2045 General Plan Existing Conditions Report

Chapter 2: Land Use and Urban Design

Land Use and Urban Design Findings

Community Profile

1. In 2024, the California Department of Finance reported Atascadero's population at 30,279 residents. Atascadero is the third-largest incorporated city in San Luis Obispo County accounting for approximately 11 percent of the County's total population.
2. The San Luis Obispo Council of Governments (SLOCOG) 2050 Regional Growth Forecast currently projects that Atascadero's population will increase 13 percent—to 34,278 residents—within the 2045 General Plan update planning period.
3. Since 2012, the proportion of Atascadero residents under the age of 10 years old and between the ages of 60 to 84 years old has increased.
4. In 2022, Atascadero reported 12,170 total housing units with a high occupancy rate of over 95 percent. The predominant housing type reported is single-unit (detached and attached) making up nearly two-thirds (74.0%) of the city's housing stock. Monthly housing costs are lower in Atascadero than in nearby cities in San Luis Obispo County.

Context

1. The Atascadero city limits encompass approximately 26 square miles, or 16,738 acres.
2. The Planning Area for the 2045 General Plan update covers approximately 32 square miles, or 20,203 acres. This includes all properties within the incorporated city limits and the City's Sphere of Influence (SOI).
3. Atascadero's Urban Services Line (USL) designates land within the city limits for infill development where services can be provided in a cost-efficient manner. Rural residential development is and will remain the predominant land use development pattern outside of the USL.

Existing Land Use

1. Atascadero is largely a residential community, with over half (56 percent) of its total Planning Area acreage devoted to residential uses.
2. Sixty-six percent of Atascadero's total Planning Area acreage falls outside of the city's USL. Nearly half (45 percent) of the land outside of the city's USL is designated Rural Estates by the 2025 General Plan. This land use designation has a minimum lot size of 2.5 acres and is intended for detached single-family homes.
3. Commercial uses make up approximately two percent (or 299 acres) of Atascadero's total Planning Area acreage and are spread out along El Camino Real and Morro Road.
4. Industrial uses make up less than one percent (or 110 acres) of Atascadero's total Planning Area acreage and are concentrated along the eastern fringe of the city, along Traffic Way and the Sycamore Road.

Regulatory Land Use Plans

1. The City of Atascadero Zoning Ordinance is the primary regulatory mechanism used to implement the General Plan. The current Zoning Ordinance establishes 19 zoning

districts and six overlay districts, and will likely need to be amended to reflect changes initiated by the 2045 General Plan update.

2. Atascadero has adopted two Specific Plans: Woodland Specific Plan (Las Lomas) in 2003 and Del Rio Road Commercial Area Specific Plan in 2012, which establish tailored land use regulations and development standards for these areas.

Character and Built Form

1. Within the urban core and along El Camino Real parcels vary in size, distribution, and are generally narrow and deep. Smaller parcels in Atascadero are concentrated within the USL, with an average size of 0.76 acres. Outside of the USL, within the city limits, the average parcel size jumps to 3.5 acres.

2. Atascadero does not have defined residential neighborhoods. Instead, it consists primarily of custom single-family homes with unique character. The established residential areas largely align to the historic Colony land use patterns of the city. According to the U.S. Census, nearly one-third (or 27 percent) of housing units in Atascadero were built between 1970 and 1979. Typical architectural styles from the 1970s include ranches, rambler homes, and split levels.

3. Many community members have highlighted Atascadero's special character and expressed a desire to preserve its rural, eclectic, and small-town character when exploring opportunities for growth.

4. Its residents are what make Atascadero the supportive, family-oriented community that it is. Atascadero has a strong sense of collaboration and volunteerism among residents and businesses. Downtown is close knit, consisting of local, eclectic businesses focused on local customers.

2.1 Introduction

This chapter provides an overview of baseline (2024) land uses, land use patterns, and neighborhood character in Atascadero. Existing land use and land use regulatory plans provide a foundation for understanding how past planning efforts have shaped Atascadero and what the current context is for land uses (e.g., buildings, businesses, and spaces). These plans include the City of Atascadero's General Plan 2025, 2021-2028 Housing Element, Zoning Regulations, and Specific Plans. This inventory allows for a comparison of future growth projections and land use alternatives against the 2024 baseline.

This chapter is organized into the following sections:

Section 2.1: Introduction
Section 2.2: Regulatory Setting
Section 2.3: Population Characteristics
Section 2.4: Community Profile
Section 2.5: Regional and Local Context
Section 2.6: Current Land Use (2025 General Plan)
Section 2.7: Existing Land Use (UrbanFootprint)
Section 2.8: Zoning Ordinance and Specific Plans
Section 2.9: Related Planning Efforts and Regulatory Plans
Section 2.10: Growth Policies and Strategies
Section 2.11: Community Character and Built Form
Section 2.12: Sources
Section 2.13: Acronyms and Key Terms
Section 2.14: Appendix A: UrbanFootprint Methodology

2.2 Regulatory Setting

Federal

This section describes several Federal statutes that affect land use and development in Atascadero.

National Historic Preservation Act of 1966

The National Historic Preservation Act (NHPA) was enacted to prevent harm to historic properties (16 U.S.C. Sections 470 et seq.). It includes regulations that apply specifically to Federal land-holding agencies but also includes regulations (Section 106) that pertain to all projects funded, permitted, or approved by any Federal agency that has the potential to affect cultural resources. Provisions of the NHPA establish a National Register of Historic Places (the National Register is maintained by the National Park Service), the Advisory Council on Historic Preservation, State Historic Preservation Offices, and Federal grants-in-aid programs.

Additional information regarding historical resources within the Planning Area is included in **Chapter 6: Cultural Resources**.

National Environmental Policy Act of 1969

The National Environmental Policy Act (NEPA) was established to ensure that the potential impacts of a proposed Federal action are subject to an environmental review process, which includes how alternatives will impact the human and natural environment (16 U.S.C. Sections 4331 to 4335). These assessments must be made available to the public. Section 102, Title I, requires agencies to incorporate environmental considerations into their planning and decision-making through a systematic approach. Specifically, all agencies must prepare detailed statements assessing the environmental impact and alternatives to major actions that significantly affect the environment. Both NEPA and the California Environmental Quality Act (CEQA) encourage a joint Federal and State review when a project requires both Federal and State approvals.

State

This section describes the State regulatory framework related to land use and community character in Atascadero.

General Plan Law

California Government Code, Section 65300, regulates the substantive and topical requirements of general plans. State law requires each city and county to adopt a general plan "for the physical development of the county or city, and any land outside its boundaries which bears relation to its planning." The California Supreme Court has called the general plan the "constitution for future development." It expresses the community's vision, development goals, and embodies public policy for the distribution of future land uses, both public and private.

Since the general plan affects the welfare of current and future generations, State law requires that it take a long-term perspective (typically 15 to 25 years). The general plan

projects conditions and needs into the future and establishes long-term policy for day-to-day decision-making.

State law requires general plans to address seven mandatory elements (or topics): land use, circulation, housing, conservation, open space, noise, and safety and must be internally consistent. Jurisdictions may include additional elements that cover topics outside of the seven mandated elements (such as economic development or historic preservation). As described by State law, internal consistency holds that no policy conflicts can exist, whether textual or diagrammatic, between the components of an otherwise complete and adequate General Plan. Different policies must be balanced and reconciled within the plan.

General Plan Guidelines

Section 65301 of the California Government Code requires a general plan to address the geographic territory of the local jurisdiction and any other territory outside its boundaries that bears relation to the planning of the jurisdiction. The jurisdiction may utilize judgment in determining what areas outside of its boundaries to include in the planning area. The State of California General Plan Guidelines state that the planning area for a city should include (at minimum) all land within the city limits and all land within the city's sphere of influence.

Senate Bill 1000

The California Environmental Protection Agency (CalEPA) defines Environmental Justice as "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies." The State of California recognizes that environmental justice disparities are a threat to the overall quality of life across all communities and has developed various policies, including Senate Bill (SB) 1000, to identify and address these environmental justice disparities.

Due to Senate Bill 1000, jurisdictions with populations designated as disadvantaged communities (DACs) must address environmental justice in their general plans. The Governor's Office of Planning and Research provides guidance for implementing SB 1000 at the local level. Additionally, the Office of the Attorney General provides monitoring and compliance review of SB 1000. These State agencies recommend two methods for the identification of disadvantaged communities: 1) Identifying low-income census tracts or block groups, or 2) identifying DACs using CalEnviroScreen 4.0. CalEnviroScreen is a screening methodology used to identify California communities that are disproportionately burdened by multiple sources of pollution. Based on SB 1000, all census tracts with CalEnviroScreen 4.0 scores in the percentile range of 75 to 100 are considered disadvantaged communities.

Atascadero does not have any designated DACs based on State criteria. However, topics of community health and safety outside of such a designation bear upon planning in a manner that promotes best practices for improving residents' quality of life. Additional information on these topics is included in **Chapter 10: Community Health**.

Specific Plan Law

California Government Code, Section 65451, regulates the substantive and topical requirements of specific plans. A specific plan is a tool for the systematic implementation of the general plan, similar to zoning regulations, and establishes a link between implementing policies of the general plan and individual development proposals. A specific plan differs from zoning in that it applies to a defined geographic area and has tailored development regulations. A specific plan may be as general as setting forth broad policy concepts, or as detailed as providing direction on every facet of development, from the type, location, and intensity of uses to the design and capacity of infrastructure.

Housing Element Law

The State has established detailed legal requirements for the General Plan Housing Element beyond Section 65300. California Government Code Section Article 10.6 requires each city and county to prepare and maintain a current housing element as part of the community's general plan in order to attain a statewide goal of providing "decent housing and a suitable living environment for every California family." Under State law, housing elements must be updated every eight years and certified by the California Department of Housing and Community Development (HUD).

The City of Atascadero 2021-2028 Housing Element was adopted on November 10, 2020, and subsequently certified by the State as complying with State law. The 2045 General Plan will designate the distribution, location, and extent of land uses, which does relate to housing production and allowed densities. However, as part of the 2045 General Plan update, no changes will be made to the 2021-2028 Housing Element.

Local Agency Formation Commission (LAFCo)

LAFCos are independent regulatory commissions created to control the boundaries of cities and most special districts. The legislative backing for LAFCos was administered through a complicated series of statutory laws. Initially, the three enabling acts were the Knox-Nisbet Act, the Municipal Organization Act, and the District Reorganization Act. These acts were subsequently streamlined into the Cortese-Knox Local Government Reorganization Act of 1985.

LAFCos have a range of duties but fundamentally exist as regulatory bodies to control city and special district boundaries and use their planning powers to influence land use. LAFCos are restricted to making indirect land use decisions, primarily to approve or deny changes in local governmental boundaries. LAFCos are also responsible for conducting special studies to review ways to reorganize, simplify, and streamline governmental structure and for preparing a sphere of influence for each city and special district in each county.

Cortese Knox Hertzberg Local Government Reorganization Act of 2000

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 establishes a LAFCo in each county in California and authorizes these commissions to review, approve, or deny proposals for boundary changes and incorporations for cities, counties, and special districts. The LAFCo establishes a “sphere of influence” (SOI) for cities within their jurisdiction that describes the city's probable future physical boundaries and service area. The Atascadero SOI is regulated by the San Luis Obispo County LAFCo.

California Environmental Quality Act (CEQA)

The State legislature established the California Environmental Quality Act (CEQA) to set a framework for maintaining "a quality environment for the people of the state now and in the future." CEQA consists of both the statutory regulations in Public Resources Code Sections 21000 et seq. and the CEQA Guidelines in California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000 et seq. Although the primary purpose of environmental review under CEQA is public disclosure, Section 15064.5 of the CEQA Guidelines requires lead agencies to determine whether proposed projects that require discretionary government approval clearly identify ways to avoid or reduce environmental impacts through feasible mitigation or project alternatives.

California Register of Historical Resources (CRHR)

On September 27, 1992, AB 2881 was signed into law amending the Public Resources Code as it affects historical resources. This legislation, which became effective on January 1, 1993, also created the California Register of Historical Resources (CRHR). Under CRHR, a historical resource may be determined significant under one or more of the following four criteria: it is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; it is associated with the lives of persons important to local, California, or national history; it embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or it has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

Integrity is the authenticity of a historic resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance. All resources nominated for listing on the CRHR must have integrity. Resources, therefore, must retain enough of their historic character or appearance to be recognizable as historic resources and to convey the reasons for their significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling and association. It must also be judged with reference to the particular criteria under which a resource is proposed for eligibility. Alterations over time to a resource or historical changes in its use may themselves have historic, cultural, or architectural significance.

It is possible that historical resources may not retain sufficient integrity to meet the criteria for listing in the National Register, but they may still be eligible for listing in the California Register. A resource that has lost its historical character or appearance may still have sufficient integrity for the California Register if it maintains the potential to yield significant scientific or historic information or specific data. Atascadero has several registered historical resources.

Additional information regarding historical resources within the Planning Area is included in **Chapter 6: Cultural Resources**.

Senate Bill 18

SB 18 requires cities and counties to conduct consultations with Native American tribes before local officials adopt or amend their general plans (Chapter 905, amends California Civil Code Section 815.3, "Traditional Tribal Cultural Places"). These consultations are for preserving or mitigating impacts to Native American historic, cultural, and sacred sites, features, and

objects in a city or county. A tribe has 90 days from the date of contact to request a consultation unless the tribe agrees to a shorter time frame. SB 18 also added a new topic that must be addressed in the open space element—open space land for the protection of Native American historic, cultural, or sacred sites, features, or objects.

Regional (Planning Agency Coordination)

Atascadero is one of seven incorporated cities in San Luis Obispo County. Each jurisdiction carries a responsibility to coordinate its general plan with regional planning efforts and other local government agencies to ensure coordinated planning efforts, priorities, and decisions. The principal regional agencies with planning policies and standards that may affect land within the Atascadero Planning Area include:

- County of San Luis Obispo
- San Luis Obispo Council of Governments (SLOCOG)
- San Luis Obispo Local Agency Formation Commission
- Central Coast Regional Water Quality Control Board
- San Luis Obispo County Integrated Waste Management Authority
- San Luis Obispo County Environmental Health Division
- San Luis Obispo County Air Pollution Control District
- Upper Salinas-Las Tablas Resource Conservation District
- California Department of Transportation (Caltrans)

This list will be revised accordingly as part of the 2045 General Plan update process.

Local

This section describes the local regulatory framework related to land use and community character in the Atascadero Planning Area. Additional details and other related planning efforts and regulatory land use plans are summarized in **Section 2.6**, **Section 2.8**, and **Section 2.9**.

City of Atascadero General Plan 2025

A general plan is a high-level policy document that is often described as the blueprint for development. A general plan establishes the "ground rules" for conserving resources, designing new projects, expanding public services, and improving community amenities. It articulates the community's vision and guides growth, change, and development over a 20-25-year period. Adopted in June 2002 and most recently revised in July 2016, the City of Atascadero General Plan 2025 (2025 General Plan) sets the course of all planning efforts both City-initiated and developer-proposed, and includes four chapters:

- Land Use, Open Space, and Conservation Element
- Circulation Element
- Safety and Noise Element
- Housing Element

The following sections list the Land Use, Open Space, and Conservation Element and Housing Element goals, as they relate to this chapter of the 2045 General Plan Existing Conditions Report.

Land Use, Open Space, and Conservation

The Land Use, Open Space, and Conservation (LOC) Element is intended to guide development and revitalization projects consistent with community values. Three mandatory elements have been consolidated to ensure internal consistency and to address the importance of Open Space and Conservation issues within the community. The LOC Element designates the general distribution and intensity of land uses, including housing, commercial, business, industry, open space, conservation areas, recreation areas, and public facilities. The guiding principle of the 2002 LOC Element was to retain the historic Colony land use pattern and rural character of the city. The goals of the 2002 Land Use, Open Space and Conservation Element include:

- **LOC 1:** Protect and preserve the rural atmosphere of the community by assuring "elbow room" for residents by means of maintenance of large lot sizes which increase in proportion to distance beyond the Urban Core.
- **LOC 2:** Preserve residential neighborhoods and the winding tree-lined nature of the street and road system.
- **LOC 3:** Transform the existing El Camino Real "strip" into a distinctive, attractive and efficient commercial, office and industrial park area which can provide for the long-term economic viability of the community.
- **LOC 4:** Provide for a strong and distinctive Downtown Area.
- **LOC 5:** Preserve the contours of the hills. Buildings built on hillsides shall conform to the topography using the slope of the land as the basis for the design of the structure.
- **LOC 6:** Preserve natural flora and fauna and protect scenic lands, sensitive natural areas, historic buildings and cultural resources.
- **LOC 7:** Tree-covered hills shall be preserved to retain the distinctive scenic quality of the community.
- **LOC 8:** Watershed areas of Atascadero shall be protected.
- **LOC 9:** Designate areas where livestock can be owned and maintained.
- **LOC 10:** Conserve energy and resources by preventing or correcting the degradation of the environment.
- **LOC 11:** Provide an adequate supply of public park facilities to all Atascadero residents.
- **LOC 12:** Provide a wide range of recreational activities and leisure experiences for all age groups, designed to foster a healthy community for residents and visitors.
- **LOC 13:** Provide for a sound economic base to sustain the City's unique character by establishing a range of employment and business opportunities and generate sufficient revenue to support adequate levels of public services, and environmental, social, and educational quality.
- **LOC 14:** Retain and expand existing businesses and attract new businesses to improve the availability of goods and services.
- **LOC 15:** Provide adequate public services for high-quality, orderly, and sensible growth.

An overview of the 2025 General Plan land use designation descriptions is included in **Section 2.6**.

Housing

Housing elements provide cities with a coordinated and comprehensive strategy for promoting the production of safe, decent, and affordable housing for all community residents. State law requires that the general plan and all individual elements collectively form an "integrated, internally consistent, and compatible statement of policies." The goals, policies, and programs of the Housing Element are consistent with the goals, policies, and programs contained in other elements of the 2025 General Plan.

State law establishes an eight-year cycle for housing elements; the City's current Housing Element was adopted in November 2020 and addresses housing needs from 2021 to 2028. Goals from the Housing Element are highlighted below.

City of Atascadero 2021-2028 Housing Element (Adopted Nov 2020)

The 6th cycle Housing Element covers the planning period of December 31, 2020, through December 31, 2028, and identifies strategies and programs to:

1. Encourage the development of a variety of housing opportunities;
2. Provide housing opportunities for persons of lower and moderate incomes;
3. Preserve the quality of the existing housing stock in Atascadero;
4. Minimize governmental constraints; and
5. Promote equal housing opportunities for all residents.

The City of Atascadero 2021-2028 Housing Element was adopted on November 10, 2020, and subsequently certified by the State as complying with State law. The 2045 General Plan will designate the distribution, location, and extent of land uses, which does relate to housing production and allowed densities. However, as part of the 2045 General Plan update, no changes will be made to the 2021-2028 Housing Element.

City of Atascadero Municipal Code

Zoning is the primary tool to implement a community's general plan and regulate development. The general plan sets the policy direction, and the zoning ordinance gives detailed development and use standards for each parcel of land, divides the community into zoning districts, and specifies the uses that are permitted, conditionally permitted, and prohibited within each district. Title 9 (Planning and Zoning) and Title 11 (Subdivisions) set permitting processes for discretionary project review and establish how properties can be used, developed, and subdivided. Title 9 (Planning and Zoning) divides Atascadero into zoning districts that roughly correlate with the 2025 General Plan land use categories. Zoning district descriptions are included in **Section 2.8**.

Specific Plans

Specific plans, used to establish concrete standards and development criteria for a designated area of the City, are required by the State to conform to the City's General Plan. Atascadero has adopted two Specific Plans: the Woodland Specific Plan in 2003 and the Del Rio Road Commercial Area Specific Plan in 2012. Both Specific Plans are summarized in **Section 2.8**.

2.3 Population Characteristics

Current Population (2024)

In 2024, the California Department of Finance reported Atascadero's population at 30,279 residents. Atascadero is the third-largest incorporated city in San Luis Obispo County accounting for approximately 11 percent of the County's total population.

Table 2-1: Population Estimates

Place	2024	2025	2030	2035	2040	2045
California	39,128,162	39,024,054	39,430,871	39,872,787	40,106,449	40,152,224
SLO County	278,469	297,095	305,692	312,346	315,922	318,025
Atascadero	30,279	32,240	33,043	33,703	34,063	34,278

Source(s): SLOCOG 2050 Regional Growth Forecast, 2017; California Department of Finance, 2024.

Table 2-2: Regional Population Change (2000-2045)

Place	Population			Change Over Time (2000-2024)		Change Over Time (2024-2045)	
	2000	2024	2045	+/-	%	+/-	%
Arroyo Grande	15,760	17,941	20,293	2,181	13.8%	2,352	13.1%
Atascadero	26,304	30,279	34,278	3,975	15.1%	3,999	13.2%
Paso Robles	24,109	30,907	37,487	6,798	28.2%	6,580	21.3%
Grover Beach	13,031	12,481	15,001	-550	-4.2%	2,520	20.2%
Morro Bay	10,311	10,261	12,169	-50	-0.5%	1,908	18.6%
Pismo Beach	8,537	7,846	9,989	-691	-8.1%	2,143	27.3%
San Luis Obispo	44,032	48,684	51,347	4,652	10.6%	2,663	5.5%
Unincorporated SLO County	103,612	120,070	137,461	16,458	15.9%	17,391	14.5%
Incorporated SLO County	245,696	278,469	318,025	32,773	13.3%	39,556	14.2%
California	33,721,583	39,128,162	40,152,224	2,181	13.8%	2,352	13.1%

Source(s): SLOCOG 2050 Regional Growth Forecast, 2017; California Department of Finance, 2024.

Projected Population (2045)

The San Luis Obispo Council of Governments (SLOCOG) 2050 Regional Growth Forecast currently projects that Atascadero's population will increase 13 percent—to 34,278 residents—within the 2045 General Plan update planning period.

Atascadero is considered a "bedroom community" due to the high percentage of residents who commute outside of the city for work. Commute patterns, demographic shifts, and home-ownership trends (i.e., low residential turnover rates and lower median home sale prices compared to neighboring cities) will continue to compound the demand for housing and public services in Atascadero. Additional details, including resident and employee commute patterns, are included in **Section 4.11**.

2.4 Community Profile

This section summarizes key demographics including age, race and ethnicity, educational attainment, income, and select housing characteristics. Tracking demographic changes can help decision-makers better anticipate and respond to residents' evolving needs and priorities. Data referenced in this section was pulled from the 2012 and 2022 U.S. Census Bureau American Community Survey (ACS) 5-year estimates data profiles.

Age

Age distribution is a key indicator of housing and service needs. In 2022, the largest individual age groups in Atascadero are 25- to 54-year-olds, making up approximately 38 percent of the city's population. The increase in under 10-year-old age groups in Atascadero over the last decade indicates an influx in families with young children. Since 2012, the greatest shift occurred in the 60- to 74-year-old age group, with an increase of over 2,000 residents. Overall, the proportion of older adults is growing in Atascadero, San Luis Obispo County, and California.

Table 2-3: Age

Age	California		SLO County		Atascadero	
	2012	2022	2012	2022	2012	2022
Total population	37,325,068	39,356,104	270,121	281,712	28,441	29,758
Under 5 years	6.8%	5.7%	5.0%	4.4%	5.1%	5.3%
5 to 9 years	6.7%	6.0%	4.8%	4.6%	4.0%	5.4%
10 to 14 years	6.9%	6.6%	5.5%	5.3%	7.3%	5.5%
15 to 19 years	7.5%	6.6%	8.2%	7.9%	7.0%	6.0%
20 to 24 years	7.5%	6.8%	10.4%	10.5%	6.9%	7.1%
25 to 34 years	14.3%	15.0%	11.7%	11.2%	12.0%	13.1%
35 to 44 years	13.9%	13.6%	10.9%	11.4%	11.8%	13.1%
45 to 54 years	14.0%	12.6%	14.5%	10.4%	17.8%	12.1%
55 to 59 years	5.9%	6.2%	7.3%	6.1%	8.7%	6.8%
60 to 64 years	4.9%	5.9%	6.4%	7.0%	5.7%	7.9%
65 to 74 years	6.2%	8.7%	8.0%	12.6%	6.6%	11.0%
75 to 84 years	3.7%	4.3%	4.9%	6.1%	4.9%	5.3%
85 years and over	1.6%	1.9%	2.5%	2.4%	2.1%	1.2%
Median Age	35.2	37.3	39.3	40.0	41.9	40.9
Under 18	--	22.3%	--	17.4%	--	20.0%
65 years and over	11.5%	14.9%	15.4%	21.1%	13.6%	17.6%

Source(s): U.S. Census ACS 5-Year Estimates, 2012 and 2022.

Race and Ethnicity

In 2022, approximately 78 percent of Atascadero's population identifies as not Hispanic or Latino. Although Atascadero's population is more diverse today than it was in 2012, 70 percent of Atascadero's population identified as White alone in 2022. In total, people of color make up approximately 30 percent of the city's 2022 population. Comparatively, county-wide 33 percent and state-wide 65 percent identify as a person of color.

