<u>City of Keene</u> New Hampshire

HOUSING STABILITY AD HOC COMMITTEE MEETING AGENDA

August 31, 2022 3:00 P.M. Council Chambers

Committee Members
Mayor George Hansel, Chair
Councilor Bryan Lake
Natalie Darcy, Human Resources Manager
Joshua Meehan
Jennifer Alexander
Doug losue
Craig Henderson
Steven Bragdon
Jennifer Seher
Stacie Pickford

- 1. Approve Minutes of Last Meeting
- 2. Review Of Recent Campsite Activity And Available Shelter And Transitional Services
- 3. Communications & Supporting Documents
- 4. Future Agenda Topics
- 5. Next Meeting Date

Subject	NHCarePath role in coordinating providers
From	Jennifer Seher
То	Rebecca Landry
Sent	Tuesday, August 2, 2022 11:03 PM

Hi Rebecca – Me again. In the Adhoc meeting there has been discussion about housing stability being in part related to effective coordination of effort of all providers to meet people and families where they are and to develop person and family centered plans that may include complex care coordination. The US DHHS and NH DHHS established the NH NWD system in an effort to push this interagency coordination forward for individuals and families with complex health and social service support needs. Here is the link to the NHCarePath housing page. ServiceLink is designated to by state contract to convene NHCarePath meetings in the Monadnock Region. I can explain more about what I see as workable and in need of improvement in this model that this committee could consider supporting if it is of interest.

https://www.nhcarepath.dhhs.nh.gov/housing-community/index.htm

Subject	Housing Stability Ad Hoc information for consideration	
From	Jennifer Seher	
То	Rebecca Landry	
Sent	Tuesday, August 2, 2022 10:34 PM	
Attachments	< <capgi-fact-sheet-8-13-2020.pdf>></capgi-fact-sheet-8-13-2020.pdf>	

Hi Rebecca — I'm sorry to just be sending this now, but wanted to send information about the CAPGI model supported by the Urban Institute. As I understand it, the model is the first in which economists have evidence to support the benefits to all parties in collaborative community approach to systems change to address a social need (such as housing capacity). The attachment is short document intended for people who are new to the model. The link below gets to the CAPGI staff who are co-located with the Urban Institute. There are some NH "experts" of sort in this model associated with UNH that we can connect with if our community is interested in learning more about the way it might be used to help us develop and ongoing housing stability model in Keene that would include and support all partners to sustain this priority as a collective ongoing.

httns:/	//capgi.urban.org/
116693./	/ cupgitui builtoig/

Thank you!

Jen

Subject	last email!
From	Jennifer Seher
То	Rebecca Landry
Sent	Tuesday, August 2, 2022 11:16 PM
Attachments	< <aarp door<br="" no="" wrong="">Scorecard 2017.pdf>></aarp>

Hi Again – This is old (from 2017) but it talks about the federal NWD vision for address social determinant of health issues (this includes stable housing) in a way that addresses the needs of the whole person or whole family system. NH's system is among those highlighted in this scorecard. It talks about LTSS which means all services that help someone who qualifies for support due to chronic or acute health issues (this may include addiction, injury, or permanent disability, or the chronic health issues that come with limited access to healthcare and other social determinants of health as people age. Keene maybe able to build on, expand the collaboration already required by the state to US DHHS to demonstrate and more effective model.





What is CAPGI? The Collaborative Approach to Public Good Investments (CAPGI) is a financing process designed to help multi-stakeholder coalitions sustain new investments in social determinants of health (SDoH). This process happens within communities and uses local capital, stakeholder self-interest, and a collaborative bidding process to source and pay for new services that any single stakeholder could not support at scale, but are expected to generate community-wide benefits. CAPGI is unique in that funding for new investments does not rely on private investment capital (which expects to be repaid) or new government expenditures. Rather, it leverages the combined self-interest of existing community partners, some of which may be private or public insurance plans or hospital systems with deep connections to a larger organization. The novel funding approach, based on a previously-developed economic model, was introduced in Len Nichols' and Lauren Taylor's Health Affairs paper and subsequently described in four 90 minute webinars.

Research shows that certain investments in housing, nutrition, transportation, and complex case management, among other "healthy opportunities" (or SDoH), can improve health and other dimensions of well-being for vulnerable populations while reducing a variety of health and social service costs. These savings accrue to multiple community stakeholders and often exceed the upfront costs of the initial investment. Nevertheless, adequate and sustainable financing of healthy opportunities has eluded most if not all communities in the US. This project is designed to explore, teach, and test if our CAPGI model can improve this situation.

Setup - Identify a Trusted Broker

Select Intervention - Review Evidence on SDoH Deficits - Stakeholders select intervention

- Trusted Broker solicits bids - Prices assigned to each stakeholder

- Select and contract with a vendor - Trusted Broker oversees process

Reconcile & Rebid - Reconcile data and rebid for year 2

We find that healthy opportunities investments have properties like other public goods, namely that they benefit many stakeholders simultaneously and unavoidably. These properties lead to "free-rider" problems and systemic underinvestment. In short, those who could benefit from investing upstream – for example hospitals who could reduce their own uncompensated care by helping the homeless — fear that most or all of the return from their investment would flow to those who did not invest (other hospitals or health plans), and therefore each invests too little. As a result, the total investment upstream in each community is far lower than it could or should be.

