Parking Policy & Housing Affordability

How minimum parking requirements impact housing costs and what cities can do about it

Report prepared by: Nate Jo, Whatcom Housing Alliance Policy Intern, June 2022

Photo Tim Meyer on Unsplash

Contents

Introduction 1

Background 2
The Cost of Parking 2
Who pays for parking? 3
Costs to Communities 4
Removing Parking Mandates 5

Whatcom County Context 7
Code Requirements 7
Code Exceptions 8
A Local Example 9

Case Studies 10
Parking Reform Examples 11
Bend, Oregon 13
Berkeley, California 13
Buffalo, New York 14

Conclusion 15

About the WHA 16

Introduction

Much of American life now relies on the rhythm of driving our cars to work, school, the grocery store, and most other places we go. Most of us do not consider the cost of the parking spaces we enjoy when we drive our cars or the regulatory requirements that brought them into existence. This makes sense given that about 99% of vehicle trips end in parking for free (Shoup, 2005). **But parking isn't really free, even if we don't pay for it at the time of use.** Parking generates direct costs through construction, land, and maintenance expenses and indirect costs through inefficient land use. In the last few decades, researchers such as Donald Shoup have set out to describe these costs and illustrate how they contribute to the cost of housing.

Donald Shoup (2005), a research professor of urban planning at UCLA, explains that cities in the US began to require off-street parking in the 1930s in response to the rapid increase in car ownership rates over the preceding years (pp. 1-2). Since then, mandating off-street parking became widespread until almost every municipality in the United States specified minimum off-street parking requirements for a dizzying array of building uses. Todd Litman (2011), a transportation and planning researcher, estimates that there are about 1,000 square feet of paved parking per capita (p. 38). According to this estimate, **the United States devotes about 7.5 million acres of paved land devoted to parking,** an amount about equal to the entire area of Massachusetts.

P

1,000 square feet of paved parking per capita

7,500,000 acres of paved parking in the U.S.

Background

The Cost of Parking

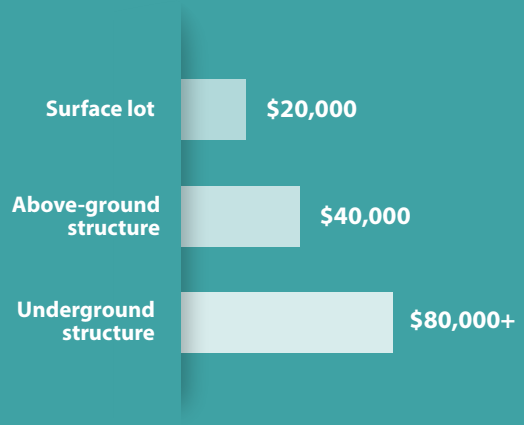
The direct costs of parking spaces can vary depending on whether they are built in a flat lot, an above-ground structure, or an underground structure. Litman (2021) estimates that the land and construction cost of a suburban surface parking space is about $3,400[1] (p. 11). In a study of UCLA's parking structures, Shoup (2005) found that each space cost $33,965[1] on average (p. 193). Some studies indicate even higher costs for parking structures, and the cost for underground parking tends to be double that of above-ground parking structures (Litman, 2021, p. 11).

These figures are in line with estimates from development professionals in Whatcom County. Ali Taysi, a permitting and project management consultant at AVT Consulting, reports that parking in recent Whatcom County projects has cost between $33,000 and $42,000 per space in structures and between $18,000 and $23,000 per space in open surface lots. The difference between Taysi's and Litman's estimates for open surface lots may be attributable to land costs since these figures can be highly variable. Similarly, Carrie Veldman, a project manager for a Bellingham-based development company The RJ Group, estimated that parking costs about $45,000 per space to construct in above-ground parking structures.

The total national expenditure on parking construction and maintenance is enormous. Because most of this parking is provided free at the time of use, this expenditure essentially becomes a parking subsidy. Shoup (2005) states that **the total parking subsidy was between $127 billion and $374 billion in the United States in 2002** (p. 207). This amount estimates the total cost of providing all parking in the United

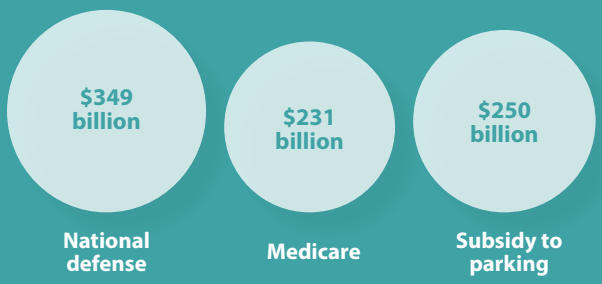
1 Adjusted to 2021 dollars

Parking Costs Per Space*



*Average estimates based on academic literature & Whatcom County developer interviews. Costs can vary widely due to land and input prices.

Comparative Spending*



*Comparisons of national expenditure in 2002. Average estimate for the subsidy to parking.