Table 2-4: Race and Ethnicity

Race and Ethnicity	California		SLO County		Atascadero	
	2012	2022	2012	2022	2012	2022
Total population	37,325,068	39,356,104	270,121	281,712	28,441	29,758
Hispanic or Latino (of any race)	37.6%	39.7%	20.8%	23.4%	15.3%	22.2%
Mexican	31.4%	32.3%	18.1%	19.9%	13.2%	19.7%
Puerto Rican	0.5%	0.6%	0.3%	0.4%	0.0%	0.3%
Cuban	0.2%	0.3%	0.1%	0.1%	0.0%	0.1%
Other Hispanic or Latino	5.4%	6.5%	2.2%	2.9%	2.1%	2.1%
Not Hispanic or Latino	62.4%	60.3%	79.2%	76.6%	84.7%	77.8%
White alone	40.1%	35.2%	71.0%	66.9%	78.8%	70.1%
Black or African American alone	5.8%	5.3%	2.0%	1.2%	1.6%	0.7%
American Indian and Alaska Native alone	0.4%	0.3%	0.5%	0.2%	0.9%	0.4%
Asian alone	13.0%	14.9%	3.3%	3.4%	1.3%	1.6%
Native Hawaiian and Other Pacific Islander alone	0.4%	0.3%	0.1%	0.1%	0.1%	0.1%
Some other race alone	0.2%	0.4%	0.2%	0.5%	0.0%	0.5%
Two or more races	2.5%	3.8%	2.1%	4.3%	2.0%	4.5%

Source(s): U.S. Census ACS 5-Year Estimates, 2012 and 2022.

Educational Attainment

Higher education attainment is an indicator of higher incomes and lower unemployment rates, therefore has a direct impact on quality of life, including the ability to afford housing. In April 2023, the U.S. Bureau of Labor Statistics reported that workers (25 years old and over) with less education than a high school diploma have the highest unemployment rates (5.6 percent) and the lowest median weekly earnings ($708). Workers with Bachelor's degrees and higher have the lowest unemployment rates (1.2 to 2.2 percent) and the highest median weekly earnings ($1,493 to 2,206).

In 2022, nearly 95 percent of Atascadero residents have a high school diploma (or equivalent), compared to 92 percent for San Luis Obispo County and 84 percent for California. Proportionately, Atascadero falls behind the County and State averages once attainment reaches a Bachelor's degree and above.

Table 2-5: Educational Attainment

Educational Attainment	California		SLO County		Atascadero	
	2012	2022	2012	2022	2012	2022
Population 25 years and over	24,117,317	26,842,698	178,671	189,527	19,814	21,029
Less than 9th grade	10.3%	8.7%	4.3%	3.4%	2.2%	2.1%
9th to 12th grade, no diploma	8.7%	6.9%	6.2%	4.6%	5.8%	4.2%
High school graduate (includes equivalency)	20.7%	20.4%	21.2%	18.7%	22.8%	22.4%
Some college, no degree	22.2%	20.1%	27.1%	25.0%	29.4%	29.7%
Associate's degree	7.7%	8.0%	9.7%	10.4%	11.6%	11.9%
Bachelor's degree	19.4%	22.1%	19.6%	23.9%	18.9%	19.7%
Graduate or professional degree	11.1%	13.8%	12.0%	14.1%	9.3%	10.0%

Source(s): U.S. Census ACS 5-Year Estimates, 2012 and 2022.

Income and Housing Characteristics

Household income is one of the most important factors in determining a household's ability to balance housing costs with other necessities. In 2022, the median household income for Atascadero residents was $88,984, which is in line with the San Luis Obispo County median ($82,514) and two percent less than the State median ($90,158). California, San Luis Obispo County, and Atascadero have similar income characteristics. The percentage of the population in all three jurisdictions making $75,000 or more is about 58 percent.

Although household income in Atascadero increased at a lesser rate (33.6 percent) than in the County (51.2 percent) and State (49.7 percent) since 2012, the City has one of the higher median household incomes when compared to nearby cities (see **Table 2-7**).

Table 2-6: Income

Income	California		SLO County		Atascadero	
	2012	2022	2012	2022	2012	2022
Total households	12,466,331	13,315,822	101,708	108,099	11,112	11,677
Less than $10,000	5.5%	4.4%	5.9%	4.4%	4.0%	2.9%
$10,000 to $14,999	5.2%	3.2%	5.1%	2.9%	5.4%	1.9%
$15,000 to $24,999	9.5%	5.6%	9.3%	5.6%	7.8%	4.8%
$25,000 to $34,999	9.1%	6.0%	9.6%	6.3%	9.1%	6.1%
$35,000 to $49,999	12.3%	8.7%	12.9%	9.0%	12.2%	10.3%
$50,000 to $74,999	17.1%	13.7%	17.5%	14.6%	18.2%	15.7%
$75,000 to $99,999	12.4%	12.0%	13.4%	11.9%	16.7%	14.7%
$100,000 to $149,999	15.1%	17.8%	15.5%	19.4%	17.0%	18.1%
$150,000 to $199,999	6.7%	10.7%	6.1%	11.6%	6.4%	10.5%
$200,000 or more	7.1%	17.9%	4.6%	14.3%	3.1%	15.0%

Source(s): U.S. Census ACS 5-Year Estimates, 2012 and 2022.

Table 2-7: Regional Snapshot–Median Household Income (2012-2022)

Place	Median Household Income (Dollars)		Change Over Time (2012-2022)	
	2012	2022	+/-	%
California	61,400	91,905	30,505	49.7%
SLO County	59,628	90,158	30,530	51.2%
Arroyo Grande	62,976	99,143	36,167	57.4%
Atascadero	66,603	88,984	22,381	33.6%
Paso Robles	57,977	83,948	25,971	44.8%
Grover Beach	46,829	80,438	33,609	71.8%
Morro Bay	55,393	88,547	33,154	59.9%
Pismo Beach	69,728	109,196	39,468	56.6%
San Luis Obispo	46,651	65,000	18,349	39.3%

Source(s): U.S. Census ACS 5-Year Estimates, 2012 and 2022.

Table 2-8: Regional Snapshot–Median Monthly Housing Costs (2012-2022)

Place	Median Monthly Mortgage (Dollars)		Change Over Time (2012-2022)		Median Monthly Gross Rent (Dollars)		Change Over Time (2012-2022)	
	2012	2022	+/-	%	2012	2022	+/-	%
California	2,338	2,759	421	18.0%	1,209	1,856	647	53.5%
SLO County	2,298	2,721	423	18.4%	1,197	1,800	603	50.4%
Arroyo Grande	2,562	2,731	169	6.6%	1,178	1,993	815	69.2%
Atascadero	2,109	2,654	545	25.8%	1,084	1,704	620	57.2%
Paso Robles	2,074	2,532	458	22.1%	1,085	1,661	576	53.1%
Grover Beach	1,917	2,233	316	16.5%	1,205	1,799	594	49.3%
Morro Bay	2,292	2,797	505	22.0%	1,262	1,734	472	37.4%
Pismo Beach	2,353	2,882	529	22.5%	1,434	2,199	765	53.3%
San Luis Obispo	2,347	2,899	552	23.5%	1,225	1,850	625	51.0%

Source(s): U.S. Census ACS 5-Year Estimates, 2012 and 2022.

Table 2-9: Regional Snapshot–Housing Occupancy and Tenure (2022)

Occupancy and Tenure (2022)	California	SLO County	Arroyo Grande	Atascadero	Paso Robles	Grover Beach	Morro Bay	Pismo Beach	San Luis Obispo
Total housing units	14,424,442	123,968	8,016	12,170	12,856	5,951	6,086	5,991	20,969
Occupied housing units (Percent of total housing units)	13,315,822 (92.3%)	108,099 (87.2%)	7,504 (93.6%)	11,677 (95.9%)	12,005 (93.4%)	5,140 (86.4%)	4,852 (79.7%)	4,113 (68.7%)	19,254 (91.8%)
Owner-occupied	55.6%	62.0%	62.7%	63.1%	61.2%	57.0%	57.7%	64.6%	38.0%
Average household size of owner-occupied unit	2.99	2.49	2.47	2.64	2.57	2.44	2.19	2.02	2.35
Renter-occupied	44.4%	38.0%	37.3%	36.9%	38.8%	43.0%	42.3%	35.4%	62.0%
Average household size of renter-occupied unit	2.77	2.45	2.34	2.28	2.69	2.52	2.17	1.84	2.42
Vacant housing units (Percent of total housing units)	1,108,620 (7.7%)	15,869 (12.8%)	512 (6.4%)	493 (4.1%)	851 (6.6%)	811 (13.6%)	1,234 (20.3%)	1,878 (31.3%)	1,715 (8.2%)
Homeowner vacancy rate	0.9	2.2	1.3	1.2	1.9	0.3	2.7	1.6	2.2
Rental vacancy rate	4.0	4.7	1.4	2.1	7.2	5.7	4.6	15.6	2.7

Source(s): U.S. Census ACS 5-Year Estimates, 2022.

Table 2-10: Regional Snapshot–Housing Unit Type (2022)

Housing Unit Type (2022)	California	SLO County	Arroyo Grande	Atascadero	Paso Robles	Grover Beach	Morro Bay	Pismo Beach	San Luis Obispo
Total housing units	14,424,442	123,968	8,016	12,170	12,856	5,951	6,086	5,991	20,969
1-unit, detached	57.3%	68.2%	66.7%	69.5%	71.6%	61.3%	70.7%	56.0%	45.4%
1-unit, attached	7.2%	6.1%	9.8%	4.5%	6.5%	14.0%	5.8%	10.2%	9.0%
2 units	2.4%	3.2%	1.3%	1.8%	2.8%	3.7%	5.3%	8.8%	5.2%
3 or 4 units	5.4%	5.0%	2.3%	6.8%	5.1%	11.7%	5.1%	5.0%	9.1%
5 to 9 units	5.8%	4.0%	2.9%	5.6%	7.5%	5.3%	3.6%	4.2%	6.8%
10 to 19 units	5.0%	2.4%	3.8%	2.7%	3.1%	0.4%	0.8%	3.0%	7.0%
20 or more units	13.2%	3.5%	6.7%	4.4%	2.2%	0.5%	1.7%	1.9%	11.9%
Mobile home	3.6%	7.5%	6.5%	4.2%	1.1%	3.2%	6.1%	10.8%	5.6%
Boat, RV, van, etc.	0.1%	0.1%	0.0%	0.4%	0.0%	0.0%	0.9%	0.1%	0.0%

Source(s): U.S. Census ACS 5-Year Estimates, 2022.

Table 2-11: Regional Snapshot–Housing Unit Age (2022)

Housing Unit Age (2022)	California	SLO County	Arroyo Grande	Atascadero	Paso Robles	Grover Beach	Morro Bay	Pismo Beach	San Luis Obispo
Total housing units	14,424,442	123,968	8,016	12,170	12,856	5,951	6,086	5,991	20,969
Built 2020 or later	0.4%	0.6%	0.2%	0.0%	0.3%	0.4%	1.0%	0.0%	0.8%
Built 1990 to 2019 (Approximately 30 years old)	27.2%	33.8%	29.9%	31.8%	40.8%	21.3%	22.9%	36.4%	25.0%
Built 1970 to 1989 (Approximately 50 years old)	32.2%	40.3%	41.0%	46.3%	39.2%	40.4%	27.7%	39.5%	37.2%
Built 1940 to 1969 (Approximately 80 years old)	31.3%	20.3%	23.9%	18.5%	15.7%	33.6%	45.1%	20.4%	26.5%
Built 1939 or earlier	8.9%	5.0%	5.1%	3.3%	4.0%	4.3%	3.3%	3.7%	10.6%

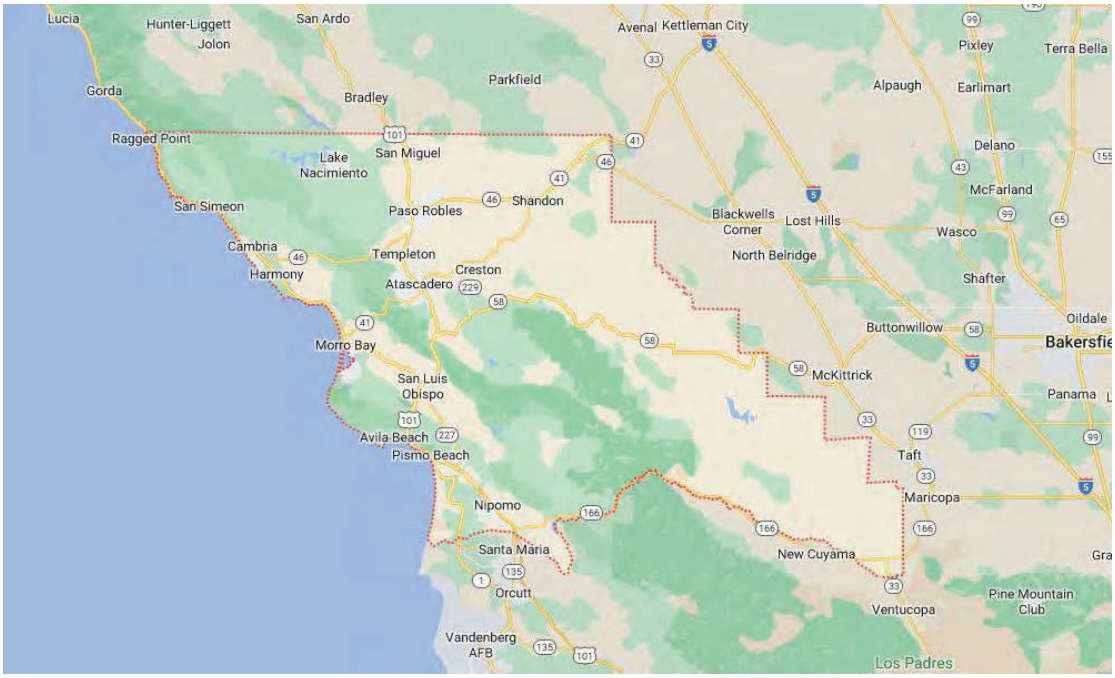
Source(s): U.S. Census ACS 5-Year Estimates, 2022.

2.5 Regional and Local Context

Regional Context

Atascadero is located halfway between Los Angeles and San Francisco along U.S. Highway 101 (U.S. 101), twenty miles north of San Luis Obispo and ten miles south of Paso Robles. Nearby, State Routes 41 and 46 provide easy access to the Pacific Coast and the Central Valley of California. The city is nestled between the Salinas River to the east and the Santa Lucia Mountains to the west. Geographically, Atascadero is the largest city in San Luis Obispo County.

Figure 2-1: Regional Context



Source(s): Google Maps, 2024.

Planning Boundaries

City Limits

The Atascadero city limits encompass approximately 26 square miles, or 16,738 acres (see **Figure 2-2**).

Sphere of Influence

A City's sphere of influence refers to adjacent unincorporated areas that currently, or may in the future, receive city services. The San Luis Obispo County LAFCo identifies two unincorporated areas outside of the city limits as Atascadero's Sphere of Influence, totaling approximately 5 square miles, or 3,466 acres. The most significant of the two SOI areas is Eagle Ranch, abutting Atascadero's southern city boundary. Eagle Ranch contains existing colony lots (452) and is subject to an MOA between the County and the City that guides the potential future annexation and development of this area.

Planning Area

The Planning Area for the 2045 General Plan update covers approximately 32 square miles, or 20,203 acres. This includes all properties within the incorporated city limits and the City's Sphere of Influence (SOI).[1] The Planning Area generally coincides with the historic Atascadero Colony boundary, which was largely dictated by topographic considerations, existing land use patterns, and community desires to maintain the historic Colony Boundary.

Unincorporated Areas

Unincorporated areas are properties that lie outside the Atascadero city limits. These properties fall within San Luis Obispo County jurisdiction until such time they become annexed to the City of Atascadero.

Urban Services Line (USL)

Atascadero's Urban Services Line (USL) designates land within the city limits for infill development where services can be provided in a cost-efficient manner (see **Figure 2-2**). Due to topography, environmental, and physical constraints, rural residential development is and will remain the predominant land use development pattern outside of the USL.[2]

Table 2-12: Planning Boundaries

Planning Boundaries	Total Acreage	Total Square Miles
City Limits	16,738	26.2
Sphere of Influence	3,466	5.4
Planning Area	20,203	31.6

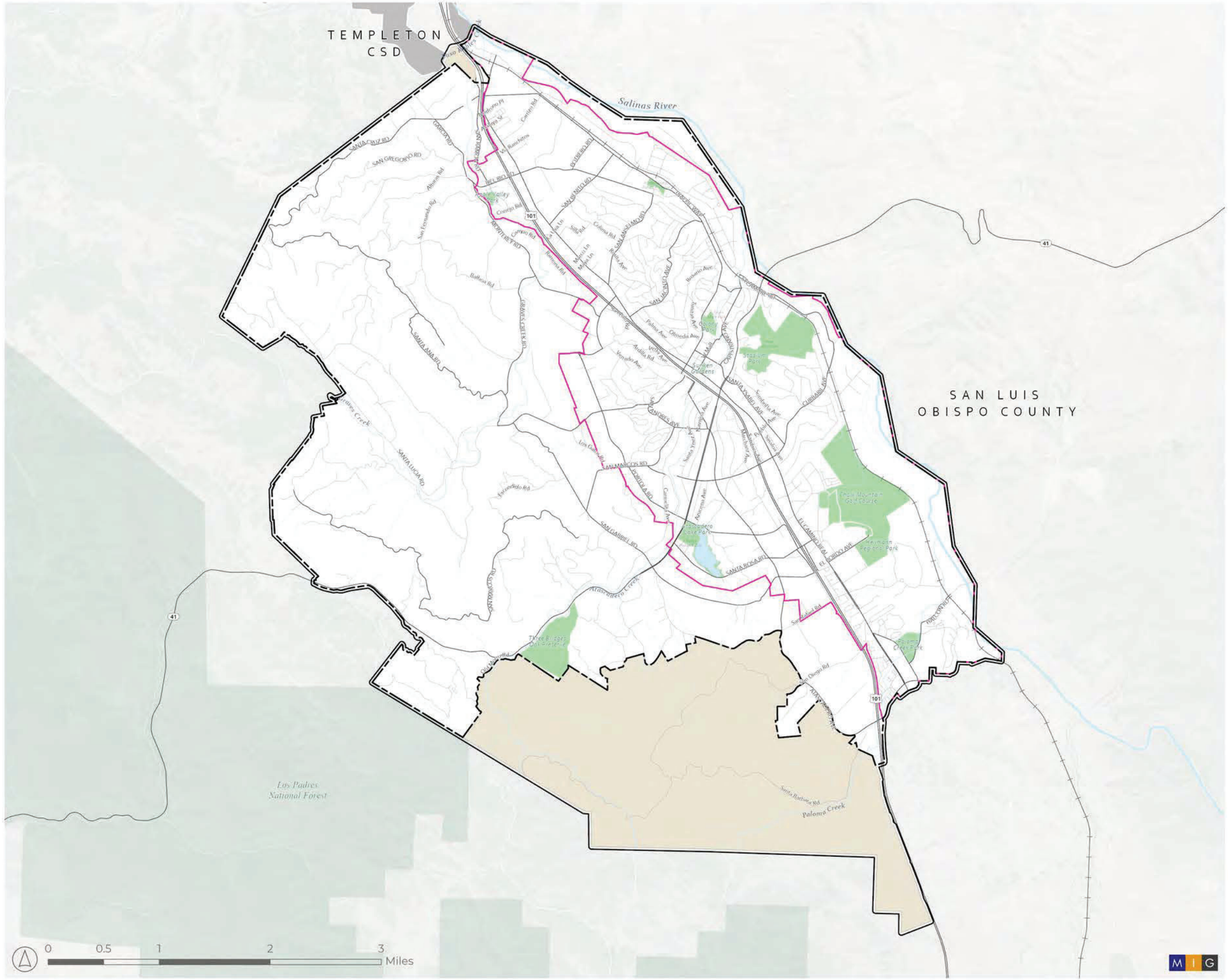
Source(s): LAFCo, 2024; City of Atascadero, 2024.

[1] LAFCo 2022
[2] 2025 General Plan


NOW OPEN

Figure 2-2:

Planning Area



Basemap Features

- Atascadero Planning Area
- Atascadero City Limit
- Urban Services Line
- Sphere of Influence
- Rivers + Waterbodies
- Parks + Open Space

Source(s):
Esri, CA State Open Data, County of San Luis Obispo, City of Atascadero, 2024.

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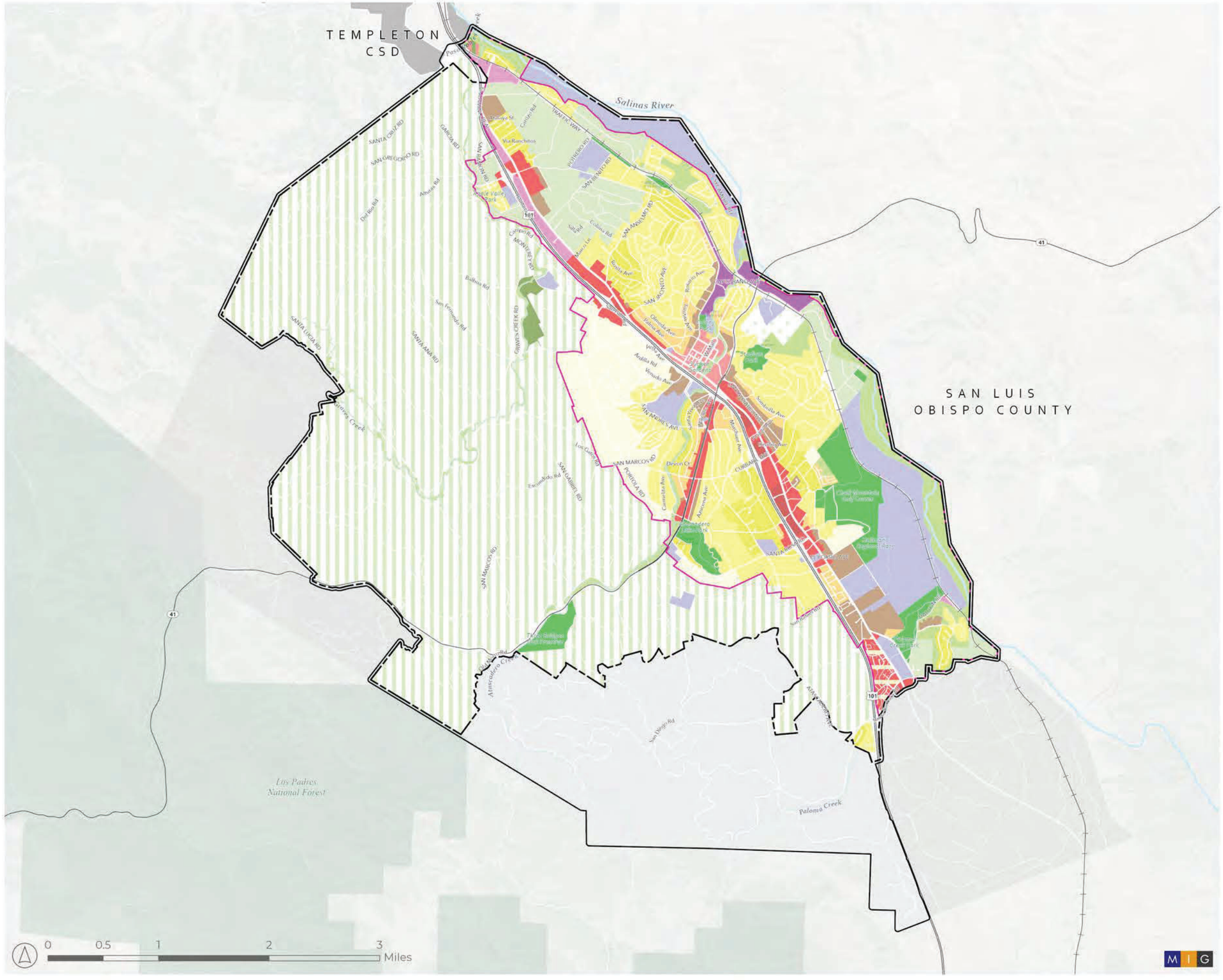

AUTHENTIC Atascadero OUR CITY, OUR PLAN

Figure 2-3:

Current Land Use

(2025 General Plan)

Basemap Features

- Atascadero Planning Area
- Atascadero City Limit
- Urban Services Line

Land Use Designations

- RR: Rural Residential
- RE: Rural Estates (2.5 - 10 acre lot min)
- SE: Suburban Estates (2.5 - 10 acre lot min)
- SFR-Z: Single Family Residential (1.5 - 2.5 acre lot min)
- SFR-Y: Single Family Residential (1.0 acre lot min)
- SFR-X: Single Family Residential (0.5 acre lot min)
- MDR: Medium Density Residential (10 units / ac)
- HDR: High Density Residential (20 units / ac)
- GC: General Commercial
- SC: Service Commercial
- D: Downtown
- MU-PD: Mixed Use
- CPK: Commercial Park
- I: Industrial
- CREC: Commercial Recreation
- REC: Public Recreation
- OS: Open Space
- A: Agriculture
- P: Public Facilities
- Unincorporated
- Right-of-Way

Source(s):
Esri, CA State Open Data, County of San Luis Obispo, City of Atascadero, 2024.

MIG

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2.6 Current Land Use (2025 General Plan)

Introduction

This section describes the allowed land uses within the Atascadero Planning Area by land use designation per the 2025 General Plan. Geographic Information System (GIS) data from the City of Atascadero informed the land use data presented below.

2025 General Plan

The 2025 General Plan categorizes land uses into the following categories: residential, mixed use, and non-residential. These categories are further refined into land use designations. **Figure 2-3**, **Table 2-13**, and **Table 2-14** show the distribution of these land use categories, including corresponding zoning districts.

Residential Designations

Rural Residential (RR), Rural Estate (RE), Suburban Estate (SE) are intended for detached single-family homes on lots sizes of 2.5-10 acres gross with allowable accessory agricultural and livestock uses. Rural Estates (RE) areas are beyond the USL and tend to have larger lots than the Suburban Estates (SE), Rural Residential (RR), and Single-Family Residential (SFR) areas. Densities generally decrease with distance from the urban core to maintain the rural atmosphere of the community and preserve the large lots that are a distinguishing feature of Atascadero.

