ORDINANCE NUMBER 16-10847

AN ORDINANCE AMENDING CHAPTER 8, ARTICLE I, DIVISION 2 OF THE SALINA CODE BY REPEALING THE EXISTING SECTIONS 8-31 THROUGH 8-60; ADOPTING THE 2012 EDITION OF THE INTERNATIONAL RESIDENTIAL CODE FOR ONE AND TWO-FAMILY DWELLINGS BY REFERENCE; AND ADOPTING LOCAL AMENDMENTS.

BE IT ORDAINED by the Governing Body of the City of Salina Kansas:

<u>Section 1.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-1 which section reads as follows:

Sec. 8-1-2-1. International Residential Code Adopted.

The International Residential Code for One and Two-Family Dwellings, 2012 Edition, promulgated and published by the International Code Council, including Appendices F and G, but not any other of its appendices, (IRC) is adopted and incorporated by reference, except as amended in this division.

<u>Section 2.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-R101.2 which section reads as follows:

Sec. 8-1-2-R101.2 Amendment to Section R101.2 of the IRC.

Section R101.2 of the IRC is amended to read as follows:

Sec. R101.2 Scope. The provisions of the IRC shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, removal and demolition of detached one- and two-family dwellings and townhouses not more than three stories above grade plane in height with a separate means of egress and their accessory structures.

Exceptions:

1. Live /work units complying with the requirements of Section 419 of the International Building Code, as adopted and amended in Division 1, (IBC) shall be permitted to be built as one-and two-family dwellings or townhouses. Fire suppression required by Section 419.5 of the IBC when constructed under the IRC shall conform to Section P2904.

2. Owner-occupied lodging houses with five or fewer guestrooms shall be permitted to be constructed in accordance with the IRC when equipped with a fire-sprinkler system in accordance with Section P2904.

The demolition of these structures shall be governed by Chapter 33- Safeguards During Construction of the IBC and Salina Code Chapter 31.

<u>Section 3.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-R102.7 which section reads as follows:

Sec. 8-1-2-R102.7 Amendment to Section R102.7 of the IRC.

Section R102.7 of the IRC is amended to read as follows:

Sec. R102.7 Existing structures. The legal occupancy of any structure existing on the date of adoption of this code shall be permitted to continue without change, except as specifically covered in this code; Salina Code Chapter 31; the International Fire Code, as adopted and amended in Chapter 14, Article III, Division 1; or as is deemed necessary by the building official for the general safety and welfare of the occupants and the public.

<u>Section 4.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-R103 which section reads as follows:

Sec. 8-1-2-R103 Amendment to Section R103 of the IRC.

Section R103 of the IRC is amended to read as follows:

Sec. R103 Appointment and delegation of authority. The city manager shall appoint and hereby delegates to the building official and any other city employees in designated technical roles the authority necessary to administer and enforce this code.

<u>Section 5.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-R105.2 which section reads as follows:

Sec. 8-1-2-R105.2 Amendment to Section R105.2 of the IRC.

Section R105.2 of the IRC is amended to read as follows:

Sec. R105.2 Work exempt from permit. Permits shall not be required for the following. Exemption from the permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction.

Building:

- 1. One-story detached accessory structures, used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 120 sq. ft (18.58 m2).
- 2. Fences not over 6 feet (1829 mm) high.
- 3. Retaining walls that are not over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge.
- 4. Water tanks supported directly upon grade if the capacity does not exceed 5,000 gallons (18,927 L) and the ratio of height to diameter or width does not exceed 2 to 1.
- 5. Sidewalks, driveways, platforms and decks not more than 30 inches (762 mm) above adjacent grade and not over any basement or story below.
- 6. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
- 7. Prefabricated swimming pools that are less than 24 inches (610 mm) deep.
- 8. Swings and other playground equipment.
- 9. Window awnings supported by an exterior wall which do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support.

Electrical:

- 1. Listed cord-and-plug connected temporary decorative lighting.
- 2. Re-installation of attachment plug receptacles but not the outlets therefore.
- 3. Replacement of branch circuit overcurrent devices of the required capacity in the same location.
- 4. Electrical wiring, devices, appliances, apparatus or equipment operating at less than 25 volts and not capable of supplying over 50 watts of energy.
- 5. Minor repair work, including the replacement of lamps or the connection of approved portable electrical equipment to approved permanently installed receptacles.

Gas:

- 1. Portable heating, cooking or clothes drying appliances.
- 2. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.
- 3. Portable-fuel-cell appliances that are not connected to a fixed piping system and are not inter-connected to a power grid.

Mechanical:

- 1. Portable heating appliances.
- 2. Portable ventilation appliances.
- 3. Portable cooling units.
- 4. Steam, hot-or chilled-water piping within any heating or cooling equipment regulated by this code.
- 5. Replacement of any minor part that does not alter approval or equipment or make such equipment unsafe.
- 6. Portable evaporative coolers.
- 7. Self-contained refrigeration systems containing 10 pounds or less of refrigerant or that are actuated by motors of 1 horsepower or less.
- 8. Portable-fuel-cell appliances that are not connected to a fixed piping system and are not connected to a power grid.

Plumbing:

- 1. The stoppage of leaks in drains, water, soil, waste or vent pipe; provided, however, that if any concealed trap, drainpipe, water, soil, waste or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, such work shall be considered as new work and a permit shall be obtained and inspection made as provided in this code.
- 2. The clearing of stoppages or the repairing of leaks in pipes, valves, or fixtures, and the removal and reinstallation of water closets, provided such repairs do not involve or require the replacement or rearrangement of valves, pipes or fixtures.

