



# COMcheck Software Version COMcheckWeb

## Envelope Compliance Certificate

### Project Information

Energy Code: 2018 IECC  
Project Title: Lee's Summit, MO  
Location: Lees Summit, Missouri  
Climate Zone: 4a  
Project Type: New Construction  
Vertical Glazing / Wall Area: 6%

Construction Site:  
3544 SW Market St.  
Lee's Summit, Missouri

Owner/Agent:  
Brant Heflin  
Bridgestone Retail Operations LLC  
200 4th Ave. South, Suite 100  
Nashville, Tennessee 37201  
615-927-9251

Designer/Contractor:  
Mitch Garrett  
SGA Design Group, P.C.  
1437 S. Boulder Ave  
Suite 550  
Tulsa 74119  
918-587-8600

### Additional Efficiency Package(s)

High efficiency HVAC. Systems that do not meet the performance requirement will be identified in the mechanical requirements checklist report.

### Building Area

### Floor Area

1-Automotive Facility : Nonresidential

6262

### Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U- Factor <sup>(a)</sup>
Floor 1: Unheated Slab-On-Grade, Vertical 2 ft., [Bldg. Use 1 - Automotive Facility] (d)	354	---	10.0	0.540	0.540
Roof: Other Metal Building Roof, [Bldg. Use 1 - Automotive Facility] (b)	6262	---	---	0.035	0.035
<u>NORTH</u>					
Exterior Wall 2: Other Metal Building Wall, [Bldg. Use 1 - Automotive Facility] (b)	920	---	---	0.052	0.052
Door: Insulated Metal, Swinging, [Bldg. Use 1 - Automotive Facility]	31	---	---	0.610	0.610
<u>EAST</u>					
Ext. Wall: Other Metal Building Wall, [Bldg. Use 1 - Automotive Facility] (b)	2271	---	---	0.052	0.052
<u>SOUTH</u>					
Exterior Wall 1: Other Metal Building Wall, [Bldg. Use 1 - Automotive Facility] (b)	920	---	---	0.052	0.052
Window: Metal Frame Curtain Wall/Storefront, Fixed, Perf. Specs.: Product ID N/A, SHGC 0.43, PF 0.20, [Bldg. Use 1 - Automotive Facility] (c)	270	---	---	0.380	0.380
<u>WEST</u>					
Ext. Wall: Other Metal Building Wall, [Bldg. Use 1 - Automotive Facility] (b)	2429	---	---	0.052	0.052
Window: Metal Frame Curtain Wall/Storefront, Fixed, Perf. Specs.: Product ID N/A, SHGC 0.43, PF 0.20, [Bldg. Use 1 - Automotive Facility] (c)	120	---	---	0.380	0.380

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U- Factor <sup>(a)</sup>
Door: Insulated Metal, Non-Swinging, [Bldg. Use 1 - Automotive Facility]	800	---	---	0.100	0.179
Door: Insulated Metal, Swinging, [Bldg. Use 1 - Automotive Facility]	24	---	---	0.610	0.610

- (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.  
(d) Slab-On-Grade proposed and budget U-factors shown in table are F-factors.

**Envelope PASSES: Design 6% better than code**

## Envelope 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 systems have been designed to meet the 2018 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

\_\_\_\_\_  
Name - Title

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date



# Inspection Checklist

Energy Code: 2018 IECC

Requirements: 0.0% were addressed directly in the COMcheck software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR1] <sup>1</sup>	Plans and/or specifications provide all information with which compliance can be determined for the building envelope and document where exceptions to the standard are claimed.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C402.4.1 [PR10] <sup>1</sup>	The vertical fenestration area $\leq$ 30 percent of the gross above-grade wall area.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C402.4.1 [PR11] <sup>1</sup>	The skylight area $\leq$ 3 percent of the gross roof area.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C402.4.2 [PR14] <sup>1</sup>	In enclosed spaces $>$ 2,500 ft <sup>2</sup> directly under a roof with ceiling heights $>$ 15 ft. and used as an office, lobby, atrium, concourse, corridor, storage, gymnasium/exercise center, convention center, automotive service, manufacturing, non-refrigerated warehouse, retail store, distribution/sorting area, transportation, or workshop, the following requirements apply: (a) the daylight zone under skylights is $\geq$ half the floor area; (b) the skylight area to daylight zone is $\geq$ 3 percent with a skylight VT $\geq$ 0.40; or a minimum skylight effective aperture $\geq$ 1 percent.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	

**Additional Comments/Assumptions:**

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
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Section # & Req.ID	Footing / Foundation Inspection	Complies?	Comments/Assumptions
C303.2 [FO4] <sup>2</sup>	Slab edge insulation installed per manufacturer's instructions.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C303.2.1 [FO6] <sup>1</sup>	Exterior insulation protected against damage, sunlight, moisture, wind, landscaping and equipment maintenance activities.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C402.2.4 [FO7] <sup>2</sup>	Slab edge insulation depth/length. Slab insulation extending away from building is covered by pavement or >= 10 inches of soil.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.