Single-Family Residential (SFR) areas are intended for detached single-family homes. Within the SFR designation, there are three distinct designations–SFR-Z, SFR-Y, and SFR-X–that range in minimum lot size and density depending on neighborhood and site characteristics including slope, average neighborhood lot size, soil percolation, adequacy of access and distance from downtown.

- SFR-Z: The minimum lot size ranges from 1.5 to 2.5 acres gross based on performance standards.
- SFR-Y: The minimum lot size is 1.0 acres gross with or without sewer service. Second dwelling units may be permitted within this designation based on zoning standards.
- SFR-X: The minimum lot area is 0.5 acres net with a maximum density of 4.0 dwelling units per acre (du/ac).

Medium-Density Residential (MDR) areas are intended for up to ten attached or detached residences per acre. In addition to apartments and townhouses, this designation allows mobile home subdivisions and mobile home parks. The minimum lot area is 0.5 acres net, although smaller lot sizes may be allowed through a planned development overlay process. Zoning standards require adequate parking, setbacks, landscaping, on-site recreation areas, individual storage, and building and parking area screening from abutting lower density single-family areas. Maximum densities shall be reduced based on lot slopes. All development within this district is subject to appearance review.

High-Density Residential (HDR) areas intended for a minimum of 20 and a maximum of 24, multi-family residences per acre, including mobile homes parks. The minimum lot area is 0.5 acres net, although smaller lot sizes may be allowed through a planned development overlay process. Zoning standards require adequate parking, setbacks, landscaping, on-site recreation areas, individual storage, and building and parking area screening from abutting

lower density single-family areas. Maximum densities shall be reduced based on lot slopes. All development within this district is subject to appearance review.

Mixed Use Designations

The mixed use designations are primarily commercial districts where multi-family residential uses are allowed or conditionally allowed above the ground floor, while the ground floor is reserved for commercial uses. All of the mixed use designations lie within the USL. Below are detailed descriptions of the current intent of these land uses:

General Commercial (GC) includes office, neighborhood, retail, and tourist commercial zoning districts. Office areas allow a range of professional, business, and administrative service uses with small-scale retail uses. Mixed use development with attached multi-family residential up to 20 dwelling units per acre may be conditionally permitted by zoning.

Downtown (D) allows for a mix of retail, office, restaurant, personal service, commercial and residential uses. To encourage pedestrian orientation, businesses are encouraged to occupy small lots with sidewalk storefronts, and residences are allowed on upper floors. Mixed use multi-family residential development is conditionally allowed up to 20 dwelling units per acre, higher densities may be approved through a planned development process. Design and parking standards are different from other areas to encourage a development pattern consistent with a historic Downtown.

Mixed Use (MU) designation is intended to encourage a mix of retail, office and residential uses within individual projects to encourage pedestrian orientation and create a synergy between housing and goods and services needed by surrounding residents. Housing can occur alongside or above non-residential uses. All mixed use designations shall be accompanied by a planned development overlay that will establish a master plan of development for the site and all mixes of uses. The maximum residential density shall be 20 dwelling units per acre.

Commercial Recreation (CREC) designation allows private recreational land uses, including private parks for active and passive recreation, playgrounds, playfields, swimming pools, and golf courses as well as tourist recreation such as RV parks. Multi-family uses such as mobile home parks may be conditionally allowed up to a maximum residential density of 20 dwelling units per acre.

Non-Residential Designations

Non-residential designations are intended to concentrate businesses, industry and services in appropriate locations that serve the community, rely on existing infrastructure, and protect residential neighborhoods. Site-specific zoning requirements (such as screening outdoor storage lighting from off-site) are often required to mitigate impacts associated with high intensity uses. Non-residential designations include:

Service Commercial (SC) accommodates more intensive uses than allowed in other commercial areas, such as lumberyards, building material supply, wholesaling, storage, auto sales, auto and equipment repair, and printing establishments. These areas are appropriate for uses that would be detrimental to or would not benefit from pedestrian orientation, and that frequently have outdoor storage needs involving trucking activity and movement of large products. Locations for this designation include districts along freeway frontage or with direct access to arterial streets (to preclude truck traffic using local residential streets).

Commercial Park (CPK) applies to areas along the northern portion of El Camino Real to accommodate uses that require large parcels, such as automobile and mobile home sales, factory outlet centers, traveler destination and recreation complexes, craft uses, nurseries and planned commercial developments. Certain types of light industrial uses, including research and development facilities and clean manufacturing facilities, along with office parks and business uses may also be appropriate in this area.

Industrial (IND) provides for a range of uses, from intensive individual operations such as auto body shops, contractor staging areas, outdoor storage facilities, and manufacturing plants, to lower intensity businesses in light industrial park developments master planned on large parcels. Typical industrial park uses include small-scale manufacturing, assembly, research and development, computer-based services, and product fabrication. Campus-type site development is required for larger industrial park projects.

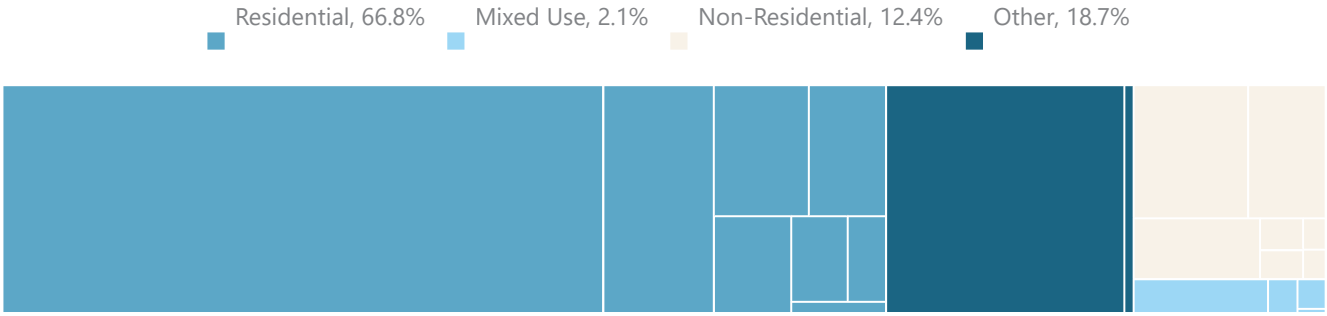
Agriculture (AG) is limited to several parcels along Graves Creek that are used for crop production. It is not expected that this designation will be expanded to additional parcels in the planning area.

Public Facilities (PUB) applies to parcels that are publicly owned and/or house publicly operated facilities, and is intended to meet the public service, institutional, educational, religious, and cultural needs of the community. This designation includes the Atascadero State Hospital, which the General Plan allows as a mental health facility use. Community facilities require large areas of land and may have specialized site location requirements.

Public Recreation (REC) This designation is reserved for public park and recreation facilities available for public use and owned by a public entity. Residential subdivisions are not allowed under this designation. Future park sites may be designated with a non-site specific (REC) designation.

Open Space (OS) This designation covers areas with environmentally sensitive natural or cultural resources, areas to be used for the managed production of natural resources, and areas subject to natural hazards such as floods or landslides. Open Space land generally is intended to remain free of structures but may be developed with low intensity recreational improvements such as trails, landscaping and tot lots. Open Space may be developed with public-serving facilities and utilities provided by the City and Water Company including the development, production, treatment and transmission of the public water supply.

Figure 2-4: 2025 General Plan Land Uses Breakdown



Source(s): City of Atascadero General Plan 2025; City of Atascadero, 2024.

Table 2-13: Current Land Use Designations Summary

2025 General Plan Land Use Designation		Planning Area		2025 General Plan Land Use Category	% of Total (Acreage)
		Total Acreage	Total Square Miles		
RE	Rural Estates	8,494	13.3	Residential	45.4%
SE	Suburban Estates	773	1.2	Residential	4.1%
RR	Rural Residential	66	0.1	Residential	0.4%
SFR-X	Single-Family Residential	465	0.7	Residential	2.5%
SFR-Y	Single-Family Residential	1,560	2.4	Residential	8.3%
SFR-Z	Single-Family Residential	628	1.0	Residential	3.4%
MDR	Medium Density Residential	203	0.3	Residential	1.1%
HDR	High Density Residential	300	0.5	Residential	1.6%
GC	General Commercial	281	0.4	Mixed Use	1.5%
D	Downtown	62	0.1	Mixed Use	0.3%
MU-PD	Mixed Use	52	0.1	Mixed Use	0.3%
CREC	Commercial Recreation	7	0.0	Mixed Use	0.0%
SC	Service Commercial	42	0.1	Non-Residential	0.2%
CPK	Commercial Park	86	0.1	Non-Residential	0.5%
IND	Industrial	77	0.1	Non-Residential	0.4%
AG	Agriculture	44	0.1	Non-Residential	0.2%
PUB	Public Facilities	945	1.5	Non-Residential	5.1%
REC	Public Recreation	478	0.7	Non-Residential	2.6%
OS	Open Space	640	1.0	Non-Residential	3.4%
--	Right-of-Way	132	0.2	--	0.7%
--	Unincorporated (SOI)	3,368	5.3	--	18.0%
Total		**18,703**	**29.2**		**100.0%**

Source(s): City of Atascadero General Plan 2025; City of Atascadero, 2024.

Corresponding Zoning Districts

Table 2-14 below correlates the 2025 General Plan land use designations with current zoning districts (2024). Zoning district descriptions are included in **Section 2.8**.

Table 2-14: Current Land Use Designations and Corresponding Zoning Districts

2025 General Plan Land Use Designation	Corresponding Zoning District(s)
RR, RE, SE	RR, RS, P, L, OS
SFR-Z	RSF-Z, LSF-Z, P, L, OS
SFR-Y	RSF-Y, LSF-Y, P, L, OS
SFR-X	RSF-X, LSF-X, P, L, OS
MDR	RMF-10, P, L
HDR	RMF-20, P, L
GC	CP, CN, CR, CT
SC	CS
D	DC, DO
MU	CR, CP (MU/PD overlay)
CPK	CPK
CREC	P, LS, OS
IND	I, IPK
AG	RR, RS, A, OS
REC	P, L, OS
PUB	P, L
OS	L, P, OS

Source(s): City of Atascadero General Plan 2025.

2.7 Existing Land Use (UrbanFootprint)

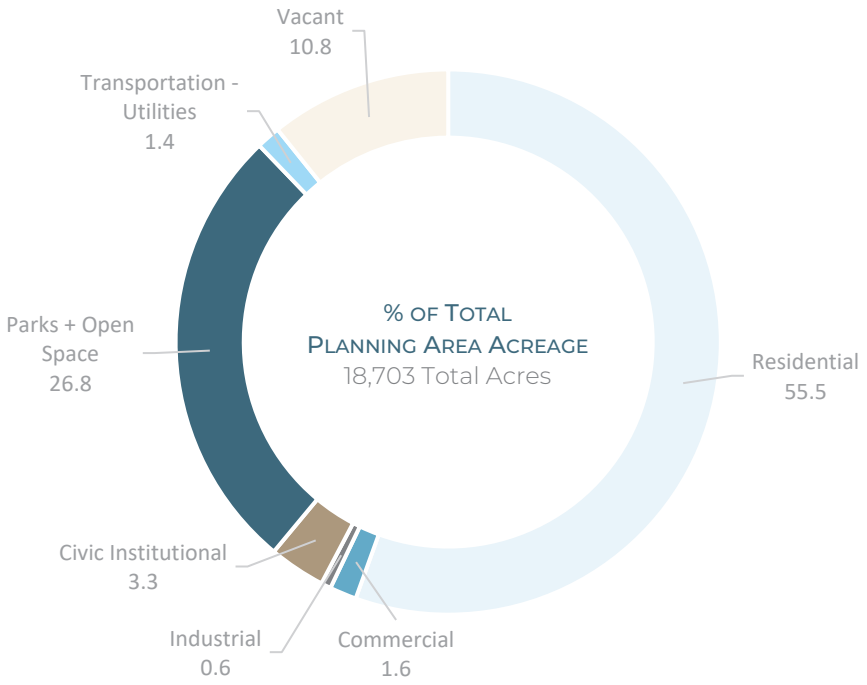
Introduction

This section identifies and summarizes the existing land uses–what is on the ground today–within the Atascadero Planning Area using UrbanFootprint, a scenario planning tool. Existing land uses represent the actual uses that are currently built/improved on each site in the planning area.

UrbanFootprint Base Canvas

The UrbanFootprint Base Canvas is a geospatial dataset that reflects existing land use and demographics at the parcel level. This data, summarized in **Table 2-15** and shown on **Figure 2-5** and **Figure 2-6**, will serve as the baseline for creating future land use scenarios.

Figure 2-5: Existing Land Use (UrbanFootprint) Breakdown



Source(s): UrbanFootprint, 2024.

Data Sources and Updates

Updated quarterly, the existing land use data (or Base Canvas) is generated by aggregating data from a variety of sources, including:

- Parcel data used to identify land uses and populate dwelling units, employment, and building attributes where available from CoreLogic
- Population and housing data from the decennial census and American Community Survey
- Employment data from the Longitudinal Employer-Household Dynamics (LEHD) program
- Point-of-interest and road data from supplemental sources

Base Canvas creation involves many steps of data processing and logic application. Supplemental data sources and the methodologies used for Base Canvas parcel creation and attributes are included in **Appendix A**.

Table 2-15: Existing Land Use (UrbanFootprint) Summary

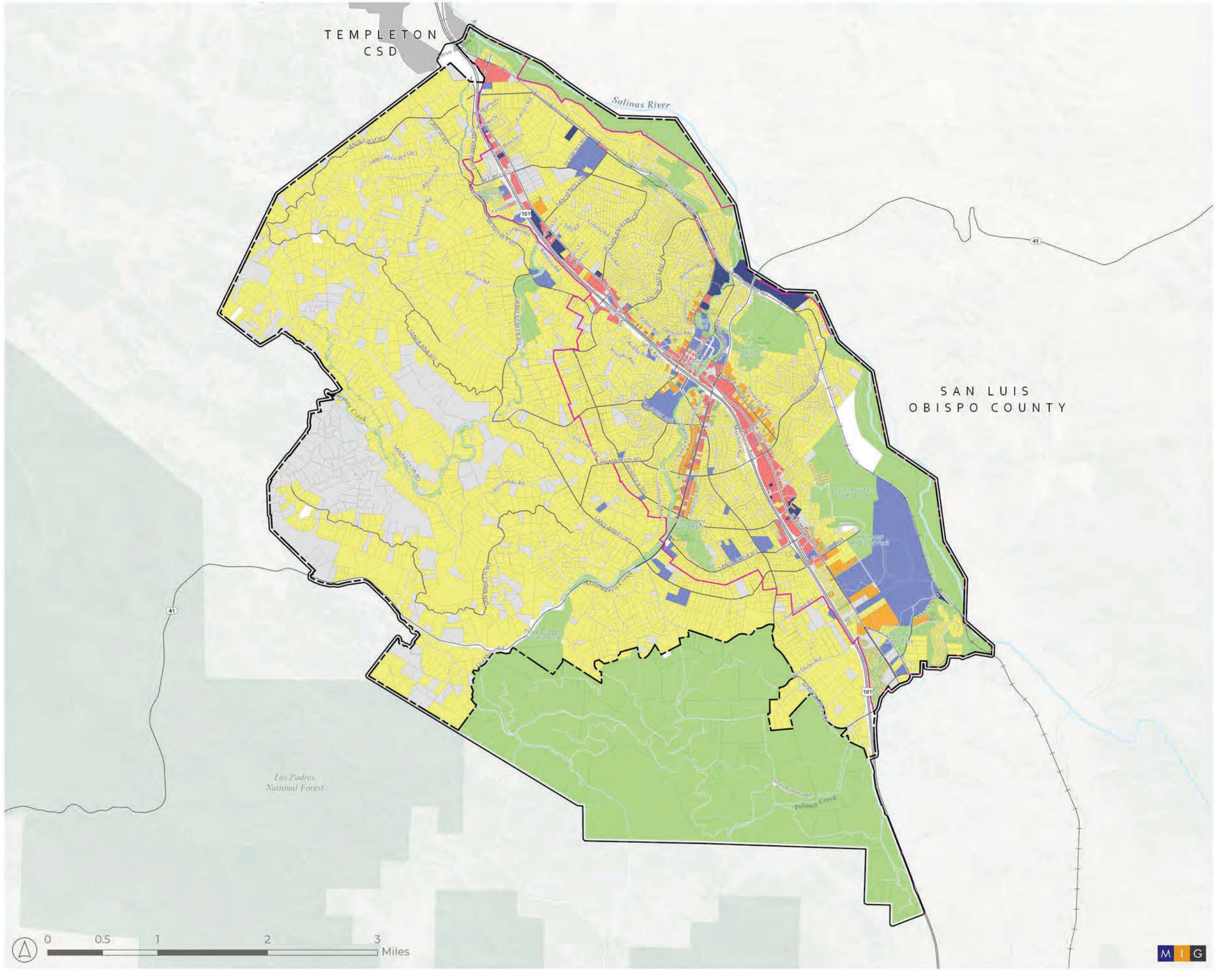
Existing Land Use Category	City	SOI	Planning Area (City + SOI)	% of Total (Acreage)
Residential				
Single-Family (Attached, Detached, and Mobile Home Park)	10,205	9	10,214	54.6%
Multi-family	170		170	0.9%
Subtotal	*10,376*	*9*	*10,384*	*55.5%*
Commercial				
General Commercial / Retail	190		190	1.0%
Office	66		66	0.4%
Retail / Accommodation	22		22	0.1%
Commercial Recreation	12		12	0.1%
Other	9		9	0.05%
Subtotal	*299*	*--*	*299*	*1.6%*
Industrial				
Industrial	110		110	0.6%
Subtotal	*110*	*--*	*110*	*0.6%*
Civic Institutional				
Hospitals	359		359	1.9%
Schools	150		150	0.8%
Special Use Facilities	58		58	0.3%
Civic Facilities	56		56	0.3%
Emergency Services	3		3	0.02%
Subtotal	*626*	*--*	*626*	*3.3%*
Parks + Open Space				
Natural Conservation	904	3,331	4,236	22.6%
Park / Recreation	284		284	1.5%
Golf Course	235		235	1.3%
Open Space	191		191	1.0%
Cemetery	60		60	0.3%
Subtotal	*1,674*	*3,331*	*5,005*	*26.8%*
Transportation – Utilities				
Right-of-Way / Utilities	139		139	0.7%
Utilities / Communications	99	28	127	0.7%
Subtotal	*238*	*28*	*266*	*1.4%*
Vacant				
Residential	1,877		1,877	10.0%
Nonresidential	135		135	0.7%
Subtotal	*2,013*	*--*	*2,013*	*10.8%*
Total	**15,335**	**3,368**	**18,703**	**100.0%**

Source(s): UrbanFootprint, 2024.


WHISKEY BAR


BIG 5
MISSION OAKS
GROCERY OUTLET


Country Touch
CAFE



AUTHENTIC Atascadero OUR CITY, OUR PLAN

Figure 2-6:

Existing Land Use

(UrbanFootprint)

Basemap Features

- Atascadero Planning Area
- Atascadero City Limit
- Urban Services Line

Existing Land Use

- Residential - Single-family
- Residential - Multi-family
- Commercial
- Industrial
- Civic Institutional
- Parks + Open Space
- Transportation - Utilities
- Vacant

Source(s):
UrbanFootprint, Esri, CA State Open Data, County of San Luis Obispo, City of Atascadero, 2024.

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2.8 Zoning Ordinance and Specific Plans

Zoning Ordinance

While the General Plan outlines overall development parameters, the Zoning Ordinance implements these designations through specific use, density/intensity, site design, and specific property development regulations and standards. Title 9 (Planning and Zoning) establishes nineteen zoning districts in Atascadero, outlined below.

Agricultural and Residential Zoning Districts

A (Agriculture) This zone is established to protect, preserve, and encourage agriculture on suitable land. The zone is intended to support and encourage the continuation of the Agricultural Preserve Program and the maintenance of productive open space.

RS (Residential Suburban) This zone is established to provide for large lot residential uses in areas outside the USL or in other areas where large lots are desirable to protect land uses and buildings subject to inundation, steep slopes, or other hazards.

RSF (Residential Single-Family) This zone is established to provide for single-family residential areas within the USL.

LSF (Limited Single-Family) This zone is established to provide for single-family residential areas within the USL where the raising of farm animals would not be allowable.

RMF (Residential Multiple-Family) This zone is established to provide for apartment, condominium, townhouse development, and other small lot residential products, where higher density residential development is desired within the USL.

Non-Residential Zoning Districts

CN (Commercial Neighborhood) This zone provides for small scale retail shopping and personal service facilities at the neighborhood level. The Commercial Neighborhood Zone is situated and designed to serve the limited shopping and service needs of the immediately surrounding residential area.

CP (Commercial Profession) This zone provides for offices and limited retail shopping and personal service facilities along arterials and major collectors. The Commercial Professional Zone is situated to serve streets with higher traffic volumes while also serving to provide a compatible transition between such streets and adjacent single-family residential areas.

CR (Commercial Retail) This zone provides for a wide range of commercial uses to accommodate most of the retail and service needs of the residents of the city and surrounding areas.

CS (Commercial Service) This zone provides for light manufacturing and large lot service commercial needs of the residents of the city and surrounding areas.

CT (Commercial Tourist) This zone provides for limited commercial uses intended primarily to serve the public traveling along U.S. 101.

CPK (Commercial Park) This zone provides for large lot commercial and light manufacturing uses. It is intended that special attention be given to provide for comprehensive

development plans to achieve appropriate functional relationships between various uses and preclude “piecemeal” development of existing larger lots.

DC (Downtown Commercial) The Downtown Commercial (DC) Zoning District is intended to enhance the economic viability and pedestrian-oriented character of the downtown by encouraging a wide range of retail shops, including artisan craft sales and production; restaurants, entertainment facilities, lodging, and non-automotive services (banks, health care, etc.). First floor office uses are allowed with storefront and signage appearance review and approval of the Design Review Committee (DRC); however, office uses are encouraged to locate on upper floors leaving prime first floor spaces available for retail and restaurant spaces; and residential uses on upper floors.

DO (Downtown Office) The Downtown Office (DO) Zoning District is intended to apply to properties that border the DC District, where a wide variety of professional and other office uses will encourage a weekday pedestrian flow that can take advantage of the restaurant and shopping opportunities in the overall downtown area.

IP (Industrial Park) This zone provides for the light manufacturing and large lot service commercial needs of the residents of the City and surrounding areas.

I (Industrial) This zone provides suitable locations for heavy manufacturing and industrial uses within the City.

L (Recreation) This zone provides suitable locations and standards for the development of recreational facilities accommodating the needs of the general public.

LS (Special Recreation) This zone provides suitable locations and standards for the development of recreational facilities on land in private ownership. This zone also provides for residential and agricultural uses where intensive recreational activity may not be appropriate.

P (Public) This zone provides suitable locations and standards for the maintenance and development of public and quasi-public facilities and services.

OS (Open Space) This zone is established to cover areas with environmentally sensitive natural or cultural resources and generally is intended to remain free of structures but may be developed with low intensity recreational improvements, where appropriate.

In addition to the zoning districts, the Zoning Ordinance establishes combined, or overlay, districts that apply additional regulations and design standards to certain properties. The combining districts provide development guidance beyond the primary zoning district guidance when important issues of site, environment, safety, compatibility, or design require particular attention. The overlay districts include:

- Flood Hazard (FH)
- Geologic Hazard (GH)
- Historic Site (HS)
- Sensitive Resource (SR)
- Planned Development (PD)
- Emergency Shelters (ES)

Table 2-16: Zoning Districts Lot Size/Density Requirements

Zoning District	Minimum Lot Size (Acres)	Maximum Density (Dwelling Unit/Acre)
Agricultural and Residential Zoning Districts		
A (Agriculture)		
	N/A	1 single-family residence
RS (Residential Suburban)		
	2.5 to 10.0 (gross area)	0.1 to 0.4 units/gross acre
RSF (Residential Single-Family)		
RSF-X	0.5 (net area)	4 units/net acre
RSF-Y	1.0 (gross area)	1 unit/gross 0.5 acre
RSF-Z	1.5 to 2.5 (gross area)[1]	1 unit/gross acre
LSF (Limited Residential Single-Family)		
LSF-X	0.5 (net area)	4 units/net acre
LSF-Y	1.0 (sewer available) 1.5 (sewer not available)	1 unit/gross 0.5 acre
LSF-Z	1.5 to 2.5 (gross area)[1]	1 unit/gross acre
RMF (Residential Multiple-Family)		
RMF-10	0.5 (net area)	2 units/net acre (minimum) 10 units/net acre (maximum)
RMF-24		20 units/net acre (minimum) 24 units/net acre (maximum)
Non-Residential Zoning Districts		
CN (Commercial Neighborhood)	0.5 acre	24 du/ac maximum[2]
CP (Commercial Profession)	0.5 acre	24 du/ac maximum[2]
CR (Commercial Retail)	0.5 acre	24 du/ac maximum[2]
CS (Commercial Service)	1.0 acre	24 du/ac maximum[2]
CT (Commercial Tourist)	1.0 acre	N/A
CPK (Commercial Park)	2.0 acres	N/A
DC (Downtown Commercial)	No minimum	20 du/ac maximum[2]
DO (Downtown Office)	No minimum	20 du/ac maximum[2]
IP (Industrial Park)	2.0 acres	N/A
I (Industrial)	2.0 acres	N/A
L (Recreation)	No minimum	N/A
LS (Special Recreation)[3]	No minimum lot size in LS or P zones, except for parcel intended for single-family residential use.	
P (Public)[4]		
OS (Open Space)	No minimum	N/A

Note(s): 1 Lot size is based on performance standards set forth in the Atascadero Municipal Code Section 9-3.241 through 9-3.245 including distance from center of the community, septic suitability, average slope, condition of access, and general neighborhood character.
2 Multi-family dwellings are permitted when located on the second floor or above, or within an existing residential structure of historical significance.
3 When residential uses are allowed in the LS zoning district, the minimum lot size is 1.0 acre when sewers are available and 1.5 acres when sewers are not available.
4 When residential uses are allowed in the P zoning district, the minimum lot size is 2.5 acres.
Source(s): City of Atascadero, 2024.