Decades ago, economists developed a rigorous way to solve the free-rider problem, under certain conditions, now known as a Vickrey-Clarke-Groves (VCG) auction. The two pre-conditions for the model to work – (1) a local stakeholder coalition searching for collaborative solutions to common problems, and (2) a financially neutral trusted broker who can elicit true willingness to pay to solve the problem while preserving confidentiality – exist now in many communities, partly because of hospital collaborations in reaction to ACA readmission penalties, Medicaid expansion (which put sometimes expensive homeless individuals on MCO rolls), and the opioid crisis, which brought criminal justice, social services, and the medical community together to address widely shared costs. The solution to these common problems clearly lies upstream from the health care system.

Our CAPGI process makes a few specific tweaks to VCG, which we believe can lead to fair and permanent solutions. The beauty of the model is that it is powered by local stakeholder self-interest, and thus financing solutions do not depend on ever more government or philanthropic spending. The potential for self-sustainability is why we think so many communities have become so interested in it. Please look around this website for more information and project updates, or send queries to lnichols@urban.org.

Long-Term Services & Supports State Scorecard (/)

A State Scorecard on Long-Term Services and Supports for Older Adults, People with Physical Disabilities, and Family Caregivers

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No Wrong Door: Promising Practices for Accessing Long-Term Services and Supports

O Published: June 07, 2017

Authors: Wendy Fox-Grage

Most of us will need long-term services and supports (LTSS), either for ourselves or for our family members. However, most of us do not know about our options and how to pay for these services. That is why the LTSS State Scorecard (http://www.longtermscorecard.org/)—created by the AARP Public Policy Institute (http://www.aarp.org/ppi/) and funded by the Scan Foundation (http://www.thescanfoundation.org/) and the Commonwealth Fund (http://www.commonwealthfund.org/)—ranks states on their aging and disability resource centers. These centers are an important feature of a high-performing LTSS system.

Aging and disability resource centers can serve as the gateway for helping individuals and their families find and access LTSS, including light housekeeping, transportation and respite care to give family caregivers a break, just to name a few. States have these "one-stop shopping" models to help people receive public and private services regardless of which organization they contact. Therefore, they are sometimes called "no wrong door (https://nwd.acl.gov/)." If people contact an organization within this system, they can be connected with information, referrals and supports, resulting in "no wrong door" to services irrespective of their age, income or disability. Area agencies on aging, centers for independent living, and state agencies such as Medicaid agencies and state units on aging work together to make up this no wrong door system. While the states have these centers, the operations and functions of each center vary greatly, which is why the *Scorecard* ranks them.

Although the previous two *Scorecards* included an indicator on these centers, the upcoming third edition contains an updated indicator to reflect published guidance on key elements of no wrong door systems from the federal government. AARP, in collaboration with the U.S. Administration for Community Living (https://acl.gov/) and the Lewin Group (http://www.lewin.com/expertise/aginganddisability.html), collected information for this indicator from a survey of state administrators. Then, they followed up by interviewing administrators from states that had scored well or demonstrated innovation to produce a newly released promising practices and tool kit paper on person- and family-centered practices.

8/2/22, 11:06 PM No Wrong Door

This first in a series of promising practices and tool kit papers (http://longtermscorecard.org/promising-practices/no-wrong-door) provides concrete examples of how six states — Connecticut, Michigan, New Hampshire, Virginia, Washington and Wisconsin—plus the District of Columbia promote person—and family—centered practices in their no wrong door systems. These centers are using an interactive process directed by individuals and family members to support decision making. They also help to develop a plan of support that reflects an individual's and family's strengths, preferences, needs and values. It affirms the core principle that each person is the expert in his or her own life rather than simply plugging people into programs based on their eligibility.

The promising practices are:

- Ensuring leadership support for these practices (with examples from the District of Columbia's mayor-led cross-population task force, Michigan's broad support for change, and Virginia's state legislation on this practice);
- Creating standards for these practices (with examples from Washington's statewide standards of practice, Virginia's co-employment model between aging and disability organizations, the District of Columbia's intake to better listen to people and families, and Wisconsin's follow-up);
- Training the "no wrong door" workforce (with examples from New Hampshire's training and certification, the District of Columbia's training for all, New Hampshire's peer support model, Virginia's person-centered advocates, and Connecticut's essay exam); and
- Helping people maximize use of private resources (with an example from Wisconsin that has been a leader in serving private-pay clients).

This promising practices and tool kit paper

(http://longtermscorecard.org/~/media/Microsite/Files/2017/AARP1122_PP_FamilyCenteredCare_Mar13v7%20FINAL.pdf) includes resources and contacts for state and federal administrators, providers, and advocates to learn about—and even replicate—these practices. This paper also provides a checklist

(http://longtermscorecard.org/~/media/Microsite/Files/2017/AARP1122B_PP_FamilyChecklist_Mar13v3.pdf) of what is needed to move toward more person- and family-centered practices.

NOTE: The third edition of the *Scorecard* will be released soon ... on June 14. Promising practices and tool kits are a new feature of the *Scorecard* project. More papers—such as promising practices in preventing long-term nursing home stays—will be forthcoming. For the new *Scorecard*, the promising practices and tool kit papers, and more, please go to the LTSS State Scorecard interactive website at www.longtermscorecard.org (http://www.longtermscorecard.org/).

This post originally appeared on "Thinking Policy," the AARP Public Policy Institute blog.

