

6. Cooperative Innovative High Schools (CIHS) Proposals.....Suzanne Ortega/Katharine Stewart

- Situation:** Cooperative Innovative High Schools are partnerships between local schools and local postsecondary institutions to foster the engagement of high-risk students in post-secondary study and provide appropriate support for these students and their parents to foster students' academic and career success.
- Background:** The Innovative Education Initiatives Act and the Cooperative Innovative High School Programs statute were passed by the General Assembly in 2003 and revised in 2005. These statutes encourage high schools to be innovative and participate in reform activities. Schools are encouraged to partner with their local postsecondary educational institution(s) to establish a high school program that would target students who are at risk of dropping out of high school before attaining a high school diploma or a program that would offer accelerated learning opportunities. Many proposed CIHS partnerships involve community colleges, and thus the Board of Governors does not hear CIHS proposals every year. This year, two CIHS proposals were reviewed and recommended for advancement to the Board: the Buncombe Discovery Academy (in partnership with Asheville-Buncombe Technical Community College and the University of North Carolina at Asheville) and the Charlotte STEM Early College High School (in partnership with the University of North Carolina at Charlotte).
- Assessment:** The attached documentation includes a brief summary of the goals of the two proposed CIHS partnerships and the assessment of the CIHS joint advisory committee (composed of representatives from DPI, NCCCS, and UNC-GA). The full proposals submitted to the review committee are also included. Both the Buncombe Discovery Academy and the Charlotte STEM Early College High School received positive reviews from the committee, which recommended that they be advanced to the State Board of Education and the Board of Governors for review and approval.
- Action:** This item requires a vote. *[Note: For proposals that request additional funds to support the CIHS activities (as both of these proposals do), the Board may grant approval of the proposal, but such approval is contingent upon appropriation of the additional funds by the General Assembly.]*

## **1. Buncombe Discovery Academy**

Buncombe Discovery Academy is a proposed partnership between Buncombe County Schools, Asheville-Buncombe Technical Community College and the University of North Carolina at Asheville. The Academy's proposed location is on Buncombe County Schools property in Asheville, and will serve students from all six attendance districts within the county. The Academy was planned and developed with input from key stakeholders, including the area Chamber of Commerce, business and industry partners, and parents. The Academy will provide students with intensive experiences in project-based and work-based learning activities focused on STEM fields, in collaboration with local business/industry, post-secondary, and community partners. Students may earn credit for up to 10 courses towards an associate or bachelors degree while enrolled in the Academy (9<sup>th</sup>-12<sup>th</sup> grade), will have the opportunity to earn industry-recognized credentials (e.g., career readiness certificate, Microsoft Office Specialist certificate) while enrolled, and will be guaranteed an internship or apprenticeship with a local STEM-oriented worksite that has partnered with the Academy. The Academy proposes to enroll up to 100 students per year in each of the first five years of the program.

The CIHS Joint Advisory review committee recommended approval of this program, based on its strengths, enumerated as follows:

- Includes a Business Advisory Council consisting of local business and industry representatives.
- Offers a wide range of hands-on learning opportunities such as internships and school-level support, including guaranteed work-based components.
- Multiple academic partners increase student opportunity for a range of coursework and skill development.

**\*\*The Discovery Academy also requests a location waiver**, since the Academy will be located centrally in the county.

## **2. Charlotte STEM Early College High School**

Charlotte STEM Early College High School is a proposed partnership between Charlotte-Mecklenburg Schools and the University of North Carolina at Charlotte. It is proposed as a grade 9-13 early college high school with cohorts limited to 65 students per year, with an emphasis on first generation college students and students from groups underrepresented in STEM fields. The School will focus on the Grand Challenges of Engineering, the engineering process, and sustainable energy. The curriculum is project-based, using the Pathway to Engineering program and is focused on engineering design and entrepreneurship. Students will have the opportunity to participate in job shadowing, internships, and work-based learning activities with local businesses and industries that have worked with the School in its development, along with the UNCC College of Engineering and Energy Production Infrastructure Center (EPIC). Students will have the opportunity to complete up to 18 courses towards an engineering degree at UNCC while enrolled in grades 9-13 at the School. The school will be located on the UNCC campus.

The CIHS Joint Advisory review committee recommended approval of this program, based on its strengths, enumerated as follows:

- Strong partnerships within the local community, with businesses and industry especially
- Use of the Pathways to Engineering curriculum
- Development of a regional learning lab for STEM teachers in the region will expand the impact of the School
- Clear career-focused goals for students.

**LEA#: 110    LEA: Name Buncombe County**

**School Name: Buncombe Discovery Academy (Proposed)**

**Partner Institutions: Asheville-Buncombe Technical Community College (A-B Tech)  
and UNC Asheville (UNCA)**

State Funding Requested? ☒ Yes      ☐ No

**Cooperative Innovative High Schools**

**Application to open a  
Cooperative Innovative High School  
in accordance with  
NC G.S. 115C-238.50 – 238.55**

2013-14 Application Cycle  
Applications due November 1, 2013

North Carolina State Board of Education  
North Carolina State Board of Community Colleges  
University of North Carolina Board of Governors



## Cooperative Innovative High School Program Application

### Directions for Completion – please read carefully

- Read carefully the information contained on this and the following pages prior to completing the application.
- The application must be submitted jointly by a local board of education and the governing board of a post-secondary institution.
- Applicants must complete the entire application including any additional exemption requests beyond the standard exemptions provided with program approval.
- An electronic version of the **entire** application packet, **including the completed signature page**, must be submitted via e-mail to [CIHS@dpi.nc.gov](mailto:CIHS@dpi.nc.gov). Only complete applications will be submitted to the State Board of Education and appropriate Governing Board(s) for action.

In accordance with law, a Joint Advisory Committee shall review the applications and recommend to the appropriate Governing Boards those programs that meet the requirements and that achieve the purposes set out in G. S. 115C-238.50. The Governing Boards may approve other programs that were not recommended. You will be contacted if clarification is needed. Please ensure correct contact information is provided.

### IMPORTANT NOTIFICATION TO APPLICANTS

Cooperative Innovative High School legislation has undergone multiple changes over the last two years. Applicants are strongly encouraged to carefully read and understand the law prior to completing the application. A copy is provided in Appendix A. For legal or programmatic questions or clarifications, please feel free to contact DPI Academic Services and Instructional Support any time at 919.807.3200.

**For applications that do not request funding, the approval decisions shall be made no later than June 30, 2014.** For applications requesting funding, preliminary approvals shall be completed no later than April 1, 2014, to permit submission of funding requests to the General Assembly.

## Part I – Identification and Signature Page

School Name: Buncombe Discovery Academy (Proposed)

  
Chairperson, Local Board of Education

10/17/2013  
Date

Chairperson, Local Board of Trustees of Community College 10/17/2013  
Date

King Leather 10/23/13  
Chairperson, Board of Trustees, UNC Campus Date

  
Chancellor, UNC Asheville

10/23/13  
Date

Business Partner or County Commissioners 10/15/13  
Date 10/15/13

Mailing Address: 175 Bingham Road, Asheville North Carolina 28806

**Higher Ed:** ☐ None ☒ FTE (CC) ☒ Tuition (UNC)

Application is ☐ Approved ☐ Not approved

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Chairperson, State Board of Education

Date

Chairperson, State Board of Post-secondary Partner	Date
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## Part II – Target Population

1. Target population – Please check the population(s) to be served.

- ☐ High school students at risk of dropping out before acquiring a high school diploma.  
☒ High school students who would be defined as “first-generation college students”<sup>1</sup>  
☒ High school students who would benefit from accelerated academic instruction.

2. Grade levels to be offered – Please check all that apply.

Grade 9 ☒ Grade 10 ☒ Grade 11 ☒ Grade 12 ☒ Grade 13 ☐

3. Program configuration – Please check the configuration to be implemented.

- ☐ A school within a school – A school housed within a traditional high school but having a separate educational program as well as its own staff and students.  
☐ A technical high school – A school that prepares students for specific trades, crafts, or careers at various credential levels.  
☐ A technical/career center – A school providing hands-on applied learning experiences that build academic knowledge, problem-solving skills, general employment skills and specific career skills that lead to industry credentialing.  
☐ An early college high school – A 9-12 or 9-13 high school designed to graduate students with a high school diploma and an associate’s degree, or two years of transferable college credit.  
☐ A middle college high school – A school serving high school juniors and seniors designed to graduate students with a high school diploma and transferable college credit.  
☒ Other (please describe below)

For “Other” school configurations, please briefly describe the configuration here. Ensure the description indicates whether the school will or will not be located on the campus of an institution of higher education. (For all other configurations, leave this space empty.)

**A Science, Technology, Engineering, and Math (STEM) themed high school with a focus on career and college ready preparation – A hybrid model of a technical career center and a modified early college high school, located on Buncombe County Schools property at 175 Bingham Road, Suite 110 in Asheville, North Carolina, providing a challenging curriculum that will prepare students to solve future problems for the benefit of society, develop talent in STEM fields, and lead to industry credentialing and post-secondary credit acquisition.**

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<sup>1</sup> US Department of Education (USED) defines a first-generation college student as a student from a family in which neither parent (whether natural or adoptive) received a baccalaureate degree or a student who, prior to the age of 18, regularly resided with and received support from only one natural or adoptive parent and whose supporting parent did not receive a baccalaureate degree.



### **Part III – Programmatic Information**

- (1) Please describe the program briefly, addressing all relevant purposes outlined in G.S. 115C-238.50, sub-sections (a) and (b). Limit description to 150 words.

**Buncombe County Schools is excited to introduce a newly designed twenty-first century public high school that will serve students from all six attendance districts. Buncombe Discovery Academy provides students with an innovative experience preparing them for college and careers in STEM (Science, Technology, Engineering and Math) related disciplines. Buncombe Discovery Academy is supported by North Carolina New Schools and involves local business/industry, post-secondary, and community partners.**

**The student-centered curriculum will use a project-based approach that encourages students to identify, design and solve real world problems, which mirror the essential skills the workforce requires. The school is designed to replicate an innovative high-tech research environment which merges educational practices with business principles to provide a STEM-themed model school within the western region.**

**Buncombe Discovery Academy is a learning lab where students in their freshman year will begin earning college credit leading toward an associate degree program or university major.**

- (2) Please explain how the school relates to the Economic Vision Plan adopted by the regional economic development commission for the economic development region where the school will be located.

**Buncombe County is located in western North Carolina and is the largest county west of Mecklenburg. Known for its beautiful mountains and quality of life, Buncombe County is a place where many desire to live and work. With a metro workforce of over 205,000 employees, and a strong connection to colleges and universities, Buncombe County's economy is strong and continues to grow.**

**To promote job growth, the Asheville Chamber of Commerce's Economic Development initiative revolves around five economic career clusters. These clusters are the catalyst for future job development and growth and reflect the culture and diversity of Buncombe County and western North Carolina. Economic clusters include: Advanced Manufacturing/Applied Engineering; STEM; Arts and Culture; Health Care; and Knowledge Based Entrepreneurship.**

**Buncombe Discovery Academy will be structured to reflect these clusters. Students attending Buncombe Discovery Academy will be guaranteed a work-based learning component that will align with their career interest and/or post-secondary goals. Knowing that a well-educated workforce enhances and sustains a community's economic development, Buncombe Discovery Academy will work directly with local business and industry partners to take advantage of career awareness, mentors, industry relations, research and work-based learning opportunities that will allow students to be prepared for twenty-first century careers in Buncombe County and/or surrounding areas.**

**While partnering with North Carolina New Schools and designating the Aerospace, Advanced Manufacturing and Security as the school's Affinity Network, Buncombe Discovery Academy will use the resources and best practices learned from the alignment to expand and cover other areas of the career cluster areas. This will allow students to explore other areas of interest as they pertain to the economic development clusters.**

**Throughout the two and a half year planning process for Buncombe Discovery Academy, the Chamber of Commerce and other economic development entities have provided guidance and support for the school's concept and have made a commitment to the school to endorse and provide the valuable work-site "labs" that students will need to experience hands-on learning. Every student will be guaranteed an internship or apprenticeship. Business and industry partners and other program supporters will be instrumental as part of the Business Advisory Council, which will continue as an integral part of the school's workforce development initiative and provide guidance and support as the school evolves. This commitment to workforce development will strengthen the economy and provide benefits for decades to come.**

**Located in Appendix E, is an example of how the school's course offerings will align with the economic career clusters and the opportunities for students upon graduation from local post-secondary institutions.**



- (3) Please describe the facilities to be used by the program and how administrative services will be provided. *Note, if the school is not located on an institution of higher education campus, Appendix D must be completed.*

**Buncombe Discovery Academy is located at 175 Bingham Road, Suite 110 in Asheville, North Carolina. The building is owned by the Buncombe County Schools Board of Education and currently houses the Buncombe County Schools Administrative Offices and the former Career Education Center (CEC). The CEC was closed in 2010 and the building is now being renovated for the new Buncombe Discovery Academy. Lottery funds were approved for the renovation and construction started July, 2013. The redesigned space will encompass over 50,000 square feet, will feature state-of-the art technology and use non-traditional building materials, providing a modern, flexible space for learning.**

**Buncombe Discovery Academy is designed to mirror a work-place setting with dedicated workspaces that promote teamwork, collaboration and engagement. Traditional classrooms will give way to innovative styled Scale-up Spaces; Learning and Fabrication Labs will allow students to create, design and build thus replicating workplace processes. In addition, space will be designed to reflect a college-going culture and foster a climate of student independence and responsibility.**

**With the guarantee of every student being able to experience a work-based learning component, the walls of the school will be expanded to include the “learning labs” located at locations around Buncombe County. This real-world experience will enhance the students’ overall learning at Buncombe Discovery Academy.**

**With the redesign of the building, the updated, sophisticated facility allows Buncombe Discovery Academy to partner with the National Oceanic and Atmospheric Administration (NOAA) to provide a unique immersive, visualization environment (GeoDome) where students will be able to explore space and use digital technology to help solve real world problems. This teaching tool will not only benefit students at Buncombe Discovery Academy but provide learning opportunities for students and teachers K-12 throughout western North Carolina.**

**Since the location is central in the school district, the Buncombe Discovery Academy Minitorium will be available to serve as the host site for STEM-based district events such as the Buncombe County Schools Project Lead The Way Robotics Challenge, Science Fairs, Math Counts and other events that will enhance STEM education K-12. In addition, this school will serve as a hub of STEM professional development for teachers and school leaders across the western region.**

**Buncombe Discovery Academy will benefit from having two institutes of higher learning within a five mile radius of its location. Students will be able to take classes through the University of North Carolina at Asheville and Asheville-Buncombe Technical Community College (A-B Tech). Both of these institutions offer courses in STEM-related disciplines and will enhance the students’ educational experience.**

**Due to UNC Asheville's increased enrollment and limited space on their campus, it is not feasible to open a new school at that location. Through Cooperative Innovative status, students will be able to take courses through UNC Asheville at no cost and the State Board of Education/NCDPI will reimburse the cost of the tuition. On campus experiences at UNC Asheville will be available to students at Buncombe Discovery Academy ensuring students are able to participate in university opportunities and immerse themselves into the post-secondary culture.**

**Due to increased enrollment at A-B Tech and Buncombe County Early and Middle Colleges located on the main campus, A-B Tech lacks the physical space to host another innovative high school program. A-B Tech will provide support and teach courses at the 175 Bingham Road location and offer on-campus opportunities to students at Buncombe Discovery Academy. Students will visit the main campus and participate in community college programs, allowing them to acclimate themselves to the campus and build a stronger connection to the school. Because both of these institutes of higher learning are limited on space, we will be requesting a waiver for each of them.**

**Since the school will be located adjacent to the Buncombe County Schools Central Office, utilities, phone service, and IT support will be managed locally. The added value to this is that the district office houses all of the curriculum specialists who can serve as support resources for the school. Furthermore, students can intern and provide "help-desk" assistance in the Technology Department.**

**Instructional support will be provided by North Carolina New Schools. This will include professional development for the administration, teachers and staff and will center on curriculum development and delivery, creation of school culture and climate, and other educational activities. This continuous professional development will be crucial for teachers as they work collaboratively and model work place readiness.**

**Support will also be provided by NCDPI Region 8 Lead Coordinators, as well as Western RESA staff. These support networks will ensure that all administration, teachers and staff are trained in the latest state initiatives and educational practices.**



(4) List the student academic and career/technical achievement goals and the measures to be used to demonstrate that students have attained the skills and knowledge specified for the listed goals.

- (a) Academic goals for students – Please list the academic goals for students, including goal indicators (measures) and the preliminary targets for each indicator.

<b>Goal</b>	<b>Indicator</b>	<b>Target</b>
<b>Graduate from high school on time</b>	<b>Number of students in cohort</b>	<b>100% of the students will graduate on time and with their cohort</b>
<b>Earn up to an Associate Degree or 2 years of college transfer credit</b>	<b>Post-Secondary courses completed</b>	<b>100% of students attending will begin earning post-secondary credit during their freshman year</b>
<b>Honors/AP Credits Earned</b>	<b>Number of Honors/AP Credits Earned</b>	<b>100% of students attending will earn at least six Honors or AP credits before graduating</b>
<b>Career and College Ready Diploma Endorsement</b>	<b>Number of students graduating with Career and College Ready Diploma Endorsements</b>	<b>100% of all students will graduate College Ready and/or Career and College Ready</b>

- (b) Career/technical goals for students – Please list the career/technical goals for students, including goal indicators (measures) and the preliminary targets for each indicator.

<b>Goal</b>	<b>Indicator</b>	<b>Target</b>
<b>Become a CTE Concentrator</b>	<b>Number of CTE Concentrators in a cohort</b>	<b>60% of students will be CTE Concentrators</b>
<b>Earn Industry Recognized Credential Including Work Keys</b>	<b>Number of industry credentials earned by students (Ex. Career Readiness Certificate, Microsoft Office Specialist, etc.)</b>	<b>60% of students will earn an Industry Recognized Credential</b>
<b>Work-based Learning Hours Earned</b>	<b>Number of students earning work-based learning hours</b>	<b>100% of graduates will earn at least one credit in a work-based learning course</b>



(5) Describe the following components of program operations:

- (a) Budgeting (describe your annual budget development process only; a pro forma budget and funding plan is required in Section 8.):

**Budgeting for the school will include numerous funding sources. Federal, state and local funds will be used for operational and capital projects. Federal and state Career and Technical Education funds will be used to support CTE courses and positions. State funds will be used for personnel, instructional materials, and professional development. Local funds will be used for covering other expenses, bridging the gaps in funding and providing daily operational supplies. Each Buncombe County School also receives a Local Capital Technology Budget, which the school's Media Technology Advisory Committee (MTAC) oversees, as well as a Local Capital Outlay budget used for building repair and maintenance.**

**After Buncombe Discovery Academy's initial opening, the school will follow all policies and protocols that are in place by our school system. The principal will work with the finance officer and local directors to secure funds for the school's operations, staffing and student needs.**

**The School Improvement Team will be an instrumental part in the decision-making process, as well as budget oversight, as they help oversee the vision of the school and the needs of teachers and students.**

**Since multiple funding sources will be used to fully operate the school, it will be the duty of the principal, with the support of the central office, and in conjunction with the School Improvement Team, to secure any additional funds that may be needed to support programs or students for the school. He/she will work with the Buncombe County Schools Foundation, BCS grant writer, local community partners, the Parent, Teacher, Student Organization, (PTSO) and local business and industry to raise enhancement funds for the school.**

**A fund raising campaign aimed at corporate partners is being developed so that the school will be able to not only secure funds for enhancement projects, but connect business and industry with students' work-place readiness goals and linkages to internship sites.**

**The Child Nutrition and Transportation Departments will also incur costs associated with Buncombe Discovery Academy. It will be the responsibility of the principal to work closely with these two departments to ensure these needs are met.**

(b) Curriculum:

- 1 Please complete a proposed curriculum map for the school.  
**Please see Buncombe Discovery Academy's Proposed Curriculum Map located in Appendix B.**
- 2 Please provide a description of the overall instructional program and how it will introduce innovation into the classroom, and address how the school will ensure graduates are prepared for college and career.

**Buncombe Discovery Academy will be a small, autonomous, rigorous high school that offers all students a demanding, college-ready curriculum; academic and emotional support for students; and preparation for a 21st-century job market that demands communication, collaboration, and problem-solving skills.**

**As a STEM-focused institution, Buncombe Discovery Academy will represent a new vision for high school education. The plan is for the high school to provide unique experiences for students who wish to participate in an educational setting that is different from the traditional high school. Buncombe Discovery Academy students will experience meaningful off-campus activities as a part of each semester's curriculum; learn through a series of real world project-based learning opportunities; and be empowered to make meaningful decisions about their own learning and future goals. Engaging in coursework through A-B Tech and UNC Asheville is a significant part of these "real life" experiences.**

**Using the North Carolina STEM Network rubric and five non-negotiables that were agreed upon by the school's planning committee; Buncombe Discovery Academy will focus on:**

**North Carolina Department of Public Instruction's STEM Attributes**

- **Integrated STEM curriculum, aligned with state, national, international and industry standards**
- **On-going community and industry engagement**
- **Connections to post-secondary education**

**Buncombe County Schools STEM Planning Committee Non-Negotiables**

- **Integrated STEM throughout all aspects of the curriculum**
- **College and University Connections**
- **Career Internships and Apprenticeships**
- **Technology 1:1 Initiative**
- **Partnership with North Carolina New Schools**

**Beginning their freshman year, students can start earning college credit leading to either an associate degree or university major. Through the science program, all students will complete their graduation requirements by taking a blended sequence of high school and college courses and then if they choose, take additional science-related college courses during the last two years.**



The mathematics curriculum will be taught at honors level and include a common core of integrated development of fundamental concepts and skills in algebra and functions, geometry and trigonometry, statistics and probability, and discrete mathematics. Students will take college math courses that align with their post-secondary goals. The goal is to have all students develop a robust understanding of mathematical concepts, principles and techniques. It will be based on student-centered investigations of important mathematics, in the context of real world problems and applications.

