

MEMORANDUM

To: Edith Ramirez and John Lang, City of Morgan Hill

From: Sujata Srivastava and Heather Bromfield

Date: July 1, 2020

Project: Industrial and Retail Commercial Market Memo

Subject: Morgan Hill Economic and Fiscal Analysis

I. INTRODUCTION

The City of Morgan Hill retained Strategic Economics to provide an updated analysis of the industrial and retail commercial market, to guide the city's future land use planning on commercial and industrial lands. This memo summarizes the supply and demand for vacant lands to support employment uses, including industrial, R&D, and office, and retail commercial uses. To estimate the market for industrial, R&D, warehousing uses, this memorandum report builds on Strategic Economics' 2013 "Economic and Fiscal Impact Analysis of Industrial Land Conversion" report and the 2015 "Morgan Hill Industrial Land Study Update." For the commercial retail analysis, the study builds on the 2017 retail analysis performed by Lisa Wise Consulting.

This report is organized into four chapters. Following this introduction, Chapter II summarizes the key findings and recommendations drawn from the analysis. Chapter III describes Morgan Hill's economic position within Santa Clara County, including demographic, market, and employment trends. Chapter IV provides an updated estimate of the potential supply and projected demand for industrial, R&D, and office space in Morgan Hill. Chapter V summarizes the commercial retail market conditions. Note that the analysis and findings reflect market conditions as of the Fall of 2019.

The analysis of the City's available land for development considers the total acreage of undeveloped parcels citywide and does not assess how any development constraints on any parcels may affect the likelihood of future development. This is important to note because several of the undeveloped parcels designated for industrial development have constraints such as natural hazards, soil contamination, or access issues. As a result, these parcels may be slow to develop, particularly if building rents remain lower than what would be justified to undertake costly remediate or hazard mitigation improvements.

II. SUMMARY OF FINDINGS

Industrial/R&D/Warehouse Market

- Morgan Hill continues to be an attractive destination for industrial users, including manufacturers, machine shops, and assembly businesses. Morgan Hill has lower industrial rents than other cities in southern Santa Clara county, which drives interest from firms seeking to relocate. Currently, there are several indicators of the City's industrial market strength, including development proposals for new buildings on vacant industrial land and the absorption of vacant building space over the last four years.
- The number of jobs in industrial and R&D employment categories has decreased despite multiple indicators of the strength of Morgan Hill's industrial real estate market. The number of manufacturing jobs in the city decreased by almost ten percent between 2000 and 2016 despite overall citywide jobs gains of about five percent during the same period. Similarly, employment in the Professional, Scientific, and Technical Services category decreased by about 30 percent and employment in the Information sector decreased by over 50 percent during this period. However, brokers are currently reporting high demand for manufacturing building space and a large number of industrial and warehouse development proposals have been submitted to the city for review. The conflicting findings can potentially be explained by current data limitations, given that as of Fall of 2019 employment data at the industry level was only available through 2016 and more jobs may have been added in industrial and R&D job categories in the last four years. A second possible explanation is there may be fewer jobs required to complete manufacturing work, which would be in line with regional and national trends towards the introduction of automation into more manufacturing practices.
- The supply of vacant land in Morgan Hill can accommodate projected demand in manufacturing, warehouse, and R&D uses for the next 25 to 165 years. These figures include all land citywide designated as Industrial and Commercial/Industrial. In 2015, the comparable figures were 30 to 77 years. If only land designated as Industrial is considered, the supply of land would be sufficient to accommodate demand for 18 to 116 years. Although the acreage of vacant industrial lands has decreased since 2015, the conservative estimate for the number of years of supply has increased since the 2015 study due to projections that employment growth in industrial job categories may be lower in the future.
- If all current development proposals on vacant industrial lands were to be approved and built, the city would have between 15 and 95 years of land supply suitable for industrial development. Currently, 104 acres out of 234 total acres of vacant Industrial and Commercial/Industrial land, or about 44 percent, are proposed for development. If only land designated as Industrial is considered, the supply of land without development proposals is estimated to be between 11 and 70 years.
- Knowledgeable local brokers are reporting that existing industrial tenants in Morgan Hill are
 actively seeking space for expansion but are unable to find available building space. Brokers
 are reporting that some firms have had to leave Morgan Hill in order to expand because they
 were unable to find available industrial space within the city and were unwilling or unable to
 finance the construction of new space within the city themselves.
- Speculative industrial projects have been proposed and would add sought-after new inventory
 to the market. Speculative development, as opposed to build-to-suit development, reflects
 developer confidence that they would be able to tenant new buildings at rents that will support
 a developer return on investment. New building inventory could help to meet demand from

- businesses that are looking to expand within Morgan Hill, or for those who are looking to relocate to Morgan Hill from more costly markets.
- Despite the speculative industrial projects that have been proposed, brokers in the area are uncertain if present market rents will provide a sufficient financial return to developers. Industrial brokers have reported that rents are currently still too low to justify the risks associated with constructing speculative industrial projects in most cases. Some of the projects in the pipeline may take time to break ground. If rents continue to increase, the completion of speculative industrial projects will become more likely.

Retail Commercial Market

- The retail sector in Morgan Hill has been stable over the last few years. According to metrics
 including vacancy rates, retail rents, and taxable sales for shopping centers, the retail sector
 appears to be performing well, even as nationally the retail sector is undergoing a major
 restructuring.
- In line with the citywide trends, most of Morgan Hill's individual shopping centers have healthy vacancy rates and stable taxable sales. Vacancy rates at shopping centers are under 10% for all but three of the city's seven shopping centers and stable taxable sales values over time. Taxable sales values have on average increased over the last four quarters ending in the first quarter of 2019, with a major dip in auto sales as the likely reason for a large decrease in citywide taxable sales in the final quarter analyzed.
- The Cochrane Road and Downtown area along Monterey Road are currently the city's best performing areas for retail, as demonstrated by the concentration of pipeline retail development and the likelihood of additional industrial employment growth in this area. All but one of the recently constructed retail projects have been located in these two areas, suggesting that this area is seeing significant demand for retail and services. Additionally, proposed industrial projects which would increase employment in the area may continue to add demand for retail and services in these areas, especially in the Cochrane Road area.
- New pipeline retail is being developed primarily in mixed-use projects, which is in line with growing interest of retailers to be co-located near non-retail to enhance customer traffic. The retail commercial development pipeline includes up to 61,000 square feet of planned retail space within Evergreen Village, a new mixed-use center which will include a hotel, medical offices, and a senior living center. An additional 4,000 square feet of space is under construction within mixed-use residential projects, primarily in Morgan Hill's Downtown.
- Based on current national and local trends, there is unlikely to be sufficient retail demand to result in the construction of a major new shopping center in the near term. Morgan Hill should not anticipate the construction of another new shopping center within the next 15 years, and development of a new center could potentially take longer than this. This assessment is based on an analysis of recent retail construction trends in Morgan Hill, the increasing share of sales occurring via e-commerce nationally, and the relatively modest projected increases in employee and residential populations in Morgan Hill which will limit the potential for additional retail demand.

III. EMPLOYMENT OVERVIEW

Strategic Economics reviewed historical employment data from the Metropolitan Transportation Commission (MTC) and the Census Bureau's Zip Code Business Patterns, which is the most recent data source available for Morgan Hill. This section summarizes the employment trends as they relate to the potential demand for industrial, R&D, and office space.

Employment Trends

Between 2000 and 2016, the total number of jobs in Morgan Hill increased by 4.9 percent, or 826 jobs. This net increase in jobs captures job losses during the Great Recession, as well as the gains during the recovery. Santa Clara County's rate of job growth was lower during this time, at 2.2 percent.

FIGURE 1: TOTAL JOBS IN MORGAN HILL AND SANTA CLARA COUNTY, 2000-2016

	2000	2009	2016	% Change 2000-2009	% Change 2009-2016	% Change 2000-2016
Morgan Hill	16,764	16,345	17,590	-2.5%	7.6%	4.9%
Santa Clara County	999,519	850,828	1,021,748	-14.9%	20.1%	2.2%

Note: Data excludes public sector employment.

