

Energy Code: Wisconsin Uniform Dwelling Code 2009

Location: Ashland County
Project Type: New construction

Conditioned Floor Area: 2022 ft2
Glazing Area Percentage: 1%
Climate Zone: 7

Construction Site: Owner/Agent: Designer/Contractor: Madison, WI Buildy Builderson Building plans

UDC Compliance: Passes on UA trade-off

Compliance: 3.0% Better Than Code Maximum UA: 265 Your UA: 257 Maximum SHGC: 0.40 Your SHGC: 0.25

The % Better or Worse Than Code index reflects how close to compliance the house is based on code trade-off rules.

It DOES NOT provide an estimate of energy use or cost relative to a minimum-code home.

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Glazing or Door U-Factor	UA
Ceiling area of home forming top of insulation envelope: Flat Ceiling or Scissor Truss	2022	49.0	0.0		53
Wall area of home forming sides of insulation envelope: Wood Frame, 16" o.c.	542	21.0	0.0		29
Window 1: Vinyl/Fiberglass Frame:Double Pane with Low-E SHGC: 0.25	32			0.290	9
Wall area of home forming sides of insulation envelope: Wood Frame, 16" o.c.	542	21.0	0.0		31
Wall area of home forming sides of insulation envelope: Wood Frame, 16" o.c.	542	21.0	0.0		29
Energy efficient door unit: Solid	40			0.200	8
Wall area of home forming sides of insulation envelope: Wood Frame, 16" o.c.	542	21.0	0.0		31
Subfloor of home forming bottom of insulation envelope: All-Wood Joist/Truss:Over Unconditioned Space	2022	30.0	0.0		67

Compliance Statement: The proposed building design described here is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed building has been designed to meet the Wisconsin Uniform Dwelling Code 2009 requirements in REScheck Version 4.6.2 and to comply with the mandatory requirements listed in the REScheck Inspection Checklist.

Name - Title Signature Date

Heating Equipment Sizing Summary

General Information

Outdoor Design Temperature -25 deg
Conditioned Floor Area 2022 ft
Average Ceiling Height 0.0 ft

Infiltration Rate 0.50 Normalized ACH

Equipment Oversizing Factor 0.0 %

Loads Summary

Conductive Losses24325BTU/hrInfiltration Losses0BTU/hrOversizing Factor Losses0BTU/hrTotal Building Heating Load24325BTU/hr

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Wisconsin Uniform Dwelling Code 2009

Energy Code: Location: Project Type: Conditioned Floor Area: Ashland County New construction 2022 ft2

1% 7 Glazing Area Percentage: Climate Zone:

Ceilings:
Ceiling area of home forming top of insulation envelope: Flat Ceiling or Scissor Truss, R-49.0 cavity insulation Comments:
Above-Grade Walls:
Wall area of home forming sides of insulation envelope: Wood Frame, 16" o.c., R-21.0 cavity insulation Comments:
Wall area of home forming sides of insulation envelope: Wood Frame, 16" o.c., R-21.0 cavity insulation Comments:
Wall area of home forming sides of insulation envelope: Wood Frame, 16" o.c., R-21.0 cavity insulation Comments:
Wall area of home forming sides of insulation envelope: Wood Frame, 16" o.c., R-21.0 cavity insulation Comments:
Windows:
Window 1: Vinyl/Fiberglass Frame:Double Pane with Low-E, U-factor: 0.290, SHGC: 0.25, Windows must be labeled and rated in accordance with NFRC or must use default values from COMM Table 22.36-1.
#Panes Frame Type Thermal Break? Yes No Comments:
Note: Up to 15 sq.ft. of glazed fenestration per dwelling is exempt from U-factor and SHGC requirements. Note: Site-constructed windows must be sealed with gasketing or weatherstripping or be covered with a storm window.
Doors:
Energy efficient door unit: Solid, U-factor: 0.200 Doors must be labeled and rated in accordance with NFRC or must use default values from COMM Table 22.36-2. Comments:
Note: Site-constructed doors must be sealed with gasketing or weatherstripping or be covered with a storm door.
Floors:
Subfloor of home forming bottom of insulation envelope: All-Wood Joist/Truss:Over Unconditioned Space, R-30.0 cavity insulation Comments:
Floor insulation is installed in permanent contact with the underside of the subfloor decking.
Solar Heat Gain Coefficient:
Solar Heat Gain Coefficient (SHGC) values are determined in accordance with the NFRC test procedure or taken from the default table.
Air Leakage:
Joints, penetrations, and all other such openings in the building envelope that are sources of air leakage are sealed.
Recessed lights are either 1) Type IC rated with enclosures sealed/gasketed against leaks to the ceiling, or 2) Type IC rated and ASTM E283 labeled, or 3) installed inside an air-tight assembly with a 0.5" clearance from combustible materials and a 3" clearance from insulation.
Sunrooms:

