

# Athletic Practice Facility Site Evaluation Committee

---

## Final Report

5/30/2012

### Athletic Practice Facility Site Evaluation Committee

John Randolph, Committee Chair, Professor of Urban Affairs & Planning

Dean Bork, Associate Professor of Landscape Architecture

Rick DiSalvo, Town of Blacksburg appointee, Vice President and Chief Operating Officer,  
DraperAden Associates

Kara Dodson, Student, College of Natural Resources and Environment, President,  
Environmental Coalition

Tom Gabbard, Associate Director of Athletics

Sarah Karpanty, Assistant Professor of Wildlife Biology and President-Elect, Faculty Senate

Art Keown, Department Head and R. B. Pamplin Professor of Finance and Chair, Athletic  
Committee

Larry Killough, KPMG Professor of Accounting and NCAA Representative

Leigh LaClair, Deputy Chief Facility Officer

Maxine Lyons, President, Staff Senate

Glenn Reynolds, Local Business Owner, Reynolds Architects Inc.

Jeff Walters, Harold Bailey Professor of Biological Sciences

Emily Wilkinson, Student, Psychology, Vice President of Student Government Association

Chris Wise, Director, Recreational Sports, Student Affairs

Eric Wiseman, Associate Professor of Urban Forestry and Chair, Arboretum Committee

Committee Staff: Heidi McCoy, Chief of Staff, VP for Administrative Services Office

Table of Contents

Executive Summary and Recommendations ..... 1  
     Summary of Siting Issue ..... 1  
     APFSE Committee Process ..... 2  
     Site Evaluation ..... 3  
     Committee Recommendations ..... 10

I. Description of Issue and Committee Process..... 13  
     A. Brief History of the Facility Siting Issue ..... 13  
     B. The Athletic Practice Facility Site Evaluation Committee ..... 14

II. Site Evaluation ..... 16  
     A. Evaluation Criteria ..... 16  
     B. Candidate Sites Reviewed..... 17  
     C. Evaluation of Candidate Sites by Criterion ..... 19  
     D. Evaluation Summary Matrix ..... 29  
     E. Summary of Site Evaluation ..... 32

III. Technical Information Gathered ..... 35  
     A. Detailed Cost Estimates ..... 35  
     B. Summary of Biohabitats, Inc., Ecological Study ..... 36  
     C. Other Ecological Data ..... 37  
     D. Testimonials on Uniqueness of Old Growth Remnant ..... 37

IV. Responses to Charge Questions ..... 39

V. Summary of External Surveys and Comments ..... 45  
     A. External email comments ..... 45  
     B. Survey.vt.edu Survey of Faculty Use and Value of the Woods..... 46  
     C. Random Sample Survey of Campus Community ..... 47  
     D. Summary of Resolutions ..... 50  
     E. Summary of Media reports ..... 52  
     F. Synthesis of Perspectives of Constituencies ..... 52

References ..... 52

Appendices:

- A. Committee charge and membership list
- B. Biohabitats, Inc. Virginia Tech Forest Ecological Assessment. May 2012
- C. Seiler, J. The History of a Proposed Indoor Training Facility and Stadium Woods. February 2012.
- D. External email summary
- E. Survey.vt.edu responses
- F. Random sample survey results
- G. Selected Campus and Town resolutions
- H. Selected media reports

# **Report of the Athletic Practice Facility Site Evaluation Committee**

## **Executive Summary and Recommendations**

This Committee was established in January 2012 to help the University resolve the controversy surrounding the proposal to build a 2.1 acre indoor athletic practice facility in part of a designated Environmental Greenway that has come to be known as Stadium Woods. After four months of data gathering and biweekly meetings, the Committee has recognized that this siting decision is a matter not simply about whether or not to build in the Woods. It is also about the design of the campus built environment, disruption and mitigation of existing and prospective campus facilities and uses, and accommodating the development of the athletic facility at a suitable location and a workable cost. Still, the demonstrated social importance of the Stadium Woods became the determining factor in the Committee's deliberations and this consensus report.

This summary and recommendations introduces the issue, describes the Committee's process, discusses the site evaluation, and offers five recommendations:

1. Designate Stadium Woods as a Reserve and develop a protection, management, and use plan for the Woods.
2. Relocate the proposed facility site from the Woods site to the Washington Street tennis court site and develop a site orientation and design that considers cost, aesthetics, mitigation of existing uses, and minimal impact on the Woods.
3. Commence construction of replacement tennis courts and roller hockey rink displaced by the Washington St. site before the existing facilities are closed.
4. Allocate incremental costs associated with the site relocation, which are a measure of the preservation value of the Woods, to funding sources other than Athletics and Recreational Sports.
5. Review procedures for assessing variance with the Master Plan to safeguard against future controversies of this type.

## **Summary of Siting Issue**

A new indoor athletic practice facility has been in the works at Virginia Tech for more than a decade. In 1999, the new facility and an upgrading of Rector Fieldhouse were included as a single project in the university 2000-2006 capital plan, and in 2006 the Board of Visitors authorized funding the \$25 million project from non-general funds. The combined project would benefit the football program and other teams, including soccer, track, lacrosse, and baseball. The 2006 Master Plan and its 2009 update included a placeholder for the facility on the site of the tennis courts on Washington Street. In 2006, Athletics shifted its building priority to the basketball practice facility. After that project was completed in 2010, Athletics suggested to Facilities that a more favorable site for the department was the woods adjacent to the outdoor football practice fields and newly completed locker rooms, and Facilities began studying the feasibility of the site. This 3.5 acre Woods Site and the entire 13.75 acre woods area east of Lane Stadium, which has come to be known as Stadium Woods, are designated in the 2006/2009 Master Plan as part of the campus Environmental Greenway.

The Woods has long been part of the campus environment. Parts of the Woods had been used through the university's history for a variety of purposes, including temporary post-WWII housing. Some fringe areas of the woods are still used for parking. But the woods have also been used for forestry and ecology field study and laboratory classes, training by Virginia Tech ROTC using a repelling tower constructed in the woods and for maneuvers and combat simulation, summer outreach youth training, and study and remediation by the Virginia Master Naturalists, native plant, birding and other groups. The Woods have also been a popular walkway from Town to campus and a natural area for students, faculty and staff, and Town residents.

Still by early 2011, few people recognized the uniqueness of the Woods area as an old growth forest remnant with as many as 59 trees estimated to be older than 300 years. When the site for the facility was proposed for the woods, Facilities directed questions to the University Arboretum Committee about the impacts on the forest and mitigation for tree and woodland removal. In November 2011, the Arboretum Committee reviewed that plan and ultimately issued a position statement calling for protection of the Woods and location of the facility elsewhere on campus. The Faculty Senate followed with its own resolution to protect the Stadium Woods. Meanwhile, a campus and community group, the Friends of Stadium Woods, was formed to advocate protection of this area and started an online petition to "save the woods." These resolutions, including later resolutions by the Student Government Association, the Commission on Student Affairs, and the Town of Blacksburg, and the petition requested two results:

1. To stop plans to build the facility on the proposed Woods Site and to find an alternative site.
2. To designate Stadium Woods as a permanently protected place.

In January 2012, President Steger asked Vice President for Administration Sherwood Wilson to establish an ad hoc committee to help the university resolve the siting issue.

### **APFSE Committee Process**

The Athletic Practice Facility Site Evaluation Committee of 15 members was established in January 2012 and included seven faculty, three administrators, two students, one staff, and two members of the Blacksburg community. The Committee was asked to "evaluate the data on the proposed site and other potential sites and assess the perspectives of various constituencies..." and to develop "recommendations for how the university can resolve the need for a critical athletics facility in close proximity to existing facilities while also being good stewards of our natural resources." The charge letter included several questions to be addressed to evaluate

- the historic, ecological and educational value of the woods area;
- the relative benefits, costs, and impacts of the woods and alternative sites; and
- the perspectives on the siting issue among stakeholders and university constituencies.

The Committee met biweekly from February through May, gathering information from faculty studying the Woods, plans and studies from Facilities Services and Athletics, and an ecological assessment of the woods by an independent consultant, Biohabitats, Inc., of Baltimore. Although its deliberations were private, the Committee solicited input from those outside the committee through a dedicated email address, an on-line survey of faculty and staff on their educational use of the woods and its value to campus, and a random sample survey of the campus community asking them for their opinion about the siting issue. More than 530 individuals sent email comments, 156 responded

to the faculty/staff survey, and 1,969 faculty, staff and students responded to the random sample survey.

The Biohabitats, Inc. final report (completed May 16, 2012) is summarized in Section III of this report and is provided in its entirety in Appendix B. External comments and survey results are summarized in Section IV and tabular results are given in Appendices D-F.

**Site Evaluation Criteria**

The committee recognized the merits of the proposed project for the Athletics programs and assessed the relative benefits and costs of different siting options for the indoor practice facility. Some sites (i.e., the parking lots south of the stadium, the Rector Fieldhouse site, and the existing football outdoor practice fields) were deemed impractical because of a number of factors: development costs, opportunity costs, conflicts with other athletics program and campus infrastructure needs, and distance from locker rooms and medical facilities.

The committee focused on three sites including the proposed Woods site, the tennis court site on Washington St. identified in the Master Plan, and the Cassell Coliseum parking lot. The Coliseum lot was dropped from discussion after assessing the current needs of this lot for critical parking and future plans for a parking garage on the site that would be precluded by the facility, as well as indication from Athletics that it would not develop the facility on this site. The Woods site and three configurations of the Washington St. site became the focus of the Committee’s evaluation.

The major criteria and information sources considered in evaluating the alternative sites are given in Table ES-1. These criteria were not weighted by the committee as a whole. Rather each committee member brought his or her own perception of the relative importance of the criteria, or that of the group they represented, to evaluate the sites.

**Table ES-1 Site Evaluation Criteria**

<b>Evaluation Criterion</b>	<b>Information Sources</b>
<b>Costs of development, construction, mitigation</b>	Facilities estimates
<b>Suitability for Athletics</b>	Athletics testimony and assessments
<b>Impacts on old growth ecosystem and trees</b>	Biohabitats, Inc., study, Seiler study, email comments, campus surveys
<b>Disruption of current and prospective uses</b>	Email comments, campus surveys, Committee assessments
<b>Design compatibility with campus built environment</b>	Committee assessments, email comments
<b>Perspectives of University Constituencies</b>	Email comments, campus surveys, Committee assessments
<b>Effects on University image and reputation</b>	Committee perspectives, email comments, campus surveys

## Candidate Sites Reviewed

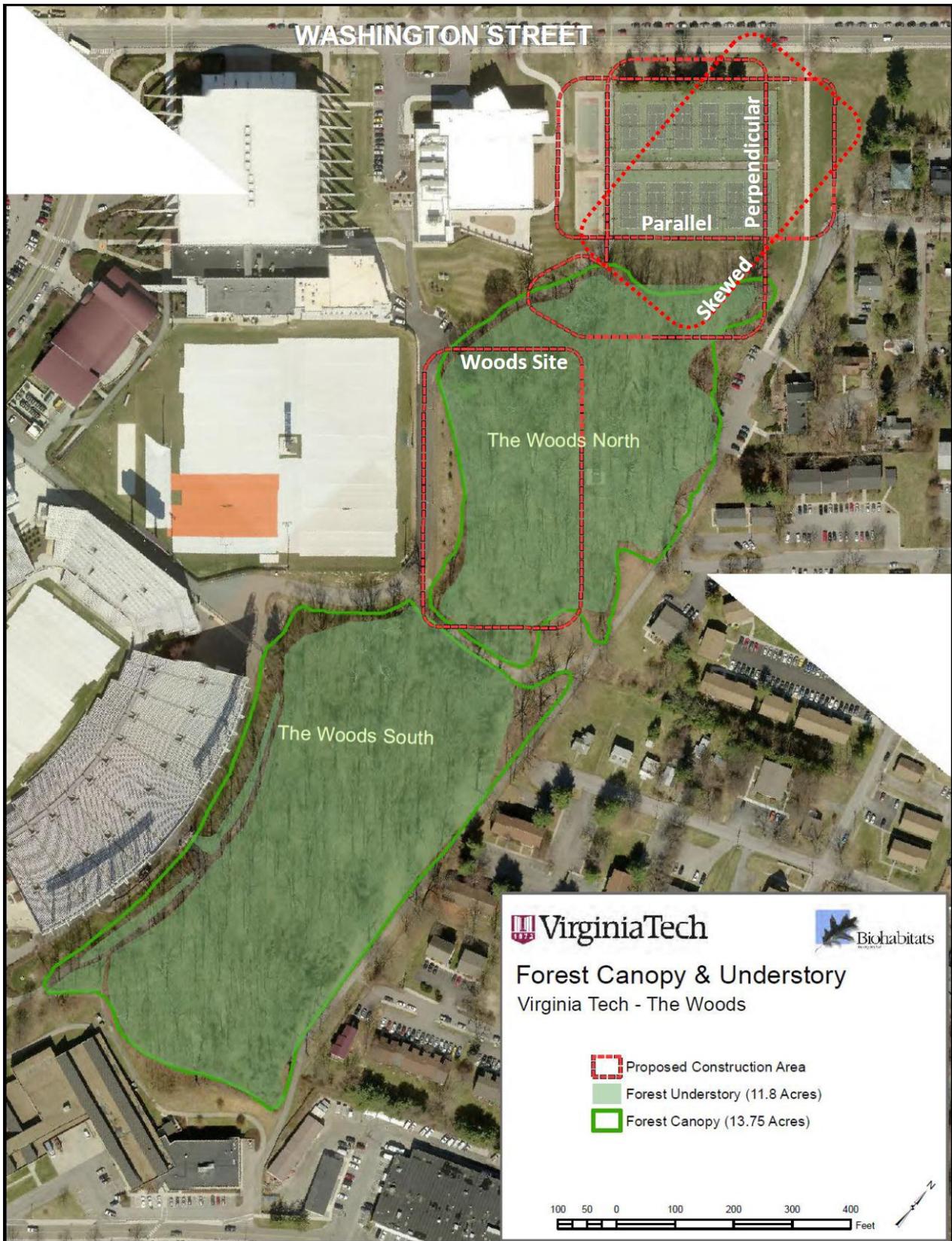
Although other sites were considered, the committee focused on four configurations on two sites. The four sites/configurations include:

- a. Woods Site**
- b. Parallel configuration on the Washington Street Tennis Court Site**
- c. Perpendicular configuration on the Washington Street Tennis Court Site**
- d. Skewed configuration on the Washington Street Tennis Court Site**

Figure ES-1 shows the locations for the four alternatives. The figure shows the facility footprint (208' x 400' = 2.08 acres) plus 40' construction setback impact area (total 288' x 480' = 3.46 acres), in relationship to the Stadium Woods. The Perpendicular configuration impact area protrudes at its south corner due to grading requirements on the steep slope. The Skewed configuration rotates the Perpendicular orientation slightly clockwise to try to minimize the tree impact. As shown in figure ES-1, the Skewed site footprint would come very close to Washington St. and that is why the setback area extends in to the street. These sites are illustrated in more detail in figures 2-5 in the body of this report.

Figure ES-1 also shows the entire Stadium Woods forest canopy measured by Biohabitats, Inc., at 13.75 acres and the forest understory, which has more old growth characteristics, at 11.8 acres. The Woods Site would impact about 3 acres of the woods, the Perpendicular site about 0.8 acres, the Skewed site about 0.2 acres, and the Parallel site zero acres.

Table ES-2 provides an overview of the site evaluation. Table ES-2a compares the main four alternatives against the evaluation criteria. Table ES-2b summarizes the overall costs/benefits and advantages/disadvantages of the alternatives. (A similar table 5 in the body of the report includes the Cassell Coliseum Parking Lot site and the No-Build alternative for completeness.) A summary of the site evaluation follows the tables.



**Figure ES-1: Impact Areas (building footprint + 40' setback) of Facility Site Alternatives**  
(source: adapted from Biohabitats, 2012)

**Table ES-2a. Evaluation Matrix for Considered Practice Facility Alternative Sites**

	<b>Woods Site</b>	<b>Washington St. Perpendicular</b>	<b>Washington St. Skewed</b>	<b>Washington St. Parallel</b>
<b>Costs of development, construction, mitigation</b>	<ul style="list-style-type: none"> <li>Least cost build option: estimated \$24.20 million, including forest recovery mitigation</li> </ul>	<ul style="list-style-type: none"> <li>Estimated \$26.81 million including forest recovery and relocation of tennis courts/rink</li> </ul>	<ul style="list-style-type: none"> <li>Not estimated but likely between parallel and perpendicular</li> </ul>	<ul style="list-style-type: none"> <li>Estimated \$25.76 million including relocation of tennis courts/rink</li> </ul>
<b>Suitability for Athletics</b>	<ul style="list-style-type: none"> <li>Preferred site</li> <li>More convenient due to proximity to other facilities;</li> <li>More compact athletics complex;</li> <li>Less visual impact on built environment</li> </ul>	<ul style="list-style-type: none"> <li>Acceptable site;</li> <li>Less convenient</li> <li>Need football gameday passage for up to 10,000</li> <li>More sprawling athletics complex</li> <li>Potential visual impact but more design opportunities</li> </ul>	<ul style="list-style-type: none"> <li>Acceptable site;</li> <li>Less convenient</li> <li>Need football gameday passage for up to 10,000</li> <li>More sprawling athletics complex</li> <li>Potential visual impact but some design opportunities</li> </ul>	<ul style="list-style-type: none"> <li>Acceptable site;</li> <li>Less convenient;</li> <li>Need football gameday pedestrian passage</li> <li>More sprawling athletics complex</li> <li>Potential visual impact</li> </ul>
<b>Impacts on old growth ecosystem and trees</b>	<ul style="list-style-type: none"> <li>Biohabitats impact area about 3 acres (22%) of 13.75 acres forest canopy and 2.5 acres (21%) of 11.8 ac. forest understory.</li> <li>100 trees &gt;10" DBH removed + 17 critical root zone (CRZ=1.5'x"DBH) impact; 28 trees&gt;24", 13 &gt;35", 5 trees &gt;40", 1 &gt; 50". Nine trees (&gt;39") may be older than 300 years (see report figure 3)</li> <li>Impact on wildlife habitat: cavity-dwellers, migratory birds, possibly endangered Indiana bat.</li> <li>Construction would bisect north woods (forest condition 24) from south woods (forest condition 30), converting north to remnant with greatly diminished ecological value</li> <li>LSI: 31 (higher score is less suitable for development)</li> <li>i-Tree analysis: loss of \$1.16 million in forest structure value</li> </ul>	<ul style="list-style-type: none"> <li>Biohabitats impact area about 0.8 acres of forest canopy area (5.8%) and 0.7 acres of forest understory (5.9%)</li> <li>37 trees in woods &gt;10" removed + 4 CRZ, 15 trees&gt;24", 13 trees &gt; 35", 7 trees &gt; 40", 2 &gt; 45", 1 &gt; 50". Eight trees (&gt;39") are may be older than 300 years (see report figure 4)</li> <li>Impact on wildlife habitat but less than woods site</li> <li>Construction would not bisect the woods and would impact a lower ecological quality area of the woods, but could remove ~ 5 significant trees.</li> <li>LSI: 28</li> <li>i-Tree analysis: loss of \$231,709 million in forest structure value not including Washington St structure value</li> </ul>	<ul style="list-style-type: none"> <li>Biohabitats did not evaluate the skewed orientation.</li> <li>Estimated impact area about 0.2 acres of canopy (1.5%) and understory (1.7%)</li> <li>No significant trees in building footprint but construction setback CRZ of 8 trees &gt; 24" and 5 &gt;35" (3 &gt; 40", 1 &gt;50") within 50' of footprint (see report figure 5b)</li> <li>Reduction of tree impact possible from                             <ul style="list-style-type: none"> <li>further rotation of orientation,</li> <li>sheer-wall construction methods,</li> <li>tree root pruning (within ~5xDBH) in advance of construction by certified arborist</li> </ul> </li> <li>Minimal impact on wildlife habitat due to low ecological quality of area in building footprint</li> </ul>	<ul style="list-style-type: none"> <li>No impact on woods</li> <li>11 pine/maple trees &gt;10" on Washington St removed if not set back (see report figure 2)</li> <li>LSI: 7</li> </ul>
<b>Disruption of current and prospective uses</b>	<ul style="list-style-type: none"> <li>No disruption of tennis courts/rink unless construction staging needed</li> <li>Potential impact on teaching/research/training activities in the woods</li> </ul>	<ul style="list-style-type: none"> <li>Tennis courts/ rink removed and disruption affected by relocation timing</li> </ul>	<ul style="list-style-type: none"> <li>Tennis courts/ rink removed and disruption affected by relocation timing</li> </ul>	<ul style="list-style-type: none"> <li>Tennis courts/ rink removed; disruption by replacement timing</li> <li>H-HBC east parking</li> <li>Potential impact on football game day passage</li> </ul>

	<b>Woods Site</b>	<b>Washington St. Perpendicular</b>	<b>Washington St. Skewed</b>	<b>Washington St. Parallel</b>
<b>Design compatibility with campus built environment</b>	<ul style="list-style-type: none"> <li>• Visually removed from campus thoroughfares</li> </ul>	<ul style="list-style-type: none"> <li>• 208 ft long building face on main thoroughfare; more design options than parallel alternative</li> </ul>	<ul style="list-style-type: none"> <li>• Skewed design on main thoroughfare; more design options than parallel alternative</li> </ul>	<ul style="list-style-type: none"> <li>• Prominent 400 ft long building face on main thoroughfare; possible setback design</li> </ul>
<b>Effects on University image and reputation:</b> significant media attention to issue: (Roanoke Times, Washington Post, Chronicle of Higher Education blog, Comedy Central, CNN, PBS)	<p>Based on emails received, many faculty, students, and alumni believe that building in the Woods would have major negative impact on</p> <ul style="list-style-type: none"> <li>• the university’s national reputation as a green university and Tree Campus USA</li> <li>• relations with many alumni and community members</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced woods impact area compared to woods site may lessen negative impact, but removal of signature trees might trigger negative response</li> <li>• Protection measures to lessen/eliminate impact on large trees could be viewed as a positive compromise</li> </ul>	<ul style="list-style-type: none"> <li>• Compromise plan with possibly minimal impact on the Woods and more design options</li> <li>• Reduced impact compared to woods or perpendicular plan</li> <li>• Positive impact on image if significant trees protected; negative impact if not.</li> </ul>	<p>Based on emails received, many believe avoiding the Woods by building on Washington St would have a positive impact on the university’s image and reputation especially if a protection/management program is developed for the woods</p>
<b>Constituencies’ perspectives:</b> Based on: <ul style="list-style-type: none"> <li>• 538 emails and letters received,</li> <li>• 148 faculty/ staff survey responses on use, importance of woods,</li> <li>• 1969 campus respondents to random survey on siting issue,</li> <li>• Stadium Woods on-line petition,</li> <li>• tennis court/rink on-line petition,</li> <li>• letters editor,</li> <li>• resolutions by Arboretum Committee, Faculty Senate, CNRE faculty, SGA, Blacksburg Town Council</li> </ul>	<p>Overwhelming opposition to Woods Site:</p> <ul style="list-style-type: none"> <li>• Email comments: 97% of emails oppose this site</li> <li>• Faculty/staff survey: 138 of 148 said Woods are very important to the campus environment</li> <li>• Random survey: <ul style="list-style-type: none"> <li>○ 12.7% of respondents favored the Woods Site;</li> <li>○ 84% agreed that “old growth woodland should be preserved intact” and “building in the woods would diminish the university commitment to sustainability”; these statements were ranked 1<sup>st</sup> and 2<sup>nd</sup> in importance</li> </ul> </li> <li>• All resolutions request that facility not be built in the woods:</li> <li>• &gt;9000 signatures on Save Stadium Woods petition</li> </ul>	<ul style="list-style-type: none"> <li>• This alternative site has not been released so there is no documented indication of constituencies’ perspectives.</li> <li>• Although the impact on Woods is considerably less than woods, removal of signature trees may not be acceptable to woods advocates</li> <li>• Tennis courts/rink advocates, supported by 454 petition signatures, want a commitment to replace tennis courts/rink prior to their closure</li> </ul>	<ul style="list-style-type: none"> <li>• This alternative site has not been released so there is no documented indication of constituencies’ perspectives.</li> <li>• Conforms to petition and resolutions calling for not building in the woods</li> <li>• Response may depend on ability to avoid tree impact</li> <li>• Tennis courts/rink advocates, supported by 454 petition signatures, want a commitment to replace tennis courts/rink prior to their closure</li> </ul>	<ul style="list-style-type: none"> <li>• 69% of respondents to campus random survey preferred this site</li> <li>• Tennis courts/rink advocates, supported by 454 petition signatures, want a commitment to replace tennis courts/rink prior to their closure</li> </ul>
<b>Mitigation</b>	<ul style="list-style-type: none"> <li>• Forest recovery: \$1.82 million</li> <li>• Stormwater management</li> <li>• Protection/management of remaining woods</li> </ul>	<ul style="list-style-type: none"> <li>• Forest recovery: \$1.13 million</li> <li>• Stormwater management</li> <li>• Replace tennis courts/ rink (\$2.1 mill); break ground on new before closure of old</li> <li>• Protection/management of remaining woods</li> </ul>	<ul style="list-style-type: none"> <li>• Stormwater management</li> <li>• Replace tennis courts/ rink (\$2.1 mill); break ground before closure</li> <li>• Visual impact mitigation: vegetation, building materials</li> <li>• Tree protection: sheer wall const., root pruning</li> <li>• Protection/ management of remaining woods</li> </ul>	<ul style="list-style-type: none"> <li>• Stormwater management</li> <li>• Replace tennis courts/rink (\$2.1 mill); break ground on new before closure of old</li> <li>• Visual impact mitigation: setback, vegetation, building materials</li> </ul>

**Table ES-2b. Summary Evaluation Matrix for Practice Facility Alternative Sites**

	<b>Woods Site</b>	<b>Washington St. Perpendicular</b>	<b>Washington St. Skewed</b>	<b>Washington St. Parallel</b>
<b>Summary of costs/benefits, advantages/disadvantages</b>	<ul style="list-style-type: none"> <li>• 6% less costly than other sites</li> <li>• Preferred site by athletics</li> <li>• Major impacts on north Woods and 117 trees &gt; 10” DBH, 28 trees &gt; 24”, 4 trees &gt; 40”</li> <li>• Minimal disruption of existing activities, e.g., tennis, roller hockey</li> <li>• Visually positive for athletics, small visual impact on built environment, major impact on natural aesthetic</li> <li>• Negative impact on image and reputation of university</li> </ul>	<ul style="list-style-type: none"> <li>• 11% more costly than woods site and 4% more than parallel design</li> <li>• Likely removal of 37 trees &gt; 10” DBH, 15 trees &gt;24”, 4 trees &gt;40”</li> <li>• Impact on north Woods far less than woods site</li> <li>• Required replacement of tennis courts/rink before closure</li> <li>• Potential visual impact</li> <li>• Somewhat less negative impact on university image and reputation than woods site but more positive if large trees protected</li> </ul>	<ul style="list-style-type: none"> <li>• Costs not estimated but likely between Perpendicular and Parallel options</li> <li>• Compromise plan</li> <li>• No significant trees in footprint, but critical root zone of 8 trees &gt; 24” DBH, 4 trees &gt;35” in setback within 50’ of footprint</li> <li>• Required replacement of tennis courts/rink before closure</li> <li>• Potential visual impact</li> <li>• Possible positive impact on university image and reputation if large trees protected</li> </ul>	<ul style="list-style-type: none"> <li>• 6% more costly than woods site but 4% less costly than perpendicular design;</li> <li>• Preferred site by Woods advocates;</li> <li>• Minor impacts on woods and trees;</li> <li>• Required replacement of tennis courts/rink before closure</li> <li>• Possible impact on H-HBC parking</li> <li>• Required football gameday pedestrian passage</li> <li>• Most visual impact on campus built environment</li> <li>• Positive impact on university image and reputation by avoiding woods</li> </ul>

Note: see body of report and appendices for more detail, including the Biohabitats report, results of surveys and emails, and resolutions. Also see on-line petitions:

<http://www.ipetitions.com/petition/vtstadiumwoods/>

<http://www.ipetitions.com/petition/save-virginia-tech-roller-hockey-rink-and-tennis/>

**Summary of Site Evaluation**

The Woods site is estimated by Facilities to be 6-11% less costly than the Washington St. options, is the most suitable for Athletics, and does not impact the campus built environment nor disrupt current campus uses except for the Woods. However, it has a significant impact on the north Stadium Woods, with a 2.5-3 acres impact, removal of 117 trees >10” DBH (diameter at breast height) including 28 trees larger than 24” DBH and as many as 9 estimated to be older than 300 years. In addition, it would essentially bisect the remaining north woods from the south woods ecosystem. The Biohabitats study calculated the ecological land suitability index (LSI) for this site at 31 (the higher the value the less suitability the site is for development). This site has been the subject of significant public and campus criticism, with 97% of comment emails, campus and town resolutions, and other public statements and demonstrations opposing this site for the facility. Less than 13% of campus random survey respondents favored this site. Many who commented and responded to surveys believe building the facility on this site would damage the university’s image and reputation as a green university and also damage relations with many alumni and community members.

**The Washington St. site** was the placeholder site for the facility in the Master Plan. There are three possible orientations on this site. All orientations would require closure and replacement of the 12 tennis courts and the roller hockey rink. Users of these facilities want siting, funding, and construction of replacement facilities prior to their closure. In addition, any Washington St. facility orientation and design must provide sufficient walkway passage for football game-day passage to Lane Stadium Gate 7.

The Washington St. **Parallel Orientation** of the Master Plan would avoid the woods and is labeled the No Woods-Impact alternative preferred by the Stadium Woods advocates. Biohabitats' LSI score for this site orientation is 7. Since this option would not impact the Woods, many who commented and responded to surveys believe a decision for this site and design would gain the university a positive reaction from campus, town and alumni constituencies based on the expected ecological preservation and protected social importance of the Woods. Although it is not preferred by Athletics, the site and orientation are acceptable if the facility can be built with a satisfactory design within a reasonable budget. However, the Parallel Orientation presents design challenges associated with a 400' long building along Washington St. Potential visual impacts could potentially be mitigated with a setback from the street, landscaping, and design materials.

