



## APPENDIX A

# PLUMBING PERMIT FEE SCHEDULE

*The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.*

### Permit Issuance

1. For issuing each permit . . . . . \$ \_\_\_\_\_
2. For issuing each supplemental permit . . . . . \_\_\_\_\_

### Unit Fee Schedule

1. For each plumbing fixture or trap or set of fixtures on one trap (including water, drainage piping and backflow protection thereof). . . . . \_\_\_\_\_
2. For each building sewer and each trailer park sewer . . . . . \_\_\_\_\_
3. Rainwater systems—per drain (inside building) . . . . . \_\_\_\_\_
4. For each cesspool (where permitted) . . . . . \_\_\_\_\_
5. For each private sewage disposal system . . . . . \_\_\_\_\_
6. For each water heater and/or vent. . . . . \_\_\_\_\_
7. For each industrial waste pretreatment interceptor including its trap and vent, excepting kitchen-type grease interceptors functioning as fixture traps . . . . . \_\_\_\_\_
8. For installation, alteration or repair of water-piping and/or water-treating equipment, each . . . . . \_\_\_\_\_
9. For repair or alteration of drainage or vent piping, each fixture . . . . . \_\_\_\_\_
10. For each lawn sprinkler system on any one meter including backflow protection devices therefor . . . . . \_\_\_\_\_
11. For atmospheric-type vacuum breakers not included in Item 2:
  - 1 to 5 . . . . . \_\_\_\_\_
  - over 5, each . . . . . \_\_\_\_\_
12. For each backflow protective device other than atmospheric-type vacuum breakers:
  - 2 inches (51 mm) and smaller . . . . . \_\_\_\_\_
  - Over 2 inches (51 mm) . . . . . \_\_\_\_\_

### Other Inspections and Fees

1. Inspections outside of normal business hours (minimum charge 2 hours). . . . . \_\_\_\_\_ per hour
2. Reinspection fee assessed under provisions of Section 107.4.3. . . . . \_\_\_\_\_ each
3. Inspections for which no fee is specifically indicated (minimum charge one-half hour) . . . . . \_\_\_\_\_ per hour
4. Additional plan review required by changes, additions or revisions to approved plans (minimum charge one-half hour). . . . . \_\_\_\_\_ per hour



## APPENDIX B

# RATES OF RAINFALL FOR VARIOUS CITIES

*This appendix is informative and is not part of the code.*

Rainfall rates, in inches per hour, are based on a storm of 1-hour duration and a 100-year return period. The rainfall rates shown in the appendix are derived from Figure 1106.1.

