CITY OF ETNA

GENERAL PLAN CIRCULATION ELEMENT

DECEMBER 2, 2024

CITY OF ETNA
442 MAIN STREET
ETNA, CA 96027

Figures

4.1 INTRODUCTION

The Circulation Element focuses on the movement of people, goods, water, wastewater, storm water, energy, solid waste, and data and communications in the City of Etna. In doing so, the Circulation Element highlights Etna's current and planned transportation system, provides an overview of public utilities in the City, and sets forth specific goals, policies, and programs to guide the development and maintenance of circulation in Etna through 2044.

4.2 STATUTORY REQUIREMENTS

California Government Code Section 65302(b) states that the circulation element of a general plan shall consist of "the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, any military airports and ports, and other public utilities and facilities, all correlated with the land use element of the plan." It further states that the circulation element must "plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel in a manner that is suitable to the rural, suburban, or urban context of the general plan."

Additionally, recent legislation has increased focus on air quality, reducing greenhouse gas (GHG) emissions, and reducing vehicle miles traveled (VMT) in the Circulation Element. This includes:

- California Complete Streets Act of 2008 (Assembly Bill (AB) 1358);
- Global Warming Solutions Act of 2006 (AB 32);
- Sustainable Communities and Climate Protection Act of 2008 (Senate Bill (SB) 375);
- CEQA Streamlining for Infill Projects (SB 226, 2011); and
- Shift in CEQA transportation metric to VMT (SB 743, 2013).

4.3 BACKGROUND

4.3.1 Highway and Street Classifications

The Federal Highway Administration (FHWA) maintains a functional classification system that defines the role of each element of the roadway network. The system groups streets and highways into classes according to the service they provide for purposes of federal funding eligibility. The functional classification system is also used by the California Department of Transportation (Caltrans) to make recommendations to the FHWA for approval of California Road System maps. The City of Etna does not maintain its own functional classification system. Should the City desire to add or modify a functional classification, it would petition Caltrans for the change.

Rural and urban areas have different roles as to density of street and highway networks, travel patterns, and how these elements are integrated into a highway system. To qualify as "urban" under the functional classification system, the area must encompass at least 2,000 housing units or at least 5,000 persons. The term "rural" encompasses all population, housing, and territory not included within an urban area. The City of Etna and surrounding area are considered rural. While the "urban" or "rural" designation is independent of the functional classification, urban area boundaries play an important role in developing the functional classification of a road in an urban/rural context. The functional classifications include:

4.3.1.1 Arterials

Arterials provide the highest level of service at the greatest speed for the longest uninterrupted distance, often with multiple lanes and some degree of access control. In rural areas, the FHWA

delineates arterials into “principal arterials” and “minor arterials.” Rural principal arterials are further broken down into “interstates” and “other principal arterials.”

4.3.1.2 Collectors

Collectors provide a less highly developed level of service at a lower speed for shorter distances by collecting traffic from local roads and connecting them with arterials. In rural areas, the FHWA delineates collectors into “major” and “minor” collectors. Major collectors serve larger towns not accessed by higher order roads and important industrial or agricultural centers that generate significant traffic but are not served by arterials. Rural minor collectors are typically spaced at intervals consistent with population density to collect traffic from local roads and to ensure that a collector road is within reasonable distance of all developed areas.

4.3.1.3 Local Roads

Local roads provide the most direct access to adjoining properties and uses, such as residences, businesses, schools, parks, etc. Because of this, local roads are normally designed to discourage through traffic (e.g., controlled intersections and slower vehicle speeds) and to move traffic toward collectors and arterials where it can move more efficiently. Roads not designated as either an arterial or a collector are local roads.

4.3.2 Existing Street and Highway System

There are approximately 7.02 maintained road miles in the City of Etna in 2024. The City’s existing road network is shown in **Figure 4-1, Circulation Map** and roadways in the planning area are described according to their FHWA functional classifications below.

4.3.2.1 Arterials

Primary access to the City is from State Route 3 (SR 3), which is designated a “minor arterial” for much of its length, including through Etna. There are no other arterials within or adjacent to the planning area. SR 3 is a north-south two-lane conventional highway beginning at the eastern edge of Montague city limits approximately 35 miles north of Etna and ending at SR 36 near Peanut in Trinity County approximately 112 miles south of Etna. SR 3 connects Etna with other Scott Valley communities and with Yreka, which is a major destination for jobs, goods, and services for the region. SR 3 also connects with Interstate 5 (I-5) in Yreka, which is the primary north-south interstate along the west coast of the United States.

Like other routes in the California Freeway and Expressway System, SR 3 is managed by the California Department of Transportation (Caltrans). Caltrans reports that in 2022, annual average daily traffic (AADT) on SR 3 through Etna consisted of approximately 1,900 vehicles, with 190 vehicles in transit during peak hour traffic (i.e., “rush hour”). Trucks accounted for a relatively small percentage of the average daily traffic (8.2 percent), and two-axle trucks made up a majority of those vehicles (59.1 percent). According to Caltrans, the heaviest traffic typically occurs in July and August when the average reaches 2,250 vehicles per day. (It is important to note that traffic volumes account for vehicles moving in each direction.) Caltrans reports that following the last update of the Circulation Element (i.e., between 2005 and 2022), AADT fell by 1,150 vehicles and peak hour traffic dropped by 10 vehicles. Nevertheless, based on more recent trends, the 2021 Siskiyou County Regional Transportation Plan projects that AADT will rebound and grow to 3,820 vehicles by 2041.

Posted speed limits along SR 3 are reasonably slow through the City (45 mph), which coupled with low traffic volumes allows vehicles to safely maneuver onto and off the highway. The

roadway's lack of pedestrian improvements, such as sidewalks, crosswalks, bike lanes, etc., makes non-vehicular access less practical.

As proposals are received for development projects adjacent to the highway, the City coordinates with Caltrans to ensure impacts to SR 3 and its intersection with city streets are minimized. When necessary, Caltrans requires the construction of turn lanes and other highway modifications to accommodate traffic resulting from development.

