

## SCHEDULE "B"

The State Housing Board adopts the following nationally recognized codes as the "Colorado Construction Safety Code for Factory-Built Housing".

### Factory-Built Housing Construction Code of the State of Colorado

Shall be:

Uniform Building Code Volumes I, II and III - 1997 Edition,  
Uniform Mechanical Code - 1997 Edition (ICBO)  
Uniform Plumbing Code - 1997 Edition (IAPMO)  
National Electric Code - 1999 Edition  
International Plumbing Code - 1997 Edition,  
International Mechanical Code - 1996 Edition  
Model Energy Code - 1993 Edition

### AMENDMENTS:

The following amendments by addition, deletion, revision and exceptions are made to the **Uniform Building Code 1997 Edition.**

1. Section 1607.5 - Snowslide - is amended to include: The 15% adjustment for wood and mechanical fastening for duration, as for snow, may **not** be taken when the snow load is 65 lb. per sq. ft. or above.
2. Section 1614 is amended to read: Snow load design criteria will be in accordance with a pamphlet entitled; 1989 Survey of Colorado Building Departments, dated May 1990, prepared by the Structural Engineers Association of Colorado with a minimum snow load design criteria of 30 psf.

3. Section 1618 is amended to read: Wind load design criteria will be in accordance with a pamphlet entitled; 1989 Survey of Colorado Building Departments, dated May 1990, prepared by the Structural Engineers Association of Colorado with a minimum wind load design criteria of 80 mph, Exposure C, unless otherwise justified.

4. TABLE NO. 15-B-1 - ASPHALT SHINGLE APPLICATION; 15-B-2 - WOOD SHINGLE OR SHAKE APPLICATION; 15-D-1 - ROOFING TILE APPLICATION FOR ALL TILES; 15-D-2 - CLAY OR CONCRETE ROOFING TILE APPLICATION INTERLOCKING TILE WITH PROJECTING ANCHOR LUGS shall be amended, regardless of roof slope or material, when the snow load is above sixty-five pounds per square foot (65lb./sq.ft.), to read:

"Roofing underlayment shall be two layers of Type 15 felt applied shingle fashion and solid mopped together with approved cementing material between the plies or 40 mil listed self adhesive roofing membrane and shall be installed extending from the eave up the roof to a point 8 feet 6 inches inside the exterior wall line of the building and shall extend continuously to a point 4 feet from any valley, cricket of similar construction junctions with roofs."

5. Section 3102.5 is amended to include:

D. Air Quality Control Requirements for Installation of Fireplaces. Installation of all fire places in units sold or offered for sale in Colorado are prohibited unless, it is **ONE** of the following:

(1) A gas appliance that is vented to the exterior.

(2) An electric device.

(3) A wood fired space heating appliance with an EPA Phase II or Colorado Department of Health, Air Quality Control Phase III Certificate. This certificate means that a residential or commercial appliance designed for or capable of burning wood, including a fireplace insert, has been tested, certified, and labeled for emission performance in accordance with criteria and procedures specified in Federal Regulation 40 CFR part 60, Subpart AAA. The emission requirements for noncatalytic combustion appliances are less than 7.5 grams per hour per particulate. For catalytic combustion appliances it is less than 4.1 grams per hour per particulate.

**COLORADO APPROVED PELLET STOVES\***  
(as of 9-3-99)

<u>Manufacturer</u>	<u>Model</u>
Aladdin Steel	Quadrafire 1000
Aladdin Steel	Quadrafire 1100 Hearth Classic
Aladdin Steel	Quadrafire QF 800
Austroflamm	Intergra FS
Brass Flame Woodstoves	Pure Fire
Country Flame	NPS-1000
Earth Stove	MP240, MP250, HP40, TP40, MP40
Earth Stove	TP40N, TP340, TP440, MP35/50
Fabco	Night Fire: 3000, 5000
Freeland Flame	Model II
GloKing	PF100, P-110F, P-100I
GloKing	P-75F & P-75I
Harman Stove Company	P-38
Heating Energy Systems	Trailblazer Classic 1600 PS
Heating Energy Systems	Trailblazer Classic 1600 PI
Heating Energy Systems	Trailblazer Classic II 1640
Hi-Tech Stove	Jamestown J1000B, J2000T
Nat. Steelcrafters of Oregon	Breckwell: P-32 Cadet, P-24 FS
Nat. Steelcrafters of Oregon	Breckwell: P-26 Cadet, P-24I
Pellet Master	Model PM 3000
Pellet Master	Model PM 3000 Titan
Pellet Master	Model PM 2000, Model PM 5000
Pyro Industries	Whitfield Renaissance WWI
Pyro Industries	Quest Pellet Stove
Pyro Industries	Prodigy WP-3A
Pyro Industries	Cascade Pellet Stove
Regency Ind.	PR-67
Reliant Ind.	Tempest: PS, SH (Avent)
Relilant Ind.	Bridgeport PS, Baron PS
Sherwood Ind.	Envirofire II PS

