NOTICE OF MEETING OF THE CARSON AREA METROPOLITAN PLANNING ORGANIZATION (CAMPO)

Day: Wednesday
Date: November 9, 2022
Time: 4:30 pm
Location: Community Center, Robert "Bob" Crowell Board Room
851 East William Street
Carson City, Nevada

AGENDA

NOTICE TO PUBLIC:
Members of the public who wish to view the meeting may watch the livestream of the CAMPO meeting at www.carson.org/granicus and by clicking on "In progress" next to the meeting date, or by tuning in to cable channel 191. Livestream of the meeting is provided solely as a courtesy and convenience to the public. Carson City does not give any assurance or guarantee that the livestream or cable channel access will be reliable. Although all reasonable efforts will be made to provide livestream, unanticipated technical difficulties beyond the control of City staff may delay, interrupt, or render unavailable continuous livestream capability.

The public may provide public comment in advance of a meeting by written submission to the following email address: cmartinovich@carson.org. For inclusion or reference in the minutes of the meeting, your public comment must include your full name and be submitted via email by not later than 3:00 p.m. the day before the meeting. Public comment during a meeting is limited to three minutes for each speaker.

1. **Call to Order – Carson Area Metropolitan Planning Organization (CAMPO)**

2. **Roll Call**

3. **Public Comment:****
The public is invited at this time to comment on and discuss any topic that is relevant to, or within the authority of this public body.

4. **For Possible Action: Approval of Minutes** – October 12, 2022

5. **Public Meeting Item(s):**

5-A For Discussion Only – Discussion and presentation regarding the 2022 Transportation Network Monitoring Report ("Report").

Staff Summary: The Report presents transportation network data collected within the CAMPO area. The Report is federally funded through CAMPO's Unified Planning Work Program.

5-B For Possible Action – Discussion and possible action regarding ratifying the submission of a Transit Electrification Grant ("Grant") application to NV Energy seeking $225,000, with no local match requirement, to complete a Zero-Emission Transition Plan ("Plan") for the purposes of evaluating and understanding opportunities and constraints for projects related to electric and other low- or no-emission transit vehicles and related infrastructure.

Staff Summary: The Grant is available through NV Energy's Economic Recovery Transportation Electrification Plan ("ERTEP"), a nearly $100 million program to expand electric vehicle charging stations and infrastructure access across NV Energy's service area. For fiscal year ("FY") 2022, NV Energy has made $6 million available for the Grant program. If the Grant is awarded to CAMPO, it can complete the Plan using Grant funds, and the completed Plan will make CAMPO eligible to pursue additional NV Energy funding through the ERTEP, as well as other Federal Transit Administration ("FTA") Section 5339(b) and Section 5339(c) programs. The Grant application deadline was November 4, 2022, and staff submitted the Grant application to NV Energy on November 3, 2022. Staff are seeking ratification of the submission.

6. Non-Action Items:

6-A Transportation Manager's Report

6-B Other comments and reports, which could include:

- Future agenda items
- Status review of additional projects
- Internal communications and administrative matters
- Correspondence to CAMPO
- Additional status reports and comments from CAMPO
- Additional staff comments and status reports

7. Public Comment:**

The public is invited at this time to comment on any matter that is not specifically included on the agenda as an action item. No action may be taken on a matter raised under this item of the agenda.

8. For Possible Action: To Adjourn

PUBLIC COMMENT LIMITATIONS – The CAMPO will provide at least two public comment periods in compliance with the minimum requirements of the Open Meeting Law prior to adjournment. No action may be taken on a matter raised under public comment unless the item has been specifically included on the agenda as an item upon which action may be taken. **Public comment will be limited to three minutes per speaker to facilitate the efficient conduct of a meeting and to provide reasonable opportunity for comment from all members of the public who wish to speak. Testimony from a person who is directly involved with an item, such as City staff, an applicant or a party to an administrative hearing or appeal, is not considered public comment and would not be subject to a three-minute time limitation.

Agenda Management Notice - Items on the agenda may be taken out of order; the public body may combine two or more agenda items for consideration; and the public body may remove an item from the agenda or delay discussion relating to an item on the agenda at any time.

Titles of agenda items are intended to identify specific matters. If you desire detailed information concerning any subject matter itemized within this agenda, including copies of the supporting material regarding any of the items listed on the agenda, please contact Christopher Martinovich, Transportation Manager, in writing at 3505 Butti Way, Carson City, Nevada, 89701 or at cmartinovich@carson.org, or by

phone at (775) 887-2355. You are encouraged to attend this meeting and participate by commenting on any agendized item.

Notice to persons with disabilities: Members of the public who are disabled and require special assistance or accommodations at the meeting are requested to notify CAMPO staff in writing at 3505 Butti Way, Carson City, Nevada, 89701 or at cmartinovich@carson.org, or by calling Christopher Martinovich at (775) 887-2355 at least 24 hours in advance of the meeting.

This agenda and backup information are available on the City's website at www.carson.org/agendas and at the office for Carson City Public Works - 3505 Butti Way, Carson City, Nevada, 89701 (775) 887-2355.

This notice has been posted at the following locations:
Carson City Public Works, 3505 Butti Way
Community Center, 851 East William Street
City Hall, 201 North Carson Street
Carson City Library, 900 North Roop Street
Community Development Permit Center, 108 East Proctor Street
Douglas County Executive Offices, 1594 Esmeralda Avenue, Minden
Lyon County Manager's Office, 27 South Main Street, Yerington
Lyon County Utilities, 34 Lakes Blvd, Dayton
Nevada Department of Transportation, 1263 S. Stewart Street, Carson City
www.carson.org/agendas
http://notice.nv.gov

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CARSON AREA METROPOLITAN PLANNING ORGANIZATION
Minutes of the October 12, 2022 Meeting
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DRAFT

A regular meeting of the Carson Area Metropolitan Planning Organization (CAMPO) was scheduled for 4:30 p.m. on Wednesday, October 12, 2022, in the Community Center, Robert "Bob" Crowell Boardroom, 851 East William Street, Carson City, Nevada.

PRESENT: Chairperson Lori Bagwell
Vice Chairperson Lisa Schuette
Member Robert "Jim" Dodson
Member Jon Erb
Member Chas Macquarie
Member Gregory Novak
Ex-Officio Member Sondra Rosenberg

STAFF: Dan Stucky, Deputy Public Works Director
Chris Martinovich, Transportation Manager
Adam Tully, Deputy District Attorney
Kelly Norman, Transportation Planner/Analyst
Rebecca Bustos, Grant Analyst
Alex Cruz, Transit Coordinator
Tamar Warren, Senior Deputy Clerk

NOTE: A recording of these proceedings, the CAMPO's agenda materials, and any written comments or documentation provided to the Clerk during the meeting are part of the public record. These materials are available for review in the Clerk's Office during regular business hours.

1. CALL TO ORDER – CARSON AREA METROPOLITAN PLANNING ORGANIZATION (CAMPO)

(4:31:35) – Chairperson Bagwell called the meeting to order at 4:31 p.m.

2. ROLL CALL

(4:31:46) – Roll was called, and a quorum was present. Member Henderson was absent.

3. PUBLIC COMMENT

(4:32:28) – Chairperson Bagwell entertained public comments; however, none were forthcoming.

4. FOR POSSIBLE ACTION: APPROVAL OF MINUTES – SEPTEMBER 14, 2022

(4:32:40) – Chairperson Bagwell introduced the item and noted an error in the adjournment time. She also entertained corrections, comments, or a motion.

(4:32:55) – Member Macquarie moved to approve the minutes of the CAMPO September 14, 2022 meeting as corrected. The motion was seconded by Member Novak and carried 6-0-0.

5. PUBLIC MEETING ITEM(S):

5-A FOR POSSIBLE ACTION – DISCUSSION AND POSSIBLE ACTION REGARDING NON-MONETARY INTERLOCAL AGREEMENT NO. NM507-22-802 ("AGREEMENT") WITH THE NEVADA DEPARTMENT OF TRANSPORTATION ("NDOT") FOR THE SUB-ALLOCATION OF FEDERAL SURFACE TRANSPORTATION BLOCK GRANT ("STBG") FUNDING TO THE CARSON AREA METROPOLITAN PLANNING ORGANIZATION ("CAMPO") THROUGH SEPTEMBER 30, 2027, AND AUTHORITY FOR THE TRANSPORTATION MANAGER TO SIGN THE AGREEMENT.

(4:33:18) – Chairperson Bagwell introduced the item. Vice Chair Schuette read into the record a prepared disclosure statement, advised of no disqualifying conflict of interest, and stated that she would participate in discussion and action. Mr. Martinovich presented the Staff Report and the attached agreement draft, both of which are incorporated into the record, and both he and Ex-Officio Member Rosenberg responded to clarifying questions. He clarified that it would be up to the local agencies to work with the Nevada Department of Transportation (NDOT) and to provide local fund matches.

(4:36:20) – Mr. Martinovich also provided the following amendments to the draft agreement:

Article III - 4. The sub-allocation of one hundred percent (100%) of the ~~IIJS~~ IIJA FUNDS for areas with a population over 50,000 and under 200,000 is correctly calculated based on the ~~2020~~ 2010 US Census data used, which is displayed within Exhibit B, and any adjustments to this calculation must be agreed to by both parties.

(4:41:59) – Chairperson Bagwell entertained public comments and when none were forthcoming, a motion.

(4:42:10) – Member Macquarie moved to approve the Agreement as amended and to authorize the Transportation Manager to execute the Agreement. The motion was seconded by Member Dodson and carried 6-0-0.

5-B FOR POSSIBLE ACTION – DISCUSSION AND POSSIBLE ACTION REGARDING COOPERATIVE AGREEMENT NO. NM482-22-816 ("AGREEMENT") WITH THE NEVADA DEPARTMENT OF TRANSPORTATION'S ("NDOT") FOR DEVELOPMENT OF A LOCAL ROAD SAFETY PLAN ("LRSP") FOR THE CARSON AREA METROPOLITAN PLANNING ORGANIZATION ("CAMPO"); AND AUTHORITY FOR THE TRANSPORTATION MANAGER TO SIGN THE AGREEMENT AS WELL AS FUTURE AMENDMENTS TO THE AGREEMENT.

(4:42:39) – Chairperson Bagwell introduced the item. Ms. Norman gave background and presented the Staff Report and accompanying agreement, both of which are incorporated into the record. Discussion ensued and Ex-Officio Member Rosenberg clarified that the agreement provided an opportunity for local safety projects to be driven by the local entities "in hopes that we have mutual priorities." Mr. Martinovich informed Chairperson Bagwell that he had contacted Member Henderson (representing Lyon County) who had agreed with the concept of having it coordinated by CAMPO. Member Novak encouraged the study to look into preventative measures as well. There were no public comments.

(4:51:58) – Vice Chair Schuette moved to approve the Agreement as presented and to authorize the Transportation Manager to execute the Agreement as well as any future amendments extending the term of the Agreement. The motion was seconded by Member Novak and carried 6-0-0.

5-C FOR POSSIBLE ACTION – DISCUSSION AND POSSIBLE ACTION REGARDING PROPOSED PERFORMANCE TARGETS FOR FEDERAL FISCAL YEAR ("FFY") 2023 FOR CARSON AREA METROPOLITAN PLANNING ORGANIZATION ("CAMPO") FUNDED CAPITAL ASSETS USED TO PROVIDE PUBLIC TRANSIT SERVICES, AS REQUIRED BY THE FEDERAL TRANSIT ADMINISTRATION ("FTA").

(4:52:24) – Chairperson Bagwell introduced the item. Mr. Cruz presented the Staff Report and reviewed the CAMPO Transit Asset Management Targets for FFY 2023 and the 2022 Jump Around Carson (JAC) Asset Condition Assessment, all of which are incorporated into the record. He also responded to clarifying questions. Chairperson Bagwell entertained public comments and when none were forthcoming, a motion.

(4:55:45) – Member Dodson moved to approve the Federal Fiscal Year 2023 performance targets as presented. The motion was seconded by Vice Chair Schuette and carried 6-0-0.

6. NON-ACTION ITEMS

6-A TRANSPORTATION MANAGER'S REPORT

(4:56:12) – Mr. Martinovich announced that October was Pedestrian Safety Month and highlighted the two pedestrian fatalities in Carson City, adding that Staff would be attending the Nevada Safety Summit in Reno and the Transportation, Trails, and Tourism Summit, also in Reno.

6-B OTHER COMMENTS AND REPORTS, WHICH COULD INCLUDE:

- **FUTURE AGENDA ITEMS**

(4:57:43) – Mr. Martinovich stated that the Annual CAMPO Monitoring Report would be presented in the November meeting.

- **STATUS REVIEW OF ADDITIONAL PROJECTS**
- **INTERNAL COMMUNICATIONS AND ADMINISTRATIVE MATTERS**
- **CORRESPONDENCE TO CAMPO**
- **ADDITIONAL STATUS REPORTS AND COMMENTS FROM CAMPO**
- **ADDITIONAL STAFF COMMENTS AND STATUS REPORTS**

7. PUBLIC COMMENT

(4:58:16) – Chairperson Bagwell entertained final public comments; however, none were forthcoming. She also announced that the next meeting would be the last one for Member Macquarie. She thanked him for serving on the CAMPO board and wished him the best in his retirement.

8. FOR POSSIBLE ACTION: TO ADJOURN

(4:59:05) – Chairperson Bagwell adjourned the meeting at 4:59 p.m.

The Minutes of the October 12, 2022 Carson Area Metropolitan Planning Organization meeting are so approved on this 9th day of November, 2022.

STAFF REPORT

Report To: The Carson Area Metropolitan Planning Organization (CAMPO)

Meeting Date: November 9, 2021

Staff Contact: Kelly Norman, Transportation Planner

Agenda Title: For Discussion Only – Discussion and presentation regarding the 2022 Transportation Network Monitoring Report ("Report").

Staff Summary: The Report presents transportation network data collected within the CAMPO area. The Report is federally funded through CAMPO's Unified Planning Work Program.

Agenda Action: Other/Presentation **Time Requested:** 20 minutes

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Proposed Motion
N/A

Background/Issues & Analysis
The Report is intended to show regional trends and changes that influence the CAMPO-area transportation system. It presents information on who uses the transportation system (socio-demographic data), what residents travel on (Roadway Condition, Local Roadway Pavement Condition), where they travel (trip origins, destinations), and how they travel (transit, walk, bike, drive). The data collected for this Report is analyzed to understand overall performance of the transportation system. This information is used to identify and prioritize projects as well as track progress toward achieving the goals and objectives established in CAMPO's Regional Transportation Plan.

Applicable Statute, Code, Policy, Rule or Regulation
N/A

Financial Information
Is there a fiscal impact? ☐ Yes ☒ No

If yes, Fund Name, Account Name / Account Number:

Is it currently budgeted? ☐ Yes ☐ No

Alternatives
N/A

Supporting Material
-Exhibit-1: 2022 Transportation Network Monitoring Report
-Exhibit-2: Presentation on the 2022 Transportation Network Monitoring Report

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Carson Area Metropolitan Planning Organization
CAMPO

2022 Transportation Network Monitoring Report

November 2022

This report was funded in part through grants from the Federal Highway Administration and Federal Transit Administration, U.S. Department of Transportation. The views and opinions of the Carson Area Metropolitan Planning Organization expressed herein do not necessarily state or reflect those of the U.S. Department of Transportation.

DOUGLAS COUNTY
GREAT PEOPLE GREAT PLACES

CARSON CITY, NEVADA
FOUNDED 1858 CC

1861
LYON COUNTY

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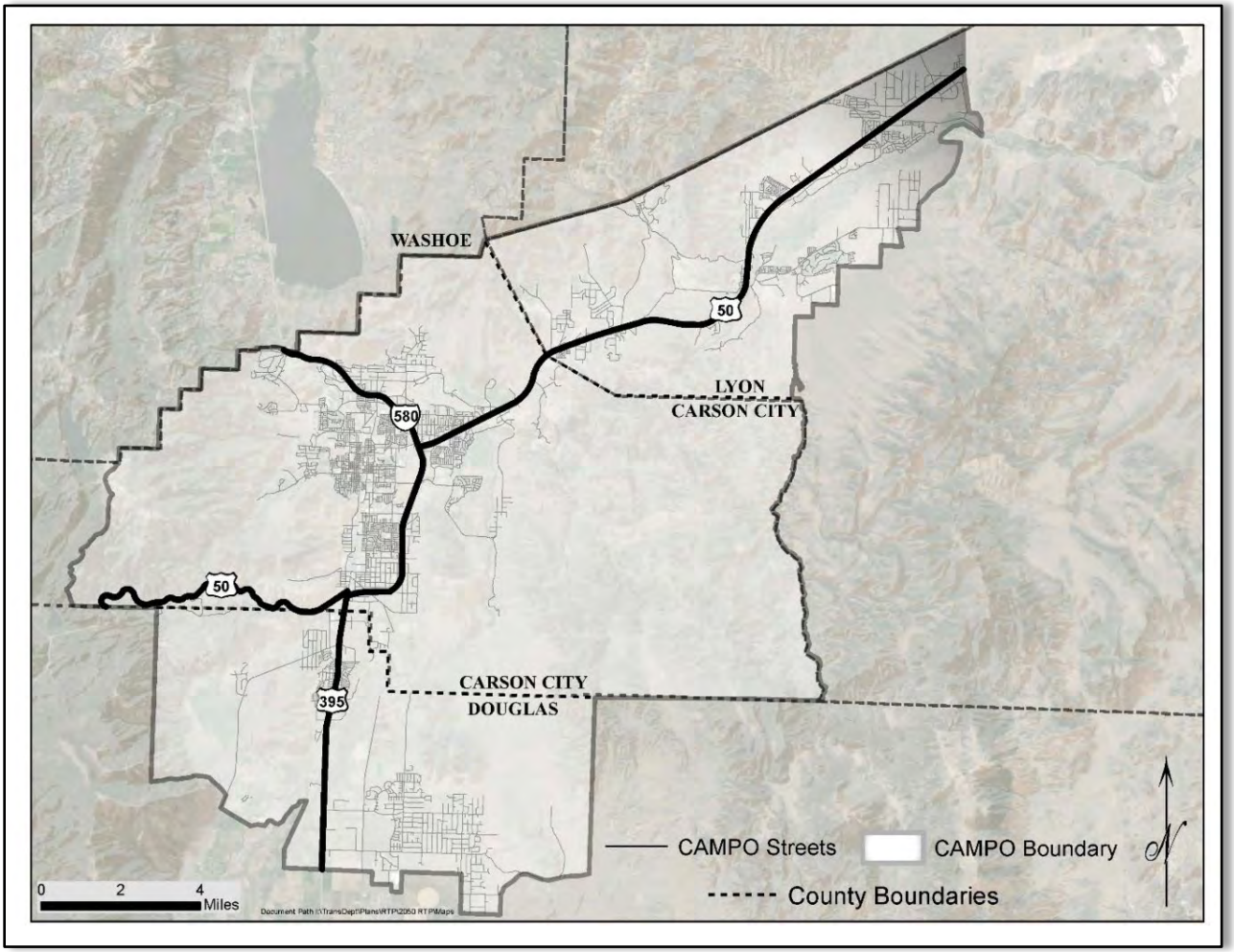
CHAPTER 1 – INTRODUCTION

The Carson Area Metropolitan Planning Organization (CAMPO) is a federally recognized metropolitan planning organization (MPO), formed on February 26, 2003. The creation of CAMPO was required once the Carson City urbanized area exceeded a population of 50,000. CAMPO is responsible for carrying out the metropolitan transportation planning process for the Carson City Metropolitan Area, also referred to as the Metropolitan Planning Area (MPA). The Metropolitan Planning Area encompasses nearly all of Carson City (except the area within the Lake Tahoe Basin) and portions of northern Douglas County and western Lyon County, including the Dayton Valley and Johnson Lane urbanized areas. The geographic scope of this report is depicted in Figure 1.1. Additional information about CAMPO is available at: www.CarsonAreaMPO.com.

Figure 1.1: CAMPO Metropolitan Planning Area (MPA) Boundary



1.1 Performance-Based Planning

Performance-based planning and programming apply performance management principles to transportation system policy and investment decisions. Performance-based planning and programming is a system-level, data-driven process to identify strategies and investments. Performance-based planning helps to define key goals and objectives and to analyze and evaluate strategies for meeting goals. The process connects performance measures to goals and objectives through target setting.

In November 2021, the Infrastructure Investment and Jobs Act (IIJA) was signed into law. This legislation carries forward and expands the policies, programs, and initiatives established by preceding legislation (including ISTEA, TEA-21, SAFETEA-LU, MAP-21 and the FAST Act) by introducing new policies and programs that address new and emerging issues that face the nation's transportation system. This legislation requires MPOs to track certain performance measures, establish performance targets, and utilize performance measures to inform decision-making for investment into the multi-modal transportation system.

This 2022 Transportation Network Monitoring Report is federally funded through CAMPO's Unified Planning Work Program. The report presents transportation network information derived from transportation data collected within the CAMPO Metropolitan Planning Area. The information is presented to show regional trends and changes that influence the transportation system. This document presents information on **who** uses the transportation system (socio-demographic data), **what** residents travel on (Roadway Condition, Local Roadway Pavement Condition), **where** they travel (trip origins, destinations), and **how** they travel (transit, walking, biking, driving). CAMPO Staff have continued to monitor socioeconomic factors, mobility, and safety needs of the region and strive to increase consistency and coverage of bicycle and pedestrian monitoring to better inform investment decisions. Additionally, a Jump Around Carson Fiscal Year Monitoring Report[1] is updated annually. This 2022 report provides the first comprehensive analysis of the 2020 data from the beginning of the COVID-19 pandemic. The data collected for this report is processed, organized, and analyzed to present information about the overall performance of the transportation system. This information is used to identify and prioritize projects, and to track the progress of those projects toward achieving the goals and objectives established in CAMPO's Regional Transportation Plan. [2] The strategies and projects within CAMPO's Regional Transportation Plan support the following five goals:

CAMPO Regional Transportation Plan Goals

1. Increase the safety of the transportation system for all users
2. Maintain a sustainable regional transportation system
3. Increase the mobility and reliability of the transportation system for all users
4. Maintain and develop a multi-modal transportation system that supports economic vitality
5. Provide an integrated transportation system

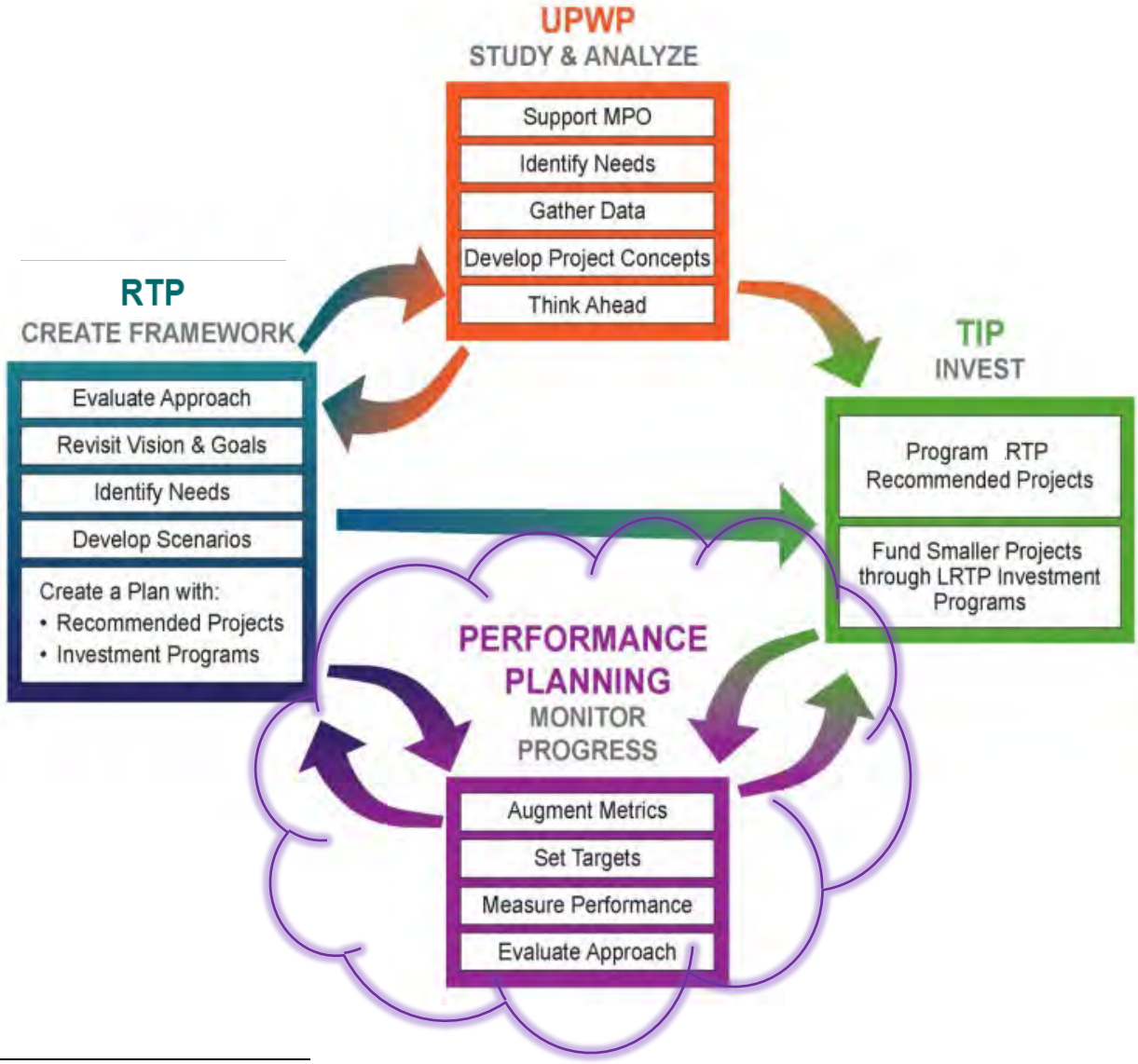
[1] Jump Around Carson Fiscal Year 2021 Monitoring Report - https://www.carson.org/home/showpublisheddocument/80192/637873341764230000

[2] Carson Area Metropolitan Planning Organization 2050 Regional Transportation Plan - https://www.carson.org/home/showpublisheddocument/74094/637462257582430000

Alongside these five goals, the 2050 Regional Transportation Plan contains objectives and performance measures to track progress toward meeting these goals. The objectives and performance measures have been carefully developed through coordination with federal, state, and regional planning partners that utilize consistent and readily available data. This approach allows for statewide consistency and comparison. Together, the established goals, objectives, and performance measures form the basis of CAMPO's performance-based planning framework that informs ongoing policymaking and investment decisions.

This report and CAMPO's performance-based planning framework provide the basis for project prioritization (capital improvements and maintenance) for projects contained within CAMPO's Transportation Improvement Program (TIP)[3]. The relationship between CAMPO's planning documents and performance-based planning framework is displayed graphically in Figure 1.2. This report focuses on the 'Performance Planning' phase to monitor CAMPO's progress, augment and analyze metrics, set targets, measure performance, and evaluate CAMPO's approach and progress towards our primary responsibilities.

Figure 1.2: CAMPO's Primary Responsibilities



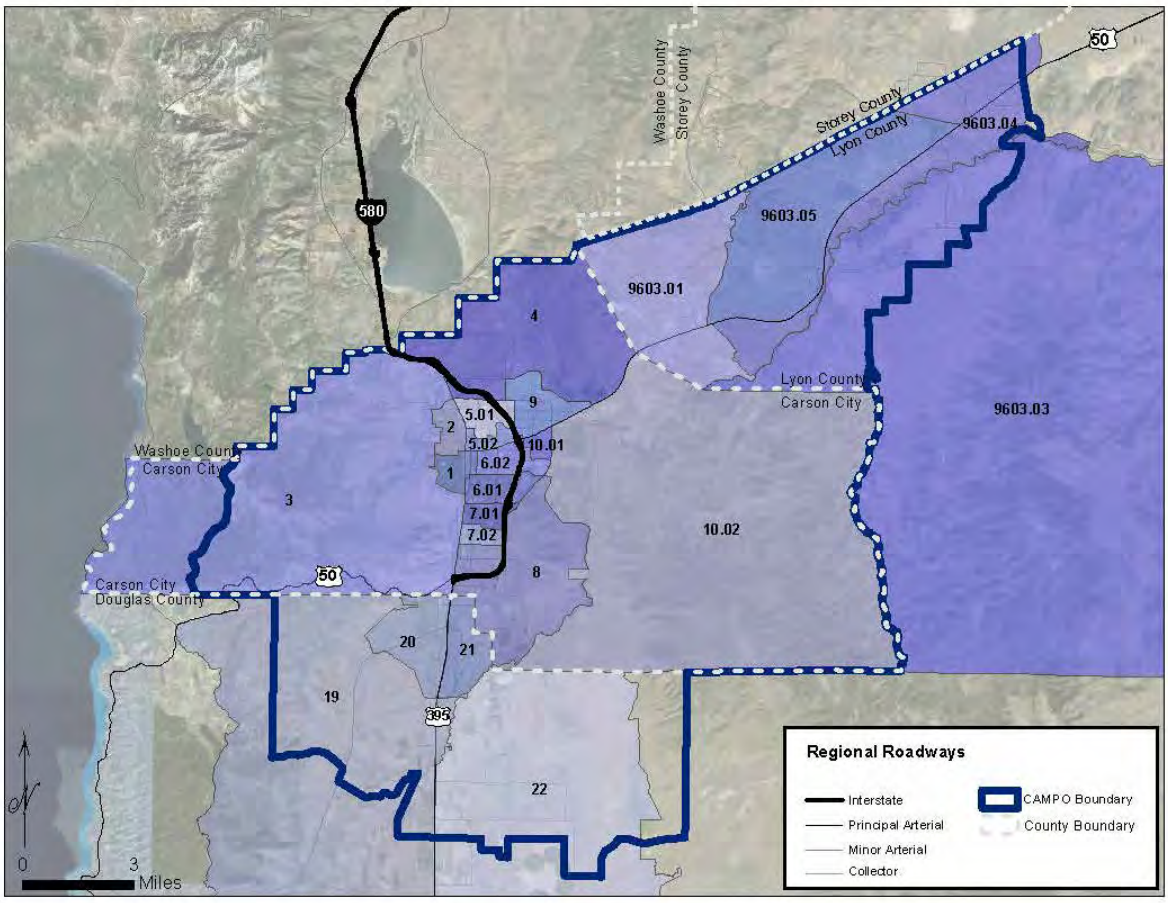
[3] Nevada Transportation Improvement Program - https://estip.nevadadot.com/

CHAPTER 2 – WHO: SOCIO-DEMOGRAPHICS

Transportation is innately personal – each of us experiences the transportation network through the unique lens of our daily activities. Each of us has social activities, medical appointments, and day-to-day errands that require travel. Young adults may have college, jobs, and flexibility after hours for time spent with friends. Families may take children to school and after-school activities. Low-income residents, students or older folks may decide to forego driving personal automobiles and begin using the bus.

The reality is that the 'WHO' (socio-demographic composition of neighborhoods and regions) influences travel behavior, i.e., the where, when, why, what we travel on, and how each of us travels. By monitoring regional socio-demographic data, CAMPO is better informed and equipped to plan for and manage the region's use of regional transportation infrastructure for those that rely upon it. For this report, all socio-demographic data comes from the American Community Survey (ACS)[4]. Figure 2.1 displays the 21 census tracts within the CAMPO Metropolitan Planning Area. The following socio-demographic data was compiled using all or portions of all 21 tracts. Tracts within the CAMPO region have been updated with the recent 2020 Decennial Census to include Tracts 6.01 and 6.02 in Carson City and all or portions of tracts 9603.01, 9603.03, 9603.04, and 9603.05 in Lyon County. Douglas County tracts within the CAMPO region remain unchanged from previous years.

Figure 2.1: Census Tracts within the CAMPO Boundary

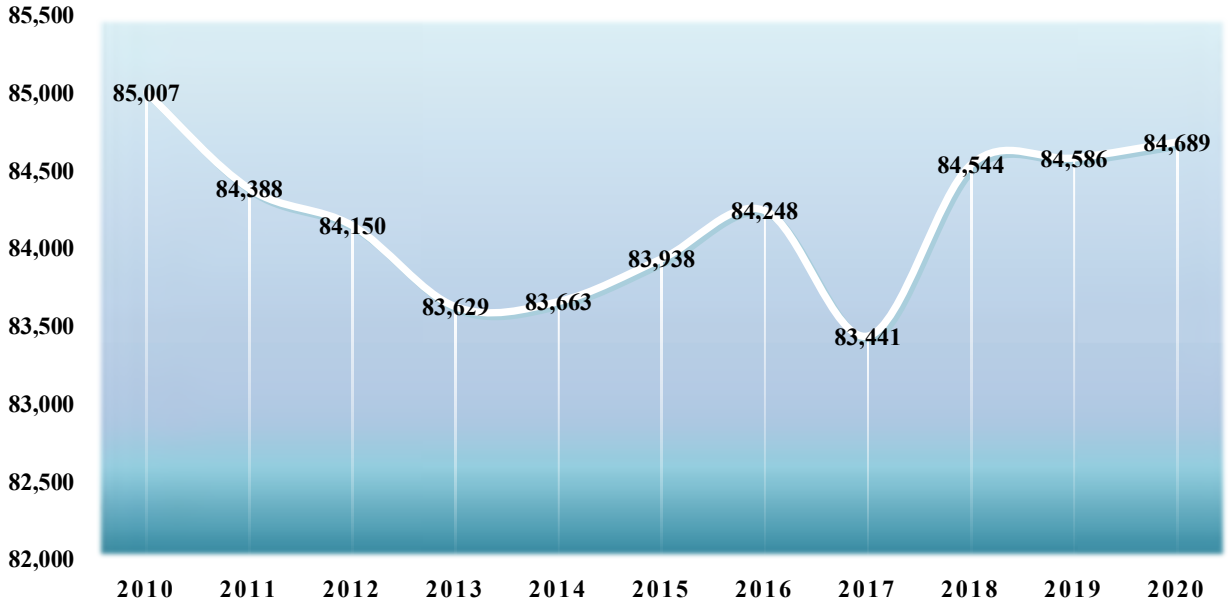


[4] American Community Survey (ACS), US Census Bureau - https://www.census.gov/programs-surveys/acs

2.1 Population

The CAMPO population has remained roughly stable, decreasing slightly over the ten-year reporting period. Figure 2.2 displays population information for the CAMPO Metropolitan Planning Area from 2010 to 2020.

