AoE²
Academy of Engineering (Energy)
School of Math, Engineering, Technology, & Science

John Davis
1261 Davis Road
Lincolnton, NC 28092
Mobile: 704-472-3708

Attachment: Letter of Intent, Resume, Professional References, & Examples of Programs

I am currently employed as the Director for the Academy of Engineering at the school of Math Engineering Technology and Science in CMS (Charlotte Mecklenburg Schools) - CTE (**C**areer and **T**echnical **E**ducation). Over the past years, I have developed a comprehensive plan to bring "REAL" change to prepare students for successes in their college and career readiness. This plan is based on proven business /industry, nationally accredited engineering programs, the German model, High Tech High, Apprenticeship 2000, and the best parts of the small school concepts.

I have spent 18+ years as a high school technology/engineering teacher with Lincoln County, Hickory Public, and Charlotte Mecklenburg Schools. In this position, I have had the opportunity to:

- Teach as well as write NCDPI State curriculum.
- Development and implement: a certified PLTW (Project Lead The Way) engineering curriculum as the main focal point of the school's STEM initiative.
- Establish a successful Habitat for Humanity program for the school of Math, Engineering, Technology, & Science CTE department.
- Created a school level VEX robotics competition team as well as serve as the Charlotte Mecklenburg District VEX robotics coordinator.
- Serve as the NAF (National Academy Foundation) Director for the AoE (Academy of Engineering) at the school of Math, Engineering, Technology, & Science.
- Had the privilege to participate on several board and design teams for the development of community, business, and education collaboration to provide our students with the necessary 21st century skills, knowledge, and contacts to transition into a positive and productive member of society.

As a result of teaching the PLTW (Project Lead The Way) engineering curriculum and working with the technology advisory committee, which is made up of local business / industry professionals, political, media, and local governmental agency, I have developed a sound working relationship between the school, parent, and community. In addition to teaching, I have a successful design and construction business.

I have had extensive background in business from 1988-1995. During this time, I have gained knowledge of the day-to-day operations of business and have gained the experience managing employees. I have had seventeen years experience in Career and Technical Education. I believe that these skills qualify me for this position.

Enclosed is a resume that provides a more detailed listing of my background and qualifications. You may also view my online application with the Department of Public Instruction and www.linkedin.com. I am confident that I possess all the necessary qualifications for the position and am ready to meet you at your convenience. You can reach me at **MOBILE**: 704-472-3708 or Davis.mets@gmail.com

For additional details or questions, do not hesitate to call or email.
I look forward to hearing from you.
Sincerely,

John Davis

John R. Davis, Jr.

1261 Davis Road
Lincolnton, NC 28092

Mobile: 704-472-3708
LinkedIn: www.linkedin.com/pub/john-davis/67/556/343

OBJECTIVE

To be an integral part of a school system that shares in the belief that Career and Technical Education is an important part of education. I seek to mentor students and to inform him/her of new opportunities in Career and Technical Education.

EDUCATION

Work in Progress — **Appalachian State University** — **Boone, North Carolina**
Master's Degree: Educational Media
Instructional Technology Specialist/Computers Concentration (Code: 437D)
(077) Instructional Technology Specialist-Computers
(079) Computer Education/Technology Facilitator

1999 – 2001 — **North Carolina A & T** — **Greensboro, North Carolina**
Graduate Program in Technology Education
Cumulative GPA: 3.75

1994-1996 — **Appalachian State University** — **Boone, North Carolina**
Bachelor's Degree: Technology Education
Specializing: Computer Aided Drafting and Design
Major: Industrial Education in Secondary Education
Minor: Psychology
Cumulative GPA: 3.25 Major GPA: 3.85

1994 — **Gaston College** — **Gastonia, North Carolina**
Associate's Degree
Major: Fine Arts

PROFESSIONAL ACCREDIDATION, LECINCE, & CERTIFICATION

Project Lead the Way (PLTW) (North Carolina & National Engineering Curriculum)

