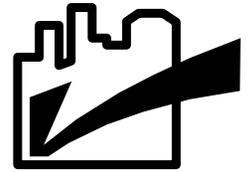


# State Maps and Prescriptive Packages

---



COMcheck-EZ™

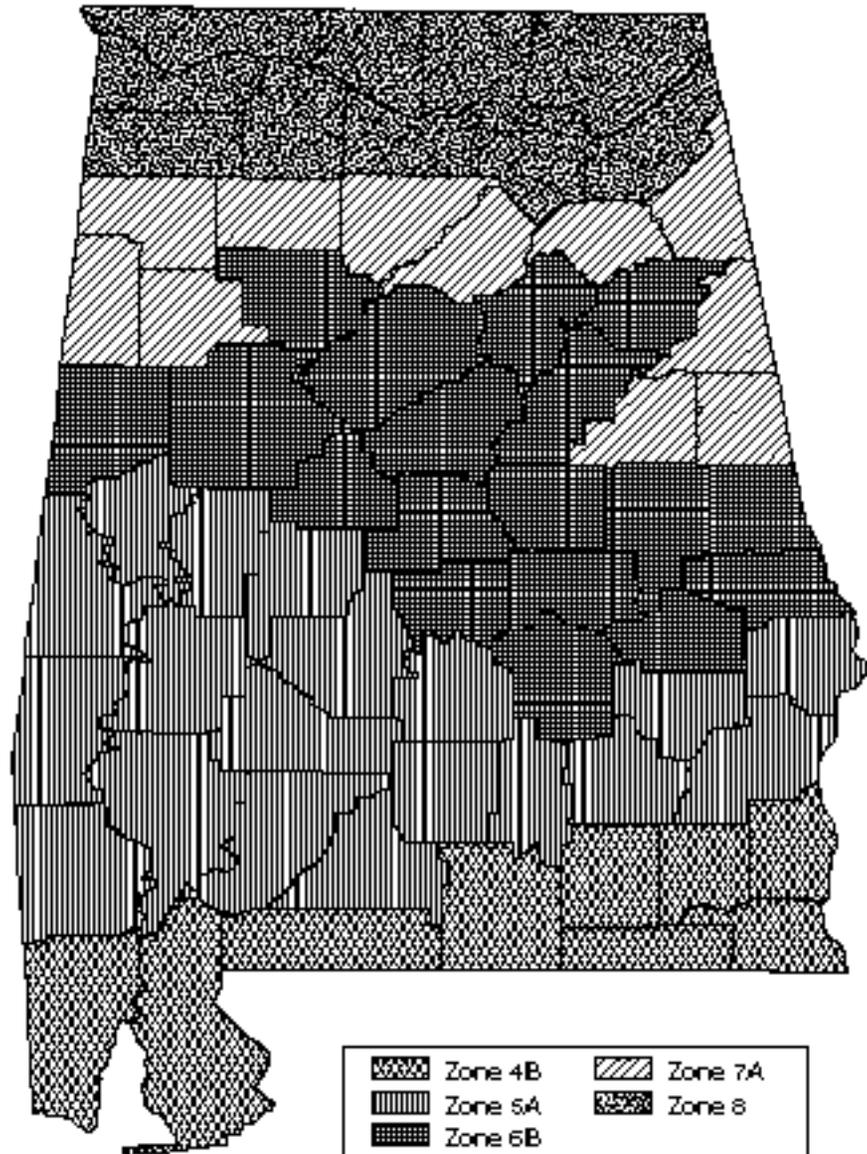
January 1997

The COMcheck-EZ™ State Maps and Prescriptive Packages contain supporting materials that are needed when using the Envelope and Mechanical Compliance Guides. Insulation and other building envelope requirements and mechanical system requirements vary with climate. The COMcheck-EZ State Maps divide the United States into 33 different climate zones at a county level. Zones are numbered from 1 through 19 (for consistency with the MECcheck climate zones) and have a, b, and c designations to reflect climate differences that affect cooling.

To determine the climate zone to use with your building, locate the map for your state and identify the zone number from the legend or county list.

To determine insulation and other building envelope requirements, find the prescriptive package number corresponding to your climate zone. The Envelope Compliance Guide employs a package approach that requires all components in your design meet or exceed the prescribed efficiency levels contained in the prescriptive package. If you find the prescriptive packages too constraining, consider using the COMcheck-EZ software, which allows tradeoffs among building envelope components.

