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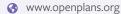
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ABOUT OPEN PLANS

Open Plans' mission is to transform the streets of New York City to be truly livable for the residents of this city.

Open Plans uses tactical urbanism, grassroots advocacy, policy and targeted journalism to promote structural reforms within city government that support livable streets, neighborhoods and the city-at-large.

Parking Minimums are Parking Mandates: Lifting Parking Mandates in New York City

EXECUTIVE SUMMARY

New York City is facing a housing crisis, a climate crisis, and an urgent need to foster economic development and walkable neighborhoods. It has fallen behind most major cities in the United States by failing to reform its outdated and burdensome parking requirements; doing so would help address these problems. Parking mandates stifle both affordable and market-rate housing development, make our city less walkable and livable, and exacerbate our climate crisis. In this white paper, we lay out the evidence against parking mandates. Case studies show how mandated parking stymies affordable development and economic growth, and highlight how Buffalo, New York successfully lifted their parking mandates. Based on this, we make the argument that New York City should seize this once-in-a-generation opportunity to fully lift their parking mandates as part of the Zoning for Housing Opportunity Text Amendment.

Overview

- Parking minimums are a type of zoning rule that require a certain amount of off-street parking to be built along with any new residential, commercial, or mixed-use construction, creating a parking mandate.
- Parking mandates hinder affordable and market-rate housing development, raise construction costs and rents, and lay a disproportionate cost burden on low-income households.
- Building subgrade parking can cost an estimated \$150,000 per space.
- For every 1.2 parking spaces constructed, one unit of housing is lost — an almost one to one tradeoff.
- Mandating parking makes our city more car-reliant, our neighborhoods less walkable, and contributes to the climate crisis.
- The most effective policy response is to simply lift parking mandates citywide.

 A poll of New York City residents found that 68% of residents support fully lifting parking mandates.

Benefits of Fully Lifting Parking Mandates

- Lifting parking mandates has been shown to effectively and proactively create housing and remove some cost burden from low-income, nondriving renters, both of which are sorely needed in our housing crisis.
- Removing restrictive parking mandates will help businesses grow, allow new businesses to thrive, and remove the unnecessary drag mandates create on our economy.
- By removing burdensome rules and simplifying our zoning code, lifting parking mandates also lifts unnecessary bureaucracy and red tape.
- Through advocacy and demonstrated public support, Buffalo, New York was able to lift parking mandates citywide in 2017. Evidence from the years following showed that 47% of major developments in Buffalo built less parking than previously required. While developers often still built parking, it was not at an arbitrary rate but instead matched demand.

Recommendations & Conclusion

- The City must fully lift parking mandates
 citywide. It is vital that the City center the benefits
 of such a policy change, namely that it would help
 address our housing crisis, improve livability, spur
 economic development, and reduce the impact
 of climate change.
- Legislative remedies like a State bill that would expedite the environmental review process for lifting parking mandates and a City Council resolution in support of fully lifting them — will help this crucial policy become law.

Background

WHAT ARE PARKING MANDATES?

There are countless zoning rules that make up New York City's Zoning Resolution. One of those rules — parking minimums — has a sizable impact on our city's housing, economic development, livability, and climate. Parking minimums require a certain amount of off-street parking to be built along with any new residential, commercial, or mixed-use construction. For example, a rule may require developers to build one parking space per apartment or 100 spaces per new storefront. This off-street parking takes the shape of subgrade parking lots — structures below the building — or as at-grade parking lots. Subgrade parking lots are more common in New York City due to land constraints, and are more expensive and difficult to build than atgrade lots (which are either traditional surface parking lots or garages at the ground level of a building).

This means that as a rule, in most of New York City, the City requires developers to build parking spaces regardless of demand. This essentially creates a "parking mandate," where developers have no choice but to build parking instead of utilizing that space for other purposes.

THE HARM OF PARKING MANDATES

Onerous parking mandates reduce the overall number of housing units produced, negatively impact walkability and livability, and contribute to the climate crisis.