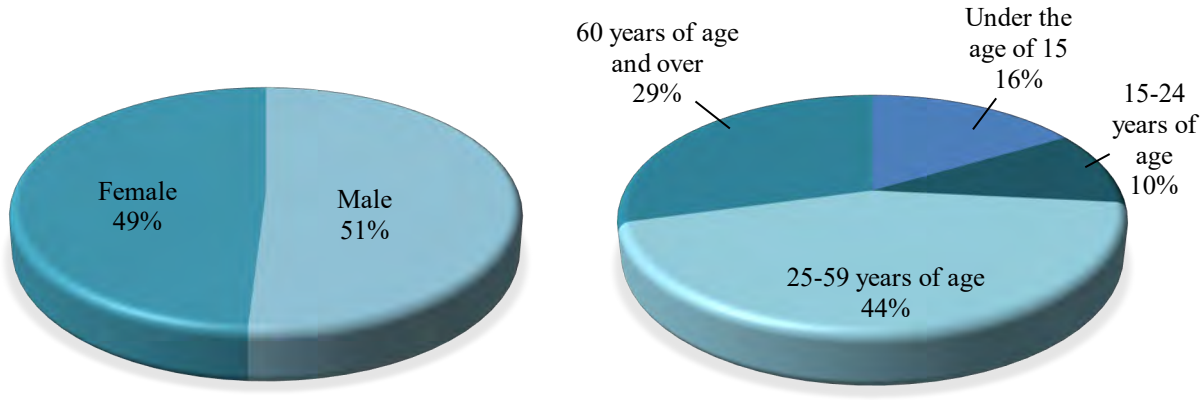
Figure 2.2: CAMPO Total Population (2010-2020)



Source: ACS Demographic and Housing Estimates, Table DP05. Annual Estimates from American Community Survey (ACS) 5-year Estimates.

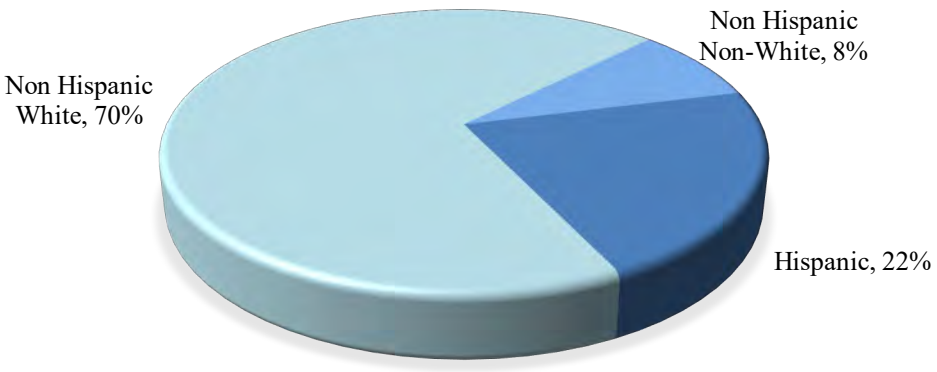
Figure 2.3 displays the percentage of the population by gender and age group. The CAMPO region remains consistent with a 49% female and 51% male population. Notably, more than a quarter of the population is 60 years of age or older.

Figure 2.3: Percentage of Population by Gender and Age Group (2020)



Source: ACS Demographic and Housing Estimates, Table DP05. Annual Estimates from American Community Survey (ACS) 5-year Estimates.

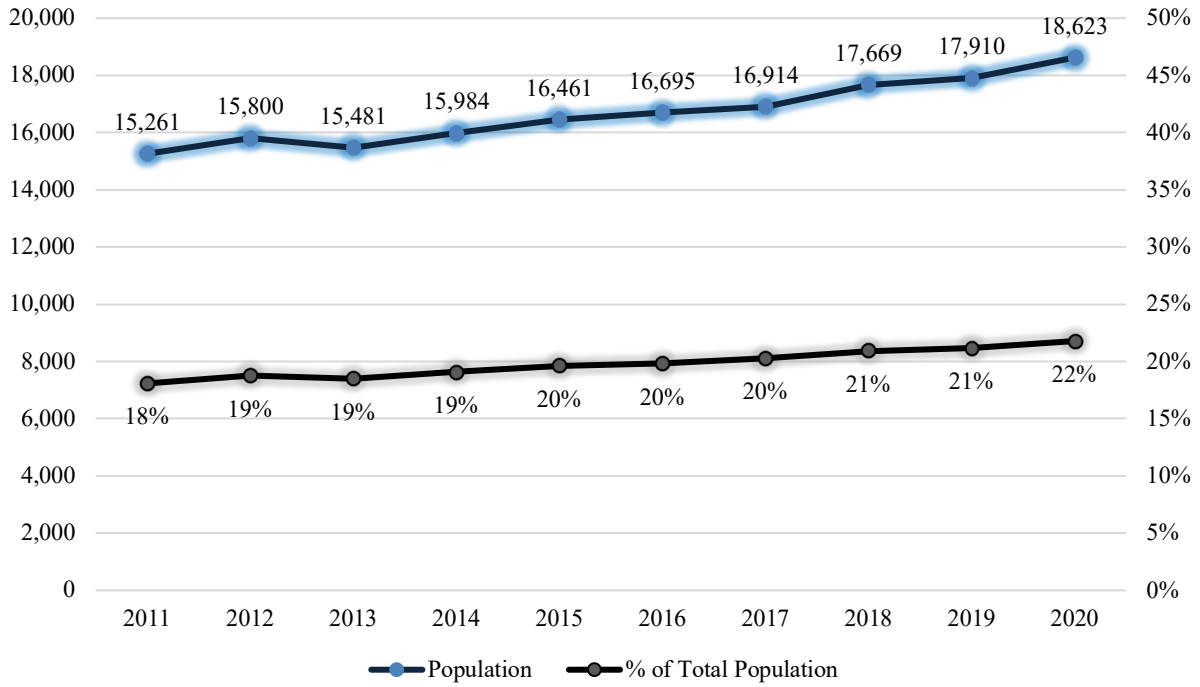
Figure 2.4: Percentage of Population by Race/Ethnicity (2020)



Source: ACS Demographic and Housing Estimates, Table DP05. Annual Estimates from American Community Survey (ACS) 5-year Estimates.

Figure 2.4 shows the racial/ethnic breakdown in the CAMPO area in 2020. The percent of Hispanic population within the region is at its highest point of the last ten years reaching almost one-quarter percent of the CAMPO population, as shown in Figure 2.5. This percentage share is forecasted to continue growing over the coming decades according to the Nevada Department of Taxation (Table 2.1). To facilitate effective, equitable community outreach, it is vital to ensure that engagement strategies include translated materials, partnerships with local Hispanic community groups, and an understanding of how to best collaborate with stakeholders in that community.

Figure 2.5: Hispanic Population and Percentage of Total Population (2020)



Source: ACS Demographic and Housing Estimates, Table DP05. Annual Estimates from American Community Survey (ACS) 5-year Estimates.

Table 2.1: 2022-2041 Nevada State Demographer Population Projections

Five-Year Cohorts	Carson City			Douglas County			Lyon County		
	Year 2022	Year 2041	Percent Change 2022-2041	Year 2022	Year 2041	Percent Change 2022-2041	Year 2022	Year 2041	Percent Change 2022-2041
Ages 0-4	2,600	3,451	**33%**	1,741	1,843	6%	3,231	3,727	**15%**
Ages 5-9	2,433	4,086	**68%**	2,305	2,391	4%	3,515	4,096	**17%**
Ages 10-14	2,612	3,955	**51%**	2,813	2,735	-3%	3,430	4,022	**17%**
Ages 15-19	4,658	3,742	-20%	2,089	2,462	**18%**	3,725	3,963	6%
Ages 20-24	2,768	2,528	-9%	1,807	1,616	-11%	3,205	3,647	**14%**
Ages 25-29	2,769	2,557	-8%	1,696	2,020	**19%**	3,785	3,765	-1%
Ages 30-34	4,419	5,032	**14%**	3,086	2,399	-22%	4,995	3,856	-23%
Ages 35-39	3,751	4,168	11%	2,780	2,837	2%	2,185	4,284	**96%**
Ages 40-44	2,358	2,954	**25%**	2,452	3,348	**37%**	3,245	4,350	34%
Ages 45-49	3,614	2,679	-26%	2,640	3,611	**37%**	3,529	4,895	**39%**
Ages 50-54	4,339	3,899	-10%	2,898	4,025	**39%**	3,970	5,046	**27%**
Ages 55-59	4,917	2,781	-43%	3,697	3,298	-11%	3,853	2,947	-24%
Ages 60-64	2,868	2,826	-1%	4,233	3,811	-10%	3,893	4,102	5%
Ages 65-69	4,988	3,622	-27%	4,589	4,119	-10%	4,068	3,911	-4%
Ages 70-74	3,230	5,384	**67%**	3,865	3,955	2%	3,211	3,881	**21%**
Ages 75-79	2,220	2,966	**34%**	2,773	3,577	**29%**	2,362	2,834	**20%**
Ages 80-84	1,178	1,953	**66%**	1,873	2,661	**42%**	1,638	2,150	**31%**
Ages 85 over	1,724	3,093	**79%**	1,740	2,839	**63%**	1,194	2,200	**84%**
Total	**57,446**	**61,674**	**7%**	**50,076**	**53,549**	**7%**	**59,035**	**67,678**	**15%**
Sex									
Female	29,511	32,292	9%	25,585	28,192	10%	29,560	34,203	16%
Male	27,935	29,382	5%	24,491	25,358	4%	29,476	33,475	14%
Race & Ethnicity									
Race and Ethnicity White Not of Hispanic Origin	40,112	29,889	-25%	39,502	37,877	-4%	45,695	49,232	8%
Black Not of Hispanic Origin	800	825	3%	357	737	**106%**	668	970	**45%**
American Indian, Eskimo, or Aleut Not of Hispanic Origin	1,403	1,335	-5%	1,329	1,942	**46%**	1,700	1,909	12%
Asian or Pacific Islander Not of Hispanic Origin	1,159	1,089	-6%	1,608	2,311	**44%**	1,182	1,861	**57%**
Hispanic Origin of Any Race	13,972	28,537	**104%**	7,280	10,683	**47%**	9,791	13,706	**40%**

*Highlighted areas note age cohorts with growth rates at or above 14%
** Source: Nevada Department of Taxation:
https://tax.nv.gov/uploadedFiles/taxnvgov/Content/TaxLibrary/2022_ASRHO_Estimates_and_Projections.pdf

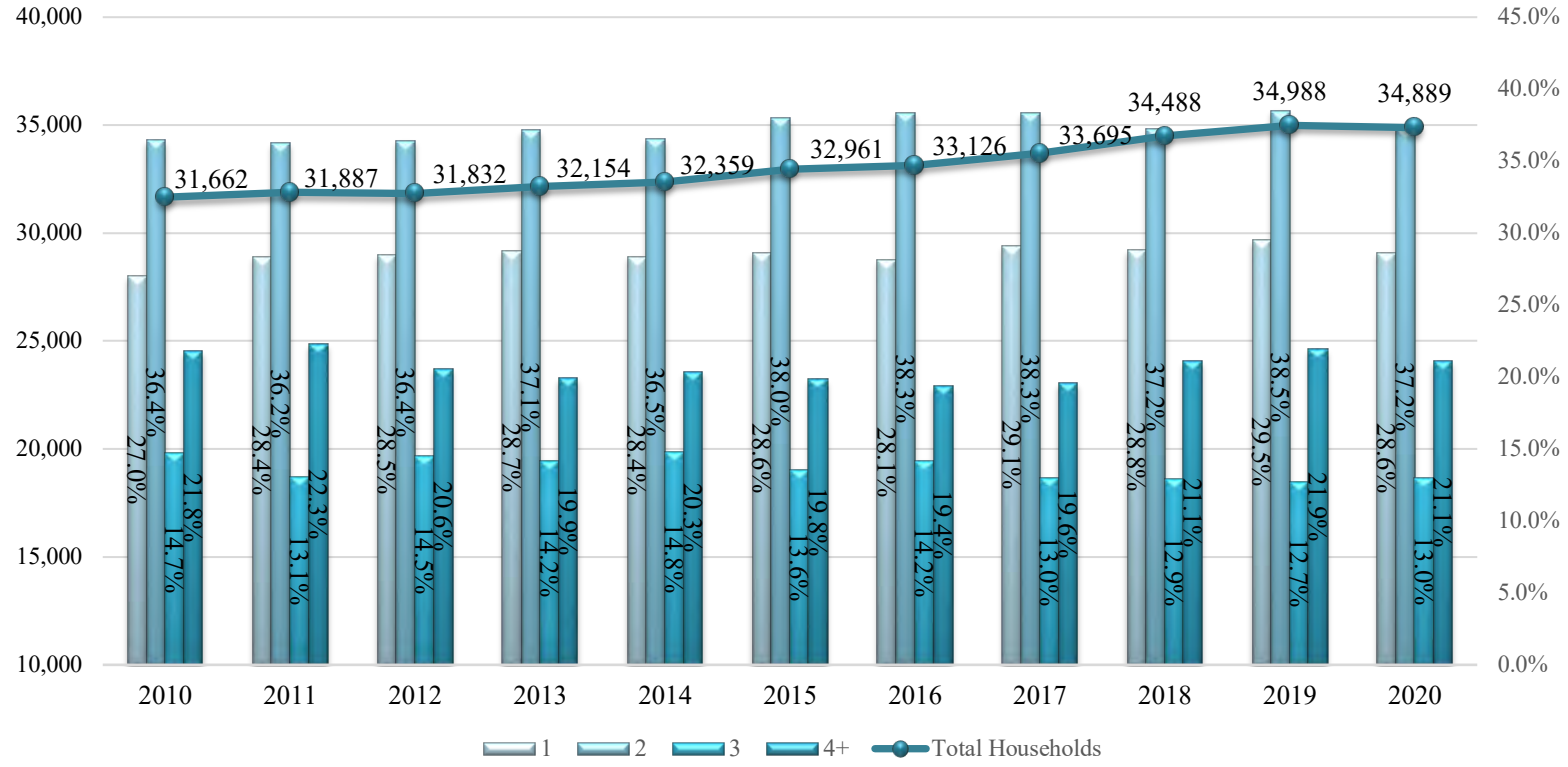
Over the next 30 years, demand for the transportation system will grow and evolve. The Carson Area is forecasted to have low annual growth. In total, between the years 2020 and 2050, CAMPO's population is anticipated to grow by approximately 24%, to approximately 105,000 people. Population estimates for 2022 through 2041 (Table 2.1) from the Nevada Department of Taxation anticipate a growing senior population that will necessitate investment in safety enhancements to address seniors with changing needs, related to diminishing eyesight, hearing, and slower reaction times and decision-making. Investment in public transportation, pedestrian, and bicycle facilities will be important for providing an aging population with mobility options and independence, along with improved integration and mobility for all system users.

As depicted in Table 2.1, growth in young, family-age cohorts, including adults between ages 30 and 49 and children between the ages of 1 and 15 are also anticipated. Like seniors, young children have challenges with eyesight, reaction times, and decision-making that pose potential safety risks when interacting with the transportation network. At younger ages, children are developing their vision and depth perception and lack the ability to make good judgments when interacting with roadways and pedestrian walkways. Older children are challenged with having a sense of invulnerability and making poor judgment calls. Given these similar characteristics, CAMPO's 2050 RTP identifies the need to prioritize projects that benefit the most vulnerable users: children and seniors.

2.2 Households

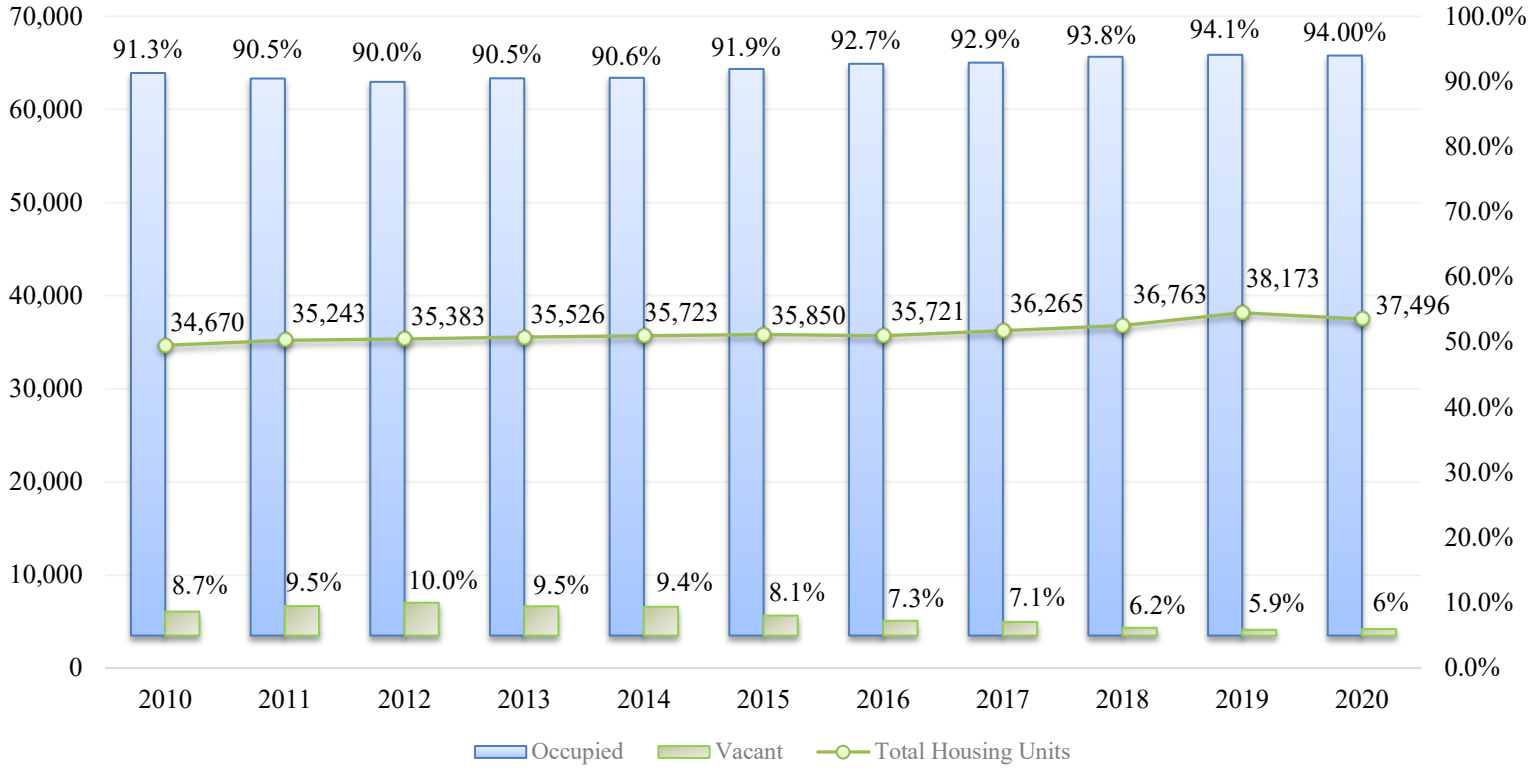
A community's distribution of household size has implications on the number and types of daily trips. Larger households tend to be comprised of families with children, which may generate travel for school and after-school activities, while smaller households may generate fewer trips overall, but may have more flexibility in their schedules to generate longer, inter-regional or interstate trips. Figure 2.6 displays the distribution of household size from 2010 to 2020. A household includes all people occupying a housing unit. The household size equals the number of persons per household and is expressed as a percentage in Figure 2.6. Over the ten-year reporting period, households in the CAMPO Area are becoming smaller. The proportion of large households (3 or 4+ persons) has lost 2.4 percentage points to 1 or 2-person households over the course of the decade. This trend is anticipated to continue as a greater percentage of the population ages.

Figure 2.6: Total/ Percent Household Size (2010-2020)



Source: ACS Household Size by Vehicles Available, Table B08201. Annual Estimates from American Community Survey (ACS) 5-year Estimates.

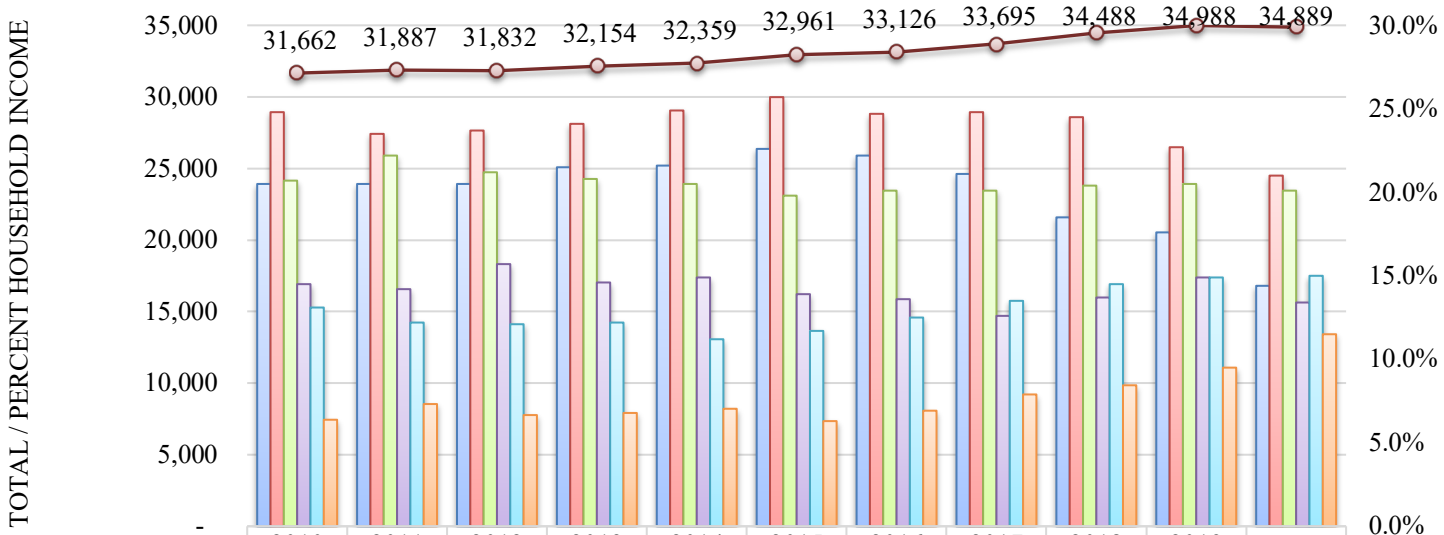
Figure 2.7: Housing Unit/ Percent Occupancy Status (2010-2020)



Source: ACS Occupancy Status, Table B25002. All Annual Estimates Represent American Community Survey (ACS) 5-year Estimates.

A housing unit is a house, apartment, a mobile home, a group of rooms, or an occupied single room, separated from other living quarters. Housing unit occupancy is an indicator of population growth and economic activity, which results in additional demand on the transportation system. Long-term increases in housing unit occupancy can result in local zoning ordinance policy changes to encourage higher densities, which over time, can lead to more pedestrian, bicycle, and transit trips in place of traditional automobile trips. Housing occupancy rates are also correlated with housing affordability, with higher occupancy rates being tied to the more expensive housing stock. Figure 2.7 displays the vacancy/occupancy status of housing units between 2010 to 2020. Over the ten-year reporting period, the occupancy rate has increased reaching its highest point of 94.1% in 2019. The occupancy rate has increased by 2.7% since 2010. The vacancy rate has decreased by 2.7% since 2010.

Figure 2.8: Household Income (2010-2020)



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Less than $25,000	20.5%	20.5%	20.5%	21.5%	21.6%	22.6%	22.2%	21.1%	18.5%	17.6%	14.4%
$25,000-$49,999	24.8%	23.5%	23.7%	24.1%	24.9%	25.7%	24.7%	24.8%	24.5%	22.7%	21.0%
$50,000-$74,999	20.7%	22.2%	21.2%	20.8%	20.5%	19.8%	20.1%	20.1%	20.4%	20.5%	20.1%
$75,000-$99,999	14.5%	14.2%	15.7%	14.6%	14.9%	13.9%	13.6%	12.6%	13.7%	14.9%	13.4%
$100,000-$149,999	13.1%	12.2%	12.1%	12.2%	11.2%	11.7%	12.5%	13.5%	14.5%	14.9%	15.0%
$150,000 or More	6.4%	7.3%	6.7%	6.8%	7.0%	6.3%	6.9%	7.9%	8.4%	9.5%	11.5%
Total Households	31,662	31,887	31,832	32,154	32,359	32,961	33,126	33,695	34,488	34,988	34,889

Source: ACS Selected Economic Characteristics, Table DP03. Annual Estimates from American Community Survey (ACS) 5-year Estimates.

Figure 2.8 displays reported household income from 2010 to 2020. The number of households has increased by 10% from 2010 to 2020. The percentage of total households earning less than $25,000 has decreased by six percentage points over the decade, while the percentage of total households earning $150,000 or more has almost doubled since 2010. These changes in percentage mark a historic low and high, respectively.

2.3 Jobs-Housing Balance

The jobs-housing balance is the ratio of jobs to housing within the CAMPO Area. Typically, a jobs-housing balance of 1.5 is considered healthy; where there is an average of one full-time job and one part-time job per household If a jobs-housing balance is too high, adequate housing may be unaffordable or unavailable to workers and can possibly lead to housing unaffordability or increased traffic congestion from in-commuting workers. If a jobs-housing balance is too low, there may not be enough jobs in the area for all workers and may lead to traffic congestion from out-commuting workers. The 'jobs' side of the equation is calculated from the Current Employment Statistics from the Nevada Labor Market Information [1] The 'housing' side of the equation is sourced from the ACS Table DP03: A total number of households cited in Figure 2.6 minus the number of households with retirement income. This accounts for the higher number of retirees within the CAMPO Area.

2010 CAMPO JOBS - HOUSING BALANCE

$$\frac{\text{\# CAMPO Jobs}}{\text{[\# CAMPO Households – \# CAMPO Household's w/ Retirement Income]}} = \frac{29{,}000}{[31{,}662 - 7{,}449]} = 1.20$$

2020 CAMPO JOBS - HOUSING BALANCE

$$\frac{\text{\# CAMPO Jobs}}{\text{[\# CAMPO Households – \# CAMPO Household's w/ Retirement Income]}} = \frac{30{,}700}{[34{,}889 - 9{,}347]} = 1.20$$

> *"What benefits would accrue from balancing job and housing growth? For one, commute distances would be shortened and the share of nonmotorized trips, namely those made my walking and cycling, would increase. In addition, the number of miles logged on areawide roads each day would fall, as would energy consumption and the emission of vehicle pollutants. Perhaps equally important, jobs-housing balance would produce well-defined commutesheds wherein local neighborhood traffic is segregated from regional through-traffic...With shorter journeys, neighborhood streets would handle a greater share, albeit not necessarily a greater volume, of work trips while removing some cars from already over-burdened regional thoroughfares. Last, jobs-housing balance could promote larger social objectives. The provision of affordable housing closer to suburban job centers would vastly increase the residential opportunities of America's working class and would help reduce housing discrimination. In sum, many of the nation's most pressing and persistent metropolitan concerns -- congestion, energy depletion, air pollution, sprawl, and class segregation -- would be relieved by balancing job and housing growth."* [2]

During the last decade the number of jobs has increased by 7% and the number of housing units has increased by about 8%. As indicated in Table 2.1, there is an increasing population of CAMPO residents aged 70 and older. Over the last decade, there has been a 20% increase in total households that receive retirement income. The jobs-housing balance in CAMPO has remained stable for the last decade.

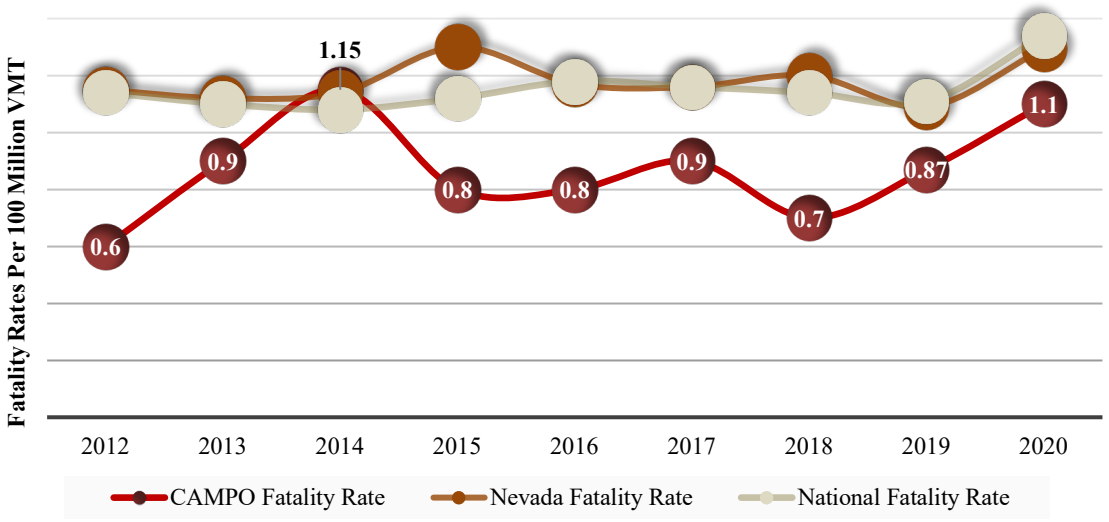
[1]https://nevadaworkforce.com/CES

[2]Cervero Robert.[1] "Jobs-Housing Balancing and Regional Mobility." APA Journal (American Planning Association), Spring 1989, p.136-150. Reprint available at: http://escholarship.org/uc/item/7mx3k73h. [1]University of California Transportation Center.

2.4 Safety

CAMPO monitors fatality rates compared with state and national trends. A comparison of the fatality rate per 100 million vehicle miles of travel of the Nation, State of Nevada, and CAMPO is displayed in Figure 2.9. CAMPO's member agencies continually aim to infuse safety elements and best practices into all transportation projects. This includes FHWA's Proven Safety Countermeasures Initiative, which identifies safety treatments and strategies that are encouraged to be implemented by state, tribal, and local transportation agencies to reduce serious injuries and fatalities. CAMPO has reported significantly lower fatality rates than the state of Nevada and the United States since 2015. Notably, 2020 was one of the deadliest years for CAMPO, Nevada, and the United States.

Figure 2.9: Comparative Fatality Rates (2012-2020)



Source: https://www.fhwa.dot.gov/tpm/

Each year, about one quarter of traffic fatalities and one half of all traffic injuries in the United States are attributed to intersections.[1] CAMPO staff analyzed all signalized intersections for total crashes, crash rate and number of severe crashes. The results can be seen in Figures 2.10 and 2.11. The number and severity of crashes is highest along Highway 50 east of I-580. It is expected to see more crashes where there are higher vehicle volumes (Figures 5.4 - 5.7). A crash rate was calculated to understand the number of crashes in relation to vehicle volume (Figure 2.10). A crash rate analysis can provide a more effective comparison of similar locations with safety issues. This analysis is key to data driven decision making and prioritizing safety in the CAMPO Area.