CONTACT US

Have questions or need more information? Please contact the Scorecard Team at longtermscorecard@aarp.org (mailto:longtermscorecard@aarp.org)

Long-Term Services & Supports State Scorecard

HOME (/)

SCORECARD REPORTS (/2020-SCORECARD/PREFACE)

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Applying Building Codes to Tiny Homes

March 2017



This white paper contains some basic information about code guidelines for tiny homes. It identifies some of the NFPA documents and requirements in these documents as of the date of publication. This material is not the complete and official position of the NFPA on the referenced topics which is represented solely by the NFPA documents in their entirety. For free access to the complete and most current version of these and all NFPA documents, please go to nfpa.org/standards. The NFPA makes no warranty or guaranty of the completeness of the information in this white paper. In using this information, you should rely on your independent judgment and, when appropriate, consult a competent professional and your local authority having jurisdiction.

ABSTRACT

Tiny homes are a popular trend in housing. Some people view them as a counterculture movement; to others they are a necessity for reduced living costs, especially in expensive real estate markets. Tiny homes have also been suggested as an affordable means to house the homeless.

Clearly, this trend for tiny homes is on the rise. Tiny homes are showing up within cities and towns on parking lots and yards. Empty lots are turning into tiny home developments. But with this new movement come questions regarding the applicability of building codes to these unique dwellings.

Do the provisions that apply to traditional dwellings also apply to the particular characteristics of tiny homes? A case could be made that due to their small size, compliance with a building code can be challenging.

This paper, *Applying Building Codes to Tiny Homes*, has been developed by the Building Code Development Committee (BCDC) of the National Fire Protection Association (NFPA) to assist understanding the expectation of code enforcement practices on the construction or setting-in-place of tiny homes.

AUTHORS

Development of *Applying Building Codes to Tiny Homes* took place as an activity of the Building Code Development Committee (BCDC). Members of the BCDC identified the need for the report and worked collaboratively with peers to develop a draft through a task group. Ultimate review and input was provided and approved unanimously by the full BCDC in December 2016.

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INTRODUCTION

For the most part, a tiny home is just that — it is a single family dwelling on a very small scale. The tiny home community often states that the size of a tiny home is 400 square feet or less. But this threshold is subjective. There is no formal definition for tiny homes in nationally recognized building codes.

Tiny homes are dwellings. A dwelling is considered by building codes to be used as a non-transient occupancy for the purposes of living, which includes sleeping and cooking. Dwellings are not for transient use, where occupants unfamiliar with the building will stay temporarily, such as a hotel room.

Dwellings are therefore generally subjected to the same building code regulations as any other home unless specifically exempted. Those working to enforce code provisions on tiny homes may have difficulties because the nature of tiny homes introduces features that challenge conventional code requirements.

This Applying Building Codes to Tiny Homes has been developed by the Building Code Development Committee (BCDC) of the National Fire Protection Association (NFPA) to assist in understanding the expectation of code enforcement practices on the construction or setting-in-place of tiny homes.

SCOPE OF BUILDING CODES

Codes are adopted and enforced by jurisdictions to provide a minimum level of safety to protect building occupants and property. Their intent is to minimize dangers to life and property. These regulations protect against many risks associated with the purpose and use of buildings. The safety goal of building codes is to reduce the probability of injury or death from fire, structural failure, and building use.

Codes that regulate building construction are often referred to as construction codes or building codes. These codes don't only address the architectural features of buildings, they also address the systems associated with buildings such as the mechanical, electrical, and plumbing systems. As such, the terms building code and construction code may also include mechanical codes, electrical codes, and plumbing codes. Building codes may also be referred to as residential codes when they are applied to residential occupancies.

This guide does not address compliance with zoning codes. Zoning regulations may address many issues that could affect the placement or use of a tiny home. This could include lot size, sewage, water, and electrical requirements.

Tiny homes are built in different ways, and it is important to identify which types of tiny homes fall within the scope and application of building codes.

Types of tiny homes include the following:

- Recreational vehicles
- · Manufactured homes
- Modular dwellings
- Site-built dwellings

Regulations for each of these four types may vary from state to state and from jurisdiction to jurisdiction. Generally, building codes will apply only to tiny homes in the form of modular dwellings and

site-built dwellings. Those taking the form of recreational vehicles and manufactured homes are not regulated by building codes but are under the regulation of other codes and standards.

For the purposes of these guidelines, a tiny home is intended for permanent and non-transitory occupancy or residency. Also for the purposes of these guidelines, tiny homes are not attached to multiple units and would not be configured or used as a bunkhouse.

Recreational Vehicles

Tiny homes that can be set on a permanent trailer chassis with wheels are often referred to as tiny homes on wheels (THOW). Remaining in a mobile-ready state, they do not fall within the scope of building codes. They may fall within the scope of other laws or regulations, such as NFPA 1192, *Standard on Recreational Vehicles*, as well as rules established by the state Division of Motor Vehicles.

There is one issue when following regulations for recreational vehicles (RVs). The U.S. Department of Housing and Urban Development (HUD) requires RVs to be only "temporary living quarters," and tiny homes often are intended to be permanent homes. Regardless, tiny homes taking this form are not regulated by building codes. As RVs, they more likely must comply with other state or federal regulations.

Manufactured Homes

Manufactured dwellings or manufactured homes are pre-manufactured at an off-site location, such as a factory or shop, and then relocated to a permanent site. These are historically referred to as *mobile homes* and in some cases *park models*.

"Park model" is a vehicular-type unit that has a floor area of 400 square feet or less and meets the American National Standards Institute (ANSI) recreational standard A119.5, *Park Model Recreational Vehicle Standard*. Park models are primarily designed for permanent or semi-permanent installation and are used as residences. Some suggest that a park model may not be used for permanent occupancy and may be intended for recreational or seasonal use.

