BUSINESS AFFAIRS and AUDIT COMMITTEE MEETING
1:00 P.M.**
FEBRUARY 13, 2020
MARY ANN JENNINGS HOVIS MEMORIAL BOARD ROOM
THIRD FLOOR, MARTIN HALL, RADFORD, VA

DRAFT
AGENDA

• CALL TO ORDER
  Mr. Gregory Burton, Chair

• APPROVAL OF AGENDA
  Mr. Gregory Burton, Chair

• APPROVAL OF MINUTES
  o December 5, 2019
  Mr. Gregory Burton, Chair

• REPORTS AND RECOMMENDATIONS
  o Report from the Auditor of Public Accounts
    Mr. Zachary Borgerding, Audit Director, Reporting & Standards, and Radford University Project Manager
  o University Auditor’s Report
    Ms. Margaret McManus, University Auditor
  o Capital Projects Update
    Mr. Chad A. Reed, Vice President for Finance and Administration and Chief Financial Officer
  o Governor’s Executive Budget Summary and 2020-21 Budget Update
    Mr. Chad A. Reed, Vice President for Finance and Administration and Chief Financial Officer

• ACTION ITEMS
  o Recommendation for Approval of Resolution Certifying Compliance with the Radford University Debt Management Policy
    Ms. Stephanie Jennelle, Associate Vice President for Finance and University Controller
  o Recommendation for Approval of Resolution of Public-Private Education and Infrastructure (PPEA) Guidelines
    Mr. Chad A. Reed, Vice President for Finance and Administration and Chief Financial Officer

• OTHER BUSINESS
  Mr. Gregory Burton, Chair

• ADJOURNMENT
  Mr. Gregory Burton, Chair
**All start times for committees are approximate only. Meetings may begin either before or after the listed approximate start time as committee are ready to proceed**

**COMMITTEE MEMBERS**
Mr. Gregory A. Burton, *Chair*
Mr. Mark S. Lawrence, *Vice Chair*
Dr. Jay A. Brown
Dr. Susan Whealler Johnston
Dr. Debra K. McMahon
Ms. Nancy A. Rice
BACKGROUND
Information Technology (IT) Contingency Planning outlines the steps necessary to plan for and execute recovery and restoration of IT systems, networks, and data if an event occurs that renders the IT systems, networks, and/or data unavailable. The Backup and Recovery component of Radford University’s Contingency Planning Program identifies the requirements to protect the availability and integrity of University data documented in backup and restoration plans. These requirements apply to every IT system identified as sensitive relative to availability. The Division of Information Technology (DoIT) manages the IT Contingency Planning Program and the backup and restoration of university data for essential IT business functions identified in the University’s Business Impact Analysis.

SCOPE AND OBJECTIVES
The scope of the audit was limited to twenty-one systems hosted at Radford University that were classified as sensitive for availability and that were ranked in the highest three tiers for business criticality by IT management.

The objective of this audit was to determine whether the IT backup and recovery controls and processes appear effective for IT systems supporting essential business functions of the University. The audit procedures were based on requirements outlined in the Radford University IT Security Standard 5003s-01 (Standard). The audit tested key controls from the Standard as well as other key controls identified by management. The audit also considered whether established controls and processes aligned with IT security industry best practices.

This review was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing.

CONCLUSION
At the time of the audit and relative to the controls and processes reviewed, they appeared adequate to provide reasonable assurance that the objective noted above is being met. However, improvements are needed to ensure compliance with the Standard and to align with IT security industry best practices.

BUSINESS ISSUES
The following issues were identified in this audit. Pages 2-4 contain information on planned actions and action completion dates and, accordingly, those pages are an integral part of this report.

1. Improvements are needed in the University’s current strategy for backups.
2. Improvements are needed in the backup and recovery strategies for some business essential systems, specifically for the physical server environment.
3. Improvements are needed related to infrastructure and network services operations.
4. The language in certain agreements needs improvement.
<table>
<thead>
<tr>
<th>BUSINESS ISSUE</th>
<th>PLANNED ACTION</th>
<th>COMPLETION DATE</th>
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<tbody>
<tr>
<td>1. For every IT system that is identified as sensitive relative to availability, the Standard requires implementation of backup and recovery plans. Improvements are needed in the University’s current strategy. Specifically,</td>
<td>1.1 DoIT will document the strategy for testing backups.</td>
<td>July 1, 2020</td>
</tr>
<tr>
<td>1. The University has not documented the strategy for testing that IT system and data backups are functioning as expected and that the data is present in a usable form. Documentation of the strategy is required by the Standard.</td>
<td>1.2 Management provided a planned action under the same public disclosure exemption as noted in the business issue.</td>
<td>July 1, 2021</td>
</tr>
<tr>
<td>2. This issue was communicated to management in a separate document marked Freedom of Information Act exempt under § 2.2-3705.2 of the Code of Virginia due to its sensitivity and description of security mechanisms.</td>
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<tr>
<td>2. The University has identified systems that are necessary to recover essential business functions. Accordingly, the Standard requires that a Recovery Time Objective (RTO) and a Recovery Point Objective (RPO) must be assigned to each of these systems. Improvements are needed in the IT backup strategies for some of these business essential systems, specifically, for the physical server environment.</td>
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<tr>
<td>1. Two servers have weaknesses in their current backup strategy. The details of this issue were communicated to management in a separate document marked Freedom of Information Act exempt under § 2.2-3705.2 of the Code of Virginia due to its sensitivity and description of security mechanisms</td>
<td>2.1.1 Management provided a planned action under the same public disclosure exemption as noted in the business issue.</td>
<td>February 1, 2020</td>
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<td>2. This issue was communicated to management in a separate document marked Freedom of Information Act exempt under § 2.2-3705.2 of the Code of Virginia due to its sensitivity and description of security mechanisms.</td>
<td>2.1.2 Management provided a planned action under the same public disclosure exemption as noted in the business issue.</td>
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### BUSINESS ISSUE

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<td>3.</td>
<td>This issue was communicated to management in a separate document marked Freedom of Information Act exempt under § 2.2-3705.2 of the Code of Virginia due to its sensitivity and description of security mechanisms.</td>
<td>2.3 Management provided a planned action under the same public disclosure exemption as noted in the business issue.</td>
<td>July 1, 2020</td>
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3. Improvements are needed related to infrastructure and network services operations:

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<th>Description</th>
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<tr>
<td>1.</td>
<td>This issue was communicated to management in a separate document marked Freedom of Information Act exempt under § 2.2-3705.2 of the Code of Virginia due to its sensitivity and description of security mechanisms.</td>
<td>3.1 Management provided a planned action under the same public disclosure exemption as noted in the business issue.</td>
<td>August 1, 2020</td>
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<td>2.</td>
<td>This issue was communicated to management in a separate document marked Freedom of Information Act exempt under § 2.2-3705.2 of the Code of Virginia due to its sensitivity and description of security mechanisms.</td>
<td>3.2 Management provided a planned action under the same public disclosure exemption as noted in the business issue.</td>
<td>May 15, 2020</td>
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4. Improvements are needed in certain agreements.

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<td>1.</td>
<td>The University has a contract with a vendor to provide two separate dedicated fiber connections to the University’s alternate data storage site. However, the contract lacks measurable guarantees for network uptime. In the event of a service interruption, not having a minimum guaranteed uptime could hinder the University’s ability to meet backup and recovery availability requirements for business essential systems.</td>
<td>4.1 DoIT will review the contract, discuss updated terms with the vendor, and, for changes that are mutually agreeable, modify the contract accordingly.</td>
<td>July 1, 2020</td>
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<td>2.</td>
<td>The University has two memorandums of understanding (MOUs) with an entity for the alternate data storage site. One MOU addresses providing space, access, power, and environmental controls, and the other addresses providing network connection services for the University-owned server rack within the entity’s data center. Improvements are needed in these MOUs. Specifically,</td>
<td>4.2.1 DoIT will identify issues, based upon risk, and discuss relevant updates to MOU terms with the entity.</td>
<td>February 1, 2020</td>
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<td></td>
<td>a. Neither MOU guarantees an expected level of infrastructure uptime, which could hinder the University’s ability to meet its availability requirements.</td>
<td>4.2.2 Where such updates are mutually agreeable by both parties, the MOUs will be modified accordingly. Where MOU updates are not feasible, DoIT will document alternate strategies or controls. Contact lists for each MOU will be updated as appropriate.</td>
<td>June 1, 2020</td>
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<td>BUSINESS ISSUE</td>
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<td>b. The MOUs do not require a minimum lead time for the entity to notify DoIT staff before scheduled maintenance is performed. This could increase the risk of a service interruption resulting from scheduled maintenance.</td>
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<td>c. In each MOU, the entity’s contact list appears to have last been updated over three years ago. Similarly, in each MOU, the list of staff contacts provided by DoIT is outdated. Having outdated contact lists could result in delays during service interruption events.</td>
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<tr>
<td>d. The terms of each MOU allow for either party to terminate the MOU within 180 days after written notice to the other party. If the entity was to terminate the MOU, this would create an inadequate window of time for DoIT to find an alternate solution for off-site data storage.</td>
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<td>Audit: IT – Building Automation Systems (BAS)</td>
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<td><strong>Business Issue</strong></td>
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<td><strong>Status</strong></td>
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<td>4.0</td>
<td>The IT Security Standard requires that the System Security Plan (SSP) for sensitive systems be updated at least every three years, and submitted to the Information Security Officer (ISO) for approval. The SSP for BAS was last updated in May 2013, which is outside of the required timeframe.</td>
<td>In 2018, the University's Business Impact Analysis (BIA), Risk Assessment (RA), and Disaster Recovery Plans (DRP) are scheduled for review as part of the 3-year review cycle. During this engagement, DoIT will evaluate the types of documents required for systems, including the SSP. BAS will be included in the scope of the review and for documented updates.</td>
<td>June 1, 2019 Revised to January 31, 2020</td>
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<td>6.1</td>
<td>Controls over password management practices for BAS servers and applications need improvement to ensure a more secure environment and to comply with the Standard as follows: This issue was communicated to management in a separate document marked Freedom of Information Act exempt under § 2.2-3705.2(3) of the Code of Virginia due to it containing descriptions of security mechanisms.</td>
<td>Management provided a planned action under the same public disclosure exemption as noted in the business issue.</td>
<td>August 1, 2019 Revised to January 31, 2020</td>
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<td>8.3</td>
<td>Improvements are needed in the systems documentation for BAS. We were unable to obtain the following documentation required by the Standard: Annual self-assessment to determine the continued validity of risk assessment controls</td>
<td>DoIT will create a risk self-assessment template for system owners to complete.</td>
<td>June 1, 2019 Revised to January 31, 2020</td>
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<td>2.1 The University has identified systems that are necessary to recover essential business functions. Accordingly, the Standard requires that a Recovery Time Objective (RTO) and a Recovery Point Objective (RPO) must be assigned to each of these systems. Improvements are needed in the IT backup strategies for some of these business essential systems, specifically, for the physical server environment. Two servers have weaknesses in their current backup strategy. The details of this issue were communicated to management in a separate document marked Freedom of Information Act exempt under § 2.2-3705.2 of the Code of Virginia due to its sensitivity and description of security mechanisms.</td>
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<td>Follow-up in process</td>
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<td>b. The MOUs do not require a minimum lead time for the entity to notify DoIT staff before scheduled maintenance is performed. This could increase the risk of a service interruption resulting from scheduled maintenance.</td>
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<td>Business Issue (continued)</td>
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<td>d. The terms of each MOU allow for either party to terminate the MOU within 180 days after written notice to the other party. If the entity was to terminate the MOU, this would create an inadequate window of time for DoIT to find an alternate solution for off-site data storage.</td>
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<td>Audit: E-Verify</td>
<td>Planned Action</td>
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| 1.0 | Campus departments are completing Form I-9 for employees, although they have not been delegated the authority to do so by Human Resources. | Human Resources will ensure that personnel who verify employment eligibility are authorized and trained to do so by performing the following:  
- Formally delegate authority to each department in writing.  
- Provide mandatory training to personnel within each department.  
- Provide desktop procedures to each department. | January 31, 2020 | Follow-up in process |
| 2.1 2.2 | Improvements are needed in the process of entering new hires into E-Verify. Specifically, during our testing, we noted that 18 out of 683 total new hires (3%) were not entered into E-Verify.  
- For 7 of these, this appeared to be due to not having a Form I-9 on file or not having a complete Form I-9 on file. We noted that for 4 of these, a Form I-9 could not be located; for 3 of these, a Form I-9 was located, but Section 2 (Employer Review and Verification) was blank.  
- For the remainder (11) of these, we were unable to determine why no E-Verify entry was done. | 1. Human Resources will ensure that formal training is provided to all areas with delegated authority to enter cases into E-Verify. Documentation of this training will be maintained in Human Resources.  
2. To address the specific employees noted, Human Resources will ensure the following is completed, as applicable:  
- For current employees, a Form I-9 will be completed and the employees will be entered into E-Verify. Documentation regarding the correction will be attached to each Form I-9.  
- For separated employees, documentation of the University’s awareness of the error will be maintained in each employee’s personnel file. | January 31, 2020 | Follow-up in process  
January 31, 2020 | Complete |
### Business Issue

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| 3.1 | Improvements are needed to ensure the timely entry of cases into E-Verify. As required by the E-Verify MOU, the University must create an E-Verify case for new employees within three employer business days after each employee has started working for pay. Cases created after that timeframe are considered late and require an explanation. Out of all 781 E-Verify cases entered during our review period, we noted 100 cases (13%) that were entered late with explanations that E-Verify does not deem as acceptable. Most significantly,  

- The explanation for 59 (59%) of those cases attributed the lateness to Human Resources not entering the cases timely. The majority of those noted "work overload" by Human Resources. Additionally, we noted that all of these 59 cases were for hire dates in August - September 2018, the beginning of a semester, which we identified as a peak hiring period for the University.  
- The explanation for 32 (32%) of those cases attributed the lateness to the new hire or the new hire’s department not submitting required documents to Human Resources timely. Timely entry of cases into E-Verify is essential to ensure compliance with E-Verify rules and regulations. Noncompliance could result in penalties for the University or further investigation by USCIS, Immigration and Customs Enforcement, the Department of Justice, or other agencies. |
| 3.2 |   |

### Audit: E-Verify

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<th>Business Issue</th>
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<tbody>
<tr>
<td>1.</td>
<td>Human Resources will request additional resources at peak hiring periods to ensure compliance with regulations.</td>
<td>January 31, 2020</td>
<td>Follow-up in process</td>
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<tr>
<td>2.</td>
<td>Human Resources will create a process to identify departments missing deadlines. This information will be forwarded to the appropriate Division Head to determine action to be taken, if necessary.</td>
<td>January 31, 2020</td>
<td>Follow-up in process</td>
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<td>Business Issue</td>
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<td>4.1 4.2</td>
<td>Consistency and improved documentation are needed in the employment verification and E-Verify process for student employees funded by the Federal Work-Study (FWS) program. In our review of 40 E-Verify cases entered, four (10%) did not have a hire date that agreed to the Form I-9 on file. All of these were for student employees funded by the FWS program. If the first day of employment differs from what is documented on the Form I-9, the Form I-9 should be corrected, or documentation supporting the actual date should be attached to the Form I-9.</td>
<td>1. Human Resources will ensure personnel verifying employment eligibility, including for student employees funded by the FWS program, are authorized and trained to do so. Authority will be formally delegated to the department in writing, mandatory training will be provided, and desktop procedures will be provided to the department.</td>
<td>January 31, 2020</td>
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<td>2. To address the specific E-Verify cases noted, Human Resources will ensure that they are corrected or documentation supporting the actual first date of employment is attached to the Form I-9.</td>
<td>January 31, 2020</td>
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<td>6.1 6.2</td>
<td>Improvements are needed in the granting and monitoring of access to the E-Verify system. Specifically, 1. There is not a centralized process to grant access to the E-Verify system. Currently there are five program administrators that can grant access. Allowing multiple program administrators to grant system access without a centralized review process could result in (a) inconsistency in the criteria and documentation required for access, and (b) someone without a business need having access to the system. In our review of 11 employees with access to E-Verify, one current employee was determined to have no business need for access.</td>
<td>1. Human Resources will limit the number of program administrators to two: one primary and one secondary. Both will be within Human Resources. Human Resources will also develop a form required to request/grant access to the E-Verify system.</td>
<td>January 31, 2020</td>
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</tbody>
</table>
2. There is not a centralized process to grant access to the E-Verify system. Currently there are five program administrators that can grant access. Allowing multiple program administrators to grant system access without a centralized review process could result in (a) inconsistency in the criteria and documentation required for access, and (b) someone without a business need having access to the system. In our review of 11 employees with access to E-Verify, one current employee was determined to have no business need for access.

2. The program administrators will conduct an annual review of users to monitor access to E-Verify. Documentation of this annual review will be maintained in Human Resources.

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<th>Business Issue (continued)</th>
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<tbody>
<tr>
<td>2. There is not a centralized process to grant access to the E-Verify system. Currently</td>
<td>2. The program administrators will conduct an annual review of users to monitor access to E-Verify. Documentation of this annual review will be</td>
<td>January 31, 2020</td>
<td>Complete</td>
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<td>there are five program administrators that can grant access. Allowing multiple program</td>
<td>maintained in Human Resources.</td>
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<td>administrators to grant system access without a centralized review process could result</td>
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<td>in (a) inconsistency in the criteria and documentation required for access, and (b)</td>
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<td>employees with access to E-Verify, one current employee was determined to have no</td>
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<td>business need for access.</td>
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<td>7.0 The display of two employment notices, the Notice of E-Verify Participation and the</td>
<td>Human Resources will determine additional locations where the employment notices should be posted to meet the requirements of the MOU and ensure</td>
<td>January 31, 2020</td>
<td>Follow-up in</td>
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<td>Notice of Right to Work, does not appear to meet the MOU’s requirements. The notices</td>
<td>that they are posted in those locations.</td>
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<td>process</td>
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<td>must be displayed in a prominent place that is clearly visible to prospective employees</td>
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<td>and all employees who are to be verified through E-Verify.</td>
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<td>Although these notices are posted in the lobby of Human Resources and in the College of</td>
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<td>Graduate Studies &amp; Research, not all employees must go to one of these places. Therefore,</td>
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<td>these notices are not visible to all employees, resulting in noncompliance with the MOU.</td>
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Capital Project Update
Reed-Curie Renovation - Complete
Reed-Curie Renovation - Complete
Center for Adaptive Innovation and Creativity (CAIC)

• Detailed planning complete under current legislation
• Full project funding included in Governor’s 2020-2022 Proposed Budget at $101 million
• Full project budget approval anticipated July 1, 2020
• Next steps:
  • Commence working drawings design
  • Swing space relocations this fall to allow demolition in January 2021
  • Complete construction and move-in to allow classes to start in January 2024
Tyler Hall and Norwood Hall Renovations

Tyler Hall

Norwood Hall
River Campus
Hotel Conceptual Site Plan and Perspective
Information Item
Capital Projects Update

Item: Facilities Planning and Construction update on capital projects.

Background: Currently, the University has two active capital projects in progress, and three upcoming capital projects. Following is an update and project summary:

1. Reed-Curie Renovation

   Project Budget ------------------------------------------------------------- $33,045,000

   Architect/Engineer Firm--------------------------------------------------- Cannon Design

   Construction Manager------------------------------------------------------ Branch and Associates

   The Reed-Curie renovation project was approved in the spring 2016 state bond package. The project will completely renovate the existing Reed Hall and Curie Hall science buildings to complement the recent addition of the Center for the Sciences, ultimately providing an overall state-of-the-art facility for nearly all of the Artis College of Science and Technology departments.

   Occupants in the renovated building will include the Departments of Physics, Geology, Geospatial Sciences, and the Office of the Dean. The Cyber Security Center will also be housed in the renovated building, along with support spaces for the Chemistry and Biology Departments. The Greenhouse will also be renovated and remain located adjacent to the renovated Reed Hall.

   The state initially approved funding for detailed planning for the project in the fall of 2016, and then approved final funding for the remainder of design and the construction on June 30, 2017. The state issued an approved demolition Building Permit on January 8, 2018 and the approved full project Building Permit on May 3, 2018.

   During the summer of 2017, RU completed the relocation of staff and equipment to various swing spaces on campus to render the building unoccupied. A Guaranteed Maximum Price for an Early Release Demolition Package was approved with a Notice-to-Proceed executed on January 8, 2018, and a subsequent Guaranteed Maximum Price for the full Project Renovation Package was approved with a Notice-to-Proceed executed on May 3, 2018.

   Project construction completion including nearly all punch list items and space relocations
occurred in December 2019 and January 2020. Spring 2020 classes are being held in the renovated buildings. Final punch list items are being completed, including occupancy and upfit of the greenhouse space. The overall project is anticipated to be under budget upon final completion.

2. **Center for Adaptive Innovation and Creativity**

Project Budget

4,000,000

(Detailed Planning only)

Architect/Engineer Firm

Hord Coplan and Macht

Construction Manager

Skanska

The Center for Adaptive Innovation and Creativity project was approved for Detailed Planning in July 2018, as described in the University’s six-year capital plan submission to the state in December of 2017.

The Center will address an array of significant existing programmatic and building deficiencies across a number of academic colleges. The approximately 178,000-square-foot multi-story building will include state-of-the-art instruction, laboratory, maker, studio, computer, and collaborative spaces that integrate the arts and health sciences, along with office and other academic support functions. Specialty spaces will include an instructional auditorium and support spaces, health science clinical lab spaces, painting and drawing studio spaces, and music and dance studio spaces. The project will be located in a prominent area of campus directly adjacent to East Main Street, and will respond aesthetically to the existing buildings along this important campus corridor.

The project scope will generally provide for demolition of the existing Porterfield East and West Halls and McGuffey Hall and construction of the new building and building systems and components including HVAC, plumbing, electrical, fire alarm and detection, fire suppression, lightning protection, and elevators. The project will replace existing facilities and building systems nearly 50 years old that are inadequate for today’s learning environment and technologies. Significant utility impacts will be accommodated, along with erosion/sediment control and stormwater management requirements. The impact of required swing spaces are being investigated during the preliminary design phases of the project.

The solicitation for design services was advertised on May 1, 2018, and the firm of Hord, Coplan and Macht was selected and the design began in July. The initial Programming effort has been completed, and early building schemes were developed and approved by the University. Geotechnical investigations and site/utility surveying are complete. The Commonwealth’s Department of Historic Resources has approved the proposed demolition, and the Environmental Impact Report has been approved by Department of Environmental Quality (DEQ). The demolition package has been approved by AARB, along with final
approval of the new building design package by AARB as well. The Schematic Design Package was submitted to Division of Engineering and Buildings (DEB) in November, with subsequent approval in December. The Preliminary Design Package and Estimate was submitted to DEB in May 2019, with subsequent approval in July.

The University’s request to utilize the Construction Management-at-Risk delivery method was approved by DEB, and the solicitation for CM-at-Risk services was advertised on July 22, 2018. Qualifications packages were received on August 21, with RFP proposals and interviews in mid-September. The contract for pre-construction services was awarded to Skanska on October 8, and their team provided pre-construction services for the project.

The project was not funded in the FY2020 budget; therefore, the project has not proceeded past Detailed Planning at this time. The Capital Budget Request for the project was submitted in June 2019, and was included in the Governor’s proposed 2020-22 biennial budget, currently being reviewed by state legislature. With funding anticipated in July 2020, the project demolition would start in January 2021, with project completion and ready for classes in January 2024. The project estimate is currently $97,800,000.

3. **Tyler/Norwood Renovation**

The Master Plan 2020-2030 identifies Tyler Hall and Norwood Hall as the next on-campus residence halls to be renovated. The renovation scope will provide for the replacement of plumbing piping, fixtures, HVAC systems, fire alarm systems, electrical upgrades, accessibility improvements, and asbestos abatement. These renovations are similar to the renovation scopes completed for the Moffett Quad residence halls in 2016. In addition to the above project scopes, the buildings will incorporate living-learning community components, possibly for the Honors College. These transforming features will give vibrant new life to these buildings built in the 1930’s.

A request for proposal (RFP) has been solicited for the architect and engineering (AE) design firm and the Building Committee has been selected. Proposals are due in February 2020 and a selection of the AE firm will be made soon after. The target date for the start of construction is May 2021, and the total project budget is $17,000,000.

4. **Hotel**

The Radford University Foundation and the City of Radford have identified the property location at the corner of Tyler Avenue and Lawrence/Calhoun Streets for a hotel and conference center. The Foundation and the City are working with Jones Lang LaSalle, a commercial real estate firm, for this development opportunity. The hotel is planned to have approximately 125 rooms and a rooftop restaurant, along with a conference center and adjacent parking. The project is planned to be completed in 2022/2023.
5. **River Campus**

The Master Plan identified development of the River Campus on University and City of Radford properties adjacent to the New River. Stakeholder meetings have taken place, including academic and student affairs, and an initial visioning document has been compiled. The visioning document will serve to identify initial projects for execution, and planning and prioritization of further River Campus development projects.

The overall River Campus development includes zones for higher density public activities such as an amphitheater, event space, food and beverage areas, and associated support spaces; for quieter academic and passive recreation spaces; and for highly active recreation and student engagement areas.

Initial projects will likely include greenway extension and trails, outdoor seating and gazebos, riverside boardwalks, and event areas. Further development projects include more significant public projects such as the amphitheater and food services, along with more recreation-based projects such as access to the river for people and boats, climbing walls and bouldering, and zip lines and ropes courses.

The development of the River Campus will need to be carefully executed with the cooperation of the City, and will also need to be coordinated with all regulatory and permit requirements.
Proposal Summary

On December 17, 2019, Governor Northam presented his proposed 2020-22 biennial budget to the General Assembly Joint Money Committees.

• The Governor stressed the importance of strengthening fiscal integrity, funding mandates, growing Virginia’s economy, and improving citizen quality of life.

• The General Assembly convened on January 8, 2020, and has begun the process of considering the Governor’s budget proposals.

Proposal Items Included:
1. Undergraduate Student Financial Aid
2. Employee Benefit Costs
3. CAIC - Capital
4. Tyler and Norwood - Capital
Student Financial Aid

The introduced budget includes $45.4 million of additional undergraduate need-based financial aid for public institutions of higher education for the biennium.

- Radford University’s share of additional support is $1,269,200 in 2020-21 and an additional $1,269,200 in 2021-22.
Employee Benefit Costs

Fringe benefit rates are proposed to change over the biennium by .88%.

<table>
<thead>
<tr>
<th>Fringe</th>
<th>2018-20</th>
<th>2020-22</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>VRS</td>
<td>24.27%</td>
<td>25.18%</td>
<td>0.91%</td>
</tr>
<tr>
<td>RHIC</td>
<td>1.17%</td>
<td>1.12%</td>
<td>-0.05%</td>
</tr>
<tr>
<td>Group L</td>
<td>1.31%</td>
<td>1.34%</td>
<td>0.03%</td>
</tr>
<tr>
<td>LTD</td>
<td>0.62%</td>
<td>0.61%</td>
<td>-0.01%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>0.88%</strong></td>
<td><strong>0.88%</strong></td>
<td><strong>0.88%</strong></td>
</tr>
</tbody>
</table>

Health Insurance premiums are proposed to increase over the biennium by 9.1%.
- The employee’s premium will remain unchanged as the Commonwealth will absorb that portion of the increase.
- The University is projecting premium increases of 2.4% in FY 2021 and 6.7% in FY 2022.

<table>
<thead>
<tr>
<th>Health</th>
<th>FY2020</th>
<th>FY2021</th>
<th>FY2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>$8,238</td>
<td>$8,436</td>
<td>$9,001</td>
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<tr>
<td>Dual</td>
<td>$14,756</td>
<td>$15,110</td>
<td>$16,123</td>
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<tr>
<td>Family</td>
<td>$21,632</td>
<td>$22,151</td>
<td>$23,635</td>
</tr>
<tr>
<td><strong>Annual Change</strong></td>
<td><strong>2.40%</strong></td>
<td><strong>6.70%</strong></td>
<td></td>
</tr>
</tbody>
</table>
Capital Outlay

Center for Adaptive Innovation and Creativity (CAIC) - proposed $101.8 million

Tyler Hall and Norwood Hall - proposed $17 million
## Governor's Budget Proposal - Summary

### Operating Budget

#### University Division

**Educational and General (E&G)**

<table>
<thead>
<tr>
<th>Base Funding Adjustments</th>
<th>2020-21</th>
<th>2021-22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Insurance</td>
<td>$173,169</td>
<td>$780,643</td>
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<tr>
<td>Retirement</td>
<td>191,186</td>
<td>199,496</td>
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<tr>
<td>Other Post Employment</td>
<td>(1,422)</td>
<td>(1,481)</td>
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<tr>
<td>Workers Compensation</td>
<td>590</td>
<td>2,031</td>
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<tr>
<td>Line of Duty Act Premium</td>
<td>47</td>
<td>47</td>
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<tr>
<td>Cardinal Fin'l System Charges</td>
<td>(8,013)</td>
<td>(9,197)</td>
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<tr>
<td>IT Infrastructure Services (VITA)</td>
<td>2,367</td>
<td>2,476</td>
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<tr>
<td>Personnel Management Info System</td>
<td>(4,457)</td>
<td>(4,708)</td>
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<tr>
<td>Performance Budgeting System</td>
<td>(214)</td>
<td>(128)</td>
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<tr>
<td>Cardinal HCM System</td>
<td>235,940</td>
<td>235,940</td>
</tr>
<tr>
<td>General Liability Premium</td>
<td>8,975</td>
<td>8,975</td>
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<tr>
<td><strong>Subtotal E&amp;G Base Adjustments</strong></td>
<td>$362,227</td>
<td>$1,214,094</td>
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</tbody>
</table>

**Student Financial Aid (SFA)**

- Undergraduate SFA: $1,269,200
- **Subtotal SFA**: $1,269,200

**Auxiliary Enterprises**

- Technical Adjustment - Appropriation Increase: $5,587,975
- **Subtotal Auxiliary**: $5,587,975

**Subtotal University Division**

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2021-22</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$1,631,427</td>
<td>$3,752,494</td>
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</table>

**Capital Budget**

- Tyler/Norwood Renovation: $101,800,000
- Center for Adaptive Innovation & Creativity: $101,800,000

**Total Capital Support**

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2021-22</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$101,800,000</td>
<td>$101,800,000</td>
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</table>

**Total Operating & Capital Support**

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2021-22</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$103,431,427</td>
<td>$105,552,494</td>
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</tbody>
</table>

### Capital Budget

- Tyler/Norwood Renovation: $101,800,000
- Center for Adaptive Innovation & Creativity: $101,800,000

**Total Capital Support**

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2021-22</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$101,800,000</td>
<td>$101,800,000</td>
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</tbody>
</table>

**Total Operating & Capital Support**

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2021-22</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$103,431,427</td>
<td>$105,552,494</td>
</tr>
</tbody>
</table>

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**Page 34 of 219**
The final outcome of the 2020-22 Executive Budget will not be known until the completion of the General Assembly session in March 2020.

Upcoming Dates:

Tuesday, February 11 - Crossover (all legislation must be passed by midnight)
Sunday, February 16 - Deadline for House and Senate to complete work on budget
Wednesday, February 26 - Deadline for House and Senate to complete work on each other’s Budget Bills (budget conferees appointed by midnight)
Monday, March 2 - Deadline for legislation to be reported out of committee
Saturday, March 7 - 2020 General Assembly adjourns
Information Item
Governor’s 2020-2022 Biennial Budget Proposal & Budget Update

Item:
Overview of the Governor’s Executive Budget Proposal for the 2020-22 biennium.

Background:
On Tuesday, December 17, 2019, Governor Northam presented his Executive Budget Proposal for the upcoming 2020-22 biennium to the General Assembly Joint Money Committee. The Governor’s proposal was largely focused on strengthening the overall fiscal position of the Commonwealth by increasing reserve balances, improving fiscal liquidity, and maintaining structural balance. The Governor’s budget serves to fund mandates, grow Virginia’s economy, and improve citizen quality of life.

The following is an overview of the funding changes proposed for Radford University’s operating budget. Attachment A is the financial summary of these recommendations while Attachment B is the State Council of Higher Education for Virginia’s (SCHEV) summary analysis for all institutions of higher education.

Operating Items:

- **Undergraduate Student Financial Assistance:** The Governor’s proposed budget includes $2,538,400 in increased general fund support for need-based, in-state undergraduate student financial aid over the biennium. This includes $1,269,200 in 2020-21 and an additional $1,269,200 in 2021-22. The contributions seek to make undergraduate higher education more affordable for all Virginians.

- **Central Appropriations and Central Systems Adjustments (Fringe Benefit Rates, Workers Compensation, Insurance Premiums, etc.):** Language in the Executive Budget Proposal, as per item 477 and 478, indicates changes in central distribution funding with an estimated impact of $703,975 in 2020-21 and $1,658,129 in 2021-22. The largest contributor to the increase is changes in health insurance premiums estimated at 2.4 percent in 2020-21 and 6.7 percent in 2021-22. Retirement charges are expected to increase which accounts for $373,930 in 2020-21, as well as, the Cardinal Human Capital Management (HCM) Systems which is estimated at $447,753 in 2021-22. The Cardinal HCM charges should be mitigated given the University’s decision to manage payroll operations internally. Other nominal increases are expected to cover changes in workers compensation, system charges, and the distribution of other centrally funded items.
• **Technical Adjustment – Auxiliary Enterprises:** The proposed adjustment provides additional nongeneral fund appropriation authority of $5,587,975 in 2020-21 to Auxiliary Enterprises as necessitated by current operating levels.

**Capital Items:**

• **Construct the Center for Adaptive Innovation and Creativity (CAIC):** The Governor’s proposed budget includes full funding for the Center for Adaptive Innovation and Creativity consisting of $4 million of previously approved design costs and $97.8 million for construction. This new facility will replace two 50-year old structures, Porterfield and McGuffey Halls, with a 178,000 square-foot state-of-the-art facility offering instruction, laboratory, maker, studio, computer, and collaborative spaces that integrate the arts and the sciences and facilitate dynamic ways of teaching and research.

• **Renovation of Tyler and Norwood Halls:** The Governor’s proposed budget also includes approval to use $17 million of institutional resources to renovate Norwood and Tyler residence halls beginning 2020-21. This project will renovate a combined 102,100 square feet of residence space with renovated rooms, new finishes, improved systems, and include the addition of air conditioning to all rooms. The renovated rooms will be done in a manner to make them more appealing to students – less sharing of bathroom space, provisions for some apartment style accommodations, and improved student study and gathering areas.

The final outcome of the 2020-22 Executive Budget will not be known until the completion of the General Assembly session during the spring of 2020. The General Assembly convened on January 8, 2020, and has begun the process of considering the Governor’s budget proposals. Updates will be provided throughout the session as additional information is known.

