Economic &
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Real Estate Economics
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Public Finance
Land Use Policy

FINAL REPORT

SUPPLY/DEMAND STUDY FOR PRODUCTION, DISTRIBUTION, AND REPAIR (PDR) IN SAN FRANCISCO'S EASTERN NEIGHBORHOODS

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City and County of San Francisco

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I. INTRODUCTION

Economic & Planning Systems, Inc. (EPS) has been retained by the City and County of San Francisco to conduct a study of supply and future demand of land for Production/ Distribution/ Repair (PDR) uses in San Francisco's Eastern Neighborhoods. This report examines whether the amount of land designated for PDR uses is adequate or inadequate to accommodate PDR activities in the period 2005 through 2030.

PDR activities incorporate a wide variety of business types that differ in many ways, including location preferences, property utilization, projected employment growth, and linkages to the San Francisco economy. To address the PDR supply and demand on a more specific basis, EPS has elected to utilize the category definitions presented in Appendix D of the San Francisco Planning Commission Resolution #16727. That document divided PDR into 11 sub-categories, as shown on **Table 1.1**.

For analytical purposes, EPS has divided the Eastern Neighborhoods into five subareas: South of Market (SoMa), the Mission, Potrero Hill/Showplace Square, Central Waterfront, and Bayview/ Hunters Point (shown on **Figure 1.1**).

The findings of this report are based on reviews of regional and national economic reports and projections, primary research including site surveys, extensive analysis of raw data, and interviews with PDR owners, tenants, and brokers. The land use and business characteristic data used for much of the quantitative analysis in the report were provided by Dun & Bradstreet, the San Francisco Planning Department, the San Francisco Assessor's Office, and other sources. While EPS cannot verify the accuracy of every data point for the thousands of parcels and businesses evaluated under this study, spot-checking the data has provided confidence that the data fairly reflect the real-world trends and relationships on which the findings of this study are based.

DEFINING THE ISSUE

Production/Distribution/Repair jobs serve an important function in the economy of San Francisco, as is true in any other major city. While large-scale manufacturing is not the major employment sector it once was in American cities, PDR jobs still provide goods and services that support other primary industries, such as tourism, office headquarters, or high technology. In addition, PDR businesses provide many of the personal and business services that enhance the population base's quality of life, ranging from auto repair and kennel services to the distribution of foods and clothing sold in retail stores. Such linkages are critical to maintaining an efficient local and regional economy.

The San Francisco Planning Department is considering a substantial rezoning of the Eastern Neighborhoods. As the "future supply" benchmark for this study, EPS has been instructed to use the most recent version of "Option B: Moderate Housing Option" from the Planning Department's *Rezoning Options Workbook* as revised by the Planning Commission at its hearings. This Rezoning Option would change where certain PDR

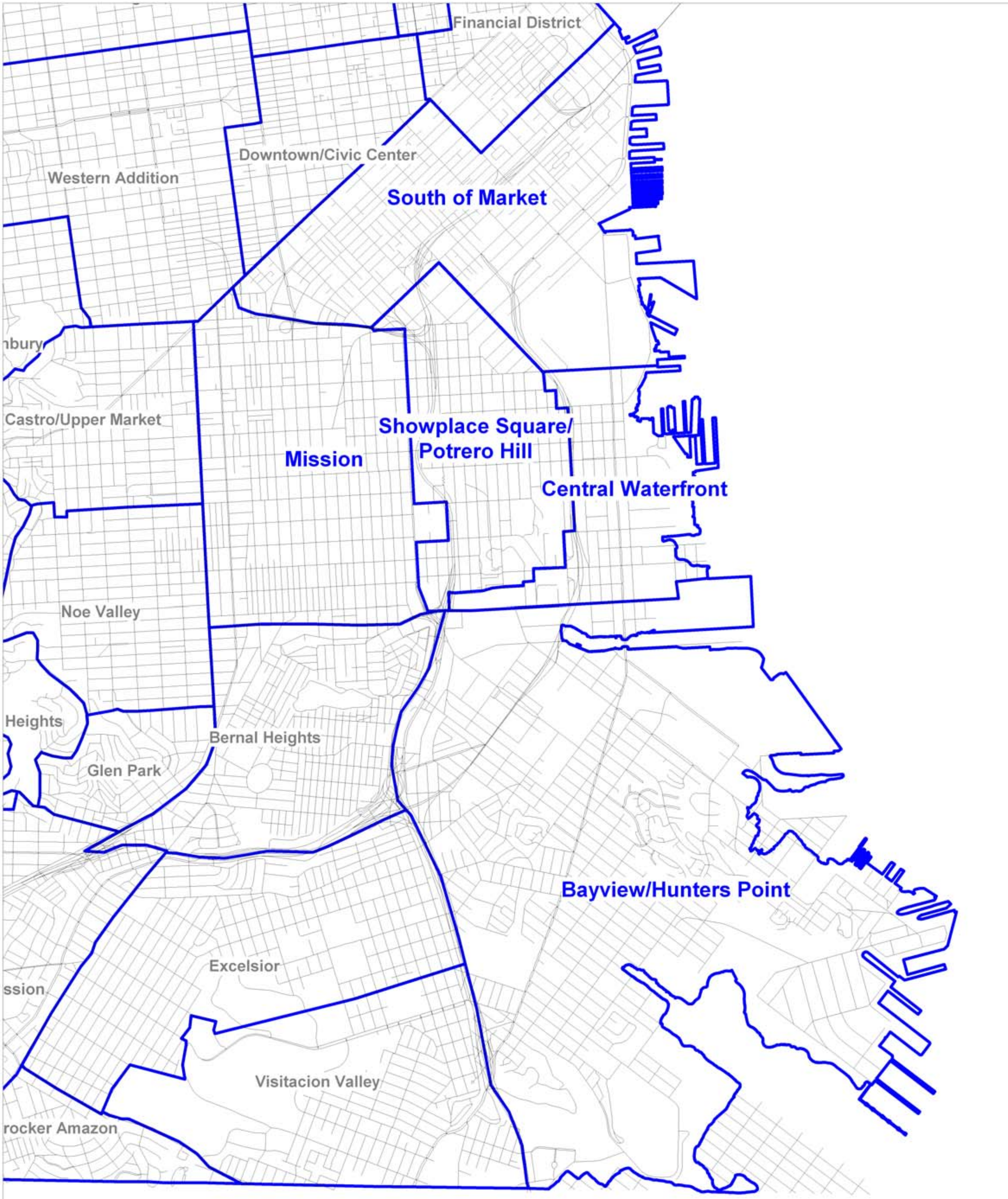
Table 1.1
PDR Categories and Sub-Categories
San Francisco PDR Supply/Demand Study

PDR Category	PDR Sub-Category
Publishing	Publishing/Printing Printing Services Paper Manufacturing/Wholesale
Audio/Visual	Photo Services Graphic Design Radio/TV Stations Sound & Film Recording
Arts	Arts Activities
Fashion	Garment Manufacturing Fabric/Apparel Manufacturing Wholesale Apparel
Transport	People Transport Goods Transport Courier Services
Food/Event	Catering (1) Wholesale Flowers Large Food Processing Wholesale Food Distribution
Interior Design	Wholesale Jewelry Import/Export Trading Showrooms (1) Furniture Manufacturing Wholesale Furniture
Construction	Construction/Bldg Maintenance Wholesale Construction
Equipment	Appliance Repair Wholesale Appliances Heavy Equipment Wholesale Small Manufacturing
Motor Vehicles	Towing/Parking/Rental Wholesale Auto Parts Auto Repair Auto Body Repair
Other	Animal Svcs/Kennel/Landscaping Chemical/Leather Repair Waste Management Utilities Public Warehouse

(1) While "Catering" and "Showrooms" are nominally included as PDR uses, the business database maintained by the San Francisco Planning Department did not include any such businesses as PDR uses. Thus, these two categories are eliminated on other tables in this analysis.

Source: San Francisco Planning Commission Resolution #16727; Economic & Planning Systems, Inc.

Figure 1.1
Eastern Neighborhood Sub-Areas



P:\14000s\14158PDR\Maps\MapInfo\Fig01.wor uses are permitted, specifically reducing the amount of land zoned for PDR in the SoMa and Showplace/Potrero Hill subareas. The rezoning would also alter the way in which uses are permitted, by making much of the land available *only* for PDR uses, whereas the current zoning allows residential or other uses on land that also allows PDR uses. The combined results of these changes would reduce the amount of land on which PDR would be allowed, but substantially increase the amount of land on which *only* PDR could be built.

At issue in this report is whether the amounts and locations of the land proposed to be rezoned for PDR are adequate to meet the projected PDR business demand for buildings and land. This report evaluates this overarching issue through a detailed analysis of the current locations of various PDR uses, the future demand for PDR buildings and land based on employment projections and displacement propensities, and the qualitative attributes of the land proposed to be rezoned for PDR in the Eastern Neighborhoods.

This report is not intended to endorse nor refute Option B as a specific zoning proposal; rather Option B serves as a convenient model against which supply, demand, and location considerations can be compared. As such, EPS has reached general conclusions based on Option B, but has not dissected Option B on a block-by-block level. This more precise evaluation is the charge of the Planning Department and Planning Commission as the rezoning proposals are refined.

The supply of land in San Francisco is severely constrained for all uses (not just PDR), and policy decisions to prioritize the retention of PDR land necessarily limit the amount of land available for non-PDR uses. This study does <u>not</u> address the broader socio-economic impacts of land use policies prioritizing one use over another.

KEY ASSUMPTIONS

In this study, EPS has made a number of conservative assumptions regarding the future supply of PDR land as suggested under Option B. Specific examples include the following:

1. Only land that is both proposed to be zoned for PDR and currently used for PDR is counted as the future PDR land supply. Many of the parcels shown as PDR zoning under Option B are currently developed with office, retail, cultural/institutional, or other uses.

2. Land controlled by the Port is not counted as part of the basic PDR land supply, because Port land is subject to State Lands regulations that restrict its use. However, this Port land sums to roughly 15.6 million square feet. Currently, 2.7 million square feet of Port land is used on an interim basis for activities that do not comply with Trust regulations, including some PDR.

3. At present, roughly 17 percent of PDR jobs in the Eastern Neighborhoods are located on land that is not zoned for industrial use. For the future projections, EPS has assumed that less than 14 percent of PDR jobs would be located on land not zoned for PDR or industrial use.

4. The proportion of future PDR jobs allocated to mixed-use building types (mixed with housing, retail, or office space) reflects the current proportions of PDR jobs located on land proposed for mixed-use PDR zoning, rather than assuming that PDR jobs will be increasingly compatible with residential or non-PDR commercial space. However, San Francisco's PDR businesses are generally becoming smaller in size and in many cases occupy "flex" space that could also be occupied by office or retail tenants -- trends which suggest that a higher proportion of future PDR uses may be adaptable or amenable to mixed-use locations.

These conservative assumptions were made to minimize the possibility that EPS would underestimate future demand for PDR buildings and land.

SUMMARY OF FINDINGS

OVERARCHING THEMES

The major findings that have emerged from EPS's analysis include the following:

1. ***"PDR" involves a wide variety of activities that have very different outlooks for employment growth, land demand, and supportable real estate prices.*** The disaggregation of PDR uses is absolutely critical to understanding the supply and demand dynamics for PDR in San Francisco. Different zoning and policy solutions are likely to be required for different sectors of the PDR use category, as some PDR activities are appropriate in smaller properties within mixed-use buildings or neighborhoods, while others may require larger and less expensive properties in primarily industrial areas.

2. ***Left to unconstrained market forces and/or current zoning, the supply of PDR space in San Francisco will likely continue to diminish***. Recent and long-term trends have indicated negative trends in San Francisco's PDR employment compared to overall employment. Some of this change is structural, reflecting long-term trends as many manufacturing jobs have relocated overseas and distribution jobs have relocated to suburban areas. Other reductions are likely attributable to the comparatively high values for alternative uses (such as housing) that are also permitted on land zoned for PDR.

3. ***The Rezoning Option analyzed has the potential to stabilize San Francisco's supply of PDR land.*** By creating a large supply of Eastern Neighborhoods land that *only* allows PDR, the long-term likelihood of continued PDR space reduction could be minimized.

4. ***The Rezoning Option would provide an adequate amount of PDR land to meet projected demand.*** The Option B Rezoning provides an appropriate amount of land to meet the space needs of the PDR jobs that will be added to the Eastern Neighborhoods or relocated in the Eastern Neighborhoods through 2030. **Tables 1.2 through 1.4** summarize the quantified supply and demand projections.

5. ***An effective rezoning strategy to retain and promote PDR uses in San Francisco would take a three-part approach***. Such a strategy would a) allow certain PDR uses to remain in place despite not being on PDR-zoned land, b) promote the inclusion of PDR space in mixed-use areas or development, and c) restrict certain lands to PDR uses only.

DEMAND AND SUPPLY CONCLUSIONS

PDR Demand

1. In 2004, there were roughly 45,000 PDR jobs in the Eastern Neighborhoods, which is 21 percent fewer than were present in 1999. These 45,000 jobs occupied a total of 17.8 million square feet of building space.

2. In the year 2030, EPS estimates that there could be roughly 51,000 PDR jobs in the Eastern Neighborhoods, representing a 13 percent increase over the area's current PDR employment. This projection is not as high as ABAG's projections for industrial employment but more optimistic than recent and long-term history would suggest, as both have shown net industrial job losses in San Francisco.

3. At present, over 20,000 PDR jobs in the Eastern Neighborhoods are located on land not proposed to be specifically zoned for PDR uses in the future. Many of these PDR jobs are likely to be relocated or displaced over the coming decades as market opportunities arise for redevelopment of their underlying land.

4. Subtracting those PDR jobs likely to remain on non-PDR land from the overall job projections, EPS estimates that roughly 44,000 PDR jobs will require PDR land in the future (see **Table 1.2**).

5. Based on the current building square footage per employee for each PDR sector, these 44,000 PDR jobs will demand roughly 16.7 million square feet of building space on PDR land (see **Table 1.2**).

Table 1.2
Summary of Projected Demand for PDR Land
San Francisco PDR Supply/Demand Study

Item	Amount	Comment
Projected Eastern Neighborhoods PDR Jobs in 2030	**50,912**	Represents 13% growth over current jobs
minus PDR jobs likely to stay on Land NOT zoned for PDR	7,071	Proportion retained varies by industry sector
Total PDR jobs requiring PDR Land in 2030	***43,841***	*Jobs*
Proportion of PDR Jobs in Various Building Types		
Outdoor Storage/Minimal Development	10%	in buildings with average FAR of 0.20
Manufacturing/Warehouse	21%	in buildings with average FAR of 0.50
Multi-Story Industrial	13%	in buildings with average FAR of 2.0
Light Industrial/Flex	46%	in buildings with average FAR of 0.75
Mixed-Use PDR	10%	in buildings mixed with office, residential, or retail
Average Building Sq. Ft. per PDR Employee	381	Similar to current practices, varies by industry sector
Total Building Square Feet required for PDR Employees	**16,693,271**	Square feet of buildings
Average Proportion, PDR-Occupied Building Sq. Ft. to PDR Land	0.62	Similar to current practices, varies by industry sector
Total PDR-Zoned Land Required for PDR Uses		
Single-Use PDR	23,849,225	Square feet of land
Mixed-Use PDR (1)	3,198,079	Square feet of land
Total	**27,047,303**	Square feet of land

(1) Mixed-Use PDR land reflects current proportion of PDR use in mixed-use buildings. Future PDR uses are likely to be more amenable to mixed-use building space.
Sources: Dun & Bradstreet Business Database; Economic & Planning Systems, Inc.

Table 1.3
Summary of Projected Supply of PDR Land under "Option B" Re-Zoning
San Francisco PDR Supply/Demand Study

Land Category	"Option B" Supply (Land Sq. Ft.)
PDR-Only Land	
Available PDR-Only Land in Option B Re-zoning	41,279,701
plus PDR-Only Land at Hunters Point (1)	2,756,511
Subtotal	*44,036,212*
minus Land Proposed for PDR but Already Used by Non-PDR	(21,308,228)
Total PDR-Only Land Available in Option B	**22,727,984**
Mixed Use PDR Land	
Available Mixed Use PDR Land in Option B Re-zoning	6,714,470
minus Land Proposed for PDR but Already Used by Non-PDR	(3,332,246)
Total PDR-Only Land Available in Option B	**3,382,224**
Subtotal, PDR Land in Option B excluding Port Land	***26,110,208***
Port/Maritime Industrial Land at Piers 68-96 and Hunters Point (1,2)	15,586,119
Eastern Neighborhoods Total, including Port Land	**41,696,327**

(1) The Preliminary Development Concept for Hunters Point includes 63.3 acres of land for non-maritime industrial use and 44.9 acres for maritime industrial use.
(2) The Port of San Francisco has roughly 13.6 million square feet of land from Piers 68-96 that may be available to PDR uses not compliant with Tidelands Trust. Currently, 2.7 million square feet (20%) of Port land on Piers 68-96 is used this way.