Specific Plans

Del Rio Commercial Area Specific Plan

Adopted in 2012, and amended in 2020 and 2021, the Del Rio Commercial Area Specific Plan (DRCASP) guides the development of two project sites (39 gross acres total) located at the intersection of Del Rio Road and El Camino Real. The DRCASP guides the development of the North End Project Site and South-East Project Sites, described below.

- The South-East Project site totals approximately 26 acres and is located at the southeast corner of El Camino Real and Del Rio Road. The development of the South-East Project site is proposed to be subdivided into four lots; one lot proposes a major tenant site; two other parcels are designed for smaller commercial sites, and one additional parcel is designed for multi-family residential development.
- Located on the northeast corner of El Camino Real and Del Rio Road and on the west side of El Camino Real, the North End Project totals approximately 13 acres. The Master Plans of Development for the North End Project sites include a commercial / business park on eight parcels, one single-family, and one tourist-serving use on the west side of El Camino Real.

Implementation of this Specific Plan is expected to provide local and regional tax generation, improve and maximize economic viability through the establishment of a new commercial center, create employment-generation opportunities, and place a commercial project at the intersection of two major streets to provide convenient shopping opportunities for residents, while guiding the completion of infrastructure that will maintain adequate levels of service to support area buildout.

Woodlands Specific Plan (Las Lomas)

Adopted in 2003, the Woodlands Specific Plan has guided the development of 120 acres of land located on the southeastern end of Atascadero, bounded by Halcon Road and the Southern Pacific Railroad. Primarily low-density, single-family residential dwelling units, with some multi-family residential dwelling units, for a total of 278 dwelling units has been developed. The remainder of the site includes open space, oak woodland preserve, and nature trails.

2.9 Related Planning Efforts and Regulatory Plans

Atascadero Bicycle Transportation Plan

Adopted in 2010, the Atascadero Bicycle Transportation Plan proposes improvements through 2025. The purpose of this plan is to provide a blueprint for the development of a comprehensive bicycling system that facilitates bicycle transportation by community members, from children to seniors, both within the City of Atascadero and to and from neighboring cities. The plan also aims at enhancing opportunities for recreational bicycling, with the dual goals of encouraging recreational cycling by residents and making Atascadero an attractive destination for tourists.

Downtown Revitalization Plan

Adopted in 2000, the Downtown Revitalization Plan focuses on enhancing the Downtown's character with public improvements and architectural standards to guide new development. The goals, policies, and programs of this plan will be evaluated as part of the 2045 General Plan update.

The El Camino Plan (+ 2019 Existing Conditions Assessment)

El Camino Real is the central spine of the city and has a significant bearing on the overall image, identity, and economic health of Atascadero. It is the main north-south thoroughfare and the primary access to services, the downtown core, and surrounding neighborhoods.

The El Camino Plan recommends urban design and circulation improvements along El Camino Real. The land use strategy, which includes opportunity area concepts and regulatory considerations, focuses on a northern and southern segment of the corridor. The northern segment of the corridor plan study area is 1.2 miles in length, extending from San Benito Road to San Anselmo Road. The southern segment is 1.9 miles in length, from Morro Road to San Gabriel Road.

Funded by Caltrans through the Sustainable Communities Transportation Planning Grant Program, the final 'Draft El Camino Plan' was published in March 2020 and reviewed by City Council on October 12, 2021.

El Camino Real Downtown Infrastructure Enhancement Project

The final concept plan for the El Camino Real Downtown Infrastructure Enhancement Project was unanimously approved by the Atascadero City Council in May 2023. Developed and refined since the project was formally initiated in 2017, and construction is approved to begin in June 2024. Once complete, the ERC Project will deliver pedestrian safety, parking, accessibility, landscaping, and storm runoff improvements and benefits to a 0.6-mile stretch of El Camino Real between State Route 41 and Rosario Avenue.

The primary goal of The ECR Project is to improve public safety. The enhancements will provide a positive impact by reducing vehicle speed, improving visibility for roadway users, expanding walkability, and accommodating multi-modal transportation. The project is also designed to boost economic development. Over the past five-plus years, Atascadero has experienced significant development downtown, and construction of this project is anticipated to accelerate the growth of the downtown core. The project's improvements will

enhance aesthetics and create a safer, easier-to-access area that increases foot traffic and business growth.

Native Tree Ordinance and Guidelines

Set forth in the Atascadero Municipal Code–Title 9, Chapter 11 (Native Tree Regulations)–the purpose of the native tree ordinance is to establish regulations for the installation, maintenance, planting, preservation, protection, and selected removal of native trees within the city limits. In establishing these regulations, the City has shown its commitment to encourage the preservation, maintenance, and regeneration of a healthy urban forest.

Objective Design Standards

In compliance with SB 330, the City of Atascadero developed multi-family and mixed-use building design standards to provide clear guidance to project applicants regarding site design and architecture for by-right multi-family projects permitted by State Law, including affordable housing projects and ministerially approved residential projects. Adopted in June 2024, the objective design standards will facilitate high-quality residential development and compliance with State objectives. The objective design standards will ensure the provision of adequate private open space, parking, and architectural features, consistent with State law. Part of the objective design standards creation process will include assessing how the standards can be used to encourage a variety of housing types. Important features addressed include private open space, quality design features, density, unit size, parking, and ensuring quality and neighborhood compatibility in architecture and site design. The objective design standards intend to replace the city's Appearance Review Manual, adopted in 1987, as well as the Downtown Design Guidelines, adopted in 2001.

Affordable Housing

The City of Atascadero incentivizes the production of affordable housing by encouraging housing affordable to a wide variety of income categories and family types. The incentive programs are identified in the City's 2021-2028 Housing Element. The City also offers increased development flexibility and additional units through the State of California's Density Bonus Program. Although the City does not manage or develop housing units, the City does manage programs including:

- Affordable Housing Impact Fee Deferral Program
- Stock Accessory Dwelling Unit Plans
- Inclusionary Housing Policy and Program
- Fractional Density Standards

Inclusionary Housing Policy and Program

Adopted in 2003, the City of Atascadero's inclusionary housing policy is designed to increase homeownership opportunities. This policy requires development projects with legislative approval, such as planned developments, to provide deed-restricted residential units to people and families of very low, low, and moderate incomes. The City of Atascadero currently uses the San Luis Obispo County Affordable Housing Standards to determine qualifying income limits as well as maximum rents and sales prices for each income category.

Program 2.B of the 2021-2028 Housing Element calls for a review of the existing inclusionary housing policy and consider replacing it with an inclusionary housing ordinance consistent with State density bonus regulations within two years of adoption.

In March 2021, the City Council directed staff to explore affordable housing impact fees (linkage fees) that would be charged to new market-rate, residential development, at which point Economic & Planning Systems, Inc. (EPS) was retained to prepare affordable housing nexus studies for both rental and for-sale residential development and to consider options for updating the City's interim inclusionary housing program. The program recommendations memorandum was released in December 2022.

Density Bonus

Set forth in the Atascadero Municipal Code –Title 9, Chapter 3, Article 30 (Density Bonus)–the purpose of the density bonus ordinance is to comply with State Density Bonus Law (Government Code section 65915) by providing increased residential densities for projects that guarantee that a portion of the housing units will be affordable to very low-, low-, or moderate-income households, senior citizens, or include child care facilities. Projects that utilize the density bonus are not required to implement the City's Inclusionary Housing Policy or other inclusionary housing ordinance in effect at the time of issuance of building permit.

2.10 Growth Policies and Strategies

City of Atascadero 2021-2023 Action Plan Update

On February 10 and 11, 2023, the City Council held a strategic visioning workshop that was highly collaborative and participatory, involving all Council persons, City staff, and community members. This discussion produced a refined Atascadero Mission Statement, a series of True North Statements, and Strategic Priorities for the City to focus on in the coming years and beyond. While these concepts relate to all City internal and external operations, activities, and decisions, they also provide the foundational framework for the new General Plan. The General Plan, in turn, will translate these concepts into specific land use, mobility, economic, fiscal, environmental, safety, and community health goals, policies, and programs.

The following were adopted by the Atascadero City Council on March 14, 2023

Atascadero Mission Statement

Working together to serve, build community, and enhance quality of life.

Atascadero True North Statements

- Atascadero maintains its true sense of community.
- Atascadero preserves its small town feel while it continues to grow.
- Atascadero continues to be a safe, family-friendly place to be.
- Atascadero developments are high quality endeavors that are attractive and create a sense of place.
- Atascadero's downtown is vibrant with shopping, dining and things to do for the entire family.
- Atascadero provides a balance of rural, traditional, and more urban neighborhoods – something for everyone.
- Atascadero has friendly, effective, fiscally responsible municipal services and infrastructure.
- Atascadero has an abundance of open space, trees, creeks, parks & recreational activities.
- Atascadero is a place where residents have the opportunity and ability to work.
- Atascadero is resident-centric, not tourist oriented.
- Atascadero is a place where everyone can live, work, learn, spend and play.
- Atascadero is welcoming to all.

Atascadero Strategic Priorities

Economic and Community Vibrancy

- Downtown Vitality
- Activation of Underutilized Sites and Nodes
- Business Support and Jobs/Housing Balance
- Neighborhood Compatibility and Wellness

Fiscal and Infrastructure Efficiency and Sustainability

- Asset Management/Replacement/Modernization
- Financial Strategies

- Transparency and Accountability

Ensuring Public Safety and Providing Exceptional City Services

- Staff
- Unhoused Population
- Flourishing Community

2025 General Plan Principles

Smart Growth Principles

As part of the 2025 General Plan, in response to concerns over environmental protection and resource conservation, City Council and the Planning Commission jointly developed a set of "Smart Growth Principles." Smart Growth encourages compact, walkable, and pedestrian-scale communities, which typically include mixed use infill. The "Atascadero Smart Growth Principles" were intended to supplement the Goals of the previous General Plan and provide a foundation for the 2045 General Plan update, combining the communities' previous 20 years of planning with the most current principles of good community development.

Table 2-17: 2025 General Plan Smart Growth Principles

Smart Growth Principle	Definition
1. Provide for well-planned new growth	Recognize and preserve critical areas of open space, environmental habitats, and agricultural lands, while accommodating new growth in compact forms in areas designated for higher density, in a manner that encourages multi-modal transportation opportunities, integrates the new growth, and creates housing and job opportunities for people of all ages and income levels.
2. Maximize existing infrastructure	Accommodate additional growth by first focusing on the use and reuse of existing urbanized lands supplied with infrastructure, with an emphasis on reinvesting in the maintenance and revitalization of existing infrastructure.
3. Support vibrant city centers	Give preference to redevelopment and reuse of Downtown Atascadero and appropriate nodes along existing transportation corridors through the encouragement and retention of mixed use development, business vitality, housing opportunities for people of all income levels, and safe, reliable and efficient multi-modal transportation systems.
4. Develop and support coordinated planning for regional impacts	Coordinate planning with neighboring communities and the County so that there are agreed upon regional strategies and policies for dealing with the regional impacts of growth on transportation, housing, schools, air, water, wastewater, solid waste, natural resources, agricultural lands, and open space.
5. Support high-quality education and school facilities	Encourage and support high-quality public education, neighborhood-accessible school facilities and adequate library services as a critical determinant in making our community attractive to families, maintaining a desirable and livable community, promoting life-long learning opportunities, enhancing economic development, and providing a workforce qualified to meet the full range of job skills required in the future economy.

Smart Growth Principle	Definition
6. Build strong communities	Support and embrace the development of strong families and a socially and ethnically diverse community, by: (1) working to provide a balance of jobs and housing within the community; (2) reducing commute time; (3) promoting community involvement; (4) enhancing public safety; (5) providing and supporting cultural and recreational opportunities.
7. Emphasize joint use of facilities	Emphasize the joint-use of existing compatible public facilities operated by City, school, County, and State agencies, as well as take advantage of opportunities to form partnerships with private businesses and non-profit agencies to maximize the community benefit of existing public and private facilities.
8. Support creative entrepreneurial efforts	Support local endeavors to create new products, services, and businesses that will expand wealth and job opportunities for all social and economic levels.
9. Encourage full community participation	Foster an open and inclusive community dialogue and promote alliances and partnerships to meet community needs.
10. Establish a secure local revenue base	Create/support the establishment of a secure, balanced, and discretionary local revenue base necessary to provide the full range of needed services and quality land use decisions.

Source(s): City of Atascadero General Plan 2025.

Framework Principles and Community Priorities

The 2025 General Plan Framework Principles were developed from input gathered from over a dozen neighborhood meetings, workshops, and charettes. Participants were asked to speak on the strengths, assets, and vision for the future of Atascadero. Results from those community outreach efforts prioritized the concern for maintaining the small-town and rural atmosphere of Atascadero. Community priorities included preserving the natural qualities of the community; protecting native oaks, creeks, open vistas, hillsides, and natural habitats; providing good public services and amenities; maintaining safe, clean neighborhoods; providing a range of commercial opportunities; increasing local employment and improving the appearance of the community. Ultimately, these priorities were organized into four categories under the title of General Plan Framework Principles and are summarized below:

Protect the Natural Environment

- Open Space and Hillside
- Oak Woodlands
- Wildlife
- Creeks and the Salinas River

Improve the Appearance and Character of Atascadero

- Rural Atmosphere/Small Town Scale/Architectural Character
- El Camino Real & Morro Road/streetscape appearance
- U.S. 101 corridor
- Signs

Provide a Secure Revenue Base

- Provision of City Services
- Downtown Revitalization

- Primary Wage Earner Jobs
- Business and Industry
- Additional Commercial Services & Variety

Promote Well Planned Neighborhoods

- Parks and Trails
- Affordable Housing
- Traffic and Streets
- Large Lot Residential Areas
- Mixed Use Areas

2.11 Community Character and Built Form

Introduction

This section describes the urban form and neighborhood characteristics of Atascadero as of 2024. It includes a brief history of colonization, an overview of the city's major corridors and civic gateways (identified in the 2025 General Plan), and a preliminary analysis of the city's pedestrian and streetscape environment at key intersections and commercial areas.

Atascadero Ranch

When Mission San Miguel was founded in 1797, the area that became Atascadero was used primarily for cattle grazing. The first building in the area was an 1812 adobe that served as the southern grazing outpost for the mission. Portions of the adobe walls stood until the late 1900s near Traffic Way at a location known as "Adobe Springs". Toward the end of the century, J.H. Henry consolidated several tracts into the 23,770-acre Atascadero Ranch.

20th Century

During the early years of the 20th century, the U.S. Army used the central plain of Atascadero Ranch for annual encampments and maneuvers and at one time considered the acquisition of the ranch for a permanent military camp.

Model Colony

In 1913, Edward Gardner "E.G" Lewis selected Atascadero Ranch as the ideal location for a model colony. Lewis' model community would provide its residents with the most favorable aspects of both urban and rural life by anticipating the widespread use of the automobile. Lewis purposely chose a location halfway between California's major urban centers on both a railway and State highway. The oak-covered rolling foothills of the Santa Lucia Range provided ample water, a pleasant climate, and proximity to the coast.

1950s

Two significant occurrences that stimulated growth in the 1950s also significantly affected the city's development patterns and demographics: the bisection of the City in 1954 by U.S. 101 and the siting of the Atascadero State Hospital on the southeastern edge of the community in 1956.

Major Roadway Corridors

Atascadero is centrally located approximately halfway between Los Angeles and San Francisco on U.S. 101. Atascadero's major corridors are two-lane roadways that are fronted largely by commercial, office, and retail uses.

- **U.S. Highway 101 (U.S. 101)** is a corridor of statewide significance as the primary north-south coastal route between Los Angeles and the Bay Area. As one of the region's primary highway corridors, U.S. 101 accommodates regional traffic and freight movement as well local needs, connecting most of the region's urban areas to services, recreation, schools, and jobs. U.S. 101 bisects Atascadero and limits east-west access. Running parallel to El Camino Real, U.S. 101 maintains four lanes with eight interchanges within city limits.

- **State Route 41 (Morro Road)** is a State highway connecting Morro Bay to Yosemite National Park. The corridor serves commuter traffic between the two cities, provides access to U.S. 101 for coastal residents, serves local traffic in Atascadero, and recreational traffic bound for coastal destinations.
- **El Camino Real** is the central spine of the City. Running parallel to U.S. 101, El Camino Real is the main north-south thoroughfare and in most locations is a four-lane road. Spanning approximately 600 miles, El Camino Real is the link between the 21 Spanish missions of California. Within Atascadero's city limits, El Camino Real extends approximately 7-miles in length and is the primary access to services, the Downtown core, and surrounding neighborhoods.[3]

Civic Gateways

The 2025 General Plan identifies four civic gateways as primary entryways into the city. These major gateways into Atascadero are located along U.S. 101 and Morro Road, at the following intersections:

- U.S. 101 Exit 223 (north)
- U.S. 101 Exit 216 (south)
- Morro Road and City Limit (east)
- Morro Road and City Limit (west)

The northern, southern, and eastern gateways lie along the city's boundary. The western gateway marks a change from rural residential land uses to a more urban environment (within the USL) at the intersection of Santa Rosa Road and Morro Road.

Development Patterns

Figure 2-7 illustrates the block, parcel size, and building footprint patterns within the Planning Area.

Block/Street Pattern

Development patterns with shorter block lengths contribute to street networks with high connectivity by providing users with more choices to a single destination. Atascadero is unique because it is a blend of urban, suburban, and rural block and street patterns. Higher density and commercial activity are concentrated within Atascadero's urban core on smaller blocks. Moving outward from the Downtown core, the street pattern is more curvilinear with cul-de-sacs due to the topography, rivers, and creeks. The typical block pattern does not include sidewalks, curbs, or gutters.

Parcelization

Parcel size is an important consideration in evaluating the potential for future land use and site capacity. Smaller parcels in Atascadero are concentrated within the USL, with an average size of 0.76 acres. Outside of the USL, within the city limits, the average parcel size jumps to 3.5 acres. As land is subdivided into smaller tracts within, uses such as agriculture, open space, and large-scale development become increasingly limited. Within the urban core and

[3] The El Camino Plan, 2020

along El Camino Real parcels vary in size, distribution, and are generally narrow and deep. These challenges will be addressed as part of the 2045 General Plan update process.

Buildings

Atascadero's urban core is characterized by larger buildings generally set back from the street. Surface parking or landscaping typically fills the area between the public right-of-way and the building setback.

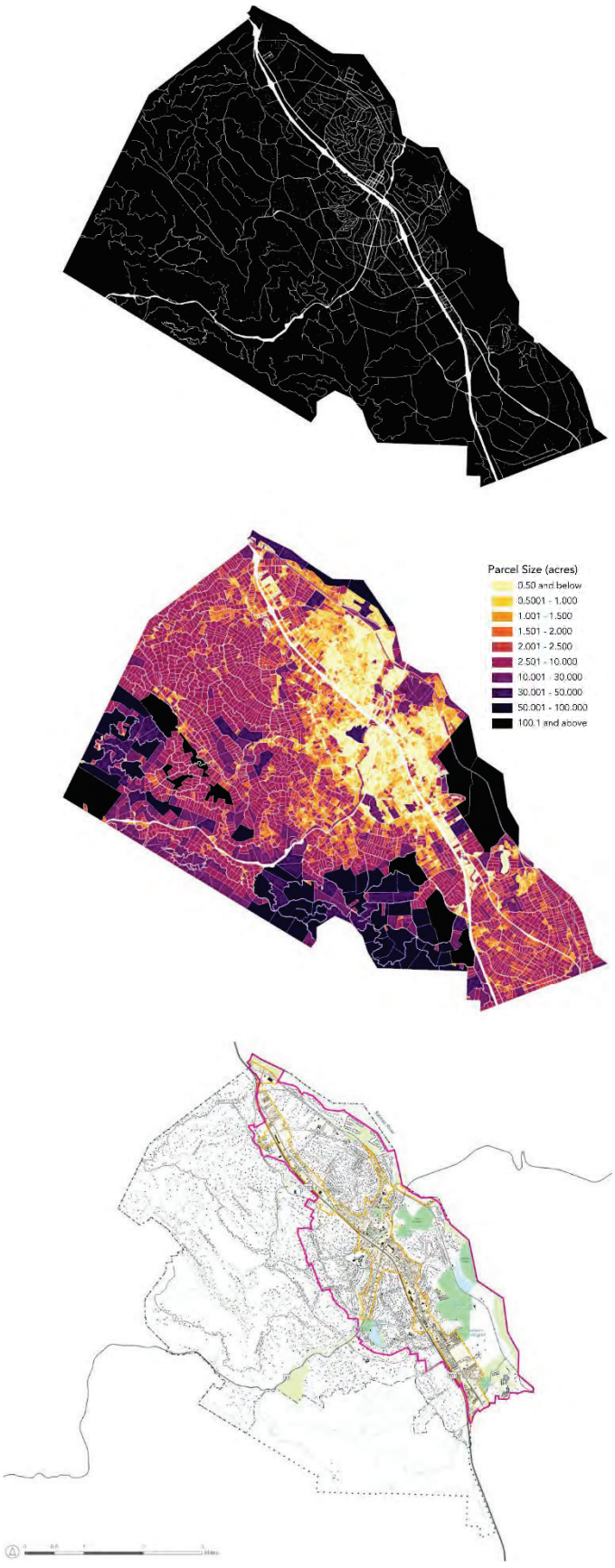
According to the U.S. Census[4], nearly one-third (27 percent) of housing units in Atascadero were built between 1970 and 1979. Typical architectural styles from the 1970s include ranches, rambler homes, and split levels.

Urban Form

The physical form of Atascadero's commercial corridors has been shaped by the city's growth pattern over the last 150 years. Originally laid out as part of the 1913 Atascadero Colony plan, the street network was designed for turn-of-the-century automobile use and low-intensity land uses. Many of these characteristics remain today. Radial routes emanate from the City Hall area supported by a series of arterial rings meant to convey traffic to outlying areas. The city developed from this central core through a series of commercial corridors and suburban and rural residential areas. Only a few blocks in the city center display the grid system common to urban areas. Not all planned streets have been built, and some minor streets are privately maintained and not part of the City's adopted maintenance system.[5]

Atascadero does not have defined residential neighborhoods. Instead, it consists primarily of custom single-family

Figure 2-7: Block, Parcel, and Building Patterns



[4] U.S. Census ACS 5-Year Estimates, 2022
[5] 2025 General Plan

homes with unique character. The established residential areas largely align to the historic Colony land use patterns of the city. Additional details, including a brief history of the Atascadero Colony and an overview of properties with historical significance, are included in **Chapter 6: Cultural Resources**.

Table 2-18: Current Land Use Designations within the Urban Services Line (USL)

2025 General Plan Land Use Designation		Total Acreage	% of Total (Acreage)
Outside Urban Services Line			
RE	Rural Estates	8,487	45.4%
--	Unincorporated/SOI	3,368	18.0%
PUB	Public Facilities	234	1.2%
OS	Open Space	129	0.7%
REC	Public Recreation	66	0.4%
AG	Agriculture	44	0.2%
SFR-Y	Single-Family Residential	16	0.1%
SFR-X	Single-Family Residential	7	0.04%
Subtotal		*12,351*	*66.0%*
Inside Urban Services Line			
SFR-Y	Single-Family Residential	1,545	8.3%
SE	Suburban Estates	773	4.1%
PUB	Public Facilities	712	3.8%
SFR-Z	Single-Family Residential	628	3.4%
OS	Open Space	511	2.7%
SFR-X	Single-Family Residential	458	2.5%
REC	Public Recreation	412	2.2%
HDR	High Density Residential	300	1.6%
GC	General Commercial	281	1.5%
MDR	Medium Density Residential	203	1.1%
--	Right-of-Way	132	0.7%
CPK	Commercial Park	86	0.5%
IND	Industrial	77	0.4%
RR	Rural Residential	66	0.4%
D	Downtown	62	0.3%
MU-PD	Mixed Use	52	0.3%
SC	Service Commercial	42	0.2%
CREC	Commercial Recreation	7	0.04%
RE	Rural Estates	7	0.04%
Subtotal		*6,352*	*34.0%*
Total		**18,703**	**100.0%**

Source(s): City of Atascadero General Plan 2025; City of Atascadero, 2024.

The following sections (and **Figure 2-8** through **Figure 2-11**) summarize the urban form characteristics and unique community character elements of each of the city's major

commercial corridors within its urban core. The 2045 General Plan update will study land use alternatives and refine the concept of focused nodes.

Downtown

Downtown Atascadero is characterized by the following elements:

Grid Pattern: Downtown has a grid street network organized around City Hall and Sunken Gardens. This dense and compact development pattern encourages pedestrian activity, with seven- to twelve-foot sidewalks, street trees, and pedestrian bulb-outs at many intersections.

