

# Residential Building Permit Checklist

## Single Family Dwellings

**Bond:** Any party wishing to obtain a building permit shall provide a General Contractor's Bond in the amount of \$10,000.00 to this office on the required form. Projects with a valuation less than \$10,000.00 AND being constructed by the owner on their own primary residence (addition or remodel) shall not be required to provide said bond (ref Ord. 2005-0964; 90/T-9317)

**State Registration** (contractors only) The State of Iowa requires any party earning more than \$2000.00 annually in the "construction" trades to be registered with Iowa Workforce Development Office. Verification of registration will be required for contractors to obtain building permits. **Note:** All installation of new electrical, mechanical, plumbing work must be performed by state licensed companies and persons. If known at the time of building permit application, provide names of licensed companies or persons who will be installing new electrical, mechanical, and/or plumbing work on this project.

Temporary toilet facilities must be provided on all projects (**Sioux City Municipal Code 20.13**)

**DRC (Development Review Committee) Site Plan Approval:** This shall apply to any new single family dwelling not located in an established subdivision. The owner or contractor shall contact the Inspection Services Office to be placed on the agenda and provide five copies of the site plan (see below) to this office no later than the Monday prior to the scheduled Thursday meeting at 10:00 am.

### Required Documents – (Drawings to be a minimum of 24 x 36" size)

1. Site plan – show property lines, location of house, distance from the house to the property lines (setbacks), location of driveway and sidewalks, final grades and elevation of garage relative to the street. Indicate utilities (water, sanitary sewer) size and location.
2. Floor plans of all levels (basement, first floor, etc). Provide typical wall section indicating wall construction heights and details (foundation wall reinforcement, drain tile, vapor barriers, etc)
3. Provide complete framing plans (floor, walls and roof). Provide nominal size and spacing of members if conventional framing or the manufacturers engineered drawings if floor or roof trusses (drawings shall include a stamp indicating conformance with the 2015 International Residential Code)
4. Indicate energy code compliance by following the prescriptive method or Total UA Alternative Method

#### **PRESCRIPTIVE METHOD:**

Building envelope to meet minimum standards (see table)

Certificate mounted at the distribution panel

Blower door test by independent certified 3<sup>rd</sup> party

75% of lamps or fixtures to be high efficacy – (*Compact fluorescent lamps, T-8 or smaller linear fluorescent lamps or lamps with a minimum efficacy of 60 lumens per watt for lamps over 40 watts, 50 lumens per watt for lamps over 15 watts to 40 watts and 40 lumens per watt for lamps 15 watts or less - does not apply to low voltage lighting*)

Programmable thermostat (*forced air systems*)

All paths for supply air to be ducted – *no building cavities allowed for conveyance of supply air - interior wall framing cavities may be utilized for return air if the space is pressure tested for leakage.*

Ducts shall be insulated to R-8 in attics – *R-6 for all others (does not apply if located within the thermal envelope)*

Ducts shall be sealed – *duct tightness shall be verified by testing unless all ducts and air handlers are located within the building thermal envelope*

