

# The Sustainability Implications of Tiny Homes and Reduced Lot Sizes

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# Executive Summary

Many of Oshkosh's minimum lot and dwelling size ordinances are too large to encourage more affordable housing and to promote some of the City's sustainability goals. To address these concerns, the City of Oshkosh should reduce the minimum lot and dwelling size in the SR-9 district. Extensive research has been conducted to provide information on the likely sustainability implications, benefits, and concerns if these reductions were to be made. Various stakeholders from home construction companies, Homeowners Associations, local level government officials, and a funder of the proposed tiny home community in Oshkosh were consulted. Overall, the stakeholders provided mixed feedback but most provided some sort of positive outlook on smaller dwelling and lot sizes. Benchmarking was also done with similar cities close to Oshkosh and in other cities were good models for their openness to smaller dwelling and lot sizes. Costs and barriers were also analyzed which are very important to consider as there are some considerable concerns that arise with these ordinance changes including local laws, location of tiny houses, maintenance costs, and neighbor disputes. It should be noted that this report focuses on lot and dwelling size reductions and does not provide extensive research on many other aspects associated with tiny homes and smaller lots such as tiny house villages, communal kitchens, accommodations for people with disabilities, or access to public transportations. While these are key aspects to consider, time restraints prohibited further exploration into these topics.

These ordinance changes would ideally bring more affordable housing to Oshkosh which would improve overall social and economic sustainability because people with incomes under \$25,000, who are in most need of adequate housing, would have a greater ability to afford a house which provides them with basic needs such as shelter and well-being. Also, reducing these

minimums can have less of an impact on the environment with their lower carbon footprints, promoting environmental sustainability. Making reductions to the minimum lot and dwelling size in Oshkosh has significant potential to address the City’s affordable housing problem and sustainability goals, but there are some concerns associated with these ordinance changes including NIMBYism, price implications, lack of privacy, and inadequate living and storage space.

## Background and Problem Identification

Oshkosh currently has a significant housing problem which can potentially be addressed by reducing the minimum lot and dwelling size in order to increase accessibility to owning a home. In December 2021, the City of Oshkosh completed a Housing Needs Assessment. One of the main findings of this assessment is that there are not enough affordable housing options for people in the \$0-\$25,000 income range.

2019 Housing Needs Assessment Chart

**Figure 2.17: Housing Affordability & Availability Analysis**

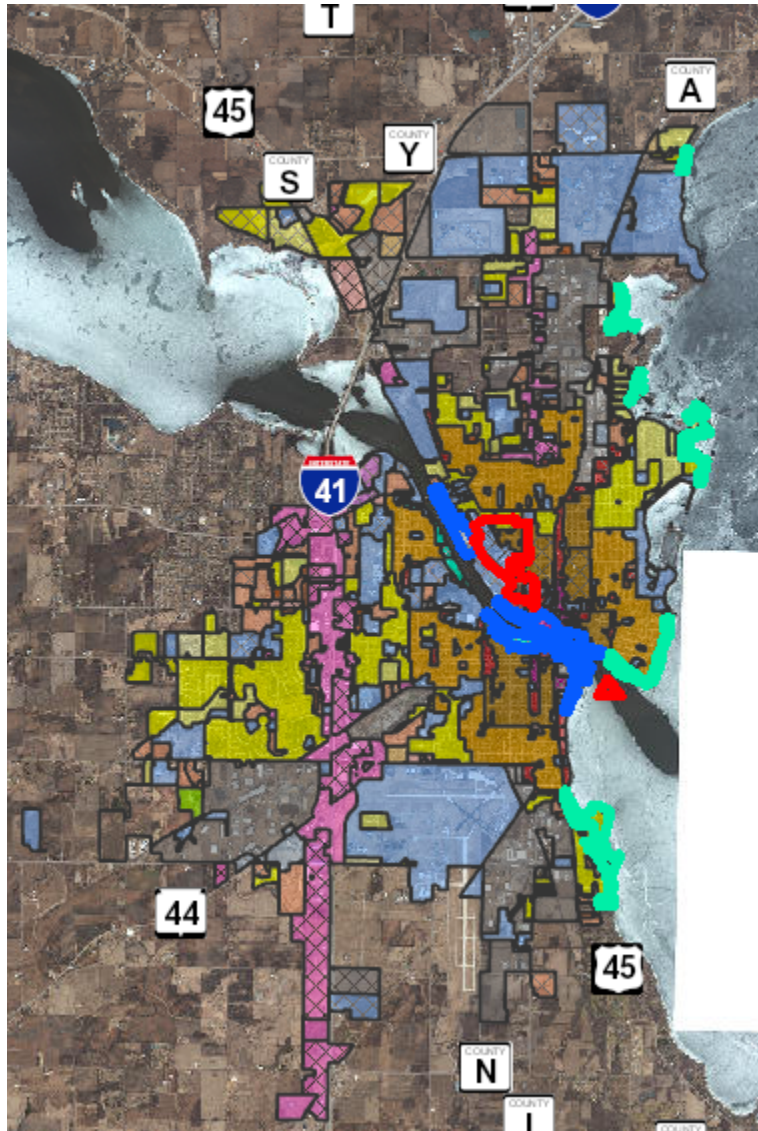
INCOME RANGE	% OF HHS	# HHS IN EACH RANGE	AFFORDABLE RANGE FOR OWNER UNITS	# OF OWNER UNITS	AFFORDABLE RANGE FOR RENTER UNITS	# OF RENTER UNITS	TOTAL AFFORDABLE UNITS	BALANCE
\$0-\$25,000	22.4%	5,968	>\$60,000	902	\$0-\$499	2,642	3,544	-2,424
\$25k-\$49,999	26.7%	7,116	\$60k-\$124,999	6,429	\$500-\$999	8,296	14,725	7,609
\$50k-\$74,999	20.3%	5,396	\$125k-\$199,999	5,250	\$1,000-\$1,499	778	6,028	632
\$75k-\$99,999	13.5%	3,595	\$200k-\$249,999	1,110	\$1,500-\$1,999	214	1,324	-2,271
\$100k-\$150,000	13.1%	3,479	\$250k-\$399,999	727	\$2,000-\$2,999	43	770	-2,709
\$150k-\$199,999	2.8%	753	\$400k-\$600,000	116	\$3,000-\$3,499	8	124	-629
\$200,000+	1.2%	327	\$600,000+	119	\$3,500+	0	119	-208
Median			\$125,000		\$641			