In accordance with state law, Caltrans also coordinates with Etna and other underserved rural communities every two years to identify unmet needs relative to the State's Freeway and Expressway System. The information gathered by Caltrans during this process is used to update the transportation needs assessment in the *State Highway System Management Plan*, and to estimate the cost to operate, maintain, and provide for the transportation system in Etna and other underserved rural communities for the next 10 years. The "unmet needs" process provides an opportunity for the City to communicate any issues or concerns it has relative to the highway and to work with the State to ensure improvements are made to SR 3 to address those concerns, if necessary.

4.3.2.2 Collectors

The designated collector streets in the planning area are Main Street (Sawyers Bar Road outside city limits), Collier Way, and Island Road. Main Street/Sawyers Bar Road is designated a rural "major collector," and Collier Way and Island Road are designated as rural "minor collectors." There are no other collectors within or adjacent to the City.

As the only collectors inside city limits, Main Street and Collier Way provide direct access to SR 3 and are important roadways for local traffic and through traffic from outlying areas like Salmon River. The most recent traffic count for Sawyers Bar Road occurred in May 2013 at the Mill Creek Bridge southwest of Etna. At the time of the count, average daily traffic was 99 vehicles.

4.3.2.3 Local Roads

Aside from SR 3, Main Street/Sawyers Bar Road, Collier Way, and Island Road, the roads in the planning area are local roads. Roads in Etna generally follow a grid-based system with the street network designed to efficiently move traffic to SR 3. Because SR 3 passes through and bisects the north end of the City, various city streets intersect with and provide direct access to the highway.

Being a small rural community, two-lane local roads adequately carry current traffic volumes throughout the City. And with limited population growth anticipated over the life of the General Plan, new development and related traffic volumes are not expected to increase significantly. As a result, it is expected that the existing local road network will be adequate to handle existing and projected traffic volumes related to the growth of the community for the current planning period.

While no new roads or significant road projects are anticipated as being needed to accommodate population growth over the next 20 years, ongoing street improvements and road maintenance will be necessary to keep roads in a safe traveling mode throughout the planning period. To do so, the City works with the Siskiyou County Local Transportation Commission (SCLTC) to survey the roads and prioritize needed road maintenance and repair every five years. The priority projects are then budgeted for and scheduled, as feasible, in the Regional Transportation Plan. Though this system works well for prioritizing improvements, maintenance, and repairs, there remains considerable need for additional funding for projects to be completed.

4.3.2.4 Scenic Highways

The State Scenic Highway Program was created by the California Legislature in 1963 for the purpose of protecting and enhancing the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. Designation as a scenic highway depends upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been officially designated.

There are no roads in the planning area that have been designated as a state scenic highway. SR 3 is, however, eligible for scenic highway designation under the State Scenic Highway Program. To designate SR 3 or a portion of SR 3, the City Council would apply to Caltrans for scenic highway approval and adopt a corridor protection program that describes local measures for protecting the corridor's visual quality via development and land use regulations; detailed land and site planning; control of outdoor advertising; careful attention to and control of earthmoving and landscaping; and the design and appearance of structures and equipment.

4.3.2.5 Pedestrian and Bicycle Facilities

Bicycle and pedestrian networks should be complete systems for transportation, including coordination with land use plans, housing, and transit systems. Bicycle and pedestrian networks can be used to connect residents to employment centers, community centers, schools, commercial districts, and transit stops. Active transportation can be used to fill the gaps in transit systems when available, encourage recreational bicycling and walking for exercise, and build a healthier, happier community. The General Plan prioritizes infill development, which creates opportunities for active transportation by decreasing the distance between origins and destinations.

There has traditionally been little investment in bicycle infrastructure in Etna due to the low volume of traffic on city streets. Bicycle parking is provided at a few locations, including the schools, park, and library, however, there are presently no bicycle lanes, bicycle routes, or multi-use paths in Etna. The pedestrian network is much better developed but also incomplete. Sidewalks have been constructed along all or portions of Main Steet, Collier Way, Howell Avenue, Scott Street, Diggles Street, Church Street, College Street, Pig Alley, Center Street and Wagner Way. In many instances, however, sidewalks need to be extended to be better integrated, and walkways are absent elsewhere in the City, including in the neighborhoods west of Howell Avenue and along SR 3. Some older sidewalks lack accessibility improvements and/or need of repair or replacement.

The SCLTC is in the process of developing a regional Active Transportation Plan (ATP) as part of its effort to build a transportation network that meets the unique needs of Siskiyou County's rural communities, including Etna. When complete, the ATP will emphasize the improvement of pedestrian and bicycle connections used to access schools, goods and services, and other important destinations for children, the elderly, and people with disabilities. Having an ATP allows communities to better identify and prioritize the specific active transportation improvements needed in their community and to better qualify for grant funding to implement the improvements.

Funding continues to be a significant challenge in implementing an active transportation network. Although the State supports investment in biking and walking by funding programs such as the Active Transportation Program and the Affordable Housing and Sustainable Communities

Programs, many communities are interested in implementing active transportation projects and there is strong competition for these funds. Therefore, as part of the City's efforts to develop a connected active transportation system for Etna, as well as better compete for funding assistance, the City will continue to coordinate with SCLTC and other communities in the region on development of the ATP and to plan for a regional active transportation network. Once the ATP is complete, the City of Etna and other communities in Siskiyou County can better target grant opportunities to improve their active transportation networks.

4.3.2.6 Parking

The provision for parking is an integral part of a transportation system. Whether at home or at some destination point, sufficient space must be provided to park vehicles. Typically, this is done through the application of standards in a city's zoning ordinance, which require specific amounts of off-street parking based on the type and intensity of use. The City's zoning ordinance establishes off-street parking requirements for a variety of permitted and conditionally permitted uses.

Though the provision of off-street parking is required throughout much of the City, most streets in Etna are of sufficient width to provide some on-street parking as well. This helps to offset situations where off-street parking has not been provided in the past, as well as giving neighborhoods more available parking for guests and deliveries. On-street parking areas also provide space for snow storage following winter storms.

To address the parking needs for passenger vehicles in the downtown area, the north side of Main Street between Diggles Street and Collier Way is marked with 27 on-street diagonal parking spaces and the City permits parallel parking along the south side of the roadway and along nearby city streets. In addition, the City maintains off-street public parking at the library and outside of the downtown at the park and community pool. Though the number of parking spaces in the downtown area is typically adequate to accommodate demand, accessible parking needs should be evaluated and addressed in the downtown area.