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	Sunrooms that are thermally isolated from the building envelope have a maximum fenestration U-factor of 0.50 and the maximum skylight U-factor of 0.75. New windows and doors separating the sunroom from conditioned space meet the building thermal envelope
	requirements. The temperature in the conditioned space is controlled as a separate zone or separate heating equipment exists.
_	/apor Retarder:
	Installed on the warm-in-winter side of all framed ceilings, walls, and floors (exceptions apply, see COMM 22.38). The vapor retarder covers the exposed insulation and the interior face of the framing. The installed vapor retarder is continuous with all joints consisting of sheet material overlapped 6 inches and taped or sealed. Rips, punctures and voids in the vapor retarder are patched with vapor retarder materials and taped or sealed. Concrete slabs have vapor retarder directly under the slab or base course of the slab with edges extending to the top of the slab.
_	Materials Identification and Installation:
	Materials and equipment are installed in accordance with the manufacturer's installation instructions. Insulation is installed in substantial contact with the surface being insulated and in a manner that achieves the rated R-value. Materials and equipment are identified so that compliance can be determined. Manufacturer manuals for all installed heating and cooling equipment and service water heating equipment have been provided. Insulation R-values and glazing U-factors are clearly marked on the building plans or specifications.
0	Ouct Insulation:
	Ducts in unconditioned spaces or outside the building are insulated to at least R-8.
	Duct Construction: Sections of ducts in unconditioned spaces and the unconditioned side of plenums are sealed (COMM 22.43). Air handlers, filter boxes, and duct connections to flanges of air distribution system equipment or sheet metal fittings are sealed and
	mechanically fastened. All joints, seams, and connections are made substantially airtight with tapes, gasketing, mastics (adhesives) or other approved closure
	systems. Tapes and mastics are rated UL 181A or UL 181B. Building framing cavities are not used as supply ducts.
	Automatic or gravity dampers are installed on all outdoor air intakes and exhausts. Additional requirements for tape sealing and metal duct crimping are included by an inspection for compliance with the International Mechanical Code.
Т	emperature Controls:
	Thermostats exist for each separate HVAC system. A manual or automatic means to partially restrict or shut off the heating and/or cooling input to each zone or floor is provided.
P	Pipe Insulation:
	All heating pipes in unheated spaces and all cooling pipes in uncooled spaces are insulated with a material providing a minimum thermal resistivity of R-4 (COMM 22.44).
٧	Pentilation:
	Mechanical ventilation systems are "balanced". Passive intake air ducts providing makeup air for intermittent exhaust are sized to provide a minimum of 40% of the total air that would be exhausted with all the intermittent exhaust ventilation in the dwelling operating simultaneously (COMM 22.39).
C	Certificate:
	A permanent certificate is provided on or in the electrical distribution panel listing the predominant insulation R-values; window U-factors; type and efficiency of space-conditioning and water heating equipment.
NOT	ES TO FIELD: (Building Department Use Only)

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Insulation Rating	R-Value	
Ceiling / Roof	49.00	
Above-Grade Wall	21.00	
Below-Grade Wall	0.00	
Floor	30.00	
Ductwork (unconditioned spaces):		
Glass & Door Rating	U-Factor	SHGC
Window	0.29	NA
Door	0.20	NA
Heating & Cooling Equipment	Efficiency	
Heating System:		
Cooling System:	<u> </u>	

Date: .

Comments: