A new model of sustainable industrial land use

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Introduction

This chapter examines the sustainable economic development implications of the City of San Francisco’s recent industrial planning efforts. We evaluate the extent to which the City’s innovations in zoning and related industrial support efforts are able to help balance the needs of different economies and workforces and the complex land use and economic development trade-offs involved in a high-cost, high-demand city. The now familiar story of San Francisco’s gentrification and “post-industrial” restructuring has resulted in a city of high-value office, residential, and consumption spaces, often by transforming industrial lands considered obsolete and underdeveloped (Chapple et al. 2017; Solnit and Schwartzenberg 2000). The production of urban space for advanced services, high technology, and commercial creative industries has enhanced real estate values without broad-based benefit (Hartman and Carnochan 2002; Stehlin 2016). Indeed, it has come at the cost of uneven development, pricing out low- and middle-income households as well as businesses, reducing opportunities for career mobility and access to living wage jobs.

Despite San Francisco’s industrial gentrification, some established manufacturing operations have remained by adapting to shifting economic conditions. At the same time, new forms of urban manufacture are on the rise. This includes the “maker movement,” which blends traditional craft with high-technology processes in niche production (Hatch 2013; Wolf-Powers et al. 2017). Advocates proclaim that the resurgence of urban manufacturing has the potential to create relatively high-paying, career ladder jobs while offering opportunities for sustainable resource use and “green” industry development (Langdon and Lehrman 2012; SFMade et al. 2016). However, the high-cost real estate market combined with the loss of suitable production space significantly harms the potential for development of an interconnected urban manufacturing sector to deliver its economic development potential.
San Francisco is amongst the forerunners to face the sustainability challenge of reintegrating a production base into the urban core. This effort may tackle sustainable economic development and social justice issues tied to “post-industrial” urban development by pursuing economic development planning geared toward diversifying the economic base and creating living wage jobs rather than boosting land values and attracting high-wage industries. The City is experimenting with new zoning measures and incentive schemes to protect the urban industrial base and balance the needs of urban manufacturers with the demand for residential and office space by channelling private investment into the development of new multi-use industrial spaces. The aim of this chapter is to examine whether such regulation creates the conditions for more sustainable economic development and land use options or continues the trend toward corporate upscaling of the city’s already scarce industrial lands.

The City: San Francisco

San Francisco is the thirteenth largest city in the US with a 2016 population of 870,877. It comprises the major centre of the San Francisco-Oakland-Hayward, CA Metropolitan Statistical Area (4.6 million population) along with San Jose and the Silicon Valley to the south and the historically industrial, working class, and gentrifying East Bay communities (US Census Bureau, n.d.) (Figure 12.1). The city contains a dense urban core and compact mixed-use neighborhoods. At 6,266 people per square mile, it is the second densest urban area in the US behind Los Angeles (Cox 2014). It is also the wealthiest urban area in the US, with a 2016 median household income just under US$97,000 (Kopf and Varathan 2017), and possesses one of the most highly educated populations in the country (New York Times 2012). The Bay Area’s gross metropolitan economic output of $575 million puts it on par with Argentina and Sweden (Storper 2013), yet the city rivals some developing nations in terms of income inequality (Knight 2014). San Francisco has one of the highest concentrations of financial, business, and legal services in the country (Sassen 2001) and is a hub of high-tech start-ups and venture capital (Florida and King 2016). It is also home to over 600 manufacturers that employ a majority of people from low-income households (SFMade et al. 2016).

San Francisco is the only consolidated city-county in the State of California. The San Francisco government derives its jurisdiction from the city charter and is comprised of an executive and legislative branch, the latter responsible for passing laws and appointing the Planning Commission who advise on growth and development in San Francisco (City and County of San Francisco 2006). The Office of Community Investment and Infrastructure (formerly San Francisco Redevelopment Agency) is responsible for the formation of public-private partnerships that deliver some of the largest redevelopment projects in the city and the Office of Economic and Workforce Development (OEWD) concentrates on business attraction and retention and workforce programs.
San Francisco’s industrial strategy must be placed not only in this governance context, but also in the context of its urban development history. Despite its politically progressive population, the city form has been strongly influenced by a pro-growth coalition (Hartman and Carnochan 2002). Since the 1950s, development interests have induced commercial office development in the urban core as a replacement for declining industrial activity. As the office market declined in the 1980s, the growth coalition turned toward remaking former industrial zones like South of Market Area (SoMA) into arts and tourism destinations through flagship cultural projects and entertainment complexes.
The gentrification, particularly of SoMA, but also other central districts continued through the “dot-com” boom of the 1990s. That decade saw a significant amount of technology start-ups, multimedia firms, and residential developers adapt the area’s industrial buildings to suit their needs (Graham and Guy 2002). This issue endured following the 2001 market crash and became more pronounced in 2011 after the City passed the Central Market Payroll Tax Exclusion Ordinance in response to Twitter’s threat to re-locate their San Francisco headquarters (Warburg 2014). Over this period, San Francisco’s industrial zoned land, classified as Production, Distribution, and Repair (PDR), steadily shrank to around 12 per cent of the city’s usable land (San Francisco Planning Department et al. 2014, 32).