By forcing New York City developers to allocate space for parking in every new project, parking mandates hinder the development of all types of housing. They reduce the number of market-rate units built in developments, but also have an outsized impact on affordable development. In affordable developments, costs are already a barrier to development, and every additional required parking space makes a project less feasible by placing further economic and construction burden on the non-profit developer or city.¹ Put plainly, requiring parking "kills some homes at the planning commission [and] kills others on an architect's desk,"

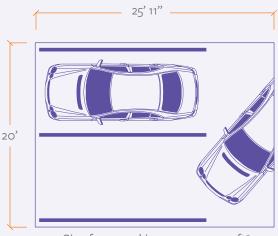
while countless other projects are abandoned even before any records are made.²

Not only do parking mandates prevent housing from being built, they also raise housing production costs and rents, which impacts the lowest-income renters most. Creating structured off-street parking in New York City can cost \$150,000 per space, and one study estimates that building parking garages contributes an additional 17% to a unit's rent. 3 And in affordable developments, requiring one parking spot per unit of housing raises total development costs by about 12.5%, and two parking spots raises costs by about 25%; these additional development costs translate into higher rents.4

Figure 1: Parking Space vs. Living Space⁵



Size for a studio apartment: 500 ft²



Size for 2 parking spaces: 500 ft²

Despite the fact that low-income households own cars at a lower rate than their high-income counterparts, they bear the brunt of these additional costs. As an example, if two parking spaces cost an additional \$100 in rent for households, that represents just 3.3% of a \$3,000 per month luxury apartment, but 6.7% of a \$1,500 per month basic apartment.⁶ Through parking mandates, low-income renters are forced to subsidize richer residents' parking spots.

Parking lots and at-grade parking also make our neighborhoods less livable. They occupy valuable space that could be used for storefronts, green space, and other more dynamic uses. Large parking lots spread neighborhoods apart by acting as physical barriers separating homes and businesses, which makes them less dense and less walkable. This forces residents to have to drive to their daily activities, creating a self-perpetuating cycle of car-dependence. Further, parking garages on the ground floor of residential and mixed-use buildings prevents vibrant retail from occupying that space and instead fosters dead zones that make neighborhoods feel less inviting and joyful. These features in turn make communities more car dependent, less accessible, and less safe for pedestrians.

Off-street subgrade parking also presents issues of public space and livability. Due to land constraints,

subgrade parking is prevalent in New York City, and lots often extend beyond the bounds of the building itself. Due to the fact that the parking structure is directly underneath, planting greenery above subgrade parking lots is difficult because many plants are not able to root in such shallow soil. This runs counter to efforts to plant more greenery around the city, and a lack of urban green spaces worsens air quality and contributes to the heat island effect.⁷

Not only do parking mandates perpetuate this vicious cycle, they also encourage car ownership by making it cheaper and easier for residents to find parking. These factors together encourage our government to invest further in private vehicle infrastructure as opposed to public transportation. When vehicle travel lanes and parking are prioritized, it is politically and physically more difficult to install bus lanes, bike lanes, and other modes of shared mobility. This lack of investment in public transportation disproportionately harms lowincome New Yorkers and New Yorkers of color. And contrary to popular belief, more parking does not mean less congestion — it actually creates more congestion and traffic; studies have shown that on-site parking is a clear and direct incentive to own a car.8 Therefore, car-dependence and parking mandates harm all users — including drivers.

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Figure 2: Cycle of car-dependence



The Cost of Parking Mandates

In New York City, studio apartments range from around 400 to 600 square feet.9 The average cost per square foot of residential housing in New York is \$375.10 Through these figures, we can estimate the impact that parking mandates have on a potential development.