*POE – **Principles of Engineering** (Pratt School of Engineering, Duke University)*
*IED – **Introduction to Engineering Design** (Pratt School of Engineering, Duke University)*
*CEA – **Civil Engineering & Architecture** (Pratt School of Engineering, Duke University)*
*CIM – **Computer Intergraded Manufacturing** (UMBC school of Engineering, University of Maryland)*
*EDD – **Engineering Design and Development** (Pratt School of Engineering, Duke University)*
*VEX– **Robotics & Prototyping** – (Pratt School of Engineering, Duke University)*

Technology Education:

Communication Systems
Transportation Systems
Manufacturing Systems
Structural Systems
Fundamentals of Technology
Principles of Technology I an II (applied physics)

Trade & Industrial Education:

Drafting / AutoCAD
Construction Technology
Metal Fabrication/Machine Shop
Computer Technology

National Center for Construction Education and Research (NCCER)

Certified SAFETY Instructor
Certified CORE Instructor
Certified CARPENTRY Instructor

EMPLOYMENT

2007-Present **Director of the Academy of Engineering (Energy & Advanced Manufacturing)**

School of Math, Engineering, Technology, & Science **Charlotte, North Carolina**

- *Contact Person:* Richard Reynolds, *(Principal) 980-343-1101*

- Technology Education Instructor
- NAF Academy of Engineering Director
- VEX Robotics District Coordinator
- PLTW (Project Lead The Way) Engineering Curriculum

2006-2007 **Trade & Industry / Technology Education Teacher**

Catawba Valley High School **Hickory, North Carolina**

- *Contact Person: Dr. Randy Steele (Principal) 828-328-6738*

- Department chair
- Intro to Trade & Industry
- Drafting
- Construction Technology
- Furniture and Cabinetmaking
- Technology Education

1996-2005 **Technology Education Teacher**

West Lincoln High School **Lincolnton, North Carolina**

- *Contact Person: Mr. Mitch Sherrill (Principal) 704-736-1017 Extension 20700*
  Mrs. Millie Costner (CTE Director) 704-736-1017 Extension 30264

- Fundamentals of Technology
- Structural Engineering
- Principles of Technology I/II (Pre-Engineering)
- Construction Systems Engineering
- AutoCAD Drafting and Design

Pilot Program: Academy 2000 (At Risk Students)

- Developed and implemented Curriculum for at risk students.
- Set standards for future "Asbury Alternative School" Lincoln County School System

1992-1995 **Operations Manager**

Chambers Container, Inc. **Gastonia, North Carolina**

- *Contact Person: Mr. Randy Chambers, (Owner) 704-861-9155*

- Designed AD layouts for national and international publications.
- Researched new technology of plastics and corrugation.

1990-1992 **Vice-President of Sales & Marketing**

TABICS, Inc. **Shelby, North Carolina**

- *Contact Person: Mr. Sonny Willis, (Owner) 704-867-8848*

- Purchasing Agent
- Maintained office and plant operations
- Supervised both office and plant personnel

COMPUTER SKILLS (hardware)

Digital Communication
Web Based Applications
Digital Cameras
Digital Scanning Equipment
Multimedia Component
CNC Router / Mill
CNC Lathe
CNC Robotic Arm
CNC Laser engraver / Cutter
VEX Robotics
Fischertechnik Interface, Programming, and Prototyping

COMPUTER SKILLS (software)

AutoCAD
AutoCAD Designer
Autodesk Inventor
PowerSchool (teacher/councilor)
CAD/CAM (programming)
Microsoft Office Products
Corel Draw
AutoVison
Autodesk 3-D Studios
Autodesk Revit
EdgeCam
RobotC
EasyC Cotrex
RoboPro
Movie Maker (promotions & marketing)
PLTW (Software Pack)
RoboCim
ConnectEDU (College & Career Planning)
Career Cruising (career exploration)
Moodle
Edmodo / Quia

RELATED HONORS, ACTIVITIES, and COMMUNITY INVOLVEMENT

- Eagle Scout, Boy Scouts of America
- Board Member - Academy of Engineering
- NCTEA (North Carolina Technology Education Association)
- ACTE (Association for Career and Technical Education)
- ITEA (International Technology Education Association)
- Dean's List (Appalachian State University)
- Epsilon Pi Tau (Technology Honor Society)
- SGA (Student Government Association)
- Youth Baseball Coach

