

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

FORM 600A-01

Residential Whole Building Performance Method A

SOUTH 7 8 9

| | | |
|---------------------------------------|--|--|
| PROJECT NAME: AND ADDRESS: | BUILDER: PERMITTING OFFICE: | CLIMATE ZONE: 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> |
| OWNER: | PERMIT NO.: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> | JURISDICTION NO.: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> |

1. **New construction or addition**
2. **Single family detached or Multifamily attached**
3. **If Multifamily—No. of units covered by this submission**
4. **Is this a worst case? (yes / no)**
5. **Conditioned floor area (sq. ft.)**
6. **Predominant eave overhang (ft.)**
7. **Glass type and area:**
 - a. Clear glass
 - b. Tint, film or solar screen
8. **Floor type and insulation:**
 - a. Slab-on-grade (R-value + perimeter)
 - b. Wood, raised (R-value + sq. ft.)
 - c. Concrete, raised (R-value)
9. **Net Wall type, area and insulation:**
 - a. **Exterior:**
 1. Concrete block (Insulation R-value)
 2. Wood frame (Insulation R-value)
 3. Steel frame (Insulation R-value)
 4. Log (Insulation R-value)
 5. Other: _____
 - b. **Adjacent:**
 1. Concrete block (Insulation R-value)
 2. Wood frame (Insulation R-value)
 3. Steel frame (Insulation R-value)
 4. Log (Insulation R-value)
10. **Ceiling type, area and insulation:**
 - a. Under attic (Insulation R-value)
 - b. Single assembly (Insulation R-value)
 - c. Radiant barrier, IRCC or white roof installed?
11. **Air distribution system:**
 - a. Ducts (Insulation + Location)
 - b. Air Handler (Location)
12. **Cooling system:**
(Types: central-split, central-single pkg., room unit, PTAC., gas, none)
13. **Heating system:**
(Types: heat pump, elec. strip, nat. gas, L.P. gas, gas h.p., room or PTAC, none)
14. **Hot water system:**
(Types: elec., natural gas, solar, L.P. gas, none)
15. **Hot Water Credits:**
 - a. Heat Recovery (HR)
 - b. Dedicated Heat Pump(DHP)
 - c. Solar
16. **HVAC Credits**
(Use: CF-Ceiling Fan, CV-Cross vent, PT-Programmable thermostat, HF-Whole house fan, MZ-Multizone)
17. **COMPLIANCE STATUS:** (PASS if As-Built Pts. are less than Base Pts.)
 - a. Total As-Built points
 - b. Total Base points

| | Please Type | CK |
|---------------------------------------|------------------------------|------------|
| 1. _____ | | _____ |
| 2. _____ | | _____ |
| 3. _____ | | _____ |
| 4. _____ | | _____ |
| 5. _____ sq. ft. | | _____ |
| 6. _____ ft. | | _____ |
| | Single Pane Double Pane | |
| 7a. _____ sq. ft. | _____ sq. ft. | _____ |
| 7b. _____ sq. ft. | _____ sq. ft. | _____ |
| 8a. R= _____ , _____ l. ft. | | _____ |
| 8b. R= _____ , _____ sq. ft. | | _____ |
| 8c. R= _____ , _____ sq. ft. | | _____ |
| 9a-1 R= _____ sq. ft. | | _____ |
| 9a-2 R= _____ sq. ft. | | _____ |
| 9a-3 R= _____ sq. ft. | | _____ |
| 9a-4 R= _____ sq. ft. | | _____ |
| 9b-1 R= _____ sq. ft. | | _____ |
| 9b-2 R= _____ sq. ft. | | _____ |
| 9b-3 R= _____ sq. ft. | | _____ |
| 9b-4 R= _____ sq. ft. | | _____ |
| 10a. R= _____ sq. ft. | | _____ |
| 10b. R= _____ sq. ft. | | _____ |
| 10c. _____ | | _____ |
| 11a. R= _____ , _____ (cond./uncond.) | | _____ |
| 11b. _____ (cond./uncond.) | | _____ |
| 12a. Type: _____ | | _____ |
| 12b. SEER/EER/COP: _____ | | _____ |
| 12c. Capacity: _____ | | _____ |
| 13a. Type: _____ | | _____ |
| 13b. HSPF/COP/AFUE: _____ | | _____ |
| 13c. Capacity: _____ | | _____ |
| 14a. Type: _____ | | _____ |
| 14b. EF: _____ | | _____ |
| 15a. _____ | | _____ |
| 15b. _____ | | _____ |
| 15c. _____ | | _____ |
| 16. _____ | | _____ |
| 17. _____ | | _____ |
| 17a. _____ | | 17b. _____ |

I hereby certify that the plans and specifications covered by the calculation are in compliance with the Florida Energy Code.

PREPARED BY: _____ **DATE:** _____
I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.

OWNER AGENT: _____ **DATE:** _____

Review of plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed, this building will be inspected for compliance in accordance with Section 553.908, F.S.

