

# Perspectives: Practitioners Weigh in on Drivers of Rising Housing Construction Costs in San Francisco

Carolina Reid and Hayley Raetz | January 2018

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## Introduction

In 2017, San Francisco had the dubious distinction of being the second most expensive city to build in – in the world. Turner and Townsend studied 43 global markets and found that New York and San Francisco topped the list of the most expensive construction markets, costing respectively an average of \$354 and \$330 per square foot to build. Seattle, which faces many of the same labor market and housing supply pressures as San Francisco, came in at \$280 per square foot. San Francisco also ranked second out of the five cities surveyed in the United States in terms of construction cost inflation, with costs rising 4.2 percent in 2016.<sup>1</sup> While these data include non-residential properties, they nevertheless point to the construction price pressures in the city, and anecdotal reports suggest that these numbers may actually underestimate on-the-ground costs.

These construction costs contribute directly to San Francisco’s affordability crisis, and increase the amount of subsidy needed to make affordable housing feasible. To provide just one example from a review of LIHTC cost certifications, in 2000, it cost approximately \$265,000 per unit to build a 100-unit affordable housing building for families in the city, accounting for inflation. In 2016, a similar sized family building cost closer to \$425,000 per unit, not taking into account other development costs (such as fees or the costs of capital) or changes in land values over this time period. As a result of these cost increases, developers need more subsidy for every unit, at a time when public resources for affordable housing have been dwindling.

In this brief, we present findings from interviews and focus groups with developers, general contractors, architects and nonprofits working to build both affordable and market-rate housing in San Francisco. The brief offers insights into four areas many practitioners on the ground see as the key drivers of rising construction costs in San Francisco, and shares their ideas and perceived opportunities for how to improve the city’s processes and policies to address these drivers and bring down the cost of housing. While these are not the only factors influencing the price of housing in the city, making inroads on streamlining inefficient processes and being clear on priorities for housing design could make a significant dent in reducing construction costs.

## The Drivers of Construction Costs in San Francisco

Construction costs are just one part of the housing cost equation. Costs layer on top of one another throughout the development process - from planning to construction to inspection - and not all construction costs are in control of local decision-makers. Macroeconomic conditions

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<sup>1</sup>Turner and Townsend (2017). “International Construction Market Survey 2017,” Turner and Townsend, <http://www.turnerandtowntsend.com/en/insights/international-construction-market-survey-2017/>.

(including the cost of capital), labor market cycles and lack of skilled subcontractors, and trade policies (that influence the price of materials) all influence the cost of building.

But construction costs in San Francisco are also driven by local decisions and processes that *are* within the control of city agencies. Interviews and focus groups identified four local drivers of rising construction costs: city permitting processes, design and building code requirements, workforce regulations and ordinances, procurement (small and local business) requirements, and environmental regulations. Each of these is presented in more detail below, along with recommendations and potential ways to address these drivers from the perspective of practitioners on the ground.

### Lengthy + Complex City Processes

There was only one factor on which all interviewees and focus group participants agreed: the most significant and pointless factor driving up construction costs was the length of time it takes for a project to get through the city permitting and development processes. While focus group participants acknowledged that city agencies—such as the planning department—have been chronically understaffed (leading to capacity constraints), they also highlighted significant process hurdles that contribute little to public welfare, but that nevertheless drive up the costs of development.

One specific challenge developers face is revisions to the building codes or plans throughout the permitting and design process. Focus group participants noted that “additional hoops and requirements seem to pop up at various stages in the process” and that projects are subject to “re-interpretation of the codes throughout the permitting process.” One participant recounted that they were asked to implement a change in the required door size between the design and build out stages of a project. Participants also reported that building inspections are not standardized, and that “who you get” influences the outcomes. “Standards aren’t clear, there’s an arbitrariness to what happens. You think you’re on the finish line and then you find out there’s one more permit.” In addition, participations reported that the process happens in fits and starts, ranging from having several demands at the same time to waiting long periods for responses.

Another challenge is the frequency of appeals on projects, including affordable or workforce housing units. In San Francisco, every permit is appealable; since very few large-scale projects match the city’s existing building and planning codes, this translates into numerous opportunities for appeals and contributes to delays in the entitlement process. Focus group participants noted that a large percent of appeals are eventually denied, meaning that the time spent on the appeal does not typically produce different outcomes other than increasing the time and cost in pre-construction. “There’s no benefit to the public – the need to get ‘exceptions’ approved just adds costs.”

