## An environmental policy white paper Infill housing & land use as a tool to fight climate change

### A policy white paper by



**Abundant Housing LA** is a grassroots nonprofit that advocates for policy and action to solve Southern California's housing crisis through the creation of more housing at all levels of affordability.



**Urban Environmentalists** is an organization with a network of 11,000 grassroots activists that aims to transform cities into climate-friendly, sustainable, human-centered, and just communities through land use policy reform.



**Livable Communities Initiative** advocates for a framework that gives neighborhoods the tools to create vibrant streets with beautiful architecture and an abundance of high-quality, low-cost housing -3-5 stories of gentle residential density above retail in commercial corridors.



**Sunrise Movement LA** works to advance intersectional climate justice solutions in the Greater Los Angeles Area. It is the local chapter of a nationwide organization and movement demanding urgent climate action and a Green New Deal.



Los Angeles Climate Reality Project, with over 1,500 members, is the largest of the more than 100 chapters of the international Climate Reality Project. We are everyday citizens, teachers, scientists, activists, artists, and storytellers who work to educate on the truth of climate change and activate others to solve it.



#### Executive Summary

## Housing for climate:

### a straightforward solution to two major crises

We are facing a climate crisis. To address it, we should increase the stock of multifamily housing in urban areas. Increasing urban density and adding housing will not only reduce our emissions, but also allow us to address the cost of living crisis in our cities. Advocates for climate action and advocates for housing can and must work together to tackle these intertwined crises.

Infill housing is one of the best tools that cities and counties have to fight climate change. Building compact, walkable, and transit-oriented housing greatly reduces greenhouse gas emissions and prevents the low-density sprawl that destroys wild habitat. Denser multifamily housing is so environmentally effective that UC Berkeley's CoolClimate Network emphatically states that "infill housing is probably the single most impactful measure that cities could take to reduce their emissions." Moreover, integrating high-performance design in these infill developments can further reduce both energy consumption and GHG emissions while improving comfort and health outcomes for residents.

To address climate change and protect the environment, we must change the way we use land and build housing.

### Our Core Values

# **A guiding principle:** just and equitable housing for climate

Recognizing the urgent need for climate-conscious urban planning, we advocate for an approach that prioritizes *compactness with a purpose*: infill housing development that repurposes and optimizes land within existing urban spaces, preventing the greenfield development and urban sprawl that destroys undeveloped natural habitat at the edge of cities. Our vision includes the full range of affordable and market-rate housing options, ensuring diverse communities can benefit from sustainable, dignified, and cost-effective living solutions. This holistic strategy is necessary to create climate-resilient cities that are full of socio-economic diversity.

However, the transformative and climate-friendly approach to housing that we propose must not, and need not, exacerbate the struggles of historically marginalized communities, who have borne the brunt of both the housing shortage and the climate crisis. That is why we support the Biden Administration's <u>Justice40 Initiative</u>, directing public investments in climate resilience and housing affordability to historically disinvested communities. Simultaneously, we also seek to encourage both unsubsidized market rate and subsidized affordable housing in high-resource areas throughout the region, many of which are historically exclusionary areas that have resisted new infill development. Increasing housing stock throughout the region can lower the cost of housing, thereby protecting vulnerable residents and communities from further displacement.

It is imperative that development strategies be equitable by providing benefits to *all* Angelenos and protecting vulnerable residents from further displacement. Throughout this primer, we hope to convey a clear message: our advocacy for effective climate policy is tied to our unwavering commitment to creating an equitable and just city for all Angelenos.

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#### What is **infill housing**?

**Definition**: Building new housing on vacant or underused land in urban areas. This can involve building on vacant lots, replacing single-family homes with multi-family buildings, or converting underused commercial spaces into housing.

#### **Examples:**

- ► Replacing a single-family home in a walkable neighborhood with 6 townhouses.
- > Building an apartment building on a small parking lot near transit.
- Adding accessory dwelling units (ADUs) in the backyards of single-family homes in an area with high housing demand.