1 https://safety.fhwa.dot.gov/intersection/about/

Figure 2.10: Signalized Intersection Crash Rate per Million Vehicles (2016-2020)

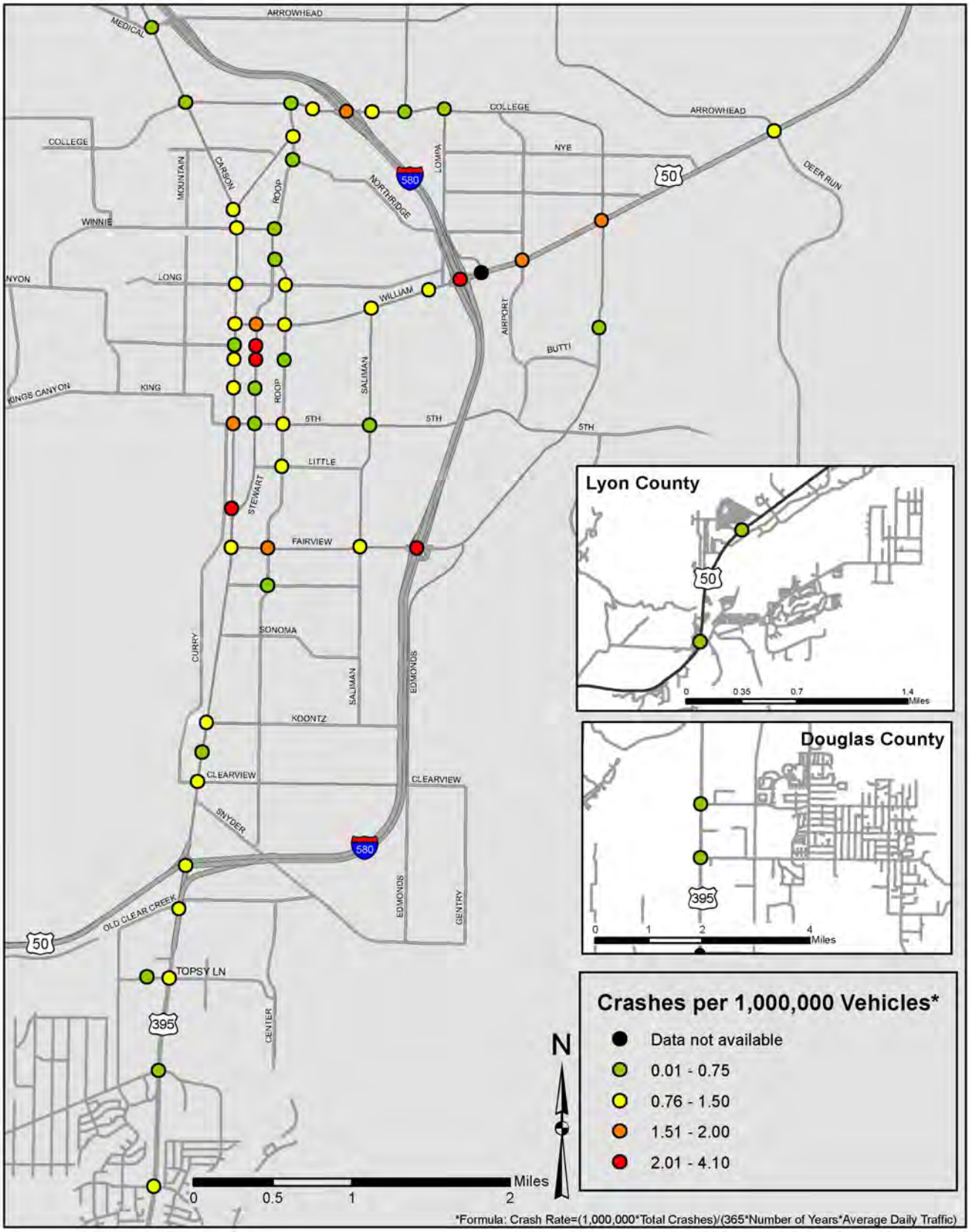
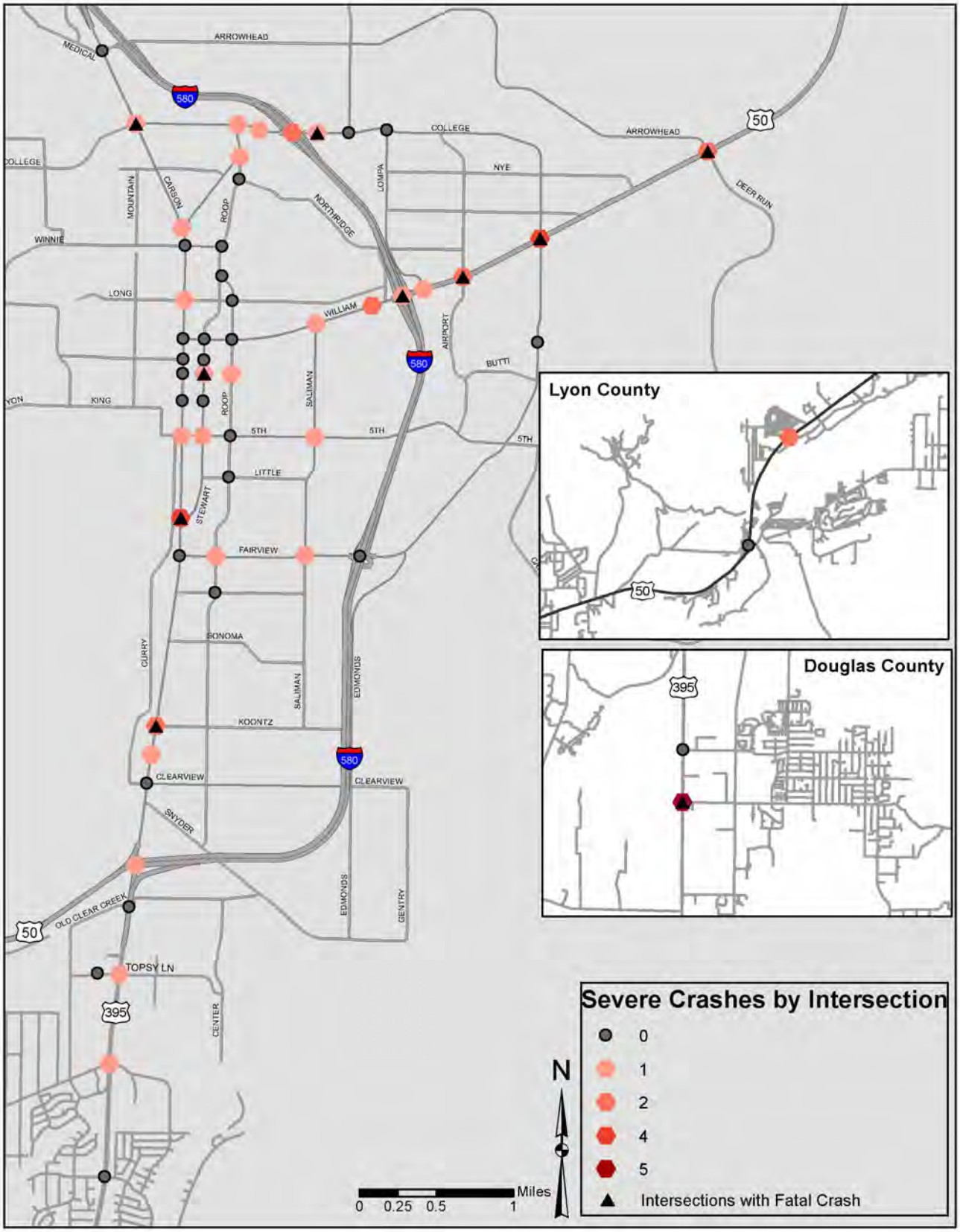


Figure 2.11: Number of Severe Crashes per Signalized Intersection (2016-2020)



Nevada Strategic Highway Safety Plan (SHSP)[5]

The Nevada Department of Transportation and Department of Public Safety formed a Technical Working Group to develop a statewide safety plan in 2004, with a recent update in 2021 for the years 2021-2025. Nevada's Strategic Highway Safety Plan (SHSP) is a comprehensive data-driven statewide safety plan that identifies the highest causes of fatalities and serious injuries on Nevada's roadways and provides a coordinated framework for reducing the crashes that cause fatalities and serious injuries. The SHSP establishes statewide goals and critical emphasis areas focusing on the 6 E's of traffic safety: Equity, Engineering, Education, Enforcement, Emergency Medical Services/Emergency Response/Incident Management, and Everyone. Goals and strategies are developed in consultation with federal, tribal, state, local, and private-sector safety stakeholders. The purpose of the SHSP is to eliminate traffic-related fatalities and serious injuries by combining and sharing resources across disciplines and strategically targeting efforts to the areas of greatest need. Nevada has enlisted state, local, tribal, and federal agencies; institutions; private-sector firms; and concerned citizens to help solve this problem.

6 E's of Traffic Safety

1. **Equity**
2. **Engineering**
3. **Education**
4. **Enforcement**
5. **Emergency Medical Services**
6. **Everyone**

2.4.1 Safety Performance Measures

The performance of the roadway system is monitored and evaluated through a series of performance measures, established in the Moving Ahead for Progress in the 21st Century (MAP-21) Act and required by the Fixing America's Surface Transportation (FAST) Act. The Federal Highway Administration (FHWA) has established defined performance measures and target-setting methodology for MPOs and state transportation agencies to monitor and report. The performance measures are aimed at tracking safety, infrastructure condition, and system performance. Developing transportation projects and programs that aim to address these performance measures will help CAMPO's member agencies be competitive when applying for State and Federal discretionary grant funding. Notably, between fiscal years (FY) 2017 and 2022, 83 percent of existing funding within the CAMPO Area is from a state or federal source.

A top priority of CAMPO's Regional Transportation Plan is to increase the safety of the transportation system for all its users. The U.S. Department of Transportation (U.S. DOT) FHWA Safety Performance Measure (PM) Final Rule establishes requirements to assess fatalities and serious injuries on public roads. The five established performance measures, based on a five-year rolling average, are:

Safety Performance Measures

1. Number of Fatalities
2. Rate of Fatalities per 100 million Vehicle Miles Traveled
3. Number of Serious Injuries
4. Rate of Serious Injuries per 100 million Vehicle Miles Traveled
5. Number of Non-motorized Fatalities and Serious Injuries

[5] Nevada Strategic Highway Safety Plan (SHSP) - https://zerofatalitiesnv.com/safety-plan-what-is-the-shsp

These performance measures create a consistent method to count and gauge the safety of CAMPO's Transportation Network. The Fatality Analysis Reporting System (FARS) and the National Highway Transportation Safety Administration (NHTSA) provide the data for measuring fatalities and serious injuries, respectively. Vehicle Miles Traveled (VMT) statistics are estimated using the statewide travel demand model maintained by the Nevada Department of Transportation (NDOT).

Target-Setting Process - The Safety PM Final Rule establishes the process for State Departments of Transportation (DOTs) and Metropolitan Planning Organizations (MPOs) to adopt and report safety targets along with a set of performance measures to assess progress toward targets. MPOs shall establish their performance targets for each of the five measures no later than 180 days after the State submits annual targets.

State Targets - NDOT's statewide targets are reported in their Highway Safety Improvement Program Annual Report.

CAMPO Requirements for Safety Target-Setting - CAMPO may choose to support the State's targets or establish CAMPO-specific targets for one or more of the five performance measures noted above. Performance targets must be set annually by the MPO Board.

Each year staff analyzes alternative statistical trend line projections to evaluate appropriate targets for the CAMPO planning Area. Crash data becomes available approximately ten months after the close of each calendar year. A five-year baseline projection trend is required to be evaluated. Additional projection trends are encouraged to be evaluated against the five-year baseline. Targets must be data-driven, realistic, and attainable.

CAMPO adopts targets by February 28th of each year. This Monitoring Report does not adopt any new targets. A 0.5% reduction of the five-year baseline trend was adopted for CAMPO's 2018, 2019, and 2020 targets, for each of the five required performance measures. In a review of the 2020 Targets, CAMPO did not meet four of the five targets, which are highlighted in red below. Table 2.2 contains information on the five safety performance measures, including the five-year baseline data and CAMPO's relative 2018-2021 targets, respectively.

Since February 2021, CAMPO has chosen to support Nevada statewide safety targets in lieu of the CAMPO-specific targets used previously.

Table 2.2: Safety Performance Measure Data and Targets

		Fatalities			Serious Injuries			Fatalities and Serious Injuries Non-Motorized			Rate of Fatalities		Rate of Serious Injuries		Vehicles Miles Traveled
		Target	#	Rolling Average	Target	#	Rolling Average	Target	#	Rolling Average	Target	Rate	Target	Rate	(VMT)
Year	2008	-	1	-	-	12	-	-	6	-	-	-	-	-	-
	2009	-	2	-	-	7	-	-	2	-	-	-	-	-	-
	2010	-	6	-	-	8	-	-	1	-	-	-	-	-	-
	2011	-	5	-	-	8	-	-	0	-	-	-	-	-	458,370,939
	2012	-	1	3	-	7	8.4	-	5	2.8	-	0.64	-	1.79	470,558,752
	2013	-	9	4.6	-	11	8.2	-	7	3	-	0.94	-	1.68	487,520,736
	2014	-	8	5.8	-	12	9.2	-	12	5	-	1.19	-	1.89	487,200,339
	2015	-	3	5.2	-	8	9.2	-	5	5.8	-	0.91	-	1.61	571,234,641
	2016	-	7	5.6	-	10	9.6	-	8	7.4	-	0.9	-	1.55	619,768,739
	2017	-	6	6.6	-	2	8.6	-	6	7.6	-	0.97	-	1.27	677,473,469
	2018	5.57	5	5.8	9.55	11	8.6	7.36	4	7	0.9	0.83	1.54	1.24	696,272,881
	2019	6.57	8	5.8	8.56	13	8.8	7.56	3	5.2	0.97	0.87	1.26	1.32	665,777,895
	2020	6.24	8	6.8	8.13	11	9.4	6.97	5	4.9	0.83	1.29	1.23	1.78	617,009,797
	2021	6.61			9.09			4.74			0.98		1.35		673,191,017
	2022	*			*			*			*		*		

1. Targets for Fatalities, Serious Injuries, and Non-Motorized Fatalities & Injuries are calculated based on 5-year rolling averages with future years interpolated based on Zero Fatalities in 2050.
2. Rolling averages consist of a five-year rolling average, which includes the reporting year
3. Serious Injuries are when an injured person is unable to leave the accident scene without assistance
4. Rate of Fatalities and Serious Injuries are per 100 million Vehicle Miles Traveled (VMT)- Example: 2021 Target Rate of Fatalities =Target Fatalities*CAMPO VMT/100 Million=6.61/6.73=0.98
5. Green shading denotes target was met; red shading denotes target was not met.

* Since February 2021, CAMPO has supported the State's safety targets in lieu of using CAMPO-specific targets. CAMPO has not received the numbers of fatalities and serious injuries for 2021 so therefore cannot calculate the actual and average safety performance measures for 2021.

Chapter 3 – WHAT: Mobility Network

The accessibility, availability, connectivity, efficiency, and safety of traveling on the transportation network all influence how people travel between destinations. Road design, pavement condition, and travel time all influence the viability of vehicle trips. Connectivity and level of safety influence the probability of short- or long-distance bicycle travel. Connectivity, accessibility (e.g. presence of Americans with Disabilities (ADA) compliant curb ramps), and convenience influence whether someone chooses to walk to their destination. The locations of bus stops and bus frequency, or headway, will determine whether someone chooses to take transit.

How and where each of the mobility modes connects with other modes further determines the feasibility of those modes. For example, the ability of someone to leave their house, safely bicycle to the bus stop, load their bicycle onto the bus, take the bus to a location in proximity to their employment, and secure their bicycle once they arrive directly influences which mode of transportation someone will utilize. In the winter months when it gets dark early, the presence of street lighting along sidewalks, bicycle lanes, and bus stops further influences mode choice decisions. When a mode of transportation is not efficient, easy-to-use, or safe, travelers may choose not to make the trip at all or choose a transportation mode that they perceive to be easier or quicker. By monitoring the location and characteristics of all modes in the mobility network, CAMPO is better informed and equipped to plan for and manage the region's use of, and demand for, regional transportation infrastructure connecting travelers with their destinations.

3.1 - Roadways

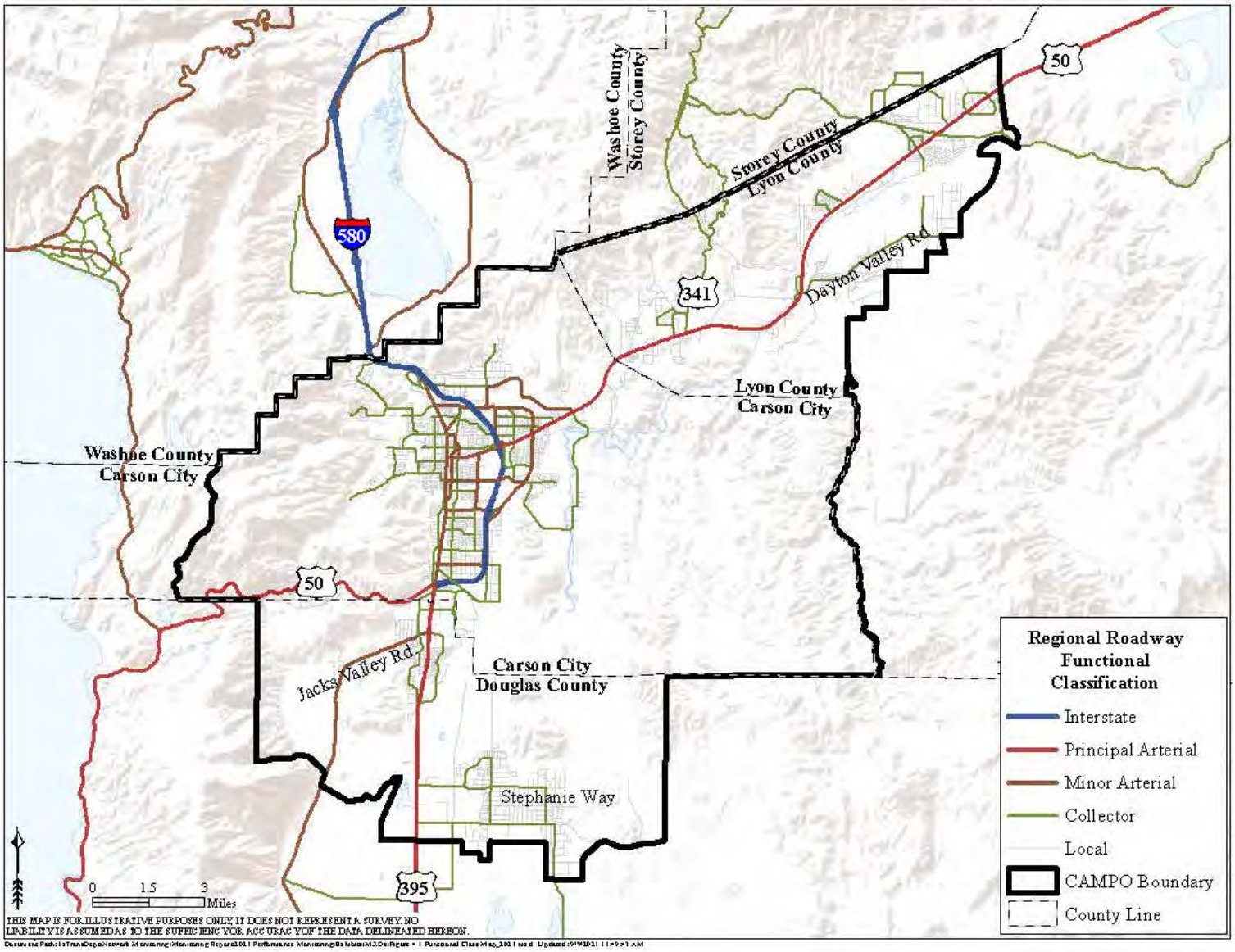
The roadway system is of central importance to the region's economy and influences the quality of life for people living and traveling in the Carson Area. As required by the Federal government for use of federal funds, CAMPO is responsible for collecting data and tracking the performance of investments made to the transportation network. Performance measures designed to track progress toward adopted goals and targets allow CAMPO to evaluate the effectiveness of regional investment over time. Information from the data is used to prioritize investments that allow vehicles and other modes to utilize the transportation network efficiently and safely. This information is used to inform planning, design, pavement management, capital improvements, operations, and maintenance activities.

To be eligible for federal funding, federal regulations require a roadway to be functionally classified. Functional classification is the process by which streets and highways are grouped into classes according to the character of the service they are intended to provide. Functional classification can be explained through the interrelationship between two concepts: roadway mobility and roadway accessibility. While these two functions lie at opposite ends of the continuum of roadway function, most roads provide some combination of each.

Roads with higher classifications serve the mobility needs of a greater number of people and typically carry more traffic. Roads with lower classifications tend to provide access more to individual properties than serve the mobility needs of a greater number of people. These two roles can be best understood by examining two extreme examples. Interstate I-580 through Carson City provides motorists the ability to travel long distances on a facility that completely serves their "mobility" needs. No location is immediately "accessible" to the roadway. In contrast, Appaloosa Court in Carson City is traveled almost exclusively by the individuals that live along the roadway. Hence, the roadway entirely provides "accessibility" and offers almost nothing in terms of mobility.

Those roadways that provide a high level of mobility are called “arterial roads”; those that provide a high level of accessibility and local access are called “local (neighborhood) roads”; and those that provide a more balanced blend of mobility and accessibility – collecting and funneling travelers between the two ends of the roadway mobility/accessibility spectrum - are called “collector roads.” Figure 3.1 displays the functional classification of roadways within CAMPO’s Metropolitan Planning Area. The classification of roadways is a joint effort between local, regional, state, and federal agencies.

Figure 3.1: 2020 Roadway Functional Classification Map



Source: https://www.nevadadot.com/travel-info/maps/functional-classification-maps

3.2 Local Roadway Pavement Condition

The roadway network provides vehicle mobility and is by far one of the most significant investments made by local agencies. Preservation of the roadway network has been identified as a high priority by federal, state, regional, and local agencies. The adopted 2019-2023 Pavement Management Plan was developed through a partnership between Carson City Public Works and CAMPO. The plan serves as a framework for preserving, rehabilitating, and reconstructing Carson City's and CAMPO's roadway network. Although the plan was originally developed to incorporate only Carson City's roadways, CAMPO has since collected Pavement Condition Index (PCI) data for Douglas County roads within the Metropolitan Planning Area and looks forward to eventually supporting Pavement Management planning for Western Lyon County as well.

The plan tracks pavement condition over time, using pavement management software and professional services to survey the condition of roadways. This methodology utilized within the plan allows staff to set targets and annually evaluate the allocation of resources for maintaining pavement infrastructure. The pavement survey assigns a PCI rating to sections of the roadway. The PCI rating is calculated using standards developed by the U.S. Army Corps of Engineers and measures the type, extent, and severity of pavement surface distresses and smoothness of the road. The PCI helps to evaluate the rate of pavement deterioration and develop an appropriate pavement management strategy.

The following PCI ranges are used to help determine the pavement condition:

- Satisfactory to Good – PCI 70-100
- Poor to Fair – PCI 40-69
- Failed to Very Poor – PCI 0-39

Table 3.1 presents the PCI for roadways within Carson City. Per the pavement management plan, Carson City is divided into five performance districts. The data reflects increases in regional road PCI in the Performance Districts that were allocated funding during the first two years of Pavement Management Plan implementation: District 1 (2019) and District 2 (2020). An increase in the Regional Road PCI in District 4 is also observed, attributable to the recently completed South Carson Complete Streets Project. Overall, Carson City roadway condition has decreased 2 percent since completion of the last survey in 2017, with local road condition deteriorating by 9 percent. Regional Road PCI has improved as a result of the RTC's efforts and one-time federal transportation grant projects. To reverse the deterioration, additional resources must be invested in the roadway system.

Table 3.1: Carson City Pavement Condition Index – Annual Report Card

Facility Type		Estimated PCI		Percent Change 2017 to 2022
		2017	2022	
City-wide	Regional Roads	67	74	10%
	Local Roads	61	56	-9%
	All Roads	63	62	-2%
Performance District 1	Regional Roads	67	69	3%
	Local Roads	62	57	-7%
	All Roads	64	61	-4%
Performance District 2	Regional Roads	73	80	9%
	Local Roads	64	53	-18%
	All Roads	67	63	-7%
Performance District 3	Regional Roads	72	77	6%
	Local Roads	57	58	1%
	All Roads	62	64	3%
Performance District 4	Regional Roads	61	79	28%
	Local Roads	58	51	-13%
	All Roads	59	61	2%
Performance District 5	Regional Roads	64	65	2%
	Local Roads	66	60	-10%
	All Roads	65	62	-6%

It is important to note that the PCI values are beginning to decline at a faster rate (see Table 3.1 and Figure 3.2). This is because the bulk of the City's roads are approaching the performance curve that has the sharpest decline, which is approximately between 69 PCI and 25 PCI. For reference, the average PCI for local roads is 56, which is right in the middle of the mentioned range. Figure 3.2 illustrates the steepest deterioration rates between 69 PCI and 25 PCI.

CAMPO completed its pavement survey in Douglas County for the portion of Douglas County within the CAMPO Metropolitan Planning Area in 2019. An updated Carson City pavement survey was completed in early 2022. The pavement condition for arterial and collector roadways within CAMPO and the percentage of all roadways with a PCI rating of 55 or below are presented in Table 3.3 for Carson City and Douglas County. The 2022 pavement conditions for Northeastern, Northwestern, and Southern Carson City are provided in Figures 3.3 to 3.5.

Figure 3.2: Relationship between Road Pavement Condition (PCI) and Deterioration Rates

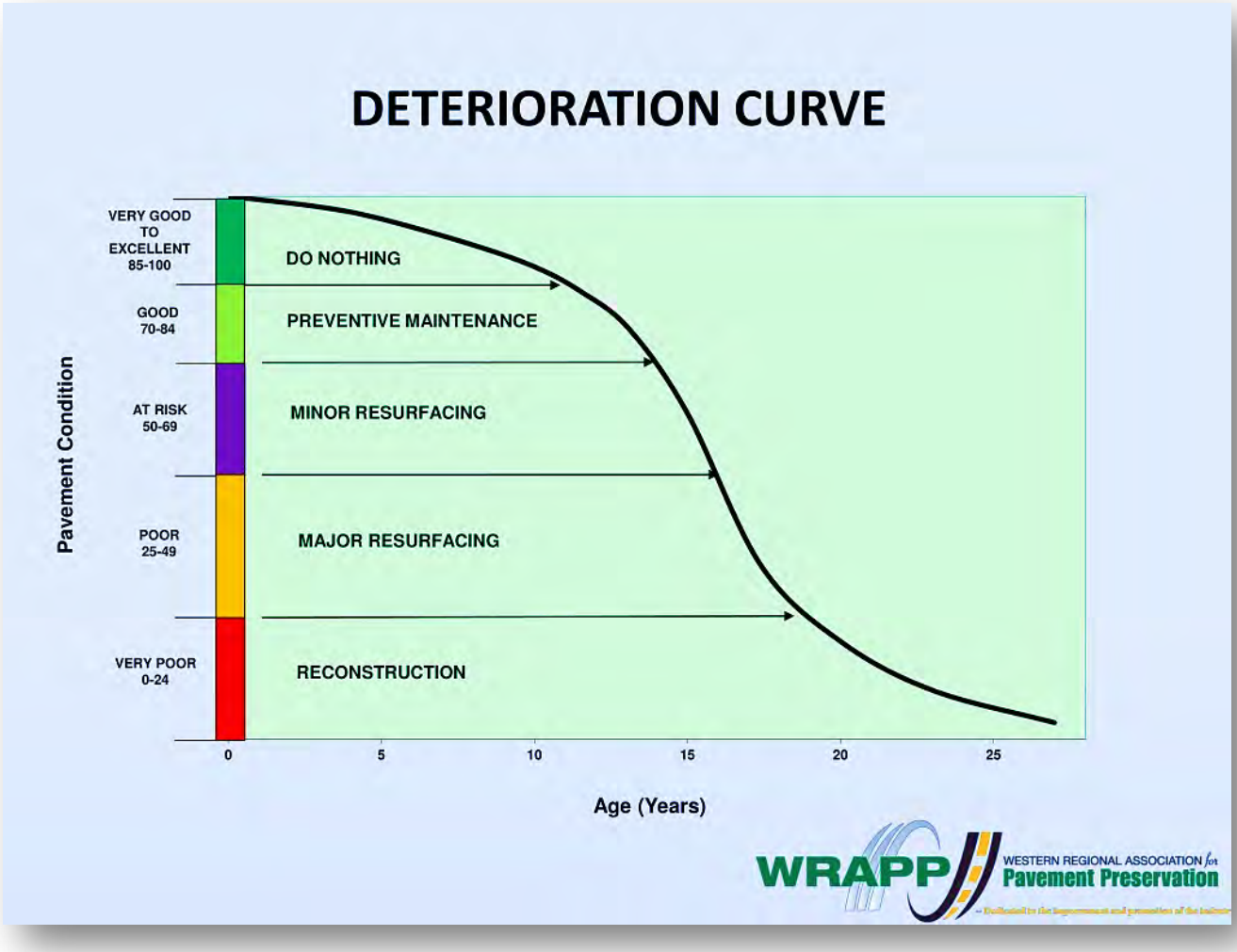


Table 3.3: Pavement Condition Index, Carson City & Douglas County

Pavement Condition Index by Jurisdiction*	Carson City		Douglas County	
	2016 (2040 RTP)	2020 (2050 RTP)	2016 (2040 RTP)	2020 (2050 RTP)
Average Pavement Condition Index (PCI)** rating for **collector** and **arterial** roadways within the CAMPO boundary by jurisdiction	68	74	76	72
Percentage of all roadways with a PCI rating of 55 or below in the CAMPO boundary by jurisdiction	24%	34%	30%	45%

*CAMPO currently does not have any pavement condition data for Lyon County
**Pavement Condition Index (PCI) is a scale of 0 to 100, 100 being the best

Figure 3.3: 2022 Carson City Pavement Condition – Northwest Carson City

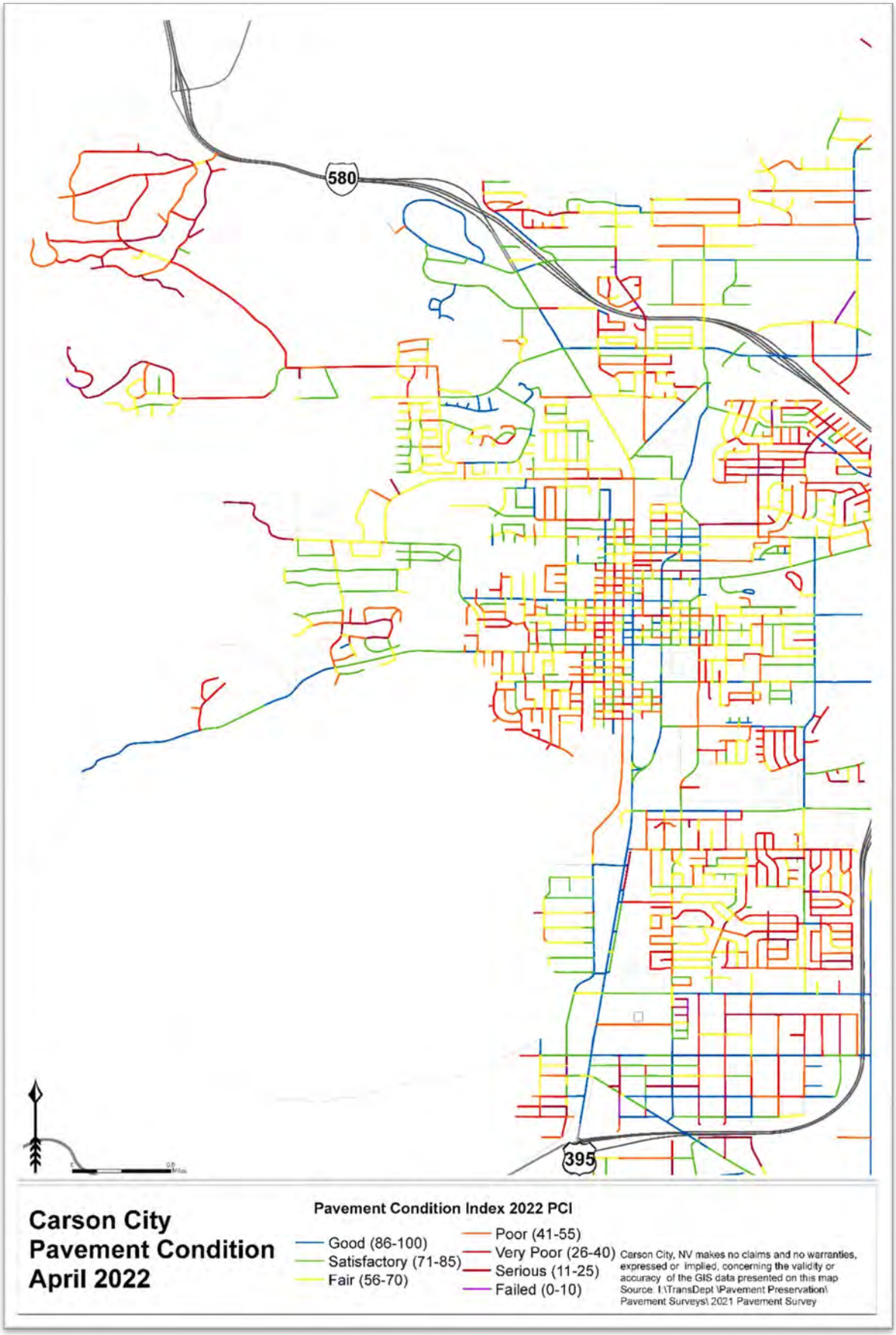


Figure 3.4: 2022 Carson City Pavement Condition – Northeast Carson City

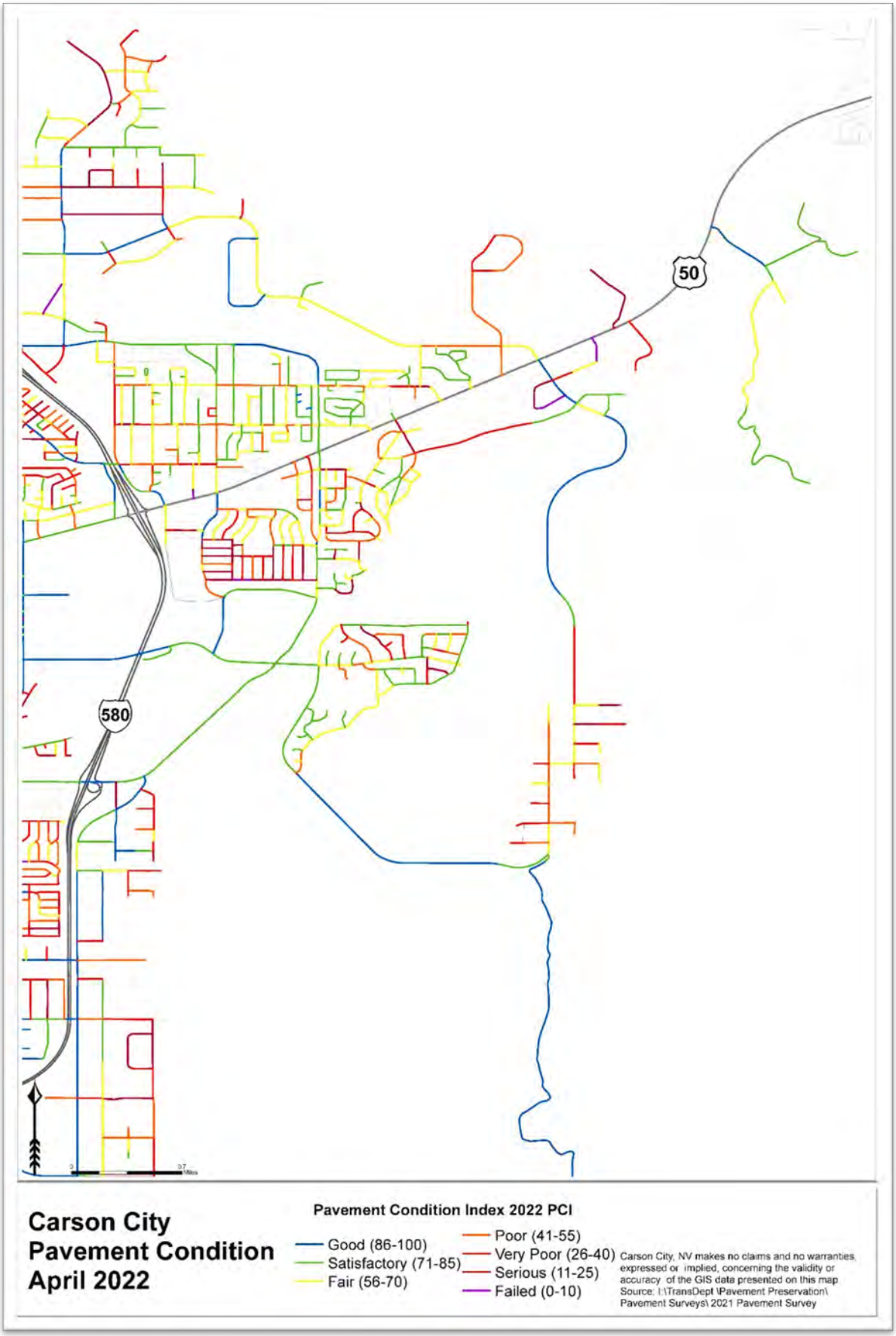
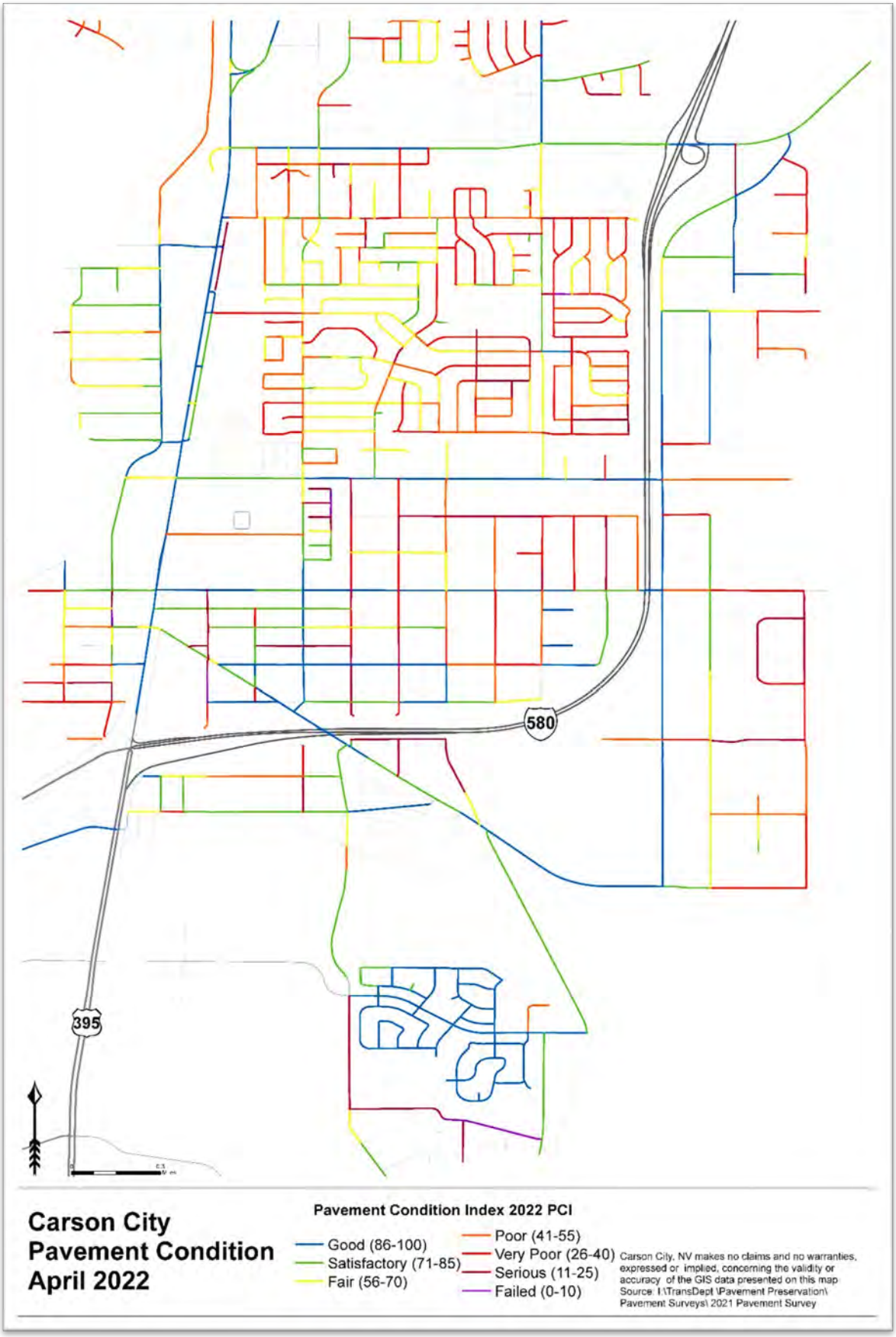


