

HAYSVILLE PLANNING COMMISSION  
Agenda  
May 10, 2018  
7:00 p.m., Municipal Building, 200 W. Grand

- I. Call to Order
- II. Roll Call
- III. Presentation and Approval of Minutes
  - A. Minutes of February 8, 2018
- IV. New Business
  - A. Public Hearing Zoning Code Addition – Tiny Homes; primary structures less than 599s.f.
- V. Old Business  
None
- VI. Correspondence and Informational Reading  
None
- VII. Committee Updates  
None
- VIII. Off Agenda  
None
- IX. Adjournment

Haysville Planning Commission  
Minutes  
February 8, 2018

The regular Planning Commission Meeting was called to order by Chairperson Tim Aziere at 7:00 p.m. in the Council Chambers, located in the Haysville Municipal Building, 200 W. Grand Avenue.

Those members present were: Tim Aziere, Bob Wethington, Richard Meyer, Debbie Coleman, Clay Randel, Amber Chatwell, Joe Holub, Steve Burden, Dawn Stock, and Rose Corby, Planning Commission Secretary.

Chairperson Aziere presented for approval the Minutes of January 25, 2018.

Motion by Randel - Second by Coleman

Move to approve the minutes of January 25, 2018.

Aziere yea, Wethington yea, Meyer yea, Coleman yea, Randel yea, Chatwell yea, Holub yea, Burden yea, Stock yea.

Motion declared, carried.

Under New Business:

Motion by Aziere – Second by Burden

To move Case # VAC 2018-01 to Old Business

Aziere yea, Wethington yea, Meyer yea, Coleman yea, Randel yea, Chatwell yea, Holub yea, Burden yea, Stock yea.

Motion declared, carried.

Under Old Business:

V. A. Case # VAC 2018-01 Request to vacate E. Greenwood St., previously tabled.

Rose addressed the Planning Commission. She stated that she called in a locate as requested and discovered a gas line on the south street right-of-way of E. Greenwood St. with a service line directly into 205 S. Pirner Dr. and is the only line off the gas line in the right-of-way. She explained that 205 S. Pirner Dr. does have two service lines with the second one coming off the main located on S. Pirner Dr. She added that the property located at 137 S. Pirner Dr. is serviced off the main line on S. Pirner Dr. specifically, the radius where E. Dierich St. and S. Pirner Dr. meet. She said that she spoke with Kansas Gas Service who said that they have no issue with the gas line on E. Greenwood St. being relocated or abandoned. However, the service line coming off the E. Greenwood St. is a larger line than the second line servicing 205 S. Pirner Dr.

She stated that there are utility lines in the easement located on the west side of 137 and 205 S. Pirner Dr. and that these utilities cross E. Greenwood St. Utilities include electric and cable but sewer and water do not cross E. Greenwood St.

She stated that at the Public Hearing for this case last time Commissioner Aziere requested Rose to talk with the city about selling a portion of 7310 S. Broadway Ave. to the property owner of 205 S. Pirner Dr. She explained that the city has declined based on the desire to sell this lot as a whole unit and did not want to break the property up into pieces.

Rose said she spoke with the property owner at 137 S. Pirner Dr. who said that they did not have an issue with this vacation but, asked that if the vacation is approved he is requesting that he not be charged permit

fees for any work that he needs to do to turn this area into a drive or bring this property into compliance. She added that he intends to keep the radius on the north side of E. Greenwood St. and would like to work with the owner of 205 S. Pirner Dr. regarding a new radius that would have to be established if his side becomes a drive.

Burden asked if Rose has had any communication with 142 S. Pirner Dr. Rose stated that she has not and that he has not contacted her. Chatwell asked if this was the one across the street who has deliveries a few times a year. Rose said, "yes".

Aziere said that if he understands this correctly the owner to the north is ok with this if we give him a drive. Rose said that for right now he would be using it as a drive utilizing the existing curb as part of the approach if possible. Aziere stated to the owner of 205 S. Pirner Dr., "If you build your building all the way out to the centerline would you have a problem with picking up the tab for whatever you've got to do to remove that pavement and giving him a drive off of his half and we remove the whole street so he's not trying to use that street." The owner stated, "Obviously, it depends on the cost." Aziere said that he would like to do it but that he does not feel comfortable with his building on the centerline of the street and then somebody trying to use the other half of the street and not addressing the drainage. He stated, "I would like to put a condition on the vacation that when you go to do your building plan that all of that is taken care of. All the drainage and everything is fixed and if you can work out a deal for a drive with him or whatever you have to do so that he's not driving out on what used to be Greenwood but is actually accessing Pirner directly however he needs to, I think I would be more inclined to do that and makes all my issues go away." The owner of 205 S. Pirner Dr. said that he will make a note of that and that his contractor will be out this coming week and he will run the scenarios with his contractor but, obviously everything needs to fit into his business budget. Aziere stated that's going to give you the most additional square footage if you go all the way out to the centerline. If we let you just go out to the back of the curb and don't have to remove the street is the option he is thinking. He said that he doesn't love that but, that makes him feel more comfortable than the property owner building to the centerline of the street and the other half of the street is just staying there. Your building is going to get hit. The owner of 205 S. Pirner Dr. stated that he understands and that he will look at both scenarios and will get with Rose as soon as he can.

