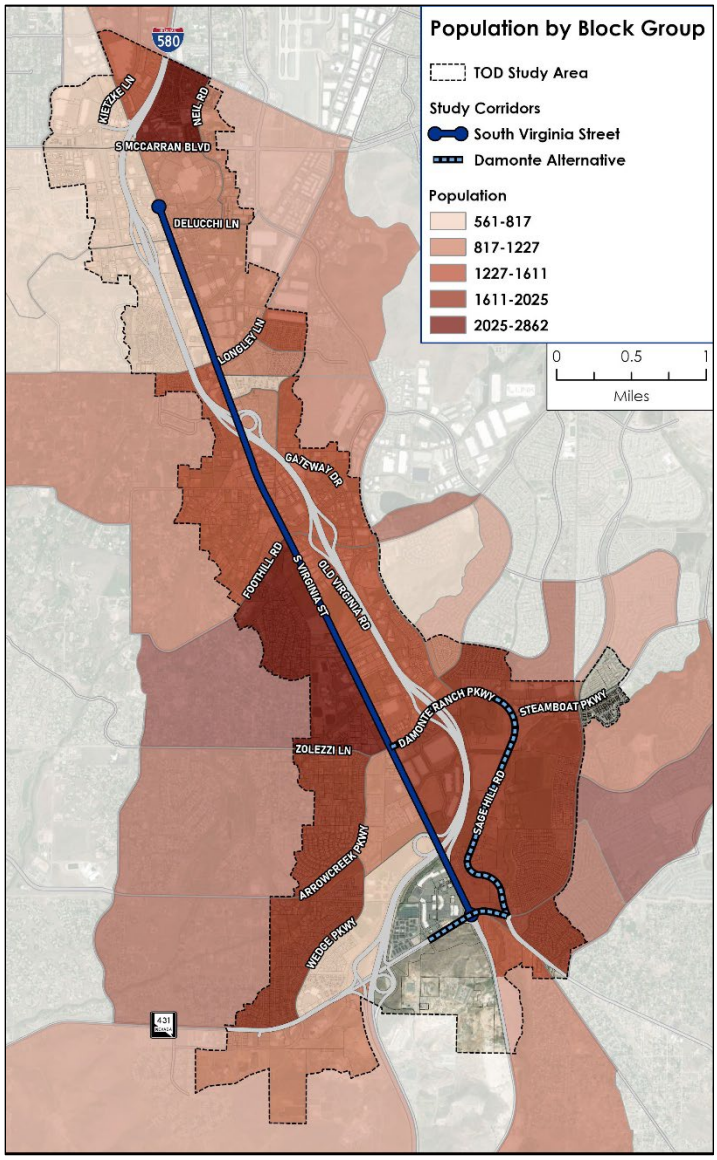


Figure 1.13: Population by Block Group

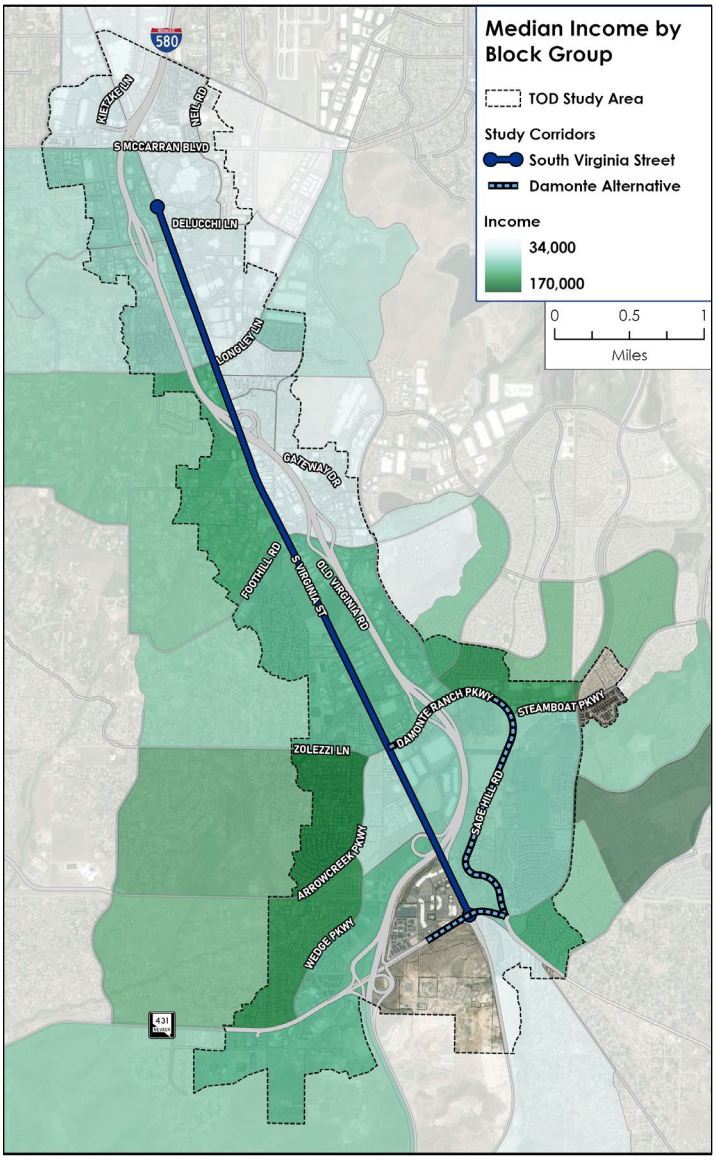
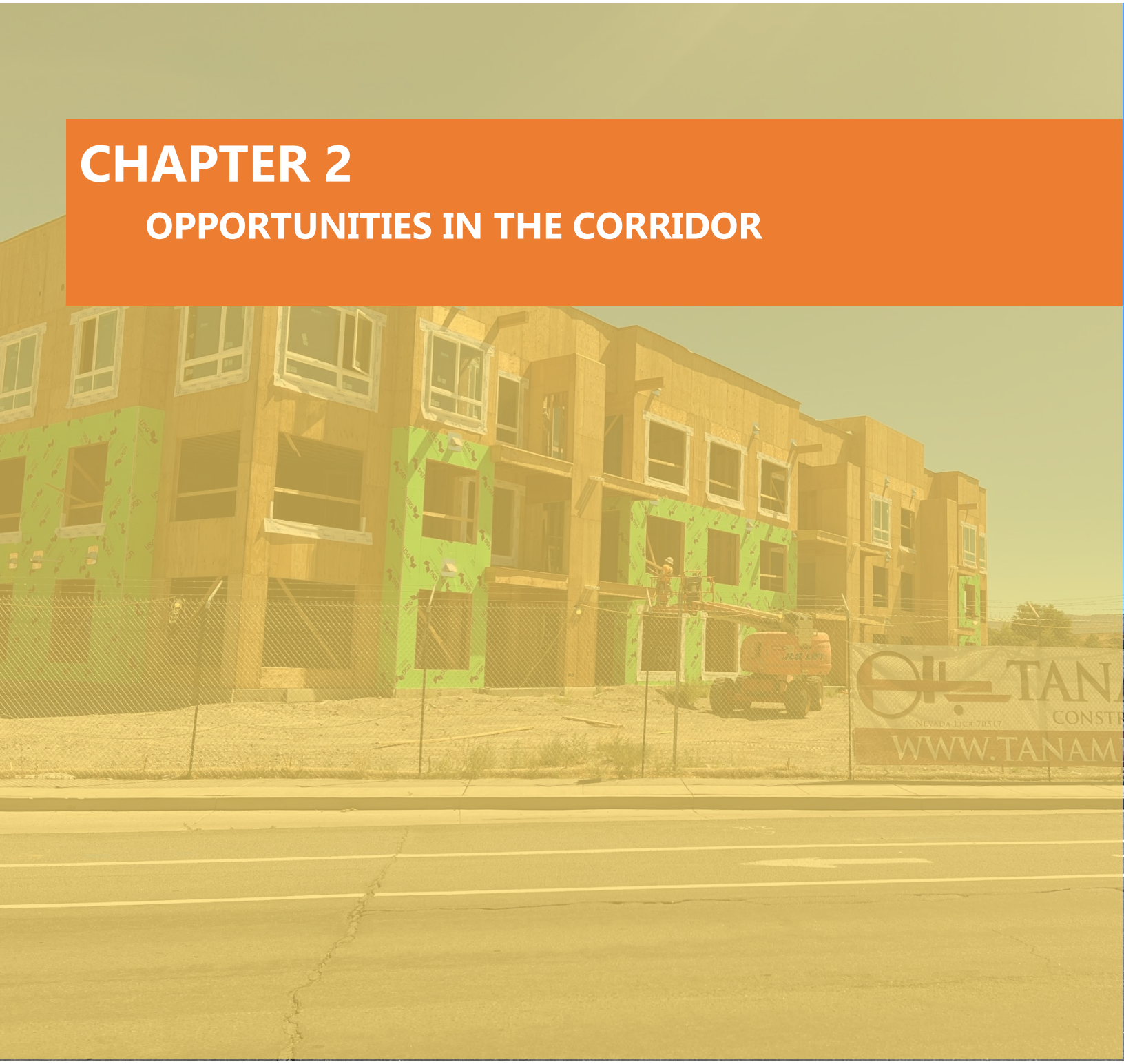


Figure 1.14: Median Income by Block Group

After considering the existing conditions, the following chapter will discuss the opportunities in the study area including an overview of the existing land use, development patterns, and future growth scenarios and how they influence transit services in the study area.

CHAPTER 2

OPPORTUNITIES IN THE CORRIDOR



Historic Trends

Over the past three decades and post the completion of Interstate 580 (I-580), the stretch of South Virginia Street extending from S. McCarran Boulevard to the Mount Rose Highway (SR 431) has transformed from a rural highway linking Reno and Carson City into a suburban arterial connecting nodes of development. This transition has resulted in a diverse mix of land uses and outdated infrastructure that has not kept up with the regional changes. Over the past thirty years, from 1990 to 2020, the population in the study area exploded from a population of ±1,500 to ±43,000 people (U.S. Census).

Before the 1990s, the study area was predominantly rural with limited development, including some low-density large lot residential areas under Washoe County jurisdiction, as well as large ranch lands. By the year 2000, construction was underway to extend U.S. 395 (now known as I-580), and planned developments in the South Meadows area were in progress, with the planning of Damonte Ranch also beginning. These initiatives allowed most commuters to bypass South Virginia Street and marked a shift from rural to typical suburban development serving the surrounding neighborhoods. During the following decade, from 2000 and 2010, major master planned developments such as Damonte Ranch, Curti Ranch, and Carmella Ranch began to take shape. South Reno continues to transform into a highly desirable community within the region, which has led to an increase in development along the Study Area.

Development within the study area experienced a slowdown following the Great Recession but has since rebounded significantly over the past decade. The resurgence in development in south Reno has been driven largely by the region's expanding employment opportunities, particularly from Tesla and the Tahoe Reno Industrial Center (TRIC). Over the past decade, there has been a significant increase in development and population growth in south Reno. This shift has led to higher-density development patterns, characterized by smaller lots and an increase in single-family attached and multifamily residences. This trend is ongoing in South Reno. **Figure 2.1** below illustrates the comparison of population and development patterns within the project study area over the past 30 years.

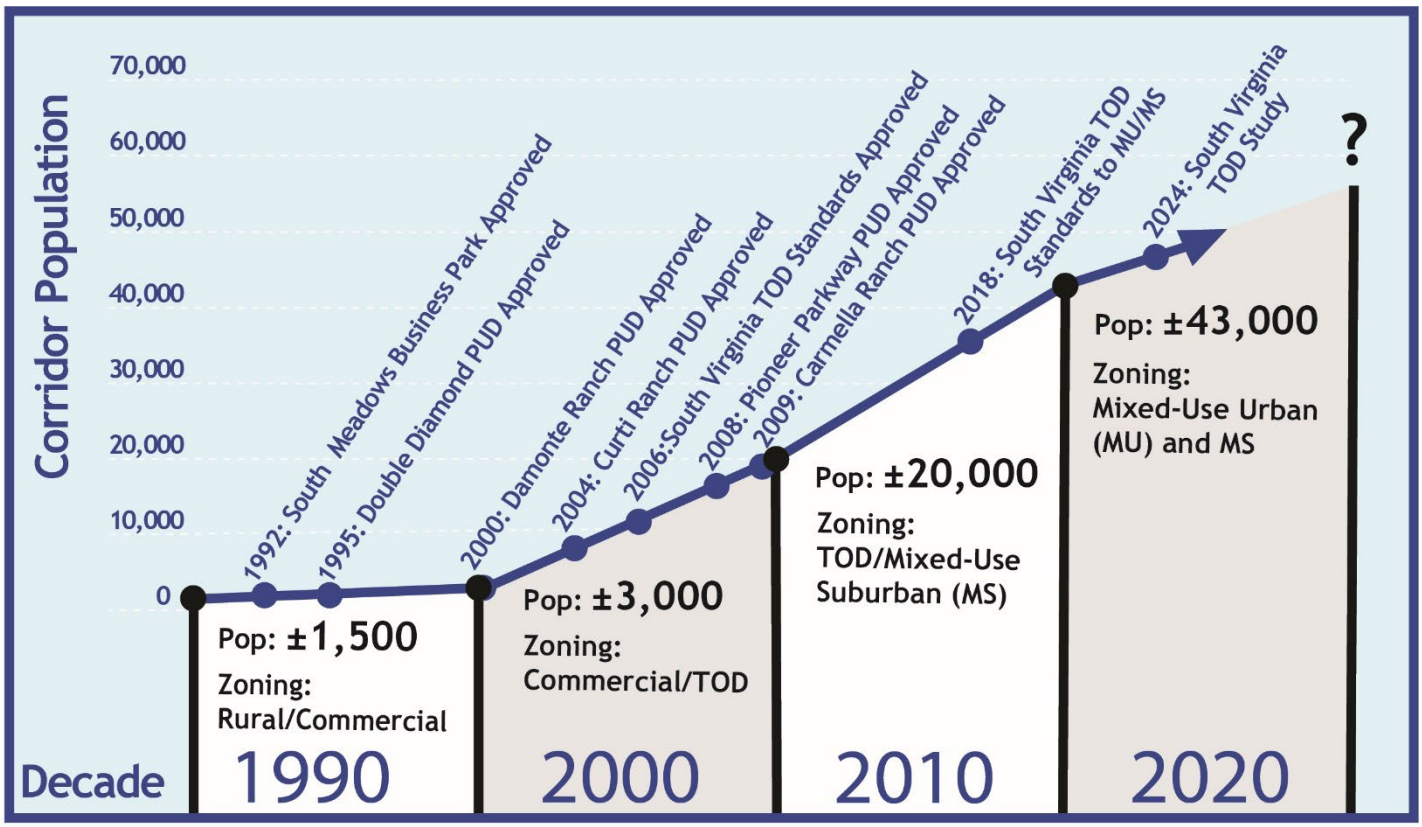
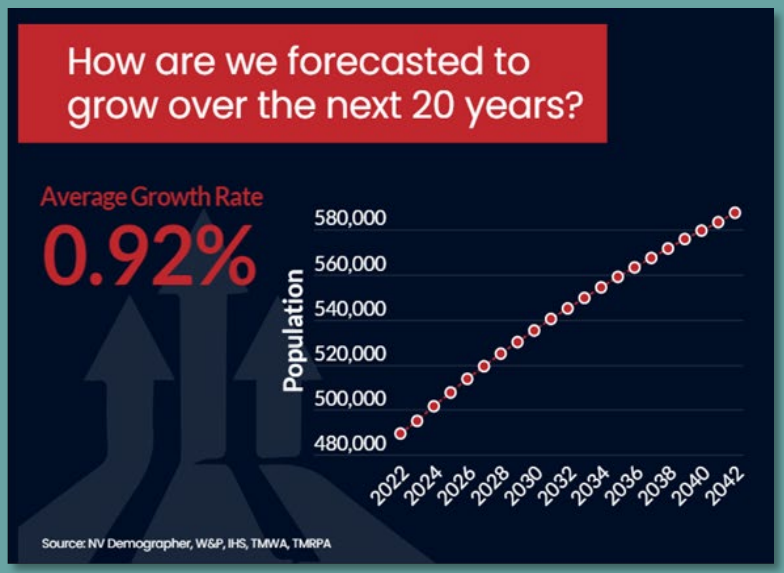
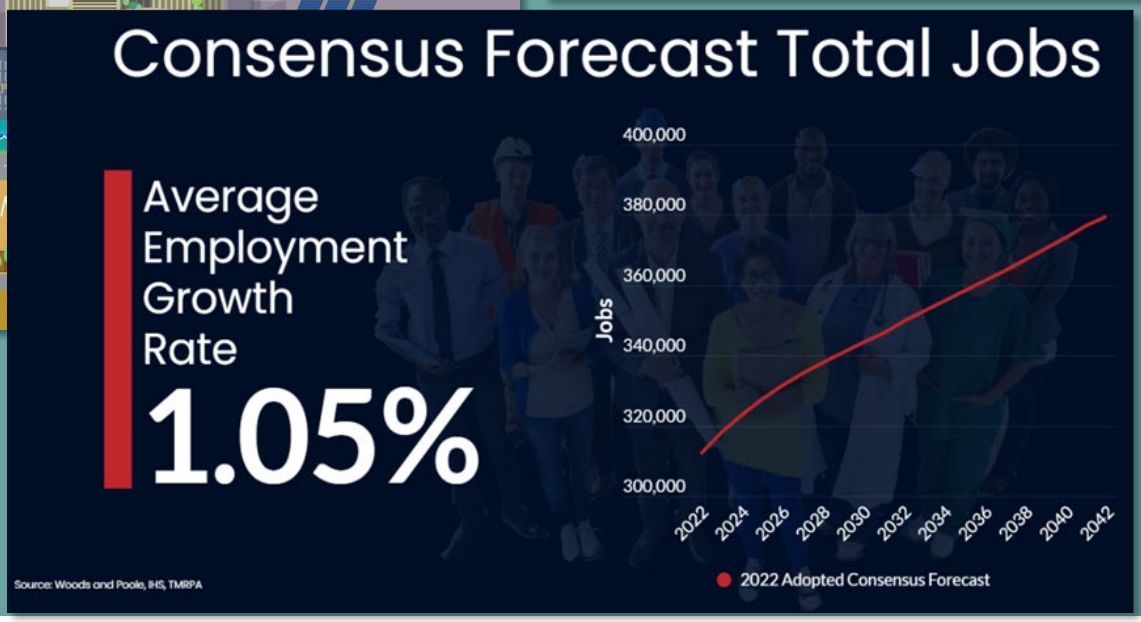


Figure 2.1 Historic Growth Pattern

Planning for Future Growth

According to the Truckee Meadows Regional Planning Agency (TMRPA), the region is projected to add 100,000 residents and over 68,000 jobs between 2022 and 2042. This growth will significantly impact the study area. As Reno's growth continues, collaborative planning efforts led by TMRPA and the City of Reno prioritize sustainable development practices, as outlined in the ReImagine Reno guiding principles. These include responsible and well-managed growth (Guiding Principle 2), vibrant neighborhoods and centers through infill and mixed-use development (Guiding Principle 4), and enhanced multimodal connectivity (Guiding Principle 5). The upcoming sections will delve into city and regional planning strategies, particularly their focus on promoting Transit-Oriented Development (TOD) along South Virginia Street.





Current Land Inventory

The current land inventory can help plan for future growth as well as identify what the current needs may be. Typically, BRT is favorable to mixed-use land designations, which promote high density development including multi-family, single family attached housing, large commercial developments, employment centers, and street networks with robust multimodal transportation infrastructure. Within this study area, identifying vacant land or areas for future redevelopment can help to determine future growth areas and the types of development that can be expected. The current land inventory map, shown in **Figure 2.2,** identifies vacant land and redevelopment opportunities.

By analyzing the master plan and zoning designations set by the city or county, the influences on the vacant land within the study area will help to understand the types of existing developments and identify future developments within the study area that may be favorable to BRT. Within the study area, these include the City of Reno master plan and zoning designations throughout the majority of the study area to the west and portions that are under Washoe County jurisdiction to the west.

