Healthy Schools

Indoor Air Quality

Cushing Terrell

We are excited to see that these stimulus dollars are available to you to upgrade your school's ventilation systems. These upgrades are vital to improve air quality, reduce the spread of COVID and other airborne pathogens, and help create healthier atmospheres for years to come.

Alex Russell
Associate | Mechanical Engineer

What does healthy indoor air quality do for your schools?

With $54.3 billion currently being distributed to K-12 schools, and potentially $170 billion more on the way, our mechanical engineering specialists want to help you implement the **best air quality upgrades** to improve your students', staff, and educational community's health, welfare, and productivity.

This funding has the potential to help upgrade aging, poor functioning mechanical systems that will not only address the current pandemic but will prove beneficial to the health of your occupants for decades to come. Evidence based studies show that **test scores increase** 11 points, **recognition rates rise** by 15%, and **upper respiratory infections decrease** over 10% with increased ventilation. Classrooms that have proper air exchanges, outdoor air mixture, and temperature range have proven to place students at an advantage to learn, retain, and thrive.

Our Offices

COLORADO	Denver
IDAHO	Boise
LOUISIANA	New Orleans
MINNESOTA	Minneapolis
MONTANA	Billings Bozeman Great Falls Helena Kalispell Livingston Missoula
TEXAS	Austin
WASHINGTON	Seattle

Our Services

ARCHITECTURE

ENGINEERING
Civil · Electrical · Environmental · Industrial Hygiene
Mechanical · Plumbing · Structural · Refrigeration

BUILDING COMMISSIONING

CONSTRUCTION ADMINISTRATION

ENERGY MODELING & CONSERVATION

FACILITY MANAGEMENT

FIRE PROTECTION

GRAPHIC DESIGN / MULTIMEDIA DESIGN / WAYFINDING

HISTORIC PRESERVATION

INTERIOR DESIGN / FURNISHINGS

IT / COMMUNICATION SYSTEMS

LAND PLANNING

LANDSCAPE ARCHITECTURE

LIFE CYCLE COSTING

ROOFING / BUILDING ENCLOSURE CONSULTING

SECURITY / ACCESS CONTROL DESIGN

SPACE PLANNING

SUSTAINABLE DESIGN / LEED®

VALUE ENGINEERING

By the Numbers

375+
professionals

600m
annual construction volume

83
years in business

70+
LEED accredited professionals

13
office locations

1
client-driven mission

How can we help you?

1. We will assess your current facilities and HVAC systems targeting indoor air quality improvement strategies. We will provide you with a breakdown of the indoor air quality in your facilities, as well as individual spaces within your facility, using an indoor air quality rating tool we have developed. This tool analyzes levels of carbon dioxide, fresh air ventilation rates, filtration levels, source contaminate control, and best industry practices. Using this scorecard we can work with you to determine the areas and facilities that would most benefit with air quality improvements.

2. Each assessment is targeted to your school's unique building needs. Our mechanical specialists will compile the information from our assessment and indoor air quality scoring, and provide you specific recommendations based upon upgrade advantages and costs. These recommendations will have an emphasis on greatest utilization of first cost dollars, for the maximum long term benefit of your district's indoor air quality needs.

3. Our assessment report, including results and recommendations, will be communicated in a way that is easy to understand and share with your board and governing body for further action.

Are you ready to complete your Indoor Air Quality Assessment?

If interested in completing an Indoor Air Quality Assessment, we will be able to quickly give you an assessment fee based upon the number of facilities you want assessed, and some general building data. Due to the importance of this evaluation, timing of the available funding, and desire to effect positive change immediately, we will make every effort to quickly evaluate each school and district in the order in which they were approved. Our goal is to have the assessment results back to you within 30-days.

What will your assessment provide?

- **Evaluate regional air quality and local contaminant sources impacting outdoor air quality. Assess the suitability of outside air for ventilation purposes and recommend treatment if necessary.**

- **Observe the age, condition and configuration of existing HVAC systems.**

  - Identify potential sources of airborne contaminants
  - Evaluate outdoor air delivery and control.
  - Evaluate exhaust air systems for effective capture and removal of contaminants from localized indoor sources
  - Identify filter type and arrangement for outdoor air and recirculated air.
  - Estimate remaining HVAC system service life.

- **Summary/conclusion/recommendations (as required)**

  - Potential upgrades to HVAC systems
    - › Treatment for removal of contaminants from outside air
    - › Identify/recommend repair and or replacement of HVAC systems, subsystems and/or components with emphasis on IAQ improvement measures.
    - › HVAC control system upgrades, particularly outdoor air measurement/control and IAQ monitoring
  - Recommend operational and maintenance adjustments for improved IAQ
    - › Consider enhanced IAQ measures
    - › Displacement ventilation
    - › Enhanced filtration
    - › Ultraviolet germicidal irradiation for disinfection of wetted HVAC system airstream components and/or inactivation of airborne bioaerosols
    - › Advanced and/or supplemental air cleaning technologies

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