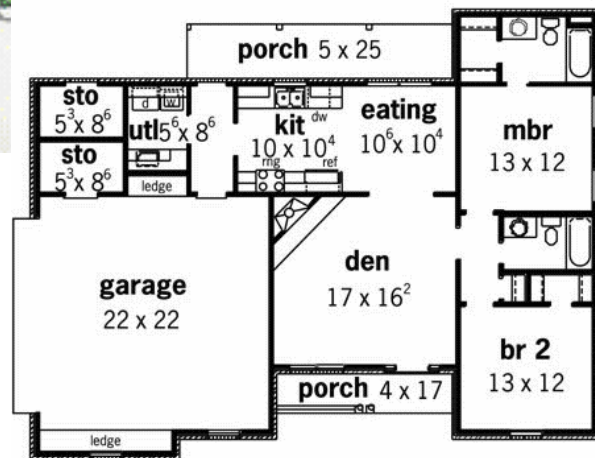


*How to Obtain a Building Permit For*

# RESIDENTIAL CONSTRUCTION

◆ New Dwellings and Additions



## MIAMI COUNTY, KANSAS

BUILDING INSPECTION DEPARTMENT

201 South Pearl Street Paola, Kansas 66071- 1777

Phone: (913) 294-4145

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*Miami County's Mission is to provide the Community with professional services and effective use of resources through responsive, interactive and progressive government; To safeguard community trust and funding; and To promote and enhance the highest possible quality of life, while respecting individual rights and human dignity.*

## HOW DO I GET STARTED?

There are several preliminary questions that should be addressed prior to an application for a building permit being made.

- **Zoning;**

- **Is the property zoned for a new residence?**

- A zoning review is required to be completed for any new residential construction before applications for any permits will be accepted. You may apply for a zoning review in the Planning and Development Department office, a copy of the deed, certificate of survey, plat, resolution for conditional use permit / rezoning, previous building permits, or any other documentation that may pertain to the legal description and /or zoning of the property shall be submitted with the application. Incomplete information will result in return of request and / or prolonged research before an accurate determination can be made. The Miami County Planning and Development Department may be contacted at (913) 294-9553 for more information.

- Please note: There is a \$50.00 fee for verifications not associated with a Building or Sanitation permit application.

- **Wastewater Treatment:**

- **What type of onsite wastewater system will be required?**

- The design of an individual onsite wastewater system, (septic system), is based upon the results of a soil profile analysis conducted on your building lot.

- Contact the Miami County Environmental Health Department at (913) 294-4117 for information on how to apply for a soil profile analysis, how the inspection is conducted and to discuss what type of onsite wastewater system is best suited for your lot and explanation of design and permitting guidelines.

- The fee for a soil profile analysis is \$200.00 and the permit fee for installing an individual onsite wastewater system is \$200.00. *If you are building in a subdivision that is served by a community sewage treatment system, a soil profile analysis is not necessary.*

- NOTE: If required, application for a soil profile analysis must be made prior to making application for a building permit. A building permit will not be issued until an individual onsite wastewater system design has been approved and an installation permit or connection permit has been issued by the Environmental Health Department.

- **Highway Entrance Permit;**

- **How do I get approval to install a driveway entrance into the property from the roadway?**

- The location and construction of a new or existing entrance to a property off of county roadways is required to be approved before a building permit will be issued or the construction of a new entrance is started. An application for a new driveway entrance or approval of an existing driveway entrance may be made after the zoning review is approved by the Planning and Development Department.

- The fee to process a highway entrance permit is \$50.00 due at the time of application for the entrance permit. Application for a highway entrance permit can be made at the building inspection office in the Miami County Administration Building.

If it is determined that a new entrance is required, the Road and Bridge Department will provide an estimated cost of construction, and if an applicant chooses to let the Road and Bridge Department construct the new entrance, the construction costs shall be paid before installation will begin.

If applicants wish to construct the entrance themselves or contract with a private entity, a cash bond with the amount to be determined by the Road and Bridge Department shall be made prior to the start of construction. The Road and Bridge Department will refund the bond upon final approval of the installation of the highway entrance.