Downtown Commercial: Commercial uses in this area include a mix of local shops, restaurants, breweries, and services. Within the downtown core, chain and fast-casual restaurants, surface parking lots, office buildings, and entertainment uses take up larger building footprints.

Surrounding Uses: The downtown core is surrounded by medium and high density residential, the High School and Junior High School, Colony Park Community Center, and office uses.

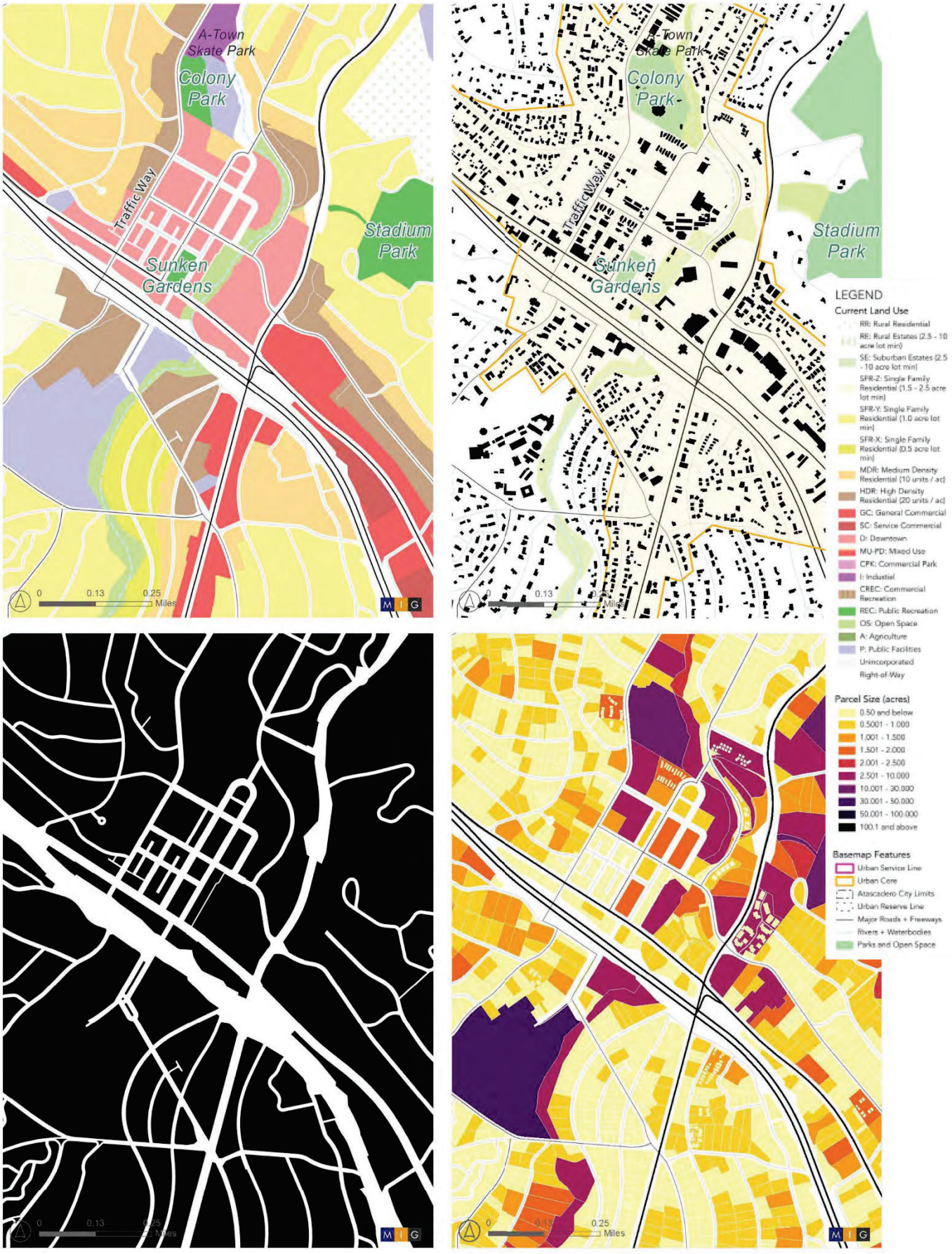
Building Placement, Height, and Density: Building setbacks are not allowed unless the building is designed to accommodate outdoor eating and seating areas. Height limits in the Downtown Commercial district are the highest in the city at 45 feet not to exceed three stories. The maximum allowed density is 20 dwelling units per acre.

U.S. Highway 101 (U.S. 101): U.S. 101 bisects the downtown area creating an east-west barrier cutting off access from the Atascadero Mall to El Camino Real and the Downtown.

Civic and Institutional Uses: A majority of the City's civic and institutional uses are located downtown including City Hall, the Atascadero Library, County offices, Police Department, Fire Station 1, Senior Center, Colony Park Community Center, Atascadero Junior High School, and the AUSD Fine Arts Academy. Adjacent to Downtown and connected via a pedestrian tunnel under U.S. 101, Atascadero High School and North County Christian School are both located west of El Camino Real and surrounded by high density and single-family residential uses.

Creek Corridors and Public Space: The downtown area includes several public gathering spaces, parks, and recreational amenities including Centennial Plaza, Sunken Gardens, Colony Park, A-Town Skate Park, and Atascadero Creek.

Figure 2-8: Downtown Development Patterns



North El Camino Real

The northern segment of El Camino Real is characterized by the following elements:

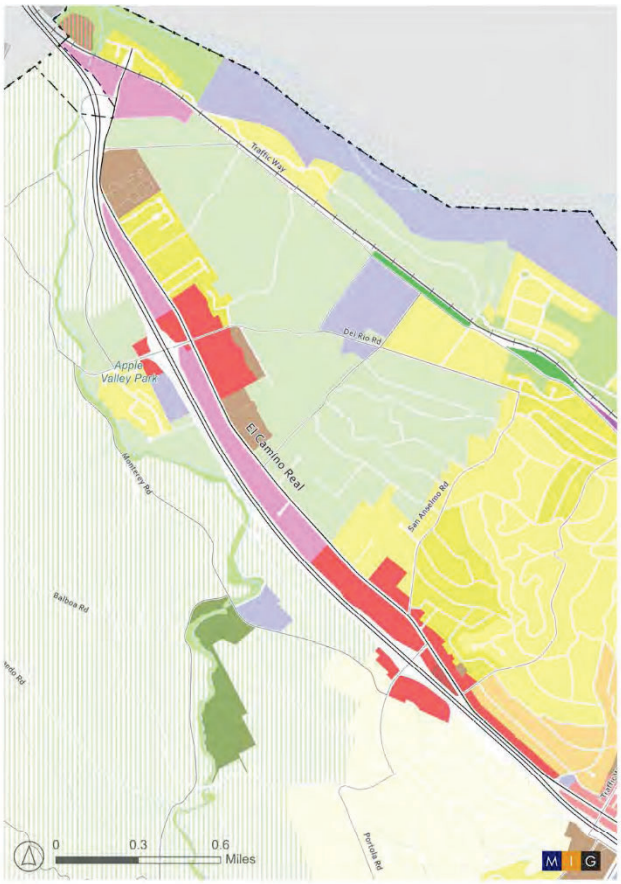
Rural Character: The northern portion of Atascadero is more rural in character than the area south of Morro Road. This area consists of an irregular pattern of block shapes surrounded by curvilinear streets, particularly closer to the Downtown in the areas designated for single-family uses. Block and parcel shapes and sizes vary. A high concentration of larger residential lots occurs on both sides of El Camino Real.

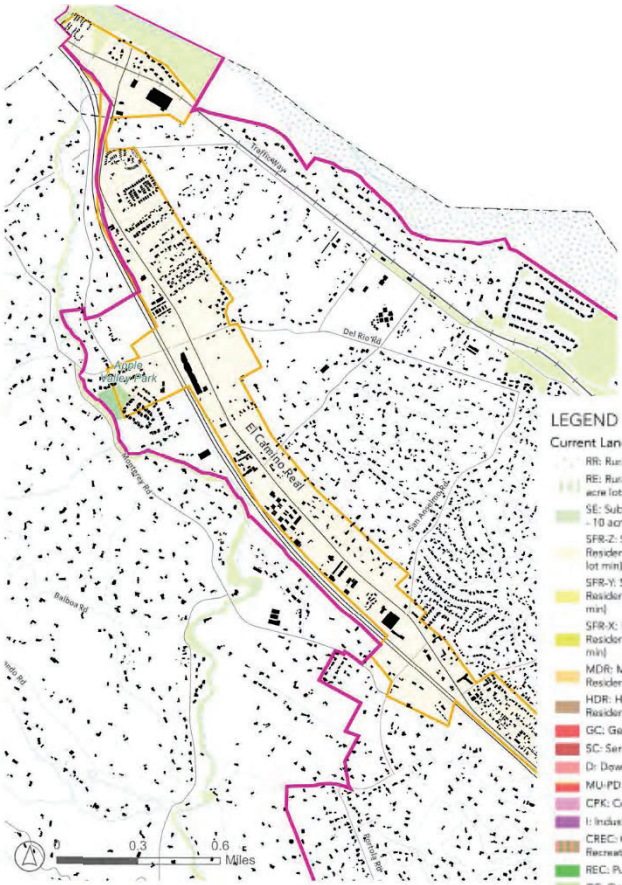
Access and Mobility: Portions of the El Camino Real corridor lack sidewalks and designated bike lanes. Most of the areas designated as rural residential (RR, RE, and SE) also lack sidewalks.

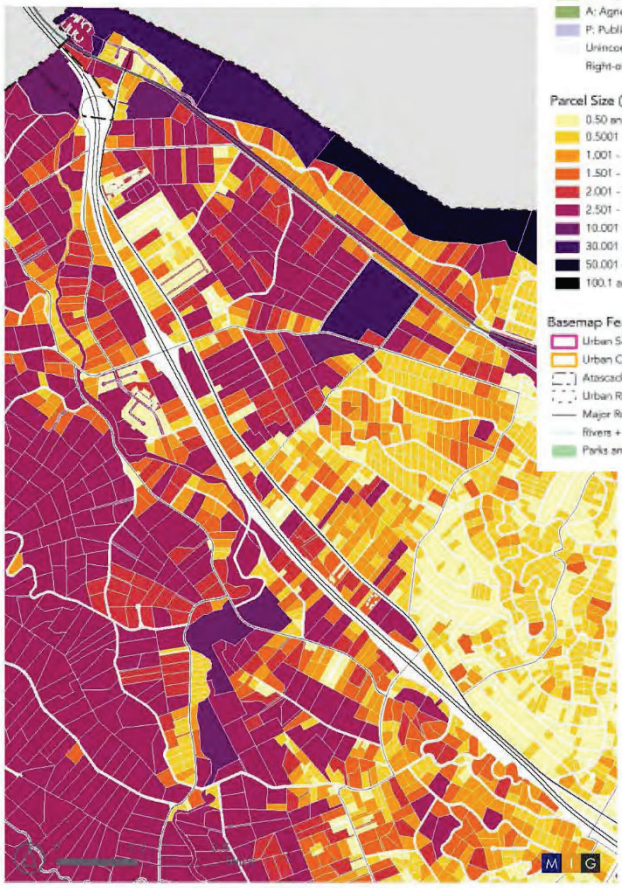
Mix of Land Uses: The widest mix of land uses occurs on El Camino Real along the segment north of the downtown area. There are portions of El Camino Real that are lined with residential uses, both High Density Residential (HDR) and Suburban Estates (SE). Commercial Park (CPK) uses are concentrated here, which accommodates small-scale industrial uses. Surface parking and landscaping dot the El Camino Real corridor as many buildings have generous setbacks.

Commercial Nodes: Commercial, office, and multi-family residential development is planned at the intersection of Del Rio Road and El Camino Real. Additional information on the Del Rio Commercial Area Specific Plan is included in **Section 2.8**.

Figure 2-9: North El Camino Real Development Patterns







South El Camino Real

The southern segment of El Camino Real is characterized by the following elements:

Suburban Character: Most of this area was developed in a suburban pattern, with local streets connecting individual subdivisions to main thoroughfares and El Camino Real. There is a concentration of higher density residential developments in the southern portion of Atascadero south of Santa Rosa Road, including Dove Creek, ReNew Atascadero, Mira Vista Apartments, Knolls at the Avenida, and the Villa Margarita Mobile Home Park.

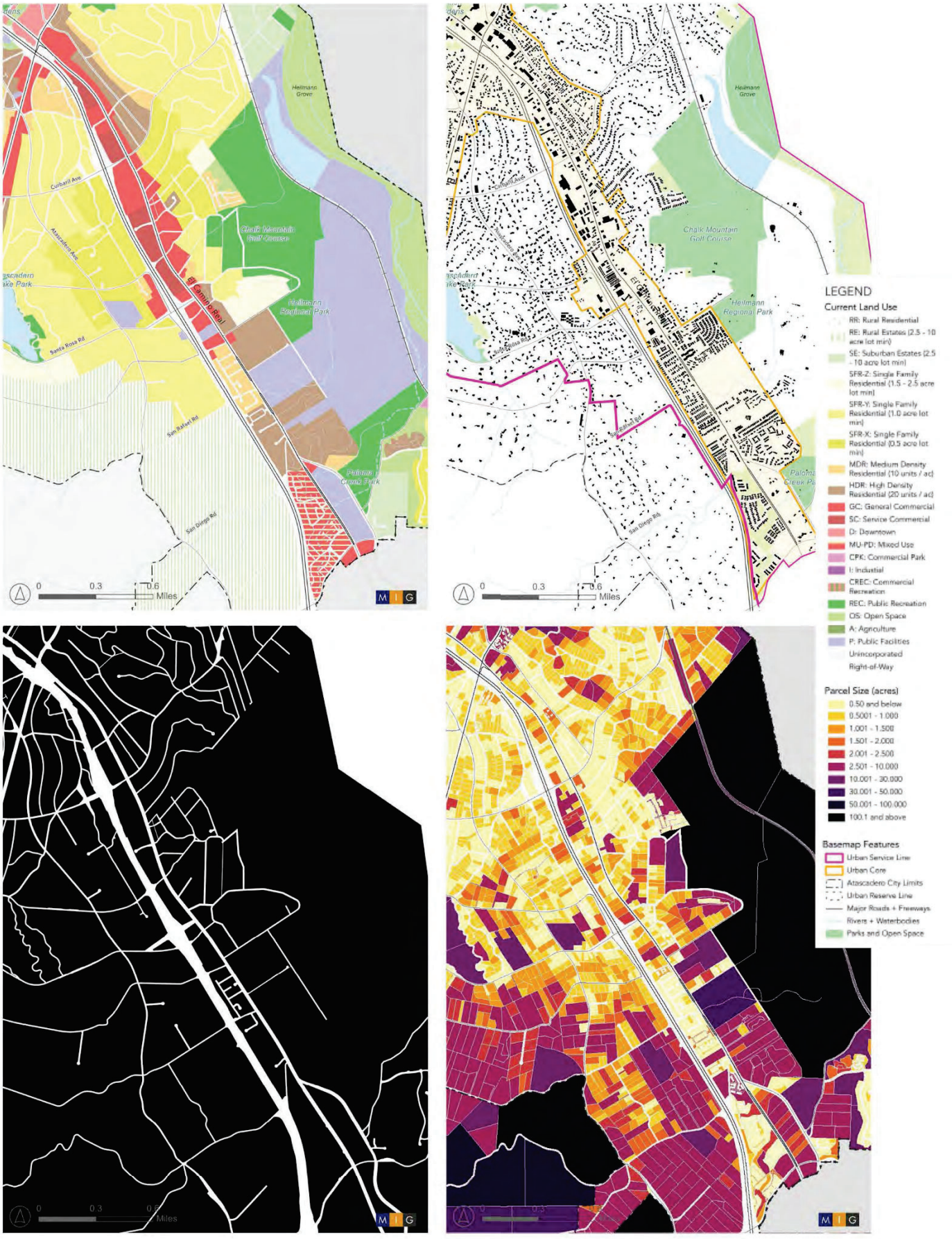
Access and Mobility: Portions of the El Camino Real corridor lack sidewalks, particularly on the eastern side of El Camino Real where there is still vacant land available for development. Most of the areas designated as rural residential (RR, RE, and SE) also lack sidewalks.

Mix of Land Uses: The commercial segment of El Camino Real, between Morro Road and Santa Rosa Road, is mostly built out with very few vacant parcels. This segment of El Camino Real is lined on both sides with General Commercial (GC) and Service Commercial (SC), which includes a mix of grocery store centers, smaller strip commercial malls, storage facilities, stand-alone restaurants, drive-throughs, buildings at varied setbacks, limited street trees and landscaping, and service related uses that appear industrial in nature. The character of the buildings along the corridor spans several decades and reflects a variety of dated and tired architectural styles.

Civic and Institutional Uses: Civic and institutional uses along the southern stretch of El Camino Real include the Post Office, Fire Station 2, Chalk Mountain Community School, and Santa Rosa Road Elementary School.

Commercial Nodes: The highest concentration of commercial uses along the southern segment of El Camino Real is at the Morro Road and El Camino Real intersection at the edge of Downtown. Otherwise, there are smaller pockets of commercial uses along El Camino Real between Curbaril Avenue and San Gabriel Road.

Figure 2-10: South El Camino Real Development Patterns



Morro Road

Morro Road, west of El Camino Real, is characterized by the following elements:

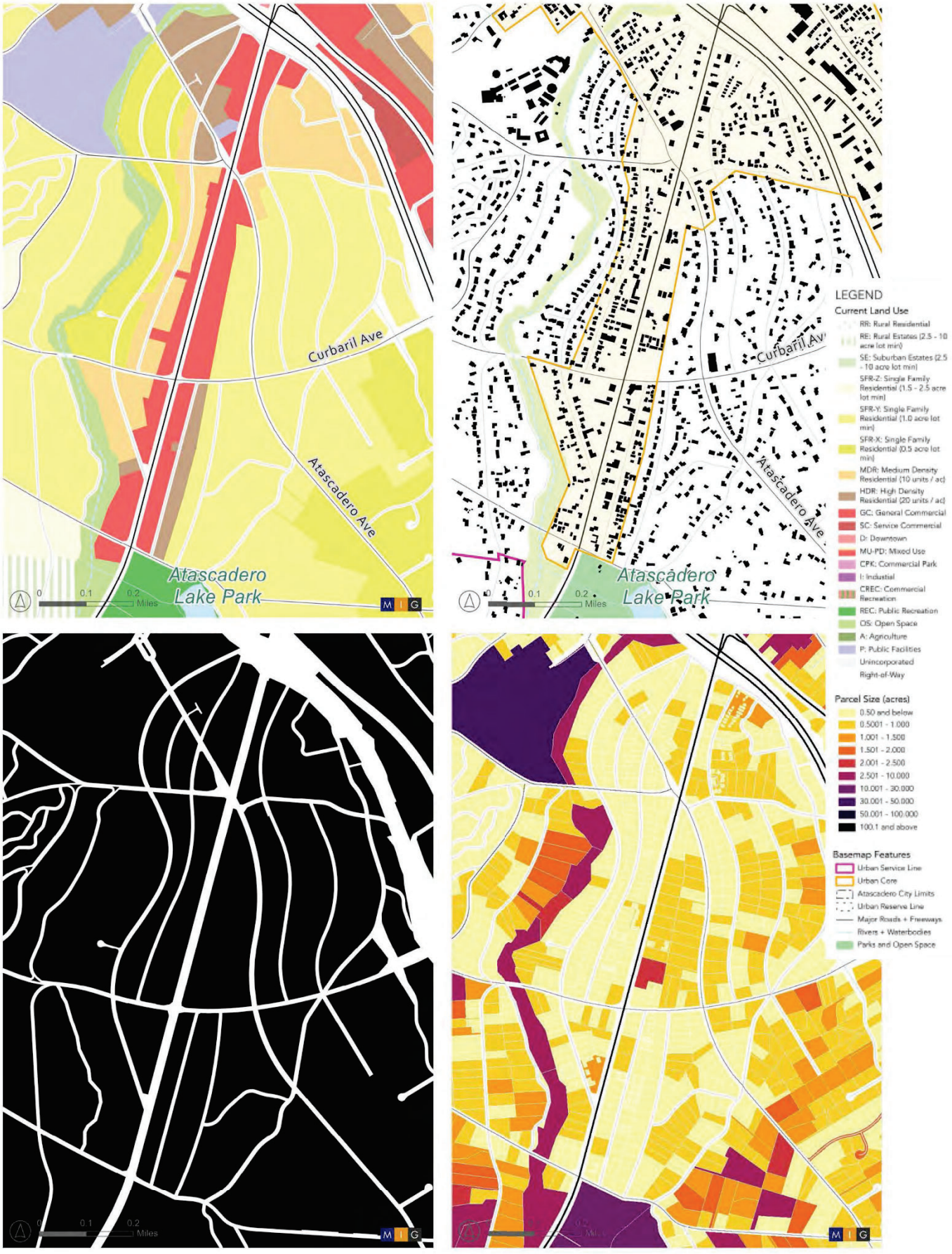
Large Blocks and Small Parcels: The average block length between El Camino Real and Portola Road is 0.41 miles. Large block patterns accommodate and encourage automobile trips. All but two parcels between El Camino Real and Portola Road measure at or less than 1.0 acre.

Access and Mobility: Most of the Morro Road corridor, southwest of El Camino Real, lacks sidewalks but maintains Class I and II bicycle facilities. The Morro Road Bike Path, a separated multi-use path, parallels State Route 41 from San Gabriel Road to Portola Road west of Morro Road. Unlike along El Camino Real, there is no fixed-route bus service along Morro Road. State Route 41 is a two-lane road with a center turn lane, and owned and maintained by Caltrans.

Medical and Professional Uses: A concentration of medical and professional uses exists along Morro Road, particularly between Curbaril Avenue and Portola Road. Small-scale attached offices line the corridor, setback from the street with parking. Otherwise, service and retail uses, including stand-alone restaurants, drive-throughs, and gas stations, represent the predominate uses.

Parks and Public Space: Several of Atascadero's park and recreation assets lie along the Morro Road corridor, including Atascadero Lake Park, and the Charles Paddock Zoo. Atascadero Creek connects this area to Downtown.

Figure 2-11: Morro Road Development Patterns



2.12 Sources

Reports and Data

City of Atascadero 2021-2023 Action Plan, 2021.

City of Atascadero 2021-2028 Housing Element, 2020.

City of Atascadero Appearance Review Manual, 1987.

City of Atascadero Bicycle Transportation Plan, 2010.

City of Atascadero Del Rio Commercial Area Specific Plan, 2012.

City of Atascadero Downtown Design Guidelines, 2001.

City of Atascadero Downtown Revitalization Plan, 2000.

City of Atascadero The El Camino Plan, 2020.

City of Atascadero General Plan 2025, 2002.

City of Atascadero Woodlands Specific Plan (Las Lomas), 2003.

City of Atascadero Zoning Ordinance, 2024.

San Luis Obispo Council of Governments (SLOCOG) 2050 Regional Growth Forecast, 2017.

San Luis Obispo Local Agency Formation Council (LAFCo), 2022. URL: https://slo.lafco.ca.gov/agency-boundary-maps.

U.S. Bureau of Labor Statistics Career Outlook, *Education Pays, 2023*, April 2024. URL: https://www.bls.gov/careeroutlook/2024/data-on-display/education-pays.htm.

U.S. Census Bureau American Community Survey (ACS) 5-Year Estimates Data Profiles, 2012 and 2022.

2.13 Acronyms and Key Terms

City Limits A political boundary that defines land that has been incorporated into a city.

Current Land Use In this General Plan, this term refers to the land use designations established in the 2025 General Plan.

Density Measured in dwelling units per acre (du/ac), residential density refers to the maximum number of dwelling units allowed per acre of developable land.

Development Potential Development potential is influenced by factors such as parcel size, building-to-land value ratio, environmental constraints, land use, and how extensive a property is developed.

Dwelling Unit A room or group of rooms (including sleeping, eating, cooking, and sanitation facilities, but not more than one kitchen), which constitutes an independent housekeeping unit, occupied or intended for occupancy by one household on a long-term basis.

Existing Land Use In this General Plan, this term refers to the

Floor Area Ration (FAR) Floor Area Ratio (FAR) is a ratio of the gross floor area permitted on a site divided by the total net area of the site.

General Plan A compendium of county or city policies regarding its long-term development, in the form of goals, policies, implementation measures, and maps. The general plan is a legal document required of each local agency by the California Government Code Section 65301 and adopted by the board of supervisors or city council.

Geographic Information System (GIS) A computerized tool for gathering, managing, and analyzing geo-spatial data. GIS analyzes spatial location and organizes layers of information into visualizations using maps and 3D scenes.

Gross Acre The entire acreage of a site, including but not limited to easements, streets, and rights-of-way.

Intensity The actual or maximum permitted floor area ratio (FAR) on a site or that is allowed on a site within a designation or zone.

Land Use Designation A specific geographic designation with associated land use or management policies and regulations.

Local Agency Formation Commission (LAFCo) A commission within each county that reviews and evaluates all proposals for formation of special districts, incorporation of cities, annexation to special districts or cities, consolidation of districts, and merger of districts with cities.

Net Acre. The portion of a site that can be built upon. The following generally are not included in the net acreage of a site: public or private road rights-of-way, easements, public open space, and flood ways.

Planning Area The area directly addressed by a jurisdiction's general plan. The planning area generally encompasses all incorporated and unincorporated territory that bears a relationship to the long-term planning of the jurisdiction.

Specific Plan A legal tool authorized by Government Code Section 65450, et seq., for the systematic implementation of the general plan for a defined portion of a community's planning area. A specific plan must specify in detail the land uses, public and private facilities needed to support the land uses, phasing of development, standards for the conservation, development, and use of natural resources, and a program of implementation measures, including financing measures.