Sources: San Francisco Planning Department; Economic & Planning Systems, Inc.

Table 1.4
Summary of Projected Supply and Demand for PDR Land
San Francisco PDR Supply/Demand Study

Land Category	"Option B" Supply (Land Sq. Ft.)	Projected Demand (Land Sq. Ft.)	Supply Surplus or Shortfall	
			Land Sq. Ft.	*Percent*
PDR Land excluding Port/Maritime Industrial Land				
Available PDR-Only Land including Hunters Point (1)	22,727,984	23,849,225	-1,121,241	-5%
Available Mixed-Use PDR Land	3,382,224	3,198,079	184,145	5%
Total, PDR Land excluding Port Land	***26,110,208***	***27,047,303***	***-937,095***	***-4%***
PDR Land including Port/Maritime Industrial Land				
Available PDR-Only Land including Hunters Point (1,2)	22,727,984	23,069,919	-341,935	-2%
Available Mixed-Use PDR Land	3,382,224	3,198,079	184,145	5%
Total Port Land at Piers 68-96 and Hunters Point (2)	15,586,119	779,306	14,806,813	95%
Total, with some PDR captured on Port Land	***41,696,327***	***27,047,303***	***14,649,024***	***35%***

(1) Land Available excludes land proposed for PDR zoning but already developed with non-PDR uses such as housing or retail.
(2) EPS has assumed 5% of Port land would be used for 'Outdoor Storage/Minimal Development' property by PDR not compliant with Tidelands Trust. Currently, 2.7 million square feet (20%) of Port land on Piers 68-96 is used this way.

Sources: San Francisco Planning Department; Economic & Planning Systems, Inc.

6. A significant proportion of PDR jobs are and can continue to be located on mixed-use parcels, as they do not pose major traffic, noise, vibration, air quality, or other compatibility concerns for housing, office, or retail. EPS has conservatively assumed that roughly 11 percent (1.9 million square feet) of future PDR building space demand would be accommodated in mixed-use development, which is roughly proportionate to the current amount of PDR space on land proposed for mixed-use PDR zoning under Option B.

7. At an overall ratio of building-space-to-land consistent with current practices, those 44,000 PDR jobs are projected to require roughly 27.0 million square feet of land zoned for PDR. Of this land, the majority should be PDR-only land, while the remainder can be mixed-use PDR land (see **Table 1.2**).

PDR Supply

1. Most of the land currently zoned for industrial use in the Bayview/Hunters Point, Central Waterfront, and Mission areas would continue to be zoned for PDR under the Option B Rezoning. Very little currently industrial land in SoMa would be zoned for PDR, and most of the currently industrial land in Showplace/Potrero Hill would either be zoned for mixed-use PDR or non-PDR uses.

2. The Option B Rezoning of the Eastern Neighborhoods would zone roughly 41.3 million square feet of land exclusively for PDR use. However, 21.3 million square feet of that land is already being utilized for non-PDR uses. Conservatively assuming that PDR uses would not displace or be added to any of the housing, retail, or other uses already on such parcels, 20.0 million square feet of rezoned land would be considered "available" exclusively for PDR.

3. Land at the Hunters Point Shipyard is not included in the Option B Rezoning of the Eastern Neighborhoods, but may be appropriate for a wide variety of PDR uses, including large floorplate and/or lower density buildings. Adding the 2.8 million square feet of planned industrial land at Hunters Point to the estimated future supply through rezoning, the total PDR-only land supply would reach roughly 22.7 million square feet.

4. The Option B Rezoning also would provide 6.7 million square feet of land for mixed-use PDR, on which PDR would be mixed with housing, retail, or commercial space. As with PDR-only land, a substantial portion (3.3 million square feet) of the proposed mixed-use PDR land is currently used for non-PDR activities. Subtracting this amount from the total, the net amount of rezoned land considered "available" for mixed-use PDR would be 3.4 million square feet.

5. Maritime industrial land on Port-controlled property from Pier 68 to Pier 96 (13.6 million square feet) and at Hunters Point (2.0 million square feet) would comprise a total maritime industrial land supply of 15.6 million square feet.

6. On **Table 1.3**, the overall supply of PDR land has been calculated by including the proposed “available” PDR-only land and the “available” mixed-use PDR land, which sum to 26.1 million square feet. If the Port’s maritime industrial land is included, the PDR land supply could total 41.7 million square feet.

7. In 2004, PDR businesses occupied 15.5 million square feet of building space on 27.6 million square feet of land currently zoned to allow PDR uses, reflecting a current ratio of roughly 0.6 PDR building space to PDR land.

8. At a PDR-space-to-land ratio consistent with current trends, the total demand for PDR land is estimated at 27.0 million square feet. As shown on **Table 1.4**, the total supply of PDR land in Option B (plus non-maritime land on Hunters Point) is roughly the same amount (four percent less) required by projected demand.

9. The Port’s maritime industrial land on Piers 68 through 96 and Hunters Point represent a substantial amount of land (15.6 million square feet) that, if added to the PDR land supply, could provide substantially more land than is likely to be demanded. Even without this maritime industrial land, the PDR land supply is roughly equivalent to projected PDR land demand.

10. While the Option B Rezoning supply of land may be adequate to accommodate future land demand, the amount of building space on that land would need to be significantly intensified. At present, the PDR land in the Option B land supply contains roughly 10.2 million square feet of PDR-occupied building space. In the future, EPS projects that as much as 16.7 million square feet of building space may be required on that land to accommodate PDR demand.

ISSUES FOR FURTHER ANALYSIS AND/OR POLICY DIRECTION

Issues for further analysis and/or policy decisions during the refinement of zoning proposals include the following:

1. The current “PDR” zoning classification encompasses a broad range of business activities that do not necessarily share common traits regarding building typologies or land utilization. The Planning Department and Commission may seek to refine the PDR classification and/or refine the definition of PDR to reflect differences in land use and market characteristics by location.

2. The retention of PDR jobs has implications for both retaining employment diversity within San Francisco and protecting vital service linkages to San Francisco’s households, visitors, and base sector employment. Further analysis may be necessary to distinguish the issues associated with each of these two aspects of PDR retention and to craft policies that are most beneficial to the City’s long term economic well being.

3. The rezoning strategy may provide for a variety of PDR land categories, including several that allow PDR only and others that promote PDR within mixed-use development. The application of these various zoning categories should consider the existing and potential conditions, compatibilities, and conflicts of land, buildings, and infrastructure.

4. Roughly half of the land identified for future PDR zoning (PDR-only or mixed-use PDR) under Option B is currently developed with non-PDR uses, and has not been included in the supply of "available" PDR land. The prospects for this land to be used for PDR in the future and the appropriateness of PDR zoning for such parcels should be further evaluated.

5. The land supply for certain PDR sectors could be significantly increased if maritime industrial land controlled by the Port is made more available to PDR uses. The City may want to evaluate the long term demand for maritime-related uses and develop a comprehensive strategy for managing Port industrial land, which would require resolution of issues pertaining to State Lands regulations.

6. PDR tenants in the Eastern Neighborhoods are generally becoming smaller in size and seeking more "flex" building space that may also accommodate office or retail uses. These trends suggest that some PDR tenants may be increasingly compatible with vertical mixed-use, and the rezoning strategy could reflect these trends by providing more mixed-use PDR land than is currently envisioned under Option B.

7. PDR business retention is also affected by a variety of issues beyond land use policy, such as payroll taxes, utility rates, etc. A comprehensive effort to retain PDR jobs could address these other issues in addition to land use policy.

REPORT ORGANIZATION

This report consists of five chapters and two appendices. Following this introduction and summary of findings, **Chapter II** provides a discussion of the current and projected supply of PDR property in the Eastern Neighborhoods. **Chapter III** presents EPS's projections for PDR employment in the Eastern Neighborhoods through 2030. In **Chapter IV**, the employment projections are used to calculate the amount of PDR building and land square footage likely to be in demand. In **Chapter V**, EPS introduces several policy issues that will be critical in refining the rezoning proposal for the Eastern Neighborhoods.

II. PDR PROPERTY SUPPLY

A significant amount of land in San Francisco's Eastern Neighborhoods is currently zoned and/or utilized for PDR activities. Under the Option B Rezoning of the Eastern Neighborhoods, the amount and location of PDR land would change. This chapter describes the current and proposed PDR land supply in the Eastern Neighborhoods.

CURRENT PDR SUPPLY

LAND SUPPLY

Most but not all of the current PDR businesses in the Eastern Neighborhoods are located on land specifically zoned to allow PDR.[1] However, some land zoned for PDR use has been developed with other uses, as the current zoning allows office, retail, or residential use in many of the zoning categories that also allow PDR uses. More significantly, many PDR businesses are located on land that is not specifically designated for PDR activity.

Figure 2.1 shows the current (Year 2004) location of land zoned for PDR in each of five subareas of the Eastern Neighborhoods. Also shown are the locations of PDR businesses in the Eastern neighborhoods. As illustrated, almost all of the current PDR businesses in SoMa and the Central Waterfront are located on primary PDR land, while many PDR businesses in the other three subareas are located on secondary PDR land.

Table 2.1 quantifies the number of PDR jobs in each subarea that are located on land not zoned for PDR. As shown, 17 percent of all PDR jobs in the Eastern Neighborhoods are located on land not zoned for PDR. Higher-than-average proportions of these jobs are located in the SoMa and Mission subareas. Also, the Publishing, Construction, Motor Vehicles, and Other job categories have a higher-than-average propensity to be located on land not zoned for PDR.

In 2004, the Planning Department estimates that PDR businesses occupied 27.6 million square feet of land zoned for PDR throughout the Eastern Neighborhoods. This amount represents a 6 percent decrease in land both zoned and used for PDR activity since 1999.

BUILDING SUPPLY

PDR businesses in the Eastern Neighborhoods occupied a total of 17.8 million square feet of building space in 2004.[2] As shown on **Table 2.2**, this represented a 22 percent reduction in occupied building space since 1999. The SoMa subarea had the most

[1] Current zoning categories that allow PDR activities include C-1/M-1, CM, CM/M1, M1,M1/M2, M2, NC-2/M1, P/M-1, P/M-2, RF-1/M-1, RSD, RSD/SLR, SLI, SLR, SLR/RED, SPD, SSO.

[2] Source: Dun & Bradstreet Business Database, 2004.

Figure 2.1
Current PDR Businesses and Current Land Zoned for Industrial Use

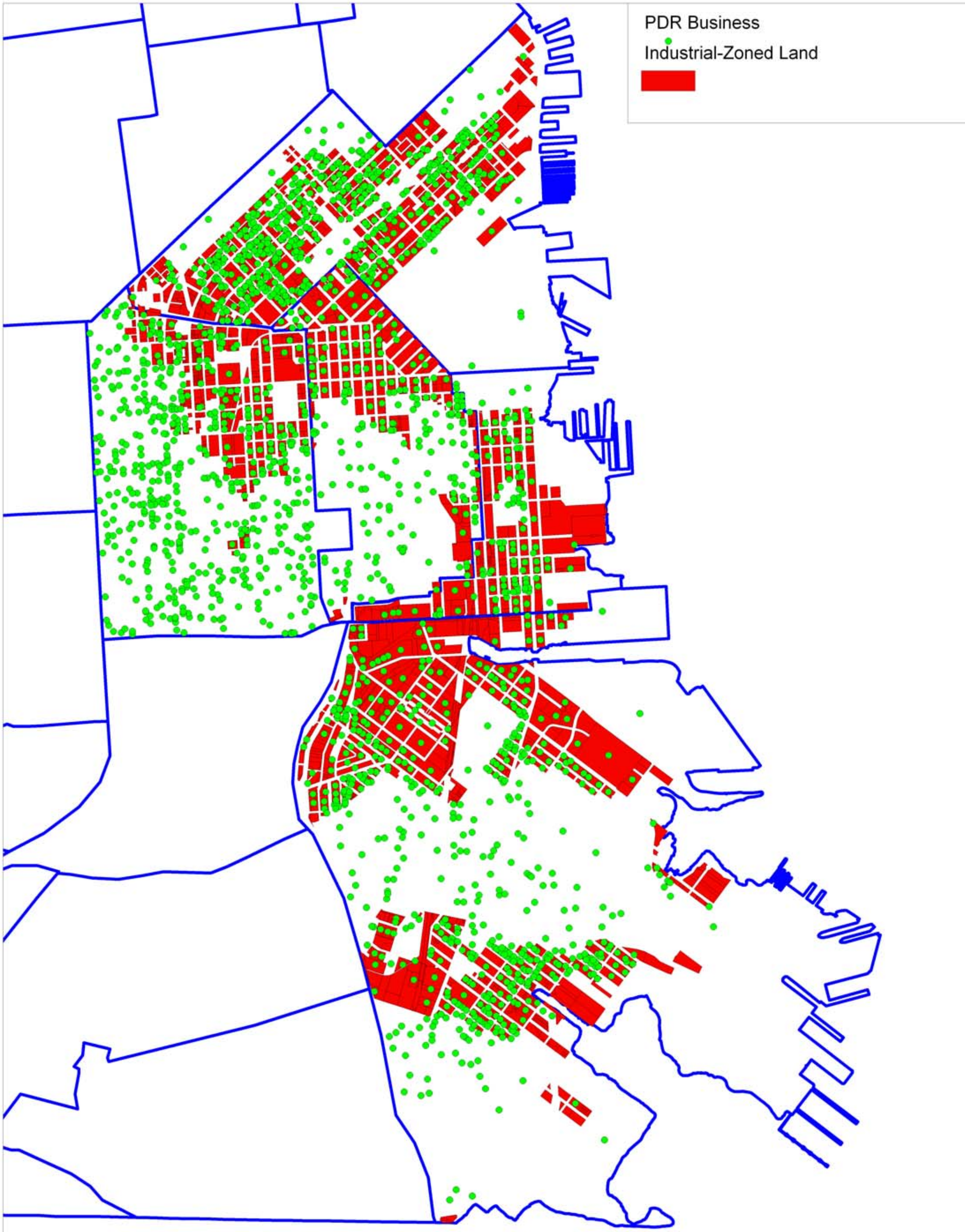


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Table 2.1
Percent of Employees on Land Not Currently Zoned for PDR
San Francisco PDR Supply/Demand Study

Category	South of Market %	Showplace Square/ Potrero Hill %	Mission %	Central Waterfront %	Bayview/ Hunters Point %	Total Eastern Neighborhoods %
Publishing						
Publishing/Printing	64%	5%	59%	0%	6%	54%
Printing Services	2%	17%	12%	0%	1%	4%
Paper Manufacturing/Wholesale	0%	0%	10%	0%	0%	1%
Total Publishing	52%	7%	28%	0%	1%	34%
Audio Visual						
Photo Services	0%	0%	100%	0%	0%	100%
Graphic Design	1%	0%	33%	0%	27%	11%
Radio/TV Stations	0%	60%	3%	0%	12%	3%
Sound & Film Recording	34%	7%	20%	0%	16%	22%
Total Audio Visual	18%	8%	14%	0%	19%	15%
Arts						
Arts Activities	0%	3%	32%	0%	0%	7%
Total Arts	0%	3%	32%	0%	0%	7%
Fashion						
Garment Manufacturing	0%	0%	9%	2%	4%	4%
Fabric / Apparel Manufacturing	0%	0%	14%	0%	0%	9%
Wholesale Apparel	11%	3%	40%	0%	44%	21%
Total Fashion	2%	1%	14%	2%	12%	7%
Transport						
People Transport	48%	71%	50%	0%	4%	14%
Goods Transport	8%	19%	69%	76%	21%	29%
Courier Services	0%	0%	80%	21%	2%	2%
Total Transport	34%	4%	59%	5%	7%	12%
Food-Event						
Wholesale Flowers	0%	0%	0%	0%	14%	2%
Large Food Processing	0%	6%	5%	0%	1%	3%
Wholesale Food Distribution	0%	15%	50%	0%	1%	2%
Total Food-Event	0%	12%	9%	0%	1%	2%

Table 2.1
Percent of Employees on Land Not Currently Zoned for PDR
San Francisco PDR Supply/Demand Study

Category	South of Market %	Showplace Square/ Potrero Hill %	Mission %	Central Waterfront %	Bayview/ Hunters Point %	Total Eastern Neighborhoods %
Interior Design						
Wholesale Jewelry	63%	0%	50%	0%	0%	8%
Import/Export Trading	3%	5%	21%	11%	10%	9%
Furniture Manufacturing	9%	10%	23%	11%	2%	6%
Wholesale Furniture	16%	0%	97%	10%	0%	12%
Total Interior Design	14%	3%	39%	11%	2%	9%
Construction						
Construction/Bldg Maintenance	25%	29%	46%	11%	24%	26%
Wholesale Construction	0%	0%	43%	16%	20%	14%
Total Construction	23%	26%	46%	11%	24%	25%
Equipment						
Appliance Repair	33%	36%	89%	81%	7%	34%
Interior, Household & Appliance Wholesalers	0%	32%	9%	0%	6%	7%
Heavy Equipment Wholesale	5%	6%	56%	1%	3%	7%
Small Manufacturing	2%	0%	45%	0%	35%	15%
Total Equipment	7%	8%	50%	15%	8%	12%
Motor Vehicles						
Towing/Parking/Rental	30%	100%	30%	0%	29%	21%
Wholesale Auto Parts	7%	96%	0%	0%	3%	24%
Auto Repair	40%	27%	38%	7%	23%	31%
Auto Body Repair	1%	0%	67%	0%	7%	17%
Total Motor Vehicles	28%	74%	45%	3%	18%	27%
Other						
Animal Svcs/Kennel/Landscape	0%	9%	78%	18%	19%	19%
Chemical/Leather Repair	0%	7%	27%	0%	7%	6%
Waste Management	0%	0%	0%	0%	24%	6%
Utilities	1%	14%	75%	0%	28%	35%
Public Warehouse	0%	11%	40%	0%	31%	19%
Total Other	1%	6%	72%	2%	18%	22%
Grand Total	**25%**	**9%**	**32%**	**6%**	**11%**	**17%**

Source: Dun & Bradstreet; San Francisco Planning Department's Industrially-Zoned Land database; Economic & Planning Systems, Inc..