Source: County Business Patterns, 2019; MTC, 2019; Strategic Economics, 2019.

Morgan Hill's strongest industry sectors are Manufacturing, Retail Trade, Wholesale Trade, and Accommodation and Food Services. These industries are much more concentrated in Morgan Hill than the County, and collectively make up more than half of the city's total employment. Manufacturing accounts for almost 19 percent of Morgan Hill's employment, followed by Retail Trade at 14 percent, as displayed in Figure 2.

Compared to Santa Clara County, Morgan Hill has a significantly lower share of jobs in the Professional, Scientific, and Technical Services and Information, which typically include firms that occupy tech office/R&D space. Professional, Scientific, and Technical Services jobs account for about 14 percent of the county's employment, compared to six percent in Morgan Hill. Additionally, almost 12 percent of jobs in Santa Clara County are in the Information sector, compared to one percent in Morgan Hill. Within Santa Clara County, employment in these tech industry sectors are highly concentrated in the northern part of the county, in Mountain View, Palo Alto, Sunnyvale, Santa Clara, and North San José.

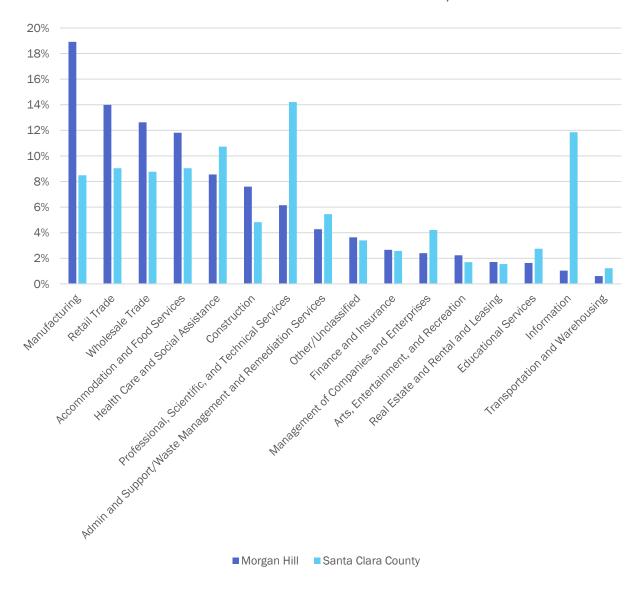


FIGURE 2: EMPLOYMENT BY SECTOR IN MORGAN HILL AND SANTA CLARA COUNTY, 2016

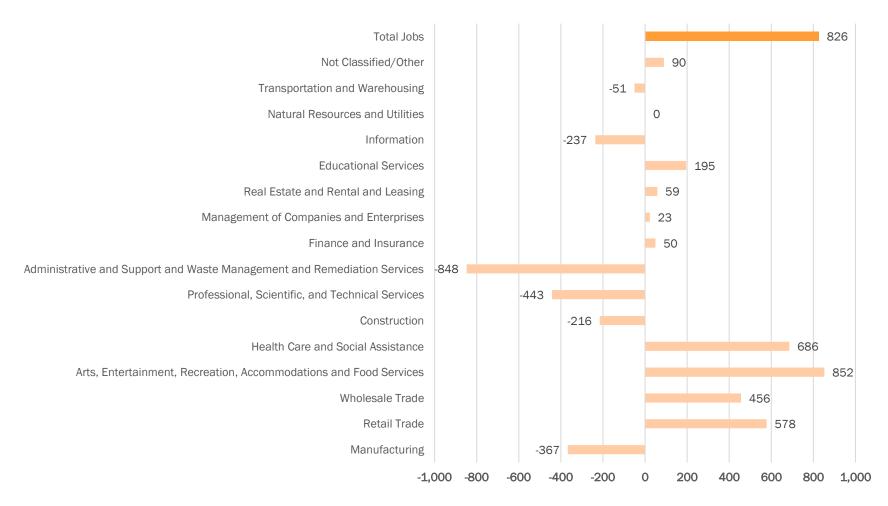
Source: County Business Patterns, 2019; Strategic Economics, 2019.

Between 2000 and 2016, the largest number of jobs in Morgan Hill were added in the Health Care and Social Assistance; Accommodations and Food Services; Wholesale Trade, and Retail Trade sectors. The change in the number of jobs by employment categories is presented in Figure 3, and the percent change is shown in Figure 5.

The employment composition by industry in Morgan Hill has shifted slightly from 2000 to 2016. Today, Health Care and Social Assistance; Retail Trade; and Arts, Entertainment, Recreation, and Accommodations/Food Services hold a greater share of total jobs, as shown in Figure 4. The share of jobs in Manufacturing, Wholesale Trade, Information, and Professional, Scientific, and Technical Services have declined.

While Manufacturing jobs declined from 2000 to 2016, this sector is still by far the largest industry in Morgan Hill. The city lost a total of 367 manufacturing jobs between 2000 and 2016 and the share of Morgan Hill employment in manufacturing decreased from 22 percent to 19 percent, as shown in Figure 3 and Figure 5. However, there are several Manufacturing subcategories that have witnessed dramatic growth over the last seven years, especially cabinetry and materials manufacturing. These include Household and Institutional Furniture and Kitchen Cabinet Manufacturing; Fruit and Vegetable Preserving and Specialty Food Manufacturing; Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing; Other Fabricated Metal Product Manufacturing; and Electrical Equipment Manufacturing. This data is presented in Figure 6.

FIGURE 3: CHANGE IN JOBS IN MORGAN HILL, 2000-2016



Source: County Business Patterns, 2019; Strategic Economics, 2019.

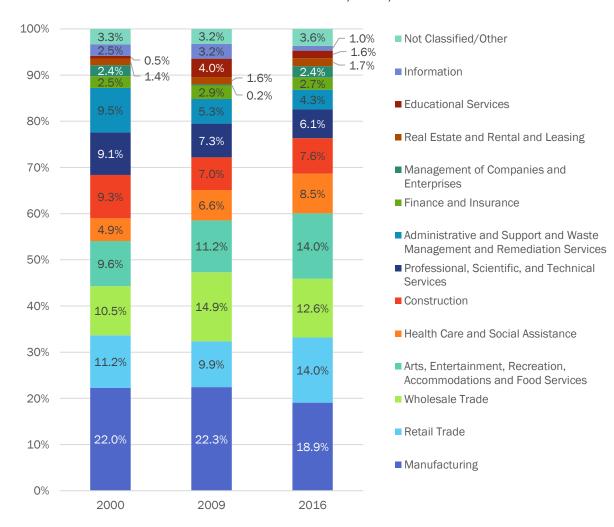
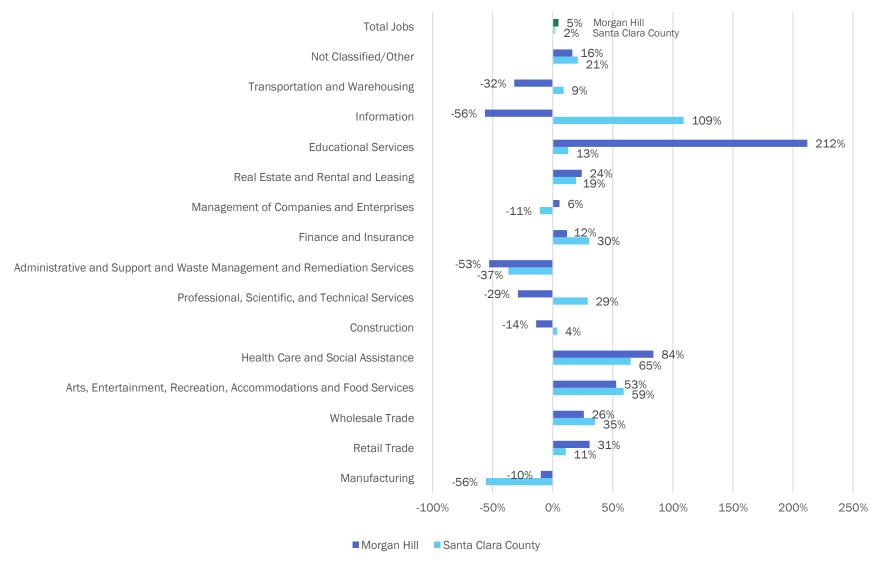


FIGURE 4: MORGAN HILL EMPLOYMENT COMPOSITION BY YEAR, 2000, 2009 AND 2016

Note: Natural Resources and Transportation and Warehousing employment sectors are not presented; each of these accounted for less than 1% of total employment for all three years in this time series.