PROFESSIONAL GROUPS & MEMBERSHIPS:

- AECT: Association for Educational Communications and Technology
- Association for Career and Technical Education
- Bill & Melinda Gates Foundation
- Bosch Rexroth
- Career and Technical Education Professionals
- Career Education Corporation
- Civic Engagement and Dialogue Practitioners
- CNC Machining / Manufacturing network
- Eagle Scouts, Boy Scouts of America
- Education Entrepreneurs Professional Association
- Education Technology Group - The 21st Century Classroom
- Great Minds In STEM
- International Society for Technology in Education
- ISTE - International Society for Technology in Education
- ITEEA Educators
- National Academy Foundation
- National Action Council for Minorities in Engineering
- National Latino STEM Initiative (NLSI)
- North Carolina Department of Public Instruction
- North Carolina New Schools
- STEM Connections for K-12 Education
- STEM Development Coalition (STEM D.C.)
- STEM Educators & Researchers
- The Center for STEM Education
- U.S. Department of Education
- Women in Science, Engineering & Technology

PROFESSIONAL REFERENCES

Richard Reynolds -- Principal
School of Math, Engineering, Technology and Science
4301 Sandy Porter Rd., Suite B
Charlotte, NC 28273
PH: (980) 343-1101
Cell Ph: (704) 301-4218
richardd.reynolds@cms.k12.nc.us

Larry Logan – CMS District PLTW / NAF Coordinator, CTE Support Services
Career and Technical Education
700 East Stonewall Street
Charlotte, NC 28202
PH: (980) 343-1034
Cell Ph: (704) 607-1957
larry.logan@cms.k12.nc.us

Karen Sturkie – CTE Coordinator, Central Office
Charlotte Mecklenburg Schools
700 East Stonewall Street
Charlotte, 28202
PH: 980-343-5686
Desk Ph: (980) 343-2710
Cell Ph: (803) 343-0997
k.sturkie@cms.k12.nc.us

Michael Realon – CTE Career Development Coordinator
Olympic Community of Schools
4301 Sandy Porter Rd
Charlotte, NC 28273
PH: (980) 343-1113
Cell Ph: (704) 779-2327
michael.realon@cms.k12.nc.us

Clifton Vann – President
Livingston & Haven - Innovation in Industrial Technology
11529 Wilmar Blvd.
P.O. Box 7207
Charlotte, NC 28273
PH: (704) 588-3670 x7210
Cb4@lhtech.com

Mark Rohlinger - Plant Technical Director
Bosch Rexroth – world leader in drive and control technologies
14001 S Lakes Dr,
Charlotte, NC 28273
(704) 583-4338
Mark.Rohlinger@boschrextoth-us.com

Pam Howze, SPHR
Merck - Associate Director of Learning and Development
Formally - Siemens Energy Inc - Training and Development Manager
5325 Old Oxford Rd, Durham, NC 27712
(919) 884-4000
(704) 214 2703 (home)
asnpam@carolina.rr.com

To Whom it May Concern:

I highly recommend John Davis as a candidate for a teaching / director position. I have worked with John in my position as Principal of the school of Math, Engineering, Technology, & Science.

While my tenure as principal, John has been employed in various Career and Technical Education programs in the Charlotte Mecklenburg School District and was key in the development and implementation of: a certified PLTW (Project Lead The Way) engineering curriculum as the main focal point of the school's STEM initiative, a successful Habitat for Humanity program for our CTE department, VEX robotics team as well as serves as the Charlotte Mecklenburg District VEX robotics coordinator, John is the NAF (National Academy Foundation) Director for the AoE (Academy of Engineering) at the school of Math, Engineering, Technology, & Science. John serves on several board and design teams for the development of community, business, and education collaboration to provide our students with the necessary 21st century skills, knowledge, and contacts to transition into a positive and productive member of society.

John has a unique ability to develop rapports between students, parents, administration, business and community leaders. His ability to connect with his students and his talent at teaching engineering concepts, as well as more advanced topics, are both truly superior. He has excellent written and verbal communication skills, is extremely organized, reliable and technologically literate. John can work independently and is able to follow through to ensure that the job gets done. He accomplishes these tasks with great initiative and with a very positive attitude.