Students will also participate in Project Lead The Way (PLTW) courses, a rigorous and relevant national STEM curriculum that prepares students to be successful in engineering programs and the biomedical sciences. Through this engaging, hands-on curriculum, PLTW encourages the development of problem-solving skills, critical thinking, creative and innovative reasoning and a love of learning. All of the PLTW courses offered at Buncombe Discovery Academy will carry advanced-placement weighted credit.

The humanities curriculum will integrate English Language Arts and Social Studies, as well as the critical thinking, critical reading, digital literacy, and communication skills necessary to thrive in the twenty-first century. The project-based courses will engage students in real-world research and problem-solving and will support the school-wide emphasis in science, engineering, mathematics and technology.

A wellness component will be integrated all four years with the students being able to obtain the required Physical Education/Health course needed for graduation. While the Essential Standards for Physical Education will be followed, the curriculum will be infused with STEM related concepts that can be integrated to other content areas.

An additional resource students will be able to utilize will be the GeoDome. The GeoDome visualization and data capabilities, combined with rigorous science experiences focused on problem solving at local, regional and global levels, will help students attain the 'the seven skills' needed for success in our ever changing world." (Tony Wagner, *The Global Achievement Gap*) These business related skills correlate very closely with the eight Scientific and Engineering Practices from The Framework for Science Education K-12. Joined with the problem solving focus for Buncombe Discovery Academy, the GeoDome will provide many cross curricula applications.

Students will earn industry credentials such as the Career Readiness Certificate and others related to their Career and Technical Education electives. As students explore various career options, the work-based learning component (job shadowing, internships/apprenticeships) of the program will be vital to their understanding of the skills needed to be successful in STEM-related careers.

Students at Buncombe Discovery Academy may choose to take elective courses online based on their interests through North Carolina Virtual High School and the North Carolina School of Math and Science. Both of these options provide STEM-related courses, as well as world languages and other electives that will enable each student to have a more personalized educational experience.

**Through this dynamic and integrated curriculum, students will be prepared to continue their education having earned numerous post-secondary credits that lead to an associate degree, university major, or enter the workforce with the skills needed to progress quickly from entry-level positions to higher-paying ones.**

- (c) Student transportation (please include discussion of how the school will ensure no child is denied access due to transportation issues):

**Students attending Buncombe Discovery Academy will be able to take the bus from their homes to their home attendance district high school; then transportation from the home attendance district high school to Buncombe Discovery Academy will be provided. This system is already in place for students who attend the Buncombe County Schools Early College and students who attend the Newcomer's Center, which is currently housed at the BCS Central Office. For the first year of operation, since the numbers of riders on each bus within each home district will not show a dramatic increase, no additional transportation will be needed. However for year two, additional buses may be needed to accommodate the increase in riders.**

**Once students are eligible to drive, parking will be provided for students at the school. In addition, since the school is located on the Asheville transit bus line, if the need arises, that form of transportation is also available for students who may need transportation within the Asheville City limits.**



(d) School operating procedures, including calendar and hours of operation:

**To comply with the 185 days or the 1025 hours of instruction mandate, Buncombe Discovery Academy will follow the approved Buncombe County Schools calendar with the addition of a three-day Summer Bridge Orientation Program. Buncombe County Schools currently operates on a 182 day calendar, therefore adding the three additional days will meet this requirement. Transportation will be provided for students from their home-high school districts to the school. This expense has been accounted for in the budget section.**

**Since Buncombe County Schools currently operates an early college, a calendar is already in place that aligns with the community college calendar and every effort will be made to align the Buncombe County Schools calendar with the university calendar as well.**

**This Summer Bridge program will allow students to transition to their new school and participate in team building activities, job shadowing in local businesses, and begin building school culture by collaborating and developing the soft skills that the business community continuously demands.**

**Buncombe Discovery Academy will operate on a collegiate schedule with courses meeting Monday, Wednesday, and Friday and some meeting Tuesday and Thursday. Blended and hybrid classes will allow students to earn credit towards graduation. Classes will begin at 8:30 am and end at 2:30 pm daily. Extended day opportunities will be available for students and the school will run an alternative schedule from 3:30 pm until 6:30 pm. This will also allow students from other high schools to take advantage of specialized courses and college courses offered at the school. (This will begin in August, 2015).**

**An example of a weekly schedule detailing times can be found in Appendix B following the curriculum map.**

(6) Please describe how school administrators will promote and measure parent involvement.

**Parents play a critical role in a student's educational experience and are considered key partners in the school. Below are activities and/or organizations that parents will be encouraged to participate in to help strengthen the school's climate and culture.**

- **School Improvement Team**
- **Parent, Teacher, Student Organization (PTSO)**
- **Advisory Council**
- **Parent Volunteer Efforts**
- **Extra-curricular-club sponsor/mentors**

**Parent involvement will be promoted through a contract that the student and parent(s) agree to and subsequently will be tracked through surveys, sign-in sheets and volunteer hours. Home visits will be scheduled as appropriate to share information and answer questions about the school and curriculum. Parents will also play a key role as advisors as they are asked to meet with staff to review their student's personalized graduation plans and are involved in career and college preparation. The goal is for parents to take an active role in the student's four-year academic journey, thus fostering a collaborative relationship between the school and home. Communication and support from the school is important for parents, since understanding the complexities of navigating high school/college can be difficult, and sometimes, overwhelming. Providing a strong support network for the student and parent will strengthen the commitment to the student's academic and personal success.**

**Buncombe Discovery Academy will also reach parents through social media, the school's webpage and the Parent Portal in Home Base. Each teacher will maintain a website that will be linked to the school's webpage providing an additional outreach to parents.**

(7) Please describe the student selection and admission process. Include specific selection criteria.

**A cohort of 100 students will be recruited and selected each year with a maximum enrollment of 400 students, grades 9-12. For the 2014-15 school year, 100 students will be selected using a selection criteria that has been developed and approved by the planning committee. Any rising 9<sup>th</sup> grade student from the six Buncombe County Schools attendance districts will have the opportunity to apply to Buncombe Discovery Academy.**

**Students, teachers, administrators, parents and the community advisory boards were instrumental in determining the selection criteria for the high school application. Focus groups were conducted centering on each of these target groups to elicit ideas, support and feedback.**

**Students were very vocal about who should be able to attend, with the students wanting and expecting a rigorous course of study and the criteria for selection to reflect this. Each group was able to provide guidance on areas for emphasis and points assigned to each category. This research and development process helped to narrow the focus and allowed the selection criteria to reflect what best fit the students, parents and teachers.**

**Starting in January, a team representing Buncombe Discovery Academy will go to each of the seven middle schools to promote the school to students. Next, the team will conduct a follow up meeting with parents in each district informing them of the course offerings and application process. The application will include the selection criteria listed below and demographic information about the student.**

**Selection criteria:**

- **Personal Interest Response (Digital/Written)**
- **Academic Performance**
- **Attendance**
- **ACT Explore Score- a measure of college readiness**
- **School Recommendations- (Principal/Teacher/Counselor)**
- **Under Represented Populations in STEM- (ex. females, minorities, economically disadvantaged, first-generation college students)**

**A graduated points system will be awarded for each criteria area and all students receiving the highest point totals will be selected to enter the lottery. The lottery, conducted by an external agency, will help determine the final selection if the number of applicants exceeds the number of enrollment slots.**

**The student population should be reflective of the district not only academically but demographically as well. The student population will also meet the goals for Cooperative Innovative Status and North Carolina New Schools. A Buncombe County Schools District Profile can be found in Appendix E.**



(8) Budget – This section is required for **all** applications, including self-funded schools for which no state funding, community college FTE, or university tuition funds are requested. Complete all sections – (a) through (c).

For those requesting funds, please note that Average Daily Membership (ADM) and Full-time Equivalents (FTE) shall be calculated according to existing procedures and formulas for determining these budget elements.

- (a) Identify the funds and fund sources to be used for school operations. Identify all funds, including CIHS allotments (PRC 055), tuition payments, FTE reimbursements, grant/gift funds, as well as other state and/or local funds.

**Buncombe County Schools uses the allotment formula from NCDPI to determine budgeting and teacher allocations. Buncombe Discovery Academy will use CIHS funds (PRC 055) to cover salaries and benefits for core staff, support positions, instructional related supplies and materials, and professional development. Additional funds will be needed for Career and Technical Education staff (PRC 013) and other essential positions will be paid out of either state (PRC 001) or local funds. Additional local monies will be used on technology, professional development, supplies and materials and curriculum support.**

**Local and state funds will support the technology initiative with additional local funds will be used to supplement or fill in the gaps. FTE reimbursements will be needed for students taking A-B Tech courses and tuition reimbursements will be needed for students taking college courses from UNC Asheville. CTE Federal and State (014 and 017) as well as Local (013 and 014) monies will be used to support Project Lead the Way programs and other CTE initiatives.**

**Local capital monies will be used to assist in purchasing technology, furniture and equipment that will not be covered under the lottery dollar funds and those approved for renovation purposes.**

**The Buncombe County Schools Foundation also helps support STEM initiatives in the district by securing grants and funding for equipment, supplies and materials. This money is available yearly to teachers and is distributed through classroom grants. Teachers can apply for this funding and grants range between \$500.00 and \$3000.00.**

- (b) How will tuition charges paid to the university partner be determined (if applicable)? Include the tuition charge review and adjustment frequency (annually, biennially, etc.)

**Working with the State Board of Education/Department of Public Instruction and the University of North Carolina at Asheville, students who take UNC Asheville courses will do so at no charge to the student; the university will be reimbursed for the courses. UNC Asheville's tuition costs are determined by the General Assembly and will be reviewed annually. Buncombe Discovery Academy is seeking state dollars for tuition to university partner(s) as determined by the terms outlined in Statute 115C 238.54(h) of the Cooperative Innovative High School legislation.**

- (c) Proposed budget – Please use the template provided in Appendix C to provide a proposed annual budget for the first five (5) years of school operations. This is required for all applicants. **Please see the five-year projected operation budget in Appendix C.**

(9) Please describe the specific positions and minimum qualifications of employees in the program (e.g. principal or director, support staff, teachers, paraprofessionals/teaching assistants, and clerical).

**Buncombe Discovery Academy will strategically select a highly qualified staff that can carry out the vision of the school, promote a culture of collaboration among students and staff and empower students to extend and explore enabling them to be successful in their futures. To do this Buncombe Discovery Academy will seek the following positions:**

**Principal-** Using the North Carolina Public Instruction qualifications for a principal, the principal of this school must have knowledge of twenty-first century learning practices and facilitate the role of a company executive as well as an instructional leader. This unique role will be challenging, because it will meld the education world with the business world, ensuring students are readily prepared for both STEM career and college experiences. Because of the importance of instructional leadership within this school, this is a certified position.

**Assistant Principal-** Using the North Carolina Public Instruction qualifications for a principal, the assistant principal of this school must have knowledge of twenty-first century learning practices and assist the principal in carrying out his/her vision. The assistant principal must have a thorough understanding of the STEM disciplines and be able to provide support to both students and staff when needed. He/she will also serve as the college liaison and the curriculum coordinator. This is a certified position.

**Teachers-** Teachers must be North Carolina Certified and must embody a collaborative work spirit that will carry over to students and their work as they prepare students for STEM careers and college experiences. These are certified positions. Teachers who will be teaching college-level courses must have a Master's Degree and have 18 hours of content-specific credit. Teachers serving in this capacity will be part-time for the school system and on contract with the community college. Teachers who teach Advanced Placement courses will also need to hold the AP certification and those teaching PTLW will need to hold that endorsement as well.

**Support Staff-**

**The Career Development Coordinator** will be instrumental in identifying work-based learning sites and identifying students' interests and abilities and matching them with STEM businesses so they gain the hands-on, relevant experiences. The Career Development Coordinator must hold a NCDPI CDC License. This is a certified position.

**The School Counselor** will provide guidance and counseling services and assist with the students' overall well-being. The counselor will work with students on post-secondary preparedness and will be crucial in assisting students in meeting graduation goals. The School Counselor must hold a NCDPI School Counselor License. This is a certified position.



**The Instructional Technology Facilitator will be the link between technology and curriculum and instruction. Bringing curriculum to life and empowering learning with the project-based, 1 to 1 technology initiative, the Instructional Technology Facilitator will be responsible for ensuring Digital Literacy, Digital Learning, and Digital Safety. The Instructional Technology Facilitator must hold a NCDPI License. This is a certified position.**

**Clerical Support- One full time non-certified Administrative Assistant and one part time non-certified Administrative Assistant will share duties at the school. These positions will perform duties such as: Principal's secretary, bookkeeper, Power School Administrator, counseling secretary, receptionist. This shared responsibility of duties allows for the assistants to be cross-trained and skilled and should be adequate to handle the size of the school's population.**

**Custodian- A custodian who maintains the Buncombe County Schools Central Office areas will also be responsible for maintaining Buncombe Discovery Academy.**

(10) Please estimate how many students will be served using the table below.

	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>	13 <sup>th</sup>
Year 1	100				
Year 2	100	100			
Year 3	100	100	100		
Year 4	100	100	100	100	
Year 5	100	100	100	100	

(11) Please describe how the school, school district, and partner institution intend to measure the school's effectiveness with respect to meeting the purposes specified in GS 115C-238.50; i.e. accountability results, CTE post-assessment performance, employer surveys, dropout rates, graduation rates, post-secondary college-going rates, etc.

**Buncombe Discovery Academy will be measured using the READY criteria as determined by the state. NCDPI will generate reports based on accountability standards. Dropout rates, graduation rates and other NCDPI reports will allow the public to measure the success of Buncombe Discovery Academy.**

**For CTE Post Assessments, NCDPI will release its data through the Local Planning System and information on the number of credentials acquired and Career Work-based Learning Credits earned will be gathered and reported through Elements and Power School. The Career Development Coordinator at Buncombe Discovery Academy will also develop, conduct and tabulate an employer survey to evaluate the students in the Work-based Learning (Internship/Apprenticeship) courses as well as conduct the annual CTE Concentrator Follow Up Survey. This data will be posted on Buncombe Discovery Academy webpage and included in an annual State of the School report that will be sent to parents, advisory board members and community members.**

**The school counselor will administer a post-secondary survey and a one year post-graduation survey to determine students' intent after graduation and then follow up with students one year after graduation. This will provide key information in determining if students felt they were prepared for their post-secondary experiences.**

**Students' progress towards obtaining a diploma endorsement of either UNC or College Ready or UNC/College and Career Ready will be tracked in Power School.**

**SAT and ACT scores, Work Keys (Career Readiness Certificate) and other credentialing data, and Grade Point Averages (GPA), will be continually monitored to ensure students can meet their post-secondary goals and admission requirements.**

**Honors/AP credit will be determined through Power School reporting; A-B Tech and UNC Asheville will calculate the number of college credits students earn each year and verify for college transcript purposes. These will be recorded in Power School for career and college planning.**

(12) The State Board of Education provides the following routine program exemptions (waivers) automatically upon program approval. You do not need to request these waivers, however please indicate the waivers the school will use by placing an X in the space provided next to its description. **Please pay special attention to the applicable conditions for each exemption; schools choosing to take advantage of an exemption shall adhere to the conditions specified.**

Waiver ID	Description	Applicable Conditions	Intend to use?
Personnel-1	Allow the NC principal certification requirements to be waived.	Non-certified principals shall enroll in an accredited principal certification program and shall complete certification within three years.	
Curriculum-1	Allow students to meet graduation requirements by substituting a college-level course for an approved high school course, as appropriate. This includes permitting multi-course sequences to meet requirements, and includes all core curriculum areas and foreign languages.	<ul style="list-style-type: none"> <li>• Course substitutions for English III and/or English IV must adhere to the requirements established in SBE policy GCS-N-004.</li> <li>• Students must pass the college-level course(s).</li> <li>• Students must complete required EOC assessments to receive credit.</li> </ul>	<b>X</b>

Please use the space provided on the following pages to request any **additional** exemptions from laws and rules applicable to a local board of education, an LEA (local school administrative unit), a community college, a constituent institution of the UNC System, or a local board of trustees, that may be necessary for successful program operation. **Space is provided for each governing board; use only the space for the applicable board.** Add rows to the table as necessary. Please note that in accordance with law, requests included with the application may or may not be approved by the applicable governing board as part of the approval process. Waiver requests not approved by a governing board will be communicated to the applicant.



### STATE BOARD OF EDUCATION

Identify the state law, regulation, or SBE policy to be waived (Please provide a specific reference)	Specify the rationale for the exemption (Please include explicit examples)
G.S. 115C-238 50	Location Waiver for A-B Tech - Located in the Appendix

### NC COMMUNITY COLLEGE BOARD

Identify the state law, regulation, or NCCCS policy to be waived (Please provide a specific reference)	Specify the rationale for the exemption (Please include explicit examples)
G.S. 115C-238 50	Location Waiver for UNC Asheville- Located in the Appendix

### UNC BOARD OF GOVERNORS

Identify the state law, regulation, or UNC GA policy to be waived (Please provide a specific reference)	Specify the rationale for the exemption (Please include explicit examples)

**END OF APPLICATION; APPENDICES ON FOLLOWING PAGES**

## **APPENDIX A**

### **Part 9. Cooperative Innovative High Schools**



The legislative language authorizing the Cooperative Innovative High School program is provided below as a reference for districts and their partners during development of the program application.

**FLEXIBILITY FOR HIGH SCHOOL INNOVATION [SL2005-276, section 7.33(a)]**

**SECTION 7.33.(a)** Part 9 of Article 16 of Chapter 115C of the General Statutes reads as rewritten:

**115C-238.50. Purpose.**

(a) The purpose of this Part is to authorize local boards of education to jointly establish with one or more boards of trustees cooperative innovative programs in high schools and colleges or universities that will expand students' opportunities for educational success through high quality instructional programming. These cooperative innovative high school programs shall target any of the following groups:

(1) High school students who are at risk of dropping out of school before attaining a high school diploma.

(1a) High school students with parents who did not continue education beyond high school.

(2) High school students who would benefit from accelerated academic instruction.

(b) All the cooperative innovative high school programs established under this Part shall:

(1) Enable students to concurrently obtain a high school diploma and begin or complete an associate degree program, master a certificate or vocational program, or earn up to two years of college credit within five years.

(1a) Prepare students adequately for future learning in the workforce or in an institution of higher education.

(2), (3) Repealed by Session Laws 2011-145, s. 7.1A(j), effective January 1, 2012.

(4) Encourage the cooperative or shared use of resources, personnel, and facilities between public schools and colleges or universities, or both.

(5) Repealed by Session Laws 2011-145, s. 7.1A(j), effective January 1, 2012.

(6) Emphasize parental involvement and provide consistent counseling, advising, and parent conferencing so that parents and students can make responsible decisions regarding course taking and can track the students' academic progress and success.

(7) through (10) Repealed by Session Laws 2011-145, s. 7.1A(j), effective January 1, 2012.

(11) Develop methods for early identification of potential participating students in the middle grades and through high school and provide outreach to those students to promote academic preparation and awareness of the cooperative innovative high school programs.

(12) Repealed by Session Laws 2011-145, s. 7.1A(j), effective January 1, 2012.

(c) through (e) Repealed by Session Laws 2011-145, s. 7.1A(j), effective January 1, 2012.

(f) Students are eligible to attend these programs as early as ninth grade.

**115C-238.50A. Definitions.**

The following definitions apply in this Part:

(1) Constituent institution. - A constituent institution as defined in G.S. 116-2(4).

(1a) Cooperative innovative high school. - A high school approved by the State Board of Education that meets the following criteria:

- a. It has no more than 100 students per grade level.
- b. It partners with an institution of higher education to enable students to concurrently obtain a high school diploma and begin or complete an associate degree program, master a certificate or vocational program, or earn up to two years of college credit within five years.
- c. It is located on the campus of the partner institution of higher education, unless the governing Board or local board of trustees for a private North Carolina college specifically waives the requirement through adoption of a formal resolution.

(1b) Cooperative innovative high school allotment. – Funds appropriated by the General Assembly to the Department of Public Instruction to provide additional resources to approved cooperative innovative high schools.

(2) Education partner. - An education partner as provided in G.S. 115C-238.52.

(3) Governing Board. - The State Board of Community Colleges or the Board of Governors of The University of North Carolina.

(3a) Local board of education. - A local board as defined in G.S. 115C-5(5) or a regional school board of directors as defined in G.S. 115C-238.61(5).

(4) Local board of trustees. - The board of trustees of a community college, constituent institution of The University of North Carolina, or private college located in North Carolina.

(5) Partner institution of higher education. – A community college, constituent institution of The University of North Carolina, or private college located in North Carolina.

#### **115C-238.51. Application process.**

(a) A local board of education and at least one local board of trustees shall jointly apply to establish a cooperative innovative high school program under this Part.

(b) The application shall contain at least the following information:

(1) A description of a program that implements the purposes in G.S. 115C-238.50.

(2) A statement of how the cooperative innovative high school relates to the Economic Vision Plan adopted for the economic development region in which the program is to be located.

(3) The facilities to be used by the cooperative innovative high school and the manner in which administrative services of the school are to be provided.

(4) A description of student academic and vocational achievement goals and the method of demonstrating that students have attained the skills and knowledge specified for those goals.

(5) A description of how the cooperative innovative high school will be operated, including budgeting, curriculum, transportation, and operating procedures.

(6) The process to be followed by the cooperative innovative high school to ensure parental involvement.

(7) The process by which students will be selected for and admitted to the cooperative innovative high school.

(8) A description of the funds that will be used and a proposed budget for the first five years of the implementation of the cooperative innovative high school. This description shall identify how the average daily membership (ADM) and full-time equivalent (FTE)



students are counted. If additional funds are requested, a description of how those additional funds will be used shall be submitted. Additional funds may include the cooperative innovative high school allotment and tuition payments. For cooperative innovative high schools that have a community college as their partner institution of higher education, the proposed budget shall include the cost of including their students in calculations of budget full-time equivalent students for the North Carolina Community College System.

(9) The qualifications required for individuals employed in the cooperative innovative high school.

(10) The number of students to be served.

(11) A description of how the cooperative innovative high school's effectiveness in meeting the purposes in G.S. 115C-238.50 will be measured.

