

MARKET DEMAND ANALYSIS
for the
RAVENSWOOD DISTRICT
EAST PALO ALTO, CALIFORNIA

Prepared by

MUNDIE & ASSOCIATES
Consultants in Land Use & Economics
3452 Sacramento Street
San Francisco, CA 94118

for

The City of East Palo Alto



February, 2009

TABLE OF CONTENTS

Chapter	Page
EXECUTIVE SUMMARY	S1
1. INTRODUCTION	1
Background for This Report	1
Changes in East Palo Alto Since the Earlier Market Analysis was Prepared	2
Planning for the Future in the Current Economic Environment	3
2. MARKET FOR NONRESIDENTIAL BUILDING SPACE	5
Background: East Palo Alto on the Peninsula and in Silicon Valley	5
Demand for Building Space and Land	5
Employment Projections	6
Building Space Needed	11
Land Requirement	13
Conditions that May Affect East Palo Alto’s Ability to Capture Potential Demand	16
Issues and Challenges	16
Seizing the Opportunities of the Ravenswood District	21
What To Do Next?	22
3. MARKET FOR RESIDENTIAL SPACE	27
Background: East Palo Alto on the Peninsula and in Silicon Valley	27
Demand for Housing	27
New Households	28
New Housing Units	28
Adjustment to Estimate of New Housing Units	29
Conditions that May Affect East Palo Alto’s Ability to Capture Potential Demand	30
Appendix A: Benefits from Different Land Uses	
Appendix B: Comparison of Results to the Market Analysis Prepared in 1999-2000	
Appendix C: Inventory of Projects Proposed, Approved, or Under Construction in Mid-2008	
Appendix D: Higher Estimate of Employment Growth, Demand for Building Space, and Land Requirements	
Appendix E: Assignment of Employment to Building Space: Further Discussion	

LIST OF TABLES

Table	Page
1. Industry Distribution of Jobs in East Palo Alto, 2005 and 2010	6
2. Projected New Jobs in East Palo Alto, 2010-2020 and 2010-2030	7
3. Industry Distribution of Jobs in the Five-City Area, 2005 and 2010	7
4. Projected New Jobs in the Five-City Area, 2010-2020 and 2010-2030	8
5. Industry Distribution of Jobs in the Two-County Area, 2005 and 2010	9
6. Projected New Jobs in the Two-County Area, 2010-2020 and 2010-2030	9
7. Building Space Needed to Accommodate Employment Growth in East Palo Alto, by Type of Space, 2010-2030	12
8. Nonresidential Projects Approved but Not Yet Built	12
9. Net Additional Building Space (Beyond Current Approvals) Required to Accommodate Projected Demand, 2010-2030	13
10. Land Required to Accommodate Employment Growth (Not Adjusted for Approved Projects)	14
11. Land Occupied by Approved Projects	15
12. Land Required to Accommodate Employment Growth (Assuming Approved Projects are Built as Approved)	15

EXECUTIVE SUMMARY

This report provides an update of the market analysis conducted for the City of East Palo Alto in 1999-2000. That earlier report provided the economic background for an urban design study focused on three areas of the City: the Ravenswood Industrial Area, Four Corners (Town Center), and the University Avenue Corridor. This analysis considers projected employment growth throughout the City, but focuses its discussion of land use change on the Ravenswood District.

This report recognizes that the national and local economic environment changed shortly after the 1999-2000 report was published, and that – especially in light of current (2008-2009) economic conditions, the projections of employment and demand for building space derived in the earlier report are unlikely to be achievable during the next several decades. In this context, this market update reaches the following conclusions:

- It is likely to take longer than was previously anticipated for local employment growth to add a sufficient number of jobs that new building space will be required to accommodate them. At the same time, planning and development activity on the Peninsula suggests that companies seeking to build (additional) space that they can own and occupy, as well as developers anticipating the need for new or different types of space, are positioning themselves to provide for expected growth. The timing is advantageous for East Palo Alto to formulate and adopt a plan that can capture the demand for new building space as the economy emerges from the current recession.
- In its *Projections 2007*, the Association of Bay Area Governments (ABAG) anticipates that East Palo Alto will add about 1,640 jobs between 2010 and 2020, and 3,440 jobs between 2010 and 2030.
 - The new jobs are expected to require more than 820,000 square feet of new building space in East Palo Alto between 2010 and 2030. Most of this space (nearly 350,000 square feet) would be in industrial buildings, suitable for use by manufacturing, wholesale trade, and transportation activities. Another 260,000 square feet would be in office space, and more than 200,000 square feet would be in retail stores.
 - If space in projects already approved is deducted from this total, the City would need approximately 400,000 square feet of space to accommodate future economic growth: nearly 200,000 square feet in retail stores, 120,000 square feet of industrial space, and 80,000 square feet of offices.
 - The new building space (excluding projects already approved) would occupy between 28 and 56 acres of land.
- In a more aggressive scenario, assuming that East Palo Alto can capture twice the number of new jobs anticipated in ABAG's *Projections 2007*, the City would gain 6,885 new jobs between 2010 and 2030. These new jobs would require as much as 1.64 million square feet of new building space between 2010 and 2030 (including projects already approved): nearly 700,000 square feet of industrial space, 520,000 square feet of office space, and 430,000 square feet of retail space. These buildings (including approved projects) would occupy between 93 and 150 acres of land.
- *Projections 2007* also anticipates that East Palo Alto will add 3,080 new households between 2010 and 2030. These households would require between about 2,700 and 3,600 new hous-

ing units (to allow for vacancies and other conditions needed for a healthy housing market). With 100 townhomes and 87 live-work units already approved, the City would need an additional 2,500 to 3,500 new dwellings.

- East Palo Alto's ability to capture the projected amounts of economic and residential growth and development will require the City to take a series of strong, coordinated actions to overcome existing challenges and create the conditions that will attract the interest of developers, businesses, and prospective residents. These actions include:
 1. Adoption of a Development Plan for the area, which would include
 - land use regulations
 - a Master Infrastructure Plan that is supported by the landowners (along with an infrastructure phasing plan and an infrastructure financing plan for needed improvements)
 2. Certification of environmental clearance for projects that are consistent with the Development Plan;
 3. Establishment of working relationships with other agencies that have jurisdiction in the District, and
 4. Provision of a central point of contact and a process for expedited approval of projects that conform to the adopted plan.

1. INTRODUCTION

BACKGROUND FOR THIS REPORT

This report provides an update of a market analysis conducted for the City of East Palo in 1999-2000. That earlier report provided the economic background for an urban design study focused on three areas of the city: the Ravenswood Industrial Area, Four Corners (Town Center), and the University Avenue corridor.

The projections of demand for building space presented in that report were based in part on the then-current set of projections published by the Association of Bay Area Governments (ABAG), *Projections 98*, and in part on interviews and other primary market research conducted specifically for the planning effort. At the time that study was prepared, the Bay Area was in the middle of an economic cycle that has come to be known as the “dot-com boom.” The growth of the internet fueled a strong expansion of start-up companies that intended to make use of this new arena for communication, and established companies that would serve the start-ups – e.g., with legal and financial services – both expanded and sought locations within Silicon Valley to meet the growing demand for their products (goods and services).

By the time the final market analysis was published, in the middle of 2000, a preface to the market analysis concluded with the following caution:

Nine months later, the market analysis that was prepared in 1999 seems conservative. While continued growth of the internet-based economy at the rates observed in the first half of 2000 cannot be assured, the demand for office space is ongoing and the rents commanded by the space that is available are higher than ever before. . . .

The market analysis presented in the [2000] report does not reflect the market changes that have occurred since the draft document was prepared.

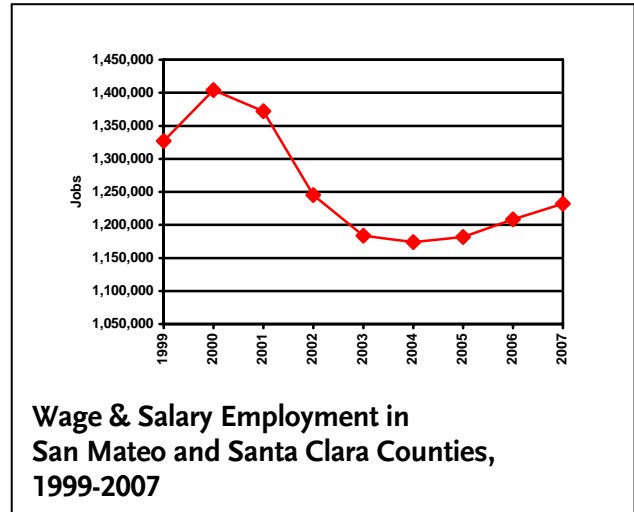
During the dot-com boom, land and building space commanded premium prices in Silicon Valley. It seemed entirely possible that East Palo Alto could capture more office development than had been proposed (but not yet built) for the University Circle site, and that the Ravenswood area – rechristened the Ravenswood Business District – could become a new hub of office- and R&D-based economic activity.

At the same time, East Palo Alto was attracting new attention as a possible residential location. Silicon Valley workers, faced with a choice between hours-long commutes from eastern Alameda and Contra Costa Counties, southern Santa Clara County, or even Monterey County on the one hand or a pioneering home purchase in East Palo Alto, chose the latter and waited in overnight lines for new homes being built at University Square, near the new Ravenswood 101 shopping center.

Shortly after that report was published, economic conditions changed: the “dot-com bust” arrived. Employment in the two counties of Santa Clara and San Mateo, which encompass Silicon Valley, declined by about two percent between 2000 and 2001, and another nine percent between 2001 and 2002. By 2007, total wage and salary employment in the two-county area had still not recovered to its pre-bust level.

The decline in Silicon Valley employment undermined the expectation that office demand would find its way to the Ravenswood Business District in the near term. As work on the environmental assessment and other documents required for plan adoption progressed, a plan that had seemed conservatively low in the dot-com boom era of 1999-2000 came to seem highly questionable in 2002. Adoption and implementation of the vision for Ravenswood Business District were never completed.

Notwithstanding the decline in demand for office and R&D space, the housing market remained solid until sometime in 2007. East Palo Alto added nearly 700 housing units between 2000 and 2008; of those, about half were detached single family homes and about half were in multi-family structures of five or more units.¹



Today, in 2009, the City of East Palo Alto is ready to reconsider the plan for the Ravenswood district. This renewed assessment of the potential for development recognizes continuing economic and physical influences on Ravenswood’s development prospects:

- Economic cycles will continue, and will affect the timing of new development.
- Like local economic hubs elsewhere, Ravenswood’s transition to its full economic potential is likely to be achieved via a multi-step process: first, establishment of a locational identity; second, development of new land uses in less-intensive formats that can be served by surface parking; and, finally, increasing land values that justify more intensive development and structured parking to serve that development.
- Issues that affected the attractiveness of the Ravenswood district at the beginning of this decade continue to inhibit development there. These issues include image, access, environmental challenges (e.g., hazardous materials and endangered species), and a protracted approval process for new projects.

CHANGES IN EAST PALO ALTO SINCE THE EARLIER MARKET ANALYSIS WAS PREPARED

In 1999, East Palo Alto was the overlooked city in San Mateo County. According to the earlier market analysis:

While neighboring cities have ridden the wave of high tech research, development, and manufacturing to achieve ongoing business investment and development of high-income residential neighborhoods that continue to increase in value, East Palo Alto is a

¹ State of California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State, 2001-2008, with 2000 Benchmark. Sacramento, California, May 2008.

lower-income city that has faced ongoing challenges of real and perceived crime, struggling finances, and less adequate services and infrastructure. Perceptions of the City that reflect these challenges have discouraged interest by developers; redlining (and abandonment) by financial institutions have left East Palo Alto to struggle for financial viability.

