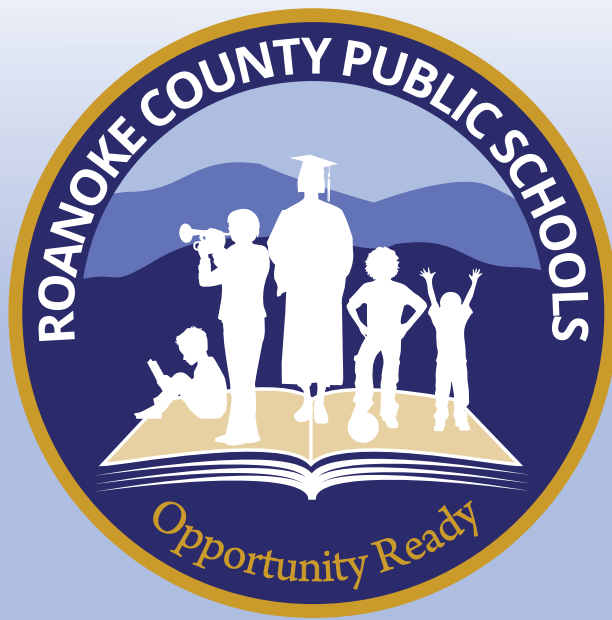


BURTON

CENTER for ARTS & TECHNOLOGY



Moving Forward



Burton Center for Arts and Technology: Past, Present, and Future

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A Proud Past

The Beginnings of RCPS CTE Centers

What is now known as the Burton Center for Arts and Technology (BCAT) started in September of 1962 with 75 eleventh and twelfth graders. The original Roanoke County Education Center or RCEC was housed in the Roanoke County Schools Administration Building in Salem. The students were enrolled in Auto Mechanics, Cosmetology, Drafting, and Electronics.

School year 1963-1964 saw five more classes added to the offerings of the Roanoke County Education Center. Students were able to take Auto Body, Carpentry, Machine Shop, Masonry, and Practical Nursing.

In 1964, with the Administration Building becoming too small to house the RCEC classes, the first building (currently Building C), was built for \$265,000.00 on the current site on Roanoke Boulevard in Salem.

The current Building A was built in 1966 at a cost of \$295,000.00. It was at this time that Academic Courses were offered alongside the vocational classes.

In 1970, Commercial Arts, Industrial Electricity, and Small Engine Repair were offered. Due to inadequate class space at the Roanoke County Education Center, Commercial Arts, Drafting, and Industrial Electricity classes were held at the Administration Building in Salem.

The 1971 school year saw the addition of Business Vocations to the RCEC roster. Students were able to take Accounting, Administration, Business Education, Center of Excellence/cooperative education (COE), and Data Processing.

In 1978, Roanoke County Education Center was renamed the Roanoke County Vocational-Technical School or Vo-Tech, for short. The following year, the current Building B was built for \$1.5 million dollars. Child Care, Commercial Foods, and Horticulture were added to the class schedule.

The school was re-named Arnold R. Burton Technology Center (ARBTC) in 1989, in honor of a former superintendent.

In 2002-03, the elimination of academic classes and additions of Criminal Justice, Welding, Motorsports Technology, Elementary Teaching Internship, Database Management and Administration, Graphic Digital Imaging, and Biotechnology helped to increase the overall number of students taking courses at Burton. It was shortly after the turn of the century that Burton began to evolve into its current form.

In 2006-07, the Centers for Performing Arts, Mass Communications and Visual Arts were re-located to Burton from their respective placements at Glenvar, Hidden Valley and Cave Spring high schools.

After the school was re-named Burton Center for Arts and Technology (BCAT) in July 2008 and Roanoke County Public Schools began transporting students to morning classes, enrollment began consistently hitting above 700 students. The past three years have seen enrollments of over 850 students.

Students today take classes in Auto Service Technology, Building Trades, Computer Information Technology, Cosmetology, Criminal Justice, Culinary Arts, Cyber Security, Early Childhood Education, EMT, Game Design, Masonry, Mechatronics, Motorsports, Nursing and Welding. Four Specialty Centers offer students classes in Engineering, Mass Communications, Performing Arts, and Visual Arts. BCAT also houses specialized instruction for English Language Learners from the middle and high school levels.

Historical Physical Plant Information

- Building C – Built in 1964
 - Original Programs: Auto Body, Carpentry, Machine Shop, Masonry, Practical Nursing, Data Processing
 - Current Programs: Computer Information Technology, Criminal Justice, Masonry, Building Trades, Mechatronics / Robotics, Center for Engineering
- Building A – Built in 1966
 - Original Programs: Academic courses to couple with vocational classes, Library, Data Processing, Cosmetology, Vocational Office Training, Drafting, Typing
 - Current Programs: Cosmetology, Center for Visual Arts, Nursing, Early Childhood Education, STEP, SWAP, Project Discovery, Game Design, Cybersecurity, ASTEP, Center for Engineering Math classes
- Building B – Built in 1979
 - Original Programs: Academic courses, Drafting, Commercial Art, Electronics, Electricity, Auto Mechanics, Horticulture, Cafeteria and Kitchen
 - Current Programs: Cafetorium, Culinary Arts, English Language Learners, Center for Mass Communications, Center for Performing Arts, ISAEP, Auto Service Technology, Welding, Motorsports, Emergency Medical Technician

Historical Enrollment Data

While some of this information has been difficult to find, a search of old yearbooks and newsletters has provided the following information. With the exception of one artifact, information between 1980 and 2005 could not be ascertained for this report.

1970-1971 – approx. 290 students

1975-1976 – approx. 385 students

1979-1980 – approx. 400 students

1990-1991 – approx. 350 students

2005-2006 – approx. 560 students

2008-2009 – approx. 600 students – first year after re-name to Burton Center for Arts and Technology

2009-2010 – approx. 900 students -- first year RCPS arranged for transportation to 7:30 am class

2014-2015 – approx. 830 students

2015-2016 – approx. 740 students

2016-2017 – approx. 780 students

2017-2018 – approx. 865 students

2018-2019 – approx. 890 students

2019-2020 – approx. 925 students

A History of Program Transformation

What started as RCEC in 1962 has now evolved into the BCAT of today. Since its inception, Roanoke County's Career and Technical Education Center – regardless of its moniker – has changed with the needs of the labor market at the time. There are several examples of programs that have been replaced and examples of programs that have evolved to meet the modern demands of the labor market. Over the last fifty years, only Cosmetology and Masonry have remained in the same locations on campus and kept the same program names. Other programs have evolved. For example, Carpentry has morphed into Building Trades, Practical Nursing was eliminated and recently returned as Introduction to Nursing Careers as the demand for health care workers has increased in the Roanoke Valley. Since the auto industry has increasingly shifted toward utilizing computer technology, the Auto Body and Auto Repair program has given way to Automotive Service Technology. As industry has modernized, so has the machining program; therefore, what was formerly the Machine Shop is now our Mechatronics/Robotics lab.

Some of the facilities currently being used as instructional spaces at BCAT were never meant for their current purpose. For example:

- The current dance studio was formerly an electronics classroom.
- The “Black Box” acting classroom was previously the drafting classroom.
- Both the dance studio and the black box have painted over garage doors that cannot be opened as one of their walls.
- What is currently the Center for Engineering used to be the learning space for the Small Engines program.
- The room that houses Center for Visual Arts III and IV used to be the Library.
- The room that used to contain the LPN program now is the classroom for Center for Visual Arts I and II.
- Recently, the Horticulture program was phased out in favor of adding an Emergency Medical Technician program.



Masonry student learning in-demand skills



BCAT Building Trades students compete in the SkillsUSA competition

BCAT Today

Detailed Current Enrollment

As of February 10, 2020, the exact enrollment at BCAT was 924 unique, unduplicated students.