4.3.2.7 Traffic Management

Most streets in Etna do not experience significant traffic and few traffic calming measures have traditionally been required. The lack of significant traffic on city roadways is an important element of the overall livability and small-town feel of Etna. And while substantial population growth and a corresponding increase in traffic on local roads are not anticipated for the planning period, the City periodically receives complaints about vehicle speeds, and there is concern about the lack of pedestrian improvements along SR 3, particularly between the high school and businesses north of SR 3.

There are a variety of traffic calming measures that can achieve speed reductions, deter congestion, and reduce demand for vehicle trips. Some traffic calming measures alter the configuration of a roadway while others change how people psychologically perceive and respond to a street. Traffic calming measures can include center medians with vegetation, pinchpoints, lane shifts, bulb outs, and roundabouts. Depending on site-specific conditions, speed reduction mechanisms can improve safety and result in fewer or less serious injuries when accidents occur. Although no new traffic calming measures are currently planned, the City continues to evaluate its roadways and intersections for safety, and to coordinate with Caltrans relative to SR 3 and its intersection with city streets, and new measures may be determined necessary in the future.

4.3.3 Shipping and Transit

4.3.3.1 Railroad

There is no railroad or light rail transit in the planning area. The nearest active railroad is in Montague approximately 35 miles northeast. However, to access passenger rail service to other parts of the Country, residents must travel approximately 70 miles to the Amtrak station in Dunsmuir or 112 miles northeast to the station in Klamath Falls, Oregon.

4.3.3.2 Trucking

Freight movement to and from the Scott Valley is provided by inter- and intrastate firms. Being located outside of major transportation routes, however, there are no local terminal facilities in Etna and heavy truck traffic is intermittent. To direct the limited heavy truck traffic that exists to areas designed for commercial and industrial use and away from residential areas and other sensitive land uses, the City has established a system of designated truck routes and penalties for noncompliance. This system also allows the City to ensure its roadways are structurally designed to accommodate the loads placed on them without excessive maintenance and cost.

4.3.3.3 Public Transit

As California strives to reduce VMT and GHG emissions, transportation strategies that include alternatives to driving single-occupancy vehicles have become increasingly important for cities and counties to develop and implement. And while Etna and Siskiyou County are sufficiently rural that single-occupancy vehicles are likely considered a necessity by most residents, the availability of quality transit service facilitates access to goods, services, and employment opportunities for all residents, encourages ridership, and helps to meet State goals. Further, by coordinating transit routes and stops with bicycle and pedestrian infrastructure (e.g., bicycle parking and sidewalks), cities can promote ridership for a wider range of residents.

At present, the County of Siskiyou's Siskiyou Transit and General Express (STAGE) bus service is the only public transit in Etna. STAGE is based in Yreka and principally serves central and southern Siskiyou County. STAGE buses make multiple daily stops in Etna and connect the City with Yreka and other destinations in the County. Nevertheless, because Etna and Siskiyou County are rural, ridership remains low and public transit remains a challenge to operate. According to the *Siskiyou County 2021 Short Range Transit Plan*, during fiscal year 2018/2019 Etna boardings accounted for just 3.25% of STAGE's total ridership. To improve public transit in Siskiyou County, the SCLTC recently commissioned a study by Mia Lewis with UCLA's Institute for Transportation Studies. The 2024 study, *Revitalizing Rural Transit: Transit Analysis and Recommendations for Siskiyou County*, focuses on "developing strategies to increase ridership, optimize route coverage, and enhance overall system efficiency." Importantly, the study also identifies a number of grant sources that can be used by the cities and County to fund transit improvements and operating costs.

Greyhound Lines, Inc. (Greyhound) operates the largest, private intercity bus service in North America; however, Greyhound does not offer bus service to Etna. To access the nearest Greyhound station and bus service to other parts of the Country, residents must travel approximately 55 miles to Weed.

4.3.3.4 Aviation

The nearest aviation facility is the Scott Valley Airport, a small air strip located approximately eight miles north of Etna. The airport, which is neither owned nor maintained by the City of Etna, serves

general aviation aircraft, includes a U.S. Forest Service helitack base, and does not provide commercial flights or scheduled service to other destinations. The nearest airport with passenger service is the Medford-Rogue Valley International Airport, located approximately 82 miles north in Medford, Oregon. Other airports commonly used by city residents include the Sacramento International Airport in Natomas, California and the Redding Regional Airport in Redding, California.

4.3.4 Public Utilities

4.3.4.1 Water

The City obtains its water from a diversion on Etna Creek. From there the water is conveyed via gravity to the City's Water Treatment Plant (WTP) where it is filtered and chlorinated before entering a 155,000-gallon in-ground reservoir and two above-ground steel tanks with a combined capacity of 338,000 gallons.

Metered water service is provided to all residential, commercial, institutional, and industrial customers in the City, and for fire protection. When petitioned to extend water service to properties in the City's Sphere of Influence, the City has traditionally done so provided it does not impact existing customers. The City Council may approve such requests when necessary to address a public health and safety issue (e.g., a contaminated well) and/or in anticipation of a future annexation. In accordance with state law, prior to fulfilling a request to extend city services outside city limits, the City must apply to the Siskiyou Local Agency Formation Commission for approval of an out of area services agreement.

Well permits are issued by the Siskiyou County Community Development Department. When wells are proposed inside city limits, the County also requires City approval. The City does not approve private wells inside city limits except under very limited circumstances and when necessary for a permitted agricultural use. When agricultural wells are approved, cross connections are prohibited.

The City has an ongoing program of upgrading its water distribution system as funding allows, and the City has been successful obtaining grants for this purpose. Recent grant funded water system improvements include replacement of old and potentially inaccurate water meters with smart meters, upsizing of water lines and installation of additional fire hydrants to provide a minimum of 1,000 gallons per minute fire flows to residential areas of the City, and several upgrades to the WTP, including construction of a 138,000-gallon storage tank to replace an old in-ground reservoir converted to backwash storage.