# ALABAMA



Zone	County	Zone	County
6B	Autauga	4B	Houston
4B	Baldwin	8	Jackson
5A	Barbour	6B	Jefferson
6B	Bibb	7A	Lamar
7A	Blount	8	Lauderdale
5A	Bullock	8	Lawrence
5A	Butler	6B	Lee
6B	Calhoun	8	Limestone
6B	Chambers	5A	Lowndes
7A	Cherokee	6B	Macon
6B	Chilton	8	Madison
5A	Choctaw	5A	Marengo
5A	Clarke	7A	Marion
7A	Clay	8	Marshall
7A	Cleburne	4B	Mobile
4B	Coffee	5A	Monroe
8	Colbert	6B	Montgomery
5A	Conecuh	8	Morgan
6B	Coosa	5A	Perry
4B	Covington	6B	Pickens
5A	Crenshaw	5A	Pike
7A	Cullman	7A	Randolph
4B	Dale	5A	Russell
5A	Dallas	6B	Shelby
8	De Kalb	6B	St Clair
6B	Elmore	5A	Sumter
4B	Escambia	6B	Talladega
7A	Etowah	6B	Tallapoosa
7A	Fayette	6B	Tuscaloosa
8	Franklin	6B	Walker
4B	Geneva	5A	Washington
5A	Greene	5A	Wilcox
5A	Hale	7A	Winston
4B	Henry		

COMcheck-EZ™ Prescriptive Packages

Climate Zone 4b

Envelope Component	Low Fenestration Area (0-10% Window-Wall Ratio)			Medium Fenestration Area (10%-25% Window-Wall Ratio)			High Fenestration Area (25%-40% Window-Wall Ratio)		
	No Framing	Metal Framing	Wood Framing	No Framing	Metal Framing	Wood Framing	No Framing	Metal Framing	Wood Framing
<b>Walls</b> <sup>(a)</sup>									
Framed Any Spacing <i>Minimum R-value</i>	NA	11	11	NA	11	11	NA	11	11
CMU, 8" or greater with Integral Insulation(b) <i>Minimum R-value</i>	0	0	0	0	0	0	0	0	0
All Other Masonry Walls <i>Minimum R-value</i>	0	0	0	5	11	11	5	11	11
<b>Windows</b>	No Projection	≥.25 Projection	≥.5 Projection	No Projection	≥.25 Projection	≥.5 Projection	No Projection	≥.25 Projection	≥.5 Projection
<i>Maximum Solar Heat Gain Coefficient</i>	Any	Any	Any	0.6	0.7	Any	0.4	0.5	0.6
<i>Maximum U-Factor</i>	Any	Any	Any	Any	Any	Any	0.7	0.7	0.7
<b>Skylight (Limit 3% of Roof Area)</b>									
<i>Maximum U-Factor</i>	1			1			1		
<b>Roof</b>	Continuous Insulation	or	Roof Cavity Insulation	Continuous Insulation	or	Roof Cavity Insulation	Continuous Insulation	or	Roof Cavity Insulation
All-Wood Joist/Truss <i>Minimum R-Value</i>	16		19	16		19	16		19
Nonwood Joist/Truss <i>Minimum R-Value</i>	17		25	17		25	17		25
Concrete Slab or Deck <i>Minimum R-Value</i>	16		NA	16		NA	16		NA
Metal Purlin with Thermal Break <i>Minimum R-Value</i>	17		25	17		25	17		25
Metal Purlin without Thermal Break <i>Minimum R-Value</i>	17		X	17		X	17		X
<b>Floor</b>	Continuous Insulation	or	Floor Cavity Insulation	Continuous Insulation	or	Floor Cavity Insulation	Continuous Insulation	or	Floor Cavity Insulation
All-Wood Joist/Truss <i>Minimum R-Value</i>	4		11	4		11	4		11
Nonwood Joist/Truss <i>Minimum R-Value</i>	4		11	4		11	4		11
Concrete Slab or Deck <i>Minimum R-Value</i>	4		NA	4		NA	4		NA
<b>Slab Edge or Basement Walls</b>	Insulation			Insulation			Insulation		
<i>Minimum R-Value</i>	0			0			0		

Notes:

- (a) For walls next to unconditioned spaces, use the Low Fenestration Area wall requirements.
- (b) Integral insulation in concrete masonry units may be perlite, vermiculite, or other insulating material.

