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MARKET DEMAND STUDY

2024-2045

Prepared for the City of San Carlos

August 2024

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Executive Summary

This Market Demand Study ("Study") was prepared by RSG to assist the City of San Carlos ("City") with making informed decisions on the land use development projections for the City's General Plan through the year 2045.

Findings

The Metropolitan Transportation Commission ("MTC") and Association of Bay Area Governments ("ABAG") prepared the Plan Bay Area 2050 report, a 30-year long-range plan projecting household, population, and job growth throughout the nine-county Bay Area region for the purpose of developing strategies for growing housing inventory, economic activity, transportation, and the environment. Table 1 presents the current and projected population, households and jobs in the nine-county Bay Area region and Table 2 outlines the present households and jobs for the South San Mateo sub-county level.

TABLE 1: REGIONAL POPULATION, HOUSEHOLDS, AND JOBS

	Present	2050 Total	Total Growth	Growth Rate
Regional Population	7,800,000	10,300,000	2,500,000	0.8%
Regional Households	2,857,000	3,794,000	937,000	0.8%
Regional Jobs	4,005,000	5,408,000	1,403,000	0.9%

Sources: Plan Bay Area 2050 (October 2021), Draft Blueprint Compendium (June 2024), RSG

TABLE 2: SOUTH SAN MATEO SUB-COUNTY LEVEL HOUSEHOLDS AND JOBS

	Present	2050 Total	Total Growth	Growth Rate
South San Mateo Households	88,000	108,000	20,000	0.8%
South San Mateo Jobs	168,000	254,000	86,000	1.5%

Sources: Draft Blueprint Compendium (June 2024), RSG

RSG's research indicates San Carlos currently has about 2.1 million square feet of existing research and development ("R&D") space, 1.5 million square feet of office space, 4.7 million square feet of industrial space, 1.5 million square feet of existing commercial space, and 12,385 housing units.[1] RSG's analysis of projects currently under construction, developments approved by the City, and projects under review indicates the City's development pipeline includes an estimated 3.2 million square feet of R&D space, 18,000 square feet of office space, and 197,000 square feet of commercial space.[2]

RSG projects San Carlos will have demand for R&D, office, industrial, and commercial space[3] through 2045. Demand for commercial is moderate in comparison to the forecasted housing

[1] Source: CoStar, 2024 Q1

[2] Source: City of San Carlos, Department of Community Development, Planning – Development Projects

[3] Note: Refer to Appendix 1 for definitions of the key terms used in this Study.

allocation and demand for R&D, office, and industrial space. RSG's residential demand is based on the City's current RHNA and estimates of what future allocations may be in future RHNA cycles through the year 2045.

Market-based demand may vary from General Plan buildout capacity. For market-based demand to materialize into constructed and occupied buildings, owner interest, ownership concentration (land assembly), access to capital, capital market conditions, local and nearby land use policies, and real estate market conditions must be present along with demand from users for such real estate.

Market-based demand is a combination of demand generated by the growth of businesses and populations in the market area, and demand generated because of functional and economic obsolescence and the replacement of commercial space over time.

- **Demand generated by the growth of local businesses and populations:** Through 2045, we expect the broader economy to grow, which will provide opportunities for businesses and populations in San Carlos and the surrounding region. As a result of this growth and the expansion of business activities in the local economy, businesses will require new commercial space. This alignment of forces will create the economic incentive necessary for new development to occur and local landowners will either develop properties to accommodate new demand, or the demand will materialize elsewhere.

- **Demand generated as a result of functional and economic obsolescence and the replacement of commercial space over time:** Businesses currently occupy existing real estate in San Carlos and the region. Functional obsolescence is a decline in utility of real estate and can occur because of many external factors, including changes to business practices, technological advancements, regulatory changes, tenant preferences, environmental conditions, or general wear-and-tear. Economic obsolescence includes decline in value of real estate due to external factors such as neighborhood decline, changes in market demand, economic downturns, and technological changes.

  RSG assumes developers will replace a portion of existing real estate in the region annually, and as redevelopment occurs, we expect San Carlos to capture a portion of the new development. RSG does not consider the new demand generated from functional and economic obsolescence as net new demand, but rather consider it related to the displacement of existing businesses. Displacement can occur when the economics of real estate naturally influence property use within the bounds of the zoning regulations and other local policy.

Functional and economic obsolescence can materialize in different forms – without certain design features or amenities, or because of economic or consumer changes - real estate can become less favorable to potential tenants, making it either functionally or economically obsolete. To illustrate this point, RSG formulated the following examples of how each of the non-residential real estate asset types analyzed within this Study has changed in the recent decades:

- **R&D:** Life science tenants seek out R&D spaces that have higher ceilings, floorplates with higher load capacities, modern ventilation and air filtration systems, and on-site amenities such as dining, fitness, or childcare centers. Without these features, property owners may find challenges leasing buildings because prospective tenants require these features to accommodate modern equipment and attract premium talent.

- **Office:** Office space has undergone several evolutions over the last century, and tenants now demand modern offices with flexible and collaborative spaces, open floorplan workspaces, technological integration, sustainable office design, health and wellbeing (such as natural light and ergonomic furniture), community and cultural spaces, and on-site amenities.

- **Industrial:** The impacts of ecommerce, consumer preferences, and globalization has affected how developers built out industrial properties in recent decades. To attract modern industrial tenants, developers and property owners are embracing design features for modern logistics spaces, such as higher ceiling clear-heights and increasing utility demands. Modern industrial tenants have adopted automation and advanced logistics systems, which factor into the importance of last-mile delivery, emphasize supply chain resilience, and shift manufacturing to nearshoring.

- **Commercial:** The impact of ecommerce has shaped the way that developers have positioned new commercial properties in recent decades. Most importantly, developers and owners have positioned and repositioned commercial assets to enhance and focus on experiential environments. Developers today may create experiential retail by embracing mixed-use communities, combining retail with entertainment and leisure, emphasizing food and beverage, creating engaging architectural and landscape designs, fostering community engagement, and adopting omnichannel strategies.

RSG's analysis combines demand generated by local economic growth and functional and economic obsolescence. Taking into account projects under construction, entitled, and anticipated additional demand between 2024 and 2025, RSG's market-based demand analysis indicates San Carlos may experience demand for up to 5.6 million square feet of new R&D space, 324,000 square feet of new office space, 144,000 square feet of new industrial space, 262,000 square feet of new commercial space, and 8,300 new housing units,

RSG's demand forecast combines the existing square footage, forecasted demand generated by employment growth and obsolescence, and projects in the City's development pipeline to estimate potential total buildout in 2045. **RSG's estimated demand forecast includes:**

- **7.7 million square feet of R&D space**, or about 48 percent of total non-residential real estate square footage in San Carlos in 2045
- **1.8 million square feet of office space**, which is about 11 percent of the total non-residential real estate square footage in San Carlos in 2045
- **4.8 million square feet of industrial space**, which is about 30 percent of total non-residential real estate square footage in San Carlos in 2045

- **1.7 million square feet of commercial space**, representing about 11 percent of the total non-residential real estate square footage in San Carlos in 2045
- **20,686 housing units**, a 67 percent increase over the total housing units in San Carlos in 2024

Error! Reference source not found. summarizes RSG's demand analysis.

TABLE 3: DEMAND FORECAST

Non-Residential Square Feet	2024-2045 Total	
Existing R&D Square Feet	2,099,411	
R&D Square Feet Demand	*5,614,045*	
R&D Pipeline	*3,224,115*	
R&D Demand Net of Pipeline	2,389,930	
Potential Total R&D Buildout	**7,713,456**	***48%***
Existing Office Square Feet	1,462,501	
Office Square Feet Demand	*323,862*	
Office Pipeline	*17,847*	
Office Demand Net of Pipeline	306,015	
Potential Total Office Buildout	**1,786,363**	***11%***
Existing Industrial Square Feet	4,703,321	
Industrial Square Feet Demand	*143,916*	
Industrial Pipeline /1	*(695,318)*	
Industrial Demand Net of Pipeline	839,234	
Potential Total Industrial Buildout	**4,847,237**	***30%***
Existing Commercial Square Feet	1,510,979	
Commercial Square Feet Demand	*262,262*	
Commercial Pipeline	*197,031*	
Commercial Demand Net of Pipeline	65,231	
Potential Total Commercial Buildout	**1,773,241**	***11%***
Total Potential Non-Residential Square Feet	**16,120,298**	***100%***

Residential Dwelling Units	2024-2045 Total
Existing Dwelling Units	12,385
New Dwelling Units	8,301
Single Family Units	*419*
Multifamily Units	*7,882*
Potential Total Residential Dwelling Units	**20,686**

Sources: City of San Carlos, Moodys Analytics, ESRI Business Analyst Online, Claritas, CoStar, US Census Bureau, California Department of Finance, RSG

/1 Industrial Pipeline is a negative number because the pipeline of commercial, office, and R&D projects is expected to replace the existing square footage of industrial space, resulting in a net increase in demand. Presently, the San Carlos industrial real estate market is stabilized, which indicates that any industrial properties removed from the market as a result of the land being converted to any other use will increase demand for industrial space.

