Committee Minutes

BUILDINGS AND GROUNDS COMMITTEE

The Inn at Virginia Tech to Various Campus Locations
11:30 a.m. to 7:30 p.m.
Saturday, November 4, 2017

Open Session

Committee Members Present:
Mr. Mike Quillen, Mr. C.T. Hill, Mr. Robert Mills

Board Members Present:
Ms. Greta Harris, Mr. Mehmood Kazmi, Ms. Trish Long, Mr. Chris Peterson, Mr. Dennis Treacy, Mr. Horacio Valeiras as well as representatives, Mr. Brett Netto, Graduate Rep, Mr. Seyi Olusina, Undergraduate Rep, Dr. Hans Robinson, Faculty Rep, and Mr. Robert Sebek, Staff Rep.

VPI & SU Staff Present: Dr. Cyril Clarke, Mr. Van Coble, Mr. Ted Faulkner, Commandant Randall Fullhart, Mr. Tom Gabbard, Dr. Alan Grant, Dr. Lee Hawthorne, Dr. Frances Keene, Dr. Ben Knapp, Ms. Sharon Kurek, Ms. Angie Littlejohn, Mr. Eric Margiotta, Dr. Saied Mostaghimi, Dr. Laura Sands, President Tim Sands, Ms. Kayla Smith, Mr. Ken Smith, Mr. Jon Clark Teglas, Dr. Don Taylor, Ms. Heather Wagoner, Dr. Sherwood Wilson, Mr. Jon Wooge.

1. **Campus Tour:** The Committee toured several classrooms, laboratories, residence halls, student meeting spaces, and agricultural facilities.

2. **Campus Master Plan Update:** The Committee received an update on the development of the Campus Master Plan, presented in a unique, immersive format through collaboration with the Institute for Creativity, Arts & Technology in the Moss Arts Center Cube.

The Inn at Virginia Tech – Solitude Room
9:45 a.m. – 10:00 a.m.
Sunday, November 5, 2017

Joint Open Session with Compliance, Audit & Risk Committee

Committee Members Present:
Mr. Mike Quillen, Mr. C.T. Hill, Mr. Robert Mills

Board Members Present:
Ms. Greta Harris, Mr. Mehmood Kazmi, Ms. Trish Long, Mr. Chris Peterson, Mr. Dennis Treacy, Mr. Horacio Valeiras as well as representatives, Mr. Brett Netto, Graduate Rep, Mr. Seyi Olusina, Undergraduate Rep, Dr. Hans Robinson, Faculty Rep, and Mr. Robert Sebek, Staff Rep.

VPI & SU Staff: Mr. Bill Abplanalp, Ms. Jennifer Altman, Ms. Kim Avis, Mr. Andrew Bertie, Mr. Bob Broyden, Ms. Lori Buchanan, Mr. Mark Cartwright, Dr. Cyril Clarke, Mr. Van Coble, Mr. Denny Cochrane, Mr. Al Cooper, Mr. Joe Crane, Mr. Brian Daniels, Mr. Corey Earles, Chief Kevin Foust, Dr. Lance Franklin, Dr. Michael Friedlander, Dr. Ron Fricker, Dr. Luisa Havens Gerardo, Mr. Mark Gess, Dr. Rodd Hall, Ms. Kay Heidbreder, Ms. Mary Helmick, Mr. Rick Hinson, Mr. Steve Johnston, Ms. Kina Kelly, Dr. Chris Kiwus, Ms. Sharon Kurek, Dr. Theresa Mayer, Ms. Nancy Meacham, Ms. Robin McCoy, Ms. Sarah McCoy, Dr. Scott Midkiff, Mr. Grant Morris, Dr. Sally Morton, Mr. Michael Mulhare, Ms. April Myers, Dr. Kelly Oaks, Ms. Kim O'Rourke, Mr. Mark Owczarski, Dr. Patty Perillo, Dr. Scot Ransbottom, President Timothy Sands, Ms. Savita Sharma, Mr. M. Dwight Shelton Jr., Ms. Karlee Siepierski, Mr. Jason Soileau, Ms. Kayla Smith, Dr. Ken Smith, Mr. Jon Clark Teglas, Mr. Steve Vantine, Ms. Tracy Vosburgh, Mr. Paul West, Dr. Lisa Wilkes, Dr. Sherwood Wilson

Guest: Mr. Steve Ross, Town of Blacksburg

1. **2016 Jeanne Clery Act Report on Campus Security and Fire Safety:** The Committees reviewed the annual campus security and fire safety report, which is required by the Higher Education Opportunity Act and the Jeanne Clery Disclosure of Campus Security Policy and Campus Crimes Statistics Act. The report provides information about security on campus, including: campus and community crime statistics, fire statistics and safety information, policy information, safety tips, resource phone numbers, and a brief overview of the many services the university provides.

The Inn at Virginia Tech – Solitude Room
10:00 a.m. – 11:30 a.m.
November 5, 2017

Open Session

Committee Members Present:
Mr. Mike Quillen, Mr. C.T. Hill, Mr. Robert Mills

Board Members Present:
Ms. Greta Harris, Mr. Mehmood Kazmi, Ms. Trish Long, Mr. Chris Peterson, Mr. Dennis Treacy, Mr. Horacio Valeiras as well as representatives, Mr. Brett Netto, Graduate Rep, Mr. Seyi Olusina, Undergraduate Rep, Dr. Hans Robinson, Faculty Rep, and Mr. Robert Sebek, Staff Rep.

VPI & SU Staff Present:
Mr. Bill Abplanalp, Ms. Jennifer Altman, Ms. Kim Avis, Mr. Bob Broyden, Ms. Lori Buchanan, Mr. Mark Cartwright, Dr. Cyril Clarke, Mr. Van Coble, Mr. Denny Cochrane, Mr. Al Cooper, Mr. Joe Crane, Mr. Corey Earles, Chief Kevin Foust, Dr. Lance Franklin, Dr. Michael Friedlander, Mr. Ron Fricker, Mr. Mark Gess, Dr. Luisa Havens Gerardo, Mr. Rodd Hall, Ms. Kay Heidbreder, Ms. Mary Helmick, Mr. Rick Hinson, Mr. Steve Johnston, Dr. Chris Kiwus, Dr.

Teresa Mayer, Ms. Nancy Mecham, Ms. Robin McCoy, Ms. Sarah McCoy, Mr. Scott Midkiff, Mr. Grant Morris, Dr. Sally Morton, Mr. Mike Mulhare, Ms. April Myers, Dr. Kelly Oaks, Ms. Kim O'Rourke, Mr. Mark Owczarski, Dr. Patty Perillo, Mr. Scott Ransbottom, President Tim Sands, Ms. Savita Sharma, Mr. Dwight Shelton, Ms. Karlee Siepierski, Mr. Ken Smith, Mr. Steve Vantine, Ms. Tracy Vosburgh, Mr. Paul West, Dr. Sherwood Wilson.

Students Present:
Mr. Andrew Bertie, Mr. Michael Geary

Others Present:
Mr. Steve Ross, Town of Blacksburg

1. **Welcome**

2. **Consent Agenda:** The Committee approved and accepted the items listed on the Consent Agenda.

    a. **Approval of the Minutes for the September 11, 2017 meeting.**

    b. **Resolution to Create an Easement and/or Amend the Virginia Tech / Montgomery Regional Airport Authority Stormwater Easement to Acknowledge an Encroachment and Create a Stormwater Channel/Ditch:** The proposed easement would allow partial encroachment of the Lane Substation expansion into the stormwater easement area, and allow for the creation and maintenance of a stormwater channel/ditch near the Virginia Tech/Montgomery Regional Airport expansion.

    c. **Sustainability Annual Report:** The Committee reviewed and approved the annual sustainability report. Significant progress continues to be made in this area through student engagement in on-going programs, as well as in operational improvements throughout the institution.

    d. **Acceptance of Capital Project Status Report:** The Committee reviewed and approved the quarterly capital project status report.

3. **Presentation on Campus Security:** The Committee received a presentation regarding campus security from Virginia Tech Police Department Chief Kevin Foust. The presentation provided an overview of the campus Police Department, some high level statistics regarding crime on campus, and information regarding interagency partnerships and community outreach efforts.

4. **Presentation on Campus Safety and Preparedness:** The Committee received a presentation regarding campus safety and preparedness from Mr. Michael Mulhare, Assistant Vice President for Emergency Management. Main areas of focus included the university's structure and plans related to safety and security, the university's emergency notification system, and preparedness efforts such as trainings, exercises, and information dissemination.

*** 5. Amendment to September 11, 2017 Resolution Supporting Amendment of Virginia Acts of Assembly 2010 Chapter 638:** The Committee recommended for full Board approval a resolution amendment regarding the New River Valley Emergency Communications Regional Authority legislation. Following the Board of Visitors approval in September, Authority leadership determined that additional clarifications were required in the Resolution and proposed legislation amendment. The changes clarify that all participating agencies must approve the funding formula proposed by the Authority's Board of Directors before such formula is implemented.

6. Design Preview / Review for Advanced Design and Construction Facility: The Committee approved designs underway for a 4,965 square foot facility that will be a support facility for the College of Architecture and Urban Studies as well as the College of Engineering.

7. Design Review for Multi-Modal Transit Facility: The Committee approved designs for the MMTF, which is managed through the Town of Blacksburg and is comprised of new construction of a 13,716 gross square foot facility fronting existing Perry Street in the North Academic District with accompanying bus loops.

8. Design Review for Virginia Tech Carilion Biomedical Research Expansion: The Committee approved designs for the Virginia Tech Carilion Biomedical Research Expansion. The design team are currently proceeding with the Preliminary Design phase for approximately 139,300 gross square feet of new construction. The site is located at the Riverside Center Research Education and Medical Park in Roanoke.

9. March Agenda Discussion: The Committee discussed potential topics for inclusion on the March meeting agenda.

The Inn at Virginia Tech – Solitude Room
9:45 a.m. – 10:00 a.m.
Monday, November 6, 2017

Joint Open Session with Finance and Resource Management Committee

Board Members Present: Ms. Greta Harris, Mr. C. T. Hill, Mr. Robert Mills, Mr. Mike Quillen, Mr. Robert Sebek – staff representative, Mr. Horacio Valeiras

VPI & SU Staff: Ms. Jennifer Altman, Mr. Mac Babb, Mr. Bob Broyden, Mr. Mark Cartwright, Ms. D'Elia Chandler, Mr. John Cusimano, Dr. John Dooley, Mr. Kevin Foust, Ms. Mary Helmick, Mr. Jim Hillman, Mr. Tim Hodge, Ms. Elizabeth Hooper, Dr. Robin Jones, Dr. Chris Kiwus, Ms. Cathy Kropff, Ms. Sharon Kurek, Ms. Nancy Meacham, Dr. Scott Midkiff, Mr. Ken Miller, Mr. Mark Owczarski, Mr. Charlie Phlegar, Dr. Scot Ransbottom, Ms. Lisa Royal, Ms. Savita Sharma, Mr. M. Dwight Shelton Jr., Ms. Kayla Smith, Mr. Jason Soileau, Mr. Jon Clark Teglas, Ms. Tracy Vosburgh, Mr. Luke Watson, Mr. Aiden Williams, Dr. Sherwood Wilson, Mr. Chris Wise

Approval of Resolution for Student Wellness Improvements: The Committees reviewed for approval a resolution for Student Wellness Improvements. In March 2016, the Board of Visitors approved a $2.757 million planning authorization to develop a facility solution to meet expectations for student counseling services, student health services, and expanded fitness programming. The university conducted a program and facility study and identified the renovation of War Memorial Hall along with minor upfits to McComas Hall as the most efficient alternative to meet student service needs.

The proposed improvements to War Memorial Hall will provide updated space for Cook Counseling Center and Hokie Wellness, the department of Human Nutrition, Foods, and Exercise (HNFE), Recreation Sports, and School of Education for running programmatic activities to support and promote student wellness, instruction, and research. The proposed renovations to Schiffert Health Center in McComas Hall include minor renovations to accommodate student health services.

The total project cost for the major renovations to War Memorial Hall and minor renovation to McComas Hall is $63 million. This request is for a $63 million authorization to complete the Student Wellness Improvements project.

The Committees recommended the Resolution for Student Wellness Improvements to the full Board for approval.

There being no further business, the meeting adjourned at 12:08 p.m.

*Requires full Board approval.

Buildings & Grounds Committee Tour of Sample Facilities
Saturday, November 4, 2017

Estimated Time (mins.)	Estimated Time (Arrival/Departure)	Map Label	Location
-	11:30 a.m.	1	Load at The Inn
10	11:30 – 11:40 a.m.		*Travel to…*
85	11:40 a.m. – 1:00 p.m.	2	Lunch with students at West End Dining facility
5 minute break			
5 (walking)	1:05 – 1:10 p.m.		*Travel to…*
40	1:10 – 1:30 p.m. Bldg 1 1:30 – 1:50 p.m. Bldg 2	3 A&B	Slusher & Pritchard Halls (typical housing for non-Corps)
5	1:50 – 1:55 p.m.		*Travel to…*
20	1:55 – 2:15 p.m.	4	Squires Student Center (student meeting space)
5 minute break			
5 (walking)	2:15 – 2:20 p.m.		*Travel to…*
20	2:20 – 2:40 p.m.	5	Pearson and/or New Cadet Hall(s)
5	2:45 – 2:50 p.m.		*Travel to…*
40	2:50 – 3:10 p.m. Bldg 1 3:10 – 3:30 p.m. Bldg 2	6 A&B	Derring Hall and New Classroom Building
5 minute break – refreshments will be provided			
5	3:35 – 3:40 p.m.		*Travel to…*
10 (driving)	3:40 – 3:50 p.m.	7	Smart Village & Plantation Road Research and CALS Facilities
20	3:50 – 4:10 p.m.		*Travel to…*
20 (driving)	4:10 – 4:30 p.m.	8	Kentland Farm
25	4:30 – 4:55 p.m.		*Travel to…*
5 minute break			
60	5:00 – 6:00 p.m.	9	Moss Arts Center – Cube: Master Plan Presentation *Note: Shanks 370/380 will serve as an alternate viewing location for the public*
5	6:00 – 6:05 p.m.		*Travel to…*
40	6:05 – 6:45 p.m.	10 & 11	Athletics: Lane Stadium - Academic Advising and ACC Network facilities; Indoor Athletics Practice Facility; Bowman Room
-	6:45 p.m.		End at Veatch Family Football Players Lounge

November 2017 BOV Tour Route – Key

Leg 1 (stops 1 – 5)
Leg 2 (stops 6 – 8)
Leg 3 (stops 9 – 11)

Hashed lines = participants walking
Dotted lines = bus repositioning

1
2
3A
3B
4
5
6
A&B
7
8*
9
10
11

*See detail on next page

Kentland Farm Property Boundary

Google earth

miles 2
km 3


Kentland Farm Tour Route - Key
Leg 1: Dining Services Garden
Leg 2: Crop Research, UAV Runway, and Beef Center
Leg 3: Pasture/Hay & Orchard Research, Timber Management, and Dairy Center
Leg 4: Depart
New River
Whitethorne Boat Ramp
Kentland experimental aviation systems...
3D

Update on the Campus Master Plan

BUILDINGS AND GROUNDS COMMITTEE

November 4, 2017

Background

University officials are hard at work on the development of a new Master Plan that will shape how Virginia Tech's Blacksburg, Roanoke, and National Capital Region campuses grow to support the vision set out in the Beyond Boundaries initiative and anticipated enrollment growth.

The 2017 Master Plan for Virginia Tech will integrate the academic mission of the university to develop VT-shaped individuals by focusing on infrastructure, quality of space, space analysis and land use, and student life initiatives. It will incorporate strategies for the creative and efficient use of existing space, as well as the development of new facilities that encourage interdisciplinary collaboration and partnerships and new ideas for housing an increasingly transient population of students, faculty, and researchers.

The master planning process allows the university to holistically take inventory of where it is and think strategically about where and how it would like to invest. Planners are being challenged to think broadly about how the improvement of structure and landscape can complement the university's goals of collaboration among academic and research disciplines and enhance the student experience. The result will be an action based strategic plan encompassing programmatic and capital project goals and objectives for the next 10 years and beyond.

Goals and Vision

The proposed Master Plan is envisioned as more than an update of the previous plan; it is envisioned as a rethink of how Virginia Tech can best utilize the Blacksburg, Roanoke, and National Capital Region (NCR) campuses to support the mission and vision of the university. It will be the first major reassessment of physical planning at Virginia Tech in more than 30 years and will provide guidance for all three of the university's primary locations.

Goals

- Advancing as an internationally recognized, global land-grant institution.
- Strategically addressing the challenges and opportunities presented by the changing landscape of higher education.
- Planning for university growth.
- Planning for VT-shaped individuals.

Vision

The strategic direction for Virginia Tech, as expressed in the Beyond Boundaries initiative, aims to establish a long-term and forward looking vision that will place Virginia Tech at

the forefront of higher education. The emerging vision is one defined by "destination areas" – the themes around which interdisciplinary teaching, research, and outreach activities will be organized. This implies a move toward a more interdisciplinary and dynamic range of programs, activities, and partnerships with other institutions, businesses, and industries.

This emerging vision will require a new strategy for all three of Virginia Tech's primary sites. It will require:

- New ways of organizing people and space with the goal of fostering engagement, interaction, and collaboration.
- Spatial arrangements will need to encourage innovation and new working relationships that go beyond established disciplines.
- Innovation districts, collaboration hubs, and a more deliberate integration of living and learning environments are anticipated outcomes.
- Environments that enable students to explore the full range of what Virginia Tech has to offer but with the guidance and direction that will lead to academic success.

This will require a reimagining of the student experience and the physical environments that contribute to the quality of that experience. The ultimate goal is to establish a vision and identity that details how Virginia Tech can operate as one entity across Blacksburg, Roanoke, and the National Capital Region. This will require innovative ideas for connecting the campuses and the National Capital Region through transportation and telecommunication—connections that take into consideration the user experience.

Blacksburg will continue to be the flagship campus for the undergraduate student experience and core academic and research programs. Roanoke will be the center for health-related professions, medical research, and business/industry partnerships. The National Capital Region will accommodate programs, research, and other activities that will benefit from proximity to the urban context of Washington, D.C.

Scope

While the overall Master Plan will focus on the Virginia Tech experience across the commonwealth, individual plans will be tailored to address the Blacksburg, Roanoke, and National Capital Region (NCR) campuses.

The greatest level of detail will be provided for Blacksburg, given the scale and complexity of the campus. Recommendations for the Roanoke campus and the National Capital Region will be provided with sufficient detail to strategically plan the teaching, research, outreach activities, and housing envisioned for those locations.

The Master Plan will consist of the following parts:

- Part A: Master Plan for the Blacksburg Campus;
- Part B: Additional Planning for the Blacksburg Campus including:
    - Space Study;
    - Student Life Initiatives/Creativity and Innovation District; and,

    - Infrastructure
- Part C: Roanoke Campus
- Part D: National Capital Region

Process and Timeline
A comprehensive master planning process generally takes about 18 months.

Phases
Five phases of work will engage the senior administration, university professional staff, and the broader university community in the development of the Master Plan:

- **Phase 1: Discovery and Inventory** will focus on data gathering, synthesis, and analysis with the goal of establishing a detailed, data-informed foundation for the planning process.
- **Phase 2: Concept Development and Testing** will explore ideas and strategies for accommodating growth and responding to the teaching, research, and outreach mission at the Blacksburg, Roanoke, and National Capital Region campuses. This will include ideas for the creative and efficient use of existing space, imaginative new learning environments, opportunities for collaboration and innovation spaces, and strategies for housing and mobility within and between Virginia Tech's locations across the commonwealth.
- **Phase 3: Plan Revision and Report Development** will focus on articulating the Virginia Tech vision for development across the Commonwealth. This will be supported by a report narrative and graphics that convey how all three campuses will contribute to the vision for the university.
- **Phase 4: Public Participation and Comment Period** will focus on the review of the Master Plan recommendations with members of the campus and broader communities.
- **Phase 5: Final Master Plan Documentation** will include the development of the executive summary, final narrative, and supporting documentation and graphics for the Master Plan. It will articulate a vision aligned with the emerging teaching, research, and outreach mission.

Timeline

- Phase I: Inventory and Analysis (May - September 2016)
- Phase II: Concept Plan Alternatives (October 2016 - June 2017)
    - Intelligent Infrastructure and Human Centered Community Destination Area Planning
    - Integrated Security Destination Area Planning
    - Creativity and Innovation District Planning
- Phase III: Master Plan Development (July - October 2017)
- Phase IV: Public Comment (September - November 2017)
- Phase V: Final Plan Documentation (November 2017 - early 2018)

Project Leadership

Consultant Team

Sasaki Associates is a multi-disciplinary firm of planners, urban designers, landscape architects, architects, and interior designers. To complete the project, they have teamed up with an experienced local firm familiar with the university – Draper Aden (storm water management); as well as national firms with Virginia Tech experience: AEI (mechanical engineering), Boynton Rothschild Rowland Architects (architecture assessment), Convergent Technology Design Group (IT/wi-fi), and VHB (transportation).

Virginia Tech Team

- Christopher H. Kiwus, Associate Vice President and Chief Facilities Officer, Facilities Department
- Jason P. Soileau, Assistant Vice President for Planning and University Architect, Facilities Department
- Michael W. Dunn, Transportation Planning Engineer, Facilities Department

Senior university leaders and a Buildings and Grounds Committee member were appointed to a *Master Plan Executive Committee* to provide strategic direction for the Master Plan Update. Additionally, a working *Master Plan Committee* – composed of staff and employee representatives to the Board of Visitors, stakeholders from across campus such as deans and directors, and community partners including the Town of Blacksburg and the Virginia Tech Foundation, Inc. – has helped inform the process and provide on-going feedback as the project progresses.

Current Status

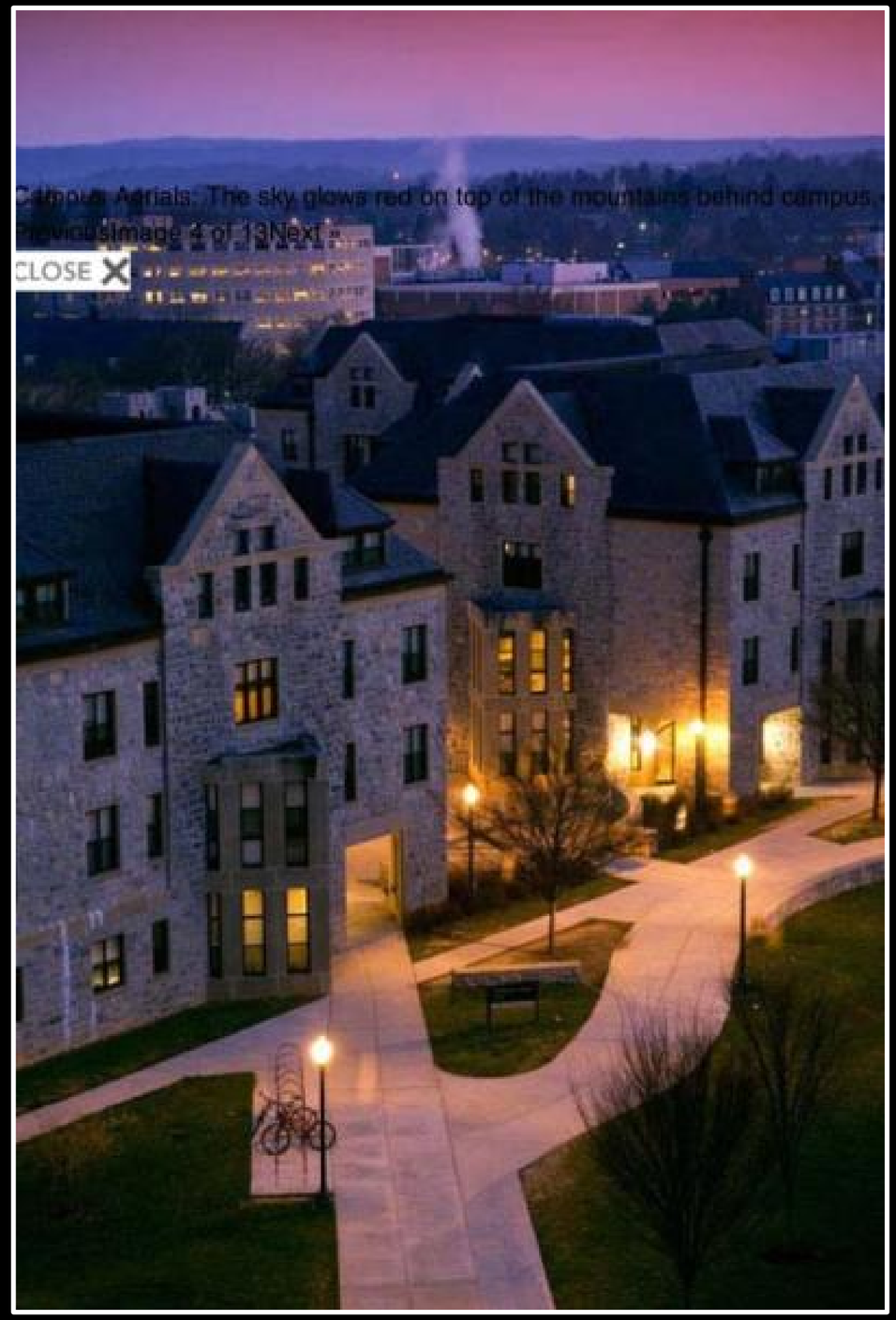
As of September 2017, the planning process is in the latter portion of the concept development phase. Following the conclusion of this phase, the effort will move into public comment and feedback. The majority of the planning process is anticipated to be completed by the end of the 2017 calendar year, with ancillary efforts projected to continue into early 2018.

VIRGINIA TECH™

Beyond Boundaries 2047: The Campus Plan

Work Session 4
Fall 2017

Contextual Background


Campus Aerials: The sky glows red on top of the mountains behind campus.
« PreviousImage 4 of 13Next »
CLOSE

Historically applied design standards and principles help to create a strong

“Sense of Place”

Distributed Communities of Learning

Develop infrastructure to facilitate Distributed Communities of Learning that combine VT's world-leading research, faculty and technology, with a strong experiential component designed to develop the VT-shaped student

Destination Areas | Living / Learning Communities | Innovation Districts

Matrix Structure and Instruments to Achieve the **VT Shaped Student**

Develop Facilities and Open Space Networks that facilitate Excellence in Inclusion and Diversity on the Virginia Tech Campus

Inclusive VT

Identify, Create and Enhance
Spaces for Experiential Learning and Engagement

VIRGINIA TECH'S STRATEGIC ADVANTAGE…. ***COMMUNITY!***

Benefits of Community to the Student and University

Adjustment to the university for first-year students is significantly enhanced through the development of a friendship network and belonging to a diverse and inclusive community (Buote, et al, 2007)

Development of community and participation within a diverse and inclusive community teaches students how to live in a multicultural society and enhances their opportunities to built **transformative leadership skills** (Shields, 2013).

Students and Alumni who have had more **positive and meaningful experiences** in their undergraduate years are more likely to **give their time and financial**

Respect the Past…

Impact the Present…

Provide a Vision For The Future!

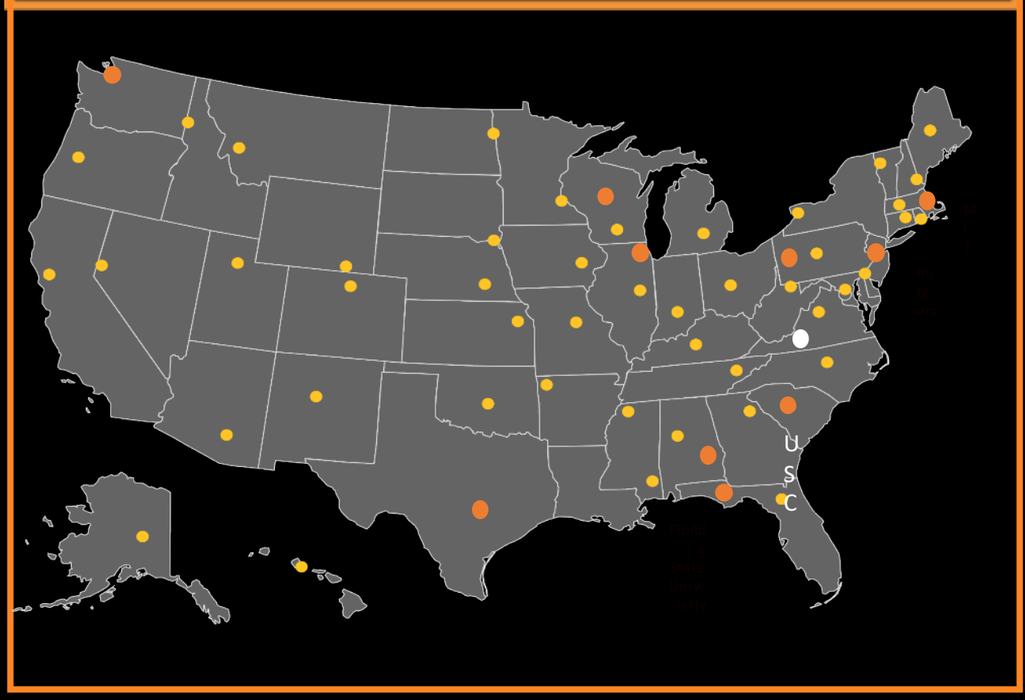
Only a Land Grant University with a spirit of Service…

like that embedded at Virginia Tech can evolve to create the

VT-Shaped Student!

Internationally Recognized and Highly Awarded Planning Firm!

SASAKI



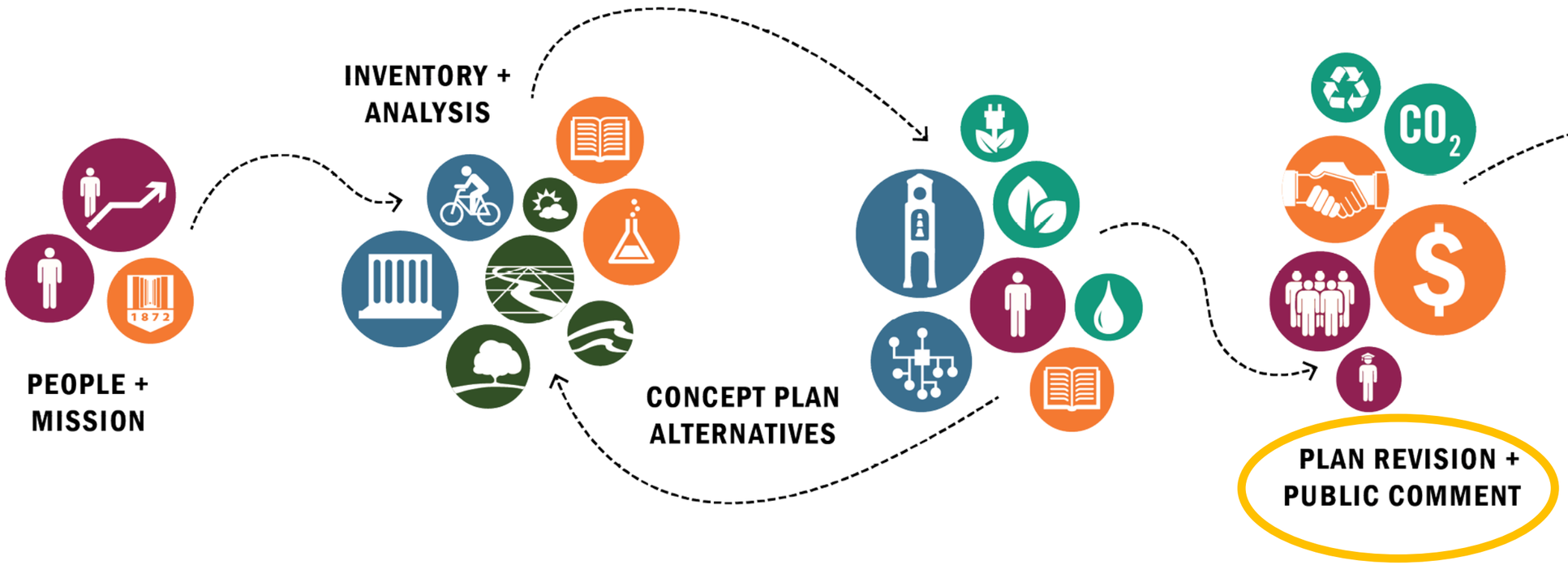
Work Session 4

Virginia Tech MASTER PLAN

September 2017

Planning Process

FLEXIBLE, RESPONSIVE + ITERATIVE



MASTER PLAN DRIVERS

BEYOND *BOUNDARIES*

A Vision for the Campus of the Future

VT-Shaped Discovery

- VT SHAPED STUDENTS
- INTERDISCIPLINARY TEAMS
- PURPOSE-DRIVEN AND PERSON-CENTERED CURRICULUM

The VT student of 2047 learns by doing, creating, and engaging, service to humanity, and does so not in isolation or as an academic exercise but rather with the support of a community.

Distributed University Structure

INNOVATION HUBS + DESTINATION AREAS

BLACKSBURG DESTINATION AREAS

- Data Analytics & Decision Sciences
- Global Systems Science
- Intelligent Infrastructure for Human-Centered Communities

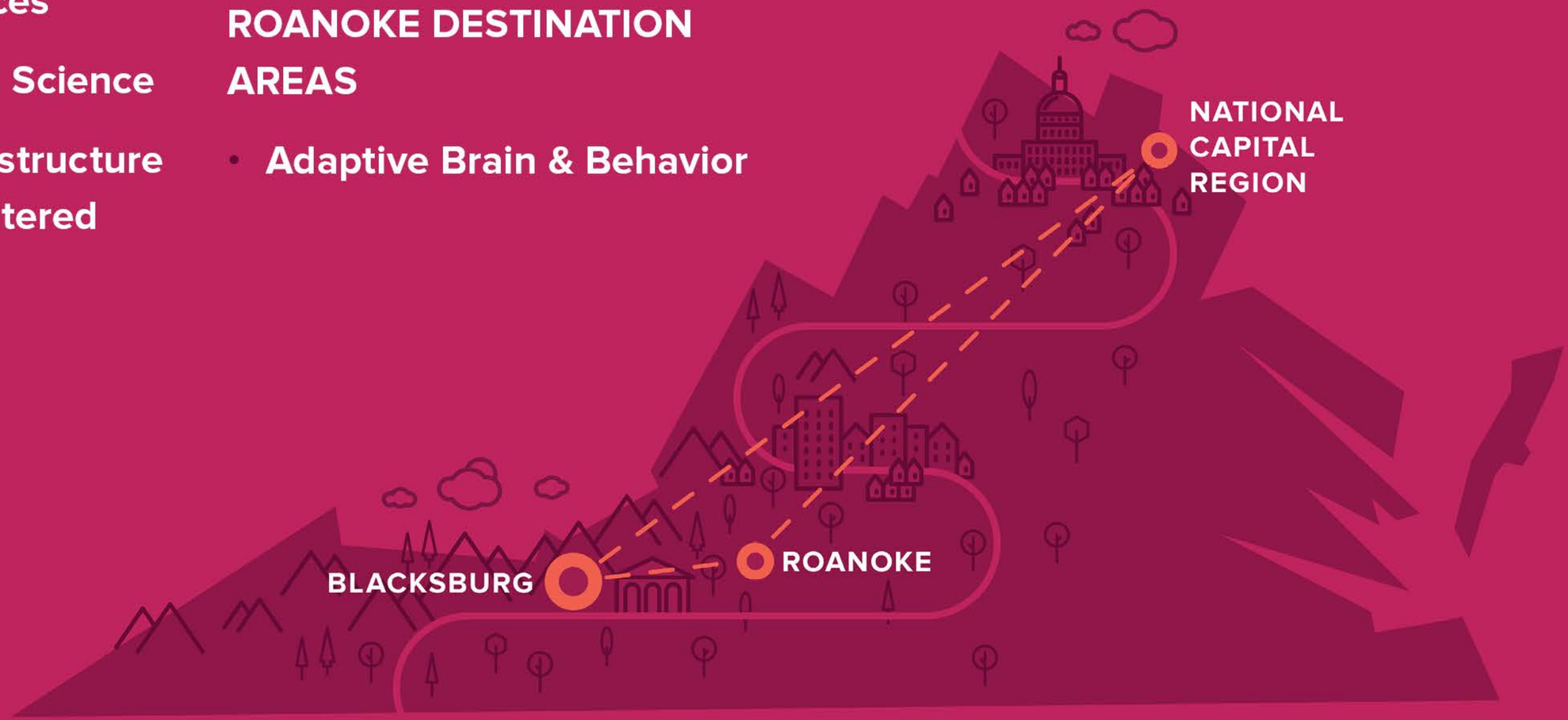
NCR DESTINATION AREAS

- Integrated Security

ROANOKE DESTINATION AREAS

- Adaptive Brain & Behavior

VIRGINIA TECH AREC



Planning for Growth

BLACKSBURG

2016

CAMPUS RESIDENTS ***9,340***

OFF-CAMPUS POPULATION ***28,039***

UNDERGRADS ***15,978***

GRADS ***4,652***

FACULTY ***3,984***

STAFF ***3,425***

2026

CAMPUS RESIDENTS ***12,000***

OFF-CAMPUS POPULATION ***30,763***

UNDERGRADS ***17,530***

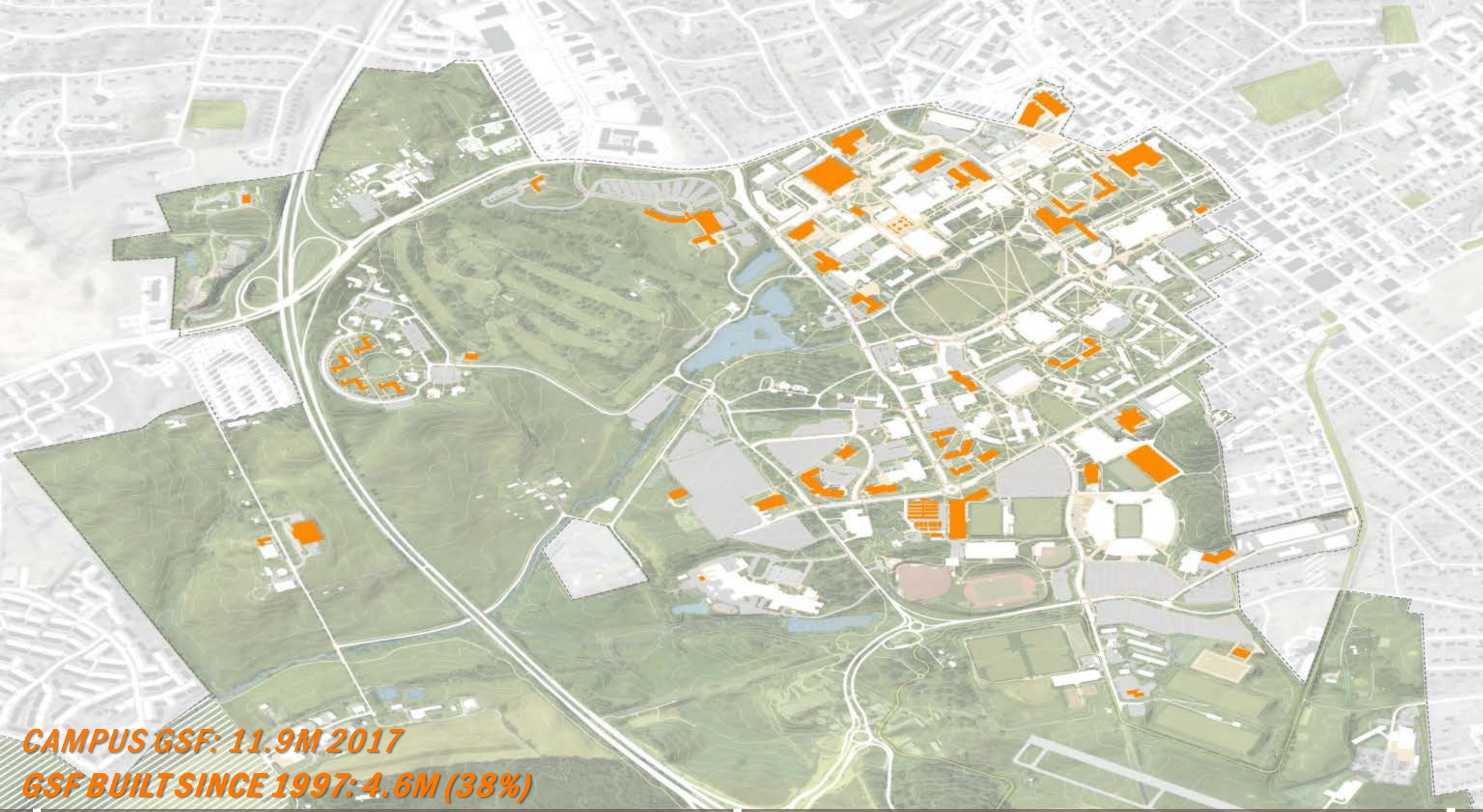
GRADS ***5,104***

FACULTY ***4,371***

STAFF ***3,758***

PARTNERS ?