Source: County Business Patterns, 2019; Strategic Economics, 2019.

FIGURE 5: PERCENT CHANGE IN EMPLOYMENT BY EMPLOYMENT SECTOR IN MORGAN HILL AND SANTA CLARA COUNTY, 2000-2016



Note: Natural Resources employment is not presented because it accounted for less than 1% of total employment in Morgan Hill both 2000 and 2016. Source: Census Business Patterns, 2019; Strategic Economics, 2019.

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FIGURE 6: 2009-2016 JOBS ESTIMATES FOR TOP 10 MANUFACTURING JOBS CATEGORIES IN 2016

			2016		2009	2009-2016
NAICS	Manufacturing Category	Number of jobs	Percent of manufacturing jobs in 2016	Number of jobs	Percent of manufacturing jobs in 2009	Percent change in jobs, 2009-2016
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	660	19.8%	1011	27.7%	-53.3%
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing	416	12.5%	47	1.3%	88.8%
3344	Semiconductor and Other Electronic Component Manufacturing	375	11.3%	647	17.7%	-72.8%
3327	Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	344	10.3%	426	11.7%	-24.0%
3372	Office Furniture (including Fixtures) Manufacturing	182	5.5%	175	4.8%	3.9%
3114	Fruit and Vegetable Preserving and Specialty Food Manufacturing	175	5.2%	0	0%	100.0%
3252	Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing	175	5.2%	75	2.0%	57.3%
3329	Other Fabricated Metal Product Manufacturing	146	4.4%	35	0.9%	76.4%
3353	Electrical Equipment Manufacturing	112	3.4%	10	0.3%	91.5%
3391	Medical Equipment and Supplies Manufacturing	89	2.7%	24	0.7%	73.0%

Source: County Business Patterns, 2019; Strategic Economics, 2019.

Major Employers

To show the spatial patterns of employment in Morgan Hill, Strategic Economics mapped the top private sector employers in the city based on data in the City's 2017-2018 Comprehensive Annual Financial Report. The top fourteen private sector employers are mapped in Figure 7.

Most of the city's largest private employers are located at the northern end of the city in the employment areas surrounding Cochrane Road. Many of the city's top employers are users of industrial and R&D space. Interviews with commercial brokers confirm that Cochrane Road is the most desirable industrial area in Morgan Hill for larger employers. This finding has not changed since the previous industrial land studies.

The city's fourteen largest private employers collectively account for about a quarter of total employment in Morgan Hill. The number of employees for each of the largest employers is presented in Figure 8.

Many of the city's top private sector employers in 2018 were not among the Morgan Hill's top employers in 2008. Of the 14 largest private employers in 2018, only Anritsu Company, Infineon Technologies (now known as Cree Wolfspeed), Paramit Corporation, Specialized Bicycle Components, Mission Bell Manufacturing, and Hospira, were among the City's top private sector employers in both 2018 and 2008. This indicates that there have been a number of firms that have expanded quickly in Morgan Hill over the last ten years.

9 **4**D 101 7. Specialized Bicycle Components 8. Mission Bell MFG, Inc. Top Private Employers Anritsu Company
 NxEDGE MH, LLC 9. Shoe Palace Corporation 10. Cree, Inc.
11. Young's Market Company, LLC
12. Paragon Mechanical, Inc.
13. New Product 3. Velodyne Lidar, Inc. 4. Infineon Technologies North America Corp Paramit Corportation
 Lusamerica Foods, Inc. Integration Solutions, Inc. 0.5 Miles Industrial Concentrations and Top Private Employers in Morgan Hill Top Employers by **Industrial Concentrations** - - 1 Morgan Hill City **Industrial Concetration** Boundary Industrial/ Auto Oriented Highways Industrial/ Auto Oriented Office R&D/Industrial, Large R&D/Industrial, Large Floorplate Floorplate R&D/Industrial, Mixed R&D/Industrial, Mixed

FIGURE 7: INDUSTRIAL CONCENTRATIONS AND TOP PRIVATE EMPLOYERS IN MORGAN HILL, 2018

Sources: Strategic Economics, 2019; City of Morgan Hill, 2019.

Floorplate



Floorplate

FIGURE 8: TOP 13 PRIVATE SECTOR EMPLOYERS IN MORGAN HILL

Rank	Employer	Number of Employees, 2018	Percent of Total Employment
1	Anritsu Company/Anritsu Americas Sales Company	583	3.49%
2	NxEDGE MH, LLC	557	3.34%
3	Velodyne Lidar, Inc	516	3.09%
4	Infineon Technologies North America Corp/Infineon Technologies Americas Corp	403	2.41%
5	Paramit Corporation	340	2.04%
6	Lusamerica Foods, Inc.	282	1.69%
7	Specialized Bicycle Components	282	1.69%
8	Mission Bell MFG, Inc	233	1.40%
9	Shoe Palace Corporation	227	1.36%
10	Cree, Inc	212	1.27%
11	Young's Market Company, LLC	158	0.95%
12	Paragon Mechanical, Inc	129	0.77%
13	New Product Integration Solutions, Inc	129	0.77%
	Total, Top Employers	4,051	24.26%
[4] 0':	Total, Citywide Employment [1]	16,701	

^[1] Citywide employment figure includes both private sector and public sector employment. Source: Morgan Hill Comprehensive Annual Financial Report, FY 2017-2018.

IV. INDUSTRIAL LANDS ANALYSIS AND MARKET OVERVIEW

This section builds upon demand and supply estimates found in the 2013 "Economic and Fiscal Impact Analysis of Industrial Land Conversion" report and the 2015 "Industrial Land Study Update". Based on updated employment forecasts, the analysis revises demand estimates for industrial lands and buildings in Morgan Hill. This section also updates the 2015 estimates of industrial land and building supply. Subsequently, the projected demand for industrial employment space is compared with the city's supply of industrial buildings and land. The results are expressed as "years of supply," or the ratio of the total potential supply in each scenario to projected annual average demand for employment space. These results are complemented with qualitative findings from broker interviews regarding the potential for future development.

Since the completion of the 2015 report, the City's industrial land and building supply has decreased slightly due to an approved General Plan amendment that resulted in one parcel conversion to a residential land use designation, and the absorption of about 75,000 square feet of existing industrial building area as of Fall of 2019, as previously vacant spaced became leased. Additionally, a significant portion of the vacant industrial lands are currently proposed for development.

The geography of Morgan Hill's industrial areas is discussed first. The assumptions that were used to develop the demand and supply scenarios are detailed in the Appendix: Assumptions section.