Figure 3.5: 2022 Carson City Pavement Condition – Southern Carson City



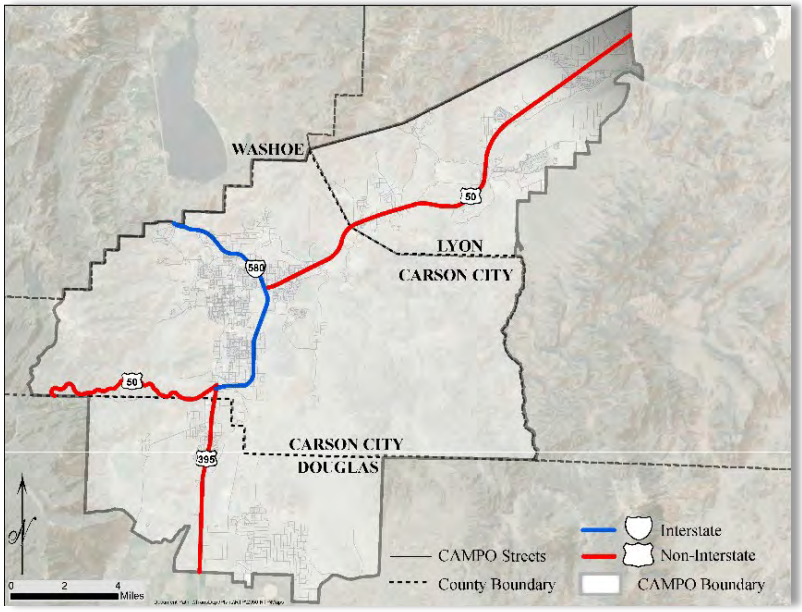
3.3 Pavement & Bridge Condition and System Reliability Performance Measures

FHWA published the Pavement and Bridge Condition Performance Measures Final Rules in the Federal Register on January 18, 2017, with an effective date of May 20, 2017. The rule established performance measures to assess the condition of pavements and bridges on the National Highway System (NHS) (see Figure 3.9).

Figure 3.9: National Highway System Roadways and Bridges within CAMPO's Boundary

Federally required performance measures for Pavement Condition are:

1. Percentage of Interstate pavements in Good condition
2. Percentage of Interstate pavements in Poor condition
3. Percentage of non-Interstate NHS pavements in Good condition
4. Percentage of non-Interstate NHS pavements in Poor condition



Pavement conditions for this Final Rule use the International Roughness Index (IRI) along with cracking, rutting, and faulting distresses to measure roadway condition. This is different than how local member agencies measure roadway condition. Local member agencies use the Pavement Condition Index (PCI) to measure pavement condition. The difference between IRI and PCI is that IRI measures smoothness or ride quality while PCI measures conditions based on surface distresses.

Federally required performance measures for Bridge Condition, which include all bridges on the NHS, including bridges that function as on- and off-ramps, are:

(1) Percentage of NHS bridges by deck area in Good condition
(2) Percentage of NHS bridges by deck area in Poor condition

The performance measures evaluate the bridge deck, bridge structure above ground, bridge structure below ground, and associated culverts. These evaluations are performed, monitored, and reported by NDOT. CAMPO monitors these performance measures to advocate for resources as needed.

FHWA published the National Highway System and Freight Performance Measures Final Rules in the Federal Register on January 18, 2017, with an effective date of May 20, 2017. Federally required performance measures for System Reliability, developed to assess the performance of the interstate and non-interstate segments of the National Highway System as well as regional freight movement, are:

(1) Interstate Travel Time Reliability Measure: Percent of person-miles traveled on the Interstate that are reliable
(2) Non-Interstate Travel Time Reliability Measure: Percent of person-miles traveled on the non-Interstate NHS that are reliable
(3) Freight Reliability Measure: Truck Travel Time Reliability (TTTR) Index

The Final Rules for Pavement Condition, Bridges, and System Reliability performance measures require a performance report which includes baseline conditions along with two- and four-year targets. MPOs can support NDOT's targets or establish their own, quantifiable targets. These performance measures are calculated, tracked, and reported by NDOT. CAMPO monitors these performance measures to advocate for resources as needed. CAMPO currently supports NDOT's two- and four-year targets for Pavement Condition, Bridge Condition, and System Performance measures. CAMPO staff has requested that NDOT provide all NHS data for these performance measures that are specific to CAMPO's Metropolitan Planning Area. Acquisition of this data will allow for a statewide and nationwide comparison. Table 3.4 contains the latest data provided by data for roadways and bridges on the National Highway System within CAMPO's Metropolitan Planning Area.

Table 3.4: Statewide Performance Measures for Pavement Condition, Bridge Condition, and System Reliability

Performance Measure	2020		
	Baseline	2-Year Target	4-year Target
Percentage of Pavements of the Interstate System in Fair or Better Condition	--	--	74.7%
Percentage of Pavements of the Interstate System in Poor Condition	--	--	1.4%
Percentage of Pavements of the Non-Interstate National Highway System (NHS) Classified as in Good Condition	79.4%	67.6%	55.8%
Percentage of Pavements of the Non-Interstate National Highway System (NHS) Classified as in Poor Condition	4.7%	5.7%	6.5%
Percentage of National Highway System (NHS) Bridges Classified as in Good Condition	42.2%	35.0%	35.0%
Percentage of National Highway System (NHS) Bridges Classified as in Poor Condition	0.5%	7.0%	7.0%
Percent of the Person-Miles Traveled on the Interstate that are Reliable	86.8%	≥ 86.9%	≥ 87.0%
Percent of the Person-Miles Traveled on the Non-Interstate National Highway System (NHS) that are Reliable	--	≥ 70.0%	≥ 87.0%
Truck Travel Time Reliability (TTTR) Index	1.28	≤ 1.28	≤ 1.26

Source: NDOT 2021 Performance Management Report
https://www.fhwa.dot.gov/tpm/reporting/state/state.cfm?state=Nevada

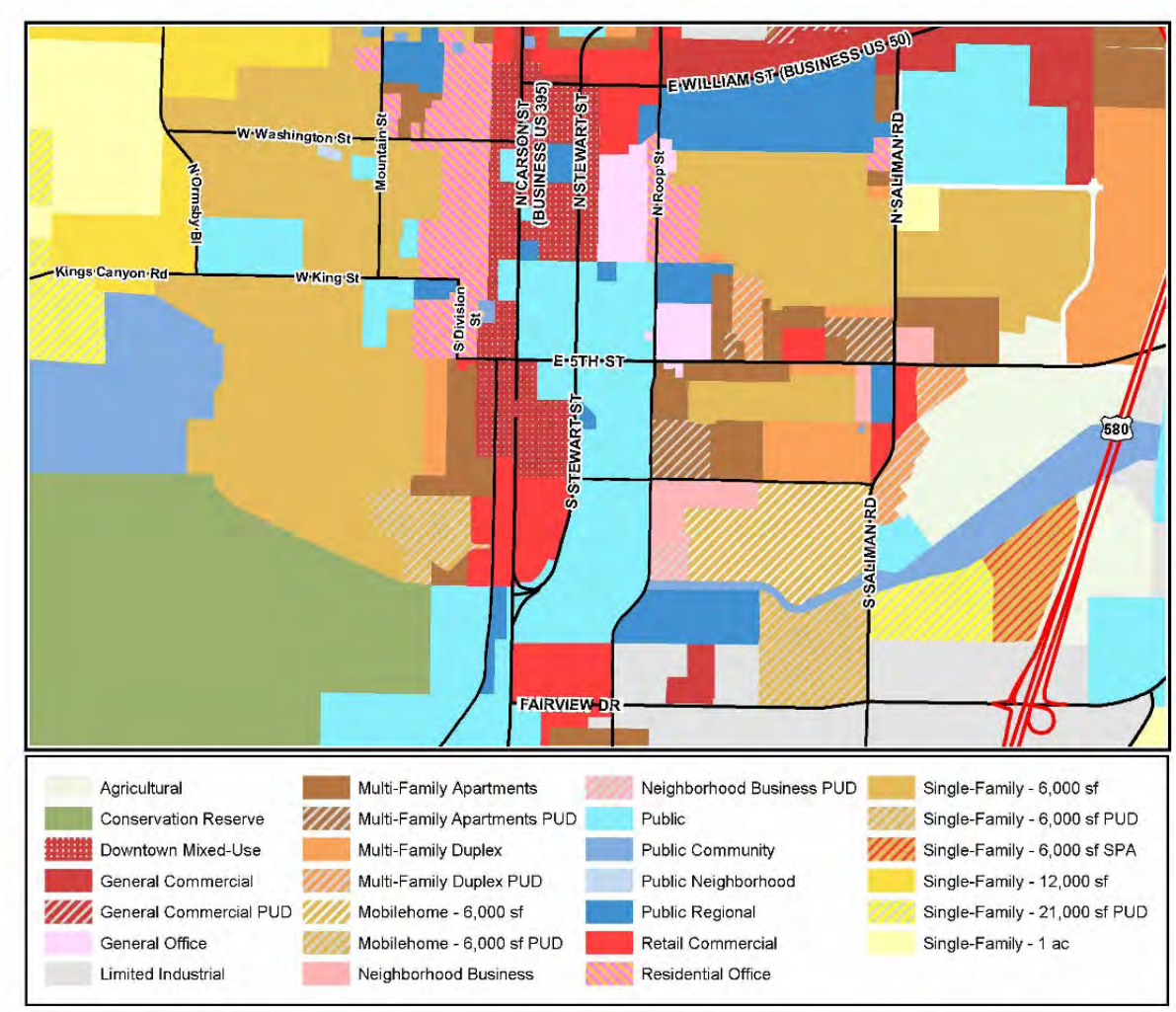
CHAPTER 4 – WHERE: CAMPO

Where people travel is determined by a complex interrelationship of land uses. The location of residences, jobs, industrial complexes, and schools, all influence routine daily trip-making from home to school, and to work. The location of post offices, grocery stores, restaurants, recreational facilities, entertainment centers, shopping malls, and other destinations, all influence additional, discretionary trip-making. On a bigger scale, a community's proximity to regional destinations (Lake Tahoe, for example) influences weekend interregional travel or seasonal influx of visitor travel.

4.1 Land Use

The proximity or distance between differing land uses also influences travel. The distance between home and work, or the convenience of destinations ("trip generators"), determines the occurrence, length, and mode of trips, or in some cases, can make the difference between whether a trip is made or not. For example, someone with a 30-minute lunch break during the workday will be unable to travel 20 minutes in each direction to purchase their lunch from a favorite local business.

Figure 4.1: Example of Zoning Districts, CAMPO Sub-Area (Central Carson City)



In addition, the type of residential and commercial land uses in a community influences trip-making. A 1-bedroom apartment that houses one or two adults typically generates fewer and a different mix of daily trips than a single-family home with a 4+ person household. Likewise, an administrative office complex will generate fewer and a different mix of daily trips than a high-turnover restaurant or a manufacturing/shipping facility.

By monitoring land uses, CAMPO is better informed and equipped to plan for and manage the region's use of, and demand for, regional transportation infrastructure that connects these land uses.

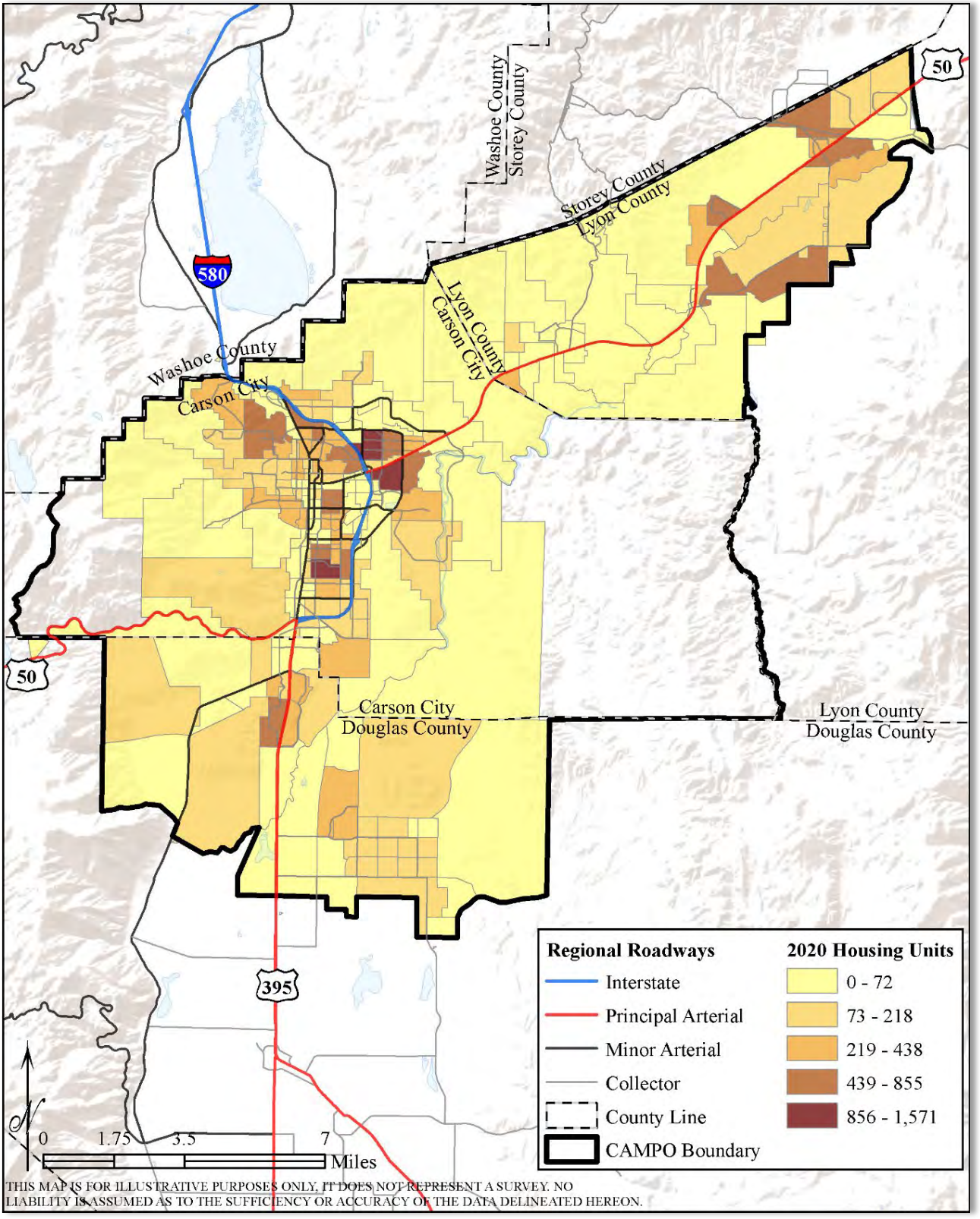
4.2 Travel Demand Model

CAMPO's Travel Demand Model (TDM) is the primary tool used to help understand and forecast the usage of the transportation network. A critical input to the travel demand model is current and future land use information. CAMPO's travel demand model is regularly updated with known changes to land uses and approved projects that can influence travel behavior in the area. Figure 4.1 provides an example of zoning districts within a CAMPO sub-area (central Carson City). The land use information is grouped into geospatial areas called Transportation Analysis Zones (TAZs). The size and spatial extent of a TAZ vary, but they typically range from very large in rural areas to very small in urban areas and business districts.

Carson City has 27 different zoning districts that permit and prohibit certain land uses. City zoning regulations consist of both a zoning map and a written ordinance that divides the City into zoning districts, including various residential, commercial, and industrial districts. The zoning regulations describe what type of land use and specific activities are permitted in each district.

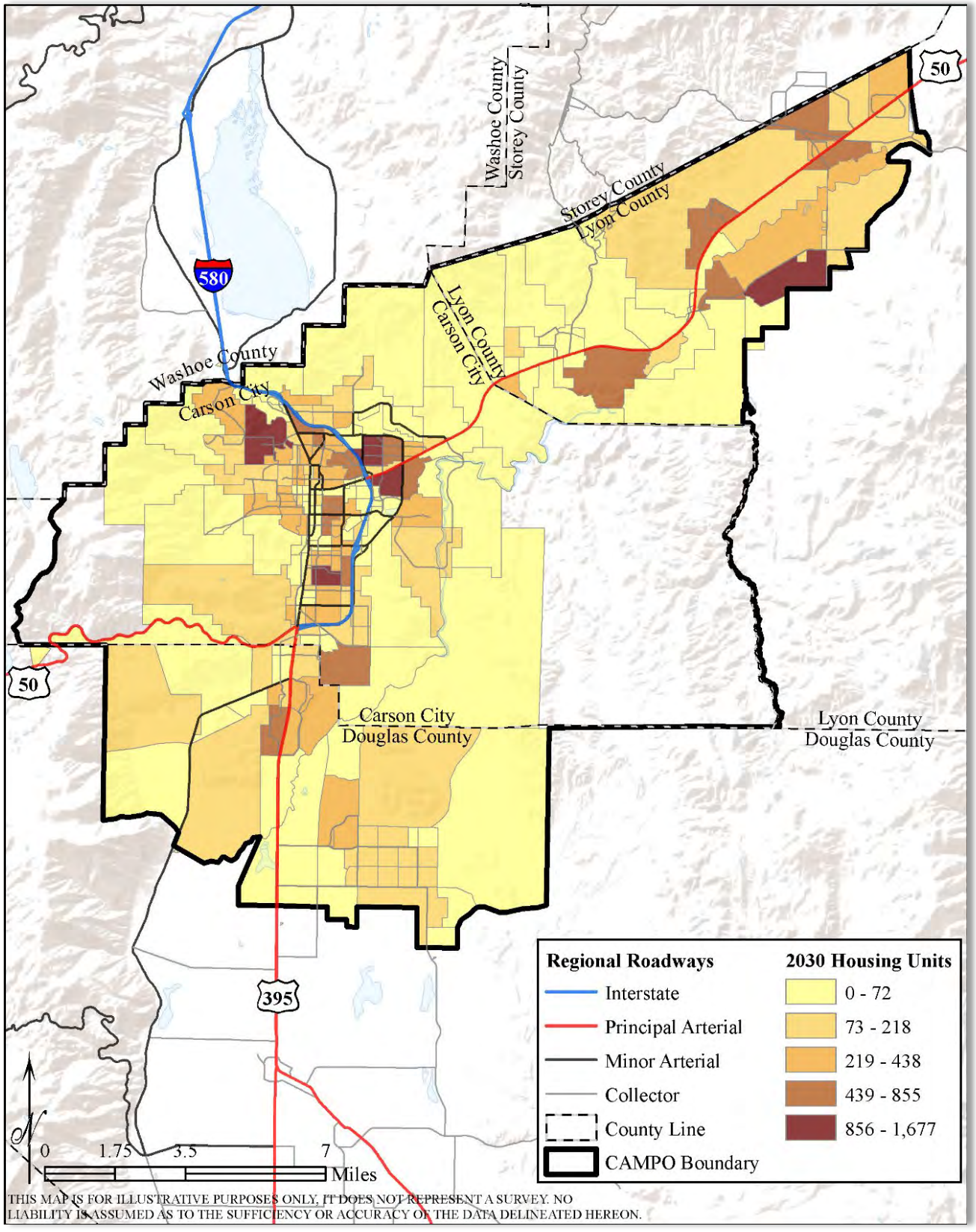
A travel demand model uses TAZs to pair land use (Chapter 4) and socio-economic data (Chapter 2), such as the number of household or employment units, to assign current and future trips to the transportation network. This information helps to identify travel and traffic trends. Figures 4.2 through 4.7 display the density of housing units and commercial employment by TAZ that is assumed in CAMPO's travel demand model for a base model year of 2020, and two forecast years of 2030 and 2050.

Figure 4.2: 2020 Housing Units by Transportation Analysis Zone (TAZ)



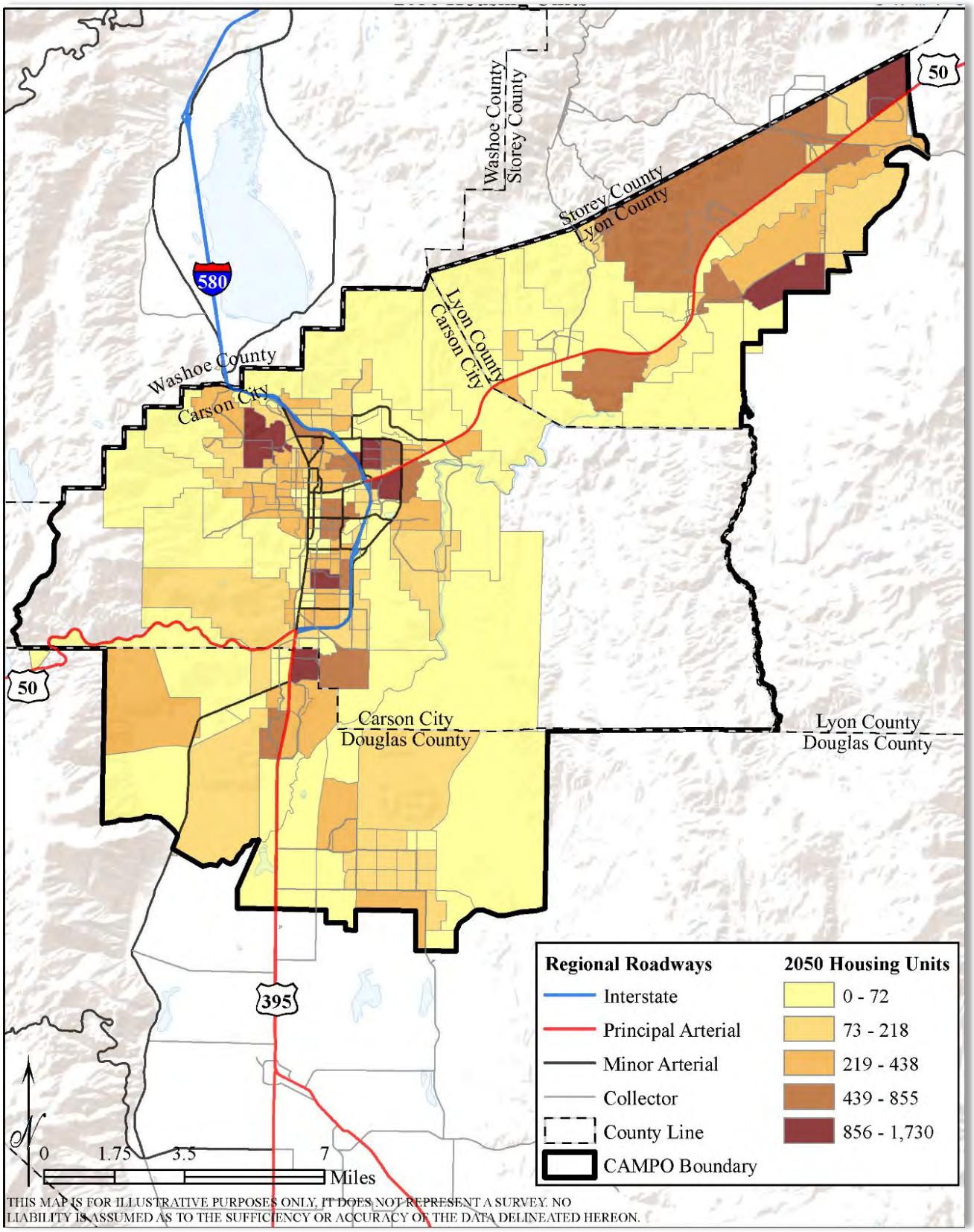
Source: CAMPO 2050 Travel Demand Model, September 2020.

Figure 4.3: 2030 Housing Units by Transportation Analysis Zone (TAZ)



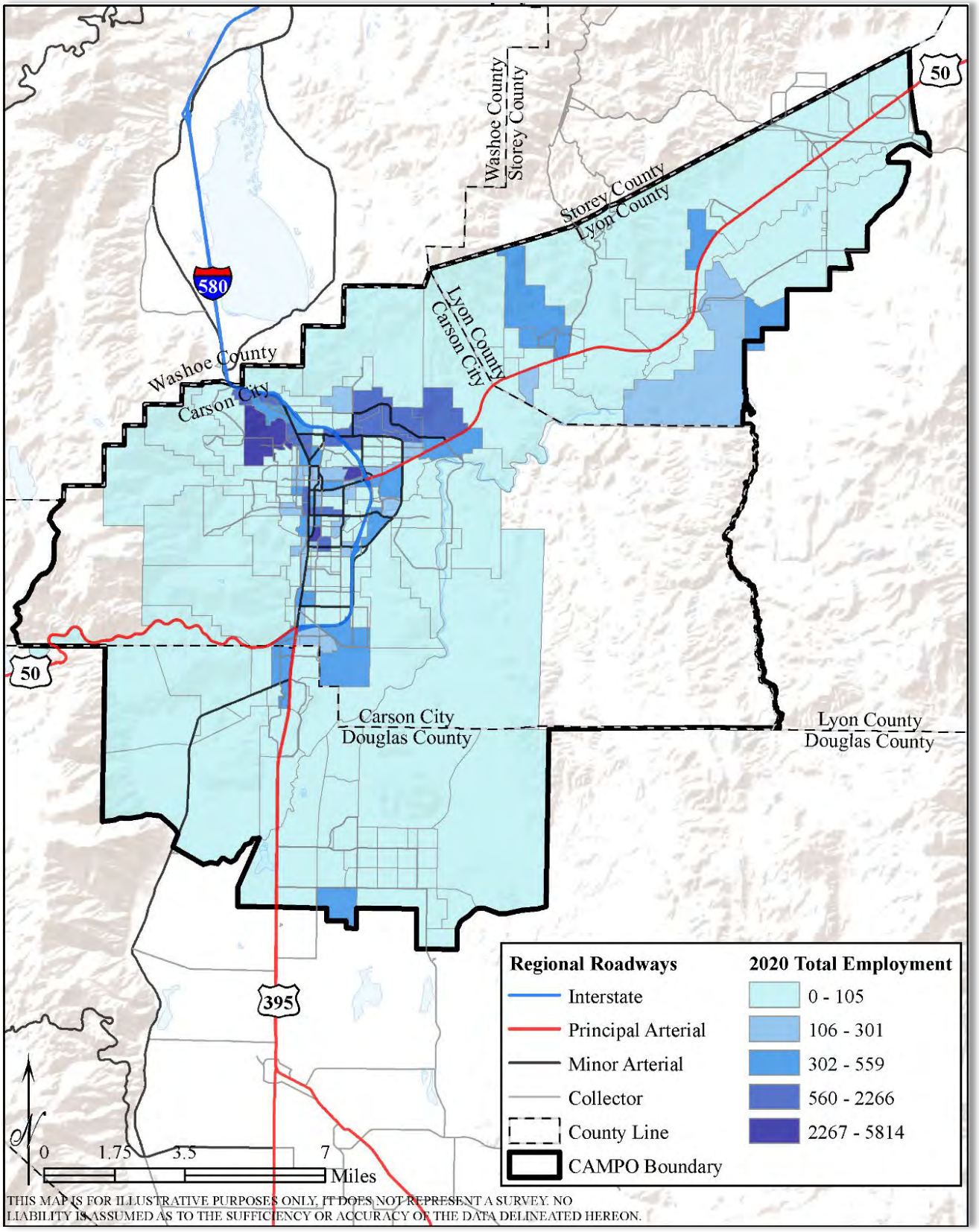
Source: CAMPO 2050 Travel Demand Model, September 2020.

Figure 4.4: 2050 Housing Units by Transportation Analysis Zone (TAZ)



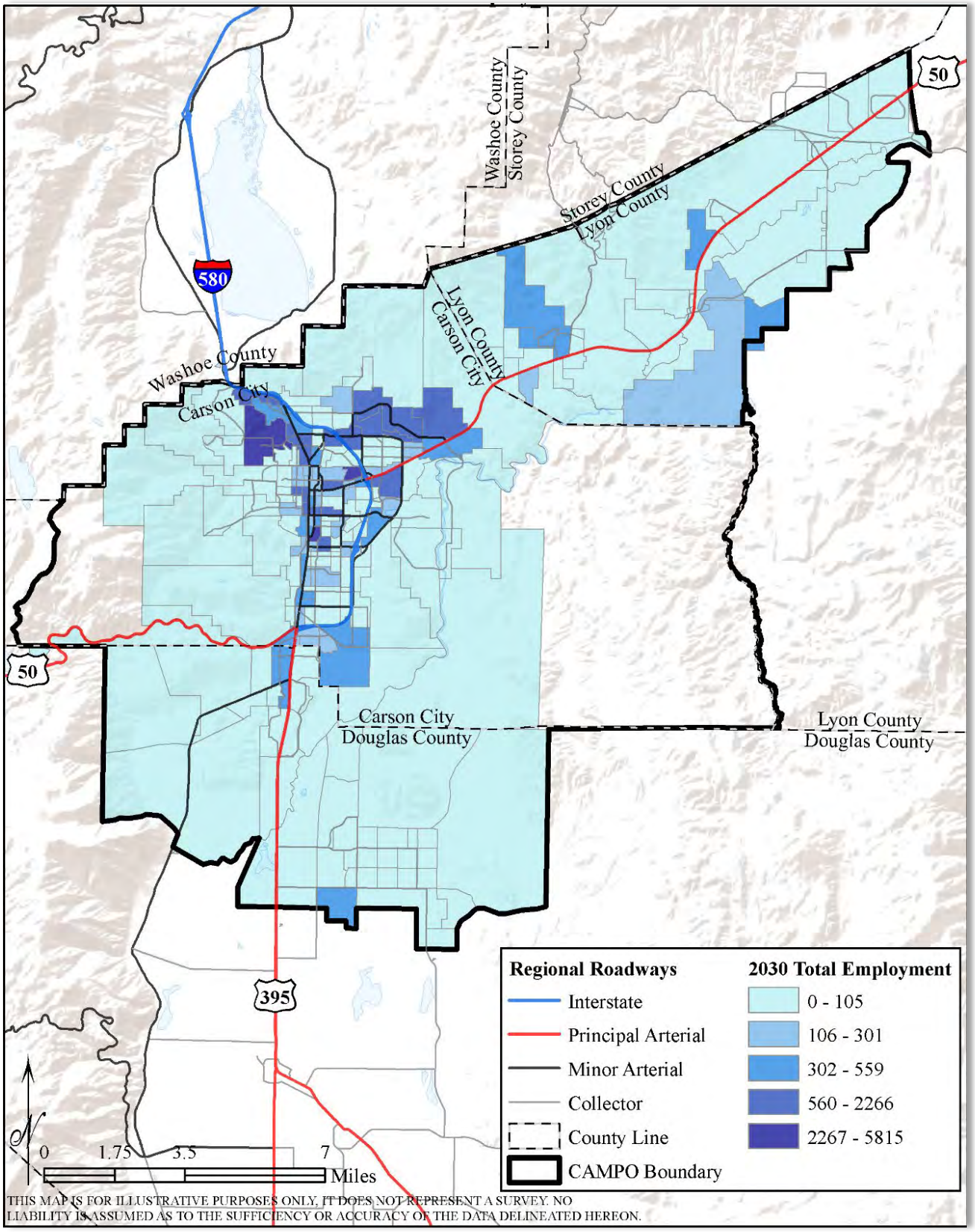
Source: CAMPO 2050 Travel Demand Model, September 2020.