Source: 2019 American Community Survey 5-year estimates; RDG Planning & Design

(“Demographic and Economic Atlas 37)

This proposal will focus on the single-family residential district of SR-9. This district has a current minimum lot size of 4,500 ft<sup>2</sup> which allows for a maximum of nine lots to reside on one acre of land (Article II 10-36). Reducing lot sizes should ideally make owning property more affordable. The current minimum dwelling size for SR-9 is 800 ft<sup>2</sup>, but research shows people can have adequate utilities and storage in less square footage (Article II 10-36). Allowing homes to be smaller than the current minimum will ideally lead to more affordable housing in terms of their selling price and savings due to smaller utility bills as less water, electricity, etc. will be consumed. The reason for SR-9 being the sole focus of our proposal is because allowing all single-family residential districts to have the same minimum lot size would mean that there would not be different zones which would be in contention with historical zoning. It is also important to note that it does not make much practical sense to build a tiny house on a large lot as this could very likely counteract the affordability aspect of a tiny house, making SR-9 an ideal location to allow these homes. SR-9 can be found in the orange colored sections on the map below.

## Map of Different Zoning Districts in Oshkosh



(“City of Oshkosh Zoning Map Viewer”)

Plans currently exist to implement tiny housing in Oshkosh in the form of a village to provide relief from homelessness. The village would be owned by the Wisconsin Housing Partnership Development, and would be located On West Packer Avenue between Jackson Street and Main Street. The village could advance the social, environmental, and economic goals of sustainability outlined in Oshkosh’s sustainability plan. The Oshkosh Kids Foundation is currently planning and raising funds for this village. If approved, this village would potentially

have 32 houses and a community center to provide temporary shelter for families currently experiencing homelessness. Families would be able to stay for 6 to 18 months and would participate in programs teaching skills such as financial literacy and employment skills. In addition to the social and economic benefits of alleviating homelessness and giving people a foundation to seek employment, the village would also be environmentally sustainable due to walkability and efficient design. Residents of the village would be within walking distance of sites such as St. Vincent De Paul's, the Oshkosh Area Community Pantry, and bus lines. Additionally, the village would have solar power, efficient insulation, and ADA accessibility at the community center and some of the houses. While this village may help families experiencing homelessness temporarily, lot size reductions and allowing for tiny houses in the wider community could help address the problem of unaffordable housing more directly.

Map of Proposed Location of Oshkosh Tiny House Village and Nearby Locations



(Dumke, Slide 8)



## Recommended Action

We are recommending the City of Oshkosh to make the following reductions to the lot and dwelling size ordinances in SR-9:

- Reduce the minimum dwelling size to 400 ft<sup>2</sup>
- Reduce the minimum lot size to 4,000 ft<sup>2</sup>

This new minimum dwelling size recommendation was decided on because a home construction company in Oshkosh stated they could make a house this small and that it was a realistic size in order to have proper utilities such as a shower, furnace, and storage for food. The new minimum lot size recommendation was decided on because the City of Wausau recently had success reducing theirs to 4,000 ft<sup>2</sup> square feet. If this lot size reduction were to be made, more lots could be placed onto one acre of land, resulting in an SR-10 or SR-11 zoning district.

