IAQ Design Tools for Schools
Sample Format for Documenting HVAC Systems

Proper operation and maintenance of HVAC systems is probably one of the most misunderstood issues and greatest problems regarding good indoor air quality in schools. A separate form should be completed for each HVAC zone* in the school. Also, a simple floor plan map of the school should divide all occupied areas of the school into zones, and each zone should be numbered and or named. A separate floor plan map should be made for each zone, and the locations of the following items should be noted on each map: Outdoor air intake(s); Air handling units that carry ventilation air; Energy recovery ventilation units, if separate from other air handlers; and Exhaust fan(s) or passive relief vents.

Zone* Name or Number:	
OAS Volume	Minimum amount of outdoor air, in CFM, that is supplied to the zone when it is occupied
Occupancy	Number of people that are expected to occupy the zone, by design
Air Distribution	The form of air distribution within the zone, such as displacement ventilation or mixed air. Also, the general location of how air enters the room(s), such as at ceiling, wall, or floor, and where air exits the room(s).
Air Filters	The types and dust-spot efficiencies of the air filters in this equipment
Humidifiers/Dehumidifiers	The types of humidifiers or dehumidifiers that are installed in this zone, and the capacity per hour
Inspection Ports	Describe the intent of any inspection ports, and note their location on the map
Energy Recovery	Briefly describe the type of ERV, and note the location on the map
Exhaust Fans	List the amount of exhaust in CFM that pertains to this zone, and note the location of the fan and any manual switches that control the fan
Supply Temperature	The seasonal supply air temperatures as it enters the occupied space(s)
Manual Controls	Describe any manually-activated or manually-resettable switches or controls that can turn the ventilation off

*Definition of Zone: All of the rooms and areas that students or staff occupy and that is served by a single ventilation system** constitute a single zone. For example, a zone can include all classrooms and the corridor in a wing that is served by a large central air handling unit on the roof or in a mechanical room; or a zone my be as small as a single classroom or office that is served by a unit ventilator located within that area.

**Definition of Ventilation System: All of the components that work together to supply outdoor air to a zone. Generally the purpose is to supply outdoor air to, and exhaust polluted air from, a specific zone for the purpose of maintaining good IAQ.