Even while the dot-com bust was creating new challenges for the cities that had “ridden the wave,” East Palo Alto achieved notable gains during the first part of the current decade:

- The Ravenswood 101 Shopping Center was developed and continues to operate successfully. Anchor tenants include IKEA, Best Buy, Home Depot, Nordstrom Rack, and Sports Authority.²
- University Circle, a hotel and office complex on the west side of U.S. 101, was developed after many years of planning and litigation. The office space in the project is practically 100 percent occupied, and the hotel operates successfully.
- University Plaza, an office project proposed for the corner of University Avenue and Donohoe Street on the east side of U.S. 101, has been approved. The site has been cleared, and construction is expected to begin in 2009.
- University Square, a single-family subdivision of 217 homes was built in three phases beginning in 2000. Prices in Phase 1 started in the mid-\$500,000s (significantly higher than the more typical price of \$250,000 for single family homes in East Palo Alto at the time); by 2005, prices in the area had risen to more than \$800,000.
- Several projects have been approved for the Ravenswood Business District. South of Bay Road, these projects would provide 22 industrial condominiums (94,000 square feet of building space), 45 housing units, and 7 live-work units. North of Bay Road, the Tara Road industrial condominiums would provide 44,000 square feet of building space; Bay Business Park would provide 89,000 square feet of office/R&D space, and the 2555 Pulgas Avenue project, which is seeking entitlements, would provide 80 live-work units.

Notwithstanding these marked achievements, East Palo Alto nevertheless suffered employment losses during the past decade. ABAG estimates that the number of jobs within the city decreased from 3,040 in 2000 to 2,150 in 2005, and does not project recovery of the lost jobs before 2010.

PLANNING FOR THE FUTURE IN THE CURRENT ECONOMIC ENVIRONMENT

The condition of the economy has changed significantly since *Projections 2007* were prepared. It is considered likely that employment in the two-county area (San Mateo and Santa Clara Counties) will decline in the near term, and that some vacancies in nonresidential space will emerge.³ Those

² Nordstrom Rack and Sports Authority will open in the second quarter of 2009, replacing Expo Design Center.

³ The Association of Bay Area Governments (ABAG) estimates that the nine-county Bay Area lost about 4,000 jobs in 2008, and will lose nearly 57,000 jobs in 2008 and 5,600 jobs in 2009 (*Bay Area Economic Outlook 2009-10*, handout at “Have We Hit Bottom?,” Bay Area Economic Outlook, January 29, 2009). Market summaries prepared by the various real estate brokerages that track the absorption of nonresidential building space report “negative absorption” – that is, increasing vacancy rates – in most types of space during the past several quarters.

vacancies would likely be refilled before new construction is undertaken. Notwithstanding assertions by the developers of University Plaza that they plan to proceed with construction after the winter, it is not clear that the space already approved in East Palo Alto will be built in the near term.

The current economic downturn (now officially called a recession) is expected to be more severe and longer-lasting than most of the economic cycles experienced in the United States in at least 20 years.⁴ Therefore, it is likely to take longer than was previously anticipated for local employment growth to add so many jobs that more building space is required.

Under these conditions, it can be difficult to bring into focus the upturn that will succeed the current decline, and the demand for new land uses that will result. But economic cycles – even those like today’s that include large downward fluctuations – eventually turn upward.

Hints of that future upturn can be observed among current local economic indicators. For example, even though employment in the San Mateo and Santa Clara Counties (referenced in this report as “the two-county area”) decreased by nearly 230,000 jobs (more than 16 percent) between its peak in 2000 and 2003 and remained lower than the peak as late as 2007, significant new construction was proposed, approved, or under way by the middle of 2008.⁵

As suggested above, some of these planned projects may be delayed by current economic conditions. Firms seeking new space may instead make more cautious decisions, occupying existing vacant buildings and adapting those buildings to meet their specific needs, before taking the risk of commissioning new buildings that have the specific locational or structural features that they would prefer.

The level of activity suggests, however, that companies seeking to build (additional) space that they can own and occupy as well as developers anticipating the need for additional or different types of space are positioning themselves to accommodate expected employment growth. The challenge of a study like this one is to reflect a reasonable range of economic conditions as the context for scenarios that will bring new development when the eventual upturn occurs.

To provide the most useful foundation for future plans, this market analysis (1) considers available information about demand for all types of residential and nonresidential building space that may be anticipated in East Palo Alto, based on the currently-available projections from ABAG and interviews with realtors and developers on the Peninsula; (2) identifies the physical, perceptual, financial, and regulatory factors that will affect East Palo Alto’s ability to capture that demand, and finally (3), suggests an approach to maximizing the appeal of the Ravenswood Business District to future development.

⁴ David Jolly, “First World Said to Face Protracted Slowdown,” *New York Times*, November 25, 2008. According to the Organization for Economic Cooperation and Development (OECD), “Many advanced economies are in or nearing downturns of a magnitude not experienced since the early 1980s.”

⁵ See Appendix B for the inventory of projects in San Mateo County and a few communities in northern Santa Clara County in mid-2008.

2. MARKET FOR NONRESIDENTIAL BUILDING SPACE

BACKGROUND: EAST PALO ALTO ON THE PENINSULA AND IN SILICON VALLEY

The City of East Palo Alto is situated 35 miles south of San Francisco, at the southern edge of San Mateo County. The City is bounded by the City of Palo Alto on the west and south, the City of Menlo Park on the west and north, and San Francisco Bay on the east. In this location, it is near the heart of Silicon Valley: that area of California that is the birthplace and heart of the high tech industry.

The market analysis prepared by Mundie & Associates in 1999-2000 notes:

The Silicon Valley area has experienced strong and sustained economic growth during the past 40 years, but East Palo Alto has not shared the region's economic prosperity. While neighboring cities have ridden the wave of high tech research, development, and manufacturing to achieve ongoing business investment and development of high-income residential neighborhoods that continue to increase in value, East Palo Alto is a lower-income city that has faced ongoing challenges of real and perceived crime, struggling finances, and less adequate services and infrastructure. . . .

Although it has not shared in the past economic growth of the surrounding area, East Palo Alto has developed and supported the Ravenswood 101 shopping center and the University Circle office/hotel complex. These projects have fostered positive images of the City and have provided some employment opportunities for City residents.

East Palo Alto has also approved several new nonresidential developments that would accommodate a variety of business types (see Table 8, p. 12). The ongoing interest in development opportunities reinforces the perception that the City is likely to be increasingly integrated into the economic system of Silicon Valley if it can capitalize on the opportunities that arise.

DEMAND FOR BUILDING SPACE AND LAND

The demand for land designated for nonresidential development and for building space on that land results from employment growth: new jobs that are located in structures.

The Association of Bay Area Governments (ABAG) prepares forecasts of regional employment and population growth, and updates those forecasts approximately once every two years. Beginning with *Projections 2003*, the ABAG forecasts have incorporated a policy platform: they are consistent with a "smart growth" approach to regional development, which emphasizes the intensification of land development within the existing urban footprint, and especially near transit.

This analysis uses the current set of ABAG projections, *Projections 2007*, as a starting point for estimating the demand for nonresidential building space and land. Recognizing the indications

that East Palo Alto is likely to become more integrated into the Silicon Valley economy, the study considers the projections for three geographic areas: (1) the City of East Palo Alto, (2) the five-city area comprised of East Palo Alto, Palo Alto, Menlo Park, Mountain View, and Redwood City, and (3) the two-county area (San Mateo and Santa Clara Counties). This approach posits that if East Palo Alto can establish a positive image and identity, it will be able to share a greater proportion of the employment growth expected in these larger areas than the amount allocated to it in *Projections 2007*.⁶

The analysis focuses first on the decade between 2010 and 2020, and then extends the study period 10 more years, through 2030. As is clearly demonstrated by the past decade, economic conditions are likely to vary widely, cycling from periods of growth through periods of retraction and back to periods of growth. With this cyclical pattern, it is most appropriate to focus on changes expected over 20 years, recognizing that at some times those changes will seem out of reach and at others conservatively low.

Employment Projections

New Jobs in East Palo Alto

ABAG estimates that the City had about 2,150 jobs in 2005, and will have about 2,570 in 2010. Table 1 summarizes ABAG's information about the types of jobs in East Palo Alto in 2005, and the types expected in 2010. Most jobs – nearly 40 percent – are in the “health, education, and recreation” group. The expectation that East Palo Alto will add jobs in this sector is based on the anticipated growth in the life sciences and biotechnology sectors in San Mateo County, and the availability of development sites in East Palo Alto.

The remainder are distributed relatively evenly in the manufacturing/wholesale/transportation, financial/professional services, and “other” industry categories.

Table 1
Industry Distribution of Jobs in East Palo Alto, 2005 and 2010

	2005		2010	
	Number	Percent	Number	Percent
Total Jobs	2,150	100%	2,570	100%
Ag/Natural Resources	0	0%	0	0%
Mfr/Wlsl/Transp	300	14%	360	14%
Retail	290	13%	340	13%
Financial/Prof Service	400	19%	480	19%
Health, Education, Recreation	810	38%	980	38%
Other Jobs	350	16%	410	16%

Source: ABAG, *Projections 2007*

⁶ ABAG is expected to publish *Projections 2009* in early 2009. This new set of forecasts will incorporate not only the smart growth policy framework, but also performance targets: that is, the allocations of employment and population will be tested (via computer models) to be sure they do not exceed certain conditions; for example, stated levels of traffic delay, carbon emissions, or development of “greenfields.” It is not known at this time whether *Projections 2009* will include adjustments to reflect the current recession.

Projections 2007 anticipates that East Palo Alto will gain 1,640 new jobs between 2010 and 2020, and an additional 1,800 jobs between 2020 and 2030, for a total of about 3,440 over the two decades. Compared to the expected employment base in 2010, the new jobs would represent an increase of about 22 percent through 2020 and about 46 percent through 2030. Consistent with the pattern of employment in 2010, most new jobs are also expected to be in health, education, and recreation, with the rest distributed relatively evenly among other economic activities. The projected employment gains are shown in Table 2.

Table 2
Projected New Jobs in East Palo Alto, 2010-2020 and 2010-2030

	New Jobs, 2010-2020		New Jobs, 2010-2030	
	Number	Percent	Number	Percent
Total	1,640	100%	3,440	100%
Ag/Natural Resources	0	0%	0	0%
Mfr/Wlsl/Transp	240	15%	490	14%
Retail	210	13%	430	13%
Financial/Prof Service	310	19%	660	19%
Health, Education, Recreation	640	39%	1,370	40%
Other Jobs	240	15%	490	14%

Source: ABAG, *Projections 2007*

New Jobs in the Five-City Area

The projections for East Palo Alto may be considered in the context of the immediately-surrounding area to characterize ABAG's current (2007) evaluation of the city's attractiveness and potential for employment growth relative to the potential in more established employment centers.

In the five-city area comprised of East Palo Alto, Palo Alto, Menlo Park, Mountain View, and Redwood City, *Projections 2007* anticipates an increase in employment from 237,200 in 2005 to 247,310 in 2010. East Palo Alto, with 2,570 jobs, would have about one percent of the total in 2010.

Table 3
Industry Distribution of Jobs in the Five-City Area, 2005 and 2010

	2005		2010		EPA as % of Total, 2010
	Number	Percent	Number	Percent	
Total Jobs	237,200	100%	247,310	100%	1.0%
Ag/Natural Resources	270	0%	270	0%	0.0%
Mfr/Wlsl/Transp	44,270	19%	45,190	18%	0.8%
Retail	20,640	9%	21,140	9%	1.6%
Financial/Prof Service	67,840	29%	71,250	29%	0.7%
Health, Education, Recreation	72,920	31%	76,240	31%	1.3%
Other Jobs	31,260	13%	33,220	13%	1.2%

Source: ABAG, *Projections 2007*

Between 2010 and 2020, the five-city area is projected to gain about 31,400 jobs; between 2010 and 2030, the gain is projected to be about 65,100 jobs. East Palo Alto is expected to capture more than five percent of the new jobs in this area, with the greatest proportional gain in retail (9.3 percent of new jobs).