BUILDING OFFICIAL: _____
DATE: _____

SUMMER POINT MULTIPLIERS (SPM)

6A-1 SUMMER OVERHANG FACTORS (SOF) FOR SINGLE AND DOUBLE PANE GLASS.

| SELECT BY OR | OH Ratio | .00-11 | .12-17 | .18-26 | .27-35 | .36-46 | .47-57 | .58-70 | .71-83 | .84-1.18 | 1.19-1.72 | 1.73-2.73 | 2.74 & up |
|-----------------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|----------|-----------|-----------|-----------|
| | North | 1.00 | 0.993 | 0.971 | 0.932 | 0.891 | 0.847 | 0.810 | 0.774 | 0.745 | 0.692 | 0.646 | 0.606 |
| | Northeast | 1.00 | 0.995 | 0.966 | 0.909 | 0.849 | 0.782 | 0.726 | 0.673 | 0.633 | 0.561 | 0.504 | 0.459 |
| | East | 1.00 | 0.993 | 0.964 | 0.904 | 0.837 | 0.759 | 0.691 | 0.625 | 0.574 | 0.484 | 0.415 | 0.462 |
| | Southeast | 1.00 | 0.999 | 0.960 | 0.881 | 0.799 | 0.713 | 0.645 | 0.585 | 0.542 | 0.471 | 0.422 | 0.386 |
| | South | 1.00 | 0.995 | 0.945 | 0.854 | 0.770 | 0.689 | 0.630 | 0.581 | 0.546 | 0.492 | 0.455 | 0.428 |
| | Southwest | 1.00 | 0.997 | 0.958 | 0.882 | 0.805 | 0.723 | 0.657 | 0.599 | 0.555 | 0.482 | 0.427 | 0.386 |
| | West | 1.00 | 0.994 | 0.965 | 0.905 | 0.840 | 0.767 | 0.704 | 0.645 | 0.599 | 0.518 | 0.455 | 0.404 |
| | Northwest | 1.00 | 0.995 | 0.967 | 0.914 | 0.861 | 0.805 | 0.760 | 0.718 | 0.686 | 0.629 | 0.583 | 0.545 |
| OH Length | 0.0' | 1.0' | 1.5' | 2.0' | 3.0' | 3.5' | 4.5' | 5.5' | 6.5' | 9.5' | 14.0' | 20.0' | |

6A-2 WALL SUMMER POINT MULTIPLIERS (SPM)

| FRAME | | | | | CONCRETE BLOCK (NORMAL WT) | | | | FACE BRICK | | | | LOG | | |
|---------|-----|-------|------|-----|----------------------------|-----|-----|-------------|------------|---------|---------|-------|---------|-----|--------|
| WOOD | | STEEL | | | INTERIOR INSULATION | | | EXT. INSUL. | R-VALUE | WOOD FR | R-VALUE | BLOCK | 6 INCH | | 8 INCH |
| R-VALUE | EXT | ADJ | EXT | ADJ | R-VALUE | EXT | ADJ | EXT | 0-6.9 | 4.6 | 0-2.9 | 2.3 | R-VALUE | EXT | EXT |
| 0-6.9 | 8.5 | 3.4 | 11.6 | 4.4 | 0-2.9 | 4.2 | 1.9 | 4.2 | 7-10.9 | 1.3 | 3-6.9 | 1.6 | 0-2.9 | 2.8 | 1.9 |
| 7-10.9 | 3.2 | 1.3 | 5.5 | 2.1 | 3-4.9 | 2.7 | 1.3 | 1.7 | 11-18.9 | 1.1 | 7-9.9 | .9 | 3-6.9 | 1.9 | 1.4 |
| 11-12.9 | 2.7 | 1.0 | 4.2 | 1.6 | 5-6.9 | 2.0 | 1.1 | 1.2 | 19-25.9 | .6 | 10 & UP | .7 | 7 & Up | 1.5 | 1.2 |
| 13-18.9 | 2.4 | .9 | 3.9 | 1.5 | 7-10.9 | 1.6 | .8 | .7 | 26 & Up | .3 | | | | | |
| 19-25.9 | 1.6 | .6 | 3.4 | 1.3 | 11-18.9 | 1.0 | .6 | .3 | | | | | | | |
| 26 & Up | 1.0 | .3 | 1.9 | .7 | 19-25.9 | .5 | .3 | | | | | | | | |
| | | | | | 26 & Up | .3 | .2 | | | | | | | | |

NOTE: SEE SECTION 2.0 OF APPENDIX C FOR MULTIPLIERS OF ENVELOPE COMPONENTS NOT ON THIS FORM.