Hot water pipes to be insulated to R-3 minimum

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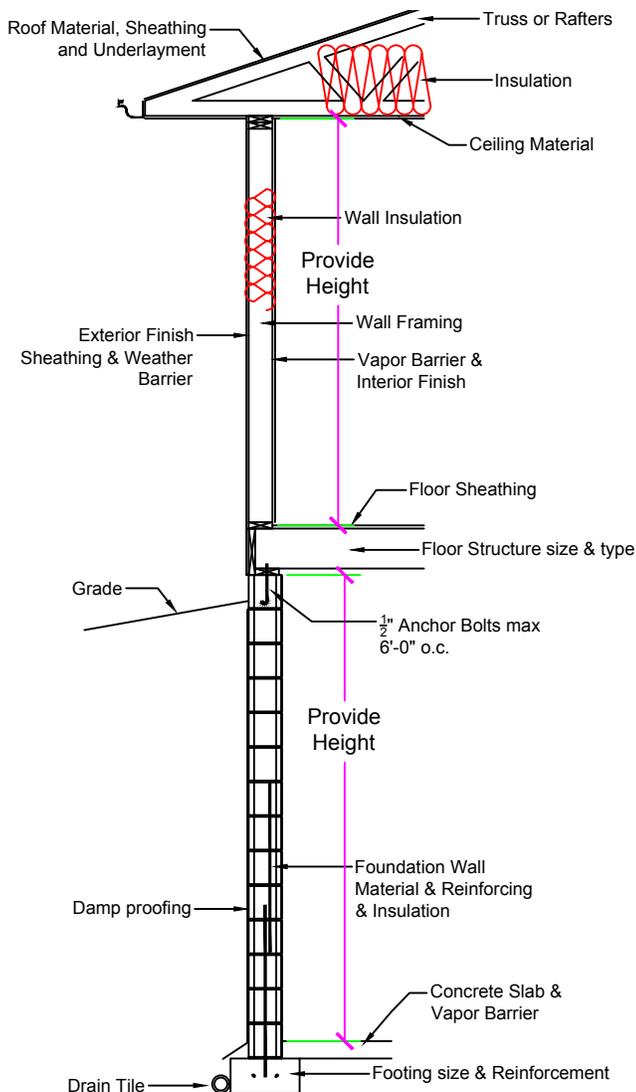
**TOTAL UA ALTERNATIVE METHOD:** REScheck report - *still must comply with mandatory requirements of energy code: Certificate at panel, Air leakage (blower test), Controls (thermostat), duct sealing, building cavities (no stud / joists space for supply or return air), high efficiency lighting, duct insulation not inside the thermal envelope to R-8*

Climate Zone	Fenestration U Factor (windows) maximum	Skylight U Factor	Ceiling R value	Wood Frame Wall R value	Mass Wall (concrete or CMU) R Value	Floor R Value	Basement R Value	Slab R Value & Depth	Crawlspace Wall R Value
5	0.32	0.55	49	20 or 13+5	13/17	30	15/19	10, 2 ft	15/19

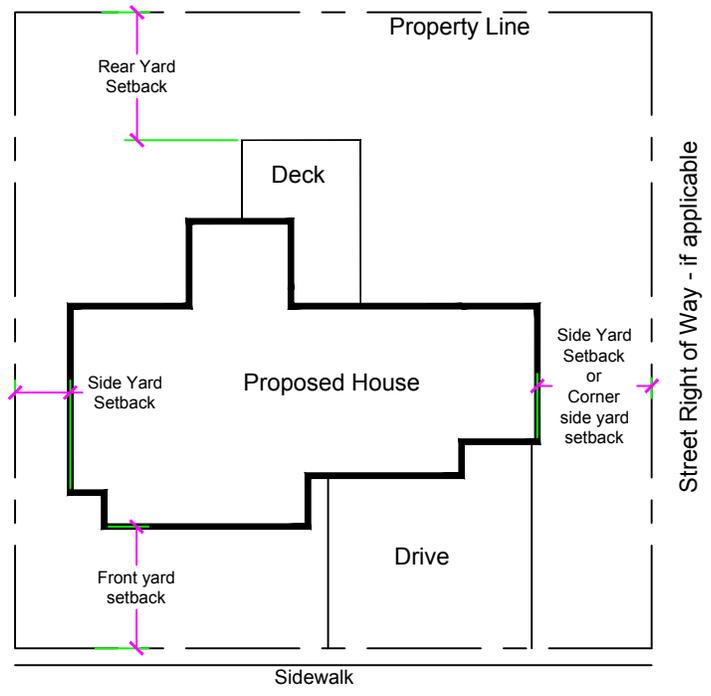
**Wood frame wall values** – the first number is if cavity insulation is utilized (in between studs), the second number is if continuous insulation is utilized (insulated sheathing on the exterior) so 13 + 5 equates to R-13 insulation in the spaces between the studs and R-5 sheathing on the exterior of the wall (2 x 4 construction).

