Political Architecture:

Contextual Development and Opposition to Housing

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Abstract

American cities face a housing affordability crisis, partly because of public opposition to dense housing. Explanations have focused on property values, congestion, or demographics. This literature neglects a factor familiar to urban planners: architecture. We argue that people have *contextual development* preferences and oppose developments that don't "fit" the surrounding neighborhood in height and style. We test this hypothesis with survey experiments employing a novel visual approach with tightly controlled but realistic images of buildings and neighborhoods. We find that buildings which fit are supported more, an effect which isolates the interaction of building architecture and context. The effect holds for homeowners and renters, and urbanites and suburbanites, suggesting it is not driven by concerns over property values or density alone. Moreover, buildings that don't fit prompt intentions to engage in costly political behavior. When we impose tradeoffs, support drops, but remains high, suggesting contextual fit preferences are meaningful.

Introduction

Cities across the world increasingly face a housing affordability crisis. In the United States, residents of nearly all the largest cities spend an increasing share of their incomes on housing. In 2022, half of all renters were cost burdened (Joint Center for Housing Studies 2024). Housing unaffordability is associated with many deleterious consequences, including eviction, homelessness, and constrained access to high-opportunity cities (Chetty et al. 2016; Colburn and Aldern 2022; Ganong and Shoag 2017; Lee et al. 2010; O'Flaherty 2004).[1]

Economists have identified a lack of housing supply as the primary culprit, and point especially to a dearth of multifamily units (Glaeser et al. 2005; Gyourko et al. 2021). This shortage is partly driven by restrictions on the supply of dense new housing, through stringent local land-use regulations (Been et al. 2019; 2024; Glaeser and Gyourko 2002; Gyourko et al. 2008; 2021). These restrictions are motivated, in part, by the fact that dense multifamily housing is unpopular (Larsen and Nyholt 2024b; Marble and Nall 2021; Matheis and Sorens 2024; O'Grady 2020; Trounstine 2023). Scholars have studied many potential motives for this opposition to density. These include perceptions of economic self-interest, concerns over congestion of public goods such as schools, and the desire to exclude poor or minority residents (Banzhaf 2014; Fischel 2005; Hankinson 2018; Hankinson et al. 2024; Krimmel 2022; Marble and Nall 2021; Sahn 2025; Trounstine 2023).

However, one explanation neglected in these studies is architecture, specifically, how the architecture of new development fits into the existing neighborhoods. We argue that people have aesthetic preferences over the architecture of new development. Specifically, they assess how well a proposed building's style and height matches the surrounding buildings. These preferences affect opposition or support for new housing. That is, people have *contextual development* preferences.

Architecture has a long history in public discourse about new housing. For example, the modernist architecture of 'urban renewal' was a frequent source of discord, bemoaned by 'brownstoners' who sought to preserve pre-war townhouse neighborhoods, and is even sometimes blamed for the decline of public housing which was often viewed as ugly and hulking (Hunt 2015; Osman 2011). Recently, similar debates have come up over 'fast casual' architecture: the blocky, unornamented apartment buildings that have become common in many American cities (Capps 2017; Kodé 2023). In addition to stylistic debates, height has long been a bone of contention in local permitting. Regulations restricting the height of new buildings are prevalent (Gyourko et al. 2021). Even in high-rise New York City, laws such as the 'Sliver Law' banned thin high-rises from residential neighborhoods, and recent development of tall buildings has elicited intense public backlash (Carroll 1983; Hinds 1984; Goldberger 2014).

A concept that bridges style and height is *contextualism*, an architectural philosophy that calls for new buildings to be integrated with – or fit – their surrounding built environment, respecting the existing architecture of neighborhoods (Komez Daglioglu 2015). Contextualism emerged as a response to modernism's "disregard for context," and was quickly adopted by a growing preservationist movement in the mid-to-late 1900s (Hamer 2000; Komez Daglioglu 2015). Preservationists have successfully created thousands of historic districts across U.S. cities, often with the explicit aim of restricting development that does not conform to the height and style of the neighborhood. Contextualist ideas have also appeared in other urban planning regulations, such as New York City's contextual zoning regulations or civic design review in cities such as Seattle (Dublin-Boc 2023; National Park Service 2012; Preservation Alliance for Greater Philadelphia 2007; Scheer and Preiser 1994; Smith 2019).

While local discourse has long featured concerns about style, height, and architectural context, there has been little systematic study of their impact on public opinion. To be sure, concerns about architectural context come up frequently in public comments at local meetings about proposed housing (Einstein, Palmer, et al. 2019). In addition, surveys suggest that Americans prefer traditional style buildings (ADAM Architecture 2009; National Civic Art Society 2020; O'Grady 2020), and many studies find that a public dislike of taller or larger apartment buildings (Hankinson 2018; Marble and Nall 2021; O'Grady 2020; Trounstine 2023). However, this literature has left three gaps. First, few studies have systematically varied style as a predictor for support for new housing. Thus, the impact of style per se is unclear. Second, existing studies have not disentangled different explanations for why height is disliked. Is it the impact of a large number of new units and the people they bring, or is height disliked specifically due to its aesthetic impact? Finally, this literature has not focused on the public's preferences for architectural context, that is, how building height and style fit the neighborhood surroundings.

We argue that many people hold intuitive ideas about desirable architecture in their neighborhood, and they support or oppose dense housing partly based on their desire to avoid buildings that do not fit in height and style. That is, citizens have *contextual development* preferences. To test this hypothesis, we measure preferences for style and height, and experimentally manipulate the neighborhood context. Specifically, we show respondents images of proposed apartment buildings that vary in height (2, 4, 5, or 10 stories) and style (modern or traditional), and ask if they would support or oppose the building. In our control arm we do not show the surrounding buildings, allowing us to assess support for different heights and styles without context. This is designed to measure support for the building's architectural attributes per se. In this baseline condition, we find that the taller the building, the lower its support, while building style has no impact. That is, even without any context, people tend to dislike taller buildings.

To assess the impact of context above and beyond height and style per se, our treatment arm varies whether the identical building fits or does not fit by changing the style and height of the *surrounding* buildings. Doing so allows us to isolate the effect of contextual fit from the effect of building height and style.

Compared to the no-surroundings control, citizens prefer buildings which fit on both height and style, by 4 percentage points. Conversely, buildings which don't fit are penalized by 4 percentage points. That is, showing the neighborhood context increases the spread in support between buildings which fit and don't fit by 8 percentage points. Thus, citizens have contextual development preferences and prefer buildings which fit the neighborhood context. The context effect is roughly similar across subgroups, suggesting many Americans have such preferences. Notably, contextual development effects are similar for two theoretically relevant subgroups: between renters and homeowners and between urbanites and suburbanites, while also holding across race, age, and party identification. This suggests that congestion related concerns about density (which are likely higher among suburbanites) or concerns over property values (likely higher among homeowners) are not driving the main effects. In addition, preferences for buildings which fit are associated with preferences for contextual housing policy, suggesting our measure of building support taps a general preference. Further, compared to the no-context control, buildings which don't fit increase intention to engage in costly political behavior (such as attending a local meeting to express their view about the building) by 7 percentage points overall, and 13 points among frequent voters. Finally, most respondents still prefer buildings that fit even when we impose real-world tradeoffs on those buildings.

This paper contributes to our understanding of the motives behind opposition to new housing. We find that preferences towards new housing are context-dependent, that is, anchored by the existing architecture of neighborhoods. This suggests that stringent land-use regulations, which create that architecture, may be remarkably durable, as they alter public opinion about what kind of development is considered appropriate in a neighborhood. Many people dislike development which doesn't fit, even when the developer compensates for it, and express a willingness to take action to block it. These preferences may help explain why local meetings often see intense opposition to so called "out-of-scale" development. Finally, while citizens are responsive to tradeoffs, contextual development remains popular, suggesting that moving the needle towards denser urban development is costly.

Opposition to Housing Development

Scholars have long observed opposition to new housing development. The opposition is particularly intense among residents living near proposed development (a phenomenon often called NIMBYism, "not-in-my-backyard"). An unrepresentative set of citizens particularly opposed to development often engage in costly political such as attending local meetings to stop new housing (Einstein, Glick, et al. 2019; Einstein, Palmer, et al. 2019; Sahn 2024; Schively 2007; Yoder 2020). But opposition to dense housing is not only found among meeting attendees and those living nearby. Rather, dense housing is broadly unpopular. Americans' distaste of density cuts across many demographic cleavages, extending to renters as well homeowner, and even to people who live in dense cities, long theorized proponents of new housing (Hankinson 2018; Hankinson et al. 2024; Trounstine 2023).[2] In experiments testing the effects of many housing attributes, density is often the attribute most penalized (Marble and Nall 2021; Matheis and Sorens 2024; O'Grady 2020; Trounstine 2023).

What explains Americans' distaste of dense new housing? The main existing explanations include concerns over congestion of local public goods (such as schools) or other negative externalities (such as crime); financially self-interested motives such as homeowners' desire to bolster their property values or renters' skepticism that new housing lowers rents; and symbolic attitudes such as dislike of cities or of developers (Banzhaf 2014; Broockman et al. 2024; Fischel 2005; Hankinson 2018; Hankinson et al. 2024; Krimmel 2022; Marble and Nall 2021; Elmendorf et al. 2025; Stiglitz 1982; Trounstine 2023). Most of these existing explanations focus on the *consequences* of density. For example, Trounstine (2023) shows that people associate denser apartment buildings with increased crime and traffic, decreased school quality, and lower property values, and do not think the new units will improve rental affordability.

While the downstream consequences of density likely explain some opposition to dense development, there is an alternative, relatively neglected explanation: the aesthetic impact of the proposed buildings. Many proposed dense buildings are taller or have a different style than their surroundings. Citizens may have discreet preferences about the architecture of new buildings. They may dislike tall buildings per se, or dislike a building's stylistic features, or dislike the mismatch of a building's height or style with the surrounding buildings. That is, existing studies have underexplored the independent effect of building architecture on opposition to new housing, and do not differentiate between density on the one hand, and height, style, and architectural context on the other hand.

There is reason to believe that citizens care about architecture. Concerns over the aesthetic impact of new developments come up frequently in comments in local meetings (Einstein, Palmer, et al. 2019). These concerns involve stylistic concerns as well as concerns about how new buildings match the existing neighborhood. Reports about contentious development often cite these concerns, such as the complaints stylistic choices such as bright colors, paneling, and large blocky massing (Kodé 2023). Surveys suggest that Americans prefer traditional style buildings over the more common modern styles of new development (ADAM Architecture 2009; National Civic Art Society 2020).

However, these attributes have been neglected in prior studies of attitudes about housing. Only one study examined both style and fit, finding a small preference towards buildings that were "traditional style, like other local buildings" (O'Grady 2020). [3] However, this study bundled together style, contextual fit, and density, which we argue are distinct. It also varied architectural context only with text, thereby potentially under-estimating its influence since it likely operates visually. A pair of studies use administrative data about respondent-level building heights in the area, finding that in areas without a single 5-story residential building, respondents oppose taller buildings at higher rates and that residential buildings proposed in areas with at least one newer residential building are opposed at lower rates (Larsen and Nyholt 2024a; 2024b).[4] However, neither study isolates the effect of fit, height, and style. Finally, two studies show visual representations of building height with respect to existing neighborhoods (Hankinson and Benedictis-Kessner 2024; Woodcock et al. 2012). However, both studies show all proposed buildings as taller than existing neighborhoods and do not manipulate style, so they are unable to isolate the effect of fit. We build on all these studies and address their open questions by designing a survey experiment with visuals that precisely manipulate height, style, and contextual fit.

Contextual Development Preferences

We argue that architecture matters. We build on an explanation neglected in the literature, namely, that land-use regulations have a profound impact on the physical look of neighborhoods (Shertzer et al. 2018). This creates 'facts on the ground' that anchor preferences about new housing. We hypothesize that many citizens value maintaining the existing architecture of a neighborhood in and of itself. Specifically, citizens have *contextual development* preferences, that is, they evaluate new housing by how it "fits" into the context of the existing neighborhood. They hold intuitive ideas about the characteristics of desirable architecture in their neighborhood, and dislike housing that does not fit the neighborhood's architectural context.[5] By implication, past decisions towards land-use regulation, such as single-family zoning or height restrictions, can become self-reinforcing and reduce support for denser development due to public opinion which favors lower density housing.

To test this explanation, we examine public opinion about the architecture of proposed apartment buildings and their fit with the surroundings. First, we measure preferences towards the architecture of a building. For simplicity, we study two physical attributes of a building: its style, and its height. Style describes the genre of architecture (i.e., Victorian, Brutalist, etc.), including the building materials, colors, and other aesthetic features. We focus on two broad styles: traditional or modern. Our traditional buildings are more ornamented and use brick materials and warm tones, reflecting themes common in older housing stock. Our modern buildings are less ornamented, use paneling and glass materials, and black and white cooler tones. While this collapses the diversity of architectural styles and bundles together many stylistic attributes, our manipulation allows us to generate strong treatments containing the most relevant stylistic differences. Height simply describes the number of stories in a building. We tie the number of units in the building to its height.[6]

*H1: respondents prefer traditional style architecture (*in line with the sparse survey work on style and anecdotal reporting about style*)*

*H2: respondents prefer shorter buildings (*in line with robust findings in the literature about density).[7]

Second, we focus on the fit of a proposed building with the surrounding neighborhood context. In prior literature, when building attributes have been studied, their impacts are assumed to be fixed. For example, scholars assume that people have a preference over how tall a building should be regardless of what surrounds it. But, as elaborated above, there is reason to think attitudes towards new construction depend on the built environment of a neighborhood. For example, citizens may dislike tall buildings proposed in a less dense suburb but support construction in a denser city center. Or, they may dislike modern building styles (common in new development) only in neighborhoods with traditional buildings.

Our definition of contextual development is based on a concept often referred to by urban planners and architects as "Contextualism", a viewpoint that development should relate to the surrounding neighborhood (Komez Daglioglu 2015; Abrar 2021). Contextualism is a broad concept which can prescribe that a new building respect the physical context of a neighborhood as well as its cultural history and traditions. This philosophy can be encapsulated by American architect Robert Venturi: *"*a building is not a self-contained object but a part in a whole composition relative to other parts and the whole" (Komez Daglioglu 2015, pp. 273–74). We focus specifically on "Physical Contextualism", which emphasizes that new development should be harmonious with the physical characteristics of a neighborhood, such as building density, style, street layout, or topography (Højriis et al. 2014). We define a development as being contextual when it matches both the prevailing height and style of the immediate surrounding buildings (See Table 1).

Table 1. Definition of Fit, Relative to Neighborhood Context

		Building Height	
		Same	Different
Building Style	Same	**Fits**	Partially Fits
	Different	Partially Fits	**Does Not Fit**

H3: We hypothesize that buildings which fit the neighborhood context will be preferred relative to the same building without context. Conversely, those which do not fit the neighborhood context will be opposed at higher rates relative to the same building without context.[8]

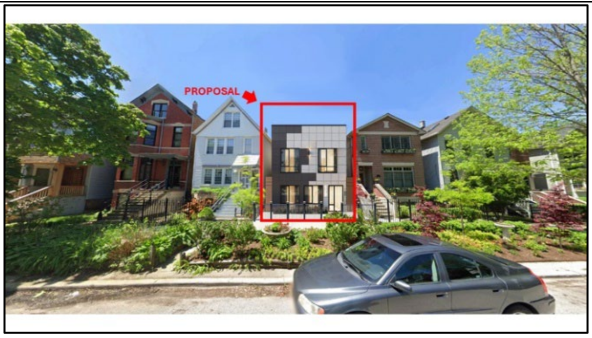
This preference for buildings which fit is not driven by attitudes about a specific building's height, style, parking, affordability, or otherwise. Rather, it is driven entirely by the interaction between the building's attributes to the attributes of the surrounding buildings.

Research Design

To test the effect of architecture and isolate preferences regarding contextual development, we conducted two survey experiments, one in the summer of 2024 (survey 1, N=902) and one in the winter of 2025 (survey 2, N=658).[9] Both surveys sampled U.S. adults who live in the 30 largest metropolitan areas and live in a zip code with at least 500 people per square mile. This screens out low-density rural and exurban respondents, targeting respondents for whom new dense development is relevant.[10] Unless otherwise noted, we combine these surveys (combined N=1,252).[11] (See Appendix A. Sampling, Balance, Representativeness).