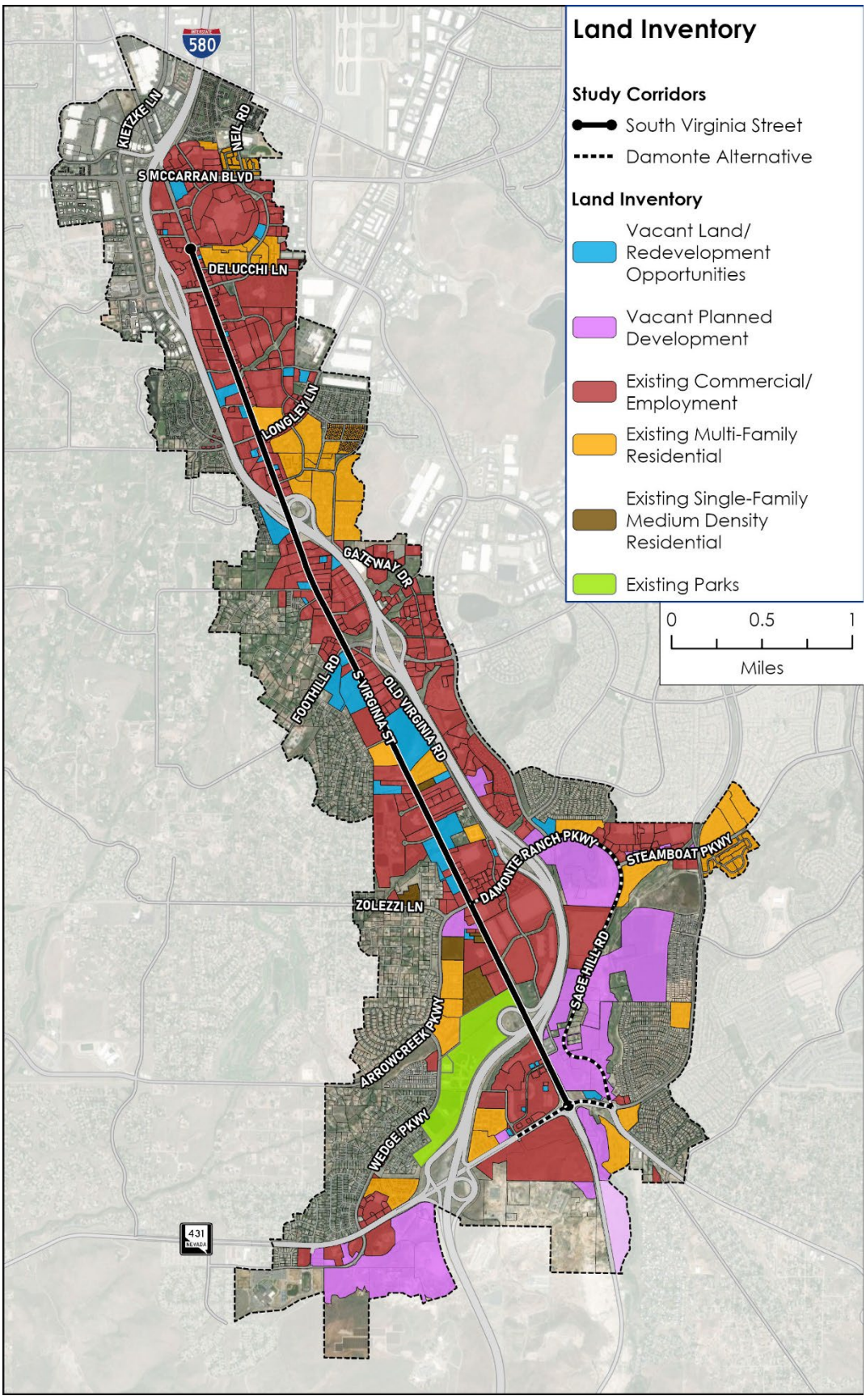


Figure 2.2 Current Land Inventory Map

Master Plan and ReImagine Reno Area Specific Policies

The ReImagine Reno Master Plan identifies South Virginia Street as a suburban corridor. Suburban corridors encourage a mix of higher-density residential, retail, commercial, and other employment- and service-oriented uses. While the corridor is currently suburban, the Area Specific Policies outlined below support its gradual transition to an urban corridor. These policies provide flexibility in development patterns and intensity in the near term, **encouraging nodes of higher-intensity development** which is more supportive of transit. This approach aims to enhance access to services, expand housing options, and **support expanded transit service over time**.

Employment Areas

Employment areas **support live-work opportunities** for the local workforce and reduce the need for cross-town trips. The connectivity between these employment areas and the study area can influence the demand for additional housing within the study area and increase transit ridership. There are two Employment Areas adjacent to the study area (blue shaded areas in **Figure 2.3**).

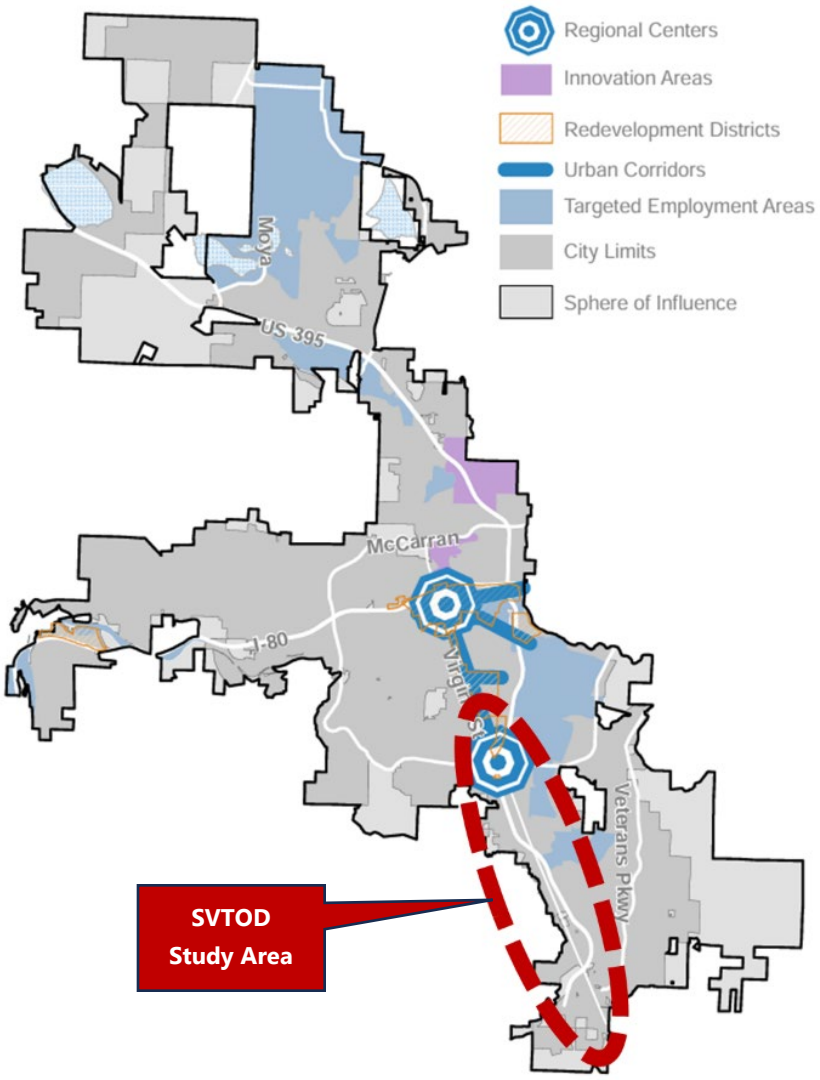


Figure 2.3: Employment Areas

Regional Centers

Meadowood Mall in the north is identified as a Regional Center (**Figure 2.3**). Regional centers serve residents of the City of Reno and the broader region, as well as visitors from across the state and country. Regional centers include a **diverse mix of uses of high-density** office, residential, hotel, entertainment (including gaming), retail, and supporting uses. **Are well-served by the region's multimodal transportation** network and serve as a hub for service to other destinations within the region.

Outer Neighborhoods

The study area provides connectivity for several surrounding outer neighborhoods as outlined in *ReImagine Reno Master Plan.* Outer neighborhoods include the city's older suburban areas, generally outside or adjacent to the McCarran loop, as well as newer suburban developments. They are generally comprised of single-family detached homes and have a cohesive character. While new development continues to occur in some outer neighborhoods, others are in need of revitalization and reinvestment. **Significant capacity for future residential development** lies in outer neighborhoods. **Opportunities to encourage a broader mix of housing types and supporting non-residential uses** and amenities in outer neighborhoods are encouraged in order to meet changing community needs.

Community/Neighborhood Centers

The study area includes several community/ neighborhood centers (**Figure 2.4**). In the study area these include:

- Meadowood Mall
- South Meadows Parkway
- Downtown Damonte
- Summit Mall

Community/neighborhood centers provide opportunities for supporting services (e.g. restaurants, cafes, small retail stores, medical offices) intended to meet the needs of the immediate neighborhood. Walkable, small-scale neighborhood centers exist in several of the city's central neighborhoods, while larger community centers such as those anchored by a grocery store or other large retail tenant may include a **vertical or horizontal mix of residential and/or office uses in addition to retail/commercial uses.**

Community/neighborhood centers should have a cohesive and pedestrian-oriented design that features public/community gathering spaces and **enhanced pedestrian/ bicycle connections** to the surrounding neighborhoods. The design principles that follow (see **Figure 2.5**) provide general guidance to support the revitalization of existing centers, and can inform the design of new centers. The identified centers within the study area (Meadowood Mall, South Meadows Parkway, Downtown Damonte, and the Summit Mall), have large parking areas that have the potential for revitalization and added density and a greater mix of uses that would also help encourage transit-oriented development according to the *Reimagine Reno Master Plan.*

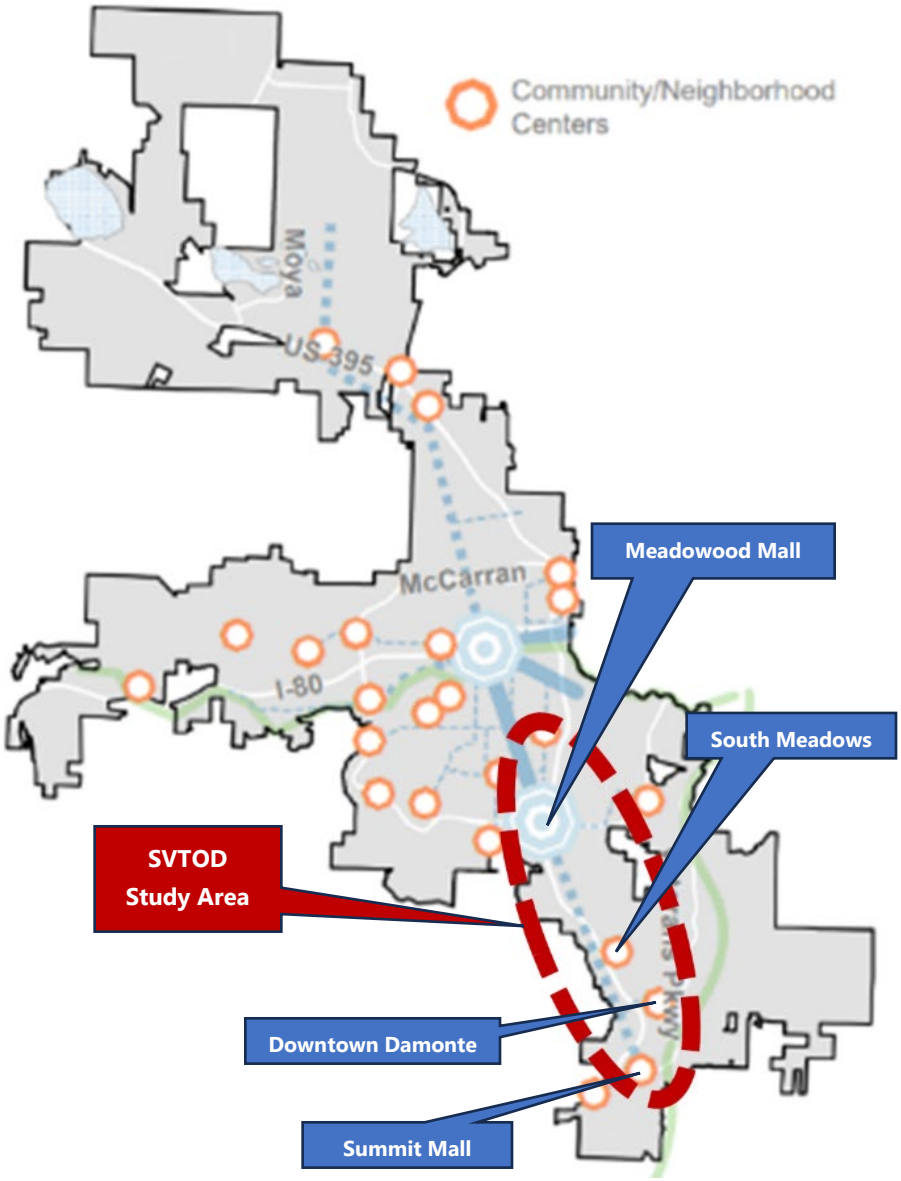


Figure 2.4: Community Centers

Revitalization of Existing Centers. The diagrams illustrate potential opportunities for site improvements and infill on surface parking lots to accommodate a greater mix of uses and promote the revitalization of existing centers. To achieve required parking for uses that replace surface parking lots, tuck-under and/or structured parking are to be utilized.

Figure 2.5 Potential Existing Site Improvements for Community/Neighborhood Centers

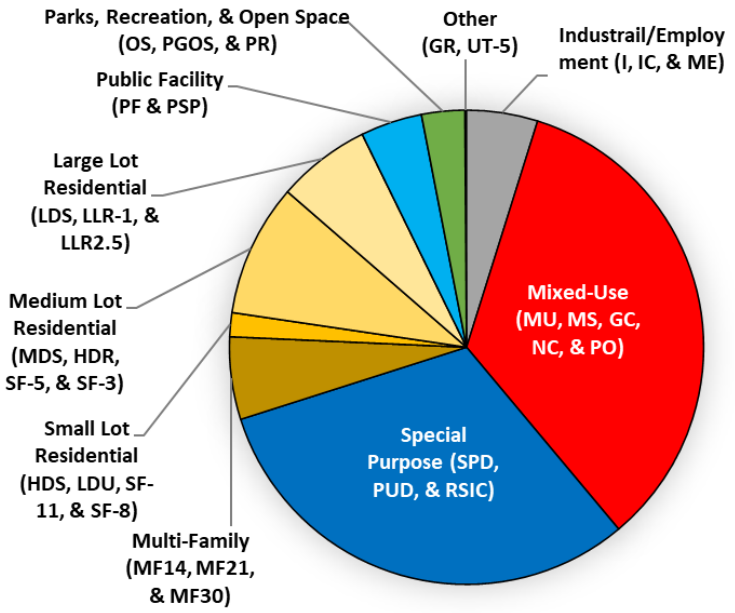
Zoning

The majority of the master plan designations within the study area are classified as Suburban Mixed Use (SMU), which promotes a mixed-use zoning designation that is favorable to BRT services. The underlying zoning typically associated with this master plan designation allows commercial or high-density residential development. The map below shows the distribution of the zoning districts throughout the study area. **Figure 2.6** shows the three major City of Reno zoning designations within the study area are **Mixed-Use Urban (MU), Mixed-Use Suburban (MS), and Planned Unit Development (PUD).** While the MU zoning designation is traditionally most favorable to BRT, the SMU designation, which has no minimum density requirement, may not inherently encourage high-density development but still has design standards which support multimodal transportation. The PUD zoning is unique as it refers to a specific planned community with varying development standards throughout the study area, some of which may promote design elements favorable to transit.

Each Planned Unit Development (PUD) is unique and typically has different development standards than those found in the City of Reno development code. The three PUDs within the study area—Double Diamond PUD, Damonte Ranch PUD, and Pioneer Parkway PUD—have specific development standards detailed in their respective PUD Handbooks. These generally allow for high-density development but, like the SMU zoning designation, may lack minimum density standards to encourage consistent high-density development within the study area.

Importantly, the PUDs encompass the largest areas of vacant land within the study area and will significantly influence future development in the southern part of the area. Predicting future development patterns is challenging due to the wide range of potential densities. According to ReImagine Reno, the SMU master plan designation does not require a minimum density, though it encourages concentrated nodes of high-intensity development. While the SMU designation includes several conforming "Base Zoning Districts," the study area is predominantly under one; Mixed-Use Suburban (MS). The current zoning map within the study area is shown in **Figure 2.8** for the City of Reno and **Figure 2.9** for Washoe County.

Figure 2.6 Study Area Zoning Designations



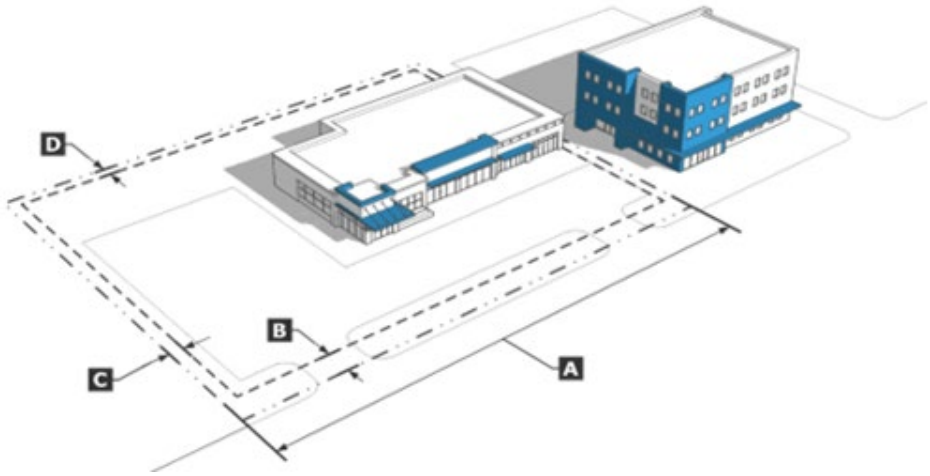


Figure 2.7 Mixed-Use Suburban (MS) Design Standards (City of Reno)