Interviewees and focus group participants also pointed to the lack of coordination across city agencies such as Planning, the Mayor’s Office on Disability, the Department of Public Works, Bureau of Streets and Sidewalks, the San Francisco Public Utilities Commission (SFPUC) and PG&E. Affordable housing developments can run into even greater process hurdles, because

there are more city agencies and departments involved, including the Mayor’s Office of Housing and Community Development (MOHCD) and the Office of Community Investment and Infrastructure (OCII). In addition, on affordable projects, the coordination between the SFPUC and PG&E in the provision of electrical service to sites whose land is City owned and ground leased (making them “municipal projects” and subject to public power provision) was highlighted as particularly problematic.

Many large developers hire private “expeditors” to move permits through the various levels of government. Coordination between general contractors and architects in the pre-construction phases can also fall short. Construction drawings may miss key features—such as the wiring for a timer or switch required by the Mayor’s Office on Disability—which can lead to change orders down the road. While there was some debate as to whether the communication problem was on the architecture or contractor side, it was clear that the pre-construction phase of housing development leaves room for communication and process improvements to improve and standardize workflow. The lack of coordination at all levels contributes to uncertainties in the scope of work and timing, which in turn leads subcontractors to put in an escalation clause and/or add in contingency costs so that they aren’t setting the Guaranteed Maximum Price (GMP) budget too low.

Unlike other cost drivers that promote public benefits (such as energy conservation), permitting and processing delays, or even small design changes, rarely improve the overall project or its benefits to residents. “We may not be able to do anything about the cost of concrete, but when every person in the city feels empowered to make small changes in the middle of development, it creates time delays that impose not only construction costs (e.g., new materials), but also the cost of money, the cost of people’s time, the architects that need to redesign the plans.”

### *Recommendations*

Participants in the research overwhelmingly agreed that streamlining the permitting process has the greatest potential to reduce construction costs. This is hardly news: as the late Mayor Lee noted, “We have thrown up obstacle after obstacle to the creation of new housing in our City and failed to meet the demands of our growing workforce. [...] The time for excuses, delays and bureaucracy is over. [...] We must work on reducing entitlement times and ensure that building permits, subdivision maps and other post-entitlement permits are issued swiftly.”<sup>2</sup> Creating “greater certainty” about when a project would be ready to break ground was highlighted as the single biggest factor in developers’ ability to contain costs. While participants agreed that regulations and building codes matter in overall costs, “streamlining the process is likely to be more effective than trying to pick off these thousand cuts one by one.”

One recommendation to address the complexity of permitting and approvals was to have the city assign “Project Managers” within the Planning Department to help shepherd projects through the approvals process. While some developers hire private ‘expeditors,’ having this function embedded within the city would reduce costs, as well as build the city’s capacity to work across

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<sup>2</sup> Adam Brinklow (2017). “Mayor Lee orders San Francisco to build 5,000 new homes annually,” Curbed: San Francisco, available online at <https://sf.curbed.com/2017/9/28/16378590/el-lee-housing-san-francisco>.

departments in expediting housing construction. As one respondent noted, “I think this type of function would let the city see where it could streamline or work together better – it would improve processes over the long-term.” These project managers could also help the city to prioritize projects with higher density or more affordable units, ensuring that the projects with the potential to make the biggest impact on expanding the supply of affordable housing move through the permitting process faster. These project managers could also be tasked to ensure standardization in inspections, and make sure that city guidance was consistent over time.

A second recommendation was that the city review its building codes and remove criteria that are often “automatic waivers”—such as rear yard setbacks—until a neighbor decides to file an appeal. As one respondent noted, “Taking out elements of the code that don’t work and not making them “exceptions” that need an additional step of review would do a lot to streamline the process.” In addition, to the extent possible, it was expressed that the city should work to minimize new interpretations of the building code during the development process. While this is not always possible (for example, sometimes the plan being reviewed is incomplete, leading to changes down the road), ensuring more consistency in the interpretation of codes and requirements would help developers lower their costs and cut the development timeline.