1. Purpose and Forecast Approach

Purpose

The City and their consultant, PlaceWorks, are preparing an update to the City's current General Plan to reset the land use development projections to the year 2045. The update will guide long term planning activities over the next two decades (2024-2045) and includes development projections for housing, commercial, industrial and office uses to the year 2045.

As part of this effort, RSG prepared a citywide **market-based demand forecast** to serve as a reference point, and to provide context for future potential planning assumptions and policies.

This Study presents RSG's market demand forecast, including our approach, methodology and assumptions supporting the forecast of the market demand for new housing, commercial, office, research and development, and industrial space citywide.

Approach

RSG compiled existing conditions and regional growth projections for housing, population, and jobs from the Association of Bay Area Governments ("ABAG"), Metropolitan Transportation Commission ("MTC"), California Department of Finance ("DOF"), California Employment Development Department ("EDD"), ESRI Business Analyst Online, and Moody's Analytics. RSG considered existing buildout and market conditions for housing, commercial, office, research and development, and industrial land uses using Costar market reports, and commercial business performance using Claritas and California Department of Tax and Fee Administration taxable sales data.

RSG's analysis allocates regional market-based demand to San Carlos using a local capture rate. The capture rates are based on RSG's evaluation of a variety of metrics that are indicative of future capture rates. For example, historical development patterns and the current pipeline of projects in the region can be indicative of where future development may occur. RSG derived capture metrics from Costar, ESRI Business Analyst Online, and the City's Housing Element.

RSG's analysis estimates the demand that San Carlos may capture as a result of displacement of existing businesses due to functional and economic obsolescence. RSG analyzed Costar data for historical rates of R&D, office, industrial, and commercial building demolitions in the region. RSG also evaluated building ages and vacancy rates of older buildings in the region as indicators of potential physical deterioration or economic obsolescence. The regional demand generated by functional and economic obsolescence was also allocated locally using capture rates.

RSG also relied on its experience working in San Carlos and on the Peninsula. In the last 5-years, San Carlos has seen a relatively high level of proposals for development of R&D real estate targeting life science tenants. The current pipeline of R&D projects will increase the total inventory R&D square footage by about 150 percent, from about 2.1 million square feet to about 5.3 million square feet. Most of the proposed projects involve the conversion of land developed for industrial uses to Class A R&D space.

Methodology

RSG's analysis begins with existing square footage in San Carlos, which includes about 2.1 million square feet of R&D, 1.5 million square feet of office, 4.7 million square feet of industrial, and 1.5 million square feet of commercial. RSG subtracted the square footage associated with the projects in the City's current development pipeline from the estimated market-based demand, resulting in the demand net of pipeline projects. For development projects in the City's pipeline that will result in demolition of existing space, RSG assumed the demand for the existing space would be additive to demand generated by new employment, and functional and economic obsolescence. RSG's estimate of the potential total buildout for each land use category includes existing square footage, market-based demand, and projects in the City's development pipeline. The City's development pipeline, presented in Table 4, is based on information published to the City's website in January 2024 with additional input from City staff during the first quarter of 2024.

TABLE 4: SUMMARY OF PIPELINE PROJECTS BY TYPE

Development Type	Under Construction	Approved	Under Review	Total
R&D (SF)	315,780	1,154,201	1,754,134	3,224,115
Office (SF)	17,847	-	-	17,847
Industrial (SF)	-	-	-	-
Commercial (SF)	-	150,000	-	150,000
Total SF	**333,627**	**1,304,201**	**1,754,134**	**3,391,962**
Multifamily (Units)	50	279	-	329
Single Family (Units)	-	-	-	-
Total Units	**50**	**279**	**-**	**329**

Source: City of San Carlos (2024 Q1)

RSG used housing, population, and job projections to estimate demand for R&D, office, industrial, and commercial square footage in San Carlos. In preparing this Study, RSG referenced housing, population, and job projections prepared by DOF (population projections), Moody's (job projections), and ABAG/MTC (population, housing, and jobs). While economic conditions - including but not limited to - economic growth, affect all real estate demand, the key economic drivers vary for each land use category. For example:

- The R&D, office, and industrial demand analysis aligns demand for R&D, office, and industrial real estate with growth of the job market, projected business growth, market conditions, and the local economy.
- The commercial retail demand analysis assumes that demand for commercial retail space in San Carlos is correlated with the number of new housing units built.
- Residential demand is typically a function of job growth and corresponding wages in a region as well as migration patterns and household changes.

The sections that follow provide an overview of the methodology and key assumptions:

Assumptions

Research and Development

Beginning with the founding of Genentech in 1976[4] and with its 27-acre expansion in the early-2000's in South San Francisco[5], research and development has become an increasingly important real estate asset class on the Peninsula. The Bay Area - with abundant talent, proximity to world-class research universities, and access to capital - emerged as one of the most prominent life science industry clusters in recent years. The Bay Area is among the largest life science clusters in the United States, and has outpaced other life science clusters, such as Boston and San Diego, with the highest life science employment growth rate between 2019 and 2022. The Peninsula represents the largest submarket for life science space in the Bay Area.[6]

RSG's demand forecast for R&D space is based on underlying job growth in the San Mateo County. Since 2020, industries that occupy R&D space have added over 19,000 jobs in San Mateo County, reflecting an 18.7 percent increase. RSG determined the industries that occupy R&D space include professional, scientific, and technical services, health care, administrative, support, waste management, remediation services, food and chemical manufacturing, and computer and electronic products.[7] Additionally, RSG found there are some industries that overlap multiple land uses, specifically R&D, office, and industrial, as illustrated in Appendix 4.

RSG's forecast considered the demand for R&D real estate resulting from both growth in jobs and functional and economic obsolescence over time.

RSG derived annual job growth figures from Moody's Analytics economic forecasts for San Mateo County. RSG adjusted the job forecasts to account for the proportion of employees that do not use R&D space, work-from-home trends, and square footage per employee by industry. Table 5 illustrates RSG's analysis of job growth and the resulting demand for R&D space in year 2024 as an example.

TABLE 5: R&D DEMAND GENERATED BY JOB GROWTH IN 2024, SAN MATEO COUNTY

Industry	2024 Job Growth	% Using R&D Space	2024 Jobs Using R&D Space	R&D SF per Job	**2024 R&D SF Demand**
Professional, Scientific, Technical Consulting	880	92%	811	384	**311,071**
Administrative, Support, Waste Mgmt, & Remediation Svs	(579)	18%	(107)	384	**(40,954)**
Miscellaneous Manufacturing	10	39%	4	561	**2,096**
Health Care and Social Assistance	397	61%	241	384	**92,413**
Chemical Manufacturing	37	85%	31	561	**17,619**
Computer and Electronic Products Manufacturing	309	64%	197	230	**45,268**
Food Manufacturing	195	46%	89	561	**50,024**
Net Total	**1,249**		**1,266**		**477,538**

Sources: Moody's Analytics, Costar, San Mateo County All Together Better, RSG

RSG's forecast also accounts for functional and economic obsolescence. RSG evaluated office space Countywide, including the age of existing inventory and the vacancy rates associated with

[4] Source: City of South San Francisco, "Biotech in SSF"

[5] Source: EPA, "Genentech Development in South San Francisco"

[6] Source: CBRE "San Francisco Bay Area Life Sciences" 2024 Q1

[7] Note: For a complete list of industry sectors, refer to Appendix 4.

buildings by age. Based on an analysis of building demolition in the region over the last 10 years, RSG's analysis of historical demolition rates indicates developers and property owners replace about 0.77 percent of R&D buildings each year due to functional and economic obsolescence. Table 6 presents RSG's estimate of R&D demand as a result of functional and economic obsolescence in year 2024.

