



Thomasville City Schools

RFQ #245-5-181 (Rebid): Design-Build Services
for Air Quality and Associated Improvements

June 14, 2022

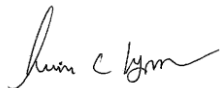
Brady is pleased to submit the enclosed Statement of Qualifications (SOQ) to perform design-build services for the Thomasville City Schools (TCS) Air Quality and Associated Improvements project. We appreciate this opportunity to share our mission, experience, process, and qualifications on design-build programs with you.

We believe we stand out for three key reasons:

- 1) **We excel in complex design-build projects.** Our design-build experience stretches across several decades with public and private building owners. We are currently designing, developing or delivering five different design-build projects with school districts and community colleges that all improve indoor air quality. We understand how a design-build project is different than a typical construction project.
- 2) **Our unique structure is cost-effective.** Our in-house designers and construction managers work together to identify cost savings early and select solutions with the maintenance team in mind. Additionally, we have the ability to self-perform MEP scopes and directly supply HVAC equipment. We anticipate that this will provide Thomasville City Schools with significant savings by removing traditional layers of contractor markup.
- 3) **Our team has significant experience with TCS.** Brady has partnered with Consultant Engineering Service (CES) and LDR Technologies to support our team's engineering and construction services. CES has delivered engineering services on six different projects in the past ten years, and LDR is the current HVAC service provider. This direct experience with TCS will help Brady quickly assess TCS facilities, develop IAQ improvement projects and deliver projects with excellence.

Our team is excited for the opportunity to work with you. We look forward to hearing from you.

Sincerely,



Kevin Lynn
Brady, Comprehensive Solutions
kevin.lynn@bradyservices.com | 984-867-7653

1. Firm Description

Founded in 1962, Brady is a leader throughout North Carolina in comprehensive buildings solutions. We have a wide and deep bench of talent, including over 232 HVAC, boiler and building controls technicians and a team of Professional Engineers (PEs). We provide customers with a diverse range of building solutions including design-build construction, building automation, energy conservation, net zero facilities, access controls and security systems, mechanical systems, parts and supplies, as well as world-class technical support.

Brady will serve as the prime design-builder, which include the following services:

- In-house engineering, preconstruction, construction management and commissioning
- Manage subcontractors, suppliers, and vendors
- Self-perform mechanical and electrical contracting services
- Factory-direct equipment pricing and support when available
- Factory-certified equipment startup services and warranty management

Ownership	The Brady family of companies remains a family-owned enterprise
Headquarters Location	2025 16 th St, Greensboro NC 27504
Project Team Location	401 Kitty Hawk Dr. Morrisville NC 27560
Company Size	450 employees

Brady has a long record of successfully completed projects without major legal or technical problems. Please contact our references in Section 3. Similar Project Experience.

2. Team

Brady will serve as the design-build firm with full responsibility for design and construction activities. Valid contracting licenses are held by our legal entities Brady Trane Service, Inc. and J. Brady Contracting, Inc. These license numbers are:

J. Brady Contracting, Inc.: NC General Contracting License 63159

Brady Trane Service Inc.:

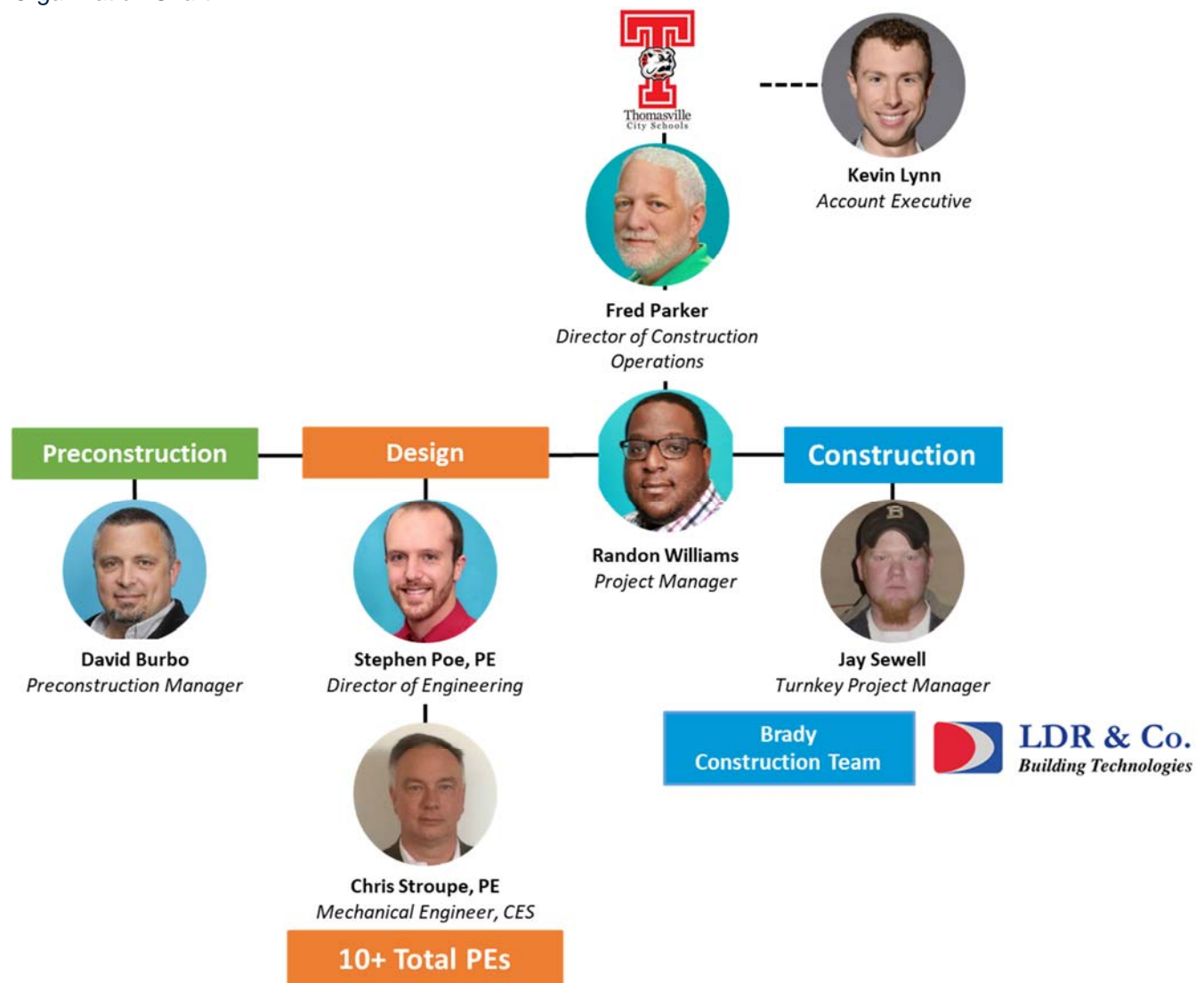
NC Engineering License F-1317

NC Plumbing License 20378

NC Mechanical License M102151

NC Electrical License U3159

Organization Chart



2. Team

Resumes

Full team resumes are available at the end of this submission. Our team's roles and responsibilities are listed below.