Table 4
Projected New Jobs in the Five-City Area, 2010-2020 and 2010-2030

	New Jobs, 2010-2020		New Jobs, 2010-2030		EPA as % of 5 Cities		% Change, 2010-2030 Compared to % of Total in 2010*
	Number	Percent	Number	Percent	Total, 2010	Change, 2010-2030	
Total	31,420	100%	65,110	100%	1.0%	5.3%	5.1
Ag/Nat. Res.	10	0%	10	0%	0.0%	0.0%	0.0
Mfr/Wlsl/Transp	3,640	12%	9,470	15%	0.8%	5.2%	6.5
Retail	2,210	7%	4,620	7%	1.6%	9.3%	5.8
Financial/Prof Svc.	10,670	34%	22,020	34%	0.7%	3.0%	4.4
Health, Ed., Rec.	9,830	31%	18,850	29%	1.3%	7.3%	5.7
Other Jobs	5,060	16%	10,140	16%	1.2%	4.8%	3.9

* For example, East Palo Alto's 5.3 percent share of all new employment would be 5.1 times as great as its 1.0 percent share of total employment in 2010. Apparent discrepancies in the numbers result from independent rounding (more precisely, East Palo Alto is expected to have 1.04 percent of total employment in 2010 and is expected to capture 5.28 percent of new jobs in the five-city area between 2010 and 2030, so the City would capture 5.28 times as many new jobs as its historical share).

Source: ABAG, *Projections 2007*

In other words, East Palo Alto is expected to capture more than five times as many of the new jobs in the five-city area as its historical share. The greatest departure from the current (2010) pattern would be in manufacturing/wholesale/transportation, where East Palo Alto would capture more than six times its historic share of jobs.

New Jobs in the Two-County Area

In the total of San Mateo and Santa Clara Counties combined, ABAG estimates that the number of jobs totaled 1.2 million in 2005, and will grow to 1.3 million in 2010. East Palo Alto would have 0.2 percent of the total jobs in 2010.

Table 5
Industry Distribution of Jobs in the Two-County Area, 2005 and 2010

	2005		2010		EPA as % of Total, 2010
	Number	Percent	Number	Percent	
Total Jobs	1,210,210	100%	1,301,390	100%	0.2%
Ag/Natural Resources	6,380	1%	6,400	0%	0.0%
Mfr/Wlsl/Transp	336,860	28%	351,160	27%	0.1%
Retail	123,120	10%	130,460	10%	0.3%
Financial/Prof Service	256,210	21%	278,250	21%	0.2%
Health, Education, Recreation	327,930	27%	358,390	28%	0.3%
Other Jobs	159,710	13%	176,730	14%	0.2%

Source: ABAG, *Projections 2007*

In *Projections 2007*, ABAG anticipates that the two-county area will gain 220,000 new jobs between 2010 and 2020, and nearly 460,000 between 2010 and 2030.

Table 6
Projected New Jobs in the Two-County Area, 2010-2020 and 2010-2030

	New Jobs, 2010-2020		New Jobs, 2010-2030		EPA as % of 5 Cities		% Change, 2010-2030 Compared to % of Total in 2010*
	Number	Percent	Number	Percent	Total, 2010	Change, 2010- 2030	
Total	220,000	100%	458,980	100%	0.2%	0.7%	3.8
Ag/Nat. Res.	10	0%	-20	0%	0.0%	0.0%	0.0
Mfr/Wlsl/Transp	37,630	17%	79,640	17%	0.1%	0.6%	6.0
Retail	20,110	9%	41,880	9%	0.3%	1.0%	3.9
Financial/Prof Svc.	53,640	24%	111,940	24%	0.2%	0.6%	3.4
Health, Ed., Rec.	70,690	32%	147,800	32%	0.3%	0.9%	3.4
Other Jobs	37,920	17%	77,740	17%	0.2%	0.6%	2.7

* See footnote to Table 4.

Source: ABAG, *Projections 2007*

East Palo Alto would be expected to capture about 0.7 percent of the new jobs in the two-county area, or between three and four times as many of the new jobs as its historical share. In this larger area, too, the greatest departure from the historical trend would be in manufacturing/wholesale/transportation, where East Palo Alto would gain about six times its historical share.

Conclusion: Working Assumption About Employment Growth in East Palo Alto

The employment estimates and projections summarized above strongly support the expectation that East Palo Alto will become more integrated into the Silicon Valley economy during the next 10

to 20 years, capturing significantly greater shares of new jobs than it has done historically. This expectation is further reinforced by the fact that there is so little land available for development – vacant or underutilized, in private ownership, and suitable for development – in other areas of San Mateo County (particularly in the cities along the U.S. 101 corridor) and in northern Santa Clara County.

In 1999-2000, when the previous market analysis was prepared, the major competitive sites were Shoreline in Mountain View (125 acres), a 37-acre site in San Jose near the intersection of State Route 37 and North First Street, and the University Circle site. A portion of Coyote Valley (southern San Jose) and Bay Meadows Racetrack (San Mateo) were poised for development as well. Since then, University Circle and much of Shoreline have been developed; some of the land in San Jose has been developed as well; Bay Meadows has been substantially planned and partially developed; and Coyote Valley seems still to be restricted. The Cargill salt crystallizers in Redwood City – encompassing almost 1,450 acres – have emerged as a potential development location: planning efforts by the developer are currently under way for that property, but the planning process is expected to take several years to complete and no applications have been submitted to the City.⁷

As the amount of land available for new development has decreased, new projects have been proposed for sites that were previously overlooked or unavailable (for example, the Candlestick Point/Hunters Point area of San Francisco and the Santa Clara County Fairgrounds), and still others have been proposed in locations where they would intensify the existing development. Given this trend, the Ravenswood district may not be the only remaining large site on the Peninsula.

At the same time, the forthcoming set of ABAG projections (*Projections 2009*) will encourage the intensification of land use in already-developed areas and discourage the continued outward spread of development in the nine-county Bay Area.⁸ This approach could shift expectations of more employment growth to East Palo Alto, which is located along two major transportation routes (US 101 and State Route 84), and has received a grant to study the potential for a commuter rail station in the Ravenswood district.

With these potential adjustments in mind, this analysis adopts the employment forecast of ABAG's *Projections 2007* as a reasonable expectation of growth in East Palo Alto through 2030. This forecast anticipates that the City will capture 1,640 new jobs between 2010 and 2020, and another 1,800 new jobs between 2020 and 2030, for a total of 3,440 new jobs during the 20-year period.

Current economic conditions may make these expectations seem aggressive: most economists do not expect significant employment growth before the end of 2010, and the initial growth would simply replace jobs that have been lost in 2008 and 2009.⁹ Because this analysis considers demand over a 20-year time frame, however, it is important to focus on longer-term trends and expectations rather than short-term cycles.

⁷ At its meeting on January 26, 2009, the Redwood City City Council decoupled the plan for the salt crystallizers from the General Plan update, and made it clear that development on the site will be required to identify a new source of water to serve development there. (Jill Ekas, Redwood City Planning Manager, personal communication to Mundie & Associates, January 28, 2009.)

⁸ See <http://www.abag.ca.gov/planning/currentfcst/>.

⁹ See footnote 3, p. 3.

The expectation of *Projections 2007* that East Palo Alto will capture between three and four times its historic share of employment growth in the two-county area and about five times its historic share of growth in the more focused five-city area makes it seem aggressive to consider an even-higher projections of growth during the next 20 years. To provide an “upside,” more optimistic long-term view of possible demand, however, this report includes (in Appendix D) an estimate based on a doubling of the *Projections 2007* forecast.

Building Space Needed

Assigning Employment to Building Space

The previous (1999-2000) market study focused on the potential demand for office and office/flex space in East Palo Alto. Estimates of building space needs were derived based on an analytical process that assigned a proportion of the jobs in each industry to occupations that typically occupy office space, and then an estimate of the amount of space needed for each job.

This analysis estimates the amount of new office, industrial, and retail space that would be occupied by the employment growth projected for East Palo Alto. These estimates are presented below for the “base case” employment gains anticipated by ABAG. Estimates for the more aggressive higher employment growth scenario are presented in Appendix D.

The estimate of building space that would be needed to accommodate employment growth is based on the following factors:

- **Types of economic activities**, as indicated by the economic sectors identified by ABAG. Because the five sectors identified for the City forecasts are general and encompass a variety of activities, the City projection was disaggregated to more refined sectors based on ABAG’s projection for San Mateo County.
- **Jobs likely to occupy building space.** Some types of jobs – for example, some of the jobs in construction and utilities – do not occupy building space: their workplace is the field, or “onsite.” Other types of jobs – for example, education and government – typically occupy public buildings rather than privately-owned office, industrial, or retail space. The total number of new jobs is, therefore, adjusted to include only those jobs likely to occupy private building space.
- **Type of space occupied.** The “crosswalk” between economic sector and type of building space is not exact, but reasonable assignments are possible based on the most typical types of business activities.
- **“Employment density.”** The amount of building space needed for each job. In general, office space is the most dense use, with the smallest amount of building space per job (greatest number of jobs per unit of building space). Warehouse/distribution uses are the least dense. Retail and industrial uses are somewhere in between these two.

Space Required to Accommodate Projected Employment Growth

Considering the factors listed above (and described in greater detail in Appendix E), Table 7 provides an illustrative assignment for East Palo Alto.

Table 7
Building Space Needed to Accommodate Employment Growth in East Palo Alto,
by Type of Space, 2010-2030

Time Frame	New Jobs in Building Space	Building Space Needed			
		Industrial	Retail	Office	Total
2010-2020	1,040	166,500	105,000	115,800	387,300
2010-2030	2,281	345,750	215,000	260,100	820,850

Source: Mundie & Associates

Table 7 suggests that East Palo Alto could expect to capture up to 387,300 square feet of new building space between 2010 and 2020, and nearly 821,000 square feet between 2010 and 2030.

- The greatest portion of the new space – more than 40 percent – would be industrial, suitable for occupancy by manufacturing, wholesale trade, transportation, and utilities.
- Nearly one-third of the space would be in offices
- About one-quarter of the new space would be in retail stores. It is likely that only a small part of the new retail space would be located in the Ravenswood District.

Projects Approved in East Palo Alto but Not Yet Built

As was noted on p. 5, several projects that would provide needed building space have been approved in East Palo Alto. These projects, and the building space they would provide upon completion, are identified in Table 8.

Table 8
Nonresidential Projects Approved but Not Yet Built

Project Name	Industrial Sq. Ft.	Retail Sq. Ft.	Office Sq. Ft.	Total Sq. Ft.
Pulgas Avenue Mixed-Use	49,000			49,000
Tara Road Industrial Condos	44,000			44,000
University Plaza		20,000	180,000	200,000
Bay Business Park*	89,000			89,000
Total	182,000	20,000	180,000	382,000

* Approved OPA (owner participation agreement), seeking entitlement.

Source: City of East Palo Alto

The space in these projects would be sufficient to accommodate about one-half of the projected 20-year employment growth if actual employment growth is similar to the ABAG projection for East Palo Alto (rather than the more aggressive higher estimate). With these conditions, East Palo Alto is estimated to need about 165,000 square feet of additional industrial space, 195,000 square

feet of retail space, and 80,000 square feet of office space by 2030. These calculations are presented in Table 9.

Table 9
Net Additional Building Space (Beyond Current Approvals)
Required to Accommodate Projected Demand, 2010-2030

	Type of Space			
	Industrial	Retail	Office	Total
Projected Demand, 2010-2030	345,750	215,000	260,100	820,850
Approved but not Built, January 2009	182,000	20,000	180,000	382,000
Demand Not Met by Approved Projects	163,750	195,000	80,100	438,850

Source: Tables 7 and 8

Land Requirement

Background: Relationship Between Building Space and Land

The amount of land required to accommodate the needed building space will depend on the pattern (intensity) of development. Single-story buildings typically achieve floor area ratios (FARs) of 0.25 to 0.30; with some two-story structures, FARs of 0.35 are achievable. (Developments in which all structures are at least two stories can achieve FAR of 0.50 with surface parking.)

Most typically, industrial projects achieve FAR of 0.25 to 0.30; retail centers with surface parking achieve FAR of about 0.25; business parks achieve FAR of 0.35 to 0.50, also with surface parking. To yield FARs higher than 0.50 requires multi-story buildings with structured parking.

The following projects in East Palo Alto provide a frame of reference for thinking about FARs in different types of projects:

- University Circle, with 450,000 square feet of office space, 15,000 square feet of retail space, and a 200-room hotel on 12.87 acres of land, has an FAR of 1.17.
- The University Plaza office/retail project (approved), at the corner of University and Donohoe (approved), will have about 200,000



square feet of building space on 2.58 acres of land, for an FAR of 1.84.