# Why is more infill housing necessary for fighting climate change?

#### Location-efficient housing reduces greenhouse gas emissions

Compact communities produce less greenhouse gas emissions by allowing people to choose from an abundance of transportation options, including public transit, lessening their dependence on cars. Communities dominated by single-family homes require driving—even for the most mundane daily errand—because destinations are spread far apart. In contrast, location-efficient multifamily housing allows people to live closer to schools, jobs, and places of worship, encouraging walking, biking, or public transit use, drastically reducing their carbon emissions. This isn't theoretical either: research shows that every 1% increase in urban population density cuts per capita  $CO_2$  emissions by 0.8%.<sup>1</sup> As a result, increasing population density by 50%—the equivalent of turning every other home into a modest duplex—reduces  $CO_2$  emissions by 42%.<sup>2</sup>

To illustrate how housing must be central to climate investment, consider Los Angeles' efforts to increase ridership on its public transit system. Despite the declaration of a city-wide "<u>Green New Deal</u>" and a county-wide plan to <u>invest \$400</u> <u>billion over the next 30 years</u>, Metro ridership is down 27% from 2019's

<sup>&</sup>lt;sup>1</sup> Ribeiro, Rybski, & Kropp. (2019) Effects of changing population or density on urban carbon dioxide emissions. *Nature Communications*. (Link)

<sup>&</sup>lt;sup>2</sup> Gudipudi, et al. (2016) City Density and CO2 Efficiency. *Energy Policy*. (Link)



The way we design our cities directly impacts our carbon footprint. In compact cities, residents live closer to their destinations, making transit, biking, and walking convenient alternatives to driving, reducing greenhouse gas emissions and improving air quality.

pre-pandemic levels and down a precipitous 43% from its peak in March 2013.<sup>3</sup> All the while, car traffic and fuel consumption has increased steadily. Future investments are unlikely to lead to mobility increased for Angelenos because we have not adequately addressed land use: research shows that residents who live within a half-mile of transit are four times more likely to use transit, including <u>52% of</u> automobile commuters who switch to public transit

instead. To truly transform our mobility and greenhouse gas emissions, we must pair green transportation infrastructure with ambitious changes in land use around major transit stops. This is exactly why the world's most successful public transit systems were created by combining land use and transportation policy into <u>one cohesive strategy</u>.

Outside of transit, denser housing also <u>reduces energy use per person</u> through more efficient cooling and heating. In fact, with housing density alone, you get a greater reduction in energy use than you would get with energy-efficient technology alone.<sup>4</sup> Furthermore, new development offers an opportunity to utilize best practices in green building and high performance design, reducing both energy consumption and GHG emissions while improving comfort and health outcomes. Integrated design can enable green buildings to be constructed at little to no additional cost over legacy designs. In fact, even now all-electric legacy design homes have lower construction costs than mixed-fuel homes, primarily due to the avoided costs of fossil gas infrastructure.<sup>5</sup>

The consensus is clear: experts across the board agree that effective climate policy must include denser development in our cities. A wide range of

Through 2050. Proceedings of the National Academy of Sciences. (Link).

<sup>&</sup>lt;sup>3</sup> Metro ridership numbers pulled from the Los Angeles Metro's <u>Interactive Estimated Ridership Stats</u>. <sup>4</sup> Güneralp, et al. (2017) Global Scenarios of Urban Density and its Impacts on Building Energy Use

<sup>&</sup>lt;sup>5</sup> California Air Resources Board. 2022 Scoping Plan, Appendix F Building Decarbonization. (Link)

experts – including <u>Brookings Institute</u>, <u>environmental scientists</u>, and <u>experts in the</u> <u>Biden Administration</u> – point to urban infill and denser housing as a critical way for cities to cut greenhouse gas emissions. This is particularly important for California, which has the ambitious goals of a drastic emissions reduction by 2030 and full carbon neutrality by 2045. According to a joint report from UC Berkeley and The State of California, we must use denser urban infill to achieve our state's climate goals; without it, we will fall far short of the transformative change that we need.<sup>6</sup>

#### Location-efficient housing also reduces the burdens of air pollution, which are especially severe for communities of color

In addition to reducing greenhouse gas emissions, compact infill housing also greatly reduces air pollution. As previously mentioned, compact housing development allows more people to use non-car transportation like transit and bicycles, and research shows that air pollution falls significantly when more people take subways.<sup>7</sup>

Nowhere is the need for reduced air pollution more dire in the United States than Southern California. Air pollution is a global environmental health problem that kills upwards of 10 million people globally a year.<sup>8</sup> Southern California is particularly impacted since it has the worst air in the United States: a recent report from the American Lung Associated found that "greater Los Angeles remains the smoggiest metropolitan area in the nation," and assigned the Los Angeles metro area's air a grade of "F."<sup>9</sup> Importantly, air pollution causes the most harm to communities of color,<sup>10</sup> particularly in Los Angeles where wealthier and whiter residents disproportionately produce car-created air pollution that Angelenos of color inhale.

Greater Los Angeles can reduce air pollution by allowing more Angelenos to live near subways, trains, and non-car transit. Simply switching from gasoline-powered

<sup>&</sup>lt;sup>6</sup> Page 304 in Zabin, et al. (2020) Putting California on the High Road: A Jobs and Climate Action Plan for 2030. (Link)

<sup>&</sup>lt;sup>7</sup> Gendron-Carrier et al. (2022). Subways and Urban Air Pollution. *American Economic Journal: Applied Economics*.

