

Chamber Defense Affairs Committee

Discussion with the Area's Innovation Corridor Leaders



Alan Yost



Deborah Van Eersel



Emily Kilroy



Nikki Hastings



Pace Lochte



Rob Jones



Thursday, January 23, 11:30am-1pm

North Fork Meeting Center

Register CvilleChamber.com/DAC

Defense Affairs Committee



Mission: To foster economic vitality in the greater Charlottesville region by further strengthening the relationships between the Chamber, the Central Virginia community, the regional defense/intelligence community, and area veterans.

We do this by providing connections to a unique network of business, academic, and government participants thereby positioning the region for growth in the defense/intelligence enterprise.



DAC Program Manager



Daily operations and the DAC office are managed by the DAC Program Manager.



A Virginia native, United States Marine Corps Reserve major, and community volunteer, Andrew is a passionate veteran advocate and defense industry supporter. He grew up locally and attended PVCC before transferring to Virginia Tech to complete his undergraduate degree. After working in North Carolina in various change management and information security roles, Andrew, his wife Emily, and their three sons permanently returned to the central Virginia area in 2021. His military background is in foreign security force advising and family program management.

Andrew Sides – DAC Program Manager



Defense Industry Economic Impact Study

In 2023, the DAC commissioned an in-depth Economic Impact Study from the University of Virginia's Weldon Cooper Center. The resulting \$1.2 billion output determination* was nearly double the expected impact of the defense industry in the region** and became a primary motivation for Albemarle County's acquisition of the Rivanna Futures property.

** "Economic impact results indicate that the defense industry directly accounts for 3,972 jobs, \$421 million in labor income, \$501 million in value-added, and \$642 million in output. When indirect and induced impacts stemming from this activity are accounted for, the total regional economic impact is 7,347 jobs, \$618 million in labor income, \$831 million in value-added and **\$1.2 billion in output.**" – Executive Summary, ["The Defense Industry's Economic Impact on the Charlottesville Region"](#), Terance J. Rephann, 2023*

*** Region in this case includes the City of Charlottesville, Albemarle County, and Greene County.*



Defense Affairs Committee



The national security sector has considerable (and growing) local economic impact, and it is comprised of our friends, neighbors, and colleagues.

So let's talk about it!



Rev. Robert T. Jones, Jr. - Chief Research Security Officer, UVA



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Pace Lochte – Assistant Vice President for Economic Development, UVA



Expanding the Geography of Innovation

Catalyzing Economic Growth

DAC Briefing
January 23, 2025



Biotech
Digital Technologies
National Security

Emerging Regional Opportunities in Bio, Data, and National Security



Capital

Significant government, academic, and industry **capital investments in our region are being made in biotechnology, digital technologies, and national security**, and we have a unique opportunity to amplify their economic and social impact.



Convergence

In the new economy, value is realized by fusing the biological, digital, and physical domains. Through this “convergence” of our assets we **can build competitive advantage, spark new areas of exploration, and create jobs for a rapidly changing world.**



Coalition Building

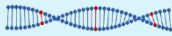

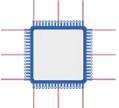
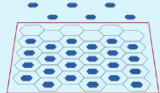



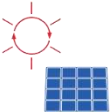






A public-private coalition is forming to co-create a shared vision for the future, accompanied by a **strategic roadmap with a line-of-sight to new opportunities for economic growth.**

Central VA Regional Developments

Innovation	Infrastructure	Business Attraction & Expansion	Workforce
FY24 UVA Research Awards Awards \$44M DOD \$259M DHHS/NIH	CvilleBioHub launches Commonwealth Commonwealth BioAccelerator (1.0) BioAccelerator (1.0) (\$7.5M) (\$7.5M)	Rivanna Futures Acquisition/Site Development Development (462 acres) acres)	NGC Advanced Electronics Manuf/Testing Facility Higher locality pay for federal employees is employees is pursued
Manning Institute of Biotechnology (\$350M)	Biotech Lab Space 2.0 possible possible w/state funding (\$12.5M) (\$12.5M)	120 acres at North Fork rezoned North Fork rezoned for housing housing	Afton Scientific expands clean-fill facility; \$200M facility; \$200M investment, 200+ new jobs (AlbCo) 1 st INSA conference and recruitment fair in recruitment fair in Cville (Dec 2025) 2025)
UVA National Security and Data and Data Policy Institute Launch Institute Launch	UVA Innovates created to support support entrepreneurship and and commercialization	30+ acre pad-ready site site prepared at North Fork North Fork	AgroSpheres sustainable crop protection; \$60+M protection; \$60+M investment, 50+ new jobs new jobs Biotech workforce study launched to examine examine gaps and opportunities(2025)
School of Data Science Expansion Expansion	Enterprise Studio connects connects entrepreneurial faculty with faculty with experts, capital, etc. capital, etc.	Greene County acreage for acreage for R&D/national R&D/national security security	L3Harris Aerojet Rocketdyne expands solid rocket solid rocket motor production (Orange); \$41M (Orange); \$41M investment, 80+ new jobs. jobs.
Record number of active clinical active clinical trials underway underway (550+)	Innovations in Fabrication (iFAB) Lab	Study released: Defense sector Defense sector annual economic economic impact impact = \$1.2 billion	MITRE experimental drone facility (Orange Co); (Orange Co); DataShapes AI relocates from Silicon Valley to North North Valley to North Fork (AlbCo) New Medical Science learning track for high high track for high school students