Whether a manufactured home, mobile home, or park model, it will have a label from HUD affixed to it at the factory identifying that it meets HUD regulations.

Manufactured homes are usually installed on a chassis. This allows them to be transported by truck to a site where they are placed permanently or semi-permanently to a foundation. The wheels may be removed and generally the home is rendered non-transitory. In fact, the home may be set on a foundation. Regardless, the chassis will remain with the structure, which will have a label identifying the HUD standard to which it was built.

In this form, manufactured homes are not regulated by building codes but are predominantly regulated by HUD requirements. NFPA 501, *Standard on Manufactured Housing*, and NFPA 225, *Model Manufactured Home Installation Standard*, may be adopted and enforced at the state or local level, and other state and local regulations may also apply. Note that current HUD requirements are based on NFPA 501, but HUD has substantially revised the NFPA provisions.

Modular Dwellings

Modular dwellings are built in whole or in part at a factory, and then taken to a site for installation. These types of dwellings are not built or labeled to the HUD standards for manufactured homes nor labeled as such. Modular dwellings are regulated by building codes.

Site-Built Dwellings

Site-built dwellings are structures that are used as buildings. In general, a structure is something that is built or constructed (see *NFPA 5000*,® *Building Construction and Safety Code*,® Section 3.3.628, and IRC Section 202). A building is a structure that is used or intended for supporting or sheltering a use or occupancy (see *NFPA 5000* Section 3.3.67, and IRC Section 202).

If a tiny home is a building used for occupancy that meets these definitions and is excluded by being considered an RV, manufactured home, mobile home, or park model, then the building code applies.

The guidelines in this publication are intend to provide insight on regulatory issues from a building code perspective. They will identify provisions in building codes that are intended to apply to sitebuilt single family dwellings.

CODE APPLICATION

There are two nationally recognized, voluntary building construction codes promulgated in the United States that regulate the construction of single-family dwellings: *NFPA 5000*, *Building Construction and Safety Code*, promulgated by the National Fire Protection Association (NFPA), and the International Building Code (IBC) promulgated by the International Code Council (ICC). Generally, the IBC establishes regulations for homes in the International Residential Code (IRC). Provisions from these documents will be cited from their 2015 editions.

NFPA 101, Life Safety Code, correlates closely with NFPA 5000, and many of these issues are also regulated by NFPA 101. The corresponding sections from the Life Safety Code are not cited in this document.

Currently, these building codes do not have an authoritative definition of tiny home for purposes of regulation. This is likely because there are no provisions or exceptions specifically for tiny homes in these nationally recognized codes. Further, it does not appear that the term tiny home is used in either the NFPA or ICC codes. Therefore, the definition of the term tiny home as it relates to *NFPA 5000* or the IRC does not have an impact on the enforcement of the code provisions. This would change if specific provisions are introduced to the codes.

Codes make accommodations for special situations because of the impracticality of applying certain requirements. For example, there are specific places where ladders are allowed as a means of egress. However, these accommodations usually consider their impact on life safety and may include trade-offs.

Additionally, both national building codes do not allow code requirements to be waived. *NFPA 5000* Section 1.5 allows equivalencies to be used when it is not possible to meet the requirements of the code when using the prescribed code provisions. It also allows for the design and construction of homes to follow a performance-based approach, as outlined in *NFPA 5000* Chapter 5. IRC Section R104.11 allows for the use of alternate materials and methods of construction when the prescribed provisions of the code cannot be met, as well as allowing for a performance-based approach.

Enforcement of the construction codes also depends on any amendments or ordinances that are developed by the adopting jurisdiction. These may be present, and if so, may vary. It is important to know what, if any, local building codes and ordinances may also apply.

Both nationally recognized codes indicate that they apply to buildings that are built in, or moved into, the enforcing jurisdiction as outlined in *NFPA 5000* Section 1.3.1 and IRC Section R101.2.

Building codes require that a building be classified with an occupancy. See *NFPA 5000* Section 1.7.6.2.1 and IBC Section 302.1. Tiny homes are separate buildings intended for non-transient living purposes. The occupancy that building codes establish for an occupancy for residential living is a dwelling unit: in *NFPA 5000* the occupancy is a one- and two-family dwelling; in the IBC/IRC it is an R-3 occupancy.

Tiny homes are single-family dwellings, and under this occupancy description the building code will regulate them. A dwelling is defined as a building provided with permanent provisions for sleeping, cooking, eating, living, and sanitation.

Tiny homes are not accessory structures, as considered by building codes. *Accessory structures* is a term used in building codes to refer to structures accessory and incidental to a building on the same lot. This means that an accessory structure is not for primary use. A dwelling, no matter what the size, is a primary use and a permanent, habitable occupancy. Accessory structures would more commonly be a shed or detached garage.

Following are building code—related issues that may affect the design and construction of tiny homes. This is not intended to be a complete code analysis. These are the general requirements that have the greatest effect, and these citations do not necessarily reflect all the exceptions, allowances, and trade-offs established by the codes.

Room Size and Dimension

Requirements for minimum room sizes and dimensions are established in both codes. These include minimum sizes for habitable rooms, minimum horizontal dimensions in rooms, and other dimensional requirements. Note that the codes do not require a dwelling to have multiple rooms.

NFPA 5000 49.5.2.1 and IRC Section R304.2 set a minimum horizontal dimension of 7 feet for habitable rooms. The IRC provision is for one dimension, but for NFPA 5000 this applies to all dimensions, which ultimately sets a minimum room size of 49 square feet. IRC Section R304.1 establishes that habitable rooms have a minimum area of 70 square feet.