<sup>&</sup>lt;sup>8</sup> Wallace-Wells. "Air Pollution Kills 10 Million People a Year. Why Do We Accept That as Normal?" *New York Times.* July 8, 2022. (<u>Link</u>).

<sup>&</sup>lt;sup>9</sup> Briscoe. "Los Angeles Gets 'F' Grade for Air Quality Once Again in National Report." *Los Angeles Times*. April 19, 2023. (<u>Link</u>).

<sup>&</sup>lt;sup>10</sup> Inequitable Exposure to Air Pollution from Vehicles in California, Union of Concerned Scientists. February 2019. (<u>Link</u>); Racial, Ethnic Minorities and Low-Income Groups in U.S. Exposed to Higher Levels of Air Pollution, Press Release, Harvard T.H. Chan School of Public Health. Jan. 12, 2022. (<u>Link</u>).

vehicles to electric ones is not enough. We instead need to reshape the cityscape of Southern California. All vehicles—whether electric or not—create particulate matter from brake dust and tire wear on roads, which contributes to air pollution. In fact, since electric vehicles are typically heavier than traditional cars, they create even more particulate emission from their tires.<sup>11</sup> Therefore, so long as the same number of cars remain on the road, cities will see little gains in air quality. In order to reduce outdoor air pollution, we must build housing and transit together.

Air quality inside homes also affects human health. The use of fossil fuel-burning equipment and appliances results in higher concentrations of nitrogen dioxide, particulate matter, and other air pollutants; one-fifth of childhood asthma cases in California are attributable to gas stoves alone.<sup>12</sup> This is expected to change over time as energy codes and other policies take effect and new developments are designed with all-electric appliances and better ventilation.

#### Building up stops the urban sprawl that destroys wild habitat

By favoring single-family homes, Southern California land-use practices force growing cities to build out and use surrounding land, destroying vital habitat for countless species in the process. The average detached single-family house requires a fifth of an acre of land.<sup>13</sup> Accordingly, a city planned for single-family homes would require 20 acres to house 100 families. As that city doubles to 200 families, it would need to double the land taken to 40 acres.

You can imagine how that number continues to balloon in size as the city's population grows, forcing more and more wild habitat to be consumed by development. Additionally, the exurban development and roadway construction needed to build housing on the periphery can further <u>fragment habitats</u>, impeding the ability of mountain lions and other animal species to migrate, feed, pollinate, or breed.

While low-density development with green yards and gardens may seem environmentally friendly, research increasingly supports building up as a more

<sup>&</sup>lt;sup>11</sup> Carrington. "Car Tyres Produce Vastly More Particle Pollution Than Exhausts, Tests Show." *The Guardian,* June 3, 2022. (<u>Link</u>).

<sup>&</sup>lt;sup>12</sup> Gruenwald et al. "Population Attributable Fraction of Gas Stoves and Childhood Asthma in the United States." *International Journal of Environmental Research and Public Health*, December 21, 2022. (<u>Link</u>).

<sup>&</sup>lt;sup>13</sup> Kolomatsky. "Which States Offer the Largest Lot Sizes for Home Buyers?" *The New York Times,* September 8, 2022. (Link).

effective strategy to protect biodiversity.<sup>14</sup> Known as "land sparing," this approach focuses on building densely so that cities use less land, leaving more room for nature. Building up through reasonable urban density prevents us from needing to build out through urban sprawl, protecting vital habitat. If the same city builds small 5-unit apartment buildings on each single-family plot-allowing five families to live where just one could before - then it would only take 8 acres to house 200 families, sparing 80% of the habitat that would've been destroyed. Increase the density to 10-unit buildings, and even more land can be preserved.



Building up, not out: Compact multi-family housing like this modest five-story apartment building can house significantly more people on the same amount of land as a few single-family homes. Efficient land use preserves valuable green space within cities and protects wild habitat from urban sprawl.

We need to protect undeveloped habitats for both the environment and human health. Ecologically, open spaces play a key role in carbon sequestration and promoting biodiversity. Additionally, open space is critical to our own well-being since research shows that being in nature improves our health.<sup>15</sup> Access to nature is also important for children and youth to learn from nature firsthand.