**Action:**
None. Information item only.
## Operating Budget

### University Division

#### Educational and General (E&G)

<table>
<thead>
<tr>
<th>Description</th>
<th>2020-21</th>
<th>2021-22</th>
<th>2020-22 Biennium Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Insurance</td>
<td>$173,169</td>
<td>$167,300</td>
<td>$340,469</td>
</tr>
<tr>
<td>Retirement</td>
<td>191,185</td>
<td>182,745</td>
<td>373,930</td>
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<tr>
<td>Other Post Employment</td>
<td>(1,422)</td>
<td>(958)</td>
<td>(2,380)</td>
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<td>Workers Compensation</td>
<td>590</td>
<td>1,060</td>
<td>1,650</td>
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<tr>
<td>Line of Duty Act Premium</td>
<td>47</td>
<td>29</td>
<td>76</td>
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<tr>
<td>Cardinal Fin'l System Charges</td>
<td>(8,013)</td>
<td>(14,193)</td>
<td>(22,206)</td>
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<tr>
<td>IT Infrastructure Services (VITA)</td>
<td>2,367</td>
<td>3,012</td>
<td>5,379</td>
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<tr>
<td>Personnel Management Info System</td>
<td>(4,457)</td>
<td>(3,267)</td>
<td>(7,724)</td>
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<tr>
<td>Performance Budgeting System</td>
<td>(214)</td>
<td>282</td>
<td>69</td>
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<tr>
<td>Cardinal HCM System</td>
<td>8,975</td>
<td>5,738</td>
<td>-</td>
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<tr>
<td>General Liability Premium</td>
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<td>5,738</td>
<td>14,713</td>
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### Subtotal E&G Base Adjustments

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</thead>
<tbody>
<tr>
<td>$362,227</td>
<td>$341,748</td>
<td>$703,975</td>
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#### Student Financial Aid (SFA)

<table>
<thead>
<tr>
<th>Description</th>
<th>2020-21</th>
<th>2021-22</th>
<th>2020-22 Biennium Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate SFA</td>
<td>1,269,200</td>
<td>1,269,200</td>
<td>2,538,400</td>
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</table>

### Subtotal SFA

<table>
<thead>
<tr>
<th>2020-21</th>
<th>2021-22</th>
<th>2020-22 Biennium Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,269,200</td>
<td>$0</td>
<td>$1,269,200</td>
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</table>

#### Auxiliary Enterprises

<table>
<thead>
<tr>
<th>Description</th>
<th>2020-21</th>
<th>2021-22</th>
<th>2020-22 Biennium Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Adjustment - Appropriation Increase</td>
<td>5,587,975</td>
<td>5,587,975</td>
<td>5,587,975</td>
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</table>

### Subtotal Auxiliary

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<thead>
<tr>
<th>2020-21</th>
<th>2021-22</th>
<th>2020-22 Biennium Budget</th>
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</thead>
<tbody>
<tr>
<td>$0</td>
<td>$5,587,975</td>
<td>$5,587,975</td>
</tr>
</tbody>
</table>

#### Subtotal University Division

<table>
<thead>
<tr>
<th>2020-21</th>
<th>2021-22</th>
<th>2020-22 Biennium Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,631,427</td>
<td>$5,929,723</td>
<td>$7,561,150</td>
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</tbody>
</table>

#### Capital Budget

<table>
<thead>
<tr>
<th>Description</th>
<th>2020-21</th>
<th>2021-22</th>
<th>2020-22 Biennium Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tyler/Nonwood Renovation</td>
<td>17,000,000</td>
<td>17,000,000</td>
<td>17,000,000</td>
</tr>
<tr>
<td>Center for Adaptive Innovation &amp; Creativity</td>
<td>101,800,000</td>
<td>101,800,000</td>
<td>101,800,000</td>
</tr>
</tbody>
</table>

### Total Capital Support

<table>
<thead>
<tr>
<th>2020-21</th>
<th>2021-22</th>
<th>2020-22 Biennium Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>$101,800,000</td>
<td>$17,000,000</td>
<td>$118,800,000</td>
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### Total Operating & Capital Support

<table>
<thead>
<tr>
<th>2020-21</th>
<th>2021-22</th>
</tr>
</thead>
<tbody>
<tr>
<td>$103,431,427</td>
<td>$22,929,723</td>
</tr>
</tbody>
</table>
### Preliminary Summary of Major Items in the Governor’s Introduced Budget Amendments for Higher Education in the 2020-22 Biennium (General Fund)

<table>
<thead>
<tr>
<th>Item</th>
<th>2020-22 Budget for Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(A) Base Operation and Student Financial Aid</strong></td>
<td></td>
</tr>
<tr>
<td>Increase undergraduate financial aid</td>
<td>$45.4 million in additional need based financial aid.</td>
</tr>
</tbody>
</table>
| Funding for G3 Program | $72.5 million per year.  
**Eligibility:**  
- Family income at or under 400% FPL.  
- Enrollment (6 or more credits per semester) in program approved by Chief Workforce Advisor.  
- Completion of FAFSA.  
- Agreement to complete work experience, community service, or public service at a rate of 2 hours per enrolled credit hour by the end of the academic term.  
- **Students must demonstrate progress towards degree completion in 3 years, and will lose eligibility if they complete over 150 percent of the credits needed for a degree.**  
**Funding:**  
- Last-dollar cost of tuition, mandatory fees, and textbooks for eligible students.  
- Student Support Incentive Grant (SSIG) for full-time, full Pell students:  
  - $1,000 per semester.  
  - $500 for summer term.  
- Performance payment to colleges:  
  - $500 maximum per student receiving SSIG who completes 30 credit hours.  
  - $400 maximum (additional) per student receiving SSIG who earns associate degree. |
| Higher Education Incentive Funds | Maintains the interest earnings and credit card rebate amount based on 2018 calculations from DOA (same funding as presently provided in FY2020). |
| HEETF | Allocation is the same as FY2020. |
| Central Fund adjustments |  
- Adjusts funding for increases in health insurance premium costs (Item 477, Paragraph G.1.).  
- Adjust funding for the costs of UVA health insurance plan (Item 477, Paragraph T, $960,000 GF).  
- Adjusts funding for decreases in VITA costs (Item 478, Paragraph C). |
- Adjusts funding for increases in Line of Duty Act premiums (Item 477, Paragraph Q.3.).
- Adjusts funding for state employee retirement costs based on the full contribution rates certified by the Virginia Retirement System Board based on the June 30, 2019, Virginia Retirement System valuation for 2021 and 2022 (Item 477, Paragraph H.4.).
- Adjusts funding for the workers' compensation premiums based on the latest actuarial report (Item 477, Paragraph R).
- Adjust funding for changes in Performance Budgeting System charges (Item 478, Paragraph H).
- Adjusts funding for state workers compensation premiums (Item 477, Paragraph R).
- Adjusts funding for changes in Cardinal Financial System charges (Item 478, Paragraph F).
- Adjust funding for the Personnel Management Information System (PMIS) internal service fund (Item 478, Paragraph I).
- Adjust funding to agencies for information technology auditors and security officers (Item 478, Paragraph E).

### Minimum Wage

<table>
<thead>
<tr>
<th>Minimum Wage</th>
<th>Potential minimum wage contingencies.</th>
</tr>
</thead>
</table>

### Tech Talent

- $30.4 million to provide additional funding for Tech Talent Investment Program.

#### (B) Institution-Specific Operating Budget

<table>
<thead>
<tr>
<th>Institution</th>
<th>Funding Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GMU</strong></td>
<td>$22.0 million to provide funding to account for enrollment growth and student success.</td>
</tr>
<tr>
<td><strong>Longwood</strong></td>
<td>$0.3 million to support development of early childhood teachers.</td>
</tr>
</tbody>
</table>
| **NSU** | $9.8 million for Student Support Initiatives.  
| | $5.5 million in IT support. |
| **ODU** | $22.0 million to provide funding to account for enrollment growth and student success.  
| | $0.5 million to provide funding to support Virginia Symphony Orchestra minority fellowship program |
| **UVA** | $2.0 million to support the Foundation for the Humanities.  
| | $2.0 million to support the Focused Ultrasound research program. |
| **VCU** | $15.0 million to provide additional funding for the Massey Cancer Center. |
| **VSU** | $10.8 million for Student Support Initiatives.  
| | $1.8 million in IT support.  
| | $3.0 million to fully fund state match for land grant institution federal funds (Extension). |
| **VIMS** | $0.5 million for fisheries survey. |
SCHEV Budget

- $8 million additional funding per year for New Economy Workforce Credential Grant program.
- $6.0 million additional funding for TAG Grant (increase award from $3,400 to $4,000)
- $1.5 million to increase funding for Virginia Military Survivors and Dependent Education Program.

Language Adjustments

- Updates membership of the 4-VA initiative.
- Exempts UVA-Wise from recovering indirect costs from auxiliary operations to E&G.
- Freeze on Level II performance measure standard.
- Removes requirement for VCCS to pay for site work costs of new capital projects, but not for new campuses.

State Supported Capital Projects

<table>
<thead>
<tr>
<th>Agency Code</th>
<th>Agency</th>
<th>Project</th>
<th>Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>204</td>
<td>The College of William and Mary</td>
<td>Repair Sanitary Sewer Lines</td>
<td>Full Funding</td>
</tr>
<tr>
<td>204</td>
<td>The College of William and Mary</td>
<td>Replace: Swem Library Windows</td>
<td>Full Funding</td>
</tr>
<tr>
<td>204</td>
<td>The College of William and Mary</td>
<td>Construct Fine and Performing Arts Facility</td>
<td>Supplement</td>
</tr>
<tr>
<td>207</td>
<td>University of Virginia</td>
<td>Renew Physics Building</td>
<td>Full Funding</td>
</tr>
<tr>
<td>208</td>
<td>Virginia Polytechnic Institute and State University</td>
<td>Renovate Holden Hall</td>
<td>Equipment</td>
</tr>
<tr>
<td>208</td>
<td>Virginia Polytechnic Institute and State University</td>
<td>Fralin Biomedical Research Institute</td>
<td>Equipment</td>
</tr>
<tr>
<td>208</td>
<td>Virginia Polytechnic Institute and State University</td>
<td>Address Life, Health, Safety, Accessibility and Code Compliance</td>
<td>Full Funding</td>
</tr>
<tr>
<td>211</td>
<td>Virginia Military Institute</td>
<td>Renovate and Expand Engineering and Laboratory Facilities</td>
<td>Full Funding</td>
</tr>
<tr>
<td>211</td>
<td>Virginia Military Institute</td>
<td>Improvements to Post Wide Safety and Security Phase 1</td>
<td>Full Funding</td>
</tr>
<tr>
<td>212</td>
<td>Virginia State University</td>
<td>Construct Admissions Building</td>
<td>Full Funding</td>
</tr>
<tr>
<td>212</td>
<td>Virginia State University</td>
<td>Waterproof Campus Buildings</td>
<td>Full Funding</td>
</tr>
<tr>
<td>212</td>
<td>Virginia State University</td>
<td>Improve and Replace Technology Infrastructure</td>
<td>Full Funding</td>
</tr>
<tr>
<td>212</td>
<td>Virginia State University</td>
<td>Improve Infrastructure for Campus Safety, Security, Energy Reduction and System Reliability</td>
<td>Full Funding</td>
</tr>
<tr>
<td>212</td>
<td>Virginia State University</td>
<td>Demolish / Replace Daniel Gym and Demolish Harris Hall</td>
<td>Full Funding</td>
</tr>
<tr>
<td>213</td>
<td>Norfolk State University</td>
<td>Replace Physical Plant Building</td>
<td>Full Funding</td>
</tr>
<tr>
<td>213</td>
<td>Norfolk State University</td>
<td>Construct New Science Building</td>
<td>Full Funding</td>
</tr>
<tr>
<td>214</td>
<td>Longwood University</td>
<td>Renovate / Expand Environmental Health &amp; Safety and Facilities Annex Building</td>
<td>Full Funding</td>
</tr>
<tr>
<td>215</td>
<td>University of Mary Washington</td>
<td>Construct Fine and Performing Arts Center</td>
<td>Detailed Planning</td>
</tr>
<tr>
<td>215</td>
<td>University of Mary Washington</td>
<td>Renovate Seacobeck Hall (supplement)</td>
<td>Supplement</td>
</tr>
<tr>
<td>216</td>
<td>James Madison University</td>
<td>Renovate and Expand Carrier Library</td>
<td>Detailed Planning (NGF)</td>
</tr>
<tr>
<td>216</td>
<td>James Madison University</td>
<td>Renovate Jackson Hall - FF&amp;E</td>
<td>Equipment</td>
</tr>
<tr>
<td>217</td>
<td>Radford University</td>
<td>Renovate/Construct Center for Adaptive Innovation and Creativity</td>
<td>Full Funding</td>
</tr>
<tr>
<td>221</td>
<td>Old Dominion University</td>
<td>Construct a New Biology Building</td>
<td>Detailed Planning (NGF)</td>
</tr>
<tr>
<td>221</td>
<td>Old Dominion University</td>
<td>Campus Wide Stormwater Improvements</td>
<td>Full Funding</td>
</tr>
<tr>
<td>221</td>
<td>Old Dominion University</td>
<td>Construct a New Health Sciences Building, Phase I</td>
<td>Full Funding</td>
</tr>
</tbody>
</table>
### State Supported Capital Projects

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Agency</th>
<th>Recommended Funds</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construct Livestock and Poultry Research Facilities - Phase I</td>
<td>VT Virginia Cooperative Extension</td>
<td>Equipment</td>
<td></td>
</tr>
<tr>
<td>and Agricultural Experiment Station</td>
<td>and Agricultural Experiment Station</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improve System-wide Agriculture Research and Extension Centers</td>
<td>VSU Cooperative Extension and</td>
<td>Full Funding</td>
<td></td>
</tr>
<tr>
<td>Agricultural Research Services</td>
<td>Agricultural Research Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Renovate Summerseat for Urban Agriculture Center</td>
<td>Virginia Commonwealth University</td>
<td>Detailed Planning</td>
<td>(NGF)</td>
</tr>
<tr>
<td>Construct Interdisciplinary Classroom and Laboratory Building</td>
<td></td>
<td>Pre-Planning</td>
<td>(NGF)</td>
</tr>
<tr>
<td>Center for Innovation &amp; Education Development</td>
<td>Richard Bland College</td>
<td>Full Funding</td>
<td></td>
</tr>
<tr>
<td>Integrated Science Center, Phase III</td>
<td>Christopher Newport University</td>
<td>Detailed Planning</td>
<td>(NGF)</td>
</tr>
<tr>
<td>Construct and Renovate Fine Arts and Rehearsal Space</td>
<td>Christopher Newport University</td>
<td>Equipment</td>
<td></td>
</tr>
<tr>
<td>Improvements - Infrastructure Repairs</td>
<td>Christopher Newport University</td>
<td>Full Funding</td>
<td></td>
</tr>
<tr>
<td>Renovate Wythe Library</td>
<td>University of Virginia’s College at</td>
<td>Full Funding</td>
<td></td>
</tr>
<tr>
<td>Mason University</td>
<td>Mason University</td>
<td></td>
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<td>Mason University</td>
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</tr>
<tr>
<td>Mason University</td>
<td>Mason University</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construct Advanced CTE and Workforce Center, Norfolk prototype, Tidewater CC</td>
<td>Virginia Community College System</td>
<td>Detailed Planning</td>
<td>(NGF)</td>
</tr>
<tr>
<td>Re-roof and Replace HVAC - Multiple Buildings - Statewide</td>
<td>Virginia Community College System</td>
<td>Full Funding</td>
<td></td>
</tr>
<tr>
<td>Renovate Amherst &amp; Campbell Halls, Central Virginia CC</td>
<td>Virginia Community College System</td>
<td>Full Funding</td>
<td></td>
</tr>
<tr>
<td>Renovate Godwin (CG) Academic Building, Annadale Campus, Northern Virginia CC</td>
<td>Virginia Community College System</td>
<td>Full Funding</td>
<td></td>
</tr>
<tr>
<td>Replace Diggs-Harrison-Moore Halls, Hampton Campus, Thomas Nelson CC</td>
<td>Virginia Community College System</td>
<td>Full Funding</td>
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<tr>
<td>Replace French Slaughter Building, Locust Grove Campus, Germanna CC</td>
<td>Virginia Community College System</td>
<td>Full Funding</td>
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<tr>
<td>Construct Advanced Technology Training Center, Piedmont Virginia CC (includes solar)</td>
<td>Virginia Community College System</td>
<td>Full Funding</td>
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<tr>
<td>LCCC - Construct Academic Building - Fauquier Campus - Supplemental Funding</td>
<td>Virginia Community College System</td>
<td>Full Funding</td>
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<tr>
<td>Virginia Institute of Marine Science</td>
<td>Virginia Institute of Marine Science</td>
<td>Detailed Planning</td>
<td>(Excl.</td>
</tr>
<tr>
<td>Research equipment for marine vessel</td>
<td>Virginia Institute of Marine Science</td>
<td>Equipment</td>
<td>9C/9D</td>
</tr>
<tr>
<td>Construct Marine Operations Administration Complex</td>
<td>Virginia Institute of Marine Science</td>
<td>Full Funding</td>
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</tr>
</tbody>
</table>

### Other Capital Projects

<table>
<thead>
<tr>
<th>Agency Code</th>
<th>Agency Description</th>
<th>Recommended Funds</th>
<th>Other NGF Recommended (Excl. 9C/9D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>204</td>
<td>The College of William and Mary</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>204</td>
<td>The College of William and Mary</td>
<td>55,000,000</td>
<td></td>
</tr>
<tr>
<td>207</td>
<td>The University of Virginia</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>207</td>
<td>Renew Alderman Library (Caboose)</td>
<td>13,695,000</td>
<td></td>
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<tr>
<td>208</td>
<td>Virginia Polytechnic Institute and State University</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>208</td>
<td>Construct Innovation Campus</td>
<td>107,000,000</td>
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<tr>
<td>208</td>
<td>Virginia Polytechnic Institute and State University</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>208</td>
<td>Construct New Upper Quad Residence Hall</td>
<td>83,000,000</td>
<td></td>
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<tr>
<td>208</td>
<td>Virginia Polytechnic Institute and State University</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>208</td>
<td>Acquire Falls Church Property</td>
<td>11,080,000</td>
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</tr>
<tr>
<td>208</td>
<td>Virginia Polytechnic Institute and State University</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>208</td>
<td>Construct Global Business and Analytics Complex Residence Halls</td>
<td>84,000,000</td>
<td>20,650,000</td>
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<tr>
<td>208</td>
<td>Virginia Polytechnic Institute and State University</td>
<td>-</td>
<td>-</td>
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<tr>
<td>208</td>
<td>Construct Corps Leadership and Military Science Building</td>
<td>31,350,000</td>
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<td>208</td>
<td>Virginia Polytechnic Institute and State University</td>
<td>-</td>
<td>-</td>
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<tr>
<td>208</td>
<td>Construct Creativity and Innovation District Living Learning Community</td>
<td>89,620,000</td>
<td>15,880,000</td>
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<tr>
<td>208</td>
<td>Virginia Polytechnic Institute and State University</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>208</td>
<td>Construct Data and Decision Science Building</td>
<td>10,000,000</td>
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<tr>
<td>211</td>
<td>Virginia Military Institute</td>
<td>-</td>
<td>-</td>
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<tr>
<td>211</td>
<td>Renovate 408 Parade</td>
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<td>2,000,000</td>
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<tr>
<td>215</td>
<td>University of Mary Washington</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>215</td>
<td>Athletic Field Replacements and Improvements</td>
<td>-</td>
<td>5,512,000</td>
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<td>216</td>
<td>James Madison University</td>
<td>-</td>
<td>-</td>
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<td>216</td>
<td>Convocation Center Renovation/Expansion</td>
<td>20,000,000</td>
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</tr>
<tr>
<td>216</td>
<td>James Madison University</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>216</td>
<td>Renovate Spotwood Hall</td>
<td>49,000,000</td>
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<tr>
<td>217</td>
<td>James Madison University</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>217</td>
<td>Warren Hall Expansion</td>
<td>49,997,854</td>
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<tr>
<td>217</td>
<td>Radford University</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>217</td>
<td>Renovate Norwood and Tyler Residence Halls</td>
<td>12,000,000</td>
<td>5,000,000</td>
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<tr>
<td>242</td>
<td>Christopher Newport University</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>242</td>
<td>Improvements: Auxiliary Infrastructure Repairs</td>
<td>2,789,000</td>
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</tr>
</tbody>
</table>
## Maintenance Reserve Allocation

<table>
<thead>
<tr>
<th>Agency Code</th>
<th>Agency</th>
<th>FY2021</th>
<th>FY2022</th>
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<tbody>
<tr>
<td>204</td>
<td>The College of William and Mary</td>
<td>$3,707,638</td>
<td>$3,707,638</td>
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<tr>
<td>207</td>
<td>University of Virginia</td>
<td>$13,060,405</td>
<td>$13,060,405</td>
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<tr>
<td>208</td>
<td>Virginia Polytechnic Institute and State University</td>
<td>$13,725,568</td>
<td>$13,725,568</td>
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<tr>
<td>211</td>
<td>Virginia Military Institute</td>
<td>$1,733,844</td>
<td>$1,733,844</td>
</tr>
<tr>
<td>212</td>
<td>Virginia State University</td>
<td>$3,811,227</td>
<td>$3,811,227</td>
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<tr>
<td>213</td>
<td>Norfolk State University</td>
<td>$4,164,086</td>
<td>$4,164,086</td>
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<tr>
<td>214</td>
<td>Longwood University</td>
<td>$1,899,815</td>
<td>$1,899,815</td>
</tr>
<tr>
<td>215</td>
<td>University of Mary Washington</td>
<td>$1,671,520</td>
<td>$1,671,520</td>
</tr>
<tr>
<td>216</td>
<td>James Madison University</td>
<td>$5,012,314</td>
<td>$5,012,314</td>
</tr>
<tr>
<td>217</td>
<td>Radford University</td>
<td>$2,238,123</td>
<td>$2,238,123</td>
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<tr>
<td>221</td>
<td>Old Dominion University</td>
<td>$3,670,222</td>
<td>$3,670,222</td>
</tr>
<tr>
<td>236</td>
<td>Virginia Commonwealth University</td>
<td>$7,152,137</td>
<td>$7,152,137</td>
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<tr>
<td>241</td>
<td>Richard Bland College</td>
<td>$521,507</td>
<td>$521,507</td>
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<tr>
<td>242</td>
<td>Christopher Newport University</td>
<td>$1,027,186</td>
<td>$1,027,186</td>
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<tr>
<td>246</td>
<td>University of Virginia's College at Wise</td>
<td>$781,393</td>
<td>$781,393</td>
</tr>
<tr>
<td>247</td>
<td>George Mason University</td>
<td>$5,902,972</td>
<td>$5,902,972</td>
</tr>
<tr>
<td>260</td>
<td>Virginia Community College System</td>
<td>$13,305,162</td>
<td>$13,305,162</td>
</tr>
<tr>
<td>268</td>
<td>Virginia Institute of Marine Science</td>
<td>$811,261</td>
<td>$811,261</td>
</tr>
<tr>
<td>274</td>
<td>Eastern Virginia Medical School</td>
<td>$322,485</td>
<td>$322,485</td>
</tr>
</tbody>
</table>
Debt Management Compliance
Debt Management Policy

• Outlines the University's philosophy on debt and ensures that existing and proposed debt issues are strategically managed consistent with financial resources in order to maintain a strong financial profile.

• The University utilizes a long-term strategic plan to establish institutional priorities and objectives, and incorporates the issuance of debt into its strategic plan to fund critical capital initiatives.

• Analyzing debt affordability is used to assist the University in determining the level of debt to be used as a financial resource for its capital program.
Debt Burden Ratio

- Ratio measures the University’s debt service burden as a percentage of total operating expenses and identifies the maximum amount of debt that the University may have outstanding at any given time.

- The University debt burden ratio should not exceed seven (7) percent with the exception of instances where the debt obligations of revenue-producing capital projects are secured by income associated with the project. The target for this ratio is intended to maintain the University’s long-term flexibility to finance existing requirements and new initiatives.

\[
\text{Annual Debt Service:} \quad \frac{5,806,579}{247,581,113} \quad 2.35\%
\]

\[
\text{Total Operating Expenses:} \quad \frac{5,806,579}{247,581,113} \quad 2.35\%
\]
Debt Burden Ratio Trend

10-Year Trend Analysis

Page 47 of 219
Radford University Board of Visitors
Business Affairs and Audit Committee
February 13, 2020

Action Item
Compliance with Debt Management Policy

Item:
Adoption of a Resolution certifying that Radford University is in compliance with its Debt Management Policy. In addition, this certification is required annually by the Secretary of Finance for the Commonwealth of Virginia as part of Institutional Performance reporting.

Background:
The 2005 Session of the General Assembly adopted, and the Governor signed, legislation that provides Radford University and all other public colleges and universities in the Commonwealth the opportunity to attain certain authority and autonomy to manage its academic and administrative affairs more efficiently and effectively through implementation of the Restructured Higher Education Financial and Administrative Operations Act. At its meeting on June 30, 2005, the Radford University Board of Visitors approved a Resolution of Commitment allowing the University to exercise restructured financial and operational authority as identified in the Restructuring Act.

The 2015 Virginia Acts of Assembly, Chapter 665 includes a requirement in the General Provisions related to Higher Education Restructuring. §4-9.01 requires, in part, that: “Consistent with §23-9.6:1.01 [recodified as §23.1-206], Code of Virginia, the following education-related and financial and administrative management measures shall be the basis on which the State Council of Higher Education shall annually assess and certify institutional performance. Such certification shall be completed and forwarded in writing to the Governor and the General Assembly no later than October 1 of each even-numbered year. Institutional performance on measures set forth in paragraph D of this section shall be evaluated year-to-date by the Secretaries of Finance, Administration, and Technology as appropriate, and communicated to the State Council of Higher Education before October 1 of each even-numbered year. Financial benefits provided to each institution in accordance with § 2.2-5005 will be evaluated in light of that institution’s performance.”

The Secretary of Finance collects information to fulfill the reporting requirements as they relate to paragraph D-Financial and Administrative Standards, specifically §4-9.01 d.2. which states: “Institution complies with a debt management policy approved by its governing board that defines the maximum percent of institutional resources that can be used to pay debt service in a fiscal year, and the maximum amount of debt that can be prudently issued within a specified period.” To assess this measure, the Secretary of Finance is seeking a statement from the Board of Visitors certifying Radford University’s compliance with said policy and the effective date of that policy.
Schedule A below provides the required ratio calculation and demonstrates the University is in compliance with its Debt Management Policy. Currently, as disclosed in the 2019 unaudited annual financial statements, the University’s debt obligations including affiliated foundation total $102,048,642 which is mainly attributable to the Student Recreation and Wellness Center, Renovations of four Residence Hall projects, and the affiliated foundation property acquisition.

Schedule A

**RADFORD UNIVERSITY**
**DEBT MANAGEMENT POLICY RATIO**

The calculation reflects June 30, 2019 unaudited Financial Statements for Total Operating Expenses (as defined in the University’s Debt Management Policy); however, Annual Debt Service reflects expected payments as of June 30, 2020.

<table>
<thead>
<tr>
<th>Board Approved Ratios</th>
<th>Range</th>
<th>Formula</th>
<th>Unaudited Financial Statements as of 6/30/2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt Burden Ratio</td>
<td>&lt; 7%</td>
<td>Annual Debt Service*&lt;br&gt;Total Operating Expenses*</td>
<td>$5,806,579&lt;br&gt;$247,581,113</td>
</tr>
</tbody>
</table>

* Ratio includes Radford University Foundation

The Debt Management Policy also identifies that an annual report shall be prepared for review by the Board of Visitors. The notes to the annual financial statements provide the required elements to comply with the Debt Management Policy. Below are the Financial Statement Notes related to outstanding obligations that were prepared for the year ending June 30, 2019 (unaudited):

**NOTE 6: Long-Term Debt**

**Notes Payable—Pooled Bonds**

The University issued 9(d) bonds by participating in the Public Higher Education Financing Program (Pooled Bond Program) created by the Virginia General Assembly in 1996. Through the Pooled Bond Program, the Virginia College Building Authority (VCBA) issues 9(d) bonds and uses the proceeds to purchase debt obligations (notes) of the University and various other institutions of higher education. The University’s general revenue secures these notes. The composition of notes payable at June 30, 2019, is summarized as follows:
Bonds Payable—9c

The University has issued bonds pursuant to section 9(c) of Article X of the Constitution of Virginia. Section 9(c) bonds are general obligation bonds issued by the Commonwealth of Virginia on behalf of the University. They are secured by the net revenues of the completed project and the full faith, credit and taxing power of the Commonwealth of Virginia.

The composition of bonds payable at June 30, 2019, is summarized as follows:

<table>
<thead>
<tr>
<th>Bonds Payable - 9c:</th>
<th>Interest Rates at Issuance</th>
<th>Maturity at Issuance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renovation of Washington Hall (residence hall)</td>
<td>2.00% - 5.00%</td>
<td>June 1, 2033</td>
</tr>
<tr>
<td>Series 2013A, $5.040 million par amount</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Renovation of Pocahontas, Bolling, Draper (residence halls)</td>
<td>2.00% - 5.00%</td>
<td>June 1, 2034</td>
</tr>
<tr>
<td>Series 2014A, $11.080 million par amount</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Series 2015A, $8.820 million par amount</td>
<td>2.00% - 5.00%</td>
<td>June 1, 2035</td>
</tr>
<tr>
<td>Series 2016A, $7.160 million par amount</td>
<td>3.00% - 5.00%</td>
<td>June 1, 2036</td>
</tr>
</tbody>
</table>

Installment Purchase Obligations

The University completed obligations under an installment purchase agreement initiated in January 2009 during FY19. The capitalized value of the asset purchased under this installment purchase agreement is $114,460 and the repayment term is 10 years at an interest rate of 2.087 percent. The last payment was made in FY19 so the balance is now $0.
A summary of changes in long-term debt for the year ending June 30, 2019, is presented as follows:

<table>
<thead>
<tr>
<th>Governmental activities:</th>
<th>Beginning Balance</th>
<th>Additions</th>
<th>Reductions</th>
<th>Ending Balance</th>
<th>Current Portion</th>
<th>Noncurrent Portion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes payable – pooled bonds</td>
<td>$21,145,688</td>
<td>$ -</td>
<td>$1,141,274</td>
<td>$20,004,414</td>
<td>$1,030,000</td>
<td>$18,974,414</td>
</tr>
<tr>
<td>Bonds payable - 9c</td>
<td>31,235,617</td>
<td>-</td>
<td>1,364,684</td>
<td>29,870,933</td>
<td>1,260,000</td>
<td>28,610,933</td>
</tr>
<tr>
<td>Installment purchase obligations</td>
<td>12,566</td>
<td>-</td>
<td>12,566</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*Total long-term debt</td>
<td>$52,393,871</td>
<td>$ -</td>
<td>$2,518,524</td>
<td>$49,875,347</td>
<td>$2,290,000</td>
<td>$47,585,347</td>
</tr>
</tbody>
</table>

*No amounts considered direct borrowings or direct placements.

Future principal and interest payments on long-term debt are as follows:

<table>
<thead>
<tr>
<th>Fiscal Year Ending</th>
<th>Governmental Activities</th>
<th>Notes Payable Pooled Bonds</th>
<th>Bonds Payable - 9c</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Principal</td>
<td>Interest</td>
</tr>
<tr>
<td>30-Jun-20</td>
<td></td>
<td>1,030,000</td>
<td>698,006</td>
</tr>
<tr>
<td>30-Jun-21</td>
<td></td>
<td>1,085,000</td>
<td>650,181</td>
</tr>
<tr>
<td>30-Jun-22</td>
<td></td>
<td>1,135,000</td>
<td>596,731</td>
</tr>
<tr>
<td>30-Jun-23</td>
<td></td>
<td>1,190,000</td>
<td>539,681</td>
</tr>
<tr>
<td>30-Jun-24</td>
<td></td>
<td>1,250,000</td>
<td>482,006</td>
</tr>
<tr>
<td>2025-2029</td>
<td></td>
<td>6,965,000</td>
<td>1,679,434</td>
</tr>
<tr>
<td>2030-2034</td>
<td></td>
<td>5,705,000</td>
<td>405,325</td>
</tr>
<tr>
<td>2035-2036</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Unamortized Premium</td>
<td></td>
<td>1,644,415</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>$20,004,415</td>
<td>$5,051,364</td>
</tr>
</tbody>
</table>
Long-Term Debt Defeasance

During fiscal year 2017, the Commonwealth of Virginia, on behalf of the University, issued pooled bonds Series 2016A for $2,285,000 with interest rates of 3.0 to 5.0% to advance refund $2,305,000 of Series 2009B pooled bonds. The bonds, issued at a premium of $470,852, are used to provide funds for debt service savings for the Commonwealth. The net proceeds were deposited in an irrevocable trust with an escrow agent to provide for future debt service payments on the refunded bonds.

The advanced refunding resulted in a deferred accounting loss of $296,927 for the University, which is being amortized to interest expense over the life of the new debt. At June 30, 2019, $229,273 of the unamortized deferred loss is reported on the Statement of Net Position as a deferred outflow of resources. The defeasance will reduce the University’s total debt service obligation by $184,341 over 13 years. The debt service savings discounted at a rate of 1.849% results in an economic gain of $167,810.

For financial reporting purposes, these notes payables are considered an in-substance defeasance and have therefore been removed from the long-term debt payable line item of the Statement of Net Position. On June 30, 2019, $2,305,000 from Series 2009B 9(d) VCBA pooled bonds was considered defeased and outstanding.

NOTE 19E: Component Unit Financial Information

The following is a summary of the outstanding notes payable at June 30, 2019:

- Note payable in monthly installments calculated on a 10-year amortization with a balloon payment of remaining amount in May 2020, interest payable at LIBOR plus 1.48 percent (3.91% and 3.585% at June 30, 2019 and 2018, respectively). Unsecured. $333,792

- Note payable in monthly installments of $2,601 through November 2020, interest payable at 1.54%. Secured by deposit accounts maintained by and investment property held with the institution. 43,520

- Notes payable in monthly installments calculated on a 25-year amortization with a balloon payment of remaining amount in May 2021, with Interest payable at LIBOR plus 0.82 (3.22% and 2.91% at June 30, 2019 and 18, respectively). Secured by real estate and deposit accounts maintained by and investment property held with the institution. Additionally, secured by an assignment of leases and rents. 397,911

- Notes payable in monthly installments calculated on a 25-year amortization with a balloon payment of 446,379
remaining amount in May 2023, with Interest payable at LIBOR plus 0.82 (3.22% and 2.91% at June 30, 2019 and 2018 respectively). Secured by real estate and deposit accounts maintained by and investment property held with the institution. Additionally, secured by an assignment of leases and rents.

Notes payable in monthly Interest only payments through April 2020, then monthly Installments calculated on a 23-year amortization with a balloon payment of the remaining amount In April 2025. Interest payable at LIBOR plus 0.82 (3.26% and 2.91% at June 30, 2019 and 2018, respectively). Secured by real estate and deposit accounts maintained by and investment property held with the institution. Additionally, secured by an assignment of leases and rents.

Notes payable in monthly Interest only payments through April 2020, then monthly installments calculated on a 23-year amortization with a balloon payment of remaining amount In April 2025. Interest payable at 4.20%. Secured by real estate and deposit accounts maintained by and investment property held with the institution. Additionally, secured by an assignment of leases and rents.

Notes payable in monthly installments on a 15-year amortization with a balloon payment of remaining amount in June 2024, Interest payable at 3.72%. Secured by real estate and deposit accounts maintained by and investment property held with the institution. Additionally, secured by an assignment of leases and rents. Secured by real estate and assignment of leases and rent.

| Total long-term debt | $33,931,602 |

Future principal payments on notes payable for years ending June 30 are as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>$569,660</td>
</tr>
<tr>
<td>2021</td>
<td>1,449,703</td>
</tr>
<tr>
<td>2022</td>
<td>1,087,670</td>
</tr>
<tr>
<td>2023</td>
<td>1,500,434</td>
</tr>
<tr>
<td>2024 and thereafter</td>
<td>29,324,135</td>
</tr>
<tr>
<td>Total long-term debt</td>
<td>$33,931,602</td>
</tr>
</tbody>
</table>
Notes payables are subject to certain affirmative and negative covenants. Management believes the Foundation has complied with all covenants as of June 30, 2019.

**Action:**
Board of Visitors adoption of a Resolution of Compliance with the Radford University Debt Management Policy.
WHEREAS, the 2005 Session of the General Assembly adopted, and the Governor signed, legislation that provides Radford University and all other public colleges and universities in the Commonwealth the opportunity to attain certain authority and autonomy to manage its academic and administrative affairs more efficiently and effectively through implementation of the Restructured Higher Education Financial and Administrative Operations Act, and

WHEREAS, on June 30, 2005, the Radford University Board of Visitors approved a Resolution of Commitment allowing the University to exercise restructured financial and operational authority as identified in the Restructuring Act, and

WHEREAS, the Governor has established financial and management measures on which annual assessment and certification of institutional performance will be evaluated, and

WHEREAS, the financial and management measures require the Radford University Board of Visitors to approve a Debt Management Policy, and

WHEREAS, the Radford University Board of Visitors approved such Debt Management Policy at its March 30, 2007, meeting; revisions to this policy were approved by the Board of Visitors at its August 23, 2007, November 12, 2010, and February 8, 2012 meetings, and

WHEREAS, Schedule A demonstrates that the University meets the requirements outlined in the Debt Management Policy; and

WHEREAS, the Board of Visitors must annually certify Radford University’s compliance with the approved Debt Management Policy to the Secretary of Finance for the Commonwealth of Virginia;

NOW, THEREFORE, BE IT RESOLVED, this resolution approved by the Radford University Board of Visitors certifies that the University is in compliance with its Debt Management Policy.
Public-Private Education Facilities (PPEA) Guidelines
What is a Public-Private Partnership?