TABLE 6: R&D DEMAND GENERATED BY OBSOLESCENCE IN 2024, SAN MATEO COUNTY

Industry	2024 Total Jobs	% Using R&D Space	Obsolescence Rate	R&D SF per Job	**2024 R&D SF Demand**
Professional, Scientific, Technical Consulting	67,393	92%	0.77%	384	**183,230**
Administrative, Support, Waste Mgmt, & Remediation Svs	25,672	18%	0.77%	384	**13,960**
Miscellaneous Manufacturing	1,634	39%	0.77%	561	**2,726**
Health Care and Social Assistance	42,902	61%	0.77%	384	**76,848**
Chemical Manufacturing	10,902	85%	0.77%	561	**39,871**
Computer and Electronic Products Manufacturing	6,079	64%	0.77%	230	**6,837**
Food Manufacturing	2,715	46%	0.77%	561	**5,343**
Net Total	**157,297**				**328,814**

Sources: Moody's Analytics, Costar, San Mateo County All Together Better, RSG

Finally, RSG adjusted the combined Countywide demand for R&D space based on a local capture rate. The capture rate represents RSG's estimate of San Carlos' share of Countywide demand. A variety of factors can impact the capture rate, such as land availability, historical development patterns, and local business cluster effects. To estimate the capture rate, RSG collected data for current households, historical housing growth, projected household growth, future apartment pipeline, RHNA allocations, existing office inventory, existing Class A office inventory, future office pipeline, and employment for each city in San Mateo County. Future office supply is the key capture metric affecting the capture rate for R&D space in San Carlos. When selecting a capture rate, RSG applied heavier weighting to future office supply. RSG concluded that San Carlos' capture rate for new R&D development is 44 percent of Countywide development.

RSG's demand analysis includes job forecasts and estimates of functional and economic obsolescence through 2045. The City's development pipeline includes projects that will be built out between 2024 and 2034. RSG combined the market-based demand and development pipeline in an aggregated buildout forecast. Table 7 presents the aggregated demand generated by new employment growth and functional and economic obsolescence.

TABLE 7: AGGREGATED R&D BUILDOUT FORECAST, SAN CARLOS

	2024-2029	2030-2034	2035-2039	2040-2045	2024-2045 Total
Existing R&D Square Feet					2,099,411
R&D Square Feet Demand	2,743,939	1,249,489	887,695	732,923	5,614,045
R&D Pipeline	2,042,655	1,181,460	0	0	3,224,115
R&D Demand Net of Pipeline	701,284	68,029	887,695	732,923	2,389,930
Potential Total R&D Buildout					**7,713,456**

RSG's forecast indicates there will be demand for 5.6 million square feet of R&D space in San Carlos through 2045. The City's current development pipeline includes about 3.2 million square

feet of R&D space, which reduces the forecasted demand to about 2.4 million square feet through 2045.

San Carlos currently has about 2.1 million square feet of operating R&D space. If the forecasted demand is built out, San Carlos will have about 7.7 million square feet of R&D space, which will represent about 48 percent of the projected non-residential square footage in 2045.

Office

Prior to the COVID-19 pandemic, and tracing back to the Great Financial Crisis, the Peninsula office market enjoyed steady growth, low vacancy rates, and consistent deliveries of new office space to the market.[8] At the beginning of 2024, about 21.7 percent of Class A and B office space on the Peninsula was vacant, which is comparatively better than the greater Bay Area (25.1 percent) but is well-above the long-term market average vacancy rate.[9] At the end of 2019, the office vacancy rate in the San Francisco Market Area was 6.0 percent, which was among the lowest vacancy rates for major U.S. metropolitan areas.[10]

The office market is showing some positive trends: leasing volume - led by artificial intelligence companies - has improved, and key indicators of activity and the "return to office" have shown slight improvements in early 2024. Despite these improvements, continued tenant downsizing is expected to cause vacancies to rise and rental rates to decline in the year ahead.

RSG derived market-based demand for office space from job growth in San Mateo County. While office-using job growth has been strong in recent years - growing by about 18 percent since 2020 - the forecasted job growth for office-using tenants is expected to moderate going forward. From 2024 to 2030, Moody's Analytics forecasts less than 2,000 new office jobs in San Mateo County, reflecting a 0.3 percent annual growth rate.

RSG assigned key growing industry segments to the office real estate sector, including finance and insurance, real estate, management of companies and enterprises, and administrative, support, waste management, and remediation services, internet service providers, web search portals, and data processing services, other information services, and education. RSG also found declining industry segments occupying office real estate, such as newspaper, publishers, motion picture and sound recording, broadcasting (excluding internet), and telecommunications. Some industry segments RSG assigned to the office sector have overlap with the R&D and industrial real estate categories. Appendix 4 provides a complete list of industry sectors associated with office real estate.

RSG estimated office demand resulting from the incremental growth and functional and economic obsolescence through 2045.

RSG derived annual job growth from Moody's Analytics economic forecasts for San Mateo County. RSG adjusted the job forecasts to account for the proportion of employees that do not use office space (such as small independent owner-operator businesses), work-from-home trends, and

[8] Source: Costar "San Francisco Market Area" August 7, 2024
[9] Source: CBRE "Bay Area Office Snapshot" 2024 Q1
[10] Source: Costar "San Francisco Market Area" May 15, 2024

square footage per employee by industry, which reduces the overall demand. Table 8 illustrates RSG's analysis of job growth and the resulting demand for office space in San Mateo County in 2024 as an example.

TABLE 8: OFFICE DEMAND GENERATED BY JOB GROWTH IN 2024, SAN MATEO COUNTY

Industry	2024 Job Growth	% Using Office Space	2024 Jobs Using Office Space	Office SF per Job	**2024 Office SF Demand**
Corporate	(473)	72%	(340)	240	**(81,594)**
Information	747	78%	580	260	**150,921**
Education and Health Services	287	85%	243	240	**58,355**
Flex	155	18%	28	230	**6,499**
Net Total	**717**		**512**		**134,181**

Sources: Moody's Analytics, Costar, San Mateo County All Together Better, RSG

RSG also factored in the effects of functional and economic obsolescence. RSG evaluated office space Countywide, including the age of existing inventory and the vacancy rates associated with buildings by age. RSG estimates that 0.77 percent of office buildings are replaced each year due to functional and economic obsolescence. Table 9 presents RSG's estimate of Countywide office demand generated by functional and economic obsolescence in 2024.

TABLE 9: OFFICE DEMAND GENERATED BY OBSOLESCENCE IN 2024, SAN MATEO COUNTY

Industry	2024 Total Jobs	% Using Office Space	Obsolescence Rate	Office SF per Job	**2024 Office SF Demand**
Corporate	55,557	72%	0.77%	240	**80,753**
Information	62,517	78%	0.77%	260	**13,960**
Education and Health Services	13,325	85%	0.77%	240	**76,848**
Flex	9,730	18%	0.77%	230	**39,871**
Net Total	**141,129**				**211,432**

Sources: Moody's Analytics, Costar, San Mateo County All Together Better, RSG

Lastly, RSG adjusted the combined Countywide office demand based on a local capture rate. RSG developed the capture rate and based it on the share of current households, historical housing growth, projected household growth, future apartment pipeline, RHNA allocations, existing office inventory, existing Class A office inventory, future office pipeline, and employment for each city in San Mateo County. The key capture metrics affecting future office demand include existing office inventory, existing Class A office inventory, and the pipeline of future office buildings. RSG weighed the key capture metrics more heavily when selecting a capture rate. The capture rate for new office development in San Carlos is 5 percent of Countywide growth.

RSG aggregated the demand generated by new employment growth and functional and economic obsolescence through 2045. Projects within the City's development pipeline are expected to be built out between 2024 and 2030. RSG combined the market-based demand and development pipeline in an aggregated buildout forecast. Table 10 illustrates the forecasted office demand in San Carlos.