NAME	PROJECT ROLE	LOCATION	RELEVANT QUALIFICATIONS
Fred Parker	Director of Operations	Greensboro	37 years of project management, construction oversight and team leadership
Randon Williams	Project Manager	Greensboro	13 years of industry experience
David Burbo	Preconstruction Manager	Greensboro	28 years of HVAC and controls construction and project management
Stephen Poe, PE	Director of Engineering	Greensboro	11 years of MEP system design experience
Chris Stroupe, PE (CES)	Mechanical Engineer	Winston-Salem	37 years of MEP system design experience
Jay Sewell	Turnkey Construction Project Manager	Greensboro	22 years of HVAC contracting experience
Kevin Lynn	Account Executive	Morrisville	9 years of industry experience

Evaluation Criteria F – Ability to Integrate Services with Existing Contractors and Service Providers

Brady meets Evaluation Criteria F in four ways:

1. **LDR Technologies**, who serves as the district's current HVAC service provider and primary HVAC contractor, is part of Brady's team.
2. **CES**, who has served as the primary MEP designer for the district, including the current CTE Building Renovation, is part of Brady's team.
3. **Brady** is the current access control and security services provider for the district.
4. Brady will also coordinate with any other existing contractors and service providers during design and construction to ensure continuity with preferred providers.

3. Similar Project Experience

Brady has over three decades of experience as a design-build contractor with a focus on complex systems in existing buildings. We have delivered this work through multiple procurement channels, including design-build RFQs, performance contracting, group purchasing or direct selection, but in the end we always deliver the same outcome: a well-designed, well-managed project that meets your needs. Our team is highly collaborative and we bring our full breadth of experience to bear on all of our projects. The experience listed below are examples of similar scopes of work to the IAQ improvements project completed by our team with educational institutions in North Carolina.

Polk County Schools – HVAC Renovation

Project Description

Polk County Schools selected Brady as their design-builder to manage a comprehensive overhaul of the HVAC system at Polk County High School. The building's two-pipe system struggled to maintain proper humidity levels throughout the year, and the chiller was at its end of life. Polk County Schools decided that the design-build method was the best strategy to determine the design, set a budget, maintain flexibility during construction, and do so with a Guaranteed Maximum Price (GMP). The project includes replacing the fan coil units and unit ventilators with a central air handling system with variable air volume (VAV) boxes, two new air-cooled chillers, new controls, new LED lighting and replacement ceilings.



The project began with a system selection charrette, where Brady walked the district through multiple options and presented the pros and cons of each. The district made their system selection based on first cost, operating cost, temperature and humidity control, ease of maintenance and ease of construction. The building will remain occupied during the school year while construction is underway. Brady is maximizing the amount of work that can happen during the summer by focusing on hallway piping infrastructure and the chiller plant, and then will begin a phasing plan that allows us to work in wings while students shift to the other sections of the building. Work is slated to complete in Summer 2022.

Project Details		
Project Location	Columbus, NC	
Estimated Project Cost	\$6.25 million	
Project Cost at Completion	Guaranteed Maximum Price – final cost will be \$6.25M	
Estimated Schedule	420 days	
Actual Schedule	TBD	
Project Reference	Dave Scherping, Associate Superintendent (828) 817-2094, scherp@polkschools.org	
Similarity to “Design-Build IAQ Improvements” Project		
<i>Similar Scope</i>	<i>Design-Build</i>	<i>Collaboration between Team</i>
Complete redesign of HVAC system, including chiller and BAS upgrades. Outcome is better indoor air quality.	Selected through 143-128.1 (A) qualifications-based design-build RFQ	In-house project development engineering, self-perform construction & commissioning.

3. Similar Project Experience

Edgecombe Community College – Indoor Air Quality Improvements

Project Description

Edgecombe Community College selected Brady as their design-builder to manage a series of indoor air quality improvements that were funded by federal stimulus funds.



Brady began the project by assessing each of the buildings on campus to identify “deficiencies”, which included aging equipment, controls upgrades, maintenance projects, and other opportunities to improve indoor air quality and address deferred maintenance needs. We then established rough budgets and reviewed this master list with Edgecombe Community College to determine which IAQ measures should be included in the final project. Once the college agreed which measures should be included, we established the final budget and signed a lump-sum agreement.

The project is currently under construction.

Project Details		
Project Location	Tarboro, NC	
Estimated Project Cost	\$1.25 million	
Final Project Cost	\$1.25 million	
Estimated Schedule	October 2021 – September 2022	
Final Schedule	TBD	
Project Reference	Debbie Batten, Vice President of Administrative Services (252) 618-6503 battend@edgecombe.edu	
Similarity to “Design-Build IAQ Improvements” Project		
Similar Scope	Design-Build	Collaboration between Team
Indoor air quality improvements funded by federal stimulus funds	Selected through 143-128.1 (A) qualifications-based design-build RFQ	In-house project development engineering, self-perform construction & commissioning.

3. Similar Project Experience

Asheboro City Schools – Design-Build IAQ Improvements

Project Description

Asheboro City Schools selected Brady as their design-builder to manage indoor air quality improvements across multiple schools.

Asheboro City Schools intends to perform equipment replacements across multiple schools. Brady will begin by performing site walks to confirm the list of potential IAQ improvement projects, followed by any required design and engineering and then a lump-sum construction agreement.

The project is currently in the preliminary scoping and budgeting phase.



Project Details		
Project Location	Asheboro, NC	
Estimated Project Cost	\$1.9 million	
Project Cost at Completion	TBD	
Estimated Schedule	May 2022 – May 2024	
Actual Schedule	TBD	
Project Reference	Ed Keller, Design and Construction Consultant (Former Dir. of Maintenance and Construction) (336) 215-1983 eakeller4514@gmail.com	
Similarity to “Design-Build IAQ Improvements” Project		
Similar Scope	Design-Build	Collaboration between Team
Indoor air quality improvements funded by federal stimulus funds	Selected through 143-128.1 (A) qualifications-based design-build RFQ	In-house project development engineering, self-perform construction & commissioning.

3. Similar Project Experience

Beaufort County Schools – Design-Build IAQ Improvements

Project Description

Beaufort County Schools selected Brady as their design-builder to manage indoor air quality improvements across multiple schools.

Beaufort County Schools intends to perform equipment replacements and HVAC upgrades across multiple schools. Brady has performed site walks to confirm the list of potential IAQ improvement projects. The next step will be to select the final measures, followed by the design and engineering and then a lump-sum construction agreement.

The project is currently in the preliminary scoping and budgeting phase.



Project Details		
Project Location	Washington, NC	
Estimated Project Cost	\$5 million	
Project Cost at Completion	TBD	
Estimated Schedule	April 2022 – May 2024	
Actual Schedule	TBD	
Project Reference	Jamie Stokes, Director of Facilities (252) 946-3735 jstokes@beaufort.k12.nc.us	
Similarity to “Design-Build IAQ Improvements” Project		
Similar Scope	Design-Build	Collaboration between Team
Indoor air quality improvements funded by federal stimulus funds	Selected through 143-128.1 (A) qualifications-based design-build RFQ	In-house project development engineering, self-perform construction & commissioning.

3. Similar Project Experience

Cape Fear Community College – Building S Indoor Air Quality Improvements

Project Description

Cape Fear Community College selected Brady as their design-builder to manage indoor air quality improvements at Building S that are funded by federal stimulus funds.

Building S is the college's largest office and classroom building and serves as the administrative hub for the campus. The building was built in 1974 and has significant comfort issues due to aging HVAC equipment, obsolete building controls and a challenging HVAC design. We are currently scoping and budgeting the project in order to determine which scopes of work can be completed within the project's budget. Once that stage is completed, we will complete the design and then sign a lump-sum construction agreement to build the project.