**Mass wall R values** – The second R value number applies when more than ½ of the insulation is on the interior of the mass wall

**Basement R Value** – 15/19 means R-15 continuous insulation on the interior or the exterior of the wall or R-19 cavity insulation on the interior side of the wall.



**Wall Section Example**

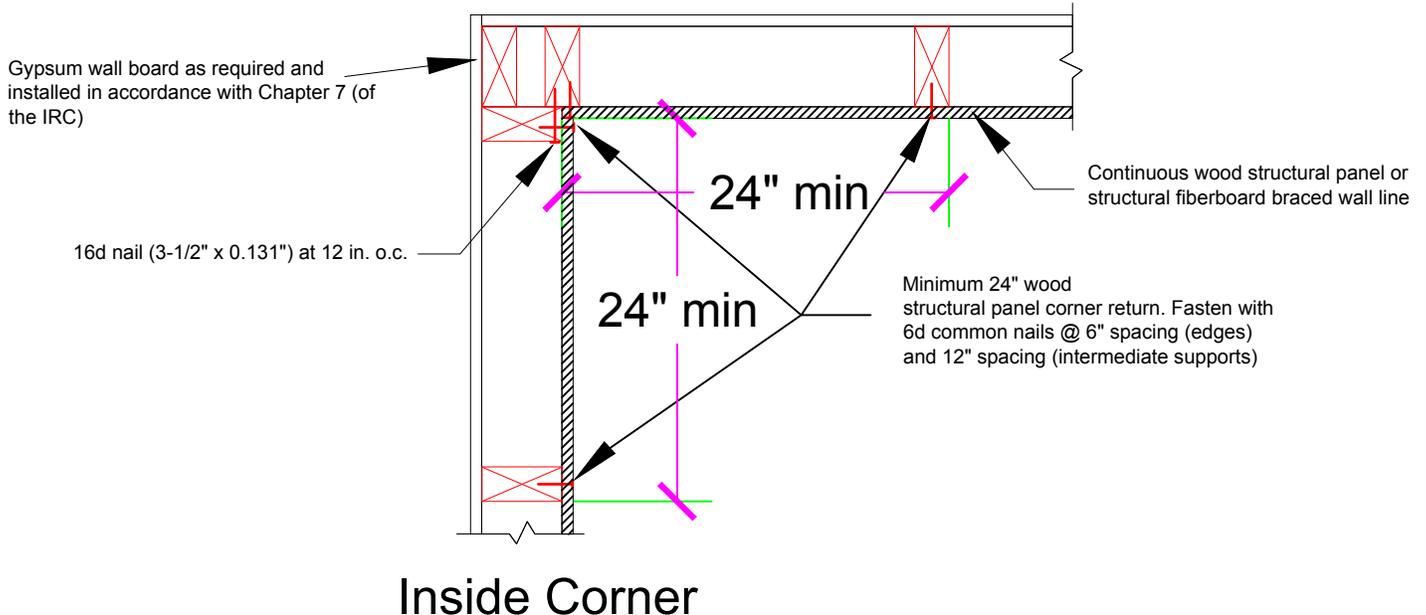
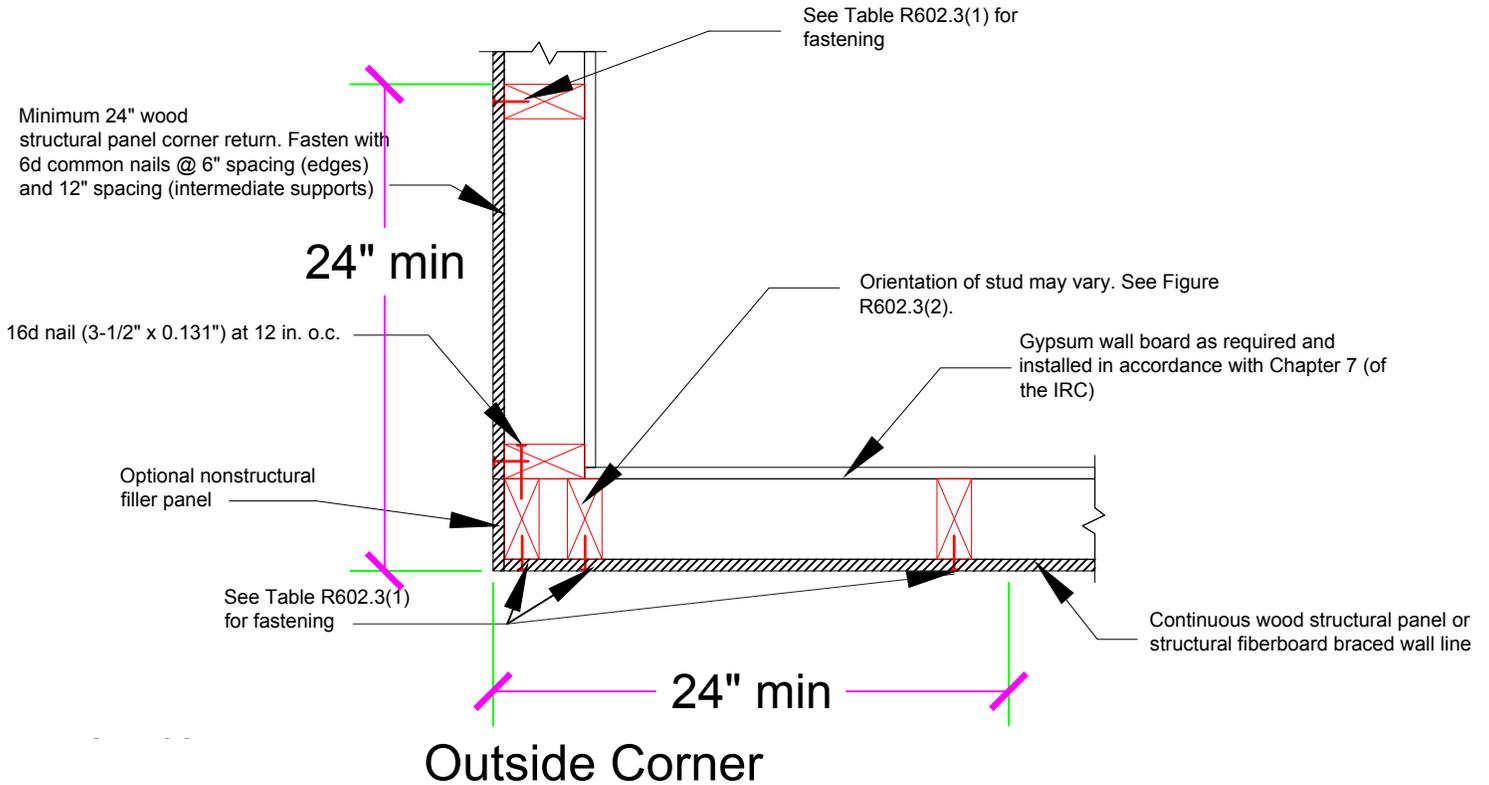