|                              |                        |                            |     |                         |     |
|------------------------------|------------------------|----------------------------|-----|-------------------------|-----|
| <b>Alabama:</b>              | <b>Florida:</b>        | Louisville . . . . .       | 3.2 | Springfield. . . . .    | 3.4 |
| Birmingham . . . . .         | Jacksonville . . . . . | Middlesboro . . . . .      | 3.2 | St. Louis . . . . .     | 3.2 |
| Huntsville . . . . .         | Key West . . . . .     | Paducah . . . . .          | 3.3 |                         |     |
| Mobile . . . . .             | Miami . . . . .        |                            |     | <b>Montana:</b>         |     |
| Montgomery . . . . .         | Pensacola . . . . .    | <b>Louisiana:</b>          |     | Ekalaka . . . . .       | 2.5 |
|                              | Tampa . . . . .        | Alexandria . . . . .       | 4.2 | Havre. . . . .          | 1.6 |
| <b>Alaska:</b>               |                        | Lake Providence. . . . .   | 4.0 | Helena. . . . .         | 1.5 |
| Fairbanks. . . . .           | <b>Georgia:</b>        | New Orleans. . . . .       | 4.8 | Kalispell . . . . .     | 1.2 |
| Juneau . . . . .             | Atlanta . . . . .      | Shreveport . . . . .       | 3.9 | Missoula . . . . .      | 1.3 |
|                              | Dalton . . . . .       |                            |     |                         |     |
| <b>Arizona:</b>              | Macon . . . . .        | <b>Maine:</b>              |     | <b>Nebraska:</b>        |     |
| Flagstaff . . . . .          | Savannah . . . . .     | Bangor . . . . .           | 2.2 | North Platte. . . . .   | 3.3 |
| Nogales . . . . .            | Thomasville. . . . .   | Houlton. . . . .           | 2.1 | Omaha. . . . .          | 3.8 |
| Phoenix . . . . .            |                        | Portland . . . . .         | 2.4 | Scottsbluff. . . . .    | 3.1 |
| Yuma. . . . .                | <b>Hawaii:</b>         |                            |     | Valentine. . . . .      | 3.2 |
|                              | Hilo . . . . .         | <b>Maryland:</b>           |     |                         |     |
| <b>Arkansas:</b>             | Honolulu . . . . .     | Baltimore . . . . .        | 3.2 | <b>Nevada:</b>          |     |
| Fort Smith . . . . .         | Wailuku . . . . .      | Hagerstown . . . . .       | 2.8 | Elko. . . . .           | 1.0 |
| Little Rock . . . . .        |                        | Oakland . . . . .          | 2.7 | Ely. . . . .            | 1.1 |
| Texarkana . . . . .          | <b>Idaho:</b>          | Salisbury. . . . .         | 3.1 | Las Vegas . . . . .     | 1.4 |
|                              | Boise . . . . .        | <b>Massachusetts:</b>      |     | Reno . . . . .          | 1.1 |
| <b>California:</b>           | Lewiston . . . . .     | Boston . . . . .           | 2.5 |                         |     |
| Barstow . . . . .            | Pocatello . . . . .    | Pittsfield . . . . .       | 2.8 | <b>New Hampshire:</b>   |     |
| Crescent City. . . . .       |                        | Worcester . . . . .        | 2.7 | Berlin. . . . .         | 2.5 |
| Fresno . . . . .             | <b>Illinois:</b>       |                            |     | Concord. . . . .        | 2.5 |
| Los Angeles . . . . .        | Cairo . . . . .        | <b>Michigan:</b>           |     | Keene . . . . .         | 2.4 |
| Needles . . . . .            | Chicago . . . . .      | Alpena . . . . .           | 2.5 | <b>New Jersey:</b>      |     |