6A-3 DOOR SUMMER POINT MULTIPLIERS (SPM)

| DOOR TYPE | EXTERIOR | ADJACENT |
|-----------|----------|----------|
| WOOD | 9.4 | 3.8 |
| INSULATED | 6.4 | 2.6 |

6A-4 CEILING SUMMER POINT MULTIPLIERS (SPM)

| UNDER ATTIC | | SINGLE ASSEMBLY | | CONCRETE DECK ROOF | | |
|-------------------|-------|-----------------|-------|--------------------|---------|-------|
| R-VALUE | SPM | R-VALUE | SPM | CEILING TYPE | | |
| | | R-VALUE | | EXPOSED | DROPPED | |
| 19-21.9 | 3.72 | 10-10.9 | 13.67 | 10-13.9 | 14.73 | 13.67 |
| 22-25.9 | 3.36 | 11-12.9 | 12.90 | 14-20.9 | 10.96 | 10.46 |
| 26-29.9 | 3.02 | 13-18.9 | 11.59 | 21 & Up | 7.86 | 7.54 |
| 30-37.9 | 2.77 | 19-25.9 | 9.24 | | | |
| 38 & Up | 2.43 | 26-29.9 | 7.85 | | | |
| RBS Credit | 0.700 | 30 & Up | 7.27 | | | |
| IRCC Credit | 0.865 | | | | | |
| White Roof Credit | 0.550 | | | | | |

6A-5 FLOOR SUMMER POINT MULTIPLIERS (SPM)

| SLAB-ON-GRADE EDGE INSULATION | | RAISED CONCRETE | | RAISED WOOD | | | |
|-------------------------------|-------|-----------------|-----|---------------------------|------|-------------------------------------|----------|
| R-VALUE | SPM | R-VALUE | SPM | POST OR PIER CONSTRUCTION | | STEM WALL w/ UNDER FLOOR INSULATION | ADJACENT |
| | | R-VALUE | SPM | R-VALUE | SPM | SPM | SPM |
| 0-2.9 | -20.0 | 0-2.9 | .8 | 0-6.9 | 5.02 | -4.2 | 3.4 |
| 3-4.9 | -17.4 | 3-4.9 | -3 | 7-10.9 | 2.58 | -9 | 1.3 |
| 5-6.9 | -16.6 | 5-6.9 | -4 | 11-18.9 | 2.08 | -6 | 1.0 |
| 7 & Up | -16.0 | 7 & Up | -5 | 19 & Up | 1.58 | -4 | .6 |

6A-6 INFILTRATION & INTERNAL GAINS (SPM)

| | |
|-----------------------------|--------|
| Air Infiltration | 7.43 |
| Internal Gains | +11.36 |
| Infiltration/Internal Gains | 18.79 |

6A-8 DUCT MULTIPLIERS (DM) See Table 6-10 for Code minimums.

| SUPPLY DUCTS IN: | DUCT R-Value | RETURN DUCTS In: | | | | |
|--|--------------|---------------------|-----------|------------|------------------|-------------------|
| | | Unconditioned space | Attic/RBS | Attic/IRCC | Attic/White roof | Conditioned space |
| Unconditioned Space | 4.2 | 1.095 | 1.090 | 1.091 | 1.090 | 1.087 |
| | 6.0 | 1.073 | 1.069 | 1.070 | 1.069 | 1.067 |
| | 8.0 | 1.058 | 1.055 | 1.055 | 1.055 | 1.053 |
| Attic/Radiant Barrier (RBS) | 4.2 | 1.062 | 1.057 | --- | --- | 1.053 |
| | 6.0 | 1.048 | 1.044 | --- | --- | 1.041 |
| | 8.0 | 1.039 | 1.036 | --- | --- | 1.033 |
| Attic/Interior Radiation Control Coatings (IRCC) | 4.2 | 1.083 | --- | 1.078 | --- | 1.072 |
| | 6.0 | 1.064 | --- | 1.061 | --- | 1.056 |
| | 8.0 | 1.052 | --- | 1.049 | --- | 1.045 |
| Attic/White Roof | 4.2 | 1.059 | --- | --- | 1.054 | 1.051 |
| | 6.0 | 1.045 | --- | --- | 1.041 | 1.038 |
| | 8.0 | 1.035 | --- | --- | 1.032 | 1.030 |
| Conditioned Space | 4.2 | 1.005 | 1.004 | 1.006 | 1.002 | 1.000 |
| | 6.0 | 1.004 | 1.003 | 1.004 | 1.002 | 1.000 |
| | 8.0 | 1.003 | 1.003 | 1.003 | 1.001 | 1.000 |

6A-7 AIR HANDLER MULTIPLIERS (SPM)

| | |
|---------------------------------|------|
| Located in garage | 1.00 |
| Located in conditioned area | 0.90 |
| Located on exterior of building | 1.03 |
| Located in attic | 1.08 |

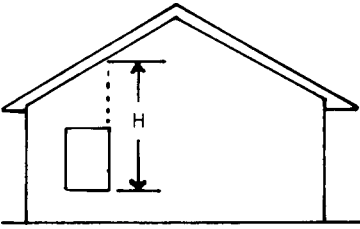
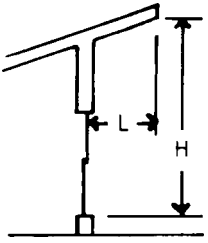
6A-9 COOLING SYSTEM MULTIPLIERS (CSM)

| SYSTEM TYPE See Table 6-3 for Code minimums | COOLING SYSTEM MULTIPLIERS (CSM) | | | | | | | | | | | |
|---|----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | Rating | | 7.5-7.9 | 8.0-8.4 | 8.5-8.8 | 8.9-9.4 | 9.5-9.9 | 10.0-10.4 | 10.5-10.9 | 11.0-11.4 | 11.5-11.9 | 12.0-12.4 |
| Central Units (SEER) | CSM | | .45 | .43 | .40 | .38 | .36 | .34 | .32 | .31 | .30 | .28 |
| PTAC & Room Units (EER) | Rating | 12.5-12.9 | 13.0-13.4 | 13.5-13.9 | 14.0-14.4 | 14.5-14.9 | 15.0-15.4 | 15.5-15.9 | 16.0-16.4 | 16.5-16.9 | 17.0-17.4 | 17.5 & Up |
| | CSM | .27 | .26 | .25 | .24 | .24 | .23 | .22 | .21 | .21 | .20 | .19 |