Project Details		
Project Location	Wilmington, NC	
Estimated Project Cost	\$1.5 million	
Final Project Cost	TBD	
Estimated Schedule	May 2022 – May 2023	
Final Schedule	TBD	
Project Reference	David Kanoy, Executive Director of Facilities and Capital Projects 910-362-7695 dkanoy@cfcc.edu	
Similarity to “Design-Build IAQ Improvements” Project		
Similar Scope	Design-Build	Collaboration between Team
Indoor air quality improvements funded by federal stimulus funds	Selected through 143-128.1 (A) qualifications-based design-build RFQ	In-house project development engineering, self-perform construction & commissioning.

3. Similar Project Experience

Durham Public Schools – IAQ Services Program Manager

Project Description

Brady was selected as a program manager for Indoor Air Quality services for Durham Public Schools via a competitive bidding process.

This project includes filter changes, coil cleaning, assessments, retro-commissioning, capital replacement cost budgeting, and preventive maintenance planning. The intention of the project is to take immediate action on indoor air quality improvements and then create a data-driven plan to prioritize repair and replacement projects across the district.

During the assessment phase, Brady's team reviewed all HVAC equipment at all schools, and developed a list of deficiencies and a detailed asset list. This data will be the foundation of a series of IAQ improvements that will occur over the next two years.

Phase 1, which included the filter changes and coil cleaning, was completed over the summer. The reporting and assessments of Phase 2 are complete, and the district is now embarking on retro-commissioning projects across several schools.



Project Details		
Project Location	Durham, NC	
Estimated Project Cost	\$1.8 million	
Project Cost at Completion	\$2.2 million (customer-requested change orders)	
Estimated Schedule	175 days	
Actual Schedule	TBD	
Project Reference	Dan Schnitzer, Project Manager 919-402-6348 dan_schnitzer@dpsnc.net	
Similarity to “Design-Build IAQ Improvements” Project		
Similar Scope	Design-Build	Collaboration between Team
Prioritizing IAQ investments using data, equipment assessments and budget cost estimates.	Selected as program manager to run HVAC projects and professional services	Brady is coordinating multiple subs and internal teams to collect data and help DPS make informed decisions on IAQ.

3. Similar Project Experience

Alamance-Burlington School System – Design-Build HVAC and Lighting Retrofit

Project Description

Alamance-Burlington School System brought on Brady to perform a district-wide design-build project through the performance contracting procurement method that included upgrading lighting in 37 schools, plumbing replacements and water conservation measures in 35 schools, and replacing six chillers at five different schools. During the project development, Brady created multiple design and scope options to the school district to help craft a project that met the core requirements of the district, saved energy and matched their budget requirements.

This project required extensive coordination with school schedules to avoid any disruptions. The team began construction activities in January of 2018 with lighting replacements during nights and weekends, and daytime second shifts during the “track-out” periods for year-round schools. All chillers were replaced during spring break, and the remaining lighting and plumbing work was completed during the summer. The benefit of this strategy was that all work in the year-round schools was already completed by the summer, which allowed for more flexibility during the summer rush. We held regular coordination meetings with the owner, but we managed the majority of the coordination and logistics behind the scenes so we could minimize the disruption to the staff's time.

We also took responsibility for a major issue that was beyond our control. A rusty old valve that was not in our scope or responsibility burst during the chiller startup at the end of spring break. Our team informed the client and spent the weekend cleaning up the mess so students could return to class on Monday. We did not wait to get a change order from the client, nor did we charge them for the work. This commitment to our clients is how we live our values in action.

This project is expected to save Alamance-Burlington School System over \$700,000 per year in avoided energy and operational costs.



Project Details		
Project Location	Burlington, NC	
Estimated Project Cost	\$7.78 million	
Project Cost at Completion	\$7.78 million	
Estimated Schedule	12 months	
Actual Schedule	12 months	
Project Reference	Dr. Thorpe, Asst. Superintendent for Operations (336) 438-4000 ext. 20091 todd_thorpe@abss.k12.nc.us	
Similarity to “Design-Build IAQ Improvements” Project		
Similar Scope	Design-Build	Collaboration between Team
Major HVAC renovation, occupied buildings, creative & practical solutions desired, critical schedule, performance verified	Design-build delivery method procured through the performance contracting procurement method.	In-house project development, engineering, construction management, site supervision, commissioning and M&V

3. Similar Project Experience

CES Project History with Thomasville City Schools

- 2003- Liberty Drive Elementary School Renovations (with Sfl+A Architects)
- 2004- Thomasville Middle School Addition (with Sfl+A Architects)
- 2004- Thomasville Middle School Boiler Replacement
- 2010- Thomasville Middle School Chiller Replacement
- 2013- Thomasville High School Grease Trap Replacement
- 2013- Thomasville Middle School Grease Trap Replacement
- 2014- Thomasville High School Chiller Replacement
- 2016- Thomasville High School Kitchen Sewer Replacement
- 2017- Thomasville High School-ADA Restroom Conversion
- 2020- Thomasville HS CTE Building Renovation (with Walter Robbs Architecture)

LDR Project History with Thomasville City Schools

Thomasville High School Gymnasium – HVAC Renovation

- Construction is currently in progress
- Renovate existing gymnasium building HVAC systems including new rooftop HVAC units, dedicated outdoor air system, associated ductwork and gas piping.

Thomasville High School – Chilled Water Piping Modifications

- Completed in 2021
- Replaced and relocated existing control valve including piping modifications and controls for proper operation and change over from heating and cooling season in the existing 2-pipe system.

Liberty Drive Elementary – Cooling Tower Replacement

- Completed in 2021
- Replace existing cooling tower and associated piping, electrical, and controls modifications

4. Approach to Costs

As an experienced design-builder, we have a long history of successful guaranteed maximum price (GMP) projects, which have been completed on budget. If there are design errors or logistical challenges that are Brady's responsibility then we are also responsible for any associated cost overruns. We bring this owner-first mentality to all of our projects.

Brady follows a three-phase approach to developing and locking in project costs, as shown in Figure 1. This approach to project cost ensures transparency, allows fast-tracking of long-lead equipment and material based on availability and price sensitivity, and allows the owner to select project priorities in a parallel track to design and scope development.