Table 2 summarizes the design. We asked each respondent to evaluate 8 building proposals, which vary on height (2, 4, 5, or 10 stories) and style (modern or traditional) in random order.[12] Each proposal shows a visual rendering of the proposed building and a text description (See appendix for text). We randomize between-respondent if each of these buildings is shown with neighborhood context (treatment) or without neighborhood context (control).[13] That is, respondents got all 8 buildings either with context or without context. Figure 1 shows an example of a treatment and control rendering. To test H1 and H2, we estimate the effects of height and style within the control arm. The comparison of the treatment to the control tests H3, the effect of context. Specifically, the treatment arm has 4 context conditions: the building fits, partially fits in style (fits in style but not height), partially fits in height (fits in height but not style), or doesn't fit (see Figure 2).[14] Respondents in our context condition only evaluate traditional style neighborhoods, a limitation of our design, but a decision which maximizes external validity, as these types of neighborhoods often experience the greatest pressures for and resistance to densification. Respondents randomized to view the context saw all four context conditions, in random order. Because the buildings are identical except for the presence or absence of context, we can assess the pure impact of context. Importantly, this holds constant the building's density, neutralizing any associations respondents have with buildings containing more units. If respondents dislike tall buildings because they have more units than short buildings, this association is equally present in the treatment and control arms (See Appendix D. Survey Instruments for all images).

Figure 1. Example of Treatment and Control Renderings

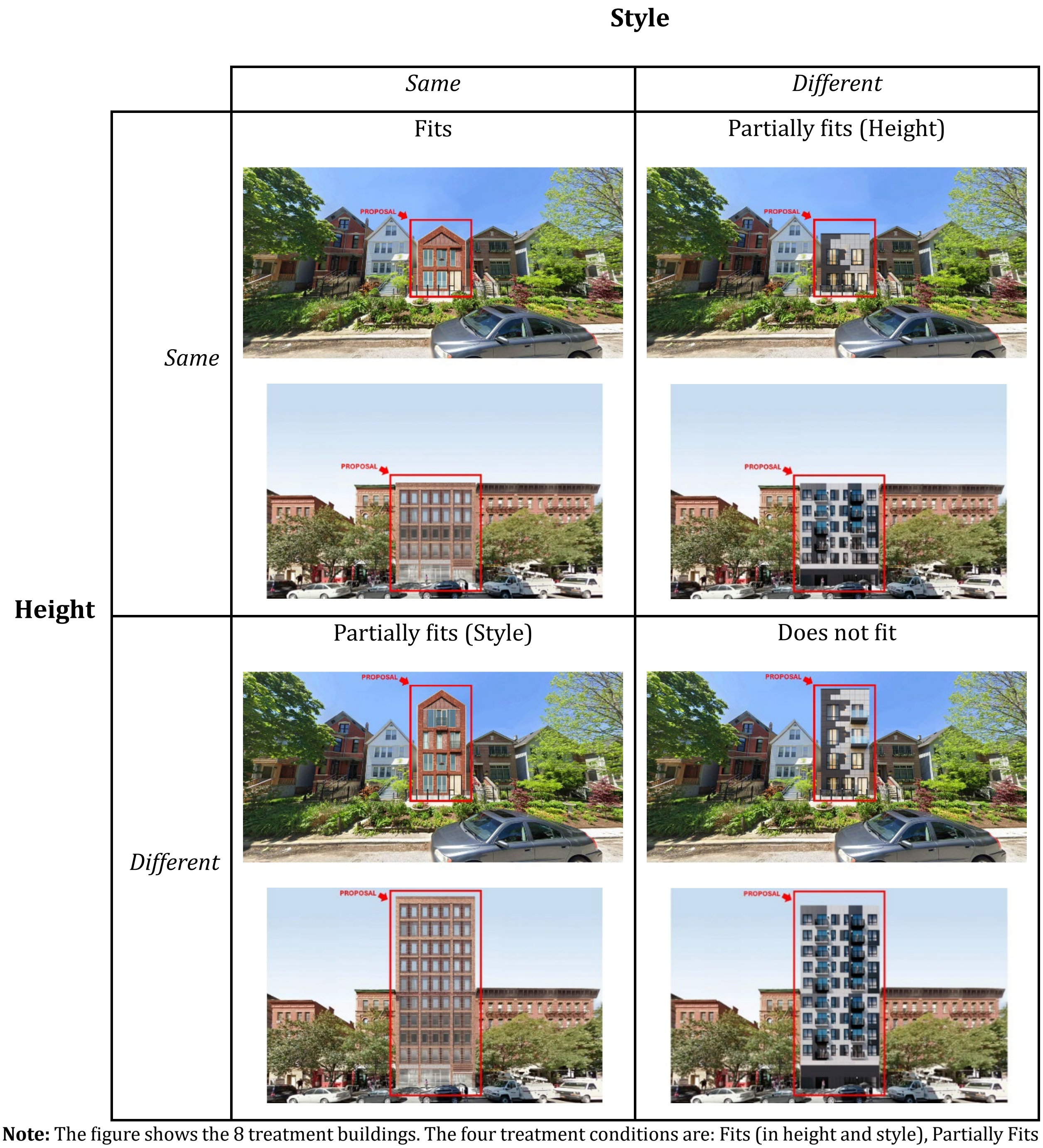
Treatment	**Control**
	

Note: This shows an identical building with context ('treatment') and without ('control'). In this example, the building is modern and two stories, and this treatment arm shows a fit in height but not style.

Table 2. Context Experiment Design: Building Height and Style By Condition

TREATMENT (With Neighborhood Context)	CONTROL (No Context)
Fit	
2-story traditional building *in a 2-story traditional neighborhood*	2-story traditional building
5-story traditional building *in a 5-story traditional neighborhood*	5-story traditional building
Partial Fit (Height)	
2-story modern building *in a 2-story traditional neighborhood*	2-story modern building
5-story modern building *in a 5-story traditional neighborhood*	5-story modern building
Partial Fit (Style)	
4-story traditional building *in a 2-story traditional neighborhood*	4-story traditional building
10-story traditional building *in a 5-story traditional neighborhood*	10-story traditional building
Doesn't fit	
4-story modern building *in a 5-story traditional neighborhood*	4-story modern building
10-story traditional building *in a 5-story traditional neighborhood*	10-story traditional building

Figure 2. Context Treatment Conditions



Note: The figure shows the 8 treatment buildings. The four treatment conditions are: Fits (in height and style), Partially Fits (in height), Partially Fits (in Style), Does Not Fit (in height and style). Each treatment condition includes two different neighborhoods, for robustness.

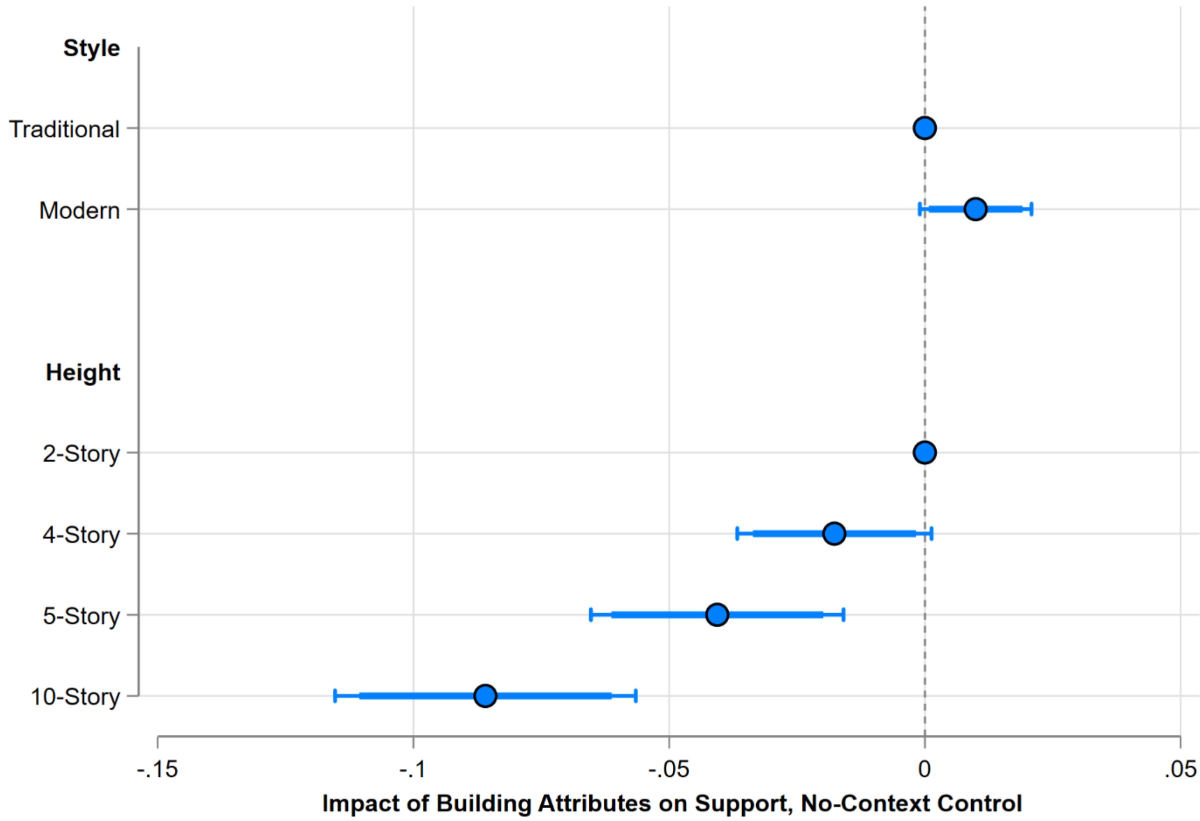
As Appendix Figure B1 shows, the text description is identical for all buildings, holding constant the parking, the developer's contribution (the developer will pay a tax), and the affordability and the percent of units set aside for that income. These attributes have been found to affect support for development (Hankinson and Benedictis-Kessner 2024; Trounstine 2023). The rent and income level were customized to a respondent's metropolitan area and remained fixed within respondent. (See Appendix E. Affordability). This improves plausibility, and removes measurement error about the perceived class of the tenants. [15] For each building, we ask respondents for their level of support for the building on a 5-point Likert scale, ranging from Strongly Oppose to Strongly Support. We recode these ratings on a continuous 0 to 1 scale, where 1 is Strongly Support, for ease of interpretation. [16] In survey 2, we also gauge behavioral intentions and assess the robustness of preferences to realistic tradeoffs (explained below). In both surveys we then asked respondents policy questions about housing development.

Does Building Architecture Affect Support for New Housing?

First, we test H1 and H2, estimating the effects of building height and style. We asked control respondents to evaluate all 8 buildings in random order, without neighborhood context. The 8 buildings vary in style and height. We regress support for the building on style and height, only among the control group. This analysis is within-respondent, so we use varying intercepts and clustered standard errors at the respondent level. We find that style has no effect, disconfirming our pre-registered hypothesis that citizens prefer traditional style (H1). By contrast, height has a large, precise effect, confirming H2. Support for the building declines as its height increases (see Figure 3).

To be sure, this may be an artifact of the specific buildings we tested, or perhaps respondents read other attributes into style (such as construction quality). Nevertheless, this finding challenges the often-argued notion that most people prefer traditional buildings. In additional analysis, we find that respondents rate the modern building as more 'attractive' than the traditional building.[17] In sum, without information about neighborhood context, style does not affect support, while height does.

Figure 3. Effect of Height and Style on Support for Building Proposal, No-Context Control



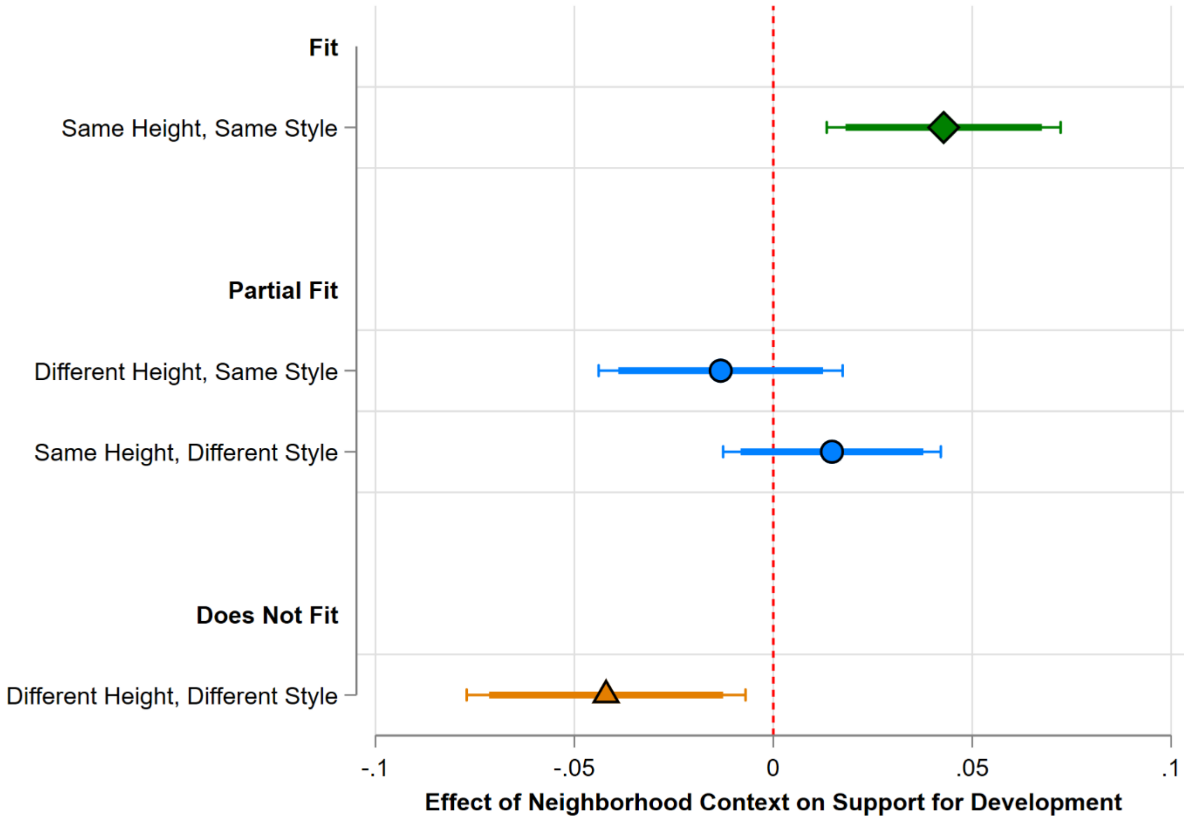
Note: 90% confidence intervals in bold, 95% confidence intervals in caps. Varying intercept and clustered standard errors at the respondent level.

Do Citizens Have Contextual Development Preferences?

Next, we test H3, our contextual preferences hypothesis. We predicted that people evaluate new buildings according to their architectural fit. This can help reveal whether distaste for density is not solely driven by concerns that adding more units will reduce property values, increase public goods congestion, or alter the neighborhood's demographic composition. To test this hypothesis, we compare support for otherwise identical buildings across the treatment and control group. This analysis causally isolates the effect of showing neighborhood context on support for housing and the correspondent architectural fit condition created as a result, holding fixed all other attributes of the building, including style, height, and density.[18]

Compared to the identical buildings absent context, buildings that fit on both height and style are preferred by 4.3 percentage points (9.3%) (see Figure 4). Conversely, buildings that don't fit are penalized by 4.2 percentage points compared to identical buildings absent context (9.5%).[19] That is, showing the neighborhood context increases the spread in support between buildings which fit and don't fit by 8.5 percentage points (18 percent over the average support for all eight buildings). A partial fit on either height or style has no impact. These results show that respondents have contextual development preferences. Buildings which fit are preferred while those that don't fit are disfavored. In addition, Appendix Table B1 and Appendix Figure B2 also show that taller buildings that fit in height are preferred to shorter buildings that don't fit, but only in the treatment arm, where a 5-story building is preferred over a 4-story building (by 5 to 7 percentage points, depending on style). In the no-context control, support falls as height increases. This finding helps confirm that these results are picking up on contextual preferences, rather than preferences about height or density. If concerns about density were driving results, we should not observe only respondents in our treatment arm preferring taller buildings over shorter ones.

Figure 4. Treatment Effect of Neighborhood Context on Support for Building



Note: Intercept varies at the CSA level, clustered standard errors as the CSA level. Models control for survey number. 90% confidence intervals in bold, 95% confidence intervals in caps.

In survey 2, we followed up with questions about costly behavioral intentions. These include: would attend a meeting to voice their opinion, would write to their local elected official, and what they would write (we count the number of words).[20] When the building doesn't fit, respondents are 7 percentage points (14.7%) more likely to say they would attend a meeting or write their local elected official compared to the identical control buildings ($p < 0.05$). This effect is larger still among frequent local voters (13 percentage points, or 30.2%, $p<0.05$) and null among infrequent local voters.[21] These intentions are unaffected when the building fits.[22] While buildings that fit and don't fit elicit symmetric effects on *attitudes*, only buildings that don't fit affect *behavioral intentions*. This may help explain why opponents are overrepresented in local meetings (Einstein, Glick, et al. 2019; Sahn 2024). Opponents may take action against buildings that don't fit their neighborhood, while supporters of denser or modern buildings do not. [23]

Who Cares About Neighborhood Context? Subgroup Effects

Whose preferences are affected by neighborhood context? We focus on two theoretically relevant cleavages in the urban politics literature: homeowners vs. renters, and urbanites vs suburbanites.