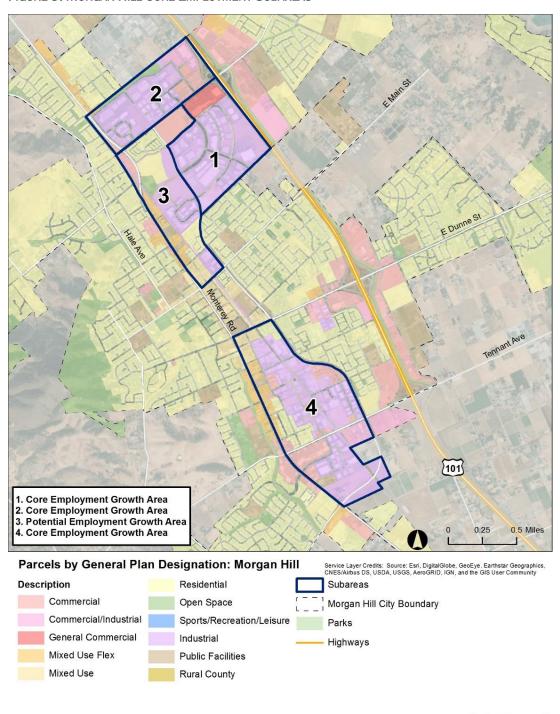
Existing Industrial Areas

The industrial employment lands in Morgan Hill are located in four major subareas, which are mapped in Figure 9. Subarea 1 is the Morgan Hill Ranch Business Park, located south of Cochrane Road and east of Butterfield Boulevard. This area houses the city's largest employers and is considered a core employment area. Subarea 2 is located north of Cochrane Road, bounded by Highway 101 to the east and Monterey Road on the west, and is also considered a core employment area. Subarea 3 is located in the Morgan Hill Ranch Business Park west of Butterfield Boulevard and houses the largest available vacant industrial site. Subarea 3 is considered a future employment area. Subarea 4 is the industrial district south of Dunne. This area contains heavier industrial users and is defined as an established industrial area.

The Cochrane Road area (Subareas 1, 2, and 3 in Figure 9) continues to be the strongest location for future industrial, R&D, and warehouse uses. Home to most of Morgan Hill's largest employers, Subareas 1 and 2 include most of the city's newest and largest industrial and commercial buildings, and are most attractive for businesses considering moving to Morgan Hill. Subarea 3 is the location for two major development pipeline projects on large vacant parcels with consolidated ownership, including one for an industrial park with an adjacent residential component, and one mixed-use retail, hotel, and senior living project that is now under construction. Because of its location off of the first Highway 101 exit in Morgan Hill for commuters coming from San Jose, as well as the presence of services and retail in the area, it is a more desirable location for industrial businesses than Subarea 4.

The area south of Dunne Avenue (Subarea 4 in Figure 9) plays an important role in Morgan Hill's economy by providing relatively low-cost space for small manufacturers and auto-oriented businesses. This area is well established for smaller industrial uses, and offers fewer opportunities for large-scale commercial or industrial development when compared to the Cochrane Road industrial subareas.

FIGURE 9: MORGAN HILL CORE EMPLOYMENT SUBAREAS



Sources: Strategic Economics, 2019; City of Morgan Hill, 2019.

Industrial, R&D, and Office Market Overview

This section presents existing inventory, rents, and vacancy data for industrial building products in Morgan Hill. Strategic Economics reviewed data from two real estate data tracking sources, Costar and Colliers, which have different methodologies for tracking and reporting on real estate inventory. The inventory data available as of Fall of 2019 from both sources are reported in Figure 10.

Warehouse and industrial building space is in high demand in Morgan Hill. Both quantitative data and broker interviews indicate that there is currently very little available warehouse and industrial building space.

Morgan Hill continues to be an attractive destination for industrial firms that are relocating from outside of the city. Brokers have reported that firms interested in relocating to Morgan Hill include San Jose-based companies seeking more affordable rents and firms for which Morgan Hill is the city of residence for business' owners or for a significant share of the business' workforce.

Knowledgeable local brokers confirm that there is currently demand for industrial space from manufacturing, machining, and assembly firms in excess of the supply of building space. Existing industrial tenants in Morgan Hill are seeking space for expansion but are unable to do so because of the lack of available space. Brokers are reporting that some firms have had to leave Morgan Hill in order to expand because they were unable to find affordable built space within the city.

FIGURE 10: INVENTORY, VACANCY RATES, AND RENTS IN MORGAN HILL FOR INDUSTRIAL BUILDINGS BY TYPE

	Inventory		entory	Vacancy Rate		Net Absorption YTD		Rents (annual, per sq. ft.)	
	Number of Buildings [1]	Costar [2]	Colliers [3]	Costar	Colliers	Costar	Colliers	Costar [4]	Colliers [5]
Warehouse	47	1,601,300	482,538	1.6%	0.0%	-18,204	Not reported	\$11.96	Not reported
R&D	36	1,688,743	2,819,449	7.7%	6.5%	7,355	-28,176	\$11.34	\$9.96
Other Industrial	56	1,159,142	2,550,234	4.0%	1.8%	-32,565	40,204	\$20.13	\$14.40
Total/Weighted Average	139	4,449,185	5,852,221	5%	4%	-43,414	_	\$13.85	_

^[1] Reported by Costar,

Sources: Costar, 2019; Colliers, Q2 2019; Strategic Economics, 2019.

^[2] All Costar data reflects 2019 YTD values

^[3] All Colliers data reflects Q2 2019 values

^[4] Represents effective rents

^[5] Represents asking rents

PROPOSED DEVELOPMENTS AND DEVELOPMENT POTENTIAL FOR INDUSTRIAL USES

Based on findings from interviews with knowledgeable local brokers and a review of currently proposed developments, this section provides assessments on the future likelihood for development of Morgan Hill's employment lands.

Industrial rents have continued to rise over several years and as of Fall of 2019 had reached the point at which speculative industrial developments have been proposed. As shown in Figure 11, one industrial speculative development projects has been approved. According to area brokers, several other projects in the development pipeline which are being built by firms currently located in Morgan Hill may also be intended for speculative development, rather than being planned expansion space for those businesses. In recent years, market rents for industrial spaces in Morgan Hill have not been sufficiently high to attract speculative industrial development. These conditions may be changing as rents continue to climb, and other Santa Clara County locations become increasingly costly for industrial users. If rents continue to increase in Morgan Hill, new speculative industrial development projects may be feasible.

The majority of proposed industrial development projects, and all of the major development projects, in Morgan Hill are concentrated in and around Employment Centers, 1, 2, and 3. Proposed projects are mapped in Figure 15 in the Supply of Industrial Land and Buildings section. Note that the General Plan designations shown on the map correspond to the current designations and do not reflect any applications for General Plan amendments.

FIGURE 11: PLANNED AND PROPOSED INDUSTRIAL DEVELOPMENT PROJECTS, 2019

Name	Project Type	Industrial Sq. Ft.	Office Sq. Ft.	Total Sq. Ft.	Status
Butterfield Technology Park	Industrial	600,000		600,000	Proposed
Carpenter's Training Center	Industrial	20,000	35,000	55,000	Proposed
Morgan Hill Technology Park	Industrial and Commercial			1,044,600	Proposed
Applied Motion Products	Industrial	48,000		48,000	Proposed
Techcon	Industrial and Commercial			40,399	Proposed
Shoe Palace Expansion	Industrial and Commercial			503,000	Approved
GSA Expansion	Industrial	40,000		40,000	Approved
Speculative Industrial Building - Madrone Parkway	Industrial	31,172		31,172	Approved
Goyle-AU Energy	Industrial	22,400		22,400	Proposed
Level 10 Construction	Industrial and Commercial			70,266	Proposed
Ceballos Construction	Industrial and Commercial	8,700	8,400	17,100	Proposed

Sources: City of Morgan Hill, 2019; Strategic Economics, 2019.

Projecting Demand for Industrial Employment Land

In order to understand how Morgan Hill's supply of industrial land might compare to future demand for employment uses, Strategic Economics used the employment forecasts from the Metropolitan Transportation Commission (MTC) to estimate future employment growth in Morgan Hill. Then, Strategic Economics converted the projected jobs into building square footage using assumptions about the space required for each employee and the type of built space (industrial, office, R&D, or warehouse) occupied by different industries. These demand projections are intended to represent a range of the possible future scenarios, rather than provide a single number of new jobs for which Morgan Hill should specifically plan. Strategic Economics also constructed a second demand projection using the same methodology but using the historical rate of job growth between 2000 and 2018 to estimate average annual change in the future.

Figure 12 shows the employment demand scenarios on which this range is based. Scenarios 1 and 2 are based on ABAG/MTC's most recent employment projections, published in July 2019. ¹ ABAG/MTC's projections forecast that Morgan Hill's employment in all job categories will grow by 74 new jobs a year between 2020 and 2040. This would represent a substantial reduction in the recent rate of employment growth in Morgan Hill, given that the city added an average of about 451 jobs a year between 2000 and 2018 in all job categories. Scenario 3 assumes that the historical rate of employment growth from the 2000 to 2018 period would remain constant in the future.