Using the average square footage of a studio apartment (500 sq ft) and average cost per square foot, we can estimate that an average 500 sq ft apartment costs \$187,500 to construct. Estimates indicate that subgrade parking structures — which most new developments in New York City are required to construct due to land constraints — can cost an estimated \$150,000 per space." Therefore, we can estimate that for every 1.2 spaces constructed, one unit of housing is lost — an almost one to one tradeoff.

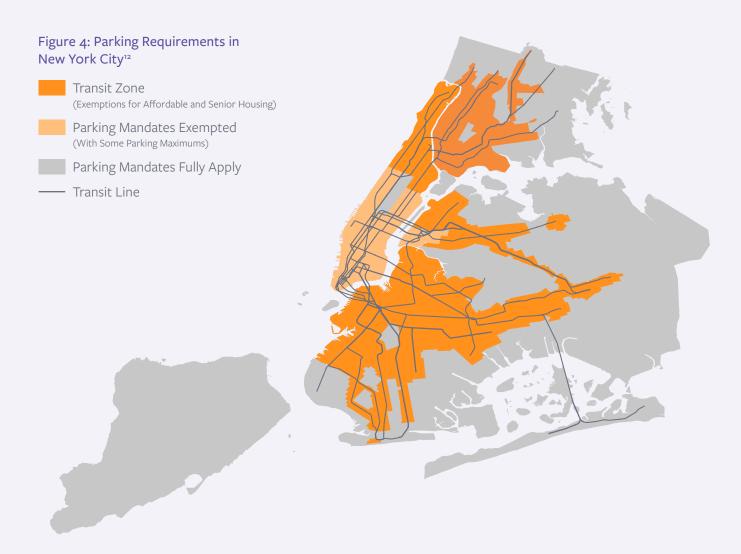
For a hypothetical 100 unit development of studio apartments that requires a .4:1 space to unit ratio, there would be 40 parking spaces (likely subgrade) mandated. The cost to build 40 parking spaces is approximately the same as the cost to build 33 studio apartments. In this example, mandated parking could result in 33 fewer units of housing built. In a housing crisis, we need to ensure that we're building more units of housing, not more parking.



~\$150,000

cost to build 1 subgrade parking space in NYC





These issues also exacerbate the climate crisis.

Density promotes sustainability by creating smaller carbon footprints in housing and transit options.¹³

Dense neighborhoods also have fewer impermeable spaces like asphalt parking lots, which attract and trap heat, contributing to the heat island effect and increasing the risk of flooding in surrounding areas.¹⁴

The harms of these effects are not distributed equally, and communities of color bear the brunt of health-related consequences of phenomena like the heat island effect.¹⁵ With rising temperatures and increased superstorms, these issues will continue to worsen.

Perhaps most directly, parking mandates contribute to the climate crisis because they promote driving. Car usage generates a massive amount of emissions, making up over half of all transportation-related greenhouse gas emissions. This leads to much higher levels of air pollution in neighborhoods with highways and heavy volumes of car traffic running through them, which are disproportionately neighborhoods of color.

A SHORT HISTORY OF PARKING MANDATES IN NEW YORK CITY

Parking mandates have not always existed in New York City's zoning text. They stem from the Robert Mosesera City Planning Commission whose policies were rooted in car-supremacy and segregative planning.18 Residential mandates were first introduced in 1950, and in 1961 they were expanded to cover commercial and mixed-use buildings as well. In 1982, in the Manhattan Core (below 96th Street on the East Side and 110th Street on the West Side) all minimums were lifted and maximums were imposed. This reform was the product of a moratorium on parking development put in place in the 70s because the city was not in compliance with the 1970 Clean Air Act.19 Parking, and the driving it incentivizes, was identified as a key cause of that noncompliance. In 2011, the City extended exemptions and maximums to parts of Long Island City as well. While these neighborhoods continue to benefit from cleaner

air, very few other areas of the city have truly addressed parking mandates.