This creative destruction of the built environment has resulted in a mixed-use “post-industrial” cityscape built around new forms of production – office, design and research and development – alongside residential and consumption areas. While this approach has delivered a robust tax base and significant employment to the city, it has also created major issues with congestion, pollution, rising rents and property values, the displacement of existing businesses and residents, and the destruction of the city’s older office and industrial spaces (Godfrey 1997). San Francisco’s slow-growth, anti-development opposition certainly reshaped some plans for development, but its focus on quality of life issues hardly addressed the preservation of industrial lands and working-class jobs (McGovern 1998). There are now serious concerns that the supply of industrial land in San Francisco is not sufficient to meet future manufacturing needs, with recent estimates indicating a vacancy rate of 3 per cent and projecting a deficit of industrial land by 2040 (Chapple et al. 2017, 29). A recent revival of production activity in San Francisco has been met with optimism by the San Francisco Government and Planning Department. However, policymakers face the complex challenge of developing regulations that effectively protect PDR zones and channel private investment into San Francisco’s industrial facilities if an emerging urban manufacturing sector is to deliver on its promise of accessible middle-wage employment and resilient local economies.

Sustainable economic development is distinguished from conventional approaches in that it considers economic, environmental, and equity impacts together rather than prioritizing economic growth (Fitzgerald and Green Leigh 2002; Grodach 2011). In this regard, San Francisco – like many cities – now faces the sustainability challenge of addressing its “post-industrial” urban development program, focused predominately on enhancing land values at the expense of equitable development. Policy geared toward remaking industrial lands for technology, business services, and tourism has facilitated the rapid upscaling of San Francisco’s older warehouse and industrial buildings and resulted in a loss of living-wage jobs and affordable housing. Urban manufacturers and other small-to-medium enterprises (SMEs), an important source of such employment, have been subjected to displacement pressures as a result of the shrinking stock of central industrial real estate and competition from other sectors able to pay higher rents. In 2014, industrial
rents in San Francisco proper averaged $26.26 per square foot, significantly higher than the regional average, and industrial rents in SoMA averaged $41.53 per square foot (Chapple et al. 2017, 33).

San Francisco’s prohibitive real estate market has posed significant obstacles for manufacturing in the region. This is especially problematic because nationwide manufacturing has experienced relatively steady growth since the Global Financial Crisis and, in some places, outperformed the national average in employment gains (Christopherson 2011). These jobs provide relatively high wages, employee health care benefits, and upskill opportunities for workers with lower educational attainment (Langdon and Lehrman 2012). Despite the Bay Area’s high-cost real estate market, manufacturing accounted for approximately 11,000 jobs in 2015 and created approximately $614 million in direct sales for the regional economy (SFMade et al. 2016, 14). This has elicited support for re-industrialization strategies, particularly in regions such as San Francisco with a comparative advantage in SME-driven advanced manufacturing and the production of consumer goods due to the region’s history of computer and electronics research, design, and manufacturing along with its established entrepreneurial system (SFMade et al. 2016). In fact, manufacturing firms in the city employ on average 15 people (SFMade et al. 2016, 14) and operate as part of a vertically disintegrated chain of production that taps into the city’s urban infrastructure, skilled labor, and business networks.

The San Francisco Government is conscious of the city’s strong urban manufacturing ecosystem, but faces complex challenges in preserving it. The first challenge is maintaining the city’s scarce stock of industrial land in strategic locations that are proximate to key infrastructure and labor supply. These industrial sites face considerable pressure for rezoning and upscaling to mixed-use office and residential particularly from the burgeoning technology sector. This is further compounded by a deficit in affordable central city housing (San Francisco Planning Department 2016). Rezoning of San Francisco’s few remaining industrial strongholds would likely have a permanent and irreversible effect on the ability of urban manufacturers to operate in the city, precipitating an unsustainable increase in rents from competing uses and forcing most manufacturing SMEs to emigrate or cease operations.