## Stakeholder Identification

### Home Construction Companies

Alyssa Clary

Co-owner/Designer, Wisconsin Tiny Homes

In order to obtain an expert insight on tiny houses and even lot size reductions, a tiny house company called Wisconsin Tiny Homes, located in the small town of Elroy, WI, was contacted. The Co-owner/Designer, Alyssa Clary, had a very positive outlook on the sustainability implications of their tiny homes but also brought up some noteworthy concerns. She mentioned a realistic minimum dwelling size of 200 ft<sup>2</sup> for one person and 300 ft<sup>2</sup> for two

people in order to have all proper utilities and storage. This smaller square footage means that their tiny houses are far more energy efficient, consume less water, and are more affordable than standard homes. Their tiny homes cost between \$50,000-\$80,000 which is significantly more affordable than a standard house in the U.S. which had a median sales price of \$408,100 by the end of 2021 according to the U.S. Census Bureau and the U.S. Department of Housing and Urban Development.

While the savings seem to be massive, Alyssa noted that the sticker price of their tiny homes does not include the cost of transporting the home, if not built on sight, and the cost to fully furnish the house. The upfront cost of their tiny houses is high which can derail their affordability initiative if potential customers are unable to pay a large sum of money upfront. Despite these potential affordability issues, she stated reduction in lot size can help to offset these costs to an extent, and that tiny houses are much more affordable than a standard house in the long run due to their lower overall price and their savings on utility bills.

## George Jacob

Architect, Dowling Construction Inc.

While hearing from a tiny house company is important in order to learn how they have been successful, it is also necessary to learn about the views of a home construction company in Oshkosh as they may be the stakeholder responsible for actually building tiny houses if they were to be approved in Oshkosh. The architect, George Jacob, from Dowling Construction Inc. was actually considering building tiny houses about five years ago and was initially very optimistic about the idea, but after further research, he and his company found the concerns to outweigh the benefits. George and his company were intrigued by tiny houses as they could help

expand their clientele and even figured out a realistic minimum dwelling size of 400 ft<sup>2</sup> which is exactly half the size of the minimum square footage in most Oshkosh districts (“Article II” 10-36).

Further investigation into tiny houses, however, proved it would be difficult to implement them in Oshkosh with their number one concern being an optimal location to put the tiny homes. NIMBYism (Not In My Backyard-ism) greatly contributes to this concern because current property owners are fearful that tiny houses next to their property will decrease their property values. Zoning creates additional placement issues as building them in some existing neighborhoods and places on Main Street, for example, would not be permitted due to zoning laws. The time to design a tiny house was another issue George brought up because it takes a long time to come up with creative designs that maximize storage in a minimal space which brings about an opportunity cost. In the time it takes him to design one tiny house, he could be designing multiple standard homes and making more profit. If these tiny house barriers had not been so significant, specifically the placement problem, there is a possibility that George and his company may have implemented tiny houses into Oshkosh years ago.

## Jay Faikel

Owner and Founder, Quality Assured Builders

Jay Faikel is the owner and founder of Quality Assured Builders in Green Bay, Wisconsin. While Jay’s company has not built any tiny houses, they have built houses on reduced size lots in Howard, WI. While these lot sizes were around 10,000 ft<sup>2</sup>, Jay said that his customers previously had homes on larger lots and were favorable towards a lot size that was smaller than they had previously. Jay has observed that many people are interested in downsizing

their living space. He also said smaller lot sizes could benefit cities due to increased tax revenue from density. Jay also mentioned an obstacle towards reducing lot size might be the fact that land is still relatively cheap in the region. Another obstacle Jay mentioned was the increased cost per square foot of smaller houses. Because the costs of appliances and other factors cost similar amounts regardless of house size, smaller homes end up costing more per square foot, which may lead to difficulties securing a loan from a bank.

## Eric Hoffman

Owner, Prairiestone Homes

Eric Hoffman is the owner of Prairiestone Homes in Oshkosh. He stated that he was not necessarily for or against tiny housing or lot size changes. With regards to tiny houses, he believes that they might not be necessary in Oshkosh, as affordable mobile housing and manufactured homes fill that role in the region. He also said that some difficulties in implementing reduced lot size and tiny houses might include the already low cost of land in the region, the possibility of lower tax revenue from tiny house properties, and local opposition due to concern about property values.