Third, practitioners were in large part supportive of expanding “by-right” designations that minimize the potential for appeals on projects that include affordable and/or workforce component. By-right projects require only an administrative review to ensure they are consistent with existing general plan and zoning rules, as well as meet standards for building quality, health, and safety. While the recent state housing package was mentioned as providing some remedies to inefficient entitlement processes, respondents also noted that the laws may not “go far enough” and that there is an opportunity for San Francisco to be proactive in designating priority projects as by-right given the housing affordability crisis. Because this change requires a City Charter amendment, and therefore a popular vote, housing advocates have placed an affordable housing “by-right” measure on the 2018 ballot.

### Building Codes and Design Requirements

A second theme emerging from this research was that San Francisco’s design requirements greatly add to the cost of construction, and that this was especially problematic for affordable housing. While market-rate units are priced to reflect higher design standards (and ostensibly are responding to consumer demand), for affordable housing, design standards are set by the city and are completely paid for by public subsidies. Design requirements govern everything from the exterior of the building down to the color of the back-lighting of the elevator buttons.

These design requirements are often developed with good intentions. As one focus group participant noted, “The city wants the buildings it invests in to be notable, and to change the image of affordable housing.” Beautifully designed affordable housing can help to reduce NIMBY opposition as well as reduce stigma and improve the quality of life for residents.

However, these design specifications have a direct impact on construction costs. For affordable projects, this can lead to a tradeoff between design elements and the number of units that can be built. As one affordable housing developer noted, “We used to be able to upscale the properties

and have reasonable costs, but right now we're at a place where we can't do these beautiful exterior facades – we're not even talking about the interior programming space – in a way that produces social value.” Developers highlighted experiences where purely aesthetic changes increased the cost of construction. Anecdotes included an episode where San Francisco's Planning Department requested a dynamic facade that was shaped so as to limit the amount of shadow cast on the sidewalk below. Another was the “open space” requirement on an affordable project that specified that the developer needed to create larger balcony spaces, leading to a direct reduction in the number of affordable units that could be built within the property. Respondents also reported that Planning and the Mayor's Office on Disability often required more expensive materials and systems than other cities.

Design requirements can also exacerbate the challenge of maximizing development on difficult land sites. Even without specific rules to follow, the marginality of remaining sites for affordable housing in the city plays a significant role in costs. For example, several contractors reported encountering unexpected ground improvement costs. In Mission Bay, developers noted that foundation work can significantly drive up costs, while in areas like Potrero and Bayview the hilly topography requires significant cutting, filling, and the construction of retaining walls. Adding design requirements onto already difficult sites—for example, specifying unit sizes—limits the ability to increase density and maximize the number of units that get produced.

On affordable projects, participants also articulated issues with the city's Request for Proposals (RFP) or Request for Qualifications (RFQ) process. The scoring and evaluation of these proposals are seen as a “black box,” and approximately 40 percent of the scoring system is based on subjective aesthetic judgments. This has two effects on costs: first, it requires that all interested firms hire architects to develop initial design schematics, which entails costs even if they are not selected to build the property. Second, the emphasis placed on aesthetics adds to pressure to “design up.” As one affordable housing developer noted, “There isn't clear guidance, so we all put enormous effort into preparing a response, which creates a situation in which we think ‘we should put this bell or whistle on it’ to be competitive.” Not all of this design pressure comes from the city, however. Respondents also acknowledged that architects often want to build distinctive buildings, and developers sometimes lack the capacity to effectively monitor the building design process.