(c) The application shall be submitted to the State Board of Education and the applicable governing Board. If the partner institution of higher education is a private North Carolina college, the application shall be submitted solely to the State Board of Education.

#### **115C-238.51A. Approval process.**

(a) The State Board of Education and the applicable governing Board shall appoint a joint advisory committee to review the applications and to recommend approval for those applications that meet the requirements of this Part and achieve purposes set out in G.S. 115C-238.50. The recommendation shall indicate whether additional funds were requested in the application.

(b) No Additional Funds. – For applications which have not requested additional funds, the State Board of Education and the applicable governing Board may approve cooperative innovative high schools. In granting approval, consideration shall be given to the proposed budget and demonstration of sources of sustainable funding for the operation of the cooperative innovative high school. Approvals shall be made by June 30 of each year. No additional State funds, position allotments, earning of budget full-time equivalent students, or payments of tuition shall be provided to cooperative innovative high schools approved under this subsection.

(c) Additional Funds. – For applications which have requested additional funds, the State Board of Education and the applicable governing Board may approve cooperative innovative high schools contingent upon appropriation of the additional funds by the General Assembly. Contingent approval shall be made by April 1 of each year. The contingent approval shall expire if no appropriation is made by the General Assembly for the additional funds within one calendar year. No cooperative innovative high school shall open prior to the appropriation by the General Assembly of the full amount of the additional funds as requested in the application for that school under G.S. 115C-238.51 for the upcoming fiscal year or fiscal biennium, as appropriate. If no appropriation is made by the General Assembly, a revised application may be submitted under subsection (b) of this section.

#### **115C-238.52. Participation by other education partners.**

(a) Any or all of the following education partners may participate in the development of a cooperative innovative high school under this Part that is targeted to high school students who would benefit from accelerated academic instruction:

(1), (2) Repealed by Session Laws 2005-276, s. 7.33(a), effective July 1, 2005.

(3) A private business or organization.

- (4) The county board of commissioners in the county in which the cooperative innovative high school is located.
- (b) Any or all of the education partners listed in subsection (a) of this section that participate shall:
  - (1) Jointly apply with the local board of education and the local board of trustees to establish a cooperative innovative high school under this Part.
  - (2) Be identified in the application.
  - (3) Sign the written agreement under G.S. 115C-238.53(b).

#### **115C-238.53. Program operation.**

- (a) A cooperative innovative high school approved by the State is accountable to the local board of education.
- (b) A cooperative innovative high school approved under this Part shall operate under the terms of a written agreement signed by the local board of education, local board of trustees, State Board of Education, and applicable governing Board. The agreement shall incorporate the information provided in the application, as modified during the approval process, and any terms and conditions imposed on the school by the State Board of Education and the applicable governing Board. The agreement may be for a term of no longer than five school years.
- (c) A cooperative innovative high school may be operated in a facility owned or leased by the local board of education, the local board of trustees, or the education partner, if any.
- (d) A cooperative innovative high school approved under this Part shall provide instruction each school year for at least 185 or 1025 hours days during nine calendar months, shall comply with laws and policies relating to the education of students with disabilities, and shall comply with Article 27 of this Chapter.
- (e) A cooperative innovative high school approved under this Part may use State, federal, and local funds allocated to the local school administrative unit, to the applicable governing Board, and to the partner institution of higher education to implement its program. If there is an education partner and if it is a public body, the cooperative innovative high school may use State, federal, and local funds allocated to that body.
- (f) Except as provided in this Part and under the terms of the agreement, cooperative innovative high schools:
  - (1) Shall have the same exemptions from statutes and rules as charter schools operating under Part 6A of this Article, other than those pertaining to personnel.
  - (2) May be exempted by the State Board of Education or by the applicable governing Board from laws and rules applicable to a local board of education, a local school administrative unit, a community college, a constituent institution, or a local board of trustees.

#### **115C-238.54. Funds for programs.**

- (a) The Department of Public Instruction shall assign a school code for each cooperative innovative high school that is approved under this Part. Notwithstanding G.S. 115C-105.25, once the cooperative innovative high school has been assigned a school code, the local board of education may use these funds for the school and may transfer these funds between funding allotment categories.
- (a1) Repealed by Session Laws 2011-145, s. 7.1A(j), effective January 1, 2012.



- (b) The local board of trustees may allocate State and federal funds for a cooperative innovative high school that is approved under this Part.
- (c) An education partner under G.S. 115C-238.52 that is a public body may allocate State, federal, and local funds for a cooperative innovative high school that is approved under this Part.
- (d) If not an education partner under G.S. 115C-238.52, a county board of commissioners in a county where a cooperative innovative high school is located may nevertheless appropriate funds to a the school approved under this Part.
- (e) The local board of education and the local board of trustees are strongly encouraged to seek funds from sources other than State, federal, and local appropriations. They are strongly encouraged to seek funds the Education Cabinet identifies or obtains under G.S. 116C-4.
- (f) Students in cooperative innovative high schools shall not be charged tuition for courses taken through the partner institution of higher education.
- (g) Students in cooperative innovative high schools that have a community college as their partner institution of higher education and were approved under G.S. 115C-238.51A(c) shall be included in calculations of budget full-time equivalent students for the North Carolina Community College System. Students in cooperative innovative high schools that have a community college as their partner institution of higher education and were approved under G.S. 115C-238.51A(b) shall not be included in calculations of budget full-time equivalent students for the North Carolina Community College System.
- (h) The State Board of Education shall reimburse The University of North Carolina for tuition for courses taken by students at cooperative innovative high schools that have a constituent institution of The University of North Carolina as their partner institution of higher education and were approved under G.S. 115C-238.51A(c). Tuition payments shall not exceed the annual Board of Governors-approved undergraduate resident tuition rate calculated on a per credit hour basis and shall not include fees. In addition, the cooperative innovative high school students' credit hours shall be non-fundable under The University of North Carolina Semester Credit Hour Enrollment Change Funding Model. The State Board of Education shall not reimburse The University of North Carolina for tuition for courses taken by students at cooperative innovative high schools that have a constituent institution of The University of North Carolina as their partner institution of higher education and were approved under G.S. 115C-238.51A(b).
- (i) The State Board of Education shall reimburse private North Carolina colleges for tuition for courses taken by students at cooperative innovative high schools that have a private North Carolina college as their partner institution of higher education and were approved under G.S. 115C-238.51A(c). Tuition payments shall not exceed the highest undergraduate resident rate approved by the Board of Governors for The University of North Carolina constituent institutions and shall not include fees. The State Board of Education shall not reimburse private North Carolina colleges for tuition for courses taken by students at cooperative innovative high schools that have a private North Carolina college as their partner institution of higher education and were approved under G.S. 115C-238.51A(b).

#### **115C-238.55. Evaluation of programs.**

The State Board of Education and the governing Boards shall evaluate the success of students in cooperative innovative high schools approved under this Part. Success shall be measured by high school retention rates, high school completion rates, high school dropout rates, certification

and associate degree completion, admission to four-year institutions, post-graduation employment in career or study-related fields, and employer satisfaction of employees who participated in and graduated from the schools. The Boards shall jointly report by January 15 of each year to the Joint Legislative Education Oversight Committee on the evaluation of these schools.

## **APPENDIX B**

### **Curriculum Guide Template**

# Buncombe Discovery Academy – A STEM-Themed School focusing on Innovation and Design

Plan 1- Designed to meet students' personalized Post-Secondary or Career Goals

High School	Year 1		Year 2		Year 3		Year 4	
	Fall 1	Spring 1	Fall 2	Spring 2	Fall 3	Spring 3	Fall 4	Spring 4
	Year Long		Year Long		Year Long		Year Long	
<u>All classes are available for either AP or Honors Credit except Physical Science and Math I</u>  <u>PLTW courses receive AP Weighted Credit</u>	Humanities		Humanities		Humanities		English IV	
	English I/American I		English II/Project Management		English III/Civics			
	Environmental Science/ Physical Science		Chemistry	Biology	World History	Physical Education	<i>Internship</i>	
	Math I or II /PLTW- IED/ACA 122 <b>College Course</b>		Math II or III/PLTW- Principles of Engineering		World Language	<b>COM 231 College Course</b>	World Language	<b>College Course</b> A-B Tech or UNCA
	HS Elective		American II/CIS 110 <b>College Course</b>		Math III or Math IV OR <b>MAT 152 College Course</b> and counts as 4 <sup>th</sup> math for some colleges	PLTW- Biotechnical	Math IV or <b>MAT 152 OR MAT 171 College Course</b> and counts as 4 <sup>th</sup> math for some colleges	PLTW-Engineering Design and Development
	Graduation Project work begins\		Graduation Project work continues and concludes/Work-based Learning Experience		Time built into schedule for Work-based Learning support- extended job shadowing/internship		Time built into schedule for Work-based Learning support- extended job shadowing/internship	
	Work-based Learning Shadowing Experience							
	1 English Credit 1 History Credit 2 Science Credits 1 Math Credit 1 CTE Credit 1 Elective Credit 1 Elective College Credit		1 English Credit 1 History Credit 2 Science Credits 1 Math Credit 2 CTE Credits 1 Elective College Credit		1 English Credit 2 History Credit 1 Physical Education 1 Math Credit* could be College Credit 1 CTE Credit 1 Elective Credit 1 Elective College Credit		1 English Credit 1 Math Credit*- HS could be College Credit 2 or 3 CTE Credits 2 or 3 Elective College Credits	
	Total HS Credits- 7 <b>College Credit- 1</b> Courses Toward Graduation- 8		Total HS Credits- 7 <b>College Credit- 1</b> Courses Toward Graduation- 8		Total HS Credits- 6 or 7 <b>College Credit(s)- 1 or 2</b> Courses Toward Graduation- 8		Total HS Credits- 4 or 5 <b>College Credit- 3 or 4</b> Courses Toward Graduation- 8	

Notes: 32 possible credits

UNC System Requirements Met- College and Career Ready

Minimum of 6 College Courses

College Courses need to align to students' Post-secondary or Career Goals



## Buncombe Discovery Academy – A STEM-Themed School focusing on Innovation and Design

*Plan 2- Designed to meet students' personalized Post-Secondary or Career Goals*

High School	Year 1		Year 2		Year 3		Year 4	
	Fall 1	Spring 1	Fall 2	Spring 2	Fall 3	Spring 3	Fall 4	Spring 4
	Year Long		Year Long		Year Long		Year Long	
<u>All classes are available for either AP or Honors Credit except Physical Science and Math I</u>	Humanities		Humanities		Humanities		English IV	
	English I/HIS131 American I		English II/Project Management		English III/Civics		College Course A-B Tech or UNCA	
	Environmental Science/Physical Science		Chemistry A-B Tech or UNCA	Biology	World History	Physical Education	<i>Internship or</i> College Course A-B Tech or UNCA	
	Math I or II /PLTW- IED/ACA 122 College Course		Math II or III/PLTW- Principles of Engineering		World Language A-B Tech or UNCA	COM 231 College Course	World Language A-B Tech or UNCA	College Course A-B Tech or UNCA
<u>PLTW courses receive AP Weighted Credit</u>	HS Elective		HIS 132 American II /CIS 110 College Course		Math III or Math IV OR MAT 152 College Course and counts as 4 <sup>th</sup> math for some colleges	PLTW- Biotechnical	Math IV or MAT 152* OR MAT 171 College Course and counts as 4 <sup>th</sup> math for some colleges	PLTW-Engineering Design and Development
<b>Total</b>	Graduation Project work begins\ Work-based Learning Shadowing Experience		Graduation Project work continues and concludes/Work-based Learning Experience		Time built into schedule for Work-based Learning support- extended job shadowing/internship		Time built into schedule for Work-based Learning support- extended job shadowing/internship	
	1 English Credit 1 History Credit 2 Science Credits 1 Math Credit 1 CTE Credit 1 Elective Credit 1 Elective College Credit		1 English Credit 1 History Credit 2 Science Credits 1 Math Credit 1 CTE Credits 2 Elective College Credit		1 English Credit 2 History Credit 1 Physical Education 1 Math Credit* could be College Credit 1 CTE Credit 1 Elective Credit 1 Elective College Credit		1 English Credit 1 Math Credit* - HS could be College Credit 2 or 3 CTE Credits 2 or 3 Elective College Credits	
	Total HS Credits- 6 <b>College Credit- 2</b> Courses Toward Graduation- 8		Total HS Credits- 6 <b>College Credit- 2</b> Courses Toward Graduation- 8		Total HS Credits- 5 or 6 <b>College Credit(s)- 2 or 3</b> Courses Toward Graduation- 8		Total HS Credits- 3 or 4 <b>College Credit- 4 or 5</b> Courses Toward Graduation- 8	

**Notes:** 32 possible credits  
UNC System Requirements Met- College and Career Ready  
Minimum of 10 College Courses  
College Courses need to align to students' Post-secondary or Career Goals

## Suggested Time Schedule for Buncombe Discovery Academy

	Monday	Tuesday	Wednesday	Thursday	Friday
Block 1	8:30-9:45	8:30- 10:00	8:30-9:45	8:30 -10:00	8:30-9:45
Block 2	9:50- 11:05	10:05- 11:35	9:50- 11:05	10:05- 11:35	9:50- 11:05
Block 3*	11:10- 1:10	11:40- 12:55	11:10- 1:10	11:40- 12:55	11:10- 1:10
Block 4	1:15-2:30	1:00- 2:30	1:15-2:30	1:00- 2:30	1:15-2:30
*Includes lunch					
M, W, F courses meet 3.75 hours a week for 36 weeks=135 hours; T, TH courses meet 3 hours a week at 36 weeks = 108 hours of face time- T, TH classes will include hybrid learning opportunities. M-F blends meet 405 minutes a week for 36 weeks = 243 contact hours face to face plus hybrid learning-					
Possible electives for M, W, F include Arts, PE, Digital Media, World Languages, NC School of Science and Math, Virtual Public School					
T, TH time will be dedicated for CTSO's and clubs, Business Leaders' Profiles, Lunch and Learns, Academic Support, etc.					
	Monday	Tuesday	Wednesday	Thursday	Friday
Block 1	Humanities	Humanities	Humanities	Humanities	Humanities
Block 2	Environ Sci/ Phys Sci	Environ Sci/ Phys Sci	Environ Sci/ Phys Sci	Environ Sci/ Phys Sci	Environ Sci/ Phys Sci
Block 3*	Elective	Academic Advising/Club Day/ Academic Support	Elective	Academic Advising/Club Day/ Academic Support	Elective
Block 4	Math I or II/ACA 122/IED-PLTW	Math I or II/ACA 122/IED-PLTW	Math I or II/ACA 122/IED-PLTW	Math I or II/ACA 122/IED-PLTW	Math I or II/ACA 122/IED-PLTW
*Includes lunch					

## **APPENDIX C**

### **Pro-forma Budget Template**



Category/ Activity	Year 1	Year 2	Year 3	Year 4	Year 5
**Please include an itemized list under each category as appropriate**					
<b>Salaries and Benefits</b>					
BCS Discovery Staff <i>Paid out of local, state and CIHS funds</i>	Please see spreadsheet with details of personnel both certified and non-certified	Please see spreadsheet with details of personnel both certified and non-certified	Please see spreadsheet with details of personnel both certified and non-certified	Please see spreadsheet with details of personnel both certified and non-certified	Please see spreadsheet with details of personnel both certified and non-certified
<b>sub-total</b>	<b>\$ 534,012</b> -	<b>\$759,210</b> -	<b>\$ 1,206,937</b> -	<b>\$ 1,456,894</b> -	<b>\$ 1,456,894</b> -
<b>Contracted Services</b>					
New Schools Contract* <i>Paid out of local funds</i>	50,000	40,000	10,000	10,000	10,000
<b>sub-total</b>	<b>\$ 50,000</b>	<b>\$40,000</b>	<b>\$ 10,000</b>	<b>\$ 10,000</b>	<b>\$10,000</b> -
<b>Professional Development</b>					
Workshop	12,000	12,000	12,000	12,000	12,000
Expenses	2000	2000	2000	2000	2000
Substitute	3000	3000	3000	3000	3000
Expenses	3000	3000	3000	3000	3000
Travel					
Expenses					
Stipends					
<i>Paid out of CIHS, local, state and federal funds</i>					
<b>Sub-total</b>	<b>20,000</b>	<b>20,000</b>	<b>20,000</b>	<b>20,000</b>	<b>20,000</b>

<b>Supplies and Materials</b>					
General Supplies and Materials	3000	5000	7000	7000	7000
Curriculum Supplies and Materials	7000	10000	13000	15000	15000
	10000	15000	20000	25000	25000
CTE Supplies and Materials	10,000	20,000	30,000	40,000	40,000
<i>Paid out of CIHS, local, state and federal funds</i>					
<b>sub-total</b>	<b>\$ 30000 -</b>	<b>\$50,000 -</b>	<b>\$ 70000 -</b>	<b>\$ 87000 -</b>	<b>\$ 87000 -</b>
<b>Equipment</b>					
Office equipment	See Spreadsheet for details on technology equipment	See Spreadsheet for details on technology equipment	See Spreadsheet for details on technology equipment	See Spreadsheet for details on technology equipment	See Spreadsheet for details on technology equipment
Cafeteria equipment	**Cafeteria equipment will be taken care of under the renovation project	Cafeteria equipment will be maintained by Child Nutrition Program	Cafeteria equipment will be maintained by Child Nutrition Program	Cafeteria equipment will be maintained by Child Nutrition Program	Cafeteria equipment will be maintained by Child Nutrition Program
<b>sub-total</b>	<b>\$ 419,700* initial technology budget</b>	<b>\$78400 Technology -</b>	<b>\$ 78400 Technology -</b>	<b>\$ 77000 Technology -</b>	<b>\$ 77000 Technology -</b>
<i>Paid out of local and state funds</i>					

FTE/Tuition Charges					
Comm. College FTE projection <sup>2</sup>	100 9 <sup>th</sup> grade students taking 1 college course- 475.00 X100	200 students (9 <sup>th</sup> and 10 <sup>th</sup> graders) taking 1 college course- 200 X 475.00	300 students (9, 10, 11 <sup>th</sup> graders) taking at least 1 college course+ 50 11 <sup>th</sup> grade students taking a second course 350 X 475.00	400 students(9-12 grade) taking at least 1 college course+ 100 11-12 <sup>th</sup> grade students taking a second course 500 X 475.00	400 students(9-12 grade) taking at least 1 college course+ 100 11-12 <sup>th</sup> grade students taking a second course 500 X 475.00
	<b>47,500</b>	<b>95,000</b>	<b>166,250</b>	<b>237,500</b>	<b>237,500</b>
University tuition charges <sup>3</sup>		916.50 per 3 hour course X 1 course per student for 10 students <b>9165.00</b>	916.50 per 3 hour course X 1 course per student for 10 students <b>9165.00</b>	916.50 per 3 hour course X 1 course per student for 10 students <b>9165.00</b>	916.50 per 3 hour course X 1 course per student for 10 students <b>9165.00</b>
<b>sub-total</b> (CIHS Reimbursements)	<b>\$ 47,500</b>	<b>\$104,165</b>	<b>\$ 175,415</b>	<b>\$ 246,665</b>	<b>\$246,665</b>

<sup>2</sup> Please calculate community college FTE charges using a rate of \$475 per student per course. For example, for 50 students taking 2 courses each in Year 1, the FTE charges would amount to \$47,500 (50 students x 2 courses per student x \$475 per course).

<sup>3</sup> Please calculate university tuition based on the agreed upon per student, per course tuition charge negotiated with the university partner and described in Section 8 (b) of this application.



<b>Other (specify)</b>					
Comm. College fees (Technology/Student Fee \$16.00 per semester per student) \$32.00 yr	<b>3,200</b> <b>Based on 100</b> <b>students</b>	<b>6,400</b> <b>Based on 200</b> <b>students</b>	<b>9,600</b> <b>Based on 300</b> <b>students</b>	<b>12,800</b> <b>Based on 400</b> <b>students</b>	<b>12,800</b> <b>Based on 400</b> <b>students</b>
University fees Required Orientation Fee (150.00) plus University Fees- including- (Athletics, Health Services, Student Activities, Technology, Transportation/Safety, Student Government, Matriculation Fee) Cost=643.75 for a 3 hour course allows students full access facilities and services Total Fees= <b>793.75</b>		<b>793.75 X 10</b> <b>students =</b> <b>7937.50</b>	<b>793.75 X 10</b> <b>students =</b> <b>7937.50</b>	<b>793.75 X 10</b> <b>students =</b> <b>7937.50</b>	<b>793.75 X 10</b> <b>students = 7937.50</b>
<b>Total Community College and University Fees</b>	<b>3,200</b>	<b>14,433.50</b>	<b>17,537.50</b>	<b>20,737.50</b>	<b>20,737.50</b>
Marketing costs Promotional campaign items and student recruitment and retention materials	<b>10,000</b>	<b>10,000</b>	<b>10,000</b>	<b>10,000</b>	<b>10,000</b>
Transportation	<b>6000*</b> Only for additional 3 days –current bus structure already in place	<b>40,000</b>	<b>60,000</b>	<b>60,000</b>	<b>60,000</b>
<b>sub-total</b> <i>Paid out of local and state funds</i>	<b>\$ 19,200</b>	<b>\$ 64,433.50</b>	<b>\$ 87,537.50</b>	<b>\$ 90,737.50</b>	<b>\$ 90,737.50</b>

<b>Total Salaries and Benefits</b> (All funding sources)	\$ 534,012	\$759,210	\$ 1,206,937	\$ 1,456,894	\$ 1,456,894
<b>Contracted Services*</b> (Local Funds)	\$ 50,000	\$40,000	\$ 10,000	\$ 10,000	\$ 10,000
<b>Professional Development</b> (All funding sources)	\$ 20,000	\$20,000	\$ 20,000	\$ 20,000	\$ 20,000
<b>Supplies and Materials</b> (CIHS, Local, state and federal funds)	\$ 30,000	\$50,000	\$ 70,000	\$ 87,000	\$ 87,000
<b>Equipment</b> *initial technology budget (All Funding Sources)	\$ 419,700*	\$78,400 Technology	\$ 78,400 Technology	\$ 77,000 Technology	\$ 77,000 Technology
<b>FTE/Tuition Charges</b> (CIHS Reimbursements)	\$47,500	\$104,165	\$175,415	\$246,665	\$246,665
<b>Other</b> (All Funding Sources)	\$19,200	\$64,433.50	\$87,537.50	\$90,737.50	\$90,737.50
<b>Grand Total</b> <i>All funding sources will be used for operations</i>	<b>\$1,120,412</b>	<b>1,116,209</b>	<b>1,648,290</b>	<b>1,988,297</b>	<b>1,988,297</b>

## **APPENDIX D**

### **CIHS Location Waiver Request Form**



## **Cooperative Innovative High Schools (CIHS)**

### **Location Waiver Request Form**

A school may use this form to request approval from an applicable governing Board for a location waiver for a Cooperative Innovative High School that will not be located on an institution of higher education.