The Washington St. **Perpendicular Orientation** was developed as a compromise option that could relieve the design challenges and reduce the impacts on Stadium Woods of the Woods site. Only 0.8 acres is impacted by this orientation compared to 2.5-3.9 for the Woods site. The 208' street face of this orientation would provide more design options than the Parallel Orientation. This site orientation would impact the northern portion of the north Woods. Although this woods area has been impacted before and contains a significant number of invasive locust trees, it also has 15 large oaks larger than 24" DBH that would likely be impacted, including tree #1 estimated by Biohabitats to be 450 years old. The Biohabitats Land Suitability Index (LSI) score for this option is 28.

The Washington St. **Skewed Orientation** was developed to try to reduce the tree impact of the Perpendicular Orientation while retaining design options. The appeal of this option is that the building footprint does not include any significant trees, although the critical root zone of 8 oaks larger than 24" DBH, five of which are larger than 35" DBH are within 50' of the building footprint. However, it is possible all or many of these trees could be preserved by additional rotation of the orientation and/or mitigation measures using sheer-wall construction practices to reduce the impact setback and tree root pruning by certified arborist in advance of construction. Since this option was developed late in the Committee's process, no cost estimates and land suitability index have been prepared for this option, but they are likely to fall between the values for the Parallel and Perpendicular options.

## Recommendations of the Athletic Practice Facility Site Evaluation Committee

The APFSE Committee was asked to develop recommendations for how the university can resolve the need for the athletics facility while also being good stewards of our natural resources by evaluating the data on potential sites and assessing the perspectives of various constituencies. Based on information gathered on site options and their probable benefits, costs, and impacts, as well as comments and survey results from hundreds of faculty, staff, students, alumni, and Town residents, the Committee offers the following recommendations, which it requests the University consider in their entirety.

### **1. Designate the Stadium Woods Old Growth Reserve for permanent protection and develop a use and management program to enhance its ecological value and benefits to the campus community.**

The dominant factor in this campus controversy has been this 13.75-acre woodland. A year ago, few recognized the role this woodland would play in this facility siting. However, during the past six months, faculty and independent assessments of the woodland have characterized Stadium Woods as a functional old growth forest remnant unique in the regional if not the eastern U.S., with trees of heterogeneous age classes that provide diverse beneficial wildlife habitats, ecosystem services, and human uses. The Woods contain as many as 59 giant white oaks estimated to be older than 300 years. The Biohabitats study estimated one tree at 450 years old.

The movement to protect the woodland has grown significantly, measured by more than 9000 petition signatures, numerous media reports, resolutions from University governance and college units and Blacksburg Town Council, and the Committee's own assessment of constituencies' favoring protection of the Woods: 97% of more than 530 email comments called for protection, 93% of about 150 faculty survey respondents said the Woods are an important component of the campus environment, and 84% of about 2000 respondents to the random sample survey of the campus community agreed the Woods should be preserved intact.

The remnant forest is already designated as part of the Campus Environmental Greenway. The Committee recommends elevating the status of the core of the Woods, designating it as the Stadium Woods Old Growth Reserve or comparable title and protecting it in perpetuity. The Woods' core is the extent of the old growth understory excluding the black locust dominated north edge. The Committee also recommends the development of a use and management program to protect and enhance the Woods' ecological value and its beneficial uses by the campus and Town communities, and possibly extending the Reserve through reforestation and control of invasive species. The Arboretum Committee is the appropriate governance unit to oversee development of such a program. Faculty and student groups can assist the management and protection of the Woods through research and service-learning projects. The recent outpouring of public sentiment about the value of the Woods provides an opportunity to raise funds for this designation and management effort.

- 2. Move the site of the Practice Facility from the proposed Woods Site to its original placeholder site in the vicinity of the tennis courts on Washington Street, and develop a specific facility orientation and design within the range of the Parallel (No Woods-impact) and Skewed (Minimal Woods-impact) options that balances consideration of cost, aesthetics, mitigation of existing uses, and minimal impact on the Woods.**

Although the Woods Site is the best site for the programmatic needs of Athletics and is estimated to be the lowest cost option, the Committee recommends against using the Woods Site because of probable impact on Stadium Woods and believes that locating the facility on the Washington Street tennis court site is in the best interests of the University.

Siting the facility along Washington Street would require relocation of the tennis courts and roller-hockey rink, and the recommendation (3) addresses this mitigation. The Committee explored conceptual design orientations, including parallel to Washington Street, perpendicular to the Street, and a skewed orientation between the two.

- The Parallel orientation would likely not touch the Woods and is referred to as the No Woods-Impact option. However, it poses challenges regarding aesthetic design of a very large building with its 400-foot broad side facing a major thoroughfare and minimizing possible disruption of parking (i.e., the Hahn-Hurst Center east lot) and football game-day pedestrian movement.
- In response to these concerns, the Perpendicular option was developed to provide more site design opportunities with its 200-foot side facing the street. However, further analysis showed that this orientation would penetrate into the northern section of the north Woods. Although this area of the Woods is dominated by invasive locust trees and is lower quality than the remainder of the woods, it still contains as many as 15 large trees that would likely be lost with this design.
- The Skewed orientation rotates the perpendicular design clockwise to reduce impact on the Woods and large trees, while retaining some of the design opportunities of the perpendicular position and minimizing disruption of parking and game-day pedestrian passage. The building footprint of this design is confined to an area dominated by locust trees and avoids all significant trees, but the critical root zone of up to eight large trees could be subject to impact in the construction setback area. The potential tree impact could be reduced by additional rotation of the building orientation and/or low-impact sheer-wall construction practices and tree root pruning supervised by a certified arborist. This option is referred to as the Minimal Woods-Impact option.

The Committee decided that the perpendicular orientation would have too great an impact on significant trees in the Woods and does not recommend this option. In the spirit of compromise and consensus, the Committee recommends that Facilities Services and its design consultants pursue the Washington St. site with an orientation bounded by the Parallel option and the Skewed design option, as presented herein with no trees in the building footprint larger than 24" DBH (see figure 5). The developed design and orientation should balance considerations of cost, building aesthetics, disruption of existing uses including parking and pedestrian movement, and minimal impact on the Woods.

**3. Replace the tennis courts and roller hockey rink displaced by siting the Facility on Washington Street by identifying sites, securing funding, and commencing construction prior to their closure.**

A significant disruption of siting the Facility on Washington Street is the removal of Recreational Sports' twelve existing tennis courts and roller hockey rink. These facilities had previously been impacted by the construction of the basketball practice facility, and the disruption that occurred during that project should be avoided this time. Student users request that the new courts and rink be completed before existing ones are closed. The committee recommends that Facilities Services, Athletics, and Recreational Sports coordinate planning, funding and construction, so that replacement facilities are sited and funded, and construction is completed or at least initiated before the existing facilities are closed.

**4. Fund the Committee Recommendations through an appropriate and equitable allocation of costs.**

The Committee's recommendation to change the site of the facility from the proposed Woods site to Washington Street involves additional development and mitigation costs estimated to be about \$1.5 million. In addition, the Committee's recommendation for a use and management program for the Woods will also carry a price tag. The Committee believes these added costs are justified by the value placed on the Woods by so many constituencies. However, this does not answer the question: who pays the additional costs?

The Athletics Fund is the primary source for the Facility development and construction, but this should not be the source of funds to implement changes to the plan for the sake of preserving the value of the Woods. If the University is committed to the values of the Woods, it should cover the incremental costs of a plan developed to enhance protection of those values. The Committee recommends that the University, as opposed to Athletics or recreational sports (i.e., student fees), take responsibility for the net costs associated with the Washington Street site compared to the Woods site, including facilities replacement, utilities, design enhancements, forest recovery, and other budget line items. Given the large number of alumni and friends of the University who have passionately advocated protecting the Woods, there are opportunities, including naming opportunities, for private fund-raising to support these costs.

**5. Review and improve University planning policies and procedures related to variance from the Master Plan.**

The University Master Plan is the physical vision for campus development produced by Facilities Services and its consultants and approved through University governance. The Committee recognizes that the Master Plan is more a guideline than a rule and that flexibility is needed to vary from the Plan as necessary to adapt to changing conditions and opportunities. However, this case points out the limitations of current procedures to recognize the significance of certain variances and the need to vet major deviations from the Master Plan through the governance system. The specific issue in this case was the unprecedented action of siting a project on an area designated as Environmental Greenway in the Master Plan. The Committee recommends that the Commission on University Support review current procedures regarding variance from the Master Plan and identify specific uses and criteria that would trigger diligent review of certain variances, such as development in an established designated Greenway, through the governance process.

## **I. Description of Issue and Committee Process**

### **A. Brief history of facility siting issue**

#### **The Indoor Athletic Practice Facility**

Planning for an indoor football practice facility began in the late 1990s, and in 1999 it was included in the 2000-2006 Six-Year Capital Plan Budget Request. In 2006, the BOV authorized funding for the Facility and renovation of the Rector Fieldhouse as a single project from non-general funds. The final 2006 Master Plan designated placeholders for the Facility as well as a new Basketball practice facility east of Cassell Coliseum on Washington St. In spring 2006, Athletics shifted priority to the Basketball building, and between 2006 and summer 2009 the indoor Football facility was put on hold while construction was completed on the Hahn-Hurst Basketball Center.

After the Basketball Center was completed in early 2010, Athletics expressed interest in locating the Indoor Facility in the woods next to the football practice fields for three reasons: (1) potential site constraints Washington St. due to the footprint of the Basketball facility and foundation problems experienced during its construction, (2) site design concerns of such a large facility on Washington St., and (3) the woods site's proximity to the outdoor practice fields and new state-of-the-art football locker room facility. The Indoor Facility project would have benefits beyond football, including soccer, lacrosse, baseball, and track (which would have a dedicated indoor track facility in the renovated Rector Fieldhouse).

In late summer 2010, Facilities Services and Athletics met to discuss engineering and cost issues related to siting options focusing on the woods site, and between late 2010 and May 2011, studies were conducted on stormwater routing analysis, tree survey GIS data, and concepts for reforestation mitigation.

In August 2011, Facilities shared the plan with the university Arboretum Committee and invited its input on a forest area recovery plan. In November 2011, Facilities asked the Arboretum Committee to provide its official position on the plan, and it passed a resolution strongly opposing the site for the facility.

Meanwhile, in fall 2011, discussions began on Design-Built project delivery, including a September 26 pre-proposal conference regarding such a project. In November, SportsPLAN Studio was selected in the role of Criteria Consultant, but no contract was issued. Project planning has been on hold since the formation of the APFSEC in January 2012.

#### **The Stadium Woods**

The preferred site by Athletics in a portion of the woods next to the football practice fields has benefits for Athletics' programs. However, as Athletics and Facilities began focusing on the site, the historical and ecological value of the woods area was being more widely recognized. Faculty in colleges of Science (COS) and Natural Resources and Environment (CNRE) had long used the 14-acre woods, including the proposed facility site, for field classes and had documented several old oaks, one measured to be more than 300 years old. In early 2011, the Virginia Master Naturalists, the Virginia Native Plant Society, and the New River Valley Bird Club performed an inventory of the

larger trees as well as plant and bird species in the woods. In September 2011, these groups designed and funded (through the Virginia Tech Foundation) interpretive signs in the Woods and five signs were installed in spring 2012.

In November 2011, the Arboretum Committee passed its resolution strongly opposing the site. About the same time, the newly created Friends of Stadium Woods advocacy group initiated an on-line petition opposed to building the facility in the woods. In December, the Faculty Senate unanimously approved a resolution for protecting the woods (the Arboretum Committee and Faculty Senate and other resolutions are summarized in section V.D and reproduced in in Appendix G).

After President Steger toured the Woods in December 2011, Facilities arranged for an independent ecological assessment of the Woods and alternative sites. In January 2012, Biohabitats, Inc., of Baltimore, was contracted for this study. President Steger then asked Vice President for Administration Sherwood Wilson to establish an ad hoc committee to help resolve the siting issue and asked urban planning professor John Randolph to chair it. The committee initiated its work in early February and met biweekly through May 2012.

In January 2012, Forest Resources and Environmental Conservation faculty John Seiler and Jay Sullivan bored three 40-inch DBH (diameter, breast-high) trees, and the core of tree #101 was dated at 346 years old. This led Dr. Seiler to conclude that the woods contained about 58 trees that were likely older than 300 years. The May 2012 Biohabitats, Inc., study confirmed this conclusion, and using Dr. Seiler's core for calibration, estimated that the woods may contain as many as 59 white oaks that are 300 years in age or older, including at least 8 trees of that age in the facility Woods' site impact area. It estimated that the 53-inch DBH tree #1 at the northeast corner of the Woods to be as old as 450 years.

Dr. Seiler's February 2012 paper on the Woods and the siting issue included testimonials from old growth forest and tree experts suggesting the relative uniqueness of the humanly accessible old growth stand in the eastern U.S. (see section III.D for testimonials and Appendix C for Seiler's paper). After Dr. Seiler's findings were widely circulated, in particular that the Woods contained many ancient trees and that the Woods represented a unique old growth forest remnant unique to the eastern U.S., the movement to protect Stadium Woods gathered steam during winter and spring 2012. In addition to the online petition, which gathered over 9,000 signatures, the issue generated many letters to the University President, much media attention, including articles in the Roanoke Times and Washington Post and numerous letters to the editor, television news coverage, as well as campus demonstrations (See section V.E for a summary and Appendix H for a listing of and links to media reports).

## **B. The Athletic Practice Facility Site Evaluation Committee**

### **Committee Establishment and Charge**

The Committee of 15 members was established in January 2012 and included seven faculty, three administrators, two students, one staff, and two members of the Blacksburg community. The member list and charge letter are given in Appendix A.

The Committee's charge was to help the university resolve this siting issue. Specifically, the committee was asked to "evaluate the data on the proposed site and other potential sites and assess the perspectives of various constituencies..." and to develop "recommendations for how the university can resolve the need for a critical athletics facility in close proximity to existing facilities while also being good stewards of our natural resources." The charge letter included several questions to be addressed to evaluate

- the historic, ecological and educational value of the woods area;
- the relative benefits, costs, and impacts of the woods and alternative sites; and
- the perspectives on the siting issue among stakeholders and university constituencies.

### **Committee process and procedures**

The committee met biweekly and spent February through April gathering information from various sources to provide evidence for its deliberation about this siting issue. The key information sources include the following:

1. The Virginia Tech Master Plan and updates.
2. Prior siting studies conducted by Facilities.
3. Presentations by John Seiler (and related documents (2/17)), Tom Gabbard (Athletics, 3/2), Hugh Latimer (Facilities, 3/2), and Mike Thompson (Biohabitats, Inc., 4/13).
4. Biohabitats, Inc. ecological study of the Woods and the Woods site and the Washington St. Parallel and Perpendicular sites.
5. Special assessment of the Woods understory area supervised by forestry professor Mike Aust.
6. Comments on the siting issue received through a special email address; more than 500 emails were received from faculty, staff, students, alumni, and community residents.
7. An on-line open survey of university faculty and staff about their use of the woods for academic teaching and research as well as their perceptions on the value of the woods to the campus environment; 148 responses were received.
8. A statistically valid random sample survey conducted by the Virginia Tech Center for Survey Research of university faculty/staff and students to assess perceptions of the siting issue; 1,969 responses were received, 63% from faculty/staff and 37% from students.
9. The numerous media reports including reporters' articles in the Roanoke Times and The Washington Post, and editorials and letters to the editor.

## II. Site Evaluation

The committee recognized the merits of the proposed facilities for the Athletics programs and assessed the relative benefits and costs of different siting options. Some sites (included the parking lots south of the stadium, the Rector Fieldhouse site, and the existing football outdoor practice fields) were deemed impractical because of costs, conflicts with other athletics program and other needs, and/or distance from locker rooms and medical facilities.

The committee initially focused on three sites including the proposed Woods site, the Washington St. site identified in the Master Plan, and the Cassell Coliseum parking lot. The Coliseum lot was dropped from discussion after assessing the current needs of this lot for critical parking and future plans for a parking garage on the site, as well as indication from Athletics that it would not develop the facility on this site.

### A. Evaluation Criteria

The major factors considered in evaluating the sites included:

- Historic, cultural and ecological value of alternative sites
- Current use of alternative sites for academic teaching and research, passive and active recreation, and other purposes
- Suitability of the alternative sites for athletic team use
- Costs of the facility at alternative sites for site preparation, development, construction, stormwater mitigation, utilities relocation, and relocation of existing uses
- Aesthetic impact of the facility at alternative sites on campus built environment design
- Perceptions of constituencies about facility impacts at alternative sites
- Potential impact the reputation of the university

These factors were converted to the evaluation criteria given in Table 1, which also gives the primary information sources for each.

**Table 1 Site Evaluation Criteria and Information Sources**

<b>Evaluation Criterion</b>	<b>Information Sources</b>
<b>Costs of development, construction, mitigation</b>	Facilities estimates
<b>Suitability for Athletics</b>	Athletics testimony and assessments
<b>Impacts on old growth ecosystem and trees</b>	Biohabitats, Inc., study, Seiler study, email comments, campus surveys
<b>Disruption of current and prospective uses</b>	Email comments, campus surveys, Committee assessments
<b>Design compatibility with campus built environment</b>	Committee assessments, email comments
<b>Perspectives of University Constituencies</b>	Email comments, campus surveys, Committee assessments
<b>Effects on University image and reputation</b>	Committee perspectives, email comments, campus surveys

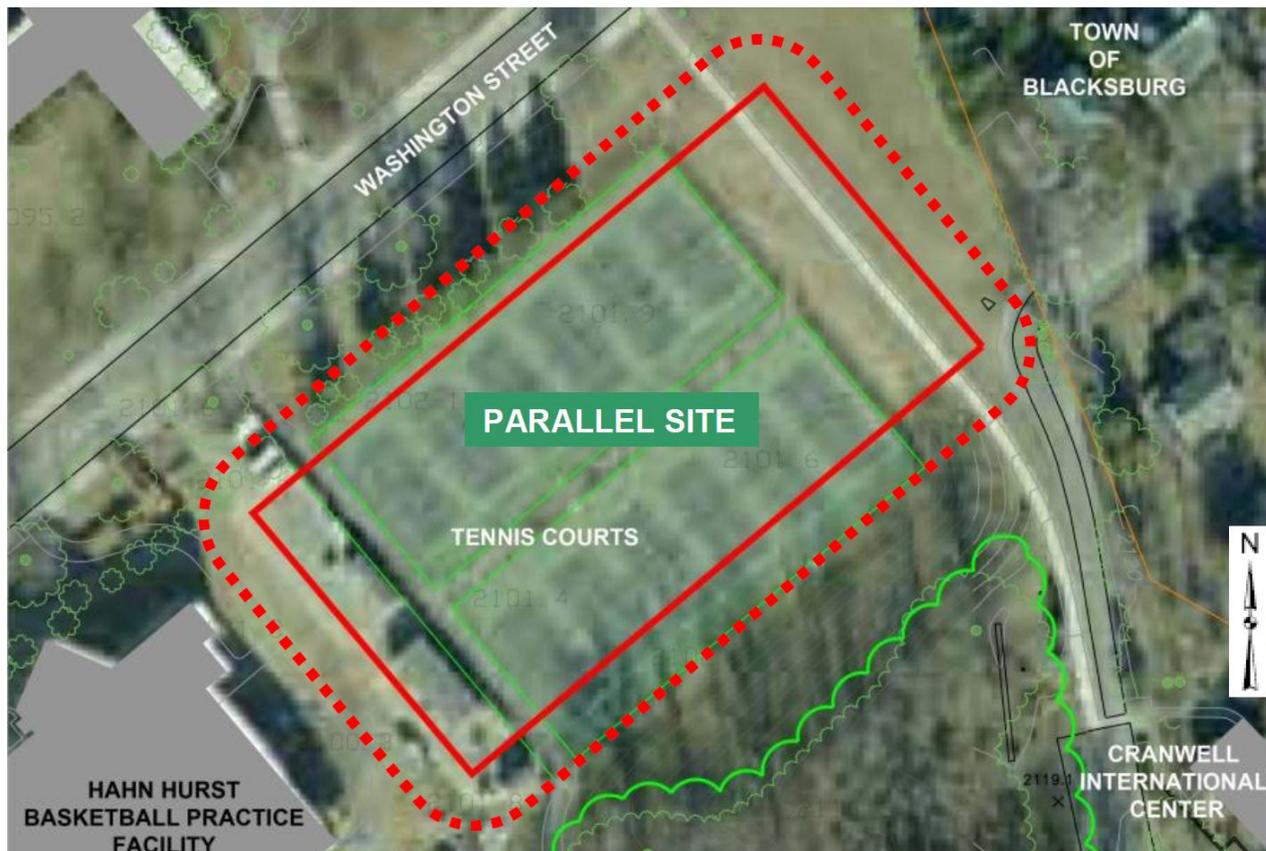
## B. Candidate Sites Reviewed

Although other sites were considered, the committee focused on four configurations on two sites. The four sites/configurations include:

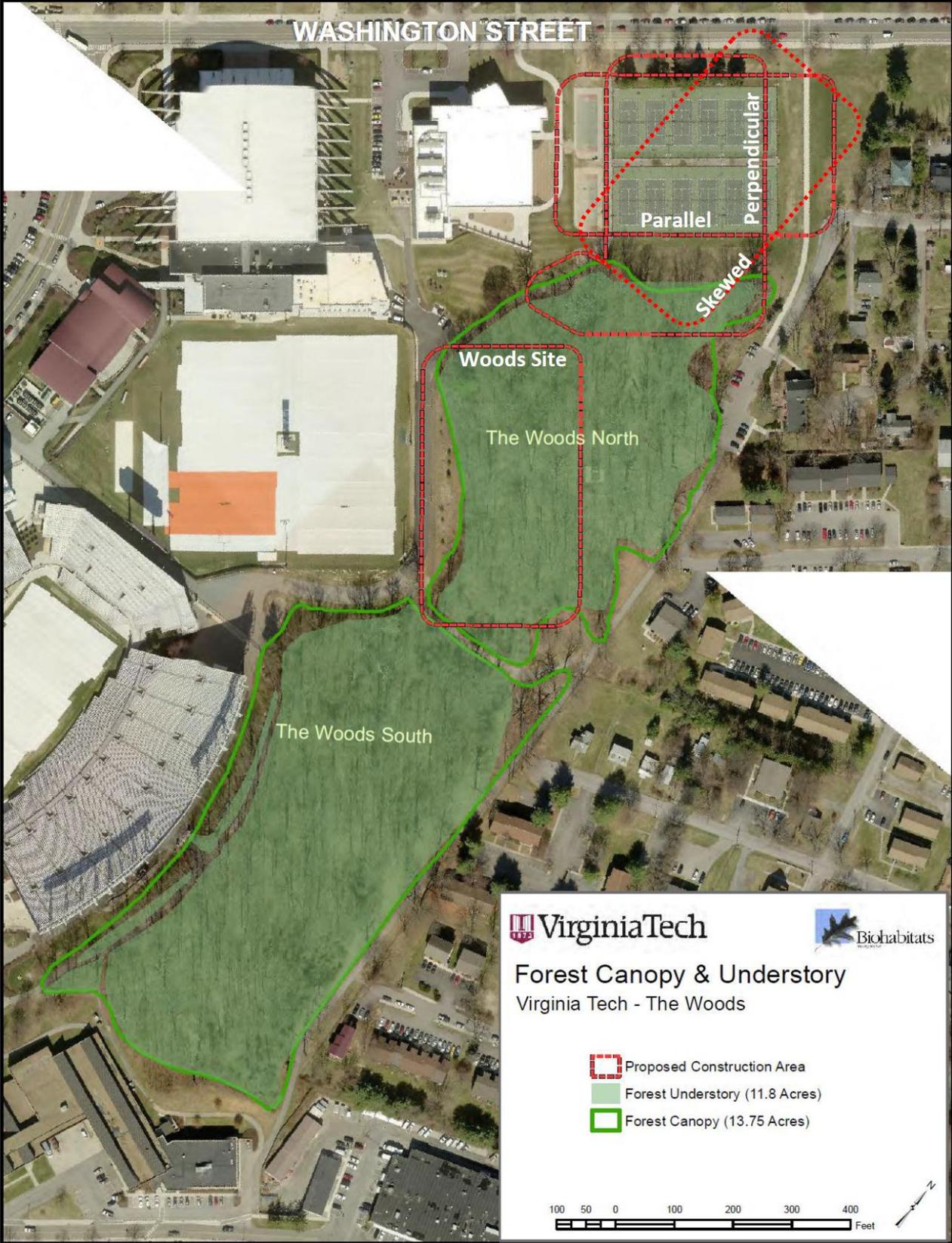
- a. Woods Site
- b. Parallel configuration on the Washington Street Tennis Court Site
- c. Perpendicular configuration on the Washington Street Tennis Court Site
- d. Skewed configuration on the Washington Street Tennis Court Site

Figure 1 shows the locations for the four alternatives. The figure shows the facility footprint (208' x 400' = 2.08 acres) plus 40' construction setback impact area (total 288' x 480' = 3.46 acres), in relationship to the Stadium Woods. The Perpendicular configuration impact area protrudes at its south corner due to grading requirements on the steep slope. The Skewed configuration rotates the Perpendicular orientation slightly clockwise to try to minimize the tree impact. As shown in figure 1, the Skewed site footprint would come very close to Washington St. and that is why the setback area extends into the street.

The figure also shows the entire Stadium Woods forest canopy measured by Biohabitats, Inc., at 13.75 acres and the forest understory, which has more old growth characteristics, at 11.8 acres. The Woods Site would impact about 3 acres of the woods, the Perpendicular site about 0.8 acres, the Skewed site about 0.2 acres, and the Parallel site zero acres. Figure 2 shows the Parallel site building footprint and 40-foot construction setback. Figures 3-5 detail the other three site options.



**Figure 2: Parallel Site showing 208'x400' building footprint + 40' construction setback.**  
(source: adapted from VT Facilities Services, 2011)



**Figure 1: Impact Areas (building footprint + 40' setback) of Four Facility Site Alternatives** (source: adapted from Biohabitats, 2012)

## C. Evaluation of Candidates Sites by Criteria

### 1. Costs of development, construction, mitigation

In April 2012, Facilities Services estimated total costs for three of the four options: the Woods Site and the Washington St. Perpendicular and Parallel Sites. The cost projections are summarized in Table 2, with detail shown in Table 6 in section III.A.

These estimates indicate the Woods Site may be the lowest cost option, with the Parallel site 6% higher and the Perpendicular Site 11% higher. As shown in the tables, the higher costs for Washington St. sites are associated with replacement of the tennis courts and rink and additional construction, site work, and native Hokie stone for aesthetic design. Some of these higher costs are offset by lower forest recovery mitigation costs that the Woods Site, especially for the Parallel configuration.

**Table 2. Summary of Cost Estimates for Three of Four Site Options**

	<b>Woods Site</b>	<b>Washington St. Perpendicular</b>	<b>Washington St. Parallel</b>
<b>Construction</b>	\$ 14,728,000	\$ 15,301,000	\$ 15,301,000
<b>Site Work and Utilities</b>	\$ 2,859,000	\$ 3,045,000	\$ 3,045,000
<b>Native Stone</b>	\$ 359,000	\$ 566,000	\$ 718,000
<b>Replace Courts/Rink</b>	\$ 0	\$ 2,100,000	\$ 2,100,000
<b>Forest Recovery</b>	\$ 1,820,000	\$ 1,130,000	\$ 0
<b>Other Costs</b>	\$ 4,432,000	\$ 4,667,000	\$ 4,596,000
<b>Total Project Costs</b>	\$ 24,198,000	\$ 26,809,000	\$ 25,760,000
<b>Incremental Costs vs. Woods Site</b>	\$ 0	\$ 2,611,000	\$ 1,562,000
<b>% Incremental Cost above Woods</b>	0%	11%	6%

The Committee developed the Washington St. Skewed configuration after Facilities worked up these cost numbers, so an estimate for this site option is not available. However, it is believed the cost estimate for the Skewed site option would fall between the Perpendicular and Parallel options.

It should be noted that all of these cost figures are estimates with considerable uncertainty. More accurate estimates require more detailed design work and more site information, including borings to evaluate the site soils, geology, and conditions. A preliminary site-boring project around the tennis courts on Washington St. was initiated by the Committee to see if there were any serious problems with the site. Preliminary results of the borings indicate problems were not detected.

### 2. Suitability for Athletics

The Woods Site is preferred by Athletics because it would provide more benefits to its programs than other sites. These benefits include lower estimated cost; proximity to outdoor practice fields, locker rooms, and medical and training facilities; convenience and time management for athletes; a more compact athletics complex; and a visually dramatic facility within site of Jamerson and Merryman Halls to enhance the image of its programs, recruiting, and fund-raising.

The Washington St. site options are acceptable to Athletics, assuming they are affordable and designed to maintain sufficient pedestrian access from Washington St. to Land Stadium Gate 7, which admits 10,000 football fans each game day. Athletics is also concerned about retaining sufficient parking in the vicinity of the Hahn-Hurst Basketball Center for media vehicles during televised events.

### 3. Impacts on old growth ecosystem and trees

The impacts of the facility site options on Stadium Woods vary, and much of the committee's work entailed describing, documenting, and evaluating these impacts. Our work was greatly assisted by previous efforts by forestry faculty, the Virginia Master Naturalists, Native Plant Society, and the New River Bird Club, which have monitored the resources in the Woods, geo-referenced all trees, and documented the dimensions and value of the Woods. The contracted Biohabitats study was especially useful in giving an independent confirmation of this information as well as an overall ecological assessment of the Woods and facility sites. The Biohabitats study is summarized in section III.B, and the full report is in Appendix B.

The major conclusions for the site assessment are that the Woods have ecological value with a rich variety of plant species and wildlife, especially birds. That value could be enhanced by better control of invasive species. The urban forest condition assessment score for the south woods was 30 and the north woods 24 on a scale from -8 to +68. These mid-range scores for the Woods reflect the lack of water for wildlife on the site and the presence of invasive species especially in the north woods. Control of invasive species would elevate these scores.

The study confirmed the old growth characteristics and the significant number, size and age of the trees. It cited 59 trees estimated older than 300 years, and using its calibration based on Seiler's core, dated the 53-inch DBH (diameter-breast height) tree #1 in the northeast corner of the Woods at 450 years old.