| Placerville . . . . .        | Peoria. . . . .        | Detroit . . . . .          | 2.7 | Atlantic City . . . . . | 2.9 |
| San Fernando . . . . .       | Rockford . . . . .     | Grand Rapids . . . . .     | 2.6 | Newark . . . . .        | 3.1 |
| San Francisco . . . . .      | Springfield. . . . .   | Lansing. . . . .           | 2.8 | Trenton . . . . .       | 3.1 |
| Yreka. . . . .               |                        | Marquette . . . . .        | 2.4 |                         |     |
| <b>Colorado:</b>             | <b>Indiana:</b>        | Sault Ste. Marie . . . . . | 2.2 | <b>New Mexico:</b>      |     |
| Craig . . . . .              | Evansville . . . . .   |                            |     | Albuquerque . . . . .   | 2.0 |
| Denver. . . . .              | Fort Wayne . . . . .   | <b>Minnesota:</b>          |     | Hobbs . . . . .         | 3.0 |
| Durango. . . . .             | Indianapolis. . . . .  | Duluth. . . . .            | 2.8 | Raton. . . . .          | 2.5 |
| Grand Junction . . . . .     |                        | Grand Marais . . . . .     | 2.3 | Roswell . . . . .       | 2.6 |
| Lamar . . . . .              | <b>Iowa:</b>           | Minneapolis . . . . .      | 3.1 | Silver City. . . . .    | 1.9 |
| Pueblo . . . . .             | Davenport . . . . .    | Moorhead . . . . .         | 3.2 |                         |     |
|                              | Des Moines . . . . .   | Worthington . . . . .      | 3.5 | <b>New York:</b>        |     |
| <b>Connecticut:</b>          | Dubuque . . . . .      |                            |     | Albany. . . . .         | 2.5 |
| Hartford. . . . .            | Sioux City . . . . .   | <b>Mississippi:</b>        |     | Binghamton. . . . .     | 2.3 |
| New Haven . . . . .          |                        | Biloxi . . . . .           | 4.7 | Buffalo . . . . .       | 2.3 |
| Putnam . . . . .             | <b>Kansas:</b>         | Columbus . . . . .         | 3.9 | Kingston . . . . .      | 2.7 |
|                              | Atwood . . . . .       | Corinth . . . . .          | 3.6 | New York . . . . .      | 3.0 |
| <b>Delaware:</b>             | Dodge City. . . . .    | Natchez. . . . .           | 4.4 | Rochester. . . . .      | 2.2 |
| Georgetown. . . . .          | Topeka . . . . .       | Vicksburg . . . . .        | 4.1 |                         |     |
| Wilmington. . . . .          | Wichita . . . . .      |                            |     | <b>North Carolina:</b>  |     |
|                              |                        | <b>Missouri:</b>           |     | Asheville. . . . .      | 4.1 |
| <b>District of Columbia:</b> | <b>Kentucky:</b>       | Columbia . . . . .         | 3.2 | Charlotte . . . . .     | 3.7 |
| Washington. . . . .          | Ashland . . . . .      | Kansas City . . . . .      | 3.6 | Greensboro . . . . .    | 3.4 |
|                              | Lexington. . . . .     |                            |     | Wilmington. . . . .     | 4.2 |

## APPENDIX B

### North Dakota:

|             |     |
|-------------|-----|
| Bismarck    | 2.8 |
| Devils Lake | 2.9 |
| Fargo       | 3.1 |
| Williston   | 2.6 |

### Ohio:

|            |     |
|------------|-----|
| Cincinnati | 2.9 |
| Cleveland  | 2.6 |
| Columbus   | 2.8 |
| Toledo     | 2.8 |

### Oklahoma:

|               |     |
|---------------|-----|
| Altus         | 3.7 |
| Boise City    | 3.3 |
| Durant        | 3.8 |
| Oklahoma City | 3.8 |

### Oregon:

|          |     |
|----------|-----|
| Baker    | 0.9 |
| Coos Bay | 1.5 |
| Eugene   | 1.3 |
| Portland | 1.2 |