Aziere said that the other stipulation we have to put on this is if we vacate Greenwood all the utilities running under the street have no easement covering them. We would have to confine all those utilities to an easement and continue the 20-foot drainage and utility all the way through what used to be Greenwood you would have to sign that easement as well as the other owner. Aziere asked if there were any other questions.

Holub said that as he understands it, the city wants to sell the entire area of 7310 S. Broadway as one complete property. Rose said, "yes". Holub then asked if we are talking about half of Greenwood. Aziere said, "all of Greenwood". Holub asked if the curb and gutter was going to be replaced. Aziere said, "That's the stipulation that I was going to put on the vacation is that, when he goes to pull a building permit to expand his building to the centerline of what used to be Greenwood that all of Greenwood is removed and curb and gutter is placed continuous instead of wrapping around those radiuses. The radiuses are completely removed when we do curb and gutter along that arc so it's not straight but Pirner is confined." He added that it is going to be additional cost but it's the only way we can make it work where he feels comfortable that the property owners building is not going to get slammed into a couple of times a year. He said, there is additional cost that would have to be worked out with the other owner and if he is fine with paying for the drive and we don't charge you for the permits he does not have an issue with that. Rose added that the owner of 137 S. Pirner Dr. is willing to remove his trees if need be and the city is willing to provide replacement trees to be placed somewhere else on his property.

Chatwell asked if the previous plans for the large lot were abandoned. Rose said yes. She explained that this area was a separate plat and that Greenwood is on a separate plat. Chatwell asked if Greenwood was intended to go all the way through. Rose said, no, the city looked at it going through when they were drawing up a plat but discovered that it would not work. She added that she is not sure if the Haysville Industrial 3<sup>rd</sup> Addition plats original goal was to have Greenwood run across 7310 S. Broadway. Discussion continued regarding 7310 S. Broadway not being a part of the Haysville Industrial 3<sup>rd</sup> Addition.

Motion by Aziere – Second by Wethington

To approve the vacation subject to confining the utilities on the West line in a 20-foot easement and that when the building is constructed all of Greenwood and curb and gutter is removed to the Pirner radiuses, the radiuses on Pirner are removed and curb and gutter is continuous along Pirner with the exception of access points for both 205 and 137.

Aziere yea, Wethington yea, Meyer yea, Coleman yea, Randel yea, Chatwell yea,

Holub yea, Burden yea, Stock yea.

Motion declared, carried.

Correspondence and Informational Reading:

There were none

Committee Updates:

Meyer said that Park Board working on putting a dock in Kirby pond but that there is some opposition from the homeowners in the area.

Coleman announced that the Cunningham Chapel has been cancelled because it became cost prohibitive and that some of the electric companies said entire communities would be without power. She added that the chapel subject is not done. We are working on alternatives.

Off Agenda:

There were none

Motion by Wethington – Second by Coleman

To adjourn

Aziere yea, Wethington yea, Meyer yea, Coleman yea, Randel yea, Chatwell yea,

Holub yea, Burden yea, Stock yea.

Motion declared, carried.

**XXX RESIDENTIAL; “TH” TINY HOME DISTRICT REGULATIONS.**

The regulations relating to the Residential “TH” District shall be as follows:

- A. Use Regulations. In the “TH” Tiny Home Residential District as defined in the terms of this article, no building shall be hereinafter erected, enlarged, converted or altered unless otherwise provided in this article, except for one or more of the following uses:
1. Single family dwellings.
  2. Conditional Uses (See Section 702).
    - a. Community buildings owned and operated by the city or Home Owners Association. The community building may be no more than 2,000 s.f. and meet the minimum International Building Code (IBC) requirements as adopted.
    - b. Home Occupation (See Section 502).
  3. One detached Accessory Structure: provided, it is less in square feet than the primary structure, located within the rear yard of a lot and meets the setback requirements of the primary structure and shall not be less than five feet from the rear lot line, nor encroach on any platted or recorded easement.
- B. General Conditions.
1. Land used for a “TH” District:
    - a. Shall, as a condition of zoning, be platted according to City Subdivision Regulations with specific attention given to drainage or utility easements which may be created by the particular design concept.
  2. Utility lines, including but not limited to electric, communications, street lighting and cable television shall be required to be placed underground. The subdivider is responsible for complying with the requirements of this section, and he/she shall make the necessary arrangements with the utility companies for the installation of such facilities. For the purposes of this section, appurtenances and associated equipment in an underground system may be placed above ground but not in the public right-of-way. The Planning Commission may recommend and City Council may waive the requirements of this section if topographical, soil or any other conditions make such underground installations unreasonable or impractical.
  3. Each dwelling shall have adequate space for one automobile in the driveway area. The driveway must be a hard surface of either concrete or asphalt. All measurements shall be within the property line boundaries.

All properties shall have an approach per the Standard Drive Entrance requirements with an amended minimum width being 8 ½’.

4. In the event that within two years following approval by the Governing Body, the applicant does not initiate construction in accordance with the plans and conditions so approved, the Planning Commission may initiate action to change the zoning district classification of the property. A public hearing shall be held at which time the applicant shall be given any opportunity to show why construction has been delayed. Following the hearing, the Planning Commission shall make findings of fact and an appropriate recommendation to the Governing Body for official action.