\*Source: Colorado Department of Health  
Air Quality Control Commission

**COLORADO APPROVED PELLET STOVES\***  
(as of 9-3-99)

<u>Manufacturer</u>	<u>Model</u>
Teton Stove Co.	TS 92 E
Thelin Co.	Model V (Turbo)
Travis Ind., Inc.	Avalon 900 PS Pellet Stove
Travis Ind., Inc.	Foxfire (400) PS Pellet Stove
Waterford Irish Stoves	Emerald Pellet Stove
Winrich Int.	Dynasty
Winstar Energy Management	Starlite 22, Winston 23

**\*Source:** Colorado Department of Health  
Air Quality Control Commission

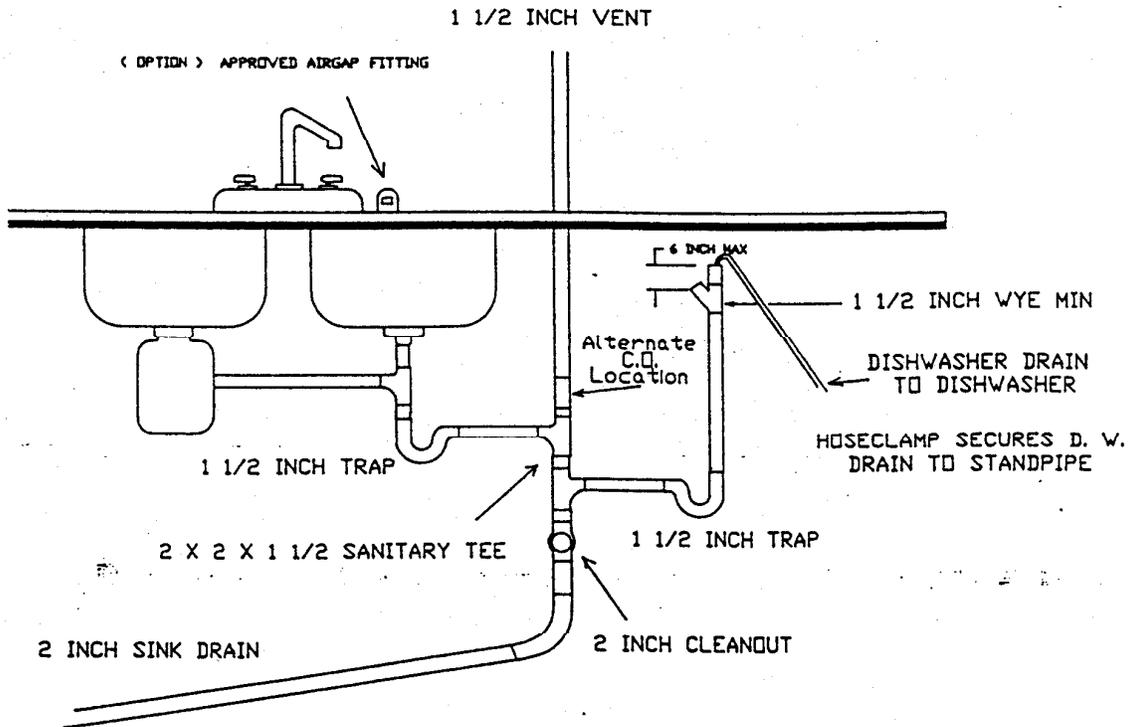
6. Appendix Chapter 13: Section 1302.2 is amended to read: "Code for Energy Conservation in new building construction shall be designed to comply with the requirements of the Model Energy Code , Council of American Building Officials (CABO) 1993 Edition" and Attachments A and B:

- A. "Elevation, Latitude and Degree Days for Colorado Cities and Towns".
- B. "Design Temperature for Colorado Cities and Towns".

The following amendments by addition, deletion, revision and exceptions are made to the **Uniform Plumbing Code 1997 Edition**.

1. Section 807.4 is amended to read: No domestic dishwashing machine shall be directly connected to a drainage system or food waste disposer without the use of an approved dishwater airgap fitting on the discharge side of the dishwashing machine. Listed airgaps shall be installed with the flood level (FL) marking at or above the flood level of the sink or drainboard, whichever is higher, or separately trapped with the airbreak located on the stand pipe.

### 807.4 Illustration



The following amendments by addition, deletion, revision and exceptions are made to the **National Electrical Code, 1999 Edition**, for use with all Factory Built units:

1. Article 410-57(c), (1) Shower or Bathroom space. Receptacle outlet shall not be installed in or within 30 inch (762 mm) of a shower or bathtub base.
2. Article 545, Manufactured Buildings, is amended to include: 545.14. Testing.