### *Recommendations*

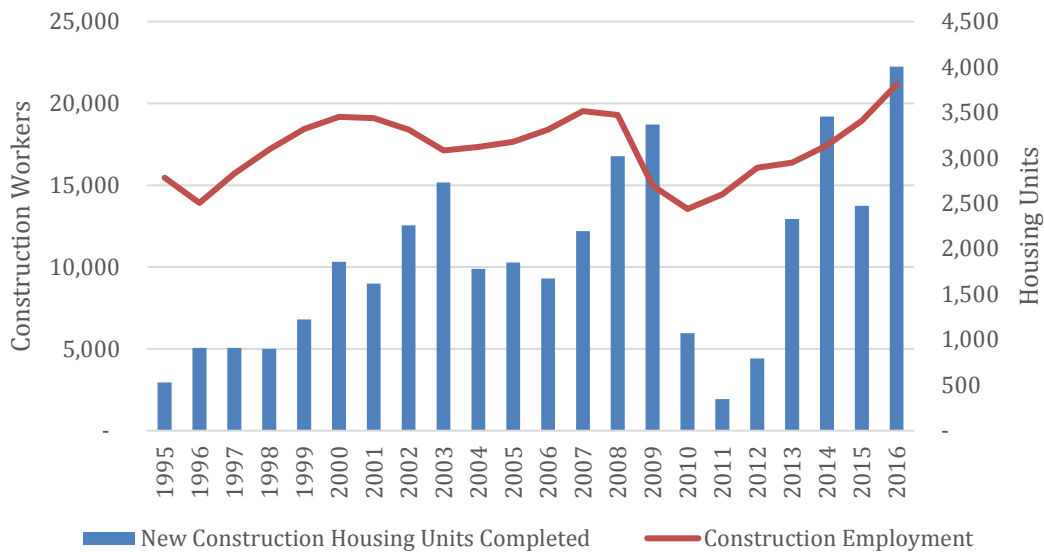
Overall, participants advocated for more flexibility in building design and less rigid unit mixes or common space requirements. The increasingly limited number of “pristine” sites in the city already add to costs, but these can be offset with more flexibility in what could fit on the site. In addition, as discussed above, the inclusion of a design element in the RFP/RFQ process is particularly onerous for affordable housing developers. Focus group participants suggested that the RFP/RFQ process should instead focus solely on qualifications and experience with that type of affordable building and/or population. Participants noted that given the high capacity of San Francisco's affordable housing development community, and the fact that MOHCD is often the entity providing the subsidy, there can be controls to ensure the building is high quality in later steps of the process. “The back and forth on design and ensuring that the building fits in with the architectural character of the neighborhood can happen afterwards.” The city has already

taken important steps in this direction, and has made changes to its RFP/RFQ process to limit what is required in terms of design presentation materials. However, city officials noted that some architects nevertheless re-incorporated design details into their presentation materials, in violation of the instructions. This points to another important conclusion from the focus groups: the complex coordination of numerous stakeholders within the development process can impact costs, and efforts to reduce costs must be made across the development pipeline.

### Workforce and Procurement Rules

A third theme to emerge from the research was that labor contributes significantly to the overall costs of construction. Labor market shortages in the construction sector, and specifically the challenge of finding local skilled subcontractors, were consistently associated with rising costs. While the number of construction workers in the city has rebounded since the recession, the number of workers relative to the number of units being built is still below the historical average. (See Figure 1). “The lack of labor and local subcontractors that have capacity right now is a key challenge. It’s hard to find anyone for a project, let alone being in a position to do competitive bidding.” In this context, prevailing wage was also cited as generally contributing to higher costs, but others noted that even non-union trades were commanding higher wages as a result of the labor shortages.

Figure 1: Construction Labor Shortage, San Francisco, 1995-2016



Source: Construction Employment: United States Census Bureau, Quarterly Workforce Indicators, San Francisco County, yearly averages; Housing units: <https://www.paragon-re.com/trend/san-francisco-housing-development-report>

Of equal concern is that the current construction labor pool is less skilled than 10 years ago, which has additional cost implications. Respondents noted three areas where the lack of skilled workers is having a direct impact on costs. First, as developers and/or general contractors engage subcontractors that they have never worked with before, this can have the impact of additional insurance and litigation premiums. There has been a notable increase in subcontractors who falter and need “help” making payroll or whose estimates end up off-base.

Second, average productivity is going down, particularly when subcontractors don't have an experienced foreman or superintendent to manage the crew. "We've lost a lot of the expertise and management skills [as a result of the recession], so you might have the labor at the same hourly wage but it takes longer. We've seen this drive up labor costs by 10 to 20 percent." Third, several respondents noted that they are experiencing more defects and the need for change orders, which also add on costs.

While the tight construction labor market is not unique to San Francisco, the focus groups did reveal ways in which San Francisco's context exacerbates the problem. For example, permitting and approval delays make SF projects less attractive to subcontractors. "If I'm a subcontractor and have a choice of projects, I'm going to pick a job that starts right away, one that's "cleaner" and won't get held up in paperwork."

Respondents also noted that it was difficult to meet the city's overlapping Small Business Enterprise (SBE), Local Business Enterprise (LBE), and local hire requirements. The exact nature of these different requirements are complex, with SBE or LBE goals determined by project size and funding stream. But, for example, San Francisco sets a goal that developers make a "good faith" effort to employ at least 50 percent SBEs for construction contractors, which is higher than the state's 25 percent goal. While these are written into the regulations as "targets" and not hard and fast requirements, respondents noted that they are often enforced as if they are requirements.