EXISTING CAMPUS



CAMPUS GSF: 11.9M 2017

GSF BUILT SINCE 1997: 4.6M (38%)

1997

2017

2037

CAMPUS GSF: 11.9M 2017

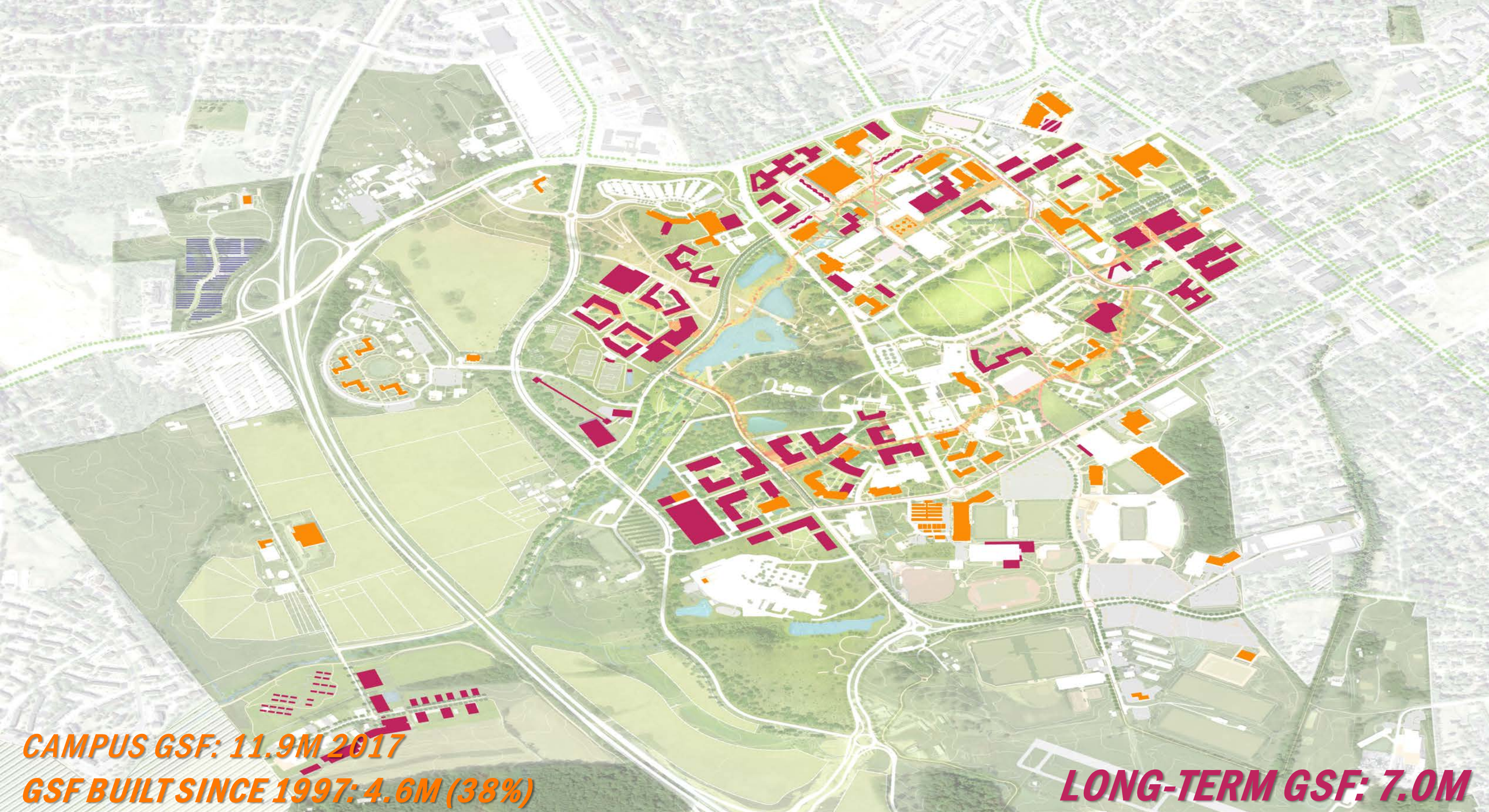
GSF BUILT SINCE 1997: 4.6M (38%)

SHORT-TERM GSF: 3.7M

1997

2017

2027


CAMPUS GSF: 11.9M 2017
GSF BUILT SINCE 1997: 4.6M (38%)
LONG-TERM GSF: 7.0M
1997
2017
2027
2047

PLANNING FRAMEWORK

1 PROTECTING THE LAND GRANT LEGACY

2 PROMOTING UNIVERSAL ACCESS

3 PLANNING FOR MOBILITY

4 ACCOMMODATING SMART GROWTH

5 IMPROVING THE VT STUDENT LIFE EXPERIENCE

6 FOSTERING INCLUSIVE DIVERSE COMMUNITIES

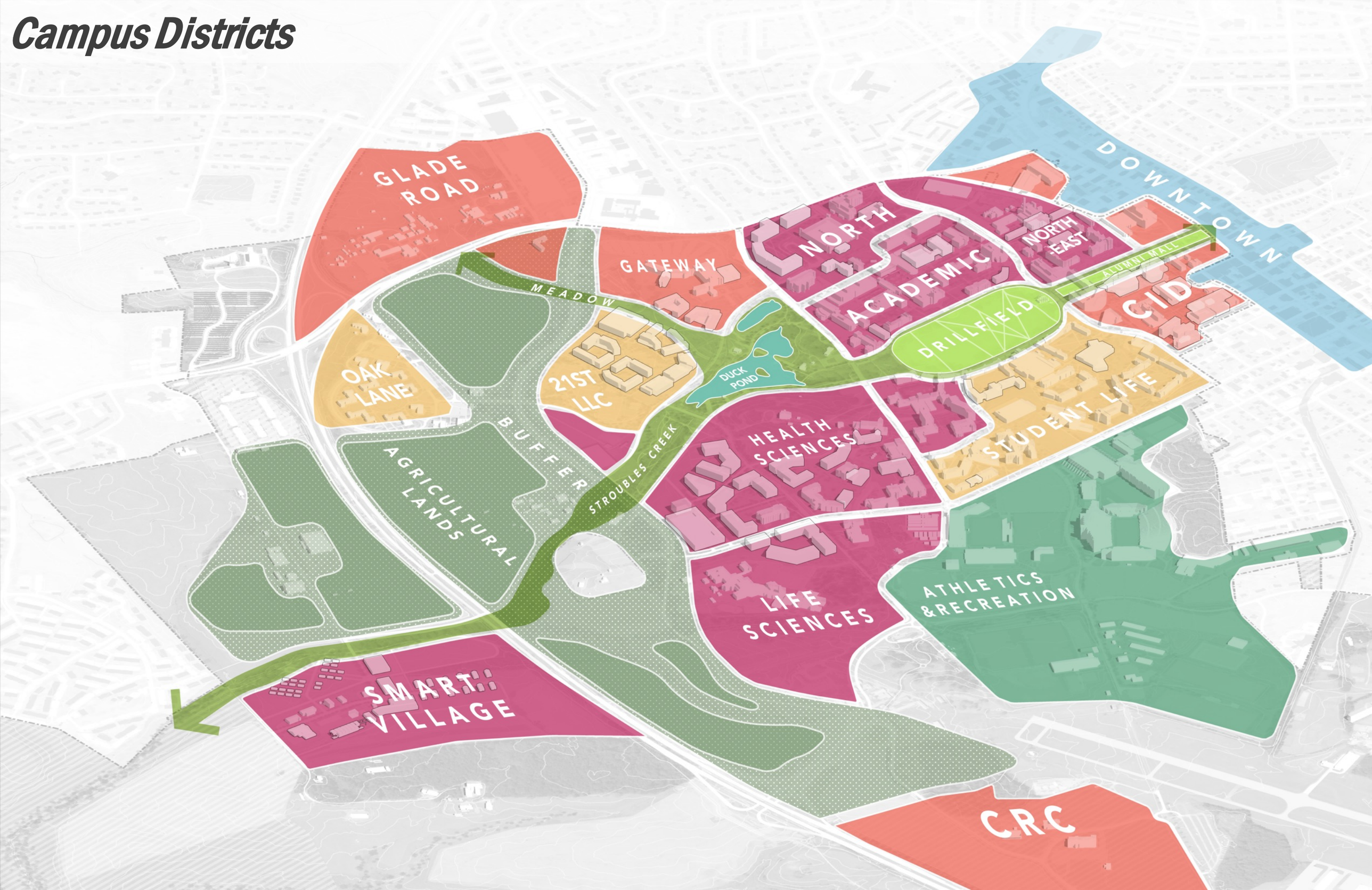
7 ENHANCING LEARNING & RESEARCH ENVIRONMENTS

8 EXPANDING STRATEGIC PARTNERSHIPS

PROPOSED FRAMEWORK

DISTRICTS

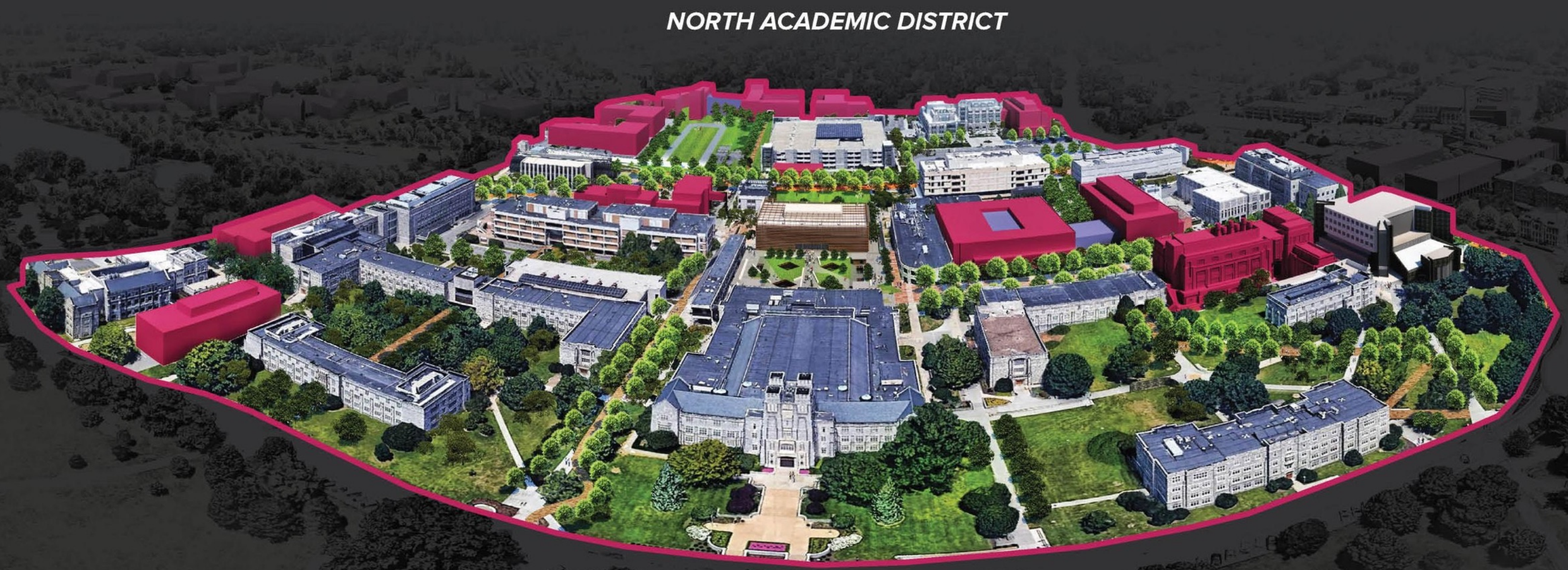
Campus Districts



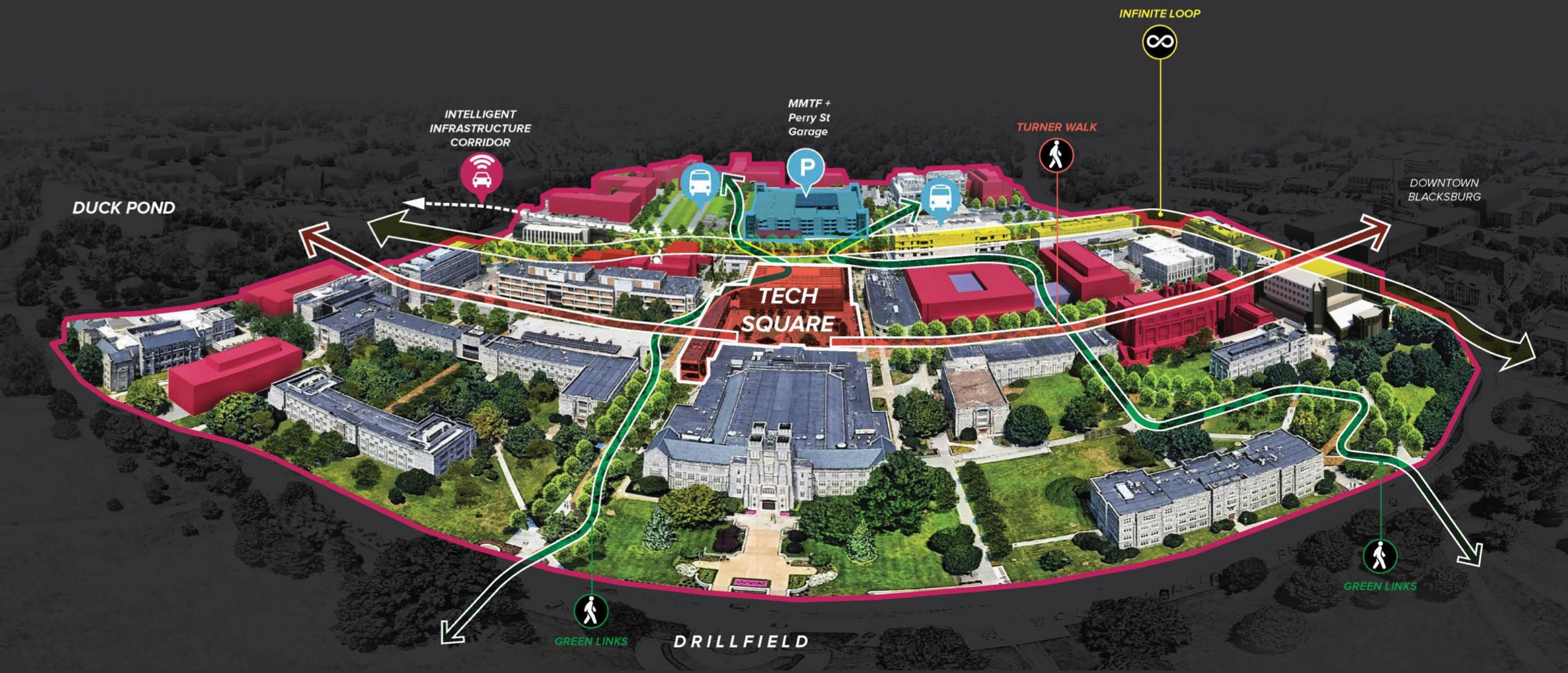
SAMPLE INITIATIVES

North Academic District

North Academic District

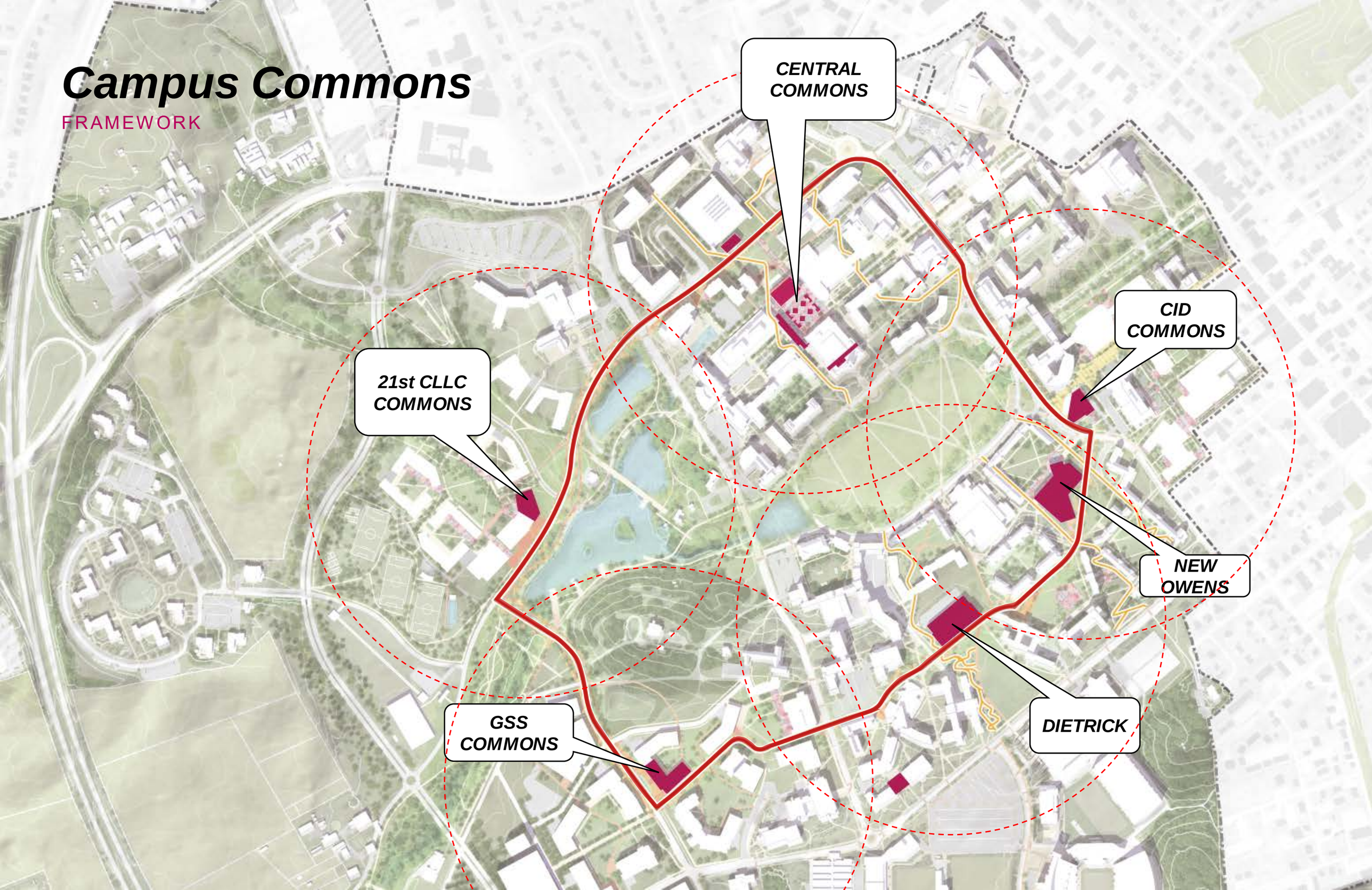


North Academic District



Campus Commons

FRAMEWORK



Point of Origin

WHERE ARE PEOPLE COMING FROM?

A large concentration of students walk or take transit from the area north of campus

9,400
students from the north

2,000
students from the downtown area

3,000
students from the west

Central Campus Commons at Cowgill

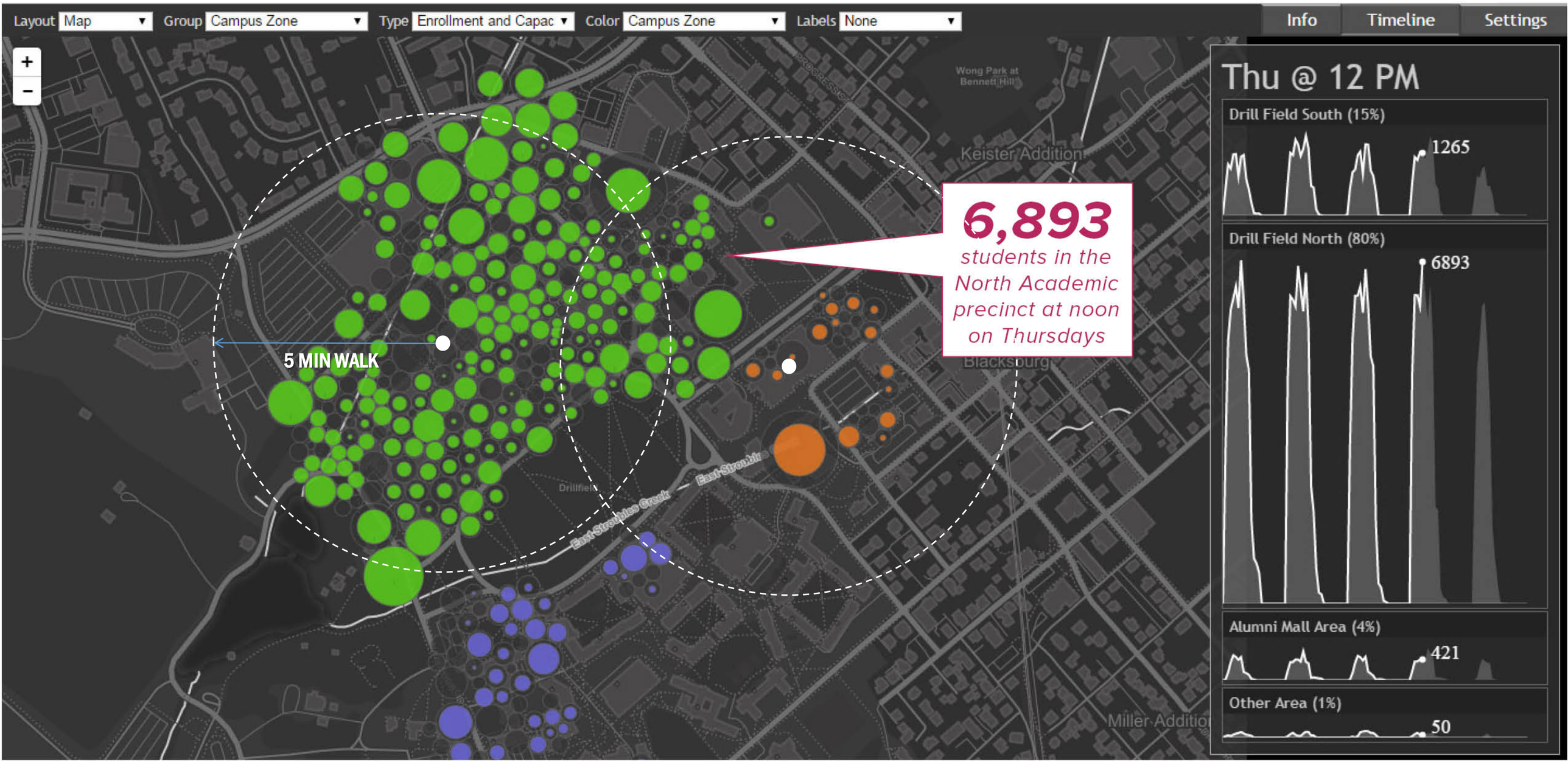
Squires

LEGEND

- STUDENT ADDRESS
- FACULTY/STAFF ADDRESS

DARKER COLOR INDICATES HIGHER CONCENTRATION

North Academic Core Scheduled Activity – Fall 2015
12:00 pm Thursdays (peak)

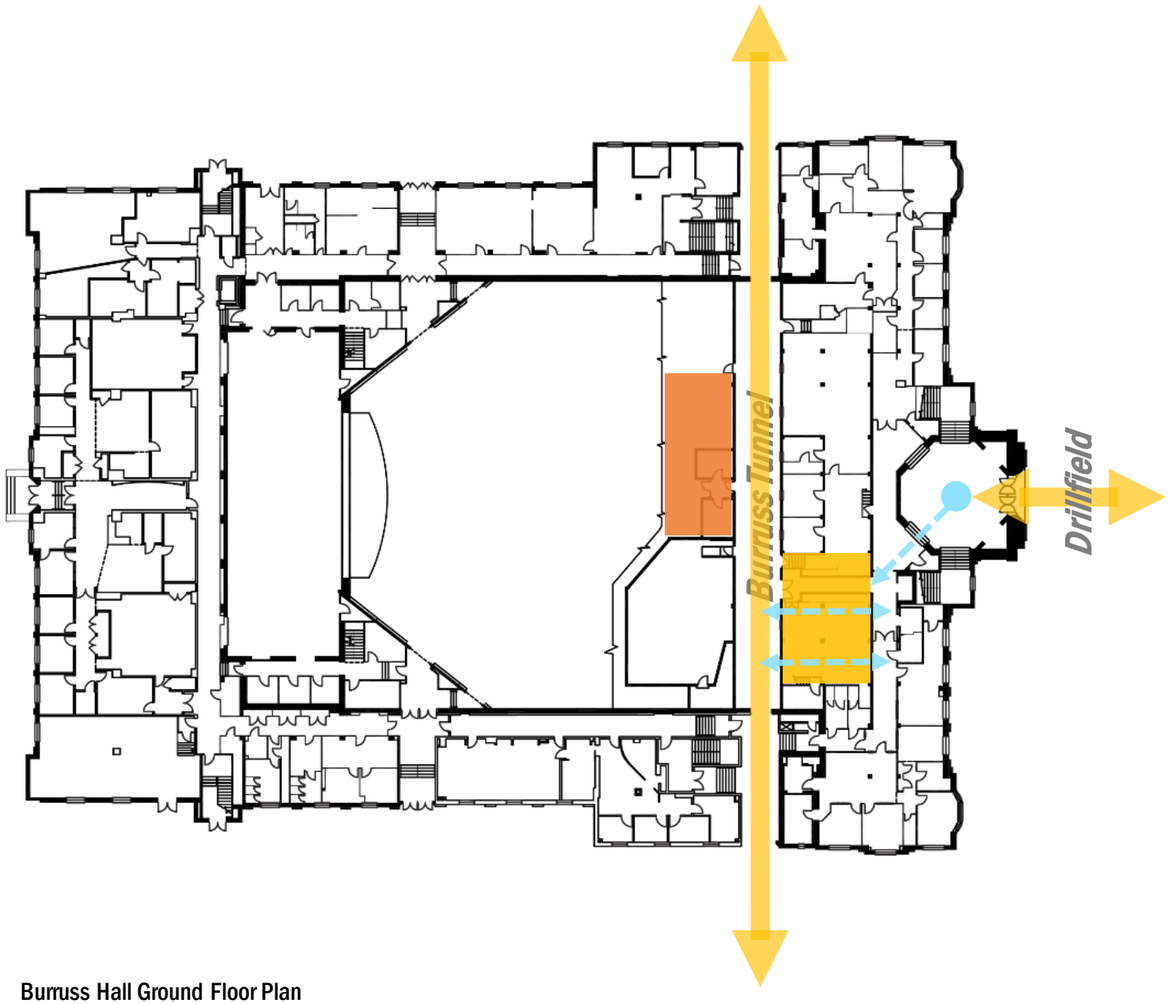


SHORT TERM STRATEGY – THE BURRUSS CAVE

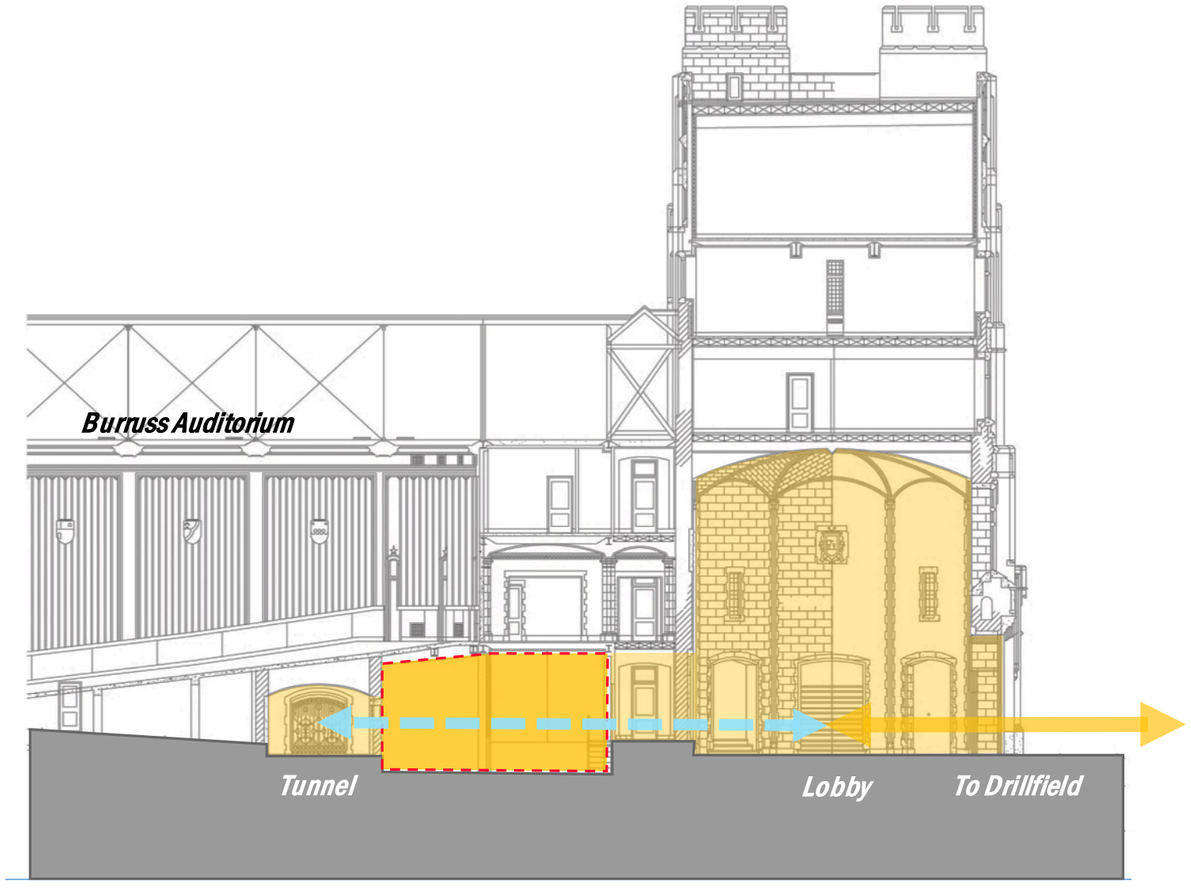
Framework

Burruss Tunnel

Social Space Opportunity



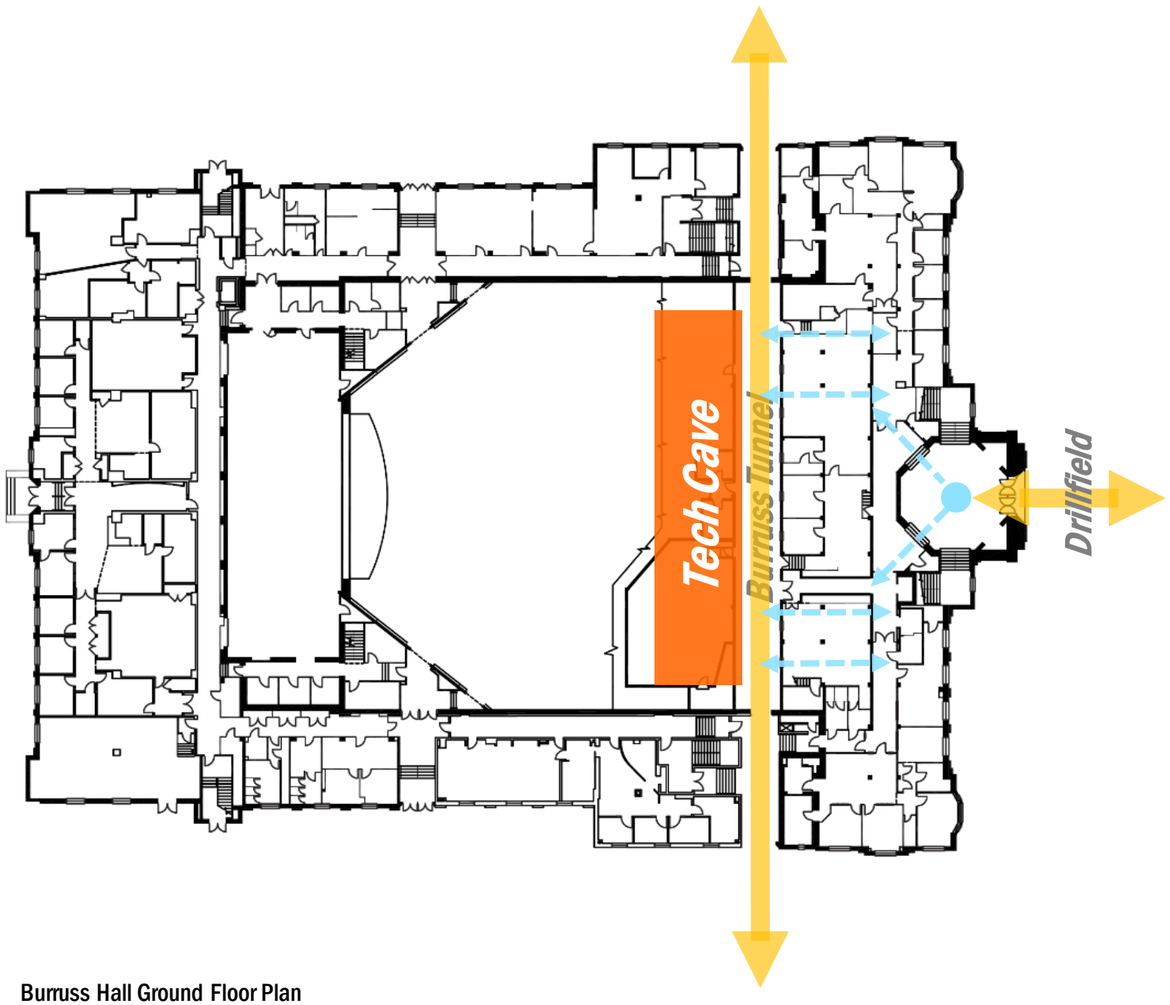
Burruss Hall Ground Floor Plan



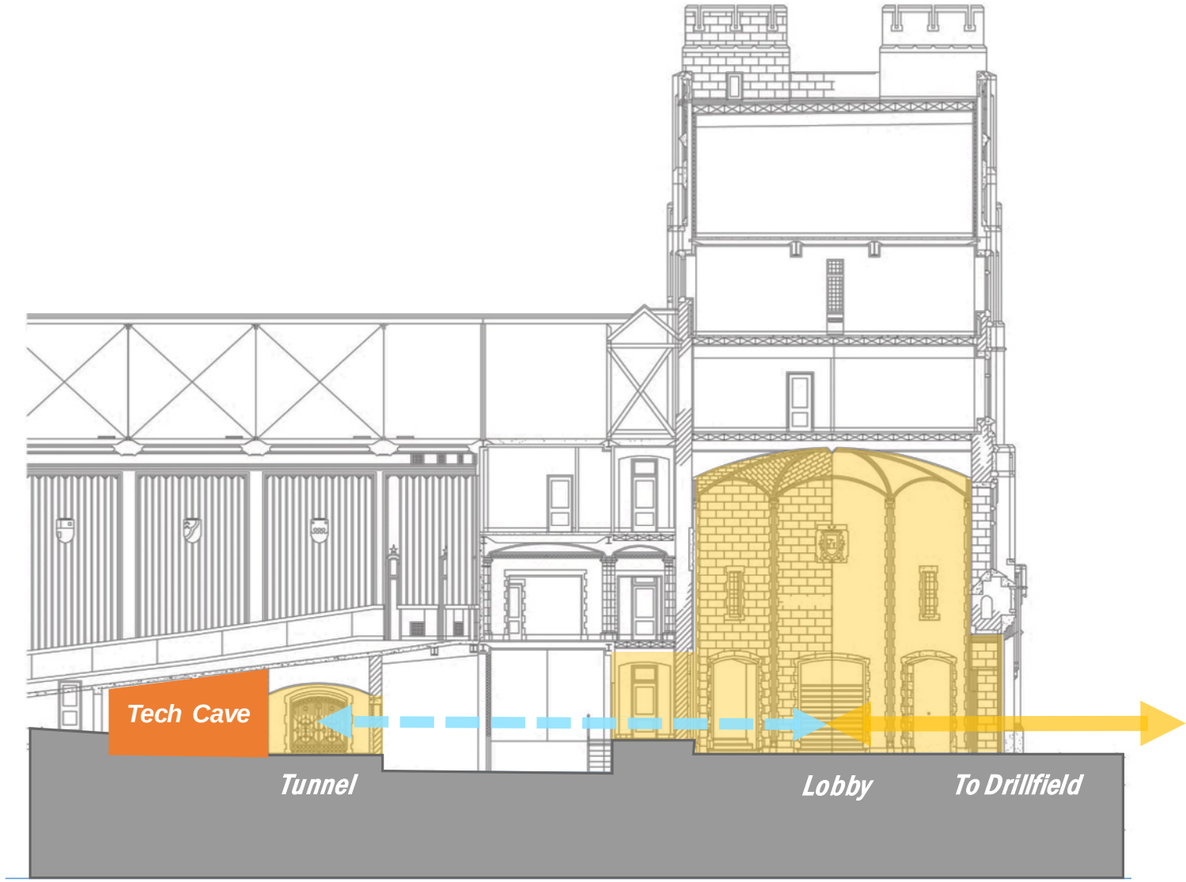
Section at Burruss Tunnel and Entry Lobby

Burruss Tunnel

Social Space Opportunity



Burruss Hall Ground Floor Plan



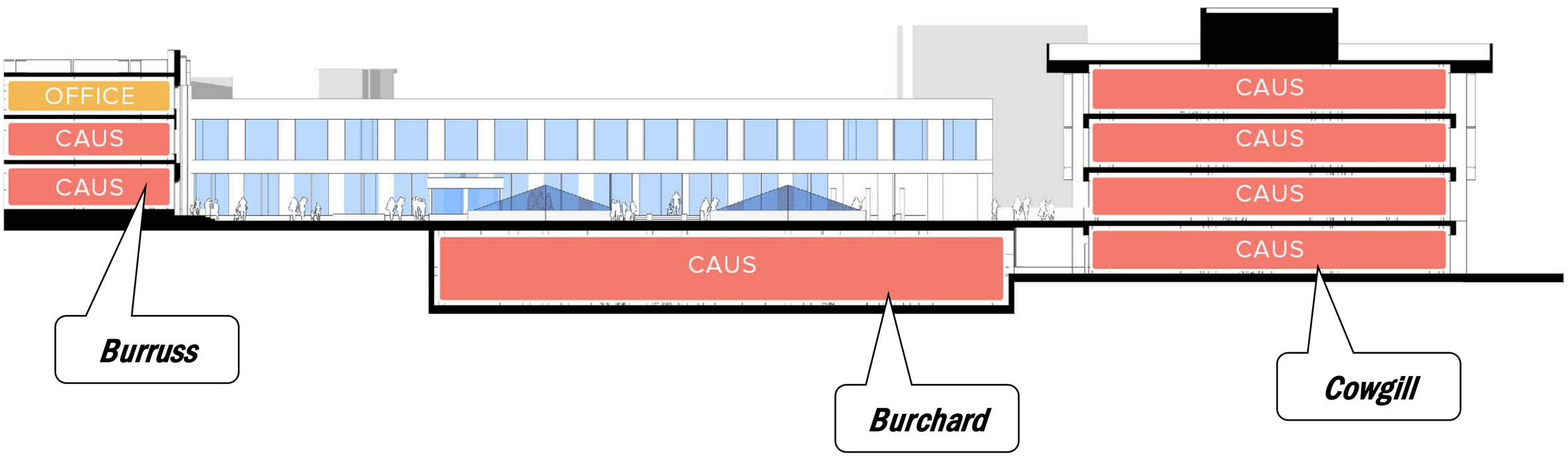
Section at Burruss Tunnel and Entry Lobby