WINTER CALCULATIONS

CLIMATE ZONES 7 8 9

| GLASS | ORIENTATION | OVERHANG LENGTH OH (FEET) | GLASS AREA (SQ. FT.) | SINGLE-PANE | | OR DOUBLE-PANE | | WINTER OH FACTOR (from 6A-10) | AS-BUILT GLASS WINTER PTS |
|-------|----------------|---------------------------|----------------------|-------------------------|-------------------|-------------------------|-------------------|-------------------------------|---------------------------|
| | | | | WINTER POINT MULTIPLIER | | WINTER POINT MULTIPLIER | | | |
| | | | | CLEAR | TINT ² | CLEAR | TINT ² | | |
| | N | | | 4.91 | 4.87 | 2.60 | 2.66 | | |
| | NE | | | 4.71 | 4.81 | 2.40 | 2.48 | | |
| | E | | | 3.76 | 3.99 | 1.64 | 1.83 | | |
| | SE | | | 3.29 | 3.58 | 1.26 | 1.51 | | |
| | S | | | 3.55 | 3.80 | 1.49 | 1.71 | | |
| | SW | | | 4.09 | 4.27 | 1.97 | 2.11 | | |
| | W | | | 4.47 | 4.60 | 2.26 | 2.37 | | |
| | NW | | | 4.88 | 4.96 | 2.58 | 2.64 | | |
| | H ¹ | | | 5.08 | 5.28 | 2.38 | 2.55 | | |



| | | | | | | | |
|-------|-----|---|-----------------|---|---------------------------|---|---------------------|
| GLASS | .18 | x | COND FLOOR AREA | x | WEIGHTED GLASS MULTIPLIER | = | BASE GLASS SUBTOTAL |
| | .18 | | | | 3.56 | | |

| |
|-------------------------|
| AS-BUILT GLASS SUBTOTAL |
|-------------------------|

| COMPONENT DESCRIPTION | AREA | x | BASE WINTER POINT. MULT. | = | BASE WINTER POINTS |
|-----------------------|------|---|--------------------------|---|--------------------|
| WALL EXTERIOR | | | .6 | | |
| WALL ADJACENT | | | .5 | | |

| COMPONENT DESCRIPTION | AREA | x | WINTER POINT. MULT. (6A-11THRU 6A-15) | = | AS-BUILT WINTER POINTS |
|-----------------------|------|---|---------------------------------------|---|------------------------|
| | | | | | |

| DOORS | EXTERIOR | ADJACENT | BASE WINTER POINT. MULT. |
|-------|----------|----------|--------------------------|
| | | | 1.8 |
| | | | 1.3 |

| | | | | | |
|--|--|--|--|--|--|
| | | | | | |
|--|--|--|--|--|--|

| CEILING | UNDER ATTIC OR SINGLE ASSEMBLY | BASE WINTER POINT. MULT. |
|---------|--------------------------------|--------------------------|
| | | .1 |

| | | | | | |
|--|----------------------------------|--|--|--|--|
| | | | | | |
| | RBS/IRCC/white roof ³ | | | | |

BASE CEILING AREA EQUALS FLOOR AREA DIRECTLY UNDER CEILING, AS-BUILT CEILING AREA EQUALS ACTUAL CEILING SQUARE FOOTAGE.

| FLOOR | SLAB (PERIMETER) | RAISED (AREA) | BASE WINTER POINT. MULT. |
|-------|------------------|---------------|--------------------------|
| | | | -2.1 |
| | | | -2.8 |

| | | | | | |
|--|--|--|--|--|--|
| | | | | | |
|--|--|--|--|--|--|

FOR SLAB ON GRADE USE PERIMETER LENGTH AROUND CONDITIONED FLOOR. FOR RAISED FLOORS USE AREA OVER UNCONDITIONED SPACE.

| | | | |
|-------------------------------|--|--|-------|
| INFILTRATION & INTERNAL GAINS | | | -0.06 |
|-------------------------------|--|--|-------|

| | | | |
|--|--|--|-------|
| | | | -0.06 |
|--|--|--|-------|

USE TOTAL FLOOR AREA OF CONDITIONED SPACE.