- Bay Business Park (approved OPA), on Pulgas Road, will have up to 89,504 square feet of building space on 5.0 acres of land, for an FAR of 0.41.
- The Tara Road industrial condominiums (approved but not yet built) will have up to 41,040 square feet of building space on 4.87 acres of land, for an FAR of 0.19.



Tara Road Industrial Condominiums (approved)

Source: CB Richard Ellis

The land requirements presented below are based on the full amount of building space needed between 2010 and 2030, including the land that would be occupied by projects already approved but not yet built (identified in Table 8).

Land Required

For the additional (not-yet-approved) building space expected to be demanded between 2010 and 2030, East Palo Alto would need as little as 47 acres of land or as much as 75, depending on the overall floor area ratio achieved by new development.

**Table 10
Land Required to Accommodate Employment Growth
(Not Adjusted for Approved Projects)**

FAR	Acres Needed, 2010-2020			Acres Needed, 2010-2030		
	Industrial	Retail	Office	Industrial	Retail	Office
0.25	15.3	9.6	10.6	31.7	19.7	23.9
0.30	12.7	8.0	8.9	26.5	16.5	19.9
0.35	a	a	7.6	a	a	17.1
0.50	a	a	5.3	a	a	11.9
0.75	a	a	3.5	a	a	8.0
1.50 ^b	a	a	1.8	a	a	4.0
Total	22.5-35.6			46.9-75.4		

a This FAR is not achievable with typical industrial or retail development.

b The University Plaza project would have an FAR of 1.84 (see Table 11). Office space in the Ravenswood District is not expected to achieve the density of the University Plaza project.

Source: Mundie & Associates, based on Table 7.

The approved projects listed in Table 8 would occupy sites that encompass a total of 18.9 acres of land, as shown in Table 11. Overall, these projects would have an average floor area ratio of just over 0.5.

**Table 11
Land Occupied by Approved Projects**

Project Name	Total Sq. Ft.	Acres	Floor Area Ratio
Pulgas Avenue Mixed-Use	49,000	6.5	0.33
Tara Road Industrial Condos	44,000	4.9	0.21
University Plaza	200,000	2.5	1.84
Bay Business Park	89,000	5.0	0.41
Total	382,000	18.9	0.52

Source: City of East Palo Alto

Finally, Table 12 subtracts the land that would be occupied by approved projects from the total land requirement to estimate the amount of land in new (not-yet-approved projects) that would be needed to accommodate projected demand for new building space through 2030.

**Table 12
Land Required to Accommodate Employment Growth
(Assuming Approved Projects are Built as Approved)
(Acres)**

	2010-2020			2010-2030		
	Industrial	Retail	Office	Industrial	Retail	Office
Gross (from Table 10)	12.7-15.3	8.0-9.6	1.8-10.6	26.5-31.7	16.5-19.7	4.0-23.9
Approved						
Pulgas Ave Mixed Use	6.5					
Tara Rd	4.9					
Bay Business Park	5.0					
University Plaza			2.5			
Total	16.4	0.0	2.5	16.4	0.0	2.5
Net Required	0	8.0-9.6	0.0-8.1	10.1-15.3	16.5-19.7	1.5-21.4
Total		8.0-17.7			28.1-56.4	

Source: Mundie & Associates

To attract the projected employment growth and demand for building space described here would require the convergence of influences both within and beyond the City's influence. Factors within the City's influence are primarily related to the planning and regulatory conditions that govern land development in the Ravenswood district. Factors beyond the City's influence include national economic conditions and land use policies in other Silicon Valley cities.

CONDITIONS THAT MAY AFFECT EAST PALO ALTO'S ABILITY TO CAPTURE POTENTIAL DEMAND

To capture the demand for new development estimated above, East Palo Alto must confront and address the challenges that have created obstacles to development in the past. If these issues can be resolved, then the City and the Ravenswood district will be in a solid position to attract new employment and the buildings needed to accommodate it.

Issues and Challenges

The market analysis prepared in 1999-2000 identified key challenges that East Palo Alto would have to address to foster development in the Ravenswood district. Conversations with local sources in East Palo Alto and on the Peninsula for this update reveal that these challenges have not yet been overcome, and that further challenges have arisen.

To attract new development to the Ravenswood district, the City must address these issues:

- **Image of East Palo Alto and the Ravenswood District**

The issue of “image” has several components:

- **Personal safety and security.** In the past, East Palo Alto was considered a dangerous place: in 1992, the city had 42 homicides. Since then, the incident rate has dropped dramatically: in 2008, a shooting on November 22 was recorded as the city's fourth.¹⁰ Ongoing violence, however, perpetuates the city's image as unsafe.¹¹
- **Physical appearance of the Ravenswood District.** Ravenswood has historically been a heavy industrial area, and its appearance continues to reflect that history. Some of the older land uses, including an auto salvage yard and an old PG&E substation, remain in the area. Some of the buildings have been improved to a business park-like appearance, but they are interspersed with less-attractive structures, a PG&E substation, a large area that is closed for remediation of toxic materials (the former Romco facility), and uses that store materials and vehicles outside. Streets are unattractive; in some places, they are substandard and/or in poor condition. The image of the area remains one of a location of last resort rather than a desirable destination for new business activity.
- **Perceptions by other agencies of East Palo Alto's ability to manage the development process, grant funds, and other development issues.** Even though the Ravenswood 101 Shopping Center and the University Circle project have been successfully developed, observers interviewed for this update remain skeptical that the City can effectively and efficiently oversee the development process, superintend the use of grant funds, and manage the multitude of other development issues that must be addressed. Many of these issues are identified in the points below. The conditions present in the Ravenswood district and other areas of the City would be challenging for most jurisdictions: in East Palo Alto, the length of time required to complete each step, difficulties in obtain-

¹⁰ *San Francisco Chronicle*, “Woman fatally shot while riding bicycle,” November 23, 2008.

¹¹ *Mercurynews.com*, “Nine injured in five shootings in East Palo Alto in five days,” December 9, 2008.

ing information, and perceived lack of follow-through reinforce negative perceptions of the City.

- **Physical Conditions: Access and Infrastructure**

- **Access to the area.** Access to the Ravenswood district is achieved via University Avenue and Bay Road. University Avenue already operates at capacity during the peak hour.

The East Palo Alto General Plan (1999) states that “University Avenue carries 29,000 vehicles per day and is subject to long delays and congestion.”¹² According to the General Plan, a four-lane undivided roadway such as University is designed to carry 25,000 cars per day.¹³

A study prepared by the San Mateo County Transit District in 2003 stated:

East Palo Alto’s main thoroughfare, University Avenue, is significantly impacted by traffic congestion related to Dumbarton Bridge trips. University Avenue experiences significant delays during peak hours.¹⁴

The same report identifies the following intersections as operating at level of service D or worse during the PM peak and the Saturday peak hour: Clarke Avenue/Bay Road, University Avenue/Bay Road, University Avenue/Bayfront Expressway, and University Avenue/Donohoe Street.¹⁵

The existing traffic congestion on University Avenue and at the intersection of Clarke Avenue and Bay Road strongly suggests that roadway improvements would be required to accommodate additional traffic demand associated with new development in the Ravenswood district.

The issue of traffic congestion on University Avenue and Bay Road highlights a related and long-discussed issue: the need for a second route for access to and egress from the Ravenswood district. To provide a circulation system that accommodates employee and visitor traffic at acceptable levels, such a second route is likely to be a necessity.

- **Infrastructure within the area.** Adequacy of the existing infrastructure serving the Ravenswood District – local roads (roadways and streetscape improvements); water system; sewer system; undergrounding of electrical, cable television, and telecommunications lines; and storm drainage – has also been a long-time subject of discussion in East Palo Alto. The 1999-2000 market analysis listed the following issues:

12 Circulation Element, p. 9.

13 Circulation Element, Table C-3, p. 14.

14 Santa Mateo County Transit District, *Draft East Palo Alto Community-Based Transportation Plan, Existing Conditions Report*, October 17, 2003, p. 5.

15 *Ibid.*, p. 6. Additional intersections operating at level of service (LOS) D but not required for direct access to the Ravenswood district are omitted from this list. LOS D is described in the Existing Conditions report as operations with a volume/capacity ratio between 0.81 and 0.90; in other words, the intersection carries 81 percent to 90 percent of its maximum design capacity. This level of service is described in the East Palo Alto General Plan (Circulation Element, p. 13) as follows: “Borders on a range in which small increases in flow may cause substantial increases in approach delay, and hence, decreases in arterial speed. Causes range from adverse signal progression, inappropriate signal timing, high volumes, or any combination. For planning purposes, this Level of Service is the lowest that is considered acceptable. Average travel speeds are about 40 percent of free-flow speed.”

- **Local street network:** Within the district, Demeter Street, Pulgas Avenue, and Tara Road provide access to individual properties. None of these three streets is a through route, and all are too narrow (50 feet) for a modern business district. Tara Road is not a public street; rather, it is comprised of easements through privately-held properties.
- **Other public infrastructure:** water, sewer, and communications lines are located within the public rights-of-way. Because the street network does not serve the entire district, the availability of these utilities may not serve all parcels. . . . These facilities must be extended and, possibly, improved before the District is fully developable. Adequacy of the storm drainage system must also be determined.

The need for extensive infrastructure improvements has been disputed by the property owners, who relate the need for infrastructure improvements to the vision of intensive office-based development outlined in the Freedman, Tung & Bottomley plan and the need to make even those infrastructure improvements that would be required for partial buildout of the plan before any new development takes place.

This disagreement about infrastructure needs, timing, and costs has been a sticking point in discussions between the landowners and the City during the approval process for projects proposed in the Ravenswood district. Some agreement about the level of improvements required to serve development, along with a financing system to pay for those improvements, will be needed before significant development should be expected.

Most recently, an engineer's report based on the Freedman, Tung & Bottomley plan for the Ravenswood Business District (which envisioned as many as 1,200 housing units and sufficient nonresidential building space to accommodate 20,000 workers), prepared in 2008,¹⁶ estimated the cost of needed infrastructure improvements at about \$48 million.¹⁷ This estimate is substantially less than previous cost estimates, and could clear the way for resolution of issues concerning infrastructure.

- **Environmental Conditions**

- **Endangered species.** The wetlands that border the Ravenswood district have been reported to be home to two endangered species: the salt marsh harvest mouse and the clapper rails. Numerous sources reference the presence of these two species in this area; the cleanup plan for the site at 1990 Bay Road requires site remediation to make wetland habitat suitable for these species.¹⁸ Plans for future development will require either demonstration that the development site is not habitat for these species or that any impacts on habitat will be mitigated to the satisfaction of the appropriate agencies.
- **Hazardous materials.** Although the earlier market analysis did not identify the presence of hazardous materials as an issue in the developability of the Ravenswood district, the presence of such materials has been known for a long time, and efforts are currently under way to remediate conditions on some properties (e.g., 1990 Bay Road and Romic). Interviews conducted for this study suggest that not all hazardous materials

¹⁶ San Francisco Chronicle, "Revitalized Hopes: East Palo Alto holds out for quality development," January 26, 2001.

¹⁷ City of East Palo Alto, Ravenswood Business District, Construction Cost Estimates for Infrastructure, draft, October, 2008.

¹⁸ California Water Boards, "Final Cleanup Plan Proposed for Wetland Portion of 1990 Bay Road Site," June, 2005.

conditions have been acknowledged or addressed, inhibiting transfers of ownership of developable parcels in the district.