- "NA" indicates the category is not applicable.
- A minimum R-value of zero indicates no insulation is required.
- "Any" indicates any available product will comply.
- "X" indicates no complying option exists in the prescriptive packages.

COMcheck-EZ™ Prescriptive Packages

Climate Zone 5a

Envelope Component	Low Fenestration Area (0-10% Window-Wall Ratio)			Medium Fenestration Area (10%-25% Window-Wall Ratio)			High Fenestration Area (25%-40% Window-Wall Ratio)		
	No Framing	Metal Framing	Wood Framing	No Framing	Metal Framing	Wood Framing	No Framing	Metal Framing	Wood Framing
<b>Walls</b> <sup>(a)</sup>									
Framed Any Spacing <i>Minimum R-value</i>	NA	11	11	NA	11	11	NA	11	11
CMU, 8" or greater with Integral Insulation(b) <i>Minimum R-value</i>	0	0	0	0	0	0	0	0	0
All Other Masonry Walls <i>Minimum R-value</i>	0	0	0	5	11	11	5	11	11
<b>Windows</b>	No Projection	≥.25 Projection	≥.5 Projection	No Projection	≥.25 Projection	≥.5 Projection	No Projection	≥.25 Projection	≥.5 Projection
<i>Maximum Solar Heat Gain Coefficient</i>	Any	Any	Any	0.6	0.7	Any	0.5	0.6	0.7
<i>Maximum U-Factor</i>	Any	Any	Any	Any	Any	Any	0.7	0.7	0.7
<b>Skylight (Limit 3% of Roof Area)</b>									
<i>Maximum U-Factor</i>	1			1			1		
<b>Roof</b>	Continuous Insulation	or	Roof Cavity Insulation	Continuous Insulation	or	Roof Cavity Insulation	Continuous Insulation	or	Roof Cavity Insulation
All-Wood Joist/Truss <i>Minimum R-Value</i>	14		19	16		19	16		19
Nonwood Joist/Truss <i>Minimum R-Value</i>	15		19	17		25	17		25
Concrete Slab or Deck <i>Minimum R-Value</i>	14		NA	16		NA	16		NA
Metal Purlin with Thermal Break <i>Minimum R-Value</i>	15		25	17		25	17		25
Metal Purlin without Thermal Break <i>Minimum R-Value</i>	15		X	17		X	17		X
<b>Floor</b>	Continuous Insulation	or	Floor Cavity Insulation	Continuous Insulation	or	Floor Cavity Insulation	Continuous Insulation	or	Floor Cavity Insulation
All-Wood Joist/Truss <i>Minimum R-Value</i>	5		11	5		11	5		11
Nonwood Joist/Truss <i>Minimum R-Value</i>	6		11	6		11	6		11
Concrete Slab or Deck <i>Minimum R-Value</i>	5		NA	5		NA	5		NA
<b>Slab Edge or Basement Walls</b>	Insulation			Insulation			Insulation		
<i>Minimum R-Value</i>	0			0			0		

Notes:

- (a) For walls next to unconditioned spaces, use the Low Fenestration Area wall requirements.
- (b) Integral insulation in concrete masonry units may be perlite, vermiculite, or other insulating material.

- "NA" indicates the category is not applicable.
- A minimum R-value of zero indicates no insulation is required.
- "Any" indicates any available product will comply.
- "X" indicates no complying option exists in the prescriptive packages.