States minus the amount that people directly pay for parking such as when shoppers pay hourly rates for curbside parking. In comparison, the federal government spent $231 billion on Medicare and $349 billion on national defense in the same year (Shoup, 2005, p. 207).

Who pays for parking?

Given the enormous cost of parking, we should wonder who foots the bill. If residents don't pay for parking at their apartments and shoppers don't pay for parking when they visit stores, who does? Everyone does. As the cost of parking diffuses through the economy, it finds its way into everything from housing to clothes to groceries (Shoup, 2005, p. 2).

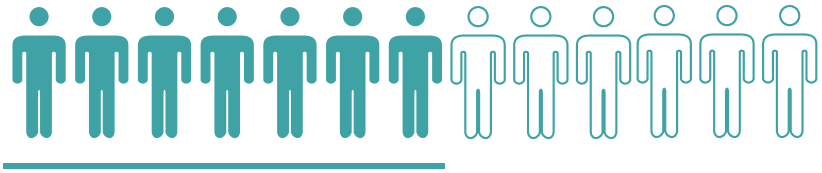
The diffusion of parking costs is especially notable in the context of housing. According to Litman (2001), **one parking space per residential unit increases development costs by about 12.5%, and two parking spaces per unit increase costs by about 25%** in typical urban developments (p. 14). A study on the determinants of rent prices in U.S. metropolitan areas found that the cost of a parking space in a garage adds about $1,700 per year to rent, an increase of about 17% (Gabbe & Pierce, 2017, p. 218). Similarly, an analysis of twenty-three multifamily housing developments in the Seattle area found that parking subsidies increased monthly rent by about 15%, or $246 per unit (Litman, 2021, p. 15). For the workforce of Whatcom County where the median household income is about $65,000 (United States Census Bureau, 2020a), $246 per month in increased rent represents about 5% of annual household income.

> **Initially the developer pays for the required parking, but soon the tenants do, and then their customers, and so on, until the cost of parking has diffused everywhere in the economy... Residents pay for parking through higher prices for housing. Business pay for parking through higher rents for their premises. Shoppers pay for parking through higher prices for everything they buy.**
>
> **- Donald Shoup**

However, the parking costs are not evenly distributed because not everyone owns the same number of vehicles or pays the same for housing costs. The free off-street parking available at most residential developments in effect requires those who own fewer or no vehicles to subsidize the cost of parking for those who own more vehicles. **In Whatcom County, over half (54%) of renters own one or no cars** (United States Census Bureau, 2020b), and hence requirements to provide more than one space per unit are particularly burdensome for this population. Since low and middle-income households are more likely to own fewer cars, the people that are subsidizing parking that those who can least afford to do so (Gabbe and Pierce, 2016, p. 225).

From an economic standpoint, this is inefficient. If the price of parking was transparent, developers would provide as much parking as households demanded, and households would purchase as much parking as they wanted considering the cost. Since the price of parking is typically combined – or bundled – with rent, households do not get to decide how much parking they want to purchase.

Because bundled parking appears to be free, more parking will be utilized than would otherwise be needed which in turn prompts cities to maintain minimum parking requirements. In this way, households are denied a choice between paying for parking or spending that money on a larger or better unit, saving for a home, or any other use of their budget (Gabbe & Pierce, 2016, p. 225).



54% **of renters in Whatcom county own 1 or 0 cars, yet most rental developments require 1.5 or 2 parking spaces per unit.**

Costs to Communities

In addition to the direct costs of parking paid by developers and indirectly passed on to households, minimum parking requirements impose unseen social and environmental costs on communities. Parking accounts for a significant portion of energy consumption, greenhouse gas emissions, and pollution created by vehicle usage (Chester et al., 2010). Parking further imposes unseen costs on communities by contributing to urban sprawl. Rising car ownership and increasing vehicle travel prompted urban planners to increase minimum parking requirements and restrict density (Shoup, 2005, p. 129). This pattern becomes self-reinforcing as cities spread further, and it becomes impractical to not own a vehicle. As vehicle ownership rates climb and public transit ridership declines, cities are encouraged to increase minimum parking requirements.

If minimum parking requirements are an attempt to manage congestion, they largely fail since they encourage higher rates of car ownership. Indeed, the provision of on-site residential parking can significantly increase the rates of car ownership for residents (Millard-Ball et al., 2022). **Researchers also found that a 10% increase in minimum parking requirements is associated with a 5% increase in vehicles per square mile** and a 6% decrease in housing density in urban areas (Manville et al., 2013).

As sprawl increases, employees are likely to live further from their job and thus spend more time and money commuting. Housing prices are likely to be higher than they otherwise would be since the cost of land is distributed among fewer units of housing. The dispersed nature of American cities is particularly problematic for those who cannot afford to buy a car. An inability to own a car restricts people's access to critical services such as hospitals, grocery stores, and places of employment, potentially trapping them in a cycle of poverty. A study of welfare recipients and vehicle ownership found that owning a car doubled the probability of employment and the number of hours worked (Baum, 2009). Hence, for people who are not able to afford cars, the shape of our cities significantly impacts one's life opportunities.