Respondents reported that local hire goals—including the federal Section 3 requirements<sup>3</sup> that apply to public housing redevelopment—are particularly problematic right now, given the combination of low unemployment rates in the city and high housing costs. "You can't live in the city as a construction worker. And if you're a subcontractor, and your workers live in Santa Rosa or Gilroy, there's plenty of work there, so why would they take on the transportation and time costs of coming into the city for a job?" On Section 3 jobs, developers have struggled to find residents of public housing or other low-income housing in San Francisco who are available for the work. CityBuild, a city program that trains and connects lower-income residents to construction jobs, is designed to help with this challenge, but CityBuild faces significant challenges in attracting and retaining residents in its programs.

### *Recommendations*

In a constrained labor market defined largely by forces outside control of local policymakers, there were limited suggestions for policy interventions. However, several respondents suggested that one important fix would be to streamline the new SBE procurement system. "The procurement system doesn't work—it's one of those things like the building code—it makes things more difficult and time consuming. If you want to make this an attractive industry, the city has to get its contracting to work better."

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<sup>3</sup> Section 3 requires that developers on federally funded public housing projects "must assure that lower income project area residents have the maximum opportunity for employment and training on this project; and that small businesses located in the project area, or owned in substantial part by or which employ lower income persons/residents in the project area, will be utilized to the fullest extent possible as recipients of contracts." [http://mission.sfgov.org/oca\\_bid\\_attachments/FA18104.pdf](http://mission.sfgov.org/oca_bid_attachments/FA18104.pdf)

There was also discussion about increasing the capacity of local community based organizations to help train and provide a pipeline of new workers. As one respondent suggested, “the city needs to invest more in the CBO infrastructure to help build a skilled workforce for the construction industry.” A few participants suggested that San Francisco could relax its SBE or local hire requirements, but others noted that some of these requirements came from state or federal regulations. As one participant noted, “Real estate construction has always been cyclical, which leads to this mismatch between labor supply and demand. It’s hard to solve at the local level, but we should make sure not to add on more requirements that will only make it harder to find skilled labor.”

Finally, several participants noted the potential of modular housing to reduce costs, and suggested that the city do more to promote modular construction methods, especially for affordable housing. Modular can reduce construction costs by at least 20 percent, as well as shorten time by up to 40 percent.<sup>4</sup> While some of the building trade unions have voiced opposition to modular construction, participants noted that modular developments would still be subject to prevailing wage. In addition, other building trade unions have stepped forward to support modular, seeing it as an opportunity for workforce training and more stable, reliable employment.

### Environmental Regulations

The focus groups highlighted environmental regulations as a fourth key driver of construction costs, particularly as compared to buildings constructed 10 or more years ago. California has been a leader nationally in incorporating environmental standards into its building codes, and in some cases, San Francisco has gone further than these state requirements, reflecting the city’s commitment to protecting the environment and increasing the well-being of its residents. Focus group participants emphasized these benefits. “There is a community and social benefit to these requirements – we’re doing “right” by the environment and to residents.” But they also noted that these requirements do have a cost trade-off, and that policymakers should think about whether reducing the costs of denser infill housing in a city like San Francisco— a housing type which also generates environmental benefits in terms of reduced greenhouse gas emissions— might justify fewer *other* green building requirements. As one respondent noted, “At some point we need to do a better job of balancing benefits – is it more important to build more affordable housing or have a green roof?”

One key area of concern among participants was San Francisco’s requirements related to stormwater management and water recycling, which were generally seen as a significant driver of higher housing costs. San Francisco has gone beyond state regulations in planning for a complete stormwater management and water recycling system. Managing stormwater runoff has benefits in terms of water quality and can also help to prevent flooding by reducing the volume of water in the city’s sewer systems, and water recycling and “grey” water systems can

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<sup>4</sup> Carol Galante, Sara Draper-Zivetz, and Allie Stein (2017). “Building Affordability by Building Affordably: Exploring the Benefits, Barriers, and Breakthroughs Needed to Scale Off-Site Multi-family Construction,” Turner Center for Housing Innovation, available online at <https://turnercenter.berkeley.edu/offsite-construction>.



help to conserve water. But many respondents noted that these new system requirements are very expensive, complicated to install, and costly to maintain over time.