The second challenge is incentivizing the construction of new industrial space and maintaining and upgrading existing space. While demand for industrial space in San Francisco is considerable (CBRE 2017), the capital outlays required to construct new space are highly disproportionate to the rents that can be achieved from other uses. For instance, the average asking price for office rent was roughly 2.5 times higher per square foot annually than industrial rents in 2014. Furthermore, San Francisco’s industrial buildings are typically between 30 and 100 years old, with many requiring major capital outlays for upgrades to make them functional production spaces (San Francisco Planning Department et al. 2014, 34). A recent study of San Francisco’s food and beverage manufacturers estimated a capital outlay of $250,000 to ensure adequate facilities and regulatory compliance of a 5,000 square foot production and distribution facility before operations could begin (San Francisco Planning Department et al. 2014, 33). The cost of redevelopment is
compounded by the city’s large, single-occupant industrial building stock. These buildings are usually several times the requisite size for San Francisco’s SME manufacturers, generating additional costs and regulatory complexity to create subdivided shared facilities (SFMade et al. 2016, 24). Moreover, the capital outlays and complex regulatory environment for industrial activity creates substantial risk for developers and investors relative to more passive uses of industrial buildings such as storage (Urban Manufacturing Alliance 2014).

Taken together, the lower risk attached to passive uses and the greater financial return on office and residential development creates a strong disincentive to preserve, upgrade, and produce new industrial facilities. Given the strong competition for central, strategically located land in the urban core, policymakers are faced with complex trade-offs to balance different land uses and adequately incentivize the provision of modern industrial space that caters to the needs of contemporary urban manufacturing.

The planning innovation

San Francisco’s planning innovation revolves around 1) the revision and enforcement of its PDR zoning code to protect urban industrial lands and limit competing uses, 2) zoning variances and incentives aimed at leveraging real estate demand to increase the supply of industrial space, and 3) an industrial rebranding campaign led by non-profit industrial advocacy group, SFMade. These adaptations were solidified and promoted in former Mayor Ed Lee’s five-point Plan for Manufacturing, which aimed to preserve existing industrial space, incentivize the development of new PDR space on private land, and build and upgrade space on public lands (San Francisco Office of Economic and Workforce Development n.d.).

The innovation process

In 2002, the City imposed temporary controls in response to land use conflicts between residential and non-residential uses, precipitating a prolonged period of public consultation to develop a comprehensive plan for the Eastern Neighborhoods including East SoMA, the Mission, Showplace Square, Potrero Hill, Dogpatch, and Central Waterfront areas (San Francisco Planning Department 2007, S1) (Figure 12.2). The plan’s main aim was to identify appropriate locations for housing in the City’s industrial zones and to address problems around affordable housing. However, a vocal industrial constituency steered the debate toward retention of an adequate supply of industrial land (Mission Coalition for Economic Justice and Jobs 2003; San Francisco Planning Department 2007). The final plan attempted to strike a balance by allowing the transition of some industrially zoned land toward residential and mixed use, but tightened controls prohibiting non-PDR uses in the more traditional industrial zones. The overall impact was a reduction in the amount of industrial land in the Eastern Neighborhoods with more significant protections for the remaining
PDR zones to mitigate real estate speculation and ad hoc development of non-conforming uses in industrial areas (Economic and Planning Systems 2005; San Francisco Planning Department 2007). In 2008, the City adopted the Eastern Neighborhoods Plan that established PDR zones, preserving approximately 7 per cent of San Francisco’s total usable land for PDR businesses (San Francisco Planning Department et al. 2014, 31-32).

The adoption of these ordinances was the result of a protracted debate in the aftermath of the dot-com boom around gentrification and land use in San Francisco’s last remaining industrial concentration in the southeastern portion of the city. The rapid expansion of “post-industrial” development throughout the 1990s and early 2000s significantly altered the city’s land use system, precipitating industrial displacement. Advocacy groups including the Mission Coalition for Economic Justice and Jobs and the South of Market Community Action Network along with residents, workers, and business owners in San Francisco’s industrial pockets engaged with City planners in negotiating a solution. Drawing on the decline in PDR jobs throughout the latter twentieth century and entrenched assumptions about the incompatibility of industry within the central city,
opponents of PDR districts argued for the use of industrial land to meet the
city’s housing and office needs (Wertheim 2015). In response, manufacturing
advocates built a case around the importance of industrial land in providing for
physical infrastructure industries (e.g. construction, warehousing, storage, repair,
and manufacturing) that are unable to compete for space in an unregulated market
(San Francisco Planning Department 2002; San Francisco Office of Economic and
Workforce Development 2014, 10). They argued that these industries provide
essential services that are not amenable to outsourcing and support the growth of
knowledge and tourism industries, while generating strong economic multipliers
and substantial employment for workers without high educational attainment (San
Francisco Office of Economic and Workforce Development 2014, 10; Economic