In 2016, the City passed the Zoning for Quality and Affordability (ZQA) text amendment to the city's Zoning Resolution. As a part of this amendment, the Transit Zone — areas generally within ½ a mile of a subway entrance — began to be used as a standard for how parking mandates apply. This reform waived parking mandates for affordable and senior housing within the Transit Zone.²⁰

For areas that still require parking mandates in some form (which is most of the city), the actual number of parking spaces required depends on the building's use and what type of zoning the land is contained in. While developers can apply for a variance to lower their required parking through ULURP, this process is expensive and lengthy. Each zoning district has separate rules for the required ratio of parking spots mandated, ranging from a parking spot to unit ratio of .4:1 to a pure 1:1 ratio.

Now, the Adams Administration is proposing parking requirement reform through a zoning text amendment, a years-long process that only occurs about once a decade. The lengthy, bureaucratic approval process of a zoning text amendment means it is essential to advocate for the best policy as early in the process as possible. The City must be sure to get this right, and there are several options for reform.

Figure 5: Parking to Unit Ratios for Residential Zoning Districts²¹

| District | Parking Required as a Percent of Total Dwelling Units Constructed |
|--|---|
| R1, R2, R3, R4-1, R4, R4B, R5A | 100% |
| R5A | 85% |
| R6 | 70% |
| R5B, R5D | 66% |
| R7-1 | 60% |
| R6A, R6B, R7-2, R7A, R7B, R7D, R7X, R8 | B 50% |
| R8, R9, R10 | 40% |

*Ratios simplified for clarity. For all exceptions, see Article II, Chapter 5, 25-23 of New York City's Zoning Resolution.

In a housing crisis, we need to ensure that we're building more units of housing, not more parking.

Policy Responses to Parking Mandates

There are a number of potential reforms that could help alleviate the problems that parking mandates pose. These range from conservative, incremental reforms to rigid caps that can be placed on parking wholesale across the city.



EXPANDING EXEMPTIONS WITHIN THE TRANSIT ZONE

The most conservative approach to reform parking mandates is to extend exemptions to market-rate developments within the Transit Zone. This would mean that any development within the Transit Zone would be exempt from all parking requirements. Slightly expanding the Transit Zone itself is also an option, either by expanding the radius of exemption to 1 mile instead of ½ a mile, and/or by including proximity to a Select Bus stop or dedicated bus lane stop in the Transit Zone.

While these changes would certainly be improvements, in the end they are a maintenance of the status quo. Many buildings would still be required to build parking, regardless of demand. Further, creating more complicated zoning rules means more delay in construction and in solving our housing crisis. Merely expanding the Transit Zone does little to remedy the problems that parking mandates pose on housing, livability, and climate.

As the City aims to expand and improve bus service across the city, it's critical that they work to reduce congestion concurrently or buses will never provide adequate service. Locking in existing car usage — and incentivizing more — by continuing to require parking actively damages public transportation. Instead of capturing this once-in-a-generation moment and making meaningful reform, expanding the Transit Zone places a bandage on the problem instead of fixing it at its root.



ENACTING CITYWIDE PARKING MAXIMUMS

Parking maximums are another response to parking minimums, going a step further than removing them. As its name implies, a parking maximum places a cap on the number of parking spaces a development can create. Cities like San Francisco, Portland, and Hartford have utilized this solution alongside lifting parking minimums citywide, with parking maximums applying for most land uses. Like in many cities, New York City has maximums in place in the Manhattan Core in order to limit parking spaces present in exceptionally dense, transit rich areas. For residential developments, these caps are 20% to 35% (but no more than 200 total spaces), and there are a host of rules for non-residential and mixed-use developments depending on their particular use.

While parking maximums are well intentioned, research has shown that enacting them citywide is not especially effective. In London for example, parking maximums only accounted for 2% of the reduction of parking supply, while lifting parking mandates citywide accounted for the other 98%.²⁴ Strategic deployment of parking maximums in the most dense downtown corridors appears to be the most effective strategy. However, such a policy is not a comprehensive solution to a pervasive citywide issue.



