Warren Wilson College Land Use Planning

One Mission, One Land

September 17, 2010

Executive Summary

The document which follows represents the fruit of a continuing effort by the Warren Wilson College Land Use Committee to develop a planning tool that goes beyond an identification and analysis of current problems in the physical environment of the College to address the needs of the future. It is unique in the history of physical planning at the College in integrating the needs of the present with principles, tools and parameters capable of guiding all future planning efforts.

The Committee's approach has been to identify current problems and to seek ways of addressing them in the context of shared governance. This analysis has then been scrutinized under the light cast by our history and such illumination as can be imagined for the future in order to ensure the comprehensiveness of the tool that we are crafting. Our goal has been a means of planning and management that is sufficiently universal for its utility to survive the unknowable demands of the future while being specific enough to guide the hands-on work of the ongoing present.

At the heart of the document is the College's commitment to pattern language, now entering its third decade. The problems of the day will be solved or managed, will drop away with time to be replaced by others or will evolve as ongoing challenges. The patterns which we apply to them should be as universal and ever-applicable as we can make them. They are the actionable expressions of our principles.

Implicit in the concept of comprehensive applicability is the ability of this set of tools to evolve and adapt, and we recognize that this will not occur without active management. For that reason many of the action items and patterns herein include provisions for assigning responsibility and delegating authority. Without these provisions the problems described may fester and the tools intended for their solution may lie idle. Our hope is that the College will accept this document and will commit such resources and effort as are required to move this plan forward as a robust, active program for the management of change.

The Warren Wilson College Land Use Committee *September 17, 2010*

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I - Introduction

The fundamental task of land use planning at Warren Wilson is to ensure that land use practices honor the College's mission and its pattern language principles while providing the flexibility to accommodate change over time and respond to new conditions. This document is intended to establish the parameters within which a master plan for the campus of the College may be developed. It will set forth a master pattern for the analysis and pursuit of solutions to problems that are perceived currently and in the future. This master pattern will be applied in the development of a master plan with the guidance of five principles set forth below, which reflect the philosophy of the College with respect to the application of its physical resources to its educational mission.

Campus master planning at Warren Wilson College has been pursued several times in the past thirty years in a series of efforts that were generally not seen through to completion. In the 1980's Robert Marvin and Associates began assembling analytical maps pursuant to a planning study, but a lack of funding brought this work to a premature end. Likewise, Charles D. Hight and Associates started a study that produced some preliminary conceptual planning notions, but again the work was limited by an insufficient commitment of funds.

In 1994 the Long Range Land Use Committee of the College, with the assistance of Wade H. Macfie, Architect, began a descriptive inventory of the campus lands intended to characterize the value of its holdings with respect to the mission of the College. The resulting document was published in 1996 and remains extant. Its principal limitation is in not addressing the character and value of core campus to the same depth that it treats surrounding campus lands, and it does not engage in physical planning.

In addition to the funding constraints that have hampered past efforts, the Marvin and Hight studies were not preceded by analysis of land management practices and the establishment of a program of goals and objectives for the planning efforts tied to College mission, and protocols for evolutionary planning with the further passage of time were not set. Subsequently a positive step toward future planning was taken by the College in the adoption of the principles of a *pattern language* as set forth in the book of that name by Christopher Alexander, et al.

The new planning course set herein by the present Land Use Committee envisions the thoughtful and intentional development of tools that will enable the administration, land managers and the College community to collaborate in the management of the land to the benefit of the College mission and the daily lives of those who pursue it. Pattern language is at the heart of this approach, in the form of patterns representing the tools and basic building blocks of an evolving plan for the future. This approach also differs from past attempts in its inclusion of an action plan which can be initiated on the day of adoption of this document.

II - One Mission, One Land

There is a curious cycle of thinking about land which can derail an effort to take a holistic view of the characteristics and value of the land held by Warren Wilson College. In this cycle, one begins by looking at each physical sector of the land in the context of the question, "What is it good for?" A river bottom we know from experience to be good for growing corn and hay, and so the bottomland becomes a farm doing just that, and presently we assign to that land the characteristic of being a farm, which is really one piece among a collection of uses, each with an administrative apparatus to reinforce its singularity.

It is thus an easy habit – and a mistake – to think of the campus lands of Warren Wilson College as comprising farm, forest, core campus, garden and so on, and to derive the characteristics and value of the land from those uses. Yet even the forest, as people have managed this land for hundreds of years, is a use more than an essential characteristic. There are boundaries between uses that do not exist in nature so much as in our minds; they have emerged and changed, and will change again, sometimes without much thought or effort if our focus wavers.

The land itself does have a myriad of characteristics by which it may be described and recognized as being variously ridge or river bottom, mountainside or wooded knoll, and these characteristics often are associated with the land's value, but we must remember that value is an intentional creation within an accepted framework of economics. At Warren Wilson the foundation of that economic framework is the institution's mission of education. The College's land is a central resource - indeed an endowment - in pursuing that mission, and must always be seen as a single entity, just as its essence is of a single piece of the earth, not of a collection of uses.

Seeing the land in this light brings us to our roles as stewards and beneficiaries of the land with a greater sense of responsibility than we might feel as functionaries operating within the small boundaries of use. It also challenges us to expand our thinking about the relationship between the land and our task of education, and to remember that while Warren Wilson may choose to model such practices as farming and forestry for the sake of education, it is defined by its role as an institution of learning rather than by its land use activities.

In this document the Land Use Committee proposes a set of principles to guide our land use practices which are set forth in the following section. We outline aspirations for our use of the land and identify current conditions that counter those aspirations. Actions are proposed to seek solutions to those problems, and prototypical solutions and tools to be applied to particular categories of problems are presented in the form of a pattern language such as has been adopted by the College.

In using this document you are encouraged, whether you are dealing with a long-cycle use such as a forest, road or building or with a question of immediate action, to see your position as one among many stewards of a whole and your setting as *one land*.

III - Warren Wilson College Land Use Principles

Introduction

Warren Wilson College has always been an enterprise with close ties to the land. From its nineteenth-century origins as a farm school to its current status as a leading liberal arts college uniquely committed to the Triad of academics, work and service it has been grounded in the care and use of the land. We hold this precious land endowment with reverence for the magnificent backdrop of the ancient Appalachians which remind us that the history of the College is written on land that has also served as home and source of sustenance to untold generations and many cultures before us.

This richness of land and cultural heritage has a profound effect on the lives of the people who live and work, or even visit, here. A common response among those who enter the Swannanoa Valley through the wooded gap leading to the Red Barn and the broad vista of the College lands is a sense of coming home; it is certain that one is in the presence of an extraordinary place. Yet there is more to this landscape; entrancing though its beauty may be, the land is a dynamic component of the institution – it is a living laboratory for the unique liberal arts educational experience that is the very essence of Warren Wilson College.

The physical world is undergoing more human-generated change than at any other time in history, and the Swannanoa Valley is no exception – it is besieged by growth. To honor the legacy of our rich land endowment, it is imperative that our community define and uphold principles that actively protect and enhance the College lands for those who will continue our tradition. The five principles which we adopt herein are expressions of the philosophy founded on the Triad, and shall be honored in all land use decisions and practices henceforth. It is our intention that they represent a covenant, freely given in respect for those who have preceded us and with our best hopes for those who will follow.

Guiding Principles for Land Use

1 Sustainability: Land use decisions shall demonstrate a sustainable decision-making process that results in the health and vitality of the global commons for the present and future.

Responsible land use decisions are complex. To ensure a desirable outcome, the environmental, economic and social/cultural impacts of the options must be weighed for both short and long term effect. This process insures that decisions preserve what is valued in all dimensions of community life. All land use decisions shall be weighed for these potential impacts.

2 Community Involvement: The community shall participate in land use planning.

The riches of land must always be seen as an endowment. As such they must be managed for the good of the whole institution. Because individual programs usually drive change, potential impact on the larger community must always be considered in evaluating land use changes.

- *Proposed major changes in land use shall be presented through the College's shared governance system.*
- *All decisions about land are to be bound by the principles set forth herein and the patterns adopted as a part of the College Pattern Language.*
- *The physical environment of the College is rich with examples of successful and regrettable decisions. This legacy shall inform future decisions so the deliberation draws from hindsight as well as current reality.*
- *A mechanism for long-term maintenance shall be a component of each land use plan.*

3 The Character of the Land: Decisions shall honor the character of the land.

- *Long-term development of the campus lands shall not erode the pastoral and natural qualities of the place. Every effort will be made to zone areas to set parameters for primary and permitted use.*
    - *Sprawl shall be avoided in any growth of the College; the present core campus should be the working limit of the built environment in the absence of clear net benefits to its expansion.*
    - *Decisions about land use within the core should follow the practices and patterns outlined in Appendices A and C.*
    - *Ridgelines shall be protected from development.*
    - *Connectivity shall be maintained between College lands and wild lands on its borders.*
- *Factors such as building scale, view shed, appropriate density, pedestrian conveniences of accessibility, handicapped accessibility, and appropriate walking distances shall be considered when developing the land.*
- *Changes in land use shall yield a strongly net positive effect on the land and the community.*
- *No land use decision shall be made that would negatively affect the physical or philosophical sense of place that exists here.*

- *Any changes to the aesthetic nature of the land, regardless of the functional intent, shall honor the character of the land, sense of place, and quality of community life.*

- *Land use decisions and management practices must be tested against stated principles.*

- *Sacred sites shall be noted and protected to foster reverence for the land.*

The following principle, with components in priority order, is to be considered for each land use decision. Decisions shall strike a balance among these components.