- **Regulatory Conditions**

- **Lack of an adopted plan for the area.** The East Palo Alto Revitalization Plan, which focused on the Ravenswood district and the Four Corners/Town Center site, was prepared in 1999-2000 and accompanied by much positive publicity and anticipation of change. Eight years later, the environmental review required for plan adoption has not been completed and the plan has not been adopted or implemented. An interim ordinance that allowed for approval of projects on a case-by-case basis pending completion of the plan adoption and implementation process was approved in 2001 and several projects have been approved (see list on p. 3), but the lack of an adopted plan means that there is no agreement on infrastructure requirements, no financing plan to pay for needed public improvements (including infrastructure), and no ability to market the district as a coherent business location.
- **Multiple regulatory agencies.** Although planning for the Ravenswood district is the responsibility of and within the jurisdiction of the City of East Palo Alto, numerous other agencies must issue permits for some types of development activities. These agencies include, at a minimum, the County of San Mateo (Health Department as well as some environmental oversight), the Bay Conservation and Development Commission (BCDC; permits required for “nearly all work, including grading, within 100 feet of the Bay shoreline”¹⁹), U.S. Army Corps of Engineers (permits required for projects that affect wetlands or navigable waters), U.S. Fish & Wildlife Service (projects that may affect endangered species), California Department of Fish & Game (permits required for incidental take of state-listed threatened, endangered, or candidate species), the Regional Water Quality Control Board (projects that affect California’s surface, coastal, or ground water resources), the California Department of Toxic Substance Control, and the U.S. Environmental Protection Agency..

The need to obtain permits from multiple agencies is not unique to the Ravenswood district or to East Palo Alto. It is simply one more complicating factor that adds challenges to an already-challenged development site.

- **Other Challenges**

- **Multiple ownerships.** The 136± acres of the Ravenswood district are held in a multitude of ownerships: the 1999-2000 market analysis referenced a map of the area prepared in 1990 that showed 84 parcels with 62 different owners and noted that 50 of the 84 parcels appeared to be smaller than one acre.

Property owners in the district formed an organization, the Ravenswood Shores Business District LLC, to speak with a unified voice as the planning effort begun in 1999-2000 proceeded. The LLC was formed with 18 property owners, many of who are large land holders. Nevertheless, the diversity of holdings and landowners’ interests create challenges in marketing the Ravenswood district to a large developer or owner-user, and the pattern of parcelization does not lend itself to orderly and organized piecemeal development that would fill in a comprehensive development scheme.

¹⁹ From the BCDC web site at http://www.bcdc.ca.gov/permits/obtain_permit.shtml.

- **(Possibly) inconsistent visions for future development.** Although the Revitalization Plan formulated by Freedman, Tung & Bottomley was met with enthusiasm when it was presented to the City, the abrupt change in market condition that followed (the “dot-com bust”) prompted property owners to rethink their support for it. With the economic downturn, schemes that called for multi-story office buildings and possibly structured parking in an area that had previously been home to heavy industry and open storage seemed over-ambitious, unachievable, and financially out of reach.

While the City appeared to adhere to the vision of the plan, landowners sought development approvals for a more modest scheme that would have maintained the industrial character of the district, perhaps with better design controls and development regulations. In the owners’ view, what was achievable was the replacement of heavy industry with lighter industry, warehouses, and R&D buildings, but not office space.

The Ravenswood Shores Business District LLC discussed with City staff an alternative plan in December, 2004. This plan reflected the more modest vision of the property owners as to the amount and type of development that could be attracted to the district within about 15 years. The owners’ vision includes less overall development, lower floor area ratios, and a greater variety of permitted uses. It assumes that less development will require less infrastructure, and that less infrastructure will have a lower cost than the improvements required to accommodate the FTB plan. It is clear that a limited amount of development can occur in the District using the existing infrastructure capacity. That limit may, however, be reached when the projects already approved have been built. The October, 2008 engineer’s report clearly defines the infrastructure needed to meet the current minimum standards for serving a business park.²⁰

As stated above, the LLC does not necessarily represent all of the landowners in the Ravenswood district. The submittal of an alternative plan is cited here simply to illustrate one major divergence between the City and (some) property owners in their expectations of what might be achievable and profitable.

- **Relationship between landowners and City.** For a number of reasons, the relationship between the Ravenswood property owners and the City of East Palo Alto have been strained during the past decade. Among the reasons given are:
 - The aforementioned disagreement about a vision for the future of the district, which affects both the approval process for proposed projects and the financing burden that the City would ask the property owners to bear if an infrastructure plan is approved and the indicated infrastructure is built to serve the district.
 - A difficult and uncertain approval process, which exposes the owners to increased risk as they spend money on projects that may or may not be acted on favorably (or acted on at all in a timely manner) by the City, even though they conform to current planning and zoning regulations.

²⁰ The cost of infrastructure improvements is not directly related to the amount of development it (the infrastructure) is designed to accommodate. The minimum standards are dictated by the various entities that provide service: for example, the Fire Department specifies the size of the water mains based on achieving the level of water pressure needed to serve the area, the storm drain cost the same for a one-story building as it is for a 5- or 10-story building with the same footprint, because storm drain cost is related to the amount of impermeable surface, and for sewer and water service, the major cost component is the digging of the trench rather than the size of the pipe that is placed in the trench. These minimum standards apply under any development scenario.

- Difficulty in obtaining accurate and definitive information to guide development proposals, including the nature of infrastructure improvements that will be required in conjunction with development of a project and the cost of permits and fees that will be required for development.

Even in this environment, projects that have been proposed and approved have not been built; perhaps because of current economic conditions, or because of other development-related issues identified in this section (infrastructure, hazardous materials, etc.), they have simply not attracted commitments from tenants that would be required for the developers to proceed.

- **Distance from complementary/supporting businesses.** Many businesses evaluating options for new site locations consider not only the characteristics of the specific building and the appearance/image of the area that surrounds it, but also the “business infrastructure” of the immediate area; that is, complementary businesses that provide either the goods and services needed by the business itself or the goods and services sought by employees during lunch and after work. Such business infrastructure may include, for example, eating places, convenience stores, office supply stores, copy shops, delivery drop-off locations, financial institutions, and possibly even laundries, dry cleaners, shoe repairs, hardware stores, and other local-serving outlets. Most of these types of businesses – especially those that serve the businesses themselves (as opposed to their employees) – are unavailable within or near the Ravenswood district. Some are found at or near the intersection of University Avenue and Bay Road, but most require travel at least to the Ravenswood 101 shopping center, more than a mile away.

Distance from complementary and supporting businesses will not make the Ravenswood district unattractive to all types of businesses, but it may make the district less appealing in comparison to other locations that have more amenities nearby.

Seizing the Opportunities of the Ravenswood District

The issues described above are not trivial: they must be addressed head on if East Palo Alto is to take full advantage of the opportunities that will arise as the economy recovers and new development resumes on the Peninsula. Fortunately, most of the challenges can be affected by concerted local action. If they are, the city and the landowners will be able to capitalize on the considerable attractions of the district, which include:

- **Proximity to Stanford University and Silicon Valley.** Driving time from the Ravenswood district to the Stanford campus is less than 15 minutes.
- **Proximity to the Dumbarton Bridge.** Ravenswood is an ideal location for companies whose workers commute from the East Bay, or for companies that provide service to customers in Newark, Union City, Milpitas, and other locations near the eastern end of the bridge.
- **Proximity to economic activities that require service and support businesses.** The existing businesses in Silicon Valley that give the area its signature upscale image require supplies and support (maintenance and repairs) from other, less glamorous businesses. In the better-established business districts, land and building space are too expensive to be affordable to these support firms. At least in the early years, Ravenswood could provide a close-in location that allows support businesses to remain on the Peninsula.

- **Size of the district.** Ravenswood has an estimated 136 acres of land. Of that, some is occupied by buildings; some requires remediation (as described above); about 27 acres (including some occupied by buildings) has been approved for new development projects (see Table 8, p. 14). Nevertheless, the district contains one of the largest areas of land available for non-residential development in Silicon Valley.
- **Land prices.** Land prices in the Ravenswood district are likely to be lower than prices in better-established Peninsula locations, even after the cost of any needed improvements (including infrastructure and remediation) is included. Lower land prices make it possible to provide new building space at lower prices or rents.
- **Bay views and proximity to bayfront amenities.** With proper design, locations in the Ravenswood district can offer unparalleled views of San Francisco Bay and the wetlands that border it, as well as easy access to shoreline trails and recreational opportunities that may appeal to workers during lunch or after work.
- **Motivated landowners.** Even though development of the Ravenswood district has been delayed by a variety of factors (many of which are listed above), landowners are still interested in working with the City to achieve future land use change.
- **Fresh look by the City at development potential and requirements.** The City of East Palo Alto, through its Redevelopment Agency staff, is revisiting the prospects for development of the Ravenswood district. This updated market analysis is a critical step in that process.

WHAT TO DO NEXT?

As the economy recovers, demand for new employment-based business space will return to the Bay Area and the Peninsula. To position itself to capture a share of this demand, East Palo Alto must take steps to create the favorable conditions that will attract developers and businesses to the City and, in particular, to the Ravenswood district.

Some of these “favorable conditions,” such as the health of the national and regional economies and international economic conditions that encourage companies to hire workers located in other countries for manufacturing, call center, and other jobs, are beyond the control of the City. Others, such as perceptions of safety and security, must be addressed by the City, but those efforts are likely to have varying degrees of success: not all of the causes can be addressed by a single strategy or single government agency.

The City does, however, have the ability to create favorable conditions for the development of non-residential building space by minimizing the time and risk associated with development projects. This effort requires:

1. Adoption of a Development Plan for the area, which would include:
 - land use regulations
 - a Master Infrastructure Plan that is supported by the landowners (along with an infrastructure phasing plan, and infrastructure financing plan for needed improvements)
2. Certification of environmental clearance for projects that are consistent with the Development Plan;

3. Establishment of working relationships with other agencies that have jurisdiction in the District, and
4. Provision of a central point of contact and a process for expedited approval of projects that conform to the adopted plan.

These requirements are described in more detail below.

1. Adoption of a Development Plan for the Area.

Minimizing risk is key to attracting new development to a previously-unproven location. The adoption of an area plan (with appropriate environmental clearance), and an infrastructure master plan (including a financing strategy) will convey to property owners, prospective developers, and potential tenants that new projects conforming to those documents will be processed and approved expeditiously.

The process of adopting a development plan must begin with a new vision of the future Ravenswood Business District.

The Revitalization Plan that was formulated at the beginning of this decade envisioned an office-based business district that included complementary retail support uses and some residential development on selected sites. That plan anticipated as many as 1,200 housing units and sufficient nonresidential building space to accommodate 20,000 workers.

With the wisdom of hindsight gained during the dot-com bust economy and the current economic environment, it is reasonable to expect that the building space accommodated in that Plan will take many years to achieve. This new analysis anticipates citywide demand for up to 700,000 square feet of building space and approximately 3,100 housing units between 2010 and 2030. (As noted on p. 12, only a small part of the new retail space would be likely to locate in the Ravenswood Business District.) This analysis, based on employment projections that were published before the current recession was foreseen, are themselves likely to be aggressive given current economic conditions.

With this perspective on prospects for growth in the Ravenswood District, the Development Plan that would best serve both the City of East Palo Alto and the property owners would recognize that the types of development that can be attracted to the District will evolve over time. It should, therefore, incorporate the urban design characteristics of the Revitalization Plan, but integrate them into a new Plan that identifies a wider range of uses that would be permitted and the locations in which they would be allowed.

To implement this Plan, the City would need to adopt:

- Land use regulations that provide specific standards for development. It is recommended that these regulations consist of form-based and performance-based land use codes rather than traditional land use-based codes.
 - The “form-based” aspects of the code would govern the physical appearance of the structures and surrounding lot area, placement of the structures on the sites, and other physical/urban design elements.
 - The “performance-based” aspects of the code would control traffic generation, air quality and water quality impacts, outdoor storage, and other operational characteristics of land use.

This new planning document would be less concerned with the specific uses that occupy buildings within the district and more concerned with the appearance of the district and the impacts of those uses on the environment. Consistent with this focus, it would establish the rules to create a high-quality business district (office, R&D, flex, and light industrial space) complemented by supportive retail uses (food service, business supplies, and convenience retail outlets) that will deliver the image of a safe, secure, attractive place to do business. Transit-oriented design principles would be an integral part of both the form-based and performance-based components of the implementation documents.²¹

At the same time, it should be recognized that a form- and performance-based code would probably not permit all of the types of land uses that are currently located in the Ravenswood district, or that might seek to locate there in the future. The purpose of these codes would be to create a physically and financially attractive business park: it is likely, for example, that all business activity and storage would be required to be housed in enclosed buildings, and that activities that generate visible emissions would not be permitted. These types of restrictions may be perceived as costly in the short term, but they are essential for the creation of long-term value in the district that results from ongoing attractiveness to business.