Sphere of Influence An area that includes the probable physical boundaries and service area of a local agency, as determined by the Local Agency Formation Commission of the county.

Urban Design Urban design focuses on spatial relations within the public realm and how the built environment affects social interaction and communication. This includes site design (block size, building placement, massing, and orientation), street design (sidewalk widths, building frontages, and pedestrian amenities such as benches, street trees, and lighting), and building design (architectural character).

Urban Form Urban form refers to the configuration of a place's physical components (buildings and structures, street and infrastructure patterns and networks).

Zoning Local codes regulating the use and development of property. A zoning ordinance divides a county or city into districts or zones represented on zoning maps and specifies the allowable uses within each of those zones. It establishes development standards for each zone, such as minimum lot size, maximum height of structures, building setbacks, and yard size.

Zoning Ordinance The adopted zoning and planning regulations of a city or county.

Base Canvas Attributes

Understand the attributes of the Base Canvas.

The Base Canvas includes attributes that describe land use, demographics, and development for each parcel or census block feature. UrbanFootprint's Base Canvas creation process incorporates a number of data sources to populate the attribute columns, including population and housing data from the decennial census and American Community Survey; employment data from the Longitudinal Employer-Household Dynamics (LEHD) program; point of interest data from various sources; and parcel data provided by CoreLogic. (UrbanFootprint can also incorporate local parcel data to create custom parcel-scale canvases.) Detailed information about the process to generate the Base Canvas at the parcel and block resolutions can be found in the Base Parcel Canvas Creation Methodology and Block Canvas Creation Methodology.

For a video overview that explains all the basics of the Base Canvas, you can also watch our webinar: What is the Base Canvas?

The Base Canvas attributes are summarized below.

Attribute Name	Column Key	Description
Geography ID	id	A unique identifier for the geographic feature.
Land Use Summary (L1)	land_use_category_level_1	The highest-level land use category, which includes broad classifications such as Residential, Commercial, and Mixed Use. All lower-level categories nest within higher-level categories.
Land Use Summary (L2)	land_use_category_level_2	Second-level land use categor which includes summary classifications such as Single-family and Multifamily.
Land Use Category (L3)	land_use_category_level_3	Most detailed land use categor which corresponds to specific land uses such as Single-famil detached.
Land Use Type (L4) (or Built Form Type)	built_form_key	Building Type or Place Type of the canvas geometry.
Land Development Category	land_development_category	A broad categorization of land use patterns based on intersection density, housing density, and employment density. The categories include Urban, Compact, Standard (suburban), and Rural.
Intersection Density	intersection_density	Density of roadway intersectior per square mile, measured ove a buffered area of the canvas geometry.
Gross Area	area_gross	Gross area of the canvas geometry, in acres.
Population	pop	Residential population associated with occupied dwelling units. This excludes people residing in group quarters.
Households	hh	Households, equivalent to occupied dwelling units.

Dwelling Units	du	Dwelling units, including occupied and unoccupied units
All Detached Single-Family Dwelling Units	du_detsf	Total detached single family homes.
Large Lot Detached Single-Family Dwelling Units	du_detsf_ll	Detached single family homes on lots larger than 5,500 square feet.
Small Lot Detached Single-Family Dwelling Units	du_detsf_sl	Detached single family homes on lots smaller than 5,500 square feet.
Attached Single-Family Dwelling Units (Townhomes)	du_attsf	Attached single family homes, including townhomes, rowhouses, and other units that share walls but are not stacked vertically.
All Multifamily Dwelling Units	du_mf	Homes in buildings that contain at least two housing units that are adjacent vertically, or horizontally with shared utility systems.
Multi-Family - 2 to 4 Dwelling Units	du_mf2to4	Homes in buildings that contain two to four housing units that are adjacent vertically, or horizontally with shared utility systems. *Note that, while this column appropriately represents units in buildings of this size category in the Base Canvas, all new multifamily units are assigned to this category by default in scenarios. Scenario analysis does not differentiate between the multifamily building size categories.*
Multi-Family - 5 or More Dwelling Units	du_mf5p	Homes in buildings that contain more than five housing units that are adjacent vertically, or horizontally with shared utility systems. *Note that ,while this column appropriately represents units in buildings of this size category in the Base Canvas, all new multifamily units are*

		assigned to the `du_mf2to4` *category by default in scenario Scenario analysis does not differentiate between the multifamily building size categories.*
Employment	emp	Total jobs across all employme categories.
All Retail Employment	emp_ret	The Retail category includes a retail services, other services, restaurant, accommodation, an arts and entertainment employment.
All Office Employment	emp_off	The Office category includes a office services and medical services employment.
All Public Employment	emp_pub	The Public category includes a public administration and education employment.
All Industrial Employment	emp_ind	The Industrial category include all utilities, construction, manufacturing, wholesale, and transportation & warehousing employment.
All Agriculture Employment	emp_ag	The Agriculture category includes all agriculture and extraction sector employment.
Military Employment	emp_military	The Military category includes employment in the military sector.
Retail Services Employment	emp_retail_services	The Retail Services category, a subsector of Retail, includes retail trade employment.
Restaurant Employment	emp_restaurant	The Restaurant category, a subsector of Retail, includes restaurant and other food service employment.
Accommodation Employment	emp_accommodation	The Accommodation category, subsector of Retail, includes facilities such as hotels and motels.

Arts & Entertainment Employment	emp_arts_entertainment	The Arts/Entertainment catego a subsector of Retail, includes arts, entertainment, and recreation employment.
Other Retail Employment	emp_other_services	The Other Services category, a subsector of Retail, includes retail employment outside of trade, restaurant, accommodation, arts/entertainment/recreation, and wholesale employment.
Office Services Employment	emp_office_services	The Office Services category, a subsector of Office, includes information, finance, and professional and business services employment.
Public Administration Employment	emp_public_admin	The Public Administration category, a subsector of Public includes public employment.
Education Employment	emp_education	The Education category, a subsector of Public, includes primary, secondary, and higher education services employmer
Medical Services Employment	emp_medical_services	The Medical Services category a subsector of Office, includes health care employment.
Manufacturing Employment	emp_manufacturing	The Manufacturing category, a subsector of Industrial, include employment in the manufacturing sector.
Wholesale Employment	emp_wholesale	The Wholesale category, a subsector of Industrial, include wholesale retail employment.
Transportation/Warehouses Employment	emp_transport_warehousing	The Transport/Warehousing category, a subsector of Industrial, includes transportation and warehousin employment.
Utilities Employment	emp_utilities	The Utilities category, a subsector of Industrial, include employment in the utilities sector.

Construction Employment	emp_construction	The Construction category, a subsector of Industrial, includes employment associated with construction activities.
Agriculture Employment	emp_agriculture	The Agriculture category, a subsector of (all) Agriculture, includes agricultural employment.
Extraction Employment	emp_extraction	The Extraction category, a subsector of Agriculture, includes employment related to extraction.
Small Lot Detached Single-Family Building Area	bldg_area_detsf_sl	Building area of small lot detached single-family homes, in square feet.
Large Lot Detached Single-Family Building Area	bldg_area_detsf_ll	Building area of large lot detached single-family homes, in square feet.
Attached Single-Family Building Area	bldg_area_attsf	Building area of attached single family homes, in square feet.
Multifamily Building Area	bldg_area_mf	Building area of multifamily homes, in square feet.
Retail Services Building Area	bldg_area_retail_services	Building area associated with the retail trade sector, in square feet.
Restaurants Building Area	bldg_area_restaurant	Building area associated with the restaurant and food service sector, in square feet.
Accommodation Building Area	bldg_area_accommodation	Building area associated with facilities such as hotels and motels, in square feet.
Arts & Entertainment Building Area	bldg_area_arts_entertainment	Building area associated with the arts, entertainment, and recreation sectors, in square feet.
Other Retail Building Area	bldg_area_other_services	Building area associated with the retail sector sector outside trade, restaurant, accommodation, arts/entertainment/recreation,

		and wholesale employment, in square feet.
Office Services Building Area	bldg_area_office_services	Building area associated with the information, finance, and professional and business services sector, in square feet.
Public Administration Building Area	bldg_area_public_admin	Building area associated with the public sector, in square fee
Education Building Area	bldg_area_education	Building area associated with the primary, secondary, and higher education services sector, in square feet.
Medical Services Building Area	bldg_area_medical_services	Building area associated with the health care sector, in squar feet.
Transportation/Warehouses Building Area	bldg_area_transport_warehousing	Building area associated with the transportation and warehousing sectors, in square feet.
Wholesale Building Area	bldg_area_wholesale	Building area associated with the wholesale retail sector, in square feet.
All Detached Single Family Parcel Area	area_parcel_res_detsf	Parcel area with detached single-family use, in acres.
Small Lot Detached Single-Family Parcel Area	area_parcel_res_detsf_sl	Parcel area with small lot detached single-family use, in acres.
Large Lot Detached Single-Family Parcel Area	area_parcel_res_detsf_ll	Parcel area with large lot detached single-family use, in acres.
Attached Single-Family Parcel Area	area_parcel_res_attsf	Parcel area with attached single-family use, in acres.
Multifamily Building Parcel Area	area_parcel_res_mf	Parcel area with multi-family use, in acres.
All Retail Parcel Area	area_parcel_emp_ret	Parcel area with retail employment use, in acres.
All Office Parcel Area	area_parcel_emp_off	Parcel area with office employment use, in acres.
All Public Parcel Area	area_parcel_emp_pub	Parcel area with public

		employment use, in acres.
All Industrial Parcel Area	area_parcel_emp_ind	Parcel area with industrial employment use, in acres.
All Agriculture Parcel Area	area_parcel_emp_ag	Parcel area with agricultural employment use, in acres.
All Military Parcel Area	area_parcel_emp_military	Parcel area with military employment use, in acres.
Residential Parcel Area	area_parcel_res	Total parcel area with residenti use, in acres.
Employment Parcel Area	area_parcel_emp	Total parcel area with commercial use, in acres.
Mixed Use Parcel Area	area_parcel_mixed_use	Total parcel area with mixed use, in acres.
No Use Parcel Area	area_parcel_no_use	Total parcel area with no use, i acres.
Net Area	area_parcel	Parcel area of canvas geometr in acres.
Area - Development	area_dev_condition	Parcel area available for development, in acres. This is the area that will be "painted" i a scenario.
Right-of-Way Area	area_row	Right-of-way area within the canvas geometry, including roads and sidewalks, in acres.
Residential Irrigated Area	residential_irrigated_area	Irrigated outdoor area associated with residential buildings, in square feet.
Commercial Irrigated Area	commercial_irrigated_area	Irrigated outdoor area associated with commercial buildings, not including agricultural irrigation, in square feet.
Population in Group Quarters	pop_groupquarter	People that reside in group quarters, such as dormitories and correctional facilities.
Modified from Original	uf_is_painted	Indicates with a "yes" or "no" value whether a feature has been modified in any way,

		including gridding, type paintin or attributes in the "yes" or "no"
Modified: Gridded	uf_paint_split	Indicates with a "yes" or "no" value whether a feature has been created using a gridding operation.
Modified: Type Paint	uf_paint_built_form	Indicates with a "yes" or "no" value whether a feature has been painted to have a new Building or Place Type name. This can apply whether the feature has been painted by typ or attribute, and regardless of whether the base residential ar employment values have been modified.
Modified: Employment Attributes	uf_paint_direct_employment	Indicates with a "yes" or "no" value whether a feature has been painted by attribute to set employment values, including jobs and non-residential building area.
Modified: Residential Attributes	uf_paint_direct_residential	Indicates with a "yes" or "no" value whether a feature has been painted by attribute to set residential values, including dwelling units and residential building area.

Base Parcel Canvas Creation

rev. April 2021

UrbanFootprint scenarios are built on the Base Canvas, a geospatial dataset that describes the existing environment. This detailed “canvas” of data constitutes a baseline assessment of land use, demographic characteristics, and other conditions, providing the context for scenario painting and a foundation for analysis using UrbanFootprint's modules.

When you create a new project, a Base Canvas is generated for your project area. Depending on your objectives, you can use a parcel canvas or a census block canvas. Parcel canvases depict development in terms of Building Types, and yield analysis outputs at the parcel scale. The resolution of parcel canvases is generally suited for detailed work up to the city level. Census block canvases (also referred to simply as "block canvases") use Census 2010 block geometries, and depict development in terms of broader Place Types. Scenario development and analysis at the census block scale is coarser. Generally, block canvases are suitable for work from the city level on up.

This documentation describes the data and process used to create the version of the parcel-scale Base Canvas used by default for new projects in the United States. Note that UrbanFootprint can incorporate local land use data as part of a custom parcel canvas creation process; for more information about this option please contact us.

Data Sources and Updates

The Base Canvas creation process incorporates data from a variety of sources, including:

- Census data, used to allocate population, households, dwelling units, and employment
- CoreLogic parcel data, used to identify land uses and populate dwelling units, employment, and building attributes where available
- Point-of-interest data from supplemental sources, used for further identification of land uses
- Road data, used for calculating intersection density

The methodology sections describe in detail how the source datasets are used. Note that the default Base Canvas is updated quarterly to incorporate the latest parcel data releases. For information about the updates, please see the latest release notes.

Methodology Overview

Base Canvas creation involves many steps of data processing and logic application. The process can be summarized into the following stages.

- Standardizing geometries, which ensures that parcel features are unique and do not overlap
- Translating land use codes from the parcel data to UrbanFootprint land use designations, and using additional data sources to identify specific land uses
- Allocating or assigning values for the attributes of the Base Canvas, including:
    - Dwelling units, using land use information, census information, and parcel data
    - Population and households, using census rates
    - Employment by category, using land use information, census information, and parcel data
    - Building area by type, using parcel data and assumptions
    - Parcel area by land use according to land use criteria
    - UrbanFootprint land use types, based on land use, density, and location data for specific uses
    - Intersection density, calculated at the census block level
    - Land Development Category, derived at the census block level
    - Irrigated area, estimated based on Building Type assumptions

The key steps and data used in each stage are described in the sections that follow.

Standardizing Geometries

The Base Canvas is comprised of unique, non-overlapping feature geometries. UrbanFootprint uses quarterly-updated parcel data from CoreLogic, a leading provider of real estate data in the United States, which sources its data from tax assessors and county recorder offices.

Before the parcel data can be used, it needs to be cleaned to resolve any geometry issues. Common issues include duplicate IDs, stacked geometries, nested geometries, and overlapping geometries. As a post process, very tiny geometries (less than 1 square meter) are dropped.

Duplicate IDs

In the rare cases where there are duplicate parcel IDs, the first parcel is retained and the duplicates are dropped. A verification step further ensures that duplicate parcel IDs do not exist in the dataset.

Exact and Near-Duplicate Geometries

In some cases, such as parcels for condominiums, multiple geometries that are exactly the same or nearly the same are stacked on top of each other. These geometries are dissolved into a single flat geometry. For numeric data, the maximum across all parcel attributes is retained. For non-numeric data, the attributes of the parcel with the lowest parcel ID are retained.

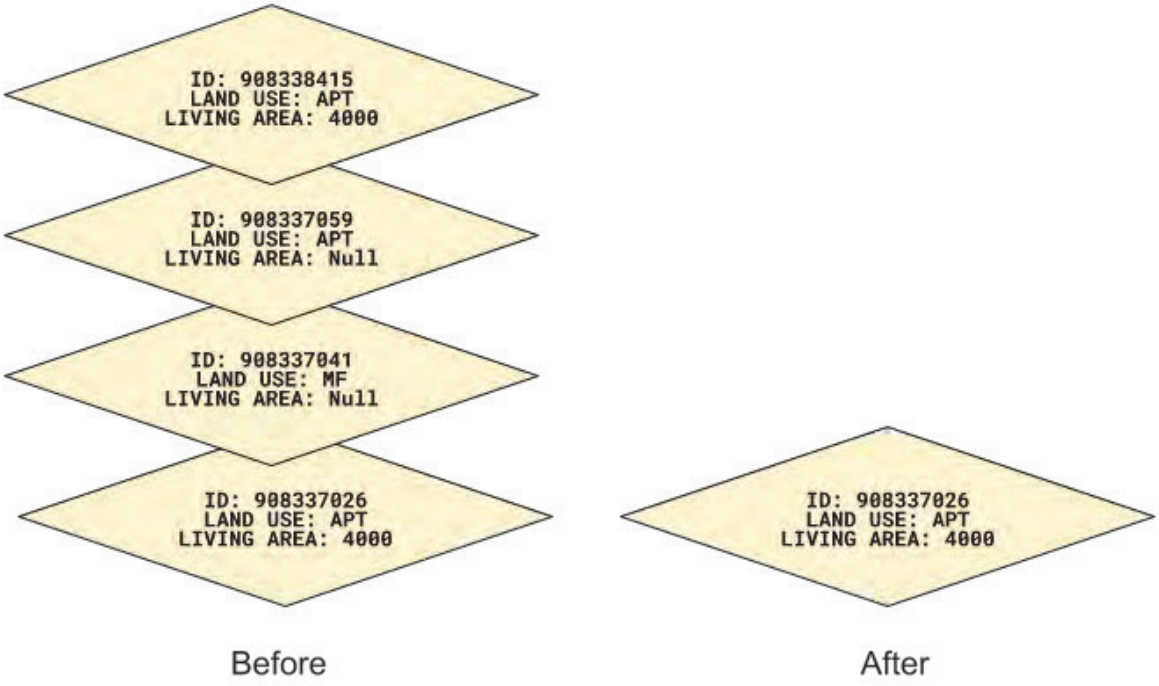


Figure 1. Representative example of duplicate geometry handling

Nested Geometries

Nested geometries sometimes occur in master-planned developments or subdivided residential neighborhoods where the outdoor area is owned by one entity, but each unit is privately owned. In these cases, a parent geometry (e.g., a planned unit development parcel) can have several child geometries (e.g., the planned units) as individual parcels completely contained by the larger parent geometry. For scenario development to correctly account for the total land area in these cases, it is essential that no land is double-counted, meaning that the parent geometry does not include the area of the child parcels. To fix this, the child geometries are cut out of the parent geometry. The result is that the parent geometry encompasses the shared common area, while each child parcel contains the information for the particular unit.

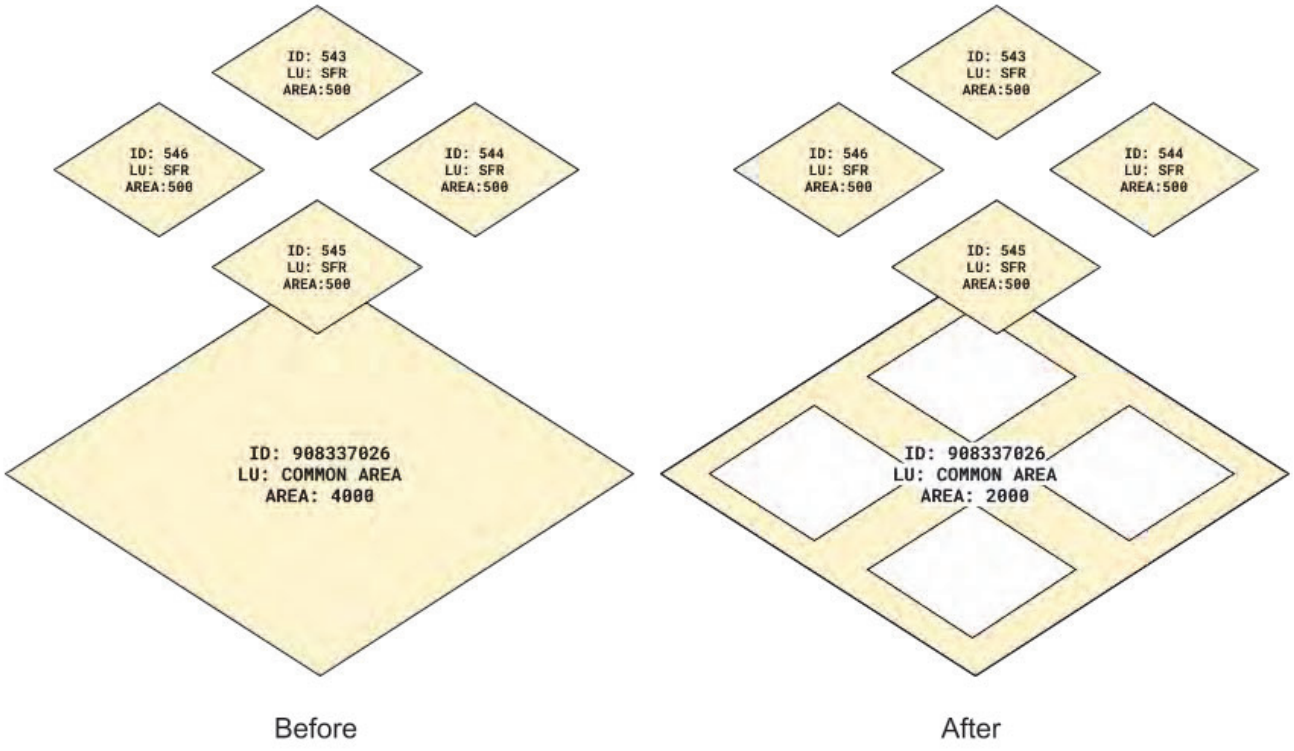


Figure 2. Representative example of nested geometry handling

Overlapping Geometries

Finally, there are parcels that overlap but are not entirely contained in one or the other. This happens most often with condominiums where the floor plans of each unit differ across floors. For this type of parcelization to work in UrbanFootprint, it is important that no geometries overlap, even if they represent different floors in a structure. For these cases, the lower parcel ID has its geometry cut out and the overlapping portion is retained for the parcel with the higher parcel ID. The parcel area is recalculated for each new geometry, but each geometry retains its original attribute data, meaning that the unit number and building area are not impacted by the change in geometry.

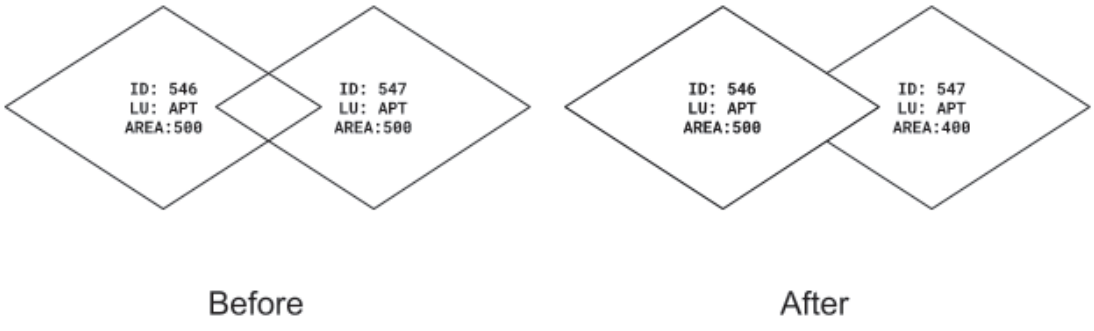


Figure 3. Representative example of overlapping geometry handling

Translating Land Use Codes

The next stage in the parcel canvas creation process is to assign UrbanFootprint land uses to parcels. As a first step, the original CoreLogic land use codes are "crosswalked" to a set of generalized land use designations to facilitate the process of typing parcels with UrbanFootprint's Building Types and higher levels of land use categories (see Land Use Hierarchy for more information). The land use typing is then further refined using supplemental datasets for specific land uses and points of interest.

Crosswalking to General Land Use Designations

Most jurisdictions represent land use at the parcel scale, using codes that reflect specific uses. UrbanFootprint “translates” this local information to represent development in terms of UrbanFootprint's standardized Building Types, which are foundational to scenario development and analysis. While land use and urban form are the subject of both local/regional land use classification systems and UrbanFootprint land use types, they are distinct languages. Land use codes are predominantly use-based and static, whereas UrbanFootprint's land use types (including Building Types at the parcel scale or Place Types at the census block scale, and the higher-level generalized categories into which they are classified) are primarily form-based. UrbanFootprint land use types are designed to be dynamic and expansive to capture the many variants of built form and land use. To relate UrbanFootprint Building and Place Types to the universe of local land use codes (as represented by CoreLogic's set of nearly 300 codes), we developed the Generalized Land Use Classification (GLUC) system.

The GLUC system is comprised of approximately 100 general land use designations. A crosswalk is used to associate each land use code from the CoreLogic parcel data with one of these general land use designations, each of which is associated with one or more UrbanFootprint Building Types. As part of Base Canvas creation, a translation algorithm uses this crosswalk to narrow the range of Building Types to which each CoreLogic land use code can be translated. In turn, residential and employment densities, as calculated in later steps**,** are used to select the closest fitting Building Type.

For example, CoreLogic’s "APARTMENT" land use code (#106) is crosswalked to the general land use designation "residential multifamily - all." A multifamily Building Type will then be selected based on the calculated residential density of the parcel. By contrast, CoreLogic’s "HIGH RISE CONDO" code (#117) is crosswalked to the "residential multifamily - high" designation, which is associated with a more restrictive set of potential Building Types.

The crosswalk between CoreLogic land use codes and UrbanFootprint land use are available upon request. (Please contact UrbanFootprint Support through the in-app chat, or by email.)

Source-Specific Modifications

In some cases, CoreLogic commercial-based land use codes are incorrectly assigned to parcels that are not commercial but are held by a commercial entity (for example, a private developer). In such cases, we first check if the parcel contains a building or not. If the parcel does not contain a building, we invalidate the “commercial” land use assigned by CoreLogic and use supplemental datasets to inform the land use code.