Figure 4.5: 2020 Commercial Employment by Transportation Analysis Zone (TAZ)



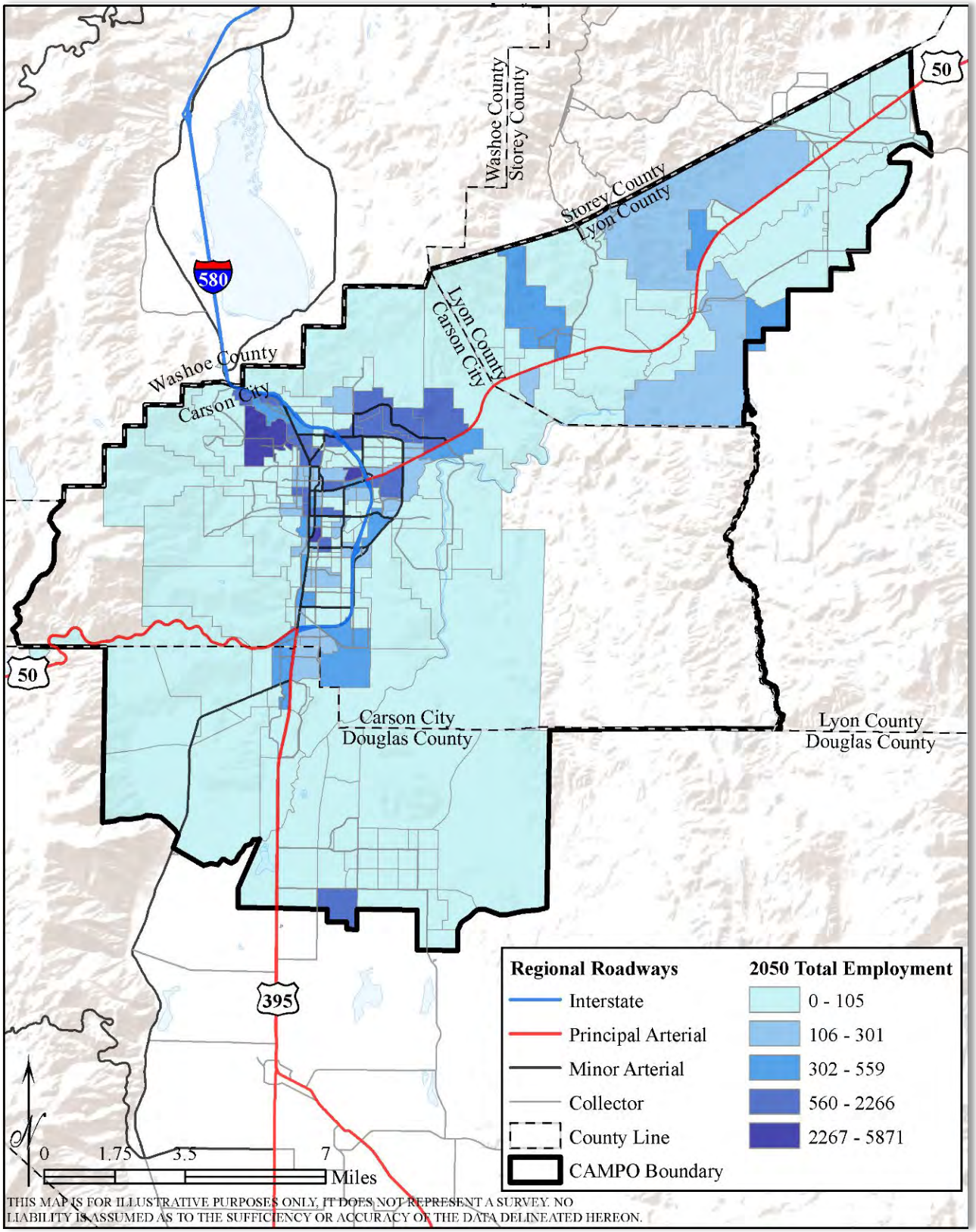
Source: CAMPO 2050 Travel Demand Model, September 2020.

Figure 4.6: 2030 Commercial Employment by Transportation Analysis Zone (TAZ)



Source: CAMPO 2050 Travel Demand Model, September 2020.

Figure 4.7: 2050 Commercial Employment by Transportation Analysis Zone (TAZ)



Source: CAMPO 2050 Travel Demand Model, September 2020.

CAMPO uses travel demand modeling software to forecast demand on the roadway network. The modeling considers future population, economic factors, and other variables, including land use patterns and estimates of future activity from local governments. The CAMPO model was updated in 2016, 2018, and again in 2020. The 2020 CAMPO model update was validated against the latest available year 2019 Annual Average Daily Traffic (AADT) count data obtained from the Nevada Department of Transportation (NDOT) for the 161 roadway segments in the CAMPO TDM. The review compared the 2019 NDOT AADT counts against the updated the Base Year 2020 CAMPO TDM scenario to determine the accuracy of the model for validation purposes. The results of the validation were found to be consistent with nationally accepted parameters established by the Federal Highway Administration.

Since 2016, Interstate 580 was extended approximately three miles from the termini at Fairview Drive to the intersection of U.S. Highway 50 West and U.S. Highway 395. This has significantly influenced travel patterns and performance in the CAMPO Area. Additionally, outside of the CAMPO boundary, USA Parkway was completed in 2017, which has increased commute travel from areas in and around CAMPO to the Tahoe Regional Industrial Park (TRIC), originally only accessed via Interstate 80. These roadway network changes have been incorporated into CAMPO's travel demand model.

A complete model documentation report is provided at the link below:
http://carson.org/home/showdocument?id=50163

A 2020 update to the model was incorporated into the 2050 RTP. It is provided at the link below:
https://www.carson.org/home/showdocument?id=74038

The travel demand model predicts system demand and performance in model scenarios: a base year scenario of 2020, a near-term scenario of 2030, and a long-range scenario of 2050. The near-term and long-range scenarios are further analyzed by adding transportation improvement projects, which are categorized by projects that are reasonably anticipated to be funded (constrained), and which projects do not have funding identified (unconstrained). CAMPO staff utilizes two model outputs Level of Service (LOS) and travel time estimates. The LOS measure can be used to evaluate roadway sections based on a comparison of vehicle volume and roadway capacity. The travel time measure, also known as travel time reliability, measures the time it takes to travel from one location to another. Travel time reliability is significant to many transportation system users, whether they are vehicle drivers, transit riders, or freight shippers. Personal and business travelers value reliability because it allows them to make better use of their own time. Freight shippers and carriers value predictable travel times to refine their logistics and remain economically competitive.

Outputs from CAMPO's travel demand model on travel time are contained in Table 4.1. Due to the I-580 extension, constructed in 2017, the travel times between the years 2015 and 2021 have reduced. Over the long term, the travel demand model is forecasting increases in travel time during the afternoon peak travel times (PM) and along the U.S. 50 East corridor.

Table 4.1: Travel Times in Minutes between Metropolitan Planning Area Gateways

		Year 2015		Year 2020		Year 2030		Year 2050	
From	**To**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**
U.S. Hwy 395 North (Carson City and Washoe County Line near Hobart Road)	U.S. Hwy 50 East (Near Chaves Road)	30.2	39.4	24.6	34.1	24.6	37.5	24.6	47.8
	U.S. Hwy 395 South (0.4 miles south of Johnson Lane)	23.1	30.4	16.0	24.5	16.0	25.6	16.0	27.9
	U.S. Hwy 50 West (2.7 miles west of U.S. Hwy 395)	16.8	18.7	11.7	13.0	11.7	13.2	11.7	13.7
U.S. Hwy 50 East (Near Chaves Road)	U.S. Hwy 395 North (Carson City and Washoe County Line near Hobart Road)	35	33.6	24.7	28.3	24.8	28.9	24.9	30.2
	U.S. Hwy 395 South (0.4 miles south of Johnson Lane)	48.2	53.6	32.2	43.2	32.3	44.6	32.4	47.8
	U.S. Hwy 50 West (2.7 miles west of U.S. Hwy 395)	41.9	41.9	27.9	31.7	28.0	32.3	28.1	33.5
U.S. Hwy 395 South (0.4 miles south of Johnson Lane)	U.S. Hwy 395 North (Carson City and Washoe County Line near Hobart Road)	26.4	26.4	16.1	19.3	16.1	19.8	16.2	20.9
	U.S. Hwy 50 East (Near Chaves Road)	46.6	55.2	31.9	43.3	31.9	47.1	31.9	57.8
	U.S. Hwy 50 West (2.7 miles west of U.S. Hwy 395)	16.1	15.3	10.4	12.5	10.4	12.8	10.5	13.5
U.S. Hwy 50 West (2.7 miles west of U.S. Hwy 395)	U.S. Hwy 395 North (Carson City and Washoe County Line near Hobart Road)	17.3	18.5	11.7	13.0	11.7	13.3	11.7	13.7
	U.S. Hwy 50 East (Near Chaves Road)	37.5	47.3	27.5	37.0	27.5	40.5	27.5	50.7
	U.S. Hwy 395 South (0.4 miles south of Johnson Lane)	13.3	19.1	10.3	17.8	10.3	18.6	10.3	20.6

Source: CAMPO's 2050 Regional Transportation Plan
*AM represents morning peak travel times and PM represents afternoon peak travel times
**Year 2015 data is from CAMPO's 2040 Regional Transportation Plan

4.3 Level of Service

Level of Service (LOS) is a measurement used to determine how well a transportation facility is operating from a traveler's perspective. The travel demand model assigns a letter designation from A to F, with LOS A representing the best operating conditions, and LOS F the worst. Carson City Municipal Code Title 18 Appendix, Division 12.13.3.3 #5: Traffic Impacts and Mitigation states, 'a traffic LOS D or better, in the context of providing a safe, efficient and convenient transportation system, shall be maintained through mitigation of impacts from all conditions on all city maintained arterial, and collector roads and at city road intersections'. The LOS is based on the average daily traffic, as opposed to using a peak travel period.

Outputs from CAMPO's travel demand model on LOS are provided on the following pages. Only the near- and long-term scenarios that incorporate fiscally constrained projects are provided, all other scenarios are contained within the model documentation report. Figures 3.6, 3.7, and 3.8 delineate the LOS for all road segments in each of the three scenarios (base-year, near-term, and long-range). Between 2020 and 2050, the LOS will diminish primarily on U.S. Highway 50 East and U.S. Highway 395.

Figure 3.6: 2020 Base Year Conditions: Roadway Level of Service (LOS)

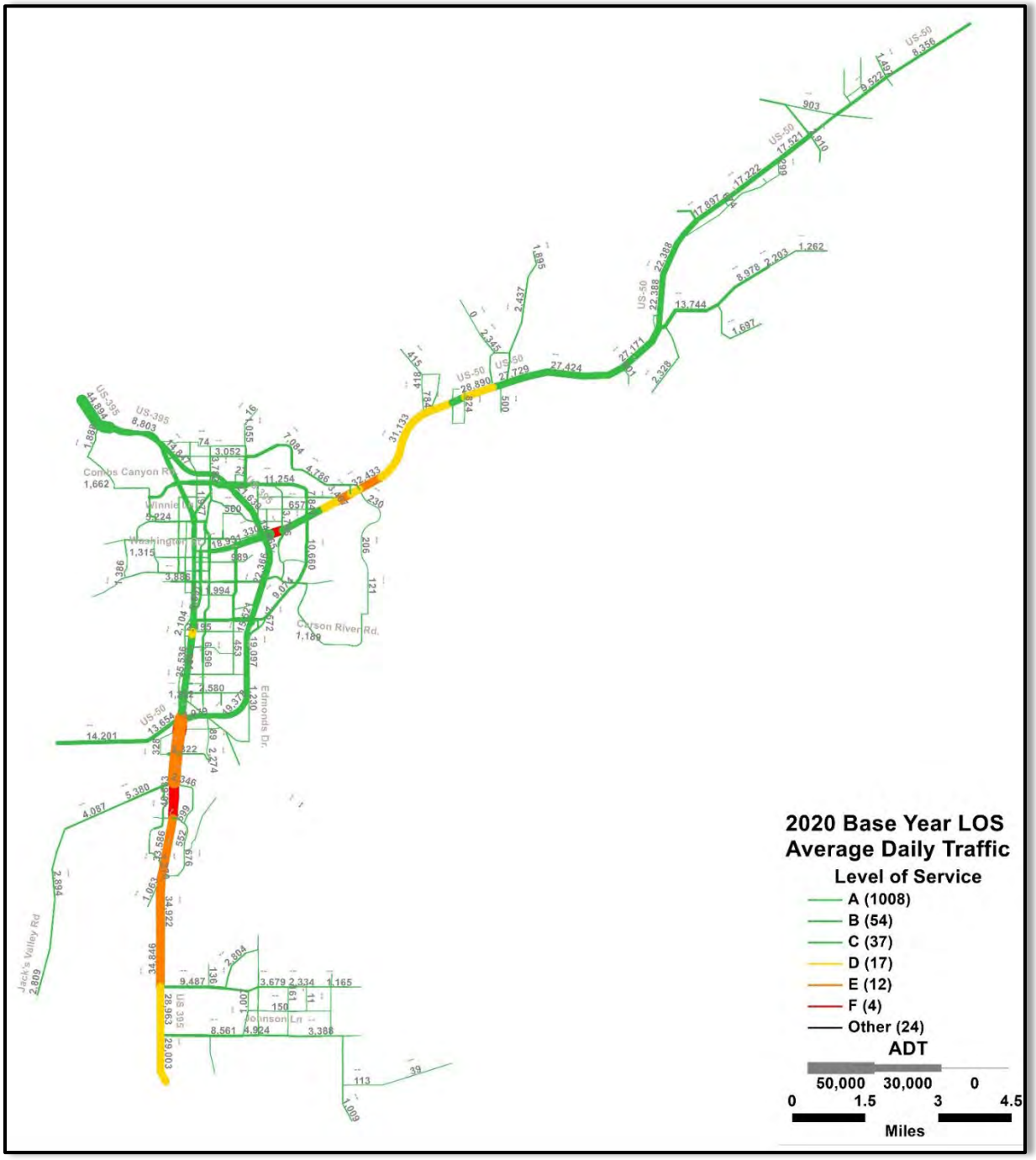


Figure 3.7: 2030 Near-Term Conditions: Roadway Level of Service

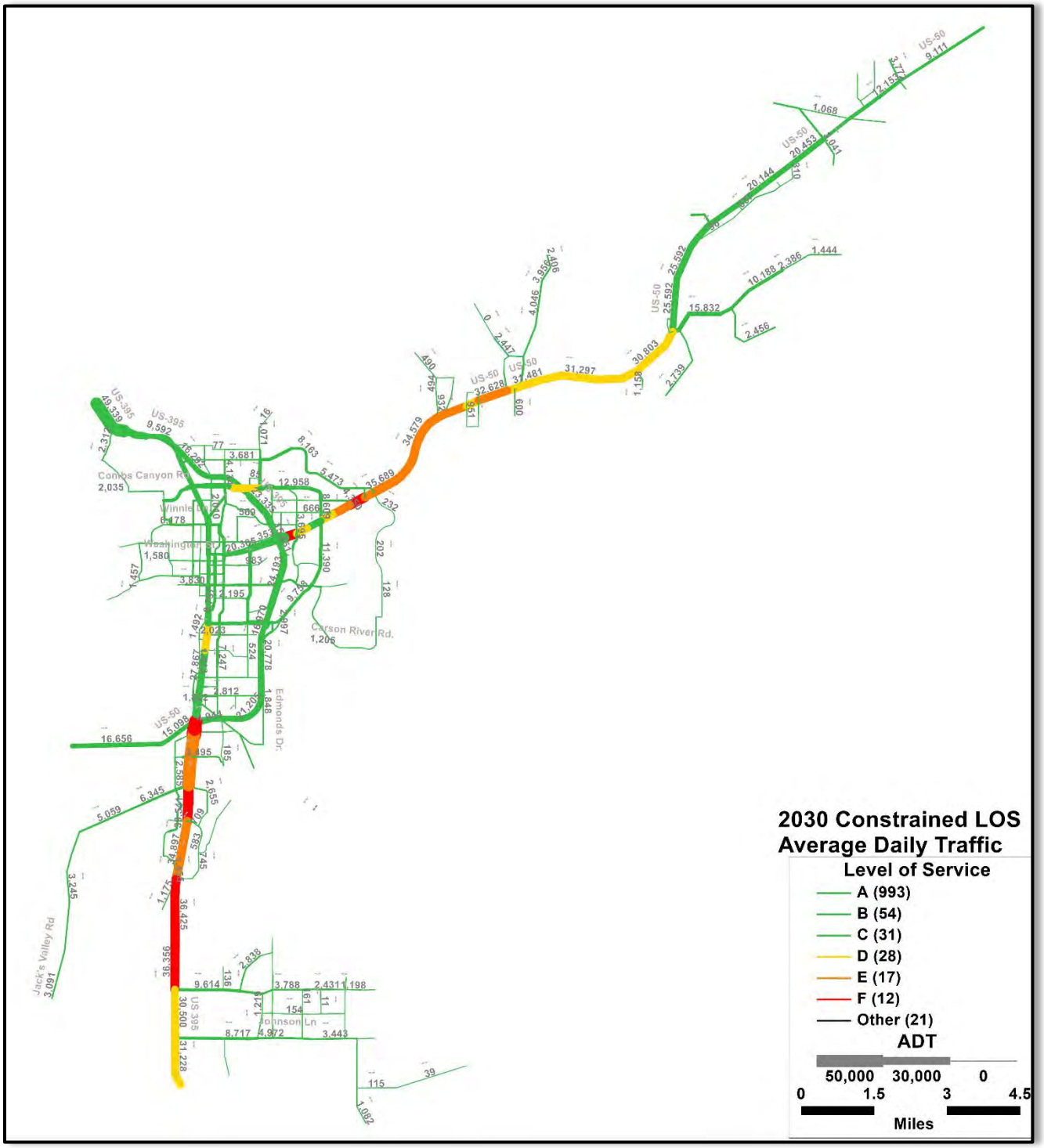
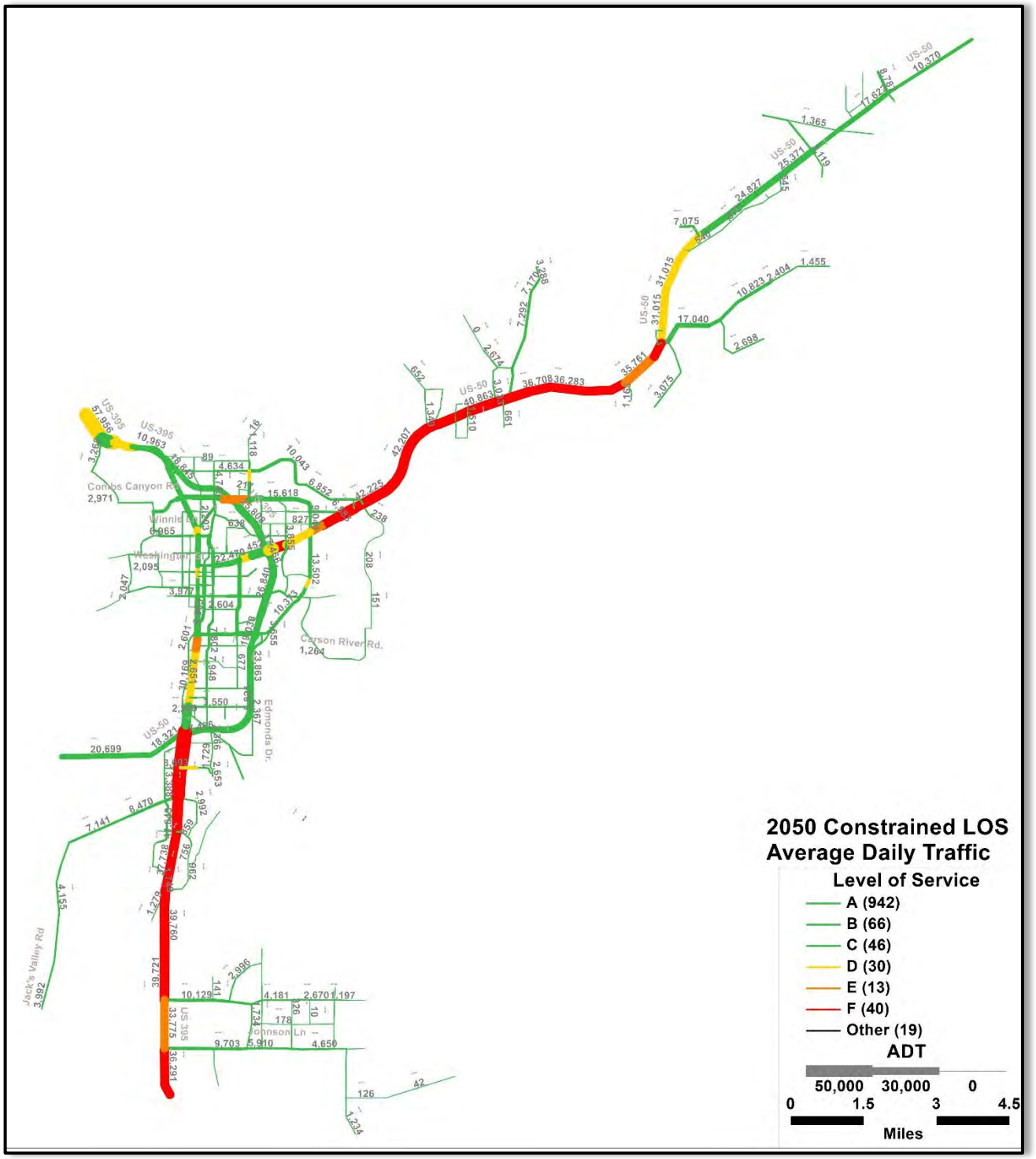


Figure 3.8: 2050 Long-Range Conditions: Roadway Level of Service



Chapter 5: HOW

How someone travels from place to place within the CAMPO Area is a matter of their choices, or lack of choices, and transportation mode options available. Many factors contribute to people choosing one transportation mode over another including cost, both monetary and temporal, benefits, and convenience. Overwhelmingly people choose to travel in vehicles throughout the CAMPO Area. With the Complete Streets Initiative, CAMPO is committed to planning for and supporting safe transportation infrastructure for all modes and all users.

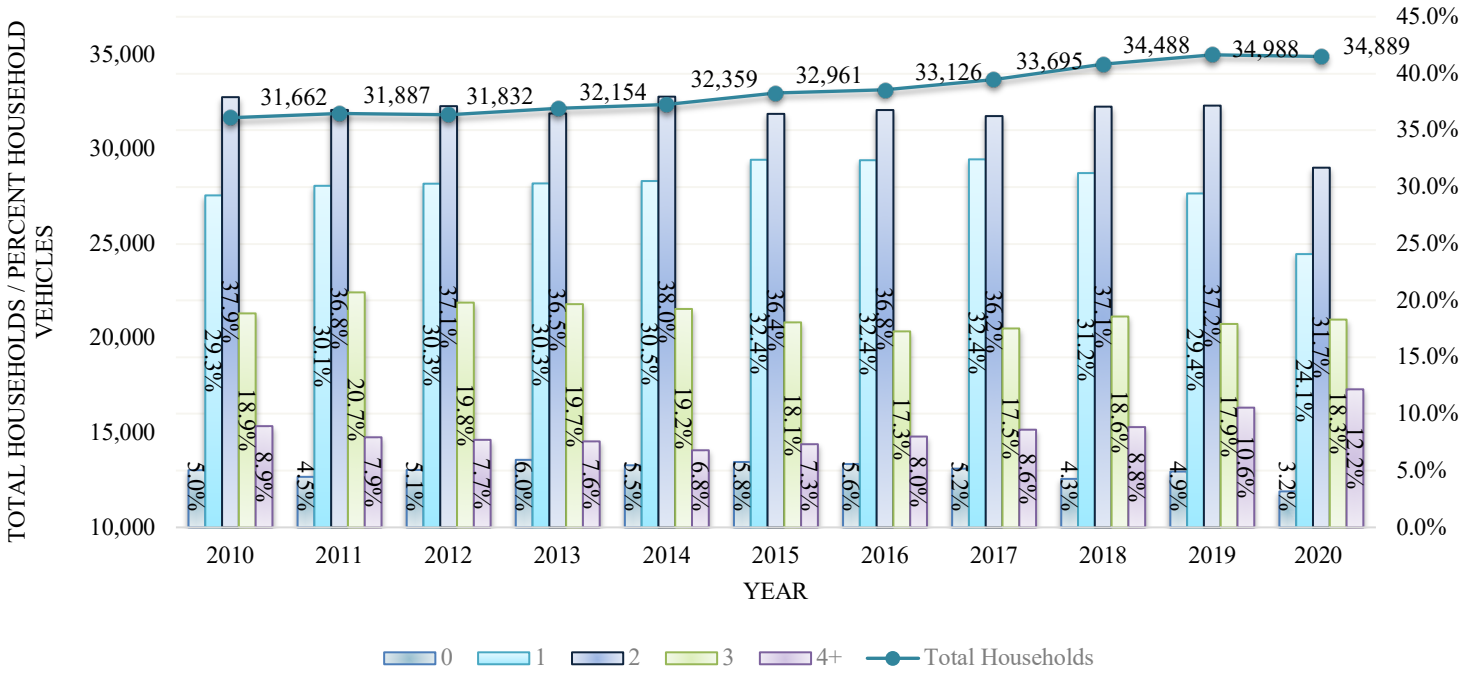
5.1 Commuting

If you work outside your neighborhood, a commute to work is expected. Staff used three core variables to analyze commuting in the CAMPO region.

1. Percent of Vehicles Available
2. Commute Length, in Minutes
3. Commute Type (Means of Transportation)

Figure 5.1 displays information on the number and percentages of vehicles per household. The amount and availability of vehicles in a household can be an indicator of reliance on public transit or non-motorized modes, as well as an indicator of an individual household's ability to make discretionary trips. In the CAMPO Area, over the last decade, there has been a decline in 0-, 1-, and 2-car households. 3-car households have retained an average of 18% of households with 4+ cars have increased 27% from 8.9% in 2010 to 12.2% in 2020.

Figure 5.1: Percent of Vehicles Available (2010-2020)



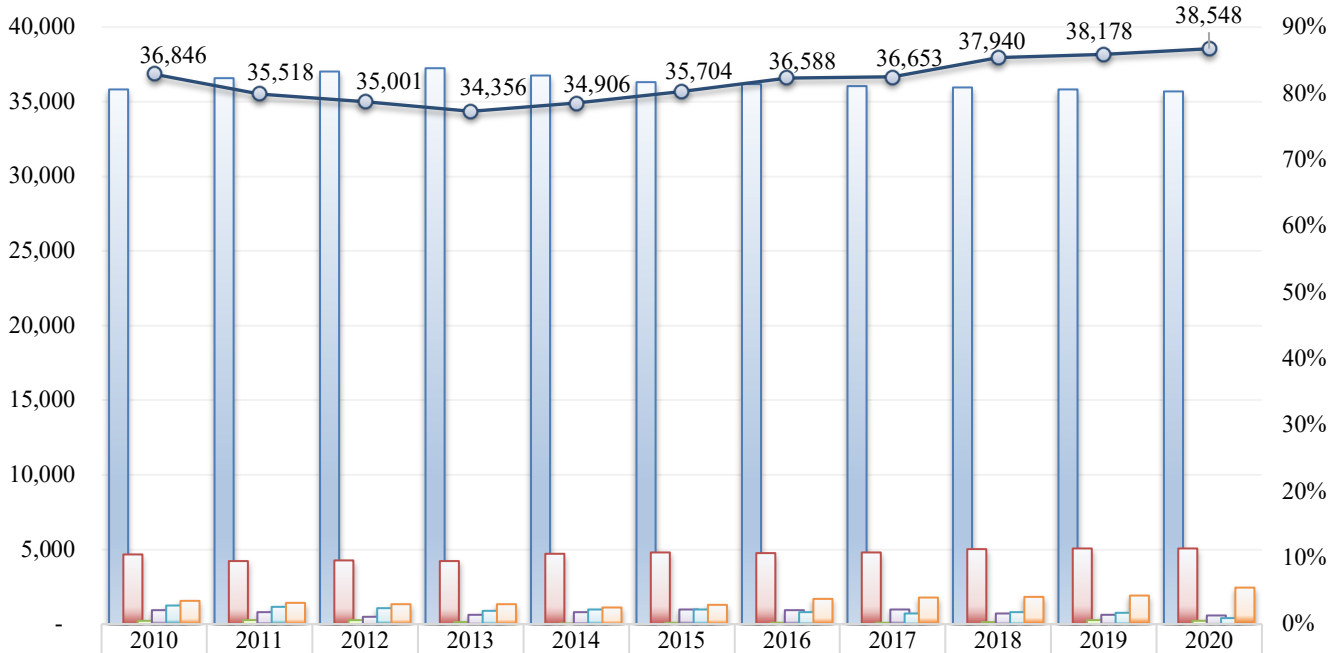
Source: ACS Household Size by Vehicles Available, Table B08201. Annual Estimates from American Community Survey (ACS) 5-year Estimates.

Figure 5.2: Commute Length in Minutes (2010-2020)

Source: ACS Selected Economic Characteristics, Table DP03. Annual estimates from American Community Survey (ACS) 5-year Estimates.

Figure 5.2 displays the mean travel time to work. In 2020, travel times decreased slightly from the previous year to a 21.6-minute average commute. This is most likely a factor of less people driving to work, school or shopping and more people working from home during the COVID-19 pandemic. However, over the last decade travel times have increased by 10 percent, from 19.7 to 21.6 minutes, with the longest travel time recorded in 2019 as a 22.3-minute commute.

Figure 5.3: Commute Type: Working Population and Percent Commuting to Work (2010-2020)



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Drove Alone	80.6%	82.3%	83.3%	83.8%	82.7%	81.7%	81.4%	81.1%	80.9%	80.6%	80.3%
Carpooled	10.5%	9.5%	9.6%	9.5%	10.6%	10.8%	10.7%	10.8%	11.3%	11.4%	11.4%
PublicTransportation	0.5%	0.6%	0.6%	0.3%	0.1%	0.2%	0.2%	0.2%	0.3%	0.6%	0.5%
Walked	2.1%	1.8%	1.1%	1.4%	1.8%	2.2%	2.1%	2.2%	1.6%	1.4%	1.3%
Other means	2.8%	2.6%	2.4%	2.0%	2.2%	2.2%	1.8%	1.6%	1.8%	1.7%	0.9%
Worked at home	3.5%	3.2%	3.0%	3.0%	2.5%	2.9%	3.8%	4.0%	4.1%	4.3%	5.5%
Total	36,846	35,518	35,001	34,356	34,906	35,704	36,588	36,653	37,940	38,178	38,548

Source: ACS Selected Economic Characteristics, Table DP03. Annual Estimates from American Community Survey (ACS) 5-year Estimates.