<u>Section 6.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-R105.2.1 which section reads as follows:

Sec. 8-1-2-R105.2.1 Amendment to Section R105.2.1 of the IRC.

Section R105.2.1 of the IRC is amended to read as follows:

Sec. R105.2.1 Emergency Repairs. Where the equipment replacements and repairs must be performed in an emergency situation, the permit application shall be submitted within the next working business day to the building official.

<u>Section 7.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-R105.3 which section reads as follows:

Sec. 8-1-2-R105.3 Amendment to Section R105.3 of the IRC.

Section R105.3 of the IRC is amended to read as follows:

Sec. R105.3 Application for permit. To obtain a permit, the applicant shall first file an application therefore in writing on a form furnished by the city for that purpose. Such application shall:

- 1. Identify and describe the work to be covered by the permit for which application is made.
- 2. Describe the land on which the proposed work is to be done by legal description, street address or similar description that will readily identify and definitely locate the proposed building or work.
- 3. Indicate the use and occupancy for which the proposed work is intended.
- 4. Be accompanied by construction documents and other information as required in Section R106.1.
- 5. State the valuation of the proposed work.
- 6. Be signed by the applicant, or the applicant's authorized agent.
- 7. Give such other data and information as required by the building official.

<u>Expiration</u>: Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 180 days after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of 90 days after the work has commenced. All work shall be documented by an inspection as described in Section 110 of this code. Failure to request an inspection of newly completed work for any period of 90 days or more shall constitute suspension or abandonment of work, at which time said permit, shall become invalid. Notification may be provided to the permit applicant in writing upon the 90 day expiration. The building official is authorized to grant, in writing, one or more extensions of time, for periods of not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated. The building official may place reasonable conditions as necessary on the issuance of extensions.

<u>Section 8.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-R112.1 which section reads as follows:

Sec. 8-1-2-R112.1 Amendment to Section R105.3 of the IRC.

Section 8-1-2-R112.1 of the IRC is amended to read as follows:

Sec. R112.1 General. The building advisory board shall hear and decide appeals of orders, decisions or determinations made by the building official relative to the application and interpretation of this code. (See Article II.)

R112.2 Limitations on authority. Deleted

R112.2.1 Determination of substantial improvement in areas prone to flooding. Deleted

R112.2.2 Criteria for issuance of a variance for areas prone to flooding. Deleted

R112.3 Qualifications. Deleted

R112.4 Administration. Deleted

<u>Section 9.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-R301 which section reads as follows:

Sec. 8-1-2-R301 Amendment to Section R301 of the IRC.

Section R301 of the IRC is amended to read as follows:

Sec. R301 Design Criteria

Table R301.2 (1)

Ground	Wind Design Seismic		Seismic	Subjec	t to Damage	Winter Design	Ice Barrier	Flood	Air	Mean
Snow Load	1.	Speed (mph)	Design Category	From:		Temperature	Underlaym ent Required	Hazards	Freezin g Index	Annua 1 Temp
		Topograp hic effects		2.	Frost line depth					
20	1.	90	А	3.	Termite					
	2.	No				5° F	No	Current FIRM	1000	54° F
				1.	Severe					
				2.	36 inches					
				3.	Moderate to severe					

CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

Section 10. New Section. The Salina Code is amended by adding a new section to Chapter 8,

Article I, Division 2 to be numbered 8-1-2-R301.5 which section reads as follows:

Sec. 8-1-2-R301.5 Amendment to Section R301.5 of the IRC.

Section R301 of the IRC is amended to read as follows:

Table R301.5.

Table R301.5 MINIMUM UNIFORMLY DISTRIBUTED LIVE LOADS (IN POUNDS PER SQUARE FOOT)

USE	LIVE LOAD		
Attics with limited storage (b,g,h)	20		
Attics without storage (b)	10		
Habitable attics and attics served with fixed stairs	30		
Balconies (exterior) and decks (e)	40		
Fire escapes	40		
Guardrails and handrails (d)	200 (i)		
Guardrail in-fill components (i)	50 (i)		
Passenger vehicle garages (a)	50 (a)		
Rooms other than sleeping rooms	40		
Sleeping rooms	30		
Stairs	40 (c)		

- a. Elevated garage floors shall be capable of supporting a 2,000 pound load applied over a 20 square inch area.
- b. Uninhabitable attics without storage are those attic areas that are not accessed by a pull down stair, or a scuttle with a dimension less than or equal to 30 inches high by 24 inches wide.
- c. Individual stair treads shall be designed for the uniformly distributed live load or a 300 pound concentrated load acting over an area of 4 square inches, whichever produces the greatest stresses.
- d. A single concentrated load applied in any direction at any point along the top.
- e. See Section R502.2.2 for decks attached to exterior walls.
- f. Guard in-fill components (all those except the handrail), balusters and panel fillers shall be designed to withstand a horizontally applied normal load of 50 pounds on an area equal to 1 square foot. This load need not be assumed to act concurrently with any other live load requirement.

- g. For attics with limited storage and constructed with trusses, this live load need be applied only to those portions of the bottom chord where there are two or more adjacent trusses with the same web configuration capable of containing a rectangle 42 inches high by 2 feet wide or greater, located within the plane of the truss. The rectangle shall fit between the top of the bottom chord and the bottom of any other truss member.
- h. Attic spaces served by a fixed stair shall be designed to support the minimum live load specified for sleeping rooms.
- i. Glazing used in handrail assemblies and guards shall be designed with a safety factor of 4. The safety factor shall be applied to each of the concentrated loads applied to the top of the rail, and to the load on the in-fill components. These loads shall be determined independent of one another, and loads are assumed not to occur with any other live load.