Bathrooms are not habitable rooms, but there are established dimensional requirements that may affect a tiny home. Codes generally require a clearance of 15 inches from the center of a toilet to any obstruction. They also require 24 inches in front of a toilet. Also, shower basins are required to be a minimum of 30 inches by 30 inches. See IRC Section P2708.

Currently, the codes do not exclude tiny homes from these requirements. These provisions should not adversely affect the design or code compliance of tiny homes.

Mezzanines/Lofts

Many tiny homes contain lofts that are used for different purposes, often sleeping. Logic suggests that these are lofts, yet the codes do not address the functionality of these spaces.

Codes recognize elevated areas that are not separate stories within a room as mezzanines. *NFPA 5000* Section 3.3.417 defines a mezzanine as an intermediate level between the floor and ceiling. *NFPA 5000* Section 8.13.2 limits the aggregate area of mezzanines within a room, except for those in special-purpose industrial occupancies, to less than one-third the open area of the room. IRC Section R325 indicates that a mezzanine is allowed where the height above and below the mezzanine floor is 7 feet and the aggregate area is not more than one-third the area of the room. For both codes, mezzanines must be open to the floor below and require means of egress to comply with stair requirements.

The dimensional requirements could make compliance with the IRC mezzanine provisions difficult within tiny homes.

Though undefined in the building codes, lofts typically are considered spaces open to the floor below that do not comply with headroom or egress requirements because they more nearly resemble a storage shelf. As such, they are not a habitable or occupiable space and do not need to comply with headroom and egress requirements.

However, many tiny homes use a loft space for sleeping, which implies it is habitable. This use does not appear to be allowed in the current codes unless the spaces are provided with headroom and egress requirements. Thus, habitable loft areas within a room must meet the requirements of a mezzanine.

In a tiny home with a proposed raised sleeping area, the best approach to allow its use may be to request from the authority having jurisdiction (AHJ) an equivalent alternative per Section 1.5 of *NFPA 5000* or an alternate design in accordance with IRC Section R104.11. The request could identify the intended use for sleeping, the specific limited area/clearances, access, and the intent to permanently install what would otherwise be considered a raised (bunk) bed. Applying these sections of the codes require approval by the AHJ.

Headroom

Both national codes establish minimum ceiling heights in habitable rooms. NFPA 5000 generally establishes this at 7 feet 6 inches in Section 49.5.2.2, and IRC establishes this at 7 feet in Section R305.1. This may vary for toilet rooms, bathrooms, and laundry rooms.

Both codes have similar allowances for room size calculations where sloping ceilings reduce the height to 5 feet, as well as other projections into the required ceiling height, such as furred ceilings, and beams.

Consideration has not yet been given to providing any exceptions specific to tiny homes. As indicated, there are exceptions for sloped ceilings, projections, and non-habitable rooms.

Means of Escape

Both codes require providing a primary and secondary means of escape. *NFPA 5000* Section 22.2.2.1.1 requires sleeping rooms and living areas to have primary and secondary means of escape for dwellings. Section 22.2.2.1.2 of *NFPA 5000* forgoes the need for secondary means of escape when the room has a door leading directly to the outside finished ground level or if fire sprinklers are provided.

IRC Section R310.1 requires an emergency escape and rescue opening in sleeping rooms that leads directly to the outside. Additionally IRC Section R311 requires a primary means of egress in accordance with Section R311. There are some trade-offs for this provision, based on dimensions and geometry, but no exceptions.

In most cases, the sleeping room in a tiny home is the main room of the house, and the main door serves as the primary means of escape. Where a separate sleeping room is created, a secondary means of escape is required, as noted above.

NFPA 5000 Section 22.2.2.2 does not require the primary door to be a side-hinged door. However, IRC Section R311.2 requires the primary means of escape to be a side-hinged door. Thus, a sliding door may be nonconforming where the IRC is enforced.

Egress Width

The primary means of escape is required to be at least 32 inches wide by *NFPA 5000* Section 22.2.2.1.2 and IRC Section R311.2. Both codes establish some exceptions in very specific cases, but they are not related to tiny homes.

This clear width is also required for accessibility purposes. Exit width does not seem to impact the design of tiny homes, as this is usually the width of the door on the exterior wall. The 32-inch clear opening dimension should be easily achievable for tiny homes.

STAIRS

Second stories must be provided with means of egress. The most traditional means of egress is a stairway. National building codes maintain specific requirements for stair geometry and minimum widths.

The required geometry may limit traditional stairways from being inside a tiny home, but stairways may be located outside as well. *NFPA 5000* Table 11.2.2.2.1 calls for a maximum rise of 7 inches and a minimum run of 11 inches; IRC Section R311.7.5 requires a maximum rise of 7¾ inch and a minimum run of 10 inches. Minimum stairway widths are 36 inches (see *NFPA 5000* Section 11.2.2.2.1.1, and IRC Section R311.7.1). *NFPA 5000* Table 11.2.2.2.1 and IRC Section R311.7.2 require stairways to have a minimum headroom of at least 6 feet 8 inches.

NFPA 5000 Section 11.2.2.3.1 and IRC Section R311.5.1 require all stairs serving as required means of egress to be fixed construction. This would prohibit the use of movable stairs to access a second story.