Homeowners have long been theorized to oppose new housing development due to financial self-interest, as new housing may pose a risk to their property values (Fischel 2005). Findings for renters are mixed. Some studies argue they are natural proponents of new supply, as new supply can reduce rents (Marble and Nall 2021) while other studies find that renters sometimes oppose new housing, perhaps due to fear of gentrification or displacement, or general skepticism that new supply reduces housing prices (Hankinson 2018; Hankinson et al. 2024; Elmendorf et al. 2025). What do these findings suggest about homeowners' and renters' contextual development preferences? There is some evidence that suggests neighborhood "look and feel" affect the price of housing, with more architecturally homogenous neighborhoods having higher property values (Lindenthal 2020; Sachdeva et al. 2022). If this is true (or, perceived as true) and homeowners' preferences are driven by self-interest, homeowners may be more responsive to buildings which fit, as this could improve their home values. Conversely, renters may be less responsive, as buildings which fit may raise rents.

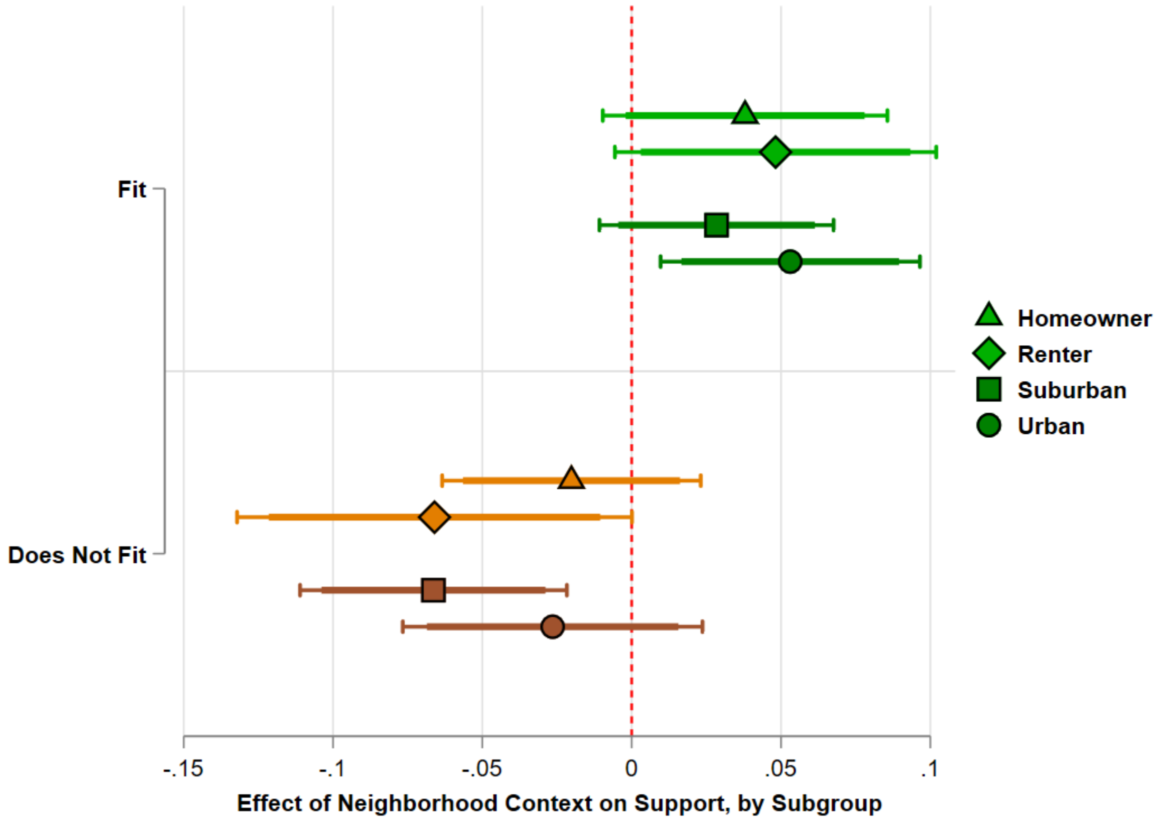
Figure 5 shows the results. The effect of buildings which fit and don't fit (compared to the no-context control) is the same for homeowners and renters.[24] This suggests that concerns over property values and rents are not driving our treatment effect. While we did not ask about anticipated impacts on housing prices, for financially self-interested concerns to be driving our results, renters should anticipate that buildings which fit *decrease* rents while buildings which don't fit *increase* rent compared to the <u>same</u> buildings without context (as a reminder, we held all attributes other than neighborhood context fixed, including rent and affordability levels which were precisely defined dollar amounts). The opposite should be true of homeowners. Given that recent literature has shown that homeowners and renters alike are skeptical of the ability of new construction to change housing prices (Elmendorf et al. 2025), we find it unlikely that financial self-interest is driving our results, although we cannot conclusively rule out that this is the case.

The drastically different land-use regimes between suburbia and cities have long been a focus of urban politics scholars. That research documents the creation of suburbia and explores the motives behind the creation of exclusionary low-density zoning (Brouwer and Trounstine 2024; Sahn 2025; Schuetz 2009; Trounstine 2018; 2020). The suburban-urban cleavage in public opinion about housing development is less well documented, but has garnered increasing attention at the national level (Rodden 2019). For example, symbolic attitudes about cities better explain opposition to new housing than homeownership (Broockman et al. 2024). Additionally, suburbanites have strong anti-density preferences and a strong affinity towards the suburban status quo, and many specifically moved to suburbs to seek a lower density way of life (Ternullo 2024). Finally, while Trounstine (2023) finds no difference in support for apartment buildings based on urban or suburban respondent location, suburbanites do prefer single-family homes. Based on these findings, we hypothesize that suburbanites operate with a mental model that new buildings should fit. Buildings that don't fit violate these expectations, thereby activating opposition. The opposite is true for urbanites, who would not expect all buildings to have similar style and height. For them, buildings that fit the neighborhood are less expected but nevertheless preferred if offered. Thus, we hypothesized that urbanites will reward development that fits and suburbanites will penalize development that doesn't fit.[25]

As Figure 5 shows, the results are somewhat consistent with that expectation. Buildings which fit see increased support among urban respondents. Buildings which don't fit see lower support among suburbanites. That said, the fit effects for urban and suburban respondents are not statistically distinguishable. Urbanites and suburbanites are similarly responsive to fit.

Appendix Figure 5 also shows that effects of neighborhood context for buildings which fit and don't are roughly similar by party identification, age, and race. Together, these suggest that contextual development preferences are widely held across many demographic and political cleavages. While we cannot rule out alternative mechanisms, such as symbolic or racial considerations of who will inhabit new buildings, these findings help assuage concerns about alternative mechanisms, rather than preferences for contextual development specifically, driving our findings.[26]

Figure 5. Treatment Effect of Neighborhood Context, by Subgroups



Note: Intercept varies at the CSA level, clustered standard errors as the CSA level. Models control for survey number. 90% confidence intervals in bold, 95% confidence intervals in caps.

How Strong Are Contextual Development Preferences? Imposing Realistic Tradeoffs

We found that citizens reward buildings which fit and penalize buildings which don't fit the architectural context of neighborhoods. However, policy experts underscore that solving the housing crisis requires additional density, which often requires development which doesn't fit. Taller multifamily development decreases marginal costs from additional floors (Eriksen and Orlando 2022). Additionally, a building's shell and façade often make up around 25 to 30% of total hard construction costs, and traditional building materials like brick are more expensive (Hoyt and Schuetz 2020). Therefore, traditional and short buildings carry a higher cost. The result is that development which fits the architectural context of neighborhoods often houses fewer people and may be less affordable. We ask whether contextual development preferences give way to tradeoffs in cost and benefit. Does imposing a cost erode support for buildings which fit? By the same token, does opposition to buildings which don't fit soften with compensation?

To answer these questions, in survey 2 we showed each respondent two buildings they had seen before. All respondents saw the same two buildings: a 5-story traditional building (A), and a 10-story modern building (B). Control respondents saw these two buildings without context, while treatment respondents saw these same buildings with context, as they had before. Building A fits, while Building B doesn't fit. We asked respondents to choose A or B. Then, we exposed respondents to two additional conditions in random order – '*cost'*, and '*benefit'* – and asked them to choose between the same two buildings after each condition. In the benefit condition, we informed respondents that new buildings sometimes provide community benefits such as contributions to a park, that traditional style buildings are more expensive and have less money left for such benefits, and the modern building will provide $500,000 in community benefits while the traditional building will not. In the cost condition, we informed respondents that local governments sometimes help new buildings cover construction costs with grants or tax cuts paid by tax increases or service cuts, that traditional buildings are more expensive, and the traditional building will be given $500,000 while the modern building will not.[27] (See Appendix D2. Survey 2 for question wording). These tradeoffs mimic realistic tradeoffs. Community benefit agreements are more typical for larger buildings, while smaller buildings which fit are typically more costly to taxpayers. (See Table 3). [28] As a result, we do not fully randomize (i.e., we do not provide a community benefit agreement for the shorter traditional building) because our aim is to test what it would take to pull people away from buildings which fit.

We hypothesized that costs inflicted by the building which fits, and benefits offered by the building which doesn't fit, mute the preference towards buildings that fit and eliminate the effect of context.[29] Figure 6 displays our results. First, in the baseline condition, we see the expected, familiar preference for fit. Specifically, in the baseline question, where respondents are asked to choose between the building which fits and the building which does not fit, respondents in the treatment arm chose the building that fits more often – by 12 percentage points relative to the control arm – replicating our findings that context matters.

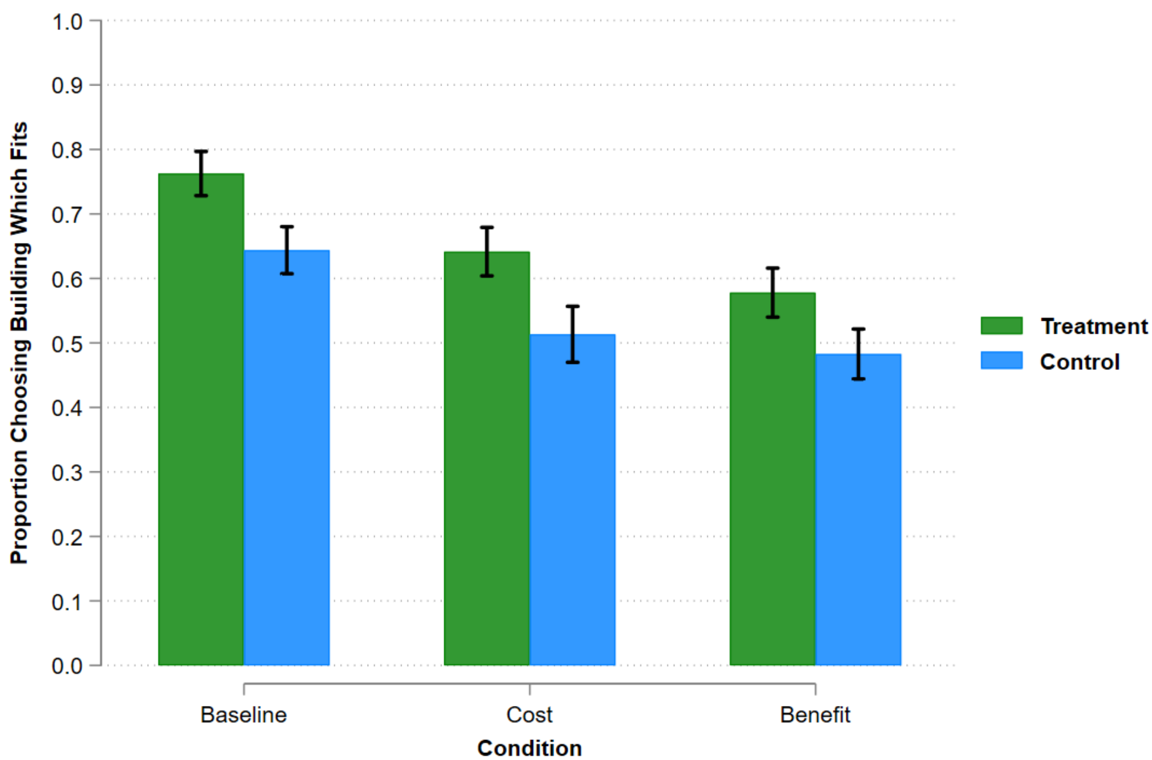
Table 3. Tradeoffs Experiment Design

	TREATMENT (With Neighborhood Context)		**CONTROL** (No Context)	
Baseline	Building A Fits 5-story traditional	Building B Doesn't Fit 10-story modern	Building A 5-story traditional	Building B 10-story modern
Cost	+ $500,000 to developer	Same as baseline	+ $500,000 to developer	Same as baseline
Benefit	Same as baseline	+ $500,000 for community	Same as baseline	+ $500,000 for community

When we impose a cost for the building which fits, support for that building falls by 12 percentage points in the treatment group and 13 percentage points in the control group.

Likewise, when we provide a benefit from the building which doesn't fit, support for the building which fits falls, by 18 percentage points in the treatment group and 16 percentage points in the control group.[30] Costs and benefits do soften support for buildings that fit, as expected.

Figure 6. Preference for Building Which Fits, by Cost/Benefit and by Context Treatment



Note: Intercept varies at the respondent level, clustered standard errors as the respondent level. 95 percent confidence intervals in caps.

However, while citizens are responsive to these tradeoffs, the treatment effect of neighborhood context remains robust. The 12 point context effect in the baseline hardly differs from the 13 and 9 point effects in the cost and benefit conditions.[31] This disconfirms our expectation that tradeoffs eliminate contextual effects. Contextual development preferences persist in the face of competing considerations. Moreover, buildings which fit remain popular even with these tradeoffs: even in the benefit condition, where the loss of support for the building that fits is greatest, 58% of respondents still support that building (51% in our weighted sample – see Appendix Table B4).

Finally, one may wonder whether decisions about specific buildings say much about policy preferences. To address this concern, we asked respondents if they would support or oppose each of a list of hypothetical policies in their city. Two relate directly to contextual development: (1) contextual zoning ("pass housing rules that require new apartments to fit into the existing neighborhood height and style") and (2) historic districting ("pass housing rules that stop the demolition of existing buildings in historic neighborhoods and require local government approval for all new construction"). We recode the four-point response scales into binary support or opposition for each policy. [32] We find large majority support for these contextual policies: 84% support contextual zoning (SD = 0.37), and 82% support historic districting (SD = 0.38). These are among the most popular of all housing policies we surveyed. (See Appendix Table B2). [33] Moreover, these policy preferences correlate with building fit preferences: respondents who chose buildings that fit over buildings that don't fit are 15 points more supportive of contextual zoning and 13 points more supportive of historic districting (see Appendix Table B5). Finally, these policy preferences for contextual zoning and historic districting are not an artifact of generalized opposition to housing or 'NIMBYism;' support for these policies is identical among opponents and supporters of upzoning, a policy allowing more development citywide (see Appendix Table B5).[34] [35]

Discussion

Our findings help advance our understanding of public opinion about housing development. Consistent with many prior studies, we find that citizens dislike dense development. However, unlike prior studies, we find that preferences over the density of new buildings respond to *existing* neighborhood density. That is, citizens have contextual development preferences. They do not oppose large buildings only because they dislike large buildings. In fact, they prefer somewhat larger buildings that fit over smaller buildings that don't fit the neighborhood context. If citizens' opposition to density was solely driven by concerns over congestion or neighborhood demographic change, then preferences over building height should not change with neighborhood context, and yet we find they do. While our analysis cannot definitively rule out self-interested expectations over property values and rents, our control arm holds those concerns constant by showing the identical building with identical number of units, rent, and affordability levels. In addition, homeowners do not disproportionately prefer buildings that fit over renters. Taken together, the results suggest that respondents support buildings which fit as a value in-and-of-itself.

The existence of contextual development preferences has implications for the prospects of land-use regulatory change and the persistence of segregation. Past decisions over land-use regulations can "lock in" said regulations through path dependence (Mahoney 2000). Land-use regulations have a profound, long-term impacts on the built-environment (Shertzer et al. 2018). We show that the neighborhoods created by these regulations anchor preferences over new development. This seems to be particularly salient in suburbs, where development which don't fit may face particular challenges (Schuetz 2009). We show such developments mobilize costly political behavior, including meeting attendance and contacting local representatives. Therefore, neighborhoods created by exclusionary zoning regulations of the past can be difficult to change. Even if citizens no longer harbor explicitly racially exclusionary attitudes – an attitude linked to the initial adoption of many stringent land-use regulations – their desire for contextual fit makes densification difficult, limiting the opportunity for newcomers to move into high opportunity neighborhoods, further entrenching racial and economic segregation (Trounstine 2020; Sahn 2025).