National Security Critical Technology Areas

Office of the Under Secretary of Defense for Research and Engineering

 Biotech	 Integrated Network System-of-System-of-Systems	 Microelectronics
 Advanced Materials	 Future Gen Wireless Technologies	 Quantum Science
 Trusted AI and Autonomy	 Renewable Energy Generation and Generation and Storage	 Space Technology
 Integrated Sensing and Cyber	 Advanced Computing and Software Software	 Hypersonics
	 Human-Machine Interfaces Interfaces	 Directed Energy

Central VA Region Key Development Activities

- North Fork
- Rivanna Futures
- Greene County
- CvilleBioHub
- Defense Affairs



Deborah van Eersel – Chief Administrative Officer, UVA Foundation



An aerial view of a modern university campus. The scene is dominated by multi-story brick buildings with large windows and white accents. A central road with a white car and other vehicles runs through the middle. The sky is blue with scattered white clouds. The overall atmosphere is bright and sunny.

North Fork

Established in 1996

LOCATION

Charlottesville-Albemarle Airport

Rivanna Station

North Fork

MISSION

To provide state-of-the-art facilities that serve as a catalyst for the creation and enhancement of research and business collaboration between the University of Virginia and the public and private sectors, for the economic and societal benefit of the Commonwealth of Virginia, the Central Virginia region and the nation.

City Boundary

Central Grounds



Intended Outcomes

- Creating **faculty & student research projects** in partnership with park entities.
- Fostering and enhancing reciprocal **consulting opportunities** benefiting UVA faculty and park entities.
- Establishing **joint venture business opportunities & technology transfer** between UVA, its faculty and students, and park entities.
- Providing exciting **employment opportunities** for UVA students and members of the Central VA community, and provide economic stimulus to the area.
- Serving as a **recruiting & retention tool** for UVA faculty by providing cutting-edge research possibilities for faculty & employment for faculty spouses/partners.





- - - FUTURE RESIDENTIAL
- EXISTING BUILDING
- CONCEPTUAL BUILDING
- READY SITES
- - - 253-ACRE TIER IV CERTIFIED READY SITE

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Future Berkmar Extended 2. Albemarle County Fire & Rescue - Station 12 3. Future mixed-use residential 4. Multi-use path 5. The Town Center | <ol style="list-style-type: none"> 6. Future recreational fields 7. Nine ready sites 8. Charlottesville-Albemarle Airport 9. Rivanna Station (DIA, National Geospatial-Intelligence Agency, National Ground Intelligence Center) |
|--|--|



Tier 5 Ready Site
31.5 Acres - 16 acres pad-ready

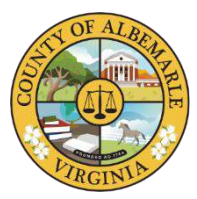


North Fork Tenants



Emily Kilroy - Economic Development Director, Albemarle County





RIVANNA FUTURES



Rivanna Station Today



Field Offices

National Ground Intelligence Center
Defense Intelligence Agency
National Geospatial Intelligence Agency

\$1.2 B

Regional economic impact of
defense sector, with 4,000 employees



INTELLIGENCE & NATIONAL SECURITY
INNOVATION ACCELERATION
..... CAMPUS

Accelerating innovation technology through partnerships today, for tomorrow's challenges.