## City Officials

### Madison Smith

City Planner, Green Bay

The expert opinions of a city planner are important to consider when assessing the merits and downsides of tiny housing and lot size reduction. Madison Smith, a city planner in Green

Bay, Wisconsin believes that tiny housing could be a valuable tool for infill development and affordable housing. This strategy could help Oshkosh repurpose previously developed land to fulfill housing needs. Smith also said that implementing tiny housing could increase a city's tax base through property taxes. Finally, compared to other affordable housing types, such as manufactured homes, tiny homes might not have the same image problems, and may be seen as a more aesthetically attractive option.

## Mark Lyons

Planning Services Manager, Oshkosh

Mark stated that he was personally in favor of creating more diversity in housing options in Oshkosh, which would be made possible through lot size reduction. He believes that the benefits in reducing lot size are increased investment in neighborhoods and increased housing options at various prices. He also mentioned that Oshkosh recently completed a Housing Needs Assessment and found that there is a lack of housing options for people who make \$25,000 or less, meaning that there is a need for more affordable housing options in Oshkosh. However, Mark believes that the greatest challenge to changing lot size will be opposition from Neighborhood Associations who perceive negative impacts on property values.

## Jeff Witte

Principal Planner, Community Development for the City of Oshkosh

Jeff is very familiar with the concept of tiny homes and is concerned that they do not provide enough space for people to live comfortably. He suggests that we refocus our project on small homes and look at what type of housing actually meets people's needs. It is important to

differentiate between the urban and suburban areas of Oshkosh because the residential housing in these two areas would likely be very different. According to Jeff, most of Oshkosh would be considered urban. Urban housing has less space between lots and smaller or no garages. There is less emphasis on cars where public transportation is more accessible. Suburban lots are larger and people would normally want to have a garage. Jeff suggested that we focus on factors that might make a smaller home more energy efficient.

## Neighborhood Associations

### Joe Stephenson

Neighborhood Association, Midtown

In general, Joe supports the idea of lot size reduction. He mentioned that some of the benefits he sees with reducing lot size are increasing the housing stock and homeownership opportunities and reducing cost of homeownership. Although Joe was personally supportive of lot size reduction, he mentioned that one of the biggest obstacles to reducing lot size is citizen opposition. He explained that many people view zoning changes as attacking their current living situation, and people in the community may feel that “less desirable people” live in nontraditional homes, and these opinions are generally difficult to change.

### Kathy Webb

Neighborhood Association, River East

Kathy seemed generally positive about reducing lot size. Kathy explained that she lives in one of the oldest neighborhoods in Oshkosh, so they have smaller lot sizes than what is generally allowed throughout the rest of the city. While she personally has a lot of space between her home

and her neighbors' homes, she views privacy issues as a concern with increased housing density. However, she said she loves the concept of tiny houses and she understands that a large lot is not needed and why reducing minimum lot size would be necessary in order to build a tiny house.

### Anonymous Member of the Congress Field Neighborhood Association

This person, who wished to remain anonymous, was overall not very supportive of attempts to reduce lot sizes. A main concern they mentioned for reducing lot size is that it would create more non-uniformity in neighborhoods. Another concern they mentioned was that compacting neighborhoods creates the question of if there will be enough parking available. They feel that lot size reduction is a complicated issue that may have many unintended/unforeseen consequences. They believe that it is best to address the affordable housing issues in Oshkosh by first looking at how existing homes can be made more affordable.

### Vicki Schorse

Neighborhood Association, Sawyer-Paine

Vicki is generally supportive of creating tiny home communities but does not support lot size reduction in already established neighborhoods. Some of her concerns that come up from lot size reduction include the impacts on property values and historic districts. However, Vicki feels that establishing affordable tiny home communities is a good project idea for low-income neighborhoods that have homes that have been neglected.

### Marty Verstegen

Neighborhood Association, Sawyer-Paine

Marty is also generally supportive of establishing separate neighborhoods for tiny homes but is unsure if it is a good idea to reduce lot sizes in existing neighborhoods. He feels that more single-family homes of any size are needed in Oshkosh. A concern Marty sees with establishing neighborhoods with smaller lot sizes is that it would result in overcrowding and neighbor disputes. Another point Marty brought up is that he feels it is a good idea to see how the already existing homes on small lots in Oshkosh can be updated and made more accessible.

## Dan Braun

Neighborhood Association, Historic Fourth Ward

Dan stated he does not have a problem with tiny homes as long as they are generally cohesive with the rest of the homes in the neighborhood in which they are built. He also feels that the restrictions on lot composition in Oshkosh are generally “pedantic and exorbitant.” Overall, it sounds as if Dan supports separate tiny home communities that do not disrupt already developed neighborhoods.