| |
|------------------------------------|
| TOTAL COMPONENT BASE WINTER POINTS |
|------------------------------------|

| |
|--|
| TOTAL COMPONENT AS-BUILT WINTER POINTS |
|--|

| HEATING SYSTEM | Base Heating System Multiplier | x | Total Base Summer Points | = | BASE HEATING POINTS |
|----------------|--------------------------------|---|--------------------------|---|---------------------|
| | .63 | | | | |

| TOTAL AS-BUILT SUM. PTS. | As-Built DM (6A-17) | x | As-Built DSM (6A-20) | x | As-Built AHU (6A-16) | x | As-Built HSM (6A-18) | x | As-Built HCM (6A-21) | = | AS-BUILT HEATING POINTS |
|--------------------------|---------------------|---|----------------------|---|----------------------|---|----------------------|---|----------------------|---|-------------------------|
| | | | 1.14 or 1.0 | | | | | | | | |

| | | | | | | | |
|-------|---------------------------------|---|---------------------|---|-----------------------------------|---|-----------------------------------|
| TOTAL | BASE COOLING POINTS (From P. 2) | + | BASE HEATING POINTS | + | BASE HOT WATER POINTS (From P. 2) | = | TOTAL BASE POINTS (Enter on P. 1) |
|-------|---------------------------------|---|---------------------|---|-----------------------------------|---|-----------------------------------|

| | | | | | | | |
|-------|-------------------------------------|---|-------------------------|---|---------------------------------------|---|---------------------------------------|
| TOTAL | AS-BUILT COOLING POINTS (From P. 2) | + | AS-BUILT HEATING POINTS | + | AS-BUILT HOT WATER POINTS (From P. 2) | = | TOTAL AS-BUILT POINTS (Enter on P. 1) |
|-------|-------------------------------------|---|-------------------------|---|---------------------------------------|---|---------------------------------------|

¹H = HORIZONTAL GLASS (SKYLIGHTS)

²FOR GLASS WITH KNOWN SHGC, SEE SECTION 2.1.1 APPENDIX C. TINT MULTIPLIERS MAY BE USED FOR GLASS WITH SOLAR SCREENS, FILM, OR TINT.

³MUST MEET CRITERIA OF S. 607.1.A.

WINTER POINT MULTIPLIERS (WPM)

CLIMATE ZONES 7 8 9

6A-10 WINTER OVERHANG FACTORS (WOF)

| SELECT BY OR | OH Ratio | 00-11 | 12-17 | 18-26 | 27-35 | 36-46 | 47-57 | 58-70 | 71-83 | 84-118 | 119-172 | 173-273 | 274 & up |
|-----------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|----------|
| | North | 1.00 | 0.998 | 0.995 | 0.991 | 0.986 | 0.982 | 0.977 | 0.973 | 0.969 | 0.962 | 0.955 | 0.948 |
| | Northeast | 1.00 | 0.999 | 0.999 | 0.998 | 0.997 | 0.996 | 0.994 | 0.993 | 0.991 | 0.985 | 0.978 | 0.969 |
| | East | 1.00 | 1.009 | 1.015 | 1.023 | 1.032 | 1.044 | 1.057 | 1.073 | 1.090 | 1.136 | 1.203 | 1.291 |
| | Southeast | 1.00 | 1.017 | 1.027 | 1.046 | 1.067 | 1.097 | 1.130 | 1.171 | 1.215 | 1.333 | 1.485 | 1.647 |
| | South | 1.00 | 0.994 | 1.001 | 1.024 | 1.060 | 1.115 | 1.174 | 1.238 | 1.290 | 1.376 | 1.425 | 1.443 |
| | Southwest | 1.00 | 0.999 | 1.003 | 1.012 | 1.024 | 1.041 | 1.059 | 1.078 | 1.096 | 1.132 | 1.164 | 1.191 |
| | West | 1.00 | 0.998 | 0.998 | 0.999 | 1.001 | 1.005 | 1.011 | 1.018 | 1.023 | 1.030 | 1.032 | 1.032 |
| | Northwest | 1.00 | 0.997 | 0.995 | 0.992 | 0.989 | 0.985 | 0.982 | 0.978 | 0.974 | 0.967 | 0.959 | 0.952 |
| OH Length | 0.0' | 1.0' | 1.5' | 2.0' | 3.0' | 3.5' | 4.5' | 5.5' | 6.5' | 9.5' | 14.0' | 20.0' | |

6A-11 WALL WINTER POINT MULTIPLIERS (WPM)

| FRAME | | | | | CONCRETE BLOCK (NORMAL WT) | | | | FACEBRICK | | | | LOG | | |
|---------|-----|-------|-----|-----|----------------------------|-----|-----|-------------|-----------|---------|---------|-------|---------|--------|--------|
| WOOD | | STEEL | | | INTERIOR INSULATION | | | EXT. INSUL. | R-VALUE | WOOD FR | R-VALUE | BLOCK | LOG | | |
| R-VALUE | EXT | ADJ | EXT | ADJ | R-VALUE | EXT | ADJ | EXT | 0-6.9 | 2.4 | 0-2.9 | .9 | R-VALUE | 6 INCH | 8 INCH |
| 0-6.9 | 2.5 | 1.7 | 3.4 | 2.2 | 0-2.9 | 1.9 | .7 | 1.9 | 7-10.9 | .6 | 3-6.9 | .6 | 0-2.9 | .6 | .2 |
| 7-10.9 | .8 | .6 | 1.5 | 1.0 | 3-4.9 | 1.2 | .5 | .6 | 11-18.9 | .5 | 7-9.9 | .4 | 0-2.9 | .6 | .2 |
| 11-12.9 | .6 | .5 | 1.1 | 0.8 | 5-6.9 | .9 | .4 | .3 | 19-25.9 | .2 | 10 & UP | .2 | 3-6.9 | .3 | .1 |
| 13-18.9 | .6 | .5 | 1.0 | 0.7 | 7-10.9 | .7 | .4 | .2 | 26 & Up | .1 | | | 7 & Up | .2 | .1 |
| 19-25.9 | .3 | .3 | 0.9 | 0.6 | 11-18.9 | .4 | .2 | .0 | | | | | | | |
| 26 & Up | .2 | .2 | 0.4 | 0.3 | 19-25.9 | .2 | .1 | | | | | | | | |
| | | | | | 26 & Up | .1 | .0 | | | | | | | | |