Current Enrollment at BCAT

BCAT Enrollment by Base School (Feb 10, 2020)	Base School Enrollments	% of RCPS Enrollment	# Students Attending BCAT	Distribution of BCAT Enrollment by School
CAVE SPRING	986	22.0%	212	21.5%
GLENVAR	644	14.3%	110	11.2%
HIDDEN VALLEY	879	19.6%	230	23.4%
NORTHSIDE	900	20.0%	198	20.1%
WILLIAM BYRD	1082	24.1%	234	23.8%

Current Class Enrollments at BCAT by Block (space utilization)

A1	<u>Center for Engineering</u>	<u># Students</u>	<u>Notes</u>
	Algebra II & Engineering Exploration (9)	22	4 teachers
	Pre-Calculus & Engineering Analysis and Applications (10)	19	
	Chemistry-Physics & Engineering Methods (11)	15	
	AP Calculus BC (12) & Engineering Internship (12)	17	
	<u>Center for Mass Communications</u>		
	Pre-AP English 9 & Intro to Mass Comm	27	2 teachers
	Pre-AP English 10 & Media Production 1	25	
	<u>Center for Performing Arts</u>		
	Performing Arts I	6	Students are grouped for dance, vocal music, and theater with 3 teachers.
	Performing Arts II	13	
	Performing Arts III	8	
	Performing Arts IV	9	
	<u>Center for Visual Arts</u>		
	Visual Arts I	21	2 teachers
	Visual Arts II	21	
	<u>Trade, Industry & Specialty Programs</u>		
	Automotive Service I & II	17	1 teacher per class
	Building Trades I & II	15	
	Computer Information Technology I	17	
	Cosmetology III	12	
	Criminal Justice II	15	
	Culinary Arts II	14	
	Cybersecurity II	15	
	Early Childhood Education II	14	
	Emergency Medical Technician II	16	
	English Language Learners (MS and HS)	18	
	Introduction to Nursing Careers I	14	
	Manufacturing Independent Study I & II (works w/ Eng Expl)	4	
	Masonry I, II & III	11	
	STEP (special education transition program)	9	
	SWAP (special education transition program)	5	
	Welding II & III	12	
B1	<u>Center for Engineering</u>	<u># Students</u>	
	Chemistry-Physics & AP Calculus AB (11)	15	3 teachers
	Engineering Research, Design, Economy & Internship (12)	17	
	<u>Center for Mass Communications</u>		
	AP English 11 & Media Production 2	24	2 teachers

	<p align="center"><u>Center for Visual Arts</u></p> <p>Visual Arts III Visual Arts IV</p> <p align="center"><u>Trade, Industry & Specialty Programs</u></p> <p>Automotive Service II & III Building Trades II & III Computer Information Technology II Cosmetology II Criminal Justice III Early Childhood Education I Emergency Medical Technician I English Language Learners (MS and HS) Game Design II Introduction to Nursing Careers I Masonry II & III Mechatronics/Robotics II Motorsports I, II & III Project Discovery (special education transition program) STEP (special education transition program) SWAP (special education transition program) Workplace Language (ELL)</p>	<p>20 12</p> <p>15 19 12 12 19 11 16 18 19 15 11 17 13 6 7 5 6</p>	<p>2 teachers</p> <p>1 teacher per class</p>
B2	<p align="center"><u>Center for Mass Communications</u></p> <p>Applied Media Production & Internship</p> <p align="center"><u>Trade, Industry & Specialty Programs</u></p> <p>Automotive Service I Building Trades I & II Cosmetology I Criminal Justice I Culinary I & II Early Childhood Education I Emergency Medical Technician I English Language Learners (MS and HS) Game Design I Introduction to Nursing Careers II Masonry I & II Mechatronics/Robotics I Networking Concepts Project Discovery (special education transition program) Welding</p>	<p><u># Students</u></p> <p>12</p> <p>19 20 19 29 20 18 17 20 25 13 16 17 10 5 16</p>	<p>1 teacher</p> <p>1 teacher per class</p>
Extra Programs	<p>ISAEP Digital/Web Design I (Online – Mass Comm only) Digital/Web Design II (Online – Mass Comm only) A-STEP (pilot alternative education program)</p>	<p>9 24 6 5</p>	<p>Part-time staff</p>



Current Programs at BCAT

Roman numerals beside programs indicate the number of levels these classes are offered. Any number in parenthesis indicates the grade level at which the class is primarily taught.

<u>Trade, Industry & Specialty Programs:</u>			
David Baxter:	Masonry I, II, III		Chris Overfelt: Welding I, II, III Motorsports I, II, III
Teresa Baxter:	Culinary Arts I, II Early Childhood Education		Mara Pufko: Individual Student Alternative Education Program (ISAEP) Jobs for Virginia Graduates (JVG)
Gwen Bower:	Cosmetology I, II, III		Tom Shelton: Building Trades I, II, III
Shawn Burns:	Mechatronics / Robotics I, II		Tammie Sinnes: Special Education Coordinator, Transition Program Coordinator
Mike French:	Computer Information Technology I, II Networking Concepts (11 & 12)		Jason Walls: Criminal Justice I, II, III
Marty Gilchrist:	Workplace Language English 10 ELL		John Warf: Cybersecurity II Game Design I, II
Steve Hoback:	Automotive Service Technology I, II, III		Margaret Whitt: English Language Learners English 9 ELL
BJ Joyce:	Emergency Medical Technician I, II (must be age 16)		Karen Zimmerman: Introduction to Nursing Careers I, II (must be age 16)
Amanda Kinser:	Early Childhood Education I, II Teaching Internship		
<u>Center for Engineering</u>		<u>Center for Visual Arts and Museum Studies</u>	
Susheela Shanta: Director		Cathy Watson-Bloch:	Visual Arts 1 (9-12)
	Engineering Exploration (9)	Pam Rose:	Visual Arts 2 (10-12)
	Pre-AP Algebra 2 (9)	Teresa Worth:	Visual Arts 3 (11-12)
	Engineering Internship (12)	Natalie Strum: Director	Visual Arts 4 (12)
	Engineering Research (12)		
	Engineering Economy (12)	<u>Center for Performing Arts</u>	
		Carol Webster: Director	Acting Instructor (9-12)
Katie Gray:	Pre-AP Chemistry (11)	Kelli Manor:	Dance Instructor (9-12)
	Integrated Physics (11)	Bradley Stump:	Vocal Instructor (9-12)
Suzanne Nicewonder:	Engineering Analysis & Applications (10)	<u>Center for Mass Communication</u>	
	Engineering Methods (11)	Eric Salo: Director	Intro to Mass Communication (9)
			Media Production 1 & 2 (10 & 11)
Janet Washington:	Pre-Calculus (10)		Applied Media Production (12)
	AP Calculus AB (11)		Media Production Internship (12)
	AP Calculus BC (12)	Elizabeth Chapman:	Pre-AP English 9 & 10
			AP English 11 Testing Coordinator
Shawn Burns:	Engineering Lab (9)	Sara Cubberley:	Digital & Web Design (Online)

Current Staff Numbers

BCAT currently has 40 total staff members.

- 29 teachers
- 2 instructional assistants
- 2 administrators
- 1 counselor
- 1 counseling secretary
- 1 school/attendance secretary
- 1 bookkeeper
- 1 building manager
- 1 nurse
- 1 special education coordinator
- 9 BCAT staff are also shared with other schools.