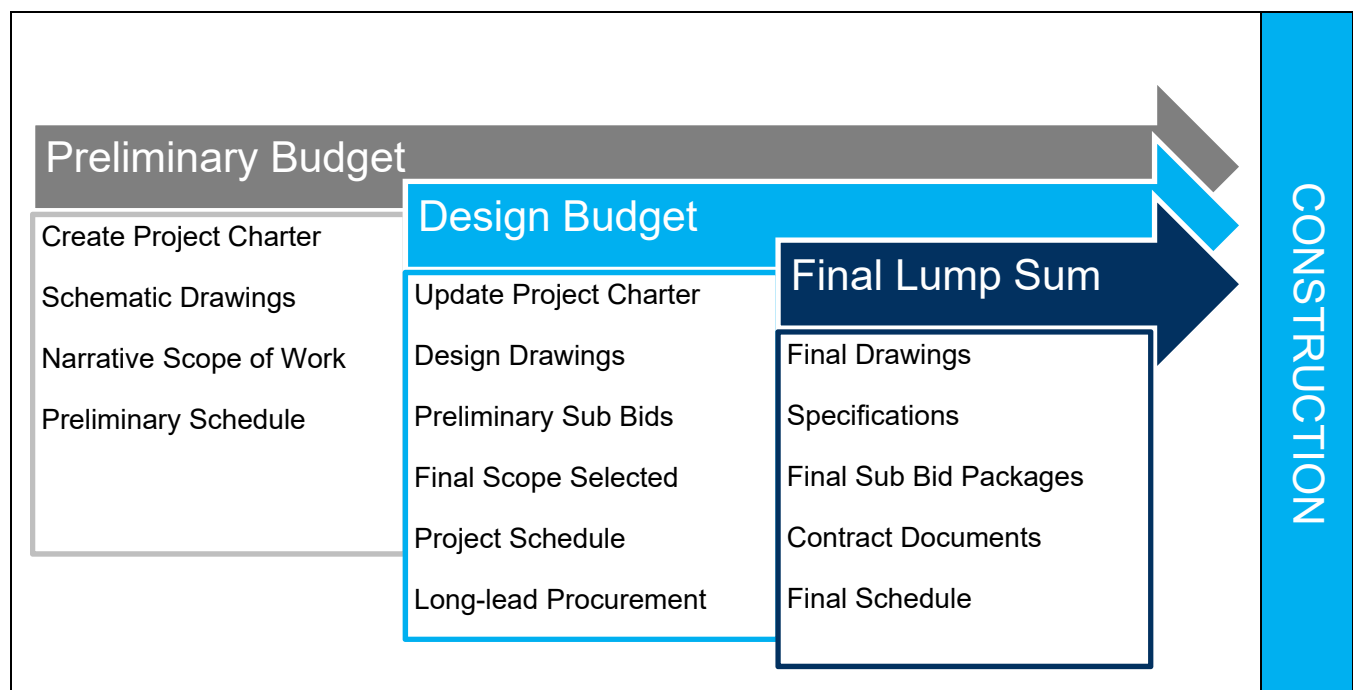


Figure 1

Project Costs – Case Study

Edgecombe Community College had a limited amount of federal stimulus funds to spend on IAQ projects and needed to determine how they could get the best value for each dollar. Brady began by providing rough order of magnitude budgets during the preliminary design and scoping phase, and used these to prioritize each measure. Then, the Brady team refined the budget for each measure that was selected in order to develop a firm, fixed-price lump sum design-build proposal.

4. Approach to Costs

Price to Provide General Conditions (Estimated Cost to Administer Project)

Based on previous project experience that center on complex phased renovations that require additional jobsite supervision and project management, we anticipate our general conditions for the Thomasville City Schools design-build project to be **5.0% – 6.25%** of the total project cost, which includes:

- Per diem, hotels, fuel and meals
- Permits
- Repographics
- Site prep and cleaning
- Site signage
- Temporary utilities
- Site supervision
- Project management
- Design engineering
- Other direct costs to manage the project

5. Schedule

Nearly all of Brady's project experience is within existing and occupied buildings. We are deeply familiar with the phasing requirements of working within educational facilities to match student schedules. Our goal is to avoid or minimize disruptions to the Thomasville City Schools learning environment. All of the design-build projects listed in Section 3 – Similar Project Experience met the initial schedule.

Thomasville City Schools Plan

We recognize that timeliness will be critical. We will take the following into account as we build out our design and construction plan

- Determine which projects will be the most disruptive and highest priority and plan on doing those projects during times of low occupancy (winter and summer breaks)
- Prepare a project schedule to maximize every day when students are not in the buildings
- Nights and weekends work is possible if required due to the nature of the building occupancy
- Lead times for major HVAC equipment continue to be extensive depending on the type of equipment. We will expedite equipment purchases to avoid supply chain issues.
- Solicit early commitments from subcontractors to lock in manpower

Project Schedule – Case Study

The Polk County Schools project requires rigorous planning to coordinate around working in an occupied building. The scale of the project means it cannot be completed in a single summer, and the district wanted to maintain progress on the project through the school year. We have decided, with the district, to work in wings of the building and coordinate moving students around the building as we complete the classroom work in sections of the building. This will allow us to finish work by the end of the summer of 2022.

However, every construction project has surprises. We ordered the long-lead equipment ahead of schedule, but learned shortly upon placing the order that supply chain issues due to the pandemic had pushed the delivery schedule back an additional four weeks. This dramatically changed the plan for the summer and required the schedule to be re-worked. We have been able to do this without changing the end date or the cost of the project.

6. Project Location

Our design-build team is located in Morrisville, N.C. (near Raleigh) and Greensboro, NC. Our self-perform teams are located in Greensboro, Morrisville, and Winston-Salem. Brady currently provides HVAC maintenance, repairs and projects to many public institutions in the area, such as Randolph County Schools, Chatham County Schools, Alamance-Burlington School System, Guilford County Schools, Winston-Salem/Forsyth County Schools, Lee County Schools, Harnett County Schools and Durham Public Schools, to name a few. We also work with several private companies in the Thomasville & Davidson County area.

Brady is a family-owned company headquartered in Greensboro focused exclusively on Central and Eastern North Carolina.

7. Current Workload

We have the capacity to begin the project planning, budgeting and preliminary design on prioritized projects immediately upon selection. Our design and preconstruction team is partially committed to several projects this spring and summer, including the Beaufort County Schools design-build IAQ project and the Cape Fear Community College design-build IAQ project.

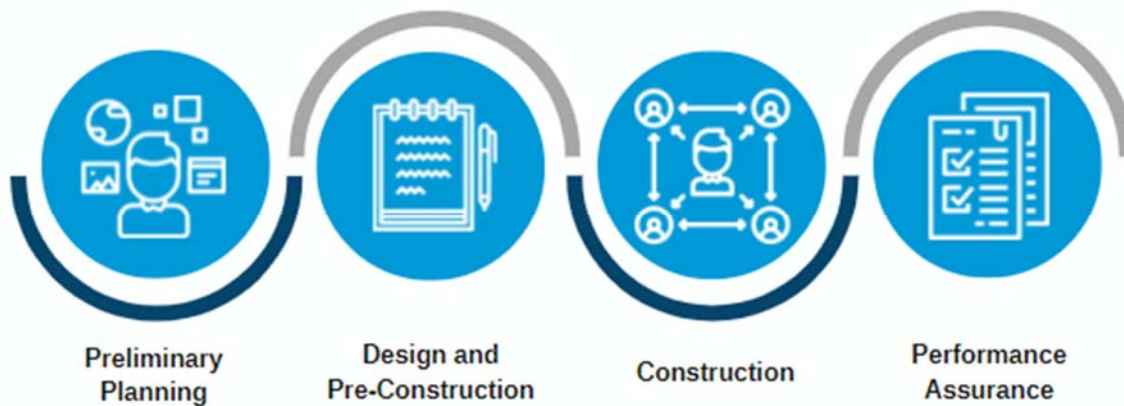
Construction work will depend on equipment lead times and site requirements from Thomasville City Schools. We anticipate the construction work occurring over the summers of 2023 and 2024, with the goal of the majority of the work being completed by the end of 2023. We currently have the capacity required to deliver all of the projects for TCS during that time.

8. Proposed Approach

Brady relies on best practices and contract documents set by the Design-Build Institute of America (DBIA). Our three decades of experience on complex design-build projects have taught us important lessons on phasing, working in occupied facilities, safety in schools and other elements of complex projects. We will share these best practices with Thomasville City Schools and bring this real-world design-build experience to the table.