**Additional Comments/Assumptions:**

☐ 1 High Impact (Tier 1)
 ☒ 2 Medium Impact (Tier 2)
 ☐ 3 Low Impact (Tier 3)

Section # & Req.ID	Framing / Rough-In Inspection	Complies?	Comments/Assumptions
C303.1.3 [FR12] <sup>2</sup>	Fenestration products rated in accordance with NFRC.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C303.1.3 [FR13] <sup>1</sup>	Fenestration products are certified as to performance labels or certificates provided.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C402.4.3 [FR10] <sup>1</sup>	Vertical fenestration SHGC value.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
C402.4.3, C402.4.3.4 [FR8] <sup>1</sup>	Vertical fenestration U-Factor.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
C402.4.4 [FR14] <sup>2</sup>	U-factor of opaque doors associated with the building thermal envelope meets requirements.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
C402.5.1.2.1 [FR19] <sup>1</sup>	The building envelope contains a continuous air barrier that is sealed in an approved manner and material permeability $\leq 0.004$ dfm/ft <sup>2</sup> . Air barrier penetrations are sealed in an approved manner.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C402.5.2, C402.5.4 [FR18] <sup>3</sup>	Factory-built fenestration and doors are labeled as meeting air leakage requirements.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C402.5.7 [FR17] <sup>3</sup>	Vestibules are installed on all building entrances. Doors have self-closing devices.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	

**Additional Comments/Assumptions:**

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C402.5.5, C403.2.4. 3 [ME3] <sup>3</sup>	Stair and elevator shaft vents have motorized dampers that automatically close. Refernece section C403.7.7 for operational details.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	

**Additional Comments/Assumptions:**

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
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Section # & Req.ID	Insulation Inspection	Complies?	Comments/Assumptions
C303.1 [IN3] <sup>1</sup>	Roof insulation installed per manufacturer's instructions. Blown or poured loose-fill insulation is installed only where the roof slope is ≤3 in 12.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C402.2.1 [IN20] <sup>1</sup>	Insulation installed on a suspended ceiling having ceiling tiles is not being specified for roof/ceiling assemblies. Continuous insulation board installed in 2 or more layers with edge joints offset between layers.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C303.1 [IN10] <sup>2</sup>	Building envelope insulation is labeled with R-value or insulation certificate providing R-value and other relevant data.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C303.2 [IN7] <sup>1</sup>	Above-grade wall insulation installed per manufacturer's instructions.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C303.2.1 [IN14] <sup>2</sup>	Exterior insulation is protected from damage with a protective material. Verification for exposed foundation insulation may need to occur during Foundation Inspection.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C402.1.3 [IN19] <sup>3</sup>	Non-swinging opaque doors have R-4.75 insulation.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C402.2.3 [IN8] <sup>2</sup>	Floor insulation R-value.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
C402.2.6 [IN18] <sup>3</sup>	Radiant panels and associated components, designed for heat transfer from the panel surfaces to the occupants or indoor space are insulated with a minimum of R-3.5.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C402.5.1.1 [IN1] <sup>1</sup>	All sources of air leakage in the building thermal envelope are sealed, caulked, gasketed, weather stripped or wrapped with moisture vapor-permeable wrapping material to minimize air leakage.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	

**Additional Comments/Assumptions:**

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
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Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C402.5.6 [FI37] <sup>1</sup>	Weatherseals installed on all loading dock cargo door openings and provide direct contact along the top and sides of vehicles parked in the doorway.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C402.5.6 [FI37] <sup>1</sup>	Weatherseals installed on all loading dock cargo door openings and provide direct contact along the top and sides of vehicles parked in the doorway.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C402.5.6 [FI37] <sup>1</sup>	Weatherseals installed on all loading dock cargo door openings and provide direct contact along the top and sides of vehicles parked in the doorway.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C402.5.6 [FI37] <sup>1</sup>	Weatherseals installed on all loading dock cargo door openings and provide direct contact along the top and sides of vehicles parked in the doorway.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C402.5.8 [FI26] <sup>3</sup>	Recessed luminaires in thermal envelope to limit infiltration and be IC rated and labeled. Seal between interior finish and luminaire housing.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	

**Additional Comments/Assumptions:**

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
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