#### **Purpose and Definition of Cooperative Innovative High School Programs:**

G.S. 115C-238.50(a) establishes the purpose of cooperative innovative high school programs:

The purpose of this Part is to authorize local boards of education to jointly establish with one or more boards of trustees cooperative innovative programs in high schools and colleges or universities that will expand students' opportunities for educational success through high quality instructional programming.

G.S. 115C-238.50A defines a cooperative innovative high school:

Cooperative Innovative High School – A high school approved by State Board of Education and the applicable governing Board that meets the following criteria:

- a. It has no more than 100 students per grade level;
- b. It partners with an institution of higher education to enable students to concurrently obtain a high school diploma and begin or complete an associate degree program, master a certificate or vocational program, or earn up to two years of college credit within five years;
- c. ***It is located on the campus of the institution of higher education, unless the governing Board or local board of trustees for a private North Carolina college specifically waives the requirement through adoption of a formal resolution.***

***Please return this form with the CIHS application.***

## CIHS Location Waiver Request Form

**College/university Name: Asheville-Buncombe Technical Community College (A-B Tech)**

**School Name: Buncombe Discovery Academy**

**Proposed School Location: 175 Bingham Road, Suite 110, Asheville, NC 28806**

Please explain why the CIHS will not be located on an institution of higher education and provide a rationale to justify the request for a location waiver. Include in the rationale an explanation of how the CIHS, while not located on an institution of higher education, will meet the definition and accomplish the purpose of a cooperative innovative high school as defined in G.S. 115C-238.50.

**Buncombe Discovery Academy is asking for a waiver to operate off the site of A-B Tech, the affiliate institute of higher learning, due to the following reasons:**

Buncombe Discovery Academy will be located in a building owned and operated by the Buncombe County Board of Education, and will not be on the campus of Asheville-Buncombe Technical Community College (A-B Tech). With annual curriculum enrollment of approximately 10,000 students and annual continuing education enrollment of approximately 15,000 students, A-B Tech's facilities are currently being utilized to their full capacities. Buncombe Discovery Academy will be a small, autonomous, rigorous high school that offers all students a demanding, college-ready curriculum; academic and emotional support for students; and preparation for a 21st-century job market that demands communication, collaboration, and problem-solving skills. The Buncombe County Schools location is appropriate for use – the available property and space is at the school system's 175 Bingham Road, Suite 110, Asheville location. Renovations to the facility are under way.

Buncombe Discovery Academy's working relationship with A-B Tech will be a byproduct of the high school's commitment to providing students with college credit opportunities. This working relationship between high school and community college will be critical to Buncombe Discovery Academy's success in preparing students for the transition into higher education and the world of work. Curriculum plans include the inclusion of the following community college courses, as requirements or electives. All of these courses transfer to the 16 partner institutions of the University of North Carolina.

The relationship between A-B Tech and BCS has intensified over the past decade. Beginning in 2002, Buncombe County Middle College was formed. For more than 10 years, this dual-enrollment program has offered high school students the opportunity to take A-B Tech courses. In addition, Buncombe County Early College, formed in 2005, is a five-year endeavor that allows high school students to pursue an accelerated program of study that can result in the attainment of an Associate Degree upon high school graduation. Buncombe Discovery Academy will be an extension of the historically collaborative A-B Tech/BCS partnership. Both partners are working to develop an even stronger academic relationship, one in which all Buncombe Discovery Academy students will be able to (a) readily access transferable college credits; (b) master a certificate or vocational program, and/or (c) earn up to two years of college credit. Cooperative Innovative status is essential to this partnership, because it allows BCS students to easily enroll in courses that cannot be offered within the BCS curriculum.

As a STEM-focused institution, Buncombe Discovery Academy will represent a new vision for high-school education. The plan is for the high school to provide unique experience for students who wish to participate in an educational setting that is different from the traditional high school. Buncombe Discovery



Academy students will experience meaningful off-campus activities as a part of each semester's curriculum; learn through a series of real world project-based learning opportunities; and be empowered to make meaningful decisions about their own learning and future goals. Engaging in coursework through A-B Tech is a significant part of these "real life" experiences.

Because of its small size and the intended integration of curriculum, Buncombe Discovery Academy's partnership with A-B Tech will provide students with more equitable and relevant access to college credit. The A-B Tech partnership will provide ample opportunities for Buncombe Discovery Academy students to earn transferrable college credits or to explore career-oriented technical curricula.

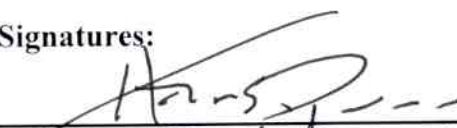
Buncombe Discovery Academy's location will, in no way, impede student access to A-B Tech learning or facilities. Buncombe Discovery Academy will be located 4.5 miles from A-B Tech; when transportation is available, BCS students will be able to easily obtain help in the College's tutoring and learning labs, and have access to all of A-B Tech's library materials, many of which are available through the internet.

Related to the purpose of a Cooperative Innovative High School as defined in G.S. 115C-238.50:

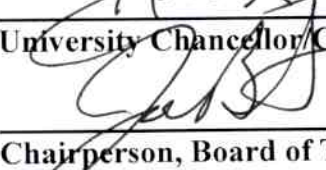
- BCS students will have full access to college courses and college credits that will allow them the opportunity to earn up to two years of college credit. This will be accomplished through face-to-face and hybrid learning options, which students can access at Buncombe Discovery Academy site, via personal vehicle to the A-B Tech campus, or online. Because Buncombe Discovery Academy will offer internet capabilities to all of its students, access to hybrid and online instructional formats will be readily available when the students are on Buncombe Discovery Academy's hallways, which will be outfitted with Wi-Fi capability.
- Buncombe Discovery Academy students will have access to the resources, personnel, and facilities of Buncombe Discovery Academy and A-B Tech. Computer, science, and technology labs will be available to Buncombe Discovery Academy students at the A-B Tech Asheville campus.
- High school students who reflect the demographics of Buncombe County Schools will be targeted through Buncombe Discovery Academy recruitment process. During the recruitment process, these students will be made aware of the opportunities that Buncombe Discovery Academy and A-B Tech provide, as well as the fact that Buncombe Discovery Academy will not be located on the A-B Tech campus.

It is imperative that Buncombe Discovery Academy be granted Cooperative Innovative status, so that its partnership with A-B Tech can be seamless, and motivated high school students can earn college credits that cannot be provided directly by Buncombe Discovery Academy. In addition, the curricular breadth allowed through A-B Tech courses will be essential to Buncombe Discovery Academy's ability to provide hands-on applied learning experiences that build academic knowledge; problem-solving skills; general employment skills; and specific career skills that lead to industry credentialing and post-secondary credit acquisition.

**Signatures:**

  
\_\_\_\_\_  
**University Chancellor/Community College President**

10/16/13  
\_\_\_\_\_  
**Date**

  
\_\_\_\_\_  
**Chairperson, Board of Trustees**

10/16/13  
\_\_\_\_\_  
**Date**



## **CIHS Location Waiver Request Form**

**College/university Name: University of North Carolina Asheville (UNC Asheville)**

**School Name: Buncombe Discovery Academy**

**Proposed School Location: 175 Bingham Road, Suite 110, Asheville, NC 28806**

Please explain why the CIHS will not be located on an institution of higher education and provide a rationale to justify the request for a location waiver. Include in the rationale an explanation of how the CIHS, while not located on an institution of higher education, will meet the definition and accomplish the purpose of a cooperative innovative high school as defined in G.S. 115C-238.50.

**Buncombe Discovery Academy is asking for a waiver to operate off the site of UNC Asheville, one of our affiliate institutes of higher learning, due to the following reasons:**

Buncombe Discovery Academy will be located in a building owned and operated by the Buncombe County Board of Education, and will not be on the campus of UNC Asheville. With annual enrollment of approximately 3600 undergraduate UNC Asheville's facilities are currently being utilized to their full capacities. Buncombe Discovery Academy will be a small, autonomous, rigorous high school that offers all students a demanding, college-ready curriculum; academic and emotional support for students; and preparation for a 21st-century job market that demands communication, collaboration, and problem-solving skills. The Buncombe County Schools location is appropriate for use – the available property and space is at the school system's 175 Bingham Road, Suite 110, Asheville location. Renovations to the facility are under way.

Buncombe Discovery Academy's working relationship with UNC Asheville will be a byproduct of the high school's commitment to providing students with college credit opportunities. This working relationship between high school and the university will be critical to Buncombe Discovery Academy's success in preparing students for the transition into higher education and the world of work. Curriculum plans include the inclusion of college courses, as requirements or electives.

Related to the purpose of a Cooperative Innovative High School as defined in G.S. 115C-238.50:

- BCS students will have full access to college courses and college credits that will allow them the opportunity to earn up to two years of college credit. This will be accomplished through face-to-face and hybrid learning options, which students can access at Buncombe Discovery Academy site, via personal vehicle to UNC Asheville, or online. Because Buncombe Discovery Academy will offer internet capabilities to all of its students, access to hybrid and online instructional formats will be readily available when the students are on Buncombe Discovery Academy's hallways, which will be outfitted with Wi-Fi capability.
- Buncombe Discovery Academy students will have access to the resources, personnel, and facilities of Buncombe Discovery Academy and UNC Asheville. Computer, science, and technology labs will be available to Buncombe Discovery Academy students at the UNC Asheville campus.

- High school students who reflect the demographics of Buncombe County Schools will be targeted through Buncombe Discovery Academy recruitment process. During the recruitment process, these students will be made aware of the opportunities that Buncombe Discovery Academy and UNC Asheville provide, as well as the fact that Buncombe Discovery Academy will not be located on the UNC Asheville campus.

It is imperative that Buncombe Discovery Academy be granted Cooperative Innovative status, so that its partnership with UNC Asheville can be seamless, and motivated high school students can earn college credits that cannot be provided directly by Buncombe Discovery Academy. In addition, the curricular breadth allowed through UNC Asheville courses will be essential to Buncombe Discovery Academy's ability to provide hands-on applied learning experiences that build academic knowledge; problem-solving skills; general employment skills; and specific career skills that lead to industry credentialing and post-secondary credit acquisition.

**Signatures:**

  
University Chancellor/Community College President

12/24/13  
Date

  
Chairperson, Board of Trustees

12/24/13  
Date

## **Appendix E:**

### **BCS Additional Information**

#### **Contents:**

**Buncombe Discovery Academy Executive Summary**

**Asheville Chamber 5 X 5 Curriculum Alignment Chart**

**Asheville Chamber 5 X 5 Post-Secondary Alignment Charts  
(Examples: Advanced Manufacturing and STEM)**

**Buncombe Discovery Academy Planning Committee**

**Buncombe County Schools Profile**

**Buncombe Discovery Academy Selection Criteria Category Example**

**Community Endorsement Video Screen Shots**

**Buncombe Discovery Academy Location Shots- Google References**

**GeoDome Photographs**

**Detailed Budget Worksheet**



**BUNCOMBE DISCOVERY ACADEMY**  
**Science, Technology, Engineering Math (STEM)**  
**Executive Summary**

[Buncombe County Schools](#) is excited to introduce to students, parents and community stakeholders a newly designed twenty-first century high school that will provide students with an innovative high school experience preparing them for college/university opportunities and careers in STEM (Science, Technology, Engineering and Math) related disciplines. Known as [Buncombe Discovery Academy](#), this new STEM school will involve numerous local business/industry, post-secondary and community partners. [North Carolina New Schools](#), whose mission is to accelerate systemic, sustainable innovation in schools across the state, supports Buncombe Discovery Academy.

This robust instructional format, integrating twenty-first century skills, is student-centered and utilizes a project-based approach that encourages students to identify, design and solve real world problems, while encouraging teamwork and collaboration, which mirror the essential skills that the workforce requires. Buncombe Discovery Academy is designed to replicate an innovative high-tech research environment and will merge educational practices with business principles to provide a STEM-themed model school within the western region.

Buncombe Discovery Academy is located at the Buncombe County Schools district office in a newly renovated, 50,000 square foot modern, flexible work space. This centralized location ensures access for all Buncombe County School students and is equal distance between our two post-secondary partners, A-B Technical Community College and UNC Asheville. Students from all six attendance districts may apply, and a maximum of 100 students will be admitted to each grade level. In the freshman year, students will begin earning college credit leading toward an associate degree or university major.

The Asheville Chamber of Commerce's Economic Development Plan, also known as the [AVL 5X5 Initiative](#), has been the catalyst in the identification of curriculum and work-based learning components offered in Buncombe Discovery Academy. While the primary economic career cluster and support strands have been identified as Advanced Manufacturing and Applied Engineering/Technology, the scope of course offerings will allow students to explore additional career options within the fields of Health Care, Arts and Culture, Science, and Entrepreneurship.

Buncombe Discovery Academy will serve as a learning lab where best educational practices can be defined and then replicated in traditional schools. The school will be a hub for regional STEM activities advancing education and workforce development in our region. Additionally, professional development opportunities in this learning lab will inspire teacher and administrator growth and leadership, support student attainment of the skills needed for post-secondary education and integrate student learning with local economic development. We are applying for [NC Cooperative and Innovative](#) status which encourages high schools to be innovative and participate in transformational activities.

# Buncombe County Schools STEM-Themed Discovery Academy

## Innovation and Design

Health Care

Science and Technology

Advanced Manufacturing/  
Applied Engineering

Knowledge-Based  
Entrepreneurship

Arts and Culture

Samples of possible courses available to students,  
based on the Asheville Chamber of Commerce 5X5 Industry Clusters

PLTW –  
Principles of  
Biomedical Science  
(H)

PLTW –  
Human Body  
Systems (H)

PLTW –  
Biomedical  
Innovation (H)

PLTW –  
Medical  
Interventions (H)

Computer  
Science (AP)

Foundations of  
Information  
Technology (H)

PLTW  
Biotechnical  
(AP-W)

Computer  
Programming  
I/II (H)

Climatology

Environmental  
Science  
(AP)

Intro to  
Engineering  
Design  
(AP-W)

Principles of  
Engineering  
(AP-W)

PLTW  
Computer  
Integrated  
Manufacturing  
(AP-W)

PLTW Digital  
Electronics  
(AP-W)

Food Science  
Pro Start I and II  
Culinary (H)

Entrepreneurship  
I and II (H)

Game Art  
Design I/II (H)

Scientific and  
Visualization  
I/II (H)

**Courses listed will meet BCS and NCDPI graduation requirements.  
Options available based on interest and individual student plan.**

H= Honors Level AP= Advanced Placement AP-W= Advanced Placement Weighted

**Shadowing, Mentorship, Internship and Apprenticeships available. Aligned to post-secondary programs.**

Western  
Carolina  
University  
Courses

Mars Hill  
University  
Courses

NC State  
University  
Courses

UNC  
Asheville  
Courses

A-B Tech  
Courses

NC School of  
Science & Math  
Courses

Virtual  
Public High  
Courses

Advanced  
Curriculum  
Enrichment  
Offerings

Special  
Interest  
Topics



# Buncombe County Schools STEM-Themed Discovery Academy

*Sample of Post-Secondary Options in the  
Advanced Manufacturing / Applied Engineering  
Asheville Chamber of Commerce 5X5 Industry Clusters*

UNC Asheville	A-B Tech	NC State	WCU
B.S.E. Engineering	Computer Engineering Technology A.A.S.	B.S. Civil Engineering	B.S. Electrical & Computer Engineering
B.S. Computer Science	Computer Information Technology A.A.S.	B.S. Industrial Engineering	B.S. Electrical Engineering
B.S. Engineering Concentration Mechatronics	Mechanical Engineering Technology A.A.S.	B.S. Electrical Engineering	B.S. Engineering Technology



# Buncombe County Schools STEM-Themed Discovery Academy

*Sample of Post-Secondary Options in the  
Science and Technology  
Asheville Chamber of Commerce 5X5 Industry Clusters*

**UNC Asheville****B.S. Atmospheric  
Science****B.A. New Media****B.S. Chemistry****A-B Tech****A.A.S. Web  
Technologies****Associates in  
Science****A.A.S.  
Veterinarian  
Medical Tech****NC State****B.S. Biology****B.S. Forensic  
Science****B.S. Computer  
Science****WCU****B.S. Genetics****B.S. Crop  
Science****B.S.  
Biochemistry****Mars Hill****B.S. Biology****B.S. Computer  
Science****B.S. Chemistry**

### Business and Industry/Community Partners

Scott Hamilton- Advantage West  
Tim Lampkin- Asheville Chamber of Commerce  
Cassie Christie- Mission Hospital System  
Dawn McKinney- The Baltimore Company  
William Brown- National Climatic Data Center  
Esther Cartwright- AvL Technologies  
Vanessa Crouch- Plasticard Locktech  
Bill Shipman- Borg Warner  
Jan Hayes- Linamar  
Jonathan Marchal- NC Arboretum  
Robin Cape- Retrofit and NC Green Schools  
Kim Celentano- Strivven Media  
Jenny Dissen- Cooperative Institute for Climate and Satellites  
Kathy Wright- NC Biotechnology Center  
Steve Frabitorie- Tupelo Honey

### Post-Secondary Partners

Mike Dempsey- A-B Technical Community College  
Jon Wiener- A-B Technical Community College  
Jon Snover- A-B Technical Community College  
Kari Loomis- Mars Hill University  
Chip Ferguson- Western Carolina University  
Bob Carton- Western Carolina University  
Teresa Cowan- NC State- Science House  
Jeffrey Wilcox- UNC Asheville  
Keith Krumpke- UNC Asheville

### Community Members

Holly Jones- Buncombe County Commissioner  
Nancy Waldrop  
Glen McCandless  
Jan Webster- Western RESA  
Pat Bryant- BCS Board Member  
Amy Churchill- BCS Board Member  
Kirk Vandersall  
Richard Devereaux  
Arthur Salido

## BCS Discovery Academy Planning Committee Members

### Parents/Students

Sue Stanek- Parent  
Mitchell Stanek- Student  
Kelly Worley- Parent  
Jonathan Worley- Student  
Emine Masters- Parent  
Nobel Masters- Student  
Gretchen Kull- Parent  
Adam Kull- Student  
Adam Bachmeyer- Parent  
Zach Bachmeyer- Student  
Melissa Boyd- Parent  
Lauren Boyd- Student  
Linda Tatsapaugh- Parent  
Daniel Lammens- Student

### BCS Staff

Dr. Tony Baldwin  
Susanne Swanger  
Leland Blankenship  
Jan Blunt  
Susan Andrew  
Monty Fuchs  
Margaret Small  
Bonnie Johnson  
Robert Frisby  
Tim Fierle  
Bernie Sochia  
Cheri Boone  
Regina Lambert  
Christy Cheek  
Kay McLeod

### BCS Teachers

Joanne Robert  
Martha Cowan  
Kim Clark  
Mike Bowman  
Allen Nice-Webb  
Jason Jones  
Carmella Blackwell  
Debbie Short  
Beth Lyndsey  
Mary Whitlock  
Dawn Rookey  
Kellie Self  
Will Thrasher  
Christine Jones  
John Parker  
Lacey Davis  
Stefanie Buckner  
Amy White



## Buncombe County Schools Profile

- BCS is the state's 11th largest school system and the largest district in Western North Carolina.
- We employ nearly 4,000 people to serve approximately 25,597 students, making BCS the county's second largest employer.
- Fifty-one percent of our population is male while forty-nine percent is female.
- Fifty-five percent of our students are economically disadvantaged.
- Our ethnicity breakdown is as follows: White- 76%; African-American-6%; Hispanic-12%; American Indian- 0%; Asian- 1%; Pacific Islander 0% and Two or More Races- 5%.
- Exceptional Children's (EC) program and related support services for students with Individualized Education Plans (IEPs); current EC student population is 14%.
- Academically or Intellectually Gifted (AIG) program; current AIG student population is 16%.
- English as a Second Language instruction and transition programs for English Language Learners (ELLs); Current ELL population is 1,709; 66 different home languages are represented in BCS. The Newcomer Center prepares secondary level ELL students with low English proficiency and/or limited formal education that have transitioned to an American public school for the first time. Current ELL student enrollment is 21.
- Title I reading instruction in 23 School-wide Title I schools.
- Progressive Education Programs (PEP) for students (K-12) with severe disabilities; Current PEP student population is approximately 133.
- Career and Technical Education (CTE) is offered in all intermediate, middle, and high schools, with nine CTE concentrations based on Pathways or Career Clusters; CTE student enrollment (6-8) is 6,462 and 9,264 (9-12).
- Despite being the 11th largest school system in the state, BCS ranks 85th in funding.
- The BCS total mean score is third highest in North Carolina.
- The BCS total mean score of 1,538, is surpassed only by six of the state's 115 school districts.
- For two consecutive years, 2010--2012, Buncombe County Schools was placed on the AP Achievement List for increased student participation in AP courses and maintaining a high number of scores at level three or greater.
- 1,055 students took a total of 1,791 AP courses in 2012.