Sprawl also imposes costs through environmental degradation by increasing the land coverage of impervious surfaces. Parking accounts for a significant amount of impervious surfaces. Indeed, some estimates indicate that more land in the US may be covered by parking than by roadways (Chester

et al., 2010). Covering such large areas of land with parking increases damages caused by flooding. Researchers estimate that **a 1% increase in impervious surfaces in an area increases flood magnitudes by 3.3%** (Blum et al., 2020). The costs of increased flooding in the Puget Sound region are staggering. The National Flood Insurance Program has paid over $56 million in claims to the Puget Sound region between 1978 and 2006 (Booth et al., 2006, p. 7). The 2021 floods in Whatcom County affected approximately 1,400 homes and structures and were estimated to have caused about $50 million in damages (Whatcom County Sheriff's Office, 2021).

In addition to contributing to flooding damages, stormwater runoff generated by impervious surfaces also poses a threat to the biological health of the Puget Sound ecosystem (Booth et al., 2006). Pollutants in runoff harm fishing and shellfish industries and are known to increase the death rates of Puget Sound salmon in particular (Booth et al., 2006, p. 27). Although the economic costs are difficult to estimate, it is worth noting that one jurisdiction in the Puget Sound spent $25.8 million in 2005 attempting to restore fish habitat (Booth et al., 2006, p. 25). Although parking is only one of many factors that contributes to these costs, minimum parking requirements likely increase the amount of impervious surface in the Puget Sound area, including in Whatcom County, thus adding to the region's stormwater runoff and flooding issues.

Social Impacts of Parking Mandates

Increased sprawl

Increased car dependency

Increased flood risks

More stormwater pollutants

Removing Parking Mandates

Since mandates for off-street parking tend to increase the cost of housing and generate other costs associated with sprawl and environmental degradation, many researchers have suggested eliminating these requirements altogether (Gabbe & Pierce, 2016; Manville, 2013; Shoup, 2005). However, many people in Whatcom County will continue to rely on cars as a primary means of transportation to their jobs and other essential locations. Only about 7% of households in the county do not own a vehicle (Whatcom Transportation Authority, 2022, p. 21). For the 93% of families who do own at least one car, parking in some form will continue to be a necessity. Hence, it is worth asking what happens when cities reduce or eliminate minimum parking requirements.

To answer this question, researchers studied the impacts of changes to parking requirements in Seattle, Washington. In 2012, Seattle adopted major reforms to the minimum parking requirements for residential projects. The city eliminated parking mandates for many of the densest areas of downtown Seattle and locations close to high-quality transit (Gabbe et al., 2020, p. 3).

A study of 60,361 units within 868 developments in Seattle found that **developers would have built about 18,000 more parking spaces without the 2012 reforms which would have cost more than $500 million.** Gabbe et al. (2020) note that "these costs would have been passed along to renters and buyers, whether they wanted the parking or not" (p. 7). However, even in areas where no parking was required, developers typically provided at least some parking. In the study sample, 70% of developments included parking where no parking was required (Gabbe et al., 2020, p. 1). This suggests that developers remain sensitive to consumer preferences for parking, even in the absence of city requirements. Cities should not expect that if no parking is mandated then no parking will be built.

Photo by Luca Micheli on Unsplash

However, in the presence of minimum parking requirements, developers do not have the flexibility to lower the number of spaces if they anticipate reduced demand. Gabbe et al. (2020) conclude that "the Seattle analysis shows that many or most developers will respond to parking reforms, particularly if they are focused in neighborhoods with good walkability and transit options" (p. 8). This finding indicates the importance of coupling parking reforms with increased access to transit. Tim Wilder, the Whatcom Transportation Authority (WTA) Planning Director, notes that decreased parking requirements should be accompanied by expanded access to alternative transportation.

Seattle Outcomes*

18,000	fewer parking spaces
$500,000,000	cost savings
70%	developments with parking

*Impacts of parking reform on 868 Seattle developments

For example, if WTA provides high-frequency transit routes that arrive at stops every ten minutes, residents near such a line may feel more comfortable not owning a car. Such increases in transit service can help justify reductions in parking mandates. **In Seattle, the number of households within a ten-minute walk to frequent transit service has increased from 25% to 70% between 2015 and 2019,** making Seattle the city with the largest drop in car commuting in the U.S. (Gould, 2022). This increase in access to transit cannot be attributed directly to parking reform. However, the overlapping time frames provide encouragement for cities attempting to improve transit access and increase density through parking reform.

Seattle's parking reform was broadly supported by the public. Researchers attribute the lack of significant opposition to the city's attention to stakeholder meetings, support from elected officials, increasing preferences for transit-oriented lifestyles, and the effectiveness of on-street parking management (Gabbe et al., 2020, p. 3). However, some neighborhood groups have opposed parking

reforms in Seattle as part of a broader opposition to more dense development (Lee, 2017). Such groups appear to be in the minority. Polling recently revealed that a large majority of King County residents support eliminating parking mandates near transit (Gould, 2022).