Street Right of Way  
**Site Plan Example**

# Continuous Sheathed Braced Wall Requirements

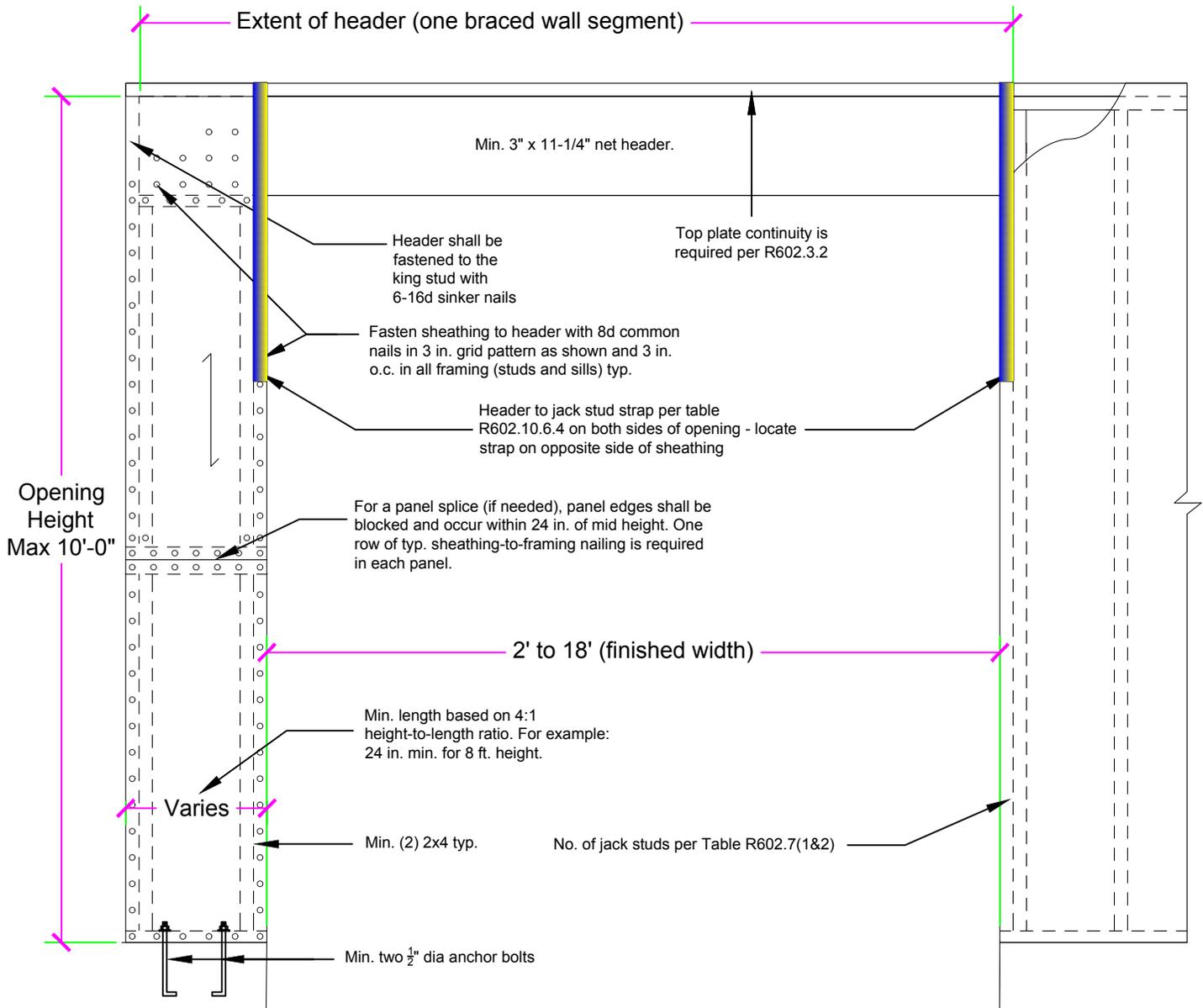
All residential structures shall be considered as being constructed as continuously sheathed unless noted on the documents. All exterior walls shall be considered braced walls. All corners shall be constructed with the nailing provisions as indicated below with no opening being located in the first 24" from the corner. If openings are desired within the first 24" from the corner one of the alternate methods of bracing must be provided.

## Corner Nailing Detail - required at all corners (stud orientation may vary)



# Continuous Sheathed Braced Wall Requirements

Braced wall segments shall meet the minimum required size based on adjacent opening height and exterior wall height. Braced wall segments may be less than standard with modified construction (example - narrow walls at either side of overhead garage doors) as shown below.



## Typical narrow braced wall panel - Garage only

The International Residential Code requires structures to be braced for lateral (wind) loads. The continuously sheathed method allows for wall panels of less than the typical width to be constructed at one wall of one story garages with minimal roof loads (3 psf dead load - roofing materials). Panel width is based on wall height with an aspect ratio of 4 : 1 (96" high wall = 24" pane width!; 108" high wall = 27" panel width)