(A) Dielectric Strength Test. The wiring of each factory built unit shall be subjected to a 1-minute, 900-volt, dielectric strength test (with all switches closed) between live parts (including neutral) and the ground. Alternatively, the test shall be permitted to be performed at 1,080 volts for 1 second. This test shall be performed after branch circuits are complete and after fixtures or appliances are installed. Exception: Listed fixtures or appliances shall not be required to withstand the dielectric strength test.

(B) Continuity and Operational Tests and Polarity Checks. Each manufactured building shall be subjected to:

- (1) An electrical continuity test to ensure that all exposed electrically conductive parts are properly bonded;
- (2) An electrical operational test to demonstrate that all equipment, except water heaters and electric furnaces, is connected and in working order; and
- (3) Electrical polarity checks of permanently wired equipment and receptacle outlets to determine that connections have been properly made.

**ATTACHMENT "A"**  
**ELEVATION, LATITUDE AND DEGREE DAYS**  
**FOR COLORADO CITIES AND TOWNS**

	<u>Location</u>	<u>Elevation</u>	<u>North Latitude</u>		<u>Degree Day</u>	
			<u>Degrees/Minutes</u>		<u>Heating/Cooling</u>	
1	Alamosa Airport	7546	37°	27'	8609	88
2	Aspen	7928	39	11	8948	22
3	Boulder	5385	40	00	5540	842
4	Buena Vista	7954	38	51	7715	83
5	Burlington	4165	39	19	5738	878
6	Canon City	5343	38	26	4660	917
7	Cheyenne Wells	4250	33	49	5860	899
8	Colorado Springs					
	Airport	6173	38	49	6473	461
9	Cortez	6177	37	21	6239	465
10	Craig	6280	40	31	8376	152
11	Creede	8842	37	50*	-----	-----
12	Del Norte	7884	37	40	7984	38
13	Delta	4961	38	46	5903	678
14	Denver Airport	5283	39	45	6016	625
15	Denver City (Roof					
	Exposure)	5320	39	45	5505	742
16	Dillon	9065	39	38	10854	0
17	Dove Creek	6843	37	45*	-----	-----
18	Durango	6550	37	17	6930	188
19	Eagle	6497	39	39	8426	117
20	Estes Park	7525	40	23	7970	34

Elevations and Degree Day taken from Climate Data for Air Conditioning Design, 1976, Rocky Chapter, American Society of Heating, Refrigerating & Air Conditioning Engineers (ASHRAE).

With certain exceptions indicated by \*, Latitudes taken from U.S. Dept. of Commerce, National Oceanic & Atmospheric Administration Records, Ashville 7-73-1150.

\*Data supplied by Colorado Division of Highways

**ELEVATION, LATITUDE AND DEGREE DAYS  
FOR COLORADO CITIES AND TOWNS**

	<u>Location</u>	<u>Elevation</u>	<u>North Latitude</u>		<u>Degree Day</u>	
			<u>Degrees/Minutes</u>		<u>Heating/Cooling</u>	
21	Ft. Collins	5001	40	35	6599	430
22	Ft. Morgan	4321	40	15	6511	706
23	Fraser	8560	39	57	11760	0
24	Glenwood Springs 5823	39	34	----	----	
25	Granby	7935	40	00*	----	----
26	Grand Junction					
	Airport	4849	39	07	5605	1140
27	Greeley	4648	40	25	6639	622
28	Gunnison	7664	38	32	9941	15
29	Holyoke	3746	40	35	6143	849
30	Idaho Springs	7555	39	45	7911	44
31	Julesburg	3469	41°	00'	5984	952
32	Kit Carson	4284	38	46	5959	884
33	Kremmling	7359	40	00*	----	----
34	La Junta Airport 4188	38	03	----	----	
35	Lamar	3635	38	07	5402	1199
36	Last Chance	4790	39	45	----	----
37	Leadville	10177	39	15	----	----
38	Limon	5557	39	09	10671	0
39	Longmont	4950	40	10	6459	502
40	Meeker	6347	40	04	7714	162
41	Montrose	5830	38	29	6325	559

Elevations and Degree Day taken from Climate Data for Air Conditioning Design, 1976, Rocky Chapter, American Society of Heating, Refrigerating & Air Conditioning Engineers (ASHRAE).