The Biohabitats study's site assessment was based on two metrics:

1. The ecological land suitability index (LSI), which evaluates a site's ecological value with a higher score indicating less suitability for development.
2. An assessment of potential impact on trees larger than 10" DBH, especially larger than 24". This impact includes loss of trees within the building footprint and a 40' construction setback, as well as trees outside that area whose critical root zone (CRZ) intersects the footprint or setback. The CRZ radius is defined as 1.5 feet per inch DBH. For example, a 40" DBH tree has a CRZ radius of 60'.

The Washington St. **Parallel** site has an LSI score 7, by far the lowest of all of the options. It would avoid the woods and is labeled the No Woods-Impact alternative. Construction would likely require removal of the spruce and pine trees along Washington St.

The **Woods Site** has the highest LSI score of 31, meaning it was least suitable for development from an ecological perspective. Figure 3 shows the impact of the building footprint and construction setback area on trees in the area and on peripheral trees' CRZ, indicating a significant impact on the north Stadium Woods:

- The site would have a 3 acre impact area in the Woods forest canopy (22%) and a 2.5 acre impact area in the Woods forest understory (21%).
- It would remove 100 trees >10" DBH and impact the root zone of 17 others for a total of 117 trees including as many as 28 trees > 24" and 9 > 39" and older than 300 years, and
- It would bisect the remaining north woods from the south woods ecosystem.

The Washington St. **Perpendicular** site would impact the north section of the north woods and has an LSI value of 28. Figure 4 shows the impact area, which extends to the southwest because of the terrain and required grading. Impacts on the Woods include:

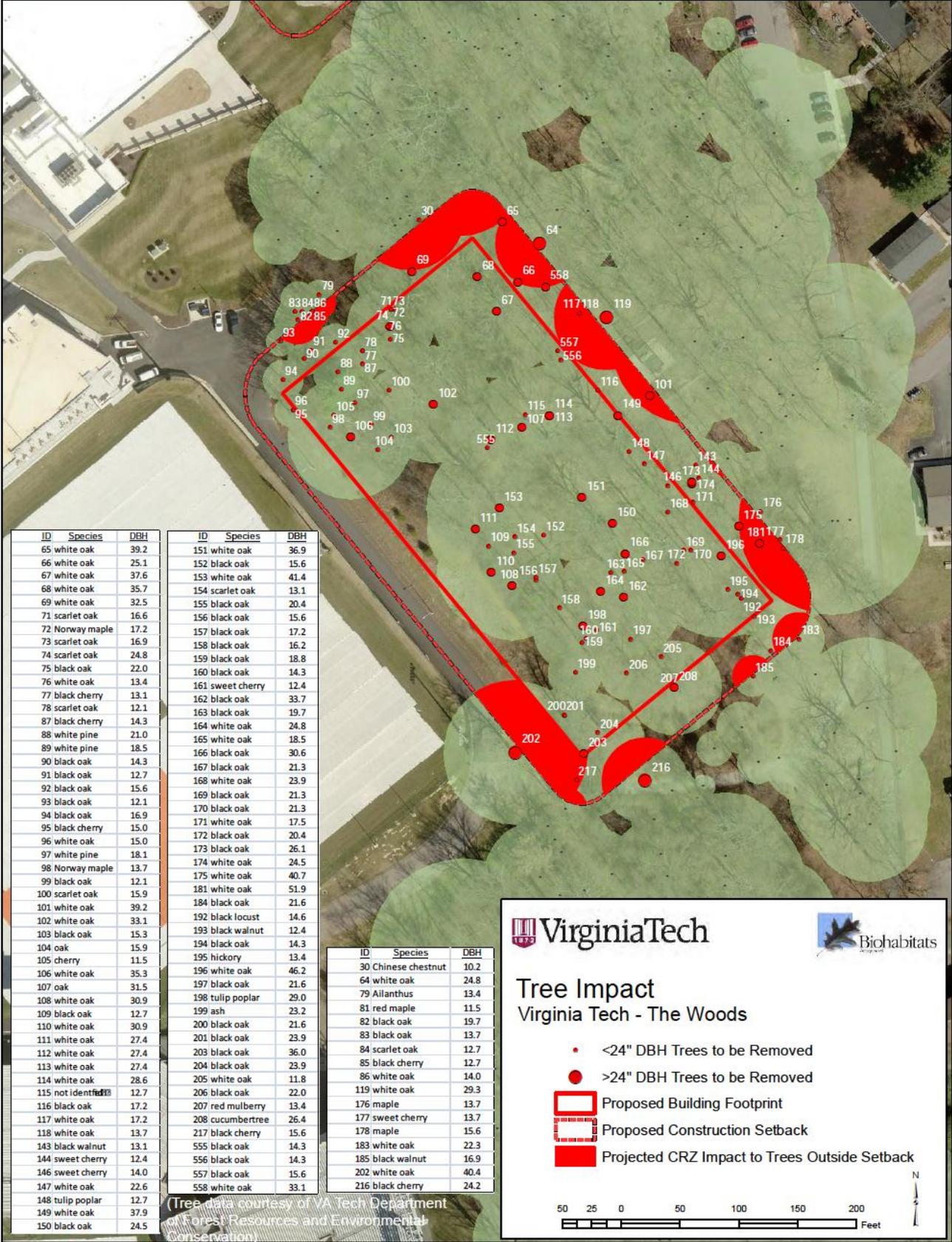


Figure 3. Tree Impact of Woods Site Option including critical root zone (source: Biohabitats, 2012)

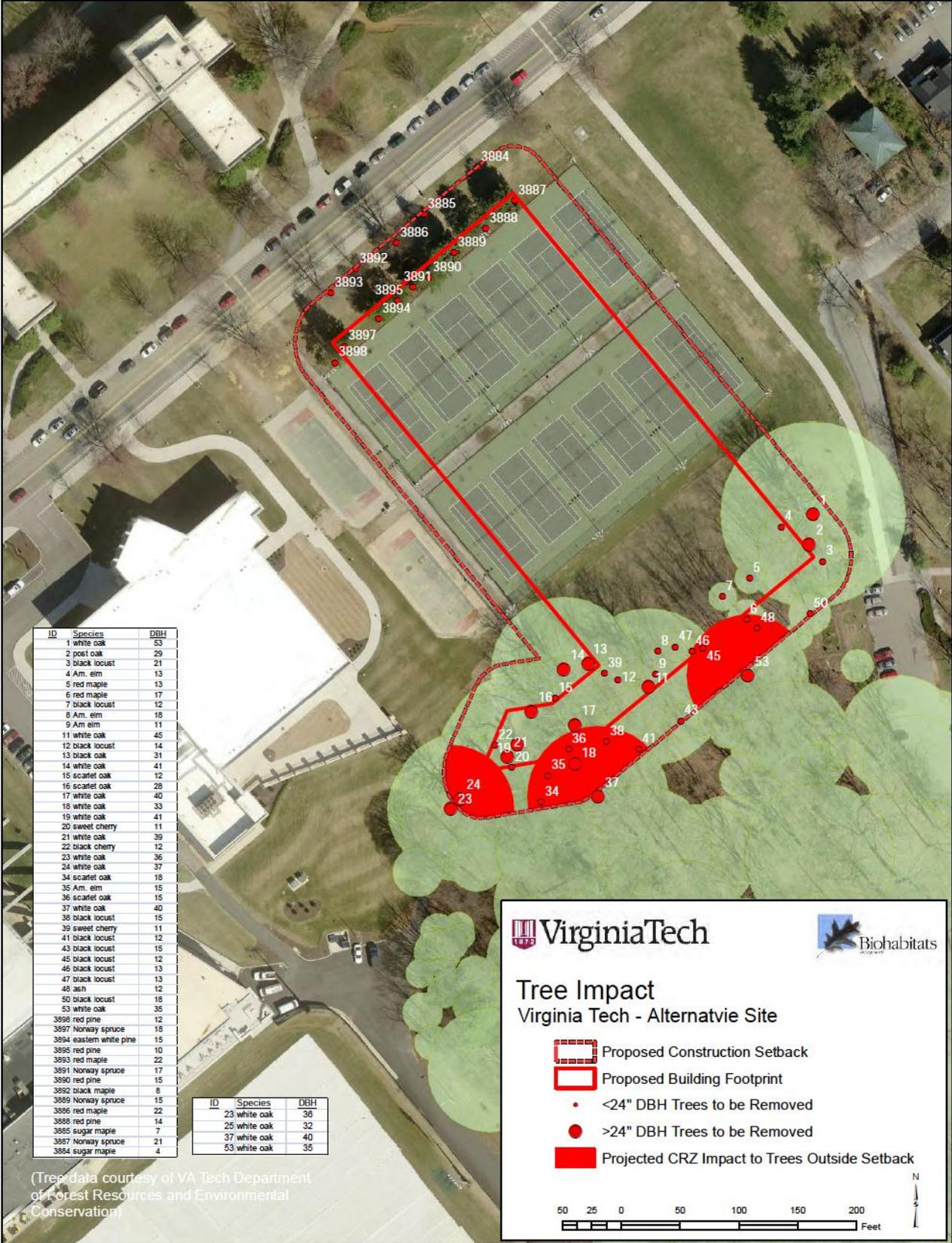
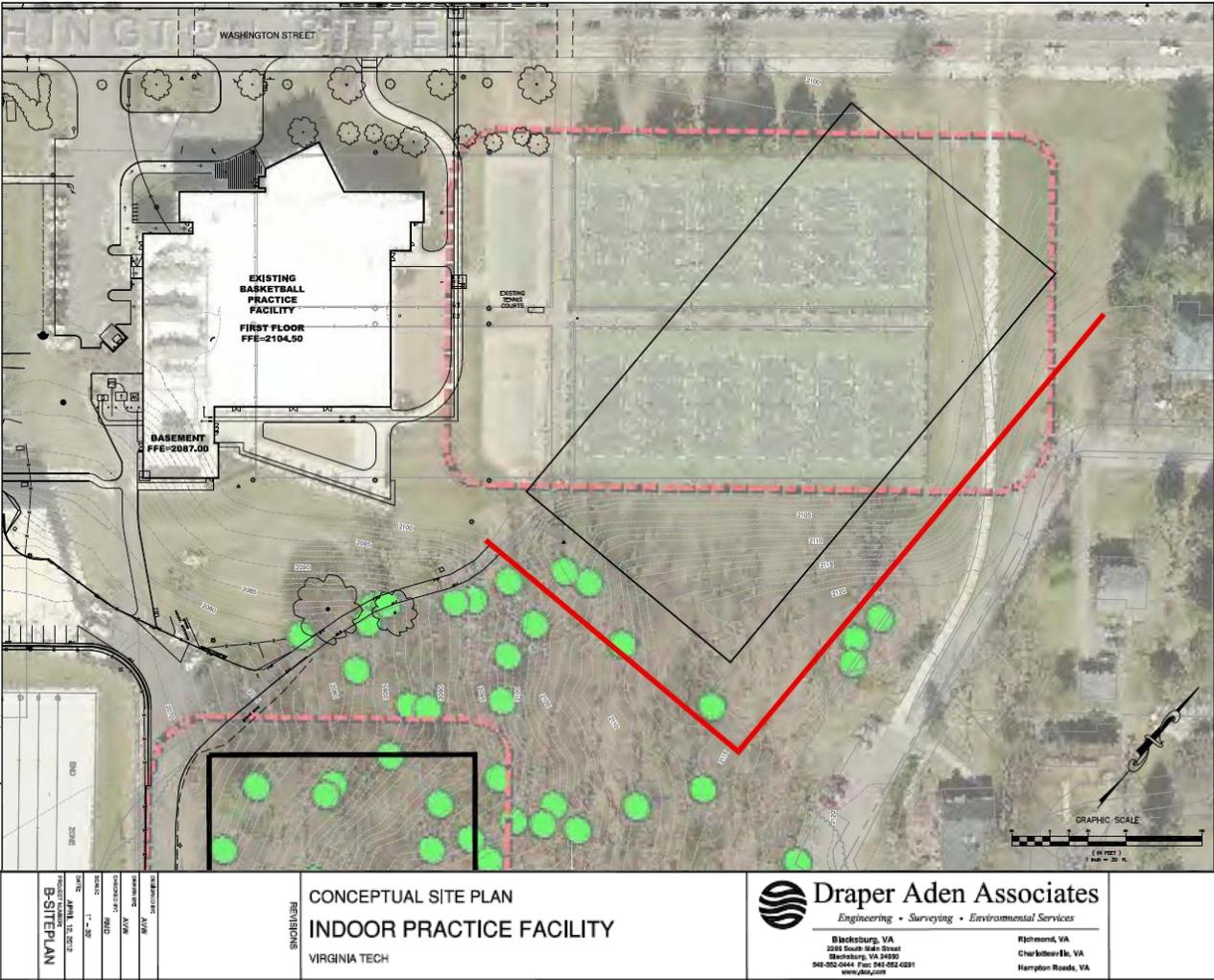


Figure 4. Tree Impact of Perpendicular Option including CRZ (source: Biohabitats, 2012)

- The site would have a 0.8 acre impact area in the Woods (< 6%), mostly in an area previously impacted and having many invasive locust trees.
- It would remove 37 trees in the woods > 10” DBH and impact the root zone of 4 more for a total of 41 trees including 15 trees > 24” DBH and 8 oaks > 39” estimated older than 300 years.

The Washington St. **Skewed** site was developed to try to reduce the tree impact of the Perpendicular site while retaining some of its design options. Figure 5 shows the configuration and impact area. The concept was developed late in the Committee’s process, too late to be assessed in the Biohabitats study. Therefore, there is no LSI score, but it is likely to be between the Parallel (LSI=7) and Perpendicular (LSI=28) values. The impacts are also between those two options:

- The site would have only about a 0.2 acre impact area in the Woods (< 2%)
- Although the building footprint could avoid all significant trees, Figures 5b shows that the critical root zone impact of eight trees > 24” DBH and five trees > 35” could be within 50 feet of the footprint and be likely impacted by the construction setback.



**Figure 5a Skewed configuration building footprint and 50-foot setback overlaid on Biohabitats map of trees > 24” DBH.**  
 (source: Rick DiSalvo and Draper Aden Associates)



**Figure 5b Oak trees > 24" DBH whose critical root zone (CRZ radius = 1.5 feet per inch DBH, approximated by blue lines) that could fall within 50 feet of Skewed site building footprint.**

It is possible these trees could be preserved by (a) avoiding them further by additional rotation of the orientation, (b) using shear-wall construction practices to reduce land disturbance in the CRZ, and/or (c) tree root pruning conducted by a certified arborist at least one growing season prior to construction. A rule of thumb for tree root pruning is that pruning at one side of tree at a distance of 5 times tree DBH (or about 15 feet for a 35" DBH tree) allows other roots to compensate for impact in critical root zone on the pruned side. Such mitigation would add to the cost of this option.

#### **4. Disruption of current and prospective uses by facility construction and operation**

It is important to minimize disruption of current campus activities during construction and operation of any new facility. It is also important to consider prospective uses forgone or the opportunity costs associated with a siting decision.

The major activities in the vicinity of considered sites include:

- Use of the 12 Washington Street tennis courts and roller hockey rink by Recreational Sports and the campus community.
- Pedestrian passage from Washington Street to Lane Stadium Gate 7 on football game days; 10,000 people enter Gate 7.
- Tennis Court Parking Lot (24-hour faculty/staff parking) west of the Hahn-Hurst Basketball Center used for media parking for team sport events.
- Uses of Stadium Woods for educational uses, ROTC and Cadet training, nature study, and passive recreation.

Prospective uses or opportunity costs in the vicinity of considered sites include:

- Possible student services building or resident hall on the Washington Street tennis court site (not included in Master Plan).
- Establishment of Stadium Woods Old Growth Reserve.

Table 3 shows the relationship of the considered sites with these activities and prospective uses.

**Table 3 Potential Impact and Disruption of Prospective Campus Uses by Considered Sites**

	<b>Woods Site</b>	<b>Washington St. Perpendicular</b>	<b>Washington St. Skewed</b>	<b>Washington St. Parallel</b>
<b>Current Uses</b>				
<b>Tennis courts, hockey rink</b>	No impact	Replacement required	Replacement required	Replacement required
<b>Gameday pedestrian passage from Washington St. to Lane Stadium Gate 7</b>	Possible impact during construction	Possible impact during construction	Possible impact during construction	Possible impact during construction
<b>Parking lot west of Hahn-Hurst Center</b>	No impact	Impact during construction	Impact during construction	Impact during construction
<b>Use of North Stadium Woods</b>	Major impact during construction and operation	Moderate impact during construction and operation	Moderate impact in construction, minor impact during operation	No impact
<b>Opportunity Costs</b>				
<b>Future Student Building on Washington St. site</b>	No impact	Forgone	Forgone	Forgone
<b>Intact Stadium Woods Reserve</b>	Major impact	Moderate impact	Minor impact	No impact

The Woods site would have minor impacts on Washington St. activities and prospective uses except possible construction staging. However, that site would have significant impact on activities in the North Stadium Woods both during construction and once the facility is built. It would have a major impact on the prospect of preserving the existing Stadium Woods as a Reserve.

All of the Washington St. site options would require replacement of the existing tennis courts and roller hockey rink. Replacement of these facilities, commencing construction prior to their closure is recommended as part of the mitigation plans for these sites. All of those sites would have to accommodate game-day pedestrian passage to Lane Stadium Gate 7. Except for during the construction period this could be easily accommodated by the Perpendicular and Skewed designs, and is recommended to be part of the Parallel design plan. Current uses of the North Stadium Woods would be impacted during construction of the Perpendicular and Skewed options; impact after construction would be minor for the Skewed orientation, moderate for the Perpendicular orientation.

Regarding prospective uses, all Washington St. options would forgo opportunity for a new student-related building on the site. The Perpendicular option would have some impact on future designation on an intact Stadium Woods Reserve. The Skewed design could have a minor impact.

The Parallel design would have no impact on current use and prospective designation of the Woods.

## 5. Design compatibility with campus built environment

Virginia Tech is known for its beautiful campus and the design quality of its built environment. This is a consideration in siting, design and construction of all campus facilities. One of the reasons for considering the Woods site for the practice facility was to move this very large structure away from major thoroughfares. Siting the facility on Washington St. presents some design challenges and their solution requires certain design features that would likely add to project costs.

Although the Woods site would have a significant impact on the natural aesthetic of the Stadium Woods, it would not impact the campus built environment. It could have a positive aesthetic impact on the Athletics complex, offering dramatic perspective views from Jamerson and Merryman Halls.

The Washington St. site designs would need to fit the large facility with the context of the site. The Parallel option presents the most design challenges associated with a 400-foot wide, 65-foot high building on an entry to campus. The Perpendicular configuration was developed to relieve some of the design challenges and create more design options by reducing the street-side building face to the 208-foot width. The Perpendicular design also reduced the building height by burying the building 13 feet below grade. When it was realized that this Perpendicular option would create too great an impact on the northern portion of the Woods, the Skewed option was developed to reduce that impact and still retain some of the design options.

Several measures are suggested to enhance the design aesthetic of a Washington St. site:

- Burying the building as much as possible below grade, considering site conditions, cost and base level entry requirements.
- Setting back the facility as much as possible from Washington St.
- Using innovative building design and materials, including Hokie stone features, that match the Hahn-Hurst Center design.
- Use landscaping and vegetation to mask and enhance the building design and if possible, extend the Woods aesthetic onto the site.

## 6. Perspectives of University Constituencies

Good planning requires gathering and considering the perspectives of stakeholders. This is particularly true for a public university like Virginia Tech, which aims to be a model of democratic processes and governance. A major component of the Committee's work was to assess the perspectives of the various constituencies of the University. These constituencies include

- Key departments that will implement the project (Facilities Services and Athletics),
- University higher administration,
- University governance units,
- Academic colleges and departments,
- Faculty and staff,
- Students,
- Alumni,
- the Blacksburg community, and
- other friends of the University.

To assess the perspectives of these constituencies, the Committee employed the following mechanisms:

1. Representation on the Committee: the Committee included representatives of Facilities Services, Athletics, faculty, staff, students, the Town of Blacksburg, and University governance and other units (Arboretum Committee, Faculty Senate, Staff Senate, Athletics Committee, Commission on Student Affairs, Student Government Association)
2. A dedicated email address soliciting comment from parties outside the committee. The email address received 538 comments.
3. An open survey of faculty and staff to gather information on the educational use of the Woods and their opinion of the importance of the Woods to the campus environment. 148 responses were received.
4. A random sample survey of faculty, staff and students to get a statistical representation of campus opinion of the siting issues. 1969 individuals responded to the survey, 63% were faculty and staff, 37% were students. Results were run for subsamples including faculty/staff, faculty/staff living in Blacksburg (to get a measure of the Town community), students living on campus, students living off-campus, and student-athletes.
5. Resolutions adopted by University governance and other units (Arboretum Committee, Faculty Senate, Student Government Association, Commission on Student Affairs, Graduate School Assembly) and the Blacksburg Town Council.
6. Other sources, including on-line petitions, media coverage, letters to the editor, and campus demonstrations.

The dedicated email address, faculty/staff survey, random survey, resolutions, newspaper letters to the editor, the Stadium Woods on-line petition, and campus demonstrations indicated overwhelming opposition to Woods Site and support for the Washington St. site.

- Email comments: 97% of 518 emails oppose this site
- Faculty/staff survey: 138 of 148 indicated the Woods are very important to the campus environment
- Random survey:
  - 69% favored the Washington St. Parallel site, while less than 13% of respondents favored the Woods Site;
  - 84% of respondents agreed or agreed very much with the following statements: “old growth woodland should be preserved intact” and “building in the woods would diminish the university commitment to sustainability”;
  - these two statements were ranked 1<sup>st</sup> and 2<sup>nd</sup> in importance among four value statements
- All resolutions request that facility not be built in the woods and that the Stadium Woods should be designated and managed as a permanent natural reserve
- More than 9,000 signatures on the on-line Save Stadium Woods petition

The only deviation from these perspectives came from two stakeholder groups:

- Users of the roller hockey rink created their own on-line petition to support their interests in their facility, specifically “if the construction plan is moved from Stadium Woods to the tennis court/roller hockey area, we ask that an equal or greater amount of tennis court and roller hockey rink space is constructed BEFORE the demolition occurs.” 474 people have signed the petition.

- A large majority of student-athlete respondents to the random survey (79%) preferred the Woods site for the practice facility.

It should be noted that only the Committee was aware of the Perpendicular and Skewed options, which were developed late in the process, so that public comment was not assessed for these orientations. All public comments supporting the Washington St. site likely assumed the Parallel option.

## **7. Effects on University image and reputation**

The issue of impact on the University's reputation was not part of the Committee's charge, but as the movement to protect the Woods gained traction and national attention and many email comments were received that were highly critical of the University considering the Woods option, it became apparent that this could be the most important criterion to be considered in a siting decision.

For example, several of the letters and email comments were from University alumni and donors who would decline to donate further to the University or Athletics if the facility were built in the Woods. Two donors submitted their resignations from University Athletics or Development committees and canceled donations, contingent on the University's not building on the Woods site.

Among the issues raised in emails and letters was the potential damaging impact that building in the Woods would have on the University's growing reputation as a Green University dedicated to principles of sustainability. All recognize that Virginia Tech has a major university athletic program, especially its football program. The athletic program contributes to student life, academic student admissions, and development fundraising. The practice facility would help enhance that reputation and contribute to future student-athlete recruitment and the potential for continuing success.

But Virginia Tech is more than a football school. It is recognized as one of the top green universities in the country dedicated to sustainability. Like athletics, this reputation affects student life and admissions and the University's reputation. Recent recognition and accomplishments in sustainability include the following:

- 2009 Virginia Tech Climate Action Commitment and Sustainability Plan approved by the Board of Visitors that has become a set of guiding principles for the University.
- 2010 B+ Sustainable University report card by the Sustainable Endowments Institute
- 2011 Governor's Gold Award for Environmental Excellence for its sustainability programs,
- 2011 AASHE Silver Rating for Campus Sustainability, highest among Virginia colleges
- 2011 inclusion among the top 16 Green Universities by the Princeton Review,
- 2011 Tree Campus USA certification (for the 4<sup>th</sup> consecutive year) announced 3/5/12 by the National Arbor Day Foundation,
- 2012 inclusion for 2<sup>nd</sup> consecutive year among the top 16 Green Universities by the Princeton Review,
- President Steger's January 2012 video review of 40 university 2011 accomplishments included 6 sustainability-related accomplishments and 2 athletics-related accomplishments (the #9 ranked campus golf course and 23 Athletic All-Americans). See <http://www.reports.president.vt.edu/2011-year-in-review/index.html>

- The draft of the University strategic plan “A Plan for a New Horizon: Envisioning Virginia Tech 2012-2018” concludes with a section on The Virginia Tech Experience. That section states:

“We must also work toward a sustainable setting by developing a campus-wide willingness and commitment to critically evaluate our practices and embrace new technologies and innovative solutions. This commitment must include extensive engagement and collaboration among students, faculty, staff, and administrators. The University will implement the Climate Action Commitment and Sustainability Plan and ensure ongoing evaluation and critical examination of the University’s policies and practices toward ensuring the most effective and sustainable use of our resources, including human, fiscal, and environmental.”

See <https://blogs.lt.vt.edu/vtstrategic/>

The random survey of the campus community asked respondents if they agreed with the statement: “Building in the woods would diminish the university commitment to sustainability.” Of 1969 respondents, 65% “agreed very much” and another 19% “agreed.”

The Committee believes that many eyes across the Commonwealth and the nation are on the University regarding this siting decision. University officials must consider the potential impact, both positive and negative, of this decision on Virginia Tech’s image and reputation, and consequent effects on attracting a diverse student body and private fundraising.

#### **D. Evaluation Summary Matrix**

Table 4a summarizes the site evaluation for the four considered options by the evaluation criteria. Table 4b summarizes the benefits/costs and advantages/disadvantages of the alternatives, and it is followed by a summary narrative of the four options. Table 5 gives similar information for two other options for the sake of completeness: the Cassell Coliseum parking lot and the No-Build option.