The City's water system has been made safer and more reliable because of these improvements. Nevertheless, the City is entirely dependent upon its Etna Creek diversion, and California law requires Etna and other diverters to leave water instream for the benefit of other diverters, as well as wildlife. Thus, as instream flows decrease over the dry summer months, so too does the amount of water the City can lawfully divert. For this reason, the City relies heavily on volunteer measures to conserve water during dry years, the City prepared and adopted a Water Conservation Plan in 2021, and in 2022, the City obtained grant funding to develop an emergency water source. Development of the emergency water source is scheduled for FY 24/25.

Goals, policies, and programs for the conservation of water resources are provided in the Open Space & Conservation Element.

4.3.4.2 Wastewater

The City provides for the collection, treatment, and disposal of wastewater within the City and to a limited number of properties in the Sphere of Influence. Development of Etna's wastewater collection and treatment infrastructure was initially completed in 1970. In 2003, many of the existing sewer lines and lateral connections were replaced to reduce stormwater infiltration and inflow and improve system capacity. The wastewater treatment plant (WWTP) is located a short distance northeast of the City on Island Road and consists of an aerated lagoon system. The WWTP presently has five oxidation ponds for treatment, three percolation/evaporation ponds for effluent disposal, and is designed to accommodate an average dry weather flow (ADWF) of 0.325 million gallons per day (MGD). Based on the facility's design capacity, the WWTP can accommodate a population of approximately 1,100 persons. The facility's waste discharge requirements (WDR) are based on actual population and allow up to 0.13 MGD. The City remains in compliance with the terms of the WDR, however, equipment upgrades are needed at the WWTP to more accurately track flows and document compliance. To do so, the City is working with the North Coast Regional Water Quality Control Board (RWQCB) on funding for facility upgrades.

4.3.4.3 Storm Drainage

The City does not have a true storm drain system. Curb and gutter have yet to be constructed along several city streets and the storm drain system that exists consists of a discontinuous network of natural and man-made drainage features throughout the City. To address the lack of storm drain improvements, City Code requires that property owners install curb and gutter at the time of construction and that post construction storm water run-off not to exceed pre-construction levels. While this approach has adequately served the City in the past, increased storm intensities resulting from climate change may eventually require that the City plan for and develop a true storm drain system to accommodate increased stormwater runoff.

4.3.4.4 Solid Waste

The City is a member agency of the Siskiyou County Integrated Solid Waste Management Regional Agency, which oversees solid waste collection and disposal throughout Siskiyou County. At present, the City does not provide solid waste removal services and residents may either contract with Scott Valley Disposal for their waste disposal needs or transport their garbage to a County transfer station for disposal. The nearest transfer station is the Oberlin Road Transfer Station in Yreka, approximately 30 miles northeast of Etna. Solid waste from the Oberlin Road Transfer Station is subsequently disposed of at one of seven landfills under contract with the Siskiyou County Integrated Solid Waste Management Regional Agency to receive the waste. Most of the receiving facilities are located in Oregon.

According to the California Department of Resources Recycling and Recovery (CalRecycle), the average individual in Siskiyou County generated 4.7 pounds of garbage per day in 2019. Based on an estimated population of 678 in Etna at the time of the 2020 U.S. Census, it is projected that city residents generate roughly 1.16 million pounds (581.6 tons) of garbage per year. In an effort to reduce the amount of organic material being generated inside city limits and deposited in landfills, the City adopted regulations for the recovery of edible food waste consistent with and in accordance with the State of California's Short-Lived Climate Pollutants Organic Waste Reduction Strategy (i.e., SB 1383).

4.3.4.5 Electrical Transmission

There are no electrical energy production facilities in Etna. Pacific Power provides electrical service to the City and surrounding areas via a 69 kV electrical transmission line that passes through the City along SR 3 and a substation located north of Etna on Holzhauser Road. At present, the power supplied is sufficient to meet the demands of the community. However, as temperatures continue to increase under climate change and prolonged heat becomes more common, it is anticipated that demand for cooling technologies will increase in the community, resulting in greater energy demand.

4.3.4.6 Data & Communications

Siskiyou Telephone provides landline telephone and fixed broadband services in Etna, with AT&T, T-Mobile, Verizon, and U.S. Cellular offering cellular telephone and data services. Broadband technologies available in Etna include fiber optic, digital subscriber line (DSL), satellite, and mobile. As a result, high speed internet is generally available in the City; however, there are pockets within the City where downstream and upstream speeds are limited, and which are eligible for California Advanced Services Fund (CASF) infrastructure grants for service provider improvements. To qualify, an area must lack a facility-based broadband provider that serves households (or areas) at a minimum speed of at least 25 megabits per second (Mbps) down and 3 Mpbs up. Projects funded by the CASF program deploy infrastructure capable of providing broadband access at speeds of a minimum of 100 Mbps down and 20 Mbps up. Downstream speed ranges in the City are shown in **Figure 4-3, Consumer Fixed Downstream Data Availability**.

4.4 LEVEL OF SERVICE AND VEHICLE MILES TRAVELED

Level of Service (LOS) is a standard established by the Institute of Transportation Engineers (ITE) to quantify the subjective measure of traffic efficiency and tolerance. Factors taken into consideration include the volume of traffic, street and intersection design, signal timing, and other variables. LOS is normally used to describe peak-hour conditions, specifically the morning or afternoon hour when traffic is the heaviest.

To prevent roads from reaching a level in which traffic moves with poor efficiency from point to point, cities have historically established guidelines at which a street or road is considered to have reached the highest service volumes that are tolerable within a community. Rated in grades from LOS A (best) to LOS F (worst), a roadway's levels of service is based on the amount of congestion and delay drivers experience.

For the purpose of guiding future development relative to the City's transportation network, the City of Etna strives to maintain a LOS threshold of "C" or better for all city streets and intersections. LOS C provides for "acceptable delays" and ensures city streets remain safely below but efficiently close to capacity. The City balances this LOS target with considerations of vehicle activity, pedestrian safety, cost, and meeting the needs of all users of the City's transportation network. Accordingly, the City Council may approve requests for deviations from the LOS threshold in unusual or exceptional circumstances, and as it determines necessary and appropriate. Note that this threshold reflects community expectations for its roadways and is not appropriate for evaluation of impacts under the California Environmental Quality Act (CEQA), as discussed below.