Supplemental Datasets

Supplemental datasets provide more specificity where CoreLogic’s land use data may be lacking. UrbanFootprint uses a number of additional datasets for locating land uses and points of interest as summarized in Table 1.

UrbanFootprint tags parcels with a land use from CoreLogic and land uses from these supplemental datasets where they apply. The land use for a parcel is then “resolved” by picking one land use from this set of options. The land use that is most in agreement from the set of options is given priority, unless there is an exception-based rule. For example, between a choice of one “Industrial - All”, two “Commercial - All”s and vs. one “Commercial - Office,” the “Commercial - Office” Land Use is chosen since the parcel is most likely a “commercial” parcel with one land use specifically calling it a “Commercial - Office”.

Supplemental datasets can contain either polygon or point features. With polygon datasets, at least 25% of a parcel must be covered by the dataset to be tagged. With point datasets, a parcel is tagged directly if a point intersects it. If a parcel touches a 50-meter buffer around a point, it receives a "buffer" tag, which is only used to resolve land uses if a parcel’s original land use code is vacant or null.

The process of typing parcels using a polygon dataset is exemplified in Figure 4. The campus geometry defined by the Census TIGER dataset is shown with the orange boundary, while parcels typed as Campus College - Low are shaded blue. All parcels where more than 25% of the polygon intersect with the landmark geometry are retyped accordingly. The large parcel in the upper right side of the image is not typed as campus, as less than 25% of its area intersects with the landmark polygon.

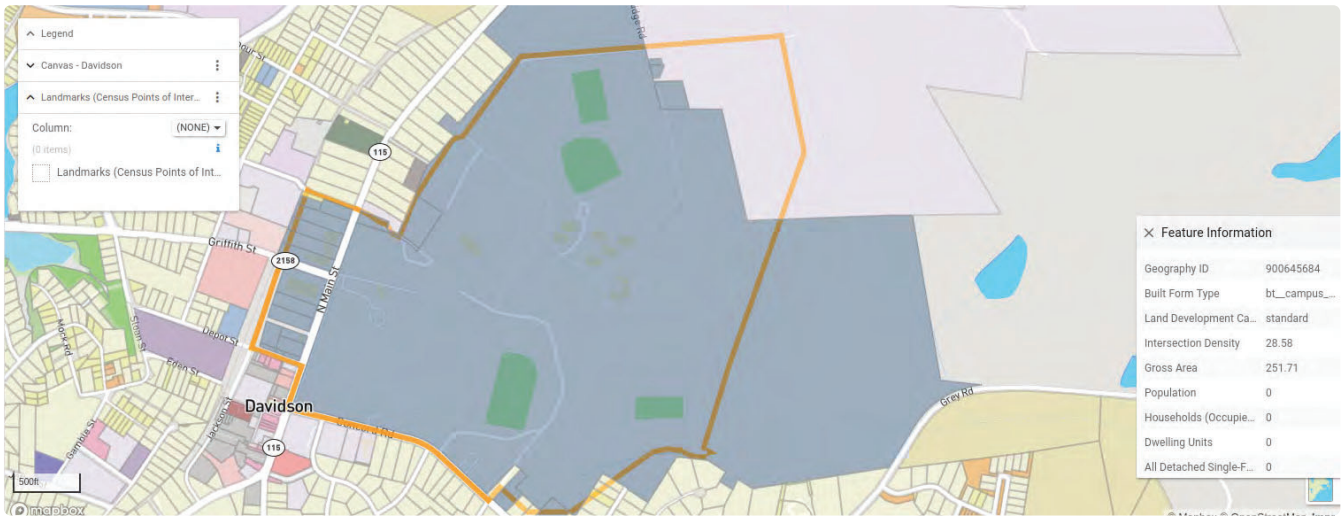


Figure 4: Polygon-based typing using the Census Landmarks Dataset

Figure 5 below shows examples of direct and buffered tagging using point data, in this case the SABINS schools dataset (which provides point locations of K-12 schools in the National Center for Education Statistics' Common Core of Data). The blue parcels are all typed correctly as schools, either through direct tagging, or buffer tagging and subsequent typing because the parcels had null land use codes.

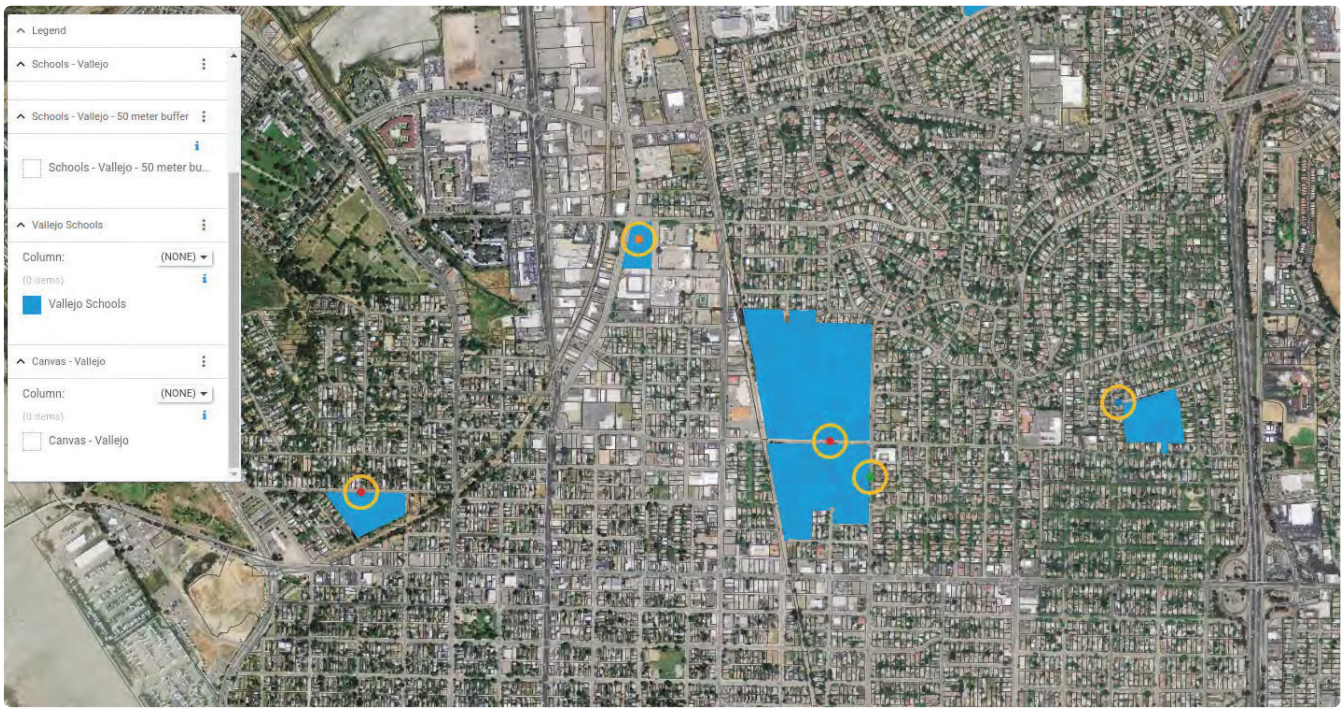


Figure 5. Point-based Typing of Schools using SABINS Dataset

Lastly, there are some supplemental sources that are used to assign land use types directly. For example, golf courses are assigned the Golf Course Building Type. The UrbanFootprint generalized land use designation plays a role only for disaggregating data as part of a later step (Disaggregating Block-Level Data to Parcels).

Table 1. Supplemental Datasets for Built Form Typing and Disaggregation

Dataset	Source	Geometry Type	UF Land Use/Built Form
SafeGraph Points of Interest	SafeGraph	Point	Varies
OpenStreetMap (OSM)	Overpass API	Both Point and Polygon	See Table 2.
Parks	• Esri, TomTom North America, Inc. • California Protected Areas Database (CPAD)	Polygon	Parks and recreation
Landmarks	Census TIGER Landmarks	Polygon	Uses the MAF/TIGER Feature Class Code (MTFCC)[1]. See Table 3.
Military	Census TIGER Military Installations	Polygon	Military
Prison Facilities	Homeland Infrastructure Foundation-Level Data (HIFLD)	Polygon	Correctional Facilities
Places of Worship	HIFLD	Point	Religious Centers
Major Sporting Venues	HIFLD	Point	Commercial Recreation except for Golf Courses which have their own Built Form
Fire Stations	HIFLD	Point	Fire/EMS
Schools	School Attendance Boundary Information System (SABINS)	Point	Primary and Secondary Education
Hospitals	HIFLD	Point	Hospitals

Airports	HIFLD	Point	Air Transportation
Colleges and Universities	HIFLD	Point	Higher Education

Table 2. OpenStreetMap (OSM) Data Crosswalk

OSM Property	OSM Tags	UF Land Use
landuse	farmland farm farmyard orchard	Cropland
	commercial	Commercial All
	industrial	Industrial All
	forest	All Forest
	cemetery	Cemeteries
	retail	All Retail Services
	reservoir	Utilities
	basin	Utilities
	conservation	Greenbelt
	vineyard	Vineyard
amenity	place_of_worship	Religious Centers
	school	Primary/Secondary Education
	grave_yard cemetery	Cemeteries
	fire_station police	Fire/EMS
shop	convenience supermarket department_store alcohol clothes car car_repair	All Retail Services
	car car_repair	Strip Commercial Center
building	house residential	Residential All
	apartments	All Multifamily
	detached	Single-Family Detached

	commercial	Commercial All
	industrial	Industrial All
	retail	All Retail Services
	warehouse	Commercial Storage
	church	Religious Centers
	university	Higher Education
	office	Office
	hotel	Accommodation
	hospital	Hospitals
	dormitory	Other Group Quarters
leisure	park	All Parks And Recreation
	golf_course	Golf Course
	nature_reserve	Natural All
natural	water	Water
	wetland	Wetland
	wood	All Woodland

Table 3. Census MAF/TIGER Feature Class Code Crosswalk

Building Type	MTFCC Code	MTFCC Description
Campus - College (High)	K2540	University or College,
Airport	K2456	Airport—Intermodal, Transportation, Hub/Terminal
	K2457	Airport—Statistical Representation
	K2451	Airport or Airfield
	K2180	Park
	K2181	National Park Service Land
	K2182	National Forest or Other Feder Land
	K2183	Tribal Park, Forest, or Recreation Area
	K2184	State Park, Forest, or Recreati Area
	K2185	Regional Park, Forest, or Recreation Area
	K2186	County Park, Forest, or Recreation Area
	K2187	County Subdivision Park, Forest, or Recreation Area
	K2188	Incorporated Place Park, Fores or Recreation Area
	K2189	Private Park, Forest, or Recreation Area
	K2190	Other Park, Forest, or Recreation Area
Golf Course	K2561	Golf Course
Hospital	K1231	Hospital/Hospice/Urgent Care Facility
Urban Civic	K2165	Government Center
Correctional Facility	K1235	Juvenile Institution
	K1236	Local Jail or Detention Center

	K1237	Federal Penitentiary, State Prison, or Prison Farm
Cemetery	K2582	Cemetery

Dwelling Units

Where available, dwelling unit counts from Core Logic are used to populate the dwelling unit values in the Base Canvas. If not available, census data and land use information are used together to impute unit counts.

1. Assign dwelling unit counts from the raw CoreLogic data
2. Resolve condominium counts from CoreLogic
3. Impute missing data using land use information
4. Assign units from census data where necessary

As part of the process, the raw CoreLogic data is put through a series of standardization steps to address abnormalities and make it usable.

Dwelling Units from Parcel Data

CoreLogic provides two attribute columns that help identify the number of dwelling units present on a parcel: *Building Units* and *Units Number*. The definition of each is shown in Table 4.

Table 4. CoreLogic Dwelling Unit Attributes

CoreLogic Column	Column Description
BUILDING UNITS	Total Number of Buildings on the Parcel
UNITS NUMBER	Number of Residential, Apartment, or Business Units

The *Building Units* attribute is useful for identifying single-family homes. However, it is insufficient for calculating numbers of multifamily units as it would only count the building that houses all of the units. For that reason, we use the *Units Number* attribute to count the numbers of multifamily dwelling units.

As *Units Number* contains information on business units as well as residential units, the first step is to differentiate between the two. We do this by using the CoreLogic land use codes to classify parcels as residential, commercial/employment, or mixed use. Residential and mixed use parcels are assigned their *Units Number* value as the count of dwelling units, while parcels classified as commercial/employment are ignored.

Resolving Condominium Counts

The raw parcel data is inconsistent in its representation of unit counts in developments such as condominiums or master planned subdivisions. In some cases, the *Units Number* attribute refers to the number of units present in the entire development, rather than the units present on a single parcel polygon. For example, a master planned area outside of Phoenix might be subdivided into 164 plots, each housing a single family home. The raw data reports the Units Number as 164 for every polygon. If these counts were applied directly to each parcel, the number of units would be drastically overcounted. We resolve this by grouping all parcels that are a part of a development, then evenly distributing the dwelling units across residential parcels in the group.

Imputing Dwelling Unit Counts

There are many places where the CoreLogic data does not supply dwelling unit information. In these cases, we use a variety of methods to impute the dwelling unit counts.

Single family units

As a first step, we directly assign a single dwelling unit to all parcels coded with single-family land uses. The CoreLogic land use codes that fall in this category can be seen in Table 5 below.

Table 5. Single Family Residential Land Use Codes for Imputation

CoreLogic Land Use Code	Land Use Name
102	TOWNHOUSE/ROWHOUSE
163	SINGLE FAMILY RESIDENTIAL
160	RURAL HOMESITE
109	CABIN
112	CONDOMINIUM
115	DUPLEX
165	TRIPLEX
151	QUADRUPLEX
138	MANUFACTURED HOME
135	MOBILE HOME LOT
136	MOBILE HOME PARK
137	MOBILE HOME

CoreLogic also uses two land use codes (see Table 6) that usually denote undeveloped parcels, and may include residential and/or non-residential uses. In these cases, we look to the *Improvement Value* attribute and assign a dwelling unit if the value surpasses a bare-minimum threshold of $5,000.

Table 6. Generic Residential Land Use Codes

CoreLogic Land Use Code	Land Use Name
100	RESIDENTIAL (NEC)
148	PUD

Multifamily units

Multifamily unit counts for parcels missing dwelling unit data are assumed based on the CoreLogic land use codes shown in Table 7. For parcels coded with the "Multifamily Dwelling Unit" or "Apartment" land uses, a conservative density of 12 DU/acre is applied. For parcels coded with the "Multifamily 10 Units Plus" land use, a conservative estimate of 10 dwelling units is assigned.

Table 7. Multifamily Land Use Codes for Imputation

Code	Land Use Name
106	APARTMENT
132	MULTI FAMILY 10 UNITS LESS
133	MULTI FAMILY DWELLING

Removing Outliers

The next step is to remove clear outliers, or cases where the resulting dwelling unit density is far beyond what could be considered reasonable. For parcels with CoreLogic dwelling unit counts and coded with single-family land uses (see Table 5), the following corrections are applied:

- Parcels under 0.15 acre with more than five detached single-family dwelling units → reassigned one unit
- Parcels with detached single-family unit density of 50 units/acre, well exceeding what is viable → reassigned units at a density of 5 units/acre

For parcels coded with multifamily land uses (see Table 7):

- Parcels with a multifamily unit density over 1000 units/acre, well exceeding what is viable → reassigned units at a density of 10 units/acre

Dwelling Units from Census Data

Even after all of these transformations, there are still instances where the raw parcel data simply does not provide enough information to impute dwelling units. In these cases, data from the UrbanFootprint census block-level canvas is used to identify and fill in gaps. Parcel-level data is first aggregated to the block scale to allow for a direct comparison of dwelling unit totals against the block canvas totals, which come from the 2010 US Decennial Census as the latest release with block-level data. Blocks that satisfy the following conditions are flagged as cases where raw parcel data should be substituted with census dwelling unit totals:

- Blocks that have at least 10 dwelling units in the 2010 Decennial Census
- Blocks where the aggregate parcel dwelling unit total is more than 30% lower than the 2010 Decennial Census block total

For parcels that match these cases, block-level totals are disaggregated down to parcels using land use codes to identify parcels that can accommodate residential data (residential or mixed use parcels). This process is detailed further in Disaggregating Block-Level Data to Parcels.

Source-Specific Modifications

Beyond the process described above, some modifications need to be made in cases where unit counts or land use codes originating with the original parcel source data are not consistent with the CoreLogic attribute definitions, or where the values do not follow the pattern of the rest of the dataset. In these cases, modifications are made. There are several types of data inconsistencies: unreliable building units data; overtyping with the apartment land use code; overtyping with the single family residential land use code; and the representation of attached single-family units.

Counties where these modifications are applied can be found in Appendix B. Each modification is described in more detail below.

Unreliable Building Units Data

In some counties, the *Building Units* field accounts for structures such as small sheds or storage areas. In other cases, the raw building units data is unreliable when compared to satellite imagery, overcounting the actual number of buildings on detached single family parcels. For counties where these patterns are identified, the building units field is ignored and instead dwelling unit counts are typed solely using the land use code imputation process.

Overtyping with Apartment Land Use Code

In some cases, the CoreLogic "Apartment" land use code is used to denote rented units, rather than providing information as to whether the units are in multifamily structures or not. To improve the accuracy of the UrbanFootprint Building Type assigned to these parcels, they are given the detached single-family general land use designation.

Overtyping with Single-Family Land Use Code

The "Single Family Residential (SFR)" land use code is most commonly applied to parcels where there is a dwelling unit on the structure, while vacant residential land uses are denoted with a Vacant land use (#465). That said, there are counties where the SFR type is liberally applied to any residential use. In these cases, the dwelling unit imputation process for SFR is skipped; the "Building Units" field to assign dwelling units instead.

Application of Attached SIngle-Family Types

Throughout most of the country, duplex and triplex units are parcelized in such a way that each unit has its own geometry. Where building unit data is missing, unit counts are imputed such that each geometry receives one dwelling unit. In other cases, the Duplex, Triplex, and Quadruplex land use designations are used to represent single parcels that contain more than one unit. For these places, where building unit data is missing, dwelling units are imputed using a literal application of the unit type (i.e., Duplexes receive two units, Triplexes receive three units, etc.).

Population and Households

Values for population and households are derived using the dwelling unit counts by type. The number of dwelling units present on each parcel is multiplied by census rates (ACS 2019 5-Year Estimates) for occupancy to estimate households (households are defined as occupied dwelling units). Population is then calculated using census-derived rates for household size by dwelling unit type (single family detached, single family attached, and multifamily) at the tract level.

When there are dwelling units in a tract but the tract has null or zero rates from the census, we use the calculated average of the rates of nearby tracts with a similar LSAD designation.

Employment by Category

Employment by category is first estimated at the census block level using job location data from the US Census Longitudinal Employer-Household Dynamics (LEHD) Origin-Destination Employment Statistics (LODES) dataset (2018). The block-level employment counts are classified by North American Industry Classification System (NAICS) code, which are crosswalked to the employment subsectors used by UrbanFootprint (see Appendix C for the crosswalk table). The employment counts are then disaggregated down to parcels using the process described in the following section.

Disaggregating Block-Level Data to Parcels

Where data is not available at the parcel level, census block-level counts for dwelling units and employment is disaggregated down to the parcels. Disaggregation is guided by the parcels' general land use designation, each of which has rules as to the types of dwelling units and/or employment sectors it can include. For example, a parcel with a "Single Family Detached" land use designation can take on dwelling units, but not employment, from its parent block. Similarly, a parcel with a "Retail" land use designation can take on retail employees, but not industrial employees.

From there, dwelling units and employment are distributed among parcels in proportion to their land area, such that larger parcels receive more jobs while smaller parcels receive less.

By default, parcels that are classified as "Vacant," "Open Space," or "Other" are excluded from disaggregation. That said, there are some exceptions. If there are dwelling unit or employment counts at the block level, yet all parcels within the block are classified as one of "Vacant," "Open Space," or "Other," the dwelling units or employment get assigned to only the "Open Space" or "Other" parcels. If all the parcels are "Vacant," the disaggregation logic distributes the dwelling units and employment by land area.

Lastly, data is not disaggregated to parcels under 100 square feet.

Building Area by Type

The building area fields in the Base Canvas are populated using logic similar to that used for dwelling units. Where the CoreLogic parcel data contains information on building area, it is incorporated directly into the parcel canvas. If missing, building area is imputed based on default values for square feet per dwelling unit and per employee by subsector.

Building area in the Base Canvas is defined as the total living area, referring to area that would be heated or cooled. This typically excludes garages, unfinished basements, and patios. The CoreLogic *Living Square Feet* attribute is used to populate the building area columns. For reference, the other CoreLogic building area fields are summarized in Table 8.

Table 8. CoreLogic Building Area Attributes

CoreLogic Attribute Name	Description
UNIVERSAL BUILDING SQUARE FEET	The Building Square Footage that can most accurately be used for assessments or comparables (e.g., Living, Adjusted, Gross).
BUILDING SQUARE FEET IND	The codes appearing in this field indicates the source used to populate the UNIVERSAL BUILDING SQUARE FEET field (e.g., Living, Adjusted, Gross). Please see "BLDSF" table for code descriptions.
BUILDING SQUARE FEET	The size of the building in Square Feet. This field most commonly populated as a cumulative total when a county does not differentiate between Living and Non-living areas.
LIVING SQUARE FEET	This is the area of a building that is used for general living. This is typically the area of a building that is heated or air conditioned and generally does not include Garage, Porch or Unfinished Basement Square Footage values.
GROUND FLOOR SQUARE FEET	Square footage of the part of the building which is level with the ground (typically the front of the building). This is generally above the basement(s and below the second floor.
GROSS SQUARE FEET	This is the square footage for the entire building. Typically this represents all square feet under the roof.
ADJUSTED GROSS SQUARE FEET	This is the square footage used by the county or local taxing / assessment authority to determine Improvement Value. This figure is typically 100% the living area, plus lower percentage of non-livin area.
BASEMENT SQUARE FEET	This is total square footage associated with Basement portion of a building. This would includ both finished and unfinished areas.
GARAGE/PARKING SQUARE FEET	This is the total square footage of the primary garage or parking area (i.e., commercial). This includes both finished and unfinished areas.

The total living square feet for a parcel is allocated to the canvas attributes for building area by housing type and employment by subsector according to the dwelling units and employment present on the parcel. The logic used to distribute the square footage is summarized in Table 9.

Table 9. Building Area Distribution Logic

Case	Assignment Logic
Dwelling Units > 0 AND Employment = 0	Assign Living Square Feet data to housing type present on the parcel
Employment > 0 AND Dwelling Units = 0	Proportionally distribute building area based on th number of employees in each subcategory
Dwelling Units > 0 AND Employment > 0	Distribute Living Square Feet into residential and employment uses based on dwelling unit vs. employee proportions. Then assign using the methodology for each case described above.

For cases where *Living Square Feet* data is missing for the parcel, building area is imputed using default assumptions for building area per unit by housing type, and per employee by subsector. The assumptions vary according to broader land development category as identified by the intersection density of the census block in which a parcel is located. Areas with intersection densities above 150 per square mile are considered Urban or Compact, while those with lower densities can be Suburban or Rural. The assumptions are summarized in Table 9.

Table 9. Default Building Area Assumptions

Building Area Field	Square Feet per Dwelling Unit or Employee	Square Feet per Dwelling Un or Employee
	Urban/Compact (Intersection Density >= 150 per square mile)	Suburban/Rural (Intersection Density < 150 p square mile)
Small Lot Detached- Single-Family	1,650	2,400
Large Lot Detached- Single-Family	2,100	3,000
Attached- Single-Family	1,800	1,800
Multifamily (2– 4 units in structure)	1,850	2,000
Multifamily (5+ units in structure)	1,200	1,200
Retail Services	475	750
Restaurant	475	750
Accommodation	1,850	2,000
Entertainment	900	1,200
Other Services	650	850
Office Services	280	350
Public Admin	620	700
Education	900	1,050
Medical Services	725	800
Transport/Warehousing	1,200	1,700
Wholesale	600	660

Parcel Area by Land Use

The Base Canvas includes parcel area attributes that can be used to track land area for residential, employment, and mixed use development. Parcel area values correspond to the total area of a parcel; that is, the land area is not divided up in any way to reflect different uses within a single parcel. Parcel area is first allocated to one of four mutually exclusive top-level categories according to the criteria outlined in Table 10.

Table 10. Top-Level Parcel Area Categories

Parcel Area Category	Description
Residential	Parcels that have dwelling units and no employment
Employment	Parcels that have employment and no dwelling units
Mixed Use	Parcels that have both dwelling units and employment
No Use	Parcels that have neither dwelling units or employment

Within the top-level residential and employment categories, there are subcategories by dwelling type and employment sector. These parcel area subcategories are not mutually exclusive – each receives the total parcel area if the associated uses are present on the parcel. For example, if a parcel has both retail employment and office employment, both the retail parcel area and office parcel area will be populated with the same value – that for the total area of the parcel. Table 11 includes a full list of the parcel area columns.