NFPA 5000 Section 11.2.2.2.3.1 and IRC Section R311.7.10.1 allow the use of spiral or circular stairs as the primary means of egress from a second story. The maximum rise for spiral stairs serving an occupant load of three or fewer in NFPA 5000 Section 11.2.2.2.3.3 is $9\frac{1}{2}$ inches IRC Section R311.7.10.1 requires this maximum rise despite occupant load. NFPA 5000 Section 11.2.2.2.3.3 and IRC Section R311.7.10.1 require a $7\frac{1}{2}$ -inch minimum run at 12 inches from the narrower edge. Once again stairs are allowed to be inside or outside.

Access to loft areas as noted above should be considered as an alternate means or method of construction.

AUTOMATIC FIRE SPRINKLERS

NFPA 5000 Section 22.3.5.1 and IRC Section 313.2 require automatic fire sprinkler systems to be installed in all new one- and two-family dwellings. Note that the fire sprinkler standards referenced allow for multi-purpose systems, where sprinklers are integral to the standard plumbing system.

Since plumbing is required for dwelling units, providing fire sprinklers should not be difficult to include within tiny homes.

SMOKE ALARMS

NFPA 5000 Section 22.3.4.1 and IRC Section R314.3 both require smoke alarms to be provided within dwellings. Both codes reference NFPA 72, National Fire Alarm and Signaling Code, for their installation. The location requirements for smoke alarms are specific, and exceptions within NFPA 72 are intended to address small dwellings.

CARBON MONOXIDE ALARMS

Both codes also require carbon monoxide detectors where fuel fired equipment is installed or attached garages are present. See *NFPA 5000* Section 22.3.4.2 and IRC Section R315.2. This should not pose a significant issue with tiny homes.

SANITATION

Tiny homes are dwellings. The IRC definition of a dwelling unit requires permanent provisions for sanitation. The occupancy definition of one- and two-family dwellings in *NFPA 5000* Section 3.3.178 and in Section 6.1.8.1.1 dwelling units also requires bathroom facilities. IRC Section R306.1 states that every dwelling unit must have a toilet, lavatory, and a tub or shower.

Therefore accommodations must be made for these facilities in tiny homes.

LIGHT AND VENTILATION

Light and ventilation for buildings are required in both codes. *NFPA 5000* Sections 49.3.2 and 49.2.2.7, respectively, and IRC Section R303.1 require glazing to be 8 percent of the floor area and 4 percent openable.

If natural light is not provided, both codes require a minimum level of switched receptacles for electrical lighting. See *NFPA 5000* Section 49.3.1 and IRC Section R303.1.

See NFPA 5000 Section 11.8.1.3 and IRC Section R303.7 for stairway lighting.

Conditioned space is also required. IRC Section R303.9 requires heating not less than 68 degrees F. NFPA 5000 Section 49.7.3.1 has a similar provision through reference to ASHRAE 55 Thermal Environmental Conditions for Human Occupancy.

ELECTRICAL

If electrical systems are installed in a home, both codes refer to NFPA 70, National Electrical Code (NEC), for electrical requirements. The IRC provides reprints of applicable portions from the NEC.

ACCESSIBILITY

Accessibility is not required for single family dwellings used for non-transient purposes.

CONCLUSION

Building codes apply to tiny homes if they are constructed in ways that fall within the scope of building codes. Recreational vehicles and manufactured homes do not fall within the scope of building codes.

The concept of tiny homes is not currently addressed in the building codes. Most aspects of codes apply to these types of structures, and many of the provisions do not conflict with the concept of tiny homes. As pointed out in these guidelines, a few of the design concepts may have difficulty with code compliance.

Consideration should be given to the design elements as an equivalent alternate or alternate design as approved by the AHJ.

APPENDIX Q

TINY HOUSES

This provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.

User note:

About this appendix: Appendix Q relaxes various requirements in the body of the code as they apply to houses that are 400 square feet in area or less. Attention is specifically paid to features such as compact stairs, including stair handrails and headroom, ladders, reduced ceiling heights in lofts and guard and emergency escape and rescue opening requirements at lofts.

SECTION AQ101

GENERAL

AQ101.1 Scope.

This appendix shall be applicable to *tiny houses* used as single *dwelling units*. *Tiny houses* shall comply with this code except as otherwise stated in this appendix.

SECTION AQ102

DEFINITIONS

AQ102.1 General.

The following words and terms shall, for the purposes of this appendix, have the meanings shown herein. Refer to Chapter 2 of this code for general definitions.

EGRESS ROOF ACCESS WINDOW. A *skylight* or roof window designed and installed to satisfy the emergency escape and rescue opening requirements of Section R310.2.

LANDING PLATFORM. A landing provided as the top step of a stairway accessing a loft.

LOFT. A floor level located more than 30 inches (762 mm) above the main floor, open to the main floor on one or more sides with a ceiling height of less than 6 feet 8 inches (2032 mm) and used as a living or sleeping space.

TINY HOUSE. A dwelling that is 400 square feet (37 m2) or less in floor area excluding lofts.

SECTION AQ103

CEILING HEIGHT

AQ103.1 Minimum ceiling height.

Habitable space and hallways in *tiny houses* shall have a ceiling height of not less than 6 feet 8 inches (2032 mm). Bathrooms, toilet rooms and kitchens shall have a ceiling height of not less than 6 feet 4 inches (1930 mm). Obstructions including, but not limited to, beams, girders, ducts and lighting, shall not extend below these minimum ceiling heights.

Exception: Ceiling heights in *lofts* are permitted to be less than 6 feet 8 inches (2032 mm).

SECTION AQ104

LOFTS

AQ104.1 Minimum loft area and dimensions.