**Table 4a. Evaluation Matrix for Considered Practice Facility Alternative Sites**

	<b>Woods Site</b>	<b>Washington St. Perpendicular</b>	<b>Washington St. Skewed</b>	<b>Washington St. Parallel</b>
<b>Costs of development, construction, mitigation</b>	<ul style="list-style-type: none"> <li>Least cost build option: estimated \$24.20 million, including forest recovery mitigation</li> </ul>	<ul style="list-style-type: none"> <li>Estimated \$26.81 million including forest recovery and relocation of tennis courts/rink</li> </ul>	<ul style="list-style-type: none"> <li>Not estimated but likely between parallel and perpendicular</li> </ul>	<ul style="list-style-type: none"> <li>Estimated \$25.76 million including relocation of tennis courts/rink</li> </ul>
<b>Suitability for Athletics</b>	<ul style="list-style-type: none"> <li>Preferred site</li> <li>More convenient due to proximity to other facilities;</li> <li>More compact athletics complex;</li> <li>Less visual impact on built environment</li> </ul>	<ul style="list-style-type: none"> <li>Acceptable site;</li> <li>Less convenient</li> <li>Need football gameday passage for up to 10,000</li> <li>More sprawling athletics complex</li> <li>Potential visual impact but more design opportunities</li> </ul>	<ul style="list-style-type: none"> <li>Acceptable site;</li> <li>Less convenient</li> <li>Need football gameday passage for up to 10,000</li> <li>More sprawling athletics complex</li> <li>Potential visual impact but some design opportunities</li> </ul>	<ul style="list-style-type: none"> <li>Acceptable site;</li> <li>Less convenient;</li> <li>Need football gameday pedestrian passage</li> <li>More sprawling athletics complex</li> <li>Potential visual impact</li> </ul>
<b>Impacts on old growth ecosystem and trees</b>	<ul style="list-style-type: none"> <li>Biohabitats impact area about 3 acres (22%) of 13.75 acres forest canopy and 2.5 acres (21%) of 11.8 ac. forest understory.</li> <li>100 trees &gt;10" DBH removed + 17 critical root zone (CRZ=1.5'x"DBH) impact; 28 trees&gt;24", 13 &gt;35", 5 trees &gt;40", 1 &gt; 50". Nine trees (&gt;39") may be older than 300 years (see report figure 3)</li> <li>Impact on wildlife habitat: cavity-dwellers, migratory birds, possibly endangered Indiana bat.</li> <li>Construction would bisect north woods (forest condition 24) from south woods (forest condition 30), converting north to remnant with greatly diminished ecological value</li> <li>LSI: 31 (higher score is less suitable for development)</li> <li>i-Tree analysis: loss of \$1.16 million in forest structure value</li> </ul>	<ul style="list-style-type: none"> <li>Biohabitats impact area about 0.8 acres of forest canopy area (5.8%) and 0.7 acres of forest understory (5.9%)</li> <li>37 trees in woods &gt;10" removed + 4 CRZ, 15 trees&gt;24", 13 trees &gt; 35", 7 trees &gt; 40", 2 &gt; 45", 1 &gt; 50". Eight trees (&gt;39") are may be older than 300 years (see report figure 4)</li> <li>Impact on wildlife habitat but less than woods site</li> <li>Construction would not bisect the woods and would impact a lower ecological quality area of the woods, but could remove ~ 5 significant trees.</li> <li>LSI: 28</li> <li>i-Tree analysis: loss of \$231,709 million in forest structure value not including Washington St structure value</li> </ul>	<ul style="list-style-type: none"> <li>Biohabitats did not evaluate the skewed orientation.</li> <li>Estimated impact area about 0.2 acres of canopy (1.5%) and understory (1.7%)</li> <li>No significant trees in building footprint but construction setback CRZ of 8 trees &gt; 24" and 5 &gt;35" (3 &gt; 40", 1 &gt;50") within 50' of footprint (see report figure 5b)</li> <li>Reduction of tree impact possible from                             <ul style="list-style-type: none"> <li>further rotation of orientation,</li> <li>sheer-wall construction methods,</li> <li>tree root pruning (within ~5xDBH) in advance of construction by certified arborist</li> </ul> </li> <li>Minimal impact on wildlife habitat due to low ecological quality of area in building footprint</li> </ul>	<ul style="list-style-type: none"> <li>No impact on woods</li> <li>11 pine/maple trees &gt;10" on Washington St removed if not set back (see report figure 2)</li> <li>LSI: 7</li> </ul>
<b>Disruption of current and prospective uses</b>	<ul style="list-style-type: none"> <li>No disruption of tennis courts/rink unless construction staging needed</li> <li>Potential impact on teaching/research/training activities in the woods</li> </ul>	<ul style="list-style-type: none"> <li>Tennis courts/ rink removed and disruption affected by relocation timing</li> </ul>	<ul style="list-style-type: none"> <li>Tennis courts/ rink removed and disruption affected by relocation timing</li> </ul>	<ul style="list-style-type: none"> <li>Tennis courts/ rink removed; disruption by replacement timing</li> <li>H-HBC east parking</li> <li>Potential impact on football game day passage</li> </ul>

	<b>Woods Site</b>	<b>Washington St. Perpendicular</b>	<b>Washington St. Skewed</b>	<b>Washington St. Parallel</b>
<b>Design compatibility with campus built environment</b>	<ul style="list-style-type: none"> <li>• Visually removed from campus thoroughfares</li> </ul>	<ul style="list-style-type: none"> <li>• 208 ft long building face on main thoroughfare; more design options than parallel alternative</li> </ul>	<ul style="list-style-type: none"> <li>• Skewed design on main thoroughfare; more design options than parallel alternative</li> </ul>	<ul style="list-style-type: none"> <li>• Prominent 400 ft long building face on main thoroughfare; possible setback design</li> </ul>
<b>Effects on University image and reputation:</b> significant media attention to issue: (Roanoke Times, Washington Post, Chronicle of Higher Education blog, Comedy Central, CNN, PBS)	<p>Based on emails received, many faculty, students, and alumni believe that building in the Woods would have major negative impact on</p> <ul style="list-style-type: none"> <li>• the university’s national reputation as a green university and Tree Campus USA</li> <li>• relations with many alumni and community members</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced woods impact area compared to woods site may lessen negative impact, but removal of signature trees might trigger negative response</li> <li>• Protection measures to lessen/eliminate impact on large trees could be viewed as a positive compromise</li> </ul>	<ul style="list-style-type: none"> <li>• Compromise plan with possibly minimal impact on the Woods and more design options</li> <li>• Reduced impact compared to woods or perpendicular plan</li> <li>• Positive impact on image if significant trees protected; negative impact if not.</li> </ul>	<p>Based on emails received, many believe avoiding the Woods by building on Washington St would have a positive impact on the university’s image and reputation especially if a protection/management program is developed for the woods</p>
<b>Constituencies’ perspectives:</b> Based on: <ul style="list-style-type: none"> <li>• 538 emails and letters received,</li> <li>• 148 faculty/ staff survey responses on use, importance of woods,</li> <li>• 1969 campus respondents to random survey on siting issue,</li> <li>• Stadium Woods on-line petition,</li> <li>• tennis court/rink on-line petition,</li> <li>• letters editor,</li> <li>• resolutions by Arboretum Committee, Faculty Senate, CNRE faculty, SGA, Blacksburg Town Council</li> </ul>	<p>Overwhelming opposition to Woods Site:</p> <ul style="list-style-type: none"> <li>• Email comments: 97% of emails oppose this site</li> <li>• Faculty/staff survey: 138 of 148 said Woods are very important to the campus environment</li> <li>• Random survey: <ul style="list-style-type: none"> <li>○ 12.7% of respondents favored the Woods Site;</li> <li>○ 84% agreed that “old growth woodland should be preserved intact” and “building in the woods would diminish the university commitment to sustainability”; these statements were ranked 1<sup>st</sup> and 2<sup>nd</sup> in importance</li> </ul> </li> <li>• All resolutions request that facility not be built in the woods:</li> <li>• &gt;9000 signatures on Save Stadium Woods petition</li> </ul>	<ul style="list-style-type: none"> <li>• This alternative site has not been released so there is no documented indication of constituencies’ perspectives.</li> <li>• Although the impact on Woods is considerably less than woods, removal of signature trees may not be acceptable to woods advocates</li> <li>• Tennis courts/rink advocates, supported by 454 petition signatures, want a commitment to replace tennis courts/rink prior to their closure</li> </ul>	<ul style="list-style-type: none"> <li>• This alternative site has not been released so there is no documented indication of constituencies’ perspectives.</li> <li>• Conforms to petition and resolutions calling for not building in the woods</li> <li>• Response may depend on ability to avoid tree impact</li> <li>• Tennis courts/rink advocates, supported by 454 petition signatures, want a commitment to replace tennis courts/rink prior to their closure</li> </ul>	<ul style="list-style-type: none"> <li>• 69% of respondents to campus random survey preferred this site</li> <li>• Tennis courts/rink advocates, supported by 454 petition signatures, want a commitment to replace tennis courts/rink prior to their closure</li> </ul>
<b>Mitigation</b>	<ul style="list-style-type: none"> <li>• Forest recovery: \$1.82 million</li> <li>• Stormwater management</li> <li>• Protection/management of remaining woods</li> </ul>	<ul style="list-style-type: none"> <li>• Forest recovery: \$1.13 million</li> <li>• Stormwater management</li> <li>• Replace tennis courts/ rink (\$2.1 mill); break ground on new before closure of old</li> <li>• Protection/management of remaining woods</li> </ul>	<ul style="list-style-type: none"> <li>• Stormwater management</li> <li>• Replace tennis courts/ rink (\$2.1 mill); break ground before closure</li> <li>• Visual impact mitigation: vegetation, building materials</li> <li>• Tree protection: sheer wall const., root pruning</li> <li>• Protection/ management of remaining woods</li> </ul>	<ul style="list-style-type: none"> <li>• Stormwater management</li> <li>• Replace tennis courts/rink (\$2.1 mill); break ground on new before closure of old</li> <li>• Visual impact mitigation: setback, vegetation, building materials</li> </ul>

**Table 4b. Summary Evaluation Matrix for Practice Facility Alternative Sites**

	<b>Woods Site</b>	<b>Washington St. Perpendicular</b>	<b>Washington St. Skewed</b>	<b>Washington St. Parallel</b>
<b>Summary of costs/benefits, advantages/disadvantages</b>	<ul style="list-style-type: none"> <li>• 6% less costly than other sites</li> <li>• Preferred site by athletics</li> <li>• Major impacts on north Woods and 117 trees &gt; 10” DBH, 28 trees &gt; 24”, 4 trees &gt; 40”</li> <li>• Minimal disruption of existing activities, e.g., tennis, roller hockey</li> <li>• Visually positive for athletics, small visual impact on built environment, major impact on natural aesthetic</li> <li>• Negative impact on image and reputation of university</li> </ul>	<ul style="list-style-type: none"> <li>• 11% more costly than woods site and 4% more than parallel design</li> <li>• Likely removal of 37 trees &gt; 10” DBH, 15 trees &gt;24”, 4 trees &gt;40”</li> <li>• Impact on north Woods far less than woods site</li> <li>• Required replacement of tennis courts/rink before closure</li> <li>• Potential visual impact</li> <li>• Somewhat less negative impact on university image and reputation than woods site but more positive if large trees protected</li> </ul>	<ul style="list-style-type: none"> <li>• Costs not estimated but likely between Perpendicular and Parallel options</li> <li>• Compromise plan</li> <li>• No significant trees in footprint, but critical root zone of 8 trees &gt; 24” DBH, 4 trees &gt;35” in setback within 50’ of footprint</li> <li>• Required replacement of tennis courts/rink before closure</li> <li>• Potential visual impact</li> <li>• Possible positive impact on university image and reputation if large trees protected</li> </ul>	<ul style="list-style-type: none"> <li>• 6% more costly than woods site but 4% less costly than perpendicular design;</li> <li>• Preferred site by Woods advocates;</li> <li>• Minor impacts on woods and trees;</li> <li>• Required replacement of tennis courts/rink before closure</li> <li>• Possible impact on H-HBC parking</li> <li>• Required football gameday pedestrian passage</li> <li>• Most visual impact on campus built environment</li> <li>• Positive impact on university image and reputation by avoiding woods</li> </ul>

Note: see body of report and appendices for more detail, including the Biohabitats report, results of surveys and emails, and resolutions. Also see on-line petitions:

<http://www.ipetitions.com/petition/vtstadiumwoods/>

<http://www.ipetitions.com/petition/save-virginia-tech-roller-hockey-rink-and-tennis/>

**Summary of Site Evaluation**

The Woods site is estimated by Facilities to be 6-11% less costly than the Washington St. options, is the most suitable for Athletics, and does not impact the campus built environment nor disrupt current campus uses except for the Woods. However, it has a significant impact on the north Stadium Woods, with a 2.5-3 acres impact, removal of 117 trees >10” DBH (diameter at breast height) including 28 trees larger than 24” DBH and as many as 9 estimated to be older than 300 years. In addition, it would essentially bisect the remaining north woods from the south woods ecosystem. The Biohabitats study calculated the ecological land suitability index (LSI) for this site at 31 (the higher the value the less suitability the site is for development). This site has been the subject of significant public and campus criticism, with 97% of comment emails, campus and town resolutions, and other public statements and demonstrations opposing this site for the facility. Less than 13% of campus random survey respondents favored this site. Many who commented and responded to surveys believe building the facility on this site would damage the university’s image and reputation as a green university and also damage relations with many alumni and community members.

**The Washington St. site** was the placeholder site for the facility in the Master Plan. There are three possible orientations on this site. All orientations would require closure and replacement of the 12 tennis courts and the roller hockey rink. Users of these facilities want siting, funding, and construction of replacement facilities prior to their closure. In addition, any Washington St. facility orientation and design must provide sufficient walkway passage for football game-day passage to Lane Stadium Gate 7.

The Washington St. **Parallel Orientation** of the Master Plan would avoid the woods and is labeled the No Woods-Impact alternative preferred by the Stadium Woods advocates. Biohabitats' LSI score for this site orientation is 7. Since this option would not impact the Woods, many who commented and responded to surveys believe a decision for this site and design would gain the university a positive reaction from campus, town and alumni constituencies based on the expected ecological preservation and protected social importance of the Woods. Although it is not preferred by Athletics, the site and orientation are acceptable if the facility can be built with a satisfactory design within a reasonable budget. However, the Parallel Orientation presents design challenges associated with a 400' long building along Washington St. Potential visual impacts could potentially be mitigated with a setback from the street, landscaping, and design materials.

The Washington St. **Perpendicular Orientation** was developed as a compromise option that could relieve the design challenges and reduce the impacts on Stadium Woods of the Woods site. Only 0.8 acres is impacted by this orientation compared to 2.5-3.9 for the Woods site. The 208' street face of this orientation would provide more design options than the Parallel Orientation. This site orientation would impact the northern portion of the north Woods. Although this woods area has been impacted before and contains a significant number of invasive locust trees, it also has 15 large oaks larger than 24" DBH that would likely be impacted, including tree #1 estimated by Biohabitats to be 450 years old. The Biohabitats Land Suitability Index (LSI) score for this option is 28.

The Washington St. **Skewed Orientation** was developed to try to reduce the tree impact of the Perpendicular Orientation while retaining design options. The appeal of this option is that the building footprint does not include any significant trees, although the critical root zone of 8 oaks larger than 24" DBH, five of which are larger than 35" DBH are within 50' of the building footprint. However, it is possible all or many of these trees could be preserved by additional rotation of the orientation and/or mitigation measures using sheer-wall construction practices to reduce the impact setback and tree root pruning by certified arborist in advance of construction. Since this option was developed late in the Committee's process, no cost estimates and land suitability index have been prepared for this option, but they are likely to fall between the values for the Parallel and Perpendicular options.

**Table 5. Evaluation Matrix for Cassell Coliseum Parking Lot Site and No-Build Option**

	<b>Cassell Coliseum Lot</b>	<b>No Build Option</b>
<b>Summary of costs/benefits, advantages/disadvantages</b>	<ul style="list-style-type: none"> <li>• Major impact on critical parking</li> <li>• No impact on woods</li> <li>• Costs not estimated</li> <li>• Opportunity cost for future parking garage</li> <li>• Less suitable for Athletics teams and donors</li> <li>• Discussed and dropped from committee's detailed consideration</li> </ul>	<ul style="list-style-type: none"> <li>• No impact on woods</li> <li>• No cost</li> <li>• Foregone benefits of facility for athletic team competitiveness and recruiting</li> <li>• Discussed and dropped from committee's consideration</li> </ul>
<b>Costs of development, construction, mitigation</b>	<ul style="list-style-type: none"> <li>• Not estimated</li> <li>• Parking relocation costs</li> </ul>	<ul style="list-style-type: none"> <li>• None</li> </ul>
<b>Suitability for Athletics</b>	<ul style="list-style-type: none"> <li>• Not suitable due to Athletics logistics (e.g., street crossing) and Impact on prime donor tailgate parking</li> </ul>	<ul style="list-style-type: none"> <li>• Not suitable due to forgone benefits of facility for athletic team competitiveness and recruiting</li> </ul>
<b>Impacts on old growth ecosystem and trees (Biohabitats study, Facilities analysis)</b>	<ul style="list-style-type: none"> <li>• None</li> </ul>	<ul style="list-style-type: none"> <li>• None</li> </ul>
<b>Disruption of current and prospective uses</b>	<ul style="list-style-type: none"> <li>• Critical parking for faculty, students and student services</li> <li>• Forgone opportunity for future parking garage</li> </ul>	<ul style="list-style-type: none"> <li>• None</li> </ul>
<b>Design compatibility with campus built environment</b>	<ul style="list-style-type: none"> <li>• Scale of building large, but in viewshed of large Cassell and Lane and same as future garage</li> </ul>	<ul style="list-style-type: none"> <li>• No impact</li> </ul>
<b>Effects on University image and reputation:</b>	<ul style="list-style-type: none"> <li>• Favorable among woods advocates</li> <li>• Probably unfavorable among some athletic fund donors</li> </ul>	<ul style="list-style-type: none"> <li>• Negative impact from football and other athletic team advocates</li> <li>• Few respondents in emails and surveys questioned the need for the facility and most focused on its site</li> </ul>
<b>Constituencies' perspectives:</b>	<ul style="list-style-type: none"> <li>• This alternative not included in random survey</li> <li>• Some email comments recommended this site to avoid impact on the woods</li> </ul>	<ul style="list-style-type: none"> <li>• This alternative was not included in random survey</li> <li>• Some email comments questioned the need for the facility</li> </ul>
<b>Mitigation</b>	<ul style="list-style-type: none"> <li>• Replace student parking proximate to health &amp; wellness and other student services facilities</li> </ul>	<ul style="list-style-type: none"> <li>• None</li> </ul>

### III. Technical Information Gathered

#### A. Detailed Cost Estimates

Table 6 presents the detailed results of Facilities Services estimate of project cost for three site options. A summary of these results was given in Table 2.

**Table 6. Indoor Athletic Training Facility Site Cost Projections: Three Site Options**

Item	WASHINGTON STREET SITE PARALLEL OPTION		WASHINGTON STREET SITE PERPENDICULAR OPTION		STADIUM WOODS SITE OPTION	
	Total Project Budget	Percentage of Budget	Total Project Budget	Percentage of Budget	Total Project Budget	Percentage of Budget
1. Acquisition	\$ -	0.00%	\$ -	0.00%	\$ -	0.00%
2. Construction	\$ 15,301,000	59.40%	\$ 15,301,000	57.07%	\$ 14,728,000	60.86%
3. Sitework and Utilities	\$ 3,045,000	11.82%	\$ 3,045,000	11.36%	\$ 2,859,000	11.82%
4. A/E Fee Contract	\$ 592,000	2.30%	\$ 592,000	2.21%	\$ 577,000	2.38%
5. Furnishings and Equipment	\$ 872,000	3.39%	\$ 872,000	3.25%	\$ 839,000	3.47%
6. Construction Change Orders	\$ 734,000	2.85%	\$ 734,000	2.74%	\$ 703,000	2.91%
7. Project Inspection	\$ 324,000	1.26%	\$ 324,000	1.28%	\$ 304,000	1.26%
8. Other Soft and Hard Costs	\$ 4,892,000	18.99%	\$ 5,922,000	22.09%	\$ 4,188,000	17.31%
<b>Totals</b>	<b>\$ 25,760,000</b>	<b>100.00%</b>	<b>\$ 26,809,000</b>	<b>100.00%</b>	<b>\$ 24,198,000</b>	<b>100.00%</b>

Summary						
A. Construction Contract	\$ 18,346,000	71.22%	\$ 18,346,000	67.24%	\$ 17,587,000	72.68%
B. Construction Costs (Not In Contract)	\$ 4,418,000	17.15%	\$ 5,900,842	21.83%	\$ 3,727,000	15.40%
C. All Soft Costs	\$ 2,124,000	8.25%	\$ 2,166,000	7.94%	\$ 2,045,000	8.45%
D. Furnishings and Equipment Costs	\$ 872,000	3.39%	\$ 872,000	3.20%	\$ 839,000	3.47%
<b>E. Total Budget</b>	<b>\$ 25,760,000</b>	<b>100.00%</b>	<b>\$ 27,284,842</b>	<b>100.00%</b>	<b>\$ 24,198,000</b>	<b>100.00%</b>
Total Non-Construction Contract Costs	\$ 7,414,000	28.78%	\$ 8,938,842	32.78%	\$ 6,611,000	27.32%

OTHER SOFT COSTS						
Project Management						
Project Administration Costs	\$ 377,000	1.46%	\$ 400,000	1.47%	\$ 353,000	1.46%
Project Controls:						
Cost Estimates	\$ 14,000	0.05%	\$ 14,000	0.05%	\$ 14,000	0.06%
Soil Erosion/SWM Review & Inspection	\$ 83,000	0.32%	\$ 83,000	0.30%	\$ 77,000	0.32%
Building Official Review & Inspection	\$ 39,000	0.15%	\$ 39,000	0.14%	\$ 39,000	0.16%
Soil Borings and Geotech	\$ 42,000	0.16%	\$ 42,000	0.15%	\$ 40,000	0.17%
Testing	\$ 292,000	1.13%	\$ 292,000	1.07%	\$ 292,000	1.21%
A/E Supplemental:						
A/E Change Orders	\$ 52,000	0.20%	\$ 52,000	0.19%	\$ 50,000	0.21%
A/E Reimbursables Outside of Contract	\$ 11,000	0.04%	\$ 11,000	0.04%	\$ 10,000	0.04%
Other Consultant Needs						
HVAC Commissioning	\$ 154,000	0.60%	\$ 154,000	0.56%	\$ 148,000	0.61%
Exterior Envelope Consultant	\$ 77,000	0.30%	\$ 77,000	0.28%	\$ 74,000	0.31%
Special Project Costs						
Moving	\$ 67,000	0.26%	\$ 67,000	0.25%	\$ 67,000	0.28%
<b>Total Other Soft Costs</b>	<b>\$ 1,208,000</b>	<b>4.69%</b>	<b>\$ 1,231,000</b>	<b>4.51%</b>	<b>\$ 1,164,000</b>	<b>4.81%</b>

OTHER HARD COSTS BY OWNER/OTHERS						
CNS	\$ 148,000	0.57%	\$ 148,000	0.54%	\$ 148,000	0.61%
Elec. Serv.	\$ 153,000	0.59%	\$ 153,000	0.56%	\$ 147,000	0.61%
Native Stone	\$ 718,000	2.79%	\$ 566,000	2.07%	\$ 359,000	1.48%
Fire Alarm Conn.	\$ 3,000	0.01%	\$ 3,000	0.01%	\$ 3,000	0.01%
Fire Safety Equip.	\$ 13,000	0.05%	\$ 13,000	0.05%	\$ 13,000	0.05%
CNS (cabling)	\$ 449,000	1.74%	\$ 449,000	1.65%	\$ 449,000	1.86%
Internal Work Orders	\$ 28,000	0.11%	\$ 28,000	0.10%	\$ 26,000	0.11%
Forest Recovery	\$ -	0.00%	\$ 1,130,000	4.14%	\$ 1,820,000	7.52%
Tennis Courts Replacement (10 Total)	\$ 2,100,000	8.15%	\$ 2,100,000	7.70%	\$ -	0.00%
Other Miscellaneous Costs	\$ 72,000	0.28%	\$ 101,000	0.37%	\$ 59,000	0.24%
<b>Total Other Hard Costs</b>	<b>\$ 3,684,000</b>	<b>14.30%</b>	<b>\$ 4,691,000</b>	<b>17.19%</b>	<b>\$ 3,024,000</b>	<b>12.50%</b>

PROJECT METRICS						
Project Budget	\$ 311.49	/GSF	\$ 324.17	/GSF	\$ 292.60	/GSF
Construction Budget	\$ 221.84	/GSF	\$ 221.84	/GSF	\$ 212.66	/GSF

COST PROJECTION RANGE BASED ON 20% FLUCTUATION						
Base Budget Projection	\$ 25,760,000	\$ 26,809,000	\$ 24,198,000			
Base Budget Projection + 20%	\$ 30,912,000	\$ 32,170,800	\$ 29,037,600			

Source: Facilities Services, April 2012

## **B. Summary of Biohabitats Ecological Study**

The Committee relied heavily on the independent assessment conducted by Biohabitats, Inc. in evaluating the ecological value of the alternative sites and thus the ecological costs of siting the facility on each location. Biohabitats has considerable expertise and experience in evaluating urban forests and applied two methods appropriate to such forests to quantify ecological value, the Land Suitability Index (LSI) and an in-house forest condition scoring method. The LSI score includes stream, wetland, groundwater, geomorphology, vegetation, landscape ecology and wildlife habitat metrics. The forest condition scoring tool includes measures of species diversity, stand structure and composition, regeneration potential, presence of non native invasive species, disease and proximity to other natural features such as water and other forests. Biohabitats also quantified carbon sequestration for two sites using the i-Tree model (see Appendix A).

Biohabitats assessed three locations using the LSI, Woods Site, Washington Street Parallel and Washington Street Perpendicular, in March, 2012. Biohabitats documented the old growth nature of the forest, noting that there are more than 250 large (i.e., > 20" diameter at breast height) trees in Stadium Woods, including 59 white oaks greater than 300 years of age. Siting the project on the Woods site would impact 36 large trees through direct removal (32 of the 36) or root damage. Siting the project on the Washington Street Perpendicular site would impact 17 large trees, 13 of which would be cut, including the "Colbert tree", estimated to be 450 years old. Biohabitats did not assess the Washington Street Skewed location, but the Committee determined that siting the project here would impact 4 trees (2 severely), all through root zone impacts, unless site rotation and/or construction practice and tree root pruning mitigation are employed.

The assessment by Biohabitats indicated that none of the alternative locations have high value with respect to streams, wetlands, groundwater or geomorphology. Differences lie instead in vegetation and wildlife attributes, and these are considerable. The total score for Washington Parallel was 7, for Washington Perpendicular 28 and for Woods Site 31. The low score for Washington Parallel reflects the fact that it does not impact Stadium Woods, and the most significant vegetation impacted (a row of white pines) has very little natural resource value. Although Washington Perpendicular impacts less forest than the Woods Site, the ecological value of the site is still high due to the old growth nature of the forest there.

Biohabitats applied their forest condition scoring tool only to the Wood site, but assessed all of Stadium Woods, not just the proposed facility location. One unanticipated (by the Committee) finding of the study was the considerable variation in condition within Stadium Woods. Specifically the northern section of the Woods that includes the proposed site, estimated as 6 acres in size by Biohabitats, has a much higher presence of invasive species than the southern section. It appears that shading from Lane Stadium has inhibited invasion by exotic species in the southern section, estimated as 7.75 acres. This difference was reflected in the forest condition scoring: the northern section received a score of 24 and the southern section 30. (Note that these scores are completely different from the LSI scores above, and should not be compared to them.) These scores rank in the middle of the range for this forest index. The scoring confirms the old growth nature of Stadium Woods in forest structure, presence of significant trees (e.g., 59 white oaks > 300 years of age) and regeneration among other things, and it is because of these attributes that the scores are as high as they are. They are not higher because of the presence of invasive species, which accounts for the lower score of the northern section, as well as their isolation from other forests and water resources,

and their small size. Another important finding is that were the Woods site used, the northern section would be cut off from the southern section, dividing Stadium Woods into two fragments (Figure 2). This would exacerbate negative effects of isolation and small fragment size. Biohabitats recommended that a management program that includes especially control of invasive species be instituted Stadium Woods. Such action would elevate forest condition scores.

It was not possible for Biohabitats to fully evaluate wildlife values of Stadium Woods, which change seasonally, due to the short study period. Nevertheless some direct assessments were possible. Lack of water limits wildlife value, whereas the large acorn crops produced by the mature trees have very high wildlife value. Lack of damage from deer browsing was a surprise. The absence of deer is a benefit of isolation in an urban environment and is an extremely important factor in enabling the regeneration necessary to maintain old growth structure. Additional indirect inferences can be made. Old trees contain many more natural cavities than young ones, and therefore Stadium Woods likely has very high value for cavity-dwelling wildlife, such as cavity-nesting birds. It is especially significant that cavities in old oaks such as those found in Stadium Woods are preferred roosting sites for the endangered Indiana bat. As Biohabitats noted, The U.S. Fish and Wildlife Service would have to be consulted over the possible presence of this species before the project could proceed on the Woods site. The small size and isolation of Stadium Woods limits the types of species that could maintain viable populations on site, but it could have very high value for mobile species that acquire only a portion of their resources there. For example it appears to be a valuable stop-over location for migratory birds, judging from the impressive number of species (particularly canopy species) recorded there.

Using the i-Tree model Biohabitats calculated that the woodland in the Woods site currently stores 133 tons of carbon and sequesters an additional 4.6 tons per year. Biohabitats estimated that the Washington parallel site stores 26 tons of carbon and sequesters an additional 0.9 tons per year.

### **C. Other ecological data and information**

The New River Valley chapter of the Virginia Master Naturalists and the New River Valley Bird Club provided information about plants and birds recorded in Stadium Woods. An impressive variety of migratory birds has been observed, suggesting Stadium Woods is an attractive stopover site for birds passing through the area. The New River Valley Bird Club has documented over 55 species of birds that frequent the Woods. Birds observed in winter generally are winter residents typical of suburban habitats in the region, with the exception of the Red-headed Woodpecker, rare in the area but known to be strongly associated with oaks. Information about breeding birds in Stadium Woods is limited, but at least one uncommon species in urban settings, the Cooper's Hawk, nests in Stadium Woods.

### **D. Summary of Testimonials on Uniqueness of Old Growth Remnant**

John Seiler, Alumni Professor of Forestry and one of the principal advocates of protecting Stadium Woods, gathered data and testimonials from old growth experts to support the case that this stand of trees is unique (Seiler, 2012). He cites a 1993 inventory of the southeastern U.S. that found about 425 old growth sites across the region, totaling only one-half percent of the total forest area. Seiler believes the single best reference for old growth sites in the east is the on-line publication *Old growth in the East: A Survey* (Davis 2006). This document highlights a woodland found on the

campus of Sweet Briar College: “Sweetbriar College White Oak Woods (Amherst County): on a flat ridge owned by the college, approximately 10 acres of White oak-mixed hardwoods-mixed herb community in which most of the dominant trees have dbhs (diameters at breast height) of 30 to 36 inches.” Seiler notes that the trees in Sweetbriar College’s woodland are considerably smaller than those found in Stadium Woods, yet they have been preserved and highlighted as a unique asset to their campus.

Seiler asked Neil Pederson, a forest ecologist and old growth expert from the Tree Ring Laboratory, Lamont-Doherty Earth Observatory at Columbia University, to comment on Stadium Woods.

Pederson wrote on January 25, 2012:

“The uniqueness of this stand ... is that it is so easily accessible to so many people. Most of the old-growth forests on the list I sent to you are found in rugged or inaccessible areas. Hiking into Sipsey Wilderness in Alabama was not too easy. So, the value here is that, with good, environmentally-conscious development, those with limited mobility can get a sense of awe about what mature forests look like. This has to be a rare thing in upland areas. The only areas I am familiar with that give people with limited access to mature forests are in national parks or wetland forests (Four Holes Swamp, SC; Congaree National Park, SC; Everglades; I would bet the Okefenokee has something similar). But because many, if not most, old white oak forests near human settlement were cut, you might have a truly rare piece of property... The best place that I just learned about that sounds similar might be the Murphy Tract in West Virginia”

In addition, Seiler asked Lawrence Tucei, the Live Oaks Project Director for the Native Tree Society, to comment on Stadium Woods, which he did on January 27, 2012:

“Areas with old trees such as these should be protected. There are many White Oaks in North America in the 50 – 70 year old range but the 200-500 year old trees are extremely rare.”

Seiler believes that in comparison to other old growth white oak in the east, Stadium Woods may well be the single largest collection of old white oak.

- The Murphy Tract contains only 21 white oaks over 340 years old (<http://www.ldeo.columbia.edu/~adk/oldlisteast/Spp/QUAL.html>). Stadium Woods with 56 trees over 36 inches in diameter may contain many more than this.
- Dysart woods in Ohio, which contains a white oak 51.6 inches in diameter (Stadium woods has 5 trees over 50 inches).
- Cook Forest State Park in Pennsylvania, which has a white oak listed at 44.3 inches in diameter; and Lilley Cornett Woods in Kentucky, which lists a 42 inch diameter white oak. A large number of trees in Stadium Woods fall into this size range.
- The on-line Eastern OLDLIST (<http://www.ldeo.columbia.edu/~adk/oldlisteast/>) is a database of ancient trees and their ages. The purpose of the list is to identify and highlight maximum ages for species in eastern North America. The list only contains well-verified or well-documented tree ages. The 13 oldest white oak trees listed on the Eastern OLDLIST range from 289 to 464 years with the average being 365 years. Many trees in stadium woods would easily fall into this list of some of the oldest white oaks in the U.S.

See Appendix C for Seiler’s paper.

#### IV. Responses to charge questions

**Evaluation questions:** The committee charge (Appendix A) included a list of questions to address. This section highlights key points with respect to each of these charge questions. More detail on certain aspects is provided elsewhere in this report. The committee's recommendations are based upon a consideration of the totality of the findings related to these charge questions. The answers below are framed in the context of the Woods site, as that was the site that triggered these questions.