### Pennsylvania:

|               |      |
|---------------|------|
| Erie          | 2.6  |
| Harrisburg    | 2.8  |
| Philadelphia  | 3.1  |
| Pittsburgh    | 2.6  |
| Scranton      | 2.7  |
| Rhode Island: |      |
| Block Island  | 2.75 |
| Providence    | 2.6  |

### South Carolina:

|            |     |
|------------|-----|
| Charleston | 4.3 |
| Columbia   | 4.0 |
| Greenville | 4.1 |

### South Dakota:

|            |     |
|------------|-----|
| Buffalo    | 2.8 |
| Huron      | 3.3 |
| Pierre     | 3.1 |
| Rapid City | 2.9 |
| Yankton    | 3.6 |

### Tennessee:

|             |     |
|-------------|-----|
| Chattanooga | 3.5 |
| Knoxville   | 3.2 |
| Memphis     | 3.7 |
| Nashville   | 3.3 |

### Texas:

|             |     |
|-------------|-----|
| Abilene     | 3.6 |
| Amarillo    | 3.5 |
| Brownsville | 4.5 |

|             |     |
|-------------|-----|
| Dallas      | 4.0 |
| Del Rio     | 4.0 |
| El Paso     | 2.3 |
| Houston     | 4.6 |
| Lubbock     | 3.3 |
| Odessa      | 3.2 |
| Pecos       | 3.0 |
| San Antonio | 4.2 |

### Utah:

|                |     |
|----------------|-----|
| Brigham City   | 1.2 |
| Roosevelt      | 1.3 |
| Salt Lake City | 1.3 |
| St. George     | 1.7 |

### Vermont:

|             |     |
|-------------|-----|
| Barre       | 2.3 |
| Brattleboro | 2.7 |
| Burlington  | 2.1 |
| Rutland     | 2.5 |

### Virginia:

|                 |     |
|-----------------|-----|
| Bristol         | 2.7 |
| Charlottesville | 2.8 |
| Lynchburg       | 3.2 |
| Norfolk         | 3.4 |
| Richmond        | 3.3 |

### Washington:

|              |     |
|--------------|-----|
| Omak         | 1.1 |
| Port Angeles | 1.1 |
| Seattle      | 1.4 |
| Spokane      | 1.0 |
| Yakima       | 1.1 |

### West Virginia:

|            |     |
|------------|-----|
| Charleston | 2.8 |
| Morgantown | 2.7 |

### Wisconsin:

|            |     |
|------------|-----|
| Ashland    | 2.5 |
| Eau Claire | 2.9 |
| Green Bay  | 2.6 |
| La Crosse  | 3.1 |
| Madison    | 3.0 |
| Milwaukee  | 3.0 |

### Wyoming:

|                  |     |
|------------------|-----|
| Cheyenne         | 2.2 |
| Fort Bridger     | 1.3 |
| Lander           | 1.5 |
| New Castle       | 2.5 |
| Sheridan         | 1.7 |
| Yellowstone Park | 1.4 |

## APPENDIX C

# STRUCTURAL SAFETY

*The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.*

### SECTION C101 CUTTING, NOTCHING AND BORING IN WOOD MEMBERS

**[BS] C101.1 Joist notching.** Notches on the ends of joists shall not exceed one-fourth the joist depth. Holes bored in joists shall not be within 2 inches (51 mm) of the top or bottom of the joist, and the diameter of any such hole shall not exceed one-third the depth of the joist. Notches in the top or bottom of joists shall not exceed one-sixth the depth and shall not be located in the middle third of the span.

**[BS] C101.2 Stud cutting and notching.** In exterior walls and bearing partitions, any wood stud is permitted to be cut or notched to a depth not exceeding 25 percent of its width. Cutting or notching of studs to a depth not greater than 40 percent of the width of the stud is permitted in nonbearing partitions supporting no loads other than the weight of the partition.

**[BS] C101.3 Bored holes.** The diameter of bored holes in wood studs shall not exceed 40 percent of the stud depth. The diameter of bored holes in wood studs shall not exceed 60 percent of the stud depth in nonbearing partitions. The diameter of bored holes in wood studs shall not exceed 60 percent of the stud depth in any wall where each stud is doubled, provided that not more than two such successive doubled studs are so bored. The edge of the bored hole shall not be closer than  $\frac{5}{8}$  inch (15.9 mm) to the edge of the stud. Bored holes shall be not located at the same section of stud as a cut or notch.

**[BS] C101.4 Cutting, notching and boring holes in structural steel framing.** The cutting, notching and boring of holes in structural steel framing members shall be as prescribed by the registered design professional.

**[BS] C101.5 Cutting, notching and boring holes in cold-formed steel framing.** Flanges and lips of load-bearing cold-formed steel framing members shall not be cut or notched. Holes in webs of load-bearing cold-formed steel framing members shall be permitted along the centerline of the web of the framing member and shall not exceed the dimensional limitations, penetration spacing or minimum hole edge distance as prescribed by the registered design professional. Cutting, notching and boring holes of steel floor/roof decking shall be as prescribed by the registered design professional.