4 Land Management: The College shall employ a deliberate process of decision-making for all land management questions that incorporates the following:

A. Decisions shall protect and enhance the ecosystem.

- *Ecosystems maintain integrity when their native components are intact. Areas and taxa of special biological interest shall be protected and/or created to enhance the ecological value of our land.*

- *The College's land use practices shall enhance the components of the native ecosystem - soil, water, air quality, as well as biodiversity and endemism when appropriate.*

- *Areas under cultivation are, by definition, impacted ecosystems. To lessen impact on the native ecosystem, sustainable cultivation methods shall be practiced.*

- *Fossil fuel efficiency and conservation shall be a deciding factor when choosing land management practices.*

- *We recognize that the ecosystem of our land encompasses native life, geographic phenomena and ourselves, and that in this interaction we are the ones uniquely capable of exercising responsibility.*

B. The land shall be used for education in a broad context.

- *Academics curriculum and Work Program practices shall reflect use of the land as a living laboratory via hands-on study and adherence to best sustainable land use practices.*

- *Choice of land use practices shall weigh objective data on best sustainable methods, and honor the College's principles.*

- *College Farm, Garden, Landscape and Forest management shall serve as a demonstration of sustainable practices for the region.*

- *Visitors shall be informed of the principles the College uses to manage its lands and instructed on their responsibility as guests.*

C. The aesthetic environment of the community shall be maintained including recreational areas.

- *The mountain and rural setting in which the College exists also appeals to those who seek to gain personal nourishment from the land. This aspect of its function shall be preserved.*

D. The products of the land shall optimize resource yield and prioritize local use.

- *Products of the land shall be prioritized first for the Warren Wilson community, then for local and regional communities. If appropriate, national markets may be sought.*

- *The practice of internal trading should continue to be accommodated, but it must be recognized that basing trades on fair market value may not uniformly serve the educational interests of the College.*

5 Enhancement: The College shall enhance the value of its land through these principles and foster its land ethos with its neighbors in the Valley and the world.

- *Land use practices shall enhance the value of the College land and foster a similar land ethos in the surrounding communities.*

- *The College shall serve as a good neighbor to surrounding landowners, cultivating relationships that build commitment to the preservation of the character and traditional functional uses of the Swannanoa Valley.*

- *Conservation: The College shall survey its land holdings with the intention of recommending areas for conservation easements. As a first priority, any financial gain from the sale of conservation easements should under normal circumstances be committed to obtaining land resources that protect and enhance the current land holdings.*

IV - Pattern Language

Introduction to Pattern Language

In 1990, WWC adopted pattern language as the conceptual tool to develop underlying principles for its land use decisions. Pattern language was developed by architect Christopher Alexander in the early 1970's to assist the University of Oregon with its planning process. A pattern is any general planning principle that states a clear problem that may occur repeatedly in the environment, states the range of contexts in which the problem may occur, and gives the guidelines that will solve the problem. Patterns are dependent upon community input and continuous review. They maintain the internal physical integrity and character of a community while allowing for growth and change. The pattern language process is compatible with Warren Wilson's tradition of shared governance, its legacy of land stewardship, and its use of representative committees to oversee the operations of the College.

In the early 1990's, Warren Wilson's Long Range Land Use Committee was charged with developing "Environmental Pattern Language" for land use, energy, transportation, solid and hazardous waste, water quality, air quality, purchasing, personnel, and construction in collaboration with relevant stakeholders. Since that time, several patterns have been developed, some more in keeping with the formal concepts of pattern language than others. The following sections LSPR, PCPR, SWPR, HZPR and BWPR summarize the Environmental Pattern Languages and operational plans developed by relevant stakeholders and approved through the College's shared governance to date. The first four sections – ASPL, IVPL, CMPL and BGPL – present those patterns developed in the course of the current, 2009/2010, planning effort by the Land Use Committee.

Patterns for Administrative Planning - ADPL

ADPL1 **Nurtured Evolutionary Planning**

Develop a process for a continuously evolving plan which is constantly before the community and for which there is an oversight entity responsible to College governance and College administration.

ADPL2 **Holistic Yield**

Value the yield of the land's resources holistically, accepting that as the broad goal for using the land is an educational one, the measures of production must be varied and in some instances subjective.

ADPL3 **Commitment to Accessibility**

Develop and commit the College to an institutional standard of accessibility that meets, but need not be limited to, existing published standards. Establish a standing office, board or committee which will

conduct a survey of existing conditions and develop a plan for correcting deficiencies, including annual goals and progress reports. Ensure that persons living with representative disabilities are included in this process.

ADPL4 **Committed Building Cycle**

Provide for a planning and realization cycle for built facilities, that is linked to the College Strategic Plan. Begin the first such cycle twenty-four months following an initial size commitment, during which conduct a fast-track survey and planning effort for facilities required early on. In each cycle, following evaluation during years six through eight, commit to size by year nine and immediately begin facilities planning for the ensuing cycle.

ADPL5 **Community Participation**

Invest all community members with ownership and stewardship of the land. Solicit the participation of all in making decisions about land use and the nature of the resource as an educational asset.

ADPL6 **Selective Partnership**

Seek a partnership with a residential real estate developer with experience in design/build construction of affordable, sustainable mixed-unit housing. Before conducting a search for such a partner, examine, reaffirm and quantify the College's commitment to sponsoring a housing program as a means of building community, and develop a preliminary program for a community of such housing including number and type of units and perform preliminary site selection studies.

ADPL7 **Community Transportation**

Provide transportation services to move community members and visitors conveniently between Satellite Parking and prime destinations within core campus. These services may include a shuttle or other scheduled group transport, but should also provide destination-specific "taxi" service for those with special needs such as infirmity or material logistics and for visitors who are present for meetings or appointments.

ADPL8 **Minimize Commuting**

Minimize the need for commuting by enhancing incentives and opportunities for community members to live on or near campus. Minimize the impact of commuting by enhancing incentives and opportunities for commuters to car-pool or use public transportation.

ADPL9 **Least Vehicle, Most Load**

For any transportation task, select the least adequate vehicle that is available. Determine "least" by criteria of embedded energy, carbon footprint and minimal excess capacity. Plan and assign vehicle use to achieve the most benefit possible from each trip, especially avoiding trips made only to deliver vehicles to a point of next need. Include bicycles and other human-powered vehicles in evaluating candidate vehicles per task.

Patterns for Resource Inventory Planning – IVPL

IVPL1 **Efficiency Assessment**

Make an assessment of building usage efficiency a component of the ongoing plan. Establish and charge an appropriate authority with maintenance and evaluation of the assessment, and with arbitration of final decisions on building usage issues. Couple this tool with a Building Omnibus of the building stock.

IVPL2 **Building Omnibus**

Adopt standards for building construction, outfitting, performance, operation, maintenance and decommissioning. Conduct a survey of all existing buildings with respect to these criteria and assemble these documents into a building omnibus that will be maintained as a tool for facilities management and an ongoing component of the campus plan.

As a part of this master document, include statements of life cycle and replacement date, renovation cycle and candidacy for addition or conversion to other uses.

Incorporate in this omnibus a means of highlighting building deficiencies with respect to adopted standards and a plan and schedule for their correction.

IVPL3 **Land Inventory**

Continuously maintain a legal and descriptive inventory of College land, and of adjacent tracts of interest to the College. Employ GIS and other tools to record this inventory and to make it readily available to the community.

IVPL4 **Infrastructure Survey**

Conduct, record and maintain a complete survey of infrastructure, with particular attention to underground utilities. Make this information available to all who may be involved in future maintenance, repair or new construction work.

Patterns for Land-Use Planning – LUPL

LUPL1 **Stewardship of Shared Assets**

Recognize that the land does not stop at legal boundaries, whether of roads and utilities or of property lines. Where land use issues or opportunities spill across such boundaries, take the initiative in promoting joint stewardship and usage practices that benefit all.

Patterns for Campus Planning – CMPL

CMPL1 **Appropriate Density**

Group buildings in clusters of like or complementary kind to create hives of activity, consolidate services and preserve surrounding green space. Limit the spaces between buildings according to purpose (Captured Spaces/Outdoor Rooms). Limit the spaces between clusters to comfortable walking distances.

CMPL2 **Captured Spaces/Outdoor Rooms**

Situate buildings so that they contain the spaces between and among them. Modulate the spaces between buildings to human scale and the spaces among groups of buildings to the collective scale of the buildings in order to form outdoor rooms appropriate to use by a few or many respectively.

CMPL3 **Walking Campus**

Ensure that all of the facilities and significant sites of the whole campus are connected by appropriate pedestrian pathways. In planning these, consider the Celebration of Pathways and the accommodation of the disabled. Take positive steps to encourage walking rather than riding or driving, and give clear precedence to the pedestrian over the automobile.

CMPL4 **Pedestrian Core**

So far as possible exclude automotive vehicles from a core area designated in the plan for Transportation, Circulation and Access. Where pedestrians and automobiles must share pathways, take measures to reinforce the primacy of pedestrians and to provide comfortable separation between the two. Where existing vehicular routes may no longer be required for automotive traffic but may serve as walking paths, reconfigure them to a scale and level of amenity appropriate to pedestrians.

CMPL5 **Celebration of Pathways**

Recognize pathways as being the principal medium of experience in moving through and about the campus, and give attention to the quality of

that experience. Provide well-chosen routes and be attentive to size, surface, safety and environmental amenity in order to enhance the experience of movement within the campus. Consider the goal to be an experience of travel as significant as destination.

CMPL6 **Controlled Core Access**

Employ facilities and controls to minimize vehicular intrusion associated with service and delivery in the core campus, including optimal routing, scheduling, consolidation and use of Least Adequate Vehicle, Most Loaded Use principles. Consider investment in a central receiving and distribution facility. In planning building change or new buildings, make service/delivery impact a part of siting consideration.

CMPL7 **Satellite Parking**

Place parking facilities on or near the perimeter of core campus, on sites that are convenient to inbound traffic and have good potential connections to the core. Design them to funnel users to pedestrian arrival points served by walking pathways and Community Transportation.

CMPL8 **Service Parking**

Provide parking for service vehicles at every facility. Position service parking for efficient access to facilities and for minimal visual or real interference with facility environment. Plan access routes to service parking to minimize traffic in core campus.

CMPL9 **Discovery and Enhancement**

In considering change and improvement, particularly in the context of siting new buildings and facilities, examine existing patterns of usage and look for ways to enhance them. Attempt to create an Appropriate Density of small facilities and activity as well as of buildings.

CMPL10 **Community Gathering Space**

Provide a gathering space central to community life which will have a seating capacity sufficient to accommodate whole-College activities. Supplement its design program with a program of use to ensure its vitality and a favorable ratio of benefit to cost. In selecting and developing a site for this facility consider both its physical connection to core campus and the impact of the traffic and service/support it will generate.

CMPL11 **Circulation Tree**

Design the circulation system to smoothly and steadily diminish or increase in capacity as traffic volume changes with branching routes.

Where slow-downs or stops can be anticipated but not avoided provide escape lanes or turnouts. Correct physical hazards or impediments to smooth flow.