COMcheck-EZ™ Prescriptive Packages

Climate Zone 6b

Envelope Component	Low Fenestration Area (0-10% Window-Wall Ratio)			Medium Fenestration Area (10%-25% Window-Wall Ratio)			High Fenestration Area (25%-40% Window-Wall Ratio)		
	No Framing	Metal Framing	Wood Framing	No Framing	Metal Framing	Wood Framing	No Framing	Metal Framing	Wood Framing
<b>Walls</b> <sup>(a)</sup>									
Framed Any Spacing <i>Minimum R-value</i>	NA	11	11	NA	11	11	NA	11	11
CMU, 8" or greater with Integral Insulation(b) <i>Minimum R-value</i>	0	0	0	0	0	0	0	0	0
All Other Masonry Walls <i>Minimum R-value</i>	0	0	0	5	11	11	5	11	11
<b>Windows</b>	No Projection	≥.25 Projection	≥.5 Projection	No Projection	≥.25 Projection	≥.5 Projection	No Projection	≥.25 Projection	≥.5 Projection
<i>Maximum Solar Heat Gain Coefficient</i>	Any	Any	Any	0.6	0.7	Any	0.5	0.6	0.7
<i>Maximum U-Factor</i>	Any	Any	Any	Any	Any	Any	0.7	0.7	0.7
<b>Skylight (Limit 3% of Roof Area)</b>									
<i>Maximum U-Factor</i>		1			1			1	
<b>Roof</b>	Continuous Insulation	or	Roof Cavity Insulation	Continuous Insulation	or	Roof Cavity Insulation	Continuous Insulation	or	Roof Cavity Insulation
All-Wood Joist/Truss <i>Minimum R-Value</i>	16		19	16		19	19		25
Nonwood Joist/Truss <i>Minimum R-Value</i>	17		25	17		25	20		25
Concrete Slab or Deck <i>Minimum R-Value</i>	16		NA	16		NA	19		NA
Metal Purlin with Thermal Break <i>Minimum R-Value</i>	17		25	17		25	20		30
Metal Purlin without Thermal Break <i>Minimum R-Value</i>	17		X	17		X	20		X
<b>Floor</b>	Continuous Insulation	or	Floor Cavity Insulation	Continuous Insulation	or	Floor Cavity Insulation	Continuous Insulation	or	Floor Cavity Insulation
All-Wood Joist/Truss <i>Minimum R-Value</i>	6		11	6		11	6		11
Nonwood Joist/Truss <i>Minimum R-Value</i>	6		11	6		11	6		11
Concrete Slab or Deck <i>Minimum R-Value</i>	6		NA	6		NA	6		NA
<b>Slab Edge or Basement Walls</b>		Insulation			Insulation			Insulation	
<i>Minimum R-Value</i>		0			0			0	

Notes:

- (a) For walls next to unconditioned spaces, use the Low Fenestration Area wall requirements.
- (b) Integral insulation in concrete masonry units may be perlite, vermiculite, or other insulating material.

- "NA" indicates the category is not applicable.
- A minimum R-value of zero indicates no insulation is required.
- "Any" indicates any available product will comply.
- "X" indicates no complying option exists in the prescriptive packages.

COMcheck-EZ™ Prescriptive Packages

Climate Zone 7a

Envelope Component	
<b>Walls</b> <sup>(a)</sup>	
Framed Any Spacing	Minimum R-value
CMU, 8" or greater with Integral Insulation(b)	Minimum R-value
All Other Masonry Walls	Minimum R-value

Low Fenestration Area (0-10% Window-Wall Ratio)			
No Framing	Metal Framing	or	Wood Framing
NA	11		11
0	0		0
5	11		11

Medium Fenestration Area (10%-25% Window-Wall Ratio)			
No Framing	Metal Framing	or	Wood Framing
NA	11		11
0	0		0
5	11		11

High Fenestration Area (25%-40% Window-Wall Ratio)			
No Framing	Metal Framing	or	Wood Framing
NA	11		11
5	11		11
5	11		11

Windows	
	Maximum Solar Heat Gain Coefficient
	Maximum U-Factor

No Projection	≥.25 Projection	or	≥.5 Projection
Any	Any		Any
Any	Any		Any

No Projection	≥.25 Projection	or	≥.5 Projection
0.5	0.6		0.7
0.7	0.7		0.7

No Projection	≥.25 Projection	or	≥.5 Projection
0.4	0.5		0.6
0.7	0.7		0.7

Skylight (Limit 3% of Roof Area)	
	Maximum U-Factor

Skylight (Limit 3% of Roof Area)		
		0.8

Skylight (Limit 3% of Roof Area)		
		0.8

Skylight (Limit 3% of Roof Area)		
		0.8

Roof	
All-Wood Joist/Truss	Minimum R-Value
Nonwood Joist/Truss	Minimum R-Value
Concrete Slab or Deck	Minimum R-Value
Metal Purlin with Thermal Break	Minimum R-Value
Metal Purlin without Thermal Break	Minimum R-Value

Continuous Insulation	or	Roof Cavity Insulation
14		19
15		19
14		NA
15		25
15		X

Continuous Insulation	or	Roof Cavity Insulation
19		25
20		25
19		NA
20		30
20		X