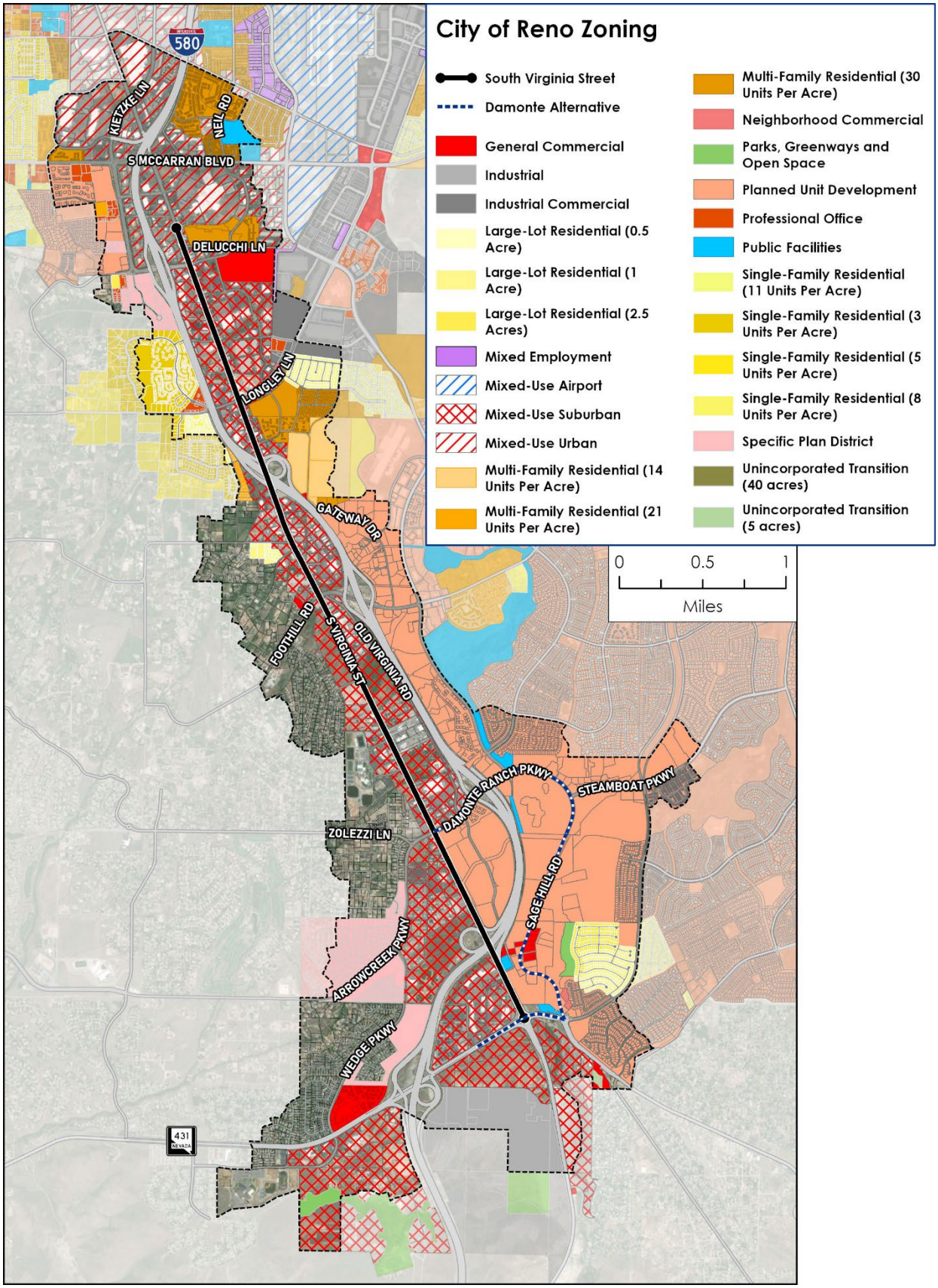


Figure 2.8 City of Reno Zoning

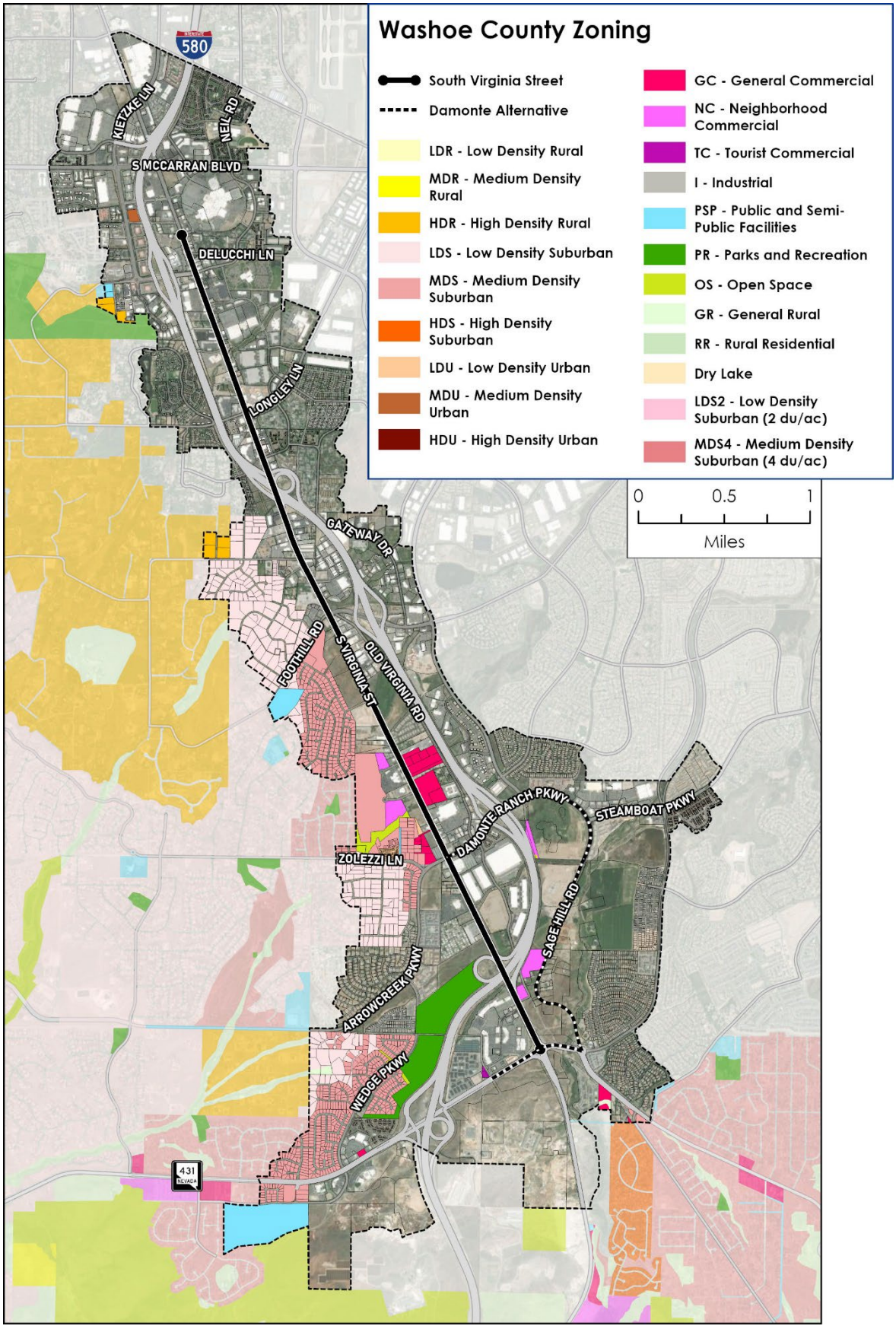


Figure 2.9 Washoe County Zoning

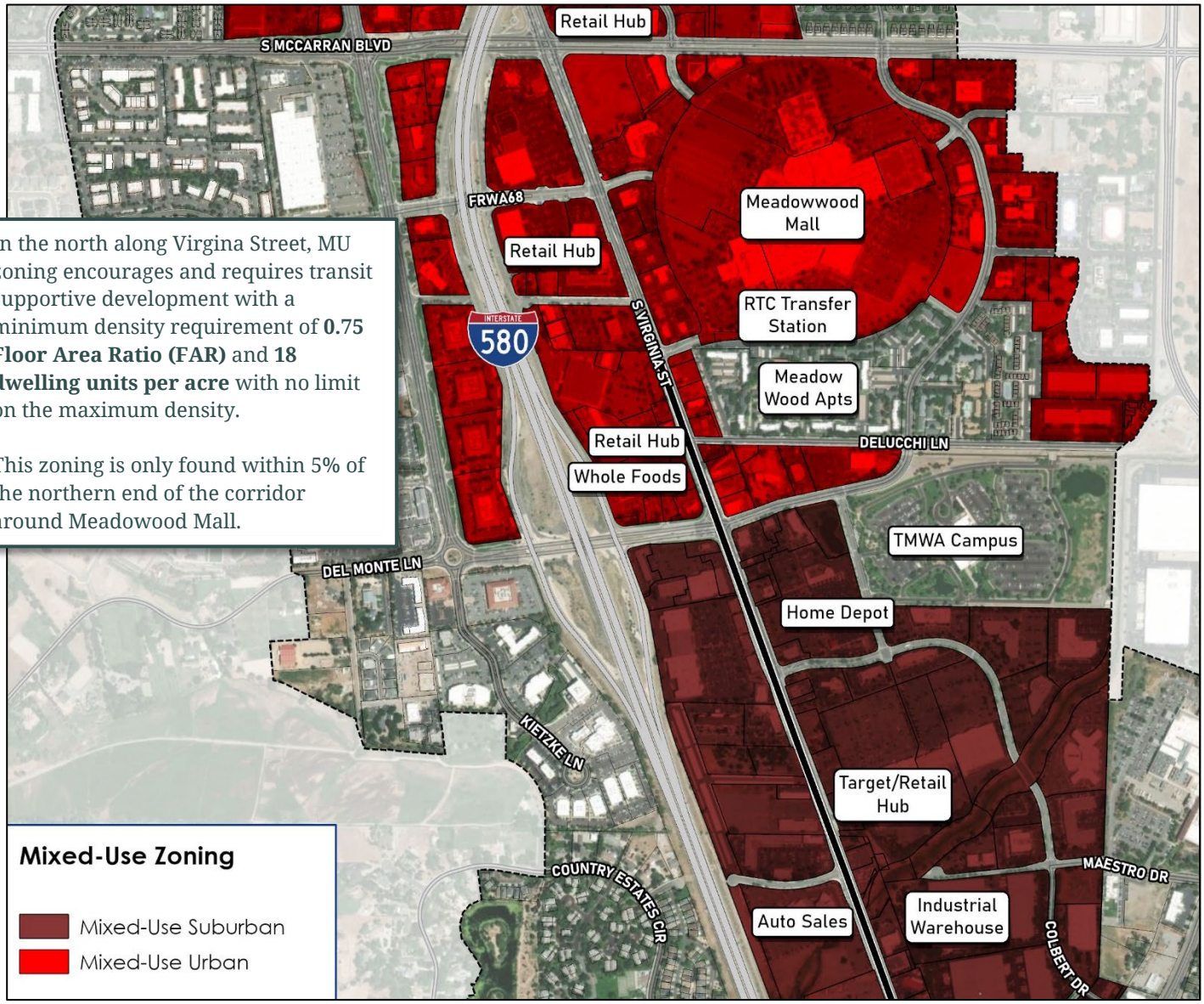
The MS zoning does not mandate minimum or maximum residential density or floor area ratio (FAR) and has very permissive, sometimes non-existent, setback requirements. There is no stated building height limit, though buildings over 55 feet require site review. These standards are conducive to transit-oriented development, which typically seeks to maximize allowable density. However, the absence of minimum density and FAR requirements poses a challenge when encouraging transit supportive development. This flexibility can lead to developments that are less supportive of transit, undermining the goals of transit-supportive land use policies.

In addition to the MS zoning, the southern end of the Study Area, including Damonte Ranch and its surroundings, falls under Planned Unit Development (PUD) zoning. This zoning specifies land uses and standards for various parts of the master-planned community. Similar to MS zoning, PUD zoning offers significant flexibility for use standards, allowing for a broad range of uses that may or may not support transit. Unlike South Virginia Street, Damonte Ranch is the only node within the study area that has seen higher density development concentrated around commercial areas, including the recently announced plans for the Downtown Damonte mixed-use development.

In summary, the ReImagine Reno Master Plan provides a framework for the study area to evolve into a more urbanized area, focusing on node densification and supporting future transit and multimodal connectivity. However, there is a disconnect between the vision of the master plan and the current development within the study area, largely due to the broad range of allowable uses under the existing zoning regulations.

In the north along Virgina Street, MU zoning encourages and requires transit supportive development with a minimum density requirement of **0.75 Floor Area Ratio (FAR)** and **18 dwelling units per acre** with no limit on the maximum density.

This zoning is only found within 5% of the northern end of the corridor around Meadowood Mall.



Supporting Transit Along Virginia Street

One of the key challenges in achieving a long-term vision of TOD along South Virginia Street is bridging the gap between land-use policy and actual development. Aside from the planned Downtown Damonte area, there is little momentum for developing compact, walkable, mixed-use environments along South Virginia Street. To increase mixed-use development, an understanding of not only the policies but also external influences such as the private market, private landowners and developers, and the willingness of political jurisdictions to encourage changes in development patterns, is necessary. These factors and influences are shown in **Figure 2.10** below and have been and will continue to be the main drivers of development along South Virginia Street.

Figure 2.10 TOD Influences

The Benefits of Transit-Oriented Development

Reduced Traffic Congestion: Enhanced public transit options like BRT which can significantly decrease the reliance on personal vehicles, leading to less congested roads and smoother traffic flow.

Health and Lifestyle Improvements: Reduced pollution levels and the promotion of more active modes of transportation, like walking and biking to transit stops, can contribute to healthier bodies and minds in the community.

Environmental Advantages: Public transit systems are instrumental in reducing greenhouse gas emissions and local air pollution, contributing to a cleaner, healthier urban environment.

Local Economic Growth: Effective transit not only boosts property values and business attractiveness but also stimulates broader economic development by better connecting industry to the workforce it relies on.

Increased Social Equity: A well-implemented transit system democratizes mobility, offering more equitable access to employment, education, and services across all socio-economic groups, especially when connected with affordable housing efforts.

Characteristics of Transit-Supportive Development

A transit system and the built environment it operates in are mutually dependent when it comes to realizing the above benefits. Even the highest quality vehicles, stations, and operating systems may not attract a sizable number of riders away from auto-reliance unless the surrounding land uses and public infrastructure are thoughtfully designed to support, and benefit from, that transit.

This means thinking about how we design our neighborhoods – from the placement of buildings to the mix of shops, homes, and places of work. Ensuring that station areas have sufficient headcounts to generate rides is only one part of an equation that also involves factors like non-auto connectivity, physical orientation of uses, safety, and aesthetic desirability; it's about creating vibrant, attractive areas that naturally and safely encourage transit use. Here we will explore the key elements that make up a transit-supportive neighborhood and why getting these details right is crucial for the success of future transit service and to help achieve broader regional goals and policies.

Compact and Focused Development:

General Compactness: Compact development, as opposed to very low-density development, supports transit systems by efficiently utilizing land. This approach creates walkable, interconnected neighborhoods that facilitate public transit use. People and destinations are the life's blood of transit ridership, and compact design means more individuals and potential destinations per acre of land.

Focused Intensity Near Stations: An outcome to the criteria of compactness is that station areas should emerge as pulse points of activity and development density. Because BRT systems do not make stops between established station areas, adjacent properties that are not within walking distance of a station typically do not contribute much to ridership, either in terms of resident riders or destinations for BRT passengers.

RED Development Located at Virginia Street and Plumb Lane

Development density is therefore less critical for non-station stretches of the study area (meaning that low-density auto-oriented uses interested in locating in the study area should be steered to non-station areas to the extent possible). Pleasing, human-friendly architecture, landscaping, and site design near stations is critical for making the required density palatable, and even attractive to residents and neighbors.

Mix of Uses:

A mix of residential, commercial, and recreational spaces within walking distance of transit stations can enhance livability and encourage transit use. Not every station needs to include a full mix of residential and commercial uses, but primary stations that serve as end of the line points or multi-modal transportation hubs certainly should.

Example of Mixed Uses Along Virginia Street (Midtown Reno)

The mix of uses can be horizontal (side-by-side) or vertical (e.g. apartments above ground-floor commercial), as dictated by the market and developer preferences, so long as stations can potentially serve a variety of potential riders and destinations. In addition to smoothing out the distribution of passenger demand across stations and day-parts, mixed-use environments can enable shared parking opportunities and increase the vibrancy and activity levels around stations (which can also have safety benefits).

Pedestrian and Bicycle-Friendly Design:

Safe, convenient pedestrian and cycling infrastructure is vital to encourage transit use and support a healthy community. This criterion is most important directly adjacent to station areas, physically connecting passengers with the station platforms to and from buildings, trails, or parking areas. Design details for those last hundred feet of connections may only appear closer to the actual opening of the system, but the wider network of bicycle/pedestrian trails, crosswalks, walkways, lighting, and other elements, both along the route and into the city at large, should be planned for and in place well in advance.

Separated Pedestrian/Bike Path Example Along Carson Street

Connectivity and Accessibility:

Easy and direct access to transit stations from a variety of other transportation modes is key for a successful TOD. This criterion overlaps with the last in its emphasis on trail networks and other forms of bike/ped connectivity, but crucially also extends to local non-BRT bus route connections. Shuttle services to hotels and workplaces located outside the study area should also be cultivated and accommodated to and from major stations. Increasingly, station areas will also need to plan for ride-share and other taxi-like travel modes with convenient, non-disruptive pick-up/drop-off zones (a category of accommodation that will likely grow to include driverless cars).

BRT Transit Stop Located along Virginia Street (Virginia Line)

Affordable Housing:

Incorporating affordable housing near transit stations is critical to attract and support transit-dependent populations, such as lower to middle-income riders. In the Reno-Sparks metro, awareness and appreciation of transit is currently limited to lower and middle-income populations that already rely heavily on transit to get around. While increased awareness and acceptance of transit may grow through education and promotion efforts, operational feasibility of a South Virginia transit line will depend on the ability of significant numbers of transit-users to find housing they can afford near future station areas. Most cities with effective transit service consider transit access and housing affordability to be integral components that work together as part of a comprehensive approach to building social equity.

Steamboat Apartments Located Along Geiger Grade (SR 341)

Supporting Criteria in the Study Area

The existing study area was analyzed for transit supportive development and scored using the criteria listed above to help identify areas that are currently being served and to identify areas that can be improved.

Table 2.1: South Virginia Context Relative to Criteria for Transit-Supportive Development

	*How transit-supportive? (**1**=not at all, **2**=slightly, **3**=moderately, **4**=strongly, **5**=very strongly)*		
Criteria	**Current Context**	**Trajectory**	**Notes**
Compact & Focused Development	**1 to 2** – overall **3** - some multifamily and industrial areas (depending on station location)	**4** - Downtown Damonte, as proposed. **1 to 3** overall, moderately supportive in multifamily and industrial/employment areas	Some recent multifamily developments have increased the overall corridor density, but none are particularly compact, from a typical TOD perspective. There is considerable job density overall in the industrial areas east of Sierra Center Parkway, though development is not particularly compact. In general, patterns of density are more randomly distributed than focused at likely station areas
Mix of Use	**1 to 2** at likely station areas overall. **3** at Meadowood Mall terminus area and a few other potential station areas (Longley/Huffaker, Holcomb Ranch, McCabe) **(4** at South Meadows Pkwy and Double R, but far from likely station areas)	**4** at Downtown Damonte, as proposed **1 to 2** over much of the remaining study area	Though the study area includes an impressive mix of uses overall, there are few developments near possible station areas featuring a real mix of close-by uses. Different uses near potential stations like McCabe and Holcomb Ranch tend to be separated by arterial or collector roads and typically at lower, suburban densities.
Pedestrian & Bicycle-Friendliness	**1 to 2** overall	**3 to 4** at Downtown Damonte	Nearly the full extent of South Virginia Street is flanked by sidewalks in the north with little sidewalks found south of Patriot Boulevard, but except in a few areas around new developments. Where sidewalks exist these are directly adjacent to the busy arterial traffic and interrupted frequently by curb cuts. Crosswalk protection and lighting are inconsistent. Some bike trails can be found intersecting S. Virginia, but not along it. Plans for Downtown Damonte reference being ped/bike friendly, but few details are available.
Connectivity	**1 to 2** overall **2 to 3** at Meadowood Mall	**3 to 4** at Downtown Damonte	Unlike older parts of Reno surrounding the existing Virginia St. BRT, South Virginia lacks an urban grid of surrounding local streets, instead relying on a loose network of parkways, partially connected streets, and private roads built to satisfy one or two developments at a time with little regard for overall connectivity. Meadowood Mall serves an intermodal function for 2-3 local bus lines, providing access to the North Virginia BRT.
Housing Affordability	**1 to 2** overall	**1 to 2** within much of the study area	Several Affordable housing projects exist but almost all have no access to transit. Establishing reliable transit service along S. Virginia Street will help to incentivize more affordable housing projects.

Existing Housing and Employment Densities

Over the past three decades, the study areas population has boomed from 1,500 to 43,000 (based on US Census tracts located within the Study Area). With nearly 700 acres of vacant land still available and more potential for redevelopment in older areas, the study area has the potential to absorb much of the regional growth that is anticipated in the Truckee Meadows. How to serve this growth with transit is hard to determine since the current zoning standards allow for a broad range of possibilities. High density housing and high employment center developments are some of the most important when it comes to supporting transit.

These developments often:

- Support a mix of uses
- Allow for people to work and live within a short distance
- Decrease reliability on personal vehicles by incorporating multimodal design
- Have access to a surrounding network of trails/sidewalks, bicycle lanes, and transit services
- Provide quality service to transit users

Multi-family Apartments

Tamarack Casino (High Employment Center)

Transit Encouraging Developments

Developments that encourage transit ridership are those that utilize design elements that support transit and discourage personal vehicle use. These developments typically encourage more choice riders. These developments typically:

- Allow for people to work and live within a short distance
- Incorporate multimodal design
- Have access to a surrounding network of trails/sidewalks, bicycle lanes, and transit services
- Encourage those who own a personal vehicle to use transit out of convenience rather than necessity

Transit-Friendly Development along South Virginia Street

Examples include townhome and condo developments and pedestrian-friendly destination retail centers. Traditional shopping malls favor parking and vehicles as the primary mode of travel making it difficult for pedestrians to access. Pedestrian-oriented features include placing the buildings outward towards the major arterials reducing the distance for transit and active transportation users to traverse improving overall comfort and reducing the sense of scale.