NOTE: SEE SECTION 2.0 OF APPENDIX C FOR MULTIPLIERS OF ENVELOPE COMPONENTS NOT ON THIS FORM.

6A-12 DOOR WINTER POINT MULTIPLIERS (WPM)

| DOOR TYPE | EXTERIOR | ADJACENT |
|-----------|----------|----------|
| WOOD | 2.8 | 1.9 |
| INSULATED | 1.8 | 1.3 |

6A-13 CEILING WINTER POINT MULTIPLIERS (WPM)

| UNDER ATTIC | | SINGLE ASSEMBLY | | CONCRETE DECK ROOF | | |
|-------------------|-------|-----------------|-----|--------------------|---------|---------|
| R-VALUE | WPM | R-VALUE | WPM | CEILING TYPE | | |
| R-VALUE | WPM | R-VALUE | WPM | R-VALUE | EXPOSED | DROPPED |
| 19-21.9 | .14 | 10-10.9 | .16 | 10-13.9 | 0.18 | 0.16 |
| 22-25.9 | .12 | 11-12.9 | .15 | 14-20.9 | 0.13 | 0.12 |
| 26-29.9 | .11 | 13-18.9 | .14 | 21 & Up | 0.09 | 0.08 |
| 30-37.9 | .10 | 19-25.9 | .11 | | | |
| 38 & Up | .08 | 26-29.9 | .09 | | | |
| RBS Credit | 0.850 | 30 & Up | .08 | | | |
| IRCC Credit | 0.899 | | | | | |
| White Roof Credit | 1.044 | | | | | |

6A-14 FLOOR WINTER POINT MULTIPLIERS (WPM)

| SLAB-ON-GRADE EDGE INSULATION | | RAISED CONCRETE | | RAISED WOOD | | | |
|-------------------------------|------|-----------------|-----|---------------------------|-------|-------------------------------------|----------|
| R-VALUE | WPM | R-VALUE | WPM | POST OR PIER CONSTRUCTION | | STEM WALL w/ UNDER FLOOR INSULATION | ADJACENT |
| R-VALUE | WPM | R-VALUE | WPM | R-VALUE | WPM | WPM | WPM |
| 0-2.9 | -2.1 | 0-2.9 | 1.0 | 0-6.9 | 0.99 | 0.3 | 1.7 |
| 3-4.9 | -2.6 | 3-4.9 | .3 | 7-10.9 | 0.24 | 0 | .6 |
| 5-6.9 | -2.7 | 5-6.9 | .1 | 11-18.9 | 0.12 | 0 | .5 |
| 7 & Up | -2.7 | 7 & Up | .0 | 19 & Up | -0.01 | -.1 | .3 |

6A-17 DUCT MULTIPLIERS (DM) See Table 6-10 for Code minimums.

| SUPPLY DUCTS IN: | DUCT R-Value | RETURN DUCTS In: | | | | |
|--|--------------|---------------------|-----------|------------|------------------|-------------------|
| | | Unconditioned space | Attic/RBS | Attic/IRCC | Attic/White roof | Conditioned space |
| Unconditioned Space | 4.2 | 1.135 | 1.123 | 1.125 | 1.128 | 1.116 |
| | 6.0 | 1.099 | 1.091 | 1.092 | 1.094 | 1.085 |
| | 8.0 | 1.076 | 1.070 | 1.071 | 1.073 | 1.066 |
| Attic/Radiant Barrier (RBS) | 4.2 | 1.095 | 1.083 | --- | --- | 1.073 |
| | 6.0 | 1.072 | 1.063 | --- | --- | 1.056 |
| | 8.0 | 1.057 | 1.050 | --- | --- | 1.044 |
| Attic/Interior Radiation Control Coatings (IRCC) | 4.2 | 1.122 | --- | 1.110 | --- | 1.096 |
| | 6.0 | 1.091 | --- | 1.083 | --- | 1.072 |
| | 8.0 | 1.071 | --- | 1.065 | --- | 1.056 |
| Attic/White Roof | 4.2 | 1.151 | --- | --- | 1.139 | 1.120 |
| | 6.0 | 1.111 | --- | --- | 1.102 | 1.088 |
| | 8.0 | 1.085 | --- | --- | 1.078 | 1.068 |
| Conditioned Space | 4.2 | 1.012 | 1.010 | 1.012 | 1.012 | 1.000 |
| | 6.0 | 1.009 | 1.008 | 1.009 | 1.009 | 1.000 |
| | 8.0 | 1.007 | 1.006 | 1.007 | 1.007 | 1.000 |