## WHAT INFORMATION IS NEEDED TO APPLY FOR A BUILDING PERMIT?

In order for plans to be considered acceptable for review, permit applications shall contain the following information:

1. A completed building permit application form with all requested information provided.
2. Clearance from the Environmental Health Department documenting that a soil profile analysis has been performed and an application for a sewage disposal system has been made.
3. A copy of the deed to the property with a full legal description included
4. A completed highway entrance permit application.
5. Signed letters, copies of contracts or affidavits from each contractor that is listed on the permit application questionnaire. If the property owner intends to perform any work for which a license is required, an affidavit on a form provided by our office shall be completed and submitted with the permit application.
6. Two (2) site plans prepared in accordance with enclosed standards.
7. Two (2) full sets of building plans prepared in accordance with the enclosed standards.

## PREPARATION OF PLANS

Plans for new construction or additions are required to accurately represent the proposed construction. Plans shall be prepared to scale on standard sized paper of the same dimensions. Plan pages shall be numbered and be correlated into sets with each set bound or secured into complete sets. Plans will be reviewed for compliance with the codes and regulations of Miami County. The more complete the plans the faster the plan review can be performed and the quicker a permit can be issued and construction started. Plans are not required to be prepared or to be sealed by a design professional unless the building contains features that are not covered by the specification provisions contained in the International Residential Code.

A plan review fee of \$50.00 will be assessed for the review of single family plans. Plans that are incomplete or that require more than one-hour of review time will have additional plan review fees charged at the rate of \$50.00 per hour with a minimum one-half hour charge. Plan review fees will be collected at the time that the permit is issued.

Upon approval of the submitted plans the plans will be stamped "APPROVED" and the permit will be authorized for issuance. One set of stamped "APPROVED" plans will be returned to the applicant with the permit. The permit applicant is responsible to have approved plans on the job site for all inspections. All site construction is required to be performed in accordance with the approved plans. Revisions to the approved plans must be reviewed and be approved by the building inspection department prior to the revised work being performed.

A brief outline of the details and specifications that the plan reviewer will be checking follows this introduction and an applicant may utilize this outline as a checklist to ensure that they have complied all the necessary information for submittal with the permit application. If this information is not provided the permit application will be deemed to be incomplete and the plans will be returned to the permit applicant for correction. Upon re-submittal the plans will be re-reviewed for compliance with the codes and regulations of Miami County.

A site plan is generally not required to be prepared by a registered surveyor, however when a proposed building is planned to be within ten feet (10') of a setback required by regulations or a parcel is less than one-hundred feet (100') in width a site plan and construction staking shall be required to be prepared by a registered surveyor. The county reserves the right to require a professionally prepared site plan and construction staking of a proposed building site whenever conditions warrant.

Site plans that do not show the information that is requested will be rejected during plan review and the site plan will be required to be prepared to acceptable standards, either by an individual or by a registered surveyor.

## SITE PLAN

An acceptably prepared site plan will show the following;

- Site plans shall be drawn on paper adequate in size to accurately reflect the parcel and existing conditions and proposed construction as required.
- Site plans shall be drawn to scale and the scale shall be shown on the plans.
- North shall be indicated by an arrow on the drawing;
- Show all property lines; dimensions of property lines; and indicate the area or size of the property in acres or square feet;
- Indicate the location of public or private roads and show the name or number of the road;
- The location of any existing and proposed driveway entrances shall be shown with the distance from a property line to the centerline of the driveway given and the width of the proposed driveway shown;
- The location of any creeks, streams or drainage ditches and the boundaries of any flood hazard zone;
- The location of any utilities and recorded easements if known;
- The location of all existing buildings with the distance shown between building and property lines. The use and dimensions of existing buildings shall be indicated on the site plan;
- The approximate location of a septic tank, lateral field, lagoon or other component of a private sewage disposal system; buildings or access drives shall not be placed over septic tanks or disposal fields and proposed buildings shall maintain the required minimum setbacks;
- The location of proposed building with the distance between the proposed building and existing structures and property lines shown.

## BUILDING PLAN

Building plans shall provide details and specifications on all of the following:

### FLOOR PLAN:

- **Area:**
  - The floor area of each floor level shall be shown in square feet;
  - The floor area of finished basement space shall be shown in square feet.
- **The use of each room or area shall be shown.**
- **All room dimensions shall be shown.**
- **Ceiling heights shall be shown.**
- **Location of Exterior Doorways and Windows with Opening Dimensions:**
  - Show the location of all exterior doors and windows showing the finished opening dimensions.
  - Specify openings that require Safety Glazing.
- **Emergency Rescue or Escape Openings shall be shown with the following information specified:**
  - Specify the location, finished sill height and the finished clear openable dimensions of the opening;
  - Show window well dimensions when necessary.
    - Where required:
      - Minimum one from each bedroom;
      - Minimum one from every basement;

**NOTE:** For the purpose of determining whether a room is a bedroom the Miami County Building Code has defined a bedroom as “a room with a minimum floor area of at least 70 square feet with a minimum dimension of 7 feet that contains an adjacent room or space that may be utilized as a closet.” This definition will be applied for the purposes of determining the design of on-site wastewater systems, emergency rescue or escape openings and smoke detector location.