Brady's design-build process has four key elements. In our design-build projects, this is not a linear process as elements of all four phases may happen concurrently. This allows us to perform constructability reviews and preliminary budgeting during the planning process, order long-lead equipment early or begin construction activities while the design is still underway.



8. Proposed Approach

Preliminary Planning



Thomasville City Schools has a limited budget to spend on facility projects. We recognize that you have already identified indoor air quality improvement measures through previous studies, and have significant needs across all schools. We will work closely with the district to determine which measures should be included in the design-build project and which should be saved for future funding requests.

Site Assessments

We will start by evaluating the condition of the HVAC equipment at each school. We capture equipment age, condition and estimated remaining life for each piece of equipment. Brady has conducted these equipment investigations across several school districts over the past year.

School	Avg. Total Rating	Avg. Airside Rating	Avg. Chiller Rating	Avg. Boiler Rating	Top Recommendation
Reid Ross MS/HS	2.47	2.53	-	2.00	1 for 1 Replacement
John Griffin MS	2.72	2.82	2.00	2.00	Service Existing
Hefner ES	2.82	3.00	1.00	3.00	Service Existing
Douglas Byrd MS	2.85	3.29	2.67	2.00	1 for 1 Replacement
Gray's Creek HS	2.90	2.92	3.00	2.00	Service Existing
EE Miller ES	3.09	3.33	1.00	3.00	1 for 1 Replacement
EE Smith HS	3.10	3.19	2.00	2.00	System Redesign
Loyd Auman ES	3.15	3.17	3.00	3.00	1 for 1 Replacement
Lewis Chapel MS	3.53	3.62	3.00	3.00	1 for 1 Replacement
Max Abbott MS	4.48	4.74	3.00	3.00	System Redesign

Table of average equipment ratings (1 = excellent condition to 5 = in need of immediate replacement) across 10 schools in a district assessed by Brady in 2021.

8. Proposed Approach

Design and Pre-Construction



Once the project prioritization list is set, we will move projects into the Detailed Design Phase. For any HVAC and controls projects with new systems, we will coordinate closely with Thomasville City Schools to ensure that the system selection matches several key criteria:

- First cost
- Constructability and timeline for construction
- Lifecycle cost
- Energy efficiency
- Ease and volume of maintenance required
- Manufacturer and vendor preference

We believe this is a collaborative and iterative process. Our design team will present solutions to Thomasville City Schools to receive feedback and compare options. This ensures that we are aware of any limitations early, and that we bring challenges and risks to Thomasville City Schools before they become a problem.

Preconstruction

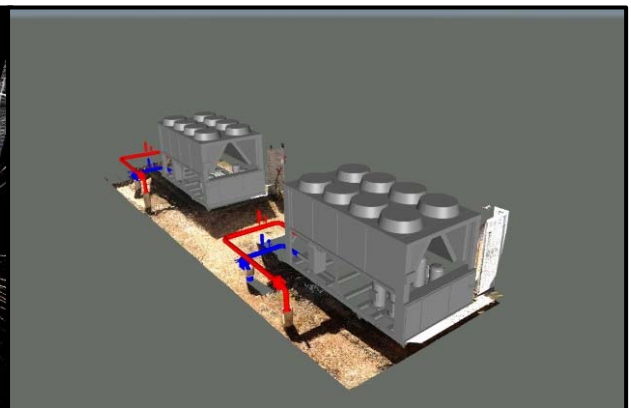
Our preconstruction approach includes thorough review of any pre-existing A/E drawings and specifications, thorough site walkthroughs, control and HVAC equipment submittal review, and interviews with building occupants and facility operations staff, as well as trusted third party providers.

Faro scanning

Brady uses a scanning technology called Faro to capture as-built information and create 3D visualization of architecture, engineering and construction projects. We will use Faro to help lay out the equipment in the existing spaces.



Brady will conduct a detailed review of site conditions before finalizing any design and construction recommendations



A Faro scan of the as-built conditions of two air-cooled chillers (right), and the 3D model (left).

We also take care to design projects that are easy to maintain. Brady has over 55 years in the built environment, and we have helped our clients work through the historical design decisions made by teams that do not understand how buildings actually operate. This means that our design, including system selection, location of maintenance access points, and the placement of associated piping, ductwork and wiring will all be influenced by how the building will be maintained.

8. Proposed Approach

Construction

Our team has extensive experience in managing construction activities in occupied facilities, especially educational facilities.

Self-perform construction

Brady has the ability to self-perform the mechanical and electrical scopes of work. As a design-builder, we have found that in-house, self-perform construction services reduce costs, risks and schedule delays. This self-perform team would own the responsibility for a fully turnkey HVAC installation and limits the number of different contractors working on different TCS sites across the district.

We also intend for LDR Construction to deliver some of the mechanical construction scopes of work. These scopes of work will be determined during the project development phase.

Coordination with other contractors

We recognize that Thomasville City Schools may have other contractors working on the same site as the HVAC improvements. For example, TCS is working on renovating the CTE building at Thomasville High School. We will coordinate with their design team through our relationship with CES, and coordinate all construction activities with their projects.

Brady is experienced at coordinating with other contractors. For example, at a design-build HVAC renovation in a large commercial office that is currently underway, Brady is coordinating the activities of both the asbestos abatement contractor and the roofing contractor, although they both hold contracts with the owner instead of with Brady.

Construction management technology

Brady utilizes Procore, a leading cloud-based construction management software, to manage all aspects of a project's lifecycle. We use Procore to handle project communications, budgets, schedules, document management and sharing, RFIs, submittals, etc. in a user friendly and remotely accessible application.



Our construction team is experienced in working in occupied and unoccupied school facilities.

PROCORE®

8. Proposed Approach

Performance Assurance



We believe that turnover and performance assurance are equally critical phases of the project. We have honed these skills through over a decade of performance contracting, which includes a rigorous turnover process, and over five decades of building system management and maintenance.

Commissioning

Brady puts an emphasis on the early involvement of our commissioning (Cx) personnel. The goal of the Cx team is to significantly reduce operational and energy cost risks for our clients after the project is completed. We ensure that our client's interests are represented through all phases of the process from design through construction completion by verifying the installation, operation, and performance of the installed systems.

Maintenance Planning and Training

It is our responsibility to ensure that your team is prepared to take ownership of the systems that we install. We will do this through several measures:

- Develop clear and useful maintenance plans
- Create maintenance and troubleshooting checklists
- System training for in-house staff and third-party

Performance Assurance

All of this rolls up into our performance assurance promise: that the building and systems you receive work as promised.

We hold ourselves to a rigorous performance standard that says projects are complete when the system works as promised, not just when we hand over an operations manual.

For example, we are held to a "Performance Standard" for Polk County Schools that requires the system to meet specific temperature, humidity and pressurization thresholds in order for the project to be considered complete. If it does not, we are required to take action to bring it into line.



Our team transitions the operations to your maintenance staff through training and easy-to-understand procedures.

9. Certifications

A. Surety

Please see Appendix A for a copy of a surety letter from our bonding agency. We are able to fully bond this project.

B. HUB Plan

It is the policy of Brady to give maximum opportunities for participation to Historically Underutilized Businesses (HUB) contractors on projects. Brady, in support of the principal of fair and equal opportunities for participation, has established a program specifically designed to ensure that HUBs have increased opportunities for participation in the construction industry.