CMPL12 **Sensible Circulation**

Develop a circulation system that conforms to a sensible pattern, of which users can readily form cognitive maps. Within this pattern establish a hierarchy of routes that is perceptible as a user moves from arteries to more private or restricted routes. Use signage and other environmental indicators to help users choose parking destinations according to their purposes, and at these destinations provide more detailed mapping signage and information on Community Transportation.

CMPL13 **Sign Program**

Develop and maintain a comprehensive sign program based on the most successful components of present signage. Give priority .to critical and emergency signage, beginning with street number signs, and move on to safety and security signage, then general informational signage. Delegate responsibility for ongoing administration of the sign program and provide adequate resources for controlling and maintaining signage.

CMPL14 **Environmental Cue**

To minimize the visual clutter of unnecessary signage and make the experience of moving about the campus a natural one, use means other tghan graphic signs to guide people. Paving textures, views of objectives, repeated landscape elements and a host of other non-graphic "signs" can be used to take the place of graphic signs in many cases.

CMPL15 **Ownership of Pathway**

Use all available design elements to designate ownership of pathways according to means of conveyance, giving pedestrians highest consideration. Where possible separate traffic by type, providing separate paths even where routes are shared. Where types of traffic must intersect or share a path, use available tools to slow vehicular traffic and indicate that pedestrians have the right-of-way. Give preference to intuitive means of signaling ownership and make these sufficiently pervasive to establish a climate of respect for walking throughout the campus.

CMPL16 **Outdoor Classroom**

Provide as many outdoor classroom areas as can be used productively. Equip them with improvements that will extend the range of teaching opportunities accommodated. Consider adjacent activities, proximity to supporting offices and equipment rooms, slope, ground cover, angle of

sunlight, shade and shadow and sense of containment provided by topography, built forms and vegetation.

CMPL17 **Associated Teaching Space**

Porches, patios, decks and other partly open spaces associated with buildings represent potential "found" spaces for teaching. These spaces can be adopted on an informal basis and where they prove successful can be scheduled and provided with improvements commensurate with their frequency and intensity of use.

CMPL18 **Parking as Target**

Recognize parking spaces as a target for traffic and thus a potential means of controlling traffic. Within the campus, where there is no parking there will be few cars except for through streetys like Warren Wilson Road. The well-conceived combination of destination and parking can greatly influence both vehicular and pedestrian traffic.

CMPL19 **Bicycle Parking and Storage**

Build covered bicycle storage facilities as attractive, permanent structures and site them carefully with regard to their effects on the movement and organization of bicycles in the local area. Consider them local rather than central facilities, each associated with one or a small group of buildings and of adequate capacity to serve the needs of those buildings. Do not permit bicycle storage elsewhere.

CMPL2 **Incorporate Art and Artifact**

With a trove of artifacts from its history and an ever-emerging array of artwork from its academic and recreational programs, the College should look for every opportunity to incorporate these things into the daily environment of the community. Just as the whole campus should be conceived as a teaching facility, so should it function as a working museum.

CMPL21 **Hierarchy of Paving**

Adopt a standard range of paving systems for use on campus, employing concrete at areas of heaviest traffic and open-web unit pavers or un-mortared solid unit pavers on a compacted sand base at areas of lightest use. Consider pervious paving to reduce runoff. Where large areas require paving consider tinted materials and articulation of paving with control and expansion joints and transition strips to adjust the scale and lessen the visual impact of the paving. Always pave as little area as will suffice.

CMPL22 **Soften Existing Hardscapes**

As Satellite Parking construction provides greater capacity, replace existing parking areas in the core with softer, greener facilities or with landscaping. Also plan new parking capacity to allow a reduction in density in existing lots so as to insert more planting islands and other features that will reduce heat island effect and break down the automotive scale so it is more welcoming to pedestrians.

Patterns for Building Planning – BGPL

BGPL1 **Architectural Context**

Prepare a document that will describe the chosen architectural context of the campus, and which will become a component of all future building and renovation programs. Include color palette, historical reference, examples of building elements and details of building massing, roof forms and typical materials. Also include examples of successful interpretation and variations on architectural themes.

BGPL2 **Integrated Parking**

Except where buildings will be too small, or on sites from which automobiles are to be excluded, consider integrating parking with new buildings to gain efficiencies of land use and construction, and to reduce environmental impact.

Patterns for Landscaping Practices – LSPR

LSPR1 **Sustainable Landscaping Practices**

Design and implement landscapes that are low maintenance, environmentally sound, and aesthetically pleasing, using native grasses, trees, shrubs and wildflowers as appropriate to establish and maintain natural areas throughout core campus.

LSPR2 **Enhancement of Mission**

Use every opportunity to employ landscape design, installation and maintenance in the enhancement of the educational function of the College.

LSPR3 **Welcoming Core**

Design and manage the landscape of core campus to produce a comprehensive network of pathways and of developed and natural areas that make the campus a pedestrian- and environmentally-friendly place.

LSPR4 **Filtered View**

Recognize that framed and filtered views from outdoor areas and from buildings are preferable to wide-open and un-modulated ones. Manage planting, clearing and pruning accordingly.

Patterns for Purchasing – PCPR

PCPR1 **Social and Environmental Commitment**

Develop and employ purchasing policies that demonstrate the social and environmental commitments in the College's Mission Statement and in its Environmental Commitment Statement. Purchasers must take into account the environmental and economic impact of their buying choices.

PCPR2 **Biosphere Impact**

Warren Wilson is interested in buying materials that promote the health and sustainability of our biosphere. In making evaluations related to this policy use criteria that address the full life cycle of products from extraction through final recycling, including embedded energy, transportation burden and total carbon footprint.

PCPR3 **Conservation-Supporting Purchasing**

Give preference in purchasing to products that use the least or conserve the most energy, water, gas, and other nonrenewable or environmentally costly resources.

PCPR4 **Responsible Acceptance**

Make gifts and donations subject to the same standards as purchased products. Formulate a protocol for dealing with proffered gifts that do not meet such standards that will avoid alienating and will seek to educate and recruit potential donors.

PCPR5 **Selectively Withhold Support**

Seek to avoid purchasing from companies with specific socially unethical business practices. Where possible communicate the reasons for such avoidance inoffensively.

PCPR6 **Vendor Screening**

Develop an environmentally friendly vendor list for use in purchasing decisions. Maintain the currency of this list through bi-annual reviews.

Patterns for Solid Waste Management – SWPR

SWPR1 **Responsible Goals**

Manage the College's solid waste in a safe, responsible and legal manner. Set specific goals for reduction of the volume of the College's waste stream and establish procedures for evaluating progress and for the progressive increase of these goals.

SWPR2 **Long-Range Solid Waste Plan**

Develop a long range, solid waste management plan to accomplish the stated objectives.

SWPR3 **Implementation Body**

Establish a solid waste committee to monitor the implementation of the management plan and assist in the review and update of the plan every two years. This committee will initially be appointed as an ad hoc committee by the Business Manager and then ultimately become a subcommittee of the Business Affairs Advisory Committee.

SWPR4 **Recycling**

Make recycling of all materials for which feasible means exist mandatory at Warren Wilson College.

Patterns for Hazardous Materials Management – HZPR

HZPR1 **Regulation and Principle**

Ensure that education and practices concerning the management and disposal of hazardous waste on campus comply with all federal, state, and

county regulations, and are in keeping with the College's principles of ethical responsibility.

HZPR2 **Oversight Body**

Maintain a Hazmat Committee to oversee implementation of policy.

Patterns for Biodiversity and Wildlife Management – BWPR

BWPR1 **Conservation of Biodiversity**

Conserve native biodiversity, fisheries, and wildlife on Warren Wilson property in recognition that the rich biodiversity of our land is integral to the environmental legacy of the College.

BWPR2 **Biodiversity and Wildlife Management Plan**

Maintain a college-wide biodiversity and wildlife management plan integrated with other management plans (farm, garden, forest, landscaping, archeological, recreation, development).

BWPR3 **Conservation of Wetlands**

Practice a no-net-loss of wetlands policy on College property. Encourage neighbors and the larger community to do likewise through example and negotiation.

BWPR4 **Conserve Riparian Zones**

Maintain and enhance riparian zones for conservation of biodiversity whenever possible at widths appropriate to conditions. Provide for maximum use and enjoyment of these zones commensurate with responsible management.

BWPR5 **No Loss of Agricultural Land**

Minimize loss of acreage of Warren Wilson agricultural land.

BWPR6 **Recruit Conservation Expertise**

Recruit and engage faculty and staff members who have conservation biology expertise for participation in the management of agricultural lands, as these lands are integral to conservation efforts.

V - Aspirations, Problems, Actions

A - Land Use Planning

- A.1 - Establish Oversight for Land-Use Planning

Problem: There is No Land-Use Oversight Body

In the matter of resource allocation it is inevitable that there will be some tension and competition for share. Even in such a civil context as the College this may result in deployment of resources in ways that do not best serve the strategic mission, and cooperation may be eroded despite good relations being maintained.

For these reasons it is best to have clear, participatory procedures for such practices as land use allocation, internal trading, shared consumption of resources and sharing the expenditure of capital resources in land management. With regard to participation it is also of critical importance that faculty, staff and students see the land as an educational resource for their work in teaching, learning and research, and that they have access to this resource.

As the primary responsible parties and the repositories of the greatest expertise in their areas, the land managers should continue to be charged with preparing and maintaining land-use plans for their sectors, but with the oversight of a body which can represent the entire community's interests in the land.

Action Item A.1.1 – Establish a Land Use Advisory Committee to be charged with the representation of the community's interests in land planning through annual review of land-use plans.

Include in the charge to this committee the initial work of Action Item B.1.1, developing a sustainable, comprehensive policy on yield. Also include the development of procedures for the preparation and review of land use plans and the submittal and consideration of proposals from the College community for land use directed toward teaching, research or entrepreneurial goals.

Direct this committee to begin its work by tapping the institutional memory and experience represented by those presently and formerly engaged in land-use practices and decision-making at the College.

Pattern Language: **Community Participation** **(ADPL5)**

- A.2 - Develop a Central Clearinghouse for Planning

Problem: The College Structure for Physical Planning is Disjointed

Like its physical results, campus planning at Warren Wilson has been episodic and reactionary, and it has not had the attention of the full community or the coordinating hand of a single responsible entity.

A central clearinghouse for all physical planning for the College should be developed. This office, officer or other entity would be responsible for coordinating all ongoing planning activities and for ensuring that planning for individual projects fit the framework of long-range strategic and physical plans. While review and coordination rather than direct planning would be the primary function of the office, it would also be involved in the development of building programs for future building projects, and possibly in the selection and direction of consultants.