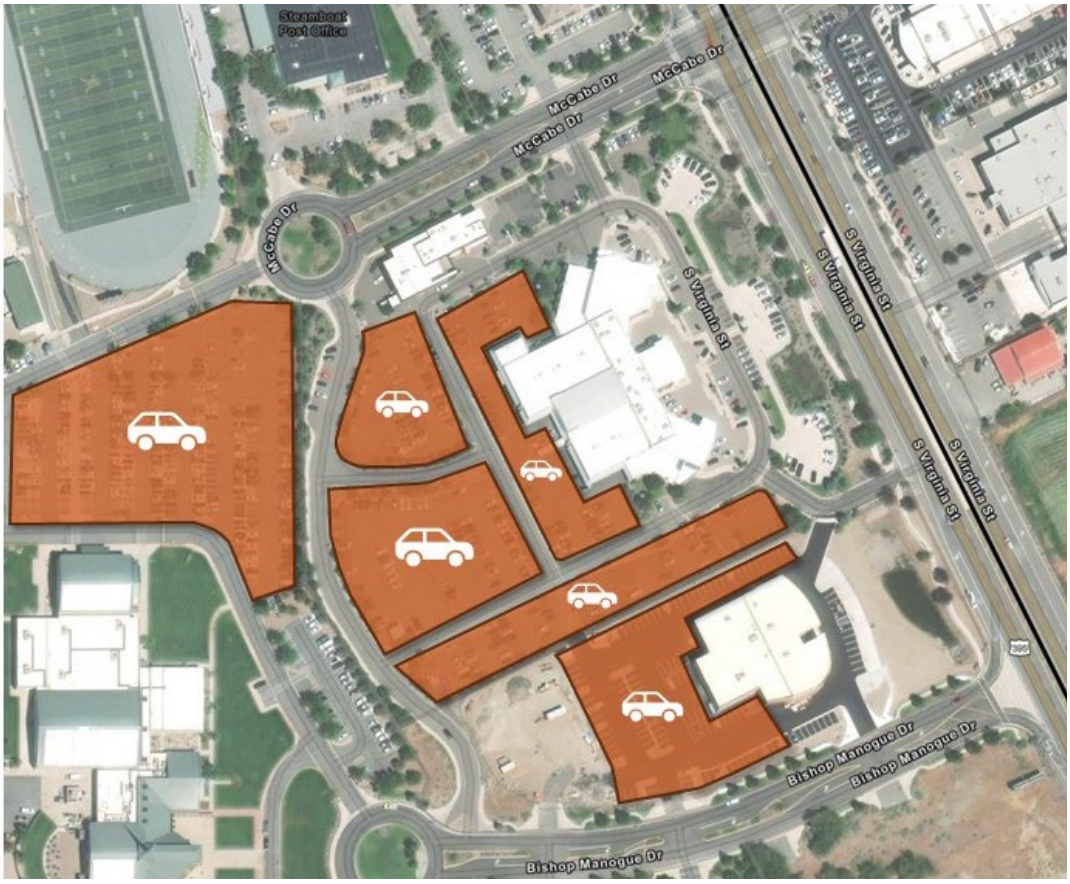
Townhome/Condo Developments

South Creek Retail Center

Less Transit-Supportive Developments

These developments typically do not have any elements incorporated in their design to support transit and are more auto oriented.

- Parking lots dominate the parcels or are large industrial warehouses with minimal employment
- Typically only support one type of transportation user
- Not supported by access to a network of trails\sidewalks, bicycle lanes, or transit services



Non-Transit-Friendly Development along South Virginia Street

Examples include car/recreational vehicle sales, single-family homes, industrial warehouses, and big box commercial centers. In less transit supportive developments parking lots are the prominent feature on the parcel and are barriers to pedestrian and transit-users for their first/last mile of travel.

Car Sales

Industrial Park

Public Outreach Summary

On June 5, 2023 two public workshops were held in person within the study area to introduce the SVTOD Study to the public. The focus of the meeting was to allow citizens to submit comments in person regarding the existing conditions, educate the public on the benefits of TODs and solicit feedback. An online survey and story map was also advertised for anyone who couldn't attend.

The two meetings took place at two locations along the corridor, the Meadowood Mall and the Tamarack Casino. Representatives from Wood Rodgers and RTC were there to walk attendees through the materials and encouraged them to comment. In addition to the workshop a survey was hosted online for the month of June for anyone who couldn't attend. A summary of some of the most repeated themes include:

- ✓ Strong support to see transit extended south of McCarren Blvd. but no consensus on level of service.
- ✓ Strong support for increase in frequency of arrival times and expanded hours for route 56.
- ✓ Strong support for a cycle track, separated multi-use path, or buffered pedestrian/bicycle path.
- ✓ Strong support for multi-modal improvements, sidewalk, and landscape.
- ✓ Strong support for landscaped median for safety and control of turn movements.
- ✓ Some support for speed reduction.
- ✓ Some support for lane reduction.
- ✓ Some support for bus only lane or prioritizing bus service at traffic lights.

Public Workshop at Meadowood Mall

Overall, the reception from the public was supportive. A majority of the comments about development within the study area were mixed with some in support of dense mixed-use development. A summary of the public meetings and survey results can be found in **Appendix D** of this report.

A second round of public outreach occurred during the April 16, 2024 Ward 2 Neighborhood Advisory Board meeting (NAB) along with a virtual story map and public feedback component. The materials presented at the NAB meeting included materials discussed in the *Land Use Technical Memo* and *Transit Technical Analysis Memo* which were in draft form. This included the types of developments that typically support transit, elements presented in the ReImagine Reno Master Plan, existing zoning, and discussions on the proposed Transit Focus Areas. Information and graphics including the proposed cross sections included in the NDOT South Virginia Street SMP and how they supported the efforts of the SVTOD were also presented. The NAB members then provided comments, a summary of their comments include:

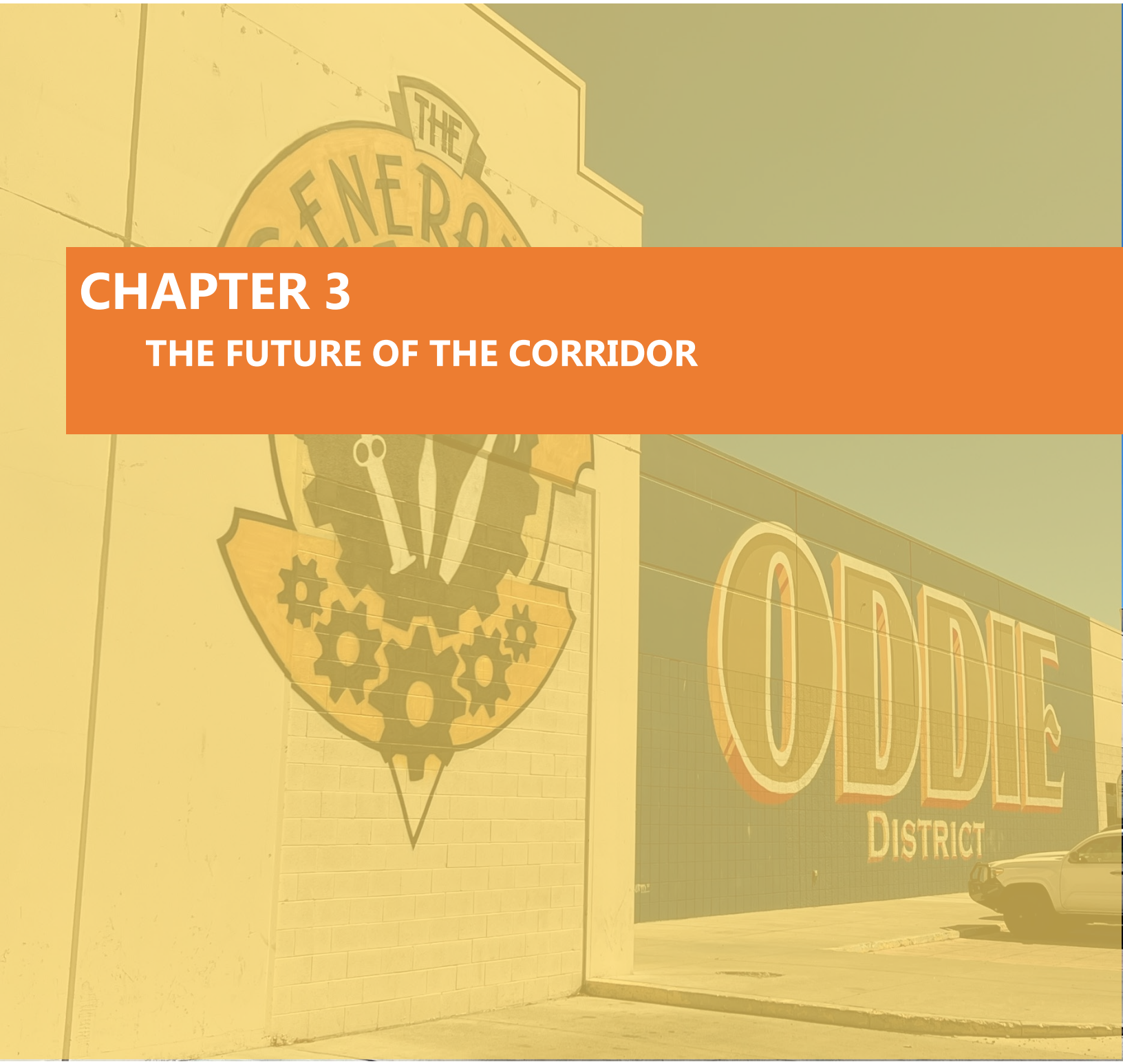
- ✓ Support of increased transit service along South Virginia Street
- ✓ Support of increased nodes of density at Transit Focus Areas along South Virginia Street
- ✓ Support of incorporating elements of the ReImagine Reno Master Plan
- ✓ Concerns of the level of future transit service and supporting infrastructure (bus shelter types, bus travel lanes, etc.)
- ✓ Concerns with the frequency of service not being frequent enough to encourage choice riders

Story Maps

Two story map websites were created to present materials virtually. The first was released in June 2023 in tandem with the public workshops, which focused on introducing the SVTOD plan and provide background on the study area and the feasibility of extending the Virginia Line Bus Rapid Transit (BRT) service along the South Virginia Street. The second was released in April 2024 which provided an update to the plan and included elements discussed in the *Land Use Technical Memo* and *Transit Technical Analysis Memo* which were presented during the Ward 2 NAB. An opportunity to provide feedback was provided on the second story map and the responses generally concluded:

- ✓ Meadowood Mall is the most beneficial Transit Focus Area
- ✓ Development Scenario 3 was the most supported growth scenario
- ✓ Support for dense transit supportive development along South Virginia Street

Story Map Website



CHAPTER 3
THE FUTURE OF THE CORRIDOR

TOD Opportunities

A total of nearly 700 acres of vacant land has been identified within the study area, which includes both areas that are planned and not yet planned for development. The mixed use zoning designations do not have a maximum density and the two PUDs with the most vacant land (Damonte Ranch and Pioneer Parkway) have a maximum residential density of 105 du/ac. The comparison between acres of vacant land for the most popular zoning districts is shown below in **Figure 3.1**. The potential growth within these areas will be difficult to predict. However, utilizing proposed development data from the City of Reno, as well as using data associated with future development projections conducted by the Truckee Meadows Regional Planning Agency (TMRPA) in the 2019 Regional Plan, there is the potential to anticipate an additional increase of over 4,000 residential units, and over 400 acres of nonresidential development that will be added to the study area. To help understand the potential growth of the study area it will be important to work closely with landowners, the City of Reno, Washoe County, and TMRPA.

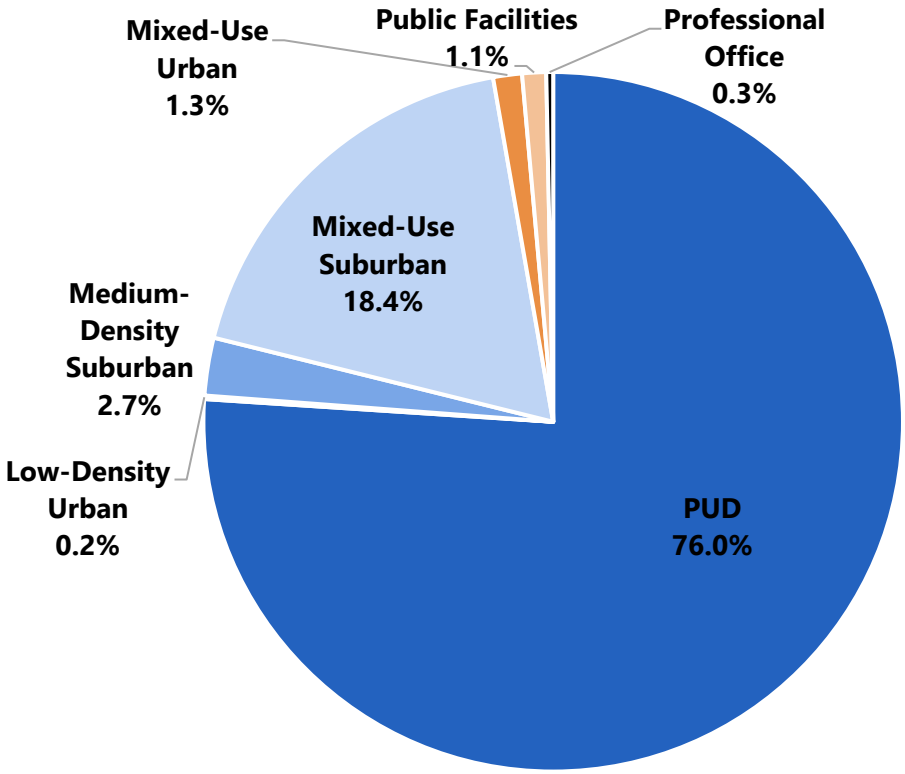


Figure 3.1 Vacant Land Zoning

Proposed Developments

The study area, while predominantly suburban, includes a mix of vacant parcels and potential redevelopment sites as identified in **Figure 3.2**. Until recently, almost all developments along the inner portions of the study area were commercial – ranging across retail, auto dealerships, low-rise office, lodging/casino, and light industrial. More recently over the past five years Reno, like much of the Western U.S. experienced a boom in multifamily residential development. Examples of which can now be found along the central portions of the study area amid commercial uses. In fact, many of the remaining empty land assemblies and identified redevelopment possibilities include medium to high density residential as part of the proposed use plans. Planned developments are primarily concentrated around Damonte Ranch. While some planning and design has been discussed much of the acreage has yet to see actual building permits filed and could change depending on market conditions.

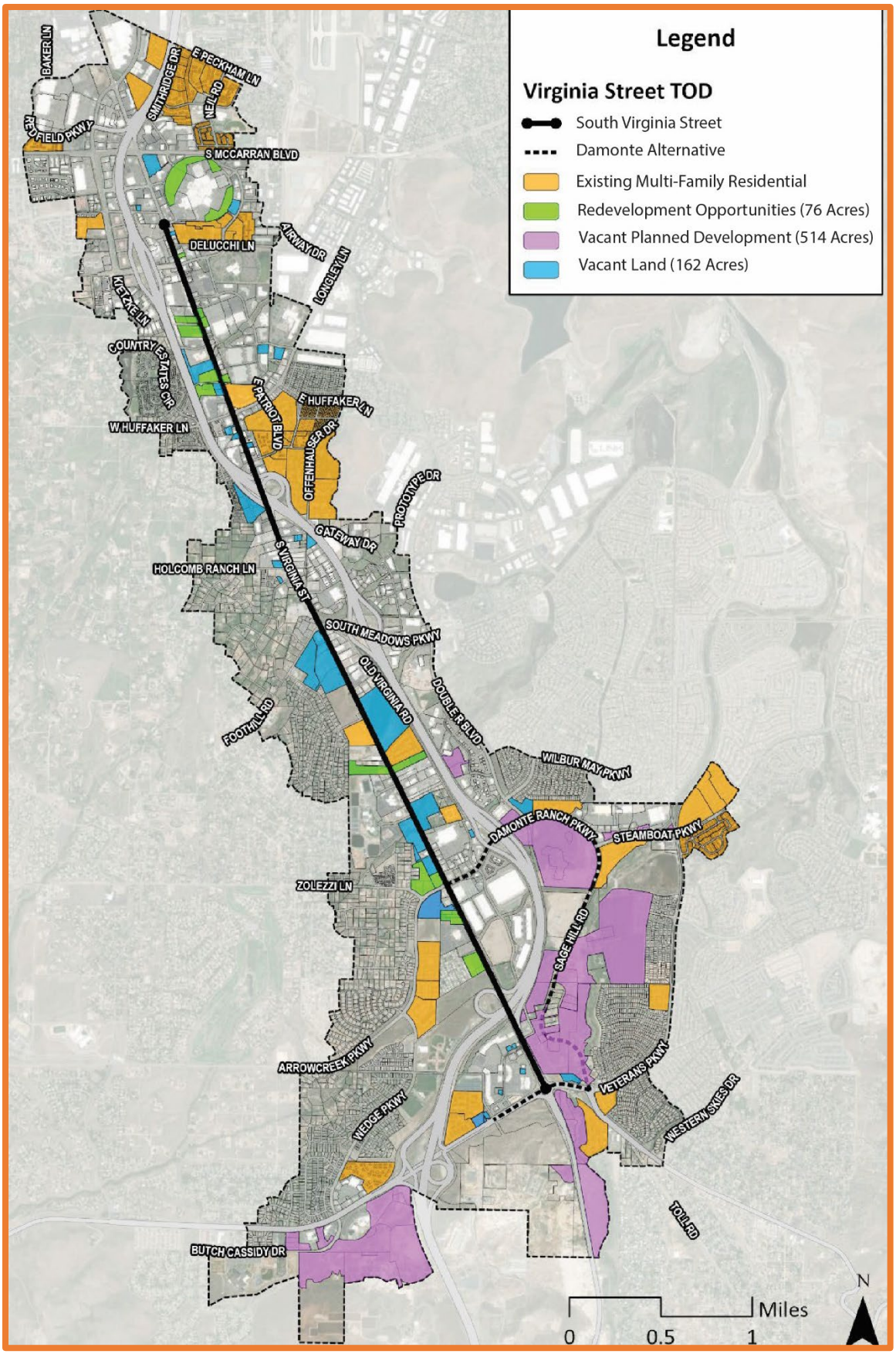


Figure 3.2 TOD Opportunities

Transit Focus Areas

In support of the ReImagine Reno Master Plan which encourages increased density along the Community/Neighborhood Centers, as identified in Chapter 2 (Meadowood Mall, South Meadows Parkway, Downtown Damonte, and Summit Mall), the plan also encourages this development to occur at major intersections within the study area, (Longley Lane and Damonte Ranch Parkway). The SVTOD Study expands on these areas identified in the ReImagine Reno Master plan and includes the addition of two more (McCabe Drive and Pioneer Parkway) based on a number of other factors including availability of vacant land, existing employment, existing multi-family developments, projected population growth, and projected employment growth within the study area. **Figure 3.3** displays the transit focus area locations within the study area.

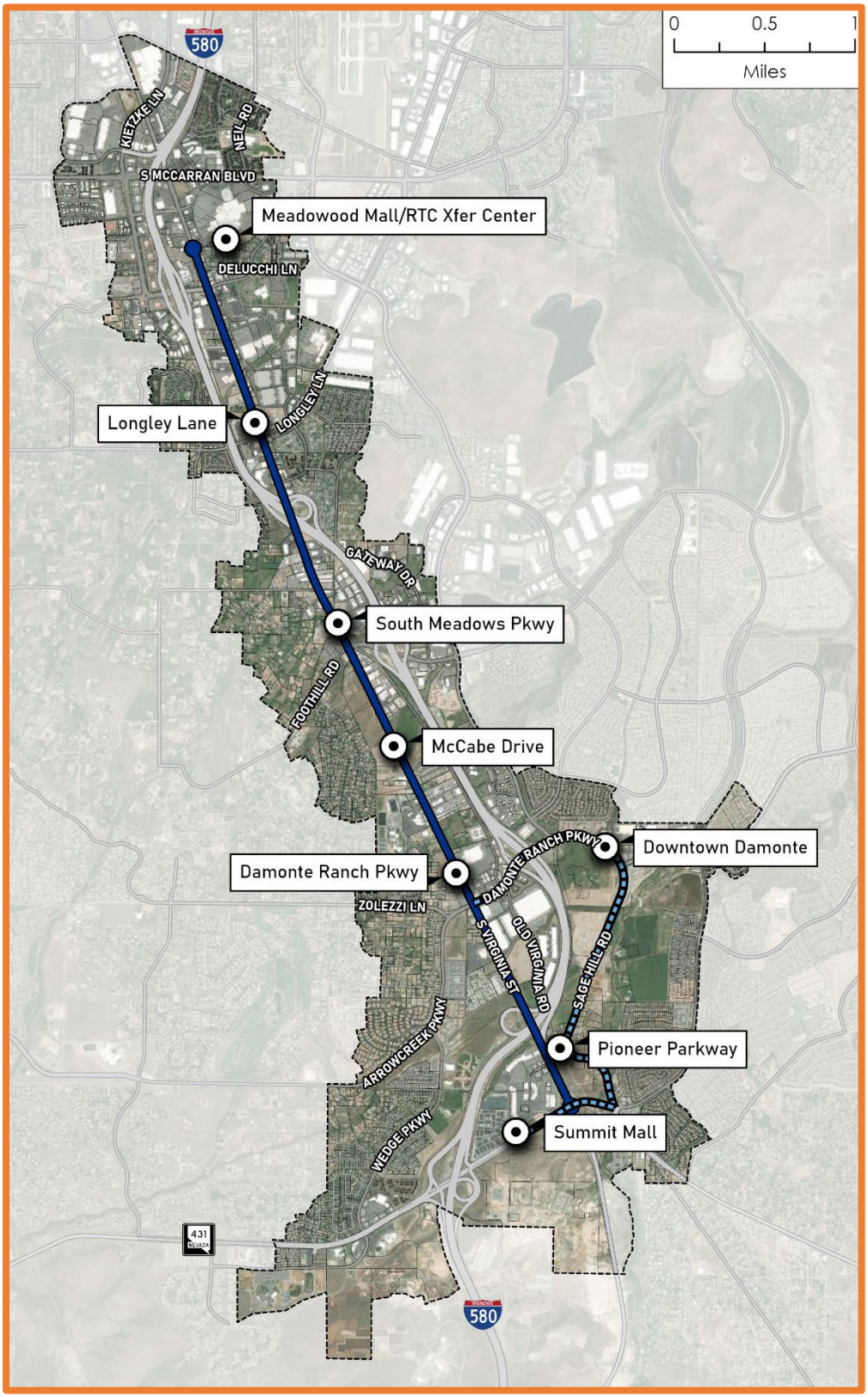


Figure 3.3 Transit Focus Areas

Application of Land Use Tools

The Transit Focus Areas in **Figure 3.3** are intended to be where the main application of the land use tools is encouraged to help stimulate and encourage transit supportive development. However, these tools may be applied within any portion of the study area to play a part in encouraging transit-supportive elements in a suburban environment.