Seemingly innocuous contextual preferences for buildings that fit may already be influencing policy design. For example, in an op-ed announcing their plan for new affordable housing, Representative Alexandria Ocasio-Cortez and Senator Tina Smith argued that "we know that housing looks a lot different in Bemidji, Minn., than in the Bronx. It shouldn't be a one-size-fits-all approach. That's why our bill would task local governments ... with developing homes that ***blend seamlessly into the landscape of the town*** and fit the needs of the people living in them."[36] (Emphasis added). Moreover, we find that policies that respect neighborhood context are very popular. We find that 84 and 82% of respondents support contextual zoning and historic districting regulations, respectively. Support is high even among increasingly relevant supporters of pro-density policies, often called YIMBYs (for 'yes-in-my-backyard'), suggesting that preferences for contextual development are not simply tapping NIMBY opposition to all housing. However, these contextual policies often end up restricting development. For example, the contextual zoning regulations adopted in many (primary lower-density affluent) neighborhoods in New York City or historic districts adopted in many cities nationwide deepen the housing affordability crisis and entrench racial and economic segregation (Bologna Pavlik and Zhou 2023; Dublin-Boc 2023; McCabe and Ellen 2016; Rothwell and Massey 2009; Trounstine 2020; Zhou 2021). While the preference towards contextual development may be innocuous, the consequences of context-preserving regulations are not.

Our findings imply that policy makers should consider the future implications of land-use decisions. Policy makers should be careful to design current regulations in such a way that they do not preclude future densification. For example, encouraging a diversity of building heights and styles in new development districts rather than zoning for uniformity could help soften future opposition to dense development. However, altering current regulations is likely difficult, as our findings reinforce the sense that there are no easy ways to increase support for dense multifamily housing. Solving the housing affordability crisis involves construction that is not a perfect match for existing neighborhoods, requiring greater densities (Ahlfeldt et al. 2023).[37] Since traditional building materials are more expensive than modern alternatives, and given the very small improvements in public support for traditional over modern styles, it's perhaps no surprise that architects and developers often chose more modern building styles. While creating community benefit agreements for buildings which don't fit did improve support in our surveys, most of our respondents still preferred the building which fit, suggesting that the amount of money necessary for denser development to overcome opposition may in many cases be economically infeasible (Hankinson and Benedictis-Kessner 2024). That said, a more hopeful conclusion might be that even in low density areas, "out of scale" buildings still have decent support, despite being twice as tall as the neighborhood, modern, and having no parking.

Finally, for scholars of public opinion around housing development, we hope our findings and methodological choices help inform future work. Scholars who want to understand public opinion about density should be careful to avoid inadvertently picking up neighborhood context effects, particularly when new developments are being evaluated in a respondent's own neighborhood. Asking respondents about the density of their neighborhoods, and custom tailoring building proposals as ratios of existing surroundings, rather than comparing absolute levels, may help sharpen estimates for preferences around density and help avoid conflating these preferences with those anchored by neighborhood context. Additionally, we find little evidence that our inclusion of images helped reduce variance in our outcome (See Appendix Table C1) and find that building style has little independent effect. Respondents seem to be capable of giving high quality preferences over new housing development from text-only descriptions, even if images are more externally valid, lessening the need for images unless there is a theoretically relevant reason for their inclusion (such as interest in neighborhood context or stylistic effects).

This paper measures citizen preferences about building style and height, and how contextual information about existing neighborhoods alters development preferences. We present a novel research strategy that isolates this interactive effect of neighborhood context on building preferences. This demonstrates how preferences over new development are dependent on context, informed by past land-use decisions. This adds a new explanation to our understanding of motives behind opposition to new dense housing. Additionally, this study suggests that contextual development preferences may make existing land-use regulations particularly hard to modify and helps inform future research that should be cognizant of how treatments interact with existing respondent-level neighborhood conditions.

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[1] The lack of housing supply is particularly acute in large cities with high economic opportunity, such as, New York, San Francisco, or Boston, but has increasingly afflicted smaller cities or towns (Gyourko et al. 2013).

[2] Even in urban centers, which offer a large number of high-quality jobs and generate substantial demand for housing, stringent land-use regulations and opposition to new multifamily housing have constrained the supply of housing and created shortages of dense housing (Gyourko et al. 2021; Hsieh and Moretti 2019).

[3] This study had two stylistic levels: "traditional style, like other local buildings," and "a new modern style."

[4] This study defines a building proposal as a fit if the target area (1) has at least give buildings, (2) one of which was build post-1992, and (3) one is a residential building. Otherwise, the buildings do not fit.

[5] A common term used by opponents of new housing is that new housing is "out-of-scale" Talen (2024).

[6] We triple the number of units as we double the number of floors, to account for the fact that building area increases as a cubic function. This follows the density to height rule used by Hankinson & de Benedictis-Kessner (2024).

[7] These correspond to H1 and H2 in our pre-analysis plan: osf.io/fsj9z.

[8] Corresponds to H3 and H5 in the pre-analysis plan.

[9] We used Qualtrics to administer the survey. Respondent recruitment was conducted by survey firm Bovitz-Forthright. This study was approved by the Princeton University Review Board Protocol No. 16799.

[10] These areas represent around 180 million Americans. We set this minimum density threshold to ensure that the images of new developments and their neighborhood contexts are plausible for respondents. This sampling reflects a blend of prior sampling strategies used by other scholars (Marble and Nall 2021; Elmendorf et al. 2025; Trounstine 2023). (See Appendix: Sampling Strategy for more details).

[11] In all analyses, we include a dummy variable for the survey number to account for time-varying effects across the surveys. Respondents of survey 1 were excluded from taking survey 2.

[12] The number of units increased proportionately with height.

[13] In Survey 1, we included an additional between-subjects pure control arm, which did not see any images and evaluated text only (N=308). We used this arm to evaluate the effect of style, by comparing support for same height buildings without images against the no-context control with images. We also pre-registered (H6 in the pre-analysis plan) a comparison of the standard deviations to assess if showing images reduces the variance in support. We found no difference between the no-image pure control and the control with images. The results are in Appendix C: Pre-Registered Analyses).

[14] All treatment neighborhoods show the traditional style. Vary neighborhood height: we use a low-density neighborhood where the prevailing height is 2-stories, and a medium-density neighborhood where the prevailing height is 5-stories. We restrict the 2-and-4 story buildings to the low-density neighborhood, and the 5-and-10 story buildings to the medium-density neighborhood. The pictured neighborhoods are Lincoln Park, Chicago (low-density neighborhood) and Upper West Side, New York City (medium-density neighborhood), as they are traditional style neighborhoods that have been historically designated and are reflective of the types of places where proposals for new apartment buildings face considerable resistance.

[15] To account for treatment variation at the CSA level, we cluster standard errors at the CSA level and run across-respondent models with random intercepts at the CSA level (results are robust to other model specifications, such as OLS or fixed effects at the CSA level).

[16] We also measured demographics, political participation, and attention and data quality checks.

[17] In a separate task among our pure control arm, we asked respondents to evaluate the attractiveness of our buildings on a scale from "very unattractive" to "very attractive". We found they rated the modern building as more attractive, by 8.4 percentage points (14.8%).

[18] This analysis combines low and medium neighborhood density. We preregistered a separate analysis of each neighborhood density, but since they yield similar results, we have combined the two for ease of interpretation. See Figure B2 in Appendix B. Additional Models.

[19] This effect is similar across the low- and medium- density neighborhoods, although only statistically significant at the p<0.05 level for the low-density neighborhood. See Figure B3 in Appendix B. Additional Models.

[20] To reduce survey length and avoid respondent fatigue, respondents were only followed-up about buildings most relevant for them: for suburbanites, low-density buildings, for urbanites, medium-density buildings. We also only follow-up on buildings which fit the context and do not fit the context, dropping the follow-up questions for partial fits.

[21] This subgroup analysis was not pre-registered. Frequent local voters are respondents who identified they vote "often" or "always" in local elections.

[22] The effect is also null among frequent (8.6 percentage points, p = 0.155) and infrequent local voters (-6.3 percentage points, p=0.152).

[23] Preference intensity shows a similar pattern to behavioral intention. We asked opponents if they would rather see something built but with modifications, or nothing built. Buildings which fit see no change in intense opposition, whereas buildings which don't fit see a 5-percentage point increase in respondents saying they would rather see nothing built at all (p<0.05). See Appendix Figure B4.

[24] Partial fit conditions (not shown) are similarly null among the subgroups. We did not pre-register a prediction by homeownership status.

[25] Corresponds to H12 and H13 in the pre-analysis plan for survey 2.

[26] For example, it's possible that respondents may have racialized interpenetrations of fit (such as preference for racial homophily) given that our treatment neighborhood images are taken from places which are affluent and White. However, our treatment effects are similar among White Republicans as they are among White Democrats and non-White Democrats. Alternatively, recent scholarship suggests age is a powerful predictor of 'yes -in-my-backyard' (YIMBY) attitudes (Holleran 2020; Einstein et al. 2025), but we find similar treatment effects across all our age groups.

[27] We hold fixed the value of both the cost and benefit at $500,000, based on values in Hankinson and de Benedictis-Kesser (2024).

[28] We randomized whether the building receiving the cost or benefit appears on the left or right of the screen, so building labels A or B are flipped for some respondents, to avoid nuisance effects.

[29] Corresponds to hypotheses H9 and H10 in the pre-analysis plan.

[30] There is no statistically significant difference between the cost and benefit conditions.

[31] These effects in the cost and benefit conditions are statistically significant at .01 and .05, respectively.

[32] "Strongly support" or "somewhat support" are coded 1, and "strongly oppose" or "somewhat oppose" are 0. We exclude respondents who skipped the question.

[33] In both surveys, we asked all respondents about their support for: historic preservation, contextual zoning (where new buildings must fit with surrounding neighborhoods), bans on new housing (similar to the San Francisco Proposition featured in Hankinson (2018)), and upzoning (allowing for denser housing, for both smaller and larger development). The combined N for these five policies is about 1,550. In survey 1, respondents were also asked about other policies, reported in Appendix.

[34] Our measure of support for upzoning is: "Pass housing rules that allow property owners to build large apartment buildings on any residential lot, such as towers or other high-rises."

[35] We preregistered but did not find treatment effects on support for any policies.

[36] Ocasio-Cortez, A. and Smith, T. (Sept. 18, 2024). "Our Solution to the Housing Crisis." *The New York Times*.

[37] We do not find, for example, that changing the style of denser development to match the existing neighborhood does much to improve public support, with the independent effect of style matching neighborhood surroundings being small, only 1.9 percentage points. The negative impact of density far outweighs any improvement in support harmonizing style.

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Online Appendix to Political Architecture: Contextual Development and Opposition to Housing

Contents

Appendix A. Sampling, Balance, Representativeness

Appendix A1. Sampling Strategy

We targeted a sample of metropolitan residents most impacted by the housing affordability crisis. We chose residents of the 30 largest Combined Statistical Areas (CSAs), defined by total population, as of the 2022 American Community Survey (ACS). These metropolitan areas are highly impacted by the housing affordability crisis, which more acutely impacts urban areas, and represented a manageable sample of metropolitan areas where we could research existing urban housing regulations in central cities which we used to inform other survey design decisions (such as affordability definitions – see Appendix E. Affordability). This approach mirrors Marble and Nall (2021), who sample the 20 largest CSAs.

Since our treatments are images of urban and dense-suburban infill development, we wanted to exclude respondents from lower-density suburbs and exurbs for whom the treatments would be unrealistic. We set a zip code population density criteria of 500 people per square mile in order to qualify for the survey. Density statistics were also as of the 2022 American Community Survey. This is the same criteria used by Elmendorf et. al. (2025). The combined effect of our CSA and zip code density criteria is a universe that captures 5,702 zip codes representing about 150 million Americans, just under half of all Americans. (See Appendix Figure A1). We block sampled equal proportions of renters and homeowners for subgroup analysis on tenure. Survey 1 recruitment was conducted by Bovitz-Forthright between June 26 – July 6, 2024. Survey 2 recruitment was conducted by Bovitz-Forthright (excluding respondents who took Survey 1) between January 9 –15, 2025.

Appendix Figure A1. Top 30 CSAs, and Total Population in ZIP Codes over 500 People/Square Mile

Rank	Metropolitan Area	Population	ZIP Codes
1	New York-Newark, NY-NJ-CT-PA	21,008,861	845
2	Los Angeles-Long Beach, CA	17,555,733	470
3	Chicago-Naperville, IL-IN-WI	9,115,916	328
4	Washington-Baltimore-Arlington, DC-MD-VA-WV-PA	8,580,912	337
5	San Jose-San Francisco-Oakland, CA	8,049,567	253
6	Boston-Worcester-Providence, MA-RI-NH	7,239,342	384
7	Dallas-Fort Worth, TX-OK	6,805,087	197
8	Miami-Port St. Lucie-Fort Lauderdale, FL	6,517,532	195
9	Philadelphia-Reading-Camden, PA-NJ-DE-MD	6,431,385	340
10	Houston-Pasadena, TX	6,395,627	171
11	Atlanta-Athens-Clarke County-Sandy Springs, GA-AL	5,458,185	151
12	Detroit-Warren-Ann Arbor, MI	4,644,870	192
13	Phoenix-Mesa, AZ	4,277,782	115
14	Seattle-Tacoma, WA	4,091,433	157
15	Orlando-Lakeland-Deltona, FL	3,641,964	115
16	Denver-Aurora-Greeley, CO	3,229,162	106
17	Minneapolis-St. Paul, MN-WI	2,925,402	127
18	Cleveland-Akron-Canton, OH	2,717,514	135
19	Portland-Vancouver-Salem, OR-WA	2,461,851	84
20	Salt Lake City-Provo-Orem, UT-ID	2,200,095	66
21	St. Louis-St. Charles-Farmington, MO-IL	2,174,561	112
22	Las Vegas-Henderson, NV	2,151,664	55
23	San Antonio-New Braunfels-Kerrville, TX	2,092,495	63
24	Charlotte-Concord, NC-SC	2,065,997	73
25	Sacramento-Roseville, CA	2,058,798	60
26	Pittsburgh-Weirton-Steubenville, PA-OH-WV	1,887,279	218
27	Kansas City-Overland Park-Kansas City, MO-KS	1,810,345	99
28	Indianapolis-Carmel-Muncie, IN	1,748,888	85
29	Cincinnati-Wilmington, OH-KY-IN	1,739,684	91
30	Columbus-Marion-Zanesville, OH	1,582,397	78
	Grand Total	**152,660,328**	**5,702**

Appendix A2. Sample Descriptive Statistics and Representativeness

Appendix Table A2 shows our sample compared to the population averages of the top 30 CSAs. (See Appendix A3 for our methodology on obtaining these averages). We did not use survey quotas, but our sample is reasonably representative of the target population on race and gender, and very representative of the target population in geography. Our sample is less affluent than the target population, however, and contains slightly more respondents aged 30 to 49 than the target population. Some of these differences are likely attributable to the fact these population averages reflect the entire CSA, not just the filtered zip codes.

Appendix Table A2. Sample Representativeness

Category		Population (%)	Survey (%)	Difference (S-P)
Age	18-29	21%	14%	-7%
	30-49	34%	43%	9%
	50+	45%	43%	-2%
Gender	Man	48%	50%	2%
	Woman	52%	49%	-3%
Income	<$50k	28%	40%	12%
	$50-100k	27%	37%	10%
	$100-150k	18%	15%	-3%
	$150k+	27%	9%	-18%
Race/ Ethnicity	White	55%	58%	3%
	Black	14%	18%	4%
	Asian	9%	4%	-5%
	Other	20%	20%	0%
	Hispanic	21%	15%	-6%
	Non-Hispanic	79%	85%	6%
Party ID	Democrat	37%	46%	9%
	Independent/Other	34%	30%	-4%
	Republican	29%	24%	-5%
Location	Urban	47%	47%	0%
	Suburban	53%	53%	0%

Appendix A3. Weighting

For estimates with descriptive means (average building support in the tradeoff tasks and policy support), we apply weights using the raking method. These are applied in `STATA` using the `svyset` and `svy` commands. These weights are calibrated to the overall population of the 30 CSAs in our target sample (<u>not</u> subset to zip codes over 500 people/square mile). The categories used were: age (18 to 29, 30 to 49, 50 or older); household income (less than $50,000, $50,000 to $100,000; $100,000 to $150,000, $150,000 or more); race (White alone, Black alone, Asian alone, other); Hispanic ethnicity (not-Hispanic or Latino, Hispanic or Latino); urban status (urban, suburban or town); and three-point party identification, without sorting 'leaners' into the party they more closely identify (Democrat, Independent/Other, Republican).