Partnership Model



Local Catalyst

- Site Control
- Site Readiness



State Support

- Site Readiness
- Advocacy



Federal Agencies

- Expand/Grow Mission



Private Sector

- R&D
- Commercialization
- Capital

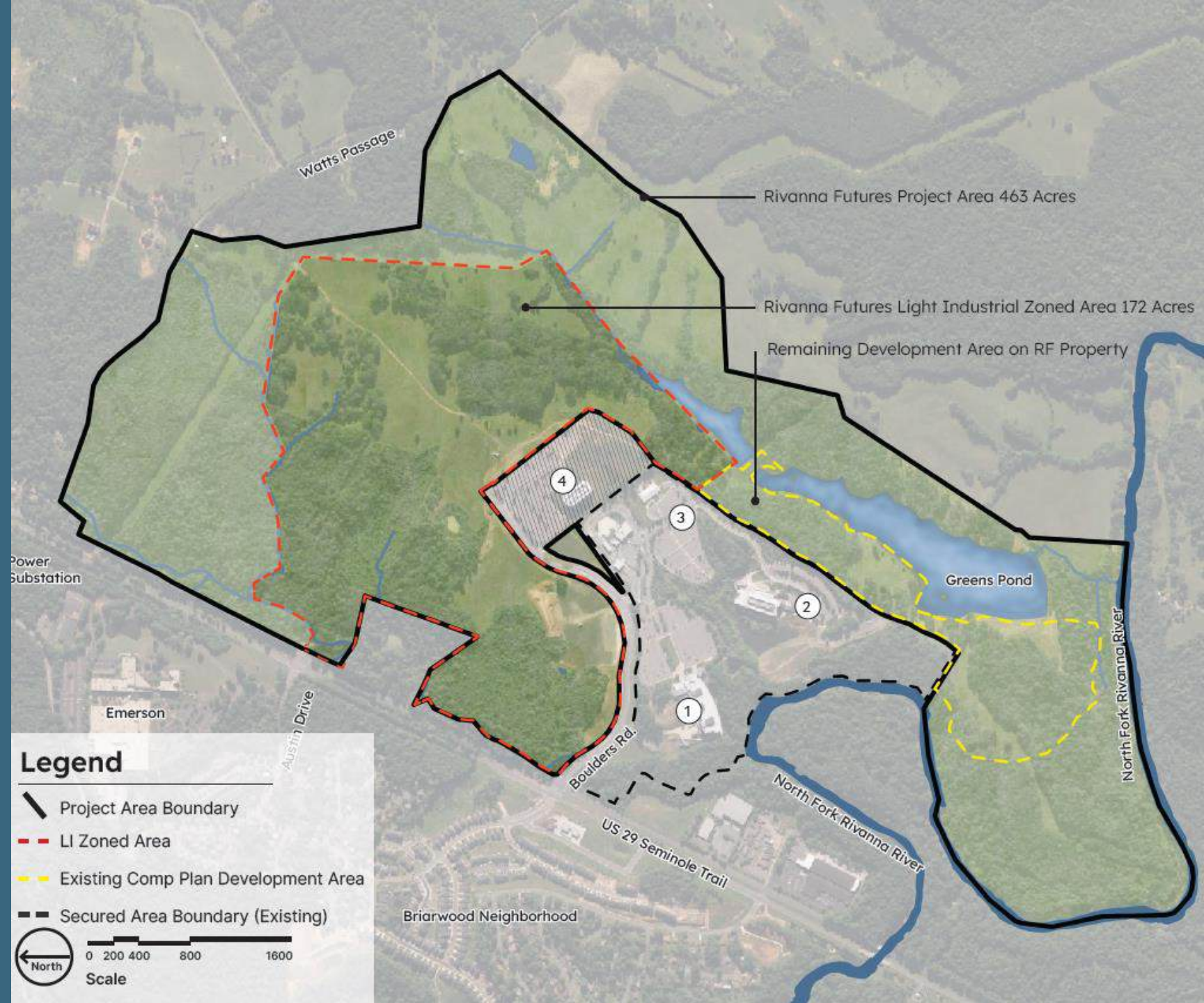


Academic Partners

- Talent Pathway
- Professional Development
- R&D/Commercialization



Site Readiness



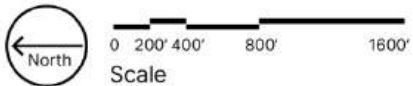
Project Phasing

- Phased Development Strategy
- Phasing can correspond with logical roadway milestones.



Legend

- Development Blocks
- Planned Road Network
- Project Area Boundary
- LI Zoned Boundary
- Existing Comp Plan Development Area
- Secured Area Boundary
- Phase 1:
- Phase 2
- Phase 3