Land Use Tools to Increase Transit Supportive Development in the Study Area

Recapping the Policy Challenges of Reno's Existing Zoning

The current Reno Master Plan (2021) encourages alternate forms of transportation as a strategy for incorporating transit-oriented development, indicating the City will:

> *Prioritize transit-oriented development in regional and employment centers, along urban corridors and other locations that are currently served by or are planned to be served by high-frequency transit service (i.e., peak hour headways of 15 minutes or less) and/or fixed-route transit (i.e., bus rapid transit). Continue to encourage transit-supportive development in more remote employment centers, suburban corridors, and other locations that are currently served by high-frequency transit during peak hours.*

Addressing the challenge of extending transit service into suburban south Reno, requires a multi-faceted approach. Since zoning regulations already permit a high degree of density and flexibility but the current development pattern isn't aligning with transit-oriented goals, the *Land Use Technical Memo* provides a land use toolkit that highlights some strategies that the city might consider. By employing a combination of these strategies within the transit focus areas, future developments will be more aligned with promoting a transit-supportive environment even in areas that currently exhibit suburban, auto-centric characteristics.

Meadowood Mall RTC Transfer Station

Toolkit Recommendations

Tools for promoting transit-supportive development can be grouped into at least four main categories: Land Use, Economic (including Incentives and Financing), Public Outreach, and System Related as shown in the TOD Toolkit table found in **Appendix B** - Table 13 of the *Land Use Tech Memo*. There are many overlaps and dependencies across the various tools and they are intended to be used in combination, leveraging one another towards the goal steering transit-oriented and transit-supportive development. Below is a summary of the land use tools:

Category	Tools & Policy Recommendations
Land Use Planning, Design Involve elements of the City of Reno ReImagine Reno Master Plan, land use regulations, and approaches to urban design.	**Station Area Plans**
	Focused Rezoning or Overlay Zones at Transit Focus Areas
	Balancing Regulation with Incentives
Economic Tools Covers an overlapping set of real estate approaches, funding mechanisms, and selective favorable treatments that help to bridge economic feasibility gaps for desired projects.	**Infrastructure Improvements**
	Public-Private Partnerships & Joint Development
	Affordable and Workforce Housing
Outreach and Public Relations Involves community outreach and engagement, being a cheerleader for successful transit supportive development, and educating the public on the importance of transit supportive development.	**Community Engagement and Education**:
	Engage Developers to Leverage Existing Projects
	Community Support and Advocacy
System-Related Involves the logistics of system operations and the surrounding transportation infrastructure.	**Early Express-Only Phase**
	Transit Prioritization

Table 3.1: Land Use Tools Summary

Transit Focus Area Opportunities

The Transit Focus Areas identified in **Figure 3.3** have been analyzed to highlight the opportunities where the land use tools can be applied. Although this may not represent a full list of opportunities this incorporates a list of goals jurisdictions and developers can pursue to help support transit within the study area:

Meadowood Mall

The Meadowood Mall transit focus area (**Figure 3.4**) exhibits multiple qualities that indicate the potential for future transit-supportive and transit-oriented development. The RTC transfer station is located at the mall which is surrounded by the mixed-use urban zoning. The majority of the redevelopment opportunities as shown in the map are located adjacent to Meadowood Mall and along South Virginia St at the retail hubs including the mall which may be appropriate for redevelopment. Although it includes a concentration of jobs and are popular travel destinations for shoppers, suburban shopping malls like Meadowood Mall, at the northern end of the Study Area are not developed with transit service in mind. Although Meadowood is, in fact, the southern terminus of the existing Virginia Street BRT line, that station area is within a commercial development dominated by surface parking and auto-oriented interior transportation facilities.

In the near term, that property may continue to expand its bike and pedestrian amenities and other transit-supportive design accommodations, which should help improve its functional role as a potential multimodal hub. Over the longer planning horizon, Meadowood is a good candidate for more dramatic redevelopment, following in the path of many aging suburban enclosed malls across the country - shifting away from a purely retail destination function to a mix of land uses including residential, scaled-back and more neighborhood-serving retail, along with "other" uses and services that could include educational, medical, entertainment or even tech-oriented employment.

With a property roughly the same size as the planned Downtown Damonte (nearly 70 acres within the Meadowood Mall Circle), such a repurposing, if planned with transit service as an integral component, could make the Meadowood Mall property an excellent source for (and beneficiary of) future BRT ridership.

MEADOWOOD MALL

Meadowood Mall/RTC Xfer Center

- City of Reno Limits
- Signalized Intersections
- Existing Bus Stops

Study Corridors

- South Virginia Street
- Damonte Alternative

Opportunity Area

- Infill
- Vacant

Future Opportunites

- Vacant/Infill Development Opportunity
- Redevelopment/Infill Opportunity
- Expand City Boundary/ MS Zoning
- TOD Level Development (Existing/ Proposed)

- Multi-Family Residential (21 Units Per Acre)
- Multi-Family Residential (30 Units Per Acre)
- Large-Lot Residential (2.5 Acres)
- Mixed-Use Urban
- Mixed-Use Suburban
- General Commercial
- Professional Office
- Mixed-Use Airport
- Industrial Commercial
- Public Facilities
- Planned Unit Development
- Specific Plan District

Figure 3.4 Meadowood Mall Transit Focus Area

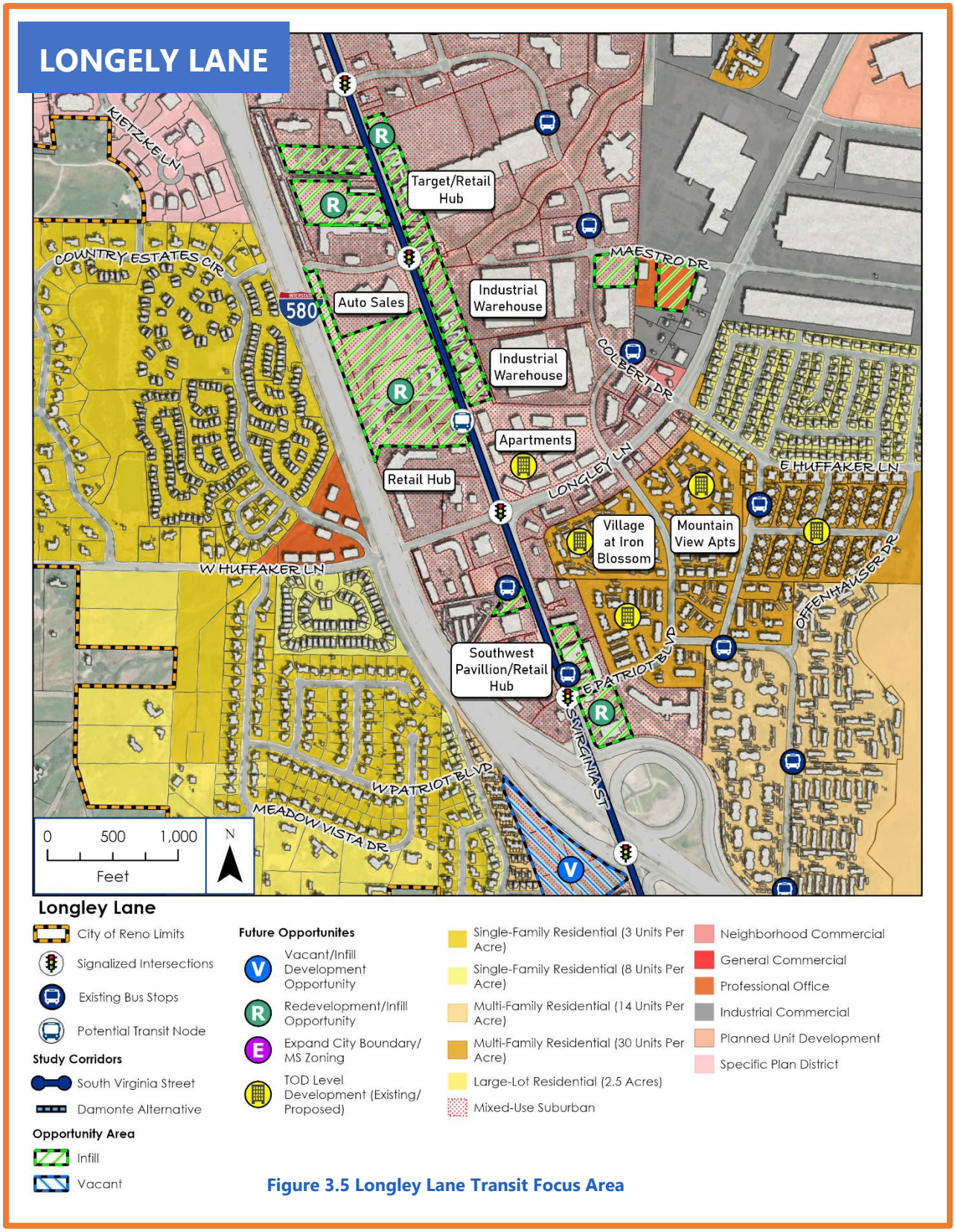


Figure 3.5 Longley Lane Transit Focus Area

The Longley Lane transit focus area consists primarily of MS zoning along South Virginia Street and features a large concentration of multi-family residential (30 units per acre) housing developments. Additional multi-family housing is under construction within the study area and the rest is dominated by a mix of old and new retail. To the east is a mix of medium and low-density housing and farther up Longley Lane there is a large industrial zoning. Redevelopment opportunities for TOD exist on smaller lots close to Virginia St. and is mostly infill.

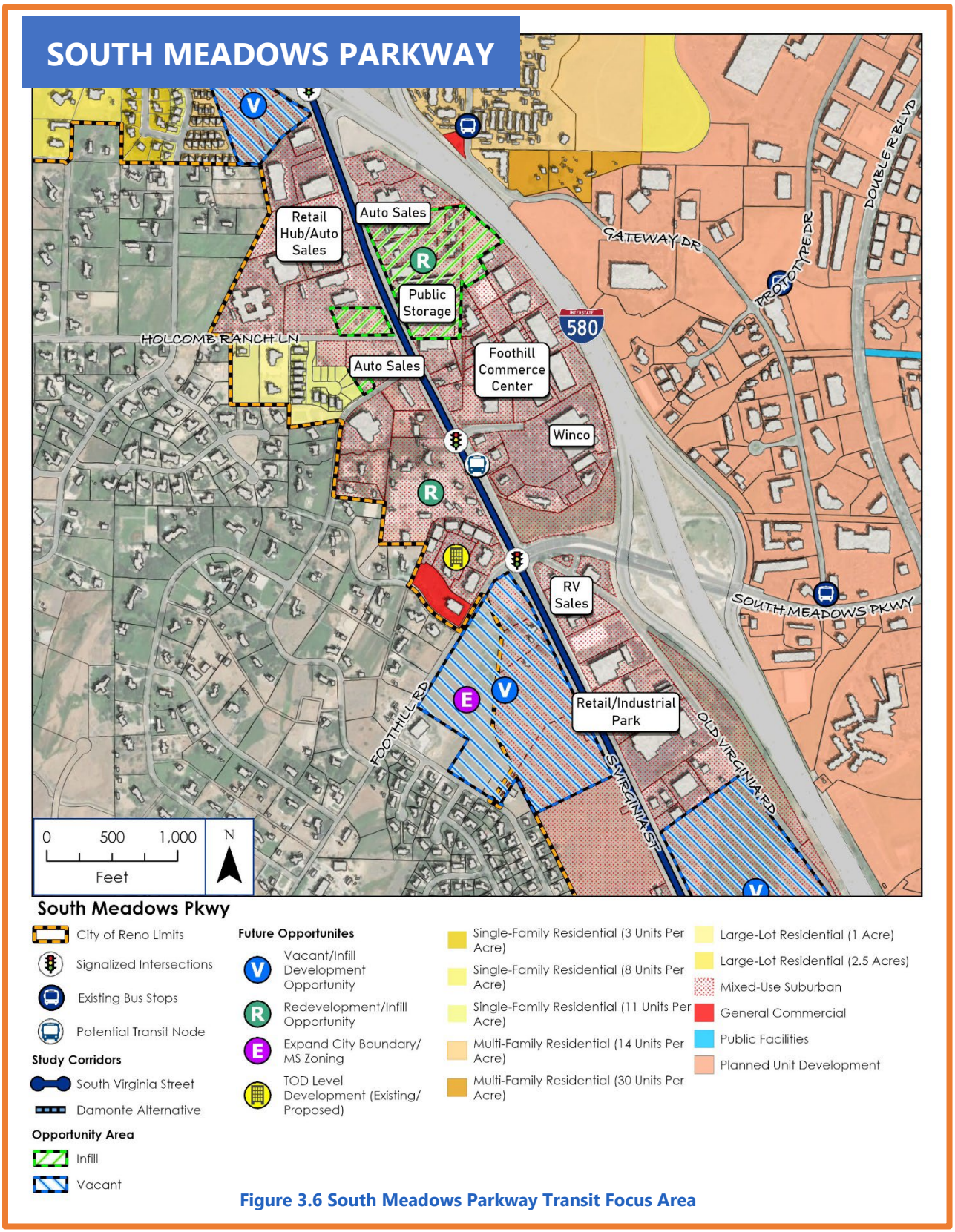


Figure 3.6 South Meadows Parkway Transit Focus Area

The predominant zoning along South Virginia Street in this area is MS consisting of largely traditional commercial operators including car dealerships, RV sales, public storage, and big box stores. The South Creek Retail Center located at the intersection of South Meadows Pkwy and South Virginia St is newer mixed-use development with an enhanced focus on pedestrian access. Redevelopment opportunities are available across the street from the South Creek Retail Center and on vacant infill lots. The City limits may be expanded here to increase the redevelopment opportunities.

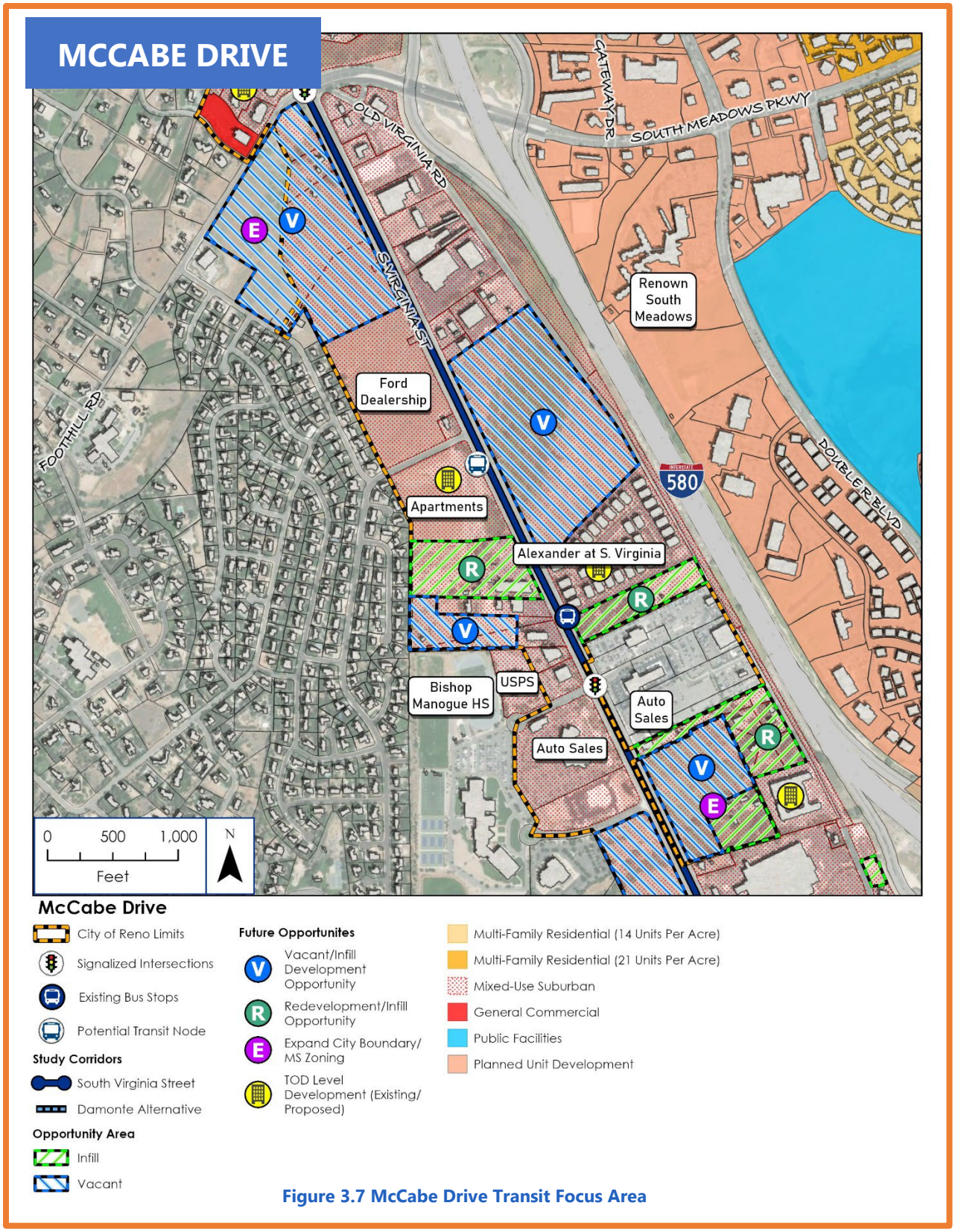


Figure 3.7 McCabe Drive Transit Focus Area

The zoning along South Virginia Street is largely MS but this area has the largest available vacant land along South Virginia Street. A large vacant lot recommended for TOD exists across from two high density multi-family residential developments, one of which is currently under construction. Other older developments exist in this area and Bishop Manogue Catholic High School, located in Washoe County is surrounded by less transit supportive car dealerships. Any future transit-supportive projects in this area could enhance the transit opportunities and serve the existing transit supportive residential.

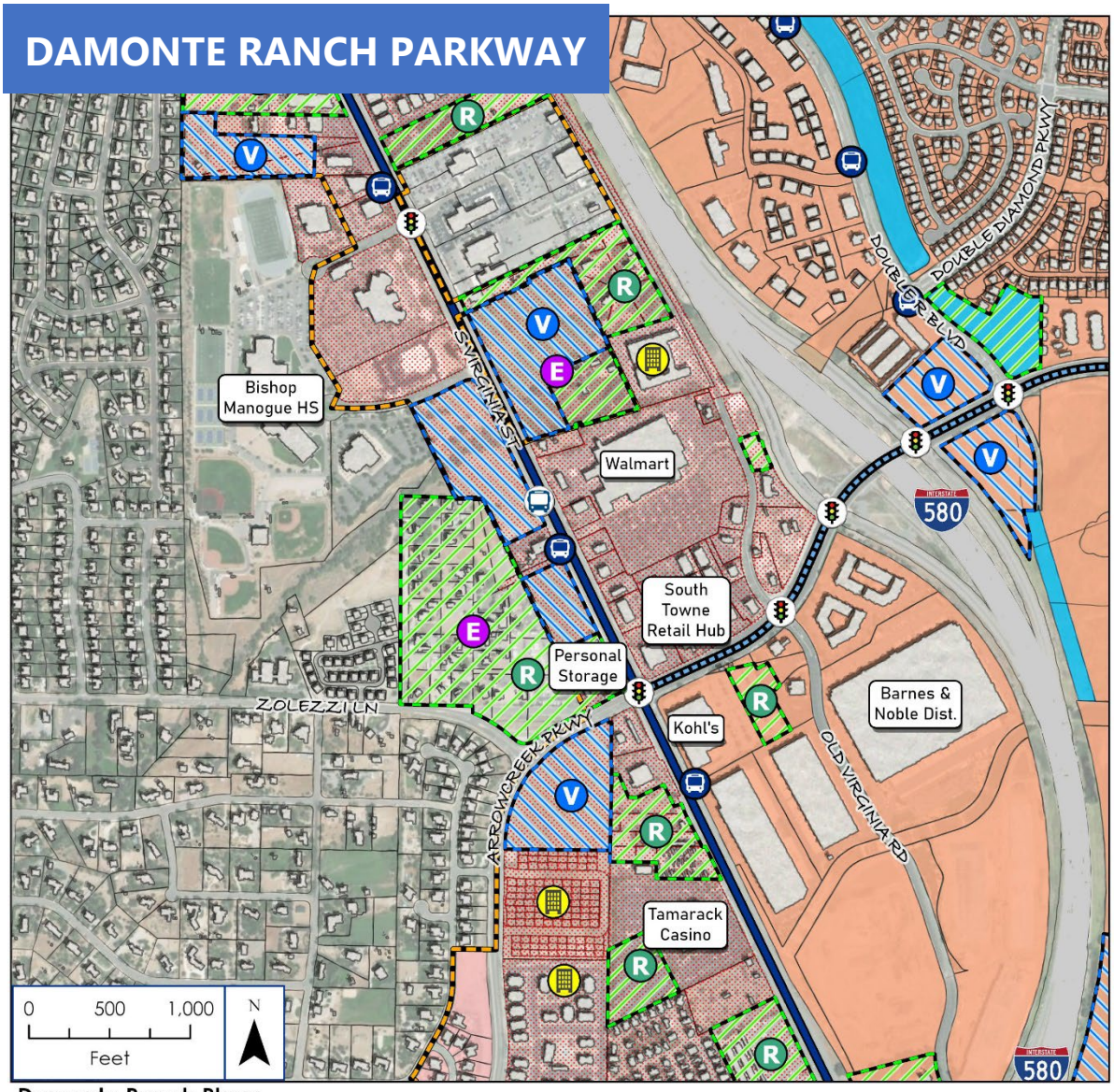


Figure 3.8 Damonte Ranch Parkway Transit Focus Area

The area is primarily MS and PUD zoning to the east supporting a big box retail development with a light industrial business park. These large parking lots may eventually be feasible for infill redevelopment, but these opportunities are limited based on the age of the existing retail. The TOD opportunities are largely infill lots to the west of South Virginia Street and include opportunities to expand the City Limits into Washoe County to increase the MS zoning. The Tamarack Casino is largely reliant on transit for many of its employees and as the area develops additional opportunities for expansion and redevelopment around the casino exist. These future developments can take advantage of transit supportive development and serve the existing multifamily that exists along Arrowcreek Parkway.

