

Window 1: Metal Frame with Thermal Break:Fixed, Perf. Specs.: Product ID Double pane with air gap, SHGC 0.28, PF 0.35, VT 0.20, [Bldg. Use 1 - Convenience Store] (c)	278	---	---	0.330	0.550
Door 1: Glass (> 50% glazing):Metal Frame, Entrance Door, Perf. Specs.: Product ID AGC Double Pane w/ air space, SHGC 0.40, PF 0.35, VT 0.45, [Bldg. Use 1 - Convenience Store] (c)	68	---	---	0.330	0.850
Cast stone over wood studs @ 16" OC: Other Wood Framed Wall, [Bldg. Use 1 - Convenience Store] (b)	175	---	---	0.056	0.089
ACM over wood studs @ 16" OC: Other Wood Framed Wall, [Bldg. Use 1 - Convenience Store] (b)	308	---	---	0.054	0.089
Orientation: UNSPECIFIED ORIENTATION					
Floor 1: Slab-On-Grade:Unheated, Vertical 4 ft., [Bldg. Use 1 - Convenience Store]	302	---	0.0	---	---
Roof 1: Insulation Entirely Above Deck, [Bldg. Use 1 - Convenience Store]	4569	---	38.1	0.026	0.048

(a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.

(b) 'Other' components require supporting documentation for proposed U-factors.

(c) Fenestration product performance must be certified in accordance with NFRC and requires supporting documentation.

Air Leakage, Component Certification, and Vapor Retarder Requirements:

- ☒ 1. All joints and penetrations are caulked, gasketed or covered with a moisture vapor-permeable wrapping material installed in accordance with the manufacturer's installation instructions.
- ☒ 2. Windows, doors, and skylights certified as meeting leakage requirements.
- ☒ 3. Component R-values & U-factors labeled as certified.
- ☒ 4. No roof insulation is installed on a suspended ceiling with removable ceiling panels.
- ☒ 5. 'Other' components have supporting documentation for proposed U-Factors.
- ☒ 6. Insulation installed according to manufacturer's instructions, in substantial contact with the surface being insulated, and in a manner that achieves the rated R-value without compressing the insulation.
- ☒ 7. Stair, elevator shaft vents, and other outdoor air intake and exhaust openings in the building envelope are equipped with motorized dampers.
- ☒ 8. Cargo doors and loading dock doors are weather sealed.
- ☒ 9. Recessed lighting fixtures installed in the building envelope are Type IC rated as meeting ASTM E283, are sealed with gasket or caulk.
- ☒ 10. Building entrance doors have a vestibule equipped with self-closing devices.

Exceptions:

- ☐ Building entrances with revolving doors.
- ☐ Doors not intended to be used as a building entrance.
- ☐ Doors that open directly from a space less than 3000 sq. ft. in area.
- ☐ Doors used primarily to facilitate vehicular movement or materials handling and adjacent personnel doors.
- ☐ Doors opening directly from a sleeping/dwelling unit.

Section 3: Compliance Statement

Compliance Statement: The proposed envelope design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed envelope system has been designed to meet the 2009 IECC requirements in COMcheck Version 4.1.5.5 and to comply with the mandatory requirements in the Requirements Checklist.

JUSTIN NELSON - PROJECT MGR.

Name - Title

Signature

Date

11/10/23



COMcheck Software Version 4.1.5.5

Envelope Compliance Certificate

Section 1: Project Information

Energy Code: **2009 IECC**

Project Title: Casey's General Store

Project Type: New Construction

Construction Site:

Lee's Summit, MO 64082

Owner/Agent:

Shannon Gerard
Casey's General Store
3305 SE Delaware Ave.
Ankeny, IA 50021

Designer/Contractor:

Justin Nelson
Schemmer
1044 N. 115th Street
Suite 300
Omaha, NE 68154
402-431-6315
JNelson@Schemmer.com

Building Location (for weather data):

Lees Summit, Missouri

Climate Zone:

4a

Vertical Glazing / Wall Area Pct.:

8%

Building Use: Activity Type(s)

Floor Area

1-Convenience Store (Retail) : Nonresidential

4572

Section 2: Envelope Assemblies and Requirements Checklist

Envelope PASSES: Design 8% better than code.

Envelope Assemblies:

Component Name/Description	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor(a)
Orientation: NORTH					
Brick over wood studs @ 16" OC: Other Wood Framed Wall, [Bldg. Use 1 - Convenience Store] (b)	604	---	---	0.056	0.089
Door 2: Insulated Metal, Swinging, [Bldg. Use 1 - Convenience Store]	28	---	---	0.200	0.700
Cast stone over wood studs @ 16" OC: Other Wood Framed Wall, [Bldg. Use 1 - Convenience Store] (b)	129	---	---	0.056	0.089
ACM over wood studs @ 16" OC: Other Wood Framed Wall, [Bldg. Use 1 - Convenience Store] (b)	15	---	---	0.054	0.089
Orientation: EAST					
Brick over wood studs @ 16" OC: Other Wood Framed Wall, [Bldg. Use 1 - Convenience Store] (b)	1594	---	---	0.056	0.089
Cast stone over wood studs @ 16" OC: Other Wood Framed Wall, [Bldg. Use 1 - Convenience Store] (b)	40	---	---	0.056	0.089
Orientation: SOUTH					
Brick over wood studs @ 16" OC: Other Wood Framed Wall, [Bldg. Use 1 - Convenience Store] (b)	604	---	---	0.056	0.089
Door 3: Insulated Metal, Swinging, [Bldg. Use 1 - Convenience Store]	28	---	---	0.200	0.700
Cast stone over wood studs @ 16" OC: Other Wood Framed Wall, [Bldg. Use 1 - Convenience Store] (b)	129	---	---	0.056	0.089
ACM over wood studs @ 16" OC: Other Wood Framed Wall, [Bldg. Use 1 - Convenience Store] (b)	15	---	---	0.054	0.089
Orientation: WEST					
Brick over wood studs @ 16" OC: Other Wood Framed Wall, [Bldg. Use 1 - Convenience Store] (b)	841	---	---	0.056	0.089