



Public Schools of North Carolina
State Board of Education
Department of Public Instruction

Report to the North Carolina General Assembly

Plant Operation Service Report
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DPI Chronological Schedule, 2015-2016

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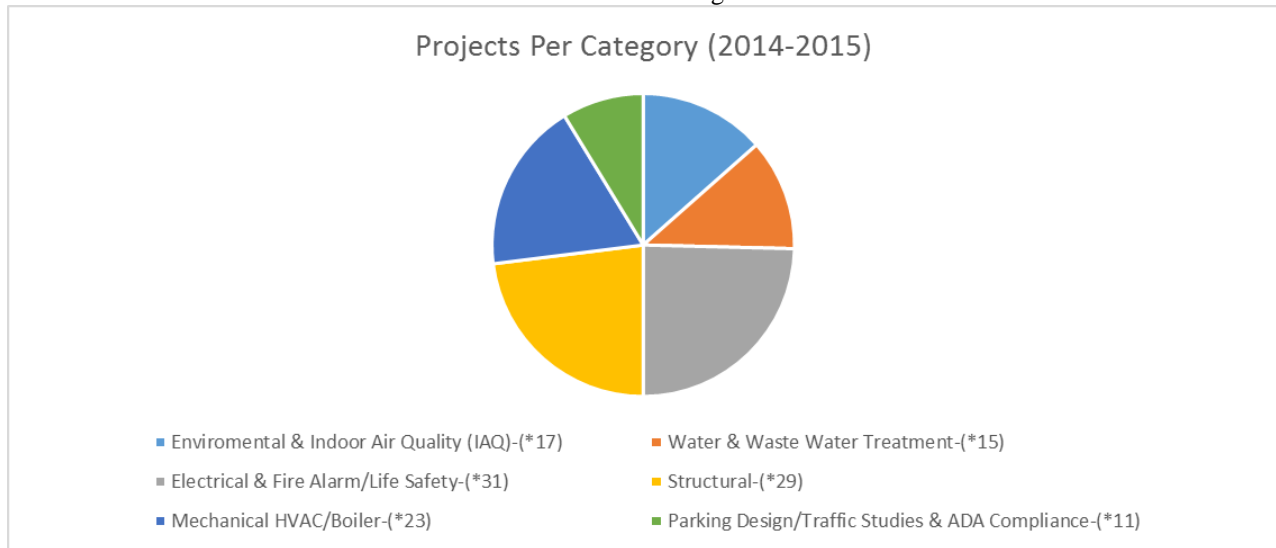
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The Plant Operation Section in the Safe and Healthy Schools Support Division assists each local school administrative unit with effective management of the learning environment with respect to air quality, energy, environmental stewardship, hazardous materials and water and waste water quality as well as effective control of maintenance/construction costs, utility/operations costs, and protection of current school assets.

Given the current economic conditions, many school districts are faced with maintaining older (but still useful) facilities. Schools across the state depend on the Department of Public Instruction's Plant Operation Section to provide experienced professional engineering for effective solutions to their facility related issues. Plant Operation streamlines facility maintenance by (1) providing technical consulting and (2) professional design solutions uniquely tailored for the public schools. These services are available to all of the schools of North Carolina and are especially invaluable in areas where services are scarce or unaffordable. With more than half of the North Carolina's school districts identified as low wealth, the technical assistance provided by this Section is vital to those counties that may be unable to afford private consulting services. Through wide-ranging professional services, this Section effectively ensures facilities are conducive to a safe and cost effective learning environment.



(*)-Number of projects that fall under each category.

Project Category Overview

Mechanical HVAC/Boiler Projects

- Boiler troubleshooting
- Chiller troubleshooting & design
- Energy efficient boiler conversions
- Energy efficient HVAC upgrade design
- Energy management controls troubleshooting/design
- Boiler pipe maintenance

Structural Projects

- Roofing design & troubleshooting
- Construction liaison services
- Bleacher inspection
- Provide energy efficient roof system design
- Structural Inspections
- Effective construction & maintenance savings

Electrical & Fire Alarm/Life Safety Projects

- Electrical service design & upgrades
- Standby power setup & support
- Access control system review & troubleshooting
- Energy efficient interior & exterior lighting improvements
- Fire alarm & burglar alarm to best suit schools and budget