##### 1. Evaluation of the ecologic, historic, academic, and social values of the proposed site and how these values would be impacted by the proposed facility

###### a. *Do the woods have significant intrinsic historic or natural value?*

- Stadium Woods is a unique remnant of old-growth forest, which is defined as a forest with heterogeneous age structure and diverse habitat structure for wildlife. This remnant is unique in size and quality for areas east of the Mississippi River according to old-growth forest experts. Woods site impact area is estimated to be about 3 acres or (22%) of 13.75 acres forest canopy and 2.5 acres (21%) of 11.8 acres forest understory; 100 trees >10" DBH would be removed plus an additional 17 trees with critical root zone (CRZ) impact might be severely damaged; 13 trees > 35" dbh, 5 trees >40", and 1 tree > 50" dbh would be impacted. Nine trees have a diameter of >39" dbh may be older than 300 years in the impact area. This impact area would not only take the trees as summarized above, but would destroy the habitat of wildlife that depend on the living and dead trees in the North Woods, and would result in a bisection of the North and South Woods.
- The entire Stadium Woods has 59 trees that may be older than 300 years, including as many as 9 (>39") in the Woods impact site.
- Wildlife habitat would be negatively impacted. In particular the Woods are unique for cavity-using wildlife, migratory birds, and possibly the endangered Indiana bat. More systematic surveys are needed to document bird and bat use, in particular knowledge is lacking on the diversity and abundance of nesting birds and roosting bats.
- At this point, it is believed that Stadium Woods is the only forest on campus of sufficient size, diversity, and age to be qualified as and have the natural value of an old growth forest; however, our knowledge of the diversity and age structure of other forest patches (i.e. Center Woods) is limited. Ancient trees dated have historic value. A 40-inch diameter white oak on the proposed facility impact area was measured at 346 years old. In the entire Stadium Woods, six trees are larger than 50 inch diameter, 59 white oaks are over 3 feet diameter. Biohabitats, Inc. dated tree #1 at 450 years old; these trees and the forest as a whole were recognized by many community respondents for their historic value.

###### b. *To what extent is the ecosystem found in these woods unique on the Virginia Tech campus?*

- Stadium Woods is thought to be the only remnant of old growth forest ecosystem on campus, although the Committee recognizes that this is unknown until more detailed studies are done on other woodlots
- Other large oaks on campus (at the Grove and Vet School) and elsewhere in Blacksburg are small collections of trees without the breadth of ecosystem services, diversity and

- habitat. Statements from old growth and large tree experts indicate that the VT white oak woodland is unique in Virginia and the eastern U.S. because of its area, size and age of trees, old growth characteristics, and proximity to and accessibility to people .
- The location of an old growth ecosystem is quite unique in in an urban environment, providing easy access to a land type that is usually located in remote areas.
- c. *How many and what age and species trees would be impacted by the current proposal? What is their current health and projected life?***
- Biohabitats Inc. estimated the trees to be impacted in the Woods site as follows: 100 trees >10" DBH would be removed plus an additional 17 trees with critical root zone impact might be severely damaged; 13 trees > 35" dbh, 5 trees >40", and 1 tree > 50" dbh would be impacted. Nine trees have a diameter of >39" dbh may be older than 300 years in the impact area.
  - Biohabitats Inc. described an overall healthy woods with a lifespan anticipated in perpetuity with some forest management, including removal of some non-native, invasive herbaceous plants. Some trees on the north edge of the forest have some signs of damage from being exposed on the edge, but the damage is not expected to result in mortality without further harm.
  - Additional information is provided in detail in Section III of this report (Technical Data and Information) and the BioHabitats Inc. report (Appendix B).
- d. *Is the area a unique bird sanctuary? If so, how would construction on a portion of the site impact birds that reside on the site or use the land for migration?***
- The Woods is a unique remnant of old-growth forest, and is thus a unique patch of forest for breeding, migratory, and wintering birds. There have been no systematic studies of birds in the Woods, so the importance of this forest patch, relative to others, in the population dynamics and conservation of any one bird species cannot be described without further study. However, it is clear that this is a unique forest resource to birds in this region given reasons already described; it likely is a unique resource for nesting birds in particular, for example the Cooper's Hawk nests there whereas it usually nests in larger tracts of minimally-disturbed forest.
  - Old trees, and the dead trees that are allowed to remain in old forests, contain more cavities than young trees, thus Stadium Woods likely has a very high value for cavity-dwelling species, in particular cavity-nesting birds.
  - According to the New River Valley Bird Club, at least 55 bird species have been documented in the woods. This is likely an underestimate, an opinion supported by a recent observation by local birder, Clyde Kessler, of 37 species of birds in one hour of birding on May 18<sup>th</sup>, 2012.
  - Appendix R the Biohabitats study, given in Appendix B of this report, lists the bird species documented in the Woods.
  - Development of the Woods site would have an adverse effect on the forest habitat used by birds at this larger site; however, the extent of the negative impact cannot be fully understood without studying individual populations and their dynamics in the larger region.

*e. Is this a unique publically available/accessible old growth urban woodland in the corporate limits of the Town of Blacksburg?*

- The Woods is a highly unique, highly accessible remnant of old-growth forest. It is easily accessible by faculty, staff and students at Virginia Tech as well as residents in the Town of Blacksburg.
- Numerous respondents to our email and surveys highlighted the accessibility of this unique forest patch as incredibly important. It is used not only for recreation, meditation and nature enjoyment by diverse constituents, but also by Virginia Tech classes and students (in and outside of classes). Numerous faculty respondents recognized that in the increasingly tight budget climate, having a forest and wildlife resource in walking-distance to classrooms and labs is incredibly valuable and increasingly significant as funds for transportation of students is increasingly-limited.

*f. Do the woods have special significance for campus or local community life?*

- Yes, the Woods have special significance for campus and community life. The Committee was honestly surprised at the strength of sentiment from diverse constituents on this issue. Extensive detail on the significance is found in Section V of this report. In brief summary, the Woods are significant for their intrinsic, non-utilitarian value, as well as for recreation, teaching, nature study, walking passage, and for seeking solitude. The historical value of the > 300 year old oak trees, including tree #1 estimated to be 450 years old, was frequently recognized as well.

*g. To what extent are the woods currently being used by the local and campus community?*

- Emails to the APFSEC and campus surveys documented both formal and informal uses of the Woods as already described (teaching, nature study, recreation, meditation, walking); details can be found in Section V.

*h. To what extent are the woods used as a teaching tool?*

- Classes in Forest Resources and Environmental Conservation (FOR 2214, 2324, 2414, 2984, 3354, 4454, 5374), Fish and Wildlife Conservation (FIW 2114, 2324), Landscape Architecture, Biology (BIOL 3204, 4404), and the Summer Upward Bound program
- ROTC Rappel Training, Ranger Company, and Bold Leader Challenge training programs (1000 student hours per week)

*i. Is there current research being conducted in the woods?*

- The Woods are currently informally studied by the Virginia Master Naturalists' VT chapter, but we did not document any formal research activities underway in the Woods. The Committee does recommend that relevant CNRE and COS faculty and classes consider more formally documenting future activities of laboratory and service-learning classes relevant to the Woods for the benefit of future users and planners.

**2. Evaluation of alternative sites for the practice facility as well as mitigation measures on the proposed site, and their relative costs and benefits, including development costs, athletic program implications, and academic, environmental, and social impacts.**

See Tables 4 and 5 for summaries of our evaluation of alternative sites and mitigation measures, costs and benefits, and trade-offs. Some additional details are provided below.

- a. *Would a building site that is not contiguous to Athletics' main facilities negatively impact student athletes in terms of NCAA limits on practice hours per week?***
- It is important for the indoor practice facility to be proximate to Jamerson locker rooms and medical facilities.
  - Proximity to the outdoor practice facilities is less important
  - It appears that the Woods and Washington Street sites being discussed by the committee are close enough to Jamerson locker rooms so that none would negatively impact NCAA limits on practice hours.
- b. *What other sites could serve the operational needs of the athletics program for this facility?***
- Washington Street site (placeholder in Master Plan) and Cassell Coliseum parking lot are both proximate to Jamerson and closer than Rector Field House to football practice fields.
  - The Woods site is preferred by Athletics over these other sites because of relative convenience to athletes (for Washington St. site) and required road crossing (for Cassell Coliseum parking lot site).
  - Other factors for athletics are that using the Washington Street Parallel site might inhibit access to Gate 7 of the football stadium, although this could be mitigated and using the Cassel parking lot site would result in loss of a premium tail-gating location for important donors to the University and athletics
  - Athletics has indicated that the Coliseum lot is not an acceptable site and it would not build the facility there. As a result, this site was dropped from further discussion although several Committee members felt that it should be considered if Athletics changed its view on this site
- c. *What are the benefits and costs of this and alternative sites including the intended beneficial use of the facility, its construction and mitigation costs, and its environmental, academic, and social impacts?***
- See Tables 4 and 5 that compares the sites considered.
  - The range of benefits and costs/impacts is diverse and reflects the range of values associated with this case. The Committee's challenge has been to evaluate and compare these conflicting values. These values include:
    - The need for and benefits of this facility for use by several athletic programs to enhance quality practice time and performance. No one on the committee has questioned the need for this facility.
    - The relative benefits of the woods site to athletic programs compared to alternative sites including costs, convenience, aesthetics, safety, student athlete recruitment, donor expectations, and others.
    - The values and benefits associated with the old growth woodland including uses for teaching, research, and recreation; unique historical value; community ecological value; environmental benefits for stormwater management and urban biodiversity; carbon dioxide sequestration and pollution filtration; and others.
    - Aesthetics of facility building location and design. The Washington St. and Cassell lot locations are highly visible areas on campus while the woods site is not. Site and building design could mitigate visual impact.
    - Construction costs including site preparation, overburden removal, rock removal, and others. Preliminary cost estimates provided to the Committee by Facilities indicated the

Woods site may be the lowest cost site, about \$1.5 million or 6% less than the Washington St. Parallel site. These estimates carry a high level of uncertainty.

- Stormwater mitigation costs. The woods site is a designate Greenway and part of the stormwater management plan to meet the university's MS4 permit requirements for the impaired Stroubles Creek. Construction on the site would require offsite stormwater and openspace measures to mitigate the conversion of the site from woods to impervious surface. Estimates of stormwater mitigation costs are included in cost estimates provided by Facilities.
- Opportunity costs and implications of the woods site and alternative sites including,
  - for the Washington St. site option, existing tennis courts and future student-related building;
  - for Cassell parking lot site, future parking garage and premier tailgating location; and
  - for Woods site, diminished opportunity as a natural laboratory, reduction of high quality old growth green/open space and ancient trees, and tree-planting mitigation costs.
- Adherence to the VT Master Plan. The Plan is developed through a public process and sets the vision and guidance for future physical development of the University. The 2006 Plan and 2009 update designate the woods area as an Environmental Greenway as well as an element of the University's stormwater management plan. This marks the first time Facilities has suggested building on a Plan-designated Environmental Greenway area.

***d. To what extent could minor site modification, sensitive construction practices, and other measures, mitigate the impacts of the proposed facility on the existing woods?***

- The proposed location of the facility footprint can only be slightly adjusted on the proposed Woods site due to constraints of existing practice fields and adjacent buildings .
- Design and construction sensitive to existing trees could possibly save some trees on the Woods site, but mitigation of impacts is limited.
- Mitigation of stormwater impacts of the facility on the Woods site are possible but require modification of the campus regulatory stormwater management plan and possibly additional stormwater management facilities.
- Mitigation of the tree loss would require significant tree planting but could not replace ancient trees or the old growth forest itself for a very long time (hundreds of years needed to see equivalent structure and diversity).
- Mitigation of tree impact on the Washington St. Skewed orientation could reduce tree loss through modifying orientation and using sheer-wall construction practices to further avoid trees and their critical root zone and/or tree root pruning methods conducted by a certified arborist at least one-growing season in advance of construction.

### 3. Assessment of the perspectives on the siting issue among various University and community constituencies.

In Section V of this report, we summarize in more detail the external comments and opinions provided to the APFSEC. Here, we briefly summarize key findings.

- Numerous university-related and external groups have passed resolutions with the intent to stop development of Stadium Woods and to designate its entirety as a conservation easement or otherwise protected area, these include (in order of passage from earliest to most recent), the Virginia Tech Arboretum Committee, Virginia Tech Faculty Senate, the Virginia Tech Commission on Student Affairs, the mid-Atlantic Chapter of the Ecological Society of America, the Virginia Chapter of the Sierra Club, the Virginia Tech College of Natural Resources and Environment Faculty Association, the Virginia Tech Student Government Association, the Environmental Coalition of Virginia Tech, and Blacksburg Town Council
- The vast majority of public input to the APFSEC opposed development in the Woods site; 97% of 538 emails to the committee opposed the Woods site, 93% of responses to the faculty/staff survey indicated the Woods are very important to the campus environment, and 84% of random survey comments agreed or agreed very much that old growth woodland should be preserved intact and building in the woods would diminish the university's commitment to sustainability.
- >9,000 individuals have signed the petition by the Friends of Stadium Woods with the intent to "save stadium woods." (see <http://www.ipetitions.com/petition/vtstadiumwoods/>). The Friends of Stadium Woods has a membership self-described as follows: "Friends of Stadium Woods is comprised of a hundreds of local, regional and national citizens comprising a diverse cross section of highly educated students, professors, professionals, retired professors and professionals, local business owners, local residents and supporters from many non-advocacy organizations including Master Gardeners, Master Naturalists, the VA Native Plant Society, the NRV Bird Club, National Garden Clubs and the World Resources Institute to name a few. Additionally we have supporters from professional advocacy groups including the Virginia Chapter of the Sierra Club, the local NRV and Roanoke chapters of the Sierra Club, and Virginia Forest Watch to name a few."
- 474 individuals signed a petition organized by the Virginia Tech Roller Hockey club with the intent to assure that if the Washington Street site is selected, the courts and rink be replaced prior to their colosure (see <http://www.ipetitions.com/petition/save-virginia-tech-roller-hockey-rink-and-tennis/>).

## V. Summary of external surveys and comment

The Committee was charged with assessing the perspectives of the campus and community constituencies about the siting issue. Because of the high level of public interest, it was decided to keep the committee deliberations private but to solicit comment and opinion through various means. These included a comment email address, an on-line survey open to any faculty and staff, and a random sample survey administered by the Center for Survey Research to gain a statistically valid measure of campus opinion. In retrospect, these measures were very effective.

### A. External email comments

The Committee established a comment email address to solicit outside opinion about the use and value of the Woods, and launched the address with the following announcement:

Virginia Tech has established an ad-hoc Athletic Practice Facility Site Evaluation Committee to develop recommendations for how the university can resolve the need for a critical athletics facility in close proximity to existing facilities while also being a good steward of our natural resources.

The Committee has established an e-mail address dedicated to comments from parties external to the committee. The committee welcomes comments that provide information and perspectives on the woods area, the proposed facility, and proposed and alternative sites. Specifically, the committee is interested in the following questions related to the local and campus community:

- Do the woods have special significance for campus or local community life?
- To what extent are the woods currently being used by the local and campus community?

All emails providing information on use of the woods area should include to the extent possible, the types of activities and number of people involved. All emails will be reviewed and considered part of the committee's deliberations.

The email address is [apfsec@vt.edu](mailto:apfsec@vt.edu). It will be open for comment until April 5. The APFSE Committee thanks you for your help with this important decision for the community.

The Committee received 538 emails from a mix of faculty, staff, students, alumni, football season ticket holders, community residents, and other friends of the University. All emails were read by the majority of the committee and were sorted into two categories:

- 524 (97.4%) recommend preserving the woods and building the facility elsewhere
- 14 (2.6%) recommend building the facility where it makes most sense to the athletic program or protects the tennis courts or roller blade hockey rink

Among the issues raised by those recommending preserving the woods:

- a. Use of the woods ranges from classroom teaching and research, to walking and biking, to passive recreation, reflection, and observation of birds and trees.
- b. "Use" is not the only value associated with old growth forest ecosystem; historical, ecological, wildlife habitat, and existence values were included in comments.
- c. This has become a high visibility issue for Virginia Tech and the decision will reflect on the University which has prided itself as a green, sustainable, Tree Campus USA university. Some Ut Prosim and Golden Hokie donors indicated they would reconsider their support of the university and athletic program if the facility were sited in the woods.

- d. This controversy has brought notice to this largely unnoticed campus resource and provides an opportunity to embrace it for its historic and natural value and promote it as a focal point of our green university. Many universities have Arboretums. Stadium Woods is our “de facto” Arboretum. We should make it official.

Among the issues raised by those recommending building where preferred by athletic programs:

- a. Only a portion of the woods would be taken for the facility and the remainder would be not harmed.
- b. Athletes should have the best facilities possible.
- c. Our athletic program is the pride of the University and the Town and should be promoted for the benefits it brings.
- d. Trees are replaceable, animals are adaptable, professors have a national forest to study
- e. Don't let a vocal minority or outside influences dictate its location
- f. Users of the hockey rink between the tennis courts and basketball practice facility wish their use of the rink be considered in the siting decision.
- g. The university could build the practice facility in the woods and enhance campus community use of the remaining woods with landscape and garden design.

Representative samples of the emails received are given in Appendix D.

## **B. Survey.vt.edu survey of faculty use of woods**

The Committee wants to get more information on the use of the Woods by faculty for teaching and research and also how faculty and staff valued the Woods as part of the campus environment. Responses were received from 148 faculty and staff.

Among the uses of the Woods for instructional purposes, respondents gave the following examples:

- Many forestry courses: FOR 2214, FOR 2324, FOR 2414, FOR 2984, FOR 3354, FOR 4454, FOR 5374
- Essential for Field Labs, such as FOR 2214 Intro to Land and Field Measurements (75 students in sections of 25; 3 weeks in semester in woods, 2.5 hrs per week per section),
- Forest inventory, stand dynamics, silviculture classes
- Science classes involving collecting samples and observing wildlife
- Art and drawing classes
- Appalachian hardwood ecology
- Used as a teaching forest with experiential learning exercises.
- ROTC and Corps of Cadets essential use of rappelling tower and use of Woods for military training exercises
- Summer environmental education and outreach programs, such as Upward Bound (2 classes each summer to 25 high school students)
- Ornithology classes

The survey also asked faculty and staff to indicate the extent to which they considered the Woods to be an important part of the university's environment: 138 of 148 respondents (93%) indicated the Woods are a very important part of the campus environment.

### C. Random sample survey of campus community

Since all of the information received from the comment email and faculty survey was voluntary and self-reported, the Committee desired to get a more statistically representative sample of campus opinion on the siting issue. The Committee arranged for the Center for Survey Research to conduct a random sample survey of faculty, staff, and students, including student-athletes to gauge perspectives from a broader population. The electronic survey was developed by a sub-group of the committee and administered by the CSR. Nearly 2000 responses were received.

The random sample of potential respondents was sent as email that described the siting issue and the purpose of the survey and invited the potential respondent to click on a link and go to the survey. The text below is from the invitation email:

Virginia Tech has established an ad-hoc Athletic Practice Facility Site Evaluation Committee to develop recommendations for how the university can resolve the need for a critical athletics facility in close proximity to existing facilities while also being a good steward of our natural resources.

Virginia Tech has a nationally recognized athletic program. Its football program ranks among the best in the country over the past two decades with 19 straight bowl appearances, a 76% winning percentage, and a nation's best 8 straight 10+ win seasons. The athletic program benefits the university's national recognition, student life, fundraising, and student admissions.

Virginia Tech is also a nationally recognized green university. Since the 2009 Climate Action Commitment and Sustainability Plan, the University has been recognized among the top 16 green universities by Princeton Review, received the Governor's Gold Award for Environmental Excellence, and has been Tree Campus USA awardee each year. Sustainability is a key commitment of the draft Strategic Plan, *Envisioning Virginia Tech 2012-2018*. This growing reputation benefits the university's reputation, student life, and student admissions.

The critical athletics facility is an indoor training facility to serve the football program and other athletic teams. This facility has been in the works for a decade, and the 2006-2012 VT Master Plan and 2009 update identifies the Washington Street tennis court area next to the basketball practice facility as a placeholder site.

The currently proposed site is adjacent to the football practice fields in the old growth woodland ecosystem, known as Stadium Woods, identified as an Environmental Greenway in the Master Plan. The proposed site and Washington Street site are shown on the accompanying map.

This woodland location would be ideal for Athletics and would hide this very large facility from main campus thoroughfares. However, the facility built on the woodland site would clear a portion of the forest woodland. The total Stadium Woods forest canopy measures about 15.5 acres, while its old growth forest understory is about 11.3 acres after deleting periphery paths and grassy areas. The exact extent of the impact area is uncertain, but the 2.1 acre building footprint plus a setback for fire lanes and stabilization of a 38 foot elevation cut into the woods would require clearing about 20% of the woods. The impact area includes at least 25 white oak trees greater than 30-inch diameter and eight white oaks 39-51-inch diameter estimated to be more than 300 years old.

This survey aims to gain the perspectives of a representative sample of Virginia Tech students, faculty and staff about this siting issue.

Given this introduction and a map showing the Woods and Washington St. sites, the survey included the following questions, formatted for simple on-line responses:

1. To what extent are you aware of this siting issue?  
(1 not aware...2 only heard of it...3 somewhat aware...4 quite aware...5 extremely aware)
2. Have you been in the old growth woodland area northeast of Lane Stadium (see map)? (Y/N)
  - 2.1 If yes, how often have you been in the woodland?  
(choose: once, a few times (<10), often (>10), regularly (1 per week))
  - 2.2 If yes, what have been your activities in the woodland?  
(choose from list (multiple responses okay): recreation, nature study, classwork, research, ROTC training, hiking, passage, other)
  - 2.3 To what extent would your enjoyment and value of the woodland be diminished if 2.5-3.5 acres were cleared and the facility were constructed there?  
(1=very little, 2=little, 3=somewhat, 4=much, 5=very much)
3. Have you used the tennis courts and/or hockey rink on Washington Street?  
(Y/N)
  - 3.1 If yes, how much?  
(choose: once or twice, a few times (<10), often (>10), regularly (1 per week))
  - 3.2 How important is it to keep the tennis courts and hockey rink in this location?  
(1 very low, 2 low, 3 moderate, 4 high, 5 very high)
4. How would you characterize your level of support of Virginia Tech athletics?  
(1 very low, 2 low, 3 moderate, 4 high, 5 very high)
5. To what extent do you agree or disagree with the following statements:  
(1 disagree very much...2 disagree...3 no opinion/don't know...4 agree...5 agree very much)
  - 5.1 This athletic practice facility should be built in the location that will most enhance the quality and competitiveness of VT athletic programs.
  - 5.2 Designated campus Greenway and the old growth woodland should be preserved intact as a campus and community resource.
  - 5.3 Clearing a portion of the Stadium Woods Greenway, a portion of its old growth forest ecosystem, and several 300-year-old oak trees to build the athletic practice facility would diminish the University's commitment to sustainability.
  - 5.4 This athletic practice facility should be built in a location and with a design that maximizes the aesthetics of the campus built environment.
6. Please rank these above five statements based on the relative importance and agreement you place on them. (1= highest importance/agreement to 4=lowest)
7. On which site would you prefer the facility to be built?
  - a. Stadium Woods site
  - b. Washington Street tennis court site
  - c. Don't know or undecided

Table 7 summarizes the responses overall and from subgroups: faculty/staff, students, faculty/staff living in Blacksburg (to get a measure of community opinion), students living on- and off-campus, and student-athletes.

**Table 7 APFSEC Random Survey Summary of Responses**

Question	Response	Overall	Faculty /Staff	Students	Fac/St Blacksburg	Students on-camp	Students off-camp	Student athletes
# Responses		1969	1164	653	683	221	442	26
Awareness of issue	Quite + Extremely	63%	65%	60%	72%	56%	64%	85%
Been in woods	Yes	81%	81%	81%	87%	79%	84%	81%
Woods experience would be diminished if facility built there	Much + Very Much	62%	75%	56%	71%	53%	58%	8%
Have used courts/rink	Yes	31%	27%	37%	33%	35%	38%	39%
Important to keep courts there	High + Very High	13%	9%	19%	11%	22%	17%	29%
Support of Athletics	High + Very High	54%	46%	69%	48%	69%	69%	96%
1. Site facility to enhance athletics	Agree Very Much	10%	7%	15%	6%	14%	16%	82%
2. Preserve woodland intact	Agree Very Much	65%	69%	58%	74%	54%	61%	8%
3. Building in woodland would diminish sustainability commitment	Agree Very Much	67%	69%	61%	74%	59%	64%	15%
4. Site facility to maximize campus aesthetics	Agree Very Much	21%	21%	23%	20%	18%	25%	19%
1. Site facility to enhance athletics	Importance Rank (1=top, 4=bottom)	3.06	3.19	2.82	3.23	2.79	2.83	1.83
2. Preserve woodland intact	Importance Rank (1=top, 4=bottom)	1.99	1.86	2.21	1.83	2.25	2.20	2.90
3. Building in woodland would diminish sustainability commitment	Importance Rank (1=top, 4=bottom)	2.16	2.13	2.22	2.12	2.28	2.18	2.80
4. Site facility to maximize campus aesthetics	Importance Rank (1=top, 4=bottom)	2.74	2.75	2.73	2.77	2.69	2.74	2.25
Prefer woods site		12.1%	9%	18%	9%	19%	17%	77%
Prefer tennis court site		68.4%	71%	64%	73%	60%	66%	19%
Don't know		19.4%	20%	18%	20%	20%	17%	4%

The overall response overwhelmingly favored protecting the Stadium Woods and building the facility at the Washington St. site. 67% “agreed very much” (another 17% “agreed”) with (2) that old growth woodland should be preserved intact and 65% “agreed very much” (another 19% “agreed”) with (3) that building in the woods would diminish the university commitment to sustainability; these statements were ranked 1<sup>st</sup> and 2<sup>nd</sup> in importance. 68.4% favored building on Washington St., only

12.7% of respondents favored the woods site. These results were similar across all subgroups with the notable exception of the 26 student athlete respondents, 77% of whom favored the woods site.

The raw data results of the random survey are given in Appendix F.

#### **D. Summary of Resolutions Adopted to Protect Stadium Woods**

Several resolutions and position statements were adopted by different campus governance units and local and regional organizations. The resolutions' requests are given below and the full resolutions (and "whereases") are given in Appendix G.

##### **Virginia Tech Arboretum Committee**

Position Statement, November 11, 2011:

"...Given that the unique character and benefits of this woodland would be impacted by construction of the proposed facility, the Arboretum committee urges the university to consider alternative construction sites or alternative facility designs that will avoid encroachment into the woodland and gladly offers to assist the university in exploring these alternatives."

##### **Virginia Tech Faculty Senate**

Resolution, December 13, 2011:

"Therefore, be it resolved, that the faculty Senate of Virginia Tech asks that the Office of the President and the Athletic Department of Virginia Tech stop all plans to develop stadium Woods. Additionally, be it resolved, that the faculty Senate of Virginia Tech asks that the Office of the President begin the process to designate Stadium woods as a permanently protected place."

##### **The Virginia Chapter of the Sierra Club**

Press release, March 19, 2012

"The Virginia Chapter Sierra Club supports the permanent protection of the old-growth forest on the Virginia Tech campus known as "Stadium Woods." We ask that the VT Athletic Department and the VT Board of Visitors build new athletic facilities elsewhere and provide a conservation easement for Stadium Woods so that it can remain an old-growth forest."

##### **Virginia Tech Commission on Student Affairs**

Resolution, April 5, 2012:

"Therefore, be it resolved, that the Commission on Student Affairs of Virginia Tech asks that the Office of the President and Athletic Department of Virginia Tech stop all plans to develop any facilities in Stadium Woods;

"Be it further resolved, that the Commission on Student Affairs of Virginia Tech supports the building of an athletic facility at another location, provided that existing student used facilities are replaced prior to or currently with demolition and remain accessible to on-campus students;

"Additionally, be it further resolved, that the Commission on Student Affairs of Virginia Tech requests that the Office of the President begin the process to designate Stadium Woods as a permanently protected place."

##### **Mid-Atlantic Chapter of the Ecological Society of America**

Resolution, April 14, 2012:

"Therefore, be it resolved, that the Mid-Atlantic Chapter of the Ecological Society of America asks that the Office of the President and the Athletic Department of Virginia Tech cease all plans to develop Stadium Woods.

“Additionally, be it further resolved, that the Mid-Atlantic Chapter of the Ecological Society of America asks that the Office of the President begin the process to designate the entirety of the present day Stadium Woods as a permanently protected place because of the value for research and education.”

#### **Virginia Tech Graduate Student Assembly**

Resolution, April 19, 2012:

“Therefore, be it resolved, that the Graduate Student Assembly of Virginia Tech asks that the Office of the President and Athletic Department of Virginia Tech stop all plans to develop Stadium Woods.

“Be it further resolved, that the Graduate Student Assembly of Virginia Tech supports the building of an athletic facility at another location, provided that existing student facilities are replaced prior to or currently with demolition and remain accessible to on-campus students;

“Additionally, be it further resolved, that the Graduate Student Assembly requests that the Office of the President begin the process to designate Stadium Woods as a permanently protected place.”

#### **Virginia Tech College of Natural Resources and Environment Faculty Association**

Resolution, April 27, 2012

“Therefore, be it resolved, that the College of Natural Resources and Environment Faculty Association of Virginia Tech asks that the Office of the President and the Athletic Department of Virginia Tech stop all plans to develop Stadium Woods.

“Additionally, be it further resolved, that the College of Natural Resources and Environment Faculty Association of Virginia Tech asks that the Office of the President begin the process to designate the entirety of the present day Stadium Woods as a permanently protected place.

#### **Virginia Tech Student Government Association**

Resolution, April 30, 2012:

“Therefore, be it resolved, that the Student Government Association of Virginia Tech asks that the Office of the President and the Athletic Department of Virginia Tech stop all plans to develop Stadium Woods.

“Additionally, be it further resolved, that the Student Government Association of Virginia Tech asks that the Office of the President begin the process to designate Stadium Woods as a permanently protected place.

“Additionally, be it further resolved, that the Student Government Association of Virginia Tech supports the general idea of the proposed athletic facility, and encourages the Office of the President and the Athletic Department of Virginia Tech to relocate it to an area that is less environmentally and ecologically sensitive while still serving the needs of the Athletics Department.”

#### **Blacksburg Town Council**

Resolution 5-A-12, May 8, 2012:

“Therefore, be it resolved that the Town Council of Blacksburg asks the Virginia Tech administration to work to find a more suitable location for this facility;

“Be it further resolved that the Town Council of Blacksburg asks the Virginia Tech administration to begin the process of formally designating Stadium Woods as a permanently protected site.