C. Height Regulations.

1. No building shall exceed two stories or 25 feet in height.

D. Building Regulations. These building regulations are intended to be the minimum requirements.

1. All structures are to be constructed with a foundation to include anchoring that meets the requirements of the current International Residential Code as adopted.
2. Primary structures shall be designed with current plumbing standards that meet plumbing code requirements including, connection to the City of Haysville’s potable water system.
3. The primary structure shall include a minimum four (4) inch sewer pipe connected to the City of Haysville wastewater system, in accordance with current city code.
4. The primary structure is to include bathing facilities with a toilet and handwashing sink as well as an approved method to remove moisture in accordance with the adopted mechanical code, and a GFCI outlet within three (3) feet of any source of water.
5. The primary structure shall include a food prep area with sink and meet current plumbing code requirements.
6. The primary structure must have a side hinged front door and an approved egress window located in the rear of the structure. Egress roof access windows in lofts used as sleeping rooms shall be installed where the bottom of the opening is not more than 44 inches above the loft floor, provided the egress roof access window complies with the minimum opening area requirements of Section R310.2.1 of the currently adopted International Residential Code.

7. Primary electricity shall be required from the approved franchised electrical provider. Structures may utilize solar panels as a secondary source.
8. Heating & cooling may be obtained through standard means and practices and shall meet the ability to reach 70° Fahrenheit three (3) feet above the finished floor. Liquefied Petroleum Gas (LPG) used as a means to heat any structure is not permitted.
9. No Heating or cooling units are to be placed in such a way that they encroach upon any setback requirements.
10. Loft – is a floor level located more than 30 inches above the main floor and open to it on at least one side with a ceiling height of less than 6 feet 8 inches, used as a living or sleeping space.
  - a. The minimum area for lofts shall not be less than 35 square feet and the minimum dimensions shall not be less than 5 feet in any horizontal dimension.
  - b. Loft access – The access to and primary egress from lofts shall be any type described in Sections D.10.1.
  - c. Stairways accessing lofts shall comply with this code or with Sections D.10.d.
  - d. Width – Stairways accessing a loft shall not be less than 17 inches in clear width at or above the handrail. The minimum width below the handrail shall not be less than 20 inches.
  - e. Headroom – The headroom in stairways accessing a loft shall be not less than 6 feet 2 inches as measured vertically, from a sloped line connecting the tread or landing platform nosings in the middle of their width.
  - f. Treads and risers – Risers for stairs accessing a loft shall not be less than 7 inches and not more than 12 inches in height. Tread depth and riser height shall be calculated in accordance with one of the following.
    - i. The tread depth shall be 20 inches minus  $\frac{4}{3}$  of the riser height, or
    - ii. The riser height shall be 15 inches minus  $\frac{3}{4}$  of the tread depth.
  - g. 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 where the stairway meets the loft. The landing platform shall be 18 inches to 22 inches in depth measured from the nosing of the landing platform to the edge of the loft, and 16 to 18 inches in height measured from the landing platform to the loft floor.
  - h. Handrails shall comply with Section R311.7.8 of the 2015 International Residential Code as adopted.

- i. Stairway guards – Guards at open sides of stairways shall comply with Section R312.1. of the currently adopted International Residential Code as adopted.
- j. Ladders accessing lofts shall comply with Sections D.10.c. and D.10.j.
  - i. Size and capacity – Ladders accessing lofts shall have a rung width of not less than 12 inches and 10 inches to 14 inches spacing between rungs. Ladders shall be capable of supporting a 200 pound load on any rung. Rung spacing shall be uniform within 3/8-inch.
  - ii. Incline – Ladders shall be installed at 70 to 80 degrees from horizontal.
- k. Alternating tread devices accessing lofts shall comply with Section R311.7.11.1 of the currently adopted International Residential Code.
- l. Ships ladders accessing lofts shall comply with Sections R311.7.12.1 and R311.7.12.2 of the currently adopted International Residential Code. The clear width at and below handrails shall not be less than 20 inches.
- m. Loft guards shall be located along the open side of lofts. Loft guards shall not be less than 36 inches in height or one-half of the clear height to the ceiling, whichever is less.

E. Area Regulations.

- 1. Maximum area of dwelling - 599 square feet for each primary structure.
- 2. Lot area - the lot area for “TH” Tiny Home family dwellings and accessory buildings shall be not less than 2,100 square feet.
- 3. Lot width - the lot width shall be not be less than 30 feet.
- 4. Lot depth - the minimum lot depth shall be not be less than 70 feet
- 5. Front yard.
  - a. In all locations where building lines, setback lines, or front yard lines are shown on plats which have been approved by the commission and which are recorded in the office of the register of deeds of Sedgwick County, the minimum front yard setback shall be the same as the distance between the front line and the furthest projection from the primary structure or setback line shown on the plat.
  - b. In the “TH” Tiny Home District the minimum front yard setback shall be 10 feet on interior lots. On corner lots, 10 feet on all sides abutting a street.