Table 2.2
Total PDR Building Space (in Sq. Ft.) 1999-2004
San Francisco PDR Study - EPS # 14158

Neighborhood	1999	2000	2001	2002	2003	2004	% Change 1999-2004
South of Market	6,805,539	6,017,343	5,251,780	5,220,670	5,239,155	4,331,182	-36%
Showplace Square/Potrero Hill	3,025,439	2,890,685	3,043,530	2,765,680	2,913,582	2,654,817	-12%
Mission	3,791,370	3,158,765	3,025,420	2,976,560	2,828,004	2,609,380	-31%
Central Waterfront	2,120,711	2,188,511	2,455,700	1,557,780	2,114,373	1,470,840	-31%
Bayview/Hunters Point	6,919,049	6,236,514	7,587,330	8,214,220	7,323,214	6,713,470	-3%
Total Eastern Neighborhoods	22,662,108	20,491,818	21,363,760	20,734,910	20,418,328	17,779,689	-22%

Source: Dun & Bradstreet, Economic & Planning Systems, Inc.

significant reduction in occupied building space, but all subareas had a net loss between 1999 and 2004.

As shown on **Table 2.3**, 13 percent of all building square footage occupied by PDR uses in the Eastern Neighborhoods is located on land not zoned for PDR. The Mission subarea has a particularly high proportion of PDR building square footage on non-PDR land. Subtracting the PDR building space not on PDR land from the total building space, the total amount of PDR building space on PDR land is 15.5 million square feet.

Dividing the 15.5 million square feet of PDR building space by the 27.6 million square feet of land that is both zoned for and used for PDR activity, the prevailing relationship of PDR building square feet to PDR land is roughly 0.6. This figure will be important for understanding the capacity of future PDR land to accommodate future building space demand.

PDR LAND SUPPLY UNDER OPTION B

REZONING PROPOSAL

In the February 2003 draft of the Planning Department's *Rezoning Options Workbook*, three alternative rezoning strategies were proposed. For this study, EPS has been instructed to regard the updated version of "Option B: Moderate Housing Option" as the zoning against which future land supply and demand should be measured. The Planning department is continuing work to refine this Option B Rezoning.

San Francisco's Option B Rezoning of the Eastern Neighborhoods would involve changes to the zoning designations on many parcels as well as the way in which uses are restricted. For instance, zoning category M-1 currently allows industrial uses but also allows office, retail, or residential uses. In the Option B Rezoning, category M-1 would be eliminated, and some of the parcels currently zoned M-1 would be rezoned "PDR." Under the "PDR" zoning category, the land could be used only for PDR uses, not for housing, office, or other non-PDR uses. As such, the supply of PDR land could be stabilized by comparison to the current condition, in which more lucrative non-PDR uses can and have displaced many PDR uses in certain subareas of the City.

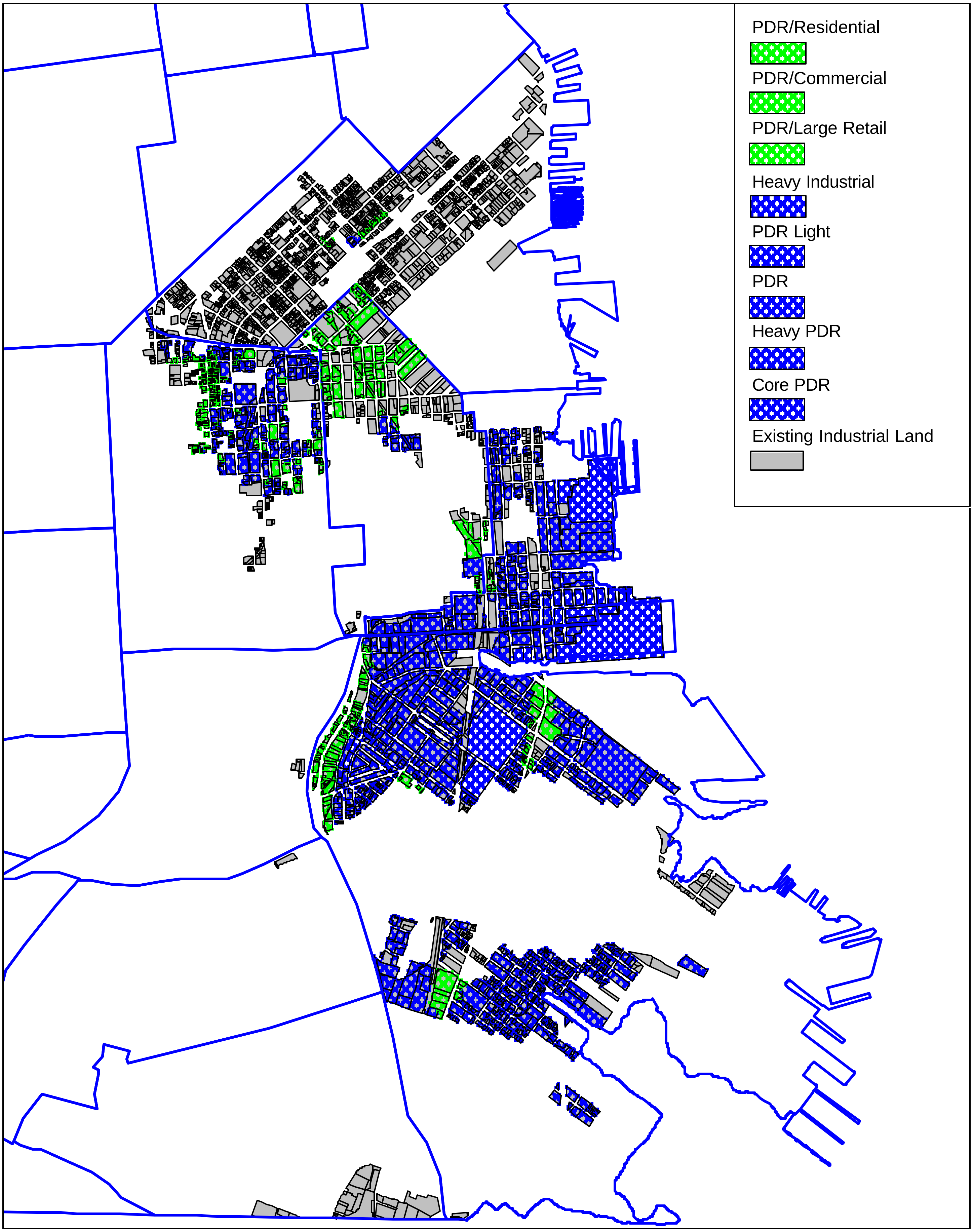
Figure 2.2 compares the proposed future zoning for the Eastern Neighborhoods to the existing zoning for industrial uses. As shown, the rezoning proposes that PDR uses would be concentrated in the Mission, Central Waterfront, and Bayview/Hunters Point subareas, with significant reductions to the current PDR land in SoMa and Showplace/Potrero Hill.

Table 2.3
PDR Activity on Non-Industrially Zoned Land in 2004 (1)
San Francisco PDR Supply/Demand Study

Category	South of Market	Showplace Square/ Potrero Hill	Mission	Central Waterfront	Bayview/ Hunters Point	Total Eastern Neighborhoods
PDR Building Sq. Ft. NOT on Industrially-Zoned Land	462,530	246,337	795,710	137,610	599,960	2,242,147
% of Total Building Sq. Ft.	11%	9%	30%	9%	9%	13%
PDR Building Sq. Ft. on Industrially-Zoned Land	3,868,652	2,408,480	1,813,670	1,333,230	6,113,510	15,537,542
% of Total Building Sq. Ft.	89%	91%	70%	91%	91%	87%
Total PDR Building Sq. Ft.	4,331,182	2,654,817	2,609,380	1,470,840	6,713,470	17,779,689
% of Total Building Sq. Ft.	100%	100%	100%	100%	100%	100%

(1) "Industrially-Zoned Land" reflects existing zoning categories in 2004, not future zoning envisioned under "Option B."
Source: Dun & Bradstreet, San Francisco Planning Department, San Francisco Assessor's Office, Economic & Planning Systems, Inc.

Figure 2.2
Existing Industrially-Zoned Land vs. "Option B" PDR Land



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PDR-ONLY LAND

The Option B Rezoning would create several zoning categories that would only allow PDR uses, and others that would mix PDR uses with residential, retail, or other uses. As quantified on **Table 2.4**, the rezoning would result in a total of 41.3 million square feet of land zoned only for PDR uses ("PDR-only land").

MIXED-USE PDR LAND

In the February 2003 Rezoning Options Workbook, the Option B Rezoning would establish several zoning categories on which PDR would be allowed or required as part of mixed-use development. On **Table 2.4**, EPS has calculated the total area of this mixed-use PDR land to be 6.7 million square feet, including 630,000 square feet for PDR/Commercial, 1.2 million square feet for PDR/Large Retail, and 4.8 million square feet for PDR/Residential.

"AVAILABLE" PDR LAND UNDER OPTION B

Not all of the land shown as PDR-only or mixed-use PDR under Option B has the same likelihood of actually being used for PDR activities in the future. Some of those parcels shown as PDR land under Option B are already developed with non-PDR uses such as housing or retail space, which have higher values than PDR uses under current and foreseeable market conditions. Therefore, it is unlikely that a significant amount of such higher-value uses will be demolished and replaced with PDR uses.

The land currently used for PDR and proposed to remain in PDR zoning represent the supply of land that is most available for PDR use. As shown on **Table 2.5**, EPS has calculated this available PDR land supply to be 23.4 million square feet.[3] Clearly, these parcels are only a portion of the 48.0 million square feet of land that would be zoned for PDR use under Option B, but EPS has included only these parcels for purposes of providing a conservative estimate of available future PDR land supply.

Excluded from this sum are any lands controlled by the Port of San Francisco (e.g., Piers 68 through 96) and any lands at the Hunters Point Shipyard, which is not subject to the Option B Rezoning.

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[3] For purposes of calculating future PDR-only land supply, EPS has conservatively assumed that none of the remaining 22.2 million square feet of proposed PDR-only land would actually be developed for PDR uses, as current and projected market conditions suggest that the values of the existing uses (housing, retail, etc.) will remain higher than PDR use value.

Table 2.4
"Option B" PDR Zoning in Eastern Neighborhoods
San Francisco PDR Supply/Demand Study

Category	Total Land Sq. Ft.
Exclusive PDR	
Core PDR	26,107,070
Heavy PDR (1)	9,632,725
PDR	4,622,519
PDR Light	917,387
Subtotal	41,279,701
Mixed Use PDR	
PDR/Commercial	630,348
PDR/Large Retail	1,246,458
PDR/Residential	4,837,664
Subtotal	6,714,470
Total	**47,994,171**

(1) Includes 2.2 million square feet of "Heavy Industrial" land at Treatment Plant.

Sources: San Francisco Planning Department; Economic & Planning Systems, Inc.

Table 2.5
Existing PDR Activity versus "Option B" PDR-Only Zoning
San Francisco PDR Supply/Demand Study

Description	Sq. Ft. Lot Area (1)
Non-PDR Land with Existing PDR Business	19,123,188
PDR-Only Land with No Existing PDR Use	21,308,228
Mixed-Use PDR Land with No Existing PDR Use	3,332,246
Total	24,640,474
PDR-Only Land with Existing PDR Business	19,971,473
Mixed-Use PDR Land with Existing PDR Business	3,382,224
Total	23,353,697

(1) Does not include 2.8 million square feet of non-maritime PDR land at Hunters Point, which is not subject to the rezoning proposal.

Sources: San Francisco Planning Department; Economic & Planning Systems, Inc.

Not all of this PDR land has the same potential for new development. Some existing uses, such as Muni yards, the power station, or the sewage treatment plant, are on PDR land that is unlikely to be intensified through new development. Nevertheless, such uses will be required in the future, and the land on which they are located is a critical part of the PDR land supply.

SPECIFIC PROPERTY ADDITIONS

The Option B Rezoning does not include certain areas of the Eastern Neighborhoods that are known to be used or planned for PDR-related use. In the land use plan for the Hunters Point Shipyard, for example, EPS and the San Francisco Redevelopment Agency have identified 4.7 million square feet (108 acres) of land that are proposed for industrial use. Of this area, 2.0 million square feet (45 acres) are proposed for maritime industrial use, and the remaining 2.7 million square feet (63 acres) are proposed for general (non-maritime) industrial use.

Also, the Port of San Francisco controls roughly 13.6 million square feet of land from Pier 68 to Pier 96. While most of this land is currently being used for maritime industrial or other uses compliant with Tidelands Trust restrictions, roughly 2.7 million square feet of Port land is currently being used for activities not compliant with the Trust. Typically, such uses are PDR activities that require very little investment in buildings or infrastructure, because the Trust restricts leases to non-compliant uses to five year terms, thus making Port land unattractive to business seeking longer-term locations.

TOTAL FUTURE AVAILABLE PDR LAND

Base Case

Table 2.6 summarizes EPS's quantification of the total amount of land available for PDR development in the future, based on the proposed zoning, the existing uses on the parcels, and the additions of specific parcels not recognized by the Option B Rezoning. In sum, EPS estimates that the "Base Case" will include 22.7 million square feet of PDR-only land and 3.4 million square feet of mixed-use PDR land, for a total PDR land supply of 26.1 million square feet excluding Port land.

Sensitivity Testing

Port land could add 15.6 million square feet of land to the overall supply, but due to regulatory restrictions related to the Tidelands Trust, currently Port land is officially available only for maritime industrial uses or PDR uses with little development and/or low infrastructure requirements that may be accommodated on a maximum five-year lease term. At the present time, 2.7 million square feet (roughly 20 percent) of Port land between Piers 68 and 96 is used for activities that are not compliant with Tidelands Trust regulations, including some PDR uses. **Table 2.7** shows the net increase to the total PDR

Table 2.6
Total Future PDR Land Supply in Eastern Neighborhoods
San Francisco PDR Supply/Demand Study

Category	In "Option B" Rezoning	At Hunters Point Shipyard	At Port Piers 68-96	Total Eastern Neighborhoods
PDR-Only Land Available (1)	19,971,473	2,756,511	0	**22,727,984**
Mixed-Use PDR Land	3,382,224	0	0	**3,382,224**
Subtotal, PDR Land excluding Port Land	***23,353,697***	***2,756,511***	***0***	***26,110,208***
Maritime Industrial Land	0	1,954,439	13,631,680	**15,586,119**
Total PDR Land including Maritime Industrial Land	**23,353,697**	**4,710,950**	**13,631,680**	**41,696,327**

(1) PDR-Only Land Available excludes land proposed for PDR zoning in "Option B" but already developed with non-PDR uses, and also excludes all of the Port's Pier 80, which has some PDR uses but is subject to Tidelands Trust restrictions.