For race, age, and gender, we draw on the 2020 United States Census Redistricting Files. For household income, we draw on the 2023 1-year estimates from the United States Census ACS. To estimate urban status, we draw on the 2023 1-year total population estimates United States Census ACS, using the National Center for Health Statistics (NCHS) Urban-Rural Classification Scheme for Counties, with code "1 - Large central metro" coded as urban and all other codes as suburban or town. This classification is also used to estimate the party identification of registered voters in the top 30 CSA's, using Pew Research Center "Party Identification Detailed Tables, 1994-2023" from the April 9, 2024 report "Changing Partisan Coalitions in a Politically Divided Nation" by community type, which uses the same NCHS classification scheme.

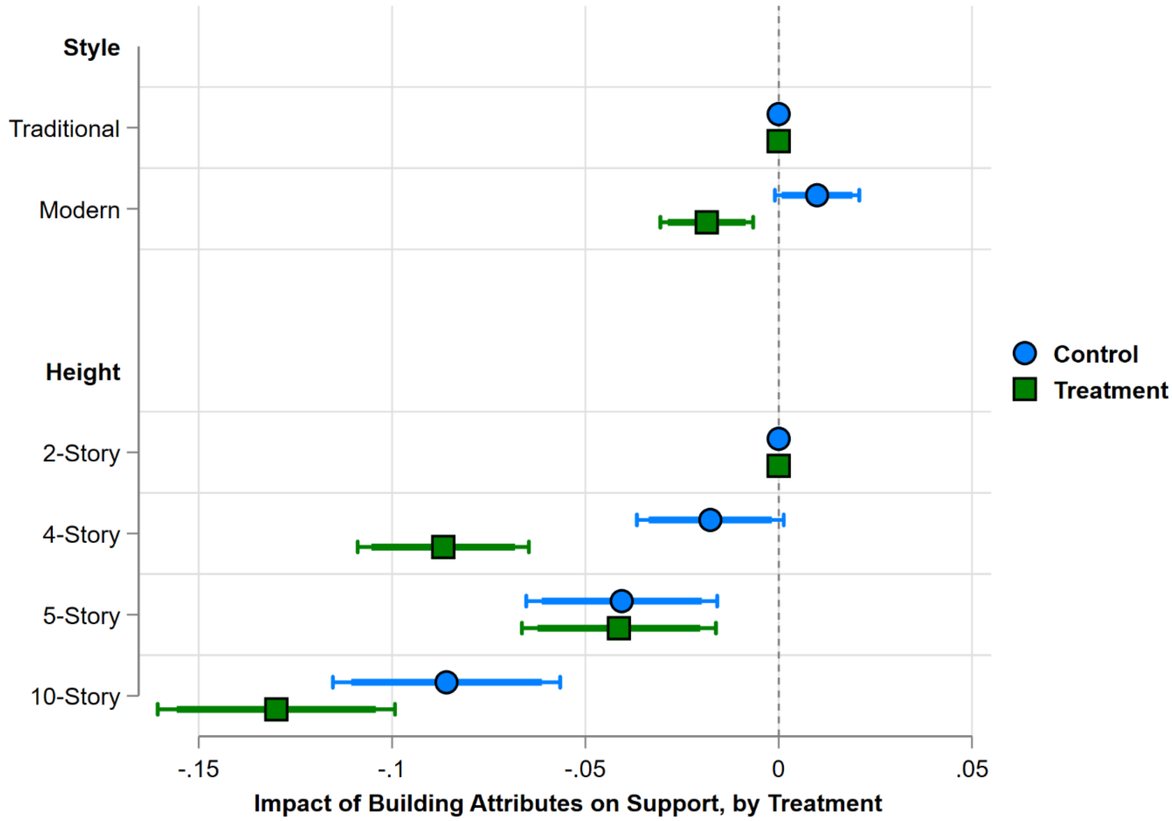
Appendix B. Additional Figures

Appendix Figure B1. Example Building Text

> *This proposed building is **5 stories high**, with **30 apartment units** for renters.*
>
> *20 percent, or 6 units, will be **<u>designated affordable</u>**, with a rent of **$1,513 a month**, restricted to people making **$60,536 a year** or less.*
>
> *The other 80 percent, or 24 units, will **<u>rent out at the market-rate</u>** of **$4,540 a month**, and while there would be no restrictions on income, renters would need to make about **$181,609 a year** to comfortably afford them.*
>
> *The building will provide no new off-street parking. The developer will pay a tax to account for the impact on public services such as schools or traffic.*

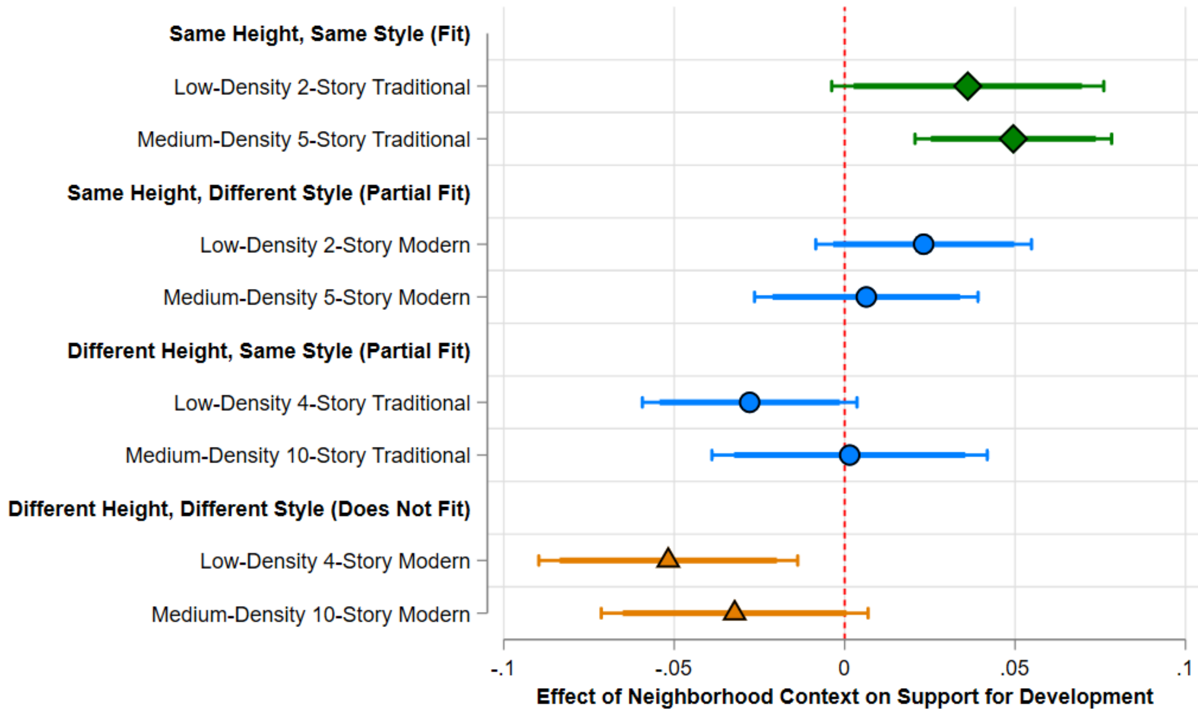
Note: Rents and income levels shown custom to respondent metropolitan area. Example text uses dollars for the New York-Newark-Jersey City NY-NJ-PA CSA.

Appendix Figure B2. Effect of Height and Style on Support for Building Proposal, by Treatment



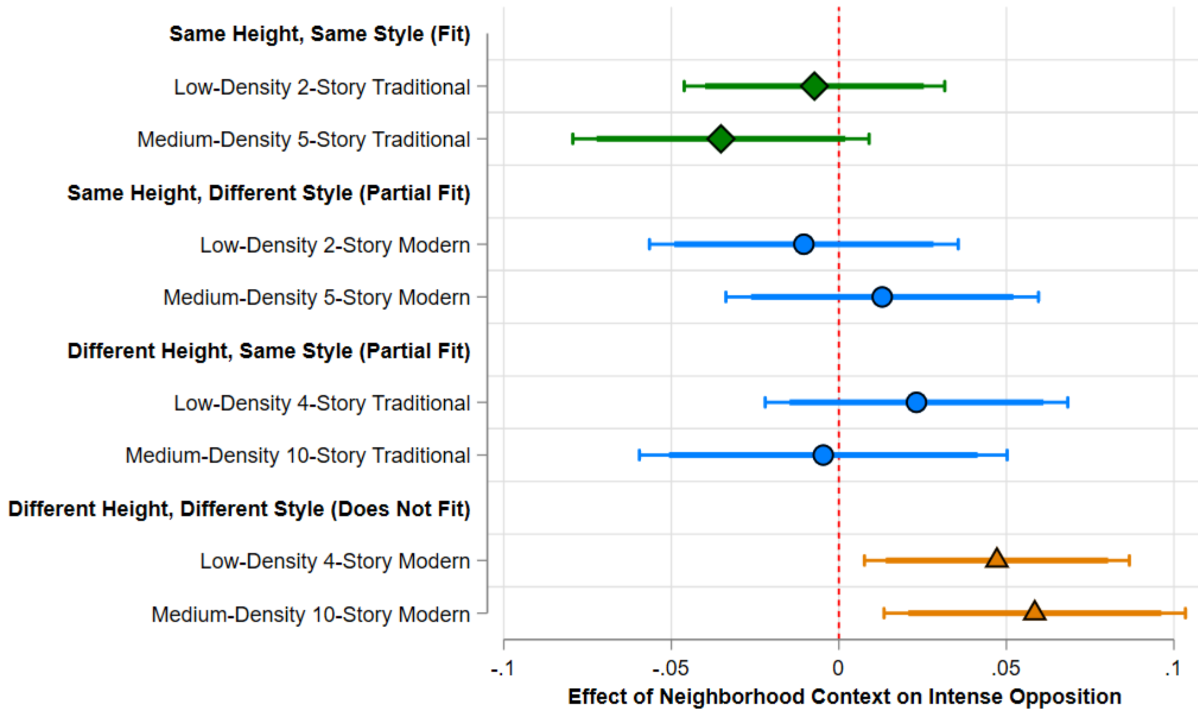
Note: 90% confidence intervals in bold, 95% confidence intervals in caps. Varying intercept and clustered standard errors at the respondent level.

Appendix Figure B3. Treatment Effect of Each Neighborhood Context (Relative to Each Building's No-Context Control)



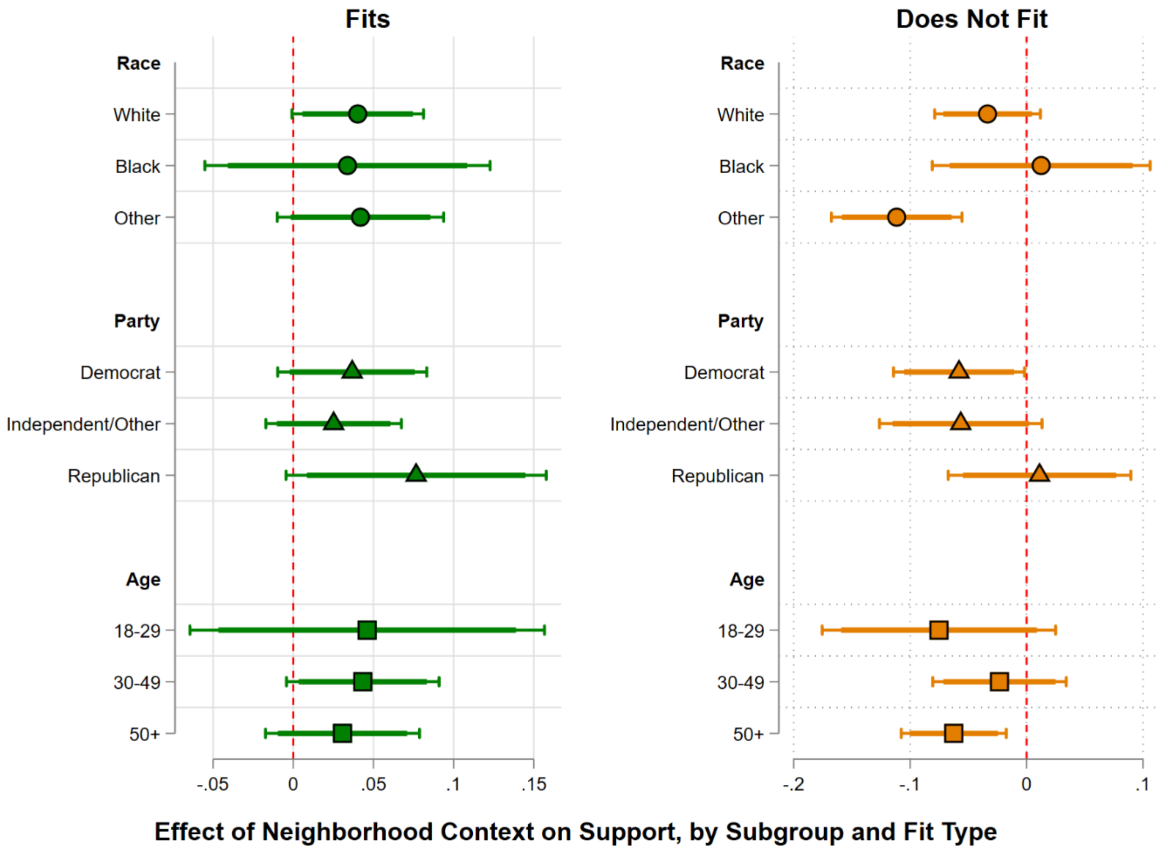
Note: 90% confidence intervals in bold, 95% confidence intervals in caps. Varying intercept and clustered standard errors at the respondent level. Models control for survey number.

Appendix Figure B4. Treatment Effect of Each Neighborhood Context (Relative to Each Building's No-Context Control) on Intense Opposition



Note: 90% confidence intervals in bold, 95% confidence intervals in caps. Varying intercept and clustered standard errors at the respondent level. Models control for survey number. Intense opposition defined as percent of respondents selecting "not built at all" on a follow-up of respondents who selected "strongly oppose" or "somewhat oppose."

Appendix Figure B5. Treatment Effect of Neighborhood Context, by Additional Subgroups



Note: 90% confidence intervals in bold, 95% confidence intervals in caps. Varying intercept and clustered standard errors at the respondent level. Models control for survey number.

Appendix Table B1. Mean Support for Each Building, by Treatment

		TREATMENT (With Neighborhood Context)	**CONTROL** (No Context)
Fit	2-story traditional	0.549	0.512
	5-story traditional	0.509	0.458
Partial Fit (Style)	2-story modern	0.528	0.504
	5-story modern	0.485	0.477
Partial Fit (Height)	4-story traditional	0.461	0.488
	10-story traditional	0.413	0.411
Doesn't fit	4-story modern	0.442	0.493
	10-story modern	0.403	0.434
	N	608	644

Appendix Table B2. Average Support for Housing Policies in Respondent's Own City

Policy	Mean Support	Std. Dev.	N
Transit-Oriented Development	0.878	0.327	867
Rent Control	0.855	0.352	870
Contextual Zoning	**0.824**	**0.381**	**1,504**
Historic Districting	**0.797**	**0.402**	**1,504**
Non-Profit Permitting Exemption	0.792	0.406	870
Upzoning (Commercial Areas)	0.788	0.409	873
Tax Dollars for Affordable Housing	0.787	0.409	869
Basement/Attic Conversions	0.774	0.419	870
Tax Dollars for Supportive Housing	0.768	0.422	871
Accessory Dwelling Units	0.724	0.447	870
Parking Reform	0.680	0.467	871
Upzoning (Gentle Density)	0.676	0.468	1,503
Housing Ban	0.548	0.498	1,500
Expedite Environmental Review	0.455	0.498	871
Upzoning (High Density)	0.413	0.493	1,500
Limit Neighborhood Review	0.360	0.480	873

Note: Weighted means using raked weights on age, income, race, Hispanic ethnicity, party identification, and urban location.

Appendix Table B3. Weighted Average Support for Building Which Fits, by Cost/Benefit and by Context Treatment

Condition	Control	Treatment
Baseline	0.518 (0.057)	0.709 (0.051)
Cost	0.431 (0.057)	0.568 (0.057)
Benefit	0.398 (0.057)	0.514 (0.057)

Note: Weighted means using raked weights on age, income, race, Hispanic ethnicity, party identification, and urban location. Linearized standard errors in parentheses.

Appendix Table B4. Difference in Support for Contextual Zoning and Historic Districting, by Baseline Tradeoff Task Building Choice, Treatment Arm Only

	Building Choice					
	Fits	Doesn't Fit				
	Mean	**Mean**	**Diff.**	**SE**	**t**	**p**
Contextual Zoning	0.865	0.718	-0.147	0.048	-3.049	0.002
Historic Districting	0.850	0.714	-0.135	0.050	-2.704	-2.704

Note: Support collapsed into binary support (1) or oppose (0). T-test of difference in mean support by forced choice response of baseline building in treatment arm only.