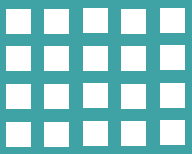
Whatcom County Context

Code Requirements

Like most other localities in the U.S., cities in Whatcom County mandate off-street parking for a wide range of uses, including for residential developments. The Whatcom County Code requires at least two spaces per unit for single-family units and duplexes, meaning a duplex would require at least four parking spaces per lot (Whatcom County Code 20.80.580). Similarly, the City of Bellingham requires between one and a half spaces and two spaces per unit in residential developments (Bellingham Municipal Code 20.12.010). The City of Ferndale requires two spaces per unit for multi-family developments, meaning a facility with twenty units would require at least forty parking spaces, taking up about 11,100 square feet or one-quarter of an acre (Ferndale Municipal Code 18.76.070). The cities of Lynden and Blaine have similar parking mandates (Lynden Municipal Code 19.51.040, Blaine Municipal Code 17.124).

These parking mandates have a significant impact on residential development. Taysi, explains that **parking requirements are the first thing developers look at when determining the number and size of units that can be placed on a lot.** Veldman noted that plans for a recent downtown Bellingham project were scrapped because the cost of parking made the project financially infeasible.

Code Requirements & Parking



in a 20 unit complex...

40 parking spaces are required by the Ferndale code...

0.25 acre

taking up at least 11,000 sq. feet

Code Exceptions

It should be noted that municipalities in Whatcom County allow exceptions to parking minimums under certain scenarios. For example, the City of Ferndale allows commercial and mixed-use developments to count some on-street parking spaces within 300 feet of the property towards the off-street parking requirements (Ferndale Municipal Code 18.76.090). The City of Bellingham can reduce requirements by a maximum of 25% for developments within a quarter-mile of a WTA GoLine (Bellingham Municipal Code 20.12.010) and can significantly reduce requirements in urban villages (Bellingham Municipal Code 20.37.350).

The recent affordable housing project in Bellingham, Samish Commons, received one of these exceptions. According to the Executive Director of the Bellingham and Whatcom Housing Authorities, Brien Thane, this project will have 171 apartments when complete. Under normal code requirements, at least 257 parking spaces would have been required. Because the project contains housing for seniors, low-income residents, and mixed-use space, the City of Bellingham granted a waiver, enabling the project to provide only 146 parking spaces. The cost of parking before tax and without site work for this project was about $48,700 per space. This puts the total parking cost for the project over $7 million. **If the project did not receive a waiver for parking requirements, parking would have cost upwards of $12.5 million in total** meaning the waiver saved the housing authority $4.5 million that could instead be used to create more affordable housing units.

Samish Commons under construction. Photo from Bellingham & Whatcom Housing Authorities.