Sources: San Francisco Planning Department; SFRA; Port of San Francisco; Economic & Planning Systems.

land supply if various proportions of Port land were included. As shown, if only one-fourth of Port land were made available for PDR uses, the total supply of PDR land would increase by 15 percent over that in the Base Case supply (Option B plus Hunters Point).

The PDR land supply may also increase with the inclusion of land that would be zoned for PDR under Option B but is considered "unavailable" for PDR. EPS has excluded nearly 25 million square feet of this land from the Base Case supply because it is currently developed with uses such as office, retail, or residential, and under the Option B zoning strategy those buildings and tenant types would be allowed to stay in perpetuity rather than becoming non-conforming uses that must be replaced by PDR tenants as they are vacated by the current occupants. However, if even a small proportion of such land does in fact convert from non-PDR use to PDR use over the next 25 years, the PDR land supply could increase over the Base Case.

BUILDING SUPPLY ON OPTION B PDR LAND

As shown on **Table 2.8**, the available land proposed for PDR-only zoning under Option B is already occupied by roughly 8.2 million square feet of PDR businesses. Under Option B, this building square footage could not be used for non-PDR activities, so the entire amount is considered part of the future PDR building supply.

Table 2.8 also shows that the land proposed for mixed-use PDR under Option B currently is occupied by PDR businesses occupying a total of 2.0 million square feet of building space. Under the February 2003 description of the Option B Rezoning, this full amount of PDR space would need to be retained or replaced as part of any future mixed-use development on these parcels.

Combining the amount of building square footage currently occupied by PDR uses on land proposed under Option B as either PDR-only or mixed-use PDR, a total of 10.2 million square feet of PDR building space has been identified on the future PDR land. This figure does not include any building square footage currently occupied by PDR uses on Hunters Point.

Table 2.7
Sensitivity Testing of Future PDR Land Supply in Eastern Neighborhoods
San Francisco PDR Supply/Demand Study

Category	Total Land Square Feet	Percent of Land Added to PDR Supply	Land Square Feet Added	Increase to Base Case Land Supply	Total PDR Land Supply with Additions
Base Case Land Supply (1)	26,110,208	N/A	N/A	N/A	**26,110,208**
Port/Maritime Industrial Land (2)	15,586,119	10%	1,558,612	6%	**27,668,820**
		25%	3,896,530	15%	**30,006,738**
		50%	7,793,060	30%	**33,903,268**

(1) "Base Case Land Supply" includes "available" PDR land under Option B, plus non-maritime industrial land at Hunters Point Shipyard.
(2) Port/Maritime Industrial land includes land on Piers 68 through 96, plus maritime industrial land at Hunters Point Shipyard.

Sources: San Francisco Planning Department; SFRA; Port of San Francisco; Economic & Planning Systems.

Table 2.8
Current PDR-Occupied Building Square Feet on "Option B" PDR Land
San Francisco PDR Supply/Demand Study

Category	Current Building Sq. Ft. Occupied by PDR Uses
PDR Building Space on PDR-Only Land Available (1)	8,192,670
PDR Building Space on Mixed-Use PDR Land	1,997,040
Total PDR Building Space on PDR-Only and Mixed-Use PDR Land in 2004 (2)	**10,189,710**

(1) PDR-Only Land Available excludes land proposed for PDR zoning in "Option B" but already developed with non-PDR uses, and also excludes all of the Port's Pier 80, which has some PDR uses but is subject to Tidelands Trust restrictions.
(2) Total figure does not include any PDR space on land at Hunters Point.

Sources: San Francisco Planning Department; Economic & Planning Systems.

III. PDR EMPLOYMENT PROJECTIONS

To quantify the future demand for PDR land and buildings, EPS has evaluated historical trends and future projections in industrial employment and assessed the propensity of various PDR industry sectors to occupy various types of property.

HISTORICAL TRENDS

The "PDR" classification of jobs is somewhat unique to San Francisco, and long-term data from state or federal sources do not necessarily conform to San Francisco's "PDR" definition. To evaluate long-term trends, EPS has used "industrial" employment, comprised of Construction, Manufacturing, Transportation, Communications, Utilities, and Wholesale trades. These industries do not perfectly correlate with the current definition of PDR but do have obvious and significant overlap with PDR.

Industrial employment has been in relative decline throughout the United States over several decades, and San Francisco's industrial base has been no exception. **Table 3.1** shows that between 1980 and 2000, industrial sector employment in San Francisco has declined by a total of 37 percent, losing over 40,000 jobs in the 20-year period. At the same time, overall employment in San Francisco grew by 15 percent, meaning that the industrial sector was greatly diminished as a proportion of San Francisco's employment base.

San Francisco's industrial job loss has continued in recent years. According to the California Economic Development Department, the boom and bust of the regional economy resulted in a net loss of roughly 10 percent of all jobs in San Francisco between 1999 and 2004. **Table 3.2** shows that, between 1999 and 2004, PDR employment in the Eastern Neighborhoods decreased by 21 percent—considerably higher than for the economy overall, even in a period of pronounced recession among non-PDR jobs.

FUTURE EMPLOYMENT PROJECTIONS

ABAG EMPLOYMENT PROJECTIONS

The Association of Bay Area Governments (ABAG) prepares projections of employment and population growth for each of the nine Bay Area counties, including San Francisco. In ABAG's projections prepared in 2002 and 2005, substantial growth was projected in employment overall, including growth in the industry sectors most closely aligned with San Francisco's "PDR" industries. **Tables 3.3 and 3.4** show these employment projections, as presented by ABAG.

Table 3.1
Long-Term Trends in Industrial Employment in San Francisco
San Francisco PDR Supply/Demand Study

	Total Jobs					Percent of Citywide Jobs				
				Change 1980-2000					Change 1980-2000	
Category	**1980**	**1990**	**2000**	***Number***	***Percent***	**1980**	**1990**	**2000**	***Number***	***Percent***
Construction	24,070	16,350	22,420	-1,650	-7%	4.4%	2.8%	3.5%	-0.8%	-19%
Manufacturing	48,772	39,790	30,540	-18,232	-37%	8.8%	6.9%	4.8%	-4.0%	-45%
Transportation, Communications, Utilities	66,072	40,290	41,690	-24,382	-37%	12.0%	7.0%	6.6%	-5.4%	-45%
Wholesale Trade	22,745	30,560	23,450	705	3%	4.1%	5.3%	3.7%	-0.4%	-10%
Total of Selected Categories (1)	161,659	126,990	118,100	-43,559	-27%	29.3%	21.9%	18.6%	-10.7%	-36%
Total Jobs in San Francisco	552,200	579,180	634,430	82,230	15%					

(1) Categories selected are those ABAG categories most closely linked to PDR industries, but are not exactly the same as PDR categories.

Sources: ABAG Projections 96 and Projections 2002; Economic & Planning Systems, Inc.

Table 3.2
Total Employees by Category and Sub-Category
All Eastern Neighborhoods
San Francisco PDR Supply/Demand Study

Category	**1999**	**2004**	**% Change 1999-2004**
Publishing			
Publishing/Printing	3,575	2,790	-22%
Printing Services	1,732	1,475	-15%
Paper Manufacturing/Wholesale	298	284	-5%
Total Publishing	5,605	4,549	-19%
Audio Visual			
Photo Services	2	1	-50%
Graphic Design	278	322	16%
Radio/TV Stations	954	1,278	34%
Sound & Film Recording	1,253	2,421	93%
Total Audio Visual	2,487	4,022	62%
Arts			
Arts Activities	268	140	-48%
Total Arts	268	140	-48%
Fashion			
Garment Manufacturing	3,574	2,512	-30%
Fabric / Apparel Manufacturing	418	129	-69%
Wholesale Apparel	1,440	585	-59%
Total Fashion	5,432	3,226	-41%
Transport			
People Transport	2,797	3,194	14%
Goods Transport	1,772	1,066	-40%
Courier Services	8,577	2,716	-68%
Total Transport	13,146	6,976	-47%
Food-Event			
Wholesale Flowers	351	288	-18%
Large Food Processing	1,397	1,091	-22%
Wholesale Food Distribution	2,390	2,411	1%
Total Food-Event	4,138	3,790	-8%
Interior Design			
Wholesale Jewelry	655	610	-7%
Import/Export Trading	1,345	891	-34%
Furniture Manufacturing	1,530	1,541	1%
Wholesale Furniture	1,077	1,044	-3%
Total Interior Design	4,607	4,086	-11%
Construction			
Construction/Bldg Maintenance	7,465	8,433	13%
Wholesale Construction	637	759	19%
Total Construction	8,102	9,192	13%
Equipment			
Appliance Repair	366	441	20%
Interior, Household & Appliance Wholesalers	567	436	-23%
Heavy Equipment Wholesale	1,648	1,642	0%
Small Manufacturing	1,369	1,073	-22%
Total Equipment	3,950	3,592	-9%
Motor Vehicles			
Towing/Parking/Rental	418	427	2%
Wholesale Auto Parts	395	381	-4%
Auto Repair	2,142	1,644	-23%
Auto Body Repair	373	426	14%
Total Motor Vehicles	3,328	2,878	-14%
Other			
Animal Svcs/Kennel/Landscape	331	424	28%
Chemical/Leather Repair	723	437	-40%
Waste Management	431	339	-21%
Utilities	3,330	1,132	-66%
Public Warehouse	1,134	166	-85%
Total Other	5,949	2,498	-58%
Total Eastern Neighborhoods PDR Employment	**57,012**	**44,949**	**-21%**
Total Citywide Employment, All Industries	**574,900**	**519,738**	**-10%**

Source: Dun & Bradstreet; California Economic Development Department; Economic & Planning Systems, Inc.

Table 3.3
San Francisco Employment Projections from ABAG *Projections 2002*
San Francisco PDR Supply/Demand Study

	Total Jobs			
			Change 2005-2025	
Category	**2005**	**2025**	***Number***	***Percent***
Construction	23,290	26,900	3,610	16%
Manufacturing	31,220	37,300	6,080	19%
Transportation, Communications, Utilities	43,320	50,020	6,700	15%
Wholesale Trade	23,970	28,640	4,670	19%
Total of Selected Categories (1)	121,800	142,860	21,060	17%
Total Jobs in San Francisco	656,480	770,500	114,020	17%

(1) Categories selected are those ABAG categories most closely linked to PDR industries, but are not exactly the same as PDR categories.

Sources: ABAG Projections 2002; Economic & Planning Systems, Inc.

Table 3.4
San Francisco Employment Projections from ABAG *Projections 2005*
San Francisco PDR Supply/Demand Study

Category	Total Jobs 2005	Total Jobs 2030	Change 2005-2030 *Number*	Change 2005-2030 *Percent*
Construction	30,000	49,030	19,030	63%
Manufacturing & Wholesale	26,500	42,120	15,620	59%
Transportation & Utilities	31,150	34,400	3,250	10%
Total of Selected Categories (1)	87,650	125,550	37,900	43%
Total Jobs in San Francisco	575,800	829,090	253,290	44%

(1) Categories selected are those ABAG categories most closely linked to PDR industries, but are not exactly the same as PDR categories.

Sources: ABAG Projections 2005; Economic & Planning Systems, Inc.

EPS EMPLOYMENT PROJECTIONS

To estimate the amount of land and building space that is likely to be demanded by PDR uses in San Francisco, EPS has created several employment projection scenarios based on recent trends by PDR category and growth projections prepared by ABAG. These EPS projections are detailed on **Tables 3.5 through 3.8**, each of which estimates job growth or loss Citywide, rather than just for the Eastern Neighborhoods**.**

Theory and Methodology

Given that the past long-term and short-term trends indicate general and sustained declines in San Francisco's industrial employment, EPS does not believe it is appropriate or realistic to base projections for future PDR land or building demand solely on ABAG's highly optimistic projections of industrial employment growth. However, EPS is similarly concerned about basing projections of future demand on the recent or even historical decline in industrial employment. Therefore, EPS has prepared several different demand projections representing the range of potential outcomes that could result from either ABAG's projections being realized or historical trends continuing.

Also, ABAG's projections are not presented or prepared using the same PDR categories that the Planning Commission has defined and EPS has used for this study. For example, ABAG grossly projects employment changes in the "Manufacturing & Wholesale" categories, while the Planning Commission/EPS categories differentiate wholesale and manufacturing employment by the type of product. Wholesale apparel is shown in the "Fashion" category while wholesale auto parts are in the "Motor Vehicles" category and furniture manufacturing is in the "Interior Design" category. To adjust for these differences in categorization, EPS has created a model matching the Standard Industrial Classification (SIC) and North American Industrial Classifications System (NAICS) codes used by ABAG to those used by the Planning Department. This model places over 460 different PDR "lines of business" into appropriate categories upon which rates of employment growth or decline are projected.

High-Growth Projections

On **Table 3.5**, EPS has estimated future PDR employment based on ABAG's *Projections 2005*, with employment by PDR category determined using the current (2004) proportions of jobs in each category. That table shows overall PDR job growth of roughly 40 percent between 2005 and 2030, or the addition of over 24,000 PDR jobs. Using this approach, growth is projected in the all PDR industry sectors. However, recent and long-term trends suggest that this universal PDR job growth is highly unlikely.

On **Table 3.6**, EPS has estimated future PDR employment in the same way (using 2004 proportions by category), but bases total employment on ABAG's *Projections 2002*, which had more conservative growth projections for employment <u>and</u> population than were

Table 3.5
Projected Employment by Category and Interval
San Francisco Citywide, based on Projections 2005 and Constant Share Method (1)
San Francisco PDR Supply/Demand Study

Category	PDR Jobs in 2005	PDR Jobs in 2010	PDR Jobs in 2015	PDR Jobs in 2020	PDR Jobs in 2025	PDR Jobs in 2030	Change 2005-2030
Publishing	5,880	6,314	6,813	7,332	7,910	8,521	45%
Audio Visual	3,659	3,948	4,276	4,614	4,989	5,390	47%
Arts	254	266	282	299	319	338	33%
Fashion	4,735	4,959	5,245	5,567	5,932	6,283	33%
Transport	11,795	12,419	13,175	14,010	14,946	15,851	34%
Food-Event	4,214	4,413	4,666	4,952	5,276	5,588	33%
Interior Design	4,747	4,981	5,274	5,599	5,966	6,321	33%
Construction	10,704	11,640	12,686	13,742	14,911	16,188	51%
Equipment	4,727	4,983	5,288	5,619	5,988	6,347	34%
Motor Vehicles	5,115	5,522	5,935	6,336	6,756	7,183	40%
Other	4,921	5,287	5,688	6,101	6,555	7,022	43%
Estimated PDR Employment	60,752	64,732	69,328	74,171	79,547	85,031	40%

(1) This method applies the current proportions of PDR jobs by category to ABAG's Projections 2005 estimates for employment through 2030.

Source: ABAG; Economic & Planning Systems, Inc.

Table 3.6
Projected Employment by Category and Interval
San Francisco Citywide, based on *Projections 2002* and Constant Share Method (1)
San Francisco PDR Supply/Demand Study

Category	PDR Jobs in 2005	PDR Jobs in 2010	PDR Jobs in 2015	PDR Jobs in 2020	PDR Jobs in 2025	PDR Jobs in 2030 (2)	Change 2005-2030
Publishing	5,880	6,214	6,526	6,726	7,025	7,338	25%
Audio Visual	3,667	3,852	4,023	4,166	4,311	4,462	22%
Arts	254	269	282	291	304	318	25%
Fashion	4,735	5,004	5,255	5,416	5,657	5,908	25%
Transport	11,715	12,122	12,653	13,163	13,539	13,925	19%
Food-Event	4,214	4,453	4,676	4,819	5,032	5,253	25%
Interior Design	4,748	5,020	5,270	5,432	5,670	5,918	25%
Construction	10,704	11,081	11,571	12,033	12,385	12,746	19%
Equipment	4,730	5,006	5,249	5,413	5,644	5,886	24%
Motor Vehicles	5,115	5,437	5,669	5,855	6,073	6,298	23%
Other	4,921	5,086	5,290	5,475	5,628	5,785	18%
Estimated PDR Employment	60,685	63,544	66,465	68,789	71,268	73,839	22%

(1) This method applies the current proportions of PDR jobs by category to ABAG's Projections 2002 estimates for employment through 2025.
(2) ABAG *Projections 2002* provided projections only through 2025, so EPS has extrapolated through 2030 based on proportionate growth 2020-2025.

Source: ABAG Projections 2002; Economic & Planning Systems, Inc.

provided in *Projections 2005*. While this methodology projects growth of only 22 percent compared to the 40 percent growth shown on **Table 3.5**, EPS believes that the job gain in all PDR sector remains unlikely, given recent and historic trends.

