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## **SUBMITTAL GUIDELINES - RESIDENTIAL DWELLINGS**

### **Applicability**

Use this guideline as a check list to submit correct documentation and information related to the construction, alteration or enlargement of detached single family dwellings, two family dwellings not more than two stories and basement in height and townhomes with a separate means of egress for each dwelling.

### **Adopted Codes**

Sycamore Unified Development Ordinance (UDO)  
City Code, City of Sycamore  
2006 International Residential Code (IRC)  
2006 International Mechanical Code (IMC)  
2006 International Fuel Gas Code (IFGC)  
2011 National Electrical Code (NEC) with amendments  
2015 International Energy Conservation Code (IECC)  
2014 Illinois Plumbing Code

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### **Submittals should include (but are not limited to):**

#### **1. Applications & Licenses:**

- Permit application (**Must be legible and complete.**)
- Electrical License application, if applicable, with a copy of an electrical license from a testing municipality. If the electrical contractor does not hold a license with another testing municipality, he/she will be required to take the City administered test.
- One copy of the Illinois Plumbing Contractor Registration, Illinois Plumbing License and, if applicable, Illinois Irrigation Contractor's Registration.

#### **2. Site plan\* showing:**

- Lot width, depth and area.
- All easements (drainage, utility, ingress/egress) that directly affect the subject property.
- Front, side and rear building setback dimensions from the property lines.
- Front, side and rear building setback dimensions from all easements.
- The proposed driveway and all adjacent streets.
- Dimensions of all permanent accessory structures. (Detached garage, car port, tool/garden shed, driveway, sidewalk, patio, deck, patio, gazebo, etc.)
- Dimensions from the proposed dwelling to all permanent accessory structures.

***\*The site plan may be hand-drawn by the applicant. For unique circumstances such as construction in the floodplain or asymmetrical lots, the Building & Engineering Department may require the site plan to be prepared by a licensed land surveyor or engineer.***

#### **3. Exterior elevation plans showing:**

- Front, rear and side elevations.
- Look-out or walk-out basements.

#### 4. Foundation plan showing:

- ❑ All habitable spaces with dimensions.
- ❑ Basement floor thickness and vapor barrier detail.
- ❑ Perimeter tile detail.
  - ❑ *Perimeter tile is required on both sides of the footing.*
- ❑ Location of the sump pump and ejector pit.
  - ❑ *The sump pump must be connected to the City storm sewer system.*
  - ❑ *The ejector pit must be connected to the City sanitary sewer system.*
- ❑ Width and thickness of all foundation wall footings.
  - ❑ *8" thick x 16" wide for wood frame walls above.*
  - ❑ *10" thick x 18" wide for brick veneer walls above.*
- ❑ Length, width and thickness of all structural pier footings.
  - ❑ *Typically 36" long x 36" wide x 12" deep minimum.*
- ❑ Thickness of all foundation walls, as well as size and position of rebar within the walls.
  - ❑ *8" thick for wood frame walls above.*
  - ❑ *10" thick for brick veneer walls above.*
  - ❑ *All foundations shall require (2) #4 re-bars within the top 12 inches of the wall.*
- ❑ Where a room is supported by structural piers (3-season room, covered porch, screened porch, etc.) and where the roof over the room ties into the main house roof, a separate detail **for that room only** showing the following must be submitted:
  - ❑ The detail **must** bear the stamp of a licensed architect or structural engineer.
  - ❑ Diameter of the piers.
  - ❑ Depth of the piers.
  - ❑ Spacing of the piers.
  - ❑ Any hardware necessary to control lateral movement of the room and/or piers.
- ❑ Location and size of emergency escape and rescue opening(s) in basement.
  - ❑ *All basements must have one operable emergency escape and rescue opening.*
  - ❑ *Where a basement contains one or more sleeping rooms, and additional operable emergency escape and rescue window shall be required in each sleeping room.*
  - ❑ *Minimum opening area (when the window is in the open position) for emergency egress = 5.7 sq. ft. if below grade, 5.0 sq. ft. at grade level.*
  - ❑ *Minimum clear opening dimensions (when the window is in the fully open position) for emergency egress = 20" wide x 24" high.*
  - ❑ *Maximum height from basement floor to the bottom sill of the emergency opening = 44".*
  - ❑ *Window wells shall project outward from the foundation wall 36" minimum, shall have a minimum horizontal area of 9 sq. ft. and shall be equipped with a permanently affixed ladder if the depth of the well is greater than 44". The ladder must be usable with the window in the fully open position.*
- ❑ Radon control method and ventilation details.
- ❑ Size, species and grade of the structural basement beam (center beam).
- ❑ Spacing of structural columns from centerline to centerline.
- ❑ Size, species and grade of floor joists, ***including span and spacing (12", 16", 24" on center) information. If using TJI's, provide manufacturer, series and spacing information.***
- ❑ Foundation insulation, including R-value.
  - ❑ *Continuous foam insulation applied on the inside or outside of the foundation wall = R-15 minimum.*
  - ❑ *Framed wall with batt insulation on the inside of the foundation wall = R-19 minimum.*