• Collaboration between a public agency and a private partner to deliver a public service or facility where the skills and assets of each sector are shared

• Benefits:
  • Innovative projects
  • Faster completion of projects
  • Cost savings
  • Risk sharing
• Legislative framework enabling agencies and institutions of the Commonwealth to enter into agreements authorizing private entities to develop and/or operate qualifying projects as defined in the Act

• Intended to encourage innovative partnerships

• Examples of qualifying projects (can include, but not limited to):
  • Recreational facility
  • Education facility
  • A building or facility that meets a public purpose and is developed or operated by or for any public entity
  • Technology infrastructure and services
  • Any improvements necessary or desirable to any unimproved locally or state-owned real estate
Radford University Guidelines under PPEA

• University specific PPEA guidelines are required to be approved by the Board of Visitors

• University proposed guidelines heavily follow state guidelines and those of peer institutions
PPEA Proposal Submission

• Solicited
  • Proposal includes solicitation requirements

• Unsolicited
  • Part 1: Conceptual Stage includes proposer’s qualifications, project characteristics, financing, anticipated public support/opposition, benefits and compatibility
  • Part 2: Detailed Stage includes deliverables, scope of work, and financial plan

• Generally subject to FOIA
PPEA Proposal Review Factors

- Proposed cost and design
- General reputation, industry experience and financial capacity of private entity
- Compatibility with existing and planned facilities
- Compatibility with local, regional and state economic development efforts
- Private entity’s compliance with a minority business plan or good faith effort to comply with the goals of such plans
Project Delivery Timeline Comparison

Standard Project Timeline

- RU identifies project need
- Obtain Commonwealth funding or dedicate RU funding
- Procure design and construction using DGS/DEB guidelines
- DEB performs reviews and inspections as required
- Occupy building

“Average” total duration is seven years

Public-Private Project Timeline

- RU identifies project need
- PPEA Team submits a proposal to meet the need - either solicited by RU or unsolicited, including design, construction and financial plan IAW guidelines
- Approval by the Commonwealth’s Public-Private Partnership Advisory Commission
- Negotiate Agreements with selected PPEA Team
- Complete design and construction similar to private sector
- Occupy building

“Average” total duration reduced two years
Radford University

Guidelines for Projects

Under the

Public-Private Education Facilities and Infrastructure Act of 2002, as Amended

(PPEA)
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I. INTRODUCTION

The Public-Private Education Facilities and Infrastructure Act of 2002, as amended\(^1\) (the Act, or PPEA) is the legislative framework enabling agencies of the Commonwealth of Virginia to enter into agreements authorizing private entities (sometimes referred to herein as “Private Partner” or “Contractor”) to develop and/or operate qualifying projects as defined in the Act. The guidelines and procedures presented in this document were developed pursuant to the requirements of Virginia Code § 56-575.3:1 and 56-575.16. The guidelines and procedures also guide private entities who wish to partner with Agencies in undertaking projects pursuant to the Act.

The Act grants responsible public entities, which include the University, authority to create public-private partnerships for development of a wide range of projects for public use if the public entities determine there is a need for such projects and that private involvement may provide the project in a more timely or cost-effective fashion. Development of projects that lead to productivity or efficiency improvements in the public entities’ processes or delivery of services, considering, among other things, the probable scope, complexity or priority of the project; risk sharing including guaranteed cost or completion guarantees; added value or debt or equity investments proposed by the private entity; or an increase in funding, dedicated revenue source or other economic benefit that would not otherwise be available, may also be pursued.

Virginia Code §56-575.16.2, provides, in part: “When the responsible public entity determines to proceed according to the guidelines adopted by it pursuant to this subdivision, it shall state the reasons for its determination in writing. If a state agency is the responsible public entity, the approval of the responsible Governor's Secretary, or the Governor, shall be required before the responsible public entity may enter into a comprehensive agreement pursuant to this subdivision.” Agencies may enter an interim agreement or a comprehensive agreement under the Act, if they are so advised, only after the Governor or responsible Cabinet Secretary has approved proceeding to the Detailed Stage (Part 2) of the PPEA process. With such approval, the head of the Agency, or the Agency’s Board, if applicable, may approve entering the interim and/or comprehensive agreement.

In order for a project to come under the Act, it must meet the definition of a “qualifying project.” The Act contains a broad definition of “qualifying project” that includes public buildings and facilities of all types, and certain infrastructure and services such as:

\(^1\)Va. Code §§56-575.1 through 56-575.18
(i) An education facility, including, but not limited to, a school building, any functionally-related and subordinate facility (a stadium, for example), land appurtenant to a school building, and any depreciable property provided for use in a school facility that is operated as part of the public school system or as an institution of higher education;

(ii) A building or facility that meets a public purpose and is developed or operated by or for any public entity;

(iii) Improvements, together with equipment, necessary to enhance public safety and security of buildings to be principally used by a public entity;

(iv) Utility and telecommunications and other communications infrastructure;

(v) A recreational facility;

(vi) Technology infrastructure and services, including, but not limited to, telecommunications, automated data processing, word processing and management information systems, and related information, equipment, goods and services;

(vii) Technology, equipment, or infrastructure designed to deploy wireless broadband services to schools, businesses, or residential areas; or

(viii) Any improvements necessary or desirable to any unimproved locally or state-owned real estate.

Although guidance with regard to the application of the Act is provided in this document, it is incumbent upon all entities, both public and private, to comply with the provisions of the Act and other applicable laws. In the event that the Act is amended in a manner that either conflicts with these guidelines or concerns material matters not addressed by these guidelines, then these guidelines shall be interpreted in a manner to conform to the new law.

The Act defines "responsible public entity" (RPE) to include any public entity that has the power to develop or operate the applicable qualifying project. Responsible public entities are required to adopt and make publicly available guidelines that are sufficient to enable the public entity to comply with the requirements of the Act. Accordingly, the Radford University Board of Visitors has adopted these guidelines, and the University will follow these guidelines in the review and acceptance of proposals.

II. GENERAL PROVISIONS

A. Proposal Submission

Proposals may be invited through solicitation or they may be considered when delivered by a private entity on an unsolicited basis. In either case, any such proposal shall be clearly identified as a “PPEA Proposal.” The requirements for any particular solicited proposal shall be as specified in the solicitation by the University for that proposal and shall be consistent with all applicable provisions of the Act. Any unsolicited proposal shall be submitted to the University by delivering ten copies, together with any required review fee, to the Vice President for Finance and Administration. Proposers must follow a two-part submission process consisting of an initial Conceptual Stage (Part 1) and, after approval of the conceptual
stage, a Detailed Stage (Part 2). Part 1 should contain specified information regarding the proposer’s qualifications and experience, project characteristics, project financing, anticipated public support or opposition, or both, and project benefit and compatibility. Part 2 should contain specified deliverables, namely project benefits, scope of work, and a financial plan that contains enough specificity so that the University may fairly evaluate the financial feasibility of the qualified project.

Proposals should be prepared simply and economically, providing a concise description of the proposer's capabilities to complete the proposed qualifying project and the benefits to be derived from the project. Benefits to be considered are those occurring during the construction, renovation, expansion or improvement phase and during the life cycle of the project. Proposals should include a comprehensive scope of work and a financial plan for the project that contains enough detail to allow analysis of the proposed project’s financial feasibility. The Act is a flexible development tool that allows use of innovative financing techniques. Financing options might include the use of special purpose entities, sale and lease-back transactions, enhanced use leasing, property exchanges, development agreements, conduit financing, and other methods allowed by law. However, the cost analysis of a proposal should not be linked solely to the financing plan as the University may determine to finance the project through other available means.

The Act is intended to encourage proposals from the private sector that offer the assumption of commensurate risk by the private partner through innovative approaches to project financing, development, and/or use. The University will exercise full and proper due diligence in the evaluation and selection of private entities to carry out the proposals. In this regard, the qualifications, capabilities, resources, and other attributes of a prospective private partner and its entire team will be carefully examined for every project. Private entities proposing projects shall be held strictly accountable for representations regarding their qualifications, experience, and any other content of their proposals, including all aspects of work to be performed.

B. Affected Jurisdictions

Under the Va. Code § 56-575.6, any private entity requesting approval from or submitting a proposal to the University must provide each affected jurisdiction a copy of the private entity's request or proposal. The private entity is responsible for documenting delivery of the request or proposal.

Affected jurisdictions that are not RPE’s under the proposed qualifying project shall have 60 days from the receipt of the request or proposal to submit written comments to the University, and to indicate whether the proposed qualifying project is compatible with (i) the local comprehensive plan, (ii) local infrastructure development plans, or (iii) capital improvements budget or other government spending plan. Comments received by the University within the 60-day period shall be considered in evaluating the request or proposal; however, no negative inference shall be drawn from the absence of comment by an affected jurisdiction.
In providing the request or proposal to the affected local jurisdiction, the private entity may withhold information that the University has deemed to be confidential and not subject to release under the Freedom of Information Act, in accordance with Section II.D of these Guidelines.

C. Proposal Review Fee

The University shall receive an analysis of any proposal from appropriate internal staff or outside advisors or consultants with relevant experience in determining whether to enter into an agreement with the private entity. The University may charge a fee to the private entity to cover the costs of processing, reviewing, and evaluating any unsolicited proposal or competing unsolicited proposal submitted under the Act, including a fee to cover the costs of outside attorneys, consultants, and financial advisors. Any fee charged for such review of an unsolicited proposal will be reasonable in comparison to the level of expertise required to review the proposal and will not be greater than the direct costs associated with evaluating the proposed qualifying project. “Direct costs” may include (i) the cost of staff time required to process, evaluate, review, and respond to the proposal and (ii) the out-of-pocket costs of attorneys, consultants, and financial advisors.

The proposal fee may cover all or part of the initial review process. The University may require a proposal fee in an amount sufficient to cover all anticipated direct costs associated with evaluating the proposal, or may require a smaller initial processing fee with an additional proposal fee to be charged should the project proceed beyond the initial review.

D. Freedom of Information Act

1. General applicability of disclosure provisions:

Proposal documents submitted by private entities are generally subject to the Virginia Freedom of Information Act (“FOIA”) except that § 2.2-3705.6 (11) exempts certain documents from public disclosure. FOIA exemptions, however, are discretionary, and the University may elect to release some or all of documents except to the extent the documents are:

a. Trade secrets of the private entity as defined in the Uniform Trade Secrets Act (§ 59.1- 336 et seq.);

b. Financial records of the private entity that are not generally available to the public through regulatory disclosure or otherwise, including but not limited to, balance sheets and financial statements; or

c. Other information submitted by a private entity, where if the record or document were made public prior to the execution of an interim or comprehensive agreement the financial interest or bargaining position of the public or private entity would be adversely affected.

Additionally, to the extent access to proposal documents submitted by private entities are compelled
or protected from disclosure by a court order, the University must comply with the provisions of such order.

2. Protection from mandatory disclosure for certain documents submitted by a private entity:

Before a document of a private entity may be withheld from disclosure, the private entity must make a written request to the University at the time the documents are submitted that designates with specificity the documents for which the protection is being sought and a clear statement of the reasons for invoking the protection with reference to one or more of three classes of records listed in Section II.D.1.

Upon the receipt of a written request for protection of documents, the University shall determine whether the documents contain (i) trade secrets, (ii) financial records, or (iii) other information that would adversely affect the financial interest or bargaining position of the University or private entity in accordance with Section II.D.1. The University shall make a written determination of the nature and scope of the protection to be afforded by the University under this subdivision. If the written determination provides less protection than requested by the private entity, the private entity shall be accorded an opportunity to withdraw its proposal. Nothing shall prohibit further negotiations of the documents to be accorded protection from release although what may be protected must be limited to the categories of records identified in Section II.D.1.

Once a written determination has been made by the University, the documents afforded protection under this subdivision shall continue to be protected from disclosure when in the possession of the University or any affected jurisdiction, or the Public Private Partnership Advisory Commission as provided for in §30-281, to which such documents are provided.

Cost estimates relating to a proposed procurement transaction prepared by or for the University shall not be open to public inspection.

If a private entity fails to designate trade secrets, financial records, or other confidential or proprietary information for protection from disclosure, such information, records or documents shall be subject to disclosure under FOIA.

3. Protection from mandatory disclosure for certain documents produced by the responsible public entity:

Memoranda, staff evaluations, or other records prepared by or for the University, its staff, or outside advisors or consultants exclusively for the evaluation and negotiation of proposals may be withheld from disclosure if the disclosure of such records required by the Act would adversely affect the financial interest or bargaining position of the University or private entity. The University must document the basis for the determination of adverse effect in writing.

4. The University may not withhold from public access:

a. procurement records other than those subject to the written determination of the University;
b. information concerning the terms and conditions of any interim or comprehensive agreement, service contract, lease, partnership, or any agreement of any kind executed by the University and the private entity;

c. information concerning the terms and conditions of any financing arrangement that involves the use of any public funds; or

d. information concerning the performance of any private entity developing or operating a qualifying project.

E. Use of Public Funds

Virginia constitutional and statutory requirements as they apply to appropriation and expenditure of public funds apply to any interim or comprehensive agreement entered into under the Act. Accordingly, the processes and procedural requirements associated with the expenditure or obligation of public funds shall be incorporated into planning for any PPEA project(s).

F. Applicability of Other Laws

Once an interim or comprehensive agreement has been executed, the University shall make available, upon request, procurement records in accordance with Va. Code §2.2-4342.

In soliciting or entertaining proposals under the PPEA, the University shall comply with all applicable federal, state, and local laws not in conflict with the Act. Likewise, in submitting proposals and in developing, executing or operating facilities under the Act, private entities shall comply with all applicable federal, state, and local laws. Such laws may include, but not necessarily be limited to, contractual obligations which require Workers Compensation insurance coverage, performance bonds, or payment bonds from approved sureties; compliance with the Virginia Prompt Payment Act; compliance with the Ethics in Public Contracting Act; and compliance with environmental laws, workplace safety laws, and state or local laws governing contractor or trade licensing, building codes, and building permit requirements.

Proposals should avoid the creation of state-supported debt; however, should a proposal include such debt, procedures to secure specific approval by the Governor, General Assembly, the Department of Planning and Budget, the Department of the Treasury, and any other appropriate entities must be included in the proposal. In addition, a clear and detailed alternative if such approval is not achieved must be provided.

While procedures incorporated in these guidelines are consistent with those of Virginia Code §§ 2.2-4301, under § 56-573.1 the selection process for solicited or unsolicited project proposals is not subject to the Virginia Public Procurement Act (§ 2.2-4300 et seq.).

III. SOLICITED PROPOSALS

The University may issue Request for Proposals (RFP) inviting proposals from private entities to develop and/or operate qualifying projects. The University shall use a two-part proposal process consisting
of an initial conceptual stage (Part 1) and a detailed stage (Part 2). The RFP shall invite qualified parties to submit proposals on individual projects identified by the University. In such case, the University shall set forth in the RFP the format and supporting information that is required to be submitted, consistent with the provisions of the Act.

The RFP will specify any information and documents required by the University and the factors that will be used in evaluating proposals. The RFP will also contain or incorporate by reference applicable Virginia standard terms and conditions, and should specify any unique capabilities or qualifications that will be required of the private entities. Pre-proposal conferences may be held as deemed appropriate by the University.

The RFP shall be posted on the Commonwealth’s electronic procurement website eVA (www演化.virginia.gov) and in such other public areas as may be regularly used for posting of public notices.

IV. UNSOLICITED PROPOSALS

The Act permits the University to consider unsolicited proposals received from private entities for development and/or operation of qualifying projects.

The University may publicize its needs and encourage interested parties to submit unsolicited proposals subject to the terms and conditions of the Act. When such proposals are received without issuance of an RFP, the proposal shall be treated as an unsolicited proposal under the Act.

A. Decision to Accept and Consider Unsolicited Proposal; Notice

1. The University reserves the right to reject any and all proposals at any time.

2. Upon receipt of any unsolicited proposal, or group of proposals, and payment of the required fee by the proposer or proposers, the University will determine whether to accept the unsolicited proposal for publication and conceptual stage consideration. If the University determines not to accept the proposal, it shall return the proposal, together with all fees and accompanying documentation, to the proposer.

3. If the University chooses to accept an unsolicited proposal for conceptual-stage consideration, it shall invite competing proposals by posting notices on the Commonwealth’s electronic procurement website eVA (www.eva.virginia.gov) and in such other public areas as may be regularly used for posting of public notices. The notices shall be posted for such period as the University deems necessary and reasonable, but in no event less than 45 days. The University will publish, at least once, the same notice in one or more newspapers or periodicals of general circulation in the affected jurisdiction(s), providing notice of pending or potential action in not less than 45 days. The University shall provide for more than 45 days in situations where the scope or complexity of the original proposal warrants additional time for potential competitors to prepare proposals.
The notice shall state that the University (i) has received an unsolicited proposal under the Act, (ii) intends to evaluate the proposal, (iii) may negotiate an interim or comprehensive agreement with the proposer based on the proposal, and (iv) will accept for simultaneous consideration any competing proposals that comply with the procedures adopted by the University and the provisions of the Act. The notice will summarize the proposed qualifying project or projects, and identify their proposed locations. Copies of unsolicited proposals shall be available upon request, subject to the provisions of FOIA and § 56-575.4 G of the Act.

4. To ensure that sufficient information is available upon which to base the development of a serious competing proposal, representatives of the University familiar with the unsolicited proposal and the guidelines established by the University shall be made available to respond to inquiries and meet with private entities that are considering the submission of a competing proposal. The University shall conduct an analysis of the information pertaining to the proposal included in the notice to ensure that such information sufficiently encourages competing proposals. Further, the University shall establish criteria, including key decision points and approvals to ensure proper consideration of the extent of competition from available private entities prior to selection.

5. Prior to posting of the notices provided for in this subsection, the University shall receive from the initial proposer(s) the balance due, if any, of the required project proposal review fee.

B. Posting Requirements

1. Conceptual proposals, whether solicited or unsolicited, shall be posted by the responsible public entity within 10 working days after acceptance of such proposals on the Department of General Service’s web-based electronic procurement website eVA (www.eva.virginia.gov).

2. Nothing shall be construed to prohibit the posting of the conceptual proposals by additional means deemed appropriate by the University to provide maximum notice to the public of the opportunity to inspect the proposals.

3. In addition to the posting requirements, at least one copy of the proposals shall be made available for public inspection. Trade secrets, financial records, or other records of the private entity excluded from disclosure under the provisions of subdivision 11 of § 2.2-3705.6 shall not be required to be posted, except as otherwise agreed to by the University and the private entity. Any inspection of procurement transaction records shall be subject to reasonable restrictions to ensure the security and integrity of the records.
C. **Initial Review by the University at the Conceptual Stage (Part 1)**

1. Only proposals complying with the requirements of the Act that contain sufficient information for a meaningful evaluation and that are provided in an appropriate format will be considered by the University for further review at the conceptual stage. Formatting suggestions for proposals at the conceptual stage are found at Section V.A.

2. The University will determine at the initial review stage whether it will proceed using:
   
a. Standard procurement procedures consistent with the Virginia Public Procurement Act2; or
   
b. Procedures developed that are consistent with procurement of other than professional services through "competitive negotiation" as the term is defined in Virginia Code § 2.2- 4301 (competitive negotiation). The University may proceed using such procedures only if it makes a written determination that doing so is likely to be advantageous to the University and the public based upon either (i) the probable scope, complexity or priority of need, or (ii) the risk sharing, including guaranteed cost or completion guarantees, added value or debt or equity investments proposed by the private entity, or increase in funding, dedicated revenue or other economic benefit from the project would otherwise not be available.
   
c. When the University elects to use competitive negotiations, its written determination should consider factors such as risk sharing, added value and/or economic benefits from the project that would not be available without competitive negotiation. In addition, the written determination should explain how the scope, complexity, and/or urgency of the project are such that competitive negotiation is determined necessary.

3. After reviewing the original proposal and any competing proposals submitted during the notice period, the University may determine:
   
i. not to proceed further with any proposal;
   
ii. to proceed to the detailed (Part 2) stage of review with the original proposal;
   
iii. to proceed to the detailed (Part 2) stage with a competing proposal;
   
iv. to proceed to the detailed (Part 2) stage with multiple proposals; or
   
v. to request modifications or amendments to any proposal.

In the event that more than one proposal will be considered in the detailed (Part 2) stage of
review, the University shall determine whether the unsuccessful private entity, or entities, shall be reimbursed, in whole or in part, for costs incurred in the detailed stage of review. In such case, reasonable costs may be assessed to the successful proposer as part of any ensuing interim or comprehensive agreement.

4. Discussions between the University and a private entity about the need for infrastructure improvements shall not inhibit the University’s ability to employ other procurement procedures to meet such needs. The University retains the right to reject any proposal at any time, without penalty, prior to the execution of an interim or comprehensive agreement.

V. PROPOSAL PREPARATION AND SUBMISSION

A. Format for Submissions at Conceptual Stage (Part 1)

Proposals at the conceptual stage must contain information in the following areas: (i) qualifications and experience, (ii) project characteristics, (iii) project financing, (iv) anticipated public support or opposition or both, (v) project benefit and compatibility, and (vi) such additional information as may seem prudent which is not inconsistent with the requirements of the Act. Suggestions for presenting information to be included in proposals at the Conceptual Stage include the items listed below, plus any additional items or documents requested by the University:

1. Qualifications and Experience
   a. Identify the legal structure of the firm or consortium of firms making the proposal. Identify the organizational structure for the project, the management approach, and how each partner and major subcontractor in the structure fits into the overall team. All members of the proposer’s team, including major subcontractors known to the proposer, must be identified at the time a proposal is submitted for the Conceptual Stage. Include the status of the Virginia license of each partner, proposer, contractor, and major subcontractor. Identified team members, including major subcontractors, may not be substituted or replaced once a project is approved and the comprehensive agreement executed without the written approval of the University.
   b. Describe the experience of the firm or consortium of firms making the proposal and the key principals involved in the proposed project including experience with projects of comparable size and complexity. Describe the length of time in business, business experience, public sector experience, and other engagements of the firm or consortium of firms. Describe the past safety performance record and current safety capabilities of the firm or consortium of firms. Describe the past technical performance history on recent projects of comparable size and complexity, including disclosure of any legal claims, of the firm or consortium of firms. Include the identity of any firms that will provide design, construction,
and completion guarantees and warranties and a description of such guarantees and warranties.

c. For each firm or major subcontractor that will be utilized in the project, provide a statement listing all of the firm’s prior projects and clients for the past five (5) years with contact information for such clients (names/addresses/telephone numbers). If a firm has worked on more than ten (10) projects during this period, it may limit its prior project list to ten (10), but shall first include all projects similar in scope and size to the proposed project and, second, it shall include as many of its most recent projects as possible. Each firm or major subcontractor shall be required to submit all performance evaluation reports or other documents in its possession evaluating the firm’s performance during the preceding three years in terms of cost, quality, schedule, safety and other matters relevant to the successful project development, operation, and completion.

d. Provide the names, addresses, and telephone numbers of persons within the firm or consortium of firms who may be contacted for further information.

e. Provide a current or most recently audited financial statement of the firm or firms and each partner with an equity interest of twenty percent or greater.

f. Identify any persons known to the proposer who would be obligated to disqualify themselves from participation in any transaction arising from or in connection to the project pursuant to The Virginia State and Local Government Conflict of Interest Act, Chapter 31 (§ 2.2-3100 et seq.) of Title 2.2.

g. Identify proposed plan for obtaining sufficient numbers of qualified workers in all trades or crafts required for the project.

h. Provide information on any training programs, including but not limited to apprenticeship programs registered with the U.S. Department of Labor or a State Apprenticeship Council, in place for employees of the firm and employees of any member of a consortium of firms.

i. Provide information on the level of commitment by the firm or consortium of firms to use Department of Minority Business Enterprise certified firms in developing and implementing the project.

j. For each firm or major subcontractor that will perform construction and/or design activities, provide the following information:

1) A sworn certification by an authorized representative of the firm attesting to the fact that the firm is not currently enjoined, debarred, or suspended
by any federal, state or local government entity.

(2) A completed qualification statement on a form developed by the Commonwealth that reviews all relevant information regarding technical qualifications and capabilities, firm resources and business integrity of the firm, including but not limited to, bonding capacities, insurance coverage, and firm equipment. This statement shall also include a mandatory disclosure by the firm for the past three years any of the following conduct:

i. bankruptcy filings
ii. liquidated damages
iii. fines, assessments or penalties
iv. judgments or awards in contract disputes
v. contract defaults, contract terminations
vi. license revocations, suspensions, other disciplinary actions
vii. prior enjoinments, debarments, or suspensions by a governmental entity
viii. denials of prequalification, findings of non-responsibility
ix. safety past performance data, including fatality incidents, “Experience Modification Rating,” “Total Recordable Injury Rate” and “Total Lost Workday Incidence Rate”
x. violations of any federal, state or local criminal or civil law
xi. criminal indictments or investigations
xii. legal claims filed by or against the firm

k. Describe worker safety training programs, job-site safety programs, accident prevention programs, written safety and health plans, including incident investigation and reporting procedures.

2. Project Characteristics

a. Provide a description of the project, including the conceptual design. Describe the proposed project in sufficient detail so that type and intent of the project, the location, and the communities that may be affected are clearly identified.

b. Identify and fully describe any work to be performed by the University.

c. Include a list of all federal, state and local permits and approvals required for the project and a schedule for obtaining such permits and approvals.
d. Identify any anticipated adverse social, economic and environmental impacts of the project. Specify the strategies or actions to mitigate known impacts of the project. Indicate if environmental and archaeological assessments have been completed as required.

e. Identify the projected positive social, economic and environmental impacts of the project.

f. Identify the proposed schedule for the work on the project, including the estimated time for completion.

g. Identify contingency plans for addressing public needs in the event that all or some of the project is not completed according to projected schedule.

h. Propose allocation of risk and liability for work completed beyond the agreement's completion date, and assurances for timely completion of the project.

i. State assumptions related to ownership, legal liability, law enforcement and operation of the project and the existence of any restrictions on the University’s use of the project.

j. Provide information relative to phased or partial openings of the proposed project prior to completion of the entire work.

k. List any other assumptions relied on for the project to be successful.

l. List any contingencies that must occur for the project to be successful.

3. Project Financing

a. Provide a preliminary estimate and estimating methodology of the cost of the work by phase, segment, or both.

b. Submit a plan for the development, financing, and operation of the project showing the anticipated schedule on which funds will be required. Describe the anticipated costs of and proposed sources and uses for such funds, including any anticipated debt service costs. The operational plan should include appropriate staffing levels and associated costs. Include any supporting due diligence studies, analyses or reports.

c. Include a list and discussion of assumptions underlying all major elements of the plan. Assumptions should include all fees associated with financing given the recommended financing approach. In addition, complete disclosure of interest rate assumptions should be included. Any ongoing operational fees, if
applicable, shall also be disclosed as well as any assumptions with regard to increases in such fees.

d. Identify the proposed risk factors and methods for dealing with these factors.

e. Identify any local, state or federal resources that the proposer contemplates requesting for the project. Describe the total commitment, if any, expected from governmental sources and the timing of any anticipated commitment. Such disclosure should include any direct or indirect guarantees or pledges of the University’s credit or revenue.

f. Identify the amounts and the terms and conditions for any revenue sources.

g. Identify any aspect of the project that could disqualify the project from obtaining tax-exempt financing.

4. Project Benefit and Compatibility

a. Identify community benefits, including the economic impact the project will have on the University and local community in terms of amount of tax revenue to be generated for the University and political subdivisions, the number jobs generated for Virginia residents and level of pay and fringe benefits of such jobs, the training opportunities for apprenticeships and other training programs generated by the project, and the number and value of subcontracts generated for Virginia subcontractors.

b. Identify any anticipated public support or opposition, as well as any anticipated government support or opposition, for the project.

c. Explain the strategy and plan that will be carried out to involve and inform the general public, business community, local governments, and governmental agencies in areas affected by the project.

d. Describe the compatibility of the project with local, regional, and state economic development efforts.

e. Describe the compatibility with the local comprehensive plan, local infrastructure development plans, and any capital improvements budget or other local spending plan.

f. Provide a statement setting forth participation efforts to be undertaken in connection with this project with regard to the following types of businesses: (i) minority-owned businesses; (ii) woman-owned businesses; and (iii) small and micro businesses.
B. Format for Submissions at Detailed Stage (Part 2)

If the University decides to proceed to the detailed stage (Part 2) with one or more proposals, each selected private entity must provide the following information, where applicable, unless the University waives the requirement or requirements:

1. A topographical map of appropriate scale depicting the location of the proposed project;

2. A conceptual site plan indicating proposed location and configuration of the project on the proposed site;

3. Conceptual (single line) plans and elevations depicting the general scope, appearance and configuration of the proposed project, along with three-dimensional perspective images;

4. A detailed description of the proposed participation, use, and financial involvement of the State, University, and/or locality in the project, including the proposed terms and conditions for the project if they differ from the standard state General Conditions;

5. A list of public utility facilities, if any, that will be crossed by the qualifying project and a statement of the plans of the proposer to accommodate such crossings;

6. A statement and strategy setting out the plans for securing all necessary property, including the names and addresses, if known, of the current owners of the subject property as well as a list of any property the proposer intends to request the public entity to condemn;

7. A detailed listing of all firms that will provide specific design, construction, and completion guarantees and warranties, and a brief description of such guarantees and warranties;

8. A total life-cycle cost specifying methodology and assumptions of the project or projects and the proposed project start date. Include anticipated commitment of all parties; equity, debt, and other financing mechanisms; and a schedule of project revenues and project costs. The life-cycle cost analysis should include, but not be limited to, a detailed analysis of the projected return, rate of return, or both, expected useful life of facility and estimated annual operating expenses;

9. A detailed discussion of assumptions regarding user fees or rates and usage of the projects;

10. Identification and discussion of any known government support or opposition, or general public support or opposition for the project. Government or public support should be demonstrated through resolution of official bodies, minutes of meetings, letters, or other official communications;

11. Demonstration of consistency with appropriate local comprehensive or infrastructure development plans or indication of the steps required for acceptance into such plans;
12. Explanation of how the proposed project would impact local development plans of each affected local jurisdiction;

13. Description of an ongoing performance evaluation system or database to track key performance criteria, including but not limited to, schedule, cash management, quality, worker safety, change orders, and legal compliance;

14. Identification of the executive management and the officers and directors of the firm or firms submitting the proposal. In addition, identification of any known conflicts of interest or other disabilities that may impact the public entity's consideration of the proposal, including the identification of any persons known to the proposer who would be obligated to disqualify themselves from participation in any transaction arising from or in connection to the project pursuant to The Virginia State and Local Government Conflict of Interest Act, Chapter 31 (§ 2.2-3100 et seq.) of Title 2.2;

15. Acknowledge conformance with Virginia Code Sections 2.2–4367 thru 2.2-4377 (the Ethics in Public Contracting Act); and

16. Additional material and information as the University may request.

VI. PROPOSAL EVALUATION AND SELECTION CRITERIA

In selecting proposals, all relevant information from both the Conceptual Stage and the Detailed Stage will be considered. There are several factors that the University may wish to consider when evaluating and selecting a proposal under the Act.:

A. Qualifications and Experience

Factors to be considered in the University’s review of either phase to determine whether the proposer possesses the requisite qualifications and experience include:

1. Experience, training, and preparation with similar projects;

2. Demonstration of ability to perform work;

3. Demonstrated record of successful past performance, including timeliness of project delivery, compliance with plans and specifications, quality of workmanship, cost-control and project safety;

4. Demonstrated conformance with applicable laws, codes, standards, regulations, and agreements on past projects;

5. Leadership structure;

6. Project Manager's experience;
7. Management approach;

8. Project staffing plans, the skill levels of the proposed workforce, apprenticeship and other training programs offered for the project, and the proposed safety plans for the project;

9. Financial condition; and

10. Project ownership.

B. Project Characteristics

Factors to be considered in the University’s review of either phase in determining the project characteristics include:

1. Project definition;

2. Proposed project schedule;

3. Operation of the project;

4. Technology and technical feasibility of the project;

5. Conformance with applicable laws, regulations, codes, guidelines, and standards;

6. Environmental impacts;

7. Condemnation impacts;

8. State and local permits; and

9. Maintenance of the project.

C. Project Financing

Factors to be considered in the University’s review of either phase in determining whether the proposed project financing allows adequate access to the necessary capital to finance the project include:

1. Cost and cost benefit to the University;

2. Financing and the impact on the debt or debt burden of the University or appropriating body;

3. Financial plan, including overall feasibility and reliability of plan; operator’s past performance with similar plans and similar projects; degree to which operator has conducted due diligence investigation; and analysis of proposed financial plan and results of any such inquiries or studies;

4. Estimated cost;
5. Life-cycle cost analysis;

6. The identity, credit history, and past performance of any third party that will provide financing for the project and the nature and timing of their commitment, as applicable; and,

7. Such other items as the University deems appropriate.

The University may elect to accept the private entity’s financing proposal or may select its own finance team, source, and financing vehicle.

D. Public Benefit and Compatibility

Factors to be considered in the University’s review of either phase in determining the proposed project’s compatibility with the appropriate local or regional comprehensive or development plans include:

1. Community benefits, including the economic impact the project will have on the Commonwealth, the University and local community in terms of amount of tax revenue to be generated for the Commonwealth and political subdivisions, the number jobs generated for Virginia residents and level of pay and fringe benefits of such jobs, the training opportunities for apprenticeships and other training programs generated by the project and the number and value of subcontracts generated for Virginia subcontractors;

2. Community support or opposition, or both;

3. Public involvement strategy;

4. Compatibility with existing and planned facilities; and

5. Compatibility with local, regional, and state economic development efforts.

E. Other Factors

Other factors that may be considered in the evaluation and selection of PPEA proposals include:

1. The proposed cost of the qualifying project;

2. The general reputation, industry experience, and financial capacity of the private entity;

3. The proposed design of the qualifying project;

4. The eligibility of the project for accelerated documentation, review, and selection;

5. Local citizen and government comments;

6. Benefits to the public; including whether the project will lead to productivity or efficiency improvements in the University’s processes or delivery of services to the public;

7. The private entity’s compliance with a minority business plan, enterprise participation plan,
or good faith effort to comply with the goals of such plans;

8. The private entity’s plan to employ local contractors and residents;

9. The recommendation of a committee of representatives of members of the University and the appropriating body which may be established to provide advisory oversight for the project; and

10. Other criteria that the University deems appropriate.

VII. PUBLIC-PRIVATE PARTNERSHIP OVERSIGHT COMMISSION

Prior to entering into negotiations with any private entity for an interim or comprehensive agreement, the University shall submit copies of the detailed proposals to the Public-Private Partnership Advisory Commission as required by §30-278 et seq. Unless the proposals meet the requirements of §30-278.B, the University shall not commence negotiation of an interim or comprehensive agreement until the Commission has submitted its recommendations to the University, or the Commission has declined to accept the detailed proposals for review.

VIII. INTERIM AND COMPREHENSIVE AGREEMENTS

Neither the Commonwealth nor the University shall accept liability for any part or phase of a project prior to entering into a properly executed interim or comprehensive agreement. The head of the University, or the University’s Board, shall approve any interim or comprehensive agreement executed pursuant to the Act, but no such agreement shall be executed prior to i) receiving approval by the Governor or the appropriate Cabinet Secretary authorizing the University to proceed to the Detailed stage (Part 2) of the Act, and ii) the University submitting a copy of the proposed interim or comprehensive agreement to the Public-Private Partnership Advisory Commission at least 30 days prior to execution of the agreement along with a report describing the extent to which the Commission's recommendations were addressed in the proposed interim or comprehensive agreement.

Any changes in the terms of an executed interim or comprehensive agreement shall be in the form of a written amendment.

A. Interim Agreement Terms

Interim agreements may be used when it is necessary or advisable to segment a project to produce distinct and clear deliverables necessary to keep the project moving towards development of a comprehensive agreement. An interim agreement may not be used to have the University assume risks that should be assumed by the proposer or to pay costs attributable to the private entity’s efforts in making the proposal. Interim agreements require the same level of approval as comprehensive agreements.

Development of an interim agreement is in the sole discretion of the University President and in no way limits the rights reserved by the University or the Commonwealth to terminate the evaluation of any or
The scope of an interim agreement may include but not be limited to:

1. Project planning and development;
2. Design and engineering;
3. Environmental analysis and mitigation;
4. Survey;
5. Ascertaining the availability of financing for the proposed facility through financial and revenue analysis;
6. Establishing a process and timing of the negotiation of the comprehensive agreement; and
7. Any other provisions related to any aspect of the development or operation of a qualifying project that the parties may deem appropriate prior to the execution of a comprehensive agreement.