<u>Section 11.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-R302.2.2 which section reads as follows:

Sec. 8-1-2-R302.2.2 Amendment to Section R302.2.2 of the IRC.

Section R302.2.2 of the IRC is amended to read as follows:

Sec. R302.2.2 Parapets.—Parapets shall not be required for townhouses as an extension of common walls. Where roof surfaces adjacent to the wall or walls are at different elevations and the higher roof is more than 30 inches (762 mm) above the lower roof. The common wall construction from the lower roof to the underside of the higher roof deck shall not have less than a 1-hour fire-resistive rating. The wall shall be rated for exposure from both sides.

<u>Section 12.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-R303.1 which section reads as follows:

Sec. 8-1-2-R303.1 Amendment to Section R303.1 of the IRC.

Section R303.1 of the IRC is amended to read as follows:

Sec. R303.1 Habitable rooms. All habitable rooms shall be provided with aggregate glazing area of not less than 8% of the floor area of such rooms. Natural ventilation shall be through windows, doors, louvers or other approved openings to the outdoor air. Such openings shall be provided with ready access or shall otherwise be readily controllable by the building occupants. The minimum openable area to the outdoors shall be 4% of the floor area being ventilated.

Exceptions:

1. The glazed areas need not be openable where the opening is not required by Section R310 and an approved mechanical ventilation system is installed in accordance with

Sections 402.3 and 403 of the Uniform Mechanical Code, as adopted and amended in Division 4.

- 2. The glazed areas need not be provided in rooms where Exception 1 above is satisfied and artificial light is provided capable of producing an average illumination of 6 foot candles (65 lux) over the area of the room at a height of 30 inches (762 mm) above the floor level.
- 3. Use of sunroom and patio covers, as defined in Section R202, shall be permitted for natural ventilation if in excess of 40 percent of the exterior sunroom walls are open, or are enclosed only by insect screening.

<u>Section 13.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-R303.3 which section reads as follows:

Sec. 8-1-2-R303.3 Amendment to Section R303.3 of the IRC.

Section R303.3 of the IRC is amended to read as follows:

Sec. R303.3 Bathrooms. Bathrooms, water closet compartments and other similar rooms shall be provided with aggregate glazing area in windows of not less than 3 square feet (0.279 m2), one-half of which must be openable.

Exception: The glazed areas shall not be required where artificial light and a local exhaust system are provided. The minimum local exhaust rates shall be determined in accordance with Table 403.7 of the Uniform Mechanical Code, as adopted and amended in Division 4. Exhaust air from the space shall be exhausted directly to the outdoors.

<u>Section 14.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-R309.2 which section reads as follows:

Sec. 8-1-2-R309.2 Amendment to Section R309.2 of the IRC.

Section R309.2 of the IRC is amended to read as follows:

Sec. R309.2 Carports. Carports shall be open on at least two sides. Carport floor surfaces shall be of approved noncombustible material. Carports not open on at least two sides shall be considered a garage and shall comply with the provisions of this section for garages.

Exception: Asphalt surfaces shall be permitted at ground level in carports.

The area of floor used for parking of automobiles or other vehicles shall be sloped to facilitate the movement of liquids to a drain or toward the main vehicle entry door.

<u>Section 15.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-R309.3 which section reads as follows:

Sec. 8-1-2-R309.3 Amendment to Section R309.3 of the IRC.

Section R309.3 of the IRC is amended to read as follows:

Sec. R309.3 Flood hazard areas. For buildings located in flood hazard areas as established by Table R301.2(1), floors shall be:

- 1. Elevated to or above the design flood elevation as determined in Section R323; or
- 2. Located below the design flood elevation provided they are at or above grade on at least one side, are used solely for parking, building access, or storage, meet the requirements of Section R322, and are otherwise constructed in accordance with this code.

<u>Section 16.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-R310.1 which section reads as follows:

Sec. 8-1-2-R310.1 Amendment to Section R310.1 of the IRC.

Section R310.1 of the IRC is amended to read as follows:

Sec. R310.1 Emergency escape and rescue required. All basements, habitable attics and every sleeping room shall have at least one operable emergency escape and rescue opening. Where basements contain one or more sleeping rooms, emergency escape and rescue openings shall be required in each sleeping room. Where emergency escape and rescue openings are provided, they shall have a sill height of not more than 44 inches measured from the finished floor to the bottom of the clear opening. Where a door having a threshold below the adjacent ground level serves as an emergency escape and rescue opening and is provided with a bulkhead enclosure, the bulkhead enclosure shall comply with Section R310.3. The net clear opening dimensions required by this section shall be obtained by the normal operation of the emergency escape and rescue opening from the inside. Emergency escape and rescue openings with a finished sill height below the adjacent ground elevation shall be provided with a window well in accordance with Section 310.2.

Exception: Basements used only to house mechanical equipment and not exceeding total floor area of 200 square feet.

<u>Section 17.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-R311.7.5 which section reads as follows:

Sec. 8-1-2-R311.7.5 Amendment to Section R311.7.5 of the IRC.

Section R311.7.5 of the IRC is amended to read as follows:

Sec. R311.7.5 Stair treads and risers.

R311.7.5.1 Risers. The maximum riser height shall be 8 inches (196 mm). The riser shall be measured vertically between leading edges of the adjacent treads. The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8inches (9.5 mm).

R311.7.5.2 Treads. The minimum tread depth shall be 9 inches (254 mm). The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads

and at a right angle to the tread's leading edge. The greatest tread depth within any flight of stairs shall not exceed the smallest by more than 3/8inches (9.5 mm).