6. Side yard.

- a. In all locations where building lines or side lines on corner lots are shown on plats which have been approved by the commission and which are recorded in the office of the register of deeds of Sedgwick County, the minimum width of the side yard shall be the same as the distance between the side lot line and the building line shown on the plat.
- b. A minimum of three 3 feet shall be maintained between the adjacent properties. Overhanging eaves, gutters, and chimneys are permitted at no more than 18” into the three (3) foot side yard setback.

7. Rear yard.

- a. There shall be a rear yard having a depth of not less than 15 feet.  
  
Provided further, that chimneys may project into the required rear yard but shall not encroach upon any platted or recorded easement.
- b. Accessory building shall be not less than five feet from the rear lot line, nor shall they encroach on any platted or recorded easement.

F. Parking Regulations. (See Section 500.)

G. Street Regulations. (See Section 5. of the Subdivision Regulations for Haysville, Kansas)

- a. Streets, as a condition of zoning, shall be platted according to the City's Subdivision Regulations, shall be considered private and maintained by the homeowner's association, shall be constructed of asphalt or concrete, be a minimum of 21 feet face to curb, and 41 feet for street right-of way.

# State of Maine

Public Comment RB168-16 MORRISON 1 :

Proponent : Andrew Morrison, representing Tiny House Enterprises, LLC (Andrew@TinyHouseBuild.com); Martin Hammer, representing Martin Hammer, architect (mfhammer@pacbell.net); Chris Keefe, representing OrganicForms Design (chris@organicformsdesign.com); Brandon Marshall, representing FOG Studio (brandon@fogprojects.com); Gabriella Morrison, representing Tiny House Enterprises, LLC (Gabriella@TinyHouseBuild.com); James Herndon, representing self (jamesmherndon@gmail.com); Tiffany Redding, representing FOG Studio (tiffany@fogprojects.com); Nabil Taha, representing Precision Structural Engineering, Inc. (bill@structure1.com) requests Approve as Modified by this Public Comment.

Replace Proposal as Follows:

## 2015 International Residential Code

### APPENDIX V TINY HOUSES

#### CHAPTER PART AV101— GENERAL

AV101.1 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.

#### CHAPTER PART AV102— DEFINITIONS

AV102.1 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 in 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 and open to it on at least one side with a ceiling height of less than 6 feet 8 inches (2032 mm), used as a living or sleeping space.

TINY HOUSE. A dwelling that is 400 square feet (37 m<sup>2</sup>) or less in floor area excluding lofts.

#### CHAPTER PART AV103— CEILING HEIGHT

AV103.1 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 shall not extend below these minimum ceiling heights including beams, girders, ducts, lighting and other obstructions.

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

#### CHAPTER PART AV104— LOFTS

AV104.1 Minimum loft area and dimensions. Lofts used as a sleeping or living space shall meet the minimum area and dimension requirements of Sections AV104.1.1 through AV104.1.3.

AV104.1.1 Minimum area. Lofts shall have a floor area of not less than 35 square feet (3.25 m<sup>2</sup>).

AV104.1.2 Minimum dimensions. Lofts shall be not less than 5 feet (1524 mm) in any horizontal dimension.

AV104.1.3 Height effect on loft area. Portions of a loft with a sloping 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 6:12, portions of a loft with a sloping 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.

**AV104.2 Loft access.** The access to and primary egress from lofts shall be any type described in Sections AV104.2.1 through AV104.2.4.

**AV104.2.1 Stairways.** Stairways accessing lofts shall comply with this code or with Sections AV104.2.1.1 through AV104.2.1.5.

**AV104.2.1.1 Width.** Stairways accessing a loft shall not be less than 17 inches (432 mm) in clear width at or above the handrail. The minimum width below the handrail shall be not less than 20 inches (508 mm).

**AV104.2.1.2 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.

**AV104.2.1.3 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  $\frac{4}{3}$  of the riser height, or

2. The riser height shall be 15 inches (381 mm) minus  $\frac{3}{4}$  of the tread depth.

**AV104.2.1.4 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.

**AV104.2.1.5 Handrails.** Handrails shall comply with Section R311.7.8.

**AV104.2.1.6 Stairway guards.** Guards at open sides of stairways shall comply with Section R312.1.

**AV104.2.2 Ladders.** Ladders accessing lofts shall comply with Sections AV104.2.1 and AV104.2.2.

**AV104.2.2.1 Size and capacity.** Ladders accessing lofts shall have a rung width of not less than 12 inches (305 mm) and 10 inches (254 mm) to 14 inches (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  $\frac{3}{8}$ -inch (9.5 mm).

**AV104.2.2.2 Incline.** Ladders shall be installed at 70 to 80 degrees from horizontal.

**AV104.2.3 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).

**AV104.2.4 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).

**AV104.2.5 Loft Guards.** Loft guards shall be located along the open side of lofts. Loft guards shall not be less than 36 inches (914 mm) in height or one-half of the clear height to the ceiling, whichever is less.

## **CHAPTER PART AV105— EMERGENCY ESCAPE AND RESCUE OPENINGS**

**AV105.1 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.

**Commenter's Reason:** During the Committee Action Hearings in Kentucky, IRC Committee members explained their disapproval of RB168-16, but

also their support for addressing the issue of small houses. In the published reasons the Committee stated "The issue of small houses and apartments is important," and that "The IRC needs to address them in some fashion." They encouraged further development of the proposal, stating "There needs to be a more comprehensive approach", and that "The concept of smaller houses may be more suited for an appendix."