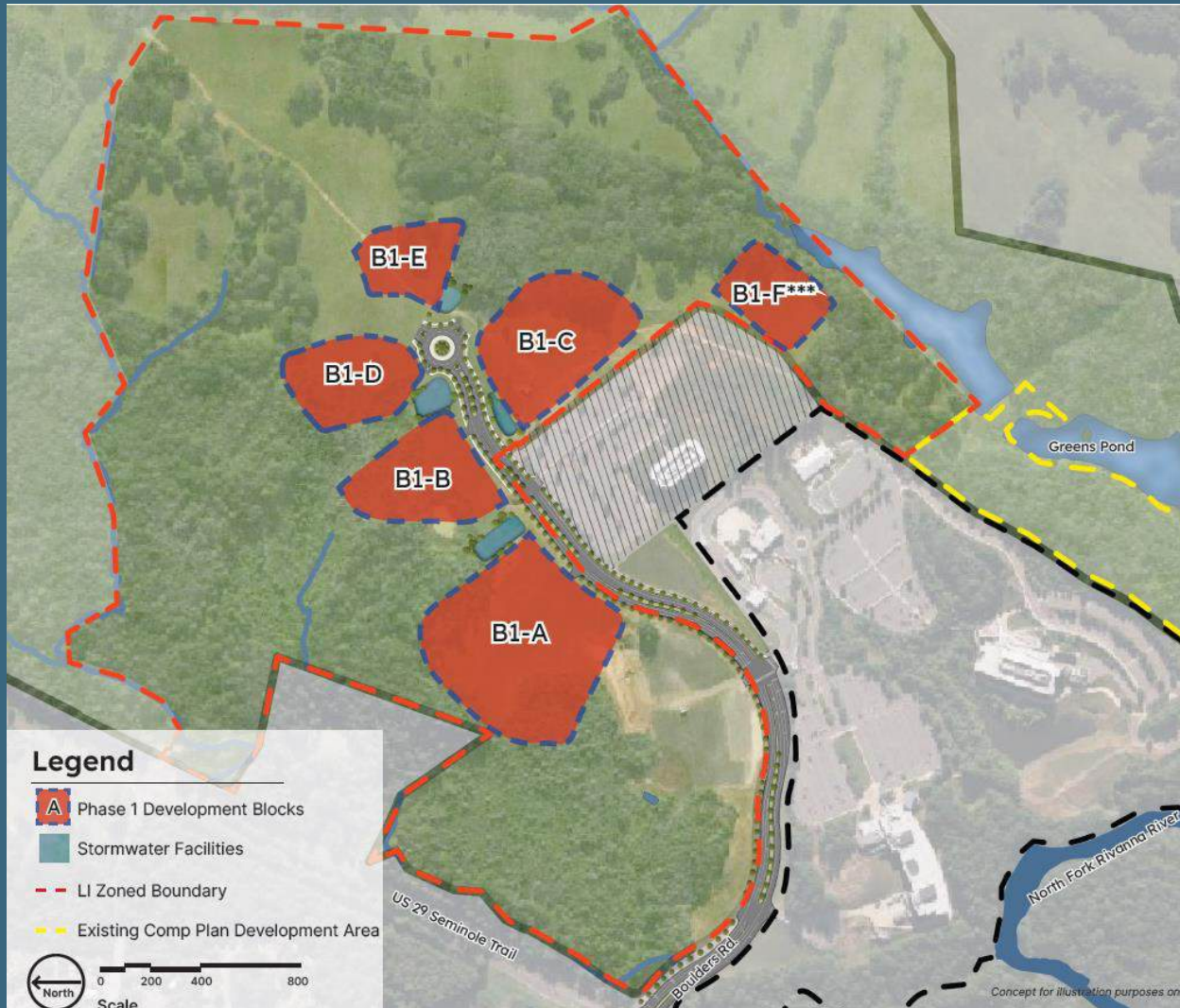
Full Buildout Economic Impact



Jobs	5,741
Average Wage	\$88,957
Total Economic Output	\$1.1 B
State Tax Revenues	\$20.4 M
Local Tax Revenues	\$17.3 M

Revenues per annum in 2024 dollars

Phase 1 Economic Impact

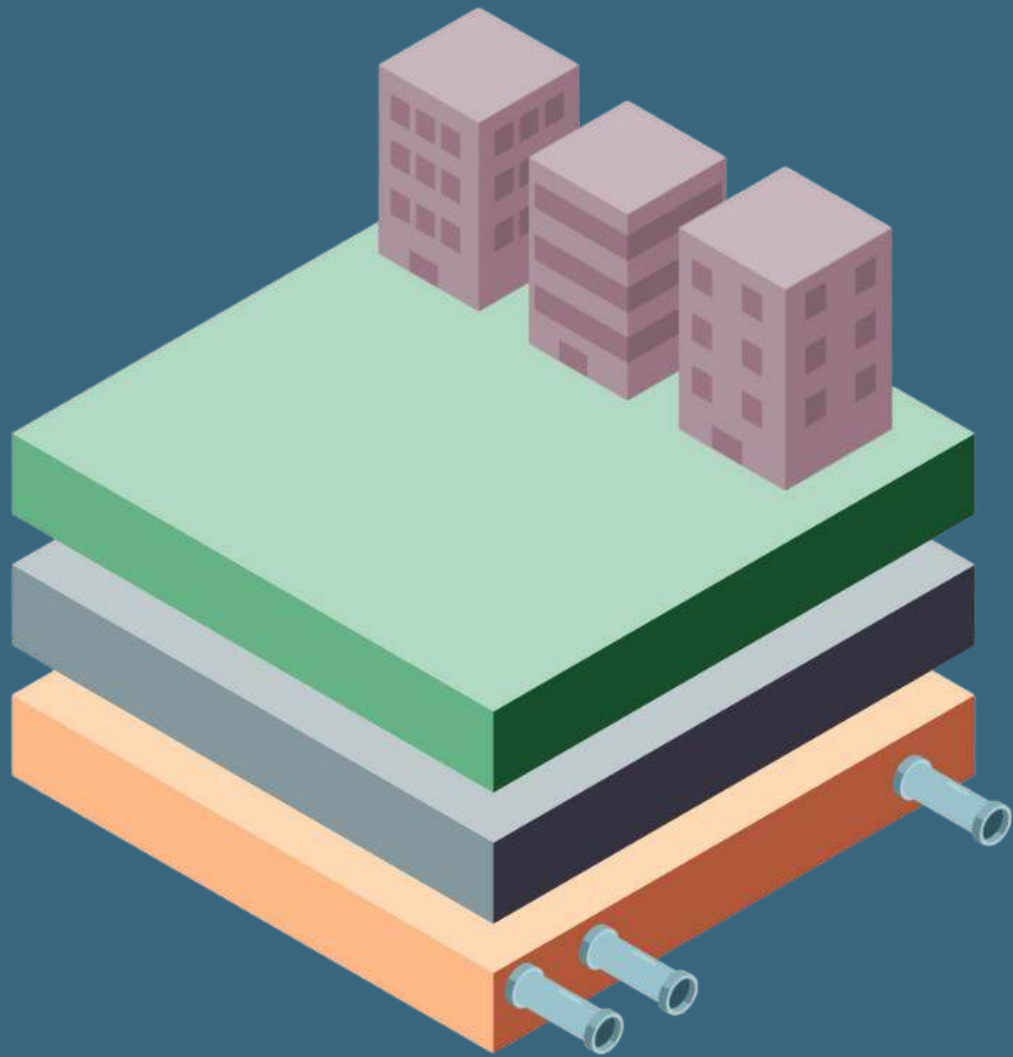


Jobs	1,660
Average Wage	\$102,445
Total Economic Output	\$423.5 M
State Tax Revenues	\$9.0 M
Local Tax Revenues	\$5.7 M

Revenues per annum in 2024 dollars

Phase 1 Conceptual Sites





 Vertical Development

 Site Control

 Site Readiness

Site Control – Locally Driven

Albemarle County

\$58.6 million to acquire 463 Acres and due diligence

Site Readiness – State Supported

SB800 – 113 #1s (Deeds)