**[BS] C101.6 Cutting, notching and boring holes in nonstructural cold-formed steel wall framing.** Flanges and lips of nonstructural cold-formed steel wall studs shall not be cut or notched. Holes in webs of nonstructural cold-formed steel wall studs shall be permitted along the centerline of the web of the framing member, shall not exceed  $1\frac{1}{2}$  inches (38 mm)

in width or 4 inches (102 mm) in length, and the holes shall not be spaced less than 24 inches (610 mm) center to center from another hole or less than 10 inches (254 mm) from the bearing end.



## APPENDIX D

# DEGREE DAY AND DESIGN TEMPERATURES

*This appendix is informative and is not part of the code.*

**TABLE D101**  
**DEGREE DAY AND DESIGN TEMPERATURES<sup>a</sup> FOR CITIES IN THE UNITED STATES**

| STATE | STATION <sup>b</sup>       | HEATING<br>DEGREE DAYS<br>(yearly total) | DESIGN TEMPERATURES              |                                          |                                          | DEGREES NORTH<br>LATITUDE <sup>c</sup> |
|-------|----------------------------|------------------------------------------|----------------------------------|------------------------------------------|------------------------------------------|----------------------------------------|
|       |                            |                                          | Winter                           | Summer                                   |                                          |                                        |
|       |                            |                                          | 97 <sup>1</sup> / <sub>2</sub> % | Dry bulb 2 <sup>1</sup> / <sub>2</sub> % | Wet bulb 2 <sup>1</sup> / <sub>2</sub> % |                                        |
| AL    | Birmingham                 | 2,551                                    | 21                               | 94                                       | 77                                       | 33°30'                                 |
|       | Huntsville                 | 3,070                                    | 16                               | 96                                       | 77                                       | 34°40'                                 |
|       | Mobile                     | 1,560                                    | 29                               | 93                                       | 79                                       | 30°40'                                 |
|       | Montgomery                 | 2,291                                    | 25                               | 95                                       | 79                                       | 32°20'                                 |
| AK    | Anchorage                  | 10,864                                   | -18                              | 68                                       | 59                                       | 61°10'                                 |
|       | Fairbanks                  | 14,279                                   | -47                              | 78                                       | 62                                       | 64°50'                                 |
|       | Juneau                     | 9,075                                    | 1                                | 70                                       | 59                                       | 58°20'                                 |
|       | Nome                       | 14,171                                   | -27                              | 62                                       | 56                                       | 64°30'                                 |
| AZ    | Flagstaff                  | 7,152                                    | 4                                | 82                                       | 60                                       | 35°10'                                 |
|       | Phoenix                    | 1,765                                    | 34                               | 107                                      | 75                                       | 33°30'                                 |
|       | Tuscon                     | 1,800                                    | 32                               | 102                                      | 71                                       | 33°10'                                 |
|       | Yuma                       | 974                                      | 39                               | 109                                      | 78                                       | 32°40'                                 |
| AR    | Fort Smith                 | 3,292                                    | 17                               | 98                                       | 79                                       | 35°20'                                 |
|       | Little Rock                | 3,219                                    | 20                               | 96                                       | 79                                       | 34°40'                                 |
|       | Texarkana                  | 2,533                                    | 23                               | 96                                       | 79                                       | 33°30'                                 |
| CA    | Fresno                     | 2,611                                    | 30                               | 100                                      | 71                                       | 36°50'                                 |
|       | Long Beach                 | 1,803                                    | 43                               | 80                                       | 69                                       | 33°50'                                 |
|       | Los Angeles                | 2,061                                    | 43                               | 80                                       | 69                                       | 34°00'                                 |
|       | Los Angeles <sup>d</sup>   | 1,349                                    | 40                               | 89                                       | 71                                       | 34°00'                                 |
|       | Oakland                    | 2,870                                    | 36                               | 80                                       | 64                                       | 37°40'                                 |
|       | Sacramento                 | 2,502                                    | 32                               | 98                                       | 71                                       | 38°30'                                 |
|       | San Diego                  | 1,458                                    | 44                               | 80                                       | 70                                       | 32°40'                                 |
|       | San Francisco              | 3,015                                    | 38                               | 77                                       | 64                                       | 37°40'                                 |
|       | San Francisco <sup>d</sup> | 3,001                                    | 40                               | 71                                       | 62                                       | 37°50'                                 |
| CO    | Alamosa                    | 8,529                                    | -16                              | 82                                       | 61                                       | 37°30'                                 |
|       | Colorado Springs           | 6,423                                    | 2                                | 88                                       | 62                                       | 38°50'                                 |
|       | Denver                     | 6,283                                    | 1                                | 91                                       | 63                                       | 39°50'                                 |
|       | Grand Junction             | 5,641                                    | 7                                | 94                                       | 63                                       | 39°10'                                 |
|       | Pueblo                     | 5,462                                    | 0                                | 95                                       | 66                                       | 38°20'                                 |
| CT    | Bridgeport                 | 5,617                                    | 9                                | 84                                       | 74                                       | 41°10'                                 |
|       | Hartford                   | 6,235                                    | 7                                | 88                                       | 75                                       | 41°50'                                 |
|       | New Haven                  | 5,897                                    | 7                                | 84                                       | 75                                       | 41°20'                                 |
| DE    | Wilmington                 | 4,930                                    | 14                               | 89                                       | 76                                       | 39°40'                                 |
| DC    | Washington                 | 4,224                                    | 17                               | 91                                       | 77                                       | 38°50'                                 |
| FL    | Daytona                    | 879                                      | 35                               | 90                                       | 79                                       | 29°10'                                 |
|       | Fort Myers                 | 442                                      | 44                               | 92                                       | 79                                       | 26°40'                                 |
|       | Jacksonville               | 1,239                                    | 32                               | 94                                       | 79                                       | 30°30'                                 |
|       | Key West                   | 108                                      | 57                               | 90                                       | 79                                       | 24°30'                                 |
|       | Miami                      | 214                                      | 47                               | 90                                       | 79                                       | 25°50'                                 |
|       | Orlando                    | 766                                      | 38                               | 93                                       | 78                                       | 28°30'                                 |
|       | Pensacola                  | 1,463                                    | 29                               | 93                                       | 79                                       | 30°30'                                 |
|       | Tallahassee                | 1,485                                    | 30                               | 92                                       | 78                                       | 30°20'                                 |
|       | Tampa                      | 683                                      | 40                               | 91                                       | 79                                       | 28°00'                                 |
|       | West Palm Beach            | 253                                      | 45                               | 91                                       | 79                                       | 26°40'                                 |