LIFTING PARKING MANDATES CITYWIDE

Lifting parking mandates citywide would see all parking minimums across the city removed, regardless of location. This would apply for all development and completely waive all existing requirements. Instead of complicated ratios based on land use, geographic location, and type of development, there would be one, streamlined rule: no parking mandates. Developers could still build parking, but would not be required to do so at an arbitrary rate and instead could right-size supply with demand. A poll of New York City residents found that 68% of residents supported this approach.²⁵

Lifting parking mandates citywide is the simplest and most effective response to burdensome parking mandates. There are countless evidence-based, real-world examples of the effectiveness and benefits of lifting parking minimums.

Benefits of Fully Lifting Parking Mandates



Spurring Housing Availability and Affordability



Encouraging New Businesses and Business Growth



Making Our City More Livable, Sustainable, And Equitable



Lifting Administrative Burdens and Cutting Red Tape

SPURRING HOUSING AVAILABILITY AND AFFORDABILITY

Research has shown that lifting parking mandates has been effective in increasing housing production and affordability. In 2019, San Diego lifted parking requirements near transit for all developments. Advocates feared that lifting parking requirements would cause developers to cease using California's "density bonus," a program similar to the exemptions present under ZQA that allow developers to skirt parking mandates and other requirements if they meet affordability goals. However, after lifting the mandates, affordable housing production utilizing the density bonus boomed. In 2020, just one year after mandates were lifted, 1,500 affordable units were produced six times as many as in 2019 — proving that onerous parking mandates were burdensome to development, especially affordable development.²⁶

In Los Angeles, the city exempted the development of some vacant and industrial lots from parking requirements. This exemption resulted in 6,900 units of housing being created between 1999 and 2008,

which was significantly more than previous periods. The housing that was created was in the dense downtown area, and repurposed abandoned, vacant, and/or aged buildings to create new units of housing due in large part to removing burdensome parking mandates.²⁷ While Los Angeles' mandates were only lifted in the downtown area, extrapolating these findings in a citywide context unlocks thousands of new housing units.

In Oregon, the state's land use commission drastically reformed parking requirement regulations, lifting minimums for all developments that are near transit or meet affordability requirements.²⁸ Such a reform had not been seen on this scale in the United States, and it has had wide reaching impacts. In Portland's suburbs alone, the reforms would make 37,000 new homes less expensive to build — 10% of Governor Kotek's statewide target.²⁹ These reforms serve as a model for statewide reform, and show what's possible if we are ambitious and proactive in reforming parking mandates.

Lifting parking mandates also helps reduce the cost burden of parking on low-income households. After mandates were lifted citywide in Buffalo, one-third of studied developers used unbundled parking, which "unbundles" the price of parking from units that don't use the parking and requires only those who were using it pay for it themselves.³⁰ This unbundling means that rents within the building are lowered overall, which has a disproportionate positive effect for the majority of low-income renters who don't own cars and were most impacted by these unjust rent increases due to bundled parking.

In New York City, the Transit Zone has been a driver in creating affordable housing. Within the Transit Zone after ZQA passed, new affordable unit production increased 36%, as did the units with deepest affordability — a 63% increase in units for households making 30% of the area median income.³¹ Why, then, are we limiting this massively successful policy change to only certain

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Lessons to Learn from Buffalo, NY

Dozens of cities in the United States, as well as countless others across the globe, have done away with archaic parking mandates. It is a proven way to alleviate the harms that parking mandates can perpetuate — overproducing parking, stifling affordable development, encouraging car ownership, and contributing to unwalkable cities. Buffalo, New York is a leader in lifting parking mandates and serves as an effective case study for New York City to follow.