- **Interior stairways specifications and details shall be provided with the following information specified:**
  - Stairway width shall be shown;
  - Proposed rise and run of stairs shall be shown;
  - The clear headroom height shall be shown;
  - The dimensions of required landings shall be shown.
- **Location of required smoke detectors shall be shown:**
  - Where Required:
    - Inside of each bedroom;
    - Centrally located outside of each separate bedroom area;
    - Each floor level and basement.
- **Location of electrical service shall be shown with the following information provided:**
  - Show the location of the electrical service;
  - Specify amperage rating of service.
- **Location of Furnace and Water Heater shall be shown with the following information provided:**
  - Specify that a thermal expansion device will be provided for water heater.
- **Location of Plumbing Fixtures shall be shown.**
- **Garage:**
  - Show dimensions of garage;
  - Specify ½ inch gypsum board separating garage and residence;
  - Show all openings between the garage and dwelling;
  - Specify Door Type and thickness;
  - Show openings into attic; specify that one-hour protection will be maintained;
  - Overhead door location and opening sizes;
  - Specify concrete floor surface and floor reinforcing. If any part of floor slabs are to be placed on more than two feet of fill, the slab shall be designed as a structural slab. A standard design is available from our office or can be downloaded from our website or the slab design shall be sealed by a Kansas licensed design professional.
- **Exterior porches, decks, landings and stairs:**
  - Show dimensions of exterior porches and decks.

## **STRUCTURAL DETAILS AND SPECIFICATIONS**

- **Foundation Plans**
  - **Footings** — the following information for footings is required to be shown on the plans:
    - Width and thickness of footings shall be shown;
    - Reinforcing specifications for footings shall be shown;
    - Detail for footings at walkout walls shall be shown — anchor bolt specifications and spacing and walkout foundation height specified that is a minimum of 6 inches above adjacent finished grade;
    - Footings with minimum 36-inch depth below finished grade shown;
    - Pier pad location and dimensions shall be shown;
    - Detail for foundation drains shown;
    - Location of foundation drain sump pits;
    - Location of concrete encased grounding electrode for electrical service.
  - **Foundation Walls** — the following information is required for foundation walls:

- Specify the maximum height of unbalanced fill;
  - Specify the height of foundation walls;
  - Specify the thickness of foundation walls;
  - Specify the reinforcing for walls in accordance with IRC Chapter 4 or Miami County Building Code Table R404.1.1 (5) (see attached to end of this guideline);
  - Specify anchor bolt size and spacing (minimum ½ inch diameter anchor bolts, embedded 7 inches into foundation, spaced a maximum of three feet on center with one anchor located a maximum of 12" from the end of each piece of sill material is required);
  - Show crawl space ventilation opening location and opening size;
  - Show crawl space access (18" X 24" minimum required);
  - Specify use of Pressure Preservatively Treated Sill Plates when in contact with concrete.
- **Concrete Floors:**
    - Detail or note specifying that vapor barrier under slab or crawl space gravel is provided;
    - Detail or note specifying minimum 4 inches gravel under floor slab;
    - Specify reinforcing schedule of minimum #4 reinforcing bar at 24 inches on center each way;
    - Specification of Pressure Preservatively Treated lumber when in contact with slabs;
    - Detail or note specifying vapor barrier under floor slabs in basements or habitable spaces;
    - Specify any slabs that will be placed on more than 2 feet of fill and specify fill material and reinforcing schedule. If any part of floor slabs are to be placed on more than two feet of fill, the slab shall be designed as a structural slab. A standard design is available from our office or can be downloaded from our website or the slab design shall be sealed by a Kansas licensed design professional.
- **Floor Framing:**
    - Steel or wood beam locations and specifications;
    - Provide dimension, grade, species and spacing of floor framing if conventional framing methods will be employed;
    - Engineered or manufacturers layout plan for I joist system shall be provided with plans;
    - Specify Direction of floor joists.
- **Wall Framing:**
    - Dimension and spacing of studs;
    - Show header dimensions;
    - Specify load-bearing walls.
- **Braced Wall Panels:**
    - Show the location of braced wall panels as required by IRC Section R602.10;
    - Braced wall panel construction methods as required by IRC Section R602.10.3 shall be shown by specification or detail on plans.
- **Ceiling Framing:**
    - Dimension, grade, species and spacing of ceiling framing framing if conventional framing methods will be employed;
    - Direction of ceiling joists;
    - Show location and specifications for any beams required for ceiling or roof support;
    - Attic Access opening with opening dimensions shown.
- **Roof Framing:**
    - Dimension, grade, species and spacing of roof framing members framing if conventional framing methods will be employed;
    - Specify direction of rafters;
    - Specifications or details for vaulted ceiling support shall be shown.
- **Trusses:**
    - A truss design and layout plan sealed by design professional for roof or floor trusses shall be provided.