However, the protections afforded to manufacturing and its subsequent resur-
gence in San Francisco may have been more the product of serendipity than astute
planning. According to Steve Wertheim (2015), a project manager involved with
the Eastern Neighborhoods Plan, “at the time [the Planning Department] created
the PDR Districts, [they] weren’t doing so to protect [the City’s] manufacturing
sector, which seemed beyond saving.” Nevertheless, the creation of these zones
created affordable land in strategic urban locations sheltered from incompatible and
higher value uses, which provided space for a range of emerging SME manufactur-
ers. These manufacturers differed from physical infrastructure industries that the
PDR districts were crafted for: they utilized advanced technologies and flexible
production methods to create market-oriented products including medical devices,
apparel, and food and beverages, rather than services such as storage, construction,
and repair (SF Made et al. 2016).

Advanced and consumer-product manufacturers benefitted from the geo-
graphical concentration of consumers, competitors, and suppliers to facilitate
rapid just-in-time turnarounds, as well as proximity to freight services, labour, and
the San Francisco “urban brand” (SF Made et al. 2016; San Francisco Planning
Department et al. 2014; Maskell 2001). The emergence of such manufactur-
ers coincided with the increasing momentum of the Maker Movement in San
Francisco as well as national policy efforts aimed at stimulating advanced manufac-
turing for employment and economic growth opportunities (Friedman and Byron
2012; Hatch 2013).

In San Francisco, this was carried forward by manufacturing intermediary
SFMade. The non-profit emerged as a key intermediary in representing the
needs and collective role of local manufacturers in 2010. Initiated by a local
manufacturer of handbags to promote and develop small manufacturing in the
city, SFMade is now funded in part by and works in partnership with the City.
SFMade has been instrumental in rebranding local manufacturing as an innova-
tive and entrepreneurial growth sector, emphasizing its interdependence with
San Francisco’s technology and arts ecosystems and its capacity to develop
new products, services, and business models (SFMade et al. 2016, 19–23; San
Francisco Planning Department et al. 2014, 12). In this way, it aims to rethink
the entrenched “post-industrial” policy narrative, presenting an alternative to tech and real estate driven development by fulfilling workforce development, real estate, and advocacy functions to foster an expanded manufacturing base.

In 2014, SFMade collaborated in a process of legislative reform with the Mayor’s Office, Supervisor’s Office, and Planning Department to incentivize the preservation, upgrading and construction of space for manufacturers (San Francisco Planning Department 2014, 3). Despite the protections afforded by the PDR districts in the Eastern Neighborhoods Plan, manufacturers still faced issues with an aging industrial building stock comprised of predominately large single-occupancy facilities. As a result, planners attempted to leverage market demand for higher paying office uses to create new PDR space primarily through so-called hybrid development projects. To do so, the City amended PDR zoning in 2014 to permit new office construction larger than 20,000 square feet on vacant or near-vacant land around the Eastern Neighborhoods, provided at least 33 per cent of the gross square footage is maintained for PDR use (San Francisco Planning Department, 2014, 19–20). The Planning Code Section 219.1 proactively seeks to incentivize the construction of new PDR facilities by requiring higher paying office uses to subsidize development.

One Hundred Hooper Street is the first project proposed under the new Code. The four-story mixed-use project in Potrero Hill/Dogpatch will include approximately 86,000 square feet of PDR space and 284,000 square feet of office space across three buildings on a former self-storage site adjacent to California College of the Arts (San Francisco Planning Department 2015). Located in an already strong design cluster around the college, the project may promote synergies around design-oriented manufacturing. Further, the developer is working in partnership with the College and PlaceMade, an affiliate of SFMade specializing in non-profit industrial property development. PlaceMade, which will handle leasing of the “PDR workshop” building, is a critical intermediary between prospective industrial tenants, the developer, and city planners that helps to ensure the needs of manufacturers are met. The project is expected to generate up to 450 manufacturing jobs (San Francisco Planning Department 2015).

