



Addition - Residential Construction Guidelines

Community Development Department - Construction Permits and Inspection Services
215 Sycamore St Muscatine, IA 52761 - PH 563.262.4141 - FAX 563.262.4142
www.muscatineiowa.gov/26/Community-Development

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Residential Addition Construction Permits Submittal Checklist

- Building Permit Application
- Site Plan
- Construction Plans
- Electrical, Plumbing and Mechanical Permit Applications (when applicable)

BUILDING PERMIT APPLICATION

Submit completed Building Permit Application

SITE PLAN

Submit an accurate site plan for review and approval, which includes:

Location of the proposed addition, the house and any other building or structures on the property.

Distances from buildings and structures to property lines.

Distances between buildings and structures.

Easements, drainage and City Right-of-Way (when applicable)

CONSTRUCTION PLANS

Submit complete set of construction plans drawn to scale no smaller than $\frac{1}{4}$ inch to 1 foot - electronic plans are also required for plans larger than 11x17.

A complete set of construction plans includes the following:

Foundation Plan:

- Indicate foundation type (for example: basement, crawl space, slab on grade, post or pier footings).
- All footing locations and sizes indicated (including porches and decks).
- Posts and beams: location, materials, sizes. (Including porches and decks).
- First floor joist type, material, size, and spacing. (when applicable)

Basement Plan (when applicable):

- Partition walls, including size and spacing of studs in bearing walls.
- Room dimensions and overall dimensions. Label rooms.
- Window locations and sizes (manufacturer and model number).
- Door locations and sizes.
- Furnace and water heater location.
- Smoke detector locations.
- Carbon Monoxide alarm locations.
- Sump pit location.

First Floor Plan (include existing rooms adjacent to the addition):

- Room dimensions and overall dimensions. Label rooms.
- Window locations and sizes (manufacturer and model number). Door sizes.
- Separation between house and garage (gypsum board on garage side and solid wood or hollow metal door). When applicable.
- Smoke detector, carbon monoxide alarm, exhaust fan, attic access locations.
- Second floor joist type, material, size, spacing.
- Beam and header sizes, material. Girder truss locations. Indicate any bearing walls.
- Porches and decks: dimensions, construction methods.
- Plumbing fixtures, bathroom and kitchen layout.

Second Floor Plan:

- Same as first floor, when applicable.



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CONSTRUCTION PLANS CONTINUED:

Wall Cross Section Drawing (include size, material, spacing):

- Footing, foundation, reinforcing, anchor bolts, tile, gravel, damp-proofing, final grade level.
- Treated sill plate, floor joist, box joist, floor sheathing.
- Wall framing, wall sheathing, headers.
- Weather barrier, siding, vapor barrier, interior finishes, ceiling heights.
- Insulation: basement wall, frame wall, ceiling. Footing and slab at walkout, when applicable.
- Ceiling joist, rafters, trusses, roof sheathing.
- Eave ice barrier, roof felt underlayment, roofing, soffit, fascia, attic vents.

OR fill out the information on the following Cross Section page of this handout

Section Detail of Footing at Walkout Basement (when applicable)

Stair Cross Section Drawing (when applicable):

- Rise, tread (net run), headroom, handrail height, guard spacing, and stair width.
- Details on winders when applicable.

Exterior Elevation Drawings of Sides:

- Show final grade.
- Porches, decks, landings at doors. Guards and steps at decks.
- Windows and doors.
- Siding and/or exterior finishes.

Engineering or additional documentation may be required – for example: Design for precast concrete or structural concrete slabs.

ELECTRICAL, PLUMBING AND MECHANICAL PERMIT APPLICATIONS:

As separate Electrical, Plumbing and Mechanical Permits are required, when applicable, separate permit applications must be submitted for each respective trade.

Contractors licensed in the respective trade must obtain these permits and perform the work. Contractors must be licensed in accordance with State of Iowa Licensing Laws.

Per State of Iowa Code, homeowners may perform work on their principal residence, if such residence is an existing dwelling rather than new construction and the homeowner has lived there for at least six months. Homeowners may obtain these permits.

OTHER INFORMATION:

After application, the building inspector does a thorough plan review and notes any code deficiencies or missing information on the plans.

When the plans are approved and permit fees are paid, the building permit is issued and construction is authorized to begin.



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Cross Section Drawing

Check, circle, or fill in each detail to create your building design.