I recommend John to you without reservation. If you have any further questions with regard to his background or qualifications, please do not hesitate to contact me.

Sincerely,

Richard Reynolds -- Principal
School of Math, Engineering, Technology, & Science
4301 Sandy Porter Road
Charlotte, NC 28273
980-343-1101

In compliance with federal law, Charlotte-Mecklenburg Schools administers all educational programs, employment activities and admissions without discrimination against any person on the basis of gender, race, color, religion, national origin, age or disability.

Charlotte-Mecklenburg Schools

Career and Technical Education Department

Walton Plaza
700 East Stonewall Street, Suite 400
Charlotte, North Carolina 28202

Career and Technical Education
700 E. Stonewall Street - Suite 400
Charlotte NC 28202

Re: Mr. John Davis

Program Administrator:

I am the CTE Coordinator for Technology Education. I manage 40 plus teachers in that role. It has been an extreme pleasure to work with Mr. Davis in his role at the Math, Engineering, Technology, and Science (METS) School on the Olympic Campus. He has been very effective in his Instructional duties in the classroom. He is an anticipatory teacher which was demonstrated recently when we had last minute on line exam issues. He had already prepared a substitute final exam prior to the issue occurring.

He volunteered to establish a district-wide Robotics competition. This involved scheduling many teachers, students, and volunteers. It has been a signature event for our CTE department for the past two years. Again this was done without request form me or others in our Central Office.

John has recently undertaken another critical assignment for Charlotte Mecklenburg Schools. He has volunteered to be the Site Coordinator for a new National Academy Foundation Engineering Academy. This role will required him to complete a comprehensive year of planning for his school to accomplish distinct curriculum, advisory boards, student selection, and work based learning opportunities for students. This will be in addition to his current Instructional responsibilities

In summary, John has been a catalyst for the success of his High School and the larger community of students within our District. We are very fortunate to have him on our team. Feel free to call me if you have any questions.

Larry D. Logan

Larry D. Logan, CTE Coordinator

980 343 1034

Phone: 980-343-2782 ■ Fax: 980-343-5011 ■ www.cms.k12.nc.us ■ CMS TV

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OLYMPIC
Community of Schools

4301 Sandy Porter Road
Charlotte, NC 28273
980-343-3800 T
980-343-3803 F

To Whom It May Concern

I highly recommend John Davis as a candidate for a teaching position. I have worked with John in my position as the Career and Community Development Coordinator at the Olympic Community of Schools, as well as the Board of Director's liaison with our career academies.

While teaching at the Math, Engineering, Technology and Science School at Olympic, John was employed in various teaching-related positions, including teaching Project Lead the Way pre-engineering classes as well as our Construction classes. John has always been respected by his peers and students as an excellent teacher.

Additionally, John has accepted a variety of leadership roles while at the school. He helps lead the after school robotics club and manages the district-wide robotics tournament. John has also served as the site director in leading the design and development of a career Academy of Engineering at our school. And when John first started teaching at the school, he took on a significant and unique project where he and his classes actually built a Habitat for Humanity House in our school parking lot which was later moved to its permanent location. This project helped increase proficiency scores on state mandated tests with Construction classes by over 100%. It is important to note that this project-based learning experience was recognized by Microsoft Corporation in 2010 as one of the 6 best high school classroom projects in the nation because of its innovation and ability to help students build vital 21st century skills.

John has great rapport with everyone he works with, but especially students. His ability to connect with students and his talent at teaching simple concepts, as well as more advanced topics, are both truly superior. He has excellent written and verbal communication skills, is extremely organized, reliable, computer and technology literate. John can work independently and is able to follow through to ensure that projects and initiatives gets done. He accomplishes tasks with great initiative and a very positive attitude.

I recommend John to you without reservation. If you have any further questions with regard to my evaluation of his performance while at Olympic, please do not hesitate to contact me.

Sincerely,

Michael S. Realon
Career & Community Development Coordinator
Olympic Community of Schools

EXPERIENCE 21ED @ Olympic!

