

BEAR CREEK TOWNSHIP BUILDING DEPARTMENT
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MINIMUM INFORMATION OF RESIDENTIAL CONSTRUCTION DOCUMENTS

This list is provided as a reference to help permit applicants understand what information may be required and provided on the construction drawings. Necessary information will vary based on the complexity of the project.

Construction documents submitted for plan review and building permits shall contain the following information:

1. Two complete sets of construction drawings meeting the following requirements.

- Drawn to scale in a draftsman like manner, scale not less than $\frac{1}{4}'' = 1'0''$.
- Drawing shall be clear, readable, and understandable.

Residential structures with over 3,500 square feet of habitable space shall have the original signature, seal, and date of a State of Michigan licensed Architect or Engineer. Drawings for residential structures with over 3,500 square feet of habitable space may require upon request from the Building Department detailed electrical, plumbing, and mechanical information.

2. New residential homes require mechanical Manual J and Manual S calculations.
3. A detailed work description shall be provided for all building, mechanical, plumbing, and electrical permit applications. This description shall accurately describe all work proposed.
4. If not utilizing the prescriptive approach for energy code compliance submit two completed copies of the Energy Code Worksheet for the performance or energy rating system proposed to be used as a compliance alternative.
5. Submit one complete set of engineered floor and roof truss drawings (if applicable) with the following information:
 - The location of all bearing walls and point loads for both interior and exterior walls.
 - The location, direction, span and spacing of all trusses.
 - All required bracing information shall be indicated on the truss drawings.These truss drawings should be provided to the Building Inspector prior to the rough frame inspection. It is preferred to have the truss drawings e-mailed from the truss supplier. Contact the department if necessary for the correct e-mail address.
6. A site plan that matches the construction drawings. The site plan shall include distances from the proposed new construction to all property lines and if applicable other structures on the lot.

7. A Foundation plan that contains the following information:
 - Footing and column pad sizes with all layout dimensions.
 - Sizes and spacing of beams and columns
 - First floor joist direction, size, spacing, and span.
 - The location, direction, span, and spacing of all floor trusses or TJI system drawings. All required bracing and blocking shall be noted on the floor truss or TJI floor system drawings. These truss or TJI drawings should be provided to the Building Inspector prior to the rough frame inspection. It is preferred to have the truss drawings emailed from the truss supplier. Contact the department if necessary for the correct email address.
 - Size of support for all bearing walls and point loads from above.
 - Framing details at stair and other openings.
 - Basement or crawl space floor thickness, type of vapor barrier and a 4-inch sand or gravel base shall be indicated.
 - Basement or crawl space wall types and thickness, and reinforcing steel sizes and spacing (if applicable).
 - Location and sizes of all emergency egress windows, window wells, or doors leading directly to the exterior. Egress window wells if applicable.
 - Type of sill plate, size, and spacing of anchorage shall be indicated.
 - Energy Code requirements if applicable to the foundation.

8. Provide Crawl Space Details (if applicable) including the following:
 - Type of ventilation – mechanical or natural
 - If natural ventilation opening size and locations indicated within 3 feet of each corner.
 - A minimum 18" x 24" access if in the floor or a 16" x 24" access if in a foundation wall.
 - Clearance between ground and floor joists – 18 inches minimum required for untreated wood.
 - Clearance between ground and wood beams – 12 inches minimum required for untreated wood.
 - Insulation types, locations, and R-values being utilized.
 - Vapor barrier and/or slab details.

9. Provide floor plans that contain the following information:
 - Full dimensions and use of all rooms.
 - Ceiling height of all rooms
 - 2nd floor (if applicable) joist direction, size, spacing and span.
 - Roofing framing direction, size, spacing and span
 - Sizes and locations of all support for bearing walls and concentrated loads.
 - Sizes of all doors and windows. The drawings shall indicate all tempered glazing, egress Windows, and windows greater than 72" above grade & less than 24" above the finished floor.
 - Sizes, types, and support of all headers indicated for every opening in load bearing walls.
 - Details of the separation required between the attached garage and house.
 - Locations of all smoke and carbon monoxide detectors on every floor.

10. Provide a Roof Framing Plan (if applicable) indicating the location, direction, size, spacing, and span of all roof and ceiling framing members. Indicate support for all bearing walls and

concentrated loads from ends of hip and valley rafters, ceiling joists, trusses, and girder trusses. Indicate the roof pitch for all portions of the roof.

11. Provide Building or Wall Sections indicating the following information: (Depending on the complexity of your project, several sections or details may be required.)

- Footing and basement or crawl space wall sizes, type and height and any required reinforcement.
- Basement or crawl space wall waterproofing/damping and drain tile with stone.
- Anchor bolt size and spacing.
- Floor framing details
- 1st and 2nd floor ceiling heights
- Exterior finishes
- Type if exterior sheathing
- Size and spacing of wall studs
- Air barrier details
- Insulation with R values per Energy Code.
- Interior wall finish materials
- Truss and rafter connectors to plates
- Roof construction details with thickness and type of sheathing, felt paper, snow and ice shield, type of roof covering and attic ventilation details.
- Brick or stone veneer (if applicable)
- Base course flashings
- Weather-resistant membranes
- Lintels and flashing
- Brick wall ties and flashing
- Weep holes (33 inches on center maximum)

Please note: Details that are unique or not commonly utilized may be required to be signed and sealed by a Structural Engineer as determined by the Plan Reviewer or Building Inspector.

12. Provide Braced Wall Details – Each Floor

- Details shall clearly indicate the type, size, and location of all braced walls.
- Details shall be provided for all portal frame openings, including garage door openings.
- Any special requirements, including tie-downs, strapping, etc., shall be clearly indicated.

13. Provide Stair and Guardrail details with all tread, riser, handrail sizes and heights, guardrail heights, spindle spacing, and material types. Indicate headroom height on all stairs.

14. Provide Building Elevations – Front, Sides and Rear.

- Elevations shall be provided that include the proposed grade, wall/roof covering materials, door/windows, and indicated all tempered/emergency egress windows.

PLEASE NOTE: This is not an all-inclusive list. Depending on the type and complexity of your project, additional details or engineering by a State Licensed Architect or Engineer may be required.