Sitting in one of the world's <u>biodiversity hotspots</u>, cities in Los Angeles County can play a major role in preserving wildlife habitats by building up instead of out. 65% of the county remains natural land, but over half of this habitat remains vulnerable to urban sprawl because it is not within a protected area.<sup>16</sup> With up to one third of terrestrial species threatened by urban sprawl,<sup>17</sup> we urgently need to use land

<sup>&</sup>lt;sup>14</sup> Stott, et al. (2015) Land sparing is crucial for urban ecosystem services. *Frontiers in Ecology and the Environment*. (Link)

<sup>&</sup>lt;sup>15</sup> Barton, et al. (2017) The importance of greenspace for mental health. *BJPsych Int.* (Link)

<sup>&</sup>lt;sup>16</sup> Reid-Wainscoat, et al. (2021) 2021 Sustainable LA Grand Challenge Sustainability Report Card for Los Angeles County Ecosystem Health. (Link)

<sup>&</sup>lt;sup>17</sup> Smikin, Seto, MacDonald, & Jetz (2022) Biodiversity impacts and conservation implications of urban land expansion projected to 2050. *Proceedings of the National Academy of Sciences*. (Link)

efficiently and build denser housing to save Southern California's extraordinary biodiversity. This is precisely why the Yale School of the Environment <u>states</u> that "cities can be part of the solution in sustaining species" by sparing land through compact development.

#### > Compact growth helps build climate resilient cities

LA County will face dramatic climate change impacts by mid-century. Extreme heat events will increase in frequency, severity, and duration, with up to a tenfold increase in the occurrence of heat waves, with the largest increases in the Santa Clarita and San Fernando valleys. Sea levels will rise up to 2.5 feet, leading to more frequent and severe coastal flooding in low-lying areas. And increasing temperatures and drought conditions will contribute to larger, more frequent, and more destructive wildfires. In the San Gabriel Mountains, the wildfire burn area may increase as much as 40 percent.<sup>18</sup>

Focusing on building up, compactness with purpose allows more people to live in areas less prone to the worst impacts of climate change. Urban sprawl increasingly displaces lower-income residents to the outer edges of cities and metropolitan areas,<sup>19</sup> where they <u>face intense heat</u> and <u>long polluting commutes</u> to their jobs, robbing people of time with their families and contributing to negative physical and mental health outcomes. In the Westside and Beach Cities, exclusionary housing policies have led to the construction of massive and prohibitively expensive single-family homes, barring most Angelenos from living in a milder coastal climate and living closer to jobs. Building affordable multifamily housing in these mild coastal subregions is not only an act of environmental prudence that reduces the risk of heat-related health issues and excessive energy consumption, but it is also an equitable choice that corrects for historical social inequities.

Infill development also promotes social cohesion by allowing a broader range of people to live in and contribute to their communities. Strong social networks provide greater resilience during climate-related emergencies, particularly for vulnerable populations including but not limited to youth, older adults, and people with disabilities.<sup>20</sup>

<sup>&</sup>lt;sup>18</sup> LA County Climate Vulnerability Assessment. (Link)

<sup>&</sup>lt;sup>19</sup> Stromberg. "How suburban sprawl hurts the poor" *Vox,* May 22, 2015. (Link)

<sup>&</sup>lt;sup>20</sup> Kafeety et al. (2020) Social connection as a public health adaptation to extreme heat events. Can J Public Health. (<u>Link</u>)

Compact infill development also concentrates public investment in existing communities, ensuring that public services remain resilient, efficient, and cost-effective. By capitalizing on existing infrastructure — roads, water and sewer pipes, and power utilities — infill is more cost-effective and less resource-intensive than building in undeveloped areas. Compactness also means that public services ranging from public safety to sanitation are not spread thin across a large area. Finally, denser cities allow us to preserve our natural forests and - with thoughtfully crafted urban design and policy - maintain and expand our collection of urban trees that provide essential cooling shade for communities.

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## What are important housing policy considerations for building a climate-friendly city?

While crafting policy to increase the supply of climate friendly multifamily units throughout the city, here are some other important considerations to keep in mind:

#### Displacement protection and renters' rights

Urban development must be balanced with strong tenant protections to prevent the displacement of vulnerable residents. This is why it is critical to pair urban infill with the enforcement of policies such as just-cause eviction protections, right to return for low-income tenants, financial and legal housing assistance, and the preservation of current affordable housing stock (e.g., existing multifamily housing). Protective policies like these ensure that as the city grows, it remains a secure place for all Angelenos.