In 2017, Buffalo lifted parking mandates for all uses citywide. This change was part of a larger zoning reform, The Green Code, which was the first comprehensive zoning reform in Buffalo since 1953. The Green Code focused on spurring economic development, enhancing existing walkability, and helping mitigate the climate crisis.³²

At a public hearing of 300 Buffalonians on the Green Code, the city expected massive backlash to the policy

and planned on shrinking it from its ambitious goal before a public comment was even uttered. However, they found that 74% of attendees of that meeting strongly supported lifting parking mandates, and that there was little opposition, organized or otherwise. This coalition of supporters included regular citizens, advocates, developers, and business owners.³³ Local environmental and preservation groups advocated for the repeal of parking mandates, which gave the city further backing to make the reform.

While the impacts of lifting parking mandates span decades, preliminary findings from Buffalo already indicate that lifting mandates citywide works. A SUNY Buffalo study found that "47% of major developments included fewer parking spaces than previously permissible," and that some of the largest impacts were on mixed-use developments, which built 53% fewer parking spaces than previously required.³⁴ This demonstrates that while developers often still built parking, it was not at an arbitrary rate and instead right-sized supply with demand. Instead of using land for burdensome, mandated parking, developers can instead use that space for more units of housing, green space, or any other use.



parts of the city, and to only certain developments? In a housing crisis, we must put in place policies that will expand our affordable housing supply, and it's proven that lifting parking mandates does this.

ENCOURAGING NEW BUSINESSES AND BUSINESS GROWTH

Parking mandates are a proven barrier to business growth, and removing them will allow the economy to prosper. Fayetteville, Arkansas — one of the first cities to reform parking mandates citywide — lifted their commercial parking requirements in 2015. With these reforms, existing businesses were able to expand their operations without burdensome requirements; one local restaurant took over a years-long vacant lot and built an expansion with just six parking spaces as opposed to the 30 that would have been previously required. Removing requirements also allowed small businesses and mixed-use developments to thrive. Without removing mandates, developers claim that a three-story mixed-use development would have never been able to have been built.³⁶

In New York City, the impacts of restrictive parking mandates present themselves as empty storefronts and displaced retailers. Small businesses are already struggling to keep up with deep-pocketed chains, and putting barriers in place for them to expand and compete can kill them outright. For this same reason, expensive parking construction stops new businesses from manifesting at all; the upfront costs of parking on top of all other costs are too great.

Many of Manhattan's most popular business districts, like Greenwich Village or SoHo, could never be in compliance with the parking mandates that cover the rest of the city.

Further, our economic recovery relies on lower housing costs. Our high housing costs, due to a lack of supply and affordability, have significant impacts on our local economy.³⁷ These high housing costs result in lower wages, lower productivity, and New Yorkers leaving our city in search of affordability.³⁸ Mayor Adams' housing plan acknowledges the relationship between housing and the economy. But lifting parking mandates citywide — which has been proven to spur affordable and market-rate development — must be a part of this plan.

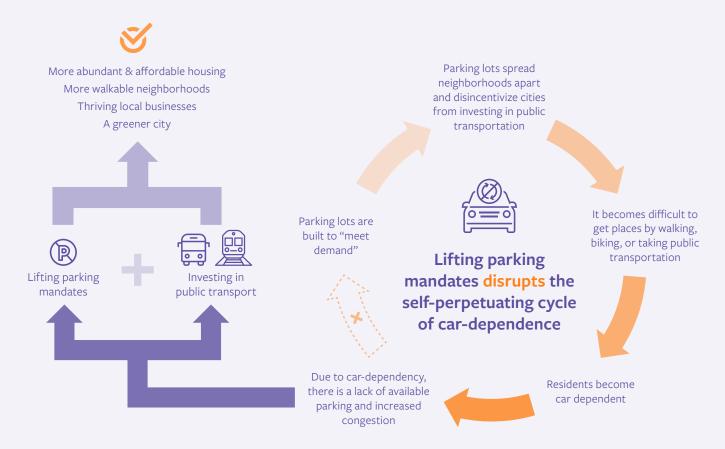
MAKING OUR CITY MORE LIVABLE, SUSTAINABLE, AND EQUITABLE

Evidence shows that parking mandates decrease a city's walkability and livability. In New York City, a 10% increase in parking minimums translates into a 5% increase in vehicles per square mile, a 4% increase in vehicles per person, and a 6% reduction in population and housing density.³⁹ While this fact is self-evident, research proves that off-street parking and parking mandates make our city more car-reliant and less dense. Additionally, creating fewer surface parking lots means that homes and businesses can be built closer together, creating a more walkable and livable neighborhood. And, with fewer first floor at-grade parking lots, that space can be used to create more units of housing or for storefronts, contributing to a more vibrant neighborhood and city.