Low-Growth Projections

On **Table 3.7**, EPS has estimated future PDR employment by category by applying recent trends (1998 through 2004) in each category's job growth or decline to the baseline (Year 2005) employment figures presented in ABAG's *Projections 2005*. Using this methodology, some PDR sectors are expected to grow (e.g., Audio Visual, Construction, and Motor Vehicles), while others are projected to decline (e.g., Publishing, Fashion, and Transport). In sum, this methodology projects a slight (2 percent) decline in overall PDR employment in San Francisco from 2005 through 2030. However, this methodology suggests that certain industry sectors (Arts and Fashion) are likely to disappear entirely from San Francisco—a result which suggests that this methodology is likely to be overly pessimistic for certain industries.

Table 3.8 uses the same methodology—applying recent growth or decline trends—but applies them to the baseline employment figures from ABAG's *Projections 2002*. As with the previous methodology, some PDR sectors are expected to grow (e.g., Audio Visual, Construction, and Motor Vehicles), while others are projected to decline (e.g., Publishing, Fashion, and Transport). This projection methodology results in an overall PDR employment decline of 10 percent through 2030. As in the previous methodology, the Arts, Fashion, and Transport sectors are shown to be disappearing from San Francisco by 2030, which again causes concern about applying short-term trends of decline to long-term industry prospects.

The differences between **Tables 3.7 and 3.8** are based on differences in ABAG's accounting of jobs by industry sector. ABAG's categories changed between the 2002 and 2005 projections (e.g., 2002's distinct "Manufacturing" and "Wholesale" categories were combined into a single category in 2005). Also, the specific jobs included in each category were changed, as ABAG used SIC codes for *Projections 2002* and NAICS codes for *Projections 2005*. The NAICS codes do not match precisely with SIC codes, sometimes resulting in multiple NAICS categories where SIC had just one (or vice versa) or creating other comparable distinctions. As a result, the employment base from *Projections 2005* may be categorized or summed in distinctly different ways than in *Projections 2002*. For instance, *Projections 2005* indicated that there were 32,750 "Construction" jobs in San Francisco in 2000, while *Projections 2002* had identified only 22,420 jobs in the "Construction" sector.

<u>Moderate-Growth Projections</u>

Clearly, the PDR employment projections based on ABAG's projections are highly optimistic, in that they show 22 to 40 percent growth in PDR employment despite past declines of 21 percent from 1999 through 2004 in the Eastern Neighborhoods and 27 percent decline in the City's overall industrial employment from 1980 through 2000. But

Table 3.7
Projected Employment by Category and Interval
San Francisco Citywide, based on Projections 2005 and Time Trend Method (1)
San Francisco PDR Supply/Demand Study

Category	PDR Jobs in 2005	PDR Jobs in 2010	PDR Jobs in 2015	PDR Jobs in 2020	PDR Jobs in 2025	PDR Jobs in 2030	Change 2005-2030
Publishing	5,437	5,120	4,803	4,485	4,168	3,851	-29%
Audio Visual	4,762	6,141	7,519	8,898	10,277	11,656	145%
Arts	188	105	22	0	0	0	-100%
Fashion	3,508	1,974	440	0	0	0	-100%
Transport	11,763	7,406	3,050	3,114	3,486	3,858	-67%
Food-Event	3,896	3,498	3,101	2,703	2,305	1,908	-51%
Interior Design	4,505	4,203	3,900	3,598	3,296	2,993	-34%
Construction	11,957	13,525	15,092	16,660	18,227	19,794	66%
Equipment	4,332	3,838	3,345	2,851	2,357	1,993	-54%
Motor Vehicles	5,234	5,383	5,531	5,682	6,090	6,498	24%
Other	4,623	4,495	5,012	5,528	6,045	6,562	42%
Estimated PDR Employment	60,205	55,687	51,814	53,518	56,250	59,112	-2%

(1) This method applies the 1998-2004 trends of PDR job gains or losses by category to ABAG's Projections 2005 estimates for employment through 2030.

Source: ABAG; Economic & Planning Systems, Inc.

Table 3.8
Projected Employment by Category and Interval
San Francisco Citywide, based on *Projections 2002* and Time Trend Method (1)
San Francisco PDR Supply/Demand Study

Category	PDR Jobs in 2005	PDR Jobs in 2010	PDR Jobs in 2015	PDR Jobs in 2020	PDR Jobs in 2025	PDR Jobs in 2030	Change 2005-2030
Publishing	5,626	5,309	4,992	4,674	4,357	4,040	-28%
Audio Visual	4,745	6,091	7,438	8,785	10,131	11,478	142%
Arts	188	105	22	0	0	0	-100%
Fashion	3,508	1,974	543	0	0	0	-100%
Transport	12,805	9,523	6,242	2,961	0	0	-100%
Food-Event	4,182	4,320	4,458	4,596	4,734	4,872	17%
Interior Design	4,505	4,203	3,900	3,598	3,296	2,993	-34%
Construction	11,957	13,525	15,092	16,660	18,227	19,794	66%
Equipment	4,325	3,818	3,312	2,805	2,299	2,006	-54%
Motor Vehicles	5,234	5,383	5,680	6,003	6,326	6,650	27%
Other	4,646	4,316	4,140	4,041	3,941	3,841	-17%
Estimated PDR Employment	61,720	58,566	55,819	54,122	53,311	55,675	-10%

(1) This method applies the 1998-2004 trends of PDR job gains or losses by category to ABAG's Projections 2002 estimates for employment through 2030.

Source: ABAG; Economic & Planning Systems, Inc.

equally clearly, numerous concerns accompany long-term job projections based on trends of growth or decline over a six-year period, particularly when that six-year period started in a boom and ended in a recession. To mitigate both concerns, EPS has created a fifth projection of PDR employment by category, which averages the results of the "high-growth" scenarios presented by ABAG and the "low-growth" scenarios based on recent trends.

Table 3.9 shows the average results of the four other Citywide employment projection methodologies, as well as an estimate of employment growth and decline by PDR category in the Eastern Neighborhoods overall, which is calculated on a category-by-category level based on the Eastern Neighborhoods' share of total Citywide jobs in 2000.

Table 3.9 shows that the moderate-growth projections would yield 12 percent increase in PDR employment throughout San Francisco. Overall, PDR jobs in the Eastern Neighborhoods are projected to increase by roughly 13 percent between 2005 and 2030, resulting in a net gain of roughly 5,900 total PDR jobs in the Eastern Neighborhoods.

The PDR categories that are projected to have most significant employment growth through 2030 include the Construction and Audio Visual industries. Each of these categories is expected to grow by over 50 percent through 2030; jointly these two categories are projected to gain over 7,000 jobs in the Eastern Neighborhoods.

The categories that are expected to have the greatest job loss through 2030 include the Fashion and Transport industries, each of which is projected to decline by over 25 percent. These two categories jointly are projected to lose nearly 3,000 jobs in the Eastern Neighborhoods through 2030.

The results of the moderate-growth projections obviously do not match the high employment growth based on ABAG's projections, but does indicate net growth among PDR employment overall, despite recent and even long-term trends of industrial employment decline. Also, the moderate-growth projections are generally consistent with industry-by-industry patterns of growth or decline, rather than projecting significant growth in all PDR categories despite clear distinctions among categories.

Because this moderate-growth methodology results in general and specific growth projections that conform to observed trends while still providing for an expanded PDR employment base, EPS is using these moderate-growth projections of employment growth and decline as the basis for projecting the demand for PDR land and building space in the Eastern Neighborhoods.

Table 3.9
Projected Employment by Category and Interval
Citywide and Eastern Neighborhoods Only, Based on Average of Four Projection Methods (1)
San Francisco PDR Supply/Demand Study

Category	PDR Jobs in 2000	PDR Jobs in 2005	PDR Jobs in 2010	PDR Jobs in 2015	PDR Jobs in 2020	PDR Jobs in 2025	PDR Jobs in 2030	Change 2005-2030 Number	Change 2005-2030 %
Citywide PDR Job Projections									
Publishing	6,094	5,706	5,739	5,783	5,804	5,865	5,937	231	4%
Audio Visual	3,631	4,208	5,008	5,814	6,615	7,427	8,246	4,038	96%
Arts	283	221	186	152	148	156	164	-57	-26%
Fashion	5,266	4,121	3,477	2,871	2,746	2,897	3,048	-1,073	-26%
Transport	14,742	12,019	10,368	8,780	8,312	7,993	8,408	-3,611	-30%
Food-Event	4,526	4,127	4,171	4,225	4,267	4,337	4,405	279	7%
Interior Design	5,137	4,626	4,602	4,586	4,557	4,557	4,556	-70	-2%
Construction	10,697	11,331	12,442	13,610	14,774	15,937	17,131	5,800	51%
Equipment	5,095	4,529	4,411	4,299	4,172	4,072	4,058	-471	-10%
Motor Vehicles	5,205	5,175	5,431	5,704	5,969	6,311	6,657	1,482	29%
Other	5,109	4,778	4,796	5,033	5,286	5,542	5,803	1,025	21%
Estimated PDR Employment	65,785	60,841	60,632	60,856	62,650	65,094	68,414	7,574	12%
Eastern Neighborhoods PDR Job Projections (2)									
Publishing	5,495	5,145	5,175	5,215	5,234	5,289	5,354	209	4%
Audio Visual	2,659	3,082	3,668	4,258	4,845	5,439	6,040	2,958	96%
Arts	259	203	171	139	135	142	150	-53	-26%
Fashion	5,157	4,036	3,406	2,811	2,689	2,837	2,985	-1,051	-26%
Transport	8,104	6,607	5,699	4,826	4,569	4,394	4,622	-1,985	-30%
Food-Event	3,736	3,406	3,443	3,487	3,522	3,580	3,636	230	7%
Interior Design	4,315	3,886	3,865	3,852	3,827	3,827	3,827	-59	-2%
Construction	7,969	8,441	9,270	10,139	11,006	11,873	12,762	4,321	51%
Equipment	3,810	3,386	3,299	3,214	3,120	3,045	3,034	-352	-10%
Motor Vehicles	3,181	3,162	3,319	3,486	3,648	3,857	4,068	906	29%
Other	3,903	3,650	3,664	3,845	4,039	4,234	4,433	783	21%
Estimated PDR Employment	48,588	45,005	44,977	45,274	46,634	48,517	50,912	5,907	13%

(1) These figures are based on the average of EPS's "Time Trend" and "Constant Share" projections from ABAG *Projections 2002* and *Projections 2005*.
(2) Eastern Neighborhoods job projections assume that Eastern Neighborhoods' proportion of total Citywide PDR jobs by category will remain constant from those in 2000.

Source: ABAG; Economic & Planning Systems, Inc.

IV. PDR PROPERTY DEMAND PROJECTIONS

To estimate the amount of land and buildings that will be in demand among PDR businesses in the future, several steps are necessary. First, the propensity of PDR jobs to be displaced from their current locations must be assessed. Second, the property utilization characteristics of businesses in each PDR sector must be understood. This chapter estimates the amount of buildings and land that are likely to be in demand among various PDR categories through 2030.

PDR JOB DISPLACEMENT

As noted in the previous chapters, 17 percent of existing PDR jobs in the Eastern Neighborhoods are located on land that is not currently zoned for industrial use (see **Table 2.1**). Even more of these existing jobs are located on land that is not proposed to be zoned for PDR in the future. **Table 4.1** shows the existing jobs and building square footage in each PDR category that are on land proposed for PDR-only or mixed-use PDR, versus those on land proposed for other uses under Option B Rezoning. As that table shows, nearly half (45 percent) of existing PDR jobs in the Eastern Neighborhoods are not located on land proposed to be zoned for PDR under Option B.

At present, over 20,000 PDR jobs in the Eastern Neighborhoods are not located on land proposed to be zoned for PDR uses in the future. Many but not all of these PDR jobs are likely to be relocated or displaced over the coming decades as market opportunities arise for redevelopment of their underlying land. For most industry categories EPS has assumed that 30 percent of PDR jobs on land that will not be zoned for PDR-only will remain in place through 2030. This percentage is comparable to the findings of a Planning Department survey of PDR business owners in which roughly 30 percent of respondents indicated that they own their property. Such businesses are much less likely to be displaced than those leasing property.

The proposed zoning's reduction of PDR land in the SoMa and Showplace/Potrero Hill subareas would disproportionately affect the Publishing, Audio Visual, Arts, and Interior Design industries, as more than 50 percent of the Eastern Neighborhood's jobs in each of these categories are in these two subareas (see **Figure 4.1** and **Table 4.2**). These industry sectors typically have a higher propensity to occupy multistory buildings, can pay higher rents, and are less dependent on transportation access than PDR sectors such as Transport, Equipment, or Food/Event, and thus are more likely to be both compatible and competitive with other uses in the SoMa and Showplace/Potrero subareas. As such, EPS has assumed that 40 percent of jobs in the Audio Visual, Arts, and Interior Design categories would remain on non-PDR land, compared to 30 percent for most other categories. Publishing jobs are even more likely to remain in place on non-PDR land, as a single employer (Chronicle Publishing Company) provides nearly half of all Publishing jobs not on PDR land, and is unlikely to be relocated. EPS has assumed that 50 percent of Publishing jobs on non-PDR land would remain in place.

Table 4.1
Location of PDR Activity in 2004 vs. "Option B" PDR Land
San Francisco PDR Supply/Demand Study

	On Non-PDR Land (1)				On PDR-Only Land (2)				On Mixed-Use PDR Land (3)			
Category	**Jobs**	**% of Jobs**	**Sq. Ft.**	**% of Sq. Ft.**	**Jobs**	**% of Jobs**	**Sq. Ft.**	**% of Sq. Ft.**	**Jobs**	**% of Jobs**	**Sq. Ft.**	**% of Sq. Ft.**
Publishing	3,184	70%	840,030	55%	1,148	25%	559,680	37%	217	5%	127,860	8%
Audio-Visual	2,100	52%	525,710	47%	1,442	36%	503,420	45%	480	12%	99,000	9%
Arts	100	71%	19,280	23%	23	16%	58,770	69%	17	12%	6,650	8%
Fashion	1,108	34%	457,190	34%	1,566	49%	647,320	48%	549	17%	243,100	18%
Transport	1,556	22%	535,060	45%	4,257	61%	563,910	48%	1,163	17%	80,940	7%
Food-Event	828	22%	611,210	30%	2,607	69%	1,259,900	63%	350	9%	126,850	6%
Interior Design	1,405	34%	727,180	33%	1,618	40%	868,900	39%	1,060	26%	612,870	28%
Construction	5,303	58%	1,131,350	45%	3,296	36%	1,223,860	49%	591	6%	159,210	6%
Equipment	1,665	46%	882,760	38%	1,571	44%	1,259,440	54%	350	10%	175,170	8%
Motor Vehicles	1,853	64%	1,194,660	57%	840	29%	756,430	36%	185	6%	133,570	6%
Other	1,143	46%	638,030	47%	975	39%	491,040	36%	373	15%	231,820	17%
Total	20,245	45%	7,562,460	43%	19,343	43%	8,192,670	46%	5,335	12%	1,997,040	11%

(1) "On Non-PDR Land" represents activity on land not proposed to be zoned for PDR.
(2) "On PDR-Only Land" represents activity on land proposed to be zoned exclusively for PDR.
(3) "On Mixed-Use PDR Land" represents activity on land proposed to be zoned for mixed-use PDR.

Sources: San Francisco Planning Department; Economic & Planning Systems, Inc.

Figure 4.1
Industry Clusters by Subarea in 2004
Source: Dun & Bradstreet; Economic & Planning Systems, Inc.