Focused Programs

Several programs at BCAT also serve another unique role in Roanoke County Public Schools, as they are focused on meeting student needs on an individual level:

- Individual Student Alternative Education Program (ISAEP) – held every Tuesday and Thursday from 3:30 to 6:30, this program helps students that are considered a high risk of dropping out because of their age and credit status. Students in this program are working toward earning their GED. Students are provided learning modules delivered through computer software and provided teachers to assist them in areas of struggle. Students that finish ISAEP will have worked or volunteered in the community for 150 hours to prepare for post-program success.
- English Language Learners – middle and high school students that lack functional English language skills are sent to Burton for specialized language instruction on A and B day mornings. For 9th and 10th grade students needing a combination of language support in addition to the state English 9 and 10 curriculum, they are instructed at Burton in those classes on B-day afternoons.
- Workplace Language – on B-day mornings, a targeted group of ELL students that have experienced interrupted education and are unable to access alternate paths to graduation because of language and/or gaps in education. This course focuses on comprehension and writing.
- STEP, SWAP, and Project Discovery are transition programs for students with disabilities preparing for postsecondary independent living.
- Alternative Secondary Transition Education Program (A-STEP) – currently housed at BCAT on A-Day afternoons, this small program allows students transitioning from private day placements to work in a small classroom environment before fully transitioning back to their base school.

Industry, Business and Entity Partnerships

- Early Childhood Education - an onsite daycare facility at BCAT is fully staffed by employees of the TAP/Head Start program. They partner with our Early Childhood Education program to allow students access to their program. Other daycares and elementary schools that partner with our ECE program include: East Salem Elementary, Small Steps Learning Academy, Childcare Network, Oak Grove Elementary, and other Head Start locations.
- Jobs for Virginia Graduates - Through its affiliation with Jobs for America's Graduates (JAG), Jobs for Virginia Graduates (JVG) works to support students in overcoming barriers in order to ensure high school graduation and successful employment. After an application and screening process, thirty-five Burton students are served each year through this program. Students who participate in JVG develop fundamental life and employment skills that compliment those trade skills they are

working to master in Burton trade programs. In addition to working on individual skills, students participate in volunteer work experiences and workshops in the community in order practice skill development in an authentic setting.

- Taubman Museum – students in the Center for Visual Arts learn under the direction of professional museum staff.
- VA STAR – students in Computer Information Technology use funding from this program to refurbish computers and laptops for the purposes of donating them to community organizations.
- Roanoke County Economic Development – the Burton principal, along with the division CTE director and supervisor, meet once a month with Roanoke County’s Economic Development Manager to discuss BCAT programs and explore more potential workforce partnerships.

General and Program Advisory Committees

BCAT participates in the Roanoke County Public School’s Career and Technical Education Department’s General Advisory Committee (GAC). GAC meets three times per year and discusses a range of topics related to workforce needs, federal Perkins funding, student registered apprenticeship and upcoming events relevant to the committee.

Each Center and Trade & Industry program is also required to have an individual Advisory Committee. The committee includes at least two business industry representatives, the teacher(s) in charge of the program and a parent. Program Advisory Committees meet twice a year, once in the fall and once in the spring to discuss a number of topics that may include:

- Recruitment of students
- Course competency review
- Concerns to be presented to the General Advisory Committee
- Promotion of program
- Industry Certifications
- Curriculum
- Burton Awards
- CTE Teachers - Utilize committee members to help with development and evaluation of practical assessments (a qualifier for Burton Certified honors)
- Funding needs
- Guest speaker needs
- Student organization contests (local/state) – ask industry members to help
- Accomplishments for the school year

Program Enrollment Limitations

The following programs are limited to no more than 20 students in a class during any given time due to OSHA regulations.

- Automotive Service Technology
- Building Trades
- Cosmetology
- Culinary Arts
- Emergency Medical Technician
- Early Childhood Education
- Introduction to Nursing Careers
- Masonry
- Mechatronics/Robotics
- Motorsports Technology – all three courses are in a combined class that cannot exceed 20.
- Teaching Internship
- Welding

Below are other programs that have enrollment limits under 30 and the reasons for the limitations:

- SWAP – ratio regulations and funding for spots with Goodwill (program partner)
- STEP – ratio regulations and funding for spots with RSVP (program partner)
- Project Discovery – SPED regulation
- ELL Classes – best practices, pending ELL regulation, and classroom size
- Manufacturing Independent Study – must be balanced to not exceed 20 students in shop area in Mechatronics I and II and Engineering Exploration
- ISAEP Program – space, computer and staffing limitations
- Game Design I and II – 27 because of seat limitations

All other programs have enrollment caps set at 30. Each Center has a separate selection process for entry but tries to keep numbers in the mid to high 20s. Since all four levels of the Center for Performing Arts are combined and taught by three teachers in the current structure, efforts are being made to limit each yearly class at 15.

Section Building with Seat Limits

Classes may be combined to maximize enrollment- for example if 30 students signed up for Masonry I, and only 10 requested Masonry III every effort is made to combine the overflow from Masonry I with the empty seats in the Masonry III class creating a combined section of 10 Masonry I and 10 Masonry III.

Program Popularity vs Program Limits

Certain programs have historically had high numbers of applicants. However, due to current industry projections, the Cosmetology and Criminal Justice programs should remain as they are with no increase in classrooms or staff.

Work-Based Learning Opportunities

- Internships available in Engineering, Teaching Internship and the Center for Mass Communications
- Apprenticeships available with business and industry in a variety of program areas
- School Based Enterprise experience in Culinary Arts, Masonry, Automotive, Welding, and Building Trades
- Clinical Experience in Nursing and EMT
- Mentoring in the Center for Visual Arts
- Externships in Early Childhood Education

RCPS Governor’s STEM Academy at BCAT

Four programs at BCAT make up the RCPS Governor’s STEM Academy at BCAT. This designation was earned in 2012 and is comprised of the Center for Engineering, the Center for Mass Communications, Mechatronics/Robotics, and Motorsports.

Available Industry-Recognized Certifications

ServSafe Manager (culinary)	CompTIA Net+ Certification (computer IT)
Cosmetology State Board Exam	CompTIA Fundamentals (computer IT)
ASE Student Certification (automotive)	AWS Qualifications (welding)
CompTIA A+ Certification (computer IT)	Certified Nurse Assistant Exam
EMT	
Pending: NCCER (building trades and masonry), NIMS (mechatronics/robotics)	

Detailed Application Data

Over the past two school years, BCAT has seen a surge in applications. This is due to several factors. First, BCAT has completely shifted to online only applications, making it easier for students to complete and submit applications. Secondly, recruitment efforts have increased to include more opportunities for student to interact with BCAT staff. Finally, and perhaps most importantly, over the past several years, concerted efforts have been made to promote the high quality of programs and to shift the perception of BCAT from a place students were sent to a place students want to attend.

2019-20 Applicants vs. Acceptances						
20 Seat Cap Courses	1st Choice		2nd Choice		3rd Choice	
	Applicants	Acceptances	Applicants	Acceptances	Applicants	Acceptances
Auto Service Tech	39	13	37	8	27	0
Building Trades	29	17	21	3	16	0
Cosmetology	72	19	40	1	25	0
Culinary Arts	65	16	82	1	46	0
Early Child Ed	54	28	36	1	36	1
EMT	41	23	23	0	9	1
Intro to Nursing	38	21	18	0	10	0
Masonry	21	10	29	4	29	4
Mechatronics	15	12	24	4	29	0
Motorsports	30	4	34	1	19	0
Teaching Internship	2	2	1	1	1	1
Welding	37	13	32	1	29	0
Other Seat Caps	Applicants	Acceptances	Applicants	Acceptances	Applicants	Acceptances
Game Design -27	40	20	32	3	34	1
CIT - 30	21	11	24	3	29	3
Criminal Justice - 30	76	26	41	2	39	1
Networking - 30	2	1	3	0	10	0