# **Buncombe Discovery Academy**

## **Admission Selection Criteria**

### **Criteria**

#### **Personal Interest Response- Application**

Digital with Storyboard OR  
Written Response

#### **Academic Performance**

Grades- (Final 7<sup>th</sup> Grade, 8<sup>th</sup> Grade- 1<sup>st</sup> Sem.)  
NC End of Grade Exam- Math (7<sup>th</sup> Grade)  
NC End of Grade Exam- English Language Arts (7<sup>th</sup> Grade)  
ACT Explore Score- Career and College Measure (8<sup>th</sup> Grade)  
Attendance- (Cumulative 7<sup>th</sup> Grade and up through 1<sup>st</sup>  
Semester 8<sup>th</sup> Grade)

#### **New Schools Criteria for Under Represented Populations**

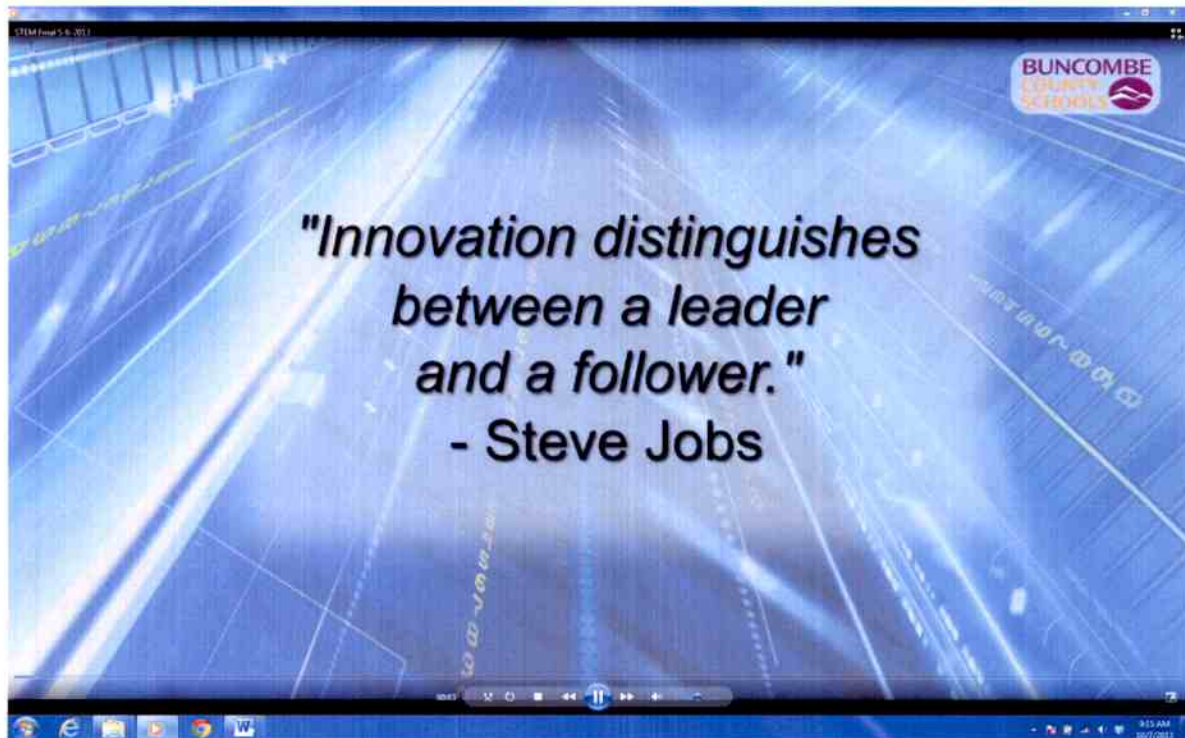
#### **School Recommendation- 2 Total**

**1 From a classroom teacher**

**1 From another school personnel**

### ***Buncombe County Schools STEM-Themed Discovery Academy***

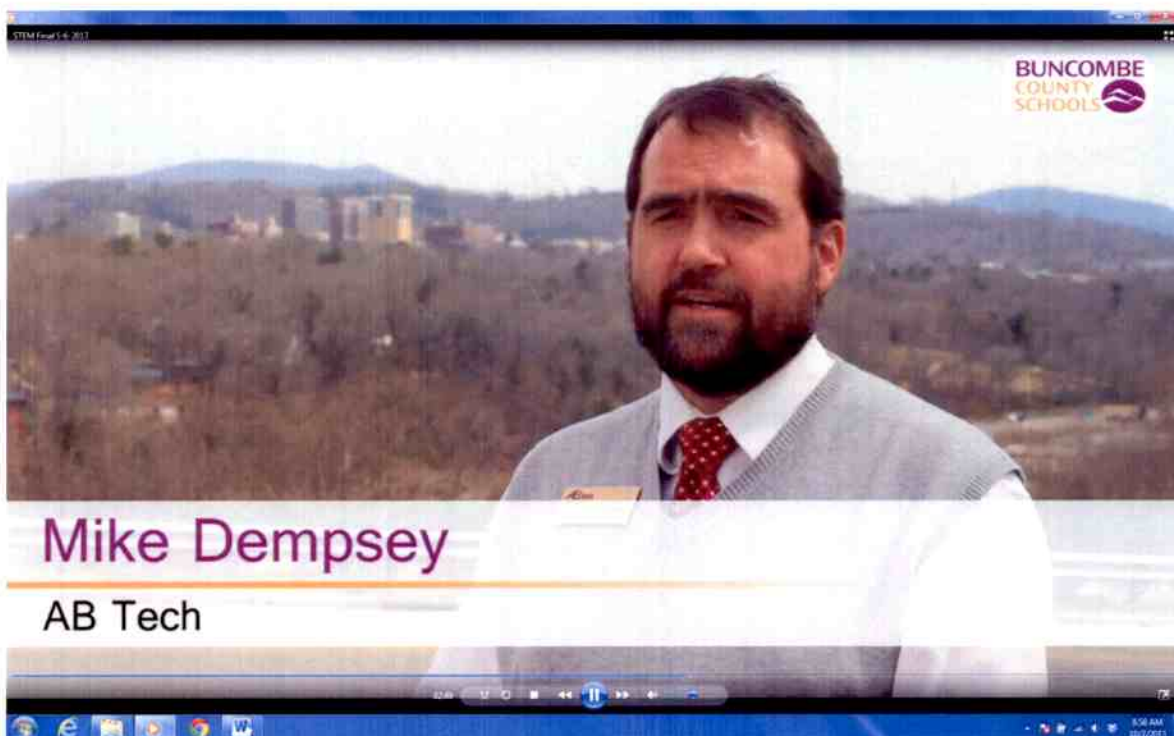
Community Endorsement Video –Screen Shots from our video that plays on the local County Government Channel, Buncombe County Schools' District website and that we use at all business presentations and all middle school presentations.







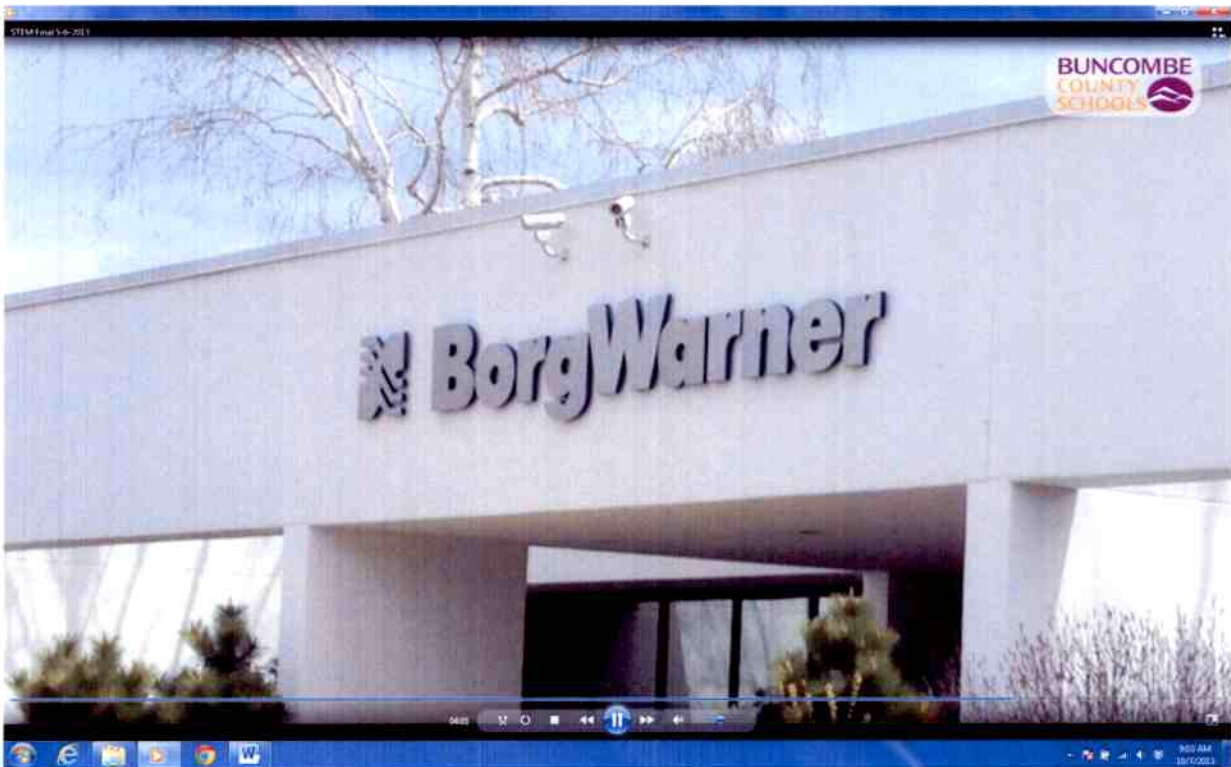






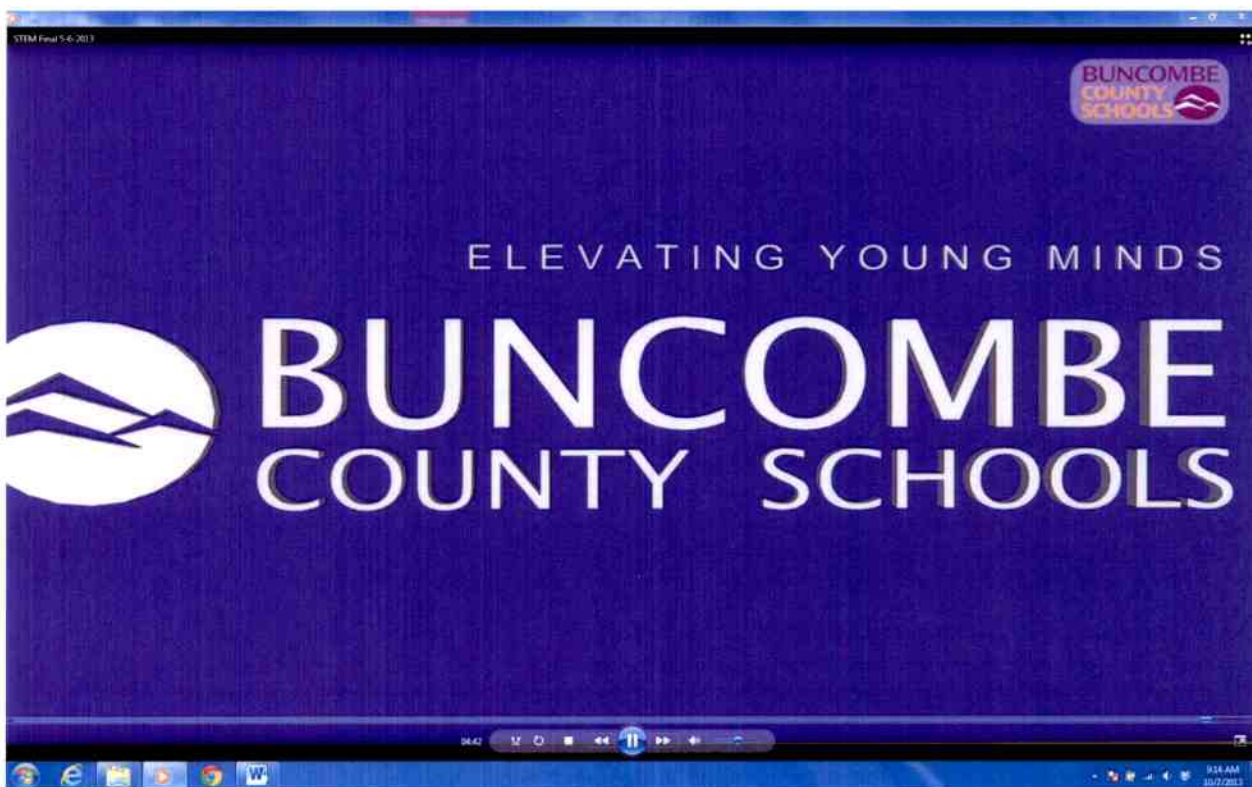












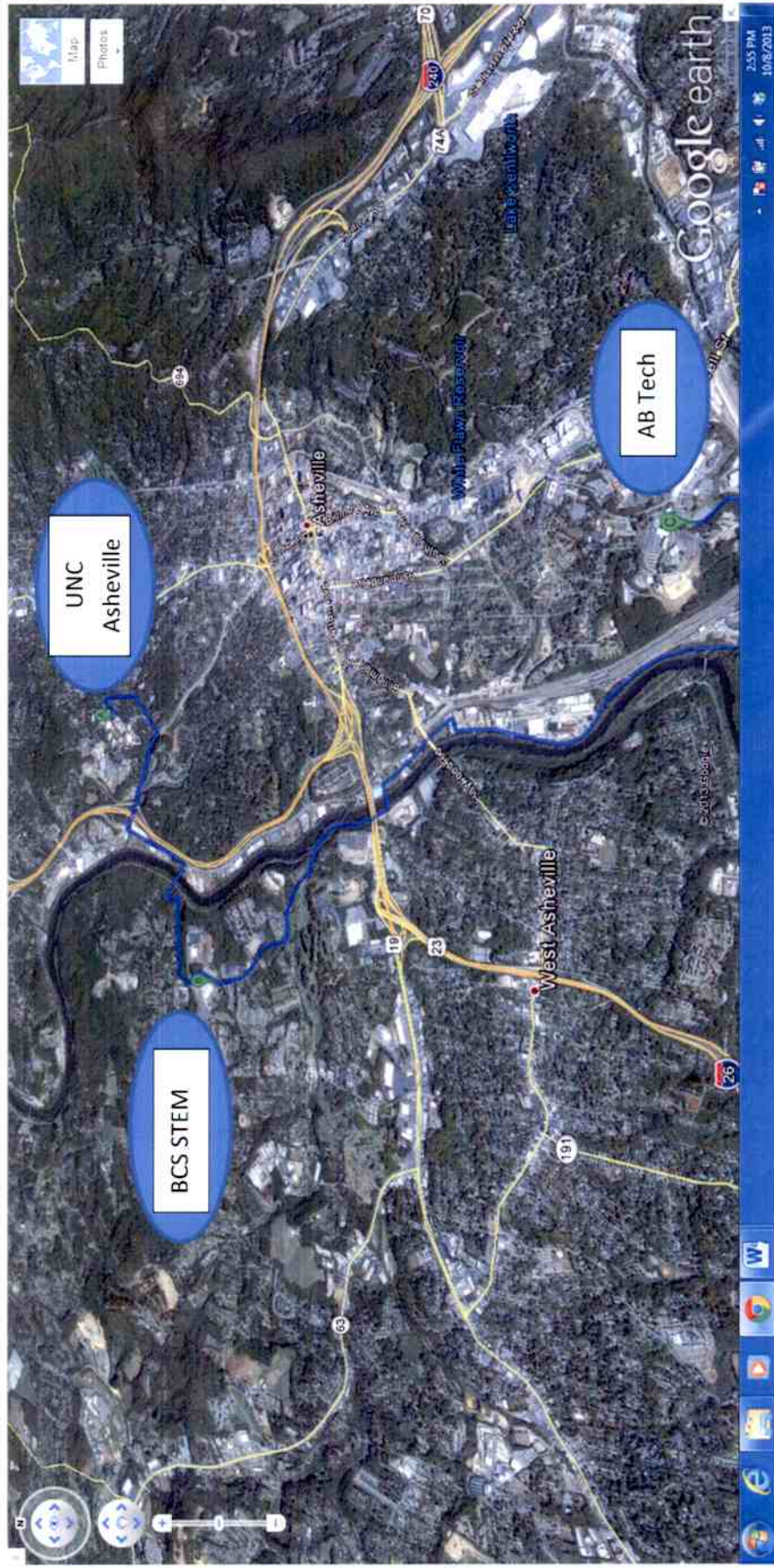






Internet Explorer browser window showing Google Maps. The address bar displays: <https://maps.google.com/maps?q=2065+East+Holly+Groves+Road+Lexington+NC&hl=en&ll=35.899474,-80.089188&zoom=12>. The page title is "University of North Carolina". The page content includes a search bar with the text "https://maps.google.com wants to use your computer's location." and buttons for "Allow" and "Deny". The page also features a "Crystal" logo and a "Share" button.

Google Maps interface showing a satellite view of Asheville, NC. The address bar displays: "175 Bingham Road, Asheville, NC". The page title is "Google". The page content includes a search bar with the text "175 Bingham Road, Asheville, NC" and buttons for "Search", "Images", "Map", "Drive", "Calendar", "Sites", "Groups", "Contacts", and "More".





The GeoDome- an immersive technological learning lab





[illegible]



		Proposed Budget			
	2014-15	2015-16	2016-2017	2017-2018	2018-2019
Student Enrollment	100	200	300	400	400
	100- 9th graders	100 9th graders 100 10th graders	100 9th graders 100 10th graders 100 11th graders	100 9th graders 100 10th graders 100 11th graders 100 12th graders	100 9th graders 100 10th graders 100 11th graders 100 12th graders
<b>Transportation</b>					
AC Reynolds District	31 current riders	May need to add a bus	\$10,000.00	\$10,000.00	\$10,000.00
Clyde A Erwin District	29 current riders	May need to add a bus	\$10,000.00	\$10,000.00	\$10,000.00
Charles D. Owen District	17 current riders	Will not need to add a bus	\$0.00	\$10,000.00	\$10,000.00
Enka District	41 curret riders	Will have to add a bus	\$10,000.00	\$10,000.00	\$10,000.00
North Buncombe District	13 current riders	Will not need to add a bus	\$0.00	\$10,000.00	\$10,000.00
TC Roberson District	23 current riders	May need to add a bus	\$10,000.00	\$10,000.00	\$10,000.00
		Total Additional Costs	\$40,000.00	\$60,000.00	\$60,000.00



Buncombe Discover Academy  
Proposed Five Year Budget

Operating Expenses	2014-15	2015-16	2016-17	2017-18	2018-19
Salaries and Benefits	\$534,012	\$759,210	\$1,206,937	\$1,456,894	\$1,456,894
Contracted Services	\$50,000	\$40,000	\$10,000	\$10,000	\$10,000
Professional Development	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
Supplies and Materials	\$30,000	\$50,000	\$70,000	\$87,000	\$87,000
Equipment	\$419,700	\$78,400	\$78,400	\$77,000	\$77,000
FTE/Tuition Charges	\$47,500	\$104,165	\$175,415	\$246,665	\$246,665
Other	\$19,200	\$64,433.50	\$87,537.50	\$90,737.50	\$90,737.50
Grand Total	<b>\$1,120,412</b>	<b>\$1,116,209</b>	<b>\$1,648,290</b>	<b>\$1,988,297</b>	<b>\$1,988,297</b>
All funding sources will be used for the school's operation					

# UNC Asheville

## Estimated Cost of Attendance for the 2013-2014 Academic Year Buncombe Discovery Academy

Expense	Full-Time		3/4 Time		Part-Time		1/4 Time	
	In-State	Out-of-State	In-State	Out-of-State	In-State	Out-of-State	In-State	Out-of-State
Tuition & Fees <sup>1</sup>	\$ 6,241.00	\$ 20,063.00	\$ 4,693.26	\$ 15,099.76	\$ 3,497.98	\$ 10,220.50	\$ 1,597.76	\$ 5,135.20
Orientation	\$ 150.00	\$ 150.00	\$ 150.00	\$ 150.00	\$ 150.00	\$ 150.00	\$ 150.00	\$ 150.00
Room and Board <sup>2</sup>	\$ 4,522.00	\$ 4,522.00	\$ 4,522.00	\$ 4,522.00	\$ 4,522.00	\$ 4,522.00	\$ 4,522.00	\$ 4,522.00
Board Meal Plan <sup>3</sup>	\$ 3,334.00	\$ 3,334.00	\$ 3,334.00	\$ 3,334.00	\$ 889.00	\$ 889.00	\$ 608.00	\$ 459.00
Mandatory Health Insurance	\$ 1,376.00	\$ 1,376.00	\$ 1,376.00	\$ 1,376.00	\$ 1,376.00	\$ 1,376.00	-	-
<b>Total</b>	<b>\$ 15,623.00</b>	<b>\$ 29,445.00</b>	<b>\$ 14,075.26</b>	<b>\$ 24,481.76</b>	<b>\$ 10,434.98</b>	<b>\$ 17,157.50</b>	<b>\$ 6,877.76</b>	<b>\$ 10,266.20</b>

Expense	Graduate Student		Distance Education <sup>4</sup>	
	In-State	Out-of-state	In-State	Out-of-State
Tuition & Fees <sup>1</sup>	\$ 6,946.00	\$ 20,391.00	Full-time	\$ 7,255.56
Orientation	\$ 150.00	\$ 150.00	3/4 Time	\$ 5,441.67
Room and Board	\$ 4,522.00	\$ 4,522.00	Part-Time	\$ 3,627.78
Board Meal Plan	\$ 3,334.00	\$ 3,334.00	1/4 Time	\$ 1,813.89
Mandatory Health Insurance	\$ 1,376.00	\$ 1,376.00		
<b>Total</b>	<b>\$ 16,328.00</b>	<b>\$ 29,773.00</b>		

<sup>1</sup> Tuition and fees are listed as an estimate and are subject to change after approval by the NC Legislature

<sup>2</sup> Room and Board is required for all UNC Asheville freshmen

<sup>3</sup> Based upon Commuter Meal Plan - 150, 100 and 75 meals, respectively

<sup>4</sup> Cost for UNC Asheville faculty teaching course at Buncombe Discovery Academy (Extension) - reflects \$137.68 (in-state) and \$604.63 (out-of-state) per credit hour

<b>Tuition and Fees cost based on 12 hours</b>	<b>Cost per hour</b>	<b>Cost for 3 hours for tuition and fees</b>	<b>Buncombe Discover Academy Costs Based on a 3 hour course</b>
\$6,241.00	\$520.08	\$1,560.25	
<b>Tuition and Fees cost based on 12 hours</b>	<b>Tuition Only cost minus fees</b>	<b>Tuition Cost for 12 hours</b>	
\$6,241.00	\$2,575.00	\$3,666.00	
<b>Tuition Cost for 12 hours</b>	<b>Tuition cost per hour</b>	<b>Tuition Cost for 3 Hours</b>	<b>\$916.50</b>
\$3,666.00	\$305.50	\$916.50	
<b>Fees</b>			
Athletics	\$700.00		
Health Services	\$316.00		
Student Activities	\$720.00		
Educational Technology	\$409.00		
Debt Services	\$310.00		
Transportation/Safety	\$69.00		
Student Government	\$1.00		
Matriculation Fee	\$50.00		
Total Fees for 12 hours	\$2,575.00		
Total Fees per hour		\$214.58	
Total Fees for 3 hours			<b>\$643.75</b>
<b>Orientation Fee</b>			<b>\$150.00</b>
<b>Total for a 3 hour course</b>			<b>\$1,710.25</b>



**LEA#**\_\_600\_\_\_\_\_ **LEA Name** \_\_\_\_Charlotte-Mecklenburg Schools\_\_\_\_

**School Name:** \_CMS UNC Charlotte STEM Early College High School\_ (Working Title)

**Partner Institution:** \_\_the University North Carolina at Charlotte \_\_\_\_

**State Funding Requested?** ☒ **Yes** ☐ **No**

### **Cooperative Innovative High Schools**

**Application to open a  
Cooperative Innovative High School  
In accordance with  
NC G.S. 115C-238.50 – 238.55**

2013-14 Application Cycle  
Applications due November 1, 2013

North Carolina State Board of Education  
North Carolina State Board of Community Colleges  
University of North Carolina Board of Governors

# Cooperative Innovative High School Program Application

## Directions for Completion – please read carefully

- Read carefully the information contained on this and the following pages prior to completing the application.
- The application must be submitted jointly by a local board of education and the governing board of a post-secondary institution.
- Applicants must complete the entire application including any additional exemption requests beyond the standard exemptions provided with program approval.
- An electronic version of the **entire** application packet, **including the completed signature page**, must be submitted via e-mail to [CIHS@dpi.nc.gov](mailto:CIHS@dpi.nc.gov). Only complete applications will be submitted to the State Board of Education and appropriate Governing Board(s) for action.