Coordination with property owners would enhance the likelihood that this new vision would be acceptable to and embraced by the development community. The coordination effort could include, for example, incorporation of some of the elements of the market-based plan submitted by the Ravenswood Shores Business District LLC and one or more meetings with the property owners to solicit their feedback on the new vision.

- A master infrastructure plan, which incorporates a phasing plan and a financing plan.

The engineer's report on infrastructure for the Ravenswood District (October, 2008 draft) includes a phasing scheme for required improvements. Phase I would be the buildout of Bay Road from Illinois Street to Tara Road. The order in which Phases 2a through 2d would be completed has not yet been determined; rather, each phase describes a discrete set of improvements that could be undertaken to provide adequate services to an additional sector of the district.

The engineer's report may be sufficient to constitute the technical basis for a master infrastructure plan.

To implement the plan, a financing strategy would still be required.

2. Certification of Environmental Clearance for the Development Plan that Covers Projects that are Consistent with the Development Plan.

Adoption of the new Development Plan will require environmental clearance, which typically takes the form of an environmental impact report (EIR). To the extent possible, the Plan EIR should contain a sufficient level of analysis so that specific development projects that are

²¹ Ideally, the land use regulations should specify a target floor area ratio to be achieved by the time buildout is complete. This target FAR would not be required for the first phase of a multi-phased project, but the Plan would require submittal of a master development plan for each property that shows how placement of the initial buildings would allow for intensification of development on the site over time, as subsequent phases are completed. Such a requirement would further the City's goals of supporting public transit; it would also enhance the land value of (and property tax revenue from) the District over time.

consistent with it (in terms of development intensity and the other form-based and performance-based specifications of the Plan) will be covered by the analysis.

If environmental clearance can be achieved with the Plan EIR, then the time required for specific development projects to move through the approval process will be significantly reduced, and sites in East Palo Alto will become more attractive to prospective developers because both risk and cost will be reduced.

3. Establishment of Working Relationships with Other Agencies that have Jurisdiction in the District.

Some of these agencies, identified above, include the Bay Conservation and Development Commission (BCDC), U.S. Army Corps of Engineers, U.S. Fish & Wildlife Service, California Department of Fish & Game, the Regional Water Quality Control Board, the California Department of Toxic Substance Control (DTSC), and the U.S. Environmental Protection Agency (EPA). Other agencies may also have jurisdiction and should be included in this effort.

4. Provision of a Central Point of Contact and a Process for Expedited Approval of Projects that Conform to the Adopted Plan.

Property owners and/or developers should be able to rely on prompt attention to and processing of their applications. They should be able to expect prompt responses to inquiries about development and impact fees, so they can make informed choices about their development options.

Completing the steps outlined above to capture the potential for development of the Ravenswood district will require a continuous, focused effort on the part of the City and the property owners.

3. MARKET FOR RESIDENTIAL SPACE

BACKGROUND: EAST PALO ALTO ON THE PENINSULA AND IN SILICON VALLEY

Situated in one of the most expensive housing markets in the country, East Palo Alto has nevertheless historically been a moderate-income, moderate value housing location. According to the U.S. Census of 2000, San Mateo County at that time had the second-highest median home value in the nine county Bay Area, but East Palo Alto had the lowest median home value of any city in the two-county area, and ranked 68 out of 103 cities in the nine-county Bay Area.

Home values, which reflect the attractiveness of the city as a residential location, have increased since 2000, but comprehensive information about values relative to the values of homes in other Bay Area cities is not available.²² New private sector, market-rate construction has added homes in the University Square area and other neighborhoods, and the values of those homes increased dramatically until the onset of the current economic downturn.

In 2000, East Palo Alto had about 7,090 housing units.²³ Since then, the city has added 684 units, bringing the total to 7,775 units. This increase represents a gain of nearly 10 percent. Of the new units, 360 are in single-family structures and 357 in structures of five or more units, offset by a loss of 33 units in single family attached buildings.

This increase in the housing supply suggests that East Palo Alto is considered by the market to be an acceptable location for new residential construction, and that residential development may be expected to continue when the economy recovers sufficiently to support new housing construction.

DEMAND FOR HOUSING

The demand for new housing in East Palo Alto will be created primarily by (1) economic growth on the Peninsula that brings new households to the area and (2) the formation of new households as young people move out of their parents' homes.

The primary source of information on expected increases in the number of households in Bay Area communities is *Projections*, issued in alternate years by the Association of Bay Area Governments (ABAG). The current forecast set is *Projections 2007*. These projections incorporate information about economic growth and household formations; in addition, they reflect a policy position that encourages intensification of development in urbanized areas.

²² The California Association of Realtors, which tracks median home values for homes sold in California cities, does not report sales in East Palo Alto.

²³ The California Department of Finance estimated that East Palo Alto had 7,091 units on January 1, 2000. The U.S. Census showed 7,059 units on April 1, 2000. This report uses the Department of Finance estimate as a starting point.

New Households

ABAG's *Projections 2007* anticipates that East Palo Alto will gain about 1,470 households between 2010 and 2020, and another 1,610 between 2020 and 2030, for a total of 3,080 households between 2010 and 2030. This increase would represent about 14 percent of the new households expected in the five-city area (East Palo Alto, Palo Alto, Menlo Park, Mountain View, and Sunnyvale) during that period.

For comparison, East Palo Alto is expected to have about 6.6 percent of households in the five-city area in 2010. Thus, ABAG projects that the city would capture a greater proportion of population growth in the five-city area during the next 20 years than it has in the past. This shift may be attributed to a combination of factors, including the availability of land in East Palo Alto, the growing acceptance of East Palo Alto as a relatively affordable residential location for people who work in Silicon Valley, and the policy foundation of the ABAG projections.

New Housing Units

The number of housing units in a community must exceed the number of households: some vacancy is required to allow households to move, and to create some competition in pricing. In 2000, the U.S. Census reported a vacancy rate of 1.6 percent. The California Department of Finance (DOF) uses a vacancy rate of 1.04 percent to estimate the number of households in (and the population of) East Palo Alto. The most recent three-year estimate from the American Community Survey puts the vacancy rate at 12.2 percent.

These observed vacancy rates lie at the extremes of a typical range: when there are few vacancies, as were reported in the U.S. Census of 2000, developers are likely to perceive unmet housing demand; when there are many, few are likely to be willing to entertain the risk that their new offerings would be more attractive than existing units (which are likely to carry lower prices).

Housing analysts typically assume that a vacancy rate of five percent is appropriate for a healthy housing market. That assumption about the relationship between the number of households in a community and the number of units needed to accommodate all those households – existing plus new – is used in this report.

Both vacancy rates – the one reported by the American Community Survey and the one reported by the California Department of Finance are used in this report to produce a range estimate of the number of housing units that might be absorbed in East Palo Alto.

Housing Units for Projected New Households

To accommodate the new households projected for East Palo Alto would require (allowing a five percent vacancy rate) about 1,550 new housing units between 2010 and 2020, and 3,240 between 2010 and 2030.

Housing Units for Existing Households

To achieve an overall vacancy rate of five percent, the number of new units needed for the expected new households in East Palo Alto must be adjusted to reflect the excess or deficit of vacant units for the existing households.

- The Department of Finance estimates that East Palo Alto has 7,775 housing units and a vacancy rate of 1.04 percent. In other words, 81 units are currently unoccupied.

To achieve a vacancy rate of five percent would require a total of 8,099 units. Therefore, the city would have to add 324 units to its existing housing stock just to attain a healthy vacancy rate for the households currently living there.

- The U.S. Census (American Community Survey) estimates that East Palo Alto has 7,573 housing units and 6,648 households (occupied units). The 925 unoccupied units yield a vacancy rate of 12.2 percent.

Only 6,998 units would be required to accommodate the existing households with a five percent vacancy rate. Therefore, according to this calculation, East Palo Alto has 575 “extra” vacant units.

Total New Housing Units Required

To accommodate population growth over the next 10 to 20 years, East Palo Alto would need the sum of the housing units required for new households plus existing households:

- Based on the Department of Finance estimates, the city would need 1,871 units between 2010 and 2020 (324 for the existing households plus 1,547 for the new households), and another 1,695 units between 2020 and 2030 (for 1,610 additional households), for a total of 3,566 new units.
- Based on the U.S. Census (American Community Survey) estimates, the city would need 972 new units between 2010 and 2020 (1,547 for the new households, less 675 existing vacant units that could be filled by new households) and another 1,695 units between 2020 and 2030, for a total of 2,667 new units.

Adjustment to Estimate of New Housing Units

Several residential projects have already been approved for development. Construction of these projects has not yet begun – at least partly because of current economic conditions – but might reasonably be expected in the future:

- The Pulgas mixed-use project has been approved for 45 single family units and 7 live/work units, located on Pulgas Avenue south of Bay Road.
- The Olson project has been approved for 55 townhomes, located on Weeks Street just east of Clarke.
- The 2555 Pulgas project, at the north end of Pulgas Avenue, proposes 80 live/work units.

All together, the approved and proposed projects would provide 188 new housing units, of which 87 would be live-work units. Even at the low end of the estimate of housing demand derived above

(2,667 new units), there would be strong demand for new residential development in excess of the projects known at this time.

These numbers suggest that there will be significant demand for housing beyond the number of units already approved or proposed (1,012 units between 2010 and 2020; 3,102 units between 2010 and 2030).

CONDITIONS THAT MAY AFFECT EAST PALO ALTO'S ABILITY TO CAPTURE POTENTIAL DEMAND

The challenges to nonresidential development outlined in the previous chapter of this report generally apply to residential development as well.

For prospective residents, perhaps the most important factor is the perception of East Palo Alto as a safe and secure place to live. While businesses (or business districts) can often install security measures or engage private security services to augment the level of service available from local law enforcement, those expenditures are often beyond the reach of individual households. If safe and secure housing is available elsewhere, even at a considerable distance, that housing is likely to be preferred to close-in location such as East Palo Alto that is perceived to be a high-risk neighborhood.

For prospective developers, the factors that affect the ease of gaining development approvals and the cost of housing production are important as well. Briefly, they are:

- Physical appearance of the residential area and the areas through which residents must travel to reach it.
- Access to the residential area.
- Adequacy of infrastructure, and cost of new infrastructure.
- Presence of, and required remediation for impacts on, endangered species.
- Presence of, and required remediation of, toxic materials.
- Regulations on development imposed by agencies other than the City of East Palo Alto, and the ease or difficulty of navigating those agencies' regulatory process.
- Distance from resident-serving retail outlets, such as grocery stores, drug stores, and other convenience stores (dry cleaners, beauty salons, hardware stores, banks, etc.)

Finally, prospective residential developers interested in the Ravenswood district project must recognize that the area has historically been used for industrial activities, and the landowners of the area may be opposed to uses that compromise the potential for continued industrial use. If a form- and performance-based plan, such as is recommended in the previous chapter of this report, is adopted, that plan would make the business activities compatible with nearby residential uses – e.g., by regulating the exterior appearance of nonresidential buildings and the use of land outside of buildings and by limiting noise and emissions that may create odors or air pollution – and the potential for conflict would be reduced.

APPENDIX A

BENEFITS FROM DIFFERENT LAND USES

The benefits of (and trade-offs associated with) different types of land uses may be evaluated based on a variety of factors. For the public sector, these factors may include fiscal impacts (revenues generated minus service costs incurred), employment potential for local residents, and environmental impacts. For the private sector, they may include land value (which is one contributor to public revenues, in the form of property taxes), the expected return on investment, the expected level of risk, and the time frame likely for development (in other words, whether a development type is feasible in the short term).

Table A1 and A2 provide two assessments of the benefits and trade-offs associated with different land uses. Table A1 focuses on benefits, but summarizes some other factors that the City may wish to consider as it moves forward with the planning process for the Ravenswood district. Table A2 is an annotated version of a table that originally appeared in the 1999-2000 market analysis.