B. **Comprehensive Agreement Terms**

The scope of the comprehensive agreement shall include but not be limited to:

1. The delivery of maintenance, performance and payment bonds, or letters of credit in connection with any acquisition, design, construction, improvement, renovation, expansion, equipping, maintenance, or operation of the qualifying project;
2. The review of plans and specifications by the University;
3. The rights of the University to inspect the project to ensure compliance with the comprehensive agreement and any development plans and specifications;
4. The maintenance of a policy or policies of liability insurance or self-insurance reasonably sufficient to insure coverage of the project and the tort liability to the public and employees and to enable the continued operation of the qualifying project;
5. The monitoring of the practices of the operator by the University to ensure proper maintenance;
6. The terms under which the Contractor will reimburse the University for services provided;
7. The policy and procedures that will govern the rights and responsibilities of the University and the Contractor in the event that the comprehensive agreement is terminated or there is a material default by the Contractor including the conditions governing assumption of the
duties and responsibilities of the Contractor by the University and the transfer or purchase of property or other interests of the Contractor by the University;

8. The terms under which the Contractor will file appropriate financial statements on a periodic basis;

9. The mechanism by which user fees, lease payments, or service payments, if any, may be established from time to time upon agreement of the parties. Any payments or fees shall be set at a level that is the same for persons using the facility under like conditions and that will not materially discourage use for the qualifying project;

   a. A copy of any service contract shall be filed with the University.

   b. A schedule of the current user fees or lease payments shall be made available by the Contractor to any member of the public upon request.

   c. Classifications according to reasonable categories for assessment of user fees may be made.

10. The terms and conditions under which the University may be required to contribute financial resources, if any;

11. The terms and conditions under which existing site conditions will be addressed, including identification of the party responsible for conducting assessments and taking necessary remedial action;

12. The terms and conditions under which the University will be required to pay money to the private entity and the amount of any such payments for the project;

13. A periodic reporting procedure that incorporates a description of the impact of the project on the University; and

14. Such other terms and conditions as the University may deem appropriate.

The comprehensive agreement may provide for the development or operation of phases or segments of a qualifying project.

Any changes in the terms of the interim or comprehensive agreement as may be agreed upon by the parties from time to time shall be added to the interim or comprehensive agreement by written amendment.

Parties submitting proposals understand that representations, information, and data supplied in support of or in connection with proposals play a critical role in the competitive evaluation process and in the ultimate selection of a proposal by the University. Accordingly, as part of the comprehensive agreement,
the prospective operator and its team members shall certify that all material representations, information and data provided in support of, or in connection with, a proposal is true and correct. Such certifications shall be made by authorized individuals who have knowledge of the information provided in the proposal. In the event that material changes occur with respect to any representations, information or data provided for a proposal, the prospective operator shall immediately notify the University. Any violation of this section of the comprehensive agreement shall give the University the right to terminate the agreement, withhold payment or other consideration due, and seek any other remedy available under the law.

C. Notice and Posting requirements

1. In addition to the posting requirements of Section IV, 30 days prior to entering into an interim or comprehensive agreement, a responsible public entity shall provide an opportunity for public comment on the proposals. Such public comment period may include a public hearing in the sole discretion of the responsible public entity. After the end of the public comment period, no additional posting shall be required based on any public comment received.

2. Once the negotiation phase for the development of an interim or a comprehensive agreement is complete and a decision to award has been made by a responsible public entity, the responsible public entity shall post the proposed agreement in the following manner:
   b. In addition to the posting requirements, at least one copy of the proposals shall be made available for public inspection. Trade secrets, financial records, or other records of the private entity excluded from disclosure under the provisions of subdivision 11 of § 2.2-3705.6 shall not be required to be posted, except as otherwise agreed to by the University and the private entity.

3. Once an interim agreement or a comprehensive agreement has been executed, the University shall make procurement records available for public inspection, upon request.
   a. Such procurement records shall include documents initially protected from disclosure on the basis that the release of such documents would adversely affect the financial interest or bargaining position of the University or private entity.
   b. Such procurement records shall not include (i) trade secrets of the private entity as defined in the Uniform Trade Secrets Act (§ 59.1-336 et seq.) or (ii) financial records, including balance sheets or financial statements of the private entity that are not generally available to the public through regulatory disclosure or otherwise.
IX. GOVERNING PROVISIONS

In the event of any conflict between these guidelines and procedures and the Act, the terms of the Act shall control.
X. TERMS AND DEFINITIONS

"Affected jurisdiction" means any county, city, or town in which all or a portion of a qualifying project is located.

"Appropriating body" means the body responsible for appropriating or authorizing funding to pay for a qualifying project.

"Comprehensive agreement" means the comprehensive agreement between the private entity and the responsible public entity that is required prior to the development or operation of a qualifying project.

"Conceptual stage" means the initial phase of project evaluation when the public entity makes a determination whether the proposed project serves a public purpose, meets the criteria for a qualifying project, assesses the qualifications and experience of a private entity proposer, reviews the project for financial feasibility, and warrants further pursuit.

"Cost-benefit analysis" means an analysis that weighs expected costs against expected benefits in order to choose the best option. For example, a city manager may compare the costs and benefits of constructing a new office building to those of renovating and maintaining an existing structure in order to select the most financially advantageous option.

"Detailed stage" means the second phase of project evaluation where the public entity has completed the conceptual stage and accepted the proposal and may request additional information regarding a proposed project prior to entering into competitive negotiations with one or more private entities to develop an interim or comprehensive agreement.

"Develop" or "development" means to plan, design, develop, finance, lease, acquire, install, construct, or expand.

"Interim agreement" means an agreement between a private entity and a responsible public entity that provides for phasing of the development or operation, or both, of a qualifying project. Such phases may include, but are not limited to, design, planning, engineering, environmental analysis and mitigation, financial and revenue analysis, or any other phase of the project that constitutes activity on any part of the qualifying project.

"Lease payment" means any form of payment, including a land lease, by a public entity to the private entity for the use of a qualifying project.

"Lifecycle cost analysis" means an analysis that calculates cost of an asset over its entire life span and includes the cost of planning, constructing, operating, maintaining, replacing, and when applicable, salvaging the asset. Although one proposal may have a lower initial construction cost, it may not have the lowest lifecycle cost once maintenance, replacement, and salvage value is considered.
"Material default" means any default by the private entity in the performance of its duties that jeopardizes adequate service to the public from a qualifying project.

"Operate" means to finance, maintain, improve, equip, modify, repair, or operate.

“Opportunity cost” means the cost of passing up another choice when making a decision or the increase in costs due to delays in making a decision.

"Private entity" means any natural person, corporation, general partnership, limited liability company, limited partnership, joint venture, business trust, public benefit corporation, nonprofit entity, or other business entity.

“Public entity” means the Commonwealth and any agency or authority thereof, any county, city or town and any other political subdivision of the Commonwealth, any public body politic and corporate, or any regional entity that serves a public purpose.

"Qualifying project" means (i) any education facility, including, but not limited to a school building, any functionally related and subordinate facility and land of a school building (including any stadium or other facility primarily used for school events), and any depreciable property provided for use in a school facility that is operated as part of the public school system or as an institution of higher education; (ii) any building or facility that meets a public purpose and is developed or operated by or for any public entity; (iii) any improvements, together with equipment, necessary to enhance public safety and security of buildings to be principally used by a public entity; (iv) utility and telecommunications and other communications infrastructure; (v) a recreational facility; (vi) technology infrastructure and services, including, but not limited to, telecommunications, automated data processing, word processing and management information systems, and related information, equipment, goods and services; (vii) any technology, equipment, or infrastructure designed to deploy wireless broadband services to schools, businesses, or residential areas; or (viii) any improvements necessary or desirable to any unimproved locally- or state-owned real estate.

"Responsible public entity" means a public entity that has the power to develop or operate the applicable qualifying project.

"Revenues" means all revenues, income, earnings, user fees, lease payments, or other service payments arising out of or in connection with supporting the development or operation of a qualifying project, including without limitation, money received as grants or otherwise from the United States of America, from any public entity, or from any agency or instrumentality of the foregoing in aid of such facility.

"Service contract" means a contract entered into between a public entity and the private entity pursuant to § 56-575.5.

"Service payments" means payments to the private entity of a qualifying project pursuant to a service contract.
"State" means the Commonwealth of Virginia.

"User fees" mean the rates, fees, or other charges imposed by the private entity of a qualifying project for use of all or a portion of such qualifying project pursuant to the comprehensive agreement pursuant to § 56-575.9.
Action Item
Approval of the Radford University Guidelines for Projects under PPEA

Item:
Approval of the Radford University Guidelines for Projects under the Public-Private Education Facilities and Infrastructure Act of 2002.

Background:
The Public-Private Education Facilities and Infrastructure Act of 2002 (PPEA), as amended is the legislative framework enabling departments, agencies and institutions of the Commonwealth of Virginia, as well as local governments and certain other public bodies, to enter agreements authorizing private entities to develop and/or operate qualifying projects as defined in the Act.

The Act grants responsible public entities authority to create public-private partnerships for development of a wide range of projects for public use if the public entities determine there is a need for such projects and that private involvement may provide the project in a more timely or cost-effective fashion, lead to productivity or efficiency improvements in the public entities’ processes or delivery of services, considering, among other things, the probable scope, complexity or priority of the project; risk sharing including guaranteed cost or completion guarantees; added value or debt or equity investments proposed by the private entity; or an increase in funding, dedicated revenue source or other economic benefit that would not otherwise be available.

Responsible public entities are required to adopt and make publicly available guidelines that are sufficient to enable the public entity to comply with the requirements of the PPEA. Accordingly, these guidelines have been created to be approved by the Radford University Board of Visitors. The University will follow these guidelines in the review and acceptance of proposals and projects.

Action:
Radford University Board of Visitors approval of the Radford University Guidelines for Projects under the Public-Private Education Facilities and Infrastructure Act of 2002, as presented.
BUSINESS AFFAIRS AND AUDIT COMMITTEE MEETING
1:00 P.M.
DECEMBER 5, 2019
MARY ANN JENNINGS HOVIS MEMORIAL BOARD ROOM
THIRD FLOOR, MARTIN HALL, RADFORD, VA

DRAFT
MINUTES

COMMITTEE MEMBERS PRESENT
Mr. Gregory A. Burton, Chair
Dr. Jay A. Brown
Ms. Nancy A. Rice
Mr. Robert A. Archer, Rector (Ex-officio)
Mr. James R. Kibler, Jr., Vice Rector (Ex-officio)

COMMITTEE MEMBERS ABSENT
Mr. Mark S. Lawrence, Vice Chair
Dr. Susan Whealler Johnston
Dr. Debra K. McMahon

BOARD MEMBERS PRESENT
Dr. Thomas Brewster
Ms. Krisha Chachra
Dr. Rachel D. Fowlkes
Mr. David A. Smith
Ms. Georgia Anne Snyder-Falkingham
Ms. Lisa Throckmorton
Mr. Breon Case, Student Representative (Non-voting Advisory Member)
Dr. Jake Fox, Faculty Representative (Non-voting Advisory Member)

OTHERS PRESENT:
President Brian O. Hemphill
Ms. Sharon Barrett, Assistant Vice President for Finance and Operations for RUC
Mr. Mike Biscotte, Director of Facilities Planning and Construction
Ms. Karen Casteele, Secretary to the Board of Visitors and Special Assistant to the President
Mr. Jorge Coartney, Assistant Vice President for Facilities Management
Dr. Kenna Colley, Interim Provost and Vice President for Academic Affairs
Mr. Craig Cornell, Vice President for Enrollment Management
Mr. Amel Cuskovic, Assistant Vice President for Human Resources
Ms. Kimberly Dulaney, Executive Director for Strategic Sourcing
Ms. Stephanie Jennelle, Associate Vice President for Finance and University Controller
Mr. Danny M. Kemp, Vice President for Information Technology and Chief Information Officer
CALL TO ORDER
Mr. Gregory A. Burton, Chair, formally called the Business Affairs and Audit Committee meeting to order at 1:01 p.m. in the Mary Ann Jennings Hovis Memorial Board Room in Martin Hall. Mr. Burton welcomed everyone to the December meeting. Mr. Burton conducted a roll call and established a quorum was present.

APPROVAL OF AGENDA
Mr. Burton asked for a motion to approve the December 5, 2019 meeting agenda, as published. Dr. Jay A. Brown so moved, Ms. Nancy A. Rice seconded, and the motion carried unanimously.

APPROVAL OF MINUTES
Mr. Burton asked for a motion to approve the minutes of the September 26, 2019 meeting of the Business Affairs and Audit Committee, as published. Dr. Brown so moved, Mr. Robert A. Archer seconded, and the motion carried unanimously.

REPORTS AND RECOMMENDATIONS
University Auditor’s Report
University Auditor Margaret McManus presented an oral report on the University Discretionary Fund for the quarter ended September 30, 2019. One hundred percent of University Discretionary Fund expenditures were reviewed, and all were found in compliance with the Board of Visitors’ guidelines. She also presented a report on the E-Verify Audit and a follow-up audit status report. A copy of the report is attached hereto as Attachment A and is made a part hereof.

Capital Projects Update
Vice President for Finance and Administration and Chief Financial Officer Chad A. Reed introduced the members of the Finance and Administration Leadership Team and thanked everyone for all of their hard work. Vice President Reed presented an update of current capital projects. The Reed-Curie renovation is substantially complete and a tentative occupancy approval has been received with the final expected soon. Move-in for faculty is currently underway, and the building will be utilized in the Spring 2020 term. Funding for the Center for Adaptive Innovation and Creativity project remains a top priority. A copy of the report is attached hereto as Attachment B and is made a part hereof.

Six-Year Capital Plan
Vice President Reed reviewed the Six-Year Capital Plan for 2020-2026 with the Committee beginning with the background of which every two years each university in the Commonwealth of Virginia submits a Six-Year Capital Outlay Plan to the Department of Planning and Budget.
From those requests, the Executive Branch uses the submissions to prioritize capital projects for the Commonwealth and inform their decision on which projects will be slated for inclusion in the Governor’s Executive Budget Bill, which is presented in December of each year. Radford University’s Six-Year Capital Outlay Plan for 2020-2026 includes the following: for the 2021-2022 Biennium - construction of the new Center for Adaptive Innovation and Creativity; renovation of Norwood Hall and Tyler Hall; expansion and creation of the Riverway Experience; construction of a hotel and convention space; and property acquisitions. For the 2023-2024 Biennium, the plan includes: renovation of McConnell Library; construction of a new Administrative Services addition; and improvement of the campus infrastructure. For the 2025-2026 Biennium, the plan includes: renovation of Muse Hall; renovation of Walker Hall; and renovation of the Dedmon Center. A copy of the report is attached hereto as Attachment C and is made a part hereof.

**Master Plan**
Vice President Reed reported to the Committee that the 2020-2030 Master Plan was developed to support the Radford University 2018-2023 Strategic Plan: *Embracing the Tradition and Envisioning the Future*. The Master Plan work began with data collection in Fall 2017. The preparation of the 2020-2030 Master Plan provided a singular and significant opportunity for the entire University community to engage in the future development of the campus and surrounding community. Vice President for University Relations Ashley Schumaker distributed copies of the Master Plan to the members of the Board of Visitors who were present in the meeting. Vice President Reed commended the University Relations team for all the hard work to complete the Master Plan document. A copy of the document is attached hereto as Attachment D and is made a part hereof.

**ACTION ITEMS:**

**Approval of Radford University’s 2020-2026 Six-Year Capital Plan**
Mr. Burton asked for a motion to recommend the University’s 2020-2026 Six-Year Capital Plan, as presented, to the full Board for approval. Ms. Rice so moved, Dr. Brown seconded, and the motion carried unanimously. A copy of the resolution is attached hereto as Attachment E and is made a part hereof.

**Approval of Radford University’s 2020-2030 Master Plan**
Mr. Burton asked for a motion to recommend the University’s 2020-2030 Master Plan, as presented, to the full Board for approval. Dr. Brown so moved, Ms. Rice seconded, and the motion carried unanimously. A copy of the proposed resolution is attached hereto as Attachment F and is made a part hereof.

**ADJOURNMENT**
With no further business to come before the committee, Mr. Burton asked for a motion to adjourn the meeting. Ms. Rice made the motion, Dr. Brown seconded, and the motion carries unanimously. The meeting adjourned at 1:35 p.m.

Respectfully submitted,

Pamela Fitchett
Administrative Assistant to the
Vice President for Finance and Administration
and Chief Financial Officer
BACKGROUND
E-Verify is an Internet-based system, administered by the Social Security Administration (SSA) and U.S. Citizenship and Immigration Services (USCIS), through which employers electronically confirm the employment eligibility of their employees. The Code of Virginia requires all agencies of the Commonwealth to use E-Verify for all newly hired employees. Accordingly, the University has an E-Verify Memorandum of Understanding (MOU) with the Department of Homeland Security (DHS) outlining the requirements. Human Resources (HR) is the program administrator for the MOU. In the E-Verify process, the University creates cases based on information from an employee’s Employment Eligibility Verification (Form I-9). E-Verify compares that information to records available to DHS and the SSA. The University then receives a response confirming employment eligibility or indicating that the employee needs to take further action to complete the case.

For the review period of July 1, 2018 through December 31, 2018, we identified 683 employees as new hires of the University.

SCOPE AND OBJECTIVES
The scope of this audit was limited to E-Verify for the review period of July 1, 2018 through December 31, 2018. The objective of this audit was to determine whether the University is operating in compliance with the E-Verify program.

This review was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing.

CONCLUSION
At the time of the review, and relative to the processes and transactions reviewed, the internal control structure appeared adequate to provide reasonable assurance that the objective noted above is being met. However, we identified the following business issues.

BUSINESS ISSUES
The following issues were identified in this audit. Pages 2-4 contain information on planned actions and action completion dates and, accordingly, those pages are an integral part of this report.

1. Campus departments are completing Form I-9 for employees, although they have not been delegated the authority to do so by HR.
2. Improvements are needed in the process of entering new hires into E-Verify.
3. Improvements are needed to ensure the timely entry of cases into E-Verify.
4. Consistency and improved documentation are needed in the employment verification and E-Verify process for student employees funded by the Federal Work-Study program.
5. The E-Verify system has not been evaluated for the applicability of information technology controls.
6. Improvements are needed in the granting and monitoring of access to the E-Verify system.
7. The display of two employment notices does not appear to meet the requirements outlined in the MOU.
<table>
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<th>BUSINESS ISSUE</th>
<th>PLANNED ACTION</th>
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| 1. Campus departments are completing Form I-9 for employees, although they have not been delegated the authority to do so by HR. Specifically, we noted that although Financial Aid enters cases into E-Verify for financial aid-funded employees, the completion of Form I-9 is done by the employee’s supervisor in the department in which the employee will be working. Having unauthorized and untrained personnel verify employment eligibility increases the University’s risk of violating Federal laws related to employment verification. | HR will ensure that personnel who verify employment eligibility are authorized and trained to do so by performing the following:  
- HR will formally delegate authority to each department in writing.  
- HR will provide mandatory training to personnel within each department.  
- HR will provide desktop procedures to each department. | January 31, 2020 |
| 2. Improvements are needed in the process of entering new hires into E-Verify. Specifically, during our testing, we noted that 18 out of 683 total new hires (3%) were not entered into E-Verify.  
- For 7 of these, this appeared to be due to not having a Form I-9 on file or not having a complete Form I-9 on file. We noted that for 4 of these, a Form I-9 could not be located; for 3 of these, a Form I-9 was located, but Section 2 (Employer Review and Verification) was blank.  
- For the remainder (11) of these, we were unable to determine why no E-Verify entry was done. To comply with Federal and State mandates, the University must fully complete Form I-9 for all new hires, retain the complete Form I-9 on file, and enter all new hires into E-Verify. Failure to do so could result in fines for the University. | 2.1 HR will ensure that formal training is provided to all areas with delegated authority to enter cases into E-Verify. Documentation of this training will be maintained in HR.  
2.2 To address the specific employees noted, HR will ensure the following is completed, as applicable:  
- For current employees, a Form I-9 will be completed and the employees will be entered into E-Verify. Documentation regarding the correction will be attached to each Form I-9.  
- For separated employees, documentation of the University’s awareness of the error will be maintained in each employee’s personnel file. | January 31, 2020  
January 31, 2020 |
| 3. Improvements are needed to ensure the timely entry of cases into E-Verify. As required by the E-Verify MOU, the University must create an E-Verify case for new employees within three employer business days after each employee has started working for pay. Cases created... | | |
### Business Issue

Out of all 781 E-Verify cases entered during our review period, we noted 100 cases (13%) that were entered late with explanations that E-Verify does not deem as acceptable. Most significantly,

1. The explanation for 59 (59%) of those cases attributed the lateness to HR not entering the cases timely. The majority of those noted “work overload” by HR. Additionally, we noted that all of these 59 cases were for hire dates in August – September 2018, the beginning of a semester, which we identified as a peak hiring period for the University.

2. The explanation for 32 (32%) of those cases attributed the lateness to the new hire or the new hire’s department not submitting required documents to HR timely.

Timely entry of cases into E-Verify is essential to ensure compliance with E-Verify rules and regulations. Noncompliance could result in penalties for the University or further investigation by USCIS, Immigration and Customs Enforcement, the Department of Justice, or other agencies.

### Planned Action

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<tr>
<td>3.1.1 HR will request additional resources at peak hiring periods to ensure compliance with regulations.</td>
<td>January 31, 2020</td>
<td></td>
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<tr>
<td>3.1.2 HR will ensure new hires are entered into E-Verify within 3 business days of the employee beginning work for pay.</td>
<td>October 31, 2020</td>
<td></td>
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<tr>
<td>3.2.1 To address hiring departments: HR will create a process to identify departments missing deadlines. This information will be forwarded to the appropriate Division Head to determine action to be taken, if necessary.</td>
<td>January 31, 2020</td>
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<td>3.2.2 To address new hires: HR will work with the Vice President for Finance &amp; Administration to document the University’s position on whether or not to terminate employees who do not provide employment verification documentation in the required timeframe.</td>
<td>March 31, 2020</td>
<td></td>
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<td>4.1 HR will ensure personnel verifying employment eligibility, including for student employees funded by the FWS program, are authorized and trained to do so. Authority will be formally delegated to the department in writing, mandatory training will be provided, and desktop procedures will be provided to the department.</td>
<td>January 31, 2020</td>
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<td>4.2 To address the specific E-Verify cases noted, HR will ensure that they are corrected or documentation supporting the actual first date of employment is attached to the Form I-9.</td>
<td>January 31, 2020</td>
<td></td>
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<tr>
<td>BUSINESS ISSUE</td>
<td>PLANNED ACTION</td>
<td>COMPLETION DATE</td>
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<td>5. Although the E-Verify system contains data classified as highly sensitive, it has not been evaluated to determine if it is subject to information technology controls that help secure a system’s data.</td>
<td>HR will contact the Division of Information Technology to request an evaluation of the E-Verify system to determine if it is subject to information technology controls.</td>
<td>Complete</td>
</tr>
<tr>
<td>6. Improvements are needed in the granting and monitoring of access to the E-Verify system. Specifically,</td>
<td></td>
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<tr>
<td>1. There is not a centralized process to grant access to the E-Verify system. Currently there are five program administrators that can grant access. Allowing multiple program administrators to grant system access without a centralized review process could result in (a) inconsistency in the criteria and documentation required for access, and (b) someone without a business need having access to the system. In our review of 11 employees with access to E-Verify, one current employee was determined to have no business need for access.</td>
<td>6.1 HR will limit the number of program administrators to two: one primary and one secondary. Both will be within HR. HR will also develop a form required to request/grant access to the E-Verify system.</td>
<td>January 31, 2020</td>
</tr>
<tr>
<td>2. There is not a process to regularly monitor access to the E-Verify system. This could allow individuals to continue to have access without a business need. In our review of 11 employees with access, we noted that one had separated from the University, but still had access.</td>
<td>6.2 The program administrators will conduct an annual review of users to monitor access to E-Verify. Documentation of this annual review will be maintained in HR.</td>
<td>January 31, 2020</td>
</tr>
<tr>
<td>7. The display of two employment notices, the Notice of E-Verify Participation and the Notice of Right to Work, does not appear to meet the MOU’s requirements. The notices must be displayed in a prominent place that is clearly visible to prospective employees and all employees who are to be verified through E-Verify. Although these notices are posted in the lobby of HR and in the College of Graduate Studies &amp; Research, not all employees must go to one of these places. Therefore, these notices are not visible to all employees, resulting in noncompliance with the MOU.</td>
<td>HR will determine additional locations where the employment notices should be posted to meet the requirements of the MOU and ensure that they are posted in those locations.</td>
<td>January 31, 2020</td>
</tr>
</tbody>
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Capital Project Update
Reed and Curie Renovation
Reed and Curie Renovation
Reed and Curie Renovation
Center for Adaptive Innovation and Creativity
RADFORD UNIVERSITY BOARD OF VISITORS  
Business Affairs and Audit Committee  
December 5, 2019

Information Item  
Capital Projects Update

Item: Facilities Planning and Construction update on capital projects.

Background: Currently, the University has two active capital projects in progress. Following is an update and project summary:

1. Reed-Curie Renovation

   Project Budget ----------------------------------------------------------- $33,045,000

   Architect/Engineer Firm----------------------------------------------- Cannon Design

   Construction Manager------------------------------------------------ Branch and Associates

   The Reed-Curie renovation project was approved in the spring 2016 state bond package. The project will completely renovate the existing Reed Hall and Curie Hall science buildings to complement the recent addition of the Center for the Sciences, ultimately providing an overall state-of-the-art facility for nearly all of RU’s Artis College of Science and Technology departments.

   Occupants in the renovated building will include the Departments of Physics, Geology and Geospatial Science and the Office of the Dean. The Cyber Security Center will also be housed in the renovated building, along with support spaces for the Chemistry and Biology Departments. The Greenhouse will also be renovated and remain located adjacent to the renovated Reed Hall.

   The state initially approved funding for detailed planning for the project in the fall 2016, and then approved final funding for the remainder of design and the construction on June 30, 2017. The state issued an approved demolition Building Permit on January 8, 2018, and the approved full project Building Permit on May 3, 2018.

   During the summer 2017, Radford University completed the relocation of staff and equipment to various swing spaces on campus to render the building unoccupied. A Guaranteed Maximum Price for an Early Release Demolition Package was approved with a Notice-to-Proceed executed on January 8, 2018, and a subsequent Guaranteed Maximum Price for the full Project Renovation Package was approved with a Notice-to-Proceed executed on May 3, 2018.
Demolition is complete, including all interior systems and components and exterior utilities and sitework. The façade of the existing Curie Hall has been demolished, and installation is complete for a new metal panel and window façade to more closely match the elements of the adjacent Center for the Sciences, and to provide full views from the interior building spaces.

New interior walls and various interior building systems installations are complete, starting at the first floor and proceeding to the third floor. Electrical and plumbing rough-ins are complete. The foundations, framing, window-wall, and roof for the entry area addition and exterior utility systems are complete. Roofing installation is complete, and exterior windows installation is complete. Final space finishes are nearly complete, including floors, ceilings, and walls. Lab equipment installation is complete. Delivery and installation for furniture and other equipment/furnishings is complete.

The Division of Engineering and Buildings (DEB) substantial completion and final inspections have been completed, with temporary occupancy approved the first week of December. Project construction completion including all punch list items and swing space relocations will occur in December 2019 and January 2020, to allow classes in mid-January 2020. The overall project is anticipated to be under budget upon completion.

2. Center for Adaptive Innovation and Creativity

Project Budget ------------------------------------------------- $4,000,000
(Detailed Planning only)

Architect/Engineer Firm-------------------------------------- Hord Coplan and Macht

Construction Manager---------------------------------------- Skanska

The Center for Adaptive Innovation and Creativity project was approved for Detailed Planning in July 2018, as described in the Radford University six-year capital plan submission to the state in December 2017.

The Center will address an array of significant existing programmatic and building deficiencies across a number of academic colleges. The approximately 178,000-square-foot multi-story building will include state-of-the-art instruction, laboratory, maker, studio, computer, and collaborative spaces that integrate the arts and health sciences, along with office and other academic support functions. Specialty spaces will include an instructional auditorium and support spaces, health science clinical lab spaces, painting and drawing studio spaces, and music and dance studio spaces. The project will be located in a prominent area of campus directly adjacent to East Main Street and will respond aesthetically to the existing buildings along this important campus corridor.
The project scope will generally provide for demolition of the existing Porterfield East and West Halls and McGuffey Hall and construction of the new building and building systems and components including HVAC, plumbing, electrical, fire alarm and detection, fire suppression, lightning protection, and elevators. The project will replace existing facilities and building systems nearly 50 years old that are inadequate for today’s learning environment and technologies. Significant utility impacts will be accommodated, along with erosion/sediment control and stormwater management requirements. The impact of required swing spaces and potential phased construction are being investigated during the preliminary design phases of the project.

The solicitation for design services was advertised on May 1, 2018, and the firm of Hord, Coplan and Macht was selected and the design began in July. The initial Programming effort has been completed, and early building schemes were developed and approved by Radford University. Geotechnical investigations and site/utility surveying are complete. The state’s Department of Historic Resources has approved the proposed demolition, and the Environmental Impact Report has been approved by DEQ. The demolition package has been approved by AARB, along with final approval of the new building design package by AARB as well. The Schematic Design Package was submitted to DEB in November, with subsequent approval in December. The Preliminary Design Package and Estimate was submitted to DEB in May 2019, with subsequent approval in July.

RU’s request to utilize the Construction Management-at-Risk delivery method was approved by DEB, and the solicitation for CM-at-Risk services was advertised on July 22, 2018. Qualifications packages were received on August 21, 2018, with RFP proposals and interviews in mid-September. The contract for pre-construction services was awarded to Skanska on October 8, and their team provided pre-construction services for the project.

The project was not funded in the FY2020 budget; therefore, the project will not proceed past Detailed Planning at this time. The Capital Budget Request for the project was submitted in June, in order to facilitate inclusion in the upcoming FY2021 budget. The project estimate is currently $97,800,000.

3. **Master Plan 2020-2030**

The University has been working on the preparation of an update of the current Master Plan. Background information gathering for the Master Plan 2020-2030 began in 2017, with the assignment of the Committee and kickoff meeting in April 2018. Initial information gathering and stakeholder input occurred throughout the summer and fall 2018, with campus open forums and presentations to all internal governance Senates and other organizations and stakeholder groups. Sub-committees were formed to study specific areas of interest including academics; student activities and services; land use; transportation; infrastructure and sustainability; and public-private and community. A review of existing campus space utilization was completed, using outside consultants to identify potential under- or over-
utilization of various space types. A review of existing campus parking was also completed, using outside consultants to identify potential areas of improvement for traffic, parking, and public transportation. Initial findings were compiled and reviewed with the Executive Steering Committee in January, in order to identify areas for greater analysis by the Committee in the spring and summer 2019.

Final draft document preparation continued throughout the summer and fall 2019 with another round of presentations to internal governance Senates and other organizations and stakeholder groups, including a briefing to the Board of Visitors on overall themes and findings. The pre-final draft of the text document was posted to campus for comments, and preparation of the final deliverable was completed in November 2019. Presentation to the Board of Visitors is scheduled for December 2019.
Six-Year Capital Outlay Plan
2020-2026

RADFORD UNIVERSITY
Six-Year Capital Outlay Plan 2020-2026

• Each University submits to the Commonwealth every two years
• University prioritizes projects and indicates sources of funding
• Driven by Strategic Plan and Master Plan
• Compiled in two-year Biennial Groupings
• Governor uses to prepare Executive Budget Bill
2021-2022 Biennium
Center for Adaptive Innovation and Creativity

- Demolish Porterfield and McGuffey Halls
- 178,000 square foot new building
- CVPA and WCHHS spaces
  - Classrooms
  - Clinics
  - Specialty labs
  - Studios
  - Offices
Renovate Norwood Hall and Tyler Hall

- Complete renovation of both buildings
- Study and gathering spaces
- New finishes, systems and private bathrooms
- Living-learning environments

Six-Year Capital Outlay Plan
Expand Create Riverway Experience

- Expand/connect to existing City greenway
- Improved gateway entry bridge
- Academic and recreational activities
- RU Outdoors/RU Able
- Restaurant
- Amphitheater
Construct Hotel and Convention Space

- City and Foundation partnership
- Adjacent to Moffett Quad
- 125 Rooms
- Conference Center
- Rooftop restaurant
Property Acquisition

- Blanket appropriation for potential property purchases
- Facilitates future program and enrollment growth
- Funding approval mechanism to allow purchases “off-cycle”
Renovate McConnell Library

- Complete renovation of building systems
- Repurposing of existing print storage spaces
- Student collaborative and maker spaces
- Archives and special collections
- Tutoring and instructional labs
Construct Administrative Services Addition

- Administrative units currently in leased spaces
- Promotes co-location of related employees
- Cost-effective addition to Armstrong Building
Improve Campus Infrastructure

- Many utility systems are 50+ years old
- Regulatory changes require upgrades
- Security and safety improvements are needed
Renovate Muse Hall

- Complete renovation of entire building
- Study and gathering spaces
- New finishes, systems, private bathrooms and exterior facade
- Living-learning environments
Renovate Walker Hall

- Repurposing of existing spaces for Division of Information Technology
- Complete renovation of building systems
- Classrooms and computer labs
- Site improvements
Renovate Dedmon Center

- Re-configured arena seating bowl
- River Entrance to upper level for fan access
- Enhanced concessions and restrooms
- Facilitates future improvements to Dedmon
2020-2030 MASTER PLAN

- New Building Location
- Full Building Renovation
- Partial Building Renovation
- New/Improved Parking
- River Campus Development
- Drop-Off Shelter
- Central Campus
- Athletics/Recreation Campus
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On behalf of the Radford family, I am pleased to present Radford University’s 2020-2030 Master Plan, which reflects the University’s commitment to optimizing the function and utilization of existing and future facilities and enhancing the development and overall engagement with the community by serving as a critical partner with the City of Radford and in the New River Valley. This plan capitalizes on the scenic beauty of the main campus’ ideal location in the Blue Ridge Mountains and along the New River, as well as further expansion into the broader region, specifically the City of Roanoke, with the establishment and operation of Radford University Carilion, which is located in the Star City’s Innovation Corridor.

Due to the dedicated work of the Master Planning Committee and its various subcommittees, as well the active engagement of the campus community, the 2020-2030 Master Plan provides the infrastructure to accomplish the visionary goals and strategies outlined in the University’s 2018-2023 Strategic Plan: *Embracing the Tradition and Envisioning the Future* and establishes the foundation for our sustained growth and success. This plan represents yet another significant step forward in continuing our rich tradition of teaching and learning, while, at the same time, creating bold opportunities for collaboration and innovation.

With Highlander Pride,

Brian O. Hemphill, Ph.D.
President
@BrianOHemphill
Executive Summary

GOALS

The Radford University 2020-2030 Master Plan was developed to support the Radford University 2018-2023 Strategic Plan: Embracing the Tradition and Envisioning the Future. The 2018-2023 Strategic Plan contains goals and strategies to support the vision of transforming Radford University into a premier, innovative, student-centered university in the Commonwealth of Virginia and beyond with a keen focus on teaching, research and service. This Master Plan includes both overall guidance and specific actions for enhancing the University’s physical built environment as an integral part of this comprehensive strategic vision.

The Master Plan identifies actions to facilitate accomplishment of the goals and strategies associated with these areas of emphasis.

The goals of the Master Plan are multi-pronged.

1. Support the 2018-2023 Strategic Plan by enabling the University’s physical resources to accommodate future needs of the University. The 2018-2023 Strategic Plan is built around six areas of emphasis.
   - Academic Excellence and Research
   - Brand Identity
   - Economic Development and Community Partnerships
   - Philanthropic Giving and Alumni Engagement

2. Plan for key building footprint components.
   - Construction of the new Center for Adaptive Innovation and Creativity (CAIC) to replace College of Visual and Performing Arts (CVPA) space and also create interdisciplinary student spaces serving the Waldron College of Health and Human Services and the Artis College of Science and Technology.
   - Renovation and repurposing of McConnell Library for current and future uses.
   - Renovations to multiple existing residence halls to enhance quality of on-campus residential accommodations.
   - Repurposing of existing spaces to facilitate efficient use of current building footprint and promote cross-discipline collaboration.
   - Potential new building footprints as identified during the master planning process.

3. Provide a detailed, long-range plan for the residential life system that provides additional beds in residence halls either on-campus or off-campus, plans for the systematic renovation of existing residence halls and improves the variety of offerings in a manner that is financially sustainable.

4. Plan for transportation and parking systems to enhance access to campus, improve user satisfaction and encourage multimodal means of transportation.

5. Plan for infrastructure systems that anticipate growth rather than react to demand. Plan for systems that continue to support and enhance the University’s initiatives to maximize overall resource efficiency. Plan for systems that respond to the challenges of sustainability, including reductions in energy use and greenhouse gas emissions.