With the passage of SB 743 (2013), the way transportation impacts are analyzed under the California Environmental Quality Act (CEQA) changed. Once based on LOS, CEQA standards

now require that transportation impacts be assessed primarily based on the effects on Vehicle Miles Traveled (VMT). Whereas LOS is a metric for traffic congestion and delay, VMT is a measure of vehicle activity that accounts for the number and length of vehicle trips within an area over a given period. VMT is commonly applied on a per-household or per-capita basis and is a primary input for regional air quality analyses and for developing VMT rates for safety analysis.

Rates of VMT are typically lowest in compact, walkable, and mixed-use areas. Higher rates of VMT tend to occur in suburban or rural areas with low population densities and longer distances to activity centers. For these reasons, efforts to reduce VMT often focus on encouraging infill development. Similarly, SB 743 aims to encourage infill development and a diversity of land uses instead of sprawl, and to promote multi-modal transportation networks that provide efficient access to destinations and improve public health through active transportation.

While LOS is no longer relevant for CEQA purposes, LOS-based performance goals remain relevant for non-CEQA planning purposes and as a tool for the City to ensure its roadway system meets the expectations of the community. Further, policies in the Circulation and Land Use elements serve to reconcile competing interests of LOS and VMT and to meet the needs of all users of the transportation network, including pedestrians and bicyclists.

4.5 CORRELATION WITH LAND USE ELEMENT

The policies and programs in the Land Use Element directly tie to those highlighted in this Circulation Element. Creating connected, accessible, and complete systems of circulation networks and ensuring access to opportunities within a community and region requires coordination between land use and circulation planning.

As emphasized in the Land Use Element, infill and mixed-use development and revitalization of the town center reduce the transportation needs of residents and businesses alike. Pedestrian and bicycle routes should connect the City's parks and schools with residential areas identified in the Land Use Element. Moreover, truck routes should continue to be directed away from sensitive areas and instead serve areas designed for heavier commercial and industrial uses in the Land Use Element.

4.6 CORRELATION WITH OPEN SPACE & CONSERVATION ELEMENT

As described in the Open Space & Conservation Element, the "Urban Heat Island Effect" can occur in small or large cities, and even in suburban areas. Heat islands form as natural land cover is replaced with dark-colored rooftops, pavement for roads and parking lots, and other hardscapes that collect and retain heat. According to the U.S. Environmental Protection Agency, these dark surfaces can reach temperatures up to 60 degrees Fahrenheit (°F) warmer than the air, thereby increasing the ambient temperatures in areas 1-7 °F higher than in natural landscapes during the day and 2-5 °F higher at night.

The use of trees in urban landscapes is an effective, low technology way to reduce the heat island effect, reduce energy consumption, improve air quality, reduce stormwater runoff, decrease soil erosion, improve the pedestrian environment, reduce glare, and improve community image and aesthetics. Studies have shown that urban trees offer returns far greater than their cost of planting and upkeep, and these benefits increase with the increased size and extent of the tree canopy. For these reasons, the City of Etna promotes trees along pedestrian and bicycle paths, where appropriate, to enhance the urban canopy.

4.7 CORRELATION WITH SAFETY ELEMENT

Climate change is a critical consideration in the Circulation Element, as transportation is a significant source of greenhouse gases (GHG). The California Air Resources Board (CARB) reports that, as of 2021, about 38 percent of the state's GHG emissions come from the transportation sector, as compared to 29 percent nationally. To achieve GHG reduction goals, the City of Etna is focusing on mixed-use development close to employment centers, improving its active transportation infrastructure, and working with transit and para-transit providers to improve services to the community.

The recent increase in demand for work-from-home employment may assist in reaching GHG emissions targets by reducing the number of daily commuters in vehicles. However, adequate broadband coverage must be provided to facilitate remote work, and though there has been significant improvement in broadband coverage over the past 20 years, limitations and challenges persist.

One of the many anticipated consequences of climate change is increased storm intensities, which will require the City to reevaluate its existing drainage and limited stormwater infrastructure to ensure there is enough capacity to accommodate the increased volume of rainfall and runoff. Impacts on infrastructure associated with climate change and severe weather hazards are discussed further in the Safety Element and detailed in the Siskiyou County Multijurisdictional Local Hazard Mitigation Plan, which the City has adopted as part of the General Plan by reference.

4.8 CIRCULATION ELEMENT GOALS, POLICIES & PROGRAMS

GOAL C-1: A balanced transportation system that maximizes mobility and choice for city residents.

GOAL C-2: A transportation system that is adequate, safe, and efficient for all users.

GOAL C-3: A transportation system that contributes to the social, economic, and environmental well-being of the community.

GOAL C-4: A pattern of development and a transportation system that minimize vehicle miles traveled (VMT).

GOAL C-1: A balanced transportation system that maximizes mobility and choice for city residents.

POLICY C-1.1: The City supports the development of a network of complete streets that reflects the local context and which provides for the mobility of all users, regardless of age or ability.

POLICY C-1.2: The City supports the development and expansion of local and regional public transit systems.

POLICY C-1.3: The City supports transit services, agencies, and organizations that provide paratransit services to individuals with special needs.

POLICY C-1.4: The City supports partnerships, including with the Siskiyou County Local Transportation Commission (SCLTC), California Department of Transportation (Caltrans), and

other Siskiyou County communities, to fund active transportation improvements in the City and region.

Program C-1A: Ensure that land use and transportation planning balance the needs and safety of motorists, pedestrians, bicyclists, and transit users.

Program C-1B: Evaluate the need for and feasibility of installing complete street improvements (e.g., sidewalks, bike lanes, crosswalks, public transit stops, etc.) when planning roadway improvements.

Program C-1C: Require new development to contribute its fair share to complete street improvements.

Program C-1D: Consider multi-modal access requirements when making investment decisions about parks, recreation areas, public parking, and other city facilities.

Program C-1E: Ensure that new subdivisions are designed to include features that facilitate walking and bicycling.