HB1600 – 101 #3h (Laufer)

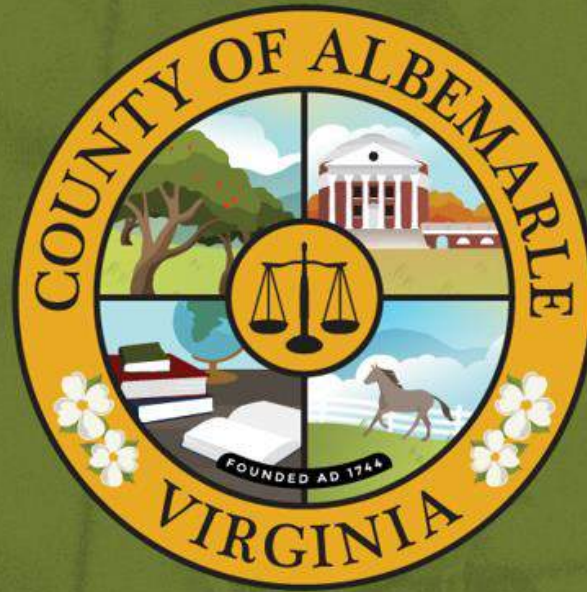
GO Virginia

Virginia Business Ready Sites

Development – Federally Shared

Federal

\$219 million to acquire 75 acres and develop existing campus, not including upfit costs.