R311.7.5.2.1 Winder treads. Winder treads shall have a minimum tread depth of 9 inches (254 mm) measured at a point 12 inches (305 mm) from the side where the treads are narrower. Winder treads shall have a minimum tread depth of 6 inches (152 mm) at any point. Within any flight of stairs, the greatest winder tread depth at the 12 inches (305 mm) walk line shall not exceed the smallest by more than 3/8inches (9.5 mm).

R311.7.5.3 Nosings. The radius of curvature at the nosing shall be no greater than $\frac{9}{16}$ inches (14 mm). A nosing not less than $\frac{3}{4}$ inches (19 mm) but not more than $\frac{11}{4}$ inches (32 mm) shall be provided on stairways with solid risers. The greatest nosing projection shall not exceed the smallest nosing projection by more than $\frac{3}{8}$ inches (9.5 mm) between two stories, including the nosing at the level of floors and landings. Beveling of nosing shall not exceed $\frac{1}{2}$ inches (12.7 mm). Risers shall be vertical or sloped from the underside of the leading edge of the tread above at an angle not more than $\frac{30^{\circ}}{0.51}$ rad) from the vertical. Open risers are permitted, provided that the opening between treads does not permit the passage of a 4inch diameter (102 mm) sphere.

Exceptions:

- 1. A nosing is not required where the tread depth is a minimum of 11 inches (279 mm).
- 2. The opening between adjacent treads is not limited on stairs with a total rise of 30 inches (762 mm) or less.

<u>Section 18.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-R311.7.8.3 which section reads as follows:

Sec. 8-1-2-R311.7.8.3 Amendment to Section R311.7.8.3 of the IRC.

Section R311.7.8.3 of the IRC is amended to read as follows:

Sec. R311.7.8.3 Grip size. All required handrails shall be of one of the following types or provide equivalent graspability.

- 1. Type I. Handrails with a circular cross section shall have an outside diameter of at least 1¹/₄ inches (32 mm) and not greater than 2 inches (51 mm). If the handrail is not circular it shall have a perimeter dimension of at least 4 inches (102 mm) and not greater than 6¹/₄ inches (160 mm) with a maximum cross section of dimension of 2¹/₄ inches (57 mm).
- 2. Type II. Handrails with a perimeter greater than $6\frac{1}{4}$ inches (160mm) shall provide a graspable finger recess area on both sides of the profile. The finger recess shall begin within a distance of $\frac{3}{4}$ inch (19 mm) measured vertically from the tallest portion of the profile and achieve a depth of at least $\frac{5}{16}$ inch (8mm) within $\frac{7}{8}$ inch (22mm) below the widest portion of the profile. This required depth shall continue for at least $\frac{3}{8}$ inch (10mm) to a level that is not less than $\frac{13}{4}$ inches (45 mm) below the tallest portion of the profile. The minimum width of the handrail above the recess shall be $\frac{11}{4}$ inches (32 mm) to a maximum of $\frac{23}{4}$ inches (70 mm). Edges shall have a minimum radius of 0.01 inch (0.25 mm).
 - i. **Exception:** Handrails for exterior stairs of 4 risers or less need not be provided with finger recesses.

<u>Section 19.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-R315.1 which section reads as follows:

Sec. 8-1-2-R315.1 Amendment to Section R315.1 of the IRC.

Section R315.1 of the IRC is amended to read as follows:

Sec. R315.1 Carbon Monoxide Alarms. For new construction, an approved carbon monoxide alarm shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms in dwelling units within which fuel-fired appliances are installed and in dwelling units that have attached garages.

<u>Section 20.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-R319.1 which section reads as follows:

Sec. 8-1-2-R319.1 Amendment to Section R319.1 of the IRC.

Section R319.1 of the IRC is amended to read as follows:

Sec. R319.1. Address identification. New and existing buildings shall be provided with approved Arabic address numbers in accordance with the requirements set forth in City Code Chapter 35, Article V, as follows:

Distance From the Edge of Property Line and Road	Minimum Number Height	Minimum Stroke Width
0-25 feet	4 inches	0.5 inch
26-50 feet	6 inches	1 inch
51-100 feet	8 inches	1.25 inches
101-150 feet	10 inches	1.75 inches
Over 150 feet	12 inches	2 inches

- The address numbers shall be installed on a contrasting background and be plainly visible from the street or road fronting the property.
- When required by the fire code official, address numbers shall be provided in additional approved locations and sizes to facilitate emergency response.
- When the building address cannot be viewed from the public way, a monument, pole or other approved sign or means shall be used to identify the structure as directed by the fire code official.
- Address numbers shall be maintained.

<u>Section 21.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-R324 which section reads as follows:

Sec. 8-1-2-R324 Amendment to Section R324 of the IRC.

Section R324 of the IRC is amended to read as follows:

Sec. R324 Flood Resistant Construction. Deleted.

<u>Section 22.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-R403.1 which section reads as follows:

Sec. 8-1-2-R403.1 Amendment to Section R403.1 of the IRC.

Section R403.1 of the IRC is amended to read as follows:

Sec. R403.1 General. All exterior walls shall be supported on continuous solid or fully grouted masonry or concrete footings, wood foundations, or other approved structural systems which shall be of sufficient design to accommodate all loads according to Section R301 and to transmit the resulting loads to the soil within the limitations as determined from the character of the soil. Footings shall be supported on undisturbed natural soils or engineered fill.

The City of Salina standard "Residential Foundation Design" may be used for any design submitted under this code for structures greater than 1000 feet from the centerlines of the levees.