# Correcting a history of exclusion in high-resource communities

Segregation and zoning are inextricably linked. We tend to think of zoning as natural in cities, but it is a relatively recent invention that has, since the beginning, been

used to enforce race and class exclusion.<sup>21</sup> Prior to the 1910s and 1920s, cities did not use zoning and instead let housing develop naturally according to people's desire to live in certain areas. In some places, this led to public health concerns such as exposure to pollution from industrial activity, and cities developed zoning regulations to separate residential and industrial areas. However, zoning also came with the explicit intent of exclusion: first, to explicitly enforce racial segregation and then, after this practice was made illegal, to implicitly continue racial segregation by instead using zoning to enforce class segregation.<sup>22</sup> By zoning an area exclusively for <u>single-family housing</u>—the least affordable and least efficient form of housing—neighborhoods could lock their community's composition in amber. No new homes could be built in the area, making them prohibitively expensive and therefore keeping out other people who had previously been explicitly banned, namely Black, Brown, Asian, and Jewish residents.

Despite zoning's harmful history, cities continue its unjust legacy to this day: most major American cities set aside that vast majority of their residential land for single-family housing. Despite being the US city with the highest housing costs relative to income, Los Angeles astonishingly <u>sets aside 74% of its land to allow only single-family homes</u>!

In light of this history, we believe that equitable housing policies, while essential across all neighborhoods, need to pay special attention to these exclusively zoned neighborhoods. We can do this by ensuring that all neighborhoods play by the same zoning rules. This will ensure that more housing, especially types of housing that are naturally more affordable, are built in high-resource areas with access to good schools and opportunity-rich job centers. By loosening exclusionary zoning, especially in high-resource areas, cities can simultaneously address long-standing social injustices, reduce vehicle travel, and foster a more climate-conscious and equitable city.

#### Meeting diverse housing needs

Households in Los Angeles have diverse space needs, ranging from single persons to intergenerational families, students to seniors, people with disabilities to the able-bodied, pet owners to small business owners operating from home. Offering a variety of housing typologies, such as apartments, townhouses, and condominiums,

<sup>&</sup>lt;sup>21</sup> Gray (2022). <u>Arbitrary Lines: How Zoning Broke the American City and How to Fix It</u>. *Island Press.* (Link)

<sup>&</sup>lt;sup>22</sup> Rothstein (2017) <u>The Color of Law: A Forgotten HIstory of How Our Government Segregated</u> <u>America</u>. W.W. Norton. (<u>Link</u>)

allows people to choose residences that align with their living preferences, family size, and individual circumstances. Diverse housing options also provide choices at different price points, making rental housing or homeownership accessible to individuals across various income levels. This is crucial for economic inclusivity and preventing housing from becoming a barrier to upward mobility.

One approach towards increasing the diversity of housing options is <u>social housing</u>, a publicly backed approach whereby government agencies act as housing developers, creating homes that are affordable to individuals and families of different income levels, including workforce or middle income households, which typically include teachers and civil servants. Such an approach is distinct from current approaches to publicly subsidized housing, as it is designed to create mixed-income neighborhoods and avoid concentrating poverty.

#### **Create room for accessible public parks & plazas**

Increased urban development in Los Angeles presents a prime opportunity to weave public green spaces into the cityscape, which currently <u>ranks near the bottom</u> of American cities for parks and greenspace available to residents. As we optimize land use for housing, we must ensure that there is dedicated land set aside to create the public green space essential for our health and well-being.<sup>23</sup> We can achieve this by constructing new parks, plazas, and parkettes, and by allowing more multifamily housing to be built near existing parks.

Taller multi-family buildings also allow creative solutions for creating public green space, such as roof-top and plaza-level green spaces. As the city grows taller, we can the cherished preserve of low-density aspects development: light, air flow and views of the sky and surroundings. Drawing inspiration from successful examples in New York City, Chicago, San Francisco, and



Building up leaves room for public green space.

<sup>23</sup> Novick, Lisa, Testimony to Los Angeles County Metro Authority Expo Line Board of Directors, January 10, 2013 Japan, we can transform the top levels of multi-story parking structures and large structures — often host to some of the city's best publicly-accessible views — into verdant public green spaces. Instead of reserving these well-lit and prime views for cars, we can prioritize public access and designs that put people before automobiles.

#### > Mobility & transit are key for compact, sustainable cities

To complement increased housing density, sustainable cities must also include robust transit and mobility options. For a truly walkable and bikeable community—one that will allow Angelenos to live car-lite or car-free lifestyles—street design should not only prioritize pedestrian safety and transit accessibility but also create an inviting and interactive urban landscape.



Dedicated bus lanes, protected bike lanes, and pedestrian friendly streets enable a sustainable city.

First, street design should prioritize the safety of pedestrians and the accessibility of transit. Each year, hundreds of pedestrians are killed by vehicles in Los Angeles,<sup>24</sup> while buses sit in gridlock alongside privately-owned cars. We can easily change this by pairing compact housing development with grade-separated bike lanes, dedicated bus lanes, better-designed bus shelters, and <u>pedestrian-safe intersections</u>. These shifts in street design will change the perception of public transit and non-car travel, making them safer and more appealing options.