## Other

### Julie Dumke

Executive Director, Oshkosh Kids Foundation

Julie Dumke is the Executive Director of the Oshkosh Kids Foundation, an organization which is raising funds for the development of the tiny house village in Oshkosh. Julie said that the main obstacles for tiny housing includes finding funds and working within city code. The estimated cost of the proposed tiny house village came out to \$4.5 million. Julie said that the



issue of funding is being addressed through private donors as well as grants and loans. Regarding city code, Julie said their organization is working closely with the city to address and remedy possible code issues. Julie said the project did not face too much opposition from neighbors, and that they met with neighbors to address their concerns. However, one neighboring business expressed concerns about increased crime resulting from the development.

## Benchmarking

Understanding what cities that are similar to and nearby Oshkosh are doing in terms of tiny houses and reductions in lot size can be helpful when considering these projects in Oshkosh as the cities can be compared and contrasted. This is why Neenah, Menasha, and Green Bay were chosen as benchmarking cities. Additional cities were researched in order to provide cities that Oshkosh could use as a model.

### Neenah, WI

The City of Neenah has an affordable housing program, which can be seen in Appendix A, that includes tiny houses as a means to achieve affordable housing, but little has been done to achieve this goal (“Housing Affordability Report” 2). This is due to the fact that there has been a small demand for tiny houses, likely a result from the term having an unclear definition (Schmidt). Citizens of Neenah have requested to build smaller homes, however. They do have a requirement that states all homes must be at least 20 ft wide which is not difficult to achieve even for the construction of small houses, but the Deputy Director, Brad Schmidt, stated that those wanting to build a smaller home would likely run into more issues with the Uniform Dwelling

Code (UDC). This code is set by the state and provides a list of construction standards that Schmidt believes could conflict with the construction of smaller homes.

While an explicit minimum dwelling size was not made clear by Schmidt or the City of Neenah's website, they do have a minimum lot size of 7,200 ft<sup>2</sup> which is the same minimum for one of the four single-family residential districts in Oshkosh. Neenah does have lots that are smaller than their minimum of 7,200 ft<sup>2</sup> as they were established before this local minimum lot size was put in place. Schmidt noted that these lots are substantially cheaper than a lot at least 7,200 ft<sup>2</sup> which goes to show that smaller lots can be more affordable, helping people with limited income to own property.

## Menasha, WI

The minimum lot size for the Single-Family Residential District in Menasha is 7,200 ft<sup>2</sup>. The Menasha Planner, Farrah Yang, stated that there is currently no plan for the minimum lot size to be changed anytime soon, nor has it been changed recently. However, she said that a potential benefit she sees with reducing lot size is that it would increase the number of homes available in Menasha. Currently, Menasha is discussing the creation of new zoning codes for their downtown neighborhoods and making them their own zoning districts. Farrah said that they anticipate this project to take a while to complete because changing the ordinances takes time and getting everyone on the same page is challenging, which would be the same difficulties they would face if they decide to reduce minimum lot size in their Single-Family Residential District.

Menasha would also need to address many more lot size restrictions other than just the minimum lot size if they were to pursue a tiny home community project. Some of the other lot size requirements in Menasha include a 60 ft lot width minimum, 25 ft front yard setback

minimum, 30 ft rear yard minimum, and a minimum of 6 ft on both side yards with an aggregate minimum of 16 ft. With reducing lot size for the purpose of building smaller, more affordable homes, these other lot restrictions would be a barrier to constructing these homes to be reasonable sizes in which one can live comfortably.

## Green Bay, WI

The City of Green Bay does not currently allow tiny houses and has not reduced minimum lot size requirements. However, the city made minor changes to their dwelling size requirements in 2021. These changes were limited to the reduction of minimum building width requirements from 25 to 22 ft on any side. This change was implemented primarily for the sake of housing affordability; however, due to the recent nature of the change, it is difficult to see what effect this has had so far. City Planner Madison Smith said there might be some potential interest from the City in reevaluating zoning ordinances, and that this may include lot and dwelling size reductions.

## Wausau, WI

Effective January 1st, 2020, the City of Wausau changed their minimum lot size in certain districts from 7,000 ft<sup>2</sup> to 4,000 ft<sup>2</sup>. This change was achieved by creating two new districts with new lot sizes, bringing the total number of districts from two to four. Additionally, this update to city policy added minimum dwelling size requirements, which are 800 ft<sup>2</sup> for single-family homes, and 400 ft<sup>2</sup> for units in multi-family structures. City planner Brad Lenz said that there was not much opposition to the policy being implemented as the previous code was

outdated, and it was well known that the city needed more affordable housing. Due to the change in code being so recent, Brad said it is difficult to say what effects this has had on the city so far. See Appendix B for a link to the relevant code section.