## FREQUENTLY ASKED QUESTIONS

- Q. Are the plans required to be prepared or be sealed by an architect?**
- A. Generally, plans for construction work involving single family dwellings are not required to be prepared by an architect or engineer, however, some special features that are not covered by the prescriptive requirements of the applicable codes may require a design to be prepared by a Kansas Registered Design Professional.
- Q. How long does it take to obtain a building permit?**
- A. A full review of the plans and specifications will be completed by the departments and agencies responsible for checking the project for compliance with applicable codes and regulations. Depending on the complexity of the project and completeness of plans and specifications an answer usually can be given within five working days. During peak construction periods this time frame may be exceeded so please allow ample time when making application for a building permit.  
*Please keep in mind that the more concise and complete your plans are, the faster it is to complete the review of your project and the easier it is for us for us to help you prevent costly errors and omissions once your project is underway.*
- Q. What is the minimum size dwelling that must be constructed?**
- A. The Miami County Zoning Regulations require that the minimum habitable area of a new dwelling be not less than 950 square feet.
- Q. How close to a property line can I construct a house?**
- A. The minimum setbacks depend on the Zoning District in which the parcel of land is located. Contact the Planning and Development Department at (913) 294-9553 for details and have the legal description, including the Section, Township and Range of the property available when calling.
- Q. How is my property zoned? What uses are allowed on the property?**
- A. Contact the Planning and Development Department at (913) 294-9553 for details and have the legal description, including the Section, Township and Range of the property available when calling.
- Q. What work requires licensed contractors?**
- A. Generally property owners may perform any type of work on buildings that they own and will personally occupy. Individuals or companies that act as building contractors in Miami County are required to be licensed. Licensing is required for general contractors, electrical contractors, plumbing contractors, HVAC contractors, foundation contractors, roofing contractors and site utility installers.
- Q. What codes have been adopted by Miami County?**
- A. Miami County currently enforces the provisions of the 2006 edition of the *International One and Two Family Dwelling Code®*, 2006 edition of the *International Building Code®*, the 2006 edition of the *International Plumbing Code®*, the 2006 edition of the *International Mechanical Code®*, the 2006 edition of the *International Fire Code®* and the 2005 edition of the *National Electrical Code®*.

Most code provisions that will apply to a swimming pool installed for a single family residence can be found in the 2006 edition of the *International One and Two Family Dwelling Code®*.

**Q. Where can I obtain a copy of the Building Codes adopted by Miami County?**

**A.** Copies of the International Codes may be obtained from the International Code Council by phone at 1-800-786-4452 or can be ordered online at [www.iccsafe.org/store](http://www.iccsafe.org/store).

**Q. What will my building permit cost?**

**A.** Permit fees are based upon the valuation of construction. The valuation will be determined as part of the plan review process and there is no standard answer, the fee is based upon factors such as the square footage of the dwelling, basement, finished basement and garages along with other factors. A worksheet for an individual to estimate a permit fee is available from the building inspection department.

**Q. What type of inspections are required?**

**A.** A complete listing of required inspections will be included with the building permit. A related handout is available on request outlining required inspections and procedures for making inspection requests. A typical dwelling must have an average of 10 or more inspections including the footings, foundation walls, foundation drains, underslab plumbing, garage and basement floor slabs, rough in of building, electrical, plumbing and hvac systems, open trench inspections for electrical, water and gas laterals, interior gas piping installation and pressure testing, and a final inspection. Additional inspections may be required based upon the type of work that is being performed.