6A-15 INFILTRATION & INTERNAL GAINS (WPM)

| | |
|-----------------------------|---------|
| Air Infiltration | 0.32 |
| Internal Gains | + -0.38 |
| Infiltration/Internal Gains | -0.06 |

6A-16 AIR HANDLER MULTIPLIERS (WPM)

| | |
|---------------------------------|------|
| Located in garage | 1.00 |
| Located in conditioned area | 0.91 |
| Located on exterior of building | 1.08 |
| Located in attic | 1.14 |

6A-18 HEATING SYSTEM MULTIPLIERS (HSM)

| SYSTEM TYPE | HEATING SYSTEM MULTIPLIERS (HSM) | | | | | | | | | |
|-------------------------|----------------------------------|---|-------------|-------------|-------------|-------------|------------|-----------|-----------|--|
| | | 6.40-6.79 | 6.80-6.89 | 6.90-7.39 | 7.40-7.89 | 7.90-8.39 | 8.40-8.89 | 8.9-9.39 | 9.4-9.89 | |
| Central Heat Pump Units | HSPF | | | | | | | | | |
| | HSM | .53 | .50 | .49 | .46 | .43 | .41 | .38 | .36 | |
| | HSPF | 9.90-10.39 | 10.40-10.89 | 10.90-11.39 | 11.40-11.89 | 11.90-12.39 | 12.40 & up | | | |
| | HSM | .34 | .33 | .31 | .30 | .29 | .28 | | | |
| PTHP | COP | 2.50-2.69 | 2.70-2.89 | 2.90-3.09 | 3.10-3.29 | 3.30-3.49 | 3.50-3.69 | 3.70-3.89 | 3.90-4.19 | |
| | HSM | .40 | .37 | .34 | .32 | .30 | .29 | .27 | .26 | |
| Electric Strip & Gas | | 1.0 (for gas credit multipliers, see Table 6A-21) | | | | | | | | |

ADDITIONAL TABLES

6A-19 COOLING CREDIT MULTIPLIERS (CCM)

| SYSTEM TYPE | Cooling credit multipliers (CCM) |
|-------------------------|----------------------------------|
| Ceiling Fans | .95* |
| Cross Ventilation | .95* |
| Whole House Fan | .95* |
| Multizone | .95 |
| Programmable Thermostat | .95 |

*Credit may be taken for only one of these system types concurrently.

6A-20 AIR DISTRIBUTION SYSTEM CREDIT MULTIPLIERS

| TYPE CREDIT | Prescriptive requirements | Multiplier |
|--|---------------------------|------------|
| Airtight Duct credit ¹ | 610.1.A.1 | 1.00 |
| Factory-sealed AHU credit ² | 610.2.A.2.1 | 0.95 |

¹Duct Sealing Multiplier (DSM) shall be 1.16 (summer) or 1.14 (winter) unless Airtight Duct credit is demonstrated by test report.

²Multiply Factory-sealed AHU credit by summer (Table 6A-7) or winter (Table 6A-16) AHU multiplier. Insert total in the "AS-Built AHU" box on page 2 or 4.

6A-21 HEATING CREDIT MULTIPLIERS (HCM)

| SYSTEM TYPE | HEATING CREDIT MULTIPLIERS (HCM) | | | | | | |
|-------------------------|----------------------------------|---------|---------|---------|---------|---------|----------|
| Programmable Thermostat | HCM | .95 | | | | | |
| Multizone | HCM | .95 | | | | | |
| Natural Gas | AFUE | .68-.72 | .73-.77 | .78-.82 | .83-.87 | .88-.92 | .93 & Up |
| | HCM | .56 | .52 | .49 | .46 | .44 | .41 |
| LP Gas | HCM | .71 | .66 | .62 | .58 | .55 | .52 |

6A-22 HOT WATER MULTIPLIERS (HWM)

| SYSTEM TYPE | HOT WATER MULTIPLIERS (HWM) | | | | | | | | | | | | |
|---------------------|-----------------------------------|---------|----------|----------|----------|----------|----------|----------|----------|----------|---------|----------|----------|
| Electric Resistance | EF | | | | | .80-.81 | .82-.83 | .84-.85 | .86-.87 | .88-.90 | .91-.93 | .94-.96 | .97 & Up |
| | HWM | | | | | 2606 | 2543 | 2482 | 2424 | 2369 | 2290 | 2218 | 2149 |
| Natural Gas | EF | .43-.47 | .48-.49 | .50-.51 | .52-.53 | .54-.55 | .56-.57 | .58-.59 | .60-.61 | .62-.63 | .64-.65 | .66 & Up | |
| | HWM | 1848 | 1655 | 1589 | 1528 | 1471 | 1419 | 1370 | 1324 | 1281 | 1241 | 1203 | |
| LP Gas | HWM | 2353 | 2107 | 2023 | 1945 | 1874 | 1806 | 1744 | 1686 | 1631 | 1581 | 1533 | |
| | Ded. HP or Solar System with Tank | EF | 1.0-1.49 | 1.5-1.99 | 2.0-2.49 | 2.5-2.99 | 3.0-3.49 | 3.5-3.99 | 4.0-4.49 | 4.5-4.99 | 5.0-Up | | |
| HWM | | 2085 | 1390 | 1042 | 834 | 695 | 596 | 521 | 463 | 417 | | | |