Downtown Damonte

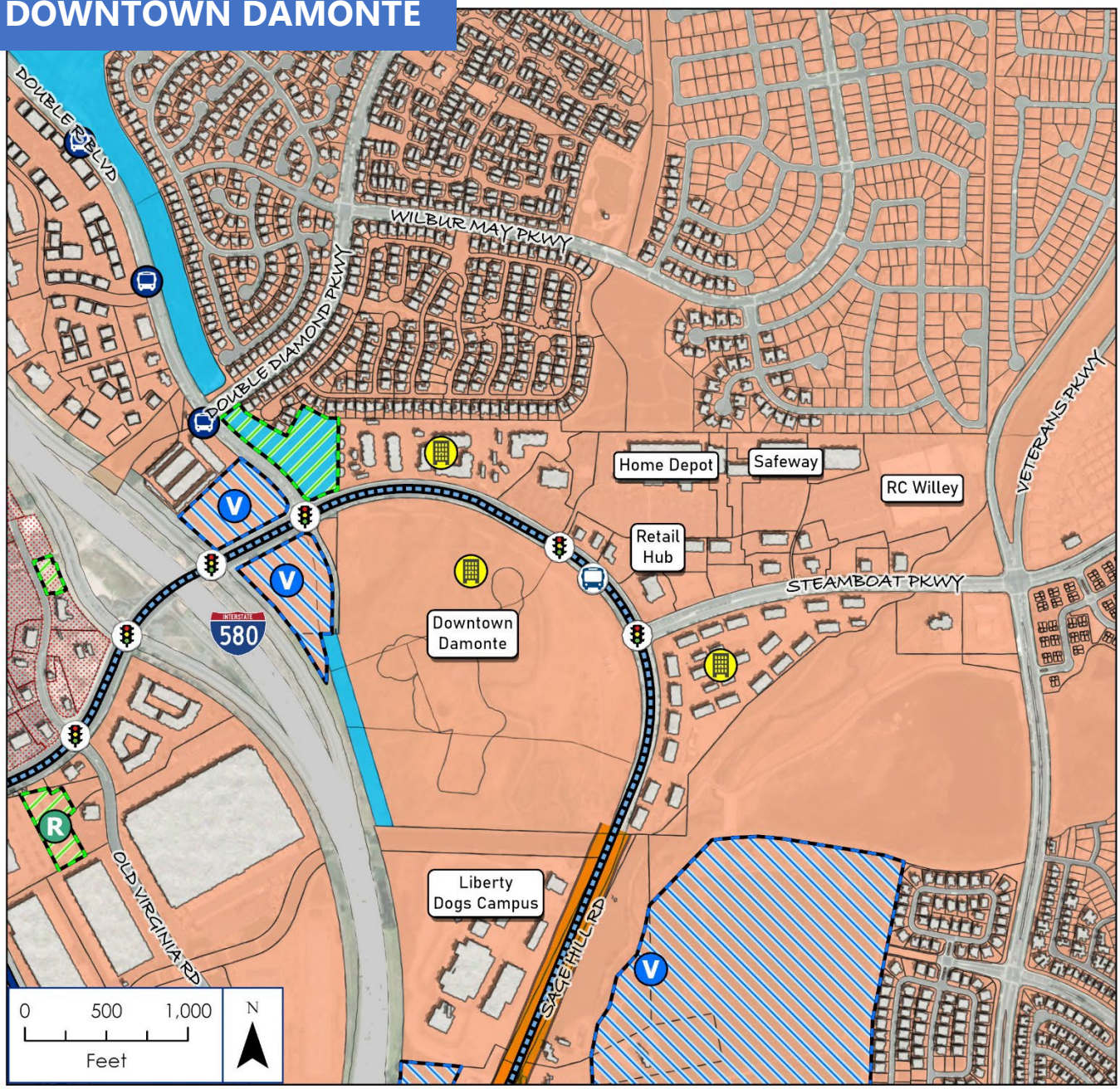
The Downtown Damonte transit focus area (**Figure 3.9**) falls almost entirely within the Damonte Ranch PUD zoning with small sections of public facilities zoning. There are currently no redevelopment opportunities that exist due to the PUD built-out. The most important single Study Area planned development, in terms of transit-supportive land use, is Downtown Damonte, the planned mixed-use focal point for the broader Damonte Ranch cluster of residential development in south Reno. The developer partnership of Nevada Pacific Development Corp. and The Di Loreto Companies describe the project in their site planning materials as "a walkable canvas of dining, housing, office, retail, medical, recreational, and commercial opportunities with a target occupancy date of late 2024 to early 2025."

That 73-acre project, as proposed, would include up to 900 residential units – almost one fifth of the total residential unit development in the larger Damonte Ranch master-planned development. As such, the Downtown Damonte area alone could account for as many future added residents as are projected for the entire northern two-fifths of the Study Area, above Foothills Blvd./South Meadows Pkwy.

In short, Downtown Damonte, despite not being a prototypical pedestrian-focused TOD, has a great deal of promise for being a TOD catalyst given its planned future density of housing units, employment, and likely clustering of dining and shopping. While employees of the development's lodging and retail establishments would be possibly transit-dependent, most of the new pool of prospective riders would likely include mostly riders-by-choice, given the upscale nature of most of the conceived project components for the site therefore requiring a significant increase in awareness and acceptance of mass transit use among the higher wage earners.

Downtown Damonte Concept Drawing

DOWNTOWN DAMONTE



Downtown Damonte

- Damonte Parkway Connection (Future)
- City of Reno Limits
- Signalized Intersections
- Existing Bus Stops
- Potential Transit Node

Study Corridors

- South Virginia Street
- Damonte Alternative

Opportunity Area

- Infill
- Vacant

Future Opportunites

- V — Vacant/Infill Development Opportunity
- R — Redevelopment/Infill Opportunity
- E — Expand City Boundary/ MS Zoning
- TOD Level Development (Existing/ Proposed)

- Mixed-Use Suburban
- Public Facilities
- Planned Unit Development

Figure 3.9 Downtown Damonte Transit Focus Area

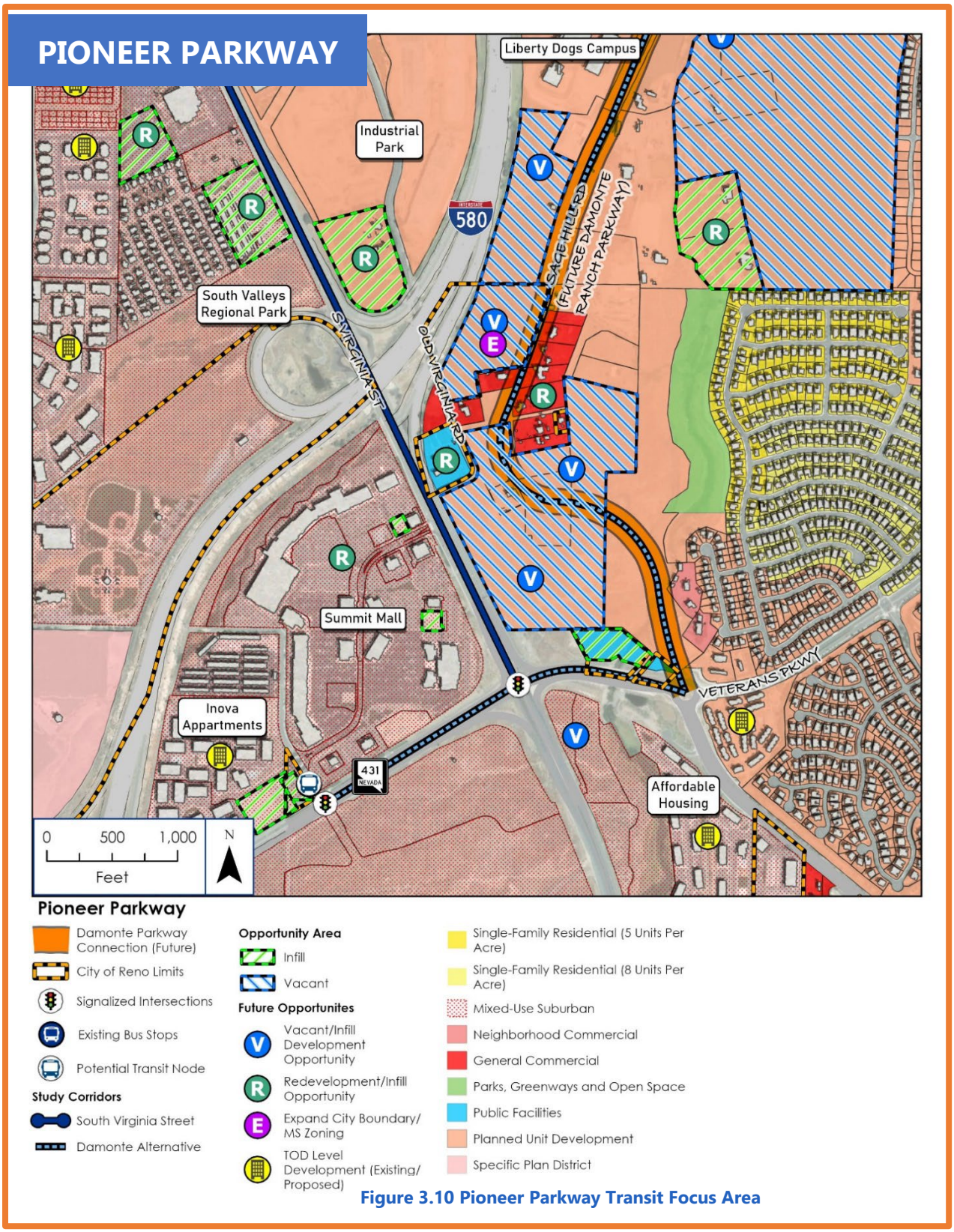


Figure 3.10 Pioneer Parkway Transit Focus Area

The Pioneer Parkway transit focus area is located in the heart of the Pioneer Parkway PUD and consists entirely of the PUD zoning. This development was approved in 2008 but has yet to break ground. The connection from the terminus of Damonte Ranch Parkway to the Veterans Parkway/Geiger Grade (SR 341)/Mount rose Highway (SR 431) roundabout is anticipated to be completed as part of this development. With the potential to add thousands of residential units, this focus area can encourage transit supportive design into the future development, including serving the existing affordable housing project located along Gieger Grade (SR 341).

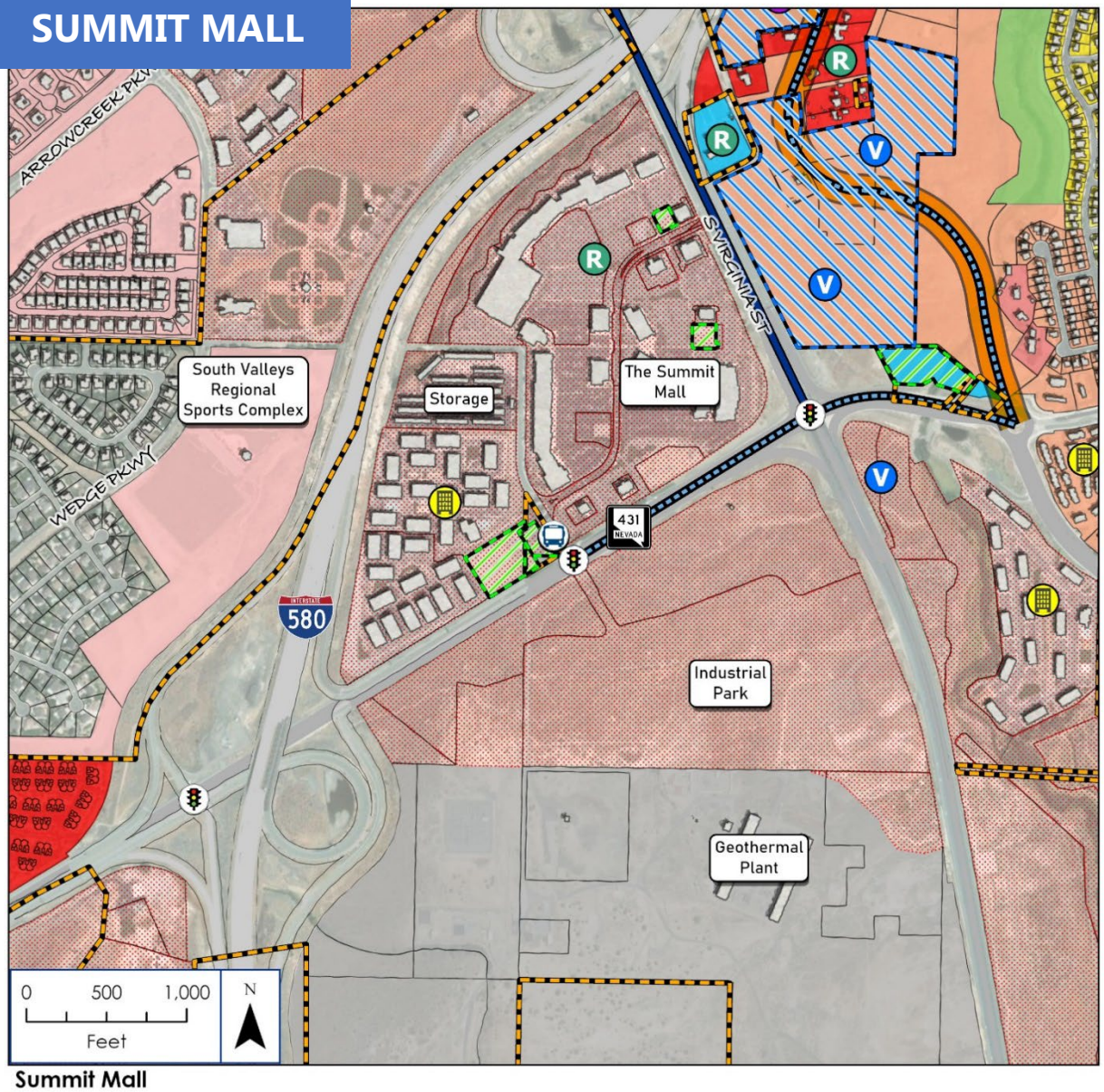
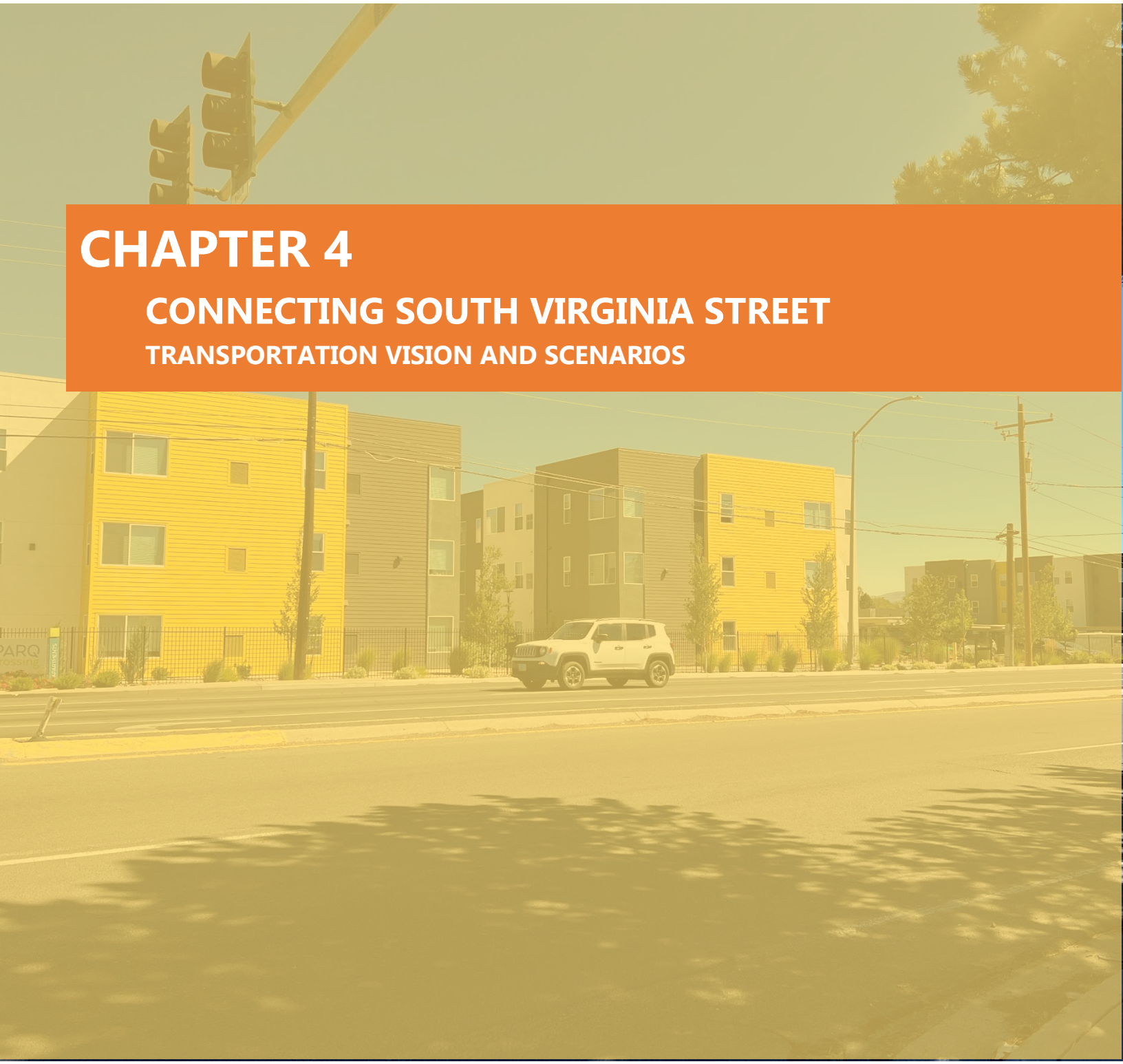


Figure 3.11 Summit Mall Transit Focus Area

The tentative southern terminus is located within a regional lifestyle retail center known as The Summit Mall which includes 65 stores with just over 500,000 square feet of surface-parked retail space representing a concentration of possible employment and the Inova Apartment complex that includes a portion of units dedicated to affordable housing. A large industrial employment center to the south is currently planned but the more notable opportunities for a future transit supportive development include revitalizing existing centers where large parking areas could be converted to vertical parking with additional commercial added.