Lofts used as a sleeping or living space shall meet the minimum area and dimension requirements of Sections AQ104.1.1 through AQ104.1.3.

AQ104.1.1 Minimum area.

Lofts shall have a floor area of not less than 35 square feet (3.25 m2).

AQ104.1.2 Minimum dimensions.

Lofts shall be not less than 5 feet (1524 mm) in any horizontal dimension.

AQ104.1.3 Height effect on loft area.

Portions of a *loft* with a sloped ceiling measuring less than 3 feet (914 mm) from the finished floor to the finished ceiling shall not be considered as contributing to the minimum required area for the loft.

Exception: Under gable roofs with a minimum slope of 6 units vertical in 12 units horizontal (50-percent slope), portions of a *loft* with a sloped ceiling measuring less than 16 inches (406 mm) from the finished floor to the finished ceiling shall not be considered as contributing to the minimum required area for the *loft*.

AQ104.2 Loft access.

The access to and primary egress from *lofts* shall be of any type described in Sections AQ104.2.1 through AQ104.2.4.

AQ104.2.1 Stairways.

Stairways accessing *lofts* shall comply with this code or with Sections AQ104.2.1.1 through AQ104.2.1.5.

AQ104.2.1.1 Width.

Stairways accessing a *loft* shall not be less than 17 inches (432 mm) in clear width at or above the handrail. The width below the handrail shall be not less than 20 inches (508 mm).

AQ104.2.1.2 Headroom.

The headroom in stairways accessing a *loft* shall be not less than 6 feet 2 inches (1880 mm), as measured vertically, from a sloped line connecting the tread or landing platform nosings in the middle of their width.

AQ104.2.1.3 Treads and risers.

Risers for stairs accessing a *loft* shall be not less than 7 inches (178 mm) and not more than 12 inches (305 mm) in height. Tread depth and riser height shall be calculated in accordance with one of the following formulas:

1. The tread depth shall be 20 inches (508 mm) minus four-thirds of the riser height.

2. The riser height shall be 15 inches (381 mm) minus three-fourths of the tread depth.

AQ104.2.1.4 Landing platforms.

The top tread and riser of stairways accessing *lofts* shall be constructed as a *landing platform* where the *loft* ceiling height is less than 6 feet 2 inches (1880 mm) where the stairway meets the *loft*. The *landing platform* shall be 18 inches to 22 inches (457 to 559 mm) in depth measured from the nosing of the landing platform to the edge of the *loft*, and 16 to 18 inches (406 to 457 mm) in height measured from the *landing platform* to the *loft* floor.

AQ104.2.1.5 Handrails.

Handrails shall comply with Section R311.7.8.

AQ104.2.1.6 Stairway guards.

Guards at open sides of stairways shall comply with Section R312.1.

AQ104.2.2 Ladders.

Ladders accessing *lofts* shall comply with Sections AQ104.2.1 and AQ104.2.2.

AQ104.2.2.1 Size and capacity.

Ladders accessing *lofts* shall have a rung width of not less than 12 inches (305 mm), and 10-inch (254 mm) to 14-inch (356 mm) spacing between rungs. Ladders shall be capable of supporting a 200-pound (75 kg) load on any rung. Rung spacing shall be uniform within 3/8 inch (9.5 mm).

AQ104.2.2.2 Incline.

Ladders shall be installed at 70 to 80 degrees from horizontal.

AQ104.2.3 Alternating tread devices.

Alternating tread devices accessing *lofts* shall comply with Sections

R311.7.11.1 and R311.7.11.2. The clear width at and below the handrails shall be not less than 20 inches (508 mm).

AQ104.2.4 Ships ladders.

Ships ladders accessing *lofts* shall comply with Sections R311.7.12.1 and R311.7.12.2. The clear width at and below handrails shall be not less than 20 inches (508 mm).

AQ104.2.5 Loft Guards.

Loft guards shall be located along the open side of *lofts*. Loft guards shall be not less than 36 inches (914 mm) in height or one-half of the clear height to the ceiling, whichever is less.

SECTION AQ105

EMERGENCY ESCAPE AND RESCUE OPENINGS

AQ105.1 General.

Tiny houses shall meet the requirements of Section R310 for emergency escape and rescue openings.

Exception: *Egress roof access windows* in *lofts* used as sleeping rooms shall be deemed to meet the requirements of Section R310 where installed such that the bottom of the opening is not more than 44 inches (1118 mm) above the *loft* floor, provided the egress roof access window complies with the minimum opening area requirements of Section R310.2.1.

Rosamond Cady 629 NH Route 131 Harrisville 03450

MANCHESTER NH 030 22 JUL 2022 PM 3 L



Keene City Council

Ad Hoc Committee on Housing Stability
3 Washington Street

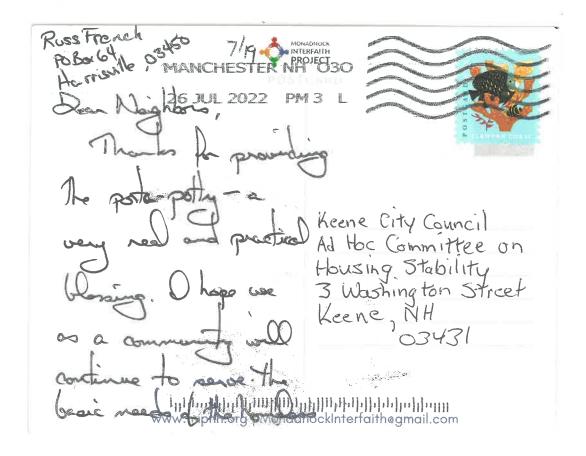
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Dear henders of the Consulter PROPERTY INTERNATION AND HOC CONSULTER. I am a member of The Dublin Community Church, and we are committed to the MIP cause. Ram so glad MIP is worky Keene City Council to help get some action on Ad Hac Committee The problem of helping These who on Housing Stability
3 Washington Street ar honeless. I support anything you are able to do to Keene, NA 03431 help This population get Their - May Clark www.mipnh.org | MonadnockInterfaith@gmail.com