2020-21 Applicants	1st Choice	2nd Choice	3rd Choice
20 Seat Cap Courses	Applicants	Applicants	Applicants
Auto Service Tech	41	27	27
Building Trades	44	34	36
Cosmetology	89	16	41
Culinary Arts	64	74	56
ECE	49	46	10
EMT	48	51	43
INC	56	23	15
Masonry	33	42	20
Mechatronics	20	28	20
Motorsports	20	24	20
Teaching Internship	1	1	1
Welding	31	28	28
Classes Capped at Seats			
Game Design -27	33	32	32
CIT - 30	30	20	16
Criminal Justice - 30	68	50	44
Networking - 30	11	5	9

BCAT Recruitment Process

- BCAT school counselor visits elementary schools
- BCAT program booklet distributed to each student prior to tours
- 8th grade tours in fall
 - Programs provide promotional materials to interested students
 - Postcards with link to apply and information about Open House
- Open House following 8th grade tours
- Tours available on Election day to accommodate families that could not make it to Open House
- Information about online application window opening (school announcements, post-card, robo-call)
- Follow up visits to each middle school and high schools where invited
- Announcements in schools about application window closing

BCAT Selection Process

- Online application asks students to rank their choice of program at BCAT in case they do not get their first choice.
- For students applying to one of the Centers, they are informed that Center application are separate, but are encouraged to apply for other programs.
- Student interviews begin in December and continue through February. Considerable efforts are made to personally interview each student that applies to come to BCAT.
- Recently, the focus has been getting “the right students in the right programs for the right reasons”.
- In late February, interview scores are combined with grades and attendance to give an overall score.
- For programs considered more academically challenging, a strength of program score is added that provides more weight to advanced level courses.
- The students with the highest scores are selected for first, second and third choices.
- Those who are not chosen are placed on a waiting list and ranked according to score.
- For students completing the additional application to one of the four Centers at BCAT, each content area supervisor is in charge of selecting the next group of students admitted to each Center.
- If a student is to be selected for both a specialty center and a general program, efforts are made to determine the student’s preference. Once that decision is made, everyone below that student gets bumped up the list.

Applicants and Acceptances

While the numbers of applicants and acceptances may raise questions, these numbers are based off of students completing the online application. Several considerations are made during the interview process and as a result, changes are made. When some students are interviewed, it becomes apparent their top choice should be a different program based on their talents and career interests. For example, if a student chooses Auto as their top program, but in the interview process it became obvious the student does not like to work with his hands or as part of a team, that candidate is eliminated in favor of a better fit. Also, during the interview process, if a student is deemed not an ideal fit for a program, that student may be taken out of consideration. An example of this would be a student that applies for a program “because it seems fun” or “some of my friends are in it”. The interview process seeks to prioritize students that are highly interested in these programs because of future aspirations.

Attrition

Ideally, all students would want to stay and finish their programs. However, there is a rate of attrition that befalls each program. The reasons behind students leaving vary, but generally include:

- Scheduling conflicts
- Transportation issues
- Not wanting to get up early for morning superblocks (rare)
- Loss of interest or change in career interest
- Applying, being accepted and moving to another program
- Behavior issues requiring removal

The Branding and Marketing of BCAT

One of the traditional challenges of attracting students to CTE programs, and especially trade and industry, is the perception that such programs are not suited for academically talented students. Today, students of all academic aptitudes are encouraged to consider the opportunities available in CTE. The pathways available to graduates equipped with the knowledge and skills valued by business and industry continue to expand and provide options for well-paying jobs and postsecondary education, often times without the accumulation of burdensome college loan debt.

The relative recent inclusion of engineering, mass communications, visual and performing arts specialty centers has served as a catalyst for re-branding BCAT as a place for a wide spectrum of learners.



First-year students in the Mechatronics/Robotics class explain to the superintendent their process for designing and creating figures to meet different needs.



Students from the Center for Engineering pose with young students for whom they customized motorized cars to the individual needs of the students. The Center for Engineering is part of the RCPS Governor's STEM Academy at BCAT.

A Vision for the Future

Rationale for a new CTE and Specialty Center Facility

Burton Center for Arts and Technology (BCAT) does an outstanding job of developing students that are “Opportunity Ready” in a wide variety of career pathways. The integration of traditional trade and industrial programs with diverse specialty centers creates a unique opportunity for collaboration between subject areas. This has resulted in a center that is well respected by students and the community. The success of BCAT is directly related to the diversity of the programs offered, expertise of teaching staff, and the commitment of Roanoke County Public Schools to provide high quality, in-demand programs in a location accessible to students from all five base high schools. Moving forward, our goal is to continue to improve relevant career pathway offerings for students based on the input of business and industry partners and the economic development needs of the Roanoke Valley. This is best achieved by creating a new center that allows for expansion and improvement of current offerings, while offering the flexibility to adapt and add programs as needs arise.

Constraints of Present-Day Facility

The current BCAT facility has several insurmountable shortcomings. It is located in the City of Salem, and most of the campus is in a flood plain, making major renovation to existing buildings impossible. Many of the areas, while functional, are less than ideal. Several classrooms have abandoned garage doors as exterior walls, and others are awkwardly shaped or undersized. The restroom facilities are inadequate and some lack basic privacy expectations. The intercom system does not effectively reach all programs, particularly programs like Automotive and Welding where the shop areas can get noisy. The automotive shop needs to be bigger with additional storage areas. Introduction to Nursing Careers skills lab is located in a room that used to house the ELL program and the nursing classroom is located in an adjacent, but separate, room that used to store art supplies. The Center for Performing Arts does not have adequate practice space, and there is no on-site facility conducive for public performances. The electrical panels in several areas are at capacity, and circuit breakers are often located in different areas of the building than the equipment they control.

NATEF Recommendations for Automotive Program

Virginia Department of Education regulations require that any Automotive Program taught in the State of Virginia obtain certification from the National Automotive Technicians Education Foundation (NATEF) which is a non-profit organization associated with the National Institute for Automotive Service Excellence (ASE). NATEF sets standards for automotive training programs in schools and performs site visits as part of the certification process every five years. During our most recent site visit in December 2018, Terrance Drummond, NATEF inspector, noted several areas of concern in the Automotive Shop at Burton. These concerns were addressed during the visit, but the solutions are less than ideal for the program. Part of the resolution of the concerns involved storing needed equipment in areas outside the automotive shop, including a storage shed located in the upper student parking lot at BCAT. While inconvenient, this was deemed necessary by the NATEF evaluator to ensure safe egress lanes from the shop area. In addition to requiring the storage areas be moved, Mr. Drummond also made several recommendations in his final report, including the expansion of “in shop” storage to allow students to easily access needed equipment now stored externally, and an increase in the overall square footage of the automotive lab space.

Re-Prioritization of BCAT on RCPS Capital Improvement Plan

In previous years, Burton Center has not been on the list of schools on the Capital Improvement Plan (CIP), possibly due to not being located in any one magisterial district. However, in 2016, the OWPR report stated that the “facility should be replaced” when referring to BCAT. After a School Board request to use an instructional perspective to evaluate schools in need of renovation, Burton was deemed the school with the highest amount of needs. It was placed back on the CIP list in 2019, after William Byrd High School, Cundiff Elementary, and Glen Cove Elementary. Burton was placed fourth on the list as a variety of options and logistics have to be considered.

The Need to Move to a 21st Century Facility

A modern facility would be beneficial for many reasons including new opportunities to collaborate with business and industry and the community in ways the current facility does not allow. Correctly implemented, a new facility could allow for additional capacity to serve more students as well as increase collaboration with outside partners to enhance workforce and economic development in Roanoke County. As applications continue to remain high for certain programs, maintaining or increasing capacity for RCPS students to be able to work in the “right programs for the right reasons” remains essential. A new, modern facility would send a strong signal regarding the value and economic importance of CTE programs.