### **E. Summary of media reports, editorials, and letters to the editor**

Appendix H includes a list and Internet links to 15 media articles and editorials, about 30 published letters to the editor, and about 6 radio/TV news stories about the siting issue. Newspaper articles and on-line accounts in the Washington Post, Roanoke Times, Blue Ridge Outdoors, VT Collegiate Times, American Forests, The Chronicle of Higher Education, and other sources have raised the profile of this issue. Essentially all of the letters to the editor have supported protecting the Woods and moving the proposed site.

### **F. Synthesis of Perspectives of Constituencies**

This facility siting issue has generated as much interest and controversy as any in recent memory at Virginia Tech. The various constituencies of the University including governance units, administrators, faculty, staff, students, alumni, Town residents, and other friends of Virginia Tech have expressed their perspectives and opinions not only through the Committee's solicitation for comment via email and surveys, but also through on-line petitions, formal resolutions, media coverage, letters to the editor and campus demonstrations.

The Committee's request for email comments resulted in 538 responses, voluntary on-line survey of faculty yielded nearly 150 responses, and the random survey generated nearly 2000 responses from faculty, staff, and students. In addition, numerous letters were received by the President's Office and the Committee; at least eight resolutions or position statements supporting the Woods were passed by official campus committees, Blacksburg Town council, and regional environmental organizations; more than 9000 signed the "save Stadium Woods" on-line petition; and about 30 letters to the editor and 15 media stories raised awareness of the issue.

The message from these constituencies is clear:

- The overwhelming majority opposes siting the facility in Stadium Woods and requests the Woods be permanently protected.
- A decision to build in the proposed Woods site would likely be met by a significant negative reaction from campus and Town constituencies as well as attract regional and national attention.

Very few people have expressed opposition to building the facility at all; it appears the majority would support building the facility but in a location that does not encroach on the Woods. Two groups have expressed other views. Student athletes who responded to the random survey (n=26) supported (79%) building the facility in the Woods Site. And users of tennis courts and roller hockey rink on Washington Street request replacement facilities with their construction prior to closure of existing facilities, supported by a petition of more than 450 signatures.

### **References:**

- Biohabitats, Inc. 2012. Virginia Tech Forest Ecological Assessment. Prepared for Office of University Planning-Architecture. Prepared by Biohabitats, Inc., Baltimore, MD. May 16. 144 pp.
- Davis, M.B. 2006. Old growth in the east: A survey. Available online at: [www.primalnature.org/ogeast/survey.html](http://www.primalnature.org/ogeast/survey.html)
- Seiler, J. 2012. The History of a Proposed Indoor Training Facility and Stadium Woods. Unpublished paper. Dept of Forest Resources and Environmental Conservation, College of Natural Resources and Environment, Virginia Tech. February 14. 19 pp.

## Appendix A. Committee Charge and Membership



Sherwood G. Wilson

Vice President for Administrative Services  
248 Burruss Hall (0182)  
Blacksburg, Virginia 24061  
540/231-4416 Fax: 540/231-1401  
[www.vt.edu](http://www.vt.edu)

January 17, 2012

Dr. John Randolph  
Professor and Chair  
Urban Affairs and Planning (0113)  
101 Architecture Annex  
Virginia Tech  
Blacksburg, VA 24061

Dear John:

The community has expressed concern regarding a proposal to site the Indoor Athletics Practice Facility in the ROTC training area located in the portion of the woodland behind the football practice field. The area is located north of Lane Stadium on the south end of campus. We recognize this is an important issue for various constituency groups and want to be certain that all voices are heard. We value the input of the university and larger community in this important planning process. Accordingly, Dr. Steger asked me to establish a committee to ascertain the facts, evaluate the data on the proposed site and other potential sites, and assess the perspectives of various constituencies. Thank you for agreeing to chair the Committee. The list of Committee members and the constituency groups they represent are provided in an attachment to this letter. Hugh Latimer in the Office of University Planning will serve as a resource to the Committee.

The work of the Committee will begin immediately. This will be an operational committee charged with developing recommendations for how the university can resolve the need for a critical athletics facility in close proximity to existing facilities while also being good stewards of our natural resources. The recommendations should include the advantages and disadvantages of each site that is being considered by university planning staff. The Committee's recommendations should be delivered to me no later than June 1, 2012.

Among other factors, the Committee should consider the following questions:

- Do the woods have significant intrinsic historic or natural value?
- To what extent is the ecosystem found in these woods unique on the Virginia Tech campus?
- How many and what age and species trees would be impacted by the current proposal? What is their current health and projected life?
- Is the area a unique bird sanctuary? If so, how would construction on a portion of the site impact birds that reside on the site or use the land for migration?
- Is this a unique publically available/accessible old growth urban woodland in the corporate limits of the Town of Blacksburg?

*Invent the Future*

Dr. Randolph  
Page 2

- Do the woods have special significance for campus or local community life?
- To what extent are the woods currently being used by the local and campus community?
- To what extent are the woods used as a teaching tool?
- Is there current research being conducted in the woods?
- Would a building site that is not contiguous to Athletics' main facilities negatively impact student athletes in terms of NCAA limits on practice hours per week?
- What other sites could serve the operational needs of the athletics program for this facility?
- What are the benefits and costs of this and alternative sites including the intended beneficial use of the facility, its construction and mitigation costs, and its environmental, academic, and social impacts?
- To what extent could minor site modification, sensitive construction practices, and other measures, mitigate the impacts of the proposed facility on the existing woods?
- What are the perspectives on this siting issue among the various constituents of the university community, including students, faculty and staff, student athletes, athletic department representatives, Town residents, alumni, university patrons, and others?

I appreciate your service on this important Committee. I have selected members from a variety of constituency groups to promote an open review that allows for the gathering of information and data in an objective manner. I look forward to receiving the Committee's recommendations.

Sincerely,



Sherwood G. Wilson, Ph.D.  
Vice President for Administrative Services

- c: Charles W. Steger  
Mark G. McNamee  
Mike Coleman  
Jack Davis  
Larry Hincker  
Rich Sorensen  
Ed Spencer  
Jim Weaver  
Paul Winistorfer

## **INDOOR ATHLETICS PRACTICE FACILITY EVALUATION COMMITTEE**

### **Committee Chair:**

Dr. John Randolph, Professor and Chair of Urban Affairs and Planning, Member of the Energy and Sustainability Committee

### **Committee Members:**

Dr. Eric Wiseman, Associate Professor and Extension Specialist, Urban Forestry and Chair of the Arboretum Committee

Dr. Sarah Karpanty, Assistant Professor, Wildlife Biology and President Elect, VT Faculty Senate

Ms. Kara Dodson, Student, College of Natural Resources and Environment, President of the Virginia Tech Environmental Coalition and student representative to the Energy and Sustainability Committee

Dr. Jeff Walters, Harold Bailey Professor of Biological Sciences

Ms. Leigh LaClair, Deputy Chief Facilities Officer

Ms. Maxine Lyons, President of the Staff Senate and Staff Representative to the Board of Visitors

Mr. Dean Bork, Associate Professor, Landscape Architecture

Ms. Emily Wilkinson, Vice President of the Student Government Association

Mr. Tom Gabbard, Associate Director of Athletics, Internal Affairs

Dr. Art Keown, Department Head, Finance, Insurance and Business Law and Chair of the Athletics Committee

Dr. Larry Killough, KPMG Professor, Accounting and Information Systems and Faculty Representative to the NCAA

Mr. Chris Wise, Director, Student Affairs

Mr. Glenn Reynolds, Reynolds Architects Incorporated (Local Business Owner)

Mr. Rick DiSalvo, Town of Blacksburg Citizen, Vice President and Chief Operating Officer, Draper Aden

**Appendix B. Biohabitats “Virginia Tech Forest Ecological Assessment”**

See electronic file.

Hard copy included separately at end of report

**Appendix C.**

**Seiler, J. The History of a Proposed Indoor Training Facility and Stadium Woods**

Not including Appendices 2-6 which are included elsewhere in this report.

See electronic file.

## Appendix D. External Email Summary

1. 538 emails were received from a mix of faculty, staff, students, alumni, season ticket holders, community residents
  - a. 524 (97.4%) recommend preserving the woods and building elsewhere
  - b. 14 (2.6%) recommend building the facility where it makes most sense to the athletic program or protects the tennis courts or roller blade hockey rink
  
2. Among the issues raised by those recommending preserving the woods:
  - a. Use of the woods ranges from classroom teaching and research, to walking and biking, to passive recreation, reflection, and observation of birds and trees.
  - b. “Use” is not the only value associated with old growth forest ecosystem; historical, ecological, wildlife habitat, and existence values were included in comments.
  - c. This has become a high visibility issue for Virginia Tech and the decision will reflect on the University which has prided itself as a green, sustainable, Tree Campus USA university. Some Ut Prosim and Golden Hokie donors indicated they would reconsider their support of the university and athletic program if the facility were cited in the woods.
  - d. This controversy has brought notice to this largely unnoticed campus resource and provides an opportunity to embrace it for its historic and natural value and promote it as a focal point of our green university. Many universities have Arboretums. Stadium Woods is our “de facto” Arboretum. We should make it official.
  
3. Among the issues raised by those recommending building where preferred by athletic programs:
  - a. Only a portion of the woods would be taken for the facility and the remainder would be not harmed.
  - b. Athletes should have the best facilities possible.
  - c. Our athletic program is the pride of the University and the Town and should be promoted for the benefits it brings.
  - d. Trees are replaceable, animals are adaptable, professors have a national forest to study
  - e. Don’t let a vocal minority or outside influences dictate its location
  - f. Users of the hockey rink between the tennis courts and basketball practice facility wish their use of the rink be considered in the siting decision.
  - g. The university could build the practice facility in the woods and enhance campus community use of the remaining woods with landscape and garden design.

Insert samples of 44 or 538 responses recommending preserving the woods, 7 or 14 responses recommending building in the Woods or raising other issues.

## Samples (44 of 524) responses recommending preserving the woods:

Mar 7:

Your work with the community (both Tech & the larger Blacksburg community) is commendable. This is a very difficult process I'm sure. I'm submitting my opinion, as I'm sure many others are, to let you know the perceptions of this community member, and how 'inventing the future' can include preserving the past from which we learn so much.

I'm not a biologist nor ecologist, but one reason we chose to live here was the access to wonderful outdoor spaces (in my opinion, integral to our well being).

Virginia Tech is a lovely campus fitted into a lovely town with a very rich and long history. Preserving stadium woods not only instills the importance of the rich history of this community, but also compels visitors to learn more about Virginia Tech and its response to creating and maintaining a livable and viable university campus. (There are numerous studies on the importance of open/green space & its importance to well being, learning and perception of livable space)

There are other options in terms of placing a new building on campus, which I understand is needed for growth, but for a University with top engineering, bio-engineering, landscape architecture and arts programs, let's use our innovation at creating a solution that moves us forward without destroying our past. Thank you for your consideration,

Mar 20:

My wife and I have worked at VT for 8 and 6 years respectively, through great times and the tragic, and more tragic, and more.....VT needs to do the right thing and save trees which were present when buffalo and native Indians passed beneath. The football teams will come and go, but those trees represent thousands of years of evolution which I believe the students and FB teams of the future will be better off for by just walking under that historic canopy. thank you.

Mar 20:

I am writing in response to your interest in hearing from those who would like to register their opinions about a proposed indoor practice facility occupying a portion of the Stadium Woods. First let me state that I am fully in support of the facility being funded and built. However it seems to me that one of the many things that makes Virginia Tech special is the abundance of wooded areas, the color that they bring to the campus, the respect for life that they house, the sensitivity for their co-existence on the campus, and to some, their historical value. I would very much like to impress upon those making the decision my desire that an alternate location be rigorously examined.

I am a principle in one of the country's largest architectural design firms, and see where everyday issues are brought up on projects that seem insurmountable. My experience has taught me to listen to opinions and concerns thoughtfully, and by doing so, with some hard work and creative thinking, solutions can be discovered that serve many of the stakeholders, which are quite often better solutions for the end user, in this case, the athletic teams and coaches that will use the facility.

Let keep Virginia Tech a special place, not only in the way we teach, education and invent the future, but in the way we approach controversial and difficult issues. These trees can never be replaced, and the perception that their value is less than that of a football practice facility seems to be shortsighted and lazy at best.

Mar 20:

°i Do the woods have special significance for campus or local community life?

A resounding yes!

If we had more wood clusters around campus, it is possible we would never have had the shootings April 16, 2007. Research studies show that within 5 minutes of seeing trees, people's stress level goes down. Trees not only reduce

stress but also aggression; they reduce crime and increase social ties.

<http://www.fuf.net/resources/treeBenefits.html>

<http://www.emaxhealth.com/1020/trees-could-reduce-cost-health-care>

<http://www.treevitalize.net/treeCare/Benefits.aspx>

Stadium woods is one of the few tree clusters left on campus for all of us to enjoy. They are iconic, and to even begin to think otherwise reveals a lack of soul and spirit. I can't imagine the otherwise cold stone landscape of the campus without the inviting, warming affect of trees. There is no way a bunch of seedlings could ever replace the magnificence of nature we now are blessed with. It took more than 300 years for this grove to be what it is today --- sweet manna in the wilderness of pressures students and faculty face.

I walk by the woods almost daily. They are one of my favorite parts of campus. They are also a nice buffer for the Blacksburg community. And they are one reason Virginia Tech is among a select few campuses designated a Tree USA Campus. There is no way in the world I can ethically write another release touting this honor if Stadium Woods is carved up for a facility that has a known shelf life of 50 years.

°ĩ To what extent are the woods currently being used by the local and campus community?

All emails providing information on use of the woods area should include to the extent possible, the types of activities and number of people involved. Over the years I have written about the hundreds of 4-H students who come to campus each summer. They all spend a session in the Stadium Woods learning about the trees, birds, plants, and biodiversity that form their own ecosystem of interconnected and interdependent life forms. It is a marvelous outdoor classroom within easy walking distance for the children. They see birds that migrate here each spring from South and Central America to nest and have their young. Master naturalists have identified 80 species that enjoy this habitat. That is an extraordinary figure and tells you what a dynamic natural landscape Stadium Woods is. Urban forestry, dendrology, wildlife, and other classes regularly use the woods. Not only does Stadium Woods provide a rich natural resources classroom for some 200 of these students each year, but the woods are minutes away from Cheatham to make the classes doable.

Most universities would be valuing this grove of more than 50 giant white oaks as a jewel to be preserved. Tree experts are saying they do not know of another such site in America with this many white oaks that trace their lineage back to before America was founded. Certainly this is a legacy to be valued.

Mar 20:

An aspect of Stadium Woods to which I have seen no reference is the International Peace Garden. That Garden, on the east edge of the Woods, is of special significance to the international community on campus and is recognized by many local groups, on and off campus, as a worthy focus for their concern and volunteer efforts. Developed by the Rotary Club of Montgomery County, the Cranwell International Center, and the Council of International Student Organizations, it serves as a memorial to international peace and understanding and to many who have played a role in furthering that effort. It is a key part of the Peace Walk developed as part of Virginia Tech's memorial to the April 16, 2007 tragedy.

Occupying a site that provided housing for returning veterans of World War II as Trailer Camp No. 2, it now provides a place of peace and reflection -- a break from the rapid pace of today's life. Trees, shrubs, and flowers having their origins in many parts of the world share a space that has been given a Townscape Award for its contribution to the community. Stadium Woods provides a backdrop for this site.

Major construction nearby would endanger the spirit and atmosphere of a unique feature of the Virginia Tech campus.

Mar 20:

Thank you for providing an opportunity to report my use of the Stadium woods and offer my views on their significance. Here are answers to your two questions.

**Q:** To what extent are the woods currently being used by the local and campus community?

**A:** The woods are used as an outdoor laboratory in FOR 2214 Introduction to Land and Field Measurements, a class taught fall semesters at Virginia Tech. Students practice mapping, surveying, navigating, vegetation sampling, and measuring attributes of standing trees (diameter, height, etc.). Class size is usually

around 75 but labs are conducted in sections of size 25. Labs work in the stadium woods during 3 weeks of the semester, with 3 sections per week typically meeting for 2.5 hours each.

**Q:** Do the woods have special significance for campus or local community life?

**A:** The significance of the woods includes its use as an outdoor classroom and laboratory, proximity to central campus, and its integrity as an intact forest area. Other treed areas on campus (e.g. the amphitheater or animal pastures) are either mowed or grazed, so they do not have a true forest character. The closest comparable wooded areas, either the Center Woods west of 460 bypass or the CRC woods along Pratt Drive, require bus or motor transportation to get to them. This diminishes their usefulness as outdoor laboratories since time and money for travel are limited.

Mar 21:

My husband and I moved to Blacksburg because we discovered the beautiful balance between commerce, university, athletics and outdoor activities. When we first walked through Stadium Woods we were in awe of the height of the trees and the tranquility of the woodlands. We walk our dog, Blue there everyday and sometimes twice a day. During all of our walks we have met so many students and members of the community enjoying the woodlands and the peaceful area just moments away from the hectic university parking lots and buildings.

You wanted to understand to what extent the woods are used. We have seen people walking, dog walkers, bikers, bird watchers, mountain bikers, skate boarders, runners and students collecting their thoughts in a place that seems to bring serenity to their stressful day. In addition we love seeing the cadets execute their maneuvers and find it so fascinating that so many of us can enjoy the same area for so many different reasons, all at the same time.

Have all the committee members walked through the woods? If not, we highly recommend it and we guarantee that you will feel a peaceful wilderness that energizes you for the rest of the day! Some things in life you just have to feel and breathe, the Stadium Woods is definitely that place on campus and Blacksburg. We are confident that you will make the right decision for all of us in the community.

Thank you for reading and reviewing this email for your deliberations.

Mar 22:

I am a VT alumni and very active in Blacksburg and on the campus. I went to school here in the 80s. 4 degrees (all at VT) and 2 decades later, I can back and formed a software company in the VT CRC. I have lived in Blacksburg for over 22 year all told and I love both the university and the campus. I currently live on Clay St - just next to the police department.

I walk my two dogs twice a day - IN STADIUM WOODS. They love it there. During my walks, I see classes of students studying the trees, surveying the trees, estimating the trees, and identifying the trees. I frequently see the VT Corps of Cadets doing drill exercises in the woods. Wilderness First Aid classes frequently are held there. Students ride their bikes in them and through them. There are frequent walkers, joggers, and other dog walkers. It's a beautiful well-used little forest.

Mar 22:

Virginia Tech's slogan is "Invent the Future." The Stadium Woods-football practice facility issue presents the university with a golden opportunity to invent a remarkable future for itself.

Let's imagine that future.

Imagine thousands of football spectators reaching Lane Stadium by a walkway passing dozens of centuries-old trees and marked with signs telling how those trees represent the human and natural history of Virginia Tech, Virginia, and the southern Appalachians.

Imagine Virginia's largest university modeling wise use of public resources by building a practice facility on existing flat space instead of wooded, hilly terrain.

Imagine Virginia Tech's creative minds designing new facilities that reduce, rather than increase, overall

environmental impacts, including generation of stormwater.

Imagine Virginia Tech's football staff showing how such a high-profile, influential program can collaborate with university colleagues to solve a problem in a way that serves a variety of interests, athletic and non-athletic alike.

Imagine Virginia Tech using its skilled public-policy experts to model stakeholder participation in major land use decisions.

Virginia Tech already has the tools to accomplish these things. I hope your committee will help the university find the vision, will, and good sense to do so.

Mar 23:

I believe the woods provide a statement that Virginia Tech is committed to environmental stewardship and maintenance of natural environments. I believe that destruction of any portion of the woods would show that commitment to be lacking; especially when the primary motivation for the selection of the woods as a location for an athletic facility is convenience.

I believe Virginia Tech's reputation would be irreparably harmed by location of the facility in stadium woods. Just watch any televised coverage of a football game and see what the announcers say about the beauty of the campus- especially when they show footage from the west side of the stadium towards the woods. Remove that, replace it with athletic infrastructure sprawl, and see what ESPN has to say about the beauty of this campus.

That we are even having this discussion as a campus and a community raises serious doubts in my mind as to Virginia Tech's commitment to sustainability.

Mar 23:

I am a golden Hokie member and I have been a hokie club member since 1993. I have been to many bowl games. My husband and I love beamer ball. But I am very disappointed that the university is thinking about putting a practice field in stadium woods. There are alternative places where the practice field can be placed such as the tennis courts. Once you cut down stadium woods you can not replace 300 year old trees or old growth forest. The university should be leading the way in having a green world not a greedy world. Like I say I am very disappointed in the university and Mr. Beamer.

Mar 28:

1. Stadium Woods has great significance because it is one of the last stands of original forest in this area - according to those who study such things. It is hard to walk through these woods and imagine what this area looked like at one time, and how much has been lost to "civilization." These woods are not only a treasure to our community, but in many ways, they are a national treasure. If we take pride in our campus being recognized as an

"Arbor University," how hypocritical to take the award and chop down such magnificent trees. The woods give us an opportunity to present our best side, to demonstrate enlightenment and stewardship for a natural resource for which we are accountable. And, we all can point to the fact that there is very little enlightenment and stewardship in the rest of the world. If we are a beacon, then let it shine.

2. I don't know about use because I don't sit and tally who uses the area and for what. Based on the number of trails and paths, the woods are used by many people. I would assume life science based laboratories would use the woods as a way to introduce students to living laboratories, outdoors. If we don't do this, we should. I enjoy visiting the woods for solace, reflection, and contemplation. It is a religious experience for many, I suppose. I think the bottom line is stewardship and doing the right thing. As a University, we have to hold ourselves to a higher measure of accountability. There are many who study such things as forests that will point out that without forests, we are endanger of becoming extinct as a species. Not only should we not destroy this beautiful and priceless grove of trees, but also we should use the area as a springboard to propose reforestation projects

on a global scale. We should not only save Stadium Woods, but also set aside "forest banks" so that when trees have to be removed for good reason, the same number (or greater) must be replanted in the "forest bank" to maintain and expand a forest density.

Stadium Woods is not just a wood lot. The fate of these trees will either represent the best of us as an academic and cultural community, or the worst aspects of our species. We need to stop the destruction of our planet and start thinking about sustainability and saving our planet, and ourselves. Stadium Woods can provide a model for doing this.

I write this knowing that it probably won't be read, and in the end, people with little imagination, enlightenment, or compassion for other living things such as these centuries old trees, will gladly walk in and saw them down for the sheer delight of making a few extra dollars at an athletic event. It always works out this way, and what a waste.

Thank you for allowing interested people to contribute an opinion.

Mar 28:

The Virginia Master Naturalist program is a natural resource volunteer training and service program that is sponsored by Virginia Tech, Virginia Cooperative Extension, and 5 other state agencies. These volunteers receive training in natural history and natural resources, and then conduct education, citizen science, and stewardship projects to benefit Virginia's natural resources. The New River Valley Chapter of the program has very close ties to Virginia Tech. Their membership includes many Virginia Tech employees and students, they hold their training course on campus, and they have been very engaged in a variety of service projects on campus. The chapter has 81 members.

Among these service projects has been ongoing work at Stadium Woods. In 2011, New River Valley Master Naturalists contributed more than 80 hours of service helping to do various biodiversity inventories of the property, including surveys of trees, birds, and herbaceous plants. They have also contributed to the sustainable management of the land by conducting invasive plant removal. These efforts are the beginning of what has the potential to be a thriving and long-term relationship between this active community group and this unique place on the Virginia Tech campus. The chapter also leads a 4-H Junior Naturalist club that reaches a diverse group of youth in area schools. The work the chapter has done at Stadium Woods makes it a great place for field trips and service project opportunities for the 4-H youth.

It is this growing relationship between local Master Naturalist volunteers, Stadium Woods, Virginia Tech, and area youth that leads me to say that YES, Stadium Woods has special significance for local community life and that YES, the woods are currently being used to a significant extent by the local community.

Mar 28:

I am a sophomore mining and minerals engineering student here at Virginia Tech. I recently heard that a third of stadium woods is in danger of being cut for construction. I just can not believe that any university would even consider taking down any of a rare old growth oak forest.

I am a huge football fan and attend every home game, so I understand the need for better facilities, and I love the thought of it helping bring in recruits, but the beauty of this campus is how much space we have to grow. Why would stadium woods even be considered as a location, while there are so many other locations around this university to build new facilities.

I run through stadium woods every day, and it is my favorite part of campus. It is a peaceful reminder of where we came from, and a great feeling of being in a forest that has been here since the settlers first arrived. These old growth oak forests are so rare to find and the trees have been around through so much history, and much longer than the university. To me these trees are like a mascot of the university, representing old growth oak tress on the east coast.

As a student at Virginia Tech, I am ashamed that these woods are even being threatened for construction, and it is most definitely not something that I would want my tuition money to fund. If Stadium Woods is the site for new football facilities, then I will no longer attend the football games or support the program.

I am by know means a "crazy treehugger," I am a just a normal student who is very proud and appreciative of this beautiful campus we have. I have talked with many friends and we all agree that these woods should be preserved at all costs, and the new football facilities should be built on one of many other locations around the university.

Thank you so much for your consideration through this process,

Mar 28:

**Does the Stadium Woods lot have special significance for campus or local community life?**

Absolutely yes! This patch of woods in the midst of an urban setting has particular significance. The presence of a number of 300 year old oaks provides a unique component to the woods that offers a link to the past and history of the area, predating Draper's Meadows. This woodlot is a buffer between the campus and the residential area to the east, and contributes greatly to the beauty of that side of campus.

I think a particular consideration is that should a portion of these woods be removed, it is irreplaceable. Setting aside another 5 acre area and planting trees to compensate simply would not be reasonable. The unique ecological characteristics of the woodlot that have taken 300 years to develop simply cannot be recreated without the investment of centuries. If a portion is taken, it is taken for good, for all practical purposes.

The past several years Virginia Tech has received recognition from the Arbor Day Foundation as a "Tree Campus USA." Should a portion of Stadium Woods be removed for a facility, it would be ludicrous to claim this recognition.

I encourage the committee to consider that the Athletic Department can come out of this looking good if they move the facility to another location and work to preserve Stadium Woods. Should they do so, I see it as a win-win situation; the woods are safe and the Athletic Department comes out looking good and considerate of the wishes and concerns of the larger community. If the practice facility is located in the woods and a portion are removed, I can only envision bad press as another example of how athletics dominate at large universities and other aspects of the presumed academic agenda really don't matter. Whereas the awareness of this situation is currently local, if the plan goes forward as initially envisioned, I would expect to see widespread negative media coverage of the situation.

**To what extent are the woods currently being used by the local and campus community?**

Prior to my move to administration two years ago, I used the woods for two labs on urban habitat I taught in my Wildlife Habitat Ecology class. This truly is a unique patch of habitat in an urban setting that is found nowhere else within Blacksburg and provides important habitat to migratory and resident wildlife species, which would be impacted should the woods be reduced in size.

I know that the woods are also used by the ornithology field labs, and some labs conducted by the department of Forest Resources and Environmental Conservation.

Again, I appreciate the opportunity to comment.

Mar 29:

Thank you for soliciting input from the university community on the proposed construction of a new football practice facility on the site of Stadium Woods. As a VT alumnus, current faculty member, and as a current member of the University Athletic Committee, I am a strong supporter of Hokie Sports. However, as Director of the Virginia Water Resources

Research Center here at VT, I write to express my concern for the choice of Stadium Woods as the site of the new football practice facility.

The Stroubles Creek Watershed, within which the Stadium Woods site is located, is already highly disturbed by rapid urbanization of Blacksburg and the VT campus. In fact, water quality in Stroubles Creek is listed by the Virginia Department of Environmental Quality as impaired and therefore requires an approved, comprehensive management plan to remediate the existing level of water pollution. Stadium Woods provides an essential environmental service for our campus watershed through its cycling of water and its abatement of stormwater production. Stormwater from urban runoff degrades water quality and

destabilizes stream channels. Conversion of any portion of Stadium Woods to develop a new practice facility would eliminate irreplaceable environmental services provided by this forest.

With this watershed perspective and the need for *sustainable* development in mind, I urge the Committee to promote alternative locations for the new football practice facility that will not further disturb any portion of this unique and critically important natural resource on our campus. Please give your fullest consideration to the site of the tennis courts on

Washington Street or the parking lot between Cassell Coliseum and McComas Hall as alternatives. These alternatives are 1) conveniently adjacent to current football facilities and

2) already covered with surfaces impervious to rainwater. Choosing an alternative site for this football practice facility will preserve a vital link in the Stroubles Creek Watershed and

Virginia Tech will make a significant statement reflecting its commitment to sustainability.

Thank you for considering my comments.

3/30:

Several hundred years ago, the New River Valley and the adjacent mountains were dominated by forests with many large trees hundreds of years old, similar to the trees in Stadium Woods. By the beginning of the 20th century, nearly all of these trees had been removed for their own value and to make way for agriculture and settlement. Although the national forest is aging, most of the trees there are still less than 130 years old. Even if there are a few old growth forest stands somewhere out in the national forest, with decreasing budgets, many courses would be unable to transport students there to see them. Thus, stadium woods is one of the few places where we can take students to see a fragment of the ecological past of Virginia. To have such a place on campus, within walking distance of our classrooms is a wonderful resource. We should not let this priceless resource slip through our fingers.

A nearly forgotten fact is that woodlots on this campus played a significant role in the evolution of American wildlife management, with research on squirrels living in old growth campus woodlots. Those are largely gone now. However, stadium woods still has an active squirrel population and is inhabited by many other species. It is one of the few places on campus with a top predator (Cooper's hawk).

On a whim, while writing this letter, I googled "campus arboretum." The results showed a list of universities who value their campus arboreta enough to create a web site about them. The first page of this list includes Bucknell, University of Georgia, Haverford College, Dickinson College, The University of Arizona, University of Maine, University of New Mexico, California University, Smith College. The Google results go on for pages. We are far from having an arboretum on campus. It would be a shame if Virginia Tech could not hold on to at least this little bit of its ecological history, while we continue to turn the rest of campus into an increasingly unattractive automobile-dominated urban environment.

3/31:

I hope you are considering the lasting ill will that will rain down for many years if you disregard the importance of this forest resource.

Next time it will be your sacred place.