Exception: A one-story wood or metal frame building not used for human occupancy and not over 200 square feet may be constructed with walls supported on wood foundation plates laid directly on the ground when approved by the building official.

<u>Section 23.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-R404.1 which section reads as follows:

Sec. 8-1-2-R404.1 Amendment to Section R404.1 of the IRC.

Section R404.1 of the IRC is amended to read as follows:

Sec. R404.1 Concrete and masonry foundation walls. Concrete and masonry foundation walls shall be selected and constructed in accordance with the provisions of Section R404.1.2. Masonry foundation walls shall be selected and constructed in accordance with the provisions of Section R404.1.1. , or in accordance with ACI 318, ACI 332,NCMATR68–A or ACI 530/ASCE 5/TMS 402 or other approved structural standards. When ACI 318, ACI 332 or ACI 530/ASCE 5/TMS 402 or the provisions of Section R404 are used to design concrete or masonry foundation walls, project drawings, typical details and specifications are not required to bear the seal of the architect or engineer responsible for design, unless otherwise required by state law.

<u>Section 24.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-R404.1.7 which section reads as follows:

Sec. 8-1-2-R404.1.7 Amendment to Section R404.1.7 of the IRC.

Section R404.1.7 of the IRC is amended to read as follows:

Sec. R404.1.7 Backfill placement. Backfill shall not be placed against the wall until one of following conditions has been met:

- 1. The wall has cured for a minimum of 7 days or,
- 2. The wall has sufficient strength and has been anchored to the floor above or,
- 3. The wall has been sufficiently braced to prevent damage by the backfill.

Exception: Bracing is not required for walls supporting less than 4 feet (1219 mm) of unbalanced backfill.

Compaction of backfill shall not be initiated until the wall has been anchored to the floor above or provided with temporary bracing.

Exception: Backfill against contiguous basement walls beneath garage floors may be compacted before the walls have been anchored to the floor above provided that the walls have cured for a minimum of 7 days.

<u>Section 25.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-R405.1 which section reads as follows:

Sec. 8-1-2-R405.1 Amendment to Section R405.1 of the IRC.

Section R405.1 of the IRC is amended to read as follows:

Sec. R405.1 Concrete or masonry foundations. Subsoil drains shall be installed in accordance with Sections 1101.5 through 1101.5.5 of the Uniform Plumbing Code, as adopted and amended in Division 3.

<u>Section 26.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-R506.2.3 which section reads as follows:

Sec. 8-1-2-R506.2.3 Amendment to Section R506.2.3 of the IRC.

Section R506.2.3 of the IRC is amended to read as follows:

Sec. R506.2.3 Vapor retarder. A 6-mil (0.0006 inch; 152mm) polyethylene or approved vapor retarder with joints lapped not less than 6 inches shall be placed between the concrete floor slab and the base course or the prepared subgrade where no base course exists.

Exception: The vapor retarder may be omitted:

- 1. From garages, utility buildings and other unheated accessory structures.
- 2. For unheated storage rooms having an area of less than 70 square feet.
- 3. From driveways, walks, patios and other flatwork not likely to be enclosed and heated at a later date.

<u>Section 27.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-R602.3.1 which section reads as follows:

Sec. 8-1-2-R602.3.1 Amendment to Section R602.3.1 of the IRC.

Section R602.3.1 of the IRC is amended to read as follows:

Sec. R602.3.1 Stud size, height and spacing. The size, height and spacing of studs shall

be in accordance with Table R602.3 (5). **Exceptions:**

- 1. Utility grade studs shall not be spaced more than 16 inches (406 mm) on center, shall not support more than a roof and ceiling, and shall not exceed 8 feet (2438 mm) in height for exterior walls and load-bearing walls or 10 feet (3048mm) for interior non-load-bearing walls.
- 2. Studs more than 10 feet (3048 mm) in height which are in accordance with Table R602.3.1.
- 3. Nominal dimension 2 inches by 6 inches, Grade #2 or better, Spruce/Pine/Fir studs not to exceed 16 inches on center may be used without lateral bracing up to 12 feet in height in walls supporting no more than a roof/ceiling load. The span of rafter/ceiling joist assemblies supported by such walls shall not exceed 16 feet nor shall the wall support trusses with more than 32 feet of clear span. Such walls may also support other minor accessory loads from roof projections or overhangs. The design loads of such roof/ceiling assemblies shall not exceed 20 lbs. per square foot live load and 20 lbs. per square foot dead load. The minor axis of the studs must be braced on at least one side by exterior wall sheathing or wall finish panels.

<u>Section 28.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-N1102.1.1 which section reads as follows:

Sec. 8-1-2-N1102.1.1 Amendment to Section N1102.1.1 of the IRC.

Section N1102.1.1 of the IRC is amended to read as follows:

Sec. N1102.1.1. Table 1102.1.1 Insulation and Fenestration Requirements by Component

Climate Zone	Fenestra tion U-factor (b)	Skylig ht U- factor (b)	Glazed Fenestr ation SHGC (b)	Ceiling R-value (f)	Wood frame wall R- value	Mass wall R- value(e)	Floor R- value	Basement wall R- value (c)	Foundat ion perimet er R- value (d)	Crawl space wall R- value (c)
4	0.35	0.55	0.40	49	13	8/13	19	10/13	10, 2 ft	10/13

TABLE N1102.1.1INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT (a)

a. R-values are minimums. U-factors and SHGC are maximums. When insulation is installed in a cavity which is less than the label or design thickness of the insulation, the installed R-value shall not be less than the R-value specified in the table.