6. Enable connectivity with the City of Radford and greater Southwest Virginia through enhancement of existing facilities and virtual infrastructure environment, as well as the establishment of new locations and programs.

THEMES

Several themes have been identified as overarching influences in the preparation of the Master Plan.

1. Consistent Aesthetic Campus Brand: Buildings and landscape aesthetic characteristics will be complementary to the existing campus built environment, in terms of massing, color palette, materials, style, density, green space and other important current components.

2. Efficiency/Effectiveness/Collaboration of Building Space: Buildings will be efficient in their usage and effective in their support of overall University goals and education delivery.
3. Anticipate/Enable Growth: Building spaces and locations, exterior environments and overall campus infrastructure will anticipate and facilitate future growth and development.

4. Accessibility and Connectivity: Buildings and exterior campus elements will enhance accessibility for all users and occupants and encourage connectivity for students, faculty and staff across both academic and student life programs.

5. Sustainability: Buildings and infrastructure elements will achieve sustainability goals as set forth by the University and in accordance with stated core values.

6. Safety: Buildings and exterior spaces will provide safe environments for all users and occupants.

**PLANNING ISSUES**

In order to understand and address the overall goals, the Master Plan work began with data collection in the fall of 2017. This process started with compiling all current and historic information relative to campus buildings, infrastructure, student, faculty and staff populations and other information from outside relevant resources, along with field investigation and collection of technical engineering data from the Facilities team, transportation and parking assessments and analysis of existing green space and landscape elements.

The process also included information gathering meetings and work sessions with multiple groups of students, faculty and staff, as well as representatives from the City of Radford and other appropriate stakeholders. The goal of these meetings was not only to understand physical needs and criteria, but to better understand the qualitative needs and the cultural aspects of the campus community. The result of the data collection process yielded vital information that informed the plan. The findings of the data collection process are summarized as follows.

- The central areas of the campus are beautiful, but not readily seen by visitors; therefore, the campus needs to connect more effectively to the surrounding community.
- The addition of a large amount of occupied building square footage over the last decade has brought about potentially inefficient and unbalanced space usage across several types of use groups and occupants on-campus.
- Changing academic delivery methods and pedagogies have created the need to rethink current learning spaces and provide new convergence spaces to facilitate cross-disciplinary activities.
- The Athletics area of campus is separated from the main campus by East Main Street and the railroad tracks. This separation appears to impact use of the recreation facilities near the Dedmon Center and attendance at athletic events.
- Parking is an issue on campus. Several small lots, particularly those within the Central Campus, cause traffic congestion as vehicles move from lot to lot searching for a parking space, while the allocation to various user groups appears to be unbalanced.
- Most off-campus students live in neighborhoods adjacent to campus across Tyler Avenue to the west or across Jefferson Street to the east. This circumstance generates significant pedestrian traffic crossing these major vehicular routes.
- Central Campus has limited remaining opportunities for large new building footprints. Significant growth in the built environment, if identified in the future, will likely rely on acquisition and development of current off-campus locations.
- New off-campus residential apartment footprint adjacent to the Central Campus needs to be incorporated into the overall University housing plan.
- Transit service needs to be revised to accommodate the changing needs of students, faculty and staff. More efficient routes and stops will help incentivize ridership.
- The University needs to continue its commitment to overall sustainability across campus assets and programs.
- The merger of Jefferson College of Health Sciences brings about a significant new presence in Roanoke as Radford University Carilion (RUC).
VISION AND IMPLEMENTATION PLAN

Through multiple iterations of analysis by the Master Planning Committee; input from the University community and other major stakeholders; and subsequent refinement by the Executive Steering Committee, the final version of the Master Plan was approved by the Board of Visitors in December 2019. The major tenets of the Master Plan are far-reaching and will enhance the Highlander experience for generations to come.

○ Existing Space Usage: Based on current utilization of space, proposed student population can generally be accommodated in existing on-campus academic built footprint with a few specific exceptions. Current academic and administrative spaces will be repurposed to enhance new learning methods and support environments where appropriate.

○ Existing Residences: Based on the recent acquisition of more than 600 beds in apartment buildings located off-campus and adjacent to Central Campus, along with the current available on-campus residence halls and off-campus apartments, no additional new on-campus beds have been identified for the next 10 years.

○ Central Campus and Athletics/Recreation Campus New Building Locations: A number of locations have been identified on both Central Campus and Athletics/Recreation Campus as potential locations for identified new academic and student programs buildings and future buildings as the need arises, along with the proposed River Campus development.

○ Primary Strategic Future Growth Areas: In the long term, the campus will likely expand primarily to the east across Jefferson Street and along East Main Street. Short-term development is planned with an eye toward this long-term vision.

○ Secondary Strategic Future Growth Areas: The Tyler Avenue Corridor is also a location for anticipated future growth of the campus, along with related student and family services and amenities. This growth will need to be carefully coordinated with the City of Radford, given the number of established retail, housing, religious and government occupancies along Tyler Avenue.

○ Enhanced and New Off-Campus Programs: Radford University Carilion, the result of merging with Jefferson College of Health Sciences, is a major focus for expanding program services in Southwest Virginia. The Roanoke Higher Education Center and the Southwest Virginia Higher Education Center both offer growth opportunities for multiple existing and proposed academic programs in the region.

○ Improved Parking System: This will provide a more service-oriented business model by providing balanced, reliable, convenient parking on or adjacent to the Central Campus, while providing additional parking on the Athletics/Recreation Campus or off-campus with associated transit service.

○ Transportation Options: The transit system will be improved to better serve commuter students, provide better access to the Athletics/Recreation Campus area and allow easier access to downtown and connection to other localities.

○ Infrastructure Improvements: Campus systems and components will be analyzed and improved to ensure continuing services and to enhance overall campus sustainability.

○ Landscape/Hardscape Improvements: Comprehensive landscape and hardscape provisions will be undertaken to continue the landscape heritage of the overall campus, while improving perimeter aesthetics, pedestrian experiences and overall wayfinding.
2020-2030 MASTER PLAN — OVERALL SUMMARY

Construct
- CAIC — Highest priority
- Hurlburt Addition
- Administrative Services Addition
- Welcome Center
- Public Safety Building
- Athletics Ticketing/Concessions Building

Renovate
- McConnell Library
- Tyler/Norwood/Muse Halls
- Dedmon Center Arena

Repurpose
- Programmatic expansion through selective repurposing of areas within Davis, Cook, Walker, Peters, Kyle and Young Halls
  - Waldron College growth
  - CEHD programs
  - Tech Talent Pipeline
  - Venture Lab
  - Tourism Lab

Evaluate and Upfit
- Classrooms and labs — Scheduling, efficiency, delivery methods and REAL General Education
- Student study and collaboration spaces
- Event and meeting spaces

Enhance
- Sustainability
- Utilities
- Transit
- Campus perimeter
- Green spaces
- Brand identity

Create
- Greenway/Riverway — River Campus
- Roanoke locations — RUC/RHEC
- Hotel
- Public-private/retail spaces
- Other opportunities as identified
THE PROCESS

The planning team developed a five-phase process to study and prepare the Radford University Master Plan. This process included work in the following areas.

- Kickoff and Charge
- Discovery and Data Collection
- Analysis and Options
- Master Planning and Concept Refinement
- Implementation and Documentation

To understand existing campus conditions and the perceptions of these conditions, the Master Planning Committee and the Document Preparation Team conducted a series of meetings with various groups during 2018 and 2019. Additionally, the team toured campus, assessed building and space use, reviewed University Facilities existing technical documents and engaged with developers of the City of Radford Comprehensive Plan. The team also conducted workshops and prepared surveys to collect information regarding academic programs, student programs, land use, infrastructure and other areas of interest.

The team utilized the 2018-2023 Strategic Plan: Embracing the Tradition and Envisioning the Future as its basic guide with specific goals for each of the following areas.

- Academic Excellence and Research
- Brand Identity
- Economic Development and Community Partnerships
- Philanthropic Giving and Alumni Engagement
- Strategic Enrollment Growth
- Student Success

The team also utilized a number of other previously prepared documents and studies for broad background in addition to the 2018-2023 Strategic Plan.

- Radford University’s 2020-2026 Six-Year Plan and Six-Year Capital Plan
- Radford University’s 2016 Virginia Department of Historic Resources Campus Survey Report
- Radford University’s 2014 Athletics Master Plan
- Radford University’s 2011 ADA Campus Accessibility Audit
- Radford University’s most recent Campus Master Plans from 1993, 2001 and 2008

The team then engaged in multiple iterations of analysis and feedback with Radford University’s Master Plan Executive Steering Committee. Based on this feedback, the planning team refined concepts and added supporting detail to the Master Plan. The final draft iteration was then presented to the Board of Visitors for review and comment. Upon incorporation of these final comments, the 2020-2030 Master Plan was finalized for publication.
MISSION
As a mid-sized, comprehensive public institution dedicated to the creation and dissemination of knowledge, Radford University empowers students from diverse backgrounds by providing transformative educational experiences, from the undergraduate to the doctoral, within and beyond the classroom. As an inclusive community, the University specializes in cultivating relationships among students, faculty, staff, alumni and other partners, thereby providing a culture of service, support and engagement. The University embraces innovation and tradition and instills students with purpose and the ability to think creatively and critically. The University provides an educational environment and the tools to address the social, economic and environmental issues confronting our region, nation and the world.

VISION
Radford University aspires to be the premier, innovative, student-centered university in the Commonwealth of Virginia and beyond with a keen focus on teaching, research and service.

CORE VALUES
Student Empowerment and Success — We engage and support our students in the discovery and pursuit of their own unique paths.

Excellence — We expect our community to strive for the highest standards.

Inclusiveness — We are committed to a spirit of cooperation and collaboration, embracing and honoring the diversity of our community.

Community — We foster relationships and a culture of service within and beyond our University community.

Intellectual Freedom — We encourage and defend a fearless exploration of knowledge in all its forms.

Innovation — We inspire and support creativity in research, scholarship, pedagogy and service.

Sustainability — We are committed to integrating sustainable practices into all aspects of our operations and engage students across the curriculum to learn, discover and contribute to positive current and future environmental solutions.

OVERVIEW
Campus Evolution
Radford University was founded in 1910 as the State Normal and Industrial School for Women to train teachers in the western part of Virginia and has been in continuous session since its 1913 opening. The School became Radford State Teachers College in 1924 and was authorized to award Bachelor of Arts degrees in 1935. The College steadily grew for the first 30 years of its existence, up until World War II. After the war, the College became the women’s division of nearby Virginia Polytechnic Institute in 1944 and was renamed Radford College. In 1964, the College separated from Virginia Tech and again became an independent entity and was also authorized to award Master of Science degrees. The College became coeducational in 1972 and was renamed Radford University in 1979.
The campus is located in the Blue Ridge Mountains on approximately 204 acres within the City of Radford and adjacent to the New River. The primary transportation links to campus are U.S. Route 11 (Main Street) and State Route 177 (Tyler Avenue), both of which provide connections to Interstate 81, the major north-south transportation corridor serving Southwest Virginia. Topography varies dramatically from an approximate elevation of 1920 ft. at the south end of campus to an elevation of 1720 ft. at the north end of campus at the New River. The campus is mainly surrounded by residential areas, mostly populated with students, along with limited commercial development.

The campus has experienced several periods of growth during its history, as shown on the illustrated campus maps. The original campus comprised of approximately 12 buildings within a triangular footprint in the City of Radford and served students well for its first three decades. The first significant growth period occurred during a building campaign undertaken post-World War II with the addition of more than 25 buildings from the late 1940s through the early 1970s. These buildings stretched the campus to the south and to the east and incorporated several additional streets and properties. Another period of campus growth occurred during the 1980s, which most significantly brought about the addition of the Athletics/Recreation Campus. Campus growth was fairly steady until the mid-2000s with the addition of approximately 10 major signature buildings during the last decade. These buildings mostly expanded the campus even further to the east, absorbing another existing block-width of properties.

There have been several Master Plans prepared throughout the history of the campus, as shown by the illustrated maps. The Master Plans have been useful in providing an overall framework for the growth of the campus throughout the years, although off-campus parcels identified for potential expansion have not always been fully executed. The relatively long history of the campus and the various discrete growth periods have created a mixed-use campus with academic, administrative, student services, athletic and residential usages co-located across the campus. This mixed-use environment creates a diverse set of activities and interconnections throughout the campus footprint.

### Campus Overall Aesthetics

The original campus structures utilized an overall Georgian architectural theme, including such elements as red brick facades, stone/precast accents and sloped slate roofs. These elements have been carried forward through the years with the recent introduction of a more modern design and materials for the newer structures around the perimeter of campus, particularly along Main Street. Building heights are generally three to four stories. The existing open green spaces have been largely preserved with a number of prominent quadrangles and pathways throughout campus.

### Historic Resources

A reconnaissance-level architectural survey was prepared in 2016 and approved by the Commonwealth of Virginia’s Department of Historic Resources in September of that year. While no buildings on University-owned property are designated as historic, the original campus area is eligible for listing as a Historic District given its history in higher education in the state and its adherence to early campus master planning documents. The illustrated map indicates the extent of the eligible portion of the campus. In general, the buildings facing the Main Quad, Moffett Quad and the Governor’s Quad contribute to the potential Historic District. While the University has to date not chosen to seek this designation, any proposed building or major campus modifications should be viewed with the potential Historic District in mind.

### Off-Campus Locations

The University has a presence at a number of off-campus locations:

- Radford University Carilion (RUC) — Leased space in Roanoke comprising the recently acquired health and human services programs
- Roanoke Higher Education Center (RHEC) — Leased space supporting several program offerings in Roanoke
- Southwest Virginia Higher Education Center (SWVAHEC) — Leased space supporting several program offerings in Abingdon
- Corporate Park — Leased space supporting several academic program offerings in Radford
- Selu Conservancy — Leased space for academic programs, conference, recreation and other outdoor purposes for both the University and the community
CAMPUS GROWTH THROUGH HISTORY

1949

1969

1989

2019
BUILDING CONSTRUCTION/RENOVATION DATES

- 2007-2019
- 1996-2006
- 1975-1995
- 1955-1974
- Older than 1954
PREVIOUS MASTER PLAN MAPS

1911

1968

1993

2008
VIRGINIA DEPARTMENT OF HISTORIC RESOURCES (VDHR) PROPOSED BOUNDARIES FOR POTENTIAL RADFORD UNIVERSITY CAMPUS HISTORIC DISTRICT

KEY
- New Proposed Boundary
- Contributing Buildings from Survey Report
- Additional Contributing Buildings

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STATISTICAL BACKGROUND
It is instructive to understand a number of basic statistics about the campus.
  - Total students: 11,870
  - Total faculty and staff: 1,835
  - 55 buildings (academic, administrative, auxiliary and athletics)
  - 2,800,000 total building square footage (academic, administrative, auxiliary and athletics — broken down by various use groups and space types)
  - 3,400 residential beds
  - 204 total campus acres

These basic statistics can be used to characterize several key measures of efficiency and effectiveness and benchmark the campus against other peer institutions.

PLANNING INFLUENCES

Campus Open Space
In order for new development to complement and extend the qualities of the campus, it is important to understand existing campus density. The Floor Area Ratio (FAR) analysis is a helpful benchmark for overall planning. In simple terms, FAR is computed by dividing a building’s total floor area by the building’s supporting site area. For example, a one-story building that completely covers the building’s supporting site area would have an FAR of 1.0, while a five-story building that covers the site would have an FAR of 5.0. While FAR can vary significantly depending on many factors, values ranging from 0.5 to 3.0 are generally accepted as representative on campus environments. Lower FARs are appropriate for open-space areas, and higher FARs are representative for denser housing areas. Further, new development FARs should not vary drastically from the FAR of the various existing campus areas.

Slope Analysis and Topography
Another characteristic of University land is the somewhat significant topographical challenges. Within the existing Central Campus, grade changes are fairly gradual, consisting of a series of plateaus decreasing in elevation from south to north with most areas between approximate elevations of 1880 ft. and 1800 ft. However, more dramatic slopes occur near the perimeter of campus, particularly at the south end of Jefferson Street. The Athletics/Recreation Campus lies between approximate elevations of 1780 ft. and 1740 ft. as it approaches the New River.

Flood Analysis
Radford University borders the New River at the northern portion of campus at the Athletics/Recreation Campus and commuter parking areas. The current FEMA flood analysis shows that a good amount of the northern portion of the Athletics/Recreation Campus is in either a 100-year flood plain, 500-year flood plain or the floodway at the approximate Base Flood Elevation (BFE) of 1740 ft. Due to these concerns, minimal development can occur on this land at this elevation or lower; however, development can occur in the 100-year flood plain if the structure is designed to be capable of resisting the effects of floodwaters, or if the development is located in the areas at elevations higher than 1740 ft. Limited development may also occur in the floodway if a “no-rise condition” can be met with no impediment or increase in the BFE. Recreational and associated uses appear to be one of the logical uses for portions of this area of campus. Although, other elements can be considered as long as all regulatory requirements are achieved.
FLOOR AREA RATIO BY DISTRICT

- District 1 Residential - 1.05 FAR
- District 2 Residential - .56 FAR
- District 3 Academic - .47 FAR
- District 4 Student Support - .69 FAR
- District 5 Academic - .72 FAR
- District 6 Residential - 1.25 FAR
- District 7 Support/Service - .11 FAR
- District 8 Athletics/Recreation - .04 FAR
COMMUNITY INFLUENCES

City of Radford Comprehensive Plan 2017 Update

The City of Radford Comprehensive Plan 2017 Update identifies a variety of goals and strategies to provide guidance for future development in the City of Radford. These goals and strategies are organized around main broad focus areas, including specific items as they pertain to the University’s areas of mutual interests.

- **Economic Development**: Community Development Opportunity locations identified by the City of Radford near the University include the Jefferson Street Center at the intersection of Jefferson Street and East Main Street; the East End Downtown area; and the Radford University Recreation area.

- **Infrastructure and Public Spaces**: Opportunities to improve transit, bike paths, trails, pedestrian paths and viewsheds are identified, particularly concentrating on the East and West Main Street and Tyler Avenue gateway entries to the City of Radford.

- **Housing**: A detailed housing study within the City of Radford to evaluate age, size, use, capacity, occupancy and market value has been undertaken.

- **Land Use**: Future land uses adjacent to the University include corridor business commercial along East Main Street and Tyler Avenue and residential along and east of Jefferson Street.

The City of Radford Comprehensive Plan is clearly focused on “areas for revitalization” surrounding the campus, along East Main Street, Tyler Avenue and Jefferson Street. Streetscaping, landscaping, crosswalks and improvements to pedestrian and bicycle safety were mentioned specifically as needs for these areas, particularly at the “gateway” entry points to the City of Radford. This Master Plan agrees with these focus areas and presents an opportunity for the University to work with the City of Radford on these improvements.

Existing land use, as noted in the City of Radford Comprehensive Plan, identifies the University’s campus as a “public/institutional” area, while the areas to its east and west are identified as a combination of “single-family and multi-family residential” and the areas to the north along Main Street are identified as “commercial.” In the future land-use diagram, the City of Radford plan maintains Radford University as a “public/institutional” zone; however, the areas directly adjacent to Tyler Avenue and Jefferson Street and along East Main Street are now mostly identified as “corridor business commercial.” Though these land-use zones are accurate for existing uses, all areas adjacent to campus may well be transformed into more “public/institutional” areas as Radford University acquires land for growth. It will be critical for the City of Radford and the University to work together as development of these areas moves forward.
The City of Roanoke’s Comprehensive Plan Vision 2001-2020 and the Downtown Roanoke Plan 2017 identify a variety of goals and strategies to provide guidance for future development in the City of Roanoke. The framework for the Downtown Roanoke Plan 2017 is structured around six themes that serve to build on the success of downtown and aid in its continued revitalization and growth over the next 20 years, including specific items as they pertain to the University’s areas of mutual interests.

1. Build on Strengths
2. Fill in Gaps
3. Expand
4. Enhance Public Space
5. Strengthen Connections
6. Maintain and Market

The Expand theme includes Policy 3-B: Capitalize on the expansion of the South Jefferson Redevelopment Area. In 2001, the South Jefferson Redevelopment Area Plan was approved and paved the way for a major economic development initiative for the City of Roanoke, Carilion Clinic and Virginia Tech. The Virginia Tech Carilion School of Medicine opened in 2009, and the Virginia Tech Carilion Research Institute opened in 2010 with the area between the core of downtown and the South Jefferson Redevelopment Area identified as a potential Innovation Corridor and Academic Health Center.

The proposed area in its entirety extends from Franklin Road at Wonju Avenue to the South Jefferson Redevelopment Area and north through downtown on Jefferson Street and across to the Hotel Roanoke and Conference Center and the Roanoke Higher Education Center (RHEC). The area to the south includes seven distinct districts with the area to the north identified as the Creativity District.

Given the University’s current significant presence in the RHEC located in the Carilion Roanoke Community Hospital, the University is integrally located along the identified Innovation Corridor and Academic Health Center location. This presents a significant opportunity for the University to work with the City of Roanoke on the continuing development of this corridor.
Academic Programs

ACADEMIC PROGRAM DESCRIPTIONS

Goals
The University desires to accomplish a variety of goals relative to academic programs.

○ Provide state-of-the-art classroom, laboratory, faculty and support spaces for the University as a whole, for each college and school at all locations and for all shared academic spaces.

○ Provide academic spaces that enhance and facilitate interdisciplinary study and research across all University programs/units and fields of study.

○ Maximize the efficiency and utilization of all academic spaces with respect to all legislative and University guidelines and requirements.

○ Anticipate the accommodation of the enrollment targets as set forth in the 2018-2023 Strategic Plan.

Current Academic Programs
The University offers 76 bachelor’s degree programs in 47 disciplines, three associate degrees and six certificates at the undergraduate level; 27 master’s programs in 22 disciplines and six doctoral programs at the graduate level; and 13 post-baccalaureate certificates and one post-master’s certificate.

The University is organized into a variety of Colleges and Departments.

Artis College of Science and Technology (Artis College)
- Anthropological Sciences
- Biology
- Biomedical Sciences
- Chemistry
- Geospatial Science
- Geology
- Information Technology
- Mathematics and Statistics
- Physics
- Pre-Health Advising

Sandra C. Davis and William C. Davis College of Business and Economics (Davis College)
- Accounting, Finance and Business Law
- Economics
- Management
- Marketing

Waldron College of Health and Human Services (Waldron College)
- Clinical Health Professions
- Communication Sciences and Disorders
- Occupational Therapy
- Physical Therapy
- Physician Assistant Studies

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- Economics
- Management
- Marketing

Waldron College of Health and Human Services (Waldron College)
- Clinical Health Professions
- Communication Sciences and Disorders
- Occupational Therapy
- Physical Therapy
- Physician Assistant Studies

College of Education and Human Development (CEHD)
- Appalachian Studies Minor
- Counselor Education
- Health and Human Performance
- Peace Studies Minor
- Recreation, Parks and Tourism
- School of Teacher Education and Leadership

College of Humanities and Behavioral Sciences (CHBS)
- Criminal Justice
- English
- Foreign Languages and Literatures
- History
- Military Science (Army ROTC)
- Philosophy and Religious Studies
- Political Science
- Psychology
- School of Communication
- Sociology
- Interdisciplinary Minors
- Forensic Studies
- Intercultural Studies
- International Studies
- Women’s Studies

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Existing Academic Buildings

There are approximately 15 buildings with a primary function to support academics, and a number of them were established in the earliest years of operation. However, the University has built a significant amount of new academic footprint over the last decade or so. In fact, each of the six undergraduate colleges has occupied new or significantly renovated buildings since the late 1990s with the exception of most departments of the CVPA and the College of Graduate Studies and Research. A capital project is currently underway to renovate Reed and Curie Halls, which will complete the main complex for the Artis College. Detailed planning is also complete for a capital project for the Center for Adaptive Innovation and Creativity (CAIC), which will replace the existing McGuffey Hall and Porterfield East and West Halls. This project will mainly support the CVPA, but will also include multidisciplinary spaces including Waldron College, such as music therapy.
HOUSING PROGRAM DESCRIPTIONS

Goals

The University desires to accomplish a variety of goals relative to student housing.

- Redefine the atmosphere and social environment associated with living on-campus, thereby providing students with a memorable and life-shaping undergraduate housing experience.
- Reinforce the sense of community, belonging and identity associated with living on-campus by reinvigorating the community within existing residence halls and developing new communities that address student desires for increasing levels of independence.
- Develop spaces that offer opportunities for students to engage with faculty, thereby enhancing their potential for academic success.
- Increase the number of upperclassmen living on-campus, thereby increasing the potential for mentorship and leadership development.
- Increase the opportunities for non-traditional student housing, including married, military veteran and graduate students.
- Facilitate innovative new programs, such as support for local community college students.
- Anticipate the accommodation of the enrollment targets as set forth in the Strategic Plan.

Existing On-Campus Residential Housing

Muse Quad
- Muse

Main Quad
- Tyler
- Norwood
- Jefferson
- Madison
- Washington

Moffett Quad
- Ingles
- Draper
- Moffett
- Bolling
- Pocahontas

Governor’s Quad
- Floyd
- Peery
- Trinkle
- Stuart

The University has undertaken a program to bring all existing campus housing to a common level of condition and accommodations. All residence halls have been renovated since 2002 with the exception of Norwood, Tyler, Muse and Ingles Halls. All renovated dormitories have air-conditioning, single bathrooms and enhanced program and collaborative spaces.

Off-Campus Residential Housing

The University has current lease agreements with several privately managed residential properties. The Radford University Foundation has also recently acquired more than 700 beds in 32 existing off-campus buildings adjacent to campus, and these spaces have been leased for use by the University. These units will be renovated, where feasible, and appropriate for use as off-campus residences. If not feasible, the sites might be used for other potential uses, such as academic/administrative spaces or parking areas. The University also has current lease agreements with The Patrick Henry in Roanoke to support RUC student housing.
STUDENT RECREATION AND ACTIVITIES PROGRAM DESCRIPTIONS

Goals
The University desires to accomplish a variety of goals relative to student recreation and activities.

- Provide a variety of recreation and related facilities and programs for the enjoyment of students.
- Provide opportunities that enhance and facilitate the interaction between recreation activities and overall academic programs.
- Facilitate interactions with the surrounding community to enhance the use of these facilities.
- Utilize these facilities and programs to support University growth through the recruitment and retention of students.

Existing Recreation and Activities Facilities
With over 300 clubs and organizations, Radford University offers many opportunities for student engagement, leadership development and community service. Many of these activities are located in the Hurlburt Student Center, which also includes bowling, movies and food service options. The University provides dining options in a total of seven locations across campus, including full meals and dining areas, takeout options, such as pizza and sandwiches and a variety of small foods and snack options.

The University has invested significantly in the addition of recreation and activities facilities and programs over the last decade. Primary additions include the on-campus Student Recreation and Wellness Center, which provides significant opportunities for a wide variety of indoor student and intramural activities. Another recent addition is the Student Outdoor Recreation Center, located a few blocks from campus, which provides significant capability for outdoor intramural activities for both students and the surrounding community. Other facilities include the New River entry point for rafting and RU Able and RU Outdoors programs at various off-campus locations.
ATHLETICS PROGRAM DESCRIPTIONS

Goals
The University desires to accomplish a variety of goals relative to intercollegiate athletics.

- Provide state-of-the-art training and performance facilities for all intercollegiate athletic teams and individuals at Radford University.
- Maximize the efficiency and effectiveness of all athletics facilities to ensure appropriate return on the University’s financial investment.

Existing Athletics Facilities
A member of the Big South Conference, Radford University competes in 16 men’s and women’s NCAA Division I athletics programs.

- Men’s and Women’s Basketball
- Men’s and Women’s Cross Country
- Men’s and Women’s Golf
- Men’s and Women’s Soccer
- Men’s and Women’s Tennis
- Men’s Baseball
- Women’s Lacrosse
- Women’s Indoor and Outdoor Track and Field
- Women’s Softball
- Women’s Volleyball

The majority of Radford Athletics facilities are located on the Athletics/Recreation Campus. The Dedmon Center is the main venue for many indoor athletic activities, including basketball, volleyball and indoor track and field, along with the main administrative offices for Radford Athletics. Patrick D. Cupp Memorial Stadium, which serves the outdoor track and field, lacrosse and soccer programs; the Williams Field at Carter Memorial Stadium for baseball; the softball field; and the Sioros Center indoor hitting practice facility for baseball and softball, are located adjacent to the Dedmon Center, as are the outdoor tennis courts.
The current Radford University real estate portfolio consists of three main components: Central Campus, Athletics/Recreation Campus and off-campus facilities.

**Central Campus**
Radford University’s original Central Campus was based on a master site plan developed by Charles Robinson in 1911. The initial buildings surrounding the original triangular-shaped campus site were completed prior to World War II. After the war, the buildings comprising Moffett Quad and the Governor’s Quad, in addition to several other buildings along Adams Street and East Main Street, were completed by the late 1960s. The most recent additions to Central Campus during the last two decades are located between the Adams Street pedestrian corridor and Jefferson Street, along the east side of campus and East Main Street.

**Athletics/Recreation Campus**
The Athletics/Recreation Campus is located on land originally donated to the University by Norfolk Southern (NS). The overall parcel lies between the East Main Street/NS tracks corridor and the New River. Starting with the Dedmon Center in 1980, a variety of facilities have been constructed here with many supporting Athletics. The University’s Facilities Management operations units are located on the Athletics/Recreation Campus, along with several large parking lots.

**Off-Campus Facilities**
The University owns several off-campus sites and buildings, including 1101 Grove Avenue and the recently developed Student Outdoor Recreation Center. The University also leases a number of spaces from the Radford University Foundation and other private owners in the City of Radford, including housing, warehouse and office and support spaces. The Vinod Chachra IMPACT Lab is located in space leased from the Foundation at the Corporate Park. The University’s Printing Services are located in space leased from the Foundation at 219 East Main Street. These facilities are located adjacent to or near campus.

The University leases the Selu Conservancy from the Foundation. Located about 15 miles from campus, Selu includes facilities for academic, conference, recreation and other outdoor purposes for both the University and the community. Facilities include academic research spaces, an observatory, a working farm and period farmhouse, an access point for the Little River and conference support spaces.

The University has a significant leased presence in RHEC, located in Roanoke approximately 45 miles from campus, for a number of academic outreach programs in Southwest Virginia. In particular, the School of Nursing offers opportunities for academic and clinical engagements in the newly-expanded Clinical Simulation Center. The building has approximately 100,000 total square feet of leasable space, and the University is currently the largest tenant with approximately 25,000 square feet of leased space.

Radford University Carilion (RUC), the result of the merger with Jefferson College of Health Sciences, enhances the offerings in healthcare education in the Roanoke Valley. This significant presence provides undergraduate and graduate classes and other training and certification programs for a variety of users, many of whom are working, while attending classes. The coordination of these offerings at RUC with those on Central Campus is critical to ensure maximum leverage and effectiveness of this new academic footprint.

The University also currently leases space in the SWVAHEC, located in Abingdon approximately 100 miles from campus, for academic program offerings and continuing education.
BUILDING CONDITION ASSESSMENT

The University maintains a database that captures the overall condition of buildings, including the various building operating and infrastructure support systems. This database compiles condition information collected by the Facilities team for each building system and related equipment and components, such as roofing, HVAC and fire detection and alarm systems. This information is then compiled and totaled for each specific building, and an associated Facility Condition Index (FCI) value is calculated. The FCI value is computed by dividing the approximate costs of anticipated required equipment and systems repairs/replacements by the overall value of the building, such that the lower the FCI value, the better the building overall condition. FCI values in the range of 0.00 to 0.20 indicate buildings that are generally in reasonable condition, while values of approximately 0.50 and above indicate building conditions requiring attention in the relatively short term. This database is regularly updated to include recent renovations and equipment maintenance and is used by both the Facilities team and the Commonwealth of Virginia to prioritize various new construction, renovation and upgrade projects.

The current Six-Year Capital Plan includes projects for a significant renovation or complete replacement for each of these buildings except Davis Hall. None of these existing buildings has been significantly renovated for the last several decades, and many of the associated existing building systems and components are at their end-of-life. These buildings are among the least energy-efficient on campus and do not include up-to-date safety, security and accessibility capabilities.

Further, the Facilities team utilizes the results of the condition database to identify and prioritize projects to be funded by the Commonwealth’s annual Maintenance Reserve funding. This process is instrumental in ensuring that all campus buildings are consistently reviewed and maintained in a consistent manner. For example, it is planned that annual Maintenance Reserve funding will be utilized to upgrade certain systems and components in Davis Hall, due to its FCI score and the fact that it is not on the current list for capital renovation.

Several existing properties have been identified to become unoccupied in the future, due to their functionality, location, condition or other factors. These include 615 Fairfax Street, Calhoun Hall, the modular buildings adjacent to the Armstrong Complex and potentially the Buchanan House. Alternate locations for the occupants of these buildings will be determined as part of future space development and utilization.
BUILDING EFFICIENCY ASSESSMENT

Given the addition of substantial occupancy footprint over the last decade, the University undertook a review of the overall usages and efficiencies of all existing campus buildings. The state requires the University to report on the efficiency and occupancy of academic classrooms and laboratories, and this information is compiled annually; however, various other building occupancies have not been systematically reviewed for overall usages and efficiencies.

This review included visits to all campus spaces to identify current use, occupancy, furnishings, equipment and other salient information. As a secondary task, each space was also reviewed for its overall condition. Additionally, the University engaged a nationally recognized campus space planning firm to review the current situation. The results of this review provided several observations.

- **Classrooms:** The current and planned future classroom inventory is strained during peak hours. Adjusting the classroom capacity mix and scheduling practices should help alleviate the strain.

- **Labs:** The current and planned future labs do not meet utilization targets and should be reviewed for their use going forward.

- **Faculty/Staff and Overall Administrative and Support Spaces:** The existing inventory appears to be sufficient, and any new or reconfigured office spaces should be standardized going forward for consistency.

- **Overall:** The net assignable square feet per student is currently 124, which is slightly less than institutions similar to Radford University, which are typically at 135-145 NASF/student.

MAIN CAMPUS SCHEDULED CLASSROOM USE BY DAY AND TIME - FALL 2017

(Darker colors indicate a large percentage of rooms are scheduled.)

* The average is calculated on Monday through Friday use.
Outdoor Spaces

OVERALL CAMPUS
The Master Plan provides an opportunity to improve and upgrade existing landscape and hardscape elements and components, while providing guidance on improving and expanding the overall current environment. To provide a framework for this work, the overall campus was reviewed based on a number of specific locations of “outdoor rooms” and current design elements.

MAIN QUAD, MOFFETT QUAD AND THE GOVERNOR’S QUAD
The Main Quad is the oldest part of Radford’s original campus and hosts some of the University’s oldest buildings. Its landscape is the most mature on campus with graceful old trees lining the pedestrian walks and shading the buildings. The existing walkways designed decades ago respond well to the asymmetrical shape of the Main Quad, successfully linking adjacent buildings, while emphasizing key vistas and axes within and through the space. The sweeping pedestrian arc at the front of Heth Hall is appropriate and engaging, and the existing bulb form of the walks extending from the front of Muse Hall is also of value.

The Moffett Quad landscape is also among the most mature on campus with similar components as Main Quad. The field space in the Moffett Quad is used for many functions, including Commencement and various student and alumni activities.

The Governor’s Quad is an established and mature recognized outdoor space, as well, and should be maintained in its current configuration. This Quad forms an important connector between the Main Quad and facilities to the east.

ADAMS STREET CORRIDOR
The Adams Street Corridor serves as a primary north-south pedestrian route on campus. Much of the Adams Street Corridor has been converted to a major pedestrian mall. The two ends of the pedestrian mall are areas of key importance. Kyle Hall is located at the uppermost end of Adams Street Corridor. The front of the building addresses not just the pedestrian corridor, but also the axis from Heth Hall passing at the front of the Peters Hall entry at Moffett Quad. The lower end of Adams Street Corridor, adjacent to the Covington Center for Visual and Performing Arts, provides a semicircular space hosting seating and landscape to screen the Covington Center’s utility area below on East Main Street.

FAIRFAX STREET CORRIDOR AND HETH PLAZA
The Fairfax Street Corridor serves as the major east-west pedestrian and vehicular corridor across Central Campus. Parking Lots DD, EE and JJ are located along this thoroughfare. At the midpoint of the corridor is Heth Plaza, which is a highly recognizable space nearly in the center of Central Campus. Its clock and brick pavers clearly identify the space’s importance to campus.

