City of Sycamore
Community Development

Building Division
541 DeKalb Avenue
Sycamore, IL 60178
O# (815) 895-4434
www.cityofsycamore.com

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
2021 International Residential Code (IRC)
2021 International Mechanical Code (IMC)
2021 International Fuel Gas Code (IFGC)
2023 National Electrical Code (NEC) with amendments
Illinois Plumbing Code – Current Edition
Illinois Energy Conservation Code – Current Edition

Permit submittals should include (but are not limited to):

1. **Applications & Licenses:**
   - ❑ **Permit application:** The Permit Application must be complete and legible.
   - ❑ **Electrical Contractors:** To perform electrical work within the City of Sycamore, all Electrical Contractors must register with the City and renew annually effective January 1st of each year. Information regarding the required registration can be viewed at https://cityofsycamore.com/.
   - ❑ **Plumbing Contractors:** One copy of the Plumbing Contractor's letter of intent in accordance with Illinois Plumbing License Law.

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 Community Development 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 with membrane 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.
  - ❑ 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.
  - ❑ Minimum R-15 continuous insulation on the interior or exterior surface of the basement wall or;
  - ❑ R-19 batt insulation on the interior surface of the basement wall or;
  - ❑ R-13 batt insulation on the interior surface of the basement wall and R-5 continuous insulation on the exterior surface of the basement wall or;
  - ❑ Total Building Performance Option (ResCheck or similar)

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 pitches **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:
  - ❑ 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)

    ***Habitable Rooms:** Rooms used for living, sleeping eating or cooking. Bathrooms, utility spaces and similar areas are not considered habitable spaces.
- ❑ U-factors of **all windows and doors**. (.30 maximum)
- ❑ U-factors of **all skylights.** (.55 maximum)
- ❑ R-value of floor, wall and ceiling insulation.
  - ❑ **Floors over an unconditioned area:** Minimum R-30
  - ❑ **Wood Walls:**
    - ❑ Minimum R-30 batt insulation on the interior surface of the wall or;
    - ❑ Minimum R-20 batt insulation on the interior surface of the wall and R-5 continuous insulation on the exterior surface of the wall or;
    - ❑ Minimum R-13 batt insulation on the interior surface of the wall and R-10 continuous insulation on the exterior surface of the wall or;
    - ❑ Minimum R-20 continuous insulation on the exterior surface of the wall or;
    - ❑ Total Building Performance Option (ResCheck or similar)

- **Ceilings:**
  - Minimum R-49
    - R-38 can be used for a ceiling with a raised energy heel. A raised energy heel allows the ceiling insulation to be installed at its full thickness and uncompressed over the exterior top plate to the outside of the exterior wall. This installation will require an insulation dam that prevents the insulation from falling into the soffit.
    - For ceilings without attic space (vaulted ceilings), the minimum R-value shall be R-30, PROVIDED area is limited to 500 square feet or 20% of the total insulated ceiling area, whichever is less.
    - For all loose fill, spray foam and non-conventional insulation method, submittal of manufacturer's specifications is required.
    - Or Total Building Performance Option (ResCheck or similar)
- 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
  - Water softener connection, including 3 valve bypass, standpipe drain and receptacle.
  - 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, unless exempt when using the Total Building Performance Option::
  - 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, 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 per NEC 210.12.
  - All receptacles must be tamper resistant.

- ❑ Electric boxes in exterior walls and ceilings to attics must be NEMA OS4 rated or sealed completely using approved means.
- ❑ All permanently installed lighting fixtures shall contain only high-efficacy lighting sources.
- ❑ All permanently installed lighting fixtures shall be controlled with a dimmer, occupancy sensor or both excluding bathrooms, hallways, and exterior lights.

❑ 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 within 15' 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. A copy of the manual J shall be provided with the application.
- ❑ The building or dwelling unit shall be tested for air leakage.
- ❑ Ducts shall be pressure tested to determine air leakage with a rough-in test or postconstruction test.
- ❑ Supply and return ducts in unconditioned spaces must be insulated to a minimum of R-8 for ducts 3" in diameter or larger and R6 for ducts smaller than 3" in diameter.
- ❑ All ducts located within conditioned spaces must sealed and insulated as follows:
  - ❑ Ceiling: Buried in attic insulation and sealed to 1.5 cfm/100 sf of floor area.
  - ❑ Floor cavities: Minimum R-19
  - ❑ Exterior walls: R-10
  - ❑ 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.

❑ 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.

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