Program C-1F: Work with SLCTC and STAGE to better address the public transportation needs of the community.

Program C-1G: Work with transit providers, social service agencies (e.g., PSA 2 Area Agency on Aging), and community organizations (e.g., religious institutions and nonprofits) to offer paratransit services to those with special needs, including on demand rides for the elderly and disabled.

Program C-1H: Continue to coordinate with SCLTC and other communities in the region on development of the Active Transportation Plan and utilize the Active Transportation Plan to better target grant opportunities to improve the City's active transportation network.

Program C-1I: Partner with the SCLTC, Caltrans, and others to fund active transportation improvements in Etna and the region.

GOAL C-2: A transportation system that is adequate, safe, and efficient for all users.

POLICY C-2.1: The City endeavors to provide adequate, safe, and efficient access to and from all land uses identified in the Land Use Element.

POLICY C-2.2: The City strives to maintain Level of Service (LOS) C or better on city streets and intersections.

POLICY C-2.3: The City supports deviations from the LOS standard when LOS C is unsafe for non-automobile users, is too expensive for the City to maintain, and/or results in increased VMT.

POLICY C-2.4: The City supports long-range plans for improvement of SR 3 through Etna by Caltrans to maintain safety and efficiency of traffic.

POLICY C-2.5: The City requires that new development provide adequate off-street parking to accommodate parking demands generated by the use.

POLICY C-2.6: The City requires that publicly accessible parking areas be designed to provide safe access for pedestrians and bicyclists.

POLICY C-2.7: The City supports the use of shared parking facilities that provide safe and convenient connectivity between adjacent uses**.**

Program C-2A: Continue to evaluate, improve, and maintain city streets and sidewalks to ensure safe efficient operation.

Program C-2B: Review existing roadways and sidewalks to ensure that they meet general safety standards and are ADA compliant. If it is found that any routes are unsafe or noncompliant, make the necessary improvements to ensure that the routes are improved to appropriate standards.

Program C-2C: Design public rights-of-way, intersections, and parking areas to include accessible safe access for all users.

Program C-2D: Adopt and apply street standards that reflect current and future land uses and traffic volumes and provide flexibility where necessary to maintain public safety and neighborhood character.

Program C-2E: Strive to maintain adequate on-street and off-street parking areas, including electric vehicle charging stations, to meet ongoing parking demands.

Program C-2F: Evaluate the use of in lieu fees to offset the parking impacts of new or expanded commercial, institutional, or industrial land uses as an alternative to requiring that such uses provide the minimum off-street parking spaces required by Code.

Program C-2G: Periodically evaluate parking standards in the Zoning Code for adequacy and consistency with state law and amend as necessary.

Program C-2H: Actively participate in regional transportation planning programs, including programs coordinated by the SCLTC, and use the regional planning process to improve the City's transportation network.

Program C-2I: Coordinate with Caltrans regarding safety issues on SR 3 to ensure sufficient improvements are in place to safeguard the community.

Program C-2J When a project is proposed that has the potential to impact SR 3 or the intersection of a city street with the highway, coordinate with Caltrans to address and resolve traffic-related issues.

Program C-2K: Minimize the effects of truck traffic on city streets by continuing to maintain and enforce a system of designated truck routes and ensure designated truck routes are designed to accommodate the heavier loads placed on them.

GOAL C-3: A circulation system that contributes to the social, economic, and environmental well-being of the community.

POLICY C-3.1: The City supports the enhancement of the visual appearance of pedestrian and vehicular routes.

POLICY C-3.2: The City recognizes the relationship of local transportation decisions to broader regional issues, such as congestion management and environmental sustainability.

POLICY C-3.3: The City promotes access to public transit, non-vehicular modes of transportation, and greater linkages between land uses and transit to reduce automobile-related emissions.

POLICY C-3.4: The City supports equitable deployment of comprehensive utility infrastructure in the City, including the efficient expansion of broadband infrastructure and the provision of cost-effective high-speed internet service, to foster economic prosperity.

POLICY C-3.5: The City requires that development mitigate adverse impacts of a proposed project on the existing transportation system.

POLICY C-3.6: The City endeavors to provide public services, facilities, and utilities that are efficient, cost effective, and in compliance with state and federal regulations.

> **Program C-3A:** Construct, improve, and maintain the system of curb, gutters, sidewalks, and crosswalks for circulation, safety, and drainage control, giving priority to high traffic areas.
>
> **Program C-3B:** Evaluate the planting of low maintenance shade trees in landscaped areas adjacent to streets where non-motorized travel is expected, where such improvements can be made without jeopardizing emergency response and future capacity requirements, and where such improvements are feasible and appropriate.
>
> **Program C-3C:** Establish wayfinding signs to identify routes between the downtown and community destinations, such as public transit and the park.
>
> **Program C-3D:** As part of the CEQA process, require traffic studies for projects that have the potential to generate substantial increases in VMT or impact traffic patterns.
>
> **Program C-3E:** Protect natural features and sensitive areas to the maximum extent feasible when maintaining and expanding the City's circulation system.
>
> **Program C-3F:** Develop a targeted approach to digital inclusion that includes expansion of public Wi-Fi in the downtown area, city hall, and other key areas of community interest.
>
> **Program C-3G:** When possible, reduce barriers to the equitable deployment of new broadband and telecommunication technologies and infrastructure to attract employers and businesses.
>
> **Program C-3H:** Work with state agencies and regional partnerships to develop funding for improvements to the City's water, wastewater, and storm drain systems.
>
> **Program C-3I:** Update the Capital Improvement Plan as needed to sustain and improve the City's infrastructure.

GOAL C-4: A pattern of development and a transportation system that minimize vehicle miles traveled (VMT).

POLICY C-4.1: The City supports the implementation of strategies to reduce the number and length of vehicle trips, including active transportation improvements, mixed-use development, greater access to public transit, and the placement of development in proximity to employment and activity centers.

POLICY C-4.2: The City promotes new development that will reduce household and employment VMT relative to existing conditions.

POLICY C-4.3: The City supports on- and off-street improvements that provide functional alternatives to automobile usage, promote active transportation, and reduce VMT.