(continued)

**TABLE D101—continued**  
**DEGREE DAY AND DESIGN TEMPERATURES<sup>a</sup> FOR CITIES IN THE UNITED STATES**

| STATE | STATION <sup>b</sup>   | HEATING<br>DEGREE DAYS<br>(yearly total) | DESIGN TEMPERATURES              |                                          |                                          | DEGREES NORTH<br>LATITUDE <sup>c</sup> |
|-------|------------------------|------------------------------------------|----------------------------------|------------------------------------------|------------------------------------------|----------------------------------------|
|       |                        |                                          | Winter                           | Summer                                   |                                          |                                        |
|       |                        |                                          | 97 <sup>1</sup> / <sub>2</sub> % | Dry bulb 2 <sup>1</sup> / <sub>2</sub> % | Wet bulb 2 <sup>1</sup> / <sub>2</sub> % |                                        |
| GA    | Athens                 | 2,929                                    | 22                               | 92                                       | 77                                       | 34°00'                                 |
|       | Atlanta                | 2,961                                    | 22                               | 92                                       | 76                                       | 33°40'                                 |
|       | Augusta                | 2,397                                    | 23                               | 95                                       | 79                                       | 33°20'                                 |
|       | Columbus               | 2,383                                    | 24                               | 93                                       | 78                                       | 32°30'                                 |
|       | Macon                  | 2,136                                    | 25                               | 93                                       | 78                                       | 32°40'                                 |
|       | Rome                   | 3,326                                    | 22                               | 93                                       | 78                                       | 34°20'                                 |
|       | Savannah               | 1,819                                    | 27                               | 93                                       | 79                                       | 32°10'                                 |
| HI    | Hilo                   | 0                                        | 62                               | 83                                       | 74                                       | 19°40'                                 |
|       | Honolulu               | 0                                        | 63                               | 86                                       | 75                                       | 21°20'                                 |
| ID    | Boise                  | 5,809                                    | 10                               | 94                                       | 66                                       | 43°30'                                 |
|       | Lewiston               | 5,542                                    | 6                                | 93                                       | 66                                       | 46°20'                                 |
|       | Pocatello              | 7,033                                    | -1                               | 91                                       | 63                                       | 43°00'                                 |
| IL    | Chicago (Midway)       | 6,155                                    | 0                                | 91                                       | 75                                       | 41°50'                                 |
|       | Chicago (O'Hare)       | 6,639                                    | -4                               | 89                                       | 76                                       | 42°00'                                 |
|       | Chicago <sup>d</sup>   | 5,882                                    | 2                                | 91                                       | 77                                       | 41°50'                                 |
|       | Moline                 | 6,408                                    | -4                               | 91                                       | 77                                       | 41°30'                                 |
|       | Peoria                 | 6,025                                    | -4                               | 89                                       | 76                                       | 40°40'                                 |
|       | Rockford               | 6,830                                    | -4                               | 89                                       | 76                                       | 42°10'                                 |
|       | Springfield            | 5,429                                    | 2                                | 92                                       | 77                                       | 39°50'                                 |
| IN    | Evansville             | 4,435                                    | 9                                | 93                                       | 78                                       | 38°00'                                 |
|       | Fort Wayne             | 6,205                                    | 1                                | 89                                       | 75                                       | 41°00'                                 |
|       | Indianapolis           | 5,699                                    | 2                                | 90                                       | 76                                       | 39°40'                                 |
|       | South Bend             | 6,439                                    | 1                                | 89                                       | 75                                       | 41°40'                                 |
| IA    | Burlington             | 6,114                                    | -3                               | 91                                       | 77                                       | 40°50'                                 |
|       | Des Moines             | 6,588                                    | -5                               | 91                                       | 77                                       | 41°30'                                 |
|       | Dubuque                | 7,376                                    | -7                               | 88                                       | 75                                       | 42°20'                                 |
|       | Sioux City             | 6,951                                    | -7                               | 92                                       | 77                                       | 42°20'                                 |
|       | Waterloo               | 7,320                                    | -10                              | 89                                       | 77                                       | 42°30'                                 |
| KS    | Dodge City             | 4,986                                    | 5                                | 97                                       | 73                                       | 37°50'                                 |
|       | Goodland               | 6,141                                    | 0                                | 96                                       | 70                                       | 39°20'                                 |
|       | Topeka                 | 5,182                                    | 4                                | 96                                       | 78                                       | 39°00'                                 |
|       | Wichita                | 4,620                                    | 7                                | 98                                       | 76                                       | 37°40'                                 |
| KY    | Covington              | 5,265                                    | 6                                | 90                                       | 75                                       | 39°00'                                 |
|       | Lexington              | 4,683                                    | 8                                | 91                                       | 76                                       | 38°00'                                 |
|       | Louisville             | 4,660                                    | 10                               | 93                                       | 77                                       | 38°10'                                 |
| LA    | Alexandria             | 1,921                                    | 27                               | 94                                       | 79                                       | 31°20'                                 |
|       | Baton Rouge            | 1,560                                    | 29                               | 93                                       | 80                                       | 30°30'                                 |
|       | Lake Charles           | 1,459                                    | 31                               | 93                                       | 79                                       | 30°10'                                 |
|       | New Orleans            | 1,385                                    | 33                               | 92                                       | 80                                       | 30°00'                                 |
|       | Shreveport             | 2,184                                    | 25                               | 96                                       | 79                                       | 32°30'                                 |
| ME    | Caribou                | 9,767                                    | -13                              | 81                                       | 69                                       | 46°50'                                 |
|       | Portland               | 7,511                                    | -1                               | 84                                       | 72                                       | 43°40'                                 |
| MD    | Baltimore              | 4,654                                    | 13                               | 91                                       | 77                                       | 39°10'                                 |
|       | Baltimore <sup>d</sup> | 4,111                                    | 17                               | 89                                       | 78                                       | 39°20'                                 |
|       | Frederick              | 5,087                                    | 12                               | 91                                       | 77                                       | 39°20'                                 |