This Public Comment follows the Committee's advice by replacing the original piecemeal proposal with a proposed appendix that takes a "more comprehensive approach". It also reduces the 500 square foot threshold for "small houses" in the original proposal to the widely accepted threshold of 400 square feet for "tiny houses". At that smaller size there is increased difficulty in meeting certain dimensional requirements of the IRC; however, through years of practice by tiny house advocates and years of extensive use of comparably sized "recreational park vehicles" governed by ANSI A119.5, safe alternative dimensions and other requirements have been established that are included in the proposed appendix.

In the published reasons the Committee finally noted that "Small houses are a growing concern, [and] the demand for them is increasing." The reasons for that growing demand are both environmental and financial in nature. Below are statistics illustrating problematic housing trends, the environmental impacts of construction, the cost of homeownership, and how tiny houses can be a part of the solution. That is followed by specific reasons for the code language in the proposed appendix.

- The average home size in the U.S. increased 61% since 1973 to over 2600 square feet. In that time period the average household size decreased, leading to a 91% increase in home square footage per inhabitant (1000 SF per person) (source: US Census Bureau).
- The average house in the U.S. uses approximately 17,300 board feet of lumber and 16,000 square feet of other wood products. A 200 square foot tiny house uses only 1,400 board feet of lumber and 1,275 square feet of additional wood products. The lifetime conditioning costs can be as low as 7% of a conventionally sized home.
- United States Green Building Council (USGBC), the California Energy Commission (CEC), and other entities are working hard to increase energy efficiency in the construction industry. This is a great start, however a reduction in home size is the easiest way to lower energy consumption.
- National homeownership fell to 63.7% in 2015, the lowest level in two decades. Increased housing cost is cited as the main reason for low homeownership rate. (source: Joint Center for Housing Studies (JCHS) at Harvard University)
- The average home in the United States costs approximately \$358,000 to build, an increase of roughly \$200,000 since 1998, whereas the average annual income in the United States has remained unchanged for the last several years, lingering near \$52,000. (source: US Census Bureau)
- The average American spends roughly 27% of their annual income on housing (nearly 11 hours of every 40-hour work week). 48% of households making less than \$30,000 annually pay more than half of their income on housing, leaving these households less than \$15,000 a year to purchase food, health care, education, clothing, and anything else. (source: JCHS)
- The cost of new construction for a 200 square foot tiny house can be as low as \$35,000. A typical down payment on an average-sized house is \$72,000, more than twice the full cost of a tiny house.
- Cities benefit from tiny house ordinances. With significant need for affordable housing, cities are hard-pressed to find solutions that quickly expand their low-income housing stock without burdening an already burdened system. Tiny houses can be quickly installed in municipalities and set up at little or no cost to the cities.
- Although not addressed in the proposed code language of this public comment, it is important to recognize the need for codes pertaining specifically to movable tiny houses. For some people, homeownership is heavily impacted by the cost of land and even the construction of a fixed tiny house becomes unattainable. For those individuals, the presence of movable tiny houses in the building code may create their only path to homeownership. The flexibility of a movable tiny house allows individuals to locate their homes in areas of community living or on ancillary home sites, without the burdensome cost of a single-family lot. It also allows them to take their home with them should they need to relocate, thus eliminating many typical costs of moving.

Tiny houses can play an important role in minimizing the environmental impacts of housing while providing safe and healthy homes at affordable prices. Pride of ownership improves neighborhoods and community morale. Tiny houses enable more people to become homeowners and contribute to their communities.

#### **REASONS FOR DEFINITIONS:**

**EGRESS ROOF ACCESS WINDOW.** Most manufacturers use this term for their skylights and roof windows that are designed to satisfy the dimensional requirements of emergency escape and rescue openings in U.S. building codes.

**LANDING PLATFORM:** Landing platforms have been demonstrated in practice to allow for the safe transition between stairways and lofts. (See photos)

**LOFT.** This definition is a modified version of the definition of loft area in Section 1-3 of ANSI A119.5 Recreational Park Trailer Standard.

**TINY HOUSE.** This definition is based on the widely accepted maximum square footage for tiny houses in the construction industry.

#### **REASONS PER SECTION:**

**AV103. CEILING HEIGHT:** The minimum ceiling height for non-loft habitable spaces in this proposed appendix is 6 feet 8 inches. Though lower than the 7 foot minimum for habitable spaces in the IRC, it is higher than the minimum of 6 feet 6 inches in Section 5-3.5.4 of ANSI A119.5 Recreational Park Trailer Standard, that has proven to provide safe and adequate head room during the extended occupancy of recreational park trailers.

**AV104 LOFT:** Tiny houses have considerably smaller footprints and building height than conventional houses. As such, lofts are essential to maximize the use of space in tiny houses and make them viable shelter for many individuals and families.