A second key function would be to ensure the availability of all planning work to the administration, College governance and the community. To this end a visible, accessible physical space where information and exhibits of current planning activities could be maintained would be most desirable.

Action Item A.2.1 – Establish a mechanism for providing ongoing oversight of survey and data-gathering, master planning, building programming, circulation management, and facility siting.

Pattern Language: **Nurtured Evolutionary Planning (ADPL1)**

- A.3 - Maintain a Catalog of Resources – The Land

Problem: There is No Comprehensive Inventory and Survey of Land Resources

The descriptive material from the 1996 Long-Range Land Use Plan, supplemented by available maps and aerial photographs, the Continuing Forest Inventory, GIS documents and a miscellany of information maintained in various departments and offices represents what is now available as a catalog of land resources.

Action Item A.3.1 – Review and update the 1996 inventory of campus lands (The Long-Range Land Use Plan). Supplement it with additional information to make it a useful planning tool for the future and incorporate the resulting database into a GIS document or documents. Also update the land boundary survey of College property.

Pattern Language: **Land Inventory (IVPL3)**

- A.4 - Maintain an Omnibus of Resources – Buildings and Facilities

Problem: There is No Comprehensive Survey of Building and Facility Resources

Currently FMTS maintains a library of building floor plans and a maintenance database for all buildings. These components represent two parts of a much-needed comprehensive survey. The first is descriptive and should be supplemented by additional information on construction type, age and the other elements of a catalog. The second is performance-related and should also be expanded in significant ways.

The College should have standards for building construction, outfitting, performance, operation, maintenance and decommissioning. A survey of all existing buildings with respect to these criteria would constitute a critical tool for facilities management and an ongoing component of the campus plan.

This master document would include statements of life cycle and replacement date, renovation cycle and candidacy for addition or conversion to other uses for every building. A means of documenting building deficiencies with respect to adopted standards and a plan and schedule for their correction should be an integral part.

As with the inventory of land resources, maintenance of this document will be critical to its usefulness and may require the commitment of additional resources.

Action Item A.4.1 – Assemble and evaluate existing building and facility databases and gather such information as necessary to represent a comprehensive omnibus as described above. Develop a format and incorporate all necessary information. Assign responsibility and resources for maintaining this tool.

Pattern Language: **Building Omnibus (IVPL2)**

- A.5 - Maintain an Infrastructure Inventory

Problem: Underground Infrastructure is Largely Unknown And Much is in Decrepit Condition

Unless a complete survey of underground utility location is available every excavation is risky. Even exposing known lines for replacement poses the possibility of damaging other, unknown services. Such risks mean difficulty in planning, delays in completing work with extended periods of related service interruption and additional unanticipated costs.

In addition to this problem the unknown age and condition of many lines complicates the task of scheduling maintenance and replacement and makes the forecasting of life span virtually impossible. These two problems are compounded in planning service to new facilities.

A complete survey should be conducted by a qualified engineering firm to identify all underground infrastructure by service, location, depth, size, age and condition. Before the format for documenting this information is selected it should be determined whether the College or a retained consulting firm will maintain this survey in the future. Procedures should then be established to ensure that the survey documentation is kept current with all new or newly discovered work.

Action Item A.5.1 – Prepare a program of requirements and commission a survey of existing and presently planned underground, on-grade and overhead infrastructure. Develop a means of maintaining the currency of this survey and assign necessary responsibility and resources. Educate the community as to its existence and the importance of consulting it before doing work that could interfere with infrastructure.

Pattern Language: **Infrastructure Survey (IVPL4)**

B – The Working Landscape

- B.1 - A Sustainable, Comprehensive Policy on Yield

Problem: Monetary Yield Imperatives Constrain Land Use

The practice of assigning production quotas in dollar terms is a de facto *statement to land managers that the primary measure of yield for the resources they manage is monetary. This conflicts with the proposition that the principal purpose of the College lands should be to support education in a broad context.*

While productivity is both a guiding principle and a responsibility of stewardship we must recognize that there may be other benchmarks by which it can be measured than by the bottom line alone. This is not to deny that the economics of a farming operation, for instance, are an important part of the educational experience at the College; rather it is to suggest that the experience can be enhanced by broadening the definition of yield and removing the constraining pressure of budgetary commitments to be extracted from the land.

There are two aspects of this topic: how to ease the pressure of monetary quotas and redefine yield, and how to manage the opportunity that is thus created to best effect. These are challenging questions that beg study and

invention, and the process of considering them should have a significant educational role in itself.

Action Item B.1.1 – Initiate a study of these questions and produce an integrated report on how to reduce or eliminate the pressure of monetary quotas on land yield and how to extend the educational opportunities thus opened throughout community and curriculum. This report should represent a qualitative educational appraisal of the College lands and should confirm or revise our educational land use objectives.

Pattern Language: **Holistic Yield (ADPL2)**

- B.2 - Sharing Our Land With the Public

Problem: Opening College Land Resources to the Public Risks Disruption

The most obvious and potentially troublesome example of this is public access to the river corridor and trails. The splendid amenity of the Swannanoa River is balanced by its attractiveness to the public, including some who represent nuisance and even danger.

In reaching decisions about allowing access and providing accommodation to the public on campus lands the College must weigh considerations of civic opportunity and neighborliness against potential division and disturbance of its lands, and factors of safety and liability. Whatever the direction of future decisions it will be necessary to apply careful planning to the minimization and management of the risk of disruption.

Action Item B.2.1 – Adopt standards regarding public access to College lands that can be applied in evaluating and managing such access for minimal disruption. Include criteria for parking, pathway amenity, accessibility, safety and security of guests and community members, evaluation of liability and any desirable conditional requirements for maintaining such access.

Pattern Language: **Community Participation (ADPL5)**

Problem: The Possibility of a Greenway Connection Through Campus Land Poses Risk

First, it should not be assumed that a proposed greenway must follow the Swannanoa River through campus; while this seems a likely eventuality, there are other possible routes for a greenway which may be suggested by planners or proposed by the College in its own interest.

The prospect of a greenway connecting to or through campus lands carries both great promise and heightened risk. In reaching decisions about potential participation in a greenway, the College must weigh considerations of civic opportunity and neighborliness against potential division and disturbance of its lands, and factors of safety and liability. Whatever the direction of future decisions it will be necessary to apply careful planning to the minimization and management of the risk of disruption.

Action Item B.2.2 – Consider the conditions under which the College might participate in any greenway proposed to use College-owned land, including commitments regarding security of people and property, maintenance provisions and the ability to withdraw from participation if results are not satisfactory. Specific exclusion of particular areas of College land may also need to be addressed. Determine whether these conditions make participation feasible or not, or hold this judgment in abeyance pending further development of greenway plans if sufficient detail is not available.

Pattern Language: **Community Participation (ADPL5)**

- B.3 - Optimize Community Benefit from the Land

Problem: Community Involvement in Land Use is Limited

Currently, community members who are not directly involved in programs that use the land passively enjoy the environment of the core campus and views of the land, availability of farm, garden and forest products, and opportunities for recreation, but do not participate in management or land use decisions. While these are no small amenities, more active involvement in land use principles and practices and in land use programs throughout the community would not only benefit individuals but also strengthen the cohesiveness of the community and its ties to the land.

To a degree this problem may be related to the quota system discussed above, but it should not be assumed that revisions therein would precipitate a solution without further effort. Community input and participation should be actively sought in the areas of land use allocation, enterprise and entrepreneurial experiments, programs and studies in departments not currently using the land and enhancement of the aesthetic value of the land.

Action Item B.3.1 – Establish committees to advise land managers with respect to land use opportunities and community participation. Encourage research and entrepreneurial proposals regarding land use throughout the community and the academic curriculum.

Pattern Language: **Community Participation (ADPL5)**

- B.4 - Promote Common Stewardship Interests

Problem: Development of Surrounding Land May Bring Negative Effects

All of the land use issues related to stewardship and sustainability that face the College also apply to surrounding lands, and the success or failure of usage practices on those lands will affect the College in many ways ranging from viewscapes to effects of runoff to fire hazard and far beyond.

For this reason it is in the interest of the College to take such actions of diplomacy or partnership as may exert a favorable influence on land use practices in these areas. Because such efforts enjoy the greatest chance of success when undertaken before property goes to market or work begins on development or changes of use, the College should be prepared to act quickly when opportunities are perceived.

The events of the future are so extensive in their possibilities that it is difficult to make action plans, however tentative, in this area. Nonetheless it is advisable that a database be started to identify parcels, ownership, features, likely uses and known plans for lands surrounding the campus. This information is the grist of planning and negotiation, and to have it in hand and kept current is to be prepared to seize opportunity quickly when it arises.

The second significant effort in this area should be to influence through success. Owners of surrounding lands should be kept advised of College land use practices, the philosophy and hard reasoning behind them and the effect they are having. Conversely, when concerns arise regarding neighboring usage practices the College should look inward to see what effects its own practices of comparable sorts are generating.

Action Item B.4.1 – Prepare a catalog of neighboring land that will identify and describe parcels in detail and characterize their potential value to the College as acquisitions or conservation commitments or conversely the impact of likely development events. Identify as critical those parcels that have the greatest potential impact on neighboring College land and develop action plans for proposing preemptive or enhancing solutions through acquisition or partnership.

Pattern Language: **Stewardship of Shared Assets (LUPL1), Community Participation (ADPL5)**

C – The Built Environment

- C.1 - Provide Built Space to Support the College Mission

Problem: There is a Current Shortage of Building Space

At the current size of student body there is a deficit of dormitory space, which is being coped with by placing some students in buildings designated as faculty and staff housing. Some academic programs are short of teaching space and/or faculty office space, and the Work Program in several instances does not have adequate space for crews and their equipment and/or office space for crew supervisors.

It should also be noted specifically that the College lacks a well-equipped, dedicated teaching space seating one to two hundred.

The first step in seeking a remedy to this situation is to quantify current needs and to factor any foreseeable change in present demand for space. This can only be done successfully in the context of a committed size of student body over a known timeline. In comparing perceived needs with published benchmarks such as those used in accreditation programs it must be acknowledged that the needs of a work college differ distinctly from those of a conventional liberal arts institution.