4/1:

As the daughter of the former president of VT, I literally grew up on the campus, where I used to play in Stadium Woods. Being VT supporters is a family affair: My children attended Tech, as did my husband, my sister and my brother. I teach at Tech now in the Department of Religion and Culture. In my Appalachian Studies classes, one of the very first things I do is to try to get my students to imagine the huge trees that were here when the early European settlers first came into the area. To do this, I take them on a field trip to our amazing on-campus resource of the old growth forest at Stadium Woods. I am already scheduling fall class visits to the woods. Virginia Tech has many things of which to be proud, including its famous football team. But any school with a successful athletic team can boast of having a nice practice facility. How many can boast of having a very rare old growth forest right on campus? I strongly urge those in charge of

making this decision to do the right thing and save Stadium Woods. I honestly believe that the cutting down of these old trees simply for the purpose of an athletic practice facility would be the worst, most egregious mistake this university could make, and should this happen, I could no longer in good conscience consider myself an avid VT supporter. Thank you for considering my sincere opinion.

4/1:

I am a graduate student at Virginia Tech studying Biogeography. I am not sure what the status is on the stadium woods area but I did want to let you all know we use that area as a research venue often multiple times a week. I thought you may want to take the educational value into consideration.

4/2:

The committee's question about what uses are being made of this patch of old-growth trees is fair enough, I suppose, and a number of people have responded to it in the press.

I really do think, however, that this question most certainly does not get to the heart of the matter. Assuming there are other possible locations for building the new football facility, these trees need to be saved. To do otherwise would be an example of our fine university shooting itself in the foot.

The question of "use" smacks far too much of the meat-headed, untutored approach some people take to life: "If you can't eat it, and you can't drink it, and you can't sleep with it, it ain't good for nothing." I hope you take my meaning here.

4/2:

I am writing to urge the committee to find another place to build the football practice facility.

As a student at Virginia Tech in the early 1970's, I found the woods to be a place for reflection, refuge, and retreat. Academic studies can be emotionally taxing, and it was wonderful to have a place so close by (I lived in Newman) to go for a little time away. One of the most appealing things about the Virginia Tech campus is the green space. Although the golf course is now mostly gone, we still have the drillfield, the duck pond area, the amphitheater, and the arboretum. However, none of these offer the solace found in ancient forests.

I remember vividly the days following the April 16 tragedy. I lined up with my thousands of others along Washington Street, up by the Cranwell Center, and into the woods, hoping to get into Cassell for the remembrance service attended by President Bush and Governor Kaine. While waiting along the edge of the woods, listening to fellow mourner's muffled sobs and quiet conversations, it was the sound of the wind blowing gently through the trees that comforted me the most.

Please do not deprive future generations of Hokies of this valuable and irreplaceable sanctuary.

4/2:

I am an Alumni of VT(80-84) and grew up in Christiansburg where i currently reside. I also am a big supporter of the football team of Va. Tech, having season tickets since '84. I am, however strongly opposed to the building of the football facility in Stadium Woods. There are no places quite like it so close to campus where students and the public can view a landscape as this. There has got to be many other available sites where this facility could be built. Once this forest is destroyed, it can never be replaced. Go Hokies! But just go somewhere else to build this please!

4/2:

Here are my answers to the two narrowly focused questions:

1. Does the woods have special significance for campus or local community life?

Yes- both the University and the Town of Blacksburg have worked hard to be known as a "cool city" and a campus that supports sustainability. Siting the practice facility on an old-growth forest makes a mockery of these efforts. It will produce 5,669 metric tons CO2, according to one estimate, and will send 31,255 cu. ft. of storm water into the already impaired Stroubles Creek.

Yes- both the campus and town have worked hard to obtain tree campus and tree city status from the National Arbor Day Foundation. Once again, siting the practice facility makes a mockery of this process. Yes- stadium woods could be one of the "crown jewels" of campus life, as significant as the duckpond and drill field. This is quite likely one of the best examples of an old-growth white oak forest in the eastern US, with trees in excess of 300 years old, and it is in the central core of our campus. How fortunate can we be? Is there a campus anywhere with this great an asset?

2. To what extent are the woods currently being used by the local and campus community?

Many classes across campus (forestry, wildlife, biology, Army ROTC) use the woods for research/instruction/outreach activities. The CNRE already has to charge students for transportation to field activities away from campus, in addition to tuition. Losing the woods as an outdoor classroom exacerbates the situation.

Natural features such as stadium woods contribute to public safety by reducing crime, violence, and aggression. Our increasingly urban campus needs stadium woods as a place where people can go to decompress, relieve stress, to grieve, and otherwise find a calming environment. See the research at: <http://lhh.illinois.edu/>

Interestingly, many football fans have commented on the i-petition that the woods in fall color are a very important part of their Hokie experience. Will people want to come to Blacksburg if there is no more natural beauty left?

Over 80 species of birds, 42 species of wildflowers, 24 species of trees, mammals and many more creatures live in the woods. They, too, are part of our community. They need the woods in order to live. Loss of habitat means loss of life.

4/2:

Five years ago we completed documents to leave Virginia Tech approximately 75% of our estate. At the time, several friends asked how we could place so much trust in the university to honor our wishes and use the money as we envisioned. We responded without hesitation that we had full faith in current and future administrators to make sound decisions. The Stadium Woods debacle has caused us to question this faith and even our donation.

As a Golden Hokie family for over twenty years, we were our usual 'Hokie Proud' when Southern Living Magazine (September 2011) chose Blacksburg as one of their Southern 'College Towns We Love'. Their description of Blacksburg? "Hokie campus – a 2,600-acre green dotted with stone buildings and ancient oaks- meets downtown on College Avenue." A football stadium flanked by an ancient oak forest deserves national recognition. Senseless destruction of the woods leads to negative publicity on the local, state, and national level as well as greatly reduced pride in Hokies who expect better decisions from their university. The secrecy surrounding the committee is disheartening and alarming. Claims made by some in athletics (including at the Blacksburg Sports Club), that the practice facility WILL be built in the woods makes one wonder if the committee is window dressing.

We are a university of highly skilled engineers, architects, landscapers, and foresters. Where are the scientific details related to the impact of the building? Just the final grading will impact trees far beyond those removed for the building site and staging areas.

I occasionally take a detour on my walk to work to enjoy the majesty of stadium woods and have been fortunate to stroll through the woods with various groups over the years to appreciate the plants, birds, and solitude. Virginia Tech's unique old growth forest with its ancient oaks should be showcased as the treasure it is. Please help restore our Hokie Pride and find an alternative site for the practice facility.

4/2:

The Woods provide an important buffer between the stadium and my residential neighborhood. The stadium lights can be very invasive and the woods provide some filter. It is said that "fences make good neighbors," but woods are even better, especially if your neighbors tend to be loud and rowdy.

As a Tech employee who lives near the stadium, I enjoy walking through the woods to and from work. How fortunate the community is to have this beauty in the midst of our daily activities!

4/3:

Not only would development bring meaningful impacts to the Stroubles Creek watershed and wildlife and people dependent upon it, but developing this area would also be making a strong statement about the University's priorities. This is a rare remnant of old growth forest in the East that professors and students use for instruction and learning (I use it myself in one of my Spring semester classes) and that the University can be proud of. There are other less sensitive places for the practice facility if it has been deemed necessary (such as the tennis court area on Washington Street). This appears to be a question of convenience of our football team vs. all other environmental, cultural, instructional, and organizational concerns. If Virginia Tech decides to stand for the convenience of its football players over broader concerns about sustainability, water quality, learning and instruction, and overall quality of life, I shudder to think of the impacts on our overall reputation and on faculty morale. We are not a football school that also happens to have a strong academic program that aims to "invent the future." We are a powerhouse academic school that aims to be at the forefront of the critical issues of our time (that also has a great football program). Issues of sustainability, quality of life, and intelligent planning and development choices that recognize real trade-offs are central to meeting these challenges. It would be a disgrace to ignore the obvious in this case. This is obviously a bad place for this facility. There is at least one good place (as mentioned above). Why would we bury our heads in the sand and pretend to ignore the obvious? This would significantly impair our national and international reputation, not to mention our local ecology, our educational options on campus, and the beauty of our immediate surroundings.

4/3:

I believe Virginia Tech may be poised to make a decision that will make it famous.....or infamous, as the case may be. In the first scenario, Virginia Tech sticks to its masterplan and elevates sustainability and conservation to a place of prominence in a university that is--well let's face it-- known to the masses for its football program.

I hope that beyond saving the mature forest for future generations to enjoy and learn from, our university can show leadership and forward thinking and prove that we have a social conscience and can recognize important natural resources. The football program will thrive in either case.

I want nothing more than to see the university succeed and become even more prominent in the nation, not only for its great football team, but for its wise, forward-thinking, and committed leadership that will lead us to a sustainable future within a campus of natural beauty and diversity that will promote our academic pursuits.

4/3:

I think that these questions are a cumbersome way of asking the Solomon-like decision of how to divide the Woods. The answer is the same as would have been made that some four mystical millennia ago: the living cannot exist if divided. However, let me obliquely answer your questions. The significance of the Woods is that it exists, unique, unchanged, beautiful, and irreplaceable. Its utility lies in that it is, alone and unhampered by "progress and growth".

For us old-timers, it seems just like yesterday (1971) that the Rector Field House was built. In forty years, a trifle moment in the life of the Woods, will they abandon the proposed facility in favor of a fancier one, and ask again for a slice of the Woods?

In my immediate family, there are seven Virginia Tech graduates, and we are big supporters of Hokie football. Through a family membership in the Hokie Club, we have pour \$k into the football program. We are happy to be called part of the Hokie Nation. But, I'd rather never win a national championship than to lose the Stadium Woods.

4/3:

During the late winter and early spring of 2011, several members of our chapter performed an inventory of the larger trees in the wooded area adjacent to the Virginia Tech Stadium, the area which is now known as Stadium Woods. We also collaborated with the Virginia Native Plant Society and the New River Valley Bird Club to inventory plant and bird species. We have confirmed what had been known to many Virginia Tech faculty and staff for decades. These woods, three-hundred-year-old oaks in a mature mixed-hardwood forest with understory shrubs, represent an incredible resource in the University environment. Its location in the central part of campus, easily accessible to tens of thousands of visitors to Virginia Tech and Blacksburg each year, provides a unique opportunity for outreach education. The antiquity of the old-growth trees also provides an historical perspective of the landscape as the town and university developed around it.

These old-growth oaks in a forest setting provide visitors, whether school groups, town residents, or visitors from across the state, with an opportunity to experience a forest ecosystem and a rich environment where they can reconnect with nature. To enhance the potential experience, the NRV Master Naturalists are making plans to establish a nature-interpretive trail along portions of the existing trails in the woods and remove invasive plants whose presence decreases the biological diversity. The expected rejuvenation of native species will make the area even more valuable as a place to experience the wonders of the natural world through the cycle of seasonal changes.

Virginia Tech is justifiably proud of its designation as a Tree Campus USA, the only institution of higher education in Virginia so recognized, and this forest could provide visitors with an example of sustainable management of a healthy ecosystem. These woods have special significance to the university and local community because of their potential for bringing together diverse groups in collaborative projects linking natural history studies, ecosystem education and management, and research in forestry, sustainable systems, and environmental studies.

4/4:

Two miraculous tales of survival trace their roots (literally) to the area that is now Blacksburg and more specifically the Virginia Tech campus.

Before Virginia Tech and before Blacksburg was established, the area of the Drillfield, Duck Pond and surrounding fields was known as Draper's Meadow. In July of 1755, the recently established settlement of white settlers was attacked by a group of Shawnee Indians. Some of the settlers were killed and others were taken hostage. (There are two memorials to this event on the Virginia Tech campus.)

Among the hostages was 23-year-old Mary Draper Ingles. She was taken through the wilderness by way of modern day West Virginia and Cincinnati, Ohio to Big Bone, Kentucky and put to work making salt. (Daniel Boone did not make it to Kentucky until twelve years later in 1767.) Mary Draper Ingles wanted to return to her family, so in October of 1755 she escaped from her captors with a hatchet and a blanket and walked back through the wilderness to where she was discovered in what is now Giles County Virginia. She followed the rivers (Ohio, Kanawha, and New), walking many miles up joining rivers, creeks and streams until she could cross. It is estimated she walked 800 miles in six weeks. Even by today's standards what Mary Draper Ingles did is almost beyond belief.

The other tale of survival is that of what is now referred to as Stadium Woods. This patch of woods has survived fires, storms, insects, the intrusion of settlers, cross cut saws, chain saws, sawmills, college students, football fans. Several of the trees are estimated to be 350 years old. These 350-year-old trees were approximately 100 years old at the time of the Draper's Massacre and Mary Draper Ingles' capture. If the proposed facility is placed in on what is now Stadium Woods, 350-year-old trees will be removed along with tons of soil. This will impact the ecosystem of the remaining woods. Planting a seedling to take the place of a 350-year-old tree seems disingenuous.

Monday night there was a big basketball game. In February there was the Super Bowl and in December and January there were collegiate bowl games. Here at Virginia Tech we are already BIG WINNERS. We have an old growth forest on campus. No other "team" is in our league.

Let us be good stewards of Stadium Woods. I strongly urge you to place the new football facility on the present day tennis courts. Mary Draper Ingles walked 800 miles. I, a short, pudgy middle-aged woman, walked from the practice field to the tennis courts in one minute. Are our football players unable to do the same?

4/4:

I find it hard to believe that the idea of removing part of a rare 200- to 300 – year old woods for a sports facility that is in the master plan for a different location is seriously being discussed. How can Virginia Tech pose as a green university if this were to happen? Please don't put us into a hypocritical position.

4/4:

The Stadium Woods are a valuable resource to the university that should not be destroyed! Many people from the university and town community use these woods for recreation, military ROTC drills, as an outdoor classroom, and as a sound buffer between the football stadium and town residents. I cannot believe that in this modern day and age, knowing what we know about environmental impact and the importance of old forests, that the university would even consider removing the woods for the sake of an indoor practice facility.

Does this mean the sports machine runs our university or do academics get a say?

The fact that this is even being considered means that our current process of siting new buildings on campus is broken. We need to develop a better building siting process and master plan process that involves all of the key stakeholders. Key university officials should take note of the outcry here and realize that a new, better process is needed. In the meantime, there are plenty of other viable sites for locating the indoor practice facility that will not involve destroying our few remaining natural treasures on this campus.

4/4:

I am a Virginia Tech alumni receiving my MS in Education in 1974, a member of the Ut Prosim Society and a long time resident of Blacksburg. Please make a strong recommendation to the university to build the practice facility somewhere else--not in Stadium Woods.

4/4:

I can think of no better place than Stadium Woods to house a memorial to Deriek Crouse. That would bring a lot more people and groups to the woods to enjoy the beauty and history of the place. What a wonderful way for people to learn about Deriek Crouse, his service and sacrifice, while taking in the beauty of the surroundings.

4/4:

GO HOKIES!!! I love and support the VT Athletics programs, especially the football program.

Similarly, I love and TREASURE the quiet forest of centuries old trees just away from the hubbub of the football stadium and campus activities. It is a unique area of retreat as well as natural classroom and laboratory that cannot be replaced in our lifetime. Disturbing even a part of this area by removing integral portions so that an indoor football practice facility will be so close that players do not have to exert themselves to get there would be egregious.

The idea that the extent of USE of the Stadium Woods should determine whether they are cut or not is counterintuitive. The real value of the woods is that they are not overused and thus damaged by excessive paving and traffic. The area's value is in its naturalness and age and plant and animal diversity and habitat.

4/4:

As a Virginia Tech graduate now living in Blacksburg, I am appalled that my alma mater would consider destroying a portion of the old-growth forest in Stadium Woods when a suitable alternative location exists.

The ecological, historic and academic value of the woods should not be trumped by athletics no matter how much we love to follow the VT football team.

My husband and I are proud VT alumni, football season ticket holders and Golden Hokie donors to the Athletic Fund who have traveled to nearly every bowl game during the Frank Beamer era. It's been a fun ride, but even the best teams know that no matter what you do, there are going to be ups and downs, wins and losses, players will graduate or leave early for the NFL, and even beloved coaches will one day retire. The new practice facility will someday be outdated and need to be replaced. Yet with wisdom and foresight, many of the trees in Stadium Woods will still be standing centuries from now with new ones growing to replace those lost to old age.

We have enjoyed walking in the Stadium Woods and hope to enjoy many more visits there. We hope that future generations of VT students and visitors will also be given that opportunity. If a decision is made to place the new practice facility in Stadium Woods, we will be seriously reconsidering continuing to fund donations to the Athletic Fund.

4/4:

The Virginia Tech forestry department has ranked in the top 3 nationwide since it was created, we know trees and know how to manage trees. I have had numerous labs in the stadium woods that have contributed to my education. It would be a shame to cut down any portion of the stadium woods. We use the entire stadium woods lot in our labs; we run transect lines thru it, learn trees, measure carbon content, etc...

The stadium woods lot also benefits the entire university, students and alumni have taken walks thru the stadium woods for generations.

It's a landmark, it's a filter for our water, trees have been proven to reduce violence and improve education, it's habitat, etc.. Thank you for hearing my opinion as a student from Virginia Tech. Good luck in your decision, Go Hokies.

4/4:

My family has enjoyed walking in Stadium Woods since we came to Blacksburg in 1969, first with our small children and now with our dog. I ask that you respect this special place on the VT campus.

I appreciate what the football program does for the university, and I regret that the plan to build the new practice facility there has polarized opinion. I believe that locating the proposed facility elsewhere would garner considerable goodwill for Virginia Tech at minimal sacrifice for the football program.

4/4:

I have enjoyed those woods many times over my lifetime here in Blacksburg. The thought that my grandchildren may not be able to enjoy the diverse forest there and the unusually large trees there is very sad to me. How has this happened that there is a woods in our backyard 300 years old? Because the woods have been left alone until now!!!! So cease and desist the plan to cut them down and LEAVE THEM ALONE for another 300 years. Can you imagine the size of the trees then for all to enjoy. Have you never visited the "Joyce Kilmer Forest " in Western NC and imagine that all the trees in the Appalachians were that big! LEAVE THESE LAST FEW OLD GROWTH TREES ALONE. Tech has encroached into the surrounding countryside enough, but this is in the middle of Blacksburg and needs to thrive as a garden park.

I am a proud current member of "UT PROSIM" and have always supported growth at VA TECH. I support the continued growth of the college but not at the expense of this stand of old growth trees that have been here long before VA Tech.

If this happens I make the same promise as my wife, Elizabeth Hahn, to withdraw my support from VA Tech and put whatever money I have available in the coming years towards colleges that have a little more insight into what needs to be preserved for the public in the future rather than building a football practice gym!! Do not move forward with this plan as there are many in the community that feel the same way as my wife and I. Thank you.

4/4:

Conversations surrounding the Stadium Woods' controversy have escalated in recent weeks! Ardent supporters of the natural world—and 300+ year-old white oaks in particular—feel blindsided by a “new” master plan to erect an indoor athletic practice facility in the middle of unique acreage within town limits. A learning lab used by students in entomology, landscape architecture, natural resources, and urban forestry, Stadium Woods offers valuable native stands that complement the precise plantings found in the Hahn Horticultural Garden. Beloved by families and community hiking groups, Stadium Woods offers quiet, unpaved opportunity to appreciate Appalachian beauty.

Last year, The Arbor Day Foundation designated Virginia Tech as a “Tree Campus USA.” One of 148 campuses recognized for its “commitment to effective community forestry management” and “campus tree management,” the honor seemed almost superfluous for a land-grant institution. But, does Virginia Tech truly treasure its own natural resources? Other land-grants such as Auburn, Cornell, and University of Wisconsin have actual arboretums on site, as do universities as disparate as Connecticut College, California State University-Fullerton, Harvard, James Madison University, University of Pennsylvania, University of Washington-Seattle, and Virginia Western Community College.

Stadium Woods exists in a “no-build zone” to safeguard nearby Stroubles Creek. Does Virginia Tech responsibly care for its environmental heritage? Preservation Virginia delights in preserving historic properties, such as Smithfield Plantation. Who preserves historic/antique trees? The Hokie Nation has an opportunity to demonstrate integrity, strengthen community, and distinguish itself as a public research institution by choosing an alternate site other than Stadium Woods for team practice.

As an enthusiastic alumna, mother of three alumni, and wife of the late Tech forest geneticist, Dr. Peter P. Feret, who first chaired the University Arboretum Committee, I respectfully suggest that you give a permanent protection easement to Stadium Woods.

4/4:

Over the years since I arrived at VT in the fall of 1966 as a new freshman and subsequently lived in AJ, I have spent innumerable hours wandering through the woods, de-stressing and in general enjoying the sounds and sights of the birds, wildflowers and trees found there. I especially enjoyed the sense of calm and serenity that only an old tree can provide.

And these trees are old!

Some of the trees in Stadium Woods were already ancient when the first brick was laid to begin the campus which became Virginia Tech. They were very old when they survived the wholesale cutting that occurred over much of this region of the state during the Civil War. And they were already old when the first European settlers arrived in the New River Valle and when the Draper's Meadow massacre occurred.

This stand of trees is valuable - as a convenient teaching lab close to campus and as a convenient spot to enjoy a bit of nature on the way to or from a Tech football game. In addition, this bit of old growth forest may unique on the East coast in its urban and campus setting. VT should be setting an example in the conservation and preservation of this bit of woods; after all, it has taken nature over 350 years to create it – over twice as long as Tech has been in existence.

It VT's own words, Tech is proud of its roll in caring for its trees which add so much to the beauty of the campus that without them, it would be just another drab urban campus instead of one of the prettiest campuses anywhere.

In an online press release dated March 10, 2011:

<http://www.vtnews.vt.edu/articles/2011/03/031011-vpas-treecampus.html>

Virginia Tech proudly announces that “This is the third year that Virginia Tech has been named a Tree Campus USA.” The article goes on to explain that Tree Campus USA is a national program which is administered by the Arbor Day Foundation (ADF) and recognizes universities which meet five core standards of tree care and community engagement (see the article above for the complete list).

Somehow, I cannot imagine that a ‘campus tree-care plan’ which includes leveling centuries old trees and

replacing them with a building (which could easily be sited elsewhere) was what the ADF had in mind when they made it one of the core standards for campus tree stewardship. I suppose that in a stretch you could say that clear-cutting a woodland patch prevents future disease and wind-damage, but again; I don't think that this is what the ADF had in mind.

If Tech continues with their plan to devastate this venerable patch of woodland, I think take the following actions:

1. Return all letters, certificates etc from the ADF which praise their stewardship to the ADF and inform the ADF that they had been accepted in error.
2. Ask the ADF to remove VA Tech from consideration for future recognition and inform the ADF that Tech is no longer interested in the Tree Campus program.
3. Send out press releases to all news media informing them that actions 1 and 2 have been taken and that Virginia Tech apologizes for having accepted the recognition under false pretenses.

4/4:

To whom it may concern: I'm not really sure you are asking the right questions – but here is my answer.

Significance and Use By Victoria Cochran

It isn't all about me,  
These Stadium Woods.

A year may go by and I do not even think of them  
Let alone walk beneath their historic boughs.

But every morning

I breathe the brisk mountain air they help to cleanse,

I hear songs from generation upon generation birds

That instinctively rely upon this area's complex ecosystem to thrive.

Have you ever set foot in the Louvre?

Still, I hear Paris needs more parking garages.

4/4:

1. Do the woods have special significance for campus or local community life?

How many universities have 15 acres of old growth forest on their campuses? This woods could have one of the highest concentration of old white oak trees over 300 years old in the eastern U.S. This woods if protected would be a feather in Virginia Tech's cap. It would establish Virginia Tech as a leader among environmentally minded universities.

The closest old growth forest to Blacksburg and Virginia Tech is in the Peters Mountain Wilderness Area 55 miles away on the state line with West Virginia. Not only is Peters Mountain an hour and half drive from Blacksburg it is also only accessible to those who are able to hike over rough ground.

Along with the Preston's Smithfield Plantation, the Black House, and the Odd Fellows Hall Stadium Woods is a significant representative of the history of Blacksburg and the surrounding area going back to the Revolutionary War.

2. To what extent are the woods currently being used by the local and campus community?

Currently the woods are used extensively by students in Forestry, Biology, and Wildlife Sciences. The ROTC has a training and repelling tower. In the summer it becomes a living laboratory for Upward Bound students. Some have never seen more than one tree at a time. For local residents the woods provides quick and easy access to seeing native plants and wildflowers including a colony of the native orchid, Large Whorled Pogonia. Also birders can currently watch a pair of Cooper's Hawks building a nest and later warblers stopping over in their migration from Central and South America to places where they nest in North America.

In conclusion Stadium Woods is an important remnant of what the Appalachian area used to be before it was settled and lumbered. It is important as an environmental and historical resource for Virginia Tech and the Town of Blacksburg.

**Samples of responses (7 of 14) recommending building where preferred by athletics:**

Mar 5: The new field house is best located adjacent to the football practice fields to allow practice to move quickly to the facility in case of weather and to be convenient to the training room and new locker room. I hope you can find a way to minimize the impact on the stadium woods but don't let a vocal minority dictate its location.

Mar 6: I have watched with interest the movement to stop Va Tech from building a football practice facility on property they legally own on campus. I believe several things:

1. Va Tech owns the property and can build whatever they want on it as long as it doesn't interfere in any way with the neighbors who own adjacent property.
2. Trees are replaceable - and the trees planted in other areas may someday be 300 years old.
3. Animal and plant life are most often adaptable to changes in environment, esp. one this small.
4. Professors have a national forest easily within reach of the campus for class work.
5. Athletes should have the best facilities possible.

I believe that outside influences should "mind their own business" and allow Tech to do its business. Also, student athletes have extremely busy schedules. Building the practice facility as close as possible to the existing facilities is in the best interest of the student athletes. Destroying the remaining tennis courts would be detrimental to other students.

**BUILD THE FACILITY AS PREVIOUSLY PLANNED!**

Mar 29:

I am writing in support of the new practice facility. I realize that most of the comments that you are likely to receive will be negative, but I would like to vouch my support for this project.

Personally as a student, I have never used, nor have I noticed anyone else actually "using," this area. I realize that there are some very mature stands of trees in this area, but I think that planting more trees as an offset in another location would help to ease the loss of these trees, even if it can't replace what is being lost.

However, the benefits to this project are numerous. It provides another top-notch facility to our already outstanding facilities. This should allow us to boast having elite facilities throughout the country, both to potential recruits, to their families, and to other institutions. Coach Beamer has stated that this will be his final request for facility improvements, and I feel that we should comply with his request because of all that he has meant both to our athletic program, and to our entire school.

Thank you,

4/1:

To the Committee:

Greetings Ladies and Gentlemen:

My name is Mickey Hayes and I have lived in Blacksburg since retiring from the Outer Banks of north Carolina where I developed award winning real estate communities.

I am a 1964 graduate of Virginia Tech in Ornamental Horticulture. I was raised in a ornamental plants nursery in Virginia Beach and naturally have been a life long plant lover. I practiced landscape architecture my entire working career and land-planned and built each of my communities. Among them were Southern Shores just north of Kitty Hawk and The Currituck Club in Corolla. All of my communities are well known for their consideration of nature, fauna and flora.

This morning I walked all around and through parts of Stadium Woods. I wanted to get a take on the controversy concerning the possible location of the new indoor practice facility in the edge of the woods near the football practice field. I should also add that I am an active supporter of Virginia Tech athletics and participate in that support in many ways, and have for a long time.

The Woods is impressive, to me more for its location on the edge of campus, rather than for its "old

growth" character though. There are some fine old trees and there are some not-so-fine old trees. It would indeed be a shame to totally lose a natural asset such as this, but in my humble opinion not at all a nature disrupting catastrophe to lose a modest piece of it to the facility given the absolute perfect location it will provide adjacent to the athletics complex. I have a hard time with the argument I have heard that the construction would begin the ultimate disruption of the "system" there and that species would begin to abandon the Woods as result, and I hope that such statements have scientific backing if to be accepted in your considerations.

All my life as a real estate developer I worked in the coastal area where federally protected and important wetlands existed. We always tried our very hardest to completely avoid disturbance of any wetlands we encountered, believing that indeed they are a key component to the natural system that filters and controls water resources and potential runoff.

I bring this up to demonstrate the long standing wetland mitigation procedure in the development process sometimes where one creates new highly functional man-made wetlands in return for disturbing old wetlands (which in many cases may have reduced effectiveness) when the old wetland area can not be avoided.

I would ask that you consider that concept in your deliberations. Ask the Athletics Department to create a new forest area on campus at some highly desirable location and maybe even require some ratio multiple, say like three to one, whereby a larger natural area will be created than lost size wise.

The practice facility should in my opinion be built on the edge of the woods, at the east end of the football practice fields, as that is the perfect location for many, many reasons.

I wish you good luck in your deliberations and hope that you see some logic in my comments to you today. Thank you very much.

4/3:

I would like to address one of the many aspects that is being overlooked in the Stadium Woods discussion. If the football practice facility isn't constructed in a portion of Stadium Woods then one of the most probable locations, from what I understand, would be the land that is currently occupied by the tennis courts and the new roller hockey rink on Washington Street.

I'm the founder of Rovito Rink, the new roller hockey rink on campus. The rink is home to the Roller Hockey Club at Virginia Tech (RHCVT), an in-house league serving Virginia Tech and the surrounding communities. It is also the practice facility of our newest Virginia Tech Sport Club, the Virginia Tech Roller Hockey Travel Team, which competes on a national level.

Our old rink was torn down in the spring of 2008 to make room for the Hahn-Hurst Basketball Practice Facility. It took three and a half years to convince the Athletic Department to provide us with a new rink location. RHCVT raised over \$12,000 from current students, alumni, family, and friends to buy new dasher boards for the rink. The rink is dedicated to Tom Rovito, one of the founding RHCVT members who passed away a few years ago. A number of his close friends combined to make a large donation in his name. For the rink to be torn down again would be devastating to the current players and alumni who spent their time and donated their money to build the rink and restart the league. The league was restarted this past fall and is growing in popularity at a rapid pace. This spring season there are over 110 players comprising 10 teams.

On behalf of current and former RHCVT members and the Virginia Tech Roller Hockey Team, I ask that you take into account this aspect of the Stadium Woods debate. Please consider what is best for the Virginia Tech community. Most Virginia Tech students are unaware of the effect it will have on them if the football facility is not built in a portion of Stadium Woods. I have made it my goal to inform the students and local community of this side of the debate. I will be speaking at the upcoming Commission on Student Affairs meeting, the Graduate Student Assembly meeting, and if possible, I would like to present our situation to your committee in person. We also created an online petition that has already obtained over 270 signatures within the first 24 hours from concerned Virginia Tech students, faculty, alumni, local

residents as well as their family and friends. It can be viewed at <http://www.ipetitions.com/petition/save-virginia-tech-roller-hockey-rink-and-tennis/>.