In order to determine how many square feet of industrial, R&D, office, and warehouse space new employees would require, Strategic Economics distributed the projected employment growth by sector and then by building type. Assumptions regarding the percent of jobs in each industry category that would be housed in each building type are shown in Figure 24 in the Appendix. Finally, Strategic Economics converted the employment numbers into demand for building space, using rules of thumb about the number of square feet required for each employee. Scenarios 2 and 3 are based on current employment densities: about 500 square feet per worker for industrial space, 800 square feet per worker for warehousing, and 350 for R&D/Office. Scenario 1 assumes that the recent trend towards higher density office and R&D space would continue, with the amount of space allotted per worker falling to 300 square feet for R&D/Office.

• Current projections built on MTC forecasts and on revised historical job growth trends result in estimates of between 46 and 285 new jobs per year in industrial job categories in Morgan Hill. These estimates, presented in Figure 12, reflect industrial, warehousing, and R&D job categories. The conservative employment projections for Morgan Hill represents a significant decrease since the most recent demand analysis was conducted in 2013. According to forecasts at that time, the annual change in job growth for industrial categories in Morgan Hill was estimated to be between 109 and 261 jobs per year, depending on whether the analysis utilized 2030 forecasts from the Association of Bay Area Governments (ABAG, now ABAG/MTC) or forecasts built on a review of historical job growth.

Depending on the employment forecast, there is an estimated demand for between 19,400 and 127,200 square feet per year of industrial, warehousing, and R&D/office space, or a total of 388,000 to 2,544,000 square feet by 2040. The 19,400 to 127,200 square foot range represents the projected annual average demand over the coming decades; in any given year, demand could be higher or lower

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¹ Accessed from http://opendata.mtc.ca.gov/datasets/projections-2040-by-jurisdiction-jobs-and-employment/data

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depending on national, regional, and local economic conditions. These estimates reflect a blended value of projected space needed for building types which vary considerably in their employment densities, including warehouse buildings which have relatively low employment densities and manufacturing and R&D/Office space, which have higher employment densities.

FIGURE 12: PROJECTED EMPLOYMENT DEMAND SCENARIOS

				Total Industrial/ Warehousing/	Retail/	
Scenarios	Industrial	Warehousing	R&D/Office	R&D/Office Jobs	Other Jobs	Total All Jobs
1. ABAG/MTC Employment Projection (High Densities	s)					
Annual Average New Jobs	14	5	27	46	27	74
Square Feet per Employee	500	800	300			
Total Building Demand, 2020-2040 (Sq. Ft.)	136,000	88,000	164,000	388,000		
Average Annual Building Demand (Sq. Ft.)	6,800	4,400	8,200	19,400		
2. ABAG/MTC Employment Projection (Current Densi	ties)					
Annual Average New Jobs	14	5	27	46	27	74
Square Feet per Employee	500	800	350			
Total Building Demand, 2020-2040 (Sq. Ft.)	136,000	88,000	190,000	414,000		
Average Annual Building Demand (Sq. Ft.)	6,800	4,400	9,500	20,700		
3. Historic Employment Growth Rate (Current Densiti	ies)					
Annual Average New Jobs	84	34	167	285	166	451
Square Feet per Employee	500	800	350			
Total Building Demand, 2020-2040 (Sq. Ft.)	838,000	536,000	1,170,000	2,544,000		
Average Annual Building Demand (Sq. Ft.)	41,900	26,800	58,500	127,200		

Note: Columns may not add due to rounding.

Source: California Economic Development Department, 2018; ABAG/MTC, 2019; Strategic Economics, 2020.

Supply of Industrial Land and Buildings

The supply estimates presented in this section were calculated under two different sets of assumptions regarding the vacant land available for industrial development, both of which are presented in Figure 13. The first set of calculations reflect the supply of all land in Morgan Hill designated as Industrial according to the General Plan. The second reflects the supply of all land designated as either Industrial or Commercial/Industrial within the city boundaries, with the understanding that Commercial/Industrial lands could be developed for non-industrial uses as well as for retail commercial uses. While the City of Morgan Hill currently anticipates that most proposals on lands designated as Commercial/Industrial will be for commercial projects, a recent General Plan update changed the allowable uses on these properties to encompass manufacturing and other industrial uses.

For the calculations of Industrial supply alone and the Industrial plus Commercial/Industrial supply, land supply is calculated first for all parcels and separately for only the parcels that do not have developments currently proposed. Figure 25 in the Appendix: Assumptions section provides more detailed supply calculations, followed by a description of the assumptions relevant to this analysis.

- As of Fall of 2019, there are 234 total acres of vacant land suitable for industrial uses located within the city, slightly lower than the supply in 2015. Of these, 161 acres are designated as Industrial and an additional 73 acres are designated as Commercial/Industrial, as shown in Figure 13. As of 2015 the total vacant land suitable for industrial uses was 247 acres. Since the 2015 report, a proposal to re-designate an Industrial area as Residential in Employment Center 3 was approved for a General Plan Amendment, resulting in the reduction of some vacant Industrial land. Morgan Hill's inventory of vacant land suitable for industrial uses is mapped in Figure 14.
- The amount of vacant building space for Industrial uses is lower than it was in 2015. Currently, the vacant building area for Industrial, R&D, and Office uses is about 194,000 square feet according to the real estate data firm Costar, whereas in 2015 this figure was at about 273,000 square feet. The decrease in available space indicates that there is sustained demand for Industrial building product in Morgan Hill.
- Because revised job forecasts currently indicate a decreased demand for employment lands, the supply of land suitable for Industrial employment uses has increased significantly since 2015 and is now sufficient to accommodate projected demand for approximately 25 to 165 years. In other words, the total potential supply of industrial, R&D, warehouse, and office space, including vacant lands and buildings, is enough to satisfy between 25 and 165 years of industrial demand, depending on the pace of job growth (Figure 13). For comparison, the results of the 2015 supply analysis indicated that there were 34 to 77 years of supply on all lands suitable for industrial development citywide. These figures account for all land zoned as Industrial and Commercial/Industrial.
- If all of the city's current development proposals were to be approved and all proposed projects were built, Strategic Economics estimates that there would still be 15 to 95 years of land supply suitable for industrial uses. About 45% of the vacant Industrial and Commercial/Industrial land within the city boundaries is currently proposed for development, as shown in Figure 13, meaning that they are either under review or have received certain approvals from the city. Vacant lands proposed for development and their zoning designations are mapped in Figure 15.

Considering vacant parcels and buildings designated exclusively as Industrial, the current supply of land is between 18 and 116 years. If only the Industrial lands without development proposals are taken into consideration, the supply is sufficient to accommodate demand for 11 to 70 years.

FIGURE 13: SUMMARY OF INDUSTRIAL LAND SUPPLY BY GENERAL PLAN DESIGNATION AND DEVELOPMENT PROPOSAL **STATUS, 2019**

	Industri	al and Commercial/Industrial	Industrial Alone		
	Total	Total, Excluding Land with Development Proposals	Total	Total, Excluding Land with Development Proposals	
Vacant Industrial Land (In Acres)	234	130	161	93	
Years of Supply - High End Demand Projection [1]	25	15	18	11	
Years of Supply - Low End Demand Projection [2]	165	95	116	70	

^[1] Historic Employment Growth Rate (Current Densities) Scenario [2] ABAG Employment Projection (High Densities) Scenario

Sources: City of Morgan Hill, 2019; Costar, 2019; ABAG/MTC, 2019; Strategic Economics, 2019.