ROOF DESIGN

Ice and Water Barrier (to 24" inside wall line)
+ Felt

Roof Sheathing (Circle): 7/16" or 1/2"
OSB or Plywood

2 X _____ Rafters _____ on center
2 X _____ Ceiling Joists _____ on center
Hip/Valley Rafters _____
- or -

Manufactured Trusses (Provide Mfgr. Specs.
at or before Rough Frame Inspection)

Roof Ventilation: Total Vent Area in Sq. Inches: _____

ROOF SLOPE
_____ Inches 12 inches

Attic Insulation: Minimum R49

WALL DESIGN

Double Top Plate (Circle): 2X4 or 2X6
(Consult Building Department Staff for Single Top Plate Option)

Window Header: 2 X _____ - or - LVL 1 3/4" X _____

Door Header: 2 X _____ - or - LVL 1 3/4" X _____

Studs (Circle): 2X4 or 2X6 at _____ on center

Bottom Plate (Single) - Same as Top Plates

Wall Sheathing: _____

Weather Barrier (Circle): House Wrap or Felt

Siding: _____

Sill Plate (Circle): 2X6 or 2X8

(Must be Treated or Naturally Decay Resistant)

FOUNDATION DESIGN

1/2" X 10" Anchor Bolt, Washer and Nut (or other approved anchors), 6' on center and 12" max. from plate splices.
Anchor Bolt MUST have 7" embedment in concrete.

Foundation Rebar (size, grade, location): _____

UFER Ground (1/2" X 20' Rebar Typical) for
connection to new electrical panel

Foundation Depth - 42" minimum below finished grade

Footing Size: 8"X16" minimum or _____

Foundation Wall Width: _____ Height: _____

Drainage Tile Required for Basement Foundations

Slope Finished Grade Away from Building-min. 6" in 10'

Maintain 6" Clearance from Exterior Siding to Grade

INTERIOR FINISH

Ceiling - 5/8" Drywall, Typical; Other _____

Wall Insulation (Minimum R20):
6" Fiberglass or better in 2X6 Wall
- or -

2X4 Wall with Alternate Insulation (Circle):
Foam or Cellulose or Rigid Foam
Sheathing Plus Fiberglass (+ Wind Bracing)

Vapor Barrier: _____

Wall Finish - 1/2" Drywall; Other _____

Wall Height (from Finished Floor): _____ ft. _____ in.

FLOOR DESIGN

Subfloor: _____

2 X _____ Floor Joists _____ on center
 Engineered Floor System _____ Center Beam Size
 2 X _____ or _____ 1 3/4" X _____ LVL
or Steel: _____