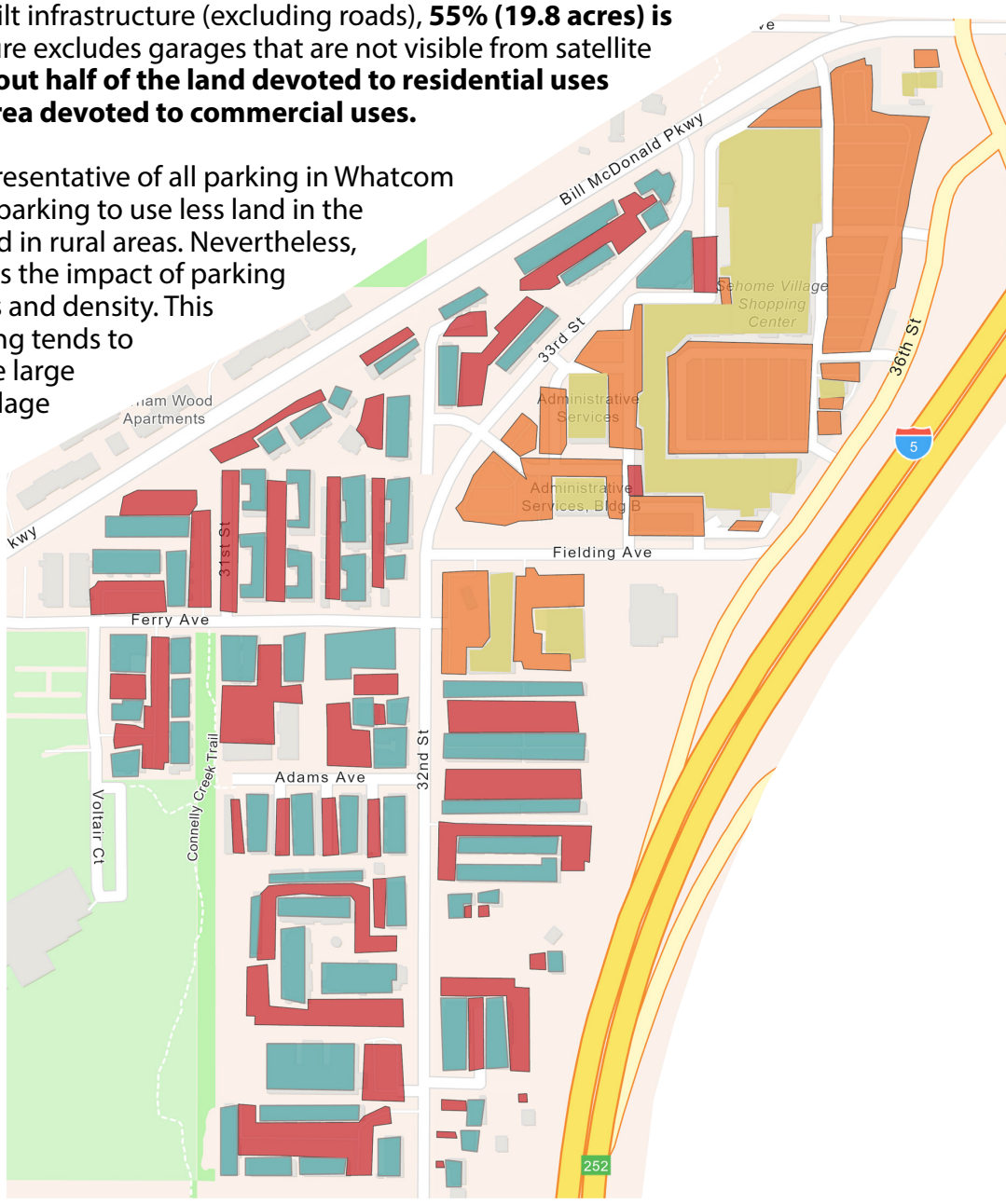
However, since the reductions in required parking construction are not granted by right, the current waiver system poses a significant risk for developers. Developers apply for parking waivers during the design review phase of the permitting process without any guarantee that the waiver will be approved. Taysi notes that d**evelopers have already invested tens of thousands of dollars into the design process without knowing whether the request for reduced parking will be granted.** The decision on parking waivers occurs later in the process when the building permit for construction is evaluated. Hence, even when cities allow for the conditional reduction in the required number of spaces, parking still imposes a significant cost on residential development.

A Local Example

Over time, parking mandates have shaped land use patterns across Whatcom County. The map below provides a snapshot of these patterns, showing infrastructure types in an area in the Happy Valley neighborhood of Bellingham. This area is bounded by Bill McDonald Parkway, Interstate 5, and Sehome High School and contains a mix of commercial buildings, multifamily residential buildings, and single-family homes.

Of the land area containing built infrastructure (excluding roads), **55% (19.8 acres) is taken up by parking.** This figure excludes garages that are not visible from satellite imagery. **Parking takes up about half of the land devoted to residential uses and about 62% of the land area devoted to commercial uses.**

This example is not wholly representative of all parking in Whatcom County since we could expect parking to use less land in the downtown areas and more land in rural areas. Nevertheless, this snapshot broadly illustrates the impact of parking mandates on land use patterns and density. This example also shows that parking tends to be used rather inefficiently. The large commercial lots by Sehome Village almost always have numerous empty spaces as shown below, especially in the evenings. Residential lots in this area tend to be quite empty during the day and fuller at night. This suggests that shared parking infrastructure could be employed in some areas to reduce the total cost of parking while having little impact on parking availability.



- Residential Structure
- Residential Parking
- Commercial Structure
- Commercial Parking

Map by Nate Jo. Base map from Esri.

Parking in Happy Valley, Bellingham. Photos by Nate Jo.

Case Studies

Research on minimum parking requirements is united in suggesting that such mandates increase the cost of housing and impose other social costs. However, national studies or examples of large municipalities such as Seattle may not represent the nuances of parking in smaller Whatcom County municipalities. Over 200 municipalities in North America have implemented reforms to parking mandates (Parking Reform Network, 2022) providing numerous examples of what cities in Whatcom County could do to address this issue.

The following pages provide examples of a few small and medium-sized municipalities in the United States to demonstrate some of the forms that parking reform can take. Importantly, these reduced requirements for parking construction are allowed by right, meaning developers do not have to wonder if their requests for reduced parking will be approved or denied. Three of these cases are expanded to provide insights into the methods and impacts of parking reform.

Parking Reform Examples

Accessory Dwelling Units (ADUs)

Ferndale, WA (14,043) and Portland, ME (68,408)
There is no additional off-street parking required for ADUs in these cities. Additional parking requirements for ADUs often mean their construction is infeasible (Peterson, 2018).

Transit-Oriented

Somerville, MA (80,906)
No off-street parking is required for homes within 0.5 miles of transit stations. Commercial projects have parking maximums within 0.25 miles of transit stations.