Following Hooper Street, proposals have included new build industrial buildings and mixed-use PDR and office space in the historic Armory in the Mission District and mixed PDR, arts, and maker spaces in Hunter’s Point Shipyard and Forest City’s Pier 70 in an attempt to speed up approval processes (McKinnon 2016). Additionally, in Central SoMA, a draft plan is currently under public review that recommends mechanisms to provide for new PDR space in arts and light industrial zones undergoing rezoning to mixed-use office, involving provisions for on- and off-site replacement, the potential for an in-lieu fee to the City for new PDR construction and preservation, and transferable development rights (TDRs) on important industrial sites for use on another development (San Francisco Planning Department 2016, 109, 145). Alongside these zoning innovations, the City continues to provide conventional site selection, business development, and zoning and permitting assistance for PDR space.
**Trade-offs**

Due to the relatively recent implementation of this legislation, the implications and trade-offs can only be surmised. The cross-subsidy, replacement, and TDR mechanisms provide an innovative market-based solution to the loss of and under-investment in urban industrial space. However, they are also a response to the on-going pressures from real estate development interests, which have long helped to shape the city’s pattern of urban development including the loss of industrial lands. Additionally, without stringent on-going monitoring of mixed-use office and industrial projects, this legislation could further expose the city’s remaining industrial pockets to irreversible commercial upscaling to higher paying uses. This would not only create additional harm to the development of an urban manufacturing base, but also reduce the ability to deliver affordable housing in an area in need.

While San Francisco’s hybrid development model and PDR replacement provisions represent an innovative means of channeling private investment into industrial development, it remains to be seen whether such investment can be shaped in a way that prioritizes the needs of the city’s urban manufacturing and employment base. The first consideration is whether developers will take advantage of the broad spectrum of PDR businesses and select tenants on the basis of their compatibility with the non-PDR dimensions of the development. For instance, the Central SoMA Strategy encourages the use of makerspaces as a ground floor activator combined with retail and organized cultural events to engage pedestrians and maintain SoMA as a “place of production” (San Francisco Planning Department 2016, 155). Although makerspaces provide affordable and shared access to equipment and technical knowledge, they do not address the real estate needs of operational PDR businesses, which are more likely to contribute to manufacturing supply chains and employment (Wolf-Powers et al. 2017). PDR businesses that have special space needs around drainage, ventilation, and loading access require more significant capital outlays, making them less appealing to developers of hybrid precincts. Food and beverage production, for example, requires the installation of oven hoods, grease traps, additional drainage and loading docks to comply with planning regulations and the public health code, which can cost approximately $50 per square foot (San Francisco Planning Department et al. 2014, 33). This cost presents a disincentive for developers to incorporate such space, despite its sizeable and growing share of living-wage production jobs and strong space demand (San Francisco Planning Department et al. 2014). Without adequate regulation to correct incentives, the capacity of hybrid development projects to provide PDR space to strengthen urban manufacturing activity and employment may be jeopardized.

A second consideration pertains to the proposed provisions that allow the off-site replacement of PDR land in arts and light industrial districts that have been rezoned for mixed-use office space. While this provision offers flexibility in meeting requirements for PDR preservation and construction and the potential to produce more space for PDR jobs, some sites may have locational attributes that cannot be easily replicated (Lester et al. 2013). Sites that facilitate inter-relationships
with local markets and retailers, access to key transportation infrastructure, and the development of a distinct local production culture and brand are typically path dependent and cannot simply be uprooted to another location (Gibson 2015). Furthermore, locational requirements differ significantly between PDR businesses, ranging from publishing and interior design to construction and auto repair. For example, craft and cultural product manufacturers generally benefit from vibrant areas that enable cross-fertilization between sectors and possess a strong image or historic legacy that can be used in marketing and design (Fox Miller 2017; Rantisi and Leslie 2010; Scott 1996). As such, these organizations predominately locate in the central city light industrial areas of SoMA and Showplace Square and are at risk of displacement if PDR land conversions in these areas are not replaced with similar, centrally located light industrial space with a complementary mix of uses and infrastructure (Economic and Planning Systems 2005, 42). A finely tuned approach is required that replaces converted industrial land with new PDR space in strategic locations for organizations that strengthen the city’s production system and provide employment (Howland 2010). This is a particular challenge in a high-rent city facing pressures on affordable housing as well as production space.