Appendix Table B5. Average Support for Contextual Zoning and Historic Districting, by Support for High Density Upzoning

		Support for Policy	
		Contextual Zoning	Historic Districting
Support for Upzoning	Supporter	0.795 (0.034)	0.815 (0.033)
	Opponent	0.846 (0.024)	0.785 (0.029)

Note: Support collapsed into binary support (1) or oppose (0). Weighted means using raked weights on age, income, race, Hispanic ethnicity, party identification, and urban location. Linearized standard errors in parentheses. Support for upzoning based on question: "Pass housing rules that allow property owners to build large apartment buildings on any residential lot, such as towers or other high-rises."

Appendix C. Pre-Registered Analyses

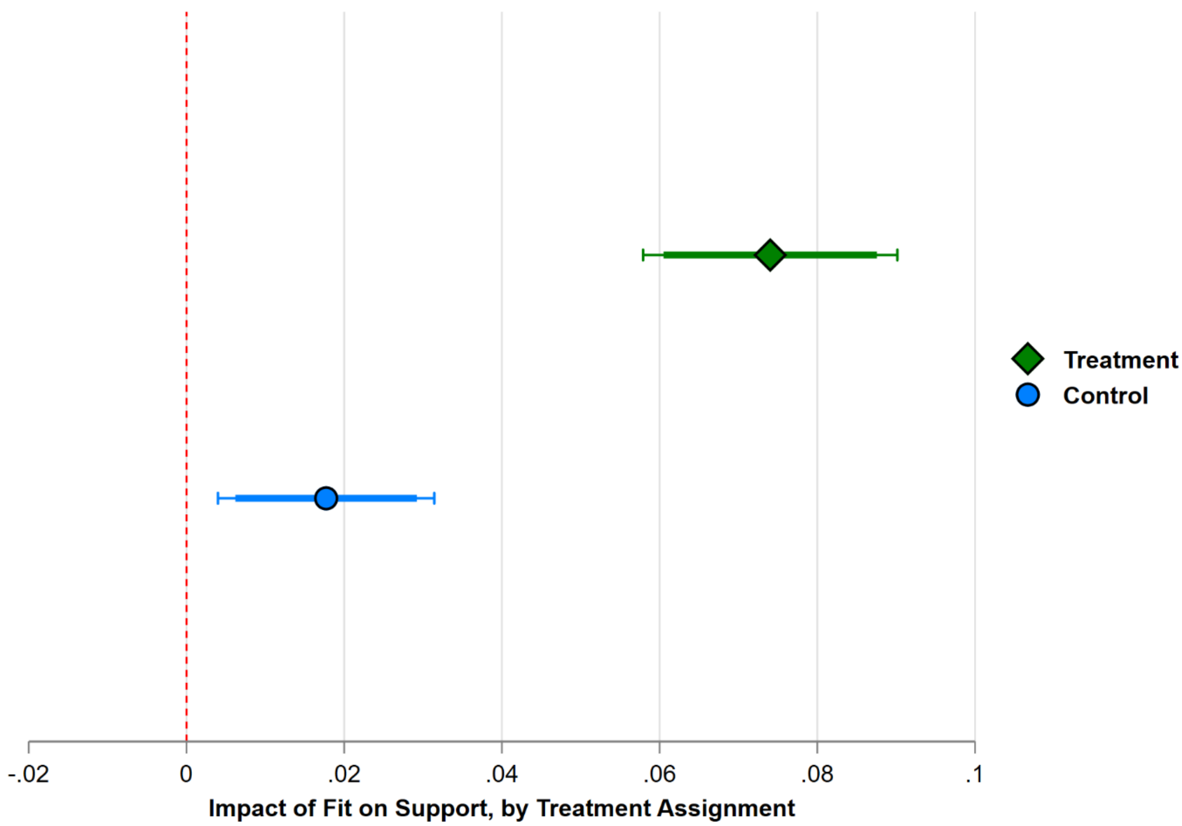
The following pre-registered analyses were not presented in the main text:

H4 (Neighborhood fit amelioration): With neighborhood context, apartment buildings that do fit in will have the highest levels of support.

To test H4, we predict the mean level of support for buildings which are defined as fitting in (T1A and T2A) against the support for buildings which are defined as not fitting in (T1B-D and T2B-D) using OLS regression (or similar model) and a categorical variable for each building rendering in the treatment group (T). Support for Hypothesis 4 would be positive and statistically significant coefficient (p<0.05) on the buildings with are defined as fitting in. This estimate is within-respondent.

This hypothesis is supported. Support for the two buildings defined as a fit is higher than the six buildings defined as not a fit. (See Appendix Figure C1).

Appendix Figure C1. Support for Buildings Which Fit Compared to Do Not Fit, by Treatment Assignment



Note: Intercept varies at the respondent level, clustered standard errors as the respondent level. 95 percent confidence intervals in caps.

H6 (Image hypothesis): Viewing an image of a proposed apartment building will reduce the variation in support for proposals compared to a text-only descriptions of the proposal.

To test H6, we compare the variance in the mean level of support for each building in the control group (C) against the same building in the pure control group (PC) separately by building style (so, C1A and PC1AC, C2C and PC1AC; C2A and PC2AC and C2C and PC2AC, and so on) using an equality in variances test. Support for Hypothesis 6 would be a statistically significant difference in variances. This estimate is across-respondent.

This hypothesis is not supported, the standard deviations are comparable in the pure control group, which evaluated building text-only, and the control group with images. (See Appendix Table C1).

Appendix Table C1. Equality in Variances Test, No Image Pure Control and Image Control (no neighborhood context), by Building Type

Building	Mean (Text)	Mean (Image)	SD (Text)	SD (Image)	SD Diff. (I-T)	F-stat	p-value
2-story traditional	0.47	0.51	0.35	0.33	-0.02	1.13	0.18
2-story modern	0.47	0.50	0.35	0.33	-0.02	1.11	0.24
4-story traditional	0.45	0.49	0.34	0.34	0.00	1.01	0.88
4-story modern	0.45	0.49	0.34	0.33	-0.01	1.00	0.95
5-story traditional	0.44	0.46	0.35	0.34	-0.02	1.06	0.50
5-story modern	0.44	0.48	0.35	0.34	-0.01	1.03	0.73
10-story traditional	0.41	0.41	0.36	0.35	-0.01	1.02	0.83
10-story modern	0.41	0.43	0.36	0.36	0.00	0.97	0.78

H8 (Neighborhood fit policy spillovers): Respondents in the treatment group with neighborhood context will support neighborhood fit preserving policies (historic districting, contextual zoning) at higher rates than respondents in the two control groups.

To test H8, we will conduct a difference in means test on the mean level of support for fit preserving policies (historic districting, contextual zoning) among the treatment group (T) and collapsed among both the control and pure control groups (C and PC) using a t-test or similar inferential statistics (e.g. significance of difference intervals). Support for Hypothesis 8 would be a positive and statistically significant treatment effect in the treatment group compared to control groups. This estimate is across-respondent.

This hypothesis is not supported. There is no statistically significant difference between support for the two fit-preserving across the treatment and control arms. (See Appendix Table C2).

Appendix Table C2. T-Test, Support for Policies by Treatment Assignment

Policy	**Mean (C)**	**Mean (T)**	**Diff. (T-C)**	**SD (C)**	**SD (T)**	**t-stat**	**p-value**
Historic Districting	0.83	0.82	-0.01	0.38	0.38	0.44	0.66
Contextual Zoning	0.83	0.83	0.00	0.37	0.37	0.10	0.92
Housing Ban	0.56	0.58	0.02	0.50	0.49	-0.71	0.48

Appendix D. Survey Instruments

Appendix D1. Survey 1

Hello! We're researchers at [redacted university name]. Please tell us what you think about building housing. The survey will take about **15 minutes**.

Your responses are confidential. Your responses will be kept anonymous, and we will not include any information that will make it possible to identify you. Your participation is voluntary. There is no penalty if you decide not to participate. You may stop at any time. For questions, contact [redacted name and email]. For concerns, contact the Institutional Review Board at [redacted email address].

1. Do you agree to participate?
    a. Yes
    b. No

2. What is your 5-digit zip code?

3. For our research, careful attention to survey questions is critical! We thank you for your care.
    a. I understand
    b. I do not understand

4. People are very busy these days and many do not have time to follow what goes on in the government. <u>We are testing whether people read questions</u>. To show that you've read this much, answer both "extremely interested" <u>and</u> "moderately interested."
    a. Extremely interested
    b. Very interested
    c. Moderately interested
    d. Slightly interested
    e. Not interested at all

5. What thoughts come to mind when you think about the building of new apartment buildings? Please write at least (3) complete sentences. Use your own words.

6. [Randomized order of "negative" and "positive" questions] Suppose there is a proposal to build an apartment building in **your neighborhood**. Describe some of the possible **negative impacts** that you think are important. Please write at least (3) complete sentences, using your own words.

7. [Randomized order] Still thinking about that proposal to build an apartment building in your neighborhood, describe some of the possible **positive impacts** that you think are important. Please write at least (3) complete sentences, using your own words.

Next, you will be asked to evaluate 8 proposals for apartment buildings. For each, please CAREFULLY read the proposal. [Each proposal ROTATED]

8. *This proposed development is **X stories high**, with **X apartment units** for renters.*

    *20 percent, or X units, will be **<u>designated affordable</u>**, with a rent of **$X,XXX a month**, restricted to people making **$XX,XXX a year** or less.*

    *The other 80 percent, or X units, will **<u>rent out at the market-rate</u>** of **$X,XXX a month**, and while there would be no restrictions on income, renters would need to make about **$XX,XXX a year** to comfortably afford them.*

    The development will provide no new off-street parking. The developer will pay a tax to account for the impact on public services such as schools or traffic.

Mixed-Use, Medium-Density Neighborhood
TREATMENT

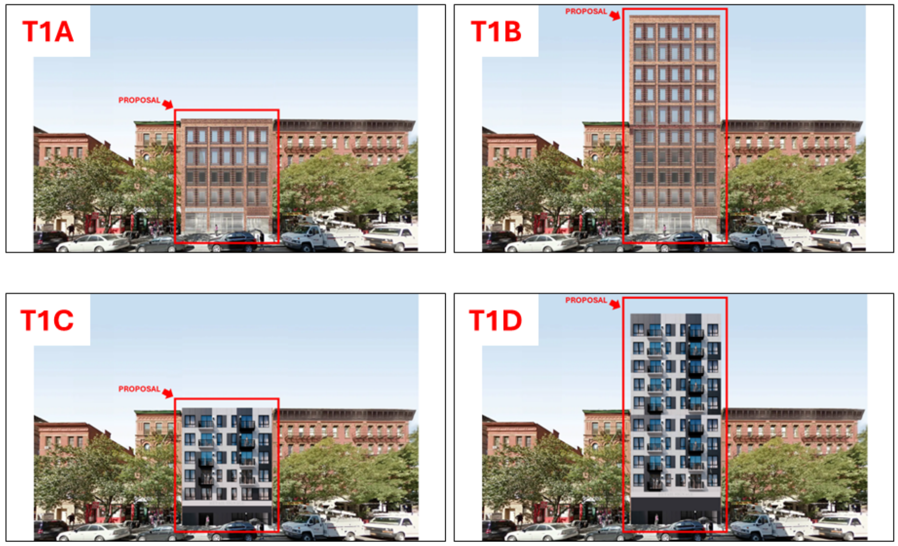
Height

Same (5-story, 30 unit) | Different (10-story, 90 unit)

Style

Same (Red Brick)

Different (B/W Panels)



Mixed-Use, Medium-Density Neighborhood
CONTROL

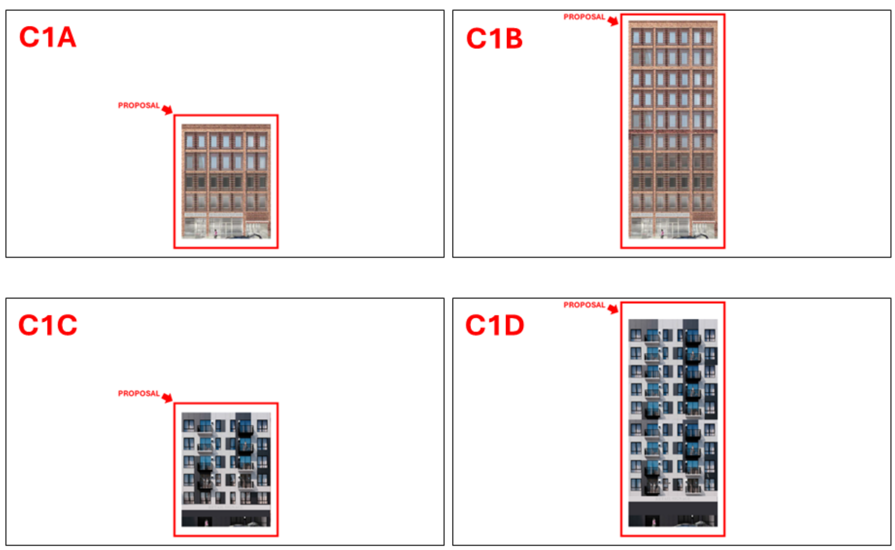
Height

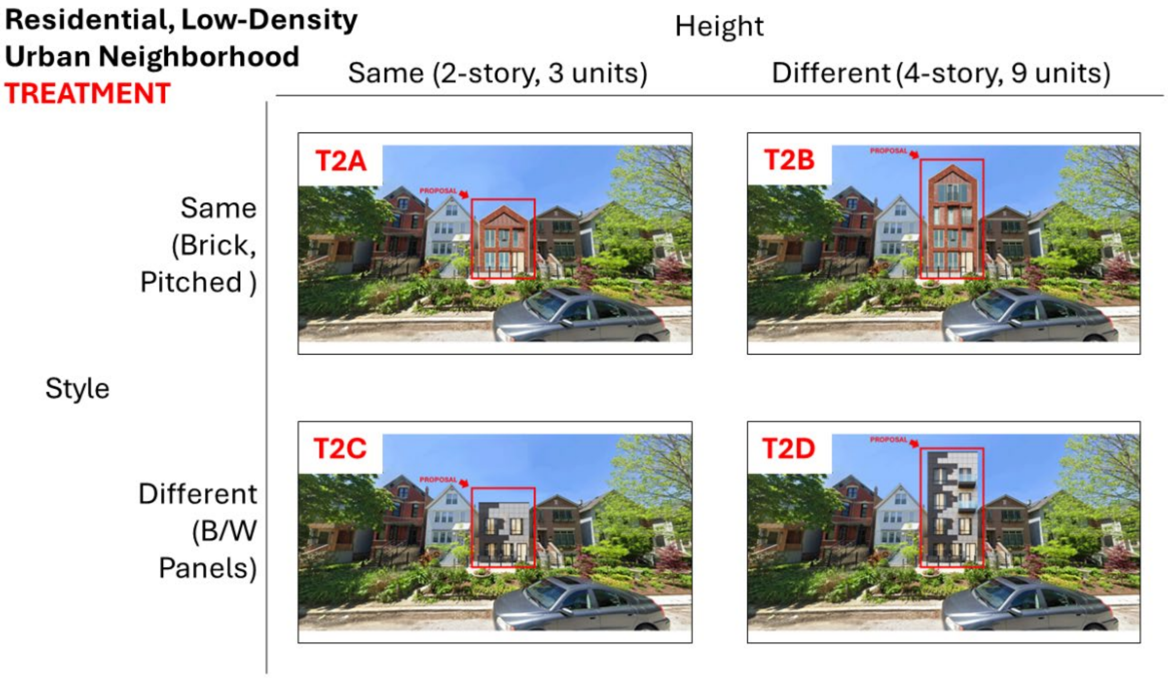
Same (5-story, 30 unit) | Different (10-story, 90 unit)

