

# HVAC Simplified Approach Option

Part I

Project Name:	
Project Address:	Date:
City:	Zip:
HVAC System Designer of Record:	Telephone:
Contact Person:	Telephone:

## Qualification

- The building is 2 stories or less in height and has a gross floor area is less than 25,000 ft<sup>2</sup>.

## Requirements

- (a) All systems serve a single HVAC zone.
- (b) Cooling (if any) is provided by a unitary packaged or split-system air conditioner that is either air-cooled or evaporatively cooled and meets the efficiency requirements shown in Table 6.8.1. List equipment in the table below.
- (c) The system has an air economizer as required by Table 6.5.1, with controls as required in Tables 6.5.1.1.3A and 6.5.1.1.3B. The economizer has either barometric or powered relief sized to prevent overpressurization of the building. Outdoor air dampers for the economizer use are provided with blade and jamb seals.
  - Exception: The cooling efficiency meets or exceeds the efficiency requirement in Table 6.3.2. Document in table below.
- (d) Heating (if any) shall be provided by a unitary packaged or split-system heat pump, a fuel-fired furnace, an electric resistance heater or a baseboard system connected to a boiler. All heating equipment meets the efficiency requirements of the Standard. List equipment in table below.
- (e) The outdoor air quantity is less than or equal to 3,000 cfm and less than or 70% of the supply air quantity at minimum outdoor air design conditions.

- Exception: An energy recovery ventilation system is provided in accordance with the requirements in § 6.5.6.
- (f) The system shall be controlled by a manual changeover or dual setpoint thermostat.
- (g) Heat pumps equipped with auxiliary internal electric resistance heaters (if any) have controls to prevent supplemental heater operation when the heating load can be met by the heat pump alone.
- (h) The system controls do not permit reheat or any other form of simultaneous heating and cooling for humidity control.
- (i) Systems are provided with a time switch that (1) can start and stop the system under different schedules for seven different day-types per week; (2) is capable of retaining programming and time setting during a loss of power for a period of at least 10 h; (3) includes an accessible manual override that allows temporary operation of the system for up to 2 h; (4) is capable of temperature setback down to 55°F during off hours; and (5) is capable of temperature setup to 90°F during off hours.
  - Exception: System serves hotel/motel guest rooms.
  - Exception: System operates continuously.
  - Exception: System has both a cooling or heating capacity less than 15,000 Btu/h and a supply fan motor power greater than 3/4 hp.

- (j) Piping is insulated in accordance with Table 6.8.3. Insulation exposed to weather is suitable for outdoor service. Cellular foam insulation is protected from water and solar radiation.
  - Exception: Piping is located within manufactured HVAC units.
- (k) Ductwork and plenums are insulated in accordance with Tables 6.8.2A and 6.8.2B and sealed in accordance with Tables 6.4.4.2A and 6.4.4.2B.
- (l) Construction documents require air systems to be balanced in accordance with industry-accepted procedures to within 10% of design airflow rates.
- (m) Where separate heating and cooling equipment serve the same temperature zone, thermostats are interlocked to prevent simultaneous heating and cooling.
- (n) Exhausts are equipped with gravity or motorized dampers that will automatically shut when systems are not in use.
  - Exception: Design capacity is less than 300 cfm.
  - Exception: System operates continuously.
- (o) Systems have optimum start controls.
  - Exception: Supply air capacity is less than 10,000 cfm.

## Equipment Efficiency

System Tag(s)	Mfg. & Model No.	Equipment Type	Heating			Cooling			
			Rated Capacity	Rated Efficiency	Minimum Efficiency	Rated Capacity	Rated Efficiency	Minimum Efficiency	Econ. Min. Efficiency