While the diverse factors that might drive changes in College size may evolve at different rates, the timeline required to program, plan and bring on line new buildings suggests a cycle that correlates to the College's strategic plan in commitment to size. A ten-year physical planning cycle would provide for two to three sub-cycles of building planning and realization for facilities of conventional size and nature or a generous single cycle for the occasional large or very complex building. In this context the study and evaluation supporting each new ten-year commitment could take place in years six through eight, with years nine and ten available for planning and realization of new facilities required in year one of the next cycle. with further facilities changes preceding subsequent size changes according to plan through the course of each cycle.

Action Item C.1.1 – Commit the College to a specific student population in at least ten-year increments. Through a comprehensive space utilization study assess the space required to accommodate the currently approved number, placing highest priority on housing, programmatic space to meet the College mission and food service. Evaluate any likely or desirable programmatic changes in light of that number and outline facilities required to accommodate such. Prepare a facilities plan which will identify and specify sites for all new or expanded facilities needed within a ten-year period.

Pattern Language: **Efficiency Assessment (IVPL1), Building Omnibus (IVPL2)**

Problem: Building Utilization is Sometimes Inefficient

There is no comprehensive survey of building usage for all building types. This makes it difficult to assess the level of efficiency of current building usage and to determine accurately building needs for the future. Decisions about use of building space are not being reviewed by a single authority possessed of an overview of the whole building stock usage picture.

To be most effective, such a survey should be employed in tandem with a survey of physical characteristics and life-cycle projections for all buildings.

Action Item C.1.2 – Form a team to study building usage efficiency for all campus buildings and identify potential improvements. Coordinate this effort with the survey required in the preparation of a Building Omnibus (Action Item A.4.1). Both of these efforts should reflect the usage impact resulting from the College's Strategic Plan.

Pattern Language: **Efficiency Assessment (IVPL1), Building Omnibus (IVPL2)**

Problem: There is No Community Meeting Space of Full Capacity

While there are several assembly venues that are fixtures in the campus culture, e.g. Canon, Bryson and the Chapel, none has pride of place as the community's meeting room, and none is of sufficient capacity to accommodate the whole college community for events as disparate as graduation and safety training.

A facility capable of filling such a need entails distinctive programming challenges which should be addressed from the earliest stages of planning. Chief among these is the paradox of a facility that should be a focus of community consciousness but which could rather infrequently be used to its single-event capacity. Similarly, its central role would suggest a central location, but associated needs for parking and service significantly raise its environmental impact for any site in core campus and could represent a dead-space liability in periods between uses.

In consideration of these and of economic concerns the facility should be as versatile as possible and should accommodate ancillary activities which would give it a significant place in the daily life of the College. In order to succeed at this it may be necessary to capture and incorporate some existing programs and make other uses of their current spaces.

Action Item C.1.3 – Develop a preliminary building and operational program for a community meeting hall which will also serve as a multi-functional facility integrating existing and new programs as supporting uses and providing parking in the context of a whole-campus parking plan. Also

incorporate preliminary budget and siting studies so that detailed planning can go forward immediately upon establishment of feasibility and commitment by the College.

Pattern Language: **Community Gathering Space (CMPL10)**

- C.2 - Maintain the Integrity of the College Campus

Problem: Warren Wilson Road is an Intrusive, Divisive Element

The continuity of Warren Wilson Road as a 35-mile-per-hour artery through the Swannanoa Valley is honored beyond demonstrable need at the expense of the College. This road fractures the identity of core campus as the central component of place for the College, and it intrudes on the quality of the neighboring environment. Even more concerning, the destination-focused traffic which the road carries poses a hazard to movement through the core campus.

The key to correcting this situation lies in deliberately breaking the perceived continuity of the road as an alien throughway and in modulating its actual continuity as a carrier of traffic so that the section through the core becomes an element of the campus rather than an intrusion.

This solution will need strong measures and reinforcement at several levels. Foremost, control points must be established at two places on the perimeter of the core that will serve to slow traffic and announce entry to the realm of the College. Between these points speed control, traffic calming, appropriate signage, well-governed crossings and control of the quality of the surrounding environment should be employed to engender a mutual respect and enhanced experience among the users of the road and of the campus, particularly of the campus pathways that intersect the road.

The measures applied to this effort should also integrate a solution to the troublesome approach to the Chapel from Warren Wilson Road, where poor grading results in recurring bumper-hanging at the transition. This could be rolled into the establishment of this intersection as one of the two control points; the intersection of Riceville Road and Warren Wilson Road is a sensible candidate for the other.

Action Item C.2.1 – Prepare a detailed, comprehensive proposal to be made to the North Carolina Department of Transportation for the control and development of a section of Warren Wilson Road as a College street, including two control points, lighting, signage and other traffic calming measures and landscape treatment of the bordering areas. Present this proposal first to the Board of Trustees and form a team to make a presentation of it at the highest available level of state agency.

Pattern Language: **Stewardship of Shared Assets (LUPL1), Ownership of Pathway (CMPL15)**

- C.3 - Enhance the Architectural Environment

Problem: The College Lacks a Consistent Architectural Context

Only recently has there been an evident concern with establishing a cohesive architectural context throughout the campus. The hodgepodge of architectural styles and building juxtapositions that has evolved over time is not conducive to the strong, positive sense of place that the College aspires to for its campus.

The College has adopted the use of an Arts and Crafts style in the design of several recent buildings. Going forward this should be viewed less as a style to be repeatedly replicated than as an informative palette of materials, color, scale, detail and massing that can be applied as appropriate in designing new facilities. New buildings should make use of this palette as a means of maintaining a cohesive context by direct use and by reference rather than by wholesale adoption of a style.

It should also be recognized that in the future as in the past certain buildings, because of size, function or symbolic identity, will deserve a more independent architectural identity. This should be a consideration in the siting of such facilities as well as in their design.

Action Item C.3.1 – Prepare an architectural guideline manual for the College detailing the elements and practices discussed above. This manual should be sufficient to fully inform future designers and facility managers as to the aesthetic expectations of the College for their work.

Pattern Language: **Architectural Context (BGPL1), Incorporate Art and Artifact (CMPL2)**

- C.4 - Control Sprawl and Encourage Appropriate Density

Problem: Haphazard, Episodic Development Has Led to Sprawl

Sprawl consumes peripheral green space and extends services and infrastructure inefficiently. Land contained within a sprawled network may be compromised as to potential uses and become a maintenance liability. Pedestrian pathways are stretched and incentives are created for more vehicular traffic.

Action Item C.4.1 – Prepare a zoning map of core campus and neighboring areas that will identify potential building and building replacement sites so as to effectively prevent sprawl and promote a level of density appropriate to all areas of the campus according to the nature of the activities they support.

Pattern Language: **Appropriate Density (CMPL1)**

Problem: Some Areas Lack Appropriate Density

A deficit of **Appropriate Density** *of building development can result in isolation and a sense of exclusion. The Village dorms are an example of this. Likewise an insufficiency of amenity and support in places where patterns of movement and usage about the campus form nodes or eddies, such as the areas around the east end of the pedestrian bridge and the entrance to Gladfelter, represents a lost opportunity to enliven the campus.*

Action Item C.4.2 – In undertaking Action Item C.4.1 survey the core to identify those areas that are under-developed or offer poor containment of facilities and activities to identify places which would benefit from an increase in density or containment through the placement of future structures or additions to structures.

Pattern Language: **Appropriate Density (CMPL1)**

- C.5 - Provide Appropriate Accommodation and Accessibility

Problem: Accessibility for the Disabled is Inadequate

With the exception of several newer facilities the disabled are not everywhere well accommodated on the campus or generally in campus buildings. The College has neither adopted a standard for accessibility nor charged an entity with surveying and achieving compliance. Not only might this situation pose legal issues, but also it does not meet the College's affirmed core values of inclusion and tolerance. It has the potential to deny the College the participation of prospective students, faculty, staff and visitors who might otherwise become valued members of the community.

At a minimum the standards of the Americans With Disabilities Act (ADA) and of the current edition of the North Carolina State Building Code should be addressed, but this is an area in which the College can provide leadership through invention and innovation, as the needs of the disabled go well beyond the details of physical components described in these documents.

Action Item C.5.1 – Study and propose standards for accommodation of the disabled for adoption by the College, focusing particularly on campus grounds, where published standards are not as clear, or as clearly applicable, as in the case of buildings. Where physical solutions are impractical make plans for accommodation through assistance. Following adoption of standards a prepare a plan and schedule for achieving compliance.

Pattern Language: **Commitment to Accessibility (ADPL3)**

- C.6 - Enhance Community Housing Opportunities

Problem: Faculty & Staff Housing is Inadequate and Unaffordable

Historically Warren Wilson has been committed to encouraging faculty and staff to reside on campus in order to heighten the social and cultural atmosphere of the College, to enhance community cohesiveness and to offer economic opportunities in housing that would not otherwise be available. It has also become evident that we should attempt to minimize the carbon footprint represented by community commuting.

This policy notwithstanding, College residential rental stock currently is inadequate in quantity, substandard in quality and in many cases not well located or of **Appropriate Density.** *This is largely a result of appropriating whatever buildings became available over time and putting them to this use. The buildings are generally of such an age and quality of construction that they cannot economically be brought up to contemporary standards, particularly in the areas of energy efficiency and indoor air quality.*

The current regime of transferring ownership of College-owned single-family homes to faculty and staff with buy-back provisions unnecessarily subjects them to a recurring appraisal/mortgage cycle in the context of an adversarial economy represented by Buncombe County property values. The result is that over time these houses have become unaffordable at faculty and staff salaries, and that the College cannot sell them at market value.

In both these cases the College should recognize that continuing its commitment to promote the quality of community life through housing opportunity will require commitment and planning, and that it may be necessary to take a larger institutional role in creating and underwriting a micro-economy for campus housing.

Action Item C.6.1 – Establish a goal for specific numbers of staff and faculty who can be accommodated in housing on campus in which the College will serve as owner, landlord or development partner in some degree. Investigate the practicality of pursuing such a goal through creative financing and development partnerships and identify and zone areas in which such housing will be built.

Pattern Language: **Appropriate Density (CMPL1), Selective Partnership (ADPL6), Minimize Commuting (ADPL8)**

- C.7 - Optimize Opportunities for Outdoor Teaching

Problem: Outdoor Teaching Spaces are Inadequate and Too Few

There is a long tradition of outdoor teaching at Warren Wilson, but one not greatly supported in the development of facilities. Faculty and students could benefit from enhanced opportunities to hold classes outdoors, and this could relieve some pressure on available building space, at least seasonally.