Second, we can go beyond safety and make truly pleasant streets. People are more inclined to walk and cycle when streets offer shade, reduce noise, and minimize the presence of high-speed traffic. Drawing from the Livable Community Initiative's <u>vision</u>, we can transform streets into vibrant, pedestrian-friendly areas with trees, al fresco dining, and slow-moving cars. These changes will foster an urban environment that is enjoyable and emits far fewer greenhouse gasses.

<sup>&</sup>lt;sup>24</sup> Los Angeles was the second-deadliest American city for pedestrians in the past 10 years. *The Los Angeles Times*. December 7, 2022. (Link)

# Designing for biodiversity can maximize the environmental benefit of urban land

While prioritizing land sparing through urban density is crucial for sustainable development, we can create additional environmental benefits by enhancing the ecological value of our built environments. Because our climate crisis is also a biodiversity crisis – risking the loss of up to 50% of all land-based species this century <sup>25</sup>—we cannot afford to think of our cities and towns as only for humans. By incorporating native plants, rainwater capture features, and toxin-free nature-based maintenance solutions into our built environments, we can transform public parks, plazas, and even alleyways and rooftops into thriving habitats for pollinators and other species in our neighborhoods. At the urban scale, these green infrastructure solutions connect habitat corridors through a series of green "stepping stones." This approach not only enhances urban habitats and supports natural food webs, but also improves local air and water quality while providing psychological and physical benefits to city residents who can enjoy these thriving pockets of natural space. In essence, by thoughtfully designing our built environments, we can integrate nature into the urban landscape, maximizing the environmental benefit of every square foot of land while maintaining a focus on the crucial strategy of land sparing through higher-density housing.

We can further bolster the urban ecosystem by integrating ecologically friendly design into building design. Sustainable development must creatively prioritize all the factors that allow for healthy urban density. Lots in high-opportunity areas – close to jobs, transit, and services – offer crucial opportunities to prioritize land-sparing through increased housing density. But healthy sustainable development means considering how best to combine compact multifamily housing with features like native landscaping to enhance biodiversity and drought tolerance, native shade trees to bolster our urban forest and offset the heat island effect, and rainwater capture to support landscape irrigation and recharge groundwater supplies. Policymakers can incentivize good design by both prioritizing density and the role housing plays as part of a living urban ecosystem, fostering a built environment that benefits both people and the planet.

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<sup>&</sup>lt;sup>25</sup> Nicholas Stern (2006). <u>The Economics of Climate Change</u>.

# What does housing-for-climate policy look like?

Land use, zoning, and housing are primarily the responsibility of local governments. Many local governments do not have direct control over emissions from their energy supply, transportation, and solid waste systems, and must rely upon partnerships and statewide policymaking to transform these sectors. Large-scale climate policies – carbon taxes, international emissions treaties, and subsidies for renewable energy – lie in the domain of the Federal government. However, at the local level, *urban infill development strategies are the perfect lever to enact effective climate policy*.

Here are some examples of effective climate-friendly urban infill housing policies that local governments can implement right now, including example cities that have successfully used them:

# (1) Upzone residential areas, particularly near jobs in historically exclusionary areas

We believe that cities should aim to build housing throughout their city, especially in high-resource neighborhoods that currently prohibit housing the most. By this we do not mean that only high-resource neighborhoods should build housing; rather, that when all neighborhoods are required to play by the same zoning rules, <u>research shows</u> that the historically exclusive neighborhoods end up building most of the new housing.

A powerful example comes from Houston, TX, which has a history of sprawling land use much like Los Angeles. While its urban planning mistakes mirror those in cities around the country, Houston is unique in its conviction to reform the policies that created sprawl in the first place. In the late 1990s, Houston's government shrank minimum lot sizes laws—a historic hold over of zoning that aims to exclude—throughout the city, allowing more efficient and affordable forms of housing to be built.<sup>26</sup>

Houston's efforts have borne fruit throughout the city: it has successfully densified its urban core and inner-ring suburbs, with most new housing being built in

 $<sup>^{26}</sup>$  Lot-Size Reform Unlocks Affordable Homeownership in Houston. (September 2023). Pew Charitable Trusts. (Link).

high-resource neighborhoods. Since implementing the reform, nearly 80,000 townhomes — a more affordable and efficient form of housing that offers many of the traditional financing advantages of a single-family home — <u>have been built</u> in high-opportunity areas of the city that were previously exclusively single-family homes. Despite minimum lot size reform taking place city-wide, most of the new housing and density was built in high-opportunity areas that had historically opposed new housing, demonstrating how uniform upzoning will result in equitable outcomes. Following Houston's lead, <u>Minneapolis</u> and <u>California</u> have recently implemented their own versions of missing-middle reforms in the hope of altering their suburban land-use patterns.