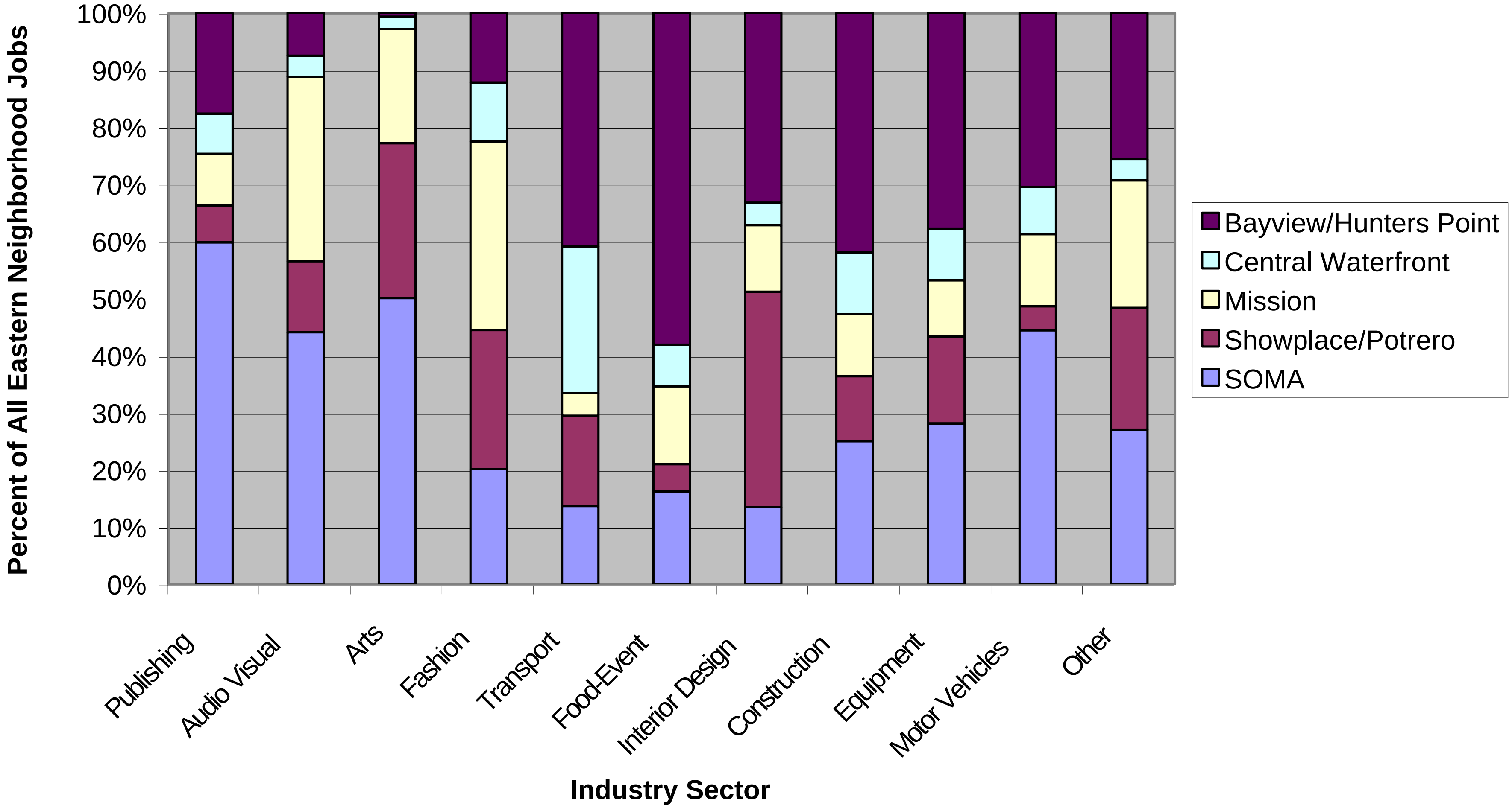

Table 4.2
Percentage of Employees in each PDR Category and Sub-Category
San Francisco PDR Supply/Demand Study

	South of Market	Showplace Square/ Potrero Hill	Mission	Central Waterfront	Bayview/ Hunters Point	Total
Publishing						
Publishing/Printing	78%	8%	5%	4%	6%	100%
Printing Services	28%	4%	17%	13%	39%	100%
Paper Manufacturing/Wholesale	49%	6%	7%	13%	25%	100%
Total Publishing	60%	6%	9%	7%	18%	100%
Audio Visual						
Photo Services	0%	0%	100%	0%	0%	100%
Graphic Design	37%	1%	2%	23%	37%	100%
Radio/TV Stations	54%	1%	38%	0%	8%	100%
Sound & Film Recording	40%	20%	33%	3%	4%	100%
Total Audio Visual	44%	12%	32%	4%	8%	100%
Arts						
Arts Activities	50%	27%	20%	2%	1%	100%
Total Arts	50%	27%	20%	2%	1%	100%
Fashion						
Garment Manufacturing	21%	21%	33%	13%	12%	100%
Fabric / Apparel Manufacturing	5%	14%	63%	5%	13%	100%
Wholesale Apparel	18%	40%	28%	0%	14%	100%
Total Fashion	20%	24%	33%	10%	12%	100%
Transport						
People Transport	20%	1%	5%	52%	22%	100%
Goods Transport	15%	6%	9%	11%	59%	100%
Courier Services	6%	37%	1%	1%	56%	100%
Total Transport	14%	16%	4%	26%	41%	100%
Food-Event						
Wholesale Flowers	87%	1%	0%	0%	12%	100%
Large Food Processing	10%	6%	43%	2%	39%	100%
Wholesale Food Distribution	10%	5%	2%	10%	72%	100%
Total Food-Event	16%	5%	14%	7%	58%	100%

Table 4.2
Percentage of Employees in each PDR Category and Sub-Category
San Francisco PDR Supply/Demand Study

	South of Market	Showplace Square/ Potrero Hill	Mission	Central Waterfront	Bayview/ Hunters Point	Total
Interior Design						
Wholesale Jewelry	12%	84%	1%	0%	3%	100%
Import/Export Trading	33%	27%	24%	2%	14%	100%
Furniture Manufacturing	4%	17%	10%	6%	63%	100%
Wholesale Furniture	11%	51%	10%	5%	23%	100%
Total Interior Design	13%	38%	12%	4%	33%	100%
Construction						
Construction/Bldg Maintenance	25%	11%	11%	11%	42%	100%
Wholesale Construction	20%	15%	8%	13%	44%	100%
Total Construction	25%	11%	11%	11%	42%	100%
Equipment						
Appliance Repair	28%	3%	12%	13%	44%	100%
Interior, Household & Appliance W	42%	15%	8%	10%	25%	100%
Heavy Equipment Wholesale	23%	15%	5%	5%	52%	100%
Small Manufacturing	31%	21%	17%	13%	18%	100%
Total Equipment	28%	15%	10%	9%	38%	100%
Motor Vehicles						
Towing/Parking/Rental	58%	0%	5%	30%	7%	100%
Wholesale Auto Parts	20%	22%	2%	5%	51%	100%
Auto Repair	41%	2%	14%	5%	37%	100%
Auto Body Repair	64%	1%	23%	1%	11%	100%
Total Motor Vehicles	44%	4%	13%	8%	31%	100%
Other						
Animal Svcs/Kennel/Landscape	38%	16%	15%	3%	29%	100%
Chemical/Leather Repair	17%	10%	7%	14%	53%	100%
Waste Management	0%	73%	1%	0%	26%	100%
Utilities	35%	13%	40%	2%	11%	100%
Public Warehouse	28%	16%	6%	1%	49%	100%
Total Other	27%	21%	22%	4%	26%	100%
Grand Total	28%	15%	14%	10%	33%	100%

Source: Dun & Bradstreet, Economic & Planning Systems, Inc.

Table 4.3 shows EPS's estimate of the number of PDR jobs likely to remain in place on land not zoned for PDR under Option B versus those that would require PDR land in 2030. As shown, EPS estimates that roughly 7,000 of the 20,245 current PDR jobs will remain on land that will not be zoned for PDR under Option B.

Subtracting the 7,000 jobs likely to remain in place from the overall projected job count in 2030, EPS estimates that Option B's PDR land would need to accommodate roughly 44,000 jobs in 2030.

PDR PROPERTY DEMAND

Square Feet per Employee

To estimate the total amount of building space that will be required for PDR uses in the future, EPS has calculated the amount of space currently occupied by PDR businesses in each category, and determined the average number of building square feet per employee. The results of this analysis are shown on **Table 4.4,** which reflects the findings for each of the five subareas and the Eastern Neighborhoods overall. While there are clear differences in building utilization among the five subareas of the Eastern Neighborhoods, the overall average square footage per employee is indicative of the prevailing trends for each industry sector.

Current Building/Land Relationships and Characteristics

Table 4.5 shows the current average Floor Area Ratio (FAR) for buildings in which PDR businesses are located. These FARs do not necessarily reflect the square footage occupied by PDR uses in each building; rather the figures divide the total building space (which may be shared with non-PDR uses) by the total lot area of the underlying parcels. As was discussed in **Chapter II**, the current prevailing relationship of PDR-occupied building square footage to its underlying PDR-zoned land is roughly 0.6. This figure is considerably lower than the prevailing FARs of the actual buildings in which PDR businesses are located.

As **Table 4.5** shows, the FARs of buildings in which PDR activities are located are surprisingly high. In all but the Transport and Motor Vehicles categories, the average FAR is greater than 1.0, indicating that PDR activities are frequently located in multistory buildings. The buildings occupied by Publishing and Audio Visual businesses tend to be most dense, with FARs exceeding 2.0. Not surprisingly, the prevailing FARs of buildings in SoMa and the Mission tend to be relatively high, while FARs in the Central Waterfront and Bayview/Hunters Point are considerably lower.

Table 4.6 illustrates the same general trend of PDR businesses occupying multistory buildings. As shown, 37 percent of all PDR business in the Eastern Neighborhoods occupy multistory buildings, with higher-than average proportions in the SoMa and

Table 4.3
Projected PDR Jobs Requiring PDR Land
All Eastern Neighborhoods
San Francisco PDR Supply/Demand Study

Category	Jobs in Eastern Neighborhoods, 2004	Percent of 2004 Jobs on Non-PDR Land (1)	Current Jobs on Non-PDR Land (1)	Percent of Jobs Likely to Remain on Non-PDR Land (2)	Current Jobs Likely to Remain on Non-PDR Land (2)	Total Jobs in Eastern Neighborhoods, 2030 (3)	Jobs in 2030 Requiring PDR Land
Publishing	4,549	70%	3,184	50%	1,592	5,354	3,762
Audio Visual	4,022	52%	2,100	40%	840	6,040	5,200
Arts	140	71%	100	40%	40	150	110
Fashion	3,226	34%	1,108	30%	332	2,985	2,653
Transport	6,976	22%	1,556	30%	467	4,622	4,155
Food-Event	3,790	22%	828	30%	248	3,636	3,388
Interior Design	4,086	34%	1,405	40%	562	3,827	3,265
Construction	9,192	58%	5,303	30%	1,591	12,762	11,171
Equipment	3,592	46%	1,665	30%	500	3,034	2,535
Motor Vehicles	2,878	64%	1,853	30%	556	4,068	3,512
Other	2,498	46%	1,143	30%	343	4,433	4,090
Total Demand through 2030	44,949	45%	20,245	35%	7,071	50,912	43,841

(1) Includes all current PDR employees on land that would not be zoned for single-use or mixed-use PDR under the Option B rezoning.
(2) Roughly 30% of PDR business owners surveyed own their property and are less likely to be involuntarily displaced. In certain categories, 40% to 50% of jobs are likely to remain competitive and compatible with other future uses.
(3) Total Jobs in 2030 based on average of four projections based on recent employment trends, ABAG *Projections 2005* , and ABAG *Projections 2002* .

Sources: San Francisco Planning Department; Economic & Planning Systems, Inc.

Table 4.4
Average Building Square Footage per Employee by Category and Sub-Category, 2004
All Eastern Neighborhoods
San Francisco PDR Supply/Demand Study

Category	South of Market	Showplace Square/ Potrero Hill	Mission	Central Waterfront	Bayview/ Hunter's Point	Total Eastern Neighborhoods
Publishing						
Publishing/Printing	166	211	431	318	291	195
Printing Services	448	398	691	409	520	510
Paper Manufacturing/Wholesale	395	1,639	793	762	1,449	809
Total Publishing	220	337	607	421	555	336
Audio Visual						
Photo Services	0	0	1,300	0	0	1,300
Graphic Design	733	1,400	700	460	435	563
Radio/TV Stations	148	120	100	240	412	150
Sound & Film Recording	231	198	432	515	565	312
Total Audio Visual	233	201	310	482	464	281
Arts						
Arts Activities	107	373	2,223	0	770	605
Total Arts	107	373	2,223	0	770	605
Fashion						
Garment Manufacturing	286	339	385	284	547	360
Fabric / Apparel Manufacturing	1,043	1,000	308	1,000	412	490
Wholesale Apparel	753	462	639	3,000	1,100	655
Total Fashion	372	390	418	305	652	419
Transport						
People Transport	417	277	461	93	177	197
Goods Transport	138	386	491	625	500	451
Courier Services	82	25	200	399	14	26
Total Transport	317	54	453	131	161	169
Food-Event						
Wholesale Flowers	753	1,100	0	0	377	709
Large Food Processing	1,085	1,347	234	204	580	521
Wholesale Food Distribution	407	1,524	459	547	456	511
Total Food-Event	672	1,455	258	513	479	529

Table 4.4
Average Building Square Footage per Employee by Category and Sub-Category, 2004
All Eastern Neighborhoods
San Francisco PDR Supply/Demand Study

Category	South of Market	Showplace Square/ Potrero Hill	Mission	Central Waterfront	Bayview/ Hunter's Point	Total Eastern Neighborhoods
Interior Design						
Wholesale Jewelry	357	303	445	0	278	310
Import/Export Trading	430	464	427	1,528	496	470
Furniture Manufacturing	612	743	806	751	362	502
Wholesale Furniture	649	784	206	842	1,140	796
Total Interior Design	489	567	497	869	511	541
Construction						
Construction/Bldg Maintenance	192	168	278	236	298	248
Wholesale Construction	80	281	1,032	387	837	559
Total Construction	185	180	324	250	345	274
Equipment						
Appliance Repair	642	835	534	357	481	527
Interior, Household & Appliance Whol	615	535	934	391	1,215	755
Heavy Equipment Wholesale	488	614	1,218	533	915	770
Small Manufacturing	485	236	338	644	702	468
Total Equipment	529	457	629	531	846	648
Motor Vehicles						
Towing/Parking/Rental	346	1,400	652	761	948	531
Wholesale Auto Parts	746	718	1,038	468	1,173	949
Auto Repair	619	880	805	1,006	657	685
Auto Body Repair	838	1,200	968	1,150	771	869
Total Motor Vehicles	621	788	844	836	787	724
Other						
Animal Svcs/Kennel/Landscape	279	317	253	245	680	397
Chemical/Leather Repair	695	932	860	297	600	626
Waste Management	0	117	0	0	248	151
Utilities	175	99	98	342	260	146
Public Warehouse	3,738	11,104	1,600	0	2,647	4,252
Total Other	505	762	183	297	762	546
Grand Total	**344**	**397**	**411**	**314**	**458**	**396**

Source: Dun & Bradstreet; Economic & Planning Systems, Inc.

Table 4.5
Average FAR of Buildings with PDR tenants on Industrially-Zoned Land in 2004
San Francisco PDR Supply/Demand Study

Category	South of Market	Showplace Square/ Potrero Hill	Mission	Central Waterfront	Bayview/ Hunters Point	Total Eastern Neighborhoods
Publishing						
Publishing/Printing	4.00	2.55	1.55	1.15	0.75	3.48
Printing Services	2.17	1.12	1.78	1.49	0.91	1.49
Paper Manufacturing/Wholesale	1.96	2.32	2.74	1.11	1.33	1.77
Total Publishing	3.62	2.24	1.75	1.34	0.91	2.73
Audio Visual						
Photo Services	N/A	N/A	N/A	N/A	N/A	N/A
Graphic Design	3.00	4.98	0.97	6.51	1.09	3.09
Radio/TV Stations	3.81	2.21	1.24	5.83	1.01	2.61
Sound & Film Recording	2.19	1.73	2.30	1.03	1.01	2.06
Total Audio Visual	2.87	1.75	1.90	3.89	1.04	2.32
Arts						
Arts Activities	1.49	3.57	1.07	N/A	N/A	1.93
Total Arts	1.49	3.57	1.07	N/A	N/A	1.93
Fashion						
Garment Manufacturing	2.35	2.44	1.33	0.80	1.09	1.68
Fabric / Apparel Manufacturing	2.20	3.17	3.44	0.16	0.58	2.80
Wholesale Apparel	2.46	3.42	1.80	N/A	1.14	2.48
Total Fashion	2.36	2.75	1.56	0.79	1.09	1.87
Transport						
People Transport	2.34	3.65	0.82	0.10	0.47	0.71
Goods Transport	2.70	2.02	2.33	0.63	1.25	1.55
Courier Services	1.31	0.31	0.42	0.80	0.58	0.52
Total Transport	2.24	0.52	1.34	0.14	0.68	0.76
Food-Event						
Wholesale Flowers	2.57	3.57	N/A	N/A	0.60	2.34
Large Food Processing	2.59	1.20	1.46	N/A	1.25	1.44
Wholesale Food Distribution	2.14	2.41	1.58	1.18	0.92	1.16
Total Food-Event	2.40	1.98	1.48	1.07	0.99	1.34

Table 4.5
Average FAR of Buildings with PDR tenants on Industrially-Zoned Land in 2004
San Francisco PDR Supply/Demand Study

Category	South of Market	Showplace Square/ Potrero Hill	Mission	Central Waterfront	Bayview/ Hunters Point	Total Eastern Neighborhoods
Interior Design						
Wholesale Jewelry	2.16	3.53	0.96	N/A	1.20	3.27
Import/Export Trading	1.78	2.79	1.21	1.05	0.92	1.78
Furniture Manufacturing	1.35	2.49	2.04	0.82	0.90	1.29
Wholesale Furniture	2.58	3.35	0.97	1.92	0.67	2.33
Total Interior Design	1.94	2.17	0.87	1.19	0.87	1.52
Construction						
Construction/Bldg Maintenance	1.95	1.76	1.57	1.36	0.77	1.33
Wholesale Construction	1.70	2.19	0.97	0.96	0.79	1.22
Total Construction	1.93	1.81	1.54	1.33	0.77	1.32
Equipment						
Appliance Repair	1.57	1.86	1.32	0.60	0.83	1.09
Interior, Household & Appliance Whole	1.47	2.63	2.79	1.79	0.68	1.59
Heavy Equipment Wholesale	1.32	1.26	1.83	1.06	0.90	1.10
Small Manufacturing	2.98	1.87	1.49	2.19	0.76	1.99
Total Equipment	1.92	1.68	1.67	1.57	0.85	1.43
Motor Vehicles						
Towing/Parking/Rental	0.87	N/A	0.72	0.18	1.35	0.69
Wholesale Auto Parts	1.29	0.65	0.77	0.99	0.75	0.85
Auto Repair	1.21	1.16	1.03	0.76	0.70	0.97
Auto Body Repair	1.21	1.02	1.26	1.02	0.89	1.18
Total Motor Vehicles	1.15	0.79	1.07	0.48	0.78	0.96
Other						
Animal Svcs/Kennel/Landscape	2.25	1.41	1.00	5.83	0.83	1.61
Chemical/Leather Repair	1.79	2.27	2.95	1.02	0.71	1.25
Waste Management	N/A	0.36	3.44	N/A	0.58	0.45
Utilities	3.23	2.82	2.44	1.00	0.83	2.57
Public Warehouse	2.78	2.23	2.81	N/A	0.97	1.79
Total Other	2.81	1.43	2.31	1.58	0.76	1.83

Calculations exclude entries with missing lot area or building sq. ft. data. In certain cases, business sq. ft. was substituted for building sq. ft.
Calculations also exclude those PDR businesses that are not located on Industrially-zoned land, except in cases where this prevented meaningful calculations.