TABLE 10: AGGREGATED OFFICE BUILDOUT FORECAST, SAN CARLOS

	2024-2029	2030-2034	2035-2039	2040-2045	2024-2045 Total
Existing Office Square Feet					1,462,501
Office Square Feet Demand	143,525	67,051	56,693	56,594	323,862
Office Pipeline	17,847	0	0	0	17,847
Office Demand Net of Pipeline	125,678	67,051	56,693	56,594	306,015
Potential Total Office Buildout					**1,786,363**

RSG's forecast suggests there will be demand for almost 324,000 square feet of office space in San Carlos through 2045. The City's current development pipeline includes about 18,000 square feet of office, which, if built, will serve to fulfill part of the total demand. The resulting demand net of the current development pipeline is about 306,000 square feet of office space.

San Carlos currently has about 1.5 million square feet of office space. The inventory of office space may increase to about 1.8 million square feet if the forecasted demand is met by new development. If built, the buildout potential would represent about 13 percent of non-residential square footage in San Carlos.

Industrial

With broader economic and global trends working in favor of industrial real estate, such as the importance of last-mile delivery and nearshoring of manufacturing, the industrial real estate market has remained in better condition than other real estate asset types through recent years. The industrial market in San Carlos currently has a stabilized 3.0 percent vacancy rate and $2.50 per square foot per month lease rate.[11] The industrial market on the Peninsula has not experienced the same strength and possesses an 11.3 percent vacancy rate. This rate is largely attributed to the pull back in demand for research and development-oriented industrial space. The industrial market is not immune to broader economic trends, but has weathered inflation, work-from-home trends, interest rate increases, and banking turmoil better than the office market.

RSG's industrial demand forecast is based on job growth in San Mateo County. Growing industrial-using industry segments include non-store retailers, food manufacturing, computer and electronic product manufacturing, wholesale electronic markets and agents and brokers, and transportation and warehousing. Moody's Analytics forecasts the total employment for most other industrial-using industry segments to either decline or remain relatively unchanged. RSG determined the largest industrial-using industry segments include construction-related users, specialty trade contractors, chemical manufacturing, wholesalers of durable and nondurable goods, and transportation and warehousing. As illustrated in Appendix 4, RSG found there is an overlap between some industry segments utilizing both industrial properties and R&D real estate, primarily chemical, computer and electronics products, and other manufacturing.

RSG estimated the demand for industrial space resulting from the growth of industrial-using industries and functional and economic obsolescence through 2045. RSG utilized Moody's

[11] Source: Costar "San Carlos Industrial and Flex-Industrial Data" May 16, 2024

Analytics economic forecasts for San Mateo County for job growth forecasts. RSG adjusted the job forecasts by an assumed percentage of employees that use industrial space, work-from-home trends, and square footage per employee by industry.

RSG found the square foot per job varied significantly by industry. It is RSG's understanding that industrial space utilized by the construction industry, for example, will have lower square feet per job because most of the labor occurs at a location that differs from the business address. Furthermore, RSG understands that for transportation, warehousing, and utilities, a large portion of the industrial space occupied by businesses in this sector is dedicated to the storage of raw materials, meaning there are fewer employees.

Table 11 presents our projections of new industrial square footage in the County for 2024

TABLE 11: INDUSTRIAL DEMAND GENERATED BY JOB GROWTH IN 2024, SAN MATEO COUNTY

Industry	2024 Job Growth	% Using Industrial Space	2024 Jobs Using Industrial Space	Industrial SF per Job	**2024 Industrial SF Demand**
Construction	(125)	91.8%	(115)	190	**(21,821)**
Manufacturing	331	34.7%	87	561	**48,801**
Wholesale Trade	73	78.3%	58	233	**13,407**
Transportation, Warehousing, and Utilities	502	42.2%	231	428	**98,971**
Net Total	**781**		**261**		**139,359**

Sources: Moody's Analytics, Costar, San Mateo County All Together Better, RSG

Functional and economic obsolescence will also increase demand for new industrial space due to the evolution of building features and amenities required by industrial tenants. RSG evaluated industrial space Countywide, including the age of existing inventory and the vacancy rates associated with buildings by age. RSG estimates that functional and economic obsolescence requires that property owners replace about 1.11 percent of industrial buildings annually. Table 12 presents RSG's estimate of Countywide industrial demand as a result of functional and economic obsolescence.

TABLE 12: INDUSTRIAL DEMAND GENERATED BY OBSOLESCENCE IN 2024, SAN MATEO COUNTY

Industry	2024 Total Jobs	% Using Industrial Space	Obsolescence Rate	Industrial SF per Job	**2024 Industrial SF Demand**
Construction	19,783	91.8%	1.11%	190	**46,062**
Manufacturing	26,631	30.4%	1.11%	561	**50,498**
Wholesale Trade	11,413	78.3%	1.11%	233	**23,187**
Transportation, Warehousing, and Utilities	38,363	90.5%	1.11%	428	**167,250**
Net Total	**96,190**				**286,998**

Sources: Moody's Analytics, Costar, San Mateo County All Together Better, RSG

RSG adjusted the Countywide office demand based on a local capture rate to estimate the demand for industrial space in San Carlos through 2045. The capture rate for industrial real estate is based on current households, projected household growth, industrial inventory, industrial development over the last 5 and 10 years, housing unit growth, employment, future multifamily development pipeline, future industrial development pipeline, and RHNA allocations. The key capture metrics for industrial demand are industrial inventory, industrial development history, and industrial development pipeline. Key capture metrics were weighted when selecting a capture rate for San

Carlos. Based on the key capture metrics, RSG concluded the industrial capture rate for San Carlos is 3.0 percent of Countywide growth.

RSG's demand analysis combines demand generated by job growth, functional and economic obsolescence through 2045. Between 2024 and 2034, RSG expects the City's development pipeline to be built out. RSG aggregated the adjusted demand generated by new employment growth, and functional and economic obsolescence with the City's development pipeline, as shown in Table 13.

TABLE 13: AGGREGATED INDUSTRIAL BUILDOUT FORECAST, SAN CARLOS

	2024-2029	2030-2034	2035-2039	2040-2045	2024-2045 Total
Existing Industrial Square Feet					4,703,321
Industrial Square Feet Demand	38,551	28,192	32,260	44,913	143,916
Industrial Pipeline	(695,318)	0	0	0	(695,318)
Industrial Demand Net of Pipeline	733,869	28,192	32,260	44,913	839,234
Potential Total Industrial Buildout					**4,847,237**

The industrial demand forecast suggests there will be demand for about 144,000 square feet of industrial space through 2045. Additionally, about 695,000 square feet of existing industrial space is expected to be converted to other uses during the forecast period which, in a stabilized real estate market, will increase demand for industrial space, as tenants are displaced with very little vacant space to move into.

Commercial

From the beginning of 2015 through the first quarter of 2020, commercial real estate rental rates in San Carlos experienced average annual growth of about 3.0 percent. However, from 2020 Q2 to 2024 Q2, commercial rental rates have grown at just 0.2 percent each year. Despite a 2 percent vacancy rate, similar to other markets, commercial real estate in San Carlos has struggled since the beginning of the pandemic. Also, broader market trends have contributed to this challenge over the years. For instance, the ongoing transition from brick-and-mortar shopping to online shopping has affected commercial real estate's appeal as an attractive real estate class for investors.

The commercial land use category includes retail, restaurant, and hospitality real estate. RSG estimated the demand for commercial space based on a forecast of future housing growth. As developers build new housing units in San Carlos the total household spending will increase proportionally. And as household spending increases, the demand for retail and restaurants in San Carlos will grow. Appendix 4 presents the industries that RSG determined will occupy commercial real estate.

For the purpose of estimating commercial demand, RSG based future household growth on historical and recent development patterns. Based on the City's development pipeline, RSG expects 50 units to be built in 2024, 37 units in 2025, and 242 units to be built in 2026, for an average annual unit growth rate of 0.89 percent. As a result, the housing inventory in San Carlos is expected to grow by about 0.89 percent per year.

Based on the current population per household of 2.61 in San Carlos, each new housing unit will increase the population accordingly. Deriving the population from future housing growth is critical because consumer spending is best represented on a per capita basis. Presently, household spending on commercial services and products is about $16,900 per capita. Based on historical growth rates, RSG forecasted household consumer spending to increase by approximately 1.99 percent per year.

RSG determined the household spending rate based on historical average growth rates. Based on projected housing growth and per capita spending, RSG estimated the spending capacity of the new households in San Carlos, which amounts to almost $6.2 million in the first forecasted year.