Program C-4A: Ensure that Etna's transportation system complements the land use pattern, and that land use decisions complement and make efficient use of the transportation system.

Program C-4B: Continue to develop a pedestrian and bicycle transportation network, using on- and off-street improvements as appropriate, to increase nonvehicular access to local destinations**.**

Program C-4C: When planning for the extension of public transit, develop and support strategies that strengthen first/last mile connectivity to enhance the viability and utility of the service for all users, such as sidewalks, bicycle parking, and wayfinding signs.

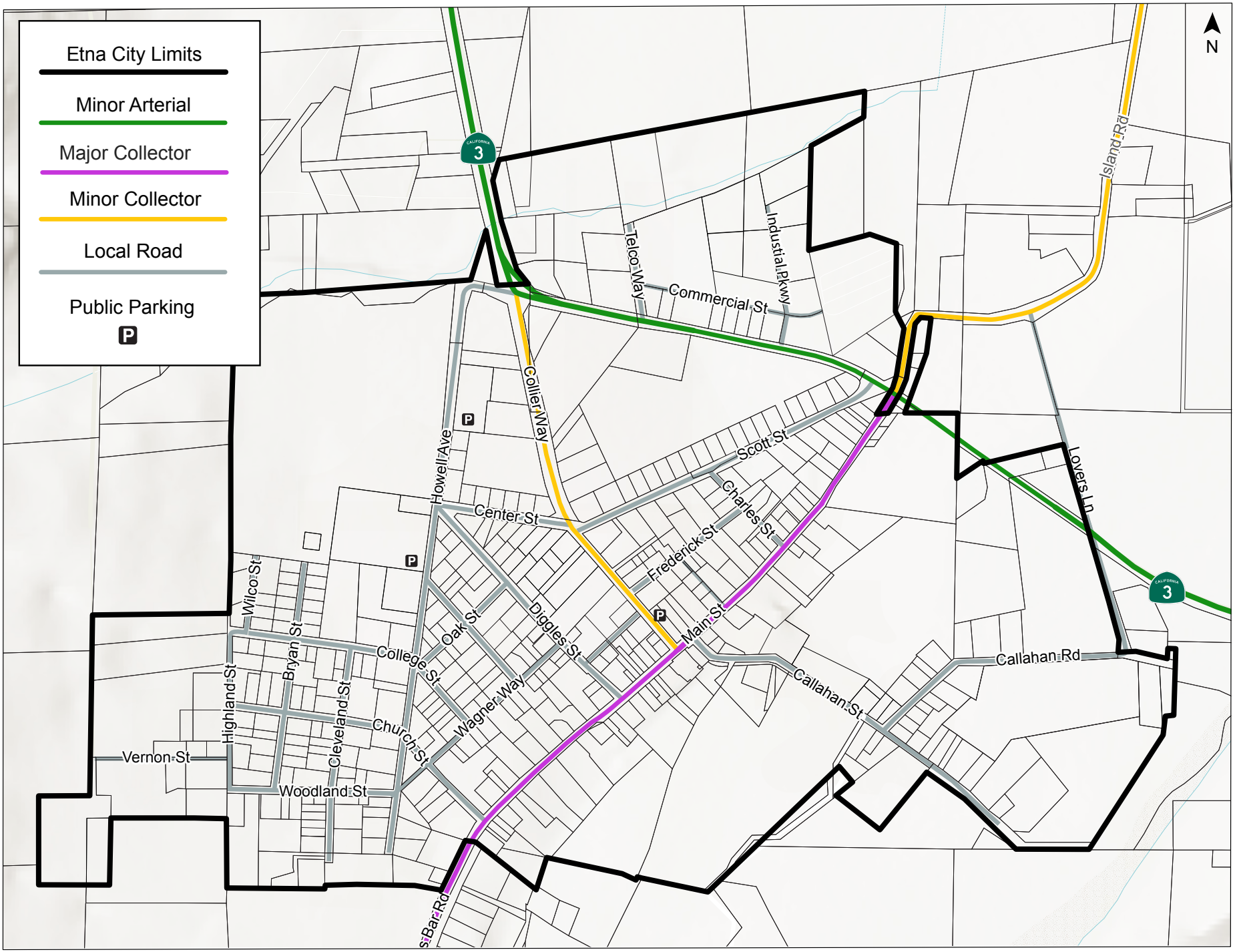
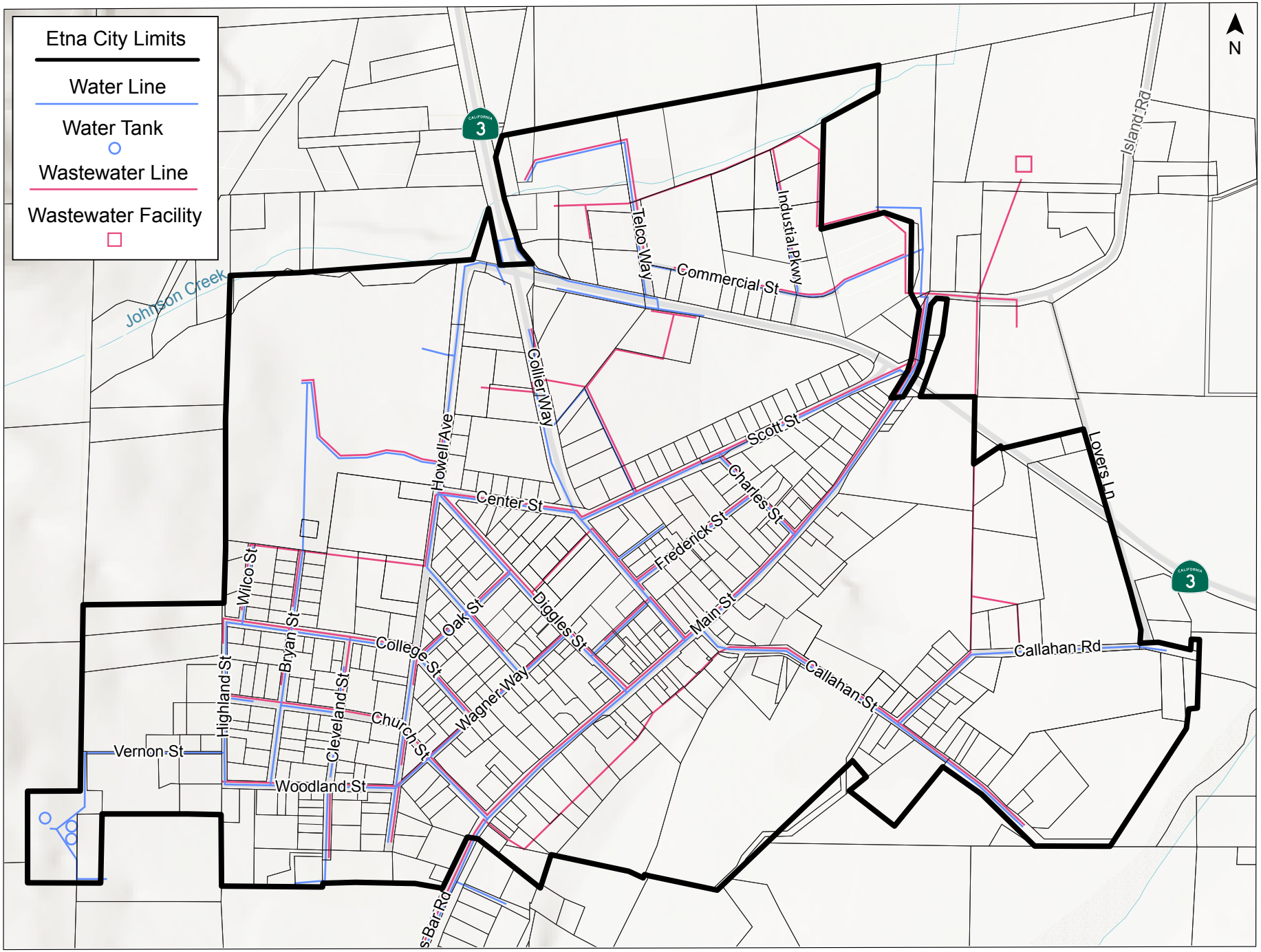