The campus has many existing and potential **Captured Spaces/Outdoor Rooms** *which could serve this purpose admirably with varying degrees of improvement. Appropriate seating, modest sound amplification, power and light, protection from weather and durable grade surfaces are some of the improvements that could be provided in various combinations according to the size and nature of classes to be held. Porches, decks and patios associated with existing buildings are examples of existing "found" spaces which may serve this purpose.*

Action Item C.7.1 – Develop a plan for additional outdoor teaching spaces for review and comment by faculty, staff and students. Identify sites and the size of facilities they can support, and survey faculty to determine the equipment to be provided at each. In considering sites include the smoking pavilions as analogous case studies for success and liability.

Pattern Language: **Outdoor Classroom (CMPL16), Captured Spaces/Outdoor Rooms (CMPL2), Associated Teaching Space (CMPL17)**

- C.8 - Improve Building Systems Maintenance and Replacement Program

Problem: The Condition of Many Buildings is Fair to Poor

Short and highly subjective, the statement above may yet be the most useful available summation of the state of College building stock, and this emphasizes the need for the College to adopt and maintain benchmark standards for built facilities and to conduct and maintain a survey of that stock.

These benchmarks and survey are not only critical management tools but will permit future decisions about renovation and new construction to be readily cast in the context of the entire College physical facility. In both cases they directly support the aim of getting the greatest potential value per building dollar spent, whether on operation and maintenance, renovation or new construction.

Action Item C.8.1 – Supplement the **Building Omnibus** with the development of benchmark standards for the maintenance of all buildings and keep a register of maintenance that will schedule activities and demonstrate compliance. Compile and maintain a schedule of deferred maintenance that will quantify the cost of deferral by year both in terms of projected cost of remediation and estimated increase in operating cost pending remediation.

Pattern Language: **Building Omnibus (IVPL2)**

Problem: The Energy Efficiency of Many Buildings is Substandard

As with most buildings of some age the College's building stock is below contemporary standards in energy efficiency. This problem can be divided into two parts: building envelope and internal systems. In many cases the latter have been upgraded in cycles of replacement and may outperform their building shells, which can be more difficult to improve. Nonetheless, many building mechanical systems remain deficient. There are established procedures for improving shell efficiency, generally beginning with reducing air leakage and then making such improvements in insulation as are feasible, and future investment in high-efficiency HVAC systems can be coordinated with this ongoing effort.

Action Item C.8.2 – Complete the ongoing Building Energy Survey and develop a program of improvements based on a cost/benefit analysis. Integrate this program with the maintenance program outlined above for best efficiency.

Pattern Language: **Building Omnibus (IVPL2)**

- C.9 - Select Appropriate Building Sites For Ongoing Construction

Problem: Building Sites Have Sometimes Been Selected Without a Comprehensive Planning Context

Selection of sites for future buildings should not be done piecemeal, but rather in the context of a comprehensive plan that considers brownfield sites represented by buildings or other facilities nearing the end of service, above-grade sites over existing parking and other alternatives to the disturbance of new ground.

Successful campus master planning requires a definition of parameters regarding selection of building sites that should begin within the College community.

Finally, a comprehensive approach to siting new facilities will require consideration of infrastructure availability and adequacy, and changes and improvements to infrastructure should always be planned with future building requirements in mind.

Action Item C.9.1 – Conduct a survey of core campus to identify future building sites. Include the sites of any buildings scheduled for decommissioning within ten years as candidates along with un-built areas and those which may support addition/expansion. Coordinate this study with Action Items for Control Sprawl (C.4.1), Appropriate Density (C.4.2), Community Gathering Space (C.1.3), Outdoor teaching Space (C.7.1) and Infrastructure (A.5.1). Develop a template for future building site selection from the experience gained in this effort.

Pattern Language: **Appropriate Density (CMPL1), Captured Spaces/Outdoor Rooms (CMPL2), Integrated Parking (BGPL2)**

D – Circulation, Transportation and Parking

- D.1 - Provide For Efficient Movement Among All Destinations

Problem: The Circulation Pattern is Not Readily Perceived and is Not Efficient

The efficiency of a clear, simple and straightforward circulation system results in less traffic throughout. Trips within the system are typically shorter in distance and duration, there is less meandering in search of destination and inflowing traffic is readily routed to parking areas and thus arrested. Efficient circulation also should result in fewer traffic conflicts.

Currently, the road system that connects the north and south entrances near the chapel and the library respectively, forking at Ogg and at Sunderland, is disruptive to core campus and is often an unproductive route for visitors. Much of the traffic it carries serves only to reach or depart a modest amount of parking that could be provided elsewhere; the limited scope of this parking and its proximity to key buildings results in some traffic engaged in unproductive scouting for spaces.

The topography and layout of facilities in core campus would be well-served by a circulation system comprising a loop with radial access routes to selected points within the core. Elements of such a loop presently exist in the northwest and southeast quadrants of campus. The connection through the northeast quadrant is the most problematic because of the implications of a road for the wooded area and pond between FMTS and the Kittredge/Holden complex. The future of the faculty and staff housing and of potential building sites in the upper margin of Night Pasture is closely tied to

the possible development of a link around the southwest quadrant. Detailed study will be necessary to determine whether a route for such a loop can be found whthat is free of unacceptable environmental consequences.

For traffic involving visitors to campus, the **Sign Program** *will be critical to the success of an improved pattern of circulation. While a detailed campus map cannot be presented and digested without a dedicated turn-out, the system of main roads and parking areas serving key visitor facilities should be clearly depicted and routes marked.*

Action Item D.1.1 – Survey, quantify and analyze the existing pattern of campus circulation. Determine where this pattern can be improved through the elimination of routes or the provision of new ones. Make a revised plan of campus circulation incorporating the work of Action Items D.2.1, D.2.2, D.3.1, D.3.2 D.4.1, D.5.4 and D.5.5.

Pattern Language: **Circulation Tree (CMPL11), Sensible Circulation (CMPL12), Sign Program (CMPL13),**

Problem: The Sign Program is Inadequate and Signs are Propagating Without Appropriate Controls

Signs exist to provide needed information not otherwise readily discernable from the environment. If the information is apparent without the sign or is of no value to the user the sign represents environmental clutter. A particularly common example of this is the occasional sign which has survived the occasion, such as a concert advertisement remaining in place after the event.

The information collectively conveyed in a signage program sorts readily into a hierarchy that ranges from street number to monumental sign. Signs related to safety, security and emergencies rise naturally in the hierarchy. Size, placement, color and sometimes lighting are the means of reflecting place within the hierarchy of information, but it is important that all signs be equally and highly legible. An important factor in recognition and legibility is consistency within a well-designed graphic program.

Aside from hierarchy, these design factors must also be manipulated according to whether the user is on foot or in a vehicle, and to speed of approach when the latter.

College campuses exhibit especially intense use of occasional and other temporary signage ranging from bulletin boards and flyers fastened to virtually any available surface to marquees at event sites. To minimize clutter a signage program should address control of placement and the maintenance and subsequent removal of such signage.

Action Item D.2.1 – Survey existing signage to determine its successes and failures. Prepare a sign guideline manual specifying the design of standard signs and design parameters for non-standard ones. Include guidelines for the use of **Environmental Cues** as an alternative to graphic signage. Also include controls to regulate temporary signage.

Pattern Language: **Sign Program (CMPL13), Environmental Cue (CMPL14)**

Problem: There Are Numerous Conflicts Among Pedestrians, Autos, Bicycles and Skateboards

The traffic pattern that has evolved on the campus distinctly favors the automobile despite the large volume of daily pedestrian traffic. Where roads are sufficient to connect destinations, commonly no other provisions have been made for pedestrians, who simply walk in the roads sharing the roadway with vehicles.

Adopting the patterns **Walking Campus** *and* **Pedestrian Core** *will improve this situation greatly, but there will remain places in which roadways are maintained at least for emergency use and continue to be shared by pedestrians and occasional auto traffic. There will also be places at which pedestrian and vehicular arteries intersect, such as the two principal foot crossings on Warren Wilson Road.*

In such places measures should be taken to calm or otherwise control auto traffic and to provide environmental indicators that pedestrians have primacy in a portion, or all, of the pathway. Traffic calming devices, designated paving for pedestrian paths, horizontal separation and modulation of path width are examples of tools that can be brought to bear to this end.

In all cases in which roads are reduced from open-access, two-way streets to one-way or limited-access routes, existing paving should be removed to limit vehicular path width to the minimum required for function. Area thus relieved of asphalt paving can be re-configured as pedestrian paths, converted to bio-swales for drainage control or otherwise softened and made greener.

Bicycles and skateboards are a special case in the vehicle/pedestrian interface in being capable of speeds comparable to automobiles on campus streets, with the resulting risk and consequences of collision, but also in being able to negotiate the narrowest footpath. Traffic calming devices such as speed humps and bollards should be used to govern bicycle speed, and to an extent the provision and location of attractive bicycle storage facilities can influence choice of route.

Action Item D.2.2 – Develop a plan for minimizing conflicts between pedestrians and vehicles that emphasizes separation, **Ownership of**

Pathway, and control of vehicles. As a minimum standard exclude walking in roads as an acceptable provision for pedestrians.

Pattern Language: **Walking Campus (CMPL3), Pedestrian Core (CMPL4), Ownership of Pathway (CMPL15), Community Transportation (ADPL7)**

- D.2 - Enhance the Experience of Moving About the Campus

Problem: Access to Core Campus From Major Parking and Outlying Facilities is Inefficient and Unwelcoming

The connections between outlying campus destinations and the core have been rather haphazardly developed, and there is little evidence among them of the **Celebration of Pathways**. *In some cases, such as the residential area at Daisy Hill, virtually no effort has been made to develop the connection or to enhance the pedestrian experience in using it.*

In the future, with the adoption of such patterns as **Satellite Parking** *and* **Pedestrian Core**, *these connections will become even more important. Each existing connection should be surveyed to evaluate its efficiency and the quality of the experience of using it. In future site selection for new facilities, particularly* **Satellite Parking**, *evaluation of available connections to core campus and the full development of those connections should be a part of both program and budget.*

Action Item D.2.1 – Through walking and driving surveys, analyze existing campus pathways, including trails through farm and forest, and make plans to enhance and improve them, or to relocate or eliminate them as appropriate. Prepare a manual of guidelines for an ongoing program of pathway amenity, addressing paving, planting, benches, lighting, trash receptacles, handrails, traffic separation schemes and other improvements, including a committed plan for maintenance.