To arrive at total forecasted consumer spending, RSG studied the retail sales per square foot for a trade area based on a 15-minute drive-time from Downtown San Carlos. The trade area includes about 10.8 million square feet of commercial space, including spaces currently occupied by businesses in the following subsectors: general merchandise, apparel, furniture, food at home (grocery), food away from home (restaurants), health and personal care, building materials, vehicle maintenance.[12] Collectively, general merchandise, apparel, furniture and other retail is referred to as "GAFO," while food at home, food away from home, health and personal care, building materials, and vehicle maintenance is referred to as "non-GAFO." Among these business categories within the trade area, almost $4.1 billion is spent on an annual basis, meaning that the average sales per square foot is about $375. This figure was separately verified using taxable transaction data from California Department of Tax and Fee Administration.

TABLE 14: EXISTING SALES PER SQUARE FOOT CALCULATION, SAN CARLOS

Business Sales Type	Actual Sales	Existing Retail Space (SF)	Current Retail Sales per SF
GAFO - General Merchandise, Apparel, Furniture, and Others	$1,266,790,305	4,982,489	$254
Non GAFO - Food, Alocohol, Health, Auto Mainenance, and Others	$2,798,318,379	5,856,434	$478
Total (GAFO + Non-GAFO)	**$4,065,108,684**	**10,838,923**	**$375**

Sources: Claritas Reports, Costar, RSG

By applying the $375 sales per square foot to the spending capacity created by new household formations, RSG estimated the supportable gross leasable square footage in San Carlos. This figure was adjusted based on historical and existing leakage trends, and several capture metrics, including the share of households, projected household growth, housing unit growth, future apartment supply, and the City's RHNA allocations. RSG also adjusted the supportable gross leasable square footage by an e-commerce capture rate. E-commerce is a growing proportion of retail sales every year, and RSG expects this trend to continue throughout the forecast period.

RSG summarized the methodology for estimating the commercial demand below.

- When new housing units are built, the population of San Carlos will grow; population growth in San Carlos will generate new per capita spending.
- The new spending divided by the $375 retail sales per square foot as shown in Table 14 approximates the square footage demand generated by new spending.

[12] Note: RSG excluded space dedicated to non-store retailers (e-commerce), motor vehicle, and gasoline sales.

- The square footage demand generated by new spending is reduced based on existing retail leakage patterns, San Carlos' share of the trade area under review, a rate of historical commercial construction, and a capture rate.

This forecast suggests there will be about 262,000 square feet of new commercial space demand in San Carlos through 2045.

The City's current development pipeline includes about 197,000 square feet of commercial space, mostly attributed to the approved hotel at 501 Industrial Road (150,000 square feet) and the ancillary commercial space at the proposed Alexandria properties. After accounting for the pipeline projects, RSG estimates the net total demand is about 65,000 square feet of commercial space that may be absorbed by San Carlos by 2045.

RSG's demand analysis combines square footage demand generated by forecasted job growth and functional and economic obsolescence. RSG also incorporated the City's development pipeline, which RSG expects to be built out between 2024 and 2034. RSG aggregated the demand and pipeline in Table 15.

TABLE 15: AGGREGATED COMMERCIAL BUILDOUT FORECAST, SAN CARLOS

	2024-2029	2030-2034	2035-2039	2040-2045	2024-2045 Total
Existing Commercial Square Feet					1,510,979
Commercial Square Feet Demand	95,608	73,230	59,440	33,984	262,262
Commercial Pipeline	182,988	14,043	0	0	197,031
Commercial Demand Net of Pipeline	(87,380)	59,187	59,440	33,984	65,231
Potential Total Commercial Buildout					**1,773,241**

The commercial demand forecast suggests there will be demand for about 262,000 square feet through 2045. RSG expects about 197,000 square feet to be built out from pipeline projects, meaning the estimated potential total commercial buildout is 1,773,000 square feet.

Residential

The City adopted the 2023-2031 Housing Element in January 2023, and California Department of Housing and Community Development ("HCD") certified the Housing Element in April 2024. HCD makes the regional housing needs determination for each region in California. ABAG distributes the regional housing need determination to jurisdictions in the Bay Area, in a process known as the Regional Housing Needs Allocation ("RHNA"). The Housing Element establishes a Sites Inventory to ensure that the City has sufficient development sites to adequately accommodate the City's RHNA.

RSG assumed the number of housing units produced during the 6th Housing Element Cycle, from 2025 to 2030, would align with the anticipated units built on the housing development sites designated in the City's Housing Element, or 3,173 units.

While HCD, ABAG, and the City have yet to begin analysis for the 7th Housing Element Cycle - which extends from 2031 to 2038 - this Study assumes the City's unit production for the 7th Cycle would be equivalent to the City's 6th Cycle RHNA, or 2,735 units.

Finally, because this Study extends to 2045, a portion of the 8th Housing Element Cycle overlaps with the forecast period. For the 8th Cycle, which extends from 2039 to 2046, RSG assumed the City's unit production would be equivalent to the City's 6th Cycle RHNA, or 2,735 units across the full 8th Cycle. Because the forecast terminates in 2045, RSG's forecast includes a pro rata share of the 6th Cycle RHNA, or 2,393 housing units that are forecasted to be developed between 2039 and 2045. Appendix 5 includes a detailed housing unit forecast through 2045. Table 16 summarizes the forecasted housing production in San Carlos.

TABLE 16: HOUSING PROJECTION SUMMARY / RHNA, SAN CARLOS

RHNA Cycle	Forecast Years	Projected Units Through 2045
6th Cycle (7 Years)	2024-2030	3,173
Assumed 7th Cycle (8 Years)	2031-2038	2,735
Assumed 8th Cycle (7 Years)	2039-2045	2,393
TOTAL		**8,301**

Sources: City of San Carlos, ESRI, ABAG, HCD, RSG

RSG assumed the average household size would be about 2.6 persons per household. When applied to the forecasted new housing development, a total of 8,301 housing units, RSG estimates the population of San Carlos will grow by 21,670, bringing the estimated 2045 population to about 54,000, which represents a 2.4 percent annual growth rate over the forecast period.

DOF published population forecasts for San Mateo County through 2060. DOF's latest forecast, published in March 2024, indicates the County's population is expected to increase slightly from about 727,600 in 2024, to about 728,400 in 2045. Furthermore, DOF population estimates indicate the San Mateo County population declined from about 771,000 in 2020, to 737,600 in 2023, a negative 1.1 percent growth rate. While this Study does not anticipate negative or flat growth for San Carlos, it is worth noting the DOF population projections do not align with HCD's regional housing need determination, despite the first step of HCD's housing planning process including consultation with DOF.

Limitations

The purpose of this Study is to estimate market-based demand for housing and commercial real estate through 2045. This Study is intended to serve as a reference point in the planning process associated with the 2045 General Plan Reset, and to provide context for future planning efforts and policies.

This Study and the contents of the forecast are based on projections, forecasts, and assumptions published by third party public agencies and private businesses. As noted earlier with DOF's population projections and HCD's regional housing needs determination, occasionally there are disagreements between published datasets. RSG made its best effort to consider each perspective and discussed discrepancies with City staff and PlaceWorks prior to finalizing the forecast and this Study.

Further, most economic projections, forecasts, and assumptions are not as geographically precise as we need to be in this Study. Most projections, forecasts, and assumptions are based on County-

level, regional, or Statewide geographies. When necessary, RSG adjusted projections, forecasts, and assumptions based on its understanding of the local market.

Additionally, this Study represents RSG's estimate of market-based demand at a specific point in time. The real estate market is not static – real estate market participants are constantly adjusting to changes in risk, capital markets and access to capital, inflation, global events, construction costs, inventories and real estate market conditions, supply and demand, and other variables.

Finally, this Study does not account for unforeseen changes to policy, market, or development patterns on a regional- or State-level. It is possible that local policy changes in the region will affect development feasibility and redirect investment in research and development real estate away from San Carlos. Future policy, market, or development patterns can greatly affect San Carlos' buildout.

2. Market Demand Forecast

Based on the methodology and assumptions described in this Study, RSG developed a market-based demand forecast for research and development ("R&D"), office, industrial, commercial, and residential real estate. The sections that follow describe the forecast findings for each real estate asset class.

Research and Development

RSG developed a forecast of R&D real estate for San Carlos based on the methodology and assumptions outlined in this Study. The key findings are presented below.