(continued)

**TABLE D101—continued**  
**DEGREE DAY AND DESIGN TEMPERATURES<sup>a</sup> FOR CITIES IN THE UNITED STATES**

| STATE | STATION <sup>b</sup>   | HEATING<br>DEGREE DAYS<br>(yearly total) | DESIGN TEMPERATURES              |                                          |                                          | DEGREES NORTH<br>LATITUDE <sup>c</sup> |
|-------|------------------------|------------------------------------------|----------------------------------|------------------------------------------|------------------------------------------|----------------------------------------|
|       |                        |                                          | Winter                           | Summer                                   |                                          |                                        |
|       |                        |                                          | 97 <sup>1</sup> / <sub>2</sub> % | Dry bulb 2 <sup>1</sup> / <sub>2</sub> % | Wet bulb 2 <sup>1</sup> / <sub>2</sub> % |                                        |
| MA    | Boston                 | 5,634                                    | 9                                | 88                                       | 74                                       | 42°20'                                 |
|       | Pittsfield             | 7,578                                    | -3                               | 84                                       | 72                                       | 42°30'                                 |
|       | Worcester              | 6,969                                    | 4                                | 84                                       | 72                                       | 42°20'                                 |
| MI    | Alpena                 | 8,506                                    | -6                               | 85                                       | 72                                       | 45°00'                                 |
|       | Detroit (City)         | 6,232                                    | 6                                | 88                                       | 74                                       | 42°20'                                 |
|       | Escanaba <sup>d</sup>  | 8,481                                    | -7                               | 83                                       | 71                                       | 45°40'                                 |
|       | Flint                  | 7,377                                    | 1                                | 87                                       | 74                                       | 43°00'                                 |
|       | Grand Rapids           | 6,894                                    | 5                                | 88                                       | 74                                       | 42°50'                                 |
|       | Lansing                | 6,909                                    | 1                                | 87                                       | 74                                       | 42°50'                                 |
|       | Marquette <sup>d</sup> | 8,393                                    | -8                               | 81                                       | 70                                       | 46°30'                                 |
|       | Muskegon               | 6,696                                    | 6                                | 84                                       | 73                                       | 43°10'                                 |
|       | Sault Ste. Marie       | 9,048                                    | -8                               | 81                                       | 70                                       | 46°30'                                 |
| MN    | Duluth                 | 10,000                                   | -16                              | 82                                       | 70                                       | 46°50'                                 |
|       | Minneapolis            | 8,382                                    | -12                              | 89                                       | 5                                        | 44°50'                                 |
|       | Rochester              | 8,295                                    | -12                              | 87                                       | 75                                       | 44°00'                                 |
| MS    | Jackson                | 2,239                                    | 25                               | 95                                       | 78                                       | 32°20'                                 |
|       | Meridian               | 2,289                                    | 23                               | 95                                       | 79                                       | 32°20'                                 |
|       | Vicksburg <sup>d</sup> | 2,041                                    | 26                               | 95                                       | 80                                       | 32°20'                                 |
| MO    | Columbia               | 5,046                                    | 4                                | 94                                       | 77                                       | 39°00'                                 |
|       | Kansas City            | 4,711                                    | 6                                | 96                                       | 77                                       | 39°10'                                 |
|       | St. Joseph             | 5,484                                    | 2                                | 93                                       | 79                                       | 39°50'                                 |
|       | St. Louis              | 4,900                                    | 6                                | 94                                       | 77                                       | 38°50'                                 |
|       | St. Louis <sup>d</sup> | 4,484                                    | 8                                | 94                                       | 77                                       | 38°40'                                 |
|       | Springfield            | 4,900                                    | 9                                | 93                                       | 77                                       | 37°10'                                 |
| MT    | Billings               | 7,049                                    | -10                              | 91                                       | 66                                       | 45°50'                                 |
|       | Great Falls            | 7,750                                    | -15                              | 88                                       | 62                                       | 47°30'                                 |
|       | Helena                 | 8,129                                    | -16                              | 88                                       | 62                                       | 46°40'                                 |
|       | Missoula               | 8,125                                    | -6                               | 88                                       | 63                                       | 46°50'                                 |
| NE    | Grand Island           | 6,530                                    | -3                               | 94                                       | 74                                       | 41°00'                                 |
|       | Lincoln <sup>d</sup>   | 5,864                                    | -2                               | 95                                       | 77                                       | 40°50'                                 |
|       | Norfolk                | 6,979                                    | -4                               | 93                                       | 77                                       | 42°00'                                 |
|       | North Platte           | 6,684                                    | -4                               | 94                                       | 72                                       | 41°10'                                 |
|       | Omaha                  | 6,612                                    | -3                               | 91                                       | 77                                       | 41°20'                                 |
|       | Scottsbluff            | 6,673                                    | -3                               | 92                                       | 68                                       | 41°50'                                 |
| NV    | Elko                   | 7,433                                    | -2                               | 92                                       | 62                                       | 40°50'                                 |
|       | Ely                    | 7,733                                    | -4                               | 87                                       | 59                                       | 39°10'                                 |
|       | Las Vegas              | 2,709                                    | 28                               | 106                                      | 70                                       | 36°10'                                 |
|       | Reno                   | 6,332                                    | 10                               | 92                                       | 62                                       | 39°30'                                 |
|       | Winnemucca             | 6,761                                    | 3                                | 94                                       | 62                                       | 40°50'                                 |
| NH    | Concord                | 7,383                                    | -3                               | 87                                       | 73                                       | 43°10'                                 |
| NJ    | Atlantic City          | 4,812                                    | 13                               | 89                                       | 77                                       | 39°30'                                 |
|       | Newark                 | 4,589                                    | 14                               | 91                                       | 76                                       | 40°40'                                 |
|       | Trenton <sup>d</sup>   | 4,980                                    | 14                               | 88                                       | 76                                       | 40°10'                                 |
| NM    | Albuquerque            | 4,348                                    | 16                               | 94                                       | 65                                       | 35°00'                                 |
|       | Raton                  | 6,228                                    | 1                                | 89                                       | 64                                       | 36°50'                                 |
|       | Roswell                | 3,793                                    | 18                               | 98                                       | 70                                       | 33°20'                                 |
|       | Silver City            | 3,705                                    | 10                               | 94                                       | 64                                       | 32°40'                                 |

(continued)