In accordance with law, a Joint Advisory Committee shall review the applications and recommend to the appropriate Governing Boards those programs that meet the requirements and that achieve the purposes set out in G. S. 115C-238.50. The Governing Boards may approve other programs that were not recommended. You will be contacted if clarification is needed. Please ensure correct contact information is provided.

## IMPORTANT NOTIFICATION TO APPLICANTS

Cooperative Innovative High School legislation has undergone multiple changes over the last two years. Applicants are strongly encouraged to carefully read and understand the law prior to completing the application. A copy is provided in Appendix A. For legal or programmatic questions or clarifications, please feel free to contact DPI Academic Services and Instructional Support any time at 919.807.3200.

**For applications that do not request funding, the approval decisions shall be made no later than June 30, 2014.** For applications requesting funding, preliminary approvals shall be completed no later than April 1, 2014, to permit submission of funding requests to the General Assembly.

## Cooperative Innovative High School Program Application

### Part I – Identification and Signature Page

LEA #: 600 LEA Name: Charlotte-Mecklenburg Schools

School Name CMS UNC Charlotte STEM Early College High School (working title)

1. Application partner signatures (signatures of all partners are required):

**Mary T. McCray**

Chairperson, Charlotte-Mecklenburg Schools, Board of Education

Date

Chairperson, Local Board of Trustees of Community College

Date

**Ms. Karen Popp**

Chairperson, Board of Trustees, UNC Charlotte

Date

Chairperson, Board of Trustees, Independent College/University

Date

Business Partner or County Commissioners

Date

2. Contact for information contained in the application

Name: Jimmy Chancey Title: Director, Career and Technical Education

Telephone: 980-343-2736 E-mail: j.chancey@cms.k12.nc.us

Mailing Address:

700 East Stonewall Street, Suite 400

Charlotte, NC 28202

Funding Request

**K-12:** ☐ None ☐ Position(s) ☒ CIHS Allotment (PRC 055)

**Higher Ed:** ☐ None ☐ FTE (CC) ☒ Tuition (UNC)

3. Post-evaluation Signatures (Applicants please leave this area blank)

Application is ☐ Approved ☐ Not approved

Chairperson, State Board of Education

Date

Chairperson, State Board of Post-secondary Partner

Date



## Part II – Target Population

1. Target population – Please check the population(s) to be served.

XX High school students at risk of dropping out before acquiring a high school diploma.

XX High school students who would be defined as “first-generation college students”<sup>1</sup>

XX High school students who would benefit from accelerated academic instruction.

2. Grade levels to be offered – Please check all that apply.

Grade 9 X Grade 10 X Grade 11 X Grade 12 X Grade 13 X

3. Program configuration – Please check the configuration to be implemented.

       A school within a school – A school housed within a traditional high school but having a separate educational program as well as its own staff and students.

       A technical high school – A school that prepares students for specific trades, crafts, or careers at various credential levels.

       A technical/career center – A school providing hands-on applied learning experiences that build academic knowledge, problem-solving skills, general employment skills and specific career skills that lead to industry credentialing.

XX An early college high school – A 9-12 or 9-13 high school designed to graduate students with a high school diploma and an associate’s degree, or two years of transferable college credit.

       A middle college high school – A school serving high school juniors and seniors designed to graduate students with a high school diploma and transferable college credit.

       Other (please describe below)

For “Other” school configurations, please briefly describe the configuration here. Ensure the description indicates whether the school will or will not be located on the campus of an institution of higher education. (For all other configurations, leave this space empty.)

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<sup>1</sup> US Department of Education (USED) defines a first-generation college student as a student from a family in which neither parent (whether natural or adoptive) received a baccalaureate degree or a student who, prior to the age of 18, regularly resided with and received support from only one natural or adoptive parent and whose supporting parent did not receive a baccalaureate degree.

### **Part III – Programmatic Information**

**(1) Please describe the program briefly, addressing all relevant purposes outlined in G.S. 115C-238.50, sub-sections (a) and (b). Limit description to 150 words.**

The Charlotte-Mecklenburg Schools (CMS) and the UNC Charlotte STEM Early College High School (STEM ECHS) will open on the campus of UNC Charlotte in fall 2014 with a freshman class of up to 65 students. All rising freshmen within CMS are eligible for admission and transportation to the school, with priority for first generation college students and those underrepresented in STEM fields.

Students will be immersed in a technology rich, project-based learning environment with a particular focus on the *Grand Challenges of Engineering*, the engineering process and sustainable energy. Graduates of the grade 9-13 school will earn a high school diploma and up to two years of transferable college credit.

Blending the resources of CMS, UNC Charlotte College of Engineering and Energy Production Infrastructure Center (EPIC), National Academy Foundation (NAF) and Project Lead the Way will provide support for innovation and a regional learning lab for teachers in STEM fields.

- (2) **Please explain how the school relates to the Economic Vision Plan adopted by the regional economic development commission for the economic development region where the school will be located.**

The 2012 Prosperity for Greater Charlotte Project partnered the Centralina Council of Governments, the Catawba Regional Council of Governments, the Centralina Economic Development Commission, and the Charlotte Regional Partnership to complete a strategic assessment of the 17-county greater Charlotte economy and to identify strategies to boost economic and educational success. The project culminated in three strategic plans, one of which is the December 2012 *Jobs, Workforce & Education Alignment Strategy for the Greater Charlotte Region*.

The strategic plan identifies goals in workforce and education, entrepreneurship and innovation, infrastructure, business climate and quality of life. The STEM ECHS relates specifically to the goals for

**Workforce & Education:** Prepare the region's workforce and students with skills, competencies, and knowledge that align with target industry needs.

**Entrepreneurship & Innovation:** Enable a highly innovative entrepreneurial climate that drives the creation of high-growth firms.

**Business Climate:** Create a globally competitive region around the target industries and strong business brand worldwide.

STEM ECHS is uniquely focused on preparing students to enter the region's workforce, contributing to the greater Charlotte region's ability to compete both nationally and internationally.

As a STEM-focused school, the five-year course sequence will provide students with a highly supportive and academically challenging program of study with a strong emphasis on future-ready skills. Students will be immersed in a project-based learning environment using an engineering design process. Through inquiry, students will be organized into problem-solving teams intended to develop 21st century and entrepreneurial skill sets - critical reasoning, communication, creativity, and collaboration.

Job shadowing, internships, and work-based learning within energy-related businesses and industries will provide students with real-world experiences designed to provide relevance to academic studies.

The strategic plan further identifies six target industries – automotive, logistics, biomedical, financial, energy and aerospace – as well as three broad categories of target competencies – advanced manufacturing, engineering and information technology – as priorities.



Through its partnership with the UNC Charlotte College of Engineering and EPIC, and its use of the Project Lead the Way Pathways to Engineering Curriculum, STEM ECHS will focus on the energy industry and engineering competencies.

A common instructional framework using research-based strategies will be consistent and pervasive throughout the school. All course projects will integrate energy generation and sustainability themes.

Framed around the National Academy Foundation Model, a sequence of four to six honors-level Project Lead The Way (PLTW) courses as well as UNC Charlotte early engineering coursework will provide students with a foundation for college and career success in STEM-related fields.

Finally, the plan identifies seven priorities for the region. The first two involve an overall improvement of the K-12 education system as well as better engagement by the colleges and universities in the region's economic development to respond to changes in industry needs and alignment of training and curriculum.

The STEM ECHS will serve as a regional site for teacher professional development as a means to enhancing the overall quality and effectiveness of teachers in STEM fields. It will be used as a learning laboratory to inform preparation for students in the UNC Charlotte College of Education. The innovative curriculum developed in consultation with business and energy leaders will include project based learning techniques to foster a culture of collaborative inquiry among faculty and students.

Overall, STEM ECHS will serve as a model of secondary, postsecondary and industry partnerships to inform high growth industry needs, as well as associated skill sets and curricula, and to provide a vehicle for both classroom and work-based learning

**(3) Please describe the facilities to be used by the program and how administrative services will be provided. Note, if the school is not located on an institution of higher education campus, Appendix D must be completed.**

STEM ECHS will be located on UNC Charlotte's Charlotte Research Institute (CRI) Campus, a designated Millennium Campus, with a goal to "enhance the technology infrastructure of the Charlotte region by facilitating the development of intellectual capital through global collaboration with industry, academia and government to create a top-tier interdisciplinary technology research community." The CRI campus has state-of-the-art facilities and houses, among other organizations and industry partners, the William States Lee College of Engineering and the Energy Production and Infrastructure Center (EPIC). STEM ECHS students will benefit from proximity to and engagement with the college's students, as well as faculty, research centers, industry partners and specialized resources associated with the CRI campus.

Initially, a modular unit with ten classrooms and administrative offices will be installed at UNC Charlotte on the CRI campus, with plans to consider establishing a more permanent structure in the future. Students will have access to campus facilities including the university library and select laboratory space. Use of the UNC Charlotte facilities, programs and services, such as the College of Engineering's Office of Student Success and the University's Maximizing Academic and Professional Success (MAPS) program will increase as STEM ECHS students get further into college coursework.

CMS and UNC Charlotte are in the process of developing a Memorandum of Understanding to govern the provision of administrative services and management of the facility. The MOU will include stipulations outlined in the UNC Policy 400.6.1.[R], the Regulations for the Establishment of an Early College High School on UNC Campuses.

**(4) List the student academic and career/technical achievement goals and the measures to be used to demonstrate that students have attained the skills and knowledge specified for the listed goals.**

**(a) Academic goals for students – Please list the academic goals for students, including goal indicators (measures) and the preliminary targets for each indicator.**

Targets for academic goals will be set upon further review of district benchmarks, trend data and student projections. All targets will be set as stretch, yet achievable, goals that set high expectations for school leaders, faculty, staff and students. In addition to the metrics below, STEM ECHS will also focus on student success in each of their courses as measured by formative and end of course assessments.

Goal	Indicator	Target
Students maintain consistent attendance	Attendance rate	TBD
Students are “on track” at the end of each grade level as indicated by passing all core courses and attaining the appropriate number of credits each year toward a high school diploma and two years of transferable college credit	% of 9 <sup>th</sup> graders on track	TBD
	% 10 <sup>th</sup> graders on track	TBD
	% 11 <sup>th</sup> graders on track	TBD
	% 12 <sup>th</sup> graders on track	TBD
Students Earn 9 or more College Credits Prior to promotion to the 11th grade	Student Transcript Analysis	TBD
Students are college-ready prior to their senior year of high school.	ACT Composite $\geq 17$	TBD
Students graduate STEM ECHS with a high school diploma and two years of transferable college credit within 5 years	Cohort graduation rate	TBD
	Percent of students graduating with two years of transferable college credit	TBD

**(b) Career/technical goals for students – Please list the career/technical goals for students, including goal indicators (measures) and the preliminary targets for each indicator.**

Career goals for students will align to work based learning standards set by the National Academy Foundation, Project Lead the Way and the State of North Carolina. STEM ECHS will pay particular attention to each student’s preparedness for the workplace as is related to such non-cognitive factors as self-awareness, interpersonal skills, and persistence. An internship evaluation completed by the student’s internship employer will be a key factor in determining career readiness.



Goal	Indicator	Target
Students possess skills for at least 65% of jobs profiled by WorkKeys in: applied mathematics, locating information and reading for information.	Percentage of students achieving a Silver or Gold Certificate on WorkKeys	≥ 90%
Students have at least one successful work-based learning experience prior to graduating STEM ECHS.	Percentage of students rated above average by their internship employer	≥95%
Students are career-ready upon graduation from STEM ECHS	Percentage of students achieving NC Career-ready seal on their diploma	≥ 90%

**(5) Describe the following components of program operations:**

**(a) Budgeting (describe your annual budget development process only; a pro forma budget and funding plan is required in Section 8.):**

CMS will follow its regular budgetary process in making its annual budget requests to the Charlotte Mecklenburg County Commissioners, NC Department of Public Instruction and the US Department of Education.

- November - March      Internal budget development aligned to district priorities
- April      CMS School Board approves annual budget request
- May 1      District annual budget request submitted to County Commissioners
- June      County budget approved by County Commissioners
- July 1      New fiscal year allotments authorized: Federal, State, Local
- August      Revised budget is prepared for approval by CMS School Board
- September      Revised Annual Budget is approved by CMS School Board

**(b) Curriculum:**

- 1 Please complete a proposed curriculum map for the school. A sample is provided in Appendix B. You may alter the sample to fit your curriculum.**
- 2 Please provide a description of the overall instructional program and how it will introduce innovation into the classroom, and address how the school will ensure graduates are prepared for college and career.**

Students will take the courses required for the NC Future Ready Core Course of Study for a high school diploma. These are the same basic requirements as at all NC public high schools. However, all courses will carry the theme of energy production and sustainability throughout the curriculum. Each student will have an individualized education plan based on their post high school graduation plans and career goals. Students will be assigned an academic counselor to provide support throughout the early college high school experience and to provide advisement on course selection. Key to the curriculum and structure of the school day will be opportunities for tutoring as well as participation in seminars that help students explore how to be successful in college studies. The location of the school on the UNC Charlotte's Charlotte Research Institute campus provides the opportunity to intentionally make student participation in ongoing research initiatives with UNC Charlotte faculty and local industry partners a part of the curriculum.

A course of study guide aligned to potential degree options and career outcomes will be provided for all students to help them choose courses that are best aligned to their interests and aspirations. The course of study guide will identify courses for each semester per grade level to help students and their parents make decisions based on the student's goals. Courses required for the NC Future Ready Core Course of Study for a high school diploma will be offered as well as college level courses related to the program theme. Students will take mostly high school courses during the ninth grade year and increase the number of college courses as they progress in the program.

The early college high school movement encourages the creation of small schools to build highly personalized and supportive learning environments. The instructional framework will include small class sizes and a challenging learning environment that is the collaborative work of students, staff, and industry partners. Course content will be thematic in nature to allow students to explore areas of personal interest. Students will participate in projects that expand learning beyond the classroom. Problem based learning strategies will be utilized to bring real world relevance to learning. Finally, students will be encouraged to participate in academic contests and extra-curricular activities that further the school theme such as Envirothon, Quiz Bowl, Math Olympiad and Science Olympiad.

**Pathways to Engineering & Work-Based Learning**

A critical component of the curriculum will be the use of The Project Lead the Way (PLTW) Pathway To Engineering (PTE) program. PTE is a sequence of courses which follows a proven hands-on, real-world problem-solving approach to learning. Students will learn and apply the design process, while practicing and acquiring non-cognitive skills such as teamwork, presentation and communication skills, creative- and critical-thinking, and problem-solving. Students will have access to PTE Foundation Courses such as

Introduction to Engineering Design and Principals of Engineering to prepare them for introductory college-level courses in engineering.

Job shadowing, internships, and work-based learning within energy-related business and industries will provide students with real-world experiences designed to provide relevance to academic studies. The value of work based learning cannot be understated. It is an opportunity for students to “try on” a career, to apply and strengthen what they have learned in the classroom, and to validate a chosen major or career path.

#### Classroom Environment and Technology

STEM ECHS will use a variety of class configurations for its delivery of instruction including flipped classrooms, blended course models, co-teaching, and off-site experiential sessions that require flexible class scheduling in a technology-rich environment.

A weekly schedule template with four segments will be developed, allowing for varied blocks of instructional time. The fourth segment of each day will be reserved for teachers to co-teach, blend classrooms/courses, and engage students in cross-curricular instruction and activities. One day per week, the fourth segment of the day will be reserved for experiential learning, individual and small group tutorials or acceleration, and whole school activities.

Classrooms will be equipped with a basic set of digital teaching and learning resources including a desktop computer, interactive whiteboard with speakers, and a set of student digital devices. Teachers and students will also have access to digital resources that align with and support digital age learning and work such as student responders, tablet technology, document cameras, digital textbooks, and data portals. These resources will be used to foster flexible differentiated instruction, student response and enhanced engagement.

Students will use digital media such as student email and online learning environments to communicate with instructors and collaborative learning groups about projects and class assignments. Students will create online portfolios to capture their learning progress, performance on projects encompassing real world tasks, and completion of online coursework.

Another goal for the STEM ECHS 12<sup>th</sup> grade student will be the issuance of a UNC College of Engineering configured laptop designed to carry the student through college engineering courses during grades 12 and 13. Graduating STEM ECHS students would be allowed to retain their engineering laptop for future coursework.



**(c) Student transportation (please include discussion of how the school will ensure no child is denied access due to transportation issues):**

The STEM ECHS will be an options school open to students districtwide. The CMS Transportation Department will provide each student school bus transportation to and from the STEM ECHS site via shuttle stops. Current CMS transportation policies allow for county/districtwide transportation for students enrolled in unique programs for which there is only one of its kind in the district. The STEM ECHS is designated as such a program.

On UNC Charlotte campus STEM ECHS students will have access to the campus shuttle between the CRI and academic sites. Hours of operation for the campus shuttle are Monday – Thursday, 7:00 a.m. – 10:00 p.m.; and Friday, 7:00 –a.m. – 6:00 p.m.

**(d) School operating procedures, including calendar and hours of operation:**

Calendar: STEM ECHS will follow UNC Charlotte’s academic calendar (Appendix I) for start date, holidays and semester breaks. Classes will start on August 12, 2014, with UNC Charlotte classes beginning on August 18, 2014, and the STEM ECHS academic year will be extended beyond UNC Charlotte’s graduation date until June 1.

Operating Procedures: STEM ECHS will operate under the policies and procedures set forth in the CMS CODE OF STUDENT CONDUCT - Student Rights, Responsibilities and Character Development Handbook and UNC Charlotte’s Code of Student Responsibility, and Code of Student Academic Integrity. Additional policies specific to the operation of the STEM ECHS and student behaviors will be developed by the district and the University.

Hours of Operation: STEM ECHS will operate on a modified block schedule that allows for flexible class scheduling between the hours of 9:15 a.m. and 4:15 p.m., including a common lunch/study period. Eligible students may schedule university courses during anytime of the school day their schedule permits. Some students may elect to schedule additional university courses before or after the school’s regular scheduled day by providing their own transportation.

**(6) Please describe how school administrators will promote and measure parent involvement.**

A synthesis of research on parent involvement over the last decade found that regardless of family income or background, students with involved parents are more likely:

- To earn higher grades and test scores, and enroll in higher-level courses
- To be promoted, pass their classes, and earn credits
- To attend school regularly
- To have better social skills, show improved behavior, and adapt well to school
- To graduate and go on to postsecondary education (Southwest Educational Development Laboratory, 2002.)

Implementing a strong parental involvement program that informs, guides and supports parental understanding during their child's high school years from 8<sup>th</sup> grade transition through high school graduation and beyond is an essential strategy to increase overall student success at STEM ECHS.

Initial parent involvement will be accomplished through the distribution of STEM ECHS information to parents of targeted 7<sup>th</sup> and 8<sup>th</sup> grade students at various community meetings, and at the annual CMS Magnet/ Schools Options Fair. Campus visits will be conducted for current 8<sup>th</sup> graders and their parents as they review career options for the upcoming year.

Once students have been selected for the STEM ECHS based on a lottery, parents and students will attend a freshmen orientation meeting prior to the beginning of school. As partners in the school, parents will be involved, engaged, and informed throughout the school year and at every grade level. Grade level orientation meeting will include general policies and regulations, FERPA – regulations for sharing of student information between UNC Charlotte and the STEM ECHS personnel, and other information related to the college admission process.

The school counselor and administrator will support parent involvement through numerous activities and actions such as parent nights, open house and progress reports. Additional avenues of parental engagement will utilize a social media presence through Facebook, Twitter, Instagram and an on-line chat environment.