A particularly ambitious leader might consider following Houston's most unique land-use practice: a complete lack of zoning throughout the city — the ultimate form of upzoning!

#### (2) Streamline production of ADUs and other types of "missing middle" housing

Allowing medium-density multifamily development — such as accessory dwelling units (ADUs), duplexes, townhomes, and courtyard apartments — introduces moderately dense housing options, filling the gap between single-family homes and high-rise apartments. This approach increases the housing supply and creates more housing diversity, promoting affordable and climate-friendly housing options that optimize existing urban spaces without significantly altering neighborhood character.

Many California cities have embraced state ADU laws which have made it easier for people to build attached and detached ADUs. Statewide, permits have increased by 88% between 2019 to 2022, with over 17,000 new ADU units constructed in 2022 compared to under 6,000 constructed in 2019.<sup>27</sup> ADUs are a version of naturally-occurring affordable housing which provide a lower-cost housing option for seniors to age in place, for multiple generations of a family to live in closer proximity, and for homeowners to generate a source of income while providing new housing for individuals, couples, or small families.<sup>28</sup> They typically require fewer resources to construct and operate and have a smaller carbon footprint than larger developments. Built to modern standards, ADUs can increase comfort and reduce energy costs for occupants.

<sup>&</sup>lt;sup>27</sup> Brown Calder and Gygi, The Promising Results of Accessory Dwelling Unit Reform. (June 2023). CATO Institute Blog. (Link).

<sup>&</sup>lt;sup>28</sup> Accessory Dwelling Units. California Department of Housing and Community Development. (Link).

State laws that cities can embrace to promote the production of naturally-occurring affordable housing include <u>SB 9</u>, which enables homeowners to split their single-family lot into two and build duplexes on each lot (effectively legalizing four homes where previously there was one), and <u>SB 10</u>, which allows cities to opt-in to allow up to 10 homes to be built per parcel in transit-rich areas. These bills increase a wider variety of "missing middle" homes that can be built such as duplexes, triplexes, and fourplexes, making infill density and intergenerational living possible.

# (3) Legalize a variety of housing types including SROs and single-stair buildings

To increase the supply of affordable and sustainable housing in urbanized areas, we can look at legalizing and promoting housing types that used to be legal in the U.S. — such as single-room occupancy (SRO) units and housing over retail — or that are legal outside of the U.S. — such as single-stair buildings.

SRO housing was abundant in the late 19th and early 20th centuries for single workers in America's growing cities. SROs were rooms- or beds-for-rent that offered a flexible housing option for the working class, wounded soldiers, disabled, or elderly. In the 1950s, SROs fell out of political favor, and many cities banned SRO construction, even including in New York City in 1955. In decades that followed, over 1 million SRO units in the U.S. were destroyed or consolidated into luxury homes.<sup>29</sup> Partially due to the destruction of SROs in downtown areas, homelessness has increased dramatically since the 1980s as a result.<sup>30</sup> Today, legalizing SRO units can help to address homelessness by preventing homelessness with a low-cost fallback housing option for people who are struggling financially, and making it easier to build various types of supportive housing to bring people off the streets.

Legalizing single-stair buildings is another way to encourage affordable, energy-efficient, and livable housing. At present, California law requires that apartment-buildings have two separate staircases. As a result, many apartment buildings feature hotel-style corridors — with units on either side that run the length of the structure and connect the two staircases — resulting in sterile floor plans and huge boxy buildings. The two-staircase requirement also makes apartment units

<sup>&</sup>lt;sup>29</sup> Aberg-Riger. The Rich American Legacy of Shared Housing. *Bloomberg*, May 2, 2023. (Link).

<sup>&</sup>lt;sup>30</sup> Permanent Supportive Housing: Evaluating the Evidence for Improving Health Outcomes Among People Experiencing Chronic Homelessness (2018). National Academy of Sciences. (<u>Link</u>).

less livable: units typically only have windows in one direction, preventing the light or cross-ventilation that is created with windows on both sides of the unit.<sup>31</sup>

If legalized, apartment buildings with a single staircase could be an efficient and beautiful alternative. These buildings are the norm for new mid-rise apartments in Europe, Asia, and Mexico. Single-stair buildings are often more pleasant and family-friendly to live in. Importantly, because these buildings make it easier to construct units with windows facing multiple directions, residents of single-stair buildings can often rely on natural ventilation, instead of air-conditioning, lowering the energy demand and carbon-footprint of the building. The compact design of single-staircase buildings also increases the square-footage of units and requires less overall space for development. This efficiency frees up room for public green space and allows us to create vibrant community main streets by placing <u>3-5 stories of housing over small businesses</u>.