Continuous Insulation	or	Roof Cavity Insulation
19		25
20		25
19		NA
20		30
20		X

Floor	
All-Wood Joist/Truss	Minimum R-Value
Nonwood Joist/Truss	Minimum R-Value
Concrete Slab or Deck	Minimum R-Value

Continuous Insulation	or	Floor Cavity Insulation
8		11
9		11
8		NA

Continuous Insulation	or	Floor Cavity Insulation
8		11
9		11
8		NA

Continuous Insulation	or	Floor Cavity Insulation
8		11
9		11
8		NA

Slab Edge or Basement Walls	
	Minimum R-Value

Slab Edge or Basement Walls		
		Insulation
		0

Slab Edge or Basement Walls		
		Insulation
		0

Slab Edge or Basement Walls		
		Insulation
		0

Notes:

- (a) For walls next to unconditioned spaces, use the Low Fenestration Area wall requirements.
- (b) Integral insulation in concrete masonry units may be perlite, vermiculite, or other insulating material.

- "NA" indicates the category is not applicable.
- A minimum R-value of zero indicates no insulation is required.
- "Any" indicates any available product will comply.
- "X" indicates no complying option exists in the prescriptive packages.

COMcheck-EZ™ Prescriptive Packages Climate Zone 8

Envelope Component	Low Fenestration Area (0-10% Window-Wall Ratio)			Medium Fenestration Area (10%-25% Window-Wall Ratio)			High Fenestration Area (25%-40% Window-Wall Ratio)		
	No Framing	Metal Framing	Wood Framing	No Framing	Metal Framing	Wood Framing	No Framing	Metal Framing	Wood Framing
<b>Walls</b> <sup>(a)</sup>									
Framed Any Spacing <i>Minimum R-value</i>	NA	11	11	NA	13	11	NA	13	11
CMU, 8" or greater with Integral Insulation(b) <i>Minimum R-value</i>	5	11	11	5	11	11	5	11	11
All Other Masonry Walls <i>Minimum R-value</i>	5	11	11	6	13	11	6	13	11
<b>Windows</b>									
<i>Maximum Solar Heat Gain Coefficient</i>	No Projection	≥.25 Projection	≥.5 Projection	No Projection	≥.25 Projection	≥.5 Projection	No Projection	≥.25 Projection	≥.5 Projection
<i>Maximum U-Factor</i>	Any	Any	Any	0.5	0.6	0.7	0.4	0.5	0.6
	Any	Any	Any	0.7	0.7	0.7	0.5	0.5	0.5
<b>Skylight (Limit 3% of Roof Area)</b>									
<i>Maximum U-Factor</i>	0.8			0.8			0.8		
<b>Roof</b>									
All-Wood Joist/Truss <i>Minimum R-Value</i>	Continuous Insulation	or	Roof Cavity Insulation	Continuous Insulation	or	Roof Cavity Insulation	Continuous Insulation	or	Roof Cavity Insulation
Nonwood Joist/Truss <i>Minimum R-Value</i>	14		19	19		25	19		25
Concrete Slab or Deck <i>Minimum R-Value</i>	15		19	20		25	20		25
Metal Purlin with Thermal Break <i>Minimum R-Value</i>	14		NA	19		NA	19		NA
Metal Purlin without Thermal Break <i>Minimum R-Value</i>	15		25	20		30	20		30
	15		X	20		X	20		X
<b>Floor</b>									
All-Wood Joist/Truss <i>Minimum R-Value</i>	Continuous Insulation	or	Floor Cavity Insulation	Continuous Insulation	or	Floor Cavity Insulation	Continuous Insulation	or	Floor Cavity Insulation
Nonwood Joist/Truss <i>Minimum R-Value</i>	9		11	9		11	9		11
Concrete Slab or Deck <i>Minimum R-Value</i>	10		11	10		11	10		11
	9		NA	9		NA	9		NA
<b>Slab Edge or Basement Walls</b>									
<i>Minimum R-Value</i>	Insulation			Insulation			Insulation		
	0			0			0		

Notes:

- (a) For walls next to unconditioned spaces, use the Low Fenestration Area wall requirements.
- (b) Integral insulation in concrete masonry units may be perlite, vermiculite, or other insulating material.

- "NA" indicates the category is not applicable.
- A minimum R-value of zero indicates no insulation is required.
- "Any" indicates any available product will comply.
- "X" indicates no complying option exists in the prescriptive packages.