Burruss Tunnel

Before

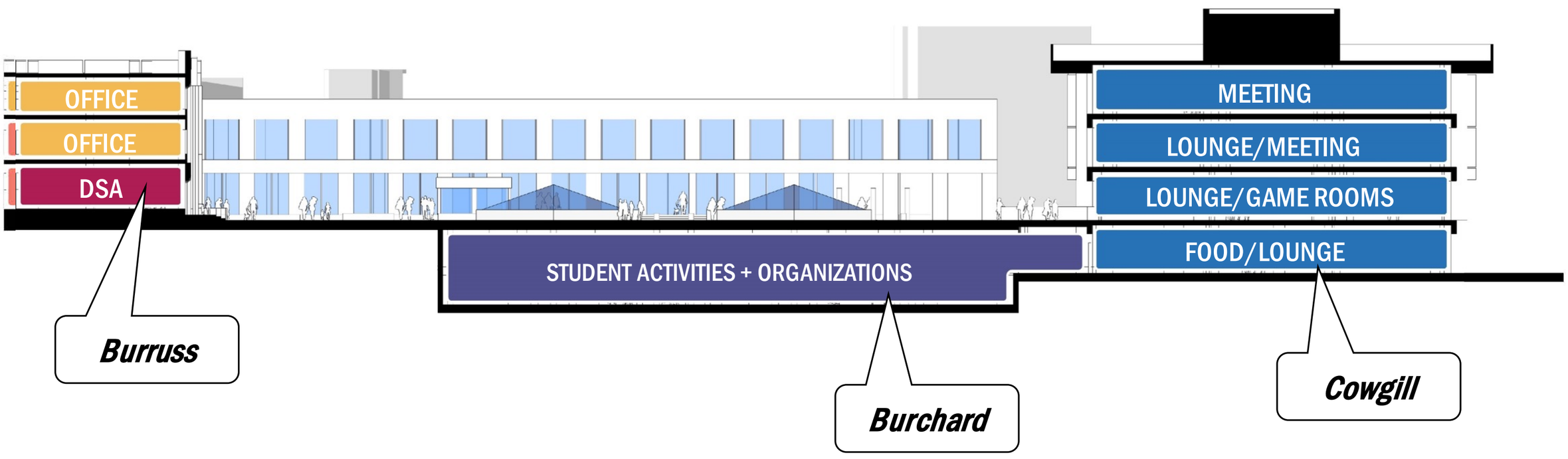
Existing Program

North Academic Central Campus Common



Proposed Program

North Academic Central Campus Common



Central Campus Commons

Framework

Existing Conditions

BURCHARD PLAZA

Existing Conditions

TURNER WALK

Existing Conditions

Burchard Student Spaces

Burchard Hall

Existing Conditions

Cowgill Interior

Cowgill Hall

Existing Conditions

COWGILL INTERIOR

Cowgill Hall

Central Campus Commons

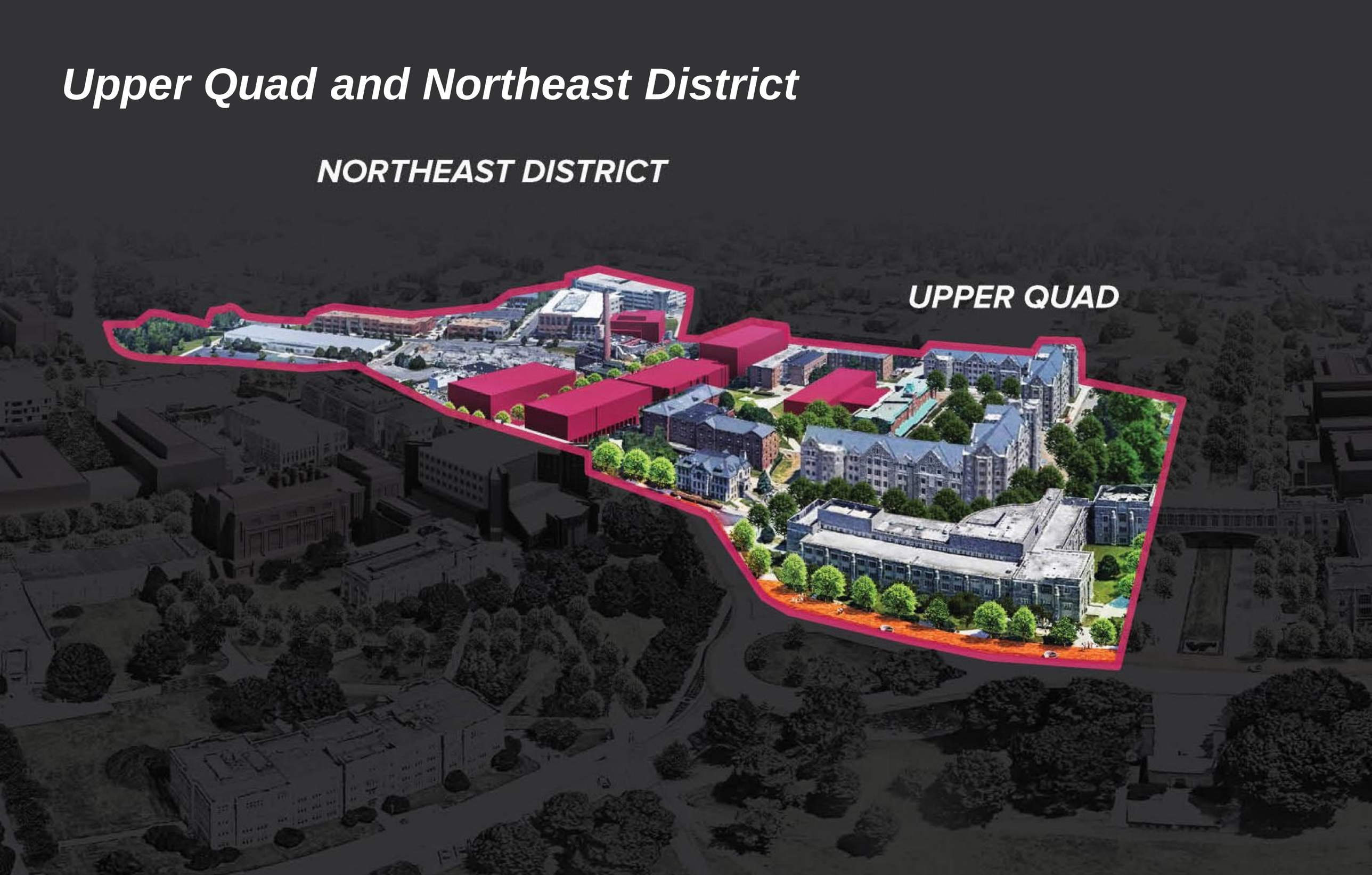
Framework

Existing Conditions

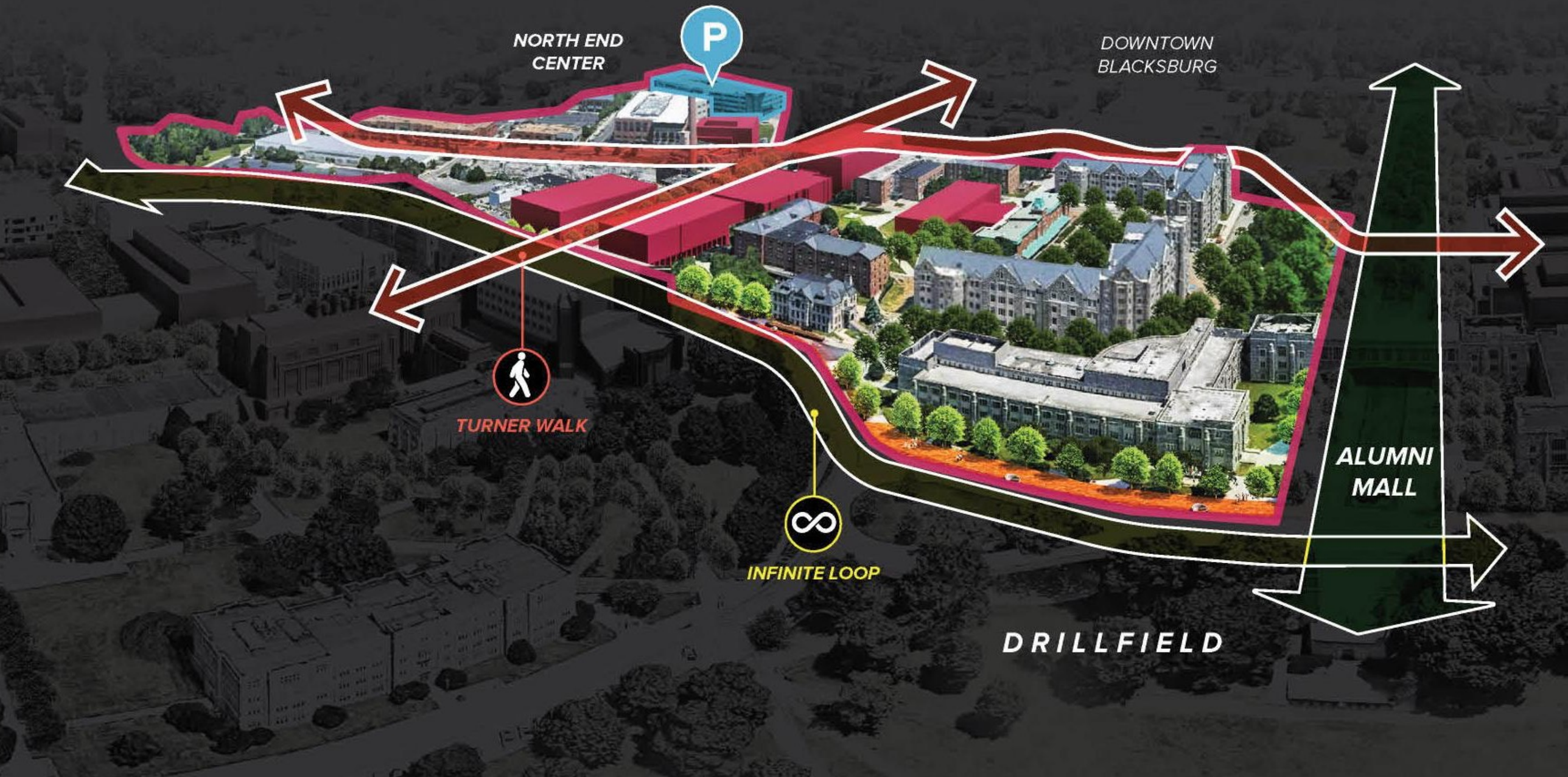
COWGILL LAWN

UPPER QUAD AND NORTHEAST DISTRICT

Upper Quad and Northeast District

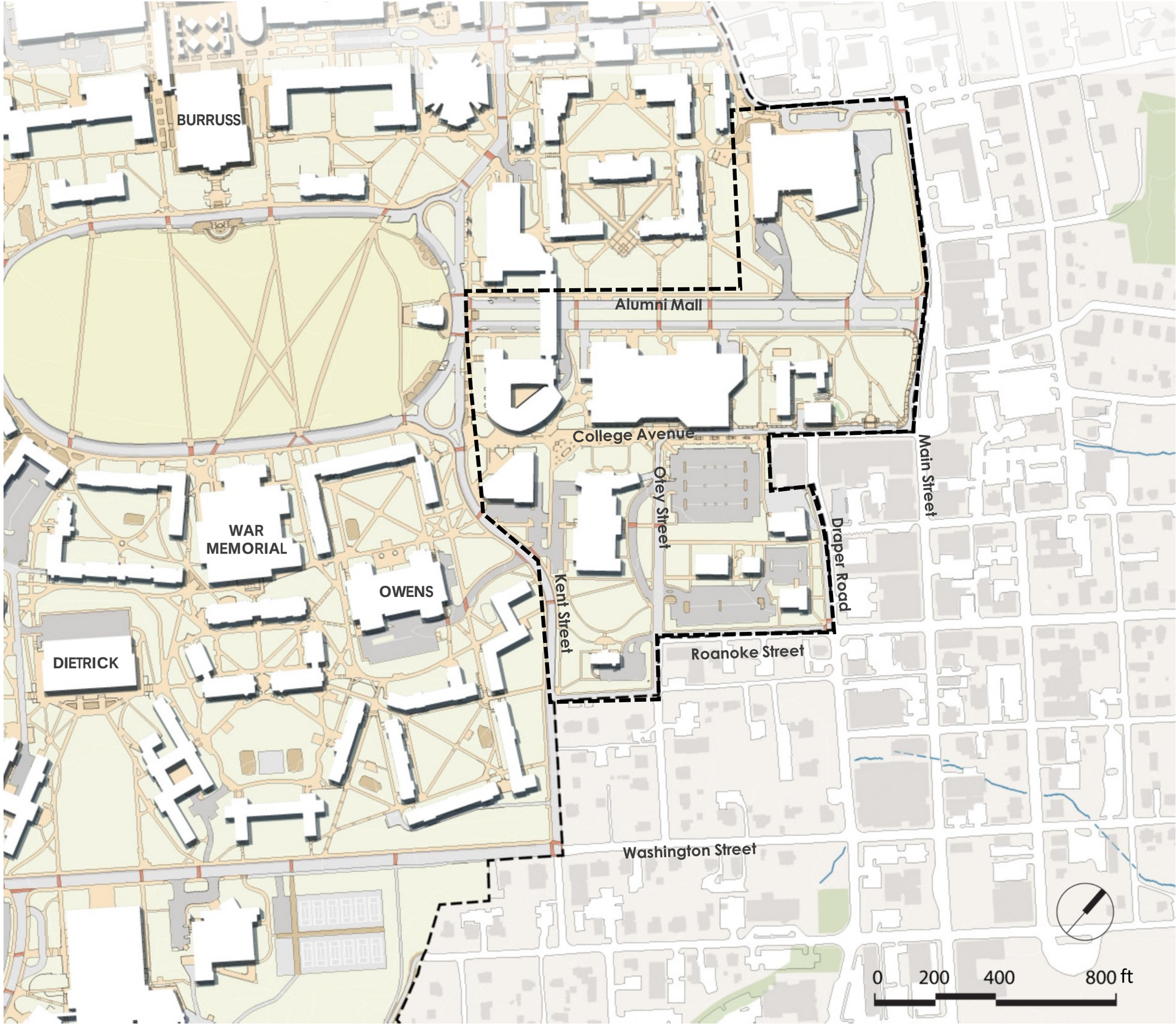


Upper Quad and Northeast District



Creativity and Innovation District

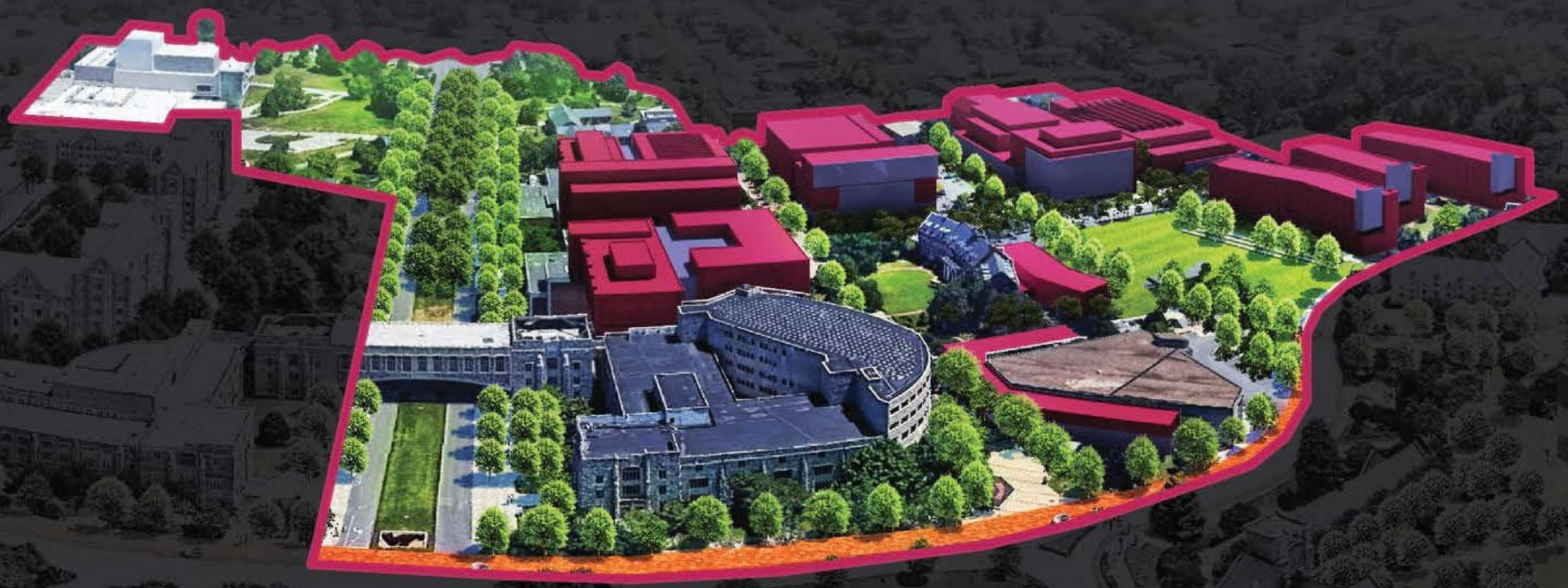
Existing Area



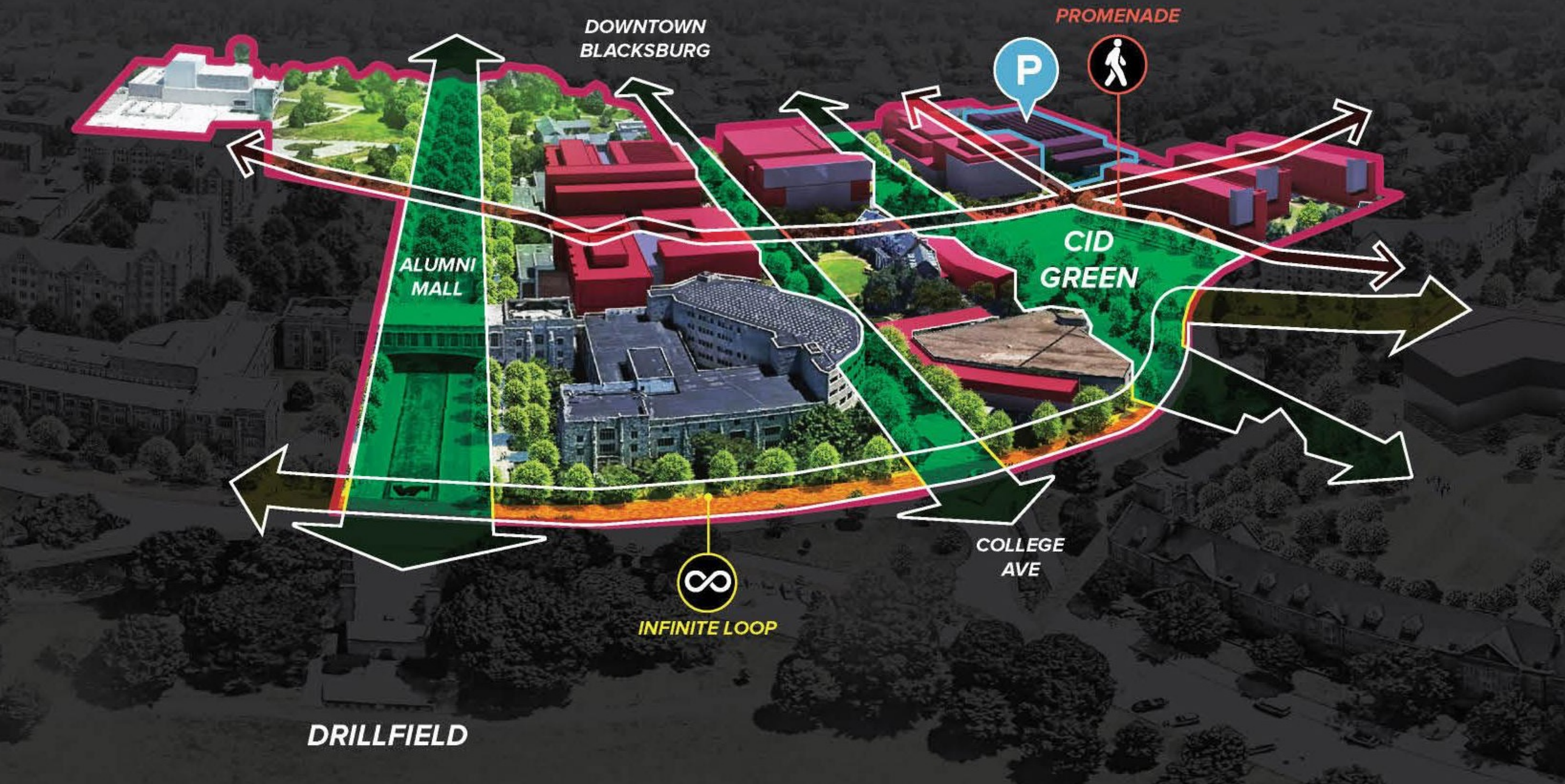
Creativity + Innovation District

Character

Creativity & Innovation District



Creativity & Innovation District

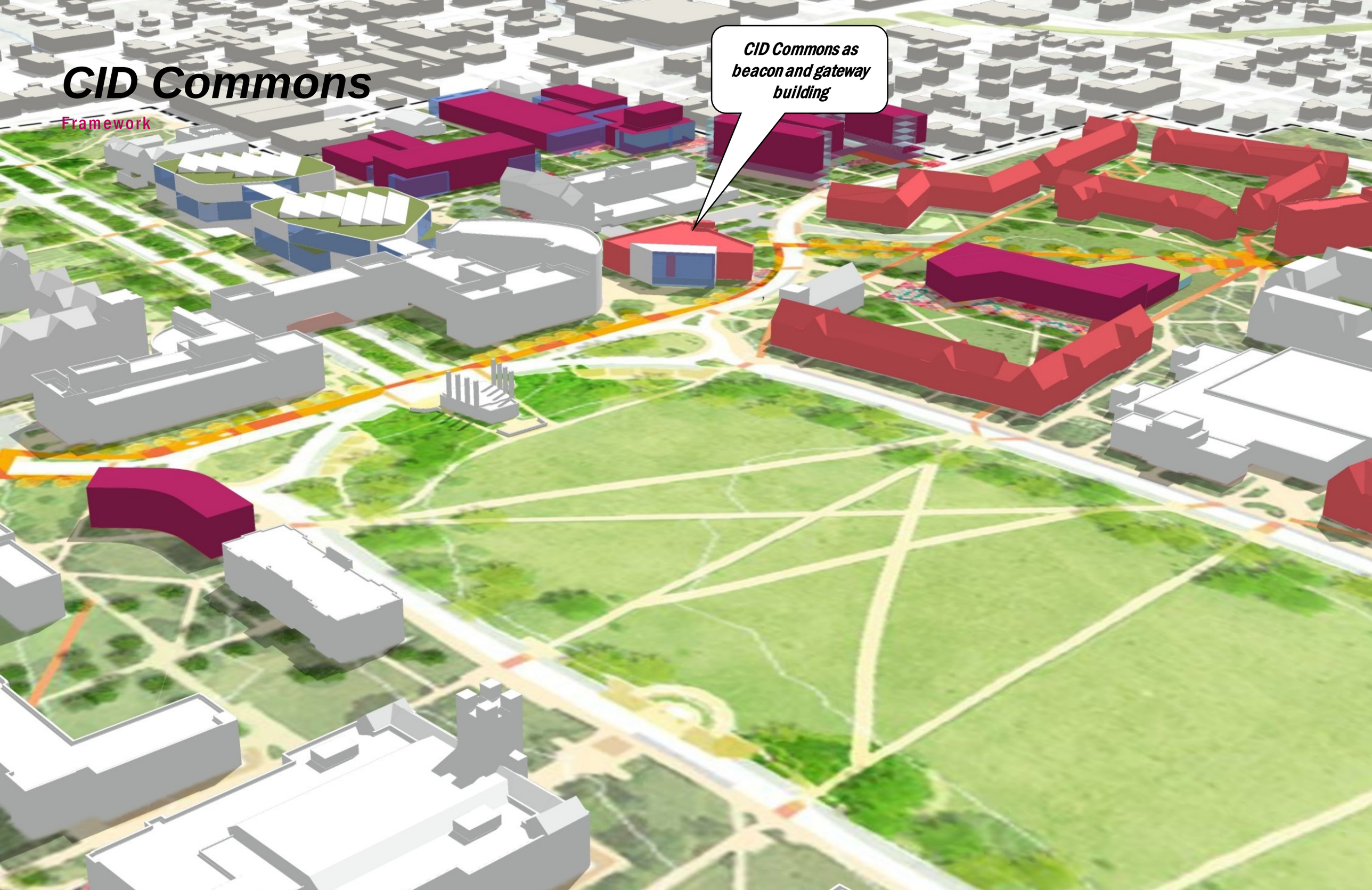


Alumni Mall

Existing

CID Commons

Framework



Precedents

CID Commons View to Campus

New Classroom Building

CID

Existing

CID

Existing

CID

Existing

CID

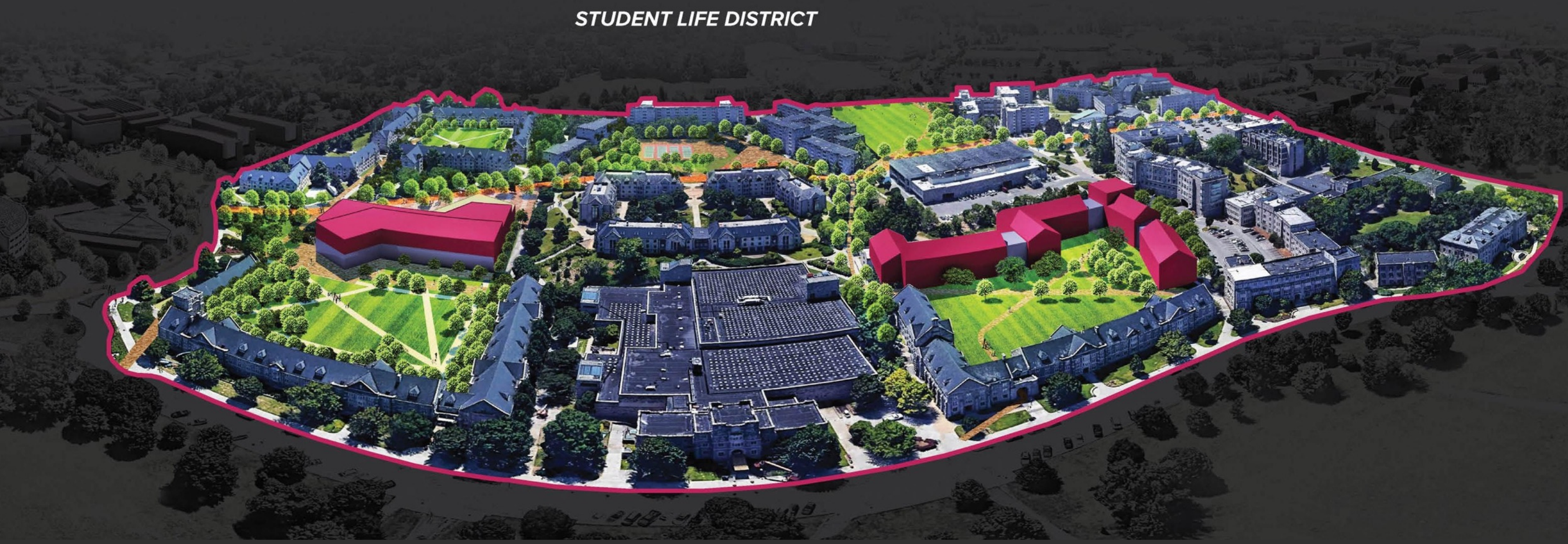
Existing

Existing Conditions

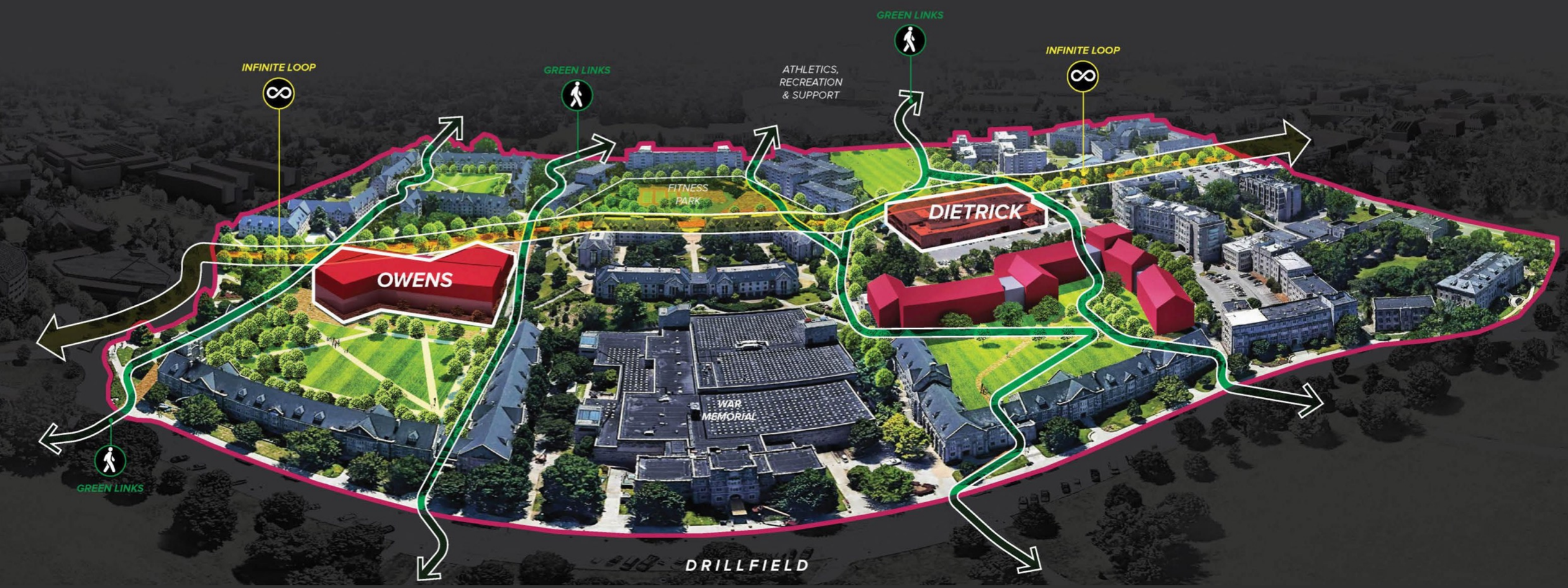
LAWN AT DONALDSON-BROWN

STUDENT LIFE DISTRICT

Student Life District



Student Life District



Presidents Quad

EXISTING CONDITIONS

President's Quad
General Building Items*:
- *Inaccessible entrances*
- *Inaccessible corridors*
- *No AC*
- *Outdated MEP/FP*
- *Outdated bathrooms*
- *Acoustics between units*
- *Lack of study and living space*

President's Quad
General Landscape Items:
- ***Inaccessible site paths***
- ***Lack of planting strategy***
- ***Expansive scale***
- ***Poorly located rec***

**From EYP Facility Condition Assessment and Feasibility Study 2005*

Building entrances inaccessible from Quad

Building entrances inaccessible at sally-ports

Bathroom finishes and layout outdated

Steps as accessibility barriers

Limited study or lounge space

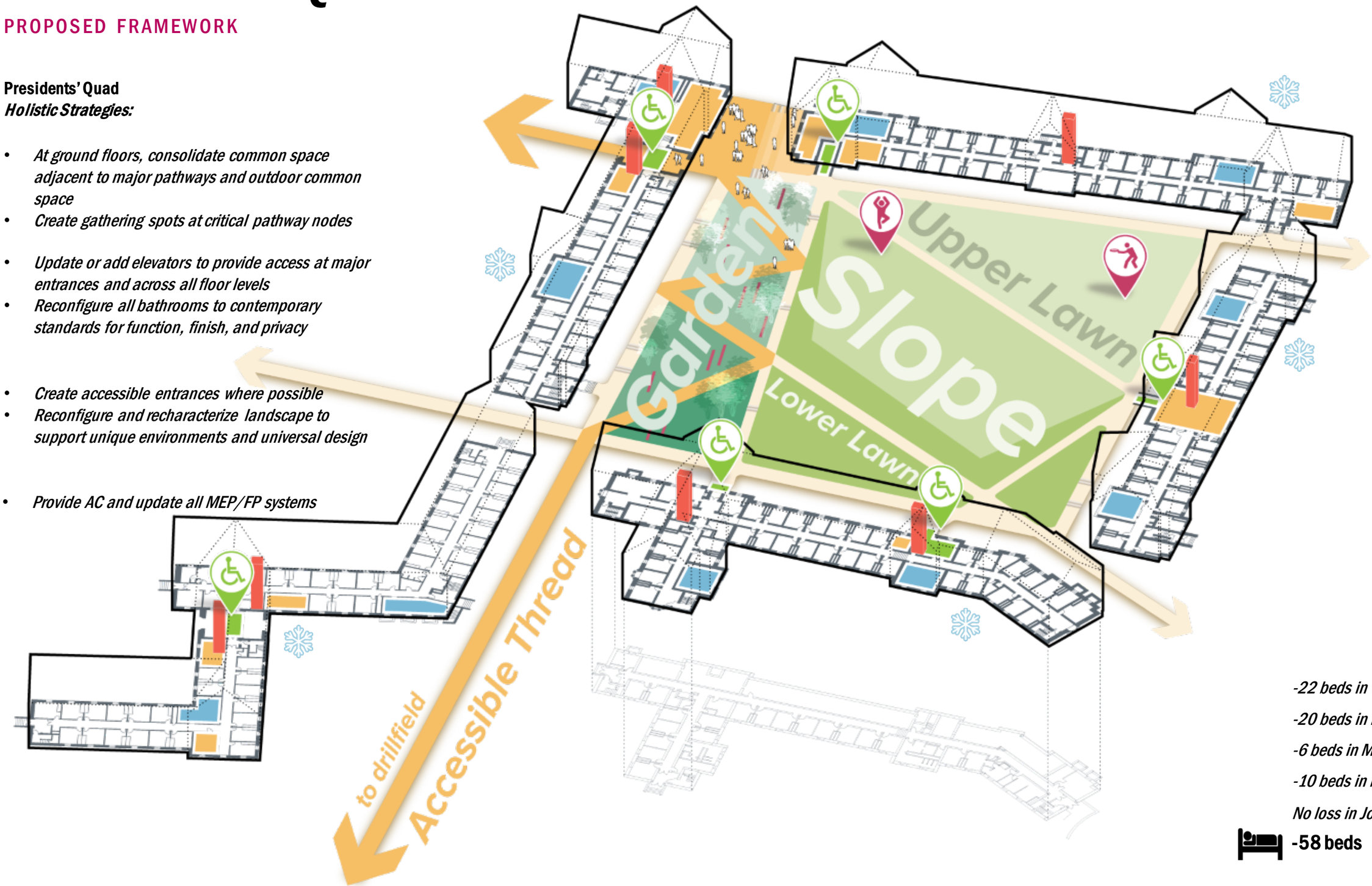
Washington Street
Barringer
Miles
Johnson
Kent Street
Vawter
Newman
O'Shaughnessy
Owens
World LLC
WELL LLC

President's Quad

PROPOSED FRAMEWORK

Presidents' Quad
Holistic Strategies:

- *At ground floors, consolidate common space adjacent to major pathways and outdoor common space*
- *Create gathering spots at critical pathway nodes*
- *Update or add elevators to provide access at major entrances and across all floor levels*
- *Reconfigure all bathrooms to contemporary standards for function, finish, and privacy*
- *Create accessible entrances where possible*
- *Reconfigure and recharacterize landscape to support unique environments and universal design*
- *Provide AC and update all MEP/FP systems*



-22 beds in Vawter

-20 beds in Barringer

-6 beds in Miles

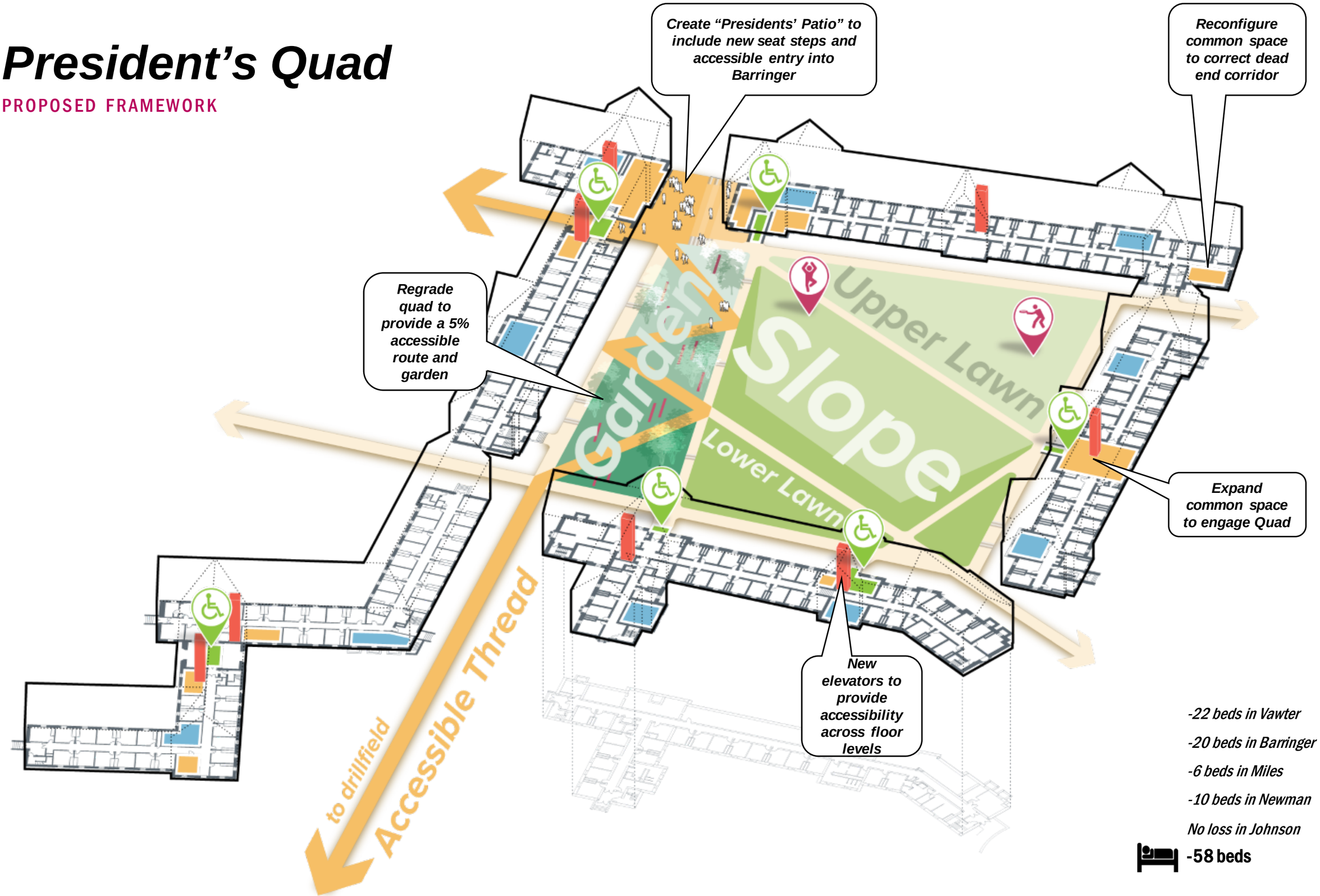
-10 beds in Newman

No loss in Johnson

-58 beds

President's Quad

PROPOSED FRAMEWORK



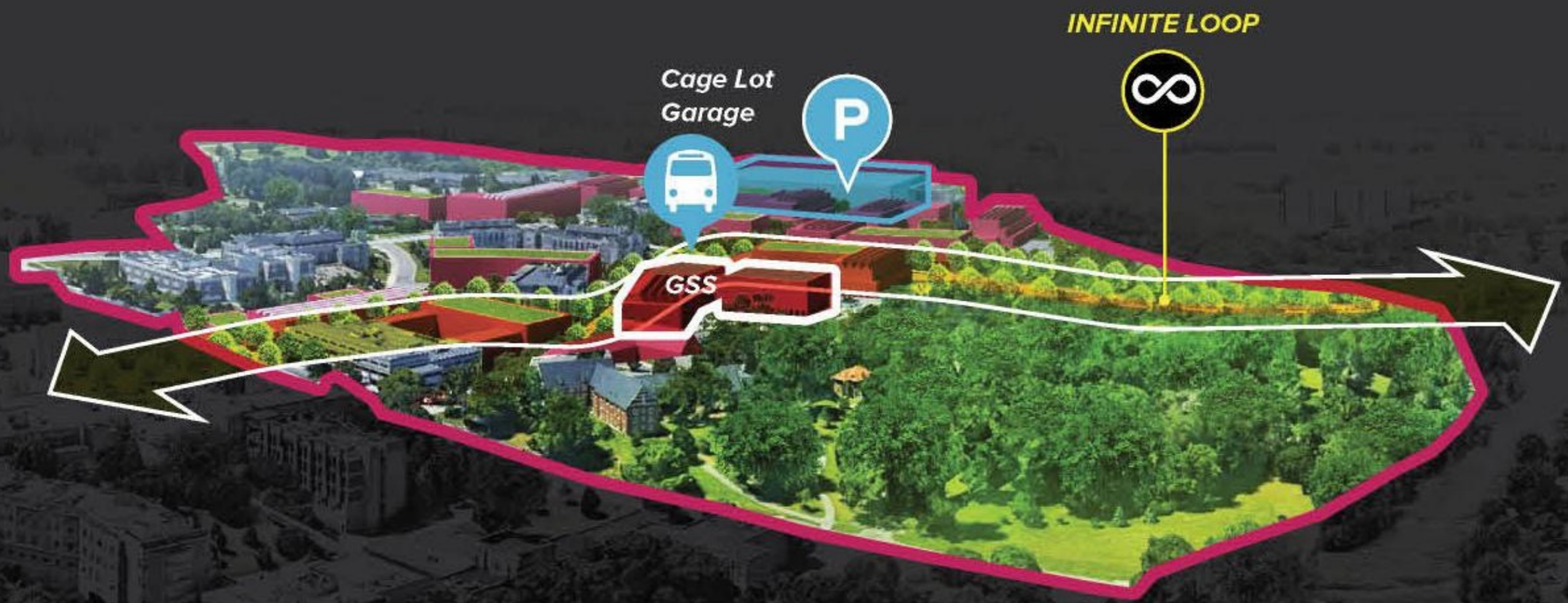
HEALTH SCIENCE + TECHNOLOGY AND LIFE SCIENCE DISTRICTS