**Table A1
Summary of Benefits for Different Land Uses**

Type	Jobs		Public Sector Revenues	
	Typical Jobs/ 1,000 Sq. Ft.	% of EPA Residents with Occupations that Might be Located in this Structure Type ^a	Property Tax per Acre ^b	Sales Tax per Acre
Regional Retail	1-1.25	Sales 8% <i>Total</i> 8%	\$4,200	\$55,000- \$85,000
Other Retail/ Services	2-3	Food preparation & serving related 9% Sales 8% Community/social services 1% Personal care & service occ's 3% <i>Total</i> 21%	\$7,500- \$8,000	\$27,250
Lowrise Office	2-4	Office & administrative support 15% Sales & related 8% Management 4% Business/financial operations 3% Computer & mathematics occ's 3% Personal care & service occ's 3%	\$15,250	\$0-11,000
Highrise Office	3	Healthcare practitioners/techs 2% Architecture & engineering 1% Life, physical, social science occ's 1% Community & social services occ's 1% <i>Total</i> 41%	\$55,000- \$60,000	\$0-33,000
R&D/Flex Space	2-3	Food preparation & serving related 9% Computer & mathematics occ's 3% Healthcare practitioners/techs 2% Life, physical, social science occ's 1% <i>Total</i> 15%	\$15,250	\$0-11,000
Light Manufacturing	1-2	Food preparation & serving related 9% Production occupations 9% <i>Total</i> 18%	\$4,500	\$0
Warehouse	0.75-1.25	Transportation & material moving occ's ^c 3% <i>Total</i> 3%	\$4,500	\$0

^a The total for all types of business space exceeds 100 percent, because some occupational categories are assigned to more than one type of building space. In practice, each occupation shown multiple times would have only a fraction of jobs in each type of space shown.

^b Indicator shown describes property tax on completion of new construction. East Palo Alto receives between 33 percent and 38 percent of incremental property taxes (most of these revenues go to the Redevelopment Agency); these estimates are based on 35 percent. Estimated values are based on the FARs and values shown on p. A3, but results are rounded. Property tax increases after completion are limited to no more than two percent per year unless the property is sold or improved (building modifications and interior tenant improvements could trigger new assessments of those modifications/improvements, but not of the property as a whole).

^c Includes supervisors and material moving workers; excludes aircraft and traffic control occupations, motor vehicle operators, and rail, water, and other transportation occupations

Source: Typical jobs per 1,000 square feet from The Natelson Company, Inc., *Employment Density Study, Summary Report*, prepared for Southern California Association of Governments, 2001; percent of EPA residents in various occupations from U.S. Census, 2000; revenue characterizations and "other factors" by Mundie & Associates.

**Table A1 (continued)
Summary of Benefits For Different Land Uses**

Other Factors to Consider	Type
<ul style="list-style-type: none"> ▪ High regional traffic generation 	Regional Retail
<ul style="list-style-type: none"> ▪ Potentially high local traffic generation ▪ Relatively high risk because population of the market area in the immediate vicinity of Ravenswood is relatively small 	Other Retail/ Services
<ul style="list-style-type: none"> ▪ Some development patterns may limit the ability to intensify land uses over the longer term 	Lowrise Office
<ul style="list-style-type: none"> ▪ More intensive development generates more traffic ▪ Higher risk in the short term than less intensive forms of development because development costs are higher and increments of development are larger 	Highrise Office
<ul style="list-style-type: none"> ▪ Some development patterns may limit the ability to intensify land uses over the longer term ▪ Potential for adverse impacts on air and water quality 	R&D/Flex Space
<ul style="list-style-type: none"> ▪ Some development patterns may limit the ability to intensify land uses over the longer term ▪ Potential for adverse impacts on air and water quality 	Light Manufacturing
<ul style="list-style-type: none"> ▪ Some development patterns may limit the ability to intensify land uses over the longer term ▪ Requires visits from potentially high number of large trucks 	Warehouse

Assumptions for Estimates of Property Tax and Sales Tax Revenues

Type of Space	FAR	Value/Sq. Ft. of Building Space	Sales/Sq. Ft. of Building Space
Regional Retail	0.25	\$110	\$500-800
Other Retail/Services	0.25	\$200	\$250
Lowrise Office	0.50	\$200	\$0-50
Highrise Office	1.50	\$250	\$0-50
R&D/Flex Space	0.50	\$200	\$0-50
Light Manufacturing	0.30	\$100	\$0
Warehouse	0.35	\$85	\$0

Table A2
Annotated Summary of Development Type Trade-offs from the 1999-2000 Market Analysis

Use	Target Rent (per Sq. Ft. per Month) ^a	Land Value (per Sq. Ft.) ^b	Min. Site Size ^c	Jobs/Acre	Job Creation Potential for EPA Residents ^d
Campus Office ^e	\$6.00	\$40	40	75	High
Business District Office	\$2.50	\$25	2 x building area	145-225	High
Office/Tech/Light Industrial Flex	\$2.50	\$15-20	20	75	High
Divisible/ Incubator Flex	\$1.25	\$12-14 ^h		15-20	Low
Manufacturing/ Assembly	\$1.00	\$10-16		20-25	Moderate
Warehouse/ Distribution	\$0.85	\$8		10-15	Low
Residential (9-12 units/acre)	Sale price: \$300,000- \$400,000	\$10-11	10	n.a.	n.a.
Residential (30 units/acre)	Sale price: \$200,000- \$250,000	\$25	5	n.a.	n.a.

- a Today's rents are comparable except that rates for office space seldom exceed \$4.25 per square foot.
- b Today's land values are comparable; a value of \$40 per square foot, however, is obtainable only in well-positioned areas with high image value, such as Palo Alto.
- c Net usable acres. It is noted that University Circle occupies a site of only two acres. The 1999-2000 analysis posited that a site in the Ravenswood District would have to be much larger to overcome the down-and-dirty industrial image of that area that prevailed at the time.
- d Based on percent of 1990 EPA residents in occupations that could be located in development type. In 2000, highest potential for EPA residents is in offices, followed by retail, R&D/flex, and light manufacturing (see Table A1).
- e This development type is similar to the Sun Microsystems campus in east Menlo Park, the Google campus in Mountain View, or the Cisco campus in San Jose. The 1999-2000 report stated "Requires relocating Romic, Catalytica": at that time, it would have been possible to assemble 40 acres with those relocations. Assembly of such a large site may still be achievable, but approvals of several projects within the Ravenswood district since then could make site assembly more challenging.

Table A2 (continued)
Annotated Summary of Development Type Trade-offs from the 1999-2000 Market Analysis

Sales Tax	Property Tax Increment	Timing	Synergy	Risk	Use
Probably Low ^f	High	Long-term	Supports retail, restaurants, and business services	High; depends on creation of office image in Ravenswood, continued strong high-tech economy	Campus Office ^e
Probably Low ^f	High	After supporting uses	Same as campus office	Medium; can fit with both types of flex, other mix	Business District Office
Probably Low ^f	Not as high as office	Medium-term	Same as campus office	Not as high as office; also needs continued strong high-tech economy	Office/Tech/Light Industrial Flex
Probably Low ^f	Moderate	Short-term	Little	Low	Divisible/Incubator Flex
Probably Low ^f	Medium	Short-term	May support retail, restaurants, and business services	Low; immediate potential, minimum image change	Manufacturing/Assembly
Unlikely	Low	Short-term	May support retail, restaurants	Low; immediate potential, minimum image change	Warehouse/Distribution
0 ^f	Medium	After Gateway	Supports retail and employment uses	Low-moderate on the right site	Residential (9-12 units/acre)
0 ^f	Medium	After Gateway	Supports retail and employment uses	Low-moderate on the right site	Residential (30 units/acre)

- f Judgments are from the 1999-2000 report. Values depend on whether location is the point of sale for retail sales. For nonresidential uses, current estimates would be: for all types of office, 0.5 FAR and sales of \$0-\$50 per square foot of building space, yielding revenues of \$0-11,000 per acre; for divisible/incubator flex, manufacturing/assembly, and warehouse/distribution, FAR of 0.25 and sales of \$0-\$50 per square foot of building space, yielding revenues of \$0-\$5,500. If residential uses are deemed to contribute sales taxes through local spending, their contribution would be \$1,500-2,000 per acre for development at 9-12 units per acre and about \$4,500 per acre for development at 30 units per acre.
- g Judgments are from the 1999-2000 report. Current estimates would be: for all types of office, assuming 0.5 FAR and value of \$200 per sq. ft. of building space, approximately \$15,250 per acre; for divisible/incubator flex, assuming 0.25 FAR and value \$200 per sq. ft. of building space, about \$7,500 per acre; for manufacturing/assembly, assuming 0.30 FAR and value of \$100 per sq. ft. of building space, about \$4,500; for warehouse/distribution, assuming 0.35 FAR and value of \$85 per sq. ft. of building space, about \$4,500 per acre.
- h Note from the 1999-2000 analysis: Supports land value of \$12 to \$14 if no infrastructure is in place, \$15 to \$20 if infrastructure is in place.

APPENDIX B

COMPARISON OF RESULTS TO THE MARKET ANALYSIS PREPARED IN 1999-2000

This analysis estimates that East Palo Alto can absorb between 860,000 and 1.7 million square feet of building space between 2010 and 2030, depending on the average amount of space occupied by each of the expected 3,440 new jobs.

The market analysis prepared in 1999-2000 estimated that:

- East Palo Alto could gain almost 10,200 jobs over a 20-year period
- Those employees would need 1.66 million square feet of office and office/flex space over a period of two decades
- University Circle would provide 460,000 square feet of that space, leaving about 1.2 million square feet to be accommodated in the Ravenswood district.²⁴

With such a great difference in the number of projected new jobs, why are the estimates of demand for building space so similar?

Several factors explain this apparent anomaly:

- The current estimate includes building space for all new jobs in East Palo Alto, not just those that would be expected to locate in the Ravenswood district.

The estimate in the 1999-2000 report included building space *only for those jobs likely to occupy office or office/flex space*. With greater detail about employment sectors available at that time (in *Projections 98*) and less variability in the types of space occupied by different activities, that estimate was derived as follows:

- East Palo Alto was projected to gain as many as 10,168 new jobs in four targeted sectors: manufacturing, transportation/communications/utilities, finance/insurance/ real estate, and services. This projection was based on the assumption that East Palo Alto would capture 4.6 percent of the forecast new jobs in each sector in the two-county area during the 20-year period.
- Of those new jobs, 6,224 would be likely to occupy office or office/flex space – the only two types of space of interest in that analysis (see Table B1).
- Employment densities – that is, the amount of building space per job – were assumed to average 300 square feet per worker for manufacturing, and transportation/communications/utilities and 250 square feet per worker for finance/insurance/real estate and services (see Table B2).

²⁴ ABAG's *Projections 98* forecast a gain of almost 6,500 jobs over the 20-year period, similar to the number anticipated in the higher forecast. In the earlier study, a higher estimate of almost 10,200 jobs was also provided, based on an enhanced share of then-expected two-county employment growth. In both cases, only some sectors – manufacturing, transportation/communications/utilities, finance/insurance/real estate, and services – were included in the calculation of building space demand, and only a portion of the employment in those sectors was assumed to occupy office or office/flex space, which were the two types of building space that were the focus of that study.

Table B1
Proportion of New Jobs Likely to Occupy Office or Office/Flex Space
(1999-2000 Study)

Sector	Total Jobs*	Pct. of Jobs Likely to Occupy Office or Office/Flex Space	Number of Jobs Likely to Occupy Office or Office/Flex Space
Manufacturing	3,929	50%	1,965
Transportation/Communications/Utilities	846	20%	169
Finance/Insurance/Real Estate	453	85%	385
Services	4,940	75%	3,705
Total	10,168		6,224

* Assumed that East Palo Alto captured 4.6 percent of employment growth, by sector, projected for San Mateo and Santa Clara Counties in ABAG's *Projections '98*.