Fairfax Street and the parking lots along it have been developed in an organic fashion over the decades, as the buildings fronting this corridor are highly variable in their age and history on campus. Russell Hall, one of the original campus buildings, is located west of Heth Plaza and is currently occupied by student, parent and alumni service organizations. In many ways, it is the current “front door” to the University as prospective students and parents, alumni and other visiting groups meet here for tours and activities. Dalton Hall, which houses the University Bookstore, Post Office and dining operations, is also located along Fairfax Street.
**DOWNEY STREET CORRIDOR**

Another significant entry to campus from the east is along Downey Street, which is located between the Covington Center for Visual and Performing Arts and the Student Recreation and Wellness Center. The use of Downey Street, as a pedestrian way, is inhibited by these buildings’ requirements for parking and service entrances.

**TYLER AVENUE CORRIDOR**

Fronting onto the City of Radford’s most prominent entry corridor, the University’s Tyler Avenue street front currently appears more as a rear campus facade than as the front edge of a historic University. Improvements, along Tyler Avenue, have enhanced the street’s visual quality and pedestrian safety by adding attractive and well-maintained landscaping to the medians in the center of the road and adding colored crosswalks at Tyler Avenue’s intersections with side roads. Existing trees, along Tyler Avenue, should be preserved; in particular, the historic oak grove at the rear of Muse Hall should be preserved to enhance the established facade of the University.

Parking areas exist at both Walker Hall and Tyler Hall and include utility areas and assorted mechanical equipment. Along most of the length of Tyler Avenue, bicycle lanes have been installed on both sides of the street; the exception is a three-block stretch of the west side of the road with parking located at the side of the road with no dedicated bicycle lane.

**EAST MAIN STREET CORRIDOR**

Currently, a number of relatively new, tall buildings with paved parking lots in front dominate the campus’s western East Main Street facade (Tyler Avenue to University Drive). This stretch of East Main Street was improved as part of an overall road realignment project and includes medians and bicycle lanes. Although plantings were established within the parking lots, they have not yet had the time to grow sufficiently to screen buildings or shade the parking area. The campus’s eastern East Main Street facade (University Drive to Jefferson Street) was not impacted by the road realignment project and thus lacks the attractive landscaped medians and bicycle lanes of the western portion of the street.

**JEFFERSON STREET CORRIDOR**

Currently, the Jefferson Street campus edge is visually disorganized, bearing little visual relation to the older, statelier parts of the academic campus surrounding the Main Quad and Moffett Quad.

**ATHLETICS/RECREATION CAMPUS**

The only existing entry to the Athletics/Recreation Campus is the bridge over the railroad on University Drive. In its current condition, this bridge is an uninviting place for pedestrians, with four wide lanes, narrow sidewalks on either side for pedestrians and no safe accommodation for bicyclists.
SUSTAINABILITY

The University is committed to reducing greenhouse gas emissions and enhancing campus climate resiliency, and it has been a leader in developing and implementing plans, strategies and upgrades to conserve energy use on the campus and operate in a more sustainable and efficient way. The University has established the Sustainability Office and also receives input and guidance from the Sustainability Steering Committee, a multi-discipline group providing a forum to discuss a variety of strategies to reduce energy use and greenhouse gas emissions generated by the campus community. The Steering Committee is broken down into five strategic working groups: Operations; University Services; Education and Research; Outreach, Student Involvement and Campus Culture; and Tracking, Assessing, Modifying and Funding.

The University continuously measures and monitors commitment to sustainability through multiple tools and reporting mechanisms. The University recently submitted information into the Sustainability Tracking, Assessment and Rating System (STARS) as administered by the Association for Advancement of Sustainability in Higher Education (AASHE) and earned a Silver Institution rating. The University also annually completes a greenhouse gas (GHG) inventory to help identify areas for emphasis in sustainability and greenhouse gas emission reductions and provides information for The Princeton Review’s “Guide to Green Colleges.”

One specific measure of overall campus sustainability is the U.S. Green Buildings Council Leadership in Energy and Environmental Design (LEED) rating system. This is the most common rating system used in the United States for documentation of sustainable practices for design and construction of the built environment. The ratings are Certified, Silver, Gold and Platinum, the highest rating for overall sustainability.

Commonwealth of Virginia policy requires a minimum of LEED Certified for all capital new construction and renovation projects, while the University has set a target of LEED Silver minimum. The University has been able to achieve these minimums, and in most cases achieve LEED Gold ratings, for all capital projects since the beginning of the state mandate. The illustrated map indicates the LEED ratings for capital new construction and renovation projects completed during the period of state-mandated LEED compliance. The total LEED Gold-rated and Silver-rated facilities represent more than 30% of all campus buildings.

Another measure of overall campus sustainability is the EPA’s Energy Star certification program. Energy Star certified buildings save energy, save money and help protect the environment by generating fewer greenhouse gas emissions than typical buildings. To be certified as Energy Star, a building must earn a score of 75 or higher, indicating that it performs better than at least 75% of similar buildings nationwide. The University has a number of Energy Star certified buildings, including Heth, Moffett, Ingles, Stuart, Norwood and Floyd Halls.
CAMPUS LEED BUILDINGS

- Campus Building (Prior to LEED)
- LEED Gold
- LEED Silver
CITY OF RADFORD EXISTING UTILITY INFRASTRUCTURE

The City of Radford and the University work closely on the connectivity between utility systems and components. The City of Radford has stated that the current capacity and overall condition of the utility infrastructure in the areas adjacent to University property is adequate and should continue to support the current needs of the University.

ELECTRIC

Electrical service is provided to the Central Campus by the City of Radford Electrical Department and is delivered to a substation located on East Main Street near the Allen Building. From there, it is distributed to each Central Campus building at 4160 volts through buried concrete duct banks. Five existing loops serve the various parts of Central Campus with the capability within each loop to keep buildings online in a redundant fashion to minimize issues given problems in any single building. Each building has a transformer, which reduces the voltage to 208 or 480 volts as required. Athletics/Recreation Campus buildings and other off-campus buildings are fed directly from Radford Electric Department overhead lines.

The University maintains the distribution system on Central Campus and owns the underground carrier lines and switches. The City of Radford maintains ownership of the transformers and overhead lines. Off-campus buildings are fed by lines maintained by the City of Radford Electrical Department.
STEAM

The University produces steam from a central boiler plant located on the Athletics/Recreation Campus. The central steam plant provides a constant flow of medium pressure steam to all areas of Central Campus through a looped distribution system on a 24-hour, seven-days-a-week basis. The plant consists of three 50,000 pounds per hour boilers, one 14,000 pounds per hour boiler and one 6,800 pounds per hour boiler. Each boiler has the capability of burning natural gas or No. 2 fuel oil. The system operates and distributes at 90 psig pressure in the heating season and at 50 psig pressure during non-heating seasons by utilizing the smaller boilers. The Armstrong Complex and the various other Athletics/Recreation Campus facilities utilize stand-alone boiler units and are not connected to the central steam system.

Steam is distributed across campus via steam tunnels with condensate return/recapture piping. Steam is utilized on-campus to satisfy building space heat requirements in addition to domestic water heating. Laboratories utilize steam at lab stations, autoclaves and other appliances as required. The existing steam distribution system consists of a single 8-inch main, which crosses East Main Street from the steam plant into Central Campus. All building steam service lines extend in radials from the main loop. In some cases, portions of the main loop are routed through existing buildings.

The current connected load to the central steam system is approximately 39,500 pounds per hour with the existing central boiler plant having a current firm capacity of 100,000 pounds per hour, based on the capacity of only two of the three largest 50,000 pound per hour boilers.
STORMWATER

Central Campus Jefferson Street/Adams Street Systems

The dividing lines for the drainage basins in the Central Campus area and in the areas east of Jefferson Street are shown on the adjacent map. The drainage from the Jefferson Street/Adams Street basin flows toward the north and west and discharges into a stormwater management (SWM) facility north of East Main Street and south of the NS tracks. This facility manages the quantity flows from much of the area extending from just east of Jefferson Street to west of Adams Street, including most of the Central Campus. For the most recent building projects in the Jefferson Street and Adams Street corridors, this SWM facility provided credit for quantity treatment requirements.

Athletics/Recreation Campus Systems

All current development on the Athletics/Recreation Campus is directly tributary to the New River.

East Jefferson Street Systems

In the areas east of Jefferson Street, the general slope of the ground is towards the north or northeast. There are a few small valleys/swales between Jefferson and Whitehall Streets, but the largest valley is located between Madison and Wilson Streets. The City of Radford has indicated that as drainage was directed toward Main Street over time, discharges were piped to the south edge of the Norfolk Southern Railway and discharged into a large gravel drainage ditch on the railway property that parallels the commercial properties, along the north side of East Main Street. Most or all of those culverts through the commercial properties (draining to the drainage ditch) were installed years ago, and there are no easements or rights-of-way for them.

A further complication is that the gravel drainage ditch on the railway property drains toward a large arch pipe structure that then crosses the railway and drains toward the Dedmon Center, eventually discharging into the New River. The City of Radford cleaned out the channel and culvert after the 1985 floods after debris from the railroad blocked the arch culvert. This blockage caused a backup in the drainage system and flooded several basements in the area east of Jefferson Street.

CHILLED WATER

The existing chilled water system at Radford University consists of unitary, mostly air-cooled chiller equipment. Four existing loops provide chilled water to multiple Central Campus buildings, which reduces energy costs and provides redundancy: Moffett Quad loop; Cook/Waldron loop; Governor’s Quad loop; and the Martin/CFTS loop. These loops supply the chilled water needs for 20 buildings. Single system chillers supplying only those buildings serve the remaining buildings, which results in higher overall operating costs and shorter system life span compared to loop systems.
**WATER**

There are currently no significant issues with overall supply availability or pressures for the potable and fire supply systems at the Central Campus and Athletics/Recreation Campus. The Central Campus is on the City of Radford’s Low System. The Facilities team indicates there are some line pressures in excess of 100 psi. There have also been improvements to the City of Radford’s Middle and High systems to the south and east of the campus. The area east of Jefferson Street is served from the water mains along East Main Street.

**SANITARY SEWER**

The existing sanitary sewer infrastructure within the Central Campus is presently sufficient for the existing building infrastructure. As new capital projects have been constructed, new sewers have been constructed and older lines abandoned to facilitate the new construction.

In the area east of Jefferson Street, the sanitary sewer infrastructure is in less than ideal condition. Most of the lines are old, and there are a lot of infiltration/inflow (I&I) problems with these older lines. This sewer shed drains toward an 8-inch diameter main running east, along the south side of East Main Street. A new 15-inch diameter sewer then intercepts that main and crosses under East Main Street and runs north toward the east side of the baseball and softball complex at the Dedmon Center, where it transitions to a trunk line running back west, along the river toward the City of Radford pumping station. The City of Radford believes that the system has good capacity back up to the end of the 15-inch main under East Main Street.
INFORMATION TECHNOLOGY

Telecommunications service including voice, video and data for the Central Campus and the Athletics/Recreation Campus is delivered by external telecommunication partners to wiring and network distribution points located in Jefferson Hall and the Armstrong Complex and then distributed to campus buildings via the campus steam tunnels and various buried conduits. Each building is connected via the use of fiber optic cabling back to Jefferson Hall and/or Armstrong Complex. Porterfield East is currently used as a fiber consolidation and splice point consolidation point for most fiber going to Armstrong Complex. This fiber network currently provides a minimum of one-gigabit connectivity from each building to the data center and 10-gigabit connections between data centers. Most academic buildings are connected at 10 gigabits. The University is continuing to enhance redundancy of the fiber network with intentions of providing a fiber path from each building to both Jefferson Hall and Armstrong Complex.

All campus buildings include WiFi access points supporting the 802.11 WiFi standard with 802.11 ac available in most areas to provide coverage for mobile devices. Outdoor areas are not targeted by WiFi coverage, but WiFi is available for users when they are in close proximity to campus buildings.

The primary campus data center is currently located in the oldest portion of McConnell Library. This data center was constructed in the early 1980s. Inefficient cooling, due to the configuration of the space and a water-based fire suppression, make this facility less than ideal as a data center. An additional data center is located in the Armstrong Complex and is shifting to be the primary data center.

Radford University has partnerships with Virginia Tech and two other telecommunications providers to establish a 10-gigabit connection between Radford University and RUC. This connection allows technology services to be provided seamlessly at RUC.

Fiber optic cabling was installed during the summer of 2019 to all University-operated, off-campus apartments. This was completed by a long-term contract with external telecommunications providers, which coordinated with the City of Radford for installation.
SECURITY AND EMERGENCY SYSTEMS AND ACCESS

Radford University has deployed a number of exterior security and emergency systems across campus, including emergency phones, public address speakers, outside emergency lighting and designated vehicle access routes. The University regularly tests these systems for effectiveness, including mock events, test announcements and exterior night lighting inspection tours. The University also closely coordinates with the City of Radford Emergency Services on access routes and emergency system component locations.

ACCESSIBILITY

Radford University is committed to making its programs and facilities accessible and improving circulation and parking on-campus for students, faculty, staff and visitors with disabilities. In 2011, the University commissioned a study of the campus with respect to exterior accessibility of buildings, parking and pedestrian pathways. The University has been using the results of this study to undertake continuous accessibility improvement projects across campus and coordinate with new capital and renovation projects.

Along with a commitment for accessibility, the University is committed to inclusivity and has been providing facilities to ensure that the campus is welcoming. Recently, the University identified restroom facilities throughout campus that can be used by all genders. Facilities are also provided in support of other members of the campus community, such as disabled veterans, parents with babies, individuals with visual impairments and those who use motorized wheelchairs and service animals. The designers of new buildings and renovated facilities are instructed to acknowledge a wide range of issues to ensure that the campus serves the entire community of stakeholders.

Handicapped accessibility is a challenge on Central Campus due to the intense changes in topography, particularly along north-south routes. As the principal pedestrian routes across the campus, both the Adams Street and Fairfax Street corridors are required to be compliant with the Americans with Disabilities Act, along with several other primary routes.

At the southern upper end of the Adams Street Corridor, there are accessible parking spaces closest to the south main entry of Kyle Hall. The building’s internal accessible routes then allow for negotiation of the grade change from the south parking area to the southern head of the Adams Street Corridor. Once this grade is achieved, it is possible to utilize accessible routes to the north edge of the Main Quad. At the lower northern end of Adams Street Corridor, accessibility is achieved with compliant ramps and paths at the east side of McGuffey Hall with access to the Covington Center for Visual and Performing Arts building through the adjacent Porterfield Hall.

On the north edge of Central Campus, the primary pedestrian paths parallel to East Main Street are accessible, along their full length. Internal accessible routes within all buildings, along the north edge of Central Campus, allow for negotiation of the remaining grade change down to East Main Street.

TRANSIT SYSTEM

The Radford Transit system currently has multiple routes that provide ridership opportunities for various University riders. In general, these routes travel the perimeter of Central Campus along Tyler Avenue, Jefferson Street and East Main Street; connect across University Drive to serve the Athletics/Recreation Campus; and travel along East Main Street to serve the Student Outdoor Recreation Center and adjacent housing. There are numerous stops on both campuses with time-checks at the stops at Waldron Hall, Lot A and Fairfax Street. Radford Transit also has routes that connect University riders to Fairlawn, Christiansburg, Blacksburg and the Roanoke Valley.

The University works closely with Radford Transit to ensure adequate coverage for riders, while also imposing minimal disruptions to pedestrian patterns. It appears there might be opportunities to improve the timeliness and frequency of numerous routes, including increasing the frequency and number of stops along the Central Campus perimeter.
PEDESTRIAN WAYS

On the Central Campus, the primary pedestrian paths are the Adams Street Corridor running north-south and the Fairfax Street east-west central pedestrian corridor. Other significant pedestrian routes extend across the campus, including the path radiating from Muse Hall on the north to Heth Hall and then on to Kyle Hall on the south; the north-south path through Moffett Quad across Fairfax Street to Muse Hall; the east-west route from the Hurlburt Student Center through the Governor's Quad to Whitt Hall; and the east-west route running from Jefferson Street along the old Downey Street Corridor between the Student Recreation and Wellness Center and the Covington Center for Visual and Performing Arts and through the Main Quad to Muse Hall.

On the Athletics/Recreation Campus along the New River, the primary pedestrian route extends from Cupp Stadium eastward to the parking areas at the eastern periphery of the space, connecting playing fields and indoor sports facilities. Secondary connections are also throughout this area. The only existing pedestrian connection between the Central Campus and Athletics/Recreation Campus occurs at the University Drive Bridge.

BIKEWAYS

Existing bike paths run along Tyler Avenue and Jefferson Street and a portion of East Main Street, and bike racks are located throughout Central Campus. The City of Radford has modified several adjacent streets with bike lanes, including Tyler Avenue and East Main Street.

NEW RIVER ACCESS AND GREENWAYS

The New River is directly adjacent to the Athletics/Recreation Campus with boat access points at several locations near University property. Also, an extensive partially developed greenway/trail system parallels the river and extends to Bisset Park and other City of Radford facilities to the west of campus.

VEHICULAR ACCESS AND PARKING

The main traffic routes, adjacent to campus, include Jefferson Street, East Main Street, Tyler Avenue and University Drive with building and parking access primarily from these streets. Fairfax Street pierces Central Campus from both Tyler Avenue and Jefferson Street to Heth Plaza in the center of campus, creating the greatest potential for pedestrian/vehicle interactions. Given the addition of substantial occupancy footprint over the last decade and associated displacement of parking, the University undertook an overall review of the usages and efficiencies of the current parking situation. The University engaged a nationally recognized parking and planning firm to engage in this review. The results of this review provide the following observations.

- In general, the University parking and transportation system appears to be well organized and efficiently operated.
- Based on peer comparisons, parking count survey and total permits, there are adequate available total parking spaces (71% filled and 29% available at time of survey.)
- The condition and capacities of existing parking lots are in good condition overall.
- Current parking conditions are less than optimal, mainly with respect to the distribution, allocation and location of spaces.
- Certain parking areas, while conveniently located adjacent to various campus buildings, are not well designed for overall circulation purposes.
- Many of these parking areas have been “organically” developed through the years as new buildings, renovations and pedestrian pathways have evolved.
- The mix of Faculty/Staff and Commuter parking areas needs to be reviewed for appropriateness, along with the potential to add spaces around the perimeter of campus.

Pedestrian Walking Distances
CAMPUS ACCESSIBILITY

- ACCESSIBLE PARKING
- ACCESSIBLE ENTRANCE
- PARKING
- ACCESSIBLE ELEVATOR
- CURB CUT
- ACCESSIBLE RESTROOM
- ROUGH SURFACE

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The 2018-2023 Strategic Plan requires the Master Plan to develop the University’s physical assets to support the six stated areas of emphasis:

- Academic Excellence and Research
- Brand Identity
- Economic Development and Community Partnerships
- Philanthropic Giving and Alumni Engagement
- Strategic Enrollment Growth
- Student Success

STAKEHOLDER INPUT
The Committee was organized into subcommittees to concentrate on several specific areas of the Master Plan.

- Academics
- Student Activities and Services
- Land Use
- Transportation
- Infrastructure and Sustainability
- Public-Private and Community

Each subcommittee met several times to identify specific issues and needs in their particular area of interest and finalize recommendations based on these issues and needs. All of this information was used to bring focus to specific themes and areas of concentration to be incorporated into the Master Plan.

The Committee solicited input from a variety of campus stakeholders using various methods and in a number of different venues, including presentations to the University’s Leadership Council; the Faculty Senate; the Administrative and Professional Faculty Senate; Staff Senate; the Student Government Association; the Academic Affairs Leadership Team; and the Alumni Association Board of Directors. The Committee also held multiple campus open forums with students, faculty and staff.

The Committee administered a survey with Division of Academic Affairs faculty and staff concerning the overall campus learning environment and administered a separate survey with students concerning overall instructional spaces and related technology.

- Classrooms/Labs – Comments on the number and sizes, scheduling, furnishings, discipline-specific uses and IT/AV capabilities
- Student Spaces – Comments on the number, locations, scheduling, furnishings, IT/AV capabilities and access for commuters
- Event Spaces – Comments on the number and sizes

PROJECTED ENROLLMENT GROWTH
The 2018-2023 Strategic Plan indicates the following projected enrollments by Fall 2023:

- Undergraduate Students – 7,870
- Graduate Students – 1,371
- Competency-Based Education Students – 2,125
- Total Students – 11,366

It is anticipated that the Central Campus student population will be approximately 8,500 with the majority of the remaining growth occurring in Roanoke at RUC or in CBE-based programs.
COMPARATIVE SPACE ANALYSIS

Overall
Based on the current space inventory and existing needs along with the stated growth projections, the overall University footprint when viewed in terms of square feet of usable space per student is slightly less than peer institutions. This would indicate that the campus, as a whole, is relatively efficient with respect to space usage.

Classrooms
Based on the current classroom inventory, classroom space is strained during the peak delivery times between 9 a.m. and 3 p.m. Monday through Thursday. The distribution of various classroom sizes also does not appear to match the needs in some instances.

Both the student and faculty surveys indicated issues with various aspects of class scheduling, existing furniture/furnishings and IT/AV delivery tools.

Class Labs
Based on the current class labs inventory, class lab space is somewhat underutilized during normal delivery times. The distribution of various class lab sizes and attributes also does not match the needs in some instances.

As with classrooms, both the student and faculty surveys indicated issues with various aspects of class lab scheduling, existing furniture/furnishings and IT/AV delivery tools.

Offices and Support Spaces
Based on the current academic office and support space inventory, office space appears in general to be adequate. The distribution of office sizes and support spaces also does not appear to match the needs in some instances.

ACADEMIC PROGRAM GROWTH

New and Expanded On-Campus Programs

- Waldron College is nearly at capacity in its current locations, so it is likely that up-fits and renovation projects will be necessary to continue to accommodate the students in these buildings. Further, the Radford University Carilion merger likely will drive additional needs for Waldron College.

- Several programs in the CEHD will require some additional footprint. One example is the development of the Tourism and Special Events Resource Lab, which will require space and be led by faculty and staff from the CEHD. The Health and Human Performance program will also need extended research and training space, and the Nutrition and Dietetic Laboratory will need to be relocated from McGuffey Hall.

- The Artis College will need to accommodate the requirement to supply individuals with specific education and skillsets for the Commonwealth of Virginia’s “Tech Talent Pipeline” over the next 20 years, mostly in the Information Technology and Cyber Security Computer Science areas. The Artis College will also need to establish the related Security Studies Initiative and the Geohazards and Unmanned Systems Research Center.

- The Criminal Justice and Forensics Studies programs in CHBS are anticipated to continue their recent growth.

- Space for the Venture Lab was identified as a need.

- The existing Center for Interprofessional Education and Practice (CIPEP) is scheduled to expand.

- The Vinod Chachra IMPACT Lab anticipates continued growth, but it is preferable that this program remain in leased off-campus space to allow ease of expansion/contraction in the future.

New and Expanded Off-Campus Programs

- RUC is located in space leased from Carilion Clinic in Carilion Roanoke Community Hospital (CRCH), and is likely to remain in the current space at present; however, it is projected that the space in the RUC facility will need to expand as programs grow. Further footprint development in Roanoke is also probable as the current programs evolve and new programs are established to meet the needs of the region.

- To provide greater support for a number of programs in Roanoke, it is anticipated that the leased space in the RHEC may need to grow. Although the existing Clinical Simulation Center was recently expanded, it is expected that it may need to be expanded again going forward, given the growth of related activities in the Roanoke region.
The Appalachian Community Outreach Institute is not projected to need additional leased space in the SWVAHEC for current and envisioned future programs, although the current space could be better utilized.

### STUDENT PROGRAM GROWTH

#### New and Expanded Student Programs
- Develop the overall Greek Life and other thematic communities: Panhellenic Council (PHC), Interfraternity Council (IFC) and National Pan-Hellenic Council (NPHC). This could include certain outdoor areas of campus and potential alignment with identified contiguous off-campus housing in coordination with the City of Radford.
- Enhance student and visitor amenities, potentially including a welcome center, student organizations space, event space, expanded advising space and other activities.

### SPACE NEEDS AND FACILITIES PROJECTIONS

#### Academic Spaces
- Waldron College anticipates future growth to meet the needs of the region across multiple locations.
- The CEHD has begun its Ed.D program, which will require additional faculty space estimated at 1,700 square feet.
- Artis College anticipates growth in the Information Technology Cyber Security Computer Science programs for the Tech Talent Pipeline, estimated at 2,500 square feet for additional faculty offices and support space.
- The construction has been completed for the Venture Lab. The space includes an office, student collaborative and virtual maker spaces, conference and pitch rooms and other support spaces. The total square footage is 4,500 square feet.
- The existing Center for Interprofessional Education and Practice (CIPEP) requires an additional 1,300 square feet for clinical, meeting and office spaces.

#### Classroom and Class Lab Enhancements
Current modern academic building design incorporates flexible instructional spaces to allow multiple uses and delivery methods. Examples include multiple displays and white boards, movable furniture with ample power and data capabilities. A number of factors, including changing instructional delivery methods, such as “flipped” classrooms and active learning environments, are driving this trend.

Amplifying this trend, the University plans to implement a revised General Education program. Students will choose degree programs (majors and minors) to fulfill four areas of knowledge and complete general education (the REAL areas).

- Scientific and Quantitative REASONING
- Humanistic or Artistic EXPRESSION
- Cultural or Behavioral ANALYSIS
- Applied LEARNING

The revised General Education REAL model builds on the idea that students can pursue their goals and engage in exploration and learning in many ways and in all departments. The REAL model recognizes that degree programs build competencies in the areas students need for lifelong learning and success and allows students to cross-credit those competencies with general education areas.

From a footprint standpoint, while the REAL model may ultimately influence the required number of classrooms across campus, the more profound impact is the requirement for classrooms and other learning spaces to be as flexible as possible to allow use as multi- and cross-disciplinary learning environments.

A final factor is the requirement of the current higher education environment to maximize the utilization of the campus built environment, in order to ensure the most cost-effective campus delivery of education. This requires a culture of shared spaces and cross-disciplinary learning environments, along with proactive scheduling techniques.

To meet all these ongoing trends along with the certainty that the academic environment will continue to evolve, the University will need to undertake a systematic regular review of the basic instructional spaces across campus. These regular reviews will help ensure that these current trends inform consistent upgrades to furniture, furnishings and IT/AV delivery tools and methods, along with purposeful scheduling for maximum space usage.

#### Collaboration and Integration Spaces
Current modern campus building and space design also includes purposeful identification of collaboration spaces adjacent to more traditional classroom/labatory and academic spaces, recognizing changing student expectations for the ability to study and work effectively in a variety of settings and locations.

Due to the large amount of new academic space provided over the last decade or so wherein the design incorporated these recent trends, there already exists a fair amount of collaborative study space across campus. There are also numerous...
dining options across campus, which also include spaces to be used for informal study environments. Further, the recent residential hall renovations have included purposeful spaces designated for lounge/study activities.

However, there are a few areas of campus where it is more difficult for students to find these collaborative learning spaces. In particular, the academic areas in Peters, Waldron and Cook Halls are lacking in these types of spaces. As new or repurposed footprints are brought online, these existing buildings should be explored for the potential addition of collaborative spaces. An additional enhancement of these types of campus spaces could include extended hours of operation, particularly for buildings with large concentrations of student study spaces, such as the CHBS Building, Kyle Hall, CFTS and McConnell Library.

**Residential Spaces**

Based on the current available beds in on-campus residence halls and the recent leasing of approximately 600 new beds in apartments located off-campus and adjacent to Central Campus bringing the total to approximately 800 leased off-campus beds, no additional new on-campus beds have been identified in the next 10 years. However, the University seeks ways to better integrate academics in residence halls, such as living-learning communities, advising space, faculty offices and classrooms.

The University will prepare a plan to renovate the recently acquired off-campus units to be comparable to the on-campus housing. In some instances, this will only require improvements to certain finishes, and in other instances, this will require significant renovations to basic building systems and components. The completed renovations of all units will require multiple years.

The University will also need to identify specific on-campus and off-campus locations for veterans, students and married students and their families, as these demographics are targeted for growth in the future. Potential Greek-life housing “communities” will also be identified for residential users, along with potential extensions of on-campus living-learning communities.

The University will also provide housing to support students attending New River Community College and living in on-campus housing in the “Bridge to RU” program. This program is designed to facilitate the retention of students early in their academic careers and ultimately transferring to Radford University.

Temporary beds may be required during the times that residence halls are being renovated, depending on the timing and duration of the renovations. The recently leased apartments will also be reviewed with respect to their condition and suitability for future occupancy, along with their use for alternate University purposes.

**Student Support and Recreation Spaces**

Additional student collaborative and study spaces were identified for various parts of campus. While recent construction projects and renovations typically incorporate these student-centered spaces, older buildings are inadequate in this regard.

Students and their parents currently desire sophisticated engagement, support staff and facilities during their entire University experience. While Heth Hall, Russell Hall and Whitt Hall currently provide many of these functions, there are other related activities and departments that could benefit from being collected in a single location. This might include services for international students, transfer students, overall academic advising, health and emotional wellness support and student orientation activities, among others.

Students and their parents also desire expanded hotel, retail and dining opportunities during their University experience. The on-campus food options require regular “refreshes” to ensure the University stays abreast of changing taste trends. There is also currently a shortage of food and shopping options near campus, and there is not a centrally recognized grouping of establishments to act as the campus “main street” as exists in most college towns.

Further, it is desired to better connect students and others to the New River for both instructional and public uses. To enhance this connection, it is proposed to potentially move the RU Able equipment and program to campus from its current off-campus leased space location. In conjunction with RU Outdoors and the Tourism and Special Events Resource Lab, these programs will enhance and facilitate greater connectivity to the overall significant assets made available by the New River.

**Athletics Spaces**

The recent Athletics Master Plan identified the top two priorities for facility upgrades: renovation/repurposing of the Dedmon Center and a ticket/concessions facility for the baseball/softball/tennis outdoor complex. Other projects were also identified as part of the Athletics Master Plan, with available funding.
Administrative and Support Spaces

Currently, there are several Administrative Services and Public Safety departments that are housed in separate buildings both on-campus and adjacent to campus, which creates difficulty in communications and coordination of these functions. The existing buildings housing these functions are also not entirely suited for their required purpose, and a number of staff departments are actually housed in leased space.

There is also a shortage of available event space across campus to house various University functions and events. Kyle Hall and Muse Hall include spaces that can readily serve these purposes, but other spaces in Cook and Peters Halls that currently serve these purposes are less than optimal.

OVERALL INFRASTRUCTURE NEEDS

Sustainability

The Commonwealth of Virginia has promulgated a number of Executive Orders and other directives to promote sustainability at all state agencies. The University will need to continue to monitor the impacts of these initiatives and adjust activities and priorities accordingly. We will also need to continue to explore the feasibility and cost-effectiveness of potential alternative power sources and renewable energies and identify ways to reduce consumption of power, water and other natural resources.

Electrical

Based on analysis of the existing medium-voltage electrical campus loop supply system and the Radford Electric Department substation performance, the current infrastructure appears capable of handling the identified potential added power loads. Additional electrical secondary service fed from the loops will be required to provide power for potential added building footprint on Central Campus. Additional sources of emergency power are also desirable to provide power in certain buildings when necessary.

Steam

Based on the capacity of the existing boiler plant steam supply system, the current infrastructure appears capable of handling the identified potential added steam loads. Additional steam secondary service will be required to provide hot water for any proposed added building footprint.

Stormwater

Based on analysis of the existing stormwater system and components, several areas for improved drainage have been identified across campus. Additional stormwater management facilities will also be required to offset the impervious surfaces that are created by any proposed added building footprint. The University must also adhere to its own Municipal Separate Storm Sewer Systems (MS4) General Permit.

Water

Based on the existing service provided by the City of Radford’s water supply system, the current infrastructure appears capable of handling the identified potential added water loads. However, the locations and conditions of many existing components need to be documented and assessed for potential replacements. Additional water service lines will be required to provide domestic and fire suppression water for any proposed added building footprint.

Sanitary Sewer

Based on the existing service provided by the City of Radford’s sanitary sewer system, the current infrastructure appears to be capable of handling the identified potential added sanitary drainage loads. Additional sanitary sewer drain lines will be required to provide capacity for any proposed added building footprint.

Chilled Water

Additional chilled water service, either as part of a loop or independently, will be required to provide cooling water for any proposed added building footprint.

Information Technology

Fundamentally, today’s stakeholders rely more heavily on the provision and support for technology systems and components than in the past. The ability to access and share electronic information and take advantage of evolving technology in both academic and administrative areas are critical components of current campus environments. To this end, additional data services will be required to provide capacity for any proposed added building footprint. Existing buildings will also likely require additional capacity to support new needs, as will the overall campus wireless network to support ever-expanding bandwidth requirements. In addition, the recently acquired off-campus housing will require the addition of cable, phone and wireless services.
MULTIMODAL CAMPUS ACCESS NEEDS

Security and Emergency Systems and Access
Additional security systems infrastructure and equipment will be required to provide capacity for any proposed added building footprint. Existing buildings may also require additional capacity to support new security and emergency system needs, such as door access control and exterior lighting, as will overall existing outdoor campus spaces.

Accessibility
New building footprints will need to be provided with accessible routes as necessary, and existing routes will need to be preserved and even enhanced where feasible.

Transit System
The Radford Transit system needs to be enhanced to provide more efficient service to the most heavily populated areas of campus, particularly around the campus perimeter. The current routes travel through multiple areas of both Central Campus and the Athletics/Recreation Campus, navigating many separate locations, which tends to make the overall circuit lengthy. The routes also do not provide adequate and timely coverage of the remote parking areas.

The routes also include an on-campus “hub” in front of Preston Hall in Lot A. This hub provides drivers with a consistent location for time checks and restroom facilities. Unfortunately, this location is a very heavily populated and high traffic area and further is adjacent to the main administrative functions in Martin Hall. While some of these hub functions have already been relocated to the bus stop at Fairfax Street and Hurlburt Student Center, it is desired to completely remove transit bus traffic from Lot A.

Pedestrian Ways
Pedestrian routes will need to be coordinated with new building footprints, and existing routes need to be enhanced where feasible. Pedestrian routes will need to be coordinated with the newly-acquired, off-campus housing where possible, in concert with the City of Radford. An additional issue requiring attention for pedestrian ways is shared usage with Facilities maintenance vehicles, particularly service carts.

Bikeways
New proposed bikeways need to be coordinated with pedestrian and vehicular routes as necessary.

Greenways
The existing walking trails, along the New River, need to be coordinated with the adjacent Greenway, offering connectivity to Bisset Park and other amenities in these areas.

Parking
The existing parking locations and policies need to be revised to accommodate new commuter patterns, new building footprints and allocation among various user groups. Lots have grown organically, leading to poor overall circulation patterns and misaligned user groups. The remote lots need to be better connected to campus by transit and pedestrian ways.

Signage
The existing major signage locations need to be expanded to include additional wayfinding for visitors to campus, particularly to the most frequently visited buildings. This signage can also serve to enhance and reinforce the branding of the University and the overall campus environment.
Implementation Plan

The Master Plan is organized around multiple overarching areas of emphasis.

- **Construct** — New capital projects
- **Renovate** — Multiple existing major campus buildings
- **Repurpose** — Numerous existing building occupancies
- **Evaluate and Upfit** — Existing space usages
- **Enhance** — Campus infrastructure and brand identity
- **Create** — New campuses and partnerships

**PROPOSED NEW BUILDING LOCATIONS**

**Central Campus**

The number of available sites for new buildings on Central Campus is limited, particularly those sites that do not negatively impact the current Central Campus view sheds and pedestrian and traffic patterns. However, there are a number of potential future building footprint sites.

- The location of existing Parking Lot F between Muse and Tyler Halls: This location has been identified in a number of previous plans and would provide an excellent completion of the perimeter buildings surrounding the original triangular-shaped campus. This location is near both academic and housing buildings, so a new building here could support any number of University needs.

- The locations of existing Parking Lots AA and JJ between the Hurlburt Student Center and Cook Hall: These two separate sites have been identified as a potential location for a future addition to the Hurlburt Student Center, but could also support other occupant uses.

- The location of existing Parking Lot M between Waldron and Kyle Halls: This location is mostly near other academic buildings, but could support a number of University needs.

- The location of existing Buchanan House adjacent to Waldron and Peters Halls: The demolition of this existing building, a small and inefficient building, which used to serve as the President’s residence, would not negatively impact the overall campus, and the location occupies a campus footprint, which could be used much more effectively as it is near both academic and student housing buildings.

Significant emphasis needs to be placed on ensuring that any new buildings on the Central Campus adhere to the established aesthetic campus brand, massing, materials and color palette, and that the buildings respond to current and future pedestrian patterns and historic and iconic viewsheds. Particular attention also needs to be given to the areas indicated in the historic resources survey as eligible for listing.