## Madison, WI

Madison has a tiny home village called Occupy Madison. According to William A. Fruhling (Bill), Principal Planner Neighborhood Planning, Preservation and Design Section for the City of Madison, the city did not initiate the project. There was an array of housing advocates that approached the city about using a vacant lot that used to be an auto repair shop to build their village of tiny homes. According to Bill, it was a difficult project to get off the ground. There were concerns from the neighborhood. The majority of the tiny house residents were homeless, and the community was fearful about having homeless people in their neighborhood. However, the Occupy Madison project has been a huge success. The residents are now considered part of the community and look after one another. Madison did have to go through rezoning for Occupy Madison and since then has established a tiny house district in their zoning code. Zone THV (Tiny House Village) was adopted by the City in the fall of 2021. Fifty percent of the city of Madison is now zoned to allow for the building of tiny homes. The reason this works for Madison is that they have a housing crisis and tiny homes are considered part of the solution. Bill talked enthusiastically about the benefits of tiny homes for Madison.

## Durango, CO

Durango, Colorado is one of the country's leading cities in terms of tiny house implementation. Unfortunately, a conversation with a Durango city official or a person from a tiny home village was unable to be set up, but the information found on a website was important to include, especially if Oshkosh were striving to incorporate more tiny house villages. One of their villages, called Escalante Village, primarily advertises their 400 ft<sup>2</sup> homes, but the average size of their homes is actually 208 ft<sup>2</sup> ("Are You Ready to Live in 400 ft<sup>2</sup> at 6,512 ft<sup>2</sup>?"). The village is located within walking or biking distance to trails, shopping, dining, and downtown. It provides amenities such as a community garden to increase food security, snow removal, and parking while offering utilities such as water, sewer, electric, trash, recycling, internet, and self-storage. Although the price of their homes is not listed on their website, it is stated that Durango is facing an affordable housing crisis and that their tiny homes have been successful at filling this housing gap ("Are You Ready to Live in 400 ft<sup>2</sup> at 6,512 ft<sup>2</sup>?"). It must also be noted that Durango attracts many tourists which appears to play a significant factor in the success of these tiny homes.

## Costs

With changing zoning ordinances, the only real cost would be time. If reducing lot sizes to allow for smaller homes to be built in already developed neighborhoods, time is the only cost to the city. If the goal is to develop tiny home communities, then there will also be a monetary cost. The planned tiny house village in Oshkosh is projected to cost \$4.5 million, and the

Oshkosh Kids Foundation has addressed the issue of cost through donations and grants. The foundation has received donations from several private donors and has received a grant from the state. Veterans Village, another tiny house village discussed later in the “Social Sustainability” section, was funded through public funds as well as fundraisers. A potential cost barrier to tiny homes is higher construction costs per square foot, which may result in banks being less willing to give mortgages for tiny homes. We attempted to contact Heartland Credit Union in Madison to see if they had any experience lending for tiny homes but were unfortunately unable to have a conversation with anyone from there.

## Barriers

### Local Laws

Legal barriers such as local ordinances that discourage tiny houses and smaller lot sizes have been one of the largest obstacles that prevent communities from benefiting from their sustainability enhancements. Research shows that potential tiny homeowners have become frustrated with local ordinances to the point where they ultimately abandon the idea of a tiny house as they do not have the time or energy to navigate their way around these laws (Tucker et al.). In order for the multiple social, economic, and environmental sustainability benefits of tiny houses and smaller lot sizes to be observed in Oshkosh, ordinances must change to encourage their implementation.

## Location of Tiny Houses

Another significant barrier includes finding the ideal location to allow tiny houses and smaller lots when faced with NIMBYism and zoning challenges. Research shows that NIMBYism was found to exist when the City of Tallahassee was attempting to implement a tiny house community because there was fear that slums would result (Jackson et al.). Ultimately, the tiny house community was built, but their project was more restricted than hoped. For example, the tiny house community was not allowed to provide housing for the homeless community (Jackson et al.). Despite the potential for the tiny house community to reduce the homeless population in Tallahassee, the fear generated by communities near the tiny homes was enough to exclude an entire group of people, who were arguably the most in need of tiny homes, from adequate housing. Oshkosh has experienced NIMBYism too as expressed by the architect from Dowling Construction Inc. which is an Oshkosh home building company. When considering the construction of tiny houses in Oshkosh, he found that people were wary that tiny houses and smaller lots in their community would decrease the value of their property. He also found that this NIMBYism in conjunction with zoning codes would make it difficult to place tiny homes in preexisting subdivisions and other places in the city. He and his company felt so restricted with where they could place tiny houses that it ultimately deterred them from building them.