Regional K-12 Collaboration Challenges

RCPS is a willing partner with K-12 school divisions in the Roanoke region. RCPS initiated a series of conversations among area superintendents in Fall 2019 to explore interest in either collaboration in the construction of a new CTE center or, more realistically, collaboration in providing individual programs. RCPS is also very interested in exploring partnerships in the private sector to sponsor and finance programs. RCPS also recognizes that partnering with other school divisions to create a regional center would create challenges that would have to be addressed and solutions agreed upon prior to starting. Those challenges include:

- Limiting numbers and choices for students unless programs such as Auto and Welding are duplicated
- Scheduling conflicts with neighboring divisions, both calendar and block vs 7 period schedules, delays, early releases, cancellations
- Percentages of enrollment among school districts and financial responsibility
- Transportation
- Oversight/decision-making for the center (programs, expenditures, staffing etc.)
- Financial ramifications; would probably have to be set up under separate Perkins funding if truly regionalized
- A regional CTE center located outside Roanoke County would not include the specialty centers currently housed at BCAT

Community College Constraints

RCPS enjoys a good working relationship with Virginia Western Community College (VWCC) and we partner with them to offer dual enrollment courses in our schools taught by RCPS instructors. In addition, 7 RCPS students are currently enrolled in courses on the VWCC campus through the health sciences and engineering academy programs. VWCC also uses space at BCAT to teach courses for adults in the evenings. Like all colleges, community colleges charge tuition to students in order to provide their programs. VWCC charges over \$50 per credit for dual enrollment courses taught by RCPS instructors on RCPS campuses. VWCC charges full tuition to students who take courses on the VWCC campus.

The primary function of community colleges is to provide workforce training and address unmet needs in higher education. Any collaboration with VWCC in the K-12 education space typically leads to a financial pressure point for the community college to raise revenue through tuition. This presents a serious

constraint to any expansion of programs for K-12 students on the VWCC campus, and K-12 school divisions like RCPS would lose all ability to control costs and manage resources.

Planning Concepts

A replacement for Burton Center for Arts and Technology has the potential to be a hub for not only high school educational programs, but also the community. A new, modern facility could address the shortcomings in certain program areas such as automotive to ensure we continue to meet the certification requirements of ASE/NATEF. Flexible spaces could be designed to not only meet the needs of current programs but allow these spaces to be transformed into new programs as local needs dictate. Public/Private partnerships could help offset costs while continuing to provide VDOE-approved curriculum for students. In addition to improving current programs and expanding opportunities for students, our vision is to construct a new multiple-function center using existing RCPS property on Cove Road, which provides easy highway access.

Program expansion

- The Center for Performing Arts could expand to include additional musical offerings to create a Musical Fine Arts Center by having the Musical Fine Arts Center conduct their program on B days.
- EMT and Nursing could be located closer together and share common curriculum such as anatomy and physiology to create a Health Science Center- which could lead to additional healthcare pathways such as Biomedical Technician
- Existing Cybersecurity, Information Technology and Game Design & Programming could collaborate to create an Information Technology Center
- Flexible spaces could be used to implement additional in-demand programs such as HVAC, Industrial Electricity, Heavy Equipment/Diesel technician on an as-needed basis.

Construction of a multi-use auditorium

- The stage and auditorium would need to meet specifications for performances and be commensurate with a high-level Performing Arts Center and possibly a Musical Fine Arts Center.
- Would provide the Center for Performing Arts and the Musical Fine Arts Center a venue to produce performances without having to travel to other locations.
- Would fill a potential need for a medium sized facility in the Roanoke area and create a potential revenue stream

Evening Adult Education

- Public/Private partnerships could create opportunities to use the center in the evenings and weekends for adult education. For example, automotive dealership could invest in equipment for the automotive lab and use the facility to train adult employees
- Flexible space could be used for Adult Education classes as needed for workforce development as a tool for economic development

Inclusion of Central Office and professional development space at the Center

- The current location of the Administrative Offices on Cove Road is an ideal location for the placement of a new center- convenient for transportation and already owned by RCPS
- The current administration building could be a starting point and part of the footprint of a new center
- Sharing the site with Administration would encourage collaboration between subject areas

Inclusion of A-STEP Alternative Education Program at the Center

- Alternative Education Programs often pose a significant challenge in funding.

- Including a Roanoke County Public Schools Alternative Education Program as a separate, but on-site entity could serve as a beneficial service to students and the division.
- Proximity to CTE programs could encourage training in specific areas to increase student opportunities and increase student engagement.

Flexible areas built in to assist with industry trainings

- Design areas of the building as generic spaces with common features (large open shop area, with classroom and storage areas) that could be easily adapted to workforce needs and program demand.
- Public/Private partnerships could outfit these training areas based on specific industry needs- for example if a new employer came to the area and needed to train in a specific skillset they could outfit an area to provide training to both students and evening adult education classes

Economic development tool

- A new facility would demonstrate Roanoke County's commitment to provide a highly skilled, trained workforce to existing and potential businesses
- New facility could provide a venue for Roanoke County events such as State of the County and Economic development announcements and would provide more publicity to the commitment to train the workforce
- Flexible spaces could be used to implement additional in demand programs such as HVAC, Industrial Electricity, Heavy Equipment/Diesel technician as needed for workforce and economic development.



BCAT's national champion engine building team

Summary

RCPS is recognized in Virginia as a leader in Career and Technical Education. Innovative programs such as those found at BCAT provide Roanoke County students with meaningful pathways to promising careers and postsecondary education. RCPS's Student Registered Apprenticeship program was one of the first of its kind in the state and continues to grow. RCPS is poised to work with regional partners to take CTE programs and training opportunities to the next level by providing a modern facility in which students not only learn knowledge and skills and earn industry-recognized credentials, but also acquire "opportunity ready" skills such as communication, collaboration, creativity, citizenship, and critical thinking that employers demand in today's workforce. Collaboration in CTE programs across the broader region should rightfully take many forms, including shared distance learning instruction, shared programs in centrally located spaces, and individual programs that are in the highest demand. RCPS's vision is for a new, high-tech CTE center to be an important part of the mix of delivery models.



Overview: In late 2019, a recommendation was made to evaluate what a new Burton Center for Arts and Technology would look like relative to our current BCAT facility. The idea was, if we could build a new Burton from scratch with all the programs we currently offer, what would it look like?

Following this recommendation, Mr. Kish explained the situation to staff. Each teacher provided input pertaining to what items and features were required and desired for their programs. Following this, Mr. Kish met with teachers individually to discuss their input, program needs, location preferences, and layout ideas.

Among topics discussed with teachers were: 1) square footage needed for each area and program; 2) if there was more than one floor, which programs would have to be on ground level; and 3) what parking, influx/outflux, package delivery, etc. might look like

Mr. Kish compiled the data and met with CTE Department personnel to discuss the information gathered. The information that follows is a snapshot of these findings.

Administrative Area

Approximate Current Square Footage: 1,670

Includes: Reception Office, Bookkeeper Office, Principal, Assistant Principal, Storage, Announcement Room, Copy and Mail Room

Requested Square Footage: 3,050

Includes: Nurse Office and Storage, Nurse Restroom, Sick Rooms, SRO Office, Reception Area, Bookkeeper, Principal, Assistant Principal, Attendance Office, Announcement Room, Bookkeeper Secure Storage, Mail Room, Copy Room, Office Storage

Ground Level? YES

Rationale and Considerations: BCAT School Nurse is also the RCPS Coordinator for Health Services.





Program: Automotive Service Technology

Approximate Current Square Footage: 4,600

Includes: Office, Internal Storage, Classroom, Shop, Locker Room

Requested Square Footage: 11,210

Includes: Office, Internal Storage, Locker Rooms (M/F), Classroom, Shop

Ground Level? YES

Rationale and Considerations: Based on NATEF recommendations, the shop needs to be at least two times its current size. Larger shop would allow spaces to be devoted to specific subject matter such as an automotive electrical and electronics lab, a power train area, or an engine performance area. 16 ft (minimum) ceilings are needed. Needs to be able to receive deliveries. Most equipment and tools need replacing.