Health Science + Technology and Life Science Districts

LIFE SCIENCES AGRICULTURE & RESILIENCY DISTRICT

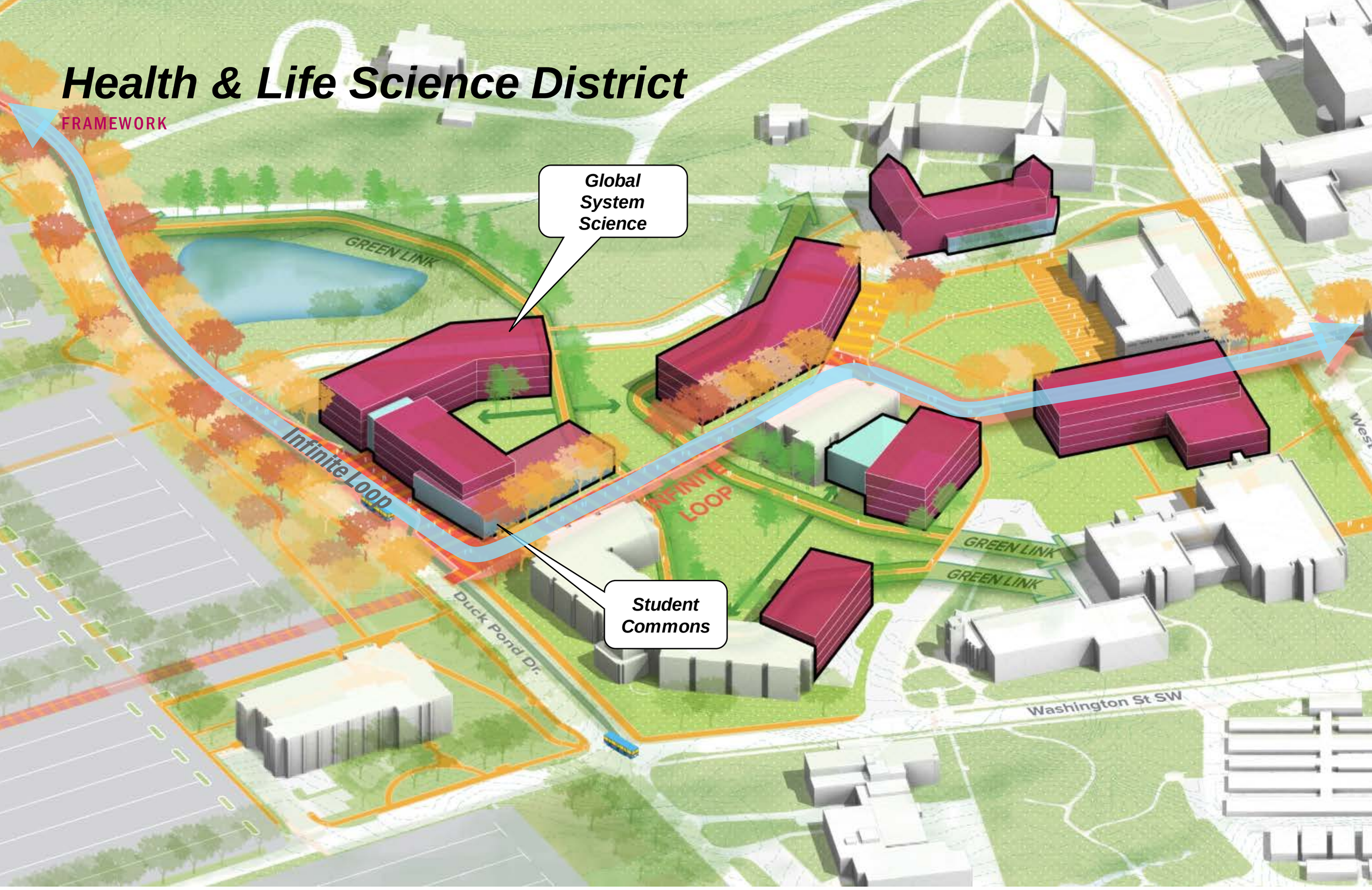
HEALTH SCIENCES DISTRICT

Health Science + Technology and Life Science Districts



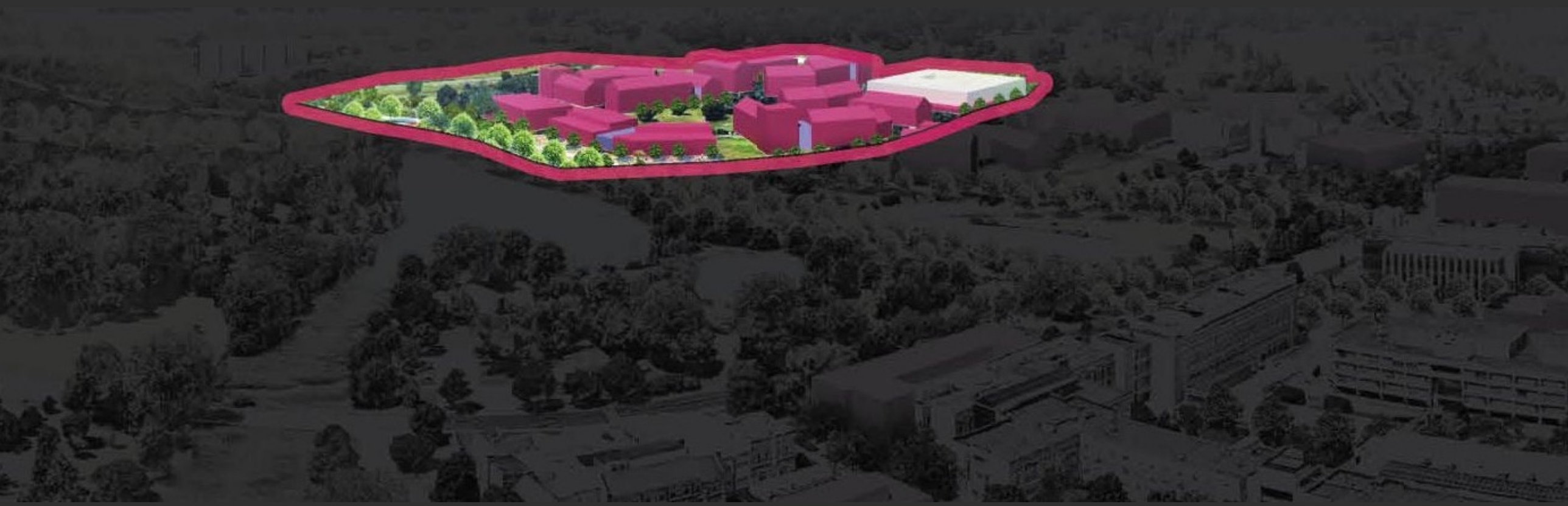
Health & Life Science District

FRAMEWORK

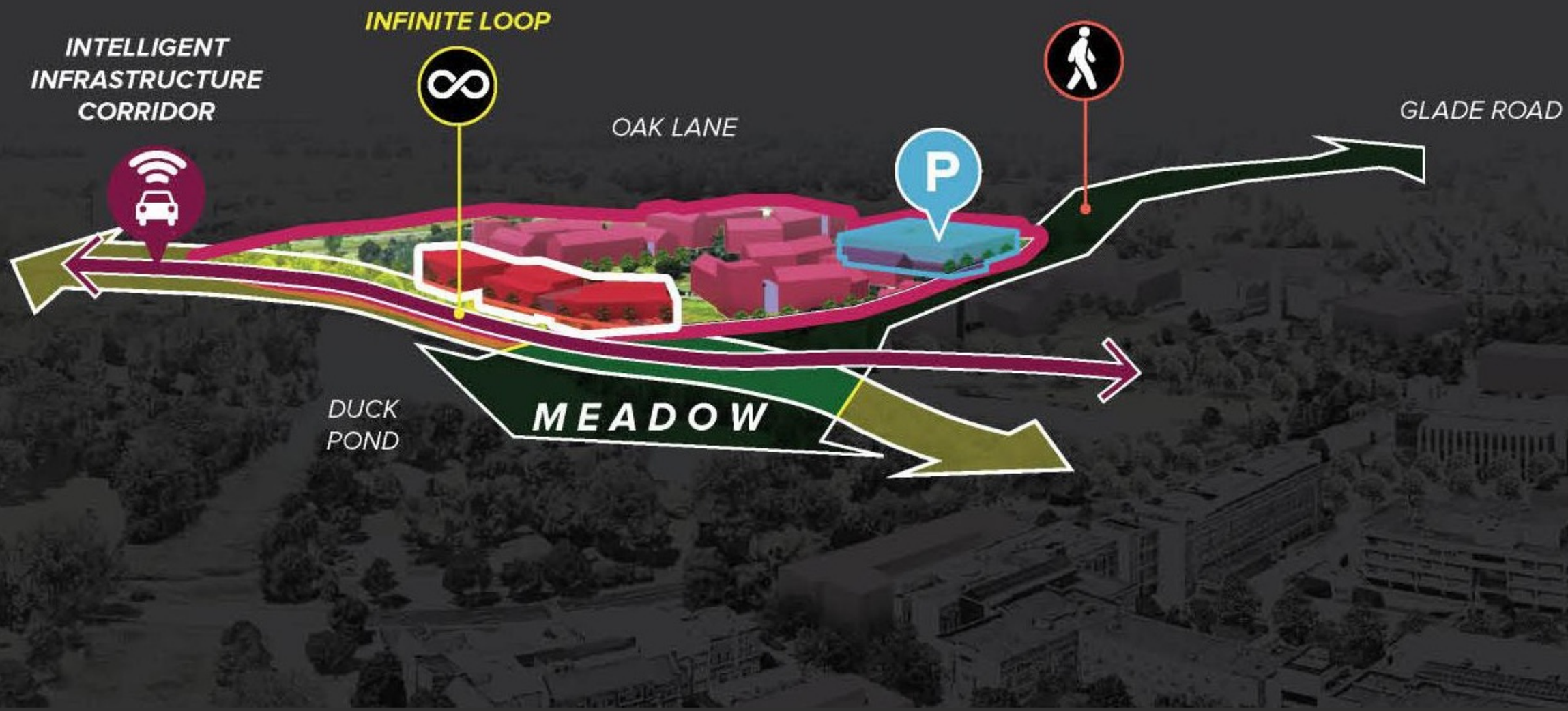


21st CENTURY LIVING LEARNING & GATEWAY DISTRICTS

21st Century Living / Learning Community



21st Century Living / Learning Community



21 Century Living Learning Community

PHASE ONE

VT Inn Extension

Ball Room

Undergrad Lab

Housing

Housing

Student Commons

Dining

Recreation

GREEN LINK

GREEN LINK

GREEN LINK

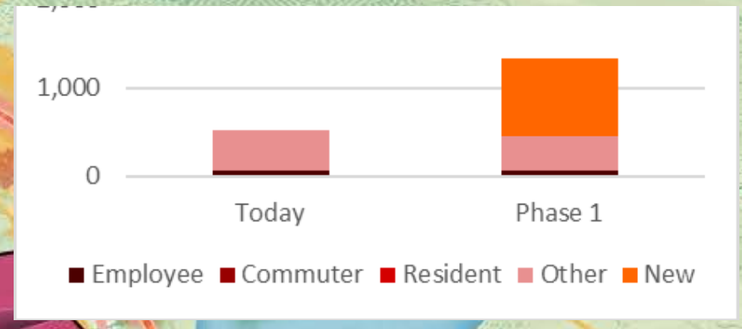
GREEN LINK

BUS ROUTE

INFINITE LOOP

DUCK POND

Parking Totals



21 Century Living Learning Community

PHASE TWO

VT Inn Extension

Ball Room

Undergrad Lab

Garage

Housing

Housing

Housing

Student Commons

Dining

Recreation

GREEN LINK

GREEN LINK

GREEN LINK

GREEN LINK

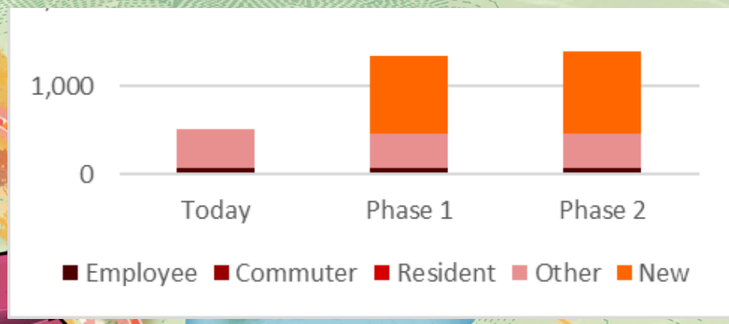
BUS ROUTE

INFINITE LOOP

DUCK POND

GREEN LINK

Parking Totals



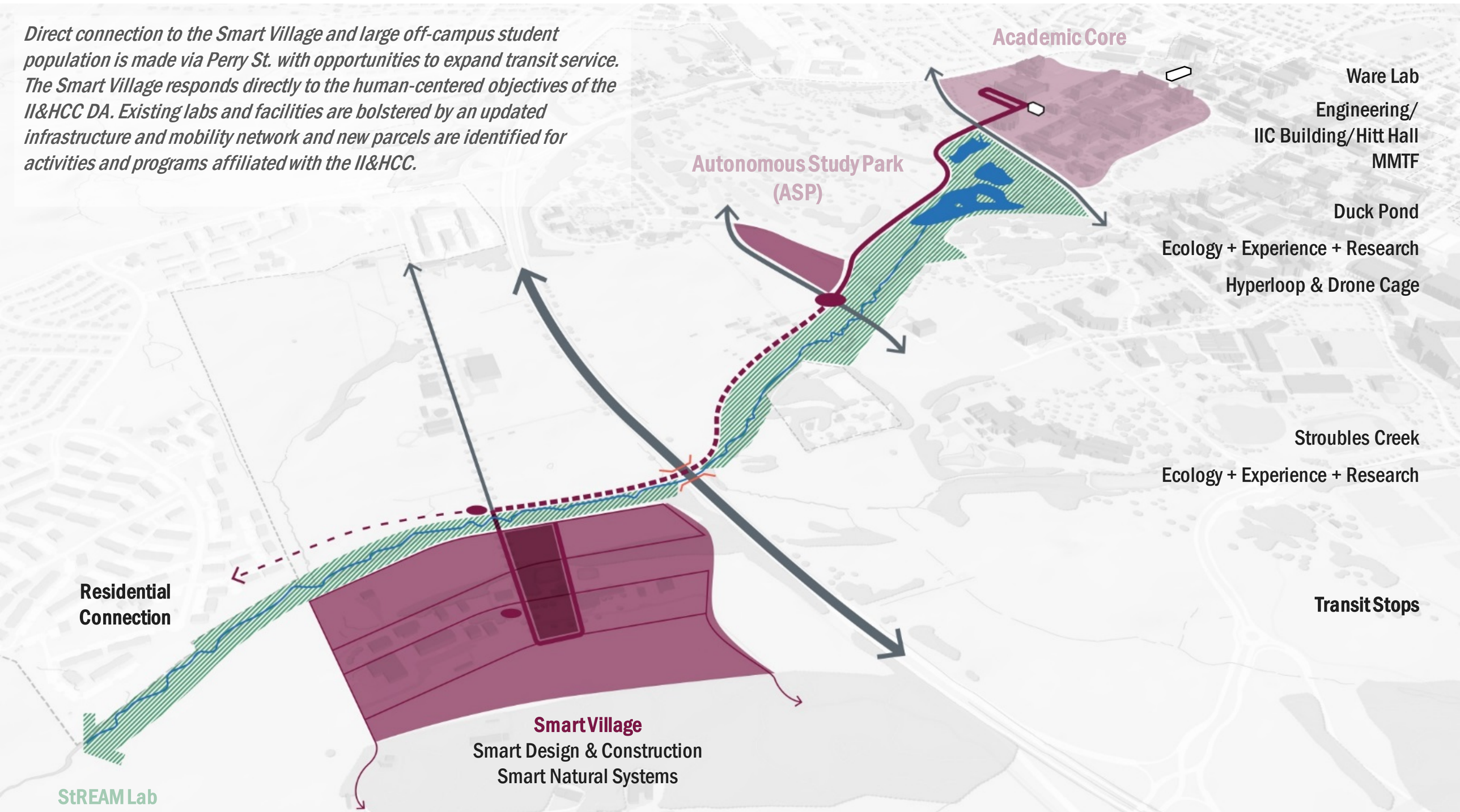
Campus Commons: 21st C LLC

Existing Conditions

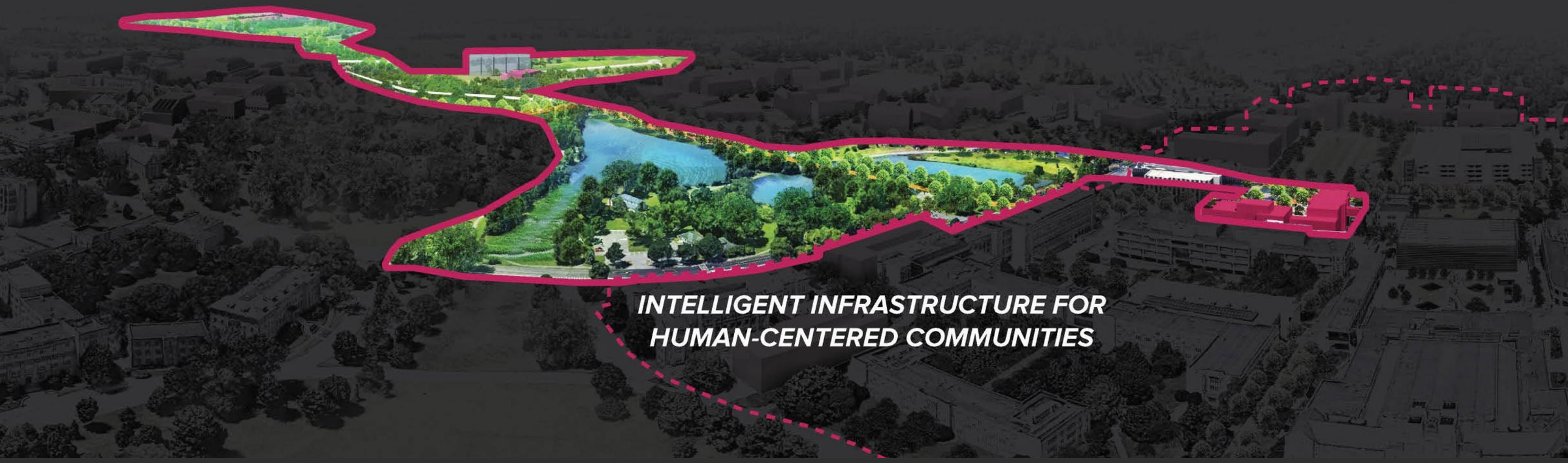
INTELLIGENT INFRASTRUCTURE CORRIDOR

Intelligent Infrastructure + Human Centered Communities

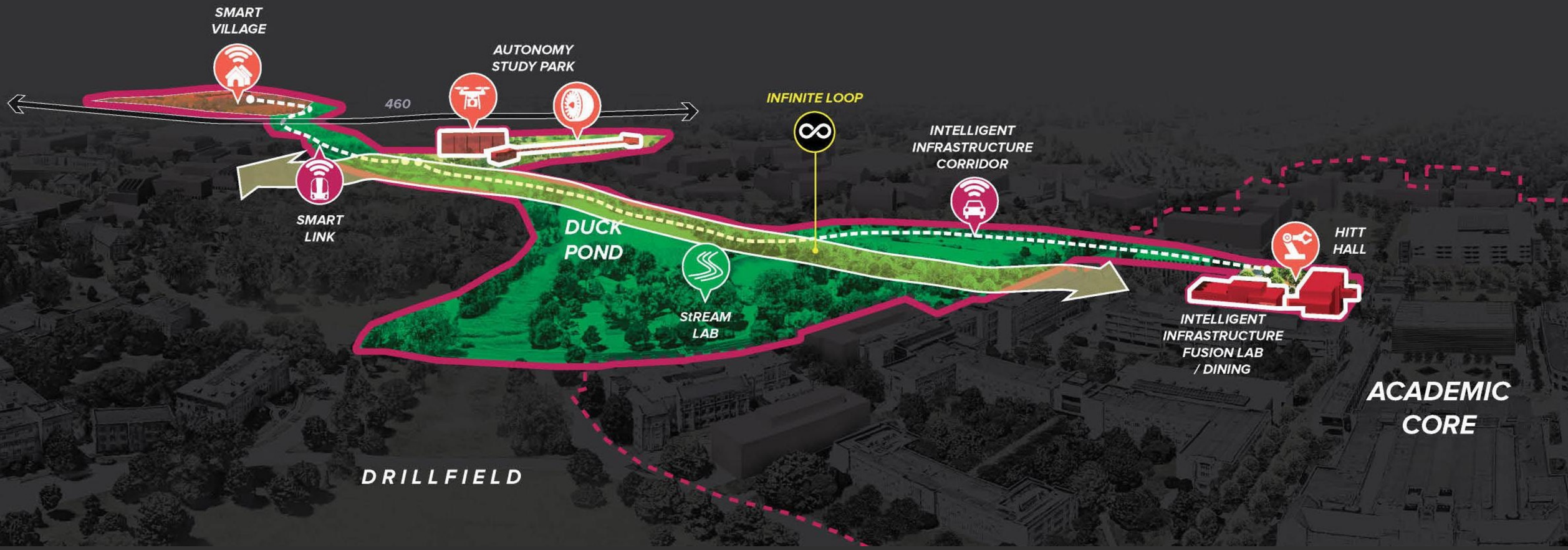
Direct connection to the Smart Village and large off-campus student population is made via Perry St. with opportunities to expand transit service. The Smart Village responds directly to the human-centered objectives of the II&HCC DA. Existing labs and facilities are bolstered by an updated infrastructure and mobility network and new parcels are identified for activities and programs affiliated with the II&HCC.



Intelligent Infrastructure Corridor



Intelligent Infrastructure Corridor

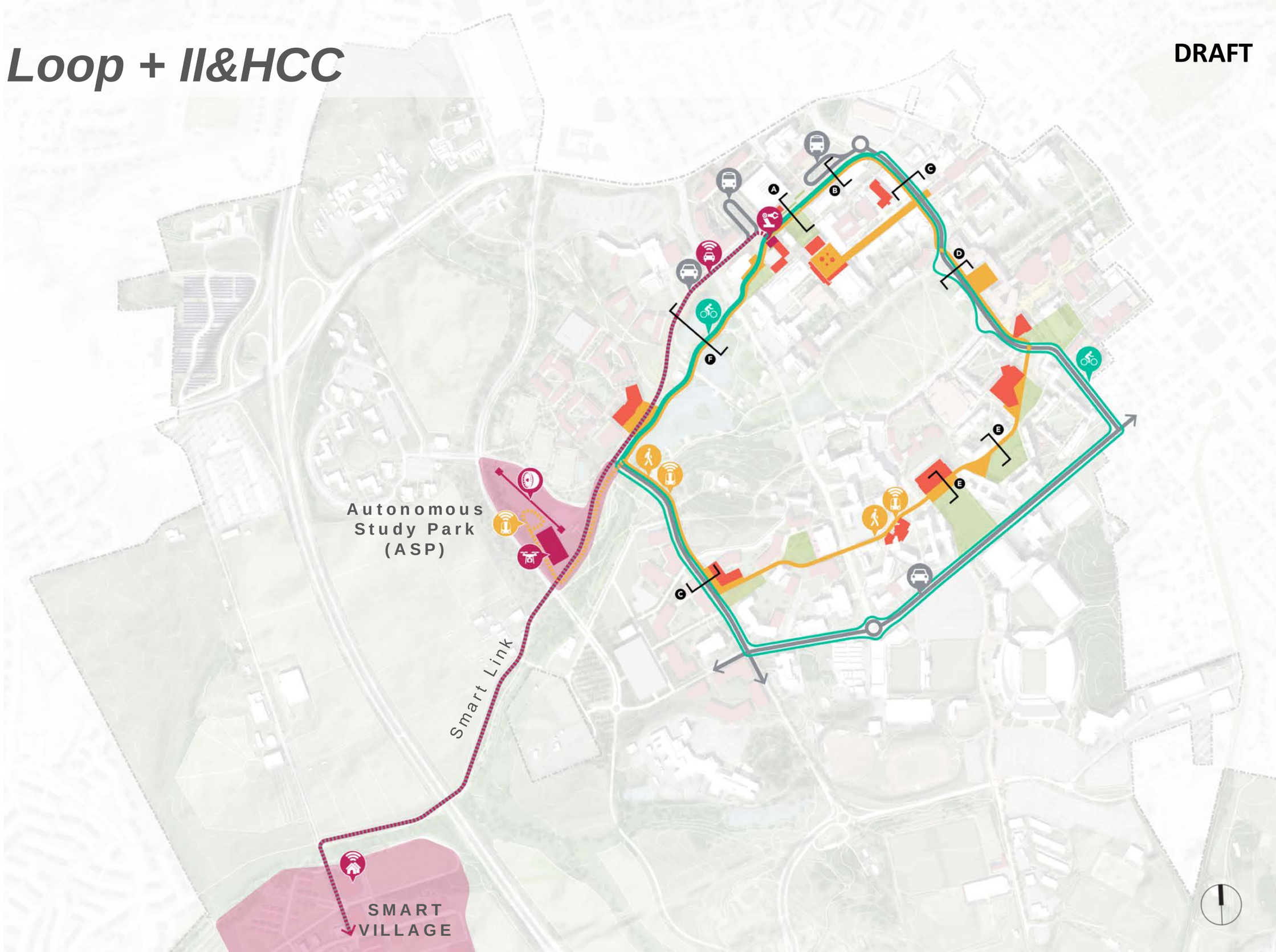


Intelligent Infrastructure Corridor

Existing Conditions

Infinite Loop + II&HCC

DRAFT



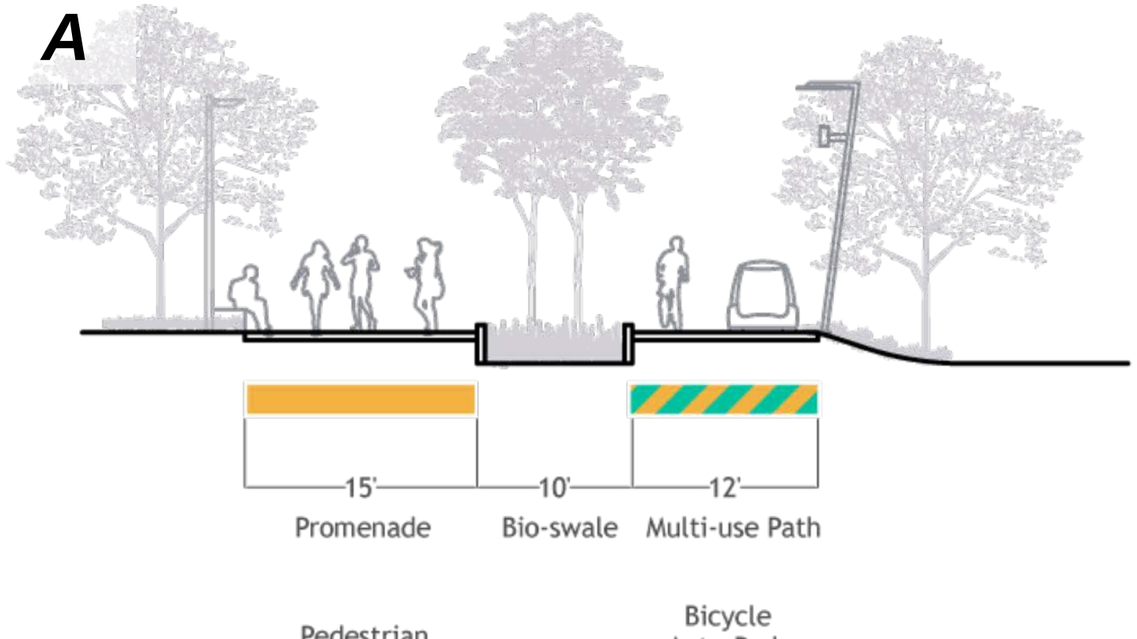
Infinite Loop + II&HCC

DRAFT

Infinite Loop + II&HCC

DRAFT

A



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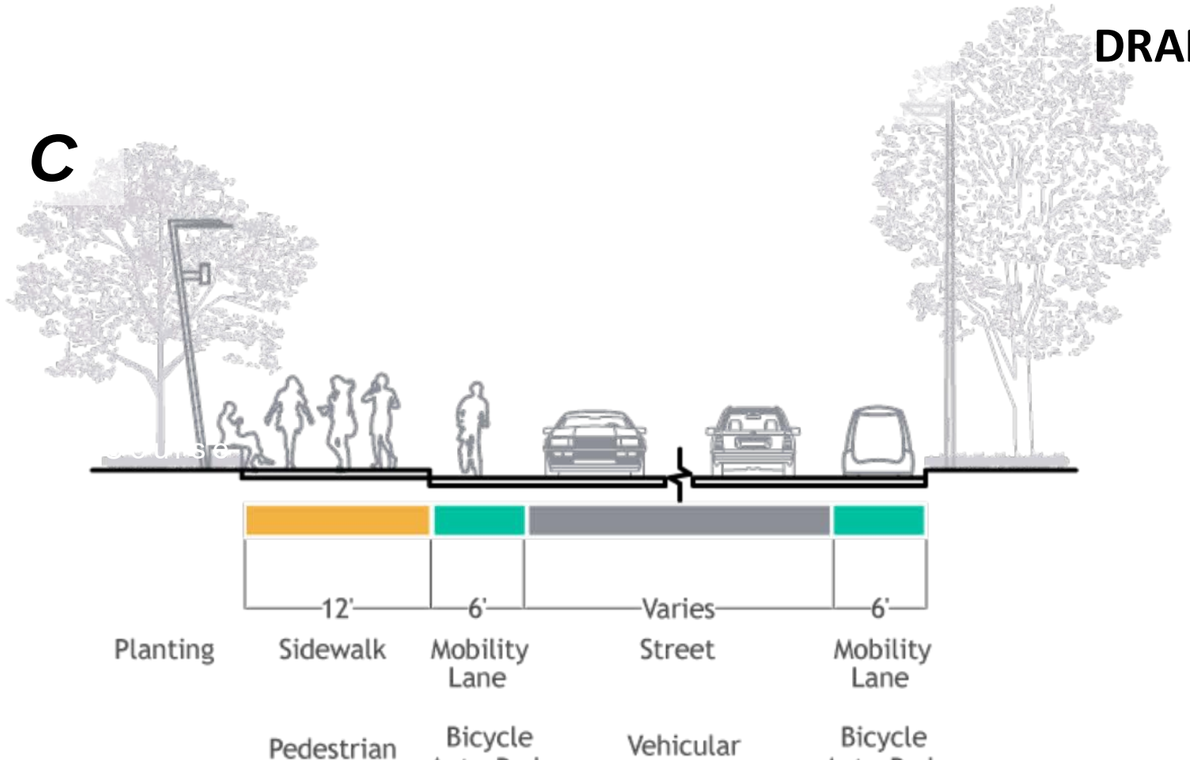

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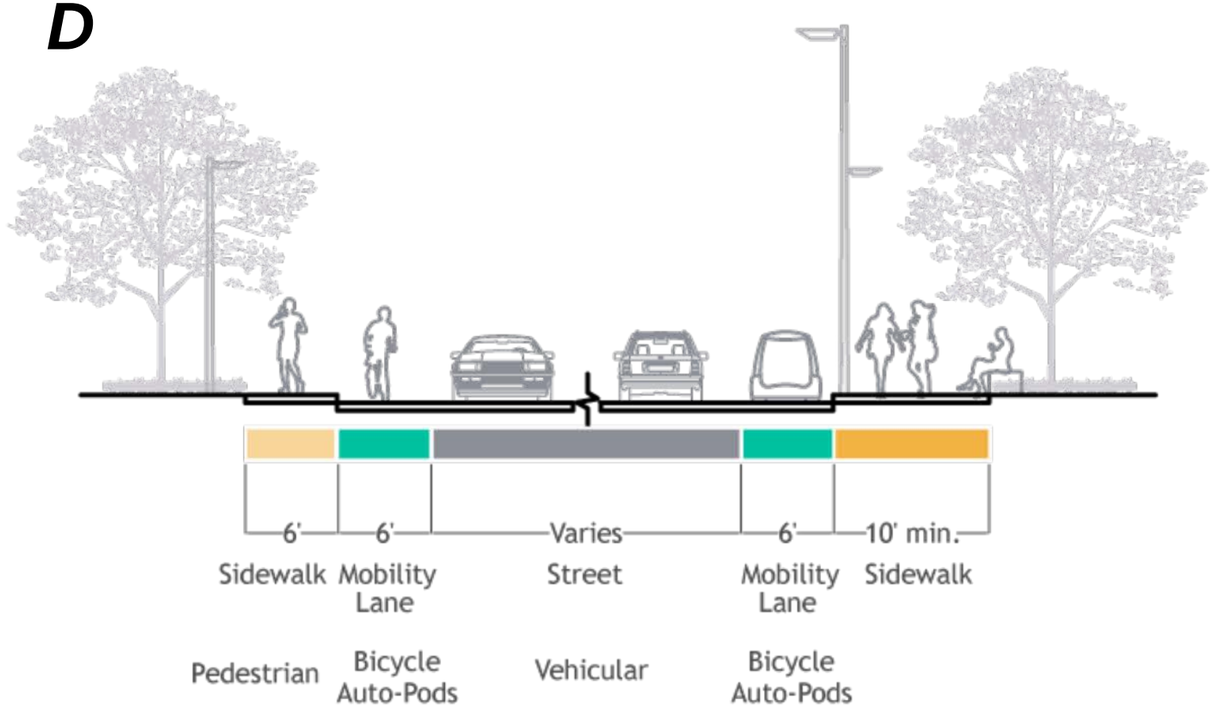

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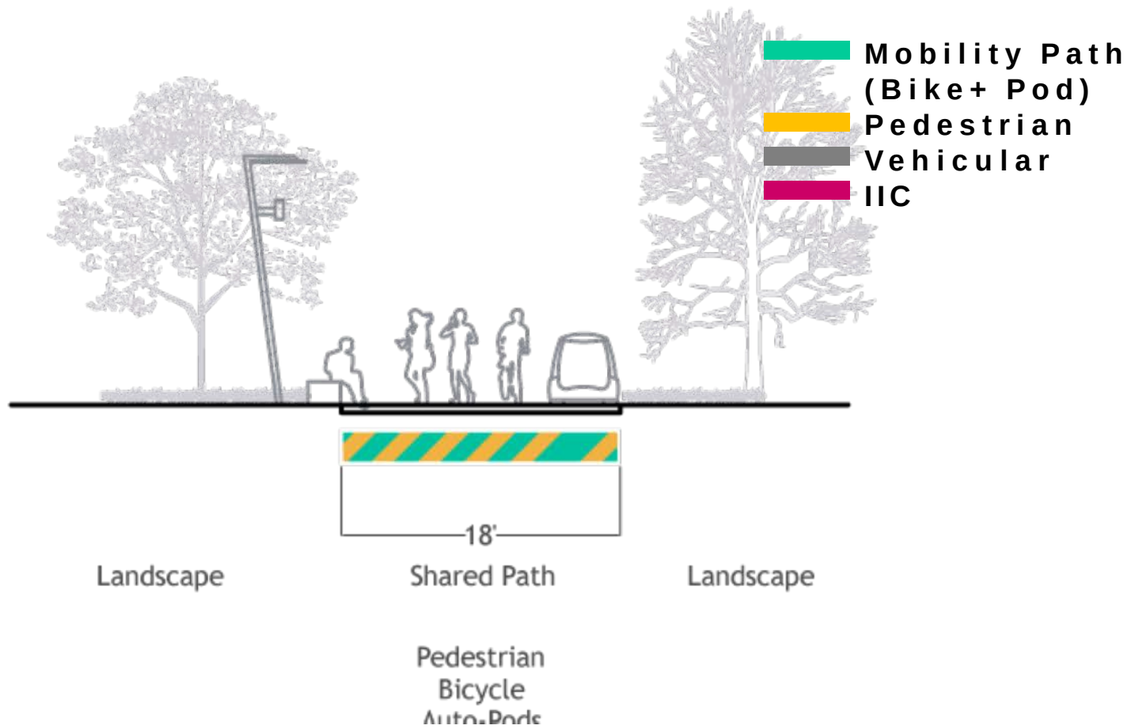


DRAFT

Founder's Walk, East Carolina University, Greenville, NC

Precedent

Glow-In-The-Dark Bicycle Path

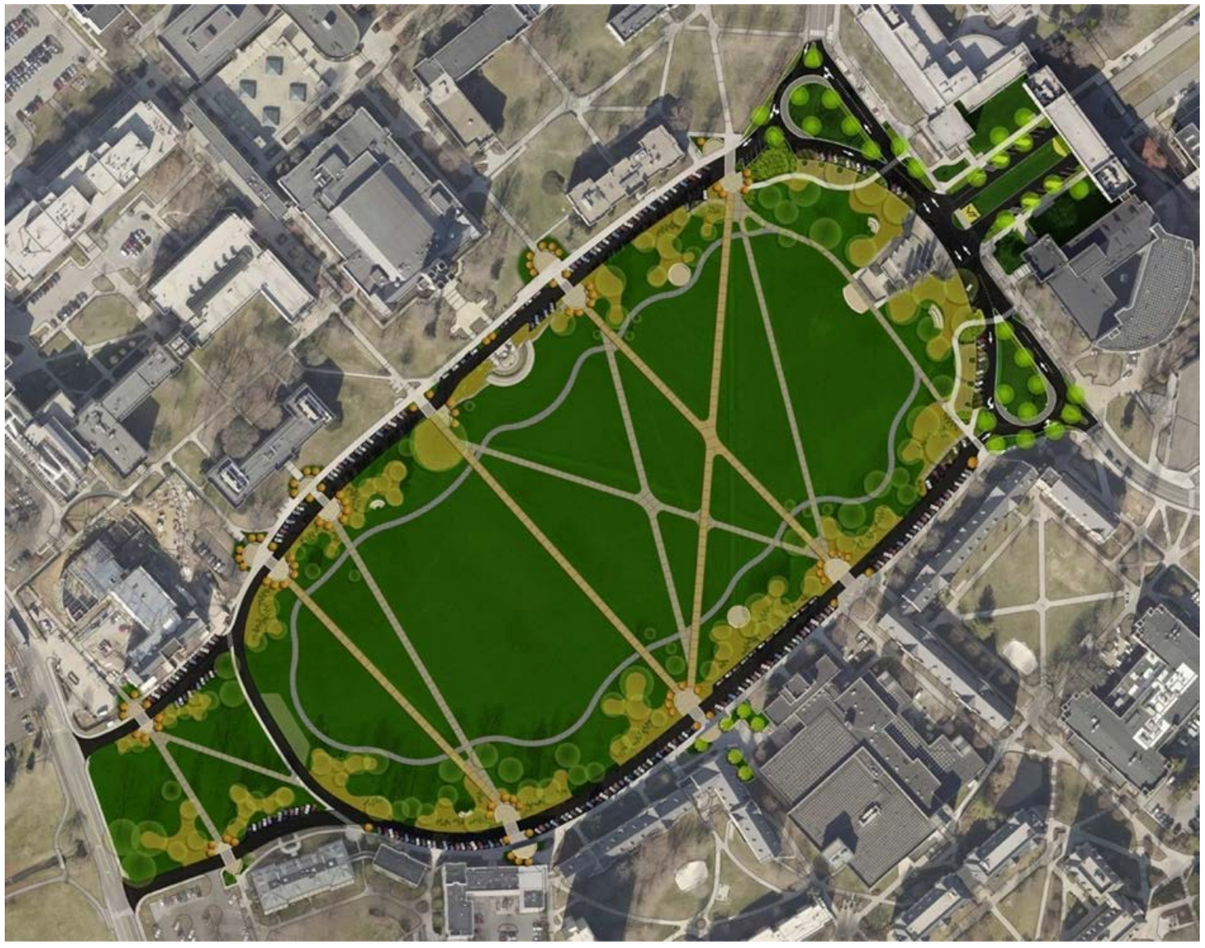
Architects: TPA Instytut Badań Technicznych Sp. z o.o

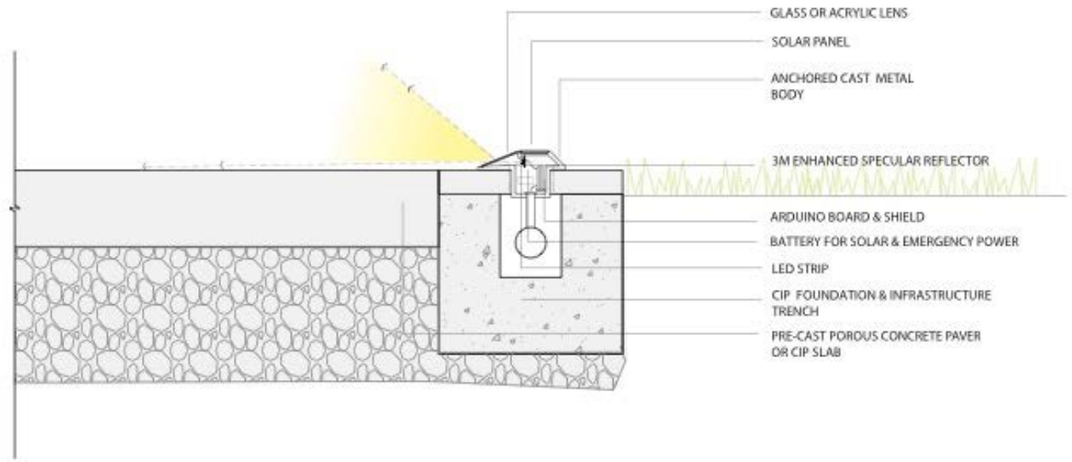
Location: Lidzbark Warminski

Poland

http://www.boredpanda.com/glowing-blue-bike-lane-tpa-instytut-badan-technicznych-poland/

Intelligent Infrastructure + Human Centered Communities – Related Components





Drillfield Paths Research

II&HCC– Related Components

Pathway quietly illuminates when occupied by one person.

Drillfield Paths Research

II&HCC – Related Components

Lighting becomes more active when more people are on the paths.

Drillfield Paths Research

OTHER STUDIES....

Additional Master Plan Areas of Focus

Student Life Initiatives

Space Planning

Land Use

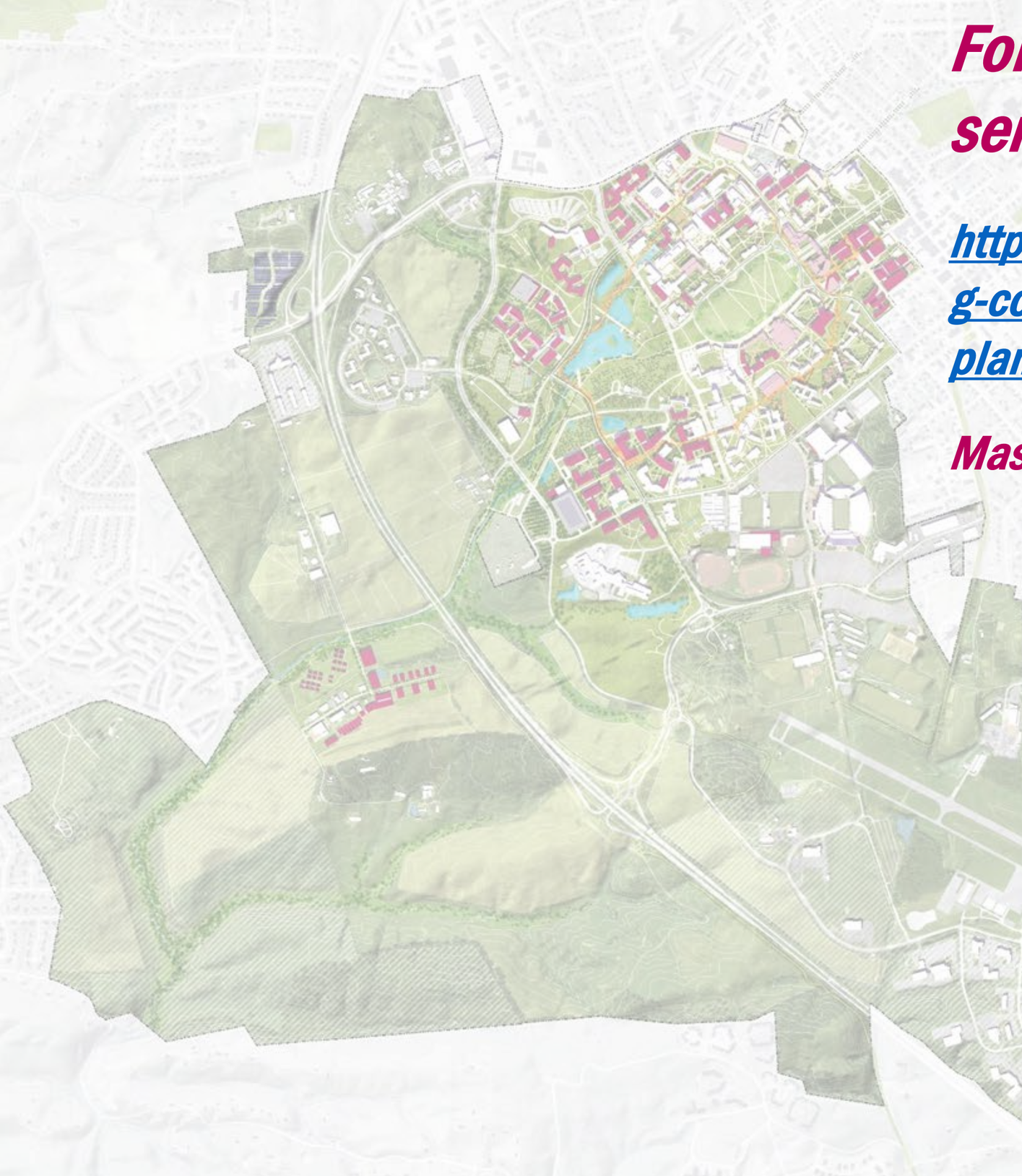
Mobility & Accessibility

Infrastructure

Academic Health Center at Roanoke

*AREC*s

National Capital Region



For Additional info and to send comments…

https://www.facilities.vt.edu/planning-construction/campus-master-plan.html

Masterplan-g@vt.edu

Thank You!