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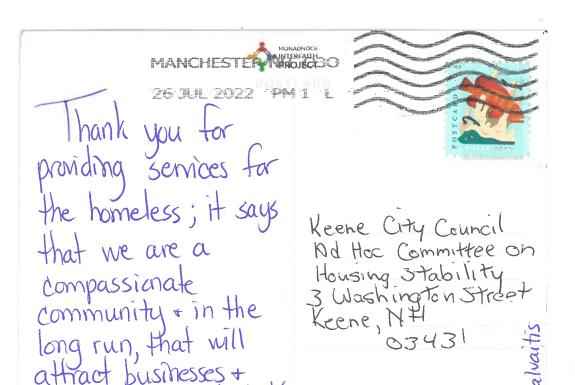
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3 Washington Street

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Voices create a call greater than the sum of its parts. Thank You Roulding An Interfailly Condition for Copyrumity Understanding and Social Justice

Dear Old Hac Committee

your first step to adding a bathroom downtown is great and may it be a beginning of helping all our down trodden Community member . Being homeless is not a sin, howwe treat them can be. Sincerely

att: ad Hoc Committee on slotly

3 Washington St

Keene, NH 03431

Flaine Carril

Dear Ad Hoc Committee Member, It is so good that you are meeting and considering new creative ideas for supporting people of low income who are in danger of housing insecurity or experiencing homelessiess currently Keep up the good work and lean in to Making work good throw happen! Tom Julius www.mibnh.org/MonadnockInterfaith@gmail.com Kune

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Dear Committee MANCHE Thank you for your help in installing a portable toilet in down town Reem. Every member of AH: Ad Hoc Committee our community derserve on Housing Stability a clean, safe place togo 3 Washington, St Keene, WH 03431 to the bathroom. We hope you will continue to be bold and creative in your approaches to those in need of housing.
We are here to surred to we are here to surred to the hold the hold to the head of housing. helpyon. Sincerely, Kathy trick St. James

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Dear Connittee Members 28 JUN 2022 PM 3 L



How worderful in taking the Sirst step to add a restroom downtown with a parta putty. Our city really needs this especially those who don't have a the resources available to sport the dignity need to sport the dignity

Ad Hoc Committee on Housing Stability

3 Washington Street Keene NH 03131

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David Robinson 136e Arch 371

keene, NH 03431



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Ad thoc Committee on Housing 3 Washington ST Keene MH 03431 Dear Ad-hoc Committee PROJECT
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for your words & work
To help the needy
Vulnerable in Keene.
Leep up the good
work & know you
are supported.
Gratefally
Louis James

www.mipnh.org | MonadnockInterfaithegmail.com



plan Ad Moc Committee CARD

member, thank you be taking a first Step

to add a bathroom downtown through setting
up a portar potty. We greatly appreciate your

Commitment to supporting the dignity it all our community

members. We are so grateful that you are

meeting to discuss alternatives for people

experiencing homelessness and expanding howing

options. We urge up to be bold, creative, companionate
as you consider ideas. Through MIP, we look

forward to partnering with you in the months ahead.

Sincerely, Olingela (MIP)

www.mipnh.org | MondanockInterfaithegmail.com

Dear Ad Huc Committee Member & Elizabeth Drafon,



Thank you for taking a 1st step to add a bathersom doventown by sething up a porta toolet. We greatly sething up a porta toolet. We greatly supporting the dignity or humanity members of all our community members when are grateful that you are when the working to discuss alternatives meleting to discuss alternatives to homelessness a expanding to homelessness are expanding to homelessness whe was you to be housed options. We was you to be housed options. We was you to be body creative, and compassinate to homele of the partnering with you in the months to faithering with you in the months

Att: Ad Hac Committee on Housing Stability

3 Washington St. Keene NH 03431

www.mipnh.org | MonadnockInterfaith@gmail.com

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While I am pleased with

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in our community, there is

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Ad Hoc Committee or Housing ad Stability 3 Washington So. Keene, NH

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www.mipnh.org | MonadnockInterfaith@gmail.com

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Att. Ad the Commantuscy Keene City Hall 3 washington of Keene 10 ft 0343

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Ad Hoc Committee on Kelne, NY 03431

the innovative ideas
we need! Www.mipnh.org | MonadnockInterfaithegmail.com
We need! Barbara Barce



Dear Ad Hoc Committee,
Thank you for your
Support of our homeless
Community thus far.
We are grateful that
You continue to work on
ways to support the
homeless and expand
housing options here
in keene. Sincerely,

Tina Stevens, MIP, KUUC

www.mipnh.org | MonadnockInterfaithegmail.com



Dear ad Hoc committee menters, Thomk you for totaing the crucial step of moterny bothwoon access available. Please be ambitious about tockling other howing / homeless rosses.

All Hoc Committee on Housing Stability 3 Washington St

Keene NH 03431

www.mipnh.ors MonadnockInterfaithegmail.com