- b. The fenestration U-factor column excludes skylights. The SHGC column applies to all glazed fenestration.
- c. 10/13 means R-10 continuous insulation on the interior or exterior, or R-13 cavity insulation at the interior of the finished basement walls only.
- d. R-10, 2 ft. around perimeter of slab. R-5 shall be added to the required slab edge R-values for heated slabs.
- e. The second R-value applies when more than half the insulation is on the interior of the wall mass.
- f. Loose fill insulation shall be installed at the rate recommended by the manufacturer's statement "so many bags per 1000 square feet" Where the pitch of the roof restricts the "minimum thickness" at the exterior wall line, the insulation shall be blown into the cavity so as to achieve a greater compacted density to a point where the "minimum thickness" can be achieved. An alternate is to install high-density batts around the perimeter edge per N1102.2.

<u>Section 29.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-N1102.4 which section reads as follows:

Sec. 8-1-2-N1102.4 Amendment to Section N1102.4 of the IRC.

Section N1102.4 of the IRC is amended to read as follows:

Sec. N1102.4 Air Leakage. The building thermal envelope shall be constructed to limit air leakage in accordance with the requirements of Section N1102.4.1 through N1102.4.4. N1102.4.1 Building Thermal Envelope. The components of the building thermal envelope as listed in Table N1102.4.1.1 shall be installed in accordance with the manufacturer's instructions and the criteria listed in Table N1102.4.1.1, as applicable to the method of construction. When required by the code official an approved third party shall inspect all components and verify compliance.

N1102.4.1.2 Testing. When required by the code official, on a case by case basis, the building or dwelling unit shall be tested and verified as having an air leakage rate not exceeding five (5) air changes per hour. Testing shall be conducted with a blower door at a pressure of 0.2 inches w.g. (50 Pascals).

Testing shall be conducted by an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the code official. Testing shall be performed at any time creation of all penetrations of the building thermal envelope.

During testing:

- 1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weather-stripping or other infiltration control measures.
- 2. Dampers, including exhaust, intake, makeup air, backdraft and flue dampers shall be closed, but not sealed beyond intended infiltration control measures.
- 3. Interior doors, if installed at the time of the test, shall be open.
- 4. Exterior doors for continuous ventilation systems and heat recovery ventilators shall be closed and sealed.
- 5. Heating and cooling systems, if installed at the time of the test, shall be turned off.

6. Supply and return registers, if installed at the time of the test, shall be fully open.

N1102.4.2 Fireplaces. New wood burning fireplaces shall have tight-fitting flue dampers and outdoor combustion air.

N1102.4.3 Fenestration Air Leakage. Windows, skylights and sliding glass doors shall have an air infiltration rate of no more than 0.3 cfm per square foot, and swinging doors no more than 0.5 cfm per square foot, when tested in accordance with NFRC 400 or AAMA/WDMA/CSA 01/I.S.2/A 440 by an accredited, independent laboratory and listed and labeled by the manufacturer. **Exception:** Site-built windows, skylights and doors.

N1102.4.4 Recessed Lighting. Recessed luminaires installed in the building thermal envelope shall be sealed to limit air leakage between conditioned and unconditioned spaces. All recessed luminaires shall be IC-rated and labeled as having an air leakage rate not more than 2.0 cfm when tested in accordance with ASTM E 283 at a 1.57 psf (75 pa) pressure differential. All recessed luminaires shall be sealed with a gasket or caulk between the housing and the interior wall or ceiling covering.

<u>Section 30.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-N1102.4.1.1 which section reads as follows:

Sec. 8-1-2-N1102.4.1.1 Amendment to Section N1102.4.1.1 of the IRC.

Section N1102.4.1.1 of the IRC is amended to read as follows:

Sec. N1102.4.1.1 Table N1102.4.1.1 Air Barrier and Insulation Installation.

COMPONENT	CRITERIA (a)
Air barrier and thermal barrier	A continuous air barrier shall be installed in the building envelope. Exterior thermal envelope contains a continuous air barrier. Breaks or joints in the air barrier shall be sealed. Air-permeable insulation shall not be used as sealing material.
Ceiling/attic	The air barrier in any dropped ceiling/soffit shall be aligned with the insulation and any gaps in the air barrier sealed. Access opening, dropdown stair or knee wall doors to unconditioned attic spaces shall be sealed.
Walls	Corners and the junction of the foundation and sill plate shall be sealed from the interior. Exterior thermal envelope insulation for framed walls shall be installed in substantial contact and continuous alignment with the air barrier. Knee walls shall be sealed.

TABLE N1102.4.1.1AIR BARRIER AND INSULATION INSTALLATION

Windows, skylights and doors	The space between window/door jambs and framing and skylights and framing shall be sealed.
Rim joists	Rim shall be sealed to prevent air leakage.
Floors (including above-garage and cantilevered floors)	Insulation shall be installed maintain permanent contact with the underside of subfloor decking. The air barrier shall be installed at any exposed edge of insulation.
Crawl space walls	Where provided in lieu of floor insulation, insulation shall be permanently attached to crawl space walls. Exposed earth in unvented crawl spaces shall be covered with a class I vapor retarder with overlapping joints taped.
Shafts, penetrations	Duct shafts, utility penetrations and flue shafts opening to exterior or unconditioned space shall be sealed.
Narrow cavities	Batts in narrow cavities shall be cut to fit, or narrow cavities shall be filled with insulation that on installation readily conforms to the available cavity space.
Garage separation	Air sealing shall be provided between the garage and conditioned spaces.
Recessed lighting	Recessed light fixtures installed in the building thermal envelope shall be air tight, IC-rated, and sealed to the drywall.
Plumbing and wiring	Batt insulation shall be cut neatly to fit around wiring and plumbing in exterior walls, or insulation that on installation readily conforms to the available space shall extend behind piping and wiring.
Shower/tub on exterior wall	Exterior walls adjacent to showers and tubs shall be insulated and the air barrier installed separating them from the showers and tubs.
Electrical/ phone boxes on exterior walls	The air barrier shall be installed behind electrical or communication boxes or air-sealed boxes shall be installed.
HVAC register boots	HVAC register boots that penetrate the building thermal envelope shall be sealed to the subfloor or drywall.
Fireplace	An air barrier shall be installed on fireplace walls.