- The demand for research and development space in San Carlos is estimated to be about 5.6 million square feet through 2045.
- The City's existing development pipeline includes about 3.2 million square feet of research and development space, expected to be built between 2024 and 2033.
- Net demand, which is adjusted for the development pipeline, is estimated to be about 2.4 million square feet of research and development space.

Table 17 illustrates research and development demand through 2045.

TABLE 17: R&D DEMAND SUMMARY 2024-45

		2024-2045 Total
Existing R&D Square Feet (A)		2,099,411
R&D Square Feet Demand (B = C + D)		5,614,045
R&D Pipeline (C)	3,224,115	
R&D Demand Net of Pipeline (D)	2,389,930	
Potential Total R&D Buildout (E = A + B)		**7,713,456**

Office

Key findings identified from RSG's forecast of San Carlos office real estate is based on the methodology and assumptions outlined in this Study and are presented below.

- Office demand through 2045 in San Carlos is estimated to be about 324,000 square feet.
- The City's development pipeline includes about 18,000 square feet of office, which is expected to be completed in 2024.
- Net demand for office space in San Carlos is estimated to be about 306,000 square feet through 2045.

Table 18 illustrates RSG's forecasted office demand, the existing office pipeline, and net demand through 2045.

TABLE 18: OFFICE DEMAND SUMMARY 2024-45

		2024-2045 Total
Existing Office Square Feet (A)		1,462,501
Office Square Feet Demand (B = C + D)		323,862
Office Pipeline (C)	17,847	
Office Demand Net of Pipeline (D)	306,015	
Potential Total Office Buildout (E = A + B)		**1,786,363**

Industrial

RSG generated a forecast of industrial real estate demand through 2045 based on the methodology and assumptions outlined in this Study. Key findings are presented below.

- Estimated demand for industrial space in San Carlos is 144,000 square feet through 2045.
- In contrast to other real estate types, industrial real estate is commonly being converted to R&D space. The industrial real estate market is stabilized, with low vacancy rates and stable lease rates, meaning that as industrial space is demolished or converted to other real estate types, the demand for industrial real estate is expected to increase. RSG estimates about 695,000 square feet of industrial space will be removed from the real estate market as the research and development pipeline is built out through 2033, which will increase demand for industrial space proportionally.
- Net demand for industrial space is expected to be approximately 839,000 square feet in San Carlos through 2045.

Table 19 illustrates RSG's forecasted industrial demand, with demand increasing as a result of industrial space being removed from the real estate market as it is converted to R&D space or demolished to accommodate the development of R&D space.

TABLE 19: INDUSTRIAL DEMAND SUMMARY 2024-45

		2024-2045 Total
Existing Industrial Square Feet (A)		4,703,321
Industrial Square Feet Demand (B = C + D)		143,916
Industrial Pipeline (C)	(695,318)	
Industrial Demand Net of Pipeline (D)	839,234	
Potential Total Industrial Buildout (E = A + B)		**4,847,237**

Commercial

The methodology and assumptions outlined in this Study were used to produce a market-based demand forecast for commercial real estate, including retail, restaurant, and hospitality uses. The key findings are presented below.

- Commercial real estate demand in San Carlos amounts to about 262,000 square feet through 2045.
- Based on the existing development pipeline, RSG estimates about 197,000 square feet of retail will be constructed as ancillary uses to existing pipeline projects, expected to be built out between 2024 and 2033.
- The net retail demand through 2045 in San Carlos is about 65,000 square feet.

Table 20 summarizes RSG's forecast of commercial demand.

TABLE 20: COMMERCIAL DEMAND SUMMARY 2024-45

		2024-2045 Total
Existing Commercial Square Feet (A)		1,510,979
Commercial Square Feet Demand (B = C + D)		262,262
Commercial Pipeline (C)	197,031	
Commercial Demand Net of Pipeline (D)	65,231	
Potential Total Commercial Buildout (E = A + B)		**1,773,241**

Residential

RSG's forecast of demand for residential real estate through 2045 is based on the City's 2023-2031 Housing Element and RHNA. Key findings related to the residential demand forecast are presented below.

- The City's Housing Element forecasts development of 3,173 housing units during the 6th Housing Element Cycle (2023-2030), and 342 housing units per year through the 7th and 8th Housing Element Cycles (2031-2038, and 2039-2046, respectively), amounting to 8,301 new dwelling units through 2045.

RSG's forecast of housing unit production through 2045 is summarized in Table 21 and detailed in Appendix 5.

TABLE 21: HOUSING PRODUCTION SUMMARY 2024-45

		2024-2045 Total
Existing Dwelling Units (A)		12,385
New Dwelling Units (B = C + D)		8,301
Single Family Units (C)	419	
Multifamily Units (D)	7,882	
Total Dwelling Units (E = A + B)		**20,686**

Jobs-Housing Balance

RSG reviewed the City's jobs-housing ratio and balance. Historically, the City has had a more balanced jobs-housing ratio than other cities on the Peninsula. While it is reasonable to monitor the City's jobs-housing ratio, achieving a balance between housing and jobs should be considered the responsibility of ABAG/MTC, and is addressed through the Plan Bay Area and Regional Housing Needs Allocation processes.

Throughout the nine-county Bay Area region, the jobs-housing ratio was 1.4 jobs per household in 2023, and ABAG/MTC are forecasting the jobs-housing ratio to remain relatively unchanged through 2050, reflecting a regional balance between commercial development and housing production. More specifically, the South San Mateo County sub-county level jobs-housing ratio was 1.9 jobs per household in 2023, and is forecasted to increase to about 2.4 jobs per household in 2050.[13]

RSG's analysis indicates that the City's current jobs-housing ratio is about 1.7 jobs per household. RSG's forecast indicates that the City's jobs-housing ratio will increase moderately to 1.8 jobs per household.

[13] Source: ABAG/MTC, "Plan Bay Area 2050+ Draft Blueprint Compendium" published June 2024

APPENDIX 1: KEY TERMS

Research and Development ("R&D"): R&D space can take a variety of forms, ranging from highly specialized industrial flex buildings to Class A/A+ office space. In general, developers design R&D space to accommodate life science and technology tenants. Life science tenants include chemical manufacturing, pharmaceutical, medical device manufacturing, among others. Food and agricultural technology - such as businesses engaged in plant-based and cell-cultivated foods or businesses deploying artificial intelligence, robotics, or biotechnology in agricultural settings - also require similar infrastructure to life science tenants.

R&D tenants often require increased ceiling heights to accommodate equipment and infrastructure, specialized space for virus and bacteria isolation[14], labware and hazardous material storage, heavy-duty air filtration, state of the art environmental controls, backup generators, reinforced floors, increased roof load capacities and significantly upgraded utilities. Developers typically pair these unique features with traditional office space within a single building shell to allow tenants to perform business activities - such as management, administrative, human resources, marketing, and sales - in the same building as the research and product manufacturing.

Office: Office real estate includes space designed to accommodate office-using tenants that may include finance, insurance, real estate, administrative, telecommunications, and education tenants. An office is a single- or multi-story building that may include a lobby, assembly, or reception area, dedicated meeting or conference rooms, individual rooms, or open cubicle-style desks to accommodate a wide range of business, professional, and institutional industries. Offices generally include support spaces, such as supply rooms, break rooms, printer/copier/fax centers, server rooms, and document rooms. Occasionally, larger offices or office campuses can include onsite tenant and visitor amenities, such as on-site cafes and dining, childcare, or fitness facilities.

Industrial: Industrial real estate is designed to meet the needs of tenants and businesses engaged in logistics, warehousing, construction trades, repair and maintenance, traditional manufacturing, wholesale, and non-store retail (e-commerce). Industrial buildings generally include single-story "shell" buildings with very little or no interior buildout. When there are interior improvements, there may be support offices, storage rooms, and bathrooms, but this typically represents a small portion of the structure. The primary space is typically unconditioned (does not have insulation,

[14] Note: On August 14, 2023, the City adopted Ordinance 1597 to amend the San Carlos Municipal Code Section 18.06.020, 18.07.020, and 18.41.020 to prohibit research and development activities requiring biosafety level ("BSL") 3 and 4 containment. According to the United States Center of Disease Control and Prevention ("CDC"), BSL 3 laboratories may engage in handling of microbes that can cause serious or potentially lethal disease through respiratory transmission, such as Mycobacterium tuberculosis, the bacteria that causes tuberculosis. The CDC specifies BSL 4 laboratories has the highest level of biological safety, and while there are very few BLS 4 laboratories, the microbes handled in a BSL 4 laboratory are very dangerous, pose a high risk of infection, are frequently considered fatal, and there may not be suitable treatment or vaccines. Ebola is a disease caused by a group of viruses that scientists may study in a BSL 4 laboratory. Source: CDC "Recognizing the Biosafety Levels"

climate controls, air conditioning, or heating) and designated for storage of goods (warehousing), or manufacturing. Industrial buildings generally have greater utility capacity than other types of buildings to accommodate the utility demands of manufacturing, automation, and logistics equipment.