SUSTAINABILITY PROGRAM
GO GREEN

2016–17 Office of Sustainability Annual Report

VIRGINIA TECH™ | FACILITIES DEPARTMENT

Contents

OFFICE OF SUSTAINABILITY

Facilities Department
Division of Operations

Denny Cochrane
Sustainability Program Manager

Karlee Siepierski
Campus Sustainability Planner

Katy Shepard
Graduate Assistant

INTERNS

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Amy Gelb '17
Caroline Firer '18
Emma Martin '17
Emma Davidson '17
Josh Hammes '17
Maria Elisa Vollmer '17
Anna Davis '19
Emily Watts '17
Bridget Acland '17
Chloe Sikora '18
Angie Green '18
Lyndsey Gerold '18
Ellen Huber '19
Pallavi Prayaga '18
Daniel Donahoe '17
Danitza Rodriguez '17
Madison Roberts '17

ENERGY AND SUSTAINABILITY COMMITTEE

Sherwood G. Wilson
M. Dwight Shelton Jr.
Christopher H. Kiwus
Jason P. Soileau
Frances Keene
Denny Cochrane

Chair

Denny Cochrane

Facilities Department

Byron Nichols

Environmental Health and Safety

Rob Lowe

Faculty Senate

Sean McGinnis
Edward Lenner
Tim Baird
Bruce Obenhaus

Staff Senate

Alex Guest
Judy Taylor

Council of College Deans

Alan Grant

Graduate Student Assembly

Kenneth Black
Alex Naar

Student Government Association

Melvin Amos
Charlotte Elwood

Guests

Karlee Siepierski
Katy Shepard
Gwyneth Manser

Overview

The **Office of Sustainability** was established in accordance with the Virginia Tech Climate Action Commitment (VTCAC) and is responsible for monitoring energy usage, Green House Gas (GHG) emissions, overseeing the implementation of the VTCAC&SP and the Sustainability Plan, coordinating programs for campus sustainability, and managing a campus-wide student internship program.

Virginia Tech is a member of the Association for the Advancement in Higher Education (AASHE) and we utilize their Sustainability, Tracking, Assessment and Rating System (STARS) as our management tool to measure our sustainability progress. In 2014 Virginia Tech received a STARS Gold Rating earning 71.02 points for its efforts to promote campus sustainability.

Virginia Tech is rated by the Association for Advancement of Sustainability in Higher Education (AASHE) and their **Sustainability Tracking Assessment and Rating System** (STARS). In 2014, Virginia Tech scored a Gold rating with **71.02 points** for its efforts to promote campus sustainability.

Climate Action Commitment

Virginia Tech serves as a model community for a sustainable society. Sustainability is an integral part of the fabric of the university as it pursues enhanced economic stability and affordability, diversity and inclusion, environmental stewardship, expansion of knowledge, and education of future leaders.

1. A **Leader** in Campus **Sustainability**
2. Represent VTCAC&SP in **Strategic Plan**
3. Reduce **GHG emissions** to 80 percent below 1990 emission level by 2050
4. Improve **energy efficiency**, reduce energy waste, replace high-carbon fuels, etc.
5. Maintain a sustainability office
6. **LEED Silver Certification or higher** for all new construction and major renovations
7. Electricity and heat efficiency
8. **Minimize waste** and achieve a 50 percent recycle rate by 2020
9. **a.** Purchase or lease Energy Star equipment and maximize practicable recycled content paper

   b. Consider a product's life cycle cost and impact when making purchasing decisions
10. **Engage students, faculty, and staff** to develop and implement innovative strategies for efficient and sustainable use of energy, water, and materials in all university-owned facilities
11. **Transportation energy efficiency** through parking, fleet, and alternative transportation policies and practices
12. Develop and implement innovative sustainability-related **academic programs** in instruction, research, and outreach
13. **Monitor energy use** and GHG emissions and change internal and external conditions, prepare an annual 'report card' showing progress towards targets
14. **Provide funding** to support sustainability programs

Our Partners

To achieve the university's energy and sustainability goals, the Office of Sustainability works collaboratively with the following groups:

Departments

Alternative Transportation

Sustainability Institute – College of Natural Resources and Environment

Dining Services

YMCA at Virginia Tech

Residential Leadership Community

Housing and Residence Life

Forest Resources and Environmental Conservation

The Arboretum Committee

Green Engineering Program – College of Engineering

Virginia Tech Corps of Cadets

Environmental Policy and Planning – College of Architecture and Urban Studies

Student Groups

The Campus Kitchen at VT

The Green Program - Study Abroad at VT

Society of Renewable Resources

Environmental Coalition

Environmental Student Organization

Residence Hall Federation

Students for Sustainable Practice

Student Government Association

Sustainable Food Corps

Community Groups

Sustainable Blacksburg

Town of Blacksburg

Energy

Demand Side Management

Demand Side Management promotes energy efficiency by upgrading, retrofitting, and commissioning mechanical, lighting, and electrical systems in the buildings. The Office of Energy Management launched a **Five Year Energy Action Plan** to address the energy efficiency improvements with 50 of the most energy intensive buildings.

On-Going Projects

- Combustion testing of boilers and furnaces
- Electric sub-metering of chiller plants
- Fume hood energy reduction program
- Greenhouse lighting technology improvements
  Thermal imaging of campus buildings
- Lighting bulb/fixture replacement
- Steam Trap Survey Program
- Thermal insulation on steam pipes, fittings, and equipment

Energy Efficient Design

To establish university standards which go beyond the applicable VA Energy Code, the Facilities Department has added a section to Virginia Tech's **"Design and Construction Standards"** that speaks to "Guidelines for Energy Efficient Design."

The guide applies to all new construction and new addition and renovation projects and will over time make significant advancements to energy reductions and savings.

Five Year Energy Action Plan

2016	2017	2018	2019	2020
Convert the north chiller plant to variable primary flow	Connect 10 energy intensive buildings to the EMCCSP	Connect 10 energy intensive buildings to the EMCCSP	Connect 10 energy intensive buildings to the EMCCSP	Connect 10 energy intensive buildings to the EMCCSP
Install chilled water meters for all buildings connected to the north chiller plant	Retro-Commission 10 energy intensive buildings	Retro-Commission 10 energy intensive buildings	Retro-Commission 10 energy intensive buildings	Retro-Commission 10 energy intensive buildings
Purchase and install an energy management and continuous commissioning tool (EMVVSP)	Energy audits for 10 energy intensive buildings	Energy audits for 10 energy intensive buildings	Energy audits for 10 energy intensive buildings	Energy audits for 10 energy intensive buildings
Implement campus electric demand management program	Install steam meters in campus buildings	Install steam meters in campus buildings	Install steam meters in campus buildings	Install steam meters in campus buildings
	Implement energy retrofit projects based on previous year's audit	Implement energy retrofit projects based on previous year's audit	Implement energy retrofit projects based on previous year's audit	Implement energy retrofit projects based on previous year's audit

The Office of Energy Management recently conducted a benchmarking analysis of campus buildings which identified

fyi

Following this study, a comprehensive **Five-Year Energy Action Plan** was developed in collaboration with the Office of Budget and Financial Planning. The plan guides the facilities operations to achieve significant reduction in energy cost. The program will concentrate on 10 "energy hog" buildings per phase with a goal of completing all in five years. An **energy cost savings of approximately $4.5 million** is estimated.

50 energy intensive buildings

Representing

35 percent of the university structures

these building account for

70 percent of the main campus utility cost

fyi

5,452,560

pounds of waste kept out of the landfill since 2009

416 tons of composted food waste was collected in 2016-17

Waste Disposal, Composting, and Recycling

Composting On Campus

Dining Services has been composting food waste since 2009 and, to date, the composting program has diverted **over 5,452,560 pounds** of waste from the landfill. In 2016-17, **416 tons** of composted food waste was collected from our **11 dining facilities**. The university consolidated the waste at a central storage facility on campus and delivered the waste to a regional composting facility, **Royal Oak Farm**, a family operated facility located in Evington, Virginia. The university negotiated a contract with Royal Oak Farm in 2017, whereby a food waste storage container will be provided on campus, and full containers of food waste will be hauled to their location. With this arrangement, annual composted food waste is expected to increase **from 550 to 600 tons**.

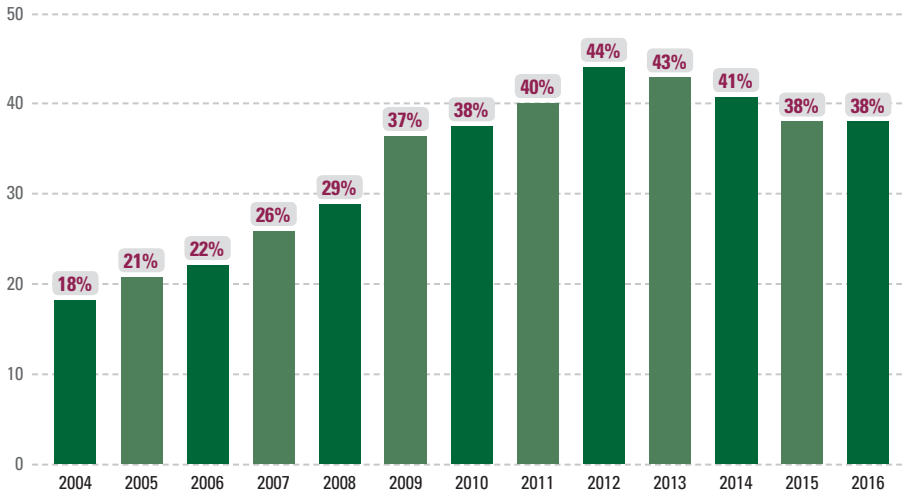
Single Stream Recycling

Single Stream Recycling began in the summer of 2015 for the Blacksburg campus. Standard Single Stream Signage (left) is being used on all single stream advertising on campus.

In addition to bottles and cans, paper products and light cardboard can now be placed into the **Big Belly Solar Trash Compactors** for recycling. Furthermore, new **Large Outdoor Recycling Containers** (right) have been placed outside residence halls and 10 new sets of Indoor **Single Stream Recycling and Waste stations** were placed in McBryde Hall. The McBryde Indoor Waste Stations consisted of 10 pairs of metal containers placed inside the main entrances on the 1st, 2nd and 3rd floors. The Single Stream Recycling Container is painted blue and contains the standard single stream signage decal on the front face. The Trash Container is painted black and contains the landfill decal on the front face. Magnets hold the two containers together and both are anchored to the floor to meet fire code.

These waste station guidelines are now officially in the University Design Standards, and remain an example of the highest standard across campus. University design standards state: “Indoor waste stations will consist of an appropriate number of pairs of non-combustible collection containers placed side-by-side with one designated and labeled for “single stream recycling” and the other designated and labeled for “trash”. Ideally, containers will be recessed into the interior walls of the building so as to not protrude into the hallway space. If that is not possible, the containers should be placed on the floor and secured to the building structure to meet fire code. A waste management collection station should be placed in common areas that generates a large volume of recyclable material such as mail rooms, break rooms, and meeting rooms.”

Recycling Rate Percentage



Sustainable Dining

The Farms and Fields Project:

The Farms and Fields Project in Owens Food Court offers a seasonal menu highlighting **local, sustainable, and organic foods**. From farm-fresh butternut squash lasagna to local sausages and bagels, Farms and Fields gives students a unique look into what it means to eat with the seasons.

Dining Services Farm at Kentland Farm:

Beginning as a quarter acre herb plot in 2009, the Dining Services Farm at Kentland Farm now occupies over six acres. Under the leadership of the Sustainable Food Systems Production Director(a position jointly funded by Dining Services and the Department of Horticulture) the farm grows fruits, vegetables, and herbs specifically for Virginia Tech Dining Services. To date, the Dining Services Farm has **produced over 180,000 pounds of produce**, and crop production includes everything from basil and sweet corn to garlic scapes and butternut squash.

fyi

Kentland Farm has produced over

180,000

pounds of produce

Reusable To-Go Container Program in Three Dining Centers

fyi

nearly

32,000

meals were served in R2G containers

Reusable To-Go Program:

The Reusable To-Go (R2G) program represents a collaboration between the Office of Sustainability, Student Government Association (SGA), and Housing and Residence Life (HRL). In academic year 2016-17, **nearly 32,000 meals were served in R2G containers**, thus helping reduce waste and cut costs associated with compostable to-go containers. For the fall of 2017 (in collaboration with SGA and HRL) Dining Services also secured over **$20,000 in funding** to distribute **9,500 Reusable To-Go containers** to all on-campus residents.

Waste Reduction:

Dining Services works with the Campus Kitchen at Virginia Tech to divert unused food to those in need within the New River Valley. Since beginning that relationship in 2015 the program has **diverted over 20,000 pounds of food**.

Alternative Transportation

Bus, Bike, Walk, and Carshare

Alternative Transportation promotes and encourages the use of alternative modes of transportation (e.g., bicycling, walking, vanpooling, carpooling, riding transit) to get to, from, and around campus.

The **Hokie Bike Hub** serves as a bicycle maintenance and commuter education center. Cyclists have access to tools and resources for self-service bike repair. Cyclists can also attend bike-themed workshops and learn how to maintain and repair bikes. The Bike Hub has become the home of bicycling on campus and serves as a social space for cyclists to interact with and learn from one another.

Employees of Virginia Tech can participate in an official university **Vanpool** Program. Benefits of the program include shared costs, reserved parking space, reduced cost fuel at **Fleet Services**, and regular van maintenance.

Zimride and **Zipcar** are two alternative transportation options for both students and employees to share rides or rent vehicles hourly, encouraging everyone to cut down on fuel use.

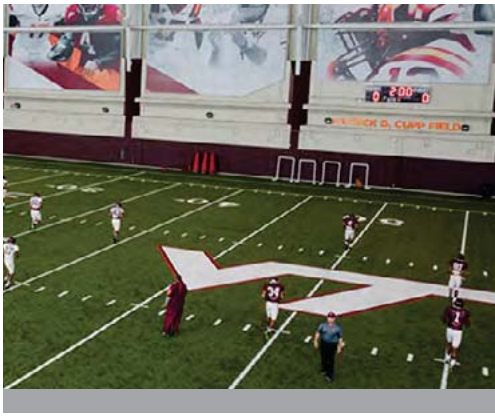
Green Building: LEED Certifications

(Leadership in Energy and Environmental Design)

Henderson Hall Renovation and Theatre 101 Addition	Gold	2/1/10
Football Locker Room Addition	Silver	10/1/11
ICTAS II (Institute for Critical Technology and Applied Science)	Gold	11/1/11
Visitors and Undergraduate Admissions Center	Certified	8/1/12
Academic and Student Affairs Building (Lavery Hall)	Silver	4/1/13
Vet Med Instructional Addition	Silver	6/1/13
Ambler Johnston Hall	Gold	11/1/13
Chiller Plant, Phase I (Southwest Chiller Plant)	Silver	11/1/13
Center for the Arts (Moss Arts Center)	Gold	5/1/14
Human and Agricultural Biosciences Building I	Gold	4/17/15
Indoor Athletic Training Facility	Silver	10/5/15
Signature Engineering Building (Goodwin Hall)	Gold	10/28/15
Renovate Davidson Hall	Certified	3/11/16
Upper Quad Residential Facilities (Pearson Hall)	Silver	12/16/16

Total GSF = 1,173,072

Virginia Tech also has a number of future LEED Certified buildings under construction and in design.



Sustainability Week

Sustainability Week is a **partnership between Virginia Tech, the Town of Blacksburg, and Sustainable Blacksburg** that highlights sustainability efforts in the town and on campus. More than twenty events were scheduled the week of September 18-25, 2016.

Some of the highlights include:

"Caught Green Handed"–Volunteers traveled throughout the community catching people in the act of making more sustainable everyday choices such as biking to work, using a reusable coffee mug, or recycling.

Active Commute Celebration–This event is hosted by the Office of Alternative Transportation and highlights information about Blacksburg Transit, the Virginia Tech Office of Sustainability, the Blacksburg Office of Sustainability, and many others.

"20x20 Night"–Eight guest speakers presented in rapid fire format, 20 slides and 20 seconds per slide, on their sustainability topic of expertise. Featured topics included: The Creative ReUse Center, Healthy Streams – Vibrant Community, What Color Is Water?, Stinkbugs, Green Burial, and more!

Community Garden and Solar Homes Tour–The Hale YMCA Community Gardens hosts 70 families and uses sustainable, organic gardening practices. Participants toured the gardens and solar greenhouse, tried locally grown food, and also toured a nearby solar home.

10th Anniversary Tree Planting–2016 marked the 10th anniversary of the green partnership between the Town of Blacksburg, Virginia Tech, and Sustainable Blacksburg. Virginia Tech President Tim Sands, Blacksburg Mayor Ron Rordam, and Sustainable Blacksburg President April DeMotts provided remarks and participated in the planting of a White Oak tree on Henderson Lawn, an important community gathering space in the heart of downtown Blacksburg and on the edge of the Virginia Tech campus.

In April 2017, Virginia Tech, the Town of Blacksburg, and Sustainable Blacksburg won a **Silver Governor's Environmental Excellence Award** in the Sustainability category for their role in the planning and execution of Sustainability Week for the past 10 years. Representatives from all three entities accepted the award at the 28th annual Environment Virginia Symposium in Lexington, Virginia.

Earth Week

With the mission to "build a more just and sustainable community through education, action, and appreciation for our world," Virginia Tech's annual Earth Week events are led by The Environmental Coalition at Virginia Tech, with support from nearly a dozen other groups, including:

- Virginia Tech Office of Sustainability
- Virginia Tech Students for Sustainable Practice
- Virginia Tech Environmental Student Organization
- Sustainable Food Corps
- Sustainable Dining at Virginia Tech
- Virginia Tech Office of Alternative Transportation
- YMCA at Virginia Tech
- Veg Club of Virginia Tech
- Blacksburg Farmers Market

Each day of Earth Week is themed around an important sustainability topic, such as clean energy, waste and recycling, local food, social justice, and community. The particular events change each year, but the basic mission to take action for and celebrate a sustainable campus and beyond is carried through year to year.

2016-17 Office of Sustainability events include:

- EKOCENTER with Coca-Cola
- Pop-up Farmers Market with Blacksburg Farmers Market
- Tree Planting at Hillcrest Lawn
- Spring Game Green Tailgate

2016 football season

fyi

10,000

pounds of recycling was collected

Game Day Green Tailgate

The **"Game Day Green Team"** promotes tailgate recycling during home football games by passing out blue recycling bags to tailgaters in the six highest impact parking lots surrounding Lane Stadium, including the Coliseum, Stadium, West Stadium, Track and Field, Chicken Hill, and Litton-Reaves parking lots. The Green Team educates tailgaters on what can and can't be recycled, and how to green their game day experience. During the 2016 football season, **nearly 10,000 pounds of recycling** was collected!

Ways to green your gameday:

1. Carpool to the game
2. Use propane to grill
3. Bring reusable plates/cups/utensils/grocery bags
4. Recycle bottles, cups, cans, cardboard in bags provided by volunteers!
5. Buy in bulk - not single serving snacks (reduces packaging waste)
6. Buy local from the Blacksburg Farmer's Market

Green Request for Proposals (RFP) Program

At a Glance

The **Green Request for Proposals Program** provides university funds to student-generated sustainability projects. This program solicits proposals from recognized student organizations that promote sustainability on campus. Proposals that are funded by the university support the Virginia Tech Climate Action Commitment and produce realizable savings.

Since 2010, 53 student proposals have been approved and **awarded more than $525,000**. The following projects were funded in 2015-16 and installed during 2016-17:

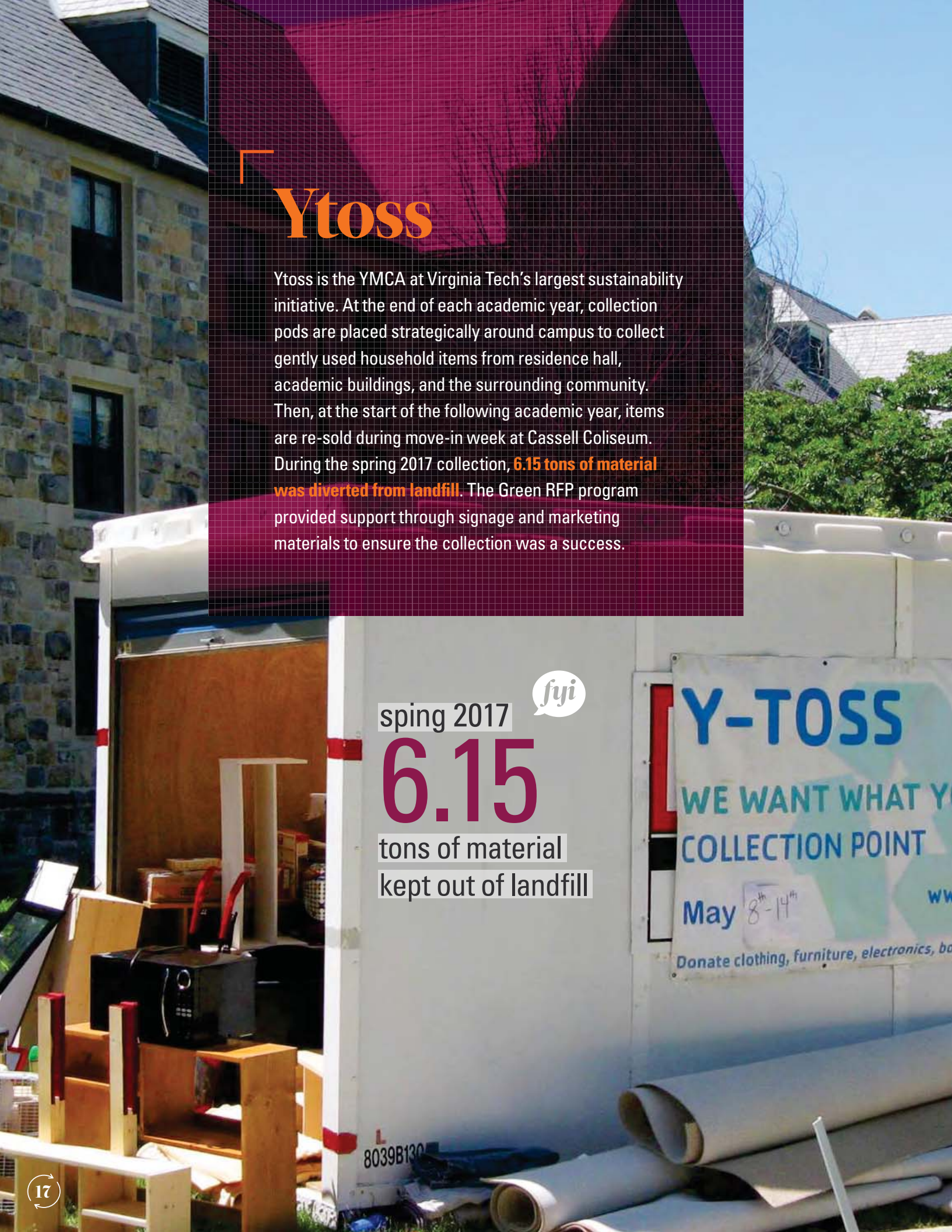
- Additional LED street lamp upgrades
- Additional OZZI reusable to-go machines and Hokie Passport readers
- Indoor waste stations for McBryde Hall
- Shut-the-Sash fume hood stickers
- Bicycle parking hubs
- Rainwater catchment system for Urban Horticulture Center
- Water bottle refilling station in Smyth Hall
- Native trees for Sustainability Week
- Bicycle fix-it stations
- Ytoss signage

The following projects were funded in 2016-17 and will be installed during the 2017-18 academic year:

- LED Lights in the Burruss Hall Tunnel - $4,500
- Stroubles Creek Riparian Restoration Buffer Project - $6,223
- ICTAS II Automatic Fume Hood - $3,500
- OZZI Reusable container expansion - $4,880
- LED Lighting in Squires Scene Construction Shop - $7,160
- Solar Charging Table - $13,500
- Water Bottle Refill Stations in Pamplin and Major Williams Hall - $5,000
- Energy Saving Light Switch Stickers - $300
- Bike Racks for Residence Hall Areas - $16,500
- Bike Shelter for Oak Lane Community - $7,000

Since 2010 *fyi*

53 student proposals approved and awarded more than **$525,000**



Ytoss

Ytoss is the YMCA at Virginia Tech's largest sustainability initiative. At the end of each academic year, collection pods are placed strategically around campus to collect gently used household items from residence hall, academic buildings, and the surrounding community. Then, at the start of the following academic year, items are re-sold during move-in week at Cassell Coliseum. During the spring 2017 collection, **6.15 tons of material was diverted from landfill**. The Green RFP program provided support through signage and marketing materials to ensure the collection was a success.

fyi

sping 2017

6.15

tons of material kept out of landfill

Energy and Sustainability Committee

Committee Purpose

The **Energy and Sustainability Committee** is part of the university governance structure. The committee reports to the Commission University Support which reports to University Council.

In 2016, the Energy and Sustainability Committee set forth to change their committee charge to best reflect their work surrounding sustainability. The new charge reads: "To review and provide advice to the University Administration on broad policy issues relating the university's pursuit of environmental quality through action, education, and engagement to address current needs without compromising the capacity and needs of future generations."

The Committee presented a Sustainability Overview to the University Council in May 2017. Also briefed the UNiversity Council in May 2017 to inform the university policy-makers of the exciting sustainability work that is taking place at Virginia Tech.



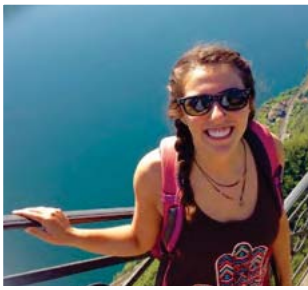




Internship Program







Intern Events

- Turn Down for Watt
- Thrift Swap
- Hallowgreen
- Did You Hear The Buzz?
- Pop-up Farmers Market
- EKOCENTER

Green Graduates

fyi

750

Green Graduates in 2016-17

The **Green Graduates of Virginia Tech** program asks graduating students to take a personal sustainability pledge that encourages them to think about the environmental impact of their jobs, travel, and other adventures after leaving Virginia Tech. In 2016-17, Virginia Tech had over **750 Green Graduates**.

Frequently Asked Questions

Do other schools have a graduation pledge? Yes. Virginia Tech is part of the Graduation Pledge Alliance. There are more than 100 active pledge schools and 125,000 college graduates have taken the pledge.

How do I participate? To participate send a quick blurb of how you pledge to support a sustainable world and a photo of yourself (think "Humans of New York" project or just your standard selfie) to the Facebook page.

Do I need to be graduating to get the cord? Yes, we will only give cords to students who are set to graduate in the upcoming graduation ceremony.

Do you hand out cords for December graduation? Yes.

Do you have to be an undergraduate student to participate (rather than a Masters, PhD, etc.)? Not at all. Graduate students are also invited to participate.

What's the cost? The cord is free of charge, and only requires that you send your pledge and photo to commit to living a sustainable post-graduation life.

To view more, visit our Facebook page:
Green Graduates of Virginia Tech.

graduationpledge.org

Tree Campus USA

Since Virginia Tech was first certified in 2008 under the Tree Campus USA program, **over 625 trees have been planted** across campus. Plantings primarily take place during Sustainability Week in the fall semester and during Earth Week in the spring semester. Virginia Tech was one of the founding member schools of Tree Campus USA but as of spring 2017 over 300 universities were certified through this program.

TREE CAMPUS USA

STARS: Sustainability Tracking, Assessment and Rating System

Gold Rating since October 15, 2014

A Letter From President Sands to the Association for the Advancement of Sustainability in Higher Education (AASHE)

Virginia Tech is proud to be a charter participant in AASHE's STARS. We are committed to maintaining our leadership role in campus sustainability. It is my pleasure to endorse and affirm that Virginia Tech's STARS submission accurately reflects the sustainability initiatives and progress to date on our campus.

We actively use STARS as the primary tool for benchmarking our progress towards a more sustainable campus. Our commitment to sustainability was initiated by students in 2007. In 2009, our Board of Visitors unanimously approved the Virginia Tech Climate Action Commitment Resolution, which was accompanied by a Sustainability Plan specific to the university. This resulted in the creation of the Office of Energy and Sustainability, establishment of targets for the reduction of greenhouse gas emissions, an emphasis on energy efficiency, increased recycling and alternative transportation rates, an institutional commitment to pursue LEED Silver certification or better for all new construction and major renovation projects, and continued student engagement in campus sustainability. We are pleased to report that we have made tremendous progress toward our goals and are continually implementing additional initiatives to achieve a more sustainable future.

The STARS program continues to evolve and offer greater opportunities for colleges and universities. We will submit an application again under version 1.2 to advance our rating from Silver to Gold. Thank you for this opportunity to continue our participation in STARS and to learn from our peers as we work together to advance sustainability in higher education.

377-acre research and education site

Catawba

The **Catawba Sustainability Center (CSC) is a 377-acre research and education** site in Roanoke County, Virginia, that aims to inspire thought and discover solutions in environmental, social, and economic sustainability through research, education, and demonstration. The CSC works to advance environmental stewardship, community engagement, and economic growth by providing a living, learning environment for the teaching and demonstration of sustainable practices in land management, agriculture, and economics. The **CSC hosts over 1,000 visitors a year** and works closely with the academic, county, and community partners to promote its mission in the Catawba Valley.

Beginning Farmer, Education, and Food Access Programs

In conjunction with Virginia Cooperative Extension and the Virginia Young and Beginning Farmer/Rancher Coalition, the CSC continued its **small farmer incubator program** for another year by granting land access to five farmers during the 2017 growing season. CSC worked with those farmers to put over four acres under production to support their individual farm businesses. Another two acres were put in production in conjunction with a local high school to serve as an educational program as well as increasing access to healthy food in the region through the donation of that plot to a local food bank. Additionally, another half-acre was planted with a local "glean team" also for donation to a local food bank.

Conservation Credit for Agroforestry Production

In the early spring of 2017, the CSC along with faculty from the College of Natural Resources and Environment, demonstrated the potential of riparian and upland agroforestry systems to generate nutrient offset credits for sale in Virginia's water quality marketplace. **Over 1,300 trees were planted on over eight acres** of both hillsides and along the Catawba Creek designed to generate water quality credits, produce fruit, nut, and floral crops, and provide opportunities for research on tree establishment and growth. This project was funded by the National Fish and Wildlife Foundation and is a partnership between Virginia Tech, the Chesapeake Bay Nutrient Land Trust, and the National Agroforestry Center.

Cooperative Research Grants

In 2017, the CSC **awarded five cooperative research grants** to Virginia Tech faculty to implement projects on the ground. From the applicants, the new projects established include historical research into the first three decades of the farm property, the facilitation of drone use in agriculture to high school students, the construction of a weather station on the property, the use of a UAV-based LiDAR system on a drone to develop detailed digital maps of the CSC property, and the introduction of a non-timber forest product plot that involves the cultivation of medicinal and edible plants as well as mushrooms.

Multi-Modal Transit Facility (MMTF) and Sustainability Showcase

The **Multi-Modal Transit Facility (MMTF) is a partnership between the university and the Town of Blacksburg**. It will function as a transit hub and will serve multiple modes of transportation. The LEED project boundary spans from Stanger St. to West Campus Dr., and will transform Perry St. into an expansive pedestrian mall. The facility will provide amenities for users, facilitate public interface, disseminate information, and promote alternative transportation.

This project will be the first building at Virginia Tech to pursue LEED Platinum certification. Some of the sustainability showcase items that will be included in the MMTF include:

- Rainwater from the building will be collected in storage tanks and be reused for gray water purposes in the building.
- A wind turbine will be installed as a demonstration of wind energy.
- Extensive photo-voltaic panels will be installed in select bus slip canopies to provide renewable energy.
- A green roof will be installed to provide natural insulation, CO_2 reduction, and reduce rainwater runoff.

fyi

7.6%

decrease in our emissions in 2016

In Conclusion

The past year has been a "Sustainability Success" because of our achievements engaging our campus community and implementing a comprehensive Five Year Energy Action Plan. You can see these achievement in the faces of our faculty, staff, and students as they come together to make our campus even greener and in the results of our annual Greenhouse Gas (GHG) assessment showing a **7.6% decrease in our emissions in FY 16**. Virginia Tech continues to lead in Sustainability.

Appendices

Commonwealth of Virginia Locality Recycling Rate Report For Calendar Year 2016

Contact Information

Reporting Solid Waste Planning Unit: Virginia Tech

Person Completing This Form: Dennis C. Cochrane

Title: Sustainability Program Manager, Office of Sustainability, Facilities Department

Address: Sterrett Center, Suite 48 (MC0529), 230 Sterrett Drive, Blacksburg, VA 24061

Phone #: (540)-231-5184 **Email Address:** denniscc@vt.edu

Summary: Virginia Tech, the Town of Blacksburg, the Town of Christiansburg, and Montgomery County are the four jurisdictional members of the Montgomery Regional Solid Waste Authority (MRSWA). Located in Christiansburg, Virginia, MRSWA operates a transfer facility that receives our recycling materials and municipal solid waste (trash). MRSWA and its jurisdictional members transitioned to a "Single Stream Recycling System" on July 1, 2015. With this system once recycling materials are weighed at MRSWA they are transported to "Recycling & Disposal Services (RDS) in Roanoke, Virginia, which serves as the recycling hub for the Roanoke and New River Valleys. Municipal solid waste is transported to the local landfill operated by the New River Resource Authority (NRRA) in Pulaski County. Virginia. Food waste for compositing is transported from our eleven dining facilities to an on campus storage facility for further transport to Royal Oak Farm (ROF) located outside of Lynchburg, Virginia. MRSWA prepares a consolidated recycling rate report for our region using this DEQ format. Virginia Tech uses this same format to record our data for calculating our recycling rate for our main campus in Blacksburg, Virginia.

Due to the complexity and difficulty in obtaining data, this report reflects the best efforts of the solid waste planning unit to represent its recycling efforts for **CY 2016**. Data in this report was collected from our recycling and solid waste facilities, and from other recycling sources, including non-governmental entities. I certify that I have personally examined and am familiar with the information submitted in this form and any attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. These records will be made available for auditing purposes, if requested.

Dennis C. Cochrane	Sustainability Program Manager	MARCH 28, 2017
Authorized Signature	Title	Date

Locality Recycling Rate Report — For Calendar Year 2016

PART A: Recycling Rate Calculation - Using the formulae provided below and the information reported on Pages 3, 4 and 5 to calculate your recycling rates.

Step 1: [(PRMs) / (PRMs + MSW Disposed)] X 100 = Base Recycling Rate %

1,904	/	1,904	+	3,867	X 100 =	33.0	%
TONS		TONS		TONS			

Step 2: CREDITS calculation

a. Total Recycling Residue	0 tons
b. Total Solid Waste Reused	10 tons
c. Total Non-MSW Recycled	1,541 tons
CREDITS	1,551 tons

Step 3: [(PRMs + CREDITS) / (PRMs + CREDITS + MSW Disposed)] X 100 = Adjusted Recycling Rate #1*

1,904	+	1,551	/	1,904	+	1,551	+	3,867	X 100 =	47.2	%
TONS		TONS		TONS		TONS		TONS			

Waste Diversion Rate (Waste kept out of landfill)

Step 4: ☐ **Source Reduction Credit does not apply; or**

☒ **Adjusted Recycling Rate #1 + 2% SRP Credit = Adjusted Recycling Rate #2***

47.2	%	+ 2%	=	49.2	%

Step 5: Final Recycling Rate* for Solid Waste Planning Unit = 38.0 %

* **Total credits resulting from Steps 3 and 4 may not exceed 5 percentage points above the Base Recycling Rate achieved by the Solid Waste Planning Unit.**

Locality Recycling Rate Report **For Calendar Year 2016**
PART B: DATA

Part I: Principal Recyclable Materials (PRMs): Report only PRM material generated within the reporting SWPU and recycled, NOT imported PRMs for recycling.

PRM TYPE	RECYCLED AMOUNT (TONS)	
Paper	444	(round to whole tons)
Metal	36	
Plastic	1	
Glass	0	
Commingled (also known as Single Stream)	503	
Yard Waste (composted or mulched)	250	
Waste wood (chipped or mulched)	150	
White Goods	0	
Tires	7	
Used Oil	11	
Used Oil Filters	1	
Used Antifreeze	0	
Batteries	9	
Electronics	24	
Food Waste Organic-Composting	416	
Waste Cooking Oil	38	
Fluorescent Lights/Bulbs & Ballasts	14	
TOTAL PRMs	**1,904**	**(PRMs)**
	(Enter Total on Page 2, Step 1)	

Listing of sources for PRM data ***(consider only Virginia generated waste material)***

1. Permitted solid waste facilities from which MSW disposed/recycled data was collected:
   a. Department of Facilities: Office of Sustainability
   b. Department of Facilities: Operations (Buildings and Grounds)
   c. Department of Facilities: University Design and Construction
   d. Department of Environmental Health and Safety
   e. Dining Services
   f. Fleet Services
   g. Department of Human Resources
   h. _____
   i. _____

2. Other facilities/operations (not included in #1 above) from which MSW disposed/recycled data was collected:
   a. Montgomery Regional Solid Waste Authority (MRSWA)
   b. YMCA at Virginia Tech
   c. _____
   d. _____
   e. _____
   f. _____
   g. _____
   h. _____
   i. _____

Commonwealth of Virginia
Locality Recycling Rate Report
For Calendar Year 2016

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

Contact Information

Reporting Solid Waste Planning Unit: Virginia Tech

Person Completing This Form: Dennis C. Cochrane

Title: Sustainability Program Manager, Office of Sustainability, Facilities Department

Address: Sterrett Center, Suite 48 (MC0529), 230 Sterrett Drive, Blacksburg, VA 24061

Phone #: (540)-231-5184 **Email Address:** denniscc@vt.edu

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Dennis C. Cochrane — Sustainability Program Manager — MARCH 28 2017

Authorized Signature | Title | Date

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

Commonwealth of Virginia Locality Recycling Rate Report For Calendar Year 2016

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Dennis C. Cochrane	Sustainability Program Manager	MARCH 28, 2017
Authorized Signature	Title	Date

Locality Recycling Rate Report **For Calendar Year 2016**

Credits Worksheet

I. Reuse of any Solid Waste

√		Material description	Tons	
___	PRM			(round to whole tons)
___	PRM			
___	PRM			
___	Industrial			
___	Construction			
___	Demolition			
___	Debris			
_X_	Other	Res Hall used furniture/appliances	10	
___	Other			
___	Other			
		TOTAL TONS	**10**	**(enter data on Page 4, Solid Waste Re-Used)**

II. Recycling of any Non-Municipal Solid Waste

√		Material description	Tons	
_X_	Construction	Concrete/Masonry (New Cadet Hall)	1,171	(round to whole tons)
_X_	Construction	Concrete/Masonry (New Class Bldg.)	314	
_X_	Roofing	EPDM Materials (Derring Hall)	6	
_X_	Roadwork	Asphalt Removal (Kent Street & West Campus Drive))	50	
___	Other			
___	Other			
___	Other			
		TOTAL TONS	**1,541**	**(enter data on Page 4, Non-MSW Recycled)**

III. Inoperable Vehicles Removed and Demolished – include number of vehicles that the localities received reimbursement from DMV under §46.2-1207 of the Code of Virginia.

# of vehicles removed/reimbursement received		
Average tonnage per vehicle	X 1 Ton each	
Total Tons	**0**	**(enter data on Page 3, PRMs, Inoperative Motor Vehicle Program)**

NOTE: Check "Exclusions" on Page 5 to avoid listing of those materials on this worksheet and/or in the data fields of this report.

Locality Recycling Rate Report — For Calendar Year 2016

Part C: Recycling Rate Report Instructions

Amended Regulations for the Development of Solid Waste Management Plans (9 VAC 20-130-10 et seq.) require that Solid Waste Planning Units (SWPUs) in the Commonwealth develop complete, revised solid waste management plans. Section 9 VAC 20-130-120 B & C of the Regulations requires that a minimum recycling rate of the total municipal solid waste generated annually in each solid waste planning unit be maintained. It also requires that the plan describe how this rate shall be met or exceeded and requires that the calculation methodology be included in the plan. Section 9 VAC 20-130-165 D establishes that every solid waste management planning unit with populations over 100,000 shall submit to the department by April 30 of each year, the data and calculations required in 9 VAC 20-130-120 B & C for the preceding calendar year. SWPUs with populations of 100,000 or less are only required to report every 4 years (CY years 2016 and forward).