Alan Yost - Economic Development and Tourism Director, Greene County



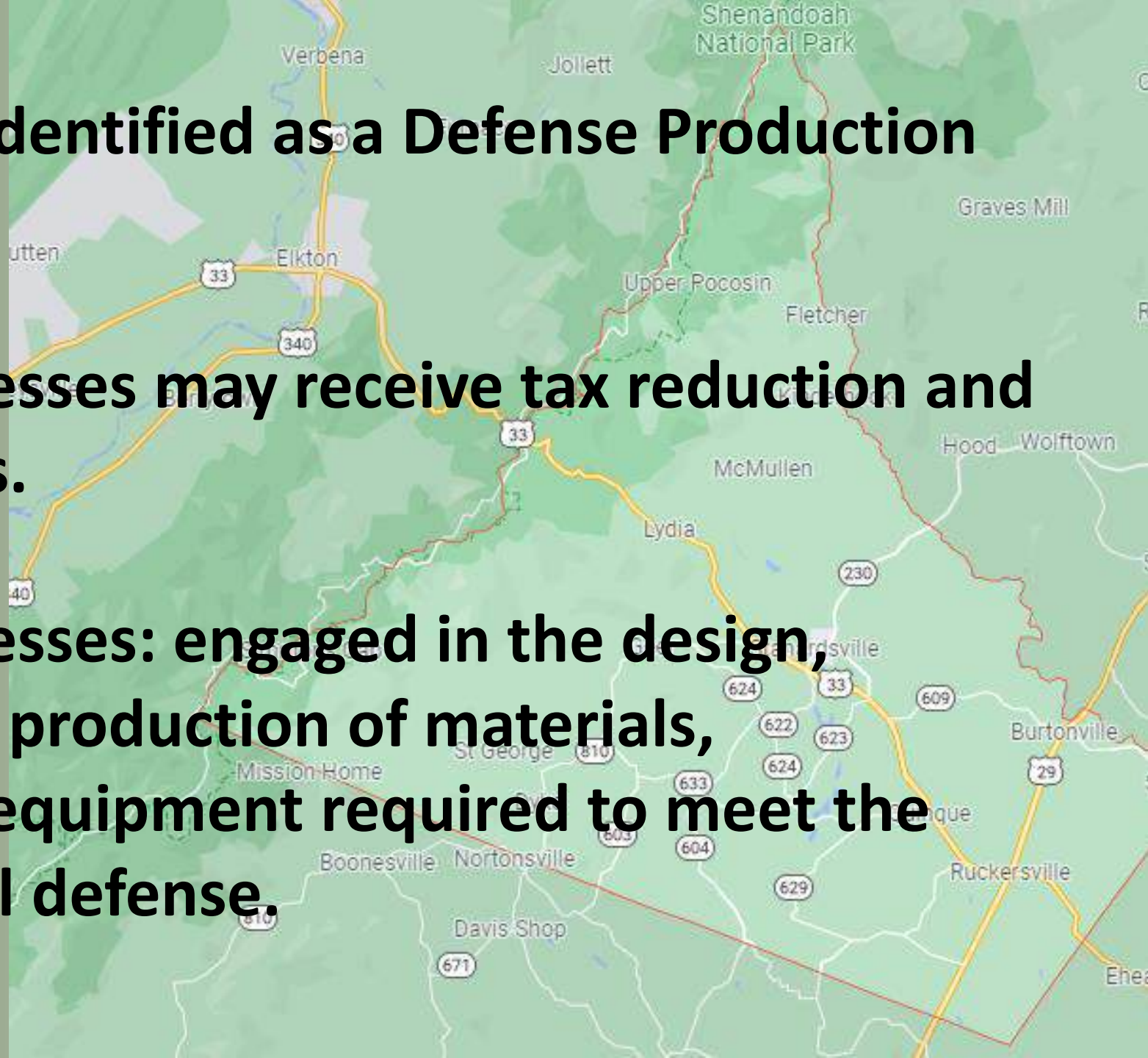


COUNTY OF GREENE

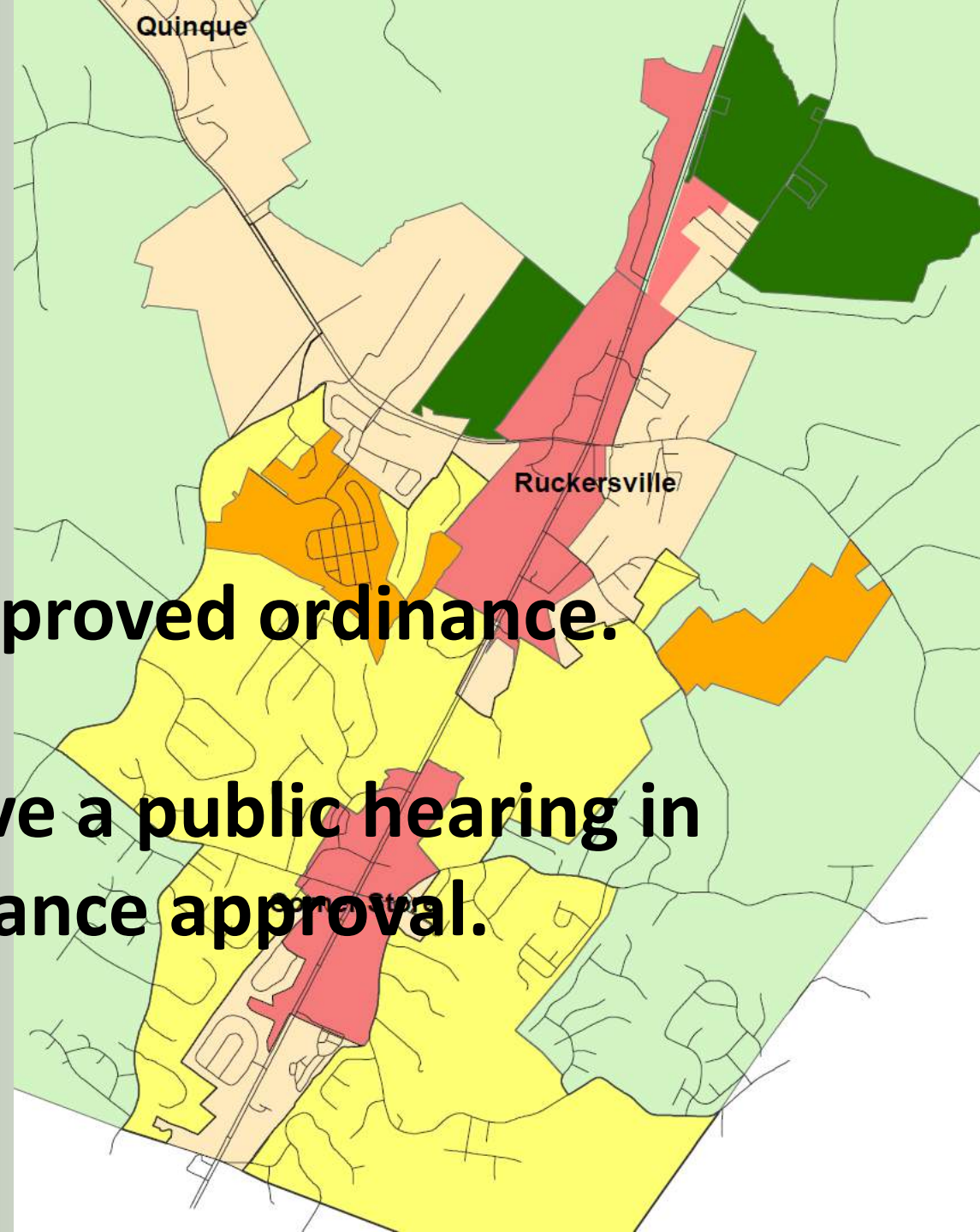
Innovation Corridor
January 2025

Defense Production Zone

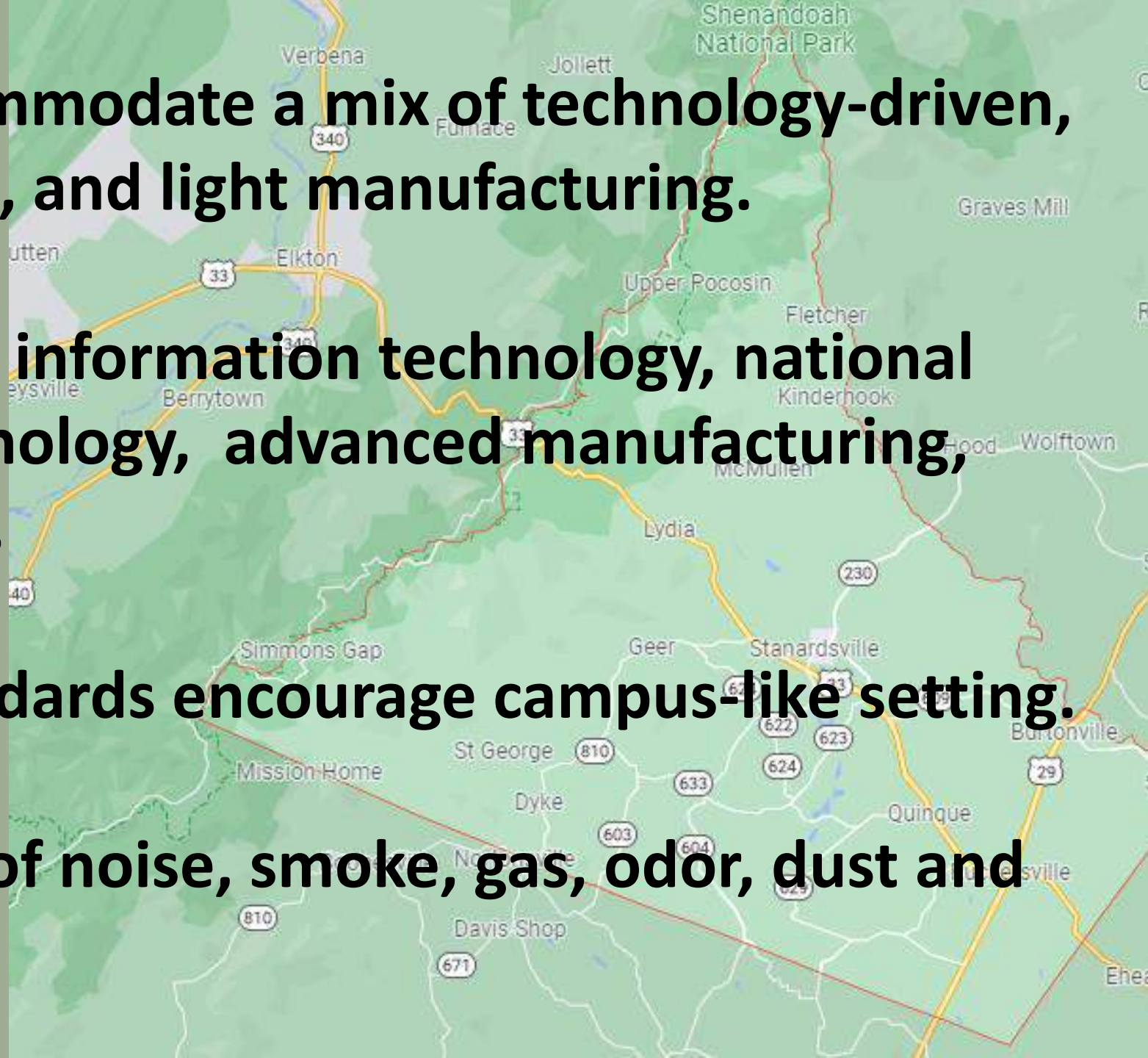
- Entire county is identified as a Defense Production Zone.
- Qualifying businesses may receive tax reduction and permit fee grants.
- Qualifying businesses: engaged in the design, development, or production of materials, components, or equipment required to meet the needs of national defense.



- **Comprehensive Plan**
 - Future Land Use
 - Place Type
- **Planning Commission has approved ordinance.**
- **Board of Supervisors will have a public hearing in February and consider ordinance approval.**



- Designed to accommodate a mix of technology-driven, research-oriented, and light manufacturing.
- Target industries: information technology, national security, bio-technology, advanced manufacturing, and related fields.
- Performance standards encourage campus-like setting.
- Minimal impacts of noise, smoke, gas, odor, dust and lighting.



Nikki Hastings - Executive Director, CvilleBioHub





CvilleBioHub Overview

Accelerating a Thriving and Growing Life Sciences Ecosystem



2,500+

Total Jobs
in the Region

Fostering innovation. Accelerating life sciences.

CvilleBioHub is the leading catalyst for the growth and development of the biotech, medtech, and life sciences ecosystem, fostering a vibrant and collaborative environment where all companies can thrive and grow.

800k

Sq. Ft. of
Space Occupied

OUR MISSION

To strengthen the Charlottesville area biotechnology industry through engagement, resourcing, and education.

\$450M

In Funding Support
Since 2014

Organized as a §501(c)(3) non-profit corporation.