4/4:

While I understand the fear some individuals have regarding the harm the practice facility may cause to the forest, I disagree with the merits of the argument. It may be true that the stadium woods supports an ecosystem and wildlife habitat that provides vital ecological functions, aesthetic and social benefits. However, a balancing approach must be used in a situation like this. In other words, does the benefit (utility) of this facility override the detriments it may cause to the environment? It is impossible to deny the beauty stadium woods portrays. However, this project does not propose the clearance of the entire plot of forest. There is simply no evidence the remainder of the "woods" will be harmed by the new practice facility. Most importantly, however, no other location on or around campus provides the overarching completeness this proposed site provides. Hence, I believe the practice facility should be built on the edge of stadium woods at the east end of the football practice fields.

I studied the environment and the legal effects of the same during my three years at the University of Miami. I believe in the preservation of our environment. However, you cannot deny the importance of the athletics program at Virginia Tech. This facility would be much more ineffective at any other location on campus.

I ask that you also remember the passion that many individuals have for the environment. Those concerned with the environment are more likely to provide their opinion on this than those who are indifferent. Remember, environmentalists have an undeniable passion, but it does not mean they are always right. As done with many developments throughout the world, the University could designate a substitute plot of land to make up for whatever loss there is to stadium woods. This may ease the minds of those who are concerned about losing a tract of the forest.

In summary, I believe the practice facility should be built on the edge of stadium woods at the east end of the football practice fields. I know this is a difficult decision. Good luck in your deliberations.

4/4:

I am a member of the class of 1952, and a retired Army Officer, and I am very interested in the future planning and use of part of the Stadium Woods.

Directly behind the proposed Field House is the 5 acres of the 20 acre woodland which could be renovated and landscaped into a special area for campus or local community activity. I have visited this area twice in the past three months and envision a walking trail thru and around this 5 acres. Benches and tables could be positioned along the trail, and could be made from the one or two of old oak trees which would be cut done to make room for the Field House, and be labeled as such. Of the 2600 acre Virginia Tech campus, I believe the only other areas on campus with landscaped woods are at the Duck Pond and around the President's Mansion. The area could be considered a "green" area, with lighting provided be strategically placed solar panels or wind mills. This lighting is recommended to maintain some security and to discourage illegal activities.

The woods, from the information I have gathered, are not being used by the local and campus community. The two times I have walked the area, briar bushes and brush spread throughout the acreage and discourages its use. Also, the marvel and appreciation for the old oak trees could be maximized by proper planning and landscaping.

I firmly believe those individuals who are against the buiding of the Field House, have never walked this area, and are unable to envision what it could be and how it could be used.. Yes there are maybe two or three old oaks to be removed, but with proper planning by landscaping and accentuating the remaining old oaks, positive results will be greatly achieved.

## Appendix E: Department and Faculty Survey on Use of Stadium Woods

### VT Department and Faculty Use of Stadium Woods

The University has established an ad-hoc Athletic Practice Facility Site Evaluation Committee to develop recommendations for how the university can resolve the need for a critical athletics facility in close proximity to existing facilities while also being a good steward of our natural resources.

This VT Survey aims to gather information from university departments, faculty, and staff about the use of the stadium woods area northeast of Lane Stadium in support of the academic mission of the University. The athletic practice facility is proposed in the northern portion of this area.

All information on use of the woods area should include to the extent possible, the types of activities, dates, and number of people involved. All information will be reviewed and considered part of the committee's deliberations.

The survey will be open until April 4.

The APFSE Committee thanks you for your help with this important decision for the university

#### What is your position at Virginia Tech?

- Faculty
- Teaching Assistant
- Staff
- Administrator

#### What academic role have you performed related to the stadium woods area?

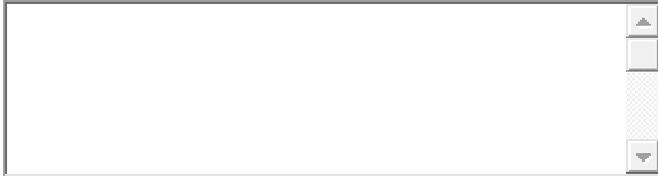
- Teaching and Learning
- Research and Discovery
- Outreach and Engagement

#### To what extent are the woods currently used by the campus community?

#### To what extent are the woods used as a teaching tool?

#### What current and past research has been conducted in the woods?

#### To what extent do you consider the woods to be an important part of the university's environment?



See electronic file of Faculty/Staff Survey Responses

## **Appendix F. Random Sample Survey and Results**

See text for survey questions and summary table of results.

See electronic files for results:

1. All respondents
2. By respondent type (faculty/staff, student)
3. By location (F/S: Blacksburg resident, Student: on/off campus)
4. Student-athletes

## Appendix G: Selected Campus and Town Resolutions

### Virginia Tech Arboretum Committee:



**VirginiaTech**

College of Natural Resources  
and Environment

**Department of Forest Resources and  
Environmental Conservation**

228 Cheatham Hall (0324)  
Blacksburg, Virginia 24061  
540-231-5148 Fax: 540-231-3330  
email: [pwiseman@vt.edu](mailto:pwiseman@vt.edu)  
[www.frec.vt.edu](http://www.frec.vt.edu)

**To:** Mike Coleman, Associate Vice President for Facilities Services  
**CC:** Susan Day, Matt Gart, Roger Harris, Mark Helms, Brian Katen, Tom Martin, Alex Niemiera, John Seiler, Bill Shrader, Jay Stipes, Anthony Watson  
**From:** Eric Wiseman, Associate Professor of Urban Forestry and Chair of the Virginia Tech Arboretum Committee  
**Date:** 11/11/11  
**Re:** Football Practice Facility at Stadium Woods

---

The Arboretum Committee of Virginia Tech is a group of university faculty and staff formed in the 1980s under the leadership of the late Dr. Pete Feret, professor of forestry. The purpose of the committee is to advocate for wise stewardship of campus trees and forests and to provide technical advice to university staff about matters related to these natural resources.

The Arboretum Committee has been informed about the Athletic Department's intent to construct a football practice facility adjacent to Lane Stadium. The design concept of this facility requires encroachment into the adjacent old-growth woodland, which the Arboretum Committee strongly opposes. The reason for this opposition is predicated on the woodland's unique character:

- It is the only woodland on central campus that possesses characteristics of old-growth forest, having a full complement of forest soil, woody debris, understory vegetation, and overstory vegetation
- The woodland is populated by over fifty trees measuring greater than three feet in diameter, many of which are estimated to be over 250 years of age
- The woodland is seasonally inhabited by over 60 species of birds, many of which are neo-tropical migrants not found in urbanized landscapes or diminutive forest fragments

Because of this unique character, the woodland provides a range of benefits to the community that are not available elsewhere on central campus and that cannot be replicated within a reasonable timeframe through mitigative landscaping or tree planting. Among the woodland benefits that will be impacted by the construction project are:

- Environmental education for Virginia Tech students, visiting K-12 students, and adult learners
- Outdoor recreation and leisure for students, faculty, staff, visitors, and nearby residents
- Stormwater mitigation through tree canopy interception and forest soil detention
- Soil erosion control through vegetative and litter cover and plant root systems
- Habitat for an assortment of flora and fauna that are dependent on old-growth forest

*Invent the Future*

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY  
An equal opportunity, affirmative action institution

The Arboretum Committee recognizes that only a portion of the woodland would be impacted by the proposed project. However, the Committee believes that reducing the size of the woodland would jeopardize its long-term utility and health due to concentrated use on a smaller land base and increased susceptibility to invasive plants and animals that commonly overtake small parcels. Given that the unique character and benefits of this woodland would be impacted by construction of the proposed facility, the Arboretum Committee urges the university to consider alternative construction sites or alternative facility designs that will avoid encroachment into the woodland and gladly offers to assist the university in exploring these alternatives.

Faculty Members on the Virginia Tech Arboretum Committee

Susan Day  
 Assistant Professor  
 Dept. of Forest Resources & Environmental  
 Conservation and Dept. of Horticulture

John Seiler  
 Alumni Distinguished Professor  
 Dept. of Forest Resources &  
 Environmental Conservation

Roger Harris  
 Professor and Department Head  
 Dept. of Horticulture

Jay Stipes  
 Professor Emeritus  
 Dept. of Plant Pathology, Physiology,  
 and Weed Science

Brian Katen  
 Associate Professor and Landscape  
 Architecture Program Chair  
 School of Architecture & Design

Eric Wiseman (Chair)  
 Associate Professor  
 Dept. of Forest Resources &  
 Environmental Conservation

Tom Martin  
 Instructor  
 Agricultural Technology Program  
 College of Agriculture & Life Sciences

Alex Niemiera  
 Associate Professor  
 Dept. of Horticulture

## Virginia Tech Faculty Senate Resolution

THE FACULTY SENATE OF VIRGINIA TECH:  
RESOLUTION SUPPORTING PROTECTION OF STADIUM WOODS  
December 13, 2011

Regarding the proposal to destroy a portion of Stadium Woods in order to construct an indoor athletic training facility for the football, soccer, and lacrosse teams:

WHEREAS, Virginia Tech has publicly committed itself to value sustainability, and to engage in sound environmental stewardship; and

WHEREAS, Virginia Tech has been designated as a Tree Campus USA; and

WHEREAS, the Town of Blacksburg, of which Virginia Tech is a part, has been designated as a Tree City USA, and has vigorously promoted environmental sustainability; and

WHEREAS, the Stadium Woods are the only woodland on central campus that possesses characteristics of old-growth forest, essentially comprising a self-contained forest ecosystem, populated by over fifty trees measuring greater than three feet in diameter, many of which are over 300 years of age, and is seasonally inhabited by over 60 species of birds, many of which are neo-tropical migrants, not found in urbanized landscapes; and

WHEREAS, the 2009 Virginia Tech Master Plan Amendment designates the Stadium Woods as an “environmental greenway,” thus as “a significant reservation of lands, waterways, tree stands, and cultural landmarks for future generations”; and

WHEREAS, the Stadium Woods are used by faculty to conduct both classes and research, and also are used for environmental education for visiting K-12 students and adult learners; and

WHEREAS, the Stadium Woods are used for outdoor recreation and leisure by students, faculty, staff, visitors, and nearby residents; and

WHEREAS, the Stadium Woods enhance the aesthetics and character of the Lane Stadium area; and

WHEREAS, the Stadium Woods are a living reminder of the natural history of campus and the region; and

WHEREAS, the Stadium Woods are important for community storm water mitigation through canopy interception and forest soil detention, and provide soil erosion control through vegetative and litter cover and plant root systems; and

WHEREAS, the Stadium Woods are a habitat for an assortment of flora and fauna that are dependent on old-growth forest; and

WHEREAS the Arboretum Committee of Virginia Tech, whose purpose is to advocate for wise stewardship of campus trees and forests and to provide technical advice to the administration of the University concerning matters related to these natural resources, strongly opposes this project; and

WHEREAS, the long-term utility and health of Stadium Woods will be negatively impacted by this building project, and that the unique character and benefits of the Stadium Woods will be irreparably harmed by the proposed building project;

THEREFORE, BE IT RESOLVED, that the Faculty Senate of Virginia Tech asks that the Office of the President and the Athletic Department of Virginia Tech stop all plans to develop Stadium Woods.

ADDITIONALLY, BE IT FURTHER RESOLVED, that the Faculty Senate of Virginia Tech asks that the Office of the President begin the process to designate Stadium Woods as a permanently protected place.

## Virginia Tech Student Government Association (SGA) Resolution

House Sponsor(s): Nneka Sobers (Environmental Coalition)

Senate Sponsor(s): Katie Shepard; Mario Ichaso (College of Business); Gloria Trivitt (College of Science)

Resolution S12-R?: A resolution in support of protecting Virginia Tech's Stadium Woods

Regarding the proposal to destroy a portion of Stadium Woods in order to construct an indoor athletic training facility for the football, soccer, and lacrosse teams:

WHEREAS, Virginia Tech has publicly committed itself to value sustainability, and to engage in sound environmental stewardship; and

WHEREAS, the first point under Virginia Tech's Climate Action and Campus Sustainability Plan is "Virginia Tech will be a leader in campus sustainability"; and

WHEREAS, Virginia Tech has been designated as a Tree Campus USA; and

WHEREAS, the Town of Blacksburg, of which Virginia Tech is a part, has been designated as a Tree City USA, and has vigorously promoted environmental sustainability; and

WHEREAS, the Stadium Woods are the only woodland on central campus that possesses characteristics of old-growth forest, essentially comprising a self-contained forest ecosystem, populated by over fifty trees measuring greater than three feet in diameter, many of which are over 300 years of age, and is seasonally inhabited by over 60 species of birds, many of which are neo-tropical migrants, not found in urbanized landscapes; and

WHEREAS, the 2009 Virginia Tech Master Plan Amendment designates the Stadium Woods as an "environmental greenway," thus as "a significant reservation of lands, waterways, tree stands, and cultural landmarks for future generations"; and

WHEREAS, the Stadium Woods are used by faculty to conduct both classes and research, and also are used for environmental education for visiting K-12 students and adult learners; and

WHEREAS, the Stadium Woods are used for outdoor recreation and leisure by students, faculty, staff, visitors, and nearby residents; and

WHEREAS, the Stadium Woods enhance the aesthetics and character of the Lane Stadium area; and

WHEREAS, the Stadium Woods are a living reminder of the natural history of campus and the region; and

WHEREAS, the Stadium Woods are important for community storm water mitigation through canopy interception and forest soil detention, and provide soil erosion control through vegetative and litter cover and plant root systems; and

WHEREAS, the Stadium Woods are a habitat for an assortment of flora and fauna that are dependent on old-growth forest; and

WHEREAS, the Roanoke Times, a leading and well-respected newspaper of Southwest Virginia, endorsed protecting Stadium Woods; and

WHEREAS the Arboretum Committee of Virginia Tech, whose purpose is to advocate for wise stewardship of campus trees and forests and to provide technical advice to the administration of the University concerning matters related to these natural resources, strongly opposes this project; and

WHEREAS the Faculty Senate of Virginia Tech endorsed a similar resolution calling on the protection of Stadium Woods; and

WHEREAS, the long-term utility and health of Stadium Woods will be negatively impacted by this building project, and that the unique character and benefits of the Stadium Woods will be irreparably harmed by the proposed building project;

THEREFORE, BE IT RESOLVED, that the Student Government Association of Virginia Tech asks that the Office of the President and the Athletic Department of Virginia Tech stop all plans to develop Stadium Woods.

ADDITIONALLY, BE IT FURTHER RESOLVED, that the Student Government Association of Virginia Tech asks that the Office of the President begin the process to designate Stadium Woods as a permanently protected place.

ADDITIONALLY, BE IT FURTHER RESOLVED, that the Student Government Association of Virginia Tech supports the general idea of the proposed athletic facility, and encourages the Office of the President and the Athletic Department of Virginia Tech to relocate it to an area that is less environmentally and ecologically sensitive while still serving the needs of the Athletics Department.

## **Virginia Tech Commission on Student Affairs (CSA) Resolution**

### **RESOLUTION SUPPORTING PROTECTION OF STADIUM WOODS, Thursday, April 5<sup>th</sup>, 2012**

Regarding the proposal to destroy a portion of Stadium Woods in order to construct an indoor athletic training facility for the football, soccer, and lacrosse teams:

WHEREAS, Virginia Tech has publicly committed itself to value sustainability and to engage in sound environmental stewardship; and

WHEREAS, Virginia Tech has been designated as a Tree Campus USA; and

WHEREAS, the Town of Blacksburg, of which Virginia Tech is a part, has been designated as a Tree City USA, and has vigorously promoted environmental sustainability; and

WHEREAS, the Stadium Woods are the only woodland on central campus that possesses characteristics of old-growth forest, comprising a self-contained forest ecosystem, populated by over fifty trees measuring greater than three feet in diameter, many of which are over 300 years of age, and is seasonally, inhabited by over 60 species of birds, many of which are neo-tropical migrants, not found in urbanized landscapes; and

WHEREAS, the 2009 Virginia Tech Master Plan Amendment designates the Stadium Woods as an “environmental greenway,” thus as a “significant reservation of lands, waterways, tree stands, and cultural landmarks for future generations”; and

WHEREAS, the Stadium Woods are used by faculty to conduct both classes and research, and also are used for environmental education for visiting K–12 students and adult learners; and

WHEREAS, the Stadium Woods are used for outdoor recreation and leisure by students, faculty, staff, visitors, and nearby residents; and

WHEREAS, the Stadium Woods enhance the aesthetics and character of the Lane Stadium area; and

WHEREAS, the Stadium Woods are a living reminder of the natural history of campus and the region; and

WHEREAS, the Stadium Woods are important for community storm water mitigation through canopy interception and forest soil detention, and provide soil erosion control through vegetative and litter cover and plant root systems; and

WHEREAS, the Stadium Woods are a habitat for an assortment of flora and fauna that are dependent on old-growth forest; and

WHEREAS, the Arboretum Committee of Virginia Tech, whose purpose is to advocate for wise stewardship of campus trees and forests and to provide technical advice to the administration of the University concerning matters related to these natural resources, strongly opposes this project; and

WHEREAS, the long-term utility and health of Stadium Woods will be negatively impacted by this building project, and that the unique character and benefits of the Stadium Woods will be irreparably harmed by the proposed building project;

THEREFORE, BE IT RESOLVED, that the Commission on Student Affairs of Virginia Tech asks that the Office of the President and Athletic Department of Virginia Tech stop all plans to develop any facilities in Stadium Woods;

BE IT FURTHER RESOLVED, that the Commission on Student Affairs of Virginia Tech supports the building of an athletic facility at another location, provided that existing student used facilities are replaced prior to or currently with demolition and remain accessible to on-campus students;

ADDITIONALLY, BE IT FURTHER RESOLVED, that the Commission on Student Affairs of Virginia Tech requests that the Office of the President begin the process to designate Stadium Woods as a permanently protected place.

## **Virginia Tech Graduate Student Assembly (GSA) Resolution**

Resolution Supporting Protection of Stadium Woods, Thursday, April 19th, 2012

Regarding the proposal to destroy a portion of Stadium Woods in order to construct an indoor athletic training facility for the football, soccer, and lacrosse teams:

WHEREAS, Virginia Tech has publicly committed itself to value sustainability and to engage in sound environmental stewardship; and

WHEREAS, the 2009 Virginia Tech Master Plan Amendment designates the Stadium Woods as an “environmental greenway,” thus as a “significant reservation of lands, waterways, tree stands, and cultural landmarks for future generations”; and

WHEREAS, Virginia Tech has been designated as a Tree Campus USA; and

WHEREAS, the Town of Blacksburg, of which Virginia Tech is a part, has been designated as a Tree City USA; and

WHEREAS, the Stadium Woods are used by faculty and graduate students to conduct both classes and research, and also are used for environmental education for visiting K–12 students and adult learners; and

WHEREAS, the Stadium Woods are the only woodland on central campus that possesses characteristics of old-growth forest, comprising a self-contained forest ecosystem, populated by over fifty trees measuring greater than three feet in diameter, many of which are over 300 years of age, and is seasonally, inhabited by over 60 species of birds, many of which are neo-tropical migrants, not found in urbanized landscapes; and

WHEREAS, the Stadium Woods are important for community storm water mitigation through canopy interception and forest soil detention, and provide soil erosion control through vegetative and litter cover and plant root systems; and

WHEREAS, the Stadium Woods are a living reminder of the natural history of campus and the region; and

WHEREAS, the Arboretum Committee of Virginia Tech, whose purpose is to advocate for wise stewardship of campus trees and forests and to provide technical advice to the administration of the University concerning matters related to these natural resources, strongly opposes this project; and

WHEREAS, the Commission on Student Affairs of Virginia Tech and the Faculty Senate of Virginia Tech have likewise opposed the development of Stadium Woods; and

WHEREAS, the long-term utility and health of Stadium Woods will be negatively impacted by this building project, and that the unique character and benefits of the Stadium Woods will be irreparably harmed by the proposed building project;

THEREFORE, BE IT RESOLVED, that the Graduate Student Assembly of Virginia Tech asks that the Office of the President and Athletic Department of Virginia Tech stop all plans to develop Stadium Woods.

BE IT FURTHER RESOLVED, that the Graduate Student Assembly of Virginia Tech supports the building of an athletic facility at another location, provided that existing student facilities are replaced prior to or currently with demolition and remain accessible to on-campus students;

ADDITIONALLY, BE IT FURTHER RESOLVED, that the Graduate Student Assembly requests that the Office of the President begin the process to designate Stadium Woods as a permanently protected place.

**Town of Blacksburg Town Council Resolution**



RESOLUTION 5-A-12

A RESOLUTION REGARDING THE PROPOSAL TO DESTROY A PORTION OF STADIUM WOODS IN ORDER TO CONSTRUCT AN INDOOR ATHLETIC TRAINING FACILITY FOR THE FOOTBALL, SOCCER, AND LACROSSE TEAMS

WHEREAS, the Town of Blacksburg has been designated as a Tree City USA, and has vigorously promoted environmental sustainability and Virginia Tech has been designated as a Tree Campus USA and has publicly committed itself to value sustainability and to engage in sound environmental stewardship; and

WHEREAS, Stadium Woods possesses characteristics of old-growth forest, essentially comprising a self-contained forest ecosystem, populated by over fifty trees measuring greater than three feet in diameter, many of which are over 300 years of age, and is seasonally inhabited by over 80 species of birds, many of which are neo-tropical migrants, not found in urbanized landscapes; and

WHEREAS, the 2009 Virginia Tech Master Plan Amendment designates Stadium Woods as an "environmental greenway," thus as "a significant reservation of lands, waterways, tree stands, and cultural landmarks for future generations"; and

WHEREAS, Stadium Woods is used by Virginia Tech faculty for classes and research, by K-12 students and adult learners for environmental education, and by students, faculty, staff, visitors, and area residents for outdoor recreation and leisure; and

WHEREAS, Stadium Woods enhances the aesthetics and character of the Lane Stadium area and nearby Blacksburg neighborhoods; and

WHEREAS, Stadium Woods is important for community storm water mitigation through canopy interception and forest soil detention, and provides soil erosion control through vegetative cover and plant root systems; and

WHEREAS, Stadium Woods is a living reminder of the natural history of the Virginia Tech campus, the Town of Blacksburg, and the region; and

WHEREAS, the long-term utility and health of Stadium Woods will be negatively impacted by this building project, and the unique character and benefits of Stadium Woods will be irreparably harmed by the proposed building project;

THEREFORE, BE IT RESOLVED that the Town Council of Blacksburg asks the Virginia Tech administration to work to find a more suitable location for this facility;

BE IT FURTHER RESOLVED that the Town Council of Blacksburg asks the Virginia Tech administration to begin the process of formally designating Stadium Woods as a permanently protected site.

ATTEST:

\_\_\_\_\_  
Town Clerk

\_\_\_\_\_  
Mayor

Date of Adoption: May 8, 2012

## Appendix H. Selected Media Reports

The following listing of links to newspaper articles, television coverage, interviews, editorials, and letters to the editor is taken from the comprehensive listing on the Save Stadium Woods website. They are given in reverse chronological order through May 25, 2012. In the electronic form of this report, they are links to the media accounts.

- [Look who supports preserving the woods](#)  
John Seiler *Roanoke Times*, May 25, 2012
- [Pick of the day: The end game in a noble battle to save the woods](#)  
Rebekah Paulson *Roanoke Times*, May 24, 2012
- [Blacksburg Town Council supports Stadium Woods](#)  
*Roanoke Times*, May 21, 2012
- [A biblical view of Stadium Woods](#)  
Margaret Welleford, *Roanoke Times*, May 16, 2012
- [What will 'We are Virginia Tech' mean?](#)  
Simone Poirier-Bures, *Roanoke Times*, May 14, 2012
- [Tech sports program isn't worth the trees](#)  
James A. Smith, Jr., *Roanoke Times*, May 11, 2012
- [Manage the habitat on the Tech campus](#)  
Rita Kegley, *Roanoke Times*, May 11, 2012
- [Tech is showing misplaced priorities](#)  
Ted Ellmore, *Roanoke Times*, May 7, 2012
- [Virginia Tech's Stadium Woods Threatened](#)  
Jack Murray, *Blue Ridge Outdoors*, May 7, 2012
- [Save Stadium Woods: Virginia Tech Group Fights To Stop Destruction Of Centuries-Old Trees](#)  
Connor Adams Sheets, *International Business Times*, May 7, 2012
- [Lancaster: Honor history; let Stadium Woods stand](#)  
Beth Lancaster, *Roanoke Times*, May 2, 2012
- [Stadium Woods supporters present petition to Virginia Tech](#)  
Ken Heineck, *WSLS 10*, May 3, 2012
- [Students call on 'Colbert Report' to help save Stadium Woods](#)  
Cody Owens, *Collegiate Times*, May 2, 2012
- [Playful plea for Stadium Woods has a note of seriousness](#)  
Tonia Moxley, *Roanoke Times*, May 2, 2012
- [Dr. Seuss Speaks about the Stadium Woods Debate](#)  
Sam Howard, *The Black Sheep*, May 1, 2012
- [VA Tech tree named after Stephen Colbert](#)  
Jennifer Carr, *WTVR.com*, May 1, 2012
- [Virginia Tech group to name tree after Stephen Colbert](#)  
WDBJ7 Web Staff, *WDBJ7*, May 1, 2012
- [Stadium Woods to be featured on 'Colbert Report'](#)  
Dean Seal, *Collegiate Times*, April 30, 2012
- [Trodding on ancestral ground](#)  
Leslie Brooks, *Roanoke Times* editorial (fourth on the page), April 29, 2012
- [Loaded questions on Stadium Woods](#)  
Sarah Owen, *Roanoke Times* editorial (third on the page), April 29, 2012
- [Stadium Woods vs. Virginia Tech Football T Squared's 4 Square](#), April 27, 2012
- [Virginia Tech Stadium Woods group to name tree after Stephen Colbert](#)  
TV Staff Reporters, *WSLS*, April 26, 2012
- [Save the woods, sacrifice a garage](#)  
Phyllis T. Albritton, *Roanoke Times*, April 24, 2012 [original letter](#)
- [Chain saws and anti-intellectualism](#)  
Evan Worrell, *Roanoke Times*, April 23, 2012
- [Group rallies to save Stadium Woods at Virginia Tech](#)  
Tim Ciesco, *WSLS*, April 22, 2012
- [Call off the chain saws at Virginia Tech](#)  
Hal V. Gibson, *Roanoke Times*, April 19, 2012
- [Stadium Woods allows hands-on, free education](#)  
Ted Martello, *Collegiate Times*, April 18, 2012
- [Volunteers dig in for Earth Week](#)  
Mallory Noe-Payne, *Collegiate Times*, April 16, 2012

- [Tech pledged support for green planting](#)  
Leslie Pendleton, *Roanoke Times*, April 15, 2012
- [Tech committee is studying facility siting](#)  
Dr. John Randolph, *Roanoke Times*, April 15, 2012
- [Many creatures depend on Stadium Woods](#)  
Arlean Lambert, *Roanoke Times*, April 15, 2012
- [Preserve Virginia Tech's Stadium Woods](#)  
Doug Chancey, *Roanoke Times*, April 15, 2012
- [Pray for Stadium Woods](#)  
Rebekah Paulson, *Roanoke Times*, April 15, 2012
- [The Burgs letters](#)  
Betty Hahn, Elizabeth Victory, Brenda Winkel, Candra Bryson, and Charles Good, *Roanoke Times*, April 15, 2012
- [The Stadium Woods gives school value](#)  
Dr. Edwin Robinson, *Roanoke Times*, April 13, 2012
- [The Stadium Woods no place for debauchery](#)  
Dr. Jeff Kirwan, *Roanoke Times*, April 13, 2012
- [The Stadium Woods gives school value](#)  
Megan Wilson, VTCC '07, *Collegiate Times*, April 12, 2012
- [Pigskin Versus White Oak](#)  
Michelle Werts, *American Forests*, April 12, 2012
- [Virginia Tech, spare those old-growth trees](#)  
Herbert Root and Emily Brown (2), *Washington Post*, April 11, 2012
- [Shop Talk: Va. Tech Football Practice Facility Threatens Old-Growth Forest](#)  
Lawrence Biemiller, *The Chronicle of Higher Education*, April 9, 2012
- [Football money vs an ancient forest at Virginia Tech](#)  
James Bruggers, *Courier-Journal*, April 9, 2012
- [Virginia Tech sports facility plan in Stadium Woods draws opposition](#)  
Darryl Fears, *Washington Post*, April 9, 2012
- [Stadium Woods](#)  
*Roanoke Times*, April 9, 2012
- [Graduates, rally for the woods](#)  
*Roanoke Times* editorial, April 8, 2012
- [Stadium Woods group seeks public comment](#)  
Tonia Moxley, *Roanoke Times*, March 20, 2012
- [Stadium Woods worth saving](#)  
Dr. John Seiler, *Collegiate Times*, March 19, 2012
- [The Burgs letters: Preserve Stadium Woods](#)  
Carolyn J. Kroehler, *Roanoke Times*, March 4, 2012
- [Stadium Woods worth saving from construction](#)  
by Chris Dunn, *Collegiate Times*, February 29, 2012
- [Pictorial opinion: Stadium Woods](#)  
*Roanoke Times*, February 19, 2012
- [Letters: It's not only the trees](#)  
by Duncan M. Porter, *Roanoke Times*, January 31, 2012
- [Developers vs. Preservationists](#)  
WVTF news report by Beverly Amsler, February 10, 2012
- [Look, and see a woodland archive](#)  
*Roanoke Times* editorial by Liza Field, December 11, 2011
- [Editorial: Preserve Virginia Tech's Stadium Woods](#)  
*Roanoke Times*, November 20, 2011
- [Effort to spare Virginia Tech's old trees is sprouting](#)  
by Tonia Moxley, *Roanoke Times*, November 14, 2011
- [Stadium Woods: Natural heritage in the heart of Virginia Tech's campus](#)  
by Andreza Silva de Andrade, Virginia Tech News, November 9, 2011