While the exact specifications of the requirements vary depending on the project size and where in the city the project is located, the new stormwater rules cover two general areas. First, large projects need to absorb any stormwater “on-site.” This can be done either by landscaping of “permeable” surfaces (such as rain gardens, permeable pavement, and vegetated roofs), or by diverting runoff to a storage tank. Second, buildings within “designated recycled water use areas” in the city must include a system to maximize the reuse of water for non-drinking purposes such as toilets or air conditioning. Known as “purple pipes,” these systems include additional plumbing lines that separate water for different uses. Each new waterline requires a meter, as well as a backflow prevention assembly. In San Francisco, the areas designated for recycling cover much of the urban core, overlapping with parts of the City where the most infill and affordable housing development is occurring.

Focus group participants expressed concern that the city’s new policies related to stormwater were “untested,” and that constantly changing requirements were particularly problematic. “It’s really hard to keep up with the Public Utilities Commission on this. Things are changing every day with new policies.” In addition, some respondents wondered whether the new systems were evidence based and would last over time. “We’re designing stormwater systems that we don’t know how they’re going to work – planters and runoff, the cistern, experimenting with an “irrigation canal” – adds a lot of cost on the design side, especially when we have to re-design it to new specifications.” Others noted that some of these systems create bottlenecks across the city’s Department of Public Health, which ensures that the systems don’t lead to drinking water contamination, the Building Permit Department, which oversees the building inspection, and the Public Utilities Commission which is also tasked with drinking water safety. “These three agencies are not always in alignment as to what’s needed, adding to delays and costs.” Some also expressed concern over the long-term costs of maintenance, since in effect each building contains its own water treatment system.

Another cost driver associated with environmental regulations is the requirement for higher quality air ventilation systems. Article 38 of the San Francisco Health Code seeks to improve the health and wellbeing of San Francisco residents by requiring comprehensive air ventilation and filtration in new residential developments. New buildings in “Air Pollutant Exposure Zones” – generally parts of the city located near major roads and in the inner city core—must include more technologically advanced filtration systems. A developer in one of the focus groups shared that on one of their sites, higher levels of air particulates were restricted to the lower portion of one side of a site, yet they were required to install the more advanced system throughout the property.

Energy conservation efforts were also cited as an area that can increase the costs of new construction. For example, California’s energy standards require that new multi-family buildings include a “solar zone” of 15 percent of roof or overhang with sufficient solar access. In 2017, San Francisco built on this requirement by requiring that this solar zone on new construction projects have solar panels or a solar thermal system installed. Builders can opt to provide 30 percent of roof area as a living roof or mix solar and a living roof, but both add on to

the overall cost of the project.<sup>5</sup> San Francisco’s new electric vehicle readiness ordinance, which goes into effect in January 2018, also requires that new buildings will be required to have circuits for EV chargers installed in 10 percent of parking spaces and that all spaces must be “EV” capable.<sup>6</sup> As one developer noted, “This is what we mean by ‘a thousand cuts’, it’s one good idea on top of another. But I don’t think we ever talk about how these good ideas influence the housing crisis.”

There was also some discussion that state standards don’t necessarily account for geographic variation in energy demands and may disadvantage a city like San Francisco. In particular, the state’s Title 24 energy efficiency requirements were highlighted as significantly adding to costs, and in some cases leading to perverse outcomes, such as incentivizing the installation of air conditioning units. Buildings in San Francisco—with its cooler climates and denser urban fabric—don’t need the same materials or systems as those in the Central Valley, or Los Angeles, where air conditioning is needed in addition to heating systems and where carports are a standard element of multi-family development. However, the state tool for assessing Title 24 compliance doesn’t effectively account for these variations.

### *Recommendations*

While no one disagreed with the need to address environmental goals as part of the construction process, focus group participants wanted more clarity on guidelines and wondered whether there might be less costly approaches to achieving the same outcomes, particularly on projects related to affordable housing.

Respondents raised three potential approaches to reducing the costs of environmental regulations. The first, closely related to the need to streamline overall city processes noted above, was to improve communication across agencies tasked with reviewing health and environmental regulations. As one architect noted, “Clear guidelines would help. But even more, it would be great if the water people talked to the air people and thought about how their requirements work together.” This need for collaboration and alignment of policies was raised in every step of the construction process, from designs to inspections and approvals. Participants also saw opportunities to improve collaboration between stakeholders in the housing development and environmental conservation sectors to develop policies that better align both environmental and housing goals, including improvements to the application of Title 24.