Our HUB plan's objectives include:

1. Increase the overall participation of Historically Underutilized Businesses on this project and exceed the goal set by the owner.
2. Provide equal opportunities to HUBs as defined and certified by NC HUB Office.
3. Create smaller bid packages to stimulate minority participation.
4. Issue bid documents (invitation to bid, plans and specifications) ideally at least three (3) weeks prior to bid opening to allow meaningful and fair opportunities to the HUB/M/W/SBE community.
5. Conduct a joint outreach with Thomasville City Schools.

To accomplish this, the following five-step approach will be implemented:

1. **Outreach** - Our outreach effort is aggressive, comprehensive, targeted and ongoing. We will identify applicable HUB contractors, effectively communicate project opportunities, encourage HUB contractors to submit information regarding their services, and support their participation throughout the project.
2. **Technical assistance** – We will provide a technical assistance to ensure all HUB contractors have an opportunity to meet the bonding requirements.
3. **Contract compliance** – We are committed to comply with and exceed Thomasville City Schools' goals and expectations. Our project manager will personally review the progress of the HUB plan to ensure compliance.
4. **Certification assistance** – We will assist qualifying subcontractors in applying for Statewide Uniform Certification with the State of North Carolina.
5. **Preparation of reports** – We will prepare reports on contracts awarded to HUB contractors and payments to HUB contractors.

The approach above has often resulted in exceeding the stated project participation targets. One of our most successful recent projects was the NCDOT Roadway LED Lighting project. The project's participation target was 10% and the team was able to achieve 31% participation. This level of participation was obtained by identifying material suppliers that were HUB-certified to provide the lighting materials to each of the regional installation contractors.

C. Qualification-Based Selections

We certify that any third-party design firms have been and will be selected solely on qualifications without regard to fee.

10. Other Information

Sample Assessment Report

Attached is a summary assessment report for a school district where Brady assessed 10 schools. Although the scope of this assessment is broader than we would recommend for Thomasville City Schools, it is a good example of the type of investigations Brady's team provides as part of our project development services.

2501 Blue Ridge Road, Suite 250
Raleigh, NC 27607
Tel (919) 341-0744
Fax (434) 455-8823



Charlotte
Greenville
Knoxville
Lynchburg
Nashville
Raleigh
Richmond
Roanoke

May 25, 2022

Re: J. Brady Contracting, Inc.

To Whom It May Concern:

Western Surety Company (Western Surety), as surety, has the privilege of providing bonds for J. Brady Contracting, Inc. (Brady) since 2012. Bonds are currently written through Scott Insurance as their agent. We consider Brady and the management team true professionals. Operations are conducted with fiscal responsibility, proficient technical and managerial skills, and ethics of the highest caliber.

Western Surety has conducted a careful underwriting review to establish surety credit parameters for Brady. We have structured a single project parameter of \$5,000,000 with a corresponding aggregate program of \$30,000,000 to facilitate routine bonding needs. Arrangement of additional credit would be considered given specific project circumstances and details. Naturally, the execution of any bond would be subject to normal underwriting considerations including review of contract terms, conditions and project financing. We assume no liability to third parties or you if for any reason we do not execute said bonds.

Western Surety is licensed in the State of North Carolina to issue surety bonds. Currently rated "A" by A.M. Best, Western Surety is listed in the most recent US Federal Treasury list (Circular 570).

We consider Brady to be one of the finest companies in their field. Please feel free to call me to discuss any additional information you need to give them your favorable consideration.

Best regards,



Windy Lovelady
Attorney-in-Fact



FRED PARKER

DIRECTOR OF CONTRACTING OPERATIONS

PROFILE

Fred leads all contracting operations for Brady's turnkey and design-build construction projects. He oversees a team of project managers and site superintendents who manage the day-to-day operations of projects ranging from chiller changeouts to comprehensive, design-build HVAC renovations. He takes an active role in project oversight and helps bring executive leadership when issues arise. Fred has been with Brady for over 35 years.

CONTACT

PHONE:
(336) 510-6511

WEBSITE:
www.bradyservices.com

EMAIL:
fred.parker@bradyservices.com

PROJECT EXPERIENCE

Polk County Schools - Comprehensive Design-Build HVAC Renovation

Columbus, NC

Fred is overseeing the operations team for the Polk County High School HVAC renovation project.

Large Commercial Office – Comprehensive Design-Build HVAC Renovation

Durham, NC

Fred is overseeing the operations of a comprehensive HVAC renovation in a 1960s-era commercial office in downtown Durham that is undergoing a renovation. Brady is the design-builder for the HVAC scope of work.

Mohawk Flooring – Comprehensive Design-Build HVAC Addition

Thomasville, NC

Fred is overseeing the operations of a comprehensive HVAC renovation of a new addition to a flooring plant.

Eastern Carolina University – Multiple Controls, Turnkey and Retro-Commissioning Projects

Greenville, NC

Fred has served as the primary program manager for controls, turnkey and other projects at ECU for many years.

Alamance-Burlington School System – Performance Contract

Burlington, NC

Oversaw operations for this \$8M performance contract.

PROFESSIONAL HISTORY

Associate since 1997

Years of industry experience: 35 years

Education

- UNC-G Bryan School of Business
- CCL - Center for Creative Leadership Coursework





RANDON WILLIAMS

PROGRAM MANAGER

PROFILE

Randon Williams will serve as the program manager for the overall design-build program, and will coordinate resources between the Brady teams. Randon is an experienced project manager for complex controls and HVAC projects.

PROJECT EXPERIENCE

Edgecombe Community College – Design-Build IAQ Project Manager

Tarboro, NC

Randon is the lead project manager for the Edgecombe Community College IAQ improvements project.

Durham Public Schools – IAQ Program Manager

Durham, NC

Randon is the lead project manager for the IAQ Program Management project.

Polk County Schools – Design-Build HVAC Renovation

Greensboro, NC

Randon is supporting the operations for the Polk County High School design-build HVAC renovation

Large Commercial Office – Comprehensive Design-Build HVAC Renovation

Durham, NC

Randon is supporting the operations of a comprehensive HVAC renovation in a 1960s-era commercial office in downtown Durham that is undergoing a renovation. Brady is the design-builder for the HVAC scope of work.

NCDOT – Statewide Highway Lighting Upgrade (\$30M)

Randon is leading the warranty and ongoing services phase of a statewide highway lighting upgrade project.

City of Asheville – US Cellular Center Upgrades

Asheville, NC

Randon is leading the closeout and warranty process for a series of upgrades to the US Cellular Center in Asheville.

PROFESSIONAL HISTORY

CONTACT

PHONE:
(336) 338-1920

EMAIL:
randon.williams@bradyservices.com

Associate since 2016

Years of industry experience: 13 years

Education

- NC A&T – Bachelors of Science in Industrial Engineering

Associations

- Six Sigma – Green Belt





DAVID BURBO

PRECONSTRUCTION MANAGER

PROFILE

David Burbo is Brady's Preconstruction Manager. He recently transitioned into this role after many years of project management of HVAC renovation projects, including the Polk County Schools HVAC Renovation.

PROJECT EXPERIENCE

Polk County Schools – Design-Build HVAC Renovation *Columbus, NC*

David serves as the lead project manager for the Polk County Schools design-build HVAC renovation.

Lee County Schools – Wicker Elementary Renovation *Sanford, NC*

Project manager for controls upgrade at new chiller plant and new VRF system to renovation of existing school & addition.

Guilford County Schools – Southwest ES HVAC Renovation

High Point, NC

Project manager for controls upgrade of HVAC renovation, including new AHUs, boiler controls and pumps.