Olympic Community of Schools

4301 Sandy Porter Road
Charlotte, NC 28273

March 11, 2013

School District HR Department:

It is my pleasure to recommend John Davis for a teaching and/or administrative position in your school district. John and I have worked together for 6 years, where I am the CTE Instructional Coordinator and department head.

John has been teaching in the Math, Engineering and Technology School at Olympic for 6 years. John is an experienced teacher and has taught high school for 15 years. He is the VEX District Coordinator where he assists students in developing and competing in robotics activities and competitions. John is also the NAF Academy of Engineering Site Coordinator which involves many additional (non-classroom)
hours as the school works through their year of planning.

John has a strong background in technology and engineering and because of this knowledge and background he was chosen to attend and be certified in 5 Project Lead The Way curriculum areas. Through my involvement with John, I have observed that John has an excellent ability to connect with the students and he is a leader among the teaching staff. John has a clear understanding of what it takes to motivate high school students and the atmosphere in his classroom is one of learning and respect.

He is well versed in PLTW curricula along with drafting, construction, and software and hardware technologies. John is a well organized and creative instructor. He has been a leader in the CTE Professional Learning Communities by developing and presenting several ideas and projects that have been used throughout the CTE classrooms. John has strong communication skills and is a very organized and dependable employee. He collaborates well with team members and diligently works to accomplish tasks in an organized timely manner.

Please consider John for a position with your school district as he is an excellent teacher. He is a very effective leader and possesses exceptional knowledge in many technology and engineering curricula. He is a highly valued teacher in the METS School and will be an asset to your school district.

Cordially,

Karen Sturkie
CTE Instructional Coordinator
Olympic Community of Schools

P. O. Box 400
Lincolnton, NC 28093
(704) 732-2261
www.lincoln.k12.nc.us

<date>

Human Resources:

I am writing you to recommend Mr. John Davis for **<Position or job title being procured >**. During my stint as principal of West Lincoln High School, I had the honor of working with Mr. Davis. As a teacher of technology, Mr. Davis' students consistently showed high academic progress on end-of-course tests. During my observations, I have seen him direct student construction projects such as children's playhouses that were later auctioned. He worked with students to build picnic tables for the school. Mr. Davis also had his students build a storage center for the Horticulture program wherein tractors and other equipment could be secured. When we wanted to design a new entrance to the football stadium to present to the Leonhardt family, who agreed to donate over $100,000.00 to name the stadium after their son, we turned to Mr. Davis to design the entrance. The plan that Mr. Davis designed pleased the Leonhardt family as well as the school committee and community. Mr. Davis also redesigned the parking lot when we added additional spaces.

In addition, when we received security cameras for West Lincoln High School from a police grant, I trusted Mr. Davis to install these cameras in the school. He is extremely knowledgeable about building and construction, and he does quality work. He takes great pride in his work, and he has always been willing to help out at West Lincoln. I have not found anything that he could not do when it came to construction and design. He is talented, innovative, and has been committed to the service of the Lincoln County school system. I give him my highest recommendation as a candidate for this new position.

Sincerely,

Debra S. Morris, Ed.D
Former Principal West Lincoln High School

West Lincoln High School, 172 Shoal Road, Lincolnton, NC 28092
Phone: 704-736-9453 | Fax: 704-276-2004

School of **Math, Engineering, Technology & Science**
Academy of Engineering – Did You Know!!!

AoE²
Academy of Engineering (Energy)
School of Math, Engineering, Technology, & Science

Why Choose METS & the AoE?

DID YOU KNOW--- METS and its "**AoE**" Academy of Engineering program is one of the best, if not the **BEST** established and productive programs within CMS in preparing students with **21st Century Skills** and **Career and College Readiness** by basing our programs on the **German Education Model** and **Best Business Practices** we have produced a high quality product **"the student"**.