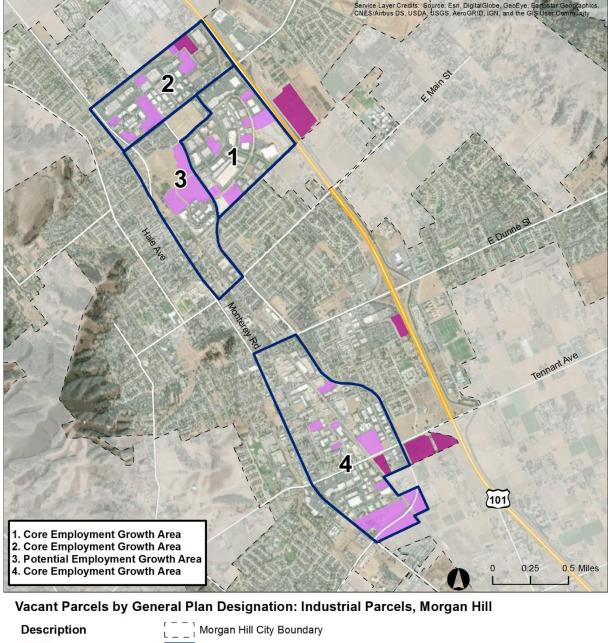
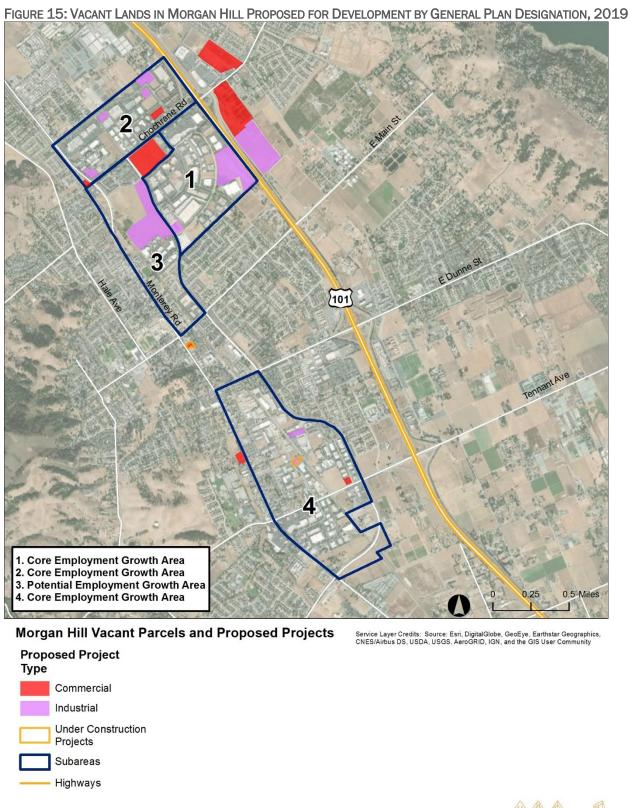


FIGURE 14: VACANT PARCELS SUITABLE FOR INDUSTRIAL USES, 2019



Sources: Strategic Economics, 2019; City of Morgan Hill, 2019.





Sources: Strategic Economics, 2019; City of Morgan Hill, 2019.

V. RETAIL COMMERCIAL MARKET OVERVIEW

This section provides an overview of the Morgan Hill retail market to draw conclusions about future demand for additional retail development. It updates the Monterey Corridor Market Analysis completed by Lisa Wise Consulting, which analyzed citywide retail trends from the Great Recession through 2017. This section also analyzes the performance of the city's shopping centers by location, the current retail commercial development pipeline, and the inventory of vacant parcels in the city that are zoned for commercial uses and which could potentially support retail development in the future. In addition, this section introduces information on national and regional retail trends to deliver broader context on the factors affecting the retail industry and how they are likely to play out within Morgan Hill.

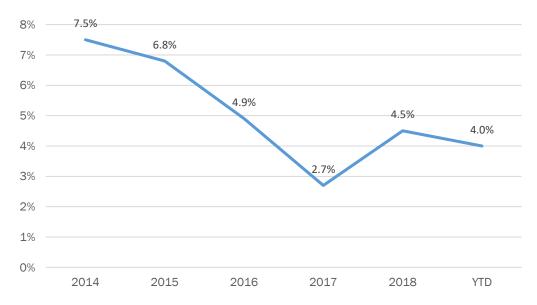
Recent Retail Trends in Morgan Hill

This section reviews various metrics of the performance of the city's retail overall and within the city's major shopping centers. The analyses are intended to supplement the citywide findings from the Monterey Corridor Market Analysis published in 2017. Vacancy rates, retail building rents, and taxable sales values are presented and analyzed for both the city of Morgan Hill, while vacancy rates and taxable sales with spatial information to discuss the performance of shopping centers in relation to their location within the city.

CITYWIDE RETAIL PERFORMANCE

- Retail vacancy rates have risen slightly in the last couple of years and are currently at four percent. Vacancy rates for Morgan Hill are displayed in Figure 16. As shown, since 2015, Morgan Hill's vacancy rates have stayed below five percent, which is considered very strong in the retail industry.
- As vacancy rates have decreased, retail rents have increased to approximately \$31 per square
 foot per year. Rents have risen by approximately 5.8 percent since the most recent retail
 analysis was performed for the city in 2017. Sustained growth in retail rents is another
 indicator that retail in the city is performing well. This data is presented in Figure 17.

FIGURE 16: RETAIL VACANCY RATES IN MORGAN HILL, 2014-2019



Sources: Costar, 2019; Strategic Economics, 2019.

FIGURE 17: RETAIL RENTS (NNN) IN MORGAN HILL, 2014-2019



Sources: Costar, 2019; Strategic Economics, 2019.

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PERFORMANCE OF SHOPPING CENTERS

Strategic Economics examined the taxable sales for the city's major shopping centers to better understand the sales activity at individual centers. This information was combined with available data from Costar on leasable area to calculate the taxable sales per square foot for each shopping center in addition to vacancies. Based on all of these indicators, Strategic Economics summarized the overall performance of the city's shopping centers. Note that taxable sales per square foot has several limitations, including:

- Non-retail businesses which occupy retail space, including gyms, movie theaters, and banks, generate low sales tax revenue, but could still be important tenants and activity generators in shopping centers;
- Auto dealerships and gas stations result in significantly higher taxable sales than other types
 of retail stores.

On balance, taxable sales from retail in Morgan Hill have increased over the last two years. The data presented in Figure 18 reflects taxable sales in all of the city's major shopping centers, plus the Downtown area bounded by Dunne Avenue and Main Avenue. These totals exclude taxable sales in areas that see primarily business-to-business taxable sales, including Morgan Hill Ranch, the Madrone Parkway area, and Concord Circle. The dip in taxable sales observed in the first quarter of 2019 was driven overwhelmingly by decreases in sales at the NW Dunne shopping center, which is discussed in more detail below.

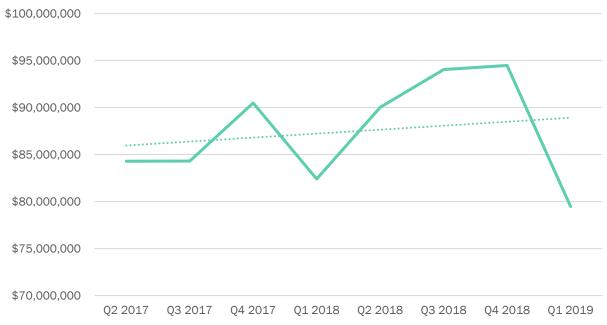
Most of Morgan Hill's individual shopping centers are performing relatively well. Most of the city's seven shopping centers have healthy vacancy rates and taxable sales that have remained roughly consistent over a two-year period. Only one shopping center – Cochrane Plaza – has both a high vacancy rate and consistently low taxable sales, indicating that its performance may be flagging.

Currently, all but three of the city's seven shopping centers have healthy vacancy rates. As shown in Figure 20, the three centers with high vacancy rates include Madrone Village, Cochrane Plaza and Laurel Oaks. In some cases, these vacancies may be temporary due to the departure of larger tenants.

Taxable sales have been stable for each shopping center except for NW Dunne, which is dominated by automobile sales. Figure 19 presents the taxable sales per square foot values in each shopping center for each of the last eight quarters, ending with the first quarter of 2019, and Figure 21 maps shopping centers by their taxable sales per square foot metric.