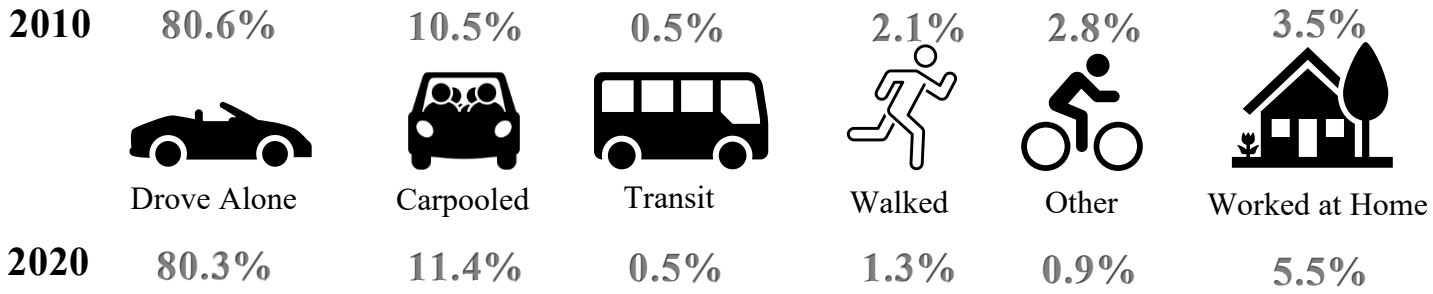
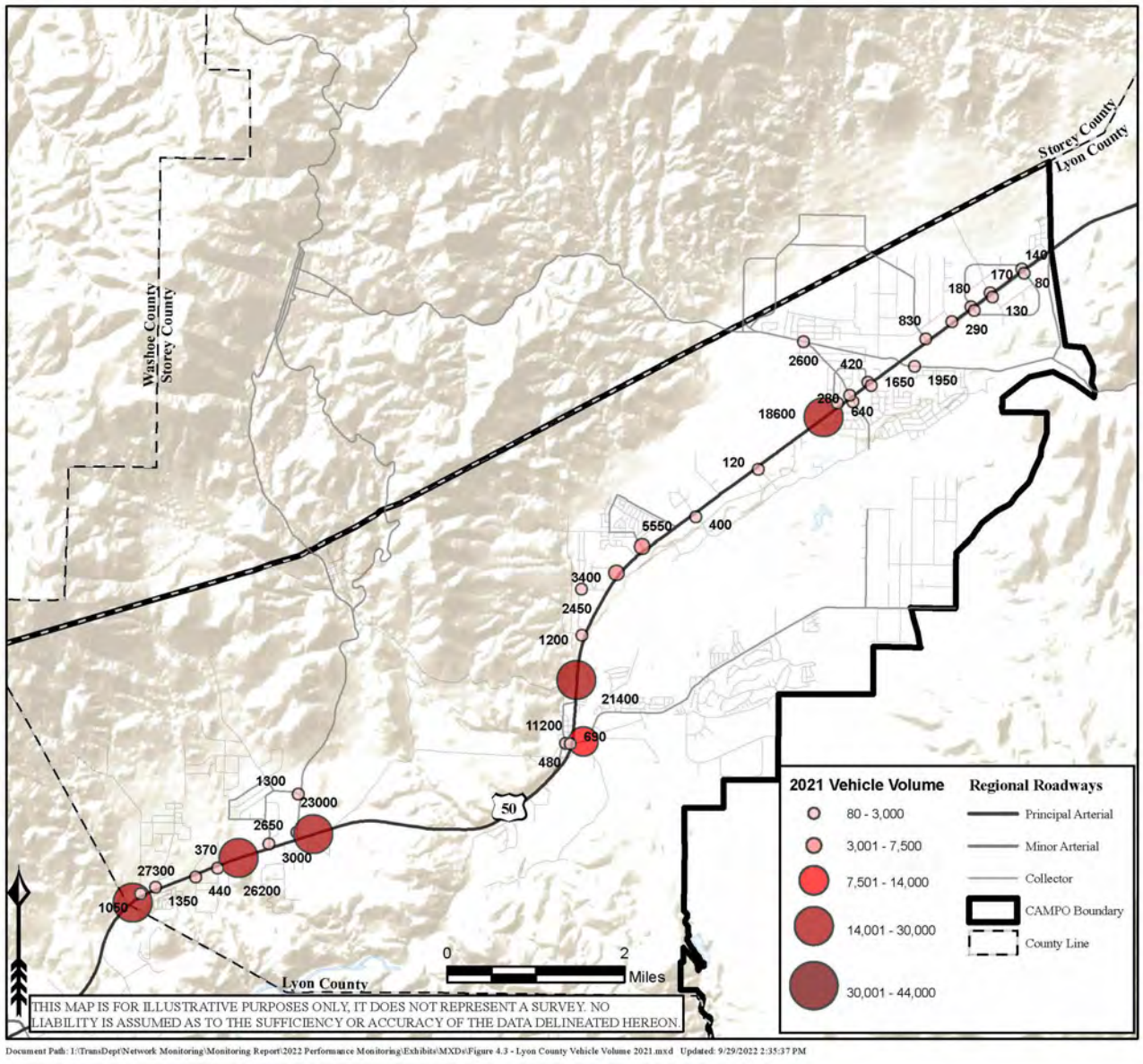


Figure 5.3 displays the travel mode to work for workers aged 16 years and over within the CAMPO planning area from 2010 to 2020. The number of total workers within CAMPO has increased by 5 percent over the last ten years. Though there is a slight downward trend, over the last decade, consistently over 80% of CAMPO residents drive alone to work. Carpooling has increased from 10.5% in 2010 to 11.4% in 2020. The percentage of workers that report "Worked at Home" increased from 3.5% in 2010 to 5.5% in 2020 with the biggest jump of 1.2% seen from 2019 to 2020, where there was a significant increase in workers working-from-home due to the COVID-19 pandemic.

5.2 Vehicle Volumes

A primary factor in how a road is classified is dependent on its volume. Monitoring of traffic volumes along roadways within CAMPO is conducted in two ways. The Nevada Department of Transportation's Traffic Information division in cooperation with the Federal Highway Administration (FHWA), provides annual reports that contain details on the amount and type of traffic at certain locations along the National Highway System (see Figure 3.1) and along higher-volume roadways that carry regional travel. This information is used to validate CAMPO's travel demand model, plan short-term and long-term projects, and influence project design. Traffic Volume Data is published through an online application referred to as Traffic Records Information Access (TRINA)[6]. Vehicle volumes from TRINA are displayed in Figures 5.4 through 5.7.

Figure 5.4: 2020 Lyon County Vehicle Volumes



[6] Nevada Traffic Records Information Access - https://www.nevadadot.com/doing-business/about-ndot/ndot-divisions/planning/traffic-information

Figure 5.5: 2020 Northern Carson City Vehicle Volumes

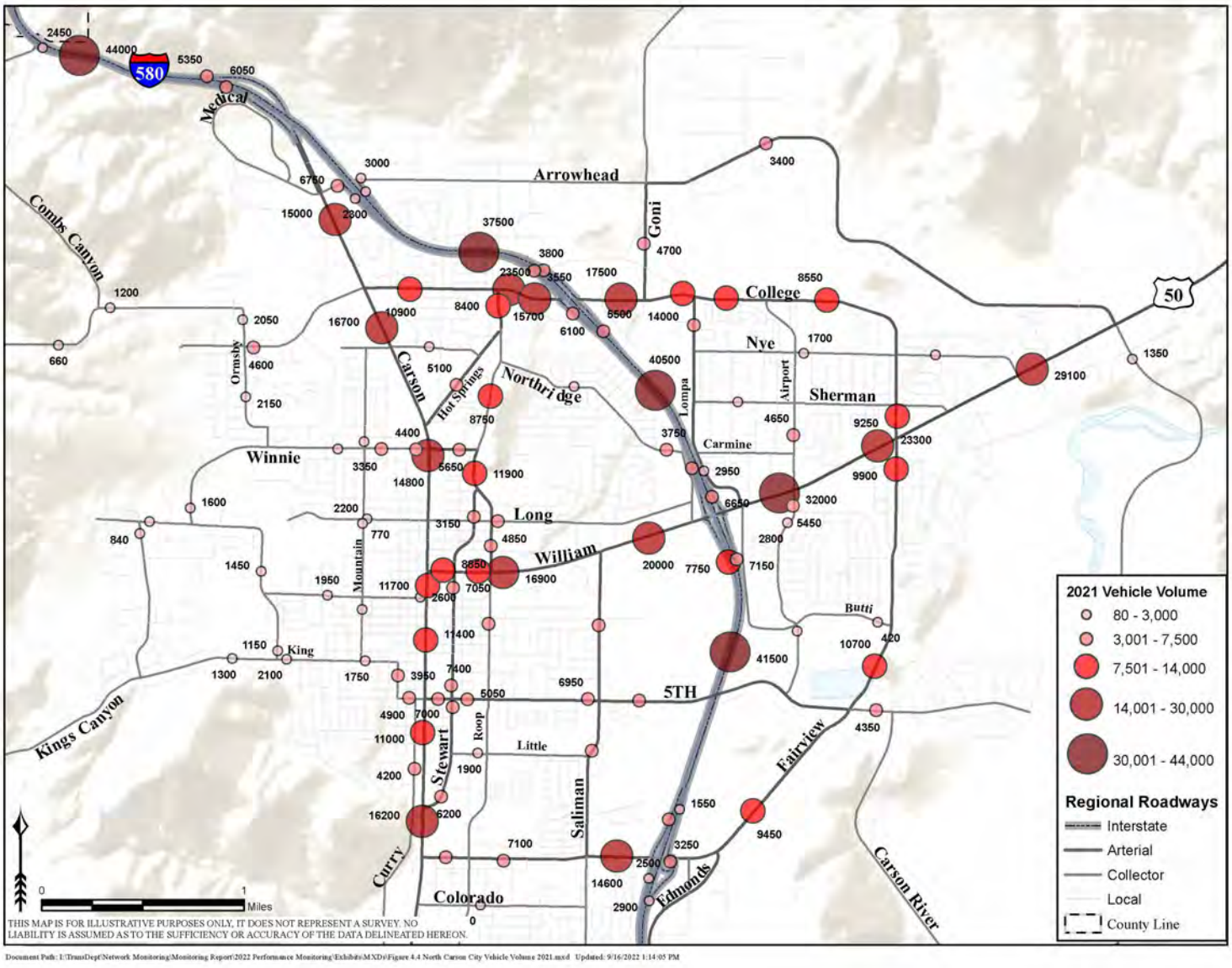


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Figure 5.6: 2020 Southern Carson City Vehicle Volumes

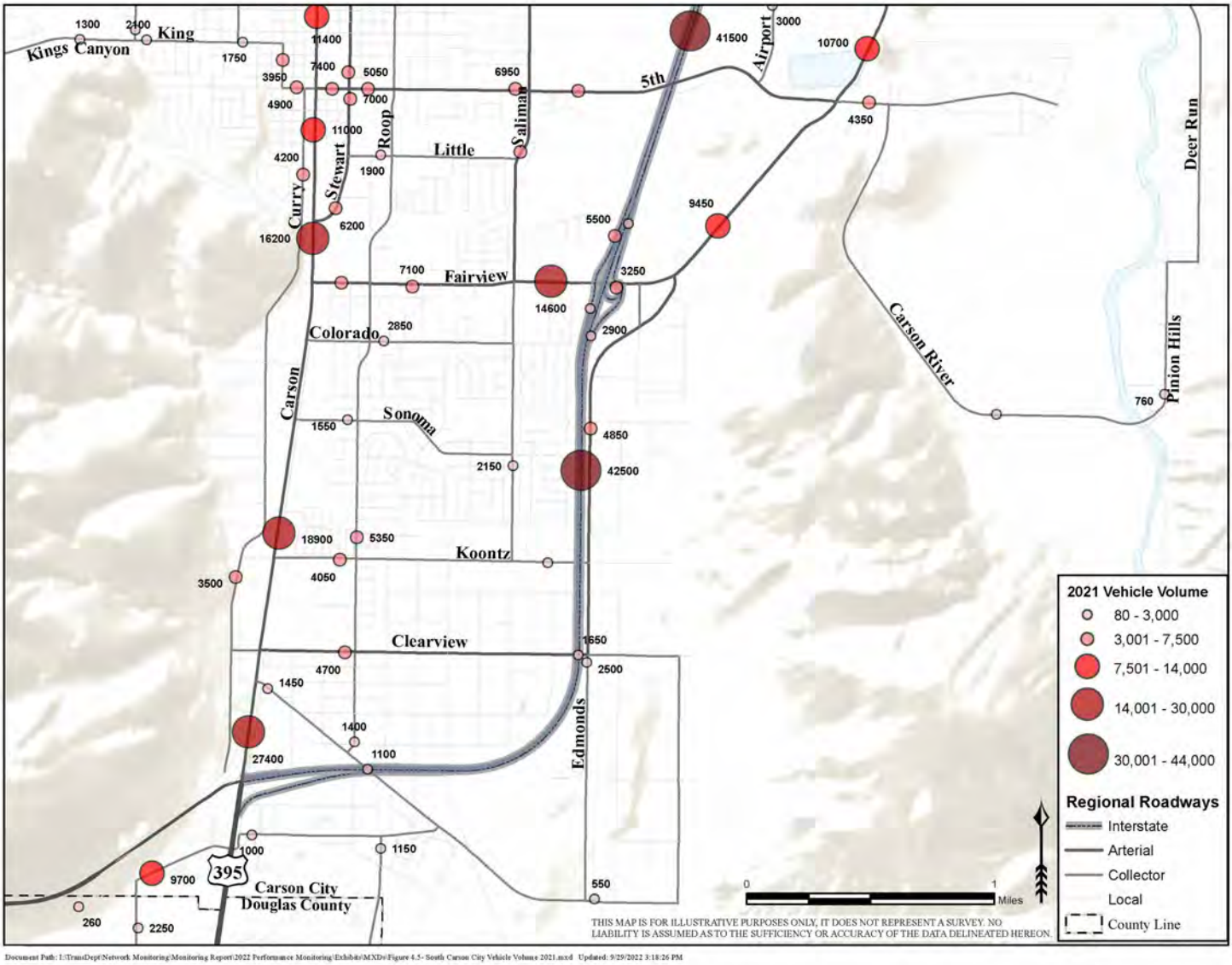

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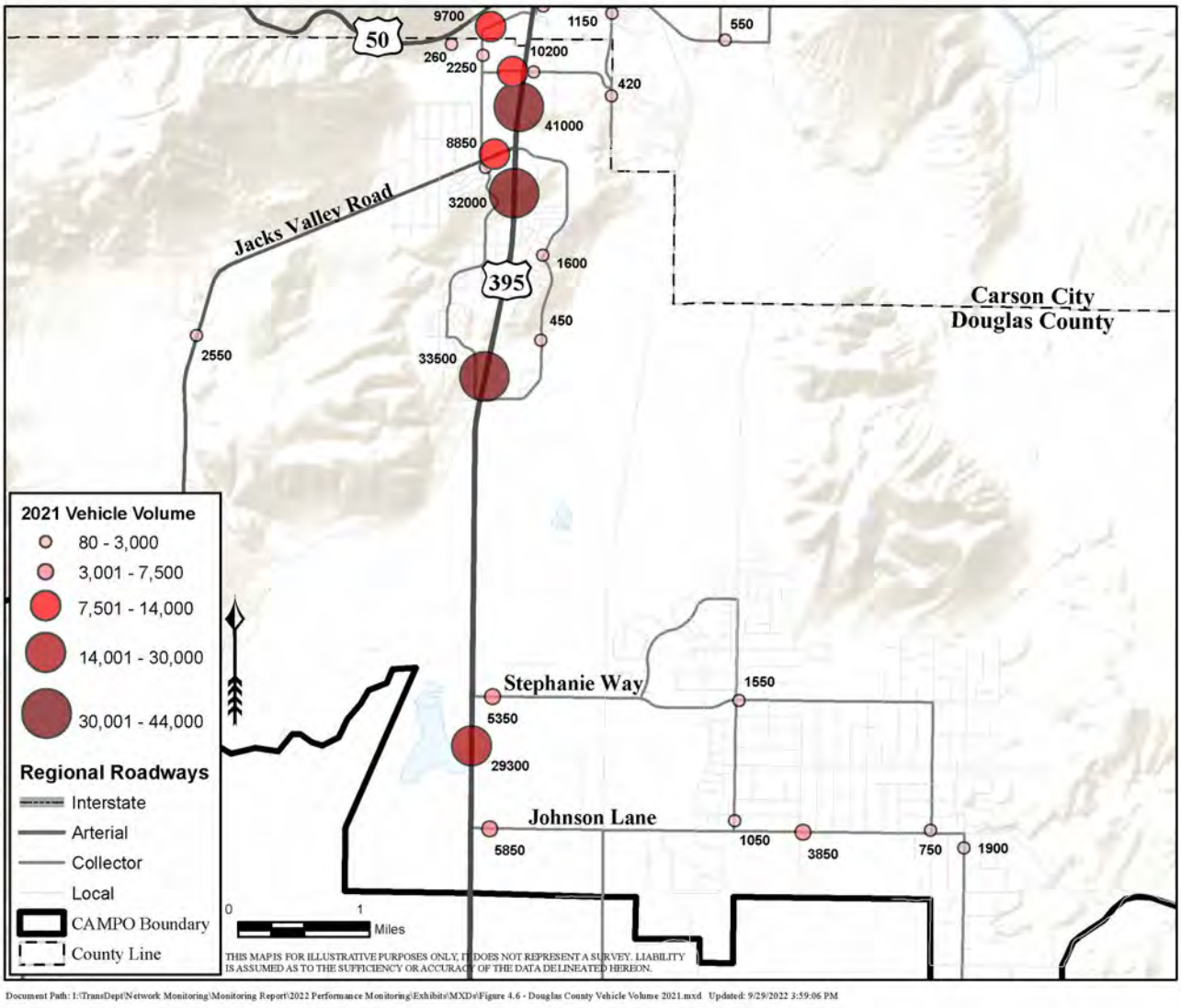
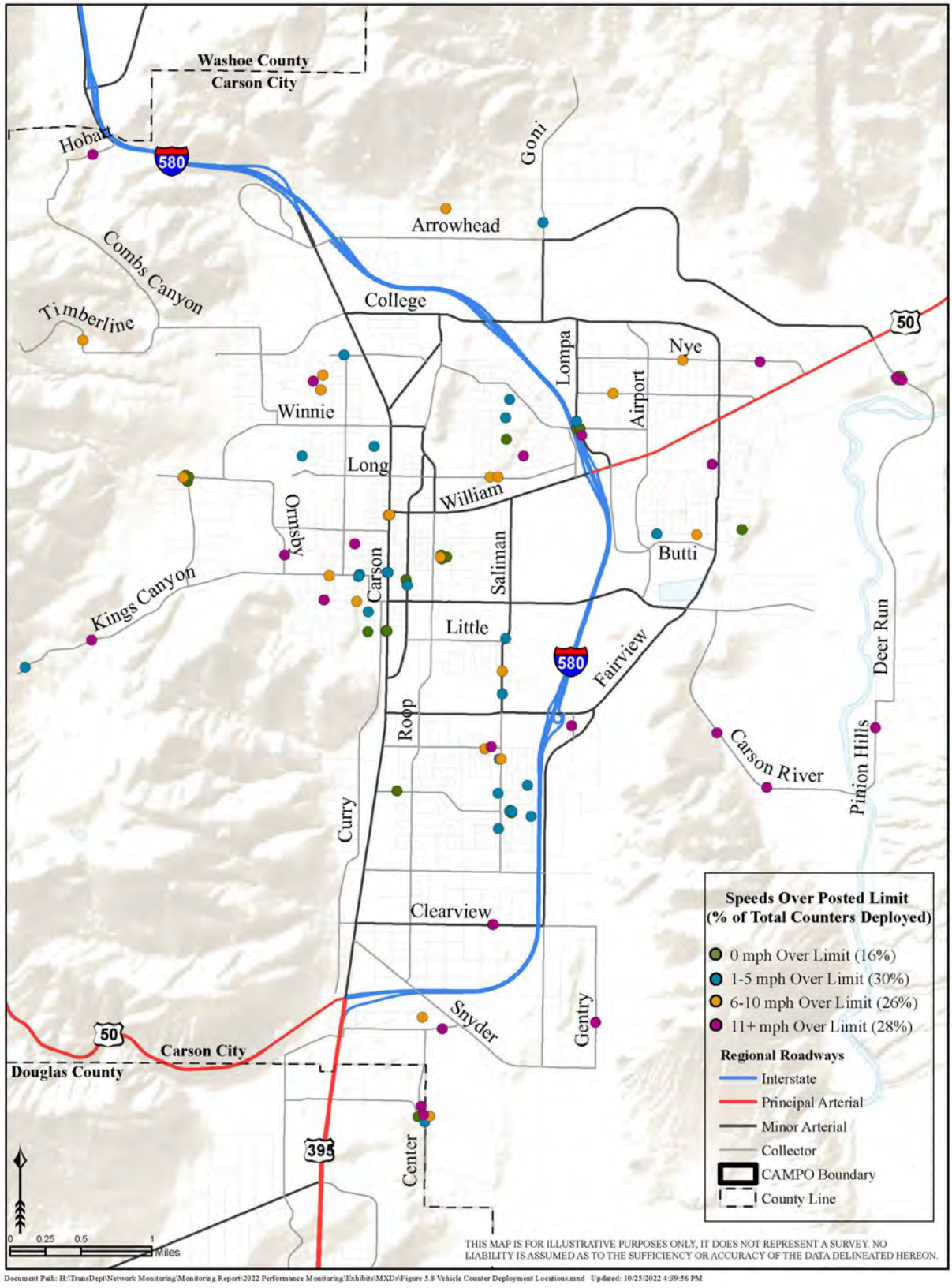
Figure 5.7: 2020 Northern Douglas County Vehicle Volumes



In addition to data collected by NDOT, traffic volume and speed data along local and regional roadways are obtained with resources from CAMPO and member agencies. Information derived from the data is used in conjunction with data collected by NDOT to fully understand the demand on the comprehensive roadway network. CAMPO's traffic counters are commonly deployed by Carson City staff in response to a citizen or private developer inquiry regarding volumes or speeding on local and regional roadways. The data is used to conduct traffic control warrant analyses at or along specific intersections or corridors. Information can also assist in identifying areas where vehicle speeds exceed the posted speed limit. Traffic counters have been deployed since 2016. The latest five years of data displaying speed variance are graphically presented in Figure 5.8. The symbology in this map displays locations where collected speed data varies significantly from the posted speed limit.

Figure 5.8: Vehicle Counter Deployment Locations with Speed Variance (2017-2021)

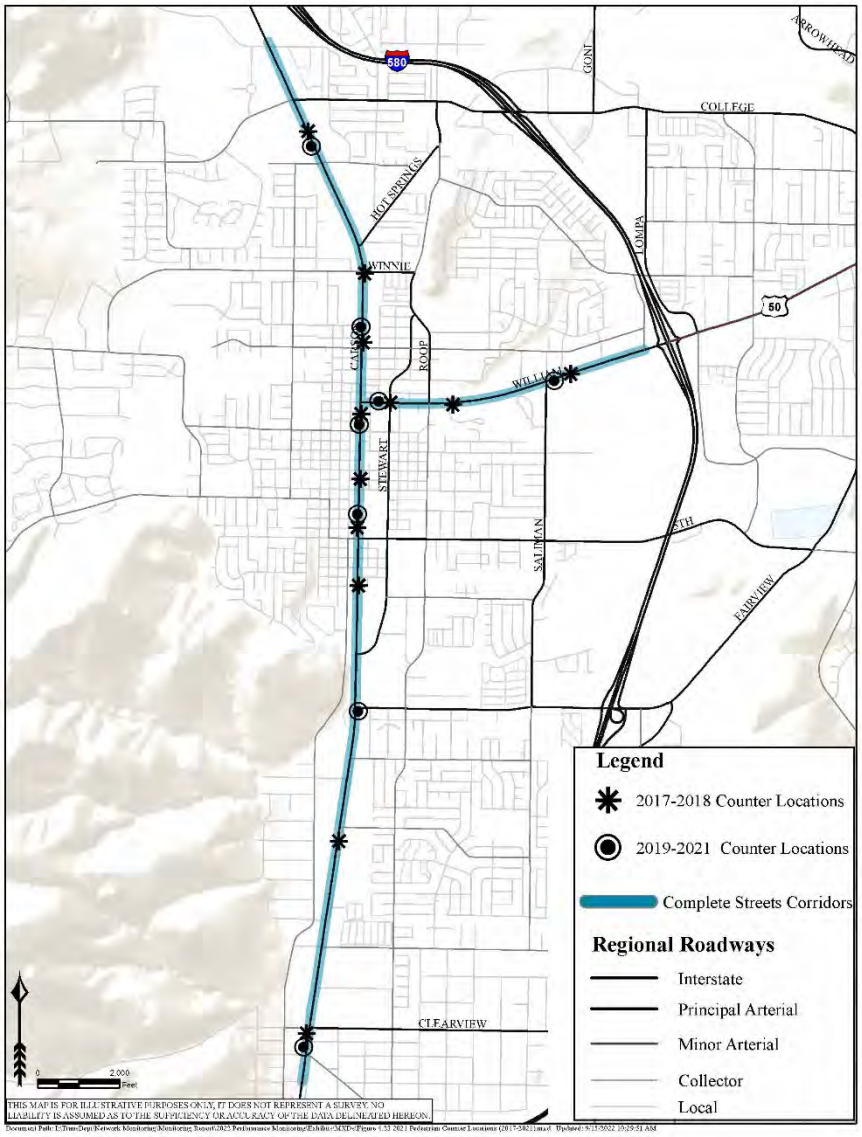


5.3 – Complete Streets

Complete Streets are designed and operated to enable safe access and comfortable accommodation of users of all ages and abilities, including pedestrians, cyclists, movers of commercial goods, persons with disabilities, public transportation vehicles and their passengers, older adults, children, and motorists. Since 2017, CAMPO staff have monitored pedestrian and bicycle activity on four corridors designated by the Carson City Board of Supervisors for Complete Streets treatment. The corridors are Downtown Carson Street, North Carson Street, South Carson Street, and East William Street. Complete Streets enhancements were completed in the Downtown Corridor (2017) and South Carson Street Corridor (2020). Complete Streets improvements are planned for East William Street in 2023 and North Carson Street in 2025.

Figure 5.9 displays pedestrian counter locations from 2017 through 2021. In 2019 the pedestrian counters began to be installed more permanently, placing counters in a single location for six months or more at a time. This was done to obtain a more consistent data sample.

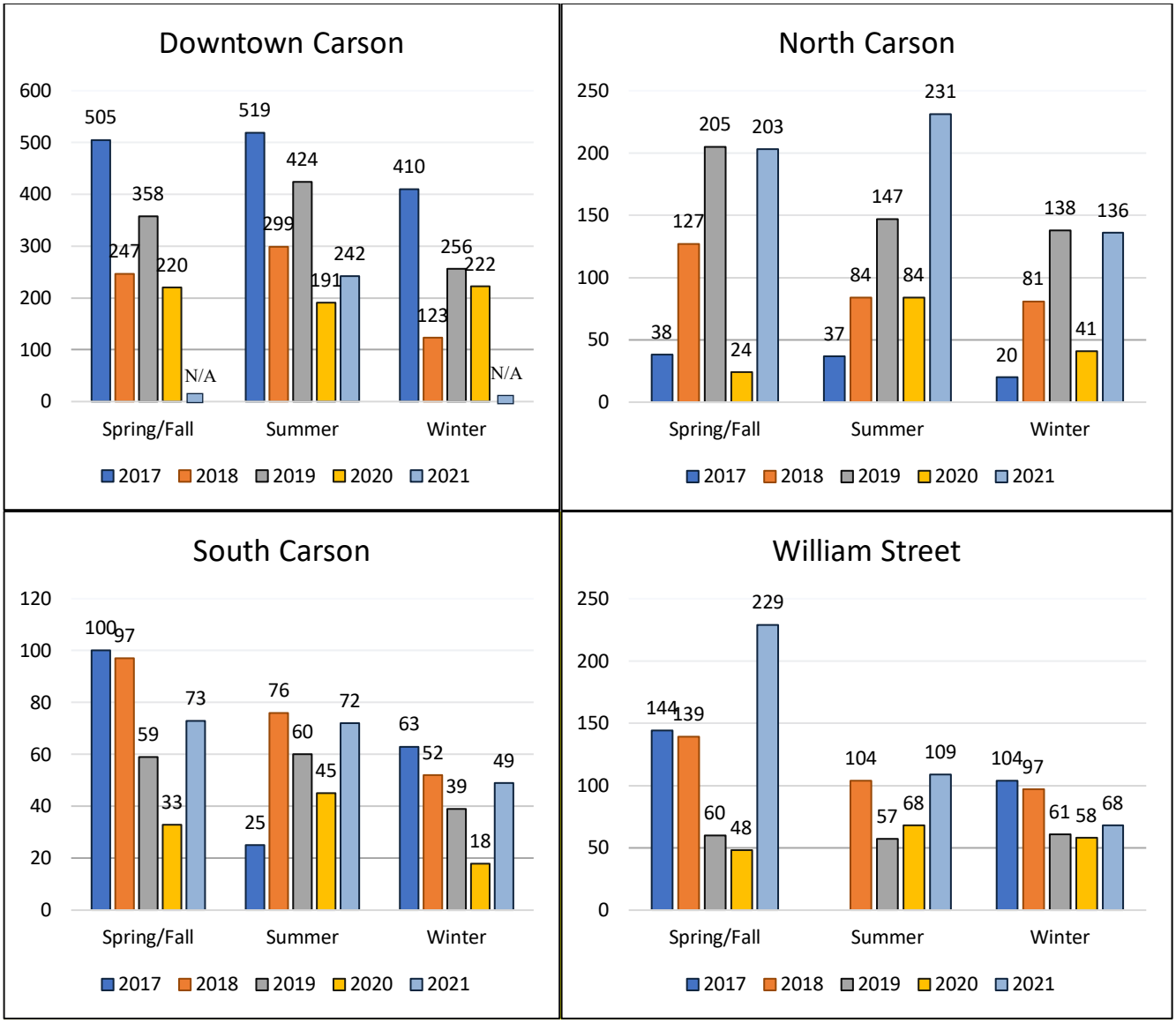
Figure 5.9: Complete Streets Monitoring Locations (2017-2021)



5.4 Pedestrian Monitoring

Pedestrian volume is one of several ways to measure the success of Complete Streets investment. It is logical to expect Complete Streets treatments to induce pedestrian demand, increasing in pedestrian use of the improved corridors. However, there are factors beyond just roadway improvements, such as adjacent land use, that play a role in a corridor's attractiveness to pedestrians. Therefore, a lack of growth from year to year does not mean that the investment is not worthwhile. Significant increases in utilization may take multiple years to manifest in the data, which is why continued monitoring is imperative. Figures 5.10-5.13 display the 2017 and 2018 baseline pedestrian data as well as 2019 to 2021 data, including annual average volumes and seasonal average volumes by corridor.

Figures 5.10-5.13 Average Daily Pedestrian Volume per Season by Corridor and Year (2017-2021)



Notes:

1. Seasonal months are defined as follows:
   Summer (May, June, July, August); **Spring / Fall** (March, April, September, October); **Winter** (November, December, January, February).
2. Outliers have been removed.
3. 3. Downtown Carson Street data was only collected during the Summer season of 2021.

Figure 5.14: Average Daily Pedestrian Volumes by Corridor (2017-2021)

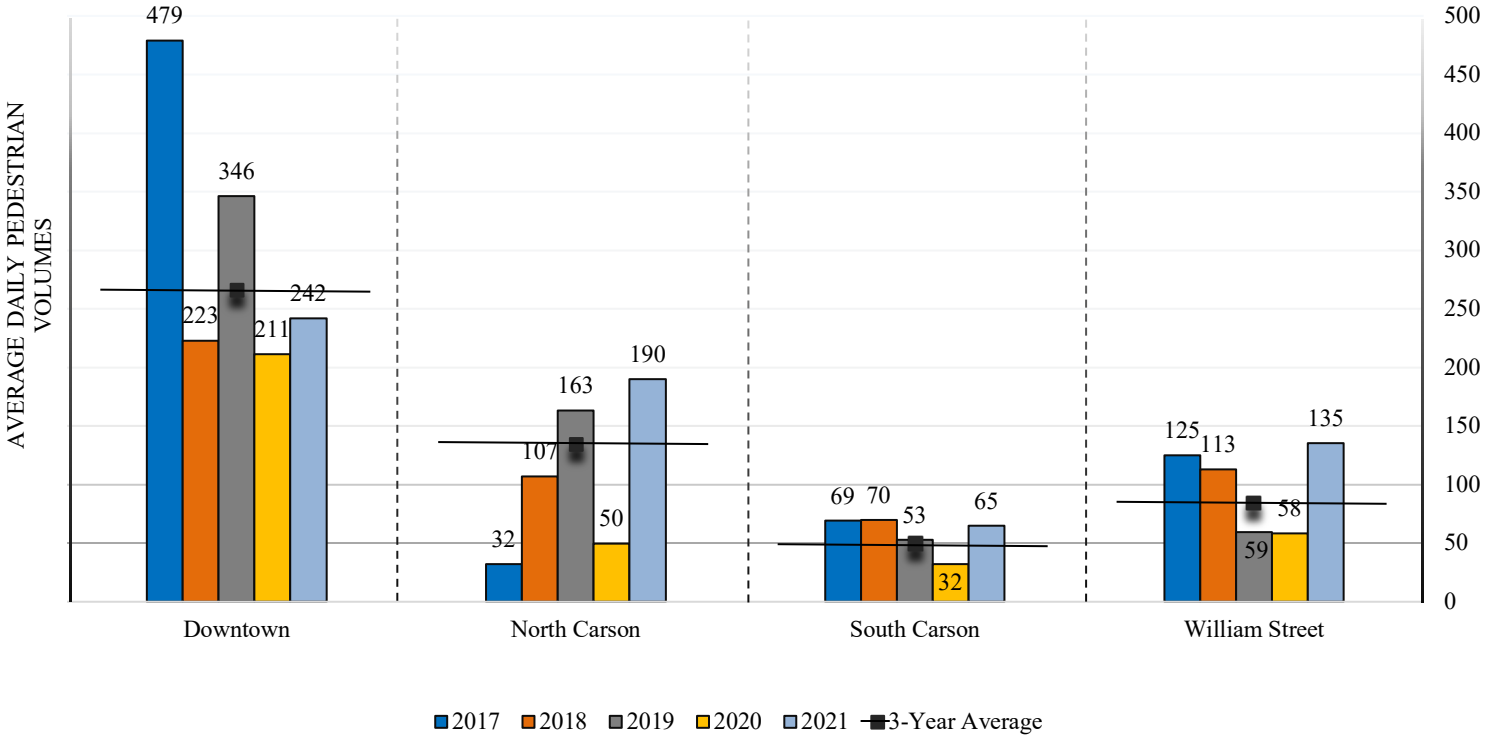
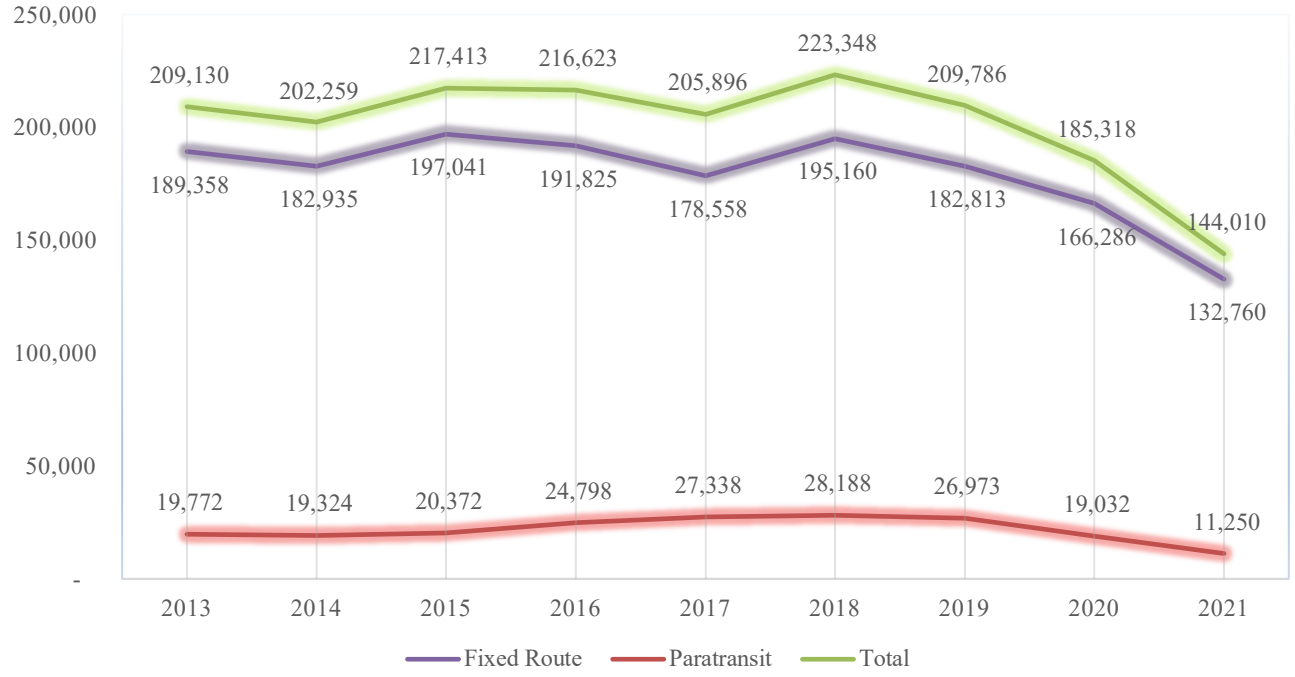


Figure 5.14 provides the average daily pedestrian volumes by a corridor from 2017 to 2021. Downtown Carson Street has the highest average daily volumes followed by North Carson Street, William Street, and South Carson Street. The impact of Covid-19 is apparent in the 2020 data, which is below the 3-year average on all four corridors. Despite a national trend of increased pedestrian activity during the pandemic, counter data shows a decrease. This is likely due to the placement of the counters near schools and retail stores, both of which were frequently closed in 2020.