- **METS** was the first true "STEM" Science, Technology, Engineering & Math School within CMS.
- **"STEM"** spelled backward **equals "METS"** that is how we got our name.
- **METS** is the top chosen school among students and parents of entering freshmen. **METS** has increased its student population by **43%**.
- A six year review of data reveals that students who chose METS and our proven academic and career pathways can expect a **SAT** average gain of **14 percent** when compared to their cohorts at Olympic Community of Schools.
- **METS** students consistently outperform their cohorts on **NC End-of-Course test**.
- **METS** has the highest percentage of students performing at or above grade level, Graduation Rate, and Attendance within the Olympic Community of Schools.
- **METS** averaged **$20200** in scholarships for each graduating senior outperforming South Meck at $15,000 and Ardrey Kell at $18,000 and METS is ranked third place overall behind Myers Park and Providence.
- **METS** and its "**AoE**" **A**cademy **o**f **E**ngineering program has an outstanding advisory board made up of local, Global 500 and Fortune 500 companies such as: **Siemens Energy, Livingston & Heaven, Bosch Rexroth, Genesis Technology Group, Duke Power, Coca-Cola, Disney, Piedmont Natural Gas, Areva, Arrowood Business Association and Central Piedmont Community College.**
- **METS** and its "**AoE**" have placed more students into a variety of **"advanced manufacturing"** paid internships and apprenticeships than any other school within CMS and the thirteen surrounding school systems.
- **METS** and its "**AoE**" uses the elite **"PLTW" Project Lead The Way** engineering curriculum which has been nationally recognized as one of the high-quality STEM programs in the United States.
- **METS** and its "**AoE**" was the first CMS school and the second in the state to become a fully PLTW certified school which allows students the opportunity to receive college-level recognition such as **college credit, scholarships, and admissions preference**.
- **METS** and its "**AoE**" offers students more PLTW classes that any other CMS school.
- **METS** and its "**AoE**" was the first school in CMS to start the **"FIRST Robotics"** and **"Vex Robotics"** programs.
- **METS** and its "**AoE**" placed the highest percentage of students in the **Apprenticeship 2000** program.
- **METS** and its "**AoE**" successful program of study have been at the center of research for such organization as: **US Congressional subcommittee on education**, **US Department of Education**, fhi360 "think tank" on education reform Washington DC. , America's Edge, a Washington, D.C.-based organization, National Institute for Work and Learning, National Academy Foundation, Project Lead the Way, the National Action Council for Minorities, **German American Council**, and the German Embassy designed to promote the best practice of German Skills Training.
- **METS** and its **"AoE"** has played a significant role in receiving these prestigious business community Awards in **Advanced Manufacturing -- Charlotte Business Journal's.**
- **METS** and its "**AoE**" in the Media have been featured in both written and television news articles by: WCCB ,The Economist Magazine, **Washington Post**, **Techniques** NEWS 14, **NBC, PBS, CNN**, Charlotte Business Journal, **TEDx Charlotte**, **Charlotte Observer**, Alignment SW Charlotte, **Wall Street Journal**, DOE's Office of Energy Efficiency & Renewable Energy (EERE), E4 (Energy 4) Carolinas WEB site, Nuclear Energy Industry (NEI) weekly news brief, and America's Edge, a Washington, D.C.-based organization
- **METS** and its "**AoE**" on the big screen ***"Training for New Manufacturing Careers"*** This film highlights METS and features our partners at CPCC, Siemens Energy, and Apprenticeship 2000. The 2013 film was created for the Institute for Emerging Issues which was shown to 1,200 NC leaders a few months ago **(including politicos like Governors McCrory and Hunt, U.S. Senators Burr and Hagan, and business leaders throughout NC).**
- **METS** and its **"AoE"** in corporation with our community partners are starting its 7th **Habitat for Humanity** house. This year's house will be the first "green engineered" house to incorporate SOLAR in the design. Through the initiatives set forth by the AoE board and Habitat for Humanity the house will use a off the grid solar panel roof array to provide power for the house.

METS Academy of Engineering AoE² School of MATH, Engineering, Technology, and Science at Olympic x PROJECT LEAD THE WAY PLTW NATIONAL Academy FOUNDATION EXPERIENCE 21ED @Olympic! cms Charlotte-Mecklenburg Schools | CTE Career and Technical Education

School of **Math, Engineering, *Technology*, & Science** @ Olympic
Attn: John Davis, Director, Academy of Engineering, Suite B, 4310 Sandy Porter Road, Charlotte, N.C. 28273, Phone 980-343-1101