Winston-Salem/Forsyth County Schools - Lewisville MS New Construction

Lewisville, NC

Project manager for controls installation at new school construction.

UNC-Greensboro – Chiller Plant Upgrade

Greensboro, NC

Project manager for controls upgrade at new chiller plant that tied into existing campus loop.

BD Mebane

Mebane, NC

Project manager for controls upgrade at pharmacy research building renovation, with new RTUs, VAV boxes and chillers.

PROFESSIONAL HISTORY

CONTACT

PHONE:
(336) 604-4255

EMAIL:
david.burbo@bradyservices.com

Associate since 2018

Years of industry experience: 28 years





STEPHEN POE, PE

DIRECTOR OF ENGINEERING

PROFILE

Stephen Poe will serve as the lead mechanical and electrical engineer for this project. Stephen has many years of experience designing and delivering mechanical and electrical HVAC projects from unit changeouts to comprehensive design-build HVAC renovation projects.

PROJECT EXPERIENCE

Edgecombe Community College – Design-Build IAQ Improvements

Tarboro, NC

Stephen is the lead engineer on the design-build indoor air quality improvements at Edgecombe CC, including a comprehensive HVAC renovation in one building, unit sanitization and retro-commissioning.

Polk County Schools – HVAC Renovation

Columbus, NC

Stephen served as the stamping engineer for the Polk County Schools HVAC Renovation project. He helped perform constructability reviews, value engineering and equipment selection.

Large Commercial Office – Comprehensive Design-Build HVAC Renovation

Durham, NC

Stephen is the stamping engineer on a comprehensive HVAC renovation in a 1960s-era commercial office in downtown Durham that is undergoing a renovation. Brady is the design-builder for the HVAC scope of work.

Pitt County Schools – Stokes Elementary

Thomasville, NC

Stephen was the stamping engineering for an elementary school project where we replaced existing chillers, ran new underground piping, and converted the pumping system from constant volume primary only to variable volume primary secondary.

PROFESSIONAL HISTORY

CONTACT

PHONE:
(336) 510-6490

EMAIL:
stephen.poe@bradyservices.com

Associate since 2012

Years of industry experience: 11 years

Education

- Engineering degree from NC A&T University
- NC, SC, FL Professional Engineer
- Electrical License Unlimited
- Plumbing License Group 5
- Niagara Certification





CHRIS STROUPE, PE

MECHANICAL ENGINEER

PROFILE

Chris has extensive experience in HVAC and Plumbing System designs, Building Energy Simulation Models, Utility Rates, and Energy Audits. Projects include 2-pipe, 4-pipe, water source heat pumps, geothermal heat pumps, VAV, dedicated outside air units (OAU) and energy recovery ventilators (ERV) and Indoor Air Quality investigations (IAQ). Mechanical Engineer for the first U. S. Green Building Council, LEED accredited elementary school in the United States (Third Creek Elementary School-recipient of the Gold Medal Award).

CONTACT

PHONE:
336.724.0139 ext. 101

EMAIL:
chris@ceseng.net

PROJECT EXPERIENCE

Projects with Thomasville City Schools

2003- Liberty Drive Elementary School Renovations
2004- Thomasville Middle School Addition
2004- Thomasville Middle School Boiler Replacement
2010- Thomasville Middle School Chiller Replacement
2013- Thomasville High School Grease Trap Replacement
2013- Thomasville Middle School Grease Trap Replacement
2014- Thomasville High School Chiller Replacement
2016- Thomasville High School Kitchen Sewer Replacement
2017- Thomasville High School-ADA Restroom Conversion
2020- Thomasville HS CTE Building Renovation

Current/Recent ESSER-Funded Projects

Winston-Salem/Forsyth County Schools – 14 projects
Davidson County Schools – 8 projects
Mt. Airy City Schools - Mount Airy High School Auditorium HVAC Replacement

PROFESSIONAL HISTORY

1994 – Present, Owner/COO
Consultant Engineering Service, Inc.

NC PE License - #15886

NC State University, BSME, 1985



JAY SEWELL

PROJECT MANAGER, SELF-PERFORM CONSTRUCTION

PROFILE

Jay Sewell is a project manager with the Brady Retrofit team. He has a long history of projects in central North Carolina. He will lead the self-perform mechanical and electrical construction services.

PROJECT EXPERIENCE

Jay Sewell has served as the lead project manager on dozens of turnkey construction projects across the state. A sample list of his projects includes:

Asheboro City Schools – North Asheboro MS
Asheboro, NC

Asheboro City Schools – Balfour ES
Asheboro, NC

Polk County Schools – Polk County High School Design-Build Renovation
Columbus, NC

Bladen County Schools – Chiller Changeout
Elizabethtown, NC

Salem Academy – Unit Changeouts
Winston-Salem, NC

Canterbury School – Split System Replacements
Greensboro, NC

Elastic Therapy – Split System Replacements
Asheboro, NC

UNC-Greensboro – Boiler Stack Economizer
Greensboro, NC

NC A&T – Valve Replacements
Greensboro, NC

PROFESSIONAL HISTORY

Associate since 2001
Years of industry experience: 22 years

CONTACT

PHONE:
(336) 482-1043

EMAIL:
jay.sewell@bradyservices.com





KEVIN LYNN

COMPREHENSIVE SOLUTIONS ACCOUNT EXECUTIVE

PROFILE

Kevin Lynn works with clients across North Carolina to help them optimize their facilities, improve indoor air quality and meet their strategic sustainability goals. He specializes in federally-funded indoor air quality project planning.

PROJECT EXPERIENCE

Edgecombe Community College – Design-Build IAQ Improvements

Tarboro, NC

Brady is implementing a series of design-build indoor air quality improvements at Edgecombe CC, including a comprehensive HVAC renovation in one building, unit sanitization and retro-commissioning.

Polk County Schools – HVAC Renovation

Columbus, NC

Polk County Schools selected Brady as the design-builder to perform a comprehensive HVAC renovation throughout the high school.

Durham Public Schools – IAQ Program Manager

Durham, NC

Brady has been selected to run a comprehensive IAQ program for Durham Public Schools, including filter changes, coil cleaning, assessments, capital planning and retro-commissioning.

Caswell County Schools - Assessments

Yanceyville, NC

Brady has assessed all 6 schools in Caswell County Schools to identify indoor air quality issues, assess equipment condition and build a capital plan.

Cumberland County Schools – Assessments

Fayetteville, NC

Brady has assessed 10 schools in Cumberland County Schools to identify indoor air quality issues, assess equipment condition and build a capital plan.

PROFESSIONAL HISTORY

CONTACT

PHONE:

(984) 867-7653

EMAIL:

kevin.lynn@bradyservices.com

Associate since 2019

Years of industry experience: 8 years

Education

Willamette University - BA

Associations

Former Chair of the Board,
NC Building Performance
Association (NCBPA)



Ventilation Assessments Summary Report

ABC School District



Submission Date: 7/27/2021

BACKGROUND

Brady has completed assessments of 10 schools within the ABC School District with the focus of determining the condition of the mechanical equipment that protects the learning environment. Our goal is to gauge the ability of these mechanical systems to provide increased ventilation rates, identify any deficiencies that could contribute to poor indoor air quality, and aid the district in prioritizing future capital improvements.