6A-23 HOT WATER CREDIT MULTIPLIERS (HWCN)

| SYSTEM TYPE | HOT WATER CREDIT MULTIPLIERS (HWCN) | | | | | | | | | | |
|---|-------------------------------------|-----------------|--|----------|-----------|----------|--|----------|--|----------|--|
| Heat Recovery Unit | With | Air Conditioner | | | Heat Pump | | | | | | |
| | HWCN | .84 | | | .78 | | | | | | |
| Add-on Dedicated Heat Pump (without tank) | EF | 2.0-2.49 | | 2.5-2.99 | | 3.0-3.49 | | 3.5 & Up | | | |
| | HWCN | .44 | | .35 | | .29 | | .25 | | | |
| Add-on Solar Water Heater (without tank) | EF | 1.0-1.9 | | 2.0-2.9 | | 3.0-3.9 | | 4.0-4.9 | | 5.0 & Up | |
| | HWCN | .84 | | .42 | | .28 | | .21 | | .17 | |

A HWM MUST BE USED IN CONJUNCTION WITH ALL HWCN. SEE TABLE 6A-22. EF MEANS ENERGY FACTOR.

6A-24 INFILTRATION REDUCTION COMPLIANCE CHECKLIST

| COMPONENTS | SECTION | REQUIREMENTS FOR EACH PRACTICE | CHECK |
|-------------------------------|-----------------|--|-------|
| Exterior Windows & Doors | 606.1.ABC.1.1 | Max: .3 cfm/sq.ft. window area; .5 cfm/sq.ft. door area. | |
| Exterior & Adjacent Walls | 606.1.ABC.1.2.1 | Caulk, gasket, weatherstrip or seal between: windows/doors & frames, surrounding wall; foundation & wall sole or sill plate; joints between exterior wall panels at corners; utility penetrations; between wall panels & top/bottom plates; between walls & floor. EXCEPTION: Frame walls where a continuous infiltration barrier is installed that extends from, and is sealed to, the foundation to the top plate. | |
| Floors | 606.1.ABC.1.2.2 | Penetrations/openings >1/8" sealed unless backed by truss or joint members. EXCEPTION: Frame floors where a continuous infiltration barrier is installed that is sealed to the perimeter, penetrations and seams. | |
| Ceilings | 606.1.ABC.1.2.3 | Seal: Between walls & ceilings; penetrations of ceiling plane of top floor; around shafts, chases, soffits, chimneys, cabinets sealed to continuous air barrier; gaps in gyp board & top plate; attic access. EXCEPTION: Frame ceilings where a continuous infiltration barrier is installed that is sealed at the perimeter, at penetrations and seams. | |
| Recessed Lighting Fixtures | 606.1.ABC.1.2.4 | Type IC rated with no penetrations, sealed; or Type IC or non-IC rated, installed inside a sealed box with 1/2" clearance & 3" from insulation; or Type IC rated with <2.0 cfm from conditioned space, tested. | |
| Multi-story Houses | 606.1.ABC.1.2.5 | Air barrier on perimeter of floor cavity between floors. | |
| Additional Infiltration reqts | 606.1.ABC.1.3 | Exhaust fans vented to outdoors, dampers; combustion space heaters comply with NFPA, have combustion air. | |

6A-25 OTHER PRESCRIPTIVE MEASURES (must be met or exceeded by all residences.)

| COMPONENTS | SECTION | REQUIREMENTS | CHECK |
|--------------------------|--------------|---|-------|
| Water Heaters | 612.1 | Comply with efficiency requirements in Table 6-12. Switch or clearly marked circuit breaker (electric) or cutoff (gas) must be provided. External or built-in heat trap required for vertical pipe risers. | |
| Swimming Pools & Spas | 612.1 | Spas & heated pools must have covers (except solar heated). Non-commercial pools must have a pump timer. Gas spa & pool heaters must have a minimum thermal efficiency of 78%. | |
| Shower Heads | 612.1 | Water flow must be restricted to no more than 2.5 gallons per minute at 80 PSIG. | |
| Air Distribution Systems | 610.1 | All ducts, fittings, mechanical equipment and plenum chambers shall be mechanically attached, sealed, insulated, and installed in accordance with the criteria of Section 610. Ducts in unconditioned attics: R-6 minimum insulation. | |
| HVAC Controls | 607.1 | Separate readily accessible manual or automatic thermostat for each system. | |
| Insulation | 604.1, 602.1 | Ceilings–Min. R-19. Common walls–Frame R-11 or CBS R-3 both sides. Common ceiling & floors R-11. | |