Program: Building Trades

Approximate Current Square Footage: 4,720

Includes: Classroom, shop, interior materials/tool storage

Requested Square Footage: 8,110

Includes: Larger classroom, larger shop, storage, M/F Locker rooms

Ground Level? YES

Rationale and Considerations: Needs an exterior area for small-unit construction (approx. 3000 sq ft). Larger shop space will allow room for machines and interior builds. 16 ft. (min.) ceilings and quality ventilation important. Exterior work surfaces should be poured concrete.



Program: Computer Information Technology, Networking

Approximate Current Square Footage: 1,600

Includes: Classroom and lab, storage

Requested Square Footage: 2,270

Includes: Classroom, lab, storage, care area

Ground Level? NO

Rationale and Considerations: Prefers to keep a separate classroom area and lab area. Needs internal storage for PCs, printers, tools, cables, and other accessories. Ideally placed near Game Design and Cybersecurity classroom which promotes the possibility of starting a Center for Computer Science.



Program: Cosmetology

Approximate Current Square Footage: 2,350

Includes: Classroom, Lab, Storage

Requested Square Footage: 4,660

Includes: Lab, Classroom, ½ bath, Office, Skin Care Room, Larger Storage, Supply Room

Ground Level? NO

Rationale and Considerations: Storage needs to contain space for a washer/dryer, two cleanup sinks and chemical storage bin. Cosmetology lab should be 150 sq. ft. per student @ 20 students max (1 handicap accessible). Would need all new equipment for lab. Ideally placed near main entrance for ease of customer access.



Program: Criminal Justice

Approximate Current Square Footage: 2,050

Includes: Classroom space, storage, simulator room

Requested Square Footage: 2,400

Includes: Classroom space, storage, shooting simulator room, combat room

Ground Level? Ground level ideal but could be on upper level.

Rationale and Considerations: Ideal placement would be near EMT and Nursing. Collaborative activities could be held between the three programs, and likely even more programs with a Health Science flexible space. Small, vented area needed for conducting fingerprints, super-glue fuming, and other forensic science testing.

School Counseling

Current Square Footage: 1,600

Includes: Counselor's Office, Reception Area, ITRT Office, Server Room, IA Office, Staff Eating Area

Requested Square Footage: 1,560

Includes: Career Center Area, Offices, Conference Room, Secure Storage

Ground Level? NO

Rationale and Considerations: Would like to have space for Career Center. Would like restroom if possible.



Program: Center for Performing Arts

Approximate Current Square Footage: 3,800

Includes: Classroom, storage, changing areas

Requested Square Footage: 12,150

Includes: Black Box, Sound Control Booth, Dance Studio, Vocal Room, M/F Locker rooms, Prop Workshop, Stage, Storage

Ground Level? YES

Rationale and Considerations: Should be near auditorium and common area. High ceilings preferred. Sprung flooring necessary in dance studio, with marley flooring that can travel. Three sides of dance studio needs to be mirrored. Locker rooms should be equipped with makeup stations, restroom and shower. Stage areas in Black Box and Vocal Room. Three small practice rooms in, or near, Vocal Room.



Program: Culinary Arts

Approximate Current Square Footage: 3,200

Includes: Classroom, Kitchen, Storage

Requested Square Footage: 5,210

Includes: Classroom, Kitchen, Office, Storage, M/F Locker Room,

Ground Level? YES

Rationale and Considerations: Needs to be able to receive deliveries. Should be adjacent to common area for food service and near auditorium. Large dry storage area needed. Two triple sinks, two hand washing sinks are necessary. Convection oven and three gas stoves. Larger competition-worthy kitchen needed to accommodate 20 students cooking on stove tops simultaneously.



Program: Center for Visual Arts

Approximate Current Square Footage: 3,000

Includes: Classroom and storage

Requested Square Footage: 5,600

Includes: Two Classrooms, Multi-Purpose Art Room, Storage, Gallery Area

Ground Level? NO

Rationale and Considerations: All classroom and storage areas in CVA should be designed for easy access to shared materials. Classrooms should have sinks. Multi-purpose room would be utilized for kiln, sculpting, and ceramics. National Art Education Association recommends a minimum of 55 square feet of space per student in the classroom setting.



Program: Early Childhood Education, Teaching Internship

Approximate Current Square Footage: 800 (2,600 utilized by TAP/Head Start in separate room on-site)

Includes: Classroom

Requested Square Footage: 4,200

Includes: Childcare facility, larger classroom, storage

Ground Level? NO

Rationale and Considerations: Larger classroom would allow for a project lab and kitchenette. Potential for a fully-staffed day care facility on site as a WBL experience. Currently, BCAT partners with TAP/Head Start on-site at BCAT.



Program: Emergency Medical Technician

Approximate Current Square Footage: 3,500

Includes: Classroom, Office, Storage Space

Requested Square Footage: 3,000 (does not include shared extra 1600 flexible space)

Includes: Classroom, Office, Storage Space

Ground Level? Ground level ideal but could be on higher floor. Ceiling would have to be high enough for ambulance box.

Rationale and Considerations: Would need faucet and sink for activity set up and clean up. Ambulance sim must be placed in classroom setting. Currently, EMT students must use the greenhouse area for some of their scenarios and simulations. Needs private office. Anchor points and hard points needed in ceiling for rescue rigging. Ideally placed near Nursing and Criminal Justice.



Program: English as a Second Language (currently on BCAT campus)

Approximate Current Square Footage: 1,600

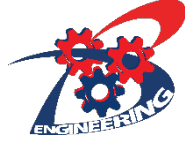
Includes: Two Classrooms

Requested Square Footage: 2,720

Includes: Two Classrooms, Storage, Language Testing Room

Ground Level? NO

Rationale and Considerations: Currently the ESL classrooms are separated, making collaboration difficult. It would be ideal to create an ESL pod with a common area between the two classrooms that provides room for storage and a testing area.



Program: Center for Engineering

Approximate Current Square Footage: 4,700

Includes: All Classrooms, Computer Lab, Storage

Requested Square Footage: 5,860

Includes: All Classrooms, Computer Lab, Chemistry/Physics Lab, Storage, Presentation Area/Collaborative Space

Ground Level? NO

Rationale and Considerations: Engineering needs to be placed near Mechatronics / Robotics. Appropriate space needed for Chemistry/Physics classroom with fume hood for labs. Easy access between classrooms and labs. Common storage area with lockable cabinets. Presentation area/collaborative space ideally placed between classrooms for ease of access.



Program: Game Design, Cyber Security

Approximate Current Square Footage: 1,260

Includes: Classroom, Storage

Requested Square Footage: 1,300

Includes: Classroom, Storage

Ground Level? NO

Rationale and Considerations: Ideally placed near Computer Information Technology. Possibility for a Center for Computer Science in the future.

General Areas

Requested Square Footage: 18,560 internal and 29,000 external

Internal Includes: Common Areas, Theatre, Conference Room, Custodial Office, Custodial Storage, Faculty Lounge, ITRT Office, Server Room, Health Science Flexible Spaces

External Includes: Courtyard Area, Paved Areas for Automotive and Welding/Motorsports

Ground Level? Some areas would need to be on ground floor. Others could be placed elsewhere.

Rationale and Considerations: For events drawing larger crowds, a large common area and auditorium would be able to accommodate people who are waiting. A common area could also be used for expo style events including conferences and professional development. In addition to hosting CPA events, a large auditorium could also be used for division trainings, school board meetings that may draw a large crowd, and could also potentially be rented out to host other community events. The placement of the auditorium and common area near the culinary kitchen would be ideal, allowing students to provide catering services for events. Staff and student surveys have indicated the courtyard at BCAT is a unique campus feature they enjoy. The courtyard could be used for drill purposes if the Navy program is transferred from WBHS to BCAT. The flexible space for health science would be used for both EMT and Nursing, and possibly even Criminal Justice for simulations, scenarios, and testing.