**Athletics/Recreation Campus**

There are several available sites for new buildings on Athletics/Recreation Campus, mostly located to support Athletics.

- The location of existing Parking Lot BF between the baseball and softball fields: This location has been identified in the Athletics Master Plan as the location of the ticketing/concession/restroom facility.

- The location of existing Parking Lot DC adjacent to the tennis courts: This location has been identified in the Athletics Master Plan as the location of the indoor tennis facility.

- The location of existing Parking Lot E adjacent to the Armstrong Complex: This location could support a number of University administrative functions, given its proximity to the other administrative functions already housed in the Armstrong Complex.

- The location of existing Parking Lot U and FF near the Armstrong Complex: This location was identified in earlier master plans as a potential location for a new Convocation Center.

- The area near the New River and beyond the Athletics facilities: This location might serve well for the relocated RU Able program and equipment.
Off-Campus

The University owns several parcels adjacent to Central Campus.

- The location of the existing building at 615 Fairfax Street: While this site is conveniently located along Jefferson Street, it is not very big and could only support a fairly small building. It may be better utilized as a parking lot.

- The locations of Parking Lots S and Y east of Jefferson Street: Again, while these sites are conveniently located along Jefferson Street, neither site is very big and could only support fairly small buildings. These may be better maintained as parking lots.

- The locations of Parking Lots K and L between East Main Street and the railroad tracks: These sites are reasonably conveniently located, but are adjacent to privately held properties. These may be better maintained as parking lots.

- The existing building at 1101 Grove Avenue: Printing Services is scheduled to be moved, which would leave this building/site available for another use. Given its location several blocks from campus, its potential uses, as it exists today, are somewhat limited. The most likely use would be to renovate the building for an administrative unit or other organization that is not required to be on campus; in the near term, however, its use as swing space for offices or labs could be valuable. There would also be an opportunity to demolish the existing structure and construct a new building in its place. This would provide an opportunity for additional building footprint on currently owned property.

- The location of the current Student Outdoor Recreation Center: This location would be well suited for a new Convocation Center, given its location and adjacent parking. This would require the relocation of the current outdoor recreation facilities.

- The parcels at the corner of Jefferson and East Main Streets: While there are several existing buildings on this site, it provides a potentially attractive location for a building or parking given its access to both East Main and Jefferson Streets.

The Foundation owns parcels adjacent to campus, including the recently-acquired apartments.

- The parcel bounded by Calhoun Street, Lawrence Street and Tyler Avenue: This site is directly across Tyler Avenue from the Moffett Quad and is large enough to potentially support multiple buildings.

- The parcels at the corner of Tyler Avenue and Jefferson Street: This site provides a potentially attractive location for a welcome center or other building given its access to both Tyler Avenue and Jefferson Street and its impressive view of campus. There are multiple existing buildings on this site with multiple current leases, which would impact the potential timing of its use.
Numerous locations of the newly-acquired housing units might offer alternate effective uses for other building types or parking.

The City of Radford owns property adjacent to the Foundation-owned property at the Selu Conservancy. The Selu land-use plan is currently being updated and generally indicates that current University program activities at Selu are being met by the existing facilities; however, there are plans to continue to increase the amount of academic and related activities at Selu. There are no plans to expand the property boundaries at this time; however, given the City of Radford has no plans to utilize this adjacent property, there may be value in continuing discussions between the Foundation and the City of Radford concerning this property.

Given the current Central Campus footprint and the locations of newly-acquired, off-campus housing, it is also advisable for the University to continue to review the opportunity for acquisition of adjacent properties, particularly including along Tyler Avenue, Jefferson Street and East Main Street. Private owners have multiple commercial and residential properties, along the Tyler Avenue and East Main Street corridors, that might be developed as public-private partnerships with the University. In particular, retail establishments for food, clothing and light grocery could serve both the City of Radford and the University in these commercial-zoned districts.

The RUC merger, in conjunction with the Clinical Simulation Center and other leased spaces in the RHEC, uniquely positions the University within the developing Innovation Corridor and Academic Health Center, along the South Jefferson Street Corridor in downtown Roanoke. Future developments, along this corridor, offer several opportunities for potential building footprints, which would need to be coordinated with multiple partners, including Carilion Clinic, Virginia Tech and the City of Roanoke. Examples would include academic, teaching and research space, but might also include student services uses, such as recreation and wellness, dining, residential and parking.
PROPOSED ACADEMIC FACILITIES ACTIONS AND PHASING

In order to achieve the stated goals, several are proposed.

- The current Six-Year Capital Plan proposes a new building for the departments of CVPA, along with additional clinic space for Waldron College. The Center for Adaptive Innovation and Creativity (CAIC) will replace both the existing Porterfield Hall and the existing McGuffey Hall, which currently house several CVPA departments. These buildings are among the least energy-efficient on campus and are in dire need of replacement with many of the associated existing building systems and components at their end-of-life and without up-to-date safety, security and accessibility capabilities. This building also provides an increased emphasis on the campus dynamic for cross-disciplinary academic endeavors, particularly with respect to synergy between the arts and health sciences. The building will house clinical spaces for community health care, reinforcing ties to the surrounding area. The building will also include space for the expanded Center for Interprofessional Education and Practice (CIPEP) suite. The new CAIC will be built on approximately the same footprint on-campus as these two existing buildings. The Commonwealth of Virginia has approved the Detailed Planning design documents for the project, along with all other required technical approvals from the Department of Environmental Quality and the Art and Architectural Review Board. The Capital Budget Request for the project has been submitted for approval by the General Assembly.

- The current Six-Year Capital Plan also includes a proposed renovation and partial repurposing of McConnell Library. This existing building was built in three separate phases during the 1930s, 1960s and 1990s. A comprehensive renovation would transform McConnell Library into a 21st century facility supporting a wide variety of individual and group study spaces; state-of-the-art learning technologies; compact storage for print materials; flexible active learning spaces; and spaces to support the creation of new knowledge, creative scholarship, new media (audio and video studios, motion capture studio, 3D printing) and event and instructional spaces. The renovated building would also house offices for units, such as the Center for Innovative Teaching and Learning, Faculty Development and the Harvey Knowledge Center, that offer coaching, peer tutoring and mentoring for both students and faculty/staff. The Library Learning Commons should evolve from a combination of a library and computer lab into a full-service learning, research and project space, designed for the future with an open, flexible layout throughout the building and including a video conference room, digital media creation and editing tools, writing center, equipment checkout, a large multipurpose meeting and event space and numerous group study rooms, which can be reserved online. The Library Learning Commons should become an active, comfortable space where students can discover, create and collaborate with peers, a space that inspires them to be more productive and successful.
Previous studies indicated the relocation of the administrative offices; the addition of compact storage units to replace conventional stacks; the conversion of existing stack spaces to flexible study and workspaces; the capturing of the existing inaccessible courtyard as usable space; and the introduction of more public gallery and cafe spaces. The renovation would also contain a proposed consolidated Archives and Special Collections that protects the existing collections, as well as meets the standards set forth in the ASHRAE Handbook — HVAC Applications for Museums, Galleries, Archives and Libraries.

The library is also among the least energy-efficient buildings on-campus and in dire need of basic building systems replacement. It is likely that the state will be interested in funding these types of systems renovations, particularly those that improve sustainability and security, as well as repurposing spaces to optimize campus engagement and usage. The renovation would replace lighting throughout the building to meet library lighting standards, while also maximizing energy efficiency through the use of LED fixtures and would also replace all end-of-life controls and switches for efficient operations.

Given its location facing the Main Quad and within the potential Historic District, the renovation of the 1930s facade will pay particular attention to the original design and construction to preserve the building’s historic integrity.

Libraries are changing rapidly, in both form and function, and the recent changes in usage in McConnell Library acknowledge the need to revise library spaces to keep them current. Library staff is currently preparing the Strategic Plan for 2020 and will be undertaking a visioning process to help inform future plans for the library. A pre-planning study is underway.
programmatic elements of the renovation and repurposing of the Library. All of these elements — previous studies, strategic planning and the visioning process — will be folded into the proposed capital project planning and execution to ensure the library will remain a central part of the overall student experience.

- The current Six-Year Capital Plan also includes a proposed renovation of Walker Hall. This existing building was built in two separate phases and is in need of basic building systems replacement, along with reprogramming of the existing space. This renovation could possibly occur near the end of the ten-year Master Plan window.

- While not currently included in the Six-Year Capital Plan, Peters and Waldron Halls are both approaching an age that requires replacement of certain basic building systems and components and updating and refreshing of the spaces.

- There are preliminary plans to provide programmatic expansion through the selective repurposing of a number of existing campus spaces upon completion of the current Reed and Curie Halls renovation project and the future CAIC project.
  - Cook Hall spaces vacated by the Artis College will be repurposed to support a portion of the identified Waldron College and CEHD needs.
  - Davis Hall spaces vacated by the Artis College will be repurposed to provide additional faculty offices, classroom/labs or other academic spaces, potentially to serve the required expansion of the Information Technology and Cyber Security Computer Science programs for the Tech Talent Pipeline. Certain building systems and components in Davis Hall will also be targeted for upgrades through Maintenance Reserve funding projects.
  - Walker Hall vacated swing spaces will be repurposed to consolidate most Information Technology staff, along with up-fitting space for several general classrooms/labs.
  - McConnell Library vacated swing spaces will be repurposed as part of the McConnell Library’s capital renovation project.
  - Peters Hall spaces vacated by the CVPA Department of Dance will be repurposed for CEHD Department of Health and Human Performance spaces, including the relocated Nutrition and Dietetic Laboratory from McGuffey Hall.
  - The Venture Lab has been accommodated on the first floor of Kyle Hall. The location was specifically selected to allow direct controlled access with the ability to accommodate non-regular-hours occupancy.

- The creation of “ACCESS Radford” identified in the Strategic Plan will require a small number of dedicated offices and can likely be accommodated by re-assignment of several existing offices and support spaces made available after the Reed and Curie Halls and CAIC projects.

- The Security Studies Initiative and the Geohazards and Unmanned Systems Research Center are being incorporated into the current Reed and Curie Halls renovation project.

- Evaluate campus classrooms, class labs and other basic instructional spaces with respect to continuing to upgrade technology, furniture and furnishings. Evaluations should occur on an annual basis within the duration of the Master Plan, and the evaluation teams will include members of Academic Affairs, Enrollment Management, Information Technology and Facilities Management. Improvements could include movable desks and tables to facilitate more interactive learning environments; additional white boards and smart boards; brighter and more resolute projection systems; simplified and updated control systems; appropriate interface technology for mobile and other display devices to promote material delivery; access to new and consistent 2-d and 3-d printing capabilities; and synchronous online delivery capabilities to allow concurrent on-site and off-site instruction.

- Evaluate campus classrooms, class labs and other basic instructional spaces with respect to scheduling and cross-discipline collaboration, efficiency regarding the use of spaces and in particular with respect to the “REAL” model for General Education. Evaluations should occur on an annual basis within the duration of the Master Plan, and the evaluation teams will include members of Academic Affairs, Enrollment Management, Conference Services and Facilities Management. The reviews should facilitate working towards a culture of sharing space and maximizing utilization for all instructional spaces, along with providing increased student exposure to additional areas of study.
As spaces are repurposed across campus for various identified initiatives, continue to identify existing spaces that can be converted into collaborative study spaces, particularly in the older academic buildings on campus.

The University will also identify specific existing buildings, or portions of existing buildings, which might be candidates for extended hours of operations. Opportunities might include the newer footprint buildings including the CHBS Building, Kyle Hall and the CFTS, along with the proposed CAIC. The identification and implementation of additional hours of operation will be reviewed and approved by the Divisions of Academic Affairs and Finance and Administration.

The College of Graduate Studies and Research is currently located in the Buchanan House. This academic unit needs spaces that are more efficient and more central to campus and portray more business-professional office environments. It will be necessary to undertake a renovation of the Buchanan House, or possibly relocation of staff to another location, to accommodate these needs. In the final analysis, the Buchanan House has limited effectiveness given its inefficient configuration with limited ability for flexible future organizational occupant use, and its footprint location could better serve other future needs given its location near academic and residential buildings. The available site footprint could easily support a building with 15,000 to 20,000 square feet, while the Buchanan House only contains approximately 5,500 square feet. Its use as possible swing space is helpful, and after that need is met, it might be best to demolish the structure to capture the site for more efficient use of valuable campus real estate as needs arise.

The Vinod Chachra IMPACT Lab is currently housed off-campus in the Corporate Park. Given the online nature of the program, the various content delivery schedules and the variable volume of coursework, it is appropriate to maintain this program in off-campus leased space. This allows the program to scale up or down rather quickly as footprint needs adjust. The Corporate Park currently provides adequate space for this unit, and the spaces have been customized for IMPACT’s use. Although the building was not originally designed for this type of academic use, there are certain issues with the overall condition of the building and associated deferred maintenance. While the current occupancy in the building will allow additional future maintenance investments, alternate locations will be reviewed for this program as the needs change and space requirements expand.

The RHEC also supports a number of academic programs currently offered in the Roanoke location. These include several programs for the Waldron College, including the Clinical Simulation Center, along with MBA, Criminal Justice, Social Work and Education programs. An overall facility review will be undertaken for the RHEC to investigate potential synergies of current spaces and programs and anticipate future growth potential, particularly in support of RUC.

SWVAHEC currently offers a number of academic opportunities, including the Appalachian Community Outreach Institute. It is currently envisioned that the size of the space in SWVAHEC is sufficient for the foreseeable future, but a review should be undertaken to confirm the effectiveness of the space.
PROPOSED STUDENT FACILITIES ACTIONS AND PHASING

Proposed Housing Actions and Phasing

In order to achieve the stated goals, the following actions are proposed:

- The current Six-Year Capital Plan includes proposed renovations of Norwood, Tyler and Muse Halls over approximately the next eight years. Norwood and Tyler Halls will include the same level of renovation as the most recent residence hall renovations, including air-conditioning and single bathrooms, while Muse Hall will be renovated to a slightly lower level of renovation to allow an option for residential accommodations at lower student fees. These buildings are among the least energy-efficient on campus and are in dire need of replacement with many of the associated existing building systems and components at their end-of-life and without up-to-date safety, security and accessibility capabilities.

- The renovation design of these existing buildings will also purposefully include program space for various living-learning elements as part of the overall building. As an example, the Honors College has been identified as a potential program component in the renovated Tyler and Norwood Halls. A pre-planning study will be performed to identify the specific living-learning community program elements for these existing building renovations.

- Once these renovations are accomplished, a master schedule has been established for all 15 current existing residence halls to provide for planned renovations on an approximate 30-year frequency.

- For all residence hall renovations, program space will be identified to strengthen the current living-learning communities and academic support spaces, along with providing informal student study and collaborative spaces.

- An overall schedule for the renovation of the recently-acquired, off-campus housing units will be prepared. In general, the schedule will be compiled to allow the most time-effective methodology to complete all renovations, by concentrating on the most popular types of units and locations first.

Given their locations facing the Main Quad and within the potential Historic District, the Norwood and Tyler Halls renovations will pay particular attention to their original design and construction to preserve their historic integrity. The Muse Hall renovation, however, will offer an opportunity to update the building elevation facing the Quad to incorporate elements, which more closely complement the more historic buildings in this area of campus. The illustration shows one early concept for an upgraded façade.

The illustration shows one early concept for an upgraded façade.

HOUSING RENOVATION MASTER PLAN CHART

Muse Hall Conceptual Elevation
Proposed Student Support and Recreation Facilities Actions and Phasing

In order to achieve the stated goals, the following actions are proposed.

- The Master Plan indicates a potential location for a University Welcome Center. This space would provide an initial point of entry to Central Campus, particularly for visitors and special events, along with support for maps, parking passes and other basic directional information. This function currently exists in Heth Hall and would require about 5,000 square feet.

- The Master Plan indicates a potential location for an addition to the Hurlburt Student Center, which might also be appropriate during the ten-year Master Plan duration. The program for this potential addition has not been fully defined at this point, but would probably include event space, student organization space and student study space.

- As spaces are repurposed across campus for various identified initiatives, the University will continue to identify existing spaces that can be converted into community spaces to support off-campus residents when on-campus, including meeting and gathering spaces, offices, outdoor spaces and other support spaces.

- Each on-campus food service option will be reviewed for potential renovation and updating at some point during the 10-year Master Plan window. Changes in locations for existing food service options, along with additional new options, may also be identified during this time frame, in coordination with the food service vendor.
The Master Plan includes the identification of walking and biking paths/trails both on-campus and in coordination with surrounding municipal facilities and locations. Discussions with the City of Radford indicate that there are opportunities to collaborate on the development of these assets.

The Master Plan also includes the proposed relocation of the RU Able facilities from its off-campus Corporate Park location to the Athletics/Recreation Campus.

The existing gymnasium in Peters Hall is also identified to be reconfigured and refurbished to allow multiple usages for both academic purposes for CEHD and event space for various campus functions.

The Master Plan also includes locations for potential public/private mixed-use residential and retail properties, along the Tyler Avenue Corridor and the East Main Street Corridor. These properties could consist of dining and shopping destinations desired by students and parents and also faculty and staff, along with possibly the Bookstore or other University-related enterprises. The development of these facilities would need to be coordinated with the City of Radford and private development entities. The City of Radford has stated a clear desire to facilitate success in this area of East Radford to match recent successes of similar developments in West Radford.

The City of Radford and the Foundation are currently collaborating on a hotel and related conference/alumni/event center project adjacent to campus. The Foundation and the City of Radford are working on the project with the help of Fortune 500 Company Jones Lang LaSalle (JLL), a commercial real estate services firm. The multilevel hotel will be located at the intersection of Tyler Avenue and Calhoun Street. Four existing structures would be demolished to make way for the hotel, which will include 125 rooms, a conference center and on-site parking. The hotel is also planned to feature a rooftop restaurant with a view overlooking the campus. The hotel is planned to be completed by 2022/2023.

Proposed Athletics Facilities Actions and Phasing

The 2014 Athletics Master Plan identifies a number of improvements and additions to the footprint of athletics facilities. In order to achieve the stated goals, initial actions, as illustrated in the Athletics Master Plan, are proposed.

- Renovation and repurposing of the Dedmon Center to provide a more appropriate venue for the basketball and volleyball teams by reconfiguring the main court area and seating bowl. At the same time, this allows reconfiguring and increasing the amount of training, locker room and practice spaces within the building.

- The addition of a ticketing/concession/restroom building to support the outdoor baseball/softball/tennis complex.

- Other improvements in the Athletics Master Plan would be pursued in the future as demand is demonstrated and funding becomes available.

Proposed Administrative and Support Facilities Actions and Phasing

In order to achieve the stated goals, the following actions are proposed.

- The current Six-Year Capital Plan includes a project for various campus infrastructure improvements, mainly including safety and security systems and components along with conventional utility systems. Planning studies are underway to analyze and prioritize the various utility systems and components improvements.

- Construction of an Administrative Services addition to the Armstrong Complex to collect the remaining administrative departments housed off-campus or in leased space, as included in the current Six-Year Capital Plan. The building would be approximately 15,000 square feet and would consist of flexible office and support spaces.

- Construction of a new Public Safety Building to collect all campus police, emergency services and safety personnel, as included in the later biennia of the current Six-Year Capital Plan, might also be appropriate during the 10-year Master Plan duration. The City of Radford is currently studying the need for an EMS location somewhere in East Radford. As the City of Radford’s study develops, the University will engage discussions on its location and program and the potential for shared spaces.
INFRASTRUCTURE IMPROVEMENTS

Sustainability

There are a number of features and recommendations in the Master Plan that promote the University’s sustainable development. Proposed new buildings are sited on campus to take advantage of existing utility infrastructure. New trees and plantings have been proposed for much of the campus to promote greater tree canopy cover. Stormwater and water quality management recommendations are identified, and the University will investigate opportunities to incorporate other stormwater quality practices on smaller scales surrounding existing parking lots and buildings on campus. These measures can include landscape planting areas and alternative infiltration areas in parking and adjacent pedestrian areas. Additionally, the University will continue to improve its on-campus initiatives for materials recycling.

The University’s greenhouse gas (GHG) inventory identifies areas for potential improvements in energy and utility savings and GHG reduction. Currently, purchased power continues to be the University’s largest emissions source at about 60% of total emissions. The next largest emissions source at about 22% of total emissions is on-campus stationary, which represents fuel sources consumed directly on campus.

There are many methods for reducing net greenhouse gas emissions, including employing energy efficiency and conservation practices and producing carbon-free energy. To pursue the emissions reduction goals identified in the University’s Climate Action Plan, the University will have to implement a combination of actions and strategies.

From a purchased power perspective, the University currently purchases electric power from the Radford Electrical Department. In order to provide a redundant source for campus power, along with overall emergency electrical capacity, the University continues to investigate the potential of repurposing the Art Annex building adjacent to the existing steam plant into a co-generation combined heat and power (CHP) facility. The facility would consist of natural-gas-powered generators to provide campus medium-voltage power, while also providing heat for the steam plant operations. The existing occupants of the Art Annex, consisting of the Ceramics program lab and equipment, would be relocated to a more suitable location given the inherent issues with students working in such an industrial area of campus. This significant change in basic campus utility infrastructure would be pursued in association with the City of Radford.

The University will also aggressively seek other opportunities to reduce electricity-related emissions. Examples of technologies and financial vehicles for evaluation include battery storage systems, photovoltaic solar panels, wind turbines and micro-grids. Continued upgrading of controls monitoring and commissioning activities can help identify systems and components to provide potential reductions in utility usage.

The University will also increase its efforts at student and faculty/staff education for sustainability and reduced energy usage. Studies have shown that even minimal efforts in this regard can be very cost-effective and drive real savings, as evidenced by an award-winning Radford University research project published in the International Journal of Sustainability in Higher Education. The University will also identify an opportunity to construct an educational display device for renewable energy to illustrate energy usage and reductions.

Electrical

Based on recent studies, the overall medium-voltage electrical system is currently adequate for the total load demand of the Central Campus, including both existing buildings and an estimated load for potential new buildings. Various specific system and component upgrades will be required for maintenance issues or routing situations, as the study recommended replacement of identified switches, elbows and other basic gear.

As the campus expands to the east across Jefferson Street, new medium-voltage electrical distribution from the existing substation on East Main Street and specific building connections would need to be added.

The overhead lines supporting the Athletics/Recreation Campus appear to have capacity for both the current facilities and potential future buildings.

The University also desires the addition of emergency generators to provide power to certain buildings during outages. While a number of buildings already have this capability, numerous other facilities would provide value to the University during emergency situations if power was available.

Steam

The existing boiler plant capacity should accommodate the proposed new building footprints, such that central steam capacity is not a concern for the short term. The existing steam distribution piping will prove adequate for campus loads until the existing loop connected capacity exceeds 60,000 pounds per hour. Routine maintenance and replacement of piping, valves, supports and other components, along with the overall tunnel structure, will be needed over the course of the Master Plan.
Stormwater

Central Campus Jefferson Street/Adams Street Systems

New projects in this area of Central Campus will need to address quality as well as quantity treatment requirements. The stormwater management solutions are limited due to the presence of shallow rock formations and karst geology. Infiltration is not permissible in karst areas, thereby eliminating the possibility of bioretention without an underdrain system. These issues also minimize the potential to utilize porous pavements and previous pavers for proposed impervious surfaces which would reduce the total impervious area, since these systems are most effective and cost efficient in areas where the subsurface soil conditions are conducive for infiltration into the groundwater.

Based on current regulations, stormwater solutions to treat water quality and quantity issues and that do not rely on infiltration could include one or a combination of the following best management practices (BMPs).

- Underground storage pipes and appropriate filter system.
- Bio-retention basins or rain gardens with underdrain systems, planted with native vegetation adjacent to individual buildings/impervious area.
- Green roof system on a portion of roofs.
- Cisterns to capture the stormwater runoff for use as gray water within the buildings.
- Manufactured systems connected to building downspouts and storm drainage systems.
- Purchase of off-site water quality credits.
- Previous regulations allowed regional approaches to stormwater treatment, such that BMPs could be established to cover several areas of campus in one combined BMP. In fact, the University has had one of these BMPs in place for quality treatment for more than a decade. While the University can continue to maintain this BMP and take advantage of its treatment capabilities, no new regional BMPs are allowed. Therefore, BMPs will need to be included as part of any site project that reduces previous drainage areas.

Athletics/Recreation Campus Systems

Future development of the Athletics/Recreation Campus potentially includes a new concessions and bathroom facility and an indoor tennis facility. Site-specific BMPs are required to provide quality control as well as runoff reduction volumes (quantity control) to the regional system; however, the outlet from these facilities must be above the 100-year flood elevation of the New River. These site-specific practices may include one or a combination of the following.

- Underground storage pipes and appropriate filter system.
- Bio-retention basins or rain gardens with underdrain systems, planted with native vegetation adjacent to individual buildings/impervious area.
- Cisterns to capture the stormwater runoff for use as gray water within the building.
- Manufactured systems connected to building downspouts and storm drainage system.
- Purchase of off-site water quality credits.

East Jefferson Street Systems

The City of Radford has indicated that, as drainage was directed towards Main Street over time, culverts were piped to the south edge of the Norfolk Southern Railway and discharged into a large gravel drainage ditch on the railway property that parallels the commercial properties, along the north side of East Main Street. If it is determined that one of those culverts needs to be enlarged to qualify it as an “adequate channel” for the purposes of meeting Virginia regulations for any new drainage system proposed, the University would probably have to deal with the individual landowners/businesses to acquire an easement.

Given the issues in this area, a recommended approach may be to over-manage or over-detain any new stormwater flows generated by new development on-site either by integrated stormwater management structures and underground storage or utilizing low-impact development (LID) techniques and then discharging storm flows at a rate lower than existing flows from this area to the existing systems.

Upon property acquisition of any areas east of Jefferson Street, site-specific water quantity and water quality BMPs will be required, using similar techniques as described for on-campus situations.

Stormwater Master Plan Documentation

In 2012, the University commissioned a Stormwater Master Plan in response to a request by the Virginia DEQ. This Stormwater Master Plan, supplemented by an extension to the Plan in 2016, documents specific information relative to the watersheds in the areas on and adjacent to campus. This Plan will help guide the future analysis and design for the indicated potential new buildings and other campus development.
Water

Given there are currently no issues with the overall supply availability or pressures for the potable and fire supply systems at the Central Campus and Athletics/Recreation Campus, the City of Radford has indicated that they are well positioned to serve the projected growth of the campus.

Routine maintenance and replacement of piping, valves, supports and other components will be needed over the course of this Master Plan. The University has also engaged in an overall system field investigation and analysis to assist in the preparation of current water system and components location mapping and condition assessment.

Sanitary Sewer

There is an issue with one of the main collector lines feeding out of the Central Campus, at the edge of the Preston Hall Parking Lot A along East Main Street. This older line has become blocked a number of times due to tree roots. The City of Radford has treated the line with chemicals in an effort to dissolve the roots multiple times. This blockage should be resolved prior to the addition of any new infill projects in the Central Campus with the removal and replacement of the existing line and removal of culprit trees.

If the expansion of the campus moves into the area east of Jefferson Street, the 8-inch diameter sewer, along East Main Street, may become overloaded. If growth is anticipated in the area east of Jefferson Street, an analysis may need to be done to determine the existing flows in that 8-inch sewer so that capacity projections can be made based on a phased growth plan. This will determine at what point the University may need to address the replacement of this line or if a new collector sewer connecting further downstream needs to be considered.

Chilled Water

New chilled water supply will be required for any new building footprints. Where feasible, the University desires to expand the network of regional chilled water loops serving multiple buildings; therefore, each building location will be viewed in terms of its ability to complement the required chilled water supply for adjacent existing buildings. In particular, new buildings near the Main Quad and the proposed CAIC will be reviewed for this capability.

Routine maintenance and replacement of piping, valves, supports and other components will be needed over the course of this Master Plan.

Information Technology

Expansion of the fiber network should continue forward with the recommendations of the Master Plan. Where possible, fiber should enter new buildings at two separate locations, and these cables should use diverse paths back to Jefferson Hall and Armstrong Complex for enhanced redundancy. As expansion of the Athletics/Recreation Campus continues, it will be beneficial to provide redundant fiber paths from the Central Campus to the Armstrong Complex data center.

With the continued increase usage of wireless and cellular services by the University community and the expanded bandwidths offered by various providers, efforts should be made during planning and construction of new buildings to insure adequate cellular coverage in both exterior spaces and in the interior areas of buildings. Cellular service can also be enhanced by partnering with cellular service providers to add access points at various points across campus.

A critical component of future content delivery will be enhanced, more robust virtual connectivity between Central Campus and the University’s satellite campus locations, both current and future. The provision for conferencing technology and remote delivery will need to be accommodated, through both basic equipment and data pipelines expansions. One example would include the expansion of the RUC connection to the nearby RHEC.

Ultimately, decommissioning of the McConnell Library data center and transitioning to using the Armstrong Complex data center as the primary on-campus data center should be considered. Using shared systems housed at Virginia Tech or via cloud services can provide the necessary system redundancy. The University will always need to maintain wiring and distribution for the network layer and at least a small number of servers on campus to maintain speed and performance of several services.

With respect to overall systems and applications, new and enhanced technology solutions will need to be evaluated for implementation to promote continual optimization of operational efficiencies, productivity and data-driven decision making.
MULTIMODAL CAMPUS ACCESS IMPROVEMENTS

Security and Emergency Systems and Access

The Master Plan takes into account all of the various security and emergency systems and components to ensure they are not compromised by proposed buildings locations or transportation access routes. The Master Plan also identifies any required expansions of these systems to accommodate areas of future planned growth.

The University is in the process of converting existing fire alarm systems and components to a consistent campus-wide installation and desires to continue to make these upgrades. It is anticipated that all campus buildings and other selected off-campus buildings will be protected by a fire detection and alarm system provided by a single manufacturer within the 10-year Master Plan window.

The University also desires to expand the deployment of building access control and security, including card reader access systems and components. Current policy requires new buildings to have electronic access control for all building exterior public entries. Specific interior doors for new buildings are also provided with access control, as proposed and approved by the Divisions of Academic Affairs and Finance and Administration. It is anticipated that all existing campus buildings and other selected off-campus buildings will be protected by electronic door access control devices within the 10-year Master Plan window. This will include the installation of devices on existing doors and possibly the addition of exterior backbone cabling routes. The University will develop specific schedules and prioritization of buildings during the 10-year Master Plan window.

Accessibility

While parking around Central Campus may need to be relocated to make way for construction of other facilities, pockets of parking that remain will need to be prioritized for handicapped, visitor and other specific parking needs.

On the Athletics/Recreation Campus, accessible spaces will need to be maintained in the areas closest to the Dedmon Center, Cupp Stadium and the baseball and softball fields.

In order to ensure various user groups understand accessible routes and building entry locations, it is recommended that an interactive campus map mobile application be created. This will allow real-time awareness for students, faculty, staff and visitors to more easily navigate campus.

Transit System

The proposed short-term building footprint additions and renovations will not dramatically change the existing ridership patterns; however, future growth, along the Jefferson Street and East Main Street corridors and Tyler Avenue, may require adjustments to the routes and stop locations. Therefore, new “pull-off” stops are recommended along Jefferson Street, East Main Street and Tyler Avenue, to support a perimeter route around campus. This campus loop route should help facilitate increased ridership instead of the current longer routes. Off-site parking with more direct routes and improved amenities.

Pedestrian Ways

Improvements are proposed to numerous streets connecting Central Campus to the City of Radford to the east and west, including Downey, Clement, Fairfax and Calhoun Streets. These improvements will help to more positively connect the adjacent housing and commercial areas to Central Campus and will need to be coordinated with the City of Radford. Various improvements are also recommended for the intersection of East Main Street and University Avenue, along with improvements to the pedestrian sidewalks and the bridge itself.

Numerous existing pedestrian ways and sidewalks on campus currently experience localized flooding during heavy rain events, including near Muse Hall, along the sidewalk between Tyler/Norwood and Jefferson/Madison and near Preston Hall. Limited grading and drainage projects are planned to mitigate these events.
The Master Plan proposes to provide small parking areas at various locations around campus for maintenance carts and other service vehicles, which will help mitigate instances of potential conflicts between these vehicles and pedestrians. These specific marked areas will also be located to minimize the visual impacts of these vehicles on major campus open space viewsheds.

Bikeways

The City of Radford has identified a number of proposed new bikeways to expand and complement the existing bikeways. The Master Plan acknowledges these proposed routes in the proposed landscape/hardscape improvements and traffic patterns. Existing bike paths run along Tyler, Jefferson and a portion of East Main Street, but could be improved through greater signage and markings. Upgrades to these three main traffic ways would need to be closely coordinated with the City of Radford.

The University is also reviewing the potential of providing a bike-sharing program between various campus locations and adjacent residential areas. Bike racks are located throughout Central Campus, though it appears their use is not consistent; some are full, while others stand empty. Revised locations of bike racks or potentially bike lockers and storage units near busier corridors might well improve their use.

New River Access and Greenways

The City of Radford has identified new greenway connections to the proposed Pulaski Loop along the New River and integrates the University’s existing portion of the greenway into this route. Improvements in the connectivity of the University trails to the greenway are proposed and will be coordinated with the City of Radford and other regional authorities as the route is finalized.

Vehicle Access and Parking

The Master Plan team’s efforts in this area were supplemented by an outside independent consultant, to ensure the University incorporated the latest trends in this important part of the campus environment. The team and the consultant studied the current parking operating and management plan, including space locations, occupancy data, rates and fees and accessibility, and then closely coordinated this information with pedestrian ways, transit routes and other factors.

In general, based on the outcomes of this study work, the Master Plan reconfigures a number of parking areas within the Central Campus; relocates parking areas from Central Campus to locations at the perimeter of campus and east of Jefferson Street; adds parking along East Main Street; and adds parking adjacent to the existing parking at Athletics/Recreation Campus near the Dedmon Center.

Overall landscaping improvements are also in order for a number of existing parking lots; in particular, Lot A adjacent to Martin Hall is in serious need of new trees, plantings and hardscape elements to enhance the beauty of the area and facilitate better pedestrian access.

Signage

Additional campus entry signage is proposed for a number of prominent locations around the perimeter of Central Campus and Athletics/Recreation Campus, including the east and west ends of Fairfax Street, both ends of the University Drive bridge and the entry to the Athletics area. These signs are proposed to be consistent with the current major signage and will help with wayfinding to a number of main visitor support buildings, such as Russell Hall. These signs will also continue to reinforce the branding and visual identity of basic campus elements.
PROPOSED NEW TRANSIT ROUTES

- Drop-Off Shelter
- Perimeter Route
- Perimeter Route/Remote Lot Route

2020-2030 Master Plan
PROPOSED GREENSPACE AND SIGNAGE IMPROVEMENTS

- Existing Green Space
- Green Space/Pathways Improvements
- Existing Signs
- New Signs
OUTDOOR SPACE IMPROVEMENTS

Overall Campus

The Master Plan provides an opportunity to improve and upgrade existing landscape and hardscape elements and components, while providing guidance on improving and expanding the overall current environment. Further, the ability to enhance the campus “sense of place” and create certain traditional student experiences and alumni connections is an important element of outdoor spaces. An example of this is the recent addition of the bronze statue of the Highlander mascot and associated bronze bench in the area between Russell and Heth Halls. The Student Government Association has also committed to providing a University Seal in an outdoor space on Central Campus, such that events could be held for students and alumni for specific occasions; for example, students could touch the seal upon admission or after commencement for good luck. Additional identified potential outdoor experiential spaces are “plots” to accommodate various National Pan-Hellenic Council functions and activities.

Several fundamental ideas and approaches are proposed as basic elements of the overall improvements to the campus outdoor spaces. Security will be considered with respect to any proposed new plantings and landscape elements to ensure the safety of all areas of campus. Irrigation will only be used for areas requiring intensive utilization, such as athletic fields. Hardscape elements such as sidewalks will be installed to provide buffers where feasible when adjacent to traffic and parking areas.

The University will continue to invest and maintain existing trees, landscape plantings and lawn areas.

Understanding the value of the arboreal assets adds to the aesthetic appeal of campus, reduces temperatures and decreases water runoff. Tree cover can also potentially be utilized in runoff amounts prescribed by the Municipal Separate Storm Sewer Systems (MS4) permit program. Indigenous species will be used as appropriate to provide diversity and reduce the negative impacts of monocultures. Decisions on the selection and maintenance of plantings will be made to minimize the need for pesticide applications and extensive maintenance efforts.

Specific goals and strategies have been identified for each of the identified campus outdoor spaces to meet these goals.