## Community Concerns

As previously mentioned, NIMBYism was a barrier to a potential tiny home construction project several years ago. After recently contacting Neighborhood Associations for their opinion on reducing lot size to allow for smaller homes, it appears that NIMBYism continues to be a

potential barrier due to the concerns of homeowners. These concerns include the potential property value impacts, non-uniformity in the neighborhood, and privacy. The community members we contacted from the Neighborhood Associations tended to support the idea of creating a separate tiny home community but generally did not support a reduction in lot size to allow for building smaller homes in established neighborhoods. These community members are generally unsure of what problems smaller lot sizes and increased density could bring and are therefore wary of making lot size changes in already developed neighborhoods.

## Maintenance Costs

Maintenance costs are a potential barrier to tiny housing development as an affordable housing solution. Green Bay City Planner Madison Smith mentioned that deciding who has to pay for maintenance and upkeep of city services to tiny housing can be difficult due to those in need of affordable housing already facing financial difficulties. Public works services may also face difficulties maintaining infrastructure because of the increased workload. While it was not specified whether these maintenance problems were regarding tiny houses in general, it seemed as if this applied more to tiny house villages.

## Significance for Sustainability

### Social Sustainability

Reductions in dwelling and lot size have great potential to enhance some of the City of Oshkosh's social sustainability goals outlined in the 2019 Sustainability Plan. One of the objectives in this plan is to promote safe and healthy communities by providing the people of



Oshkosh with basic needs such as shelter (Oshkosh Sustainability Advisory Board 61). Houses with a smaller dwelling size on small lots tend to be much more affordable than standard homes on larger lots which can lead to a greater diversity of people, such as college students, the elderly, and people from a lower socioeconomic status, to be able to afford shelter (Mutter 30-37). This promotes social equality as a study conducted by Bibri et al. found that “improving social equity [can be done] through . . . flexible design of housing in terms of mixed forms and affordability.”

Well-being is another basic need which can also be enhanced with smaller lot dwelling sizes (Oshkosh Sustainability Advisory Board 61). It has been shown that “housing satisfaction contributes greatly to overall life satisfaction and happiness” (Boeckermann 62). Greater housing satisfaction can be achieved in Oshkosh if smaller dwellings are allowed to be constructed as more people can afford them and, they can provide increased satisfaction for those looking to reduce their carbon footprint.

Smaller houses and lot sizes have also shown to improve a sense of community which is identified as a basic social need by the City of Oshkosh (Oshkosh Sustainability Advisory Board 61). The construction of smaller homes can lead to more engagement between citizens, especially when tiny homeowners network with local businesses such as solar companies, to further reduce their carbon footprint (Tucker, R., et al.). Also, having less home space can encourage people to spend more time away from their homes and in the community (Tucker, R., et al.). With tiny house owners tending to be more involved with their community, neighborhoods can become close-knit communities which is another objective the City of Oshkosh is striving to achieve (Oshkosh Sustainability Advisory Board 61).

While the construction of a tiny house village is not the focus of this report, it is important to note that other cities have implemented them and have observed numerous social benefits such as accommodations for people with disabilities. In Sonoma County, California, a tiny house village called Veterans Village was constructed for veterans, many of whom are in need of accommodations for physical injuries and/or mental health support (HUD USER). The village includes wheelchair accessible showers, adaptable kitchen sinks, and avoids the use of stairs. Veterans village also helps to combat food scarcity by having a manager of the village make runs to the grocery store which can be a difficult task for the residents to carry out given their injuries. A number of the veterans have mental health implications to manage, but the tiny house village has made this easier as a group of people who share similar experiences are able to talk and effectively cope together because they have some ground of understanding (HUD USER). If the City of Oshkosh were looking to create a tiny house village to meet people's physical and mental needs, they should refer to Veterans Village for further guidance.

Although there are numerous ways smaller dwelling and lot sizes can help the City of Oshkosh to achieve its social sustainability goals, they could bring about some social concerns and may not be adequate ways to minimize social issues like homelessness. This can be seen with the tiny house community in Tallahassee where NIMBYism prevented the community from housing the homeless despite many researchers stating how tiny houses are theoretically a viable way to address homelessness. This NIMBYism stemmed from community members' fear of the creation of slums if a lot of tiny houses were concentrated in an area (Jackson et al.). NIMBYism regarding tiny houses has already been observed in Oshkosh as the architect from Dowling Construction Inc. stated that people do not want tiny houses next to their property out of fear that their property values will decrease. While it is unclear if residents in Oshkosh would display

NIMBYism if tiny houses were to house homeless people, it is important to note that over time, residents of Madison were able to overcome NIMBYism and came to terms with homeless people living in a tiny house community.