Portland, ME (68,408)
No off-street parking is required within 0.25 miles of transit routes. Requirements are reduced or eliminated for historic structures, affordable housing, and multi-family housing.

Affordable Housing

Cambridge, MA (116,632)
No off-street parking is required for developments in the Cambridge affordable housing overlay. The overlay allows projects that will create permanently affordable units for households making up to 100% of the area median income to bypass many zoning restrictions by right.

Middle Housing

Bend, OR (100,421)
There are no minimum parking requirements for duplexes, triplexes, or ADUs. No off-street parking is required for duplexes, triplexes, or ADUs. Requirements are reduced for quadplexes to one or two spaces per development depending on the zone type.

Central District

Olympia, WA (52,882)
No off-street parking is required for residential and commercial projects in the downtown exempt parking area.

Pasco, WA (75,432)
No off-street parking is required for any use in the Central Business District of Pasco.

Unbundled Parking

Oakland, CA (440,646)
Off-street parking spaces must be rented or sold separately in new multifamily (10+ units) facilities. Residents have the option of renting or buying at a lower price without the associated parking costs.

City-Wide

Berkeley, CA (121,363)
Across the whole city, there are no minimum parking requirements for residential or mixed-use projects except on narrow streets in environmental safety zones. Parking maximums exist near transit corridors.

Buffalo, NY (122, 837)
Parking mandates were replaced with demand management requirements for all uses across the whole city.

Bend, Oregon

Photo by Cascade Photo

Description:

In 2019, the Oregon State Legislature passed House Bill (HB) 2001 which allowed middle housing types such as duplexes in all residential zones in cities with a population larger than 10,000 (Department of Land Conservation and Development, n.d.). Pauline Hardie, a City of Bend senior planning official, notes that this bill prompted a larger examination of Bend's zoning code. Subsequent rules following HB 2001, placed limits on parking mandates for middle housing, but Bend decided to go even further.

Bend now has no parking mandates for triplexes and duplexes citywide. Quadplexes are only required to have one parking space per development in medium and high-density zones and only two spaces per development in low-density zones. Before these reforms, a duplex could require four parking spaces and other multifamily complexes required 1.5 spaces per unit which made many potential developments infeasible.

Public Response & Outcomes:

Some Bend residents expressed concerns that the parking reform would cause congestion and requested that the city apply for exemptions from HB 2001 requirements. Additionally, the cold winter climate in Bend makes biking and walking to destinations infeasible during a portion of the year which contributes to the idea that car ownership is simply a necessity in Bend.

Despite these concerns, the parking reform received wide support from developers, affordable housing advocates, and the city council. Since the code change, developers have continued constructing approximately the same number of parking spaces. However, the reform will allow for future construction of units that would have been infeasible and some developments in the historic district have already seen modest reductions in constructed parking spaces.

Berkeley, California

Photo by Sundry Photography

Description:

Berkey's parking reform resulted from five years of studies and aligned with Berkley's climate action plan, pedestrian and bicycle plan, and 2018 strategic plan. A study of Berkley multifamily residential projects found that **only 55% of parking spaces were occupied on average with an average off-street parking occupancy rate of 45%** (Berkeley City Council, 2021a). Following this study, the city council eliminated all off-street parking mandates for new residential projects in most areas of the city. Off-street parking is still required in a small area where streets are narrow, and the geography poses potential challenges for emergency vehicle access and evacuation. This parking reform was accompanied by new transportation demand requirements such as requiring multifamily developments to provide off-street bicycle parking and offer free transit passes.

Public Response & Outcomes:

A large majority of written testimony from Berkeley residents supported the complete elimination of residential parking mandates and included letters of support from the Walk Bike Berkeley community group, Northern Alameda

County Sierra Club, and the Associated Students of the University of California. However, some residents did express concern over the proposed changes. Most of the concerns came from Berkely's Council on Aging which requested that more studies be completed before removing minimum parking requirements. These concerns centered around the understanding that many seniors depend on cars and could not rely on bicycles, walking, or public transit to navigate the city (Berkeley's City Council Supplemental Communications and Reports, 2021).

However, this sentiment suggests that removing parking mandates would result in the destruction of existing parking spaces which is not an expected outcome of parking reform. Despite these concerns, the full elimination of parking mandates was strongly supported by most participating residents and unanimously supported by the city's council demonstrating that parking reform in the context of environmental and housing affordability goals can be popular public policy. These reforms will encourage new housing development while complimenting Berkely's transportation and climate goals.

Buffalo, New York

Photo by Wangkun Jia

Description:
In 2017, the City of Buffalo eliminated parking mandates city-wide for all uses, instead requiring project-specific transportation demand management plans. This example of parking reform is notable not only because it applies to all uses in the entire city but also because it was a part of replacing the old use-based zoning code with a new form-based zoning code. Rather than seeking to separate building uses, form-based codes focus on regulating the look and feel of developments to create a harmonious urban fabric. This new zoning approach, known as Buffalo's "Green Code" seeks to broadly encourage transit-oriented development and shift away from car dependency (Kinney, 2017).