<u>Section 31.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-N1103.2.2 which section reads as follows:

Sec. 8-1-2-N1103.2.2 Amendment to Section N1103.2.2 of the IRC.

Section N1103.2.2 of the IRC is amended to read as follows:

Sec. N1103.2.2 Sealing. Ducts, air handlers, and filter boxes shall be sealed. Joints and seams shall comply with Section E503.4.4 of the Uniform Mechanical Code, as adopted and amended in Division 4. Joints of duct systems shall be made substantially airtight by

means of tapes, mastics, gasketing, or other means. Crimp joints for round ducts shall have a contact lap of not less than 1 ½ inches and shall be mechanically fastened by means of not less than three sheet metal screws equally spaced around the joint, or an equivalent fastening method. An example of an equivalent fastening method is where a duct connection is made that is partially inaccessible; three screws shall be equally spaced on the exposed portion of the joint so as to prevent a hinge effect.

Duct tightness, in unconditioned spaces excluding unfinished basements, shall be verified by either of the following:

- 1. <u>Post-construction test:</u> Total leakage shall be less than or equal to 4cfm per 100 square feet of conditioned floor area when tested at a pressure differential of 0.1 inches w.g (25 pa) across the system, including the manufacturer's air handler enclosure. All register boots shall be taped or otherwise sealed during the test.
- 2. <u>Rough-in test:</u> Total leakage shall be less than or equal to 4 cfm per 100 square feet of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. (25 pa) across the system, including the manufacturer's air handler enclosure. All registers shall be taped or otherwise sealed during the test. If the air handler is not installed at the time of the test, total leakage shall be less than or equal to 3 cfm per 100 square feet of conditioned floor area.

Exceptions:

- 1. The total leakage test is not required for ducts and air handlers located entirely within the building thermal envelope or unfinished basements.
- 2. On the post-construction test it is permissible to test for "leakage to the outdoors" versus "total leakage". Leakage to the outdoors shall be less than or equal to 8 cfm per 100 square feet of conditioned floor area.

<u>Section 32.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-N1103.2.3 which section reads as follows:

Sec. 8-1-2-N1103.2.3 Amendment to Section N1103.2.3 of the IRC.

Section N1103.2.3 of the IRC is amended to read as follows:

Sec. N1103.2.3 Building cavities Building framing cavities shall not be used as <u>supply</u> ducts or plenums. Building framing cavities may be used as <u>return</u> ducts if both of the following conditions exist:

- 1. Return ducts must be properly sealed to prevent the likelihood of spreading smoke and other contaminants to other spaces via the plenum or introducing smoke and other contaminants to the system.
- 2. Exterior wall cavities shall not be used for return ducts.

<u>Section 33.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-N1103.5 which section reads as follows:

Sec. 8-1-2-N1103.5 Amendment to Section N1103.5 of the IRC.

Section N1103.5 of the IRC is amended to read as follows:

Sec. N1103.5 Mechanical ventilation. The building shall be provided with ventilation that meets the requirements of Chapter 4 and Appendix E of the Uniform Mechanical Code, as adopted and amended in Division 4.

<u>Section 34.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-N1104.1 which section reads as follows:

Sec. 8-1-2-N1104.1 Amendment to Section N1104.1 of the IRC.

Section N1104.1 of the IRC is amended to read as follows:

Sec. N1104.1 Lighting Equipment. Fuel gas systems shall not have a continuous burning pilot light.

<u>Section 35.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-12 which section reads as follows:

Sec. 8-1-2-12 Chapters 12 through 43 of the IRC. Chapters 12 through 43 of the IRC are deleted. (See instead Divisions 3 through 5.)

<u>Section 36.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-AF103 which section reads as follows:

Sec. 8-1-2-AF103 Amendment to Section AF103 of the IRC.

Section AF103 of the IRC is amended to read as follows:

SECTION AF103 - REQUIREMENTS

AF103.1 General. The following construction techniques are intended to resist radon entry and prepare the building for post-construction radon mitigation.

AF103.2 Subfloor preparation. A layer of gas-permeable material shall be placed under all concrete slabs and other floor systems that directly contact the ground and are within the walls of the living spaces of the building, to facilitate future installation of a sub-slab depressurization system, if needed.

The gas-permeable layer shall consist of one of the following:

1. A uniform layer of clean aggregate, a minimum of 4 inches (102mm) thick. The aggregate shall consist of material that will pass through a 2-inch (51mm) sieve and be retained by a 1/4-inch (6.4 mm) sieve.

2. A uniform layer of sand (native or fill), a minimum of 4 inches (102 mm) thick, overlain by a layer or strips of geotextile drainage matting designed to allow the lateral flow of soil gases. As an alternative to the geotextile material, interior perimeter drain tile connected to the sealed sump pit may be used.

3. Other materials, systems or floor designs with demonstrated capability to permit depressurization across the entire sub-floor area.