Main Quad, Moffett Quad and Governor’s Quad

The most important landscape goal for the Main Quad, Moffett Quad and the Governor’s Quad is to preserve and enhance the existing mature and historical character of these quads, particularly as they relate to the potential Historic District. To achieve this goal, the following strategies are considered.

- Locate new buildings in relation to pedestrian routes, mature trees and adjacent buildings.
- Preserve and extend established patterns of pathways and landscape/hardscape elements.

Proposed potential locations for new construction for the Main Quad are inserted into the Quad’s historic context to relate carefully to nearby buildings and to respect established built patterns. The proposed potential new building site adjacent to Muse Hall will maintain the existing view and pedestrian route from Muse Hall to the fountain at the center of the Quad and to the residence halls along Tyler Avenue.

The sweeping pedestrian arc at the front of Heth Hall is preserved. A significantly reworked landscaped and hardscaped area in front of Muse Hall will replace the current large planter, seating, plantings and sidewalks, which have become outdated. A small hardscaped/landscaped area at the front of McConnell Library emphasizes the importance of this building along this route, offering a pleasant outdoor space for reading and studying alone or in a group.

Existing trees on the Main Quad should be preserved to the greatest extent practical, and new trees should be planted to emphasize views and screen undesirable views. In particular, new trees should be introduced into the reworked area in front of Muse to shade the space and help transition the height of Muse Hall and the width of the open space to a more human scale. Trees and shrubs should also be used to screen the quad from the parking areas flanking Muse Hall on Tyler Avenue and Main Street.

The existing Alumni Garden between McConnell Library and Reed and Curie Halls is a mature outdoor space on the north of the Main Quad. While it offers an excellent space for outdoor reflection...
and collaboration, its plantings and hardscape are also outdated. Further, the accessibility of the space is not appropriate. This space could be enlivened by reworking the hardscape elements and seating, possibly including an amphitheater space at its northern terminus.

Additional landscape and hardscape elements will also be added to Moffett Quad at the Fairfax Street end of the Quad, to provide seating and enable potential photo opportunities for students and alumni.

The Governor’s Quad is an established and mature recognized outdoor space and is proposed to be maintained in its current configuration with no new buildings. However, there are opportunities to enhance the current landscape/hardscape to provide additional seating and enliven the plantings.

The existing handicapped ramp between Stuart and Davis Halls adjacent to the Governor’s Quad needs significant improvement to its aesthetics and its functionality. The adjacent terrace between Whitt and Young Halls provides an improved pedestrian connection and experience from this area to the Main Quad; an improved ramp and landscape/elements in this location would complete the overall pedestrian experience in this location.

One specific addition to the Main Quad is the opportunity for placing a University Seal in a hardscaped area. This could be used as a specific photographic opportunity for students and others, along with potential ceremonial activities.

**Adams Street Corridor**

The most important landscape goal for the Adams Street Corridor is to continue to enhance this corridor as a primary north-south pedestrian route on campus. To achieve this goal, the following strategies are considered.

- Connect the plaza and garden at the Covington Center for Visual and Performing Arts with the adjacent proposed CAIC.
- Plant additional canopy trees at outer edge of walks and adjacent areas.

Much of the Adams Street Corridor has been converted to a major pedestrian mall. The Master Plan anticipates additional enhancement of this corridor with the two ends of the pedestrian mall as areas of key importance.

Kyle Hall is located at the uppermost end of Adams Street Corridor. The front of the building addresses not just the Adams Street pedestrian corridor, but also the axis from Heth Hall passing at the front of the Peters Hall entry at Moffett Quad. The existing plaza below Kyle Hall includes paved areas and grassed/planted areas, along with significant stretches of brick steps to tie the pathways to the building entries. The lower end of Adams Street Corridor, adjacent to the Covington Center for Visual and Performing Arts and the proposed CAIC, has been designed as a semicircular space hosting seating and landscape to screen the Fine Arts Center’s utility area below on East Main Street.

The proposed CAIC will include a working courtyard and a significant building entry, along the Adams Street Corridor. This new building will provide excellent opportunities to enliven the northern end of the corridor and will help attract and guide pedestrians to the west and along East Main Street.

The Master Plan also proposes reworking the intersection of the Adams Street Corridor with Fairfax Street, to provide a more visually appealing and safe environment for the interactions of pedestrians and vehicular traffic in this heavily traveled area.

**Fairfax Street Corridor and Heth Plaza**

The most important landscape goal for the Fairfax Street Corridor is to complete this corridor as a primary east-west pedestrian route on campus. To achieve this goal, the following strategies are considered.

- Reconfigure all existing parking areas, along Fairfax Street, to be more uniform and provide better traffic movement.
- Plant additional canopy trees at outer edge of walks and adjacent areas.
- Provide new additional signage at the ends of Fairfax Street to better identify this area.

The Master Plan identifies a series of significant projects to improve traffic and pedestrian flow along this corridor, reconfigure the multiple parking areas on both sides of Heth Plaza and create a much more aesthetically pleasing viewedash along Fairfax from Jefferson Street on one end to Tyler Avenue on the other. The parking area between Russell Hall and the Moffett Quad will be totally reworked to provide a smoother in-and-out traffic pattern and will include ample visitor, metered and handicapped parking adjacent to the active public Admissions and Advancement spaces in Russell Hall. The parking area between Peters Hall and Dalton Hall will also be evaluated to provide a smoother in-and-out traffic pattern or potentially the introduction of a pedestrian-only plaza.
New signage and other visual markings at each end of the Fairfax Street Corridor will also be provided for a much stronger identification of this corridor as a “main entry” to campus.

**Downey Street Corridor**

The most important landscape goal for the Downey Street Corridor is to complete this corridor as a significant east-west pedestrian route on campus. To achieve this goal, the following strategies are considered.

- Complete the connection of Downey Street to the Adams Street Corridor, between the Covington Center for Visual and Performing Arts and the Student Recreation and Wellness Center with future connection to the CAIC courtyard.

A significant entry to campus from the east occurs along Downey Street. While the construction of the Covington Center for Visual and Performing Arts and the Student Recreation and Wellness Center inhibited the use of Downey Street as a pedestrian way due to their requirements for parking and service entrances, the proposed new CAIC will provide the opportunity to open this corridor. This will serve to connect Downey Street from Jefferson Street into Parking Lot A on Central Campus and ultimately to Muse Hall. This natural and pleasing pedestrian connection will help to connect the east side of both the City of Radford and Central Campus to the west side. Further, the University will work with the City of Radford to potentially upgrade the sidewalks, along Downey Street from Central Campus to the Student Outdoor Recreation Center to the west. This will provide a strong connection between the indoor and outdoor recreation facilities and will “bridge” the west side housing areas to campus.

**Tyler Avenue Corridor**

The most important landscape goals, along Tyler Avenue, are to improve the University’s appearance in this busy thoroughfare and improve pedestrian and bicycle safety. To achieve these goals, the following strategies are considered.

- Improve shrub screening of parking and service areas.
- Plant additional canopy trees at outer edge of walks and adjacent areas.
- Indicate shared bicycle/vehicle lanes on the west side of Tyler Avenue.
- Introduce enhancements to discourage mid-block crossings.

Existing improvements, along Tyler Avenue, have enhanced the street’s visual quality and pedestrian safety by adding attractive and well-maintained landscaping to the medians in the center of the road and adding colored crosswalks at Tyler Avenue’s intersections with side roads. These efforts are strengthened in the Master Plan by introducing trees and plantings, along the edge of the sidewalk, to unify the appearance of this street front and reinforce the image of a respected academic institution. Existing trees, along Tyler Avenue, should be preserved with the rhythm of street trees adjusted in areas to accommodate the existing trees. In particular, the grove of existing trees at the rear of Moffett Hall and the historic oak grove at the rear of Muse Hall should be preserved to enhance the established facade of the University.

The parking area at Tyler Hall would be screened from the street with shrubs around three feet in height, planted between the trees to mitigate the visual impact of vehicles parked in these areas. Large utility areas and pieces of mechanical equipment would also be screened with dense shrubs. The parking area at Walker Hall could potentially be removed completely, given the nominal number of spaces and its location directly across from Clement Street, a lively retail and food corridor. Note that, while screening parking and utility areas will improve the visual quality of the Tyler Avenue street front, the parking areas and the entries to adjacent buildings will require additional lighting for nighttime safety.

Along most of the length of Tyler Avenue, bicycle lanes have already been installed on both sides of the street, but for a three-block stretch of the west side of the road, parking is located at the side of the road with no dedicated bicycle lane. Bicycle travel should be accommodated with a 14-foot-wide shared bicycle/car lane. The median in this particular area should be planted with low, spiky shrubs and ground covers and might also have a decorative metal fence installed along its centerline to discourage mid-block crossings by pedestrians.

University discussions with the City of Radford have reinforced the validity of these proposed improvements and offer opportunities for collaboration between the entities. A particular area for coordination is the intersection of Tyler Avenue with Calhoun Street, which is the location of the proposed hotel. Pedestrian connectivity between campus and the hotel should be enhanced as appropriate in this area to encourage interaction along this corridor.

**East Main Street Corridor**

The most important landscape goals, along East Main Street, are to improve the University’s appearance in this busy thoroughfare and improve pedestrian and bicycle safety. To achieve these goals, the following strategies are considered.

- Introduce mature trees in parking lots and along the street.
- Extend shared bicycle/vehicle lanes along East Main Street.
- Improve crosswalks and pedestrian accommodation at the intersection with University Drive.

Currently, a number of relatively tall buildings with paved parking lots in front dominate the campus’ western East Main Street facade (Tyler Avenue to University Drive). Though some nice plantings have been introduced within the parking lots, they have not had the time to grow sufficiently to screen buildings or shade the parking area. The Master Plan recommends more canopy trees for the parking area, of a sufficient size at installation to offer significant shade to the lot within five years. These trees will keep the parking lot’s surface from heating excessively during the summer months and will reduce the visual bulk of the tall campus buildings when viewed from the street. As along Tyler Avenue, large canopy trees are recommended on both sides of the roadway to enhance the visual quality of the street by unifying the street front and screening views of the large campus parking lot and the railway to the north.

The campus’ eastern East Main Street face (University Drive to Jefferson Street) was not impacted by the realignment of East Main Street some years ago and thus lacks the attractive landscaped medians and bicycle lanes of the western portion of the street. Flanking canopy trees should also be continued through this portion of East Main Street to unify this northern campus edge.

At East Main Street’s intersection with Tyler Avenue, University Drive and Jefferson Street, highly visible painted crosswalks are proposed to connect the corners of these intersections to guide pedestrian movement and make pedestrian crossings more highly visible to motorists. At East Main Street’s intersection with University Drive, the University should consider design enhancements in the center of the intersection to make the intersection more highly visible and to calm traffic. The University is also working with the City of Radford to incorporate improvements to the University Drive Bridge, including new fencing, lighting and sidewalk widening.

All of these enhancements would need to be coordinated with the City of Radford. University discussions with the City of Radford to date have reinforced the validity of these proposed improvements and offer opportunities for collaboration between the entities.

Jefferson Street Corridor

The most important landscape goal for the Jefferson Street Corridor is to improve the visual quality and organization on the campus street front. To achieve this goal, the following strategies are considered.

- Introduce canopy trees along the length of the street.
- Place new building infill to screen parking areas and extend vistas from Central Campus.

Currently, the Jefferson Street campus edge is visually disorganized, bearing little visual relation to the older, statelier parts of the academic campus surrounding the Main Quad and Moffett Quad. The Master Plan proposes a similar treatment for this area to offer greater visual cohesiveness and improve pedestrian safety.

As recommended for Tyler Avenue, Jefferson Street will include canopy trees on both sides of the road to unify the street front. The University should also coordinate with the City of Radford to potentially introduce turning lanes, traffic-calming devices and medians with landscaping along the length of the road. These elements along Jefferson Avenue should be considered to enhance the street's visual appeal and pedestrian safety.
Street, have the obvious aesthetic advantage of improving the appearance of one of the key faces of campus, but they also function to alleviate traffic coming down the hill from Tyler Avenue, channel vehicles into defined turn lanes and greatly improve pedestrian safety at crossings.

Potential new building infill, along Jefferson Street, would be carefully located to relate to each other on both the Central Campus side and eastern side of Jefferson Street. Vistas and pedestrian axes from the Main Quad and Moffett Quad would be preserved and extended across Jefferson Street, particularly below Kyle Hall to the current residential areas to the east.

University discussions with the City of Radford have reinforced the validity of these proposed improvements and offer opportunities for collaboration between the entities.

Athletics/Recreation Campus

The most important goals for the Athletics/Recreation Campus outdoor spaces are to improve connections from Athletics/Recreation Campus to Central Campus, among athletic facilities and recreational options at the New River. To achieve this goal, the following strategies are considered.

- Enhance University Drive and the bridge to accommodate bicycles and encourage pedestrian use.
- Create a pedestrian corridor connecting through the center of the athletic facilities to be identified and branded as Champion’s Walk.
- Revise the traffic patterns in the area of the Dedmon Center.
- Create a River Campus complex to provide connectivity to the New River and support numerous academic and student life activities.

The only existing entry to the Athletics/Recreation Campus is the bridge over the railroad on University Drive. In its current condition, this bridge is an uninviting place for pedestrians with four wide lanes, narrow sidewalks on either side for pedestrians and no safe accommodation for bicyclists. The Master Plan indicates improved accommodation of bicyclists and pedestrians by narrowing the four vehicle travel lanes and widening the sidewalk on each side of the bridge. Other elements that will help make the bridge more inviting to pedestrians and bicyclists include attractive light fixtures with banners and more attractive fencing on the sides of the bridge.

Improvements at the intersection also could include colored crosswalks for pedestrian safety, enhancing the appeal of this key link between the academics and athletics areas of campus. All of these proposed improvements offer great opportunities to enhance overall branding for the University and would require close coordination with the City of Radford for both technical and funding considerations.

The 2014 Athletics Master Plan identified a significant transformation of the Athletics/Recreation Campus to accommodate a number of additional and expanded athletic facilities. With the addition of these new facilities near the Dedmon Center, the area will be reorganized to accommodate these facilities and allow for separated vehicular and pedestrian circulation through the space.

Pedestrians are given priority on a tree-lined Champion’s Walk extending from the eastern end of Cupp Stadium to beyond the softball field and Hitting Facility to the east end of the Athletics/Recreation Campus. This pedestrian mall would pass between the Dedmon Center and the proposed future Indoor Tennis Facility, and then between the baseball field and the softball field and outdoor tennis courts. This corridor would serve to connect virtually all of the athletic facilities on Athletics/Recreation Campus for pedestrians and could be used for outdoor events and pre-game activities.

General vehicular circulation would be limited to the area north of Cupp Stadium and the Dedmon Center, extending to the eastern periphery of the baseball field and the intramural fields. A smaller drive connects from the east end of the main drive of the railroad to the existing parking lot near the outdoor tennis courts and baseball field, and a service drive allows service access between the Dedmon Center and the soccer field to the rear of the proposed Indoor Tennis Facility. Parking is accommodated throughout the area with new parking lots at the east and west sides of the Dedmon Center and a parking lot at the east end of the Athletics/Recreation Campus. The parking at the east of the Dedmon Center is configured to preserve existing trees on the current roadway by providing a wide parking island within the lot that will allow the trees to continue to thrive and shade the parking lot.

River Campus

The Master Plan indicates the significant development of a River Campus to enhance the connectivity of the New River to the University. Construction of a greenway, along the river, is proposed, connecting on the west to the existing City of Radford New River Greenway coming from Bisset Park. Several gathering areas with appropriate outdoor furniture and shelters are proposed, along this greenway, to provide spaces for relaxation and contemplation with potential academic research and student life activities.
Boat and canoe launch ramps would provide direct access to the river for floats and canoes. Festival event areas, along with an amphitheater, are proposed adjacent to the river. Recreational elements, such as ziplines, ropes courses and climbing walls, would be located in the area, potentially for both student and public use. A restaurant adjacent to the river would provide food service and event spaces. A rails-to-trails connection, along the existing trestle bridge, would provide connectivity to other greenways in the New River Valley.

Development, along the New River, will be executed in full compliance with all regulatory and administrative local, state and federal requirements. Careful maintenance plans for existing riparian barriers will be established and followed. Materials will be selected to minimize maintenance and replacement given potential flood events. Activities and services would be coordinated between the City of Radford and other jurisdictions, along with the University, to maximize participation in the development of the River Campus and in the associated activities.

**Standard Campus Elements**

Over time across campus, certain common building, landscape and hardscape elements have been constructed and installed in various styles, colors or other inconsistent visual appearances. The Master Plan will identify standards for these common elements.

- Main entry signage
- Seating and benches
- Exterior light fixtures
- Emergency phones
- Railings and handrails
- Fences and guards
- Building signage
- Pavers
- Sidewalks
- Cart paths and access drives

Consistency in the provision and installation of these elements will help enhance the visual impact of the campus and reinforce overall University branding.
SUMMARY
The preparation of the 2020-2030 Master Plan provided a singular and significant opportunity for the entire University community to engage in the future development of the campus and the surrounding community. Further, the timing allowed the Master Plan to reinforce the 2018-2023 Strategic Plan by ensuring the University’s physical resources accommodate the future needs of the University. The Master Plan is organized around the following overarching areas of emphasis.

Construct
- CAIC – Highest priority
- Hurlburt Addition
- Administrative Services Addition
- Welcome Center
- Public Safety Building
- Athletics Ticketing/Concessions Building

Evaluate and Upfit
- Classrooms and labs – Scheduling, efficiency, delivery methods and REAL General Education
- Student study and collaboration spaces
- Event and meeting spaces

Enhance
- Sustainability
- Utilities
- Transit
- Campus perimeter
- Greenspaces
- Brand identity

Repurpose
- Programmatic expansion through selective repurposing of areas within Davis, Cook, Walker, Peters, Kyle and Young Halls
  - Waldron College growth
  - CEHD programs
  - Tech Talent Pipeline
  - Venture Lab
  - Tourism Lab

Create
- Greenway/Riverway – River Campus
- Roanoke locations – RUC/RHEC
- Hotel
- Public-private/retail spaces
- Other opportunities as identified

REFERENCES
The following references were used in the preparation of the Master Plan.
- 2018-2023 Strategic Plan — Radford University, 2017
- Six-Year Plan and Six-Year Capital Outlay Plan — Radford University, 2017
- Comprehensive Plan — City of Radford, 2017
- City of Roanoke Downtown Plan 2017
- Reconnaissance-Level Architectural Survey of Radford University, prepared for the Virginia Department of Historic Resources — CJMW Architecture, December 9, 2016
- Athletics Master Plan for Radford University — Moseley Architects/Populous, November 2014
- Radford University Campus Accessibility Audit — Gay and Neel, Inc., December 12, 2011
- Radford University Stormwater Master Plan — Draper Aden Associates, June 2011
- Radford University Campus Master Plan — HEWV, 2008
- Radford University Campus Master Plan — Boynton, Rothschild, Rowland Architects, 2001
- Radford University Campus Master Plan — Sasaki Associates, Inc., 1993
- Radford University Academic Space Planning Services — Ayers Saint Gross, October 2018
- Radford University Parking Review — Walker Consultants, January 7, 2019
- Radford University Institutional Research — Statistical information
ACKNOWLEDGMENTS

Radford University included the engagement of many groups and individuals, both on-campus and off-campus, in the preparation of the 2020-2030 Master Plan. The University acknowledges the contributions of many individuals, organizations and committees.

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- Ashley Schumaker — Administrative Liaison
- Julianna Stanley — Student Government Association

A special thanks is provided to the Facilities Management Support Team and the University Relations Document Development Team.
2020-2030 MASTER PLAN

- New Building Location
- Full Building Renovation
- Partial Building Renovation
- New/Improved Parking
- River Campus Development
- Drop-Off Shelter
- Central Campus
- Athletics/Recreation Campus
- Public-Private Enterprise Strategic Growth Zones
- Green Space/Pathways Improvements
- Tree Canopy Improvements
- Landscaping/Hardscaping Improvements
Item:
Approval of the 2020-2026 Radford University Six-Year Capital Outlay Plan.

Background:
Every two years, each college and university in the Commonwealth of Virginia submits a Six-Year Capital Outlay Plan to the Department of Planning & Budget. From those requests, the Executive Branch uses these submissions to prioritize capital projects for the Commonwealth and to inform their decision on which projects will be slated for inclusion in the Governor’s Executive Budget Bill which is presented in December of each year.

The Six-Year Plan reflects the mission of the University. The projects are submitted in priority order and identify the requested source of funding. The guiding principles of the plan were to identify future capital projects that renovate existing academic buildings as construction is completed on new facilities, address the need to co-locate administrative offices to improve operational efficiencies and departmental synergy, and modernize residence halls by updating the building’s infrastructure and systems.

A summary of the submitted projects, by biennium, is presented in Appendix A and a brief description of each project is provided in Appendix B.

Action:
Radford University Board of Visitors approval of the 2020-2026 Radford University Six-Year Capital Outlay Plan, as presented in Appendixes A and B.
# Appendix A: Summary of the Radford University Six-Year Capital Outlay Plan for 2020-2026

<table>
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<tr>
<th>Project Priority</th>
<th>Capital Project Description</th>
<th>Funding</th>
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<th>Nongeneral Fund</th>
<th>University Debt</th>
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<td>1</td>
<td>Construct New Center for Adaptive Innovation and Creativity</td>
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<td>$207,000,000</td>
<td>$7,500,000</td>
<td><strong>$473,688,000</strong></td>
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| 2023-2024 Biennium |                                                              |               |              |                 |                 |             |               |
| 6                | Renovate McConnell Library - repurpose for new uses           | E&G $38,378,000 | $0           | $0              | $0              | $38,378,000  |               |
| 7                | Construct New Administrative Services Addition                | E&G $0        | $3,000,000   | $0              | $0              | $3,000,000   |               |
| 8                | Improve Campus Infrastructure - Utilities/Safety/Security     | E&G $14,050,000 | $0           | $0              | $0              | $14,050,000  |               |

| 2025-2026 Biennium |                                                              |               |              |                 |                 |             |               |
| 9                | Renovate Muse Hall Residences                                 | Auxiliary $0  | $0           | $75,000,000     | $0              | $75,000,000  |               |
| 10               | Renovate Walker Hall                                          | E&G $18,460,000 | $0           | $0              | $0              | $18,460,000  |               |
| 11               | Athletics Umbrella Fund (Renovate Dedmon Center)             | Auxiliary $0  | $0           | $20,000,000     | $0              | $20,000,000  |               |

| Future Projects - 2025 and Beyond |                                                              |               |              |                 |                 |             |               |
| 12               | Construct New Public Safety Building                          | E&G $20,000,000 | $0           | $0              | $0              | $20,000,000  |               |
| 13               | Construct New Welcome Center                                 | E&G/Auxiliary $7,500,000 | $0           | $7,500,000    | $0              | $15,000,000  |               |
| 14               | Construct Combined Heat and Power Co-Generation Facility     | ESCO $0       | $0           | $0              | $0              | $0           |               |
| 15               | Construct New University Convocation Center                  | E&G/Auxiliary $45,000,000 | $0           | $45,000,000    | $0              | $90,000,000  |               |
| 16               | Athletics Umbrella Fund (Construct Concessions/Ticketing)   | Auxiliary $0  | $0           | $10,000,000     | $0              | $10,000,000  |               |
| 17               | Construct Hurlburt Addition                                  | Auxiliary $0  | $0           | $20,000,000     | $0              | $20,000,000  |               |

| Total Capital Plan |                                                              | $241,188,000 | $18,000,000 | $207,000,000 | $7,500,000 | $473,688,000 |
Appendix B: Summary of Radford University’s Six-Year Capital Outlay Plan for 2020-2026

2021-2022 Biennium

Construct New Center for Adaptive Innovation and Creativity
Porterfield Hall, which houses the University’s Theatre, Music, and Art Departments, was built in two phases. The first phase, Porterfield East, was built in 1968 and the second phase, Porterfield West, was built in 1971. The two phases are 38,228 and 47,680 square feet respectively, and combine for a total of 85,908 square feet. The current square footage is not sufficient to contain all of the College of Visual and Performing Arts’ programs, which are located in six separate facilities across campus. Porterfield has been in continuous use for nearly 50 years without the benefit of any significant renovation. Building components have been replaced as they have failed over time, but the building’s operating systems are very outdated and not energy efficient.

McGuffey Hall is located directly adjacent to Porterfield Hall, and houses the Department of Design. The building was built in 1952 and consists of 35,943 square feet in an extremely inefficient floor plan. While renovated in 1996, the building systems and equipment are now once again near the end of their useful life, and the space layouts are not conducive to current academic instructional tools and methods.

Waldron Hall, which houses the Waldron College of Health and Human Services, was constructed in the late 1990’s. The building is 57,996 square feet and includes the Dean’s Offices; the Departments of Communication Sciences and Disorders, Physical Therapy, and Occupational Therapy; and the Schools of Nursing and Social Work. The facility includes a clinic, laboratories, classrooms, and offices. While the facility condition is adequate, the College is faced with increasing enrollments that are overwhelming the current available footprint. Further, newer equipment and simulation environments have been developed since the building’s opening, and the College needs to upgrade these areas to maintain its leadership in health care education in the commonwealth.

This project will demolish both Porterfield East and West Halls, along with the adjacent McGuffey Hall, and will construct a new approximately 178,000 square-foot facility located in the same general area near the northeast corner of the campus. The proposed new multi-college academic building will include traditional classrooms, studios, and laboratories, in addition to multi-use environments such as maker spaces, simulation and virtual and augmented reality laboratories, computer centers, and other specialty environments to support the many and varied needs of multiple programs on campus. Health services, education, the sciences, and the arts will all collaborate in this state-of-the-art cross-disciplinary facility.

Renovate Norwood Hall and Tyler Hall
Tyler Hall was built in 1916, and Norwood Hall was built in 1939 as residence halls for the earliest students of the campus. The dormitory buildings have never undergone complete renovations, and are in critical need of system repairs and upgrades. This project would modernize both buildings with renovated rooms, new finishes, improved systems, and the addition of air conditioning to all
rooms. The renovated rooms will be done in a manner to make them more appealing to students – less sharing of bathrooms space, provisions of some apartment-style accommodations, and improved student study and gathering areas. This project would also introduce living-learning environments to the buildings, in accordance with the University’s emphasis on student support and retention.

**Expand Create Riverway Experience**

The New River is directly adjacent to the Athletics/Recreation Campus with boat access points at several locations near University property. Also, an extensive partially developed greenway/trail system parallels the river and extends to Bisset Park and other City of Radford facilities to the west of campus. This series of projects to expand the overall riverway experience will serve to better connect students and others to the New River, for both instructional and recreational uses.

Several gathering areas with appropriate outdoor furniture and shelters are proposed along this greenway development to provide spaces for relaxation and contemplation along with potential academic research and student life activities. Boat and canoe launch ramps will be provided to provide direct access to the river for floats and canoes. Festival event areas along with an amphitheater are proposed adjacent to the river. Recreational elements, such as ziplines, ropes courses, and climbing walls, will be located in the area, potentially for both student and public use. A restaurant, adjacent to the river, would provide food service and event spaces. A rails-to-trails connection, along the existing trestle bridge, will provide connectivity to other greenways in the New River Valley.

To further enhance connections to the river campus area, it is proposed to move the RU Able program to campus from its current off-campus leased space location. In conjunction with RU Outdoors and the Tourism and Special Events Resource Lab, these programs will enhance and facilitate greater connectivity to the overall significant assets made available by the New River. The gateway bridge into the river campus area and traffic patterns around the adjacent Dedmon Center will also be improved for aesthetics and efficiency.

**Construct Hotel and Convention Space**

This project will construct a hotel and related conference/event center adjacent to campus. The City of Radford and the Radford University Foundation are currently collaborating on the project with the help of Fortune 500 Company Jones Lang LaSalle (JLL), a commercial real estate services firm. The multilevel hotel will be located at the intersection of Tyler Avenue and Calhoun Street. Four existing structures will be demolished to make way for the hotel, which will include 125 rooms, a conference center, and on-site parking. The hotel is also planned to feature a rooftop restaurant with a view overlooking the campus.

**Property Acquisition**

The University will continue to grow over time, due to both increased enrollment and also expanded programs and education opportunities. The University needs to have the capacity to purchase properties as they become available within general proximity to campus to support this growth. This appropriation will allow a funding approval mechanism to be in place that will facilitate the acquisition of properties as available, particularly as these opportunities most often do not coincide with the Commonwealth’s budget cycles.
**2023-2024 Biennium**

**Renovate McConnell Library**
The footprint that forms the McConnell Library consists of an original 14,000 square foot building built in 1931, a 47,500 square foot addition built in 1965, and a 46,444 square foot addition built in 1995. Both the 1965 addition and the 1995 addition, which represent approximately 90 percent of the library's square footage and operations, remain in their original configuration with building systems and equipment, which have far exceeded their expected useful life.

The proposed renovation will replace the aged and inefficient building systems and equipment. Equally important, the renovation will incorporate repurposing and space changes to provide amenities found in and expected within modern libraries. With the increasing move to electronic resources and culling of print collections, the University plans to repurpose print storage space for alternative configurations. Spaces targeted for repurposing are home to some of the library’s print collection along with Archives and Special Collections. The print collection located in these areas is in the process of being thinned and the remaining books moved to compact storage.

The culling and relocation of existing collections will also create the necessary space for the Radford University Innovation Lab (RU iLab). Reflective of current library trends, this space will include learning commons, breakout rooms, interdisciplinary presentation spaces and classrooms, and multiple maker spaces. This move will rebrand the library as a hub for innovation and productivity. In particular, the RU iLab will create the infrastructure for students to engage in collaborative, interdisciplinary thinking to confront present-day needs and pressing future problems.

The renovated space will also include student support areas for group study; provide technology-emphasized rooms for both instruction and information retrieval; incorporate student service functions, such as tutoring and writing instruction; and incorporate the iLab space.

**Construct New Administrative Services Addition**
Various university administrative functions are currently scattered in multiple locations both on- and off-campus with several groups in leased spaces. This project will provide a relatively small addition adjacent to the existing Armstrong Building to house the support team for the Controller, Compliance, Accounts Payable, Payroll, Procurement, and Human Resources.

**Improve Campus Infrastructure**
The University needs to make improvements to many infrastructure systems and components across campus. Systems include water, sanitary, storm drainage, electrical, steam, security, and information technology. Many basic utilities and services were installed when the campus was first developed more than 75 years ago and still provide service to many buildings and various areas of campus. As financial and facilities resources have been available, upgrades have been implemented to various elements of campus infrastructure. This approach has been partially successful, but new regulations for many utilities such as storm water require additional upgrades, along with increased need due to the expanded campus footprint. For example, only a portion of the occupied buildings on-campus have been retrofitted with access-control doors, security
enhancements, and improved exterior site lighting. This project will provide funding necessary to bring the overall campus infrastructure up-to-date with current needs and regulatory requirements.

2025-2026 Biennium

Renovate Muse Hall
Muse Hall is by far the largest residential housing unit on campus with approximately 900 beds, or about one-third of all students housed. Built in the late 1960s, the building has not undergone a complete renovation and is in significant need of a variety of system repairs and upgrades. The building has a commanding presence on-campus and includes a 13-story resident tower, along with a penthouse and three below-grade levels. The building has no resident air conditioning and is the least desirable available on-campus housing. The building also includes the University’s secondary dining facility, which is extremely important particularly during the week for mid-day meals.

This project will modernize the facility with renovated rooms, new finishes, and improved building systems. The renovated rooms will be renovated in a manner to make them more appealing to students – less sharing of bathrooms space, provisions of some apartment-style accommodations, and improved student study and gathering areas. This project will also introduce living-learning environments to the buildings, in accordance with the University’s emphasis on student support and retention.

Renovate Walker Hall
The University’s Division of Information Technology is currently scattered about campus housed at five different locations. The objective of the project is to bring together the department’s scattered operations under one roof, which offers both production and fiscal efficiencies. The renovated building would house IT administration and support functions and provide appropriate areas for computer deployment and repair, software installation, web and content development, and IT infrastructure. The renovated building will also utilize space for general classrooms and computer labs for overall campus use. To support the critical continuity of operation required of the IT departments, emergency and UPS back-up power will be provided. The project will also replace several outdated basic building systems and components, including HVAC and electrical and data distribution, as the building was last renovated more than 20 years ago.

Athletics Umbrella Funding - Renovate Dedmon Center
The Dedmon Center was constructed in 1980, as a combination overall University recreation and athletic venue and support space. The facility originally included basketball, volleyball, gymnastics, and swimming performance venues, along with locker rooms, training rooms, and athletics administrative offices. The facility is not designed for effective fan experiences in the way that current facilities are designed, and locker and training spaces are woefully inadequate. This project will reconfigure the arena seating bowl to provide more appropriate fan seating and viewing for indoor athletic events, and adjacent spaces will be renovated to include new locker rooms, athletic training rooms, and concessions.
**Future Projects - 2025 and Beyond**

**Construct New Public Safety Building**
The Radford University Police Department, Emergency Medical Services team, Emergency Preparedness Department, Emergency Operations Center, and Environmental Safety and Health staff are currently located in three separate buildings around campus. Further, these functions are located in shared building spaces which are not up to current standards for these critical areas of University Services. The City of Radford has also indicated a desire to create a new public safety presence near campus, such that this building could be delivered in partnership with the City. This new building will be designed to maximize the safety and emergency capabilities of the University, including up-to-date hardware and software and associated furnishings, and would potentially be part of a shared facility with the City.

**Construct New Welcome Center**
Students and their parents currently desire sophisticated engagement and support staff and facilities during their entire University experience. This proposed new building will include a campus welcome center to help guide both prospective and current students and their parents to desired resources and locations around campus.

**Construct Combined Heat and Power Co-Generation Facility**
This project will convert an existing building into a combined heat and power co-generation facility for the overall campus. The facility will consist of natural-gas-powered generators to provide campus medium-voltage power, while also providing heat for the steam plant operations. The existing building is located directly adjacent to the Boiler House, so that the required utility connections to the combined heat and power are very cost-effective.

**Construct New University Convocation Center**
The University has outgrown the central gathering areas necessary to address the needs of the student body. Other than the current basketball arena, there is no single interior space large enough to handle an address or event that involves more than a small minority of students. This project will build a convocation hall sufficient to handle large events, such as convocation, commencement, new student move-in events, family weekend, and homecoming, along with various athletic events. The center will also serve to provide a venue for orientation programs, conference services, and concerts, and promote a wide variety of activities involving the local community.

**Athletics Umbrella Funding - Construct New Athletics Ticketing/Concessions Center**
Recent athletics construction projects have renovated and/or replaced the University’s athletics softball, baseball, and tennis facilities. These facilities are co-located and include fields and dugouts, along with a new indoor practice and coach’s facility, but lack common fan ticketing, concession, and restroom areas. This project will provide a new building containing these common fan functions, such that accessible services are effectively provided in this area of the University’s athletics complex.
Construct Hurlburt Student Center Addition
Various University student support functions and groups are currently housed in Hurlburt Student Center. This project will provide an addition adjacent to Hurlburt Student Center to expand the space for student support groups, along with campus-wide large meeting and gathering spaces, conference spaces, and event venues.
Action Item
Approval of the 2020-2030 Master Plan

Item:
Approval of the Radford University 2020-2030 Master Plan.

Background:
The Radford University 2020-2030 Master Plan was developed to support the Radford University 2018-2023 Strategic Plan: Embracing the Tradition and Envisioning the Future. The 2018-2023 Strategic Plan contains goals and strategies to support the vision of transforming Radford University into a premier, innovative, student-centered university in the Commonwealth of Virginia and beyond with a keen focus on teaching, research and service. This Master Plan includes both overall guidance and specific actions for enhancing the University’s physical built environment as an integral part of this comprehensive strategic vision.

In order to understand and address the overall goals, the Master Plan work began with data collection in the fall of 2017. This process started with compiling all current and historic information relative to campus buildings, infrastructure, student, faculty and staff populations and other information from outside relevant resources, along with field investigation and collection of technical engineering data from the Facilities team, transportation and parking assessments and analysis of existing green space and landscape elements. The process also included information gathering meetings and work sessions with multiple groups of students, faculty and staff, as well as representatives from the City of Radford and other appropriate stakeholders.

The preparation of the 2020-2030 Master Plan provided a singular and significant opportunity for the entire University community to engage in the future development of the campus and the surrounding community. The Master Plan is organized around the following overarching areas of emphasis: Construct, Renovate, Repurpose, Evaluate and Upfit, Enhance and Create.

Action:
Radford University Board of Visitors approval of the Radford University’s 2020-2030 Master Plan, as presented.
End of Board of Visitors Materials