It is common knowledge to many building inspectors that spaces labeled "non-habitable storage" in dwellings of all sizes are sometimes used for sleeping or other habitable purposes once the final inspection is complete. Rather than being unable to enforce a falsely stated use, building departments could regulate the health and safety of those spaces for their intended use with the proposed appendix, ensuring health and safety with minimum loft dimensions, requirements for access and egress, and proper emergency escape and rescue openings.

**MINIMUM AREA and MINIMUM DIMENSIONS:** Lofts in tiny houses are small by necessity; however, minimum dimensions are required for lofts used as a living or sleeping space, so as to not impose a risk to occupant health and safety.

**HEIGHT EFFECT ON LOFT AREA:** For most roof designs in tiny houses, a minimum ceiling height of 3 feet has proven adequate in sleeping lofts for consideration of their required floor area. For gable roofs with moderate to high slopes, the slope has an aggressive impact on the loss of ceiling height but makes up for it with higher areas under the ridge. Thus lofts under gable roofs with a minimum 6:12 slope have a lesser minimum ceiling height when calculating their required floor area.

**STAIRWAY WIDTH:** These dimensional requirements are identical to those in Section 5-10.4.1.1 of ANSI A119.5. This provision is considered and proven safe for extended occupancy of recreational park trailers.

**STAIRWAY HEADROOM:** Because tiny houses are limited in square footage and height, IRC compliant head heights for stairs serving lofts are often not achievable. Therefore the stair headroom requirement has been reasonably reduced to 6 feet 2 inches.

**STAIRWAY TREAD/RISER:** This is identical to the requirements for treads/risers in Section 5-10.4.1.1 of ANSI A119.5. This provision is considered and proven safe for extended occupancy of recreational park trailers.

**LANDING PLATFORMS:** Landing platforms have been demonstrated in practice to allow for the safe transition between stairways and lofts. The required range of dimensions allow for a simple transition between standing and kneeling when entering or exiting the loft. (See photos)

**LADDERS:** This is identical to the requirements for ladders in Section 5-10.5 of ANSI A119.5. This provision is considered and proven safe for extended occupancy of recreational park trailers.

**ALTERNATING TREAD DEVICES:** Alternating tread devices as described in the IRC, are allowed to provide access to and egress from lofts.

**SHIPS LADDERS:** Ships ladders as described in the IRC, are allowed to provide access to and egress from lofts.

**LOFT GUARDS:** The height requirement for loft guards is identical to that for guardrails in Section 5-10.7 of ANSI A119.5.

**AV105 EMERGENCY ESCAPE AND RESCUE:** Due to the considerably smaller footprints of tiny houses, ceiling heights in sleeping lofts therein are often necessarily lower than minimum ceiling heights required by the IRC for sleeping rooms in larger houses. Egress roof access windows (which are specifically designed to meet the dimensional requirements of emergency escape and rescue openings) can be installed with their openings within 44 inches of the loft floor, thus meeting the requirements of Section R310 when wall mounted windows meeting these requirements are not possible.

**Bibliography:** ANSI A119.5 Recreational Park Trailer Standard 2009 Edition



# TINY HOUSES

## CODE FACT SHEET

Minnesota Department of Labor and Industry

### OVERVIEW

"Tiny houses" have received a lot of attention and interest in recent years. The following information is provided to clarify how these small structures are regulated by the Minnesota State Building Code. The Minnesota State Building Code is the standard of construction that applies statewide for the construction of buildings (MS § 326B.121) including tiny houses.

Some tiny houses are designed as trailers and referred to as park models or recreational park trailers that are on a chassis with wheels. Tiny houses built like park models but without the chassis and wheels are often referred to as industrialized/modular buildings and regulated accordingly.

Loosely defined, tiny houses range from about 100 to 400 square feet. The following describes how these houses are regulated by building codes, zoning codes and the Department of Housing and Urban Development (HUD).

### Zoning requirements

Municipalities establish zoning ordinances to regulate land use, location, height, width, type of foundation, number of stories and size of buildings. These zoning ordinances vary by municipality.

Minimum building size varies from areas of 500 to 2,000 square feet. Jurisdictions may also require minimum lot sizes related to the house size. Sometimes there are minimum house size requirements such as 24 feet by 24 feet or a minimum dimension of 20 feet. Because of these varying requirements, the jurisdiction must be consulted for specifics.

### Building codes

Tiny houses, like all other houses, are required to comply with building codes. Minnesota adopts the 2012 International Residential Code (IRC) by reference with amendments. It is known as the 2015 Minnesota Residential Code. The "code," for the purpose of constructing houses, means the 2015 Minnesota Residential Code. It is the standard that applies statewide.

The 2015 Minnesota Residential Code defines a dwelling as a single unit providing complete independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation. By definition, a tiny house is a dwelling unit and



The trend of tiny houses has received a lot of attention in recent years. This handout is provided to clarify how these small structures are regulated by the Minnesota State Building code.

### Other codes related to house construction include:

- 2015 Minnesota Energy Code
- 2015 Minnesota Mechanical Code
- 2015 Minnesota Electrical Code
- 2015 Minnesota Rules Chapter 1303
- Minnesota Plumbing Code

regulated by the code. The code includes requirements for light, ventilation, heating, minimum room sizes, ceiling heights, sanitation, toilet, bath and shower spaces, emergency escape and rescue openings, means of egress, smoke alarms and carbon monoxide alarms.