Source: Dun & Bradstreet; San Francisco Planning Department; Economic & Planning Systems, Inc.

Table 4.6
PDR Businesses in Multi-Story Buildings, by Category and Sub-Category (2004)
All Eastern Neighborhoods
San Francisco PDR Supply/Demand Study

Category	South of Market	Showplace Square/ Potrero Hill	Mission	Central Waterfront	Bayview/ Hunters Point	Total Eastern Neighborhoods
	%	%	%	%	%	%
Publishing						
Publishing/Printing	66%	71%	17%	0%	50%	46%
Printing Services	68%	47%	38%	20%	36%	50%
Paper Manufacturing/Wholesale	67%	33%	40%	0%	45%	50%
Total Publishing	67%	57%	27%	12%	40%	47%
Audio Visual						
Photo Services	0%	0%	0%	0%	0%	0%
Graphic Design	80%	0%	67%	20%	29%	53%
Radio/TV Stations	86%	20%	29%	0%	40%	53%
Sound & Film Recording	72%	19%	21%	31%	30%	44%
Total Audio Visual	75%	18%	24%	25%	32%	46%
Arts						
Arts Activities	100%	0%	17%	0%	0%	13%
Total Arts	100%	0%	17%	0%	0%	13%
Fashion						
Garment Manufacturing	75%	0%	28%	9%	29%	34%
Fabric / Apparel Manufacturing	100%	0%	22%	100%	50%	46%
Wholesale Apparel	63%	91%	39%	0%	30%	72%
Total Fashion	71%	65%	31%	15%	31%	53%
Transport						
People Transport	79%	40%	0%	11%	24%	36%
Goods Transport	55%	0%	6%	25%	26%	25%
Courier Services	60%	0%	0%	0%	20%	22%
Total Transport	70%	14%	3%	16%	25%	29%
Food-Event						
Wholesale Flowers	93%	100%	0%	0%	33%	93%
Large Food Processing	88%	25%	20%	100%	38%	51%
Wholesale Food Distribution	81%	36%	36%	11%	17%	29%
Total Food-Event	88%	38%	27%	19%	22%	43%

Table 4.6
PDR Businesses in Multi-Story Buildings, by Category and Sub-Category (2004)
All Eastern Neighborhoods
San Francisco PDR Supply/Demand Study

Category	South of Market %	Showplace Square/ Potrero Hill %	Mission %	Central Waterfront %	Bayview/ Hunters Point %	Total Eastern Neighborhoods %
Interior Design						
Wholesale Jewelry	43%	69%	0%	0%	33%	66%
Import/Export Trading	63%	0%	16%	17%	20%	23%
Furniture Manufacturing	57%	0%	38%	17%	25%	28%
Wholesale Furniture	65%	87%	9%	22%	9%	64%
Total Interior Design	61%	56%	24%	19%	20%	44%
Construction						
Construction/Bldg Maintenance	61%	0%	18%	31%	15%	22%
Wholesale Construction	50%	93%	38%	14%	23%	44%
Total Construction	61%	14%	19%	28%	16%	24%
Equipment						
Appliance Repair	43%	0%	10%	20%	14%	20%
Interior, Household & Appliance Wholesalers	53%	46%	50%	50%	27%	47%
Heavy Equipment Wholesale	61%	0%	14%	0%	26%	27%
Small Manufacturing	76%	42%	17%	13%	34%	47%
Total Equipment	61%	19%	15%	14%	25%	31%
Motor Vehicles						
Towing/Parking/Rental	21%	0%	0%	20%	25%	20%
Wholesale Auto Parts	79%	25%	67%	0%	32%	50%
Auto Repair	51%	0%	20%	27%	21%	32%
Auto Body Repair	36%	0%	12%	0%	17%	22%
Total Motor Vehicles	46%	5%	18%	20%	22%	30%
Other						
Animal Svcs/Kennel/Landscape	83%	0%	6%	0%	23%	33%
Chemical/Leather Repair	77%	0%	13%	0%	23%	31%
Waste Management	0%	25%	100%	0%	0%	18%
Utilities	79%	55%	31%	60%	30%	63%
Public Warehouse	88%	40%	67%	100%	44%	66%
Total Other	81%	25%	22%	27%	24%	43%
Grand Total	66%	41%	20%	20%	22%	37%

Source: San Francisco Assessor's Office; Dun & Bradstreet; Economic & Planning Systems, Inc.

Showcase/Potrero Hill subareas. The PDR categories with more likelihood of locating in multistory buildings include the Publishing, Audio Visual, and Fashion categories, while the Construction, Transport, and Motor Vehicles industries are less likely to occupy multistory buildings.

Projected Building/Land Relationships and Characteristics

To assess the adequacy of the proposed PDR land to accommodate projected PDR jobs and buildings, EPS has allocated future PDR building square footage among various types of properties, as shown on **Table 4.7**. For each industry sector, EPS has estimated the proportion of total square footage that would seek accommodation in the following types of properties:

- **Outdoor Storage/Minimal Development**—Generally open lots with relatively little building space; typically used for vehicle or equipment storage; assumed average FAR of 0.20.

- **Manufacturing/Warehouse**—Large floorplate buildings with significant trucking accessibility; typically used for large-scale warehousing or manufacturing; assumed average FAR of 0.50.

- **Multistory Industrial**—Buildings with multiple stories with limited truck access in urban settings; typically used by “creative” PDR uses (Publishing, Audio Visual, etc.) or small manufacturing businesses; assumed average FAR of 2.00.

- **Light Industrial/Flex**—One- to two-story buildings with high ceilings for frequent “light” truck and limited “heavy” truck access; can be used by a wide variety of PDR and non-PDR uses, including retail and office; assumed average FAR of 0.75.

- **Mixed-Use PDR**—Ground-floor space in buildings shared with residential, office, or retail with limited truck access; can be used by a wide variety of small PDR uses that do not pose major compatibility issues such as artists, graphic designers, light repair, or food production; assumed relationship of PDR space to lot area of 0.59, consistent with the current relationship of existing PDR uses on land proposed to be zoned for mixed-use PDR under Option B.

For each PDR sector, EPS has assumed that a minority of the total building square footage required could be accommodated in mixed-use PDR development. For each industry sector, the proportion of jobs assumed on mixed-use PDR parcels in the future is roughly equivalent to the current proportion of jobs on parcels proposed to be mixed use, as shown on **Table 4.1.** Only four of the eleven PDR categories are assumed to have more than 10 percent of their future space in mixed-use PDR buildings, with the Interior

Table 4.7
Allocation of Future PDR Jobs by Property Type by PDR Category
All Eastern Neighborhoods
San Francisco PDR Supply/Demand Study; EPS #14158

		Building Types on PDR Only Land						
PDR Category		**Outdoor Storage/ Minimal Development (1)** *(0.20 Avg. FAR)*	**Manufacturing/ Warehouse** *(0.50 Avg. FAR)*	**Multi-story Industrial** *(2.00 Avg. FAR)*	**Light Industrial/Flex** *(0.75 Avg. FAR)*	***Subtotal, Building Types on PDR-Only Land***	**Mixed-use PDR (2)** *(0.59 Avg. FAR)*	***Total***
Publishing	Percent of Jobs	0%	15%	30%	50%	*95%*	5%	*100%*
	Total Jobs	0	564	1,129	1,881	*3,574*	188	*3,762*
	Bldg Sq. Ft. per Job	168	336	336	336	*336*	336	*336*
	Total Bldg. Sq. Ft.	0	189,482	378,963	631,605	*1,200,050*	63,161	*1,263,211*
	Required Land Area	0	378,963	189,482	842,141	*1,410,586*	106,970	*1,517,555*
	Overall Average FAR					*0.85*		*0.83*
Audio Visual	Percent of Jobs	0%	20%	25%	45%	*90%*	10%	*100%*
	Total Jobs	0	1,040	1,300	2,340	*4,680*	520	*5,200*
	Bldg Sq. Ft. per Job	140	281	281	281	*281*	281	*281*
	Total Bldg. Sq. Ft.	0	292,021	365,026	657,047	*1,314,093*	146,010	*1,460,104*
	Required Land Area	0	584,041	182,513	876,062	*1,642,616*	247,286	*1,889,902*
	Overall Average FAR					*0.8*		*0.8*
Arts	Percent of Jobs	0%	20%	25%	45%	*90%*	10%	*100%*
	Total Jobs	0	22	27	49	*99*	11	*110*
	Bldg Sq. Ft. per Job	303	605	605	605	*605*	605	*605*
	Total Bldg. Sq. Ft.	0	13,298	16,623	29,921	*59,842*	6,649	*66,491*
	Required Land Area	0	26,597	8,311	39,895	*74,803*	11,261	*86,064*
	Overall Average FAR					*0.8*		*0.8*
Fashion	Percent of Jobs	0%	20%	20%	45%	*85%*	15%	*100%*
	Total Jobs	0	531	531	1,194	*2,255*	398	*2,653*
	Bldg Sq. Ft. per Job	210	419	419	419	*419*	419	*419*
	Total Bldg. Sq. Ft.	0	222,297	222,297	500,169	*944,764*	166,723	*1,111,487*
	Required Land Area	0	444,595	111,149	666,892	*1,222,636*	282,365	*1,505,001*
	Overall Average FAR					*0.8*		*0.7*
Transport	Percent of Jobs	25%	20%	0%	40%	*85%*	15%	*100%*
	Total Jobs	1,039	831	0	1,662	*3,532*	623	*4,155*
	Bldg Sq. Ft. per Job	85	169	169	169	*144*	169	*148*
	Total Bldg. Sq. Ft.	87,854	140,566	0	281,133	*509,553*	105,425	*614,978*
	Required Land Area	439,270	281,133	0	374,844	*1,095,246*	178,549	*1,273,795*
	Overall Average FAR					*0.5*		*0.5*

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Table 4.7
Allocation of Future PDR Jobs by Property Type by PDR Category
All Eastern Neighborhoods
San Francisco PDR Supply/Demand Study; EPS #14158

PDR Category		Building Types on PDR Only Land: Outdoor Storage/ Minimal Development (1) *(0.20 Avg. FAR)*	Manufacturing/ Warehouse *(0.50 Avg. FAR)*	Multi-story Industrial *(2.00 Avg. FAR)*	Light Industrial/Flex *(0.75 Avg. FAR)*	***Subtotal, Building Types on PDR-Only Land***	Mixed-use PDR (2) *(0.59 Avg. FAR)*	***Total***
Food-Event	Percent of Jobs	0%	40%	10%	40%	*90%*	10%	*100%*
	Total Jobs	0	1,355	339	1,355	*3,049*	339	*3,388*
	Bldg Sq. Ft. per Job	264	529	529	529	*529*	529	*529*
	Total Bldg. Sq. Ft.	0	716,623	179,156	716,623	*1,612,402*	179,156	*1,791,558*
	Required Land Area	0	1,433,246	89,578	955,498	*2,478,322*	303,422	*2,781,744*
	Overall Average FAR					*0.7*		*0.6*
Interior Design	Percent of Jobs	0%	20%	15%	40%	*75%*	25%	*100%*
	Total Jobs	0	653	490	1,306	*2,449*	816	*3,265*
	Bldg Sq. Ft. per Job	271	541	541	541	*541*	541	*541*
	Total Bldg. Sq. Ft.	0	353,502	265,126	707,004	*1,325,632*	441,877	*1,767,510*
	Required Land Area	0	707,004	132,563	942,672	*1,782,239*	748,372	*2,530,611*
	Overall Average FAR					*0.7*		*0.7*
Construction	Percent of Jobs	10%	25%	10%	50%	*95%*	5%	*100%*
	Total Jobs	1,117	2,793	1,117	5,586	*10,613*	559	*11,171*
	Bldg Sq. Ft. per Job	137	274	274	274	*259*	274	*260*
	Total Bldg. Sq. Ft.	152,794	763,969	305,588	1,527,939	*2,750,290*	152,794	*2,903,084*
	Required Land Area	763,969	1,527,939	152,794	2,037,252	*4,481,954*	258,775	*4,740,728*
	Overall Average FAR					*0.6*		*0.6*
Equipment	Percent of Jobs	20%	20%	10%	40%	*90%*	10%	*100%*
	Total Jobs	507	507	253	1,014	*2,281*	253	*2,535*
	Bldg Sq. Ft. per Job	324	648	648	648	*576*	648	*583*
	Total Bldg. Sq. Ft.	164,283	328,566	164,283	657,132	*1,314,263*	164,283	*1,478,546*
	Required Land Area	821,414	657,132	82,141	876,175	*2,436,863*	278,233	*2,715,095*
	Overall Average FAR					*0.5*		*0.5*
Motor Vehicles	Percent of Jobs	25%	10%	0%	60%	*95%*	5%	*100%*
	Total Jobs	878	351	0	2,107	*3,337*	176	*3,512*
	Bldg Sq. Ft. per Job	362	724	724	724	*629*	724	*634*
	Total Bldg. Sq. Ft.	318,023	254,418	0	1,526,508	*2,098,949*	127,209	*2,226,158*
	Required Land Area	1,590,113	508,836	0	2,035,345	*4,134,294*	215,444	*4,349,737*
	Overall Average FAR					*0.5*		*0.5*

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Table 4.7
Allocation of Future PDR Jobs by Property Type by PDR Category
All Eastern Neighborhoods
San Francisco PDR Supply/Demand Study; EPS #14158

		Building Types on PDR Only Land						
PDR Category		**Outdoor Storage/ Minimal Development (1)** *(0.20 Avg. FAR)*	**Manufacturing/ Warehouse** *(0.50 Avg. FAR)*	**Multi-story Industrial** *(2.00 Avg. FAR)*	**Light Industrial/Flex** *(0.75 Avg. FAR)*	***Subtotal, Building Types on PDR-Only Land***	**Mixed-use PDR (2)** *(0.59 Avg. FAR)*	***Total***
Other	Percent of Jobs	20%	15%	10%	40%	*85%*	15%	*100%*
	Total Jobs	818	614	409	1,636	*3,477*	614	*4,090*
	Bldg Sq. Ft. per Job	273	546	546	546	*482*	546	*491*
	Total Bldg. Sq. Ft.	223,349	335,024	223,349	893,398	*1,675,120*	335,024	*2,010,145*
	Required Land Area	1,116,747	670,048	111,675	1,191,197	*3,089,667*	567,403	*3,657,070*
	Overall Average FAR					*0.5*		*0.5*
TOTAL	Percent of Jobs	10%	21%	13%	46%	*90%*	10%	*100%*
	Total Jobs	4,359	9,260	5,595	20,130	*39,344*	4,496	*43,841*
	Bldg Sq. Ft. per Job	217	390	379	404	376	420	*381*
	Total Bldg. Sq. Ft.	946,303	3,609,767	2,120,412	8,128,479	*14,804,960*	1,888,311	*16,693,271*
	Required Land Area	4,731,514	7,219,534	1,060,206	10,837,971	*23,849,225*	3,198,079	*27,047,303*
	Overall Average FAR					*0.6*		*0.6*

(1) Building Square Feet per Employee is reduced by 50% for Outdoor Storage/Minimal Development. Most employee activity on these properties occurs outside of buildings.
(2) Mixed-Use PDR FAR reflects ratio of PDR space to lot size, not total building space to lot size, and is based on current PDR space on Option B mixed-use PDR land.