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FOR COLORADO CITIES AND TOWNS**

	<u>Location</u>	<u>Elevation</u>	<u>North Latitude</u>		<u>Degree Day</u>	
			<u>Degrees/Minutes</u>		<u>Heating/Cooling</u>	
42	Ouray	7740	38	01	-----	----
43	Pagosa Springs	7238	37	16	8417	123
44	Pueblo Airport	4639	38	17	5394	981
45	Rangely	5250	40	04	-----	----
46	Rifle	5345	39	32	6795	344
47	Saguache	7697	38	05	8027	67
48	Salida	7050	38	32	6910	108
49	San Luis	7990	37	15*	5642	705
50	Silverton	9322	37	48	10669	0
51	Springfield	4410	37		24	-----
52	Steamboat Springs	6770	40		30	9523 18
53	Sterling	3939	40		37	6638 664
54	Trinidad Airport 5746		17		15	5642 705
55	Uravan	5010	38		30*	-----
56	Vail	8150	39		45*	-----
57	Walden	8099	40		44	10357 0
58	Walsenburg	6220	37		37	5460 542
59	Wray	3560	40		04	5881 939
60	Yuma	4125	40		07	6051 887

Elevations and Degree Day taken from Climate Data for Air Conditioning Design, 1976, Rocky Chapter, American Society of Heating, Refrigerating & Air Conditioning Engineers (ASHRAE).

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**ATTACHMENT B**  
**SUPPLEMENT TO CLIMATE DATA FOR AIR CONDITIONING DESIGN**  
**ROCKY MOUNTAIN CHAPTER REGION**  
**COLORADO, WYOMING, MONTANA & ENVIRONS -- 4/20/78**  
**Published by Rocky Mountain Chapter ASHRAE**  
**First Edition - Centennial 1976<sup>1</sup>**

**DESIGN TEMPERATURES FOR COLORADO CITIES AND TOWNS**

	<u>Location</u>	Summer <sup>2</sup>	Winter <sup>2</sup>	<u>Dry Bulb</u>
		2 1/2%	97 1/2%	
		<u>Dry Bulb</u>	<u>Wet Bulb</u>	
1	Alamosa	82°F	61°F	-16°F
2	Aspen	81	59	- 1
3	Boulder	90	63	8
4	Buena Vista	83	58	- 1
5	Burlington	95	70	2
6	Canon City	90	64	8
7	Cheyenne Wells	97	70	1
8	Colorado Springs			
	Airport	88	62	4
9	Cortez	88	63	5
10	Craig	86	61	-14
11	Creede	80	58	-18
12	Del Norte	81	60	- 4
13	Delta	95	62	6
14	Denver Airport	90	64	3
15	Denver City (Roof exposure)	90	64	8
16	Dillon	77	58	-16
17	Dove Creek	86	63	- 6
18	Durango	86	63	4
19	Eagle	87	62	-11

<sup>1</sup> Any small variation between the data presented here and 1972 ASHRAE BOOK OF FUNDAMENTALS is due to expanded use of detailed historical weather data.

<sup>2</sup> Column % as described by footnotes "a" in 1972 ASHRAE BOOK OF FUNDAMENTALS.

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		2 1/2%	97 1/2%	
		<u>Dry Bulb</u>	<u>Wet Bulb</u>	
20	Estes Park	79°F	58°F	- 7°F
21	Fort Collins	89	62	- 4
22	Fort Morgan	92	65	- 5
23	Fraser	76	58	-22
24	Glenwood Springs	91	63	5
25	Granby	32	58	-16
26	Grand Junction			
	Airport	94	63	11
27	Greeley	92	64	- 5
28	Gunnison	83	59	-17
29	Holyoke	97	69	- 2
30	Idaho Springs	81	59	0
31	Julesburg	98	69	- 3
32	Kit Carson	98	68	- 1
33	Kremmling	85	59	-19
34	La Junta Airport	97	71	1
35	Lamar	98	71	0
36	Last Chance	92	65	- 2
37	Leadville	74	55	- 4
38	Limon	91	65	0
39	Longmont	91	64	- 2
40	Meeker	87	61	- 6
41	Montrose	91	61	7
42	Ouray	83	59	7

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	<u>Location</u>	<u>Dry Bulb</u>	<u>Wet Bulb</u>	<u>Dry Bulb</u>
43	Pagosa Springs	85°F	61°F	- 9°F
44	Pueblo Airport	94	67	- 1
45	Rangely	93	62	- 8
46	Rifle	92	63	0
47	Saguache	82	61	- 3
48	Salida	84	59	- 3
49	San Luis	84	60	-10
50	Silverton	77	56	-13
51	Springfield	95	71	3
52	Steamboat Springs	84	61	-16
53	Sterling	93	68	- 2
54	Trinidad Airport	91	65	- 1
55	Uravan	97	63	8
56	Vail	78	59	-14
57	Walden	79	58	-17
58	Walsenburg	90	63	1
59	Wray	95	69	- 1
60	Yuma	95	69	- 2

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