## RECREATIONAL PARK TRAILER

Recreational park trailers, or park models, are tiny houses built on a chassis with wheels. These trailers are primarily designed as temporary living quarters for recreational, camping or seasonal use but not a year-round dwelling. These trailers are often constructed to ANSI standard (A119.5) and are self-certified by the manufacturer with the Recreational Vehicle Industry Association (RVIA).

The gross floor area for park models must not exceed 400 square feet when set up. Recreational park trailers exceeding 400 square feet must comply with HUD's manufactured housing program as a manufactured home. HUD defines the gross square footage as encompassing the full width and full length of the unit, including

porches.

A data plate must be attached to the recreational park trailers that includes:

- name and address of the manufacturer
- serial number or vehicle identification number (VIN) of the unit
- date of manufacture
- a statement that the unit is designed to ANSI A119.5.

Recreational park trailers or park models intended as permanent living dwelling units must be designed, constructed and installed in accordance with the 2015 Minnesota Residential Code.

## PREFABRICATED BUILDINGS

### Minnesota Rules, Chapter 1360

Dwellings constructed as prefabricated buildings must comply with the requirements of Minnesota Rules Chapter 1360 and be designed and constructed in accordance with the 2015 Minnesota Residential Code. Review of building plans and inspections are performed by the Minnesota Department of Labor and Industry. The completed building requires a Minnesota prefabricated building label.

Prefabricated building manufacturers are permitted to build three or fewer buildings per year. Construction of more than three buildings is regulated by Minnesota Rules Chapter 1361 for industrialized/modular buildings.

A data plate must be attached to the dwelling that includes the following minimum information:

- design loads
- codes
- IBC label numbers
- serial numbers
- model designation
- date of manufacture
- name and address of manufacture
- occupancy and type of construction.



**Example prefab construction label -**  
located under kitchen sink.

All on-site work is subject to local jurisdiction and inspections according to the 2015 Minnesota Residential Code.

## INDUSTRIALIZED/MODULAR BUILDINGS

### Minnesota Rules, Chapter 1361; Industrialized Modular Building Commission (IMBC)

Dwellings constructed as modular buildings must comply with Minnesota Rules Chapter 1361 and the Industrialized Modular Buildings Commission (IMBC). These modular dwellings must be designed and constructed in accordance with the 2015 Minnesota Residential Code. Review of dwelling plans and in-plant inspections are performed by a certified IMBC third-party agency.

Modular buildings must have IMBC construction labels on each building section or every 600 square feet of closed panels.

A data plate must be attached to the dwelling that includes the following minimum information:

- design loads
- codes

## Continued: Minnesota Rules, Chapter 1361; Industrialized Modular Building Commission (IMBC)

- serial numbers
- IBC label numbers
- model designation
- date of manufacture
- name and address of manufacture
- occupancy and type of construction.



**Example IMBC label** - located inside each home section.

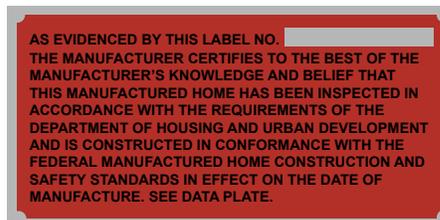
All on-site work is subject to local jurisdiction and inspections according to the 2015 Minnesota Residential Code.

## HUD MANUFACTURED HOMES

"Manufactured home" means a single family dwelling in one or more sections, which in the traveling mode is 8 body feet or more in width or 40 body feet or more in length, or, when erected on site, is 320 or more square feet, and which is built on a permanent chassis and designed to be used as a dwelling with or without a permanent foundation when connected to the required utilities.

A data plate must be attached to the dwelling unit to include the following as a minimum:

- design loads
- codes
- label numbers
- serial numbers
- model designation,
- date of manufacture
- name and address of manufacturer



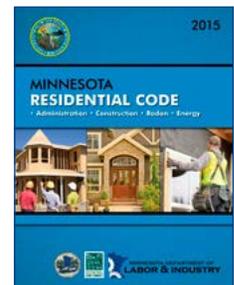
**Example HUD construction label** - located on exterior of each section.

Review of dwelling plans and in-plant inspections are performed by HUD-certified third-party agencies. All on-site work is subject to the local jurisdiction and inspections according to the 2015 Minnesota Residential Code.

## SITE-BUILT STRUCTURES

Tiny homes constructed on site are regulated by the Minnesota State Building Code. The dwelling construction must comply with all the requirements of the 2015 Minnesota Residential Code.

The 2015 Minnesota Residential Code can be viewed at <http://codes.iccsafe.org/app/book/toc/2015/Minnesota/Residential/index.html>.



## SUMMARY

If the tiny house does not:

- have a chassis and axles, or
- have a HUD manufactured home label, or
- have a RVIA park model label, then
- it is either a prefabricated or industrialized modular building subject to Minnesota Rules Chapters 1360 or 1361 or site-built subject to Minnesota Rules Chapter 1309.

NOTE: Any modular unit of closed construction built away from the site of occupancy must be labeled (Minnesota Rules, chapters 1360 or 1361).