NOTE: ONLY RECYCLING RATE REPORTS FROM AN APPROVED SOLID WASTE PLANNING UNIT (SWPU) WILL BE ACCEPTED FOR PROCESSING. JURISDICTIONS WITHIN A SWPU MUST SUBMIT THEIR RECYCLING DATA TO THE SWPU FOR INCORPORATION INTO THE ANNUAL REPORT.

It is requested that all amounts included on the form be listed in **tons (2,000 pounds)**, rounded to the nearest whole ton. If actual weights are not known, volumes can be converted to weight estimates. To assist you with these estimates, a standardized volume-to-weight conversion table is attached.

Contact Information Section: Please provide information on the Reporting SWPU and information on the individual completing this form. Under Member Governments, please list the local governments identified in the applicable solid waste management plan.

Calculated Recycling Rate Section: Using the formulae provided, calculate your recycling rates for the reporting period from information identified in the Recycling Rate Calculations Section.

Signature Block Section: Please provide an authorized signature prior to submitting the completed form. Authorized signatories include Executive Officer, Administrator, or other legally designated representative of the SWPU reporting entity.

Recycling Rate Calculations Section: Please provide the requested information:

Part I: Principal Recyclable Material (PRM) - Report the amount in tons of each PRM collected for recycling in the named jurisdiction(s) during the reporting period. PRMs include paper, metal, plastic, container glass, commingled, yard waste, waste wood, textiles, tires, used oil, used oil filters, used antifreeze, batteries, electronics, and other materials approved by the Director taken from the Municipal Solid Waste (MSW) generation. A one ton credit may also be entered for each inoperable motor vehicle for which a locality receives reimbursement from the Virginia Department of Motor Vehicles under §46.2-1207 of the *Code of Virginia*. The total weight in **TONS** of all PRMs collected for recycling is represented as **PRMs** in the Recycling Rate Calculation. **New for CY 2015: Provide source information for the PRMs reported on the report (permitted and unpermitted facilities).**

Part II: Credits - Report the amount in **TONS** of each material for which recycling credit is authorized in §10.1-1411.C of the *Code of Virginia*: (i) one ton for each ton of recycling residue generated in Virginia and deposited in a landfill permitted under §10.1-1408.1 of the *Code of Virginia*; (ii) one ton for each ton of any solid waste material that is reused; and, (iii) one ton for each ton of any non-municipal solid waste that is recycled. The total weight in **TONS** of all material for which credits are authorized is represented as **CREDITS** in the Recycling Rate Calculation. A credit of two percentage points of the minimum recycling rate mandated for the Solid Waste Planning Unit (SWPU) may be taken for a source reduction program that is implemented and identified in its Solid Waste Management Plan. Total credits may not exceed five percentage points above the Base Recycling Rate achieved by the SWPU.

Part III: Total Municipal Solid Waste (MSW) Disposed: Report the total amount in **TONS** of MSW that was disposed of by the Solid Waste Planning Unit (SWPU) during the reporting period for each of the source categories (Household, Commercial, Institutional, and Other). For the purpose of this report, "disposed," means delivery to a permitted sanitary landfill or waste incinerator for disposal, and excludes industrial wastes. Industrial waste and by-products should not be included in the MSW or Recycling calculation. The total weight in tons of MSW disposed is represented as **MSW Disposed** in the Recycling Rate Calculation.

Locality Recycling Rate Report Volume to Weight Conversion Table

Material	Volume	Weight in Pounds
Metal		
Aluminum Cans, Whole	One cubic yard	50-74
Aluminum Cans, Flattened	One cubic yard	250
Aluminum Cans	One full grocery bag	1.5
Ferrous Cans, Whole	One cubic yard	150
Ferrous Cans, Flattened	One cubic yard	850
Automobile Bodies	One vehicle	2,000
Paper		
Newsprint, Loose	One cubic yard	360-800
Newsprint, Compacted	One cubic yard	720-1,000
Newsprint	12" stack	35
Corrugated Cardboard, Loose	One cubic yard	75-100
Corrugated Cardboard, Baled	One cubic yard	1,000-2,000
Plastic		
PETE, Whole, Loose	One cubic yard	30-40
PETE, Whole, Loose	Gaylord	40-53
PETE, Whole, Baled	30" x 62"	500
Film, Baled	30" x 42" x 48"	1,100
Film, Baled	Semi-Load	44,000
Film, Loose	Standard grocery bag	15
HDPE (Dairy Only), Whole, Loose	One cubic yard	24
HDPE (Dairy Only), Baled	32" x 60"	400-500
HDPE (Mixed), Baled	32" x 60"	900
Mixed PET & Dairy, Whole, Loose	One cubic yard	32
Mixed PET, Dairy & Other Rigid (Whole, Loose)	One cubic yard	38
Mixed Rigid, No Film	One cubic yard	49
Glass		
Glass, Whole Bottles	One cubic yard	600-1,000
Glass, Semi-Crushed	One cubic yard	1,000-1,800
Glass, Crushed (Mechanically)	One cubic yard	800-2,700
Glass, Whole Bottles	One full grocery bag	16
Glass, Uncrushed to Manually Broken	55 gallon drum	125-500
Arboreal		
Leaves, Uncompacted	One cubic yard	200-250
Leaves, Compacted	One cubic yard	300-450
Leaves, Vacuumed	One cubic yard	350
Wood Chips	One cubic yard	500
Grass Clippings	One cubic yard	400-1,500
Other		
Battery (Heavy Equipment)	One	60
Battery (Auto)	One	35.9
Used Motor Oil	One gallon	7.4
Used Oil Filters (Uncrushed)	55 gallon drum	66 Lbs./Used Oil + 110 Lbs./Ferrous Metal
Used Oil Filters (Crushed)	55 gallon drum	16.5 Lbs./Used Oil + 368 Lbs./Ferrous Metal
Tire - Passenger Car	One	20
Tire - Truck, Light	One	35
Tire - Semi	One	105
Antifreeze	One gallon	8.42
Food Waste, Solid & Liquid Fats	55 gallon drum	412
Electronics: CRT/CPU/LapTop/TV	Each (avg wt from NCER)	38/26/8/49 respectively
This Table For General Guidance Only.		

Energy and Sustainability Committee
2016-2017 Members

CHARGE: To review and provide advice to the University Administration on broad policy issues relating to the university's energy supply and use, and resource conservation. Reports to: Commission on University Support.

Chair - President will appoint annually from among members of the committee

Denny Cochrane	Chair	2017

Ex Officio

Sherwood Wilson	Vice President for Administration	ex officio
Dwight Shelton	Vice President for Finance and CFO	ex officio
Chris Kiwus	Associate Vice President and Chief Facilities Officer	ex officio
Jason Soileau	Assistant Vice President for University Planning	ex officio
Frances Keene	Chief of Operations and Deputy to the Associate Vice President, Student Affairs	ex officio
Denny Cochrane	Sustainability Program Manager	ex officio

Two representatives from Facilities Services selected by the Vice President for Administration (three-year terms)

Vacant	Transportation Planning	2018
Byron Nichols	Power Plant Operations	2019

One representative from Virginia Tech Environmental Health & Safety Services selected by the Vice President for Administration (one-year term)

Rob Lowe	Environmental Health and Safety	2017

Four representatives from the Faculty Senate nominated by the Faculty Senate (three-year terms)

Bruce Obenhaus	Library	2017
Edward Lener	Library	2019
Sean McGinnis	Materials Science Engineering	2019
Timothy Baird	Geography	2018

Two representatives from the Staff Senate nominated by the Staff Senate (three-year terms)

Alex Guest	Engineering Education	2019
Judy Taylor	Provost-Administration	2019

Locality Recycling Rate Report — For Calendar Year 2016

PART A: Recycling Rate Calculation - Using the formulae provided below and the information reported on Pages 3, 4 and 5 to calculate your recycling rates.

Step 1: [(PRMs) / (PRMs + MSW Disposed)] X 100 = Base Recycling Rate %

1,904	/	1,904	+	3,867	X 100 =	33.0	%
TONS		TONS		TONS			

Step 2: CREDITS calculation

a. Total Recycling Residue	0 tons
b. Total Solid Waste Reused	10 tons
c. Total Non-MSW Recycled	1,541 tons
CREDITS	1,551 tons

Step 3: [(PRMs + CREDITS) / (PRMs + CREDITS + MSW Disposed)] X 100 = Adjusted Recycling Rate #1*

1,904	+	1,551	/	1,904	+	1,551	+	3,867	X 100 =	47.2	%
TONS		TONS		TONS		TONS		TONS		Waste Diversion Rate (Waste kept out of landfill)	

Step 4: ☐ **Source Reduction Credit does not apply; or**

☒ **Adjusted Recycling Rate #1 + 2% SRP Credit = Adjusted Recycling Rate #2***

47.2	%	+ 2%	=	49.2	%

Step 5: Final Recycling Rate* for Solid Waste Planning Unit = 38.0 %

*** Total credits resulting from Steps 3 and 4 may not exceed 5 percentage points above the Base Recycling Rate achieved by the Solid Waste Planning Unit.**

VIRGINIA TECH LEED BUILDINGS STATUS AS OF 06/30/2017

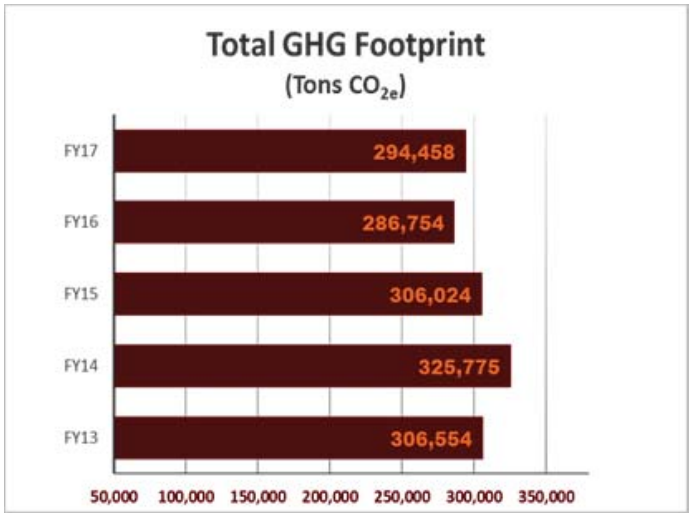
PROJECT	PROJECT #	BUDGET	GSF	CONSTRUCTION START	OCCUPANCY DATE	STATUS	LEED CERTIFICATION	DATE OF CERTIFICATION
PROJECTS COMPLETED - LEED CERTIFICATION ACHIEVED								
Henderson Hall Renovation & Theater 101 Addition	208-16758-001	$15,838,792	38,750	02/18/08	08/14/09	Project Complete	Gold	02/01/10
Football Locker Room Addition	208-L00016-000	$14,004,621	42,145	07/08/09	06/21/11	Project Complete	Silver	10/01/11
ICTAS II - Institute for Critical Technology & Applied Science Ph.II	208-17291-000	$34,587,710	42,190	04/08/09	04/06/11	Project Complete	Gold	11/01/11
Visitors & Undergraduate Admissions Center	208-L00012-000	$10,338,192	18,155	03/23/10	08/29/11	Project Complete	Certified	08/01/12
Academic & Student Affairs Building (Lavery Hall)	208-17859-000	$44,302,610	77,301	07/29/10	09/05/12	Project Complete	Silver	04/01/13
Vet Med Instructional Addition	208-19791-000	$12,343,316	24,600	07/26/11	11/05/12	Project Complete	Silver	06/01/13
Ambler Johnston Hall - Improve Residential & Dining Halls	208-17557-000	$66,968,679	269,463	05/26/09	06/25/12	Project Complete	Gold	11/01/13
Chiller Plant Phase I (Southwest Chiller Plant)	208-17657-000	$20,097,729	16,655	03/22/12	06/14/13	Project Complete	Silver	11/01/13
Center for the Arts (Moss Arts Center)	208-16758-002	$100,087,000	147,382	08/10/10	08/21/13	Project Complete	Gold	05/01/14
Human & Agricultural Biosciences Building I	229-17681-000	$53,759,344	93,860	12/22/11	03/10/14	Project Complete	Gold	04/17/15
Indoor Athletic Training Facility	208-17296-000	$21,300,000	91,600	04/23/14	06/25/15	Project Complete	Silver	10/05/15
Signature Engineering Building (Goodwin Hall)	208-17658-000	$95,218,249	154,935	09/13/11	05/29/14	Project Complete	Gold	10/28/15
Renovate Davidson Hall	208-17662-000	$32,003,099	44,845	02/17/12	06/08/14	Project Complete	Certified	03/11/16
Upper Quad Residential Facilities (Pearson Hall)	208-L00031-000	$45,500,000	111,191	10/14/13	01/24/17	Project Complete	Silver	12/16/16
Total GSF:			1,173,072					

Sustainability Annual Metrics Report 2016-17

The following report provides a summary status on implementation of the Virginia Tech Climate Action Commitment and Sustainability Plan (VTCAC&SP) for 2016-2017. The VTCAC&SP was developed in 2009 and revised in 2013.

A. KEY SUSTAINABILITY METRICS

1. **Greenhouse Gas (GHG) Emissions:** "Virginia Tech will establish a target for reduction of **campus GHG emissions** to 80% below 1990 emission level (**38,000 tons**) by 2050…" *(VTCAC&SP)*



Comments

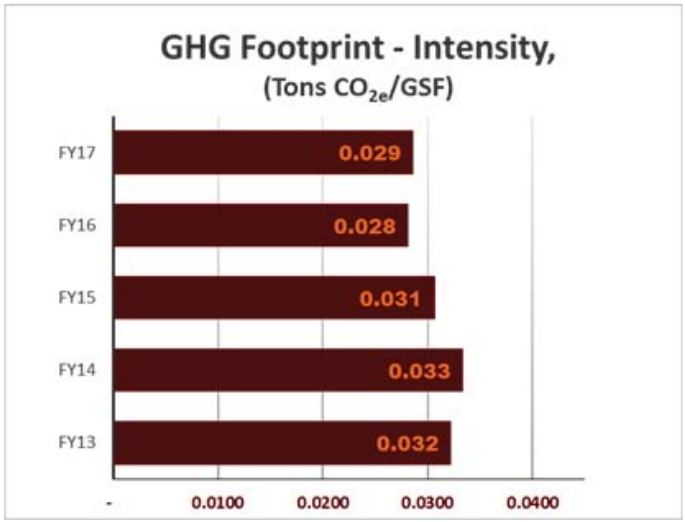
2.7% increase in FY2017 driven by:

- 4.7% increase in carbon emission rate from purchased electric energy compared to last fiscal year. This is due to reduction in AEP's nuclear energy generation and increase in natural gas generation

Comments

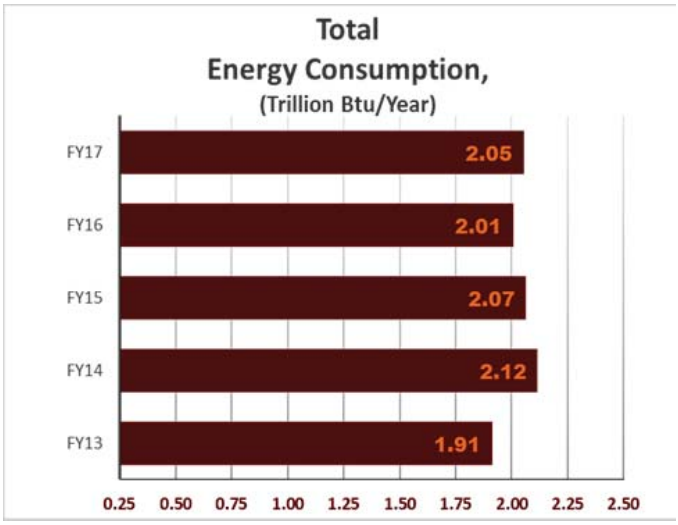
- The university added approximately 120,000 square feet in construction during FY17 (New Cadet Hall)

- GHG emission percentages by fuel source:
  - Purchased Electricity 52.6%
  - Coal 24.5%
  - Commute 5.7%
  - Natural Gas (Steam Plant) 11.4%
  - Natural Gas (Buildings) 2.3%
  - All Others 3.3%



2. **Energy Use Intensity (kBtu's/GSF):** "Virginia Tech will improve electricity and heating efficiency of campus facilities and their operations by improving the heating and cooling infrastructure and operation, lighting efficiency, equipment efficiency, and metering and controls of its existing buildings." *(VTCAC&SP)*

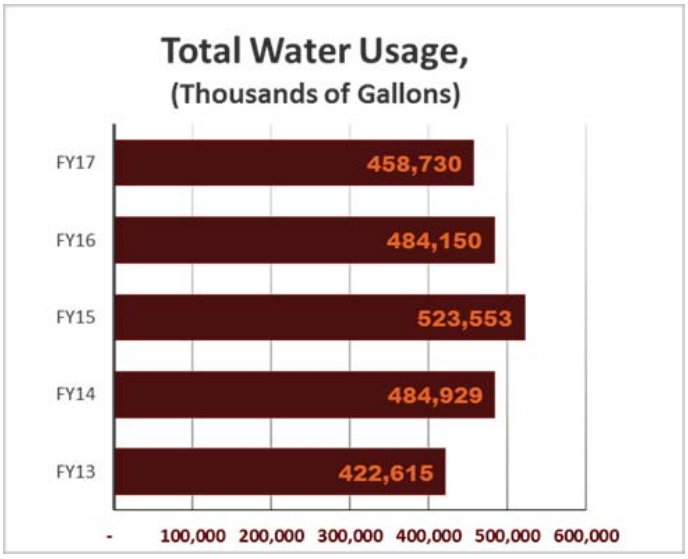
Comments



- 2.26% increase in overall energy consumption on campus driven by 1.58% increase in electric energy and 2.8% increase in combined fuel consumption in FY2017 over FY2016.
- The university added approximately 120,000 square feet in construction during FY17 (New Cadet Hall, Davidson II)
- To enhance the on-going efforts to operate more efficiently and reduce consumption of energy on campus, University has developed a 5-year Energy Action Plan. Central Administration has funded Phase 1 of the plan in the amount of $2.5 million and Phase 2 of the plan in the amount of $3.5 million.

3. **Water Consumption**: "Virginia Tech will engage students, faculty, and staff through education and involvement to develop and implement innovative strategies for efficient and sustainable use of energy, **water**, and materials in all university-owned facilities." *(VTCAC&SP)*

Comments



- **5.3% decrease over FY2017** driven by reduction in unaccounted water loss and better water management practices.

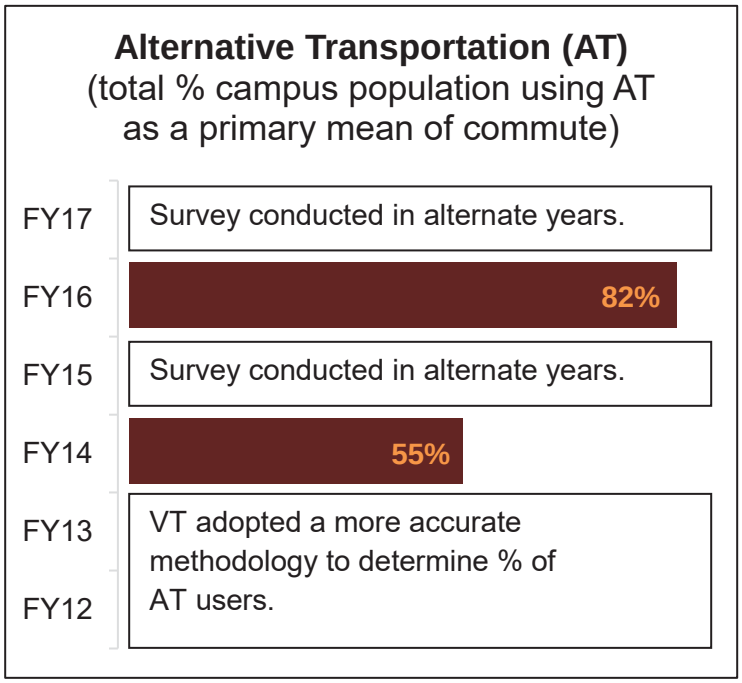
4. **Alternative Transportation Use**: "Virginia Tech will improve transportation energy efficiency on campus through parking, fleet, and **alternative transportation** policies and practices." *(VTCAC&SP)*

Comments

- Virginia Tech received its eighth straight gold award from the Best Workplaces for Commuters Race for Excellence, after having been named "Best Of" in the university category in 2014.

- The university has reapplied to the League of American Bicyclists for 2017 after being named a Bronze level Bicycle Friendly University in 2014. This is evaluated every three years.

- The office of Alternative Transportation conducted the second iteration of the biennial Commuter Survey in the spring of 2016. The survey results showed that 81.6% of campus affiliates (faculty, staff, and students) use at least one alternative mode as a primary transportation source.



2016–17 Office of Sustainability Annual Report

Office of Sustainability
Sterrett Facilities Complex
230 Sterrett Drive
Blacksburg, VA 24061

540-231-4300
facilities.vt.edu/sustainability.html

VIRGINIA TECH™ | FACILITIES DEPARTMENT

BUILDINGS AND GROUNDS COMMITTEE
November 5, 2017
Capital Project Status Report

Project Name	Project Description	Estimated Total Project Cost	Non-General Funds	Project Teams	Contract Completion Date	Project Status
FEASIBILITY						
Global Business Analytics Complex	The Feasibility Study for the Global Business and Analytics Complex (G-BAC) will investigate facility options for up to four buildings comprising a replacement for the Pamplin School of Business, creation of a Data Analytics and Decision Sciences facility, and two living/learning communities.	TBD	TBD	Moseley Architects/RAMSA TBD	TBD	The Feasibility Study is complete. Final renderings and cost estimate were received in October 2017. Working with the Pamplin College of Business on additional changes to the program for donor/fundraising efforts. A large fundraising effort will be conducted in Washington D.C. mid-December 2017 and will include a presentation of the resulting concepts. Coordination ongoing between the Dean of the Pamplin College of Business and the Project Manager.
Global System Sciences	Envisioned as a destination, the facilities will serve as the headquarters of what is anticipated to be a world-renowned group focused on solving critical regional and global problems, including environmental, animal and human health. This facility will include disciplinary and interdisciplinary faculty of the College of Science, College of Natural Resources, College of Agriculture and Life Sciences, and the College of Veterinary Medicine, and University Institutes to facilitate education and research related to this important destination area.	TBD	TBD	EYP TBD	TBD	Kickoff meeting with Architect/Engineer (A/E) firm completed. Study scope of work received in mid-September 2017 and returned with comments in late-September 2017. The feasibility study is anticipated to begin in January 2018.
Health Center Improvements/ Student Wellness Services	The project provides a comprehensive solution for student wellness services through upgrades to McComas Hall and major renovations to War Memorial Hall to meet the needs of the Schiffert Health Center, Cook Counseling Center, Recreational Sports, College of Liberal Arts and Human Sciences programs, and the College of Agriculture and Life Sciences (Human Nutrition Foods & Exercise).	TBD	$3,071,000	CannonDesign TBD	TBD	The feasibility study is complete. The final report was received in October 2017. The project transitioned directly to Schematic Design and full project delivery design services in fall 2017.
Newman Library Feasibility Study	The project will evaluate existing building's infrastructure, code compliance for egress, change of building use, and restroom facilities.	TBD	TBD	Colley Architects Blacksburg, VA TBD	November 2017	The feasibility study is underway with scheduled completion in November 2017.
Undergraduate Science Laboratory	The project will construct a new undergraduate science laboratory facility of 102,000 gross square feet (GSF) to accommodate the growing demand for STEM-H degrees at Virginia Tech.	$71,709,000	$0	ZGF Architects Washington, DC TBD	June 2021	The feasibility study was completed in October 2017. Schematic design will follow and is expected to be completed in May 2018.
PROGRAMMING						
Dietrick Hall Enclosure & Spirit Plaza	This project will expand dining services by enclosing approximately 6,400 GSF of overhang area to create new interior space, relocating VT Services to the southeast corner of the building, and constructing an operable facade at Deet's Place and pickup window at DXpress. Also, the plaza area will be renovated to create an exterior space that can provide an environment to study and host events and gatherings.	$7,000,000	TBD	TBD	TBD	Received nine proposals for full design services. Proposals are currently under review. Shortlisted firms will then be scheduled for interviews.
Intelligent Infrastructure (Hitt/Smart Dining)	Program elements envision a 30,000 GSF Hitt Hall space connected to Bishop-Favrao Hall, a 15,000 GSF Fusion Lab, a 30,000 GSF Smart Dining space and a 5,000 GSF Data for the Masses student activity space. Project intent is to showcase technology and innovation as a key component of the Intelligent Infrastructure Destination Area.	TBD	$0	TBD TBD	TBD	Program development is preceded by industry engagement through the ongoing campus master plan update. Industry forums to be conducted in fall 2017 to provide additional insight into program definition.

Project Name	Project Description	Estimated Total Project Cost	Non-General Funds	Project Teams	Contract Completion Date	Project Status
Virginia Tech Carilion (VTC) Biomedical Research Expansion	This project, executed under the Public-Private Education Facilities and Infrastructure Act of 2002 (PPEA), will construct an approximately 139,000 GSF building adjacent to the Virginia Tech - Carilion Research Institute in Roanoke, VA. The new facility will include high intensity biomedical research capable laboratories with surgical-type suites, Bio-safety Level Three laboratories, and animal imaging facilities that require high field magnetic resonance imaging. The remaining space will include high intensity dry laboratory research and training spaces including computational facilities, offices, procedural training rooms, and technical training space.	$89,865,000	$0	AECOM Skanska	Spring 2020	The BOV approved the Comprehensive Agreement and the Design Preview at the September 2017 meeting. A 30-day public posting of intent to award concluded October 18, 2017. Ground breaking ceremony was held October 24, 2017. Design review being presented at the November 2017 BOV meeting.
DESIGN						
Boiler Package 12	Demolition and disposal of decommissioned coal fired boiler (No. 6) and installation of a new 100 lbs/hour natural gas/oil fired packaged boiler (No. 12)	$6,800,000	$0	Affiliated Engineers, Inc. (AEI) Atlanta, GA TBD	TBD	Fee negotiations underway with A/E. Design to start immediately following design contract finalization.
Chiller Plant Phase II	This project includes the replacement and upgrade of plant equipment in the existing campus chiller plants and the expansion of the underground distribution infrastructure to link campus chiller substations and bring existing campus buildings on line. The improvements include the replacement of two outdated chillers in the North Plant with two new upgraded larger capacity chillers; and addition of up to two new 1,500 ton chillers in the Southwest Plant. The project also includes the replacement and upgrade of ancillary equipment with state-of-the-art, optimally sized pumping and system support equipment.	$40,821,000	$0	Affiliated Engineers, Inc. (AEI) Atlanta, GA TBD	TBD	Preliminary Design is underway, BOV preview was conducted in September 2017, final CR-2 submission documents were provided to DGS in mid-September. Project presented to and approved by the Art and Architectural Review Board (AARB) in October 2017.
Corps Leadership and Military Science	Three story structure that provides a centralized and consolidated home to the Corps of Cadets administration and ROTC programs.	TBD	TBD	Clark Nexsen TBD	TBD	Preliminary Design documents completed. Project currently on hold pending authorization for general fund for development of working drawings and construction.
Creativity & Innovation District Living Learning Community	This project involves the provision of a new residential life building in the newly emerging Creativity & Innovation District on campus. The proposed ~203,000 GSF (520 bed) facility will support the growing living/learning community (LLC) anticipated for this key area of campus and is a realization of Virginia Tech's Beyond Boundaries initiative.	TBD	TBD	VMDO Charlottesville, VA TBD	TBD	VMDO was selected in August 2017 as the top candidate for Criteria Document Architect. Criteria Document Phase services will begin after negotiations with VMDO are completed.
Holden Hall Renovation	This project includes the renovation of an approximately 21,000 GSF portion of Holden Hall fronting the Drillfield. The remaining 21,000 GSF of the existing building will be demolished and replaced with approximately 80,000 GSF of new engineering instruction and research space for a total building size of 101,000 GSF.	$61,886,000	$17,500,000	Moseley Architects Virginia Beach, VA W.M. Jordan Co.	TBD	Schematic Design Cost Estimates from the A/E and CM were completed in September 2017 and submitted to BCOM for their Schematic Design Cost Report (cost review/approval). Preliminary Design Phase underway.

Project Name	Project Description	Estimated Total Project Cost	Non-General Funds	Project Teams	Contract Completion Date	Project Status
Improve Kentland Facilities	This project includes new construction of three buildings totaling approximately 28,900 GSF including a metabolic research laboratory, an applied reproduction facility, and a bovine extension teaching/research facility to serve Agency 229, Virginia Cooperative Extension and the Virginia Agricultural Experiment Station.	$9,363,000	$0	Spectrum Design, PC Roanoke, VA TBD	TBD	Bids for construction of the three buildings were received in December 2016. All bids exceeded the target construction budget. Re-designed project was re-bid with the VE items incorporated in September 2017 in anticipation of starting construction in January 2018.
Livestock and Poultry Research Facilities (Phase I)	This project is the first of two phases to renew existing facilities for the College of Agriculture and Life Sciences' livestock and poultry programs. This first phase includes approximately 126,000 GSF of new and renovated facilities located along Plantation Road and Giles Road and at Kentland Farm.	$22,500,000	$0	Spectrum Design, PC Roanoke, VA TBD	TBD	Schematic Design is underway with a target for completion of phase in January 2018.
Multi-Modal Transit Facility	This is a Capital Lease Project administered by the Town of Blacksburg (ToB) and funded by Federal Transportation Administration grants and a university match. The project is targeted for LEED Platinum to provide a campus sustainability demonstration showcase.	$38,000,000	TBD	Wendel Associates Buffalo, NY TBD	August 2020	Ninety percent (90%) design documents delivered by the A/E to the ToB and VT for review in October 2017. Design Review to be presented to BOV for approval at November 2017 meeting. Construction is anticipated to begin in spring/summer 2018 with anticipated completion in August 2020.
Undergraduate Science Laboratories Renovations	This project will repurpose six laboratory/teaching spaces in Derring Hall and one laboratory in Hahn Hall. These repurposed laboratories will expand space to meet growing demand for course sections in biology, chemistry, organic chemistry, and microbiology.	$10,000,000	$10,000,000	Studio Twenty Seven Architecture Washington, DC TBD	August 2018	Preliminary Design complete and Working Drawing document preparation is underway. The first construction phase (Derring 3004) should be complete by January 2018. Remaining construction phases are planned for January through August 2018.
CONSTRUCTION						
Athletic Facilities Improvements	This is an umbrella project for improvements to multiple athletics facilities, including Rector Field House, Baseball, Tennis, and Cassell Coliseum Bowman Room (Nutrition Center).	$37,500,000	$37,500,000	Rector: Cannon Design Baseball: Cannon Design Tennis: TKA Architects (Criteria Documents) Nutrition: Hanbury Architects Rector: Branch Associates Baseball: Whiting-Turner Contracting Co. Tennis: D/B Contractor TBD Nutrition: TBD	Rector: Spring 2018 Baseball: Spring 2018 Tennis: TBD Nutrition: TBD	Sub-projects as follows: 1) Rector Field House - Includes building renovation and new additions to provide indoor infield, batting and pitching cages for softball, and indoor throws area for Indoor Track & Field, new entry, restrooms, team rooms, and support spaces. Precast concrete panel erection has been completed; work in progress includes masonry walls, re-roof of existing Field House, stone masonry, MEP rough-ins. 2) Baseball - Includes demolition of the existing press box and seating bowl, and construction of a new, larger press box structure to include suites, press, game operations, radio/TV broadcast, ticket office, team store, concessions, restrooms, and support spaces. Also includes renovations to the existing Weaver Baseball Center to add a team locker room, team lounge, training, equipment, coaches locker room, and support spaces. Precast concrete panel erection has been completed; work in progress includes masonry walls, MEP rough-ins, roofing systems, curtainwall systems. 3) Tennis - Includes an addition and renovation to provide for improved tennis team and training facilities. The Design/Build Team has been selected. Design Preview approved by BOV at September 2017 meeting. Project is on hold pending funding authorization. 4) Nutrition Center - Includes the renovation and new construction to provide improvements for athletic team training and nutrition program by expanding the existing Bowman Room. A Fee Proposal has been requested for Design Services. Construction Phase is on hold pending funding and construction authorization.

Project Name	Project Description	Estimated Total Project Cost	Non-General Funds	Project Teams	Contract Completion Date	Project Status
Fire Alarm Systems and Access	This project provides for critical life safety improvements in several educational and general facilities on campus. Fire alarm systems will be installed or expanded in as many campus buildings as funding allows, including Architecture Annex, Food Science & Technology, Lane Hall, Litton-Reaves Hall, Norris Hall, Patton Hall, Randolph Hall, War Memorial Hall (Gym), Wallace Annex, and Whittemore Hall.	$4,900,000	$0	Multiple A/E Firms Multiple Contractors	Spring 2018	Architecture Annex, Food Science & Technology, Lane Hall, Patton Hall, Wallace Annex, War Memorial Hall (Gym), Whittemore Hall, and Randolph Hall are complete. Installation of Fire Alarm System in Norris Hall is in progress. Funding for Litton-Reaves Hall will be requested from the Virginia Department of General Services.
Lane Electric Substation Expansion	This project will expand the existing electrical sub-station to add approximately 37 percent additional power capacity to serve the campus Life Sciences and Northwest Precincts and the Corporate Research Center's proposed expansion.	$6,500,000	$6,500,000	Appalachian Electric Power and Virginia Tech Electric Service Appalachian Electric Power and Virginia Tech Electric Service	Anticipated Summer 2019	The project is administered by the VTES in coordination with Appalachian Power Company (APCo) and Appalachian Electric Power (AEP). Construction of two control buildings is complete and VTES is continuing electrical fit-out inside. New electrical lines have been checked and are satisfactory. APCo is continuing fit-out of additional metering points. Transformer procurement is complete, and delivery is scheduled.
O'Shaughnessy Hall Renovation	This project includes major renovation of a 72,000 GSF student residence building into a living-learning community. The residence hall originally housed 350 students and upon completion will house 344 students.	$21,500,000	$1,750,000	Moseley Architects Virginia Beach, VA WM Jordan, Roanoke, VA	August 2018	Renovations are underway on multiple floors simultaneously, hazardous material abatement and demolition activities are complete, and site utility work is ongoing. Project is on schedule for occupancy in August 2018.
Renovate/Renew Academic Buildings	This project will renovate three existing campus buildings - Sandy Hall, Liberal Arts Building, and the original portion of Davidson Hall. Collectively, these renovations will increase the functionality of three underutilized building assets, address several deferred maintenance issues, and reduce critical space deficiencies. Small additions are planned for Sandy and Liberal Arts Buildings to meet current emergency egress code requirements. New elevators in Sandy and Liberal Arts Buildings will provide ADA access.	$35,029,000	$0	Glavè & Holmes Architecture Richmond, VA Branch & Associates Roanoke, VA	August 2018	Construction is underway on all three buildings. Substantial completion for the Liberal Arts Building is June 2018, Davidson Hall is July 2018, and Sandy Hall is August 2018.
Unified Communications and Network Renewal Project	This project replaces outdated equipment and upgrades campus communications systems, providing infrastructure and equipment enhancements over a five year period. The project scope includes upgrades to the Internet Protocol (IP) Network, the cable plant, and equipment rooms in buildings throughout campus.	$16,508,000	$16,508,000	Multiple A/E Firms Various Contractors	December 2017	Cabling work in Litton-Reaves is complete. The cabling project is substantially complete, remaining work to finish termination and testing in Hahn was completed in October 2017. The facilities project is substantially complete, the project team is collaborating with UBO and Facilities Department to address an HVAC capacity issue in Derring. The network equipment for the data center will be ordered in November 2017. Migration of data center network services to the new equipment will be phased with a target completion date of August 2018.
Upper Quad Residential Facilities	This project provides for the demolition and construction of replacements for Brodie and Rasche residence halls to serve the Corps of Cadets. The new residence halls totaling approximately 210,000 GSF will provide over 1,000 beds in double and triple rooms sharing hall community bathrooms. These new residence halls will be constructed at the approximate location of the original Rasche Hall and Brodie Hall. Both buildings will provide double and triple occupancy rooms that meet the residence and in-room storage space needs of the cadets. Both new residence halls will provide dedicated meeting, community, and group spaces, specifically designed to meet Corps program and organization needs. Thomas Hall and Monteith Hall will also be demolished as part of this project.	$91,000,000	$91,000,000	Clark Nexsen Charlotte, NC Barton Malow Company Charlottesville, VA	Pearson - August 2015 New Cadet Hall - April 2017	Construction of Pearson Hall (Rasche Hall replacement) and New Cadet Hall (Brodie Hall replacement) are complete. Sitework and final stairs from Alumni Mall Road complete. Demolition of Monteith and Thomas is underway and scheduled for completion in December 2017.

November 5, 2017

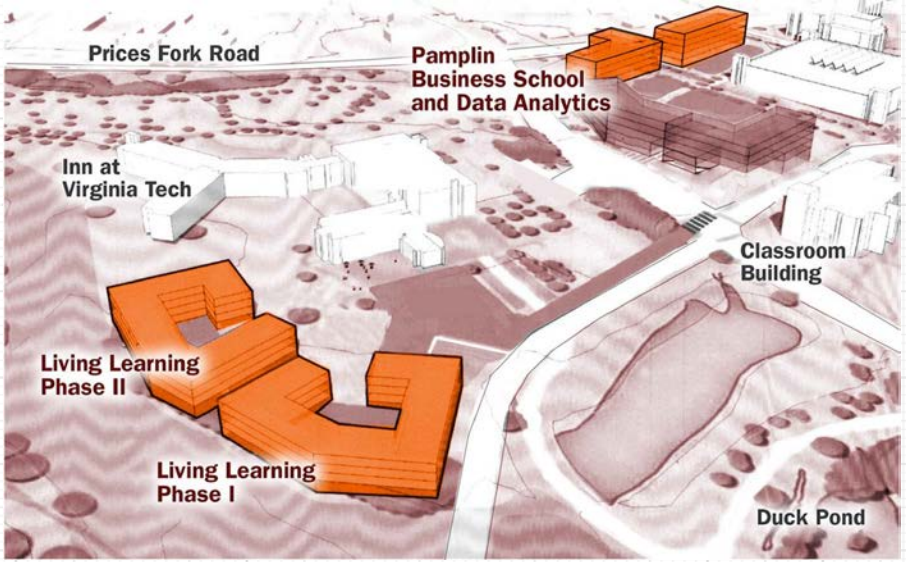
Capital Project Status Report

Christopher H. Kiwus, PE, PhD
Associate Vice President and Chief Facilities Officer

VIRGINIA TECH

Projects In Feasibility

- Global Business Analytics Complex
- Global System Sciences
- Health Center Improvements / Student Wellness Services
- Newman Library Feasibility Study
- Undergraduate Science Laboratory



VIRGINIA TECH

Projects In Programming

- Dietrick Hall Enclosure & Spirit Plaza
- Intelligent Infrastructure (Hitt/Smart Dining)
- Virginia Tech Carilion (VTC) Biomedical Research Expansion

VIRGINIA TECH

Projects In Design

- Boiler Package 12
- Chiller Plant Phase II
- Corps Leadership and Military Science
- Creativity & Innovation District Living Learning Community
- Holden Hall Renovation
- Improve Kentland Facilities
- Livestock and Poultry Research Facilities (Phase I)
- Multi-Modal Transit Facility
- Undergraduate Science Laboratories Renovations

VIRGINIA TECH

Projects Under Construction

- Athletic Facilities Improvements
- Fire Alarm Systems and Access
- Lane Electric Substation Expansion
- O'Shaughnessy Hall Renovation
- Renovate/Renew Academic Buildings
- Unified Communications and Network Renewal Project
- Upper Quad Residential Facilities

VIRGINIA TECH

Board of Visitors
November 5, 2017

Campus Security

VIRGINIA TECH

Experienced, Respected Leadership

Kevin Foust
Chief of Police

- Mercer County Sheriff's Office
  - 1984-1987
- Federal Bureau of Investigation
  - 1987-2011
- Virginia Tech Police Department
  - 2011-present

Graduate of:

- Grove City College – B.A. Political Science & B.A. Communication Arts
- Pennsylvania Deputy Sheriff's Training Academy
- FBI New Agent's Class 87-5
- FBI Executive Leadership Institute
- Kellogg School of Management, Northwestern Univ.

Memberships:

- Virginia Association of Campus Law Enforcement Administrators, Executive Board, 2013-2017
- Cardinal Criminal Justice Academy, Board of Directors, 2014-present
- Governor of Virginia's Alcohol Beverage Control Expert Review Panel
- Governor of Virginia's Joint Task Force to Reduce Gun Crime in Virginia
- Former Adjunct Faculty at Roanoke College

Michael J. Mulhare, PE
Assistant Vice President,
Emergency Management

- Rhode Island Department of Environmental Management
  - 1985– 2008
  - Variety of experience including:
    - Emergency Management and Response,
    - Regulatory and compliance programs,
    - Hazardous materials management,
    - Site remediation, groundwater restoration, etc.
- Virginia Tech Emergency Management
  - 2008-present

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- University of Rhode Island – M.S. Civil & Environmental Engineering
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- Harvard Institute for Higher Education; Crisis Leadership in Higher Education

Memberships:

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- Virginia Department of Emergency Management Continuity of Operations Work Group
- Several U.S. Coast Guard Safety/Security Committees
  - Received a Public Service Commendation from USCG
- Registered Professional Engineer

Invited speaker at campuses and localities across the country to share Virginia Tech's model for Emergency Management, which he was instrumental in developing.