The second approach discussed was the need to better balance the benefits and costs of these regulations, and to track which properties were bearing the greatest costs of conservation. Participants suggested that the city conduct explicit cost-benefit analyses of new and existing requirements that exceed state requirements. This would be particularly useful for the city’s new stormwater systems. As one affordable housing developer explained, “We’re taking on the

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<sup>5</sup> San Francisco Planning Department (2017). “Better Roofs Ordinance,” Zoning Administrator Bulletin No. 11, available online [http://default.sfplanning.org/publications\\_reports/ZAB\\_11\\_Better%20Roofs\\_033017.pdf](http://default.sfplanning.org/publications_reports/ZAB_11_Better%20Roofs_033017.pdf)

<sup>6</sup> San Francisco Office of the Mayor (2017). News Release: Mayor Lee Signs New Ordinance to Make San Francisco Electric Vehicle Ready. Available online at <http://sfmayor.org/article/mayor-lee-signs-new-ordinance-make-san-francisco-electric-vehicle-ready>

costs of managing stormwater for the whole city on just a few new projects, even though the project itself doesn't necessarily directly benefit from these infrastructure investments." An idea would be to look at models from other cities, which levy stormwater fees on *all* residential properties (new and existing) to more broadly distribute the costs of these new systems.

Others noted that it would be helpful to have a study that measures the potential environmental benefits that could accrue from reducing the costs of high-density, infill development. In other words, could reducing some of these regulations facilitate the production of more units in buildings that have other significant environmental benefits, such as reduced vehicle miles travelled by residents? Other recommendations included giving MOHCD/OCCI authority to waive requirements that exceed state law if the project costs on an affordable housing development exceed some threshold (e.g., TCAC basis limits) and/or exempting affordable housing from local requirements that exceed state standards or goals. A third suggested approach was to incorporate, depending on the site, more flexibility in the ordinances. For example, while focus group participants were in support of air ventilation policies broadly, there was some discussion as to whether there may be some site-specific flexibility within Article 38 of the San Francisco Health Code which requires comprehensive air ventilation and filtration in new residential developments. There might be room to provide more flexibility in the ordinance for gradients of filtration throughout a project, rather than requiring the same levels of filtration regardless of the risk of pollutant. However, others did note that more flexibility could run into the challenge of introducing more uncertainty in inspections.

## Conclusions

San Francisco's housing crisis demands real solutions, and bringing down construction costs alone will not solve all the complex challenges related to housing supply, displacement, and affordability in the city. However, focus groups and interviews with a range of practitioners revealed that this is an area ripe for intervention. Reducing housing construction costs would be of particular benefit for affordable housing, where every dollar saved translates into subsidy for additional units. Indeed, the key theme to emerge from the focus groups was that although city regulations and processes were implemented with "good intentions," the layering of these requirements can undermine the goal of housing affordability and in some instances creates a situation of "death by a thousand cuts." As one interview respondent put it, "At some point we have to decide whether we care more about housing people or the city's pride at being the "best" at everything."

San Francisco has already taken some important steps to address local cost drivers, and there is a window of opportunity to build on this momentum and do even more to reduce construction costs. The consensus among the practitioners in this study was that the city should take even more direct measures to reduce permitting times, and to introduce more streamlined and predictable reviews and inspections. These inefficiencies rarely produce tangible benefits, but do increase both the hard and soft costs of development.

In addition, in the context of affordable housing, the city should continue to re-consider how it evaluates building designs and requirements. While certain requirements are critical to ensure that all families in San Francisco live in high-quality units, others may be adding extra "bells and whistles" that may not directly benefit residents. Finally, while most regulations do serve other

public benefits, such as local employment, improved public health or environmental conservation, policy-makers should be careful to weigh these benefits against their accumulated costs.

Participants agree that a better understanding of how these various factors intersect with other development costs is critical for developing policy solutions to bring down the cost of housing. To fill this need, the Turner Center has launched a multi-stage effort to better understand the costs associated with building both market rate and affordable housing in the state, everything from impact and service fees to a detailed database of real development projects in California and their line-by-line costs. These efforts will help build an evidence base for the drivers of overall development costs of a project, as well as which policy interventions would be most impactful for expanding the supply of housing.