## Economic Sustainability

Tiny housing and lot size reduction can help the City of Oshkosh accomplish some of the goals outlined in the economic section of the 2019 Sustainability Plan, such as reducing homelessness (Oshkosh Sustainability Advisory Board 29). As previously stated, tiny housing has been used as a solution to homelessness in Madison, WI. If implemented in Oshkosh, tiny housing could help achieve economic justice by providing people challenged by homelessness a pathway towards economic stability. Tiny houses are overall cheaper in total than conventional houses to build (Ford & Gomez-Lanier 394) and can be a way for those who cannot afford to buy a conventional home to have an important asset to build equity in. Despite this, an economic barrier to this cheaper cost is the potentially high-up front cost and higher cost per area of tiny homes, though this has become less of a problem in the United States recently (Shearer and Burton). As Jay Faikel mentioned, banks may be less willing to lend money for smaller houses because of higher costs per area, which means all costs need to be paid up front. An inability to secure a mortgage puts tiny housing out of reach of many prospective buyers. Reducing the lot size requirements in Oshkosh may also benefit the City's bottom line. Smaller lots and houses result in increased density. Increased density in cities is shown to reduce the per capita costs of various municipal services, such as streets, sewers, and water but raises police operating costs (Mattson 10). If Oshkosh chooses to reduce the minimum dwelling size and lot size requirements, money saved in these sectors could be devoted to other uses.

## Environmental Sustainability

One of the environmental benefits of living in a smaller home includes a reduction in carbon footprint. A smaller home requires less energy to heat and cool, especially if it uses electric energy as opposed to natural gas (Sipahi and Kulozu-Uzunboy). There are also fewer appliances in a small home that would require energy to run. Additionally, if the windows are placed properly, natural light is used more efficiently to illuminate the home so less energy is used for lighting. With a smaller home, there would also be fewer inhabitants, so a smaller amount of energy would be used for things like cooking and doing laundry. This type of reduction in energy use results in a corresponding reduction in the carbon footprint of the home (Sipahi and Kulozu-Uzunboy).

One of the reasons why people choose to live in a smaller home is to decrease their environmental impact. People who live in a smaller home use less water, in general consume less, and place fewer demands on nature. Living in a small home changes one's consumption habits (Mutter). When people have less space, they spend less money on unnecessary items and become very selective with the things that they purchase and choose to possess. There is less space available for storing unnecessary possessions, so people begin to value their belongings differently and adopt a quality over quantity perspective on things they own. This type of lifestyle leads to less waste and less material ending up in landfills.

On a broader scale, reducing lot sizes ultimately leads to increased urban density, which has associated environmental benefits (Moroney and Jones). Compact cities make walking a more feasible method of transportation and reduce the dependency on cars for travel (Bibri et

al.). Increasing urban density has the potential to mitigate the amount of pollution from the transportation sector, which is a major contributor to climate change.

## Conclusion

With inadequate housing for people with incomes less than \$25,000 and goals set to improve the sustainability of Oshkosh, the City must reduce the minimum lot size and dwelling size in SR-9. Making these reductions would likely increase the amount of people who have access to affordable housing, create more tight-knit communities, and lower the carbon footprint of houses in Oshkosh. Homelessness has the potential to be reduced with the allowance of tiny homes and smaller lots as seen in Madison, but research in Tallahassee demonstrates NIMBYism standing in the way. Some concerns may also result such as the cost per square foot, high up-front costs, NIMBYism, decreases in neighboring property values, privacy, and finding enough space for living and storage. Despite these concerns, allowing smaller homes and lots has significant potential to bring change for the better in Oshkosh regarding housing issues and sustainability goals. Also, the seemingly strong support for the proposed tiny house community in Oshkosh indicates the city is ready to incorporate tiny houses and smaller lots.

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## Appendix A

The following link leads to the City of Neenah's Housing Affordability Report:

<http://www.ci.neenah.wi.us/wp-content/uploads/2021/11/Housing-Affordability-Report-Permit-Fee-Year-2020.pdf>

## Appendix B

The following link leads to the Wausau city code which provides information on single family housing districts in the city:

[https://library.municode.com/wi/ausau/codes/code\\_of\\_ordinances?nodeId=TIT23ZO\\_ARTIIES\\_ZODI\\_23.02.33SIFAREZODI](https://library.municode.com/wi/ausau/codes/code_of_ordinances?nodeId=TIT23ZO_ARTIIES_ZODI_23.02.33SIFAREZODI)