5.5 – Transit Monitoring

In the CAMPO Area, Jump Around Carson (JAC) is the primary transit provider. The JAC bus transit system is comprised of 62 bus stops along four fixed routes. As required by federal regulations, JAC provides a complementary paratransit service that provides "door-to-door" bus service for persons with disabilities who cannot access the fixed bus routes and are located within a mile of an established fixed route.

Figure 5.15: JAC Ridership (FY 2013-FY 2021)



Source: Jump Around Carson National Transit Database, Annual Reports, 2013-2020

Between 2013 and 2021, the average combined ridership for JAC is 201,531. Ridership is defined as the number of boarding passengers. The demand for transit mobility in the United States and the Carson Area is significantly influenced by socioeconomic factors, such as demographics (age and gender), economics (income and occupation), public resources (transit infrastructure and performance), and land use. Fluctuations in employment levels, gas prices, household income, bus cleanliness, and bus on-time performance can significantly impact annual ridership.

Figure 5.15 shows ridership data between 2013 and 2021. Total ridership for JAC increased by 8.5% from 2017 to 2018. 2019 however saw a decrease in ridership of 6%, mainly attributed to JAC's prior contract operator, which experienced difficulties in staff retention and performance. As a result, JAC contracted with a new transit operator in 2020 to improve service quality. Subsequently, ridership dropped by 12% in 2020, and again by 22% in 2021 to the lowest level of the decade. This was caused largely by the COVID-19 pandemic. Ridership is expected to increase as public health conditions improve and normal travel patterns resume.

The JAC transit map is depicted in Figure 5.16, which identifies JAC's four fixed routes and the JAC Assist (paratransit) service areas which include a three-quarter mile area and a mile area (extended service area) beyond the fixed routes.

Figure 5.16: JAC Transit Map (Fall 2020)

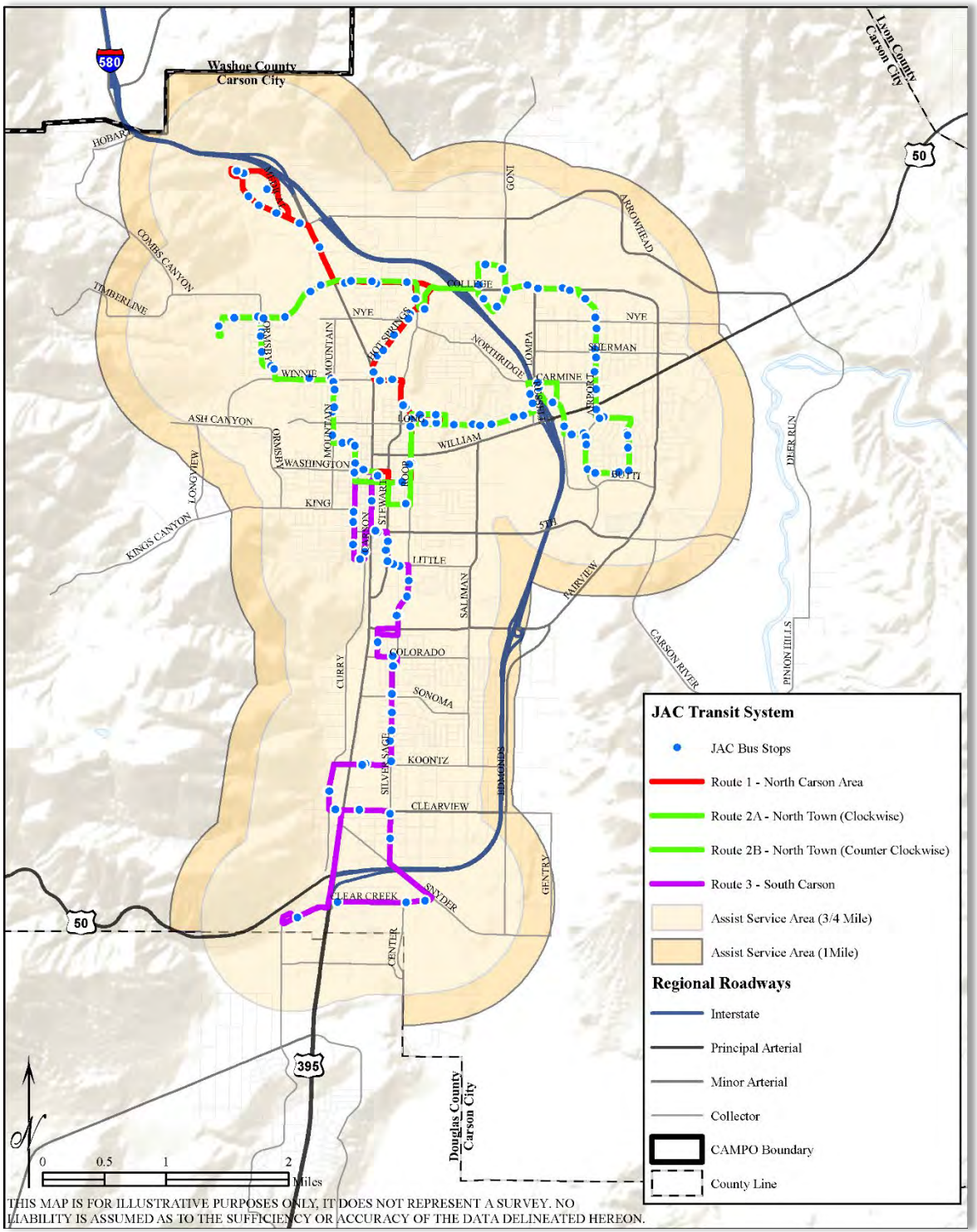


Table 5.1 provides the annual performance reporting of key metrics utilized to understand the efficiency and effectiveness of JAC's transit operation from 2018 through 2021.

Table 5.1: Jump Around Carson Operating Statistics (2018-2021)

	FY 2018		FY 2019		FY 2020		FY 2021	
	Fixed	**Paratransit**	**Fixed**	**Paratransit**	**Fixed**	**Paratransit**	**Fixed**	**Paratransit**
Annual Unlinked Trips	195,160	28,188	169,067	26,973	166,286	19,032	132,760	11,250
Operating Expenses per Unlinked Passenger Trip	$4.39	$16.10	$4.59	$18.62	$7.02	$11.70	$9.95	$18.40
Operating Expenses per Vehicle Revenue Mile	$4.80	$5.15	$4.47	$6.14	$6.77	$3.98	$8.77	$4.86
Operating Expenses per Vehicle Revenue Hour	$57.21	$55.19	$51.84	$59.93	$78.20	$36.84	$101.30	$42.47
Number of Passengers per Revenue Hour	13.0	3.4	11.3	3.2	11.1	3.1	10.2	2.3
Number of passengers per Revenue Mile	1.1	0.3	1.0	0.3	1.0	0.3	0.8	0.3
Number of passengers per revenue day	637.8	92.1	545.4	88.1	539.9	61.8	444.0	38.5
Monthly ridership	16,263	2,349	14,089	2,248	13,857	1,586	11,064	938
Farebox recovery rate	9.0%	5.6%	6.1%	3.5%	3.3%	6.5%	0.0%	0.0%

Note: Farebox recovery rate in FY 2021 is 0.0% due to JAC running fare-free service during the COVID-19 pandemic.

CHAPTER 6 – ONGOING AND FUTURE MONITORING EFFORTS

Outlined within CAMPO's 2050 Regional Transportation Plan, CAMPO's established goals, objectives, and performance measures form the basis of CAMPO's performance-based planning framework that informs ongoing policymaking and investment decisions. CAMPO staff will continue to monitor the changing socioeconomic factors and the mobility needs of the region to appropriately respond to demands on CAMPO's transportation infrastructure. In the next fiscal year, CAMPO staff intends to focus on improving bicycle and pedestrian monitoring methodologies and permanent counter-deployment to better monitor and inform investment decisions. CAMPO staff also plan to analyze changes in road vehicle volumes to determine which roads are seeing increases in traffic volume to assist in data-driven, performance-based project identification.

Several resources will be available for use for future monitoring reports including the 2022 Growth Management Report, updated Traffic Analysis Zones (TAZ) along with an updated Travel Demand Model, and the completion of the Carson Area System Management Plan (CATSMP). These resources may be used to report and contextualize trends that impact the transportation infrastructure in the CAMPO Area. Additionally, we are considering potential methodologies to better analyze vehicle counts within the CAMPO Area and coordinated monitoring for bicycles and pedestrians for smaller engineering projects.

CAMPO staff are also continuing to coordinate with NDOT regarding possible changes to performance measures including potential legislation that would require smaller MPO's to measure and target greenhouse gas emissions. Staff will also continue discussions with NDOT to better understand the type and availability of data as it relates to annual monitoring and reporting by CAMPO. CAMPO staff will continue to analyze Census data to report reflections and observations through and following the COVID-19 pandemic. Lastly, 2020 Census urbanized area definitions and borders are anticipated to be available in late 2022 which may impact and focus CAMPO's efforts.

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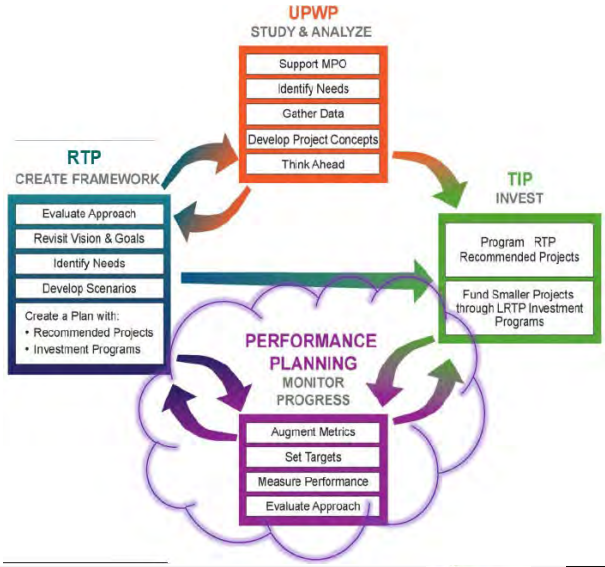
1

CAMPO 2050 RTP GOALS

- Increase the safety of the transportation system for all users
- Maintain a sustainable regional transportation system
- Increase the mobility and reliability of the transportation system for all users
- Maintain and develop a multi-modal transportation system that supports economic vitality
- Provide an integrated transportation system

CAMPO PRIMARY RESPONSIBILITIES

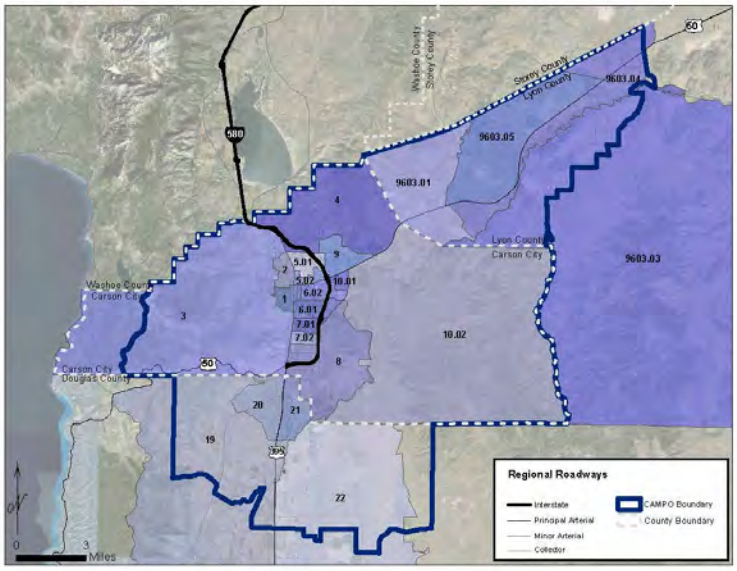


2

2

CM0

Updated 2020 Census Tracts showing changes to Tracts 6.01, 6.02, 9603.01, 9603.03, 9603.04 & 9603.04



WHO

Socio-demographics

- Population
- Households
- Safety

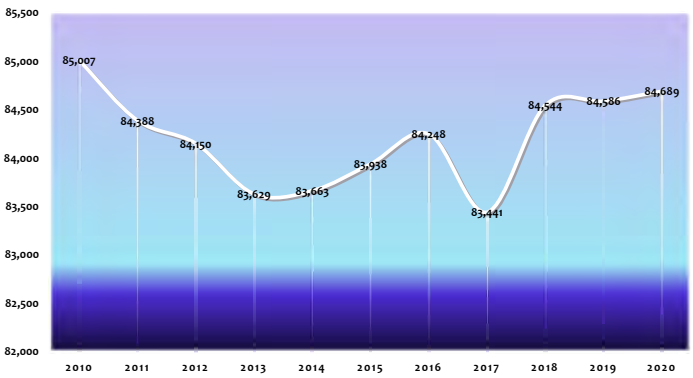
3

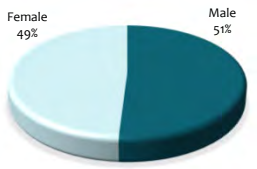
3

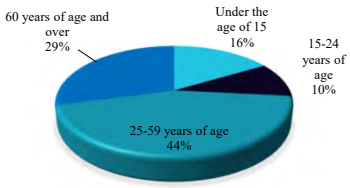
WHO

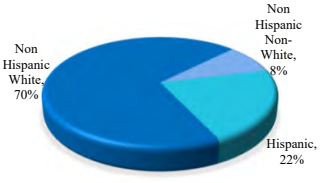
Socio-demographics

Population









4

4

WHO
Socio-demographics
Housing

2010 CAMPO JOBS - HOUSING BALANCE

$$\frac{\text{\# CAMPO Jobs}}{\text{[\# CAMPO Households – \# CAMPO Household's w/ Retirement Income]}} = \frac{29{,}000}{[31{,}662 - 7{,}449]} = 1.20$$

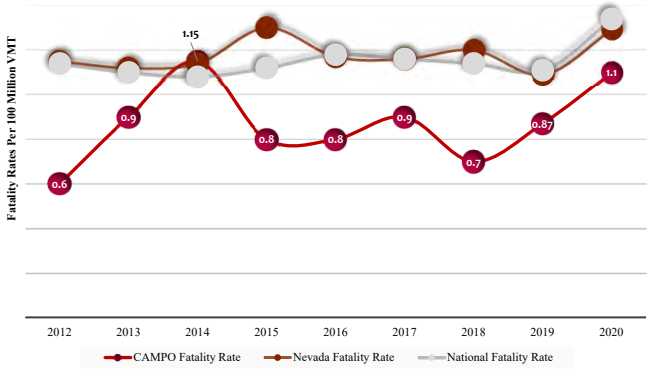
2020 CAMPO JOBS - HOUSING BALANCE

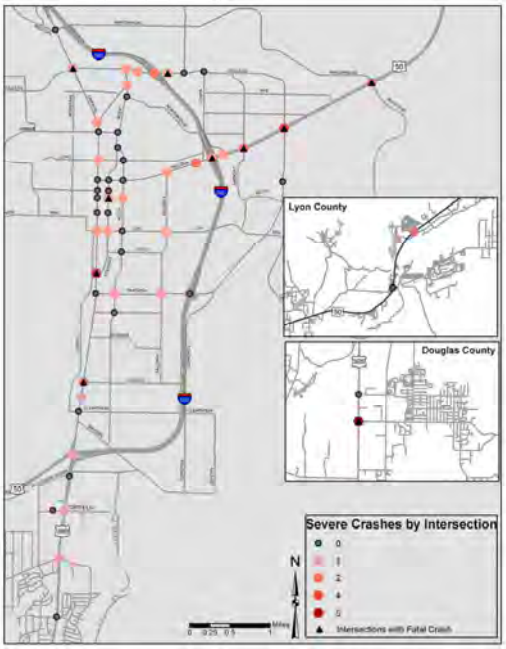
$$\frac{\text{\# CAMPO Jobs}}{\text{[\# CAMPO Households – \# CAMPO Household's w/ Retirement Income]}} = \frac{30{,}700}{[34{,}889 - 9{,}347]} = 1.20$$

5

5

WHO
Socio-demographics
Safety





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CM0

Facility Type		Estimated PCI		Percent Change
		2017	2022	2017 to 2022
City-wide	Regional Roads	67	74	10%
	Local Roads	61	56	-9%
	All Roads	63	62	-2%
Performance District 1	Regional Roads	67	69	3%
	Local Roads	62	57	-7%
	All Roads	64	61	-4%
Performance District 2	Regional Roads	73	80	9%
	Local Roads	64	53	-18%
	All Roads	67	63	-7%
Performance District 3	Regional Roads	72	77	6%
	Local Roads	57	58	1%
	All Roads	62	64	3%
Performance District 4	Regional Roads	61	79	28%
	Local Roads	58	51	-13%
	All Roads	59	61	2%
Performance District 5	Regional Roads	64	65	2%
	Local Roads	66	60	-10%
	All Roads	65	62	-6%

WHAT

Mobility Network

- 2022 PCI Report Card

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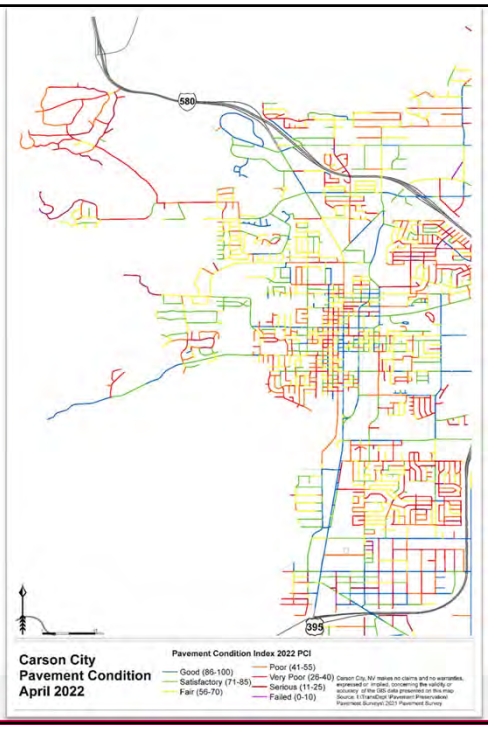
7

7

WHAT

Mobility Network

PCI



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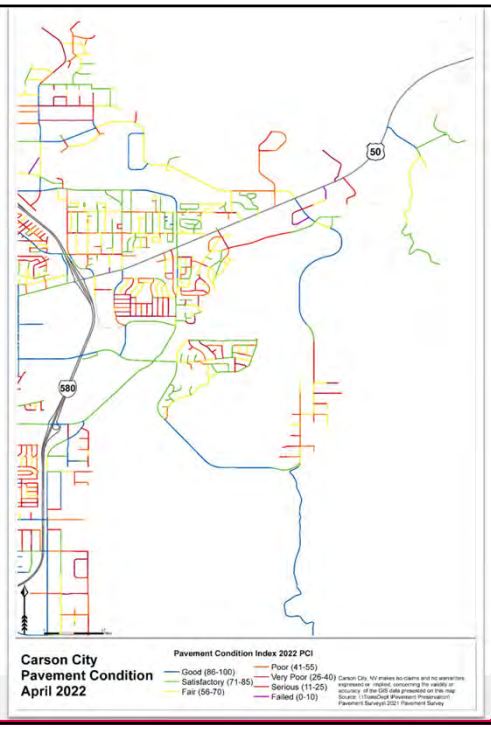
WHAT
Mobility Network
PCI



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WHAT
Mobility Network
PCI

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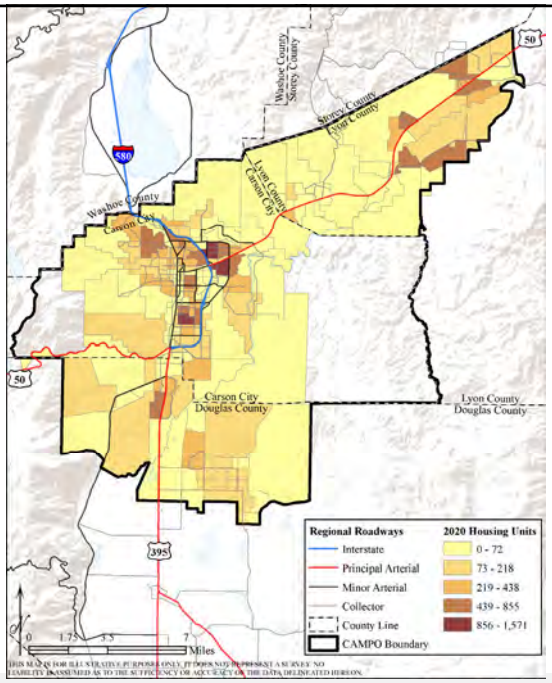
10

CM0



WHERE

CAMPO

- Travel Demand Model
- Level of Service

11

WHERE

CAMPO

Travel Demand Model

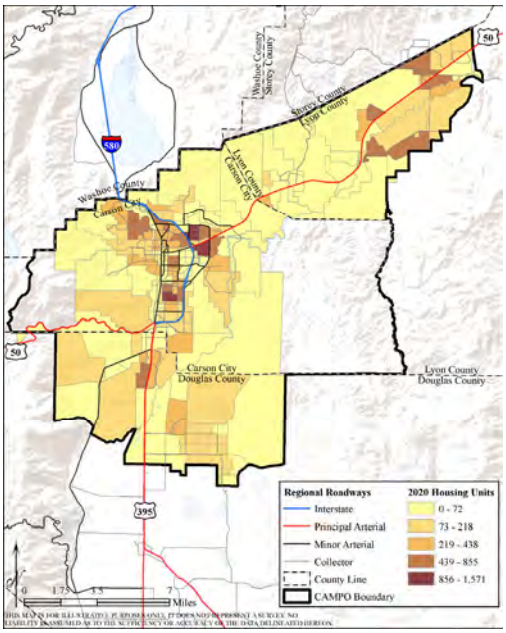
Housing Units

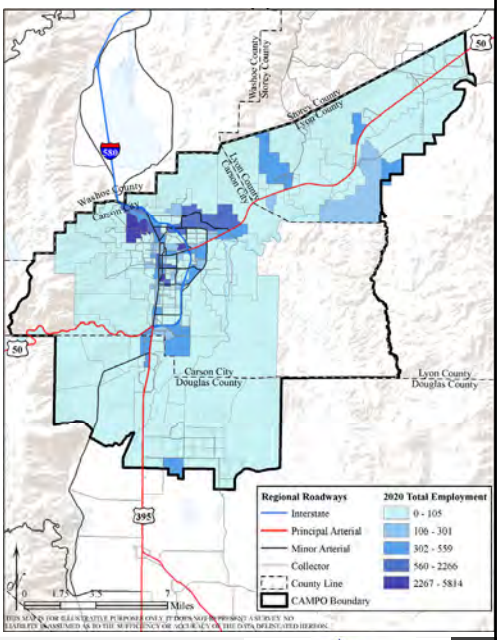
&

Employment

Density

2020





12

WHERE

CAMPO

Travel Demand Model

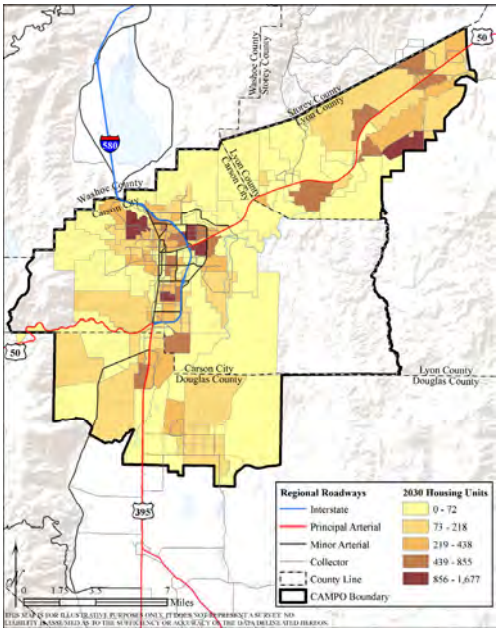
Housing Units

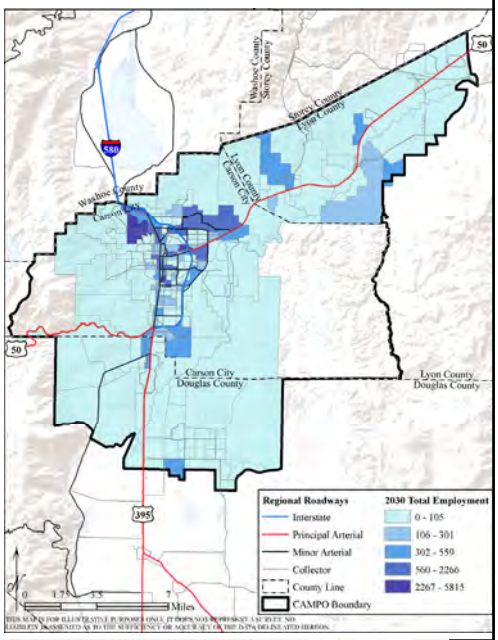
&

Employment

Density

2030





13

WHERE

CAMPO

Travel Demand Model

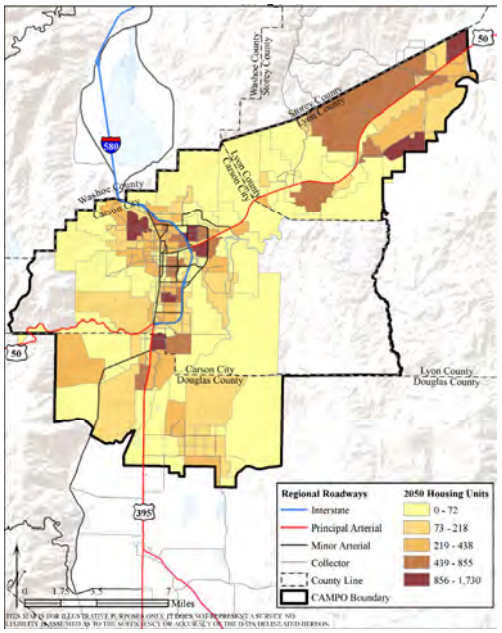
Housing Units

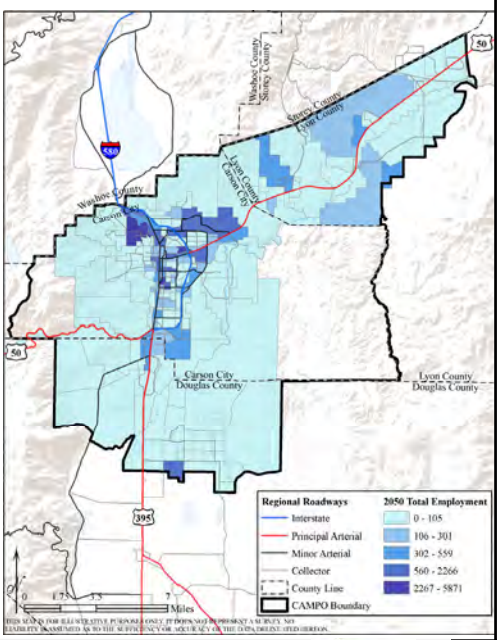
&

Employment

Density

2050





14

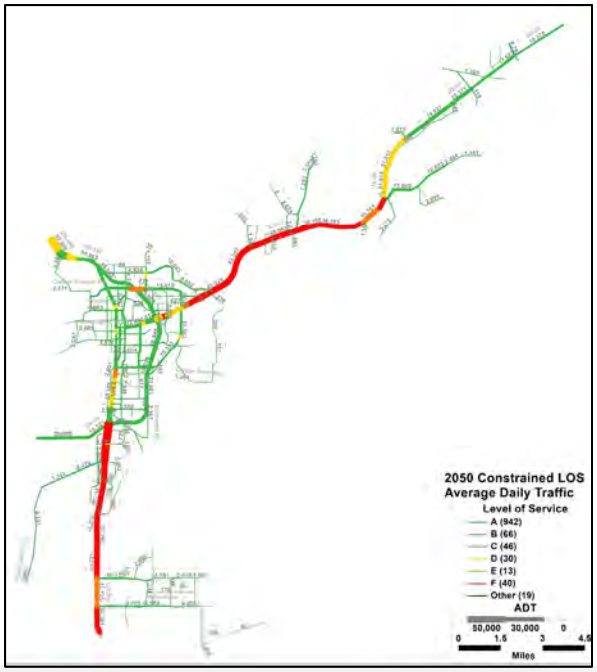
WHERE

CAMPO

CAMPO

Roadway Level of Service

2050



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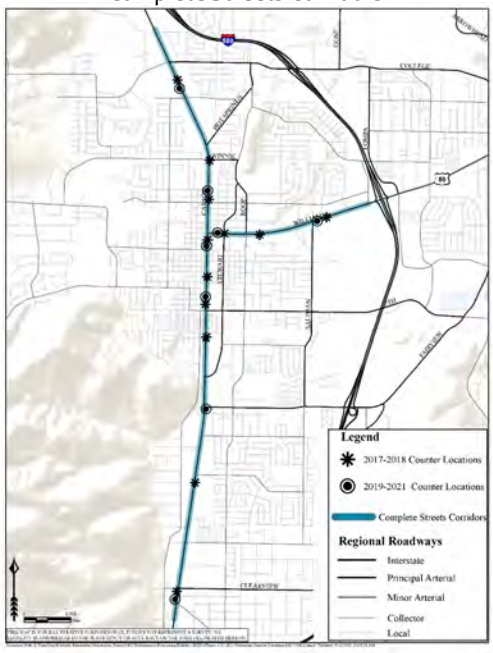
CM0

Complete Streets Corridors



HOW

CAMPO

- Commuting
- Vehicle Volumes
- Complete Streets

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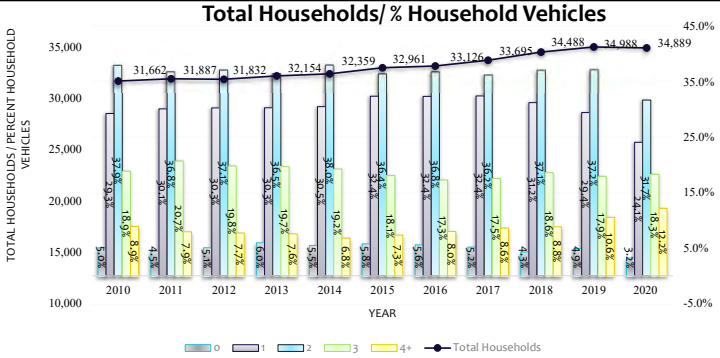
16

CM0

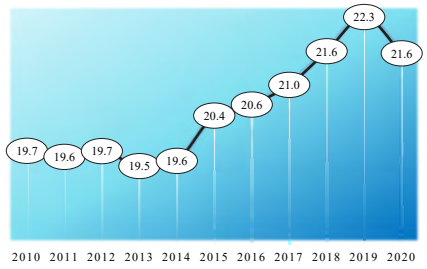
HOW CAMPO

Commuting

Total Households/ % Household Vehicles



Commute Length



Commute Type

	Drove Alone	Carpooled	Transit	Walked	Other	Worked at Home
2010	80.6%	10.5%	0.5%	2.1%	2.8%	3.5%
2020	80.3%	11.4%	0.5%	1.3%	0.9%	5.5%