Center Beam Post Spacing: _____ on center

CRAWL SPACE

Pressure Treated Beams
within 12" and Joists within 18" of Earth

Clear Height Provided: _____

Vapor Barrier Over Earth (Circle): Yes or No
Ventilation: _____ square inches

Insulation (Circle):
R10 Foundation Walls or R30 Floors

Insulate Mechanical Ducts: R6 Minimum



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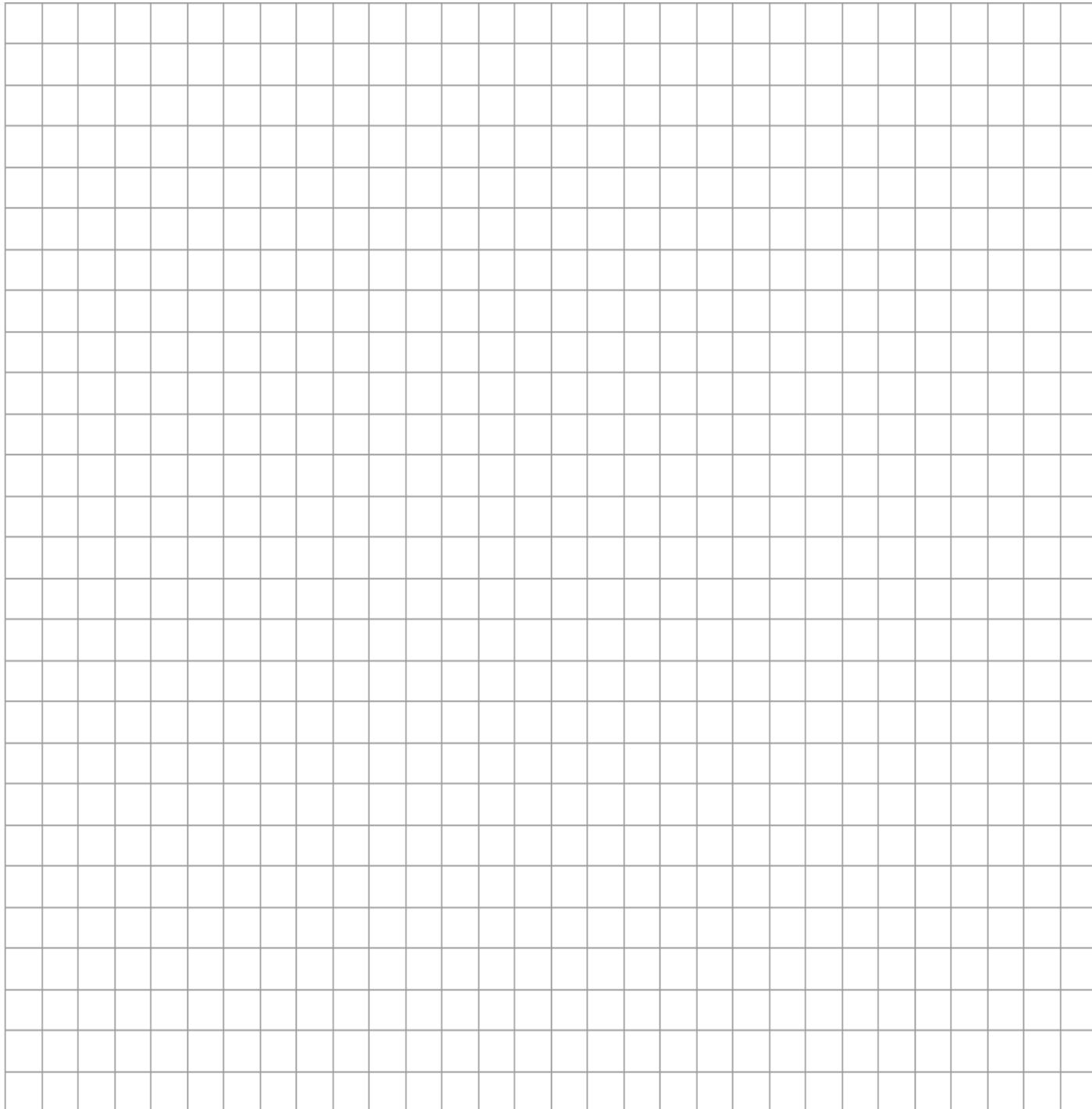
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Addition Layout Drawing

1/4 inch = 1 foot



$\frac{1}{4}$ " = 1 foot



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Inspections Required

The inspection card must be kept at the jobsite to be available to the building inspector at all times. The permit card must be displayed and visible from the street. If this is impossible, post on an exterior to be visible to the building inspector on site.

Each phase of construction listed below shall comply with City of Muscatine Codes and shall pass inspection before work proceeds. It is the responsibility of the permit holder or their agent to call for inspections and to provide access for inspection. At least **24 Hours Notice** is required prior to inspection. Based on the scope of work, all inspections listed below may not be required for every project.

| | |
|---------------------|---|
| Footings | Excavation complete, forms, and steel reinforcement in place, before concrete is poured. Includes post, pier, trench, spread, pad and other footings. Concrete encased electrode (UFER ground) in place for new buildings and building additions. |
| Groundwork | Underground or under slab plumbing, PEX tubing, HVAC, or electrical work before covering. Water test with 10' head pressure required on plumbing Drain, Waste, Vent system. |
| Utilities | Temporary and permanent electrical services. |
| Gas Piping Rough-In | Gas piping before covering or concealment. Coordinate air test on gas piping with Alliant Energy. |
| Plumbing Rough-In | Before insulation, gypsum board, or any covering has been installed. |
| Mechanical Rough-In | Before insulation, gypsum board, or any covering has been installed. |
| Electrical Rough-In | Before insulation, gypsum board, or any covering has been installed. |
| Framing Rough-In | All framing complete, after the above rough-ins have been approved, before insulation, gypsum board, or any covering has been installed. Truss design drawings shall be on site. If possible, coordinate rough-in inspections for one trip. |
| Final Inspection | After all phases of construction are complete and building is ready for occupancy. |

The portion or addition of the building affected by the work must not be occupied until Final Inspection has been completed, approved and a **Certificate of Occupancy** has been issued by Community Development.