Find out more at www.cvillebiohub.org.



KEY PROGRAMS

CvilleBioHub is a recognized leader of industry cluster development in Virginia

Education

- Hosted Monthly Speaker Series
- Lunch & Learn Series
- Annual BioDiscovery Summit
- CEO Round Tables

Entrepreneurship

- Entrepreneur Advisor Team provides consulting services
- Pitch Reviews and Prep Sessions
- Angel Investor Introductions
- Annual BioSpark Pitch Event

Connection

- Networking and Warm Intros
- Growing Industry Partnerships
- Statewide connectivity
- Vetted resource recommendations

Workforce

- CHIP Internship Program
- Jobs Board for companies
- Job Matching for job seekers



TODAY

Charlottesville's Biotech Sector is primed for growth.



New Ideas will Follow UVA Investments

Over \$1B invested in institutional growth at UVA will drive research, innovation and commercial potential

- *Manning Institute of Biotechnology*
- *School of Data Science*
- *Darden School of Business*
- *McIntire School of Commerce*

A Growing and Emerging Market

- #10 for US Med Device Seed investments in 2023 (Carta)
- Charlottesville ranked #4 city for entrepreneurs (Entrepreneur Magazine, 2016)
- Sector growth of 400+ new jobs from 2020-2021
- Investors looking for emerging markets for deal flow and diversity

Networks are Stronger and VCs are investing

- Resources, education, and network are expanding and strengthening through CvilleBioHub
- Angel & VC investors increasingly deploying more capital since 2018
- Elite life sciences organizations and firms are seeking more access to the network



Momentum is building with increasing biotech funding and success in Charlottesville

Examples of milestones and growth in the regional industry:



PROGRAMMING

Our two major programs serve early-stage founders to mature companies.