Pattern Language: **Walking Campus (CMPL3), Pedestrian Core (CMPL4), Celebration of Pathways (CMPL5), Satellite Parking (CMPL7), Ownership of Pathway (CMPL15)**

Problem: Delivery and Removal Traffic Has a Negative Impact on the Environment of Core Campus

Delivery and removal logistics for buildings in core campus are not well-coordinated and controlled to minimize their impact on users. The most striking example is of food service deliveries to Gladfelter because of their frequency and involvement of large vehicles, but every building contributes

to traffic by intra-campus and commercial service deliveries and waste and recycling haul-off.

The problem at Gladfelter may be alleviated by a re-routing of service access, a solution which could be undertaken in connection with road changes associated with the implementation of a **Pedestrian Core***, but the numerous points of origin and destinations of such traffic to and from other buildings renders it unsusceptible to solutions involving routing or scheduling.*

A more comprehensive solution for the long term would be a break-bulk receiving center for all deliveries located outside the core, from which College vehicles manned by a work crew or staff would deliver or collect for individual buildings. This would not only consolidate delivery traffic significantly, it would allow scheduling of deliveries so as to minimize the impact of this traffic on core campus users and activities. It would also allow many deliveries within the core to be accomplished by smaller vehicles than are now typically involved.

A related form of traffic in the core consists of trips to and from buildings by FMTS/work crews for service and maintenance calls. Beyond keeping these activities as efficiently organized as possible there are not many variables available for reducing its impact. One factor that can be controlled, however, is the provision of dedicated parking spaces for these vehicles to ensure that they can reach the access point closest to routine work in each building while remaining out of the way and out of sight when feasible.

Action Item D.2.2 – Conduct a study of the prospect and funding for a central receiving and break-bulk facility, to include site alternatives, operation and effects, cost, life-cycle cost impact and likely degree of reduction in core campus traffic disruption.

Pattern Language: **Pedestrian Core (CMPL4), Controlled Core Access (CMPL6), Service Parking (CMPL8), Least Vehicle, Most Load (ADPL9)**

Problem: Campus Transportation is Inadequate and Employs Many Sub-Standard Vehicles

In order to establish a pedestrian-focused core, the transportation needs of several groups must newly be provided for. The elderly and disabled, some visitors and those with significant burdens will require transportation from and to any remote parking provided under a new Circulation, Transportation and Access Plan, and these needs will grow during inclement weather.

In addition, current needs for facility support must continue to be met, and this will require access by a variety of vehicles. Many vehicles presently employed in this role are not licensed or adequately provided with safety equipment, and are very inefficient and carbon-intensive of operation. Some

of these vehicles operate under a state DOT dispensation for farm vehicles and some of them are excluded from operating on public roads, including those that pass through or border the campus.

A holistic view of this fleet and its operation strongly suggests that there is a false economy, a deficit of sustainability and a legal risk in continuing to operate it in the present fashion. Smaller electric or hybrid vehicles are available that meet federal standards for highway use (primarily meaning that they comply with a set list of safety standards), which are insurable and which would operate more economically with a lower carbon footprint.

The operation of a fleet that provides for **Community Transportation** *as well as crew needs will probably require a new Transportation Crew. With an appropriate fleet operated by a standing crew it may be possible for some existing work crew traffic to shift to* **Community Transportation**, *resulting in fewer vehicles required for dedicated crew assignment.*

Where assigned vehicles are required for work crews, the default selection should not be "pickup truck". Instead, a complete fleet should be selected according to the required range of capability, with attention to criteria of sustainability, economy, safety, road-worthiness, and insurability. This fleet should also have as broad a common base of fuel and maintenance requirements as possible. Each needed vehicle should be selected from this fleet according to its role.

Action Item D.2.3 – Make a survey of the existing vehicle fleet, current and projected transportation needs and the available technology with the goal of replacement with more appropriate and more efficient vehicles in support of the College Vehicle policy. Include factors of efficiency, cargo/passenger needs, cost, insurance, lifespan, maintenance and legality of on-road operation. Also include an investigation of providing a community transportation program. Develop a plan for phase-out of the existing fleet and commit necessary funds for its replacement.

Pattern Language: **Community Transportation (ADPL7), Least Vehicle, Most Load (ADPL9)**

Problem: There is an Excess of Paving of a Low Quality

There are presently places, such as the intersection between the Library and Spidel, where the practice of paving surfaces from edge to edge has resulted in excessive expanses of pavement. In other places changes associated with **Walking Campus** *and* **Pedestrian Core** *will render some paving unnecessary. Furthermore, the uniform use of conventional asphalt paving produces an unfriendly surface and appearance, complicates drainage, exacerbates heat island effect and consumes petroleum derivatives.*

Asphalt paving should be phased out as possible through a program of planned attrition. Where it must be replaced with new paving to meet functional needs the new paving should if feasible be pervious, and the paving system should be selected from a range according to traffic requirements to provide a continuous pervious surface where traffic intensity is greatest and a maximized-open-web system where it is lightest. Existing paving not scheduled for early replacement should be surveyed for areas where paving can be reduced by introducing planted islands or other relieving elements.

Action Item D.2.4 – Investigate the availability, cost, aesthetic benefits, life cycle and maintenance requirements of alternatives to asphalt paving. Include an evaluation of pervious paving materials. Survey all existing paved areas in core campus and evaluate them as to condition, adequacy versus excessive area, edge condition and need for maintenance. Develop a standard and a schedule for the replacement of paving that is worn or failing, excessive in extent or aesthetically unappealing, or that constitutes an unnecessary heat island.

Pattern Language: **Hierarchy of Paving (CMPL21), Soften Existing Hardscapes (CMPL22)**

- D.3 - Improve the Pedestrian Experience

Problem: The Campus Does Not Provide a Consistently Safe, Comfortable and Efficient Pedestrian Experience

Where no positive intervention is made, automobiles will go where they are able to, and they will take precedence over the pedestrian. The College should establish two governing policies to correct this situation.

First, it should be formally stated by the College that, as a matter of courtesy and of human dignity, in all cases of encounter or conflict between pedestrians and automobiles throughout the campus pedestrians shall be granted the right-of-way.

Second, in order to enhance the pedestrian experience of campus, to limit automotive traffic and to promote sustainability, it is desirable that the core campus evolve toward being an automotive vehicle-free zone, excepting only emergency vehicles, those required for service and support of facilities and those providing intra-campus transportation. Vehicles providing such service and transportation should be electric or hybrid-powered and should be of minimum size commensurate with function .

The second of these, in particular, can only be realized through a study of the existing campus circulation, parking and access plan and a

reconfiguration of that plan as required by various needs and goals including a pedestrian core.

Focus on a pedestrian core must not preclude attention to pedestrian needs throughout the campus lands and even beyond, as the College may serve as an example and an advocate for pedestrians in the larger community. The total spread of campus lands is such as to accommodate the assumption that community members may wish to reach any destination on campus by foot, comfortably and safely.

Action Item D.3.1 – Make a formal policy statement that the pedestrian is to have the right-of-way over vehicles and to enjoy the respect of all vehicle operators, including cyclists and skateboarders, throughout the campus. Keep this policy before the community in appropriate ways, and conduct a study of the means by which vehicular traffic in core campus can be minimized. In all maintenance and new construction on campus grounds evaluate the accommodation of the pedestrian, and seek to improve upon it.

Pattern Language: **Celebration of Pathways (CMPL5), Controlled Core Access (CMPL6), Sensible Circulation (CMPL12), Ownership of Pathway (CMPL15), Least Vehicle, Most Load (ADPL9)**

- D.4 - Provide Adequate, Efficient, Low-Impact Parking

Problem: An Excess of Parking Drives Traffic in Core Campus

Parking must be recognized as an immediate generator of traffic. When it is unavailable local traffic will be reduced. Eliminating parking in the core campus may be perceived as an inconvenience, but the provision of **Community Transportation** *and the realization of an enhanced environment in the core with the passage of time should substantially offset this perception.*

In addition to reducing traffic, this change will allow the removal of some paving and facilitate the replacement of remaining paving over time in a program of **Hierarchy of Paving**.

Action Item D.4.1 – Recognizing **Parking as Target** and generator of traffic, survey core campus to determine what parking can be relocated in favor of pedestrian pathways or other amenity. Document any shortfall in parking and make plans for its remedy, keeping in mind the goal of having no excess of parking anywhere on campus.

Pattern Language: **Community Transportation (ADPL7), Satellite Parking (CMPL7), Parking as Target (CMPL18), Hierarchy of Paving (CMPL21)**

Problem: Parking is Not Adequately Integrated With Buildings

Total area of land disturbance per required facilities is inversely proportional to sustainability of development. For this reason it is desirable to integrate parking with buildings, most commonly by placing parking in the structure beneath some or all of the occupied area. This also carries the benefit of mitigating the heat island effect of exposed parking areas.

In pursuing this strategy large existing on-grade parking areas can be seen as potential building sites for facilities that require a large footprint but do not impose unusually large live loads incompatible with long-span construction. Another common benefit to this approach is a reduction in site development costs.

On other sites, such as hillsides, buildings can step down a slope above tiers of parking arranged along topographical contours, making double usage of sites which might have been judged to bring too small a return for their development costs.

Action Item D.4.2 – Adopt a policy of incorporating in every new building program an investigation of the feasibility of providing parking within the building footprint, regardless of whether or not the building generates an additional parking need. If such inclusion is possible and represents a surplus, eliminate existing on-grade spaces on a one-for-one basis.

Pattern Language: **Integrated Parking** **(BGPL2)**

Problem: Negative Environmental Impact of Parking

Most existing parking on the campus is designed to accommodate the largest number of autos at greatest efficiency and lowest cost. This may have the merit of limiting disturbed area, but it is often neither kind to the environment nor friendly to users. Modest increases in area that are devoted to breaking large expanses of paving, alternative handling of runoff, permeable paving, ground-plane lighting, mitigation of heat island effect and attention to pedestrian pathways are examples of design tools that should be considered in planning new parking areas. Many such tools are applicable to the improvement of existing parking.