Program: Introduction to Nursing Careers

Approximate Current Square Footage: 1,600

Includes: Classroom, Skills Lab, Storage Closet

Requested Square Footage: 2,830

Includes: Classroom, Larger Skills Lab, Office, Larger Storage Closet

Ground Level? Ground level ideal but could be on upper level.

Rationale and Considerations: Virginia Board of Nursing regulations must be followed. Needs faucets, sinks, and a large skills lab. Needs to have large restrooms so students can change before and after clinicals. Ideally placed near EMT.

ISAEP

Program: Individual Secondary Alternative Educational Program (currently on BCAT campus)

Approximate Current Square Footage: 1,000

Includes: One Small Classroom, One Office / Testing Room

Requested Square Footage: 1,920

Includes: Two Standard Size Classrooms, Office Area, Testing Area, Storage

Ground Level? NO

Rationale and Considerations: The classrooms should be able to be further sub-divided for individual and small group instruction. The ISAEP Coordinator is also the JVG Coordinator. There is a possibility to combine space for ISAEP and ASTEP programs, as ASTEP meets during the day and ISAEP is an after-hours program.



Program: Masonry

Approximate Current Square Footage: 3,800

Includes: Classroom, Shop, Storage

Requested Square Footage: 7,110

Includes: Classroom, Larger Shop, Storage, M/F Locker Rooms

Ground Level? YES

Rationale and Considerations: Ideally should be placed next to Building Trades. Needs access to an exterior area for class projects. Needs 4 slop sinks and interior access to potable water if possible. Proper ventilation is a must.



Program: Center for Mass Communication

Approximate Current Square Footage: 4,200

Includes: Classroom and storage

Requested Square Footage: 4,570

Includes: Larger English Classroom, Mass Comm Classroom, Studio, Office, Storage

Ground Level? NO

Rationale and Considerations: A centralized server needed for Macs so students can access files from any lab computer. Soundproof recording booth requested along with sound deadening materials in the classroom/lab and studio.



Program: Mechatronics / Robotics

Approximate Current Square Footage: 8,200

Includes: Class Area, Office, Storage, Small Shop Area, Large Shop Area

Requested Square Footage: 7,650

Includes: Class Area, Office, Storage, Shop Areas

Ground Level? YES

Rationale and Considerations: Ceiling height should be 16 ft. Must have adequate electricity for machinery requirements. Must be placed near Engineering and have access to computer lab. Some items would be able to be transferred from current shop.

Navy National Defense Cadet Corp

Program: NNDCC

Requested Square Footage: 3,670 (does not include drill space)

Includes: Two Classrooms, Uniform Storage, Book Storage, Armory, Office

Ground Level? NO

Rationale and Considerations: Navy requirements must be met. Must include adequate drill space of at least 2,500 sq feet of unobstructed space – this could be the courtyard area and/or the common area.



Program: Transition Services (Special Education program currently on BCAT campus)

Approximate Current Square Footage: 1,100

Includes: Separate Classrooms and Storage

Requested Square Footage: 1,920

Includes: Adjoining Classrooms and Storage

Ground Level? NO

Rationale and Considerations: A sink, large closet, and cabinetry to hold large items are needed.



Program: Welding, Motorsports

Approximate Current Square Footage: 6,400

Includes: Office, Internal Storage, External Storage, Classroom, Shop, Locker Room

Requested Square Footage: 11,210

Includes: Office, Storage, Classroom, Shop, Locker Room

Ground Level? YES

Rationale and Considerations: This has a logical pairing next to the Automotive program, as there are similar space and program needs, such as 16 ft. (min.) ceilings and the need to be able to receive deliveries. Areas for scrap metal storage and finished product storage are needed. Ideal to have 20 welding booths along the same wall. Some current equipment could be transferred to the new center. Paved area large enough for large rigs to be able to maneuver.

Requested Square Footage Breakdown

(* asterisked items do not count toward total requested square footage)

<u>Total Requested SQ FT</u>				
----->		132890		
<u>Program</u>	<u>Requested Area</u>	<u>Requested SQFT</u>	<u>Main Floor?</u>	<u>Comments</u>
Admin	Asst Principal Office	250	Y	Would like to accommodate 4-5 ppl for meetings
Admin	Attendance office	100	Y	
Admin	Announcement Room	50	Y	Could change if phones are wired to broadcast in classrooms
Admin	Bookkeeper office	150	Y	
Admin	Bookkeeper Secure Storage	100	Y	
Admin	Mail Room / Copy Room	250	Y	
Admin	Main Office Storage 1	200	Y	Confidential records
Admin	Main Office Storage 2	200	Y	Supplies, paper, lost/found, etc



Admin	Principal Office	300	Y	Would like to accommodate 8-10 ppl for meetings ... would love a private RR
Admin	Receptionist area	400	Y	Wants to orient office toward check in window
Admin	School Nurse Filing Room	200	Y	RCPS head of Nursing is BCAT school nurse
Admin	School Nurse Office	200	Y	Needs to be near admin office
Admin	School Nurse Restroom	200	Y	Sink, toilet, shower
Admin	School Nurse Sick Room 1	100	Y	Visible from nursing office
Admin	School Nurse Sick Room 2	100	Y	Visible from nursing office
Admin	School Nurse Storage	150	Y	RCPS head of Nursing is BCAT school nurse
Admin	School Resource Officer Office	100	Y	Needs to be near admin office
Auto	Customer Svc. Care Area	150	Y	
Auto	Auto Classroom	960	Y	
Auto	Auto Locker Room - F	500	Y	Restroom & shower - shared w/ Welding
Auto	Auto Locker Room - M	500	Y	Restroom & shower - shared w/ Welding
Auto	Auto Office	100	Y	
Auto	Auto Shop	7000	Y	Needs to be at least 2x the current size
Auto	Auto Storage	2000	Y	
BT	Customer Svc. Care Area	150	Y	
BT	Building Trades Classroom	960	Y	
BT	Building Trades & Masonry Exterior w/ Awning	*3000	Y	Matched with Masonry
BT	Building Trades Locker Room - F	500	Y	RR and Shower - shared with Masonry
BT	Building Trades Locker Room - M	500	Y	RR and Shower - shared with Masonry
BT	Building Trades Shop	5000	Y	Current shop = 4300sq ft



BT	Building Trades Storage	1000	Y	** Can be external or included w/ shop
CIT	Customer Svc. Care Area	150	Y	
CIT	Networking / CIT Classroom	960		
CIT	Networking / CIT Lab	960		
CIT	Networking / CIT Storage	200		
CJ	Criminal Justice Classroom / Lab	1400		Slightly larger than current
CJ	Criminal Justice Storage/Range/Combat Room	1000		These areas should be separated
Cosmo	Customer Svc. Care Area	150	Y	
Cosmo	Cosmetology 1/2 bath	50		
Cosmo	Cosmetology Classroom	960		
Cosmo	Cosmetology Lab	3000		150 sq ft per student x 20 students max standard (need 1 handicap accessible) ... 2x check requirement
Cosmo	Cosmetology office	100		
Cosmo	Cosmetology skin care room	100		2x check necessity
Cosmo	Cosmetology storage	300		Washer/dryer, 2 cleanup sinks, chemical storage
Counseling	Counseling Conf Room	200		Needs to have room to host 4-5 students
Counseling	Counseling Office	100		Adjacent to conf room
Counseling	Counseling Admin Asst Office	100		
Counseling	Counseling Storage	200		
Counseling	Career Center	960		
CPA	CPA Black Box	1500	Y	
CPA	CPA Control Booth	150	Y	
CPA	CPA Dance Studio	2000	Y	High ceilings preferred
CPA	CPA Locker Room - F	500	Y	Makeup chairs, restroom, shower