Lifting parking mandates also allows the city to better encourage alternative modes of transportation, which can lead to investments in pedestrian, bus, and bike infrastructure. Our goal should be to create 15 minute neighborhoods all over the city — meaning 15 minutes to get to where you need to be without needing to own a private vehicle. Continuation of parking mandates fosters car-reliance, and removing them opens up vast possibilities for our neighborhoods.

Further, lifting parking mandates can help rectify long-existing geospatial inequalities. Neighborhoods of color and low-income neighborhoods are often the most burdened by car-dependence. Removing parking requirements citywide will begin to help relieve these communities of the undue burden of the effects of climate change like increased air pollution and a disproportionate heat island effect. Eventually, by making our city less car-dependent, the communities that have been separated and torn apart by highways can be justly reunited.

Figure 7: Disrupting the cycle of car-dependence



LIFTING ADMINISTRATIVE BURDENS AND CUTTING RED TAPE

Finally, removing parking mandates citywide greatly reduces administrative burdens and simplifies our zoning code. The burdens placed upon any entity that wishes to develop under existing parking mandates are immense. These excessive rules and onerous parking requirements often serve as a barrier to construction. Removing these burdens opens the spigot to a previously untapped number of housing units needed to remedy the housing crisis.

Further, lifting parking mandates citywide is the simplest solution — more effective and far less complex than expanding eligibility within the transit zone or enacting citywide parking maximums. Not only does this streamline our zoning code, but it also means an easier time communicating changes to the public. At times, public education and stakeholder buy-in is a massive barrier to reform; a simple, understandable change with few caveats goes a long way.

Additionally, freeing up staff hours spent on internal administrative minutiae allows them more time to work with developers and businesses to meet the City's transportation and housing goals. One staffer in Dallas estimated their permitting department spent 75% of their time on parking mandates. 40 In New York City, the administrative paperwork for parking mandates can span multiple departments. Instead of continuing this trend of complex parking regulations, we could simplify the process greatly by lifting mandates citywide.



Buffalo, New York's Language for Parking Requirements from the Green Code

"8.3.1 General

A. Off-Street Parking. There are no provisions that establish a minimum number of off-street parking spaces for development."⁴¹

Recommendations

The City Must Fully Lift Parking Mandates Citywide



ADMINISTRATIVE

- The Department of City Planning (DCP) should lift residential parking mandates citywide in the Zoning for Housing Opportunity Text Amendment. They should likewise lift mandates for mixed-use and commercial developments. These reforms will help build more affordable housing, invigorate our economy, make our city more livable, and cut bureaucratic red tape.
- The Adams Administration should come out publicly in full support of lifting parking mandates citywide. Support from all levels of government is necessary to pass this crucial reform.

LEGISLATIVE

- The New York City Council should pass a resolution urging DCP to lift parking mandates citywide. While resolutions are not binding, such an action would send a signal to DCP that the Council, which has the final say on any zoning text amendment, supports lifting mandates citywide over other reforms.
- The New York State Legislature should pass a bill which would exempt lifting parking mandates from an environmental review. This review is the lengthiest part of the zoning text amendment process, sometimes taking years, and expediting this process would help pass this much needed reform sooner.
- Lifting parking mandates statewide (S162) would mean that city action is not required. While this white paper is focused on the New York City text amendment, for all the aforementioned reasons, this reform is likewise vital.

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