ASSESSMENT FINDINGS

Brady assessed the existing controls and equipment based on four primary criteria:

- **Current Ventilation** (how does the current level of outside air compare to the ASHRAE 62.1 recommended levels)
- **Increased Ventilation** (are the existing systems capable of bringing in additional ventilation)
- **Filtration** (how the current filtration levels compare to the ASHRAE recommended level)
- **Coil Condition** (do the coils appear capable of allowing proper airflow and heat transfer)

Current Ventilation	GOOD	≥85% of 62.1 OA
	FAIR	85% of 62.1 OA > X > 40% of 62.1 OA
	POOR	≤40% of 62.1 OA
Increased Ventilation	GOOD	Easy to increase ventilation.
	FAIR	Ventilation can be partially increased.
	POOR	Difficult to increase ventilation.
Filtration	GOOD	MERV 13 or higher.
	FAIR	MERV 9 to MERV 12.
	POOR	MERV 8 or lower.
Coil Condition	GOOD	No evidence of dirt or debris.
	FAIR	Dirt and debris is beginning to collect.
	POOR	Clear evidence of standing dirt and debris.

These findings are summarized below.

School	Current Ventilation	Increased Ventilation	Filtration	Coil Condition
Douglas Byrd MS	POOR	GOOD	POOR	POOR
EE Miller ES	POOR	GOOD	POOR	POOR
EE Smith HS	POOR	GOOD	POOR	POOR
Gray's Creek HS	FAIR	FAIR	POOR	FAIR
Hefner ES	POOR	FAIR	POOR	FAIR
John Griffin MS	POOR	GOOD	POOR	POOR
Lewis Chapel MS	POOR	GOOD	POOR	POOR
Loyd Auman ES	FAIR	GOOD	POOR	FAIR
Max Abbott MS	FAIR	GOOD	POOR	POOR
Reid Ross MS/HS	POOR	GOOD	POOR	POOR

MERV 13 FILTRATION ASSESSMENT

ASHRAE's "Reopening of Schools and Universities Guidelines" recommends installing MERV 13 filters at minimum. This is the minimum filtration level which has proven efficient at capturing airborne viruses. An analysis of several standard fan and unit sizes as found at the schools was performed to determine if increasing the level of filtration would negatively impact the performance of the units.

This analysis showed that all of the equipment assessed by Brady can safely be upgraded to MERV 13 filters without any noticeable reduction in unit airflow or performance.

OUTDOOR AIRFLOW ASSESSMENT

Brady took outdoor air readings at each school to determine the current ventilation levels for each school. We then compared these to both the design (if available) and guidelines for recommended ventilation published by ASHRAE 62.1-2019. There was a significant range of values across the 10 schools, with an overall level of about 40% of ASHRAE 62.1.

Typically, increasing outdoor air levels in North Carolina result in increased energy costs of \$1 - \$3 per cfm per year. This is an important consideration when deciding how much ventilation rates should be increased.

School	Current OA CFM	Design OA CFM	ASHRAE 62.1 OA CFM	% of Design	% of ASHRAE 62.1
Loyd Auman ES	12,534 cfm	19,118 cfm	14,172 cfm	65.6%	88.4%
Gray's Creek HS	31,967 cfm	49,760 cfm	41,624 cfm	64.2%	76.8%
Max Abbott MS	13,489 cfm	20,728 cfm	23,604 cfm	65.1%	57.1%
Reid Ross MS/HS	7,945 cfm	18,600 cfm	19,881 cfm	42.7%	40.0%
EE Smith HS	11,099 cfm	-	34,978 cfm	-	31.7%
John Griffin MS	7,431 cfm	-	29,855 cfm	-	24.9%
Hefner ES	4,534 cfm	12,953 cfm	18,792 cfm	35.0%	24.1%
EE Miller ES	3,607 cfm	12,953 cfm	17,506 cfm	27.8%	20.6%
Lewis Chapel MS	3,309 cfm	13,500 cfm	19,199 cfm	24.5%	17.2%
Douglas Byrd MS	3,047 cfm	21,850 cfm	19,516 cfm	13.9%	15.6%
Total:	98,962 cfm		239,127 cfm		41.4%

CAPITAL IMPROVEMENT ASSESSMENT

In an effort to assist ABC Schools in their prioritization of capital improvements, we have assigned each piece of equipment a rating from 1 to 5, with 1 being the lowest priority and 5 being the highest priority. We then summarized these ratings across the school, and then broke those scores down by equipment type. Finally, we provided a "top recommendation," which is our recommendation for the highest need at that school. That means schools with a "1 for 1 Replacement" recommendation do not need **all** units replaced, just those with a condition rating of a 4 or 5.

Of note, we recommend that ABC Schools consider a complete system redesign for two schools, HS #1 and MS #1. Both of these schools have significant numbers of equipment that are past their end of life, and both have equipment designs that create maintenance, operations or IAQ challenges. For example, many of the air handling units at MS #1 are in occupied spaces and are challenging to maintain due to their location. HS #1, on the other hand, has multiple renovations with different HVAC system types and ages. We recommend considering alternative designs such as consolidating units instead of assuming all units should be replaced 1:1.

Equipment was scored based on the following grading criteria:

1	Within life and in good condition.
2	Within life and in moderate condition.
3	Past end of life in moderate condition.
4	Past end of life in poor condition.
5	Consider for immediate replacement.

Below are the ratings per school:

School	Avg. Total Rating	Avg. Airside Rating	Avg. Chiller Rating	Avg. Boiler Rating	Top Recommendation
Reid Ross MS/HS	2.47	2.53	-	2.00	1 for 1 Replacement
John Griffin MS	2.72	2.82	2.00	2.00	Service Existing
Hefner ES	2.82	3.00	1.00	3.00	Service Existing
Douglas Byrd MS	2.85	3.29	2.67	2.00	1 for 1 Replacement
Gray's Creek HS	2.90	2.92	3.00	2.00	Service Existing
EE Miller ES	3.09	3.33	1.00	3.00	1 for 1 Replacement
EE Smith HS	3.10	3.19	2.00	2.00	System Redesign
Loyd Auman ES	3.15	3.17	3.00	3.00	1 for 1 Replacement
Lewis Chapel MS	3.53	3.62	3.00	3.00	1 for 1 Replacement
Max Abbott MS	4.48	4.74	3.00	3.00	System Redesign

Additionally, we have shown the count of equipment by rating per school. This helps identify any schools where there is a mix of new and old equipment.

School	Avg. Airside Rating	1	2	3	4	5
Reid Ross MS/HS	2.53	-	12	2	2	1
John Griffin MS	2.82	-	6	28	-	-
Gray's Creek HS	2.92	-	5	63	-	-
Hefner ES	3.00	-	-	9	-	-
Loyd Auman ES	3.17	-	-	20	4	-
EE Smith HS	3.19	3	12	5	27	-
Douglas Byrd MS	3.29	-	4	-	-	3
EE Miller ES	3.33	-	-	6	3	-
Lewis Chapel MS	3.62	4	-	1	-	8
Max Abbott MS	4.74	-	-	2	2	19

MAINTENANCE AND REPAIR RECOMMENDATIONS

Brady also identified several hundred maintenance and repair recommendations. Some of these are straightforward repairs, others are more complex issues that will require specialized expertise. Each of these deficiencies have been logged and distributed with the reports, and the complete list has been shared with the maintenance team.

Below is a summary of the issues identified at the 10 schools:

Priority	Belt Issue	Filter Issue	Damper Issue	Dirty Coils	Power/VFD/IGV Issue	Service	Other
TOTAL:	77	62	48	128	11	17	36