**2020 ECCCNYS RESIDENTIAL ENERGY PLAN REVIEW CHECKLIST**

Building ID: Date: Name of Plans Examiner:

Building Contact Name: Phone: Email:

Building Address:­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**COMPLIANCE PATH**

[ ]  Prescriptive – NY Table R402.1.2

[ ]  Prescriptive – UA Alternative (RES*check*)[[1]](#endnote-2)

[ ]  Simulated Performance Alt.[[2]](#endnote-3)

[ ]  Energy Rating Index Alt.

**BUILDING THERMAL ENVELOPE**

|  |
| --- |
| **Insulation R-Values and Fenestration U-factors** |
| Insulation values are shown on plans and all values meet or exceed the values in [NY] Table R402.1.2. Otherwise, compare values on plans to passing RES*check*, Energy Cost Compliance, or ERI report |
| **Ceilings** |
| Ceiling with attic space  | Y N NA |
| Ceiling w/o attic space  | Y N NA |
| **Above grade framed walls** |
| Typical above grade walls | Y N NA |
| Attic knee walls | Y N NA |
| Rim/band joists | Y N NA |
| Walkout portion of basement | Y N NA |
| **Fenestration** |
| Windows | Y N NA |
| Skylights  | Y N NA |
| Opaque doors | Y N NA |
| **Mass walls (>50% above grade)** |
| 1st through 3rd floors | Y N NA |
| Enclosing a conditioned basement | Y N NA |
| **Floors** |
| Over outside air (e.g. cantilever) | Y N NA |
| Over vented crawl space | Y N NA |
| Over unconditioned basement | Y N NA |
| **Foundation** |
| Basement walls | Y N NA |
| Unvented crawl space walls | Y N NA |
| Slabs on grade[[3]](#endnote-4) | Y N NA |

**Air Barrier and Insulation Details:**

* Slab on grade with insulation extending downward from the top of the slab
* Insulated corners: Framing allows space for insulation
* Insulated headers: Insulation installed in headers as space allows
* Fireplaces on exterior walls: Air barrier between insulation and fireplace insert
* Dropped ceiling/soffit: Air barrier aligned with insulation
* Porch roofs: Exterior wall sheathing extends behind intersection with porch roof
* Skylight shafts: Shaft walls are insulated and include attic-side air barriers
* Showers/tubs on exterior walls: Air barrier located between wall insulation and the shower/tub
* Knee walls: Air barrier on attic side of knee wall, top plate installed, blocking between floor joists under knee wall
* Blocking between joists above walls separating garages from conditioned space
* Cantilevered floors: Insulated with solid air barriers underneath insulation and blocking between joists
* Attic access hatches: Weatherstripped and insulated to the same R-value as the surrounding surface

[ ]  Notes indicate that insulation is to be installed per manufacturer’s installation instructions or RESNET Grade I

**MECHANICAL SYSTEMS**

**Thermostats**

[ ]  **R403.1.1** All thermostats are programmable

**Ducts and Air Handler**

[ ]  **R403.3.1** Notes or drawings specify insulation for ducts in unconditioned spaces

≥ 3” diameter insulated to ≥ R-8 in attics and ≥ R-6 elsewhere

< 3” diameter insulated to ≥ R-6 in attics and ≥ R-4.2 elsewhere

[ ]  **R403.3.2.1** Equipment specs indicate air handler has ≤ 2% air leakage when tested per ASHRAE 193

**HVAC Piping**

[ ]  **R403.4** Notes or drawings indicate R-3 minimum HVAC pipe insulation (e.g. hydronic systems, refrigerant lines)

[ ]  **R403.4.1** Notes or drawings indicate HVAC pipe insulation protection for pipes/insulation located outdoors (e.g. refrigerant lines)

**Review HVAC Design Worksheet – Page 1 (HVAC Equipment)**

[ ]  **R403.7** Manual J report, including heating and cooling design loads, is attached

[ ]  **Manual S.** Specified cooling equipment capacity is ≤ 1.15 times the design load or the next larger nominal size, whichever is greater. (Exception: Heat pumps may exceed the design load by 1.25 times or the next nominal size.)

[ ]  **Manual S.** Specified heating equipment capacity is ≤ 1.40 times the design load or the next larger nominal size, whichever is greater

**Whole-House Mechanical Ventilation**

[ ]  **RCNYS** **R303.4** Whole-house mechanical ventilation worksheet has been completed by applicant

[ ]  **RCNYS** **M1505.4** Required airflow (CFM) input correctly based on conditioned floor area and number of bedrooms

[ ]  **RCNYS** **M1505.4** Specified fan airflow (CFM) is ≥ required airflow (CFM)

[ ]  **RCNYS** **M1505.4** Specified fan has controls to operate fan continuously or intermittently

[ ]  **R403.6.1** Specified fan efficacy (CFM/watt) is ≥ required fan efficacy (CFM/watt)

* + HRV/ERV ≥ 1.2
	+ Range hoods/in-line fans ≥ 2.8
	+ Utility room fan (0-89.9 cfm) ≥ 1.4
	+ Utility room fan (90+ cfm) ≥ 2.

**Documentation**

[ ]  Blank ***Duct and Envelope Testing* *Form*** has been provided to the permit applicant with approved plans

**LIGHTING**

[ ]  Notes indicate 90% of lamps in permanently installed fixtures will be high-efficacy (or 90% of fixtures contain only high-efficacy lamps)

1. Applicant must provide the compliance certificate and inspection checklist generated by RES*check* (or other approved UA calculation tool) [↑](#endnote-ref-2)
2. Applicant must provide compliance certificate and inspection checklist, including proposed infiltration and duct leakage rates. To receive a certificate of occupancy, blower door and duct leakage test results must be provided to verify that the leakage rates are not exceeded. [↑](#endnote-ref-3)
3. Slab insulation is required anywhere the space above the slab is conditioned and the floor is location 12” or less below grade. This may include portions of walkout basements. [↑](#endnote-ref-4)