CPA	CPA Locker Room - M	500	Y	Makeup chairs, restroom, shower
CPA	CPA Prop Workshop / Backstage Area	2000	Y	Right behind stage if possible - high ceilings
CPA	CPA Stage	2000	Y	Need to look @ comps in areas - high ceilings
CPA	CPA Storage	2000	Y	Costumes, props, pallets, electronic equipment, recording equipment
CPA	CPA Vocal Room	1500	Y	50% larger than current studio, includes two smaller practice rooms, 10ft ceilings if possible
Culinary	Customer Svc. Care Area	150	Y	
Culinary	Culinary Classroom	960	Y	
Culinary	Culinary Kitchen (includes storage)	3000	Y	Need to look at comps (ROTEC, VWCC)
Culinary	Culinary Locker Room - F	500	Y	Restroom & shower
Culinary	Culinary Locker Room - M	500	Y	Restroom & shower
Culinary	Culinary Office	100	Y	
CVA	Art Multi Purpose	1600		Kiln room, sculpting, 3D, ceramics, shared space
CVA	Art Classroom 1	1600		
CVA	Art Classroom 2	1600		
CVA	Art Storage	800		
CVA	Gallery	*1600		Hallway could be used for this space
ECE	Early Childhood	1600		
ECE	Childcare Facility	2600		Look into regulations for having onsite childcare facility; should include restroom, kitchen, etc.
EMT	Classroom, Lab, Storage, Office	3000		Prefers 3-4 separate storage areas, needs to be able to separate groups for EMT practicals, needs private office
ENG	Customer Svc. / Collaboration Room	200		



ENG	Engineering / Mechatronics Computer Lab	1000		
ENG	Engineering Class 1	1050		Shanta - classroom and lab space
ENG	Engineering Class 2	1050		Nicewonder - classroom and lab space
ENG	Engineering Class 3	960		Washington - calculus classroom
ENG	Engineering Class 4	1600		Gray - Physics/Chem Lab
ENG	Engineering Common Area	0		Can use BCAT Common Area
ESL	ESL Office	100		
ESL	ESL Room 1	960		
ESL	ESL Room 2	960		
ESL	ESL Storage	300		
ESL	ESL Testing	400		WIDA - needs to be connected b/w ELL rooms
GD/Cyb	Game / Cyber Storage	400		
GD/Cyb	Game Design / Cyber Security Lab	900		
General	BCAT Common Area	3000	Y	Should be close to culinary kitchen - should be close to theater ... engineering expo, etc
General	Burton Multi-Purpose Area	4000	Y	Flexible seating
General	Conference Room	300	Y	accommodate 14-16 ppl
General	Courtyard area	*14000		Current is 20500 -- not a necessary item but potentially important if we have NNDCC
General	Custodial Office	100	Y	
General	Custodial Storage	400	Y	
General	Faculty Work/Lunch Area	1200		Enough space to accommodate approx 40 staff
General	ITRT Office	200		Instructional Tech Resource Teacher
General	Server Room	400		
General	Paved Areas for Auto/Welding	*15000		Part of exterior

General	Health Science Flexible Space	1520		Testing, clinicals, simulations, additional program space
General	Health Science Flexible Space	1520		Testing, clinicals, simulations, additional program space
General	Flexible Space	2000	Y	To partner with Business and Industry
General	Flexible Space Classroom	960	Y	To partner with Business and Industry
General	Flexible Space	2000	Y	To partner with Business and Industry
General	Flexible Space Classroom	960	Y	To partner with Business and Industry
INC	Nursing Classroom	960		
INC	Nursing Lab	1520		
INC	Nursing Office	100		
INC	Nursing Storage	200		
INC	Nursing Bathroom	50		
ISAEP	ISAEP Room 1	960		Alternative Education Program
ISAEP	ISAEP Room 2	960		Alternative Education Program
Masonry	Customer Svc. Care Area	150	Y	
Masonry	Masonry Classroom	960	Y	Matched with Building Trades
Masonry	Masonry Locker Room - F	500	Y	Restroom and shower - paired with Building Trades
Masonry	Masonry Locker Room - M	500	Y	Restroom and shower - paired with Building Trades
Masonry	Masonry Sheltered Exterior Awning	**3000	Y	Matched with Building Trades
Masonry	Masonry Storage	1000	Y	
Masonry	Masonry Shop Area	4000	Y	Matched with Building Trades
MASS	Customer Svc. / Collaboration Area	250		
MASS	Mass Comm English Classroom	960		Slightly larger than current, needs to be near Mass Comm, Studio
MASS	Mass Comm Office	100		
MASS	Mass Comm Salo Room/Lab	2000		Slightly larger than current
MASS	Mass Comm Secure Storage	300		

MASS	Mass Comm Studio	960		Could be separated into 4 different green screens/bays
MECH	Customer Svc. Care Area	150	Y	
MECH	Mechatronics Classroom & Lab	7000	Y	Needs to be in close proximity to engineering
MECH	Mechatronics Office	100	Y	
MECH	Mechatronics Storage	400	Y	
NNDCC	Classroom 1	960		May need additional classroom if program needs
NNDCC	Classroom 2	960		**program growth
NNDCC	Uniform Storage	1100		**program growth
NNDCC	Book Storage	150		**program growth
NNDCC	Armory	350		**program growth
NNDCC	Office	150		**program growth
SPED	SPED Room 1	960		STEP/SWAP
SPED	SPED Room 2	960		PROJECT DISCOVERY
Work-Based Learning	Office	150		For County-wide WBL Coordination
W-MS	Customer Svc. Care Area	150	Y	
W-MS	Welding / Motorsports Shop	7000	Y	Size should match auto shop
W-MS	Welding Classroom	960	Y	
W-MS	Welding / Motorsports Internal Storage	2000	Y	Temp controlled necessary to protect materials from elements
W-MS	Welding / Motorsports Locker Room - F	500	Y	Restroom & shower - paired with Auto
W-MS	Welding / Motorsports Locker Room - M	500	Y	Restroom & shower - paired with Auto
W-MS	Welding / Motorsports Office	100	Y	



Future Concept Ideas

A new center would enable Roanoke County Public Schools to reconfigure programs into groupings or Academies (see below for an example). Also, in an effort to be as responsive as possible to industry needs, flexible space would be built into the new center to allow for adaptation to a wide range of industry-specific training. In short, the new center would enable a large number of Roanoke County students to participate in what County citizens have come to expect from Burton Center for Arts and Technology – dynamic, focused and purposeful learning opportunities for all types of learners.

Engineering Academy

Center for Engineering
Mechatronics/Robotics

Specialty Arts Academy

Center for Performing Arts
Center for Fine Arts*
Center for Visual Arts

Mass Communication Academy

Center for Mass Communication

Construction Careers Academy

Building Trades
Masonry
Welding
HVAC*
Plumbing*
Industrial Electricity*

Transitional Pathways Academy

Individualized Student Alternative Educational Plan
English Language Learner Newcomer Program
Community School to Work Transition Program
Project Discovery
Student Transitioning Employment Program
Alternative Secondary Transition Educational Program

Transportation Careers Academy

Automotive Service Technology
Motorsports

Computer Science Academy

Computer Information Technology
Networking Concepts
Cybersecurity
Game Design

Health Science Academy

Emergency Medical Technician
Introduction to Nursing Careers

Human Service Academy

Early Childhood Education
Teaching Internship
Culinary Arts
Cosmetology

Public Service Academy

National Navy Defense Cadet Corps*
Criminal Justice

* Program not currently at BCAT that could be added if more space and equipment was made available