Closed construction means any building manufactured so that all portions cannot be readily inspected at the installation site without disassembly, damage to, or destruction thereof (Minnesota Rules, Chapter 1360.0200 Subp. 5).

## 2015 MINNESOTA RESIDENTIAL CODE

The following code references provide general code requirements related to dwelling construction. Knowledge of the entire state code is necessary to obtain compliance.

### General requirements

#### R202 – Definition of dwelling unit and habitable space.

Dwelling unit: A single unit providing complete independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation.

Habitable space: A space in a building for living, sleeping, eating or cooking. Bathrooms, toilet rooms, closets, halls, storage or utility spaces and similar areas are not considered habitable spaces.

#### R301.1 Application.

Buildings and structures shall be constructed to safely support all loads, including dead loads, live loads, roof loads, flood loads, snow loads, wind loads and seismic loads prescribed in this code. The construction of buildings and structures in this code shall result in a structure that transfers all loads from their point of origin to the foundation.

#### R303 – Light, ventilation and heating

R303.1 – Habitable rooms shall have 8 percent of the floor area as natural light and 4 percent of the floor area as natural ventilation (see exceptions).

R303.3 – Bathrooms shall have 3 square feet of natural light and 1.5 square feet of natural ventilation (see exception).

R303.4 – Mechanical ventilation (see Minnesota Rules 1322 and 1346) requirements.

R303.5 – Intake and exhaust openings (see Minnesota Rules 1346) requirements.

R303.9 – Dwelling must be capable of maintaining a minimum room temperature of 68 degrees at three feet above the floor and two feet from the exterior walls (excludes use of portable heaters).

#### R304 – Minimum room areas

R304.1 – Every dwelling unit shall have at least one habitable room of 120 square feet.

R304.2 – Other habitable rooms (except kitchens) 70 square feet. R304.3 – Habitable rooms (except kitchens) must have a minimum dimension of 7 feet.

#### R305 – Ceiling height

R305.1 – Habitable space (hallways,

bathrooms, toilet rooms, laundry rooms and portions of basements containing these spaces) must have a ceiling height of 7 feet (see exceptions for measuring sloped ceilings).

R305.1.1 – Basements without habitable space (hallways, bathrooms, toilet rooms, laundry rooms and portions of basements containing these spaces) must have a minimum ceiling height of 6 feet, 8 inches (see exceptions for beams and girders).

#### R306 – Sanitation

R306.1 – Every dwelling unit must have a water closet, lavatory and a tub or shower.

R306.2 – Each kitchen must have a sink.

R306.3 – All plumbing fixtures must be connected to a sanitary sewer or approved private sewage system.

R306.4 – All plumbing fixtures must be connected to an approved water supply. Kitchen sinks, lavatories, bathtubs, showers, bidets, laundry tubs, and washing machines must have hot and cold water.

#### R307 – Toilet, bath and shower spaces

R307.1 – Space required, see Minnesota plumbing code for required plumbing fixture clearances.

R307.2 – Bathtub and shower floors and walls (bathtubs installed with shower heads and in shower compartments) must have a nonabsorbent surface a minimum of six feet above the floor.

#### R310 – Emergency escape and rescue openings

R310.1 – Basements, habitable attics and every sleeping room must at least one operable emergency escape and rescue opening (door or window).

R310.1.1 – Minimum opening area must be 5.7 square feet (see full code text for minimum height and width dimensions).

#### R311 – Means of egress

R311.1 – All dwellings must have a means of egress.

R311.2 – The egress door must have a clear width of 32 inches and a clear height of 78 inches.

R311.3 – A floor or landing is required on each side of exterior doors (see R311.3.1

through R311.3.3).

R311.5.1 – Exterior landings must be positively attached to the primary structure.

R311.6 – Hallway must have a minimum width of 36 inches. R311.7 – Stairways must have a minimum width of 36 inches. R311.7.5 – Stair treads must be 10 inch minimum and stair risers 7.75 inch maximum.

R311.7.5.3 – Stair nosings must be provided and compliant with this section.

R311.7.5.4 – Composite wood or plastic stair treads must comply with R507.3.

R311.7.6 – A floor or landing is required at the top and bottom of each stairway.

R311.7.8 – A handrail is required at stairs having four or more risers (see all railing requirements).

#### R314 – Smoke alarms

R314.3 – Smoke alarms are required in each sleeping room, in the immediate vicinity of the bedrooms and on each additional story of the dwelling including basements and habitable attics.

#### R315 – Carbon monoxide alarms

R315.1 – A carbon monoxide alarm is required in every dwelling unit having fuel fired appliances or attached garage.

#### MR 1322 – 2015 Minnesota Residential Energy Code

The dwelling must comply with the Minnesota Energy Code.

#### MR 1346 – 2015 Minnesota Mechanical Code

The dwelling must comply with the Minnesota Mechanical Code.

#### MR 1303 – Radon requirements

The dwelling must comply with Minnesota Rules Chapter 1303 for either passive or active radon control systems.

#### MR 1315 – Minnesota Electrical Code

All electrical service, wiring and fixtures for the structure must comply with the 2014 National Electrical Code.

#### MR 4715 – Minnesota Plumbing Code

The dwelling must comply with the Minnesota Plumbing code.