VIRGINIA TECH

Welcome to the Virginia Tech Police Department

- Created in 1945 with 3 employees
- Current staffing: 50 sworn officers, 7 Security Officers, 8 Security Center Representatives, 8 professional support employees, Safe Ride drivers
- Specialized areas include:
  - Emergency Response Team
  - 3 K9 units
  - Investigative Unit
  - Dive Team
  - FBI's Joint Terrorism Task Force
  - New River Valley Drug Task Force

VIRGINIA TECH

Regional Cooperation = Force Multiplier

- Very close partnerships with Blacksburg Police Department
- Also work closely with Christiansburg Police Department, Montgomery County Sheriff's Department, and Virginia State Police, as well as local EMS and Fire Departments
- Examples:
  - Joint Training Exercises
  - Host trainings for regional partners, even those external to law enforcement

VIRGINIA TECH

Accreditation

Commission on Accreditation for Law Enforcement Agencies (CALEA)

Accredited agencies must comply with 489 professional standards each year.

Total law enforcement agencies in the US: Approx. 18,000

Total accredited by CALEA: 933 (5%)

Total campus law enforcement agencies in the US accredited by CALEA: 78 (8% of total accredited)

VTPD was awarded CALEA's highest accreditation in 2015, 1 of only 13 university law enforcement agencies in the US with this accreditation:
"Accredited with Excellence"

International Association of Campus Law Enforcement Administrators (IACLEA)

Accredited agencies must comply with 489 CALEA professional standards each year as well as 9 additional standards unique to campus law enforcement.

Total IACLEA member campus law enforcement agencies (US and overseas): 1,200

Total accredited by IACLEA: 69 (6%)

Virginia Tech Police Department received its first IACLEA accreditation in 2010.

VIRGINIA TECH

Violent Crime Comparison: ACC and Similar-Sized Virginia Institutions

RANKING (most to fewest)	RAPE					
	2014		2015		2016	
1	UVA:	44	BC:	23	NCST:	32
2	UNC:	27	UNC:	20	BC:	28
3	BC:	22	PITT:	17	SYR:	26
4	PITT:	21	SYR:	17	VCU:	22
5	GT:	19	CLEM:	13	UNC:	23
6	ND:	15	DUKE:	13	GM:	20
7	CLEM:	12	GM:	13	DUKE:	17
8	DUKE:	11	ND:	12	UVA:	15
9	GM:	11	FSU:	11	PITT:	13
10	SYR:	10	VCU:	11	VT:	12
11	VT:	8	GT:	10	ND:	11
12	FSU:	6	NCST:	9	GT:	10
13	MIA:	6	UVA:	7	FSU:	10
14	VCU:	6	MIA:	7	CLEM:	10
15	NCST:	5	VT:	6	MIA:	4

AGGRAVATED ASSAULT					
2014		2015		2016	
VCU:	22	VCU:	20	VCU:	20
PITT:	10	NCST:	16	DUKE:	10
DUKE:	9	UNC:	11	UNC:	10
FSU:	9	PITT:	9	UVA:	9
NCST:	9	FSU:	7	SYR:	8
GT:	7	CLEM:	6	NCST:	7
MIA:	7	SYR:	6	GT:	6
UNC:	5	MIA:	4	FSU:	5
UVA:	5	UVA:	4	CLEM:	4
VT:	5	GM:	3	GM:	3
CLEM:	4	GT:	3	PITT:	3
BC:	1	VT:	2	MIA:	3
ND:	1	DUKE:	1	VT:	3
GM:	1	BC:	0	ND:	2
SYR:	0	ND:	0	BC:	1

DATING VIOLENCE					
2014		2015		2016	
GM:	12	GM:	21	NCST:	34
NCST:	11	UNC:	17	VCU:	17
GT:	7	VCU:	15	SYR:	16
VCU	7	FSU:	14	UNC:	14
DUKE:	6	SYR:	7	GM:	13
FSU:	6	MIA:	6	GT:	8
UNC:	6	CLEM:	5	DUKE:	7
MIA:	6	DUKE:	5	UVA:	6
SYR:	5	GT:	5	MIA:	6
PITT:	5	NCST:	5	ND:	5
CLEM:	4	PITT:	4	BC:	5
UVA:	1	UVA:	3	FSU:	4
VT:	1	BC:	2	CLEM:	3
ND:	0	ND:	1	VT:	2
BC:	0	VT:	0	PITT:	1

RANKING (most to fewest)	DOMESTIC VIOLENCE					
	2014		2015		2016	
1	UNC:	8	VCU:	22	VCU:	25
2	VCU:	7	UNC:	17	BC:	16
3	DUKE:	6	DUKE:	12	DUKE:	12
4	MIA:	4	UVA:	8	UNC:	10
5	BC:	4	VT:	7	NCST:	7
6	VT:	4	NCST:	6	UVA:	5
7	FSU:	3	CLEM:	5	ND:	4
8	GM:	3	BC:	5	FSU:	4
9	GT:	3	PITT:	4	GT:	3
10	NCST:	3	FSU:	3	VT:	3
11	PITT:	2	GT:	3	GM:	2
12	UVA:	1	GM:	2	PITT:	2
13	ND:	1	MIA:	2	CLEM:	2
14	CLEM:	1	ND:	0	MIA:	1
15	SYR:	0	SYR:	0	SYR:	0

FONDLING					
2014		2015		2016	
PITT:	9	GM:	12	VCU:	15
SYR:	8	SYR:	11	DUKE:	13
VCU:	8	PITT:	10	GT:	12
GM:	7	UVA:	10	PITT:	11
UNC:	5	VCU:	10	UVA:	9
NCST:	5	UNC:	9	BC:	7
UVA:	5	ND:	9	UNC:	7
VT:	5	MIA:	8	VT:	7
ND:	4	NCST:	6	GM:	6
GT:	4	DUKE:	6	NCST:	5
MIA:	3	BC:	4	SYR:	4
DUKE:	3	GT:	2	MIA:	3
BC:	1	VT:	2	ND:	0
CLEM:	0	FSU:	0	FSU:	0
FSU:	0	CLEM:	0	CLEM:	0

STALKING					
2014		2015		2016	
GM:	34	GM:	45	GM:	69
VCU:	27	UNC:	37	UNC:	25
NCST:	18	NCST:	27	NCST:	22
UNC:	15	DUKE:	20	SYR:	20
FSU:	12	VCU:	18	VCU:	20
MIA:	11	MIA:	12	DUKE:	16
GT:	8	SYR:	12	UVA:	16
PITT:	6	ND:	12	MIA:	14
CLEM:	6	UVA:	11	FSU:	7
ND:	6	FSU:	10	GT:	7
DUKE:	3	GT:	10	ND:	7
UVA:	3	BC:	8	PITT:	5
BC:	2	PITT:	5	BC:	4
SYR:	2	CLEM:	5	CLEM:	3
VT:	0	VT:	1	VT:	0

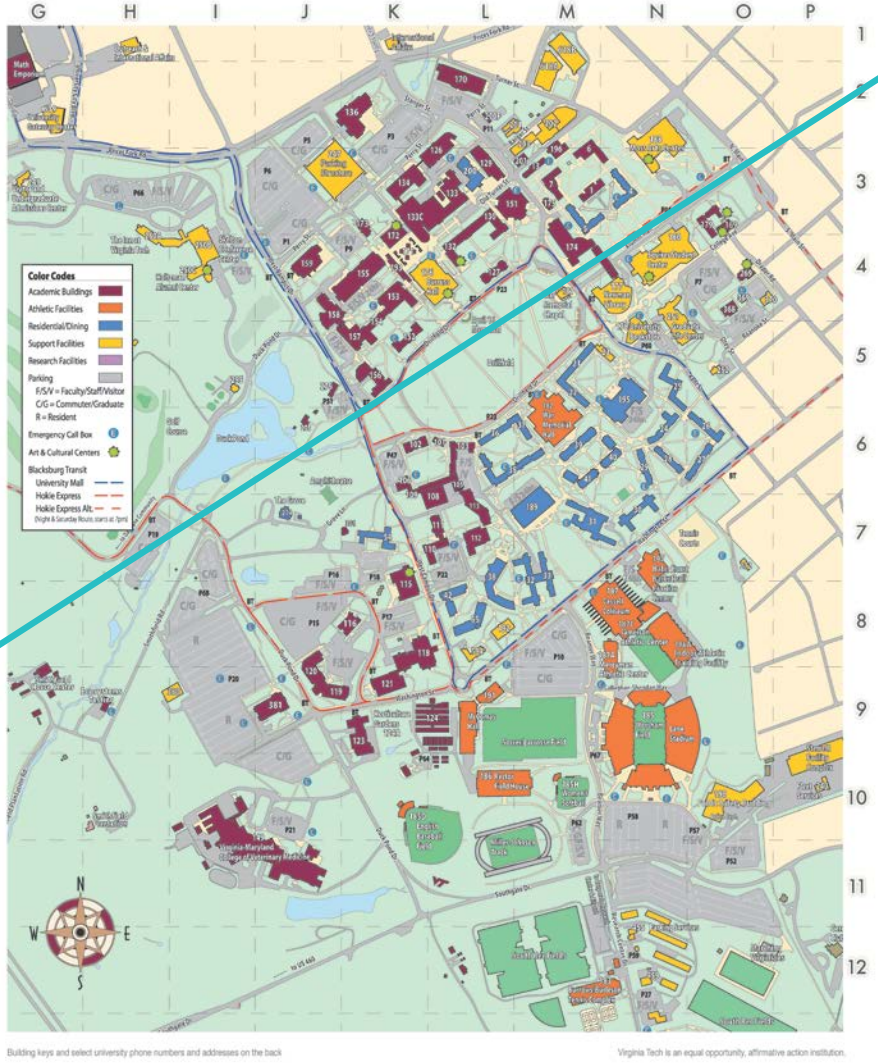
KEY:

BC:	Boston College
CLEM:	Clemson
DUKE:	Duke
FSU:	Florida State
GM:	George Mason
GT:	Georgia Tech
MIA:	Miami
NC:	North Carolina
NCST:	North Carolina State
ND:	Notre Dame
PITT:	Pittsburgh
SYR:	Syracuse
VCU:	Virginia Commonwealth
UVA:	University of Virginia
VT:	Virginia Tech

*Note: Wake Forest was excluded due to significantly smaller enrollment and Louisville was excluded as their 2016 data is not yet available.

Crime Distribution

~30% of the total crimes happen on the Northside (primarily academic region)



~70% of the total crimes happen on the Southside (primarily residential & Athletics region)

VIRGINIA TECH

Virginia Tech Police Department

Total calls for service 2016: 13,090
Total calls for service thru August 2017: 12,510

Total Safe Ride passengers 2016: 2,152
Total Safe Ride passengers thru August 2017: 2,212

Virginia Tech Rescue Squad

Total VTRS call outs for 2016: 913
Total VTRS call outs to thru August 2017: 541

VIRGINIA TECH

Community Policing

- Rape Aggression Defense (RAD – for women)
- Resist Aggression Defense (RAD – for men)
- Student Police Academy (Staff/Faculty P.A.)
- No Hokie Left Behind
- Buffet with the Blue
- Residence Life Resource Officer program (ROLO)

Number of events in 2016: 223 (approx. 18,008 participants)

Number of events through August 2017: 160 (approx. 12,535 participants)

VIRGINIA TECH

Board of Visitors
November 5, 2017

Campus Safety and Preparedness

VIRGINIA TECH

Experienced, Respected Leadership

Kevin Foust
Chief of Police

- Mercer County Sheriff's Office
  - 1984-1987
- Federal Bureau of Investigation
  - 1987-2011
- Virginia Tech Police Department
  - 2011-present

Graduate of:

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- FBI New Agent's Class 87-5
- FBI Executive Leadership Institute
- Kellogg School of Management, Northwestern Univ.

Memberships:

- Virginia Association of Campus Law Enforcement Administrators, Executive Board, 2013-2017
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  - 1985– 2008
  - Variety of experience including:
    - Emergency Management and Response,
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- Virginia Department of Emergency Management Continuity of Operations Work Group
- Several U.S. Coast Guard Safety/Security Committees
  - Received a Public Service Commendation from USCG
- Registered Professional Engineer

Invited speaker at campuses and localities across the country to share Virginia Tech's model for Emergency Management, which he was instrumental in developing.

VIRGINIA TECH

Virginia Tech Emergency Management

Who We Are

- Established in 2008
- Nationally recognized program
- First Institution of Higher Education to receive accreditation

EMERGENCY MANAGEMENT EMAP Accredited ACCREDITATION PROGRAM

Mission; *Build, Sustain, and Improve:*

- University resiliency
- Departmental readiness
- Individual preparedness

VIRGINIA TECH

University Resiliency; Organizational Structure

University Safety and Security Policy Committee

- Reviews, evaluates, and determines requirements for safety, security and preparedness programs

Immediate Response Team

- Provides senior leadership support to the President during an emergency
- In an emergency, establishes policy, sets BIG objectives, leans forward

Incident Management Team

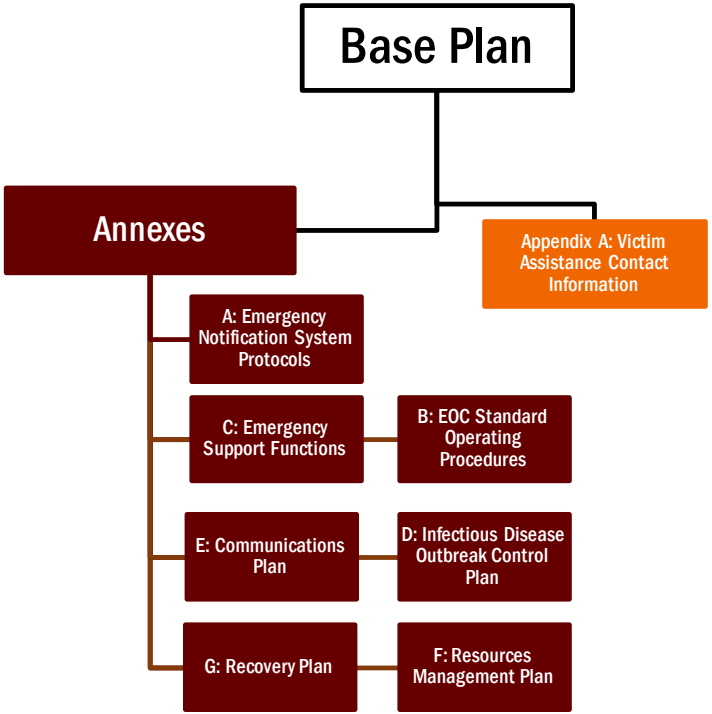
- University decision makers
- Coordinate response operations
- Provides communication support
- Transition to NIMS/ICS structure when required

Emergency Operations Center

- Activated for both incidents and events

VIRGINIA TECH

University Resiliency; Crisis Emergency Management Plan



- Quadrennial review by the BOV
- All Hazard Plan
- Base Plan and Supporting Annexes
- Identifies operational responsibilities

VIRGINIA TECH

University Resiliency; VT Alerts

Over 54,000 Subscribers

Emergency Notification Protocol:

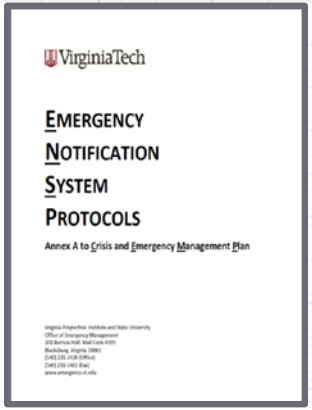
- Establishes operational framework

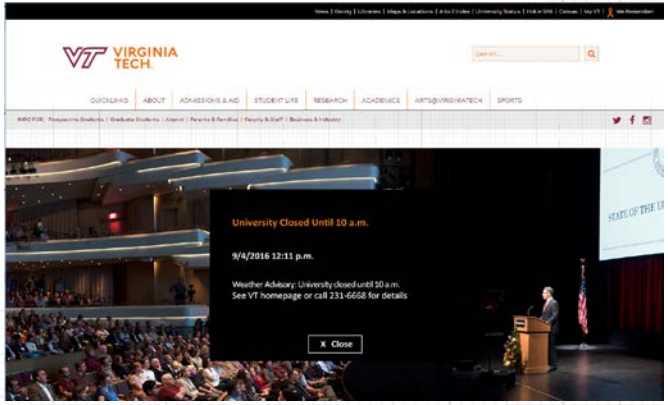
VT Alert message criteria:

- What happened,
- Where it happened, and
- What action to be taken.

Alert Channels

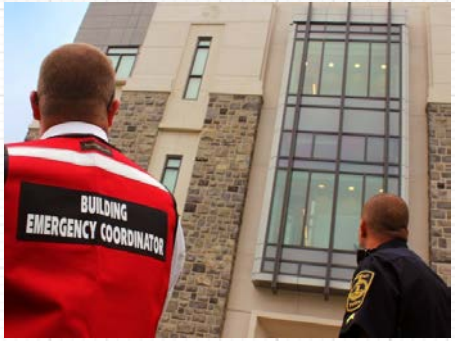
- Virginia Tech homepage
- 584 message boards
- Campus Sirens and Loud speakers
- Virginia Tech (@vt.edu) emails
- Text message
- Phone
- Non VT email
- Desktop Alerts
- Social media-Twitter (@vtalerts)
- Building Annunciators

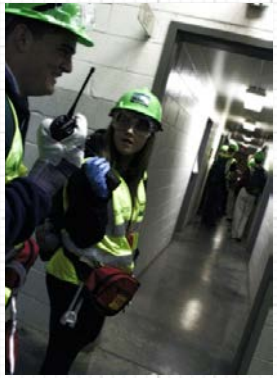




VIRGINIA TECH

University Resiliency; Training and Exercises





~6900 faculty, staff and students participated in emergency preparedness training including:

- Campus Community Emergency Response Team (C-CERT)
- Safety, Security and Preparedness
- Building Emergency Coordinator
- Incident Command System

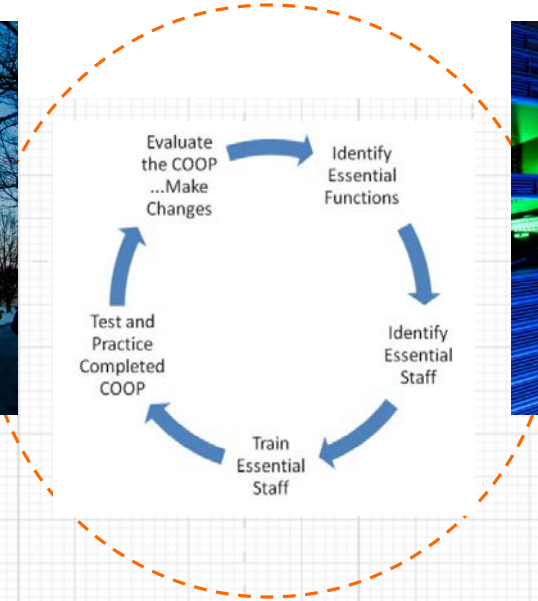
~450 faculty and staff participated in 17 exercises designed to:

- Reinforce a culture of preparedness on campus
- Identify areas for improvement in departmental and university-wide plans, protocol, and procedures

VIRGINIA TECH

Departmental Readiness; Continuity of Operations

- Objective – *Ensure continued performance of departmental functions*
- 217 Departmental Plans
- New web portal to improve program oversight, access and ease of departmental revisions



VIRGINIA TECH

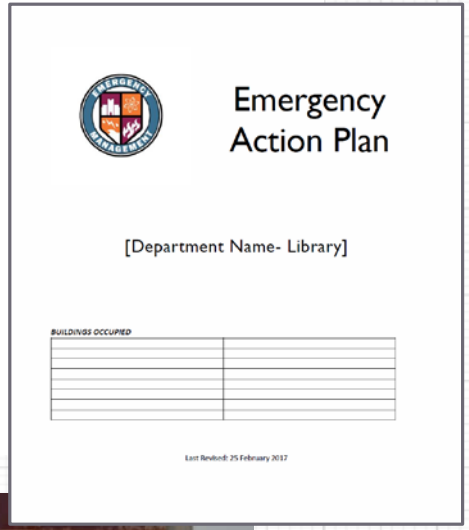
Departmental Readiness; Emergency Action Planning

Emergency Action Plans

- What to do in an Emergency
- Department/Building Specific
- 199 Department plans

Building Coordinator Program

- 200 Building Emergency Coordinators (BECs)
- 173 Alternate Building Emergency Coordinators (ABECs)
- Floor Wardens


Emergency Action Plan

[Department Name- Library]

BUILDINGS OCCUPIED

Last Revised: 25 February 2017

VIRGINIA TECH

Individual Preparedness; Campus Engagement

Encourages campus to "Be Hokie Ready" by:

- Participating in campus events
- Attending student and employee orientations
- Presenting to departments and student groups
- Publishing public information and guides
- Relating to your audience

VIRGINIA TECH

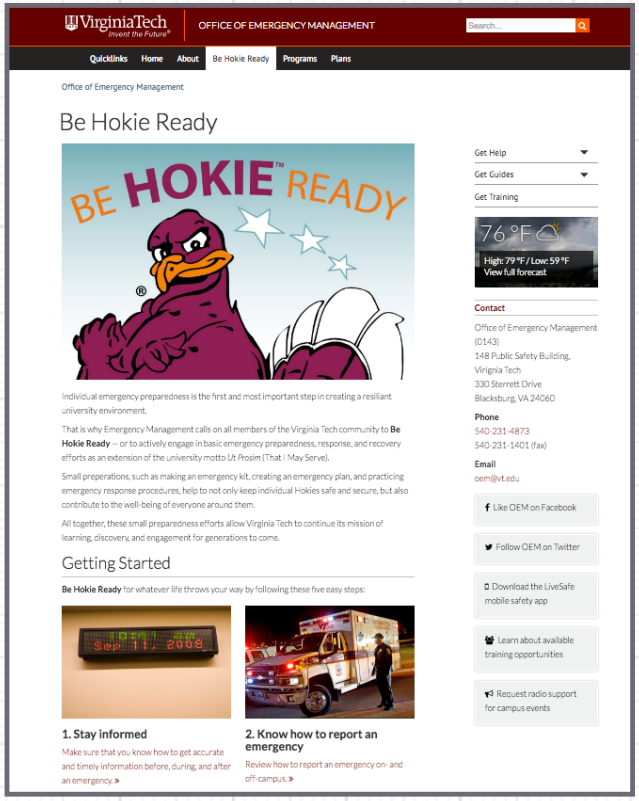
Individual Preparedness; SAFE-T PREP

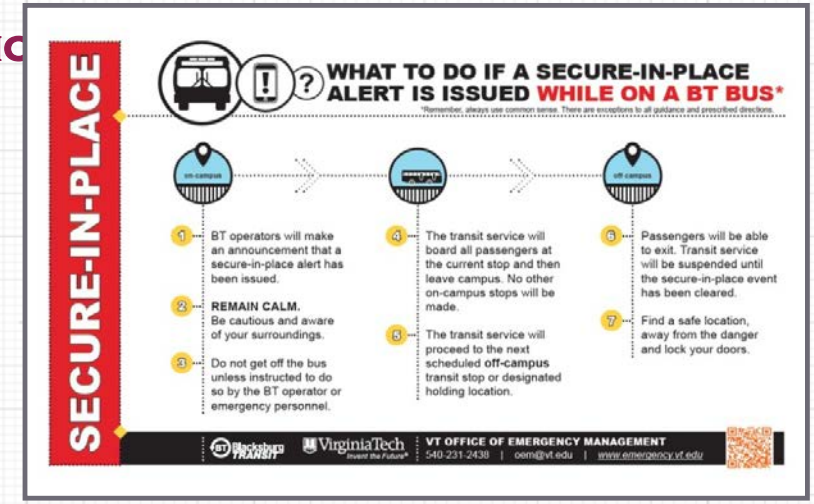
***S**tudent **A**wareness **F**or **E**mergencies **T**hrough **P**eer **R**esilience-**E**ducation **P**rograms*

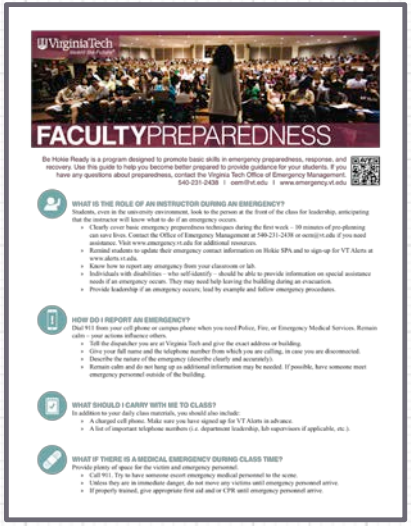
- Provides the student perspective and ideas for improving the EM preparedness program message
- Peer to peer engagement
- *2016 SAFE-T PREP* student survey results:
  - 80 percent surveyed felt prepared off campus,
  - 90 percent surveyed felt prepared on campus and
  - 95 percent subscribe to VT Alerts

VIRGINIA TECH

Individual Preparedness; Informatio







VIRGINIA TECH

Individual Preparedness; "*Safety, Security, & Preparedness*"

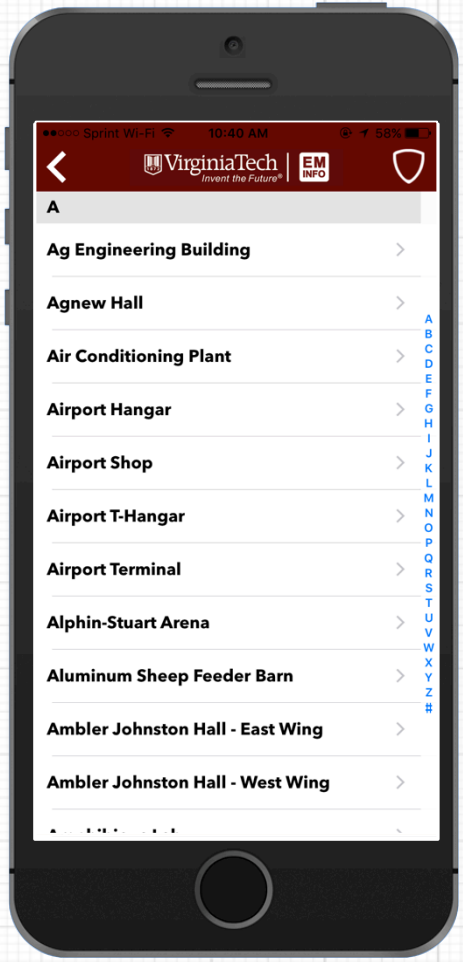
Campus Safety, Security, and Preparedness presentations included in on boarding of new employees and incoming student orientation:

- Campus emergency partners
- VT Alerts and Emergency Notification Channels
- Secure-in-Place
- Shelter-in-Place
- Active Shooter
- Building Fire/Evacuation
- Personal Preparedness

VIRGINIA TECH

Individual Preparedness; Virginia Tech LiveSafe

- **EMERGENCY QUICK REFERENCE:** Guides for how to act in emergency situations *("Just in Time Information"),* embedded in app and can be accessed without internet connection.
- **CONTACT VTPD DISPATCH:** Send tips to dispatch (if it is an emergency, call 911).
- **EMERGENCY BLUE-LIGHT CALLBOX:** Displays the location of emergency callboxes on campus. Using GPS technology, displays the location and directions of emergency callboxes on campus.
- **SAFEWALK:** Uses GPS technology to allow friends to watch each other get around safely.
- **BUILDING LOCATIONS:** Displays a list of Virginia Tech buildings, their location, and provides directions.



VIRGINIA TECH

DESIGN PREVIEW/REVIEW FOR ADVANCED DESIGN AND CONSTRUCTION FACILITY

Design is underway for a project and support facility for the College of Architecture and Urban Studies as well as the College of Engineering. The facility will house assignable space to support initiatives such as the Solar Decathlon, FutureHaus research programming, and Destination Area activities. It is consistent with long-term master plan strategies and may revert to use as a storage space with further development of the Intelligent Infrastructure for Human-Centered Communities (IIHCC) Destination Area. The 4,965 gross square foot facility will be sited off of Inventive Lane, to the southeast of the current Thomas M. Murray Structures Lab. This approximately $1.1 million project is set to break ground in February 2018, with occupancy in August of the same year.

Capital Project Information Summary – Advanced Design and Construction Facility

BUILDINGS AND GROUNDS COMMITTEE

November 5, 2017

Title of Project:

Advanced Design and Construction Facility (ADCF)

Location:

The facility will be sited off of Inventive Lane, to the southeast of the Thomas M. Murray Structures Lab building (Murray Labs). It will be located parallel to the southern loop access behind the Murray Labs.

Current Project Status and Schedule:

The project is currently in schematic design. The project is set to break ground in February 2018, with building construction anticipated in April, and a targeted completion in August of the same year.

Project Description:

The facility serves as a project and storage facility for the College of Architecture and Urban Studies (CAUS) as well as the College of Engineering (COE). It will support work on, and provide storage for, several ongoing initiatives. These include the Solar Decathlon, FutureHaus research programming, and Destination Area activities. While a comparatively small facility, its construction will allow CAUS and COE to augment efforts to promote integrated energy systems, sustainable cities and communities, and health and wellness, among others. As such, this project supports long-term master plan strategies such as the Intelligent Infrastructure for Human-Centered Communities (IIHCC) Destination Area.

Brief Program Description:

The assignable program consists of a single large open space. This configuration will allow for maximum flexibility between potential uses. To allow for vehicular access, this space will feature three 16'x16' overhead coiling doors. Additionally, current designs provide for a future expansion contingent upon funding availability.

Contextual Issues and Design Intent:

Given its multi-functional nature, the ADCF features a simple, yet flexible design. The building will be constructed almost entirely of metal. Framing will consist of pre-engineered steel, walls of insulated metal, and the roof of insulated metal panel cladding. Floors will be comprised of sealed concrete.

Architect/Engineer:

Dewberry

Construction Manager:

Gilbane

November 5, 2017

Advanced Design and Construction Facility

Board of Visitors Design Preview / Review

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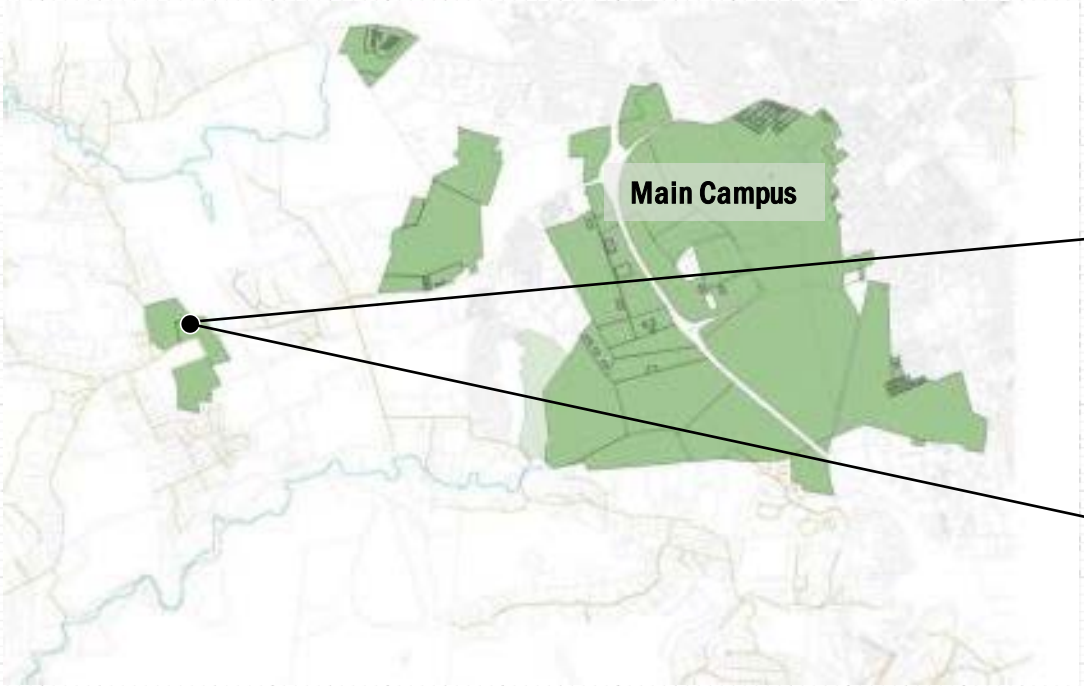
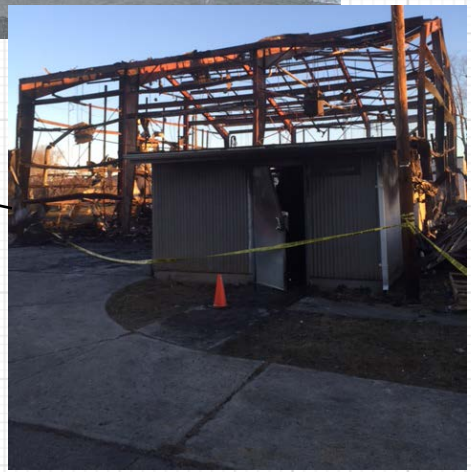
Emergency Procurement – ADCF Support Building

Buildings Destroyed by Fire





VIRGINIA TECH

Advanced Design and Construction Facility

Project Location

VIRGINIA TECH

Advanced Design and Construction Facility

Project Information

- New Construction: 4,965 GSF
- Delivery Method: VT Renovations
- Authorized Budget: Approximately $1.1 Million
- Design Phase: Schematic
- Anticipated Occupancy: August 2018

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Advanced Design and Construction Facility

Existing Conditions

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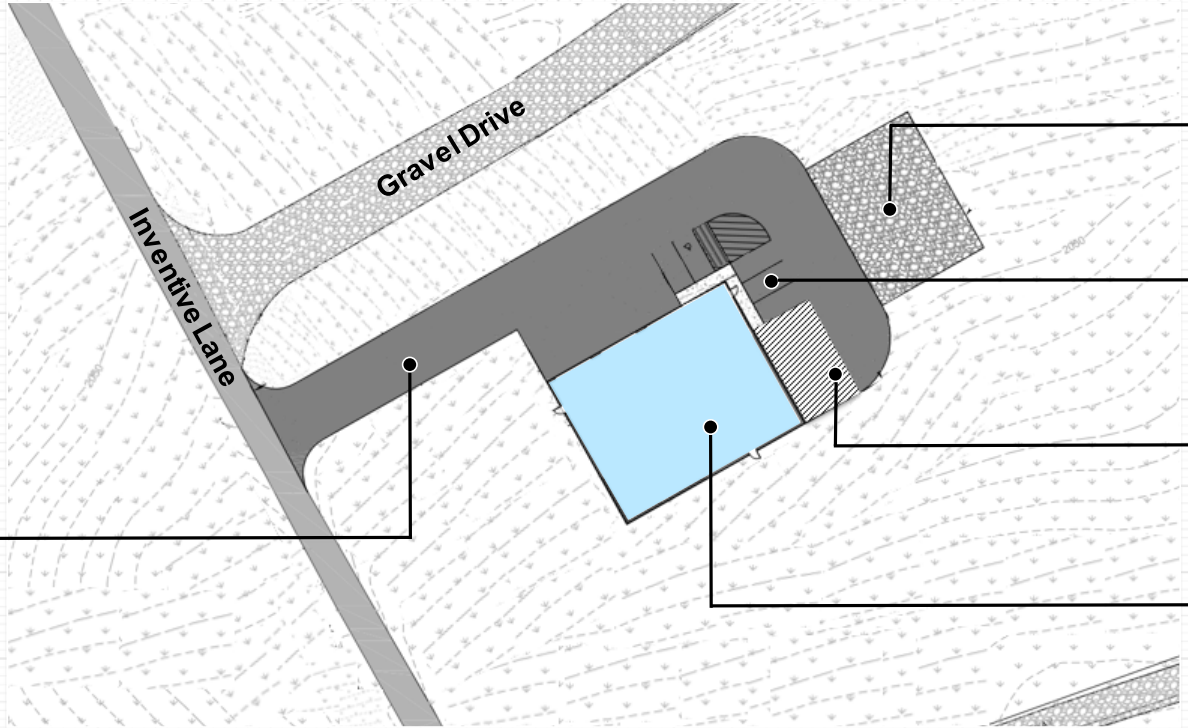
Advanced Design and Construction Facility

Site Plan



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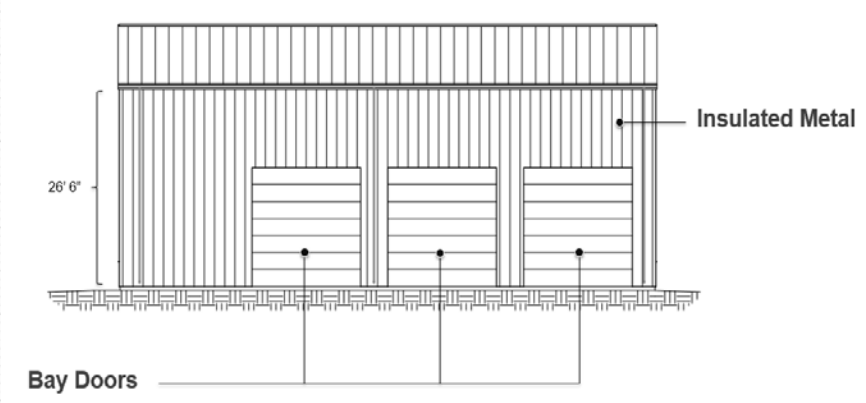
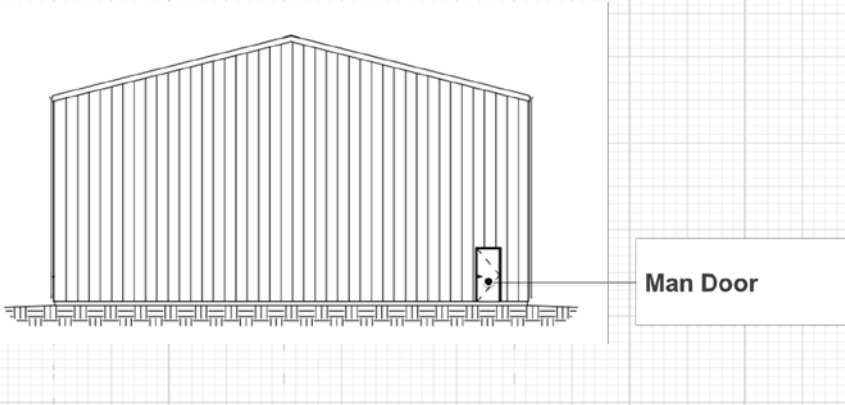
Advanced Design and Construction Facility

Elevations

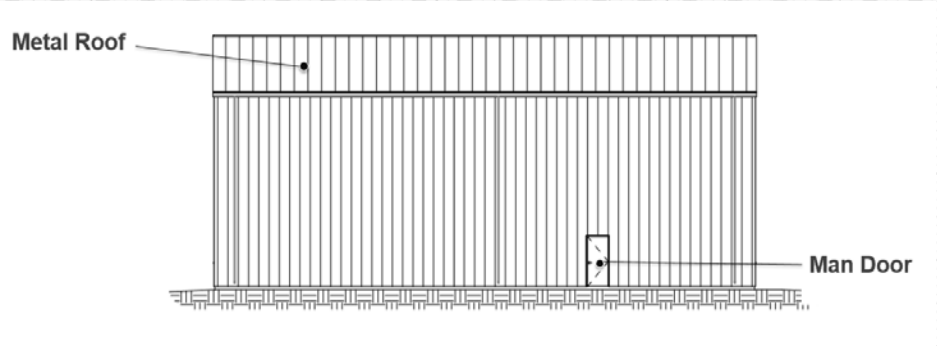
North Elevation



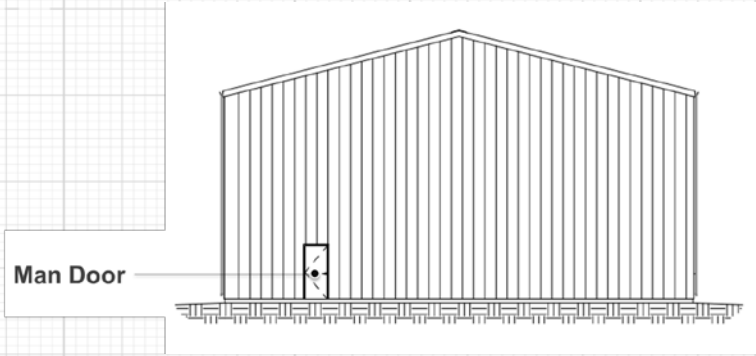
East Elevation



South Elevation

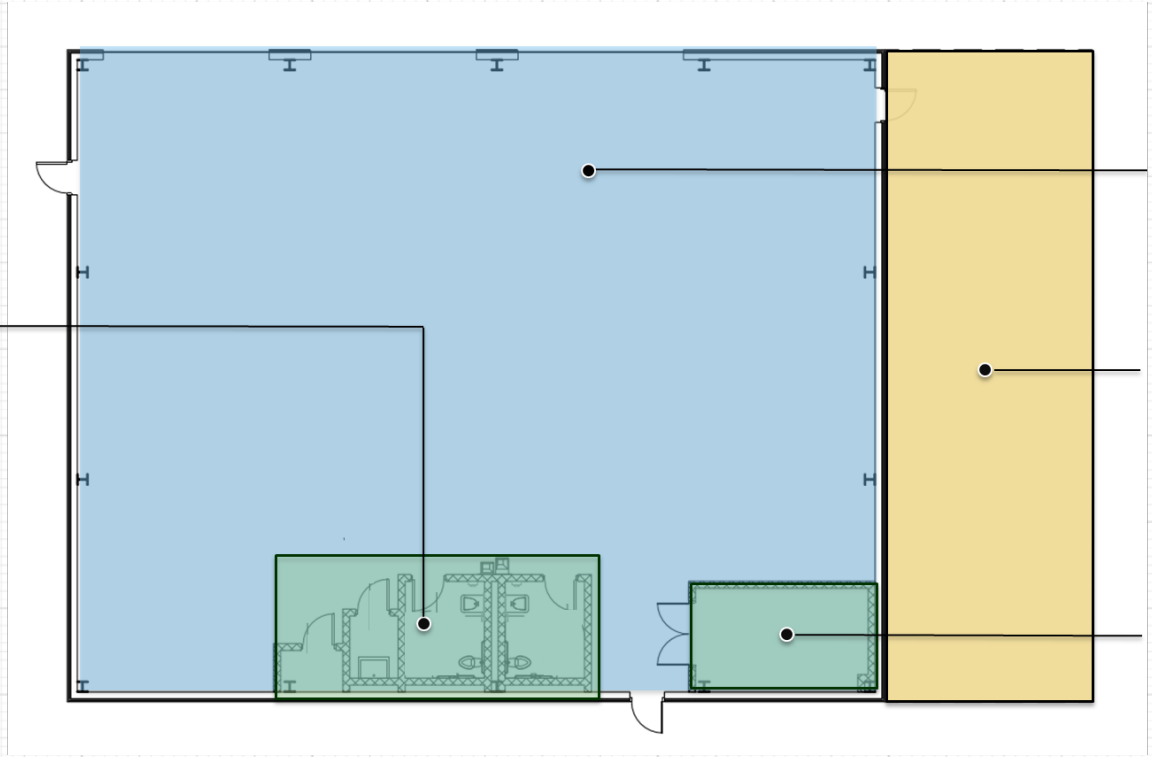


West Elevation



Advanced Design and Construction Facility

Floor Plan



VIRGINIA TECH

Advanced Design and Construction Facility

Recommendation

- That the Design Preview / Review graphics be approved, and authorization be provided to continue with the project design consistent with the drawings shown, with the anticipated building construction completion in August 2018.