5. Floor / Mechanical plan(s) showing:

- All conditioned rooms with dimensions.
- Size, species and grade, **including span and spacing (12", 16", 24" on center) information**, of:
  - All structural beams, girders, columns and headers, **including overhead garage door headers.**
  - Floor joists and decking (thickness and material). **If using TJI's, provide manufacturer, series and spacing information.**
  - Framed walls and sheathing (thickness and material).
  - Ceiling joists
  - Roof rafters and pitch **or** truss specifications and pitch.
  - Roof sheathing (thickness and material) and shingles (type & weight).
  - Additional information, as deemed necessary by the Building & Engineering Department.
- Location of all exterior doors and windows.
  - Openings from a private garage into rooms used for sleeping purposes are not permitted.
- Window schedule on the plan set to include the following **or** complete the attached window schedule and submit with plan set.
  - Emergency egress opening area (when the window is in the fully open position) for all **habitable rooms\***. (Minimum 5.7 sq. ft. if window is below grade, 5.0 sq. ft. if window is at grade level)
  - Emergency egress clear opening dimensions (when the window is in the fully open position) for all **habitable rooms\***. (Minimum 20" wide x 24" high)
  - U-factors of **all windows and doors**. (.32 maximum)
  - U-factors of **all skylights**. (.55 maximum)

**\*Habitable Rooms:** Rooms used for living, sleeping eating or cooking. Bathrooms, utility spaces and similar areas are not considered habitable spaces.
- R-value of floor, wall and ceiling insulation.
  - Minimum floor R-value (over an unheated area) = R-30
  - Minimum wall R-value = R-20 batt insulation on the interior of a 2 x 6 frame wall **or** R-13 batt insulation installed on the interior of a 2 x 4 frame wall with minimum R-5 insulated sheathing on the exterior of the wall.
  - Minimum ceiling R-value = R-49. Where the roof/ceiling assembly does not allow for R-49 insulation (vaulted or cathedral ceilings), R-30 insulation is permitted provided the roof/ceiling assembly is limited to 500 square feet or 20% of the total insulated area, whichever is less.
  - For all loose fill, spray foam and non-conventional insulation method, submittal of manufacturer's specifications is required.
- Fire barrier ratings for dwelling unit separation. (Two family dwellings and townhomes only.)
- Location of all plumbing fixtures.
  - Water closets
  - Lavatories
  - Tubs / showers
  - Kitchen sinks
  - Dishwashers
  - Clothes washers
  - Laundry sinks
  - Water heaters
  - Garbage disposals
  - Water softeners
  - Floor drains
  - Sill cocks
  - Other \_\_\_\_\_
- The following hot water piping must be insulated with a minimum R-3 pipe insulation:
  - Piping located outside the conditioned space.
  - Piping located under a floor slab.
  - Buried piping.
  - Piping serving more than one dwelling unit.
  - Piping from the water heater to distribution manifold.
  - Supply and return piping in recirculation systems other than demand recirculation systems.
  - Piping ¾ inch and larger in nominal diameter.

- ❑ Size and location of the electrical service and electric service panel.
  - ❑ *All electrical services require two ground rods spaced a minimum 6 feet apart and a water service ground.*
- ❑ Location of all electrical fixtures and wiring diagram.
  - ❑ *Light fixtures (Recessed fixtures in unconditioned space must be IC rated.)*
  - ❑ *Switches*
  - ❑ *Receptacles*
    - ❑ *All receptacles in bathrooms, kitchen countertop work areas, unfinished basements, attached garages, as well as receptacles installed on the exterior of the house, must be GFCI (ground fault circuit interrupter) protected.*
    - ❑ *All 125 volt, 15 and 20 volt receptacles must be AFCI (arc fault circuit interrupter) protected.*
    - ❑ *All receptacles must be tamper resistant.*
- ❑ Location of all smoke alarms and carbon monoxide detectors.
  - ❑ *One smoke detector is required in each sleeping room.*
  - ❑ *One smoke detector is required outside each sleeping area and in the immediate vicinity of the sleeping rooms.*
  - ❑ *One smoke detector is required on each story of the dwelling, including basements.*
  - ❑ *One carbon monoxide detector is required within 15' of every room used for sleeping purposes.*
  - ❑ ***\*Combination smoke and carbon monoxide detectors are permitted.***
- ❑ Location of all heating, ventilation and air conditioning (HVAC) equipment.
  - ❑ *All HVAC equipment must be sized in accordance with ACCA Manual J or other approved heating and cooling methodologies.*
  - ❑ *Supply ducts in unconditioned spaces must be insulated to a minimum of R-8.*
  - ❑ *Return ducts in unconditioned spaces must be insulated to a minimum of R-6.*
  - ❑ *Stud and joist bays used to convey return air must be a factory or field constructed duct system. The use of the bay itself, without a duct system, is not permitted.*
  - ❑ *All forced air HVAC systems require a programmable thermostat.*
  - ❑ *All **new dwellings** (does not apply to additions or remodels) require a blower door test per R402.4.1.2 of the IECC after all penetrations in the building envelope are complete. A written report verifying an air leakage rate **of not more than 3 air changes per hour** must be submitted to the Code Official at final inspection.*
  - ❑ *Location of all bathroom exhaust fans.*
    - ❑ *All exhaust fans must terminate into dedicated exterior terminations on the exterior of the building.*
- ❑ Stairways
  - ❑ *Riser height = 7 ¾" maximum*
  - ❑ *Tread Run = 10" minimum*
  - ❑ *Winder treads = 6" minimum ends*
  - ❑ *Headroom = 6'-8" minimum measured vertically from the plane of the stair*
  - ❑ *Handrail height (required on at least one side of any stair with 4 or more risers) = 34"-38" measured vertically from the plane of the stair and returned to the wall at the ends.*
  - ❑ *Guard height (horizontal rail) = 36" minimum*
- ❑ Attic access
  - ❑ *22" x 30" minimum*
  - ❑ *Vertical clearance in attic = 30" minimum*
  - ❑ *Located in a hallway or readily accessible area.*
- ❑ Copy of manufactured fireplace manual, if applicable.

**6. Other drawings and/or information, as deemed necessary.**