Commercial: Commercial real estate includes traditional retail space, designed for sales of general merchandise, apparel, furniture, electronics, vehicles, as well as food at home (grocery), food away from home (restaurants), and other product sales.[15] Commercial structures are typically single-story tenant suites with dedicated storefronts or street frontage. Commercial spaces may be individually owned, or part of a larger commercial center. Tenants generally lease commercial spaces as warm shells with minimal interior improvements.

Residential: There are several different types of residential real estate in San Carlos, including single-family homes, condominiums or townhomes, and multifamily apartments. RSG's residential forecast is based on the City's adopted 2023-2031 Housing Element, which the California Department of Housing and Development ("HCD") certified in April 2024. RSG's forecast of housing units for the 6th Housing Element Cycle (2023-2030) aligns with the anticipated units built according to the Housing Element. The forecast extends to 2045, which will include the 7th Housing Element Cycle and a portion of the 8th Housing Element Cycle. Because HCD has not released RHNA for the 7th and 8th Housing Element Cycles, RSG and the City assumed the City's 7th and 8th Housing Element Cycles will match the City's 6th Housing Element Cyle RHNA.

Pipeline: The City and RSG worked together to develop and refine the pipeline of development projects in San Carlos that are either under construction, approved, or currently under review. RSG estimated the completion year based on the current status, total square footage, and number of phases associated with each development.

Demand: RSG relied on job forecast data obtained from Moody's Analytics, and referenced population, housing, and job forecasts from Association of Bay Area Governments, California Department of Finance, California Employment Development Department, and ESRI Business Analyst Online. Job forecasts are correlated to the square footage that businesses must lease to accommodate growth and new employees, after accounting for work-from-home trends, small independent operators, and varying square footage per job by industry. For commercial, industrial, office, and R&D land uses, RSG expresses demand in terms of square feet of building area. For residential uses, RSG expresses demand in terms of number of residential units.

[15] Note: For the purposes of this study, commercial real estate includes hospitality uses and excludes multifamily housing.

APPENDIX 2: DETAILED DEMAND FORECAST

Population and Jobs	2023-2024	2025-2029	2030-2034	2035-2039	2040-2045	2024-2045 Total
Population Growth	131	6,297	5,426	4,462	5,355	21,670
Total Population (End of Period)	32,462	38,759	44,185	48,647	54,002	54,002
Net Commercial Jobs	7	43	38	31	18	136
Net Office New Jobs	229	351	271	229	229	1,310
Net R&D New Jobs	2,229	4,464	3,210	2,714	2,709	15,326
Net Industrial Jobs	37	104	119	136	189	585

Non-Residential Square Feet	2023-2024	2025-2029	2030-2034	2035-2039	2040-2045	2024-2045 Total	
Existing R&D Square Feet						2,099,411	
R&D Square Feet Demand	*893,199*	*1,850,740*	*1,249,489*	*887,695*	*732,923*	*5,614,045*	
R&D Pipeline	*315,780*	*1,726,875*	*1,181,460*	*0*	*0*	*3,224,115*	
R&D Demand Net of Pipeline	577,419	123,865	68,029	887,695	732,923	2,389,930	
Potential Total R&D Buildout						**7,713,456**	***48%***
Existing Office Square Feet						1,462,501	
Office Square Feet Demand	*56,732*	*86,793*	*67,051*	*56,693*	*56,594*	*323,862*	
Office Pipeline	*17,847*	*0*	*0*	*0*	*0*	*17,847*	
Office Demand Net of Pipeline	38,885	86,793	67,051	56,693	56,594	306,015	
Potential Total Office Buildout						**1,786,363**	***11%***
Existing Industrial Square Feet						4,703,321	
Industrial Square Feet Demand	*12,261*	*27,556*	*28,192*	*32,260*	*44,913*	*145,183*	
Industrial Pipeline /1	*(353,695)*	*(341,623)*	*0*	*0*	*0*	*(695,318)*	
Industrial Demand Net of Pipeline	365,956	369,179	28,192	32,260	44,913	840,501	
Potential Total Industrial Buildout						**4,848,504**	***30%***
Existing Commercial Square Feet						1,510,979	
Commercial Square Feet Demand	*12,611*	*82,997*	*73,230*	*59,440*	*33,984*	*262,262*	
Commercial Pipeline	*0*	*182,988*	*14,043*	*0*	*0*	*197,031*	
Commercial Demand Net of Pipeline	12,611	(99,991)	59,187	59,440	33,984	65,231	
Potential Total Commercial Buildout						**1,773,241**	***11%***
Total Potential Non-Residential Square Feet						**16,121,564**	***100%***

Residential Dwelling Units	2023-2024	2025-2029	2030-2034	2035-2039	2040-2045	2024-2045 Total
Existing Dwelling Units						12,385
New Dwelling Units	50	2,412	2,079	1,709	2,051	8,301
Single Family Units	*3*	*122*	*105*	*86*	*104*	***419***
Multifamily Units	*47*	*2,290*	*1,974*	*1,623*	*1,948*	***7,882***
Potential Total Residential Dwelling Units						**20,686**

Sources: City of San Carlos, Moodys Analytics, ESRI Business Analyst Online, Claritas, CoStar, US Census Bureau, California Department of Finance, RSG

/1 Industrial Pipeline is a negative number because the pipeline of commercial, office, and R&D projects is expected to replace the existing square footage of industrial space, resulting in a net increase in demand. Presently, the San Carlos industrial real estate market is stabilized, which indicates that any industrial properties removed from the market as a result of the land being converted to any other use will increase demand for industrial space.

APPENDIX 3: PIPELINE PROJECTS

Address/Name	Development Type	Status	Size (SF)	Units	Completion Year	Other Names
552-560 El Camino Real	Multifamily	Under Construction	31,381	24	2024	
993 Laurel St	Office	Under Construction	17,847	-	2024	
1240 El Camino Real	Multifamily	Under Construction	16,390	8	2024	
405 Industrial Rd	R&D	Under Construction	240,000	-	2024	
1525 San Carlos Ave	Multifamily	Under Construction	34,878	18	2024	
1030 Brittan Ave	R&D	Under Construction	75,780	-	2024	
1021 Howard Ave	R&D	Approved	190,869	-	2025	
626-648 Walnut St	Multifamily	Approved	83,329	37	2025	
888 Bransten Rd	R&D	Approved	208,332	-	2026	
642 Quarry Rd	R&D	Approved	410,000	-	2026	
11 El Camino Real	Multifamily	Approved	250,000	242	2026	
501 Industrial Rd	Commercial	Approved	150,000	-	2028	Hotel Indigo San Carlos
841-851 Old county	R&D	Approved	345,000	-	2028	North and South Building
Alexandria Properties	R&D	Under Review	1,754,134	-	2033	Alexandria Buildings 1-6

Source: Costar, City of San Carlos, and RSG

Notes:

Under Construction means an application has been approved and the project is currently being built.

Approved means an application has been approved but the project construction has not begun.

Under Review means and application has been submitted and is currently being reviewed by the City.

Completed projects, such as 777 Industrial Rd and 1091 Industrial Rd are included in the Existing Square Feet.

Pipeline Projects and the Buildout Forecast exclude Anticipated Development Sites, which are based on pre-application project inquiries.