Finally, the success of hybrid office-industrial precincts and PDR replacement provisions is highly contingent on tight controls and monitoring of private development. Mixed-use PDR developments are reviewed by the Planning Commission in an attempt to “maximize the potential for . . . project[s] to produce new PDR space that is viable and affordable” and includes provisions for continued reporting and monitoring to ensure the prioritization of PDR uses on project sites (San Francisco Planning Department 2015, 6). However, the City has demonstrated leniency toward ad hoc office conversions in the past (Bronstein 2016; Dineen 2016). Moreover, PDR zoning is not without loopholes. Notably, historic landmark buildings are exempt from PDR restrictions, enabling development of office space in industrial areas (Bronstein 2014). Without adequate supervision and enforcement to ensure the ongoing compatibility of PDR and non-PDR uses, the City’s planning innovations are at risk of opening the city’s scarce supply of industrial land to upscale development. And, the reality is that such projects will only move forward if developers can achieve their return on investment. In short, while the move toward industrial mixed-use development is positive, this market-led approach will face challenges around equitable development and the wider issue of delivering both industrial space and affordable housing in a high-rent property market.

**Conclusion**

San Francisco’s strategy for the preservation, maintenance, and construction of industrial space has emerged as a geographically and historically contingent process. The rise of an advanced service and tech economy precipitated the construction of offices, upscale apartments, and retail and entertainment precincts, marginalizing established industrial and working-class uses in the city’s Eastern Neighborhoods. The pace and magnitude of this “post-industrial” transition rapidly set the city on
a path of service-dependent development that was only seriously reflected upon in
the aftermath of the dot-com crash. What initially began as a means of providing
space for San Francisco’s physical infrastructure industries gradually evolved into a
comprehensive urban manufacturing land use strategy.

The design and implementation of this policy strategy is a continuing process,
spanning over decades and involving a number of propitious place-specific cir-
cumstances. San Francisco forms a vital node in the regional Bay Area economy,
characterized by an embedded entrepreneurial culture sustained through ven-
ture capital and incubation infrastructure, design and engineering expertise, and a
strong artist and maker community. These factors have contributed to a resurgence
of manufacturing, driving a corresponding increase in demand for industrial land.
In conjunction, the emergence of key intermediaries, particularly SFMade, but also
the community groups that fought the loss of industrial land through the dot-com
gentrification period, have been crucial in developing the new thinking around
San Francisco manufacturing. Against the entrenched narrative of post-industrialism,
SFMade in particular has rebranded manufacturing to policymakers as crucial
to local identity and as a viable source of living-wage employment and sustain-
able economic development. Their advocacy work, along with that of Eastern
Neighborhood community groups, encouraged the City to preserve industrial land
in a high-cost, high-demand property market.

In an environment of intensified and instantaneous connectivity where policy
rapidly traverses different geographic sites, it is important to acknowledge that San
Francisco’s industrial land use strategy emerged in part as a result of these local processes
and actors. Without the City’s history of community advocacy, informed planners,
and SFMade, the industrial lands strategy likely would not have occurred. Still, while
the process cannot be seamlessly emulated across cities, its basic components are cer-
tainly applicable in other places with reemerging manufacturing economies and a
scarce supply of industrial land. Public entities in other gentrified post-industrial cit-
ties including the Boston Planning and Development Agency (2017), New York
City Council (2014), and City of Portland (2015), have looked to San Francisco
as a model, exploring and implementing similar zoning strategies. Nonetheless, San
Francisco and cities like it will continue to face the challenge of balancing the needs
of production activity with competing uses and other important agendas, particularly
affordable housing, as they wrestle with zoning tools geared toward market demand.

Notes

1 The ordinance waived six years of payroll taxes for organizations with a payroll exceeding
$250,000 provided they set up in the Central Market Street and Tenderloin area, establish-
ing a technology hub in an area that has struggled with under-investment, physical blight,
and poverty for several decades (Stehlin 2016).

2 Due to the relatively limited data on industrial rents in San Francisco proper, a rough
estimate was produced to illustrate the magnitude of the rent gap between industrial and
office uses, based on the average industrial rent of $26.26 for 2014 presented by SFMade
(SFMade et al. 2016, 23) and the year-end average office rent for 2014 presented by
Colliers International (Colliers International 2014, 5).
Locational attributes may not be pertinent considerations for the Central SoMA Plan proposal, which requires the replacement of PDR land at another location within SoMA (San Francisco Planning Department 2016, 109). However, the proposition of an in-lieu fee to the City for PDR maintenance and construction will require strategic deliberations when deciding on where to reinvest.

References

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