New York City and Seattle have legalized single-stair buildings to six stories, with requirements for fire safety such as automatic indoor sprinklers and requiring building materials that are non-combustible.<sup>32</sup> <u>AB 835</u> directs the state fire marshall to research and develop standards for single-stair buildings to build a wider variety of family-sized apartments and flats. Cities in Southern California can take a cue from Seattle and New York City to lead the way to legalize beautiful single-stair buildings.

# (4) Promote transit- and mobility-oriented housing development

Building more multifamily housing near mass transit—both by upzoning and by adding extra development streamlining—is essential for increasing mass transit use. Drawing ideas from the Livable Communities Initiative model, we can create car-lite communities around these transit hubs. This transit-oriented approach not only increases access to existing transit networks without the need for new infrastructure, but it also transforms the urban landscape into more walkable and bike-friendly communities.

Lying just across the Potomac River from Washington DC, Arlington County, VA provides a successful example as <u>a leader on transit-oriented-development</u>. Arlington opted to place transit stops in commercial centers instead of along

<sup>&</sup>lt;sup>31</sup> Grabar. The Single-Staircase Radicals Have a Good Point. *Slate*, December 23, 2021. (Link).

<sup>&</sup>lt;sup>32</sup> Editorial, How Changing the Rules on Stairways Could Help California Build More Homes. *Los Angeles Times,* August 11, 2023. (Link).

freeways and encouraged housing development around each transit stop through incentives, including large density bonuses for affordable housing and modest bonuses for <u>green building</u>. As a result of this savvy development strategy, Arlington County now has <u>one of the highest rates of public transit use</u> in the country. Importantly, unlike LA, Arlington's transit ridership has increased over the 2010s – even without adding new rail lines! – while car traffic has <u>dropped</u>.

In addition to decreasing polluting motor vehicle traffic, Arlington's transit-oriented development has been a boon to housing affordability. During the 2010s, housing costs <u>decreased</u> in real terms, with rent and sales prices rising slower than inflation. Importantly, the <u>Washington DC metropolitan area</u>, and <u>Arlington County</u> specifically, are economically booming areas, much like LA and San Francisco. Thus, Arlington serves as an important reminder that economic growth does not need to mean sky-rocketing housing costs and car dependency.

To bolster our transit-oriented development strategy, we must ensure that single-family neighborhoods are <u>not excluded</u> from transit upzoning policies. Allowing transit-oriented development in single-family parcels within a half-mile of transit is an easy way to change that gradually. Using the Livable Communities Initiatives vision of tree-lined streets, protected bike lanes and minimal vehicle traffic, and housing over retail, we can make transit more accessible while also maintaining the peaceful and green environment that many love about single-family neighborhoods.

# (5) Eliminate costly parking mandates that prioritize polluting cars over people

Eliminating mandatory <u>minimum parking</u> requirements for new developments cuts unnecessary construction and promotes sustainable transportation modes like public transit, walking, and cycling. These mandates often require an arbitrary number of parking spaces – far more than residents even use<sup>33</sup> – increasing housing costs, urban sprawl, and carbon emissions. Abolishing them enables more affordable, inclusive, and environmentally friendly housing tailored to the local needs of residents and their neighborhood.<sup>34</sup> For more on this, see the <u>Parking</u> <u>Reform Network</u>.

<sup>&</sup>lt;sup>33</sup> Shoup. The High Cost of Free Parking. (*Routledge*, 2005)

<sup>&</sup>lt;sup>34</sup> Manville and Shoup. (2010) Parking Requirements as a Barrier to Housing Development: Regulation and Reform in Los Angeles. *University of California Transportation Center*. (Link).

San Diego has successfully shown the impacts of abolishing parking minimums. While San Diego has long-been a car-dependent metro with a mostly suburban land-use pattern, recent reforms around transit have driven results. As a part of those reforms, the city ended all parking requirements near transit in 2019, and in the following year, saw a <u>fivefold increase in the amount of affordable housing built</u>. Research has repeatedly shown that <u>low-income residents are more likely to use transit and not own a car</u>, and parking mandates make it impossible for developers to cater to their needs. Without the cost of parking mandates, developers found it far more economical to build 100% affordable housing adjacent to transit.



### Thank you

We appreciate you taking the time to read this vision for a better, more sustainable, more equitable, and more affordable Los Angeles.