**Q. When can a new residence be occupied?**

**A.** Generally anything that is considered to be a safety or sanitation requirement must be complete before occupancy of a new dwelling will be granted. A Certificate of Occupancy is required to be issued by the Codes Official before a dwelling may be legally occupied. Some of the issues that must be complete for a residence to be occupied prior to full completion include:

- Approval of the onsite wastewater system by the Environmental Health Department;
- Smoke detectors required by code installed and functioning;
- At least one fully functioning bathroom including a tub or shower, a lavatory and a water closet; any openings in the DWV system for additional fixtures shall be capped;
- A kitchen sink and cooking facilities;
- A water heater with a thermal expansion tank;
- At least one exit including landings, stairs, handrails and guardrails that fully comply with applicable code requirements; additional exit doors do not have landings that are over 30 inches above the outside grade shall be blocked by approved guardrails or be locked by temporary double keyed deadbolts;
- Handrails on stairs with three or more risers and guardrails on porches, decks or similar platforms located 30 inches or more above adjacent surface;
- Required electrical receptacles, switches, lights, fixtures Ground Fault Circuit Interrupters and cover plates ;
- Final approval of the Electrical Service, including grounding system shall have been given;
- Between September 30 and May 1, required mechanical heating equipment shall be completed and approval given by the building inspection department.
- A Temporary Certificate of Occupancy shall be obtained approving the temporary occupancy until a full final approval of the residence is given.

**Q. Can a second dwelling be constructed on a piece of property?**

**A.** Under limited circumstances, the Miami County Zoning Regulations under specific conditions may allow a temporary dwelling when a hardship can be shown and allows for a guesthouse as a

secondary dwelling unit on a single parcel. For further information, contact the Planning and Development Office at (913) 294- 9553

**Q. If I am constructing an addition onto my house that will increase the total number of bedrooms in my home, how does this affect my existing onsite wastewater system?**

**A.** Depending on the age of the system, you may be able to increase its size. In any case, the system will need to be inspected to determine its condition and size. A new system may need to be installed. Contact the Environmental Health Department at (913) 294-4117 for further details.

**Q. Can I connect to my existing onsite wastewater system if I replace my existing home with a new one?**

**A.** If you are constructing a new home or setting a different or new home on your property, the existing onsite wastewater system must meet current standards as stated in the Environmental Health Sanitary Code. The existing system will need to be evaluated, a soil profile analysis may need to be conducted and a new system may need to be permitted and installed. Contact the Environmental Health Department at (913) 294-4117 for further details.

**Table R404.1.1 (5)**  
**Concrete Foundation Walls**  
**Minimum Vertical Reinforcement**

Maximum Wall Height (feet)	Wall Thickness (inches)		
	7.5	9.5	11.5
4	24	30	36
5	24	30	36
6	24	30	36
7	24	30	36
8	24	30	36
9	16	24	30
10	12	18	24

Notes to Table:

1. Reinforcing is based upon minimum yield strength of 60,000 psi. Reinforcement with a minimum yield strength of 40,000 psi or 50,000 psi is permitted, provided the same size bar is used and the spacing shown in the table is reduced by multiplying the spacing by 0.67 or 0.83, respectively.
2. Horizontal reinforcing shall be spaced at a maximum of 24 inches on center with one bar located within 12 inches of the top and bottom of the wall.
3. Spacing is based upon minimum #4 reinforcing bar. In lieu of #4 reinforcing bar, a larger bar size may be used provided, the bar spacing results in an equivalent cross-sectional area of reinforcement per linear foot of wall.
4. Reinforcement shall be placed nearest the inside face of the wall a distance  $d$  from the outside face (soil side) of the wall. The distance  $d$  is equal to the wall thickness,  $t$ , minus 1.25 inches plus one-half the bar diameter,  $db$  ( $d = t - 1.25 + db/2$ ). The reinforcement shall be placed within a tolerance of  $\pm 3/8$  inch where  $d$  is less than or equal to 8 inches, or  $\pm 1/2$  inch where  $d$  is greater than 8 inches.
5. Concrete cover for reinforcement measured from the inside face of the wall shall not be less than 3/4 inch. Concrete cover for reinforcement measured from the outside face of the wall shall not be less than 1 1/2 inches for #5 bars and smaller, and not less than 2 inches for larger bars.
6. Concrete shall have a minimum compressive strength of not less than 3,000 psi at 28 days.
7. Walls with an unbroken wall line greater than 25 feet shall be provided with pilasters or shall be designed.
8. Walls exceeding 7 feet in height shall be restrained at bottom by floor slab.
9. Walls exceeding 10 feet in height require engineered design.
10. Foundations bearing on soils with different bearing capacities as established by Table R401.4.1 require an engineered design.