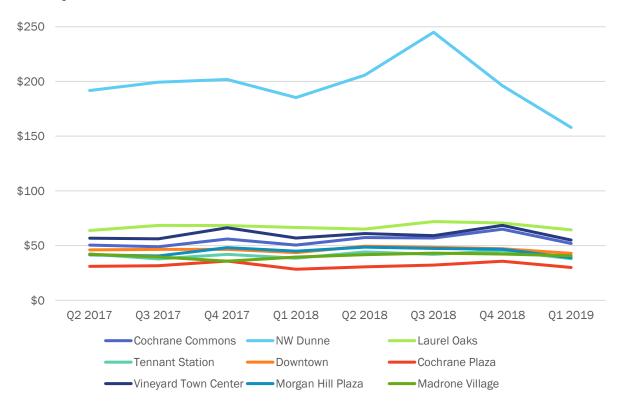
On a per-square-foot basis (excluding auto sales), Cochrane Commons and Vineyard Town Center are the city's strongest performing centers. These two centers are anchored by convenience retailers, including Target and Safeway, and provide for the daily needs of residents, employees, and visitors to Morgan Hill. Most other retail centers are providing a considerably lower amount of revenue per square foot.

FIGURE 18: TAXABLE SALES GENERATED IN DOWNTOWN AND IN SHOPPING CENTERS IN MORGAN HILL, Q2 2017 - Q1 2019



Source: City of Morgan Hill, 2019; Strategic Economics, 2019

FIGURE 19: QUARTERLY TAXABLE SALES PER SQUARE FOOT OF RETAIL BY SHOPPING CENTER IN MORGAN HILL, Q2 2017 - Q1 2019



Source: City of Morgan Hill, 2019; Costar, 2019; Strategic Economics, 2019.

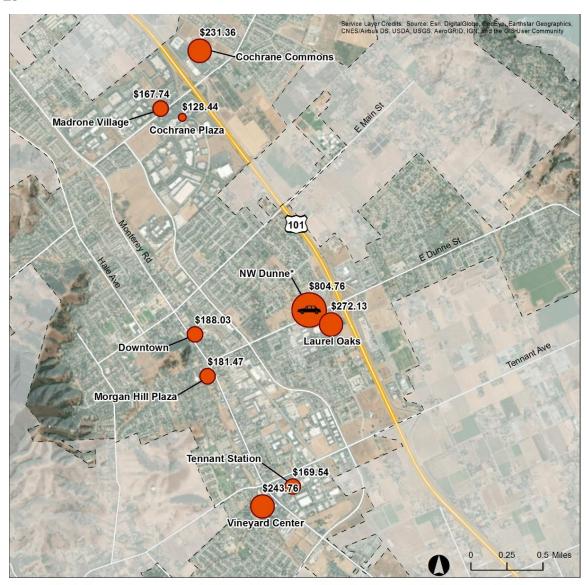
Industrial and Retail Commercial Market Memo

FIGURE 20: TAXABLE SALES AND VACANCY RATES OF MORGAN HILL SHOPPING CENTERS

Shopping Center	Anchor Tenants (if applicable)	Taxable Sales (Q2 2018 - Q1 2019)	Taxable Sales per Sq. Ft. (Q2 2018 - Q1 2019)	Vacancy Rate (2019 YTD)
Cochrane Commons	Target	\$71,414,800	\$231.00	3%
NW Dunne	N/A	\$70,059,800	\$805.00	0%
Laurel Oaks	Safeway; Home Depot Nob Hill Foods; TJ	\$56,798,500	\$272.00	13%
Tennant Station	Maxx	\$44,951,500	\$170.00	3%
Downtown	N/A	\$35,196,200	\$188.00	1%
Cochrane Plaza Vineyard Town	Walmart	\$32,415,100	\$128.00	13%
Center	Safeway	\$27,171,000	\$244.00	0%
Morgan Hill Plaza	Ross; Dollar Tree	\$15,356,700	\$181.00	2%
Madrone Village	None	\$4,614,600	\$168.00	18%

Source: Costar, 2019; City of Morgan Hill, 2019; Strategic Economics, 2019.

FIGURE 21: TAXABLE SALES PER SQUARE FOOT OF RETAIL FOR MORGAN HILL SHOPPING CENTERS, Q2 2018 - Q1 2019



Taxable Sales per Square Foot of Retail: Morgan Hill Retail Areas, Q2 2018 - Q1 2019



Sources: Strategic Economics, 2019; City of Morgan Hill, 2019.

CURRENT DEVELOPMENT PIPELINE AND GEOGRAPHY OF NEW DEVELOPMENT

Recent retail development and planned retail is concentrated in two locations: along Cochrane Road and in Downtown Morgan Hill along Monterey Road, and are almost exclusively being developed in mixed-use arrangements. The sole exception to this was a CVS that added approximately 15,000 square feet of retail on Dunne Street. Development pipeline retail projects are shown in Figure 22 and new and planned retail is mapped in Figure 23.

A majority of projects that have added retail space to Morgan Hill's inventory since 2010 have occurred in the form of small, ground-floor components of mixed-use developments. Other projects include additions to existing shopping centers, a small shopping center with spaces suitable primarily for food service establishments, and the stand-alone CVS store. Only one of the retail development pipeline projects is a major new shopping center.

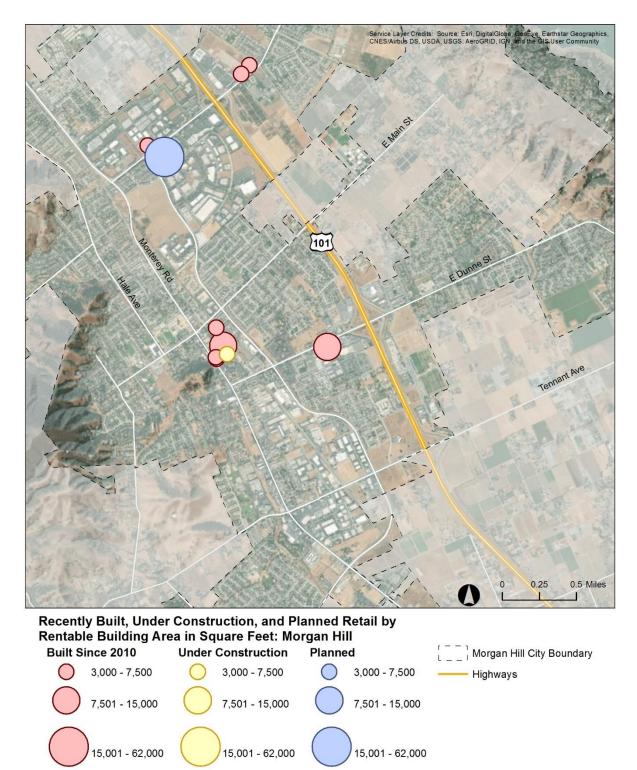
Evergreen Village, a new, mixed-use project on Cochrane Avenue is currently undergoing site prep and has the potential to add a total of about 61,000 square feet of retail space. This represents the largest planned addition to the city's retail inventory since the first phase of the Cochrane Commons shopping center was completed in 2007.

FIGURE 22: RETAIL COMMERCIAL DEVELOPMENT PIPELINE PROJECTS, 2019

				Other		
Name	Project Type	Retail Sq. Ft.	Office Sq. Ft.	Commercial Sq. Ft.	Total Sq. Ft.	Status
Evergreen Village	Retail, Office, and Hotel	61,700	49,000	83,397	194,097	Approved
Granary Expansion	Gym			3,747		Under Construction
Sunsweet Apartments	Retail and Office (within Mixed-Use Apartment Building)	7,053			7,053	Under construction
Granada Hotel	Hotel	21,127		47,787	68,914	Under construction
Total		64,700	52,000	87,144	200,097	

Sources: City of Morgan Hill, 2019; Strategic Economics, 2019.