AF103.4.8 Ducts. Ductwork passing through or beneath a slab shall be of seamless

material unless the air-handling system is designed to maintain continuous positive pressure within such ducting. Joints in such ductwork shall be sealed to prevent air leakage. Ductwork located in crawl spaces shall have all seams and joints sealed by closure systems in accordance with Section 602.4 of the UMC.

<u>Section 37.</u> New Section. The Salina Code is amended by adding a new section to Chapter 8, Article I, Division 2 to be numbered 8-1-2-AG105.2 which section reads as follows:

Sec. 8-1-2-AG105.2 Amendment to Section AG105.2 of the IRC.

Section AG105.2 of the IRC is amended to read as follows:

Sec. AG105.2 Outdoor swimming pool. An outdoor swimming pool, including an inground, aboveground or on-ground pool, hot tub or spa shall be provided with a barrier which shall comply with the following:

- 1. The top of the barrier for portable, on-ground pools shall be at least 48 inches (1219 mm) above grade measured on the side of the barrier which faces away from the swimming pool. The top of the barrier for permanent pools shall be at least 72 inches (1219 mm) above grade measured on the side of the barrier which faces away from the swimming pool. The maximum vertical clearance between grade and the bottom of all barriers shall be 2 inches (51 mm) measured on the side of the barrier which faces away from the swimming pool. Where the top of the pool structure is above grade, such as an aboveground pool, the barrier may be mounted on top of the pool structure. Where the barrier is mounted on top of the pool structure and the bottom of the barrier shall be 4 inches (102 mm).
- 2. Openings in the barrier shall not allow passage of a 4-inch-diameter (102 mm) sphere.
- 3. Solid barriers which do not have openings, such as a masonry or stone wall, shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints.
- 4. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is less than 45 inches (1143 mm), the horizontal members shall be located on the swimming pool side of the fence. Spacing between vertical members shall not exceed 1.75 inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches (44 mm) in width.
- 5. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45 inches (1143 mm) or more, spacing between vertical members shall not exceed 4 inches (102 mm). Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches (44 mm) in width.
- 6. Maximum mesh size for chain link fences shall be a 2.25 inches (57 mm) square unless the fence is provided with slats fastened at the top or the bottom which reduce the openings to not more than 1.75 inches (44 mm).

- 7. Where the barrier is composed of diagonal members, such as a lattice fence, the maximum opening formed by the diagonal members shall not be more than 1.75 inches (44 mm).
- 8. Access gates shall be equipped to accommodate a locking device. Pedestrian access gates shall open outward away from the pool and shall be self-closing and have a self-latching device. Gates other than pedestrian access gates shall have a self-latching device. Where the release mechanism of the self-latching device is located less than 54 inches (1372 mm) from the bottom of the gate, the release mechanism and openings shall comply with the following:
- 8.1. The release mechanism shall be located on the pool side of the gate at least 3 inches (76 mm) below the top of the gate, and
- 8.2. The gate and barrier shall have no opening greater than ¹/₂ inch (12.7 mm) within 18 inches (457 mm) of the release mechanism.
- 9. Where a wall of a dwelling serves as part of the barrier for a permanent pool, one of the following conditions shall be met:
- 9.1. The pool shall be equipped with a powered safety cover in compliance with ASTM F1346; or
- 9.2. Doors with direct access to the pool through that wall shall be equipped with an alarm which produces an audible warning when the door and its screen, if present, are opened. The alarm shall sound continuously for a minimum of 30 seconds immediately after the door is opened and be capable of being heard throughout the house during normal house-hold activities. The alarm shall automatically reset under all conditions. The alarm system shall be equipped with a manual means, such as touchpad or switch, to temporarily deactivate the alarm for a single opening. Such deactivation shall last for not more than 15 seconds. The deactivation switch(es) shall be located at least 54 inches (1372 mm) above the threshold of the door; or
- 9.3. Other means of protection, such as self-closing doors with self-latching devices, which are approved by the governing body, shall be acceptable so long as the degree of protection afforded is not less than the protection afforded by Item 9.1 or 9.2 described above.
- 10. Where the barrier is mounted on top of the pool structure and the means of access is a ladder or steps, then;
- 10.1. The ladder or steps shall be capable of being secured, locked or removed to prevent access; or
- 10.2. The ladder or steps shall be surrounded by a barrier which meets the requirements of Section AG105.2 Items 1 through 9. When the ladder or steps are secured, locked or removed, any opening created shall not allow the passage of a 4-inch-diameter (102 mm) sphere.

Section 38. Repealer. Existing Salina Code Sections 8-31 through 8-60 are repealed.

Section 39. Effective. That this ordinance shall be in full force on January 1, 2017 after its adoption and publication once in the official city newspaper by the following summary:

Ordinance No. 16- 10847 Summary

On October 3, 2016 the City Commission passed Ordinance No. 16- 10847. The Ordinance amends Chapter 8, Article I, Division 2 of the Salina Code; repeals existing sections 8-31 through 8-60; adopts and incorporates the 2012 edition of the International Residential Code by reference; and adopts local amendments with an effective date of January 1, 2017. A complete copy of the ordinance can be found at <u>www.salina-ks.gov</u> or in the office of the City Clerk, 300 W Ash Street, free of charge. This summary is certified by the City's legal counsel.

Introduced:August 22, 2016Passed:October 3, 2016

Kaye J. Crawford, Mayor

[SEAL] ATTEST:

Shandi Wicks, CMC, City Clerk

Certification of Publication Summary:

Greg Bengtson, Legal Counsel