Each semester, student-led conferences will provide a meaningful way for the student, parent, and teacher to communicate and engage in dialogue concerning the progress, goals, and future plans of the student. Student-led conferences provide parents the opportunity to understand the curricular program, see the student's high school and college artifacts as presented through a portfolio of competencies, and to gage the student's progress at regular intervals throughout the five-year program. Individual goals set by the student will be reviewed and evaluated with the parent once each semester

Parental involvement will continue throughout the high school years with the use of a comprehensive online solution from ConnectEDU® called *Connect*. Rising 9<sup>th</sup> grade students will develop a 5-year high school plan that includes STEM ECHS coursework. Parents, counselors and students will be able to check academic progress and career planning toward the student's goal of high school graduation and earning up to two years of college credit.

STEM ECHS parents also will begin to receive university messages, e-mails and newsletters as part of the Niner Nation Family. This will assist in their understanding the university culture their child is experiencing while on the UNC Charlotte campus.

**7) Please describe the student selection and admission process. Include specific selection criteria.**

STEM ECHS is classified as a CMS districtwide school option such that admission is open to any rising CMS 9<sup>th</sup> grade student. Students will apply to the school via the district's existing student assignment portal and lottery process. The annual school option application and lottery entry window is available from January through February for the coming school year.

While past academic performance and preparedness for the rigor of an early college curriculum are important, they will not be the only or even the primary selection criteria. In addition to the lottery process, which takes into account academic performance, students will also be asked to complete a brief written application. The application will allow students the opportunity to submit a statement of interest and commitment, as well as include recommendations from past principals, teachers and/or counselors. Unique to the STEM ECHS application will be a section requesting parental academic attainment in order to determine students who would be defined as "first-generation college students".

Each Freshman Class Cohort is limited to 65 students. If there are more than 65 students applying for the Freshman Cohort then a selection lottery will be performed by the CMS Student Placement and Planning Department taking into account the intent of the Cooperative Innovative High School Act to serve first generation college graduates and under-represented minorities. Non-selected students will be placed on a wait list in priority order of their selection number.

**(8) Budget – This section is required for all applications, including self-funded schools for which no state funding, community college FTE, or university tuition funds are requested. Complete all sections – (a) through (c).**

**For those requesting funds, please note that Average Daily Membership (ADM) and Full-time Equivalents (FTE) shall be calculated according to existing procedures and formulas for determining these budget elements.**



- (a) Identify the funds and fund sources to be used for school operations. Identify all funds, including CIHS allotments (PRC 055), tuition payments, FTE reimbursements, grant/gift funds, as well as other state and/or local funds.**

The CMS UNC Charlotte STEM Early College High School will use a combination of local, state and university funding to support the operations of the school. CMS faculty and the school principal will be funded through a standard ADM allotment. Career and Technical Education faculty and staff will be funded through CMS CTE allotment.

Local CMS funds will be used to support student transportation and meal services. The Cooperative Innovative High School Allotment requested in Appendix C will support the program coordinator and career development coordinator, student college textbooks, and staff professional development. UNC Charlotte will support the school through the funding of a college liaison. Additional state funds are requested in Appendix C to fund UNC Charlotte tuition.

Capital and administrative expenses will be supported by a combination of local CMS funds and university funds and will be further determined by the memorandum of understanding currently under development.

- (b) How will tuition charges paid to the university partner be determined (if applicable)? Include the tuition charge review and adjustment frequency (annually, biennially, etc.)**

UNC Charlotte tuition will be based on the number of credit hours taken by the student body of STEM ECHS.

Charges will be paid semiannually following the NC Department of Instruction's standard policies and procedures for Cooperative Innovative High School tuition reimbursement.

- (c) Proposed budget – Please use the template provided in Appendix C to provide a proposed annual budget for the first five (5) years of school operations. This is required for all applicants.**

See Appendix C

**(9) Please describe the specific positions and minimum qualifications of employees in the program (e.g. principal or director, support staff, teachers, paraprofessionals/teaching assistants, and clerical).**

STEM ECHS staff will include a principal, guidance counselor, registrar/financial secretary, and instructional staff including classroom teachers, and a Technology and/or Professional Learning Facilitator(s). All CMS professional personnel will hold the appropriate NC Educator License as required by CMS' Human Resources Policies and Regulations.

The principal leader will have experience leading a collaborative and inclusive school design process and have a track record of leveraging deep expertise in instruction and school leadership to develop an instructional staff. Further, the principal will have demonstrated success engaging a wide cross-section of stakeholders, both internal and external, as well as community and industry partners to support and sustain a high quality school focused on maximizing student outcomes.

All school personnel will demonstrate the attributes CMS and UNC Charlotte have identified as essential for the innovative and 21<sup>st</sup> century-focused school design that forms the foundation of STEM ECHS. As such, all school personnel must demonstrate and/or be committed to:

- Ensuring all students enrolled in the school achieve academic success and develop 21<sup>st</sup> century competencies for college and career.
- Ensuring that students' diverse assets and needs are recognized and accommodated.
- Experience in innovative and/or alternative educational environments, especially those that operate personalized and blended learning; competency-based progression; multiple pathways; proficiency-based assessment and grading; and/or differentiated, team-based teaching models.
- Possess skills and mindsets for innovation and entrepreneurship: risk-taking; creative confidence; challenging the status quo; and growth mindset.
- Operating a competency-based model that enables all students to master rigorous and relevant competencies. Personalizes learning to students' strengths and goals. Uses multiple modalities, real-time feedback, performance-based assessments, and technology-empowered learning. Allows multiple opportunities to master standards through performance-based assessments, and allows self-paced progression based on demonstrations of competency.
- Using positive youth development supports to foster caring relationships, set clear standards for performance, elevate student voice, and integrate community assets and culture.

(10) Please estimate how many students will be served using the table below.

	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>	13 <sup>th</sup>
Year 1	65				
Year 2	65	65			
Year 3	65	65	65		
Year 4	65	65	65	65	
Year 5	65	65	65	65	65

(11) Please describe how the school, school district, and partner institution intend to measure the school's effectiveness with respect to meeting the purposes specified in GS 115C-238.50; i.e. accountability results, CTE post-assessment performance, employer surveys, dropout rates, graduation rates, post-secondary college-going rates, etc.

CMS and UNC CHARLOTTE will measure the school's effectiveness based on the extent to which students are meeting expected outcomes.

Summative indicators of success include:

College and Career Readiness – students will exceed the minimum admission criteria for the UNC system of schools as measured by the ACT, SAT and course grades/GPA.

Retention and Graduation – students will remain in the program for the entire 4-5 year course of study, and graduate with both a high school diploma and two years of transferable college credit

Post-secondary Success – each student, upon graduation, will enter a 2 or 4-year degree program either part- or full-time, and/or gain an entry level position or higher in a career pathway of economic value

Employer Satisfaction - students will successfully complete at least one internship experience with the employer providing a positive assessment of the student's contribution during the internship

Formative indicators of success include:

End of course assessments for core content, CTE, Project Lead the Way and UNC Charlotte courses

Success in honors and AP coursework

Grade level promotion and retention rates

Surveys that capture student voice related to their satisfaction with the school, the support they receive from faculty and staff, and the usefulness of the course of study as it relates to their postsecondary goals and aspirations



(12) The State Board of Education provides the following routine program exemptions (waivers) automatically upon program approval. You do not need to request these waivers, however please indicate the waivers the school will use by placing an X in the space provided next to its description. **Please pay special attention to the applicable conditions for each exemption; schools choosing to take advantage of an exemption shall adhere to the conditions specified.**

Waiver ID	Description	Applicable Conditions	Intend to use?
Personnel-1	Allow the NC principal certification requirements to be waived.	Non-certified principals shall enroll in an accredited principal certification program and shall complete certification within three years.	N/A
Curriculum-1	Allow students to meet graduation requirements by substituting a college-level course for an approved high school course, as appropriate. This includes permitting multi-course sequences to meet requirements, and includes all core curriculum areas and foreign languages.	<ul style="list-style-type: none"> <li>• Course substitutions for English III and/or English IV must adhere to the requirements established in SBE policy GCS-N-004.</li> <li>• Students must pass the college-level course(s).</li> <li>• Students must complete required EOC assessments to receive credit.</li> </ul>	YES

Please use the space provided on the following pages to request any **additional** exemptions from laws and rules applicable to a local board of education, an LEA (local school administrative unit), a community college, a constituent institution of the UNC System, or a local board of trustees, that may be necessary for successful program operation. **Space is provided for each governing board; use only the space for the applicable board.** Add rows to the table as necessary. Please note that in accordance with law, requests included with the application may or may not be approved by the applicable governing board as part of the approval process. Waiver requests not approved by a governing board will be communicated to the applicant.

## STATE BOARD OF EDUCATION

Identify the state law, regulation, or SBE policy to be waived (Please provide a specific reference)	Specify the rationale for the exemption (Please include explicit examples)
Waive requirements of 115C-84.2 "Calendar Bill", regulating the opening and ending dates of the public school instructional calendar.	STEM ECHS will house CMS students on the UNC Charlotte campus. This partnership requires STEM ECHS students to start their college classes on August 12, ten days prior to CMS' opening of schools on August 25. A calendar waiver is hereby requested to allow the STEM ECHS' academic year to begin on August 12 in order to align its academic calendar with the UNC Charlotte academic calendar.
Waive requirements of 115C-81 "Seat time course for credit" requiring 150 clock hours of instruction or 135 clock hours of instruction in a block schedule"	STEM ECHS will use a variety of class configurations for its delivery of instruction that include flipped classrooms, blended course models, co-teaching, and off-site experiential sessions that require flexible class scheduling in a technology-rich environment. Therefore, a waiver is requested from the requirement of awarding high school graduation credit based the 150 -135 clock hours per course requirement.

## NC COMMUNITY COLLEGE BOARD

Identify the state law, regulation, or NCCCS policy to be waived (Please provide a specific reference)	Specify the rationale for the exemption (Please include explicit examples)
NONE	

## UNC BOARD OF GOVERNORS

Identify the state law, regulation, or UNC GA policy to be waived (Please provide a specific reference)	Specify the rationale for the exemption (Please include explicit examples)
TBD Through a Memorandum of Agreement	

**END OF APPLICATION; APPENDICES ON FOLLOWING PAGES**

## **APPENDIX A**

### **Part 9. Cooperative Innovative High Schools**



The legislative language authorizing the Cooperative Innovative High School program is provided below as a reference for districts and their partners during development of the program application.

**FLEXIBILITY FOR HIGH SCHOOL INNOVATION [SL2005-276, section 7.33(a)]**

**SECTION 7.33. (a)** Part 9 of Article 16 of Chapter 115C of the General Statutes reads as rewritten:

**115C-238.50. Purpose.**

(a) The purpose of this Part is to authorize local boards of education to jointly establish with one or more boards of trustees cooperative innovative programs in high schools and colleges or universities that will expand students' opportunities for educational success through high quality instructional programming. These cooperative innovative high school programs shall target any of the following groups:

(1) High school students who are at risk of dropping out of school before attaining a high school diploma.

(1a) High school students with parents who did not continue education beyond high school.

(2) High school students who would benefit from accelerated academic instruction.

(b) All the cooperative innovative high school programs established under this Part shall:

(1) Enable students to concurrently obtain a high school diploma and begin or complete an associate degree program, master a certificate or vocational program, or earn up to two years of college credit within five years.

(1a) Prepare students adequately for future learning in the workforce or in an institution of higher education.

(2), (3) Repealed by Session Laws 2011-145, s. 7.1A (j), effective January 1, 2012.

(4) Encourage the cooperative or shared use of resources, personnel, and facilities between public schools and colleges or universities, or both.

(5) Repealed by Session Laws 2011-145, s. 7.1A (j), effective January 1, 2012.

(6) Emphasize parental involvement and provide consistent counseling, advising, and parent conferencing so that parents and students can make responsible decisions regarding course taking and can track the students' academic progress and success.

(7) Through (10) Repealed by Session Laws 2011-145, s. 7.1A(j), effective January 1, 2012.

(11) Develop methods for early identification of potential participating students in the middle grades and through high school and provide outreach to those students to promote academic preparation and awareness of the cooperative innovative high school programs.

(12) Repealed by Session Laws 2011-145, s. 7.1A(j), effective January 1, 2012.

(c) through (e) Repealed by Session Laws 2011-145, s. 7.1A(j), effective January 1, 2012.

(f) Students are eligible to attend these programs as early as ninth grade.

**115C-238.50A. Definitions.**

The following definitions apply in this Part:

(1) Constituent institution. - A constituent institution as defined in G.S. 116-2(4).

(1a) Cooperative innovative high school. - A high school approved by the State Board of Education that meets the following criteria:

a. It has no more than 100 students per grade level.

b. It partners with an institution of higher education to enable students to concurrently obtain a high school diploma and begin or complete an associate degree

program, master a certificate or vocational program, or earn up to two years of college credit within five years.

c. It is located on the campus of the partner institution of higher education, unless the governing Board or local board of trustees for a private North Carolina college specifically waives the requirement through adoption of a formal resolution.

(1b) Cooperative innovative high school allotment. – Funds appropriated by the General Assembly to the Department of Public Instruction to provide additional resources to approved cooperative innovative high schools.

(2) Education partner. - An education partner as provided in G.S. 115C-238.52.

(3) Governing Board. - The State Board of Community Colleges or the Board of Governors of The University of North Carolina.

(3a) Local board of education. - A local board as defined in G.S. 115C-5(5) or a regional school board of directors as defined in G.S. 115C-238.61(5).

(4) Local board of trustees. - The board of trustees of a community college, constituent institution of The University of North Carolina, or private college located in North Carolina.

(5) Partner institution of higher education. – A community college, constituent institution of The University of North Carolina, or private college located in North Carolina.

#### **115C-238.51. Application process.**

(a) A local board of education and at least one local board of trustees shall jointly apply to establish a cooperative innovative high school program under this Part.

(b) The application shall contain at least the following information:

(1) A description of a program that implements the purposes in G.S. 115C-238.50.

(2) A statement of how the cooperative innovative high school relates to the Economic Vision Plan adopted for the economic development region in which the program is to be located.

(3) The facilities to be used by the cooperative innovative high school and the manner in which administrative services of the school are to be provided.

(4) A description of student academic and vocational achievement goals and the method of demonstrating that students have attained the skills and knowledge specified for those goals.

(5) A description of how the cooperative innovative high school will be operated, including budgeting, curriculum, transportation, and operating procedures.

(6) The process to be followed by the cooperative innovative high school to ensure parental involvement.

(7) The process by which students will be selected for and admitted to the cooperative innovative high school.

(8) A description of the funds that will be used and a proposed budget for the first five years of the implementation of the cooperative innovative high school. This description shall identify how the average daily membership (ADM) and full-time equivalent (FTE) students are counted. If additional funds are requested, a description of how those additional funds will be used shall be submitted. Additional funds may include the cooperative innovative high school allotment and tuition payments. For cooperative innovative high schools that have a community college as their partner institution of higher education, the proposed budget shall include the cost of including their students in calculations of budget full-time equivalent students for the North Carolina Community College System.

- (9) The qualifications required for individuals employed in the cooperative innovative high school.
  - (10) The number of students to be served.
  - (11) A description of how the cooperative innovative high school's effectiveness in meeting the purposes in G.S. 115C-238.50 will be measured.
- (c) The application shall be submitted to the State Board of Education and the applicable governing Board. If the partner institution of higher education is a private North Carolina college, the application shall be submitted solely to the State Board of Education.

**115C-238.51A. Approval process.**

- (a) The State Board of Education and the applicable governing Board shall appoint a joint advisory committee to review the applications and to recommend approval for those applications that meet the requirements of this Part and achieve purposes set out in G.S. 115C-238.50. The recommendation shall indicate whether additional funds were requested in the application.
- (b) No Additional Funds. – For applications which have not requested additional funds, the State Board of Education and the applicable governing Board may approve cooperative innovative high schools. In granting approval, consideration shall be given to the proposed budget and demonstration of sources of sustainable funding for the operation of the cooperative innovative high school. Approvals shall be made by June 30 of each year. No additional State funds, position allotments, earning of budget full-time equivalent students, or payments of tuition shall be provided to cooperative innovative high schools approved under this subsection.
- (c) Additional Funds. – For applications which have requested additional funds, the State Board of Education and the applicable governing Board may approve cooperative innovative high schools contingent upon appropriation of the additional funds by the General Assembly. Contingent approval shall be made by April 1 of each year. The contingent approval shall expire if no appropriation is made by the General Assembly for the additional funds within one calendar year. No cooperative innovative high school shall open prior to the appropriation by the General Assembly of the full amount of the additional funds as requested in the application for that school under G.S. 115C-238.51 for the upcoming fiscal year or fiscal biennium, as appropriate. If no appropriation is made by the General Assembly, a revised application may be submitted under subsection (b) of this section.

**115C-238.52. Participation by other education partners.**

- (a) Any or all of the following education partners may participate in the development of a cooperative innovative high school under this Part that is targeted to high school students who would benefit from accelerated academic instruction:
  - (1), (2) Repealed by Session Laws 2005-276, s. 7.33(a), effective July 1, 2005.
  - (3) A private business or organization.
  - (4) The county board of commissioners in the county in which the cooperative innovative high school is located.
- (b) Any or all of the education partners listed in subsection (a) of this section that participate shall:
  - (1) Jointly apply with the local board of education and the local board of trustees to establish a cooperative innovative high school under this Part.
  - (2) Be identified in the application.
  - (3) Sign the written agreement under G.S. 115C-238.53(b).



### **115C-238.53. Program operation.**

(a) A cooperative innovative high school approved by the State is accountable to the local board of education.

(b) A cooperative innovative high school approved under this Part shall operate under the terms of a written agreement signed by the local board of education, local board of trustees, State Board of Education, and applicable governing Board. The agreement shall incorporate the information provided in the application, as modified during the approval process, and any terms and conditions imposed on the school by the State Board of Education and the applicable governing Board. The agreement may be for a term of no longer than five school years.

(c) A cooperative innovative high school may be operated in a facility owned or leased by the local board of education, the local board of trustees, or the education partner, if any.

(d) A cooperative innovative high school approved under this Part shall provide instruction each school year for at least 185 or 1025 hours days during nine calendar months, shall comply with laws and policies relating to the education of students with disabilities, and shall comply with Article 27 of this Chapter.

(e) A cooperative innovative high school approved under this Part may use State, federal, and local funds allocated to the local school administrative unit, to the applicable governing Board, and to the partner institution of higher education to implement its program. If there is an education partner and if it is a public body, the cooperative innovative high school may use State, federal, and local funds allocated to that body.

(f) Except as provided in this Part and under the terms of the agreement, cooperative innovative high schools:

(1) Shall have the same exemptions from statutes and rules as charter schools operating under Part 6A of this Article, other than those pertaining to personnel.

(2) May be exempted by the State Board of Education or by the applicable governing Board from laws and rules applicable to a local board of education, a local school administrative unit, a community college, a constituent institution, or a local board of trustees.

### **115C-238.54. Funds for programs.**

(a) The Department of Public Instruction shall assign a school code for each cooperative innovative high school that is approved under this Part. Notwithstanding G.S. 115C-105.25, once the cooperative innovative high school has been assigned a school code, the local board of education may use these funds for the school and may transfer these funds between funding allotment categories.

(a1) Repealed by Session Laws 2011-145, s. 7.1A(j), effective January 1, 2012.

(b) The local board of trustees may allocate State and federal funds for a cooperative innovative high school that is approved under this Part.

(c) An education partner under G.S. 115C-238.52 that is a public body may allocate State, federal, and local funds for a cooperative innovative high school that is approved under this Part.

(d) If not an education partner under G.S. 115C-238.52, a county board of commissioners in a county where a cooperative innovative high school is located may nevertheless appropriate funds to a the school approved under this Part.

(e) The local board of education and the local board of trustees are strongly encouraged to seek funds from sources other than State, federal, and local appropriations. They are strongly encouraged to seek funds the Education Cabinet identifies or obtains under G.S. 116C-4.

- (f) Students in cooperative innovative high schools shall not be charged tuition for courses taken through the partner institution of higher education.
- (g) Students in cooperative innovative high schools that have a community college as their partner institution of higher education and were approved under G.S. 115C-238.51A(c) shall be included in calculations of budget full-time equivalent students for the North Carolina Community College System. Students in cooperative innovative high schools that have a community college as their partner institution of higher education and were approved under G.S. 115C-238.51A(b) shall not be included in calculations of budget full-time equivalent students for the North Carolina Community College System.
- (h) The State Board of Education shall reimburse The University of North Carolina for tuition for courses taken by students at cooperative innovative high schools that have a constituent institution of The University of North Carolina as their partner institution of higher education and were approved under G.S. 115C-238.51A(c). Tuition payments shall not exceed the annual Board of Governors-approved undergraduate resident tuition rate calculated on a per credit hour basis and shall not include fees. In addition, the cooperative innovative high school students' credit hours shall be non-fundable under The University of North Carolina Semester Credit Hour Enrollment Change Funding Model. The State Board of Education shall not reimburse The University of North Carolina for tuition for courses taken by students at cooperative innovative high schools that have a constituent institution of The University of North Carolina as their partner institution of higher education and were approved under G.S. 115C-238.51A(b).
- (i) The State Board of Education shall reimburse private North Carolina colleges for tuition for courses taken by students at cooperative innovative high schools that have a private North Carolina college as their partner institution of higher education and were approved under G.S. 115C-238.51A(c). Tuition payments shall not exceed the highest undergraduate resident rate approved by the Board of Governors for The University of North Carolina constituent institutions and shall not include fees. The State Board of Education shall not reimburse private North Carolina colleges for tuition for courses taken by students at cooperative innovative high schools that have a private North Carolina college as their partner institution of higher education and were approved under G.S. 115C-238.51A(b).

#### **115C-238.55. Evaluation of programs.**

The State Board of Education and the governing Boards shall evaluate the success of students in cooperative innovative high schools approved under this Part. Success shall be measured by high school retention rates, high school completion rates, high school dropout rates, certification and associate degree completion, admission to four-year institutions, post-graduation employment in career or study-related fields, and employer satisfaction of employees who participated in and graduated from the schools. The Boards shall jointly report by January 15 of each year to the Joint Legislative Education Oversight Committee on the evaluation of these schools.

