State of Alaska
Department of Education and Early Development

School Facilities

Sustainable Schools
Educational Specifications Supplement

Establish sustainability goals at the conceptual stage of project development.

- Goals on fuel usage
- Goals on water usage
- Goals on electricity usage
- Goals on maintenance expenditures
- Goals on training expenditures

Monitor and adjust goals year-to-year.

Consider level of difficulty for maintenance when selecting building systems. Don't select a system that promises potential utility savings if the cost of maintenance and operation of that system will cost more than is saved, or requires skills the district does not have to maintain and/or operate.

Consider school size in terms of educational requirements, but also in terms of operating costs associated with the space.

Consider a site as close as possible to the majority of the student population served.

Consider a site that provides ready access to necessary utilities, or that provides site characteristics that provide for on-site development of utility services.

Consider a site with minimal impact on existing habitat, or consider a site that provides a clear opportunity for habitat restoration.

Consider building orientation to take advantage of the site characteristics.

- South facing windows to maximize natural light infiltration.
- Use natural features to protect from wind loads.
- Consider predominant wind direction when identifying window size and location.
- Consider predominant wind, and snow drift direction when identifying door and building ventilation location.
- Consider that the majority of usage will take place during the school year (September-May).

Consider joint-use of a school facility with other organizations such as community schools programs, community health programs, mental health programs, senior care or service programs or other programs compatible with the school mission.

Consider choice of heating and ventilation alternatives that provide the district with the best combination of energy efficiency and ease of maintenance.

Consider day-lighting alternatives that minimize the use of artificial lighting throughout the building while still provided for adequate insulation characteristics for the school location. Compare costs of alternative day-lighting strategies in terms of electricity cost, as well as anticipated heating costs.

Consider strategies to minimize water use

- Low-flow double-flush toilets
- Waterless urinals
- Recapture of grey-water and treatment for non-potable water uses
- Rainwater recovery systems

Compare the cost of increasing insulation R-values versus the long-term benefit of decreased heating costs.

Consider computer controlled heating, ventilation and lighting controls with remote monitoring and data collection capacity to monitor and analyze energy usage.

Consider rapidly renewable materials.

Consider use of regionally available materials.

Establish a minimum Indoor Air Quality (IAQ) standard and develop a process to monitor IAQ during peak usage.

Establish a minimum acoustical performance standard and verify at commissioning.

Establish a minimum classroom and hallway lighting level and verify at commissioning.