CHAPTER 4

CONNECTING SOUTH VIRGINIA STREET

TRANSPORTATION VISION AND SCENARIOS

Transit Supportive Land Use

Transit exists to get people where they want to go, such as home, work, school, a friend's house, or an appointment. In other words, there must be a market for transit to serve. Transit demand is strongly related to six factors:

- **Population and Population Density**: Transit relies on having more people in close proximity to service. Higher population density makes it possible to provide higher levels of transit service.
- **Socioeconomic Characteristics**: People may be more or less likely to use transit based on socioeconomic characteristics. For example, households with one or no cars are much more likely to use transit than households with several cars.
- **Jobs and Job Density**: Traveling to and from work often accounts for the most frequent type of transit trip. As a result, the location and density of jobs is a strong indicator of transit demand and the level of transit service that is possible.
- **Land Use Patterns**: In all cities, there is a strong correlation between land use patterns and transit ridership. In areas with denser development, mixed-use development, and a good pedestrian environment, transit can be very convenient for more people.
- **Major Activity Centers**: Large employers, universities, tourism destinations, and other high-activity areas attract large volumes of people and can generate a large number of transit trips.
- **Travel Flows**: People use transit to get from one place to another. Major transit lines such as rapid transit services or high frequency bus routes are designed to serve trips or corridors with high volumes of travel.

Of these six factors, population and job density are the most important when it comes to demand for transit and how much service is feasible to provide. This is because transit viability hinges on the intensity and distribution of land use.

Future Development and Transit in the Study Area

Looking to the future, the TMRPA's 2022 Washoe County Consensus Forecast anticipates the county to grow at a rate of 0.92 percent. This would result in an increase in population of 98,299 and an increase in employment totaling 68,000 jobs from 2022 to 2042. Considering the range of development that is allowed in the zoning that was discussed earlier, and considering there are nearly 700 acres of vacant land with the potential of more through redevelopment, the amount of growth that is absorbed within the study area will depend on the type of development that occurs in these areas. Therefore, the best way to plan for future growth will be through analyzing several development scenarios. These scenarios will help to predict the types of population and job growth that the study area can anticipate over the next thirty years to help better predict the type of transit that can be supported within the study area.

The following scenarios are based on the Traffic Analysis Zones (TAZ) that intersect the study area. From the TAZs the forecasted population growth and job growth were then projected based on specific scenarios impacting land use changes within the study area. This allowed each scenario to project where the population and job growth would occur throughout the study area. In all a total of ninety (90) TAZs were analyzed as part of this process. Under each scenario specific population growth rates and job rates were applied to the existing TAZ totals based on the opportunity areas identified in Chapter 3 (**Figure 3.2**). A comparison of the scenarios and change in each TAZ group by scenario can be referenced in **Appendix B** – *Land Use Tech Memo*.

It should be noted that these growth scenarios will be used to model future transit routes and the anticipated ridership. While the types of development proposed in these scenarios directly impacts the population and job growth, the total population and jobs will help to determine the type of transit that can serve the study area and how the future growth patterns represent the development scenarios. To determine which transit service would best serve the study area, **Figure 4.1** shows the correlation and accompanying thresholds between the study area land use characteristics (e.g., population and job densities) and transit service types and treatments. The main takeaway from this research is that denser corridors are more supportive of high capacity and more frequent transit service. For example, a low-density development found adjacent to the corridor in Washoe County may have a subdivision which allows one-third acre lots, or three dwelling units per acre (3 du/ac). At 2.65 persons per household, this would equal eight (8) persons per acre and would be supportive of micro transit, rideshare, and volunteer driver program according to **Figure 4.1.** Conversely for a high-density development in the City of

Reno Mixed Use zoning (MU) requires a minimum of eighteen dwelling units per acre (18 du/ac) along Virginia Steet, or forty-eighty (48) people per acre (based on 2.65 persons per household) and would be supportive of BRT, Rapid Transit, or a local bus service.

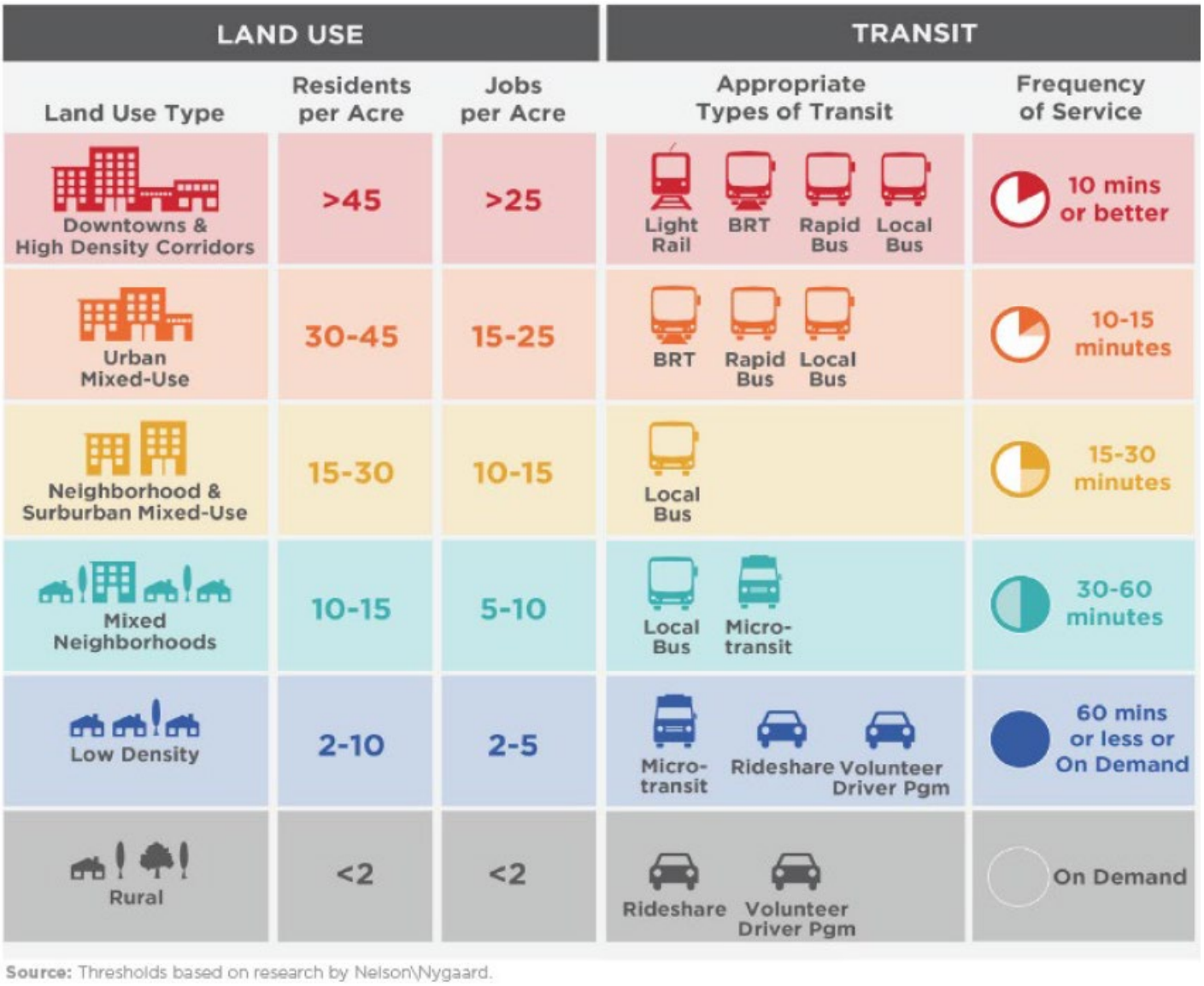


Figure 4.1: Land Use Characteristics vs Transit Service Typology

Looking at the types of development supported in each development scenario in **Figures 4.2, 4.3,** and **4.4** and comparing it to appropriate transit in **Figure 4.1,** it provides support that by encouraging more transit supportive development, which includes greater housing density (residents per acre) and employment (jobs per acre), the more likely a BRT style of transit service would be supported in the future.

Another way to look at these scenarios and how they support transit is to predict the potential ridership based on the surrounding population of the existing Lincoln Line and Virginia Line and comparing those percentages to the proposed scenarios. **Table 4.1** shows the existing Lincoln Line supports around 4.5% of the surrounding population and the Virginia Line supports 6.5%. The RTC generally considers these ridership numbers successful when supporting BRT and have been applied to the development scenarios to determine which level of population would be most supportive of transit in the study area.

Table 4.1: Projected Transit Ridership

RTC Route	Corridor Population[1]	Average Daily Riders[2]	% of Riders Per Pop.
Lincoln Line	50,700	2,280	4.5%
Virginia Line	67,300	4,250	6.5%
Study Area	**Projected Population**	**Ridership Potential[3]**	**% of Riders Per Pop.**
Existing South Virginia Street Corridor	43,000[1]	1,290 – 2,150	3-5%
Development Scenario 1[4]	58,000	1,740 – 2,900	3-5%
Development Scenario 2[4]	64,000	1,920 – 3,200	3-5%
Future Growth Scenario 3[4]	75,000	2,400 – 4,000	3-5%

Notes:
1. 2020 population of census tracts adjacent to each corridor
2. 2019 average daily ridership
3. Forecast potential South Virginia Street ridership based on corridor population
4. Forecasted 2050+ population based on land use scenarios and level of future infill/redevelopment

The three potential development scenarios for how the study area will grow over the next three decades utilize current zoning designations and vacant land and redevelopment opportunities in the TAZ. Each scenario anticipates how the type of future development can impact the potential to add additional population and job growth which then affect the types of transit that can be supported in the study area. The projected population and job growth in the following scenarios are based on a percentage of the total estimated regional growth forecasted by the Truckee Meadows Regional Planning Agency. The forecasted numbers were then expanded upon in Scenario 2 and 3 using the appropriate TAZ to calculate a more accurate representation of how the area can grow when applying the land use tools provided in **Table 3.1**. This data projects the growth for the years 2020 through 2050 and pick up where the last census data leaves off. Similarly looking at the development pattern of the previous thirty years (1990-2020), as analyzed in Chapter 1. How much regional growth is absorbed within the study area will depend on the level of density constructed on the vacant and redeveloped land. The development scenarios shown in **Figures 4.2, 4.3,** and **4.4** show how the types of future development impact population and job growth within the study area and how this projection impacts the estimated number of riders per day.

Scenario 1, which anticipates growth to continue as it has historically with a mix of transit supportive and non-transit supportive development throughout the study area assumes a population and job growth rate of one percent (1%), the projected population would at minimum support a fixed route. Scenario 2, which applies the land use tools to encourage transit supportive development at the transit focus areas assumes a population growth rate of one and a half percent (1.5%) and a job growth rate of more than one percent (1.2%) and starts to support a population that could support a transit service that is more like BRT. Scenario 3, which anticipates transit supportive development throughout the study area even outside of the transit focus areas, assumes a growth model which is typically seen with the Mixed-Use Urban (MU) zoning designation which includes a minimum density requirement of 0.75 Floor Area Ratio (FAR) for non-residential development and 18 dwelling units per acre (du/acre) for residential. The population and job growth rate under this scenario is near two percent (2.0%) and estimates a population that is the most supportive of BRT. A detailed analysis of the projected growth is further outlined in **Appendix B** – *Land Use Technical Memo*.

SCENARIO 1

Scenario 1 anticipates development of vacant land/redevelopment under the status quo. Future development within vacant land along South Virginia Street will continue to be a broad range of uses and densities that may or may not support transit.

Population Increase: 15,000
Job Growth: 15,000

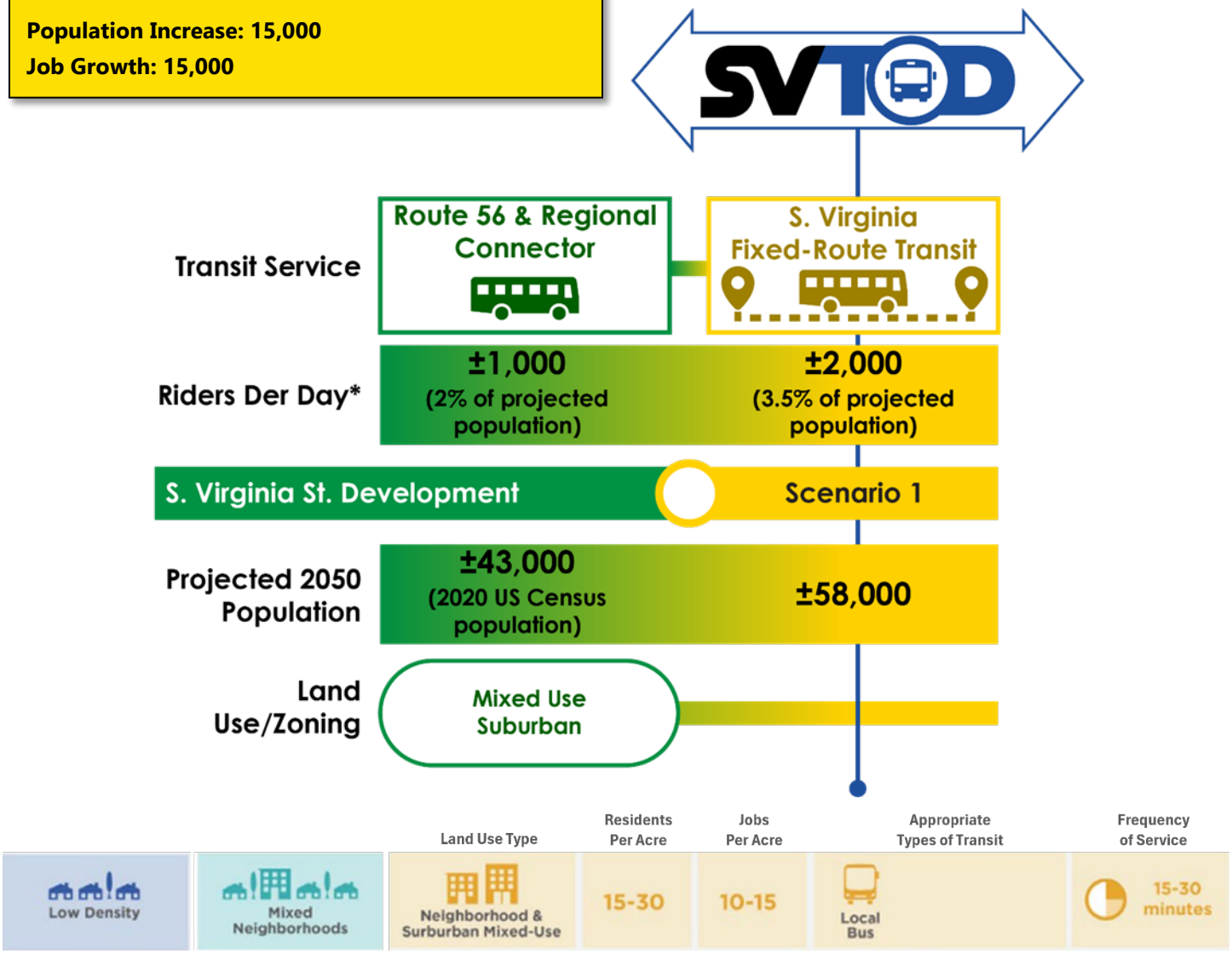


Figure 4.2: Development Scenario 1

SCENARIO 2

Scenario 2 anticipates a more active role using the Transit Focus Areas discussed in Chapter 3 to help guide transit supportive developments within the study area. Development outside the Transit Focus Areas are anticipated to remain a mix of non-transit and transit supportive development. This scenario assumes:

Population Increase: 21,000
Job Growth: 19,000

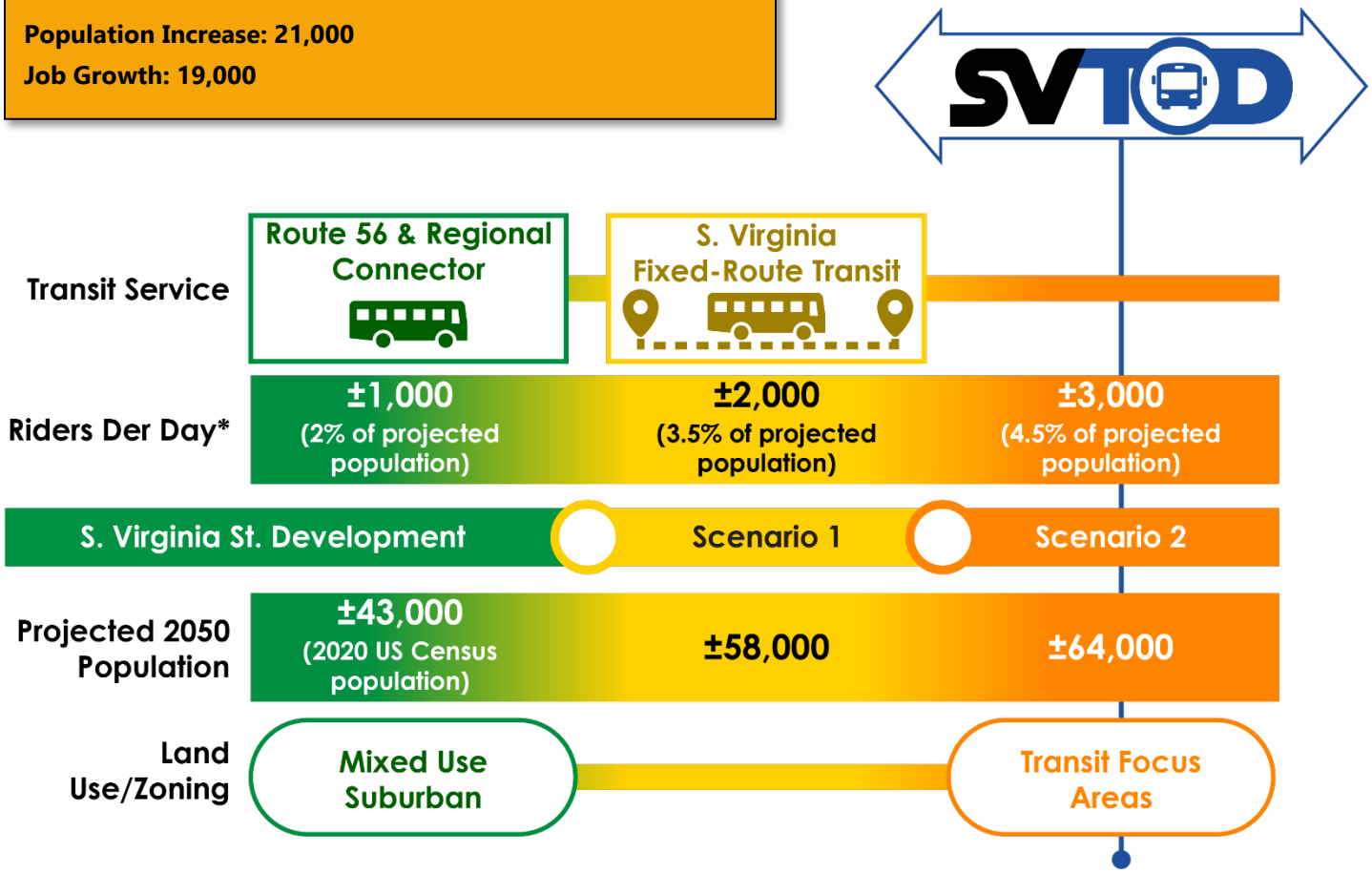


Figure 4.3: Development Scenario 2

SCENARIO 3

Scenario 3 anticipates infill transit supportive development along the entire South Virginia Corridor with concentrated nodes of higher development at the identified Transit Focus Areas in Scenario 2. In this scenario development throughout the study area is similar to that within the Mixed Use Urban (MU) zoning designation, north of the study area. This scenario assumes:

Population Increase: 32,000
Job Growth: 30,000

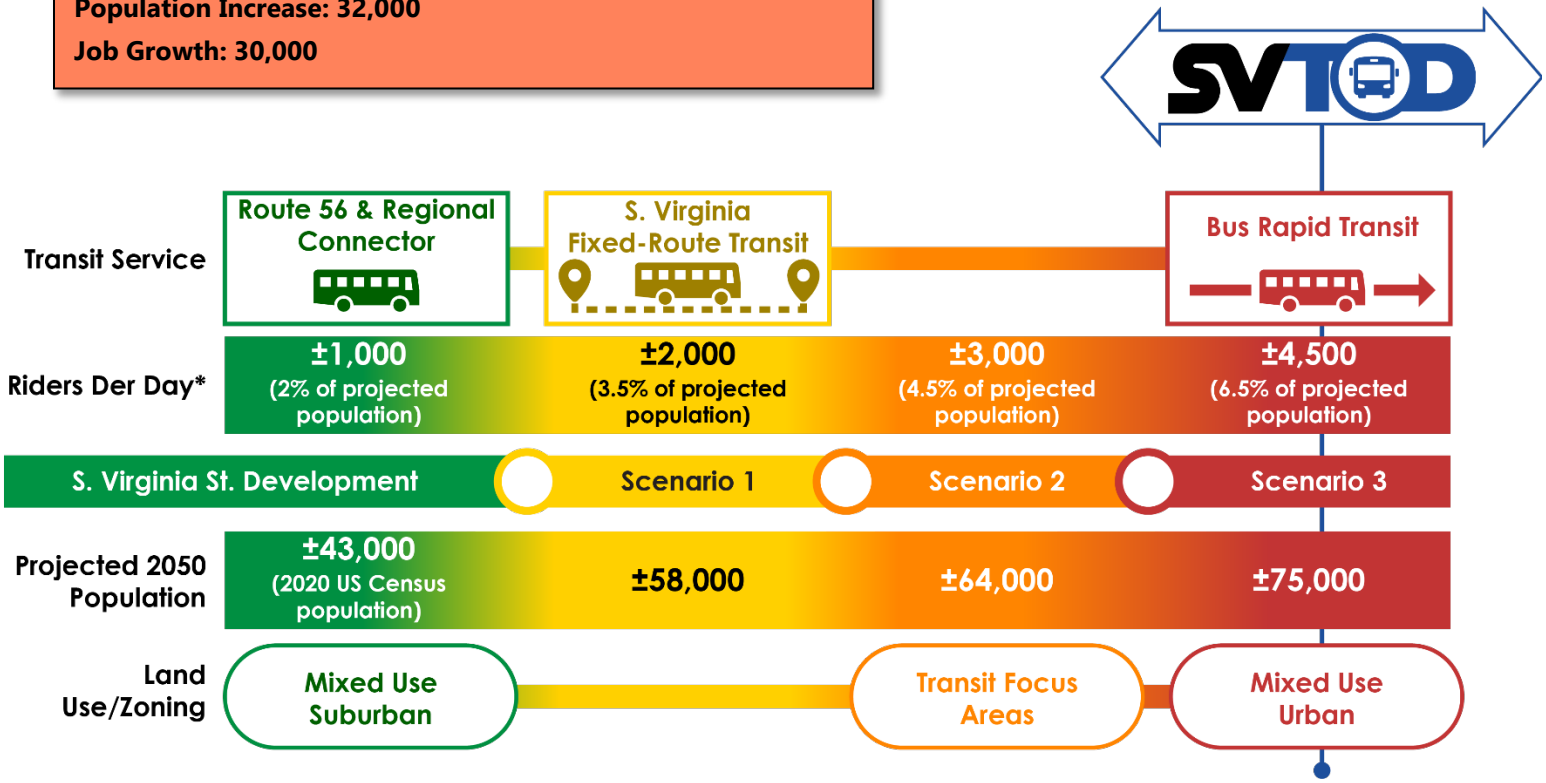


Figure 4.4: Development Scenario 3

Future Transit Route

Although the number of average daily riders based on the current population seems promising, there are many factors that influence ridership beyond population. When performing the Simplified Trips-on-Project Software (STOPS) modeling for this corridor based on the existing ridership data, the model concluded that at minimum a fixed route may be supported in the corridor, but due to the lack of transit in this area, the modeling data wasn't conclusive and further analysis and modeling should be required prior to proposing any type of BRT transit service. At minimum, adding a fixed route may help to generate the ridership data needed for more accurate modeling and if successful would be the first step towards providing BRT service in the study area as transit should be introduced in a phased approach. This process has already begun with the introduction of the FlexRIDE service that currently provides on demand service to portions of the study area, as well as Route 56 which currently runs along a portion of the corridor.