SINCE 2022

130

Startups Served
by Entrepreneur Advisors

67

Internships Hosted
4 cohorts, 20 companies per yr

50

Speaker Series Events

2500

Event attendees

2900

Unique Followers

3
16

BioDiscovery Summits

Companies in BioSpark Pitch Event

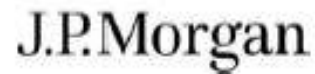


PARTNERSHIPS

Network as a Key to Success

CvilleBioHub offers access to a deep and growing life sciences partner ecosystem.

INDUSTRY PARTNERS



INVESTOR NETWORK



ACADEMIC-VIRGINIA COLLABORATORS

Charlottesville



Roanoke/Blacksburg



Richmond



OPENING IN FEB 2025

Charlottesville Biotech Accelerator

Head Quartered at North Fork Research Park

**Approx. 6500 sq ft dedicated
office + shared spaces + turn-key laboratory
space**





Contact:

Nikki Hastings, PhD
Executive Director
nikki@cvillebiohub.org

What's Next



Current: Broad Industry Target Sectors

- Defense
- IT
- Advanced Manufacturing
- Business/Financial Services
- Agribusiness
- Biotechnology



Future: Strategic Roadmap

Technology “Push” of Industry-facing Research Competencies

- Research Expenditures
- Publications
- Research Centers
- Commercialization activities

Market “Pull” of Regional Industry/ Government Drivers

- R&D Spending
- Patent Activity
- SBIR/STTR Awards
- Venture Capital
- Core technology assets

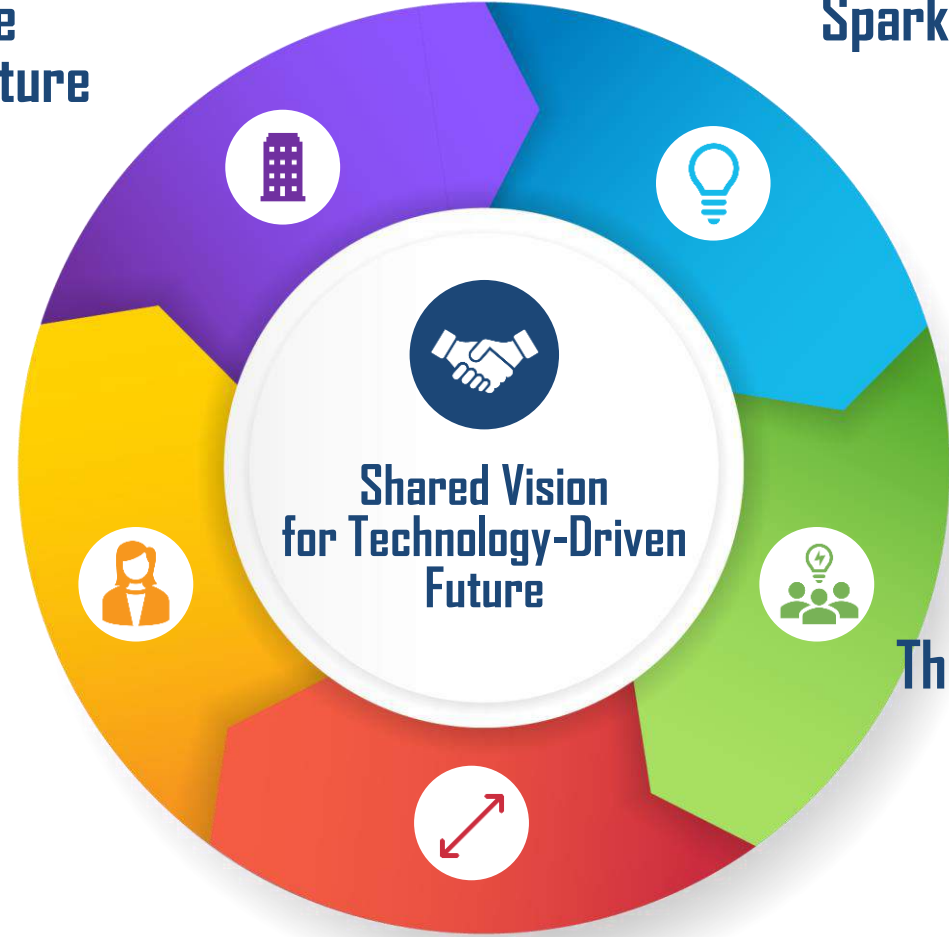
Line-of-Sight to Economic
Growth Opportunities

Recommended Growth Opportunities
where Region 9 has real, differentiating
potential

Desired Outcomes

Reliable Infrastructure

Spark Innovation



Future-Ready Workforce

Thought Leadership

Business Creation, Attraction & Expansion

Discussion

- Initial thoughts
- What is missing?
- Invitation to participate
 - Technology assessment
 - Stakeholder sessions
 - Ongoing engagement



Thanks for coming!

Special thanks to the UVA Foundation for providing today's lunch!



UNIVERSITY
of
VIRGINIA

UVA FOUNDATION