Public Response & Outcomes

A study following thirty-six major developments for two years after the code change found that **47% of the developments included fewer parking spaces than previously would have been permissible.** Notably, 53% of mixed-use developments included fewer parking spaces than required before the code change. Exclusively residential developments continued to provide more parking spaces than previous parking minimums required. **In total, 21% fewer off-street parking spaces were provided than would have been required** of the surveyed developments (Hess & Rehler, 2021).

The experience of Buffalo illustrates that parking reform should not be expected to lead to a catastrophic loss of parking inventory, contrary to a commonly expressed concern. Nevertheless, these important reforms will allow the City of Buffalo to dynamically adapt over time to changes in transportation preferences and housing needs. In the over 242 public meetings held by the city to develop the new code, residents were generally supportive of the shift away from costly parking mandates. Brendan Mehaffy, a Buffalo senior planning official, states that "**there was massive support for the elimination of parking minimums.** The conversation really focused around doing it responsibly" (Kinney, 2017).

Conclusion

When the cost of parking and the cost of housing are bundled into a single price, residents are denied the choice between paying for parking or renting a larger unit, saving for a home, or pursuing other household goals. The costs of parking fall most heavily on lower-income households and those who own fewer cars. Off-street parking mandates also contribute to sprawl which has negative social and environmental impacts. When mandates are lifted, many developers may start to construct less parking creating cost savings for households. Contrary to common fears, most developers will continue to provide at least some parking in the absence of mandates since many residents and customers still depend on cars for transportation.

Concerns around congestion and parking availability are certainly important to consider, but experience suggests that parking reform does not significantly impact either. After enacting parking reform, cities should not expect to see drastic changes in parking construction and existing parking infrastructure will mostly remain. Yet, parking reform provides important forward-facing flexibility to reduce housing costs and adapt to changing preferences. While efforts to reform parking requirements may be met with some opposition, such measures tend to garner wide support if accompanied by appropriate outreach and framed in the context of other important goals. Indeed, a recent survey revealed that a majority of Washington State voters support repealing parking mandates near transit (Gould, 2022).

Parking mandates are only one part of a system that contributes to housing affordability problems. Nevertheless, if Whatcom County wants communities where everyone can afford to live, parking reform should be considered an important piece of policy action. Examples from this report illustrate a broad range of options. Eliminating all parking mandates city-wide is the simplest approach. If cities are not ready to eliminate minimum parking requirements, they can consider reducing requirements in higher density areas, near transit, or for certain types of housing. Cities should also encourage the unbundling of parking and housing costs to reduce the burden on those who own fewer cars. Regardless of the avenue pursued, cities should ensure that reductions are allowed by right, rather than through an application process to reduce development risk. These seemingly small policy changes represent an enormous step towards a future of more affordable housing, a healthier environment, and thriving, connected communities in Whatcom County.

Parking Reform Options

Use-specific exemptions

Exemptions near transit

Unbundled parking & housing

Area-specific exemptions

Jurisdiction-wide reform

About the Whatcom Housing Alliance

We create opportunities for more diverse housing choices in all neighborhoods that will contribute towards equitable, prosperous, healthy, and vibrant communities for everyone.

The Whatcom Housing Alliance is a broad alliance of organizations including; public health proponents, economic development agencies, for-profit and non-profit housing developers, smart growth enthusiasts, private business owners, and others all united to build an affordable, healthy, equitable, thriving, and inclusive community.

We are an alliance of organizations, each with its own mission and connections to housing and the built environment. The organizations that comprise the Whatcom Housing Alliance may not agree on everything, but we have come together to promote the common goal of this alliance.

Whatcom Housing Alliance's goal is to create opportunities for more diverse housing choices in all neighborhoods that will contribute toward equitable, prosperous, healthy, and vibrant communities for everyone. These housing choices will help us be a more sustainable region by improving our environment, the social fabric and health of our people, and creating a stronger economy.

WHATCOM HOUSING ALLIANCE

Sponsors

Our work is not possible without the generous support of our sponsors.

City of Bellingham WASHINGTON

Whatcom County HEALTH Department

NATIONAL ASSOCIATION OF REALTORS®

WHATCOM COUNTY WASHINGTON

Whatcom Community Foundation

PORT OF BELLINGHAM Washington State

RMC ARCHITECT

WTA

References

Baum, C. L. (2009). The Effects of Vehicle Ownership on Employment. *Journal of Urban Economics*, 151-163.

Bellingham Municipal Code. (n.d.). Retrieved May 19, 2022, from https://bellingham.municipal.codes/BMC

Berkeley City Council. (2021a). Berkeley City Council January 26, 2021, 4 P.M. Special Meeting - Video Recording. Retrieved May 25, 2022, from https://berkeley.granicus.com/player/clip/4423?view_id=5&redirect=true

Berkeley City Council. (2021b). Supplemental Communications and Reports 2 & 3 Berkeley City Council Special Meeting January 26, 2021, 4:00 P.M.