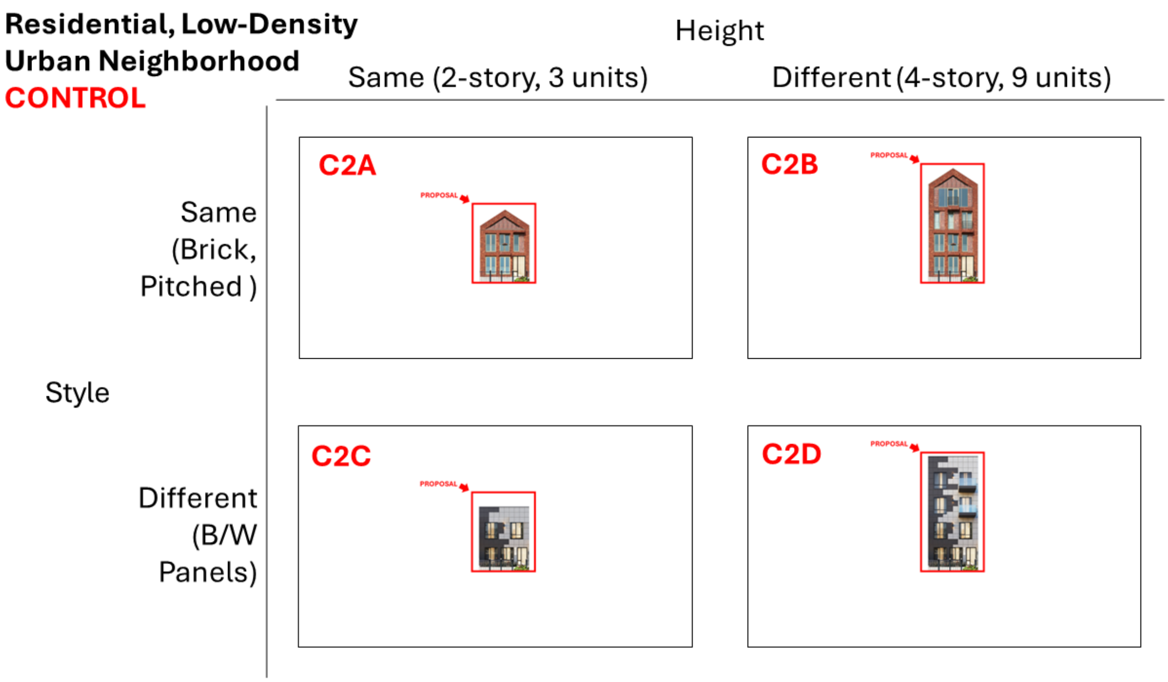
Style

Same (Red Brick)

Different (B/W Panels)







9. Imagine you lived in the neighborhood where this proposal is. If you had to choose, would you support or oppose construction of this apartment building?
    a. Strongly support
    b. Somewhat support
    c. Neutral/Uncertain

d. Somewhat oppose
e. Strongly Oppose

10. [If c-e:] Would you rather see something built, but with modifications (such as a different height, design, or number of units), or not built at all?
    a. Built, but with modifications
    b. Not built at all

11. [T and C1 only]: Do any of the proposed buildings that were shown look like the kind of building you live in?
    a. Yes
    b. No
12. [If 11 – "Yes"]: Please select which proposed building looks most like the kind of building you live in:
    a. Building 1
    b. Building 2
    c. Building 3
    d. Building 4
    e. Building 5
    f. Building 6
    g. Building 7
    h. Building 8

13. [T only]: Do any of the neighborhoods that were shown look like the kind of neighborhood you live in?
    a. Yes
    b. No

14. [If 13 – "Yes"]: Please select which neighborhood looks most like the kind of neighborhood you live in:
    a. Neighborhood 1
    b. Neighborhood 2

15. All of the proposals had the same percent of units set aside as affordable. What percent of units were set aside as affordable? (ROTATED OPTIONS)
    a. 10%
    b. 20%
    c. 50%
    d. 30%

16. In **<u>your opinion</u>**, is a rent of $X,XXX a month affordable to **people making $XX,XXX a year** or less?
    a. Yes, I consider this affordable
    b. No, I consider this unaffordable

17. In **<u>your opinion</u>**, is a rent of $X,XXX a month affordable to **you**?
    a. Yes, this is affordable for my budget
    b. No, this us unaffordable for my budget

The following questions present ideas for different housing rules that could apply to cities. For each, please indicate how much you support or oppose that idea **in your city**.

PRIORITY QUESTIONS [ROTATED WITHIN]:

18. Pass housing rules that require new apartments to fit into the existing neighborhood height and style.
    a. Strongly support
    b. Somewhat support
    c. Somewhat oppose
    d. Strongly oppose
19. Pass housing rules that stop the demolition of existing buildings in historic neighborhoods and require local government approval for all new construction.
20. Pass housing rules that allow property owners to build small apartment buildings on any residential lot, such as duplexes, townhomes, or other small apartment buildings.
21. Pass housing rules that allow property owners to build large apartment buildings on any residential lot, such as towers or other high-rises.

SECONDARY QUESTIONS [ROTATED WITHIN]:

22. Pass housing rules that allow owners of single-family homes to convert a space like their basement or attic into an apartment.
23. Pass housing rules that allow owners of single-family homes to add a separate apartment over their garage or in their backyard.
24. Pass housing rules that allow more apartment buildings to be built near train stations, bus stations, or major job centers.
25. Pass housing rules that allow more apartment buildings to be built in areas that are mostly used for offices, stores, or restaurants.
26. Allow decisions about the number of off-street parking spaces—like driveways, garages, and parking lots--to be made by property owners and builders instead of local governments.
27. Allow non-profits like churches or colleges to more easily build affordable housing or dorms on land they own, with a simplified permitting process.
28. Use tax dollars to build apartment buildings owned and operated by the local government, which would be affordable to people who apply and qualify.
29. Use tax dollars to fund the construction of affordable apartment budlings reserved for homeless people.
30. Pass housing rules that speed up construction of new apartment buildings by giving neighborhoods less voice over development proposals.
31. Pass housing rules that speed up approval of new apartment buildings by reducing the review of the environmental impacts of development proposals.
32. Pass housing rules that would ban the construction of new apartment buildings from being built in residential neighborhoods.
33. Pass rent control, limiting the amount landlords can increase rent each year.

Next, we are going to ask you some questions about yourself.

34. Do you rent or own your home?
    a. Rent (I pay rent, or live with someone who pays rent for me)
    b. Own (I am the homeowner)

c. Own (I live with the homeowner, such as my spouse or other family member)
d. Other (please explain)

35. How long have you lived in your current neighborhood?
    a. Less than a year
    b. 1 year
    c. 2 – 5 years
    d. 5 – 10 years
    e. More than 10 years

36. How would you describe the place where you live?
    a. City
    b. Suburb
    c. Town
    d. Rural area
    e. Other (please describe)

37. How would you describe the type of building you live in?
    a. Single-family detached house
    b. Duplex, triplex, or townhouse
    c. Small apartment building or condominium (2-10 units)
    d. Large apartment building or condominium (10+ units)
    e. Other (please describe)

38. Now, for statistical purposes only, we have a question about your income. Last year (in 2023), what was your total family income from all sources, before taxes.
    a. $10,000 - $19,999
    b. $20,000 - $29,999
    c. $30,000 - $39,999
    d. $40,000 - $49,999
    e. $50,000 - $59,999
    f. $60,000 - $69,999
    g. $70,000 - $79,999
    h. $80,000 - $99,999
    i. $100,000 - $119,999
    j. $120,000 - $149,999
    k. $150,000 - $199,999
    l. $200,000 - $249,999
    m. $250,000 - $349,999
    n. $350,000 - $499,999
    o. $500,000 or more
    p. I prefer not to answer

39. Do you have any children?
    a. Yes, have children currently in school
    b. Yes, have children but not in school
    c. No, do not have children

40. What is your gender?
    a. Man

b. Woman
c. Non-binary
d. Neither of these apply
e. I prefer not to answer

41. What is your age, rounded to the nearest year?

42. What is your race/ethnicity? (Please select all that apply.)
    a. White
    b. Black/African American
    c. Hispanic/Latino
    d. Asian
    e. Native American
    f. Other

Now, we're going to ask you a few questions about your participation in **local politics**.

43. In the past 12 months, have you attended a meeting of any local governmental board of council that deals with community issues, such as city/town council, a school board, or zoning board?
    a. Yes
    b. No

44. In talking to people about politics, we often find that a lot of people don't vote in local elections, such as mayor, city council, or school board. In the past 5 years, how often have you voted in elections for local or city officials?
    a. Never
    b. Rarely
    c. Sometimes
    d. Often
    e. Always

45. In the past 12 months, have you contacted any local elected officials, such as a mayor, town manager, or member of a city/town council, or someone on their staff?
    a. Yes
    b. No

Finally, we're doing to ask you a few questions about your participation in **national politics**.

46. Are you registered to vote?
    a. Yes
    b. No

47. Generally speaking, do you usually think of yourself as a:
    a. Democrat
    b. Republican
    c. Independent
    d. Other

48. [If 47 c,d] If you had to saw, do you consider yourself closer to the Democratic Party or Republican Party?
    a. Democratic Party
    b. Republican Party
    c. Neither

49. A lot of people were not able to vote in the 2020 presidential election, because they were not registered, they were sick, or they just didn't have time. Which of the following best describes you in that election:
    a. I did not vote in the presential election
    b. I thought about voting, but didn't
    c. I usually vote, but didn't have the time
    d. I don't know if I voted
    e. I am sure I voted in the presidential election

Appendix D2. Survey 2

Hello! We're researchers at [redacted university name]. Please tell us what you think about building housing. The survey will take about **10 minutes**.

Your responses are confidential. Your responses will be kept anonymous, and we will not include any information that will make it possible to identify you. Your participation is voluntary. There is no penalty if you decide not to participate. You may stop at any time. For questions, contact [redacted name and email]. For concerns, contact the Institutional Review Board at [redacted email address].

1. Do you agree to participate?
    a. Yes
    b. No
2. What is your 5-digit zip code? Begin typing and select from the dropdown menu.
3. For our research, careful attention to survey questions is critical! We thank you for your care.
    a. I understand
    b. I do not understand
4. People are very busy these days and many do not have time to follow what goes on in the government. <u>We are testing whether people read questions</u>. To show that you've read this much, answer both "extremely interested" <u>and</u> "moderately interested."
    a. Extremely interested
    b. Very interested
    c. Moderately interested
    d. Slightly interested
    e. Not interested at all
5. How would you describe the place where you live?

a. City

b. Suburb

c. Town

d. Rural area [TERMIANTE]

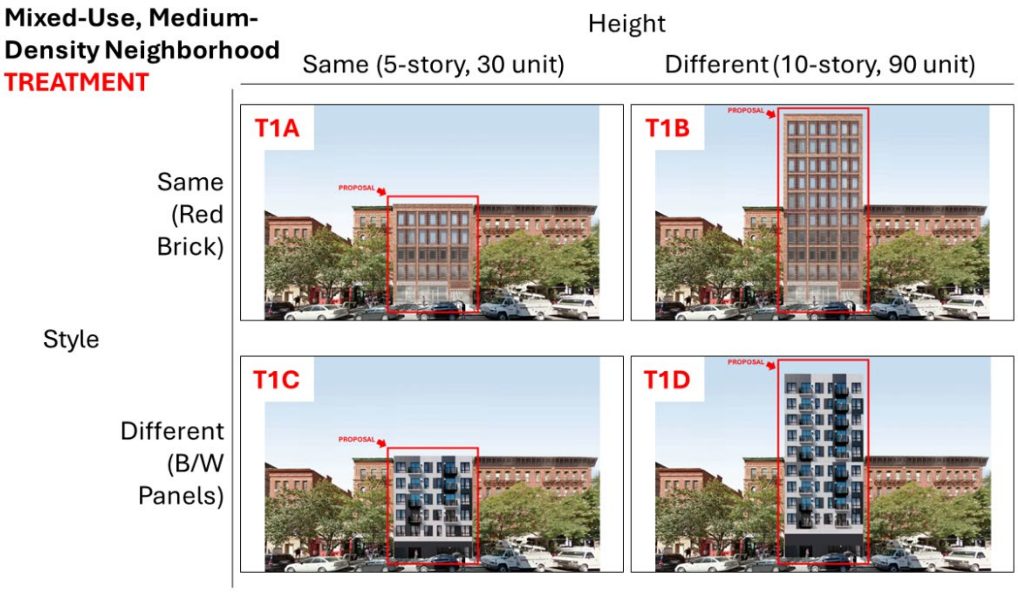
Next, you will be asked to evaluate 8 proposals for apartment buildings. For each, please CAREFULLY read the proposal. [Each proposal ROTATED]

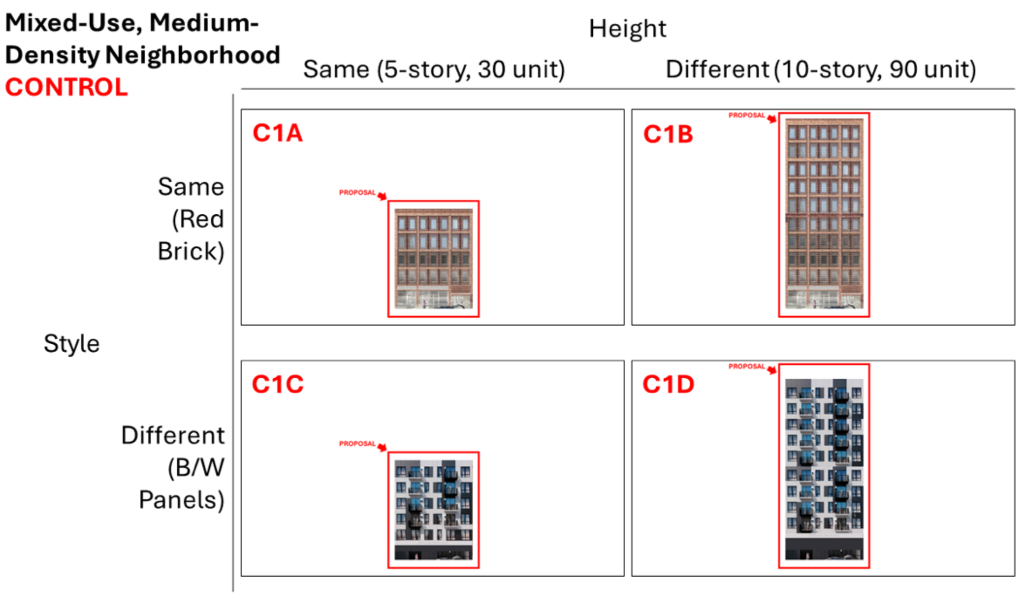
6. *This proposed building is **X stories high**, with **X apartment units** for renters.*

   *20 percent, or X units, will be **<u>designated affordable</u>**, with a rent of **$X,XXX a month**, restricted to people making **$XX,XXX a year** or less.*

   *The other 80 percent, or X units, will **<u>rent out at the market-rate</u>** of **$X,XXX a month**, and while there would be no restrictions on income, renters would need to make about **$XX,XXX a year** to comfortably afford them.*

   The building will provide no new off-street parking. The developer will pay a tax to account for the impact on public services such as schools or traffic.





7. Imagine you live in the neighborhood where this proposed building would be built. If you had to choose, would you support or oppose construction of this apartment building?

    a. Strongly support

    b. Somewhat support

    c. Neither support nor oppose

    d. Somewhat oppose

    e. Strongly Oppose

8. [If c-e:] You indicated you would oppose this proposal. Would you rather see something built, but with modifications (such as a different height, design, or number of units), or not built at all?

    a. Built, but with modifications

    b. Not built at all

We would like to follow-up on your response to two of the buildings you just saw. [SUBURBS: T2A & T2D; URBAN: T1A and T1D]. First, consider this proposed building again. [IMAGE SHOWN]

9. You indicated you [SUPPORT/OPPPOSE] this building. Would you attend a local meeting to voice your opinion on this proposal, even if this meeting is long and after a busy day?

    a. Yes, I would definitely attend a local meeting

    b. Yes, I would probably attend a local meeting

    c. No, I would probably not attend a local meeting

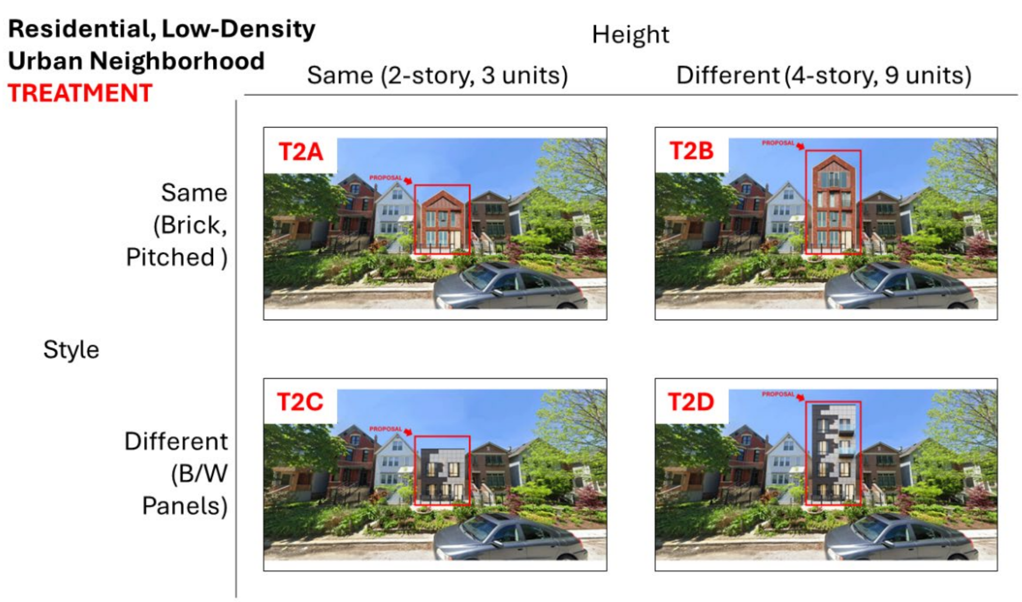
    d. No, I would definitely not attend a local meeting

10. Would you send an email or write a letter to your local Councilmember or representative (such as Town Manager, County Commissioner, etc.) with your opinions on this proposal?

    a. Yes, I would email my local Councilmember

    b. No, I would not email my local Councilmember

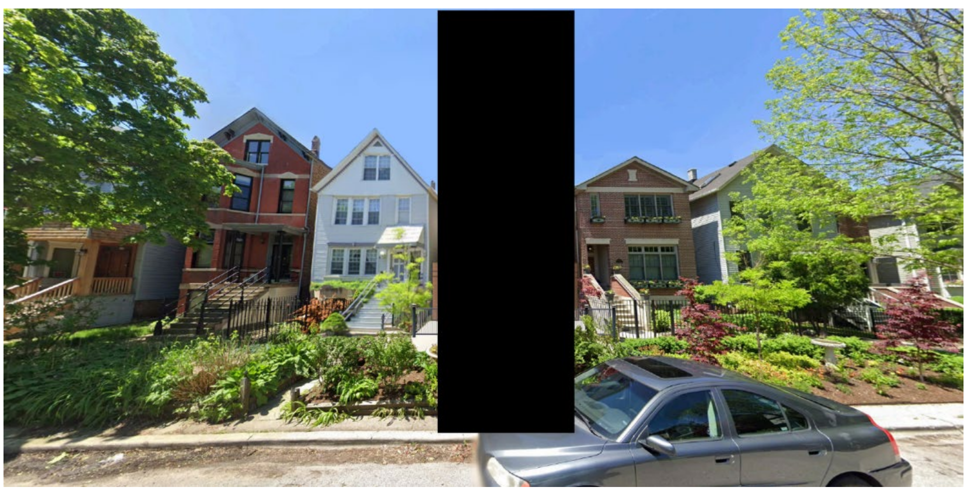
11. [If 11 a/b]: You indicated that you would email or write a letter to your local representative. Feel free to use the space below to write some thoughts that you would have for this email or letter. Please do not provide us with any information that may identify you.