VIRGINIA TECH

DESIGN REVIEW FOR MULTI-MODAL TRANSIT FACILITY

Working Drawings are underway for new construction of a 13,716 gross square foot facility fronting existing Perry Street in the North Academic District. The project will include 17 covered bus slips in loop configurations to the east, west, and southwest, and will feature sustainable elements. The facility will centralize transit transfers and serve multiple modes of alternative transportation. It will provide amenities for alternative transportation users (including a bike repair hub) and is strategically located along the planned Infinite Loop. The Design-Bid-Build procurement method for the facility and site improvements are funded through federal grants and matching university investment. The project is managed through the Town of Blacksburg. Occupancy is anticipated in the fall of 2020.

Capital Project Information Summary – Multi-Modal Transit Facility

BUILDINGS AND GROUNDS COMMITTEE

November 5, 2017

Title of Project:

Multi-Modal Transit Facility (MMTF)

Location:

The new transit hub will be located on Perry Street, in the North Academic District, leveraging planned roadway improvements at West Campus Drive and Stanger Street. The new building will be located directly south of the existing Perry Street Parking Garage, fronting existing Perry Street, which will be modified as a pedestrian mall and the center of the planned Infinite Loop. Covered bus ridership access slips will be located in loop configurations to the east, west, and southwest.

Current Project Status and Schedule:

The project is currently two-thirds through the Working Drawings phase of design. Design is anticipated to conclude in winter 2017, with occupancy anticipated in fall 2020.

Project Description:

The project is consistent with the current, ongoing 2017 Master Plan update. It will support the Master Plan goal to relocate the transit hub to the North Academic District, thereby reducing bus traffic on the Drillfield. This effort will ease traffic congestion in this area, contributing to pedestrian and driver safety. In addition, the 13,716 gross square foot, two-story facility will provide amenities for alternative transportation users, facilitate public interface, disseminate information about sustainability and related educational opportunities, and integrate technology to promote alternative transportation.

Brief Program Description:

The MMTF will function as a centralized transit hub and will serve multiple modes of alternative transportation. Programming includes a rider waiting area with information services, bike repair hub, multi-use meeting space, public restrooms, and administrative space for transit operations. Ridership access will include 17 canopied bus slips. Canopied waiting areas include benches, signage, and related amenities.

Contextual Issues and Design Intent:

Primary exterior materials include Hokie Stone, precast concrete, decorative metal spandrel panels, and aluminum-framed curtainwall and operable windows in keeping with nearby buildings. Flat roofs flank a central, prominent entry tower that is the focal point for the main entrance. Bus slip canopies are steel supported and framed with segmented metal roof panels, and incorporate Hokie Stone with

bench seating. The MMTF project has a goal of achieving LEED Platinum certification and providing opportunities to showcase sustainable elements.

Architect/Engineer:

Wendel Companies, in association with Draper Aden Associates

Construction Manager:

To be determined

November 5, 2017

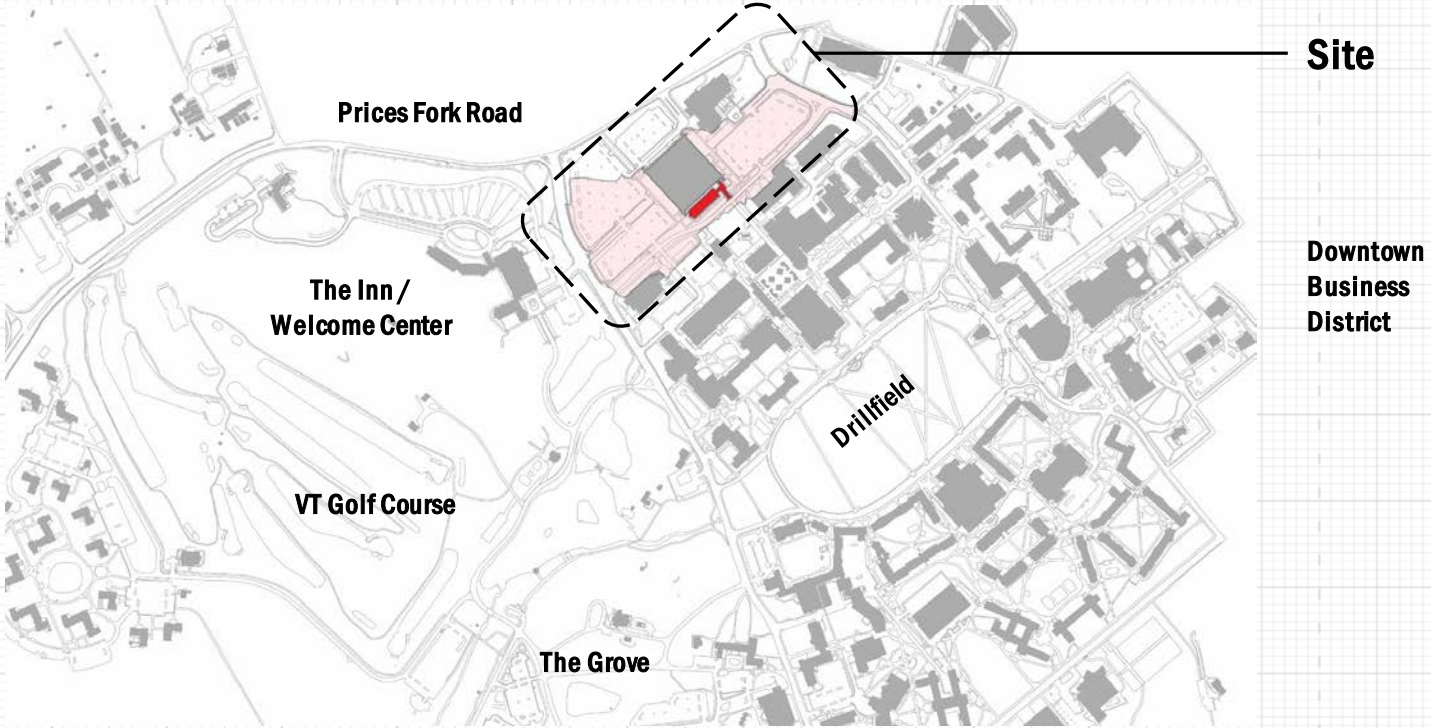
Multi-Modal Transit Facility

Board of Visitors Design Review

VIRGINIA TECH

Multi-Modal Transit Facility

Project Location



VIRGINIA TECH

Multi-Modal Transit Facility

Project Information

- New Construction: 13,716 GSF
- Delivery Method: Design-Bid-Build
- Project Management: Design & construction being completed through the Town of Blacksburg
- Design Phase: Working Drawings
- Anticipated Occupancy: Fall 2020

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Multi-Modal Transit Facility

Existing Conditions: Bus Transfers at Burruss Hall

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Multi-Modal Transit Facility

Existing Conditions: East View of Project Site

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Multi-Modal Transit Facility

Site Plan

VIRGINIA TECH

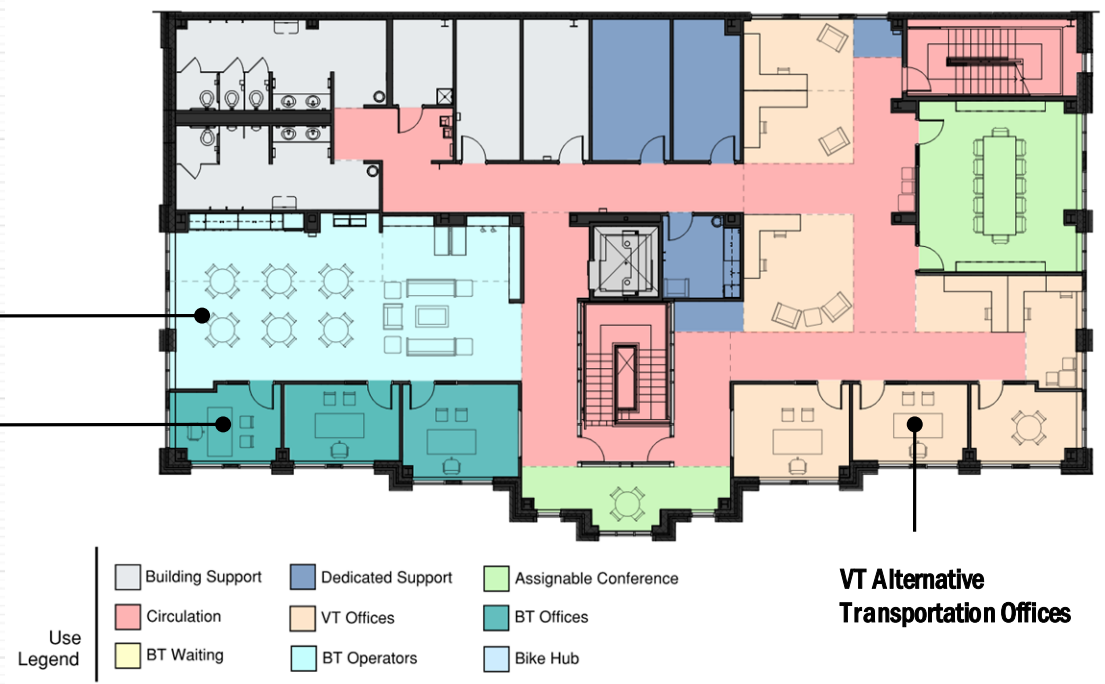
Multi-Modal Transit Facility

First Floor Plan

VIRGINIA TECH

Multi-Modal Transit Facility

Second Floor Plan



VIRGINIA TECH

Multi-Modal Transit Facility

Recommendation

- That the Design Review graphics be approved, and authorization be provided to continue with the project design consistent with the drawings shown, with anticipated building construction completion in the fall of 2020.

VIRGINIA TECH

DESIGN REVIEW FOR THE VIRGINIA TECH CARILION BIOMEDICAL RESEARCH EXPANSION

At the September 2017 Board of Visitors meeting, a Comprehensive Agreement with Carilion Clinic was approved to construct the Virginia Tech Carilion Biomedical Research Expansion through an unsolicited Public-Private Education and Infrastructure Act (PPEA) proposal. Carilion Clinic and their design team are currently proceeding with the Preliminary Design phase for approximately 139,300 gross square feet of new construction. These designs are consistent with, and refinements of, the schematic designs shown to the Board of Visitors during the September Design Preview. The project will include research and education spaces that bring together researchers and clinicians in areas of human and animal medical sciences with a focus on five thematic areas. The site is located at the Riverside Center Research Education and Medical Park in Roanoke. The final design phase and a construction schedule are to be determined; however, building occupancy is anticipated in late 2019.

Capital Project Information Summary – Virginia Tech Carilion Biomedical Research Expansion

BUILDINGS AND GROUNDS COMMITTEE

November 5, 2017

Title of Project:

Virginia Tech Carilion (VTC) Biomedical Research Expansion

Location:

The building site is located at the Riverside Center Research Education and Medical Park in Roanoke, Virginia on the Carilion Clinic campus. The site, 4 Riverside Circle, is currently a surface parking lot serving the other buildings in Riverside Center.

Current Project Status and Schedule:

At the September 2017 Board of Visitors meeting, a Comprehensive Agreement with Carilion Clinic was approved to construct the Virginia Tech Carilion Biomedical Research Expansion through an unsolicited Public-Private Education and Infrastructure Act (PPEA) proposal. Carilion Clinic and their design team are proceeding with the Preliminary Design phase. These designs are consistent with, and refinements of, the schematic designs approved by the Board of Visitors during the September Design Preview. The final design phase and a construction schedule are to be determined; however, building occupancy is anticipated in late 2019.

Project Description:

The project will construct approximately 139,300 gross square feet (GSF) and provide facilities for Health Sciences & Technology Comparative Oncology research and education. The project will bring together researchers and clinicians in areas of human and animal medical sciences, focusing on five thematic areas. Five principal investigators will be recruited for each of the thematic areas: Biomaterials; Body Device Interfaces; Brain Health and Disease; Cardiovascular Sciences; Infectious Disease and Immunity; and Metabolism and Obesity.

Brief Program Description:

Key programmatic elements to support research and education in the facility include high-intensity biomedical research capable laboratories with surgical-type suites, Biosafety Level Three laboratories, and animal imaging facilities that require high field magnetic resonance imaging. The Comparative Oncology Research Center facility, in order to provide oncology services for companion animals, will include a linear accelerator. Additionally, high-intensity dry laboratories, experiential learning spaces, procedural training rooms, computational facilities, and core facilities will support the initiatives. These spaces will occupy three elevated levels above a ground floor. The ground floor will

provide a public atrium, research-on-display workshop, and a café which connects the building to the public and Virginia Tech Carilion Research Institute/Virginia Tech Carilion School of Medicine at the street level. The new facility will connect to the existing Virginia Tech facility across Riverside Circle via an enclosed bridge.

Contextual Issues and Design Intent:

The exterior veneer of the building will combine Hokie Stone from the Virginia Tech campus in Blacksburg with the brick and precast architectural concrete of the Carilion Riverside campus in Roanoke.

The current, ongoing 2017 Campus Master Plan update scope includes work at sites other than main campus, and will conduct a master planning effort for Virginia Tech's facilities and holdings in the Roanoke area.

Architect/Engineer:

AECOM

Construction Manager:

Skanska

November 5, 2017

VIRGINIA TECH CARILION

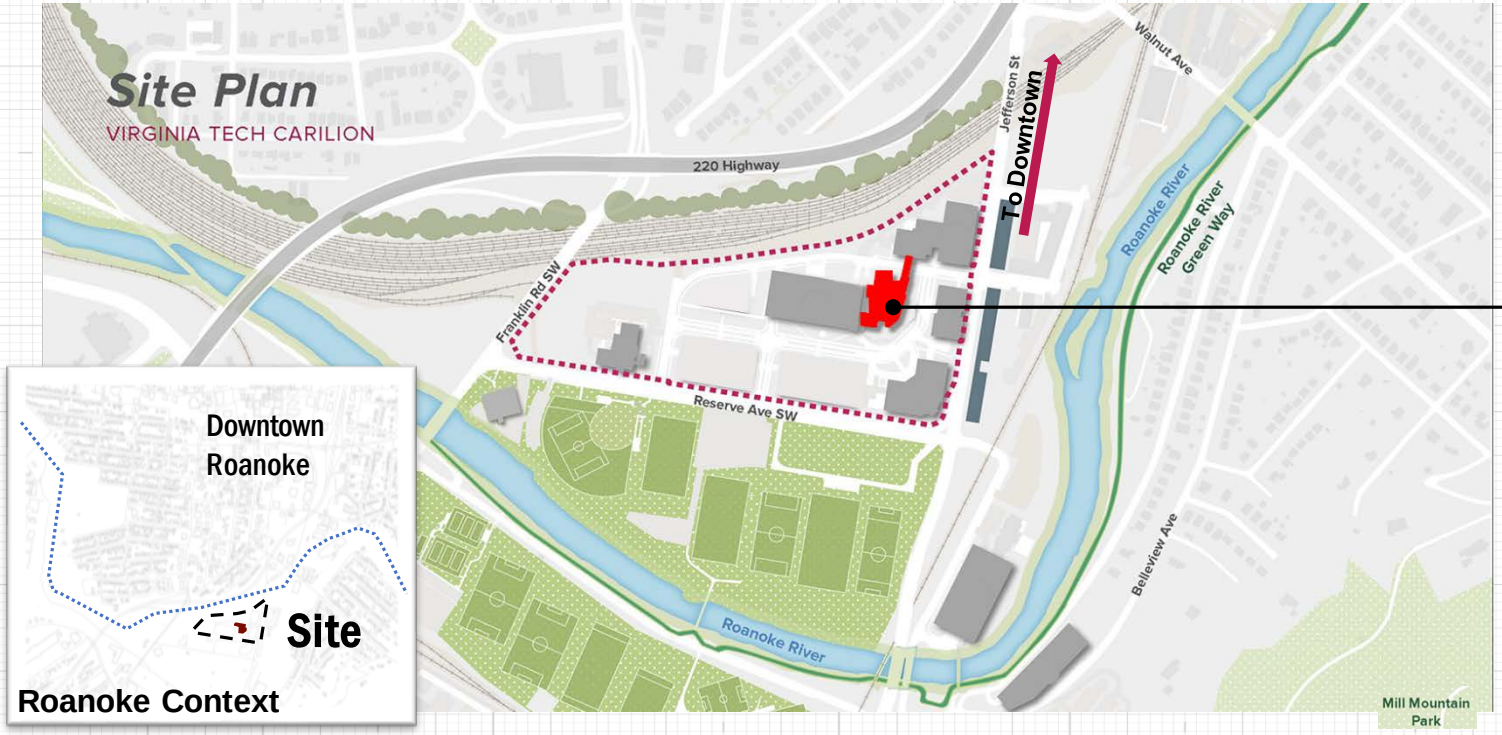
BIOMEDICAL RESEARCH EXPANSION

Board of Visitors Design Review

VIRGINIA TECH

VTC Biomedical Research Expansion

Master Plan Vision



VIRGINIA TECH

VTC Biomedical Research Expansion

Project Information

- New Construction: 139,300 GSF
- Delivery Method: PPEA
- Funding: Total Project Budget of $89.9M
- Design Phase: Preliminary
- Occupancy Date: Late 2019

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VTC Biomedical Research Expansion

Existing Conditions; Riverside Circle, Southeast View to Mill Mountain

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VTC Biomedical Research Expansion

Existing Conditions: Riverside Circle, Viewing West

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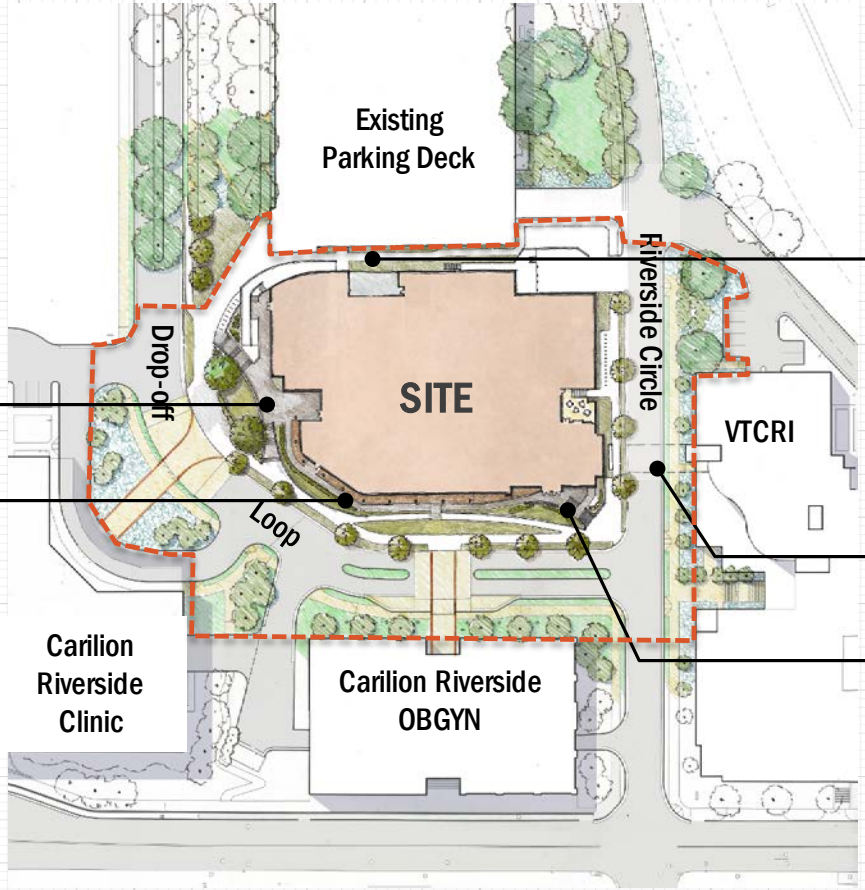
VTC Biomedical Research Expansion

Site Plan



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VTC Biomedical Research Expansion

Floor Plan – Ground Floor

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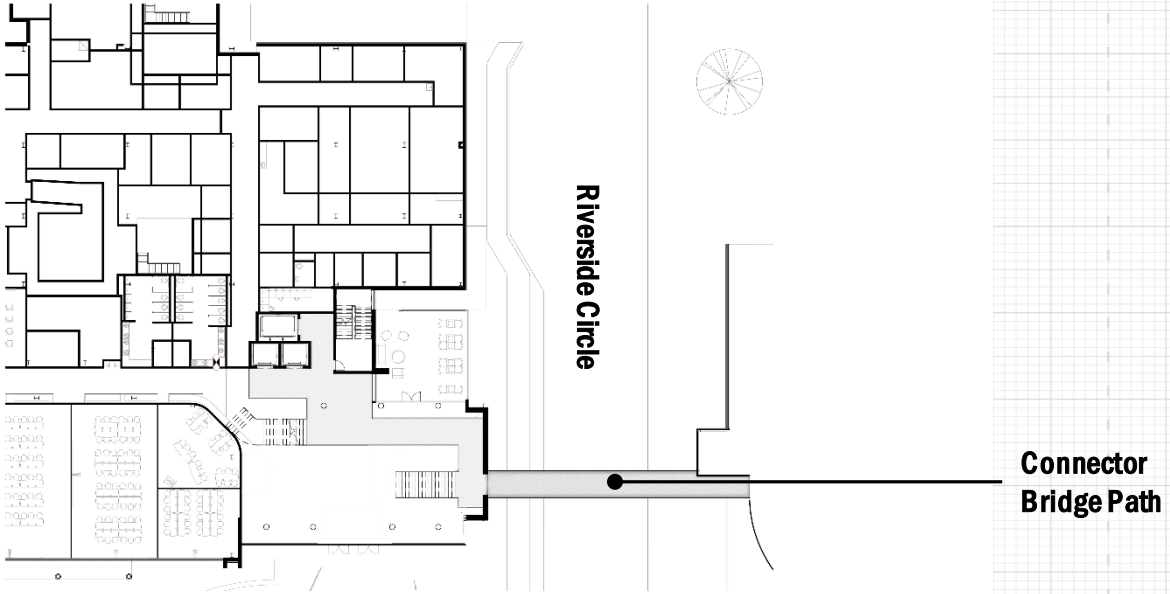
VTC Biomedical Research Expansion

Floor Plan – Bridge Level



VIRGINIA TECH

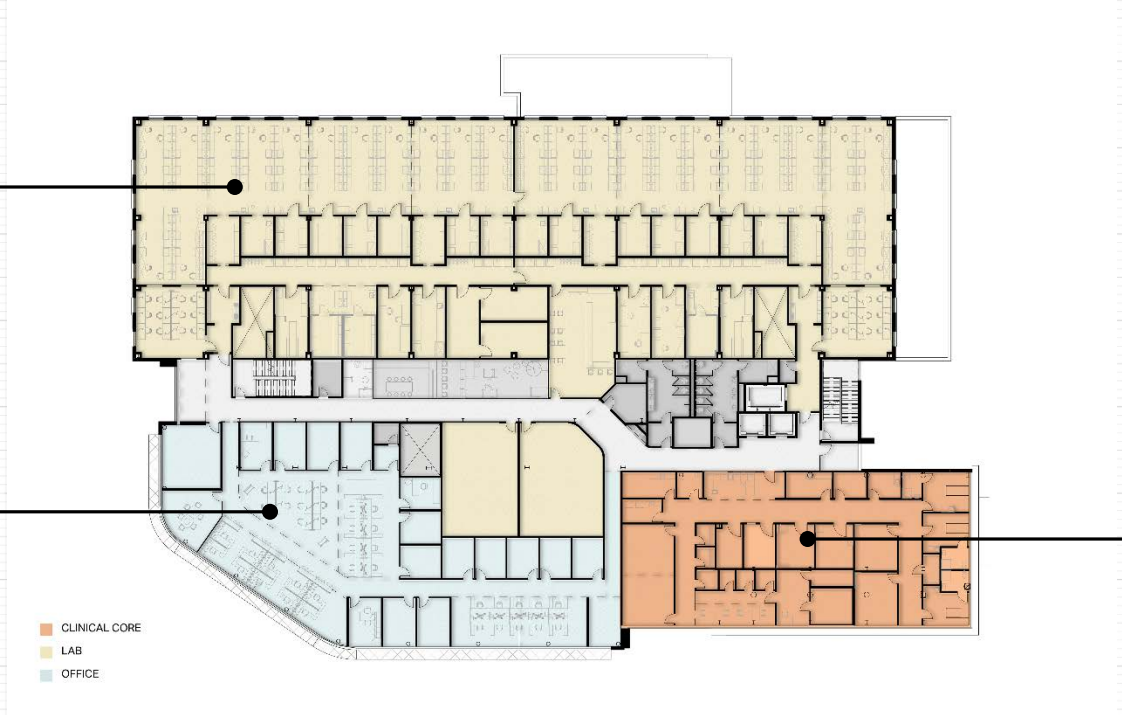
VTC Biomedical Research Expansion

Floor Plan – First Floor

VIRGINIA TECH

VTC Biomedical Research Expansion

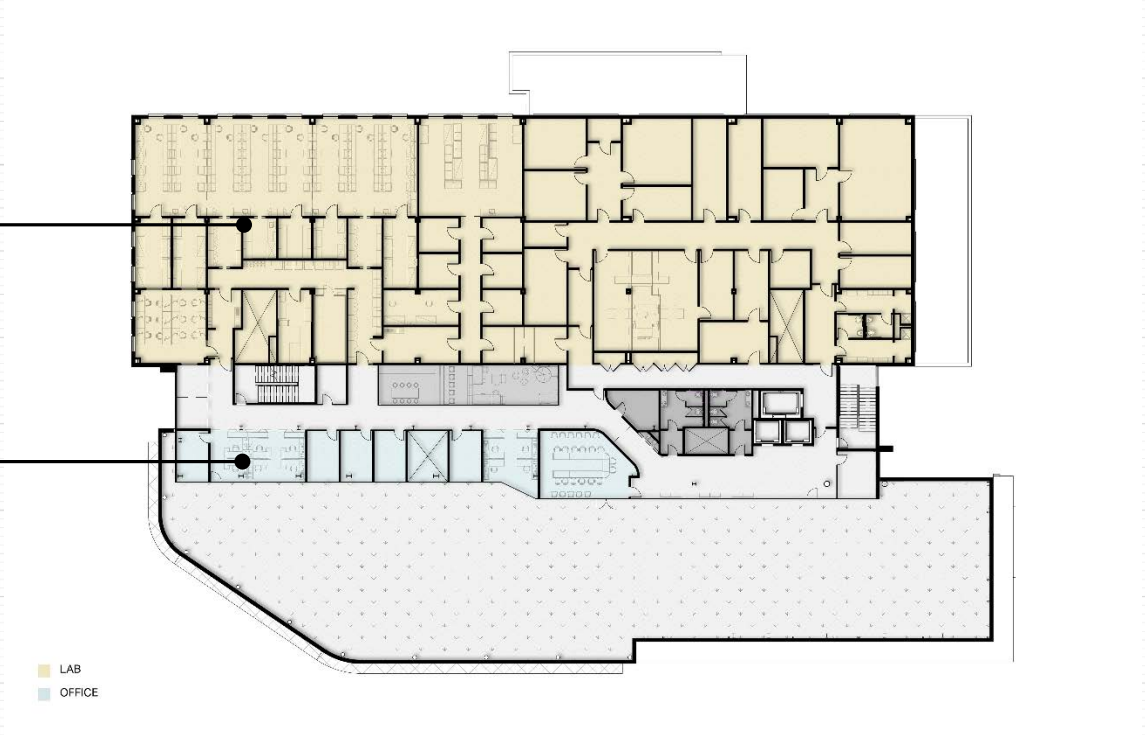
Floor Plan – Second Floor



VIRGINIA TECH

VTC Biomedical Research Expansion

Floor Plan – Third Floor



VIRGINIA TECH

VTC Biomedical Research Expansion

Recommendation

- That the Design Review graphics be approved, and authorization be provided to continue with the project design consistent with the drawings shown, with an anticipated building construction completion in late 2019.

VIRGINIA TECH

2016 Jeanne Clery Act Report

https://police.vt.edu/content/dam/police_vt_edu/clery-reports/2016-clery-act-annual-campus-security-fire-safety-report.pdf

Board of Visitors Presentation
November 5, 2017
Virginia Tech Police Chief Kevin Foust

THE 2016 JEANNE CLERY ACT REPORT OF CAMPUS SECURITY AND FIRE SAFETY

VIRGINIA TECH

Clery Act – What Is It?

Jeanne Clery was raped and murdered in her dorm room at Lehigh University in 1986. Her killer was another student. Her parents believe she would have been more cautious if she had known about other violent crimes at Lehigh.

The Clery Act is a federal law which requires higher education institutions to report crime statistics to current & prospective students & employees, amongst other things.

VIRGINIA TECH

Clery Act Handbook for Campus Safety and Security Reporting

Last updated in June 2016.

Clery requires Virginia Tech to include 4 general categories of offenses in our Annual Safety/Security Report:

1. Criminal offenses
2. Hate Crimes
3. Violence Against Women Act (VAWA) offenses
4. Arrests and referrals for disciplinary action

We must include in our annual crime statistics the number of all reported offenses without regard to the findings of a court, coroner or jury, or the decision of a prosecutor.

VIRGINIA TECH

Clery Act – What are the Clery Reportable Crimes?

The Clery Act identifies certain crimes as "Clery reportable" crimes. They are:

- Criminal homicide: Murder, Non-negligent Manslaughter and Manslaughter by Negligence
- Sexual Assault (Sex Offenses): Rape, Fondling, Incest, Statutory Rape
- Robbery
- Aggravated assault
- Burglary
- Motor vehicle theft
- Arson
- Domestic Violence
- Dating Violence
- Stalking
- Hate crimes
- Arrests & disciplinary referrals for violations of liquor, drug, & weapons laws

VIRGINIA TECH

Clery Act – Emergency Notification vs. Timely Warning

The Clery Act states that an Emergency Notification (VT Alert) MUST BE sent upon confirmation of a significant emergency or dangerous situation involving an immediate threat to the health or safety of students or employees occurring on the campus. An "immediate" threat as used here encompasses an imminent or impending threat, such as an approaching forest fire, as well as a fire currently raging in one of your buildings.

Examples:

- Outbreak of meningitis, norovirus or other serious illness
- Approaching tornado, hurricane or other extreme weather conditions
- Earthquake
- Gas leak
- Terrorist incident
- Armed intruder
- Bomb threat
- Civil unrest or rioting
- Explosion
- Nearby chemical or hazardous waste spill

VIRGINIA TECH

The crimes identified under Clery are subject to "Timely Warnings."

"The Clery Act requires you to alert the campus community to certain crimes in a manner that is timely and will aid in the prevention of similar crimes. Although the Clery Act doesn't define 'timely', the intent of the warning regarding a criminal incident(s) is to enable people to protect themselves. This means that a warning should be issued as soon as pertinent information is available."

Clery Act Handbook for Campus Safety and Security Reporting

We are required to issue a timely warning "for all Clery Act crimes that occur on your Clery Act geography that are:

- reported to campus security authorities or local police agencies; and
- considered by the institution to represent a serious or continuing threat to students and employees."

VIRGINIA TECH

Clery Act Handbook for Campus Safety and Security Reporting

Clery directs us to consider 3 factors prior to issuing a timely warning:

1. the nature of the crime (was it a Clery Act crime?),
2. the continuing danger to the campus community, and
3. the possible risk of compromising law enforcement efforts.

The Clery Act does not specifically address the content of a timely warning, but does state "the warning should include all information that would promote safety and that would aid in the prevention of similar crimes". Hence, the safety tips that are included in all of our timely warnings.

Clery Act – Sexual Assault and Timely Warning

Example Timely Warning

From: VTPolice@vt.edu [mailto:VTPolice@vt.edu]
Sent: Wednesday, September 6, 2017 5:21 PM
Subject: Crime Alert - Sexual Assault

On Tuesday, September 5, 2017, the Virginia Tech Police Department took a report of a sexual assault which occurred in the early morning hours of September 4, 2017 at 600 Washington Street S.W., Payne Hall. The survivor and suspect are both Virginia Tech students, who were previously unacquainted.

This information is being released in accordance with the federal Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, commonly known as the Clery Act. The Clery Act requires all colleges and universities that participate in federal financial aid programs to keep and disclose information about crime on and near their respective campuses, including timely warnings of crimes that may represent a serious or ongoing threat to the safety of students or employees.

The Virginia Tech Police Department reminds all community members of the following information about sexual assault. Note that this information is general in nature and does not necessarily relate to any specific incident:

According to many published reports, any college community member might become the target of a sexual assault regardless of gender identity or sexual orientation.

Survivors of a sexual assault are never responsible for the behavior of the suspect nor the harm done to them by the suspect.

The most common type of sexual assault is not by a stranger but by someone the survivor knows, typically a date or acquaintance.

Alcohol and drugs are often used to create vulnerability to sexual assault. Studies of sexual assault incidents show a high correlation between acquaintance rape and drug/alcohol usage. Be alert to people pressuring you or others to use alcohol or other drugs. Be alert to people pressuring you or others to accept either alcoholic or non-alcoholic drinks prepared by others. If you do not feel comfortable accepting a drink you did not prepare yourself, do not do so.

Trust your instincts. If you feel uneasy or sense something is wrong, do what you can to get yourself and those who may be with you out of that situation or call for assistance.

Make a plan in advance for a safe means of getting home. Use and encourage others to have a companion or a safe means of getting home, i.e., a trusted friend, taxi, or Safe Ride if available.

Be active in supporting a safe and respectful community. If you see others engaging in disrespectful or inappropriate actions, speak up and get involved, or contact someone else to assist. For more information, see: http://stopabuse.vt.edu/Get_Involved.html

Example Timely Warning

If you engage in sexual activity, be sure you understand your partner's limits, and communicate your own limits clearly. Don't engage in sexual activities without affirmative consent. The Hokie Handbook defines consent as "knowing, voluntary, and clear permission by word or action, to engage in mutually agreed upon sexual activity. The existence of consent is based on the totality of circumstances, including the context in which the alleged consent occurred. Silence does not necessarily constitute consent and coercion, force, or threat of either party invalidates consent. Consent cannot be given where a person is incapacitated due to drugs or alcohol; or where a person has a disability; or is not of legal age to consent as defined by law. Consent to any one form of sexual activity cannot automatically imply consent to any other forms of sexual activity. Consent can be withdrawn at any time. Previous relationships or prior consent cannot imply consent to future sexual acts".

If you have imminent concerns for the safety of others, call the police to ask for assistance.

If you are sexually assaulted, you have several options. Please see related information at this website: www.stopabuse.vt.edu . The website has guidance for filing anonymous or formal reports. In addition, assistance is available through the following resources:

- Women's Center at Virginia Tech: 540-231-7806
- Women's Resource Center of the New River Valley: 540-639-1123
- Kelly Oaks: Title IX Coordinator: 540-231-8771
- Katie Polidoro: Deputy Title IX Coordinator: 540-231-1824
- Cook Counseling Center: 540-231-6557
- Dean of Students Office: 540-231-3787
- Virginia Tech Police Department: 540-382-4343

If you report a sexual assault that occurred on the Virginia Tech campus, Virginia Tech Police will investigate, provide assistance, and offer related services to support your safety and well-being. If the crime occurred in another jurisdiction, Virginia Tech Police will assist you in accessing assistance in that jurisdiction.

The Virginia Tech Police Department offers a range of personal safety programs, including a Rape Aggression Defense courses. For more information: http://police.vt.edu/programs-training/rad.html

VIRGINIA TECH

Virginia Tech Blacksburg Campus Crimes Statistics 2016

	On Campus			Non Campus			Public Property			Year Total			Residential			Unfounded		
OFFENSE TYPE	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Murder & Non negligent Manslaughter	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manslaughter By Negligence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rape	8	6	11	0	0	1	0	0	0	8	6	12	3	4	6	1	0	1
Fondling	5	2	7	0	0	0	0	0	0	5	2	7	3	2	3	0	0	0
Incest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Statutory Rape	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Robbery	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
Aggravated Assault	4	2	3	1	0	0	0	0	0	5	2	3	0	0	3	0	0	0
Burglary	22	33	27	1	0	1	0	0	0	23	33	28	17	29	22	3	2	2
Motor Vehicle Theft	1	2	2	0	1	1	0	0	0	1	3	3	0	0	0	0	0	0
Liquor Law Violations Referred	640	542	591	0	0	0	0	0	0	640	542	591	579	492	536	0	0	0
Liquor Law Arrests	114	74	51	0	0	0	4	2	1	118	76	52	58	33	15	0	0	0
Drug Law Violations Referred	30	51	49	0	0	0	0	0	0	29	51	49	21	29	42	0	0	0
Drug Law Arrests	45	73	74	0	0	1	3	0	0	48	73	75	30	38	57	0	0	0
Illegal Weapons Possession Referred	0	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
Illegal Weapons Possession Arrests	3	3	0	0	0	0	1	0	1	4	3	1	0	0	0	0	0	0
Arson	1	1	0	0	0	0	0	0	0	1	1	0	1	1	0	0	0	0
Domestic Violence**	3	7	3	1	0	0	0	0	0	4	7	3	0	3	0	0	0	0
Dating Violence**	1	0	2	0	0	0	0	0	0	1	0	2	0	0	2	0	0	0
Stalking**	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0

Example Timely Warning

From: VTPolice@vt.edu [mailto:VTPolice@vt.edu]
Sent: Wednesday, September 6, 2017 5:21 PM
Subject: Crime Alert - Sexual Assault

On Tuesday, September 5, 2017, the Virginia Tech Police Department took a report of a sexual assault which occurred in the early morning hours of September 4, 2017 at 600 Washington Street S.W., Payne Hall. The survivor and suspect are both Virginia Tech students, who were previously unacquainted.

This information is being released in accordance with the federal Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, commonly known as the Clery Act. The Clery Act requires all colleges and universities that participate in federal financial aid programs to keep and disclose information about crime on and near their respective campuses, including timely warnings of crimes that may represent a serious or ongoing threat to the safety of students or employees.

The Virginia Tech Police Department reminds all community members of the following information about sexual assault. Note that this information is general in nature and does not necessarily relate to any specific incident:

According to many published reports, any college community member might become the target of a sexual assault regardless of gender identity or sexual orientation.

Survivors of a sexual assault are never responsible for the behavior of the suspect nor the harm done to them by the suspect.

The most common type of sexual assault is not by a stranger but by someone the survivor knows, typically a date or acquaintance.

Alcohol and drugs are often used to create vulnerability to sexual assault. Studies of sexual assault incidents show a high correlation between acquaintance rape and drug/alcohol usage. Be alert to people pressuring you or others to use alcohol or other drugs. Be alert to people pressuring you or others to accept either alcoholic or non-alcoholic drinks prepared by others. If you do not feel comfortable accepting a drink you did not prepare yourself, do not do so.

Trust your instincts. If you feel uneasy or sense something is wrong, do what you can to get yourself and those who may be with you out of that situation or call for assistance.

Make a plan in advance for a safe means of getting home. Use and encourage others to have a companion or a safe means of getting home, i.e., a trusted friend, taxi, or Safe Ride if available.

Be active in supporting a safe and respectful community. If you see others engaging in disrespectful or inappropriate actions, speak up and get involved, or contact someone else to assist. For more information, see: http://stopabuse.vt.edu/Get_Involved.html

Example Timely Warning

If you engage in sexual activity, be sure you understand your partner's limits, and communicate your own limits clearly. Don't engage in sexual activities without affirmative consent. The Hokie Handbook defines consent as "knowing, voluntary, and clear permission by word or action, to engage in mutually agreed upon sexual activity. The existence of consent is based on the totality of circumstances, including the context in which the alleged consent occurred. Silence does not necessarily constitute consent and coercion, force, or threat of either party invalidates consent. Consent cannot be given where a person is incapacitated due to drugs or alcohol; or where a person has a disability; or is not of legal age to consent as defined by law. Consent to any one form of sexual activity cannot automatically imply consent to any other forms of sexual activity. Consent can be withdrawn at any time. Previous relationships or prior consent cannot imply consent to future sexual acts".

If you have imminent concerns for the safety of others, call the police to ask for assistance.

If you are sexually assaulted, you have several options. Please see related information at this website: www.stopabuse.vt.edu . The website has guidance for filing anonymous or formal reports. In addition, assistance is available through the following resources:

- Women's Center at Virginia Tech: 540-231-7806
- Women's Resource Center of the New River Valley: 540-639-1123
- Kelly Oaks: Title IX Coordinator: 540-231-8771
- Katie Polidoro: Deputy Title IX Coordinator: 540-231-1824
- Cook Counseling Center: 540-231-6557
- Dean of Students Office: 540-231-3787
- Virginia Tech Police Department: 540-382-4343

If you report a sexual assault that occurred on the Virginia Tech campus, Virginia Tech Police will investigate, provide assistance, and offer related services to support your safety and well-being. If the crime occurred in another jurisdiction, Virginia Tech Police will assist you in accessing assistance in that jurisdiction.

The Virginia Tech Police Department offers a range of personal safety programs, including a Rape Aggression Defense courses. For more information: http://police.vt.edu/programs-training/rad.html