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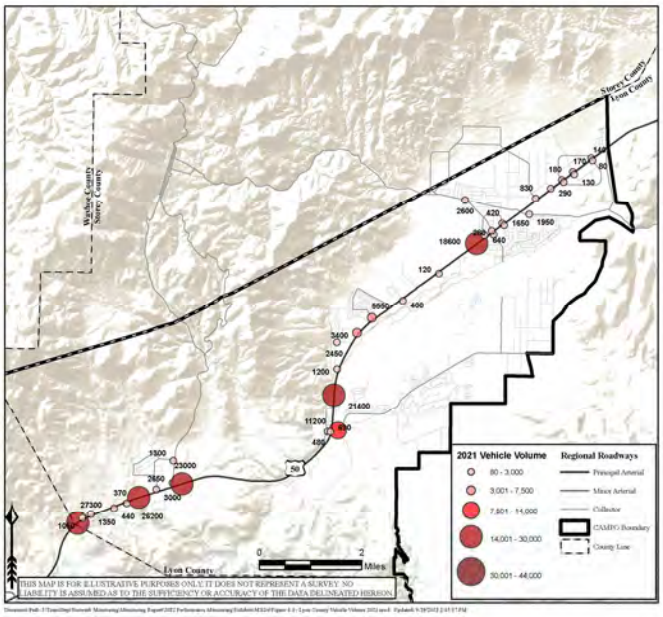
17

HOW CAMPO

Vehicle Volumes

Lyon County



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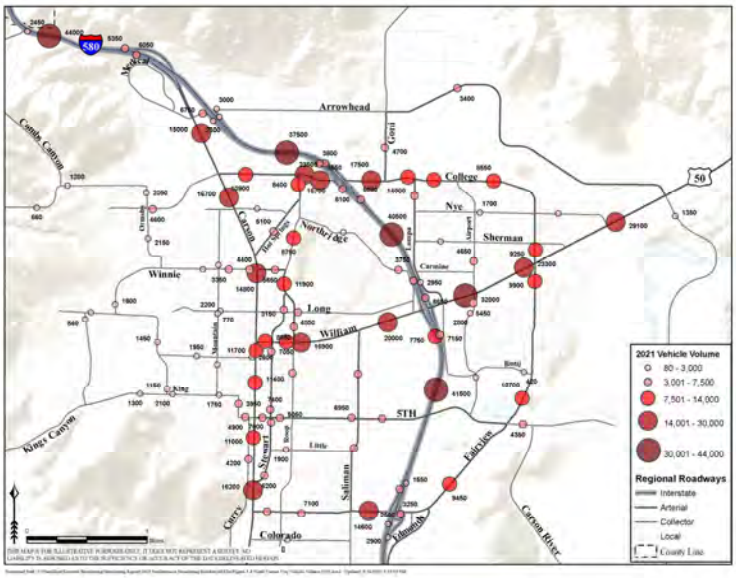
HOW

CAMPO

Vehicle Volumes

North Carson City



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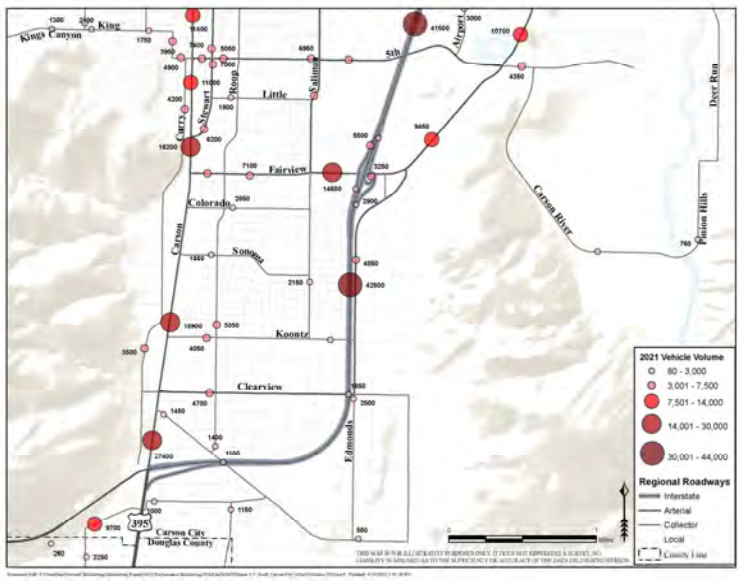
HOW

CAMPO

Vehicle Volumes

South Carson City



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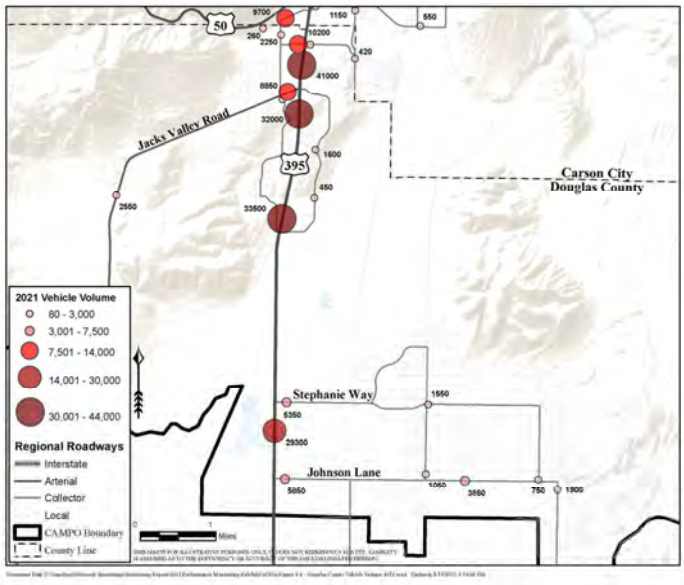
HOW CAMPO

Vehicle Volumes

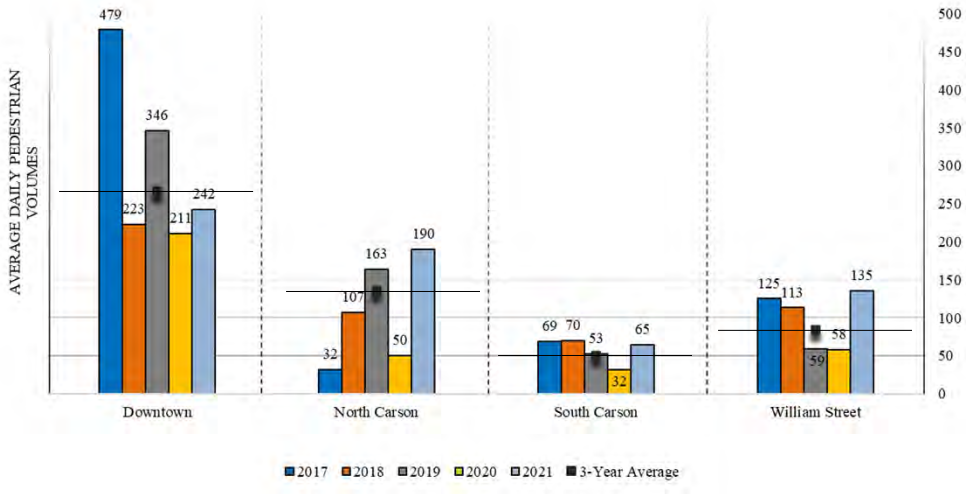
Douglas County



21

HOW CAMPO

Complete Streets



22

2022 Growth Management Report
NDOT Coordination
Census
Road Vehicle Volumes
CATSMP
TDM
TAZ
Bike & Pedestrian Monitoring

NEXT

2023 Transportation Network Monitoring

23

Thank You

Kelly Norman, AICP
(775) 283-7535
knorman@carson.org
CAMPO

24

STAFF REPORT

Report To: The Carson Area Metropolitan Planning Organization (CAMPO)

Meeting Date: November 9, 2021

Staff Contact: Alex Cruz, Transit Coordinator

Agenda Title: For Possible Action – Discussion and possible action regarding ratifying the submission of a Transit Electrification Grant ("Grant") application to NV Energy seeking $225,000, with no local match requirement, to complete a Zero-Emission Transition Plan ("Plan") for the purposes of evaluating and understanding opportunities and constraints for projects related to electric and other low- or no-emission transit vehicles and related infrastructure.

Staff Summary: The Grant is available through NV Energy's Economic Recovery Transportation Electrification Plan ("ERTEP"), a nearly $100 million program to expand electric vehicle charging stations and infrastructure access across NV Energy's service area. For fiscal year ("FY") 2022, NV Energy has made $6 million available for the Grant program. If the Grant is awarded to CAMPO, it can complete the Plan using Grant funds, and the completed Plan will make CAMPO eligible to pursue additional NV Energy funding through the ERTEP, as well as other Federal Transit Administration ("FTA") Section 5339(b) and Section 5339(c) programs. The Grant application deadline was November 4, 2022, and staff submitted the Grant application to NV Energy on November 3, 2022. Staff are seeking ratification of the submission.

Agenda Action: Formal Action/ Motion **Time Requested:** 5 minutes

---

Proposed Motion

I move to ratify submission of the Grant application.

Background/Issues & Analysis

The Grant program is a competitive grant through NV Energy to meet the immediate needs of the State's transit agencies, metropolitan planning organizations ("MPOs"), and the Nevada Department of Transportation ("NDOT") to advance decarbonization of the transportation sector in Nevada.

The total budget for the Grant program in FY 2022 is $6 million, and an individual project may request up to that full $6 million. Grant awardee(s) will receive a reimbursement check for up to 100 % of approved project costs upon submission of a claim package after the project is complete. No local matching funds are required.

To optimize the use of the available $6 million, NV Energy has convened a working group consisting of NDOT, the MPOs, and the Tahoe Transportation District (TTD). This working group will collaboratively brainstorm project concepts in immediate need of support, design project details for select project concepts (e.g. general budget +/- 10%, specific location), and select projects to fund. The group will prioritize projects that provide incremental electrification of their system and that electrify transit services in historically underserved communities. The group will also seek to maximize all available funding sources to ensure maximum utilization of the Grant program. Grants are anticipated to be awarded before the end of 2022.

CAMPO's Grant application is for the creation of a Plan that will comply FTA requirements. The FTA requires the development of a Plan in order for transit agencies to be eligible for project funds related to low- or no-emission vehicles, and related infrastructure, through the Bus and Bus Facilities Competitive Grant Program under FTA Sections 5339(b) and 5339(c). The Plan will review potential concepts and opportunities to maximize future NV Energy funding as well as federal grants. The Plan will also evaluate opportunities to partner with neighboring transit operators for the development of a region-wide transit electrification network. This includes electrical infrastructure planning for existing or future routes between Washoe County (RTC Intercity), Lyon County, Douglas County (DART), and the Tahoe Basin (TTD). Lastly, the plan will examine how operating and maintaining low- or no-emission vehicles and related infrastructure will impact CAMPO and Jump Around Carson's administration, maintenance facilities, as well as its workforce.

While NV Energy's ERTEP is focused on the deployment of electrical infrastructure, the development of a comprehensive planning document for CAMPO, like the Plan, will help identify and prioritize areas of need in our region such that the overall goals of ERTEP can be achieved equitably across the state.

CAMPO plans to hire a consultant to develop and complete the Plan. The Plan is expected to take approximately one year to complete.

Applicable Statute, Code, Policy, Rule or Regulation
N/A

Financial Information
Is there a fiscal impact? ☒ Yes ☐ No

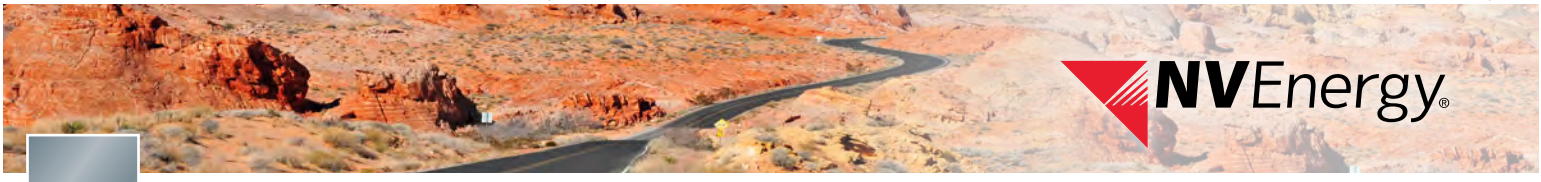
If yes, Fund Name, Account Name / Account Number:
For Revenue: CAMPO Fund, Regional Transportation Fund revenue account / 2450091-481150,
For Expenses: CAMPO Fund, CAMPO Grants expense account / 2453028-501210.

Is it currently budgeted? ☐ Yes ☒ No

Explanation of Fiscal Impact: The cost for completion of the Plan is covered 100% by the Grant. No local match is required for these funds. If awarded, the Grant amount will be added to the revenue and expense accounts in the FY 2023 budget during the subsequent budget augmentation.

Alternatives
Do not approve submission of the Grant application and direct staff to retract the application.

Supporting Material
-Exhibit-1: Economic Recovery Transportation Electrification Plan, Transit Electrification Grant Flyer
-Exhibit-2: Sample Application Template and CAMPO Responses



NVEnergy

ERTEP Economic Recovery Transportation Electrification Plan

Transit Electrification Grant

PROGRAM OVERVIEW

The Transit Electrification Grant is a component of **NV Energy's Economic Recovery Transportation Electrification Plan** (ERTEP).

To optimize the approved budget of up to $6 million for the Transit Electrification Grant, NV Energy will convene a **working group of the State's transit agencies, metropolitan planning organizations and the Department of Transportation**. This working group will:

1. Collaboratively brainstorm project concepts in immediate need of support,
2. Design project details for select project concepts (i.e. general budget +/- 10 percent, specific location), and
3. Select projects to fund.

The group will **prioritize projects providing incremental electrification and by their ability to electrify transit services in historically underserved communities**. Additional priority will be given to projects with **infrastructure located in historically underserved communities**. The group will also seek to maximize all available funding sources to ensure maximum utilization of the Transit Electrification Grant program.

FUNDING

Grant projects will be awarded by the end of 2022. Grant awardees will be **required to upload a final site design and proof of line extension approval** (if applicable) to NV Energy's online grant management portal prior to construction. In addition, awardees will be required to upload 1-2 photos showing construction started at the approved site prior to October 1, 2023 or funds will be forfeited.

Grant awardee(s) **will receive a check for up to 100 percent of approved project costs** upon agreed upon submission of their claim package after project construction is complete.

OWNERSHIP & MAINTENANCE

Grant awardees will choose the ownership model for the charging infrastructure to be NV Energy, a third party or customer-owned. Third-party providers and electric vehicle charging stations must be selected from NV Energy's ERTEP qualified provider list. Ongoing preventative and corrective maintenance could be performed by an entity different than the infrastructure owner; however, the **charging infrastructure owner retains the operational uptime requirement responsibility**.

In order to create a reliable and smooth experience for EV drivers, all sites are required to be fully functional at least 90 percent of the calendar year.

REPORTING

Select data is required by the Public Utilities Commission of Nevada to be reported per charger for either a **period of five years for Level 2 chargers and eight years for DC fast chargers, or the operational life of the incentivized chargers**, whichever is longer.

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Transit Electrification Grant Program

Grant Application Template Form

This template form is designed to help applicants who are interested in applying for the Transit Electrification Grant program as part of the Economic Recovery Transportation Electrification Plan (ERTEP). **Applications submitted through any other methods except the online portal** accessible via nvenergy.com/ERTEP **will not be accepted.**

Context

The Economic Recovery Transportation Electrification Program (ERTEP) Transit Electrification Grant program is a competitive grant program to meet the immediate needs of the State's transit agencies, metropolitan planning organizations, and Department of Transportation to advance decarbonization of the transportation sector in Nevada.

The total budget for the grant is up to $6 million and an individual project may request up to $6 million. Preferred projects will include match funding. Grant awardee(s) will receive a check for up to 100 percent of approved project costs upon agreed upon submission of their claim package after project construction is complete.

Awarded projects must select third party providers from NV Energy's ERTEP qualified provider list. In addition, EV charging models must be selected from the qualified ERTEP model list. If chargers are not publicly accessible, they are not required to provide credit/debit card magnetic strip/chip reader payment options.

Select data is required by the Public Utilities Commission of Nevada to be reported per charger for either a period of five years for Level 2 chargers and eight years for DC fast chargers, or the operational life of the incentivized chargers, whichever is longer.

Only transit agency projects vetted by NV Energy and their transit working group are invited to apply using this form.

Eligibility

Only transit agency projects vetted by NV Energy and their transit working group are invited to apply. If unsure of your eligibility, contact EV@nvenergy.com before applying.

1. Select your organization:
    a. Nevada Department of Transportation
    b. Regional Transportation Commission of Southern Nevada
    c. Regional Transportation Commission Washoe County
    d. Tahoe Regional Planning Agency
    e. Carson Area Metropolitan Planning Organization
    f. Other
        i. *MESSAGE: You do not qualify for this program. Contact EV@nvenergy.com with questions.*

2. Will this installation be used to charge electric vehicles for a transit agency (i.e. bus, micro-transit vehicle)?

a. Yes – Indirectly in the future. Our application is seeking funding to develop a Zero-Emission Transition Plan intended to identify constraints, locations, and needs for the future construction of charging stations or other EV infrastructure to serve Jump Around Carson (JAC) (or other partner agency) transit vehicles and facilities. Without a defined plan, JAC will be unable to prioritize and work towards electrification of the transit system.
b. No
    i. *MESSAGE: You do not qualify for this program.*

Applicant Information

Applicant

The **Applicant** is the individual or organization filling out the application.

3. Applicant Contact
    a. Name – Christopher Martinovich
    b. Company - CAMPO
    c. Address – 3505 Butti Way, Carson City, NV 89701
    d. Email – cmartinovich@carson.org
    e. Phone – 775.283.7367
    f. Applicant Company Representative Title – Transportation Manager

Site Host Information

Site Host

The **Site Host** is the NV Energy customer of record for the proposed installation location.

4. Is there an existing NV Energy service account at the proposed installation location?
    a. Yes
    b. No

5. 19-Digit Account Number from NV Energy Bill -on file

6. Premise Number - on file

7. Site Host Contact
    a. Name – Christopher Martinovich
    b. Company – CAMPO
    c. Address – 3770 Butti Way, Carson City, NV 89701
    d. Email – cmartinovich@carson.org
    e. Phone – 775.283.7367

8. Site Host Company Representative Title – Transportation Manager

9. Do you own the property?
    a. Yes
    b. No

i. *MESSAGE: You will need to upload proof of authorization to install charging infrastructure from the property owner at the end of this application.*

Installation Address

This is the actual street address where the electric vehicle charging infrastructure will be installed. This may be different from the service address, which is the address associated with the host customer's utility account.

10. Installation Address – N/A. JAC offices are at 3770 Butti Way, Carson City, NV 89701. The application is for creation of a Zero-Emission Transition Plan.

Charging Station Owner

This is the entity that will own and be responsible for the charging infrastructure.

11. Who will be responsible for the charging infrastructure?
    a. NV Energy
    b. Qualified Third-Party Provider
    c. Site Host (NV Energy Customer of Record) –

N/A – No charging infrastructure is being proposed with this application. Future charging infrastructure is anticipated to be the responsibility of the Site Host (option c.) but will be determined later.

12. Please pick the qualified third-party provider who will be owning the charging infrastructure from this list of pre-qualified providers. *[Note, providers have not been qualified at the time this document was published. Check back at nvenergy.com/ertep for updates.]*

N/A

13. Charging Station Owner Contact
    a. Name
    b. Company
    c. Address
    d. Email
    e. Phone

N/A

14. Charging Station Owner Company Representative – N/A

Installer Information

All electric vehicle charging infrastructure installed as part of the Economic Recovery Transportation Electrification Plan, but not installed by NV Energy, must be installed by a contractor who holds a valid license in the classification required to perform such work issued by the Nevada State Contractors Board pursuant to regulations adopted by the Board and at least

one electrician holding certification from the Electric Vehicle Infrastructure Training Program. Click here to view the list of certified electricians in Nevada: https://evitp.org/nevada

15. If your application is awarded, do you consent to selecting an installer in compliance with these requirements for your proposed installation?
    a. Yes – This grant application is related to the development of a plan. Should the completed plan identify specific infrastructure to the be installed, CAMPO consents to selecting an installer in compliance with these requirements for future applications made under this program. For the plan development, CAMPO will procure a consultant using a qualifications-based selection process consistent with its Federal SOQ/RFQ processes, as approved by NDOT.
    b. No
        i. *MESSAGE: Applicants must consent to selecting an installer in compliance with the above requirements to be eligible for this program.*

16. Has a licensed installer for the proposed installation been selected? If not and your application is awarded, the installer you select will need to meet the requirements outlined in the previous question.
    a. Yes
    b. No
17. Installer Contact – N/A
    a. Name
    b. Company
    c. Address
    d. Email
    e. Phone

18. Contractor License Number – N/A

19. Contractor License Expiration Date – N/A

Project Description

20. Provide a brief summary of the proposed project.
    a. The project is for the creation of a Zero-Emission Transition Plan in accordance with Federal Transit Administration (FTA) requirements. In order for transit agencies to be eligible for projects related to low- or no-emission vehicles through the Bus and Bus Facilities Competitive Grant Program under 49 USC 5339(b) and 5339(c), including electric vehicles, charging stations, and maintenance facilities, the FTA requires the development of a Zero-Emission Transition Plan. This grant application will be applied toward the development and completion of this plan to ensure CAMPO's transit agency, JAC, and the community it serves will benefit from future electrification of the transit system. The Zero-Emission Transition Plan will specifically:
        - Demonstrate a long-term fleet management plan with a summary of how CAMPO and JAC plan to use current or future resources or acquisitions.

- Address current and future resources to meet the costs for the transition and implementation.
- Consider policy and legislation impacting low or no emission technologies
- Examine the existing state and future needs of the JAC and CAMPO's transit system as it relates to possible electrification transition.
- Describe the partnership with NV Energy or other alternative fuel providers.
- Examine the impact of a possible electric transition on JAC and Carson City's workforce including analysis of skills gaps, training needs, etc. related to electrification or other alternative fuels to avoid displacement of the existing workforce.

The plan will review potential concepts and opportunities to partner with neighboring transit operators for the development of a region wide transit electrification network. This includes electrical infrastructure planning for existing or future routes between Washoe County (RTC Intercity), Lyon County, Douglas County (DART), and the Tahoe Basin (TTD).
Lastly, the plan will examine options for sustainability and resiliently in the CAMPO Region by examining facility needs and the needs of other transportation providers in the area, possibly including the Carson City School District.
CAMPO plans to hire a consultant to develop and complete the plan using an SOQ/RFQ process.

21. This project supported the electrification of the following types of vehicles:
    a. Currently Operational
    b. New Incremental Vehicles
    c. Both

22. Describe the make, model and vehicle count for fleet vehicles planned to utilize charging infrastructure installed as part of this program, if awarded.

CAMPO and JAC do not currently have any electric transit vehicles.

23. Is this project expanding an existing electric vehicle charging station installation?
    a. Yes
    b. No

24. Please describe the existing EV charging station installation and how it will be expanded.
    a. N/A

25. Is this project replacing an existing EV charging station installation?
    a. Yes
        i. *MESSAGE: Projects may not replace an existing EV charging station.*
    b. No

26. If your application is awarded, do you agree to install charging stations from the NV Energy approved list? If chargers are not publicly accessible, they are not required to provide

credit/debit card magnetic strip/chip reader payment options. Also, charging station model qualification applications are reviewed on a continuous basis. If the charging station model is not yet qualified, encourage the manufacturer to apply to qualify here. *[Note, charging station models have not been qualified at the time this document was published. Check back at nvenergy.com/ertep for updates.]*

a. Yes – N/A. The project is not proposing the installation of charging stations at this time; however, should CAMPO choose to apply for additional funds under this program, CAMPO agrees to install NV Energy approved charging stations.
b. No
    i. *MESSAGE: Applicants are required to install charging stations from NV Energy's approved list.*

27. Data Collection and Reporting: Please click here to review the specific data collection and reporting requirements. If your application is awarded for this program, do you agree to comply with the charging data reporting requirements included in the document linked above?
    a. Yes – Future reporting requirements will be considered as part of the plan development.
    b. No
        i. *MESSAGE: Applicants are required to comply with data collection and reporting requirements to participate in this program.*

Charger Information

28. Number of DC Fast Charger ports (150 kW minimum) – N/A

29. DC Fast Charger Model – N/A

30. Number of Level 2 Charger Ports (10 kW minimum) – N/A

31. Level 2 Charger Model – N/A

Project Status

32. Current project planning and design status
    a. Project Plan Drafted
    b. Project Plan Completed
    c. Utility Load Analysis Completed
    d. Other – The project is in the Pre-Planning stage. The proposed project will be to develop a Zero-Emission Transition Plan.

33. Current project permit status
    a. No Permits Applied For
    b. Some Permits Applied For
    c. All Permits Applied For

d. Some Permits Approved
e. All Permits Approved
f. Other

34. Please describe the current status of required permits. – No permits are anticipated at this time.

Community and Economic Benefit

This program aims to benefit historically underserved communities. Please describe to the best of your ability how your project meets this goal by answering the questions below.

35. Provide a brief history of the proposed project, the goals of this project, and how it ties into the overall mission of your organization.

This project, through the development of a Zero-Emission Transition Plan, will allow CAMPO and JAC to plan and prepare for a changing transportation system by identifying and prioritizing projects. With additional focus on greenhouse gas emissions and renewable energy sources, CAMPO's goals for the project are to ensure JAC remains a sustainable regional transportation provider for all of its users. The goals of the project are directly inline with the goals of CAMPO and the 2050 Regional Transportation Plan (RTP), which are:

- Increase the safety for all users
- Maintain a sustainable transportation system
- Increase mobility and reliability of the system
- Develop a system that supports economic vitality
- Provide an integrated transportation system

JAC strives to provide safe, dependable, and friendly transit service to the residents and visitors of Carson City, Nevada. JAC's vision is to continue to improve the transit system and to work through funding challenges through creative and coordinated planning.

Historically underserved communities are defined by Senate Bill 448 as a community meeting one or more of the requirements below:

(a) A census tract:

- (1) Designated as a qualified census tract by the Secretary of Housing and Urban Development pursuant to 26 U.S.C. § 42(d)(5)(B)(ii); or
- (2) In which, in the immediately preceding census, at least 20 percent of households were not proficient in the English language;

(b) A public school in this state:

- (1) In which 75 percent or more of the enrolled pupils in the school are eligible for free or reduced-price lunches pursuant to 42 U.S.C. §§ 1751 et seq.; or
- (2) That participates in universal meal service in high poverty areas pursuant to Section 104 of the Healthy, Hunger-Free Kids Act of 2010, Public Law 111-296; or

(c) Qualified tribal land, as defined in NRS 370.0325.

36. Please describe how the proposed project will benefit historically underserved communities.

JAC currently provides transit service to several historically underserved communities including those in the Washoe Tribe's Stewart Community, those with limited English proficiency, and low-income individuals. JAC's administration facility is located directly adjacent to a census tract that has been identified as having a high number of families who have low- or moderate-income levels according to the Department of Housing and Urban Development. A recent study conducted by CAMPO staff indicated that JAC operates in a number of census tracts with higher number of low-income and minority individuals as compared to the City average population. Furthermore, this study indicated that ridership in those census tracts is higher than in other census tracts meaning that JAC is directly serving low-income and minority individuals. CAMPO staff, as part of a Title VI plan update, also documented that JAC operates in or around the majority of census tracts in Carson City with the highest number of Spanish Limited English Proficient (LEP) households (map attached). Development of a transition plan is the first needed step in examining how the eventual conversion to electrification or other fuels sources can benefit JAC and these types of riders.

37. Please describe how the proposed project will create a positive regional impact. For example, is the project publicly accessible, low/no cost, and/or generally benefitting community members beyond the customer.
    Part of the project's plan is to examine regional transit electrification needs not only for JAC, but also for our partner agencies in Tahoe or Washoe County who provide transit service in the CAMPO Area. Interregional transit services will better connect the community to the places where they want to go providing continued or new opportunities for JAC's customers. As JAC's partner agencies continue to advance in new technologies for their vehicle fleets, it is important that JAC look to keep pace ensuring accessibility for the users who most rely on the JAC system.
    Planning for transit electrification can also open new partnership opportunities in the area of resiliency. The Carson City School District is moving forward with electrification of its school buses. There may be opportunity for CAMPO to partner with the school district to allow for future shared charging or energy storage facilities in cases of emergency.

38. Please describe how the proposed project will lead to increased wages and jobs within the company.
    In the short term, the project will directly lead to the procurement of a professional consulting firm to complete the plan. Over time, the project will indirectly lead to increased wages and jobs for CAMPO and JAC staff. The development of a plan will highlight areas of need for CAMPO and the JAC operations allowing for new project and program opportunities. For instance, the plan will identify and address fleet maintenance and staff training needs. As a result of the plan, JAC staff may receive new training opportunities leading to a more marketable knowledge base and set of skills. In addition, deployment of an electric or alternative fuels transit fleet may incentivize new and younger cohorts of workers to join the agency as drivers, mechanics, or in administration/management positions.

General Questions

39. Please describe your organization's past and present experience with similar projects.
    CAMPO and JAC do not have significant experience with electric vehicle infrastructure. Carson City as a City has a few public charging stations in operation at various locations across the City which are operated and maintained by City Public Works staff.

While CAMPO does not specifically have electrical infrastructure experience, CAMPO is a planning organization with experience in developing actionable planning documents. CAMPO can easily complete a Zero-Emission Transition plan using a combination of current staff resources and consultant support.

40. Will some or all of these chargers be available to the general public?
    a. Yes
    b. No – Charging infrastructure identified under the plan will not be for the general public.

41. If chargers will be available to the public, will users be required to pay a fee to utilize the equipment?
    a. Yes
    b. No
    c. Not sure

42. Please describe the qualifications of the project team and leadership team for this project. The project will be managed by existing CAMPO staff with consultant support hired through a qualifications-based selection process. The grant administration will be managed by Rebecca Bustos, CAMPO's Grants Analyst, who coordinates all CAMPO's and Carson City RTC's grant programs and funding resources. The project will be managed by the JAC Transit Coordinator, Alex Cruz. Alex is experienced in managing JACs transit grants, planning documents, and feasibility studies by helping to manage the development of a Coordinated Human Services Plan and a study for the Downtown Carson Transit Center. Alex will receive support from CAMPO's other staff including the Lead Transportation Planner, Transportation Engineer, and Transportation Manager. All CAMPO staff have experience in plan development and are familiar with CAMPO's and Carson City's unique demographics and characteristics.

Project Budget

Project Budget

Please provide details about the anticipated project costs.

43. Grid-side: Cost estimates include all electrical infrastructure that is needed to connect to the site meter. N/A

44. Make-ready: Cost estimates include all costs between the site meter and the charging infrastructure. N/A

45. Charging Infrastructure: Electric vehicle supply equipment including power cabinets, dispensers, associated installation costs, and warranties. N/A

46. Operations and Maintenance: Costs associated with keeping sites operational. May include asset management costs, preventative maintenance, monitoring and diagnostics, and original equipment manufacturer networking and licensing fees. N/A

47. Other - Describe the costs associated with the "other" field or any other pertinent information for the project costs that may be missing. CAMPO is requesting $225,000 for the development of the plan. The project budget would include the consultant costs as well as CAMPO staff time.

Funding

48. Have you already OR are you in the process of securing alternative funding for this project?
    a. Yes
    b. No – No other funds for this project have been identified.

Describe all funding sources and income streams of the project, as well as the nature of the contribution – grant, donation, incentive, cash or in-kind.

- Identify funding amounts for each source and whether funding is secured or pending.
- Indicate the balance of funding required. This is the requested grant amount.
- Note that documentation for secured funding must be uploaded later in this application.

49. Funding Source 1

50. Funding Status 1
    a. Secured
    b. Pending

51. Funding Amount 1

52. Do you have additional funding source(s)?
    a. Yes
    b. No

53. Funding Source 2

54. Funding Status 2
    a. Secured
    b. Pending

55. Funding Amount 2

56. Do you have additional funding source(s)?
    a. Yes
    b. No

57. Funding Source 3

58. Funding Status 3
    a. Secured

b. Pending

59. Funding Amount 3

Donations

60. Donated or in-kind labor and materials – There are no donations or other in-kind labor.

61. Please describe the materials or services to be donated or provide in-kind to the project. – N/A

Totals

62. Balance of Required Funding / Total Grant Request *[Note, This is the amount of money that you require in order to complete your project. This should equate to the total project costs minus the total funding sources.]*
CAMPO is requesting $225,000 through the ERTEP grant program for this project.

Documents

63. Project Schedule: The project schedule must show key milestones such as design completion, construction start, permitting approved, site energized, and site commissioned.
    a. Assuming award of the grant for the project, before the end of 2022, we will begin in January 2023. Please see attached schedule.

64. Site Design: The site design must show the site layout including the placement of chargers, power cabinets, and other electricity infrastructure. The type and power level of the chargers must also be indicated.
    a. N/A

65. Copies of Required Permits (optional)
    a. N/A

66. Budget Documents (optional)
    a. Please see attached project estimate.

67. Justification for documentation not provided: There is no design associated with this project.

Submit

Terms and Conditions

By execution of this application, the Applicant certifies that the information contained in this application is true and complete and that the project meets program eligibility requirements.

The Applicant acknowledges that they have the authority to install the system at the project site or have obtained the permission of the legal owner of the project site, to install the system.

System Owner and Host Customer shall, at their own expense, obtain and maintain all licenses and permits needed to perform work on the project.

The Applicant acknowledges that NV Energy may communicate with any party in the application in order to facilitate the application.

The Applicant acknowledges that its submission of an application does not mean that the Applicant will ultimately be selected to participate in the Economic Recovery Transportation Electrification Plan, or that any grant funding will be received.

The Applicant is aware that a review process is required, and the project will need to be approved before funding can be secured.

The Applicant acknowledges that, if it is selected to participate in the Economic Recovery Transportation Electrification Plan, Applicant must meet all the applicable requirements specified in the Public Utilities Commission of Nevada's final order on the Economic Recovery Transportation Electrification Plan, dated January 5, 2022.

The Applicant acknowledges that project construction may not begin before a Grant Award Notice has been issued. Projects that are in construction prior to receiving a Grant Award Notice are not eligible for grant funding.

By submitting this application, the Applicant and all parties involved with the application agree to comply with the terms and conditions stated above.

68. Click to accept terms and conditions
    a. Check Box

Electronic Signature Acknowledgement: By entering your name below, you are (a) agreeing to the Terms and Conditions above and (b) agreeing to use an electronic signature to demonstrate your acceptance of the Acknowledgement. Your electronic signature is as legally binding as a handwritten signature.

69. Electronic Signature Acknowledgement