## **APPENDIX B**

### **Curriculum Guide Template**

**Table B 1: CMS UNC Charlotte STEM Early College High School – Draft Curriculum Guide**

High School	9 <sup>th</sup> GRADE		10 <sup>TH</sup> GRADE		11 <sup>TH</sup> GRADE		12 <sup>TH</sup> GRADE		13 <sup>TH</sup> GRADE	
<i>English /FL</i>	Honors English I Honors English II		Honors English III Honors World History		Foreign Language I		Foreign Language II		Honors English IV	
<i>Mathematics</i>	Common Core Mathematics I Honors Common Core Mathematics II		Honors Common Core Mathematics III		Advanced Function and Modeling		Calculus AP  Honors Physics II			
<i>Science</i>	Honors Physics I		Honors Biology Honors Chemistry		Environmental Science					
<i>Humanities</i>			Honors US History I				AP US Honors Civics History			
<i>STEM Electives</i>	Scientific and Technical Visualization I	Introduction to Engineering Design and Development	Principles of Engineering	Digital Electronics	Computer Integrated Manufacturing or Civil Engineering and Architecture		Biomedical Engineering or Aerospace Engineering		Engineering Design and Development And Graduation Project Presentation	
<i>Seminar</i>	Career and College Readiness Skill Development			Job Shadowing	Graduation Project		Internship			
	Service Learning									
College	Fall 1	Spring 1	Fall 2	Spring 2	Fall 3	Spring 3	Fall 4	Spring 4	Fall 5	Spring 5
<i>English Composition</i>							ENGL 1101	ENGL 1102		
<i>Humanities/Fine Arts</i>								UNC Charlotte TBD	UNC Charlotte TBD	UNC Charlotte TBD
<i>Social/Behavioral Sciences</i>			LBS 110 Arts & Society		UNC Charlotte TBD	UNC Charlotte TBD	UNC Charlotte TBD		LBST 2101 Western Culture	
<i>Natural Sciences</i>							I	Chem 1251 General Chemistry I and Lab	UNC Charlotte TBD	UNC Charlotte TBD
<i>Mathematics</i>							Math 1241 Calculus I		UNC Charlotte TBD	UNC Charlotte TBD
<i>Other</i>	Freshman Seminar: UCOL 1000		Health and Physical Education		ENGR 1201 Introduction to Engineering I		UNC Charlotte TBD		UNC Charlotte TBD	



## **APPENDIX C**

### **Pro-forma Budget Template**

Category/ Activity	Year 1	Year 2	Year 3	Year 4	Year 5
**Please include an itemized list under each category as appropriate**					
<b>Salaries and Benefits</b>					
<u>Local Funds</u>					
Certified Staff					
• Principal	ADM	ADM	ADM	ADM	ADM
• Teachers					
Non-Certified Staff					
• School Treasurer					
• Technology & Professional Learning Facilitator	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
<u>CIHS Allotment</u>					
Non-Certified Staff	\$210,000	\$210,000	\$210,000	\$210,000	\$210,000
• Program Coordinator					
• Career Development Coordinator					
<u>University Funds</u>					
• College Liaison	\$140,235	\$140,235	\$140,235	\$140,235	\$140,235
<b>sub-total</b>	<b>\$450,235</b>	<b>\$450,235</b>	<b>\$450,235</b>	<b>\$450,235</b>	<b>\$450,235</b>

Category/ Activity	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Tuition Charges</b>					
<u>State Funding</u> University tuition charges <sup>2</sup>	\$ 28,617	\$85,848	\$200,314	\$371,979	\$600,909
<b>sub-total</b>	<b>\$ 28,617</b>	<b>\$85,848</b>	<b>\$200,314</b>	<b>\$371,979</b>	<b>\$600,909</b>
<u>CIHS Allotment</u> Contracted professional coaching and development	\$41,500	\$41,500	\$41,500	\$41,500	\$41,500
<b>sub-total</b>	<b>\$41,500</b>	<b>\$ 41,500</b>	<b>\$41,500</b>	<b>\$41,500</b>	<b>\$41,500</b>
<b>Travel</b>					
<u>CIHS Allotment</u> Professional Conferences	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500
<b>sub-total</b>	<b>\$2,500</b>	<b>\$2,500</b>	<b>\$2,500</b>	<b>\$2,500</b>	<b>\$2,500</b>
<b>Supplies and Materials</b>					
<u>CIHS Allotment</u> College Textbooks	\$10,500	\$10,500	\$10,500	\$10,500	\$10,500
<u>CMS Local Funds</u> College Textbooks	\$0	\$0	\$25,000	\$40,000	\$50,000
<u>CMS Local Funds</u> Curriculum and testing supplies and materials	\$5,000	\$7,500	\$10,000	\$12,500	\$15,000
<b>sub-total</b>	<b>\$15,500</b>	<b>\$18,000</b>	<b>\$45,500</b>	<b>\$63,000</b>	<b>\$75,500</b>

<sup>2</sup> Please calculate university tuition based on the agreed upon per student, per course tuition charge negotiated with the university partner and described in Section 8 (b) of this application.

Category/ Activity	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Equipment</b>					
<u>CIHS Allotment</u> Technology	\$43,000	\$43,000	\$43,000	\$43,000	\$43,000
<u>University Funding</u> Equipment and Technology	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
<u>CMS Local Funds</u> Office & Cafeteria Equipment	\$60,000	\$5,000	\$0	\$0	\$0
<b>sub-total</b>	<b>\$113,000</b>	<b>\$ 58,000</b>	<b>\$ 53,000</b>	<b>\$ 53,000</b>	<b>\$53,000</b>
<b>Other (specify)</b>					
<u>CMS Local Funds</u> • University Fees	TBD	TBD	TBD	TBD	TBD
<b>sub-total</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>
<b>Annual Total</b>	<b>\$651,325</b>	<b>\$656,083</b>	<b>\$793,049</b>	<b>\$982,214</b>	<b>\$1,223,644</b>
<b>Total CIHS Allotment Request</b>	<b>\$307,500</b>	<b>\$307,500</b>	<b>\$307,500</b>	<b>\$307,500</b>	<b>\$307,500</b>
<b>Total University Tuition Funding Request</b>	<b>\$28,617</b>	<b>\$85,848</b>	<b>\$200,314</b>	<b>\$371,979</b>	<b>\$600,909</b>
<b>5-year Grand Total</b>	<b><u>\$4,306,315</u></b>				



## **APPENDIX D**

### **CIHS Location Waiver Request Form**

## **Cooperative Innovative High Schools (CIHS)**

### **Location Waiver Request Form**

A school may use this form to request approval from an applicable governing Board for a location waiver for a Cooperative Innovative High School that will not be located on an institution of higher education.

#### **Purpose and Definition of Cooperative Innovative High School Programs:**

G.S. 115C-238.50(a) establishes the purpose of cooperative innovative high school programs:

The purpose of this Part is to authorize local boards of education to jointly establish with one or more boards of trustees cooperative innovative programs in high schools and colleges or universities that will expand students' opportunities for educational success through high quality instructional programming.

G.S. 115C-238.50A defines a cooperative innovative high school:

Cooperative Innovative High School – A high school approved by State Board of Education and the applicable governing Board that meets the following criteria:

- a. It has no more than 100 students per grade level;
- b. It partners with an institution of higher education to enable students to concurrently obtain a high school diploma and begin or complete an associate degree program, master a certificate or vocational program, or earn up to two years of college credit within five years;
- c. ***It is located on the campus of the institution of higher education, unless the governing Board or local board of trustees for a private North Carolina college specifically waives the requirement through adoption of a formal resolution.***

***Please return this form with the CIHS application.***

## **CIHS Location Waiver Request Form**

**College/university Name:**

**School Name:**

**Proposed School Location:**

Please explain why the CIHS will not be located on an institution of higher education and provide a rationale to justify the request for a location waiver. Include in the rationale an explanation of how the CIHS, while not located on an institution of higher education, will meet the definition and accomplish the purpose of a cooperative innovative high school as defined in G.S. 115C-238.50.

**Signatures:**

\_\_\_\_\_  
**University Chancellor/Community College President**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Chairperson, Board of Trustees**

\_\_\_\_\_  
**Date**



## **APPENDIX E**

### **CMS UNC Charlotte STEM Early College High School**

#### **Partnership Organizations**

## **Energy Production and Infrastructure Center (EPIC):**

The Energy Production and Infrastructure Center (EPIC) at UNC Charlotte is a collaborative, multidisciplinary effort that is uniting the academic and research expertise of the University with the great wealth of energy engineering talent in the Charlotte region. EPIC enhances the available technical workforce, advances technology and facilitates the strategic industry-university collaboration for the global energy industry while supporting the Carolinas' economic and energy security development

EPIC educational programs at the undergraduate and graduate level emphasize the application of engineering skills on energy challenges. Through energy-oriented courses, experiential design-and-build projects, and a solid foundation of engineering, students are learning the application of engineering skills on energy challenges.

EPIC is a national leader in energy research and development where interdisciplinary researchers work together and in collaboration with industry to solve some of today's most difficult energy challenges. Partnerships exist with more than 240 regional energy corporations including Siemens, AREVA, Westinghouse, Duke Energy, the Electric Power Research Institute (EPRI), The Shaw Group, URS Washington Group, and STEAG. As a regional university center, EPIC is uniting and concentrating the strengths of these many companies.

## **North Carolina New Schools**

North Carolina New Schools works to develop highly capable educators and innovative school and district models to meet the individual needs of each student. Successful schools and districts demand a culture of collaboration, professionalism and shared responsibility among teachers and school leaders. NC New Schools partners with schools and districts across the state -- as well as partners in business and industry, government, community colleges, and universities -- to provide world-class learning for educators to transform teaching and learning to be relevant today and tomorrow. NC New Schools offers professional development opportunities that give schools access to cutting-edge strategies and the opportunity to collaborate with experts from across the state and beyond.

## **National Academy Foundation (NAF)**

The National Academy Foundation (NAF) is a leader in the movement to prepare young people for college and career success. For 30 years, NAF has refined a proven educational model which includes industry-focused curricula, work-based learning experiences, and business partner expertise from our five themes: Finance, Hospitality & Tourism, Information Technology, Engineering, and Health Sciences. Employees of more than 2,500 companies volunteer in classrooms, act as mentors, engage NAF students in paid internships and serve on local Advisory Boards.

Career academies increase the engagement of high school students and provide a way for those beyond the walls of the school to enhance students' educational experiences. NAF

academy students can now earn NAF Certification. It combines classroom and workplace learning to measure career and technical knowledge and skill proficiencies. These proficiencies are aligned with industry-recognized standards including foundational 21st century skills essential in establishing a student's overall readiness for college and career.

## **APPENDIX F**

### **CMS UNC Charlotte STEM Early College High School**

#### **Regional Economic Vision Plan**



Global Rankings on Innovation and Competitiveness (2011)		
Indicator	U.S. Rank	Top 3 countries
Higher education attainment	10	S. Korea, Canada, Russia
Science and technology researchers	6	Finland, Singapore, Japan
Corporate investment in R&D	5	Japan, Finland, S. Korea
Government investment in R&D	8	Austria, Finland, Singapore
Share/quality of world's S&T publications	14	Denmark, Sweden, Netherlands
Venture capital	11	Singapore, Finland, Sweden
New firms	11	Estonia, U.K., Canada
Trade balance	37	Malaysia, Singapore, Russia
GDP per working-age adult	1	U.S., Singapore, NAFTA*
Productivity	3	Netherlands, Belgium, U.S.
<b>Overall rank</b>	<b>4</b>	<b>Singapore, Finland, Sweden</b>

Source: Information Technology & Innovation Foundation (ITIF)  
 \*Mexico, Canada, U.S.

## F.1 Higher Education attainment as an Indicator of Economic Sustainability

U.S. Research Universities: The Nation's Edge; Can we meet the Challenge?  
 Time Summit in Higher Education; TIME, Vol. 182, No. 15, 2013

*Prosperity for Greater Charlotte:* An Initiative to align the region's economic, workforce, and education efforts to boost prosperity in the 21<sup>st</sup> Century, December 2012.

Employers frequently state that access to talent is their most important site selection factor. Having a skilled workforce can be a key factor in determining whether industries will thrive in a region or if they will migrate to other locations. Rapid changes in technology, scientific discovery, global economics, business strategy, and human demographics require regions to have an educational ecosystem in place that ensures worker availability and skill sets keep pace with business needs.

Having a world-class educational system is a critical requirement for growing jobs in all of greater Charlotte's target industries and competencies. It is the foundation for future economic success, and as opposed to defining education as a Target Industry, it is characterized as a leading infrastructure asset.



Table F. 2: Academic Attainment demand throughout the Region's Primary Economic Sectors.

Helping young people understand the opportunities in the economy and how their interests relate to careers that will be critical to the region is largely the responsibility of the secondary education system, in particular the Career and Technical programs within the high schools. The Career Cluster programs are prominent throughout both the North Carolina and South Carolina School Systems. Particularly in North Carolina there are program areas which align with the standard Department of Labor classification of the 16 career clusters. Eight of the 16 career clusters and 4 of the 8 program areas are directly aligned to the target sectors and competencies in the region. Alignment between the sectors and competencies are listed below:

Target Sector and Competencies										
		Automotive	Aerospace	Biomedical	Energy	Financial Services	Logistics	Advanced Manufacturing	Engineering	Information Technology
Career Clusters	Architecture and Construction									
	Business Management and Administration									
	Finance									
	Health Science									
	Information Technology	+	+	+	+	+	+	+	+	+
	Manufacturing	+	+	+	+	+	+	+	+	+
	Science, Technology, Engineering and Math	+	+	+	+	+	+	+	+	+
	Transportation, Logistics and Distribution									
Program Areas	Business, Finance and Information Technology	+	+	+	+	+	+	+	+	+
	Health Science									
	Trade and Industrial									
	Technology, Engineering and Design	+	+	+	+	+	+	+	+	+

Table F. 3: STEM Related Competencies throughout the Region's Primary Economic Sectors.

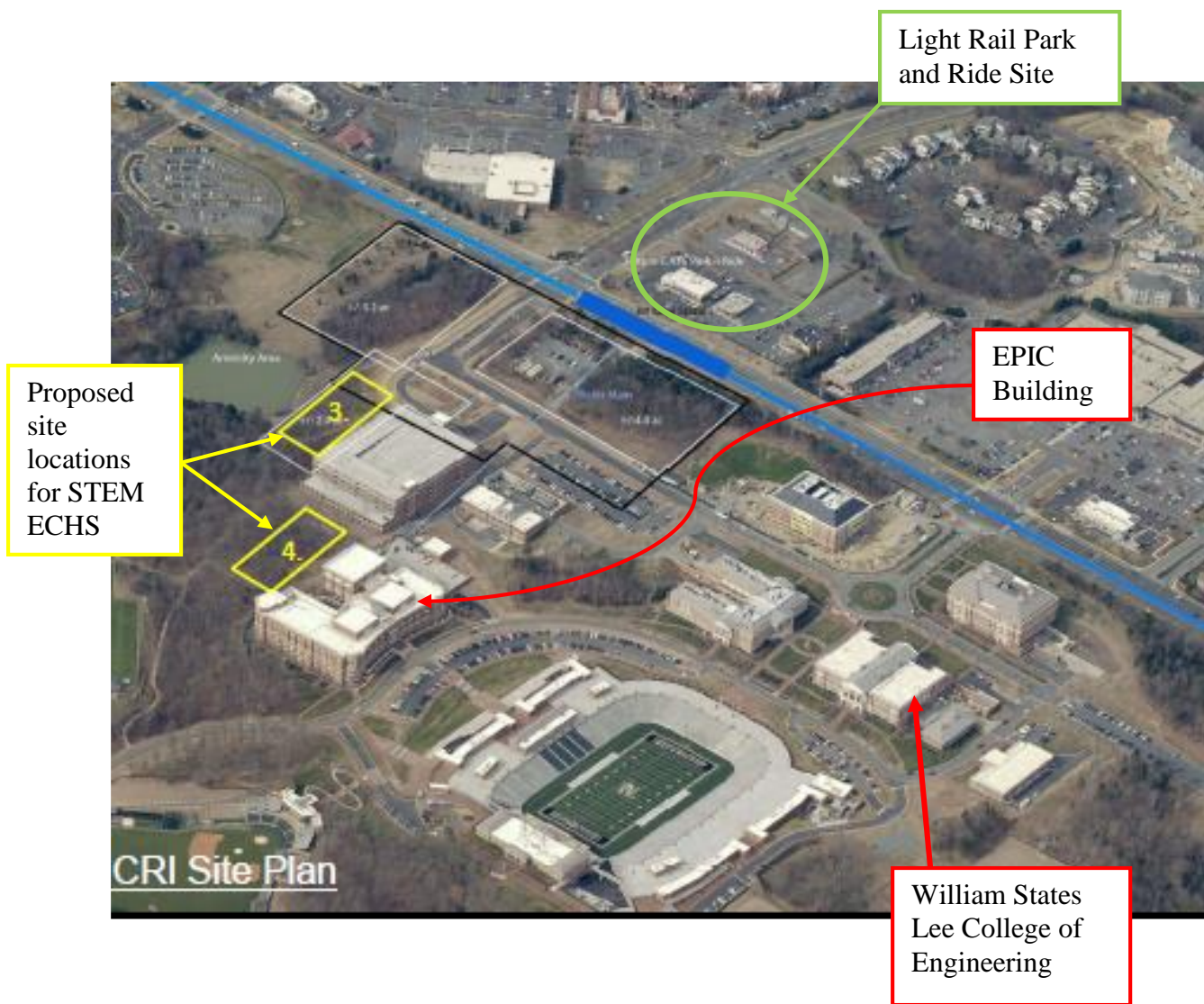
## **APPENDIX G**

### **CMS UNC Charlotte STEM Early College High School**

#### **UNC Charlotte Charlotte Research Institute Campus**

#### **Buildings & Site Locations**





G. 1: UNC Charlotte, Charlotte Research Institute Campus, Proposed site location for CMS UNC Charlotte STEM Early College Site Options.



## **APPENDIX H**

**CMS UNC Charlotte STEM Early College High School**

**UNC Charlotte  
Charlotte Research Institute Campus**

**Five Year Calendar**

# Five-Year Academic Calendar

UNC Charlotte Five-Year Academic Calendar	Approved		Preliminary Approval		
	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
<b>FALL SEMESTER</b>					
Academic Year Begins	Aug-15	Aug-15	Aug-15	Aug-15	Aug-15
First Class Day	Aug-20	Aug-19	Aug-18	Aug-24	Aug-22
Saturday First Class Day	Aug-25	Aug-24	Aug-23	Aug-29	Aug-27
No Saturday Classes	Sep-1	Aug-31	Aug-30	Sep-5	Sep-3
Labor Day-University closed	Sep-3	Sep-2	Sep-1	Sep-7	Sep-5
Student Recess - no classes	Oct 8-9	Oct 7-8	Oct 6-7	Oct 12-13	Oct 10-11
Thanksgiving - no classes	Nov 21-24	Nov 27-30	Nov 26-29	Nov 25-28	Nov 23-26
University closed	Nov 22-23	Nov 28-29	Nov 27-28	Nov 26-27	Nov 24-25
Last Class Day	Dec-5	Dec-4	Dec-3	Dec-9	Dec-7
Reading Day	Dec-6	Dec-5	Dec-4	Dec-10	Dec-8
Final Examinations*	Dec 7-8, 10-14	Dec 6-7, 9-13	Dec 5-6, 8-12	Dec 11-12, 14-15	Dec 9-10, 12-16
Commencement	Dec-15	Dec-14	Dec-13	Dec-19	Dec-17
<b>SPRING SEMESTER</b>					
First Class Day	Jan-9	Jan-8	Jan-7	Jan-11	Jan-9
Saturday First Class Day	Jan-12	Jan-18	Jan-10	Jan-16	Jan-14
M.J. King Day - University closed	Jan-21	Jan-20	Jan-19	Jan-18	Jan-16
Student Recess - no classes	Mar 4-9	Mar 3-8	Mar 2-7	Mar 7-12	Mar 6-11
Spring Weekend - no classes	Mar 29-30	Apr 18-19	Apr 3-4	Mar 25-26	Apr 14-15
Saturday Classes Final Exams	Apr-27	May-3	Apr-25	Apr-30	May-6
Last Class Day	Apr-30	Apr-29	Apr-28	May-3	May-2
Reading Day	May-1	Apr-30	Apr-29	May-4	May-3
Final Examinations*	May 2-3, 6-9	May 1-3, 5-8	Apr 30-May 2, May 4-7	May 5-6, 9-12	May 4-6, 8-11
Ceremony Day	May-10	May-9	May-8	May-13	May-12
Commencement	May-11	May 10	May-9	May-14	May-13
Academic Year Ends	May-14	May-14	May-14	May-16	May-15
<b>FIRST SUMMER TERM</b>					
Class Days Including Exams	May 20-Jun 26	May 19-Jun 24	May 18-Jun 24	May 23-Jun 29	May 22-Jun 28
Memorial Day - no-classes	May-27	May-26	May-25	May-30	May-29
<b>SECOND SUMMER TERM</b>					
Class Days Including Exams	Jul 1 - Aug 8	Jul 1-Aug 7	Jun 29-Aug 5	Jul 5-Aug 10	Jul 5 - Aug 10
Fourth of July - University closed	Jul-4	Jul-4	Jul-3	Jul-4	Jul-4
No Classes	Jul-5				
<b>EXTENDED SUMMER TERM</b>					
Class Days Including Exams	May 20 -Aug 8	May 19- Aug 7	May 18-Aug 5	May 23-Aug 10	May 22 - Aug 10
No Classes	Jun 27-28	Jun 25-30	Jun 25-26	Jun 30 - Jul 1	Jun 29 - Jul 4
Fourth of July - University closed	Jul-4	Jul-4	Jul-3	Jul-4	Jul-4
No Classes	Jul-5			Jul-4	

\*Common Examinations held on the first day of exams.