Figure 4-1, Circulation Map



Source: E&S Engineers and Surveyors, Inc.

Figure 4-2, Water and Wastewater Utilities

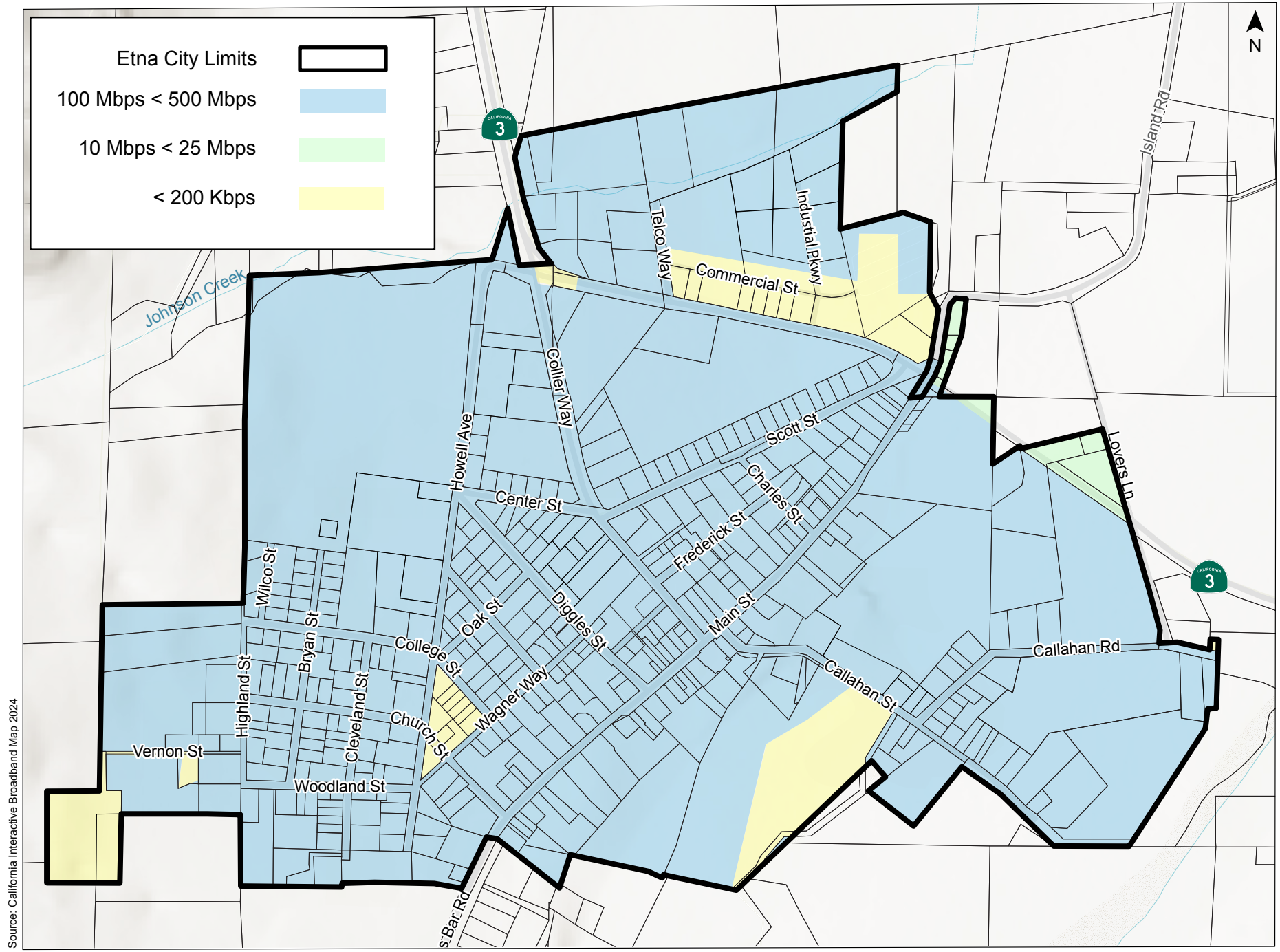


Figure 4-3, Consumer Fixed Downstream Availability