



K-12 School Design Tips (for Architects & Engineers)

Jefferson County Public Health's School Health & Safety program reviews K-12 school construction plans. This handout identifies common areas not adequately designed on the initial set of plans submitted for review.

Design consideration for all schools

Curriculum Needs. Anticipated use of the building is perhaps the most important consideration when plans are reviewed by Jefferson County Public Health (JCPH). It is important for us to know how the building will be used to meet curriculum needs now and in the future, including:

- Eventual addition of art, science, or career and technical education (CTE) to their current curriculum.
- Plans to add more classroom space or expand their curriculum over time.

Lighting. The lighting requirements specified in WAC 246-366-120 are applied to student areas based on the planned use of the space.

- If an instructional space will be used for normal classroom instruction and occasionally used for art, science experiments, or CTE, the space must meet the more stringent lighting requirements specified in the regulation. This also applies to rooms like auditoriums that may occasionally be used for classroom instruction or testing.
- The lighting in all areas of each room must meet the minimum requirements outlined in the regulation.

Noise levels. The noise level requirement specified in WAC 246-366-110 are applied to student areas based on the planned use of the space. All instructional spaces must meet these requirements when the ventilation systems are on. Rooms with shop equipment must meet these requirements when the exhaust and dust collection systems are in operation.

Miscellaneous.

- Stairwells inside buildings and on school grounds should be designed with handrails, support posts and banisters that discourage climbing.
- If landscape features such as large rocks, rockeries, and pillars are added to courtyards and other areas of the school grounds they should not be climbable.

Elementary Schools (additional design considerations)

Storage. A common concern in elementary school classrooms in making sure there is adequate storage for student belongings and adequate LOCKABLE storage for all classroom chemicals (e.g. cleaners, disinfectants, art supplies). All chemicals labeled "keep out of reach of children" must be stored out of student reach or in locked cabinets.

Playgrounds. Playground equipment must be reviewed before installation. All equipment must conform to ASTM Standard F1487 and the CPSC handbook for public playground safety. Residential play equipment may not meet these standards. A separate playground plan review checklist must be completed for any new or relocated play equipment.

Middle Schools and High Schools (additional design considerations)

Emergency eye washes and showers. Emergency eye wash and shower stations for science areas and shops are required based on the chemical inventory list and the information in the Safety Data Sheets (SDS). DOSH Directive 13.00 Emergency Washing Facilities outlines the criteria for this requirement.

Ventilation. Rooms used even occasionally for art, science, laboratory experiments or CTE may need additional ventilation, dust collection, or both if the curriculum activities in these rooms produce fumes, vapors, smoke, or particulates. Other requirements may also be applicable, including emergency shut-offs, local exhaust ventilation, operator use zones and non-slip flooring.

Hoods. Laboratories with pass-through hoods allowing the teacher to perform experiments while standing in either the chemical storage room or science classroom must be equipped with a locking mechanism.