Table 11. All Parcel Area Attributes

Parcel Area Column Name	Column Key
Residential Parcel Area	area_parcel_res
All Single Family Detached Parcel Area	area_parcel_res_detsf
Small Lot Detached Single Family Parcel Area	area_parcel_res_detsf_sl
Large Lot Detached Single Family Parcel Area	area_parcel_res_detsf_ll
Attached Single Family Parcel Area	area_parcel_res_attsf
Multifamily Parcel Area	area_parcel_res_mf
Employment Parcel Area	area_parcel_emp
All Retail Parcel Area	area_parcel_emp_ret
All Office Parcel Area	area_parcel_emp_off
All Public Parcel Area	area_parcel_emp_pub
All Industrial Parcel Area	area_parcel_emp_ind
All Agriculture Parcel Area	area_parcel_emp_ag
All Military Parcel Area	area_parcel_emp_military
Mixed Use Parcel Area	area_parcel_mixed_use
No Use Parcel Area	area_parcel_no_use

UrbanFootprint Land Use Typing

UrbanFootprint represents land use on parcels using Building Types. Building Types nest within a classification system composed of four levels, offering users the flexibility to depict development at various degrees of detail. The hierarchy of categories ranges from a high-level summary category (L1) down to specific Building Types and Place Types (L4) (see Land Use Hierarchy for more information). Each feature in the Base Canvas is categorized according to all levels.

As part of the parcel canvas creation process, each parcel is assigned a Building Type from UrbanFootprint's default library from among those prescribed for its general land use designation (as described earlier) using density, and, where applicable, land use information from supplemental datasets, to select the best fit. The values for the higher-level L1 to L3 categories are automatically generated via the Building Type designation.

Density-Based Classification

As described earlier, parcels are first assigned an UrbanFootprint general land use designation based on their CoreLogic land use codes (see Crosswalking to General Land Use Classifications). Each general land use designation is associated with one or more Building Types, effectively narrowing down the potential candidates. In this step, the Building Type that "most closely" matches the density of each parcel is identified.

“Closeness” is measured as the lowest standardized absolute difference between the Building Type and parcel densities. To do this, the densities of the parcels and Building Types are first standardized into scores by subtracting the mean and dividing by the standard deviation of the corresponding building types set. Then, each parcel’s standardized density score is compared to the standardized scores of its candidate Building Types. The differences are then squared and summed. The Building Type that corresponds to the least sum-of-squares is selected and assigned to the parcel.

$$\text{"Distance" to built form} = \sum_{\text{attributes}} (Z_{parcel} - Z_{building\ type})^2$$

$$\text{where } Z = \text{standardized attribute density}$$

Least sum-of-squares equation

If the dwelling unit density and employment density were the axes of a two-dimensional graph, this sum-of-squares would represent the distance between the parcel’s data point and the Building Type data point. Therefore, the least sum-of-squares would represent the building type that is closest to the parcel’s data point. Other attributes could be represented similarly on an n-dimensional graph.

Currently, the process uses dwelling unit density for residential land use designations, employment density for employment land use designations, and both for mixed land use designations.

Non-Density Based Classification

Relying purely on the density-based approach will not capture Building Types representative of special land uses such as parks, open space, water, schools, or cemeteries. These types are not density-based, so their identification is based on the use of supplemental datasets (see the Supplemental Datasets section for more details). A few exceptions are detailed below.

Parcels are assigned the "Water" land use if census data indicates that the area of the parent block geography is covered entirely by water[3], unless they are classified with residential land uses. This exception accounts for residential parcels at the edge of water bodies.

Institutional types, such as courthouses, libraries, or city halls, cannot be identified using the density-based approach. In the CoreLogic data, these parcels are sporadically categorized as "public," "tax exempt," or "state property," all of which are hard to parse into specific Building Types. If these parcels have not already been typed using supplemental datasets, they are categorized as "Open Space" if they are rural (often they are state or regional parks), "Non-Urban Civic" if they are in developed areas with intersection densities under 150 per square mile, or "Urban Civic" if they are in developed areas with intersection densities over 150 per square mile.

Intersection Density and Land Development Category

Intersection density and Land Development Category are attributes that reflect the land use context of a parcel. Both are set at the census block level, then passed down to parcels. Each parcel is assigned the intersection density and Land Development Category of the block with which it shares the most area.

Intersection Density

Intersection density is recognized as a proxy for walkability. An intersection is defined as the intersection of any two walk or drive network segments, as derived from OpenStreetMap (OSM) data. Intersections within 15 meters (about 50 feet) of each other are consolidated into a single intersection. This resolves counts for boulevard intersections and other cases where the network configuration can lead to overcounting (for example, by capturing two sides of the same intersection as separate intersections). Intersection densities are calculated over a buffered area of 400 meters around each block to smooth out local variations and normalize densities for all locations with respect to their surroundings.

Land Development Category

UrbanFootprint Land Development Category is a classification that reflects broad development patterns. They include Urban Infill (“Urban”), Compact Walkable (“Compact”), and Suburban (“Standard”). The Urban category represents areas (typically within moderate and high density urban centers) that have the highest intensity and mix of uses. Compact areas are less intensely developed than Urban areas but very walkable in part because of their mix of residential, commercial, and civic uses. “Standard” represents auto-oriented, separate-use suburban development patterns. (For custom canvases, a “Rural” category can be used to represent rural development.)

Land Development Category is assigned to census blocks, and in turn parcels, according to two criteria: intersection density per square mile and activity density (i.e., dwelling unit and employment densities). The categories are used in Base Canvas land use typing, as well some analysis modules (namely the Fiscal Impacts module). The categories also serve to communicate scenario concepts and results.

The criteria for the categories are summarized in Table 12.

Table 12. Land Development Category Criteria

Land Development Category	Criteria
Urban	Intersection density >= 150 per square mile, *and* Employees/gross acre > 70 *or* dwelling units/gros acre > 40
Compact	Intersection density >= 150 per square mile, *and* Employees/gross acre <= 70 *or* dwelling units/gross acre > <=40
Standard (Suburban)	Intersection density < 150 per square mile
Rural	Guidelines based on local conditions

Irrigated Area

Lastly, the Base Canvas includes estimates of residential and commercial irrigated area. The values in the parcel canvas are modeled based on general assumptions for the percentage of parcel area that is irrigated. Assumptions are associated with the Building Type assigned to each parcel.

Endnotes

[1] The MAF/TIGER Feature Class Code (MTFCC) is a 5-digit code assigned by the Census Bureau intended to classify and describe geographic objects or features. These codes can be found in the TIGER/Line products.

[2] The schools are classified as elementary, middle or high based on the highest grade offered at the school. Schools are typed as 'urban' if the intersection density of the surrounding census block is greater than 150 intersections per square mile, and 'non-urban' if the intersection density falls below this threshold.

[3] Census blocks where AWATER > 0 and ALAND = 0.

Release Notes

January 2023

- **More accurate land use and employment information**. An update to the underlying OpenStreetMap point and polygon data yields more accurate land use typing and employment information.
- **Improved commercial land use typing**. An update to the underlying point-of-interest data has improved the typing of commercial land use.

November 2022

- **Expanded coverage**. 60 new counties have been added, pushing our nationwide cover up to 99% of the U.S.
- **Improved commercial land use typing**. An update to the underlying point-of-interest data has improved the typing of commercial land use.
- **More accurate land use and employment information**. An update to the underlying OpenStreetMap point and polygon data yields more accurate land use typing and employment information.

August 2022

- **Near-nationwide coverage**. Nearly **2,000 new counties** have been added, tripling the number supported and resulting in coverage of **97% of the U.S**.
- **Improved commercial land use typing**. An update to the underlying point-of-interest data has further improved the typing of commercial land uses.

January 2022

- **Updated building footprints data.** An update to the underlying building footprints data (Microsoft Building Footprints) has increased the coverage of our dwelling units data and irrigated land area calculations, and in some cases has improved our commercial land use typing.
- **Improved commercial land use typing.** An update to the underlying point-of-interest data has improved the typing of commercial land uses.
- **More accurate land use and employment information.** An update to the underlying OpenStreetMap point and polygon data yields more accurate land use typing and employment information.
- **Bug Fix:** Previously, calculated columns in the parcel reference data layer such as `Floor Area Ratio`, `Improvement to Land Value Ratio`, `Market Improvement to Land Value Ratio`, and `Assessed Improvement to Land Value Ratio` erroneously reported a zero when inputs to the calculation were missing or not applicable. With this release, the calculated value will also be reported as not available in those cases.

September 2021

- Addition of Oconee County, GA
- Addition of download capabilities for Imperial County, CA and Cochise County, AZ
- Updated parcel geometries and attribute data for hundreds of U.S. counties
- Improved typing of commercial land use

July 2021

- **Expanded coverage**. The Base Canvas for California has been expanded to cover an additional 15 counties for complete parcel coverage of the entire state. Parcel geometries and attribute coverage have also been updated for hundreds of counties across the U.S.
- **Improved commercial land use typing.** An update to the underlying point-of-interest data improves the typing of commercial land uses.
- **More accurate land use and employment information**. An update to the underlying OpenStreetMap point and polygon data yields more accurate land use typing and employment information.

April 2021

Updated point-of-interest data. Updated point-of-interest (POI) data from SafeGraph and OpenStreetMap, now current as of February 2021, improve the accuracy of commercial typing and employment information assigned to parcels.

- **Updated American Community Survey (ACS) data**. The Base Canvas now uses ACS 2019 5-year estimates of population and households.
- **Updated parcel geometries and attributes**. Parcel geometries have been updated for 183 counties. Parcel attributes have been updated for 1,023 counties.

January 2021

Updated employment data. By updating the underlying data source from the U.S. Census Bureau's LODES 2017 to the newly released LODES 2018, the UrbanFootprint Base Canvas now provides you with the latest available census-based employment data, adding nearly 3.5 million jobs nationwide.

- **Updated parcel geometries and attributes**. Parcel geometries have been updated for 132 counties. Parcel attributes have been updated for 1,022 counties.
- **More accurate typing of parks and multifamily parcels**. The assignment of current land use to parcels with parks and multi-family residential buildings has been improved to result in fewer incorrectly assigned park or residential parcels.

October 2020

In addition to our regular update, this quarter's release includes some exciting improvements:

- **More accurate typing of commercial parcels** based on newly integrated SafeGraph point-of-interest (POI) data, improving how commercial use is identified (including offices, retail sites, medical services) and how job categories are separated at the parcel level
- **Updated census metrics**, using the latest Census ACS 2018 dataset, to improve how missing population or household rates are handled at the census tract level

May 2020

Source data

This update incorporates the following source data:

- **Parcel information**. CoreLogic parcel data (Q1 2020)
- **Locations of interest**. OpenStreetMaps (OSM) locations of interest (point and polygon) data (Feb 2020)
- **Employment**. Census Longitudinal Employer-Household Dynamics (LEHD) Origin-Destination Employment Statistics (LODES) data (Latest release, 2017)

Logic updates

Vacant parcels have sometimes been typed incorrectly as commercial property. We've updated our logic to use building footprints to better understand where properties are unlikely to be used currently for commercial purposes. This change, along with some improvements to how we're using OSM data for locations of interest, means that you'll likely see some of the following differences:

- Better identification of parks, golf courses, and open spaces
- More "blank" parcels, fewer inaccurate commercial parcels. "Blank" parcels occur when we don’t have data to reliably identify the current use for the parcel. In some cases, these parcels may have been subdivided in anticipation of future development. In other cases, we simply have conflicting information about the current land use. The OSM data helps us better identify uses.

Crowdsourcing

We're always looking to improve the accuracy of our Base Canvas. If you would like to help us make improvements for yourself and other users, please use this form to report incorrectly typed parcels: https://airtable.com/shr2RcLYGkrjSj0cL. Your input is appreciated!

Appendix A: Base Canvas Attributes

The following table provides a reference to the names, column keys (which are used in exports of the data table), and descriptions of the Base Canvas attributes.

Attribute Name	Column Key	Description
Geography ID	id	A unique identifier for the geographic feature.
Land Use Summary (L1)	land_use_category_level_1	The highest-level land use category, which includes broad classifications such as Residential, Commercial, and Mixed Use. All lower-level categories nest within higher-level categories.
Land Use Summary (L2)	land_use_category_level_2	Second-level land use categor which includes summary classifications such as Single-family and Multifamily.
Land Use Category (L3)	land_use_category_level_3	Most detailed land use categor which corresponds to specific land uses such as Single-famil detached.
Land Use Type (L4) (or Built Form Type)	built_form_key	Building Type or Place Type of the canvas geometry.
Land Development Category	land_development_category	A broad categorization of land use patterns based on intersection density, housing density, and employment density. The categories include Urban, Compact, Standard (suburban), and Rural.
Intersection Density	intersection_density	Density of roadway intersectior per square mile, measured ove a buffered area of the canvas geometry.
Gross Area	area_gross	Gross area of the canvas geometry.
Population	pop	Residential population associated with occupied dwelling units. This excludes people residing in group quarters.
Households	hh	Households, equivalent to occupied dwelling units.

Dwelling Units	du	Dwelling units, including occupied and unoccupied units
All Detached Single-Family Dwelling Units	du_detsf	Total detached single family homes.
Large Lot Detached Single-Family Dwelling Units	du_detsf_ll	Detached single family homes on lots larger than 5,500 square feet.
Small Lot Detached Single-Family Dwelling Units	du_detsf_sl	Detached single family homes on lots smaller than 5,500 square feet.
Attached Single-Family Dwelling Units (Townhomes)	du_attsf	Attached single family homes, including townhomes, rowhouses, and other units that share walls but are not stacked vertically.
All Multifamily Dwelling Units	du_mf	Homes in buildings that contain at least two housing units that are adjacent vertically, or horizontally with shared utility systems.
Multi-Family - 2 to 4 Dwelling Units	du_mf2to4	Homes in buildings that contain two to four housing units that are adjacent vertically, or horizontally with shared utility systems.
Multi-Family - 5 or More Dwelling Units	du_mf5p	Homes in buildings that contain more than five housing units that are adjacent vertically, or horizontally with shared utility systems.
Employment	emp	Total jobs across all employment categories.
All Retail Employment	emp_ret	The Retail category includes all retail services, other services, restaurant, accommodation, and arts and entertainment employment.
All Office Employment	emp_off	The Office category includes all office services and medical services employment.

All Public Employment	emp_pub	The Public category includes a public administration and education employment.
All Industrial Employment	emp_ind	The Industrial category include all utilities, construction, manufacturing, wholesale, and transportation & warehousing employment.
All Agriculture Employment	emp_ag	The Agriculture category includes all agriculture and extraction sector employment.
Military Employment	emp_military	The Military category includes employment in the military sector.
Retail Services Employment	emp_retail_services	The Retail Services category, a subsector of Retail, includes retail trade employment.
Restaurant Employment	emp_restaurant	The Restaurant category, a subsector of Retail, includes restaurant and other food service employment.
Accommodation Employment	emp_accommodation	The Accommodation category, subsector of Retail, includes facilities such as hotels and motels.
Arts & Entertainment Employment	emp_arts_entertainment	The Arts/Entertainment catego a subsector of Retail, includes arts, entertainment, and recreation employment.
Other Retail Employment	emp_other_services	The Other Services category, a subsector of Retail, includes retail employment outside of trade, restaurant, accommodation, arts/entertainment/recreation, and wholesale employment.
Office Services Employment	emp_office_services	The Office Services category, a subsector of Office, includes information, finance, and professional and business services employment.
		The Public Administration

Public Administration Employment	emp_public_admin	category, a subsector of Public includes public employment.
Education Employment	emp_education	The Education category, a subsector of Public, includes primary, secondary, and higher education services employmer
Medical Services Employment	emp_medical_services	The Medical Services category a subsector of Office, includes health care employment.
Manufacturing Employment	emp_manufacturing	The Manufacturing category, a subsector of Industrial, include employment in the manufacturing sector.
Wholesale Employment	emp_wholesale	The Wholesale category, a subsector of Industrial, include wholesale retail employment.
Transportation/Warehouses Employment	emp_transport_warehousing	The Transport/Warehousing category, a subsector of Industrial, includes transportation and warehousin employment.
Utilities Employment	emp_utilities	The Utilities category, a subsector of Industrial, include employment in the utilities sector.
Construction Employment	emp_construction	The Construction category, a subsector of Industrial, include employment associated with construction activities.
Agriculture Employment	emp_agriculture	The Agriculture category, a subsector of (all) Agriculture, includes agricultural employment.
Extraction Employment	emp_extraction	The Extraction category, a subsector of Agriculture, includes employment related t extraction.
Small Lot Detached Single-Family Building Area	bldg_area_detsf_sl	Building area of small lot detached single-family homes.
Large Lot Detached Single-Family Building Area	bldg_area_detsf_ll	Building area of large lot detached single-family homes.

Attached Single-Family Building Area	bldg_area_attsf	Building area of attached singl family homes.
Multifamily Building Area	bldg_area_mf	Building area of multifamily homes.
Retail Services Building Area	bldg_area_retail_services	Building area associated with the retail trade sector.
Restaurants Building Area	bldg_area_restaurant	Building area associated with the restaurant and food service sector.
Accommodation Building Area	bldg_area_accommodation	Building area associated with facilities such as hotels and motels.
Arts & Entertainment Building Area	bldg_area_arts_entertainment	Building area associated with the arts, entertainment, and recreation sectors.
Other Retail Building Area	bldg_area_other_services	Building area associated with the retail sector sector outside trade, restaurant, accommodation, arts/entertainment/recreation, and wholesale employment.
Office Services Building Area	bldg_area_office_services	Building area associated with the information, finance, and professional and business services sector.
Public Administration Building Area	bldg_area_public_admin	Building area associated with the public sector.
Education Building Area	bldg_area_education	Building area associated with the primary, secondary, and higher education services sector.
Medical Services Building Area	bldg_area_medical_services	Building area associated with the health care sector.
Transportation/Warehouses Building Area	bldg_area_transport_warehousing	Building area associated with the transportation and warehousing sectors.
Wholesale Building Area	bldg_area_wholesale	Building area associated with the wholesale retail sector.
All Detached Single Family		Parcel area with detached

Parcel Area	area_parcel_res_detsf	single-family use.
Small Lot Detached Single-Family Parcel Area	area_parcel_res_detsf_sl	Parcel area with small lot detached single-family use.
Large Lot Detached Single-Family Parcel Area	area_parcel_res_detsf_ll	Parcel area with large lot detached single-family use.
Attached Single-Family Parcel Area	area_parcel_res_attsf	Parcel area with attached single-family use.
Multifamily Building Parcel Area	area_parcel_res_mf	Parcel area with multi-family use.
All Retail Parcel Area	area_parcel_emp_ret	Parcel area with retail employment use.
All Office Parcel Area	area_parcel_emp_off	Parcel area with office employment use.
All Public Parcel Area	area_parcel_emp_pub	Parcel area with public employment use.
All Industrial Parcel Area	area_parcel_emp_ind	Parcel area with industrial employment use.
All Agriculture Parcel Area	area_parcel_emp_ag	Parcel area with agricultural employment use.
All Military Parcel Area	area_parcel_emp_military	Parcel area with military employment use.
Residential Parcel Area	area_parcel_res	Total parcel area with residenti use.
Employment Parcel Area	area_parcel_emp	Total parcel area with commercial use.
Mixed Use Parcel Area	area_parcel_mixed_use	Total parcel area with mixed use.
No Use Parcel Area	area_parcel_no_use	Total parcel area with no use.
Net Area	area_parcel	Parcel area of canvas geometr
Area - Development	area_dev_condition	Parcel area available for development. This is the area that will be "painted" in a scenario.
Right-of-Way Area	area_row	Right-of-way area within the canvas geometry, including roads and sidewalks.

Residential Irrigated Area	residential_irrigated_area	Irrigated outdoor area associated with residential buildings.
Commercial Irrigated Area	commercial_irrigated_area	Irrigated outdoor area associated with commercial buildings, not including agricultural irrigation.
Population in Group Quarters	pop_groupquarter	People that reside in group quarters, such as dormitories and correctional facilities.
Modified from Original	uf_is_painted	Indicates with a "yes" or "no" value whether a feature has been painted or gridded in any way.
Modified: Gridded	uf_paint_split	Indicates with a "yes" or "no" value whether a feature has been created using a gridding operation.
Modified: Type Paint	uf_paint_built_form	Indicates with a "yes" or "no" value whether a feature has been painted to have a new Building or Place Type name. This can apply whether the feature has been painted by typ or attribute, and regardless of whether the base residential ar employment values have been modified.
Modified: Employment Attributes	uf_paint_direct_employment	Indicates with a "yes" or "no" value whether a feature has been painted by attribute to set employment values, including jobs and non-residential building area.
Modified: Residential Attributes	uf_paint_direct_residential	Indicates with a "yes" or "no" value whether a feature has been painted by attribute to set residential values, including dwelling units and residential building area.

Appendix B: Source-Specific Modifications by County

State	County	Unreliable Building Units	Overtyped Apartments	Overtyped Single Family	Attached Single Family Applied
Alabama	Morgan County	X			
Alaska	Kenai Peninsula		X		
	Matanuska-Susitna Borough	X			
California	Madera County		X		
	Nevada County		X		
Florida	Charlotte County	X			
	Walton County		X		
Georgia	Bartow County		X	X	
	Floyd County	X			
Michigan	Livingston County		X		
Minnesota	Olmsted County		X	X	
Otter Tail County		X			
	Sherburne County		X	X	
	Winona County		X		
	Wright County		X		
Mississippi	Pearl River County			X	

New Hampshire	Belknap County		X		
New York	Columbia County		X		
	Dutchess County		X		
	King County				X
	Putnam County		X		
	Sullivan County		X		
	Tioga County		X		
	Ulster County		X		
North Carolina	Buncombe County		X		
	Caldwell County		X	X	
	Craven County	X			
	Davidson County		X	X	
	Iredell County		X	X	
	Pender County		X		
	Wayne County		X	X	
	Wilson County		X	X	
Oklahoma	Canadian County		X	X	
	Wagoner County		X	X	
Oregon	Umatilla County	X			

Texas	Angelina County	X			
	Bastrop County	X			
	Brazoria County	X			
	Grayson County	X			
	Hardin County	X			
	Hunt County	X			
Utah	Washington County	X			
Virginia	Campbell County		X	X	
	Fauquier County		X	X	
	Franklin County		X	X	
	Henry County		X	X	
	Rockingham County		X	X	
	Spotsylvania County		X	X	
Washington	Grant County	X			
	Skagit County		X	X	

Appendix C: NAICS Code Crosswalk to UrbanFootprint Employment Categories

The Census Longitudinal Employer-Household Dynamics (LEHD) Origin-Destination Employment Statistics (LODES) Workplace Area Characteristics (WAC) dataset accounts for employment using North American Industry Classification System (NAICS) codes, which are mapped to the employment subsectors used in UrbanFootprint as follows.

UrbanFootprint Canvas Employment Category	LODES WAC Field Code	NAICS Sector
Extraction Employment (emp_extraction)	CNS01	Number of jobs in NAICS secto 21 (Mining, Quarrying, and Oil and Gas Extraction)
Agriculture Employment (emp_agriculture)	CNS02	Number of jobs in NAICS secto 11 (Agriculture, Forestry, Fishir and Hunting)
Utilities Employment (emp_utilities)	CNS03	Number of jobs in NAICS secto 22 (Utilities)
Construction Employment (emp_construction)	CNS04	Number of jobs in NAICS secto 23 (Construction)
Manufacturing Employment (emp_manufacturing)	CNS05	Number of jobs in NAICS secto 31-33 (Manufacturing)
Wholesale Employment (emp_wholesale)	CNS06	Number of jobs in NAICS secto 42 (Wholesale Trade)
Retail Services Employment (emp_retail_services)	CNS07	Number of jobs in NAICS secto 44-45 (Retail Trade)
Transport Warehousing Employment (emp_transport_warehousing)	CNS08	Number of jobs in NAICS secto 48-49 (Transportation and Warehousing)
Office Services Employment[1] (emp_office_services)	CNS09	Number of jobs in NAICS secto 51 (Information)
	CNS10	Number of jobs in NAICS secto 52 (Finance and Insurance)
	CNS11	Number of jobs in NAICS secto 53 (Real Estate and Rental an Leasing)
	CNS12	Number of jobs in NAICS secto 54 (Professional, Scientific, an Technical Services)

	CNS13	Number of jobs in NAICS secto 55 (Management of Companie and Enterprises)
	CNS14	Number of jobs in NAICS secto 56 (Administrative and Suppor and Waste Management and Remediation Services)
Education Employment (emp_education)	CNS15	Number of jobs in NAICS secto 61 (Educational Services)
Medical Services Employment (emp_medical_services)	CNS16	Number of jobs in NAICS secto 62 (Health Care and Social Assistance)
Arts & Entertainment Employment (emp_arts_entertainment)	CNS17	Number of jobs in NAICS secto 71 (Arts, Entertainment, and Recreation)
Restaurant Employment[2] (emp_restaurant)	CNS18	Number of jobs in NAICS secto 721 (Accommodation)
Accommodation Employment[3] (emp_accommodation)	CNS18	Number of jobs in NAICS secto 722 (Food Services)
Other Services Employment (emp_other_services)	CNS19	Number of jobs in NAICS secto 81 (Other Services [except Public Administration])
Public Administration Employment (emp_public_admin)	CNS20	Number of jobs in NAICS secto 92 (Public Administration)
Military Employment[4] (emp_military)	-	Number of jobs in NAICS secto 9281 (National Security)

[1] *emp_office_services* is the sum of employment counts for NAICS sectors 51 - 56.

[2] Restaurant and Accommodation employees are grouped into the same two-digit NAICS sector. Accommodation and Food Services employees are assumed to be equally split between restaurant and accommodation sectors for the purpose of separating these sectors for the default block-level canvas.

[3] Restaurant and Accommodation employees are grouped into the same two-digit NAICS sector. Accommodation and Food Services employees are assumed to be equally split between restaurant and accommodation sectors for the purpose of separating these sectors for the default block-level canvas.

[4] Four-digit NAICS codes are not available in the census LODES dataset, making it difficult to differentiate military employees from general public administration employees. emp_military therefore defaults to 0 in the block-level canvas. When better NAICS employment data or land use codes are available, military employees should be separated from emp_public_admin.