Source: Mundie & Associates

Table B2
Building Space Required for New Office and Office/Flex Jobs
(1999-2000 Study)

	Number of Jobs Likely to Occupy Office or Office/Flex Space	Building Space (Sq. Ft.) per Job	Total Building Space Needed (Sq. Ft.)
Manufacturing	1,965	300	589,500
Transportation/Communications/Utilities	169	300	50,700
Finance/Insurance/Real Estate	385	250	96,250
Services	3,705	250	926,250
Total	6,224		1,662,700

Source: Mundie & Associates

At the bottom line, then, the 1999-2000 analysis assigned 80 percent more jobs to building space, but focused on the lower end of the density range used in the current analysis. If the current study were to focus on the low- to mid-range estimates of employment density, then it would estimate a need for between 860,000 and 1.3 million square feet of building space (250 square feet and 375 square feet per job, respectively). These estimates would represent between 52 and 78 percent of the estimate derived in the 1999-2000 analysis.

APPENDIX C
INVENTORY OF PROJECTS PROPOSED, APPROVED,
OR UNDER CONSTRUCTION IN MID-2008^a

PLANNED ADDITIONS TO INVENTORY

Planned Additions in East Palo Alto

	Under construction	Approved	Proposed	Total
Office	0	180,000	89,000	269,000
R&D	0	0	0	0
Medical	0	0	0	0
Retail	0	20,000	0	20,000
Hotel (rooms)	0	0	0	0
Industrial	0	138,000	0	138,000

Planned Additions in the Five-City Area^b

	Under construction	Approved	Proposed	Total
Office	115,000	714,300	1,024,700	1,854,000
R&D	0	0	0	0
Medical	1,066,500	1,426,000	1,100,000	3,592,500
Excl. Abbott Labs		885,000		2,707,500
Retail	84,517	41,540	271,647	397,704
Hotel (rooms)	120	200	235	555
Industrial	75,550	138,000	0	213,550

Planned Additions in San Mateo County + Palo Alto + Mountain View

	Under construction	Approved	Proposed	Total
Office	779,000	1,829,850	2,776,700	5,385,550
R&D	2,276,432	613,420	2,162,036	5,051,888
Medical	1,066,500	1,426,000	1,165,000	3,657,500
Excl. Abbott Labs		885,000		3,116,500
Retail	360,757	214,640	578,484	1,153,881
Hotel (rooms)	120	200	801	1,121
Industrial	75,550	228,000	0	303,550

^a San Francisco Business Journal, "Peninsula Structures, September 29, 2008.

^b East Palo Alto, Palo Alto, Menlo Park, Mountain View, and Redwood City.

APPENDIX D

HIGHER ESTIMATE OF EMPLOYMENT GROWTH, DEMAND FOR BUILDING SPACE, AND LAND REQUIREMENTS

BACKGROUND FOR THIS APPENDIX

The estimate of demand for employment-related building space and developable land presented in this report is based on ABAG's *Projections 2007* forecast for East Palo Alto.

In the 1999-2000 analysis, a more aggressive estimate – based on an increased share of employment growth in the two-county area – was used as the basis for estimating employment growth and demand for new development. At that time, recent and expected growth in the two-county area was robust, the supply of vacant and underdeveloped land was shrinking, and East Palo Alto appeared to be on a track to overcome some of the obstacles that had inhibited its development potential in the past. (The dot-com bust, which began about a year later, made those estimates seem wildly optimistic.)

In the intervening years, there have been noticeable changes in the Bay Area economy, including the increased “offshoring” of many production jobs and service jobs (especially in call centers). Further, in the last year the economy has weakened significantly, and this weakening has been reflected in job losses and increasing availability of existing nonresidential building space.

Nevertheless, as noted in the main text of this report, economic cycles are just that – cycles – and the current downturn will eventually turn upward. For a more optimistic view of future potential, therefore, this appendix presents an estimate of employment growth, building space demand, and land requirements for a scenario characterized by even stronger long-term growth than was anticipated by ABAG in *Projections 2007*. Such growth could be achieved, for example, if the economy recovers its previous strength, East Palo Alto addresses the challenges described in the main body of this report, and conditions elsewhere in the five-city area and the two-county area – e.g., land price and availability, or traffic congestion – are such that East Palo Alto becomes more attractive to companies seeking new building space.

The following estimate assumes that East Palo Alto could capture as much as twice the amount of employment growth forecast in *Projections 2007*. It is intended to provide a high-end boundary of possible growth and land demand during the next two decades.

HIGH-END ESTIMATES OF EMPLOYMENT GROWTH, BUILDING SPACE DEMAND, AND LAND REQUIREMENTS FOR NONRESIDENTIAL DEVELOPMENT

Employment

In this high-end scenario, East Palo Alto would capture twice as many new jobs as are forecast by ABAG: 3,300 between 2010 and 2020 and another 3,585 between 2020 and 2030, for a total of 6,885 during the 20-year period. To achieve this growth, East Palo Alto would have to address the challenges that have inhibited new development to date (see Chapter 2 of this report) and would have to encourage new development to be designed so that the amount of built space (that is, the floor area ratio) could be intensified over time, as demand warrants.

Building Space

For the higher estimate of employment (double the ABAG projection of new jobs in East Palo Alto in *Projections 2007*), East Palo Alto would need as much as 773,100 square feet of new nonresidential building space between 2010 and 2020, and as much as 1.64 million square feet between 2010 and 2030. The amount of building space by type is shown in Table D1.

These calculations are summarized in Table D1.

Table D1
Building Space Needed to Accommodate Employment Growth in East Palo Alto,
by Type of Space, 2010-2030

Time Frame	New Jobs in Building Space	Building Space Needed, 2010-2020			
		Industrial	Retail	Office	Total
2010-2020	2,078	331,500	210,000	231,600	773,100
2010-2030	4,560	690,750	430,000	519,900	1,640,650

Source: Mundie & Associates

Land Required

The amounts of new building space shown in Table D1 would require between 45 and 71 acres of land to accommodate growth between 2010 and 2020, and between 90 and 150 acres to accommodate growth between 2010 and 2030. These estimates are shown in Table D2.

Table D2
Land Required to Accommodate Employment Growth:
Higher Estimate of New Jobs

FAR	Acres Needed, 2010-2020			Acres Needed, 2010-2030		
	Industrial	Retail	Office	Industrial	Retail	Office
0.25	30.4	19.3	21.3	63.4	39.5	47.7
0.30	25.4	16.1	17.7	52.9	32.9	39.8
0.35	a	a	15.2	a	a	34.1
0.50	a	a	10.6	a	a	23.9
0.75	a	a	7.1	a	a	15.9
1.50 ^b	a	a	3.5	a	a	8.0
Total	45.0-71.0			93.7-150.7		

a This FAR is not achievable with typical industrial or retail development.

b The University Plaza project would have an FAR of 1.84 (see Table 11). Office space in the Ravenswood District is not expected to achieve the density of the University Plaza project.

Source: Mundie & Associates.

APPENDIX E

ASSIGNMENT OF EMPLOYMENT TO BUILDING SPACE: FURTHER DISCUSSION

Assignment of employment growth to specific types of space has become a less useful undertaking than it was in the past because of changes – particularly during the last decade – in industries’ space demand and utilization characteristics. The following paragraphs discuss the issues in assigning employment to particular types of building space. Following this discussion, projected employment growth is assigned to building space in general; following that general assignment, assignments of employment to specific types of building space are attempted in an effort to provide better guidance about the types of development for which demand could be anticipated in the Ravenswood District.

THE NATURE OF INDUSTRIES’ DEMAND FOR SPACE

The experience of the past decade has shown that:

- Specific industries occupy a variety of types of space, depending in part on the specific building characteristics they require and in part on other factors, such as cost, location relative to their workforce and to associated industries, neighborhood amenities, and other conditions.
- Companies in an industry may occupy more than one building, and the specific functions in the various buildings may differ – leading to needs for more than one type of space.
- New economic activities are constantly emerging, especially in a creative area such as Silicon Valley. The requirements of new activities may be similar to or different from those of known activities, and may evolve – within the same building space – over relatively short periods of time. Some uses require building types that have not existed in the past (for example, the types of spaces used by motion picture animators, such as Pixar, to model the movements of their characters).
- Existing economic activities are changing location: “offshoring” has become an important trend in the U.S. economy during the past decade. The specific activities that remain in Silicon Valley may not be representative of the full array of activities in an industry; as a result, estimates of building space demand may be skewed.

Finally, projections of employment change by industry are not as detailed as they used to be: the newer ABAG projections (e.g., *Projections 2007*) at the local (city) level identify only five (rather than six) economic sectors, and those sectors each combine industries with different occupational characteristics and building occupancy characteristics.

ABAG Sector	Type(s) of Building Space
Agriculture/Natural Resources	None
Manufacturing/Wholesale/Transportation	Manufacturing: flex; R&D, light industrial, heavy industrial Wholesale: flex, warehouse Transportation: warehouse, none
Retail	Retail (minor amount of office)
Financial/Professional Services	Office, retail (local serving offices in shopping centers and other storefronts), home offices
Health, Education, Recreation	Health: medical buildings, including hospitals, clinics, and offices (some medical offices are in non-medical office buildings or retail space) Education: schools, office buildings, retail space Recreation: dedicated recreation buildings, parks, schools
Other Jobs	Construction jobs: office, warehouse, no building space Utilities: office, retail (storefront offices), no building space Information: office, flex Government: office, dedicated institutional space (e.g., police and fire stations)

With these less-refined industry categories, the sectors are more likely to combine subsectors that may have different space occupancy characteristics, increasing the difficulty of distinguishing industry groups according to their space preferences.

INDUSTRIES' SPACE OCCUPANCY CHARACTERISTICS

The occupancy of nonresidential building space has become more flexible over time. Perhaps most notably, “flex” space – which was originally conceived as a structure that could accommodate light assembly and/or storage and/or light distribution and/or sales/service space and/or incidental office uses – has been occupied by businesses engaged in all of those activities. The design of single- or two-story tilt-up buildings in business parks (which might have been planned as industrial parks) has been adapted so that roll-up doors can easily be replaced by windows, and space in those buildings has been adapted to accommodate the same variety of uses found in flex space. Especially in Silicon Valley, businesses maturing from a “garage”-type operation to a workplace structure may find that the nature of their local economic activity evolves before they move into space designed specifically for the mature operation.

At the same time, the average amount of space required for each job has become more similar across different types of space. With notable exceptions (e.g., warehouse jobs, construction jobs, some utilities jobs, transportation jobs), each job occupies between 250 and 500 square feet of building space. Office occupations generally occupy space at the lower end of this range; R&D jobs in the middle; and retail jobs at the higher end. The actual amount varies not only according to the specific job functions that are performed, but also as companies grow (for example, a growing company might lease more space than it needs upon move-in, but gradually increase the number of workers in that space over time).²⁵

²⁵ A study prepared for the Southern California Association of Governments (SCAG) derived the following average employment densities:

DOES THE TYPE OF BUILDING SPACE MATTER TO THE CITY OF EAST PALO ALTO?

The advantages and disadvantages of specific types of space are less clear than they once were:

- Public sector revenues derive primarily from property tax and sales tax.

Property taxes are higher (on a per-acre basis) for more intensive development types, such as offices, and more highly finished development types, such as some types of R&D space. Once a new building is added to the assessment rolls, however, the increase in property tax it generates over time is strictly limited, by California law, to no more than two percent per year unless the property is sold. Sales of nonresidential property typically occur infrequently and, when they do, the sales are often structured in a way that avoids reassessment.

Sales taxes are generated primarily by retail stores. Some offices, however – those identified as point-of-sale locations – may also generate sales taxes.

- The number of jobs in different types of space is more similar than it used to be (as discussed above), and the number of jobs within a particular type of space is more widely varied than it once was. These changes are the result of increasing flexibility/adaptability of firms in the types of space they occupy: buildings originally intended for one type of use may be occupied by any number of different activities. The City of East Palo Alto has the ability to regulate the types of buildings that are constructed, but only a limited ability to regulate the interior use of space once it is completed. Thus, while regulating building type through zoning as a way of encouraging certain kinds of occupations was always an uncertain venture, it has become even more so.

Type of Space	Square Feet of Building Space per Job
Regional retail	857
Other retail	344
Office	288-311
R&D/Flex space	344
Light manufacturing	439
Warehouse	814

(from The Natelson Company, *Employment Density Study, Summary Report*, October 31, 2001. Figures shown in the table are based on average employees per acre and average floor area ratio.)