APPENDIX 4: NAICS INDUSTRIES AND LAND USE CLASSIFICATIONS

NAICS Code	Industry Name	Primary Land Use	Secondary Land Use(s)
54	Professional, Scientific, Technical Consulting	R&D	
62	Health Care and Social Assistance	R&D	
325	Chemical Manufacturing[1]	R&D	Industrial
334	Computer and Electronic Products Manufacturing	R&D	Office, Industrial
311	Food Manufacturing[1]	R&D	Industrial
52	Finance and Insurance	Office	
53	Real Estate, Rental, and Leasing	Office	
55	Management of Companies and Enterprises	Office	
56	Administrative, Support, Waste Management, & Remediation Services	Office	R&D
511	Newspaper, periodical, book, and directory publishers	Office	
512	Motion picture and sound recording insutries	Office	
515	Broadcasting, excluding internet	Office	
517	Telecommunications	Office	
518	Internet Service Providers, Web Search Portals, & Data Processing Services	Office	
519	Other information services	Office	
61	Educational Services	Office	
813	Religious, grantmaking, civic, professional similar	Office	
441	Motor Vehicle and Parts Dealers	Commercial	
442	Furniture and Home Furnishings Stores	Commercial	
443	Electronics and Appliance Stores	Commercial	
444	Building Material and Garden Equipment and Supplies Dealers	Commercial	
445	Food and Beverage Stores	Commercial	
446	Health and Personal Care Stores	Commercial	
447	Gasoline Stations	Commercial	
448	Clothing and Clothing Accessories Stores	Commercial	
451	Sporting Goods, Hobby, Book, and Music Stores	Commercial	
452	General Merchandise Stores	Commercial	
453	Miscellaneous Store Retailers	Commercial	
71	Arts, Entertainment, and Recreation	Commercial	
72	Accommodation and Food Services	Commercial	
236	Construction of Buildings	Industrial	
237	Heavy and Civil Engineering Construction	Industrial	
238	Specialty Trade Contractors	Industrial	
811	Repair and Maintenance	Industrial	
454	Nonstore retailers[1]	Industrial	
312	Beverage and Tobacco Product Manufacturing	Industrial	
313	Textile Mills	Industrial	
314	Textile Product Mills	Industrial	
315	Apparel Manufacturing	Industrial	
316	Leather and Allied Product Manufacturing	Industrial	
321	Wood Product Manufacturing	Industrial	
322	Paper Manufacturing	Industrial	
323	Printing and Related Support Activities	Industrial	
324	Petroleum and Coal Products Manufacturing	Industrial	
326	Plastics and Rubber Products Manufacturing	Industrial	
327	Nonmetallic Mineral Product Manufacturing	Industrial	
331	Primary Metal Manufacturing	Industrial	
332	Fabricated Metal Product Manufacturing	Industrial	
333	Machinery Manufacturing	Industrial	
335	Electrical Equipment, Appliance, and Component Manufacturing	Industrial	
336	Transportation Equipment Manufacturing	Industrial	
337	Furniture and Related Product Manufacturing	Industrial	
339	Miscellaneous Manufacturing	Industrial	R&D
423	Merchant Wholesalers, Durable Goods	Industrial	
424	Merchant Wholesalers, Nondurable Goods[1]	Industrial	
425	Wholesale Electronic Markets and Agents and Brokers	Industrial	
48	Transportation & Warehousing	Industrial	
22	Utilities	Industrial	

[1] *Category contains Cannabis related businesses including warehousing, manufacturing, retail sale, and delivery.*

Source: Moody's Analytics, NAICS Association, RSG

APPENDIX 5: HOUSING FORECAST

Year	Housing Element Cycle and Year of Cycle	Unit Production (Rounded)	Housing Element Cycle Unit Production	Forecast Source
2023	6th Cycle Year 1	0		City Development Pipeline
2024	6th Cycle Year 2	50		City Development Pipeline
2025	6th Cycle Year 3	37		City Development Pipeline
2026	6th Cycle Year 4	242		City Development Pipeline
2027	6th Cycle Year 5	711		Housing Element Table 4.5-3 (page 139)
2028	6th Cycle Year 6	711		Housing Element Table 4.5-3 (page 139)
2029	6th Cycle Year 7	711		Housing Element Table 4.5-3 (page 139)
2030	6th Cycle Year 8	711	3173	Housing Element Table 4.5-3 (page 139)
2031	7th Cycle Year 1	342		6th Cycle RHNA allocation (Housing Element Table 4.5-1, page 132)
2032	7th Cycle Year 2	342		6th Cycle RHNA allocation (Housing Element Table 4.5-1, page 132)
2033	7th Cycle Year 3	342		6th Cycle RHNA allocation (Housing Element Table 4.5-1, page 132)
2034	7th Cycle Year 4	342		6th Cycle RHNA allocation (Housing Element Table 4.5-1, page 132)
2035	7th Cycle Year 5	342		6th Cycle RHNA allocation (Housing Element Table 4.5-1, page 132)
2036	7th Cycle Year 6	342		6th Cycle RHNA allocation (Housing Element Table 4.5-1, page 132)
2037	7th Cycle Year 7	342		6th Cycle RHNA allocation (Housing Element Table 4.5-1, page 132)
2038	7th Cycle Year 8	342	2735	6th Cycle RHNA allocation (Housing Element Table 4.5-1, page 132)
2039	8th Cycle Year 1	342		6th Cycle RHNA allocation (Housing Element Table 4.5-1, page 132)
2040	8th Cycle Year 2	342		6th Cycle RHNA allocation (Housing Element Table 4.5-1, page 132)
2041	8th Cycle Year 3	342		6th Cycle RHNA allocation (Housing Element Table 4.5-1, page 132)
2042	8th Cycle Year 4	342		6th Cycle RHNA allocation (Housing Element Table 4.5-1, page 132)
2043	8th Cycle Year 5	342		6th Cycle RHNA allocation (Housing Element Table 4.5-1, page 132)
2044	8th Cycle Year 6	342		6th Cycle RHNA allocation (Housing Element Table 4.5-1, page 132)
2045	8th Cycle Year 7	342	2393	6th Cycle RHNA allocation (Housing Element Table 4.5-1, page 132)
Total			**8301**	

Source: City of San Carlos, RSG

Figures are rounded.

Note: RSG assumed that the RHNA allocation for the 7th and 8th Cycles would be the same as the RHNA allocation for the 6th Cycle (2,735 units). The buildout forecast includes seven of eight years covered under the 8th Housing Element Cycle.

APPENDIX 6: MTC/ABAG REGIONAL PROJECTIONS

The Metropolitan Transportation Commission ("MTC") and Association of Bay Area Governments ("ABAG") prepared the Plan Bay Area 2050 report, a 30-year long-range plan projecting household, population, and job growth throughout the nine-county Bay Area region for the purpose of developing strategies for growing housing inventory, economic activity, transportation, and the environment. Plan Bay Area 2050 suggests that the region will add 2.5 million people, about 940,000 new households, and 1.4 million jobs by 2050. Table 22 presents the current and projected population, households and jobs in the nine-county Bay Area region.

TABLE 22: REGIONAL POPULATION, HOUSEHOLDS, AND JOBS

	Present	2050 Total	Total Growth	Growth Rate
Regional Population	7,800,000	10,300,000	2,500,000	0.8%
Regional Households	2,857,000	3,794,000	937,000	0.8%
Regional Jobs	4,005,000	5,408,000	1,403,000	0.9%

Sources: Plan Bay Area 2050 (October 2021), Draft Blueprint Compendium (June 2024), RSG

MTC and ABAG are currently preparing Plan Bay Area 2050+, which is a limited and focused update to the region's long-term plan and will guide the growth of the nine-county Bay Area. In June 2024, MTC and ABAG published a Draft Blueprint Compendium which outlines and updates projected growth patterns at the county and sub-county Levels. The South San Mateo subcounty level includes San Carlos, Atherton, Menlo Park, Redwood City, Woodside, East Palo Alto, and Portola Valley. The Draft Blueprint Compendium indicates that the South San Mateo sub-county level will add 20,000 new households and 86,000 new jobs by 2050. The Draft Blueprint Compendium does not provide updates to population projections. Table 23 outlines the present households and jobs for the South San Mateo sub-county level.

TABLE 23: SOUTH SAN MATEO SUB-COUNTY LEVEL HOUSEHOLDS AND JOBS

	Present	2050 Total	Total Growth	Growth Rate
South San Mateo Households	88,000	108,000	20,000	0.8%
South San Mateo Jobs	168,000	254,000	86,000	1.5%

Sources: Draft Blueprint Compendium (June 2024), RSG