The success of a fixed route service in the study area will depend on serving the most populated areas. A detailed analysis of four (4) alternative routes the details of the STOPS model are discussed in detail in **Appendix C** – *Transit Technical Memo.* Currently the most logical extension would include stops at Meadowood Mall in the north, and the Downtown Damonte area in the south. Providing two ridership generators the at the beginning and end of a future transit route, the transit supportive developments surrounding Meadowood Mall and the transit supportive development proposed at Downtown Damonte, would be critical to the success of BRT and would help to provide the ridership proposed in **Table 4.1**. However, as development continues throughout the corridor, this should be monitored to ensure these developments continue to support transit.

Efforts to Support Development Scenarios

Success of transit in the study area is not only influenced by land use decisions made outside jurisdictional control. The use of right of way and context of the roadway corridor will also have an impact on the level of transit that can be supported along South Virginia Street. As noted throughout the plan, NDOT is finalizing its SMP, the recommendations for which, once implemented, could have a profound effect on future transit and development.

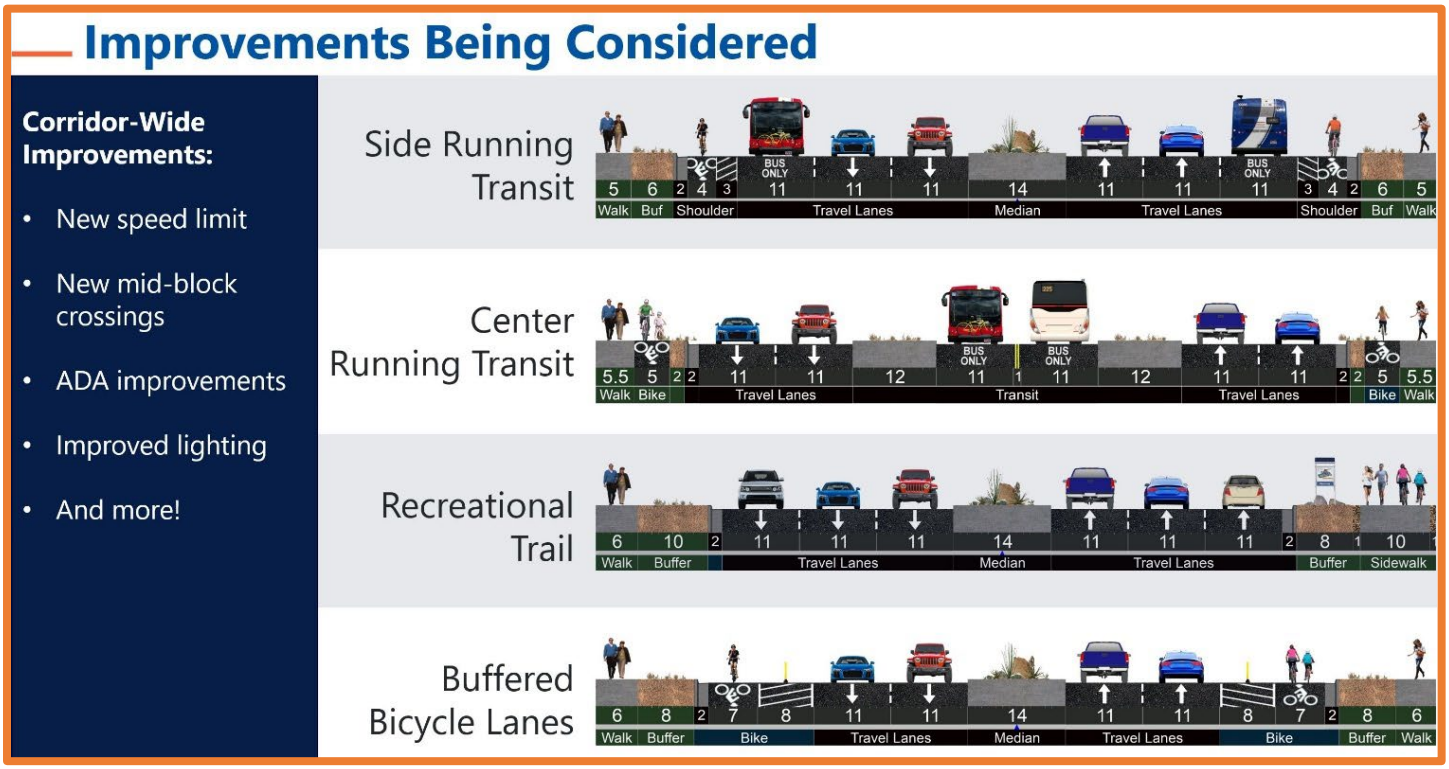


Figure 4.5: SMP Improvements

Safety Management Plan

As part of the SVTOD plan improvement considerations were given to recommendations made in the Roadway Safety Audit (RSA) of South Virginia Street from East Patriot Blvd to Mount Rose Highway. Safety improvements will be evaluated for inclusion in the updated Nevada Department of Transportation Safety Management Plan as shown in **Figure 4.5**. The proposed improvements will be incorporated into the NDOT right of way in the future to increase safety and plan for transit within the South Virginia Street corridor shown in **Figure 4.6.**

Certain elements of the proposed improvements being considered can be included in any portion of the NDOT right-of-way. Since the NDOT SMP was being conducted during the same time as the SVTOD plan, RTC and NDOT staff worked closely during this process to ensure that efforts being considered complement one another. The final preferred alternative for this portion of the corridor will be outline in the NDOT SMP. Any element shown in **Figure 4.5** above can be mixed and matched throughout the corridor and may be provided in a phased approach. Therefore, ongoing coordination between NDOT and RTC to ensure each agency's needs will be met and to preserve right of way for future transit enhancements will continue. The addition of bike/ped facilities and improved safety (crosswalks, lighting, reduced speeds, etc.) will also go a long way to providing transit-supportive infrastructure. This will influence and encourage additional transit-supportive development as is supported in this plan.

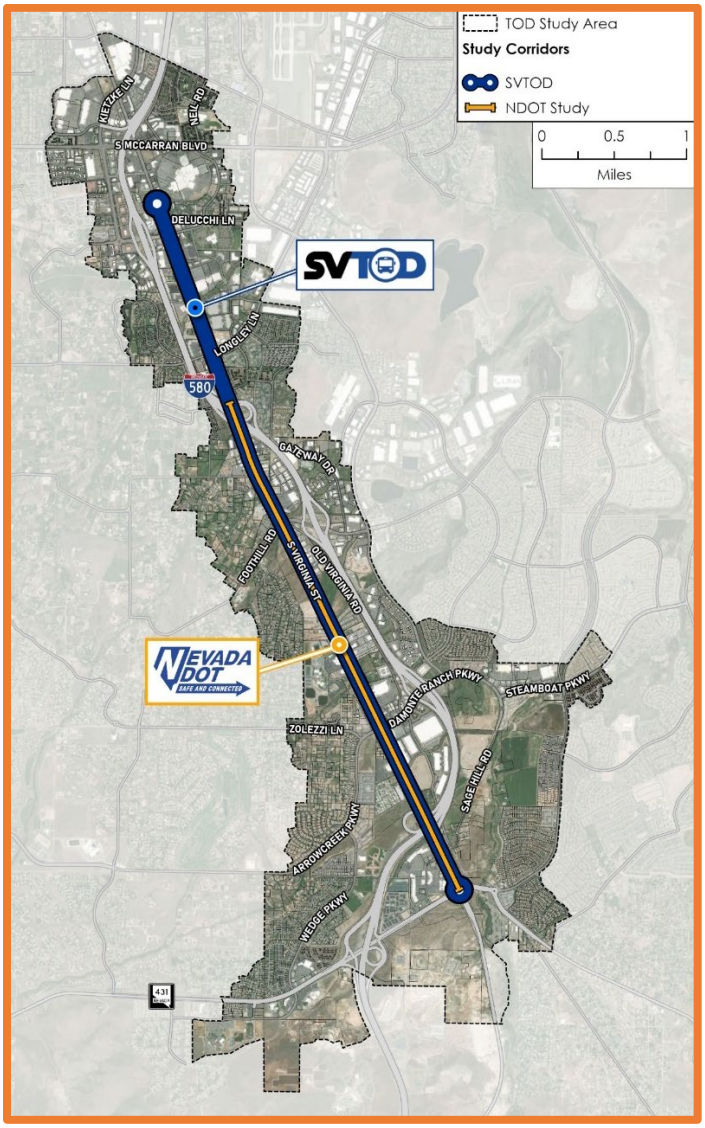
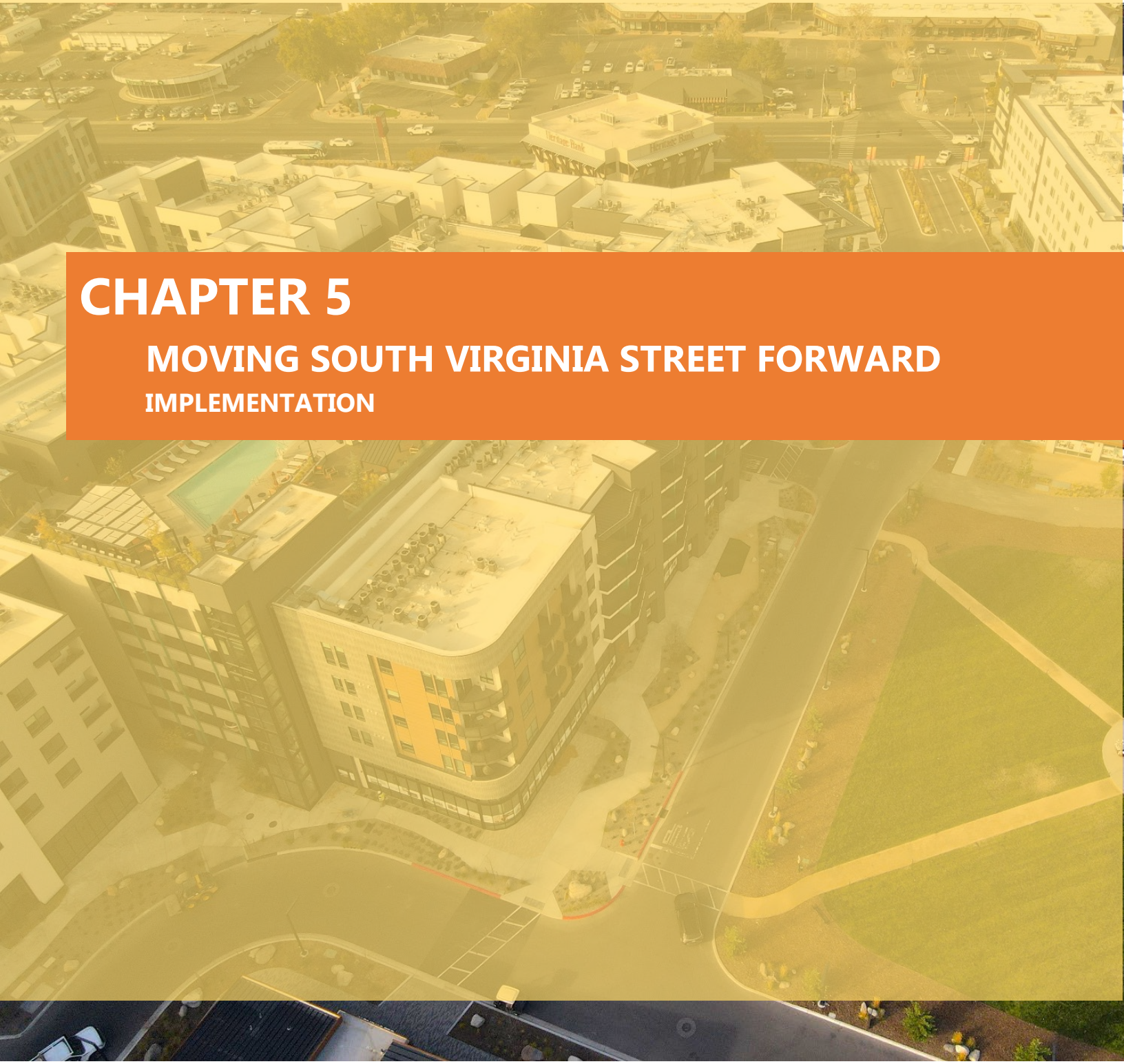


Figure 4.6: SMP Corridor, E. Patriot Blvd to Mount Rose Highway



CHAPTER 5

MOVING SOUTH VIRGINIA STREET FORWARD

IMPLEMENTATION

What will the Next 30 Years Bring?

Over the past three decades, the study area population has boomed from 1,500 to 43,000 (based on US Census tracts located within the Study Area). With nearly 700 acres of vacant land still available and more potential for redevelopment in older areas, the study area has the ability to absorb much of the regional growth that is anticipated in the Truckee Meadows. Planning now for the future growth will allow the infrastructure to support a more multimodal, walkable corridor with higher density development concentrated around transit focus areas. The Mixed Use Suburban Zoning provides the framework for higher density to support a more robust transit system; however, transit supportive development patterns have been slower to take shape. Action items to help encourage transit supportive development have been identified in Table 5.1 below. Many of these action items will require ongoing support and continued partnership among the agencies with various responsibilities within the study area; both from an implementation perspective as well as working together to find opportunities to encourage more sustainable growth patterns.

Table 5.1: SVTOD Action Plan

SVTOD ACTION PLAN				
	Action	**Timing**	**Responsibility**	**Implementation Notes**
Land Use Strategies				
LU1	Expand City boundary to include opportunity areas into Mixed Use Suburban Zoning	S	City of Reno/TMRPA	Will require a Regional Plan and City Master Plan.
LU2	Expand Mixed Use Urban Zoning	F	City of Reno	Currently ends at Meadowood Mall.
LU3	Support for expansion services in tier 1 areas	O	City of Reno/RTC	Consider transit service as a whole for the region and prioritize needs
Transportation Strategies				
T1	Analyze opportunity for a fixed route service along S. Virginia Street	S	RTC	
T2	Continue partnership to implement Safety Management Plan recommendations	S/F	NDOT/RTC/City of Reno	
T3	Continue to coordinate efforts to design funding for the S. Virginia Street corridor	M	NDOT/RTC	
T4	Construct multimodal design concept to encourage transit supportive development along S. Virginia Street	L	NDOT/RTC	
T5	Consider future feeder services to support BRT	L	RTC/City of Reno	Establish feeder routes that connect to future transit along S. Virgina St.
Investments in TOD Strategies				
I1	Consider vacant and redevelopment parcels for opportunity to purchase for future TOD/Bus Station	F	RTC/City of Reno	Seek grant funding
I2	Continue to monitor growth and development in the corridor	Annually	RTC/City of Reno/TMRPA	Collaborate on annual report that displays changes in growth and density patterns and correlate to appropriate levels of transit service.
I3	Explore public/private partnerships with landowners/developers	F	RTC/City of Reno	

Timing:

S – Short Term (Complete by 2027)

M – Medium Term (Complete by 2030)

L – Long Term (Complete by 2050)

F – Future, No Timeline (As funding/partnering/opportunity is available)

O – Ongoing, No Expiration Date

Implementation

The SVTOD further builds on the framework for improving the South Virginia Street corridor to accommodate future growth as identified in the 2019 Truckee Meadows Regional Plan and the City of Reno ReImagine Master Plan. The SVTOD provides direction on how to accomplish a sustainable growth pattern for the South Virginia Street corridor supported by transit and multimodal options by targeting three major categories as outlined in the SVTOD Action Plan (Table 5.1), Land Use, Transportation, and Investment in Transit Oriented Development.

Land Use Strategies:

- The Study Area has favorable zoning of Mixed Use Suburban to encourage transit supportive development. Expand that zoning area where feasible to try and encourage redevelopment and infill around identified transit focus areas. This includes incorporating some of the Washoe County area into City of Reno in order to expand the Mixed Use Suburban zoning.
- The current zoning does allow less intense non-transit supportive uses. Focus efforts on working with the City of Reno to identify ways to incentivize or gradually increase development standards for the transit focus areas to encourage higher density uses.

Transportation Strategies:

- Continue partnership with NDOT to transform South Virginia Street into a multimodal corridor. Transforming the right of way into a complete street will increase land values and encourage more transit supportive development patterns. Adding bike and pedestrian amenities as a first step will be a major improvement in the corridor.
- Providing transit service to currently proposed higher intense developments such Downtown Damonte will provide quick wins and show an investment in transit for the Study Area.
- Continue to increase the level of transit service as growth occurs in the corridor.

Investment in TOD Strategies:

- Continue to collaborate with the City of Reno, developers, and landowners around transit focus areas to explore opportunities to encourage transit supportive development patterns. Identifying infrastructure or financial incentives, providing a funding partnership opportunity for increased density, or simply reserving area for future transit amenities are some examples of helping maximize transit oriented development.
- Identify opportunity parcels around transit focus areas and explore funding opportunities to acquire the land for a future transit supportive development. Explore partnering opportunities with publicly owned parcels, some of which are owned by the Washoe County School District.
- Collaborate with existing underutilized infill site landowners and developers to explore partnerships for redevelopment and incorporating transit and multimodal connectivity opportunities. Meadowood Mall parking areas could be a great candidate for a future partnership where mixed use higher density housing and vertical parking provide an opportunity to support a mobility hub without impacting the existing mall.

The evolution of South Virginia Street is largely dependent on outside influences and will continue to respond to growth and the private market. Planning for and continuing to encourage sustainable growth is essential to ensure this corridor is a testament to the vibrant changes shaping our community. It starts with investments in the infrastructure, followed by collaboration and public/private partnerships, and continuing to phase in transit to support the future housing and employment opportunities in the corridor.

APPENDIX A:

EXISTING CONDITIONS TECHNICAL MEMO

APPENDIX B:

LAND USE TECHNICAL MEMO

APPENDIX C:

TRANSIT TECHNICAL MEMO

APPENDIX D:

PUBLIC OUTREACH AND ONLINE SURVEY RESULTS MEMO