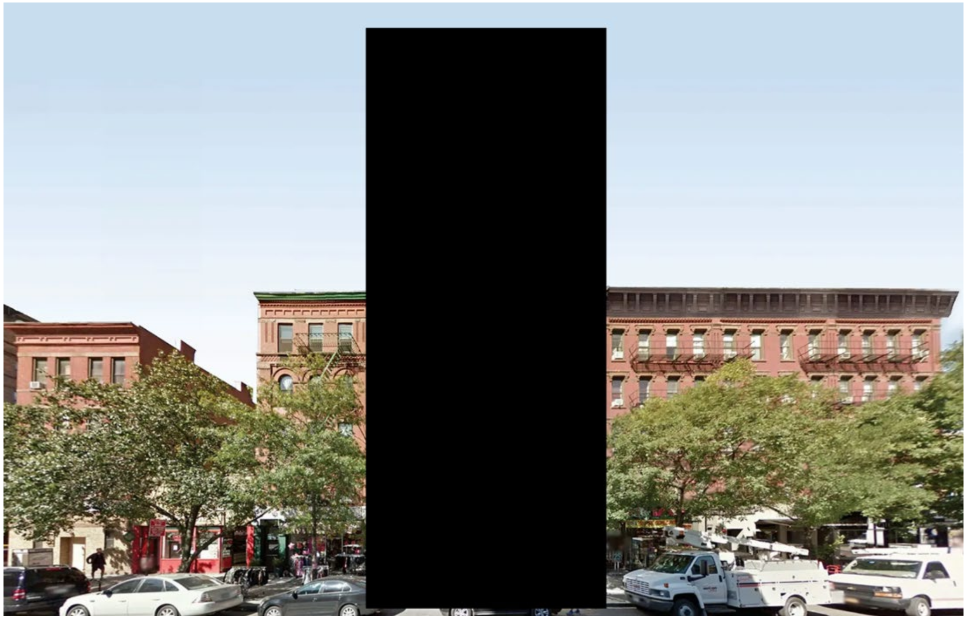


Residential, Low-Density
Urban Neighborhood
CONTROL

Style \ Height	Same (2-story, 3 units)	Different (4-story, 9 units)
Same (Brick, Pitched)	C2A 	C2B 
Different (B/W Panels)	C2C 	C2D 

12. [If 14 – "Yes"]: Do either of the following neighborhoods look like your neighborhood? If so, please select which one, or select "none of the above."

a. 

b. 

c. None of the above

13. All of the proposals had the same percent of units set aside as affordable. What percent of units were set aside as affordable?

    a. 10%

    b. 20%

    c. 30%

    d. 50%

14. In **<u>your opinion</u>**, is a rent of $X,XXX a month affordable to **people making $XX,XXX a year** or less?

    a. Yes

    b. No

    c. Not sure

15. Is a rent of **$X,XXX** a month affordable to **you**?

    a. Yes

    b. No

The following questions present ideas for different housing rules. Please indicate how much you support or oppose that idea **<u>in your city</u>**.

<u>PRIORITY QUESTIONS [ROTATED WITHIN]:</u>

16. Pass housing rules that require new apartments to fit into the existing neighborhood height and style.

    a. Strongly support

b. Somewhat support

c. Somewhat oppose

d. Strongly oppose

17. Pass housing rules that stop the demolition of existing buildings in historic neighborhoods and require local government approval for all new construction.

18. Pass housing rules that allow property owners to build small apartment buildings on any residential lot, such as duplexes, townhomes, or other small apartment buildings.

19. Pass housing rules that allow property owners to build large apartment buildings on any residential lot, such as towers or other high-rises.

20. Pass housing rules that would ban the construction of new apartment buildings from being built in residential neighborhoods.

21. Next, we want to ask you to choose between two of the buildings you have evaluated before. If you had to choose, would you choose building A or building B? All the details of the two buildings are the same as before.

[PICTURE COORESPONDS TO TREATMENT ASSIGNMENT; L/R ROTATED].

Building A (ROTATED)	**Building B (ROTATED)**
	
This proposed building is **X stories high**, with **X apartment units** for renters. 20 percent, or X units, will be <u>**designated affordable**</u>, with a rent of **$X,XXX a month**, restricted to people making **$XX,XXX a year** or less. The other 80 percent, or X units, will <u>**rent out at the market-rate**</u> of **$X,XXX a month**, and while there would be no restrictions on income, renters would need to make about **$XX,XXX a year** to comfortably afford them. The building will provide no new off-street parking. The developer will pay a tax to account for the impact on public services such as schools or traffic.	This proposed building is **X stories high**, with **X apartment units** for renters. 20 percent, or X units, will be <u>**designated affordable**</u>, with a rent of **$X,XXX a month**, restricted to people making **$XX,XXX a year** or less. The other 80 percent, or X units, will <u>**rent out at the market-rate**</u> of **$X,XXX a month**, and while there would be no restrictions on income, renters would need to make about **$XX,XXX a year** to comfortably afford them. The building will provide no new off-street parking. The developer will pay a tax to account for the impact on public services such as schools or traffic.

I prefer:

a. Building A

b. Building B

22. Sometimes, new buildings provide voluntary benefits to the local community, like contributions to a park or streetscape improvements. New apartment buildings which use more a traditional style and materials like brick are more expensive to build than modern buildings. This leaves traditional style buildings with less money left over for community benefits.

Now, consider two of the same proposals as before, but the more traditional style building **(Building A/B) <u>will not</u> provide a contribution to the local park** while the more modern building **(Building A/B) <u>will</u> provide $500,000**. If you had to choose, would you choose building A or building B?

[PICTURE COORESPONDS TO TREATMENT ASSIGNMENT; L/R ROTATED].

Building A (ROTATED)	**Building B (ROTATED)**
	
This proposed building is **X stories high**, with **X apartment units** for renters. The developer will pay a tax to account for the impact on public services such as schools or traffic.	This proposed building is **X stories high**, with **X apartment units** for renters. The developer will pay a tax to account for the impact on public services such as schools or traffic ***and will make an additional voluntary contribution of $500,000 to the local park in need of repairs.***

I prefer:

a. Building A

b. Building B

23. Regardless of which building you prefer, imagine you live in the neighborhood where **Building A/B** would be built. If you had to choose, would you support or oppose construction of this apartment building?

a. Strongly support

b. Somewhat support

c. Neither support nor oppose

d. Somewhat oppose

e. Strongly Oppose

COST FRAME:

24. Sometimes, local governments provide new buildings with benefits to cover the costs of construction, such as a grant or a tax cut, paid for by local tax increases or service cuts. New apartment buildings which use more a traditional style and materials like brick are more expensive to build than modern buildings. This leaves traditional style buildings with less money left over which they can make up with tax cuts or grants.

Now, consider two of the same proposals as before, but the more traditional style building **(Building A/B) <u>will</u> receive a grant or tax cut worth $500,000 from the government** while the more modern building **(Building A/B) <u>will not</u>**. If you had to choose, would you choose building A or building B?

[PICTURE COORESPONDS TO TREATMENT ASSIGNMENT; L/R ROTATED].

<table>
<tr><th>Building A (ROTATED)</th><th>Building B (ROTATED)</th></tr>
<tr><td>
</td><td>
</td></tr>
<tr><td>This proposed building is X stories high, with X apartment units for renters.

The developer will pay a tax to account for the impact on public services such as schools or traffic, but the more expensive materials require your local taxes to increase or services to be cut.</td><td>This proposed building is X stories high, with X apartment units for renters.

The developer will pay a tax to account for the impact on public services such as schools or traffic.</td></tr>
</table>

I prefer:

a. Building A

b. Building B

25. Regardless of which building you prefer, imagine you live in the neighborhood where **Building A/B** would be built. If you had to choose, would you support or oppose construction of this apartment building?

    1. Strongly support
    2. Somewhat support
    3. Neither support nor oppose
    4. Somewhat oppose
    5. Strongly Oppose

Next are some questions about yourself.

26. Do you rent or own your home?

    a. Rent (I pay rent, or live with someone who pays rent for me)

    b. Own (I am the homeowner)

    c. Own (I live with the homeowner, such as my spouse or other family member)

    d. Other (please explain)

27. How long have you lived in your current neighborhood?

    a. Less than a year

    b. 1 year

    c. 2 – 5 years

    d. 5 – 10 years

    e. More than 10 years

28. How would you describe the type of building you live in?

    a. Single-family detached house

    b. Duplex, triplex, or townhouse

    c. Small apartment building or condominium (2-10 units)

    d. Large apartment building or condominium (10+ units)

    e. Other (please describe)

29. How would you describe <u>most</u> of the buildings in your neighborhood?

    a. Mostly older construction, traditional buildings

    b. A mix of older construction, and newer more modern buildings

    c. Mostly newer construction, modern buildings

30. Now, for statistical purposes only, we have a question about your income. Last year (in 2023), what was your total family income from all sources, before taxes.
    a. $10,000 - $19,999
    b. $20,000 - $29,999
    c. $30,000 - $39,999
    d. $40,000 - $49,999
    e. $50,000 - $59,999
    f. $60,000 - $69,999
    g. $70,000 - $79,999
    h. $80,000 - $99,999
    i. $100,000 - $119,999
    j. $120,000 - $149,999
    k. $150,000 - $199,999
    l. $200,000 - $249,999
    m. $250,000 - $349,999
    n. $350,000 - $499,999
    o. $500,000 or more
    p. I prefer not to answer
31. Do you have any children?
    a. Yes, have children currently in school
    b. Yes, have children but not in school
    c. No, do not have children
32. What is your gender?
    a. Man
    b. Woman
    c. Non-binary
    d. Neither of these apply
    e. I prefer not to answer
33. What is your age, rounded to the nearest year?
34. What is your race/ethnicity? (Please select all that apply.)
    a. White

   b. Black/African American
   c. Hispanic/Latino
   d. Asian
   e. Native American
   f. Other

Now, we're going to ask you a few questions about your participation in **local politics**.

35. In the past 12 months, have you attended a meeting of any local governmental board of council that deals with community issues, such as city/town council, a school board, or zoning board?
    a. Yes
    b. No
36. In talking to people about politics, we often find that a lot of people don't vote in local elections, such as mayor, city council, or school board. In the past 5 years, how often have you voted in elections for local or city officials?
    a. Never
    b. Rarely
    c. Sometimes
    d. Often
    e. Always
37. In the past 12 months, have you contacted any local elected officials, such as a mayor, town manager, or member of a city/town council, or someone on their staff?
    a. Yes
    b. No

Finally, we're doing to ask you a few questions about your participation in **national politics**.

38. Are you registered to vote?
    a. Yes
    b. No
39. Generally speaking, do you usually think of yourself as a:
    a. Democrat
    b. Republican
    c. Independent
    d. Other

40. [If 48 c,d] If you had to say, do you consider yourself closer to the Democratic Party or Republican Party?

    a. Democratic Party

    b. Republican Party

    c. Neither

41. A lot of people were not able to vote in the 2020 presidential election, because they were not registered, they were sick, or they just didn't have time. Which of the following best describes you in that election:

    a. I did not vote in the presential election

    b. I thought about voting, but didn't

    c. I usually vote, but didn't have the time

    d. I don't know if I voted

    e. I am sure I voted in the presidential election

Appendix E. Affordability

We aimed to provide affordable housing attributes which were externally valid to real world policy and reflected the economic conditions of a respondent's metropolitan area to improve plausibility of our proposed apartment buildings. We surveyed the affordable housing policies of the principal cities of the 30 largest CSAs and documented if these cities (1) had an Inclusionary Zoning (IZ) program, (2) if the IZ program was mandatory to developers and/or geographically concentrated, (3) what the affordable housing set aside(s) were for those with IZ, and (4) what the affordable income limit definitions were for those set asides.

We found that 25 of the 30 principal cities had an IZ program.[1] The structure of these IZ programs varied tremendously in their applicability. Some cities limited IZ to certain neighborhoods and project types while other cities had citywide programs. We found that the modal percentage of units to be set aside as affordable was 10 percent. The modal threshold used to define income limits qualifying as affordable was 60 percent of AMI. However, both the set aside and income limits varied considerably.

Based on this analysis, for our survey experiment we decided to set aside 20 percent of units as affordable with an income threshold of 50 percent of AMI. These are roughly consistent with popular definitions used by cities across the 30 CSAs. Despite 50 percent of AMI being less common than 60 percent, we chose 50 percent as it should be computationally easier for survey respondents to compare against the median household income than 60 percent, and because it is consistent with the HUD definition of "Very Low" income.

For the survey, respondents saw affordable income limits and corresponding rent levels that were custom to their CSA, creating 30 levels. We calculated these using the HUD methodology. We take the Median Family Income at the CSA level from the 2022 American Community Survey. Then we apply the CPI Inflation Factor of 1.0618 to adjust these figures to 2024. Then, we multiply this figure by 0.5 for the Very Low-income limit, and then multiply this figure by 0.3 and divide by 12 to obtain the Very Low income rent level. 30 percent or less of pre-tax income spent on housing costs is the widely accepted definition of what is considered affordable. We complete the same calculation for our Market Rate income, multiplying by 1.5.

We asked our respondents if they considered the Very Low rent affordable for those at the Very Low-income limit as well as themselves personally. Appendix Figure E1 shows those results. Generally, wealthier respondents are more likely to find the rent levels we displayed affordable, both personally and for the target group. Interestingly, respondents for whom the affordability definition best applies, those in the 30-50% of AMI group, only 34 percent found the rent level affordable personally, despite 41 percent saying the rent level is affordable for the group.

[1] The CSAs where we could not identify an IZ program in the principal city: Houston-The Woodlands-Sugar Land, TX Metro Area; Phoenix-Mesa-Chandler, AZ Metro Area; St. Louis MO-IL Metro Area; Las Vegas-Henderson-Paradise, NV Metro Area; and Cincinnati, OH-KY-IN Metro Area.

Appendix Figure E1. Percent of Respondents in Agreement to HUD 50 Percent AMI ("Very Low Income") Affordability Definitions

Respondent Income	Affordable for Group	Affordable Personally
30% AMI or less	42.9%	20.9%
30% - 50% AMI	41.2%	33.9%
50%-80% AMI	45.7%	58.6%
80%-120% AMI	53.6%	78.7%
120%+ AMI	56.8%	91.2%
DK/Refused	26.9%	42.3%
All Respondents	**46.5%**	**52.7%**

Note: Group question included "don't know," whereas the personal question was yes or no. Housing affordability is defined by HUD as no more than 30 percent of pre-tax income spent on housing expenses.