Two specific components of parking design have not been the subjects of sufficient attention on campus: stormwater management and lighting design. The former is of particular concern in parking lots because of their typically extensive paved area, but also extends to roads, sidewalks and other catchment areas, particularly where paved or otherwise impervious.

Lighting issues are likewise not limited to parking areas, but are particularly evident there because of concentration. Fixtures used to light streets, building entrances, pedestrian walkways and landscapes should also be the subjects of attention in seeking compliance with dark skies guidelines.

Action Item D.4.3 – Employ LEED parking standards in setting goals for the provision and improvement of parking areas, existing and new. Prepare a design guideline for parking areas based on these standards and addressing drainage, planting, buffering, heat island effect, paving material, dimensions of aisles and stalls and minimum percentage of planted area.

Survey existing impervious areas to determine level of compliance with Stormwater Best Management Practice Design Guide (BMP), EPA/600/R-04/121A. Prepare a plan to move existing stormwater management toward compliance with this guide as feasible, and apply the guide to the design of all new catchment areas.

In installing new, and replacing existing, exterior lighting fixtures, and in designing lighting controls and practices, comply with guidelines published by the International Dark Skies Association (IDA), and employ luminaires certified under the IDA Fixture Seal of Approval (FSA) program.

Pattern Language: **Integrated Parking (BGPL2), Hierarchy of Paving (CMPL21), Soften Existing Hardscapes (CMPL22)**

Problem: Inconvenient and Disruptive Service Parking

Every building on campus requires routine access by service vehicles for a wide variety of maintenance and support activities. Where planned parking is not provided for this purpose the tasks of service personnel may be complicated and makeshift parking of these vehicles may be unsightly and disruptive.

In planning parking for these vehicles, especially in core campus, not only should position with respect to the target building be considered, but route of access should be planned in the context of overall core circulation plans.

Action Item D.4.4 – Survey all facilities for the presence and appropriate location of service parking, and where there are deficiencies correct them. Coordinate this effort with any revisions to circulation and other parking resulting from Action Items …..

Pattern Language: **Service Parking (CMPL8), Integrated Parking (BGPL2)**

Problem: Bicycle Parking is Inadequate and Disruptive

To reduce clutter and consolidate bicycles, adequate storage facilities should be provided. When well-designed, secure and covered, these facilities can be attractive enough to users to consolidate bicycles in

locations that do not interfere with other functions, especially as in preventing bikes from encumbering building entrances, and they may help in keeping bikes on preferred routes, at least locally.

Action Item D.4.5 – Survey all bicycle stands and storage facilities for number of spaces and location, and for a qualitative sense of adequacy of capacity. Make plans for providing additional spaces as needed. Plan new facilities and move or improve existing ones with the understanding that greater amenity and attractiveness translates to a larger measure of control of bicycles. Apply standards of aesthetics and sustainability to such facilities.

Pattern Language: **Bicycle Parking and Storage (CMPL19), Integrated Parking (BGPL2)**

VI - Appendix A - Action Item Spreadsheet

LAND USE PLANNING				
STEPS:		AREAS OF RESPONSIBILITY:	DUE DATE:	RESOURCES:
Establish Oversight for Land-Use Planning				
A.1.1	Establish a Land Use Oversight and Advisory Committee.	President, Shared Governance		
Develop a Central Clearinghouse for Planning				
A.2.1	Establish a mechanism for providing ongoing oversight of planning.	PAC		
Maintain a Catalog of Resources - The Land				
A.3.1	Review and update the 1996 inventory of campus lands.	President, PAC, VPAF, Land Use Advisory Cmte		
	Update the land boundary survey of the College's property.			
Maintain an Omnibus of Resources - Buildings and Facilities				
A.4.1	Evaluate all existing building and facility databases.	VPAF, FMTS, Design and Construction		
	Develop a format and incorporate all necessary information.			
	Assign responsibility and resources for maintaining this tool.			
Maintain an Infrastructure Inventory				
A.5.1	Commission a survey of existing and presently planned infrastructure.	VPAF, FMTS, Design and Construction		
	Develop a means of maintaining survey.			
	Educate the community about the infrastructure elements.			
THE WORKING LANDSCAPE				
STEPS:		AREAS OF RESPONSIBILITY:	DUE DATE:	RESOURCES:
A Sustainable, Comprehensive Policy on Yield				
B.1.1	Initiate study to understand current monetary yield practices.	Dean of Work, VPAF		
	Craft a report on how to reduce or eliminate the pressure of monetary quotas on land yield.			
Sharing Our Land With the Public				
B.2.1	Adopt standards regarding public access to College lands.	Land Use Advisory Cmte, Buildings and Grounds		
	Establish criteria for parking, pathway amenity, accessibility, safety and security.			
B.2.2	Consider the conditions under which the College might participate in any greenway proposed to use any College-owned land.	President, PAC, BOT, Land Use Advisory Cmte		
Optimize Community Benefit from the Land				
B.3.1	Establish oversight and advisory committees to assist land managers in meeting the adopted land use principles and patterns.	President		
Promote Common Stewardship Interests				
B.4.1	Prepare a catalog of neighboring land.	Land Use Advisory Cmte		

THE BUILT ENVIRONMENT				
STEPS:		AREAS OF RESPONSIBILITY:	DUE DATE:	RESOURCES:
Provide Built Space to Support the College Mission				
C.1.1	Commit the College to a specific student population in at least ten-year increments.	BOT, President, PAC		
	Complete a space utilization study.			
	Prepare a facilities plan identifying sites for all needed facilities for the next 10 years.			
C.1.2	Study building usage efficiency for all campus buildings.	Design and Construction		
C.1.3	Develop a preliminary building and operational program for a community meeting hall.	PAC, Design and Construction		
Maintain the Integrity of the College Campus				
C.2.1	Prepare a proposal for the North Carolina Department of Transportation for the control of Warren Wilson Road.	PAC, VPAF, Land Use Advisory Cmte		
	Present proposal to the Board of Trustees.			
Enhance the Architectural Environment				
C.3.1	Prepare an architectural guideline manual for the College.	Design and Construction, Buildings and Grounds		
Control Sprawl and Encourage Appropriate Density				
C.4.1	Prepare a zoning map of core campus and neighboring areas.	Design and Construction, Buildings and Grounds		
C.4.2	Survey the core to identify areas of under- and over-development.	VPAF, Design and Construction		
Provide Appropriate Accommodation and Accessibility to All				
C.5.1	Study and propose standards for accommodation of the disabled.	FMTS, Design and Construction		
	Prepare a plan and schedule for compliance.			
Enhance Community Housing Opportunities				
C.6.1	Establish a goal for the numbers of faculty and staff who can be accommodated in on-campus housing.	PAC, Buildings and Grounds		
Optimize Opportunities for Outdoor Teaching				
C.7.1	Develop additional outdoor teaching spaces.	Design and Construction		
Improve Building Systems Maintenance and Replacement Program				
C.8.1	Supplement the Building Omnibus with the development of benchmark standards for the maintenance.	VPAF, FMTS		
	Compile and maintain a schedule of deferred maintenance	FMTS		
C.8.2	Complete the ongoing Building Energy Survey.	FMTS		
	Develop a program of improvements based on a cost/benefit analysis of building energy usage.	Energy Auditing Crew		
Select Appropriate Building Sites for Ongoing Construction				
C.9.1	Conduct a survey of core campus to identify future building sites.	Buildings and Grounds		
	Develop a template for future building site selection.	Design and Construction		

CIRCULATION, TRANSPORTATION AND PARKING				
STEPS:		AREAS OF RESPONSIBILITY:	DUE DATE:	RESOURCES:
Provide for Efficient Movement Among All Destinations				
D.1.1	Survey the existing pattern of campus circulation.	VPAF, Buildings and Grounds		
	Create a revised plan for campus circulation.			
D.1.2	Survey existing signage to determine its successes and failures.	Buildings and Grounds		
	Prepare a sign guideline manual specifying the design of standard signs and design parameters for non-standard ones.			
D.1.3	Develop a plan for minimizing conflicts between pedestrians and vehicles.	Buildings and Grounds		
Enhance the Experience of Moving About the Campus				
D.2.1	Analyze existing campus pathways and tracks, make plans to enhance them or relocate/eliminate them as appropriate.	Design and Construction, Buildings and Grounds, Land Use Advisory Cmte		
	Prepare a manual of guidelines for an ongoing program of pathway amenity.			
D.2.2	Study feasibility of a central receiving and break-bulk facility.	Design and Construction, FMTS		
D.2.3	Survey the existing vehicle fleet.	VPAF, FMTS		
	Establish a plan for replacement with more appropriate and efficient vehicles.			
D.2.4	Investigate alternatives to asphalt paving.	Buildings and Grounds, Design and Construction		
	Develop a standard and a schedule for replacement of pavement.			
Improve the Pedestrian Experience				
D.3.1	Adopt a policy that pedestrians have the right-of-way over vehicles.	President, Shared Governance		
Provide Adequate, Efficient, Low-Impact Parking				
D.4.1	Survey core campus to determine what parking can be relocated.	Design and Construction, Buildings and Grounds		
D.4.2	Adopt a policy of incorporating parking within the building footprint for all new buildings.	PAC, Shared Governance, Design and Construction		
D.4.3	Employ LEED parking standards as goals for the provision and improvement of parking areas, existing and new.	VPAF, FMTS, Design and Construction		
	Prepare a design guideline for parking areas based on LEED standards.			
	Prepare a plan to move existing stormwater management toward compliance			
D.4.4	Survey all facilities for the presence and appropriate location of service parking.	VPAF, FMTS, Design and Construction		
D.4.5	Survey and plan to accommodate accordingly for all bicycle stands and storage facilities.	VPAF, FMTS, Buildings and Grounds		

This document is the collective effort of many individuals. Most recently:

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- Paul Braese
- Jed Brown
- Stan Cross
- Jonathan Ehrlich
- Dave Ellum
- Emmet Fisher, student
- Margo Flood
- Ellen Graves
- Chase Hubbard
- Tom LaMuraglia
- Marcella Langer, student
- Shawn Swartz
- Lou Weber
- Ian Robertson, chair
- Wade Macfie, consultant

Along with special leadership and guidance from Wade Macfie, the committee's time, effort, and willingness to speak frankly has made this a better document. Now the challenge is to insure that this work remains a living document, a template for the kind of living environment that will support Warren Wilson College's unique relationship to the land and our built environment.

Ian Robertson
September 17, 2010