Environmental & Indoor Air Quality (IAQ) Projects

- Effective hazardous material management
- Remediation guidance
- Indoor air quality
- Site evaluation & planning
- Storm water management

Water & Waste Water Treatment Projects

- Waste water UV disinfection
- Sand filter inspections/troubleshooting
- Water treatment troubleshooting/adjustment
- Well water troubleshooting

- Septic tank troubleshooting
- Cost effective waste water treatment expansion
- Cost effective water treatment design

Parking Design/Traffic Studies & Americans with Disabilities Act (ADA) Compliance Projects

- Evaluation of existing school traffic patterns
- Adding additional staff parking
- Exterior & interior egress evaluation
- Mobile classroom accessibility compliance
- Safer bus traffic routing
- Improving pedestrian safety on school property
- Restroom compliance evaluation

Various Support & Training

Our support may include a simple site visit or phone conversation for many of the maintenance issues LEAs handle on a daily basis. Without this service school maintenance personnel throughout the state would be forced to make do, and in many cases make repairs that could be insufficient or hazardous for students and staff. In addition to furnishing support services, the Plant Operation Section also provides valuable training in facility related Asbestos Remediation, Waste Water Plant Operation and School Maintenance Electrician review, exam, and certification.

Testimonial

"Charlotte-Mecklenburg schools have used the Plant Operation section of DPI many times during the years to inspect our buildings and provide feedback in regards to structural issues and other engineering situations. With the reports given by DPI, CMS was able to properly address the situation for the safety of the students and staff of CMS. CMS is pleased with the service that has been provided to date and hopes these services will continue in the future."

Bryan Steiner, Charlotte-Mecklenburg County Schools

"They have helped us with a concrete overhang/covered walkways that had some concrete separation, cracking asphalt on tennis courts, investigated several indoor air quality issues, help determine the cause of a failing gym floor, made recommendations for the remedy of a peeling paint situation at an older gymnasium, and several answered questions over the phone. This service is a huge savings to the taxpayers of Randolph County and we are thankful that we have this resource to draw upon."

Larry Chilton, Randolph County Schools

"Gates County is a low wealth county of 1800 students and approx. 400 staff that doesn't have funding for architects or engineers readily available. Compounding the struggle, our geographic location for qualified contractors to work on schools is limited. Their staff has helped solve longstanding problems that are often caused by antiquated equipment or substandard construction methods. Over the years DPI has responded to: ADA, safety, roofs, heating and cooling problems."

Joe Harrell, Gates County Schools

"I would like to personally express my appreciation to the Plant Operation staff for the manner in which you have assisted Beaufort County Schools. Despite limited funding and cut staff, the professional services of Plant Operation have helped us in many ways. Your departments' knowledge has greatly helped BCS to leverage and access professional & technical services, which our school system does not have funding to obtain."

Stan Hudson, Beaufort County Schools

"The culture of this organization has continued to demonstrate a high level of professionalism and genuine concern for the students of North Carolina. The staff was instrumental in providing clear specs for a chiller replacement project at Conway Middle School so that we could get a great value. These efforts had the project come in considerably less than estimated. Our district doesn't have the resources to employee experts such as Plant Operation. Please continue to support them because they are supporting school districts that need their help."

Douglas Miller, Northampton County Schools

"As a rural county, not having to employ the service of engineers for various projects allows us to spend our funding on projects not services. With our budget shortfalls that we struggle with continually, Plant Operation is more important to us than ever. Plant Operation has saved Wilkes County Schools thousands of dollars that we desperately need for repairs and renovations. It would be a major blow to our school system to lose their service."

Bergie C. Speaks III, Wilkes County Schools

"By taking advantage of your services, we have been able to complete several projects, such as HVAC renovations, and a boiler fuel system conversion, among others. The fuel conversion alone, from heating fuel to natural gas, has saved our school system a significant sum, ultimately delivering much more in savings than the cost of the project. Thank you for providing the level of services you have delivered. I hope, for the benefit of all North Carolina's LEA's, your division is able to continue helping us meet our goals."

Bob Auton, Watauga County Schools