Blaine Municipal Code. (n.d.). Retrieved May 19, 2022, from https://www.codepublishing.com/WA/Blaine/

Blum, A., Ferraro, P., Archfield, S., & Ryberg, K. (2020). Causal Effect of Impervious Cover on Annual Flood Magnitude for the United States. *Geophysical Research Letters*(47).

Booth, D., Visitacion, B., & Steinemann, A. (2006). *Damages and Costs of Stormwater Runoff in the Puget Sound Region.* University of Washington Department of Civil and Environmental Engineering.

Chester, M., Horvath, A., & Madanat, S. (2010). Parking Infrastructure: Energy, Emissions, and Automobile Life-Cycle Environmental Accounting. *Environmental Research Letters,* 5(3).

Department of Land Conservation and Development. (n.d.). Housing Choices (House Bill 2001). Retrieved May 24, 2022, from Oregon.gov: https://www.oregon.gov/lcd/UP/Pages/Housing-Choices.aspx

Ferndale Municipal Code. (n.d.). Retrieved May 19, 2022, from https://www.codepublishing.com/WA/Ferndale

Gabbe, C., & Pierce, G. (2017). Hidden Costs and Deadweight Losses: Bundled Parking and Residential Rents in the Metropolitan United States. *Housing Policy Debate,* 27(2), 217-229.

Gabbe, C., Pierce, G., & Clowers, G. (2020). Parking Policy: The Effects of Residential Minimum Parking Requirements in Seattle. *Land Use Policy,* 91.

Gould, C. (2022, March 1). *Most Washington Voters Agree: Repeal Parking Mandates Near Transit.* Retrieved May 12, 2022, from Sightline Institute: https://www.sightline.org/2022/03/01/most-washington-voters-agree-repeal-parking-mandates-near-transit/

Hess, D. B., & Rehler, J. (2021). Minus Minimums: Development Response to the Removal of Minimum Parking Requirements in Buffalo (NY). *Journal of the American Planning Association*, 87(3), 396-408.

Kinney, J. (2017, January 6). Buffalo's New Zoning Code Promotes Density, But Is It for Everyone? Retrieved from Next City: https://nextcity.org/urbanist-news/buffalo-green-code-zoning-density

Lee, J. (2017, November 16). *Residents Fight Seattle Rules Allowing Apartment Developers to Forgo Parking.* Retrieved May 17, 2022, from The Seattle Times: https://www.seattletimes.com/seattle-news/transportation/residents-fight-seattle-rules-allowing-apartment-developers-to-forgo-parking/#:~:text=The%20argument%20is%20that%20more%20and%20more%20renters,city%20officials%20would%20like%20to%20believe%2C%20the

Litman, T. (2011). Why and How to Reduce the Amount of Land Paved for Roads and Parking Facilities. *Environmental Practice,* 38-46.

Litman, T. (2021). *Parking Requirement Impacts on Housing Affordability.* Victoria Transport Policy Institute.

Lynden Municipal Code. (n.d.). Retrieved May 19, 2022, from https://library.municode.com/wa/lynden/codes/code_of_ordinances

Manville, M. (2013). Parking Requirements and Housing Development. *Journal of the American Planning Association,* 49-66.

Manville, M., Beata, A., & Shoup, D. (2013). Turning Housing Into Driving: Parking Requirements and Density in Los Angeles and New York. *Housing Policy Debate,* 23(2), 350-375.

Millard-Ball, A., West, J., Rezaei, N., & Desai, G. (2022). What do residential lotteries show us about transportation choices. *Urban Studies*, 59(2), 434-452.

Parking Reform Network. (2022). *Parking Mandates Map.* Retrieved May 24, 2022, from Parking Reform Network: https://parkingreform.org/resources/mandates-map/

Peterson, K. (2018). *Backdoor Revolution: The Definitive Guide to ADU Development.* Accessory Dwelling Strategies, LLC.

Shoup, D. (2005). *The High Cost of Free Parking.* American Planning Association.

United States Census Bureau. (2020a). Whatcom County, Washington. Retrieved May 10, 2022, from https://data.census.gov/cedsci/profile?g=0500000US53073

United States Census Bureau (2020b). Tenure by Vehicles Available American Community Survey 5-year estimates. Retrieved from https://censusreporter.org

Whatcom County Code. (n.d.). Retrieved May 19, 2022, from https://www.codepublishing.com/WA/WhatcomCounty/

Whatcom County Sheriff's Office. (2021, December 3). *Whatcom County Sheriff's Office News Release.* Retrieved May 17, 2022, from https://whatcomcounty.us/DocumentCenter/View/62047/WCSO---News-Release----Flood-recovery-underway-preliminary-damage-estimates-at-least-50-million-12-3-1845

Whatcom Transportation Authority. (2022). *WTA 2040 Long Range Transit Plan.*