FIGURE 23: RECENTLY COMPLETED AND PIPELINE RETAIL, 2019



Sources: Strategic Economics, 2019; City of Morgan Hill, 2019.

STRATEGICECONOMICS

Development Potential for Retail Commercial Uses

The potential for additional retail development in Morgan Hill is a function of both national and local trends. Nationally, the retail industry is currently restructuring itself in response to various conditions, especially e-commerce. The years 2017 through 2019 have seen record store closings and very few retail categories are seeing a net increase of store openings.² The retail centers which are best positioned to thrive in this new retail context include those with mixed-use and experiential elements, including dining and entertainment. Local conditions that are relevant for retail commercial development potential are discussed below.

- Proposed retail commercial projects are concentrated in Employment Centers 1, 2, and 3, in
 close proximity to many of the city's major employers and to a large number of the currently
 proposed industrial projects. This reflects the preferences of retailers to be located in areas
 that can receive pass-through traffic from commuters. Proposed projects on lands designated
 for retail commercial uses are presented in Figure 15 in the Supply of Industrial Land and
 Buildings section.
- The areas which have recently seen the greatest amount of new retail development and proposals in the pipeline include the Cochrane Road area and Downtown Morgan Hill, although it is unclear how much additional retail could be supported in this area. Future development of industrial buildings in the Cochrane Road area could have the effect of creating additional retail demand in the area from future employees, the planned mixed-use development on Cochrane Road could absorb much of this new demand, especially given that some of these projects may not be approved or completed.
- There is some demand for Morgan Hill's vacant retail commercial space, but available parcels
 are significantly larger than what most potential users are seeking. According to brokers, the
 greatest market interest for vacant parcels comes from auto dealers and hotels. Many of the
 vacant commercial parcels in the city are large enough to support major regional shopping
 centers, but current demand is for smaller properties.
- According to the Lisa Wise Consulting study and broker interviews, the relatively modest growth in population and employment in Morgan Hill is unlikely to support another regional shopping center in the next 15 years. The most recent large-format retail center built in Morgan Hill was Cochrane Commons (2007). Currently the Evergreen Village center, a mixed-use development that will include restaurants, retail, offices, and a senior living facility, is undergoing site work and most of the pads had either been ground-leased or are in negotiation. While this center is entitled for up to 61,000 square feet of retail, developers who hold ground leases are showing greater interest in developing restaurant space rather than retail space, according to local brokers. As a result, if current trends are to continue, it is very unlikely that a major regional shopping center that would appropriate for the size of the vacant commercial parcels in Morgan Hill would occur within the next 15 years.

² New York Times, April 12, 2019. "U.S. Retail Stores' Planned Closings Already Exceed 2018 Total." https://www.nytimes.com/2019/04/12/business/retail-store-closings.html

APPENDIX: ASSUMPTIONS

Demand Analysis

FIGURE 24: JOB DISTRIBUTION BY BUILDING TYPE ASSUMPTIONS

		Job Distribution by Building Type				
Sector	% of Total Workforce [1]	Industrial	Warehousing	R&D/Office	Other	
Manufacturing, Wholesale, Construction				-		
[2]	37%	50%	20%	30%		
Financial, Professional, Technical [3]	17%			90%	10%	
Health & Education Services	16%			70%	30%	
Retail, Accommodation & Food Services	24%				100%	
Other [4]	7%				100%	
Total	100%					

^[1] Based on Morgan Hill's employment by industry in 2018 (California Economic Development Department)

^[2] Includes Manufacturing, Wholesale, Transportation & Warehousing, and Construction jobs.

^[3] Includes Professional, Scientific and Technical Services; Finance, Insurance, & Real Estate; Information; Management of Companies and Enterprises; and Administration, Support, & Waste Management.

^[4] Includes Other Services and Natural Resources & Utilities.

Source: California Economic Development Department, 2018; Strategic Economics, 2019.

Supply Analysis

FIGURE 25: SUPPLY PROJECTIONS FOR INDUSTRIAL AND COMMERCIAL/INDUSTRIAL LAND, 2019

Assumptions	Industrial ar	nd Commercial/Industrial	Industrial Alone		
Vacant Industrial Land	Total	Total, Excluding Land with Development Proposals	Total	Total, Excluding Land with Development Proposals	
In Acres	234	130	161	93	
In Square Feet	10,197,653	5,661,669	7,024,576	4,049,196	
Maximum Building Coverage	30%	30%	30%	30%	
Maximum Building Area (Acres)	70.2	39.0	48.4	27.9	
Maximum Building Area (Sq. Ft.) [1]	3,059,296	1,698,501	2,107,373	1,214,759	
Existing Vacant Industrial, R&D, Office, and Wareh Buildings	nouse				
Total Vacant Building Area (Sq. Ft.) [2]		194,90	00		
75% of Building Area (Sq. Ft.)		146,20	00		
Total Potential Supply (Sq. Ft).	3,205,496	1,844,701	2,253,573	1,360,959	
Demand Compared to Supply					
High End Demand Projection [3]					
Annual Average Demand		127,20	00		
Years of Supply	25	15	18	11	
Low End Demand Projection [4]					
Annual Average Demand		19,40	0		
Years of Supply	165	95	116	70	

^[1] Assumes maximum building coverage ratio of 30% and FAR of 1, based on current market conditions.

^[2] Costar, 2019.

 ^[3] Historic Employment Growth Rate (Current Densities) Scenario.
 [4] ABAG Employment Projection (High Densities) Scenario.
 Sources: City of Morgan Hill, 2019; Costar, 2019; ABAG/MTC, 2019; Strategic Economics, 2019.

The following describes the key assumptions used in the supply analysis.

- Employment Growth: Overall, Strategic Economics projects demand for between 19,400 and 127,200 square feet a year of industrial, warehousing, R&D, and office space, or a total of 194,000 to 1,272,000 square feet by 2030. The 19,400 to 127,200 square foot range represents the projected annual average demand over the coming decades; in any given year, demand could be more or less depending on national, regional, and local economic conditions. The low end of the range is based on Association of Bay Area Government's 2019 projections, which forecast that Morgan Hill's employment will grow by 46 new industrial jobs a year over a twenty-year period. This would represent a substantial reduction in the rate of employment growth in Morgan Hill over the past eight years. The high end of the range is based on the historic rate of employment in Morgan Hill between 2000 and 2018, when the City added 451 jobs per year.
- Demand for New Industrial, R&D, and Office space: In order to determine how many square feet of industrial, R&D, office, and warehouse space these new employees would require, Strategic Economics distributed the projected employment growth by sector and then by building type. Strategic Economics then converted the employment numbers into demand for building space, using rules of thumb about the number of square feet required for each employee (500 square feet per worker for industrial space, 800 square feet per worker for warehousing, 300 to 350 square feet for R&D and Office).
- Lot Coverage: Aerial photographs of the city's newest business parks (e.g. Morgan Hill Ranch and Madrone Business Park) show that recent industrial and commercial development in the city has tended to be one-story high, with the total ground floor area covering no more than 30 percent of the available land area. The analysis assumes that this land use pattern (30 percent coverage ratio, 1-story development) is maintained.
- Absorption of Existing Vacant Space: All of the scenarios further assume that 75 percent of the
 currently vacant buildings in Morgan Hill about 194,900 square feet will be absorbed
 before new development occurs, allowing for some ongoing vacancies caused by friction in the
 market and obsolescence of some of the existing building stock.
- Total Potential Building Area: Includes both the maximum building area that could be developed on the vacant industrial land area considered in the scenario (subject to the lot coverage assumptions discussed above), and the 194,900 square feet of existing inventory that is expected to be absorbed into the market before new development occurs.
- Development Constraints on Vacant Land: This analysis did not account for any development
 constraints that may be present on vacant land. Some industrially-designated parcels in
 Morgan Hill currently have constraints such as natural hazard risks, soil contamination, and
 roadway access issues, all of which would require improvements prior to new development.
 These parcels will likely develop after all other potential development sites have been
 exhausted, as they will not be as viable for development in consideration of the higher costs
 of development associated with required land improvements.