**TABLE D101—continued**  
**DEGREE DAY AND DESIGN TEMPERATURES<sup>a</sup> FOR CITIES IN THE UNITED STATES**

| STATE | STATION <sup>b</sup>           | HEATING<br>DEGREE DAYS<br>(yearly total) | DESIGN TEMPERATURES              |                                          |                                          | DEGREES NORTH<br>LATITUDE <sup>c</sup> |
|-------|--------------------------------|------------------------------------------|----------------------------------|------------------------------------------|------------------------------------------|----------------------------------------|
|       |                                |                                          | Winter                           | Summer                                   |                                          |                                        |
|       |                                |                                          | 97 <sup>1</sup> / <sub>2</sub> % | Dry bulb 2 <sup>1</sup> / <sub>2</sub> % | Wet bulb 2 <sup>1</sup> / <sub>2</sub> % |                                        |
| NY    | Albany                         | 6,875                                    | -1                               | 88                                       | 74                                       | 42°50'                                 |
|       | Albany <sup>d</sup>            | 6,201                                    | 1                                | 88                                       | 74                                       | 42°50'                                 |
|       | Binghamton                     | 7,286                                    | 1                                | 83                                       | 72                                       | 42°10'                                 |
|       | Buffalo                        | 7,062                                    | 6                                | 85                                       | 73                                       | 43°00'                                 |
|       | NY (Central Park) <sup>d</sup> | 4,871                                    | 15                               | 89                                       | 75                                       | 40°50'                                 |
|       | NY (Kennedy)                   | 5,219                                    | 15                               | 87                                       | 75                                       | 40°40'                                 |
|       | NY(LaGuardia)                  | 4,811                                    | 15                               | 89                                       | 75                                       | 40°50'                                 |
|       | Rochester                      | 6,748                                    | 5                                | 88                                       | 73                                       | 43°10'                                 |
|       | Schenectady <sup>d</sup>       | 6,650                                    | 1                                | 87                                       | 74                                       | 42°50'                                 |
|       | Syracuse                       | 6,756                                    | 2                                | 87                                       | 73                                       | 43°10'                                 |
| NC    | Charlotte                      | 3,181                                    | 22                               | 93                                       | 76                                       | 35°10'                                 |
|       | Greensboro                     | 3,805                                    | 18                               | 91                                       | 76                                       | 36°10'                                 |
|       | Raleigh                        | 3,393                                    | 20                               | 92                                       | 77                                       | 35°50'                                 |
|       | Winston-Salem                  | 3,595                                    | 20                               | 91                                       | 75                                       | 36°10'                                 |
| ND    | Bismarck                       | 8,851                                    | -19                              | 91                                       | 71                                       | 46°50'                                 |
|       | Devils Lake <sup>d</sup>       | 9,901                                    | -21                              | 88                                       | 71                                       | 48°10'                                 |
|       | Fargo                          | 9,226                                    | -18                              | 89                                       | 74                                       | 46°50'                                 |
|       | Williston                      | 9,243                                    | -21                              | 88                                       | 70                                       | 48°10'                                 |
| OH    | Akron-Canton                   | 6,037                                    | 6                                | 86                                       | 73                                       | 41°00'                                 |
|       | Cincinnati <sup>d</sup>        | 4,410                                    | 6                                | 90                                       | 75                                       | 39°10'                                 |
|       | Cleveland                      | 6,351                                    | 5                                | 88                                       | 74                                       | 41°20'                                 |
|       | Columbus                       | 5,660                                    | 5                                | 90                                       | 75                                       | 40°00'                                 |
|       | Dayton                         | 5,622                                    | 4                                | 89                                       | 75                                       | 39°50'                                 |
|       | Mansfield                      | 6,403                                    | 5                                | 87                                       | 74                                       | 40°50'                                 |
|       | Sandusky <sup>d</sup>          | 5,796                                    | 6                                | 91                                       | 74                                       | 41°30'                                 |
|       | Toledo                         | 6,494                                    | 1                                | 88                                       | 75                                       | 41°40'                                 |
|       | Youngstown                     | 6,417                                    | 4                                | 86                                       | 73                                       | 41°20'                                 |
| OK    | Oklahoma City                  | 3,725                                    | 13                               | 97                                       | 77                                       | 35°20'                                 |
|       | Tulsa                          | 3,860                                    | 13                               | 98                                       | 78                                       | 36°10'                                 |
| OR    | Eugene                         | 4,726                                    | 22                               | 89                                       | 67                                       | 44°10'                                 |
|       | Medford                        | 5,008                                    | 23                               | 94                                       | 68                                       | 42°20'                                 |
|       | Portland                       | 4,635                                    | 23                               | 85                                       | 67                                       | 45°40'                                 |
|       | Portland <sup>d</sup>          | 4,109                                    | 24                               | 86                                       | 67                                       | 45°30'                                 |
|       | Salem                          | 4,754                                    | 23                               | 88                                       | 68                                       | 45°00'                                 |
| PA    | Allentown                      | 5,810                                    | 9                                | 88                                       | 75                                       | 40°40'                                 |
|       | Erie                           | 6,451                                    | 9                                | 85                                       | 74                                       | 42°10'                                 |
|       | Harrisburg                     | 5,251                                    | 11                               | 91                                       | 76                                       | 40°10'                                 |
|       | Philadelphia                   | 5,144                                    | 14                               | 90                                       | 76                                       | 39°50'                                 |
|       | Pittsburgh                     | 5,987                                    | 5                                | 86                                       | 73                                       | 40°30'                                 |
|       | Pittsburgh <sup>d</sup>        | 5,053                                    | 7                                | 88                                       | 73                                       | 40°30'                                 |
|       | Reading <sup>d</sup>           | 4,945                                    | 13                               | 89                                       | 75                                       | 40°20'                                 |
|       | Scranton                       | 6,254                                    | 5                                | 87                                       | 73                                       | 41°20'                                 |
|       | Williamsport                   | 5,934                                    | 7                                | 89                                       | 74                                       | 41°10'                                 |
| RI    | Providence                     | 5,954                                    | 9                                | 86                                       | 74                                       | 41°40'                                 |
| SC    | Charleston                     | 2,033                                    | 27                               | 91                                       | 80                                       | 32°50'                                 |
|       | Charleston <sup>d</sup>        | 1,794                                    | 28                               | 92                                       | 80                                       | 32°50'                                 |
|       | Columbia                       | 2,484                                    | 24                               | 95                                       | 78                                       | 34°00'                                 |

(continued)