Source: Economic & Planning Systems, Inc.

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Design sector having the highest proportion (25 percent) because much of the Showplace Square/Potrero Hill area is proposed for mixed-use PDR zoning under Option B. Overall, 10 percent of PDR jobs and 11 percent of PDR building space are assumed to be accommodated in mixed-use PDR development. This assumption would require that 1.9 million square feet of PDR space be accommodated on 3.2 million square feet of mixed-use PDR land – slightly less than the 3.4 million square feet of available mixed-use PDR land proposed in Option B. At present, there are actually 2.0 million square feet of occupied PDR building space on that Option B mixed-use PDR land supply, so EPS's estimates do not require the development of net new PDR space on those parcels. These mixed-use assumptions are intentionally conservative, with the objective of not underestimating the amount of PDR-only land that may be required. As will be discussed in Chapter V, it is possible that more PDR space could be accommodated in mixed-use development in the future.

The remaining 90 percent of building square feet demanded by each PDR category have been distributed among the four other product types as shown on **Table 4.7**. As shown, each of the PDR sectors is assumed to require more than half of its future space in buildings with FARs of 0.75 or lower. Overall, only 13 percent of future PDR space is assumed to be achieved in Multistory Industrial space, whereas 37 percent of all current PDR space is in multistory buildings. Again, this assumption regarding Multistory Industrial buildings is conservative, and seeks to avoid underestimating the amount of PDR land that may be in demand. The overall relationship of PDR building space to PDR land is calculated at roughly 0.6, consistent with the current relationship.

Using these assumptions, EPS estimates that 27.0 million total square feet of PDR land will be required for future PDR businesses in 2030, including 23.8 million square feet of PDR-only land plus an additional 3.2 million square feet of mixed-use PDR land.

Adequacy of Future Supply

On **Figure 4.2**, EPS has compared the future land demand to the proposed supply of land for PDR under the Option B rezoning strategy. Using this measurement, the total supply of land proposed for PDR in the rezoning is 23.3 million square feet, roughly 14 percent below the projected demand. With the additional capacity of non-maritime industrial land on Hunters Point, however, the Base Case land supply could reach 26.1 million square feet, within four percent of projected demand. If <u>all</u> of the 15.6 million square feet of maritime industrial land controlled by the Port were made available to PDR uses, the supply could exceed demand by roughly 14.8 million square feet or 35 percent.

On **Table 4.8**, EPS has compared the projected future building square footage in demand to the estimated amount of square footage currently occupied by PDR businesses in the Eastern Neighborhoods. As shown, EPS estimates that PDR jobs will require a total of 16.7 million square feet of building space on PDR land by 2030, representing an increase of roughly 60 percent over the current amount of space occupied by PDR uses on those same parcels.

In sum, the overall future land supply is projected to be adequate to meet the future land demand through 2030. However, the existing building supply on that land does not appear to be adequate for future demand, and would require some additional development. The excess land capacity provided by the Port and Hunters Point properties may allow future PDR development to occur at a lower building-space-to-land ratio than the current Eastern Neighborhoods average.

Figure 4.2
Future PDR-Only Land Demand vs. Current and Future Supply

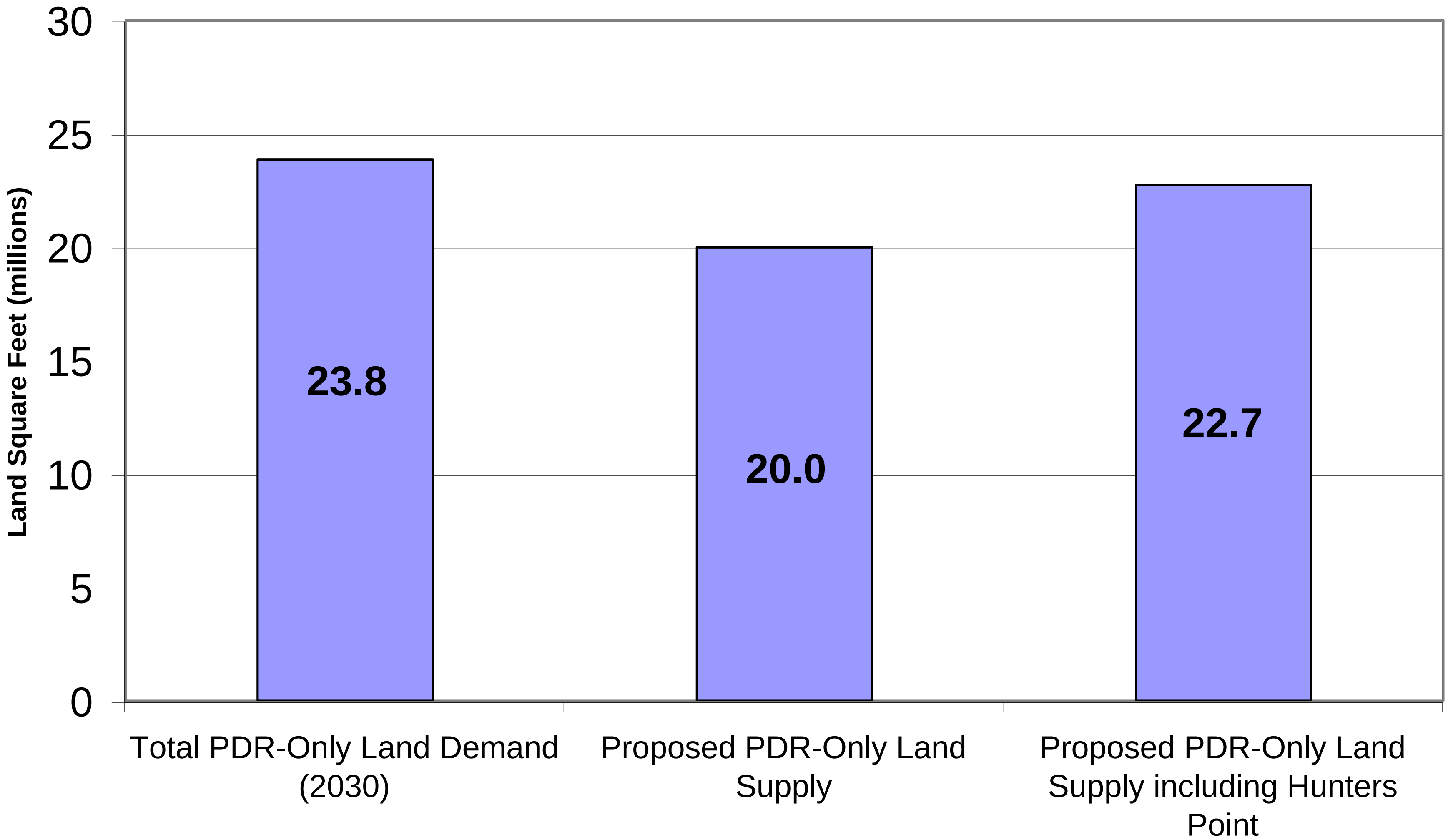

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Table 4.8
PDR Building Square Footage Supply and Demand
All Eastern Neighborhoods
San Francisco PDR Supply/Demand Study

Category	Amount
DEMAND	
Total PDR Building Square Feet in Demand in 2030	**16,693,271**
SUPPLY	
Total PDR Building Square Feet existing on PDR-Only Land in 2004	8,192,670
Total PDR Building Square Feet existing on Mixed-Use PDR Land in 2004	1,997,040
Total Supply of PDR Building Square Feet on Option B PDR Land in 2004	**10,189,710**
Total Additional PDR Square Footage in Demand through 2030	**6,503,561**

Sources: San Francisco Planning Department; Economic & Planning Systems, Inc.

V. ISSUES FOR FURTHER ANALYSIS OR DIRECTION

The analysis of the previous chapters concluded that the amount of land that would be zoned for PDR under the Base Case (Option B plus Hunters Point) appears to be generally adequate for the projected demand for such land through 2030, although the building space on that land would need to be increased from the current amount. However, Option B may not be the only or preferred option for the rezoning of the Eastern Neighborhoods.

This chapter seeks to introduce several questions and policy issues that should be addressed during the formulation of zoning proposals, including the following:

- Is the current "PDR" classification sufficiently flexible to accommodate future activities?
- What are the overarching goals of a policy to retain PDR activities?
- What distinctions in zoning should be made among different neighborhoods and/or blocks?
- How should non-conforming uses on PDR land be treated?
- Should the City seek to increase the availability of Port land for PDR?
- What is an appropriate proportion of PDR uses in PDR-only versus mixed-use PDR buildings and areas?
- Is land use policy alone sufficient to retain PDR jobs in the Eastern Neighborhoods?

While EPS does not have refined policy recommendations for these issues, the implications of various choices are discussed below.

PDR CLASSIFICATION SYSTEM

The current "PDR" zoning classification encompasses a broad range of business activities that do not necessarily share common traits regarding building typologies or land utilization. While many PDR businesses may seek industrial buildings, some of the PDR activities – such as publishers or graphic designers – can and do occupy space in office buildings. Other PDR activities can occupy retail space, such as printing services, photo services, or some wholesalers, while still others can operate on neighborhood commercial streets, such as auto repair shops.

The current PDR classification system may need to be updated regularly as new business categories emerge in San Francisco (e.g., bio-technology R&D), many of which may not strictly conform to a recognizable building typology.

The Planning Department and Commission may seek to refine the PDR classification, continuing to focus on land use characteristics, business categories and other pertinent criteria.

GOALS OF PDR RETENTION

PDR jobs include many "blue collar" jobs that provide well-paying employment for skilled but not necessarily highly educated workers. The retention of such jobs can be a means to preserve economic diversity in San Francisco, that would be reflected not only in San Francisco's employment base but also in its resident population.

PDR activities also provide essential services for San Francisco's households, tourism trade, and other economic drivers. Auto repair shops, food distributors, printing shops, and other PDR activities help to make San Francisco's economy function smoothly, even if they do not represent the "highest and best use" on a specific parcel of land.

The retention of PDR jobs has implications for both retaining employment diversity within San Francisco and protecting vital service linkages to San Francisco's households, visitors, and base sector employment. These different priorities may suggest different approaches to the numbers and types of PDR jobs that the rezoning should be sure to accommodate. Further analysis may be necessary to distinguish the issues associated with each of these two aspects of PDR retention and to craft policies that are most beneficial to the City's long term economic well being.

LOCATIONAL APPLICATION OF ZONING CATEGORIES

The rezoning strategy may provide for a variety of PDR land categories, including several that allow PDR only and others that promote PDR within mixed-use development. PDR-only land is divided among "light," "medium," and "core" PDR, with each representing a different type and scale of activity and different compatibility issues for adjoining uses. Three mixed-use PDR categories promote PDR combined with commercial, retail, or residential.

The application of these various zoning categories should be considered on a block-by-block or even parcel-by-parcel basis that accounts for the existing and potential conditions, compatibilities, and conflicts of land, buildings, and infrastructure. Residential uses are most sensitive to the potential compatibility issues presented by heavy PDR activity, which may include noise, truck traffic, vibrations, odors, or other nuisance concerns, and buffer areas may be necessary to protect both the residents and the long-term viability of the PDR uses. Also, the rezoning should carefully consider the nature of existing and future infrastructure.

NON-CONFORMING USES

Roughly half of the land identified for future PDR zoning (PDR-only or mixed-use PDR) under Option B is currently developed with non-PDR uses, and has not been included in the supply of "available" PDR land. Some of this "unavailable" land is already developed with residential uses, but the vast majority is under non-residential uses, including office or retail space. The policy regarding the continued allowance or phasing out of existing uses that do not conform to future zoning should be clarified. For instance, EPS understands that Option B as currently envisioned would allow an existing office building on PDR land to be re-tenanted with non-PDR office users when the current tenant vacates the property.

PORT LAND

As discussed in **Chapter 2** and shown on **Table 2.7**, the land supply for certain PDR sectors could be significantly increased if maritime industrial land controlled by the Port were made more available to PDR uses. At the present time, such land is not included as “Base Case” PDR land supply because State Lands regulations restrict its use by non-maritime activities (including non-maritime PDR) to short-term leases that discourage investment in permanent buildings or infrastructure.

To make optimal use of this Port land, the City may want to evaluate the long term demand for maritime-related uses and develop a comprehensive strategy for managing Port industrial land. For instance, the City could work with the Port and State Lands to allow Port land not required for maritime-related activity to be offered for longer-term leases, and/or expand the definition of compliant uses.

PDR IN MIXED-USE BUILDINGS AND AREAS

Clearly many of the existing PDR uses in the Eastern Neighborhoods are located in mixed-use areas, with housing, office, or retail space nearby or even in the same building. EPS has conservatively assumed that the proportion of future PDR space that can be accommodated in mixed-use buildings will reflect the current amount of space occupied by PDR businesses on land proposed for mixed-use PDR (roughly 11 percent). However, PDR tenants in the Eastern Neighborhoods are generally becoming smaller in size and seeking more “flex” building space that may also accommodate office or retail uses. These trends suggest that some PDR tenants may be increasingly compatible with vertical mixed-use, and the rezoning strategy could reflect these trends by providing more mixed-use PDR land than is currently envisioned under Option B, and possibly reducing the amount of PDR-only land accordingly.

In addition to mixed-use buildings that can include PDR, there is significant opportunity to accommodate PDR uses within mixed-use areas, even if the PDR is in single-use buildings. By definition, “Light” PDR is compatible with adjacent housing and other non-PDR uses, and the PDR uses that would occupy multistory industrial buildings also tend to be compatible with non-PDR neighbors.

Table 5.1 illustrates a sensitivity analysis regarding the mix of PDR uses that could be located in mixed-use areas versus those that would seek locations in PDR-only areas. . On the table, the "Low Mixed-Use" scenario reflects the assumptions made on **Table 4.7**, which is EPS's baseline assumption for the allocation of PDR-only versus mixed-use PDR land. The "Moderate Mixed-Use" scenario assumes that all of the space EPS has allocated to "Multistory Industrial" use on **Table 4.7** could also be accommodated in mixed-use areas. The "High Mixed-Use" scenario adds to the "Moderate Mixed-Use" scenario 25 percent of the land EPS has allocated for "Light Industrial/Flex" buildings on **Table 4.7**.

Under each of these various assumptions, the majority of PDR activity would be located in PDR-only areas. Such PDR-only areas would require different buffering characteristics than mixed-use areas, where housing and other non-PDR uses can be adjacent to PDR uses. The proportion of PDR-only versus mixed-use buildings and areas should be carefully considered in the rezoning strategy, as should a strategy for physical transitions between PDR and non-PDR uses.

COMPLEMENTARY PDR RETENTION STRATEGIES

PDR business retention is affected by a variety of issues not directly related to land use policy. In interviews with PDR business owners currently and formerly operating in the Eastern Neighborhoods, issues cited as problematic included high payroll taxes, utility rates, and similar economic considerations not directly related to land use policy. A comprehensive effort to retain PDR jobs could address these other issues in addition to land use policy.

Table 5.1
Sensitivity Testing of Land in PDR-Only Areas versus Mixed-Use PDR Areas
San Francisco PDR Supply/Demand Study

Scenario	PDR Demand Included in Mixed-Use Areas (1)	PDR Land in Mixed-Use Areas	PDR Land in PDR-Only Areas	Total PDR Land
Low Mixed-Use	Only "Mixed-Use PDR"	3,198,079	23,849,225	27,047,303
Moderate Mixed-Use	"Mixed-Use PDR" and "Multistory Industrial"	4,258,285	22,789,019	27,047,303
High Mixed-Use	"Mixed-Use PDR" and "Multistory Industrial" and 25% of "Light Industrial/Flex"	6,967,777	20,079,526	27,047,303

(1) Refers to demand for building types as shown on Table 4.7

Sources: Economic & Planning Systems, Inc.